ENOVIA ProjectSync
User's Guide

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Table of Contents

ProjectSync Overview

The ENOVIA Synchronicity ProjectSync® groupware product helps teams manage their design projects. Teams use ProjectSync to track data relating to projects and design components, including bug reports, change orders, and web-based discussions. Because ProjectSync runs on the Internet, its use is particularly advantageous for engineering teams whose members are geographically dispersed.

If your design team uses the DesignSync design management product, you can integrate the tools—DesignSync and ProjectSync. Your design team can then use ProjectSync's project management applications with your DesignSync design data. For example, you can attach ProjectSync notes to your design objects under revision control. Then, when a team member checks in a fix using DesignSync, ProjectSync sends an email notification to the team and updates information and statistics about the overall project. If the email-reply capability is enabled, team members can respond directly to the email notifications.

ENOVIA Synchronicity ProjectSync® Capabilities

ProjectSync provides complimentary functionality for the DesignSync Data Manager project including:

- Custom Notes
- Email Notifications
- Object Data Sheets

Using ENOVIA Synchronicity ProjectSync Guide Documentation

This guide is single-sourced in HTML and generated to multiple locations.

- Integrated help - When you select Help from the ProjectSync sidebar, or Help on the ProjectSync dialog boxes, the ProjectSync User's Guide help opens in your default Web browser.
- DesignSync Documentation - available from the **Dassault Systems** product group in the Windows **Start** menu or on UNIX, by pointing your web browser to `$SYNC_DIR/share/content/doc/index.html`

Note: References from the *ENOVIA ProjectSync User's Guide* to the *ENOVIA Synchronicity Command Reference* guide always link to the ALL version of the guide, which contain information about all working methodologies for DesignSync. For more information about the available working methodologies, see ENOVIA Synchronicity Command Reference.

Getting Started with ProjectSync

The following documents help you set up, customize, and get started with ProjectSync:

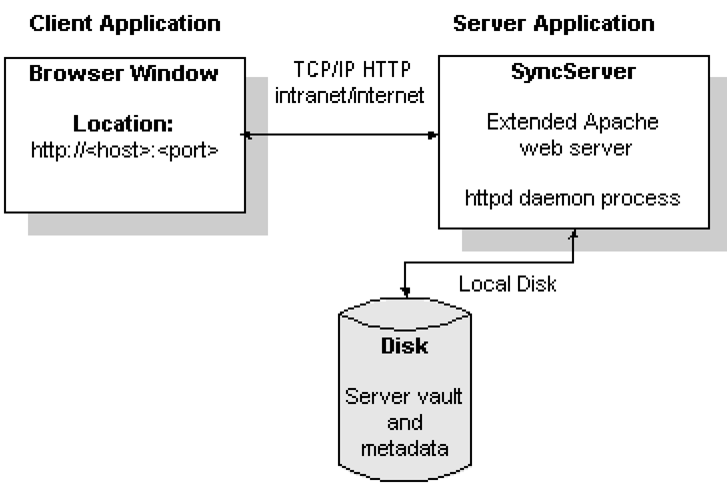
- Using ProjectSync - This user guide shows you how to perform all tasks supported by ProjectSync, once your system administrator has set up and customized your team's ProjectSync installation.
- Setting Up ProjectSync - This user guide shows system administrators how to set up an installation of ProjectSync, including setting up user profiles, projects, configurations, and note types. This user guide also helps you configure the email manager so that ProjectSync can trigger emails under circumstances you specify. Finally, this user guide illustrates how to set up access controls to manage the activities of your team members and protect the integrity of the project data managed by ProjectSync.
- Using DesignSync with ProjectSync - This topic explains the benefits of combining DesignSync's revision control capabilities with ProjectSync's project management features. The topics show how to integrate ProjectSync projects with DesignSync projects and how to associate ProjectSync configurations with DesignSync version tag(s) or branch tag(s). This user guide also tells you how to use data sheets to get information on objects in DesignSync vaults and how to set up and get information from RevisionControl notes, which are generated during revision-control operations.
- Overview of SyncServer Administration - This section, located in the *ENOVIA Synchronicity DesignSync Data Manager Administrator's Guide* tells system administrators how ProjectSync can be used to manage to SyncServer and offers practical information on daily system administration tasks. The topics also include troubleshooting information.
- Using ProjectSync Tcl Commands - This topic describes how to use the ProjectSync text commands and provides links to the *ENOVIA Synchronicity Command Reference*. For more information on creating Tcl scripts in the DesignSync environment, see the ENOVIA Synchronicity stcl Programmer's Guide.
- DesignSync Glossary - The glossary includes ProjectSync terms and definitions.

Using ProjectSync

Overview of ProjectSync

ProjectSync is based on internet technology and protocols, so you can run its project-management and communication capabilities from your internet browser.

ProjectSync uses a client/server architecture. The client application is your web browser and the server application is a SyncServer, an extended web server.



Invoking ProjectSync

To invoke ProjectSync, enter the host and port of your ProjectSync server as a URL in the location bar of your browser:

```
http://<host>/<port>
```

For example, in your_company if the SyncServer host name is spring and the port number is 2647, you would enter:

```
http://spring.your_company.com:2647
```

If you are on a company intranet, you can omit the your_company.com domain name in the URL.

To log into ProjectSync, you must have Javascript enabled in your browser. If you use the http://<host>/<port> URL to log in from a browser without Javascript support, you see a blank page.

When you first log into ProjectSync, you are prompted to give your ProjectSync user name and password. Your ProjectSync user name and password are ProjectSync-specific and are not necessarily the same as your UNIX user name and password. However, your ProjectSync system administrator may have set up ProjectSync so that your ProjectSync and UNIX log-in information is the same.

Switching Your Login

If you are running tests on the server, you may wish to log into ProjectSync as a new user without ending your ProjectSync session. Click on the **Switch User** hyperlink and enter the new user name and password in the pop-up dialog box. (If you get an "Authorization failed. Retry?" message instead of the dialog, click OK to access the Username and Password Required dialog.) Check the bottom of the Welcome to ProjectSync panel to ensure that you are logged in as the desired user.

Please note that changing user accounts affects all open ProjectSync windows for that browser. (On UNIX systems, all browsers spawned from the same process will be affected.)

Working with ProjectSync

After you have logged in, you see the ProjectSync main window, with a menu of options on the left and the main window on the right. The options listed on the menu vary depending on the access controls on your server. If you have access to these features, you can:

- **View and edit notes**. A note is a record of information in the ProjectSync database. You can read and append to the information in a note. For example, a note might contain an bug report or a discussion of an issue. See Viewing and Editing Notes for details.
- **Search for information in notes**. The **Queries** section of the menu contains options that let you search for notes that match the criteria you specify. See Constructing Standard Queries for details.
- **Add notes**. You can select a note name from the menu to add a new note of that type. See Adding SyncNotes for details.
- **Display data sheets**. You can select **Data Sheet** on the menu to look at information about projects on the SyncServer. See Displaying Data Sheets for details.
- **Subscribe for email**. You can select **Email Subscriptions** on the menu to subscribe for email notification when notes are updated. See Adding Email Subscriptions for details.
- **Edit your user profile**. You can select **Edit User Profile** on the menu to change your ProjectSync password, name, and contact information. See *DesignSync Data Manager Administrator's Guide*: Editing and Deleting User Profiles for details.

Related Topics

Using Quick View

What Are Email Subscriptions?

What Are Notes?

DesignSync Data Manager Administrator's Guide: What Are User Profiles?

Using Notes

What Are Notes?

A **note** is a record of information in the ProjectSync relational database. A note usually includes a title, an author, some fields for tracking the status of the note, and a discussion area where people can exchange comments. Notes also can include fields like a **CC List**, which contains names of users who receive email notifications when the note is updated.

The display of a note differs depending on how you are interacting with the note. A note has three modes:

- Add - The mode used when you first create a note. All fields on the note are editable. When you submit the note, a new note record is created and email notifications are sent to people registered for email updates.
- Edit - The mode used when you want to update the information in the note. All the fields are editable. When you amend the note, email notifications are sent to people registered for email updates.
- View - The mode used when you only want to review the information in the note. The fields in the note are not editable, but you can select any hyperlinks in the note to view related notes or other linked information.

See Adding SyncNotes for more information on creating new notes. See Viewing and Editing Notes for more information on working with existing notes.

Notes and Note Types

The fields contained in an individual note are defined by its note type. A note type is the template for all notes that deal with the same type of information. For example, the prepackaged SyncDefect note type defines fields that are needed for tracking defects during the development; the prepackaged Note note type defines fields that are needed for conducting discussions of issues.

A server can support multiple note types. Your ProjectSync menu lists the notes defined for your server. From the menu, you can select a note type name to add a note of that note type. To find a note of a particular note type, you can use the options in the **Queries** section of the menu.

The first note of a particular note type is assigned a note ID number of 1, the next gets a note ID of 2, and so on. You can search for an individual note by giving its note type and note ID number in Quick View. See Using Quick View for details.

See What Are Note Types? for more information on note types.

Note Attachments

When you create a note, it must be linked to a Project. This type of link is called an attachment because the note is attached to the project in the ProjectSync relational database.

You can also attach a note to a configuration of a project. If you use ProjectSync and DesignSync together, you can attach a note to design data in a DesignSync vault (which is associated with a project).

When you add or edit a note, the note contains fields for adding attachments:

- For project and configuration attachments, each field includes a pull-down menu that lists the available projects or configurations.
- If the ProjectSync project is associated with a project managed by DesignSync, the attachment field includes a **Browse** button. This button pops-up a browser window where you can navigate the DesignSync vault and select a vault object to attach the note to.

When you delete a note, its attachments also are deleted.

When you update a note, email notifications are automatically sent to people who subscribe for email about the attached project, configuration, or design object. The following example illustrates how attachments create email notifications.

Suppose that you are part of a team creating a new graphical element. Your system administrator has set up and defined the Widget project on your SyncServer. In your work, you discover a defect in the behavior of the graphical element. To report the defect, you select **Add SyncDefect** from the ProjectSync menu. On the Add SyncDefect panel, you select **Widget** from the pull-down menu of projects and complete the rest of the form. When you submit your new note, it is attached to the Widget project. As a result, all ProjectSync users who are subscribed to the Widget project get an email notification when your note is added. As long as they remain subscribed to the Widget project, these users also receive notifications each time someone updates the note.

Related Topics

Adding Email Subscriptions

Adding SyncNotes

Using ProjectSync with DesignSync

What Are Configurations?

What Are Note Types?

What Are Projects?

Using the Object Browser

The browser is activated by using the Browse button associated with the **Attached To** field on the **Query**, **Add**, and **Edit** note panels. Click the **Browse** button to pop up the Browse Server window.

- If you select a module or a project before clicking the **Browse** button, the Browse Server window lists all objects in the selected module and/or the selected project's hierarchy. If you select a configuration, the window lists all object's in the configuration's hierarchy.
- If you click **Browse** without selecting a module or a project, the Browse Server window displays all the top-level modules and projects on your server. To select an object in the **Contents of Server** page, click on the ☑ icon. The url for the objects you select are attached to the **Attached To** field.

Note: You can select a module as well as a project.

In the **Browse Server** window, above the Contents of <object> table, you will see a path indicator such as `Local Server>> Projects>> OperationA`. This indicator shows where in the server hierarchy you are browsing. The objects at that level of hierarchy are listed in the table. For example:

Contents of Server

Local Server

Object Name	Type	Data Sheet	Select
Modules	Folder		☑
Projects	Folder		☑

Click on **Projects** hyperlink to traverse forward through the hierarchy. For instance, if you clicked on Projects in the preceding example you would see:

Contents of Public Projects

Server ⏩ Projects

Object Name	Type	Owner	Data Sheet	Select
OperationA	Project	Master Admin		☑
OperationH	Project	Master Admin		☑

For a list of modules, click on **Modules** hyperlink to traverse forward through the hierarchy.

Contents of Public Modules

Local Server ⏩ Modules

Object Name	Type	Data Sheet	Select
Cars/Ford	Module		☑
Cars/Honda	Module		☑
Cars/Japanese	Module		☑

Click on a value within the path indicator to traverse backward through the server hierarchy. In the preceding example, you would click `Local Server` to revert to the

Contents of Server panel. If you do not have access to one of the server paths, that particular value will not appear as a hyperlink.

Note

- If you are browsing a remote server, you will not see the Server >> path indicator described previously. Instead, you will see the host name and port number of the remote server that you are browsing. For example, you might see something like "`yourserver.yourcompany.com:31118 >> Projects >> …`"
- If you browse to a remote server running a prior version of ProjectSync (version 2.5 and earlier), you will not see the features described in this topic. Instead, you will see that server's version of the project browser.

The Contents Table

The table displays:

- **Object Name** - The name of the module or project, configuration (for legacy modules), or vault object. Click on an object name to view lower-level objects in its hierarchy.
- **Type** - The type of object (module, project, project file, or configuration).
- **Data Sheet** - A link to the data sheet for the object. Click on the icon to get information on an object's URL, branch location, note attachments, and configurations.
- **Select** - Click on the checkbox icon in the **Select** column to transfer an object's URL to a panel's type-in field. If you select an object on a remote server, the URL will not automatically transfer to the ProjectSync panel. Instead, you will need to copy and paste the URL from a pop-up window that appears once you click on the object name.

The following navigation buttons appear below the table:

- **Change Server** - If you are browsing from an add, edit, or query note panel you will see the **Change Server** button. Click **Change Server** to browse the remote servers defined in your sync_servers.txt file (see Browsing Outside the SyncServer for details). Servers are listed in alphabetical order.

  Click on the server name hyperlink to browse for objects on that server. If you are not logged on to the selected server, you will need to provide a username and password.

- **Root** - Clicking on **Root** returns you to the list of top-level projects.
- **Help** - Clicking on **Help** opens up the help topic.
- **Dismiss** - Clicking on **Dismiss** closes the Browse Server window.

Browsing Outside the SyncServer

There may be instances where you would like to attach a note to an object on a server other than the SyncServer. ProjectSync lets you define a remote server and then browse to it from the add, edit, and query note panels.

Defining a Remote Server

To browse a remote server from ProjectSync's note and query panels, you must first add a definition for that server in a `sync_servers.txt` file. You can add definitions for multiple servers.

1. Create a `sync_servers.txt` file in:

   ```
   $SYNC_CUSTOM_DIR/site/config/
   ```

   For information about `$SYNC_CUSTOM_DIR`, see ProjectSync Environment Variables.

2. Add your server definition in the following format:

   `NAME` <name> - The "friendly" name for the server.

   `REFERENCE` <URL> - The complete URL to the server.

   `DESCRIPTION` <about the server> - An optional description of the server.

   1. For example:

      ```
      NAME ASIC Project

      REFERENCE
      sync://serverhost.my_company.com:2647/Projects/ASIC

      DESCRIPTION This is my test server
      ```

   The keywords are not case sensitive. Keywords must be the first non-space characters on a line.

   The `NAME` keyword begins a new server definition. It must appear before the `REFERENCE` keyword. Each `NAME` value must be unique; duplicates are ignored.

   Use a pound sign (#) as the first non-space character on a line to indicate comments. A comment cannot include a blank line. Any comment following a blank is ignored.

3. Once you list a server in this file, it will appear in a browser window when you click **Change Server** on an **Add Note**, **Edit Note**, **Standard Query** or **Advanced Query** panel.
4. Click on a server name hyperlink to browse for objects on that server. ProjectSync will not automatically transfer a remote object's URL to the add, edit or query panels. Instead, you will need to copy and paste the URL from a pop-up window that appears once you select the object. For additional information, refer to the preceding section on the Browse Server window.

Related Topics

Browsing Individual Modules

Creating Notes

Adding SyncNotes

ProjectSync includes four standard note types that you can install. These note types, called SyncNotes, are similar to other industry error-tracking reports. The standard SyncNotes are:

- **SyncDefect** - A Sync defect report. See Adding a SyncDefect for details.
- **HW-Defect-1** - A generic hardware defect report. See Adding a HW-Defect-1 for details.
- **SW-Defect-1** - A generic software defect report. See Adding a SW-Defect-1 for details.
- **Note** - Notes that your team can use to record threads of discussions. See Adding a Note for details.

When a standard or customized SyncNote is installed on your server, you can attach notes of that type to a specific project, project configuration, or object within a specific configuration. You also can attach the same notes to multiple objects within different project hierarchies.

Each note type has its own specific properties, but ProjectSync includes some functionality that you can use with all types of SyncNotes:

- **Links in discussion fields** - a method of creating hyperlinks to other notes or to URLs in the **Note Text** or other transcript field of a note. See the Creating Hyperlinks in Discussion Fields section that follows.
- **The Keywords Helper** - a pop-up window containing standard search keywords that can be applied to notes. See the Using the Keyword Helper section that follows.
- **The CC List Helper** - a pop-up window containing a list of users who can be added to the CC list fields in notes. See the Using the CC List Helper section that follows.

- **The Calendar** - a pop-up calender you can use to add dates into date fields of a note. See the Using the Calendar Widget section that follows.
- **Attachment fields** - optional fields where you can attach supplementary files to a note so that others can view or download the attachments. See the Using File Attachment Fields section that follows.
- **Linked Note fields** - optional fields where you can create links to other notes. See the Using Fields That Link to Other Notes section that follows.
- **ATTN: notation** - an optional feature that lets you direct updates of the note to specified users' attention. See the Sending Email for a User's Attention section that follows.
- **HTML options** - let you specify whether text in a transcript field (such as **Note Text**) is interpreted as HTML-encoded. See the Formatting Text in HTML section that follows. IMPORTANT: These options are only available when Safe Mode is disabled. By default, these options are not available to the user. For more information about using HTML in Notes and enabling or disabling safe mode, see Controlling HTML Tag Use.
- **Preview button** - lets you preview the display of text in a transcript field (such as **Note Text**). See the Previewing Text Before Submitting a Note section that follows. This option is only useful when safe mode is disabled, so by default, when safe mode is on, this option is not visible to use the user. For more information about using HTML in Notes and enabling or disabling safe mode, see Controlling HTML Tag Use.

Creating Hyperlinks in Discussion Fields

In the discussion fields of a note, you can create a hyperlink to:

- An existing note on the same server.
- A URL.

You can add such hyperlinks to both the **Note Text** field of standard note types or to custom transcript fields. (See Adding Transcript Fields to Notes for details.)

Linking to Another Note on the Server

To create a hyperlink to another note on the server, enter the exact note type name followed by the note ID number. For example:

```
SyncDefect 43
```

You also can enter the note type name and number in the following formats:

```
SyncDefect/43
```

```
SyncDefect #43
```

When the note is displayed in either View or Edit mode, the note type name and number are hyperlinked. Users can click the hyperlink to bring up the linked note.

The following restrictions apply:

- The note type name is case sensitive.
- The note type that you are referencing must be installed on your server.

SyncNotes can also include a separate field for linking to notes on the same server or other servers. See the Using Fields That Link to Other Notes section that follows.

Linking to a URL

To create a hyperlink to a web page, enter the URL with the `http://` or `https://` protocol. For example:

```
http://server.your_company.com/reports/report5.htm
```

When the note is displayed in either View or Edit mode, the URL is hyperlinked. Users can click on the hyperlink to bring up the web page.

To hyperlink text that is not a URL, you can use HTML coding, if enabled. For example:

```
<a href=http://server.your_company.com>My Company Homepage</a>
```

appears as follows in the View or Edit mode of a note:

`My Company Homepage`

Users who click on the linked text go to the your_company home page.

If you sever supports entering HTML codes, select **Allow HTML Tags** before submitting your note. If this option does not appear at the bottom of your note, safe mode is enabled and you cannot enter HTML code. For more information on safe mode, see Controlling HTML Tag Use.

Using the Keyword Helper

The Keyword Helper lets you choose standard keywords to add to the **Key Words** field of a note. To invoke the Keyword Helper, click on the **Modify** button next to the **Key Words** field on the Add Note or Edit Note panels.

The Keyword Helper displays a table of the standard keywords and their descriptions. The Keyword Helper informs you if any of the terms in the **Key Words** field is not standard.

To add keywords to your **Key Words** field:

1. In the **Select** column, select the checkboxes for the keywords you want to add to your **Key Words** field. You can select multiple keywords.
2. Click **OK** to insert the keyword(s) into the **Key Words** field.
3. Click **Dismiss** to close the Keyword Helper.

Using the CC List Helper

When a SyncNote includes a field for adding user names to a CC list, you can click **Modify** to bring up the CC List Helper. This pop-up displays a list of users who can be entered into the field.

To add users from the CC List Helper:

1. From the list of users, find the individual(s) you wish to add to the CC list. Click on the check box, or one of the profile fields (for example, name, email address, etc.), next to a username to select that user.
2. Click **OK** to add the selected name(s) to the **CCList** field.
3. To modify the CC list, click on the check box, or any of the profile fields (for example, name, email address, etc.), next to a username to select or deselect the user. Click **OK** to refresh the field with your new selections.
4. Click **Cancel** if you do not want to submit your changes.

Using the Calendar Widget

When you add a SyncNote that requires date information, a calendar icon appears next to any date fields on the note. When you click the calendar icon, an interactive calendar pops up. You can select a date from the calendar to automatically enter the date into the date field.

Using File Attachment Fields

When ProjectSync is set up, your System Administrator can create one or more optional fields for attachment files in note types. An attachment field lets you upload attachment files to the server. Hyperlinks to the uploaded files are added to the View and Edit modes of the note so that users can read or download the attached files.

If the attachment field is set up to accept a single attachment, add a file by typing the URL in the type-in field or by selecting the file using the project browser (see Using the Project Browser). To remove or replace the attachment, delete or replace the URL in the type-in field .

If the attachment field is set up to accept multiple attachments, you will see a **Manage Attachments** button. When you click **Manage Attachments,** the Attachments window appears. Use the Attachments window to add, delete, or replace files attached to that field of the note (see Attaching Files to Notes for details.)

To view an attachment, select its hyperlinked file name. If the attached file type is recognized by your browser, the attached file appears in your ProjectSync window. If you would like to view the attachment in a separate window, right click on the hyperlink and select **Open in New Window**.

If the file type is not recognized by your browser, you can download it.

Using Fields That Link to Other Notes

When ProjectSync is set up, your System Administrator can create optional fields for links to other notes. In the View or Edit mode of a note, users can select these links to read the linked notes.

To link to other notes, select the note type name from the pull-down menu and enter the note ID number in the type-in field. Click **Add Link** to create the link. You can create links to multiple notes.

Sending Email for a User's Attention

You can send an email notification to one or more specified users by entering `ATTN:` followed by the user name(s) on a single line in the note's discussion field. For example:

```
ATTN: jane chris dave
```

The specified user(s) receive email notifications whenever the note is updated, whether or not they have subscribed for email on notes of that type.

You can separate the list of user names with either spaces or commas. The `ATTN:` list of user names can appear anywhere in a discussion field, but the names must be on a line by themselves. Do not include other text on the same line as the list of user names.

The `ATTN:` functionality can be used in any transcript field of a note (for example, the **Note Text** field or other custom discussion fields). If the same recipient is listed in the `ATTN:` line of more than one transcript field in a note, the recipient gets only one copy of the email.

The `ATTN:` functionality can be turned on or off using the Email Administrator. See *DesignSync Data Manager Administrator's Guide*: Configuring Email Notifications for more information.

Formatting Text in HTML (Only available when Safe Mode is disabled)

You can enter HTML formatting codes into the **Note Text** field or other transcript field to display your information in HTML format. If your entry contains text within angle brackets (< >), you must specify whether the bracketed text is interpreted as HTML coding:

- If your angle brackets contain HTML coding, select **Allow HTML Tags** at the bottom of the panel.
- If none of the bracketed text is HTML coding, select **No HTML Markup Intended** at the bottom of the panel.
- If some of the bracketed text is HTML coding and some is not, select **Allow HTML Tags** and modify angle brackets that are not HTML tags as follows:
  -
    - Replace left brackets with: <
    - Replace right brackets with: >

For information on enabling or disabling safe mode, and restricting the HTML tags that can be entered to maintain sever security, see Controlling HTML Tag Use.

Previewing Text Before Submitting a Note (Only available when Safe Mode is disabled)

You can preview text you have entered into the **Note Text** field or other transcript field by clicking the **HTML-checkmark** button near the bottom of the field. This button opens a new browser window that shows how your append to the note will appear. This feature is especially useful when you are entering HTML-encoded text.

Related Topics

What are Notes?

What Are Note Types?

Adding a SyncDefect

Adding a HW-Defect-1

Adding a SW-Defect-1

Adding a Note

Adding a Note

Note is a standard note type that your Systems Administrator can install to conduct discussions or send information about projects managed by ProjectSync. Before you can add a Note note type, your Systems Administrator must set up at least one Project or Module on your server.

You can attach a Note to a Project, a Project configuration, or an object within a specific configuration, and to a Module, a Module branch or a Module version. You also can attach a Note to users, to other notes, and to multiple objects within different project hierarchies.

Note: You can add the same note to a Project and a Module at the same time.

To add a Note to your Project or Module:

1. From the **Note Types** section of the **ProjectSync** menu, select **Add Note**.

   The Add Note panel appears.

   - To attach the note to a Project, select a project name from the **Project** pull-down menu.
     Note: The legacy modules (created prior to Version 5.0) appear in the Project pull-down menu. The Modules are listed in the **Module** pull-down menu.
   - To attach the note to a Module, select a Module from the **Module** pull-down menu.
     The menu lists alphabetically, all the Modules on the server.
2. If you want to attach your Note to an entire project or a legacy module (rather than a specific configuration or component of the project), skip to step 7. Otherwise, from the **Configuration** pull-down menu, select a configuration of the selected project.

3. From the **Tag** pull-down menu, select a version or a branch tag associated with the Module you selected.
Once a Module is selected in the Module pull-down, the Tag box is populated with all branch and version tags for the given module. Branch and version tags are listed together in ASCII sort order [A-Z,a-z], with branch tags ending with a colon.

Note: You should use the **Module** and **Tag** pull-downs in the same way you use the **Project** and **Configuration** pull-downs to select a project or legacy module and a configuration.
4. Using the **Attach To** field, you can attach the Note to notes, users and additional Projects and Modules.
5. Click on **Browse** to pop up the Browse Server window (see Using the Project Browser). The browser lets you navigate a list of all objects on the SyncServer (or any remote servers that you have defined) and transfer an object's URL to the **Attach To** field. You also can type the object's relative path directly into the **Attach To** box.

For example, suppose you have a Project called ASIC that is checked into: `sync://host:port/Projects/ASIC`. This Project contains an ALU subdirectory that includes the file `top.v`. To attach a note to this file, type in the path starting from the level of the project you selected: `ALU/top/top.v;`.

Attaching a Note to Users and Other Notes

To attach to another note or to a user on the same server, enter the SyncServer URL.

- To attach to another note, enter: sync:///Note/SyncNotes/<note_type_name>/<note_ID_number>. For example: sync:///Note/SyncNotes/SyncDefect/147
- To attach to a user, enter: sync:///Users/<username>. For example: sync:///Users/chris

To attach to another note on a different server, enter the complete SyncServer URL of the remote note: sync://host:port/Note/SyncNotes/<note_type_name>/<note_ID_number>

6. In the **Title** field, enter a name for the Note you are creating.
7. Enter a name or names in the **Cc List** field to send a copy of the note to other users. Click **Modify...** to display a list of names associated with the selected project.
8. Your System Administrator can create one or more attachment fields for this note type. You can use an attachment field to upload a supporting file to the server. When the note is created, other users can view or download this file. Click **Browse** to select an attachment file to upload.
9. Your System Administrator can enable one or more fields that can contain links to other note types. To link to another note, select the note type name from the pull-down menu and enter the note ID number in the **Id** field. Click **Add Link** to add the note to the linked notes field. You can link to multiple notes.
10. In the **Note Text** field, enter a detailed description of the problem.

    You can add ATTN: <username username...> on a single line in your description to direct the note to one or more users' attention. See Sending Email for a User's Attention in "Adding SyncNotes" for details.

11. If server administrator allows HTML tags in notes, your **Note Text** field or other transcript field can use HTML tags for formatting or other purposes, and you will see the following additional options **Allow HTML Tags** or **No HTML Markup Intended** at the bottom of the panel. If you select **Allow HTML Tags**, the HTML tags (text within angle brackets) is interpreted as HTML encoding. See Adding SyncNotes for details on using this feature. If you do not see these options, but want to allow HTML tags to be entered, see Controlling HTML Tag Use for information on safe mode.
12. To preview how your text will be displayed, click the **HTML-checkmark** button next to the **Note Text** field. This button opens a new browser window that shows your description exactly as it will appear in the Note. See Adding SyncNotes for details. This option is only useful when safe mode is disabled, so by default, this button is not visible to use the user. For more information about using HTML in Notes and enabling or disabling safe mode, see Controlling HTML Tag Use.
13. Click on the **Submit** button to add the Note.

Related Topics

What are Notes?

What Are Note Types?

Adding SyncNotes

Adding notes using the Email

Browsing Individual Modules

Adding a SyncDefect

SyncDefect is a standard note type that your Systems Administrator can install to track defects in projects managed by ProjectSync. Before you can add a SyncDefect, your Systems Administrator must set up at least one project on your server.

You can attach a SyncDefect to a project, a project configuration, or an object within a specific configuration. You also can attach a SyncDefect to users, to other notes, and to multiple objects within different project hierarchies.

Note: ProjectSync automatically assigns a value to the note fields defined as the type `SyncUserList`. When a selection is made to the **Project**, **Configuration**, and **Attach To** fields, the owner is automatically inserted in the `SyncUserList` field. One example of this feature is to automatically set the "Responsible" field on a note. ProjectSync selects the owner of the object most recently set. If several objects that have different owners are defined in the **Attach To** field, the owner of the last one selected is inserted. Before replacing the existing value in a `SyncUserList` field, ProjectSync displays a confirmation box.

To add a SyncDefect to your project:

1. From the **Note Types** section of the **ProjectSync** menu, select **Add SyncDefect**.

   The Add SyncDefect panel appears.

2. From the **Project** pull-down menu, select a project name. From the **Module** pull-down menu, select a Module name.
3. If you want to attach your SyncDefect to an entire project (rather than a specific configuration or component of the project), skip to step 6. Otherwise, from the **Configuration** pull-down menu, select a configuration of the selected project.
4. From the **Tag** pull-down menu, select a version or a branch tag associated with the Module you selected.
   Once a Module is selected in the Module pull-down, the Tag box is populated with all branch and version tags for the given module. Branch and version tags are listed together in ASCII sort order [A-Z,a-z], with branch tags ending with a colon.

Note: You should use the **Module** and **Tag** pull-downs in the same way you use the **Project** and **Configuration** pull-downs to select a project or legacy module and a configuration.

5. Using the **Attach To** field, you can attach the SyncDefect to project objects or to other notes or users.

   Click on **Browse** to pop up the Browse Server window (see Using the Project Browser). The browser lets you navigate a list of all objects on the SyncServer (or any remote servers that you have defined) and transfer an object's URL to the **Attach To** field. You also can type the object's relative path directly into the **Attach To** box.

   For example, suppose you have a project called ASIC that is checked into: sync://host:port/Projects/ASIC. This project contains an ALU subdirectory that includes the file top.v. To attach a note to this file, type in the path starting from the level of the project you selected: ALU/top/top.v;.

   Attaching a SyncDefect to Users and Other Notes

   To attach to another note or to a user on the same server, enter the SyncServer URL.

   - To attach another note, enter: sync:///Note/SyncNotes/<note_type_name>/<note_ID_number>. For example: sync:///Note/SyncNotes/SyncDefect/147
   - To attach a user, enter: sync:///Users/<username>. For example: sync:///Users/chris

   To attach to another note on a different server, enter the complete SyncServer URL of the remote note: sync://host:port/Note/SyncNotes/<note_type_name>/<note_ID_number>

6. In the **Title** field, enter a name for your SyncDefect.
7. From the **Responsible** pull-down menu, select a user name if the correct person is not automatically filled in. This pull-down menu provides the names of all the users associated with the selected **Project**, **Configuration,** or attached object. If you want to select a different responsible party, click **Other...** to display a list of all users defined for your ProjectSync server.
8. Select a required value from the **Customer**, **Severity**, **Browser**, **Platform**, and **Class** pull-down menus.
9. In the **Keywords** field, enter any terms that users can specify when they search for this note. Click **Modify** to access the Keyword Helper, which lets you insert standard keywords in this field.

10. Enter a name or names in the **CCList** field to send a copy of the note to a specific user. Click **Modify...** to display a list of names associated with the selected project.
11. If applicable, select a value from the **Fixed Release** pull-down menu.
12. Click on the calendar icon next to the **Date Fixed** field to select a date when the defect was fixed.
13. In the **Supporting Data** field, add attachments that support your SyncDefect.

    Click the **Manage Attachments** button to get the Attachments pop-up window. On the Attachments window, click **Browse** and select the file you wish to attach (for more information, see Using the Project Browser).

    Click **Attach** to add your file to the attachment list. Repeat this process until you've selected all the files you wish to attach. Click **OK** to upload these files and close the Attachments window or click **Cancel** to discard your changes.

    To delete an attachment, click the **Manage Attachments** button to get the Attachments pop-up window. Click on the **Delete** hyperlink next to the attachment you want to remove.

14. Your System Administrator can enable one or more fields that can contain links to other note types. If a note link field exists, you can create a link to another note by selecting the note type name from the pull-down menu and entering the note ID number in the **Id** field. Click **Add Link** to add the note to the linked notes field. You can link to multiple notes.
15. In the **Note Text** field, enter a detailed description of the problem.

    You can add `ATTN: <username username...>` on a single line in your description to direct the note to one or more users' attention. See Sending Email for a User's Attention in "Adding SyncNotes" for details.

16. If server administrator allows HTML tags in notes, your **Note Text** field or other transcript field can use HTML tags for formatting or other purposes, and you will see the following additional options **Allow HTML Tags** or **No HTML Markup Intended** at the bottom of the panel. If you select **Allow HTML Tags**, the HTML tags (text within angle brackets) is interpreted as HTML encoding. See Adding SyncNotes for details on using this feature. If you do not see these options, but want to allow HTML tags to be entered, see Controlling HTML Tag Use for information on safe mode.
17. To preview how your text will be displayed, click the **HTML-checkmark** button next to the **Note Text** field. This button opens a new browser window that shows your description exactly as it will appear in the SyncDefect. See Adding SyncNotes for details. This option is only useful when safe mode is disabled, so by default, this button is not visible to use the user. For more information about using HTML in Notes and enabling or disabling safe mode, see Controlling HTML Tag Use.

18. Click **Submit** to add the SyncDefect.

Related Topics

What are Notes?

What Are Note Types?

Adding SyncNotes

Adding a SW-Defect-1

SW-Defect-1 is a standard note type that your Systems Administrator can install to track software defects in projects managed by ProjectSync. Before you can add a SW-Defect-1 note type, your Systems Administrator must set up at least one project on your server.

You can attach a SW-Defect-1 to a project, a project configuration, or an object within a specific configuration. You also can attach a SW-Defect-1 to users, to other notes, and to multiple objects within different project hierarchies.

To add a SW-Defect-1 to your project:

1. From the **Note Types** section of the **ProjectSync** menu, select **Add SW-Defect-1**.

   The Add SW-Defect-1 panel appears.

2. From the **Project** pulldown menu, select a project name. From the **Module** pull-down menu, select a Module name.
3. If you want to attach your SW-Defect-1 to an entire project (rather than a specific configuration or component of the project), skip to step 6. Otherwise, from the **Configuration** pull-down menu, select a configuration of the selected project.
4. From the **Tag** pull-down menu, select a version or a branch tag associated with the Module you selected.
   Once a Module is selected in the Module pull-down, the Tag box is populated with all branch and version tags for the given module. Branch and version tags are listed together in ASCII sort order [A-Z,a-z], with branch tags ending with a colon.

   Note: You should use the **Module** and **Tag** pull-downs in the same way you use the **Project** and **Configuration** pull-downs to select a project or legacy module and a configuration.
5. Using the **Attach To** field, you can attach the SW-Defect-1 to project objects or to other notes or users.

Click on **Browse** to pop up the Browse Server window (see Using the Project Browser). The browser lets you navigate a list of all objects on the SyncServer (or any remote servers that you have defined) and transfer an object's URL to the **Attach To** field. You also can type the object's relative path directly into the **Attach To** box.

For example, suppose you have a project called ASIC that is checked into: `sync://host:port/Projects/ASIC`. This project contains an ALU subdirectory that includes the file `top.v`. To attach a note to this file, type in the path starting from the level of the project you selected: `ALU/top/top.v;`.

Attaching a SW-Defect-1 to Users and Other Notes

To attach to another note or to a user on the same server, enter the SyncServer URL.

- To attach another note, enter: `sync:///Note/SyncNotes/<note_type_name>/<note_ID_number>`. For example: `sync:///Note/SyncNotes/SyncDefect/147`
- To attach a user, enter: `sync:///Users/<username>`. For example: `sync:///Users/chris`

To attach to another note on a different server, enter the complete SyncServer URL of the remote note:
`sync://host:port/Note/SyncNotes/<note_type_name>/<note_ID_number>`

6. In the **Title** field, enter a name for your SW-Defect-1 note.
7. Select a required value from the **Software**, **Version**, **Detection Method**, **Detected in Phase**, and **Problem Severity** pull-down menus.
8. If desired, place a check in the **Showstopper** and/or **Enhancement Request** fields, enter text into the **Test Program Name**, **Machine Name**, and **Affects Project** text boxes, select a value from the **OS and Version** pull-down menu, and/or enter a date in the **Need Fix By** field.
9. Your System Administrator can create one or more attachment fields for this note type. You can use an attachment field to upload a supporting file to the server. When the note is created, other users can view or download this file. Click **Browse** to select an attachment file to upload.
10. Your System Administrator can enable one or more fields that can contain links to other note types. To link to another note, select the note type name from the pull-down menu and enter the note ID number in the **Id** field. Click **Add Link** to add the note to the linked notes field. You can link to multiple notes.
11. In the **Note Text** field, enter a detailed description of the problem.

You can add `ATTN: <username username...>` on a single line in your description to direct the note to one or more users' attention. See Sending Email for a User's Attention in "Adding SyncNotes" for details.

12. If server administrator allows HTML tags in notes, your **Note Text** field or other transcript field can use HTML tags for formatting or other purposes, and you will see the following additional options **Allow HTML Tags** or **No HTML Markup Intended** at the bottom of the panel. If you select **Allow HTML Tags**, the HTML tags (text within angle brackets) is interpreted as HTML encoding. See Adding SyncNotes for details on using this feature. If you do not see these options, but want to allow HTML tags to be entered, see Controlling HTML Tag Use for information on safe mode.
13. To preview how your text will be displayed, click the **HTML-checkmark** button next to the **Note Text** field. This button opens a new browser window that shows your description exactly as it will appear in the SW-Defect-1. See Adding SyncNotes for details. This option is only useful when safe mode is disabled, so by default, this button is not visible to use the user. For more information about using HTML in Notes and enabling or disabling safe mode, see Controlling HTML Tag Use.
14. Click on the **Submit** button to add the SW-Defect-1.

Related Topics

What are Notes?

What Are Note Types?

Adding SyncNotes

Adding a HW-Defect-1

HW-Defect-1 is a standard note type that your Systems Administrator can install to track hardware defects in projects managed by ProjectSync. Before you can add a HW-Defect-1 note type, your Systems Administrator must set up at least one project on your server.

You can attach a HW-Defect-1 to a project, a project configuration, or an object within a specific configuration. You also can attach a HW-Defect-1 to users, to other notes, and to multiple objects within different project hierarchies.

Note: ProjectSync automatically assigns a value to the note fields defined as the type `SyncUserList`. When a selection is made to the **Project Configuration**, and **Attach To** fields, the owner is automatically inserted in the `SyncUserList` field. One example of this feature is to automatically set the "Responsible" field on a note when one of these fields change. Since the HW-Defect-1 note includes several `SyncUserList` fields, ProjectSync will only set the predefined "Responsible" field. This behavior is unique to the prepackaged HW-Defect-1 note type. If several objects that have different owners are defined in the **Attach To** field, the owner of the last one selected is inserted in the "Responsible" field. Before replacing the existing value in a `SyncUserList` field, ProjectSync displays a confirmation box.

To add a HW-Defect-1 to your project:

1. From the **Note Types** section of the **ProjectSync** menu, select **Add HW-Defect-1**.

   The Add HW-Defect-1 panel appears.

2. From the **Project** pull-down menu, select a project name. From the **Module** pull-down menu, select a Module name.
3. If you want to attach your HW-Defect-1 to an entire project (rather than a specific configuration or component of the project), skip to step 6. Otherwise, from the **Configuration** pull-down menu, select a configuration of the selected project.
4. From the **Tag** pull-down menu, select a version or a branch tag associated with the Module you selected.
   Once a Module is selected in the Module pull-down, the Tag box is populated with all branch and version tags for the given module. Branch and version tags are listed together in ASCII sort order [A-Z,a-z], with branch tags ending with a colon.

   Note: You should use the **Module** and **Tag** pull-downs in the same way you use the **Project** and **Configuration** pull-downs to select a project or legacy module and a configuration.
5. Using the **Attach To** field, you can attach the HW-Defect-1 to project objects or to other notes or users.

   Click on **Browse** to pop up the Browse Server window (see Using the Project Browser). The browser lets you navigate a list of all objects on the SyncServer (or any remote servers that you have defined) and transfer an object's URL to the **Attach To** field. You also can type the object's relative path directly into the **Attach To** box.

   For example, suppose you have a project called ASIC that is checked into: `sync://host:port/Projects/ASIC`. This project contains an ALU subdirectory that includes the file `top.v`. To attach a note to this file, type in the path starting from the level of the project you selected: `ALU/top/top.v;`.

   Attaching a HW-Defect-1 to Users and Other Notes

   To attach to another note or to a user on the same server, enter the SyncServer URL.

- To attach another note, enter: `sync:///Note/SyncNotes/<note_type_name>/<note_ID_number>`. For example: `sync:///Note/SyncNotes/SyncDefect/147`
- To attach a user, enter: `sync:///Users/<username>`. For example: `sync:///Users/chris`

To attach to another note on a different server, enter the complete SyncServer URL of the remote note: `sync://host:port/Note/SyncNotes/<note_type_name>/<note_ID_number>`

6. In the **Title** field, enter a name for your HW-Defect-1 note.
7. Select a value from the **Severity** pull-down menu. The system administrator can change the default **Severity** value.
8. From the **Responsible** pull-down menu, select a user name if the correct person is not automatically filled in. This pull-down menu provides the names of all the users associated with the selected **Project**, **Configuration,** or attached object. If you want to select a different responsible party, click **Other...** to display a list of all users defined for your ProjectSync server.
9. If desired, select from the pull-down menus or enter a value into the optional **Submodule**, **Design Manager**, **Product**, **Documentation**, **Tools**, **Platform**, **Information Needed By**, **Found by** and/or **User Waiting** fields.
10. In the **Keywords** field, enter any terms that users can specify when they search for this note. Click **Modify** to access the Keyword Helper, which lets you insert standard keywords in this field.
11. Enter a name or names in the **CCList** field to send a copy of the note to a specific user. Click **Modify...** to display a list of names associated with the selected project.
12. Your System Administrator can create one or more attachment fields for this note type. You can use an attachment field to upload a supporting file to the server. When the note is created, other users can view or download this file. Click **Browse** to select an attachment file to upload.
13. Your System Administrator can enable one or more fields that can contain links to other note types. To link to another note, select the note type name from the pull-down menu and enter the note ID number in the **Id** field. Click **Add Link** to add the note to the linked notes field. You can link to multiple notes.
14. In the **Note Text** field, enter a detailed description of the problem.

    You can add `ATTN: <username username...>` on a single line in your description to direct the note to one or more users' attention. See Sending Email for a User's Attention in "Adding SyncNotes" for details.

15. If server administrator allows HTML tags in notes, your **Note Text** field or other transcript field can use HTML tags for formatting or other purposes, and you will see the following additional options **Allow HTML Tags** or **No HTML Markup Intended** at the bottom of the panel. If you select **Allow HTML Tags**, the HTML

tags (text within angle brackets) is interpreted as HTML encoding. See Adding SyncNotes for details on using this feature. If you do not see these options, but want to allow HTML tags to be entered, see Controlling HTML Tag Use for information on safe mode.

16. To preview how your text will be displayed, click the **HTML-checkmark** button next to the **Note Text** field. This button opens a new browser window that shows your description exactly as it will appear in the HW-Defect-1. See Adding SyncNotes for details. This option is only useful when safe mode is disabled, so by default, this button is not visible to use the user. For more information about using HTML in Notes and enabling or disabling safe mode, see Controlling HTML Tag Use.
17. Click on the **Submit** button to add the HW-Defect-1.

Related Topics

What are Notes?

What Are Note Types?

Adding SyncNotes

Using Quick View

Quick View is located on the top button bar of your screen, just under the Browser menus and button bar. This feature allows you to display or edit an existing note without going through the procedure of querying the database. If you know the specific type of note that you are looking for and its note Id, you can use **Quick View** to:

- Read the note contents once the **View** button is selected.
- Modify the note once the **Edit** button is selected.
- Edit the original body text of a note once the **Revise** button is selected. (This button may not be available to every user.)

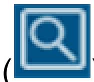
While **Quick View** can be used to display multiple notes, its main purpose is to locate and display a specific note quickly.

Note: If the note contains attachments, the attachments are displayed in a sortable table. To sort the table, click the table heading. The table can only be sorted with one primary sort field; multi-field sorting is not supported.

Viewing a Note

To display a specific note using **Quick View**, follow the steps below:

1. Select the **Note Type** from the pull-down list. This list will contain all the visible note types that you have installed on your server.

2. Click in the **Note Id** field and enter the number of the note that you want to find.
3. Click on the View () button. The selected note will immediately be displayed for you to view.

   You can also hit the **<Enter>** key to view the note in a read-only format unless your last action in Quick View was editing a note.

Editing a Note

To immediately edit a specific note using **Quick View**, follow the steps below:

1. Select the **Note Type** from the pull-down list. This list will contain all the note types that you have installed on your server.
2. Click in the **Note Id** field and enter the number of the note that you want to find.
3. Click on the Edit () button. The selected note will immediately be displayed for you to edit.

   If your last action in Quick View was editing a note, you can hit the **<Enter>** key to display the note in an editable format. Otherwise, **<Enter>** causes the note to display in read-only format.

4. Make your changes, then select **Submit** to save the note changes, **Delete...** to remove the note, or **Help** to launch this help. If you decide not to save the changes, use the browser back button to return to the previous page.

Note: If Safe Mode is enabled, you cannot include HTML text in the note. For more information about using HTML in Notes and enabling or disabling safe mode, see Controlling HTML Tag Use.

