SIEMENS

SINUMERIK ONE Commissioning (NC-ONE-COM)

Type

Instructor-led Learning

Duration and Continuing Education Units (CEU)

4 Days
2.6 CEUs

Target Group

- Other
- Maintenance

Short Description

This course emphasizes the commissioning aspects of the SINUMERIK ONE. An overview of the requirements for commissioning the control is provided. Demonstrations are given on how to competently manage commissioning functions of the PLC, NC and Drives. The class format is a mixture of lecture and hands-on exercises. SINUMERIK ONE simulators are utilized to allow the student to build proficiency in control navigation and managing different forms of data.

Objectives

- Identify commissioning sequence
- Prepare control by clearing NC, PLC, and Drive memories to Factory settings (General Reset)
- Create NC Boot stick to install system software to SD card.
- Commission PLC using TIA Portal.
- Commission NC.
- Commission Drive System.
- Tune/Optimize Servo motors.
- Perform Circularity Test.
- Measuring system compensation (EEC)
- Lead screw compensation (CEC)
- Backlash compensation.

Content

- SINUMERIK ONE Software navigation
- Startup Introduction.
- Data Backup and General Reset of NC, PLC, and Drives.
- Ethernet communication setting and connecting to NCU
- Startup PLC – Creating Project in TIA PORTAL.
- Startup PLC – Apply SINUMERIK toolbox in TIA PORTAL
- Startup PLC – Creating Hardware configuration in TIA PORTAL
- Commissioning SINUMERIK NC
- Configure NC Channels
- Configure NC axis
- Calibrate an absolute Encoder

- Set Reference for incremental encoder
- Configure NC spindles
- Axis compensation

Recommended Prerequisites

Introduction to TIA Portal and Diagnostics: US-PTBADIA

Mandatory Prerequisites

SINUMERIK ONE Service: NC-ONE-SERV

Note

This course does NOT cover the SIMATIC TIA Portal programming language. It is recommended that all SINUMERIK ONE maintenance personal enroll in SIMATIC TIA Portal Programming 1 or SIMATIC TIA Portal Service classes

Language

English