Rhythmyx

Implementing the Business User's Interface

Version 5.7

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C H A P T E R 1

Implementing Communities

Communities add efficiency to your Rhythmyx Content Management System by filtering the content editors, variants, workflows, and sites available to users. A user can only access the system elements associated with the Community they choose when logging in to Rhythmyx Content Explorer.

In the Workflow Administrator and the System Administrator, all roles, components, content types, variants, sites, and workflows are available to users with access, regardless of their login Communities.

A content item is automatically associated with the community of the user who creates it.

The way you configure Communities affects each user's login procedure:

- If the user role has one Community or a default Community defined, Rhythmyx logs the user in for that Community.
- If users have more than one Community and no default Community defined, Rhythmyx displays the Community Login page to them, so they can select a log-in Community.
- If the user clicks the Communities button in the User Status box in the Content Explorer, Rhythmyx displays the Community Login page, and the user can select a new log-in Community.

The Default Community (`sys_defaultCommunity`) is a property of the user's role. Define it in the Server Administrator.

Maintaining Communities

To maintain Communities in Content Explorer, click the System tab. In the left navigation bar, click the By Name link under Communities. Rhythmyx displays the Communities Editor, which includes any existing Communities. Note that the Default Community always exists in a new system.

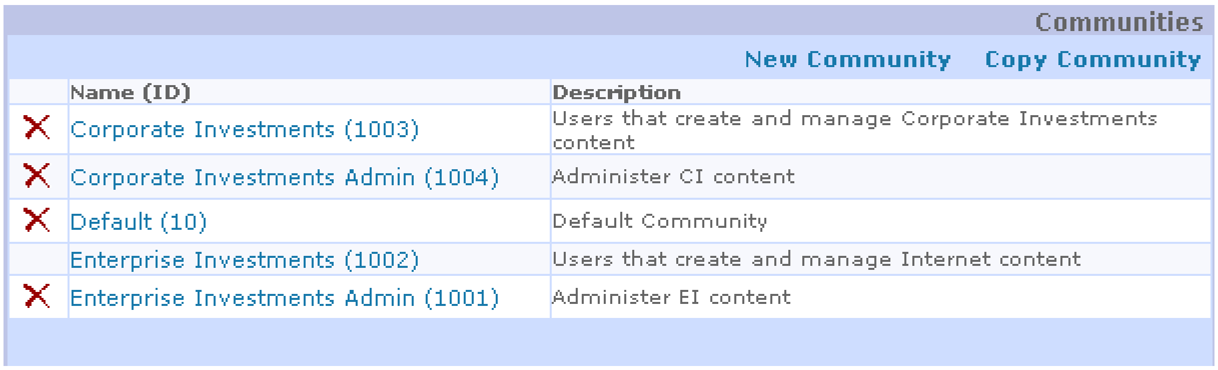


Figure 1: Communities Administrator

Community Maintenance Dialogs

Rhythmyx provides the following dialogs for you to use when maintaining Communities:

- ***Edit Community*** (see "Edit Community Page" on page 4)
- ***Copy Community*** (see "Copy Community Page" on page 5)

Edit Community Page

Use the Edit Community page to create a new Community from scratch, or modify the Community.

To access the Edit Community page:

- On the Community Editor, click the New Community link.
- On the Community Editor, click the name of the Community you want to maintain.

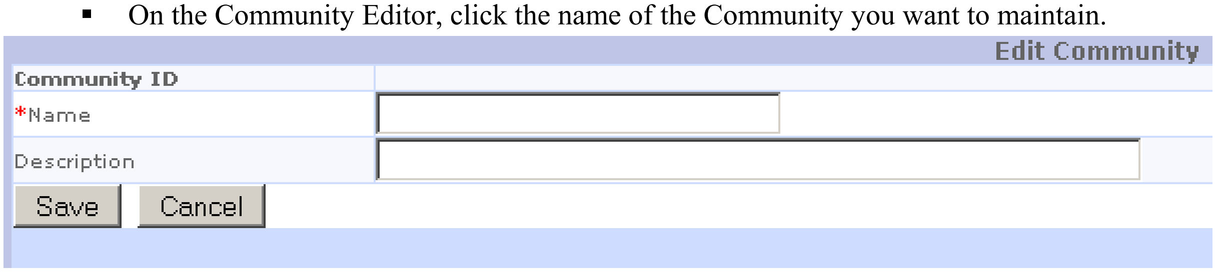


Figure 2: Edit Community Page

Field Descriptions

Name Required. Free-form name for the Community.

Description Optional. Free-form description of the Community.

Copy Community Page

Use the Copy Community page to create a duplicate of an existing Community. The new Community will include associations to all of the Rhythmyx elements with which the original Community was associated, although you can create a new Role specifically for this Community when making the copy. If you create a new Role, Rhythmyx automatically creates this Role in the server as well as in the Community. No members are associated with the Role. You must associate members with the Role manually. This policy gives you maximum control over access to the Role during implementation.

To access the Copy Community page, on the Community Editor, click the Copy Community link.

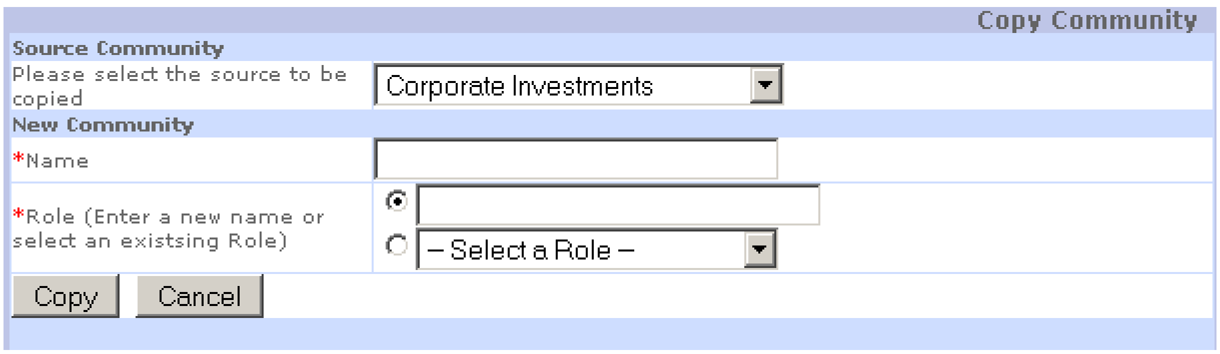


Figure 3: Copy Community Page

Field Descriptions

Source Community Drop List of Communities defined in your Rhythmyx CMS. Defaults to the first Community name in your system in alphabetical order.

New Community Name Required. Free-form name for the new Community you are creating.

New Community Role Required. Two options are available: You can enter a new Role for the Community or you can choose an existing Role. Choose the radio button for the option you prefer. The new Role option includes a blank text box where you can enter the name of the new Role you want to create for the Community. The existing Role option includes a drop list of Roles already defined in the system which you can select to assign to the Community.

NOTE: To create a new Role after pressing [Copy], Rhythmyx requires that the Server Administrator be closed. If it is not closed, the Community is copied, but the new Role is not created.

Community Maintenance Procedures

Creating a Community

When you create a new community, the Edit Community page lets you define the community **Name** (required) and **Description** (optional). To associate ***roles*** (see "Associating a Role with a Community" on page 8), ***workflows*** (see "Associating a Workflow with a Community" on page 9), ***variants*** (see "Associating a Variant with a Community" on page 13), ***content types*** (see "Associating a Content Type with a Community" on page 10), ***sites*** and ***components*** (see "Associating a Component with a Community" on page 14) with the community, save it and then edit it.

To create a community

1 In Content Explorer, go to the System tab and click Communities.

  Rhythmyx displays the Communities Editor.

2 In the Communities Editor, click New Community.

  Rhythmyx displays the Edit Community page.

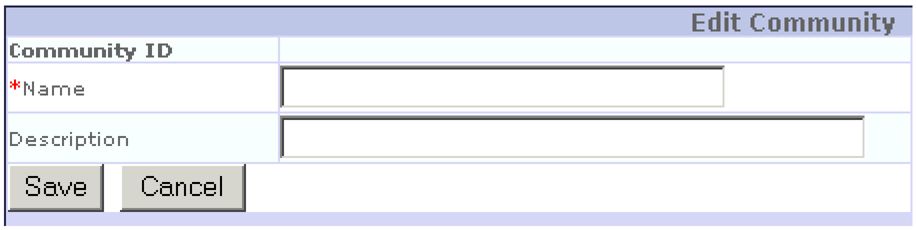


Figure 4: Edit Community Page

3 Enter a **Name** and optional **Description**.

4 Click [**Save**].

Rhythmyx displays the new community in the Communities Editor.

Copying a Community

If you have an established Community, such as the Enterprise Investments and Enterprise Investments Admin Communities provided with FastForward, you may find it easier to create a new Community by duplicating and modifying an existing Community rather than creating it from scratch.

To copy a Community:

1 Close the Rhythmyx Server Administrator if it is open.

2 On the Community Editor, click the Copy Community link.

  Rhythmyx displays the Copy Community page.

3 In the **Source Community** drop list, select the Community you want to copy.

4 In the **New Community Name** field, enter a name for the new Community.

5 To create a new Role for the new Community, choose the radio button next to the blank field, and enter the name for the new Community Role in the field. Note that while the Role will be created on the Rhythmyx server, no members will be associated with it. To assign members to the Role, you must edit the Role in the Rhythmyx Server Administrator.

6 To use an existing Role for the new Community, choose the radio button next to the drop list, then choose the Role you want assign to the Community from the drop list.

7 Click the [Copy] button.

  Rhythmyx processes your request and redirects you to the Edit Communities page.

  If you created a new Role for your Community, you will have to assign members to that Role. Use the Rhythmyx Server Administrator to maintain the list of Members of each Role.

If the Server Administrator is open when you attempt to create a new Role through this procedure, Rhythmyx displays the following error message, which indicates that you now must create the Role in the Server Administrator and add it to the Community manually.

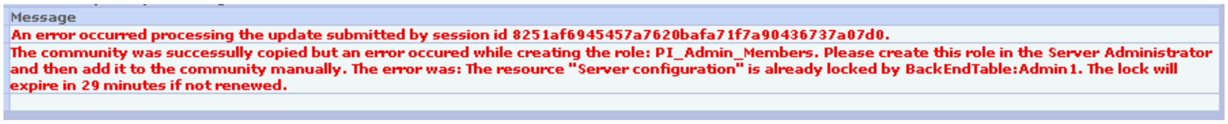


Figure 5: Error message displayed when you attempt to create a Community while the Rhythmyx Server Administrator is open

Editing a Community

To edit a community:

1. In the Communities Administrator, click the name of the community that you want to edit.

   Rhythmyx displays the Edit Community page.

Figure 6: Edit Community Page Showing Community Associations

2. Change the **Name** and/or **Description.**
3. To relate ***Roles*** (see "Associating a Role with a Community" on page 8), ***Workflows*** (see "Associating a Workflow with a Community" on page 9), ***Content Types*** (see "Associating a Content Type with a Community" on page 10), ***Variants*** (see "Associating a Variant with a Community" on page 13), ***Sites***, and ***Components*** (see "Associating a Component with a Community" on page 14) with the Community, click on the Property Name links.
4. After the changes are complete, click [**Save**].

Associating a Role with a Community

Users are associated with Communities through their Roles. When you associate a Role with a Community, all members of the Role become members of the Community. If a Role is associated with more than one Community, the user becomes a member of each of the Communities. The Community Login page lists all the Communities associated with the user's Role and lets the user log in through one of those Communities.

NOTE: Some Roles are assigned to Workflows so they may review and approve content in those Workflows. If you assign Roles that you associate with Communities to a Workflow, the Workflow may only be usable for Content Items in certain Communities. To ensure that a Workflow applies to all Communities, do not assign Roles associated with Communities to Workflows. Instead, give the same user separate Workflow and Community Roles.

To associate a Role with a Community:

1. On the Edit Community page, click the Roles Property Name.

   Rhythmyx displays the Roles for Community page, which displays the roles related to the selected Community. When you initially access the page, it will be blank.

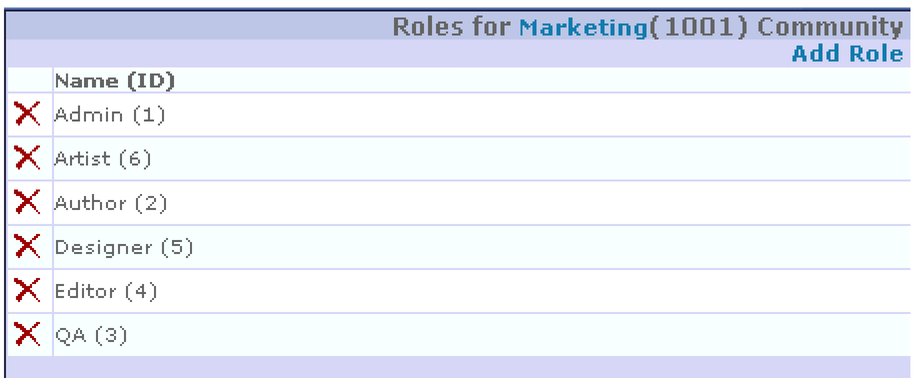


Figure 7: Roles for Community Page

2. Click Add Role.

   Rhythmyx displays the Add Roles page, which lists all Roles that are not already related to the Community.

Figure 8: Add Roles Page

3 Check the Roles that you want to associate with the Community or click [**Select All**] to check all Roles. Click [**Clear All**] to remove all checks.

4 Click [**Save**].

Rhythmyx displays the Roles for Community page. The Roles that you have newly associated with the Community are now listed.

Removing a Role's Association with a Community

If you remove a Role's association with a Community, users in that Role will no longer be able to access Rhythmyx elements (Workflows, Content Types and Content Items, Variants, and Sites) associated with that Community.

To remove a role's association with a community:

1 On the Edit Community page, click the Roles Property Name.

Rhythmyx displays the Roles for Community page, which displays the roles associated with the selected community.

2 Click the delete button beside a role to remove its association with the community.

Associating a Workflow with a Community

Associating a Workflow with a Community makes that Workflow available to users logged in to the Community. A user must be logged in to a Community with which a Workflow is associated to be able to assign content to that Workflow.

To associate a workflow with a community:

1 On the Edit Community page, click the Workflows Property Name.

Rhythmyx displays the Workflows for Community page, which displays the workflows associated with the selected community. When you initially access the page, it will be blank.

Figure 9: Workflows for Community Page

2 Click Add Workflows.

Rhythmyx displays the Add Workflows page, which lists all workflows that are not already associated with the community.

Figure 10: Add Workflows Page

3 Check the workflows that you want to associate with the community or click [**Select All**] to check all workflows. Click [**Clear All**] to remove all checks.

4 Click [**Save**].

Rhythmyx displays the Workflows for Community page. The workflows that you have newly associated with the community are now listed.

Removing a Workflow's Association with a Community

If you remove a Workflow from a Community, Content Items in that Community will no longer be able to use that Workflow. Since all Content exists in one Community and one Workflow, any content in the Workflow will become inaccessible. Only remove a Workflow from a Community if no content exists in the Workflow.

To remove a workflow's association with a community:

1 On the Edit Community page, click the Workflows Property Name.

Rhythmyx displays the Workflows for Community page, which displays the workflows associated with the selected community.

2 Click the delete button  beside a workflow to remove its association with the community.

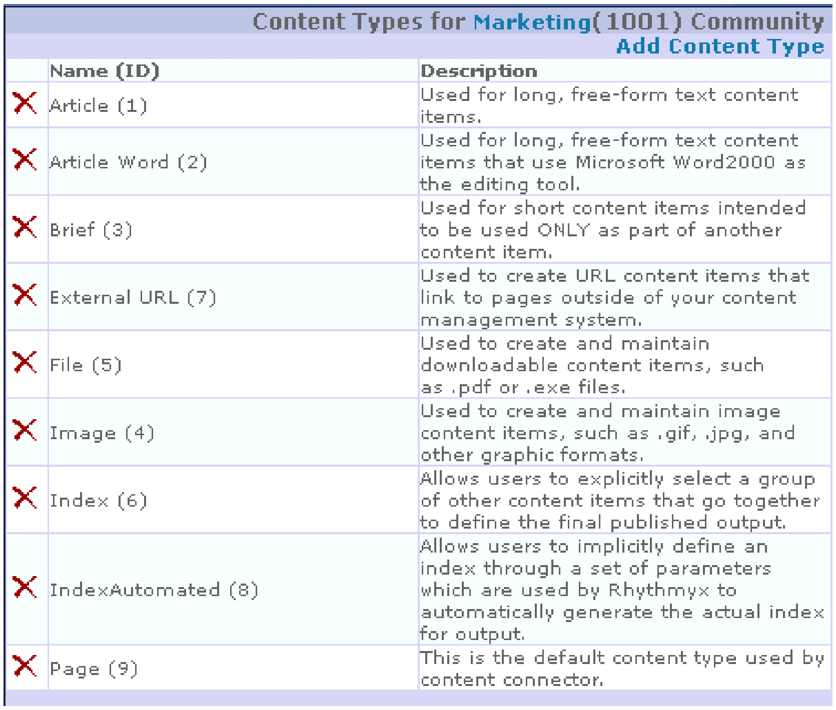
Associating a Content Type with a Community

Rhythmyx only allows users to create Content Items of Content Types associated with their communities.

To associate a content type with a community:

1 On the Edit Community page, click the Content Type Property Name.

Rhythmyx displays the Content Types for Community page, which displays the content types associated with the selected community. When you initially access the page, it will be blank.



Content Types for Marketing(1001) Community

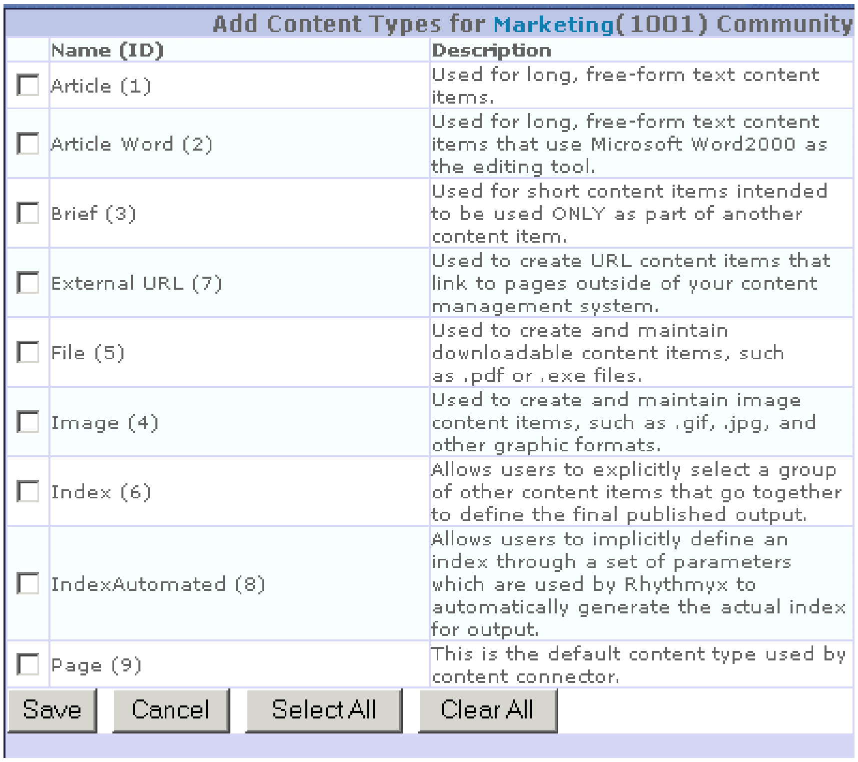
Add Content Type

	Name (ID)	Description
X	Article (1)	Used for long, free-form text content items.
X	Article Word (2)	Used for long, free-form text content items that use Microsoft Word2000 as the editing tool.
X	Brief (3)	Used for short content items intended to be used ONLY as part of another content item.
X	External URL (7)	Used to create URL content items that link to pages outside of your content management system.
X	File (5)	Used to create and maintain downloadable content items, such as .pdf or .exe files.
X	Image (4)	Used to create and maintain image content items, such as .gif, .jpg, and other graphic formats.
X	Index (6)	Allows users to explicitly select a group of other content items that go together to define the final published output.
X	IndexAutomated (8)	Allows users to implicitly define an index through a set of parameters which are used by Rhythmyx to automatically generate the actual index for output.
X	Page (9)	This is the default content type used by content connector.

Figure 11: Content Types for Community Page

2 Click Add Content Type.

Rhythmyx displays the Add Content Type page, which lists all content types that are not already associated with the community.



Add Content Types for Marketing(1001) Community

	Name (ID)	Description
☐	Article (1)	Used for long, free-form text content items.
☐	Article Word (2)	Used for long, free-form text content items that use Microsoft Word2000 as the editing tool.
☐	Brief (3)	Used for short content items intended to be used ONLY as part of another content item.
☐	External URL (7)	Used to create URL content items that link to pages outside of your content management system.
☐	File (5)	Used to create and maintain downloadable content items, such as .pdf or .exe files.
☐	Image (4)	Used to create and maintain image content items, such as .gif, .jpg, and other graphic formats.
☐	Index (6)	Allows users to explicitly select a group of other content items that go together to define the final published output.
☐	IndexAutomated (8)	Allows users to implicitly define an index through a set of parameters which are used by Rhythmyx to automatically generate the actual index for output.
☐	Page (9)	This is the default content type used by content connector.

Save Cancel Select All Clear All

Figure 12: Add Content Type Page

3 Check the content types that you want to associate with the community, or click [**Select All**] to check all content types. Click [**Clear All**] to remove all checks.

4 Click [**Save**].

Rhythmyx displays the Content Type for Community page. The content types that you have newly associated with the community are now listed.

Removing a Content Type's Association with a Community

If you remove a Content Type from a Community, users logged in to that Community will no longer be able to access Content Items of that Content Type.

To remove the association of a content type with a community:

1 On the Edit Community page, click the Content Type Property Name.

Rhythmyx displays the Content Types for Community page, which displays the content types associated with the selected community.

2 Click the delete button  beside a content type to remove its association with the community.

Associating a Variant with a Community

Rhythmyx only allows users to use and view variants associated with their communities.

To associate a variant with a community:

1 On the Edit Community page, click the Variants Property Name.

Rhythmyx displays the Variants for Community page, which displays the variants associated with the selected community. When you initially access the page, it will be blank.

Figure 13: Add Variant Page

2 Click Add Variant.

3 Rhythmyx displays the Add Variants page, which lists all variants that are not already related to the community.

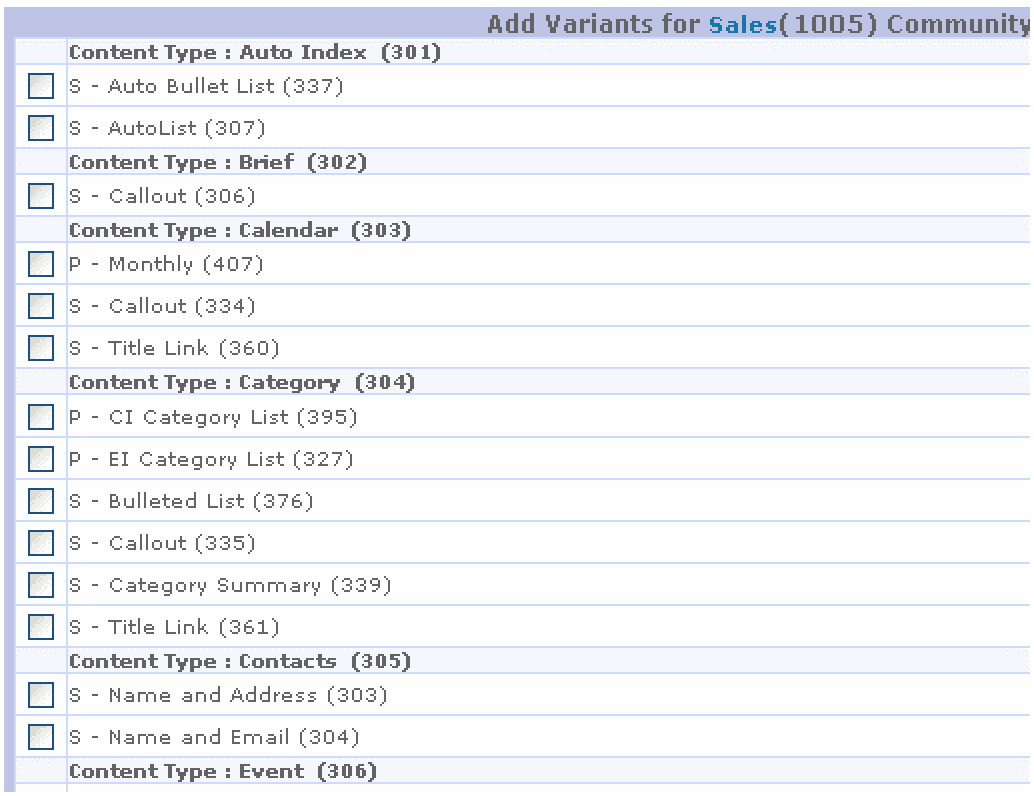


Figure 14: Add Variant to Community Page

4 Check the variants that you want to associate with the community, or click [**Select All**] to check all variants. Click [**Clear All**] to remove all checks.

5 Click [**Save**].

Rhythmyx displays the Variants for Community page. The variants that you have newly associated with the community are now listed.

Removing a Variant's Association with a Community

If you remove a Variant from a Community, users logged in to that Community will no longer be able to use that Variant to assemble content.

To remove a variant's association with a community:

1. On the Edit Community page, click the Variants Property Name.

   Rhythmyx displays the Variants for Community page, which displays the variants associated with the selected community.

2. Click the ✕ beside a variant to remove its association with a community.

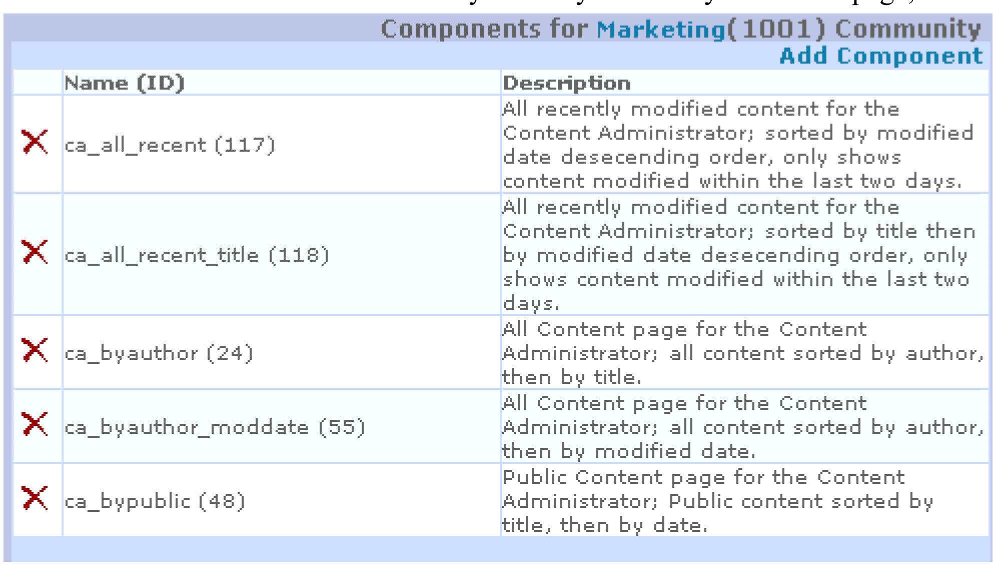
Associating a Component with a Community

Associating components with communities allows you to control which parent components (for example, a page) are available to users in that community and which child components (for example, a search box on the page) they can view. If you associate a child component with a community in the user interface, the child component is visible in all possible parent components (that is, using the user interface, you cannot add a child component to one parent component but make it invisible in another). Page type components that you make available to a community appear as links in the navigation bars.

