

A photograph of a training environment. In the foreground, a young woman with a braid and a young man are sitting at a computer workstation. The woman is using a mouse, and the man is pointing at the monitor. In the background, another person is working at a similar workstation. The setting appears to be a classroom or a training center with large windows.

SIEMENS

SinuTrain — the practice-oriented CNC training

The PC-based SINUMERIK training system

siemens.com/sinutrain

Answers for industry.

Prepared for the shopfloor — our efficient solution for CNC training

With SinuTrain, Siemens offers you a practical and integrated solution for CNC training — across all training levels.

By using SinuTrain, you can efficiently learn all of the innovative functions of SINUMERIK CNCs.



As real as life itself

Our complete and integrated training solution includes training software and training systems — perfectly tailored to specific demands. And the real highlight: SinuTrain is a training system that is identical to the control itself and runs on standard Windows PCs without the need for any additional hardware.

The programming and user interface of SINUMERIK® control systems — proven around the world — is used. SinuTrain is available for different programming techniques and in many languages. At the PC, trainees can study the specific machining steps that must subsequently be performed at the machine.

Training:

Simple and easy offline learning with training tools that are identical to the CNC

Offline CNC programming:

Increased productivity using an offline programming tool that is identical to the CNC

Professional CNC presentations:

CNC presentations — anytime and anywhere — with a PC that is identical to the CNC

SinuTrain is a powerful PC tool to address the widest range of requirements.



For efficient CNC training

As a result, training is more effective and significantly more cost-efficient. Many training facilities consider SinuTrain a very valuable tool — especially as a result of its high functionality and operational reliability — as a first-class solution for both basic and advanced training. Currently, there are over the 25,000 licenses in use.

Your advantages — at a glance:

- User-friendly operation and programming of SINUMERIK CNCs at your PC
- Suitable for all programming techniques established worldwide
- Realistic workpiece simulation with an integrated virtual machine control panel
- Optimum machine adaptation for maximum CNC program compatibility
- A wide range of user languages is available
- Intelligent software license management to meet every user requirement and budget
- A future-proof investment thanks to continuous software updates

The complete learning process — it's just like being on the shopfloor

In order to make it easy for first-time users and trainees to learn machine functions, this computer-based training contains programming tasks, which must be worked through in individual modules. As a result, you will learn all of the details — such as the control, machining space and tool change.



The software — harmonized with the training

Increasingly more complex training profiles demand completely integrated, turn-key solutions for CNC training systems. Siemens addresses this demand with SinuTrain. Based upon SINUMERIK Operate, SinuTrain offers you a comprehensive range of optimized solutions for efficient CNC training — perfectly tailored to your specific needs and budget.

SinuTrain exercises simplify self-study courses. An integrated online help function provides all of the necessary information at the touch of a button.

Identical to the control itself

SinuTrain is a CNC training software that is identical to the actual control, is available in many languages and runs on a PC. Integrated SinuTrain exercises simplify self-study courses. An integrated online help function provides all of the necessary information at the touch of a button.

This guarantees that training is closely orientated to actual machining. Using SinuTrain, based upon the DIN 66025 programming language, part programs can be generated and simulated in the DIN / ISO, ShopMill and ShopTurn versions. Programs can be used on actual CNC machines and a connection to CAD systems speeds up program generation.

What is especially practical: Siemens can provide you with support when adapting the software to a training machine. We can carry out the installation and make it easier for you to introduce the system by supporting you as the trainer along with a training curriculum and special teachware.



