# AutoCAD Electrical Advanced : Looking Under the HOOD

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# **AutoCAD Electrical**

Top reasons to use AutoCAD Electrical:

- More consist, professional looking designs
- Eliminate errors
- Minimize missing Bill of Material items
- Reduce design time



1.	Inserting Two Interlock References into an
	Existing Electrical Schematic
2.	Re-tagging a Copied Circuit Drawing
3.	Automatic Contact Pin Assignment and Contact Count
4.	Contact and Cross-Reference Update across Multiple Dr
5.	Tasks that Include Multi-bus Wiring, Connectors, and Rearranging Circuits
б.	Turning a Listing of I/O Assignments and Connected Devices into a Drawing Set
7.	Panel Layout from a Schematic Drawing
8.	Automatic Update of BOM Table
9.	Detect Changes Made
10.	Copy an Existing Project Drawing Set and Automatically Update Title Blocks
	Total Times
	Time Savings with AutoCAD Electrical





AutoCAD (minutes and seconds)	AutoCAD Electrical (minutes and seconds)	Time Savings with AutoCAD Electrical
1:33	0:16	83%
1:10	0:20	71%
heck 1:46	0:19	82%
wings 6:44	0:22	95%
8:07	1:13	85%
~2:00	0:30	N/A
6:37	2:35	61%
4:25	0:47	82%
N/A	0:30	N/A
6:30	1:45	73%
3:15:38	0:8:07	
		80%



# **Key learning objectives**

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

- Create a Fixed-Unit PLC
- Create more advanced blocks
- Describe the purpose for each of the databases
- Network your AutoCAD Electrical installation





_					
	Terminal Type	Show	Re-prompt	Break After	Factor
1	Module Info Input VO Point Wire Left	Always	No		
2	Input VO Point Wire Left	Always	No	100	
3	Input VO Point Wire Left	Always	No		
4	Input VO Point Wire Left	Always	No	100	
5	Terminal Point Wire Right	Always	No		
6	Terminal Point Wire Right	Always	No		
7	Terminal Point Wire Right	Always	No	111	
8	Terminal Point Wire Right	Always	No		

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NDD		00_28_81_##		01.02	1 11 1 211.1 21 2 hT2.1 E12 6T2.2 21NC 22NC
100		H9-30-01-## 019-90-10-##		01 02	1,1L1,211,1,3L2,412,1,3L3,013,2,2116,2216
100		H12-30-10-## 019-90-01-##		01 02	1 414 914 4 919 619 419 419 419 419 910 910 910
100		HIZ-30-01-##		H1,H2	1,1L1,211,1,3L2,412,1,3L3,013,2,21N6,22N6
100		HIU-30-10-##		H1,H2	1,1L1,211,1,3L2,412,1,3L3,013,1,13N0,14N0
188		HID-30-01-##		H1,HZ	1,1L1,211,1,3L2,412,1,5L3,013,2,21N6,22N6
188		H20-30-10-##		H1,HZ	1,1L1,211;1,3L2,412;1,5L3,013;1,13N0,14N0
188		HZ0-30-01-##		H1,H2	1,1L1,Z11;1,3L2,4IZ;1,5L3,0I3;Z,Z1N6,ZZN6
188		H30-30-10-##		H1,H2	1,1L1,211,1,3L2,412,1,5L3,013,1,13NU,14NU
188		H30-30-01-##		H1,H2	1,1L1,2I1;1,3L2,4I2;1,5L3,6I3;2,21NC,22NC
188		H40-30-10-##		H1,H2	1,1L1,211;1,3L2,412;1,5L3,013;1,13NU,14NU
188		H40-30-01-##		H1,H2	1,1L1,211;1,3L2,412;1,5L3,613;2,21NG,22NG
JBB		A50-30-00-##		A1,A2	1,1L1,211;1,3L2,412;1,5L3,613
1BB		A63-30-00-##		A1,A2	1,1L1,2T1;1,3L2,4T2;1,5L3,6T3
<b>JBB</b>		A75-30-00-##		A1,A2	1,1L1,2T1;1,3L2,4T2;1,5L3,6T3
ABB		A95-30-00-##		A1,A2	1,1L1,2T1;1,3L2,4T2;1,5L3,6T3
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	1492-H2F	RA750	2	UPPER,LOWER	2,2
	1492-H2F	RA820	2	UPPER,LOWER	2,2
	1492-H2F	RA912	2	UPPER,LOWER	2,2
	1492-H2F	RA103	2	UPPER,LOWER	2,2
	1492-H2F	(A113	2	UPPER,LOWER	2,2
	1492-826	(1123	2	UPPER,LUWER	2,2
	1492-826	SH 133	2	UPPER,LUWER	2,2
	1492-020	00169	2	UPPER,LUWER	2,2
	1472 121	0183	2	UPPER LOWER	2,2
	1492-1121	84283	2	UPPER, LOWER	2.2
	1492-H2F	84223	2	UPPER.LOWER	2.2
	1492-H2F	RA243	2	UPPER,LOWER	2,2
	1492-H2F	RA273	2	UPPER,LOWER	2,2
	1492-H2F	RA303	2	UPPER,LOWER	2,2
	1492-H2F	RA333	2	UPPER,LOWER	2,2
	1492-H2F	14363	2	UPPER,LOWER	2,2
	1492-H2F	18393	2	UPPER,LOWER	2,2
	1492-H2F	(8433	2	UPPER,LUWER	2,2
	1492-H2H	(8473	2	UPPER,LUWER	2,2
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771					
		Edit	Add New	Add Copy	Delete
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# **Intelligent Blocks**







# **Intelligent Blocks**

What are Intelligent Blocks?

- Blocks (electrical symbols) with attributes to:
  - Store BOM data
  - Keep track of parent/children relationships
  - Connection points for wire trimming













#### What is a PLC??

- Acronym for Programmable Logic Controller
- Similar to the function of a desktop computer
  - Inputs for sensors (similar to keyboard and mouse inputs)
  - Outputs for creating an action (similar to using a printer)

#### Types of PLC's??

- Standalone
- Brick

Rack based













## AutoCAD Electricals PLC abilities

- Parametric
  - Very easy to create, modify, and use
  - Used for most rack mount PLC's
- Fixed Units (Full Units)
  - More complicated to create
  - Use mostly on standalone and brick designs
  - Also can be used on remote I/O designs





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#### Create Needed Geometry

- Inputs to the left
- Outputs to the right
- Snaps on
- Start symbol builder
  - Horizontal Parent
  - Generic



**•** 

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Symbol Builder Icon Menu

Wizard

Other Tools 💌

2

Drawing

Properties

<pre>Name: <unnamed></unnamed></pre>	Browse
Select from drawing Objects	Attribute template Library path:
Specify on screen  Select objects No objects selected	C:\Documents and Set\NFPA  Browse Symbol: Horizontal Parent
Insertion point	Type: (GNR) Generic 🔹
Specify on screen  Fick point  X: 0.0000	Preview
Y: 0.0000	
Z: 0.0000	



