Taxonomy Editor

Software Version: 2.50

Product Documentation

Contents

1 Read This First

Welcome to Taxonomy Editor!

This is Taxonomy Editor 2.50, enabling the management of taxonomies on SOA Systinet *servers*.

This document contains the following chapters:

Read This First. This introduction. Release notes, supported platforms, known issues, document conventions, legal notices and resources to help you use the product.

Document Conventions

The typographic conventions used in this document are:

run.bat make	Script name or other executable command plus mandatory arguments.
[--help]	A command-line option.
either | or	A choice of arguments.
replace_value	A command-line argument that should be replaced with an actual value.
{arg1 | arg2}	A choice between two command-line arguments where one or the other is mandatory.
`rmdir /S /Q System32`	Operating system commands and other user input that you can type on the command line and press **Enter** to invoke. Items in *italics* should be replaced by actual values.
`C:\System.ini`	Filenames, directory names, paths and package names.
`a.append(b);`	Program source code.
`server.Version`	An inline Java or C++ class name.
`getVersion()`	An inline Java method name.
Shift-**N**	A combination of keystrokes.
Service View	A label, word or phrase in a GUI window, often clickable.
New->**Service**	Menu choice.

Documentation Updates

This manual's title page contains the following identifying information:

• Software version number

• Document release date, which changes each time the document is updated

• Software release date, which indicates the release date of this version of the software

To check for recent updates, or to verify that you are using the most recent edition of a document, go to:

http://ovweb.external.hp.com/lpe/doc_serv/

Support

Mercury Product Support

You can obtain support information for products formerly produced by Mercury as follows:

- If you work with an HP Software Services Integrator (SVI) partner (www.hp.-com/managementsoftware/svi_partner_list), contact your SVI agent.

- If you have an active HP Software support contract, visit the HP Software Support Web site and use the Self-Solve Knowledge Search to find answers to technical questions.

- For the latest information about support processes and tools available for products formerly produced by Mercury, we encourage you to visit the Mercury Customer Support Web site at: http://support.-mercury.com.

- For the latest information about support processes and tools available for products formerly produced by Systinet, we encourage you to visit the Systinet Online Support Web site at: **http://www.systinet.-com/support/index**.

- If you have additional questions, contact your HP Sales Representative.

HP Software Support

You can visit the HP Software Support Web site at:

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HP Software online support provides an efficient way to access interactive technical support tools. As a valued support customer, you can benefit by using the support site to:

- Search for knowledge documents of interest

- Submit and track support cases and enhancement requests

- Download software patches

- Manage support contracts

- Look up HP support contacts

- Review information about available services

- Enter into discussions with other software customers

- Research and register for software training

Most of the support areas require that you register as an HP Passport user and sign in. Many also require a support contract. To find more information about access levels, go to: www.hp.-com/managementsoftware/access_level

To register for an HP Passport ID, go to: www.managementsoftware.hp.com/passport-registration.html

Release Notes

This is Taxonomy Editor 2.50 – a client application used to manage and edit taxonomies on one or more SOA Systinet servers.

What's New

Support SOA Systinet 2.50. This release supports SOA Systinet 2.50.

Known Issues

Server Certificates

When a SOA Systinet Server URL that starts with `https` is entered, the server certificate is downloaded and imported to Taxonomy Editor automatically. However, the user *must* restart Taxonomy Editor for the certificate to take effect.

Change Log

There have been a number of changes to the functionality between releases of Taxonomy Editor.

Release 2.50

- This release supports SOA Systinet 2.50.

Release 1.1

- Data consistency reports have been significantly improved.

  - Problems in data consistency are now also shown as small red (error) or yellow (warning) icons in Taxonomy Explorer.

  - Users may generate a report even if they do not intend to publish their changes.

  - Validating data consistency before publishing is optional.

  - Users can generate a report of artifacts using selected taxonomies.

- The category editor has been moved into a tab on the taxonomy editor. It is now easier to reorder categories the user has created.

- Keyboard usability has been improved.

- The taxonomy file format has been changed to better reflect other HP products.

- Taxonomies were introduced that are not intended to be changed by a user. These are protected against unwanted publishing.

- The status bar shows contextual information about the most recently performed operation.

- Taxonomy Explorer can be now linked with an active editor. This auto-updates Taxonomy Explorer every time the active editor changes.

- It is possible to export taxonomies to external files.

- Properties used in HP SOA Systinet Registry can now be set up in Taxonomy Editor.

- Quick Find and Advanced Search functions have been added.

- Finding Changed Taxonomies allows a user to search for deleted and modified taxonomies.

- It is possible to restore a taxonomy that had previously been removed.

- Comparing and Merging Taxonomies has been added to compare and resolve the differences between two taxonomies.

- Settings about default taxonomy namespace and validation can be configured.

- A number of bugs have been fixed.

Release 1.0.1

- A new feature called "Importing Taxonomies from Files on page 21" has been added. This feature is used to import taxonomies from Registry XML files to the **Taxonomy Explorer**.

Supported Platforms

Operating Systems

Software	Supported Versions
Microsoft Windows XP [http://www.microsoft.com/windowsxp/]	all versions

Java Platform

Software	Supported Versions
Sun Java [http://java.sun.com/j2se/]	1.4.2

Repository Servers

Software	Supported Versions
SOA Systinet [http://www.systinet.com/products/systinet_2]	2.50

2 Installation and Getting Started

Taxonomy Editor is distributed as an archive `hp-soa-systinet-taxonomy-editor-2.50-rcp-win32.zip` containing an application for Windows.

Installation Procedures

Before installing Taxonomy Editor make sure that your system meets the requirements in Supported Platforms on page 11.

All the files in the distribution archive `hp-soa-systinet-taxonomy-editor-2.50-rcp-win32.zip` are in the root folder `taxonomy-editor`. To install, unpack it into a suitable folder on your Windows system.

We recommend installing Taxonomy Editor in a folder under `C:\Program Files\Hewlett-Packard` as this is the default folder for other HP products. If you choose to unpack the archive into this folder, the installation folder will be `C:\Program Files\Hewlett-Packard\taxonomy-editor`.

► We later refer to this installation folder as `TE_HOME`.

Starting Taxonomy Editor

To start Taxonomy Editor under Windows double-click `TE_HOME/start.exe`.

3 User Guide

This guide starts with an overview of Taxonomy Editor. It then describes features in detail.

Guided Tour

This section gives an overview of the usage and features of Taxonomy Editor.

Typical Usage

Use of Taxonomy Editor typically involves the following tasks:

Task	Sections
Defining one or more *SOA Systinet Servers*.	Adding a SOA Systinet Server on page 18
Updating local copies of *taxonomies* stored on *SOA Systinet servers*.	Updating Taxonomies from a Server on page 19
Making local modifications	• Creating and Deleting Taxonomies on page 23 • Modifying Taxonomies on page 25
Attempting to *publish* changes	Publishing Changes on page 38
Fixing problems such as *conflicts*	Resolving Conflicts and Validation Issues on page 41

User Interface Layout

The UI is shown here:

