

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 (no 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

Prerequisites

To attend this course, participants MUST have attended the Siemens Sitrain TIA-SERV1 and TIA-SERV2 or TIA-PRO1 and TIA-PRO2 courses .

Note

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

Type

Face-to-face training

Duration

3 days

Language

en

Fee

2,540 GBP