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## Assign Family Code/Tag1 and Add Attributes

- TAG1 attribute insert PLC
- FAMILY attribute insert PLCIO
- Add LINE1 & LINE2
- Insert all needed attributes

Symbol Build	der Attribute	Editor			
Library:	C:\Docume	nts and Se	ttings\/	All\NFPA	
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FAMIL	Y	PLCIO			
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1	FAMILY		PLC	10								
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1	DESC3										- 11	
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- 0 X

## FILE NAMING CONVENTION



AutoCAD Electrical 2014 - NOT FOR RESALE PLC.dwg

## Insert Terminal Wire Connections

ASSIGN FAMILY

CODE AND

**ATTRIBUTES** 

Snaps on

CREATE

NEEDED

**GEOMETRY** 

- Wire connection "others.."
- Select screw terminal style
- Connection Left or Right
- Number of connections
- Insert all needed attributes

ections	Home       Annotate       Manage       Project       Schematic       P         Home       Annotate       Manage       Project       Schematic       P         Edit       Save       Test       Auto       Image: Show/Hid       Show/Hid         Block       Block       Block       Block       Image: Show/Hid       Show All         Open/Save       Geometric       Image: Show/Hid       Image: Show All       Image: Show All       Image: Show All         Open/Save       Geometric       Image: Show All       Image: Show A	AutoCAD Electrical 2014 - NOT	FOR RESALE PLC.dwg	se Attribute Definition	Close Block Editor Close WCS V	
	AALING CONTACT NO STATE PRUST PEELPNUST WOTACALT	SNAP 3DOSNAP OTRACK DUCS DYN LW	Insert Wire Connections   Configuration   Terminal style:   Screw   Connection direction:    • Left    Scale: 1.0000    Use this configuration as default   Pin Information   Name   Default Value   TERM01   X4TERMDESC01   TERM02   X4TERMDESC02   TERM03   X4TERMDESC03   TERM04	Number and C Number: Select on Row offset: Column offse	A       screen       0.0000       t:     0.0000	
T	INSERT ERMINAL WIRE CONNECTIONS	IN	SERT PLC I/O WIRE ONNECTIONS	FII CC	LE NAMING NVENTION	

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## Insert PLC I/O Wire Connections

- Snaps on
- Wire connection "others.."
- Select Fixed PLC
- Connection Left or Right
- Number of connections
- Correct TAG attributes
- Insert and arrange





Pyper a trayword or physics     Physics a trayword or physics     Physics Autodeks 300     Featured Apps     Experiment Autodeks     Physics     Physics	er Block Editor
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	Number and Offset Distance
PLC -	Number: 4
eft 🔹	Select on screen
00	Row offset: 0.0000
efault	Column offset: 0.0000
Properties	
	Insert Cancel Apply Help
I/O DNS	FILE NAMING CONVENTION



## File Naming Convention

- Symbol Name doesn't following standard naming
- Must start with PLCIO
- Select a file path

Close Block Editor:	Save Symbol						
Symbol		Base point					
Block      Wblo	ock	Specify on screen					
Orientation:	<user defined=""></user>	X: 0.0000					
Catalog lookup		Y: 0.0000					
Symbol name:	(LC) Light Curtain 🔻	7. 0.0000					
WDBLKNAM	HAM						
Туре:	<user defined=""></user>	Image					
Contact:	<not applicable=""></not>						
Unique identifier:	O_AD100						
Symbol name:	PLCIO_AD100	Name (.png) PLCIO_AD100					
File path:		File path:					
C:\Documents and Se	ettings\All Users\Doc	C:\Users\scottd\AppData\Roaming\Autodesk`					
1 error(s) found in the sys	1 error(s) found in the symbol Details						
	ОК	No Cancel Help					





# **Advanced Block Creation**







# **Advanced Block Creation**

#### Create New Families

- Light Curtains
- Safety Relays
- Power Distribution Block

#### Create a block with WDJUMPER attribute

Power Distribution Block

### Create terminal block accessories

End Barrier





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#### → ACADE Libraries → jic125 → **Create New Families** Date modified Name AT\_HP\_LS.dwg 2/6/2012 6:52 AM AT\_HP\_LT.dwg 2/6/2012 6:52 AM AT\_HP\_MO.dwg 2/6/2012 6:52 AM AT\_HP\_MS.dwg 2/6/2012 6:52 AM AT\_HP\_OL.dwg 2/6/2012 6:52 AM AT\_HP\_PB.dwg 2/6/2012 6:52 AM Create New Attribute Template AT\_HP\_PE.dwg 2/6/2012 6:52 AM AT HP PW.dwg 2/6/2012 6:52 AM Attribute templates reside in the standard library for a project Attribute templates naming -Copy and rename to match new table ATTRIBUTE TEMPLATE A Select Symbol / Objects Symbol to create or edit: Name: <Unnamed> Browse Attribute Select from drawing Library pa Objects Specify on screen C:\Docu Select objects Symbol: No objects selected Type: Insertion point Specify on screen Preview Pick point **Create New** X: 0.0000 **Create New Table** Attribute Y: 0.0000 **Template** Z: 0.0000 AUTODESK' AUTOCAD' ELECTRICAL

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Туре	Size		
AutoCAD Drawing		58 KB	
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template ath:	
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Horizontal Parent	
(GNR) Generic 🔹	
(CB) Circuit breakers (CR) Control relays (DS) Disconnect switches (FU) Fuses	
(GNR) Generic (LR) Latching relays (LS) Limit switches	
(LT) Lights, pilot lights (MO) Motors (MS) Motors states (contactors	
(ND) Noto states/contactors (OL) Overloads (PB) Push buttons	
(PW) Power supplies (PX) Proximity switches	
(SS) Selector switches (TD) Timer relays (TS) Temperature switches (XE) Transformers	
(va) manaronnera	



# **Create New Families**

#### Create New Table

- Catalog lookup on any electrical symbol
- From table choose "New Table"
- Create a table that matches the attribute template created
  - Last two letters

A Parts Catalog C:	\catalogs\default_c	at.mdb							1000	<b>—</b> ×	_
& <b>7 </b>	Database	: Default	•	Tab	ile:	СВ	•	Catalog - S	earch Database	P	
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EGE3070FFG	EATON	CIRCUIT BREAK	3-POLE CIRCU	JIT 7	OAM	CR	=	E125E, FIX	690VAC, 250VD		
EGS3070FFG	EATON	CIRCUIT BREAK	3-POLE CIRCU	JIT 7	OAM	DI DN		E125S, FIX	690VAC, 250VD		
EGH3070FFG	EATON	CIRCUIT BREAK	3-POLE CIRCU	JIT 7	OAM	DO		E125H, FI	690VAC, 250VD		
GD3070	EATON	CIRCUIT BREAK	3-POLE CIRCU	JIT 7	0AM	DS		GD THERM	480VAC, 250VD		
GD3070D	EATON	CIRCUIT BREAK	3-POLE CIRCU	JIT 7	0AM	EN		GD THERM	480VAC, 250VD		
GHC3070	EATON	CIRCUIT BREAK	3-POLE CIRCU	JIT 7	0AM	FS		GHC THER	480Y/277VAC, 1		
JGE3070FAG	EATON	CIRCUIT BREAK	3-POLE CIRCU	JIT 7	0AM	FU		J250E, FIX	690VAC, 70AMPS		
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JGH3070FAG	EATON	CIRCUIT BREAK	3-POLE CIRCU	JIT 7	0AM	LS		J250H, FIX	690VAC, 70AMPS		
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**Create New** Attribute Template