Figure 1. Taxonomy Editor Overview
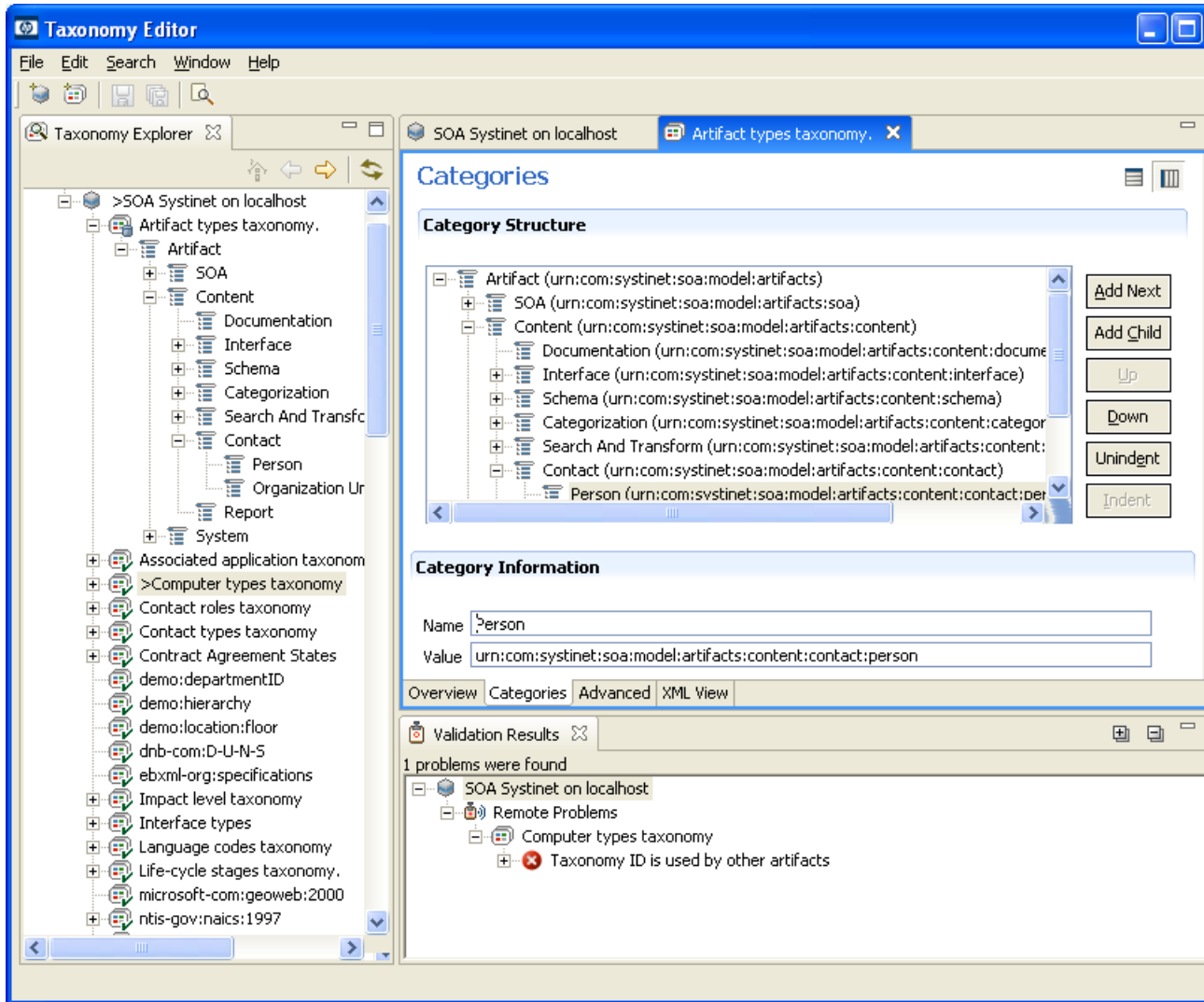
When you first start Taxonomy Editor the layout will be the same but with very few details displayed. Figure 1 shows what it looks like when you are in the middle of modifying the taxonomies stored on a *SOA Systinet server*.

Taxonomy Explorer is on the left. It displays a hierarchy containing:

1   *SOA Systinet Servers*

2   *Taxonomies*

3   *Categories* and sub-categories

Details of these objects can be displayed in tabs on the right. In Figure 1 there are tabs for:

•   A server called "SOA Systinet"

•   The Artifact types taxonomy it contains

The selected tab is for the Artifact types taxonomy and the **Categories** sub-tab is displayed, showing **Taxonomy Categories**.

A **Validation Results** for the last publication attempt is shown at the bottom.

User Interface Controls

Most user interface controls are intuitive and familiar. Here is a summary of the most important features:

•   Right-clicking on an item or selected items in **Taxonomy Explorer** brings up a *context menu* of actions that can be performed on the item(s).

•   To open a tab to view or edit an item's properties, double-click the item in **Taxonomy Explorer**.

•   To save changes to an item's properties use **Save** or **Save All** on the **File** menu or click the save icon.

Taxonomy and Server Status

As you read the sections that follow you will learn the significance of taxonomy status. This is indicated by taxonomy icons and the appearance of a ">" character to the left of a server or taxonomy name as shown in Figure 2. Please see Table 1 on page 39 for more details.

Figure 2. Taxonomy and Server Status
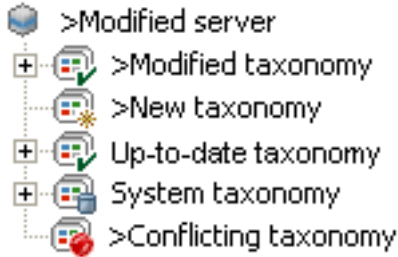
Key Shortcuts

Most Taxonomy Editor functions can be used with keyboard shortcuts instead of the GUI. A list is given in Appendix A, Keyboard Shortcuts.

Downloading, Updating and Importing Taxonomies

Taxonomies may be created, *downloaded* from a SOA Systinet server or *imported* from a file. Once all taxonomies have been downloaded, they can be *updated* individually or exported.

First we describe how to configure a SOA Systinet *server* so that taxonomies may be downloaded from it. Then we describe the import actions.

▶   When you first start Taxonomy Editor a server called **SOA Systinet on local host** is predefined – double-click it in **Taxonomy Explorer** to view and edit its *properties*. You can use this server instead of creating another one but note that it stores taxonomies in a *folder* called SOA Systinet on localhost. The only way to change the folder name is to remove the server and add a new one.

Adding a SOA Systinet Server

To add a SOA Systinet *server*:

1   Right-click **SOA Systinet Servers** in **Taxonomy Explorer**.

2   Select **Add SOA Systinet Server** from the *context menu* to start the **Add SOA Systinet Server Wizard**.

3   The server *properties* are as follows:

URL

The prefix of URLs by which this server is accessed.

A standalone SOA Systinet server is accessed at a URL of the form:

```
protocol://server:port/soa/systinet/platform/interface
```

so you need to specify:

```
protocol://server:port/soa
```

If SOA Systinet is deployed to an application server then you also need to specify its application context.

Name

Your choice of name for this SOA Systinet server.

Save credentials

If this option is checked, you can enter a username and a password and these credentials will be encrypted and stored persistently.

➤ You can change this option on server's properties editor. If this option is not checked on the editor, your username/password will be lost when you quit Taxonomy Editor.

Username and Password

Optional. Login *credentials* can be entered here or when connecting to the server later.

4   Click **Finish**.

The new server is shown under **SOA Systinet Servers**.

Updating Taxonomies from a Server

To *download* taxonomies from a *server*:

1   Right-click the server under **SOA Systinet Servers**.

2   Select **Update Taxonomies from Server** from the *context menu*.

3   When opening a connection to the server Taxonomy Editor displays a login dialog:

Figure 3. Logging in to a SOA Systinet server
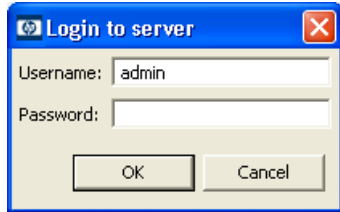
Enter your *credentials* and click **OK**.

▶ You can view and edit the default login credentials in the **SOA Systinet Server Properties** tab.

Taxonomy Editor displays progress while taxonomy updates are being downloaded from the server. When the update is complete the taxonomies are visible under the server in **Taxonomy Explorer** as shown in Figure 1. Under each taxonomy you can view its *categories*.

Once the server has been updated, you can also perform an update action on a taxonomy or selection of taxonomies from the *context menu*. Any taxonomies created or modified on the server will be downloaded unless they have also been created or modified locally.

Locally created or modified taxonomies are not changed when an update is performed. A *conflict* occurs if:

• A modified taxonomy has also been modified on the server.

• New taxonomies with the same filenames have been created locally and on the server.

