SIEMENS

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

Short Description

• 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. Also available as online-training

Objectives

• 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, ET200SP distributed I/O, Touchpanel TP700, drive SINAMICS G120 and a conveyor belt model.

Target Group

• Maintenance personnel
• Service personnel
• Operators

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 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 and the conveyor belt model

Prerequisites

• Basic knowledge of automation technology

Note

• 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 three courses to prepare you for certification as a "Siemens Certified Service Technician Level 2, based on the TIA Portal". The test will cover content of all 3 courses and will form part of the "SITRAIN Certification Program".

Type

Face-to-face training

Duration

5 days

Language

en

Fee

21,040 ZAR