CADLearning for AutoCAD MEP 2014

Course Details

- 13+ hours of training
- 169 video tutorials
- Exercise files included
- Instructor: Nick Bouray

Course Description

CADLearning® for AutoCAD® MEP 2014 offers lessons for mechanical, electrical, and plumbing engineers, designers and drafters that cover topics including: modeling MEP and electrical systems, designing with space and zone objects, detailing and annotation, and using 3D models to produce construction documents.

Lesson Outline

Getting Started

- Starting AutoCAD MEP
- Understanding AutoCAD MEP Workspaces
- Understanding the Project Browser
- Understanding the Project Navigator
- Reviewing the Project Tab of Project Navigator
- Reviewing the Constructs Tab of Project Navigator
- Reviewing the Views Tab and Sheets Tab of Project Navigator
- Understanding XRefs and Project Files in Project Navigator
- Creating Categories in Project Navigator
- Adding Client Drawings as Elements with Project Navigator
- Creating Constructs in Project Navigator
- Modifying Constructs in Project Navigator
- Adding Backgrounds to Constructs in Project Navigator
- Creating Views in Project Navigator
- Creating Section Views and Elevation Views in Project Navigator
- Creating Sheets and Adding Views to Sheets in Project Navigator
- Using the Repath Project Command in Project Navigator
- Using Solution Tips
- Using MEP Snaps
- Using the MEP Compass
- Understanding Display Configurations
- Controlling Tab and Panel Visibility on the Ribbon

Schematic Drawings

- Understanding Schematic Drawings
- Creating the Schematic View Drawing
- Creating Schematic Systems
- Adding Schematic Lines
- Adding Schematic Symbols
- Understanding Schematic Line Styles and Priorities
- Annotating the Schematic Diagram

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Designing with Space and Zone Objects

- Understanding Spaces and Zones as Objects
- Generating Spaces
- Understanding Space Properties and Engineering Data
- Adding Zones
- Exporting and Importing Space Engineering Data
- Setting Space Hatching
- Modifying Spaces
- Adding Ceiling Grids to Spaces
- Adding Holes to a Ceiling Grid
- Leveraging Autodesk 360 Energy Analysis Tools with AutoCAD MEP

Modeling an MEP System

- Understanding How AutoCAD MEP Matches Design Process
- Understanding MvParts and Connectors
- Displaying a Ceiling Grid in an MEP Model
- Adding HVAC Equipment
- Adding Electrical Equipment and Panels
- Adding Light Fixtures and Devices
- Adding Piping Equipment
- Adding Plumbing Fixtures
- Editing MvPart Styles and Instance Properties
- Using Anchors
- Setting Duct Layout Preferences
- Setting Duct Engineering Units
- Setting HVAC System Definitions and Options
- Adding Duct
- Creating Duct Layout
- Sizing Duct
- Setting Pipe Layout Preferences
- Setting Pipe Routing Preferences
- Setting Piping System Definitions and Options
- Adding Piping
- Creating Pipe Layout
- Replacing Pipe and Duct Fittings Globally
- Setting Conduit Preferences
- Setting Cable Tray Preferences
- Setting Electrical System Definitions and Options
- Adding Conduit
- Adding Cable Tray
- Modifying Runs
- Setting Display Control Options
- Adding Labels
- Setting Plumbing Line Styles and System Definitions
- Adding Plumbing Lines
- Adding Accessories to 2D Plumbing Lines
- Adding Universal Connectors

Electrical Systems

- Setting Electrical Preferences
- Creating an Electrical Project Database
- Using the Circuit Manager
- Defining Circuits
- Circuiting Devices
- Adding Wiring and Home Runs
- Checking Connections
- Detecting Interferences
- Processing Interferences
- Reviewing Electrical Circuits and Power Totals
- Creating and Exporting Circuit Reports

Detailing

- Creating an Enlarged 3D Floor Plan View
- Creating an Enlarged 2D Floor Plan View
- Creating an Elevation View
- Creating a Section View
- Creating a Detail View
- Placing a Title Mark
- Editing Section/Elevation Styles
- Using Refresh, Regenerate and Batch Refresh Section Tools

