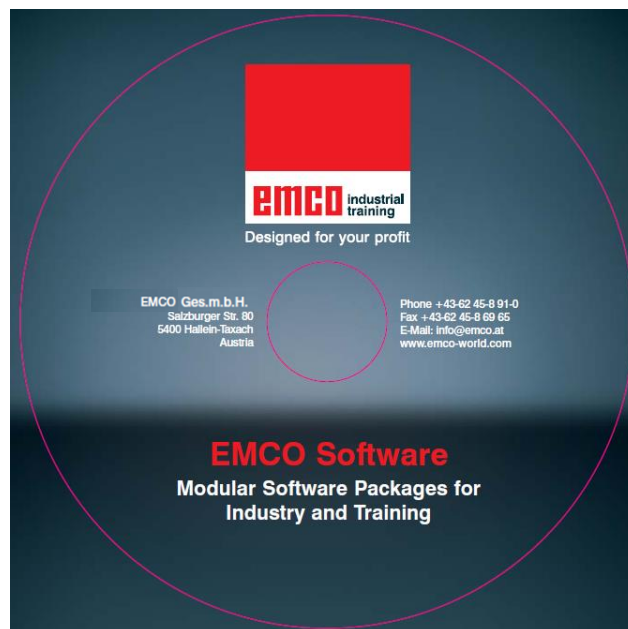


TECHNICAL SPECIFICATION

Software

WinNC Turning/Milling SchoolVUE



Control software for programming stations

**SINUMERIK OPERATE 840D sl / 828D
FANUC Series 31i
HEIDENHAIN TNC 640
HEIDENHAIN TNC 426/430
FAGOR 8055 TC/MC
3D VIEW**

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Short Description EMCO WinNC

Software for the installation on external programming stations

The software WinNC is a part of the EMCO educational concept on basis of PC, with the aim of learning the operation and programming of a certain CNC-machine control. With WinNC there is the possibility to install more control surfaces on one PC. By using the onscreen keyboard EMCO Easy2Control or the control keyboard (accessory with interchangeable key modules for the respective control type) the operation becomes easier and has a higher didactic value by its similarity to the original control.

PC system requirements

Processor	PC Dual Core 2GHz	
Operating system	Windows 7 or higher (32 bit or 64 bit)	
Working memory	4 GB RAM	
Monitor	16:9 Full HD 1920x1080 (only for easy2control / easy2operate)	
Free hard disk memory	2 GB	
Interfaces	easy2control:	1x USB for Dongle
	easy2operate:	2x USB for Dongle + machine keyboard
	Machine connection	1x LAN (cable) – only for machine licence
	optional:	LAN or WLAN for network connection

License types

Single license:

For the external NC programming of CNC-controlled tool machines on a PC-workstation (independent of machine)

Multiple license:

For the external NC programming of CNC-controlled tool machines. It may be installed within an institute registered by the licensor in an unlimited number on PC workstations resp. in a network. Interlocking of the individual workstations is possible with standard networks (independent of machine)

Machine license:

For the direct control of the CONCEPT machine tools and includes machine specific data. Each machine license is specially done for each CONCEPT machine.

Possibilities of input resp. Operation

Standard PC keyboard

Recommended for:
Basic configuration, mobile working stations

Onscreen control keyboard (EMCO Easy2control)

A contemporaneous use of the PC keyboard/mouse and the Onscreen-control keyboard is possible, there is no need of a switch.
The Software can also be operated by a 16:9 Full-HD-Touchscreen.

Recommended for:
Programming station in classroom

Onscreen control keyboard with operating panel (Easy2Operate)

A contemporaneous use of the PC keyboard/mouse and the Onscreen-control keyboard is possible; there is no need of a switch.

Recommended for:
Programming station in classroom
Operating the CT 60, CM 55, CT 105 und CM 105

Remark

It should be taken into consideration that the functions of the WinNC machine licenses can be limited according the technical possibilities of the PC-controlled CNC machine in opposite to the WinNC single- and multiple licenses.

Description EMCO Easy2control



EMCO Easy2control is a software visualizing the control- and machine-specific keyboards of the WinNC-controls on a 16:9 Full-HD screen.

