Autodesk® Inventor® Content Center Library Advanced Management

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Class Summary

In this class we will cover several workflows for customizing the Autodesk® Inventor® Content Center Library families.

The topics are based on the most common questions from users for customizing the Content Center Library families.

We will cover as well the workflows for updating the members inserted in the assemblies of the project before the customization of their families.

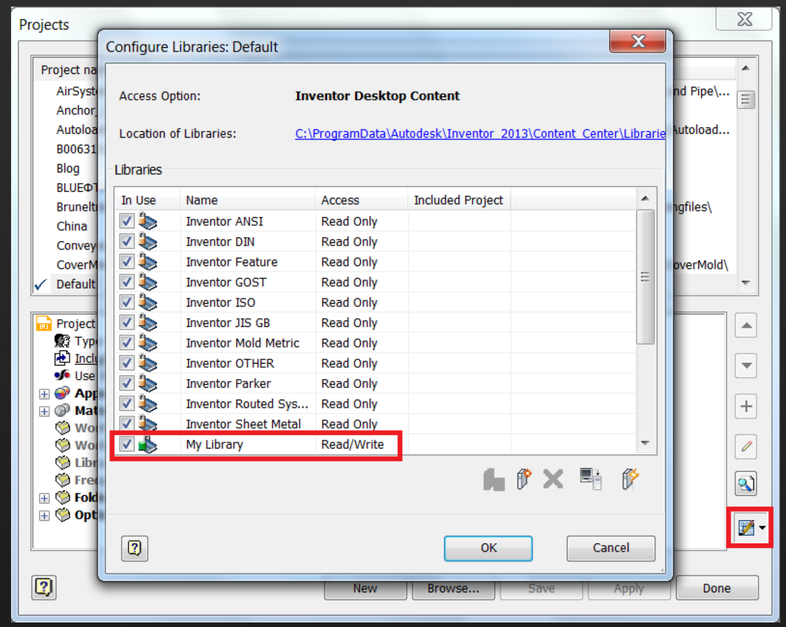
Learning Objectives

At the end of this class, you will be able to:

- Use the Material Guide for creating linked copies of a family
- Include the Steel Shape profile length in a custom property
- Edit the Custom Property Format of a parameter
- Set Part Number and Description in synch for Frames
- Set Browser name as Part Number and Filename
- Understand the workflow related to placing a component of a modified family from Content Center in a Vault Project
- Update the Family members inserted in the assemblies

Preliminary remark

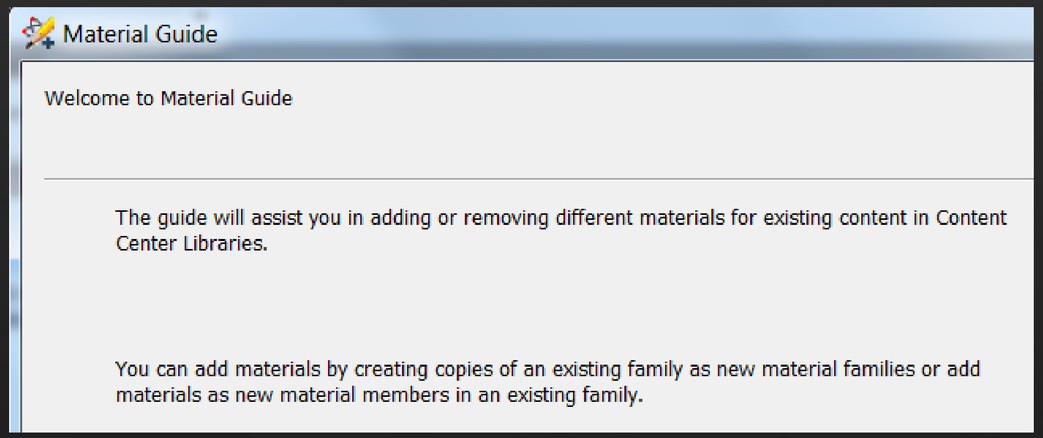
In order to modify the Library Families as described in the next slides you need to add a read/write library to the current project using the Configure Libraries dialog box.



Create linked copies of a Content Center family with different materials using the Material Guide

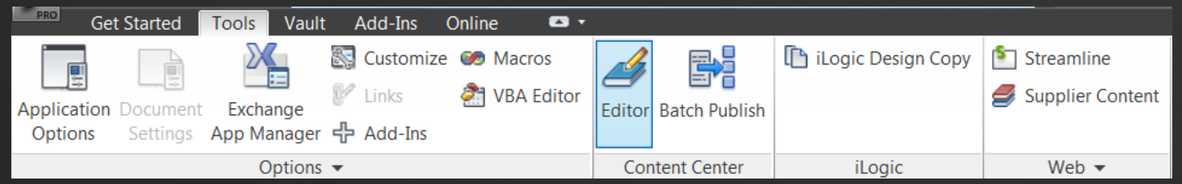
Material Guide for creating linked copies of a family

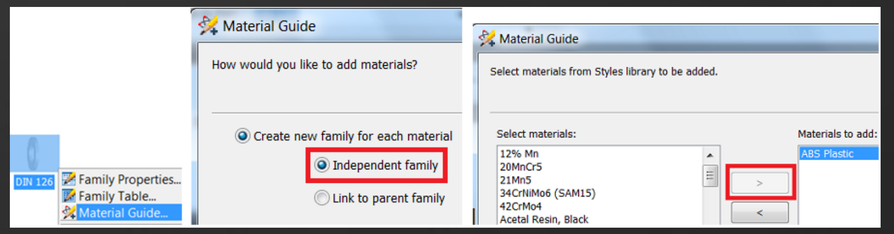
- Procedure for creating copies of a family
- Each copy having a different material
- Changes in the first copy apply to the others



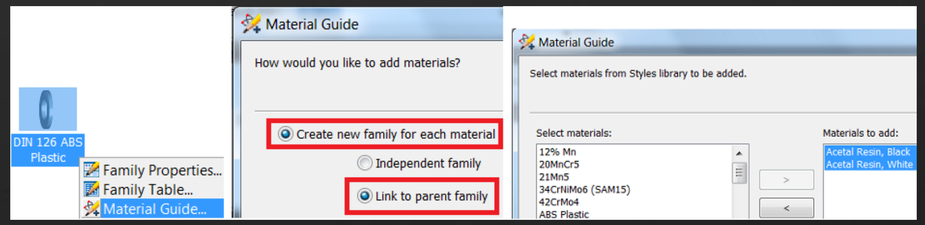
Material Guide for creating linked copies of a family

