SIEMENS

# SIMATIC Service 1 in TIA Portal (TIA-SERV1)

## Descrição resumida

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.

## Objetivos

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

You can deepen your theoretical knowledge with numerous practical exercises on a TIA system model. This consists of a SIMATIC S7-1500 automation system, ET 200SP distributed I/O, Touchpanel, drive SINAMICS G120 and a belt model.

## Grupo alvo

Maintenance personnel
Service personnel
Operators

## Conteúdo

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

Included in the course price: Free access to the digital learning platform SITRAIN access. Here you will find web-based trainings on Automation Basic (Curriculum) and Maintenance Basics (Curriculum) as well as other topics. With the Learning Membership, you can deepen or repeat the content of this learning event as well as continue your education on other interesting topics.

## Pré-requisitos

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

- Online Assessment Test

## Observações

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

The Learning Membership starts 7 days before the start of the course and ends 14 days after the end of the course. During this period, you have access to all available web-based trainings.

## Tipo

Treinamento presencial

## Duração

5 dias

**Idioma**

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