

# TIA Portal System Upgrade Course (TIA-SYSUP)

## Short Description

TIA Portal System Upgrade Course

## Objectives

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.

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, Touch panel, and drive.

## 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

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

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 TIA system model

## Prerequisites

Completion of the classic ST-7PRO1 course

## Note

In this course you will work with the SIMATIC STEP 7 software based on TIA Portal.

## Type

Face-to-face training

## Duration

5 days

## Language

English