Autodesk® Vault Professional® SolidWorks Integration

SolidWorks Property Mapping

Part of the initial configuration required for full use of the Autodesk Vault Professional SolidWorks integration is property mapping, whereby SolidWorks file content is indexed for display, item assignment, searching and editing in Vault.
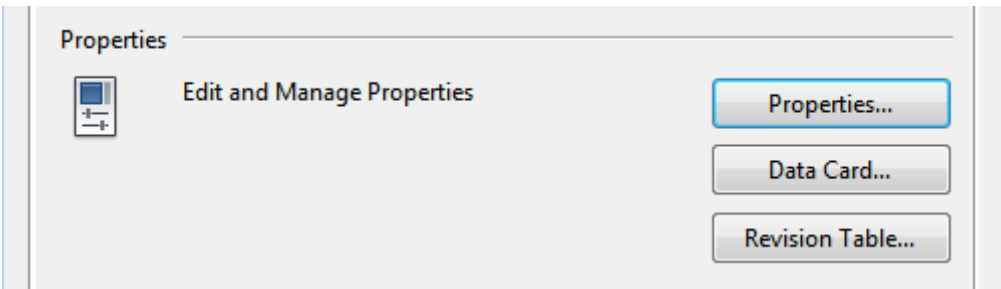
Required Property Mapping

While Autodesk Vault SolidWorks integration supports 2 way mapping of SolidWorks custom properties to user defined properties allowing for a flexible approach to property mapping requirements, there are a small number of specific one way property mappings required to ensure correct usage of SolidWorks files in Vault which we will cover first, mapping of SolidWorks file thumbnails for document preview and component type for use in Autodesk Vault Professional Item BOM creation.
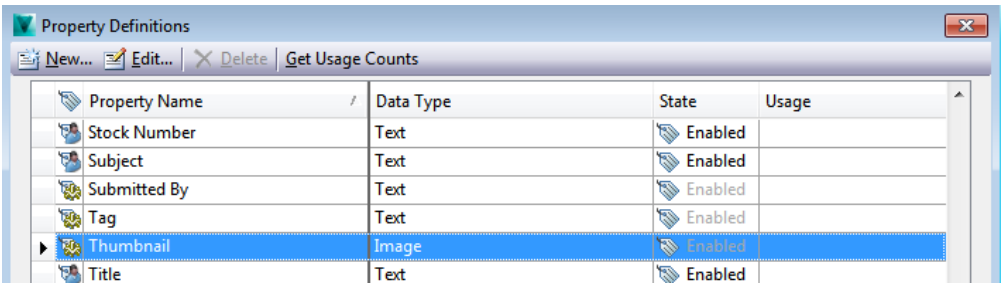
SolidWorks thumbnail mapping
To enable access to SolidWorks thumbnails:

- From the Tools menu select Administration and "Vault Settings". On the behaviors tab select the properties section.
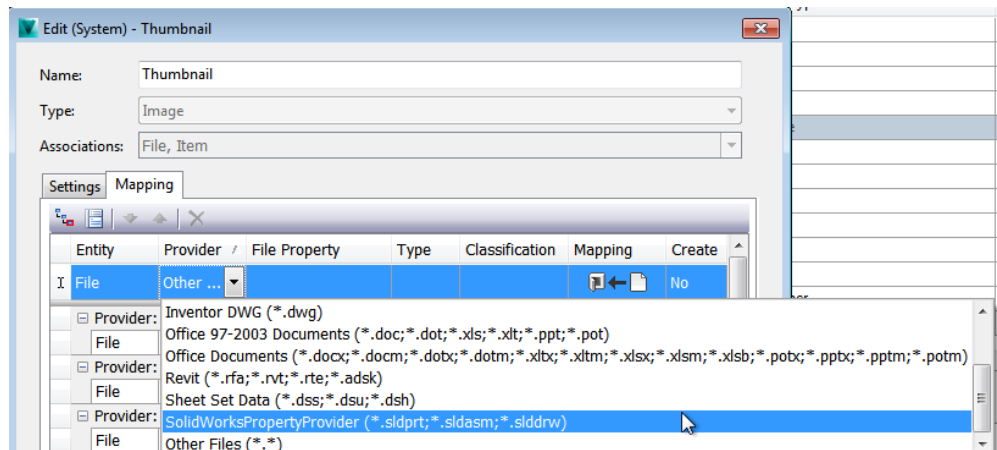