To associate a component with a community:

1. On the Edit Community page, click the Components Property Name.

   Rhythmyx displays the Components for Community page, which displays the components associated with the selected community. When you initially access the page, it will be blank.



Components for Marketing(1001) Community

Add Component

	Name (ID)	Description
✕	ca_all_recent (117)	All recently modified content for the Content Administrator; sorted by modified date desecending order, only shows content modified within the last two days.
✕	ca_all_recent_title (118)	All recently modified content for the Content Administrator; sorted by title then by modified date desecending order, only shows content modified within the last two days.
✕	ca_byauthor (24)	All Content page for the Content Administrator; all content sorted by author, then by title.
✕	ca_byauthor_moddate (55)	All Content page for the Content Administrator; all content sorted by author, then by modified date.
✕	ca_bypublic (48)	Public Content page for the Content Administrator; Public content sorted by title, then by date.

Figure 15: Components for Community Page

2. Click Add Components.

Rhythmyx displays the Add Components page, which lists all components that are not already associated with the community.

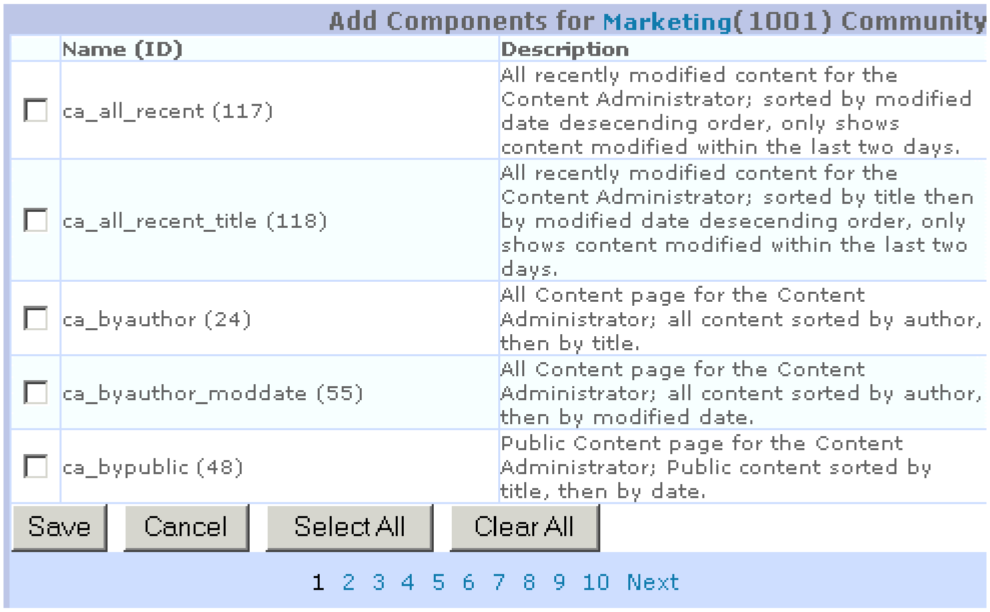


Figure 16: Add Components Page

3 Check the components that you want to associate with the community, or click [**Select All**] to check all components. Click [**Clear All**] to remove all checks.

4 Click [**Save**].

Rhythmyx displays the Components for Community page. The components that you have newly associated with the community are now listed.

Removing a Component's Association with a Community

To remove a component's association with a community:

1 On the Edit Community page, click the <u>Components</u> Property Name.

Rhythmyx displays the Components for Community page, which displays the components associated with the selected community.

2 Click the delete button beside a component to remove its association with the community.

Associating a Site with a Community

Rhythmyx only allows users to edit and view sites associated with their Communities.

To associate a site with a Community:

1 On the Edit Community page, click the <u>Sites</u> Property Name.

Rhythmyx displays the Sites for Community page, which displays the sites associated with the selected Community. When you initially access the page, it will be blank.


Add Sites for Marketing(1001) Community

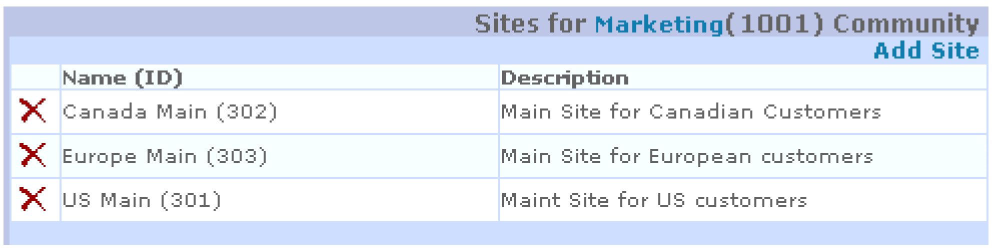
	Name (ID)	Description
☐	Canada Main (302)	Main Site for Canadian Customers
☐	Europe Main (303)	Main Site for European customers
☐	US Main (301)	Maint Site for US customers

Save | Cancel | Select All | Clear All

Figure 17: Sites for Community Page

2 Click Add Site.

Rhythmyx displays the Add Sites page, which lists all sites that are not already related to the Community.


Sites for Marketing(1001) Community

Add Site

	Name (ID)	Description
X	Canada Main (302)	Main Site for Canadian Customers
X	Europe Main (303)	Main Site for European customers
X	US Main (301)	Maint Site for US customers

Figure 18: Add Sites Page

3 Check the sites that you want to associate with the Community, or click [**Select All**] to check all sites. Click [**Clear All**] to remove all checks.

4 Click [**Save**].

Rhythmyx displays the Sites for Community page. The sites that you have newly associated with the Community are now listed.

Removing a Site's Association with a Community

To remove a site's association with a Community:

1 On the Edit Community page, click the Sites Property Name.

Rhythmyx displays the Sites for Community page, which displays the sites associated with the selected Community.

2 Click the delete button X beside a site to remove its association with the community.

Deleting a Community

If you delete a Community, users will no longer be able to log in to that Community. Any Rhythmyx elements (Workflows, Content Types and Content Items, Variants, and Sites) associated with that Community may be inaccessible, unless they are associated with another Community. Even if you add another Community with the same name, these elements will remain inaccessible because Rhythmyx uses the Community ID to process the Communities and the new Community will have a different identifier. Confirm that you can access the Rhythmyx elements associated with the Community from another Community, or that you no longer use any of the elements associated with the Community before you delete it.

To delete a community:

1 In the Communities Administrator, click the next to the name of the community that you want to delete.

CHAPTER 2

Customizing Action Menus

Action Menus are available in both Content Explorer and Site Explorer. Action Menus provide the interface to specific actions within the system, including editing Content Items, performing Workflow Transitions, and assembling content. Action menus may be nested, adding submenus to each menu, to any number of layers.

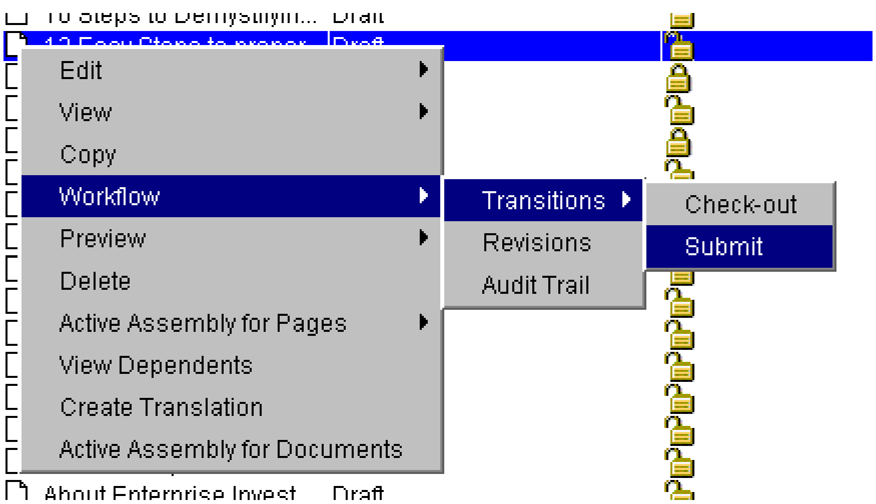


Figure 19: Example of Action Menus

Actions may activate Rhythmyx applications or they may invoke Rhythmyx handlers. The most common Actions, for example, implement Relationships (for example, creating new Active Assembly Relationships, or new Copies, Versions, or Translation Copies of Content Items) or Workflow Transitions. These Actions invoke the Relationship and Workflow handlers, respectively. Actions that create or edit Content Items, however, activate Rhythmyx Content Editor applications.

Creating Actions

Much of the process of customizing Rhythmyx involves adding new Actions. You create a new action when you create a new Relationship or when you create a new Rhythmyx application with which the user interacts directly. For example, Content Editors are used to create and edit content; users interact directly with these applications. You may create other applications that users interact with directly as well.

New actions that invoke handlers, such as new Relationships, are always created from scratch. These actions are usually entirely new and require new Action Menu entries to expose them to Business Users.

When creating a Rhythmyx application to implement a new action, however, it is usually more profitable to customize an existing application rather than creating a completely new application. Customizing an existing application reduces the likelihood of error and simplifies the process of identifying errors that do occur. You also save time because you only need to modify mappings or other processing that you want to change rather than building the entire application from the ground up. However, if there is no application that contains functionality similar to that you wish to implement, you may have to create the application from scratch.

Action Menu Editor

Use the Action Menu Editor to maintain Action Menu Entries. The Action Menu Editor is available from the Server Objects tab of the Rhythmyx Workbench.

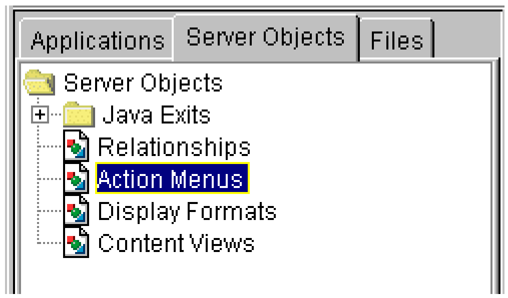


Figure 20: Server Objects tab in the Workbench with Action Menus node selected

Double-click on the Action Menus node in the Server Objects tree to display the Action Menu Editor.

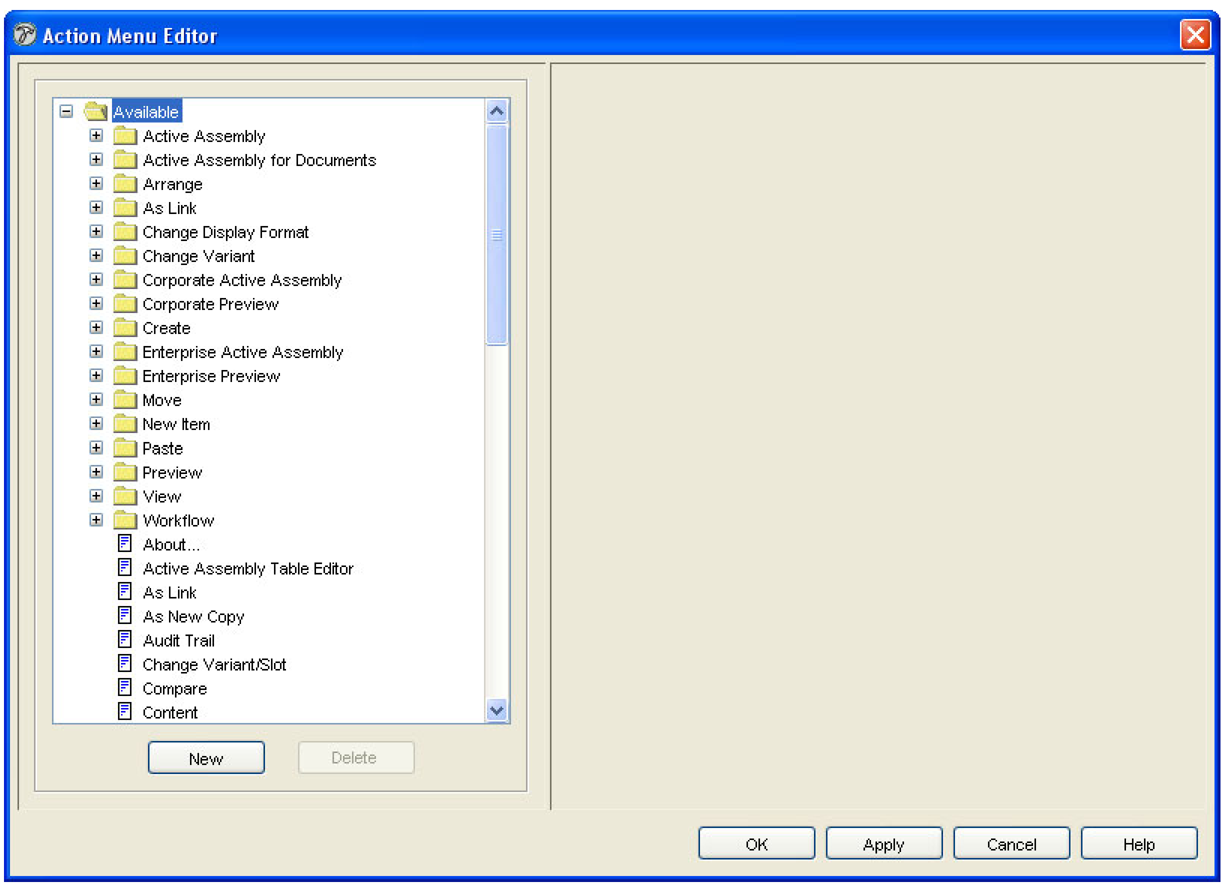


Figure 21: Action Menu Editor

The Action Menu Editor consists of two panes, the Available Tree on the left and the Edit pane on the right.

The Available tree displays all existing menus. Cascading menus and dynamic menus (menus that contain submenus) are indicated by folder icons. Individual menu entries are indicated by a page icon, as in the *About* and *Add* Action Menu entries above. Action Menu entries are sorted alphabetically, with cascading and dynamic menus listed first.

Right clicking on the Available Tree activates a popup menu with the following options:

Command	**Keyboard Shortcut**	**Description**
New	Ctrl-N	Creates a new Action Menu entry with the default name *New Menu*. The Action Menu Editor displays the Edit pane with the General tab selected. If you currently have an individual Action Menu entry selected, it becomes a cascading menu, with the new entry as a submenu item.
Cut	Ctrl-X	Moves the currently selected Action Menu entry to the clipboard and deletes it from the tree.
Copy	Ctrl-C	Copies the currently selected Action Menu entry to the clipboard.
Paste	Ctrl-V	Pastes the menu from the clipboard into the current selected menu. If you currently have an individual Action Menu entry selected, it becomes a cascading menu, with the new entry as a submenu item. This option is only available if the clipboard contains a valid Action Menu entry and the target is either a cascading or dynamic menu.
Delete	Del	Deletes the selected Action Menu entry. If the deleted menu is a cascading or dynamic menu, submenus are not deleted. Rhythmyx displays a confirmation message before deleting the entry.

You can drag any node in the Available Tree except the root node. You can drop any node on any other node.

The Edit pane includes five tabs:

- ***General*** (see "General Tab" on page 23)
- ***Usage*** (see "Usage Tab" on page25)
- ***Command*** (see "Command Tab" on page 29)
- ***Visibility*** (see "Visibility Tab" on page 31)
- ***Properties*** (see "Properties Tab" on page 34)

General Tab

Use the General tab of the Action Menu Editor to define general properties of an Action Menu entry.

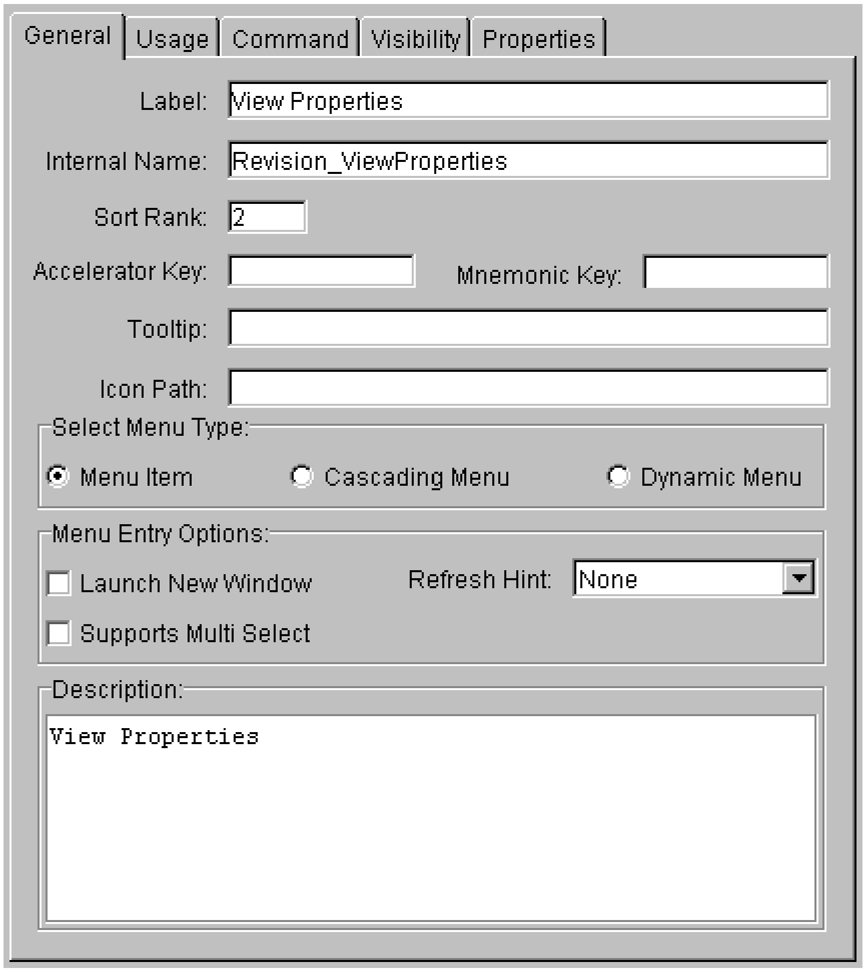


Figure 22: Action Menu Editor General Tab

Field Descriptions

Name Required. The name used for the Action Menu entry for internal processing. Must be unique among all Action Menu Entries. Defaults to Action1.

Label Required. The name displayed in the user interface for the Action Menu entry. Does not have to be unique. Defaults to the value in the **Name** field.

Sort Rank Required. Defines the sort order of the Action Menu entry. If several Action Menu entries have the same **Sort Rank**, they are sorted alphabetically.

Accelerator Key Optional. The Accelerator Key for this Action Menu entry. The special key words `control`, `shift` and `alt` are supported and can be combined as needed with a character. The special characters `DELETE` and `INSERT` are supported as well. Examples are: "`INSERT`", "`control DELETE`", and "`alt shift X`".

Mnemonic Key Optional. One character. The Mnemonic Key for this Action Menu entry. The combination of the Accelerator Key and the Mnemonic Key must be unique within the submenu.

Tooltip Optional. A brief description of the menu. Displayed as a tooltip.

Icon Path Optional. The path, relative to the Rhythmyx root, to a Rhythmyx resource to display as the Action Menu entry icon. For example, `rx_resource/imagess/edit.gif`. Rhythmyx displays the specified graphic in the Action Menu entry. If you used the example path, your Action menu entry would resemble this graphic: 

.

Select Menu Type These radio buttons specify whether the Action Menu entry is a standard menu entry, cascading menu (menu containing additional menu entries) or a dynamic menu (a menu whose entries are derived dynamically when the user invokes the menu).

Menu Entry The menu entry is a standard menu entry. You must enter a value in the **URL** field on the Command tab to specify the Action.

Cascading Menu Entry The Action Menu entry is a placeholder for a cascading Action Menu. If this radio button is selected, all options in the Menu Entry Options box are unavailable. The Command tab is also unavailable.

Dynamic Menu Entry If checked, the **URL** specified on the Command tab returns a list of actions that will be added to the current menu, such as the Transition Action Menu entry. The document listing the actions must conform to the ActionList.dtd. If you check this box, all options in the Menu Entry Options box are unavailable.

Menu Entry Options This set of options defines specific Action Menu options for the Action Menu entry. These options are only available if the **Menu Entry** radio button is checked. If either of the other radio buttons is checked, these options are unavailable.

Launch New Window Checkbox. If checked, the Action launches a new window. If checked, the **Supports Multi-Select** option will be unavailable.

Supports Multi-Select Checkbox. If checked, the user can select multiple entries on the menu for batch processing.

Refresh Hint Drop list. Specifies the hint to return to the browser client to indicate what needs to be refreshed after executing the Action. Hints must conform to the ActionResult.dtd. List options include:

- None (do not refresh any window)
- Current (refresh only the current window)
- Parent (refresh only the parent window)
- All (refresh all windows).

Description Free-form description of the Action Menu entry. You may also want to indicate the usage of the Action Menu entry.

Usage Tab

Use the Usage tab to indicate when to display the Action Menu entry by indicating both the interfaces in which to display and the interface elements on which to display it.

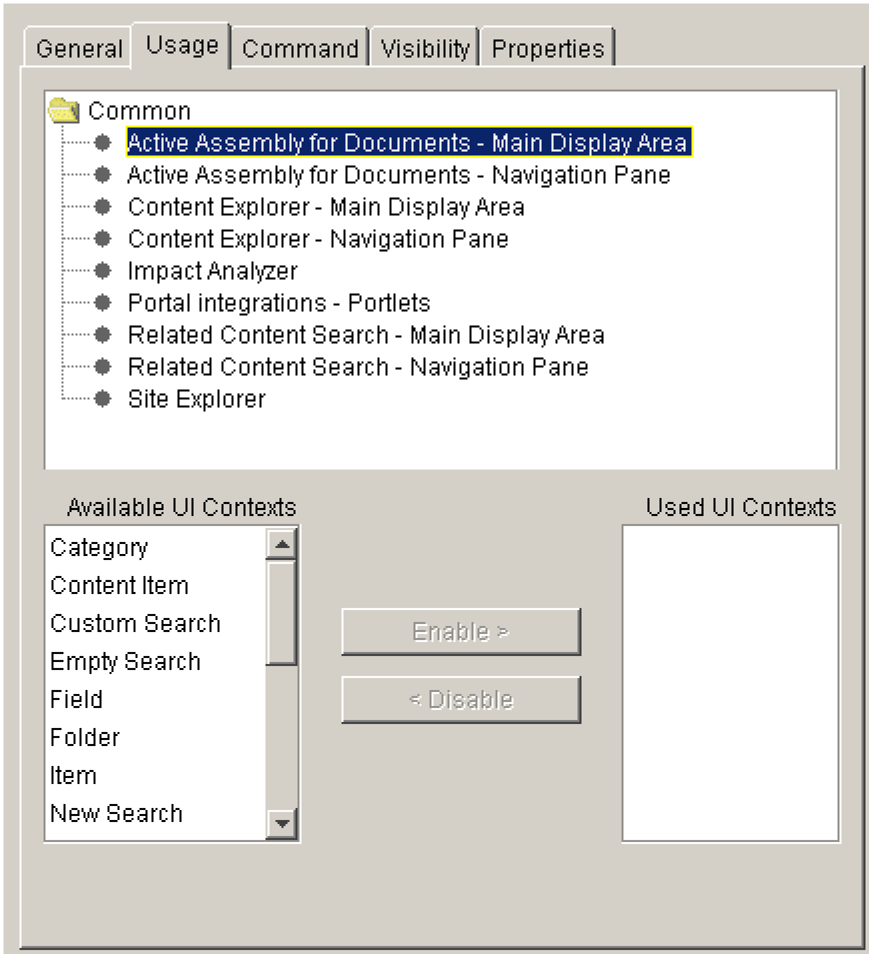


Figure 23: Action Menu Editor Usage Tab

The tree at the top of the tab indicates the operational modes for which you can specify the availability of the Action Menu entry. (Currently, only Common modes are available.) Each of these nodes specifies a distinct portion of the Rhythmyx Business User interface for which you can specify the usage of the Action Menu Entry.

The following nodes are available:

Content Explorer: These nodes specify usage of the Action Menu Entry in the Content Explorer. You control usage in the Main Display Area and the Navigation Pane independently of one another.

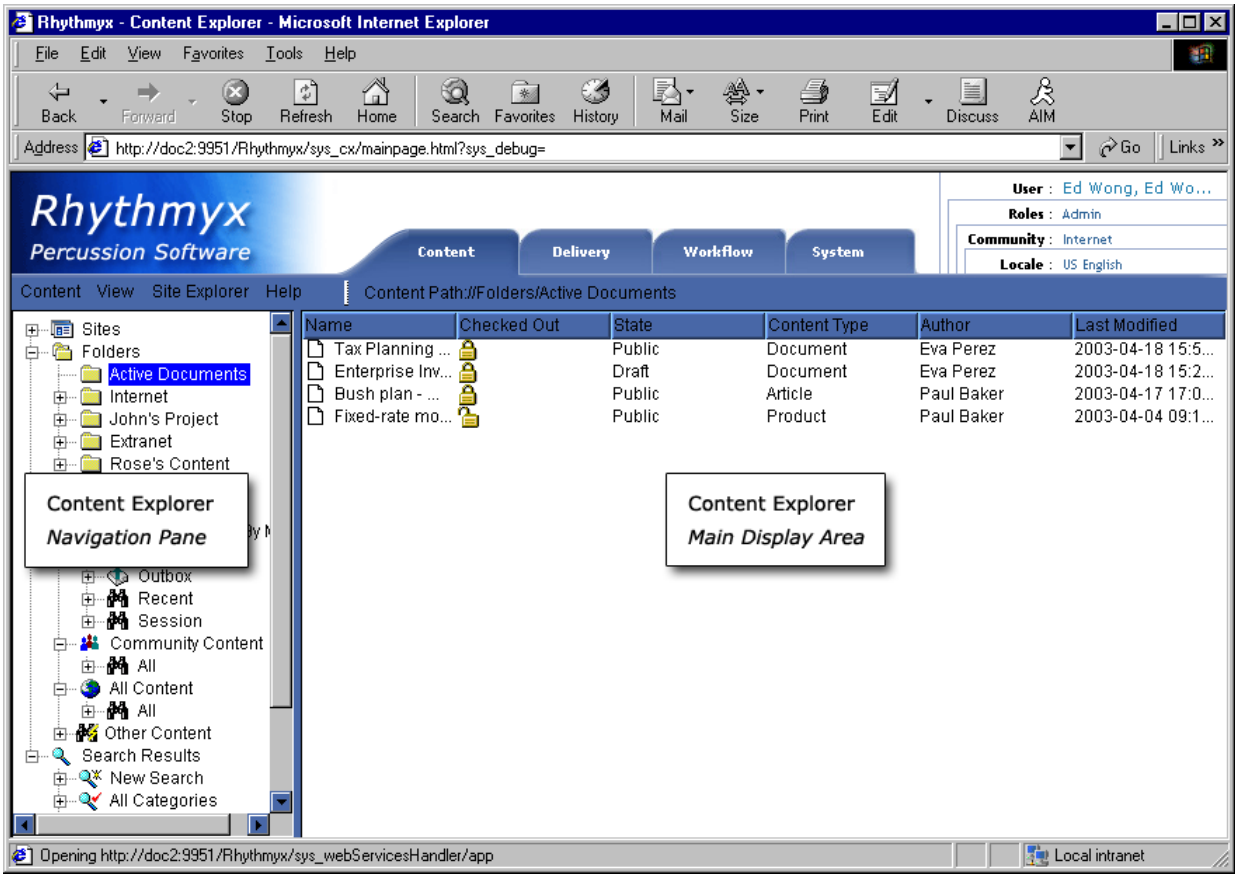


Figure 24: Content Explorer Modes

Impact Analysis: This node specifies usage of the Action Menu entry in the Impact Analysis window.

