SmartPlant Fusion

Reviewer's Guide

Version 2016 R1 (4.1)

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PART OF HEXAGON

INTERGRAPH®

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Contents

Preface

This document is the user's guide for the SmartPlant® Fusion Quality Control module. This document provides information and procedural instructions to the Reviewer for using the SmartPlant Fusion Quality Control module.

SmartPlant Fusion Product Documentation

SmartPlant Fusion documentation is available as Help and as Adobe® PDF files. To view printable guides for SmartPlant Fusion, click **Help** > **Printable Guides** in the software.

Intergraph gives its customers permission to print as many copies of the delivered PDF files as they need for their non-commercial use. Do not print the PDF files for resale or redistribution.

Installation and Overviews

- *SmartPlant Fusion Release Bulletin* - Provides information on the SmartPlant Fusion features for the current release.
- *SmartPlant Fusion Installation and Configuration Guide* – Provides installation, set up, and configuration information. It also provides information about troubleshooting the software.
- *SmartPlant Fusion Getting Started Guide* - Provides overview information to help users start working in SmartPlant Fusion.

Administrative Guide

- *SmartPlant Fusion Administrator's Guide* - Provides information such as general conceptual information, procedures, and vocabulary necessary to use the SmartPlant Fusion Data Capture Administration module.

User's Guides

- *SmartPlant Fusion Reviewer's Guide* - Provides information such as general conceptual information, procedures, and vocabulary necessary for the reviewer to use the SmartPlant Fusion Quality Control module.
- *SmartPlant Fusion Document Controller's Guide* - Provides information such as general conceptual information, procedures, and vocabulary necessary for the document controller to use the SmartPlant Fusion commands available in the SmartPlant Foundation Desktop Client and SmartPlant Fusion Data Capture Task Manager module.
- *SmartPlant Fusion Viewer's Guide* - Provides information such as general conceptual information, procedures, and vocabulary necessary for the viewer to use the SmartPlant Fusion commands and functionality available in the SmartPlant Fusion Data Capture Task Manager module, SmartPlant Fusion Web Portal and SmartPlant Foundation Desktop Client.
- *SmartPlant Fusion Pre-Processor Utility Guide* – Provides information such as general conceptual information, procedures, and vocabulary necessary for the administrator and document controller to use the SmartPlant Fusion commands available in the SmartPlant Fusion Pre-Processor Utilities module.

Customer Support

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SECTION 1

What's New in the SmartPlant Fusion Quality Control Module?

Version 2016 R1

- You can now use the GraphicsMap file for hotspotting in the Document Workbench if you have already created an alternate rendition for that file in the **Central Settings** module. For more information, see *View relationships in the Document Workbench* (on page 18). (CR-AM-96801)
- When you select a single document to view in the document workbench, then the **Documents** pane is not displayed in the **Document Workbench** page. For more information, see *View relationships in the Document Workbench* (on page 18). (CR-AM-93767)
- You can now search for scattered text in the **Document Workbench** page. For more information, see *Create Document Tag relationship* (on page 20). (CR-AM-96822)

Version 2016

- You can now view the full file path when comparing files attached to a duplicate document in the Resolve Duplicate Documents module. You can also set the status of a file to **Historical**, **Master** or **Ignore**. For more information, see *Browse duplicates in thumbnail view* (on page 24). (CR-AM-91963)
- The document title is now included in the list view that displays document search results in the Resolve Reference Files and Resolve Relationships module. For more information, see *View relationships in the Document Workbench* (on page 18) and *Create Document Tag relationship* (on page 20). (CR-AM-91259, CR-AM-91874, CR-AM-92263)
- You can now generate the Fusion Quality Control Document Report in the Resolve Relationships module to view the details on relationship mismatches and on missing document attributes and relationships. For more information, see *Generate a quality control document report* (on page 17). (CR-AM-91650)
- You can now search for and classify non-classified tags using the Tag Maintenance module. For more information, see *Classify tags* (on page 31). (CR-AM-89052)
- Now you can run the **Create Documents From Reference Files** command to resolve duplicates resulting from different files sharing the same name with a master-reference file relationship. For more information, see *Create documents from reference files* (on page 26). (CR-AM-89603)
- A multi-level tree structure is now shown in the SmartPlant Fusion Quality Control module for configurable items and PBS structure. For more information, see *SmartPlant Fusion Quality Control* (on page 11).(CR-AM-91963)
- Now you can create a relationship between a document and a tag in the Document Workbench page by adding a new tag to the document. You can also classify and locate the new tags using the viewing commands (zoom, fit and pan). For more information, see *View*

relationships in the Document Workbench (on page 18) and *Create Document Tag relationship* (on page 20). (CR-AM-91259, CR-AM-91874, CR-AM-92263)

- For more information, see *SmartPlant Fusion Quality Control* (on page 11). (CR-AM-91650)

