HP SOA Systinet Workbench

Software Version: 2.52

Taxonomy Editor User Guide

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Contents

Welcome to This Guide

Welcome to HP SOA Systinet Workbench, a tool for use with SOA Systinet. Taxonomy Editor enables you to create, modify, and delete taxonomies and download them from or upload them to any number of SOA Systinet servers.

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.
OK	A button in a GUI window.
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

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1 Getting Started

This chapter shows you how to start using HP SOA Systinet Taxonomy Editor. It contains the following sections:

Introduction to the User Interface

The user interface is split into four panes with a toolbar across the top, as shown in Figure 1. The upper left pane is the **Project Explorer** and the upper right pane is the editor for items selected from the **Project Explorer**. Below the editor, there is a **Validation Results** tab for every taxonomy validation run. The lower left pane is the **Server Explorer**, listing all servers associated with the project.

Figure 1. Taxonomy Editor UI
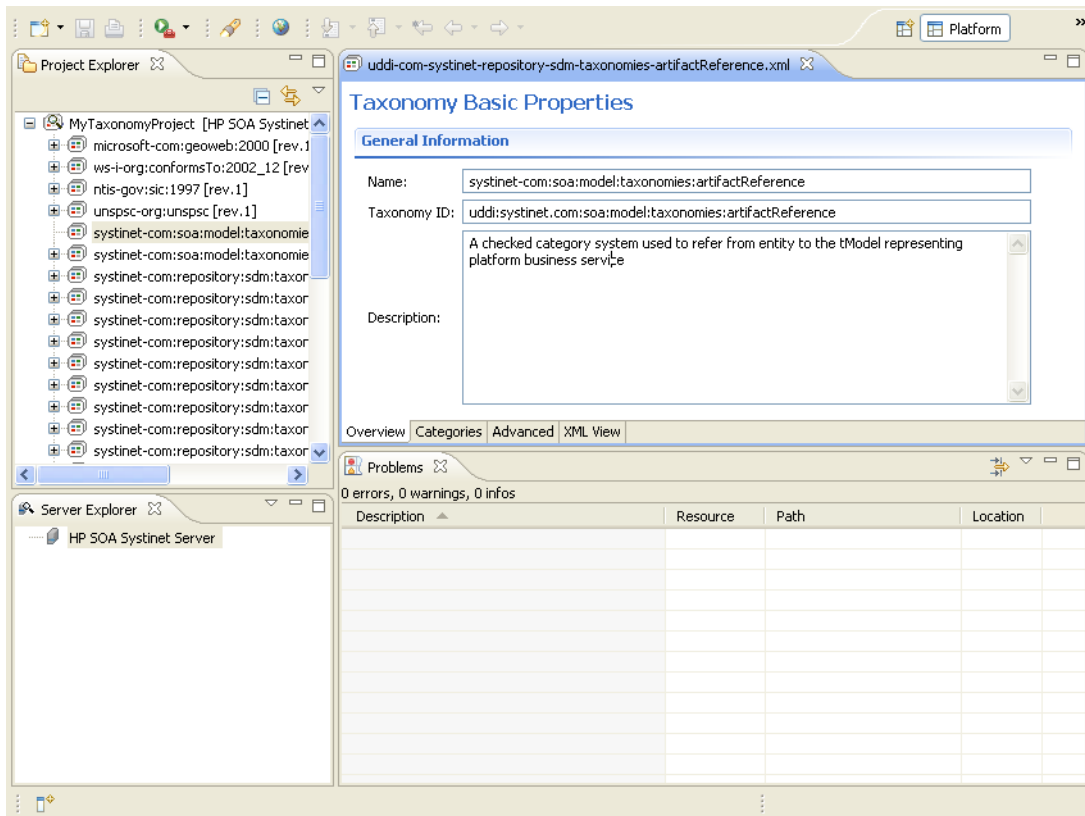
Project Explorer displays a hierarchy containing, from highest level to lowest:

•   Taxonomies

•   Categories and sub-categories

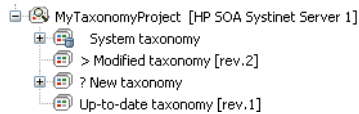Taxonomy status is indicated by the appearance of a ">" or "?" character to the left of a taxonomy name as shown in Figure 2. Please see Table 1 on page 41 for more details.

Figure 2. Taxonomy Status

Clicking an item in the **Project Explorer** opens a detail tab in the editor.

