

Changes for the Better

MITSUBISHI CNC

NC Configurator

Instruction Manual

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Introduction

This manual describes the handling and caution points for using M700/M70 Series NC Configurator. Make sure to read this manual before using NC Configurator. Also, in order to ensure correct use, be sure to read the following page "Precautions for safety" carefully as well.

Notes on reading this manual

CAUTION

-  If the descriptions relating to the "restrictions" and "allowable conditions" conflict between this manual and the machine tool builder's instruction manual, the latter has priority over the former.
-  The operations to which no reference is made in this manual should be considered "impossible".
-  This manual is compiled on the assumption that your machine is provided with all optional functions. Refer to the specifications issued by machine tool builder to confirm the functions available for your NC before proceeding to operation.
-  As for individual machines, refer to the instruction issued by machine tool builder.
-  In some NC system versions, there may be cases that different pictures appear on the screen, the machine operates in a different way or some function is not activated.

Precautions for Safety

Always read the specifications issued by the machine tool builder, this manual, related manuals and attached documents before installation, operation, programming, maintenance or inspection to ensure correct use. Understand this numerical controller, safety items and cautions before using the unit. This manual ranks the safety precautions into "DANGER", "WARNING" and "CAUTION".



DANGER

When there is a potential risk of fatal or serious injuries if handling is mistaken.



WARNING

When a dangerous situation, or fatal or serious injuries may occur if handling is mistaken.



CAUTION

When a dangerous situation may occur if handling is mistaken leading to medium or minor injuries, or physical damage.

Note that even items ranked as "CAUTION", may lead to major results depending on the situation. In any case, important information that must always be observed is described.

DANGER





Not applicable in this manual.

WARNING

Not applicable in this manual.

CAUTION

Notes for product and manual

-  If the descriptions relating to the "restrictions" and "allowable conditions" conflict between this manual and the machine tool builder's instruction manual, the latter has priority over the former.
-  The operations to which no reference is made in this manual should be considered "impossible".
-  This manual is compiled on the assumption that your machine is provided with all optional functions. Refer to the specifications issued by machine tool builder to confirm the functions available for your NC before proceeding to operation.
-  In some NC system versions, there may be cases that different pictures appear on the screen, the machine operates in a different way or some function is not activated.

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1. Outline

This manual explains the functions and operation procedure of the NC parameter setting tool NC Configurator.

1.1 Outline of NC Configurator

NC Configurator is a system to support parameter setting of more than one NC connected to the network. Parameters of up to eight NCs can be edited together.

Other than NCs connected to the network, it is also possible to edit the NC parameter files in the local disk, and to save parameters of an NC connected to the network in the local disk. So this system can also be used as a backup tool of NC parameters.

It has two methods of parameter setting as below. Use an appropriate method according to the intended use.

- (1) Standard input method in which NC parameters are displayed as a list
- (2) Interactive input method according to use
 - Initial setup
 - High-accuracy machining

In addition, it is possible to edit NC programs and NC files.

(Note) NC types whose parameters can be set with NC Configurator are C70, M700, and M70.

1.2 Function Outline

NC Configurator has the NC parameter edit function and NC file edit function as below.

NC parameter edit function

Function name	Details
Parameter input function	There are two methods; the standard parameter input method, and use-by-use parameter input method.
Initial setup function	By inputting only minimum items required, parameters necessary to be set at the initial startup of the NC are set.
Search function	From among the NC parameters being edited, searches parameters by specifying parameter No. or keyword.
DB file import/export function	Exports the NC parameters being edited, or imports the NC parameter files which have been exported.

NC file/NC program edit function

Function name	Details
NC file edit function	Edits tool offset data, workpiece offset data, life management data, and common variables.
NC program edit function	Edits NC programs.

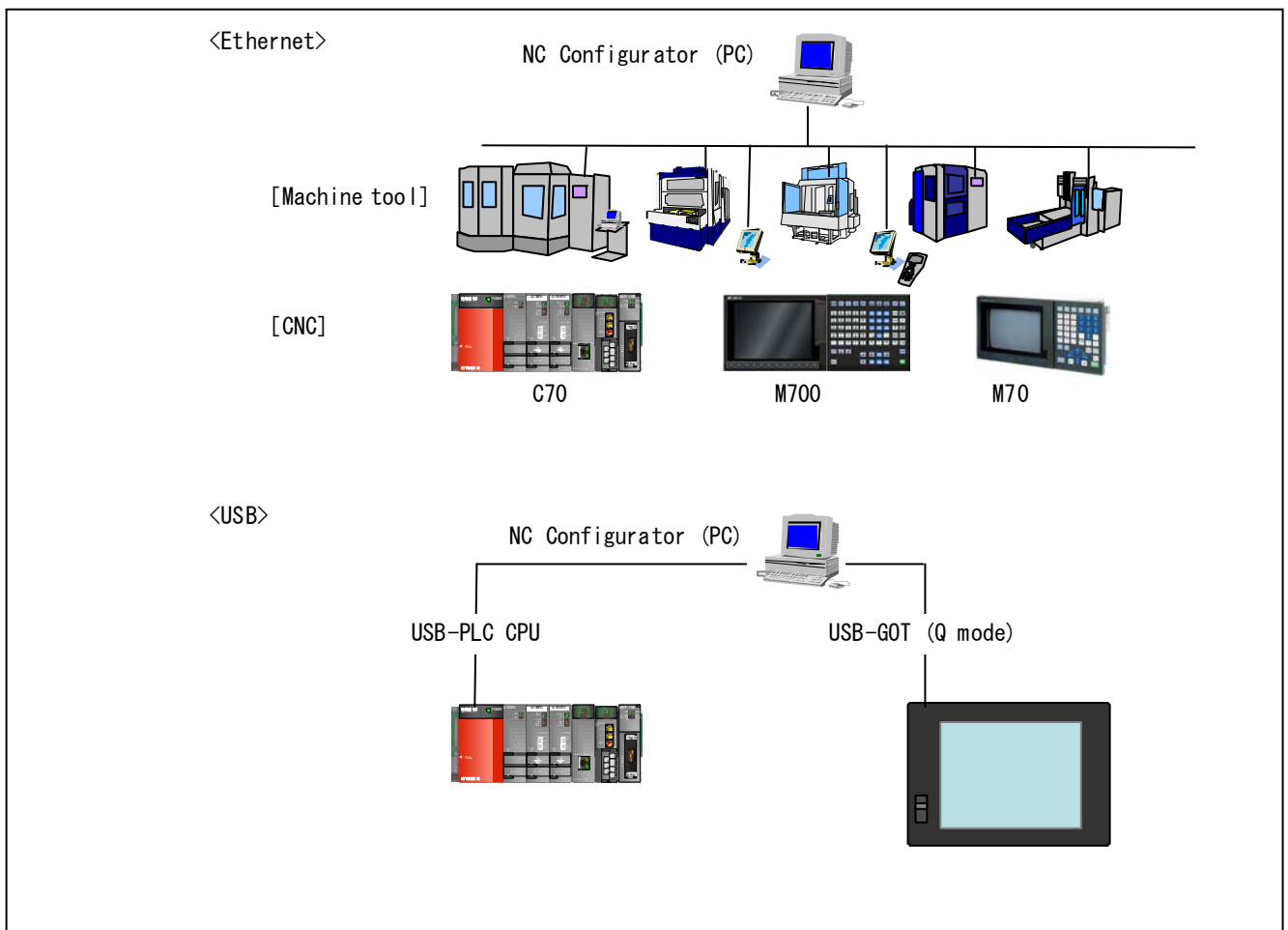
1.3 Operation Environment

NC Configurator operates in the following personal computer environments.