Version 2015

- In the SmartPlant Fusion Quality Control module, you can use the Relationship Dashboard and Resolve Relationships sub-modules to manage the document relationships and classify the documents correctly. You can view the documents and their relationships to the organizational items existing in the SmartPlant Fusion database. You can drag selected documents onto an organizational item node to create a relationship with that item. You can also delete incorrect document relationships. For more information, see *SmartPlant Fusion Quality Control* (on page 11). (CR-AM-78661)
- You can view the associated reference files for a master file and resolve the reference file relationships. If there are duplicate copies of a reference file in the SmartPlant Fusion database, the application allows you to select the appropriate reference file. For more information, see *Resolve Reference Files* (on page 28). (CR-AM-82094, CR-AM-82906)
- In the Tag Maintenance sub-module, you can search for and delete master tags and alias tags that are not related to documents (orphan tags). You can select the **Include non-orphan tags** option to view all the master and alias tags available in the SmartPlant Fusion database. For more information, see *Tag Maintenance* (on page 30). (CR-AM-82267)
- In the SmartPlant Fusion Quality Control module and SmartPlant Fusion Operations module, you can click on the file name hyperlink to view attached files using the native application of the file, based on its file extension. For example, using this command, you can open an attached Microsoft Word (.doc) file in Microsoft Word. For more information, see *View duplicate documents* (on page 22). (CR-AM-82279)
- In the **To Do List** page of the SmartPlant Fusion Operations module, you can select one or more files attached to a duplicate document and move the selected files to a new or existing document. For more information, see *Move files to a new or existing document* (on page 23). (CR-AM-81485)
- In the **To Do List** page of the SmartPlant Fusion Operations module, you can use the **Group Files** option to compare the files attached to the duplicate document and categorize them into groups depending on the binary content of the file. For more information, see *Set the resolve status for the files* (on page 22). (CR-AM-80019)

Version 2014

- In the Fusion Operations module, you can view all the duplicate documents that exist in the SmartPlant Fusion database. You can select a duplicate document to view the files attached to it. You can resolve the status for each file attached to a document and identify the master file for further processing. For more information, see *Resolve Duplicates* (on page 21).
- You can view thumbnail images for drawing files, image files, and document files that are attached to the selected duplicate documents. The thumbnails offer a quick view of the content files without opening the file in a viewer. For more information, see *Browse duplicates in thumbnail view* (on page 24).
- You can compare two files at a time side-by-side in the **Compare Files** window. This functionality is powered by Brava!. For more information, see *Compare duplicate files* (on page 25).

- You can assign a status to each file and identify the master, and then you can approve the document for further processing like tag extraction. For more information, see *Send for approval* (on page 27).

SECTION 2

SmartPlant Fusion Quality Control

The SmartPlant Fusion Quality Control module is used by the reviewer to correct any incorrect relationships existing between processed documents and the organization items like discipline, plant, and document type. As a reviewer, you can approve the documents once you have corrected all the relationships.

IMPORTANT Only administrators and reviewers can access this module.

The SmartPlant Fusion Quality Control module allows you to do the following:

- Compare the duplicate files attached to different documents and set a resolve status for each file
- View the relationships of the processed documents with the organizational objects existing in the database
- View the documents and the document relationships in a list view
- View the thumbnails for documents
- View the reference file status and to resolve the reference relationships.
- View all master and alias tags that are not related to documents (orphan tags).
- Update the document relationships with the existing objects in the database
- Approve the documents with correct relationships

NOTES

- Thumbnail view displays the documents filtered according to the organizational item that you select in the **Discover** pane.
- You can search for the approved documents in the Resolve Relationship module.

S E C T I O N 3

Relationship Dashboard

The Relationship Dashboard module allows you to view the thumbnails for the processed documents. The thumbnail view is dependent on the object selected in the **Discover** pane.

What do you want to do?

- *View document thumbnails* (on page 12)
- *Update relationships for selected thumbnails* (on page 13)
- *Manage relationships for selected thumbnails* (on page 13)
- *View the master file* (on page 14)

View document thumbnails

1. Log on to **SmartPlant Dashboard**.
2. Click **Fusion Quality Control**.
3. Click **Relationship Dashboard** to view the related objects displayed as tree view nodes in the **Discover** pane.

   NOTE By default, **Document Type** is selected in the **Discover** pane.

4. Type the name of the document that you want to search in the right pane.

   TIP You can type the entire name, part of the name, a wildcard (%, *, or ?), or a combination of the name and wildcard (for example, n%).

5. Click **Search** . The thumbnails are displayed for the documents that match the search criteria and are related to the object selected in the **Discover** pane.

NOTE You can customize the icons for the Tree view nodes in the **Discover** pane by adding the corresponding GIF files in the <*drive*>:\SmartPlant Foundation 2014 Server Files\Web_Sites\<site_name>\Icons folder. The file name of the GIF file should match the display name of the Tree view node object. For example, you can replace the Discipline.gif with a new image file of the same name to view it in the tree view for Discipline.

Update relationships for selected thumbnails

1. In the **Relationship Dashboard** page, select one or more thumbnails from the right pane.
2. Drag and drop the selected thumbnails onto one of the nodes in the Tree view to relate the documents to the object represented on that node.
3. Click **Save** to save the relationship updates.

NOTES

- A number bubble next to any node in the tree view indicates the number of documents for which the relationship has been created with the object represented in that node.
- If the cardinality is set to max = *, then the relationship is always created.

