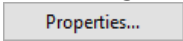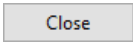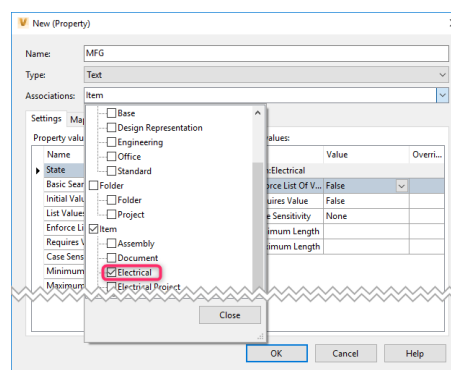# Extracting Electrical Parts Into Vault Item Master

Autodesk Vault

A *Bill of Materials* (BOM) is a summary of items needed to manufacture. The BOM feature is only available in Autodesk® Vault Professional and it integrates fluently with AutoCAD® Electrical.
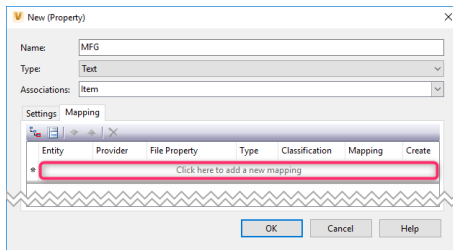
A BOM can include item numbers, quantities, manufacturer, part number, part description, lifecycle state and other properties. Autodesk® Vault Professional tracks the lifecycle of items used to manufacture products too!
When a file is assigned an item, a unique item number based on your company's standard is assigned to the item and a Bill of Materials is generated that tracks the relationships between associated items using the file relationship information from the vault.

Before we produce a bill of materials in Vault, we need to add *Manufacturer* as an available mapped property field in Vault Client Explorer:
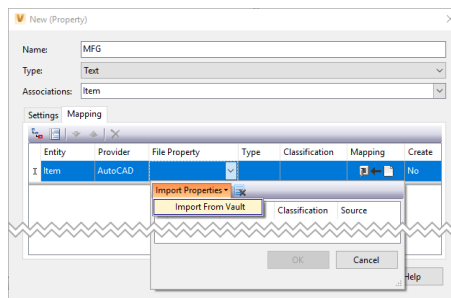
1. Select *Tools* dropdown > *Administration* > *Vault settings*
   i. Select the *Behaviours* tab > Properties...
   ii. Select New...
       1. In the New (Property) dialogue box:
          a. Enter a name e.g. *MFG*
          b. For Type, select *Text*
          c. For Associations, from the drop-down list:
             i. Select *Item*
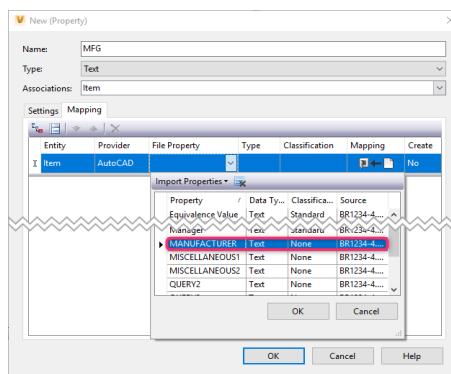   ii. Select *Electrical*
             iii. Select Close

2. Select the   Mapping   tab

    a. Select *Click here to add a new mapping*:

        i.   Entity = Item
       ii.   Provider = AutoCAD (*.dwg, *.dwt)
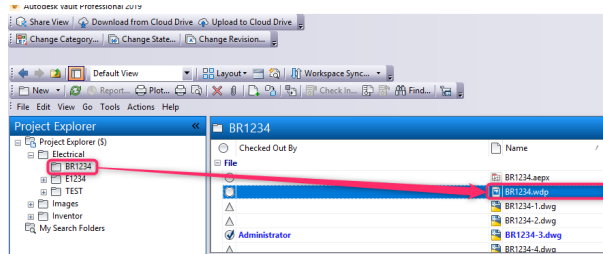   iii.   File Property ⬇ > *Import Properties* > *Import From Vault*

      iv.   *Select File* dialogue, select a DWG file with the MANUFACTURER property > [Open]
       v.   *New (Property)* dialogue, on the mapping table select MANUFACTURER

      vi.   On the Mapping, select [icon] (data file into Vault)
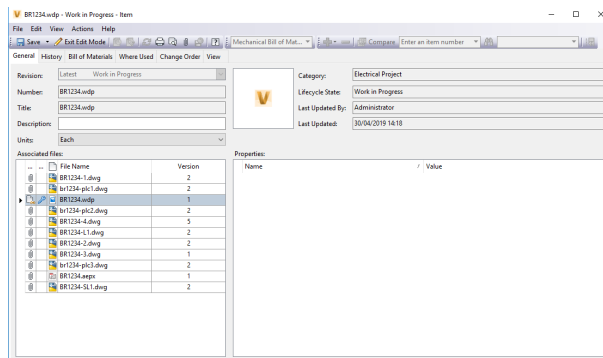   vii.   Select *OK* and *Close*

It's easy to extract the AutoCAD® Electrical part information into the Vault *Item Master*.