The status of the taxonomy is then CONFLICTING as indicated by the appearance of the icon to its left. See Figure 2.

Conflicts can be resolved using **Replace Taxonomies with Server Content** on the server *context menu*.

⚠ Replacing taxonomies discards all unpublished changes including newly created taxonomies.

There is a similar *context action* for selected taxonomies. Resolving conflicts is discussed in Resolving Conflicts and Validation Issues on page 41.

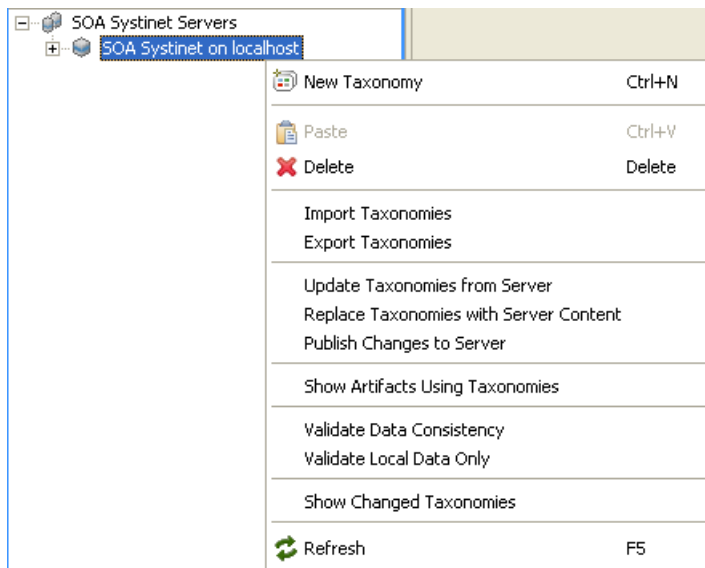## Importing and Exporting Taxonomy Files

Importing Taxonomies from Files

To *import* a taxonomy from a *Taxonomy XML file*:
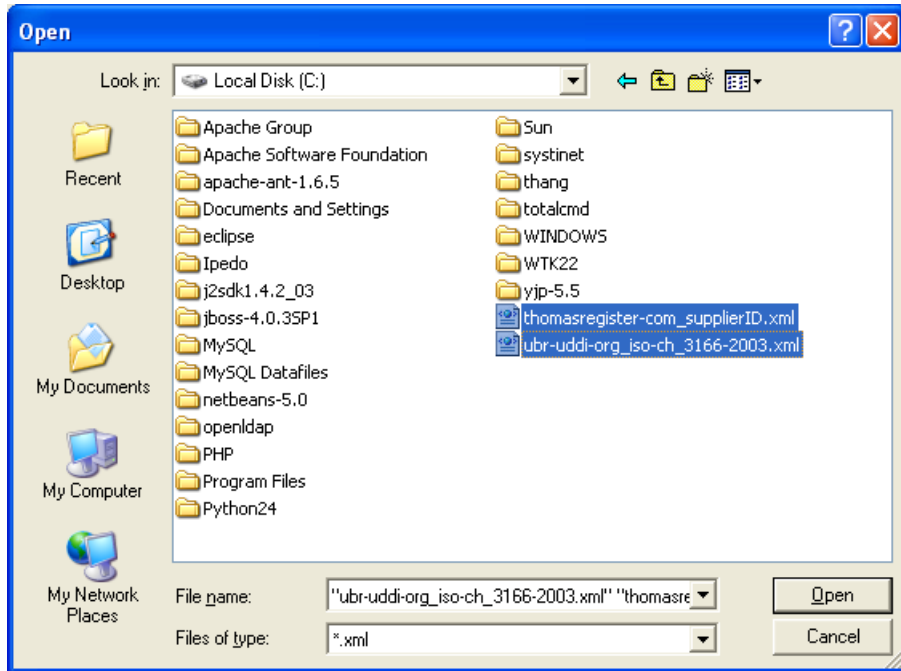
1   Right-click a server under **SOA Systinet Servers**.

2   Select **Import Taxonomies** from the *context menu*.

Figure 4. Server's *context menu*

3   When the file selection dialog is shown, browse to the location of the taxonomy XML files, select one or more and click **Open**.

Figure 5. Import taxonomies file selection dialog

> When importing a taxonomy from a file whose filename already exists in the local folder (**SOA Systinet on local host**), Taxonomy Editor will ask if you want to overwrite the taxonomy. If you press **Yes** or **Yes To All**, the current taxonomy will be updated by attributes and *categories* from the XML file and its status will be changed to MODIFIED.

Taxonomy Editor displays a progress indicator while taxonomies are being imported from the file system. When the import is complete, the taxonomies are visible under the server in **Taxonomy Explorer** as shown in Figure 1. Under each imported taxonomy you can view its *categories*.

Now you can publish these imported taxonomies to a SOA Systinet repository.

Exporting Taxonomies to Files

To *Export* one ore more taxonomies to *Taxonomy XML files*:

1   Right-click a server under **SOA Systinet Servers** or on some selected taxonomies.

2   Select **Export Taxonomies** from the server's *context menu* (Figure 4), or **Export...** from taxonomy's *context menu*.

3   When the folder selection dialog is shown, browse to a folder that will store the taxonomy XML files and click **OK**.

➤   When exporting a taxonomy to a file that exists already, Taxonomy Editor will ask if you want to overwrite the file. If you press **Yes** or **Yes To All**, the existing file will be overwritten.

Taxonomy Editor displays a progress indicator while taxonomies are being exported to the file storage. You can stop this process anytime by clicking the cancel button.

Creating and Deleting Taxonomies

Instead of *downloading* or *importing* taxonomies you can create them from scratch or copy them from another *server*. This section also describes how to delete a taxonomy.

Creating a New Taxonomy

To create a new taxonomy:

1   Right-click the server in **Taxonomy Explorer** where you want to create the new taxonomy.

2   Select **New Taxonomy** from the *context menu* (Figure 4), or press **Ctrl+N** to start the **New Taxonomy Wizard**.

3   The taxonomy *properties* are as follows:

Taxonomy name

Your choice of name for the taxonomy. The content of the name element in the taxonomy's XML representation.

Taxonomy ID
> A unique identifier for the taxonomy. The value of `tModelKey` attribute in the taxonomy's XML representation.

Filename
> The name of the file in which the taxonomy is stored in the local file and, after publishing, on the remote server.

4   Click **Finish**.

The taxonomy should now be visible in **Taxonomy Explorer**. Its NEW status is indicated by the appearance of its icon. See Figure 2. The character '>' appears before the server and taxonomy labels to indicate that there are unpublished changes.

> ▶ It is not possible to create a new taxonomy with the same filename as a taxonomy imported from the server. However, a conflict can still arise if the taxonomy exists on the server and has not been imported.

> ▶ You can also create a new taxonomy by importing a taxonomy from a file.

Deleting a Taxonomy

To delete a taxonomy right-click the taxonomy in **Taxonomy Explorer** and select **Delete**.

The taxonomy will no longer be visible in **Taxonomy Explorer**. To remove the taxonomy from the server select **Publish Changes to Server** on the *context menu* for the server.

Restoring a Taxonomy

When a taxonomy is deleted in Taxonomy Editor, it is given the "deleted" status and hidden from Taxonomy Explorer. However, its files still exist on the local hard disk.

> ⚠ No taxonomies can be restored after you have published changes.

When successfully publishing a deleted taxonomy or a server containing a deleted taxonomy, this taxonomy is removed from the local hard disk and the corresponding remote taxonomy is purged.

To restore a taxonomy, list all changed taxonomies, right-click the desired taxonomy and select **Restore**. Please see Showing Changed Taxonomies on page 36.

The taxonomy will be visible in **Taxonomy Explorer** after restoring.

Copy and Paste

Taxonomies can be copied and pasted using:

1 **Cut** or **Copy** in the *context menu* for a taxonomy or selected taxonomies.

2 **Paste** in the *context menu* of the target server.

