MITSUBISHI CNC Software Tools
CNC Software Tools

**Development Tools**
- NC Servo Selection P3
- NC Designer2 P4 (Screen Design)
- NC Trainer2 plus P5 (Customization Support)

**Setup**
- NC Configurator2 P6 (NC Parameter Setup)
- NC Analyzer2 P7 (Servo Adjustment)

**Training**
- NC Trainer2 P8 (Training Tool)
- NC Trainer2 plus P8 (Training Tool)

**User Support Tools**
- NC Explorer P9 (Data Transfer)
- NC Monitor2 P10 (Remote Monitoring)

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

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**Products**
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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

Servo motor selection

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!

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
- 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

Charge-free

● 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

NC Designer2 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
- 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

Easy to make a trend graph

(Note) The trend graph is the control dedicated to M800/M80/E80 series.
**NC Trainer2 plus (Customization Support)**

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!**

- Edit PLC program with PLC development tool of NC Trainer2 plus.
- Customize a screen using NC Designer2 and check its operation using 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 operation environment (customized machine operation panel) that meets the specifications of the user's machine tool.

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**NC Configurator2 (NC Parameter Setup)**

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

**Easy setup using NC Configurator2!**

- Check and setup the parameter list using a computer.
- Check the contents of the parameters in the help section.
- 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

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**NC Trainer2 plus Main specifications**

<table>
<thead>
<tr>
<th>OS supported</th>
<th>Windows® 7 SP1 or later/Windows® 8.1/Windows® 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Languages</td>
<td>English, Japanese, Simplified Chinese, Traditional Chinese</td>
</tr>
<tr>
<td>CNCs supported</td>
<td>M800(M80)/M800/M700V(M700V/M700V/M700/V70)</td>
</tr>
<tr>
<td>Operational environment</td>
<td>CPU: 2.66GHz or higher and processor with 2 or more cores</td>
</tr>
<tr>
<td></td>
<td>Memory: 2GB or more</td>
</tr>
<tr>
<td></td>
<td>Available hard disk space: 400MB or more (excluding the free space necessary for running the OS)</td>
</tr>
<tr>
<td></td>
<td>Display resolution: FHD (1920x1080) or higher</td>
</tr>
</tbody>
</table>

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**NC Configurator2 Main specifications**

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<tr>
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<tr>
<td>CNCs supported</td>
<td>M800(M80)/M800/M700V(M700V/M700V/M700/V70)</td>
</tr>
<tr>
<td>CNC connections</td>
<td>Connection configuration: Ethernet/RS-232C (parameter read/write in serial communication)/USB (C70 Series only)</td>
</tr>
<tr>
<td></td>
<td>Connectable CNCs: 8 (max.)</td>
</tr>
<tr>
<td>Precaution</td>
<td>Free version has limited functions.</td>
</tr>
</tbody>
</table>
Servo parameter adjustment sounds complicated…

Easy adjustment and measurement with NC Analyzer2!

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

Hone operating skills with NC Trainer2/NC Trainer2 plus!

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.

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: M800/M80/M700V/M70V/E70/C80/C70 Series
- Connection configuration: Ethernet

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

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
- Memory: 2GB or more
- 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.
How can I transfer data prepared on a computer to a CNC?

**Easy data transfer using NC Explorer!**

Drag and drop to transfer machining data files

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® Explorer.
- Drag and drop to transfer the files.

**NC Explorer Main specifications**

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<tr>
<td>CNC connections</td>
<td>CNCs supported: M800/M80/M700V/M70V/E70/C80 Series</td>
</tr>
<tr>
<td></td>
<td>Connection configuration: Ethernet</td>
</tr>
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How can I monitor a CNC on a computer in the office without visiting the factory?

**Easy monitoring with NC Monitor2!**

Monitor the status of multiple CNCs on one computer

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.
- 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**

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</tr>
<tr>
<td></td>
<td>Connection configuration: Ethernet</td>
</tr>
<tr>
<td></td>
<td>Connectable CNCs: 10 (max.)</td>
</tr>
<tr>
<td>Precaution</td>
<td>Please use the Remote Monitor Tool for the C70</td>
</tr>
</tbody>
</table>
Global Partner. Local Friend.

Safety Warning

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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