Item	Details
Operating system	Windows2000/WindowsXP Professional
Language	English/Japanese
Memory	64MB or larger
Display	Video graphics adaptor of VGA (640 x 480) or more, and monitor
Interface	Ethernet, USB


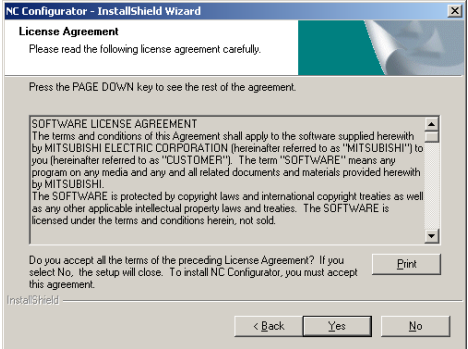


1.4 Connection Pattern

The connection patterns are as below.



2. Install Procedure

How to operate

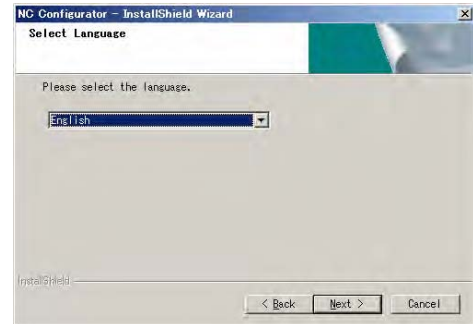
- (1) Prepare a PC. Refer to "1.3 Operation Environment".
- (2) Start the NC Configurator setup program. → The setup screen is displayed.

- (3) Press "Next". → [License Agreement] screen is displayed.

- (4) Read the software license agreement. If you agree with all the items, press "Yes".
If "No" is selected, NC Configurator cannot be used. → [Register User] screen is displayed.

- (5) Input the user name and company name. Press "Next". → [Input product ID] screen is displayed.


2. Install Procedure

- (6) Input the product ID, and press "Next".



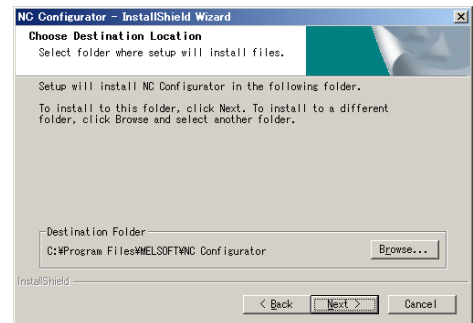
[Select Language] screen is displayed.



- (7) Select the language (Japanese/English), and press "Next".



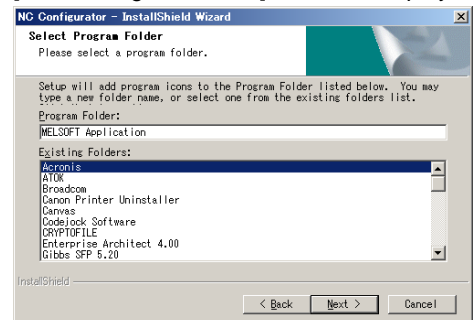
[Choose Destination Location] screen is displayed.



- (8) Set the location to install NC Configurator. Press "Browse" and select the installation destination when changing the destination. After setting, press "Next".



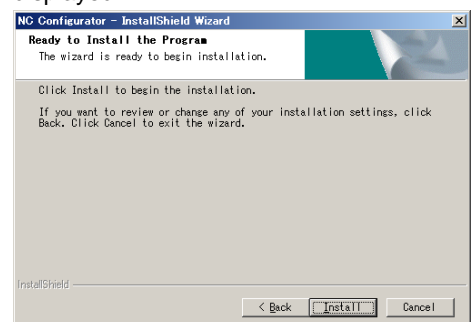
[Select Program Folder] screen is displayed.



- (9) Press "Next".



[Ready to Install the Program] screen is displayed.



2. Install Procedure

(10) Press "Install".



The complete screen is displayed.



(11) Press "Finish" to finish the installation.



In the program menu, NC Configurator is registered.

3. Operation Procedure

3.1 Preparation

Prepare the following items before using NC Configurator.

3.1.1 Preparation for PC

Item	Details
LAN cable	When connecting the NC (M700/M70 Series, C70) via Ethernet, connect the PC and the NC with the LAN cable.
USB cable	When connecting the NC (C70) via USB, connect the PC and the NC with the USB cable. When connecting via USB, a USB drive (accessory of GT Designer, GX Developer) according to the connection pattern is required.
USB driver	When the connection pattern is USB-GOT (Q mode), install GT Designer in the PC. When the connection pattern is USB- SEQUENCER CPU Unit, install GX Developer in the PC.
NC Configurator	Install NC Configurator.

3.1.2 Starting NC Configurator

How to operate

- (1) When connecting NC Configurator and the NC, confirm that the PC in which NC Configurator is installed and the NC device are connected.