A pasted taxonomy has the status:

• NEW if a taxonomy of that name had not previously existed in that location.

• MODIFIED if pasting overwrote an existing taxonomy.

You will be prompted for confirmation to overwrite any existing taxonomies.

Modifying Taxonomies

A taxonomy can be modified by:

• Editing and saving its *properties*.

• Changing its *categories* in the **Categories** tab.

Editing Taxonomy Properties

To edit a taxonomy's *properties*:

• Double-click the taxonomy in **Taxonomy Explorer**.

• Edit properties on sub-tabs of the taxonomy.

• Save your edits as described in User Interface Controls on page 17.

The changed status of the taxonomy is then visible in **Taxonomy Explorer**. See Figure 2.

► It is not possible to publish changes until they are saved.

The following subsections describe the sub-tabs of a taxonomy tab.

► To switch between different sub-tabs of a taxonomy tab by keyboard only, make sure one of the sub-tabs is focused and press **Ctrl**-**PgDown** or **Ctrl**-**PgUp**.

Overview Tab

This tab is divided into two collapsible sections. The first has title **General**. You can view and edit the following properties in this section:

Name

Your choice of name for the taxonomy. The content of the `name` element in the taxonomy's XML representation.

Taxonomy ID

A unique identifier for the taxonomy which must start with `uddi:`. The value of `tModelKey` attribute in the taxonomy's XML representation.

Description

An optional description.

The second section has title **Origin**. It shows:

Location

The name of the SOA Systinet server to which this taxonomy belongs.

Local file

The path of the file in which this taxonomy is locally stored. The path is relative to the workspace folder of your Taxonomy Editor installation.

Resource URL

A REST interface URL where this taxonomy can be viewed on the server once published. Double-click this URL to visit it in your web browser.
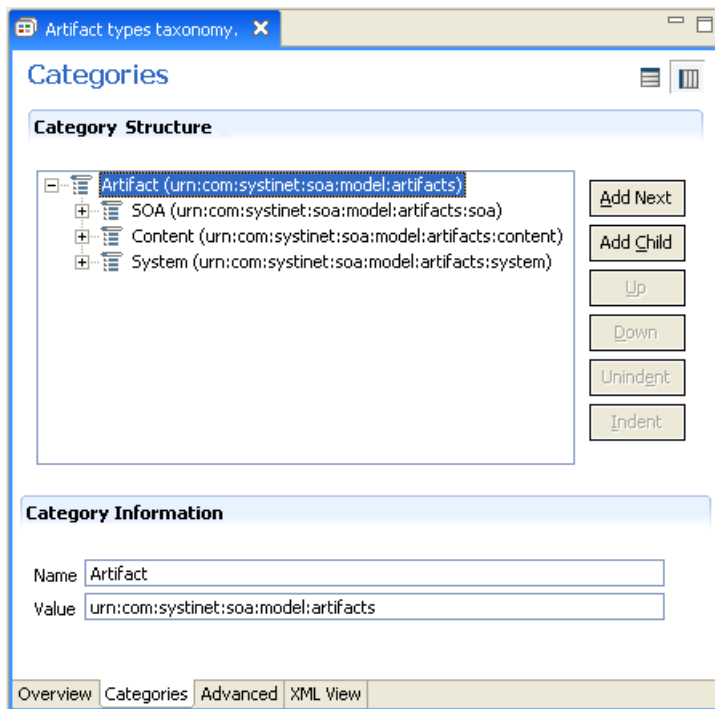
Categories

This tab enables you to change the category structure and category properties of a taxonomy.

> ▶ The actions in this tab can be performed through keyboard shortcuts, which you may find more convenient to use.

Figure 6. Categories Tab

Adding a New Category

To add a new *category* to a taxonomy:

1   Open the taxonomy to which you want to add the category or sub-category.

2   Change to the **Categories** tab.

3   Do one of the following:

- Click the **Add Next** button to add a new category at the same level as the selected category, beneath it in the list.

- Click the **Add Child** button to add a new sub-category into the selected category.

- Press INSERT to add a category in the same way as clicking the **Add Next** button.

   ▶   When you add a new category while no category is selected, it will add the category to the first position of the taxonomy.

4   The **New Category** wizard now appears. The category properties are:

Name

   Your choice of name for the category. This represents the value of the `keyName` attribute in the taxonomy's XML representation.

Value

   Unique identifier for the category. This represents the value of the `keyValue` attribute in the taxonomy's XML representation.

5   Click **Finish**.

The new category should then be visible in **Category Structure**.

Removing a Category

To remove a *category*, right-click the category in **Category Structure** and select **Delete**.

The deleted category is no longer visible in **Category Structure**.

Copying, Cutting and Pasting Categories

To cut, copy or paste categories:

1   Select categories in **Category Structure** that you want to cut or copy. Then right-click and choose **Copy** or **Cut** in the *context menu*.

2   Then right-click a category and choose **Paste** or **Paste as Sibling** in the *context menu*. **Paste** adds the copied categories as sub-categories of the right-clicked category. **Paste as Sibling** adds the copied categories at the same level as the right-clicked category, just beneath it.

Moving Categories

This function moves a category up, down, left or right.

1   Select categories in **Category Structure** which you want to move.

2   To move categories up or down: Click **Up** or **Down**.

    To move categories left or right: Click **Unindent** or **Indent**.

➤   To move multiple categories at the same time, you must choose categories that are consecutive.

Advanced Properties Tab

This tab enables you to set properties used with UDDI. It is divided into **Compatibility** and **Validation** sections.

Compatibility indicates that this taxonomy can be used only within the UDDI structures of your choice. Select one or more of the main UDDI structure types (businessEntity, businessService, bindingTemplate and tModel) in the section labeled Compatibility. All structure types are chosen by default.

The **Validation** checkbox sets whether the values in `keyedReferences` within the taxonomy will be checked or not. The validation service may check the expected syntax of values, such as the format of a credit card or ISBN number. Taxonomies like the ISO 3166 Geographic taxonomy, which permits only existing countries, checks the existence of the value against a list. A validation service may even permit or deny values depending on the context in which they are used.

XML View

This tab enables you to view the XML representation of the taxonomy.

Comparing and Merging Taxonomies

Taxonomy Editor lets you compare two taxonomies.

- To compare 2 local taxonomies:

  1 Right-click the 2 taxonomies under **SOA Systinet Servers**.

  2 Select **Compare with Each Other** from the *context menu*.

  3 Taxonomy Editor now displays the **Comparison** view:

  Figure 7. Comparison View
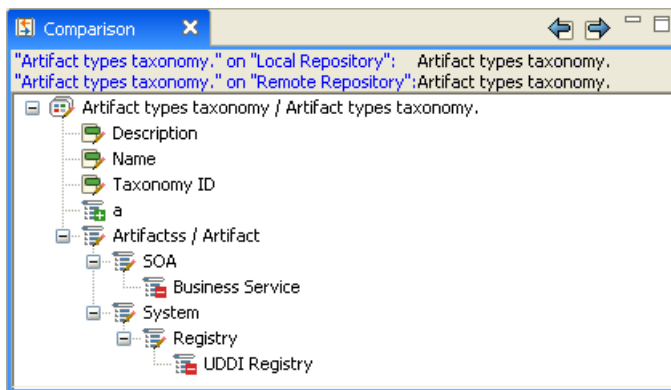
- To compare a local taxonomy with a remote one:

  1 Right-click the taxonomy under **SOA Systinet Servers**.

  2 Select **Compare with the Latest from Server** from the *context menu*.

  3 If the server isn't logged in, Taxonomy Editor displays a login dialog (Figure 3).

  4 The **Comparison** view is now shown, as in Figure 7.

The **Comparison** view shows the differences between 2 taxonomies in categories and properties that can be edited in Taxonomy Editor. Every change is prefixed by an icon as follows:

- ![green plus icon]: The categories exist in the first taxonomy but not in the second one. Either remove the categories from the first taxonomy or copy them to the second one. To remove the categories, right-click them and select **Remove...** from the *context menu*. To copy the categories, right-click them and select **Copy...** from the *context menu*.