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

Creating a Taxonomy Project

To work with taxonomies, you need a Taxonomy Project. You can create any number of Taxonomy Projects to help organize your work. To create a Taxonomy Project:

1   Open the **New Taxonomy Project** wizard in one of these ways:

   • In the Workbench **Welcome** page, click the **Create Taxonomy Project** link.

   • Click the **New** ☐ ▾ icon. The **New: Select a Wizard** window opens. Select **HP SOA Systinet**->**Taxonomy Project**.

   • Alternatively, from the **File** menu, select **File**+**New**-> **Taxonomy Project**.

   • Alternatively, press **Alt**-**Shift**-**N** and then press **R**. The **New Project: Select a Wizard** window opens. Select **HP SOA Systinet**->**Taxonomy Project**.

2   Type in a name and location for the project. The default location is the workspace you chose when you launched Taxonomy Editor

3   Click **Next**. If no server is defined, the **New Server** window opens and you go to Step 5. Otherwise the **Choose Server** window opens.

4   Select whether to add a new server to the project or use a server you have already defined. This step does not appear if there are no defined servers. If you select an existing server, click **Next** and go to Step 6.

5   Type in the name and URL of a SOA Systinet server. Taxonomies are downloaded from and published to this server. You can include additional servers later (see Adding a SOA Systinet Server on page 25). Enter the username and password you use for this server. You can save the password and validate your connection to the server.

6   Select taxonomies to download from the server. You can filter them by text. Additional taxonomies can be downloaded later.

Use Cases

Use of HP SOA Systinet Workbench typically involves the following tasks:

Task	Sections
Defining one or more SOA Systinet Servers.	Adding a SOA Systinet Server on page 25
Updating local copies of taxonomies stored on SOA Systinet servers.	Updating Taxonomies From the Server on page 27
Making local modifications	• Creating and Deleting Taxonomies on page 23 • Modifying Taxonomies on page 31
Attempting to publish changes	Publishing Changes on page 40
Fixing problems such as conflicts	Resolving Conflicts and Validation Issues on page 45

2 Searching for Taxonomies

This chapter describes the various search facilities provided by Taxonomy Editor. It includes the following sections:

- Quick Find Taxonomy on page 17. A simple and fast tool for finding taxonomies in a project.

- Advanced Searching on page 19. A sophisticated tool for finding taxonomies that match various parameters.

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 a project:

1   On the main menu bar, click **Search**, and then select **Quick Jump**. Alternatively, press **Ctrl-J**. The **Find Taxonomy** wizard opens.
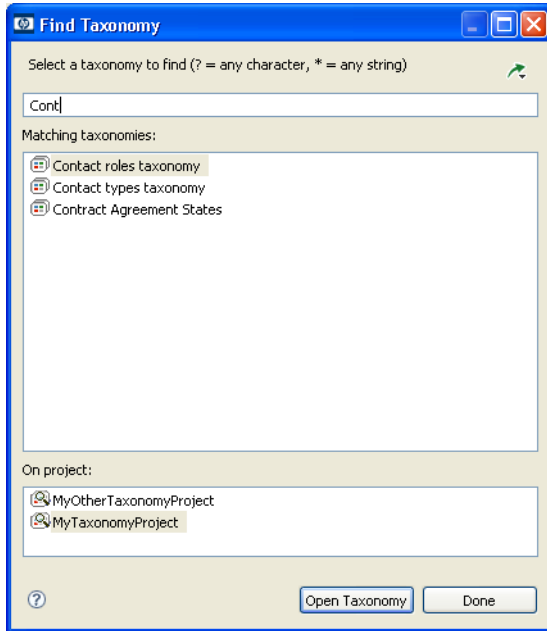
2   In the input field of the dialog, type the search string.

3   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.

4   In the **On project** field, select which project to search for the taxonomy.

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

The taxonomy should now be selected in **Project Explorer**. If you did not select the **Show in the tree without opening detail** view option, the taxonomy is also open in the main view.

Advanced Searching

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

• Searching for a specific type.

