



Learning for AutoCAD Electrical 2015

Course Description

Learning for AutoCAD Electrical 2015 teaches the electrical CAD features available to electrical designers in AutoCAD Electrical. You'll learn how to create and manage projects, create and edit various electrical drawings, develop reports within the application and output data, use PLC components, and customize the application to meet your specific design requirements.

Lesson Outline

Getting Started

- Introducing AutoCAD Electrical
- Understanding the Application Menu
- Understanding the Quick Access Toolbar
- Understanding the Ribbon Interface
- Working with Autodesk 360
- Configuring Online Options
- Saving and Opening Drawings Using Autodesk 360
- Sharing Documents with Others
- Using Design Feed
- Using and Controlling the Help System

Projects

- Using the Project Manager
- Creating New Projects with Project Manager
- Organizing Project Lists
- Creating a New Drawing
- Creating Descriptions for the Project Drawing List
- Plotting From Drawing Lists
- Moving Through Project Drawings in Order
- Opening and Activating Projects
- Copying Projects

Schematic Wiring

- Understanding Wires and Wire Type Layers
- Inserting Wires
- Trimming Wires
- Inserting Ladders
- Revising Ladders
- Referencing Ladders
- Wiring Tools
- Wiring with the Multiple-Bus Tool
- Numbering Wires
- Assigning Wire Numbers Automatically
- Editing Wire Numbers
- Numbering Wires and Leader Configuration
- Inserting Destination Signal Arrows
- Linking Destination and Source Signal Arrows
- Inserting Source Signal Arrows and Linking

Schematic Components

- Using the Icon Menu Interface
- Inserting a Component and Configuring its Description
- Using the Insert Edit Components Catalog
- Inserting and Linking Child Components

- Creating a Panel List of Schematic Components
- Inserting Schematic Components from Lists - Completing the Insertion Process
- Inserting Multiple Schematic Components from Lists
- Inserting Multiple Schematic Components from an Equipment List
- Inserting Schematic Components from a Catalog
- Inserting Connectors
- Configuring Connector Options
- Understanding Terminals
- Assigning Terminal Block Properties
- Creating and Editing Terminal Jumpers
- Using Terminal Associations
- Working with Circuits
- Creating Multiple-Phase Circuits

Schematic Editing

- Using the Location Editing Commands
- Modifying Components
- Editing Using a Location Box
- Copying Part Numbers and Location Codes
- Swapping Blocks

- Updating Blocks and Using Library Swap
- Using the Auditing Tools
- Updating and Retagging Drawings

Schematic Reports

- Creating Schematic Reports
- Formatting Schematic Report Options
- Changing the Report Format
- Producing a Report
- Creating Wiring Reports
- Publishing Drawings

Panel Layouts

- Comparing Schematic Symbols and Panel Symbols
- Creating Panel Layouts by Inserting Footprints
- Inserting Footprints from a Schematic List
- Inserting Multiple Footprints
- Inserting Nameplates into Panel Layouts
- Using the DIN Rail Tool
- Using the Terminal Strip Editor
- Using the Terminal Strip Editing Tools
- Using the Spares and Accessories Tools in the Terminal Strip Editor
- Updating Terminal Data with the Terminal Strip Editor
- Inserting Tabular Terminal Charts Using the Terminal Strip Editor
- Inserting Jumper Charts Using the Terminal Strip Editor
- Configuring Panel Layout Annotation
- Annotating Panel Layouts and Reports
- Creating a Bill of Material Panel Report

Settings and Configurations

- Creating Wire Types
- Advanced Options for Creating Wire Types
- Modifying Wire Types
- Creating Wire Type Layer Overrides
- Importing Wire Types
- Using Reference Files
- Using the Environment File
- Configuring the Drawing Settings
- Configuring Settings for Component Tags

- Setting the Wire Number Options
- Defining Cross-References
- Setting the Default Styles
- Setting the Drawing Format Options
- Understanding the Configuration Block
- Creating Project Settings
- Accessing Project Options
- Comparing Project and Drawing Properties
- Creating Drawing Templates
- Modifying Drawing Templates

Custom Components

- Naming Schematic Symbols
- Reviewing Schematic Symbol Templates
- Configuring the Symbol Builder
- Reviewing the Symbol Builder Environment
- Inserting Attributes in the Symbol Builder
- Inserting Wire Connections for Symbol Builder
- Using the Symbol Builder Tools
- Using the Icon Menu Wizard
- Adding Components Using the Icon Menu Wizard
- Adding Submenus to the Icon Menu Wizard
- Defining Panel Footprint Symbols
- Creating Panel Footprint Symbols
- Adding Panel Footprints to a Database
- Inserting Panel Footprints from a List

Custom Data

- Managing the Part Catalog Database
- Adding Part Catalog Numbers to the Database
- Adding a Catalog Subassembly to the Database
- Adding Multiple Catalog Part Numbers to a Single Component
- Using the Pin List Database
- Editing the Pin List Database
- Editing the Terminal Block Properties Database
- Understanding Title Block Attributes
- Mapping Title Blocks to Internal Attributes
- Mapping Title Blocks to an External File
- Updating Title Block Attributes

Automation Tools

- Updating Schematics from Spreadsheets
- Creating Report Format Files
- Generating Automatic Reports

PLC Modules

- Understanding PLC Components and Inserting Standalone PLC Points
- Inserting Fixed PLC I/O Modules
- Inserting Parametric PLC I/O Modules
- Working with Breaks in PLC Modules
- Using the PLC Database File Editor
- Annotating Terminals and Settings in the PLC Database File Editor
- Setting Attribute Data in the PLC Database File Editor
- Applying PLC I/O Address-Based Tagging
- Using the Spreadsheet to PLC I/O Utility - Setup
- Using the Spreadsheet to PLC I/O Utility - Layout

Miscellaneous Advanced Tools

- Adding Wire Sequences
- Adding Wire Annotation to Footprints
- Using Cable Marker Symbols
- Inserting Wire Fan In/Out Source Signals
- Adding Cable Markers
- Inserting Wire Fan In/Out Destination Signals and Cable Reports
- Using the Circuit Builder
- Inserting a Circuit Using the Circuit Builder
- Configuring Circuits Using the Circuit Builder
- Recalculating Wire Size Using the Circuit Builder
- Using Templates for the Circuit Builder
- Using the Circuit Builder Spreadsheet
- Inserting a Custom Circuit Using the Circuit Builder
- Using the Electrical Standards Database Editor
- Working with Peer-to-Peer Style Drawings
- Linking Schematic Components to Peer Components with the Same Tag
- Linking Schematic Components to Peer Components with a Different Tag