

## Online-utbildning Simatic TIA Portal programmering 2 för plc (TIA-PRO2)

### Short Description

Time schedule: Starts monday at 10:00 and ends friday at 12:00. The Totally Integrated Automation Portal (TIA Portal) forms the work environment for integrated engineering with SIMATIC STEP 7 and SIMATIC WinCC. The second online training of the SIMATIC TIA Portal programming training is based on the knowledge of the TIA Portal gained in the SIMATIC S7 TIA Portal programming 1 course, including STEP 7, SIMATIC S7, HMI and PROFINET IO. You will expand your knowledge of complex operations and you get an introduction in the programming language statement lists (STL), Structured Control Language (SCL). Along with analog value processing and data administration with complex data types, the evaluation and handling of program-related errors are also considered. Building on this, you will learn how to display messages on the operator control and monitoring system (HMI). Thanks to the knowledge imparted, you will gain new impetus and ideas for efficient PLC programming. 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. This course is also available as a face-to-face training .

### Objectives

After attending the course, you can do the following:

Understand the interaction of TIA components

Apply classical program development methods

Solve comprehensive programming tasks

Program advanced functions such as indirect addressing in STEP 7

Implement data administration 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 alarms of the operator control and monitoring system (HMI)

Configure TIA system components consisting of SIMATIC S7, HMI and PROFINET IO

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, Comfort Panel TP700 and a virtual conveyor belt model.

### Target Group

This training is for experienced TIA Portal Step 7 programmers that want to increase their knowledge in TIA Portal Step 7 and its possibilities:

Programmers

Commissioning engineers

Engineering personnel

### Content

o Tools for program creation (e.g. structograms)

o Analog value processing

o Functions, function blocks, and multi-instances using the IEC-compliant timer/counter as an example (International Electro technical Commission)

o Jump commands and battery operations

o Indirect addressing

o Classical software error handling and evaluation with error organization blocks (OBs)

o Evaluation of diagnostic data

o Troubleshooting and alarms with an HMI device (Touchpanel)

o Introduction into Structured Control Language (SCL)

o Consolidation of the content through practice-oriented exercises in the virtual exercise environment.

### Prerequisites

Knowledge of Simatic S7 and TIA Portal Step 7 corresponding to our training 'TIA Portal programming 1 for plc' or 'TIA Portal service 2 for plc' and practical experience of programming Simatic S71200/1500.

You can use the available online entry test to ensure that the selected course matches your area of expertise.

[Link to online entrance test](#)

[Technical requirements](#)

### Note

The training is run in Swedish language with English course material. In this course you will work with SIMATIC S7-1500 and software SIMATIC STEP 7 based on TIA Portal. Practical exercises are done in our virtual exercise environment.

### Type

Online-Training

### Duration

4 days

**Language**

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**Fee**

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24,800 SEK