• Searching according to a specific value of a property

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

To perform an advanced search for taxonomies:

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

2   Select the **Taxonomy Search** tab.
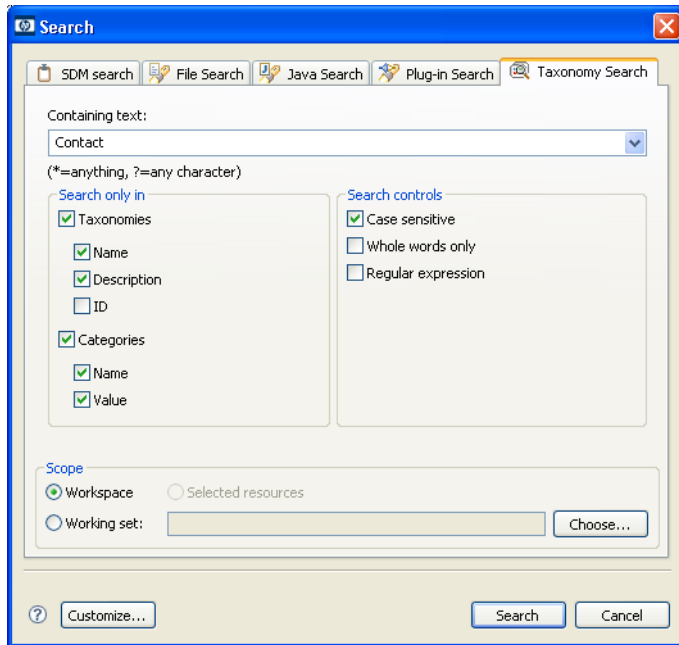
3   In **Containing text**, type the expression for which you wish to do the text search.

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

5   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.

6   In **Scope**, select option that you want:

Workspace

> Searches the Eclipse workspace.

Selected resources

> Searches in all entities which are selected in the **Project Explorer**.

Working set

> A working set is a customized selection of resources from the **Project Explorer**. When you select this option, click **Choose** to open a wizard where you can select from existing working sets or create a new working set. Working sets are persistent–you can create a working set and select it again in future searches.

7   After you complete all search conditions, click **Search**. The results appear in the **Search** view.

3 Manipulating Taxonomies

This chapter describes how to work with taxonomies, as detailed in the following sections:

Creating and Deleting Taxonomies

Instead of downloading taxonomies you can create them from scratch. This section also describes how to delete a taxonomy.

Creating a New Taxonomy

To create a new taxonomy:

1 Do one of the following:

   - Right-click the project in **Project Explorer** where you want to create the new taxonomy. The context menu opens. Click **New**->**Taxonomy**.

   - Click **File**->**New**->**Taxonomy** in the menu bar.

   - Press **Ctrl**-**N** to open a menu of wizards. Select **HP SOA Systinet**->**Taxonomy**.

2 Type the taxonomy properties 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.

Source folder

> The project folder that will contain the taxonomy.

3   Click **Finish**.

The taxonomy should now be visible in **Project 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 local taxonomy, right-click the taxonomy in **Project Explorer** and select **Delete**.

To restore a deleted taxonomy, open the project's context menu and click **Restore from Local History**. This opens the Eclipse local history wizard. Select the version you want to restore. Alternatively, you can download the taxonomy from the server, if a version has been published.

To delete a taxonomy from the server, right-click the taxonomy in **Project Explorer** and select **HP SOA Systinet**->**Delete Taxonomy**. You will be asked to confirm that you want to delete the taxonomy from the server and given the option of deleting the local copy as well.

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.

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.

Adding a SOA Systinet Server

You added a server to your project when you created the project (see Creating a Taxonomy Project on page 13). You can add additional servers through a similar procedure.

To add a SOA Systinet server:

1   Right-click a server in the **Server Explorer**. Its context menu opens.

2   Select **New Platform Server**. The **New Server** wizard opens.

New Server

Add a new SOA Systinet Server

General

Name: HP SOA Systinet Server on MyServer

URL: http://myserver:8080/soa/

Authentication

Username: admin

Password: ••••••••

☑ Save Password

☑ Validate connection

ⓘ   < Back   Next >   Finish   Cancel

3   The server properties are as follows:

Name

> Your choice of name for this SOA Systinet server.

URL

> The prefix of URLs by which this server is accessed, including its application context.

Username and Password

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

Save password

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

Validate connection

       Validates your server credentials when you finish the wizard.

4   Click **Finish**.

The new server is shown in the **Server Explorer**.

Downloading Taxonomies from a Server

To download taxonomies from a server:

1   Do one of the following:

- In the **Project Explorer**, right-click the taxonomy project to which you want to download taxonomies. The project's context menu opens. Select **HP SOA Systinet**->**Download taxonomy**.

