

# The Power of AutoCAD Electrical

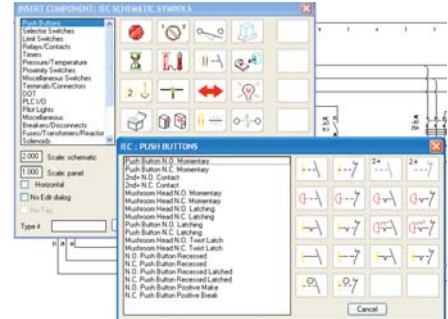
If you design machines or products that move, electrical controls are probably a key component of your design requirement. For years, design teams have had to rely on generic applications to manually lay out electrical schematics, wasting valuable design time and money. AutoCAD® Electrical software, part of the AutoCAD® family you already know and trust, is the leading application built specifically to create and modify electrical control designs. It delivers the tools you need to design and modify industrial controls systems faster and more accurately than ever before.

Autodesk®

# 10 Reasons to Move from AutoCAD to AutoCAD Electrical 2007

## 1. Ships with Over 2,000 Standards Based Schematic Symbols

AutoCAD Electrical provides a simple menu driven system for inserting electrical, pneumatic, hydraulic, and P&ID devices, allowing you to quickly create various controls designs by selecting commonly used devices from a menu. Symbol libraries include support for the JIC, IEC, GB, JIS, and AS standards. The comprehensive symbol library includes devices such as:



### Electrical Symbols

- Push buttons
- Selector switches
- Pilot lights
- Relays
- Contacts
- Fuses
- Terminals

### Hydraulic and Pneumatic Symbols

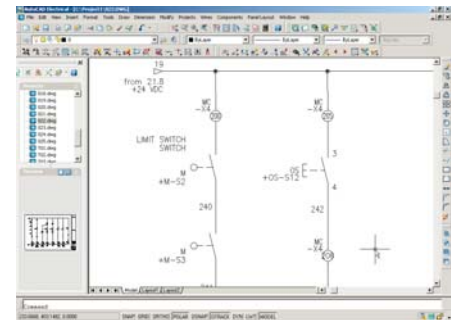
- Valves
- Regulators
- Filters

### P&ID Symbols

- Tanks and Vessels
- Valves
- Pumps
- Nozzles
- Flow arrows

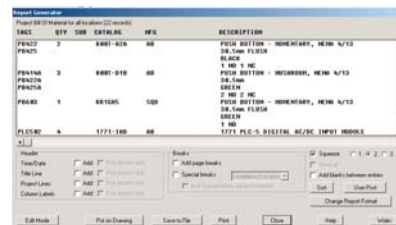
## 2. Automatic Wire Numbering and Component Tagging

Automatically assign wire numbers and component tags in your drawings and reduce the time you spend tracking design changes—resulting in fewer errors. AutoCAD Electrical will automatically place sequential or reference-based numbers on all wires and components based on the chosen configuration. AutoCAD Electrical can determine if an inserted wire number will “bump” into anything and will automatically search laterally along the wire for a clear spot to land the wire number. If no clear spot is found, AutoCAD Electrical continues to search for a clear spot away from the wire, and when found, automatically draws a ladder back to the wire.



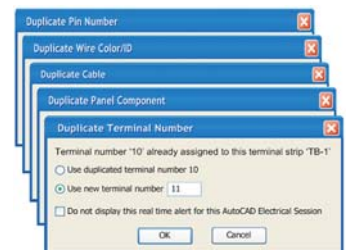
## 3. Automatic Report Generation

Drastically reduce time required to manually generate and update reports while removing associated errors. Report Generation in AutoCAD Electrical is simple with automatic reports that cover everything from Bill of Materials (BOM) to From/To wire lists. The report function also allows users the option of generating multiple reports with a single command.

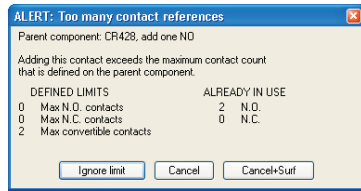


## 4. Real-time Error Checking

Avoid costly errors at build time by catching and removing errors during design. AutoCAD Electrical monitors and alerts users to potential design errors as they occur by constantly comparing the requested changes with the current project.