The diverse operation fields for machine, control and short-cuts can be switched by tabs.

e.g.:



The buttons and regulation keys can be operated by the mouse.

When using a Full-HD-Touchscreen, you can operate these buttons and keys with this screen.

For operating the Software on the programming station (without machine), you need a license dongle.
For every work station an Easy2Control single license must be acquired. There is no multiple license.

Monitor requirements

16:9 Full-HD monitor with min. 1920 x 1080 pixel

For operating the machines CT 60, CM 55, CT 105 und CM 105, Easy2Operate is required.

Description EMCO Easy2Operate

Easy2Operate is used to operate the machines CT 60, CM 55, CT 105 und CM 105.

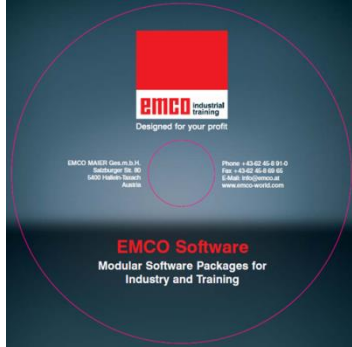
Easy2Operate consists of Easy2Control (incl.dongle) + panel



Reference Numbers WinNC

	<p>WinNC Machine License Operating the machine. Works only with connected machine.</p> <p>SINUMERIK OPERATE 840D sl / 828D</p> <p>FANUC Series 31i</p> <p>HEIDENHAIN TNC 640 (Milling only)</p> <p>HEIDENHAIN TNC 426/430 (Milling only)</p> <p>FAGOR 8055 TC</p> <p>Former versions ... will be produced only for justified cases. Anyhow the technical preconditions have to be considered because old Windows versions could be requested.</p>	<p>X3Y 400</p> <p>X3Y 360</p> <p>X3Y 460</p> <p>X3A 200</p> <p>X3A 300</p> <p>On request</p>
	<p>WinNC Single license The single license is used for external CNC programming on a PC working station.</p> <p>SINUMERIK OPERATE 840D sl / 828D, Turning</p> <p>SINUMERIK OPERATE 840D sl / 828D, Milling</p> <p>SIN. OPERATE 840D sl / 828D, Turning + Milling</p> <p>FANUC Series 31i Turning</p> <p>FANUC Series 31i Milling</p> <p>FANUC Series 31i Turning + Milling</p> <p>HEIDENHAIN TNC 640</p> <p>HEIDENHAIN TNC 426/430, Milling</p> <p>FAGOR 8055 TC, Turning</p> <p>FAGOR 8055 MC, Milling</p> <p>FAGOR 8055, Turning + Milling</p> <p>Former versions ... will be produced only for justified cases. Anyhow the technical preconditions have to be considered because old Windows versions could be requested.</p>	<p>X3Y 440</p> <p>X3Y 450</p> <p>X3Y 411</p> <p>X3Y 365</p> <p>X3Y 366</p> <p>X3Y 364</p> <p>X3Y 466</p> <p>X3A 220</p> <p>X3A 340</p> <p>X3A 350</p> <p>X3A 311</p> <p>On request</p>

	<p>WinNC Multiple License The multiple license is used for external CNC programming. It may be installed within an institute registered by the licenser in an unlimited number on PC workstations resp. in a network. Interlocking of the individual work stations is possible with standard networks.</p> <p>SINUMERIK OPERATE 840D sl / 828D, Turning X3Y 420 SINUMERIK OPERATE 840D sl / 828D, Milling X3Y 430 SIN. OPERATE 840D sl / 828D, Turning + Milling X3Y 410</p> <p>FANUC Series 31i Turning X3Y 362 FANUC Series 31i Milling X3Y 363 FANUC Series 31i Turning + Milling X3Y 361</p> <p>HEIDENHAIN TNC 640 X3Y 463</p> <p>HEIDENHAIN TNC 426/430, Milling X3A 210</p> <p>FAGOR 8055 TC, Turning X3A 320 FAGOR 8055 MC, Milling X3A 330 FAGOR 8055, Turning + Milling X3A 310</p> <p>Former versions ... will be produced only for justified cases. Anyhow the technical preconditions have to be considered because old Windows versions could be requested.</p>	<p>X3Y 420 X3Y 430 X3Y 410 X3Y 362 X3Y 363 X3Y 361 X3Y 463 X3A 210 X3A 320 X3A 330 X3A 310 On request</p>
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Distinction Upgrade – Update

Upgrades will be charged and replace an old by a new control generation.