Active Assembly for Documents: These nodes specify usage of the Action Menu entry in the Active Assembly for Documents window. You control usage in the Main Display Area and the Navigation Pane independently of one another.

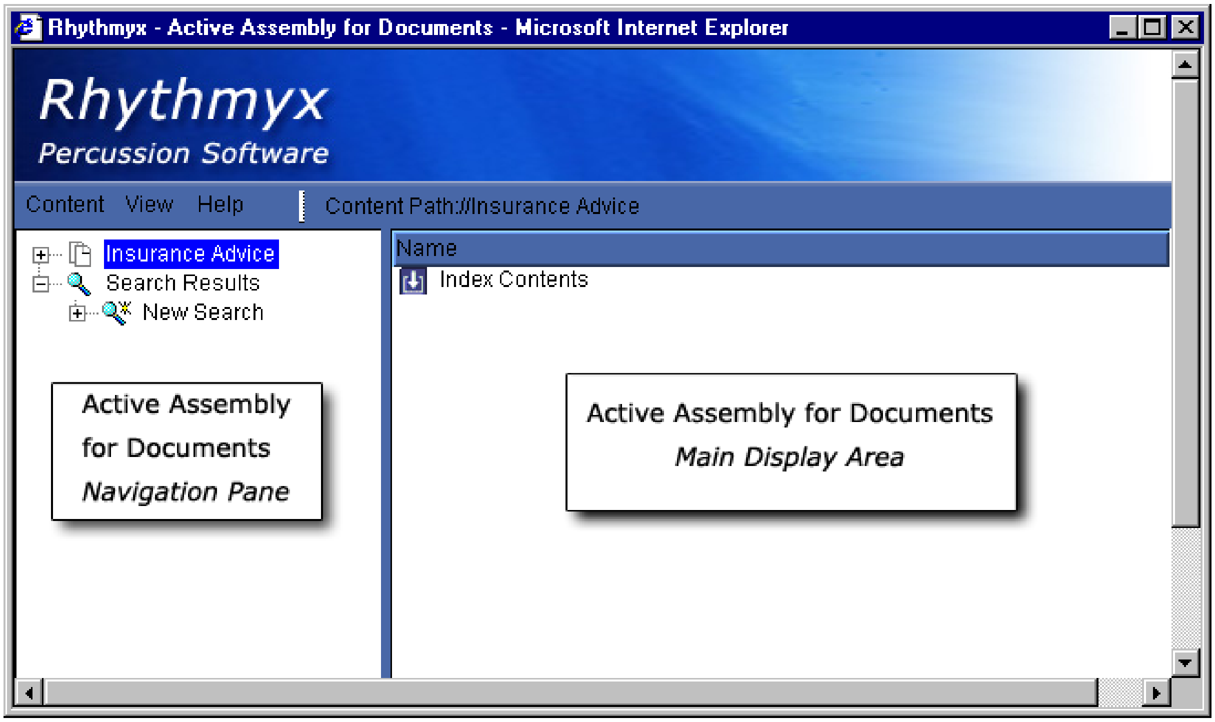


Figure 25: Active Assembly for Documents Modes

Related Content Search: These nodes specify usage of the Action Menu entry in the Related Content Search window. You control usage in the Main Display Area and the Navigation Pane independently of one another.

Site Explorer: This node specifies usage of the Action Menu Entry in Site Explorer.

The Available UI Contexts table lists the UI contexts available in the selected mode. The Used UI Contexts lists the UI contexts to which you have decided to make the Action Menu entry available. Use the [**Enable**] button to move a UI context from the Available table to the Used Table, making it eligible for display in the mode you specified.. Use the [**Disable**] button to move a UI context from the Used table to the Available table, removing it from the mode. The following UI Contexts are available:

Category: Available only in Content Explorer. The Action Menu entry is available if the user has a category selected in the Main Display Area.

Content Item Available in all modes. The Action Menu entry is available if the user has a Content Item selected.

Folder Available only in Content Explorer. The Action Menu entry is available if the user has a Folder selected.

Folder Reference Available only in Content Explorer. The Action Menu entry is available if the user has selected Folder in search results.

New Search Available in Content Explorer, Active Assembly for Documents, Related Content Search, and Site Explorer. The Action Menu entry is available if the user has a Content Item selected in results of a newly-created search..

Parent Item Available in Active Assembly for Documents - Navigation Pane and Site Explorer. The Action Menu entry is available if the user has the parent of the current item selected.

Revision Available in Content Explorer - Main Display Area and Site Explorer. The Action Menu entry is available if the user has a Revision of a Content Item selected.

Saved Search Available in Content Explorer - Navigation Pane. The Action Menu entry is available if the user has a Saved Search selected.

Slot Available in Active Assembly for Documents and Site Explorer. The Action Menu entry is available if the user has a Slot selected.

Slot Item Available in Active Assembly for Documents and Site Explorer. The Action Menu entry is available if the user has a Content Item in a Slot selected.

System Category Available in Content Explorer - Main Display Area. The Action Menu entry is available if the user has selected a category in a Display Format shipped with Rhythmyx.

System Folder Available in Content Explorer - Navigation Pane. The Action Menu entry is available if the user has selected a Folder that shipped with Rhythmyx.

System Site Available in Content Explorer - Navigation Pane. The Action Menu entry is available if the user has selected the default Site that ships with Rhythmyx.

System View Available in Content Explorer - Navigation Pane. The Action Menu entry is available if the user has selected one of the default Views that ship with Rhythmyx. These Views include My Content: Checked Out by Me, My Content: Inbox, My Content: Outbox, My Content: Recent, My Content: Session, Community Content: All, Other Content: All, and Other Content.

View Available in Content Explorer - Navigation Pan. The Action Menu entry is available if the user has selected a View.

Command Tab

Use the Command tab to specify the command that the Action Menu entry executes. The command may activate a command handler (for Relationship actions) or activate a Rhythmyx application.

NOTE: This tab is not available if the **Cascading** radio button is selected in the Select Menu Type box of the General tab.

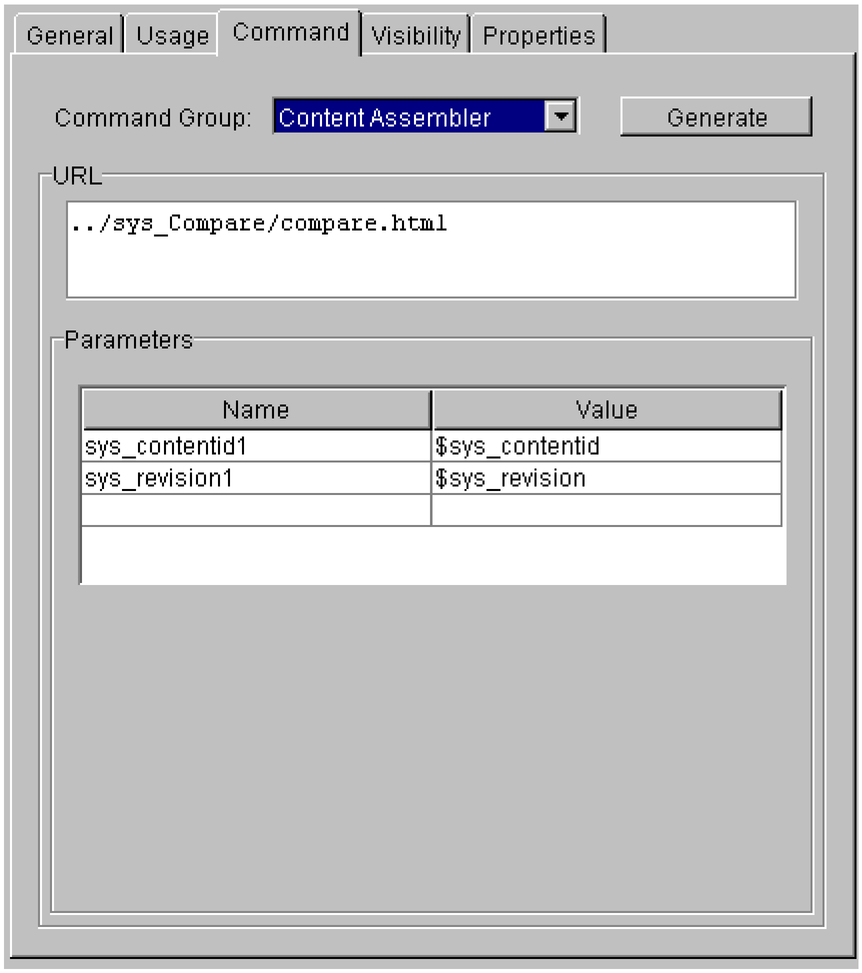


Figure 26: Action Menu Editor Command Tab

Field Descriptions

Command Group Drop list. Specifies the general category of the command. Rhythmyx uses this value to determine the base URL for the command. Options are

- Content Editor
- Content Assembler
- Relationship Handler

Generate Button Click this button to generate a sample URL for the type selected in the Command Group field. You can modify this value if necessary. If you have already specified a value in the URL field, the new value overwrites the existing value. (The system displays a confirmation message before overwriting the existing value.)

URL The URL of the command activated by this Action Menu entry. You can specify any valid URL in this field. Any associated HTML parameters are displayed in the parameter tables. For details about the URLs required for this field, see the topic "Rhythmyx HTTP Interface" in the Workbench Help.Rhythmyx HTTP Interface

Parameters Use this table to specify parameters for the command.

Name The name of the parameter.

Value The value of the parameter. These values are hard-coded for the Action Menu entry. The Value can be a text string or one of the following system parameters:

Variable	Contexts where available
$sys_contentid	Content Explorer
	Active Assembly for Documents (Slot on Content Item)
	Active Assembly for Documents (Item in Slot)
$sys_revision	Content Explorer
	Active Assembly for Documents (Slot on Content Item)
	Active Assembly for Documents (Item in Slot)
$sys_contenttypeid	Content Explorer
	Active Assembly for Documents (Slot on Content Item)
	Active Assembly for Documents (Item in Slot)
$sys_tiprevision	Content Explorer
$sys_checkoutstatus	Content Explorer
	Active Assembly for Documents (Item in Slot)
$sys_contentcheckoutusername	Content Explorer
	Active Assembly for Documents (Item in Slot)
$sys_workflowid	Content Explorer
$sys_slotid	Active Assembly for Documents (Slot on Content Item)
	Active Assembly for Documents (Item in Slot)
$sys_slotname	Active Assembly for Documents (Slot on Content Item)
$sys_variantid	Active Assembly for Documents (Item in Slot)
$sys_relationshipid	Active Assembly for Documents (Item in Slot)

Special variables derived from the user session (Indicated by $$):

- sys_community
- sys_lang
- sys_username

The special variable $sys_folderid is also available. It retrieves the contentid of the parent Folder of the selected Content Item or Folder.

Visibility Tab

Use the Visibility tab to determine when Rhythmyx displays the Action Menu entry.

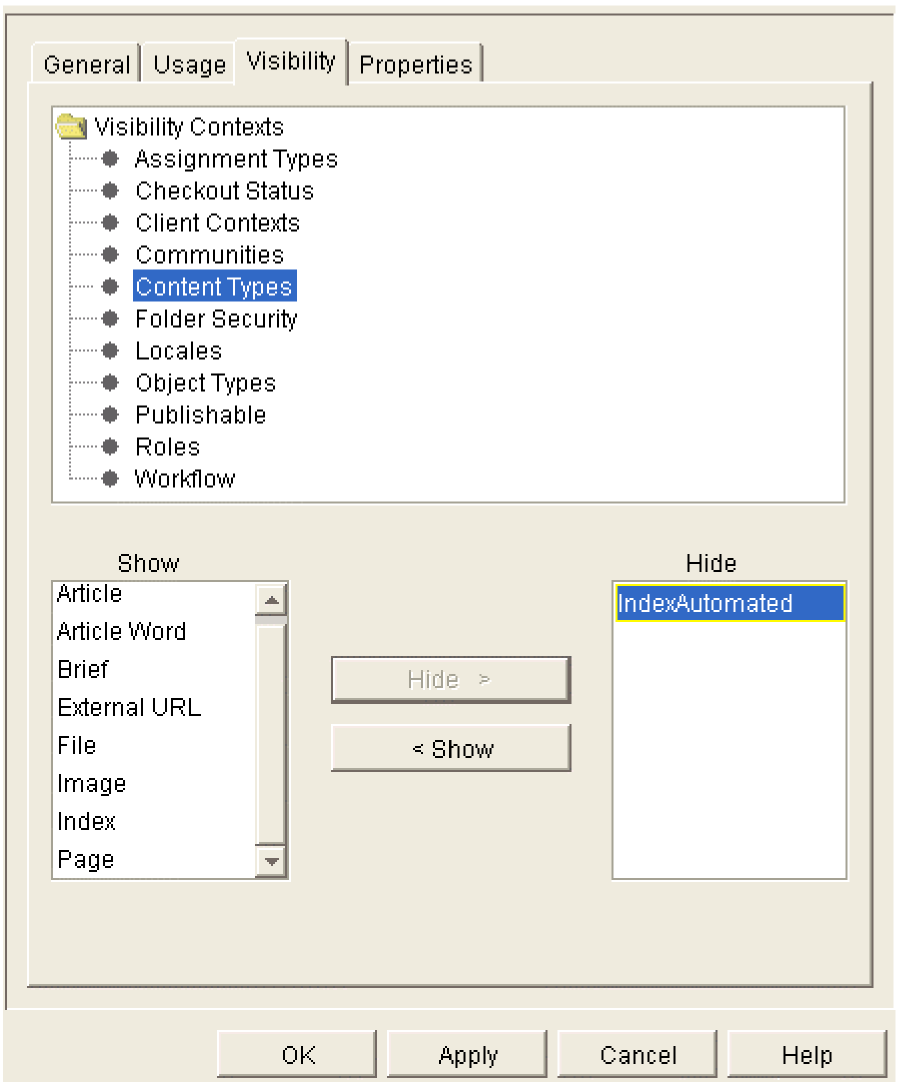


Figure 27: Action Menu Editor Visibility Tab

The Visibility Contexts field displays all visibility contexts available in the system. A visibility context is an element of the Rhythmyx Content Management system for which you can specify the visibility of Action Menu entries. The following Visibility Contexts are available:

Assignment Types This context defines the visibility of the Action Menu entry based on the Assignment Type of the user's Workflow Role to the current Workflow State of the Content Item. Options are:

- Assignee
- None
- Reader

Checkout Status This context defines the visibility of the Action Menu entry based on who has the Content Item checked out. Options are:

- Myself (defines the visibility of the Action Menu entry if the Content Item is checked out to the user logged in to the system)
- Nobody (defines the visibility of the Action Menu entry if no user has the Content Item checked out)
- SomeOneElse (defines the visibility of the Action Menu entry if a different user has the Content Item checked out)

Client Contexts This context defines the visibility of the Action Menu entry based on the current condition of the Content Explorer. Options are:

- Drag and Drop (defines the visibility of the Action Menu entry in popup menus when a user drags a Content Item and drops it in a folder or Slot)
- Multiple Selection (defines the visibility of the Action Menu entry if the user has multiple Content Items selected)
- Popup Menus (defines the visibility of the Action Menu entry in popup menus displayed when the user right-clicks in the Content Explorer)
- Single Selection (defines the visibility of the Action Menu entry if the user has only one Content Item selected)

Communities This context defines the visibility of the Action Menu entry based on the Community of the user. Options are all Communities in the system

Content Types This context defines the visibility of the Action Menu entry based on the Content Type of the Content Item selected. Options are all Content Types defined in the system.

Folder Security This context defines the visibility of the Action Menu entry based on the Folder Security of the user. The default values are:

- Read (defines the Action Menu entry if the value in the Folder Security field is Read)
- Write (defines the Action Menu entry if the value in the Folder Security field is Write)

  If you move the Read entry to Hide, users with Read access to a folder do not see Action Menu options for that folder.

  If you move the Write entry to Hide, users with Read or Write access to a folder do not see Action Menu options for that folder.

  NOTE: Users with Admin access to a folder can always see the Action Menu options for the folder.

Locales This context defines the visibility of the Action Menu entry based on the Locale of the user. Options are all Locales in the system.

Object Types This context defines the visibility of the Action Menu entry based on the type of Content Explorer object selected. Options are:

- Folder (defines the visibility of the Action Menu entry if the user has a folder selected)
- Item (defines the visibility of the Action Menu entry if the user has a Content Item selected)

Publishable This context defines the visibility of the Action Menu entry based on the value of the Publishable field of the current State of the Content Item. Options are all values defined for the Publishable field, using the Display Name for the keyword. The default values are:

- Publishable (defines the visibility of the Action Menu entry if the value in the Publishable field of the State is Y)
- Unpublishable (defines the visibility of the Action Menu entry if the value in the Publishable field of the State is N)
- Ignore (defines the visibility of the Action Menu entry if the value in the Publishable field of the State is I)

Roles This context defines the visibility of the Action Menu entry based on the Role of the user. Options are all Role defined in the Rhythmyx Server Administrator.

Workflow This context defines the visibility of the Action Menu entry based on the Workflow of the Content Item. Options are all Workflows defined in the system.

The **Show** and **Hide** tables list all of the specific segments available for that visibility context. For example, if you choose the Content Types context, the segments are the Content Types in your system. If you choose the Checkout Status visibility context, the segments are the Checkout States in your system. If a segment is in the Show table, Rhythmyx will display the Action Menu entry in that segment of the visibility context. For example, in the graphic above, the Content Types segment is selected as the visibility context. The Show table includes Article, Article Word, Brief, other Content Types in the user's system. Rhythmyx will include this Action Menu entry when it displays menus for these content types. All Action Menu entries appear in the Show table by default. To prevent display of the Action Menu entry, move the segment to the Hide table. In the graphic above, the Content Type named IndexAutomated is in the Hide table. When Rhythmyx displays menus for the IndexAutomated Content Items, it will not include this Action Menu entry.

All segments must be in the Show table to display the Action Menu entry. If any segment is in the Hide table, Rhythmyx does not display the Action Menu entry. For example, if an Action Menu entry has HR in the Show table in the Community visibility context, but in the Content Type visibility context the IndexAutomated Content Type is in the Hide table, Rhythmyx does not display the Action Menu item for the IndexAutomated Content Type, even in the HR Community.

Properties Tab

Use the Properties tab to specify custom properties for the Action Menu entry. Specify the name of the property in the **Name** column and the value of the property in the **Value** column. These values are hard-coded for the Action Menu entry.

Figure 28: Action Menu Editor Properties Tab

Maintaining Action Menu Entries

You can ***create new Action Menu Entries*** (see "Creating Action Menu Entries" on page 35), ***modify existing Action Menu entries*** (see "Modifying Action Menu Entries" on page 38), or ***delete Action Menu entries*** (see "Deleting Action Menu Entries" on page 39). You can also ***move Action Menu entries*** (see "Moving Action Menu Entries" on page 37), and ***copy them*** (see "Copying Action Menu Entries" on page 37) to create duplicate menu entries for different locations.

Creating Action Menu Entries

Rhythmyx adds all Action Menu entries to the top node of the Available Tree. If you want to add an Action Menu entry to a Cascading Node, you must copy it from the top node and paste it to the node where you want to add it.

To create a new Action Menu entry:

1. On the Action Menu Editor, click the [**New**] button.

   Rhythmyx adds a new Action Menu node to the Available Tree with the Default Name *Action1*.
2. On the General tab, enter a **Label** Rhythmyx display to the user for this Action Menu Entry.
3. Enter the **Internal Name** Rhythmyx will use to process the Action Menu entry. This **Internal Name** must be unique among all Action Menu entry internal names.
4. Enter the **Sort Rank** of the Action Menu entry.
5. To create a keyboard shortcut for the Action Menu entry:

   a) Enter the **Accelerator Key** for the keyboard shortcut. The Acceleration key is the function key, or combination of function keys, used to help activate the Action Menu entry. Available keywords include `control`, `shift`, and `alt`.

   b) Enter the **Mnemonic Key** for the Action Menu entry. This value defaults to the first character of the name, but you can change it. Note that the combination of Accelerator Key and Mnemonic Key must be unique for the submenu.
6. Select the Menu Type of the Action Menu Entry.

   a) If the Action Menu entry will be a standard Action Menu entry (in other words if it invokes an action directly and does not have any subordinate Action Menu entries), leave **Menu Entry** radio button checked.

   b) If the Action Menu entry is a parent node to a set of additional entries that you define manually, click the **Cascading Menu Entry** radio button. When you click this button, all options in the Menu Entry Options box will become unavailable. The Command tab will be removed for this Action Menu entry.

c) If the Action Menu entry is a parent node to a set of additional entries that are generated automatically by Rhythmyx (such as the Transitions menu), click the **Dynamic Menu Entry** radio button. In this case, the **URL** in Command tab must specify an application that returns a document conforming to the ActionList.dtd. All options in the Menu Entry Options box will become unavailable when you click this radio button.

7 If you selected the Menu Entry radio button in the Menu Type box, specify the Menu Entry Options:

a) To launch a new window when activating the Action Menu entry, check **Launch New Window**.

b) To permit the user to select multiple options for the command, check **Supports Multi Select**.

c) To refresh window when activating the command, choose the option in **Refresh Hint**. Options include *None*, *Current*, *Parent*, and *All*.

8 Enter a **Description** for the Action Menu entry. You may also want to provide some indicators of how the entry is used.

9 To determine the elements of the user interface where the Action Menu entry will be available:

a) Click the Usage Tab.

b) Select an interface mode for which to specify the usage of the Action Menu. The available modes are:

- Content Explorer - Main Display Area
- Content Explorer - Navigation Pane
- Impact Analysis
- Item Assembly - Main Display Area
- Item Assembly -Navigation Pane
- Related Content Search - Main Display Area
- Related Content Search - Navigation Pane
- Site Explorer

c) To make an Action Menu entry available in a UI context for a mode, select the context and click [**Enable**].

d) Repeat steps b and c for each mode.

10 To specify the command for the Action Menu entry:

a) Click the Command tab.

b) Select the **Command Group** for which you want to define the Action Menu command. Options include *Content Editor*, *Content Assembler*, and *Relationship Handler*.

c) To generate an example URL, click [**Generate**].

d) Modify the URL to point to the correct location. For example, if you selected *Content Editor* as the **Command Group**, the URL would be something like *../Rhythmyx/rx_ceArticle/article.html*. You would need to update the URL to point to the correct Rhythmyx application folder and resource.

e) If you need parameters for the command, enter the name of the parameter in the **Name** column of the User Parameter table, and enter the value of the parameter in the **Value** column. These values will be hard-coded for the Action Menu entry.

11 To specify the visibility of the Action Menu Entry:

a) Click the Visibility tab.

b) Select the visibility context for which you want to define the visibility of the Action Menu item.

c) To hide the menu from a specific segment of the visibility context, select the segment in the Show table and click [**Hide**] to move it to the Hide table.

12 To add parameters to the Action Menu entry:

a) Click on the Properties tab.

b) Enter the name of the parameter in the **Name** column. Enter the value of the parameter in the **Value** column. These values will be hard-coded for the Action Menu entry.

13 Click [**OK**] to save the Action Menu entry.

Copying Action Menu Entries

New Action Menu entries are always added to the top level node (Available). To add an entry to a menu, you must copy it to the menu to which you want to add it.

To add an Action Menu entry to multiple Action Menus, copy the entry. To copy an Action Menu entry:

1. In the Available Tree of the Action Menu Editor, select the Action Menu entry you want to copy.
2. Right click on the Action Menu entry and choose *Copy* from the popup menu (or press Ctrl-C on the keyboard).
3. Select the Action Menu node to which you want to add the Action Menu entry.
4. Right-click on the node and choose Paste from the popup menu (or press Ctrl-V on the keyboard).
5. Rhythmyx copies the Action Menu entry to the new location.
6. Click [**OK**] to save your changes.

Moving Action Menu Entries

To move an Action Menu entry from one node to another:

1. In the Available Tree of the Action Menu Editor, select the Action Menu entry you want to move.

2 Right click on the Action Menu entry and choose *Cut* from the popup menu (or press Ctrl-C on the keyboard).

3 Select the Action Menu node to which you want to add the Action Menu entry.

4 Right-click on the node and choose Paste from the popup menu (or press Ctrl-V on the keyboard).

5 Rhythmyx copies the Action Menu entry to the new location.

6 Click [**OK**] to save your changes.

Modifying Action Menu Entries

To modify an Action Menu entry:

1 In the Available Tree of the Action Menu Editor, select the Action Menu entry you want to modify.

2 You can change any value on the General tab.

3 To modify the usage of the Action Menu entry:

   a) Click on the Usage tab.

   b) Select the Rhythmyx Business User usage mode for which you want to modify the usage of the Action Menu entry.

   c) To enable a UI context, select the context from the **Available UI Contexts** table and click [**Enable**].

   d) To disable a UI context, select the context from the **Used UI Contexts** table and click [**Disable**].

4 To modify the command activated by the Action Menu entry, click the Command tab. You can change the **URL**, or any of the **User Parameter**s. To remove a parameter click the [**Delete**] button.

5 To modify the visibility of the Action Menu item:

   a) Click on the Visibility tab.

   b) Select the visibility context for which you want to modify the visibility of the Action Menu entry.

   c) To hide the Action Menu entry for a segment, select the segment in the **Show** table and click [**Hide**].

   d) To show an Action Menu entry that is not currently visible in a segment, select the segment in the **Hide** table and click [**Show**].

6 To modify a parameter, click the Properties tab. You can edit the **Name** and **Value** of all parameters. To remove a parameter click the [**Delete**] button.

7 Click [**OK**] to save your edits.

Deleting Action Menu Entries

To delete an Action Menu entry:

1. Select the entry you want to delete.
2. Click the [**Delete**] button.
3. Rhythmyx displays a warning message. Click [**OK**] to confirm the delete action. Click [**Cancel**] to abort the delete action.
4. Click [**OK**] to save your changes.

CHAPTER 3

Display Formats

Display formats specify the columns to display in the user interface and the order in which to organize them. Users can apply a display format to a folder, or to the results of a View or search query to specify how they want to view the data.

Users apply Display Formats to folders, Views, and searches to control the fields included in the display and their order. In addition to specifying the fields included in the display, Display Formats applied to Views and searches define categories to organize the items included in the View or Search. If you define categories for a Display Format, users can only apply it to Views and searches. They cannot apply it to folder contents.

For example, the following graphic shows a Display Format that defines Categories by Workflow State, then by Content Type:

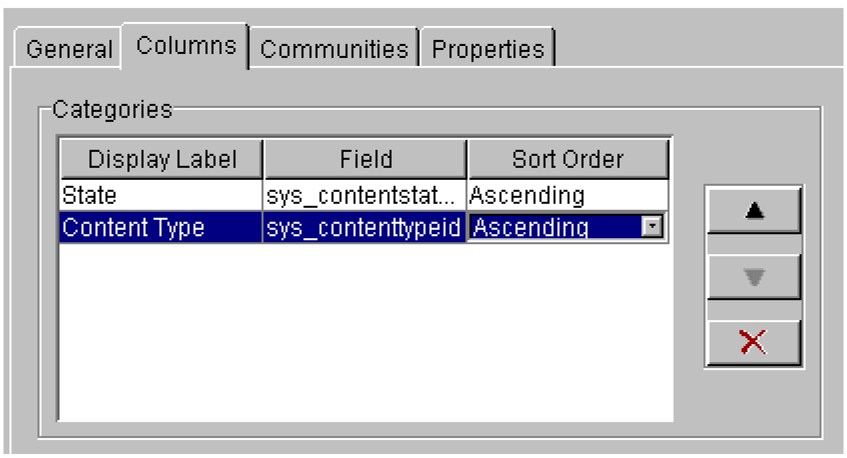


Figure 29: Example Display Format

Applied to an Inbox View, this Display Format produces the following view in the Navigation Pane of Content Explorer.

