SOLIDWORKS TRAINING

cadmicro

ENABLING INNOVATION
CHALLENGE THE STATUS QUO

SOLiDWORKS PCB ESSENTIALS

PREREQUISITES	LENGTH	DESCRIPTION
■ Basic knowledge ofSOLIDWORKS. Experience with the Windows Operating System.	3 Days	■ Learn how to develop schematics for your board layouts, add components and assign supplier links, and check design integrity using rules. Create PCB designs using configurable layer stacks, add keepouts and cutouts, place and route components, and add copper pours. Learn how to collaborate seamlessly with SOLIDWORKS to finalize the designs, vith a managed ECO change process.

► **SOLIDWORKS PCB BSAICS & USER INTERFACE**

- ■ SOLIDWORKS PCB Environment
- ■ SOLIDWORKS PCB Connector
- ■ User Interface Elements

► **WORKING WITH PCB DESIGN PROJECTS**

- ■ PCB Project Documents
- ■ Creating Projects
- ■ Creating Project Documents
- ■ Basic Project Management Tasks
- ■ Exercise I: Create Project
- ■ Exercise 2: Create Drawing
- ■ Exercise 3: Add Library
- ■ Exercise 4: Export Design

► **CREATING SCHEMATIC TEMPLATES**

- ■ Understanding Templates
- ■ Creating One Template from Another
- ■ Inserting a Company Logo
- ■ Setting Document Text Parameters
- ■ Setting Template Project Parameters
- ■ Creating Cable Connection Points
- ■ Exercise 5: Create Template
- ■ Exercise 6: Insert Logo
- ■ Exercise 7: Document Parameter
- ■ Exercise 8: Project Parameter

► **CONFIGURING THE SCHEMATIC PREFERENCES**

- ■ Optimizing Wires and Buses
- ■ Breaking Wires at Autojunctions
- ■ Exercise 9: Optimize Wires
- ■ Exercise 10: Auto Pan and Break Wires

► **POPULATING SCHEMATICS**

- ■ Using Symbol Placement Shortcuts
- ■ Placing Library Components
- ■ Placing Parts
- ■ Inserting Power Ports
- ■ Exercise 11: Insert Symbols
- ■ Exercise 12: Set Supplier Link

► **CREATING SCHEMATIC CONNECTIONS**

- ■ Wiring Placement Modes
- ■ Placing Wire Connections
- ■ Creating Buses
- ■ Using Net Labels
- ■ Exercise 13: Place Wires
- ■ Exercise 14: Create Bus
- ■ Exercise 15: Add Net Labels

► **USING SCHEMATIC ANNOTATIONS**

- ■ Processing Order
- ■ Matching Options
- ■ Engineering Change Order
- ■ Exercise 16: Add Schematic Annotations

SOLIDWORKS PCB ESSENTIALS

▶ **COMPILING & VERIFICATION**

- Compiling and Realizing the Results
- Exercise 17: Set Violations
- Exercise 18: Compile and Resolve Errors

▶ **COLLABORATING WITH SOLIDWORKS**

- Creating a PCB Board in SOLIDWORKS
- Pushing a Board to SOLIDWORKS PCB
- Creating a PCB Board in SOLIDWORKS PCB
- Pushing a Board to SOLIDWORKS
- Exercise 19: SOLIDWORKS to SOLIDWORKS PCB
- Exercise 20: SOLIDWORKS PCB to SOLIDWORKS

▶ **CONFIGURING LAYERS & PCB STACKS**

- Configuring PCB View Configurations
- Defining the Board Layer Stack
- Exercise 21: Configure Layer View
- Exercise 22: Create Multi- Layer Board Stack

▶ **CONFIGURING OUTLINE, CUTOUT & KEEPOUT**

- Redefining the Board Shapes
- Applying Cutouts and Keepouts
- Defining PCB Placement Constraints in SOLIDWORKS
- Exercise 23: Redefine the Board Shape
- Exercise 24: Create a Cutout
- Exercise 25: Create a Height Barrier in SOLIDWORKS

▶ **CONFIGURING ORIGINS & GRIDS**

- Setting an Origin
- Creating a Cartesian Grid and Polar Grid
- Exercise 26: Set the Origin
- Exercise 27: Create a Grid

▶ **TRANSFERRING DESIGN DATA**

- Linking Components
- Updating the PCB Layout
- Exercise 28: Insert PCB Footprint

▶ **PLACING FOOTPRINTS**

- Positioning Footprints
- Repositioning Footprints in SOLIDWORKS
- Exercise 29: Position Board Components
- Exercise 30: Reposition Components in SOLIDWORKS

▶ **USING DESIGN RULE CHECKS**

- Modifying the Existing Rules
- Exercise 31: Modify Design Rule

▶ **ROUTING**

- Interactive Routing Preferences
- Multi-Trace Routing
- Adjusting the Traces to Fix Errors
- Exercise 32: Routing

▶ **DEFINING POLYGON POUR**

- Setting Polygon Pour Parameters
- Defining Polygon Pour Nets
- Exercise 33: Define Polygon Pour

▶ **INSPECTION -GLOBAL EDITION**

- Modifying Multiple Objects
- Exercise 34: Find and Modify Objects

▶ **OUTPUTTING DATA**

- Configuring Output Files
- Exercise 35: Configure and Generate Output
- Exercise 36: Generate Drawing Output

▶ **CREATING SYMBOLS & FOOTPRINTS**

- Creating New Symbols
- Using the Symbol Wizard
- Creating New Footprints
- Using the IPC Footprint Wizard

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