

## Introduction to Creo Schematics 3.0

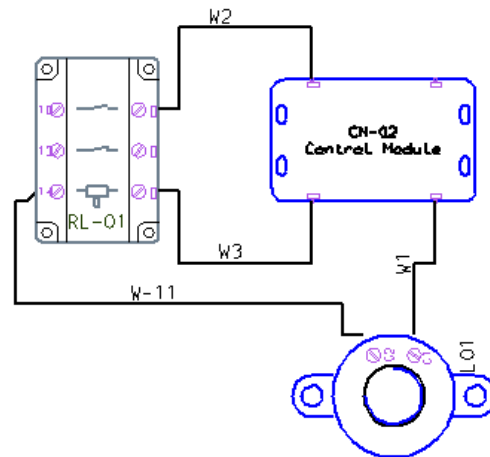
### Overview

Course Code TRN-4514-T

Course Length 3 Days

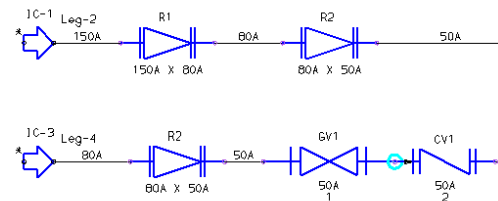
In this course, you will learn how to use Creo Schematics to create schematic diagrams for both electrical harness and piping designs. You will also learn how to administer the Creo Schematics working environment, configure the catalog library, and create functional block diagrams and block interconnect 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

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- None

## Audience

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- 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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## Agenda

### Day 1

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Module	1	Introduction to Creo Schematics
Module	2	Configuring the Working Environment
Module	3	Configuring Designs and Diagram Sheets
Module	4	Configuring Catalog Properties
Module	5	Creating Design Templates and Template Sheets
Module	6	Using Creo Schematics Tools

### Day 2

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Module	7	Creating Catalog Artifacts
Module	8	Creating and Configuring a Central Catalog
Module	9	Reviewing Designs
Module	10	Instancing and Manipulating Objects
Module	11	Creating Block Diagrams

### Day 3

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Module	12	Creating Circuit Diagrams
Module	13	Creating Wiring Diagrams
Module	14	Creating Interconnect Diagrams
Module	15	Creating P and ID Diagrams
Module	16	Using Schematic Design Data in Creo Parametric Harness and Piping Designs
Module	17	Using Pro/DIAGRAM Information

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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
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- 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*

#### **Module 16. Using Schematic Design Data in Creo Parametric Harness and Piping Designs**

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- 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*

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