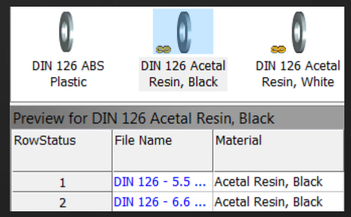
1. Create a copy of one standard family



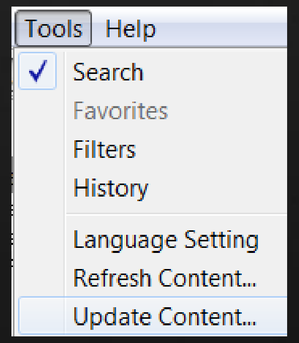


2. Create the other linked copies





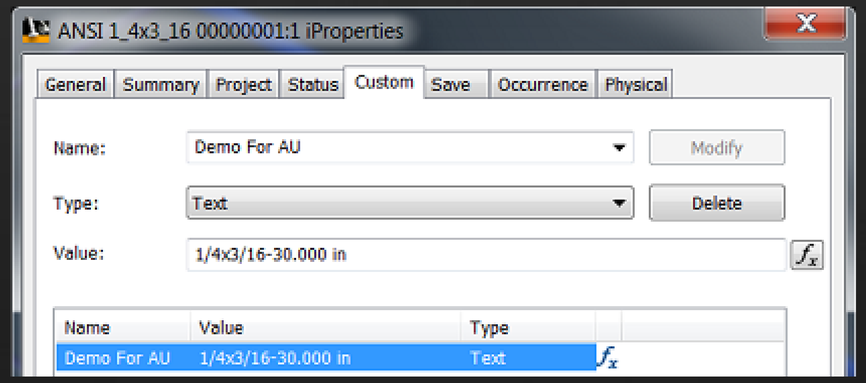
3. Apply changes to the first copy
4. Update the custom library



Include the length from the Steel Shape profile in a custom property

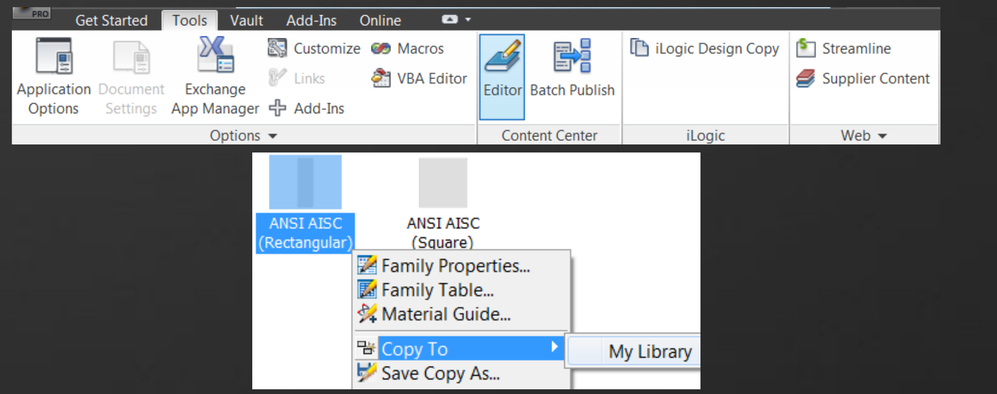
Steel Shape profile length in a custom property

- Procedure for editing a Structural Shapes family
- Insert its members either with Frame Generator or Place from Content Center
- Each frame contains a custom property displaying its length



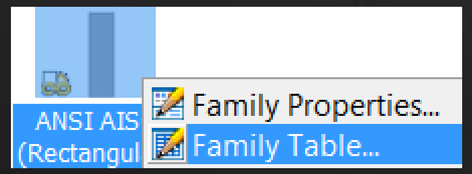
Steel Shape profile length in a custom property

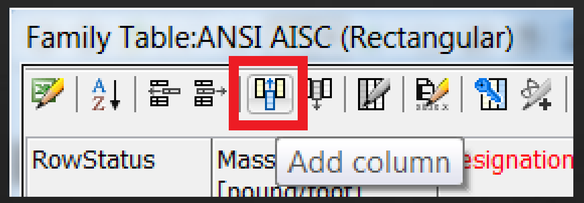
1. Copy the family in a Read/Write library

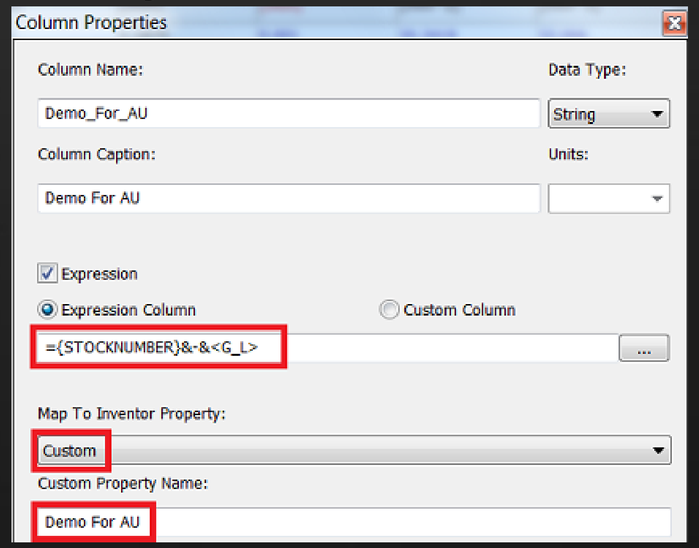


2. Add a new column in the table

3. Define the Expression as “={STOCKNUMBER}&-&<G_L>”





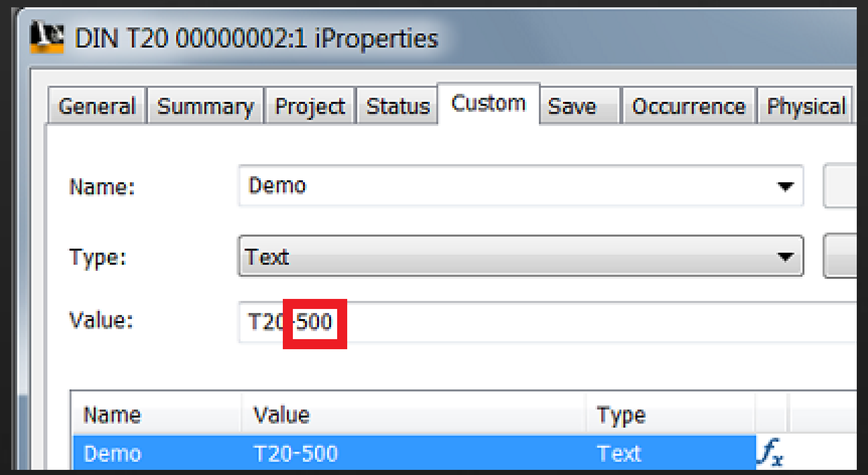


4. Map the Column to the Custom Property

Edit Custom Property Format for a standard part parameter

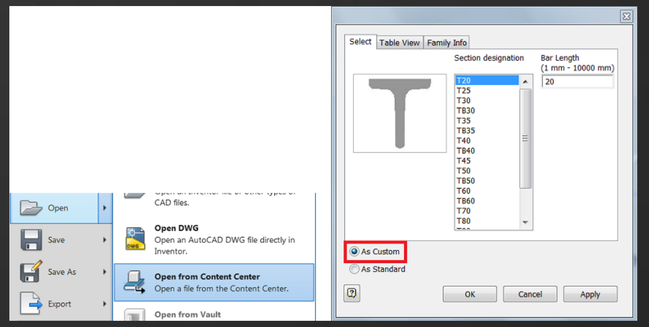
Edit Custom Property Format of a parameter

