

Short Circuit Your Schematics: Maximize Autodesk® AutoCAD® Electrical in Your Organization

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Class summary

Would you like to take hours, or even days, out of your typical schematic design process on every new project? Maximize the power of AutoCAD Electrical software in your organization by implementing a streamlined workflow using selected standard tools. In this class, we show you how to use the intelligence of a completed AutoCAD Electrical project and some subtle, yet powerful tools integral to AutoCAD Electrical, to take a new project from 0 to 90% complete in a matter of minutes. By using the power of several project-wide editing tools, we transform a completed project into a unique new project where you can cruise through the mundane changes and direct your focus to what is substantially different.

Key learning objectives

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

- Copy a completed project to create a unique new project
- Update project descriptions and other title block data across the entire drawing set
- Reformat component tags and wire numbers for the whole project
- Update descriptions and location codes for components and PLC modules in Microsoft® Excel® software

Copy a completed project to create a unique new project

Where to start

- The best place to start is with an existing AutoCAD Electrical project that has as much similarity to the project you are about to create as it can.
- Alternatively, you can use a project that is your company's "All options selected" configuration.
- Either way, starting with a project that already has AutoCAD Electrical data in it will streamline the creation of this new project

Copy Project: Step 1 - Select Existing Project to Copy

Enter existing project name

C:\Docs\AutoCAD-E\AU 2013\MA1598\MA1598 Dataset\MA1598.wdp

Copy Active Project

Browse

Note: if the active drawing is one of those to be copied to a new project:
 1. Cancel now.
 2. Open a different or a new drawing.
 3. Re-start this command.

OK Cancel

Copy Project: Step 2 -- Select path and name for new project

Save in: New Project

Name	Date modified	Type
No items match your search.		

Save Cancel

Copy Project: Step 5 -- Adjust new drawing file names

C:\Docs\AutoCAD-E\AU 2013\MA1598\New Project\MA1598-001.dwg
 C:\Docs\AutoCAD-E\AU 2013\MA1598\New Project\MA1598-002.dwg

Find/Replace

Find: MA1598
 Replace: New Project

Include drawing path

OK Cancel

Edit Find/Replace OK Cancel

Select Drawings to Project

Ref	Subfolder	Section	Sub-Section	Project Drawing

Do All Process Reset Un-select

Ref	Subfolder	Section	Sub-Section	Project Drawing List
	SCHEMATICS			C:\Docs\AutoCAD-E\AU 2013\MA1598\MA1598 Dataset\MA1
	SCHEMATICS			C:\Docs\AutoCAD-E\AU 2013\MA1598\MA1598 Dataset\MA1
	SCHEMATICS			C:\Docs\AutoCAD-E\AU 2013\MA1598\MA1598 Dataset\MA1
	SCHEMATICS			C:\Docs\AutoCAD-E\AU 2013\MA1598\MA1598 Dataset\MA1
	SCHEMATICS			C:\Docs\AutoCAD-E\AU 2013\MA1598\MA1598 Dataset\MA1
	SCHEMATICS			C:\Docs\AutoCAD-E\AU 2013\MA1598\MA1598 Dataset\MA1
	SCHEMATICS			C:\Docs\AutoCAD-E\AU 2013\MA1598\MA1598 Dataset\MA1

Select from the top list, insert into the bottom list.

OK Cancel Help View

Choose Path for Project Drawings

Browse

Copies of the drawings will be copied to this new path. If the directory path does not exist, it will be created.