Annotation

- Adding Tags
- Adding Schedule Tables
- Defining Schedule Table Groups
- Adding Panel Schedules
- Adding AutoCAD Annotations

Construction Documents

- Creating Sheets
- Adding Views to Sheets
- Editing Sheets
- Managing Subsets and Sheet Templates
- Adding a Drawing List
- Publishing Project Drawings
- Transmitting and Archiving Projects

Project Management

- Creating a New Project
- Understanding Basic Project Properties
- Understanding Advanced Project Properties
- Leveraging Project Drawing Templates
- Creating Typical Project View Drawings
- Customizing Project Sheets and Titleblocks
- Setting Project Template MEP Options
- Organizing Sheet Set Subsets
- Checking Project Standards

Style Manager

- Understanding Object Types and Styles
- Reviewing Style Manager Tabs and Tools
- Understanding System Definitions
- Leveraging Layer Key Styles
- Reviewing Rise Drop Styles
- Reviewing Part Group Definitions
- Reviewing Part Routing Preferences
- Defining Electrical Device Styles
- Defining Symbol Categories
- Defining Electrical Load Categories
- Defining Wire Styles
- Understanding Fixture Unit Tables
- Understanding Pipe Sizing Tables
- Understanding Property Set Definitions
- Defining Property Set Definitions - Manual
- Defining Property Set Definitions - Automatic
- Defining Property Set Definitions - Formula
- Defining Property Set Definitions - Location
- Defining Property Set Definitions - Classifications
- Defining Property Set Definitions - Project
- Defining Property Set Definitions - Anchors
- Defining Property Set Definitions - Graphics
- Defining Property Set Definitions - List Definitions
- Defining Property Data Format Styles
- Sharing Styles with other Drawings

Display System

- Understanding the Display Manager
- Defining Display Configurations and Sets
- Defining Object Representations
- Setting Style and System-Based Display Controls
- Setting Object-Based Display Controls
- Setting Layers versus Layer Keys per Display Component
- Defining 2D Section and Elevation Styles

Content Development

- Reviewing the Catalog Libraries
- Reviewing the Content Builder
- Reviewing the Catalog Editor
- Creating 3D Model and Plan Symbols for Block-Based Parts
- Defining Multiview Parts from Blocks
- Adding MEP Connectors to Multiview Parts
- Adding and Editing 2D Symbol Content by Workplane
- Modifying Block-Based Parts
- Creating a Custom Catalog
- Modifying a Parametric Fitting - Creating the Part
- Modifying a Parametric Fitting - Defining Parameters
- Modifying a Parametric Fitting - Editing Parameters and Catalogs
- Using the Parametric Part Wizard
- Creating Custom Tags
- Creating Custom Schedule Tables
- Working with Inventor Fusion
- Managing Schematic Content

Autodesk 360 Online Tools

- About Autodesk 360
- Saving and Syncing Configuration Settings
- Configuring Online Options
- Saving and Opening Drawings Using Autodesk 360
- Saving Non-Project Documents to Autodesk 360
- Opening and Viewing AutoCAD MEP Drawings in Autodesk 360
- Sharing AutoCAD MEP Drawings in Autodesk 360

System Requirements

DVD Version Requires

- Microsoft Windows® XP, Vista, 7
- 512 MB Ram
- 1GHz Processor or faster
- 1024x768 color display
- Sound Card and Speakers
- Up to 8GB hard disk space required for installation
- DVD-ROM drive for install only Mouse (or pointing device) needed for navigation

Online Version Requires:

- Internet Browser
- Adobe® Flash Plugin
- InternetConnection (High-Speed Recommended)

CADLearning is Developed by:

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About CADLearning

CADLearning delivers instruction through e-books, self-paced video tutorials, exercise files and assessments that are designed to improve familiarity and fluency with leading CAD and BIM software programs. Professionals in architecture, engineering, construction, automotive and transportation, manufacturing, utilities, communication, government and education can effectively leverage CADLearning for self-paced learning, as an ongoing resource, and as a help tool. CADLearning is developed by 4D Technologies, LLC.

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