Revising a Note's History

Depending on how your system administrator has set up your system, you may also be able to revise a specific note's history. If this capability is enabled, you will see a **Revise** button in the **Quick View** panel. This feature is commonly used to edit HTML text in a note's body. To prevent users from unintentionally deleting note content, your system administrator may provide this feature on a limited basis.

Note: As an indication that a note's history has been modified, ProjectSync automatically displays a red banner at the beginning and the end of the note's history. This banner also displays the time of the revision and name of the user making the revision.

To revise a specific note's history using **Quick View**, follow the steps below:

1. Select the **Note Type** from the pull-down list. This list will contain all the note types that you have installed on your server.
2. Click in the **Note Id** field and enter the number of the note that you want to find.
3. Click on the Revise () button. The **Revise Note History** panel will immediately display the selected note's entire history.
4. Enter the desired changes.
5. Click on one of the following buttons:

   Submit Changes - to commit your changes and modify the selected note's original body text.

   Preview - to review your changes before submitting them. This option is only useful when safe mode is disabled, so by default, this option is not visible to use the user. For more information about using HTML in Notes and enabling or disabling safe mode, see Controlling HTML Tag Use.

   Help - to display the help file.

If you clicked on the **Preview** button in Step 5, the **Preview Revised History** panel will automatically display your changes. You can submit your changes from this panel, or use the **Back to editor** button to make additional text modifications.

Note: If another user revises a note's history while you are revising its history, your revision will fail and you will see the message "Note was revised by another user." If another user edits a note while you are revising its history, your revision will succeed and you will see a warning message on the Operation Successful panel.

Selecting Multiple Notes

Although the primary purpose of Quick View is to rapidly access a specific note, it can be used to select multiple notes by entering in more than one Note Id. Use the syntax below to enter multiple Note IDs in **Quick View**.

- For a range of notes, enter `<start#>-<end#>` (i.e., `100-110`).
- For multiple individual notes, separate the note IDs by a single space (i.e., `1 5 30`).
- For a combination of the two, separate the note IDs and ranges by a single space (i.e., `10-15 30 100-110`).

When you enter multiple Note IDs and click on the View or Edit buttons in **Quick View**, the results will be displayed in the form of a **Query Results** report. Clicking on a **Note Id** hyperlink will display the note in read-only or edit mode.

Related Topics

Viewing Query Results

Constructing Custom Queries

Viewing and Editing Notes

You can display existing notes in two modes:

- View - Lets you read all the information in the note and follow any hyperlinks it contains to other notes. In View mode, you cannot edit the fields on the note. If you have permission, you can click **Edit** to modify the information in the note. See Adding a Note for information on the fields on notes.
- Edit - Lets you amend the information in the note, if you have permission. See Adding SyncNotes and Adding a Note for information on how to work with fields on notes.

Note: If a note is attached to a Module and a legacy module (or project), the Module appears in the Module/Tag fields and the legacy module (or project) appears in the Project/Configuration fields.

To edit or view an existing note, you must first locate the note in the database and display its contents. You can locate an existing ProjectSync note by:

- Using the options in the **Queries** section of the **ProjectSync** menu to search for information contained in the note. You can perform the following types of searches:
  - **Standard** - Lists the fields of the note type and lets you select the field values to search for. See Constructing Standard Queries for details.
  - **Advanced** - Lets you create custom queries that you can perform for any note type on the server. See Constructing Advanced Queries for details.
  - **Text Search** - Lets you perform a full-text search of the notes on the server. See Constructing Text Queries for details.

- Using Quick View to display the note. To use Quick View, you must know the note ID of the note. The Quick View includes a **View** button, which takes you to the View mode of the note, and an Edit button that takes you to the **Edit** mode of the note. See Using Quick View for details.

In the discussion fields of notes (for example, **Note Text**), long lines of text without white space are broken after 70 single-byte characters or the equivalent number of multi-byte characters (e.g. 35 double-byte characters). A red double hyphen (--) at the end of the line indicates where breaks were inserted.

By default, the **Note Text** within a note is displayed chronologically, with each new addition being displayed below the previous note text. You can customize your note type to sort in reverse chronological order, so that the newest additions display on top. For more information, see Controlling ProjectSync Note Sort Order.

If your ProjectSync server is set up with the email-reply capability, users can append to the **Note Text** field using their email tool. For email appends to the **Note Text** field, ProjectSync displays the user's name and email address in the banner above the append. See Using Email Notifications for details on the email-reply capability.

When viewing notes with attachments, the attachments are displayed in a sortable table. To sort the table, click the table heading. The table can only be sorted with one primary sort field; multi-field sorting is not supported.

Deleting Notes

In the Edit mode of a note, you also may be able to delete the note. (Your system administrator can restrict access to this capability.)

If you can delete a note, you see a **Delete** button at the bottom of the Edit <note_type_name> panel. When you click on the **Delete**, ProjectSync asks for verification before the note is deleted. Click **OK** to delete the note.

When a note is deleted from the database, its attachments are also deleted, including files attached to the note. A note can be attached to a project, project configuration, or object within a specific configuration. The deleted note's note ID number will not be reused.

Overlapping Edit Warning

The overlapping edit warning alerts you when changes have been made to a note while you were editing it. This feature does not alter the editing behavior. The last modification will always overwrite any changes that were submitted previously.

The message that is displayed depends on the modifications that were made. The following conditions apply.

- If another user changed a property value while you were editing the note and the value stored is the same as the value you are submitting, you will see the following message.

  ```
  Property: <prop name> - Property value already set to
  <value>, most likely by an edit operation just prior to
  this one.
  ```

- If another user changed a property value while you were editing the note and the value stored is different from the value you are submitting, you will see the following message.

```
Property: <prop name> - Conflicting property value change
made

Original Value: (This is the value that was stored on the
form when you first requested the note in edit mode.)

Current Value: (This is the current property value stored
in the note by another user.)

New Value: (This is the new property value you entered on
the form.)
```

Related Topics

Adding SyncNotes

Browsing Individual Modules

Constructing Advanced Queries

Constructing Standard Queries

Constructing Text Queries

Using Quick View

Using the Project Browser

DesignSync Data Manager Administrator's Guide: Working with RevisionControl Notes

Attaching Files to Notes

Your ProjectSync administrator can modify a note type so that it contains one or more attachment fields that link to other files (see Creating Attachment Fields for details). Using these attachment fields, you and other ProjectSync users can upload supporting files to the server and view or download the files.

Single-File Attachment Fields

If the attachment field accepts only a single attachment, add a file by entering the URL in the type-in field or by selecting the file using the project browser (see Using the Project Browser). To remove or replace the attachment, delete or replace the URL in the type-in field .

Multiple-File Attachment Fields

If the attachment field accepts multiple attachments, you will see a **Manage Attachments** button. Click **Manage Attachments** next to an attachment field on a note to access the Attachments window. You can use the Attachments window to add, delete, or replace files attached to that field of the note.

When you select a file using the Attachments window, the file is copied from your local machine to a staging area on the server. The file name is displayed on the note that you are editing. However, the file is not attached to the note until you click the **Submit** button on the note panel. Similarly, when you delete or replace a file attachment, the change does not take effect until you submit the note.

Adding a File

To add a file attachment using the Attachments window:

1. Click **Browse** in Step 1 to bring up your browser's file upload window.
2. Select the file to attach and dismiss the file upload window.
3. Click **Attach** in Step 2. This button displays **In Progress** while the file is uploading to the SyncServer.
4. Repeat this process for each file that you want to attach.

   Each file that you add is displayed as **New** in the table at attachments on the Attachments window.

5. Click **OK** to close the Attachments window.

   Each new file is displayed in the new attachments field on the note.

6. After making all your other changes to the note, click **Submit** to attach your file(s) to the note.

If the server is unavailable when you attempt to attach a file, the **In Progress** button hangs. You need to close the Attachments window, wait until the server is available, and then reattach your file.

When you add an attachment; the size of the attachment, author and date of the upload is retained as part of the information about the attachment. This can be viewed in the attachment table when you view the note.

Deleting a File

To remove a file using the Attachments window:

1. In the table of attached files under Step 2, click **Delete** next to the name of the file you want to remove.

If the file is already attached to the note, a red X appears next to the deleted file on the Attachments window. If the file attachment is new and pending to the note (indicated by a new icon next to the file name), the file named is removed from the table.

2. Repeat this process for each file that you want to delete.

   You can change your mind by clicking **Restore** in the table on the Attachments window.

3. Click **OK** to close the Attachments window.
4. After making all your other changes to the note, click **Submit** to remove the attached file(s) from the note.

Replacing a File

To replace a file, follow the procedure for adding a file and choose a file with the same name as the file you want to replace. Click **Attach** to overwrite the existing file with a new file that has the same name.

The file is not replaced until you click **Submit** on the note you are creating or editing. Before you submit the note, you can click **Delete** next to the replacement file name in the table of attached files in the Attachments window. Deleting the replacement file lets you retain the original file.

Related Topics

Viewing and Editing Notes

What Are Notes?

Searching for Notes

Constructing Text Queries

If you want to search for notes that pertain to a certain topic, use the **Text Search** feature.

1. Select **Text Search** from **Queries** in the **ProjectSync** menu.
2. From the **Full Text Search** panel, choose a value from the **Note Type** pull-down list or search all note types by default.
3. If you are familiar with SQL, you can construct and enter a query to further refine your search in the Query text box.

   Note: If you are searching across all notes, the query expression should only reference fields common to all notes.

4. Enter the text string you wish to locate in the **Find Words** field. This field is not case sensitive.
5. Note whether a match with any one of the words or a match with all of the words is required to meet your search criteria.
6. Choose whether the search should include just **note titles** (fast) or all of the **note text** (slower). The fast search also includes any **Keywords** fields used in the note type.
7. Click on the **Submit** button. The results of a full text search are expressed as a table of notes that match the search criteria. Each row of the table describes a specific note, identified by its **Note Id** and **Title**.

Once the query report is displayed, you can view a specific note by clicking on the note's **Id**. You can then edit the note by clicking on the **Edit** button at the bottom of the note display.

Related Topics

Viewing and Editing Notes

Constructing Standard Queries

You can search your database for specific information about any ProjectSync notes installed on your system. You can construct queries for:

- Specific pre-packaged note types you renamed or modified.
- Any note types that you have created on your own.

You can search for a single note or several notes at one time.

You can define a Standard query and store it on the server (depending on your access permissions). You can also bookmark your query on your computer, or save the result as a Comma Separated Values or Microsoft Excel® file for download to a spreadsheet. The results of your database query display in the form of a report.

Note: If you do not have any Project or Module defined for the server, you cannot access the Standard Query panel.

To construct a **Standard** query, follow the steps below:

1. Click on **Standard** from **Queries** in the **ProjectSync** menu.
   A list of all note types that you have installed on your system is displayed. The **RevisionControl** note type is also displayed.
2. In the **Select Note Type** panel, click on the note type that you want to query.
   The query form opens with all the property fields for the selected note type.

   Note: It is not necessary to select any field in order to submit your query. If you do not select any field and submit your query, the query report will include every note in the database of the particular note type. To get specific query reports, select all applicable fields.

3. For DesignSync (non Module) objects and Legacy Modules, select a **Project** on which you want to run the query. For Modules select a **Module**.
   If you select a Module, the tags associated with the branches and versions of the selected Module appear in the **Tag** pull-down list.
4. For Modules, select the appropriate tag from the tag from the **Tag** menu.
5. For hierarchical queries on Modules, select the Href mode.
   The href mode can be Normal (the default), Static, or Dynamic. The behavior of href mode when set to Normal is dependent on the value of the "HrefModeChangeWithTopStaticSelector" registry key at the server level. For more information on understanding href modes, see the *ENOVIA Synchronicity DesignSync Data Manager's Guide*, topic "Module Hierarchy." For information on setting the registry key for the server, see the *ENOVIA Synchronicity DesignSync Administrator's Guide* topic "Module Options"
6. Select the **Scope** of your query.
   The **Scope** applies to the Module selector or a tagged Module or a configuration for legacy modules. For hierarchical queries on Modules, if the **Scope** is `This object only`, the selection of the Hrefmode has no impact on the query.
7. Using the **Attach To** field, select the Projects and the Modules to which the note is attached. Optionally you can use the **Object Browser** to select Project or Module into **Attach To** field
   If you provide a qualified Project or Module URL in the Attached To field, you do not need to specify a Project or Module from the **Project** or **Module** pull-down menu.

   If a qualified URL is found in the **Attach To** field, and either Project Configuration, or Module Tag is selected from the pull-down, you get a warning to either cancel your query and change the options, or proceed with the query, in which case the query is run against the object specified in the **Attach To** field.

   Note: If a Project or a Module is selected from the pull-down, it becomes the primary criteria for the query. The Attach To object, if also provided is used as a secondary criterion to filter for the query results.
8. Select the fields that should define your search criteria. If you want to search for a specific text string, see Adding Strings to Your Standard Query). As you define the query, ProjectSync employs the following conventions:Selections made down the form are appended. For example, selecting "serious" in the Severity field and "open" in the State field returns notes that are marked both serious and open.
   - Selections made across the form are defined as either/or parameters. For example, selecting "serious" and "non-critical" in the Severity field returns notes that are marked as either serious or non-critical.
   - You can make multiple selections from the pull-down lists or enter multiple values directly in the text boxes. These values are defined as either/or parameters. Delete entries from the text box if you no longer need them.

- If you include the CCList field in your search criteria, you must select either the **any** or **all** radio button. Select the **any** button to get a report on notes that contain at least one of your selected users (an OR search). Select the **all** button to get a report on notes that contain all of your selected users.
  Note: CCList searches are case insensitive.
- If you are querying a note type that has one or more keyword fields, you can enter search keywords into the field(s). If standard keywords are defined, you see a **Keywords** pull-down menu where you can select from predefined keywords. Select the **any** button to get a report on all notes that contain at least one of your keywords (an OR search). Select the **all** button to get a report on all notes that contain all of your keywords (an AND search).
  Note: Standard keyword searches are case insensitive.
- Numeric fields are defined within minimum and maximum values. If you want to search for a specific number, you need to enter the same number in each text box for the note property.
- Date fields are also defined within minimum and maximum values. You can type in a specific date or select a date by clicking on the calendar icon. Selecting "**today**" is the same as typing in the current day's date (a day is defined as midnight to midnight in the user's time zone). Typing in "**now**" is the same as typing in the current date and time.

  Alternatively, you can select a specific number of days from the pull-down list. When you select a number from the pull-down list, any previously entered values for that note property will be cleared.

9. After you have selected from the available fields, click on one of the following buttons at the bottom of the **Standard Query** form.
   - **Submit** - immediately queries the database according to the search criteria defined. A **Query Results** panel displays the Query Criteria along with the matches found.

   You can change the sort order and/or primary sort criterion by clicking on the results table column headers. To designate multiple sort criteria, use the Report Format Options form (see Options). You can modify or rerun the query or expand the results report to a full window view.

   1.
   - **Changing the sort criteria** - Arrows in the column headers designate your query's sort criteria. A larger arrow image indicates primary sort data and a smaller arrow image indicates secondary sort data.

     Before you or the System Administrator define the default sort criteria, query results are sorted by the note Id in ascending order. You can define your own defaults using the options panel. See Defining Report Format

Options for details.

To sort the results by an attribute that is not part of the sort criteria, click on the associated column header. For example, say your SyncDefect query results are sorted first by severity and then by Id but you need to see those defects that are in the "open" state. You can click on the State column header and a new results table appears with defects listed first by their states, second by their severity, and third by Id. Click on the Id column to reset the sort criteria solely to Id.

- When you click on a column header, you change the **primary** sort criteria. To change the **secondary** sort criteria, use the Report Format Options form (see the Options section that follows for details).
- **Reversing the sort order** - The arrow image on a column header points downward when the sort order is ascending and upward when the sort order is descending. Click on a column header marked with an arrow to reverse that column's sort order. The column's position within the sort criteria (for instance primary versus secondary) does not change.
- For example, say your SyncDefect query results are sorted in ascending order by state (new to closed) and then in ascending order by severity (stopper to non-critical) but you need the non-critical defects. You can click on the severity column header to reverse that column's sort order. The defects get listed in ascending order by state (new to closed) but entries within each state are now listed in descending order by severity (non-critical to stopper).
- **Modify Query** - Click on **Modify Query** to return to the **Standard Query** panel. The note fields display the values from your previous query.
- **Rerun Query** - Click on **Rerun Query** to execute the previously run query again.
- **Options** - Click on **Options** to display the Report Format Options form (See the following section on Options for more details.).
- **Save** - Click on **Save** to display the Save wizard. (See the following section on Save for more details.).
- **Full Window** - If your query results are not displayed in a full window, you can click on **Full Window** to expand the results page to a full window view.

Strings>> - lets you add specific text strings to your search criteria before executing or saving the query. See Adding Strings to Your Standard Query for details.

Options - displays the **Report Format Options** form. This form allows you to define how the results of your query are formatted on the report page. See Defining Report Format Options for details. If neither you nor system administrator set specific preferences, the query results are sorted by Note ID.

In addition to setting sort preferences on the **Report Format Options** form you can change the sort order and primary sort criterion by clicking on the results table column headers. For information on how to change the sort criteria, see Changing the Sort Criteria.

Save - displays the **Save** wizard. This wizard allows you to save your query information so that you can use it again. See Saving a Standard Query for details.

Help - displays the Help file for the current **Query** form.

Related Topics

Adding Strings to Your Standard Query

Browsing Individual Modules

Defining Report Format Options

Saving a Standard Query

Using the Project Browser

Viewing Query Results

Defining the Default Format of Query Results

Adding Strings to Your Standard Query

When you click on the **Strings>>** button at the bottom of the **Query:** form, the **Query:** form re-displays with an additional section at the bottom. In the **Arbitrary Text fields** section of the panel, you can enter additional search criteria based on specific text that may have been entered when a note of the selected note type was submitted. As you enter information into these fields, the following querying conventions apply:

- Selections made down the form are appended (ex. `field 1`, AND `field 2`, AND `field 3`).
- Selecting the **any** radio button defines an either/or parameter (ex. `value A`, OR `value B`, OR `value C`.
- Selecting the **all** radio button allows the system to search for all the values entered in the text box (ex. `value 1`, AND `value 2`).
- Strings entered into a specific field on the **Query:** form are matched to the same field on the original note form.
- If the string of characters entered in the **Query:** form is a subset of another word in the same field on the original note form, it will also display in the query results (ex. searching for the word "script" will also return the word "subscription").

To add specific text to your **Standard** query, follow the steps below:

1. After making all the necessary selections on the **Query:** form, click on the **Strings>>** button to display the **Arbitrary Text fields** section of the panel.
2. Enter the specific text strings that you want to include in your search criteria and click on the **any** or **all** radio button for each field.
3. After you have entered all the strings that you want, click on one of the following buttons at the bottom of the **Query:** form.
    - **Submit** - will immediately query the database according to the search criteria that you defined. A new panel will display the **Query Criteria** along with the query results.
    - **Options** - displays the **Report Format Options** form. This form allows you to define the format of your query output on the page.
    - **Save** - displays the **Save** wizard. This wizard allows you to save your query information so that you can use it again.
    - **Help** - displays the Help file for the current **Query:** form.

Related Topics

Constructing Standard Queries

Defining Report Format Options

Saving a Standard Query

Viewing Query Results

Viewing Query Results

Once you have defined the search criteria and submitted your query, your query result is displayed in the form of a report.

Note: You can query on both a Project and a Module simultaneously.

The title of the report is the name of the Note Type you selected to query on, or the name of the saved query that you executed. The **Query Criteria** displays the selections you made for the query. The exact data returned and the data columns vary depending on the options you defined.

The query result table for Projects and legacy modules look like this:

Module	Server	Id	Title
Project01	localhost	1	First Note for Project
Project01	localhost	4	For Testing

Module query results have an additional Category column.

No matter how many matches are found as a result of your query, there are several things you can do with the displayed information. Your options are listed below.

- Click on any hyperlinked text within the report to automatically display the selected note as Read Only.
- Click on the **Modify Query** button at the bottom of the report to re-display your original search criteria. You can then make changes to the search criteria and decide whether to re-submit or save the new query. The **Modify Query** button is available as the result of executing an Advanced Query or Quick View search with multiple Note Ids entered.
- Click on the **Options** button to define how the results of a Standard Query will be formatted on the report page. The **Options** button is only available as the result of executing a Standard Query.
- Click on the **Save** button to enter the Save wizard. The **Save** button is only available as the result of executing a Standard Query.
- Click on the **Full Window** or **Show Menu** button to re-display the report with or without the ProjectSync menus. These buttons are only available as the result of executing a Standard Query.

By default, certain fields in the query report are automatically hyperlinked. When you click on the **Options** button, you can choose how you want hyperlinked text to behave. Notes that are hyperlinked can automatically be displayed in either view or edit mode. There is also an option to quickly filter a hyperlinked field so that only notes containing the selected field will be displayed on the query report.

Related Topics

Defining Report Format Options

Saving a Standard Query

Defining Report Format Options

When you click on the **Options** button at the bottom of the Query panel, the Report Format Options panel displays. In this panel, you can make decisions about how the output of your Standard Query will look. You can decide:

- What information should appear in the report.
- How the columns of information should be ordered on the report.
- Whether you want to automatically view or edit a note when you click on its hyperlink.

- How many entries should be displayed on each page of the report and in how much detail.

Note: You can change the report sort order and primary sort criterion by clicking directly on the query results table (see Constructing Standard Queries for more information).

Although there are default report format options defined for your individual server, you can overwrite those defaults by making selections in the Report Format Options panel. If you want the results of your Standard Query to be displayed in a certain way, you can construct your own defaults at any time.

To modify the output format of a specific query report, or to define new defaults on the **Report Format Options** panel, follow the steps below:

1. Click on the **Options** button at the bottom of the **Query Results** or **Standard Query** form to display the Report Format Options panel.
2. Enter a **Report Title** or leave the default title if you wish.
3. From the **Report Columns** pull-down list, select the note fields that you want to display in columns on your report. This list will be different for each type of note and the selections are cumulative. If you do not want to change the default selections, leave this field blank.
4. From the pull-down list below the **Sort Criteria** type-in field, select the value or values that ProjectSync should use to sort your report data. Click **Add to Sort Criteria** to transfer a selected value to the type-in field. If you select multiple values, the primary sort is by the first value specified, the secondary sort by the second value specified, etc.
5. From the second pull-down list below the **Sort Criteria** field, choose ascending (the default) or descending sort order. The sort order you select applies to all **Sort Criteria** fields. However, the sort order does not apply to state machine and choice list values. ProjectSync sorts state machine and choice list values by their property type field ordering, not alphabetically. For example, the built-in SD-State property type values are sorted according to their transition order: new, open, verification, and closed.
6. In the **Hyperlink note ID's to** field, you can decide whether to automatically view or edit a selected note when you click on its hyperlink. Choose one of the following options:
   - **Note View** - to automatically view the selected note.
   - **Note Edit** - to automatically display the selected note in "edit" mode.
7. In the **Hyperlinks display in** field, you can decide how you want to display a note when you click on its hyperlink. Choose one of the following options:
   - **this same window** - replaces the current ProjectSync window with the selected note.
   - **a separate window** - opens the note in a window other than the current ProjectSync window.
   - **a new window each time** - allows you to view multiple notes at the same time.

8. In the **Display any user names as** field, you can decide how to display the names of users in the query report. Choose to display either **full names** or **user ID's**.
9. In the **Paging** type-in field, enter the maximum number of entries that you want to display on each page of the query report.
10. Click in the **QuickFilter** feature check box if you want the ability to further filter the query results directly from the query results panel. With this option checked, hyperlinks are automatically created for each choice, state and boolean field for the selected note type. When you click on a hyperlink in the query report, the results of the query are filtered and only those notes that contain the selected field will be re-displayed.
11. Click in the **Save Settings** check box if you want to make the report format settings your default settings for all new queries. These settings will not apply to reports and queries that have already been saved. The note type specific settings will apply only to queries on the same note type and the general report settings will apply across all note types.
12. If you are satisfied with your choices, click **Done**.

Related Topics

Viewing Query Results

Saving a Standard Query

When you click on the **Save** button at the bottom of the **Standard Query** panel, you automatically invoke the **Save Report** form. Depending on your access permissions, you can store your query on the server, bookmark your query on your computer, or save the report data as a Comma Separated Values or Microsoft Excel® file for download to a spreadsheet.

Note: When upgrading legacy modules, the saved queried attached to the legacy module do not get transferred to the new module. The queries remain attached to the legacy module.

After making all the necessary selections on the **Query** form, click on the **Save** button to display the **Save** wizard. Depending on your access permissions, you will see some or all of the following choices:

- **A new named report** - Save the query on the server so that only you (private visibility) or you and other users (public visibility) may access it in the future.
- **Browser Bookmark** - Save the query on your computer as a link in your browser's bookmark or favorites list.
- **Download raw data, as Comma Separated Values (CSV)** - Download the report data in the Comma Separated Values format for import to a spreadsheet

- **Download into Excel as a Web Query** - Download the report data directly into a Microsoft Excel spreadsheet and create a dynamic link between the spreadsheet and data source.

Creating a New Named Report

1. Select the **A new named report** radio button.
2. Click on the **Next>>** button to display the **Create Stored Report** panel.
3. The **Report Name** field is pre-filled with a title from the standard query page. Keep the default or enter a new name in the **Report Name** type-in field.
4. Select the **Private** or **Public** radio button to specify whether or not your report should be available to other users.
5. Type in a short **Report Description**, if you wish.
6. When finished, click **Submit**. You will see an **Operation Successful** panel showing the report name and visibility (private or public). From this panel, you can view or edit the report attributes (see the following section Viewing, Editing or Deleting a Stored Report).

Viewing, Editing or Deleting a Stored Report

Once you have created a new report, you can rerun it, view it, edit it, or delete it from the **Reports** menu. Click on **Private** to see a table listing the private reports you have created. Click on **Public** to see a table listing the public reports that you or other users created. Both tables list the reports in alphabetical order. Click on the report name to display the report.

- To view the report:

  Click **View** under the Report Details heading to display the **View Stored Report** form. This form shows the report name and attributes.

  From the **View Stored Report** panel, you can run the report by clicking the **Run Report** button or you can edit the report by clicking the **Edit Stored Report** hyperlink.

- To change the report's attributes:

  Click **Edit** under the Report Details heading (you can also click the Edit Stored Report hyperlink from the **View Stored Report** form) to display the **Edit Stored Report** form.

  At the top of this form, you will see the report's Id, creation date and author. Below that, you will see the report and query attributes including the report name, visibility, associated note type and report description. You may modify any of these attributes, except the note type.

When finished, click **Submit** and refresh the screen to see your changes.

- To change the report's query criteria:

  Select the report from the Reports menu and click **Run Report**.

  Click **Modify Query** and add new query criteria or make changes to the existing attributes.

  Click **Save** to commit your changes right away or **Submit** to first see the results of your modifications. If you are satisfied with the changes you submitted, click **Save** on the Query Results page. Select the "Replace the named query that created this report" radio button. Click **Next**.

  On the **Edit Stored Report Form** you will see the report's Id, creation date and author. Below that, you will see the report and query attributes including the report name, visibility, associated note type and report description. You may modify any of these attributes, except the note type.

  When finished, click **Submit**.

- To delete the report from the **Reports** menu:

  Click **Edit** under the Report Details heading to display the **Edit Stored Report** form.

  Click the **Delete...** button.

  Click **OK** to confirm that you want to delete the report (or **Cancel** if you no longer wish to delete it).

Creating a Browser Bookmark

A bookmark will make it convenient for you to execute the same query repeatedly. Once your create a bookmark, you will still be able to modify the associated query.

Click **View** under the Report Details heading to display the **View Stored Report** form. This form shows the report name and attributes. From the **View Stored Report** panel, click **Run Report.** On the Query form, click on the **Save** button to display the **Save** wizard.

1. Select the **Browser Bookmark** radio button.
2. Click on the **Next>>** button to display the **Create Bookmark** panel.

3. Choose whether you wish to bookmark the query form pre-seeded with the parameters you set (select **Bookmark the query form**) or the report itself (select **Bookmark the report**).
4. Select how you want to view the form or report. Choose:

   Frames - to view the form or report within the standard ProjectSync frames.

   Full Window - to view the form or report in the full browser window, without any ProjectSync frames.

5. Click on the **Next>>** button to display directions for creating a bookmark in your browser.
6. Click on the report hyperlink to return to the report.
7. To modify the query on which the report is based, click the **Modify Query** button at the bottom of the query results report form. Make the desired changes and click **Submit**. If you are satisfied with the changes you submitted, click **Save** on the Query Results page.
8. Select the "**Replace the named query that created this report**" radio button. Click **Next**.
9. Click **Submit**.

Downloading Report Data

1. Click in one of the two checkboxes (**Note: If you are using UNIX, you will only see the first option**):

   Download raw data, as Comma Separated Values (CSV). Select this box if you want to import the raw data from your report in the `.csv` import file format.

   Download into Excel as a Web Query. This option is for Microsoft Windows users only. Select this box if you want to import your report data in the Microsoft Excel® format and create a dynamic link between your report data and an Excel spreadsheet. You can then use Excel's **Refresh Data** option to automatically update the report data. (See the **Using a Web Query** section that follows for more information.) Note: You cannot save Excel Web Query or CSV downloads as default settings.

2. Click on the **Done** button to bring you back to the search criteria on the **Query** form, or directly back to the query report.
3. Click **Submit**.

   If you chose **Download raw data, as Comma Separated Values**, a **Save As**... dialog box automatically opens and allows you to create an ASCII file with a `.csv` extension.

If you chose **Download into Excel as a Web Query**, an **Open/Save/Cancel** dialog box automatically appears. If you open the file (or save it first and then open it), you will invoke Excel and open a spreadsheet containing your report data.

If you use Internet Explorer as your browser, your menu and Quick View buttons may not function after you download results as a web query or as CSV. To regain use of these objects, click the **Return to query form** hyperlink in the main panel.

Using a Web Query

A Web Query is a feature of Microsoft Excel® that allows you to dynamically link tabular data from a website into a spreadsheet. A Web Query offers some significant advantages over Comma Separated Values (CSV).

Web Query	Comma Separated Values
A dynamic link to external data which can be refreshed on demand.	A static snapshot of the data.
Formatted query results.	Unformatted query results.
Column widths match the result data.	Fixed-width columns.
Web Query interprets result cells according to their data types. For example, Excel displays a choice type field with a value of "4.0" as the string "4.0".	CSV interprets result cells generally. For example, CSV displays a choice type field with a value of "4.0" as the number value "4".

A Web Query works only on Windows platforms with Microsoft Excel 2000 and later.

Related Topics

Constructing Standard Queries

Adding Strings to Your Standard Query

Defining Report Format Options

Viewing Query Results

Constructing Advanced Queries

If you want to search for a group of notes or single note for which you do not know the identification number, use the advanced note query feature.

1. Click on **Advanced** from **Queries** menu in the **ProjectSync** menu.

2. If only one note type is available on your server, the **Advanced Note Query** panel for that note type displays immediately. If you have installed multiple note types on your server, you will see a list of these note types, as well as the **RevisionControl** note type. Click on the note type that you want to query. ProjectSync displays the **Advanced Note Query** panel for the note type you selected.
3. To edit the matching notes, click on **Edit** in the **Display Mode** field. To view the matching notes (the default action), skip to Step 4.

   Note: When you select the **Edit** display mode, your query results will only include the notes that you have permission to edit. Notes which would have matched the query but that you do not have permission to edit will not appear in the results table and will not be included in the query results total. The exception is RevisionControl notes (by default, access controls prevent all users from editing RevisionControl notes) which will display in a read-only format regardless of the display mode you select.

4. To find or edit a note attached to a particular object, select a name from the **Project** or **Configuration** pull-down menus or click **Browse** to pop up the Browse Server window (see Using the Project Browser for details). The browser lets you navigate a list of all objects on the SyncServer (or any remote servers that you have defined) and transfer an object's URL to the **Attach To** field.
5. To start building a query, select a variable from the **Field Name** list. This is the first criterion in your search for a specific note.
6. Choose the **SQL query operator** that helps you define your search criteria.
   - `equal` (=)
   - `more than` (>)
   - `less than` (<)
   - `equal or less than` (<=)
   - `equal or greater than` (>=)
   - `not equal` (<>)
   - `contains` (contains)
7. Choose the **Value** for the last third of your search criteria. The drop-down list of values will correspond with your choice of the **Field Name**. For example, a **Field Name** of "State" may have "open" and "closed" among its possible values.

   In some cases, you need to enter information instead of selecting from a list. For example, if you choose **Creation Date** as your **Field Name** variable you can select one of the preset date values (see **Using Preset Date Values** below) or enter a specific date in the **Value** field. To enter a specific date, click on the calendar icon. Once you select a date on the calendar, it is automatically transferred to the form.

   All dates are stored in UTC (formerly known as Greenwich Mean Time). This format removes any ambiguities, due to time differences, between client and server locales or multiple server locales. ProjectSync uses the international date standard defined in ISO-8601:2000. Time is represented using a 24-hour clock - for example: 2004-12-25 14:34:56.

Note: On the advanced query results page, the search criteria table shows the underlying field name used in the query. The field name will begin with an "`f_`" and may be different from the associated prompt name that you selected on the query form. For example, a search on the field **Responsible** would show a result of "`f_Resp`" in the search criteria table.

Using Preset Date Values

ProjectSync offers a few preset date values: **now**, **today**, **yesterday** and **last [n] <resolution>**. All date values are in client local time.

Legal values for last [n] <resolution> are hour(s), day(s), week(s) month(s) and year(s). The value of n is optional and defaults to 1.

For the "hour" value, the starting time of the last [n] <resolution> calculation is the current time when the value is entered. For other resolution values it is midnight, the start of the current day the value is entered.

Following are some examples of how a last n value entered on December 25, 2004 at 14:34 would be calculated:

Last "n" Value	**Calculated Time**
last hour	2004-12-25 13:34
last 1 hour	2004-12-25 13:34
last 3 hours	2004-12-25 11:34
last 48 hours	2004-12-23 14:34
last 2 days	2004-12-23 23:59:59
last 2 weeks	2004-12-11 23:59:59
last 2 months	2004-10-25 23:59:59
last 2 years	2002-12-25 23:59:59

8. Click on the **Add** button. The **Query Criteria** box displays all the criteria items you entered.
9. Repeat Steps 5 - 8 to add further search criteria. If a query includes multiple values for the "`equal`" operator, the search will return items that are equal to **either** of the values. Similarly, if a query uses multiple values for the "`contains`" operator the search will return items that contain **either** of the values. If a query includes multiple values for any of the other operators the search will only return items that meet **all** of the criteria.

Example 1
Responsible=JohnSmith
Responsible=JaneDoe

Find notes where **either** John Smith **or** Jane Doe are the responsible party.

Example 2
Responsible<>JohnSmith
Responsible<>JaneDoe

Find notes where **both** John Smith **and** Jane Doe are not the responsible parties.

10. To remove criteria that have been added, select the item to be deleted and then click on **Delete Selections**.
11. When you have finished, click on the **Submit Query** button. The results of your query are expressed as a table of notes. In the table, each note is listed with an **Id** and **Title**. Additional information will be displayed according to how your ProjectSync server has been configured.
12. Click on a note's **Id** to display its contents.
13. Click on the **Edit** button to change from view to edit mode.
14. Enter new information if necessary.
15. Click on the **Submit** button to update the note.

Related Topics

Constructing Custom Queries

Defining Report Format Options

Viewing Query Results

Constructing Custom Queries

When you click on **Advanced** under **Queries** menu in the **ProjectSync** menu, you will see the **Advanced Note Query** panel with a list of all the note types on your SyncServer. When you select a note type, the **Advanced Note Query** panel for the selected note type displays. If only one note type is available on your server, the **Advanced Note Query** panel for that note type displays immediately.

Click on the **Custom...** button at the bottom of the **Advanced Note Query** panel to display the **Custom Note Query** panel. The **Custom Note Query** panel contains three built-in helpers that are designed to assist you in further defining your query. They do not, however, assist you in forming the actual syntax of a query. Before building a custom query, you should be familiar with SQL syntax. The three helpers are described below.

Note Type Fields Helper

This section helps you decipher the property name to use when referencing a specific field (prompt string) in a query. The **Display Names** menu is dynamically updated with the current set of property prompt strings for the selected note type. When you choose an entry from the menu, the corresponding property name is displayed in the **Field Name** area. The field name will begin with an "`f_`" and may differ from the associated prompt string. Click on the **Append to Expression** button to enter the **Field Name** value in your query string.

For example, you may choose to construct a custom query for the SyncDefect note type. If you select **Responsible** from the list of **Display Names**, `f_Resp` is displayed in the **Field Name** area. Click on **Append to Expression** and `f_Resp` will appear in the SQL Query String Section at the bottom of the panel.

Suggested Values Helper

This section of the panel provides you with a complete list of values for properties restricted to a known set of values (such as choice types and user names) or a list of suggested values for those with indeterminate value ranges (like dates).

When you choose a property name in the **Note Type Fields** section above, the **Suggested Values** drop-down menu is populated with a list of values pertaining to that property. When you select one of these values, it is transferred automatically to the input area immediately to the right of the menu. Click on the **Append to Expression** button to append the value to your existing query data.

Following the example in the **Note Type Fields** section, you already selected **Responsible** from the list of **Display Names**. In the **Suggested Values** section, a pull-down menu lists the names of all users registered on your SyncServer. Click on a user's name and **Append to Expression** to add the selected user to the f_`Resp` SQL query at the bottom of the panel.

Date Helper

This section helps you form proper values for **Date** field queries. All dates are stored in UTC (formerly known as Greenwich Mean Time). This format removes any ambiguities, due to time differences, between client and server locales or multiple server locales. ProjectSync uses the international date standard defined in ISO-8601:2000. Time is represented using a 24-hour clock - for example: 2004-12-25 14:34:56.

To use the **Date Helper**, follow the steps below:

1. Enter a date in the first type-in field, or click on the calendar icon and select the desired date using the calendar widget. The value for this date is displayed in the **Query Value** field.

2. Click on the **Convert Date** button next to the entry field to accomplish the conversion.
3. Click on the **Append to Expression** button to add the converted date to your existing query data.
4. Enter all your necessary search criteria and click on the **Submit Query** button to submit the query.

SQL Query String

You can use the **SQL Query String** section of the **Custom Note Query** form to search the database for very specific information that you cannot find using the previously described **Custom Note Query** fields. If you click on the **Modify Query** button after executing an advanced or custom query, the **SQL Query String** section of the **Custom Note Query** form will be seeded with the SQL syntax used to execute the query. You can enter new text into the **SQL Query String** text box, as long as it conforms to the proper SQL syntax.

For example, you might want to use the **SQL Query String** at the end of a release. Suppose your QA group consistently appends the string "Verified using a mm/dd release on platform X" when moving a defect from the "verified" state to "resolved". Any defects that have not been fixed for a release do not have this string entered in the note text when they are moved to "resolved". To prepare the product's release notes, you use the **Custom Note Query** form to search the database for all the software defects that were resolved during the release. When you execute the query and click on the **Modify Query** button on the **Query Results** panel, the **Custom Note Query** form displays the **SQL Query String** text box, which contains the SQL syntax used for the query. If you do not want to include software bugs that will not be fixed, append the SQL syntax so that it looks like the following:

```
f_Status='Resolved' AND (f_Body not like '%Verified using a%')
```

Related Topics

Constructing Advanced Queries

What are Properties?

What are Property Types?

Creating Reports with the Statistics Feature

The **Statistics** option under **Queries** in the ProjectSync menu, is a management tool for supervisors and project leaders. Using this option you can generate status reports with tables, bar charts, and area charts providing a high-level picture of the information captured in the ProjectSync database.

When you generate a report, it extracts relevant information from the ProjectSync database and arranges it by user, Project, Module, bug state and bug type and other properties. You can generate reports showing activities associated with any property recorded in the database and break it down into further categories and further sub-categories. For example, you might want to know if there are any projects that require special attention. For this purpose, you might generate a report that shows how defects are distributed across products. If a finer level of detail is required, you could generate a report that shows how "show-stopper" defects are distributed across products.

In order to use the **Statistics** feature, you need to select variables that define what information you wish to extract and how you want to present it. The calendar icon appears next to fields where dates are required. Once you click on the icon and select a specific date on the calendar, it will be automatically transferred to the form.

To create a report using the **Statistics** feature, follow the steps below:

1. Click on **Statistics** from **Queries** in the **ProjectSync** menu.
2. In the **Statistics** panel, click on the **status reports** or **history and trends** hyperlink to begin creating a report that will answer the questions that you are curious about.
3. On the **Statistics Status Reports** or **Statistics History and Trends** screens, the field names (i.e., **Note Type**, **Project**, **Module**, **Query**, **From date**, **To date**) are hyperlinked to their own documentation. You can rely on them for step-by-step instructions on how to proceed.

   Note: You can select either Project or Module, but not both at the same time.
4. In the **Display parameters** section, the field names (i.e., **Date Field**, **Break down by**, **then by**, **Format**, **Resolution**) are again hyperlinked to their own documentation. You can rely on them for step-by-step instructions on how to proceed.

   In this section, you have type-in fields (e.g. Top_only) that allow you to specify the maximum number of items you want to see in your chart, graph or table. If the results of your query contain more than the specified number of items, the least significant (in terms of total number) data sets will be summarized in a single item. By limiting the number of data sets, you can produce reports that focus on the most critical information. In many instances, limiting the number of items will also result in reports and charts that are more readable.

Special Considerations

- ProjectSync uses a relational database that accepts standard query strings. In order to create a status report, you will need to enter a query string that defines the parameters of your chart in the **Query** field.

For help building the query string, Constructing Custom Queries. Using the **Constructor** fields that display when you click on **Advanced** query, you can help build your query by cutting and pasting the resulting string from your advanced query into the **Query** field on the **Statistics Status Reports** panel.

For example, to show statistics on all bugs in the state of new or open for which the user Fred is responsible you would have to enter:

```
(f_State="new" OR f_State="open") AND f_Resp="fred"
```

Using the technique described above, you could leverage the constructor from the Advanced Query form to build this string for you.

- Area charts can be displayed only when a sufficient number of notes have accumulated. If there are not enough notes to create a meaningful area chart, a bar chart is displayed instead.
- Once you generate a report, you can bookmark it in your browser by clicking the right mouse button over the report area, but not directly over the graphics. Click above or below the chart and then select **Add Bookmark** from the right-mouse button menu.

  A system administrator can link a bookmarked report to the main ProjectSync menu so other users can view it. See the Linking Query Results and Statistics Reports to the Main Menu section in the Customizing the Main Menu topic.

- In ProjectSync releases prior to 2.2, RevisionControl notes were not attached to projects. Thus, RevisionControl notes created in earlier releases do not have attached Projects. To find information about revision control operations on a project for RevisionControl notes created prior to the 2.2 release, you must use the Advanced Query form.

  In the Advanced Query form, you can enter a value such as `sync:///Projects/ProjectName/*` in the **Attachment** field and select **RevisionControl** as the Note Type.

  These search criteria will match any RevisionControl notes attached to objects below `sync:///Projects/ProjectName`. For more information on the Advanced Query form see Constructing Advanced Queries.

- By default, the statistics function counts RevisionControl notes and not each separate object that was part of the revision control operation. For more information see Working With RevisionControl Notes.

Downloading Statistics Data from a Table into Other Spreadsheet Programs

Once you produce a report, you can download the captured information to another spreadsheet program to make use of enhanced charting capabilities. Follow the steps below:

1. Click on **Download CSV Data** at the bottom of the report. CSV data is an interchange format that can be read by many popular spreadsheet programs.
2. Click on **Save As** to save the data as a file on your local disk.
3. Follow your spreadsheet program's instructions for importing files.

Save or Print Statistics Data in a Chart

Once you produce a bar or pie chart, you can print or save the image for later user. Follow the steps below:

1. Click on **chart context menu** () at the top of the report. Select the desired option.
2. If you select Print, you are prompted through your standard print dialog. If you select one of the save formats, you have the option to choose the location and filename for the image.

Related Topics

Constructing Advanced Queries

Constructing Custom Queries

Viewing Query Results

Email

What Are Email Notifications?

ProjectSync includes a powerful email notification system that sends out email to users when information they are signed up for is updated or created. Email notifications are generated in response to the creation or modification of ProjectSync notes. For example, if you have subscribed to email for SyncDefect notes, you get an email notification whenever a SyncDefect note is created or updated. (See What Are Email Subscriptions? for details.)

An email notification contains information recorded in the note, such as its status and the text of the update. Email notifications include only the new information contained in the note.

Note: Email notifications can be configured (separately for each Notetype) to always include certain Note fields regardless of whether or not they have changed.

From an email notification, you can click hyperlinks to view or edit the note in your browser. If your ProjectSync system is configured with the email-reply capability, you can append to a note directly from your email tool. This email-reply capability allows you to work off-line and send your responses to note discussions later, when you are able to connect to the network. See Using Email Notifications for details.

When it generates email notifications, ProjectSync constructs the distribution list from the following sources:

- The subscription list.

  When a user subscribes to receive notes for a Module or a Project, ProjectSync adds the user's name to this list.

- Any other user list fields on the note, such as **Responsible**.
- An optional feature, the **ATTN** field, which can be enabled by administrator to collect additional recipients.

You can tell which type of email notification you are getting by looking at the email you receive:

- Users who subscribe for email are listed as recipients on the `CC:` list of the email.
- Users who are added to the **CCList** field of a note or in user list fields (such as **Responsible**) are listed as recipients on the `To:` list of the email.

In addition to email notifications sent in response to subscriptions, you may receive email when fields on notes have been inactive for more than a certain time. Your system administrator can configure ProjectSync to send out email reminders to specified ProjectSync users to alert them that a note requires attention (see Setting Up Email Reminders for Defects for details).

Before email notifications can be sent automatically, your email notification system must be set up using the Email Administrator. The Email Administrator lets you define the email properties for your site and specify how email behaves for specific note types. See *DesignSync Data Manager Administrator's Guide*: Configuring Email Notifications for details.

Related Topics

Adding Email Subscriptions

DesignSync Data Manager Administrator's Guide: Configuring Email Notifications

Using Email Notifications

What Are Email Subscriptions?

Using Email Notifications

Email notifications are automatically sent to users who are subscribed to receive information when a note is create or updated. They are also sent to additional recipients on the **ATTN** line if the **ATTN Notification** is option in the **Specifying General Formatting Settings** panel has been enabled by the Email Administrator. See *DesignSync Data Manager Administrator's Guide*: Configuring Email Notifications for details.

