



ProSafe RS Advanced Engineering Training Course 9002



Course Description

This is an engineering course designed for personnel who will configure, maintain, and program, using functional block diagrams, Ladder Logic, Structured Text and Advanced Function Blocks/Functions in the Yokogawa ProSafe-RS Safety System.

Duration

5 days / 3.3 CEUs

Objectives/Outcomes

Upon completing the course, the learner will be able to exhibit the ability to use the ProSafe-RS system to:

- Setup and configure ProSafe-RS hardware
- Perform SCS Simulation Test Function Procedures
- Program advanced safety function blocks/ladder logic/structured text
- Program Inter-SCS and Link Transmission Communications
- Perform SCS Project Application Analysis

Intended Audience

All System/Process Engineers or Technicians whom are responsible for performing design and configuration procedures for the ProSafe-RS system.

Course Prerequisites

- ProSafe-RS Engineering #1 - Course #9000.

Technical Requirements

- Basic file/folder manipulation in a Windows environment

Materials

Each learner will be provided with copies of the appropriate course workbook.

Requirements to Be Awarded CEUs

- Submit completed course Registration Form
- Fulfill financial obligations
- Fulfill the 90% attendance requirement by signing-in each day of facilitated course
- Fulfill the 70% or above overall scoring requirement on labs and projects



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Course Syllabus

Day 1

- Identify the major component and uses of the ProSafe-RS hardware
- Calculate power and heat limitations of Input/Output modules
- Identify proper procedures/practices for hardware installations
- Define “process data flow” from inputs to outputs in ProSafe-RS applications
- Identify and define “scan times” used in the ProSafe-RS project
- Identify the various project “Application Builders” for ProSafe-RS project creation
- Create a ProSafe-RS project using basic function blocks

Day 2

- Identify and define the “SCS Test Function” procedures
- Perform the “SCS Test Function” procedure
- Explain the procedures for “Offline Downloading” of a ProSafe-RS project
- Perform the “Offline Download” procedure
- Identify “Ladder Logic” functions as used in the ProSafe-RS application
- Design/create/download ProSafe-RS projects using “Ladder Logic” components
- Define and identify “Functions” as used in the ProSafe-RS application
- Design/create/download ProSafe-RS projects using “Functions”

Day 3

- Define and identify “System Functions” as used in the ProSafe-RS applications
- Design/create/download ProSafe-RS projects using “System Functions”
- Identify function blocks used for “Manual Operation” ProSafe-RS applications
- Design/create/download ProSafe-RS projects using “Manual Operation” FBs

Day 4

- Identify “Structured Text” commands as used in the ProSafe-RS applications
- Design/create/download ProSafe-RS projects using “Structured Text”
- Define “Inter-SCS Communications” as used in the ProSafe-RS
- Identify the advanced function blocks used in “Inter-SCS” communications
- Design/create/download ProSafe-RS “Inter-SCS” communication projects
- Define “Link Transmission” procedures as used in ProSafe-RS applications
- Identify the advanced function blocks used in “Link Transmission” applications

Day 5

- Design/create/download ProSafe-RS “Link Transmission” projects
- Identify various ProSafe-RS application projects using advanced function blocks
- Analyze the operation of various ProSafe-RS applications using advanced FBs
- Verify for correct operation of various advanced ProSafe-RS applications
- Perform the summative exercise utilizing advanced function block applications

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