Manage relationships for selected thumbnails

1. The **Relationship Dashboard** page, select one or more thumbnails from the search results displayed in the list view.
2. Click **Relationship Details** to view the document relationship details for the selected documents. The document is represented as a circle at the center and the objects that are related to the documents are represented as circles around the document.
3. Select one or more circles, the objects related to the document, and click **Delete** to delete the relationship between the selected object and the document. The color of the circle representing the object changes to reflect the relationship deletion as set in the **Resolve Relationship Color Status** page.
4. Drag and drop the circle representing the document onto one of the nodes in the Tree view to relate the documents to the object represented on that node. The color of the circle representing the modified object or newly related object changes to reflect the updated relationship status as set in the **Resolve Relationship Color Status** page.
5. Click **Approve Relationships** to approve the document relationships and save the changes. Or, click **Save** to save the relationship modification.

NOTES

- You can click **View File** link below the thumbnail in the right pane to view the master file attached to the selected document.
- In the **Associated Relationships Attributes** section, you can view the document attributes for the document. The color of the text for an attribute represents the relationship status for the objects as set in the **Resolve Relationship Color Status** page.
- The **Relationships Approved** check box indicates whether the document is approved for document relationships or not.
- If the cardinality is set to max = *, then the relationship is always created.

View the master file

- In the **Relationship Dashboard** page, click on the file name on the thumbnail to view attached files using the native application of the file, based on its file extension. For example, you can open an attached Microsoft Word (.doc) file in Microsoft Word.

SECTION 4

Resolve Relationships

When documents are successfully processed with the content discovery task, they are related to the existing objects in the database. The document may get related to incorrect organizational items and these relationships may need to be changed.

The Resolve Relationships module allows you to review the documents and their relationships with other database objects. It also allows you to create, update, and delete the documents relationships and approve the document relationships.

What do you want to do?

Search processed documents

1. Log on to **SmartPlant Dashboard**.
2. Click **Fusion Quality Control > Resolve Relationships.**
3. Type the name of the document that you want to search.

   TIP You can type the entire name, part of the name, a wildcard character (%, *, or ?), or a combination of the name and wildcard character (for example, n%).

4. Click **Search** .

NOTES

- Select the **Include documents with approved relationships in the search results** option if you want to include the documents that have approved document relationships in the search results.
- The **Document Name**, **Document Title**, and **Relationships Approved** columns are locked and always on top.
- A tick mark in the **Relationships Approved** column indicates that the document is already approved.

Filtering the objects in the list view

1. To filter the results based on a specific value in any of the columns, click **Filter** at the top of that column.
2. Select the property or properties to display the items based on the criteria in the item list.

   NOTE You can further refine the results by selecting a condition value, such as **Is equal to** or **Starts with**.
3. Click **Filter** to display the filtered results automatically in the item list.

TIP By filtering on several properties, you can refine the results to get to a specific set of data.

Modify relationships for selected documents

1. In the **Discover** pane of the **Resolve Relationships** page, select a top node from the drop down list to view the objects related to it in a tree view.
2. Select one or more documents from the search results displayed in the list view.
3. Drag and drop the selected documents onto one of the nodes in the Tree view to relate the documents to the object represented on that node and click **Save**.

NOTES

- The icon represents relationship updates for the documents and on the tooltip you can see the updated relationships.
- A number bubble next to any node in the tree view indicates the number of documents for which the relationship has been created with the object represented in that node.
- Documents from the right pane can only be dropped on to the items that are defined in the document naming system.

Manage relationships for documents

1. In the **Resolve Relationship** page, select one or more documents from the search results displayed in the list view.
2. Click **Relationship Details** to view the document relationship details for the selected documents. The document is represented as a circle at the center and the objects that are related to the documents are represented as circles around the document.
3. Select one or more circles, the objects related to the document, and click **Delete** to delete the relationship between the selected object and the document. The color of the circle representing the object changes to reflect the relationship deletion as set in the **Resolve Relationship Color Status** page.
4. Drag and drop the circle representing the document onto one of the nodes in the Tree view to relate the documents to the object represented on that node. The color of the circle representing the modified object or newly related object changes to reflect the updated relationship status as set in the **Resolve Relationship Color Status** page.

5. Click **Approve Relationships** to approve the document relationships and save the changes. Or, click **Save** to save the relationship modification.

NOTES

- You can click **View File** link below the thumbnail in the right pane to view the master file attached to the selected document.
- In the **Associated Relationships Attributes** section, you can view the document attributes for the document. The color of the text for an attribute represents the relationship status for the objects as set in the **Resolve Relationship Color Status** page.
- The **Relationships Approved** check box indicates whether the document is approved for document relationships or not.
- If the cardinality is set to max = *, then the relationship is always created.

View the master file

- In the **Resolve Relationships** page, click on the file name to view attached files using the native application of the file, based on its file extension. For example, you can open an attached Microsoft Word (.doc) file in Microsoft Word.

Approve relationships

1. In the **Resolve Relationship** page, select one or more documents from the search results displayed in the list view.
2. Click **Approve Relationships** to save the relationship updates and approve the documents.