**Create New Table** 





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# WDJUMPER

#### Purpose of the Attribute

- Keeps wire numbers from changing across connections
- Items such as Power Distribution Blocks
- How to use it
  - Attribute has to be added to the symbol
  - Simple mapping in the attribute to link terminals

VD_JUMPERS	((01 04 05 06)(02 07 08 09)(03 10 11 12))	Library: C:\ACADE Libs\NFPA Symbol: Vertical Parent Type: Generic Required Require	COPY  Projects  COPY  COPY  Copy  Contents.dwg - Table of Co BOM1.dwg - Bill of Material Power.dwg - Control Wring Cabinet.dwg - Nain Power power.dwg - Control Wring Cabinet.dwg - Power and C HMI.dwg - Operator Station HMI.dwg - Operator Station HMI.dwg MODULE 03 MODULE 01 MODULE 03 MODULE 03 MODULE 04 MO	
SF PD ELECTRICAL		KATING         Construction         Construction <thconstruction< th="">         Construction</thconstruction<>		TETREMELIKE







XREF



- Why?
  - AutoCAD Electrical has a limited number of accessories
  - We need them on our Bill of Materials









#### Create New Part in the Database

- Pick a similar component to copy
- Verify that required fields are populated



**Create New** Footprint

Add Entry to Footprint Database



TYPE\*

USER1

USER2

USER3

Force text to uppercase

\* = required field

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5)			<b>x</b>
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p://www.ab.com/industrialcontrols/pr	oducts/termin	al_blocks_and_	wiring/i 👻
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#### Create New Footprint

- Create geometry required
- Start symbol builder
- Select Panel Terminal for "Symbol"
- Pick point selection is critical
- Add attributes and save file

🔺 Select Sym	bol / Objects	
Select Sym Symbol to creat Name: Select from c Objects Specify Color Insertion p Specify Color X: 0.0 Y: 0.0 Z: 0.0	ate or edit: <ul> <li>Unnamed&gt;</li> <li>drawing</li> <li>y on screen</li> <li>ect objects</li> <li>s selected</li> <li>point</li> <li>y on screen</li> <li>ak point</li> <li>000</li> <li>000</li> </ul>	<ul> <li>Browse</li> <li>Attribute template Library path:</li> <li>C:\Documents and Set\NFPA   Browse</li> <li>Symbol: Panel Teminal  </li> <li>Type: (GNR) Generic  </li> <li>Preview</li> </ul>
		OK Cancel Help







## Add Entry to Footprint Database

- Record is linked by Manufacture and Catalog Number
- View button use
- Can use wild cards
- Browse to new footprint
- Absolute File Path??

Add footprint record (table: AUTODESK)	×
Catalog Number (Wild cards allowed)	View
Assembly Code (optional)	
Footprint block name* (or geometry definition or icon menu call)	
Browse Use file dialog to find block ".dwg" file	
Pick Get block name by picking on active drawing	
<ul> <li>include the path for the block name if it is not in an AutoCAD Electrical search path.</li> </ul>	
Geometry No block, just define footprint outline	
Icon Menu Trigger icon menu page for user pick of block to use	
Comment (opti	ional)
OK Cancel Help	

Create New Part in the Database	Create New Footprint	Add Entry to Footprint Database



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### Schematic Part Number Tables

- Tables internal to default\_cat.mdb
- Each table is named from family code
- Used for adding BOM information to schematic symbols
- Can be filtered to customer needs

🔺 Parts C	atalog C:	\catalogs\default_c	at.mdb								x
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Enter Text	Here	AB	Enter Text Here	1761	DISC	CA		Text Here	Enter Text Here	Enter Text Here	
1761-L164	WA	AB	MICRO LOGIX P	1761	DISC	CR		D PACKAGE	OUT, AC LINE		
1761-L16E	WA	AB	MICRO LOGIX P	1761	DISC	DN		D PACKAGE	OUTPUT, AC LINE		
1761-L16E	WADM1	AB	MICRO LOGIX 1	1761	DISC	DO DR	-	OLOGIX 10	(1761-L16BWA,		_
1761-L16E	WADM2	AB	MICRO LOGIX 1	1761	DISC	DS		OLOGIX 10	(1761-L16BWA,		=
1761-L16E	WADM3	AB	MICRO LOGIX 1	1761	DISC	FM		OLOGIX 10	(1761-L16BWA,		
1761-L16E	WADM4	AB	MICRO LOGIX 1	1761	DISC	FS		OLOGIX 10	(1761-L16BWA,		_
1761-L32A	WA	AB	MICRO LOGIX P	1761	DISC	FU		D PACKAGE	OUTPUT, AC LINE		_
1761-L32E	WA	AB	MICRO LOGIX P	1761	DISC	LR		D PACKAGE	OUTPUT, AC LINE		
1761-L10E	WA	AB	1761 MICRO LO	1761	DISC	LS		D PACKAGE	6-PT 24VDC IN,		
1761-L10E	8WB	AB	1761 MICRO LO	1761	DISC	MISC_CAT		D PACKAGE	6-PT 24VDC IN,		
1761-L16E	BB	AB	1761 MICRO LO	1761	DISC	MO MS		D PACKAGE	10-PT 24VDC IN		
1761-L16E	BWB	AB	1761 MICRO LO	1761	DISC	NP		D PACKAGE	10-PT 24VDC IN		
1761-L20A	WA-5A	AB	1761 MICRO LO	1761	DISC	PB		D PACKAGE	12-PT 120VAC I		
1761-L20E	WA-5A	AB	1761 MICRO LO	1761	DISC	PE	Ŧ	D PACKAGE	12-PT 24VDC IN		
17611000		AD	1761 MTCDO LO	1721	DIEC		ст//	DACKACE	10 DT DAVIDO TN	•	Ŧ
Show B	OM Detai / WDBLKI	ls NAM value : PLCIO75	E1761-L16AWA								
Use MIS	SC_CAT ta subassen	able nbly entries only for e	editing								
								ОК	Cancel	Help	

