

A AUTODESK® AUTOCAD® ELECTRICAL 2018

Electrical CAD software for
controls and schematic design



AutoCAD Electrical software gives you the tools to design control systems quickly, accurately, and cost-effectively

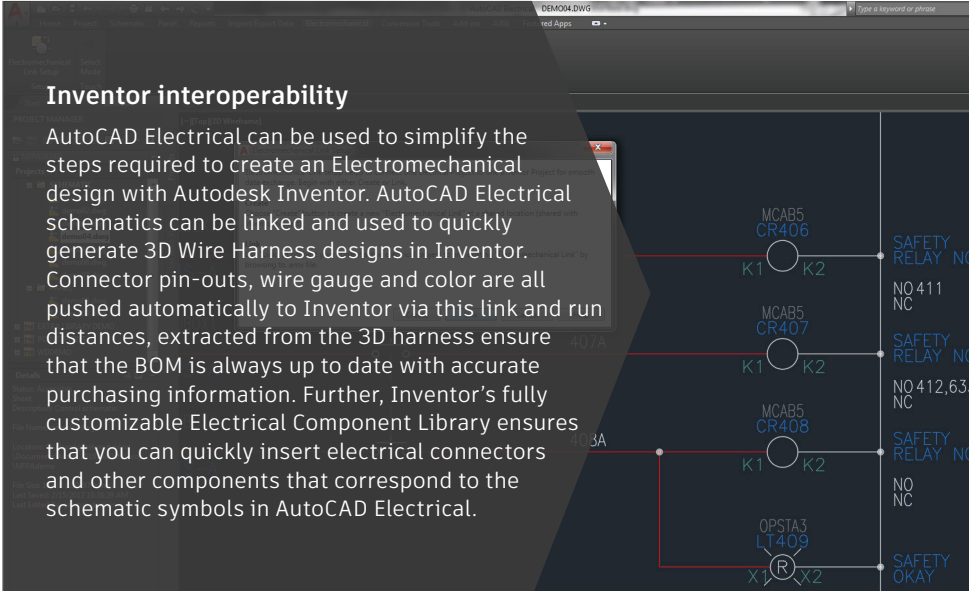
Facing these issues?

- Creating electrical controls designs with generic software is limiting your productivity.
- Errors are reaching the shop floor and causing delivery delays.
- Components are not being ordered because of inaccurate bills of materials (BOMs).
- Manually adding electrical controls information into 2D or 3D mechanical designs is tedious.
- Sharing designs with downstream users is error-prone and difficult.
- Designers are spending too much time manually generating reports.
- Use of design standards is inconsistent.
- Designers are unable to easily find and reuse designs.

The logical choice for electrical controls design

Autodesk® AutoCAD® Electrical software helps controls designers to create and modify electrical control systems. Automated tasks and comprehensive symbol libraries help to increase productivity, reduce errors, and provide accurate information to the manufacturing floor.

Stay ahead of the competition with AutoCAD Electrical software which, with added tools on top of Autodesk® AutoCAD® software, offers significant productivity gains by automating many of the complex tasks associated with creating accurate, industry-standard electrical control systems.

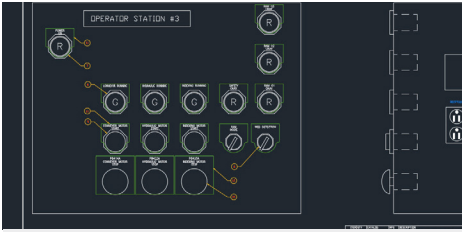


Inventor interoperability

AutoCAD Electrical can be used to simplify the steps required to create an Electromechanical design with Autodesk Inventor. AutoCAD Electrical schematics can be linked and used to quickly generate 3D Wire Harness designs in Inventor. Connector pin-outs, wire gauge and color are all pushed automatically to Inventor via this link and run distances, extracted from the 3D harness ensure that the BOM is always up to date with accurate purchasing information. Further, Inventor's fully customizable Electrical Component Library ensures that you can quickly insert electrical connectors and other components that correspond to the schematic symbols in AutoCAD Electrical.