The **Subject** line of an email notification contain the following information:

- The type of note that was created or modified and its note ID number.
- The type of activity that occurred for the note. The activity can be a change of state - for example, when a SyncDefect has moved from new to open - or a modification such as adding information to the **Note Text** field of the note.
- The name of the affected Project or Module.
- The title of the note.

Here are some examples of how the subject looks like when a note is created or modified:

- When a SyncDefect is entered for a project `ASIC`, the subject line of the email notification reads:

```
SyncDefect 123 created : ASIC : Tests are failing
```

- When a SyncDefect is entered for a Module `Cars/Honda`, the subject line of the email notification reads:

```
SyncDefect 124 created : Cars/Honda: A Japanese made car
```

- When a SyncDefect is entered for Module `Cars/Honda` as well as a Project `ASIC`, the subject line of the email reads:

```
SyncDefect 200 modified : ASIC - Cars/Honda : This defect is
attached to project and a module
```

- If you modify `SyncDefect 124` attached to the module `Cars/Honda`, the subject line of the email notification reads:

```
SyncDefect 124 modified : Cars/Honda : A Japanese made car
```

The **Project and/or Module Attachments** section of an email notification contain the following information :

- The Project and or Module to which the note is attached.

- The configuration (if any) of the Project to which the note is attached.
- The module tag (if any) for the Module to which the note is attached.

If the note is attached to any other object, the URL of that object is listed In the **Attached To** field under **Other Attachments**.

The **Note Fields** section of an email notification contain the following information :

- The note Id
- The Title of the note.
- The Note text field which shows the text appended to the note.

It also contains other fields selected using the **Fields Always Included in Notifications** option in the **Specifying Settings for Individual Note Types** panel. . See *DesignSync Data Manager Administrator's Guide*: Configuring Email Notifications for details.

You can **View** or **Edit** the note by clicking the appropriate hyperlink.

- Clicking the **View** hyperlink opens the note in view-only mode in your browser.
- Click the **Edit** hyperlink opens the note in in edit mode in your browser. From your browser, you can update any of the fields of the note.

Email Reply Capability

If the email-reply capability is set up on your ProjectSync system, you can append to the **Note Text** field of the note using your email tool. When you reply to an email notification, the text in the body of your email is appended to the note.

Do not make inline edits to the text of the email appends. When using the email-reply capability, you should enter only your new text.

You cannot include attachments in email replies.

To use the email-reply capability, the email address you are replying from must be registered with ProjectSync as part of your user profile.

Note: The email address does not need to be registered if the **User profile required to append to notes** option in the **Configuring Email Interface Parameters** panel is set to **False**. See *DesignSync Data Manager Administrator's Guide*: Configuring Email Notifications for details.

If your email reply fails to update the note, you get an error email.

Related Topics

Adding Email Subscriptions

Adding a Note Using Email

Appending to Notes Using Email

DesignSync Data Manager Administrator's Guide: Configuring Email Notifications

What Are Email Notifications?

What Are Email Subscriptions?

What Are Email Subscriptions?

You can set up email subscriptions so that users get email notifications when events occur in either ProjectSync or DesignSync projects. You can configure your system so that email is automatically generated when a user:

- Adds or edits a ProjectSync note.
- Attaches a note to a design object such as a Module, Project, directory, file, or version.
- Executes a DesignSync revision control operation such as checking in, checking out, tagging, or unlocking files.

Note: When upgrading legacy modules, the saved subscriptions attached to the legacy module do not get transferred to the new module. The subscriptions remain attached to the legacy module.

You can click Email Subscriptions in the User Profiles section of the ProjectSync menu to add and edit your own email subscriptions. (See Adding Email Subscriptions for details.) Depending on how the access controls for your system have been set up, you may be able to change subscriptions for other ProjectSync users as well as yourself.

To use the command-line interface to modify your email subscriptions, refer to the subscription commands (`subscription add`, `subscription delete`, `subscription list`, `subscription get`, `subscription edit`) in the ENOVIA Synchronicity Command Reference. Clicking on this hyperlink will open the Command Reference in a new window.

Related Topics

Adding Email Subscriptions

Advanced Subscriptions

DesignSync Data Manager Administrator's Guide: Configuring Email Notifications

Deleting Email Subscriptions

DesignSync Data Manager Administrator's Guide: Working with RevisionControl Notes

Adding Email Subscriptions

The Email Subscriptions panel lets you subscribe to receive automatic email notifications when specified ProjectSync notes are created or updated. If you are a ProjectSync administrator, you can add subscriptions for users other than yourself.

You can create email subscriptions for Revision Control notes and for other Note Type(s). For each Note Type, you can further refine your subscriptions by specifying the Projects and/or Modules for which you would like to receive automatic email notifications.

See Deleting Email Subscriptions for information on removing subscriptions.

To add new subscriptions:

1. Select **Email Subscriptions** from the **User Profiles** section of the **Admin** menu.

   The Email Subscriptions panel appears and shows your current subscriptions, if any.

2. If you are an administrator, select the user whose subscriptions you want to modify from the pull-down at the top of the panel.
3. Click **Select User**.

   The Email Subscriptions panel refreshes to show the current subscriptions for the user you selected.

4. Click **Add New Subscriptions**. (For information on defining more complex subscriptions, see Advanced Subscriptions.)

The **Add New Subscription(s)** panel has two sections containing:

- **Subscribe for Revision Control activity** - A table that lets you add subscriptions for RevisionControl notes. See the following section on The RevisionControl Note Type.
- **Subscribe for other Note Type(s)** - A field that lets you add subscriptions for notes other than RevisionControl notes. See the following section on Note Types Without States.

Note: You also can use the command line to add or modify email subscriptions. See ProjectSync Tcl Commands for information on the subscription commands (for example, `subscription add`, `subscription delete`, `subscription list`, `subscription get`, `subscription edit`).

Adding Subscription to RevisionControl Notes

The table headed **Subscribe for Revision Control activity** lets you add subscriptions for email notifications resulting from revision control activity. In the **Value** column, select the revision-control operations for which you or the selected user are subscribing for email notifications. By default all the revision-control operations are selected. Deselect the checkbox(es) for any operation for which you do not want email notifications.

Note: If you use DesignSync and ProjectSync together, your company may have set up ProjectSync to send out email notifications when RevisionControl notes are generated. RevisionControl notes are generated in response to DesignSync operations such as checking out, unlocking, and tagging and ProjectSync operations such as deleting a project or configuration. For modules (using the Modules option in DesignSync) and legacy modules (using the HCM option in DesignSync), RevisionControl notes are generated in response to HCM commands.

The drop down field at the bottom of the table lets you specify the Projects and/or Modules for which you (or the selected user) are subscribing for notifications. Use the **Browse** button to navigate the list of objects on the server and transfer an object's URL to the type-in field. See Using the Project Browser for more information on how to browse for objects. For details on RevisionControl notes, see *DesignSync Data Manager Administrator's Guide*: Working with RevisionControl Notes.

Note: If you specify a subscription for the tag operation, but do not have a subscription for the checkin operation, you will not get notifications for any checkin operations that include specifying a tag. In order to get all tag activity, you must also subscribe to checkin command notifications.

Manually Entering Object URL

You can also enter the URL manually, for example:

```
sync:///Projects/smallLib
```

In this example, `sync:///` is a shorthand for the host and port of the local server. When entering multiple URLs, type each on a separate line.

Use wildcard pattern matching (`?` for any single character; `*` for any characters following the expression) to subscribe for email on notes attached to particular types of files. For example, you can subscribe to email notification for notes attached to a portion of a design tree or to a DesignSync vault object.

For example, to subscribe for email on notes attached to all `.v` files in the `MyProj` directory, enter:

```
sync:///Projects/MyProj/*.v
```

To match `a.v`, `b.v`, or `c.v` files in the same directory:

```
sync:///Projects/MyProj/[a-c].v
```

You also can use regular expression pattern matching by typing `rgxp:` at the start of your URL. For example:

```
rgxp:sync:///Projects/MyProj.*.v
```

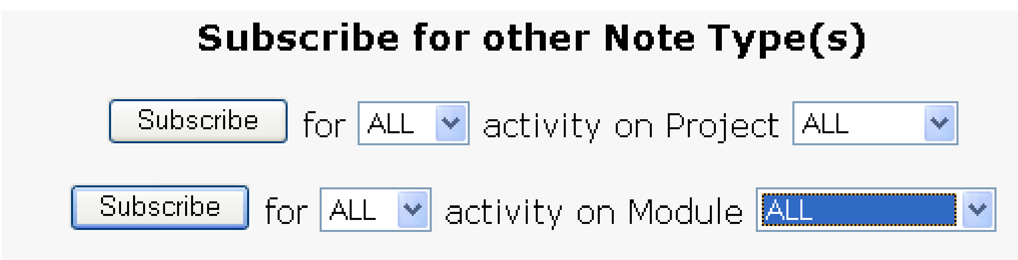
If the URL does not begin with `rgxp:`, it is assumed to be a glob style pattern and is passed through a glob-to-regexp expression converter. You cannot mix rgxp and glob styles in a single object declaration.

The **Subscribe for Revision Control activity** table also includes the following buttons:

- **Subscribe** - Adds a subscription for the type of note and the project(s) or project element(s) listed in the table. ProjectSync sends email notifications whenever the conditions set in the table are met.
- **Reset** - Returns the table settings to the defaults.

Adding Subscription to Other Note Types

The **Subscribe for other Note Type(s)** section lets you add subscriptions for all or a particular Note Type(s), installed in your ProjectSync system. You can subscribe for notes attached to all or a specified Project and/or a Module.



To subscribe, follow these steps:

For Projects:

1. From the first pull-down menu, select the name of the note type that you want to subscribe to. To subscribe to all installed Note Type(s), select **ALL**. Selecting **ALL** overrides any prior Note Type specific subscription.
2. From the second pull-down menu, select the top-level Project name that you want to add a subscription for.

For Modules:

1. From the first pull-down menu, select the name of the note type that you want to subscribe to. To subscribe to all installed Note Type(s), select **ALL**. Selecting **ALL** overrides any prior Note Type specific subscription.
2. From the second pull-down menu, select the top-level Module name for which to want to subscribe.

Click **Subscribe** to enter the subscription request.

The Operation Successful Panel

After you have submitted your subscription request, the **Operation Successful** panel lists the subscriptions you added. If you want to make further changes, click **Review** to return to the Email Subscriptions panel.

Related Topics

What Are Email Subscriptions?

Deleting Email Subscriptions

Advanced Subscriptions

DesignSync Data Manager Administrator's Guide: Configuring Email Notifications

Advanced Subscriptions

The **Advanced Subscriptions** option gives you more flexibility than **Add New Subscriptions**. It allows you to customize email subscriptions. If you are a ProjectSync administrator, you can create advanced subscriptions for users other than yourself.

Wildcard Pattern Matching

To subscribe for email on notes attached to particular types of files (for example, those which correspond to a portion of a design tree or to a DesignSync vault object) you can use wildcard pattern matching (`?` stands for any single character; `*` stands for any characters following the expression).

For example, to subscribe for email on notes attached to all `.v` files in the `MyProj` directory:

```
sync:///Projects/MyProj/*.v
```

To match `a.v`, `b.v`, or `c.v` files in the same directory:

```
sync:///Projects/MyProj/[a-c].v
```

Special Note: To use regular expression pattern matching, type `rgxp:` at the start of your expression. For example, `rgxp:sync:///Projects/MyProj.*.v`

If the string does not begin with `rgxp:`, it is assumed to be a glob style pattern and is passed through a glob-to-regexp expression converter. Rgxp and glob styles cannot be mixed in a single object declaration.

Creating Advanced Subscriptions

To use the **Advanced Subscriptions** feature, follow the steps below:

1. Select **Email Subscriptions** from **User Profiles** under the **Admin** menu. The Email Subscriptions panel appears.
2. Click on **Advanced Subscriptions.** The Add New Subscription(s) for... panel displays the current subscriptions, if any, for the selected user. The **Advanced Subscriptions** section of the panel lets you create new subscriptions. For each subscription you want to create, perform steps 3, 4, and 5. You can create up to six subscriptions.
3. Select from the **Note Type** pull-down menus to subscribe to email notifications based on a specific note type. To subscribe for email notifications on note changes without regard to the note type, select **ALL** from the **Note Type** pull-down menu.
4. **Property Filter**:

   To specify more complex matching criteria based on field values, enter a **filter string** in the **Property Filter** field. Each filter string must contain a `field name` followed by an `operator` followed by a `string`. Click **Help** to the right of a **Property Filter** field to go to the Advanced Subscriptions Help panel, which provides details and examples of filter string syntax.

   If you select **ALL** note types, your filters are restricted to the Author, Body, DateCreate, Id, and Title fields.

   Tip: Because a tag can be applied to both a checkin operation and with a tag operation, you must use two criteria to catch all the possible updates for a tagged version:
   ```
   Command=Tag
   Command=ci;Tag#
   ```

   Where the # indicates that the Tag operation to ci is not empty.

5. **Object Filter**:

   To subscribe for email notifications on notes attached to a Module or a Project click the Browse button to bring up the Browse Server window. The browser lets you navigate a list of all Projects and Modules on the server and select an

object's URL to the **Object Filter** field. For more information on how to use the browser, see Using the Project Browser.
You can have only one object filter per subscription.

6. **Href Mode**

   The **Href Mode** pull-down is applicable when you are selecting a Module. It lets you select the mode (i.e. dynamic, static, or normal) to use when traversing hierarchical references while creating a hierarchical subscription.

   The behavior of href mode when set to Normal is dependent on the value of the "HrefModeChangeWithTopStaticSelector" registry key at the server level. For more information on understanding href modes, see the *ENOVIA Synchronicity DesignSync Data Manager's Guide*, topic "Module Hierarchy." For information on setting the registry key for the server, see the *ENOVIA Synchronicity DesignSync Administrator's Guide* topic "Module Options."

7. **Scope**

   The default scope for Modules is `This object only`. For Projects, the default scope is `This object and all level below`. For example, `sync:///Projects/MyProj/`.

8. **Click the Submit New Subscriptions** button. An **Operation Successful** panel displays the subscriptions that were added.

9. Click the **Review** button to return to the **Email Subscriptions** panel. Your changes will be displayed.

Related Topics

What Are Email Subscriptions?

Adding Email Subscriptions

Deleting Email Subscriptions

DesignSync Data Manager Administrator's Guide: Configuring Email Notifications

Advanced RevisionControl Note Subscriptions for Module Members

Using the **Advanced Subscriptions** option you can create a subscription for specific Module members of interest, rather than the entire contents of a module.

To create a subscription for a module member, follow the steps below:

1. Select **Email Subscriptions** from **User Profiles** on the **Admin** menu. The Email Subscriptions panel appears.
2. Click on **Advanced Subscriptions.** The Add New Subscription(s) for... panel displays the current subscriptions, if any, for the selected user. The **Advanced Subscriptions** section of the panel lets you create new subscriptions. For each subscription you want to create, perform steps 3, 4, and 5. You can create up to six subscriptions at a time.
3. Select **RevisionControl** from the **Note Type** pull-down menus to subscribe to email notifications based on a specific note type.

   Note: To subscribe for email notifications on note changes without regard to the note type, select **ALL** from the **Note Type** pull-down menu.
4. Use the **Body** tag in the **Property Filter** text box to select the module member:

   `Body$<module_member>`

   For example: Body$Chip/chip.doc*

   Creates an email subscription to notify you whenever a change is made to any version of chip.doc in the Chip module.
5. Fill out the other options as needed. For more information about the additional options, see Advanced Subscriptions.
6. Select **Submit New Subscriptions** to send the subscription information to the server. If the operation succeeds, this loads an Operation Successful page that allows you to review the subscription. If the operation fails, you see a failure page with the reason for the failure.

Related Topics

Advanced Subscriptions

Deleting Email Subscriptions

The Email Subscriptions panel lets you remove the automatic email notifications you receive when specified ProjectSync notes are created or updated. If you are a ProjectSync administrator, you can remove subscriptions for users other than yourself.

To delete email subscriptions:

1. Select **Email Subscriptions** from **User Profiles** on the **Admin** menu.

   The Email Subscriptions panel appears and shows your current subscriptions.

2. If you are an administrator, select the user whose subscriptions you want to remove from the pull-down at the top of the panel.
3. Click **Select User**.

The Email Subscriptions panel refreshes to show a table listing the current subscriptions for the user you selected.

4. In the Delete column of the table, select the checkbox for each subscription that you want to remove.
5. Click **Submit Deletions** to remove the subscriptions.

   The Operation Successful panel appears and confirms your deletions.

6. To make additional email subscription changes, click **Review** to return to the Email Subscriptions panel.

You also can use the command line to modify email subscriptions. See ProjectSync Tcl Commands for information on the subscription commands (for example, `subscription add`, `subscription delete`, `subscription list`, `subscription get`, `subscription edit`).

Related Topics

What Are Email Subscriptions?

Adding Email Subscriptions

Advanced Subscriptions

DesignSync Data Manager Administrator's Guide: Configuring Email Notifications

Adding a Note Using Email

You can create a new note of an existing note type using your email client, if the Email Administrator has enabled this capability. See *DesignSync Data Manager Administrator's Guide:* Configuring Email Notifications for details.

To create a new note, create the email message as follows:

- In the "To" field, specify the mailbox alias corresponding to the existing note type for which this new note is to be created. Thus, an email addressed to mailbox alias "Team" creates a new note of the existing note type "Team".
- In the "Subject" field, briefly describe the contents of the note. When the email is sent, this description becomes the Title of the note.
- In the body of the email, provide a detailed description. When the email is sent, this description becomes the body of the note.

When you send your email, you (that is your email name) become the Author of this new note.

Related Topics

Appending to Notes Using Email

Appending to Notes Using Email

Users who receive email notifications can append to a note by replying from their email client, if the email-reply capability is enabled by the Email Administrator

To append to an existing note:

1. Open the email notification and click the reply button.
2. In the email reply message, enter your comments.

When the email is sent, this comment is appended to the **Note Text** field of a note.

Note: To change other fields in the note, you must access the note in the ProjectSync browser.

The email-reply capability lets mobile users work off-line and send their responses to note discussions later, when they are able to connect to the network. Users on the network gain the convenience of being able to respond to a note without opening a browser window.

For information on enabling the email-reply capability, see *DesignSync Data Manager Administrator's Guide*: Configuring Email Notifications.

Related Topics

Adding a Note Using Email

Data Sheets

Displaying Data Sheets

When you use the DesignSync Web UI, you can use data sheets to navigate a DesignSync vault or Module to get information on the objects they contain. See Using Project Data Sheets, Using Module Data Sheets and Using Configuration Data Sheets for details. The Data Sheets provides information on the Projects, Modules and users for a selected server.

To display the data sheet:

1. Select the **Data Sheet** menu item from the **DesignSync** menu . A dynamically generated HTML page appears, showing the Project, Module and user

information for your server. The page also lists the note types defined for the server.
2. For Projects, follow the project hyperlinks to see their associated configurations and any DesignSync files tagged for those configurations.
3. For Modules, follow the module hyperlinks to see attached notes and the version and branch information.
4. For Users, follow the follow the **Full Name** of the user to see the data sheet for the user. To send an email to the user, click on the email address.
5. For Note Types, follow the Note Type name hyperlink to open the Standard Query page for notes of that type.

Related Topics

Customizing Data Sheets

Using Configuration Data Sheets

Using Project Data Sheets

Using Module Data Sheets

Using Workspace Data Sheets

Using Workspace Data Sheets

You can view the Data Sheet for managed workspace objects like folders and files. The files and folders can belong to a Module, a Project or a DesignSync vault. For information on how to view Data Sheets for files, workspace modules and module members, click the appropriate hyperlink below.

Viewing File Data Sheet

Viewing Workspace Module Data Sheet

Related Topics

Displaying Data Sheets

Using Module Data Sheets

For modules, use Module data sheets to navigate the branch and version information of individual modules and access any notes attached to them.

Note: For information on using data sheets for legacy modules, see Using Project Data Sheets.

To access the data sheet for a Module click **Data Sheet** on the ProjectSync menu. The data sheet for the server appears, with the DesignSync URL of the server listed at the top. For example, if your server is `zen.mycompany.com:2647`, the data sheet shows the URL as `http://zen.mycompany.com:2647/`.

The data sheet also shows a list of the Projects, Modules, users, and note types defined for the server. To navigate a Module:

Click the module name in the **Modules** table. The **Module Name** column for the Modules table show the module paths including the module category.

Module Name	Description
Cars/Honda	Creating module Honda under the category of Cars.
FirstModule	First Module

The data sheet for the module appears with the module URL displayed at the top. The data sheet includes the following tables:

- **Attached Notes** - A hyperlinked list of the note types (Note, SyncDefect) attached to the Module. You can click a note type name to go to the Query Notes Panel (see Constructing Standard Queries) where you can search the notes attached to the Modules.

  If RevisionControl note generation is enabled, the list includes RevisionControl notes, which keep track of the revision control operations performed for the Module.

  When you click on a Note Type the **Attached To** field in the query page that opens is automatically filled in with the module url.

- **Branch Info** - A table listing all the branch tags and module branches to which they refer. The table is sorted alphabetically by branch name.

  The **Branch ID** column shows the path of the module with the branch ID appended. In the example below, the module `Honda` was created under the category Cars and the modules `FirstModule` and `SecondModule` were created as a top level module under `/Modules`.

Branch Tags	Branch ID	Lock Status
Trunk	FirstModule;1	Unlocked

Click on the Branch ID to go to the data sheet for the module branch. See Data Sheets for Module Branch for more information.

The Lock Status column indicates whether the branch is locked or not. If a branch is locked and if so, by whom.

- **Version Info** - A table listing all version tags and their corresponding version ID. The table is sorted alphabetically by version tag name. A Version Info table looks like this:

Version Tags	Version ID
Silver	FirstModule;1.3

Click on the Version ID to go to the data sheet for the module version. See Data Sheets for Module Versions for more information.

Related Topics

Displaying Data Sheets

Data Sheets for Module Branch

Data Sheets for Module Versions

Using Project Data Sheets

When you have created a ProjectSync project and associated it with a DesignSync project vault, you can use ProjectSync data sheets to navigate the vault, view or download the objects it contains, and access notes attached to vault objects.

To access the data sheet for a project, and list information on DesignSync vaults, click **Data Sheet** on the **ProjectSync** menu. The data sheet for the server appears, with the DesignSync URL of the server listed at the top. For example, if your server is `zen.mycompany.com:2647`, the data sheet shows the URL as `sync://zen.mycompany.com:2647/`.

The data sheet also shows a list of the projects, users, and note types defined for the server. To navigate the DesignSync vault for a project:

1. Click the project name in the **Projects** table.

   The data sheet for the top-level of the project appears, with the URL of the project displayed at the top. The data sheet includes the following tables:

   - **Attached Notes** - A hyperlinked list of the note types (Note, SyncDefect) attached to the project. You can click a note type name to go to the Query Notes Panel (see Constructing Standard Queries) where you can search

the notes attached to the project.
If RevisionControl notes generation is enabled, the list includes RevisionControl notes, which keep track of the revision control operations performed for the project.

- **Configurations** - A list of any configurations defined for the project. A configuration can be associated with either the branch tag(s) or version tag(s) applied to a set of files. See Integrating Configurations with DesignSync for details.**Contents** - A list of the directories ("Folders") and vault files ("Vaults") contained in the top level of the project vault. For example, a project called Sportster might contain:

Name	Type
KPS.html;	Vault
Readme.txt;	Vault
ReleaseNotes.html;	Vault
code	Folder
synth	Folder
test	Folder
top	Folder

2. Click a hyperlinked directory name to go to the data sheet for that directory. For example, if you click **synth** in the preceding example, the data sheet for `sync:///Projects/Sportster/synth` opens. It displays a table showing the contents of the project vault at this level, which includes subdirectories such as **lib**. If you click **lib**, you see a list of the files at the lowest level of the project vault:

Name	Type
lsi_10k.db;	Vault
lsi_10k.lib;	Vault
lsi_10k.sdb;	Vault
lsi_10k.slib;	Vault

In DesignSync, the term vault also refers to the repository of the versions and branches applied to a particular design file. In the example, each vault file (`lsi_10k.db`, `lsi_10k.lib`, and so on) is a repository for all the individual changes made to the file since it was first checked in.

Note: If the project contains Cadence or Syopsys design data (*`.sync.*` objects), you cannot view or download information on individual files in the data sheet (See Cadence Design Objects Overview in the DesignSync Data Manager User's Guide for more information on working with Cadence design data.).

3. Click a vault file name to get a data sheet that displays the branches for the file. For `lsi_10k.db`, for example, the data sheet might show:

Branch Info

Branch ID	Lock Status	Retired Status	Branch Tags
lsi_10k.db;1	Unlocked	Not Retired	Trunk

4. Click a hyperlinked branch name to get a data sheet that displays information on the revision history of the file. For `lsi_10k.db`, branch 1 (`lsi_10k.db;1`), for example, the data sheet might show:

Revision History

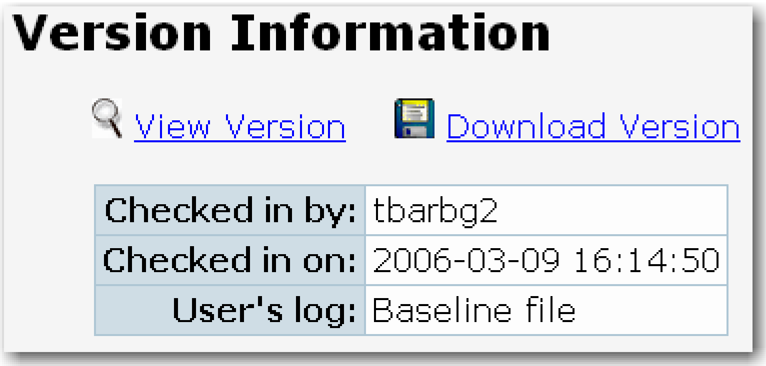
View	Download	Name	Version Tags	Sub-Branches	Checkin Comment
		lsi_10k.db;1.1	Latest		Baseline file

For each version, the **Checkin Comment** column of the table first shows its comment log. The comment log for a version consists of its checkout comment (if any) pre-pended to its checkin comment.

You can click a branch name in the **Sub-Branches** column to go to a data sheet with status information on that sub-branch.

5. Click on the **View** icon next to a file to see its contents.
   - If you choose to view a text or HTML file, its full contents will display in a file contents section on the data sheet. An HTML file will appear in its raw format.
   - If you choose to view a binary file, you will see the following message: `The file you are attempting to view is binary and cannot be displayed in this format. You may download this version by clicking on the link above.` Click on the **Download Version** link to initiate a download of the file. If your browser can open the file, its contents will display following the download. If your browser does not recognize the file type, you will see a "save as" dialog box. Save the file to your local disk and open it in the appropriate manner.
6. Click on the **Download** icon next to a file to save the file on your local disk.
   - If your browser can open the file, its contents will display following the download. If your browser does not recognize the file type, you will see a "save as" dialog box. Save the file to your local disk and open it in the appropriate manner.

7. Click on the hyperlinked file name to see the version data sheet. This data sheet displays any attached notes or tags for the selected file version and lists check-in information. For example, the data sheet might show:



On the version data sheet, you can click on the **View Version** icon to view the associated file or the **Download Version** icon to download the associated file to your local disk. Refer to the previous section for additional details on viewing and downloading a file.

Related Topics

Displaying Data Sheets

Using Configuration Data Sheets

When you have created a ProjectSync configuration and associated it with DesignSync version tag(s) or branch tag(s), you can use ProjectSync data sheets to navigate the vault, get information on the objects in the configuration, and access notes attached to configuration objects.

To access the data sheet information on a configuration, select **Data Sheet** from the **ProjectSync** menu. The data sheet for the server appears, with a list of the projects, users, and note types that are defined for the server. The DesignSync URL of the server is listed at the top. For example, if your server is `zen.mycompany.com:2647`, the data sheet shows the URL as `sync://zen.mycompany.com:2647/`.

To use the data sheet to navigate the DesignSync vault for a configuration:

1. From the **Projects** table, select the name of the project that includes the configuration.

   The data sheet for the project appears and lists the configurations associated with the project. For example:

Name	Corresponding Version Selector (for checkout)	Description	Owner	Team Members
Alpha	rdy_for_testing	Field release	Sync Manager	"Jo User" "Sync Manager"
Beta	rel50:Gold	Release for early adopters	Sync Manager	All Users

In this example, the Sportster project has a configuration named `Alpha` that is associated with the `rdy_for_testing` version tag and a configuration named `Beta` that is associated with the `rel50:Gold` selector.

2. Select a hyperlinked configuration name to go to a data sheet for the configuration.

   The data sheet lists the URL for the configuration, any notes attached to the configuration, the subfolders of the configuration, and members of the configuration at the current level. For example, if you select **Alpha** in the preceding example, the data sheet displays:

Subfolders of the Configuration

Subfolder Name
sync:///Projects/Sportster/code@Alpha
sync:///Projects/Sportster/synth@Alpha
sync:///Projects/Sportster/synth/lib@Alpha
sync:///Projects/Sportster/test@Alpha
sync:///Projects/Sportster/test/etc@Alpha
sync:///Projects/Sportster/top@Alpha
sync:///Projects/Sportster/top/addr_calc@Alpha
sync:///Projects/Sportster/top/alu@Alpha
sync:///Projects/Sportster/top/decoder@Alpha
sync:///Projects/Sportster/top/instr_reg@Alpha
sync:///Projects/Sportster/top/stack_pointer@Alpha

Members of the Configuration

View	Download	Name	Comment
		KPS.html;1.4	Added an entry for bug 13450
		Readme.txt;1.3	Updated platform info.
		ReleaseNotes.html;1.6	Listed new performance feature.

Below the table of subfolders is a table that lists the members of the configuration. You can click on the name of a configuration member to go directly to the data sheet for that object.

3. Select the URL for a subfolder's configuration to get a list of the objects that it contains.

Related Topics

Displaying Data Sheets

Setting Up ProjectSync

Setting Up ProjectSync

You can configure ProjectSync to support your group's specific needs. This selection of topics describes the steps you perform to get your team up and running with ProjectSync.

Note: Whether or not you plan to use ProjectSync's email feature, you must configure your server for email notifications in order for RevisionControl notes to function properly. For more information, see *DesignSync Data Manager Administrator's Guide*: Configuring Email Notifications.

The initial setup steps include:

1. Creating User Profiles. See What Are User Profiles? for details.
2. Creating Projects. See What Are Projects? for details.
3. Creating Configurations. See What Are Configurations? for details.
4. Setting Up Note Types. See What Are Note Types? for details.
5. Configuring Email Notifications. See What Are Email Notifications? for details.
6. Setting Up Access Controls. See What Are Access Controls? for details.

What Are Access Controls?

By default, ProjectSync allows all users to perform all operations. You can use access controls to prevent users from performing certain operations or allow only specified users to perform operations. For example, you might not want all users to have the ability to add, edit, and delete user profiles. You can use access controls to ensure that users can edit only their own user profiles.

Access controls determine the options that a user sees on the GUI. In most cases, operations that the user does not have access to perform are removed from the user interface. For instance, if you do not have permission to edit projects, the ProjectSync menu does not list that option. Options are removed from the GUI only when an operation is completely inaccessible to a user. For example, if the user can edit some projects, but not all of them, the menu option for modifying a project remains available. However, if a user attempts an operation for which permission is denied, a standard error panel displays.

To control access, you create custom `AccessControl` files that specify the actions allowed by users. You can apply access controls per site or per server. See the ENOVIA Synchronicity Access Control Guide for details on creating custom `AccessControl` files.

Projects and Configurations

What Are Projects?

In its most broad definition, a project is some unit of work to be completed by one or more individuals. For hardware designers, a project can be a cell library, a block of reusable intellectual property, or an entire chip.

If you use ProjectSync as a standalone issue-tracking system, a project is a category for organizing the notes that track the progress of the work on the project. ProjectSync attaches issue-tracking data to your projects so you can track bugs and other types of issues.

A project definition consists of a project name and a brief description of the project.

If you are using ProjectSync with DesignSync, you can associate a project with objects in a DesignSync vault. In this case, a project includes a directory tree of design files, managed by DesignSync, which make up the library, intellectual property block, or chip. You can use projects within ProjectSync to interact with the DesignSync database and get information on revision control operations. You also can attach notes to design objects under revision control.

See Integrating Projects with DesignSync for details on associating a ProjectSync project with a DesignSync project vault.

Related Topics

Creating Projects

Editing and Deleting Projects

Integrating Projects with DesignSync

Setting Default Projects and Configurations

Creating Projects

To create a project when you are using ProjectSync as a standalone issue-tracking system, take the following steps. (See Integrating Projects with DesignSync for details on associating a ProjectSync project with a DesignSync project vault.)

1. From the **Project** section of the **ProjectSync** menu, select **Create** to get the Create Project panel.
2. In the **Project Name** field, enter the name of the project you would like to add. Do not include any spaces, single quotation marks ('), or double quotation marks

(") in the project name. You can create the project as a top-level project or as a sub-project:
- For a top-level project, enter the name of the project. This creates a project with the URL `sync:///Projects/<project_name>`.
- For a sub-project, enter the path from the top-level project to the new sub-project. For example, suppose you have a top-level project called `smallLib` that includes a sub-project called `tests`. You can create a sub-project called `test_1` under `tests` by entering:

  ```
  smallLib/tests/test_1
  ```

  Click **Browse** to pop up the Browse Server window (see Using the Project Browser). The browser lets you navigate a list of all objects on the server and transfer an object's URL to the **Project Name** field.

3. In the **Description** field, enter a short description of the project. This field is required.
4. From the list of users in the **Owner** pull-down menu, select the project owner. This field is required.
5. In the **Purpose** field, select the second radio button to indicate that this project is not associated with a DesignSync project vault. (See Integrating Projects with DesignSync for details on associating a ProjectSync project with a DesignSync project vault.)
6. If your project is not associated with a DesignSync project vault (you selected the second radio button in the **Purpose** field), you do not need to enter information in the **Vault Path** type-in field.

   If you will be managing your project using DesignSync (you selected the first radio button in the **Purpose** field), the default path to the vault will be the same as the path to your project. If you wish to specify an alternate vault, enter the desired path into the **Vault Path** type-in field. (See Integrating Projects with DesignSync for details on associating a ProjectSync project with a DesignSync project vault.)

7. In the **Initial Configuration** field, optionally enter the name of a configuration, such as Release1.0. If you enter a configuration name, the **Create Project Configuration** panel appears after you create your new project (see Creating Configurations). You can create a configuration for the project at a later time by selecting **Configuration** from the **Project** section of the ProjectSync menu.
8. Click **Create Project**.

The names of top-level projects appear in the **Project** pull-down menu on notes that let you attach to projects. Sub-projects are not included in **Project** pull-down menus.

Related Topics

Creating Configurations

Editing and Deleting Projects

Integrating Projects with DesignSync

Setting Default Projects and Configurations

Using ProjectSync with DesignSync

Editing and Deleting Projects

You can use the Edit Project panel to edit or delete projects and configurations, or to add new configurations to a project. To access the Edit Project panel, select **Edit** from the **Project** section of the **ProjectSync** menu.

Editing Projects

To edit a project:

1. In item 1, select a project name from the pulldown menu or click **Browse** to pop up the Browse Server window (see Using the Project Browser). The browser lets you navigate a list of all objects on the server and transfer an object's URL to the **Project** field.
2. When you select an object, its existing values display automatically and you can modify the following information:
   - **Project Name** - The name of the project. See the following section for information on renaming projects.
   - **Description** - The brief summary of the project.
   - **Owner** - The name of the user who is responsible for the project.
   - **Purpose** - Whether or not the project is associated with a DesignSync project vault.
   - **Vault Path** - The path to the DesignSync project vault associated with the ProjectSync project. See Integrating Projects with DesignSync for details on associating a DesignSync project vault with a ProjectSync project.
3. Click **Modify Project** to apply your changes.

Modifying a Project Name

When you modify a project name, the project folder changes automatically. For example, if you rename ProjectA to ProjectB, the project folder `sync:///Projects/ProjectA` changes to `sync:///Projects/ProjectB`. However, you also may need to make manual changes:

- If you have access control settings that refer to the modified project, you need to revise the settings to use the new project name. In this case, the ProjectSync administrator (identified in the Email Administrator) receives the following email message:

```
The Project, <project name>, was just renamed by <user
name> to <new project name>. You are being notified about
this event because of potential access control
ramifications. If your AccessControl files on this server
have rules which reference this Project, they will need to
be updated to reflect its new name.
```

- If you have email subscriptions for the modified project, you need to update your subscription information to use the project's new name. In this case, users with email subscriptions for the old project name receive the following email notifications:

```
The Project, <project name>, was just renamed by <user
name> to <new project name>. You are being notified about
this event because of potential email subscription
ramifications. Your email subscriptions have been examined
and you have one or more current subscriptions configured
that will no longer function for this Project's new name.
```

- If another project on the SyncServer references the modified project, you may need to update the vault reference. This step is necessary only when the vault is not directly under the Projects directory.

  For example, suppose you have a sub-project called Sportster at the URL `sync:///Projects/Test/Sportster`. To change the name Sportster to Modem, you would need to change the URL to `sync:///Projects/Test/Modem`.

- If the project is an HCM module configuration, notify project leaders and HCM administrators to remove each hierarchical reference specifying the old project folder and add a new hierarchical reference for the new project folder.

Deleting Projects

To delete a project:

1. In item 1, select a project name from the pull-down menu or click **Browse** to pop up the Browse Server window (see Using the Project Browser). The browser lets you navigate a list of all objects on the server and transfer an object's URL to the **Project** field.
2. When you select an object, its existing values display automatically. If you are authorized to delete projects, a **Delete** this project button will appear at the

bottom of the Edit Project panel. Click on the **Delete** button to display the Delete Project panel.

3. If the project is associated with a DesignSync project vault (see Integrating Projects with DesignSync), choose whether ProjectSync should delete the vault data or `sync_project.txt` file associated with the project you are deleting. Before making a selection, you can click on the project name hyperlink to view the selected project's data sheet.

   Note: A project's attributes are defined in its `sync_project.txt` file. The `sync_project.txt` file contains the project name, description, owner, purpose, version identifiers and project vault path. It also contains all the configuration information for the project. This file is created or modified when a project is created or modified.

   - If you **do not select** the checkbox, ProjectSync will delete the `sync_project.txt` file and any notes, subscriptions, and attachments associated **exclusively** with the selected project. The vault data will remain on the server.
   - If you **select** the checkbox, ProjectSync will delete the project's vault data with "`keepvid`" (the default for `rmvault/rmfolder`) so the `sync_project.txt` file will remain on the server.
4. Click **OK** to confirm your decision to delete the project.
5. A delete project results page will display a list of the deleted items.

To recreate a deleted project:

1. From the **Project** section of the **ProjectSync** menu, select **Create** to get the Create Project panel.
2. In the **Project Name** field, enter the name of the project that you wish to recreate.

   Note: If the project's `sync_project.txt` file remains on the SyncServer but the vault data no longer exists , a special Create Project panel appears. This panel alerts you that your action will recreate a project that you or another user previously deleted. The panel contains a table listing the project's old and new values for Description, Owner, Vault, Logical Component, and Configurations. If you are satisfied with the new settings, click **Continue**.

3. Click **Create Project** to recreate the previously deleted project.

Editing Configurations

To edit a configuration for a project:

1. Select the project name from the pull-down menu or click **Browse** to pop up the Browse Server window (see Using the Project Browser). The browser lets you

navigate a list of all objects on the server and transfer an object's URL to the **Project** field.
2. When you select a project or sub-project, its configurations display automatically in the item 3 list box.
3. Select a configuration name from the list. Selecting a configuration name takes you to the Edit Project Configuration panel (see Editing and Deleting Configurations).

If you make changes to the project values and then go directly to the Edit Project Configuration panel, your changes to the project are not applied.

Adding a Configuration

To add a new configuration to the project:

1. Select the project name from the pull-down menu or click **Browse** to pop up the Browse Server window (see Using the Project Browser). The browser lets you navigate a list of all objects on the server and transfer an object's URL to the **Project** field.
2. Click **Create a new Configuration** in item 4 to go to the Create Project Configuration panel (see Creating Configurations for details).

Related Topics

Creating Projects

Editing and Deleting Configurations

Integrating Projects with DesignSync

Setting Default Projects and Configurations

What Are Configurations?

When you use ProjectSync as a standalone issue-tracking system, a configuration usually is associated with a set of user names.

For example, you could create a configuration called "layout" for all the people in a group who perform layout. Then you can define the user list for the configuration to be only people who do layout in the group. This capability is useful when your company has large numbers of users.

All configurations must be part of a ProjectSync project.

When you use ProjectSync with DesignSync, you can create a configuration that corresponds to a set of tagged files in a DesignSync project vault. See Integrating Configurations with DesignSync for details.

Related Topics

Creating Configurations

Editing and Deleting Configurations

Setting Default Projects and Configurations

Integrating Configurations with DesignSync

Creating Configurations

To create a configuration for a project when you are using ProjectSync as a standalone project, take the following the steps. (See Integrating Configurations with DesignSync for details on associating a ProjectSync configuration with a DesignSync design configuration.)

1. From the **Project** section of the **ProjectSync** menu, select **Configuration** to get the Create Project Configuration panel.
2. From the **Project Name** pull-down menu, select the name of the parent project.

   The **Project Name** field is pre-selected with the project name if you accessed the Create Project Configuration panel from the Create Project panel.

3. In the **Configuration Name** field, enter a name for the configuration. Do not include any spaces, single quotation marks ('), or double quotation marks ("). If you are creating the configuration with the project, this field is pre-selected with the configuration name.
4. In the **Configuration Description** field, enter a brief description of the configuration.
5. When using ProjectSync as a standalone issue-tracking system with configurations representing logical components instead of actual design files, leave the optional **Vault Tag** field empty. (See Integrating Configurations with DesignSync for information on how to associate a ProjectSync configuration with a DesignSync design configuration.)
6. From the **Owner** pull-down menu, select the owner of the configuration.

   The owner you specify is pre-selected as the responsible engineer for subsequent notes attached to this configuration.

7. In the **Team Members** field, select one or more user names from the list of **Available Users** to be members of the configuration.

If you enter a list of users in the **Team Members** list, only these users appear in the **Responsible Engineer** pull-down menu on notes for the project. If you leave the **Team Members** list empty, ProjectSync adds all users on the server to the **Responsible Engineer** pull-down menu on notes for the project. If no users are specified, ProjectSync adds or removes users from the list automatically as user profiles are modified on the server.

To select more than one name from the list, hold down the Control key while clicking on the names; to select all the names in a sequence, select the first name and hold down the Shift key when clicking on the final name in the sequence.

Click the left-pointing arrow icon to add your selected user(s) to the **Team Members** list. Select one or more names from the **Team Members** list and click the right-pointing arrow to remove the selected user(s) from the list of team members.

Related Topics

Creating Projects

Editing and Deleting Configurations

Integrating Configurations with DesignSync

Setting Default Projects and Configurations

Editing and Deleting Configurations

You use the Edit Project Configuration panel to modify a configuration. Because configurations always belong to projects, this panel is accessed through the Modify Project panel (see Editing and Deleting Projects for details).

To edit a configuration:

1. From the **ProjectSync** menu, select **Project** | **Edit**.

   The Edit Project panel appears.

2. In item 1, select a project name from the pull-down menu or click **Browse** to pop up the Browse Server window (see Using the Project Browser). The browser lets you navigate a list of all objects on the server and transfer an object's URL to the **Project** field.

   When you select a project or sub-project, its configurations display automatically.

3. Select the configuration name from the list in item 3.

   The Edit Project Configuration panel appears.

4. Make your revisions to any of the following configuration values:
   - **Configuration Description** - The brief summary of the configuration.
   - **Owner** - The person responsible for the configuration.
   - **Vault Tag** - If you use ProjectSync with DesignSync, the URL to the DesignSync project vault associated with the configuration. See Integrating Configurations with DesignSync for details on specifying vault associations.
   - **Team Members** - The users who are members of the configuration.

     Only the users in the **Team Members** list appear in the **Responsible Engineer** pull-down menu on notes for the project. If the **Team Members** list is empty, ProjectSync adds all users on the server to the **Responsible Engineer** pull-down menu on notes for the project. If no users are specified, ProjectSync adds or removes users from the list automatically as user profiles are modified on the server.

     To select more than one name from the list, hold down the Control key while clicking on the names; to select all the names in a sequence, select the first name and hold down the Shift key when clicking on the final name in the sequence.

     Click the left-pointing arrow icon to add your selected user(s) to the **Team Members** list. Select one or more names from the **Team Members** list and click the right-pointing arrow to remove the selected user(s) from the list of team members.

5. Click **Edit Configuration** to apply your changes.

To delete a configuration:

1. From the **ProjectSync** menu, select **Project** | **Edit**.

   The **Edit Project** panel appears.

2. In item 1, select a project name from the pull-down menu or click **Browse** to pop up the Browse Server window (see Using the Project Browser). The browser lets you navigate a list of all objects on the server and transfer an object's URL to the **Project** field.

   When you select a project or sub-project, its configurations display automatically.

3. Select the configuration name from the list in item 3.

The Edit Project Configuration panel appears. If you are authorized to delete configurations, a **Delete Configuration** button will appear at the bottom of the Edit Project Configuration panel.

4. Click on the **Delete Configuration** button to delete the selected configuration.
5. Click **OK** to confirm your decision to delete the configuration.
6. The **Delete Configuration** results page will display a list of the deleted items.

Related Topics

Creating Configurations

Integrating Configurations with DesignSync

Setting Default Projects and Configurations

Setting Default Projects and Configurations

You can set default project and configuration values for individual notes types. These default values will appear automatically in the **Project** and **Configuration** fields when users add notes of the note type. For example, you could specify that all SyncDefect notes are automatically attached to the ASIC project and to that project's Alpha configuration.

You set the default values by creating a custom `.ini` file for the Add mode of the note.

To add the values in a `.ini` file, create one of the following directories:

- <SYNC_CUSTOM_DIR>/site/share/panels/NoteAdd (site-wide)
- <SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/panels/NoteAdd (server-specific)

- Next, create a file called `Add<notetype_name>.ini` in one of these custom areas. For example, to assign default values to the standard SyncDefect note type, create a file called `AddSyncDefect.ini` (See the *ENOVIA Synchronicity ProjectSync Advanced Customization Guide:* Creating Panel Initialization Drivers for more information on `.ini` files.).

You can set a default project or configuration only for the Add mode of a note.

In either your custom `.ini` file, you define a default project and (optionally) a default configuration by setting the following variables:

- To set a default project, enter:

```
set ProjectName <project_name>
```

- For example, to set ASIC as the project, you would enter:

```
set ProjectName ASIC
```

- To set a default configuration, enter:

```
set ProjectConfig <configuration_name>
```

For example, to set Alpha as the configuration, enter:

```
set ProjectConfig Alpha
```

Note: Optionally, you may use the older `ProjectRelease` instead of `ProjectConfig`.