Tasks 📉 Use Wizard to Create Table.. FAMILY\_DESCRIPTION \_LISTBOX\_DEF Filter Criteria Table PINLIST \_PINLIST\_AB PINLIST\_ABB PINLIST\_ANIXTER \_\_\_\_\_\_PINLIST\_AUTOMATIONDIRECT \_PINLIST\_BELDEN \_PINLIST\_BUSSMANN \_PINLIST\_D3 PINLIST\_EATON \_PINLIST\_ENTRELEC PINLIST\_HARTING PINLIST\_HOFFMAN \_PINLIST\_LITTLEFUSE \_PINLIST\_MERLIN GERIN \_PINLIST\_MODICON \_PINLIST\_MOELLER \_PINLIST\_MURR \_\_\_\_\_\_\_PINLIST\_PHOENIX CONTACT \_\_\_\_\_PINLIST\_PILZ \_PINLIST\_RITTAL \_PINLIST\_SQD \_\_\_\_\_PINLIST\_TELEMECANIQUE \_PINLIST\_TURCK PINLIST\_WEIDMULLER TERMPROPS\_AB \_TERMPROPS\_AUTOMATIONDIRECT TERMPROPS ENTRELEC TERMPROPS\_PHOENIX CONTACT \_TERMPROPS\_SQD \_TERMPROPS\_TURCK TERMPROPS\_WEIDMULLER W0\_CBLWIRES XREF\_GRAPHICS MA 🔤 💷 AN 💷 C0 📰 CA 📰 CB CR

Database

Queries

VE I

For<u>m</u>s

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Reports







#### PLC Database

- Database ace\_plc.mdb
- Used for parametric PLC creation
- Tables are based off Manufacture and Series

bles			
	allen-bradlev 1746 discrete input	3	allen-bra
	allen-bradley 1746 discrete input Data	E GLA	Edit 1
	allen-bradley 1746 discrete output	<u>r</u> ile	
	allen-bradlev 1746 discrete output Data		3   📝
	allen-bradley 1746 power supply		
	allen-bradley 1746 power supply Data		1746-141
	allen-bradley 1746 special	⊪∽	1746-IA4
	allen-bradlev 1746 special Data		1746-IA8
	allen-bradley 1747 L20fc		1746-IB1
	allen-bradley 1747 L20fc Data		1746-IB3
	allen-bradley 1747 L30fc		1746-IB8
	allen-bradley 1747 L30fc Data		1746-IC1
	allen-bradley 1747 L40fc		1746-IG
	allen-bradley 1747 L40fc Data		1740-IH.
	allen-bradlev 1747 special		1740-IM
	allen-bradlev 1747 special Data		1746 IM
	allen-bradley 1756 analog combination		1746-IN
	allen-bradley 1756 analog combination Data		1746-ITE
	allen-bradley 1756 analog input		1746-IT\
	allen-bradley 1756 analog input Data		1746-IV1
	allen-bradley 1756 analog output	⊪—	1746-IV3
	allen-bradley 1756 analog output Data		1/46-108
	allen-bradley 1756 discrete input	<u> </u>	
	allen-bradley 1756 discrete input Data		
	allen-bradley 1756 discrete output		
	allen-bradley_1756_discrete_output_Data		
	allen-bradley_1756_power_supply		
	allen-bradley_1756_power_supply_Data	Rec	ord [1
	allen-bradley_1756_special	-	_
	allen-bradley_1756_special_Data		
	allen-bradley_1761_micrologix_110		
		ATAL 0	
	ε		

i⊟∾ Allen-Brac i⊞∾ 1734	lley		•	Π		Termina	I Туре		S	ihow	Optio Re-pro	onal ompt Brea	k After	Sp F
<u>⊕</u> 1746				1	Module Info Inpu	t VO Point Wire	e Left		Always		No			-
<u>⊕</u> 1747				2	Input I/O Point W	/ire Left			Always		No			
<u>⊨</u> 1756			=	3	Input I/O Point W	/ire Left			Always		No			
A	nalog Combina	ation		4	Input I/O Point W	/ire Left			Always		No			
A	nalog Input			5	Input I/O Point W	/ire Left			Always		No			
A	nalog Output			6	Input I/O Point W	/ire Left			Always		No			
🚊 - D	iscrete Input			7	Input I/O Point W	/ire Left			Always		No			
	···· 1756-IA16			8	Input I/O Point W	/ire Left			Always		No			
	···· 1756-IA16I			9	Terminal Point W	/ire Right			Always		No			
	···· 1756-IA32			10	Terminal Point W	/ire Right			Always		No			
	1756-IA8D			11	Input I/O Point W	/ire Left			Always		No			
	···· 1756-IB16			12	Input I/O Point W	/ire Left			Always		No			
	···· 1756-IB16D	)		13	Input I/O Point W	/ire Left			Always		No			
	···· 1756-IB16I			14	Input I/O Point W	/ire Left			Always		No			
	1756-IB16IS	SOE		15	Input I/O Point W	/ire Left			Always		No			
	1750 000	-				····			1	_				
ttribute Tag	ASSYCODE	CAT	DE	ESC	DESCA_	DESCB_	DESCC_	DESCD_	DESCE_	INST	LINE1	LINE2	LOC	P
ttribute Value		1756-IB16	24VD	C 16-P							RACK %%1	SLOT %%2		AB
	1750 -													
ole. alleri-brauley	_1756_discret	te_input												
Nev	v Module	Modu	ule Spec	ificatio	ns	Save Module				Style Box Dim	nensions	9	Settings	
										-				
				_										
						1 1		1	r	1				

PLC Database File Editor



Vi	ew <u>I</u> nsert	<u>T</u> ools <u>V</u>	<u>V</u> indow <u>H</u> elp				
	🔀 🗞 🕯	4   K9	🛍   🎯 🔹   🔒	AJ ZJ AJ	🛠 🗹 🗸 🕷	-	
E	POINTS	TYPE	DESCRIPTION	RATING	ADDRESS_BASE	ADDRESS_FORMAT	В
A16	16	AC	16-POINT INPUT	120VAC			
A4	4	AC	4-POINT INPUT	120VAC			
<b>A8</b>	8	AC	8-POINT INPUT	120VAC			
B16	16	DC	16-POINT SINKIN	24VDC			
B32	32	DC	32-POINT SINKIN	24VDC			
IB8	8	DC	8-POINT SINKING	24VDC			
IC16	16	DC	16-POINT SINKIN	48VDC			
G16	16	DC	16-POINT SOURC	5VDC TTL			
H16	16	DC	16-POINT SINKIN	125VDC			
M1(	16	AC	16-POINT INPUT	240VAC			
M4	4	AC	4-POINT INPUT	240VAC			
M8	8	AC	8-POINT INPUT	240VAC			
IN16	16	Combo	16-POINT SINKIN	24VAC/DC			
TB1	16	DC	16-POINT SINKIN	24VDC			
TV1	16	DC	16-POINT SOURC	24VDC			
V16	16	DC	16-POINT SOURC	24VDC			
V32	32	DC	32-POINT SOURC	24VDC			
<b>V</b> 8	8	DC	8-POINT SOURCI	24VDC			