Tailored to your meet your needs

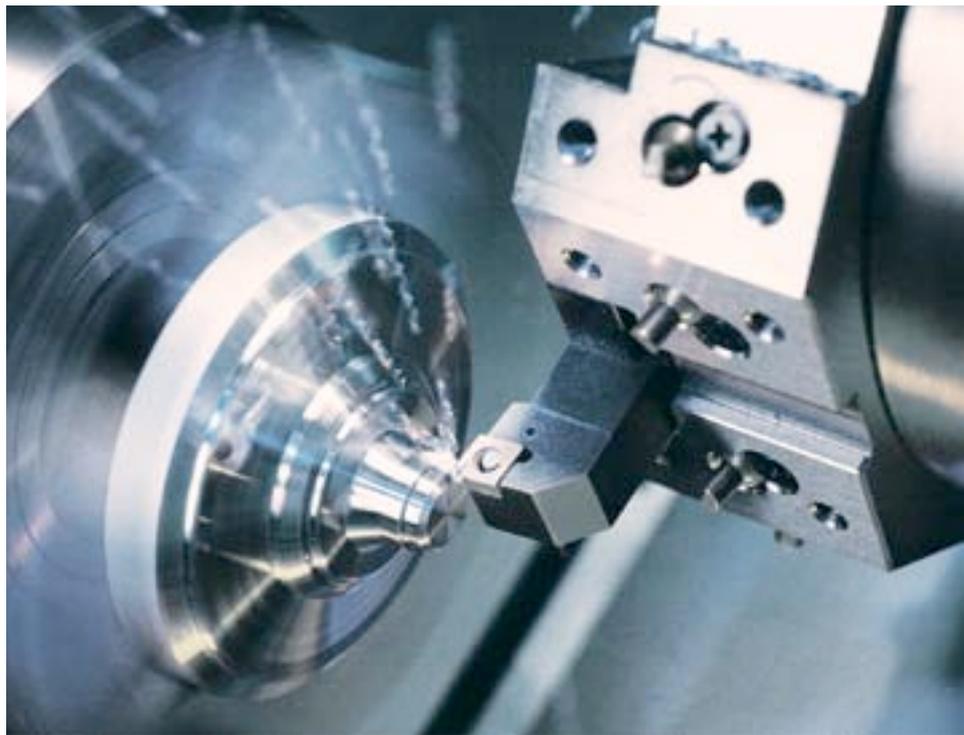
SinuTrain workstations can be completely networked with your machine tools. This means that it is possible to transfer the training programs — for example from a trainee or teacher workstation — directly to the machine.

Your advantages — at a glance:

- Training software for the PC is identical to the control
- Programming in DIN, ShopMill and ShopTurn languages
- Simple programming with integrated online help
- Workstations can be linked with each other to form a didactic network
- CAD system connectivity for fast program generation
- Machine tool geometries can be imported for fast program generation
- Keyboard in an original layout — similar to the actual machine

SinuTrain for SINUMERIK Operate — comprehensive functionality for CNC training

SinuTrain functions exactly the same way as a real SINUMERIK CNC system. This means that you can test all of the operating modes of the SINUMERIK Operate user interface step-by-step. Read on — and find out exactly what's possible.



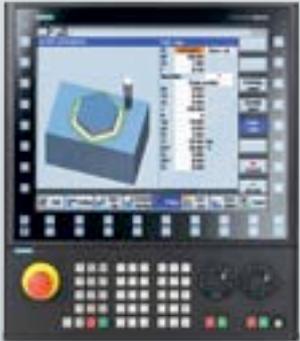
CNC operation and programming — right on your PC