Updates are improvements or extensions of existing WinNC's by free download from the homepage.

Software Upgrades

Software Upgrades allow switchover from old to new systems (e.g. from Heidenhain 426 to 640) on favourable terms.

Precondition

The customer already owns the respective old license version.

UPGRADE SIEMENS 840D to Sinumerik Operate

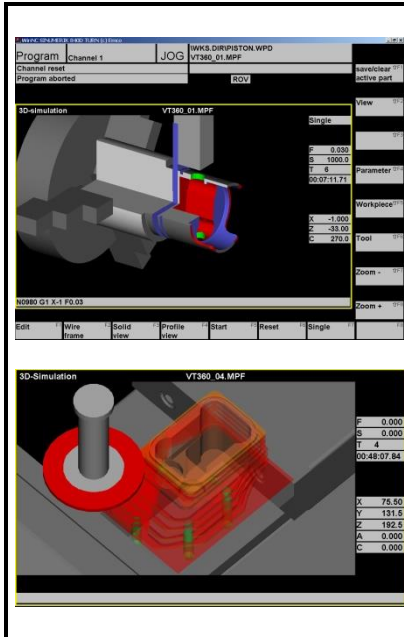
Machine license	X3Y 900
Multiple license Turning + Milling	X3Y 910
Multiple license Turning	X3Y 920
Multiple license Milling	X3Y 930
Single license Turning + Milling	X3Y 911
Single license Turning	X3Y 940
Single license Milling	X3Y 950

UPGRADE Fanuc0/21 to FANUC 31 MG

Machine license	X3Y 380
Multiple license Turning + Milling	X3Y 381
Multiple license Turning	X3Y 382
Multiple license Milling	X3Y 383
Single license Turning + Milling	X3Y 384
Single license Turning	X3Y 385
Single license Milling	X3Y 386

UPGRADE HEIDENHAIN TNC 426 to TNC 640

Machine license	X3Y 480
Multiple license Milling	X3Y 483
Single license Milling	X3Y 486



EMCO Win 3D-View

3D Graphic simulation
Option for WinNC

Turning, Machine and Single license

X5A250

Milling, Machine and Single license

X5A260

Combi Turning+Milling, Machine and Single license

X5A 281

Turning, Multiple license

X5A 270

Milling, Multiple license

X5H 280

Combi Turning+Milling, Multiple license


X5A280


Available Software Languages

DE	Deutsch	German	<p>WinNC SINUMERIK OPERATE 840Dsl/828D T DE,EN,FR,ES,TA,NL,HU,PL,CS,RU,ZH,SV</p> <p>WinNC FANUC Series 31i - T DE,EN,FR,ES,TA,NL,PL,CS,RU,SV</p> <p>HEIDENHAIN TNC 426 DE,EN,FR,ES,SV,TA</p> <p>HEIDENHAIN TNC 640 DE,EN,ES,CS</p> <p>WinNC FAGOR 8055 TC DE,EN,FR,ES</p> <p>CAMCONCEPT DE,EN,FR,ES,TA,NL</p>	
EN	Englisch	English		
FR	Französisch	French		
ES	Espanisch	Spanish		
TA	Italianisch	Italian		
NL	Holländisch	Dutch		
SV	Schwedisch	Swedish		
HU	Ungarisch	Hungarian		
CS	Tschechisch	Czech		
RU	Russisch	Russian		
ZH	Chinesisch	Chinese		
PL	Polnisch	Polish		

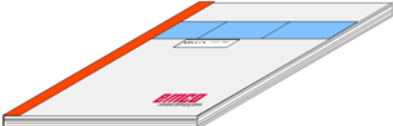
Data input Devices

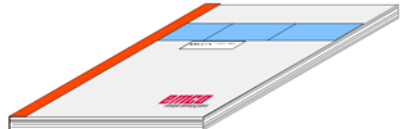
To be used in connection with software WinNC.

