

## Online-utbildning Simatic TIA Portal programmering 1 för plc (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 HMI and PROFINET IO.

### 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 instructions
- Reliably operate the "TIA Portal" engineering platform
- Program simple plant functions with basic STEP 7 instructions in the ladder diagram (LAD) or function block diagram (FBD)
- Perform simple commissioning of TIA components

You can deepen your theoretical knowledge with numerous practical exercises on a TIA system model. This consists of a SIMATIC S7-1500 automation system, ET 200SP distributed I/O, Touchpanel TP700, and a belt model.

### Target Group

Programmers  
Commissioning engineers  
Engineering personnel

### Content

- System overview Simatic S7
- Introduction to the TIA Portal
- Configuration and parameterization of hardware
- Introduction to Profinet communication
- Program editor
- Block types and structured programming
- Variables, addressing and data types
- Logical functions
- Comparators, counters and timers
- Diagnostics and program test
- Storage of data in memory and data block
- Handling of analogue values
- Introduction to HMI/WinCC Comfort

### Prerequisites

Programmers that are experienced with PLC and PLC programming.

### Type

Online-Training

### Duration

4.5 days

### Language

sv