- Parameter of a Content Center family property
- Procedure for editing the parameter format
  - I.e.: do not display Trailing Zeros and Units String

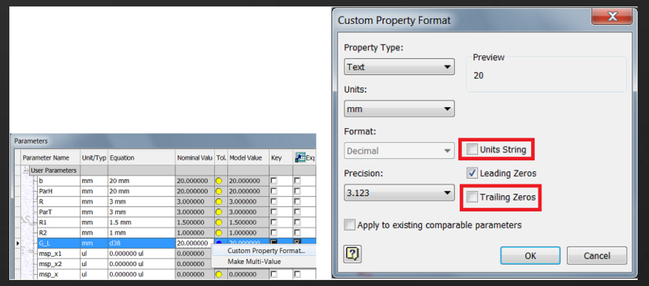


Edit Custom Property Format of a parameter

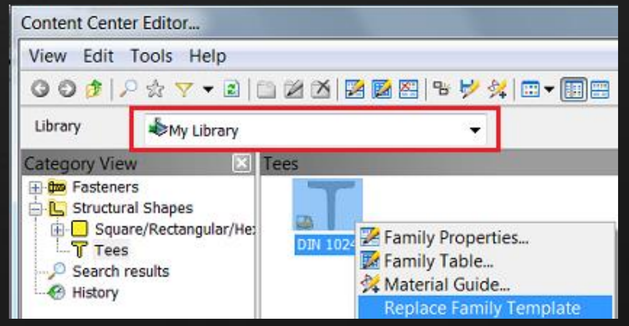
1. Open any member with the option “As Custom”



2. Modify the Custom Property Format



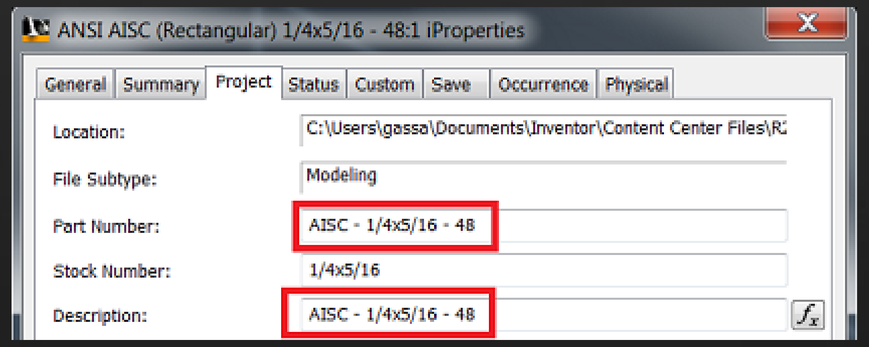
3. Replace Family Template selecting the modified component



Part Number and Description always in synch for Frames

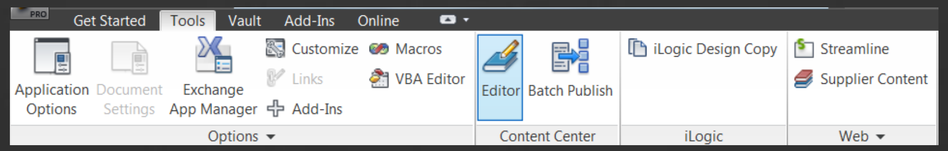
Part Number and Description in synch for Frames

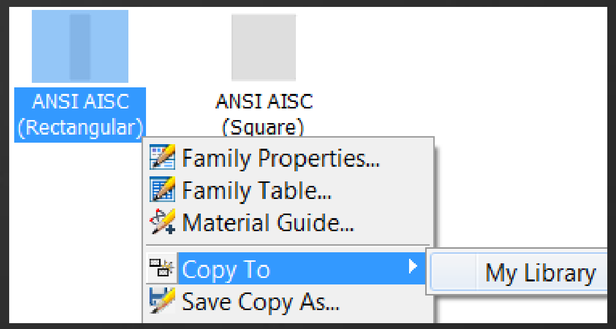
- Procedure for editing a Structural Shapes family
- Insert its members either with Frame Generator or Place from Content Center
- The Description is equal to the Part Number



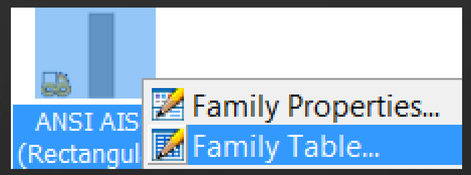
Part Number and Description in synch for Frames

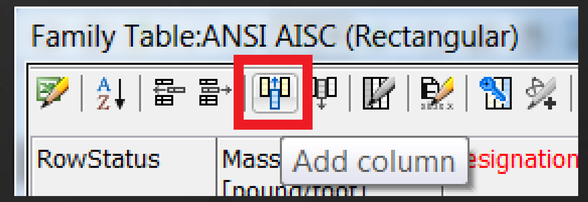
1. Copy the family in a Read/Write library



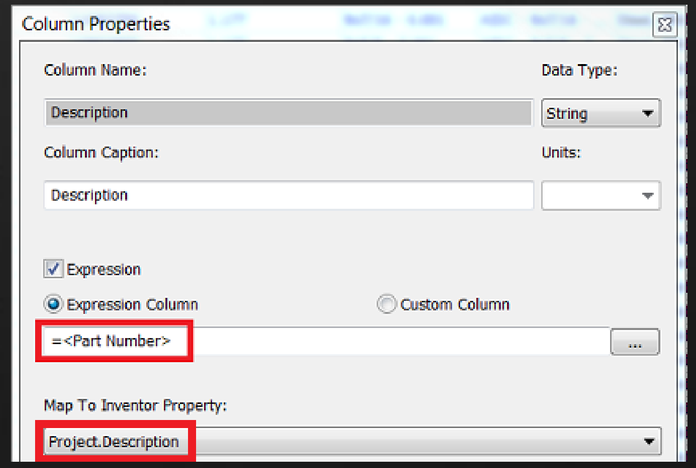


2. Add a new column in the table





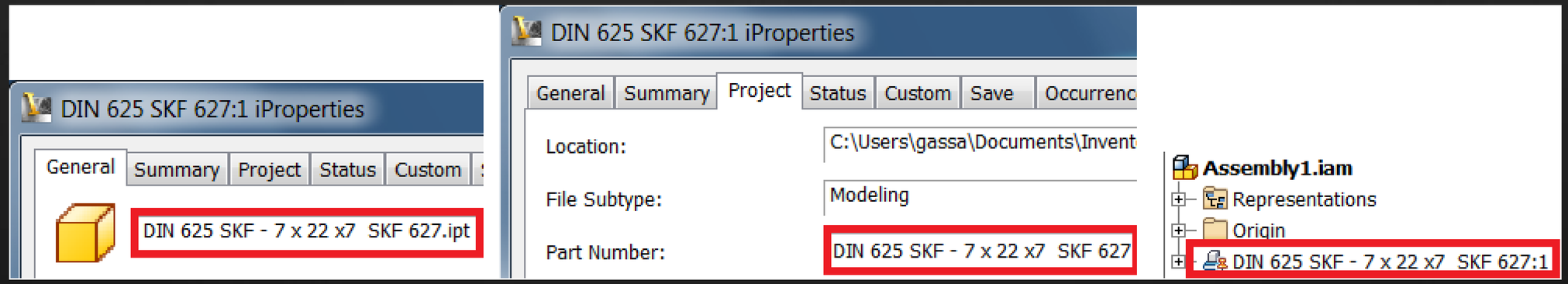
3. Define the Expression as “=<Part Number>”
   - As “{PARTNUMBER}” for non-Structural Shape families
4. Map the Column to the Description Property



