

AutoCAD Electrical Essentials (JIC Standard)

Courseware Description

This courseware is designed for new users who require comprehensive training in AutoCAD® Electrical software. This hands-on courseware focuses on how to build intelligent ladder diagrams and panel layouts, and how to leverage this intelligence. The courseware provides an overview of many AutoCAD Electrical utilities designed to enable users to quickly build and manage electrical-controls drawings.

Hands-on exercises throughout the courseware explore how to create electrical-controls production drawings. All exercises and datasets in this courseware are based on the JIC (US) standard.

Suggested Course Duration:	4 days
Pages:	Volume 1: 434 Volume 2: 328
Trial CD:	Yes
Onscreen Exercises Included?	Yes

Objectives

The primary objective of this courseware is for students to learn the basic commands necessary for creating professional electrical-controls drawings with AutoCAD Electrical software.

After completing this course, students will be able to:

- Navigate the AutoCAD Electrical user interface.
- Use the fundamental features of AutoCAD Electrical.
- Build intelligent ladder diagrams and panel layouts.
- Create, view, and edit the project settings and properties.
- Extract data from drawings into reports formatted to match users' standards.
- Insert and edit parametric PLC modules, nonparametric PLC modules, and stand-alone PLC I/O points.

Who Should Attend

This courseware is designed for new users of AutoCAD Electrical software.

Prerequisites

Working knowledge of AutoCAD® is recommended and electrical drafting, design, or engineering experience is a plus. It is recommended that the student have a working knowledge of Microsoft® Windows® XP or Microsoft® Windows® 2000.

<http://www.amsystems.com/training/>

Course Outline

Day 1 – Basic AutoCAD Electrical

Basic Workflow

- Design Environment
- Basic Workflow

Project Basics

- Project Manager
- The Project Drawing List
- Moving Through Projects
- Activating and Copying Projects

Schematic Wiring

- Wiring and Ladders
- Wire Numbers
- Source and Destination Signal Arrows
- Circuits
- Multiple Phase Circuits
- Connectors and Point-2-Point Wiring

Day 2 – Basic AutoCAD Electrical

Schematic Editing

- Basic Utilities
- Miscellaneous Tools
- Resequence and Retag Drawings
- Using the Auditing Tools

Schematic Components

- Inserting Schematic Symbols
- Swapping and Updating Blocks
- Inserting Schematic Components from Lists

Schematic Reports

- Schematic Reports

Panel Layouts

- Creating Panel Layouts from Schematic Lists
- Using the DIN Rail Utility
- Panel Footprints
- Using the Terminal Strip Editor
- Panel Layout Annotation and Reports

Day 3 – Configuration

Settings and Configurations

- Creating Wire Types
- Using Reference Files
- Drawing Properties
- Project Properties

Custom Components

- Schematic Symbols
- Icon Menu System
- Panel Footprints

Custom Data

- Managing Part Catalog Databases
- Editing the Pin List Database
- Updating Title Block Attributes

Day 4 – Advanced

Automation Tools

- Updating Schematics from Spreadsheets
- Generating Automatic Reports

Autodesk Vault Integration

- Working with Autodesk Vault

PLC Modules

- Using PLC I/O Modules
- Using the PLC Database File Editor
- PLC I/O Address-Based Tagging
- Using the Spreadsheet to PLC I/O Utility

Advanced Tools

- Adding Wire Data to Footprints
- Managing Cables

Note: The suggested course duration is a guideline. Course topics and duration may be modified by the instructor based upon the knowledge and skill level of the course participants.

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