

## TIA Portal Service 2 Course (TIA-SERV2)

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### Short Description

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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. The second part of the SIMATIC TIA Portal service training is based on the knowledge of the TIA Portal gained in the SIMATIC TIA Portal service 1 course, including SIMATIC STEP 7, HMI, connection of drives, and PROFINET IO / PROFIBUS. You will expand your troubleshooting and error correction knowledge -using the TIA Portal diagnostic tool in the commissioning and productive phase. Alarms are displayed on an operator control and monitoring system. You will learn about the included test functions for controlling programs in Structured Control Language (SCL). You will implement a sequence control in SIMATIC S7-GRAPH and integrate the analog value processing. You will thus be able to adapt your plant to new demands and to reduce downtime. You can deepen your theoretical knowledge with numerous practical exercises on a TIA system model. This consists of a SIMATIC S7 automation system, ET 200 distributed I/O, Touchpanel, drive, and a belt model.

### Objectives

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On completion of this course the participant will be able to do the following:

Understand the interaction of TIA components

Understand, adapt, and expand given STEP 7 programs, including with step sequences and analog value processing

Systematically diagnose and correct hardware and software errors in the SIMATIC S7 automation system with the diagnostic tools of the TIA Portal engineering portal

Use the test functions in Structured Control Language (SCL)

Perform specific commissioning of TIA components

Adapt your WinCC configuration to new requirements through small modifications or extensions

### Content

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Hardware diagnostic functions of the TIA Portal in the SIMATIC S7 automation system

Software diagnostic functions of the TIA Portal in the SIMATIC S7 automation system

Possible applications of various block types (function (FC), function block (FB), organisation block (OB), data block (DB))

Principles of analog value processing

Sequence control with S7-Graph

Commissioning of distributed I/O on PROFINET IO and drive over PROFIBUS

Alarm configuration in WinCC

Parameterization of the drive

Test functions in Structure Control Language (SCL)

Deeper understanding of contents through practical exercises on TIA system model

### Prerequisites

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SIMATIC S7 knowledge equivalent to the Siemens TIA-SERV1.

You can use the online tests below to find out whether you have sufficient prior knowledge to participate effectively in the course you wish to attend. If you answer more than 70 % of the questions correctly you are well prepared to take part in the course.

[Test TIA-SERV2](#)

### Note

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This training course is not appropriate for trainees using S7-200, S7-300 or S7-400 based systems. This course is also suitable for those using S7-1200 based systems For more information concerning details of S7-300, and S7-400 please see the section called Simatic S7 PLC.

### Type

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Face-to-face training

### Duration

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5 days

### Language

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en

### Fee

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2,295 GBP

