

SIMATIC TIA Portal Safety Engineering (US-TIA-SAFETY)

Type

Instructor-led Learning

Duration and Continuing Education Units (CEU)

3 Days
2 CEUs

Target Group

- Engineer
- Maintenance

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 ET 200 systems.

Objectives

- 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.

Content

- Overview and guidelines
- Safety Integrated (Operating principle and system configuration)
- Configuring of the failsafe components with STEP 7 Safety
- 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 a SIMATIC S7-1500 F-CPU

Mandatory Prerequisites

[SIMATIC Programming 1 in the TIA Portal: TIA-PRO1](#)

OR

[SIMATIC Service 1 in the TIA Portal: TIA-SERV1](#)

Language