	<p>EMCO Easy2control Programming station Onscreen control keyboard for all current WinNC's. Single license incl. dongle</p>	<p>X9C 111</p>
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	<p>Easy2Operate Portable machine operating panel to operate the machine via hardware, includes axis buttons, feed override switch, mode switch etc. inclusive Easy2control single license with dongle</p> <p>Preferrable to operate CT60, CM55, CT105 and CM105</p>	<p>X9C E2C</p>
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Manuals WinNC

<p>Programmieranleitungen Drehen</p> <p>Programming Instructions Turning</p> <p>Ältere WinNC's und weitere Sprachen Auf Anfrage</p> <p>Former WinNC's and further languages On request</p> <p>EMCO Win3D-View - Drehen Die Anleitung für Win3DView wurde aufgelassen und in die Anleitung für WinNC integriert.</p> <p>EMCO Win3D-View - Turning The manual for Win3DView has been abandoned and integrated into the manual for WinNC.</p> 	<p>WinNC SINUMERIK OPERATE 840DsI/828D T</p> <p>Manual WinNC SINUMERIK Operate - T</p> <p>WinNC FANUC Series 31i - T</p> <p>Manual WinNC FANUC Series 31i – T</p> <p>WinNC FAGOR 8055 TC</p> <p>Manual WinNC FAGOR 8055 TC - T</p>	<p>DE 1849 EN 1849 FR 1849 HL 1849 SP 1849 TA 1849 CZ 1849</p> <p>DE1847 EN1847 SP1847 TA1847 HL1847 FR1847 CZ1847</p> <p>DE 1819 EN 1819 FR 1819 HL 1809 SP 1819 TA 1819</p>
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<p>Programmieranleitungen Fräsen</p>	<p>WinNC für SINUMERIK OPERATE 840Dsl/828D M</p>	<p>DE 1848 EN 1848 FR 1848 HL 1848 SP 1848 TA 1848 CZ 1848</p>
<p>Programming Instructions Milling</p>	<p>Manual WinNC Sinumerik Operate - M</p>	
<p>Ältere WinNC's und weitere Sprachen Auf Anfrage</p>	<p>WinNC FANUC Series 31i - M</p>	<p>DE 1846 EN 1846 FR 1846 HL 1846 SP 1846 TA 1846 CZ 1846</p>
<p>Former WinNC's and further languages On request</p>	<p>Manual WinNC FANUC Series 31i - M</p>	
<p>EMCO Win3D-View - Fräsen Die Anleitung für Win3DView wurde aufgelassen und in die Anleitung für WinNC integriert.</p>	<p>WinNC HEIDENHAIN TNC 640</p>	<p>DE 1844 EN 1844 SP 1844</p>
<p>EMCO Win3D-View - Milling The manual for Win3DView has been abandoned and integrated into the manual for WinNC.</p>	<p>WinNC HEIDENHAIN TNC 426/430</p>	<p>DE 1816 EN 1816 HL 1816 SP 1816 TA 1816</p>
	<p>WinNC FAGOR 8055 MC</p>	<p>DE 1818 EN 1818 FR 1818 SP 1818</p>
	<p>Manual WinNC FAGOR 8055 MC - M</p>	

Description E[MCO] Campus

E[MCO] Campus

is a multimedia training program that teaches all the basics of modern CNC technology. The cleverly-designed teaching format makes even complex concepts easy to grasp and learn. Interactive dialog features allow students to progress at their own pace. Views are displayed using attractive 2 and 3D graphics, animations, and videos, sustainably improving the success of the learning process.

Trainee functions

- Working through the content and tests using learning folders
- Presenting the content using text, graphics, animations, and videos
- Further readings: additional contents per topic
- Library: overview of all available additional contents
- Course overview and display of course progress
- Opportunity to communicate with others in the virtual classroom via the network and the Forum
- Glossary function with linking feature
- Intensification of the material learned in three phases: learning, practice, test

Trainer functions


- Creating learning folders for the course (learning folder editor)
- Authoring tool: individually creating contents pages
- Distributing learning folders to specific trainees or groups
- Setting the test questions for each learning folder
- Overview of all tests taken
- Overview of all trainees registered
- User administration

