

SIMATIC PCS 7 Process Safety (ST-PCS7SAF)

Short Description

In this course you learn how to generate a PCS 7 conform and failsafe application with CFC and Safety Matrix.

Objectives

In this course you learn how to generate a PCS 7 conform and failsafe application with CFC and Safety Matrix. The theoretical parts of the training are backed up with practical exercises. These exercises are done with failsafe CPU 410-5H with failsafe signal modules connected via PROFIBUS and PROFIsafe. After the course you will be able to engineer safety functions and adjust safety relevant times.

Target Group

Sales employees
Project managers, project staff
Programmer
Commissioning engineers, configuration engineers

Content

Functional safety Basics from IEC 61508 and IEC 61511,
LOPA (Layer of Protection Analysis) and Risk graph by means of a safety instrumented function
System architecture and diagnostics in safety components (Hardware, Software, Communication)
Overview about F-Hardware
Parameter in HW-Configuration (safety mode, sensor evaluation, addressing, monitoring time, H-parameter, Wiring and Voting)
Safety program (Acknowledgement, voting blocks, block types, Secure Write Command++, communication)
Safety mechanisms (F-Shutdown, Partial Shutdown Groups, passivation, reintegration, block type)
Safety Matrix
Calculate and adjust F-times using S7ftime.xlsm (reaction-, monitoring times)

Prerequisites

Attendance of training course ST-PCS7SYS. General basic knowledge of process automation. Basic knowledge of PCS 7 OS. Good experience in AS configuration within SIMATIC PCS 7.

Note

none

Type

Face-to-face training

Duration

4 days

Language

en