

## Online-Training - S7 Programming 2 Course (ST-PRO2)

### Short Description

This course is directed at personnel engaged in project engineering tasks who would like to become familiar with the extended programming possibilities of SIMATIC S7 (300/400). After the course, the participant will be able to structure and create advanced S7 programs, making it possible to efficiently work with STEP 7 V5.5 and thus reduce the engineering phase. The course uses a 'hands-on' practical approach to reinforce the theoretical aspects of the training.

[Also available as Face-To-Face Training](#)

### Objectives

On completion of this course the participant will be able to:-

Write advanced programs, use program breakpoints to test the operation of the program and diagnose errors using the Step7 V5.5 software package on S7-300 or S7-400 PLC's

### Target Group

This course is directed at personnel engaged in project engineering tasks who would like to become familiar with the extended programming possibilities of SIMATIC S7 (300/400).

### Content

Using structograms as a method for program design

Functions, function blocks and multi-instances ((with examples using IEC Timer/Counter)

Jump commands and Accumulator operations

Configuration of Breakpoints as a debugging tool

Memory Indirect addressing

Integration of a drive (MM420) using PROFIBUS DP

Monitoring and controlling the drive with the "Starter" software

Using Error organization blocks to evaluate Profibus slave downtime

Error management with error organisation blocks

Analysing synchronous errors with organisation blocks

Analysing S7 diagnostic data

Writing user messages in the Diagnostic Buffer

Troubleshooting and error messages with an HMI Touch Panel

Each of the above topic areas are backed up by practical exercises using a system model, consisting of the S7- 300 automation system, the ET200S distributed peripheral, an HMI touch panel, the MM420 drive and a conveyor model. Working examples are provided and tested out during the course.

### Prerequisites

The ability to use a MS Windows PC (W7), keyboard and mouse to include opening and closing programs, locating files, copy and paste objects /data (text, etc). Drag and drop files, objects/data (text, etc). Use of menus and multi-menus, manipulation of windows within a multi-window environment. Use of MS Windows Help.

Must have attended the Siemens ST-PRO1 Course or have had practical exposure to programming in a project environment.

You can use the online tests below to find out whether you have sufficient prior knowledge to participate effectively in the course you wish to attend. If you answer more than 70 % of the questions correctly you are well prepared to take part in the course.

[Test ST-PRO2](#)

### Note

Completion of this course satisfies part of the examination entry requirements for the Siemens Certified S7 Programmer.

This training course is not appropriate for trainees using S7-200, S7-1200 or S7-1500 based systems. For more information concerning details of S7-200, S7-1200 or S7-1500 training contact Siemens Industry Training on 08458 507600 or our website at [www.siemens.co.uk/sitrain](http://www.siemens.co.uk/sitrain).

### Type

Online-Training

### Duration

5 days

### Language

en