

## 840Dpl Maintenance 1 w/HMI Advanced

### General Information

Course Code SCT-SN84DM1A  
Global Code NC-84D-B  
Length 4 Days  
CEUs 2.6

### Audience

This course is for maintenance personnel of CNC machines that utilize the SINUMERIK 840D / 810D controls, using the MMC-103 or PCU-50 Operator Interfaces. Personnel using the MMC-100.2 or HT-6 Operator Interfaces are urged to contact Siemens Customer Training prior to enrolling in this class.

### Prerequisites

- MS Windows Expertise

### Profile

This course emphasizes the maintenance aspects of the control. A complete overview of the softkey menus of the SINUMERIK D-series control is provided, including the basic principles of operating the control. Demonstrations are given on how to competently manage maintenance functions and how-to backup and restore the PLC program and control data.

Class format is predominately hands-on exercises. SINUMERIK 840D CNC simulators are utilized for the student to build proficiency in moving through various menus and managing data. This course DOES NOT cover the SIMATIC S7 PLC language. Students who must troubleshoot the PLC user program should attend the SIMATIC S7 Programming I course.

### Objectives

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

- Edit and store machine data.
- Back-up and restore control data to the internal hard drive.
- Back-up and restore PLC program data to the internal hard drive.
- Back-up and restore data to an external data medium.
- Diagnose problems using Siemens generated alarm displays.
- Use on screen help functions to help diagnose alarm related problems.
- Understand the hardware configuration.
- Access and utilize major operating areas of the control.

### Topics

- Operations
  - Overview of main operating modes
  - Overview of operator areas
  - Functions of operator and machine control panel keys
  - Navigation in the area SERVICES
  - Navigation in the area DIAGNOSIS
  - Navigation in the area START-UP
  - Specialized operating modes
  - Back-up of tool and work zero offsets using Siemens installed editors
- Data back-up and restoration
  - Backup of control and PLC data to internal hard drive
  - Back-up of control and PLC data to external data medium
- Diagnostic functions
  - Fault diagnosis using Siemens generated alarms
  - Fault diagnosis using LED displays of E/R module and NCU module
- Hardware overview
  - Supply Infeed Module
  - NCU module
  - 611-D Drive Module