Generate a quality control document report

The **SmartPlant Fusion Quality Control** document report provides the details of:

- Missing document attributes
- Missing document relationships
- Document attributes
- Document relationship mismatches

Perform the following steps to generate a quality control document:

1. On the **Resolve Relationships** page, click **Generate QC Document Report**.
2. Type a pattern for the document name in the **Document Name Pattern** box and click **Generate Report**. The report is displayed as a Microsoft Excel file.

View relationships in the Document Workbench

1. On the **Resolve Relationship** page, select one or more documents from the search results displayed in the list view.
2. Click **Show Document Workbench** to view the documents in the Document Workbench.

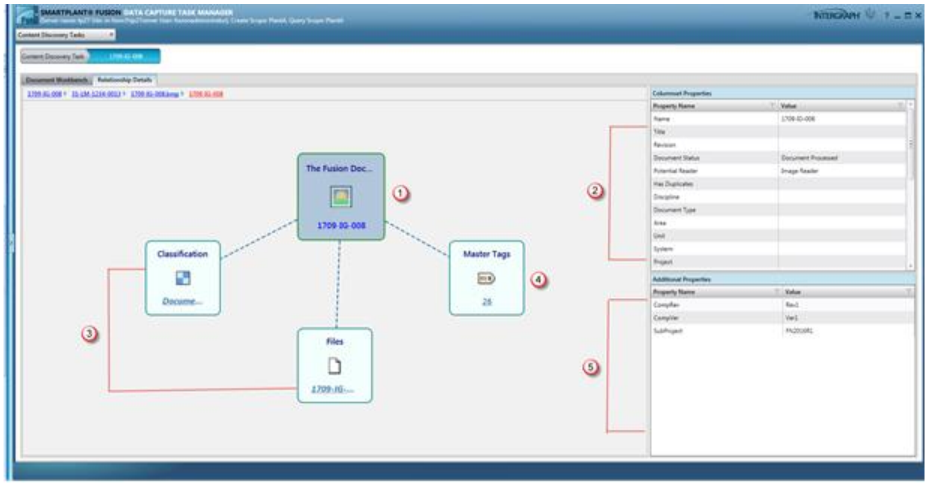
   TIP If only one document is selected, then you need not display the list of documents in the Document Workbench.
3. On the **Document Workbench** page, click a file name in the **Documents** pane to view the file in the middle pane. The **Tags** pane on the right displays all the tags related to the selected document.
4. Click a tag name to view the tag properties in the table below the **Tags** pane.

NOTES

- RADView control is used to view the 2D drawing file types like .igr, and .pid.
- There are three viewing commands in Document Workbench:
  - **FIT**: Resizes the document in the workbench to fit it into the width of the document workbench.
  - **Zoom Area**: Allows you to zoom the selected area in the drawing.
  - **PAN**: Allows you to move through the drawing.
- To view the GraphicsMap file for hotspotting, do the following:
  - Select Auto Generate PDF to allow generation of pdf files for each file during the document discovery task.
  - These pdf files present in the PreProcessedAlternateRenditions folder are given as input to the PDF reader Preprocessor module for generating the Content File and the GraphicsMap file.
  - The GraphicsMap file can be used for hotspotting purpose in the Document Workbench.

View Document Relations

Click the **Relationship Details** tab to view the relationship details of the document as shown in the following example:



1	The central node represents the master object on which the view related items service is based.
2	The **Columset Properties** pane displays the properties based on the column set configured for the master object.
3	The terminal nodes represent the related objects.
4	Represents the number of the related objects. You can click the hyperlink to view the properties of the object or click **View Related Items** to view the object related items.
5	The **Additional Properties** pane displays the properties configured in the Property Lists module.

NOTES

- The terminal nodes displayed are based on the EdgeDefs configured on the view related items client API method. The EdgeDefs can be configured as a parameter (Arg1) for the view related items client API method in SmartPlant Foundation Desktop Client.
- The **View Related Items** client API method must be related to the interfaces realized by the selected document. If this method is not related to any of the selected document interfaces, then the terminal nodes in the diagram represent objects expanded from the relationship and user-defined edge definitions related to the master object.
- When a tag is selected in the Document Workbench, the tag is highlighted in the PDF rendition file if a rendition already exists for the document.
- If a property created in either the Tag Naming System or in the Property Lists module has a relationship configured against it, that relationship is created during the content discovery task.
- You can click the **View error log** hyperlink of the content discovery task in the **Summary** tab to view the Error Log in the Content Discovery Task.

Create Document Tag relationship

You can create a relationship between a document and a tag by adding a new tag to the document in the Document Workbench.

1. In the **Tags** pane of the **Document Workbench** page, click **Create Document Tag Relationship** .
2. In the **Create Document Tag Relationship** window, type a pattern for the tag name in the **Tag Name** box.

   NOTE The tag name pattern typed in the **Tag Name** box determines the type of tag created (master tag or alias tag), depending upon the pattern matching to the master tag or alias tag pattern.
3. Click **OK**.

   IMPORTANT The newly added tag is displayed in green until the changes are saved. You must click **Save** to save the tag to the SmartPlant Fusion database.