- In the **Server Explorer**, right-click the server from which you want to download taxonomies. The server's context menu opens. Select **Download taxonomy**.

The **Download Taxonomies** wizard opens, displaying a list of taxonomies on the server. (If you opened the wizard from the project, you see the taxonomies on the server associated with that project.)

2   Select the taxonomies you want to download and click **Next**.

3   Select the location to which you want to download the taxonomies and click **Finish**.

Taxonomy Editor displays progress while taxonomies are being downloaded from the server. When the download is complete the taxonomies are visible in **Project Explorer** as shown in Figure 1. Expand a taxonomy's node to view its *categories*.

Updating Taxonomies From the Server

You can update a local copy of a taxonomy that is also on the server. Right-click the taxonomy to open its context menu and select **HP SOA Systinet**->**Update taxonomy**

Updating a taxonomy overwrites any local changes you made to it. Taxonomy Editor asks you to confirm that you want to update a taxonomy if updating it would overwrite local changes. Copy your local taxonomy to a new taxonomy with a different name before updating it if you do not want to lose local changes.

If there is a conflict between your local version of a taxonomy and the version on a server, updating the taxonomy can resolve this conflict. See Resolving Conflicts and Validation Issues on page 45.

Importing and Exporting Taxonomy Files

Importing Taxonomies from Files

You can import taxonomies into your Eclipse project from elsewhere in your file system.

To import a taxonomy from your filesystem:

1   Right-click a taxonomy project. Its context menu opens.

2   Select **Import**->**Taxonomy**. The **Import Taxonomy** wizard opens.
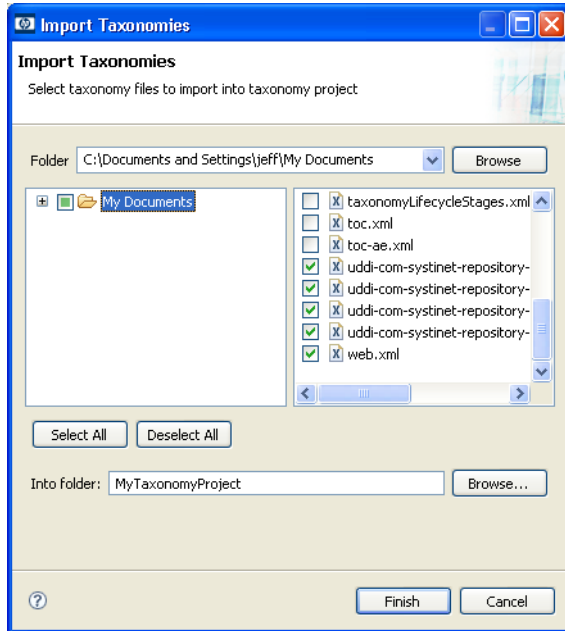
3   Browse for the folder holding the taxonomy you want to import. When you select the folder, all XML files in that folder are displayed.

4   Select the XML files you want to import as taxonomies.

5   Browse for the project folder into which you want to import the taxonomies.

6   Click **Finish**.

▶   When importing a taxonomy from a file whose filename already exists in the local folder, 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 **Project 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

You can export a taxonomy to an XML file in the filesystem, a JAR archive, a deployable archive (EAR
or JAR) or other file types supported by Eclipse. This is the standard Eclipse export function.

To export a taxonomy:

1   Right-click the taxonomy you want to export. Its context menu opens.

2   Select **Export**. The export wizard opens.
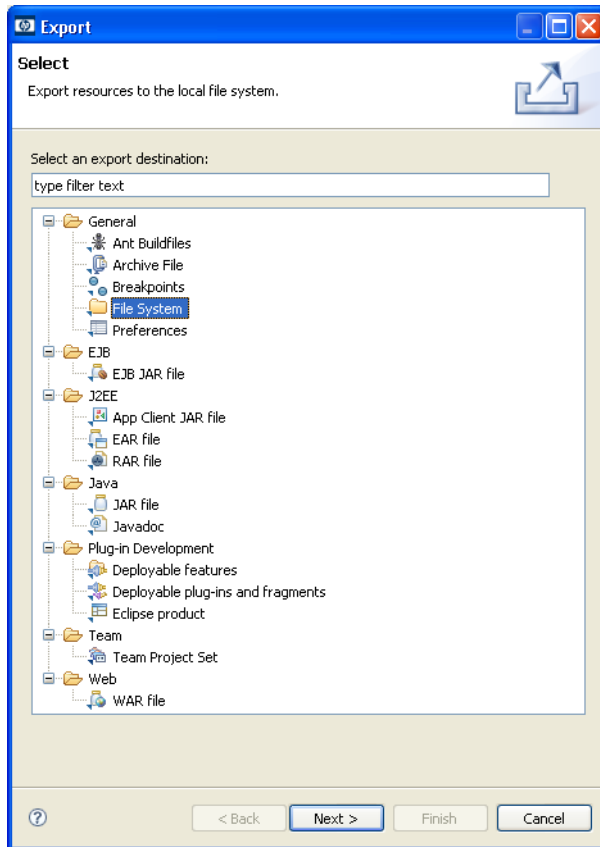
3   Select the type of file you want to export the taxonomy to. Click **Next**.