Related Topics

Integrating Configurations with DesignSync

Integrating Projects with DesignSync

What Are Configurations?

What Are Projects?

Exporting Projects

The Export Project panel lets you export projects, sub-projects, or directories so that you can later import them to a new server. You can export entire projects, including vault data, note types, and the associated notes.

The export operation does not make the server completely inaccessible. The server is suspended for a short time, but during most of the export operation the server is accessible for all ProjectSync actions and for read access for DesignSync. For example, users can create notes or use DesignSync to populate from a vault during an export operation.

However, you should use access controls to restrict the area used for export so that no one can operate in the export area while you are exporting. For example, if you are exporting the project smallLib, you would add the following line to your custom AccessControl file:

```
access deny $DesignSyncActions everyone when Object
sync:///Projects/smallLib/*
```

See the ENOVIA Synchronicity Access Control Guide for details on creating custom `AccessControl` files.

If you have DesignSync mirrors associated with a project that you want to export, you must disable all mirrors before beginning the export. See Exporting Projects with Mirrors, below, for details on how to deal with mirrors of an exported project.

The exported project data is saved to a directory in the `Export.sync` directory of your `server_vault` area. To import the project to another server, you copy the exported data to an `Import.sync` directory in the target server. See Importing Projects for details.

The sections on the Export Project panel let you specify how the data is exported.

In the **From** section, you can select a project, sub-project, or directory to export:

- To export a whole project, select the project name from the pull-down menu.
- To export a sub-project or directory:

1. Select the project name from the pull-down menu.
2. Click **Browse** to pop up the Browse Server window (see Using the Project Browser). The browser lets you navigate a list of all objects on the server and transfer an object's URL to the **Project** field.

    You also can manually enter a `sync:///` URL in the **Project** field. For example:

    ```
    sync:///Projects/smallLib/and3/verilog
    ```

    In this example, `sync:///` is a shorthand for the server. If you omit `sync:///Projects` from the URL, ProjectSync assumes that the path you enter begins at the `sync:///Projects` level.

In the **Data** section, you can select the types of data to export:

- **vault data** - Exports the vault data, including the tag information.
- **notes** - Exports notes attached to the exported project or sub-project.
- **note types** - Exports all note types that have notes attached to the exported project or sub-project, including the definition files, property types, supporting files, and trigger scripts used for the note type. If you export note types, then you also must choose the **notes** option.

The **Cleanup** section appears only when you have permission to delete a project. See the ENOVIA Synchronicity Access Control Guide for information on the access controls applied to deleting a project. To delete an entire project from the SyncServer once you finish exporting it, use the **Delete Project** panel (see Editing and Deleting Projects). To delete some, but not all, of the project data see the following information on the Export Project **Cleanup** section.

In the **Cleanup** section, you can choose whether to remove the exported data from the server:

- **vault data** - Removes the vault data for the exported project, including the tag information.
- **keep version identifiers** - If selected, preserves version information about objects in the vault. If this item is not selected and a deleted object is checked in again, the object becomes version 1.1. If this item is selected and a deleted object is checked in again, the version number of object increments according to its pre-deletion version number.
- **notes** - Removes all notes attached only to the exported project.

  If you have triggers that fire when notes are detached, you may want to disable triggers before you export and remove notes. If triggers are not disabled, the triggers will fire for each exported note. (See *DesignSync Data Manager Administrator's Guide*: Editing Note Objects Triggers for information on disabling triggers.)

When you click **Submit**, the Operation Successful panel displays the log file, which shows where the data is copied. This log file is saved in the `Export.sync` directory with the name `<project_name>.<date>_<time>.sync.export.log`. For example, it you export the smallLib project, the log file might be named `smallLib.20010906_112632.sync.export.log`.

The count of exported vault objects in the log file indicates the number of active objects, not the number of files. For example, a Cadence view object is counted as one object, although several files are exported for the view object.

The project data is copied into the `server_vault` directory:

```
.../server_vault/Export.sync/<project_name>.<date>_<time>.sync
```

If you export a directory, the exported data directory is named: `<directory_name>.<date>_<time>.sync`.

For example, if you export a project called smallLib, the path to the exported data might be:

```
.../server_vault/Export.sync/smallLib.20010731_090402.sync
```

Within the `<directory_name>.<date>_<time>.sync` directory, custom note type files are placed under `site`, `servers`, or `enterprise`, depending on where they originated in the custom hierarchy. For example, a custom `AddHW-Defect-1.def` file in the `custom/servers/<host>/<port>/share/data/defs` directory would be exported to:

```
.../<project_name>.<date>_<time>.sync/servers/data/defs
```

While the export operation is underway, the extension `.inprogress` is appended to the exported data directory name.

To import the data to a new server, you must recursively copy the `<project_name>.<date>_<time>.sync` directory to an `Import.sync` directory under the `server_vault` area on the target server. See Importing Projects for details.

If the server crashes during an export operation, remove all the contents of the `Export.sync` directory and re-run the export operation.

Note: ProjectSync's export project and import project features do not consider hierarchical references. If your project is a module configuration, you must transfer the href's using HCM commands when exporting the project to a new server.

Exporting Projects with Mirrors

If you are exporting a project with associated mirrors, you must update your mirrors to point to the new location of the project. To update your mirrors:

1. On the **DesignSync** menu, select **Mirrors** | **Show RS Status** to go to the Mirror Status panel. Using the table on this panel, make a note of all the mirrors registered on the Repository Server that hosts the project. (See *DesignSync Data Manager Administrator's Guide*: Displaying Mirror Status for details.)
2. Disable all of the mirrors associated with the project. (The mirrors are disabled automatically if you choose to remove the project after exporting it.)
3. Export the project.
4. Edit each mirror and change the vault location to point to the project's new location.
5. Re-enable all of the mirrors.

See *DesignSync Data Manager Administrator's Guide*: Mirror Overview for information on working with DesignSync mirrors.

Related Topics

DesignSync Data Manager Administrator's Guide: Backing Up Your Server

Importing Projects

What Are Projects?

Importing Projects

The Import Project panel lets you import a project, sub-project, or directory from another server.

The server is suspended during an import operation and is not accessible for any other operation. Note triggers, including email triggers, are disabled when notes are imported. If an operation is running when you start an import, ProjectSync halts the operation during the import and resumes the operation when the import is complete.

Before you can import a project from another server, you must first export the data on the source server. See Exporting Projects for details.

Note: If the server importing a project and the server exporting it are owned by different groups, you need to give read permission on the `stage_tags.db` file while exporting the project. This is necessary in order to make the data there accessible.

After you have exported the data on the source server, you take the following steps to import the data:

1. Transfer the exported data from the source server to the target server.
2. If you want to import note types, manually transfer the note type data and install the note type using the Note Type Manager.
3. Use the Import Project panel to specify how the data is imported.

These steps are described in the following sections.

Transferring the Exported Data to the Target Server

Before you can import data with the Import Project panel, you must recursively copy or move the exported data from the source server:

1. Change to the `server_vault` directory on the target server.
2. Create the `Import.sync` directory if it doesn't already exist:

   ```
   mkdir Import.sync
   ```

3. Recursively copy the exported data directory from the source server:

   ```
   cp - rf < SYNC_DIR>/../ syncdata/<host>/<port>/
   server_vault/
   Export.sync/< project_name>.<date>_<time>.sync ./
   Import.sync
   ```

Importing Note Types

The files necessary to import custom note types are included with the exported project files. If these note types do not already exist on your target server, you must import the note type files manually before you import the project. The steps required to add note type definitions are discussed in detail in Importing a Note Type Definition File.

Custom note type files are exported into `servers`, `site`, or `enterprise` directories, depending on where they were located on the original server. Before importing the project, you must copy these files to the equivalent custom areas on the new server. For example, to install the note type customization files from the `site` area, you might specify:

```
cp - r Import.sync/<import area>/site $ SYNC_SITE_CUSTOM
```

When copying custom versions of files, make sure that you do not accidentally overwrite any existing files.

You can find the required files in the following subdirectories in the directory that was generated when you exported the project (`< project_name>.<date>_<time>.sync`, by default):

- Note type definition (`. def`) files:
  - server-specific: `servers/data/ defs`
  - site-wide: `site/data/ defs`
  - enterprise-wide: `site/data/ defs`. (The `enterprise` area is reserved for future development.)
- Property type definition files:
  - server-specific: `servers/data/ NoteTypes/< note_type_name>`
  - site-wide: `site/data/ NoteTypes/< note_type_name>`
  - enterprise-wide: `enterprise/data/ NoteTypes/< note_type_name>`. (The `enterprise` area is reserved for future development.)
- Menu icons for the note type:
  - server-specific: `servers/content/images/Notes/ SyncNotes/< note_type_name>`
  - site-wide: `site/content/images/Notes/ SyncNotes/< note_type_name>`
  - enterprise-wide: `site/content/images/Notes/ SyncNotes/< note_type_name>`. (The `enterprise` area is reserved for future development.)

Any other customization files for the exported note types are included in the `servers`, `site`, or `enterprise` directories, depending on where they were located on the original server.

When you have copied these files to the appropriate location on your target server, you can use the Note Type Manager to install the exported note type.

Importing Notes Using the Same ID

If the target server does not have any notes, then all the notes from the Export Project get created using their original number. However, if the target server and the Export Project have notes with the same numbers, new notes are created using the next available number.

Note: The next available note number can be greater than the current maximum note number plus one as a consequence of internal database issues.

If the target server has a full run of notes going past the maximum number in the Export Project, new notes all with new numbers are created.

Importing the Project Data

The three sections on the Import Project panel let you specify how the project, sub-project, or directory data is imported.

In the **From** section, use the pull-down menu to select an exported data directory to import. The pull-down menu lists the directories in the `Import.sync` directory. Directory names beginning with a dot (`.`) are not listed for import.

Enable the **Remove from staging area after import** checkbox to delete the exported data from `Import.sync` after the project is imported.

In the **To** section, enter the URL of the location where you want to import the data. You can choose a project from the pull-down menu or click **Browse** to pop up the Browse Server window. The browser lets you navigate a list of all objects on the server and transfer an object's URL to the **Project** field.

You also can manually enter a `sync:///` URL in the **Project** field. For example:

```
sync:///Projects/ smallLib
```

In this example, `sync:///` is a shorthand for the server. If you do not enter a project name into the **To** field, the data is imported into `sync:///Projects`.

The name of the original exported project or directory is used for the name of the imported project or directory. For example, if the directory `sync:///Projects/`

smallLib/top was exported, and then imported to sync:///Projects/test, then the imported directory would be sync:///Projects/test/top.

In the **Data** section, select what data to import:

- **vault data** - Imports the vault data, including the tags information.
- **notes** - Imports notes attached to the project or sub-project.

  Note type definitions are not imported. To successfully import notes, the corresponding note types must be installed on the target server and the properties of the note types must be the same on the target and source servers. See the previous section Importing Note Types for information on importing a note type.

  If you import notes that include links to other notes, these links are not updated to point to the correct note. Such links include link fields, hyperlinks in transcript fields, and attachments.

If you chose to remove data in the **From** section and you do not select both **vault data** and **notes**, the data that is not imported is lost.

References in the sync_project.txt file are corrected during export. Any reference relative to the export server is corrected so that the REFERENCE contains the correct location after import. (See Using Vault REFERENCEs for Design Reuse in the DesignSync Help for details.)

Any trigger scripts associated with an exported note type are included in the imported data. However, before the triggers can function, you must register the triggers using the Add Trigger panel. (See *DesignSync Data Manager Administrator's Guide:* Creating Note Object Triggers for details.) To register the triggers on the new server, you must know the actions and events that fire the trigger.

Click **Submit** to import your project, sub-project, or directory. The Operation Successful panel displays the log file, which shows where the data is copied. This log file is saved in the Import.sync directory with the name <project_name>.<date>_<time>.sync.import.log. For example, if you import the smallLib project, the log file might be named smallLib.20010906_112632.sync.import.log.

The count of imported vault objects in the log file indicates the number of active objects, not the number of files. For example, a Cadence view object is counted as one object, although several files are imported for the view object.

Note: ProjectSync's export project and import project features do not consider hierarchical references added via the HCM product. If your project is a Module configuration, you must transfer the href's using Module commands when importing the project to a new server.

Related Topics

DesignSync Data Manager Administrator's Guide: Backing Up Your Server

Exporting Projects

What Are Projects?

Note Types

What Are Note Types?

A **note** is the mechanism for entering data into ProjectSync in order to track bug reports, change orders, and conduct web-based discussions about projects and design components. Each note is one instance of a note type, which is a template for the information contained in notes of that type. When a note of a particular note type is created, it is automatically assigned a unique number - its note ID number. See What Are Notes? for more information.

The ProjectSync software includes four predefined, standard note types. You can choose to install any or all of these note types and use them as delivered, or you can customize them to your particular needs. Before you can enter any data to track, your system administrator must install at least one note type and set up at least one project on your server. Once you have one or more users, one or more projects and one or more note types defined on the server, your end-users can begin using ProjectSync's note capability. When you enter note data, you will attach that data to a specific project or project configuration.

To install any of the standard note types, click **Note Type Manager** in the left panel of the ProjectSync window. From the Note Type Manager main panel, you can install:

- HW-Defect-1
- SW-Defect-1
- SyncDefect
- Note

See Installing Standard Note Types for details on installing these note types.

Each note type contain fields, called properties. You can edit the standard note types and their properties, or you can create customized note types and properties that will allow you to track data that is important to your environment. The Note Type Manager is used to make changes to note types and/or their properties.

If you plan to create customized note types or properties, please note the following naming conventions. Note type and property type names:

- can contain only letters, numbers, hyphens, and underscores.
- cannot begin with a hyphen or a number.
- cannot contain spaces or special characters.

In addition, note type names cannot exceed 24 characters and property type names cannot exceed 64 characters.

If you would like to use a note type name that contains special characters or spaces, you can define a custom note type name in the `en.msg` string table file (see Configuring the Wording on the GUI). When a note type displays on the GUI, the custom en.msg entry overrides the prompt string defined in the Note Type Manager.

Once you install or create note types and have at least one project defined, team members can then begin adding notes and performing queries on these note types.

Related Topics

Installing Standard Note Types

Creating Custom Note Types

Editing Note Types

Importing a Note Type Definition File

Installing Standard Note Types

ProjectSync includes several standard note types that contain fields applicable to the tasks that the note types track. The standard note types are:

- SyncDefect - Lets you report and track the resolution of software defects.
- Note - Lets you conduct discussions and record information.
- HW-Defect-1 - Lets you report and track the resolution of hardware defects.
- SW-Defect-1 - Lets you report and track the resolution of software defects. This note type is more complex than the SyncDefect note type.

To learn more about the fields on ProjectSync's standard note types:

1. Click **Note Type Manager** from **Note Types i**n the **ProjectSync** menu.
2. Click the **Install** hyperlink on the main Note Type Manager panel.
3. From the list of note types, select a note type and click **Describe**.

RevisionControl is the only note type that is automatically installed with ProjectSync. When you use ProjectSync with DesignSync, this note type is generated when DesignSync operations are performed. See Using ProjectSync with DesignSync for details.

Installing a Standard Note Type

Follow these steps to install a standard note type. Repeat the steps for each note type you want installed.

1. Click **Note Type Manager** from **Note Types i**n the **ProjectSync** menu.
2. Click the **Install** hyperlink on the main Note Type Manager panel.
3. From the list of note types, select a note type you want installed.
4. Click **Install** to install the note type.

Once the note type is successfully installed, the Install Standard Note Type panel displays. From this panel, you can choose:

- **rename** to change the name of the note type. (See Renaming Note Types for details.)
- **customize** to modify the standard fields of the note type. (See Editing Note Types for details.)
- **rearrange the field display order** to change the order in which the standard fields appear on notes of the note type. (See Rearranging Fields on a Note Panel for details.)

After the note is installed, the note type becomes visible on the ProjectSync menu to all users with a user profile on the ProjectSync server.

Custom triggers are automatically installed for the SyncDefect and SW-Defect-1 note types:

- `SyncDefect_NoteChangeTrigger.tcl` - Automatically sets the **Date Fixed** field when a SyncDefect is closed. The trigger also clears the **Date Fixed** field when a SyncDefect is reopened.

  To set access controls so that the **Date Fixed** field can be modified only by the automated trigger script, add the following lines to your custom `AccessControl` file:

  ```
  access deny SetNoteProperty everyone when type SyncDefect
  when field DateFixed

  access deny ModifyNoteProperty everyone when type
  SyncDefect when field DateFixed
  ```

See the ENOVIA Synchronicity Access Control Guide for information on creating a custom `AccessControl` file.

- `SW-Defect-1_NoteChangeTrigger.tcl` - Automatically updates the date fields that indicate when the **State** field of a SW-Defect-1 was changed and the last time a SW-Defect-1 note was modified.

For more information on SyncDefect and other note types, click the **Describe** button on the Note Type Manager installation panel.

After installing a standard note type, you can rename the installed note type (see Renaming Note Types) and set up email notifications (see *DesignSync Data Manager Administrator's Guide*: Configuring Email Notifications).

Related Topics

Creating Custom Note Types

Editing Note Types

Importing a Note Type Definition File

DesignSync Data Manager Administrator's Guide: Working with RevisionControl Notes

Editing Note Types

The Modify Note Type wizard lets you edit existing note types. You can edit standard note types you have installed, note types you have created, or note types provided in previous versions of ProjectSync. You can change or delete existing fields and add new fields to your note types.

If you want to modify fields that are already used in notes, you may need to create a conversion script to translate the data in the existing notes to your new data. See Converting Note Type Properties for details.

To start the Modify Note Type wizard, take the following steps:

1. Click **Note Type Manager** from **Note Types i**n the **ProjectSync** menu.
2. Click on **Modify an active note type** from the bulleted list in the **Note Type Manager** panel.

The first panel of the Modify Note Type wizard appears. The individual panels of the wizard are described in the following sections (If you use the **Back** button on your browser while in the wizard, values you set are not retained when you move forward again in the wizard.).

Note: Before finalizing your note type modifications, you will have the option of creating a note type snapshot. When you create a note type snapshot, ProjectSync retains a back-up copy of a current note type definition, a current set of note attachment links and any note data. A note type snapshot enables you to restore the prior note type definition, note attachment links and note data if the results of your modification operation are not as you intended. See Working with Note Type Snapshots for more information.

Select Note Type

Choose an existing note type to edit from the **Note Type** pull-down menu and click **Next**.

You cannot edit, delete, or rename the RevisionControl note type.

Specify Fields to be Changed

The table displayed in this panel contains two sections: the required fields (shown in grey) and the editable fields (shown in white). Some properties are required for a note type definition, and ProjectSync automatically adds these properties to the note type. See the Required Properties section in What Are Properties? for more information.

The left column of the table displays the field names. The columns to the right describe the types of fields, whether the fields are required, their prompt text, and optional default values. For each editable field, you can select an **Action** from the pull-down menu to keep the field as defined, modify it, or delete it. If you do not select an action, the default action is **keep**.

To add new fields, enter the number of new fields you want to add in the **Add new fields** text box at the bottom of the panel.

When you have identified the fields you want to change or add, click the **Next** button to go to the **Specify Field Types** panel, where you specify the changes.

Specify Field Types

The table displayed in this panel shows the fields you want to add or change in white. The fields you did not select for editing in the previous panel are displayed in grey.

For new fields, add a property name for the field in the text box in the **Field Name** column of the table. The property names of fields cannot be longer than 24 characters and are restricted to numbers, letters, and the underscore character. You cannot use reserved JavaScript keywords as property names. See What Are Properties? for details.

You can add several fields that create special behavior:

- **Linked notes** - a field for linking to other notes. Users can enter one or more note type names and numbers to create hyperlinks to the notes.

  To add a linked notes field, you can use the field name `linknote`, `link_note`, `linknotes`, or `link_notes`. See Setting Up Links Between Notes for details.

- **File attachment** - a field where users can upload an attachment file to the server so that people can read or download the attached file.

  To add a file attachment field, use the field name `fileattach`. See Attaching Files to Notes for details.

- **Transcript** - an additional note text field, where added text is appended to earlier text, rather than replacing it.

  To add a transcript field, use the field name `transcript`. See Adding Transcript Fields to Notes for details.

- **Keywords** - a field for entering search keywords. This field includes a **Modify** button that brings up a list of predefined standard keywords. Users can select keywords from the list to insert in the **Keywords** field.

  To add a **Keywords** field, you can use the field name `keywords` or `key_words`. See Adding Search Keyword Fields to Notes for details.

- **CC list** - creates field for entering the names of users to receive email notifications when the note is updated. This field includes a **Modify** button that brings up a list of all the users registered on the ProjectSync server. Users can select names from this list to insert in the CC list field.

  To add a CC list field, you can use the field name `cclist` or `cc_list.` See Adding CC List Fields to Notes for details.

You add the information for the fields containing TBD (to be decided) in the next panel of the wizard.

From the **New Field Type** column of the table, select the data type you want to apply from the pull-down menu.

If you create a `linknotes`, `fileattach`, `keywords`, or `cclist` field, you must choose an appropriate String property value for the field, for example String80 or even String 256. For `transcript` fields, the length must be unlimited, so you must use the String property value.

Define Fields

The table displayed in this panel lets you specify the field name, the prompt, whether the field is required, and its default value.

The **New Field Name** column gives you the option of changing the names of any fields that you selected for modification or defined in the previous panel.

The **Prompt** column lets you define the text for the prompt displayed on the GUI. These prompt strings are overridden on the GUI if an entry for the field exists in the `en.msg` string table file. See Configuring the Wording on the GUI for more information.

The **Required?** column lets you specify whether users are required to enter a value for this property when they use the note GUI.

The **Default Value** column lets you specify a default value for the property. This value will be automatically selected as the default value of the field in the note panel.

See Creating Custom Note Types and What Are Properties? for more information on adding properties.

Data Conversion

The Data Conversion panel lets you specify how your note type is converted.

Before changing a note type, you should back up your server. The **backup** hyperlink near the top of the panel takes you to the Back Up Server panel (see *DesignSync Data Manager Administrator's Guide*: Backing Up Your Server) where you can back up your existing server data.

The **Create Note Type Snapshot** section of the panel lets you decide whether to create a copy of your existing note type data before you perform the conversion. If the results of the data conversion are not as you intended, you can use the snapshot to restore your original note type definition, note attachment links and note data. The default behavior is to save a snapshot before performing the conversion. See Working with Note Type Snapshots for details.

The **Advanced: Scripted Translation Option** section lets you specify a Tcl script for converting the existing data in notes to the new data.

If the property values in the existing notes are also valid for the new property type, you do not need to provide a conversion script. ProjectSync automatically converts compatible properties. For example, if you change a text field from a property type of `String240` to `String512`, all of the existing values are still valid after the conversion.

In many cases, however, your changes to a property's values will conflict with the existing values. For example, suppose you have a property called `EstDevT` that represents the estimated development time for a project. In your original note type definition, the property type for this property is defined as a `String80` and users enter values for this field in days, weeks, or months. If you try to convert this property type to `Integer` using the Note Type Manager, you get an error because these property types are incompatible.

To change the property values of a field when notes of a note type already exist, you need to create a Tcl script to translate property values that ProjectSync cannot convert automatically:

- In the **TCL File** field, enter the name of the Tcl script that contains the function for converting the data.

See Converting Note Type Properties for details on modifying note type properties and creating a Tcl conversion script.

At any previous point in the wizard, you can abandon your modifications without affecting your note type. However, when you click **Next** on the Data Conversion panel, ProjectSync translates your data.

If any errors occur during the conversion, the modification is rolled back and your original note type remains unchanged.

Finishing Up

The Finishing Up panel informs you that the conversion completed successfully.

If you added new note properties, you can change the order in which the properties display on the note panel by clicking on the **rearrange** hyperlink.

1. The properties are displayed in the order they currently appear on the note panel. Select a property that you wish to move and click **Move Up** or **Move Down** until the items are in the desired order.
2. Click **Finish.** The next time you add, edit, or view a note of that type, the properties/fields will be presented on the panel in the order you designated.

You can make changes to the property order at any time in the future by following the directions for Rearranging Fields on a Note Panel.

Click **Note Type Manager** to return to the main Note Type Manager panel.

Related Topics

Creating Custom Note Types

Editing Property Types

Deleting Note Types

Installing Standard Note Types

Working with Note Type Snapshots

Working with Note Type Snapshots

When you modify a note type using the Note Type Manager (See Editing Note Types), you have the option of creating a note type snapshot before finalizing your modifications. When you create a note type snapshot, ProjectSync saves copies of the current note type definition, the note data, and the note attachments. The snapshot does not capture the content of attached files or supporting files (such as note type-specific keyword and note type property order definitions). A note type snapshot enables you to restore the prior note type definition, attachments, and note data if the results of your modification operation are not as you intended.

Once you have created a note type snapshot, each subsequent snapshot will replace the existing one. Only a single snapshot of a note type can exist at a time.

Important:

While a snapshot allows you revert back to an original note type definition, you should not use the snapshot as a substitute for a comprehensive server backup (For details on performing a complete backup, see *DesignSync Data Manager Administrator's Guide*: Backing Up Your Server). A note type snapshot is not an active note type. You cannot add or modify notes using the note type snapshot definition. Moreover, the practical life span of a snapshot is very short. Once you finish your note type modifications, the snapshot data is frozen. The note type snapshot is not updated to reflect changes to the note type definitions, its notes, or attachment links.

The following sections describe how to:

- Create a note type snapshot
- Restore a note type from a snapshot
- Delete a note type snapshot.

Creating a Note Type Snapshot

To create a snapshot of an existing note type, its notes, and note attachments:

1. Click **Note Type Manager** from **Note Types i**n the **ProjectSync** menu.
2. Click **Modify an active note type**.
3. Choose a note type to modify, then click **Next**.

4. Modify, delete, add note type fields as you desire (See Editing Note Types for more information).
5. At the bottom of the Modify Note Type Data Conversion panel, you will see the **Create Note Type Snapshot** section with the following information:

    > You may also elect to create a snapshot of the note type as it currently exists prior to its modification. The snapshot can be used to restore the note type back to its original state if the modifications made were not what was intended.

    The **Create snapshot** radio button is selected by default. If you do not wish to create a snapshot, click the **Do not create a snapshot** button.

    If a snapshot of the note type already exists, you will see an additional message:

    > A snapshot for this note type already exists, most likely from a previous note type modification. If you elect to create a snapshot for this operation, it will replace the existing one.

    In this case, the **Replace existing snapshot** radio button is selected by default. If you do not wish to create a new snapshot to replace the existing one, click the **Do not create a snapshot** button.

6. Click **Next** to proceed.
7. The Modify Note Type **Finishing Up** panel appears when the operation is complete.

Restoring a Note Type from a Snapshot

Important: When you restore an original note type from a snapshot, you lose any notes and note type modifications that were associated with the new note type.

To restore a note type, its notes, and its note attachments from a snapshot:

1. Click **Note Type Manager** from **Note Types i**n the **ProjectSync** menu.
2. Click **Restore a note type from a snapshot**.
3. Select the note type you wish to restore from a list of note types with snapshots.
4. If you wish to restore the note type and keep the existing snapshot, click the **Keep Snapshot** checkbox. If you wish to restore the note type and delete the existing snapshot, ensure the **Keep Snapshot** checkbox is not selected.
5. Click **Next**.
6. Click **OK** to indicate that you want to restore the note type.
7. An **Operation Successful** panel appears when the note type has been restored.

Deleting a Note Type Snapshot

To delete a note type snapshot:

1. Click **Note Type Manager** from **Note Types i**n the **ProjectSync** menu.
2. Click **Delete a note type snapshot**.
3. Select the note type snapshot you wish to delete. Note types without snapshots are not listed as selections.
4. Click **OK** to indicate that you want to delete the note type snapshot.
5. An **Operation Successful** panel appears when the snapshot has been deleted.

When you delete a note type snapshot, its notes and note attachment links also are removed.

If you delete a note type, any snapshot for the note type also is deleted.

Related Topics

Editing Note Types

DesignSync Data Manager Administrator's Guide: Backing Up Your Server

Renaming Note Types

You can rename note types using the Note Type Manager.

To rename a note type:

1. Click **Note Type Manager** from **Note Types i**n the **ProjectSync** menu.
2. Select **Rename** a note type from the list of options.

   The Rename Note Type panel appears.

3. From the **Note Type** pull-down menu, select the note type to rename. In the **New Name** field, type the new name of the note type (up to 24 characters). The note type name can include letters, underscores, numbers, and hyphens. Numbers and hyphens cannot be used as the first character.

   If you would like to use a note type name that contains special characters or spaces, you can define a custom note type name in the `en.msg` string table file (see Configuring the Wording on the GUI). When a note type displays on the GUI, the custom en.msg entry overrides the prompt string defined in the Note Type Manager.

4. Click **Submit** to rename the note type and update all the note links to this note type.

   If you want to detach the note links from the renamed note type and attach them to some other note type, see the `notetype rename` command in ProjectSync Tcl Commands.

Special Considerations

- You cannot rename the RevisionControl note type. This note type is designed to work with DesignSync for projects under revision control. (See Using ProjectSync with DesignSync for details.)
- If you rename a note type, ProjectSync also renames the customization files for that note type. These customization files include configuration files (`*.conf`), custom files installed with a predefined note type, customization files that you created, and any trigger scripts associated with the note type. Triggers that reference a renamed trigger script also are updated.

  Additionally, if anyone modified the note type and created a note type snapshot (see Working with Note Type Snapshots) ProjectSync renames the snapshot.

Related Topics

Editing Note Types

What Are Note Types?

Deleting Note Types

If you are no longer using a particular note type, you might wish to delete it. To delete a note type, follow these steps:

1. Click **Note Type Manager** from **Note Types i**n the **ProjectSync** menu.
2. Click **Delete a note type** in the main **Note Type Manager** panel.
3. Select the note type to be deleted from the **Note Type** pull-down.

   You cannot delete the RevisionControl note type, so it does not appear in the **Note Type** pull-down. This note type is designed to work with DesignSync for projects under revision control.

4. De-select the **Cleanup** check box if you want to preserve the customization files (icons, custom templates, etc.) associated with this note type.
5. Click **Submit** to delete the note type.
6. The confirmation panel appears. If notes exist for this note type, the number of notes to be deleted is displayed. If the **Cleanup** checkbox was selected in the previous panel, the confirmation panel also lists any associated customization files to be deleted.

   Click **Submit** to confirm that you want to delete the note type. Click **Cancel** to return to the first panel of the Note Type Manager.

When you delete a note type, ProjectSync also deletes:

- All triggers associated with the note type or with attached files that are removed when the note type is deleted. Triggers are not removed if they are shared by other note types.
- All customization files associated with the note type. These customization files include files installed with a predefined note type or customization files you have created.
- Any note type snapshot for the note type. (See Working with Note Type Snapshots for details on snapshots.)

ProjectSync does not delete the property type files corresponding to the note type because these might be used in other note types.

Related Topics

What Are Note Types?

Editing Note Types

Renaming Note Types

Working with Note Type Snapshots

Importing a Note Type Definition File

If you have an existing note type definition (.def) file and its associated property type files, you can import them into ProjectSync. Note that any property types used in the definition must exist on your SyncServer (see Creating New Property Types for information on adding a new property type).

Once you import these files, your users will be able to use the note type as they use other note types in your installation.

Prerequisites for Importing

Before you import a note type definition file, take the following steps:

1. Put the .def file in one of the search paths where ProjectSync looks for note type definitions:
   - Server-specific defs directory: <SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/data/defs
   - Site-wide defs directory: <SYNC_SITE_CUSTOM>/share/data/defs
2. Store the property type definition files used by the note type in one of the search paths where ProjectSync looks for property type definitions:

- Server-specific `PropertyTypes` directory:
`<SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/Resources/PropertyTypes`
- Site-wide `PropertyTypes` directory:
`<SYNC_SITE_CUSTOM>/share/Resources/PropertyTypes`

3. If your note type name contains spaces, you must remove the spaces before importing your note type definition. A note type name:
    - can contain only letters, numbers, hyphens, and underscores.
    - cannot begin with a hyphen or a number.
    - cannot exceed 24 characters.
    - cannot contain spaces or special characters.
4. Click **Reset Server** to implement your changes.
5. Once you import the note type definition, you can add a custom entry to the ProjectSync string table to display the note type name of your choice on the GUI. See Configuring the Wording on the GUI.

Special Considerations

- ProjectSync generates a note type definition file when you edit a note type. You can reimport this note type definition file later or export it to another ProjectSync server (by copying the file).
- If you are importing custom note types as part of importing a project, you must import the note type definition files before importing the project. See Importing Projects for details.
- After you import the note type definition file, you also can specify a custom icon to appear next to the note type name in the ProjectSync menu panel. Store the `.gif` file for your custom icon at one of the following locations:
    - Server-specific image:
    `<SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/content/images/Notes/SyncNotes/<new_note_type>/Add.gif`
    - Site-specific image:
    `<SYNC_SITE_CUSTOM>/share/content/images/Notes/SyncNotes/<new_note_type>/Add.gif`

Importing the Note Type Definition File

The following steps describe how to import the note type definition file. Be sure before following these steps that you have placed the note type definition file and its property type files in the locations described in the previous section on Prerequisites for Importing.

1. Click **Note Type Manager** from **Note Types i**n the **ProjectSync** menu.
2. Click **Import** on the main **Note Type Manager** panel.
3. From the **Note Type** pull-down menu, select the note type whose definition file you want to import.

If the note type you want to import does not appear in the **Note Type** pull-down menu, its definition file is not in the correct location for importing. See the previous section on Prerequisites for Importing.

4. Click the **Submit** button to import the note type.
5. Click the **Next** button to edit the note type fields or add fields, as described in Editing Note Types. If you wish, you can change the order in which the properties display on the note panel by clicking on the **rearrange** hyperlink. See Rearranging Fields on a Note Panel for more information.
6. Click **Finish** to update the menus.

Creating DEF files of Note Types

Using Note Type DEF files is an easy way to make note types portable between systems. The Note Type Manager can import a new note type from a DEF file. Although there is no button in the Note Type Manager to create a DEF file, the capability exists.

To generate DEF files of existing note types using the Note Type Manager, you must enter the Modify Note Type selection of the Note Type Manager. Changing a note type, or selecting a field to change but never actually modifying the field, will force a `*.def` file to be created upon completion.

The `*.def` file will be created in the same custom directory where the note type was installed, either site-wide (<SYNC_SITE_CUSTOM>/share/data/defs) or server-specific (<SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/data/defs}.

Related Topics

What Are Note Types?

Installing Standard Note Types

What Are Properties?

Each note type is defined by a list of note properties. A property is similar to a field or other widget on a form in a graphical user interface (GUI). A property on a note type is characterized by 4 attributes -- a name, a prompt string (optional), a type, and a default value (optional). Most properties are optional, but a number of properties are required; ProjectSync includes these properties automatically in all note types (see the following section Required Properties).

You use a property name to uniquely identify the property in the database. Property names are subject to the following restrictions.

- Names cannot exceed 24 characters.
- Names can only contain alphanumeric characters and underscores (the first character cannot be a number).
- No two properties on the same note type can have the same name.
- Names cannot be one of the reserved JavaScript keywords. The following table shows the reserved JavaScript keywords:
-

abstract	continue	finally	instanceof	protected	throw
boolean	default	float	int	public	throws
break	do	for	interface	return	transient
byte	document	function	long	short	true
case	double	goto	native	static	try
catch	else	if	new	super	var
char	extends	implements	null	switch	void
class	false	import	package	synchronized	while
const	final	in	private	this	with

The prompt string is an optional attribute of a property definition. When ProjectSync displays a list of note type properties in a panel, it displays the prompt string if one is defined for the property. If the prompt string is not defined, ProjectSync displays the property name. Setting the prompt string is useful in cases where a more descriptive label for the property is desired.

Required Properties

There are particular properties that are always included in a note type definition. These properties are as follows:

Property	**Prompt**	**Displays in Note**
Id	Id	Not required
Title	Title	Required
Body	Note Text	Required
DateCreate	Creation Date	Not required
Author	Author	Required

Some of the properties must display as fields in each note type. In the **Displays in Note** column on the table above, these properties show as **Required**. The properties that show as **Not required** do not have to display explicitly in the note type, but ProjectSync maintains a hidden field for these properties.

Important: If you edit an HTML template for a note panel, do not delete any of these required properties. Although some of these properties might be hidden fields in the note panel, they do show up in the HTML template in a text or WYSIWYG web page editor.

Property Types

For each property, you must also specify a note property type. There are a number of different property types and each allows certain kinds of values to be entered or selected. A simple example is a "string" property type that allows users to enter text such as a title. There are also more complex property types that allow users to select from a restricted set of values. One example is the predefined SyncPriority property type offering users a choice of low, medium, high, and stopper priority.

DesignSync provides a number of predefined property types for you to select for your properties. These are described in Predefined Property Types and Configurable Property Types. You can also create new property types by following the steps described in Creating New Property Types.

Related Topics

What Are Property Types?

Predefined Property Types

Configurable Property Types

Creating New Property Types

Creating Custom Note Types

Converting Note Type Properties

When you are editing a note type and modifying its properties, you may need to convert the old data to the new data in existing notes of that note type.

If the property values used in existing notes are also valid for the modified property, you do not need to convert the data. For example, if you are lengthening a text field from a property type of `String240` to a `String512`, all of the existing values are still valid after the conversion. Otherwise, you need to:

1. Edit the property type to create your new values.
2. Create a Tcl conversion script to translate the old data to the new data in existing notes.
3. Edit the note type to modify the field and perform the data conversion.

These steps are described in the following sections.

Editing the Property Type

To change the values for a field in a note type, you must use the Property Type Manager to redefine the property type that generates the values. See Editing Property Types for complete details on using the Property Type Manager.

For example, suppose that your company has been using the prepackaged SyncDefect note type. You now want to edit the note type and change the choice-list **Severity** field to **Priority**. You also want to change the values of the field from **STOPPER**, **serious**, and **non-critica**l to **P0**, **P1**, and **P2**, respectively.

You begin by editing the property type that generates the values for the **Severity** field:

1. Click **Note Type Manager** from **Note Types i**n the **ProjectSync** menu.
2. From the **Note Type Manager** panel, select **Manage property types** to get the Property Type Manager panel.
3. Select **Edit** under **Choice List** to get the Edit Choice List Property Type panel.
4. From the **Name** pull-down menu, select **SD-Severity**, the property type that defines the values for the **Severity** field on the note type.
5. In the **Choice List** field, delete the existing property values, **STOPPER**, **serious**, and **non-critical**.
6. Using the **New Value** field, add **P0**, **P1**, and **P2** to the **Choice List** field.
7. Note the setting in the **Visibility** field. This setting shows whether the property type is defined for the local server only or for all servers. When you create the Tcl conversion script, you must put it in the custom area that conforms to this setting. (Do not change the setting in the **Visibility** field.)
8. Click **Save** to edit the property type.

The SD-Severity property type now has the new values that you want to use for the **Priority** field in the note type.

Creating a Tcl Conversion Script

After you have modified the property type, you can create a conversion script to translate the data in existing notes to the new data.

Create your conversion script in the custom area that conforms to the **Visibility** setting for the property type. (See step 6 in the preceding section.) For property types accessed by all servers, create your script in:

```
<SYNC_CUSTOM_DIR>/site/share/tcl
```

For property types accessed only by the local server, create your script in:

```
<SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/tcl
```

To create a Tcl translation script, include a function for each new or modified property type. The function specifies the conversion of the existing data into the new or modified data.

For example, to convert the **Severity** field and its values (as in the preceding Editing the Property Type section), you can create a script called `conversion.tcl` that contains the following function:

```
proc xlatSeverity {NoteProps NoteURL} {

upvar $NoteProps noteProps

  switch $noteProps(Severity) {

    non-critical {return P2}

    serious {return P1}

    STOPPER {return P0}

  }

}
```

Note: In this example, the `NoteProps` variable passes into the proc by name. This requires the use of the `upvar` command to access the array's actual contents.

When you run this script using the Modify Note Type's Data Conversion panel (see Editing Note Types), ProjectSync automatically maps the field name **Severity** to the **Priority** field, which is defined when you edit the note type.

Editing the Note Type

After you have edited a property type and created a conversion script, use the Modify Note Type wizard to change the field information and run your conversion script. See Editing Note Types for details on using this wizard.

Using the preceding example, you would:

1. From the **Note Type Manager** panel, select **Modify an active note type** to get the Modify Note Type wizard.
2. Select **SyncDefect** from **Note Type** pull-down menu on the Select Note Type panel of the wizard.
3. Select **MODIFY** from the **Action** pull-down menu in the **Severity** row on the Specify Fields to be Changed panel of the wizard.

4. Enter `Priority` in the **New Field Name** and **Prompt** fields on the **Define Fields** panel of the wizard. You optionally can select **P0**, **P1**, or **P2** as the default value of the field.
5. Enter the name of your conversion script file, `conversion.tcl`, in the **TCL File** field on the Data Conversion panel of the wizard.
6. Complete the wizard as usual.

The translator converts the old data to the new data for the field on all existing SyncDefect notes.

Property Types

What Are Property Types?

Property types are the data types applicable for note type properties. When you create a property on a note type such as "SpecAuthor", you assign it a property type, such as "String80".

The property type of a field also determines the type of GUI element ProjectSync displays for the field. For example, the unlimited string property type, "String", displays as a multiple line text input field, whereas, a fixed length string property type, such as "String80" displays as a single 80 character input field.

When creating a new note type and defining the note properties, you can define your own property types or use those the predefined types. If you plan to create customized note types or properties, please note the following naming conventions. Note type and property type names:

- can contain only letters, numbers, hyphens, and underscores.
- cannot have a number or hyphen as a first character.
- cannot contain spaces or any special characters.

In addition, note type names cannot exceed 24 characters.

For descriptions of the predefined property types, see Predefined Property Types and Configurable Property Types. To create new property types for use in your note types, see Creating New Property Types.

Related Topics

Predefined Property Types

Configurable Property Types

Creating New Property Types

Editing Property Types

Creating Custom Note Types

Predefined Property Types

ProjectSync supports predefined property types that you specify for each property in a note type. The following table describes the predefined property types. These property types have predefined behavior and can be selected from the **Type** pull-down menu on the Create Note Type panel.

You cannot modify the predefined property types listed below. However, ProjectSync also supports some configurable property types that create special behavior (see Configurable Property Types). In addition, you can modify the property types that are installed with the standard note types. To create a property type, see Creating New Property Types. To edit a property type, see Editing Property Types.

Predefined Property Types

Property Type	Legal Values	Graphical Element Generated
Boolean	`True, False`	Add and Edit Mode: Check box or radio buttons. View Mode: Read-only text.
Date	Has a date component, but no time component. (The Date property type used prior to ProjectSync2.5 is now the equivalent of the Timestamp property type.) The maximum resolution is 1 day. ProjectSync uses the international time and date standard defined in ISO-8601:2000. For example: 2004-01-21	Add and Edit Mode: A type-in field with an adjacent calendar pop-up from which the user can select a date to automatically set the field. View Mode: Read-only text.
Float	A floating point value. The supported range for Float values is between	Add and Edit Mode: Type-in field

	-1e120 and 1e120	View Mode: Read-only text.
Integer	An integer value. The supported range for Integer values is between -2147483648 and 2147483647	Add and Edit Mode: Type-in field View Mode: Read-only text.
String#	A string field of up to # ASCII characters.	Add and Edit Mode: Type-in field of the specified length. View Mode: Read-only text. **Notes:** ProjectSync supports varying string length fields: String10, String20, String80, String240, String512. For a multiple line text field, use the property type String. The String4000b property type is included for the future extensibility of ProjectSync but is not presently used.
String	A string of unlimited length.	Add and Edit Mode: Scrollable multiple-line type-in field. View Mode: Read-only text.
SyncClass	hardware, software, documentation, support	Add and Edit Mode: Pull-down menu containing choice values (built on the ChoiceList property type. See the Primitive Property Types section that follows). View Mode: Read-only text.
SyncPriority	low, medium, high, stopper	Add and Edit Mode: Pull-down menu containing choice values (built on the ChoiceList property type. See

		the Primitive Property Types section that follows). View Mode: Read-only text.
SyncState	open, analyzed, fixed, closed	Add and Edit Mode: Pull-down menu containing choice values (built on the StateMachine property type. See the Primitive Property Types section that follows.) View Mode: Read-only text. For more information, see SyncState.
SyncUserList	The users who appear in the SyncUserList pull-down menu depend on the projects and configurations to which they belong. Only team members of a particular project and configuration display when that project and configuration combination is specified.	Add and Edit Mode: Pull-down menu containing choice values. An adjacent **Other** pop-up field contains a list of all users on the SyncServer from which the user can select a user to automatically set the field. View Mode: Read-only text. For more information, see SyncUserList.
Time	Has a time component, but no date component. The maximum resolution is 1 second. ProjectSync uses the international time and date standard defined in ISO-8601:2000. For example: 14:34:56	Add and Edit Mode: Pull-down menus for the hour, minute, and second. View Mode: Read-only text in hour-minute-second format.

Timestamp	Has a date and a time component. Maximum resolution = 1 second. (Equivalent to the pre-2.5 Date property type.)
	
	ProjectSync uses the international time and date standard defined in ISO-8601:2000. For example:
	
	2004-01-21 14:34:56
	
	However, on the GUI, users can enter dates in one of the following formats:
	
	`Jan 21, 2004`
	`January 21, 2004`
	`1/21/2004`
	`Jan 21 2004`
	
	`today, now, yesterday` (only in GUI)
	
	`last n <hour/week/month>` (only in Advanced Note Query GUI)
		Add and Edit Mode: A type-in field with an adjacent calendar pop-up from which the user can select a date to automatically set the field.
		
		View Mode: Read-only text.
		
		Notes:
		
		An example of the `last n` date specification is:
		
		`last 2 days`
		
		If today were 1/21/2004, this example yields 2004-1-19 23:59:59.
		
		Because of UNIX limitations, ProjectSync does not accept dates earlier than January 1, 1970, or later than February 5, 2036.

SyncState

The `SyncState` property type creates a state machine field that records the stage of a note in its lifecycle. All bugs start in the "open" state, and can move from there to "analyzed" or "fixed". A bug must pass through the "fixed" state before it is "closed," to ensure that the fix is verified. A "closed" bug can also be reopened. To change the open starting state, you can specify a different default value. The starting state cannot be edited by the user.

The SyncState property type displays a pull-down menu with choices for the state of a defect; built on the StateMachine property type. (See Primitive Property Types.)

