

## CDN-Numeric Control SINUMERIK 840D PL MAINTENANCE

### General Information

Course Code: CDN-NC-84PL-SIP1  
Length: 4½ Days

### 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

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### 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

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