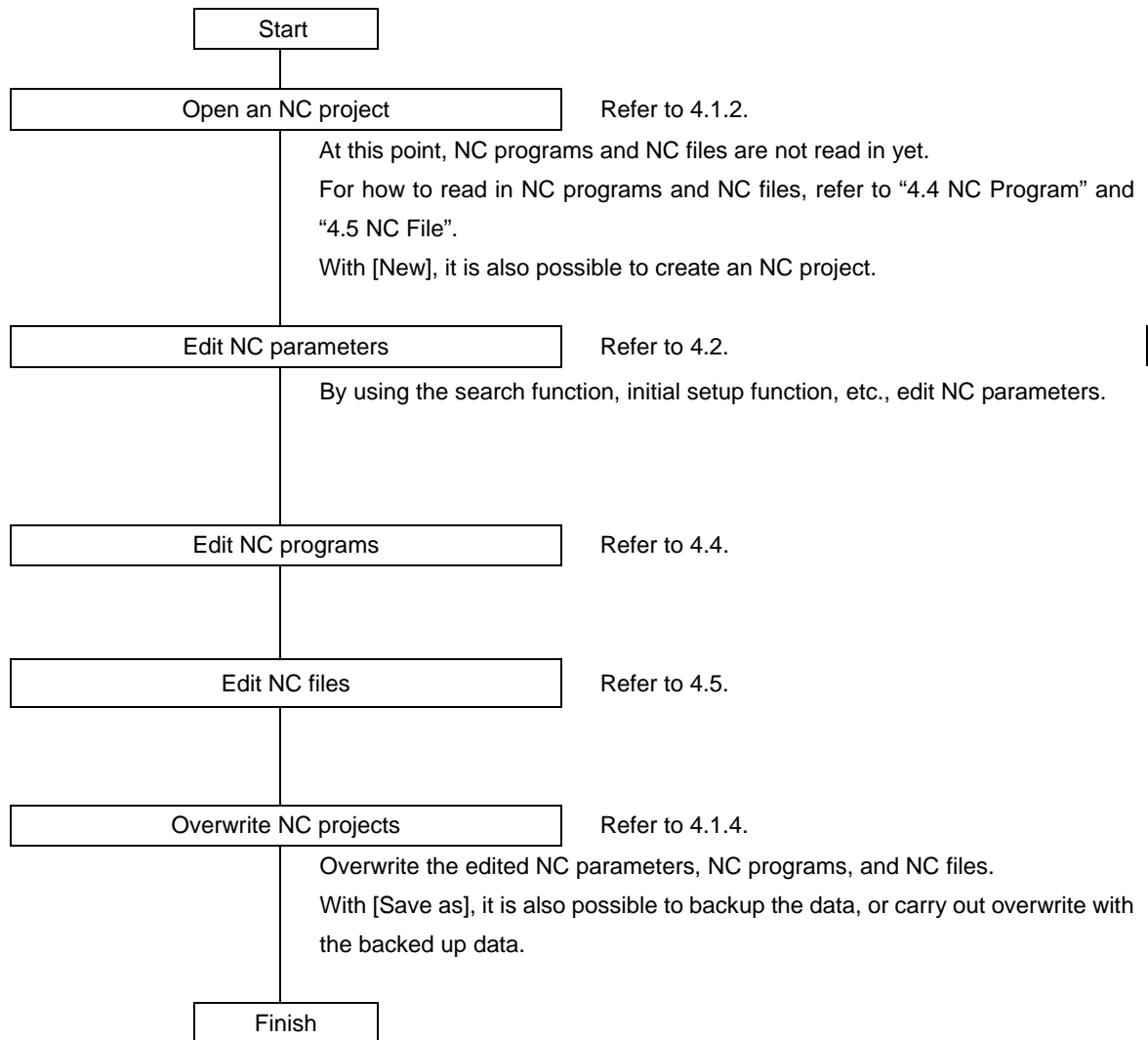
Refer to "1.4 Connection Pattern".

- (2) Start NC Configurator.

NC Configurator's screen is displayed.

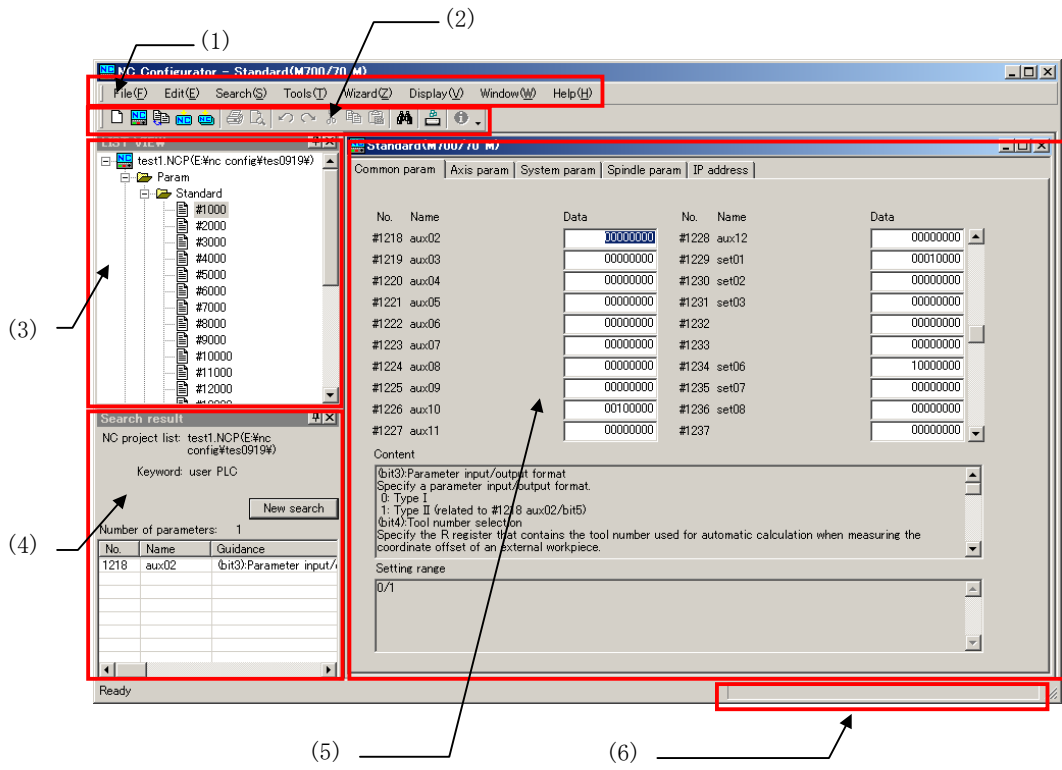


3.2 Operation Flow



3.3 Screen Configuration

NC Configurator's screen configuration



Display item	Details
(1) Menu	Menus available with NC Configurator are displayed.
(2) Tool bar	Of NC Configurator's menus, frequently used menus are displayed as icon.
(3) LIST VIEW	The data of the opened NC project are displayed as list.
(4) Search result VIEW	The keyword search result is displayed as list. If a parameter is selected from the list, the parameter's data is displayed in the Data VIEW.
(5) Data VIEW	The data selected in the LIST VIEW is displayed.
(6) Status bar	NC Configurator's status information is displayed.

3.4 Menu

Menu	Sub menu	Description	Details
File	New	Create a new NC project in the local disk. By setting a file name, the initial setup wizard function starts. Following the wizard, it is possible to set parameters necessary at the initial startup of the NC.	4.1.1
	Open	Open the NC project in the NC or local disk. The specified NC project is displayed in the LIST VIEW.	4.1.2
	Close	Close the NC project in the LIST VIEW. Before closing, it is confirmed whether to save the data or not.	-
	Change	Switch the active window and its displayed content.	-
	Save NC project	Save the currently active NC project in the NC or local disk. Even if the NC project is not edited, the system saves the whole data in the NC or local disk.	4.1.4
	Save all NC projects	Save all NC projects in the NC or local disk. Even if the NC projects are not edited, the system saves the whole data in the NC or local disk.	4.1.4
	Save As	Name and save the NC project in the NC or local disk.	4.1.3
	Save	Save the edited NC program.	4.1.4
	Exit	Finish NC Configurator. Before closing, it is confirmed whether to save the data or not.	-
Edit	Undo	Abandon a change and restore the original state of the NC program before the change.	4.4
	Cut	Cut the selected data of the NC program. The cut data is registered on the clipboard.	4.4
	Copy	Copy the selected data of the NC program. The copied data is registered on the clipboard.	4.4
	Paste	Paste the data registered on the clipboard with "Cut" or "Copy" on the NC program.	4.4
	Delete	Delete the selected data of the NC program.	4.4
	Copy Axis Param	Copy the axis data (#1000s block) where the cursor is on.	-
	Paste Axis Param	Paste the axis data copied with "Copy Axis Param" on another axis's data.	-