SyncUserList

The SyncUserList property type creates a field for entering user names that includes a pull-down menu of ProjectSync users.

ProjectSync automatically assigns a value to both required and optional SyncUserList fields. This auto-assignment is based on the selections made in the **Project**, **Configuration**, and **Attach To** fields. ProjectSync sets a note's SyncUserList fields to the owner of the most recently attached object (i.e., project, configuration, sub-project).

For example, Jane Doe is the owner of a project called Test. A note with a **Responsible** field of property type SyncUserList is created and attached to Test. Jane Doe appears in the **Responsible** field. The note is later attached to the Release2 configuration of Test owned by John Doe. John Doe now appears in the **Responsible** field.

This auto-assignment method is overridden when a required SyncUserList field has a default value. In this case, the SyncUserList field is pre-selected with the default user name, not the project, configuration, or attachment owner.

If a user changes the **Project**, **Configuration**, or **Attach To** fields after the **Responsible** field is set, ProjectSync displays a confirmation box before selecting a new value for the **Responsible** field.

If your note type contains multiple SyncUserList fields, they are all set to the same owner. To amend or disable the auto-assignment function:

- Under the <SYNC_SITE_CUSTOM>/share/panels or <SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/panels directory, create the following *.ini files:

  For the Add mode of a note type - /NoteAdd/Add[notetype_name].ini

  For the Edit mode of a note type - /NoteDetail/Edit[notetype_name].ini

- Inside the .ini file, enter the line setDynamicUserListProps <value>. When <value> is set to a field name of type SyncUserList, that field is automatically updated to reflect the project or configuration owner. You can:
  - Specify which fields have auto-assignment. To apply auto-assignment to a field, set <value> to the field name: setDynamicUserListProps <fieldname>. To set auto-assignment for more than one field, specify the list of fields as a single argument. For example:

    ```
    setDynamicUserListProps "<field1> <field2> <field3>"
    ```

- Disable the auto-assignment function by setting an empty `<value>`: `setDynamicUserListProps ""`. When the auto-assignment is disabled, users can select the appropriate owner from a pull-down menu.

Note: When a `SyncUserList` field is assigned a default value and only one project exists, the project name is not preselected when you add a note.

Primitive Property Types

ProjectSync also provides primitive property types you use as building blocks for creating your own property types. The table below describes these primitive property types.

Property Type	**Legal Values**	**Comments**
ChoiceList	A primitive property type that provides a user with a list of choices. SyncClass and SyncPriority are built on the ChoiceList property type.	ChoiceList is a base property type on which you build your own property types.
StateMachine	A primitive property type that provides a user with a list of choices. Acceptable choices depend on the current state of the property. **SyncState is built on the StateMachine property type.**	StateMachine is a base property type on which you build your own property types. The StateMachine property type ensures that a property value moves in an ordered pattern from state to state according to the transition rules of the state machine.

Related Topics

Creating New Property Types

Editing Property Types

Configurable Property Types

Creating New Property Types

ProjectSync includes property types you can use to edit or create new note types. These property types are described in Predefined Property Types. If a field you want to add to your note type requires a new property type, you can create one or edit an existing property type.

The following steps describe how to create a property type. To edit an existing property type, see Editing Property Types.

You can create property types of these categories:

- A state machine property type (A list of states ordered by transition rules)
- A choice list property type (A fixed list of choices)

Creating State Machine Property Types

1. Click **Note Type Manager** from **Note Types i**n the **ProjectSync** menu.
2. Click **Manage property types** on the Main Note Type Manager panel.

   The Property Type Manager appears.

3. Under the State Machine category, select **Create**.
4. Enter a name for the property type you are creating in the **Name** field.
5. To add a value to the choice list, enter the value in the **New Value** field and click the **Add to Choice List** button.

   Include all the possible states in the choice list. Later in the procedure, you will define the transitions between these states.

6. To change the order of a value in the **Choice List** list box, select the value and click the **Up** or **Down** button to move it up or down the list.
7. To delete a value from the choice list you have created, select the value or values to be deleted from the **Choice List** list box and click the **Delete** button.

   To delete separate choices in the list box, press the **Control** key while clicking the left mouse button on choice items. To select a range of choices, press the **Shift** key while sliding the left mouse button over the range of choice items.

8. Select the **Visibility** for the property type.

   If you want the property type to be available only to users on the current server, select **This server only**. If you want the property type to be available across all the servers on your site, select **All servers using this installation**.

   The `Resources` directory, which is used to house property type files is located in <SYNC_SITE_CUSTOM>/share/Resources for site-wide files and <SYNC_CUSTOM_DIR>/servers/<host/<port>/share/Resources for server-specific files.

9. Select **Next** to specify the state transitions of the property.

The panel displays the name and visibility of the property type you are creating. It also displays the list of states (the choice list) in the left column so that you can define the legal transitions of the states.

For each state listed in the left column of the panel, select the legal transitions you want ProjectSync to enforce.

10. Legal transitions are illustrated by the **SD_State** property type, which is installed with the SyncDefect note type and used to represent the state of a defect. Its **new** state allows users to transition to the **open**, **postponed**, or **verification** state. Users cannot transition directly from **open** to **closed** without entering the **verification** or **postponed** state. Likewise, the **verification** state allows transitions to **open** (if the defect has not been resolved) or **closed**.
11. Select **Save** to create the property type.

After you create the new property type, it appears as a selection in the Create New Note Type and the Modify Note Type panels.

Creating Choice List Property Types

1. Click **Note Type Manager** from **Note Types i**n the **ProjectSync** menu and select the option **Manage property types**.
2. Under the Choice List category, select **Create**.
3. Enter a name for the property type you are creating in the **Name** field.
4. To add a value to the choice list, enter the value in the **New Value** field and select the **Add to Choice List** button.
5. To delete a value, select the value or values to be deleted from the Choice List list box and select the **Delete** button.

   To delete separate choices in the list box, press the Control key while clicking the left mouse button to select the choices. To select a range of choices, press the Shift key while sliding the left mouse button over the range of choice items.

6. To sort the choice items manually, select choice items and click on the **Up** and **Down** buttons in the Choice List list box until the items are in the desired order. By default, ProjectSync preserves your ordering of the choice list items. If you want ProjectSync to sort the items before generating the choice list, select the **Sort Items** button.
7. Select the **Visibility** for the property type.

   If you want the property type to be available only to users on the current server, select **This server only**. If you want the property type to be available across all the servers on your site, select **All servers using this installation**.

   The Resources Directory, which is used to house property type files is located in <SYNC_SITE_CUSTOM>/share/Resources for site-wide files and

`<SYNC_CUSTOM_DIR>/servers/<host/<port>/share/Resources` for server-specific files.

8. Select **Save** to create to the property type.

After you create the new property type, it appears as a selection in the Create New Note Type and the Modify Note Type panels.

Related Topics

Editing Property Types

Editing Property Types

If you need to change an existing property type, you can edit it using the Property Type Manager.

If you update a property type already being used in notes, the settings of the existing fields of that property type might become invalid. For example, if you convert a `String80` property type to an `Integer` property type, the property values are incompatible. The next user to edit the note must change the invalid value to a value that conforms to the new property type for ProjectSync to apply the changes. You can convert property types using custom Tcl scripts. See Converting Note Type Properties for details.

You can edit these categories of property types:

- A state machine property type (A list of states ordered by transition rules)
- A choice list property type (A fixed list of choices)

Editing State Machine Property Types

1. Click **Note Type Manager** from **Note Types** on the **ProjectSync** menu.
2. Click **Manage property types** on the Main Note Type Manager panel.

   The Property Type Manager appears.

3. Under the State Machine category, select **Edit.**

   The **Edit** choice has a hyperlink only when State Machine property types area available for you to edit.

4. Select the property type you wish to edit from the **Name** pull-down field.
5. To add a value to the choice list, enter the value in the **New Value** field and select the **Add to Choice List** button.

6. To change the order of a value in the **Choice List** list box, select the value and click the **Up** or **Down** button to move it up or down the list.
7. To delete a value, select the value or values to be deleted from the **Choice List** list box and click the **Delete** button.

   To delete separate choices in the list box, press the Control key while clicking the left mouse button on choice items. To select a range of choices, press the Shift key while sliding the left mouse button over the range of choice items.

8. If necessary, select the **Visibility** value for the property type by choosing,

   This server only if you want the property type to be available only to users on the current server, or

   All servers using this installation if you want the property type to be available across all the servers on your site.

   Note: The **Visibility** value is pre-selected to what was chosen when the property type was first created. It is not recommended that you change this value.

   The Resources Directory, which is used to house property type files is located in `<SYNC_SITE_CUSTOM>/share/Resources` for site-wide files and `<SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/Resources` for server-specific files.

9. Select **Next** to modify the state transitions of the property.

   This panel displays the list of states (the choice list) in the left column so that you can define the legal transitions of new states or change the transitions of existing states.

10. For each state listed in the left column of the panel, select the legal transitions you want ProjectSync to enforce.

    Legal transitions are illustrated by the SD-State property type, which is installed with the SyncDefect note type and used to represent the state of a defect. Its `new` state allows users to transition to the `open`, `postponed`, or `verification` state. Users cannot transition directly from `open` to `closed` without entering the `verification` state. Likewise, the `verification` state allows transitions to `open` (if the defect has not been resolved) or `closed`.

11. Select **Save** to make the changes to the property type.

Editing Choice List Property Types

1. Select **Note Type Manager** from **Note Types** in the **ProjectSync** menu and select the option to **Manage property types**.
2. Under the Choice List category, select **Edit**.

   The **Edit** choice has a hyperlink for you to select only if Choice List property types exist for you to edit.

3. Select the property type you wish to edit from the **Name** pull-down field.
4. To add a value to the choice list, enter the value in the **New Value** field and select the **Add to Choice List** button.
5. To delete a value, select the value or values to be deleted from the Choice List list box and select the **Delete** button.

   To delete separate choices in the list box, press the Control key while clicking the left mouse button to select the choices. To select a range of choices, press the Shift key while sliding the left mouse button over the range of choice items.

6. To sort the choice items manually, select choice items and use the **Up** and **Down** buttons in the Choice List list box. By default, ProjectSync preserves this ordering in the choice list. If you want ProjectSync to sort the items before generating the choice list, select the **Sort Items** button.
7. If necessary, select the **Visibility** value for the property type by choosing,

   This server only if you want the property type to be available only to users on the current server, or

   All servers using this installation if you want the property type to be available across all the servers on your site.

   Note: The **Visibility** value is pre-selected to what was chosen when the property type was first created. It is not recommended that you change this value.

   The Resources Directory, which is used to house property type files is located in <SYNC_SITE_CUSTOM>/share/Resources for site-wide files and <SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/Resources for server-specific files.

8. Select **Save** to make the changes to the property type.

Related Topics

Converting Note Type Properties

Creating New Property Types

Configurable Property Types

When creating a custom note type, you can add several property types that create special behavior. The following property types, except audit trail, can be used as field names and are configurable. These property types can be modified using a configuration file and can be entered in the **Field Name** field on the Create Note Type panel.

AuditTrail

The `AuditTrail` property type creates a record of the modifications to a note, such as changes in state, priority, and responsible engineer. Use the Email Administrator to enable your `AuditTrail` field. The `AuditTrail` field type must be an unlimited length `String`. For more information on the AuditTrail property , see the Specifiying Settings for Individual Note Types section of the *DesignSync Data Manager Administrator's Guide*: Configuring Email Notifications topic.

cclist

The `cclist` property type creates a CC List field for entering the names of users to receive email notifications when the note is updated. This field includes a **Modify** button that brings up a list of all the users registered on the ProjectSync server. Users can select names from this list to insert in the CC list field.

To create a CC list field, you can use the property name `cclist` or `cc_list` (not case sensitive) and select a data type from the **Type** pull-down. Select a limited-length string such as `String80`, `String240`, or `String512` as the type. See Adding CC List Fields to Notes for details.

linknote

The `linknote` property type creates a field for linking to other notes. Users can enter one or more note type names and numbers to create hyperlinks to the notes. To add a linked notes field, you can use the property name `linknote`, `link_note`, `linknotes`, or `link_notes`. See Setting Up Links Between Notes for details.

fileattach

The `fileattach` property type creates a field where users can upload an attachment file to the server so that people can read or download the attached file. See Attaching Files to Notes for details.

keywords

The `keywords` property type creates a field for entering search keywords. This keyword field includes a **Modify** button that brings up a list of predefined standard keywords. Users can select keywords from the list to insert in the field. To add a keyword field, you can use the field name `keywords` or `key_words`. See Adding Search Keyword Fields to Notes for details.

transcript

The `transcript` property type creates an additional note text field, where added text is appended to earlier text, rather than replacing it. See Adding Transcript Fields to Notes for details.

Customizing Note Types

Creating Custom Note Types

The easiest way to create a note type is to install a predefined note type that is similar to the note type you need. You then can modify the note type to fit your needs. (See Editing Note Types for details.)

However, if the predefined note types do not meet your requirements, you can create a custom note type. After creating your own note type, you can edit it at any time.

To create custom note types, you add properties to the note type panel. These properties define the fields for the panel. Each property accepts values of a particular property type. After you set up the note type, users may use these property values when they add notes or search for these property values when they perform queries on this note type. For more information about properties and property types, see What Are Properties?, What Are Property Types?, and Creating New Property Types.

Certain properties are required in a note type definition. ProjectSync adds these properties automatically to the note type. See the Required Properties section in What Are Properties? for more information.

ProjectSync includes several property types that generate fields with special behavior, such as a date field with a calendar pop-up or an attachment field. Some of these are predefined property types and are listed in the **Type** pull-down menu on the Create Note Type panel (see Predefined Property Types for details). Others are configurable property types that can be used as field names (see Configurable Property Types for details).

Note: Each NoteType can use a custom Note text sort order. By default, Note text is displayed chronologically, with each new addition being displayed below the previous note text. You can customize your note type to sort in reverse chronological order, so that the newest additions display on top. For more information, see Controlling ProjectSync Note Sort Order.

Creating a Custom Note Type

To create a custom note type, follow these steps:

1. Click **Note Type Manager** from **Note Types** in the **ProjectSync** menu.
2. Click **Create** on the main Note Type Manager panel to display the Create New Note Type panel.
3. In the **Note Type Name** field, enter a name for your new note type. The note type name:
    - can contain only letters, numbers, hyphens, and underscores.
    - cannot begin with a hyphen or a number.
    - cannot exceed 24 characters.
    - cannot contain spaces, or any special characters.
4. In the **Description** field, enter a description of the note type.
5. To enter properties in the Properties field, you use the **Define Note Type Properties** section at the bottom of the Create New Note Type panel. Fill out this form for each property (field):
    - In the **Field Name** field, enter a property name for the field. Note the following restrictions. The property name:
    - -can contain only letters, numbers, and underscores.

      -cannot exceed 24 characters.

      -cannot contain spaces, or any special characters.

      -cannot contain reserved JavaScript keywords (See What Are Properties? for details).

    - The field name does not appear in the ProjectSync GUI unless you leave the **Prompt String** field empty. You can add several special property type names in this field to generate fields with special behaviors. See Configurable Property Types for details.
    - In the **Prompt String** field, enter the text you want to appear to the left of the field. You can include spaces in the prompt string. If you do not enter a value for the prompt string, the field name is used as the prompt.
    - For the **Value Is** radio button list, select **Required** or **Optional**. If you select **Required**, the user must fill out this field in order to create a note.
    - From the **Type** pull-down menu, select a property type for the field. You can select several predefined properties that generate special behavior. See Predefined Property Types for details.
    - To set a default value for the new field, select a value from the **Legal Values** pull-down menu. The value you select appears in the **Default Value** field.
    - Select **Add Property** to add the property specification to the note type specification above.
    - Fill out the **Define Note Type Properties** section again for each field you want to add to the new note type.

6. If you decide against including a property you created with the **Define Note Type Properties** section, you can select the property in the **Properties** field and select the **Delete** button.
7. When you have added all the properties to your note type, select **Create Note Type**.

   ProjectSync creates the note type and makes it available to all users with a user profile on the ProjectSync server.

8. If you wish, you can change the order in which the properties display on the note panel by clicking on the **rearrange** hyperlink. See Rearranging Fields on a Note Panel for more information.
9. For each new note type, you can use your own `.gif` icon to display in the ProjectSync menu next to the **Add** hyperlink for the note type. The recommended size for icons is 24 x 24 pixels.

   Place the icon for your menu icon in one of these directories:

   - Server-specific image: <SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/content/images/Notes/SyncNotes/<notetype_name>/Add.gif
   - Site-wide image: <SYNC_SITE_CUSTOM>/share/content/images/Notes/SyncNotes/<notetype_name>/Add.gif

   where <notetype_name> is the name of your custom note type. If the name of your note type contains spaces, replace them with underscores in the directory name, for example:

   <SYNC_SITE_CUSTOM>/share/content/images/Notes/SyncNotes/My_Note_Type/Add.gif

10. Turn on the display of icons in your custom `Configuration` file. See Customizing the Main Menu for details.

    If you have enabled the display of icons and do not create an icon for your custom note type, ProjectSync displays a default icon instead. The default icon is stored at <SYNC_DIR>/share/content/images/defcustnt.gif.

Related Topics

Adding Documentation for Custom Note Types

Configurable Property Types

Editing Note Types

Importing a Note Type Definition File

Installing Standard Note Types

Predefined Property Types

Adding CC List Fields to Notes

In a CC list field, users can enter the names of users to receive email notifications when a note is updated. This field includes a **Modify** button that brings up a list of all the users registered on the ProjectSync server. Users can select names from this list to insert in the field.

You can modify a note type so that it contains one or more CC list fields. To create a CC list field, you must:

1. Use the Note Type Manager to create the new field in the note type where you want to add the CC list field.
2. Edit a `.conf` configuration file for the note type to define your CC list field. (You can skip this step if the property name of your CC list field is one of the default names, cclist or cc_list.)
3. Use the Email Administrator to add your new CC List field to the fields used to build a distribution list for the note type. See *DesignSync Data Manager Administrator's Guide*: Configuring Email for details.

These steps are discussed in the following sections.

Note: Some extra steps are required to create CC list fields in note types based on the standard SW-Defect-1 note type. See the following section Creating CC List Fields in SW-Defect-1 Notes for details.

Creating CC List Fields in the Note Type

Use the Note Type Manager to create your CC list field(s) (see Editing Note Types for details on how to modify note types):

1. From the Note Type Manager's main panel, click **Modify** to go the Modify Note Type wizard.

2. On the Select Note Type panel, choose the note type where you want to add the CC list field(s).
3. On the Specify Fields to be Changed panel, enter the number of CC list fields you want to add.
4. On the Specify Field Types panel, add the name(s) of the CC list fields and specify an appropriate limited-length string field (i.e., **String80**) as the field type.

   If you call the property `cclist` or `cc_list`, ProjectSync automatically recognizes the field as a CC list field and you do not have to declare the field in a `.conf` file.

   If the note type already has a `CCList` property, you must use `cc_list` to add an automatically recognized field. You can have only one instance of a property name per note type.

5. Complete the Modify Note Type wizard.

Defining CC List Fields in a Configuration File

If any of the field(s) you created using the Note Type Manager did not have one of the default property name, `cclist` or `cc_list`, you must create a configuration file to define the CC list field(s). The configuration file should be named:

```
<note_type_name>.conf
```

For example, if you are adding a CC list field to a SyncDefect note type, your configuration file would be named `SyncDefect.conf`.

Place the configuration file in one of the following custom areas:

- For server-specific configurations:

  ```
  <SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/config
  ```

- For site-specific configurations:

  ```
  <SYNC_CUSTOM_DIR>/site/share/config
  ```

If you have configuration files in both server-specific and site-specific custom areas, the settings in both configuration files are used. If server and site configuration files contain different definitions for the same field, the server-specific configuration file takes precedence over the site-specific file.

Your configuration file must contain the following definition:

```
set classes(<field_name>) cclist
```

where <field_name> is the name of the CC list field that you specified when you created the field with the Note Type Manager. The `cclist` specifier defines the field as a CC list field. For example:

```
set classes(notify) cclist
```

This definition generates a CC list field where users can add the names of people to receive email notifications.

You can create multiple CC list fields for a note type.

Creating CC List Fields in SW-Defect-1 Notes

In notes based on the SW-Defect-1 note type, different fields are displayed depending on the state of the note. For this reason, you must make some extra modifications to display CC list fields in notes based on SW-Defect-1.

In addition to adding a CC list field to the note type with the Note Type Manager and creating a `.conf` file, you must edit the custom `.ini` files that are created when a SW-Defect-1-based note type is installed:

- To add your CC list field(s) to the Add view of a SW-Defect-1-based note type, edit:

  ```
  <SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/panels/NoteAdd/Add<note_type_name>.ini
  ```

- To add your CC list fields to the Edit view of a SW-Defect-1-based note type, edit:

  ```
  <SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/panels/NoteDetail/Edit<note_type_name>.ini
  ```

- To add your CC list fields to the View view of a SW-Defect-1-based note type, edit:

  ```
  <SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/panels/NoteDetail/View<note_type_name>.ini
  ```

For more information on editing the `.ini` files for these note types, see the "Advanced Customization Instructions" section in the description of this note type in the Note Type Manager. To access the description:

1. Click **Note Type Manager** from **Note Type** in the **ProjectSync** menu.
2. On the Note Type Manager panel, select **Install**.

3. On the Install Standard Note Type panel, select the radio button next to **SW-Defect-1** in the table of note types.
4. Click **Describe** to go to the detailed description of this note type.

Related Topics

Editing Note Types

Installing Standard Note Types

What Are Note Types?

What Are Keywords for Notes?

In ProjectSync, keywords are text strings that users and/or administrators define for the purpose of tagging notes that they wish to track in the future. Here's an example of how you might use a keyword.

- While working on your **Automobile** project you want to be aware of any new information concerning the windows. You define a fitting keyword (in this case let's use "windows"). Users select the **windows** keyword from the **Keyword Helper** whenever they add or edit related notes. Each morning, you run a query on notes with the **windows** keyword and easily find all the information that relates to your area of concern.

There are two types of keywords:

- **Global** - The global keywords are defined for any note type that contains a **Keywords** field. Global keywords are available in the Keyword Helper when a note containing a Keywords field is added or edited.
- **Note-Specific** - Each note type that contains a **Keywords** field is listed separately. The note-specific keywords are defined only for the selected note type. Note-specific keywords are available in the Keyword Helper whenever that type of note is added or edited. If the same keyword is specified both globally and for an individual note type, the note-type-specific definition is displayed.

You define keywords using the Keyword Manager panel (see Specifying Standard Search Keywords). Once you define a keyword, it appears in the pop-up window that is accessible from the Add Note and Edit Note panels (see Adding SyncNotes for details). The Keyword Helper displays a table of the standard keywords and their descriptions.

Related Topics

Specifying Standard Search Keywords

Adding SyncNotes

Adding Search Keyword Fields to Notes

In a keyword field, users can enter terms that can be used when searching for a note. This field includes a **Modify** button that brings up a list of predefined standard keywords. Users can select keywords from the list to insert in the keyword field.

You can modify a note type so that it contains one or more keyword fields. To create a keyword field, you must:

1. Use the Note Type Manager to create the new field in the note type where you want to add the keyword field.
2. Edit a `.conf` configuration file for the note type to define your keyword field. (You can skip this step if the property name of your keyword field is one of the default names, keywords or key_words.)

These steps are discussed in the following sections.

Note: Some extra steps are required to create keyword fields in note types based on the standard SW-Defect-1 note type. See the following section Creating Keyword Fields in SW-Defect-1 Notes for details.

Creating Keyword Fields in the Note Type

Use the Note Type Manager to create your keyword field(s) (see Editing Note Types for details on how to modify note types):

1. From the Note Type Manager's main panel, click **Modify** to go the Modify Note Type wizard.
2. On the Select Note Type panel, choose the note type where you want to add the keyword field(s).
3. On the Specify Fields to be Changed panel, enter the number of keyword fields you want to add.
4. On the Specify Field Types panel, add the name(s) of the keyword fields and specify an appropriate limited-length string field (i.e., **String240**) as the field type.

   If you call the property `keywords` or `key_words`, ProjectSync automatically recognizes the field as a keyword field and you do not have to declare the field in a `.conf` file.

   If the note type already has a `keywords` property, you must use `key_words` to add an automatically recognized field. You can have only one instance of a property name per note type.

5. Complete the Modify Note Type wizard.

Defining Keyword Fields in a Configuration File

If any of the field(s) you created using the Note Type Manager did not have one of the default property name, `keywords` or `key_words`, you must create a configuration file to define the keyword field(s). The configuration file should be named:

```
<note_type_name>.conf
```

For example, if you are adding a keyword field to a SyncDefect note type, your configuration file would be named `SyncDefect.conf`.

Place the configuration file in one of the following custom areas:

- For server-specific configurations:

  ```
  <SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/config
  ```

- For site-specific configurations:

  ```
  <SYNC_CUSTOM_DIR>/site/share/config
  ```

If you have configuration files in both server-specific and site-specific custom areas, the settings in both configuration files are used. If server and site configuration files contain different definitions for the same field, the server-specific configuration file takes precedence over the site-specific file.

Your configuration file must contain the following definition:

```
set classes(<field_name>) keywords
```

where `<field_name>` is the name of the keyword field that you specified when you created the field with the Note Type Manager. The `keywords` specifier defines the field as an keyword field. For example:

```
set classes(search) keywords
```

This definition generates a keyword field where users can add search keywords.

You can create multiple keyword fields for a note type.

Creating Keyword Fields in SW-Defect-1 Notes

In notes based on the SW-Defect-1 note type, different fields are displayed depending on the state of the note. For this reason, you must make some extra modifications to display keyword fields in notes based on SW-Defect-1.

In addition to adding a keyword field to the note type with the Note Type Manager and creating a `.conf` file, you must edit the custom `.ini` files that are created when a SW-Defect-1-based note type is installed:

- To add your keyword field(s) to the Add view of a SW-Defect-1-based note type, edit:

  `<SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/panels/NoteAdd/Add<note_type_name>.ini`

- To add your keyword fields to the Edit view of a SW-Defect-1-based note type, edit:

  `<SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/panels/NoteDetail/Edit<note_type_name>.ini`

- To add your keyword fields to the View view of a SW-Defect-1-based note type, edit:

  `<SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/panels/NoteDetail/View<note_type_name>.ini`

For more information on editing the `.ini` files for these note types, see the "Advanced Customization Instructions" section in the description of this note type in the Note Type Manager. To access the description:

1. Click **Note Type Manager** from **Note Type** in the **ProjectSync** window.
2. On the Note Type Manager panel, select **Install**.
3. On the Install Standard Note Type panel, select the radio button next to **SW-Defect-1** in the table of note types.
4. Click **Describe** to go to the detailed description of this note type.

Related Topics

Editing Note Types

Installing Standard Note Types

What Are Note Types?

Specifying Standard Search Keywords

The **Keyword Manager** panel lets you define and edit standard keywords. To access the Keyword Manager panel:

1. Click **Note Type Manager** from **Note Type** in the **ProjectSync** menu.

2. From the list of related tasks, select **Manage keyword definitions**.

You also can select **Manage property types** to link to the Keyword Manager.

The next sections describe how to select a type of keyword and then how to define and edit keywords.

Selecting the Type of Keyword

The Keyword Manager lets you select links to define the following types of keywords:

- **Global** - The global keywords are defined for any note type that contains a **Keywords** field. Global keywords are available in the Keyword Helper when a note containing a Keywords field is added or edited.
- **Note-Specific** - Each note type that contains a **Keywords** field is listed separately. The note-specific keywords are defined only for the selected note type. Note-specific keywords are available in the Keyword Helper whenever that type of note is added or edited.

Defining and Editing Keywords

The Keyword Manager lets you define keywords and edit existing ones. When you have not yet defined any keywords, the second panel of the Keyword Manager wizard shows only the **Define New Keywords** section. Once you have defined at least one keyword, you see both the **Modify Existing Keywords** section and below it the **Define New Keywords** section.

The **Modify Existing Keywords** section lets you delete or change already defined keywords:

- To delete a keyword, select its checkbox in the **Delete** column of the table.
- To edit a keyword or its definition, make your modifications directly in the **Keyword** and **Description** fields.

The **Define New Keywords** section lets you add a keyword and its definition:

- In the **Keyword** field, enter a keyword.
- **Note:** Keywords must not contain spaces, single quotes, or double quotes. Advanced and Custom Query keyword searches are case-sensitive.

- In the **Description** field, you may enter a brief definition of the keyword.

You can add up to five keywords at a time.

Click **Submit** to add or modify your keyword definitions.

The **Operation Successful** panel confirms your changes.

Related Topics

Adding SyncNotes

Viewing and Editing Notes

Creating Attachment Fields

You can modify a note type so that it contains one or more attachment fields that link to other files. Using these attachment fields, ProjectSync users can upload supporting files to the server and view or download those files. See Attaching Files to Notes for details on how attachment fields work.

To create an attachment field, you must:

1. Use the Note Type Manager to create the new field in the note type where you want to add the attachment field.
2. Edit a `.conf` configuration file for the note type to define your file attachment field. (You can skip this step if the field name of your attachment field is fileattach.)
3. Click **Reset Server** under the **Server** section of the menu to implement your changes.

These steps are discussed in the following sections.

Note: Some extra steps are required to create attachment fields in note types based on the standard SW-Defect-1 note type. See Creating Attachment Fields in SW-Defect-1 Notes for details.

Creating Attachment Fields in Notes

Use the Note Type Manager to create your attachment field(s) (see Editing Note Types for details on how to modify note types):

1. From the Note Type Manager's main panel, select **Modify** to go the Modify Note Type wizard.
2. On the Select Note Type panel, choose the note type where you want to add the attachment field(s). Click the **Next** button.
3. On the Specify Fields to be Changed panel, enter the number of attachment fields you want to add. Click the **Next** button.
4. On the Specify Field Types panel, enter the name(s) of the attachment field(s) you are adding. If you use the Field Name `fileattach`, ProjectSync automatically recognizes the field as an attachment field and you do not have to declare the field in a `.conf` file.

Specify an unlimited-length string field (**String**) as the field type for each multi-file attachment field. Specify a limited length string field (e.g. String80, String240) for each single file attachment field. Click the **Next** button.

5. On the Define Fields panel, type the prompt you would like to display with your attachment field(s). The default prompt is the field name. Specify whether the field(s) should be optional or required by selecting the appropriate value from the **Required?** pull-down menu.

   Do not specify a default value for your attachment field(s). If you do, the value(s) will be ignored. Click the **Next** button to proceed.

6. Indicate whether you would like to create a note type snapshot in case your modifications do not turn out as you planned. See Working with Note Type Snapshots for more information Click the **Next** button.
7. The Finishing Up panel displays a message that the operation is complete.
8. Click **Reset Server** under the **Server** section of the **Admin** menu to implement your changes.

Defining Attachment Fields in a Configuration File

If any of the field(s) you created using the Note Type Manager did not have the default property name, fileattach, you must create a configuration file to define the attachment field(s). The configuration file should be named:

```
<note_type_name>.conf
```

For example, if you are adding an attachment field to a SyncDefect note type, your configuration file would be named `SyncDefect.conf`.

Place the configuration file in one of the following custom areas:

- For server-specific configurations:

  ```
  <SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/config
  ```

- For site-specific configurations:

  ```
  <SYNC_CUSTOM_DIR>/site/share/config
  ```

If you have configuration files in both server-specific and site-specific custom areas, the settings in both configuration files are used. If server and site configuration files contain different definitions for the same field, the server-specific configuration file takes precedence over the site-specific file.

Your configuration file must contain the following definition:

```
set classes(<field_name>) fileattach
```

where `<field_name>` is the name of the attachment field that you specified when you created the field with the Note Type Manager. The `fileattach` specifier defines the field as an attachment field. For example:

```
set classes(Attachment) fileattach
```

This definition creates the **Attachment** field where users can upload and view files. Click **Reset Server** under the **Server** section of the menu to implement your changes.

You can create multiple attachment fields for a note type.

Creating Attachment Fields in SW-Defect-1 Notes

In notes based on the SW-Defect-1 note type, different fields are displayed depending on the state of the note. For this reason, you must make some extra modifications to display attachment fields in notes based on SW-Defect-1.

In addition to adding an attachment field to the note type with the Note Type Manager and creating a `.conf` file, you must edit the custom `.ini` files that are created when a SW-Defect-1-based note type is installed:

- To add your attachment field(s) to the Add view of a SW-Defect-1-based note type, edit:

  ```
  <SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/panels/NoteAdd/Add<note_type_name>.ini
  ```

- To add your attachment fields to the Edit view of a SW-Defect-1-based note type, edit:

  ```
  <SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/panels/NoteDetail/Edit<note_type_name>.ini
  ```

- To add your attachment fields to the View of a SW-Defect-1-based note type, edit:

  ```
  <SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/panels/NoteDetail/View<note_type_name>.ini
  ```

You must click **Reset Server** under the **Server** section of the menu to implement your changes.

For more information on editing the `.ini` files for these note types, see the "Advanced Customization Instructions" section in the description of this note type in the Note Type Manager. To access the description:

1. Click **Note Type Manager** from **Note Type** in the **ProjectSync** menu.
2. On the Note Type Manager panel, select **Install**.
3. On the Install Standard Note Type panel, select the radio button next to **SW-Defect-1** in the table of note types.
4. Click **Describe** to go to the detailed description of this note type.

Related Topics

Editing Note Types

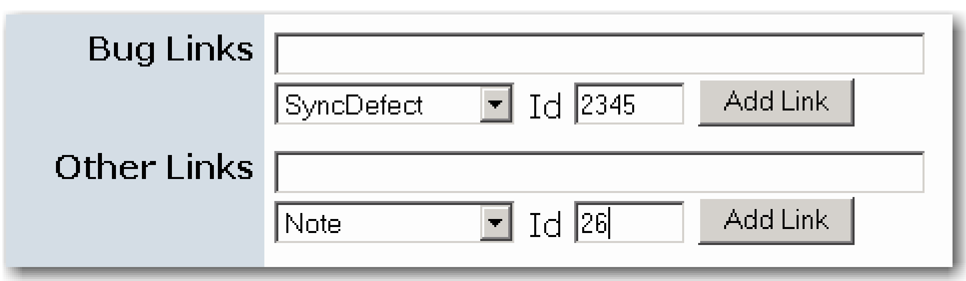
Installing Standard Note Types

What Are Note Types?

Setting Up Links Between Notes

You can modify a note type so that it contains one or more fields that link to other notes. You can create links to notes both on the same server and on other servers. In the View or Edit mode of a note, users can select these links to read the linked notes.

In the GUI, links appear as a pull-down menu for selecting a note type, a type-in **Id** field for entering a note number to link to, and an **Add Link** button for creating the link. For example:



To create a link field, you must:

1. Use the Note Type Manager to create the new field in the note type where you want to add the link.
2. Edit a `.conf` configuration file for the note type to define your link field (You can skip this step if the name of your link field is `linknote`, `link_note`, `linknotes`, or `link_notes`.).
3. Click **Reset Server** under the **Server** section of the menu to implement your changes.

You also can use the configuration file to control how note types are displayed or to specify links to other servers (see the Controlling the Display Order of Linked Note Types and Linking to Notes on Other Servers sections that follow). After making any changes to the configuration file, remember to click **Reset Server** under the **Server** section of the menu to implement your changes.

These steps are discussed in the following sections.

Note: Some extra steps are required to create linked fields in note types based on the standard SW-Defect-1 note type. See Creating Link Fields in SW-Defect-1 Notes for details.

Creating Link Fields in the Note Type

Use the Note Type Manager to create your link field(s) (see Editing Note Types for details on how to modify note types):

1. From the Note Type Manager's main panel, click **Modify** to go the Modify Note Type wizard.
2. On the Select Note Type panel, choose the note type where you want to add the link field(s). Click the **Next** button.
3. On the Specify Fields to be Changed panel, enter the number of link fields you want to add. Click the **Next** button.
4. On the Specify Field Types panel, enter the name(s) of the link fields you are adding. If you use the field name(s) `linknote`, `link_note`, `linknotes`, and/or `link_notes`, ProjectSync automatically recognizes the field as a link field and you do not have to declare the field in a `.conf` file.

   Specify a string field type (e.g., **String80**) for the link field(s). Your string length should be long enough to encompass the total number of characters in all the entries in the field. Click the **Next** button.

5. On the Define Fields panel, type the prompt you would like to display with your attachment field(s). The default prompt is the field name. Specify whether the field(s) should be optional or required by selecting the appropriate value from the **Required?** pull-down menu.

   Do not specify a default value for your attachment field(s). If you do, the value(s) will be ignored. Click the **Next** button to proceed.

6. Indicate whether you would like to create a note type snapshot in case your modifications do not turn out as you planned. See Working with Note Type Snapshots for more information Click the **Next** button.
7. The Finishing Up panel displays a message that the operation is complete.
8. Click **Reset Server** under the **Server** section of the menu to implement your changes.

Defining Link Fields in a Configuration File

If the field(s) you created using the Note Type Manager did not have one of the default property names, you must create a configuration file to define your link field(s). The configuration file should be named:

```
<notetype_name>.conf
```

For example, if you are adding a link field to a SyncDefect note type, your configuration file would be named `SyncDefect.conf`.

Place the configuration file in one of the following custom areas:

- For server-specific configurations:

  ```
  <SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/config
  ```

- For site-specific configurations:

  ```
  <SYNC_CUSTOM_DIR>/site/share/config
  ```

If you have configuration files in both server-specific and site-specific custom areas, the settings in both configuration files are used. If server and site configuration files contain different definitions for the same field, the server-specific configuration file takes precedence over the site-specific file.

Your configuration file must contain the following definition:

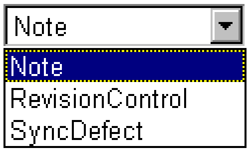
```
set classes(<field_name>) linknotes
```

where `<field_name>` is the name of the link field that you specified when you created the field with the Note Type Manager. The `linknotes` specifier defines the field as a link. For example:

```
set classes(Links) linknotes
```

This definition creates the **Links** field as a link to other notes. Remember to click **Reset Server** under the **Server** section of the menu to implement your changes.

Used by itself, this definition creates links to all the other notes on the same server. So, for example, if the server contained RevisionControl, SyncDefect, and Note notes, the pulldown menu in the **Links** field would contain the note types in alphabetical order:



You can add additional definitions to arrange the order of note types in the pull-down, to link to notes on other servers, and to control which note types are displayed.

By default, the linked notes appear in a new browser window in View mode. Linked notes do not display the ProjectSync menu and Quick View, but you can click the **Show Menu** button at the bottom of the panel to display them. You also can specify that linked notes always display the menu and Quick View. See the following section Adding the Menu and Quick View to Linked Notes for details.

Controlling the Display Order of Linked Note Types

You can specify the order in which note types are listed in the link pull-down menu by adding additional specifications to your configuration file. After making any changes to the configuration file, you must click **Reset Server** under the **Server** section of the menu to implement your changes.

The syntax is:

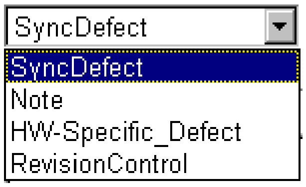
```
set classes(<field_name>) linknotes
set linktypes(<field_name>) {
  { first_notetype_name "" }
  { second_notetype_name ""}
}
```

The note type names in the pull-down menu will appear in the same order you specify here.

For example, suppose your local server contains four note types: RevisionControl, SyncDefect, HW-Specific_Defect, and Note. If you want SyncDefect and Note to appear at the top of the pull-down menu list, you would specify:

```
set classes(Links) linknotes
set linktypes(Links) {
  { SyncDefect "" }
  { Note "" }
}
```

The pull-down on your GUI will list the note types in the following order:



All note type names that you do not specifically order appear in alphabetical order.

The empty second argument ("") following the note type name is optional. If you specify the note type name with or without the second argument, the link defaults to the View mode for the note type on the local server. You can replace the quotation marks with a URL. Most of the time, this URL will point to notes on another server, as described in the following section, but you also can specify a URL on the local server. For example, to open a note on the local server in Edit mode, you can specify:

```
/scripts/isynch.dll?panel=NoteDetail&NoteType=<Note_Type>&NoteId
=$id&DisplayMode=Edit
```

where <Note_Type> is the name of the note type.

Linking to Notes on Other Servers

You can specify the name and URL of note types on other servers to add to a link. After making any changes to the configuration file, you must click **Reset Server** under the **Server** section of the menu to implement your changes.

As a model for the URL, use the URL for a note of the type you want to link to. Substitute $id for the note ID number. This variable is expanded to take the note ID number entered by the user.

Linking to Other ProjectSync Servers

For ProjectSync servers, you can specify the following types of URLs:

- To bring up notes in View mode:

  ```
  http://<host>:<port>/scripts/isynch.dll?panel=NoteDetail&No
  teType=<NoteType>&NoteId=$id
  ```

- To bring up notes in Edit mode:

  ```
  http://<host>:<port>/scripts/isynch.dll?panel=NoteDetail&No
  teType=<NoteType>&NoteId=$id&DisplayMode=Edit
  ```

In these examples, replace <Note_Type> with the name of the note type.

For example, to link to SyncNote on another ProjectSync server, you can specify:

```
set classes(Links) linknotes
set linktypes(Links) {
  { SyncNote
https://remote_server.company.com:2679/scripts/isynch.dll?panel=
panel=NoteDetail&NoteType=SyncNote&NoteId=$id }
}
```

You can use either `http://` or `https://` protocol.

In place of the full URL, you can use a shorthand for links to notes on other servers. The syntax:

```
{ <notetype_name> http://<host>:<port> }
```

creates a link to the View mode of a note on the remote server.

For example, instead of using the full URL in the preceding example to link to SyncNote notes, you could specify:

```
set classes(Links) linknotes
set linktypes(Links) {
  { SyncNote https://remote_server.company.com:2679 }
}
```

Linking to Non-ProjectSync Servers

You also can link to numbered note types non-ProjectSync URLS servers. For example:

```
set linktypes(Links) {
  { Report http://cgi.company.com/aw-
cgi/companyISAPI.dll?Report&item=$id }
}
```

If the note type name on the remote server includes spaces, enclose the entire note type name in either curly braces or double quotes. For example:

```
set linktypes(Links) {
  { {Note Type Name} https://server.company.com:2679 }
}
```

Controlling What Note Types Are Displayed

You can limit the note types displayed in your link pull-down by appending the following setting to your definition:

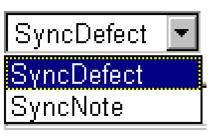
```
set linklocals(<field_name>) 0
```

By default, the `linklocals` setting is `1`; setting `linklocals` to `0` turns off the automatic listing of all note types on the server. Instead, only the note types you explicitly specify are listed.

For example, if you want your **Links** pull-down menu to list only SyncDefect notes on the local server and SyncNote notes on a remote server, you would specify:

```
set classes(Links) linknotes
set linktypes(Links) {
  { SyncDefect "" }
  { SyncNote https://remote_server.company.com:2679 }
}
set linklocals(Links) 0
```

Your pull-down menu would display only:



Adding the Menu and Quick View to Linked Notes

When users select the link for a note, it appears in a new browser window that does not display the ProjectSync menu and Quick View. If you want linked notes to always display the menu and Quick View, you can specify this behavior in your configuration file.

To include the menu and Quick view, add `panel=SyncNotesTop` to the URL for linked notes in your configuration file. For example:

```
http://<host>:<port>/scripts/isynch.dll?panel=SyncNotesTop&panel
=NoteDetail&NoteType=<NoteType>&NoteId=$id
```

After making any changes to the configuration file, you must click **Reset Server** under the **Server** section of the menu to implement your changes.

Sample Configuration File

The following file creates two link fields, **Bug Links** and **Other Links** in the SyncDefect note type. Using the Note Type Manager, the property `BugLinks` has already been created, with **Bug Links** as the prompt string, and the property `OtherLinks` has been created, with **Other Links** as the prompt string.

Because `linklocals` are set to `0`, the **Bug Links** field contains only defect note types; the **Other Links** field contains only Note note types. This code implements the illustration shown at the beginning of this topic.

```
set classes(BugLinks) linknotes
set linktypes(BugLinks) {
  { SyncDefect "" }
  {HW-Specific_Defect "" }
  { SoftwareDefect
https://remote_server.company.com:2679/scripts/isynch.dll?panel=
NoteDetail&NoteType=SoftwareDefect&NoteId=$id }
}
set linklocals(BugLinks) 0

set classes(OtherLinks) linknotes
set linktypes(OtherLinks) {
  { Note "" }
  { SoftwareNote
https://remote_server.company.com:2679/scripts/isynch.dll?panel=
NoteDetail&NoteType=SoftwareNote&NoteId=$id }
}
set linklocals(OtherLinks) 0
```

Creating Link Fields in SW-Defect-1 Notes

In notes based on the SW-Defect-1 note type, different fields are displayed depending on the state of the note. For this reason, you must make some extra modifications to display link fields in notes based on SW-Defect-1.

In addition to adding a links field to the note type with the Note Type Manager and creating a `.conf` file, you must edit the custom `.ini` files that are created when a SW-Defect-1-based note type is installed:

- To add your link field(s) to the Add view of a SW-Defect-1-based note type, edit:

  ```
  <SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/panels/NoteAd
  d/Add<notetype_name>.ini
  ```

- To add your link fields to the Edit view of a SW-Defect-1-based note type, edit:

  ```
  <SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/panels/NoteDe
  tail/Edit<notetype_name>.ini
  ```

- To add your link fields to the View view of a SW-Defect-1-based note type, edit:

  ```
  <SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/panels/NoteDe
  tail/View<notetype_name>.ini
  ```

For more information on editing the `.ini` files for these note types, see the "Advanced Customization Instructions" section in the description of this note type in the Note Type Manager. To access the description:

1. Click **Note Type Manager** in the left panel of the ProjectSync window.
2. On the Note Type Manager panel, select **Install**.
3. On the Install Standard Note Type panel, select the radio button next to **SW-Defect-1** in the table of note types.
4. Click **Describe** to go to the detailed description of this note type.

Related Topics

Editing Note Types

Installing Standard Note Types

What Are Note Types?

Adding Transcript Fields to Notes

In a transcript field, users' entries are appended to earlier entries instead of replacing the earlier entries. The **Note Text** field of the standard note type is a transcript field.

You can modify a note type so that it contains one or more additional transcript fields for ongoing discussions.

Transcript fields resemble the **Note Text** field and support the same functionality - for example, ProjectSync sends email notifications when transcript fields are updated and automatically hyperlinks a note type name and number in a transcript field. (See Adding SyncNotes for details.)

Note: In Safe Mode, you cannot add HTML into a Note Text field. For more information about using HTML in Notes and enabling or disabling safe mode, see Controlling HTML Tag Use.