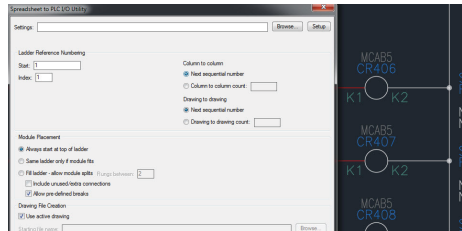
“AutoCAD Electrical is very flexible and easy to use. The fact that [it] doesn't limit us is a major advantage.”

—David Pedersen
Electrical Engineer
Mammoth, Inc.



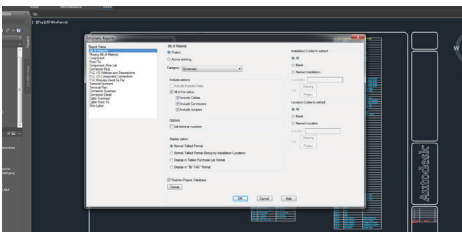
Panel layout drawings

Once your schematics are complete, AutoCAD Electrical makes it easy to create your panel layout. Based on the components in your schematic, AutoCAD Electrical will give you a pre-populated list of switches, relays, terminals, and other components to place in the layout. Then you can easily place labels on all the components, and quickly generate panel BOMs or component lists.



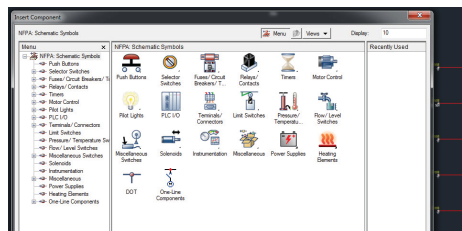
PLC I/O drawings from spreadsheets

Create PLC drawings directly from spreadsheets with AutoCAD Electrical. Each row represents the in-line components for a given rung, and can include information such as the block name to insert, tag, description, location, and other information. Upon import, the ladder diagram will automatically place all identified components in their corresponding location on the diagram, and will stretch across multiple pages, if necessary.



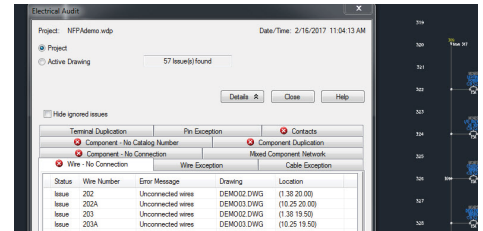
Automatic report generation

Generate powerful reports based on your schematics and panel layouts with AutoCAD Electrical. Out-of-the-box reports include Wire From/To, Bill of Material, and Component Wire List, just to name a few. You can generate multiple reports at once, and the results from each report can either be saved as a separate file, or can be placed on the drawing as a table.



Electrical schematic symbol libraries

Place common electrical components such as relays, selector switches, fuses, and others from the library in AutoCAD Electrical. Wires are automatically trimmed as the components are placed, and tags are generated for each new component. In addition, schematic and panel layout representations are linked together, so the correct representation will be placed based on the type of drawing. You can also add your own components to the AutoCAD Electrical library.



Real-time error checking

Avoid costly errors before the build phase by catching and removing errors like duplicate tags and wire numbers in real-time. In addition, the software will warn you when you place too many child contacts for a given relay, preventing common mistakes. For more comprehensive error checking, run the electrical audit to find wire ends not connected to anything, components without catalog values, child contacts not related to parents, and other common errors.

Top 10 reasons to move from AutoCAD to AutoCAD Electrical

- Comprehensive symbol libraries
- Automatic wire numbering and component tagging
- Automatic project reports
- Real-time error checking
- Smart panel layout drawings
- Electrical-specific drafting features
- Ability to create PLC I/O drawings from spreadsheets automatically
- Ability to share drawings with customers and suppliers and track their changes
- Reuse existing drawings

Make Great Products

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