   NOTES

   - If the newly added tag does not already exist in the SmartPlant Fusion database, you can enter a description for it in the **Description** field in the properties table.
   - The tag is highlighted in the related document when you select a tag in the Tags pane. Tags related to a PDF document are only highlighted if the file has been processed using the PDF Pre-Processor Utility module. For more information, see *PDF Reader Pre-processor* in *SmartPlant Fusion Pre-Processor Utility Guid*e.
   - You can select a tag and click **Delete Document Tag Relationship** to delete the document tag relationship. The deleted tag is displayed in red until the changes are saved. You must click **Save** to complete the deletion.
   - If a master tag is deleted from the **Tags** pane, the relationship between the document and the master tag as well as the relationship between the document and the alias tag are deleted.

SECTION 5

Resolve Duplicates

When different files with the same name but of different types or multiple versions of the same document are found in the file system, the document discovery task might attach multiple files to a document. In this situation, you need to resolve the duplicate documents.

The Resolve Duplicates module allows you to review the files attached to the document and set status on each file to one of the following options:

- **Unknown** - The files status is not yet set. **Unknown** is the default status for the files within the duplicate document.
- **Master** - This file is identified as the latest and is selected for content and tag extraction.
- **Candidate** - This file is identified as the latest but is excluded from content and tag extraction.
- **Historical** - This file is identified as an older version that needs to be stored in the database for future reference.
- **Ignore** - This file is identified as an older version that is not required to be available and can be stored at a physical location outside the application.

The **Send for Approval** command allows you to validate the status set on the files and to attach the files to appropriate document versions. The files set as **Master** and **Candidate** are attached to the latest version; the files set as **Historical** are attached to previous version, and the files set as **Ignore** are moved to the folder specified in the **Ignored Files Path** box of the **Define General Settings** page in the **Central Settings** module.

NOTES

- Two files with the same file name and of same file type cannot be set to **Master**. Attempting to do this, results in a warning message during the **Send for Approval** step.
- You cannot set two files with the same file name and file type to **Master** and **Candidate**. Attempting to do this, results in a warning message during the **Send for Approval** step.
- You cannot approve a duplicate document if one or more file status is set to **Unknown**.

What do you want to do?

- *View duplicate documents* (on page 22)
- *Set the resolve status for the files* (on page 22)
- *Move files to a new or existing document* (on page 23)
- *Browse duplicates in Thumbnail view* (on page 24)
- *Compare duplicate files* (on page 25)
- *Create documents from reference files* (on page 26)
- *Send for approval* (on page 27)

View duplicate documents

When you open the Resolve Duplicates module, it displays the duplicate documents existing in the SmartPlant Fusion database in an item list in the left pane.

1. Log on to **SmartPlant Foundation**.
2. Click **Fusion Quality Control** to open the SmartPlant Fusion Quality Control module.
3. Click **Resolve Duplicates** to open the **To Do List** page. The duplicate documents in the SmartPlant Fusion database are listed in the left pane, and the files attached to the duplicate documents are listed in the right pane.

   NOTE In the right pane, the **Notes** column displays your notes on the duplicate file. These notes disappear after the duplicate files are resolved.

4. In the right pane, click on the file name to view attached files using the native application of the file, based on its file extension. For example, you can open an attached Microsoft Word (.doc) file in Microsoft Word.

Filtering the objects in the list view

1. To filter the results based on a specific value in any of the columns, click **Filter** at the top of that column.
2. Select the property or properties to display the items based on the criteria in the item list.

   NOTE You can further refine the results by selecting a condition value, such as **Is equal to** or **Starts with**.

3. Click **Filter** to display the filtered results automatically in the item list.

   TIP By filtering on several properties, you can refine the results to get to a specific set of data.

Set the resolve status for the files

1. In the **To Do List** page, select a duplicate document from the **Duplicate Document** pane to display the files attached to it in the **Duplicate Files for Document** pane.

   NOTE By default, each file is set to **Unknown**. If you or another reviewer changed the status of any file previously, then the file will display that updated status.

2. In the **Duplicate Documents** pane, select a duplicate document and click **Group Files** to compare the files attached to the duplicate document and categorize them into groups depending on the binary content of the file. The grouping of the files is displayed in the **Group** column.
3. For each file, click the **Resolve Status** column and select a status from the list.

   IMPORTANT If you attempt to set two files with the same name and extension to **Candidate**, or to set one to **Candidate** and one to **Master**, the system displays a confirmation dialog box indicating that it will rename the files, as necessary. If allowed, the system will rename the duplicate files by appending a number in parenthesis after the file name. The numbers start at 2 and increase sequentially for each additional duplicate file.

4. Click **OK**.

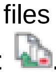
NOTES

- An error message appears when two or more files with the same file name and file type are set to **Master**.
- An error message appears when two files with the same name and file type are set to **Master** and **Candidate**.
- The auto renaming of files is valid for the current session only. If you log out of the application, then you will need to click on the confirmation message again to allow renaming of the files.
- When the resolve status for all files in a group are displayed as **Unknown** and you set the resolve status for one of the file within the group, then the resolve status for rest of the files in that group are set to Ignore.

