CNC Software Tools

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**MITSUBISHI**

The Best Partner for Your Success

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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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1 2
Of the various types of servo motors, which one is the best for my machine?

Find it with NC Servo Selection!

Set the machine constants according to the following explanation.

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.

Calculation results of the spindle acceleration/deceleration times

The spindle acceleration/deceleration times are shown in a graph.

Servo motor selection

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

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

Easy to make with NC Designer2!

Combine the parts to customize the screen without programming.

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

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.
- Macro function to add original processes easily
  Since macro language can be used with NC Designer2, various original processes can be added easily without programming in 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 Servo Selection

<table>
<thead>
<tr>
<th>Main specifications</th>
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<tbody>
<tr>
<td>OS supported</td>
</tr>
<tr>
<td>Windows® 7 SP1 or later/Windows® 8.1/Windows® 10</td>
</tr>
<tr>
<td>+ Supports 32- and 64-bit OS (WOW64 available for 64-bit)</td>
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<tr>
<td>Languages</td>
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<tr>
<td>English/Japanese</td>
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NC Designer2

<table>
<thead>
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<tr>
<td>Languages</td>
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<tr>
<td>English/Japanese</td>
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<tr>
<td>Languages supported for original screen</td>
</tr>
<tr>
<td>English/Japanese/German/Italian/French/Spanish/</td>
</tr>
<tr>
<td>Simplified Chinese/Traditional Chinese/Korean/Portuguese/Hungarian/</td>
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<tr>
<td>Dutch/Swedish/Turkish/Russian/Czech/Polish</td>
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<tr>
<td>CNCs supported</td>
</tr>
<tr>
<td>M800/M800/M700V/M70V/E70 Series</td>
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</table>
**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!

- 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 supports customization development; it helps 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.
- Provides machine operating environment (customized machine operation panel) that meets the specifications of the user's machine tool.

**Development Tools**

**Setup**

- 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.

**Development Tools**

**Design**

- 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.

**Main specifications**

- **OS supported**: Windows® 7 SP1 or later/Windows® 8.1/Windows® 10
- **Languages**: English, Japanese, Simplified Chinese, Traditional Chinese
- **CNCs supported**: M800/equivalent to M830), M80, M700V/equivalent to M730V), M70V, E70, C80, C70 Series
- **Operational environment**: 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 (1920x1080) or higher

**NC Trainer2 plus**

**Main specifications**

- **OS supported**: Windows® 7 SP1 or later/Windows® 8.1/Windows® 10
- **Languages**: English, Japanese, Simplified Chinese, Traditional Chinese
- **CNCs supported**: M800/equivalent to M830), M80, M700V/equivalent to M730V), M70V, E70 Series
- **Operational environment**: 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 (1920x1080) or higher

**Easy setup using NC Configurator2!**

It is hard to setup each parameter using the manual.

Check the contents of the parameters in the help section.

Check and setup the parameter list using a computer.

**NC Configurator2**

**Main specifications**

- **OS supported**: Windows® 7 SP1 or later/Windows® 8.1/Windows® 10
- **Languages**: English, Japanese, Simplified Chinese
- **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.

**Development Tools**

**Setup**

- Check and setup the parameter list using a computer.

**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 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.**
Easy adjustment and measurement with NC Analyzer2!

Servo parameter adjustment sounds complicated...

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

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
- 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
- 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.

- Put skills obtained into practice
- Smooth start-up
- Quick setup/machining

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.
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.

**Easy data transfer using NC Explorer!**

Drag and drop to transfer machining data files

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

**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

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**NC Explorer**

- **Main specifications**
  - **OS supported**: Windows® 7 SP1 or later/Windows® 8.1/Windows® 10
  - **CNC connections**: CNCs supported: M800/M80/M700V/M70V/E70/C80 Series

**NC Monitor2**

- **Main specifications**
  - **OS supported**: Windows® 7 SP1 or later/Windows® 8.1/Windows® 10
  - **CNC connections**: CNCs supported: M800/M80/M700V/M70V/E70/C80 Series

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**Precaution**

Please use the Remote Monitor Tool for the C70.
Global Partner. Local Friend.

Mitsubishi Electric Corporation Nagoya Works is a factory certified for ISO14001 (standards for environmental management systems) and ISO9001 (standards for quality assurance management systems).

Safety Warning

To ensure proper use of the products listed in this catalog, please be sure to read the instruction manual prior to use.

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