

Making the Move from AutoCAD to AutoCAD Electrical

A Faster Way to Work!



Making the Move from AutoCAD to AutoCAD Electrical

Introduction:

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- Autodesk Reseller - Synergis Technologies - Quakertown, PA
Sales, Training, Consulting
- Manufacturing industries:
Technical Ceramics, Honeywell, OTIS Elevator, Specialty Gas
- Autodesk software:
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Helping you stay ahead.



Making the Move from AutoCAD to AutoCAD Electrical



Class summary:

AutoCAD Electrical has specific tools for creating electrical controls system designs. It has libraries of standard components, and creates intelligent connections between project drawings. This session demonstrates how to take an AutoCAD-based control system design and add AutoCAD Electrical intelligence. Sometimes it makes sense to keep the standard AutoCAD design in the project, and sometimes it makes sense to make the entire circuit smart. This session will work with tools available in a typical installation of AutoCAD Electrical, and use some tools used for years in a standard AutoCAD installation.

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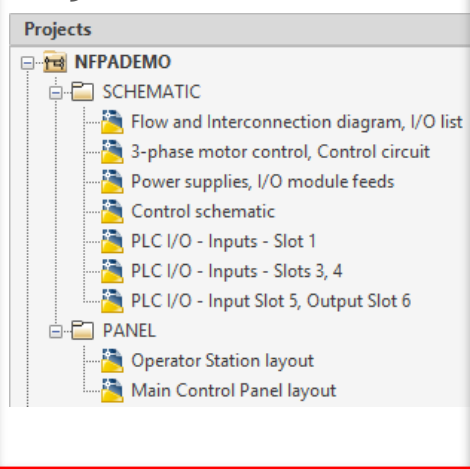


Subjects:

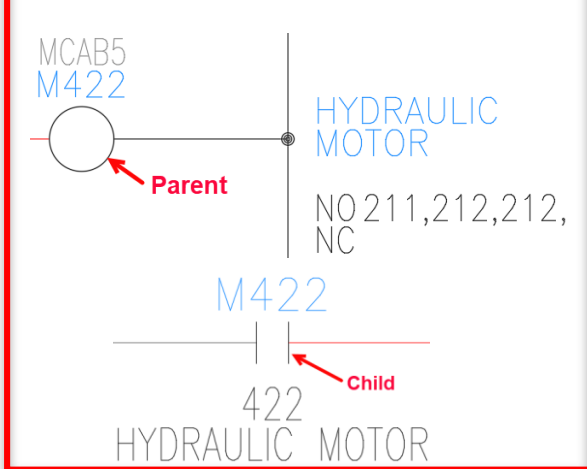
- Difference between AutoCAD and AutoCAD Electrical:
 - Group drawings together in a project
 - Project drawings are linked
 - Parent/Child
 - Source/Destination - wires
 - Terminals linked
 - Blocks carry data allowing to run reports
- AutoCAD Electrical specific tools:
 - Wires not Lines
 - Delete Component and Trim Wire - Not ERASE or Keyboard Delete
 - Design Center is safe to use!
 - Wire Number tool automatically adds wire numbers - Not dumb text
 - Edit Component - Not Enhanced Attribute Editor
 - Terminal symbols linked - Use Terminal Editor
 - Export to Spreadsheet - Make changes in Excel, and import back to drawing
 - Make sure you run the update tools!
- Schematic Symbols are linked to Panel Footprints:
 - Linked together with attributes
 - Can extract the information to link, or manual add the required data
- Setting AutoCAD Electrical up in a group environment:
 - Using software out-of-box vs. sharing content
 - Server vs. Vault

Difference between AutoCAD and AutoCAD Electrical:

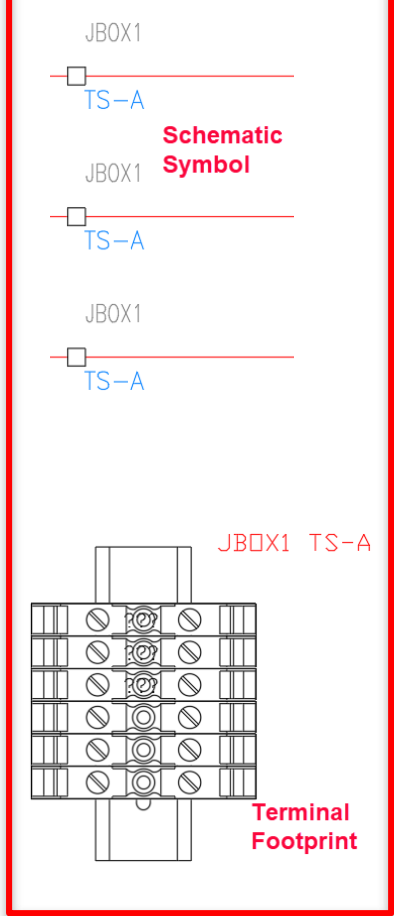
Projects:



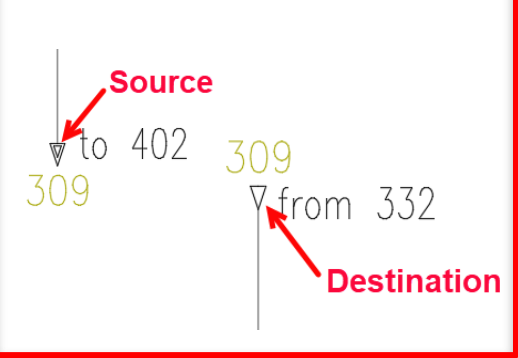
Parent/Child:



Terminal:



Source/Destination:



Symbols are linked so you can “Surf” across drawings to locate

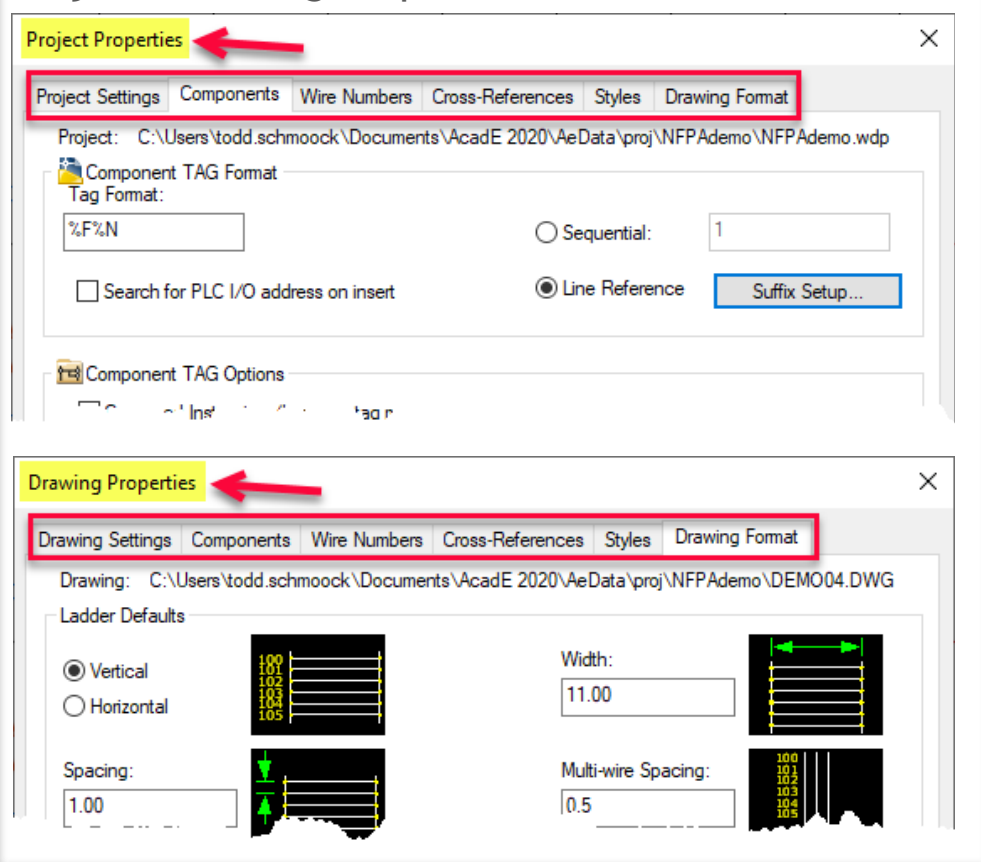
Surf

M422 references
 Manufacturer: EATON
 Catalog: AN16DN0AB

Type	Sheet,Reference	Installation	Location	Cat-
p	03, 422		MCAB5	
	NO 01, 211		MCAB5	
	NO 01, 212		MCAB5	
	NO 01, 212		MCAB5	
	NO 01, 213		MCAB5	
	NO 03, 423		MCAB5	
#	08		MCAB5	

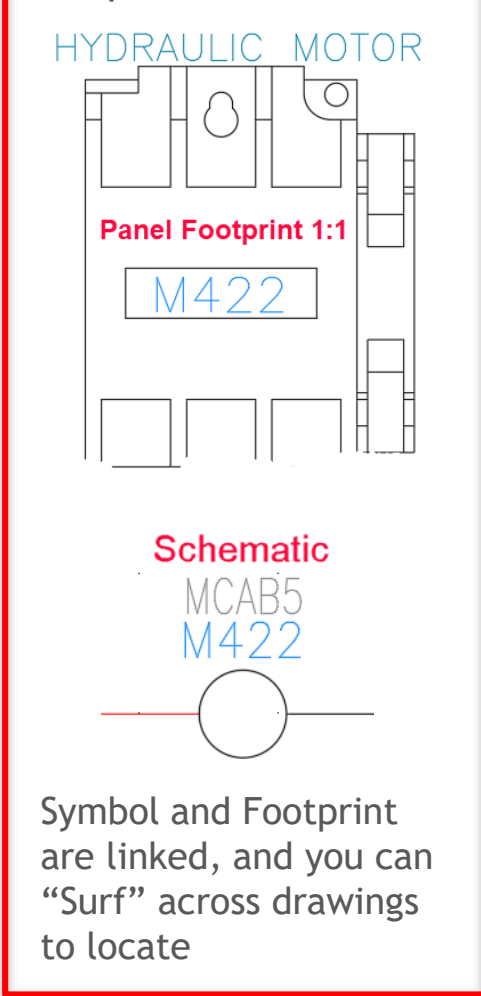
Difference between AutoCAD and AutoCAD Electrical:

Project/Drawing Properties:



The image shows two dialog boxes from AutoCAD Electrical. The top dialog is 'Project Properties' with the 'Project Settings' tab selected. It shows the project path and options for 'Component TAG Format' (Tag Format: %F%N, Sequential: 1, Line Reference selected) and 'Component TAG Options'. The bottom dialog is 'Drawing Properties' with the 'Drawing Settings' tab selected. It shows the drawing path and 'Ladder Defaults' (Vertical selected, Spacing: 1.00) and 'Drawing Format' (Width: 11.00, Multi-wire Spacing: 0.5).

Footprint:

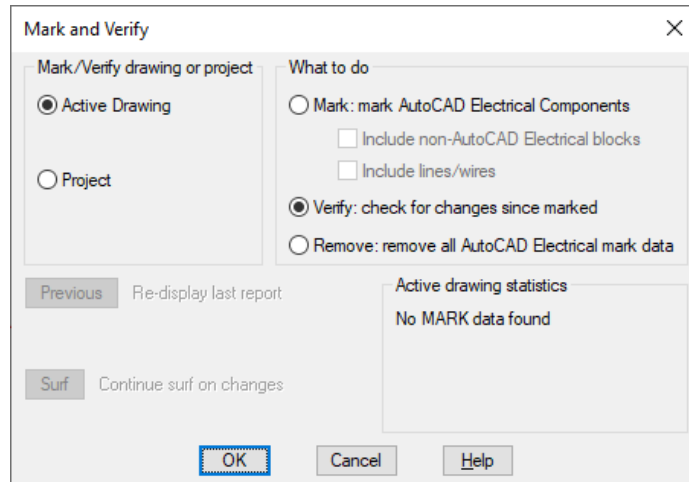
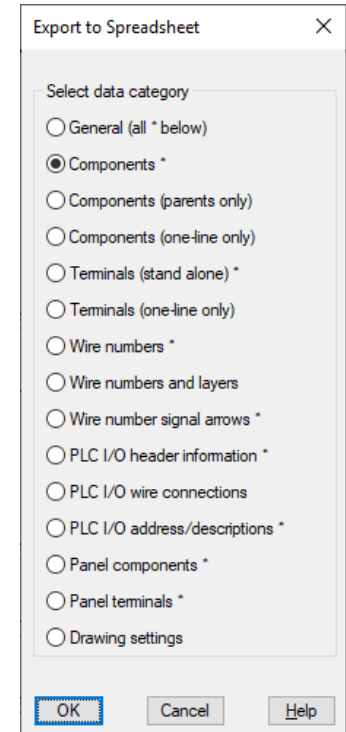
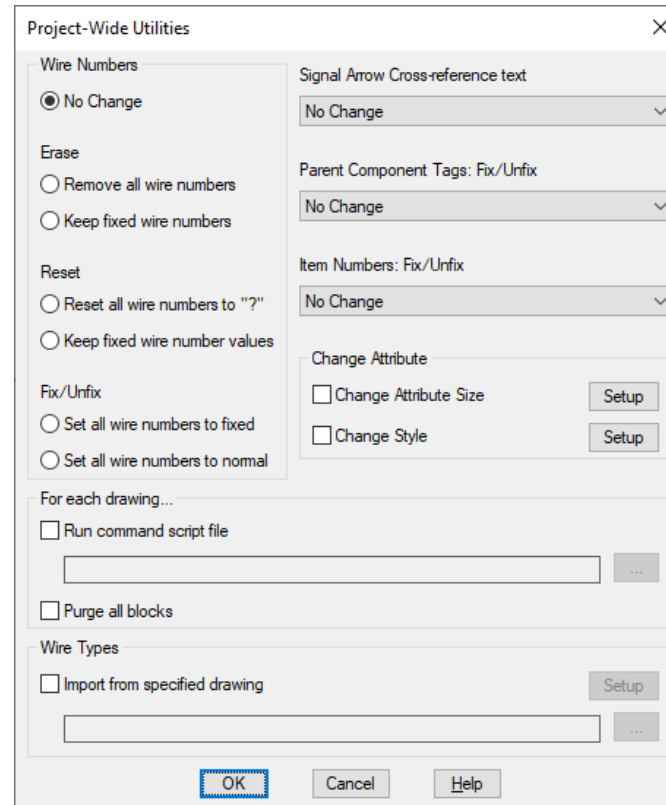
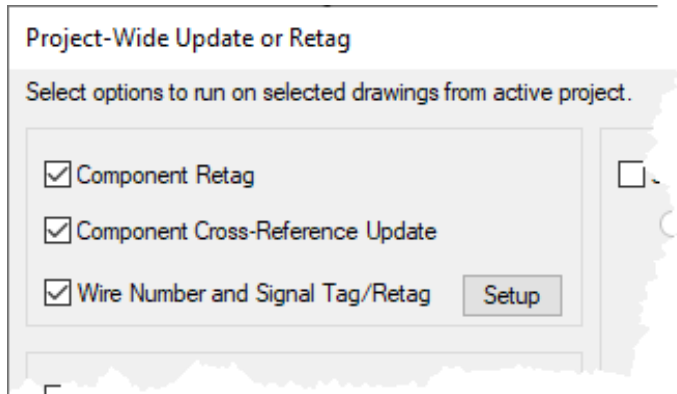


The diagram illustrates the link between a footprint and a schematic symbol. The top part shows a 'HYDRAULIC MOTOR' footprint with a 'Panel Footprint 1:1' label and a blue 'M422' tag. The bottom part shows a 'Schematic' symbol for 'MCAB5 M422' with a red circle and horizontal lines. Below the schematic, the text reads: 'Symbol and Footprint are linked, and you can "Surf" across drawings to locate'.