Menu	Sub menu	Description	Details
Search	Search	Carry out search by specifying NC project and parameter No. or keyword.	4.3
Tools	Option	Set the option (leave the DB file or not) at saving.	4.6.1
	Register NC name	Register the NC Series, IP address, connect pattern, etc. for an NC name. After doing this, when carrying out "Open NC project" or "Save as", the registered NC name will be displayed.	4.6.2
	Import DB file	Overwrite the selected NC project with the specified data base file.	4.6.3
	Export DB file	Output the data base file of the selected NC project to the specified destination.	4.6.4
Wizard	Initialization	Set parameters necessary at the initial startup of the NC in the interactive method.	4.7
Display	LIST VIEW	Display or hide the LIST VIEW.	-
	Search result VIEW	Display or hide the search result VIEW.	-
Window	Close	Close the currently active window. As the NC project remains in the memory, if the data is selected in the LIST VIEW, the window will be displayed again.	-
	Close all	Close all windows. As the NC project remains in the memory, if the data is selected in the LIST VIEW, the window will be displayed again.	-
	Cascade	Overlap all the open windows.	-
	Tile Vertically	Arrange all the open windows vertically.	-
	Tile Horizontally	Arrange all the open windows horizontally.	-
Help	Guidance	Display the parameter's name, content, and setting range. (Enabled only during displaying the high-accuracy parameter screen.)	-
	Version Info	Display the version.	-

4. Basic Operation

4.1 File Function

4.1.1 Creating a new file

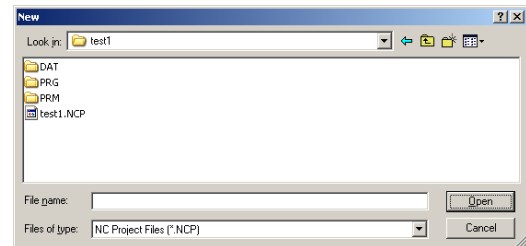
Create a new NC project in the local disk.

How to operate

- (1) From the menu, select [File] – [New].



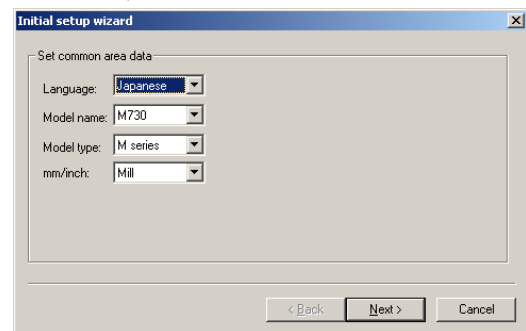
The dialog is displayed.



- (2) Select the location, name, and type of the file, and press "Open". (Note)

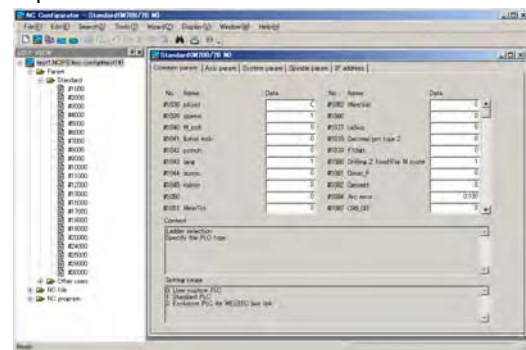


"Initial setup wizard" starts.
For details, refer to "4.7 Wizard Function".



- (3) After inputting each data, press "Finish".

A parameter file is created.



(Note) For an NC project, following two types are selectable.

.NCP type	Not only NC parameters, but NC programs and NC files (tool offset data, common variable, etc.) can be edited. For editing procedure of NC program, refer to "4.4 NC Program". For editing procedure of NC file, refer to "4.5 NC File".
.PRM type	Only NC parameters can be edited.

4.1.2 Opening the NC project

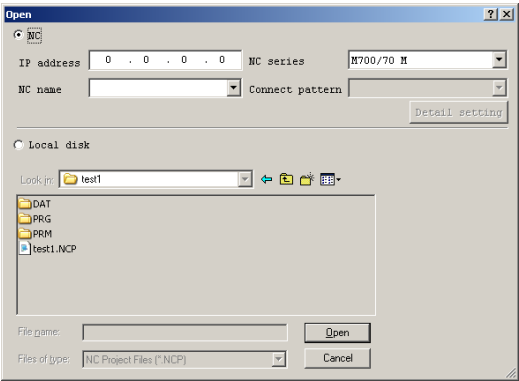
Open the NC project in the NC or local disk.

How to operate

See below for how to open the project from [NC] and use the connect pattern [USB-GOT (Q mode)] using C70.

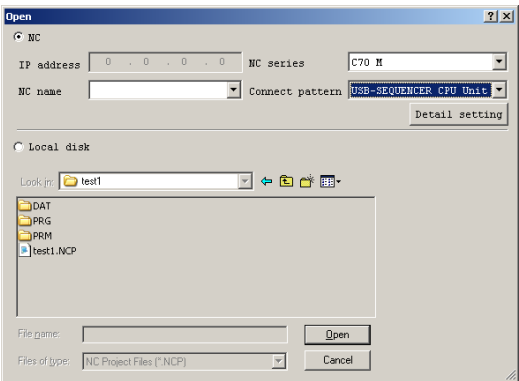
- (1) From the menu, select [File] – [Open].

The dialog is displayed.



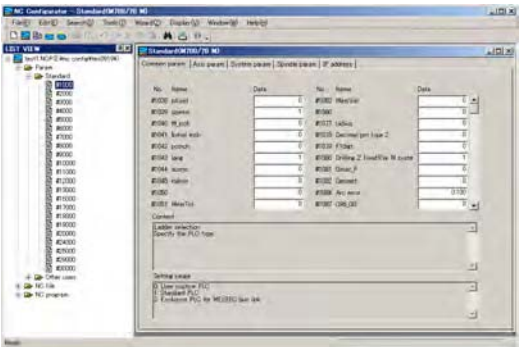
- (2) After selecting [NC], select the NC series and connect pattern.

It is also possible to open the NC project by specifying the NC name using the "Register NC name" function. For details, refer to "4.6.2 Registering NC names".



- (3) Press "Open".

The parameter file is read in.



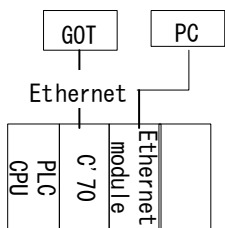
(Note) At this point, NC programs and NC files are not read in yet.
For how to read in NC programs and NC files, refer to "4.4 NC Program" and "4.5 NC File".

Precaution

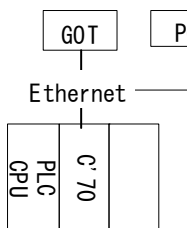
Depending on the combination of the NC series and connect pattern, [IP address] and [Detail setting] are changed as below.