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#### Electrical Standards

- ace\_electrical\_standards.mdb
- Used for Circuit Builder configurations

Urcuit: 3ph Motor Circuit		Name:	Horizontal - FVNR	non reversing (006)
Type: Honzontal - FVNR - non reversing	3			
Circuit Elements	Select		Setup & Annotations	
Motor Setup			Motor Setup	🔟 🖪 🗖
···· ? Motor symbol			Туре	
···· ? Disconnecting means			Load	
? Control transformer and circuit - n			Units	
Power Factor correction			Voltage (V)	
···· ? Overloads			Phase	
···· ? Motor terminal connections			Frequency (Hz)	
···· ? Cable marker			Speed (RPM)	
? Safety disconnect at the load			FLA (A)	
			FLA Multiplier	
			Wire Setup	<b>I</b>
			W1 - Size	
			W1 - Layer	BLK_14AWG
			W2 - Size	
			W2 - Layer	BLK_14AWG
			W3 - Size	
			W3 - Layer	BLK_14AWG







#### Pin List Database

- Tables in default\_cat.mdb
- Based off of Manufacturer and Catalog number
- Used for relay pin assignments
- Notifies user if exceeding number of contacts

Component	Tag	Description
CR159	🔲 fixed	Line 1 EMERGENCY
Use	PLC Address	Line 2 STOP
Taaa	Schematic	Line 3
Used:	Panel	List: Drawing Project Defaults Pick
E	xtemal List	
	Options	Cross-Reference
Catalog Data	3	Component override Setup
Manufacture	er AB	Reference NO 201,213 NO/NC Set
Catalog [	700-CFZ1330KJ	Reference NC 155,254
Assembly		
Item	Count	Installation code
Соокир	Previous	Drawing Project Pins
Drawing	Project	Location code 1 A1 < >
Multiple	e Catalog	CABINET 2 A2 < >
Cat	talog Check	Drawing Project X
Ratings		Show/Edit Miscellaneous
Rating		
0		OK-Repeat OK Cancel Help



MANUFACTURER	CATALOG	ASSEMBLYCODE	COILPINS	
AB	1492-HJ86			
AB	1492-HJ812			
AB	100-B*		A1,A2	
AB	100-C09*01		A1,A2	
AB	100-C09*10		A1,A2	
AB	100-C09*200		A1,A2	
AB	100-C09*300		A1,A2	
AB	100-C09*400		A1,A2	
AB	100-C12*01		A1,A2	
AB	100-C12*10		A1,A2	
AB	100-C12*200		A1,A2	
AB	100-C12*300		A1,A2	
AB	100-C12*400		A1,A2	
AB	100-C16*01		A1,A2	
AB	100-C16*10		A1,A2	
AB	100-C16*200		A1,A2	
AB	100-C16*300		A1,A2	
AB	100-C16*400		A1,A2	
AB	100-C23*01		A1,A2	
AB	100-C23*10		A1,A2	
AB	100-C23*200		A1,A2	
AB	100-C23*300		A1,A2	
AB	100-C23*400		A1,A2	
AB	100-C30*00		A1,A2	
AB	100-C30*01		A1,A2	
•				
Descend 1 -6 1200				
Record 1 of 1298				
		Edit	Add New	Ad
		C	vo /Evit	02

Edit c:\catalogs\default\_cat.mdb (Table: \_PINLIST\_AB)



AUTODESK' AUTOCAD' ELECTRICAL

	x
Sort Find Replace Fit	er
LIST	
;4,2;4,3;4,4;4,5;4,6	
<pre>;4,2;4,3;4,4;4,5;4,6;4,7;4,8;4,9;4,10;4,11;4 1,T1;1,L2,T2;1,L3,T3;1,13,14,*NO AUX 1,T1;1,L2,T2;1,L3,T3;2,L4,T4 1,T1;1,L2,T2;1,L3,T3;2,L4,T4 1,T1;1,L2,T2;1,L3,T3;2,L4,T4 1,T1;1,L2,T2;1,L3,T3;2,21,22,*NC AUX 1,T1;1,L2,T2;1,L3,T3;2,L4,T4 1,T1;1,L2,T2;1,L3,T3;2,L4,T4 1,T1;1,L2,T2;1,L3,T3;2,L4,T4 1,T1;1,L2,T2;1,L3,T3;2,L4,T4 1,T1;1,L2,T2;1,L3,T3;2,L4,T4 1,T1;1,L2,T2;1,L3,T3;2,L4,T4 1,T1;1,L2,T2;1,L3,T3;2,L4,T4 1,T1;1,L2,T2;1,L3,T3;1,L4,T4</pre>	,
1,T1;1,L2,T2;1,L3,T3;2,21,22,*NC AUX 1,T1;1,L2,T2;1,L3,T3;1,13,14,*NO AUX 1,T1;1,L2,T2;2,L3,T3;2,L4,T4 1,T1;1,L2,T2;1,L3,T3;2,L4,T4 1,T1;1,L2,T2;1,L3,T3;1,L4,T4 1,T1;1,L2,T2;1,L3,T3;2,21,22,*NC AUX 1,T1;1,L2,T2;1,L3,T3;1,13,14,*NO AUX 1,T1;1,L2,T2;1,L3,T3;2,L4,T4 1,T1;1,L2,T2;1,L3,T3;2,L4,T4 1,T1;1,L2,T2;1,L3,T3;2,L4,T4 1,T1;1,L2,T2;1,L3,T3;1,L4,T4 1,T1;1,L2,T2;1,L3,T3;1,L4,T4	
1,T1;1,L2,T2;1,L3,T3;2,21,22,*NC AUX	Ŧ
y Delete	Þ
Help	



#### **Terminal Properties Database**

- Tables in default\_cat.mdb
- Based off of Manufacturer & Catalog Number
- Used to define the properties of the Terminals

ANUFACTURER	CATALOG	ASSEMBLYCODE	LEVELS	LEVELDESCRIPTION	TPINL TPINR WIRESPERCONNECTION
B	1492-H2RA620		2	UPPER,LOWER	2,2
В	1492-H2RA680		2	UPPER,LOWER	2,2
В	1492-H2RA750		2	UPPER,LOWER	2,2
В	1492-H2RA820		2	UPPER,LOWER	2,2
В	1492-H2RA912		2	UPPER,LOWER	2,2
В	1492-H2RA103		2	UPPER,LOWER	2,2
B	1492-H2RA113		2	UPPER,LOWER	2,2
В	1492-H2RA123		2	UPPER,LOWER	2,2
В	1492-H2RA133		2	UPPER,LOWER	2,2
В	1492-H2RA153		2	UPPER,LOWER	2,2
B	1492-H2RA163		2	UPPER,LOWER	2,2
В	1492-H2RA183		2	UPPER,LOWER	2,2
B	1492-H2RA203		2	UPPER,LOWER	2,2
В	1492-H2RA223		2	UPPER,LOWER	2,2
В	1492-H2RA243		2	UPPER,LOWER	2,2
В	1492-H2RA273		2	UPPER,LOWER	2,2
В	1492-H2RA303		2	UPPER,LOWER	2,2
B	1492-H2RA333		2	UPPER,LOWER	2,2
В	1492-H2RA363		2	UPPER,LOWER	2,2
В	1492-H2RA393		2	UPPER,LOWER	2,2
B	1492-H2RA433		2	UPPER,LOWER	2,2
В	1492-H2RA473		2	UPPER,LOWER	2,2
B	1492-H2RA513		2	UPPER,LOWER	2,2
В	1492-H2RA563		2	UPPER,LOWER	2,2
B	1492-H2RA623		2	UPPER,LOWER	2,2
		Fdit Ac	dd New	Add Copy Dele	te



