SW153-Solidworks Electrical Advanced

About This Course

The goal of this course is to teach you more advanced topics not covered in the standard training course, and those features that require both Schematic and 3D features. Specifically:

- Creating and managing harnesses.
- Creating and building Printed Circuit Boards.
- Managing data in SOLID WORKS Electrical.
- Importing legacy data.
- Importing manufacturer parts data.
- ERP linking.
- Import and Export to Excel.
- Report query creation.

Each section deals in detail with a specific feature in SOLIDWORKS Electrical, to provide insight into the tools that can be applied to a variety of design challenges. Due to the range of practical purposes the program can be put to, the lessons must be regarded as practical examples that illustrate functionality and the results that can be obtained. These can then be applied to a meet the diverse design obstacles encountered by engineers across a range of industry disciplines.

Prerequisites

Students attending this course are expected to have the following:

- Electrical design experience.
- Completed the course *SOLIDWORKS Essentials.*
- Completed the course *SOLIDWORKS Electrical Schematic* and *3D.*
- Experience with the Windows™ operating system.
- SOLIDWORKS Electrical 2016 SP1 or higher installed.
- SOLIDWORKS installed.
- DraftSight installed.
- SQLite browser or equivalent installed.
- Have read/undertaken the coursework prior to class attendance

Course Length

The recommended minimum length of this course is 1 and a half days

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Course Design Philosophy

This course is designed around individual features and functions, demonstrating how they can be employed to complete tasks. By utilizing ease studies to illustrate these processes, you lean the necessary commands, options and menus in the context of completing a variety of common tasks.

Lesson 1:
Line Diagram Harnesses

- Creating a Harness
- Stages in the Process
- Project Harness
  - Harness Data
  - Detailed Cabling
  - Opening a SOLIDWORKS File from the Browser
  - Route Selected Harness
  - Routing Parameters
  - Routing Algorithms
  - Harness Routes
- Exercise I: Harness

Lesson 2:
Multi Level Terminals and Black Boxes

- Multi Level Terminal
- Stages in the Process
- Terminal Numbering
  - Black Boxes
- Stages in the Process
- Black Box Circuits
- Exercise 2: Multi Deck Terminal / Black Box

Lesson 3:
Library, Classification Management

- Creating a Library
- Stages in the Process
- Library Fillers

- Component Classifications
- Stages in the Process
  - New classes
  - Circuit Symbols
- Exercise 3: Library, Classification Management

Lesson 4:
Import DXF DWG Files

- Import DXF DWG Files
- Stages in the Process
- File Definition
- Symbol and Title Block Mapping
- Convert Attributes
- Configuration Files
- Review Results
- Exercise 4: Import DXF DWG Files

Lesson 5:
Import Manufacturers Parts

- Import Parts
- Stages in the Process
  - Title Rows
  - Data Comparison
  - Data Manager
- Exercise 5: Import Manufacturer Parts

Lesson 6:
ERP Database Connection

- ERP Database Connection
- Stages in the Process
- ERP Connection
  - Connection to Database
  - Main data
  - User data
- Customize User Data
- ERP Data Flow
- Update Data
- Exercise 6: ERP Database Connection

Lesson 7:
Export to Import from Excel

- Import Export To Excel
- Stages in the Process
- Excel Export/Imporl Configuration
- Export To Excel
  - XLSSnapshol
- Import From Excel
- Replace Data
- Stages in the Process
- Exercise 7: Export To, Import From Excel

Lesson 8:
Excel Automation

- Auto Generate Drawings From Excel....
- Stages in the Process
- Excel Macros and Variables
- Linking SQL Tables to Excel
- Inserting Drawings and Types
- Exercise 8: Excel Automation
- Macros Variables