

SIMATIC Programming 2 in TIA Portal

OEM: Siemens • Code: TIA-PRO2

COURSE DESCRIPTION

This course covers Content.

AUDIENCE PROFILE

- Programmers
- Commissioning engineers
- Engineering personnel

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)
- Technical requirements: VLab
- In this course you will work with SIMATIC S7-1500 and software SIMATIC STEP 7 based on TIA Portal.
- Included in the course price: Free access to the digital learning platform SITRAIN access – starting one week before the start of the course until two weeks after the end of the course. With the Learning Membership, you can deepen or repeat the content of this Learning Event as well as continue your education on other interesting topics.

COURSE OBJECTIVES

By the end of this course, participants will be able to:

- 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 will deepen your theoretical knowledge through numerous practice-oriented exercises in our virtual exercise environment on a TIA plant model. This consists of a SIMATIC S7-1500 automation system, WinCC Panel and a virtual model.

COURSE OUTLINE

Module 1: 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 Electrotechnical 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)
- Consolidation of the content through practice-oriented exercises in the virtual exercise environment