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AUTODESK' AUTOCAD' ELECTRICAL

	Modify Properties/Associations
	Add/Modify Pick>>
	Break Out Block Properties
ין ן	
	Properties/Associations
	Levels: I Label Number Pint Pin Peferance
	Panel 06,
_	
Tag	g Strip Numbers Used
тв	3
IB	-1 / 9
	11
	12
	Descriptions
DIREC	Line 1:
	Line 3:
	Browse Defaults Pick>>
	Ratings
	Bating
	Chaw All
	Million Allini
	Show/Edit Miscellaneous
ОК	Cancel Help Details <<
UR	

#### Schematic Database File Editor

- Database schematic\_lookup.mdb
- Based off of Manufacturer & Catalog Number
- Used to assign schematic symbol to part number
  - Used when creating schematics for existing layout

TABLE1									
TABLE1 - SchematicLo	okup_C_Catalog	gs - OpenOffice.org	Base: Table Data View						
ile <u>E</u> dit <u>V</u> iew <u>I</u> nsert	<u>T</u> ools <u>W</u> indo	w <u>H</u> elp							
🖫   🛃   😹 🛍 🇯	<b>h</b>   Ø   <b>h</b>	2 · 2 2	👪   🛠 🌱 🔽   😤 📮						
MANUFACTURER	CATALOG	ASSEMBLYCODE	FUNCTION_DESCRIPTION	PANEL_BLKNAM	CATEGORY	WDBLKNAM	SCHEMATIC_BLKNAM	COMMENTS	T
▶ D3	700-P		*CR*			CR*	HCR1T	CONTROL	2
			*PB*,*Push Button*,*			PB*	HPB11M	Mushroom	2
			*PB*,*Push Button*,*			PB*	HPB12M	Mushroom	2
AB, ALLEN-BRADLEY,	800EM-E*,800I						HPB11	Push button -	2
AB, ALLEN-BRADLEY,	800EM-E*,800I						HPB12	Push button -	2
SQD, SQUARE-D	KR*,*KR*						HPB11	Push button -	2
SQD, SQUARE-D	KR*,*KR*						HPB12	Push button -	2
AB, ALLEN-BRADLEY,	800T-D*,800H						HPB11M	Mushroom	3
AB, ALLEN-BRADLEY,	800T-D*,800H						HPB12M	Mushroom	3
SQD, SQUARE-D	KR*,*KR*						HPB11M	Mushroom	3
SQD, SQUARE-D	KR*,*KR*						HPB12M	Mushroom	3
AB, ALLEN-BRADLEY,	1771-IAD						SC=PLC 1771-IAD	1771-IAD	3
AB, ALLEN-BRADLEY,	1771-IAD						PLCIO1771-IAD	1771-IAD	3
					Т		HT0001	Square with	3
					Т		HT0002	Round with	3
					Т		HT0003	Hexagon with	3
					Т		HT0004	Diamond with	3
					Т		HT0005	Triangle with	4
and 1 of	20		i 4		- 	i		<b>.</b>	

dit c:\catalogs\schematic_lookup.mdb (Table: T	ABLE1)	X
MANUFACTURER	CATALOG	Sort Find Replace Filter ASSEMBLYCODE
D3	700-P	*CR*
AB,ALLEN-BRADLEY,ALLEN BRADLEY AB,ALLEN-BRADLEY,ALLEN BRADLEY SQD,SQUARE-D AB,ALLEN-BRADLEY,ALLEN BRADLEY AB,ALLEN-BRADLEY,ALLEN BRADLEY SQD,SQUARE-D SQD,SQUARE-D AB,ALLEN-BRADLEY,ALLEN BRADLEY AB,ALLEN-BRADLEY,ALLEN BRADLEY	800EM-E*,800EP-E*,800EM-G*,800EM-F*,800MR-A*, 800EM-E*,800EP-E*,800EM-G*,800EM-F*,800MR-A*, KR*,*KR* KR*,*KR* 800T-D*,800H-D*,800EM-M*,800EP-M*,800ES-M* 800T-D*,800H-D*,800EM-M*,800EP-M*,800ES-M* KR*,*KR* KR*,*KR* 1771-IAD 1771-IAD	*PB*,*I *PB*,*I 800MR-B* 800MR-B*
		~ 0~,~
<		
Record 1 of 29	Edit Add New Add Copy Delete Save/Exit Quit Help	





sert CR201 AB, 700-P	400A1
Block Name	Comment
HCR1	
Icon Menu	Select component from icon menu
Copy Componen	t Insert "just like" component
ОК	Cancel Help
2 - 2	



### Footprint Database File Editor

- Database footprint\_lookup.mdb
- Based off of Manufacturer & Catalog Number
- Used to assign layout (footprint) blocks
- Size of tables can be large and difficult to edit

Manufacturer:	AUTOMATIONDIRECT		
Catalog	Block name, geometry command, or icon menu call	Comment	
D0-05*	AUTOMATIONDIRECT/PLCIO-PLCS/D005DA	DL06 SERIES MICRO PLC UNIT	=
D0-06*	AUTOMATIONDIRECT/PLCIO-PLCS/D0_06DD1	DL06 SERIES MICRO PLC UNIT	
D0-07CDR	AUTOMATIONDIRECT/PLCIO-PLCS/D0_10ND3	DL06 SERIES PLC I/O MODULE	
D0-08*	AUTOMATIONDIRECT/PLCIO-PLCS/D0_10ND3	DL06 SERIES PLC I/O MODULE	
D0-10*	AUTOMATIONDIRECT/PLCIO-PLCS/D0_10ND3	DL06 SERIES PLC I/O MODULE	
D0-16*	AUTOMATIONDIRECT/PLCIO-PLCS/D0_10ND3	DL06 SERIES PLC I/O MODULE	
D2-03B*	AUTOMATIONDIRECT/PLCIO-PLCS/D2_03BDC1_1	DL205 SERIES PLC I/O BASE	
D2-04B*	AUTOMATIONDIRECT/PLCIO-PLCS/D2_04BDC1_1	DL205 SERIES PLC I/O BASE	
D2-04TD1	AUTOMATIONDIRECT/PLCIO-PLCS/D208ND3	DL205 SERIES PLC DIGITAL I/O MODULE	
D2-04TRS	AUTOMATIONDIRECT/PLCIO-PLCS/D208ND3	DL205 SERIES PLC DIGITAL I/O MODULE	
D2-06B*	AUTOMATIONDIRECT/PLCIO-PLCS/D2_06B_1	DL205 SERIES PLC I/O BASE	
D2-08*	AUTOMATIONDIRECT/PLCIO-PLCS/D208ND3	DL205 SERIES PLC DIGITAL I/O MODULE	
D2-09B*	AUTOMATIONDIRECT/PLCIO-PLCS/D2_09B_1	DL205 SERIES PLC I/O BASE	
D2-12*	AUTOMATIONDIRECT/PLCIO-PLCS/D216TD12	DL205 SERIES PLC DIGITAL I/O MODULE	
D2-16N*	AUTOMATIONDIRECT/PLCIO-PLCS/D208ND3	DL205 SERIES PLC DIGITAL I/O MODULE	
D2-16TD*	AUTOMATIONDIRECT/PLCIO-PLCS/D216TD12	DL205 SERIES PLC DIGITAL I/O MODULE	
Edit Record Delete Add New	Catalog: Assembly: Block/Geometry: Comment:		
	OK / Save / Exit Cancel	Save Help	



