

# TIA Portal Service & Maintenance Part 1 (TIA-SERV1)

## Short Description

TIA Portal Service & Maintenance Part 1

## Objectives

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.

You can deepen your theoretical knowledge with numerous practical exercises on a TIA system model. This consists of a SIMATIC S7 automation system, ET200 distributed I/O, Touch panel, drive, and a belt model.

## Content

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 Touch panel

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 TIA system model

## Prerequisites

Basic knowledge of Siemens PLC automation technology.

## Type

Face-to-face training

## Duration

5 days

## Language

English