SINUMERIK Operate

SinuTrain



828D



840D sl



SINUMERIK inside
With the real SINUMERIK CNC kernel

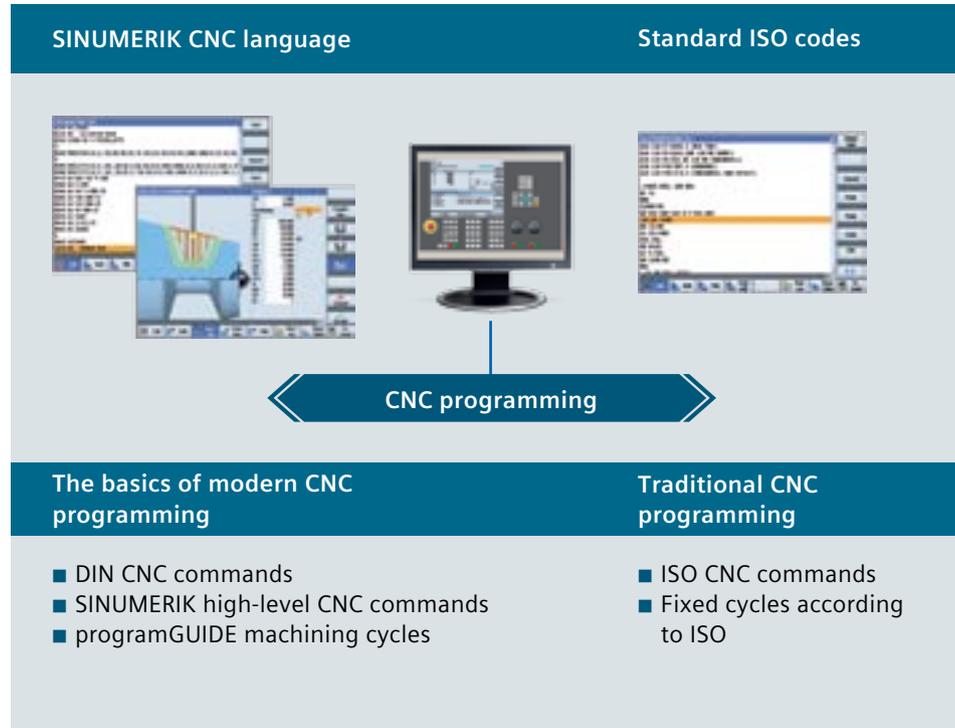
■ CNC operation

Identical look-and-feel for

■ CNC programming

SinuTrain allows user-friendly operation and CNC programming of SINUMERIK CNCs right on your PC — based on the real SINUMERIK CNC kernel.

Easy-to-learn CNC programming languages



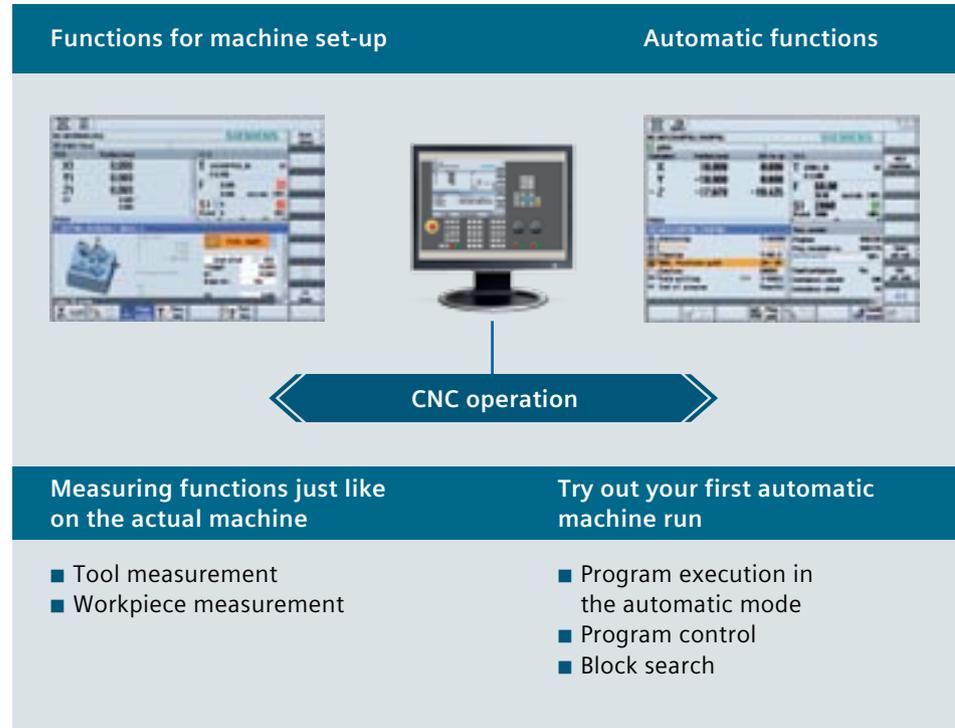
SinuTrain is the ideal tool to learn the principles of CNC programming — from DIN and ISO commands, through high-level commands, up to cycle programming.