Select Project-Related Files to be Copied

- Title Block Setup (.wdt)
- Project Line Labels (.wdl)
- Component Description Defaults (.wdd)
- Catalog Lookup Database (cat.mdb)
- Footprint Lookup Database (lookup.mdb)
- Family Code Mapping (wd_fam.dat)
- Wire Color/Gauge Label (.wdw)
- Schematic Lookup Database (schematic_lookup.mdb)
- Location Codes (.loc)
- Installation Codes (.inst)
- Ratings Defaults (.wdr)
- Component Tagging (.wdx)
- Spreadsheet PLC I/O Utility Settings (.wdi)
- RSLogix Import Mapping (.wdf)
- User Defined Attributes (.wda)
- Terminal Audit Filter (.wdn)

OK Cancel

Copy Project Summary

- Select Existing Project to Copy
- Select Path and Name for New Project
- Select Drawings to Process
- Select Project-Related Files to be Copied
- Adjust New Drawing File Names

Update project descriptions and other title block data across the entire drawing set

Adding the new project information

- Once the Copy Project has been completed, you are ready to start editing the information in the drawing.
- First, we need to update the Project-specific information in the Project Descriptions dialog.
- Once that's completed, we can push that data out to every title block in our new project using Update Title Block.

Project Description (for report headers and title block update)

Title 1: in reports

Title 2: in reports

Title 3: in reports

Job Number: in reports

Date: in reports

Engineer: in reports

Drawn By: in reports

Project Description (for report headers and title block update)

Line13: in reports

in reports

in reports

in reports

in reports

in reports

in reports

Update Title Block

Select Line(s) to Update (Project Description Lines)

<input checked="" type="checkbox"/>	Title 1:	New Project	<input type="checkbox"/>	LINE13	(blank)
<input checked="" type="checkbox"/>	Title 2:	Short Circuit Your Schematics	<input type="checkbox"/>	LINE14	(blank)
<input checked="" type="checkbox"/>	Title 3:	AutoCAD Electrical	<input type="checkbox"/>	LINE15	(blank)
<input checked="" type="checkbox"/>	Job Number:	13-1205	<input type="checkbox"/>	LINE16	(blank)
<input checked="" type="checkbox"/>	Date:	12-07-13	<input type="checkbox"/>	LINE17	(blank)
<input type="checkbox"/>	Engineer:	CS	<input type="checkbox"/>	LINE18	(blank)
<input type="checkbox"/>	Drawn By:	EF	<input type="checkbox"/>	LINE19	(blank)
<input type="checkbox"/>	Checked By:	SW	<input type="checkbox"/>	LINE20	(blank)
<input type="checkbox"/>	Scale:	No Scale	<input type="checkbox"/>	LINE21	(blank)
<input type="checkbox"/>	LINE10	(blank)	<input type="checkbox"/>	LINE22	(blank)
<input type="checkbox"/>	LINE11	(blank)	<input type="checkbox"/>	LINE23	(blank)
<input type="checkbox"/>	LINE12	(blank)	<input type="checkbox"/>	LINE24	(blank)

Select All Clear All < >

Select line(s) to update (these are per-drawing values)

<input checked="" type="checkbox"/>	Drawing Description:	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	<input type="checkbox"/> P <input type="checkbox"/> I <input type="checkbox"/> L (%P,%I,%L values)
<input type="checkbox"/>	Drawing Section:	(blank)	<input checked="" type="checkbox"/> Drawing (%D value)
<input type="checkbox"/>	Drawing Sub-section:	(blank)	<input checked="" type="checkbox"/> Sheet (%S value)
<input type="checkbox"/>	Filename:	NEW PROJECT-001 <input checked="" type="checkbox"/> Upper case	<input checked="" type="checkbox"/> Sheet maximum: <input type="text" value="15"/>
<input type="checkbox"/>	File/extension:	NEW PROJECT-001.DWG	<input checked="" type="checkbox"/> Resequence sheet %S values <input type="text" value="01"/> Start
<input checked="" type="checkbox"/>	Full Filename:	C:\DOCS...\NEW PROJECT-001.DWG	

Activate each drawing to process

OK Active Drawing Only OK Project-wide Cancel Help Wide>

Project Manager

NEW PROJECT

- NEW PROJECT
 - New Project-001.dwg
 - SCHEMATICS
 - New Project-002.dwg
 - New Project-003.dwg
 - New Project-004.dwg
 - New Project-005.dwg
 - New Project-006.dwg
 - New Project-007.dwg
 - PANEL LAYOUTS
 - ADV.FEATURES

