SIEMENS

SINUMERIK ONE Safety Integrated F-PLC Service (US-SNONESVF)

Type

Instructor-led Learning

Duration and Continuing Education Units (CEU)

4 Days
2.6 CEUs

Target Group

- Engineer
- Maintenance

Short Description

This advanced course is designed for controls engineers and service specialists who use the SINUMERIK ONE and Safety Integrated F-PLC functions in machine tool applications.

This course provides the knowledge and skills that Controls Engineers and/or maintenance technicians require for familiarization and the operation of an automated machine tool, equipped with a SINUMERIK ONE CNC, which uses the optional Safety Integrated F-PLC System. The goal of the class is to teach the students to identify the various types of applications associated with the Safety Integrated System, to achieve a working knowledge of the concepts, and to identify and diagnose Safety Integrated related problems. The course format is a combination of instruction and hands-on exercises. The hands-on exercises provide exposure to a SINUMERIK ONE CNC, its system components, connections, start up, and operation. Students will perform practical exercises related to service and Safety Integrated F-PLC aspects.

Objectives

- Understand the concepts of safety technology and the system requirements for Safety Integrated F-PLC
- Have a working knowledge of safety-oriented inputs and outputs for PROFISafe Modules
- Understand the principles related to safe communication
- Identify, understand, and use Machine Data and interface signals related to Safety Integrated F-PLC applications
- Perform error detection procedures related to Safety Integrated applications
- Evaluate diagnostics and alarm displays associated with Safety integrated applications
- Understand and perform Test Stop procedures
- Understand the User Agreement and its implications
- Understand and use Safe Limits
- Diagnose hardware related problems while working with Safety Integrated applications
- Diagnosing PLC I/O with TIA Portal
- Create and Restore Series Start-Up Archive files with regards to Safety integrated functions
- Understand and correct Checksum errors

Content

- Safety-oriented inputs and outputs
- Safe Standstill
- Safe operational stop
- Securely reduced speed

- Safe software limit switches
- Safe stopping process
- Safe programmable logic
- Safety related Machine Data
- Understand OEM safety related alarms
- Understand Checksums

Language

English