Discover the world of graphical CNC programming

ShopMill / ShopTurn	programSYNC
	
Simple programming at the production level	The principle of multi-channel CNC controls
<ul style="list-style-type: none">■ Step-by-step CNC programming■ Linking machining steps■ Dynamic line graphics	<ul style="list-style-type: none">■ Programming double turret lathes■ Program synchronization■ Machining time optimization

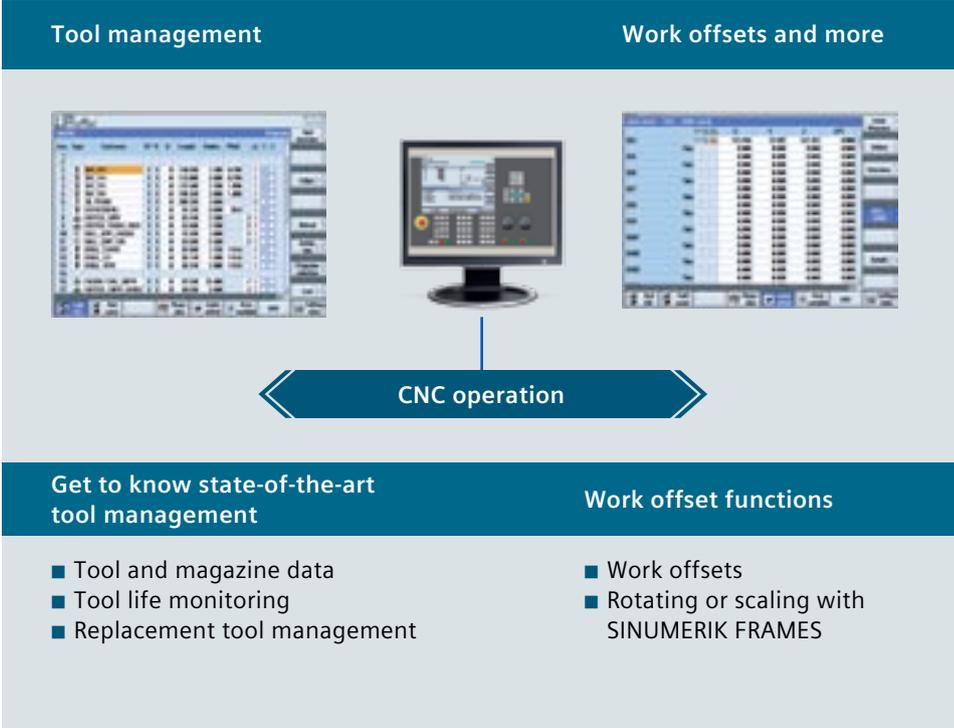
ShopMill and ShopTurn machining step programming combines various steps for minimum programming time and an efficient production environment. Using programSYNC, the basics of highly productive multi-channel applications can be learned step-by-step.

Your first steps — without risk



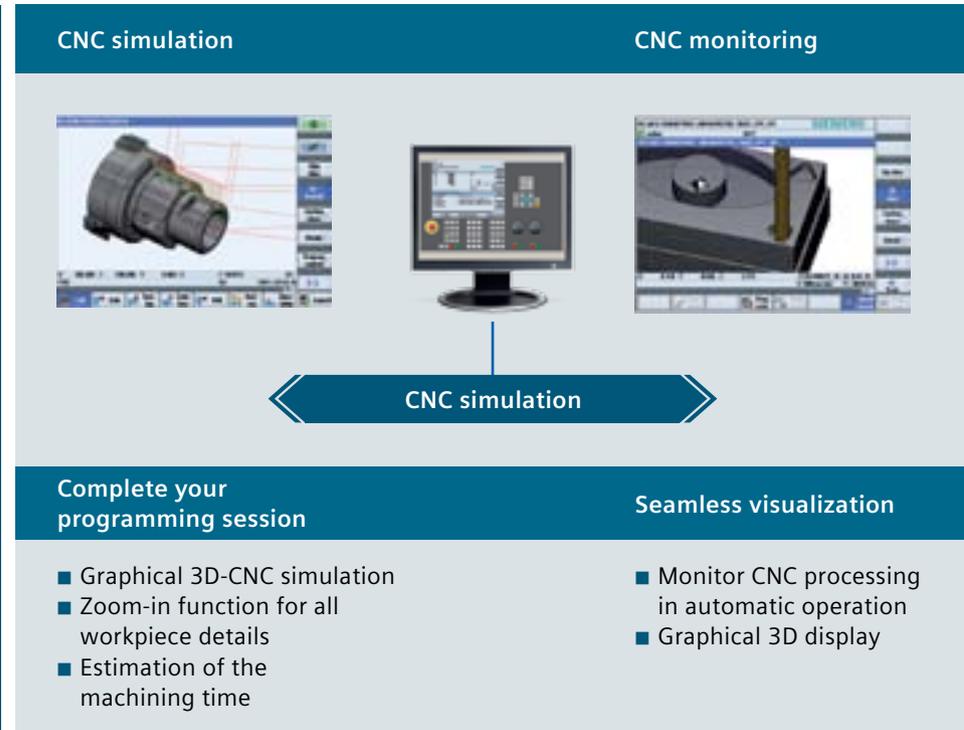
Operated as if you were at the actual machine, SinuTrain offers the optimum basis to understand all of the process steps involved to prepare and use machine tools.