No.	NC series	Connect pattern	IP address	Detail setting	Note
1	M700/M70	Disabled	Enabled	Disabled	
2	M system M700/M70 L system				
3	C70 M	Ethernet-Ethernet Unit	Enabled	Enabled	
4	C70 L	Ethernet-CNC Unit			
5		USB-GOT(Q Mode)	Disabled		Necessary to install GT Designer in PC
6		USB-SEQUENCER CPU Unit			Necessary to install GX Developer in PC

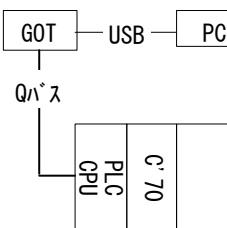
[Ethernet-Ethernet Unit]



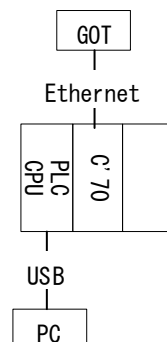
[Ethernet-CNC Unit]



[USB-GOT(Q Mode)]



[USB SEQUENCER CPU Unit]

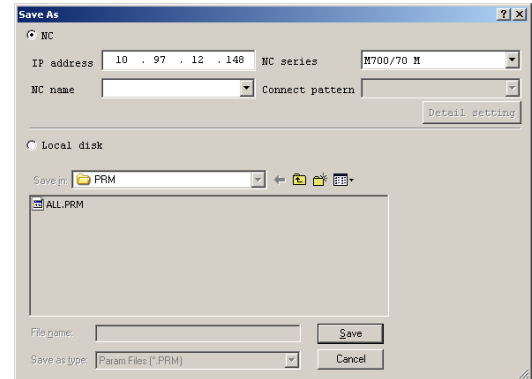


4.1.3 Specifying the name to save

Name and save the NC project in the NC or local disk.

- (1) From the menu, select [File] – [Save as]. The dialog is displayed.

The dialog is displayed.



- (a) <Save in the NC>

Select [NC], then select the IP address, NC series, and connect pattern (only in the case of C70 Series), then press “Save”.

- (b) <Save in the local disk>

Select [Local disk], and specify the file location and name, then press “Save”.

Precaution

When a project is created or edited, make sure to carry out “Save as” or “Save NC project” explained in the next section. If the data is not saved, the content of creation or edit will be lost.

4.1.4 Saving NC project

Save the project data which was edited. From the menu, select [File] and an overwriting menu.

There are two types of overwriting menus; [Save NC project] and [Save all NC projects].

Precaution

When saving the NC project data in the NC, it is necessary to turn ON the NC's power again. In addition, if the parameter “#1037 cmdtyp” is changed, after turning ON the NC's power again, carry out the format of the file system.

4.2 Parameter Input Function

There are two methods of parameter setting as below.

- (1) Standard parameter input method
- (2) Use-by-use parameter input method

4.2.1 Standard parameter input method

Display and set NC parameters which are divided into blocks by increments of thousand.

By selecting a block which contains a parameter to edit from the "Standard" folder of the file to use, the selected block is displayed in the Data VIEW's window.

The window of the standard parameter input screen consists of the following five tabs.

- (1) Common parameter
- (2) Axis parameter
- (3) System parameter (Part system parameter)
- (4) Spindle parameter
- (5) IP address

4.2.2 Use-by-use parameter input method

NC parameters are classified by use to display and set.

The use-by-use parameter input method has two types as below.

- (1) Initial setup
- (2) High-accuracy machining (Dedicated to projects of M700/M70 Series)

Initial setup

By selecting the item [Initial setup] of the LIST VIEW, its window is displayed.

By moving the cursor to the field to set value, the choices and correspondent values are displayed in the [Guide] area.

High-accuracy machining (Dedicated to projects of M700/M70 Series)

By selecting the item [High-accuracy machining] of the LIST VIEW, its window is displayed.

The “High-accuracy machining” window has two tabs; [High-accuracy parameters] and [High-accuracy axis parameters].

By pressing the guidance button [i], the information of the parameter which has the cursor is displayed.

No.	Name	Data
#1149	circft	0
#1205	G0bdcc	1
#1206	G1bF	1000
#1207	G1bTL	100
#1209	circdc	99999
#1568	SfiltG1	35
#1569	SfiltG0	45
#1570	Sfilt2	25
#1571	SSSdis	0
#3019	R.COMP	0
	Theoretical radius	0.065
#3020	DCC ANGLE	10
#3021	COMP_CHANGE	0
#3022	CORNER COMP	0
#3023	CURVE COMP	0
	Theoretical radius	0.065

No.	Name	Data
#3025	SPLINE ON	1
#3026	CANCEL ANG.	40
#3027	Toler-1	0.010
#3028	Toler-2	0.010
#3029	FairingL	0.000
#3030	MINUTE LENGTH	10

(Note) How to operate is the same as in “4.3.1 Standard parameter input method”.

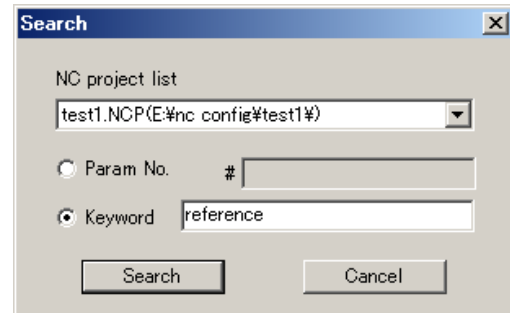
4.3 Search Function

Search parameters from NC project with parameter No. or keyword.

How to operate (In the case of keyword)

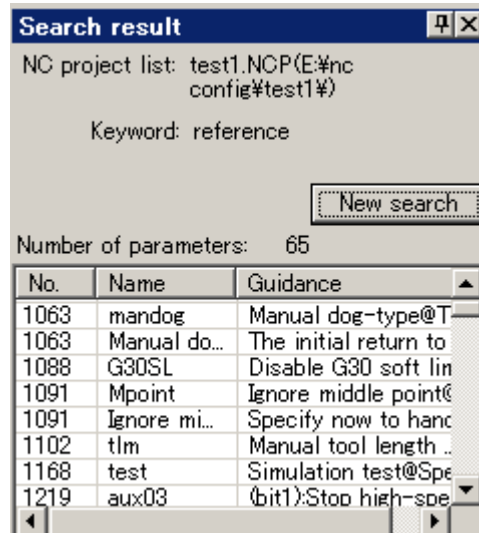
- (1) From the menu, select [Search].

[Search] dialog is displayed.



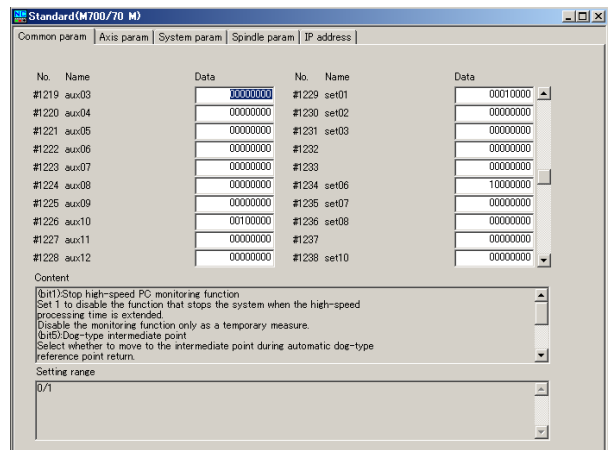
- (2) Select [Keyword]. Input the keyword to search, and press "Search".

