Introduction to Creo Schematics 3.0

Overview

Course Code: TRN-4514-T
Course Length: 3 Days

In this course, you will learn how to use Creo Schematics to create schematic diagrams for both electrical harness and piping designs. You will also learn how to administer the Creo Schematics working environment, configure the catalog library, and create functional block diagrams and block interconnect diagrams. In addition, you will learn how to create electrical circuit diagrams, wiring diagrams (including wire interconnect diagrams), and process and instrumentation design diagrams for piping systems. Finally, you will learn how to use wiring diagrams and process and instrumentation design diagrams to configure 3-D harness designs and industrial piping designs created within Creo Parametric.

At the end of each module, you will complete a set of review questions to reinforce critical topics from that module. At the end of the course, you will complete a course assessment in Pro/FICIENCY intended to evaluate your understanding of the course as a whole.

Course Objectives

- Understand the 2-D schematic design processes for electrical harness designs and piping designs
- Configure the Creo Schematics working environment
- Create and configure the catalog library
- Create functional block diagrams (including block interconnect diagrams)
- Create circuit diagrams
- Create wiring diagrams (including wire interconnect diagrams)
- Create process and instrumentation design diagrams
- Communicate diagram information to Creo Parametric
Prerequisites

- None

Audience

- This course is intended for engineers involved in the schematic 2-D layout of either electrical diagrams or piping diagrams. People in related roles will also benefit from taking this course.
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Course Content

Module 1. Introduction to Creo Schematics
   i. Electrical Diagram and Harness Design Process
   ii. Piping Design Process
   iii. Understanding Diagram Types
   iv. Understanding Creo Schematics Concepts and Terminology

Knowledge Check Questions

Module 2. Configuring the Working Environment
   i. Understanding the Creo Schematics User Interface
   ii. Customizing the Schematic Ribbon Interface
   iii. Configuring Working Environment Options
   iv. Configuring Colors

Knowledge Check Questions

Module 3. Configuring Designs and Diagram Sheets
   i. Creating and Configuring Designs and Diagram Sheets
   ii. Configuring Grids
   iii. Configuring Layers
   iv. Configuring Location Sets

Knowledge Check Questions

Module 4. Configuring Catalog Properties
   i. Configuring Object Types and Global Parameters
   ii. Configuring Derived Parameters
   iii. Utilizing the Parameter Pane

Knowledge Check Questions

Module 5. Creating Design Templates and Template Sheets
   i. Creating and Configuring Template Sheets
   ii. Creating and Using Design Templates

Knowledge Check Questions

Module 6. Using Creo Schematics Tools
   i. Using Selection Tools
   ii. Using Viewing Tools
   iii. Understanding Probe Specifier Tools

Knowledge Check Questions

Module 7. Creating Catalog Artifacts
   i. Understanding Catalog Artifacts
   ii. Using Datatables and Datasets
   iii. Creating Ports
   iv. Creating Blocks
v. Creating Fibers
vi. Understanding Groups
vii. Creating Groups
viii. Creating Cables
ix. Exporting and Importing Design Items

Knowledge Check Questions

Module 8. Creating and Configuring a Central Catalog
i. Creating a Central Catalog
ii. Managing Central Catalogs

Knowledge Check Questions

Module 9. Reviewing Designs
i. Using the Model Explorer

Knowledge Check Questions

Module 10. Instancing and Manipulating Objects
i. Instancing Objects
ii. Manipulating Objects

Knowledge Check Questions

Module 11. Creating Block Diagrams
i. Creating Block Diagrams

Knowledge Check Questions

Module 12. Creating Circuit Diagrams
i. Creating Circuit Diagrams
ii. Managing Signal Networks

Knowledge Check Questions

Module 13. Creating Wiring Diagrams
i. Creating Wiring Diagrams

Knowledge Check Questions

Module 14. Creating Interconnect Diagrams
i. Understanding Interconnect Diagrams
ii. Creating Block Interconnect Diagrams
iii. Creating Wiring Interconnect Diagrams
iv. Verifying Interconnect Diagrams

Knowledge Check Questions

Module 15. Creating P and ID Diagrams
i. Creating P and ID Diagrams
ii. Updating P and ID Diagrams

Knowledge Check Questions

i. Transferring XML Data into 3-D Harness Designs
ii. Understanding 3-D Piping Design Approaches
iii. Transferring XML Data into 3-D Piping Designs
iv. Checking and Repairing a Design Database

Knowledge Check Questions

Module 17. Using Pro/DIAGRAM Information
   i. Migrating Pro/DIAGRAM Schematics

Knowledge Check Questions