SIEMENS

SIMATIC Programming 2 in TIA Portal (TIA-PRO2)

Short Description

The Totally Integrated Automation Portal (TIA Portal) forms the work environment for integrated engineering with SIMATIC STEP 7 and SIMATIC WinCC. The second part of the SIMATIC TIA Portal programming training is based on the knowledge of the TIA Portal gained in the SIMATIC S7 TIA Portal programming 1 course, including STEP 7, SIMATIC S7, HMI and PROFINET IO. You will expand your knowledge of complex operations and you get an introduction in the programming language Structured Control Language (SCL) and GRAPH. Along with analog value processing and data administration with complex data types, the evaluation and handling of program-related errors are also considered. Thanks to the knowledge imparted, you will gain new impetus and ideas for efficient PLC programming.

Objectives

After attending the course, you can do the following:
- Understand the interaction of TIA components
- Apply classical program development methods
- Solve comprehensive programming tasks
- structure programs
- use complex / PLC data types
- Implement data administration (arithmetic and management functions) with the SIMATIC S7 automation system
- Apply system blocks along with blocks from the standard STEP 7 library
- Program classical software error handling and evaluation
- Configure TIA system components consisting of central, IO periphery and HMI devices from the SIMATIC family

You can deepen your theoretical knowledge with numerous practical exercises on a TIA system model.

Target Group

Programmers
Commissioning engineers
Engineering personnel
Maintenance personnel

Content

Tools for program creation (e.g. structograms)
Analog value processing
Functions, function blocks, and multi-instances using the IEC-compliant timer/counter as an example (International Electro technical Commission)
Ways to structure programs
Working with complex data
Classical software error handling and evaluation with error organization blocks (OBs)
Evaluation of diagnostic data
Integrating WinCC Panel
Working with Structured Control Language (SCL)
Working with GRAPH
Deeper understanding of contents through practical exercises on SIMATIC S7-1500 system model.

Prerequisites

SIMATIC S7 knowledge corresponding to TIA-PRO1 and practical experience in using the knowledge
You can use the available online entry test to ensure that the selected course matches your area of expertise.

- Online Assessment Test

Note

In this course you will work with SIMATIC S7-1500 and software SIMATIC STEP 7 based on TIA Portal.

Type

Face-to-face training

Duration

35 hours

Language

es

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