[Search result] is displayed in the Search result VIEW.



- (3) From the search result list, select parameters.

The selected parameters are displayed in the Data VIEW.

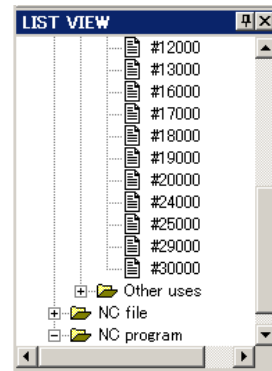


4.4 NC Program

It is possible to open NC programs to edit.

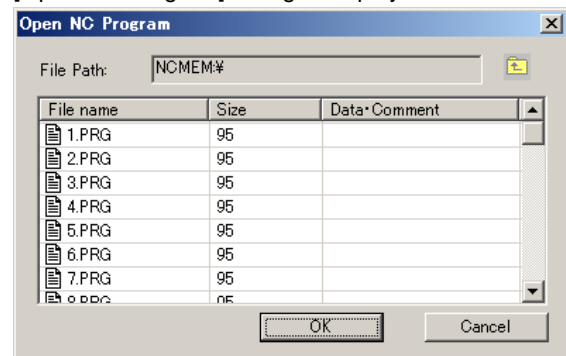
How to operate

- (1) In "NC program" of the LIST VIEW, move the cursor to the drive to edit, then right-click.



- (2) From the displayed menus [New] and [Open], select [Open].

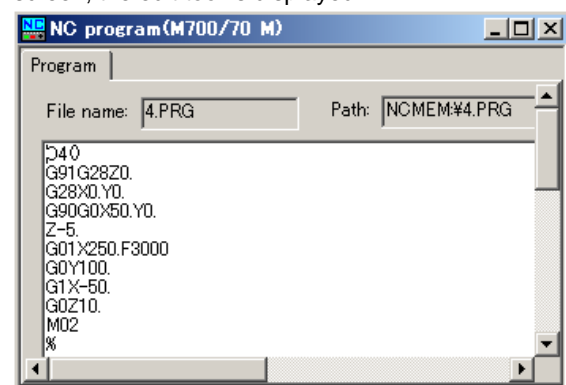
[Open NC Program] dialog is displayed.



- (3) Select the NC program to edit, and press "OK".

The selected NC program is displayed.

Now the program can be edited. By right-clicking on the screen, the edit tool is displayed.



(Note) NC program names which can be dealt with NC Configurator are as follows.

M700/M70: Arbitrary program names can be dealt. The maximum number of characters is 32 including the extension. Available characters are numbers, A to Z, and symbols. However, the following characters are unavailable: \ / : * ? " < > | Lower scale a to z, and spaces are also unavailable.

C70 : Only program names that consist of 1 to 99999999 and the extension ".PRG" can be dealt. ALL.PR'G cannot be dealt.

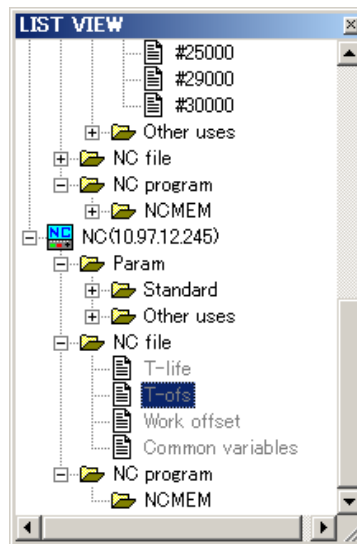
4.5 NC File

4.5.1 Tool offset data

Set and display the tool offset data.

How to operate

- (1) Move the cursor to [NC file] – [T ofs] of the LIST VIEW, and right-click.



- (2) Select "Open" displayed.



The tool offset data is displayed.

The screenshot shows a 'Tool offset' window with a table of data. The table has four columns: Length, L wear, Radius, and R wear. The data is organized into 10 rows, each representing a tool number from 1 to 10. All values in the table are 0.000.

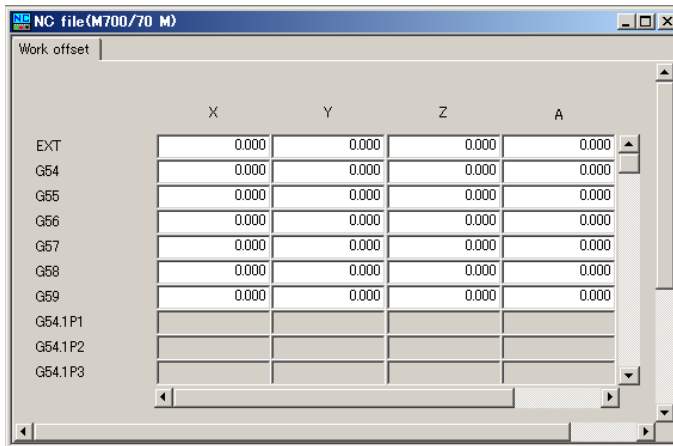
	Length	L wear	Radius	R wear
1	0.000	0.000	0.000	0.000
2	0.000	0.000	0.000	0.000
3	0.000	0.000	0.000	0.000
4	0.000	0.000	0.000	0.000
5	0.000	0.000	0.000	0.000
6	0.000	0.000	0.000	0.000
7	0.000	0.000	0.000	0.000
8	0.000	0.000	0.000	0.000
9	0.000	0.000	0.000	0.000
10	0.000	0.000	0.000	0.000

(Note) Depending on the tool offset type, the displayed screen is different, but how to operate is the same.

4.5.2 Setting workpiece system coordinate offset

Set and display the workpiece coordinate system offset.

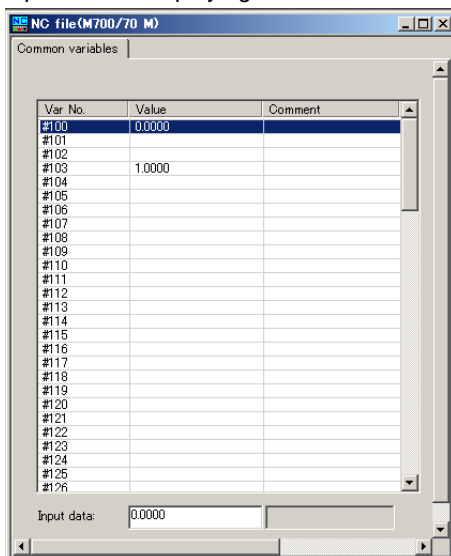
Operation of displaying the workpiece coordinate system offset is the same as that of tool offset data.



4.5.3 Setting common variable data

Set and display the common variables.

