SIEMENS

840Dsl Maintenance 1 w/ Operate

General Information

Course Code	SCT-SNSLM1A-OP
Global Code	NC-84SL-SK
Length	4 Days
CEUs	2.6

Audience

This course is designed for electrical/electronic end-user maintenance personnel for machine tools using the SINUMERIK 840Dsl (Solution Line) controls. This course presumes the customer is using an HMI with either the PCU 50 or TCU (Thin Client Unit) hardware, and the SINUMERIK Operate software

Prerequisites

- Introduction to SIMATIC PLCs & Languages with Diagnostics or Virtual

Profile

This course emphasizes the maintenance aspects of this version of the SINUMERIK 840D. 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 for back-up/restore functions of the NC, PLC and PROFIBUS Drive series start-up archive files. The class format is a mixture of lecture and hands-on exercises. SINUMERIK 840Dsl simulators are utilized to allow the student to build proficiency in control navigation and managing different forms of data. This course does NOT cover the SIMATIC S7 PLC programming language.

Objectives

Upon completion of this course, the student shall be able to:

- Identify the major SINAMICS S120 hardware and indicators in an 840Dsl application.
- Access and utilize the major operating areas of the SINUMERIK Operate software.
- Edit and store machine data.
- Back-up and restore NC data, PLC program and PROFIBUS drive data to the internal hard drive or System CF Card.
- Back-up and restore NC data, PLC program and PROFIBUS drive data to an external data medium.
- Diagnose problems using SIEMENS generated alarm displays.
- Use on-screen help functions to help diagnose alarm related problems.
- Perform file management functions using System Data Management.

Topics

1. Data back-up and restoration
   a. Back-up and restore of NC, PLC, and PROFIBUS drive data to the PCU50 hard drive or System CF Card.
   b. Back-up and restore of NC, PLC, and PROFIBUS drive data to an external data medium.
   c. Back-up and restore of the PCU50 hard drive using SYMANTEC Ghost.
   d. Backup and restore files using System Data Management.
   e. Adding and accessing Network and USB external storage devices.
   f. System CF Card management.
2. Diagnostic functions
   a. Fault diagnosis using SIEMENS generated alarms.
   b. Fault diagnosis using the LED displays of the NCU.
   c. Fault diagnosis using the LED displays of the ALM (Active Line Module)
   d. Fault diagnosis using the LED displays of the SLM (Smart Line Module)
   e. Fault diagnosis using the LED displays of the Motor Module.
   f. Fault diagnosis using the displays of the 840Dsl in the areas DIAGNOSIS and SETUP.
3. Hardware Overview
   a. NCU 7x0 series, NX10/NX15
   b. SINAMICS S120-series modules.
   c. Operator hardware components.
   d. New hardware related to data back-up / storage.
   e. PLC related hardware.
   f. Set-up of Absolute encoders.
   g. Set-up of Incremental encoders
   h. 840Dsl hardware component replacement.
   i. PLC communications and basic diagnostic functions.