

## SIMATIC TIA Portal - S7-1500 system retraining cursus (TIA-SYSUP)

### Short Description

The Totally Integrated Automation Portal (TIA Portal) forms the work environment for integrated engineering with all automation devices – controller, HMI and drives. In this course you will learn about the major differences between SIMATIC S7-300/400 and SIMATIC S7-1500, the engineering tools SIMATIC Manager and TIA Portal, as well as STEP 7 V5.x and STEP 7 based on TIA Portal. You will learn the possibilities of the configuration and the advanced programming of a SIMATIC S7-1500 automation system with the "TIA Portal" engineering platform.

### Objectives

After attending the course, you can:

- Efficiently use the "TIA Portal" engineering platform
- Configure and program components of the SIMATIC S7-1500 automation system with the TIA Portal
- Perform a 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, ET200 distributed I/O, Touchpanel, drive, and a conveyor model.

### Target Group

Programmers  
Commissioning engineers  
Engineering personnel  
Service personnel

### Content

Engineering tools TIA Portal components: SIMATIC STEP 7 and SIMATIC WinCC  
Introduction of the SIMATIC S7-1500 hardware  
Configuration of devices and networks of the SIMATIC S7 system family using SIMATIC S7-1500 as an example  
Working with the PLC Tag Table in TIA Portal  
Program blocks and editor  
Advanced programming possibilities of a SIMATIC S7-1500  
Troubleshooting with TIA Portal tools and the SIMATIC S7-1500 CPU display  
Presentation of the Structured Control Language (SCL) editor  
Presentation of the SIMATIC WinCC operator control and monitoring system  
Migration of a SIMATIC STEP 7 V 5.x project to SIMATIC STEP 7 based on TIA Portal  
Adaption of a SIMATIC S7-300/400 program to the SIMATIC S7-1500  
Presentation of the 'Startdrive' engineering tool with interfacing to a SINAMICS G120 drive  
Deeper understanding of contents through practical exercises on the SIMATIC S7-1500 system model

### Prerequisites

SIMATIC S7 knowledge according to ST-S7SYS2 and practical experience in using the knowledge  
You can use the available online entry test to ensure that the selected course matches your area of expertise.

- [Online Assessment Test](#)

### Note

In this course you will work with SIMATIC S7-1500 and software SIMATIC STEP 7 based on TIA Portal.

### Type

Face-to-face training

### Duration

5 days

### Language

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