AUTODESK' AUTOCAD' ELECTRICAL

ents (active project)			
mponents to insert on Pa	inel:		
Installation,Location	Manufacturer,Catalog,Assembly	Description 1,2,3	
			=
		CUTTING FORCE	
	GE_CB115B201	CUTTING LENGTH	
	AUTODESK, 140-IB16	RACK SLOT DISCRETE INPUT	
	AB, 1329RS-ZA00218VNC	CUTTING MOTOR	
	AB, 1329RS-ZA00318VNC-DH	POSITIONAL MOTOR	
	SQD, 9025-GXW2	TEMPERATURE LIMIT	
, CABINET		ERROR BUZZER	_
, CABINET		POWER SUPPLY	_
, CABINET	EATON, AN16DN0AB	FORWARD CUTTING MOTOR	_
, CABINET	EATON, AN16DN0AB	REVERSE CUTTING MOTOR	_
, CABINET	EATON, AN16DN0AB	POSITIONAL MOTOR	-
Display	Catalog Check	1.000 Footprint scale	
Show All		Patata (black-"ask")	
Hide Existing		Rotate (plank= ask )	
Multiple Catalo	ıg (+)		
	Automatic footprint lookup		
	· · ·		
Manual	Use Footprint tables	Convert Existing	
	Close	Biok Filo Ho	
	Liose	L L L L L L L L L L L L L L L L L L L	ψ









#### Why to Network the Install?

- Users can share customized Icon Menu
- Users can share custom libraries
- Users can share customized databases



Footprint lookup C:\ca	talogs\footprint_lookup.mdb (table AUTOMATIONDIRE	CT)	×	
Manufacturer: AU	ITOMATIONDIRECT			
Catalog	Block name, geometry command, or icon menu call	Comment	*	
D0-05*	AUTOMATIONDIRECT/PLCIO-PLCS/D005DA	DL06 SERIES MICRO PLC UNIT	E	
D0-06*	AUTOMATIONDIRECT/PLCIO-PLCS/D0_06DD1	DL06 SERIES MICRO PLC UNIT		
D0-07CDR	AUTOMATIONDIRECT/PLCIO-PLCS/D0_10ND3	DL06 SERIES PLC I/O MODULE		
D0-08*	AUTOMATIONDIRECT/PLCIO-PLCS/D0_10ND3	DL06 SERIES PLC I/O MODULE		
D0-10*	AUTOMATIONDIRECT/PLCIO-PLCS/D0_10ND3	DL06 SERIES PLC I/O MODULE		
D0-16*	AUTOMATIONDIRECT/PLCIO-PLCS/D0_10ND3	DL06 SERIES PLC I/O MODULE		
D2-03B*	AUTOMATIONDIRECT/PLCIO-PLCS/D2_03BDC1_1	DL205 SERIES PLC I/O BASE		
D2-04B*	AUTOMATIONDIRECT/PLCIO-PLCS/D2_04BDC1_1	DL205 SERIES PLC I/O BASE		
D2-04TD1	AUTOMATIONDIRECT/PLCIO-PLCS/D208ND3	DL205 SERIES PLC DIGITAL I/O MODULE		
D2-04TRS	AUTOMATIONDIRECT/PLCIO-PLCS/D208ND3	DL205 SERIES PLC DIGITAL I/O MODULE		
D2-06B*	AUTOMATIONDIRECT/PLCIO-PLCS/D2_06B_1	DL205 SERIES PLC I/O BASE		
D2-08*	AUTOMATIONDIRECT/PLCIO-PLCS/D208ND3	DL205 SERIES PLC DIGITAL I/O MODULE		
D2-09B*	AUTOMATIONDIRECT/PLCIO-PLCS/D2_09B_1	DL205 SERIES PLC I/O BASE		
D2-12*	AUTOMATIONDIRECT/PLCIO-PLCS/D216TD12	DL205 SERIES PLC DIGITAL I/O MODULE		
D2-16N*	AUTOMATIONDIRECT/PLCIO-PLCS/D208ND3	DL205 SERIES PLC DIGITAL I/O MODULE		
D2-16TD*	AUTOMATIONDIRECT/PLCIO-PLCS/D216TD12	DL205 SERIES PLC DIGITAL I/O MODULE	-	
Edit Record     Catalog:       Delete     Assembly:       Block/Geometry:       Add New       OK / Save / Exit         OK / Save / Exit         Cancel         Save				



Name	Date modified	Ту
🐌 AU Custom Panel	5/31/2013 1:45 PM	File
AU Custom Schematics	11/25/2013 2:27 PM	File
Hyd_Iso125	9/4/2012 12:43 PM	File
🐌 iec2	9/4/2012 12:43 PM	File
iec4	5/9/2013 11:07 AM	File
퉬 jic1	9/4/2012 12:43 PM	File
퉬 jic125	11/21/2013 10:26	File
🐌 NFPA	11/14/2013 12:57	File
📙 Panel	5/3/2013 11:57 AM	File
🕕 pid	9/4/2012 12:44 PM	File
퉬 pneu_iso125	9/4/2012 12:44 PM	File
🛍 SymLib.ini	9/4/2012 12:44 PM	Co



#### **Icon Menus**

- Path is stored in each .wdp (Project File)
- Standard Installation Path:
  - C:\Users\{username}\AppData\Roaming\Autodesk\AutoCAD Electrical{version}\{release}\{country code}\Support
- Slide Images should be moved along with them

🗃 ace_as.slb	4,
ACE_GB.slb	4,
🗃 ace_hyd.slb	4,
ACE_JIS.slb	4,
🗃 ace_pid.slb	4,
🛋 bb.slb	4,
🗃 iec1.slb	4,
Ioc2.slb	4,
🗃 pn0.slb	4,
🗃 pn1.slb	4,
🗃 pn2.slb	4,
🗃 pn3.slb	4,
🗃 pnl.slb	4,
🗃 pnl2.slb	4,
🗃 s1.slb	4,
🗃 s2.slb	4,
🗃 Ww.slb	4,