To create a transcript field, you must:

1. Use the Note Type Manager to create the new field in the note type where you want to add the transcript field.
2. Edit a `.conf` configuration file for the note type to define your transcript field. (You can skip this step if the property name of your transcript field is the default name, transcript.)

These steps are discussed in the following sections.

If you change an existing field to a transcript field, an "Original text by" banner is inserted in the field for notes that already contain text. The author of the note is shown in the banner as the author of the original text.

Note: Some extra steps are required to create transcript fields in note types based on the standard SW-Defect-1 note type. See Creating Transcript Fields in SW-Defect-1 Notes for details.

Creating Transcript Fields in the Note Type

Use the Note Type Manager to create your transcript field(s) (see Editing Note Types for details on how to modify note types):

1. From the Note Type Manager's main panel, click **Modify** to go the Modify Note Type wizard.
2. On the Select Note Type panel, choose the note type where you want to add the transcript field(s).
3. On the Specify Fields to be Changed panel, enter the number of transcript fields you want to add.
4. On the Specify Field Types panel, enter the name(s) of the transcript fields in the **Field Name** column and specify an unlimited-length string field (i.e., **String**) as the field type.

   If you enter `transcript` as the field name, ProjectSync automatically recognizes the field as a transcript field and you do not have to declare the field in a `.conf` file. However, you can have only one field named `transcript`.

5. Complete the Modify Note Type wizard.

Defining Transcript Fields in a Configuration File

If any of the field(s) you created using the Note Type Manager did not have the default property name, transcript, you must create a configuration file to define the transcript field(s). The configuration file should be named:

```
<note_type_name>.conf
```

For example, if you are adding a transcript field to a SyncDefect note type, your configuration file would be named `SyncDefect.conf`.

Place the configuration file in one of the following custom areas:

- For server-specific configurations:

  ```
  <SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/config
  ```

- For site-specific configurations:

  ```
  <SYNC_CUSTOM_DIR>/site/share/config
  ```

If you have configuration files in both server-specific and site-specific custom areas, the settings in both configuration files are used. If server and site configuration files contain different definitions for the same field, the server-specific configuration file takes precedence over the site-specific file.

Your configuration file must contain the following definition:

```
set classes(<field_name>) transcript
```

where `<field_name>` is the name of the transcript field that you specified when you created the field with the Note Type Manager. The `transcript` specifier defines the field as a transcript field. For example:

```
set classes(Discussion) transcript
```

This definition creates the **Discussion** field where users can append information.

You can create multiple transcript fields for a note type.

Creating Transcript Fields in SW-Defect-1 Notes

In notes based on the SW-Defect-1 note type, different fields are displayed depending on the state of the note. For this reason, you must make some extra modifications to display transcript fields in notes based on SW-Defect-1.

In addition to adding a transcript field to the note type with the Note Type Manager and creating a `.conf` file, you must edit the custom `.ini` files that are created when a SW-Defect-1-based note type is installed:

- To add your transcript field(s) to the Add view of a SW-Defect-1-based note type, edit:

  ```
  <SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/panels/NoteAd
  d/Add<note_type_name>.ini
  ```

- To add your transcript fields to the Edit view of a SW-Defect-1-based note type, edit:

  ```
  <SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/panels/NoteDe
  tail/Edit<note_type_name>.ini
  ```

- To add your transcript fields to the View view of a SW-Defect-1-based note type, edit:

  ```
  <SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/panels/NoteDe
  tail/View<note_type_name>.ini
  ```

For more information on editing the `.ini` files for these note types, see the "Advanced Customization Instructions" section in the description of this note type in the Note Type Manager. To access the description:

1. Click **Note Type Manager** from **Note Types** in the ProjectSync menu.
2. On the Note Type Manager panel, select **Install**.
3. On the Install Standard Note Type panel, select the radio button next to **SW-Defect-1** in the table of note types.
4. Click **Describe** to go to the detailed description of this note type.

Related Topics

Editing Note Types

Installing Standard Note Types

What Are Note Types?

Rearranging Fields on a Note Panel

The Order Note Type Properties panel lets you rearrange the order of the fields on a note type.

You cannot rearrange the order of the built-in fields Author, Creation Date, Id, Note Text, and Title unless you have fully customized the display of the note type. Also, the note fields for the SW-Defect-1 cannot be rearranged. Customization guidelines for this note type are accessible using the SW-Defect-1 **Describe** button on the Install Standard Note Types panel (see Installing Standard Note Types).

1. Click **Note Type Manager** from **Note Types** in the **ProjectSync** window.
2. Click **Rearrange the display order of fields on an existing note type** on the Note Type Manager main panel.
3. Choose the note type you would like to revise from the pull-down list on the first Order Note Type Properties panel.
4. Click **Next**.
5. The properties are displayed in the order they currently appear on the note panel. Select a property that you wish to move and click **Move Up** or **Move Down** until the items are in the desired order.

You can rearrange fields only within the **Required Attributes** and **Optional Attributes** sections of the note type. You cannot move a field from one section to another unless you change the field's required/optional value to correspond to the section where you want to move it. (See Editing Note Types for details on modifying the required/optional value.)

6. Click **Finish**.

The next time you add, edit, or view a note of that type, the fields will be displayed in the order you designated.

Note: If you have created custom HTML templates for a note type, the field order in your custom templates overrides the settings you specify using the Order Note Type Properties panel. To use the field order you entered on this panel, you must either delete your custom HTML templates for the note type or regenerate the custom templates. See Generating HTML Templates for a Note Type for details.

You also can rearrange note type fields when you create, modify, or import a note type. You are presented with a **rearrange** hyperlink that brings you to the Order Note Type Properties panel.

Generating HTML Templates for a Note Type

The Note Type Template Generator panel lets you generate the HTML templates for a note type. After you have generated the templates, you can customize them to modify the layout and behavior of the note type panels.

Note: The appearance of the SW-Defect-1 and BugReport note types cannot be customized in this way because these note type already use the template mechanism to implement the behavior of different views for some properties.

Use the Note Type Template Generator for extensive customizations of note types. To simply rearrange fields, use the Note Type Manager's Order NoteType Properties panel.

Note: After you have generated an HTML template for a note type, you cannot use the Note Type Manager's Order NoteType Properties panel to rearrange the fields for the custom note type.

For more information, including the procedure to create HTML Templates, see *ENOVIA Synchronicity ProjectSync Administrator's Guide*: Generating HTML Templates.

Related Topics

Controlling HTML Tag Use

ENOVIA Synchronicity ProjectSync Administrator's Guide: Customizing HTML for Panels

ENOVIA Synchronicity ProjectSync Administrator's Guide: What are Substitution Tags

Adding Documentation for Custom Note Types

When you create a custom note type, you can tailor the online documentation to correspond with your customizations. Then, when users click on the Add Note panel's **Help** button, your documentation is displayed instead of the generic note type information.

Follow the steps below to create custom documentation:

1. Create an HTML file containing your documentation and name it `Adding_a_<NoteTypeName>.htm`. Do not use any special characters (anything other than letters or numbers) in the `<NoteTypeName>`. In the file name, replace any special characters with underscores. For example, if your custom note type is named SyncDefect _2, the file name should be `Adding_a_SyncDefect_2.htm`.
2. Place the `Adding_a_<NoteTypeName>.htm` file in the appropriate custom area:
   - `<SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/content/doc/ProjectSync` (server-specific).
   - `<SYNC_SITE_CUSTOM>/share/content/doc/ProjectSync` (site-wide).
3. If you copy one of the packaged `Adding_a_<NoteTypeName>.htm` files from `<SYNC_DIR>/share/content/doc/ProjectSync` and edit its contents, you must also copy the associated style sheets (`*.css` files) and change the relative paths.

When you rename a built-in note type (e.g., SyncDefect), the associated ProjectSync Help topic (e.g., Adding_a_SyncDefect.htm) is copied to a new file with the new note type name (e.g., Adding_a_MySyncDefect.htm).

To create custom documentation for your new note type, copy this file to one of the custom areas as described in steps 2 and 3 above.

Related Topics

Creating Custom Note Types

Creating New Property Types

Email

Configuring Email to Create Notes

You can create a new note of an existing note type using your email client. Note is any standard note type that the Email Administrator installs to conduct discussions or send information about projects managed by ProjectSync.

Note: By default ProjectSync does not permit creation of new notes using the email client

To enable creation of new notes using the email client, the Email Administrator must:

- Enable the Email Interface
- Obtain the mailbox alias pointing to the primary mailbox
- Install the custom mailbox file
- Verify that the note type specified in the mailbox-specific file exists.

Enable the Email Interface.

For information on how to enable the Email Interface, see *DesignSync Data Manager Administrator's Guide*: Configuring Email Notifications topic.

Obtain the mailbox alias pointing to the primary mailbox.

Ask your IT department to provide the primary mailbox and the mailbox alias. You can have multiple mailbox aliases pointing to the primary mailbox.

A SyncServer requires a dedicated mailbox to handle all incoming mail. One email account is required for each SyncServer, different accounts can reside on the same mail server.

Create the custom mailbox file:

Create a custom mailbox file for each note type which will support email creation. So, for a note type called “feedback”, create the custom file `emailinter_mailbox_feedback.tcl`, where you could override the default behavior provided by the `emailinter.tcl` script.

You can also create a mailbox-specific file for your primary mailbox, so if your primary mailbox is `mainserver1`, you would have a file named `emailinter_mailbox_mainserver1.tcl`.

To create the custom mailbox file:

1. Create the directory `emailinter` in one of these custom areas.
   <SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/tcl/(server specific) or
   <SYNC_CUSTOM_DIR>/site/share/tcl/(site wide).
2. Install the custom mailbox file in the `emailinter` directory and name it `emailinter_mailbox_<mailbox>.tcl`.
   Note: <mailbox> is the name of the mailbox alias. For example, if your mailbox alias is called “feedback”, you would have a file named `emailinter_mailbox_feedback.tcl`.

The custom mailbox file must have the following procedures: `getMailboxType` and `getNotetype`.

- `getMailboxType` - defines whether a mailbox supports creation of new notes from email, or whether it merely supports appends to existing notes. It can return a value of "append" or "create".
- `getNotetype` - provides the mapping between the mailbox alias and the note type that is connected to the email alias.

Other procedures that you can define in the custom mailbox file are:

- `dispatch` - defines the entry point in the mail processing package. This procedure provides basic validation and dispatches the process.
- `preAppendHook` - defines the procedure that should be executed prior to appending new contents to the existing note.
- `overrideAppendHook` - defines the procedure that can be used to override the default code.
- `postAppendHook` - defines the procedure that should be executed after appending new contents to an existing note.
- `createNewNote` - defines the procedure to override the default `createNewNote` function.
- `postCreateHook` - defines the procedure that should be executed after creating a new note, for example, a procedure that attaches new notes to a Project.

Verify that the note type specified in the mailbox-specific file exists.

In ProjectSync, check that the note type specified in the mailbox-specific file exists. If not, create the note type specified in the custom file. See Creating Custom Note Types for information on how to create a new note type. .

Sample Custom Mailbox File

The following code is an example of a simple mailbox-specific file used to create new notes of note type Feedback.

Note:

- The note type Feedback must be already be created in ProjectSync before users can create notes.
- In the `emailinter_mailbox_<mailbox>.tcl` file, the name of the mailbox alias must be all upper case.

```
namespace eval ::emailinter::mailbox::FEEDBACK {
# noteTypeAlias - map between mailbox name and corresponding
notetypes.
variable noteTypeAlias  "Feedback"
# what this mailbox is used for: create or append.
variable noteTypeAction "create"
# Project associated with given notes
variable noteTypeProject "sync:///Projects/Feedback"

}

proc ::emailinter::mailbox::FEEDBACK::getMailboxType {} {
return $::emailinter::mailbox::FEEDBACK::noteTypeAction
}

proc ::emailinter::mailbox::FEEDBACK::getNotetype {} {
return $::emailinter::mailbox::FEEDBACK::noteTypeAlias
}

# using a hook provided in emailinter.tcl attach a newly
# created note to a project, associated with given notetype

proc ::emailinter::mailbox::FEEDBACK::postCreateHook {noteUrl}
{
variable noteTypeProject
note attach $noteUrl $noteTypeProject
}
```

Related Topics

Customizing the Email Interface Configuration File

Customizing the Email Interface Configuration File

The Email Interface Configuration file can be used to customize certain run-time parameters without changing the out-of-the box ProjectSync code. You customize this configuration file to specify email separators or if you want to strip away email signatures from the note text that gets appended to notes.

Note: The default Email Interface Configuration file is <SYNC_DIR>/share/config/emailinter.conf.

When you install the custom configuration file, it is read and processed instead of the default configuration file. To customize the Email Interface Configuration file:

1. Copy the default Email Interface Configuration file (<SYNC_DIR>/share/config/emailinter.conf) into one of these custom areas:

   <SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/config/emailinter.conf (server specific) or <SYNC_CUSTOM_DIR>/site/share/config/emailinter.conf (site wide).
2. Redefine the following variables to make the necessary customizations:

   `CollapseNewLines` - Collapses consecutive line-breaks into a single new-line. Can be set to 0 or 1.

   `REGEX_TextSeparator` - List of case-insensitive text patterns used by various email clients to separate the last reply from the original message.

   `REGEX_HtmlSeparator` - List of case-insensitive HTML tags and parameters, used by various email clients to separate the last reply from the original message.

   `REGEX_SignatureSeparator` - List of case-insensitive text patterns indicating the beginning of the email footer, such as the company slogan or the sender's signature.
3. Reset the server to pick up the changes.

Related Topics

DesignSync Data Manager Administrator's Guide: Configuring Email Notifications

Configuring Email to Create Notes

Setting Up Email Reminders for Defects

You can set up ProjectSync to send email reminders when fields on defect notes have been inactive for more than a specified time. These reminders are sent to specified ProjectSync users to alert them that the defect requires attention.

The reminder messages are marked high priority. The email contains information about the defect and includes links that let recipients view or edit the defect note.

You can specify the conditions for triggering email reminders in a custom `AlarmTrigger.conf` file. ProjectSync periodically checks all defect notes against your trigger conditions. If a defect matches your trigger conditions, an email reminder is sent to the specified user(s).

ProjectSync supplies a sample `AlarmTrigger.conf` file that you can use to set email trigger conditions. By default, no defect email reminder triggers are enabled.

Email reminders are not sent to users who do not have permission to view the defect note, even if they are specified as recipients of the alarm email. Also, users entered in the Suppress Email to these Users field in the Email Manager Administrator do not receive any messages.

Setting up email reminders involves the following main steps:

- Creating a custom copy of the `AlarmTrigger.conf` file.
- Defining the email trigger conditions in the `AlarmTrigger.conf` file.
- Optionally changing the frequency for checking defects to see if email notifications need to be sent (see the *DesignSync Data Manager Administrator's Guide*: Site Options topic for more information). The default frequency is every 15 minutes.

These steps are discussed in the next sections. The final section contains information about email trigger log files.

Creating a Custom AlarmTrigger.conf File

ProjectSync comes with a sample `AlarmTrigger.conf` file that contains trigger definitions that you can use and tailor to suit your company's needs. The sample trigger definitions are defined in:

```
<SYNC_DIR>/share/config/AlarmTrigger.conf
```

You, as an administrator can create custom versions of the `AlarmTrigger.conf` file for either their custom site area (for all servers in the installation to use) and/or for a server specific area (for only that server to use). When you have created your trigger script, put it in one of the following areas:

`$SYNC_CUSTOM_DIR/site/share/config` for site wide triggers.

`$SYNC_CUSTOM_DIR/servers/<host>/<port>/share/config` for server-specific triggers.

For information about `<SYNC_CUSTOM_DIR>`, see ProjectSync Environment Variables.

Note: To implement the effects of your modifications to the `AlarmTrigger.conf` file, you must reset the SyncServer.

Defining Trigger Conditions

The sample `AlarmTrigger.conf` file contains statements that determine the general behavior of the triggers as well as some sample trigger definitions.

Trigger Statements

The sample `AlarmTrigger.conf` file contains the following statements:

```
set SYNC_AlarmTriggerNoteTypes {SyncDefect HW-Defect-1 SW-
Defect-1}
```

This statement specifies that the trigger conditions apply to the SyncDefect, HW-Defect-1, and SW-Defect-1 note types. A system administrator should modify this statement to list only those note types for which he or she wants to set alarm triggers.

```
set SYNC_AlarmTriggerAlwaysSend(SyncDefect) {}
set SYNC_AlarmTriggerAlwaysSend (HW-Defect-1) {}
```

These statements specify the users who receive blind copies (bcc) of all email reminders for the SyncDefect and HW-Defect-1 note types. You can copy these statements to your custom version of the `AlarmTrigger.conf` file and insert the names of users. Enter a separate trigger statement for each note type. You can use any of the following ways to specify users (Separate different user values with spaces.):

- A complete email address, such as `engineering@my_company.com`.
- A user name defined on the ProjectSync server, such as projectleader.
- The name of a note property containing user names, such as CCList or Resp. (See What Are Properties? for more information on note properties.)

For example, `set SYNC_AlarmTriggerAlwaysSend(SyncDefect) {bob tim@my_company.com CCList}`.

```
set SYNC_AlarmTriggerDateDefs(SyncDefect)
{State StateDate}
set SYNC_AlarmTriggerDateDefs(HW-Defect-1)
{Status StatusDate}
```

These statements map the SyncDefect and HW-Defect-1 note types and State and Status note properties to the corresponding date properties. This allows the system to track how long the note properties have a given value. The `SYNC_AlarmTriggerDateDefs` statement can contain multiple value pairs (see the following section Defining Alarm Triggers for Custom Note Types). Enter separate trigger statements for each note type.

```
set SYNC_AlarmTriggerDefs(SyncDefect) {

{<trigger1>}

{<trigger2>}

...

}
```

This statement sets up the trigger conditions (<trigger1>, <trigger2>, and so on).

Following this condition, you see the sample trigger definitions. Each line of the sample trigger definitions is preceded with a comment character (#). To use a definition, you must delete its comment characters and move the remaining code block so that it is located between the opening and closing braces of the `SYNC_AlarmTriggerDefs(NoteType)` statement.

```
set alarmtrig::doDebug 1
```

This statement enables debugging output in the log file (see Log Files).

Trigger Definitions

You can define multiple triggers in the `SYNC_AlarmTriggerDefs` statement. In your custom `AlarmTrigger.conf` file, you can use one or more of the sample definitions as they are shown or with modifications or you can create your own definitions.

To use a sample definition:

- Delete the comment characters (#) from the beginning of each line of the definition.
- Move the definition block so that it is enclosed in the braces for the set `SYNC_AlarmTriggerDefs(NoteType)` statement. Trigger values only, not comment lines, should be inside the curly braces.
- Make any modifications to the definition that fit your needs.
- When you want to create your own definition, be sure to include all the keywords. Locate the definition within a set of braces and place it between the opening and closing braces of the `SYNC_AlarmTriggerDefs(NoteType)` statement.

The keywords for defining trigger conditions are:

DESCRIPTION - A text description of the trigger conditions. This description appears in the email reminder to explain why the defect is considered overdue. For example:

```
DESCRIPTION {This defect has been assigned for more than 6 hours
with no change in the state.}
```

WHEN - The pairs of properties and property values that cause the trigger to send email reminders. (See What are Properties? for details on note properties.)

The property and value pairs are joined by an operator and separated by spaces. The possible operators are:

= equal to
not equal to
<> not equal to
< less than
<= less than or equal to
> greater than
>= greater than or equal to

All of the values in the WHEN statement must be true in order for the trigger condition to be met. For example:

```
WHEN {State=new Resp=Joe Severity#non-critical}
```

In this example, email reminders are sent only when a defect is new, assigned to Joe and its priority is not low.

```
WHEN {State=new DueDate<=today}
```

In this example, email reminders are sent only when a defect is new and the due date is at or before midnight on that day.

FOR - An optional value that defines how long the condition in the WHEN clause must be true before an email reminder is sent. For example:

FOR {4 HOURS}

Time values are specified with a number and a time keyword, either **HOURS** or **DAYS**. An alarm trigger first fires for a particular note when all the conditions in the WHEN clause are true and have remained true for the time specified in the FOR clause.

SNOOZE - An optional value that defines how long to wait between email notifications.

ProjectSync checks all defects against your trigger conditions at frequent intervals. If your system is set to perform checks every hour, users will get hourly emails as long as a defect is overdue. To avoid this email bombardment, the SNOOZE clause specifies how often reminder emails are sent out.

The SNOOZE clause has the same structure as the FOR clause, specifying a number of HOURS or DAYS. For example:

SNOOZE {2 DAYS}

In this example, an email reminder is sent every two days as long as the conditions specified in the WHEN clause are still true.

ACTION - The action taken by the trigger. The keyword **EMAIL** is used to specify that the action involves sending an email reminder to the specified users. The user names that appear in the ACTION EMAIL list are shown in the recipient list of reminder emails.

You can use any of the following ways to specify users (Separate different user values with spaces.):

- A complete email address, such as `engineering@my_company.com`.
- A user name defined on the ProjectSync server, such as projectleader.
- The name of a note property containing user names, such as CCList or Resp. (See What Are Properties? for more information on note properties.)

For example:

```
ACTION {EMAIL {Resp} }

ACTION {EMAIL {engineering@my_company.com} }
```

You do not have to specify the users in the `SYNC_AlarmTriggerAlwaysSend` list, if any, because they automatically receive blind copies of every email.

Whenever you change an existing trigger definition, the modified trigger is treated as a new trigger. Thus, if the trigger has already sent email reminders, the SNOOZE interval is reset and a new reminder is sent immediately.

Examples

In this first example, an email reminder is sent when a non-critical defect has been assigned but remains in the same state for more than three days. The reminder is sent to the author, people on the cc list (in addition to people who receive blind copies of all reminders), and the person responsible for the defect. If the defect is still in the same condition after seven days, another reminder is sent.

```
set SYNC_AlarmTriggerDefs(SyncDefect) {
```

```
  {

  DESCRIPTION {This non-critical defect has been assigned and
has remained unchanged for more than 3 days.}

  WHEN {State=new Resp=Joe Severity=non-critical}

  FOR {3 DAYS}

  SNOOZE {7 DAYS}

  ACTION {EMAIL {Author CCList Resp} }

  }

}
```

In this second example, an email reminder is sent when a critical defect has been assigned but has remained in the same state for more than four hours. The reminder is sent to the person responsible for the defect. If the defect still has the same conditions after one day, another reminder is sent.

```
set SYNC_AlarmTriggerDefs(SyncDefect) {

  {

  DESCRIPTION {This critical defect has been assigned and has
remained unchanged for more than 4 hours.}

  WHEN {State=new Severity=critical}

  FOR {4 HOURS}

  SNOOZE {1 DAYS}

  ACTION {EMAIL {Resp} }

  }
```

Changing the Frequency for Checking Defect Notes

Once you have created a custom `AlarmTrigger.conf` file with at least one active trigger definition, ProjectSync immediately starts to check the trigger conditions against all defect notes every 15 minutes. (The SNOOZE setting in the trigger definition determines how often the actual email notifications are sent to users.)

If you want to change the frequency for checking defect notes, refer to the *DesignSync Data Manager Administrator's Guide*: Site Options topic. After you have made your changes, stop and restart the SyncServer.

Defining Alarm Triggers for Custom Note Types

The alarm trigger feature is designed to work with built-in note types. You can define alarm triggers for your custom note types by following these steps:

1. Copy the `AlarmTrigger.conf` file from `<SYNC_DIR/share/config/>` to the custom area of the ProjectSync installation: `<SYNC_CUSTOM_DIR>/site/share/config/>`
2. Add your note type as a `SYNC_AlarmTriggerNoteTypes` variable to the `AlarmTrigger.conf` file. For example:

   ```
   set SYNC_AlarmTriggerNoteTypes <YourNoteType>
   ```

3. Create entries, as needed, in `AlarmTrigger.conf` for `AlarmTriggerAlwaysSend`, `AlarmTriggerDateDefs`, and `SYNC_AlarmTriggerDefs` (see Defining Trigger Conditions).

   Note that the `SYNC_AlarmTriggerDateDefs` entry can contain multiple value pairs. For example, in addition to tracking a note's State and StateDate you could track a development estimate value (DevEst) with a development estimate tracker value (DevEstTracker). An email reminder would be sent out if the state didn't change by a certain date and/or a user didn't enter a development estimate within a certain time-frame. The trigger statement for this example would look something like this:

   ```
   set SYNC_AlarmTriggerDateDefs(CustomSyncNote) {State
   StateDate DevEst DevEstTracker}
   ```

4. Add a **StatusDate** or **StateDate** field of type **Timestamp** (see Predefined Property Types) to keep track of state changes.
5. Add the following Tcl panel initialization scripts (.ini files) to your custom panel directory in order to change the behavior of the note panels (see What are Initialization Driver (.ini) Files?).

   For **Note Add** panels, create a `Process<$NoteType>.ini` file in your custom panel directory. For example:

   ```
   <SYNC_CUSTOM_DIR/site/share/panels/NoteAdd>.
   ```

   Edit the file to ensure it contains the following procedure to set the internal dates. (Note: this example uses “StateDate”. Please substitute whatever field you chose in Step 4):

```
proc Process_<$noteType>_PostSchema {} {

    global SYNC_Parm

    set nowStr [::sdate::getCurrentApp]

    set SYNC_Parm(StateDate) $nowStr

}
```

For **Note Detail** panels, create a `Process<$NoteType>.ini` file in your custom panel directory. For example:

```
<SYNC_CUSTOM_DIR/site/share/panels/NoteDetail>
```

Edit the file to ensure it contains the following procedure to set the internal dates. (Note: this example uses “StateDate”. Please substitute whatever field you chose in Step 4):

```
proc Process_$noteType_PostSchema {} {

    global SYNC_Parm

    # Alarm Trigger Date Updates

    set nowStr [::sdate::getCurrentApp]

    # Waiting on date changes

    if {[info exists SYNC_Parm(_OLDVALUE_State)]
    && \
       [info exists SYNC_Parm(State)]} {
       if {$SYNC_Parm(_OLDVALUE_State)
       != $SYNC_Parm(State)} {
          set SYNC_Parm(StateDate) $nowStr

        }

    }

}
```

Email Trigger Log Files

The log file for email triggers is:

<SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/data/AlarmTrigger/syncAlarmTrigger.log

When an alarm trigger error is logged, an email is sent to the ProjectSync administrator.

To help you identify problems with alarm triggers, you can turn on debugging in your custom `AlarmTrigger.conf` file. The additional log detail is written to the `syncAlarmTrigger.log` file. To enable debugging output:

1. Open your custom `AlarmTrigger.conf` file
2. Uncomment the line:

   ```
   set alarmtrig::doDebug 1
   ```

3. Reset the SyncServer.

The file `syncAlarmSnooze.db` also resides in the `AlarmTrigger` directory. The `syncAlarmSnooze.db` file stores information on the snooze feature, including the last time a trigger was fired for a particular note. Do not remove or edit this file.

Related Topics

DesignSync Data Manager Administrator's Guide: Configuring Email Notifications

Integrating with DesignSync

Using ProjectSync with DesignSync

ProjectSync can be used by itself for project management, but it also is a powerful tool when used in conjunction with the DesignSync data management tool.

How ProjectSync and DesignSync Work Together

You can associate a ProjectSync project with a DesignSync project vault and can associate a ProjectSync configuration with a set of tagged files in DesignSync. When these associations are made, you can:

- Use ProjectSync to attach bug reports and other notes to files managed by DesignSync.

  From DesignSync, you can select a vault file and click the information icon ("?") to bring up the data sheet for the file. The data sheet includes a hyperlinked list of any notes that are attached to the file. Clicking on a hyperlink brings up ProjectSync's query panel, preset to query on notes of the type attached.

- Use ProjectSync data sheets to get information about the files and configurations in DesignSync project vaults and about any notes attached to the project or project files.
- Enable the generation of RevisionControl notes, which are created when revision control operations (such as a check in, checkout, or populate) are performed.
- RevisionControl notes contain information about the operation, such as the name of the user, the command used to invoke the operation, the time of command execution, the objects affected by the operation, and any comments.
- Set up email notifications for RevisionControl notes that are sent to specified recipients.

  To set up email notifications, an administrator enables RevisionControl note generation in the SyncAdmin tool, sets up the email trigger in ProjectSync, and (optionally) sets up the email distribution list through ProjectSync.

- Create reports on DesignSync operations by querying RevisionControl notes and generating statistics based on the information in RevisionControl notes.

How To Integrate ProjectSync and DesignSync

To integrate DesignSync and ProjectSync, you take the following steps:

1. Set up a DesignSync project and check it into a vault. See Specifying the Vault Location for a Design Hierarchy in the *DesignSync Data Manager User's Guide* for details.
2. Enable the generation of RevisionControl Notes for specified operations.

   From the DesignSync Web UI, use the **Admin** | **Administer Server** | **Server Settings** | **RC Notes** tab page to enable RevisionControl notes for the server. You also can use the DesignSync SyncAdmin tool to enable RevisionControl notes for your entire site. See Enabling the Generation of RevisionControl Notes in the *DesignSync Data Manager Administrator's Guide* for information on using SyncAdmin.

3. If necessary, activate email triggers so that email notifications are generated when RevisionControl notes are created. See *DesignSync Data Manager Administrator's Guide:* Activating the Email Trigger for details.
4. Create a ProjectSync project and associate it with a DesignSync project vault. See Integrating Projects with DesignSync for details.
5. Optionally create a ProjectSync configuration and associate it with a DesignSync version or branch tag name. (In DesignSync, a configuration is the set of all object versions that share a common branch tag or version tag.) See Integrating Configurations with DesignSync for details.

You also can use ProjectSync to:

Work with the RevisionControl notes used to record DesignSync operations. You can view these notes and also generate statistical reports on revision control operations. See *DesignSync Data Manager Administrator's Guide:* Working with RevisionControl Notes for details.

Create and administer mirrors for DesignSync vaults. See *DesignSync Data Manager Administrator's Guide:* Mirror Overview for details.

Related Topics

Integrating Configurations with DesignSync

Integrating Projects with DesignSync

Using Configuration Data Sheets

Using Project Data Sheets

DesignSync Data Manager Administrator's Guide: Working with RevisionControl Notes

Integrating Projects with DesignSync

To use ProjectSync in conjunction with DesignSync, you must associate a DesignSync project vault with a ProjectSync project.

DesignSync users are advised to check each design project into its own directory under a top-level directory called `Projects`. DesignSync and ProjectSync have been designed so that a ProjectSync project is automatically associated with the `/Projects` level of a DesignSync URL. For example, the files and directories for a project named smallLib would be in a hierarchy under the project vault:

```
sync://myserver.myco.com:2647/Projects/smallLib
```

The smallLib files under revision control are physically stored in

```
<SYNC_DIR>/../syncdata/myserver/2647/server_vault/Projects/small
Lib
```

where <SYNC_DIR> is the software installation path.

To create a project and integrate it with DesignSync:

1. From the **Project** section of the **ProjectSync** menu, select **Create** to get the Create New Project panel.

2. In the **Project Name** field, enter the name of the project you would like to add. You can create the project at the top-level or as a sub-project of an existing project:
   - For a top-level project, enter the name of the top level in the hierarchy where the files of the project reside. For example, if the top level is `sync://myserver.myco.com:2647/Projects/smallLib`, enter `smallLib`. However, you are not required to follow this convention.
   - For a sub-project under an existing project, click **Browse** to pop up a list of all projects on the server. In the pop-up window, click on a project to view its components. Click the checkmark next to a project to attach the sub-project to that project.

   If you create a project at the top level (under Projects), note types with a **Project** field include this newly created project in their pull-down lists. Sub-projects are not included in **Project** pull-down lists.

3. In the **Description** field, enter a short description of the project. This field is required.
4. From the list of users in the **Owner** pulldown menu, select the project owner. This field is required.
5. In the **Purpose** field, select the first radio button to indicate that this project is associated with a DesignSync project.
6. In the **Vault Path** field, associate your ProjectSync project with a DesignSync project vault. You can leave the **Vault Path** field empty if the ProjectSync project name is the same as the DesignSync name under the `/Projects` directory. Otherwise, enter the path to the project vault using the `sync://` URL for the DesignSync project vault.

   If you leave this field empty, ProjectSync stores the data in the default server directory for the URL to the project. For example, if the project is called smallLib, the default location is `sync://<host>:<port>/Projects/smallLib`. Within ProjectSync, the path appears as `sync:///Projects/smallLib`, with `sync:///` representing the local server.

   If the project vault path is not under the `/Projects` level in DesignSync, you must enter an explicit DesignSync URL in the **Vault Path** field to associate the project name with a project vault.

7. In the **Initial Configuration** field, optionally enter the name of a configuration, such as Release1.0. A configuration in ProjectSync usually corresponds to the tag name used in DesignSync to identify a set of files. See Integrating Configurations with DesignSync for more details on configurations.

   If you enter a configuration name, the Create Project Configuration panel appears after you create your new project. You can create a configuration for the project at a later time by selecting **Configuration** from the **Project** section of the ProjectSync menu.

8. Click **Create Project**.

A project's attributes are defined in the `sync_project.txt` file, which is located in:

```
<SYNC_DIR>/../syncdata/<host>/<port>/server_vault/Projects/<proj
ect_name>
```

This file is created or modified when a project is created or modified. The `sync_project.txt` file contains the project name, description, owner, purpose, and project vault path. It also contains all the configuration information for the project. DesignSync searches the `sync_project.txt` file for a vault reference when executing certain commands.

For more information, see Using Vault REFERENCEs for Design Reuse in the DesignSync Data Manager User's Guide. Clicking this link will open the DesignSync Data Manager User's Guide in a new window.

When you have created your project, you can use its data sheet to navigate the associated DesignSync vault, get information about the objects it contains, and access notes attached to vault objects. See Using Project Data Sheets for details.

Related Topics

Creating Projects

Editing and Deleting Projects

What Are Projects?

Using ProjectSync with Modules

In some cases, ProjectSync operates on Module objects differently from non-Module objects (for example, a query on a module hierarchy). For these operations, ProjectSync forms have additional fields.

Because DesignSync supports maintenance and development of two different types of modules, the fields and operations may differ by module type as well. These types are

- "Modern" modules or simply modules. For more information on how ProjectSync works with modules, see Using ProjectSync with Modern Modules.

- Legacy modules. For more information on how ProjectSync works with legacy modules, see Using ProjectSync with Legacy Modules.

Using ProjectSync with Modern Modules

The following is a list of operations that are different for Module and non-Module objects.

- For non-Module data, DesignSync and ProjectSync team members use vault REFERENCEs to import data from other design projects into their own designs.

  For Modules, REFERENCE statements are not needed. Modules use hierarchical references (created with the **addhref** command or the **Create a hierarchical reference** command from the DesignSync GUI) to incorporate design work from other sources into a module hierarchy.

- The standard RevisionControl note type has the field **Tag** or **HCM sub-cmd**. For Modules, this field displays the name of the HCM command, minus its hcm prefix. For information on how to configure email notifications to display this field, see Setting Up Email Notification of Module RevisionControl Notes.

Email Subscriptions

When you use ProjectSync to subscribe for notes attached to any part of a module hierarchy, ProjectSync's behavior depends on the extent of the subscription, as specified in the Scope field.

- To subscribe to email for notes on a Module or Module hierarchy, perform a hierarchical subscription using the **Advanced Subscriptions** panel.
- In the **Advanced Subscriptions** panel, to have an email subscription apply only to a single object, specify the object's URL in the **Object Filter** field and select **This object only** from **Scope** pulldown menu.
- For legacy modules only, when you subscribe to email on a module configuration that is an alias, ProjectSync resolves the alias to the release to which it points and adds the subscription to that release. In the Subscription status panel, ProjectSync displays the alias associated with the release.

  Email subscriptions are not automatically updated when an alias changes to point to a different release. You must manually update your email subscription to subscribe to notes for the new release.

Query

To query for notes on a Module hierarchy (a hierarchical query), select **Queries | Standard** from the **ProjectSync** menu. (The **Advanced** and **Custom Query** forms do not support hierarchical references.) Then use the ProjectSync Query form's Module, Tag and Scope fields (Project, Configuration, and Scope fields for legacy modules) to specify the Module hierarchy to query and the extent of that query.

Note: For legacy modules, all modules located in the /Projects vault folder in DesignSync appear as Projects in ProjectSync, and all of their configurations appear as ProjectSync Configurations.

The **Module**, **Tag**, **Hrefmode** and **Scope** fields affect a query on a Module. See Constructing Standard Queries for details.

For legacy module, a query for notes on a configuration that is an alias displays the same results as a query on the release to which the alias points. This behavior is due to the **NoteAttach** functionality, which synchronizes notes on aliases and releases.

The NoteAttach Functionality

For legacy modules, when a note is attached to an object:

If the object is...	The note is attached to...
An alias	The alias and the release configuration to which the alias points.
A release	The release and any aliases that point to the release.

Notes:

- This behavior also applies to any notes you create and attach to objects.
- Upon installation, the HCM software enables the generation of RevisionControl notes for HCM operations and attaches the notes to objects.

When the alias is changed to point to a different release, ProjectSync:

- Detaches from the alias any notes associated with the previous release
- Attaches any notes associated with the release to which the alias now points

Note: For the NoteAttach functionality to operate in this way, you must add the hcmNoteAttach trigger. For information, see Adding the hcmNoteAttach Trigger.

Using ProjectSync with Legacy Modules

The following is a list of operations that are different for Module and non-Module objects.

- For non-Module data, DesignSync and ProjectSync team members use vault REFERENCEs to import modules from other design projects into their own designs.

  For Modules, REFERENCE statements are not needed. Modules use hierarchical references (created with the **hcm addhref** command or the Create a hierarchical reference from the DesignSync GUI) to incorporate design work from other sources into a module hierarchy.

- Certain Module operations create or delete ProjectSync projects or legacy module configurations.

  In certain cases, the **hcm upgrade** and the **hcm mkmod** operations create ProjectSync projects in addition to legacy modules.

  Configurations created by the **hcm mkconf**, **hcm release**, and **hcm mkalias** operations (when the target resides below the Projects vault folder) appear in ProjectSync as Configurations.

  The **hcm rmmod** command and **hcm rmconf**, and **hcm rmalias** commands for legacy modules remove ProjectSync projects or legacy configurations. These operations also detach and, optionally, delete ProjectSync notes.

  - The **hcm rmmod** operation removes the ProjectSync project and/or Module or configuration only when the **-vaultdata** option is specified. Otherwise the Module or the configuration (for legacy module) are displayed as a project. The **rmmod** operation also detaches ProjectSync notes attached to the Module or legacy configuration. If the **-notes** option is specified, the operation deletes the notes that are detached and not attached to other objects.
  - For legacy modules only, the **hcm rmconf** and **hcm rmalias** operations remove the ProjectSync configuration created with the **hcm mkconf** or **mkalias** commands. The **rmconf** and **rmalias** operations also detach any ProjectSync notes attached to the configuration. If the **-notes** option is specified, these operations delete those notes that were detached and not attached to other objects.
- The standard RevisionControl note type has the field **Tag** or **HCM sub-cmd**. For Modules, this field displays the name of the HCM command, minus its hcm prefix. For information on how to configure email notifications to display this field, see Setting Up Email Notification of Module RevisionControl Notes.

Email Subscriptions

When you use ProjectSync to subscribe for notes attached to any part of a module hierarchy, ProjectSync's behavior depends on the extent of the subscription, as specified in the Scope field.

- To subscribe to email for notes on a Module or Module hierarchy, perform a hierarchical subscription using the **Advanced Subscriptions** panel.
- In the **Advanced Subscriptions** panel, to have an email subscription apply only to a single object, specify the object's URL in the **Object Filter** field and select T**his object only** from **Scope** pulldown menu.
- For legacy modules only, when you subscribe to email on a module configuration that is an alias, ProjectSync resolves the alias to the release to which it points and adds the subscription to that release. In the Subscription status panel, ProjectSync displays the alias associated with the release.

  Email subscriptions are not automatically updated when an alias changes to point to a different release. You must manually update your email subscription to subscribe to notes for the new release.

Query

To query for notes on a Module hierarchy (a hierarchical query), select **Queries | Standard** from the **ProjectSync** menu. (The **Advanced** and **Custom Query** forms do not support hierarchical references.) Then use the ProjectSync Query form's Module, Tag and Scope fields (Project, Configuration, and Scope fields for legacy modules) to specify the Module hierarchy to query and the extent of that query.

Note: For legacy modules, all modules located in the /Projects vault folder in DesignSync appear as Projects in ProjectSync, and all of their configurations appear as ProjectSync Configurations.

The **Module**, **Tag**, **Hrefmode** and **Scope** fields affect a query on a Module. See Constructing Standard Queries for details.

For legacy module, a query for notes on a configuration that is an alias displays the same results as a query on the release to which the alias points. This behavior is due to the **NoteAttach** functionality, which synchronizes notes on aliases and releases.

The NoteAttach Functionality

For legacy modules, when a note is attached to an object:

If the object is...	The note is attached to...
An alias	The alias and the release configuration to which the alias points.
A release	The release and any aliases that point to the release.

Notes:

- This behavior also applies to any notes you create and attach to objects.

- Upon installation, the HCM software enables the generation of RevisionControl notes for HCM operations and attaches the notes to objects.

When the alias is changed to point to a different release, ProjectSync:

- Detaches from the alias any notes associated with the previous release
- Attaches any notes associated with the release to which the alias now points

Note: For the NoteAttach functionality to operate in this way, you must add the hcmNoteAttach trigger. For information, see Adding the hcmNoteAttach Trigger.

Integrating Configurations with DesignSync

When DesignSync is used with ProjectSync, a configuration represents a state in the lifecycle of a project. That state can represent either individual versions of files that share the same version tag or all the files on a project branch that are identified with a branch tag:

- A **version tag** is associated with individual versions of design objects and remains attached to these versions of the objects.

  For example, suppose you create a configuration called `test` in DesignSync by tagging all the objects in a project vault when they are ready for testing. The latest version of file A is 1.5, the latest version of file B is 1.2, and the latest version of file C is 1.7. When you create a ProjectSync configuration called `test` and associate it with the DesignSync `test` version tag, you can use ProjectSync to work with these specific versions of the files.

- A **branch tag** is associated with all the objects on a branch and remains associated with these objects as they change version numbers.

  For example, suppose you have a DesignSync branch called rel1.2 for a project called smallLib. If you create a corresponding configuration called rel1.2 in ProjectSync, you can use ProjectSync to work with the latest versions of the files on the rel1.2 branch, no matter what how many version updates occur.

Each configuration in ProjectSync must be part of an already-defined project. A ProjectSync configuration has an owner, team members, and a name associated with the DesignSync version tag(s) or branch tag(s) that are associated with the configuration.

To create a configuration for a project:

1. From the **Project** section of the **ProjectSync** menu, select **Configuration** to get the Create Project Configuration panel.
2. From the **Project Name** pull-down menu, select the name of the parent project.

The **Project Name** field is pre-selected with the project name if you accessed the Create Project Configuration panel from the Create New Project panel (see Integrating Projects with DesignSync).

3. In the **Configuration Name** field, enter a name for the configuration. The configuration name should consist of alphanumeric characters. Do not include any spaces, single quotation marks ('), double quotation marks ("), or other non-alphanumeric characters. If you are creating the configuration with the project, this field is pre-selected with the configuration name.

   A ProjectSync configuration name does not have to match a DesignSync tag name; however, matching the two names simplifies the DesignSync-ProjectSync integration.

4. In the **Configuration Description** field, enter a brief description of the configuration.
5. From the **Owner** pull-down menu, select the owner of the configuration.

   The owner you specify is pre-selected as the value for any user-list pull-down menus in subsequent notes attached to this configuration.

6. In the **Vault Tag** field, enter the DesignSync version tag(s) or branch tag(s) to associate with this ProjectSync configuration. (If you leave this field empty, the value defaults to the name in the **Configuration Name** field.)

   You can associate a configuration name with multiple DesignSync tags. For example, suppose you want to create a configuration named `Beta_List` that includes the files tagged `ready_for_beta`, `beta`, and `beta_test`. In the **Vault Tag** field, you would enter the tag names, separated by commas and without spaces:

   ```
   ready_for_beta,beta,beta_test
   ```

   Users can then populate files using the `Beta_List` configuration. (See Using Vault REFERENCEs for Design Reuse in the DesignSync Help for further information.)

7. In the **Team Members** field, select one or more user names from the list of **Available Users** to be members of the configuration.

   If you enter a list of users in the **Team Members** list, only these users appear in user-list pull-down menus on notes for the project. If you leave the **Team Members** list empty, ProjectSync adds all users on the server to user-list pull-down menus on notes for the project. If no users are specified, ProjectSync adds or removes users from the list automatically as user profiles are modified on the server.

To select more than one name from the list, hold down the Control key while clicking on the names; to select all the names in a sequence, select the first name and hold down the Shift key when clicking on the final name in the sequence.

Click the left-pointing arrow icon to add your selected user(s) to the **Team Members** list. Select one or more names from the **Team Members** list and click the right-pointing arrow to remove the selected user(s) from the list of team members.

When you have created your configuration, you can use its data sheet to navigate the associated DesignSync vault and get information about the objects in the configuration. See Using Configuration Data Sheets for details.

Configurations defined in ProjectSync are listed on the **Which selector or configuration?** window of the DesignSync Workspace Wizard. Users can select the configuration name from a pull-down menu to populate the associated files into a new work area.

Related Topics

Creating Configurations

Editing and Deleting Configurations

What Are Configurations?

RevisionControl Note Type

If you use DesignSync and ProjectSync together, your company may have set up ProjectSync to send out email notifications when RevisionControl notes are generated. RevisionControl notes are generated in response to DesignSync operations such as checking out, unlocking, and tagging and ProjectSync operations such as deleting a project or configuration. If you use the Hierarchical Configuration Manager (HCM) option to DesignSync, RevisionControl notes also can be generated in response to HCM commands.

The table headed **Subscribe for Revision Control activity** lets you add subscriptions for email notifications when RevisionControl notes are generated. In the **Value** column of the table, all revision-control operations are selected by default. Deselect the checkbox(es) for any operation for which you do not want email notifications.

The type-in field at the bottom of the table lets you specify the project(s) or project element(s) for which you or the selected user want to receive notifications. Entering project URLs in this field is described under Subscription Objects in the preceding section.

See *DesignSync Data Manager Administrator's Guide*: Working with RevisionControl Notes for details on RevisionControl notes.

Related Topics

Adding Email Subscriptions

Note Types With States

Administering ProjectSync

Installation and Licensing

The*DesignSync Data Manager Administrator's Guide:* ENOVIA Synchronicity DesignSync Data Manager Installation provides step-by-step instructions to guide you through the installation procedure for all DesignSync components, including ProjectSync.