4   A specific wizard opens depending on the type of file you are exporting to. Browse for the destination and fill in any other information, such as the EAR application. Select whether or not to overwrite existing files. Click **Finish** when done.

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.

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:

1   Double-click the taxonomy in **Project Explorer**.

2   Edit properties on sub-tabs of the taxonomy.

3   Save your edits.

The changed status of the taxonomy is then visible in **Project 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 is titled **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 is titled **Origin**. It shows:

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 3. Categories Tab
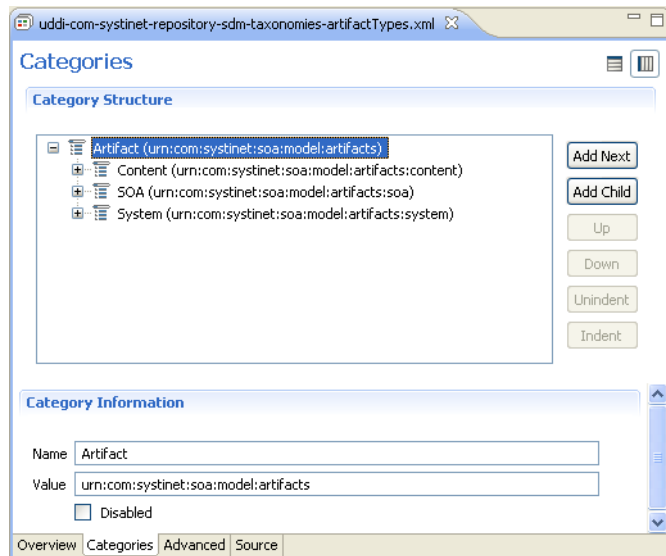
Adding a New Category

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.

Disabled

If you select this checkbox, the category can be used in an artifact.

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 the following sections:

*   **Compatibility**

*   **Categorization**

*   **Validation**

*   **Reference to**

*   **Value type**

Compatibility

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.

Categorization

Categorization refers to the taxonomy type. Select from the following types:

categorization

> (Default) Categorizations can be used in all four main UDDI structures. They are used to tag them with additional information, such as identity, location, and what the taxonomy describes.

categorizationGroup

> New in UDDI version 3, a `categorizationGroup` groups several categorizations into one logical category. For example, a `categorizationGroup` could be a geographical location comprised of two categorizations: longitude and latitude. The `categorizationGroup` option is disabled if the taxonomy has any categories.

Identifiers

> Used in businessEntities and tModels, Identifiers reference published information.

Relationships

> Used only in Publisher Assertions, Relationships define the relation between two businessEntities.

Validation

Validation 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.

Validation can be against Taxonomy Editor's internal validation service or against an external service. If you select an external validation service, type in the endpoint URL. You can also select to leave `keyedReferences` unvalidated.

Reference

You can add a reference to a key type.

Value Type

Select a Value type for keyValues. You can select from three existing comparators in the **system comparator** drop-down field or add the endpoint of a custom comparator. The existing comparators are:

systinet-com.comparator.string

> keyValues are treated as string values. If keyValues type is unknown then keyValues are treated as strings. The maximum length is 255 characters.

systinet-com.comparator.numeric

keyValues are treated as decimal numbers. The value can have a maximum of 19 digits before the decimal point and a maximum of 6 digits after the decimal point.

systinet-com.comparator.date

keyValues are treated as dates.

Source

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

Comparing Taxonomies

Taxonomy Editor lets you compare two taxonomies, a local taxonomy against its version on a server, or a taxonomy against its local history.

