SIEMENS

TIA-S7-1500 Programming 3, Virtual (TIA-PRO3)

Short Description

The third 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 courses 1 and 2, including STEP 7, SIMATIC S7,HMI, connection of drives, and PROFINET IO.

Objectives

You will expand your knowledge regarding the reusability of STEP 7 blocks and their storage in user libraries. You get an introduction in ProDiag. You will create user-specific blocks for reporting, handling and analyzing program errors. To save the machine data, you will learn how to manage recipes in SIMATIC HMI (operator control and monitoring system). You will set up communication between SIMATIC CPUs based on Industrial Ethernet. The comprehensive knowledge that is imparted to you will allow you to shorten configuration times and to react flexibly to the need to optimize your plant.

Target Group

Programmers
Commissioning engineers
Engineering personnel

Content

- Commissioning of the TIA system model with distributed I/O on PROFINET IO
- Functions, function blocks, and multi-instances
- Reuseable blocks and optimized data access
- Indirect addressing of complex data structures and parameters ARRAY*, VARIANT, REF_TO und DB_ANY
- Block versioning in Project and Global Libraries
- Administration of a recipe database in the operator control and monitoring system (HMI)
- Creating alarms (with Program_Alarm and in the diagnostic buffer) with an HMI device (Touchpanel) and with ProDiag
- CPU – CPU communication via Industrial Ethernet
- Using technology functions PID controller and drive functions
- Overview of the engineering tools for all aspects of the TIA Portal
- Deeper understanding of contents through practical exercises on SIMATIC S7-1500 system model

Prerequisites

SIMATIC S7 knowledge corresponding to TIA-PRO2 or TIA-SYSUP and practical experience in using the knowledge

Note

The course teaching and material language is English. The material is provided for students in electrical form as pdf document.
Training Devices:
• SIMATIC S7-1500
• Profinet I/O ET200 SP
• Comfort-panel
• Sinamics G120
• Belt model
Virtual remote connection to PG M6 / TIA Portal Step7 V18

Type

Online-Training

Duration

5 days

Language

en

Fee

1,980 EUR