

Siemens SIMATIC S7 Veiligheid PLC S7-1500F met TIA Portal [Safety Advanced] incl. examen (TIA-SAFETY)

Short Description

Capabilities of the Failsafe Systems S7-1500F (S7-1200F) with TIA Portal

Objectives

Prerequisites

You have the knowledge and skills acquired in the SIMATIC S7 System Course 1A+1B with TIA Portal.

Goal

You will gain an overview of the applicable standards for machine safety and will be able to configure a system using safety components. You will also have sufficient knowledge to engineer and maintain an initial safety application using Safety Advanced.

The Totally Integrated Automation Portal (TIA Portal) is the work environment for integrated engineering with SIMATIC STEP 7 and SIMATIC WinCC. In this course, you will learn how to configure, program, commission, and troubleshoot a failsafe CPU in the SIMATIC S7 Safety PLC (non-H system) in combination with failsafe modules in distributed ET200 systems.

After completing the course, you will be able to:

Start up the failsafe CPU in the SIMATIC PLC

Program safety-related applications in the F-FBD and F-LAD languages

Diagnose and resolve faults in safety-related programs

Upon passing the test, you will receive the certificate "Siemens Certified Automation Engineer for SIMATIC Safety."

Target Group

You are a designer, engineer, commissioning technician, or service technician involved in machine safety. This course provides the necessary knowledge focused on the specific capabilities of the Failsafe systems S7-1200F / S7-1500F with TIA Portal.

Content

Topics covered in this course:

- Overview of standards and guidelines
- SIMATIC S7 Safety (principles, system structure, and peripherals)
- Configuration of failsafe input and output modules using STEP 7 Safety Advanced
- Programming a safety-related user application
- Failsafe communication via PROFIsafe (CPU-to-CPU communication, Controller/I-Device communication)
- Diagnostic capabilities (CPU diagnostics, peripheral diagnostics, advanced diagnostic tools)
- Exercises for peripheral configuration, communication, and troubleshooting
- Programming examples (emergency stop, safety gate, safe shutdown, deactivation, special programming considerations)
- Expansion of theoretical knowledge through practical exercises with the SIMATIC S7-1500F system
- Theoretical test to obtain the certificate Siemens Certified Automation Engineer for SIMATIC Safety – Configuration and Programming

Prerequisites

You have the knowledge and skills acquired in the SIMATIC S7 System Course 1A+1B with TIA Portal.

Note

Through practical exercises using the training set with SIMATIC S7-1500F, you will be able to apply your theoretical knowledge using the STEP 7 Safety Advanced software.

Instructor: Dutch, English

Course documentation: English

Courses will only take place if there are sufficient registrations.

Type

Face-to-face training

Duration

3 days

Language

en, nl

Fee

1,965 EUR