SIEMENS

Safety in TIA PORTAL using Step 7 Safety Advanced (TIA-SAFE)

Objectives

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 with the STEP 7 Safety Advanced software in practical exercises
After attending the course, you can 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.

This blended-learning course combines Web-based training on the Internet with a 3-day attendance course. For an optimized postprocessing of the attendance course you get the Web-based training course (WBTs) "SIMATIC Safety Integrated". By using these learning media, you increase your personal learning success in the attendance course.

Target Group

Programmers
Service personnel
Commissioning engineers, configuring engineers

Content

Overview and guidelines
Step7 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)

Prerequisites

Basic knowledge of SIMATIC S7 according to the courses N-TIASERV2 or N-TIAPRO2
Additionally an online entrance test is available for you (http://sitrain.automation.siemens.com/sitrain/test/st_ppds/index.html). So you may assure that the course of your choice fits to your competences.

Note

Course documentation: English
Trainer: English
If all trainees enrolled in this training speak the same language, the training will be held in that language (Dutch, French or English).
In this course you will work with the SIMATIC STEP 7 software based on TIA Portal.
The hardware used in this training will be a CPU 315F-2DP with central fail-safe I/O, combined with ET200S distributed I/O. The safety training in TIA Portal using S7-1500 is in development and not to be expected before 2015.

Type

Face-to-face training

Duration

3 days

Language

en