How to make Browser name to be equal to Part Number for Content Center Standard Parts

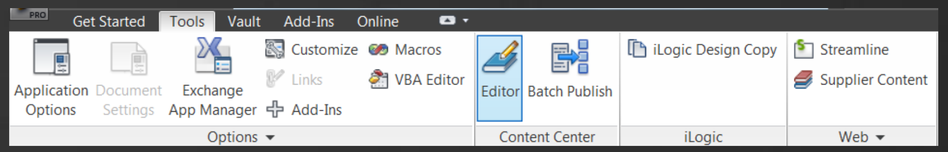
Browser name as Part Number and Filename

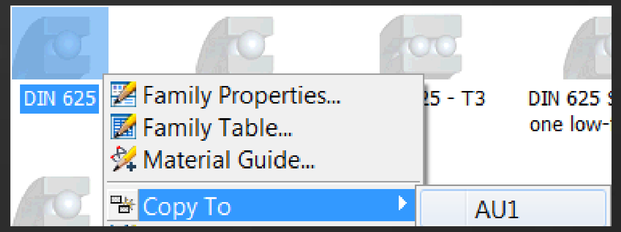
- Procedure for editing a Content Center family
- Edit the Part Number and File Name properties
- Insert the members
- Get the Browser name as the Part Number and Filename



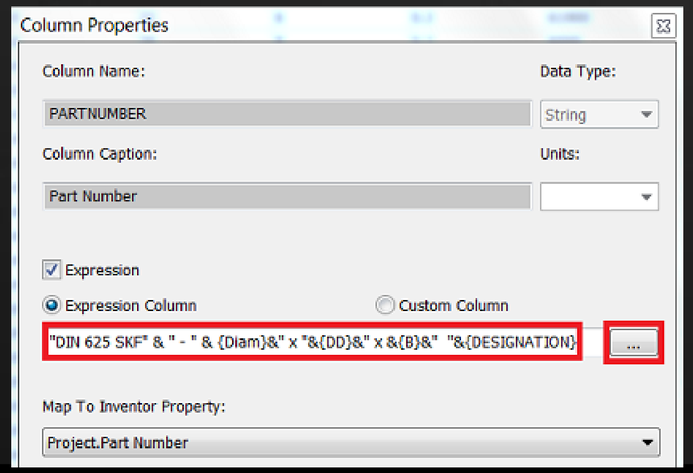
Browser name as Part Number and Filename

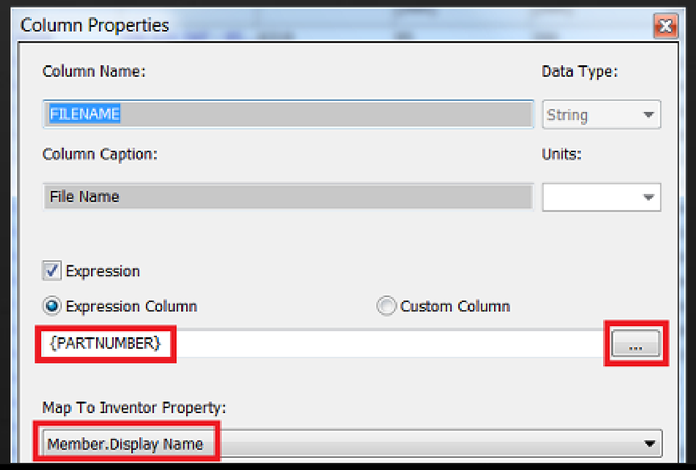
1. Copy the family in a Read/Write library
2. Edit the Part Number Column Properties
   - I.e.: add additional parameters in the Expression





3. Define the Filename Expression Column as “{PARTNUMBER}”
4. Select Member.Display Name in the Map To Inventor Property field

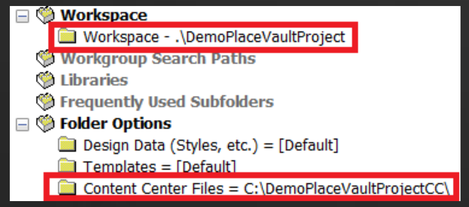


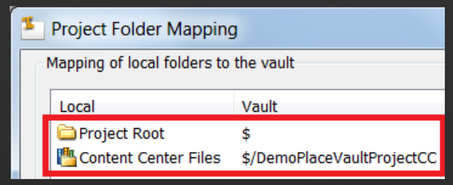


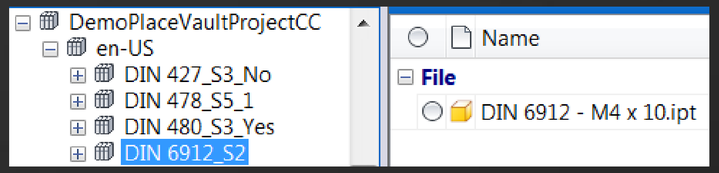
Place a component of a modified family from Content Center in Vault Project

Place from Content Center in Vault Project

- Working with a Vault project
- Project folders mapped to the Vault folders







- The family members reside in the Vault
- The family get modified in the Editor
- Place from Content Center one component of family already in Vault

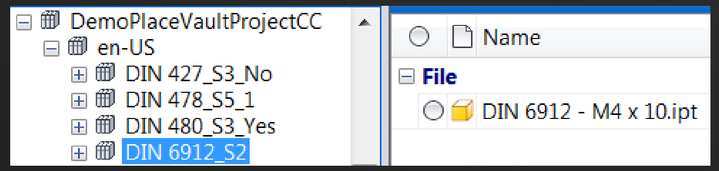
	Component in Vault	Component in local CC Files folder	Refresh out-of-date standard parts during placement
Scenario 1	Out-of-date	Out-of-date	NO
Scenario 2	Out-of-date	Out-of-date	YES
Scenario 3	Up-to-date	Out-of-date	NO
Scenario 4	Up-to-date	Out-of-date	YES

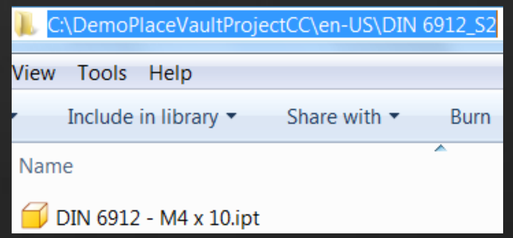
Place from Content Center in Vault Project