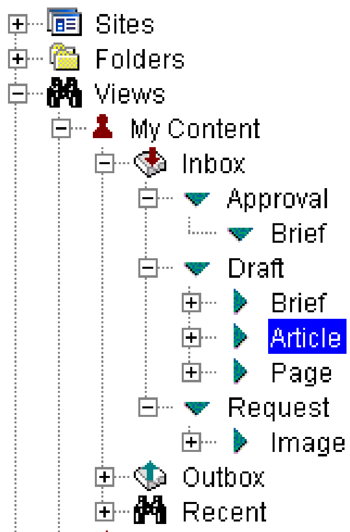


Figure 30: Example Display Format in use

Note that if you want to create links from Content Items under one Site node in Rhythmyx to Content Items under another Site node, you must include the following columns in the Display Format:

- sys_siteid
- sys_folderid

Display Format Editor

Use the Display Format Editor to maintain Display Formats. The Display Format Editor is available from the Server Objects tab of the Rhythmyx Workbench.

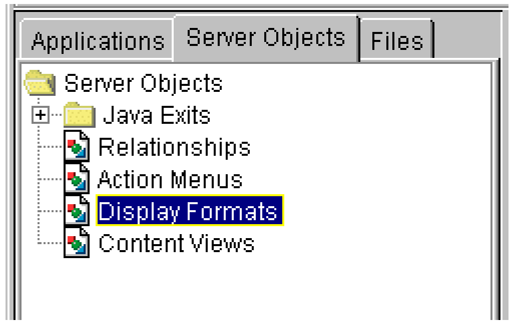


Figure 31: Workbench Server Objects tab with Display Formats selected

Double-click on the Display Formats node in the Server Objects tree to display the Display Format Editor.

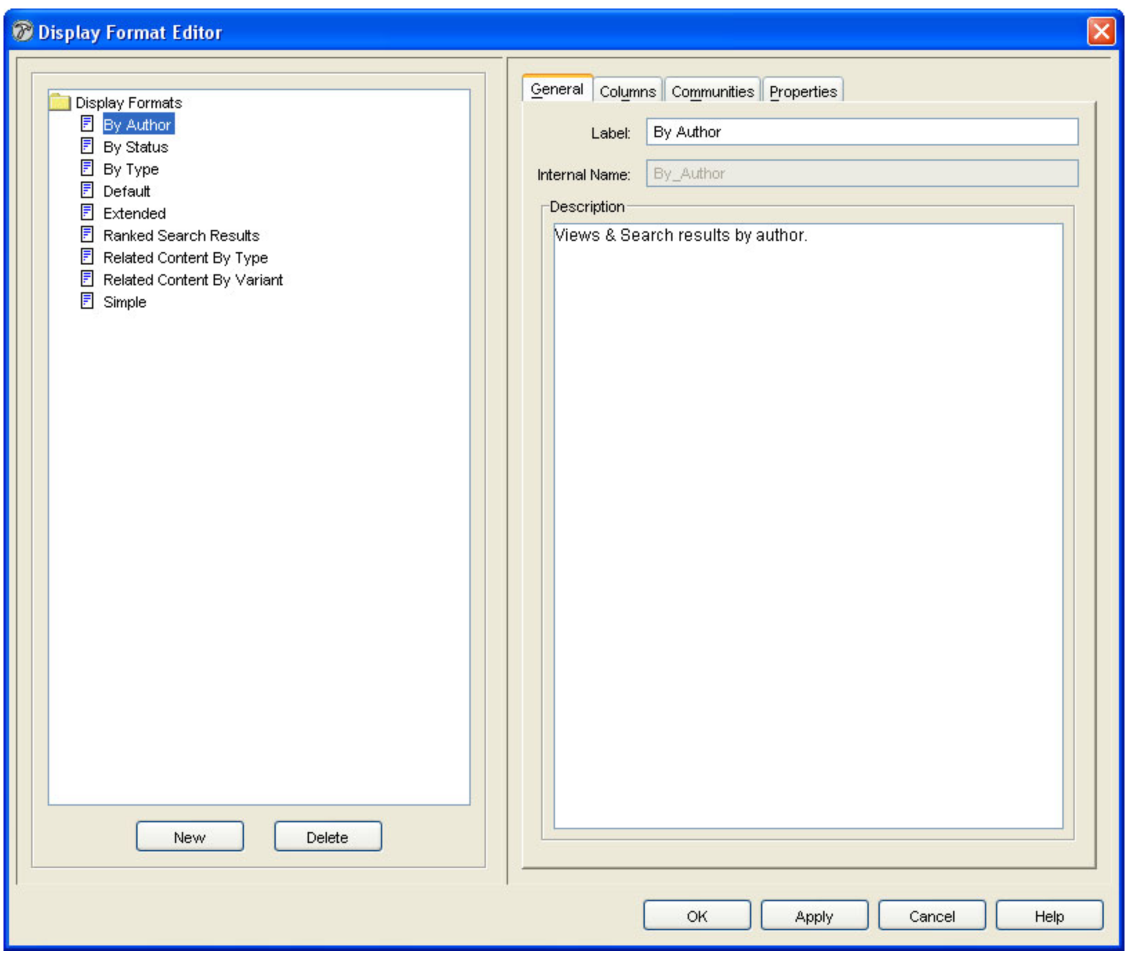


Figure 32: Display Format Editor

The Display Format Editor consists of two panes. The left pane contains the list of Display Formats. The right pane is the editing panel.

The Display Formats folder lists all display formats that currently exist in the system. Right clicking on the list launches a popup menu containing the following options:

Command	Keyboard Shortcut	Description
New	Ctrl-N	Creates a new display format with the default name *Display Format 1*. The Display Format Editor displays the Edit panel with the General tab selected.
Copy	Ctrl-C	Copies the currently selected display format entry to the clipboard.
Paste	Ctrl-V	Pastes the display format from the clipboard into the display formats list. The pasted Display Format is assigned the default name *Copy of (Copied Display Format)*. This option is only available if the clipboard contains a valid display format.
Delete	Del	Deletes the selected display format entry and all of its submenus. Rhythmyx displays a confirmation message before deleting the display format.

You can drag any node in the Available Tree except the root node. You can drop any node on any other node.

The Edit pane includes four tabs:

- ***General*** (see "General Tab" on page 45)
- Columns
- ***Communities*** (see "Communities Tab" on page 49)
- ***Properties*** (see "Properties Tab" on page 50)

General Tab

Use the General tab of the Display Formats Editor to define the general properties of the display format.

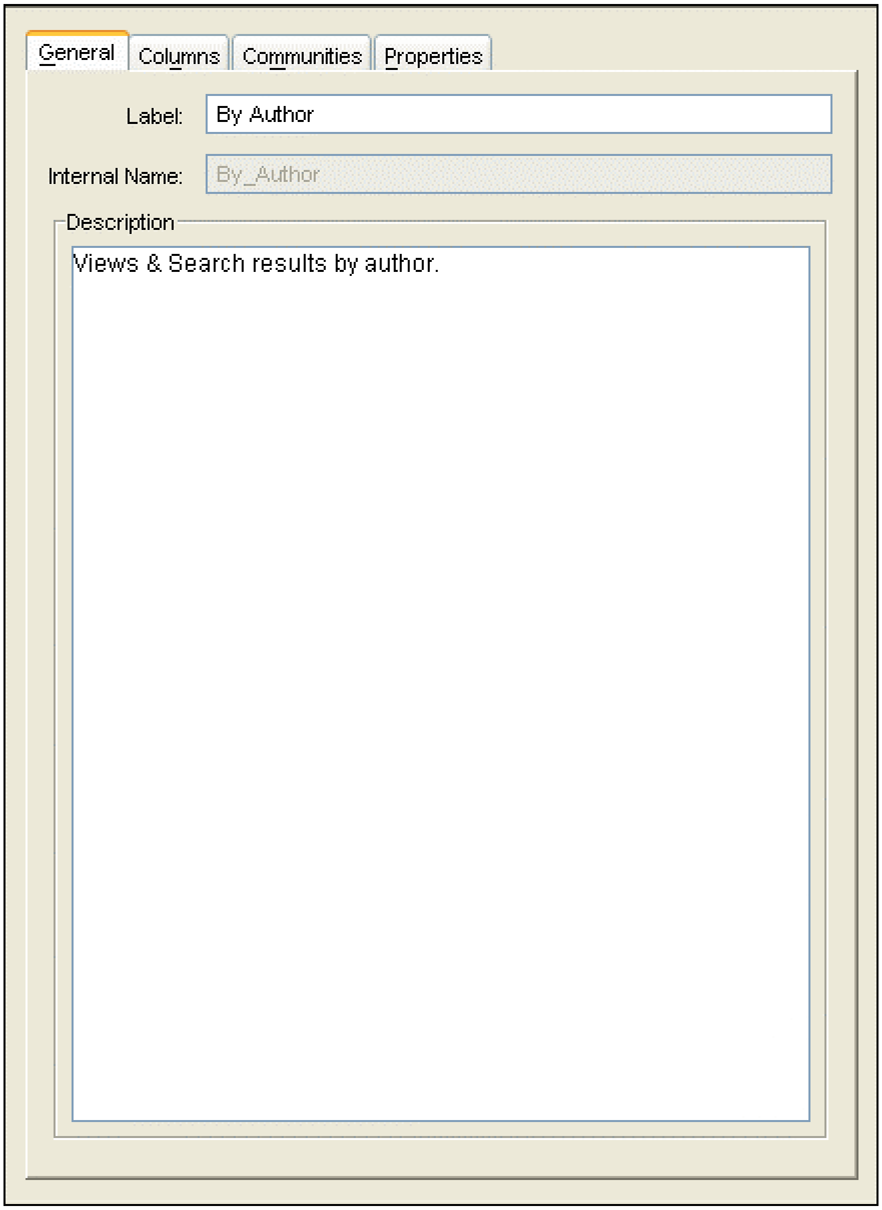


Figure 33: Display Format Editor General Tab

Field Descriptions

Label Required. The label displayed in the user interface for the display format. Must be unique among all defined display formats. This value is available for translation in globalized environments. Defaults to *Display Format 1*.

Internal Name The name used for the display format in the Rhythmyx server. Must be unique among all defined display formats. After the display format is saved the first time, this name becomes read-only. Defaults to the value in **Label**.

Description Optional. Free-form description of the display format.

Columns Tab

Use the Columns tab of the Display Formats Editor to specify the columns included in the display format, and to organize the columns when applying the display format to the contents of a folder.

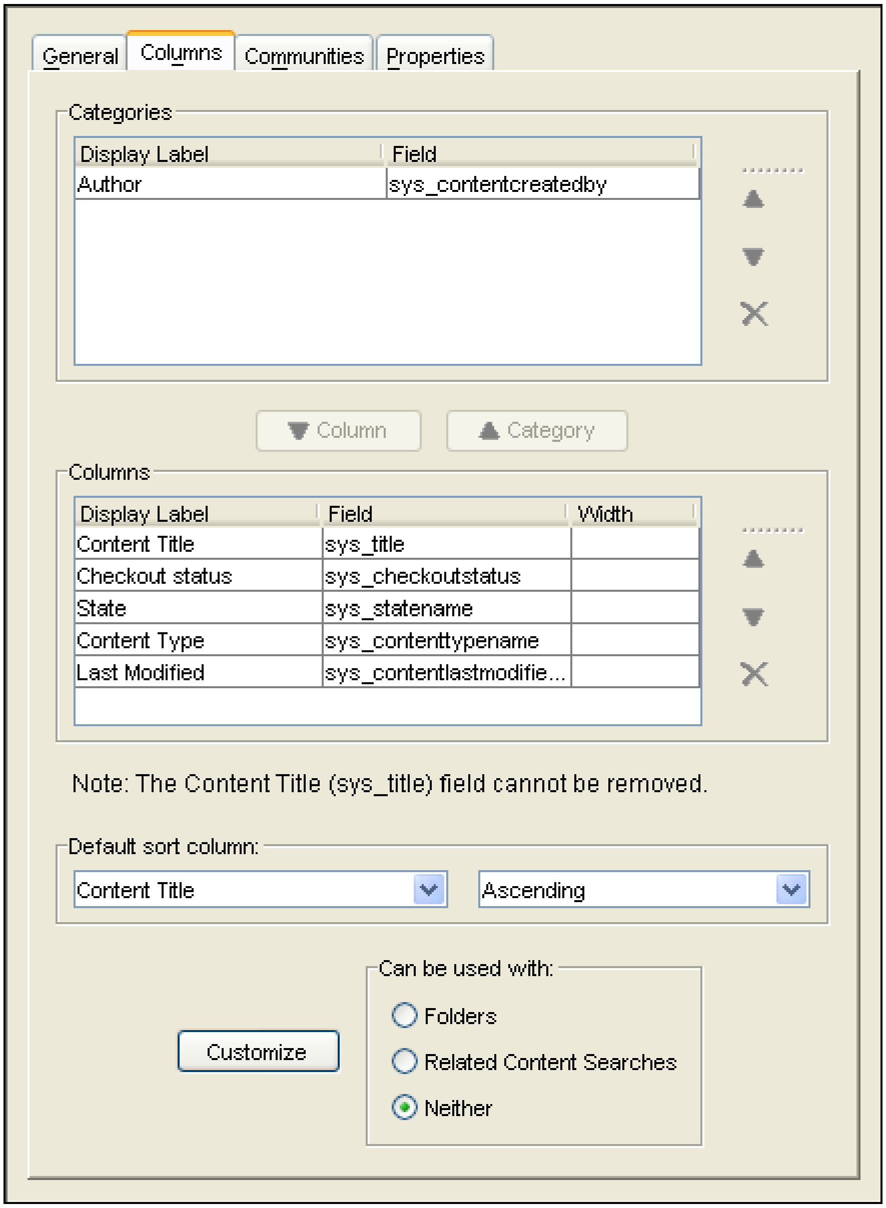


Figure 34: Display Format Editor Columns tab

The Columns tab includes two tables, Categories and Columns.

The Categories table defines the fields that will be included when a user applies the display format to the Related Content Search results, and specifies the hierarchy of the columns in the tree view used to view the results. Note that Categories cannot be used in a Display Format that is used in Folders. If you attempt to specify that a Display Format will be used in Folders, the fields in the Categories table will be deleted from the Display Format (they are not simply moved to the Columns table).

The Columns table specifies the Columns that will be included in display format when a user applies it to the results of a search or View. The order of the fields in the table defines the order of the columns in the display format.

A specific field can be in one table or the other. In other words, if a field appears in the Categorization table, it will not appear in the Columns table.

Display Formats that include both Categories and Columns can be applied to Views and Searches, but cannot be applied to a folder. Only Display Formats with no entries in the Categories table can be applied to folders.

Note that if you want to create links from Content Items under one Site node in Rhythmyx to Content Items under another Site node, you must include the following columns in the Display Format:

- sys_siteid
- sys_folderid

When there columns are included in a Display Format, you should see the following behavior:

- If the Display Format includes only the sys_siteid column, the results will include one listing for each Site that contains a Content Item included in the results. If a Content Item in the listing does not exist on any Site, the Display Format will include one entry, with no value in the Site column.
    - Example: Content Item 506 exists in Sites Lorem and Ipsum, while Content Item 502 does not exist in any Site. If a Display Format listing these Content Items includes the sys_siteid column, Content Item 506 will be listed twice, once with Lorem in the Sites column and once with Ipsum in the Sites column; Content Item 502 will be listed once, but with no value in the Sites column.
- If the Display Format includes only the sys_folderid column, the results will include one listing for each Folder that contains a Content Item in the results. If a Content Item in the listing does not exist in any Folder, the Display Format will include one entry, with no value in the Folder column.
    - Example: Content Item 506 exists in Folders Dolor and Amet, while Content Item 502 does not exist in any Folder. If a Display Format listing these Content Items includes the sys_folderid column, Content Item 506 will be listed twice, once with Dolor in the Folder column and once with Ipsum in the Folder column; Content Item 502 will be listed once, but with no value in the Folder column.

- If the Display Format includes both columns, the results will include one listing for each Site that contains a Content Item included in the results, and one listing for each Folder that contains a Content Item included in the results. If a Content Item does not exist in any Site or Folder, it will be listed once, with no value in either the Site or Folder column.
    - Example: Content Item 506 exists on Site Lorem, in Folder Dolor and Quand; it also exists on Site Ipsum in Folder Amet. Content Item 502 does not exist in any Site or Folder. A Display Format that included these two Content Items would resemble the following:

Content Item	Folder	Site
506		Lorem
506	Dolor	Lorem
506	Quand	Lorem
506		Ipsum
506	Amet	Ipsum
502		

Field Descriptions

Field The internal name of the field.

Label The label for the field displayed to the Business User.

Sort Order The sorting order of the fields. Options are *Ascending* and *Descending*.

Column Button. Click this button to move a selected field from the Columns table to the Category table. This button is only enabled when a field is selected in the Category table.

Category Button. Click this button to move a selected field from the Category table to the Columns table. This button is only enabled when a field is selected in the Columns table.

Up and **Down** Buttons. In the Categories table, the Up and Down buttons modify the nesting level of fields in the Categorization. In the Columns table, the button modify the order of columns in the display pane from left (top field in the table) to right (bottom field in the table).

Delete Button Click this button to remove a field from the associated table.

Customize Button. Click this button to display the ***Field Selection Editor*** (on page 57), which you can use to specify the fields included in the Display Format.

Folders Checkbox. Specifies that this Display Format can be applied to Folders. If this option is checked, you cannot add fields to the Categories table. If you have fields in the Categories table when you check this field, Rhythmyx deletes them from the Display Format (they are not moved to the Columns table).

Related Content Searches Checkbox. Specifies that this Display Format can be applied to Related Content Searches. If this options is checked, Rhythmyx automatically add the Variant (sys_variantname) and Content Type Name (sys_contenttypename) fields as columns. These fields can be moved to the Categories table.

Communities Tab

Use the Communities tab of the Display Format Editor to specify which Communities are allowed to us the display format.

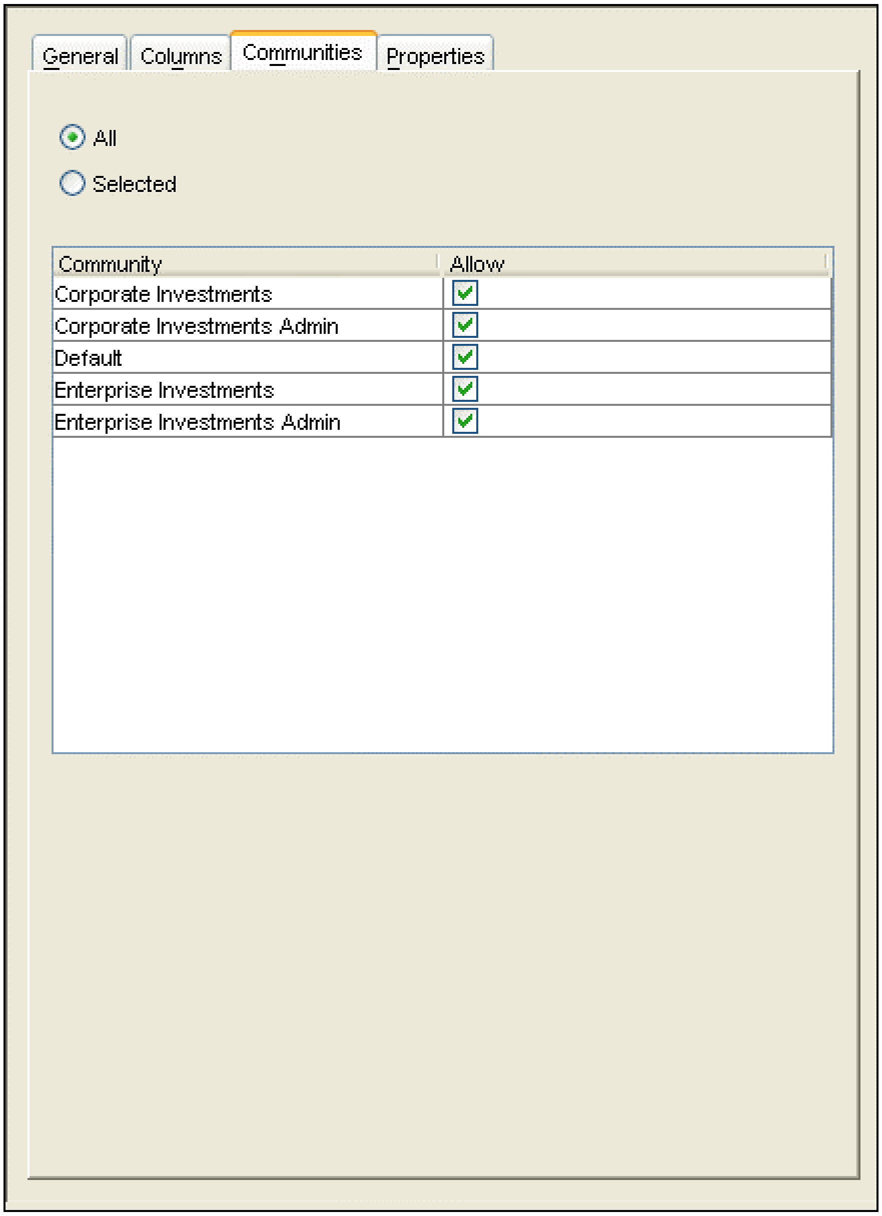


Figure 35: Display Format Editor Communities tab

If you want to make the display format available to all Communities, check the **All** radio button. If you want to make it available only to specific Communities, click the **Selected** radio button, then uncheck the **Allow** box for the Communities you do not want to be able to use the display format.

Properties Tab

Use the Properties tab to specify custom properties for the display format. Specify the name of the property in the **Name** column and the value of the property in the **Value** column. These values are hard-coded for the display format.

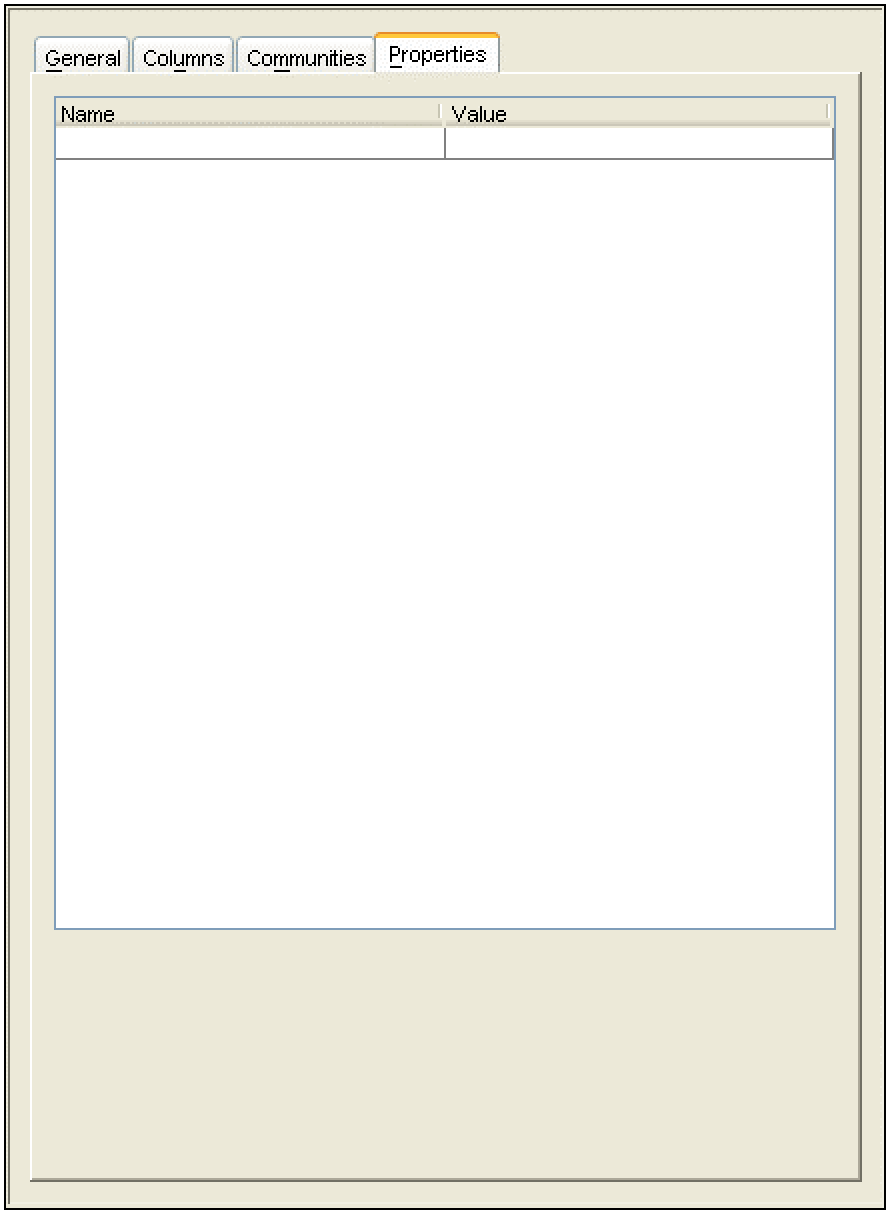


Figure 36: Display Format Editor Properties tab

Maintaining Display Formats

You can create new display formats, ***modify existing display formats*** (see "Modifying a Display Format" on page 52), or ***delete display formats*** (see "Deleting a Display Format" on page 53). You can also add Display Formats by copying and modifying existing Display Formats.

Creating a Display Format From Scratch

To create a new display format:

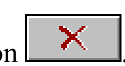
1. In the Display Formats Editor, select the Display Formats folder and then click the [**New**] button.
2. The Display Formats Editor displays the General tab in the edit panel, with the default name *Display Format 1* in the **Label** and **Internal Name** fields.
3. Enter a new **Label** for the Display Format. Copy and paste this new value to the **Internal Name** field.
4. Enter a description for the display format. You may want to indicate when and why the user should apply the display format.
5. To specify the fields used in the Display Format:

   a) Click on the Columns tab.

   b) Click the [**Customize**] button under the table you want to modify to display the Field Selection Editor. Use this editor to add fields to the Display Format. For details about using the Field Selection Editor, see "***Using the Field Selection Editor*** (on page 59)".

   c) When you return to the Display Format Editor, all fields are added to the Columns table. To move a field to the Categories table, select the field you want to move and click [**Categories**]. Note that you cannot add fields to the Categories table if the **Folders** box is checked.

   d) To change the order of fields in either table, click the up  and down  buttons.

   e) To remove a field from a table, click the delete button . Note that this action deletes the field from the tab entirely. It does not move the field to the other table.

NOTE: Note that if you want to create links from Content Items under one Site node in Rhythmyx to Content Items under another Site node, you must include the columns sys_siteid and sys_folderid in the Display Format.

---

6. To make the Display Format available for use in Folders, check the **Folders** checkbox. If you check this box, you cannot add fields to the Categories table. If the Categories table already has fields when you click this box, the fields are removed from the Display Format. (NOTE: The fields are not moved to the Columns table. They are removed from the Display Format.)

7 To make the Display Format available for use in Related Content Search Results, click the Related Content Search Results box. When you click this box, Rhythmyx automatically adds the Variant (sys_variantname) and Content Type Name (sys_contenttypename) fields to the Columns table.