- ![pencil icon]: The properties in the two taxonomies or categories are different. You must copy one entity, overwriting the other. Right-click the entity to copy and select **Copy...**.

- ![red x icon]: The categories exist in the second taxonomy but not in the first one. Either remove the categories from the second taxonomy or copy them to the first one. To remove the categories, right-click them and select **Remove...** from the *context menu*. To copy the categories, right-click them and select **Copy...** from the *context menu*.

Refreshing Taxonomies to Reflect External Changes

If you have changed a taxonomy outside of Taxonomy Editor and want the Editor to reflect these changes, *refresh* the taxonomy. Follow these steps:

1 In the **Taxonomy Explorer** tab, select an entity or entities corresponding to the taxonomies you wish to refresh. You may:

   - Universally refresh taxonomies by selecting **SOA Systinet Servers**.

   - Refresh all taxonomies on one or more servers by selecting the servers.

   - Refresh individual taxonomies by selecting one or more. (They do not have to be on the same server.) In Figure 8 two taxonomies have been chosen.

2 Right-click to open the *context menu*.

3 Click ⟳ **Refresh**, shown in Figure 8.

Figure 8. Refreshing taxonomies
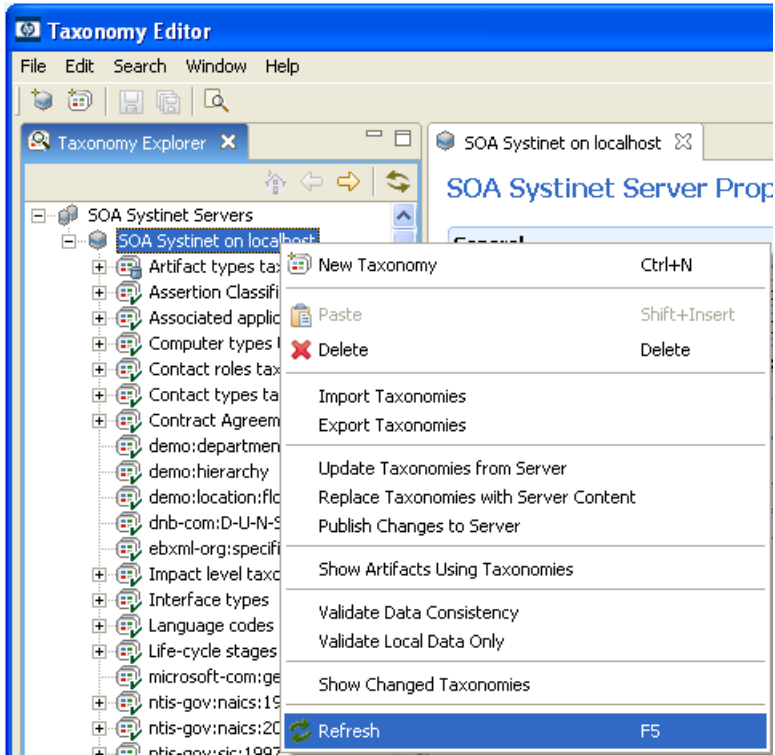
Searching

This section describes the various search facilities provided by SOA Systinet.

Quick Find Taxonomy

Using the Quick Find feature is the simplest way to find a taxonomy that you need.

To quickly find a taxonomy in SOA Systinet *server*:

1   Open the **Find Taxonomy Dialog**. On the main menu bar, click **Search** and then select **Quick Jump**. Alternatively, press **Ctrl-J**.

2   In the input field of the dialog, type the search string. Clicking the icon opens a menu with the following options:

Show in the tree without opening detail

This option shows the taxonomy (after it is located and chosen) in the tree but does not open its details page in the editor pane.

Case sensitive

This option enables you to perform a case sensitive or insensitive search.
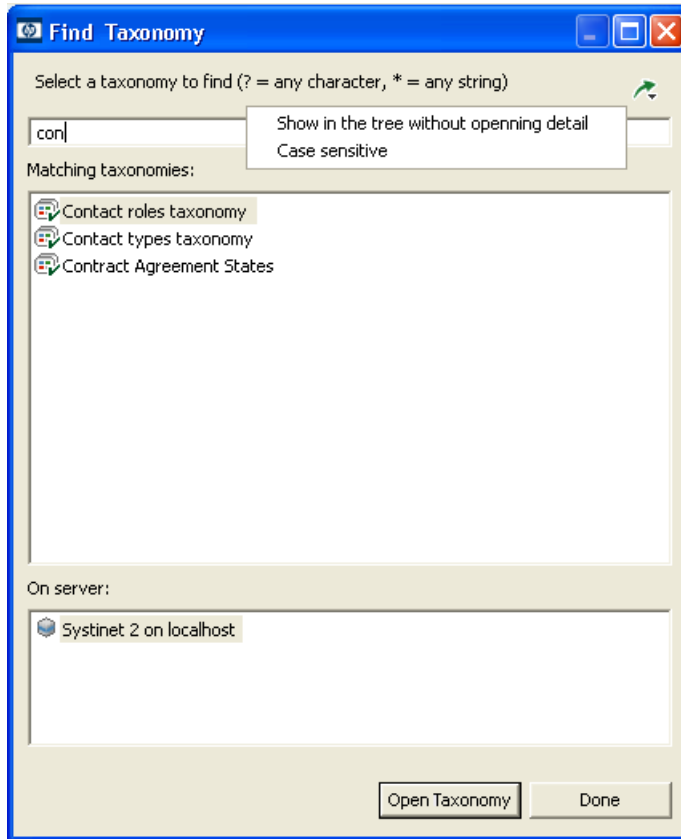
3   In the **On server** field, choose which server to search for the taxonomy.

4   You should now have a list of located taxonomies in the **Matching taxonomies** field. Select the taxonomy you want to open (left click) and press **Open taxonomy**.

The taxonomy should now be selected in **Taxonomy Explorer**.

Advanced Searching

When a more elaborate search tool than the Quick Find is needed, use the SOA Systinet Advanced Search. It supports:

1   Searching for a specific type.

2   Searching according to a specific value of a property

3   Searching different text strings: full text, regular expression or whole word

To perform an advanced search in SOA Systinet *server*:

1   Open the **Search Dialog**. On the main menu bar, click **Search** then select **Search** or press **Ctrl**-**H**.

2   In **Containing text**, type the expression for which you wish to do the text search.

3   In **Search only in**, choose properties of taxonomy or category to search.

4   In **Search controls**, select options that you want:

Case sensitive

Enables you to perform a case sensitive or insensitive search.

Whole words only

Lets you perform a whole word or partial match search.

Regular expression

Set this option to perform a regular expression or text search. Text search is default.

5   In **Scope**, select option that you want:
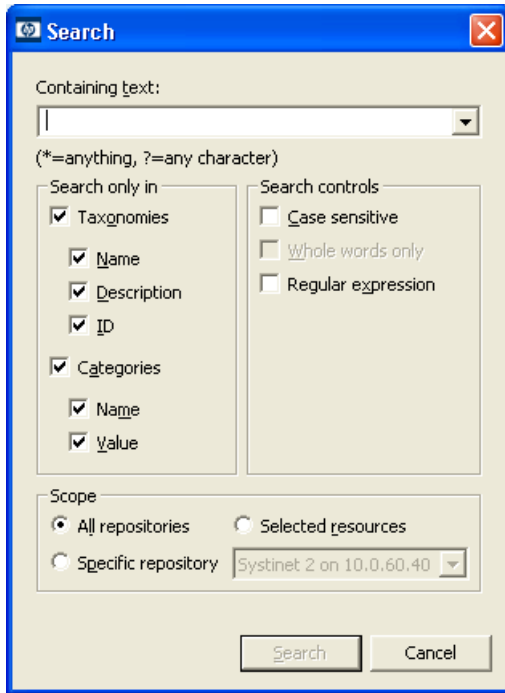
All repositories

Searches all repositories.

