

Programming Safety Related S7 PLC via STEP 7 Safety Advanced for SIMATIC TIA Portal (TIA-SAFETY)

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 course, you will learn about configuring, programming, starting up, diagnosing and troubleshooting of the failsafe CPUs of the SIMATIC S7 Safety PLC (note: not relevant for H systems) and the failsafe distributed ET200 systems. You will put your theoretical knowledge to use the training system SIMATIC S7-1500F with the STEP 7 Safety Advanced software in practical exercises.

Objectives

After attending the course, participants should be able to do the following:-
Starting up failsafe CPUs of the SIMATIC PLC
Programming of safety-related programs in the languages F-FBD and F-LAD
Diagnosing and troubleshooting of safety-related programs.

Target Group

Programmers
Commissioning engineers
Engineering personnel

Content

Overview and guidelines
AS S7 Safety (principle, system configuration and I/O)
Configuring of the failsafe I/O with STEP 7 Safety Advanced
Programming of a safety-related user program
Failsafe communication PROFIsafe (CPU-CPU communication, master-slave communication)
Diagnostics facilities (CPU diagnostics, I/O diagnostics, advanced diagnostics)
Exercises for I/O configuration, communication, troubleshooting
Programming examples (emergency stop, protective door, safety-related shutdown, passivation, special programming features)
Deeper understanding of contents through practical exercises on the system SIMATIC S7-1500F

Included in the course price: Free access to the digital learning platform [SITRAIN access](#) – starting one week before the start of the course until two weeks after the end of the course. Here you will find web-based trainings on [TIA Safety Integrated curriculum](#) as well as other topics such as [Functional Safety](#) and many more. 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.

Prerequisites

To attend this course, participants MUST have attended the TIA-SERV1 and TIA-SERV2 or TIA-PRO1 and TIA-PRO2 courses. In addition, you can also use the online test below to find out whether you have sufficient prior knowledge to participate effectively in this course. If you answer more than 70 % of the questions correctly you are well prepared to take part in the course.

[Test TIA-SAFETY](#)

Note

In this course you will work with the SIMATIC STEP 7 Safety software in TIA Portal. Additionally you have the opportunity to take an examination and receive certification on a separate date. You'll find further information and the registration at [CPT-TIASAF](#).

The Learning Membership starts 7 days before the start of the course and ends 16 days after the end of the course. During this period, you have access to all of the more than 480 web-based trainings available.

Type

Face-to-face training

Duration

3 days

Language

en

Fee

2,780 GBP