8 To specify the Communities that can use the display format:

a) Click on the Communities tab.

b) To allow users in all Communities to use the display format, click the **All** radio button.

c) To restrict the display format to specific Communities, click the **Selected** button, the uncheck the **Allow** box for the Communities you do not want to permit to use the display format.

9 To add parameters to the Action Menu entry:

a) Click on the Properties tab.

b) Enter the name of the parameter in the **Name** column. Enter the value of the parameter in the **Value** column. These values will be hard-coded for the display format entry.

10 Click [**OK**] to save the display format.

NOTE: To see the new Display Format in Content Explorer, you need to refresh the Content Explorer applet. To refresh the applet, in Content Explorer, choose *View > Refresh*.

Modifying a Display Format

To modify a display format:

1 In the Display Format Editor, select the Display Format you want to modify.

2 On the General tab, you can change the **Label** or **Description**, and check or uncheck options in the Validate for use with box. You cannot change the **Internal Name** of the display format.

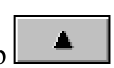
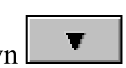
3 To modify the Columns included in the display format:

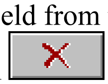
a) Click the Columns tab.

b) To add more fields to the Display Format, click the [**Customize**] button to display the Field Selection Editor. For details about using the Field Selection ***Editor, see "Using the Field Sel***ection Editor (on page 59)".

c) To move a field from the Columns table to the Categories table, select the field you want to move and click [**Categories**]. This option is not available if the **Folders** box is checked on the General tab.

d) To move a field from the Categories table to the Columns table, select the column you want to move and click [**Columns**].

e) To change the arrangement of fields in a table, click the up  or down  button.

f) To delete a field from the Display Format, select the field you want to delete and click the Delete button  next to the table in which the field occurs.

4 To change the availability of the Display Format for Folders, check or uncheck the **Folders** checkbox. If you check this box, you cannot add fields to the Categories table. If the Categories table already has fields when you click this box, the fields are removed from the Display Format. (NOTE: The fields are not moved to the Columns table. They are removed from the Display Format.)

5 To change the availability of the Display Format for Related Content Searches, check or uncheck the **Related Content Search** box. When you click this box, Rhythmyx automatically adds the Variant (sys_variantname) and Content Type Name (sys_contenttypename) fields to the Columns table. When you uncheck the box, Rhythmyx displays a message that it is removing the Variant field because it only applies to Related Content Searches. The message also gives you the option of removing the Content Type Name field as well.

6 To modify the Communities that can use the display format:

a) Click the Communities tab.

b) If the display format is restricted to specific Communities, you can make it available to all Communities by clicking the **All** radio button.

c) To restrict the display format to specific Communities, click the **Selected** button, then check the **Allow** box for the Communities you want to permit to use the display format.

d) If the display format is already restricted and you want to make it available to another Community, check the **Allow** box for that Community.

e) To remove a Community's access to a display format, uncheck the **Allow** box for that Community.

7 To modify display format parameters:

a) Click on the Properties tab.

b) You can modify both the **Name** and the **Value** of any parameter.

c) To delete a parameter, select the parameter and press the <Delete> key on your keyboard.

8 Click [**OK**] to save your edits.

NOTE: The modifications to the Display Format will not appear in Content Explorer until you refresh the Content Explorer applet. To refresh the applet, in Content Explorer, choose *View > Refresh*.

Deleting a Display Format

To delete a display format, select the display format you want to delete and click [**Delete**].

Adding Graphics to Display Formats

The default Display Formats provided by Percussion Software, Inc., do not include graphics, but you can add graphics to your custom Display Formats.

- For details about adding static graphics (graphics not managed by Rhythmyx) to Displays Formats, see the topic "***Using Images in Display Formats*** below.
- For details about adding thumbnail previews of Rhythmyx-managed Image Content Items, see the topic "***Adding Thumbnail Previews to Display Formats***" on page 55.

Using Images in Display Format Columns

In some cases, you may prefer to use images rather than text in certain columns of your Display Format. For example, if your Display Format includes Locale, you might want to use images of flags to indicate the Locales in the Display Format rather than using text.

You can use either .gif or .jpg files to provide these images. You cannot use bitmaps (.bmp) as your image files because Java does not render bitmaps.

If you choose to store your graphic files in your Rhythmyx installation directory, do not store them in a directory with “sys_” prefix. Directories with this prefix are overwritten on upgrade, and your graphics will be lost. A good option is to store your graphic files in the rx_resources\images directory. Since this directory has an “rx_” prefix, it will not be overwritten on upgrade and you will not lose your graphics.

To render a Display Format column as an image:

1. If the field does not already exist, add it to a Content Editor Definition.

   Often when you want to use an image, you need to use a computed field rather than a field bound to a backend database column. A computed field uses a UDF (specified in the PSXExtensionCall node) to generate the value of the column. The computed value might be a single word or it might be the URL of the location of the graphic file. If you define a computed field, be sure you specify Image as the <DataType> of the field.

2. Add an XSLT template to the file `<rxroot>\rx_config\rx_DisplayFieldTemplates.xsl` to override or modify the value of the field computed by the Content Editor. For details, see the comments in the file `rx_DisplayFieldTemplates.xsl`.

   For example, the following template substitutes images for the text of Checkout Status:

```
<xsl:template match="ResultField[@name='sys_locale']"
mode="rc_res_displayfield">
      <xsl:param name="sys_contentid"/>
      <xsl:param name="sys_revision"/>
      <xsl:param name="sys_contenttypeid"/>
      <xsl:param name="sys_variantid"/>
      <ResultField name="{@name}">
         <xsl:choose>
            <xsl:when test="(.='en-
us')">../rx_resources/images/usflag.gif</xsl:when>
```

```
            <xsl:when test="(.='en-uk')">../
rx_resources/images/ukflag.gif </xsl:when>
            <xsl:when test="(.='fr-
fr')">../sys_resources/images/frtricolor.gif</xsl:when>
            <xsl:when test="(.='fr-
ca')">../sys_resources/images/quebec.gif</xsl:when>
         </xsl:choose>
      </ResultField>
   </xsl:template>
```

Modify the field if the Content Editor itself does not include enough to compute the field. For example, suppose you want to render a thumbnail in a Display Format for Related Content Search results. To render the correct image, you would need the Variant ID that assembles the thumbnail image. You would first use a UDF to compute the value of the field, then modify it in the XSLT template to retrieve the correct image. If you do not override the template, Rhythmyx will display the value computed by the UDF rather than the thumbnail image.

3 Add the field to the Display Format, or create a Display Format that includes it.

Adding Thumbnail Previews to Display Formats

To add a thumbnail preview of an Image Content Item to a Display Format:

1 Add a new entry to the file <Rhythmyxroot>/rxconfig/server/addThumbnailURL.properties for each image Content Type, mapping the Content Type ID to the ID of the thumbnail Variant you want to use to preview the Content Type in the Display Format. For example, if you had a Content Type with an ID of 350, and you wanted to use a Variant with an ID of 324 to preview it in Display Formats, you would add the following entry to the addThumbnailURL.properties file:

```
350=324
```

Note that only one mapping per Content Type is supported. If the file contains more than one entry for a Content Type ID, only the last entry will be used.

2 Add the column sys_thumbnail to the Display Format.

CHAPTER 4

Field Selection Editor

Use the Field Selection Editor to manage the fields included in both display formats and Views.

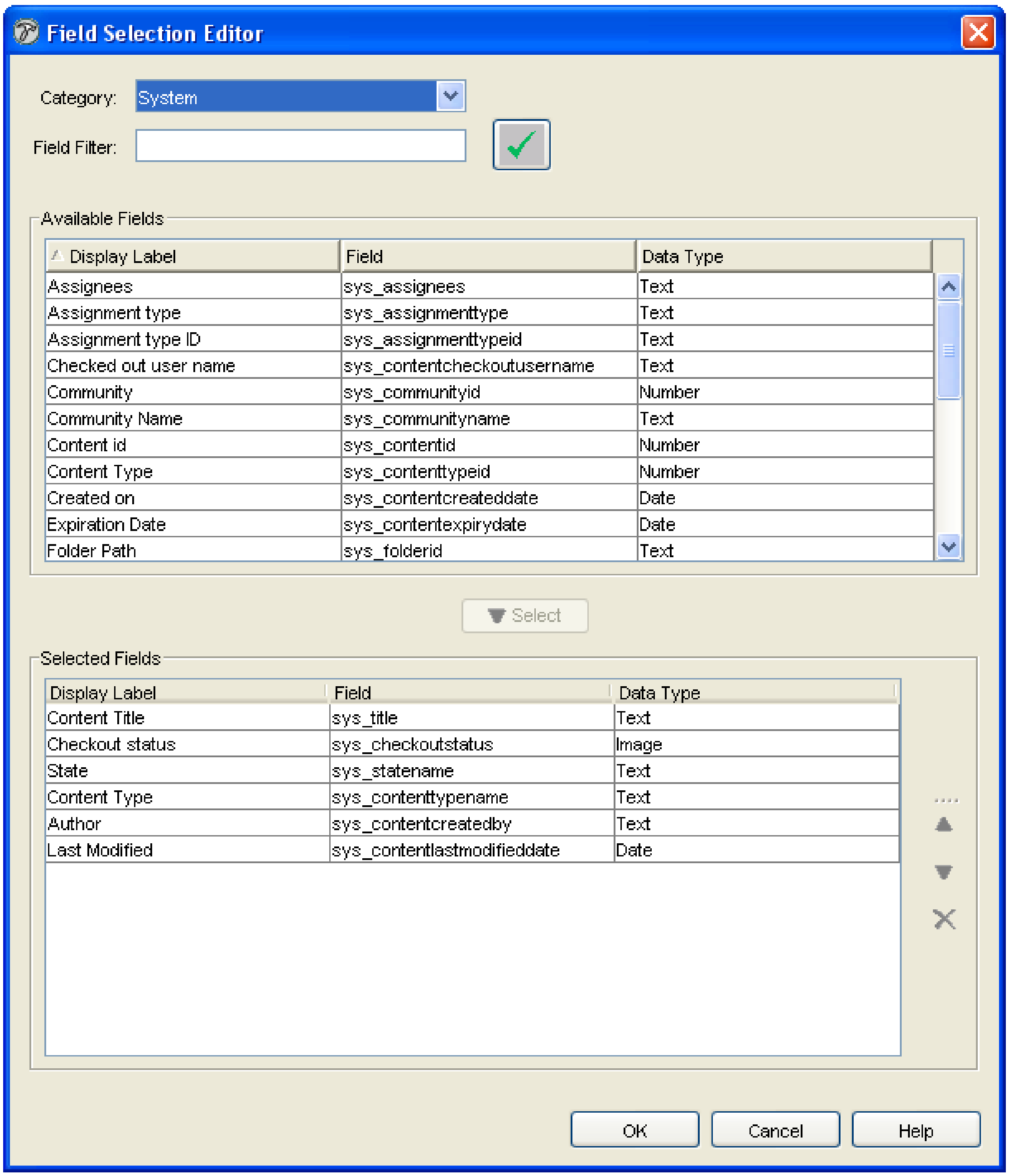


Figure 37: Field Selection Editor

Field Descriptions

Category General field filter, based on the Content Editor definition document that stores the fields. Options include *System* (fields defined in the system definition document) *Shared* (fields defined in shared definition documents), *Local* (fields defined in the local definition documents), and *All* (all fields from all Content Editor definition documents). Default is *System*.

Field Filter Secondary field filter that screens fields that were not screened out of the general filter. Can take any regular expression as a value.

Available Fields Table. Displays fields selected through the two filters. This table lists all fields available to be used in a display filter or Views, but not yet selected.

> **Display Label** Read only. The name of the field displayed to Business Users.
>
> **Field** Read only. The name of the field used for processing in the Rhythmyx server.
>
> **Data Type** Read only. The type of data stored in the field.

Selected Fields This table lists all fields selected to use in the Display Format or View.

> **Display Label** Read only. The name of the field displayed to Business Users.
>
> **Field** Read only. The name of the field used for processing in the Rhythmyx server.
>
> **Data Type** Read only. The type of data stored in the field.

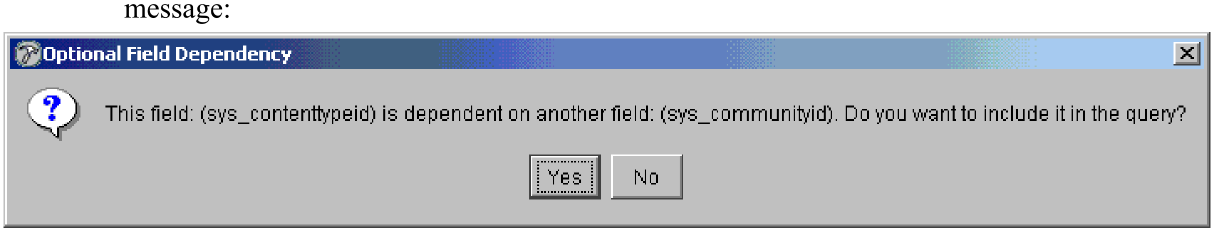
Using the Field Selection Editor

To use the Field Selection Editor:

1. In the *Category* drop list, choose the document whose fields you want to use in the display format or View. Options include *System* (fields defined in the system definition document) *Shared* (fields defined in shared definition documents), *Local* (fields defined in the local definition documents), and *All* (all fields from all Content Editor definition documents). Default is *System*.
2. In the Field Filter field, enter a secondary filter. This field accepts any regular expression.
3. Click the Apply button .
4. The Field Selection Editor displays the fields that meet the criteria you specified.
5. To add a field to the Display Format or View, select the field in the Available Field table and click the Select button ▼ Select.

   Note that some fields cascade. In other words, the values available in one field depend on the value you specify in another field. Cascading fields may be optional or required. If a cascading field is required, Rhythmyx includes it automatically. If the field is optional, Rhythmyx displays a message notifying you about the dependency and offering to include the dependency.

   For example, if Content Type had an optional dependency on Community and you added the field Content Type to the Selected Fields table, Rhythmyx would display the following message:



   When entering criteria for a Search or View, the values available in the Content Type field depend on the Community selected. If no Community is specified, all Content Types are available. However, if you specify a Community, only Content Types associated with that Community are available.
6. To remove a field from the Display Format or View, select the field you want to remove from the Selected Fields table and click the Delete button .
7. The change the order of the fields in the Display Format or View, select a field in the Selected Field table and click the up ▲ and down ▼ arrows to move it to the correct position in the order.
8. Click [**OK**] to save your edits.

CHAPTER 5

Maintaining Content Views and Searches

A View is a pre-defined query the user can apply to content. While Business Users can define their own searches, and even save search queries, they can only apply a View. Views provide the implementer with the ability to define common queries that will be available to all users. Implementers can also pre-define searches for users, giving end users the benefits of pre-set search fields without the restrictions of pre-defined query data.

Pre-defined Views and searches also provide the implementer with the ability to implement more complex queries than are available using a simple search mechanism. These Views and searches can use Rhythmyx applications to query the database. These queries can use complex SQL statements (such as statements that depend on columns from different tables sharing the same data) not available to a simpler query. The Inbox View that is included with Rhythmyx by default is such a View. This View displays content that is assigned to the user's Role. It requires a query of content in States associated with the user's Role, which is beyond the capability of a search query.

In most cases, a simple search query will suffice for a View or search. If you need any level of complexity in the query, however, you will need to use a Rhythmyx application to retrieve the content for the View or search.

Content View Editor

Use the Content View Editor to maintain Views. The Content View Editor is available from the Server Objects tab of the Rhythmyx Workbench.

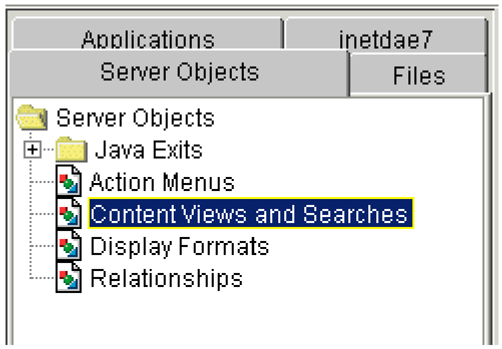


Figure 38: Workbench Server Objects tab with Content Views and Searches selected

Double-click the Content Views node to display the Content View Editor.

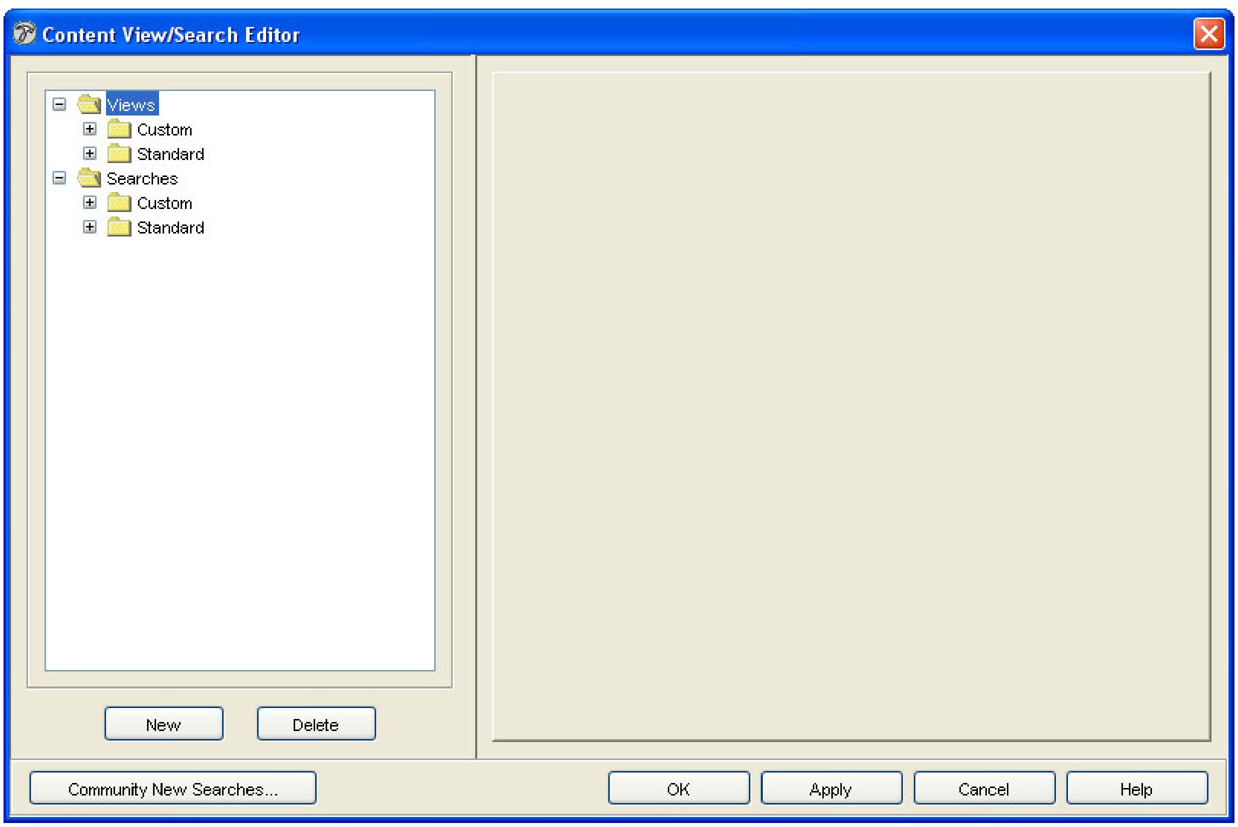


Figure 39: Content View Editor

Rhythmyx displays slightly different versions of the Content View Editor depending on the node you select. If you select a node under the Standard node, the Content View Editor includes the Communities tab, which you use to specify the Communities that can use the View, and the Query tab, which you use to specify the query for the View. If you select a node under the Custom node, the Content View Editor includes the URL tab, which you use to specify the Rhythmyx application that executes the database query for the View.

The Content View includes the following tabs

- ***General***
- ***Communities*** (see page 65) (available only for standard Views)
- ***Query*** (available only for standard Views; see page 66)
- ***URL*** (available only for custom Views; see page 70)
- ***Properties*** (see page 69)

General Tab

Use the General tab to specify general properties of the View or search.

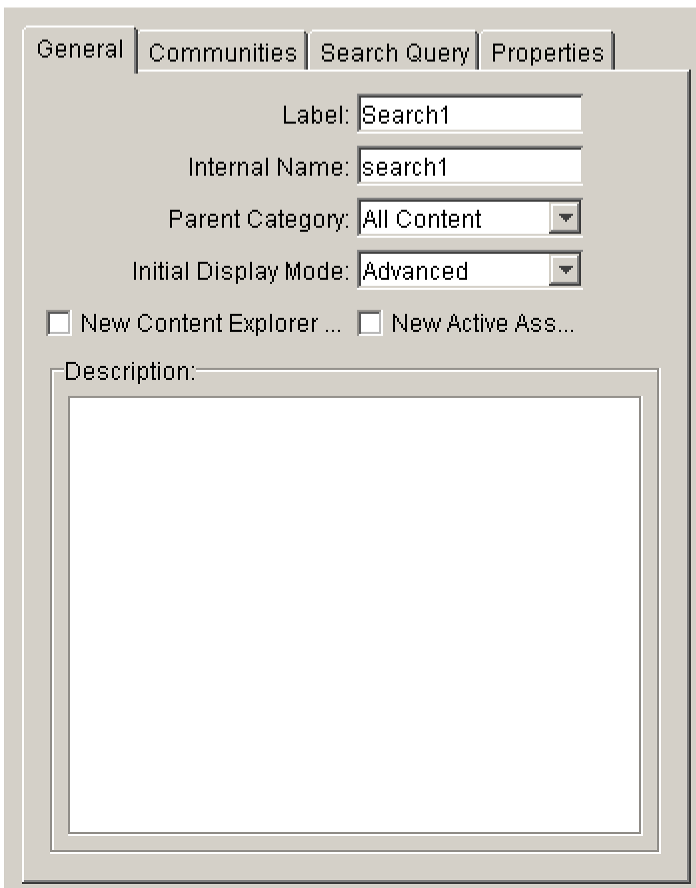


Figure 40: View/Search Editor General Tab

Field Descriptions

Label Required. The label displayed in the user interface for the View or search. Must be unique among all defined Views and searches. This value is available for translation in globalized environments. Defaults to *Display Format 1*.

Internal Name Required. The name used for the View or search in the Rhythmyx server. Must be unique among all defined Views and searches. After the View or search is saved the first time, this name becomes read-only. Defaults to the value in **Label**.

Parent Category Drop List. Specifies the parent category in which the View or search is listed. Options are *All Content*, *Community Content*, *My Content*, and *Other Content*.

Initial Display Mode Drop List. Only valid for pre-defined searches. Specifies whether to display the Search dialog in simple mode or advanced mode when the user initially requests the search. Options are *Simple* and *Advanced*. If you include data in any search field on the Search Query tab of the pre-defined search, you should always choose *Advanced*. If you choose *Simple*, the server ignores any pre-defined search data.

New Content Explorer Search Checkbox. Check this box to make this search the search displayed when a user clicks the New Search node in Content Explorer. Only one search can be assigned to this node at a time. A search must be available to all Communities to be assigned as the New Search.

New Active Assembly Search Checkbox. Check this box to make this search the search used when a user searches for related content. Only one search can be assigned as the Active Assembly Search at a time. A search must be available to all Communities to be assigned as the Active Assembly search.

Description Optional. Free form description of the View or search.

Communities

Use the Communities tab of the Content View Editor to specify which Communities are allowed to use the View or search.

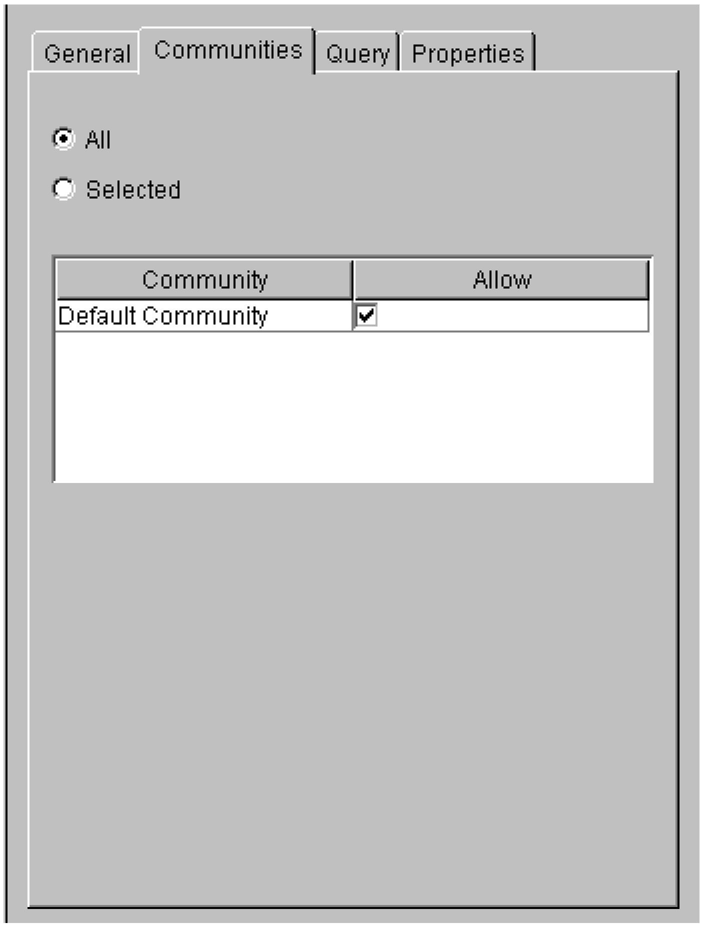


Figure 41: View/Search Editor Communities tab

If you want to make the View or search available to all Communities, check the **All** radio button. If you want to make it available only to specific Communities, click the **Selected** radio button, then check the **Allow** box for the Communities you want to be able to use the display format.

Query Tab

The Query tab is only available if the View or search is a node of the Standard node. Use the Query node to define the database query to retrieve content for the View or search.

