SIEMENS

SIMATIC Programming 2 with SCL in the TIA Portal (TIA-SCL2)

Type

Instructor-led Learning

Duration and Continuing Education Units (CEU)

3 Days
2 CEUs

Target Group

- Maintenance
- Engineer

Short Description

This course provides an in-depth look at Totally Integrated Automation Portal (TIA Portal) to inform participants about the working environment for end-to-end engineering with SIMATIC STEP 7 and SIMATIC WinCC. Participants will explore the complete language and performance scope of the Structured Control Language (SCL) development environment. Using simple examples, we will show you the advantages offered by high-level programming of SIMATIC S7-1500. During the training course, you will create, commission, and test your own SCL programs. This is a hands-on course filled with programming exercises in SCL.

Objectives

- Build or modify a simple STEP7 project using SCL
- Efficiently use the SIMATIC Manager program editor tools
- Use the STEP7 program monitor, diagnostics and troubleshooting tools
- Build or modify SCL programs
- Package an SCL program into a custom library block and use within a STEP7 project
- Explore the SCL syntax requirements and the system debug functions
- Create, commission, and test programs in SCL

Content

- Engineering Tool SCL
- Training Unit S7-1500
- First Steps with SCL
- Data Types, Arithmetic Functions and Addressing
- Source Handling and Basic Programming with SCL
- Complex Data Types
- Code Blocks and Control Statements
- Strings and String Processing
- Indirect Addressing and Data Views

Mandatory Prerequisites

TIA Portal Programming 1: US-PTTIAP1A

Note

Participants should have a solid working knowledge of STEP7, SIMATIC TIA Portal, and the basic diagnostics and editor tools. Learners will use advanced software tools of STEP7 to complete system integration programming, troubleshooting, and functional testing of applications. After the course, the learner will be able to reduce the amount of time spent on creating and maintaining programs through the use of a high-level programming language (SCL) instead of Statement List (STL).

Language

English