Move files to a new or existing document

1. In the **To Do List** page, select a duplicate document from the **Duplicate Document** pane.

   NOTE By default, the first file in the **Duplicates Files for Document** pane is selected.

2. Select one or more files from the **Duplicate Files for Document** pane, and click **Move Files to Document** .
3. In the **Document Name** dialog box, type the document name to which you want to move the selected files and click **OK**.

NOTES

- The following occurs, if you move a single file:
   a. To an existing document with no files in the latest version, it gets attached to the latest version of the document.
   b. To an existing document with files attached to the latest version, a duplicate document is created.
   c. To a new document, a new document is created.
- If you move two or more files to a new or existing document, a duplicate document is created.

Browse duplicates in thumbnail view

1. In the **To Do List** page, select a duplicate document from the **Duplicate Document** pane to display the files attached to it in the **Duplicate Files for Document** pane.

2. Click **Browse Duplicates** to display the attached files as thumbnails in the right pane of the **Browse Duplicates for Document** window.

3. Click the filter criteria in the left pane to apply search criteria for the files displayed as thumbnails. You can search on the following criteria:

   - **File Name** - Select a file name from the list to view the selected thumbnails.
   - **Original File Location** - Select a file location from the list to view the thumbnails of the file loaded from the selected path.
   - **Last Modified Date** - Select the **Custom Range** option to specify a date range as the search criterion. Alternatively, you can select date and time from the list to view the thumbnails of the file that have the selected last modified date.
   - **Revision** - Select a revision from the list to view the thumbnails of the file corresponding to the selected revision.
   - **Resolve Status** - Select a resolve status from the list to view the thumbnails of the file that have that resolve status.
   - **Notes** - Select a title from the list to view the thumbnails of the file that have the same notes.
   - **Title** - Select a title from the list to view the thumbnails of the file that have the same title or that title as a description.
   - **Discipline** - Select a discipline from the list to view the thumbnails of the file related to the selected discipline.
   - **Document Type** - Select a document type from the list to view the thumbnails of the file related to the selected document type.
   - **Unit** - Select a unit name from the list to view the thumbnails of the file related to the selected unit.
   - **Project** - Select a project name from the list to view the thumbnails of the file related to the selected project.
   - **Group** - Select a group name from the list to view thumbnails of the files related to the selected group. The group names within this filter appears only when the files are grouped by comparing their binary content in the **To Do List** page.

4. Click the thumbnail to view the file information.

   TIP If the file information pane is minimized, you can click to view the file information for a selected file.

5. To set the resolve status for a file, click the thumbnail, and then click **Change Status** in the right corner of the thumbnail.

   NOTES

   - The selected status is displayed on the thumbnail. Additionally, the color of the status ribbon changes to reflect the updated resolve status as set in the **Resolve Duplicates Color Status** page.
   - The **Change Status** option allows you to set the resolve status on the files and the updated status is displayed in the **To Do List** page.

TIPS

- Select an option from the **Sort** list to view the thumbnails sorted according to the selection.
- Click and drag the slider to the right to increase the thumbnail size or to the left to reduce the size, as needed.
- Click **Graph View** to view the thumbnails in a graphical view, or click **Grid View** to view the thumbnails in tabular view.

Compare duplicate files

1. In the **To Do List** page, select a duplicate document from the **Duplicate Document** pane to display the files attached to it in the **Duplicate Files for Document** pane.
2. Click **Compare Duplicates** to display the attached files as thumbnails in the left pane of the **Compare Duplicates** window.
3. To view the file, drag the thumbnail of the file from the left pane into the right pane.

   NOTES

   - Drag two files into the right pane to compare them side-by-side and identify the differences within the files.
   - In the right pane, click on the file name, to view attached files using the native application of the file, based on its file extension. For example, you can open an attached Microsoft Word (.doc) file in Microsoft Word.
4. Compare two files using the following display options:
   - **Overlay** - Displays one file overlayed over another file.
   - **Overlay Differences** - Displays one file overlayed over another file, and highlights the differences between the files.
   - **Side-By-Side** - Displays the selected files side-by-side.
   - **Text Comparison** - Displays the text comparison pane over the two files with the text content extracted from each file.
   - **Open File (only)** - Displays a single file.

- **Compare File (only)** - Displays one file overlayed over another file, and highlights the deletions in red and additions in green.
- **Additions** - Displays the additions only.
- **Deletions** - Displays the deleted sections only.
- **Unchanged** - Displays the sections that remain unchanged in the file.
- **Text Compare Report** - Allows you to download a PDF file with the text comparison within the selected files.
- **Slider** - Allows you to zoom in and out of the file content.
- **Nudge Alignment** - Allows you to align the files to left, right, top, or bottom of the view pane.

5. Select a status from the list above the files to set the resolve status on the files.

NOTES

- The **Change Status** option allows you to set the resolve status on the files, and the updated status is displayed in the **To Do List** page.
- If a file is grouped by binary content in the **To Do List** page, then the file name is suffixed with the group number.

