

## SIMATIC S7 Programming 2 (ST-PRO2)

### Short Description

You will reinforce your theoretical knowledge with numerous practical exercises on a TIA plant model. This consists of an S7-300 programmable controller, ET200S distributed I/O, TP 177B Touch Panel, Micromaster 420 drive and a conveyor model.

### Objectives

This course is aimed at users with engineering tasks who want to become familiar with the expanded programming facilities of SIMATIC S7. You get an overview of human machine interfacing, PROFIBUS DP and the integration of drives. What you learn about Totally Integrated Automation (TIA) will teach you to take a holistic view of your plant and help you to understand the relationship between the individual components. We will teach you how to structure and create extensive S7 programs. This enables you on completion of the course to work efficiently with STEP 7, shorten the engineering phase and minimize fault sources through optimal configuration of your plant. The comprehensive understanding you gain will give you new impetus and ideas for production optimization.

### Target Group

Programmers  
Commissioning engineers  
Engineering personnel

### Content

Aids for program creation (e.g. structure program)  
Functions, function blocks and multi-instances (using the example of the IEC timers/counters)  
Jump commands and accumulator operations  
Indirect addressing  
Integration of a drive (MM420) via PROFIBUS DP  
Monitoring and controlling the drive with the "Starter" software  
Error handling with error organization blocks  
Evaluating diagnostics data  
Troubleshooting and messages with an HMI device (TP 177B)  
Analog value processing  
Deeper understanding of contents through practical exercises on the SIMATIC S7-300 system model.

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. Here you will find web-based trainings on .  
Programming STEP 7 V5.x - Binary Signal Processing , 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

SIMATIC S7 knowledge according to ST-PRO1 and practical experience in using the knowledge  
You can use the online tests to find out whether you have sufficient prior knowledge to participate effectively in the course you wish to attend.

- [Online Assessment Test](#)

### Note

In this course you will work with the SIMATIC STEP 7 V5.x software.

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 480 web-based trainings available.

### Type

Face-to-face training

### Duration

5 days

### Language

en