

CNC Learning and Support Tool for Customization

# FANUC

## CNC GUIDE

## CNC Simulator



# CNC GUIDE

CNC GUIDE is a PC software that enables the execution and display of what is equivalent to the actual CNC. One can learn how to operate CNC, check the machining program, confirm the operation of customization features.

And, by connecting the MOP simulator, one can train with the same operation feeling as an actual machine.



# CNC Simulator

CNC simulator is a training device which uses the actual hardware.

Learning CNC operation using actual CNC display, MDI key, manual pulse generator used in machining tools as well as programming, and checking the created machining program is possible.



For Development



## CNC Customization Support

### Purpose

- Operation screen development
- Application development in C language
- Ladder program development

### Features

- For machine tool builders
- Also supports multi-axis, multi-path
- We provide network license version for 10, 20 people as well as site license

# CNC GUIDE

Development and debugging of custom screens and ladder programs can be effectively performed on the PC. As you can actually debug on a PC in the office before changing the customized software on the actual machining tool, it will improve efficiency of development work.

### FANUC PICTURE

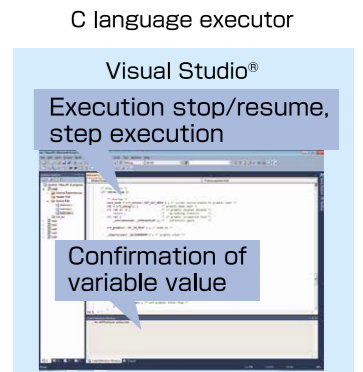
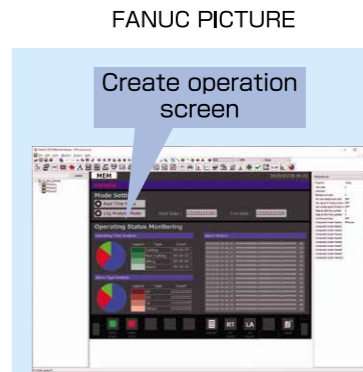
- Confirm the functionality of the screens created with FANUC PICTURE on the CNC GUIDE
- The executable screens confirmed on the CNC GUIDE can be loaded on the CNC without converting them

### C Language Executor

- C language program for CNC is compiled for the PC and operation is checked on the CNC GUIDE
- Source code debugging using Visual Studio®\*1)

### PMC Simulation

- Simulation of the ladder program performed on the PC
- Supports various functions such as Multi-path PMC and Function Block
- Debugging by FANUC LADDER-III via Ethernet connection



For education



## Learning CNC Operation/Machining Program

### Purpose

- Learning CNC operation
- Learning CNC programming

### Features

- Software for PC
- For education
- We have prepared a sample program that is handy for learning
- It is available for classroom use or individual learning at home
- A MOP simulator with the same operation feeling as a machine tool is available

# CNC GUIDE Education Package

Possibility to perform CNC operation training on the PC.

It is possible to learn CNC operation without using the actual machining tool.

We provide classroom licenses for 16/32 students and single licenses for self-study at home for 1 or 3 years.

By connecting the MOP simulator that integrates the MDI and the operator's panel, training is possible with the same operation feeling as an actual machine tool.

- Operation in MEM & MDI mode/Automatic operation
- Write the machining programs and machining cycles in EDIT mode
- Use of macro variables and system variables
- Operation by calling sub-programs and DNC
- Displays the same alarm as on the machine when errors occur
- Machining simulation (cutting animation, tool path drawing)



- MOP Simulator**
- Connect to a PC with a USB cable
  - No setting required
  - The keys of operator's panel can be customized



## Learning CNC Operation/Machining Program

### Purpose

- Learning CNC operation
- Learning CNC programming

### Features

- Uses actual hardware
- For education
- Availability of machining center and lathe in one simulator
- Universal power supply (100VAC to 240VAC)