- From the property list highlight the "Thumbnail" property and select "Edit".
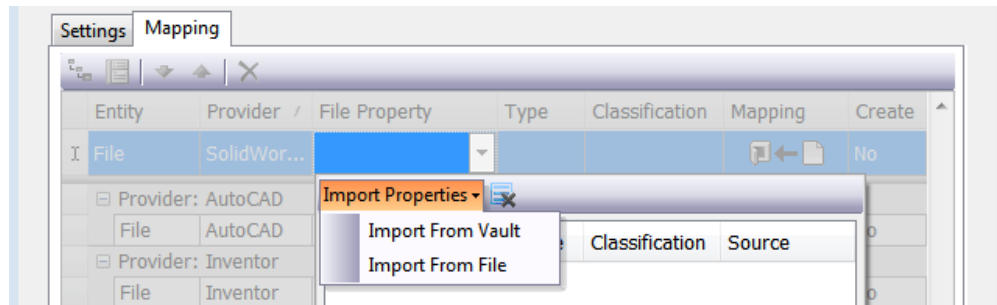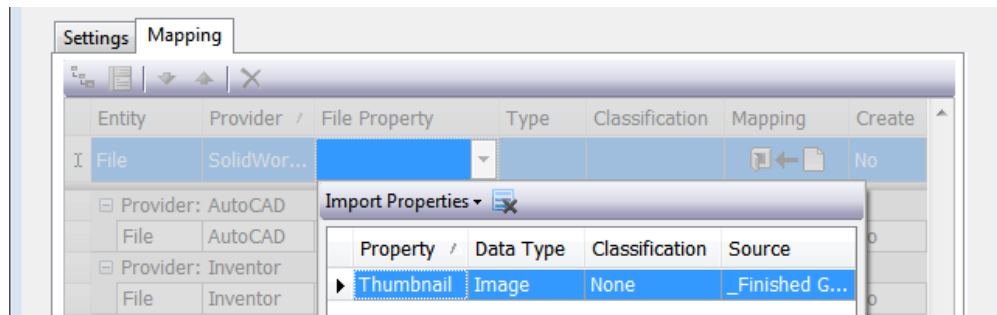
- On the edit dialog select the mapping tab and "Add" mapping
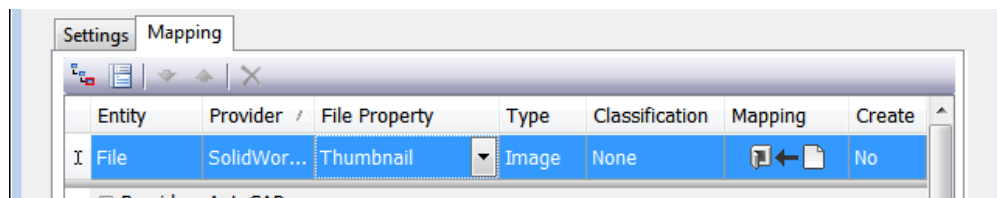- As the property provider select SolidWorksPropertyProvider

- From file properties select "Import from Vault" or "Import from file" – if you have not yet loaded SolidWorks data into your Vault select "Import from file" for this first step.

- You will now be prompted to search your local drive for a supported SolidWorks file type
- Picking a file you should now see the SolidWorks thumbnail property which can be mapped.

