SIEMENS

Online Training - SIMATIC Programming 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 online training 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 will also learn to connect a PROFINET IO.

In order to provide you with the best possible support and training in your personal learning environment (own office/home office), we have implemented selected courses as digital online trainings for you. We provide you with live theory lectures from our experts, which convey the course content described in the learning objectives in a practical and comprehensive manner, utilizing our virtual exercise environment for practical exercises. In our virtual classroom, our expert is also available to you at any time during your individual practical exercises for in-depth questions and technical discussions.

Objectives

After this online course you will be able to ...
- operate the "TIA Portal" engineering platform safely
- understand the basics of the interaction of TIA components
- solve simple programming tasks with elementary STEP 7 instructions
- structure small SIMATIC S7 programs with the help of OBs, FCs and FBs
- apply standards and work with them
- solve simple mathematical programming tasks with STEP 7 instructions
- commission simple/small machines or expand them independently
- test programs and fix simple errors
- configure a distributed I/O via PROFINET

You will deepen your theoretical knowledge through numerous practice-oriented exercises in our learning environment on a TIA system model. This consists of a SIMATIC S7-1500 automation system and a conveyor model.

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)
Apply standards and work with them using the example of libraries
Implement data management with data blocks
Programming of reusable and parameterizable blocks
Test tools for program testing and commissioning: system information, troubleshooting and diag-nostics
Documentation of the created program with the possibilities integrated in TIA Portal
Deepening of the content through practice-oriented exercises in the virtual learning environment

Included in the course price: Free access to the digital learning platform SITRAIN access. Here you will find web-based trainings on Automation Basic (Curriculum) as well as other topics such as TIA Portal – Structured programming and many more. 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..

Prerequisites

Basic knowledge of automation technology
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

Note

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

The Learning Membership starts 7 days before the start of the course and ends 14 days after the end of the course. During this period, you have access to all of the more than 270 web-based trainings available.

Type

Online-Training

Duration

5 days

Language

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Fee

1,065 EUR
(price without 20% VAT)

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