Machining parameters — handled simply



SinuTrain helps you to understand all of the machining parameters required — from tool and magazine data, up to state-of-the-art FRAME concepts for work offsets. It is very simple to transfer data from the machine to the PC — and data is transferred in one file.

Lower your risks with perfect CNC simulation



With its CNC simulation and monitoring function, SinuTrain permits the first steps to be taken to achieve efficient and risk-free CNC programming.

Work like you're on the actual machine



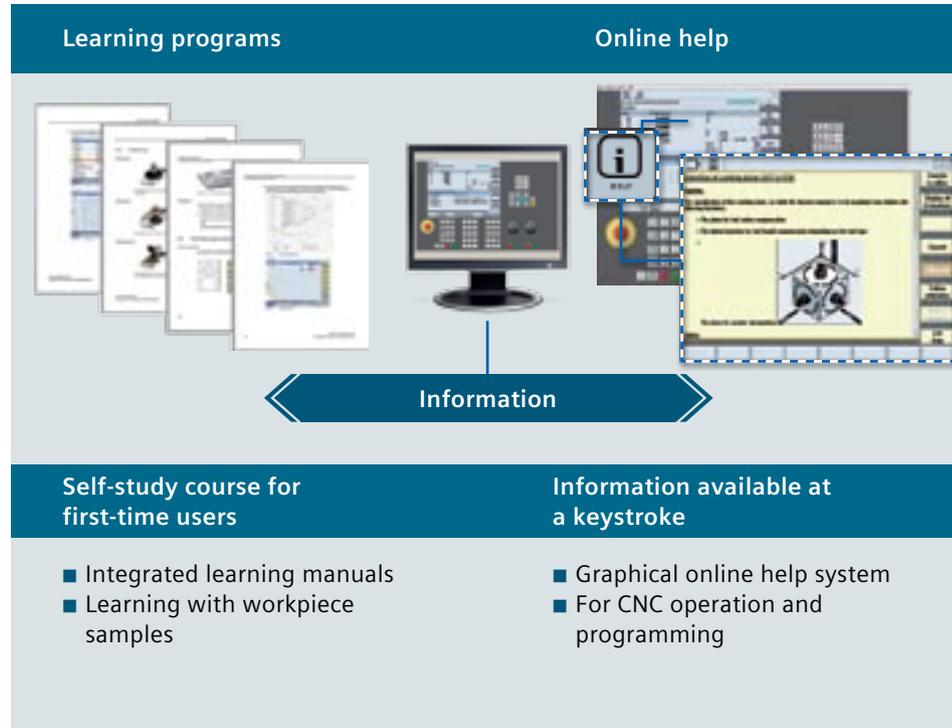
Virtual machine control panel

- Simple operation with a mouse click
- Maximum degree of mobility without any bulky additional hardware
- No costs for additional hardware



