

# SIEMENS

*Ingenuity for life*

## Operation and programming

SINUMERIK 828D/840D sl training for machine tool programmers, operators and users

Level 2—programGuide for milling

### General information

**Length:** 2 days

**Location:**

Siemens Industry, Inc.  
390 Kent Avenue  
Elk Grove Village, IL 60007

**Registration:**

[usa.siemens.com/cnc4you](http://usa.siemens.com/cnc4you)

**Capacity:** 12 students

**Cost:**

**There is no fee for the workshop.**

Participants are responsible for their own travel and living expenses.

Daily lunch will be provided during the training.

**Description/Objective** Upon completion of the course, the participant will be able to create part programs in G-code using the programGuide interface, setup jobs through the jog functionality and run parts in auto mode.

**Requirements** Basic knowledge of operation and programming of milling machines is required. Attendance of the Level 1 ShopMill class recommended.

**Class specifics** There will be a set number of workstations available for the class. If use of a personal computer is desired, it must be a Windows 7 or older operating system. We will provide a 60-day trial version of SINUTRAIN for student use.

**Target group** Machine tool builders and dealers, who provide support and training for the programming and operation of CNC milling machines utilizing the programGuide user interface.

**Content**

- Introduction to advanced functions in SINUMERIK CNC
- Introduction to advanced tool management including tool life management
- Introduction to MDI mode
- Introduction to G-code program creation, testing, modifying and saving through programGuide
- Programming with standard milling cycles
- Programming free contours using contour calculator
- Centering, drilling, thread cutting
- Programming with sub-routines
- Working with transformations
- Setup and operation of 4-axis machine tools
- Programming of 4-axis applications