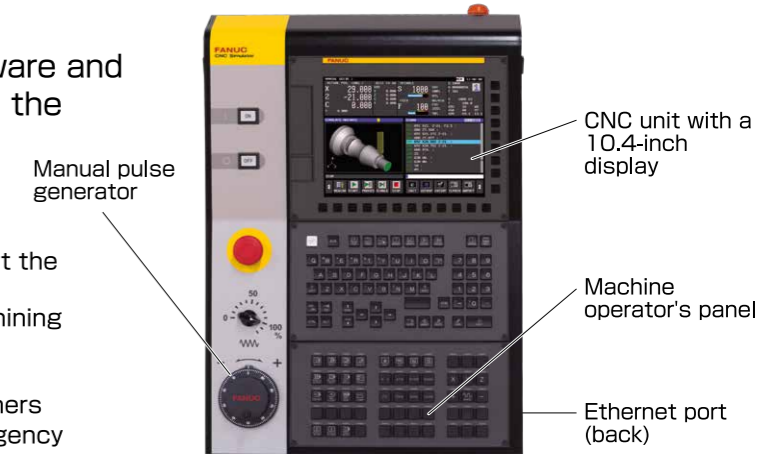
# CNC Simulator

It is possible to operate and program CNC/ MANUAL GUIDE<sup>i</sup>\*2) on the actual hardware and train with the same feeling of the operation as the machine tool.

Ideal for training those who have never used a machine tool.

- Immediately usable by connecting to the electrical outlet at the classroom or office
- Both trainings are possible by switching between the machining center system and the lathe system
- It comes with standard MANUAL GUIDE<sup>i</sup>
- Easy to understand simple system configuration for beginners
- Equipped with the same manual pulse generator and emergency stop button as the real machine tool

\*1) Visual Studio® is a registered trademark or trademark in the United States and other countries of Microsoft Corporation of the United States.  
\*2) MANUAL GUIDE<sup>i</sup> is the operation guidance function that allows easy creation of a machining program.



## Lineup (CNC GUIDE)

There are the following 2 types of CNC GUIDE.

- CNC GUIDE (Creation and verification of the machining program)
- CNC GUIDE Education Package (Learning operation method)

There are the following 2 types of educational package.

- Intended for use in the classroom
- Intended for students for self-study at home

Product name		Note
CNC GUIDE	1 user	
	10 users	Possible for up to 10 people to use at the same time
	20 users	Possible for up to 20 people to use at the same time
	Site license	It can be used one business premises
	Update	
CNC GUIDE Education Package	Classroom/for 16 people	Possible for up to 16 people to use at the same time
	Classroom/for 32 people	Possible for up to 32 people to use at the same time
	Self-study at home/1 year	Usage period is 1 year (1 user)
	Self-study at home/3 years	Usage period is 3 years (1 user)
	Update	

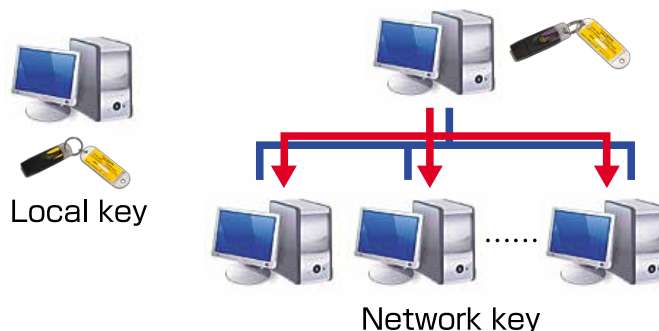
## Hardware key (CNC GUIDE)

Local key: Attached to the PC running CNC GUIDE.

Network key: Attached to a network PC.

Each PC acquires the license through the network, and the number of CNC GUIDE that you are licensed for can be used at the same time.

(\* available in the same IP segment)