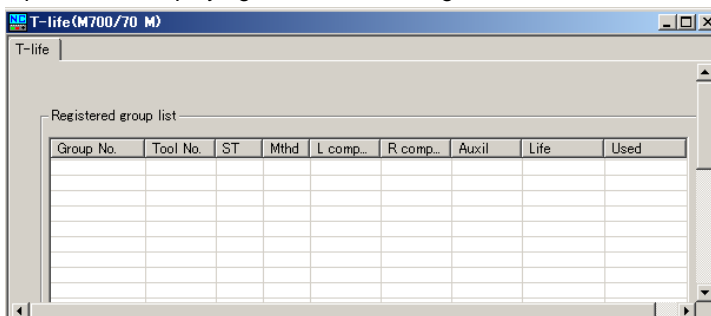
Operation of displaying the common variables is the same as that of tool offset data.



4.5.4 Setting tool life management data (M700/M70 Series only)

Set and display the tool life management data.

Operation of displaying the tool life management data is the same as that of tool offset data.



4.6 Tool Function

4.6.1 Option

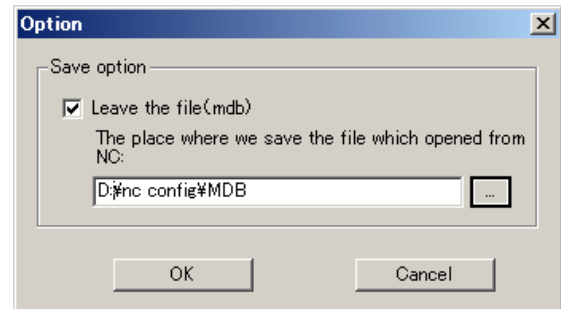
It is possible to select whether to leave the file as mdb file or not.

How to operate

- (1) From the menu, select [Tool] – [Option].



The window is displayed.



If "Leave the file (mdb)" is checked, the NC project data being edited is left as mdb file.

Precaution

- (1) When [Exit], [Save], or [Save as] is carried out for the data, the mdb file is overwritten.
- (2) In the case of the NC project opened from the local disk, the mdb file is saved in the original location. In the case of the NC project opened from the NC, the mdb file is saved in the location specified here.

4.6.2 Registering NC names

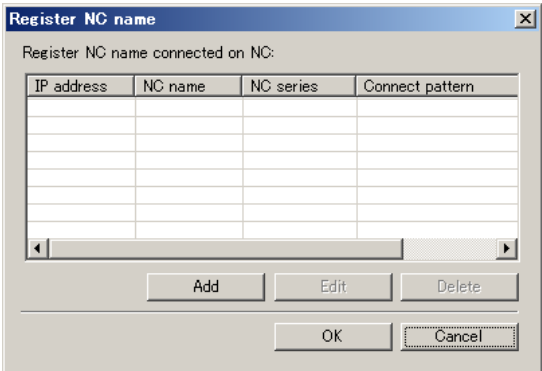
Register the NC Series, IP address, and connect pattern for an NC name.

By registering these, when carrying out “Open” or “Save as”, you can open or save the NC project by specifying the NC name already registered.

How to operate

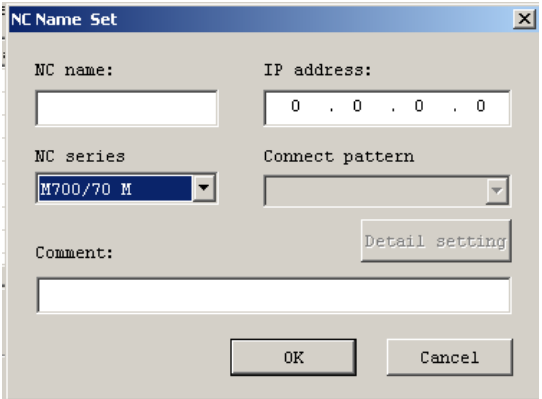
- (1) From the menu, select [Register NC name].

→ [Register NC name] dialog is displayed.

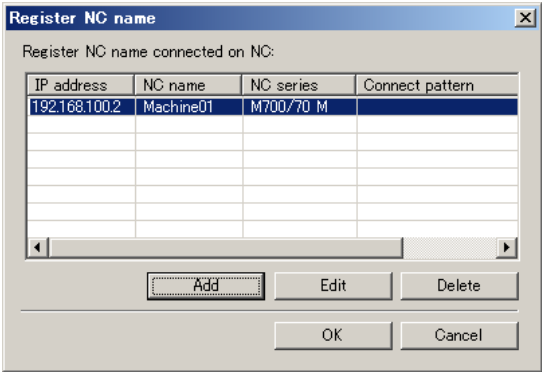

- (2) Press “Add”.

With [Edit], the registered data can be edited.

→ [NC Name Set] dialog is displayed.


- (3) Set the NC name, NC Series, IP address, etc., and press “OK”.

→ The data is registered in [Register NC name] dialog.


- (4) Press “OK”.

→ From here on, it is possible to open and save the NC project by specifying the registered NC name.

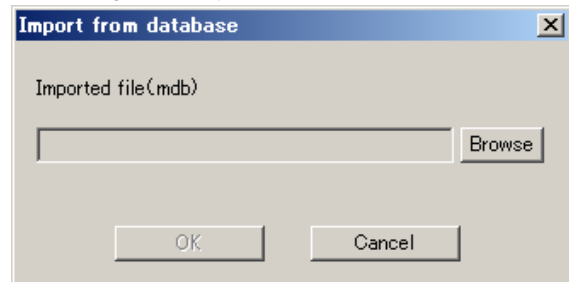
4.6.3 Importing DB files

Overwrite the selected NC project with the specified data base file.

How to operate

- (1) From the menu, select [Tool] – [Import DB file].

→ The dialog is displayed.



- (2) Set the data base file to import, and press "OK".

→ The data base file is imported in the selected NC project.

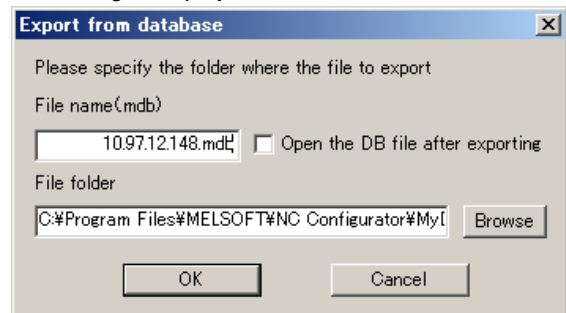
4.6.4 Exporting DB files

Output the data base file of the selected NC project to the specified destination.

How to operate

- (1) From the menu, select [Tool] – [Export DB file].

→ The dialog is displayed.



- (2) Set the file name and folder of the data base to export, and press "OK".

→ The data base file of the selected NC project is exported to the file.

(Note) The default file name is, in the case of NC, IP address + .mdb, in the case of local disk, project name + .mdb.

4.7 Wizard Function

Initial setup wizard enables you to interactively set various parameter data that are required at the NC's initial setup.