System requirements

Terminal with current Adobe Flash Player and Browser, refer:
<http://www.adobe.com/de/products/flashplayer/systemreqs/>
JavaScript activated
Internet: Broad band connection,

Trial Version

On request with disclosure of user and e-mail address

	<p>E[MCO] Campus</p> <p>E-Learning 2.0 for machining. Multimedia teaching and learning materials for CNC</p> <p>.</p> <p>E[MCO] Campus is a multimedia training program that teaches all the basics of modern CNC technology. The cleverly-designed teaching format makes even complex concepts easy to grasp and learn. Interactive dialog features allow students to progress at their own pace. Views are displayed using attractive 2 and 3D graphics, animations, and videos, sustainably improving the success of the learning process..</p> <p>Languages German, English, Spanish, Chinese, Czech, Romanian, Polish, Slovenian</p> <p>Single-user license 1</p> <p>Multiple-user license 20</p> <p>Multiple-user license 50</p> <p>Multiple-user license 100</p> <p>Campus License A Campus-License consists of several Multiple licenses. The Software is working without any time restriction, a renewal of the version is not necessary. A Software Maintenance Contract (SMC) is not available right now.</p>	<p>X2Y 400</p> <p>X2Y 410</p> <p>X2Y 420</p> <p>X2Y 430</p> <p>On request</p>
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Classroom Management Software SchoolVue

SchoolVUE provides all tools for modern education in IT classrooms.

This feature-rich software provides teachers with the ability to instruct, monitor and interact with students individually, as a pre-defined group or as an overall classroom, along with other tools to manage the classroom more effectively.

SchoolVUE in practice

- Control of the pupils PCs from the teacher's working station
- Control of USB devices
- Control of printer's use
- Control of access to applications and Internet pages
- Possibility to introduce additional tutors
- Possibility to introduce pupils as additional tutors
- Visit web pages together with students
- Presentations of demos and videos in real time
- Possibility to teach in wireless LAN areas
- Simple realization of electronic tests
- Collect and distribute files

SchoolVue system requirements

Win2000, 2003, 2008, XP, Vista und Windows7

35 MB free hard disc storage (90 MB for full installation)

IPX/SPX, NetBEUI, TCP/IP, Support of Windows Terminal Server

Available Languages: German, English, French, Spanish

Sales Restriction:

This product may not be sold in the USA by EMCO. In this country, the supplier itself is responsible for the sale.

Download 30 days trial version:

English

InstallShield: <http://download.crosstecsoftware.com/ctcvue.exe>

MSI: <http://download.crosstecsoftware.com/ctcvue.msi>

German

InstallShield: <http://download.crosstecsoftware.com/DE/ctcvueDE.exe>

MSI: <http://download.crosstecsoftware.com/DE/ctcvueDE.msi>

French

InstallShield: <http://download.crosstecsoftware.com/FR/ctcvueFR.exe>


MSI: <http://download.crosstecsoftware.com/FR/ctcvueFR.msi>

Spanish

InstallShield: <http://download.crosstecsoftware.com/ES/ctcvueES.exe>

MSI: <http://download.crosstecsoftware.com/ES/ctcvueES.msi>

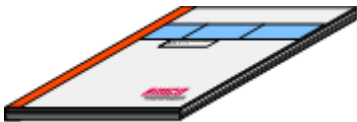
Further information: <http://www.crosstecsoftware.com/educational/schoolvue.html>

	SchoolVUE Min. purchase 10 licenses 10 to 99 Licenses, per License 100 to 249 Licenses, per License more graduations on request	288290 288300
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SINUTRAIN

	SINUTRAIN For SINUMERIK Operate Version 4.7-Multiple License / Classroom License for 18 users SINUMERIK 840D SL SINUMERIK 828D For Windows 7, Windows 8.1 Turning / Milling	224 999
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Catalogues

	EMCONOMY moves	DE 2801 EN 2801 FR 2801 SP 2801 RU 2801 CZ 2801
	EMCO Software	DE 1835 EN 1835 SP 1835
	EMCO Industrial Training	DE 1837 EN 1837 TA 1837 SP 1837
	EMCO Campus	DE 1842 EN 1842 CZ 1842