



FACTORY AUTOMATION

MITSUBISHI CNC Software Tools



CNC Software Tools

Development Tools

Design

NC Servo Selection — P3

NC Designer2 — P4 (Screen Design)

NC Trainer2 plus — P5
(Customization Support)

Setup

NC Configurator2 — (NC Parameter Setup)

NC Analyzer2 P7

(Servo Adjustment)

User Support Tools

Training

NC Trainer2 — (Training Tool)

NC Trainer2 plus
(Training Tool)

Operational Support

NC Explorer (Data Transfer)

NC Monitor2 — P10 (Remote Monitoring)

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Products

Some of the items in this catalog are under development, therefore the software and CNC display are subject to change without notice

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NC Servo Selection





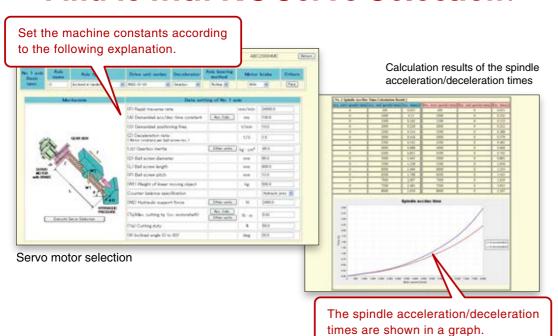
NC Designer2 (Screen Design)

M80 M700V M70V E80



Of the various types of servo motors, which one is the best for my machine?

Find it with NC Servo Selection!



Input the machine constants for selection of the optimum servo motor.

This function automatically calculates spindle acceleration/deceleration times and selects the optimum power supply unit.

Main functions

- Servo motor capacity selection
- Spindle acceleration/deceleration time calculation
- Power supply unit selection
- Power supply facility capacity calculation
- Multi-axis drive unit combination function
- Saves selected data

NC Servo Selection Main specifications

OS supported	Windows® 7 SP1 or later/Windows® 8.1/Windows® 10
	*Supports 32-and 64-bit OS (WOW64 available for 64-bit)
Languages	English/Japanese

What helps to create an original screen to differentiate the machine?

Easy to make with NC Designer2!



(Note) The trend graph is the control dedicated to M800/M80/E80 series.

We provide a developmental environment where the MTB can customize screens easily.

Two types of screen development methods are available; the interpreter system (programming without C++) for simple screen development, and the compiler system (programming with C++) with a complex controller.

Main functions

• Registration of screen created in CNC menu

Screen created with NC Designer2 can be registered in the main operation, setup and editing menus.

 Easy to create custom screens with template function and macro function Screens can be created easily by using MITSUBISHI standard screen templates.

Various original processes can be added easily by using macro language instead of C language.

● C Language Library strongly supports in screen development Besides drawing, this function strongly supports event controls such as mouse and key operations and the window function

indispensable for creating GUI such as window system, etc.

NC Designer2 Main specifications

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OC supported	Windows® 7 SP1 or later/Windows® 8.1/Windows® 10
OS supported	★Supports 32-and 64-bit OS (WOW64 available for 64-bit)
Languages	English/Japanese
Languages supported for original screen	English/Japanese/German/Italian/French/Spanish/
	Simplified Chinese/Traditional Chinese/Korean/Portuguese/Hungarian/
	Dutch/Swedish/Turkish/Russian/Czech/Polish
CNCs supported	M800/M80/E80/M700V/M70V/E70 Series

NC Trainer2 plus (Customization Support)

M800 M80 M700V M70V E70



NC Configurator2 (NC Parameter Setup)

M80

M700V

M70V E70 C80

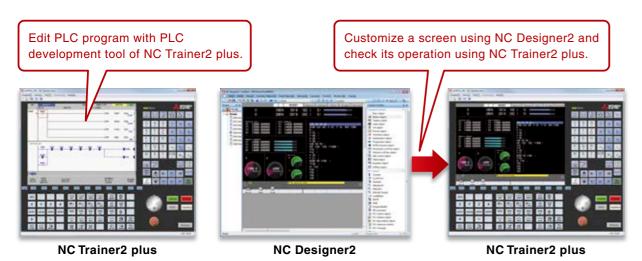
C70





How can I check the operation of customized screens or PLC programs, etc. be conducted on my computer?

Debugging is easy with NC Trainer2 plus!



NC Trainer2 plus supports customization development; it helps to program the ladder programming of the user PLC to be developed by machine tool builders and debug it and check the operations of customized screens.