Create documents from reference files

You can use the **Create Documents From Reference Files** command to resolve duplicates resulting from multiple different files with the same name sharing a master-reference file relationship. The master file remains attached to the document, but a new document is created for each reference file with the master files and the reference files related by the **SPFReferenceFile** relationship definition

1. On the **To Do List** page, select a duplicate document from the **Duplicate Documents** pane to display the files attached to it in the **Duplicate Files for Document** pane.
2. Click **Create Documents From Reference Files** to create new documents for each reference file and relate the reference files to the master file.

NOTES

- The following occurs, if you have one master file (file1.dwg) and two reference files (file1.tiff and file1.png) attached to a duplicate document (doc1):
  a. The master file (file1.dwg) remains attached to the document (doc1) and the document is resolved since only a single file remains attached to it.
  b. Two distinctly named documents are created, one for each reference file.
  c. The master file is related to both of the reference files by the **SPFReferenceFile** relationship definition.
- The following occurs if you have one master file (file1.dwg), two reference files (file1.tiff and file1.png), and another file (file1.dgn) attached to a duplicate document (doc1):
  a. The master file (file1.dwg) and the other file (file1.dgn) remain attached to the document (doc1), hence the duplicate document needs to be resolved.

b. Two distinctly named documents are created, one for each reference file.

c. The master file is related to both of the reference files by the SPFReferenceFile relationship definition.

Send for approval

The **Send for Approval** command allows you to approve the duplicate documents that are completely resolved.

1. In the **Duplicate Documents** pane, select the duplicate documents that are resolved.
2. Click **Send for Approval** to approve the duplicate documents.

SECTION 6

Resolve Reference Files

The Resolve Reference File module allows you to view the reference file status and to resolve the reference relationships. You can only view the files that have unresolved reference files relationships.

IMPORTANT If you have only one reference file for a file, then it is automatically resolved by the application.

What do you want to do?

- *Search for documents* (on page 28)
- *Identify the reference files* (on page 29)
- *View reference files* (on page 29)

Search for documents

1. Log on to SmartPlant Dashboard.
2. Click **Fusion Quality Control > Resolve Reference Files** to open the **Resolve Reference Files** sub-module.
3. Type the name of the document that you want to search.

   TIP You can type the entire name, part of the name, a wildcard character (%, *, or ?), or a combination of the name and wildcard character (for example, n%).

4. Click **Search** . The documents that match the criteria are displayed in a list view. The document title and the reference resolution status are displayed in the list view.

NOTE A tick mark in the **Reference Files Resolved** column indicates that all the references relationships are resolved.

Filtering the objects in the list view

1. To filter the results based on a specific value in any of the columns, click **Filter** at the top of that column.
2. Select the property or properties to display the items based on the criteria in the item list.

   NOTE You can further refine the results by selecting a condition value, such as **Is equal to** or **Starts with**.

3. Click **Filter** to display the filtered results automatically in the item list.

TIP By filtering on several properties, you can refine the results to get to a specific set of data.

Identify the reference files

1. In the **Resolve Reference Files** page, select one or more documents from the search results displayed in the list view.
2. Click **Resolve Reference Files** . The **Identify Reference Files** dialog box is displayed with the file information, which contains a comma separated list of files that are resolved, a comma separated list of files that are missing in the database, and the files with more than one reference found in the database.
3. Select a reference file under each file name. You can click on the filename to view the actual file.

   TIP Use expand + and collapse − to view the multiple reference files under each reference file node.
4. Click **Save** to save the relationship updates.

View reference files

1. In the **Resolve Reference Files** page, select a document from the search results displayed in the list view.
2. Click **View Reference File Details** . The **Reference File Details** dialog box displays the file name, reference file name, and the document name to which the reference file is attached.

   TIP Use expand + and collapse − to view the reference file details.

SECTION 7

Tag Maintenance

The **Tag Maintenance** module allows you to do the following:

- View the orphan tags (all master and alias tags that are not related to documents or domain tags)
- Delete the orphan tags
- Generate tag completeness report

NOTE Select the **Include non-orphan tags** option to view all the master and alias tags available in the SmartPlant Fusion database.

What do you want to do?

- *Search for orphan tags* (on page 30)
- *Using the filter criteria* (on page 31)
- *Classify tags* (on page 31)
- *Generate the Tag Completeness report* (on page 31)

Search for orphan tags

1. Log on to **SmartPlant Dashboard**.
2. Click **Fusion Quality Control** to open the Quality Control module, and then click **Tag Maintenance.**
3. Type the name of the orphan tag for which you want to search.

   TIP You can type the entire name, part of the name, a wildcard character (%, *, or ?), or a combination of the name and wildcard character (for example, n%).
4. Click **Search** . The orphan tags that match the criteria are displayed in a list view.

NOTES

- Select the **Include non-orphan tags** option before you search to include all tags in the results, including those related to documents.
- You can select one or more tags and click **Delete Tags** to remove the tags from the SmartPlant Fusion database.

Using the filter criteria

1. In the **Tag Maintenance** page, click **Filter Criteria**.
2. In the filter criteria, expand the tag type node to view the tag sub types.
3. Select one or more tag sub-types and click **Search** to display tags that match the selected criteria.

   TIP You can click **Clear all options** to cancel the selection.