Selected resources

Searches in all entities which are selected in **Taxonomy Explorer**.

Specific repository

Searches repository which is chosen in the list box.

Figure 9. Advanced Search Dialog

The result will be shown in Search Results on page 37.

Showing Changed Taxonomies

You can search for deleted and modified taxonomies with the Show Changed Taxonomies function.

To show changed taxonomies in SOA Systinet *server*:

1   In **Taxonomy Explorer**, right-click the server on which you want to find changed taxonomies.

2   Select **Show Changed Taxonomies** from the *context menu* to show changed taxonomies in the Search Results on page 37.

Search Results

This view displays the result of a search.

Here is what the Search Results looks like:

Figure 10. Search Results
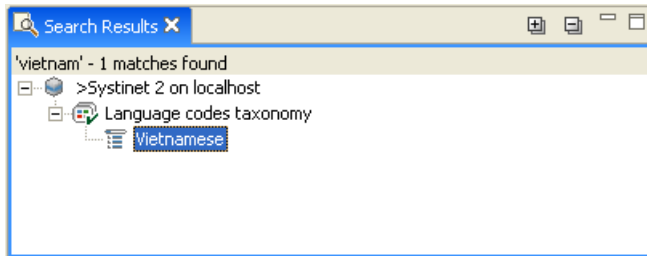
Expand All

> Expand all matches in the hierarchical view.

Collapse All

> Collapse all matches in the hierarchical view.

▶   To restore a deleted taxonomy which is shown in Search Results on page 37:

  1   Search for changed taxonomies.

  2   In the Search Results, right-click the deleted taxonomy which you want to restore, which was done in Figure 11.

  3   Select **Restore** from the *context menu*.

Figure 11. Restoring taxonomy
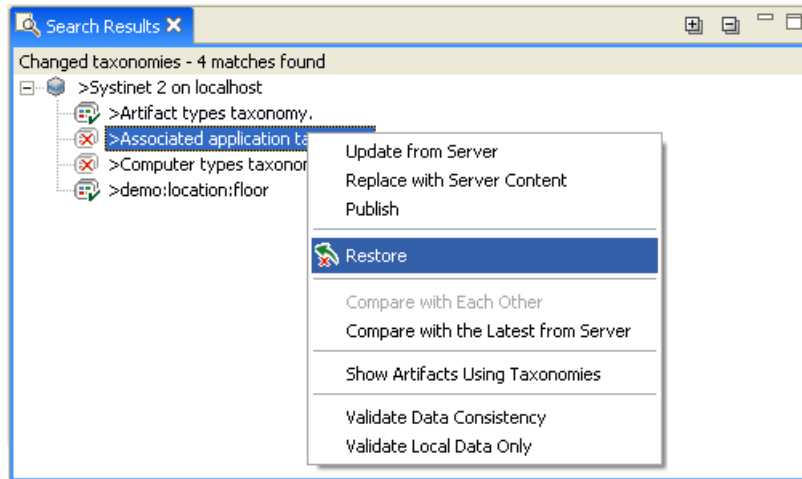
Publishing Changes

Publishing is the process of storing changes on a *SOA Systinet server* including additions, deletions and modifications.

You can publish taxonomies by selecting **Publish** from the context menu of a taxonomy or the selected taxonomies in **Taxonomy Explorer**. You can also select **Publish Changes to Server** from the *context menu* of a server.

If a publication attempt is not completely successful, this is reported to the user. For a new or modified taxonomy, success or failure is indicated by its status. Figure 2 shows how to recognize the status of a taxonomy and Table 1 on page 39 explains how to interpret it.

Table 1. Taxonomy Status After Publication

Status	Description	Implication after publication
UP-TO-DATE	Local and server versions are identical.	Publication was successful, including any modifications.
NEW	This local taxonomy has not been published to the server.	Publication was unsuccessful and the status is unchanged. Either: • There was an exceptional error such as a network error. • Publication was prevented by the impact the change would have on server data integrity.
MODIFIED	Taxonomy has been published, but changes have been made locally since the last time it was *updated*.	
DELETED (Hidden from Taxonomy Explorer)	Taxonomy has been deleted but this change has not yet been published to the server. A hidden copy still exists on the local hard disc and the taxonomy can be restored.	After publication, all copies of the taxonomy are erased and it cannot be restored. If this would impact data server integrity, publication will fail.
CONFLICTING (Only appears after synchronization)	Either: • The taxonomy was new but a taxonomy with the same filename now exists on the server. • The taxonomy was modified but the copy on the server was changed independently. This condition is also detected by the update action.	
SYSTEM	These taxonomies are generated automatically upon starting SOA Systinet Platform and are not meant to be changed by the user.	Changes to these taxonomies cannot be published.

It may not be possible to publish a new, modified or deleted taxonomy for two reasons:

• A *conflicting* change on the server.

- The validation results that the change would have on server *data integrity*.

In either case additional information is provided in the **Validation Results**.

Validation Results are divided into 2 parts:

- **Local Problems**: All problems in the local repository

- **Remote Problems**: All problems which could occur if the taxonomy were published.

Figure 12. Taxonomy EditorValidation Results
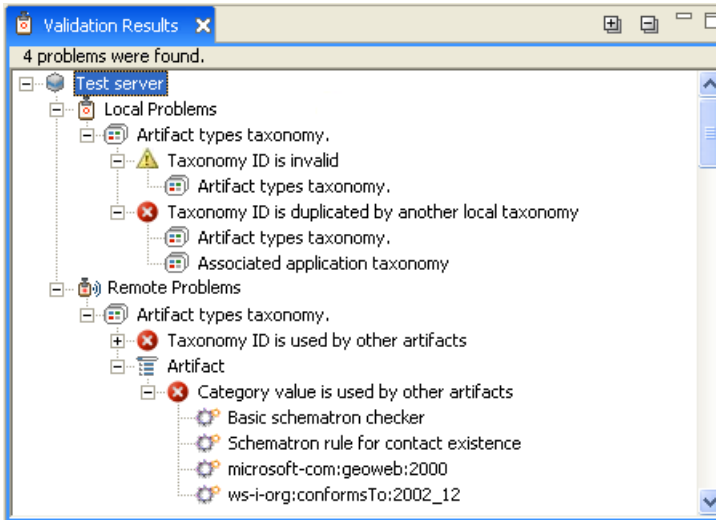
> You cannot publish a System taxonomy to a remote repository.

Settings

This section gives information about settings that you could change in SOA Systinet.

Figure 13. Settings Dialog

Taxonomy Namespace Setting

Your choice of namespace (5.0 or 5.5) that will be used when creating a new taxonomy (Please see Creating a New Taxonomy on page 23). By default, the namespace 5.5 is selected since this is the newest taxonomy format used in HP SOA Systinet Registry 5.5, 6.0 and 6.5. Howeve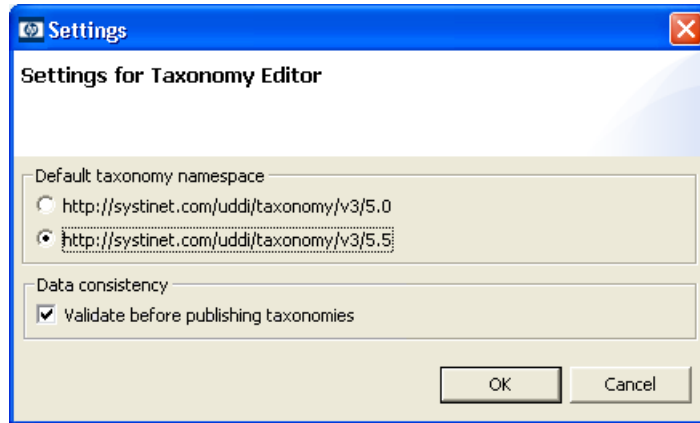r, version 5.5 taxonomies cannot be used in HP SOA Systinet Registry 5.0. When creating taxonomies that you want to export to HP SOA Systinet Registry 5.0, please change this setting accordingly. This will affect newly created taxonomies only.