- Select OK to save and complete the property mapping

Note that this mapping is restricted to a one directional relationship from File to Vault as the thumbnail can only be supplied to Vault for previewing, its value of course cannot of course be modified in Vault.

- When you check in SolidWorks files you should now see the file thumbnails

- The thumbnail is also used for a quick document preview. Click on this thumbnail to view the dwf attachment for that file version

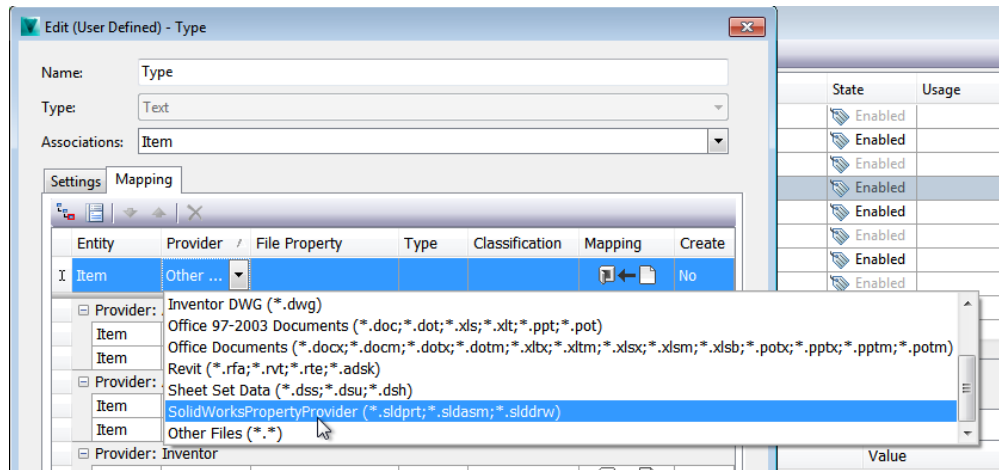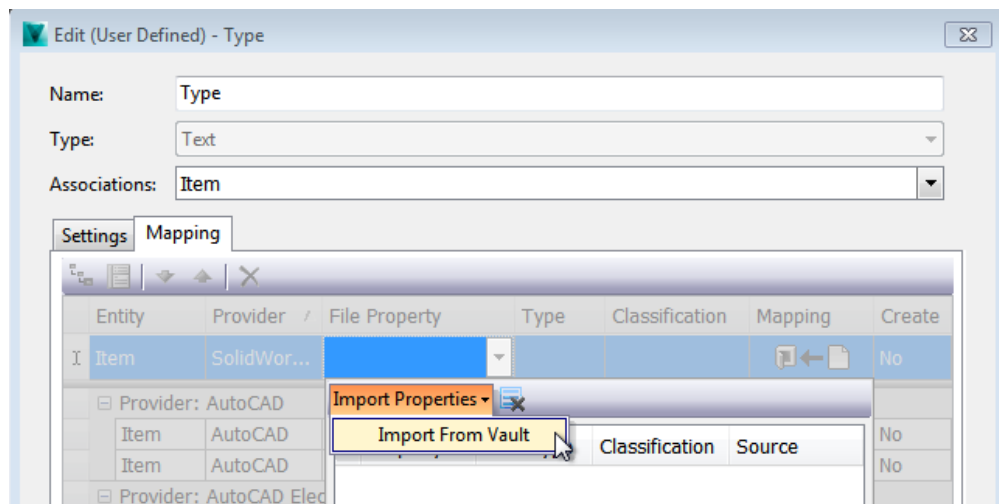**Mapping SolidWorks file to Item Type**

The Autodesk Vault SolidWorks integration supports Item creation from SolidWorks CAD files, enabling users to create CAD based Bills of Material for use in downstream processes such as ERP systems.

To enable correct BOM structure behaviors it is necessary to map the SolidWorks file component type to the item type property. Following the same process used to map thumbnails, administrators need to set the Item type in properties.