To compare two taxonomies:

1 Select the two taxonomies.

2 Right-click. A context menu opens.

3 Select **Compare with**->**Each Other** from the context menu.

4 Taxonomy Editor now displays the **Comparison** view (Figure 4)

To compare a local taxonomy against the version on a server:

1 Right-click a taxonomy in **Project Explorer**. Its context menu opens.

2 Select **HP SOA Systinet**->**Compare with the latest on server**. If the local version and the latest version on the server are identical, you get a message telling you so. If there are any differences, the **Comparison** view opens (Figure 4).
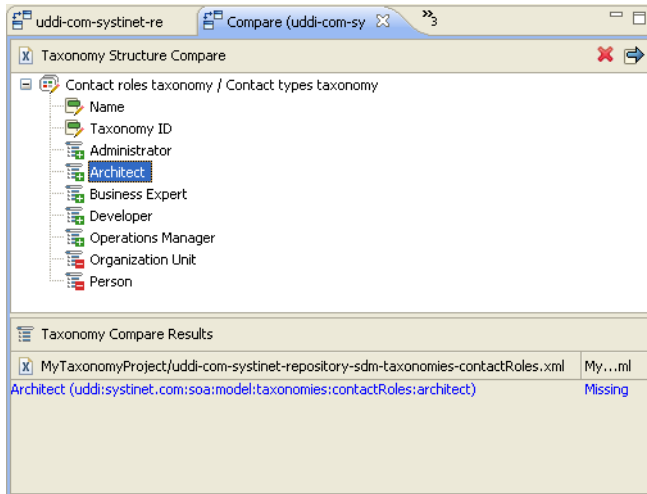
To compare a taxonomy against its local history:

1 Right-click a taxonomy in **Project Explorer**. Its context menu opens.

2 Select **Compare With**->**Local History**. If there is a local history, the **Comparison** view opens (Figure 4).

Figure 4. Comparison View

The **Comparison** view lists the differences between 2 taxonomies in categories and properties. Click a listed difference and the details appear in the **Taxonomy Compare Results** section. Figure 4 displays the differences in the values for **Architect** between the two taxonomies. Every difference is prefixed by an icon as follows:

- : 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.

- : 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...**.

- : 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 **Project Explorer**, select an entity or entities corresponding to the taxonomies you wish to refresh. You may:

  •   Refresh all taxonomies in a project by selecting that project.

  •   Refresh individual taxonomies by selecting one or more. (They do not have to be in the same project.) In Figure 5 two taxonomies have been chosen.

2   Right-click to open the context menu.

3   Click **Refresh**, shown in Figure 5.

Figure 5. Refreshing Taxonomies
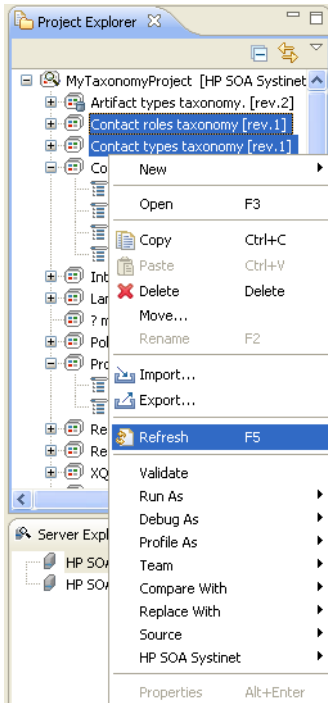
Publishing Changes

Publishing is the process of storing changes on a SOA Systinet server including additions, deletions and modifications. You can publish taxonomies by selecting **HP SOA Systinet**->**Publish Taxonomy** from the context menu of a taxonomy or the selected taxonomies in **Project Explorer**.