Right click over the *.wdp contained within the electrical project folder:
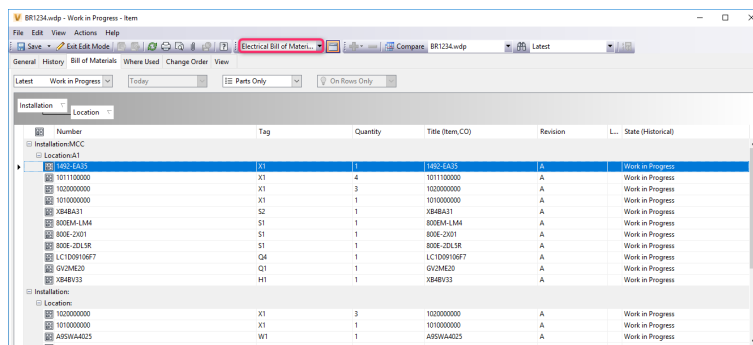

Select Assign / Update Item...

Autodesk® Vault will process the information and provide an item list for all parts within the AutoCAD® Electrical project.
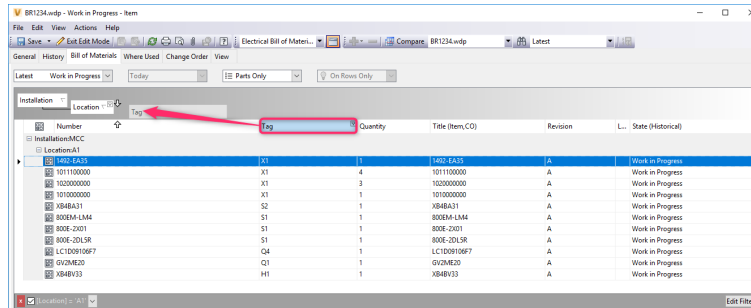

Select Bill of Materials tab

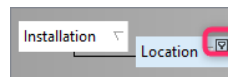Select *Electrical Bill of Materials* option from the dropdown ⬇

The bill of materials is then broken down into an *Installation/Location* component tree.
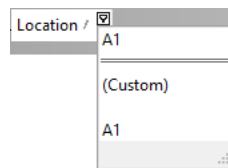
If you wish to have a *Bill Of Materials Sorted By Component Tag*, left click on the *Tag* header and drag to the side of the *Location*:
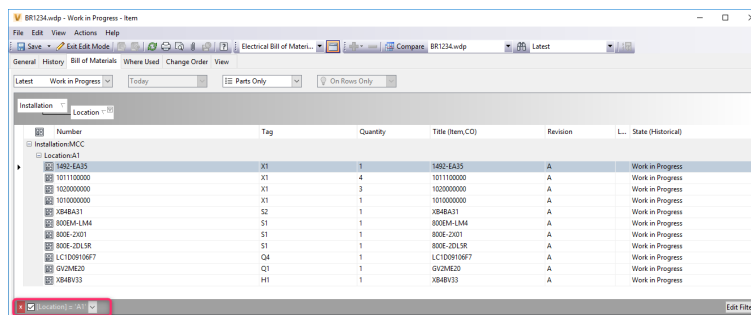

To apply a filter, hover your cursor over the top right-hand corner of the *Location* and a filter icon will appear:

Left click on the filter icon and the locations within your project will be listed:
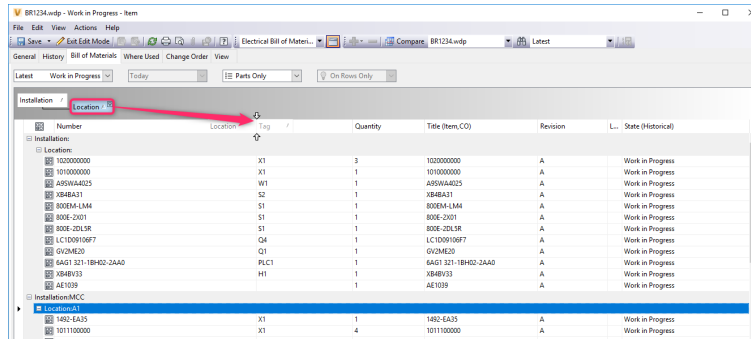

Select a location and your bill of materials will be reduced to the components within the selected location:

The filter expression used will be shown in the lower right of the dialogue.

You can left click and drag the group header of Installation and Location into the content headers.
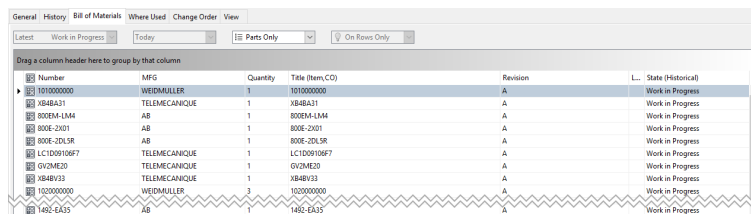

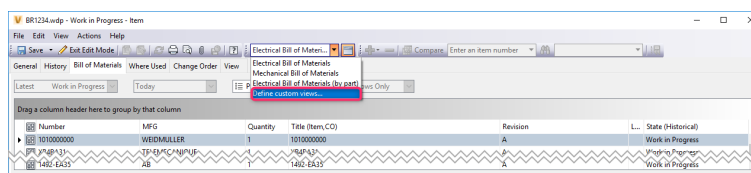You can have a *Bill Of Materials By Part Number*:

Right click on one of the column headers > Customize View... > Fields...

You can Add -> or <- Remove available fields e.g. MFG

Select OK to apply the changes

The different report options could be defined as a *Custom View* therefore enabling you to toggle between the 2 different types of reports:

- The permission assigned to a user determines the item tasks the user can perform
- The security of an item determines which operations may be applied to an item