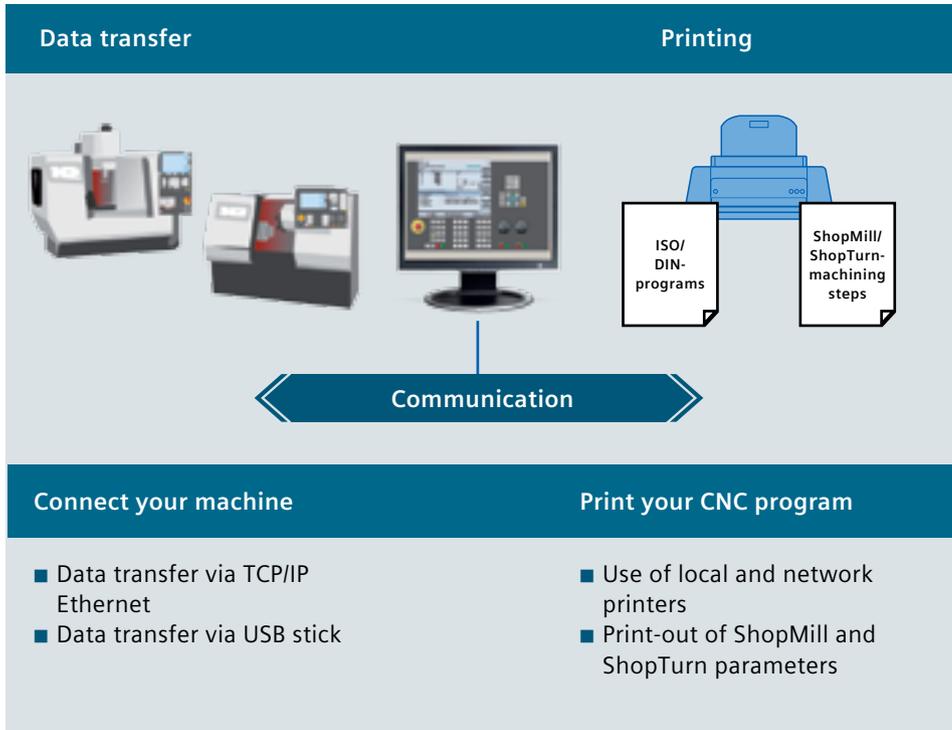
SinuTrain's animated machine control panel offers you realistic machine simulation — without the need of additional hardware.

Simple training — also for first-time users



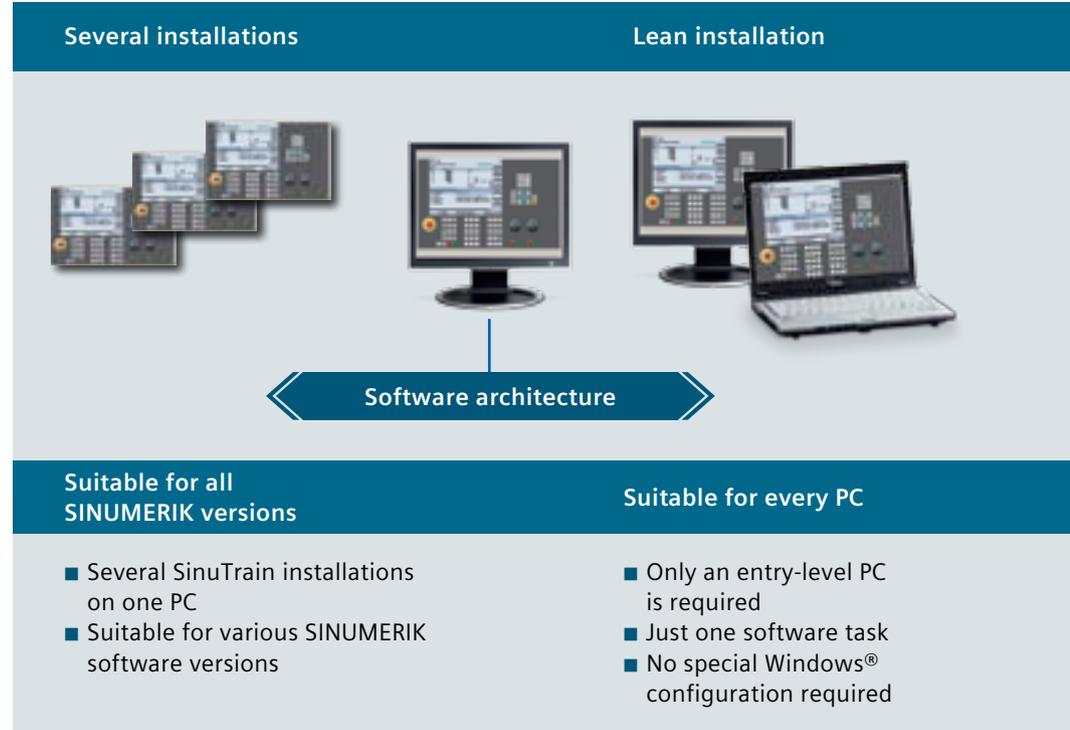
With its integrated learning programs, SinuTrain is the ideal self-study course. Integrated online help provides you with the necessary information at the touch of a key — and without paper.