Details

Status: Accessible
Sheet: 04
Description: Control schematic

File Name: New Project-004.dwg
Location: C:\Docs\AutoCAD-E\AU 2013\MA1598\New Pr
File Size: 128KB (131626 bytes)
Last Saved: 11/4/2013 3:46:53 PM
Last Edited By: EFrance

Properties

References Styles Drawing Format

New Project\New Project-004.dwg

Pick>>

Pick>>

Pick>>

Section:

Sub-Section:

Drawing:

OK Cancel Help

Adding New Project Information Summary

- Edit Project Descriptions
 - Edit Individual Drawing Descriptions, if needed
- Update Title Blocks Project-Wide
 - Select Drawings to Process

Reformat component tags and wire numbers for the whole project

Reformat the schematics

- If this project requires different formatting than the original, we can use Project-Wide Update/Retag to completely reformat the structure of our new project.
- Elements of our schematics like, line references, component and wire tags, component cross-references, and more can all be adjusted here.
- We can even choose to run the Update Title Block in here instead.

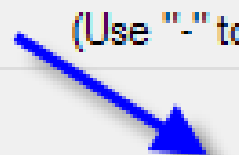
Project-Wide Update or Retag

Select options to run on selected drawings from active project.

<input checked="" type="checkbox"/> Component Retag	
<input checked="" type="checkbox"/> Component Cross-Reference Update	
<input checked="" type="checkbox"/> Wire Number and Signal Tag/Retag	<input type="button" value="Setup"/>

<input checked="" type="checkbox"/> Ladder References	
<input checked="" type="radio"/> Resequence	<input type="button" value="Setup"/>
<input type="radio"/> Bump - Up/Down by	<input type="text" value="0"/>
	(Use "-" to bump down)

<input type="checkbox"/> Sheet (%S value)	
<input checked="" type="radio"/> Resequence - Start with	<input type="text" value="1"/>
<input type="radio"/> Bump - Up/Down by	<input type="text" value="0"/>
	(Use "-" to bump down)
<input type="checkbox"/> Drawing (%D value)	<input type="text"/>
<input type="checkbox"/> Other Configuration Settings	<input type="button" value="Setup"/>
<input checked="" type="checkbox"/> Title Block Update	<input type="button" value="Setup"/>



Project-Wide Update/Retag Summary

- Launch Project-Wide Update/Retag
 - Adjust Component Tags and Cross-References
 - Adjust Component Adjust Wire Numbers and Signal Arrows
 - Adjust Ladder References
 - Adjust Sheet and Drawing Numbers
 - Run Title Block Update
- Select Drawings to Process

Update descriptions and location codes for components and PLC modules in Microsoft® Excel® software