Classify tags

1. In the **Tag Maintenance** page, set the **Filter Criteria**.
2. Type the name of the tag you want to search in the search box.

   TIP You can enter the entire name, part of the name, a wildcard character (%, *, or ?), or a combination of the name and wildcard character (for example, n%).

   NOTE You can select the **Search Non-Classified Tags** check box, to search for only the non-classified tags.
3. Click **Search** . The tags matching the filter criteria are displayed in a list view.
4. Select one or more tags and click **Classify Tags**.

Generate the Tag Completeness report

The **Tag Completeness** report consists of all the valid, missing, and additional relationships between tag types and document types attached to a tag. Each tag type is related to all of its associated document types.

1. In the **Tag Maintenance** page, click **Generate Completeness Report** .
2. Type the **Tag Pattern** of the tags for which you want to generate the tag completeness report.

   TIPS

   - You can enter the entire name, part of the name, a wildcard character (%, *, or ?), or a combination of the name and wildcard character (for example, n%).
   - Select **Include non- classified tags** before you generate the report to include all tags in the report, including those which are not related to any document type.
3. In the search criteria, expand the tag types node to view the tag sub types.
4. Select one or more tag sub-types and click **Generate Report**.

NOTES

- If no tag type is selected, a report with all classified tags matching the tag pattern is generated.
- The **Tag Completeness** report is displayed as a Microsoft Excel file with two worksheets named **Summary** and **TagCompletenessReport**.

Glossary

3D reader

Validates tags, creates and cross-references the tags to the documents, and extracts visual file and tag data from the 3D models.

alias tag

A tag that is named differently, but represents the master tag in the system.

business objects

Complex objects representing more than one class definition.

content discovery task

Extracts content from the master file, creates and relates, relates master and alias tags to the documents, and relates documents to the organizational items.

database domain discovery task

A process that uses a defined database reader pattern to connect to a database and extract documents and tags along with their properties as defined within the pattern.

database reader

Reads data directly from a database. Administrators can define specific tables and fields to be transferred so that they can be used for data comparisons.

database reader pattern

Defines the database tables and properties that need to be extracted and mapped to classes and properties within SmartPlant Fusion.

delimiter

Identifies the end of a tag.

document attribute

A constant which allows additional information to be added to the data created in SmartPlant Fusion.

document discovery

Reads documents (typically office generate files) and using patterns loads them into SmartPlant Fusion.

document discovery pattern

Defines the base directory that needs to be crawled, the file name pattern to extract and the document name pattern that needs to be created. Additionally, document attributes can also be defined.

document discovery task

A process that uses a document discovery pattern to crawl a directory system and load documents and files that match the specified file pattern. After which thumbnails are created and related to the document.

document index

A defined excel list or a defined data object within SmartPlant Fusion that defines metadata about a file. This is referenced when files are loaded into the system and if a match is found the file will be loaded with the properties defined from the document index.

document name pattern

Defines a document name for files with a specific file name pattern comprised of the parts, constants, and documents attributes.

document naming system

Defines the parts of a file name. Additional information can be defined to define constants and relate them to existing objects in the database when data extraction occurs.

domain tag

A representation of the tag, specifically from a discipline within a domain.

drawing reader

Extracts cross-referenced and linked information contained in a drawing file.

duplicate document

A document with multiple files attached but different file types or multiple versions of the same document attached to it.

file index

Specifies the file name, associated name, and attributes for a document before it is processed by the document discovery task.

file name parts

Sections that represent data in a file name.

file name pattern

Consists of one or more file parts with each file part being defined as a document naming system item.

file properties or attributes

Values that are stored on the file object. The data is transferred to the document if the file is selected for data extraction.

hotspotting

Hyperlinks in a document on the area where the tag exists in the file.

image reader

Extracts tag and other related information contained within any image using an Optical Recognition (OCR) engine.

laser scan reader

Captures Leica TruView HDS information created form plant scans.

master file

The file that is used for data and content extraction.

master tags

Extracted tags that follow a set of standard naming conventions in a project or a plant that the engineers should follow for defining tag names.

orphan tags

Tags that are not related to any document or domain tag.

property group

A group of properties.

property list

Allows you to create property group names (interface definition names) and properties (property definitions), which can be related to a business object (class definitions).

regular expression

A pattern that is used for tag matching and defining selected file parts.

separator

Separates file parts and tag parts. Common separators include a dash (-), slash (/), tilde (~), and so forth. For example, the instrument tag LCV-157 uses the separator to separate the tag name (LCV) from the drawing name (157).

tag discovery pattern

Used to extract the master and alias tags from the content of a master file.

tag naming system

Defines the parts of a tag name and relates them to existing objects in the database.

text reader

Captures simple text files and processes the data directly without needing an application to extract the data.

thumbnail

A small size image representation of a larger file intended to make it easier and faster to manage it.

thumbnail rendition

Generates .png images for various file extensions.

title block

The portion of a drawing that contains information about the drawing, such as who created the drawing, when it was created, who approved it, and so on. The type of information included in the title block varies by drawing type, industry, and organization.

transpose

Returns a vertical range of range of cells as a horizontal range, or vice versa.

UoM

A unit of measurement.

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