- **Scenario 1**
- Out-of-date component in Vault

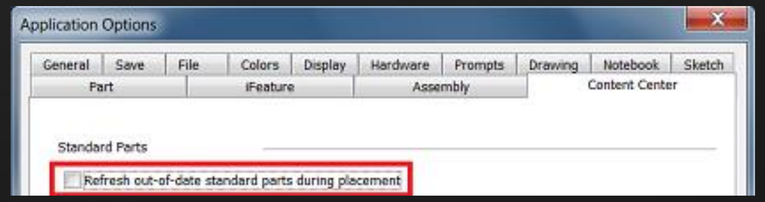
	Component in Vault	Component in local CC Files folder	Refresh out-of-date standard parts during placement
Scenario 1	Out-of-date	Out-of-date	NO
Scenario 2	Out-of-date	Out-of-date	YES
Scenario 3	Up-to-date	Out-of-date	NO
Scenario 4	Up-to-date	Out-of-date	YES

- Out-of-date component in local Content Center Files family subfolder





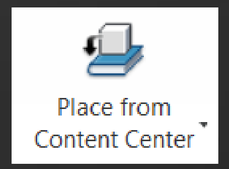
- "Refresh out-of-date standard parts during placement" NOT checked



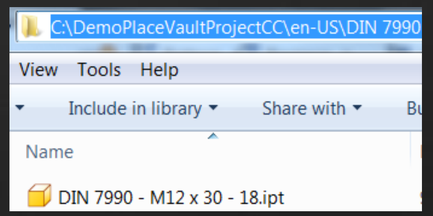
Place from Content Center in Vault Project

- **Scenario 1**

1. Insert component with Place from Content Center



2. Inventor inserts the file from the local family subfolder
   - This applies as well to non-Vault projects

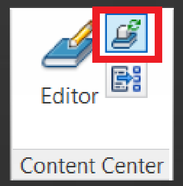


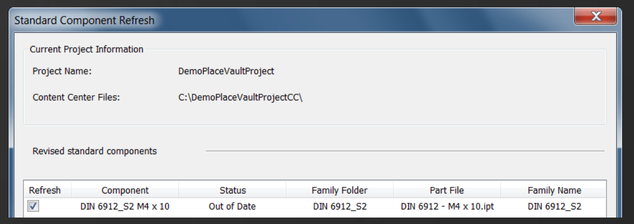
3. Standard component not listed in the Check in dialog

Place from Content Center in Vault Project

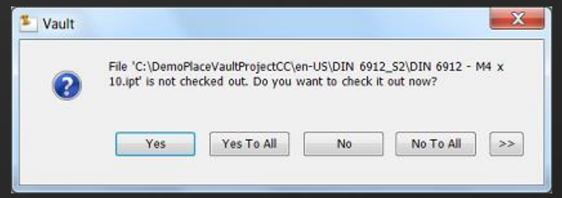
- **Scenario 1**

4. Refresh Standard Component

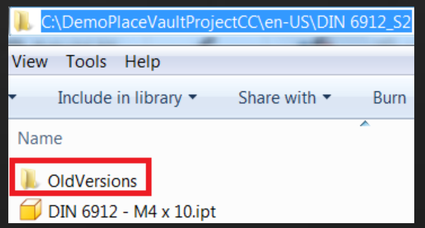




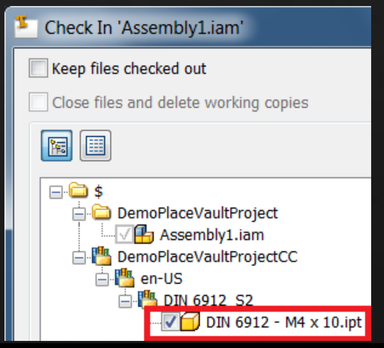
5. Inventor checks out the component from Vault



6. Updates the file in the local family subfolder and the assembly



7. Check-in the up-to-date component in Vault

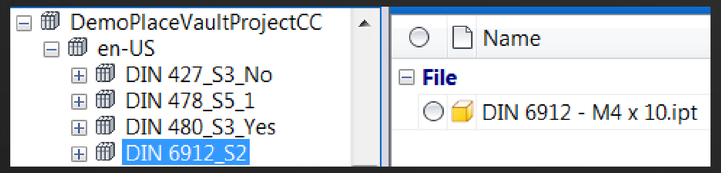


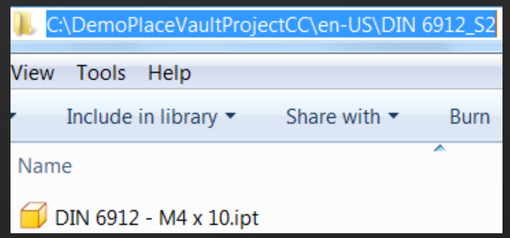
Place from Content Center in Vault Project

- **Scenario 2**
- Out-of-date component in Vault

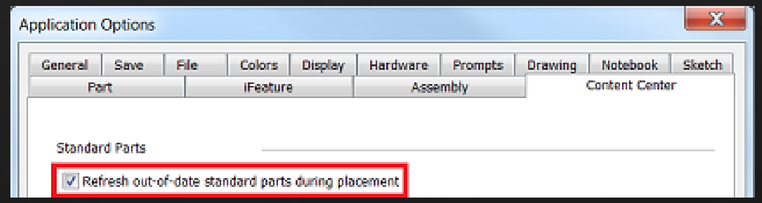
	Component in Vault	Component in local CC Files folder	Refresh out-of-date standard parts during placement
Scenario 1	Out-of-date	Out-of-date	NO
Scenario 2	Out-of-date	Out-of-date	YES
Scenario 3	Up-to-date	Out-of-date	NO
Scenario 4	Up-to-date	Out-of-date	YES

- Out-of-date component in local Content Center Files family subfolder





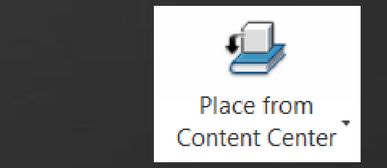
- "Refresh out-of-date standard parts during placement" IS checked