Rhythmyx uses different versions of the query tab depending on which search engine your system uses. If your system uses the Full-text Search engine, Rhythmyx uses the following version of the Search Query tab:

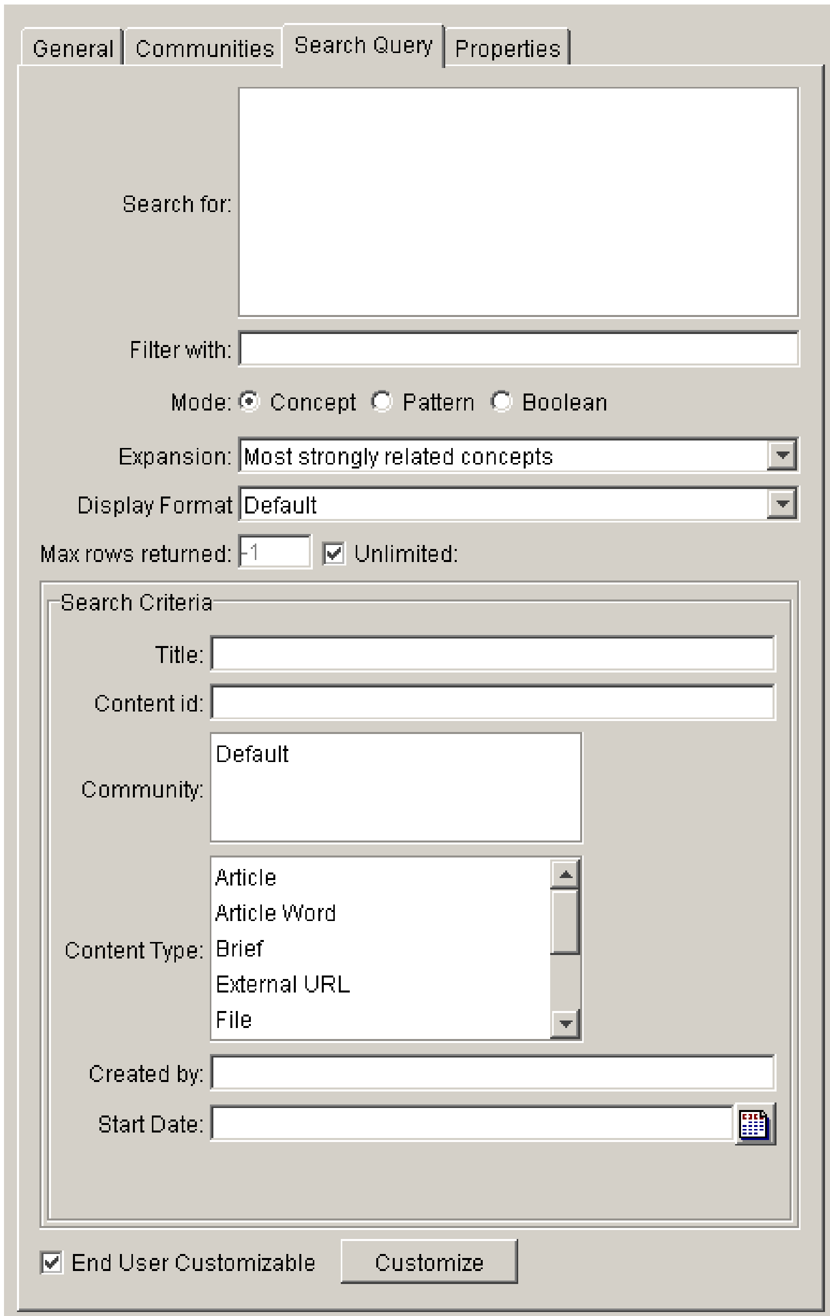


Figure 42: View/Search Editor Query tab when using the Full-text Search Engine

Search Query Tab for Full-text Search Engine Field Descriptions

Search for Specifies the text on which you want to search.

Filter with Defines a filter for the search. Any terms selected must match the string entered in this field as well as meeting the criteria in the Search for field.

Mode Specifies the search mode to use in the search. For details about the mode, see the description of the Rhythmyx full-text search engine in the Content Explorer Help.

Expansion Specifies the degree of concept expansion to use when Concept mode is in use in the search. Options are (examples assume the string in the Search for field is "catch"):

- Exact matches (Returns only Content Items that include the word "catch" or nearly identical variants, such as "catches".)
- Simple variations (In addition to the previous option, also returns Content Items that include the word "caught".)
- Most strongly related concepts (Default option; in addition to the previous option, also returns Content Items that include the word "catchable" and "catching".)
- Strongly related concepts (In addition to the previous option, also returns Content Items that include words such as "bag" or "arrest".)
- Weakly related concepts (In addition to the previous option, also returns Content Items that include words such as "capture", "secure", "seize", or "nail".

Display Format Drop list. Specifies the display format used for the View. Options are all display formats currently available in the system. The default is the first display format in alphabetical order.

Maximum Results Numeric. Specifies the maximum number of results to return for the query. Default is *-1* to return all results. If you enter any other value, it is passed to the Repostiory and the RDBMS will limit the results if such functionality is available, which may improve processing speed slightly. Results will always be filtered by the Content Explorer, however, regardless of whether the RDBMS restricts results.

Unlimited Checkbox. Check this box to return all results of the query. If this value is checked, Rhythmyx ignores the value in the **Maximum Results** field.

Case Sensitive Checkbox. Check this box to restrict the search results to strings that match the case you specify in your search string.

Search Criteria The contents of this box vary, depending on the fields you specify for the View. Use the [**Customize**] button to maintain the fields included in the search.

End User Customizable Checkbox. Specifies whether the Business User is allowed to modify this search or must use the search as pre-defined.

If your system uses the database search engine, Rhythmyx uses this version of the Search Query tab:

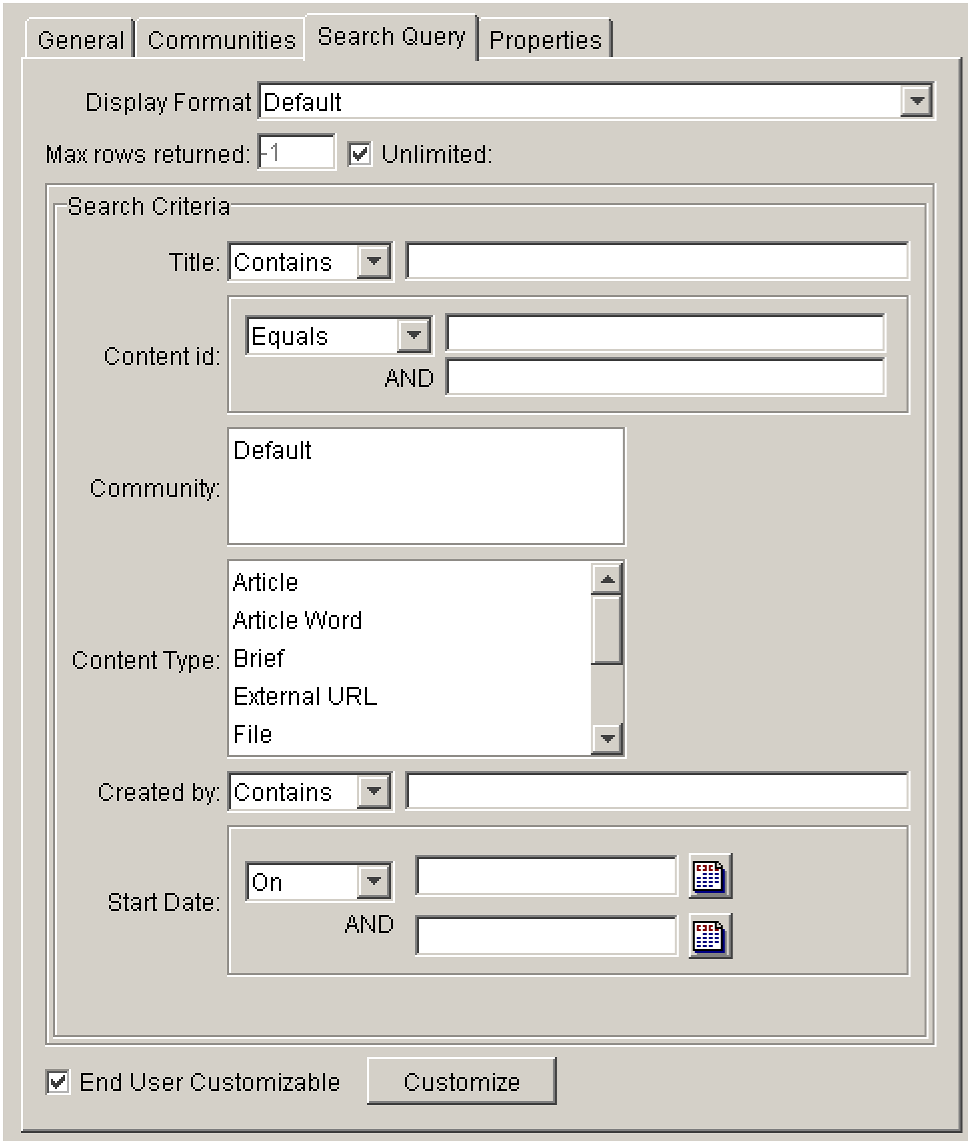


Figure 43: View/Search Editor Query tab when using the lightweight database search engine

Search Query Tab for Database Search Engine Field Descriptions

Display Format Drop list. Specifies the display format used for the View. Options are all display formats currently available in the system. The default is the first display format in alphabetical order.

Maximum Results Numeric. Specifies the maximum number of results to return for the query. Default is *-1*.

Unlimited Checkbox. Check this box to return all results of the query. If this value is checked, Rhythmyx ignores the value in the **Maximum Results** field.

Case Sensitive Checkbox. Check this box to restrict the search results to strings that match the case you specify in your search string.

Search Criteria The contents of this box vary, depending on the fields you specify for the View. Use the [**Customize**] button to maintain the fields included in the search. The control for the field varies depending on the datatype of the field.

End User Customizable Checkbox. Specifies whether the Business User is allowed to modify this search or must use the search as pre-defined.

Properties

Use the Properties tab to specify custom properties for the View or search. Specify the name of the property in the **Name** column and the value of the property in the **Value** column. These values are hard-coded for the View or search.

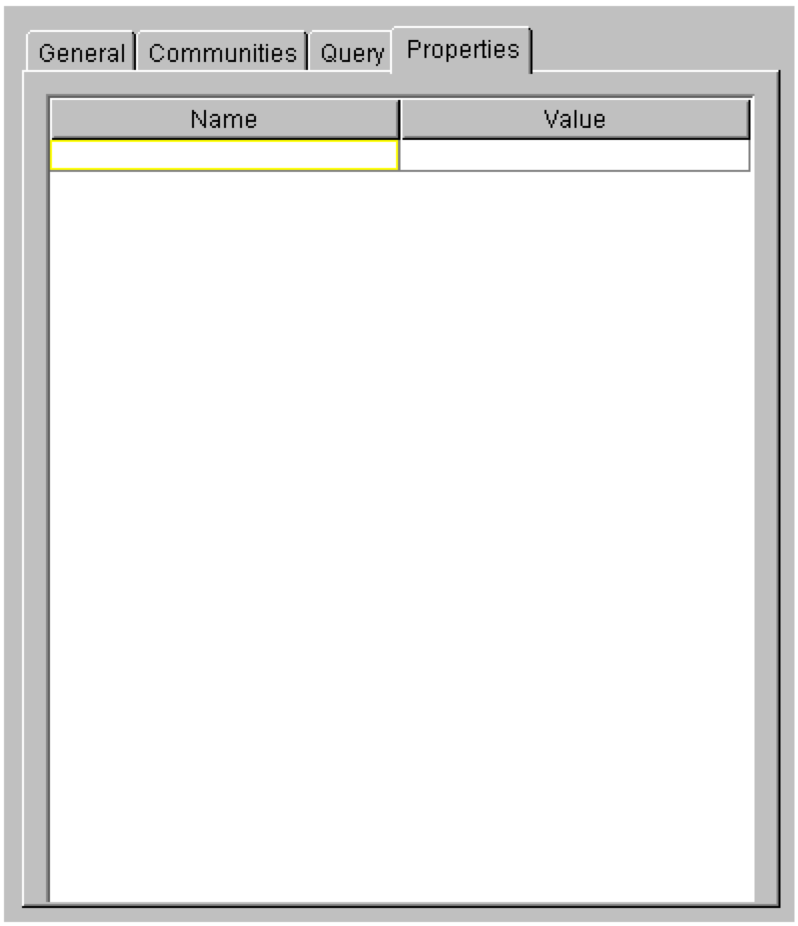


Figure 44: View/Search Editor Properties tab

URL Tab

The URL tab is only available if the View or search is a node of the Custom Application node. Use this tab to specify the Rhythmyx application to use to retrieve content for the View or search.

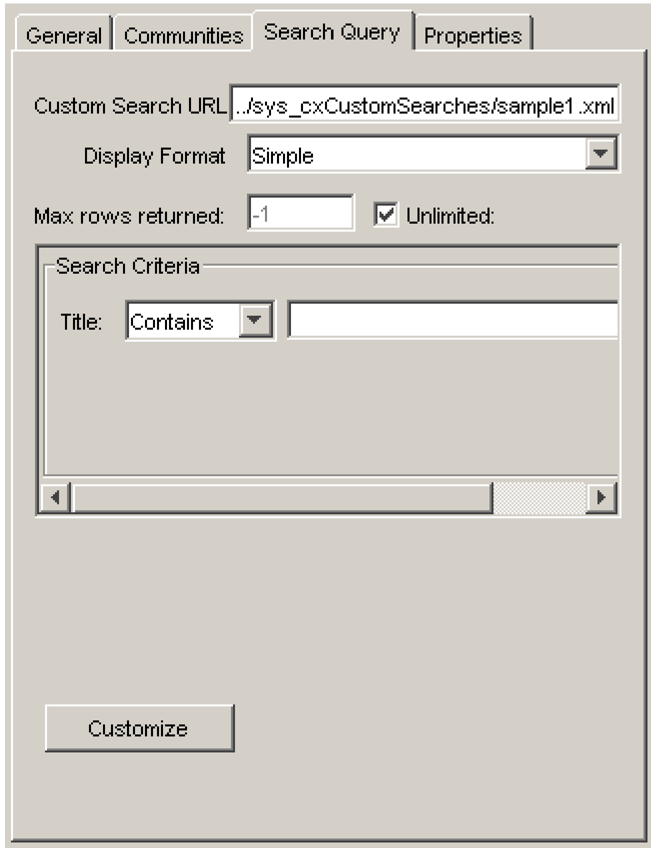


Figure 45: View/Search Editor URL tab

Field Descriptions

Custom Search URL Required. This field specifies the path, relative to the Rhythmyx root, to the Rhythmyx resource that retrieves content for the View or search.

Display Format Drop list. Specifies the display format used for the View or search. Options are all display formats currently available in the system. The default is the first display format in alphabetical order.

Max rows returned Numeric. Specifies the maximum number of results to return for the query. Default is *-1* (returns all results).

Search Criteria Defines additional search criteria to filter results of returned by the query resource that returns the results. The specific contents of this field are determined by whether you have the full-text search engine or the lightweight database search engine installed on your system.

Implementing Views and Searches

You can ***create*** (see "Creating a View or Search" on page 71), ***modify*** (see "Modifying a View or Search" on page 73), and ***delete*** (see "Deleting a View or Search" on page 74) all Views and searches.

If you create a custom View or search, you may need to ***create a Rhythmyx application*** (see "Creating a Custom Rhythmyx Application to Support a View or Search" on page 74) to support it.

Creating a View or Search

To create a new View:

1. On the Content View Editor, select the node to which you want to add the View or search. If you want to create a View or search that uses a Rhythmyx application to retrieve the results, select the Custom node. Otherwise select the Standard node.
2. Click [**New**].
3. The Content View Editor displays the General tab with the *View1* or *Search1* in the **Label** and **Internal Name** fields. Enter a new **Label** for the View or search, and copy and paste it to the **Internal Name field.**
4. Choose the **Parent Category** for the View or search. The Parent Category specifies the category of View or search where the new View or search will be displayed. Options are *All Content*, *Community Content*, *My Content*, and *Other Content*.
5. To make a search the default search in the New Search node of Content Explorer, check the **New Content Explorer Search** checkbox. Note that a search must be available to all Communities to be eligible to be the New Search.
6. To use the search for Active Assembly searchers, check the **New Active Assembly Search** checkbox. Note that a search must be available to all Communities to be eligible to be the Active Assembly search..
7. Enter an optional **Description** for the View or search.
8. To specify the Communities that can use the View or search:
   a) Click on the Communities tab.
   b) To allow users in all Communities to use the View or search, click the **All** radio button.
   c) To restrict the View or search to specific Communities, click the **Selected** button, the check the **Allow** box for the Communities you want to permit to use the View or search.
9. To specify the query for a standard View or search:
   a) Click the Query tab.
   b) To maintain the fields, click [**Customize**] to activate the Field Selection Editor.

Note that some fields cascade. In other words, the values available in one field depend on the value you specify in another field. Cascading fields may be optional or required. If a cascading field is required, Rhythmyx includes it automatically. If the field is optional, Rhythmyx displays a message notifying you about the dependency and offering to include the dependency.

For example, if Content Type had an optional dependency on Community and you added the field Content Type to the Selected Fields table, Rhythmyx would display the following message:

c) Specify the values for the fields. The control available for the field varies depending on the datatype of the field.

   If you include cascading fields, the values you specify for one field may limit the values available in another field. Using the previous example, the values available in the Content Type field depend on the Community selected. If no Community is specified, all Content Types are available. However, if you specify a Community, only Content Types associated with that Community are available.

d) To search for content that matches the capitalization you specified, check the **Case Sensitive** checkbox. (Note: This option may not be present if your Repository database does not support case-sensitive searches. Check with your system administrator to confirm whether this option is available to you.)

10 To specify a Rhythmyx application to retrieve results for a View:

a) Click the URL tab.

b) Choose the **Display Format** for the View or search.

c) Enter the name of the Rhythmyx resource that will retrieve the View or search results.

d) If the query requires additional parameters, enter the name of the parameter in the **Name** column of the User Parameter table, and enter the value of the parameter in the **Value** column. These values will be hard-coded for the View or search.

11 To define the query for a custom Search:

a) Click the Search Query tab.

b) Choose the **Display Format** for the View or search.

c) If you want to limit the number of results returned by the search, uncheck the **Unlimited** checkbox next to the **Maximum search results** field and enter the number of results you want to return in the field.

d) Enter the **URL** of the Rhythymx query resource that will retrieve the search results. For details about this resource see ***Creating a Custom Rhythmyx Application to Support a Search or View*** (see "Deleting a View or Search" on page 74).

e) Click the [**Customize**] button and add fields to the search query. You can also enter default values in these fields. The user will be able to change the default values but will not be able to remove fields from the query or add fields to the query.

12 To add parameters to the View or search entry:

a) Click on the Properties tab.

b) Enter the name of the parameter in the **Name** column. Enter the value of the parameter in the **Value** column. These values will be hard-coded for the View or search.

13 Click [**OK**] to save the View or search.

Modifying a View or Search

To modify a View or search:

1 Select the View or search you want to modify.

2 Click the General tab. You can modify the **Label** or **Description** of the View or search, change its **Parent Category**, or specify it as a New Content or Active Assembly search. You cannot change the **Internal Name**.

3 To modify the Communities that can use the display format:

a) Click the Communities tab.

b) If the View or search is restricted to specific Communities, you can make it available to all Communities by clicking the **All** radio button.

c) To restrict the View or search to specific Communities, click the **Selected** button, the check the **Allow** box for the Communities you want to permit to use the View.

d) If the View or search is already restricted and you want to make it available to another Community, check the **Allow** box for that Community.

e) To remove a Community's access to a View or search, uncheck the **Allow** box for that Community.

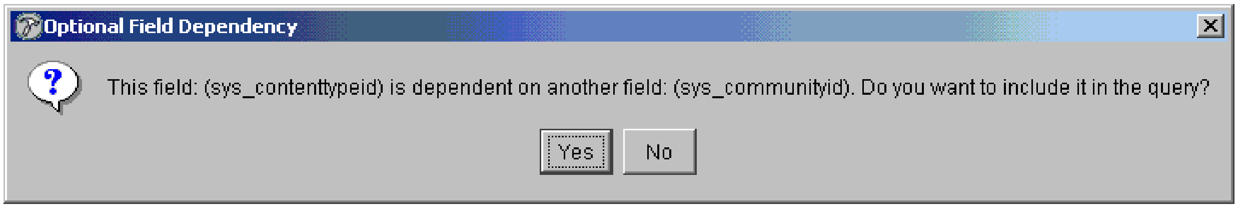
4 To modify the search query of a standard View or search:

a) Click the Query tab.

b) To maintain the fields, click [**Customize**] to activate the Field Selection Editor.

Note that some fields cascade. In other words, the values available in one field depend on the value you specify in another field. Cascading fields may be optional or required. If a cascading field is required, Rhythmyx includes it automatically. If the field is optional, Rhythmyx displays a message notifying you about the dependency and offering to include the dependency.

For example, if Content Type had an optional dependency on Community and you added the field Content Type to the Selected Fields table, Rhythmyx would display the following message:



c) Optionally, specify the values for the fields.

If you include cascading fields, the values you specify for one field may limit the values available in another field. Using the previous example, the values available in the Content Type field depend on the Community selected. If no Community is specified, all Content Types are available. However, if you specify a Community, only Content Types associated with that Community are available.

d) To search for content that matches the capitalization you specified, check the **Case Sensitive** checkbox. (Note: This option may not be present if your Repository database does not support case-sensitive searches. Check with your system administrator to confirm whether this option is available to you.)

5 To modify a Custom Application View or search:

a) Click the URL tab.

b) You can change the **Display Format**, the **Resource**, or any of the **User Parameters**.

c) If you are modifying a custom search, you can also add or remove fields from the query, and modify the default data in the query. If you add fields to or remove fields from the query, remember to update the SQL statement in the custom application.

6 To modify display format parameters:

a) Click on the Properties tab.

b) You can modify both the **Name** and the **Value** of any parameter.

7 Click [**OK**] to save your edits.

Deleting a View or Search

To delete a View or search, select the View or search you want to delete and click the [**Delete**] button.

Creating a Custom Rhythmyx Application to Support a View or Search

In many cases, you only need a simple query to supply data for your View or search. In those cases, use a standard View or search. However, in some cases, you need more complex queries. For example, the Inbox View retrieves a list of content assigned to the user' Role. This requires a query that retrieves content that is in the user's Community and in a Workflow State to which the user's Role is assigned. The Query tab does not have the flexibility to define such a complex query, so you must use a custom Rhythmyx application.

The heart of the custom application is the SQL query that retrieves the content for the View. Before building the application, it is a good idea to create the SQL query and to test it to be sure it retrieves the data you want. If you are creating a view similar to an existing custom View (Inbox, Outbox, and Recent), you may want to copy the SQL query from the resource in the sys_cxViews application and modify it to your needs.

The SQL for a custom search application must include all of the fields you defined for the query. A sample custom search application is also provided with Rhythmyx (sys_cxCustomSearches), which you can use as a model.

Once you have tested the query and it works as you want, build your custom View or search application.

Building a Custom View Application

Custom View application resources are based on the Result.dtd. To build a custom View application:

1. In the Rhythmyx Workbench, start a new application (in the Menu bar, choose *Application* > *New*).
2. On the Files tab of the Rhythmyx Workbench, browse to the sys_cxViews application folder, and drag and drop the Results.dtd into you application. Choose *Query* from the pop-up menu.
3. Rhythmyx creates a resource with the name *Result*, linked to the Default XSL stylesheet.
4. Double-click on the Result resource to open the Mapper.
5. Choose the data tab for the database where your tables are stored, and open the database where your content tables are stored. Drag and drop the tables needed for your query to the datatank end of the datapipe.
6. Map the database tables to the query. The following graphic shows the mapping of the Inbox view resource in the sys_cxView application (see this application in the Rhythmyx Workbench for the parameters and other details of the UDFs):

Back-end	XML	C
ROLES.ROLENAME	PSXXmlField/SearchResponse/Result/sys_assignee	
sys_FormatDateToUserLocale(CONTENTSTATUS.CONTE...	PSXXmlField/SearchResponse/Result/sys_contentlastmo...	
CONTENTSTATUS.CONTENTCREATEDBY	PSXXmlField/SearchResponse/Result/sys_contentcreatedby	
sys_LocalizedTextLookupUser(psx.workflow.state, STATES...	PSXXmlField/SearchResponse/Result/sys_contentstateid	
CONTENTSTATUS.TITLE	PSXXmlField/SearchResponse/Result/sys_title	
CONTENTSTATUS.CONTENTID	PSXXmlField/SearchResponse/Result/sys_contentid	
sys_LocalizedTextLookupUser(psx.contenttype, CONTENT...	PSXXmlField/SearchResponse/Result/sys_contenttypeid	
STATES.STATEID	PSXXmlField/SearchResponse/Result/sys_stateid	
STATES.WORKFLOWAPPID	PSXXmlField/SearchResponse/Result/sys_workflowid	
sys_Trim(CONTENTSTATUS.CONTENTCHECKOUTUSER...	PSXXmlField/SearchResponse/Result/sys_contentchecko...	
CONTENTSTATUS.CURRENTREVISION	PSXXmlField/SearchResponse/Result/sys_currentrevision	
CONTENTSTATUS.TIPREVISION	PSXXmlField/SearchResponse/Result/sys_tiprevision	
CONTENTSTATUS.EDITREVISION	PSXXmlField/SearchResponse/Result/sys_editrevision	
PSXUserContext/User/SessionObject/sys_lang	PSXXmlField/SearchResponse/@xml:lang	
sys_ComputeAssignees(CONTENTSTATUS.CONTENTID)	PSXXmlField/SearchResponse/Result/sys_assignees	
sys_ComputeAssignmenType(CONTENTSTATUS.CONTE...	PSXXmlField/SearchResponse/Result/sys_assignmenttype	
sys_ComputeCheckoutStatus(CONTENTSTATUS.CONTE...	PSXXmlField/SearchResponse/Result/sys_checkoutstatus	
sys_MakeIntLink(../sys_DisplayFormats/getDisplayFormat...	PSXXmlField/SearchResponse/@displayformaturl	
PSXUserContext/User/Name	PSXXmlField/SearchResponse/@username	

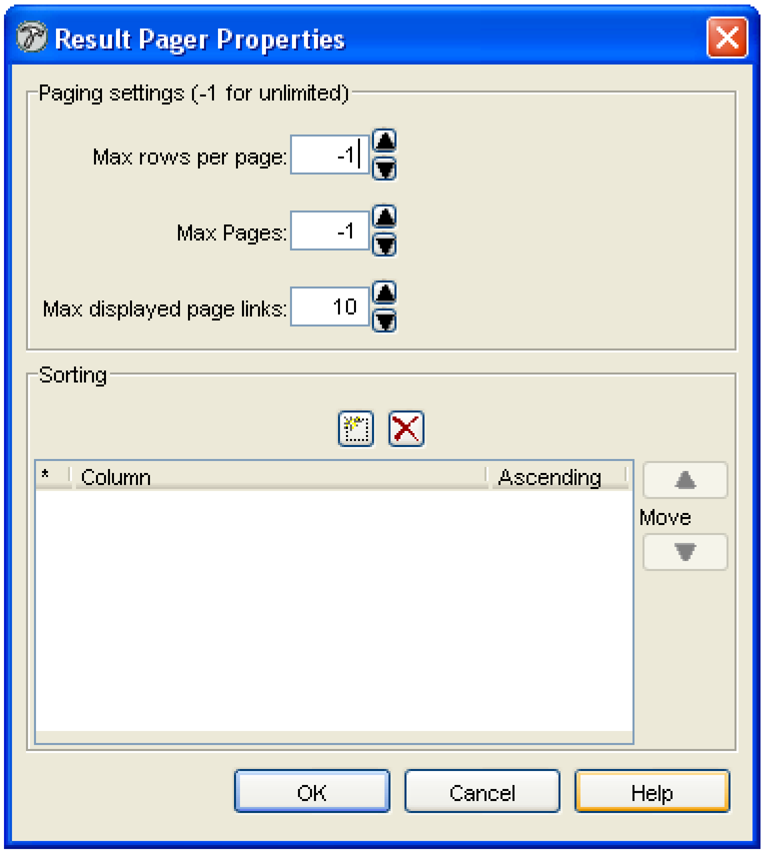
Figure 46: Mappings of the Inbox View resource

7 Double-click on the Selector to open it. In the Selector, click the **Manually enter SQL** radio button and enter your SQL query in the **SELECT statement** field.

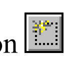
8 Optionally, add a Pager.

a) On the Workbench Menu bar, choose *Insert > Result Pager*.

b) Rhythmyx displays the Result Pager dialog.



c) Specify the **Max rows per page**, **Max pages**, and **Max displayed links per page**.

d) To specify Sorting criteria, click the New button  on the Results Pager dialog, and choose the column you want to use when sorting results. By default, all columns are sorted in ascending order. If you want to sort in descending order, uncheck the **Ascending** checkbox in the row you want to sort in descending order. You can specify multiple sort criteria. Rhythmyx sorts results based on the order of the sort criteria (in other words, all results are sorted based on the first column specified, then the results within that order are sorted based on the second column specified, and so on). To modify the order of the sort criteria, select a row you want to move and click the up or down arrows to change its position.

e) Click [**OK**] to close the Result Pager.

