

## SIMATIC System Retraining for S7-1500 in TIA Portal (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

The Totally Integrated Automation Portal (TIA Portal) forms the work environment for integrated engineering with SIMATIC STEP 7 and SIMATIC WinCC.

In this course you will learn about the major differences between SIMATIC Manager and TIA Portal, and between STEP 7 V5.x and STEP 7 based on TIA Portal. You will learn how to configure and program a SIMATIC S7 automation system with the "TIA Portal" engineering platform.

You can deepen your theoretical knowledge with numerous practical exercises on a TIA system model. This consists of a SIMATIC S7-1500 automation system, ET200SP distributed I/O, Touchpanel TP700, drive SINAMICS G120 and a belt model.

After attending the course, you can do the following:

- Efficiently use the "TIA Portal" engineering platform
- Configure and program components of the SIMATIC S7 automation system with the TIA Portal
- Perform commissioning of TIA components

This blended learning course combines web-based training on the Internet with a 3-day attendance course: To prepare for the attendance course, you will receive the web-based training courses (WBT) "PROFINET" and "Industrial Ethernet". This allows you to improve your personal learning achievement in the attendance course.

### Target Group

Programmers  
Commissioning engineers  
Engineering personnel  
Maintenance personnel  
Service personnel  
Operators

### Content

TIA Portal components: SIMATIC STEP 7 and SIMATIC WinCC

Configuration of devices and networks for the SIMATIC S7 system family

Working with the SIMATIC STEP 7 symbol table

Program blocks and editor

Data management with data blocks

Programming of organization blocks (OBs)

Working with troubleshooting tools

Presentation of the Structured Control Language (SCL) und S7-Graph editors

Presentation of the operator control and monitoring system (HMI)

Backup and documentation of programs

Migration of a SIMATIC STEP 7 V 5.x project to SIMATIC STEP 7 based on TIA Portal

Migration of a SIMATIC WinCC flexible project to SIMATIC WinCC based on TIA Portal

Deeper understanding of contents through practical exercises on TIA system model

- SIMATIC S7-1500, SIMATIC STEP 7 (TIA Portal)
- Comfort Panel TP700, SIMATIC WinCC (TIA Portal)
- Drive SINAMICS G120, Startdrive (TIA Portal)

### Prerequisites

Basic knowledge of automation technology/PLC programming

You can use the available online entry test to ensure that the selected course matches your area of expertise.

### Type

Face-to-face training

### Duration

4.5 days

### Language

en