- To map the component type, from the Tools menu select Administration and "Vault Settings".
- On the behaviors tab select the properties section.
- Find the item property "Type" and select "Edit"
- On the edit dialog select the mapping tab and add a new mapping
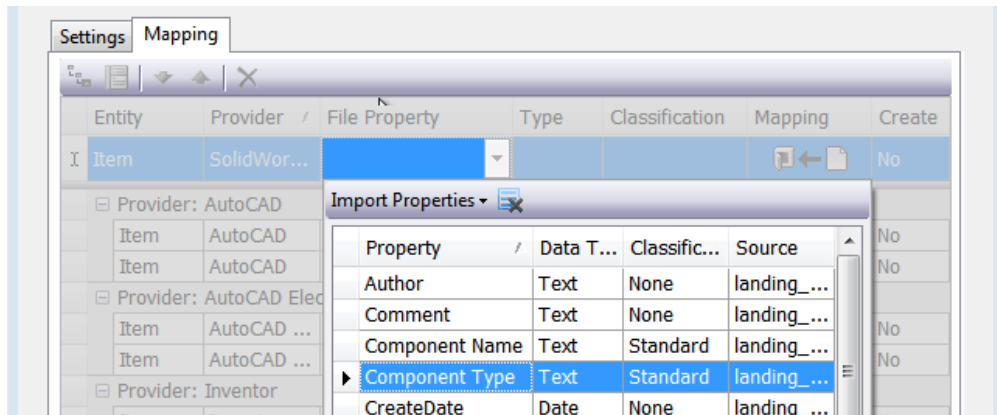- From the property provider SolidWorksPropertyProvider

- You now need to import the properties from a vaulted SolidWorks file – note that there is no option to select a locally stored file in this instance
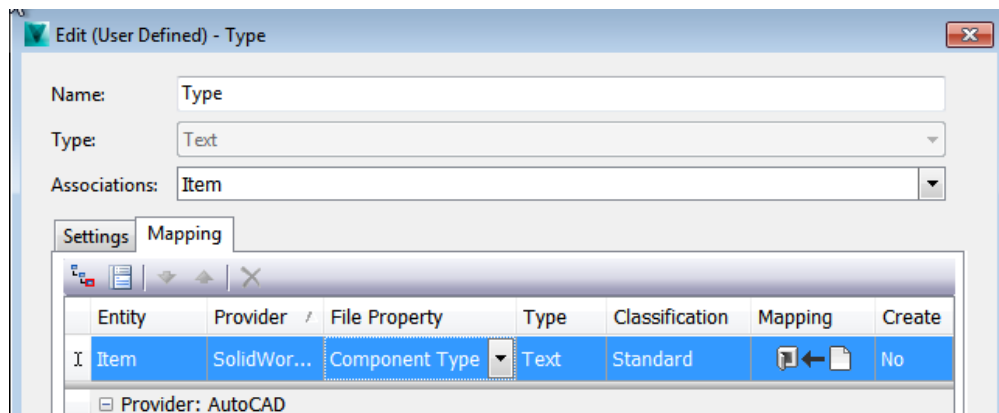
- Select "Component Type" from the file property