9 Close the Mapper.

10 Right-click on the request icon and choose Request Properties. In the **Request Name** field of the Request Properties dialog, specify a new name for the query resource.

11 Click the [**Copy to Clipboard**] button, then click [**OK**] to close the Request Properties dialog.

12 Save and start the application.

13 Assign the new application to a View or search:

a) In the Workbench, choose the Server Objects tab.

b) Start the Content View Editor.

c) Open the Content View for which you created the application.

d) If you have not already created a View, create it now using the procedure in ***"Creating a View*** (see "Creating a View or Search" on page 71)". Add the new View to the Custom node.

e) On the URL tab of the View, specify the name of the Rhythmyx application you created.

14 On the URL tab of the Content View Editor, click in the URL field and paste the URL you copied to the clipboard from the Request Properties dialog for the View query.

15 Save the View.

Start Content Explorer (or refresh it if you have already started it), and test the new View.

Building a Custom Search Application

Like custom View applications, Custom Search applications are based on the Results.dtd, but they require some pre-processing of the incoming request.

Content Explorer converts the data from the user requests into HTML parameters. It collects these parameters into an XML document, based on the following DTD:

```
<!ELEMENT HtmlParams ANY>
```

The root element of this document contains one of more child elements as name-value pairs. The name of each element is the name of the parameter and the value of the element is the value of the parameter. The document can contain multiple elements with the same name to support parameter with multiple values.

When a user enters a value in a search field, the name of the field is used as the name of the HTML parameter. For example: `<sys_title>xyz</sys_title>`.

The name of the HTML parameter that stores the operator is `<fieldname>_parameter`. The value of the operator depends on the data type of the field and an operator specified by the end user. Content Explorer may submit the following operator values:

Data Type of Field	Operator Selected by User	Submitted value	Additional processing of the value parameter
Keyword	Any	in	
Text	Starts with	like	"%" appended to end of the value parameter
	Contains	like	"%" appended to both beginning and end of the value parameter
	Ends with	like	"%" appended to the beginning of the value parameter
	Exact	equal	
Numeric	Equals	equal	
	Greater Than	greaterThan	
	Less than	lessThan	
	Between	between	Value parameter sent as a list of two values.
Date	On	equal	
	Before	lessThan	
	After	greaterThan	
	Between	between	Value parameter sent as a list of two values.

The incoming XML document will include a parameter for each field defined on the Search Query tab of the Search Editor, and an associated operator parameter. The document must be parsed into your resource query. A utility pre-exit, sys_ExtractHtmlParamsFromInputDoc, is included with Rhythmyx that should suit your purposes; if you need more complicated processing, you may need to write your own exit.

The SQL required by your database may require a different syntax than the operator value submitted by Content Explorer. If this is the case, you will need to develop another pre-exit that converts the operator values submitted by Content Explorer into the SQL syntax required by your RDBMS. The exact nature of these exits depends on the nature of the search queries you expect from your users and the requirements of your RDBMS. The sys_ConvertCustomSearchOperator exit included with Rhythmyx should be suitable for most queries and supports all of the data types listed in the table above.

When creating the custom search application, follow the procedure described for developing a custom View application. In addition, add the sys_ExtractHtmlParamsFromInputDoc pre-exit, the sys_ConvertCusomtSearchOperator pre-exit, or any other custom pre-exits you define the parse the incoming search query XML document.

Controlling the Content Available to Searches

Some implementations want to restrict the Content Items that a user can search to only those items in the user's Community. You can restrict the fields available to search and you can also restrict the content returned in the search results.

You can maintain the availability of fields for search both individually and system-wide.

Two attributes of the `PSXField` element define the availability of individual fields for searches. The `userSearchable` attribute specifies whether the field is available for searches at all. In many cases, it makes no sense to search on a field. For example, searching on a field that stores an image or other binary file is really not practical. The `userSearchable` attribute is optional. If it is not included, the system assumes the default value of `no`. If a field is available for searches, you can restrict its availability from Business Users by setting the `userCustomizable` attribute to `no`. This setting makes the field unavailable to Business Users when they are defining their own personal search queries, although you can include it in any searches you define. If this attribute is not included, and `userSearchable` is set to `yes`, the system assumes the default value, `userCustomizable=yes,` and Business Users can add the field to their search queries.

System-wide, you can restrict the fields available for users to search on to only those fields in their own Communities by adding the property `RestrictSearchFieldsToUserCommunity=yes` to the `rxconfig\Server\server.properties` file. If you add this parameter, if the Community field is included on the search dialog, the Community the user is currently logged in to will be selected and the field will be unavailable for modification. If the Content Type field is included on the dialog, only Content Types available to the current Community of the user will be included in the dialog. When customizing the dialog, only fields available to the current Community of the user will be available to be added to the search dailog. If the Community field is not present on the dialog, the Content Items are not filtered, but the fields available to be included in the search are still limited to those available to the users current community.

Note that this flag is only effective on the Content Explorer applet. Searches using Web services or the HTML version of the search dialog will not restricted based on Community. If you want to restrict results to only those Content Items available in the current Community of the users, add the following parameter to the `server.properties` file (`rxconfig\Server\server.properties`):

```
restrictUserSearchToCommunityContent=yes
```

This flag filters on the server and filters out any results other than those in the current Community of the user, regardless of ther parameters submitted for the search. If the Community field is displayed on the search dialog, is is available to the user, but if the user selects any Community other than their current Community, Rhythmyx returns no results.

Specifying a New Content Search or Active Assembly Search

You can specify the search in the New Search node of Content Explorer or define your own Active Assembly search. Only one search at a time may be specified as the New Content Search and only one search at a time may be specified as the Active Assembly search. If you specify a search as the New Content Search or the Active Assembly search, the new search supersedes the previous search designated as the New Content or Active Assembly search.

A search must be available to all Communities to be eligible to be specified as the New Content Search or Active Assembly search.

To specify that a search is the New Content Search, check the **New Content Explorer search** checkbox on the General tab of the Content View/Search Editor.

To specify that a search is the Active Assembly search, check the **New Active Assembly search** checkbox on the General tab of the Content View/Search Editor.

Using Calendar Controls

Many Rhythmyx pages include calendar controls to make it easier for you to enter dates. Among the locations featuring calendar controls are content editors.

To Enter a Date Using the Calendar Control:

1. Click on the Calendar icon next to the field you want to enter.

   Rhythmyx displays the Rhythmyx Calendar page.

Figure 47: Calendar control

2. To adjust the month, select the month you want from the drop list or click the month back button to scroll back one month or click the month forward button to scroll forward one month.

3. To adjust the year, enter the year in the year box, or click the year back button to scroll back one year or click the year forward button to scroll forward one year.

4. Click on the date to select it. Rhythmyx will automatically enter the date you selected.

Configuring Community Searches

You can configure the pre-defined search each Community uses both for new searches in general and for Active Assembly. Use the Configure New Searches for Communities dialog to configure the searches for Communities. To access the Configure New Searches for Communities dialog, on the Content View and Search Editor, click the [**Community New Searches**] button.

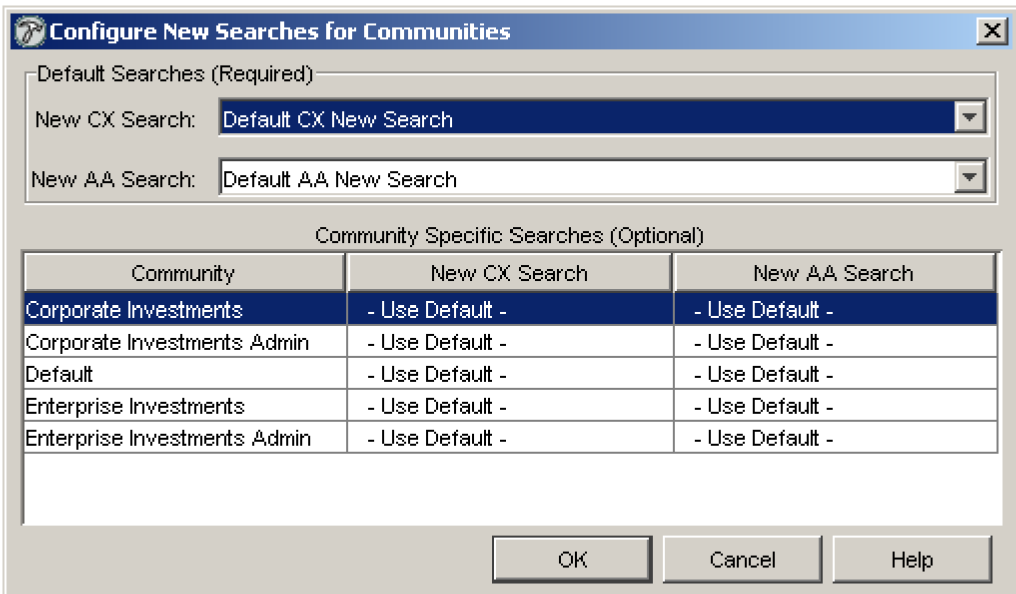


Figure 48: Configure New Searches for Communities dialog

Field Descriptions

New CX Search Drop list. Specifies the pre-defined search used by default Content Explorer when a user initiates a new search. Options include all pre-defined searches in the system.

New AA Search Drop list. Specifies the pre-defined search used by default when a user searches for related content for Active Assembly. Options include all pre-defined searches in the system.

Community Specific Searches Table. For each Community in the system, you can specify a New Content Explorer Search and a new Active Assembly search. The cells for New CX Search and New AA Search are drop lists with all pre-defined searches in the system as options. To specify a search for a community, select it from the drop list.

CHAPTER 6

Site Explorer and Active Assembly

Site Explorer is a Rhythmyx Business User interface that lets the user work with content in a virtual version of their Web site. Users can thus browse through a preview of the content as though it were published. All Actions available for content in Content Explorer, such as editing or performing Workflow Transitions, are also available in Site Explorer.

Figure 49: Enterprise Investments Site Home Page

In Site Explorer, users can navigate an entire site in active mode, and edit, view, and approve content items as they navigate. Active Assembly is a function of Site Explorer; it lets users add and edit content to graphic representations of pages and snippets. Active Assembly snippets have the same properties as Site Explorer pages, except they do not have a top navigation bar.

The following screen shot shows the Active Assembly view of a snippet.

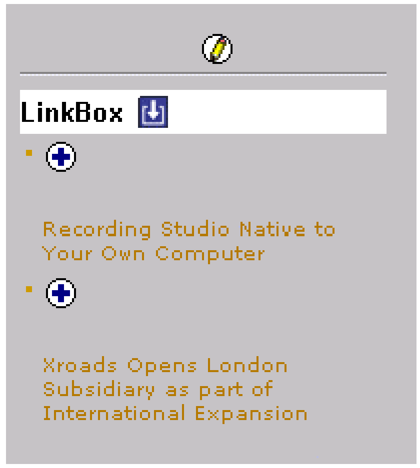


Figure 50: Active Assembly Snippet

For detailed instructions on using the Site Explorer interface and performing Active Assembly on content items, see the Content Explorer online Help.

Implementing Site Explorer/Active Assembly

Rhythmyx applications and extensions are now configured to generate the Site Explorer interface along with the Content Explorer interface. To create a Site Explorer interface, follow the instructions in the CMS Help for creating your content editors and defining your CMS interface, and complete the steps listed below.

1. ***Enable Field Level Editing*** (see "Enabling Field-Level Editing" on page 85)
2. ***Include Site Navigation Parameters for Automated Indexes*** (see "Adding the Active Assembly Type to the Variant Editor" on page 89)
3. ***Hide Active Assembly Slots for Automated Indexes*** (see "Adding the Active Assembly Type to the Variant Editor" on page 89)
4. ***Add the Correct XSL Import References*** (see "Adding the Active Assembly Type to the Variant Editor" on page 89)
5. ***Add the Active Assembly Type to the Variant Editor*** (see "Adding the Active Assembly Type to the Variant Editor" on page 89)
6. Enable Caching After an Upgrade: see "Changing Page Cache Settings" and the "sysFlushCacheAssembler pre-exit" in the Rhythmyx online Help.

Enabling Field-Level Editing

In Site Explorer, a user can select fields with edit icons and edit them individually. To indicate to the assembler that a field should be editable, give the field a `psxedit` attribute in the source HTML. If you are editing existing source HTML, remember to drag and drop it on the resource again.

For instructions on enabling field level editing in Site Explorer, see "Labeling Local Content" in the Rhythmyx online Help.

Including Site Navigation Parameters for Automated Indexes

In Site Explorer, a user navigates through a site by clicking links on pages or documents. Every link in an assembled Site Explorer page must open a new page in Active Assembly mode. The parameters in the assembly URL that create a link to the target page in Active Assembly mode are `sys_command` and `sys_activeitemid`.

The exit `sys_casAddAssemblerInfo` adds these parameters to all pages except those generated by automated index resources. Make sure that all variant resources have the `sys_casAddAssemblerInfo` exit.

You must add the `sys_command` and `sys_activeitemid` parameters manually to the `sys_MakeIntLink` UDF in every assembly resource that assembles an automated index.

As a rule, add these two HTML parameters to `sys_MakeIntLink` from the resource mapper when:

- The base URL points to the automatic index resource (xml).
- The base URL points to the assembly URL (the backend column CONTENTVARIANTS.ASSEMBLYURL).

To add the site navigation parameters to the `sys_MakeIntLink` UDF for Automated Index resources:

1. Open the Automated Index assembly application in the Workbench.
2. Open the mapper for the Automated Index resource.
3. The link URL should be mapped to the `sys_MakeIntLink` UDF.

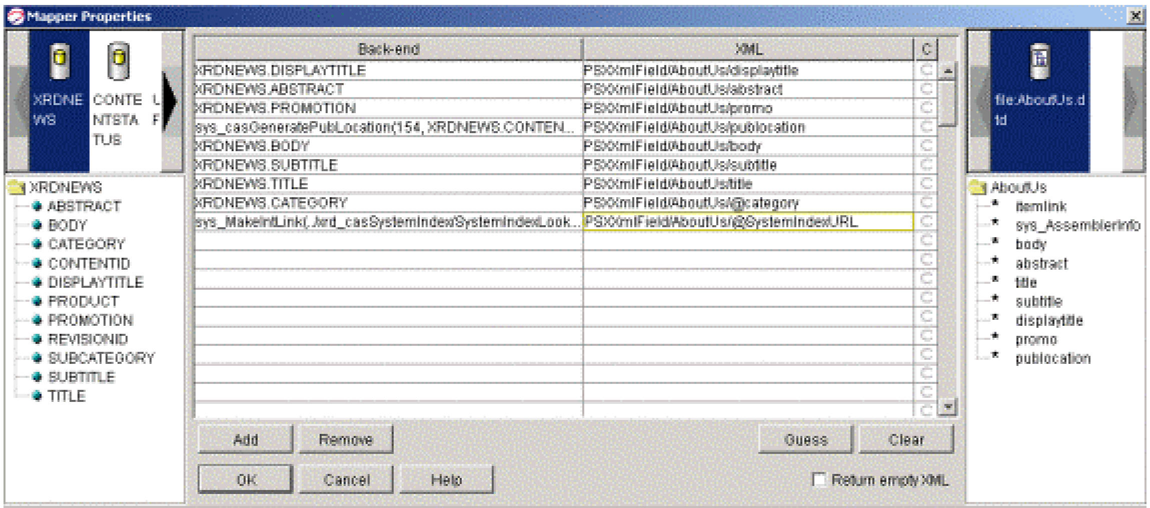


Figure 51: Mapper Properties Dialog

4. Double-click the sys_MakeIntLink UDF and its parameters in the Back-end column.

Rhythmyx displays the Function Properties dialog.

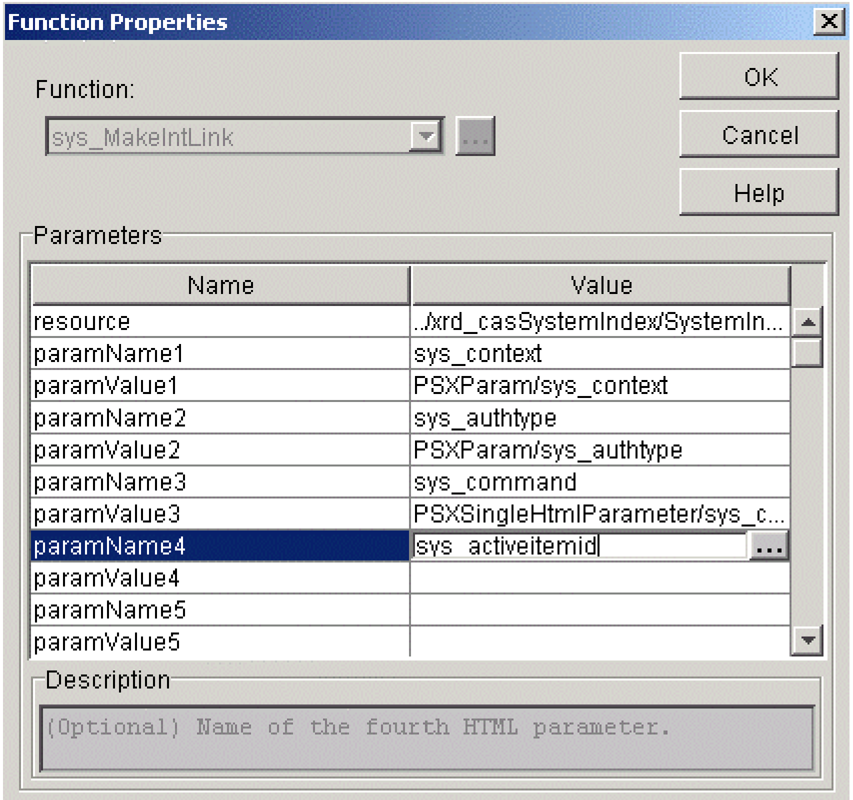


Figure 52: Function Properties Dialog

5 Add the parameters `sys_command` and `sys_activeitemid` as shown in the graphic above. Give the `sys_command` parameter the value of a single HTML parameter named `sys_command`. Give the `sys_activeitemid` parameter no value.

6 Click [**OK**] and save the changes to the resource.

Hiding Active Assembly Slots for Automated Indexes

Users should not be able to add, remove or modify content items in automated index slots. By default, the assembler makes these actions available to users. You must add the `psxeditslot="no"` attribute so that the controls for these actions do not appear in Site Explorer for automated indexes. If you omit this attribute, Site Explorer displays the slot for editing. Omitting this attribute is equivalent to adding the attribute `psxedit="yes"`.

To hide Active Assembly controls for Automated Index slots:

1 Open the source HTML for the assembly application.

2 Add the attribute `psxeditslot="no"` to the markup for the slot.

3 Save and close the source HTML.

Example:

```
<div slotname="System" template="xrdSystemMenu" psxeditslot="no">
      <!-- this is the sample snippet, it does not appear in the output -->
             <table border="0" cellspacing="0" cellpadding="0"
width="750" align="left" height="24" bgcolor="#999999">
                     <tr>
                         <td width="99"><img
src="../resources/images/nav_start.gif" psx-
src="$xrd_images/nav_start.gif" width="99" height="24"></td>
                         <td> <a href="../index.htm"><img name="Nav1"
border="0" src="../resources/images/nav/nav1_d.gif" psx-
src="$xrd_images/nav/nav1_d.gif" width="71" height="24"
alt="Home"></a><a href="/products/index.htm"
onMouseOut="MM_swapImgRestore()"
onMouseOver="MM_swapImage('Nav2','','../resources/images/nav/nav2_d.gif'
,1)"><img name="Nav2" border="0"
src="../resources/images/nav/nav2_u.gif" psx-
src="$xrd_images/nav/nav2_u.gif" width="71" height="24"
alt="Products"></a><a href="/news/index.htm"
onMouseOut="MM_swapImgRestore()"
onMouseOver="MM_swapImage('Nav3','','../resources/images/nav/nav3_d.gif'
,1)"><img name="Nav3" border="0"
src="../resources/images/nav/nav3_u.gif" psx-
src="$xrd_images/nav/nav3_u.gif" width="71" height="24"
alt="News"></a><a href="/events/index.htm"
onMouseOut="MM_swapImgRestore()"
onMouseOver="MM_swapImage('Nav4','','/resources/images/nav/nav4_d.gif',1
)"><img name="Nav4" border="0" src="../resources/images/nav/nav4_u.gif"
psx-src="$xrd_images/nav/nav4_u.gif" width="71" height="24"
alt="Events"></a><a href="/downloads/index.htm"
onMouseOut="MM_swapImgRestore()"
onMouseOver="MM_swapImage('Nav6','','../resources/images/nav/nav6_d.gif'
,1)"><img name="Nav6" border="0"
src="../resources/images/nav/nav6_u.gif" psx-
src="$xrd_images/nav/nav6_u.gif" width="78" height="24"
alt="Downloads"></a><a href="/aboutus/index.htm"
onMouseOut="MM_swapImgRestore()"
onMouseOver="MM_swapImage('Nav7','','/resources/images/nav/nav7_d.gif',1
)"><img name="Nav7" border="0" src="../resources/images/nav/nav7_u.gif"
psx-src="$xrd_images/nav/nav7_u.gif" width="78" height="24" alt="About
Us"></a></td>
                     </tr>
             </table>
       <!-- end of the sample snippet -->
</div>
```

Adding the Correct XSL Import References

If assembly page XSL stylesheets are created by XSpLit, they will include the following XSL imports:

```
  <xsl:import
href="file:sys_resources/stylesheets/assemblers/sys_InlineLinks.xsl"/>
  <xsl:import
href="file:rx_resources/stylesheets/assemblers/rx_InlineLinks.xsl"/>
  <xsl:import
href="file:sys_resources/stylesheets/assemblers/sys_Slots.xsl"/>
```

```
  <xsl:import
href="file:rx_resources/stylesheets/assemblers/rx_Slots.xsl"/>
  <xsl:import
href="file:sys_resources/stylesheets/assemblers/sys_ContextTemplates.xsl
"/>
  <xsl:import
href="file:sys_resources/stylesheets/assemblers/sys_Globals.xsl"/>
  <xsl:import
href="file:rx_resources/stylesheets/assemblers/rx_Globals.xsl"/>
  <xsl:variable name="related"
select="/*/sys_AssemblerInfo/RelatedContent"/>
  <xsl:variable name="this" select="/"/>
```

If you create manual XSL stylesheets without using XSpLit (if you create the XSL manually, or in some way other than dragging the source HTML onto the workbench) add the above lines (if they are missing from your XSL stylesheet) between

```
<xsl:stylesheet version="1.0"
```

and

```
<xsl:template match="/">
```

Make sure that all snippets that require Active Assembly enabled (Active Assembly Type is not "Non-HTML") produce well formed HTML or XHTML. Do this by adding the following line in the stylesheet before the main template starts.

```
<xsl:output method="xml"/>
```

Adding the Active Assembly Type to the Variant Editor

A variant can have one of the following values of Active Assembly format:

- Normal – The variant does not require special treatment for Active Assembly.
- Auto Index – The variant requires a hidden slot in Active Assembly mode.
- Non-HTML – The variant should not be formatted for Active Assembly. Use this type with images, file attachments, JavaScript files, and others that are not compatible with Active Assembly.

To set the Active Assembly Format of a Variant:

- In the Edit Variant page, select an option in the Active Assembly Format drop list:
- Edit Variant Page

NOTE: If you are upgrading Rhythmyx and not adding the new CONTENTVARIANTS table, modify your table to include the AATYPE column.

CHAPTER 7

Extending Lifecycle Analysis Reporting

Rhythmyx provides Content Administrators with the ability to retrieve content metadata from the Repository. Report data is provided by Rhythmyx resources in one of two applications:

- sys_reports

  The default data processing application for Lifecycle Analysis. All Lifecycle Analysis resources provided by Percussion Software are stored in this application, and the default Excel file, LifecycleAnalysis.xls, is stored in this application directory. When your system is upgraded, all files in this directory, including all application files, are overwritten with updated files. Therefore, you should not modify any of these files.

- rx_reports

  This application is provided for you to enhance and customize Lifecycle Analysis. It is not overwritten during upgrades. Any resources that you modify should be copied to this application before modification, and any new resources you develop should be added to this application. If you modify the default Excel file (including to update the Rhythmyx properties), you should move it to this application directory before making any changes. Any enhancements Percussion Software makes to the default Excel file during upgrade should be migrated to the copy of the file in this directory.

The following options are available to enhance Rhythmyx Lifecycle Analysis:

- Update default Lifecycle Analysis resources provided by Percussion Software

  You can enhance the reporting resources provided by Percussion Software to retrieve additional reporting data; for example, you might want to enhance the Content by Workflow Reporting by adding the currently assigned Roles. Note that any time you enhance a default resource, you should first copy it from the sys_reports application to the rx_reports application. If you do not copy the resource to rx_reports before modifying it, your changes will be overwritten when your system is upgraded. For details, see ***Modifying the Fields in Standard Lifecycle Analysis Reports*** (on page 96).

- Add new Lifecycle Analysis query resources

  You can add additional resources that retrieve data about your content. For example, you might want to add a query for Content Items that are in Pending or Quick Edit States (in other words, content that is ready to go Public, but is not currently Public). Any new resources that you develop should be added to the rx_reports application. Resources added to the sys_reports application will be deleted when this application is overwritten during upgrades. For details see ***Adding Custom Lifecycle Analysis Report Resources*** (on page 99).

- Add new reporting clients

  You can output Rhythmyx reporting data to other reporting clients, such as Crystal Reports. For details, see ***Implementing Lifecycle Analysis in Additional Clients*** (on page 103).

NOTE: Excel has a limit of 65,000 rows in any one spreadsheet. Certain tables, such as the CONTENTSTATUS table, can easily exceed this limit. When a table exceeds this limit, Rhythmyx returns an error message when attempting to open the LifecycleAnalysis.xls workbook. To alleviate this problem, you may want to create duplicate resources that select smaller data sets.

For a detailed discussion about using Microsoft Excel as a reporting tool, see *Excel Advanced Report Development* by Timothy Zapawa (Wiley Publishing, 2005, ISBN 0-7645-8811-7).

Updating the Rhythmyx Lifecycle Analysis Workbook

The following custom properties have been added to the Rhythmyx reporting Excel file. You should update the values of these properties with the correct local values in the copy of the file in `<Rhythmyxroot>/rx_reports`. (`<Rhythmyxroot>/rx_reports/LifecycleAnalysis.xls`). If you do not update the values in this file, users will not be able to retrieve data from the Rhythmyx server when they attempt to use Lifecycle Analysis.

Property Name	Description	Default Value	Update
rx_server	Name or IP address of the Rhythmyx server (which is recommended?)	127.0.0.1	Change the name or IP address to match that of your Rhythmyx server.
rx_port	Port on which the Rhythmyx server listens	9992	Change the value to the port assigned to your Rhythmyx server.
rx_protocol	Protocol used to communicate with the Rhythmyx server	http	Should not be modified.
rx_root	Rhythmyx application root	Rhythmyx	Should not be modified.
rx_resources	Comma-separated list of resources in the rx_reports application.	None	Add the names of any resources you copy from the sys_reports application to the rx_reports application and of any new resources you develop and add to the rx_resources application.
sys_resources	Comma-separated list of resources in the sys_reports application	ContentState, CommunityContent, StaleContent, PubStatus, ContentStatus	If any new resources are added by Percussion Software, you should add them to your copy of LifecycleAnalysis.xls. Otherwise, you should not modify this property.

To update the properties:

1. Right-click on `<Rhythmyxroot>/rx_reports/LifecycleAnalysis.xls` and from the popup menu, choose *Properties*.

   Windows displays the Properties dialog.
2. Click the Custom tab.
3. Select the property whose value you want to modify.