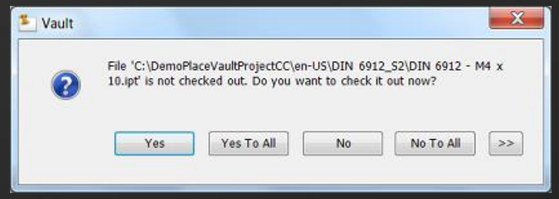


Place from Content Center in Vault Project

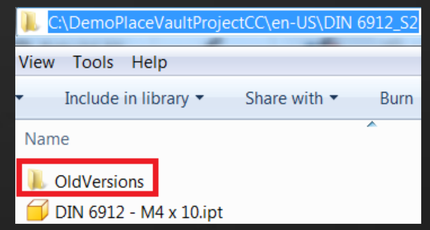
- **Scenario 2**

1. Insert component with Place from Content Center
2. Inventor checks out the component from Vault

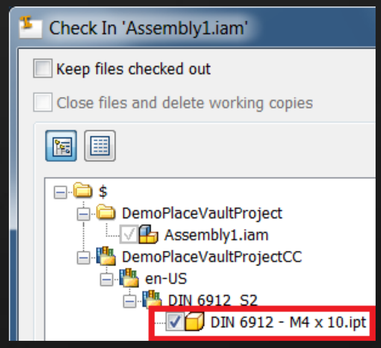




3. Updates the file in the local family subfolder and inserts it in the assembly



4. Check-in the up-to-date component in Vault

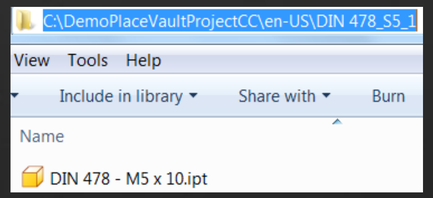


Place from Content Center in Vault Project

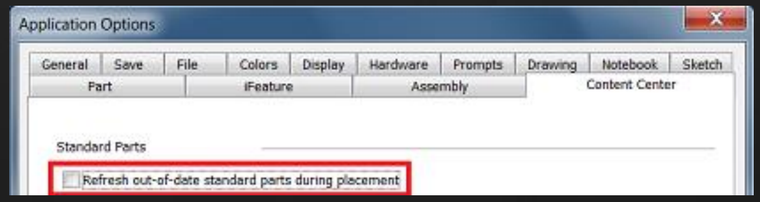
- **Scenario 3**
- Up-to-date component in Vault

	Component in Vault	Component in local CC Files folder	Refresh out-of-date standard parts during placement
Scenario 1	Out-of-date	Out-of-date	NO
Scenario 2	Out-of-date	Out-of-date	YES
Scenario 3	Up-to-date	Out-of-date	NO
Scenario 4	Up-to-date	Out-of-date	YES

- Out-of-date component in local Content Center Files family subfolder



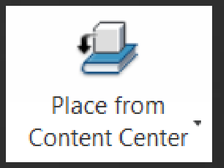
- "Refresh out-of-date standard parts during placement" NOT checked



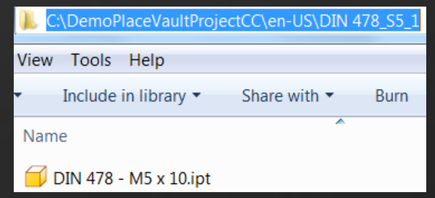
Place from Content Center in Vault Project

- **Scenario 3**

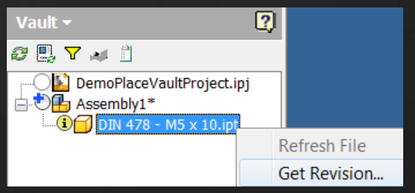
1. Insert component with Place from Content Center



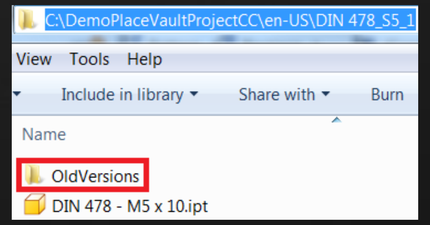
2. Inventor inserts the file from the local family subfolder



3. Get Revision or Refresh from Vault in Vault Browser



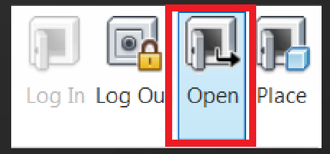
4. Inventor updates the file in the local family subfolder and the assembly

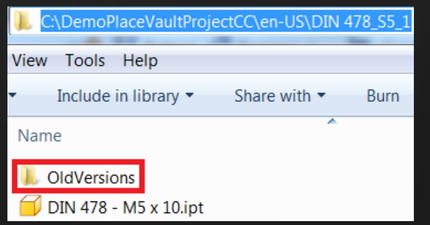


Place from Content Center in Vault Project

- **Scenario 3**
- Alternatively

3. Check-in the assembly in Vault
   - Standard component not listed in the Check in dialog
4. Close the assembly
5. Open the assembly from Vault
6. Inventor updates the file in the local family subfolder and the assembly

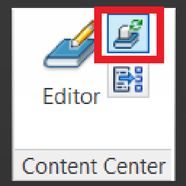


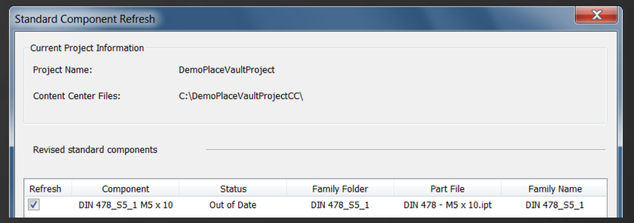


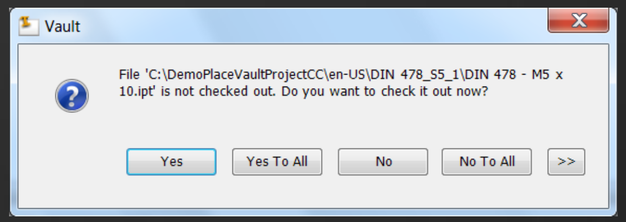
Place from Content Center in Vault Project

- **Scenario 3**
- Instead

3. Refresh Standard Component

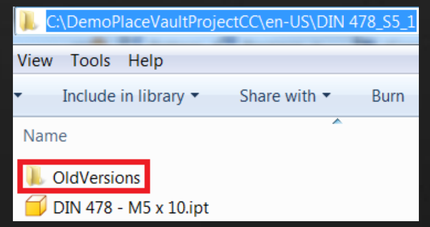


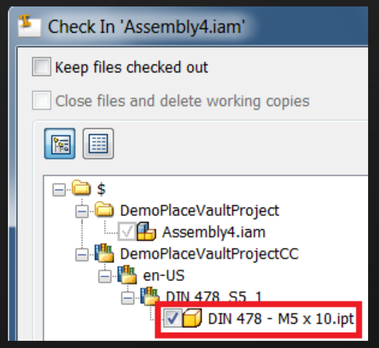




4. Inventor checks out the up-to-date component from Vault

5. Updates the file in the local family subfolder and the assembly





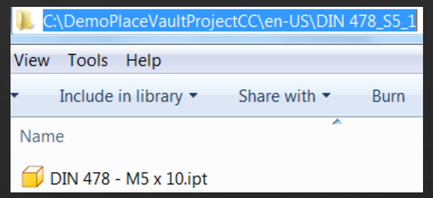
6. Check-in the component in Vault

Place from Content Center in Vault Project

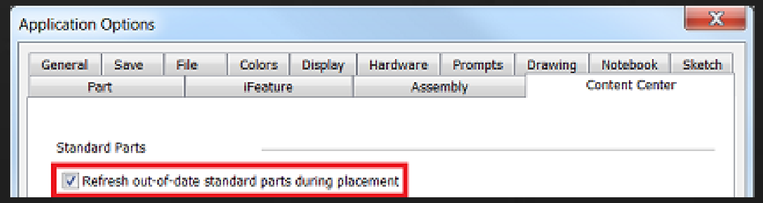
- **Scenario 4**
- Up-to-date component in Vault

