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## SIMATIC S7 TIA Portal upgrade Course for Maintenance Personnel (TIA-INSTUP)

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### Short Description

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Totally Integrated Automation Portal (TIA Portal) is the work environment for a consistent engineering of all automation devices – controllers, HMIs and drives. In this course you will learn about the main features of SIMATIC S7-1500, the Engineering Tool - SIMATIC TIA Portal (STEP 7, WinCC, Startdrive). You will become familiar with the tools of the SIMATIC S7-1500 automation system with the engineering platform "TIA Portal" for troubleshooting and for testing/debugging.

### Objectives

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After taking part in the course you will:

- Be able to use the "TIA Portal" engineering platform efficiently for troubleshooting and for testing
- Understand simple STEP 7 programs
- Be able to carry out firmware updates for the components of SIMATIC S7-1500
- Be able to save/backup and download the data of the CPU, HMI Panel and G120

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.

### Target Group

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Maintenance personnel  
Operators

### Content

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Introduction to Engineering Tools TIA Portal: SIMATIC STEP 7 and SIMATIC WinCC  
Presentation of the SIMATIC S7-1500 hardware  
Save/backup, download, archive data from the CPU, the TP und the G120  
Introduction to PLC programming  
Commissioning of devices and PROFINET networks of the SIMATIC S7 system family  
Troubleshooting with TIA Portal tools and the SIMATIC S7-1500 CPU-Display  
Presentation of the SIMATIC WinCC operating and monitoring system  
Presentation of the "Startdrive" engineering tool with connection of a SINAMICS G120 drive  
Deeper understanding of contents through practical exercises on SIMATIC S7-1500 system model

### Prerequisites

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STEP7 knowledge equal to ST-SERV1

You can make use of the available online entrance test to ensure that the selected course corresponds to your level of competence.

[Link](#)

### Note

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This training course is carried out on the basis of SIMATIC S7-1500 – for SIMATIC S7-1200, we offer the training course TIA-MICRO1/2.

### Type

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Face-to-face training

### Duration

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4 days

### Language

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