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AutoCAD Electrical specific tools:

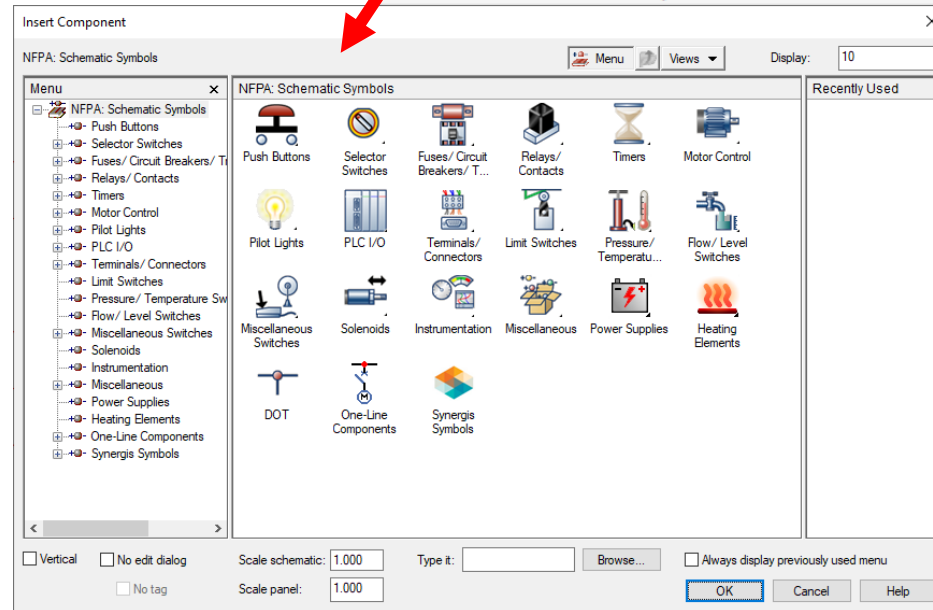
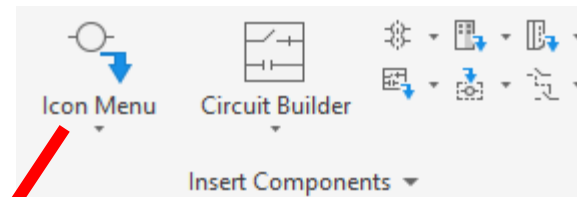
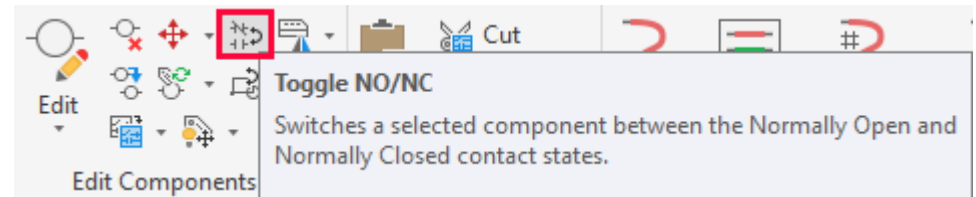
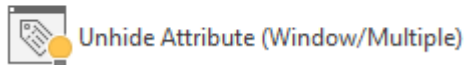
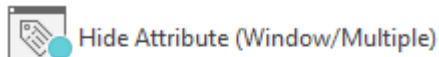
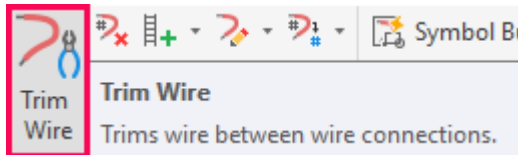
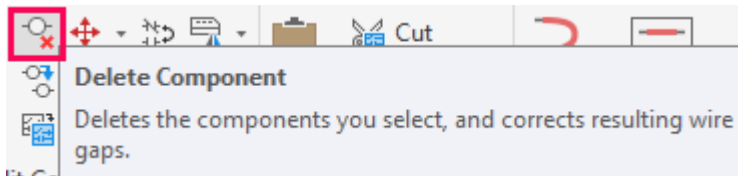
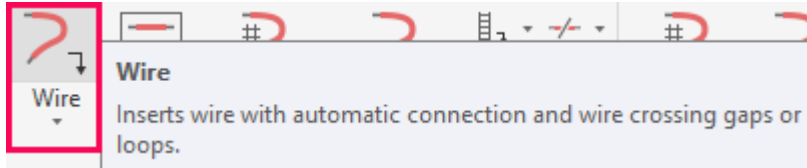
Project tool examples:



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AutoCAD Electrical specific tools:

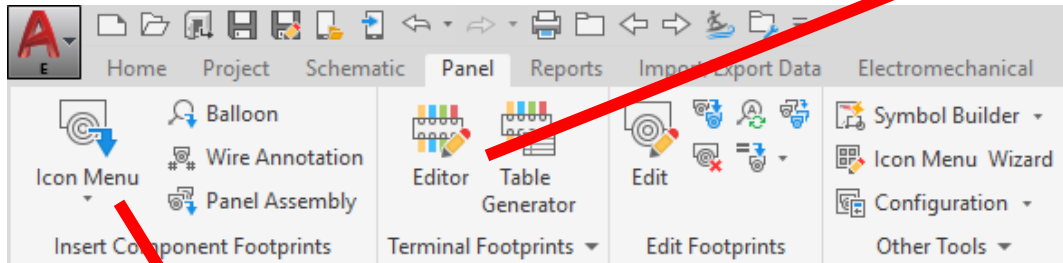
Schematic tool examples:



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AutoCAD Electrical specific tools:

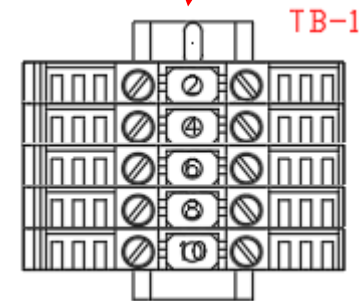
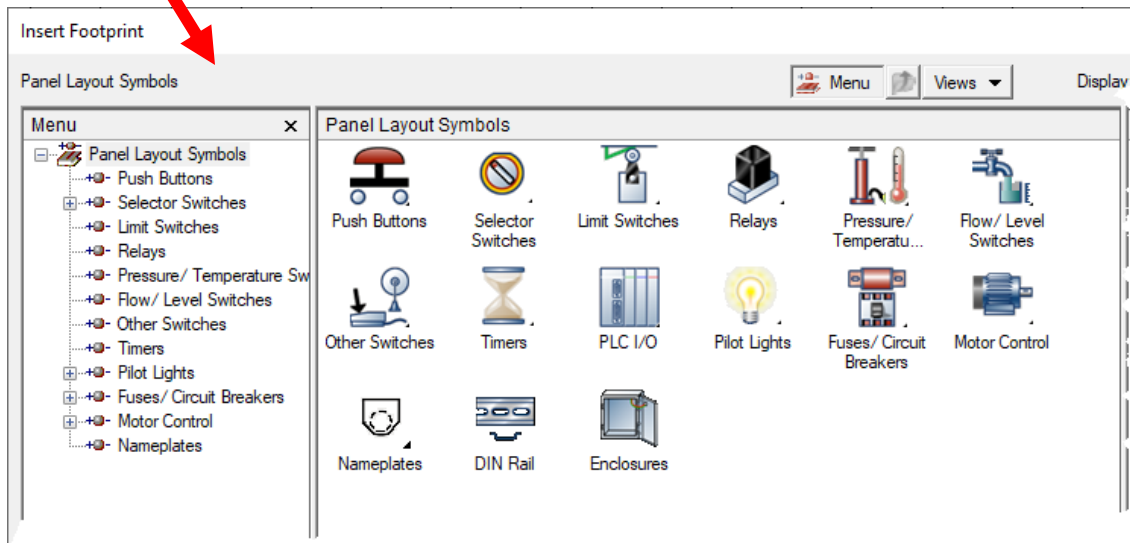
Panel tool examples:



Terminal Strip Selection

Installation	Location	Terminal Strip	Quantity
	MCAB5	TB	9
	MCAB5	TB-1	5
		TB-1	5
	MCAB5	TB-2	4
	JBOX1	TS-A	6
	JBOX1	TS-B	3
	MCAB5	TR1	26

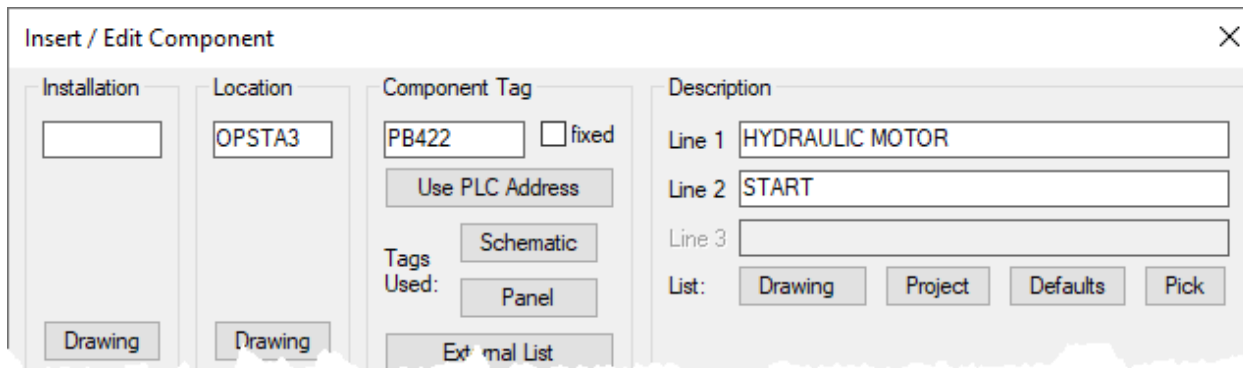
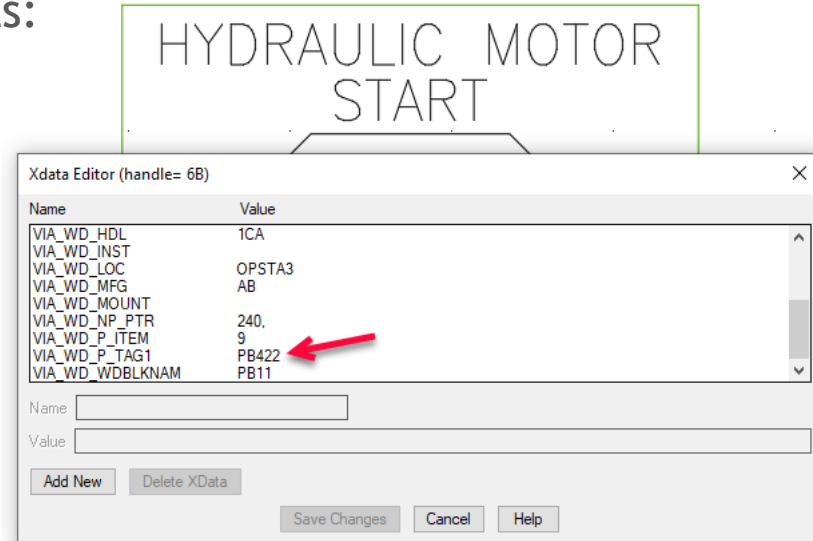
Buttons: New, Edit, Done, Help



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Schematic Symbols are linked to Panel Footprints:

Using attributes and Xdata to link components:



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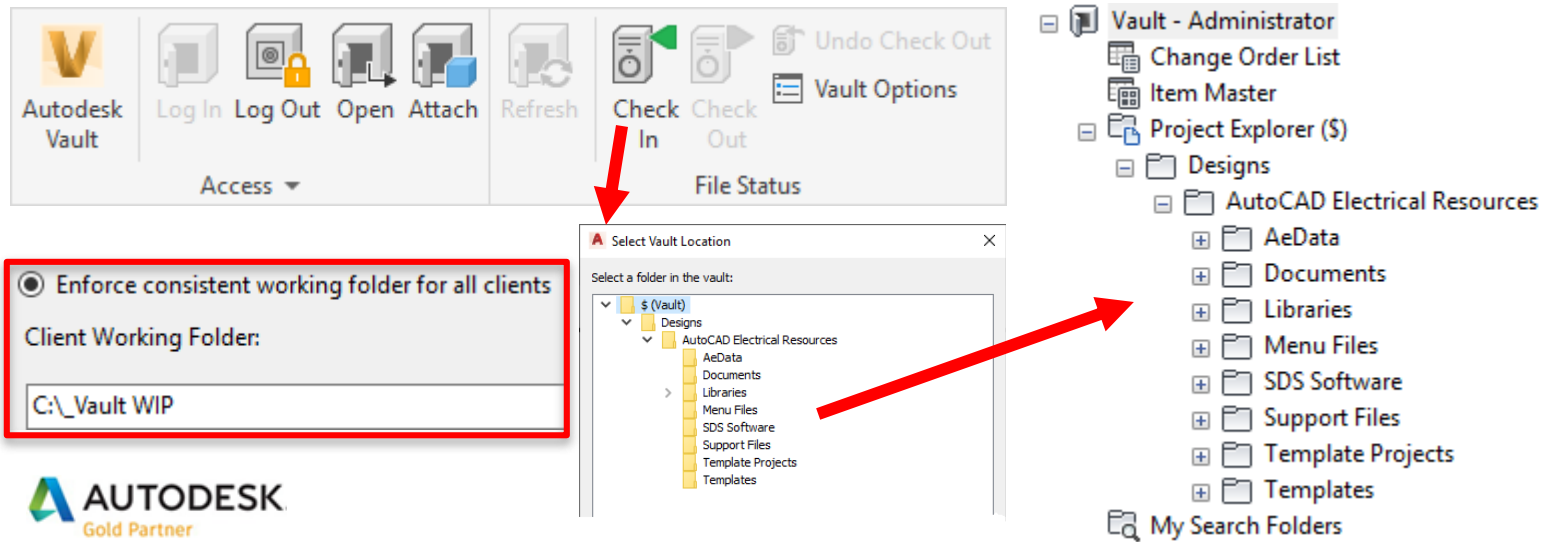
Setting AutoCAD Electrical up in a group environment:

Working independently vs. creating data once and sharing it. Default install places data on the “c” drive. This data should be moved to the server, or into Vault.

Default locations:

- Libraries:
 - C:\Users\Public\Documents\Autodesk\Acade 2020\Libs
- Databases:
 - C:\Users\user login\Documents\Acade 2020\AeData\en-US

Vault options:



The screenshot displays the AutoCAD Vault interface. On the left, the 'Access' ribbon includes buttons for 'Autodesk Vault', 'Log In', 'Log Out', 'Open', 'Attach', 'Refresh', 'Check In', and 'Check Out'. The 'File Status' ribbon includes 'Undo Check Out' and 'Vault Options'. A red arrow points from the 'Check In' button to a 'Select Vault Location' dialog box. This dialog box shows a tree view of folders under '\$ (Vault)', with 'AutoCAD Electrical Resources' selected. A red arrow points from this folder to the 'Project Explorer (\$)' pane on the right, which shows a hierarchical view of the vault structure, including 'AutoCAD Electrical Resources' and its subfolders: 'AeData', 'Documents', 'Libraries', 'Menu Files', 'SDS Software', 'Support Files', 'Template Projects', and 'Templates'. Below the 'Access' ribbon, a red-bordered box highlights the 'Enforce consistent working folder for all clients' option, which is selected. Below this box, the 'Client Working Folder' is set to 'C:_Vault WIP'. The Autodesk logo and 'Gold Partner' text are visible in the bottom left corner.

Questions?

Thank you!