4 Enter the new value in the **Value** field.

5 Click the [**Modify**] button.

6 When you have finished modifying the values, click the [**OK**] button.

Access Control for Lifecycle Analysis Reports

By default, only members of the Report Admin Role have access to Lifecycle Analysis resources, and thus can retrieve Lifecycle Analysis data. You can grant users access to the Lifecycle Analysis reports by adding them to this Role. For details about adding users to a Role, see the topic "Adding Users to a Role" in the Rhythmyx Server Administrator Help.

Another option for granting access to Lifecycle Analysis data is to add more Roles to the rx_reports application ACL. Add the Role to the ACL, and grant it Query access to the application. For details about modifying the application ACL, see "Editing an Application ACL" in the Rhythmyx Workbench Help. If you add the Role to the ACL, you will also need to modify the Visibility of the Lifecycle Analysis Action Menu item. You must move each Role you added to the rx_reports ACL to the **Show** field of the Visibility tab for the Lifecycle Analysis Action Menu item.

The Lifecycle Analysis reports retrieve all eligible data for the report, regardless of Community. Thus, while a user may see a Content Item listed in a report, they may not be able to access the Content Item if it is in a Community other than the currently logged Community of the user or if none of the user's Roles are assigned to the current Workflow State of the Content Item.

Modifying the Fields in Standard Lifecycle Analysis Reports

You can modify the fields included in a Lifecycle Analysis report by modifying the Rhythmyx resource used to generate the data for the report. To modify a Lifecycle Analysis report:

1 Open the Rhythmyx Workbench.

2 Open the sys_reports application.

3 Select the resource that generates the report you want to modify and click the copy button.

4 Open the rx_reports application.

5 Click the paste button to paste the report resource to the rx_reports application. Remember to add a Default XSL stylesheet to the resource.

6 Open the resource.

7 Open the mapper.

8 Add the backend table column whose data you want to include in the report to the **Backend** column of the mapper.

9 In the XML column of the same row, add a new XML node for the output data.

10 Close the mapper.

11 Save the application.

12 At this point, you can check that the resource returns the desired data by querying the resource directly. Start a browser and enter the path to the resource in the address field. The browser will return the results as a XML document. Confirm that the new report field is included in the document and that it contains the data you expect.

13 You must add the new resource to the rx_resources custom property of the Excel workbook. You may also want to remove the name of the resource from the sys_resources custom property. (Each resource listed in these two properties creates a spreadsheet tab in the workbook. If you do not remove the name of the resource from the sys_resources property, you will have two tabs with the same name, although the data will differ slightly.)

14 Refresh the data in your workbook to confirm that you are retrieving the data you expect to see.

Example Modification of a Lifecycle Analysis Report Resource

In this exercise, we will modify the Content By Community report, adding the column "Checked Out To" to list the user the currently has the Content Item checked out. This data is stored in the CONTENTSTATUS.CHECKEDOUTUSERNAME column in the Repository database.

To modify the Content By Community report:

1 Copy the CommunityContent resource from the sys_reports application to the rx_reports application.

a) In the Rhythmyx Workbench, open the sys_reports application.

b) Select the CommunityContent resource.

c) Click the copy button.

d) Open the rx_reports application.

e) Click the paste button.

Rhythmyx adds the CommunityContent resource to the sys_reports application.

2 Map the CONTENTSTATUS.CHECKEDOUTUSERNAME column to a new node in the DTD, named Checked_Out_To:

a) Double-click on the CommunityContent resource.

Rhythmyx opens the Mapper for the resource.

b) Find the CONTENTSTATUS.CHECKEDOUTUSERNAME column and drag it to the first empty row in Back-end column of the Mapper.

c) Double-click in the XML column of the Mapper and add the new DTD element. This element must be a child of the Content element, so enter the new element as follows:

```
Content_By_Community/Content/Checked_Out_To
```

Remember to add the underscores. The macros in the LifecycleAnalysis.xls workbook will replace them with spaces, but the underscores are required in Rhythmyx.

Back-end	XML	C
CONTENTSTATUS.CONTENTID	PSXXmlField/Content_By_Community/Content/Content_Id	
Number	PSXXmlField/Content_By_Community/Content/Content_Id/@type	
CONTENTSTATUS.TITLE	PSXXmlField/Content_By_Community/Content/Title	
RXCOMMUNITY.NAME	PSXXmlField/Content_By_Community/Content/Community	
CONTENTTYPES.CONTENTTYPENAME	PSXXmlField/Content_By_Community/Content/Content_Type	
WORKFLOWAPPS.WORKFLOWAPPNAME	PSXXmlField/Content_By_Community/Content/Workflow	
STATES.STATENAME	PSXXmlField/Content_By_Community/Content/State	
CONTENTSTATUS.STATEENTEREDDATE	PSXXmlField/Content_By_Community/Content/State_Entered_D...	
CONTENTSTATUS.CONTENTCHECKOUTUSERNAME	PSXXmlField/Content_By_Community/Content/Checked_Out_To	

d) To test your modification, start a browser session and query the resource. Enter the following value in the Address field:

```
http://localhost:9992/Rhythmyx/rx_reports/ContentCommunity.xml
```

Your browser should display a result similar to the following:

```
- <Content>
    <Content_Id type="Number">652</Content_Id>
    <Title>CI Open and Closed Mortgages</Title>
    <Community>Corporate Investments</Community>
    <Content_Type>Generic</Content_Type>
    <Workflow>Standard Workflow</Workflow>
    <State>Quick Edit</State>
    <State_Entered_Date>2005-09-26 10:21:51.127</State_Entered_Date>
    <Checked_Out_To>admin2</Checked_Out_To>
  </Content>
```


Note that the new column Checked_Out_To creates a new node. If the new node is not in the correct location, confirm that you added it as a child of the Content node.

3 Add the CommunityContent resource to the list of resources in the rx_reports custom property of the Excel workbook and remove it from the list of resources in sys_reports custom property.

4 Log in to Content Explorer, go to a Site Folder and retrieve the report. Note that the Checked Out To column has now been added to the report.

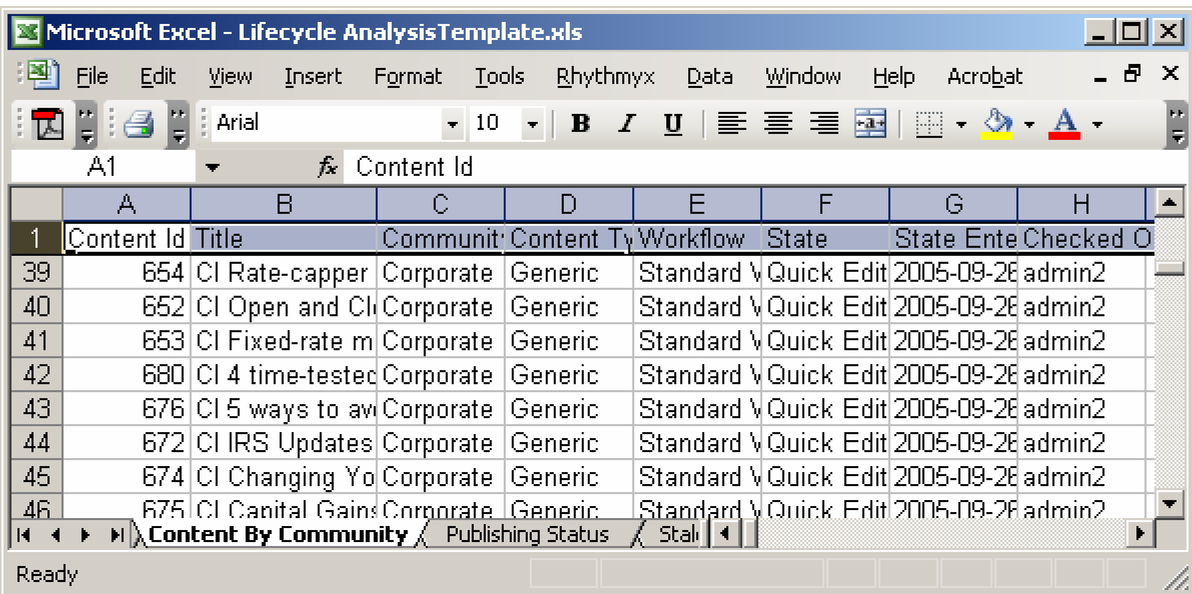


Figure 53: Updated Content by Community report in Microsoft Excel showing the new column

Adding Custom Lifecycle Analysis Report Resources

To add a custom Lifecycle Analysis report to your system, determine the backend columns you want to include in the report. Define a DTD that includes these rows. For details about the correct structure of this DTD, see ***Implementing Lifecycle Analysis in Additional Clients*** (on page 103).

Drop this DTD into the application rx_reports to create a new Query resource. Add the backend tables to the application Datatank, creating joins on Content ID and Revision ID. Map the data from these tables to your DTD. Save the resource and give it a name that identifies the data it produces. Query the resource directly and review the resulting XML document to confirm that the resource is producing the data you expect.

Now add the name of the resource to the rx_resources custom property of the Excel workbook. When you refresh the workbook, you will see a new spreadsheet tab with the name in the root element of your DTD, and a column for each of the backend table rows defined in the DTD and in the application.

Example Creation of a Custom Lifecycle Analysis Report Resource

In this example, we will create a report with a Pivot Table that shows the Content Items in Pending and Quick Edit States. This is content that is not currently Public, but is ready to be Public. We will call the report Pending Content. It will consist of the following columns:

- Content ID
- Current Workflow State
- Creator
- Last Modifier
- Date Entered the current State

To create the Pending Content Report:

1. Create a DTD for the report. The root element of the DTD will be called Pending_Content. This element must contain one child element to create the rows in the report. We will call this child element Content. The children of the Content element are the columns we want to add to the report. The DTD for this report will be:

```
<?xml version="1.0" encoding="UTF-8"?>
<!ELEMENT Pending_Content (Content*)>
<!ELEMENT Content (Content_ID, Workflow_State, Creator,
Last_Modifier, Date_Entered_State)>
<!ELEMENT Content_ID (#PCDATA)>
<!ELEMENT Workflow_State (#PCDATA)>
<!ELEMENT Creator (#PCDATA)>
<!ELEMENT Last_Modifier (#PCDATA)>
<!ELEMENT Date_Entered_State (#PCDATA)>
```

   Save the DTD as PendingContent.dtd.

2 In the Rhythmyx Workbench, open the rx_reports application, drop the PendingContent.dtd into it and from the popup menu, choose *Query*. Rhythmyx creates a new resource named PendingContent, attached to the Default stylesheet.

3 Add backend columns to the resource:

a) In the data tab for your Repository database, select the CONTENTSTATUS table, drag it into the mapper and attach it as the data tank for the resource.

b) Add the STATES table to the datatank.

c) Map the query. The following graphic illustrates the desired mappings for this query:

Back-end	XML	C
CONTENTSTATUS.CONTENTID	PSXXmlField/Pending_Content/Content/Content_ID	
CONTENTSTATUS.CONTENTCREATEDBY	PSXXmlField/Pending_Content/Content/Creator	
CONTENTSTATUS.CONTENTLASTMODIFIER	PSXXmlField/Pending_Content/Content/Last_Modifier	
STATES.STATENAME	PSXXmlField/Pending_Content/Content/Workflow_State	
CONTENTSTATUS.STATEENTEREDDATE	PSXXmlField/Pending_Content/Content/Date_Entered_S...	

Figure 54: Mappings for the Pending Content Report

4 In the Selector, add a manual SQL statement to select Content Items in the Pending and Quick Edit Workflow States. (The WHERE table does not allow you to define the nesting or WHERE clauses required to retrieve the correct data.) In the FastForward implementation, the following SQL statement retrieves the desired data.

```
SELECT CONTENTSTATUS.CONTENTID, CONTENTSTATUS.CONTENTCREATEDBY,
CONTENTSTATUS.CONTENTLASTMODIFIER, STATES.STATENAME,
CONTENTSTATUS.STATEENTEREDDATE FROM rxmaster.dbo.STATES STATES,
rxmaster.dbo.CONTENTSTATUS CONTENTSTATUS  WHERE
STATES.WORKFLOWAPPID = CONTENTSTATUS.WORKFLOWAPPID AND
CONTENTSTATUS.CONTENTSTATEID=STATES.STATEID
AND(STATES.STATENAME='Pending' OR STATES.STATENAME='Quick Edit')
```

5 To test your modification, start a browser session and query the resource. Enter the following value in the Address field:

```
http://localhost:9992/Rhythmyx/rx_reports/ContentCommunity.xml
```

Your browser should display a result similar to the following:

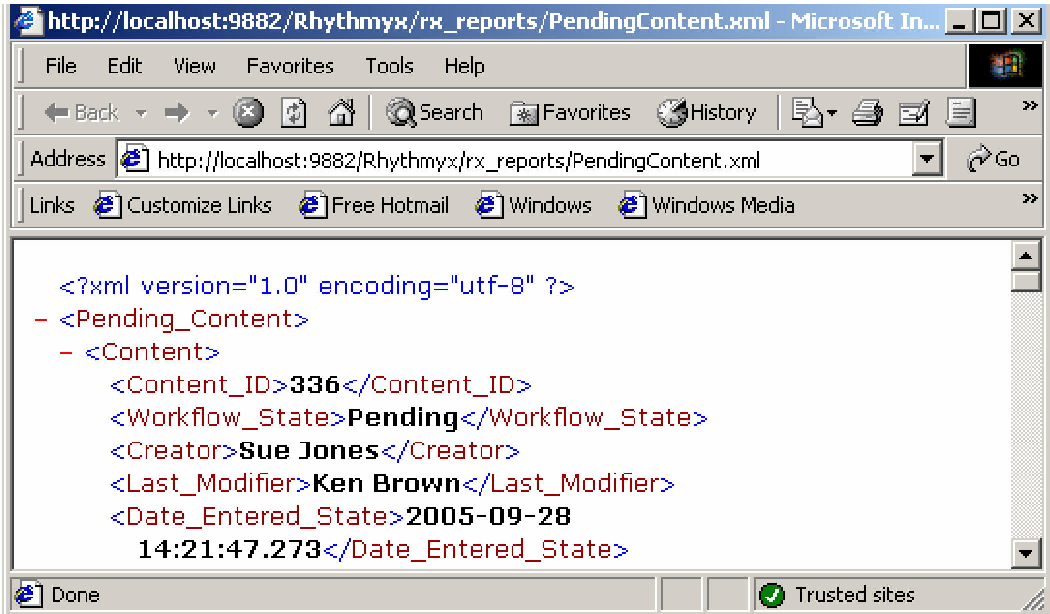


Figure 55: Example XML returned by the PendingContent resource

6 Add the PendingContent resource to the list of resources in the rx_reports custom property of the Excel workbook and remove it from the list of resources in sys_reports custom property.

7 Log in to Content Explorer, go to a Site Folder and retrieve the report.

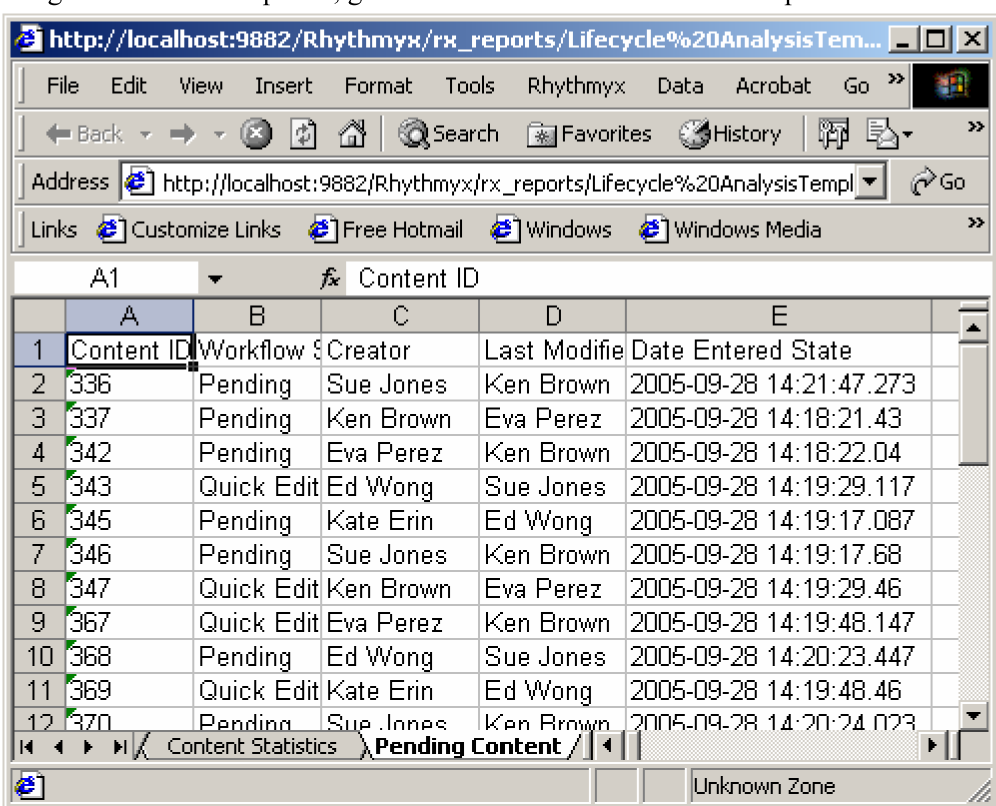


Figure 56: PendingContent Report showing raw data

8 Use the Pivot Table and Pivot Chart Wizard to create the Pivot Table.

a) In the Excel Menu bar, choose *Data > Pivot Table and Pivot Chart Report….*

b) Excel displays the first dialog of the Pivot Table and Pivot Chart wizard. In the Where is the data that you want to analyze list, select the **Microsoft Office Excel list or database** radio button. In the What kind of report do you want to create list, select the **Pivot Table** radio button. Click the [**Next**] button.

c) Excel displays the second dialog of the Pivot Table and Pivot Chart wizard. Leave the default selection (all cells) in the Range field and click the [**Next**] button.

d) Excel displays the last dialog of the Pivot Table and Pivot Chart wizard. Select the **New worksheet** radio button and click the [**Finish**] button.

e) Excel displays a pivot table template and a list of fields to add to the table. Add the Last Modifier field to the Row section of the template, the Workflow State field to the Column section of the template, and the Content ID field to the Data section of the template. When you finish, the results should resemble the following screenshot:

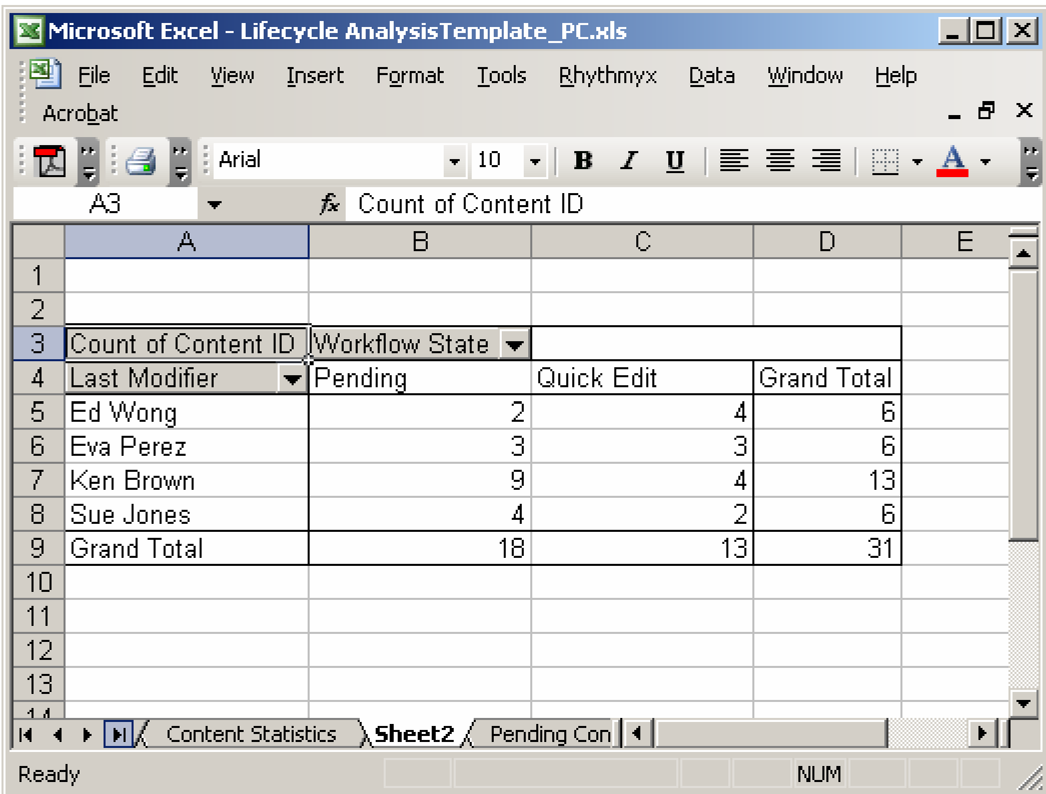


Figure 57: PendingContent Report as a Pivot Table

Change the name of the new pivot table worksheet to “Pending Content by User”. You may want to delete the original report worksheet before saving the workbook.

Implementing Lifecycle Analysis in Additional Clients

To implement Lifecycle Analysis in a different client, you will need to consume the Lifecycle Analysis XML data generated by Rhythmyx, and add a means for the client to retrieve and update the data.

The DTD for XML documents output by Lifecycle Analysis resources has a simple structure that parallels the structure of the <table>, <tr> and <td> tags in HTML:

- The root element of the DTD document is equivalent to the HTML <table> tag. It creates the root element of the output XML document. In Excel, the value of this element is used as the name of the spreadsheet tab containing the data.
- The root element must contain one child element, which is equivalent to the <tr> tag in HTML. This element creates the rows in the spreadsheet.
- The "row" element contains one child element for each row in the report. These elements are equivalent to the <td> elements in HTML. Each creates a cell in the spreadsheet.

The Lifecycle Analysis client must be able to parse XML that conforms to this pattern to generate a spreadsheet tab.

Passing HTML Parameters to a Lifecycle Analysis Resource

The macros attached to the LifecycleAnalysis.xls file allow you to pass HTML parameters to the resource. This feature allows you some flexibility in determining the output of the Lifecycle Analysis report.

Normally, when adding a Lifecycle Analysis resource to the rx_resource custom property you add only the name of the resource. If you want pass an HTML parameter to a resource, you must add the .xml extension to the name of the resource, and add the HTML parameter using standard HTML coding (`resourcename.xml?parametername=value`).

For example, the Publish Status Summary report returns data from the last three editions published by default. If you publish several times a day, such as hourly, the default configuration would not provide an accurate portrait of the content on your site. To ensure an accurate representation, you would want to retrieve data for the last twenty-four Editions published. To change this configuration, you will want to pass the parameter maxResults with a value of 24 to the PublishStatus report resource. In the rx_resource custom property, change

```
PubStatus
```

to

```
PubStatus.xml?maxResults=24
```

You can also change the configuration of any reports provided with Rhythmyx. The Stale Content report uses the HTML parameter daysuntouched to determine the minimum number of days a Content Item can go unmodified before being included in the report. The default value of this parameter is 7.

```
StaleContent.xml?daysuntouched=7
```

If you wanted to change the minimum number of days for a Content Item not to be modified before being included in this report, change the value of the daysuntouched parameter. For example, if you wanted to see only Content Items that have not been modified in a month rather than a week you might change the value of the parameter to 28:

```
StaleContent.xml?daysuntouched=28
```

Upgrading Lifecycle Analysis

To ensure that you do not lose modifications when you upgrade, Rhythmyx provides two reporting applications, as described in ***Extending Lifecycle Analysis Reporting*** (on page 91). After you upgrade, you will need to migrate any enhancements from the sys_reports application to the rx_reports application. Similarly, you will need to migrate enhancements to the LifecycleAnalysis.xls workbook file from the copy in sys_reports to the copy in rx_reports.

CHAPTER 8

Customizing DocuComp Integration

Rhythmyx uses the DocuComp engine to compare text Content Items. Configuration of this engine in Rhythmyx is controlled by the configuration file: (Rhythmyxroot)\rxconfig\Server\requestHandlers.compare.xml. To change the configuration, change the values of the configuration options in the file. The options available include:

Attribute	Available Values	Default Value	Remarks
dcGranularity	0-100	20	Specifies the minimum granularity of a match. The granularity defines the minimum number of characters to compare.
dcMoveSense	Any integer greater than zero.	100	Specifies the minimum number of characters to consider as being classified as a move. If a string of characters shorter than this value is moved, it will be treated as though it was deleted and pasted back. A string equal to greater than this value will be treated as though it was moved.
dcPunctuation	0 (false) 1 (true)	0	Specifies whether to consider punctuation (as defined by the punctuation character set) to be part of a word or as standalone text. 0: punctuation is not treated as part of the word. 1: punctuation is treated as part of the word.
dcOldPrgmList	0 (false) 1 (true)	0	Specifies whether to treat the old (original) stream as a line based listing. If set to true (1), the minimum sequence for comparison is a full line of text.
dcNewPrgmList	0 (false) 1 (true)	0	Specifies whether to treat the new (modified) stream as a line based listing. If set to true (1), the minimum sequence for comparison is a full line of text.
dcHTML	0 (false) 1 (true)	1	Specifies whether to run the comparison in HTML mode. If set to true, DocuComp does not evaluate HTML markup (data surrounded by the “<” and “>” characters)

CHAPTER 9

Making Rhythmyx Accessible to Visually Impaired Users

Rhythmyx includes accessibility options that make Content Explorer and Content Editors more usable for visually impaired users and other users who use screen readers, special screen display options, and keystrokes for navigation.

The recommended operating system and browser to use with Rhythmyx's accessibility options are:

- Microsoft Windows XP Pro or Home
- Internet Explorer 5.0 and above

The accessibility features in Rhythmyx for visually impaired users include:

- Compatibility with screen reader applications.
  Screen reader applications verbally describe user interfaces and screen contents. They also voice keystrokes for performing navigation and commands. See ***Using Content Explorer with a Screen Reader*** (on page 110) for more information.
- Keystrokes for navigating and using Content Editor controls.
  Implementers can specify keystrokes for Content Editor controls in a Content Editor field's Field Properties dialog. See "Creating a New Field" in the document Implementing Content Editors. Rhythmyx also includes a large number of keystrokes for navigation. See "Navigating with Keystrokes" in the Content Explorer Online Help.
- Ability to import the operating system's magnified font settings and high resolution color schemes.
  The fonts and color schemes configurable in Windows XP Screen Magnifier, which is accessible from the Windows Accessories screen, work well with Content Explorer. Users can save operating system settings in the Content Explorer Display Options dialog. See "Changing Content Explorer Options" in the Content Explorer Online Help for more information.

Some components of the Content Explorer interface do not support Accessibility features. Users cannot use screen reader applications with these components or apply system settings to them. The user interface components that do not support Accessibility are:

- The Comparison Page (accessed from the *View* > *Compare* option in the Action Menu)
- Preview Pages (accessed from the *Preview* > *[Variant]* option in the Action Menu)
- Page Assembly Windows (accessed from the *Active Assembly* > *[Variant]* option in the Action Menu, Content Editor links, and by activating Site Explorer pages or snippets)

Using Content Explorer with a Screen Reader

Screen reader applications vocalize user interface tags and labels and keystroke combinations for executing commands. Content Explorer includes components with the necessary tags and labels as well as default and customizable keystrokes to enable screen reader applications to describe its appearance and functionality to users.

The recommended screen reader for use with Rhythmyx is:

- JAWS 5.0 Professional Windows XP Pro or Home

The Rhythmyx applet is a Java application; to enable JAWS to interact with Rhythmyx, you must also use:

- Sun Microsystem's Java Access Bridge

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