Main functions

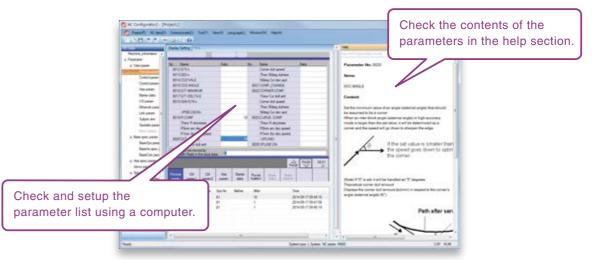
- Development support for customized screens. (Even if there is no NC device, it can be debugged using a computer.)
- Development support for user PLC (ladder)
- Provides machine operating environment (customized machine operation panel) that meets the specifications of the user's machine tool.

NC Trainer2 plus Main specifications

OS supported	Windows® 7 SP1 or later/Windows® 8.1/Windows® 10
	*Supports 32-and 64-bit OS (WOW64 available for 64-bit)
Languages	English/Japanese/Simplified Chinese/Traditional Chinese
CNCs supported	M800(equivalent to M830)/M80/M700V(equivalent to M730V)/M70V/E70 Series
	CPU: 2.66GHz or higher and processor with 2 or more cores
Operational	Memory: 2GB or more
environment	Available hard disk space: 400MB or more (excluding the free space necessary for running the OS)
	Display resolution : FHD (1920×1080) or higher

It is hard to setup each parameter using the manual...

Easy setup using NC Configurator2!



NC Configurator2

NC parameters required for NC control and machine operation can be edited on a computer.

Initial parameters can also be easily created by inputting the machine configuration.

Main functions

- NC parameter setting/search
- Help (parameter explanation)
- Offline comparison of parameter input/output
- NC data input
- Printing

The following are included the full-mounted version.

- Parameter initial setting wizard
- Function parameters

NC Configurator2 Main specifications

OS supported	Windows® 7 SP1 or later/Windows® 8.1/Windows® 10
O3 supported	*Supports 32-and 64-bit OS (WOW64 available for 64-bit)
Languages	English/Japanese/Simplified Chinese
	CNCs supported: M800/M80/M700V/M70V/E70/C80/C70 Series
CNC connections	Connection configuration : Ethernet/RS-232C(parameter read/write in serial communication)/ USB (C70 Series only)
	Connectable CNCs : 8 (max.)
Precaution	Free version has limited in functions.

NC Analyzer2 (Servo Adjustment)

M80

M700V M70V E70 C80 C70



NC Trainer2/NC Trainer2 plus (Training Tool)

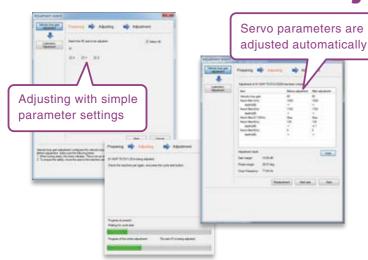
M800 M700V M70V E70 M80

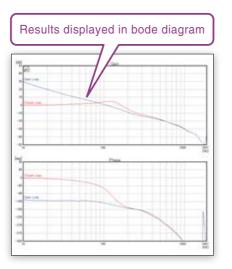


Servo parameter adjustment sounds complicated...

I don't have a tool for measuring the machine's characteristics on hand...

Easy adjustment and measurement with NC Analyzer2!





NC Analyzer2 helps the servo parameter settings by measuring and analyzing the machine's characteristics.

Measurement and analysis can be done by running a servo motor using the machining program for adjustment, or using the vibration signal.

This function can sample various types of data.

Main functions

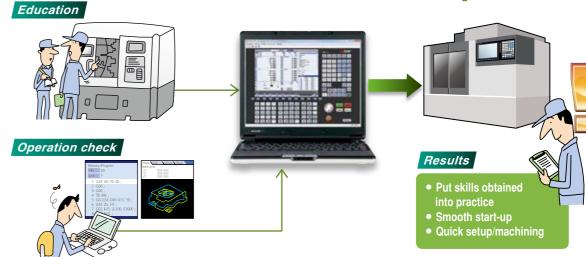
- Adjustment wizard Speed loop gain adjustment Notch filter setting Circularity adjustment Display adjustment progress
- Graph Bode diagram measurement display Servo waveform measurement Display waveforms before/after adjustments
- Project management Measured waveforms batch management

NC Analyzer2 Main specifications

	OS supported	Windows® 7 SP1 or later/Windows® 8.1/Windows® 10
		*Supports 32-and 64-bit OS (WOW64 available for 64-bit)
	Languages	English/Japanese/Simplified Chinese/Korean
(CNC connections	CNCs supported : M800/M80/M700V/M70V/E70/C80/C70 Series
		Connection configuration : Ethernet

How can I train myself in CNC operation without access to the machine?

Hone operating skills with NC Trainer2/NC Trainer2 plus!