A talented communicator



With its numerous additional functions, SinuTrain has proven itself in many day-to-day applications.

A lean and efficient software solution



SinuTrain's ultra-modern software architecture requires only an entry-level PC and can be installed several times to guarantee an optimum match to the specific software version of the SINUMERIK CNC system.

Optimum adaptation to the machine configuration

Machine

SinuTrain



Fast adaptation

The SinuTrain user selects a ready-to-use machine configuration from a pre-configured combination of axis constellations.

Adaptation by experts

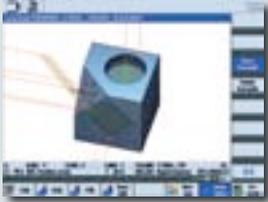
The machine tool builder generates and supplies a machine configuration developed using a configuration tool.



SinuTrain can be perfectly adapted to the axis configurations of various machines. This permits maximum compatibility to be achieved between the CNC programs generated offline and the machines on the factory floor.

Milling, turning and more ...

Milling



Selection through fast adaptation or adaptation by experts

Turning



Selection through fast adaptation or adaptation by experts

Other technologies



Selection through adaptation by experts



Beyond milling and turning, it goes without saying that SinuTrain offers the wide range of technologies supported by SINUMERIK Operate on the machine.

SinuTrain — used around the world

SinuTrain supports several languages and can be run under different Windows® versions.

Current languages:

- German
- English
- French
- Italian
- Spanish
- Simplified Chinese

Additionally installable:

- Chinese (Taiwan)
- Danish
- Finnish
- Japanese
- Korean
- Dutch
- Polish
- Portuguese (Brazil)
- Romanian
- Russian
- Slovak
- Slovenian
- Swedish
- Czech
- Turkish
- Hungarian

Tested for Windows® in European languages

Can run under the following Windows® versions:

- Windows XP Professional, Home Edition SP3 (32-bit)
- MS Windows 7 Home Premium, Professional, Ultimate, Enterprise (32- and 64-bit)

SinuTrain for SINUMERIK Operate — intelligent licensing to meet your needs

An intelligent software license manager means that SinuTrain can meet every user requirement and every budget — without the need for dongles or additional hardware.

Test SinuTrain yourself:

Get to know SinuTrain with the 60-day test version free-of-charge.

Work with SinuTrain:

A SinuTrain single workstation license offers unrestricted functionality and CNC programming.

Training with SinuTrain:

A SinuTrain classroom license permits professional training for applications with several users.

A trial version of SinuTrain for SINUMERIK Operate is available for download — free-of-charge. Simply point your web browser to:
www.siemens.com/cnc4you

Want more information?

Everything you want to know about SinuTrain can be found online:
www.siemens.com/sinutrain

Everything about SINUMERIK CNCs:
www.siemens.com/sinumerik

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Subject to change without prior notice
Order No.: E20001-A1150-P610-X-7600
Dispo 06311
WÜ/45413 GD.MC.MT.STAN.52.3.03
WS 01132.0
Printed in Germany
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