

## SIMATIC S7 Programming 3 (ST-PRO3)

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### Short Description

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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

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This course is aimed at users with engineering tasks who want to extend their knowledge from the previous programming courses and learn the complex programming possibilities of SIMATIC S7. They use WinCC flexible for recipe management and start up distributed I/O with PROFINET IO.

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. On completion of the course, you will be able to structure and create complex SIMATIC S7 programs. Using the example of a machining line, you will learn how to create re-usable blocks that can be integrated into any programs. The plant configuring overhead is reduced thanks to the standardization of the created programs and the engineering phase is thus shortened. You also gain new impetus and ideas for production optimization thanks to your comprehensive understanding of TIA.

### Target Group

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Programmers  
Commissioning engineers  
Engineering personnel

### Content

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Functions, function blocks and multi-instances (using the example of a machining line)  
Creation and use of complex data structures  
Indirect addressing of complex data structures and parameters  
Library functions for integrated error handling  
S7 communication (global data, SFB/SFC communication)  
Introduction to Industrial Ethernet  
Overview of engineering tools  
Management of a recipe database with WinCC flexible  
Use of PROFINET IO with SIMATIC S7  
Deeper understanding of contents through practical exercises on the SIMATIC S7-300 system model

### Prerequisites

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SIMATIC S7 knowledge according to ST-PRO2 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

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

### Type

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Face-to-face training

### Duration

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5 days

### Language

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