This is an application for operating the CNC screen and machining programs on a computer without the CNC control unit or a special display unit.

It can also be used for learning CNC operation and checking machining programs. The machining programs created on NC Trainer2/NC Trainer2 plus can be used on actual CNCs.

Main functions

- Create projects that reproduce a variety of machining environments.
- Not only the NC screen, but also the NC keyboard and the operation panel are displayed on the computer.

NC Trainer2/NC Trainer2 plus Main specifications

OS supported	Windows® 7 SP1 or later/Windows® 8.1/Windows® 10
	*Supports 32-and 64-bit OS (WOW64 available for 64-bit)
Languages	English/Japanese/Simplified Chinese/Traditional Chinese
CNCs supported	M800(equivalent to M830)/M80/M700V(equivalent to M730V)/M70V/E70 Series
	CPU: 2.66GHz or higher and processor with 2 or more cores
Operational	Memory: 2GB or more
environment	Available hard disk space: 400MB or more (excluding the free space necessary for running the OS)
	Display resolution : FHD (1920×1080) or higher
Precaution	Before executing machining programs on an actual CNC, sufficient review should be conducted to prevent interference or any other errors.

NC Explorer (Data Transfer)

M800

M80

M700V

M70V E70 C80





NC Monitor2 (Remote Monitoring)

M800

M80

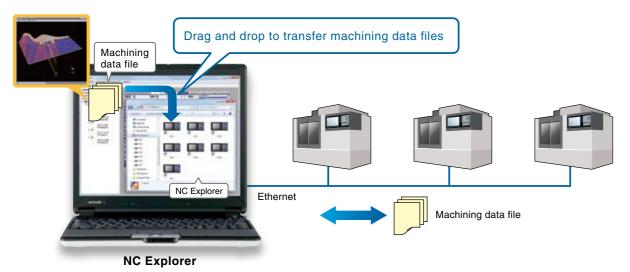
M700V

M70V E70 C80



How can I transfer data prepared on a computer to a CNC?

Easy data transfer using NC Explorer!



CNC machining data file can be operated using Windows® Explorer on a computer

when the computer is connected with multiple CNCs via Ethernet.

Main functions

Cooperation with Windows® Explorer

Operational CNCs are displayed as folders on Windows®

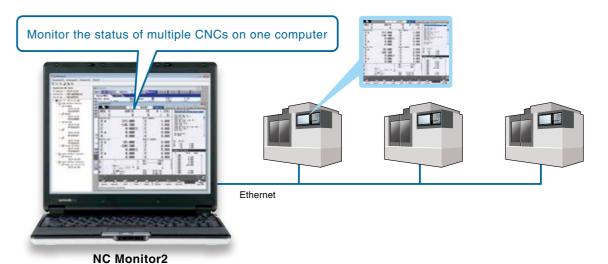
Drag and drop to transfer the files.

NC Explorer Main specifications

OC cupported	Windows® 7 SP1 or later/Windows® 8.1/Windows® 10
OS supported	*Supports 32-and 64-bit OS (WOW64 available for 64-bit)
CNC compositions	CNCs supported : M800/M80/M700V/M70V/E70/C80 Series
CNC connections	Connection configuration : Ethernet

How can I monitor a CNC on a computer in the office without visiting the factory?

Easy monitoring with NC Monitor2!



Taking advantage of the network in a plant, CNC operation status can be monitored from remote locations.

Several CNCs can be connected and monitored simultaneously.

Main functions

Adopts the same screen structure

The monitoring display is constructed to mirror the CNC display unit is. Note that the screen structure of 10.4-type display is applied when 15-type or 19-type display is connected.

Possible to select a monitoring screen that is not synchronized with display of the CNC in operation.

Limit display/setting operation of CNCs

By setting parameters in a CNC, the availability of displaying and setting using this software can be restricted.

Connectable CNCs are automatically listed

Connectable CNCs in a network group are automatically displayed in a list, and the CNCs can be connected by selecting them.

NC Monitor2 Main specifications

OC cupported	Windows® 7 SP1 or later/Windows® 8.1/Windows® 10
OS supported	*Supports 32-and 64-bit OS (WOW64 available for 64-bit)
Languages	English/Japanese
	CNCs supported : M800/M80/M700V/M70V/E70/C80 Series
CNC connections	Connection configuration : Ethernet
	Connectable CNCs : 10 (max.)
Precaution	Please use the Remote Monitor Tool for the C70.

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To ensure proper use of the products listed in this catalog, please be sure to read the instruction manual prior to use. Mitsubishi Electric Corporation Nagoya Works is a factory certified for ISO 14001 (standards for environmental management systems) and ISO 9001(standards for quality assurance management systems)





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