

On line-Training SIMATIC S7-1500 Programmazione 1 in TIA Portal (TIA-PRO1)

Short Description

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 programming 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 standard PLC programming. You also receive an overview of SIMATIC HMI, PROFINET IO, and connecting drives SINAMICS.

Objectives

After attending the course, you can do the following:

- Understand the fundamentals of interaction of the TIA components
- Solve simple programming tasks using elementary STEP 7 (TIA Portal) instructions
- Reliably operate the TIA Portal engineering platform
- Program simple plant functions with basic STEP 7 (TIA Portal) instructions in the ladder diagram (LAD/KOP) or function block diagram (FBD/FUP)
- Perform simple commissioning of TIA components

Target Group

Programmers
Commissioning engineers
Engineering personnel

Content

- Overview and essential features of the SIMATIC S7 system family
- Configuration interface of the TIA Portal STEP 7 engineering system
- Program processing in the automation system, program cycle, process image
- Program structuring and its implementation with the STEP 7 block types (OB, FC, FB, DB)
- Binary and digital operations in function and contact diagram (FBD/LAD)
- Implement data management with data blocks
- Test tools for program testing and commissioning: system information, troubleshooting and diagnostics

Deeper understanding of contents through practical exercises on the SIMATIC S7-1500 system model.

In addition, the following content is available in your personal training documents

- Connecting an HMI device
- Overview about commissioning a SINAMICS with Startdrive

Prerequisites

TIA-INTRO course or equivalent basic knowledge of automation systems.

Note

This course is also available in Virtual Classroom mode.

At the end of the course you can deepen the topics covered through our **SIE-learning 4.0**: SIE-TMENG, SIE-MIG, SIE-PNBA, SIE-PNDIAG. In this course, the SIMATIC S7-1500 automation system and the SIMATIC STEP 7 (TIA Portal) software are used; TIA-MICRO1 and TIA-MICRO2 courses are available for the SIMATIC S7-1200 automation system.

Type

Online-Training

Duration

30 hours

Language

it