	Component in Vault	Component in local CC Files folder	Refresh out-of-date standard parts during placement
Scenario 1	Out-of-date	Out-of-date	NO
Scenario 2	Out-of-date	Out-of-date	YES
Scenario 3	Up-to-date	Out-of-date	NO
Scenario 4	Up-to-date	Out-of-date	YES

- Out-of-date component in local Content Center Files family subfolder



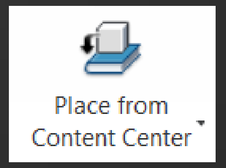
- "Refresh out-of-date standard parts during placement" IS checked



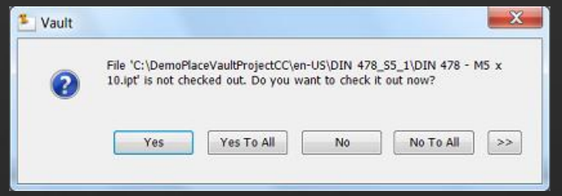
Place from Content Center in Vault Project

- **Scenario 4**

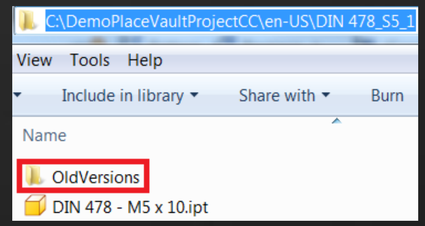
1. Insert component with Place from Content Center



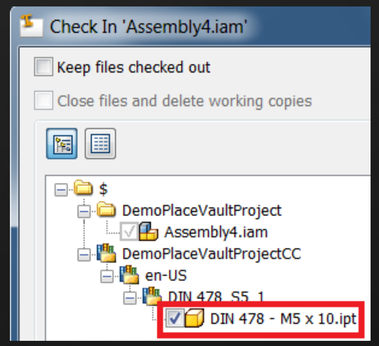
2. Inventor checks out the up-to-date component from Vault



3. Updates the file in the local family subfolder and inserts it in the assembly

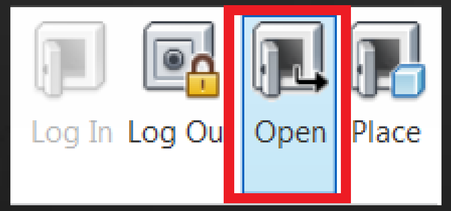


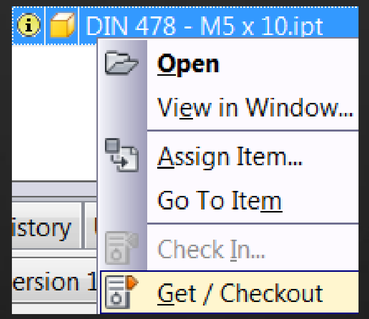
4. Check-in the up-to-date component in Vault



Place from Content Center in Vault Project

- **Scenario 4**
  - To avoid the check out of the up-to-date component
  - Open from Vault an assembly that contains the component
  - Or get it from Vault Explorer
  - Get the up-to-date file in the local family subfolder before placing it

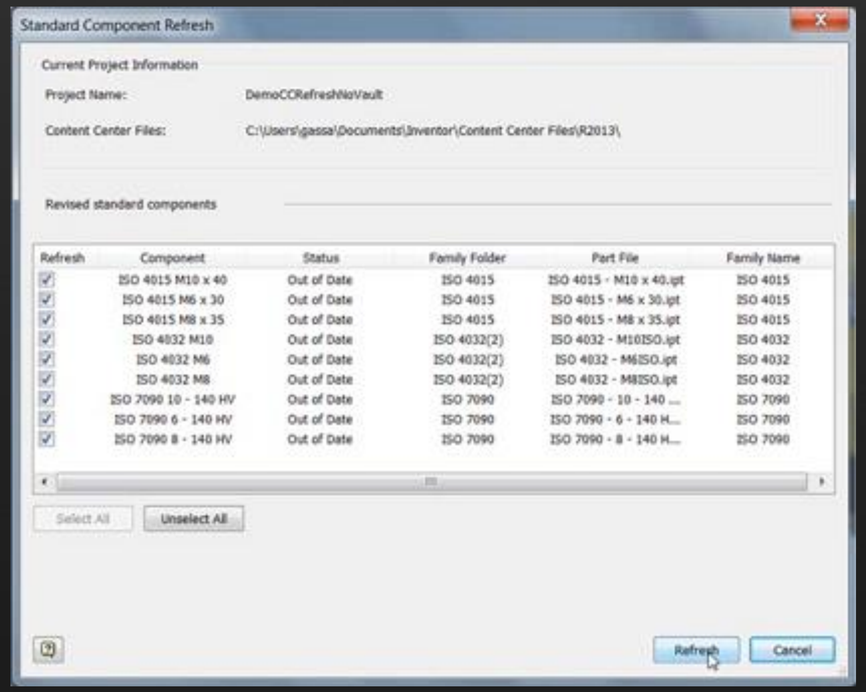




Update the family members inserted in the assemblies of the project

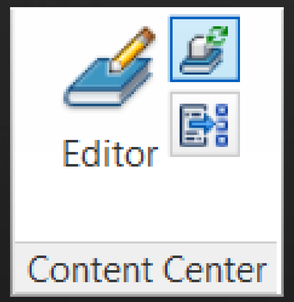
Update the members inserted in the assemblies

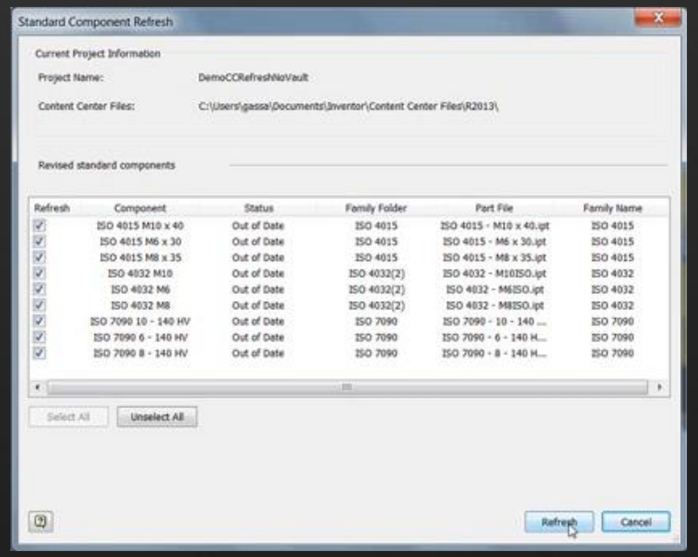
- Insert Family members in the assemblies
- Edit the Family Table and / or the Template
- Procedures for updating the Family members