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 41 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:
MODIFIED >	Taxonomy has been published, but changes have been made locally since the last time it was updated.	• There was an exceptional error such as a network error. • Publication was prevented by the impact the change would have on server data integrity.
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 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 6. Validation Results
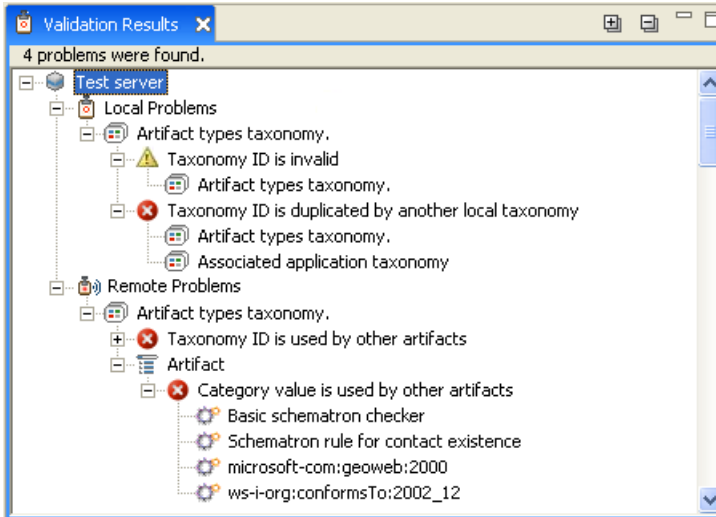
> You cannot publish a System taxonomy to a remote repository.

Example: Creating and Publishing a Department Taxonomy

In this example, you create and deploy a new taxonomy containing the identities of departments in your organization.

To follow this example requires the following prerequisites:

- Define your SOA Systinet server, as described in Adding a SOA Systinet Server on page 25.

- Update the local taxonomies, as described in Updating Taxonomies From the Server on page 27.

To create a department taxonomy:

1   Follow the Creating a New Taxonomy on page 23 procedure. Input `Departments` for the **Taxonomy Name**, and then click **Finish**.

2   In the **Project Explorer**, double-click **Departments** to open the editor and switch to the **Categories** tab.

3   Add categories as described in Adding a New Category on page 33. Use the following inputs for the **Name**:

-   HR

-   IT

-   Payroll

-   Finance

-   Sales

-   Development

-   QA

4   Press **Ctrl-S** to save your taxonomy.

5   In the **Project Explorer**, right-click **Departments** and select **Publish**.

After publication, the new department taxonomy artifact is visible in the SOA Systinet UI.

-   In the **Tools** tab **Catalog Browser**, expand **Categories** and click **Taxonomies** to view the taxonomies in the repository.

4 Resolving Conflicts and Validation Issues

Editing taxonomies can result in two types of issues:

- Local data inconsistency or validity issues taxonomy ID and category value duplication, taxonomy ID in wrong format, etc).

- A conflict with the server, due to either the version on the server having been altered or changes to the local taxonomy that would impact server data integrity.

These issues and their resolution are described in the following sections:

- Local Validity on page 45

- Conflict With Server on page 46

Local Validity

By default, the validities of local taxonomies are constantly checked while you work on them. Invalid taxonomies are marked in the **Project Explorer** and their errors are listed in the **Problems** view. Figure 7 shows the errors for two taxonomies with the same ID.

Figure 7. Invalid Local Taxonomies
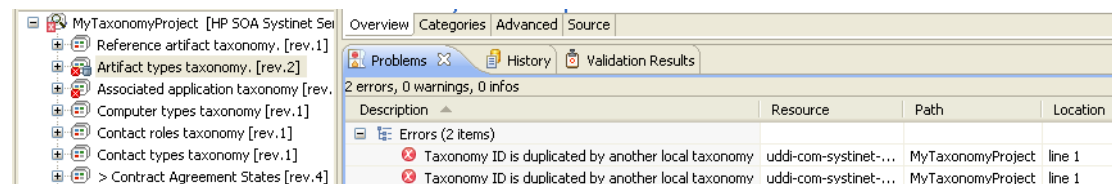
To disable validation, unselect **Project**->**Build automatically** in the main menu bar.

Conflict With Server

A local taxonomy and the version on a server can come into conflict either when the version on the server is changed or when changes to the local version affect artifacts on the server. To show all artifacts categorized by a taxonomy, run **HP SOA Systinet**->**Show Artifacts Using Taxonomy** in the taxonomy's context menu. This action shows all artifacts that could be affected if the selected taxonomy is changed.

