

## SIMATIC TIA Portal Service 1 for PLS (TIA-SERV1)

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### Short Description

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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.

### Objectives

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

In this first part of the SIMATIC TIA Portal service training, we teach you the handling of the TIA Portal, basic knowledge about the structure of the SIMATIC S7 automation system, configuration and parameterization of hardware, and the basics of programming. You also receive an overview of HMI, PROFINET IO, and connecting drives. You will learn to diagnose and clear simple hardware faults and software errors. You will thus be capable of reducing downtimes in your plant.

After attending the course, you can do the following:

- Understand the fundamentals of interaction of the TIA components
- Reliably operate the "TIA Portal" engineering platform
- Understand, change, and expand small STEP 7 programs
- Configure, parameterize, and exchange SIMATIC S7 modules
- Diagnose and fix simple hardware faults using the wiring test
- Diagnose and fix simple program errors using the status block
- Perform simple commissioning of TIA components

### Target Group

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Maintenance personnel  
Service personnel  
Operators

### Content

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Overview and significant performance characteristics of the SIMATIC S7 system family

The components of the TIA Portal: STEP 7, WinCC, communication

Program execution in automation systems

Binary and digital operations in the function block diagram (FBD)

Setup and assembly of the automation system

Addressing and wiring the signal modules

Hardware and software commissioning of the SIMATIC S7 automation system with the TIA Portal

SIMATIC S7 hardware configuration and parameterization

Presentation of a Touchpanel

Presentation of the drive

Setup and parameterization of PROFINET IO

Saving and documentation of the implemented program changes with the TIA Portal

Deeper understanding of contents through practical exercises on the SIMATIC S7-1500 system model

### Prerequisites

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Basic knowledge of automation technology

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

This blended learning course combines web-based training (WBT) on the Internet with a 5-day attendance course: To prepare for the attendance course, you will receive the WBT "PLC Knowledge for Beginners". This allows you to improve your personal learning achievement in the attendance course.

### Note

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In this course you will work with SIMATIC S7-1500 and software SIMATIC STEP 7 based on TIA portal – for SIMATIC S7-1200 we offer the trainings TIA-MICRO1/2.

This is the first of two courses to prepare you for certification as a "Siemens Certified Service Technician Level 1, based on TIA Portal" (CPT-FAST1).

This is the first of three courses to prepare you for certification as a "Siemens Certified Service Technician Level 2, based on the TIA Portal".

Both tests are modules of the "SITRAIN Certification Program".

Documentation in English.

Register in the calendar one week before the training starts.

### Type

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Face-to-face training

**Duration**

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5 days

**Language**

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no

**Fee**

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15 800,-