Refer to the *DesignSync Data Manager Administrator's Guide*: Installing DesignSync Tools for additional information on installation and configuration options.

ProjectSync, DesignSync, and DesignSync DFII use Macrovision FLEXlm License Management software for managing product licenses. You can choose several options for setting up license servers and managing your licenses.

See *DesignSync Data Manager Administrator's Guide*: Setting Up Licensing for DesignSync Products for descriptions of typical ways to set up and manage your licenses.

Module Administration

Mapping Note Types

You can use ProjectSync to query for notes on an entire module hierarchy regardless of where submodules reside. Submodule servers can have different ProjectSync note types, containing different field names and field values.

If submodule servers use different note types, the DesignSync Administrator must map the upper-level module note types to the note types used on the submodule servers. Mapping note types ensures the successful operation of not only queries but also subscriptions to notes on a module hierarchy.

Mapping note types is required to successfully query for notes on a module hierarchy containing IP Gear deliverables. By mapping a ProjectSync note type (SyncDefect, for example) to an IP Gear Ticket (a note based on the ProjectSync CustTicket note type), you ensure that a query on SyncDefects displays Tickets for the IP Gear deliverable as well. For example mappings, see the `<SYNC_DIR>/share/config/hcmNoteMap.conf` file.

Note: Mapping of note types ensures successful queries and subscriptions to a module hierarchy only when the user's login is the same as on the referenced server, or when a login has been stored for the user. See Storing Logins for information.

To map note types:

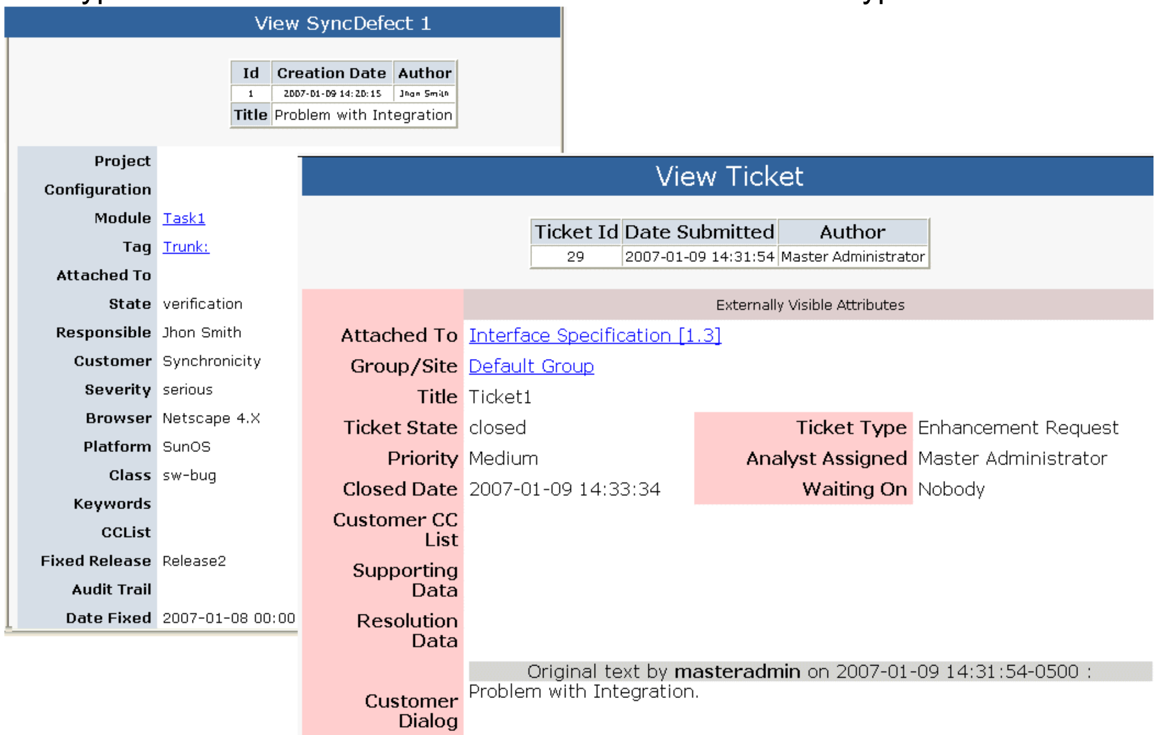
1. Use the **hcm showhrefs** operation to identify submodules that reside on servers different from the upper-level module. For example:

```
stcl> hcm showhrefs sync://tallis:30106/Modules/Task1

Beginning showhrefs operation ...|

Showing hrefs of module sync://tallis:30106/Modules/Task1 (1.3) ...

sync://tallis:30106/Modules/Task1: Href mode is normal.

Name   Url                                   Selector  Version  Type         Relative Path
------------------------------------------------------------------------------------------
Task2  sync://tallis:30106/Modules/Task2     Trunk:    1.1      Module       REF1
230    sync://desprez:30012/Deliverable/230                     Deliverable  REF2

Finished showhrefs operation.
```

2. On the upper-level module's SyncServer, use the ProjectSync NoteType Manager to examine the note type structure. At the NoteType Manager, choose **Modify an active note type** and use information in the first two screens displayed.
3. For each submodule on a different SyncServer, log in to that server. Then use ProjectSync NoteType Manager to view note types and their fields. (To get information on choice and state machine field values, use the Property Type Manager on the NoteType Manager panel.)

From the information displayed, determine the note types and fields you need to map. To complete this step, you will have to know the semantics of how fields are used.

For example, the **hcm showhrefs** operation for Module `Task1` lists the submodule `230` as residing on an IP Gear Publisher server. You know that the Publisher server uses the Ticket note type (based on the ProjectSync CustTicket note type). You want a query based on the DateFixed field of the SyncDefect note type to use the ClosedDate field in the CustTicket note type.



From this information, you know that on the `sync://tallis:30106` server, you must map:

- The SyncDefect note type to the CustTicket note type
- The DateFixed field to the ClosedDate field

4. On the SyncServer where the upper-level module resides (`sync://tallis:30106` in the example), create a configuration file named `hcmNoteMap.conf` to contain note type maps. (**Note:** The upper level module's SyncServer has the SyncDefect note type installed.)

To create the file, copy the file `<SYNC_DIR>/share/config/hcmNoteMap.conf` to the custom area of your DesignSync installation directory.

To apply values to...	**Copy the hcmNoteMap.conf file to this location...**
Your entire site	`<SYNC_SITE_CUSTOM>/share/config/hcmNoteMap.conf` (The default definition of the environment variable SYNC_SITE_CUSTOM is `<SYNC_CUSTOM_DIR>/site`)
A specific SyncServer	`<SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/config/hcmNoteM`

where <host> and <port> are the server's name and port number

(The default definition of the environment variable SYNC_CUSTOM_DIR is `<SYNC_DIR>/custom`.)

Note: Always copy the DesignSync-provided configuration files to the custom directory before editing them. Do not edit the `<SYNC_DIR>/share/config/hcmNoteMap.conf` configuration file. Any changes you make to this file will be lost upon upgrading your SyncServer.

5. Modify the site or server `hcmNoteMap.conf` file you created to map note types, fields, and values. (The file contains syntax and examples to help you.)

For the example (Step 3) showing that the SyncDefect note type should be mapped to the CustTicket note type, you would edit the `hcmNoteMap.conf` file on Module `Task1`'s SyncServer (`sync://tallis:30106`) and add the following lines:

```
lappend SyncNoteTypeMap(sync://desprez:30012) { \
localntype SyncDefect \
refntype   CustTicket \
localfield DateFixed \
reffield   ClosedDate}
```

Notes:

- Specify the server URL exactly as it appears in the output of the **hcm showhrefs** operation, minus the module path.
- For additional examples, see the `hcmNoteMap.conf` file.

6. Reset the server. In the Server section of the ProjectSync menu, select **Reset Server**. For more information, Resetting the SyncServer.

The mapping takes effect the next time a query is performed.

Limitations of Note Type Mapping:

- You can map multiple elements (note types, fields, or values) on the origin server to one element on the referenced server. But you cannot map one element on the origin server to multiple elements on the referenced server. For example, you can map the BugReport and SyncDefect note types on the origin server to the ProblemReport note type on the referenced server. But you cannot map the SyncDefect note type on the origin server to both the ProblemReport and TroubleNote note types on the referenced server.

- You cannot map substrings for text searches. For example, suppose that on the `sync://cpu.ABCo.com:2647` server you map the SyncDefect note type's

`EVALUATED` keyword to the `REVIEWED` keyword of the BugReport note type on `sync://srvr1.ABCo.com:2647`:

```
lappend SyncNoteTypeMap(sync://srvr1.ABCo.com:2647) { \
localntype SyncDefect \
refntype "BugReport" \
localfield KeyWords \
valuemap {EVALUATED REVIEWED}
```

A Standard Query of SyncDefect for the CPU module, specifying **This object and one level below** or **This object and all levels below**, plus Key Words `EVALUATED` will not yield any matches.

Related Topics

DesignSync Administrator's Guide: Storing Logins

Synchronicity Command Reference - All: hcm showhref command

Customizing ProjectSync

The Custom Hierarchy

When you customize ProjectSync, you must put your customization files into a special custom hierarchy that mirrors the default installation hierarchy. The files in the custom hierarchy are preserved when you install new versions of ProjectSync.

Some files are created in the custom hierarchy when you set options during installation. (For example, the email address of the server administrator is stored in a custom-area file) In addition, you can put Tcl scripts, customized note type files, and configuration files in your custom areas.

You can use the `<SYNC_CUSTOM_DIR>` environment variable to indicate the path to the top of the custom hierarchy. By default, the `<SYNC_CUSTOM_DIR>` environment variable points to `<SYNC_DIR>/custom`, where `<SYNC_DIR>` stands for your installation directory. (See ProjectSync Environment Variables for more information.)

Two subdirectories in the `<SYNC_CUSTOM_DIR>` directory let you choose the scope of your customizations:

- `servers` - Customizations in this area are server-specific.

  For example, you could customize a panel in:

  `<SYNC_CUSTOM_DIR>/servers/server_1/2647/share/panels/...`

  and have a different version of the same panel in:

  `<SYNC_CUSTOM_DIR>/servers/server_2/2648/share/panels/...`

  The panel would appear differently, depending on whether a user accessed `server_1:2647` or `server_2:2648`.

- `site` - Customizations in this area are site-wide.

  For example, you could modify a panel in:

  `<SYNC_CUSTOM_DIR>/site/share/panels...`

  The modified panel appears whenever users access any server in the site.

If you customize your ProjectSync environment, you need to stop and restart your SyncServer to implement your changes.

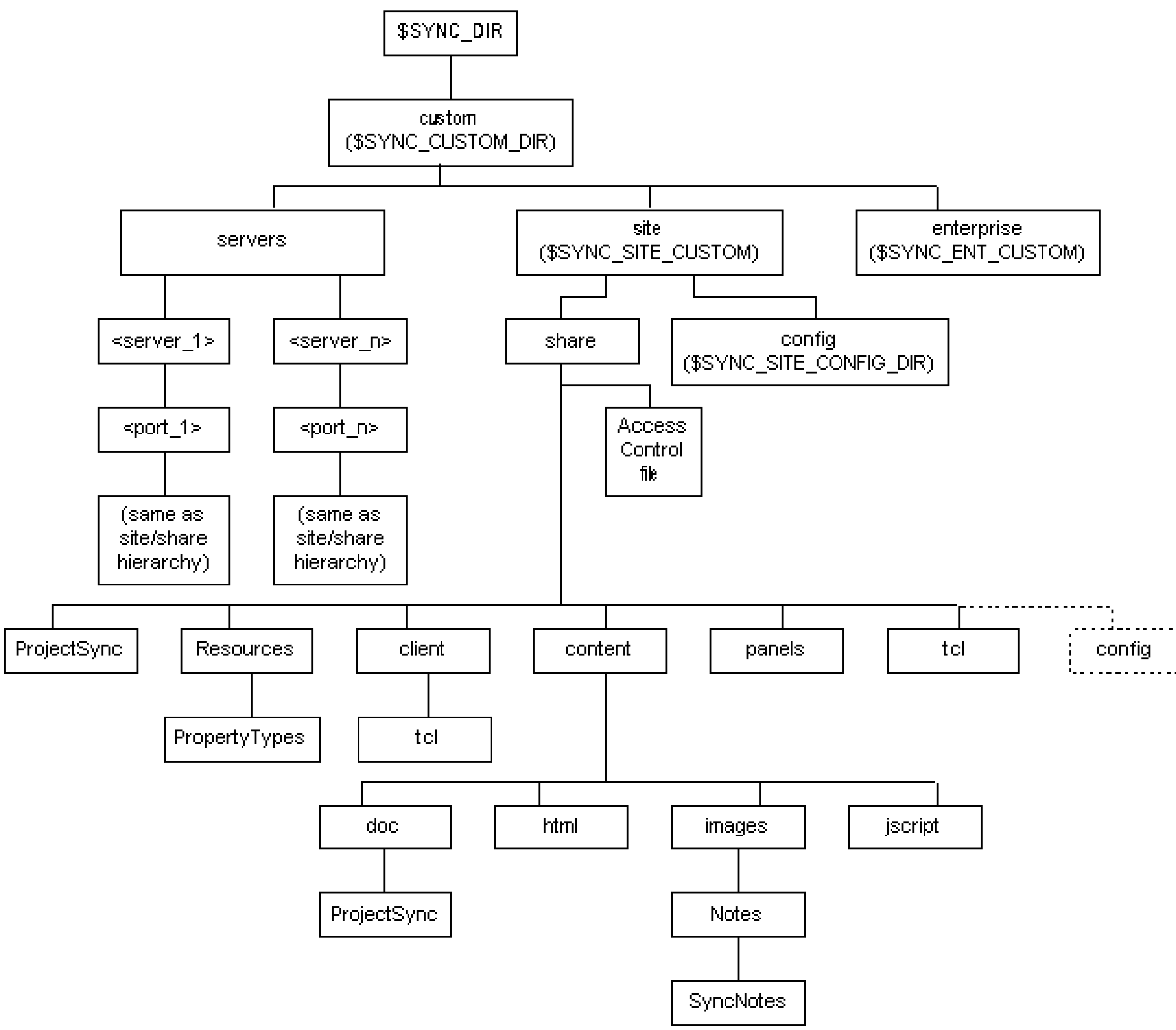
In most cases, when ProjectSync applies customizations the more-local settings take precedence over the less-local settings. The search order is:

1. The server-specific customization files.
2. The site-wide customization files.
3. The enterprise-level customization files. (The custom enterprise area is reserved for future development. Do not create custom files in this area.)
4. The default installation files.

For users of DesignSync, the search path also checks the client settings and searches for project-level and user-level customization files. See DesignSync Data Manager Administrator's Guide: Working with Registry Files for more information.

The Organization of the Custom Hierarchy

The following illustration shows the organization of the custom hierarchy in ProjectSync.



The custom hierarchy is installed under the `<SYNC_DIR>` installation directory. You must set the `$SYNC_DIR` environment variable before running ProjectSync. Your `PATH` environment variable must include `<SYNC_DIR>/bin`.

The `custom` directory is installed as a place to store your customizations for the ProjectSync installation. All of the server and site-wide settings reside in this directory. To refer to this directory in scripts, use the `$SYNC_CUSTOM_DIR` variable.

Within the `custom` directory are three subdirectories, `servers`, `site`, and `enterprise`. These directories determine to the scope of the customizations when you create custom files within the hierarchy.

The servers Hierarchy

The `servers` hierarchy contains files used to configure individual web servers for the installation. When a server is configured, the configuration script puts the server's configuration settings in this directory.

For each machine configured to run a server, the installation script creates a subdirectory at this level in the hierarchy. Under each machine's subdirectory is a directory for each port configured. These port directories contain the configuration files used for specific servers.

For example, if you have configured a SyncServer on server_1 at port 2647, the installation script creates:

```
<SYNC_CUSTOM_DIR>/servers/server_1/2647
```

Within the port directories are `share` directories that mirror the hierarchy in the `<SYNC_CUSTOM_DIR>/site` hierarchy.

The site Hierarchy

The `site` directory contains customizations for all clients and servers using the installation. To refer to this directory in scripts, use the `$SYNC_SITE_CUSTOM` variable. This tree of the custom hierarchy contains:

- `config` - The directory that stores configuration information for the installation. This directory can include:
  - The site-wide registry file, `SiteRegistry.reg`, which holds settings for all clients and servers using the installation.
  - The site-wide license file, `syncinc.lic`. If you use a site-wide license file, the installation script both looks in this directory for the license file.
  - The optional `sync_servers.txt` file, which is used by DesignSync to define a list of available servers.

To refer to this directory in scripts, use the `$SYNC_SITE_CONFIG_DIR` variable.

Other configuration files are stored in the optional `site/share/config` directory, as described below.

- `share` - The directory that stores files that are shared among all the servers in the installation. These files are platform-independent.

  The share directory contains the `AccessControl` file, where you can customize the access rights for ProjectSync users. (See the ENOVIA Synchronicity Access Control Guide for details.)

- `ProjectSync` - The directory that contains customizations specific to ProjectSync. For example:
  - `Configuration` - Used to configure ProjectSync background colors and menu appearance. (See Customizing the ProjectSync Welcome Page for details.)
  - `customize.psm` - Used to add customized menu entries to the default selections available in ProjectSync. (See Customizing the Main Menu for details.)
  - `QueryFormat` - Used to define the appearance of query result tables.
- `Resources` - contains property type definition files in the subdirectory `PropertyTypes`. Property types are used to define fields in ProjectSync note types. (See What Are Property Types? for details.)
- `client` - The directory that stores settings specific to DesignSync client processes (DesSync, dssc, dss, stclc, stcl). The `tcl` subdirectory contains any Tcl scripts that automatically load when a client process starts up. See the DesignSync Data Manager User's Guide for more information on using this directory.
- `content` - The directory that stores information directly accessible via a SyncServer. For security reasons, only files under the `content` directory of the site-wide custom directory are visible to the server. The `syncsite` alias points to this directory. This directory includes several subdirectories:
  - `doc` - stores documentation visible to a SyncServer (DesignSync or ProjectSync). The `ProjectSync` directory contains ProjectSync-specific documentation. At present, customized documentation is not supported.
  - `html` - stores custom pages for display in ProjectSync. These pages are directly accessible from the SyncServer, so their content should be static and should not depend on any processing from other sources (such as Tcl scripts).
  - `images` - stores image files for display in ProjectSync. ProjectSync menus use these image files for each note type defined. See Creating Custom Note Types for details.

Within the images directory, the Notes/SyncNotes subdirectory stores images specific to ProjectSync note types. When displaying an image to represent a note type, ProjectSync searches for a gif file, Add.gif, in the Notes/SyncNotes/<notetype_name> subdirectory.

  - jscript - stores JavaScript files used to create ProjectSync pages. JavaScript can be used to extend and enhance the functionality of ProjectSync.
- panels - The directory that stores ProjectSync panel definitions.
- tcl - The directory that stores Tcl scripts that execute from a SyncServer. For security reasons, only files that reside in tcl directories within the installation search path are visible to these servers. Trigger scripts are an example of Tcl scripts that you might put in this directory. (See ProjectSync Scripts for details on using Tcl scripts.)
- config - The optional share/config directory is used for specialized configuration files. For example, you put your <notetype_name>.conf files here when you modify fields on a note type. (See, for example, Adding Transcript Fields to Notes, Adding CC List Fields to Notes, and Adding Search Keyword Fields to Notes.)

The enterprise Hierarchy

The enterprise directory is intended for enterprise-wide customizations. Although the enterprise directory is on the search path, do not create custom files in this area. The custom enterprise area is a placeholder for future development.

Related Topics

Installation and Licensing

ProjectSync Environment Variables

Customizing the ProjectSync Welcome Page

You may want to customize ProjectSync's Welcome page, perhaps to add your own logos and hyperlinks. To create a custom Welcome page based on ProjectSync's standard page:

1. Copy the files for the default Welcome page, SyncNotesTopIntro.html and SyncNotesTopIntro.ini from <SYNC_DIR>/share/panels/SyncNotesTopIntro to the appropriate custom directory:
   - <SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/panels/SyncNotesTopIntro (server-specific)

  - o <SYNC_SITE_CUSTOM>/share/panels/SyncNotesTopIntro (site-wide)
2. Edit your custom `SyncNotesTopIntro/SyncNotesTopIntro.html`.
3. Click **Reset Server** under the **Server** section of the menu to implement your changes.

Your custom panel will now override the default version.

Customizing the Main Menu

You can add special selections to the ProjectSync main menu to give users easy access to your customizations. The special menu selections can invoke Tcl scripts, hyperlink to files or URLs, invoke ProjectSync forms with values preseeded and run common queries and statistic reports.

Before you begin, your ProjectSync administrator must create a `customize.psm` file and place it in one of the following custom areas:

- <SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/ProjectSync (server-specific).
- <SYNC_SITE_CUSTOM>/share/ProjectSync (site-wide).

Note: When a user accesses a particular server, its `customize.psm` file is merged with the site's `customize.psm` file and the contents of both are displayed under that server's custom menu.

Invoking Tcl Scripts and Hyperlinking to Files and URLs

Specify your custom Tcl scripts, files or URLs (as in the example below) in one or both of the `customize.psm` files. The TCL keyword is followed by the script name and the menu text you wish users to see. The URL keyword is followed by the actual URL and menu text.

A **Custom** menu heading will appear under the main ProjectSync menu with selections below it that correspond to the items in `customize.psm`.

Example 1

You have a Tcl script `foo.tcl` that you want to run from ProjectSync. You also want to link directly to the company home page.

- Enter the following text into `customize.psm`:
- `TCL foo.tcl The Foo Script`

  `URL http://www.mycompany.com Company Home Page`

- Click **Reset Server** under the **Server** section of the menu to implement your changes.

On the left pane of ProjectSync's Welcome to ProjectSync panel, under the heading **Custom**, you see:

The Foo Script

Company Home Page

Users can simply click on these text items to run the Foo Script or view the Company Home Page.

Example 2

You have an html document "sampledoc" you'd like to share with the coworkers at your site.

- Add the document to

  <SYNC_SITE_CUSTOM>/share/content/html/ (site-wide) or

  <SYNC_CUSTOM_DIR>/servers/HOST/PORT/share/content/html/ (server-specific)

- Enter the following in your customize.psm file:

  `URL /syncsite/html/sampledoc.html Sample Document` (site-wide) or

  `URL /syncserver/html/sampledoc.html Sample Document` (server-specific)

- Click **Reset Server** under the **Server** section of the menu to implement your changes.

On the left pane of ProjectSync's Welcome to ProjectSync panel, under the heading **Custom**, you see:

Sample Document

Click on the hyperlink to view the file.

Presetting Field Values on the NoteAdd Panel

You can preset the initial values for any fields on the NoteAdd panel.

1. Use the panel keyword to reference the **NoteAdd** panel. The syntax is:

   ```
   panel NoteAdd
   ```

2. This is expanded to a menu item that links to:

   ```
   /scripts/isynch.dll?panel=NoteAdd
   ```

3. Add arguments just like with any other url. The URL argument for each field is the same as the field name (i.e., Title, Resp, Body, or CCList). For the attachment fields, the names are ProjectName, ProjectConfig, and LinkedURLs.

   ```
   panel
   NoteAdd&NoteType=SyncDefect&ProjectName=Proj1&Title=This+is
   +broken
   ```

4. You can also specify one or more attachments/linked URLs. Delimit each URL with a new line. As in any http request, use the encoded symbol (`%0A`) for new line instead of a carriage return.

   ```
   panel
   NoteAdd&NoteType=SyncDefect&ProjectName=Proj1&Title=This+is
   +broken&LinkedURLs=sync:///Projects/Proj2%0Async:///Project
   s/Proj3
   ```

5. Specify the menu text that a user will click on to link to this item, for example, "Add Custom Note."

   ```
   panel
   NoteAdd&NoteType=SyncDefect&ProjectName=Proj1&Title=This+is
   +broken Add Custom Note
   ```

6. Enter the resulting line in the `customize.psm` file.
7. Click **Reset Server** under the **Server** section of the menu to implement your changes.
8. This entry would result in the custom menu item **Add Custom Note**. Users selecting this menu item would see an Add SyncDefect form with the "Proj1" Project Name and "This is broken" Title preselected.

Linking Query Results and Statistics Reports to the Main Menu

To link a query results table or statistics report to ProjectSync's main menu, first bookmark the item in your browser. Click the right mouse button over the report area, but not directly over the graphics. Click above or below the chart and then select **Add Bookmark** from the right-mouse button menu.

Once you have bookmarked the report or table:

1. Pull down your browser's bookmark list and select the bookmark you just set. The full URL sent to ProjectSync will appear in your browser's location bar.
2. Add `panel=SyncNotesTop` to the query portion of your bookmarked URL.
3. Copy the new URL and paste it into one or both of the `customize.psm` files.
4. Before the new URL, on the same line, add the "URL" keyword.
5. After the new URL, on the same line, add the menu text that will link to the query or report.
6. Click **Reset Server** under the **Server** section of the menu to implement your changes.

Example

You want to add your bookmarked note query results to ProjectSync's main menu. Change the URL from `.../isynch.dll?panel=NoteQuery&...` to `.../isynch.dll?panel=SyncNotesTop&panel=NoteQuery&...`

Copy and paste this new URL into one of the `customize.psm` files. Then add the `URL` keyword before the URL and menu text after the URL. The keyword, URL, and menu text must be on the same line in the `customize.psm` file.

```
URL http://<machine>:<port>/scripts/isynch.dll?panel=
SyncNotesTopMenu&panel=NoteQuery Note Query Results
```

The menu text **Note Query Results** would be listed under the **Custom** heading on the main ProjectSync menu. Users could click on the text and link to the specified query results.

Related Topics

ProjectSync Scripts

Configuring the Wording on the GUI

To create the text used for its display, ProjectSync refers to a string table file that contains the wording for each display element. These wordings are mapped to keys used in the files that generate the panels in ProjectSync. You can create a custom string table file to change ProjectSync's default wording or to add text for your customized GUI elements.

This topic tells you:

- How the string table mechanism works.
- How to create a custom string table file.

- How to modify the GUI labels included with ProjectSync.
- How ProjectSync searches for wording to display on the GUI.

How the String Table Mechanism Works

ProjectSync panels are generated from HTML template files that define how the panel displays under different circumstances. For example, when you choose to edit a SyncDefect, ProjectSync first checks your access level. If you are a project leader or system administrator, you might see menus or buttons offering capabilities that are not available to other users.

Within the template, substitution keys are used to specify the wording that appears on an individual GUI panel. When a panel is generated, ProjectSync looks up the keys in the string table file to find the associated text string and then displays these text strings on the GUI.

The string table file contains a list of keyword/text string pairs that define the wording on the ProjectSync GUI. ProjectSync supplies a string table file called `en.msg` for English text string definitions.

For example, the following extract from the `en.msg` file contains the key and corresponding text string for the Find Words field on the Full Text Search panel:

```
FIND_WORDS   "Find Words"
```

The HTML template for the Full Text Search panel uses this substitution key (`%[FIND_WORDS]%`) when generating the panel's GUI. ProjectSync references the string table file and displays the wording defined for the `FIND_WORDS` key along with the text string for which the user is searching.

Some of the definitions in the `en.msg` file contain substitutions that call the name of an object. Many of these substitutions are used in warning or error messages. For example:

```
THIS_FILE_NOT_FOUND   "File '%s' does not exist or is empty."
```

In this example, `%s` is a substitution that displays the name of the file that can't be found in the warning message.

Some of these definitions contain multiple substitutions. In these cases, the objects are numbered. For example:

```
NO_PERM_EDIT_PROP    "You do not have permission to change this
property from '%1$s' to '%2$s'"
```

In this example, '%1$s' is the current note property and '%2$s' is the new note property that the user is trying to select.

Creating Custom String Table Files

ProjectSync's default English string table file is:

<SYNC_DIR>/share/config/strings/en.msg

Do not edit the default string table file. Any changes you make to a default file will be overwritten the next time you upgrade ProjectSync. Instead, create your own string table file in the custom area.

To make a custom string table file:

1. Create an empty en.msg file in your custom area:

   <SYNC_CUSTOM_DIR>/site/share/config/strings/en.msg (site-wide) or

   <SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/config/strings/en.msg (server-specific)

2. Enter only the strings you want to add or change in your custom version of the en.msg file.
3. Click **Reset Server** under the **Server** section of the menu to implement your changes.

Changing Standard GUI Strings

In the string table file, entries are grouped alphabetically by the internal panel name or other category (e.g., property names) for which the strings are used. For example, the "EmailMgr specific" section of the en.msg file contains definitions of the wording used in the Email Manager panels; the "SyncNotesTopIntro specific" section contains definitions of the wording used on the ProjectSync Welcome page, and so on. The "Shared tags" section at the beginning of the file contains shared keys, such as TITLE and ADD, that appear on many panels.

The keyword and text string pairs must follow Tcl string quoting rules. In a string table file, the text string is always enclosed by quotation marks or curly braces ({}). The text string can span multiple lines as long as it is enclosed in quotes.

Some of the keyword/text string pairs are used for labels on the GUI. For example:

```
NAME   "Name"
```

Other key/text string pairs define error messages. For example:

```
NO_PERM_ADMIN_SERVER   "You do not have permission to view or
edit server settings."
```

The order of the entries in the `en.msg` file is not important. However, if a string table key is specified more than once, the last entry is used.

To change the wording of a display string:

1. Open the default `en.msg` file in `<SYNC_DIR>/share/config/strings`.
2. Search for the wording that you want to modify.
3. Copy the keyword/string text pair from the default file into your custom `en.msg` file in `<SYNC_CUSTOM_DIR>/site/share/config/strings`.
4. Edit the text string to your preferred wording and save your changes.
5. Click **Reset Server** under the **Server** section of the menu.

You can modify the wording for:

- Field names
- Note type names
- Menu names
- Property type names
- Shared names
- Javascript messages

The syntax for these entries is described in the following sections.

Field Names

The fields displayed on the ProjectSync GUI are defined by note type properties (see What Are Properties?). The `en.msg` file uses the property names to define the wording of the corresponding GUI fields. The location of a field definition in the `en.msg` file depends on how many note types use the field.

Fields Unique to a Note Type

For properties unique to a note type, the field definitions are specified in the Standard note type, <note type>, specific sections of the `en.msg` file. For example, the fields specific to the SW-Defect-1 note type are defined in the "Standard note type, SW-Defect-1, specific" section of the `en.msg` file.

For note type-specific properties, the corresponding field names follow the convention:

```
FIELD:<Notetype_Name>:<Property_Name>   "<Display_String>"
```

Where `FIELD` indicates that the definition is for a field on the GUI, `<Notetype_Name>` is the name of the note type, and `<Property_Name>` is the name of the property that generates the field. You can use the Note Type Manager (see Installing Standard Note Types) to find the internal names of note types and the property names corresponding to fields on the GUI.

For example, in the default `en.msg` file, the fields of the SyncDefect note type (listed in the "Standard notetype, SyncDefect, specific" section) are defined as follows:

```
FIELD:SyncDefect:DateFixed   "Date Fixed"
```

Fields Used by All Note Types

Field definitions that are common to all note types are specified in the "Notetype property specific" section of the `en.msg` file. In this case, a note type name is not specified and the middle part of the definition is empty. For example:

```
FIELD::Author   "Author"
```

```
FIELD::Body     "Note Text"
```

If both `FIELD:<Notetype_Name>:<Property_Name>` and `FIELD::<Property_Name>` are specified for the same field, the note-type-specific entry takes precedence.

Note Type Names

In the `en.msg` file, note type names are specified using the following convention:

```
NOTETYPE:<Notetype_Name>  "<Display_String>"
```

Where `NOTETYPE` indicates that the definition is for strings for a note type and `<Notetype_Name>` is the internal name for the note type. You can use the Note Type Manager to find the internal names of note types.

Menu Names

In the `en.msg` file, wording that appears only in a menu is defined in the "SyncNotesTopMenu specific" section. For example:

```
QUERIES  "Queries"
```

```
TEXT_SEARCH  "Text Search"
```

Several of the labels on the ProjectSync main menu are defined in the "Shared tags" section at the beginning of the `en.msg` file. See Shared Names for details.

Property Type Names

ProjectSync uses two kinds of predefined property types (see Predefined Property Types):

- Standard Types - such as boolean, date, and string
- ProjectSync Types - based on primitive ChoiceList and StateMachine property types.

The `en.msg` file contains keys for both kinds of predefined property types.

Standard Predefined Property Type Values

Standard predefined property types are specified in the "PropertyType Names" section of the `en.msg` file. The PropertyType definitions follow the convention:

```
PTYPE:<Property_Type>   "<Display_String>"
```

where `PTYPE` indicates that the definition is for a string for a property type and `<Property_Type>` stands for the name of the property type. For example, in the default `en.msg` file, property type names are defined as follows:

```
PTYPE:Boolean   "Boolean"

PTYPE:Date      "Date"

PTYPE:String     "String"
```

ProjectSync-Supplied Predefined Property Type Values

SyncState is a ProjectSync-Supplied Predefined property type built on the primitive StateMachine property type. The choices for the Class, Severity and State fields of the SyncDefect note type are defined by the SyncState property type.

The wording for these choices is defined in the "SyncClass PropertyType Legal Values," "SyncPriority PropertyType Legal Values," and "SyncState PropertyType Legal Values" sections of the `en.msg` file .

The definitions follow the convention:

```
CHOICE:<Property_Type>:<Choice>   "<Display_String>"
```

where CHOICE indicates that the definition is for a choice list or state machine property type and <Property_Type> stands for the name of the property type. <Choice> is the individual choice. For example:

```
CHOICE:SyncState:open   "open"
```

You can add keys to the en.msg file to change the wording of the choices displayed for all note types based on the primitive SyncState property type. To do so, edit your custom en.msg file and add a key with the following syntax:

```
CHOICE:<Property_Type>:<Current_Choice_String>
 "<New_Choice_String>"
```

For example, to change the "analyzed" choice to "pending" for all notes based on the SyncState property type:

1. Create or edit your custom copy of the en.msg file in the custom area.
2. Add the following entry:

   ```
   CHOICE:SyncState:analyzed   "pending"
   ```

3. Click **Reset Server** under the **Server** section of the menu.

Property Type Values Unique to a Note Type

For properties unique to a note type, the choice definitions are specified in the Standard note type, <note type>, specific sections of the en.msg file. For example, the choices specific to the SW-Defect-1 note type are defined in the "Standard note type, SW-Defect-1, specific" section of the en.msg file.

For note type-specific choices, the corresponding strings are specified using the following convention:

```
CHOICE:<Property_Type>:<Choice> "<Display_String>"
```

Where CHOICE indicates that the definition is for a choice list or state machine property type , <Property_Type> is the name of the property type on which that note type is based. <Choice> is the individual choice.

For example:

```
CHOICE:SW1_Status:Resolved   "Resolved"
```

To change the choice string from "Resolved" to "Fixed":

1. Create or edit your custom copy of the `en.msg` file in the custom area.
2. Add the following entry:

   ```
   CHOICE:SW1_Status:Resolved   "Fixed"
   ```

3. Click **Reset Server** under the **Server** section of the menu.

Your wording changes will affect only the SW-Defect-1 note type.

Shared Names

Wording that is used in multiple panels of the ProjectSync GUI is defined in the "Shared tags" section at the beginning of the `en.msg` file. These definitions do not need a designator (for example, `FIELD`) at the beginning of the key. For example:

```
Project     "Project"
```

In this example, the wording "Project" is used on the Add Note panels and Query panels among others.

The "Shared tags" section also contains alternate definitions of commonly used terms. For example:

```
USER_NAME     "User Name"

USERNAME       "UserName"
```

In this example, the two keys define how to display "user name" in different contexts--either with or without the space in between the two words.

Javascript Messages

Some ProjectSync panels use Javascript error messages. The wording for each Javascript message appears in a specific panel's Javascript (.js) section of the `en.msg` file (for example "ProjectEdit.js specific", "ProjectAdd.js specific", and "SyncNotesTopMenu.js specific")

For Javascript messages, the entries follow the convention:

```
JS:<Panel_Name>:<Keyword>   "<Display_String>"
```

For example:

```
JS:ProjectAdd:NO_PROJ_OWNER "Please choose an owner for the
project"
```

The Javascript error messages appear as pop-ups and are activated upon a users attempt to submit a form. In this example, a user who adds a new project without designating an owner sees the pop-up Javascript message "Please choose an owner for the project."

Search Order for GUI Strings

When ProjectSync displays a GUI string, it displays the first string it encounters in the following search order:

- An `en.msg` file definition. For fields, ProjectSync looks first for note type-specific field definitions and then for definitions used by more than one note type.
- The prompt string defined for the field in the Note Type Manager.
- The property name.

If you create a new property using the Note Type Manager, the prompt string you enter to display for that field is displayed on the GUI and you do not need to create an entry for the field in the en.msg file.

However, if you edit a ProjectSync-supplied property using the Note Type Manager, you must change the GUI label in your custom copy of the en.msg file. If you change the label only using the Note Type Manager, the search mechanism continues to find the definition in the en.msg file.

Related Topics

What Are Note Types?

What Are Property Types?

What Are Properties?

Predefined Property Types

Defining the Default Format of Query Results

When you execute a Standard, Advanced or Custom query in ProjectSync, the results are displayed in the form of a report. By default, the note's ID number and title are displayed. The output from queries can be customized by defining field names in a `QueryFormat` file. As with other customizations in ProjectSync, a `QueryFormat` file can be site-wide or server-specific. Your system administrator will need to create these `QueryFormat` files since they are not included with the ProjectSync software. The possible locations for the `QueryFormat` files, and their syntax, are listed below.

The server-specific file path should be:

```
<SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/ProjectSync/QueryF
ormat
```

The site-wide file path should be:

```
<SYNC_SITE_CUSTOM>/share/ProjectSync/QueryFormat
```

Users can override the `QueryFormat` defaults for a Standard Query by using the **Options** button (see Defining Report Format Options). The `QueryFormat` default will still apply to Advanced and Custom Query results.

Special Considerations

When defining a `QueryFormat` file, keep in mind the following special considerations:

- Include all field names, from all note types, that you want to appear in your query results. If a field name listed in the `QueryFormat` file does not appear in the queried note type, ProjectSync ignores it.
- Do not put a blank line between each entry in the `QueryFormat` file.

Sample file

If a `QueryFormat` file contains the following text:

```
Id
Author
Title
Resp
```

Then the default output of Standard, Advanced and Custom queries would display the following columns:

```
Id Author Title Responsible
```

Keep in mind that the field name may be different from the associated prompt string. For example, "Resp" is the field name associated with the Responsible prompt string.

Related Topics

Constructing Standard Queries

Constructing Advanced Queries

Constructing Custom Queries

Constructing Text Queries

Customizing Data Sheets

Displaying Custom Information

You can display custom information in your data sheets by creating a Tcl script that specifies your additions.

To display your custom information:

1. Create a Tcl script called `DataSheet.tcl` that implements your additions to the data sheet.
2. Put `DataSheet.tcl` in one of the following folders:
   - `<SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/tcl` (server-specific).
   - `<SYNC_SITE_CUSTOM>/share/tcl` (site-specific).

   Important: Do not put Tcl scripts in `<SYNC_DIR>/share/tcl`. This directory is reserved for DesignSync scripts and may be overwritten when you upgrade the DesignSync software. See the ENOVIA Synchronicity stcl Programmer's Guide for more information on using Tcl scripts with ProjectSync.

3. ProjectSync provides two variables that you can add to your `DataSheet.tcl` script:
   - `$SYNC_User` - The user performing the operation. You can use this variable to control access to some of the data sheet information.
   - `$SYNC_Parm(url)` - The URL of the object described in the data sheet.

   For example, if your `DataSheet.tcl` script contains the following commands:

2.

```
1. puts "Additional Data Sheet Information<BR>"
   puts "You are $SYNC_User<BR>"
   if {[info exists SYNC_Parm(url)]} {
     puts "This data sheet is for $SYNC_Parm(url)<BR>"
   } else {
     puts "No URL information found<BR>"
```

You see the following output on the data sheet for a configuration called `Sportster` that is part of the project `ASIC_Design`.

```
2. Additional Data Sheet Information

   You are jackie
```

```
This data sheet is for
sync:///Projects/ASIC_Design@Sportster
```

The following example shows a more useful Tcl script to add information to a data sheet. In this example, the `DataSheet.tcl` script creates a hyperlink to a SyncDefect from the data sheet of an object. The script parses the URL of the object and fills in the appropriate fields of the SyncDefect, as follows:

2.

- If the data sheet object is a project, the SyncDefect appears with the name of the Project already filled in.
- If the data sheet object is a configuration, the SyncDefect appears with the name of the project and the configuration already filled in.
- If the data sheet object is not a project or a configuration, the SyncDefect appears with the object's URL in the attach-to text box.

```
if {[info exists SYNC_Parm(url)]} {
  set url $SYNC_Parm(url)
  puts "This data sheet is for $url<BR>"
  # Only applies to objects under sync:///Projects
  # Parse out the url: Does it look like something
under /Projects?
  # Get the path part and the config name, if one is
present
  set expr {sync:///Projects/([^@]+)@?([^@]+)?}
  if {[regexp $expr $url whole proj_part cfg_part]} {
    set href
"/scripts/isynch.dll?panel=NoteAdd&NoteType=SyncDefect
"
    # If $url is not a top-level project (i.e., it has
/'s),
    # extract the top-level project and attach it,
plus the
    # object itself
    if {[string match */* $proj_part]} {
      set ProjName [lindex [split $proj_part /] 0]
      set Object $url
      append href
"&ProjectName=$ProjName&LinkedURLs=$Object"
    } else {
      # $url is either a top project or a config of
one
      if {$cfg_part == ""} {
        set ProjName $proj_part
        append href "&ProjectName=$ProjName"
      } else {
        set ProjName $proj_part
```

```
                set CfgName $cfg_part
                append href
        "&ProjectName=$ProjName&ProjectConfig=$CfgName"
              }
            }
            # Now generate the hyperlink
            puts "<A href=$href>"
            puts "<H2>Attach a new SyncDefect here</H2>"
            puts "</A>"
          }
        }
        # Output is required in all cases:
        puts ""
```

3. Click **Reset Server** under the **Server** section of the menu to implement your changes.

Creating Project-Specific Data Sheets

You may want to create a project-specific data sheet for some or all projects on a SyncServer.

1. Create the following directory:

```
mkdir -p
<SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/panels/DataSh
eet
```

2. Inside this directory, create a file called `DataSheet.tcl` and add the following lines:

```
# url is the url of the object of this data sheet
cgi_arg url
# Get the path part of this object's url
set path ""
scan $url sync:///Projects/%s path
# Find the data sheet for this project under
#
<SYNC_SITE_CUSTOM>/share/content/ProjectHomes/<projpath>/in
dex.html
# or
#
<SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/content/Proje
ctHomes/<projpath>/index.html
set homepage [locate -url -nothrow
ProjectHomes/$path/index.html]
# if a home page for this project was found,
```

```
if {$homepage != ""} {
  # redirect the browser to this project's home page
  puts "<script>location.replace('$homepage');</script>"
}
# Always output something
puts ""
```

3. Click **Reset Server** under the **Server** section of the menu to implement your changes.

When you visit the data sheet for any project, you will see the custom one, instead of the one generated by ProjectSync.

What are Initialization Driver (.ini) Files?

Panel initialization driver (`.ini`) files contain the code that controls the appearance and behavior of the ProjectSync panel templates. The predefined ProjectSync `.ini` files reside in the `<SYNC_DIR>/share/panels` directory where the HTML templates for the note panels are stored.

The `.ini` files contain substitutions that are associated with the substitution tags in the HTML templates for the note panels. A substitution is a Tcl procedure that generates dynamic content in a ProjectSync panel. A substitution tag generates a graphical interface element in a ProjectSync panel.

The substitution tags appear as HTML comments in the panel template:

For example, a property named **Title** is implemented with this tag:

```
<!-- SYNC field Title -->
```

The placement of the graphical elements in a panel coincides with the placement of the substitution tags in the HTML template for the panel. The type of graphical element generated depends on the keyword of the tag, its property, and which panel template the substitution tag is located in.

For example, the **field** substitution tag for the **Title** property located in the Note Add panel template generates a type-in field on the Note Add panel. The same substitution tag and property in the View Note panel template displays as noneditable text in the View Note panel.

Important: You should not make any changes to a .ini file unless the changes are specifically recommended in a help topic (see Setting Up Email Reminders for Defects, for example) or by a Tech Tip or a DesignSync customer service representative. Changes to the .ini files may cause ProjectSync to work improperly and may not be compatible with future versions of the software.

ProjectSync Environment Variables

ProjectSync supports a number of environment variables for use in configuring and customizing your site and user installations. The environment variables most commonly used with ProjectSync are:

- `$SYNC_CUSTOM_DIR` - Path to the default location for all custom scripts and files.

  By default, the `$SYNC_CUSTOM_DIR` environment variable points to `<SYNC_DIR>/custom`. To place all your custom files elsewhere, redefine the `$SYNC_CUSTOM_DIR` environment variable.

- `$SYNC_SITE_CUSTOM` - Path to a directory for site-specific scripts and files.

  By default, `$SYNC_SITE_CUSTOM` points to `<SYNC_CUSTOM_DIR>/site`, which then defaults to `<SYNC_DIR>/custom/site`.

- `$SYNC_ENT_CUSTOM` - Path to a directory for enterprise-wide scripts and files.

  The `$SYNC_ENT_CUSTOM` variable points to `<SYNC_CUSTOM_DIR>/enterprise`. This area is reserved for future development.

For environment variables that you can use in stcl scripts, see the Environment Variables for Tcl Scripts topic. For additional variables commonly used with DesignSync see the *DesignSync System Administration Help*: Using Environment Variables topic.

ProjectSync Scripts

ProjectSync provides a mechanism for you to create and run Tcl scripts on the ProjectSync server. ProjectSync includes a number of predefined commands that you can incorporate into your scripts to provide easy control of ProjectSync functions. You can create ProjectSync Tcl scripts to:

- Set up access controls to limit access to certain operations.
- Execute ProjectSync or DesignSync commands after a trigger is fired.
- Customize ProjectSync panels.
- Customize data sheet displays.

ProjectSync includes a number of predefined commands you can incorporate into your scripts to provide easy control of ProjectSync functions. See ProjectSync Tcl Commands for a list of these commands. See the ENOVIA Synchronicity stcl Programmer's Guide for more information on creating Tcl scripts in the DesignSync environment.

How to Invoke Tcl Scripts

To invoke Tcl scripts on the ProjectSync server, you submit an http request of the following form:

```
http://<host>:<port>/scripts/isynch.dll?panel=TclScript&file=<fi
lename>
```

where `<filename>` is the name of a Tcl script.