Conflicts between a local taxonomy and a version on the server are revealed when you try to publish the taxonomy (see Publishing Changes on page 40). In case of conflicts, you receive an error message that the taxonomy could not be published. You can also check for conflicts without trying to publish, by opening the taxonomy's context menu and selecting **HP SOA Systinet**->**Validate Data Consistency**. The server must be running for you to check for conflicts.
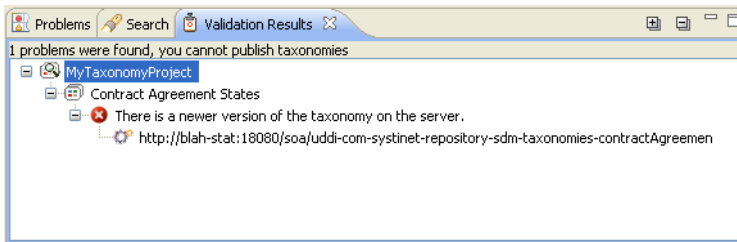
By default, the **Validation Results** view shows all points of conflict (see Figure 8). To disable this display, unselect **Validate before publishing taxonomies** in Preferences. Conflicts are still detected even with validation disabled.

Figure 8. Validation Results

Table 2 on page 47 lists possible reasons why a publication attempt is not completely successful and explains what you can do. The solution is often to update taxonomies, replacing local content with the server content as described in Updating Taxonomies From the Server on page 27. You may want to make a second copy of the local taxonomy before updating it. Otherwise you lose all changes you made.

> ▶ One way to view conflicting changes on a server is to add the same server under a different name. You can then use HP SOA Systinet Workbench'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 **HP SOA Systinet**->**Update Taxonomy**. 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 **Project Explorer**.	To replace the local taxonomy with the remote server version, use the taxonomy context action **HP SOA Systinet**->**Update Taxonomy**. 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 **Project 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 **HP SOA Systinet**->**Update Taxonomy**.	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 **HP SOA Systinet**->**Update Taxonomy**.	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 described in

▶ To produce conflicts experimentally you can define two Taxonomy Projects for the same SOA Systinet server. Modify a taxonomy in one project, save it and publish it to the server. Then modify it in a different way in the second project. You will get a conflict if you try to publish it.

5 Customization

This chapter describes settings you can customize in Workbench for Taxonomy Editor. All customization starts at the **Preferences** dialog box, shown in Figure 9.

Figure 9. Preferences Dialog Box
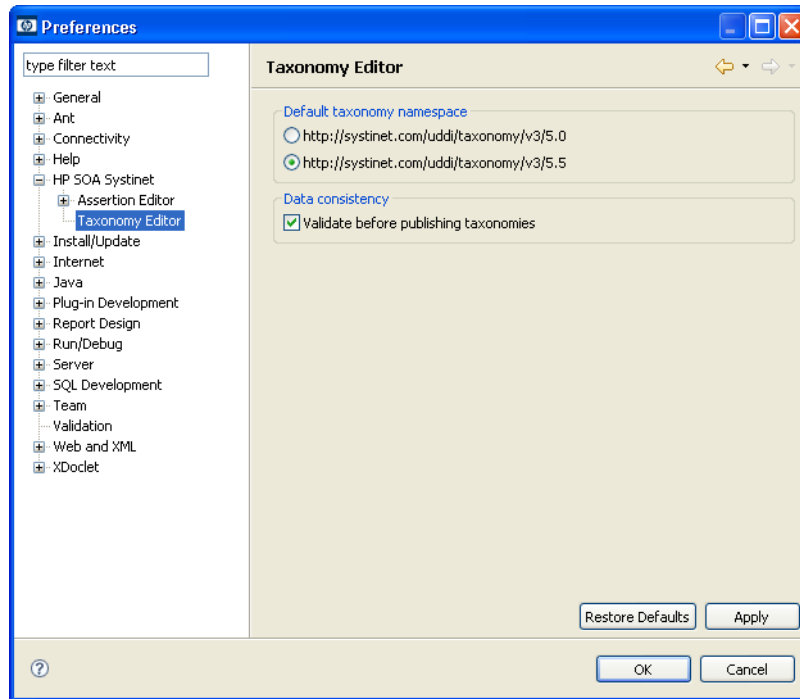
To open the Preferences dialog for Taxonomy Editor:

1 In the menu bar, select **Window**->**Preferences**. the **Preferences dialog opens, with a tree menu in the left pane.**

2 In the tree menu, go to **HP SOA Systinet**->**Taxonomy Editor**.

Customizable settings are described in the following sections:

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. However, 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

Validate before publishing taxonomies can be selected or deselected, depending on whether or not you wish to validate your changes before publishing them to the server. (See Resolving Conflicts and Validation Issues on page 45.)

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
Ctrl-**J**	Quick find taxonomy	Global
Ctrl-**H**	Search taxonomy or category	Global

Shortcut	Action	Context
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

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 tax-
onomies 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.