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## **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<sup>®</sup> Vault Professional and it integrates fluently with AutoCAD<sup>®</sup> Electrical.

A BOM can include item numbers, quantities, manufacturer, part number, part description, lifecycle state and other properties. Autodesk<sup>®</sup> 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

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	Minimum	Electrical			
Ý	Maximum			~~~~~	~~~
		Close			









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- 2. Select the Mapping tab
  - a. Select Click here to add a new mapping:

ame:	MFG							
pe:	Text							
sociations:	ltem					1		
		File Property	Туре	Classification	Mapping	Create		
Entity	Provider	File Property	-96-5		11.5			
*	Provider		to add a new	mapping				

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

Name:	MFG					
Туре:	Text					
Associations:	ltem					
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		Import From	n Vault	Classification	Source	1
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- Open iv. Select File dialogue, select a DWG file with the MANUFACTURER property >
- v. New (Property) dialogue, on the mapping table select MANUFACTURER

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		MANUFACTURER	Text	None	BR1234-4	
		MISCELLANEOUS1	Text	None	BR1234-4	
		MISCELLANEOUS2	Text	None	BR1234-4	
		QUERY2	Text	None	BR1234-4	
			-	1		_
				ОК	Cancel	
		-				

- vi. On the Mapping, select **I** (data file into Vault)
- vii. Select OK and Close









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#### 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:

😡 Share View   🏠 Download from Clo	ud Drive 🐵 Upload to Cloud Drive 🖕	
📑 Change Category 🕞 Change Sta	te 🔁 Change Revision 🖕	
	💌   🔡 Layout 🕶 😭   🏦 Workspace Sync 🔹 🛫	
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	0	BR1234.wdp
	Δ	BR1234-1.dwg
Inventor	A	BR1234-2.dwg
EQ My Search Folders	Administrator	🚰 BR1234-3.dwg

### Select 🖳 Assign / Update Item...

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

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Num	ber		BR1234.wdp		34	Lifecycle State	Work in Progress			
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Desc						Last Updated:	30/04/2019 14:18			
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1			BR1234-1.dwg	2						
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) • 🖸			BR1234.wdp	1						
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Select Bill of Materials tab

#### Select Electrical Bill of Materials option from the dropdown $oldsymbol{\Psi}$

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Installation:MCC							
Location:A1							
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E 1011100000	X1	4	1011100000	A	Work in Progress		
102000000	XI	3	102000000	A	Work in Progress		
101000000	X1	1	101000000	A	Work in Progress		
EE X848A31	52	1	XB48A31	A	Work in Progress		
800EM-LM4	\$1	1	800EM-LM4	A	Work in Progress		
800E-2001	\$1	1	800E-2X01	A	Work in Progress		
E 800E-2DLSR	51	1	800E-2DL5R	A	Work in Progress		
E LC1D09106F7	Q4	1	LC1D09106F7	A	Work in Progress		
GV2ME20	Q1	1	GV2ME20	A	Work in Progress		
X848V33	HI	1	XB48V33	A	Work in Progress		
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101000000	X1	1	101000000	A	Work in Progress		
A9SWA4025	W1	1	A95WA4025	A	Work in Progress		

The bill of materials is then broken down into an Installation/Location component tree.











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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*:

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۶E	1492-EA35	X1	1	1492-EA35	A	Work in Progress		
	E 1011100000	X1	4	1011100000	A	Work in Progress		
	E 102000000	X1	3	102000000	A	Work in Progress		
	EE 1010000000	X1	1	101000000	A	Work in Progress		
	XB4BA31	52	1	X848A31	A	Work in Progress		
	800EM-LM4	\$1	1	SCOEM-LM4	A	Work in Progress		
	BE 800E-2001	51	1	800E-2X01	A	Work in Progress		
	800E-20L5R	\$1	1	800E-2DL5R	A	Work in Progress		
	EC1D09106F7	Q4	1	LC1D09106F7	A	Work in Progress		
	GV2ME20	Q1	1	GV2ME20	A	Work in Progress		
	100 X848V33	HI		XB4RV33	A	Work in Progress		

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:

Location /	▼ A1
	(Custom)
	A1

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

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Installation:MCC	9						
Location A1							
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101000000	XI	1	1010000000	A	Work in Progress		
ER X848A31	52	1	X848A31	A	Work in Progress		
ER SOOEM-LM4	\$1	1	800FM-LM4	4	Work in Progress		
800E-2001	51	1	800E-2X01	A	Work in Progress		
E 800E-20L5R	\$1	1	800E-2DL5R	A	Work in Progress		
LC1D09106F7	04	1	LC1D09106F7	A	Work in Progress		
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The filter expression used will be shown in the lower right of the dialogue.









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101000000	X1	1	101000000	A	Work in Progress	
A95WA4025	W1	1	A95WA4025	A	Work in Progress	
EE XB4BA31	52	1	XB48A31	A	Work in Progress	
图 800EM-LM4	S1	1	800EM-LM4	A	Work in Progress	
800E-2X01	S1	1	800E-2X01	A	Work in Progress	
BI 800E-2DL5R	51	1	800E-2DL5R	A	Work in Progress	
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GV2ME20	Q1	1	GV2ME20	A	Work in Progress	
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Installation:MCC						
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1492-EA35	X1	1	1492-EA35	A	Work in Progress	
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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:

<i>Right click</i> on one of the co	olumn hea	ders >	Customi	ze View >	Fields	]
You can Add -> or <- Rd	<sup>emove</sup> avai	ilable fie	lds e.	g. MFG		
Select OK to apply	the chang	jes				
	General History Bill of Materials	100 m ll 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Maria			
	Latest Work in Progress 🗸	Today 🗸	I Parts Only	V On Rows Only		
	Drag a column header here to gro	oup by that column				
	I Number	MFG	Quantity	Title (Item,CO)	Revision	L State (Historical)
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	副 XB4BA31	TELEMECANIQUE	1	XB4BA31	A	Work in Progress
	100 800EM-LM4	AB	1	800EM-LM4	A	Work in Progress
	800E-2X01	AB	1	800E-2X01	A	Work in Progress
	BE 800E-2DL5R	AB	1	800E-2DLSR	A	Work in Progress
	EE LC1D09106F7	TELEMECANIQUE	1	LC1D09106F7	A	Work in Progress
	GV2ME20	TELEMECANIQUE	1	GV2ME20	A	Work in Progress
	E XB4BV33	TELEMECANIQUE	1	XB4BV33 1020000000	A	Work in Progress
	102000000 1492-EA35	AB		102000000 1492-EA35		Work in Progress

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

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File Edit View Actions Hel	p						
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Number	MFG	Quantity	Title (Item,CO)	Revision			
E Number ► E 101000000	MFG WEIDMULLER	Quantity 1	1010000000	Revision	L	Work in Progress	1

- 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 •







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