In addition, you can invoke Tcl scripts by:

- Using the `rstcl` command in a DesignSync client to specify the script and its arguments. The DesignSync client sends the URL script request to the SyncServer. See the rstcl command description in the ENOVIA Synchronicity Command Reference for details.
- Creating a script that runs when a server-side trigger fires, sending the URL script request to the SyncServer. See Add Trigger panel. (See *DesignSync Data Manager Administrator's Guide:* Creating Note Object Triggers for details.

ProjectSync looks for Tcl scripts (files with a `.tcl` extensions) in the following locations (in the order listed):

- Server-specific Tcl scripts:

  `<SYNC_CUSTOM_DIR>/servers/<host>/<port>/share/tcl`

- Site-wide Tcl scripts:

  `<SYNC_SITE_CUSTOM>/share/tcl`

- Enterprise-wide Tcl scripts:

  `<SYNC_ENT_CUSTOM>/share/tcl`

  Do not put Tcl scripts in the custom enterprise area. This location is reserved for future development.

- Tcl scripts included with DesignSync:

  `<SYNC_DIR>/share/tcl`

  Note: Do not put Tcl scripts in the default `<SYNC_DIR>/share/tcl` directory. Files in this location are overwritten when you upgrade DesignSync software.

For example, suppose you have placed a script called `my_script.tcl` in `<SYNC_SITE_CUSTOM>/share/tcl`. If your SyncServer is running on a host called `speedy` and a port numbered `2001`, you run the script by entering the following URL in your browser:

```
http://speedy:2001/scripts/isynch.dll?panel=TclScript&file=my_sc
ript.tcl
```

Important: If you make modifications to a script, click **Reset Server** under the **Server** section of the menu to force the SyncServer to reread your script.

If you are using the DesignSync design management product, place your scripts under revision control so that you can retrieve them if they are mistakenly removed or overwritten. For more information on revision control, see DesignSync Online Help.

Tips on Writing Scripts

- To pass arguments to ProjectSync Tcl scripts, use the `SYNC_Parm` environment variable. See Environment Variables for Tcl Scripts for more information.
- Commands for controlling access to ProjectSync operations are entered into a special `AccessControl` script. See the ENOVIA Synchronicity Access Control Guide for details.
- Do not specify the host and port for scripts running on a server:

  When specifying URLs that begin with the `SYNC` protocol within scripts that are run on the server, do not specify the host and port. For example, specify:

  ```
  sync:///Projects/Asic
  ```

  not

  ```
  sync://chopin:2647/Projects/Asic
  ```

  Because the script is run on the server itself, `host:port` information is unnecessary and is stripped out by the server, which can lead to incorrect behavior during object-name comparisons.

- If you run your script using `panel=TclScript` in your browser URL, only text that is explicitly output from the `puts` or `output` commands appears in the generated results panel. The return value of your script is not inserted into the generated output automatically.

Related Topics

ProjectSync Tcl Commands

Environment Variables for Tcl Scripts

As you are constructing your own Tcl scripts, the following environment variables might be useful.

- `noteURL`

  A namespace variable that determines the notes that are modified or attached in trigger scripts. (In earlier releases, this was a global variable called `SYNC_NoteURL`.)

- `objURL`

  A namespace variable that determines the objects to which notes are attached in trigger scripts. (In earlier releases, this was a global variable called `SYNC_ObjURL`.)

- `oldProps`

  A namespace variable that determines the previous value for any note properties that have been changed. This variable lists the name/value pairs for properties that change during an event. The `oldProps` variable is a list consisting of alternating property names and their new values. You can convert this variable to a TCL array using the command:

  ```
  array set oldPropsArray $oldProps
  ```

- (In earlier releases, `oldProps` was a global variable called `SYNC_OldProps.`)
- `SYNC_ClientInfo`

  A global Tcl array that is available only to server-side scripts that are run from a browser. You cannot use `SYNC_ClientInfo` with client-side scripts, server-side trigger scripts, or server-side scripts run using the `rstcl` command.

  This array contains the following parameters:

  - `AgentName` - The name of the browser that sent the request, as reported by the browser. This encodes information such as browser name, version, OS, etc. The format differs depending on your browser.
  - `Locale` - Time zone information, passed in as the number of minutes to be subtracted from GMT. For example, five hours behind GMT would be represented as 300 (5 times 60).
  - `IPAddress` - The IP address of the client.
  - `UserName` - The name of the user. This information is also available via `$SYNC_User`. Use `$SYNC_User` if you only need user name information.

You access these parameters as follows: $SYNC_ClientInfo(AgentName).

- SYNC_Parm

  A global Tcl array used to determine parameters passed into server-side Tcl scripts from the URL invoking the scripts. For example, if the URL is:

```
http://<host>:<port>/scripts/isynch.dll?panel=TclScript
&file=filename&name=Joe&age=30&weight=160
```

  then in order to access the name, age, and weight, you would use $SYNC_Parm(name), $SYNC_Parm(age), and $SYNC_Parm(weight).

- SYNC_User

  A global variable that determines the ProjectSync user in all Tcl applications.

Related Topics

ProjectSync Tcl Commands

ProjectSync Environment Variables

Controlling HTML Tag Use

Because users can enter HTML tags in text, ProjectSync restricts the entry of HTML tags that might be used maliciously. By default, HTML tags are not allowed. You can configure ProjectSync to allow HTML tags, and add or remove restricted tags that are never allowed.

HTML tags are identified as words enclosed in angle brackets (<>). Users cannot enter restricted tags in any input field of any form, for example in the text of a note. The check for restricted tags does not prevent users from using the word outside of the angle brackets. For example, users can enter the word script but not <script>. The check for restricted tags does not include the contents of files attached to a note.

The HTML tags are controlled in the default SipcEnv.conf configuration file. You should never modify this file. This file is installed with the DesignSync application, and any changes made here will be overridden during a product update.

Using Safe Mode

By default, HTML tags are disabled creating a safe mode where no malicious HTML can be entered. Safe mode automatically transforms the symbols used to designated tags, < and > into their HTML encodings (< becomes < and > becomes >)

Dynamic links between notes are still supported as active links. For more information about using dynamic links, see. Setting Up Links Between Notes.

Safe mode is enabled in the default `SipcEnv.conf` configuration file.

When safe mode is on, users do not see an option to Al

Using HTML Tags with Restricted Mode

You can disable safe mode and continue to use HTML tags in your ProjectSync notes, disallowing certain HTML tags to prevent malicious activity. Even with safe mode disabled, most of the tags that can be used maliciously are disallowed (restricted) by default. The restricted HTML tags are defined in the default `SipcEnv.conf` configuration file as follows:

```
set SipcDisallowedHTMLTagNames {applet embed form /form
html /html input object script server}
```

These tags can be used to run scripts, applets, or other types of code snippets that can hide their malicious intentions. If a user attempts to use a restricted tag, ProjectSync displays an error message and will not allow the submission of the note.

For example, if safe mode is off, and a user chooses **Allow HTML Tags** and appends text containing `<script>` and `</script>` in the append to a note, ProjectSync returns an error. . Before submitting the note, the user must do one of the following:

- Select **No HTML Markup intended,** which automatically displays the text as plain text.
- Remove the tag, which may not be desirable if you are trying to include a snippet of code for a later user to follow.
- Replace the angle brackets with the corresponding HTML formatting codes (`<` and `>`)., which allows the code snippet to display, and also allows any addition other HTML markup to be processed.

To Disable Safe Mode:

1. Create or modify the file named `SipcEnv.conf` in one of the following custom areas:
   - For server-specific configurations:

     `$SYNC_CUSTOM_DIR/servers/<host>/<port>/share/config`

   - For site-specific configurations:

     `$SYNC_CUSTOM_DIR/site/share/config`

If you have configuration files in both server-specific and site-specific custom areas, the settings in both configuration files are used. If server and site configuration files contain different definitions for the same field, the server-specific configuration file takes precedence over the site-specific file.

2. Add or modify the following setting in your custom version of the file:

```
set SipcSafeModeEnabled 0
```

IMPORTANT: Do not edit the default `SipcEnv.conf` file. Any changes to this file will be lost when you upgrade ProjectSync.

3. To modify or edit the restricted HTML tags, continue with this step in the procedure to Add or Remove HTML tags from the restricted list.
4. Save the `SipcEnv.conf` file.
5. Click **Reset Server** in the ProjectSync menu to apply your changes.

To add or remove HTML tags from the restricted list:

1. Create a file named `SipcEnv.conf` in one of the following custom areas:
   - For server-specific configurations:

     ```
     $SYNC_CUSTOM_DIR/servers/<host>/<port>/share/config
     ```

   - For site-specific configurations:

     ```
     $SYNC_CUSTOM_DIR/site/share/config
     ```

2. If you have configuration files in both server-specific and site-specific custom areas, the settings in both configuration files are used. If server and site configuration files contain different definitions for the same field, the server-specific configuration file takes precedence over the site-specific file.
3. Copy the following entry from the default `$SYNC_DIR/share/config/SipcEnv.conf` file into your custom version of the file:

   ```
   set SipcDisallowedHTMLTagNames {applet embed form /form
   html /html input object script server}
   ```

   Do not edit the default `SipcEnv.conf` file. Any changes to this file will be lost when you upgrade ProjectSync.

4. Add any tags that you want to restrict and remove any tags that you don't want to restrict.

Enter only the name of the restricted tag, without the angle brackets. That is, to restrict users from entering tables, enter `table`, not `<table>`. Tag names are not case sensitive.

5. Save the `SipcEnv.conf` file.
6. Click **Reset Server** in the ProjectSync menu to apply your changes.

Related Topics

Adding SyncNotes

Controlling ProjectSync Note Sort Order

ProjectSync allows you to change the order in which ProjectSync note text is displayed within a note.

By default, ProjectSync displays the note text appends in the order in which they were entered. You can change the display order to show in the reverse order they were added, with the newest one on the top, instead of on the bottom.

The sort order is defined in the `SipcEnv.conf` configuration file as follows:

```
# Define how the Note Body is displayed. By default the
individual appends are

# ordered bottom-down, with the first entry at the top. This
can be changed here.

set SipcDisplayAppendsDescendingOrder {}
```

This indicates that, by default, the sort order is ascending. If a NoteType were entered within the braces ({}), all notes of that note type would display with the note text in descending order. You can specify multiple NoteTypes by separating them with a space.

Note: NoteType names are case-sensitive.

To Change the Order of the NoteType Text display:

1. Create or modify the `SipcEnv.conf` in one of the following custom areas:
   - For server-specific configurations:

     ```
     $SYNC_CUSTOM_DIR/servers/<host>/<port>/share/config
     ```

   - For site-specific configurations:

```
$SYNC_CUSTOM_DIR/site/share/config
```

2. If you have configuration files in both server-specific and site-specific custom areas, the settings in both configuration files are used. If server and site configuration files contain different definitions for the same field, the server-specific configuration file takes precedence over the site-specific file.
3. Copy the following entry from the default `$SYNC_DIR/share/config/SipcEnv.conf` file into your custom version of the file:

   ```
   # Define how the Note Body is displayed. By default the individual appends are
   # ordered bottom-down, with the first entry at the top. This can be changed here.
   set SipcDisplayAppendsDescendingOrder {}
   ```

   Do not edit the default `SipcEnv.conf` file. Any changes to this file will be lost when you upgrade ProjectSync.

4. Add or remove the NoteType name within the braces. NoteType names are case sensitive. If you are providing multiple names, separate the names with a space, for example:

   ```
   set SipcDisplayAppendsDescendingOrder {SyncNote SyncDefect}
   ```

   If you want to sort all the NoteTypes in ascending order, you can enter a zero in the braces, or use a null brace notation:

   ```
   set SipcDisplayAppendsDescendingOrder {0}

   set SipcDisplayAppendsDescendingOrder {}
   ```

   If you want to sort all the NoteTypes in descending order, you can enter a one in the braces:

   ```
   set SipcDisplayAppendsDescendingOrder {1}
   ```
5. Save the file.
6. Click **Reset Server** in the ProjectSync menu to apply your changes.

Related Topics

Adding SyncNotes

Error Handling

When ProjectSync encounters an error that it cannot resolve, it generates an "unhandled error condition" report (a Tcl stack trace) that gives information on the cause of the error.

By default, the error information is handled in the following fashion:

- If you are a server administrator with `AdministerServer` access rights, the error information is displayed in your browser window. (See What Are Access Controls? for information on access rights.)
- If you are not an administrator, the error information is sent to the `error_log` file and a brief error message is displayed in the browser window. (See *DesignSync Data Manager Administrator's Guide*: SyncServer Error Log File Messages for information on the `error_log` file.)

You can change how these error conditions are reported by editing a setting in a custom `SipcEnv.conf` file:

1. Create a file named `SipcEnv.conf` in one of the following custom areas:
   - For server-specific configurations:

     ```
     $SYNC_CUSTOM_DIR/servers/<host>/<port>/share/config
     ```

   - For site-specific configurations:

     ```
     $SYNC_CUSTOM_DIR/site/share/config
     ```

2. If you have configuration files in both server-specific and site-specific custom areas, the settings in both configuration files are used. If server and site configuration files contain different definitions for the same setting, the server-specific configuration file takes precedence over the site-specific file.
3. Copy the following entry from the default `$SYNC_DIR/share/config/SipcEnv.conf` file into your custom version of the file:

   ```
   set psErrorHandler "default"
   # set psErrorHandler "logerror"
   # set psErrorHandler "htmlstack"
   ```

   Do not edit the default `SipcEnv.conf` file. Any changes to this file will be lost when you upgrade ProjectSync.

4. Remove the comment character (`#`) from the beginning of the line whose setting you want. Comment out the other lines. The settings are:
   - `set psErrorHandler "default"` - The default behavior, as described above.

- `set psErrorHandler "logerror"` - Always writes the error report to the `error_log` file, regardless of the access rights of the user, and outputs a brief error message to the browser window.
- `set psErrorHandler "htmlstack"` - Always displays the error report to the browser window, regardless of the access rights of the user. Note, however, that this behavior is a security risk.

5. Save the changes to your custom `SipcEnv.conf` file.
6. Click **Reset Server** in the ProjectSync menu to apply your changes.

Related Topics

DesignSync Data Manager Administrator's Guide: SyncServer Error Log File Messages

What Are Access Controls?

Command Reference

Using ProjectSync Tcl Commands

You can customize ProjectSync by creating Tcl scripts that you run using the SyncServer. ProjectSync includes a number of predefined commands that you can incorporate into your scripts to provide easy control of ProjectSync functions.

ProjectSync gives you the following categories of Tcl commands:

- **access** - used mainly in a custom `AccessControl` file to determine what users have access to what ProjectSync operations. (See the ENOVIA Synchronicity Access Control Guide for a complete discussion of access controls and the `AccessControl` file.)
- **locate** - finds files in the ProjectSync search path.
- **note** - gets information about ProjectSync notes.
- **notetype** - creates, renames, or deletes note types.
- **ptype** - gets information about property types.
- **trigger** - controls recursive behavior in trigger scripts.
- **url** - gets information on or sets properties of URLs.

For a complete list of these commands, see ProjectSync Tcl Commands. These commands are described, with examples, in the ENOVIA Synchronicity Command Reference.

You also can pass parameters to your scripts when you run them. See Environment Variables for Tcl Scripts for details on using the predefined environment variables that accept parameters.

If you are using DesignSync and ProjectSync as an integrated application, you can incorporate any of the DesignSync `dss` or `stcl` commands into your ProjectSync Tcl scripts. See the ENOVIA Synchronicity stcl Programmer's Guide for information on creating Tcl scripts in the DesignSync environment.

In addition, you can run server-side scripts from DesignSync clients using the `rstcl` command. To get a complete list of `dss` and `stcl` commands, see the ENOVIA Synchronicity Command Reference.

Example

This example returns the users currently defined for ProjectSync.

1. In `<SYNC_SITE_CUSTOM>/share/tcl`, create `users.tcl` that contains the following lines:

```
puts [url users sync:///]
```

where `sync:///` is the server root.

2. From your browser, issue the following URL:

```
http://chopin:2647/scripts/isynch.dll?panel=TclScript&file=
users.tcl
```

The browser displays the users currently defined for ProjectSync:

```
sync:///Users/j_chan sync:///Users/j_li sync:///m_yeoh
sync:///Users/yf_chow sync:///Users/a_mui
```

Related Topics

ProjectSync Scripts

ProjectSync Tcl Commands

ProjectSync Tcl Commands

The commands in the following list can be used for server-side applications when you are using ProjectSync as a standalone product. If you are using DesignSync and ProjectSync as an integrated application, you can incorporate any of the DesignSync `dss` or `stcl` commands into your ProjectSync Tcl scripts. To get a complete list of `dss` and `stcl` commands, see the ENOVIA Synchronicity Command Reference.

The common access control commands are described in the "Setting Up Access Controls" section of this documentation. See What Are Access Controls? for details on using the common access control commands.

You can link to the ENOVIA Synchronicity Command Reference to get a complete description of the other types of commands you can use with ProjectSync. Select any of the command names in the following list to go to its description in the ENOVIA Synchronicity Command Reference.

access allow | deny	Allows or denies access to a specified list of actions.
access_db_filter	Specifies criteria for allowing or denying access to ViewNote or EditNote actions when you are verifying more than one note.
access define	In the `AccessControl` file, specifies new actions to be access controlled.
access filter	Allows or denies access based on specified filters.
access_global	Defines global variables or procs for access filters

access init	Defines the variables and procs for use with the access filter command.
access reset	Forces the SyncServer to reread your access control files without restarting.
access verify	Checks whether a user is allowed to perform a ProjectSync operation.
backup	Backs up the SyncServer.
locate	Searches the paths associated with the SyncServer installation, including custom directories, for a specified object, either a file or directory.
mkfolder	Creates one or more new folders (directories) on the server.
note attach	Creates a link between a note and a specified object.
note counts	Computes statistics about notes and the frequency of values
note create	Creates a new note of the specified note type.
note delete	Deletes a note and any links between the note and the objects to which it is attached.
note detach	Deletes the link between a note and a specified object.
note getprop	Returns properties of a note that were previously set with `note setprops`.
note links	Returns information about the relationships between objects and notes.
note query	Queries the Note system and gets notes' URLs.
note relink	Moves note attachments from one object to another
note schema	Returns information about the schema that defines a note type.
note setprops	Sets property values (database fields) on a note.
note systems	Gets a list of note systems (currently only one system exists: SyncNotes)
note types	Gets a list of defined note types for all note systems
notetype create	Creates a new note type with the specified name.
notetype delete	Deletes the specified note type.
notetype enumerate	Returns a list of note type names for all note types of all note systems on the server.
notetype getdescription	Returns a brief description of the specified note type
notetype rename	Renames a note type and re-attaches all linked objects to the new note type name.
notetype schema	Extracts information about a note type's structure
ptype choices	Returns the list of choices (available field values) for a specified enumerated type.
ptype class	Returns the class of a property type.

ptype enumerate	Returns a list of all property types known to the server.
ptype is	Checks whether a property type belongs to a specified class.
ptype strwidth	Returns the maximum width for strings of the specified property type.
ptype transitions	Returns a list of the valid next states for any specified state of a State Machine property type.
restorevault	Restores backed-up vault data - vault folders or individual vault objects.
rmfolder	Deletes the specified folder (directory) from the server.
subscription add	Adds email subscriptions for specified objects.
subscription delete	Deletes email subscriptions for specified objects.
subscription edit	Lets you view and edit email subscriptions.
subscription get	Returns a Tcl list of current email subscriptions.
subscription list	Returns a list of current email subscriptions.
syncinfo	Returns information about the DesignSync software environment, such as the locations of the metadata files and vault, the name of the server (as specified in the URL used to contact the server), and the port number used by the server to respond to the `syncinfo` request.
trigger block	Prevents recursive trigger script activation.
trigger unblock	Allows recursive script activation.
url configs	Returns a list of the configurations for a project defined in ProjectSync.
url getprop	Returns properties of an object that were previously set with `url setprop`.
url notes	Returns all the notes attached to a specified object.
url owner	Returns the owner of a specified object.
url path	Returns the path segment of a URL, without the protocol and machine name.
url projects	Returns a list of all the public projects on the server of the specified object (regardless of the host and port you specify).
url properties	Returns an array of property name/value pairs for the specified object.
url setprop	Sets the properties of an object.
url users	Returns the list of all users defined for the server of the specified object.
user counts	Counts the number of user records
user create	Creates a new user profile with the name, email address and password you specify.

user delete	Deletes the user profile you specify.

Additional Information

Browsing Individual Modules

You can view the modules on a server using the Browse button associated with the Attached To field on the Query, Add, and Edit note panels.

Click on the module name in the Contents of Public Modules page to view the contents of the module: For example, in the following example, clicking `Modules>Cars/Honda` shows the contents of the module `Honda` under the category of `Cars`: If you select the module `Cars/Honda` before clicking the Browse button, the module content page opens when you click the browse button.

Contents of Module Honda

Local Server ⏩ Modules ⏩ Cars/Honda

Object Name	Id	Type	Data Sheet	Select
Cars/Honda;1	1	Module Branch		☑
Cars/Honda;B01:	1.2.1	Module Branch		☑
Cars/Honda;TAG01:	1	Module Branch		☑
Cars/Honda;TAG02	1.1	Module Version		☑
Cars/Honda;TAG03	1.2	Module Branch Point Version		☑
Cars/Honda;Trunk:	1	Module Branch		☑

Note: Only tagged module branch, module version and branch point versions appear in the module content page.

The Contents Table

The table displays:

- **Object Name** - The name of every tagged module branch and module version. Branches or versions with more than one tags have multiple rows, one row per tag.
- **Id** - The branch or version id of the module.
- **Type** - The type can be a module branch, version or a branch point version depending on whether the tagged object is a module branch, a source version for module branches, or a non-branch point version.
- **Data Sheet** - A link to the data sheet for the object. Click on the icon to get information on an object's URL, branch location, note attachments, and configurations.

- **Select** - Clicking on the checkbox icon in the **Select** column transfers an module's URL to a panel's type-in field. If you select a module on a remote server, the URL is not transferred automatically to the ProjectSync panel. You need to copy and paste the URL from a pop-up window that appears once you click on the object name.

Viewing contents of Module Branch

Clicking on a module branch hyperlink in the **Contents of Module** page to view the module versions and module branch point versions on that branch. For example, if you click the `Cars/Honda;Trunk`, in the previous example, you get the **Contents of the Module Branch** for that module:

Local Server ⏩ Modules ⏩ Cars/Honda ⏩ Cars/Honda;Trunk:

Object Name	Type	Data Sheet	Select	Tags
Cars/Honda;1.1	Module Version		☑	TAG02
Cars/Honda;1.2	Module Branch Point Version		☑	TAG03

The **Tags** column lists the module tags associated with the object listed in the row.

Viewing contents of Module Branch Point Version

Click on a module branch point version hyperlink in the Contents of Module page to view the contents of the module branch point version. For example, if you click the Cars/Honda;TAG03, you get the Contents of the Module Branch Point Version for that module:

Contents of Module Branch Point Version Honda;TAG03

Local Server ⏩ Modules ⏩ Cars/Honda ⏩ Cars/Honda;TAG03

Object Name	Type	Data Sheet	Select	Tags
Cars/Honda;1.2.1	Module Branch		☑	B01 :

Clicking on the module branch point version brings up a list of the module branches originating from the module version. For example, clicking on `Cars/Honda;1.2.1`.

Local Server ⏩ Modules ⏩ Cars/Honda ⏩ Cars/Honda;1.2.1

Object Name	Type	Data Sheet	Select	Tags
Cars/Honda;1.2.1.1	Module Version		☑	

Related Topics

Using the Project Browser

Viewing Workspace Module Data Sheet

To view the Data Sheet of a workspace Module:

1. Select the workspace module.
2. Right click and select Data Sheet from the list of options. The Data Sheet looks like this:

Data Sheet for Folder Example

URL - file:///home/tachatterjee/Example

Attached Notes

There are no notes attached directly to this object.

Contents

Name	Type	Module Instance
file:///home/tachatterjee/Example/Chips	Folder	
file:///home/tachatterjee/Example/NorthIndian	Folder	
file:///home/tachatterjee/Example/Thai1.txt	File	Thai%0
file:///home/tachatterjee/Example/Thai2.txt	File	Thai%0

The Contents Table

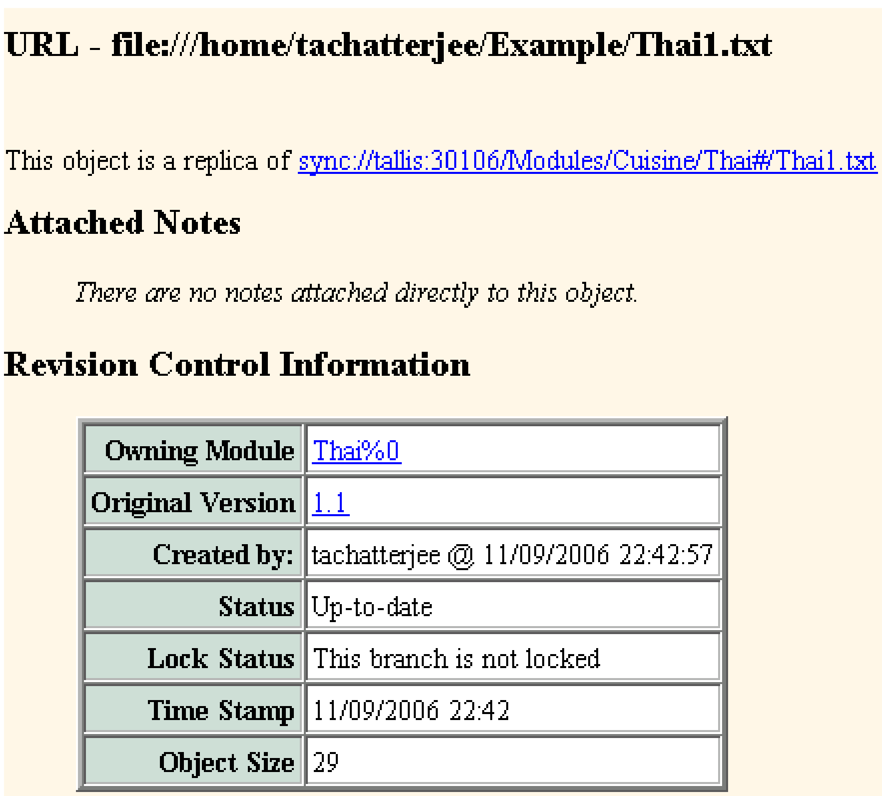
The table displays:

- **Name** - The name of the module members in the workspace. Click on an object name to view the Data Sheet for that file or folder.
- **Type** - The type of object (file, folder).

- **Module Instance** - The name of the module to which the module member belongs to. The instance name is a unique name automatically assigned to a module when fetched into a workspace for the first time.

Viewing Module Member Data Sheet

Click on the module member hyperlink in the Name column to go to the Data Sheet for that member. In the previous example, if you click on module member `file://home/tachatterjee/Examples/Thai/Thai1.txt`. you get the Data Sheet for file `Thai1.txt`:



URL - file:///home/tachatterjee/Example/Thai1.txt

This object is a replica of sync://tallis:30106/Modules/Cuisine/Thai#/Thai1.txt

Attached Notes

There are no notes attached directly to this object.

Revision Control Information

Owning Module	Thai%0
Original Version	1.1
Created by:	tachatterjee @ 11/09/2006 22:42:57
Status	Up-to-date
Lock Status	This branch is not locked
Time Stamp	11/09/2006 22:42
Object Size	29

The Revision Control Information for module member files is similar to that diaplyed in workspace file Data Sheets. However, module member Data Sheets have an additional **Owning Module** information (the module to which the member belongs to).

Related Topics

Using Workspace Data Sheets

Viewing File Data Sheet

Viewing File Data Sheet

To view the Data Sheet of a file:

1. Select the file.
2. Right click and select Data Sheet from the list of options. The Data Sheet looks like this:

Data Sheet for File Chips1.txt

URL – file:///home/tachatterjee/Example/Chips/Chips1.txt

This object is a replica of sync://tallis:30106/Projects/Chips/Chips1.txt;1.1

Attached Notes

There are no notes attached directly to this object.

Revision Control Information

Original Version	1.1
Created by:	tachatterjee @ 11/10/2006 10:13:18
Status	Up-to-date
Version Selector	Trunk
Lock Status	This branch is not locked
Time Stamp	11/10/2006 10:13
Object Size	29
Revision Control Vault	sync://tallis:30106/Projects/Chips/Chips1.txt;
Revision Control Branch	sync://tallis:30106/Projects/Chips/Chips1.txt;1
Version Tags	Latest
Branch Tags	Trunk
Local Log Message	
Original Version's Log	

You can also go to the Data Sheet menu and click Show in Browser option.

Viewing Folder Data Sheet

To view the Data Sheet of a file:

1. Select the folder.
2. Right click and select Data Sheet from the list of options. The Data Sheet looks like this:

Data Sheet for Folder Chips

URL - file:///home/tachatterjee/Example/Chips

Attached Notes

There are no notes attached directly to this object.

Contents

Name	Type
file:///home/tachatterjee/Example/Chips/Chips1.txt	File

Related Topics

Using Workspace Data Sheets

Viewing Workspace Module Data Sheet

The CPU Team Subscribes to Email on a Hierarchy

The CPU design is nearing its tape out date; any problem with the design at this point must be scrutinized. Design work is focused on the CPU@C21 module configuration, which contains the CPU module hierarchy. As CPU team leader, Robert wants to know when a defect is filed against any part of the CPU@C21 configuration, including its submodules. To be notified of these defects, Robert uses ProjectSync's **Advanced Subscription** panel to subscribe for email about defects logged against the CPU module hierarchy. This type of subscription is called a **hierarchical subscription**.

Note: This scenario assumes that:

- Robert has valid login accounts on all SyncServers with which the hierarchical subscription will communicate. For example, if Robert subscribes for notes on a module and all its submodules, he must have a login account on each submodule server.
- Robert or the DesignSync administrator has mapped note types to ensure that hierarchical subscriptions to notes used on the cpu server include notes on submodule servers using different note types. This note type mapping must be

done before performing hierarchical subscriptions or hierarchical queries. See Mapping Note Types for more information.

To subscribe for email notification:

1. In his browser, Robert enters the URL of the ProjectSync server for the CPU module (the same as the CPU development server).
2. From the User Profiles menu, he selects **Email Subscriptions** and then clicks **Advanced Subscriptions**. ProjectSync displays the **Add New Subscriptions for ...** panel.

   Note: Hierarchical subscriptions (subscriptions to email about a module hierarchy) can be done only through the **Advanced Subscriptions** panel.

3. In the Advanced Subscriptions part of the panel, Robert selects **SyncDefect** from the Note Type pull-down menu.
4. Robert wants to receive email about all defects logged against the CPU@C21 module configuration, so he does not enter any value in the **Property Filter** field.

   ProjectSync filters out, or excludes, items from email notification based on values specified in this field. For example, if Robert wanted to receive email notification only for CPU module defects with stopper priority, he could specify that property value in this field. (For information on specifying values in this field, you can view ProjectSync help information by clicking the **Help** button next to the **Property Filter** field.)

5. From the **Object Filter** pull-down menu, Robert selects CPU. ProjectSync displays the URL `sync:///Projects/CPU` in the **Object Filter** field.

   Note: The CPU module is displayed below `/Projects` because it is a ProjectSync object. (ProjectSync displays all ProjectSync objects below `/Projects`.)

6. To the `sync:///Projects/CPU` URL, Robert appends the configuration name as `@C21`.

   Robert can also browse to find the configuration he wants by selecting **Browse...** from the **Object Filter** pull-down menu. This action displays the Browse Server window, from which he can navigate ProjectSync projects, selecting projects or configurations. If Robert has already selected a project (as he did in step 5), the browser is positioned at that project, displaying its configurations for selection.

7. Since Robert wants to be notified of defects not only on the upper-level CPU module but also all of its submodules, he selects **This object and all levels below** from the **Scope** field.
8. When he has completed his subscriptions, Robert clicks **Submit**.

ProjectSync sets up the email subscription and displays the Success panel. The panel lists the email subscription for the SyncDefect note type on CPU@C21 and subscriptions added for referenced submodules.

Note: Email subscriptions do not apply to referenced IP Gear deliverables. However, IP Gear users can subscribe to information related to deliverables on the IP Gear server.

Robert Deletes an Email Subscription

Robert is taking an extended vacation and does not want to receive email about the CPU@C21 configuration while he is away.

To delete the email subscriptions to the CPU module and all its submodules, Robert again selects **Email Subscriptions**. The panel lists all of his subscriptions, including the CPU@C21 configuration. Robert clicks **Delete** for CPU@C21. Then he clicks **Submit** to have the change take effect. ProjectSync deletes his subscription to not only CPU@C21 but also its submodules, their submodules, and so on down the module hierarchy.

Robert Subscribes to RevisionControl Notes on HCM Operations

During design development, module hierarchies can change as submodules are added and removed or aliases are changed. HCM users, particularly module owners such as project leaders, need to know of such changes so they can update their module configurations or determine the effects of the changes on their work areas. To receive notification of such changes, they can use ProjectSync to subscribe to email notification of RevisionControl notes for HCM commands.

For example, suppose the CPU@C21 module configuration has a hierarchical reference to the submodule ALU@CTO19. Robert, the CPU team leader, wants to know of configuration changes at all levels in the CPU@C21 hierarchy. Using ProjectSync, he subscribes to email notification of RevisionControl notes for **hcm rmconf** and **hcm mkconf** operations on the CPU@C21 configuration and all submodules below it in the hierarchy.

Note: These steps assume that Robert or the DesignSync administrator has set up email notification of HCM Revision Control notes on the alu server. For information, see *DesignSync Data Manager Administrator's Guide*: Setting Up Notification of Module RevisionControl Notes.

1. Robert follows the steps for subscribing for email notification, clicking **Advanced Subscriptions**.
2. At the **Add New Subscriptions for...** panel, for **Note Type**, he chooses **RevisionControl**.
3. For **Property Filter**, he types the string `Tag=` and the HCM command for which he wants notification. For example, `Tag=rmconf`.

Using this string causes ProjectSync to send email only for RevisionControl notes for the **hcm rmconf** operation and no others.

4. From the **Object Filter** pull-down menu, Robert selects CPU. ProjectSync displays the URL `sync:///Projects/CPU` in the **Object Filter** field.
5. To the `sync:///Projects/CPU` URL, Robert appends the configuration name as `@C21`.

   Robert can also browse to find the configuration he wants by selecting **Browse...** from the **Object Filter** pull-down menu. This action displays the Browse Server window, from which he can navigate ProjectSync projects, selecting projects or configurations. If Robert has already selected a project (as he did in step 4), the browser is positioned at that project, displaying its configurations for selection.

6. In the **Scope** field, he selects **This object and all levels below**.
7. He clicks **Submit** to have the subscription take effect.

   ProjectSync sets up the email subscription and displays the Success panel. The panel lists the email subscription for the RevisionControl note type on CPU@C21 and subscriptions added for referenced submodules.

8. Robert repeats the steps, this time subscribing to email notification of RevisionControl notes for **hcm mkconf** operation on the CPU@C21 configuration.

A few weeks later, when the ALU team removes the ALU@CTO19 configuration from the alu server, Robert receives email notification of the operation. He can then remove the CPU module's reference to the ALU@CTO19 module and, if appropriate, replace it with another reference.

Robert Updates Email Subscriptions

Module hierarchies can change after a user has subscribed for email notifications. For example, suppose that the CPU module has a hierarchical reference to the submodule ALU@GOLDEN and that ALU@GOLDEN is an alias pointing to the ALU@R1 release. As development progresses, the ALU team creates a new release and then changes the ALU@GOLDEN alias to point to a different release, ALU@R2.

Or suppose that Robert (the CPU team leader) subscribes for email notification of defects on the CPU@C21 configuration and all of its submodules (a hierarchical subscription). Then some time later, one of the ALU submodule's hierarchical references changes from FPU@R1 to FPU@R2.

In each case, Robert must manually update his email subscriptions to reflect the change.

Manual Update of Email Subscriptions When an Alias Changes

To manage subscriptions when aliases change, Robert takes the following steps.

1. If he has not done so, Robert uses ProjectSync to subscribe to RevisionControl notes for the **hcm mkalias** operation. Taking this action ensures that he will always be notified when an alias changes. For information, see Robert Subscribes to RevisionControl Notes on HCM Operations.
2. When he receives email that an **hcm mkalias** operation has taken place on the ALU@GOLDEN object, Robert uses ProjectSync to delete his subscription to the release to which ALU@GOLDEN previously pointed (in this case ALU@R1). (The email generated from an **hcm mkalias** command includes both the old and the new alias.)
3. Robert then subscribes for email on the ALU@GOLDEN alias again. The subscription now includes notes for the ALU@R2 submodule, to which the ALU@GOLDEN alias currently points.

Manual Update of Email Subscriptions When a Hierarchical Reference Changes

To manage subscriptions when hierarchical references change, Robert takes the following steps.

1. If he has not done so, Robert uses ProjectSync to subscribe to RevisionControl notes for the **hcm addhref** and **hcm rmhref** operations. Taking this action ensures that he will always be notified when a hierarchical reference changes. For information, see *DesignSync Data Manager Administrator's Guide*: Setting Up Email Notification of Module RevisionControl Notes.
2. Robert receives email notifications that an **hcm rmhref** removed ALU@C1's reference to FPU@R1 and a subsequent **hcm addhref** added a reference to FPU@R2. Robert resubscribes for notes on the CPU@C21 module hierarchy (a hierarchical subscription). After Robert resubscribes for notes on the CPU@C21, the subscription includes notes for the FPU@R2 submodule.

   Notes:

   - The email notification generated from the **hcm rmhref** and **hcm addhref** operations includes the previous and current hierarchical references.
   - Although resubscribing to the CPU@C21 module hierarchy includes a subscription to notes on the new FPU@R2 submodule, it does not delete subscriptions to notes on submodules that the hierarchy no longer references (for example, FPU@R1). Robert must manually delete this subscription.

Data Sheets for Module Branch

The data sheet for a module branch lists all of the Note Types attached to that particular branch of the module as well as the revision control history for that branch.

To access the data sheet for a module branch, click the branch ID for the module listed in the module data sheet page. The data sheet for the module branch appears, with the DesignSync URL of the branch listed at the top. For example, if your module branch is `zen.mycompany.com:2647/Modules/Vehicles/Trucks;1`, the data sheet shows the URL as `sync://zen.mycompany.com:2647/Modules/Vehicles/Trucks;1`.

The data sheet includes the following tables:

- **Attached Notes** - A hyperlinked list of the note types (Note, SyncDefect) attached to the module. You can click a note type name to go to the Query Notes Panel (see Constructing Standard Queries) where you can search the notes attached to the module.

  If RevisionControl notes generation is enabled, the list includes RevisionControl notes, which keep track of the revision control operations performed for the project.

  When you click on a Note Type the **Attached To** field in the query page that opens is automatically filled in with the module url.
- **Revision History** - A listing of the different versions of the branch.

The **Name** column lists the module path for each module version. The path is appended with the version number.

The **Version Tags** column lists all version tags attached to each module version.

The **Descendants** column lists the branches made from that module version.

The **Checkin Comment** column lists the comments entered during checkin of each module version.

Name	Version Tags	Descendants	Checkin Comment
FirstModule;1.1			First Version
FirstModule;1.2			Checking in new items.
FirstModule;1.3	Silver		Checking in new items.

Click on a hyperlinked module version name to go to the data sheet for that module version. See Data Sheets for Module Versions for details.

Related Topics

Displaying Data Sheets

Data Sheets for Module Versions

The data sheet for a module version lists all of the Note Types attached to that particular version of the module as well as details of the version.

To access the data sheet for a module version, click the name of the version listed in the Revision History table of the module branch data sheet page. The data sheet for the module version appears, with the DesignSync URL of the branch listed at the top. For example, if your module version is `zen.mycompany.com:2647/Modules/Vehicles/Trucks;1.3`, the data sheet shows the URL as `sync://zen.mycompany.com:2647/Modules/Vehicles/Trucks;1.3`.

The data sheet includes the following tables:

- **Attached Notes** - A hyperlinked list of the note types (Note, SyncDefect) attached to the module. You can click a note type name to go to the Query Notes Panel (see Constructing Standard Queries) where you can search the notes attached to the module.

  If RevisionControl notes generation is enabled, the list includes RevisionControl notes, which keep track of the revision control operations performed for the project.

  When you click on a Note Type the **Attached To** field in the query page that opens is automatically filled in with the module url.
- **Version Info** - A listing of the details related to the version including the user ID of the person who created the version, the date/time the version was created, the comment entered when the version was created, and a list of the tags associated with the version.

Checked in by	tachatterjee
Checked in on	2006-11-01 13:51:52
Comment	First Version
Tags	
- **View and navigate module member folder hierarchy and hrefs** - A hyperlink that expands when clicked to show the module member versions and hierarchical references that make up the module version. The module members are displayed as they appear in the directory structure of the module. When you initially open the table, you see the members and directories at the module base

level. The directories within the table are active links that jump to the member listing for the selected subdirectory. Using this method, you can traverse the entire directory structure of the module to view the contents directory-by-directory.

Click on the columns in the following illustration for information.

Jump to the Hierarchical References

Contents of Directory /

Name	Size	View	Download
chip.c;1.2	33		
chip.h;1.2	43		
chip.txt;1.1	40		
doc/			

A second table lists the hierarchical references of the module version.

Name	Relative Path	Target	Static ID
ALU	ALU	sync:///Modules/ALU;v1.1	1.1
Chip	Chip	sync:///Modules/Chip;v1.1	1.1

- **View full list of all module members and hrefs (slower)** A hyperlink that expands when clicked to show all the module member versions and hierarchical references that make up the module version in a flat table. This may take longer to load than the previous option which queries the server only for the contents of a specified directory.

Click on the columns in the following illustration for information.

A second table lists the hierarchical references of the module version.

Name	Relative Path	Target	Static ID
ALU	ALU	sync:///Modules/ALU;v1.1	1.1
Chip	Chip	sync:///Modules/Chip;v1.1	1.1

About the module members and hrefs display

Module Member Fields

Jump to the Hierarchical References

Provides a quick navigation link to move you to the second table containing the hierarchical reference links.

Name

Shows the version-extended name of the module member; including natural path and version.

Size

Size of the module member in bytes.

View

If the file is a text file, you can click the icon to open the file in a File Contents view page in the web browser. The File Contents page contains the full sync URL of the file, a download link, and the file contents as selectable text.

If the file is a binary file, the icon displayed is an X indicating it cannot be viewed directly in the web browser.

Download

Link to download the specific version of the module member.

Hierarchical Reference Fields

Name

Shows the name of the hierarchical reference. This name is unique within the module.

Relative Path

Indicates the relative path of the referenced object from the module version

Target

Contains the url of the referenced object, a column identifying the type of the referenced object (module, legacy module, IP Gear deliverable, etc.) The url is hyperlinked to the data sheet of the referenced object.

Static ID

Displays the ID or version of the target module when the href is resolved in static mode. Thus if the target was specified with a dynamic selector, like `Trunk;Latest`, static mode would tell you the version at the time the href was created, whereas dynamic mode would point to what the href resolves to currently (it may have a more recent version).

Related Topics

Displaying Data Sheets

Using Module Data Sheets

Data Sheets for Module Branch

Note Types With States

States indicate the status of the note during its lifecycle. A state transitions to another state when specified changes occur. For example, when a SyncDefect is first created it is in the new state; when someone fixes the defect, it moves to the verification state; when the fix is verified as working correctly, the SyncDefect moves to the closed state.

A note type has a limited number of states and these states can transition only to a limited number of specified states. For example, a SyncDefect can transition from new to verification, but not from new to closed.

For each note type with a state, the Add New Subscription(s) for... panel displays a table with two columns: **Condition** and **Value**. A type-in field lets you select the project elements that you want to add a subscription for. These parts of the tables are discussed in the following sections. Each table also includes the following buttons:

- **Subscribe** - Adds a subscription for the type of note and the project(s) or project element(s) listed in the table. ProjectSync sends email notifications whenever the conditions set in the table are met.
- **Reset** - Returns the table settings to the defaults.

Subscription Conditions

In the **Condition** column of each table, select one of the following:

- **Only on transitions to state** - ProjectSync sends email only when the note changes to one of the states specified in the Value column.
- **All changes while in state** - ProjectSync sends email every time the note changes while it is in one of the states specified in the Value column.

Subscription Values

In the **Value** column of each table, you can select the states for which you or the selected user receives email (as directed by the **Condition** setting). Each note type has its own states.

By default, all states are selected. Deselect the checkbox(es) for any state for which you do not want to generate email notifications.

Subscription Objects

In the type-in field at the bottom of the note type table, enter the URL for a project or project element to create a subscription for that object.

The pull-down menu lets you select project(s) to enter in the type-in field. The pull-down menu gives you the following choices:

- Select **ALL** to generate email notifications for notes of this type on all projects on the server. This setting is the default.
- Select **Browse** to pop up the Browse Server window (see Using the Project Browser).
- The browser lets you navigate a list of all objects on the server and transfer an object's URL to the type-in field. You can select multiple objects.
- Select one or more top-level project names to subscribe for notes of this type for the project(s). Note that your subscription will apply not only to the object you select but also to lower-level objects within the same hierarchy. If you want the subscription to apply only to a single object, type a forward slash (/) at the end of the object's url. For example, `sync:///Projects/MyProj/`.

You also can enter the URL manually, for example:

```
sync:///Projects/smallLib
```

In this example, `sync:///` is a shorthand for the host and port of the local server. When entering multiple URLs, type each on a separate line. If a subscription does not begin with `sync://`, it is assumed to come from `sync:///Projects`.

You can use wildcard pattern matching (`?` for any single character; `*` for any characters following the expression) to subscribe for email on notes attached to particular types of files. For example, you could subscribe to email notification for notes attached to a portion of a design tree or to a DesignSync vault object.

For example, to subscribe for email on notes attached to all `.v` files in the `MyProj` directory, enter:

```
sync:///Projects/MyProj/*.v
```

To match `a.v`, `b.v`, or `c.v` files in the same directory:

```
sync:///Projects/MyProj/[a-c].v
```

You also can use regular expression pattern matching by typing `rgxp:` at the start of your URL. For example:

```
rgxp:sync:///Projects/MyProj.*.v
```

If the URL does not begin with rgxp:, it is assumed to be a glob style pattern and is passed through a glob-to-regexp expression converter. You cannot mix rgxp and glob styles in a single object declaration.

Related Topics

Adding Email Subscriptions

RevisionControl Note Type

Index