Refresh the members inserted in one assembly

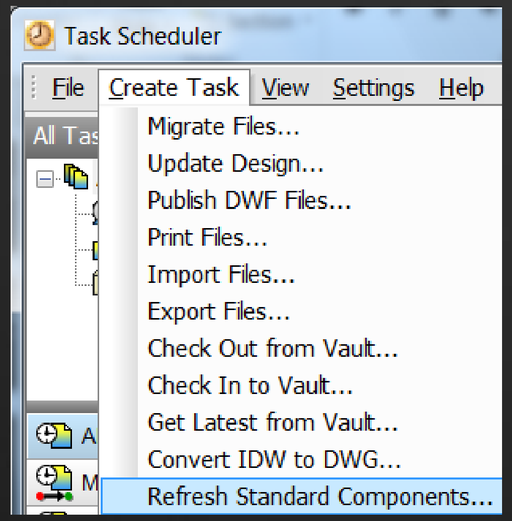
1. Open the assembly
2. Refresh Standard Components





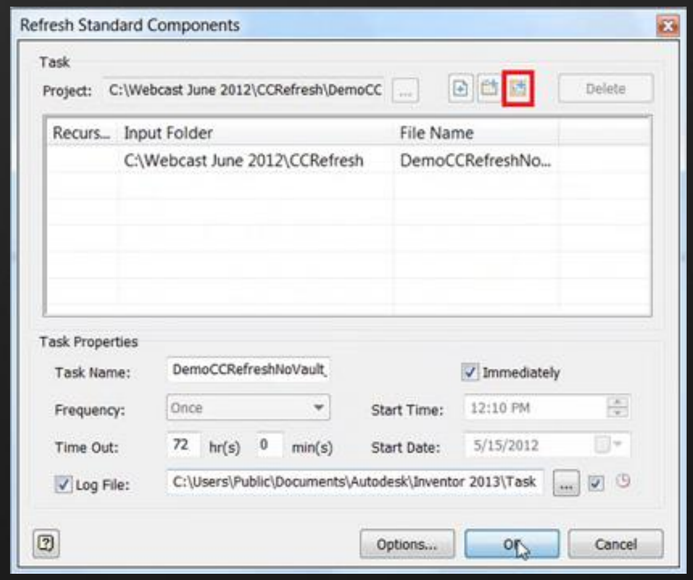
Refresh the members of several families

1. Task Scheduler > Create Tasks > Refresh Standard Components ...



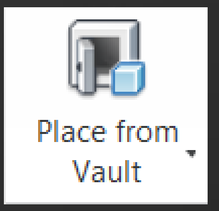
2. Click Add Project and select your project

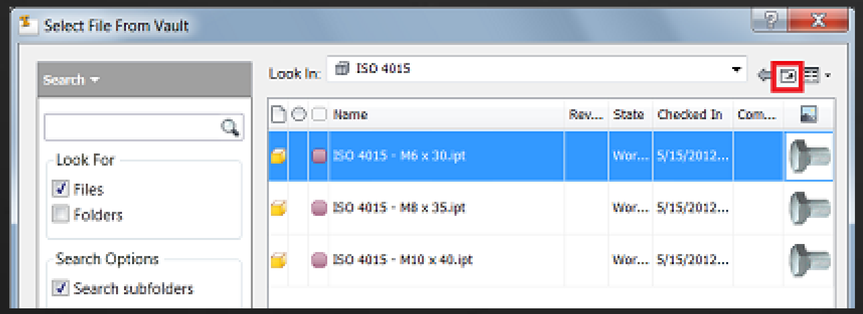
3. Select “Immediately” and click Ok



Refresh the members residing in Vault

1. Open a dummy assembly
2. Place From Vault
3. Locate the subfolder of the family

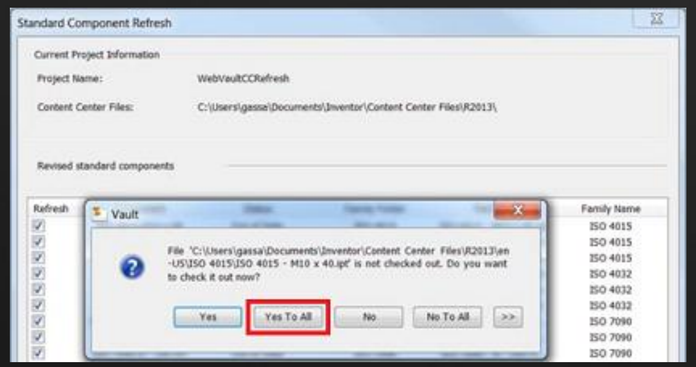


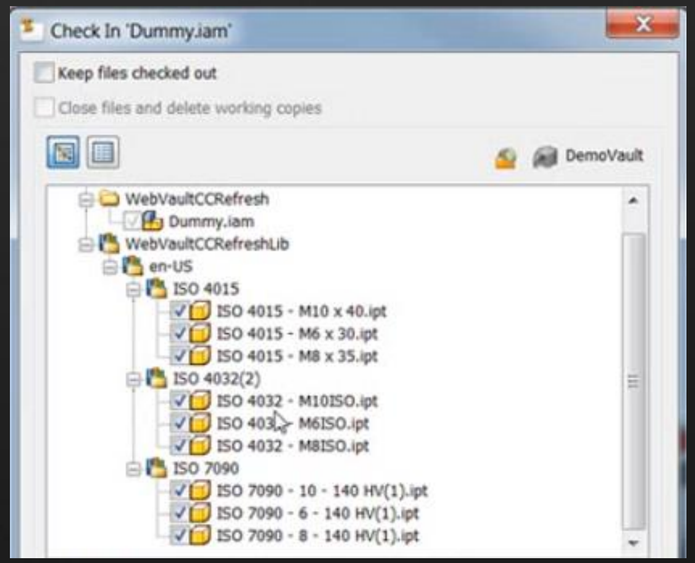


4. Select and insert all the files
5. Repeat steps 3 and 4 for the other families

Refresh the members residing in Vault

6. Save the assembly
7. Refresh Standard Components
8. Check out all the components to refresh
9. Check in the assembly



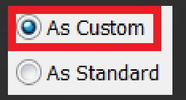


Refresh the members residing in Vault

- Notes
  - No assembly check out / in
  - No assembly version number change
  - It replaces the members with the new versions

Update the members inserted in the assemblies

- Final notes
  - Members inserted “As custom” cannot be refreshed



  - Refresh for frames inserted with Frame Generator
    - Design tab > Frame panel > Refresh
    - For changes applied to the Family Table

Summary

We had a good look at the possible solutions to some recurring questions from the users for customizing the Content Center Library.

We have seen as well the recommended workflows for updating the members inserted in the assemblies of the project in different scenarios.

For more tips and trick about these topics, refer to the Being Inventive Inventor blog, under the Content Center/ADMS Category.

Thanks for attending!