Data Consistency Setting

This option can be selected or deselected, depending on whether or not you wish to validate your changes before publishing them to the server. (See Publishing Changes on page 38.)

Resolving Conflicts and Validation Issues

Local edits can result in three types of issue:

• *Conflicts* can arise between changes made in Taxonomy Editor and on the server;

• A change that would impact server data integrity (taxonomy ID and category value used by remote artifacts are changed, taxonomy ID duplication, etc.)

- A change that would cause local data inconsistency (taxonomy ID and category value duplication, taxonomy ID in wrong format).

To detect these issues, you can perform one of the following actions:

- Publish selected taxonomies to server. In this case, all issues will be detected. However, the option **Validate before publishing taxonomies** must be chosen in settings. Without this setting, only conflicts are detected.

  In Figure 14 you can see validation results showing that a taxonomy ID cannot be changed because it is used by remote artifacts.

Figure 14. Validation Results
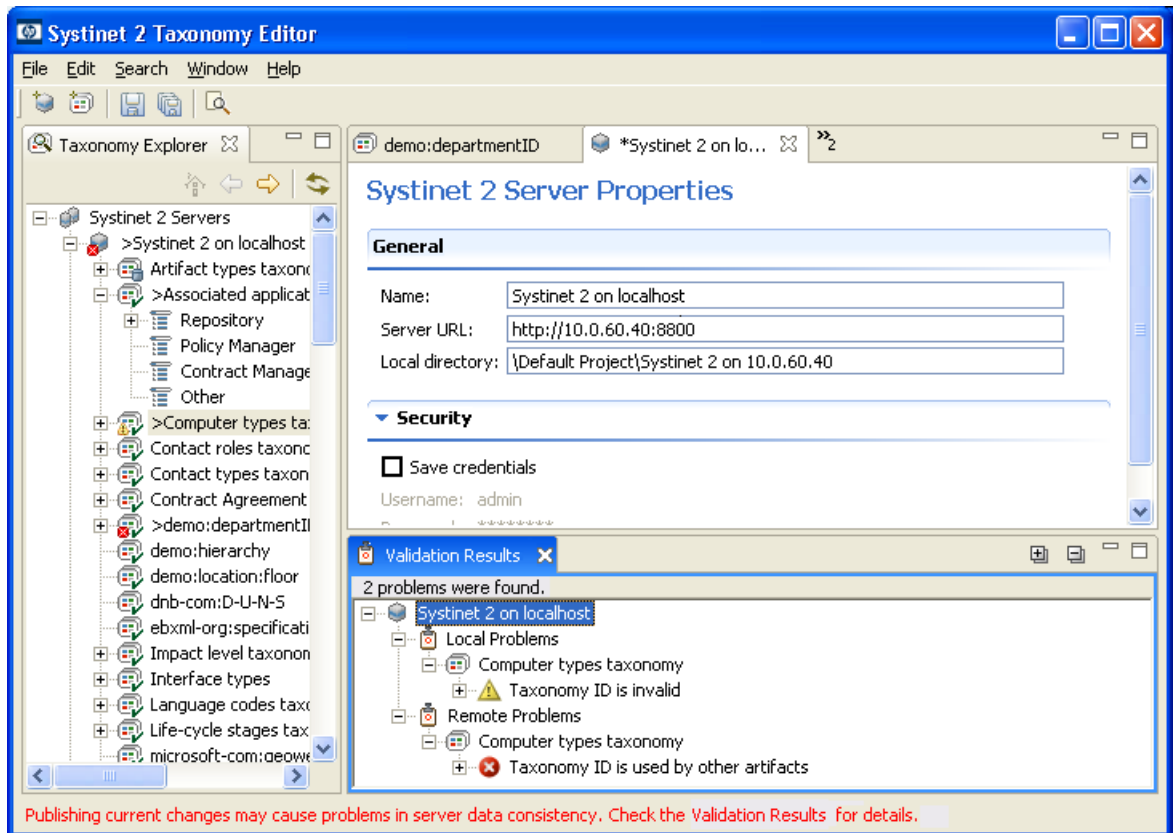
- Update action is performed on selected taxonomies. In this case, only conflicts are being detected.

- Run the following actions on the *context menu* to validate selected taxonomies:

  - **Validate Local Data Only** to check the problems of selected taxonomies. This operation is run only locally, and the remote server is not contacted.

- **Validate Data Consistency** to check the problems of selected taxonomies as well as what the impact of your changes would be if they were published and if they would cause data inconsistency. To run this operation successfully, the remote server must be started and running.

  ➤ To see which artifacts in SOA Systinet Server are categorized by selected taxonomies, run **Show Artifacts Using Taxonomies**. Use it to show all artifacts that could be affected if the selected taxonomies are changed.

Table 2 on page 45 lists possible reasons why a publication attempt is not completely successful and explains what you can do. The solution is often to replace taxonomies with the server content as described in Updating Taxonomies from a Server on page 19.

➤ Replacing taxonomies with server content discards local changes to resolve conflicts. Consider resolving individual taxonomy conflicts before using this *context action* on the server. When this context action is run on the server, it also deletes all new locally created taxonomies, resulting in exactly the same list of taxonomies that exists on the remote server.

➤ One way to view conflicting changes on a server is to add the same server under a different name. You can then use Taxonomy Editor's copy and paste features.

Table 2. Issues and Resolution

Case	Indications	Resolution	Type	Severity
A taxonomy was changed on the remote server while you were modifying your local version.	Your local taxonomy is CONFLICTING. The local version cannot be published and its modifications are kept.	To replace the local taxonomy with the server version, use the taxonomy *context action* **Replace Taxonomies with Server Content**. You may first want to copy your local version to a temporary location.	Conflict	Error
A taxonomy was published that has the same filename as a new taxonomy you are trying to publish to the remote server.	Taxonomy is CONFLICTING. The local version cannot be published. Changes to the local taxonomy and server remain in **Taxonomy Explorer**.	To replace the local taxonomy with the remote server version, use the taxonomy *context action* **Replace Taxonomies with Server Content**. You may first want to copy your local version to a temporary location.	Conflict	Error
The ID of a taxonomy you have created is the same as the ID of an existing taxonomy on the remote server	The local taxonomy cannot be published. Changes to the local taxonomy and server remain in **Taxonomy Explorer**. The **Validation Results** include a node giving the taxonomy ID.	Change the ID of the new taxonomy.	Validation Results	Error
You have changed the ID of a taxonomy used by *artifacts*.	The local taxonomy cannot be published and remains MODIFIED. The **Validation Results** list artifacts that use the taxonomy.	To restore the original taxonomy, use the taxonomy *context action* **Replace Taxonomies with Server Content**.	Validation Results	Error

Case	Indications	Resolution	Type	Severity
A category that you modified is used by other artifacts.	The local taxonomy cannot be published and remains MODIFIED. **Validation Results** lists artifacts that use the category.	To restore the original taxonomy, use the taxonomy *context action* **Replace Taxonomies with Server Content**.	Validation Results	Error
A deleted taxonomy is used by *artifacts*.	Publication fails. The server remains MODIFIED in **Taxonomy Explorer**. The **Validation Results** list *artifacts* that use the taxonomy.	To restore the deleted taxonomy, first find it with the server's **Show Changed Taxonomies** *context action*. Then use the taxonomy's **Restore** *context action*.	Validation Results	Error
A new taxonomy's ID is the same as another local taxonomy's.	An error message for this taxonomy is shown.	Change taxonomy ID to another value so that there aren't 2 taxonomies whose IDs are the same.	Local inconsistency	Error
Taxonomy ID format is invalid.	A warning message for this taxonomy is shown.	Change taxonomy ID to valid format.	Local inconsistency	Warning
Category value is duplicated by another category in the same taxonomy.	An error message for this taxonomy is shown.	Change a category value so that there aren't 2 categories whose value are the same in one taxonomy.	Local inconsistency	Error
Taxonomy filename contains invalid character for rest url.	An error message for this taxonomy is shown.	Change filename so that it doesn't contain invalid character.	Local inconsistency	Error

Replacing taxonomies with server content is introduced in

► To produce conflicts experimentally you can define two servers in Taxonomy Editor for the same SOA Systinet server. To produce entries in Validation Results generally requires that you modify a taxonomy that is used by an artifact. One example is the Policy Types taxonomy which is used

by pre-defined artifacts, but you would not want to succeed in changing this! A more realistic example is the Life-cycle Stages taxonomy which will work provided you have at least one Business Service defined. You can easily create a Business Service via the SOA Systinet web interface, or by running the SDM Demo distributed with HP SOA Systinet Platform.