ACE\_HYD\_MENU.DAT ACE\_IEC\_MENU.DAT ACE\_IEC-60617\_MENU.DAT ACE\_IEEE\_MENU.DAT ACE JIC MENU.BAK ACE\_JIC\_MENU.DAT ACE\_JIS\_MENU.DAT ACE\_NFPA\_MENU.DAT ACE\_PANEL\_MENU.BAK ACE\_PANEL\_MENU.DAT ACE\_PID\_MENU.BAK ACE\_PID\_MENU.DAT ACE\_PNEU\_MENU.DAT wd\_locs.dat 🔎 wd\_menu.dat wd\_pmenu.dat wd\_pneu\_menu.dat

ICON MENUS



SLIDE FILES



s				
Components	Wire Numbers	Cross-References	Styles	Drawing Fo
Users\scottd\D d Icon Menu Pa	esktop\BDC2\14	40134.wdp		
Chematic Librar → G:\ACADE → C:\ACADE	ies Libraries\Custom Libraries\NFPA	Schematic		
G:VACADE	Menu File Icon <mark>Menus\</mark> ACE	_NFPA_MENU.DA1	r	E
anel Footprint L	ibraries		-	
	Libraries\Custom	Footprints		
	Libraries \panel			
anel Icon Menu	u File			
G:VACADE	Icon Menus ACE	PANEL_MENU.DA	AT .	
	111			F
	-			



#### Databases

- Path for all databases except PLC is stored in the environment file
- Use forward slashes /
- AutoCAD must be restarted after changing
- Each machine has an environment file (wd.env)

wd.env - Notepad
File Edit Format View Help
*WD_WBLOCKDLG,x:/some path/,to overrid *WD_PICKLIST,%WD_DIR%/%WD_LANG%/catalo
*WD_USERCKTDIR,x:/some path/,default f *PLC_ADDRESS_FORMAT,I:00%10%2;I:%1%2/0
* Catalog Parts Database Path
WD_CAT,G:/ACADE CATALOGS/,AE catalog f
*WD_XCAT, X:/some path/wd_xcat.lsp,to o



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de starting subdir for Black ogs/wd\_picklist.mdb,ins comp( folder for "USER CKTS" 00;--;0:00%10%2;0:%1%2/00;--;

\*

file path AE default katalog file path override catalog look-up and



#### PLC Database

- Path for the PLC is mapped under the AutoCAD Support
- Map to the PLC folder
  - Caution: AutoCAD will remove unresolved network path at startup

	Option	ns					
	Current p	rofile:	< <acade>&gt;</acade>				
	Files	Display	Open and Save	Plot and Pub	olish	System	User Preferer
Search paths, file names, and file locations:							
🖃 🕰 Support File Search Path							
	G:\ACADE CATALOGS\plc						
G:\ACADE SUPPORT\							
			C:\program files\a	utodesk\auto	cad	2014\aca	ide\



AUTODESK UNIVERSITY 2013



### Additional Support Paths

- Map any additional support paths for the following
  - Default.inst
  - Default.loc
  - Default\_wdtitle.wdl
  - Wd\_fam.dat
  - Default.wdt

	_				
A Options					
Current profile: < <acade>&gt;</acade>					
Files Display Open and Save Plot and Publish System User Pre	ferei				
Search paths, file names, and file locations:					
🖃 🗠 🔁 Support File Search Path					
G:\ACADE CATALOGS\plc					
G:\ACADE SUPPORT\					
C:\program files\autodesk\autocad 2014\acade\					



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#### Suggestions

- Retain standard libraries on local hard drive
- Place custom panel & custom schematic symbols on network drive
- Map custom library paths before standard library paths
- Use offline folders

Control Panel + Al	Il Control Panel Items 🕨			✓ 4
Adjust your computer's settir	ngs			Vi
🕥 3DxWare Panel	🏲 Action Center	🔯 Administrative Tools	😨 Akamai NetSession Interface Control	📮 Autodesk Plot Style Manager
두 Autodesk Plotter Manager	📑 AutoPlay	🐌 Backup and Restore	Biometric Devices	💶 Color Management
Credential Manager	🚔 Date and Time	😿 Default Programs	📑 Desktop Gadgets	🚔 Device Manager
devices and Printers	🖳 Display	🕲 Ease of Access Center	Flash Player (32-bit)	F Folder Options
K Fonts	📇 Getting Started	🜏 HomeGroup	🔒 Indexing Options	🔂 Internet Options
🕮 Keyboard	🕒 Lenovo - Airbag Protection	🚭 Lenovo - Camera-enhanced security	😽 Lenovo - Factory Recovery Disks	🖰 Lenovo - Fingerprint Reader
Lenovo - Power Controls	🍪 Lenovo - System Health and Diagno	😢 Lenovo - Update and Drivers	🚳 Lenovo - Web Conferencing	🙌 Lenovo's SimpleTap
🚾 Location and Other Sensors	Mail (32-bit)	😑 Messages From Lenovo	Ø Mouse	👫 Network and Sharing Center
🔜 Notification Area Icons	🛃 NVIDIA Control Panel	Performance Information and Tools	Personalization	🛄 Phone and Modem
Power Options	Programs and Features	🜮 Recovery	🔊 Region and Language	4 RemoteApp and Desktop Connections
SmartAudio	🛒 Sound	🇄 Speech Recognition	Sync Center	🕎 System
🔔 Taskbar and Start Menu	📧 Troubleshooting	🎎 User Accounts	S Windows Anytime Upgrade	📑 Windows CardSpace
Windows Defender	🔗 Windows Firewall	🕘 Windows Live Language Setting	Windows Mosiney Clenter ween your co	moutevindows Update

Organize 🔻	Include in library 🔻				
4 🖳 Computer					
🛛 🏭 Windows7_OS (C:)					
🖻 🙀 Invoices (	> 🙀 Invoices (I:)				
▷ 🙀 Projects (P:)					
Eenovo_Recovery (Q:)					
🖻 🙀 Tech Support (T:)					
4 🙀 Users (U:)					
🖻 🌺 🗛 AaronL					
🖻 🎎 AlexC					
🖻 ᇔ Barbara	M				
🖻 🎃 BrianC					
🖻 🎃 chrisra					
🖻 🌺 DanH					
DarenS					
DarylP					
b b denniss					
Ex-Emp	loyees				
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Iames					
▷ 🎎 JamieB					
⊳ 🎎 JimF					
▷ 🎎 jkusche	I				
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▷ 🎎 KeithN					
≥ 👷 KevinM					
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≥ 💥 KimH					
> 👷 Lindaw					
> 💓 Michael	IN				
≥ 👷 NickN					
N M RogerL					
KyanJ					
ScottD					







# **Class summary**

Top reasons to use AutoCAD Electrical:

- More consist, professional looking designs
- Eliminate errors
- Minimize missing Bill of Material items Terminal Accessories
- Reduce design time Networked Install



# New Families Networked Install Pin List Database Nal Accessories





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