Quickly Update Content

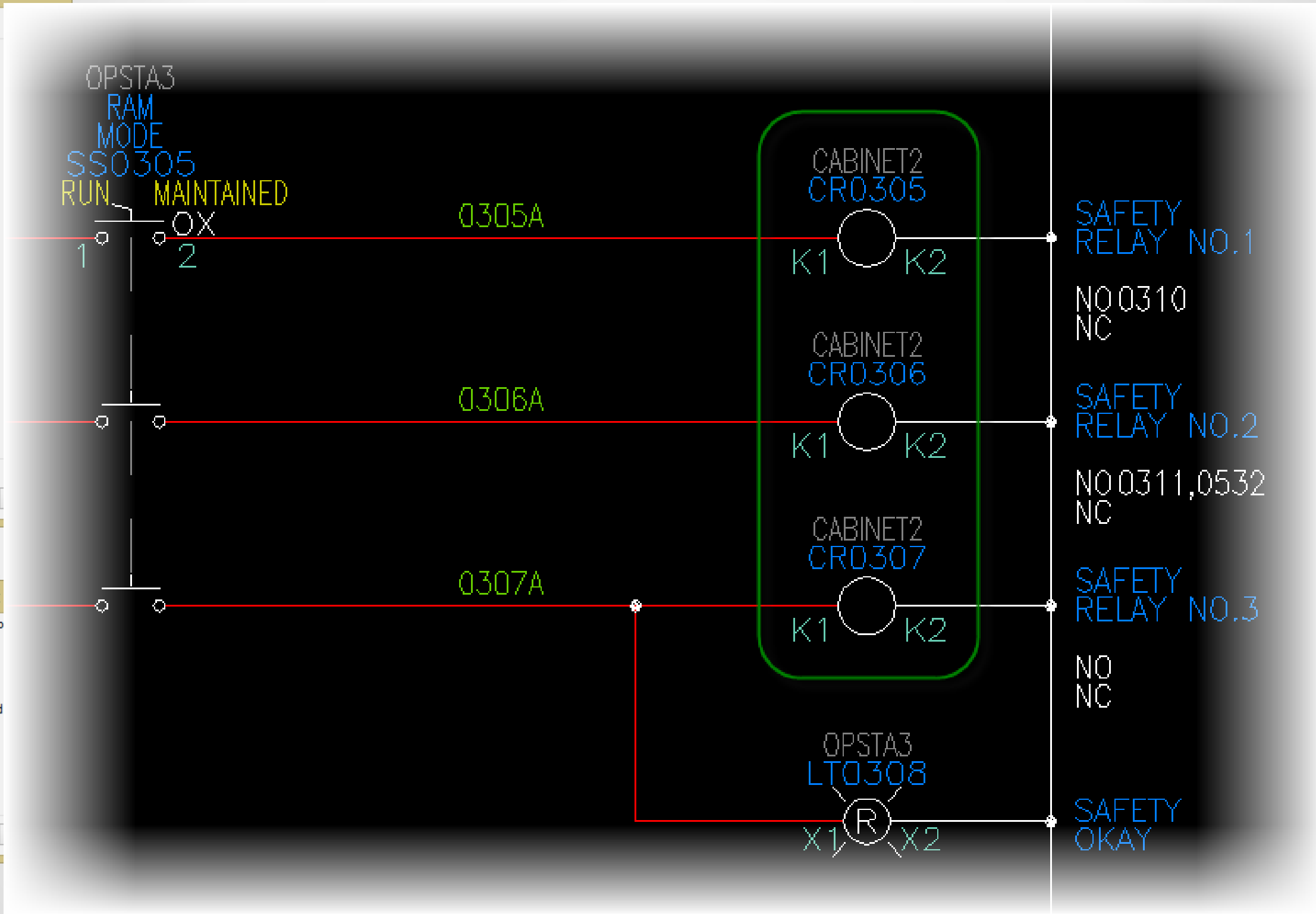
- Finally, we can focus on the content of the drawings in our new project. We start by using Export to Spreadsheet to get that content into an easily editable format.
- Now, using Excel's Sorting and Find/Replace capabilities we can make changes to things like Component Descriptions and Location Codes.
- Use Import from Spreadsheet to refresh our drawings.

Export to Spreadsheet

Select data category

- General (all * below)
- Components *
- Components (parents only)
- Components (one-line only)
- Terminals (stand alone) *
- Terminals (one-line only)
- Wire numbers *
- Wire numbers and layers
- Wire number signal arrows *
- PLC I/O header information *
- PLC I/O wire connections
- PLC I/O address/descriptions *
- Panel components *
- Panel terminals *
- Drawing settings

OK Cancel



File (xls, mdb, or csv Format)

Date modified: 11/6/2013 4:50 PM

Open Cancel Find File...

General Data Export

Data export for:

- Project
- Active drawing

Location Co:

- All
- Blank
- Named

Output format:

- Excel file format (.xls)
- Access file format (.mdb)

OK Cancel

Spreadsheet Data

Process:

Help

Content Update Summary

- **Export to Spreadsheet**
 - Select Data Categories
 - Select Drawings to Process
- **Edit in Excel®**
 - Sort
 - Replace
- **Import from Spreadsheet**

Class Summary

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