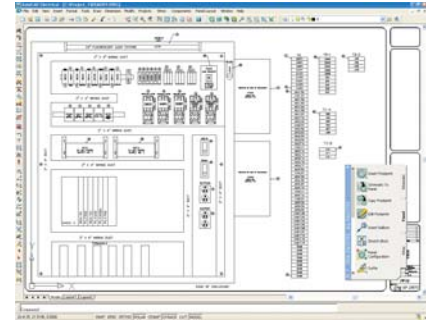
## 5. Real-time Coil and Contact Cross-referencing



Reduce the risk of assigning too many contacts to any relay and minimize the time spent manually tracking assignments. AutoCAD Electrical sets up parent/child relationships between coils and contacts, keeping track of how many contacts are assigned to any coil or multi-contact device, and alerting users when they've exceeded the limit.

## 6. Create Smart Panel Layout Drawings

Simplify panel layout drawing creation to reduce errors and help ensure that all parts are placed, and drawings are automatically updated. Once the schematic creation phase is complete, AutoCAD Electrical extracts a list of schematic components for placement into panel layout drawings. Users choose the panel location and a physical "footprint" representation of each device to be inserted into the layout and a "link" is automatically created between the device and its representation. Any changes to the schematic or panel representation will update the other. Non-schematic items like wire duct and mounting hardware can be added to the layout and automatically combined to create a "smart" panel BOM report.

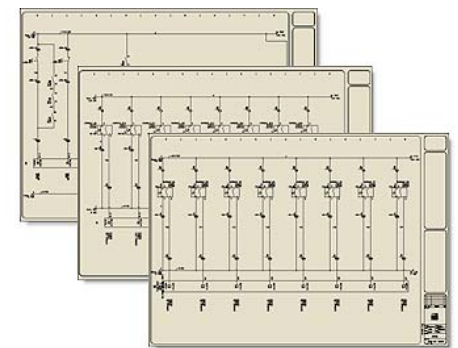


## 7. Electrical Specific Drafting Features

Slash design time by using commands designed specifically for electrical controls designers. AutoCAD Electrical includes drafting features developed specifically for creating electrical controls designs. Specialized features such as trim wire, copy and delete component or circuit, and scoot and align components make it much easier to create drawings quickly.

## 8. Automatically Create PLC I/O Drawing From Spreadsheets

Automatically create PLC I/O drawings from the design data stored in a spreadsheet. AutoCAD Electrical gives users the ability to generate a comprehensive set of PLC I/O drawings by simply defining the project's I/O assignments in a spreadsheet. AutoCAD Electrical then automatically creates drawings, complete with ladders per the drawing configuration, I/O modules, addresses and description text, and component and terminal symbols connected to each I/O point.



## 9. Share Drawings with Customers and Suppliers and Track Their Changes

Easily exchange data with customers or suppliers in native DWG format. AutoCAD Electrical drawings can be viewed and edited by any DWG compatible program such as AutoCAD, or AutoCAD LT® software. When you get drawings back from outside sources, AutoCAD Electrical can create a report of what was done to them while they were out of your control. Also, when your design process reaches the point where a new revision is to be issued, AutoCAD Electrical can create a report of changes made to the drawings since the last revision update.

## 10. Reuse Existing Drawings

Get a head start on your design projects by reusing drawings from another project. Make a copy of a specific part or reuse an entire drawing set when starting your new design. Commonly used circuits can be saved for reuse in future designs and AutoCAD Electrical will automatically renumber the wires and devices to match the configuration of the current drawing or project in which they are placed. You can also reduce design time and errors by retagging all components in a project with a single command.

## Now is the Time

Now is the time to take a look at AutoCAD Electrical. Discover why so many electrical controls engineers are using AutoCAD Electrical, the only logical choice for electrical controls designs. For more information about AutoCAD Electrical, go to [www.autodesk.com/autocadelectrical](http://www.autodesk.com/autocadelectrical). To locate the reseller nearest you, visit [www.autodesk.com/reseller](http://www.autodesk.com/reseller)

