AUTOCAD ELECTRICAL TRAINING

Objectives

The main objective of this course is to learn how to use the powerful electrical drawing creation tools in the AutoCAD Electrical software. After completing this course users will be able to:

- ✓ Describe the You will create schematic drawings such as ladder logic and point to point, panel drawings, and PLC-I/O circuits using automated commands for symbol insertion, component tagging, wire numbering, and drawing modification.
- ✓ Know methods of customizing AutoCAD Electrical symbols, circuits, and databases. Other topics covered include title block linking, reporting tools, templates, and project files.

Pre-requisites

This guide is designed for an AutoCAD Electrical User. It is recommended that you have a working knowledge of:

- Microsoft® Windows® 7, Microsoft® Windows® 8 or Microsoft® Windows® 10
- A basic understanding of electrical drafting or design.
- A basic knowledge of the AutoCAD® software.

TRAINING PROGRAMME DAY 1

Chapter 1: Introduction to AutoCAD Electrical

- What is AutoCAD Electrical?
- Drawing Files
- Electrical Components and Wires
- Design Methodologies

Chapter 2: Project Files

- Project Manager Interface
- Accessing Project Files
- Open & Create a Drawing
- Add a Drawing to a Project File
- Managing Drawings in Projects
- Project Manager Drawing List

Chapter 3: Schematics I - Single Wires/Components

- Referencing & Ladders
- Insert & Edit Wires
- Add Rungs
- Wire Setup & Wire Numbers
- Source & Destination Signal Arrows
- Insert Component
- Parent/Child Components

Chapter 4: Editing Commands

- Edit Component
- Updating Drawings
- Scoot & Align
- Move & Copy Component
- Delete & Surfer Component
- Copy Catalogue Assignment
- Copy Installation/Location Code Values
- Attribute Editing Commands

Chapter 5: Schematics II - Multiwire and Circuits

- Dashed Link Lines
- 3-Phase Ladders
- Multiple Wire Bus
- Phase Components
- 3-Phase Wire Numbering
- Cable Markers
- Fan In/Out
- Insert Saved Circuits
- Save Circuits to Icon Menu
- W Block Circuits
- Copy & Move Circuit
- Circuit Clipboard & Builder

Chapter 6: Panel Drawings

- Insert Footprint (Icon Menu)
- Insert Footprint (Schematic List)
- Insert Component (Panel List)
- Edit Footprint
- Assign Item Numbers
- Add Balloons

TRAINING PROGRAMME DAY 2

Chapter 7: Terminals

- Insert Terminal Symbols
- Multiple Level Terminals
- Multiple Insert Component Command
- Insert Jumpers
- Terminal Strip Editor
- DIN Rail Command

Chapter 8: PLC Symbols

- Insert PLC (Parametric)
- Insert PLC (Full Units)
- Insert Individual PLC I/O Points
- PLC Based Tagging
- Spreadsheet to PLC I/O Utility

Chapter 9: Point-to-Point Wiring Drawings

- Insert & Edit Connectors
- Insert Splices
- Insert Multiple Wires
- Bend Wires

Chapter 10: Symbol Creation

- Schematic Symbols
- Naming Convention
- Icon Menu Wizard
- AutoCAD Electrical Databases
- Project & Catalog Databases
- Footprint Lookup Database
- PLC Database

TRAINING PROGRAMME DAY 3

Chapter 11: Title blocks

- Update Title blocks
- Title block Setup

Chapter 12: Reporting Tools

- Create Reports
- Configure Report Templates
- Running Automatic Reports
- Electrical Audit

Chapter 13: Settings and Templates

- Project & Drawing Properties
- Panel Drawing Configuration
- Template Files
- Sharing Symbol Libraries and Databases

Chapter 14: Drawing Update Tools

- Project-Wide Update/Retag
- Project-Wide Utilities
- Plot Project
- Export to Spreadsheet
- Update from Spreadsheet
- Copy Project
- Swap/Update Block
- Mark/Verify Drawings