Appendix A. Keyboard Shortcuts

Shortcut	Action	Context
Ctrl-**Alt**-**S**	Add SOA Systinet Server	Global
Ctrl-**N**	New taxonomy	Global
Alt-**A**, **Insert**	Add next category	Categories tab
Alt-**C**	Add child category	Categories tab
Alt-**U**, **Ctrl**-ArrowUp	Move category up	Categories tab
Alt-**D**, **Ctrl**-ArrowDown	Move category down	Categories tab
Alt-**E**, **Ctrl**-ArrowLeft	Move category left (unindent)	Categories tab
Alt-**I**, **Ctrl**-ArrowRight	Move category right (indent)	Categories tab
F2	Navigate to category name field	Categories tab
Esc	Forget changes in current text field and navigate to Category Structure	Categories tab
Ctrl-**PageDn**	Switch to next editor tab	Taxonomies editor
Ctrl-**PageUp**	Switch to previous editor tab	Taxonomies editor
F12	Activate editor	Global
Ctrl-**W**, **Ctrl**-**F4**	Close current editor	Global
Ctrl-**Shift**-**W**, **Ctrl**-**Shift**-**F4**	Close all editors	Global
Ctrl-**F6**	Go to next editor	Global
Ctrl-**Shift**-**F6**	Go to previous editor	Global
Ctrl-**Shift**-**E**	Switch to editor	Global

Shortcut	Action	Context
Ctrl-J	Quick find taxonomy	Global
Ctrl-H	Search taxonomy or category	Global
Alt-Shift-W	Show editing resource in taxonomy explorer	Global
F5	Refresh items	Global
Ctrl-S	Save changes for active editor	Global
Ctrl-Shift-S	Save changes for all editors	Global
Ctrl-C, **Ctrl-Insert**	Copy	Global
Ctrl-X, **Shift-Delete**	Cut	Global
Delete	Delete	Global
Ctrl-V, **Shift-Insert**	Paste	Global
Ctrl-Shift-L	Show key assist	Global

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Jetty License

Revision: 3.6

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Index

Glossary

artifact
: A resource represented by a repository document. Artifacts may be categorized using taxonomies. This may be achieved by defining artifact property types in terms of taxonomies.

category
: A division or classification in a taxonomy.

client
: An application (or computer system) that enables use of server(s).
See also server.

conflict
: A simultaneous change to the same data that cannot be resolved. For example, automatic import or update of data from a SOA Systinet server may result in conflicts.

context action
: An action performed using an item on a context menu.
See also context menu.

context menu
: A menu that pops-up when you right-click an item or selected items to perform actions possible on them.

credentials
: Username and password for logging into a system such as a SOA Systinet server.

data integrity
: The conformance of data to a format or structure and sometimes also the accuracy of the data. In particular, data items may refer to each other by means of identifiers or keys (such as taxonomy IDs or category names) and a referenced data item must then exist. Also, the meaning of data may assume constraints such as a fixed set of categories in a taxonomy. Such assumptions may be informal or hidden, so breaking the constraints may result in inaccurate data, regardless of its conformance to a particular format.

download
: Retrieve copies of data from a SOA Systinet server, including initial copies or updates. Conflicts may prevent updates being applied if changes have also been made to local copies of data.
See also import, update, Taxonomy XML file, conflict.

folder	A container for documents or files, such as a file system directory or an Eclipse folder. An Eclipse folder is a file system directory.
IDE	Integrated Development Environment
validation	The effect of change on data integrity in a SOA Systinet repository.
import	Retrieve copies of data from a file. If a local copy with the same name already exists, you will be asked if you want to overwrite it. See also download, Taxonomy XML file.
JAR File	A file compressed using the Java Archive (JAR) file format.
perspective	An Eclipse perspective. This is a view that presents certain features to the user.
project	An Eclipse project containing a hierarchy of folders. Organization by projects and folders is reflected on your file system where taxonomies are stored as XML files. Taxonomy explorer displays SOA Systinet servers in a single hierarchy, so for most users a single project is sufficient for the folders of each SOA Systinet server. Projects are mainly of interest to users familiar with the Eclipse IDE.
property	An attribute or characteristic of an object, entity or artifact etc. that is represented by a value.
publish	Save changes made to copies of data to a repository in which it is stored.
registry	A type of repository in which taxonomies may be stored. A registry is a central listing of the available services and resources in SOA. See also repository.
repository	A repository is used to store resources such as SOA artifacts, including taxonomies. Taxonomies may be also serve to define the repository data structure. See also server.
REST	REpresentational State Transfer is an architectural module used to implement networked IT systems. The modeling of communication

	between components is similar to that used by HTTP. The main distinguishing features of this model relate to resources.
restore	Restore a deleted taxonomy using a copy on hard disk. Taxonomies can only be restored if they were previously published to a server or downloaded from the server. Once a deletion has been published to the server, the deleted taxonomy can no longer be restored.
RCP	A Rich Client Platform such as provided by Eclipse. RCPs are used to produce rich client applications with all the benefits of re-use. See also rich client.
rich client	A client application that enables use of server(s) and the functionality they provide and provides additional features through client-side processing. See also client.
server	A computer that provides a service, such as access to a repository through a particular port. To access the service requires knowledge of the computer name (its hostname), the port number and the protocol used for communication. See also repository, client.
Service Oriented Architecture	Service Oriented Architecture is a simple software design approach in which all functions are modeled as services and are built to be consumed over a network using standards-based interoperability and policies.
SOA	See Service Oriented Architecture.
SOA Systinet server	A server running SOA Systinet. SOA Systinet servers have taxonomies stored in a repository. See also server, SOA Systinet.
system taxonomy	These taxonomies are generated automatically upon starting the SOA Systinet platform and are not meant to be changed by the user. See also SOA Systinet server, taxonomy.
SOA Systinet	HP's latest suite of products for SOA Governance and Lifecycle Management. It consists of a platform and a number of applications.

	The platform provides repository storage and a data model in which taxonomies play an important part.
taxonomy	A taxonomy defines a set of values that can be used for the classification of artifacts.
Taxonomy XML file	An XML file holding the *taxonomy* entity from a *registry*. The root element of this file is <taxonomy>. See also import.
tModel	A structure that takes the form of keyed metadata (data about data). In a general sense, the purpose of a tModel within the UDDI specification is to provide a reference system based on abstraction. Among the roles that a tModel plays in UDDI is the ability to provide and to describe compliance with a specification or concept to a taxonomy, for example.
UDDI	See Universal Description, Discovery and Integration.
UDDI Registry	A UDDI Registry is an implementation of the UDDI specification that allows web service vendors to register information about the web services they offer so that others can find them. See also registry.
Universal Description, Discovery and Integration	UDDI is a specification for distributed Web-based information registries of Web services.
URI	Uniform Resource Identifier – the generic term for all types of names and addresses that refer to objects on the World Wide Web. A URL is one kind of URI.
URL	Uniform Resource Locator – the global address of documents and other resources on the World Wide Web. The first part of the address indicates what protocol to use and the second part specifies the IP address or the domain name where the resource is located. See also URI.
update	Updating local copies of data on a SOA Systinet server with respect to any changes made in the repository. Also obtaining local copies where

there are none, but the term *download* more accurately describes both these cases.
See also download.