- Select OK to save the completed mapping

Once again note that this mapping is uni-directional meaning it is a read only property in Vault mapped from the file.
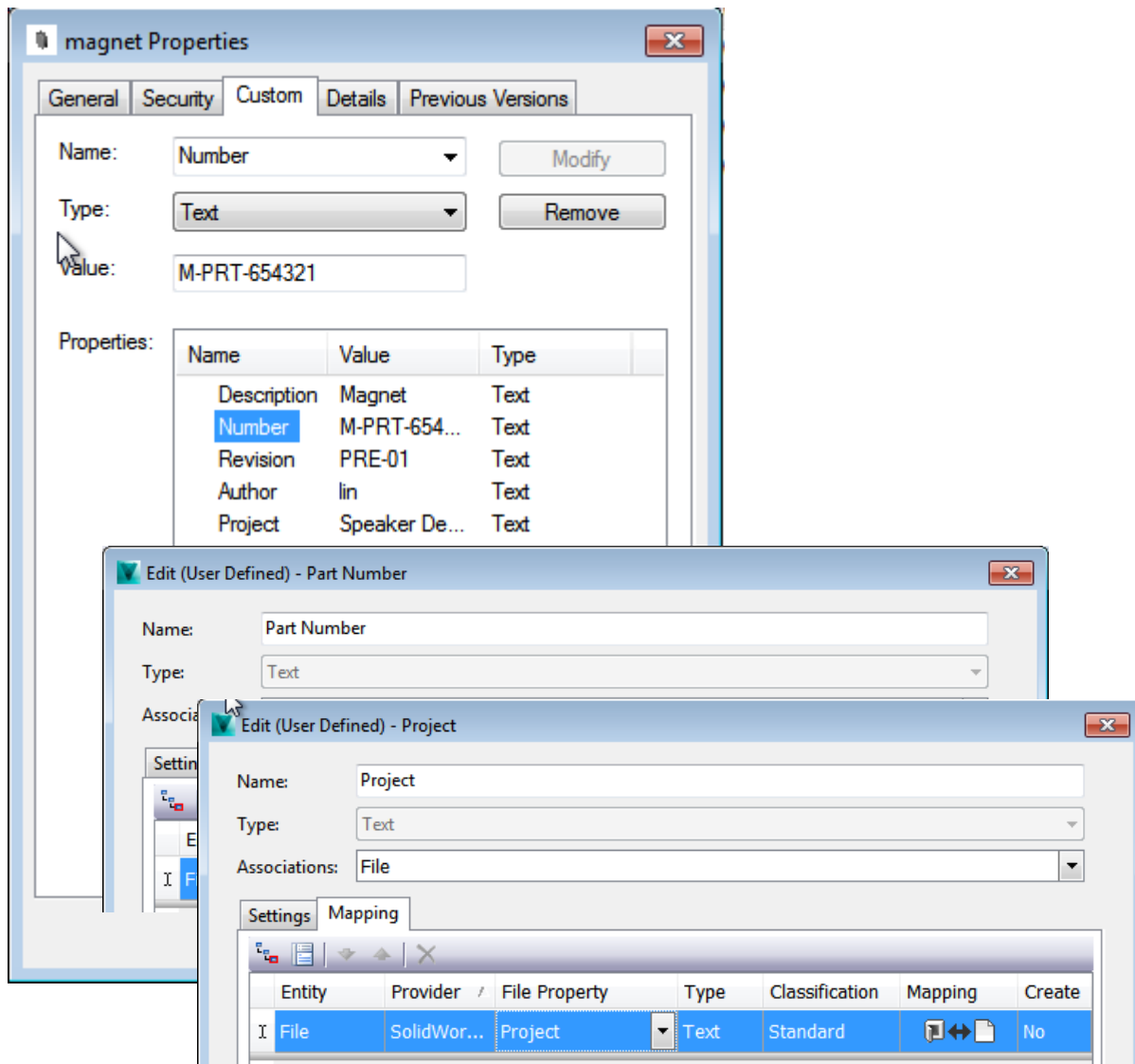
- After mapping this value, assign item creates the expected CAD structure from SolidWorks models

General Property Mapping

After these two specific property mapping requirements are met users are free to continue mapping custom SolidWorks file properties to Vault user defined properties. In the file example below users should look at mapping values like the SolidWorks file number, description, revision and project. This will enable users to better search for and identify vaulted components.

Administrators can opt to make this mapping bi-directional permitting users to edit the SolidWorks custom properties from inside Vault and write this back to the file.

See the Vault help for more information on creating user defined properties, mapping and editing properties.