SIEMENS

SINUMERIK ONE Service (NC-ONE-SERV)

Type

Instructor-led Learning

Duration and Continuing Education Units (CEU)

4 Days
2.6 CEUs

Target Group

- Maintenance

Short Description

his course is designed for electrical/electronic end-user maintenance personnel for machine tools using the Siemens SINUMERIK ONE CNC control. This course presumes the customer is using an HMI with IPC or ITC hardware, and the SINUMERIK HMI OPERATE software. This course emphasizes the maintenance aspects of the SINUMERIK ONE. An overview of the soft key menus of the control is provided, including the basic principles of operating the control. Demonstrations are given on how to competently manage maintenance functions, and on back-up/restore functions of the NC, PLC and PROFIBUS Drive using series start-up archive files .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

- Edit and store machine data
- Back-up and restore NC data, PLC program and PROFIBUS drive data to the IPC hard drive or System SD Card
- Back-up and restore NC data, PLC program and PROFIBUS drive data to an external data medium
- Reset NC, PLC, and Drives. Reload backup
- Diagnosing problems using SIEMENS generated alarm displays
- Overview of Integrated SINAMICS drive system
- Adjust Absolute and Incremental Encoders
- Use on-screen help functions to help diagnose alarm related problems
- Perform file management functions using System Data Management
- Go online with Integrated SIMATIC 1500-F PLC

Content

- Create data back-up and restoration
- Diagnostic functions
- Hardware Overview
- Create NC motion program using MDI mode
- Create NC boot tool on USB stick
- Backup NCU SD system card to USB
- Troubleshoot SINAMICS drive Topology alarms
- Troubleshoot NC alarms
- Adjust reference position for Incremental Encoder
- Create PLC project in TIA Portal

- Upload PLC to project
- Monitor logic in blocks using TIA Portal

Recommended Prerequisites

[Introduction to TIA Portal and Diagnostics: US-PTBADIA](#)

Mandatory Prerequisites

[SIMATIC System Retraining Course for SIMATIC S7-1500 in TIA Portal: TIA-SYSUP](#)

OR

[SINAMICS S120 Basic Maintenance - STARTER: US-DVS12M1A](#)

OR

[AB to S7 Programming with TIA Portal: US-PTABSP1A](#)

OR

[TIA Portal Programming 1: US-PTTIAP1A](#)

OR

[TIA Portal Service 1: US-PTTIAS1A](#)

OR

[840Dsl Maintenance 1 w/ Operate: US-SNSLM1A-OP](#)

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