SIEMENS

S7 Service 1 Course (TIA-SERV1)

Short Description

Excellent starting point for service personnel to work with the TIA and S7-1500/1200 CPUs. You will learn to diagnose and clear simple hardware faults and software errors. You will be capable of reducing downtimes in your plant.

Objectives

The Totally Integrated Automation Portal (TIA Portal) forms the work environment for integrated engineering with SIMATIC STEP 7 and SIMATIC WinCC.
In this first part of the SIMATIC TIA Portal service training, we teach you the handling of the TIA Portal, basic knowledge about the structure of the SIMATIC S7 automation system, configuration and parameterization of hardware, and the basics of programming. You also receive an overview of HMI, PROFINET IO, and connecting drives. You will learn to diagnose and clear simple hardware faults and software errors. You will thus be capable of reducing downtimes in your plant.
After attending the course, you can do the following:

- Understand the fundamentals of interaction of the TIA components
- Reliably operate the "TIA Portal" engineering platform
- Understand, change, and expand small STEP 7 programs
- Configure, parameterize, and exchange SIMATIC S7 modules
- Diagnose and fix simple hardware faults using the wiring test
- Diagnose and fix simple program errors using the status block
- Perform simple commissioning of TIA components

Target Group

Maintenance personnel
Service personnel
Operators

Content

- Overview and significant performance characteristics of the SIMATIC S7 system family
- The components of the TIA Portal: STEP 7, WinCC, communication
- Program execution in automation systems
- Binary and digital operations in the function block diagram (FBD)
- Setup and assembly of the automation system
- Addressing and wiring the signal modules
- Hardware and software commissioning of the SIMATIC S7 automation system with the TIA Portal
- SIMATIC S7 hardware configuration and parameterization
- Presentation of a Touchpanel
- Presentation of the drive
- Setup and parameterization of PROFINET IO
- Saving and documentation of the implemented program changes with the TIA Portal
- Lots of practical hands on exercises

Prerequisites

Basic knowledge of automation technology

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
1 training set / 2 students

Type

Face-to-face training

Duration

4 days

Language

en

Fee

1,760 EUR

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