SIEMENS

SINUMERIK 840D SL Commissioning (NC-84SL-C)

Short Description

This course includes information regarding system hardware, system software, configuration, and commissioning procedures related to both the 840Dsl and its integrated SINAMICS S-120 servo/spindle drive system. Course format is a mixture of lecture and hands-on exercises. SINUMERIK 840Dsl simulators are utilized to allow the student to build proficiency with the hardware and software systems. A review of the procedures for complete system backup using SYMANTEC GHOST software will also be conducted. This course does NOT cover the SIMATIC S7 PLC Programming language. Students who must troubleshoot the control to the PLC User program level should attend the SIMATIC S7 TIA Programming 1 course.

Objectives

Upon completion of this course, the student shall be able to:
• Back-up and restore all NC data to the control
• Back-up and restore all PLC data to the control
• Back-up and restore all PROFIBUS drive data to the control
• Access and interpret control status displays for troubleshooting purposes
• Analyze system messages, alarm messages, and LED indications to identify failures
• Set and/or adjust machine data in the control
• Optimize a closed loop position control system
• Perform practical start-up and servicing exercises on provided simulator units
• Back-up and restore all NC data to the control
• Back-up and restore all PLC data to the control
• Back-up and restore all PROFIBUS drive data to the control
• Access and interpret control status displays for troubleshooting purposes
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Target Group

This advanced maintenance course is designed for electrical/electronic end user maintenance personnel, and supporting manufacturing /production engineers who wish to know more about the new SINUMERIK 840Dsl (Solution Line) CNC Controls. The course presumes the customer is using the PCU50.5, Windows 7-based, OPERATE software. Customers using the HT 8 / or HMI TCU (Thin Client Unit) are urged to contact Siemens Customer Training prior to enrolling in this class.

Content

1. Machine data
- Channel specific machine data
- Axis specific machine data
- Drive machine data
- Display machine data
2. Drive configuration and fundamentals of optimization
3. Adaptation of control functions using machine data and/or interface signals
4. Start-up of compensations, synchronous actions, and axial coupling
5. PLC Interface
- Structure of the PLC Basic program
- Structure of the PLC User program
- NC/PLC interface structure and interface signals
- Identifying OEM generated alarms and operator messages
6. Axis position control
7. Spindle control
8. NC Auxiliary functions
9. Diagnosis of servo problems
10. HMI System software and related tools
11. SINAMICS Control Unit and related tools
- Diagnosis drive connection errors using Topology comparison.
- Identification and setting of module/motor data in the 840Dsl
- Diagnosis of servo problems in the 840Dsl

Prerequisites

MS Windows Expertise
SINUMERIK 840D SL MAINTENANCE

Type

Face-to-face training

Duration

4.5 days

Language

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