## Specification List CNC GUIDE

Item	Specification	
Applicable devices	30i series	Series 30i/31i/32i - MODEL B Series 31i - MODEL B5 Series 30i/31i/32i - MODEL B Plus Series 31i - MODEL B5 Plus Series 31i - MODEL A
	Oi series	Series Oi - TD / MD Series Oi - TF / MF Series Oi - TF Plus / MF Plus
	Laser / punch press / wire cut	Series 31i - LB / PB / WB
	CNC for transfer line	Series 35i - MODEL B
	CNC for general motion applications	Power Motion i - MODEL A
Display device type <sup>*)</sup>	8.4" / 10.4" / 15" / 19"	
MDI key	QWERTY / ONG	
Display mode	Picture mode	Displays actual CNC appearance
	Window mode	CNC screen, MDI key, display operation panel, and more at each separate window
Display mode	CNC operation screen section <sup>*)</sup>	25 languages (English, Japanese, German, French, Spanish, Italian, Chinese (Traditional), Chinese (Simplified), Korean, Portuguese, Dutch, Danish, Swedish, Hungarian, Czech, Polish, Russian, Turkish, Romanian, Bulgarian, Slovak, Finnish, Vietnamese, Indonesian, Slovenian)
	Application operation section	2 languages (English, Japanese)
Item	CNC GUIDE <sup>*)</sup>	CNC GUIDE Education Package
System	Lathe / Machining	
Maximum number of paths	4 paths	1 path
Maximum number of control axis	20 axes	4 axes
Maximum spindle number	4 axes	1 axis
Maximum program capacity	8Mbyte	32kbyte
Maximum program number	4000	63

\*1) Will vary depending on the model. When you select Series 30i-MODEL B.

## MOP Simulator

Item	Specification
External dimensions	320mm x 260mm x 65mm (w x d x h)
Weight	Approx 1.1kg
Operation section	MDI key, Soft key, Machine operator's panel, Emergency stop button, Override switch, Manual pulse generator
USB connector	Type-B
Communication I / F	USB1.1
Input rating	DC5V (USB Bus power)
Other	The keys of the operator's panel can be customized

## CNC Simulator

Item	Specification
External dimensions	421mm x 220mm x 608mm (w x d x h)
Weight	Approx 1.2 kg
Display device	10.4" LCD
Operation section	MDI (QWERTY key) unit, Machine operator's panel, Emergency stop button, Override switch, Manual pulse generator
Input and output media	USB memory, CF card
Communication I / F	Ethernet
Input rating	100VAC to 240VAC, 0.8A to 0.4A, 50/60Hz
Other	Security slot

System (Switching possible)	Machining center system (number of control axis 3-axis, spindle 1 axis) Lathe system (number of control axis 2-axis, spindle 1 axis)
Display mode	24 languages (English, Japanese, German, French, Spanish, Italian, Chinese (Traditional), Chinese (Simplified), Korean, Portuguese, Dutch, Danish, Swedish, Hungarian, Czech, Polish, Russian, Turkish, Romanian, Bulgarian, Slovak, Finnish, Vietnamese, Indonesian)

\* Cannot connect the motor.

\* Cannot add or change optional features.

# FANUC CORPORATION

### Overseas Affiliated Companies

FANUC America Corporation	Phone: (+1)248-377-7000
FANUC Europe Corporation, S.A.	Phone: (+352)727777-1
BEIJING-FANUC Mechatronics CO., LTD	Phone: (+86)10-6298-4726
KOREA FANUC CORPORATION	Phone: (+82)55-278-1200
TAIWAN FANUC CORPORATION	Phone: (+886)4-2359-0522
FANUC INDIA PRIVATE LIMITED	Phone: (+91)80-2852-0057

• Headquarters 3580, Shibokusa, Oshino-mura, Minamitsuru-gun Yamanashi, 401-0597, Japan  
Phone: (+81)555-84-5555 <https://www.fanuc.co.jp/>

<a href="https://www.fanucamerica.com/">https://www.fanucamerica.com/</a>
<a href="https://www.fanuc.eu/">https://www.fanuc.eu/</a>
<a href="http://www.bj-fanuc.com.cn/">http://www.bj-fanuc.com.cn/</a>
<a href="https://www.fkc.co.kr/">https://www.fkc.co.kr/</a>
<a href="https://www.fanuctaiwan.com.tw/">https://www.fanuctaiwan.com.tw/</a>
<a href="https://www.fanucindia.com/">https://www.fanucindia.com/</a>

• All specifications are subject to change without notice.  
• No part of this catalog may be reproduced in any form.  
• The products in this catalog are controlled based on Japan's "Foreign Exchange and Foreign Trade Law". The export from Japan may be subject to an export license by the government of Japan. Further, re-export to another country may be subject to the license of the government of the country from where the product is re-exported. Furthermore, the product may also be controlled by re-export regulations of the United States government. Should you wish to export or re-export these products, please contact FANUC for advice.

© FANUC CORPORATION, 2016

CNC GUIDE(E)-04, 2022.3, Printed in Japan