This allows easy setting of the data needed to drive motors (servo motor, spindle motor, etc.) and thus can shorten the time required for the machine tool's initial setup.

- (1) Select [New] from the menu, designate a new project, and press "Open".

[Set common area data] dialog is displayed.

Initial setup wizard

Set common area data

Language: English

Model name: M730

Model type: M series

mm/inch: Inch

< Back Next > Cancel

- (2) Select each data, and press "Next".

[Set system area data] dialog is displayed.

Initial setup wizard

Set system area data

Specify the each system and PLC data:

System No.	System axis number	Command type
1	3	Series1(M)A
2	0	Series1(M)A
FLC	0	Series1(M)A

Setting data: 3 Series1(M)A

M series case, specifying one system's command type is also applicable to all.

< Back Next > Cancel

- (3) Set the number of axes and command type for each part system, and press "Next".

[Set servo area data] dialog is displayed.

(Note) If you change the command type for C70 or M700/M70 Series machining center specification, the selected command type is applied to all the part systems.

Initial setup wizard

Set servo area data

Specify data for each axis:

Axis No.	Ch/Rotary SW No.	Motor type	Encoder type	Converter type
1	10	HF75	A74(0SA166)	No connection
2	11	HF75	A74(0SA166)	No connection
3	12	HF105	A74(0SA166)	CV185

Setting data: 12 HF105 A74(0SA166) CV185

< Back Next > Cancel

- (4) Set the servo axes' connection channel/rotary switch No., motor type, encoder type and converter type, and press the "Next" button.

[Set spindle area data] dialog is displayed.

Initial setup wizard

Set spindle area data

Spindle number: 1

Specify data for each spindle:

Spindle No.	Ch/Rotary SW No.	Motor type	Drive unit	Converter type
1	13	V3.7-01T	SP	No connection

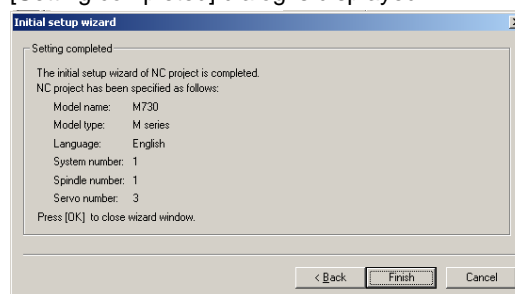
Setting data: 13 V3.7-01T SP No connection

< Back Next > Cancel

- (5) Set the number of spindles, connection channel/rotary switch No., motor type, drive unit and converter type, and press the "Next" button.



[Setting completed] dialog is displayed.



Confirm the setting items, and press "Finish" .



NC parameters are updated with the set data.

Press "Back" to modify the set data.

5. Error Messages

5. Error Messages

Menu	Message	Description
New	The specified NC project's name already exists	The designated NC project has already existed.
	The number of NC projects exceeded the maximum	The number of the NC projects you attempted to open is exceeding the maximum.
Open	Please specify the IP address	You attempted to open a networked NC without specifying the IP address.
	The number of NC projects exceeded the maximum	The number of the NC projects you attempted to open is exceeding the maximum.
	Fail to read NC project	An error occurred while reading the NC file.
	Fail to convert NC project	An error occurred while converting the NC file into a DB file.
	Cancel the editing?	An NC project, which has already been opened, was specified to open.
	The NC model name is incorrect	The specified NC doesn't belong to the designated NC Series.
	Fail to read NC project	An error occurred in the course of opening an NC project. Check the designated NC's data protection key.
Close Save NC project Save all NC projects	NC (****) will be saved with the changes?	This message asks whether to save the modified NC project when you attempt to close the project. This appears when the storage destination is NC. * The NC's IP address, etc. is shown at ****.
	**** will be saved with the changes?	This message asks whether to save the modified NC project when you attempt to close the project. This appears when the storage destination is local disk. * The NC project name + (directory name) is shown at ****.
	Fail to write NC project	An error occurred in the course of overwriting the NC project. Check the designated NC's data protection key.
	Fail to convert NC project	An error occurred while converting the DB file into an NC file.
	The NC model name is incorrect	The NC in the NC project storage destination doesn't belong to the designated NC Series. This message appears when NC project storage destination is NC.

5. Error Messages

Menu	Message	Description
Save As	Please specify the IP address	Storing in the networked NC was attempted, though the IP address has not been designated.
	The specified NC project is already opened	The NC project you've specified is already open.
	*** already exists, Save?	The specified NC project file has already existed. * The path to the NC project file is displayed at ***.
	Fail to write NC project	An error occurred while saving the NC file.
	Fail to convert NC project	An error occurred while converting the DB file into an NC file.
	The NC model name is incorrect	The NC in the NC project storage destination doesn't belong to the designated NC Series. This message appears when the NC project storage destination is designated as NC.
Quit	NC (****) will be saved with the changes?	This message asks whether to save the NC project you're closing. This appears when the selected storage destination is NC. * The NC's IP address, etc. is shown at ****.
	**** will be saved with the changes?	This message asks whether to save the NC project you're closing. This appears when the selected storage destination is local disk. * The NC project name + (directory name) is displayed at ****.
	Fail to write NC project	An error occurred while saving the NC file.
	Fail to convert NC project	An error occurred while converting the DB file into an NC file.
Search	Search succeeded	This message appears at the completion of search.
Initialization wizard Initial setup	Motor data file does not exist	The data files (INITSV.csv, INITSP.csv) of servo and spindle motors don't reside in the specified folder.
	Motor's data file is incorrect	The data files (INITSV.csv,INITSP.csv) of servo and spindle motors include wrong contents.
	Params initialization failed	The initial setup has failed.
	Params initialization succeeded	The initial setup has succeeded.
	The language is out of range	The setting of "Language" is outside the effective range.

5. Error Messages

Menu	Message	Description
Initialization wizard Initial setup	The number of spindles is out of range	The setting value of "Spindle number" has exceeded the maximum number of spindles.
	The each system's number of axes is out of range	(1) The setting of "No. of axes per part system" has exceeded the max. No. of NC axes per system. (2) For the 2nd part system or later, its preceding part system's axis number is "0" and its subsequent system's axis number is other than zero.
	The number of NC control axes is out of range	The total number of axes per part system has exceeded the maximum number of NC control axes.
	The number of control axes is out of range	The total number of spindles and axes per part system has exceeded the maximum number of control axes (including PLC axes).
	Command type is inconsistent	The command types of each part system don't match for M system specification.
	The command type is out of range	The command type is outside the range.
	The spindle data is out of range	The spindle's data is outside the range.
	Empty data was found in the spindle data	The spindle's data is not yet input.
	The servo data is out of range	The servo axis' data is outside the range.
	Empty data was found in the servo data	The servo axis' data is not yet input.
Option	Delete the record?	This message appears when "Delete" button is pressed.
Register NC name	IP address (**.**.**) duplicate, OK ?	The entered IP address has been already registered when you pressed "OK" on the [NC Name Set] dialog.
	NCname (**) duplicate, OK?	The entered NC name has already been registered when you pressed "OK" on the [NC Name Set] dialog.
	The maximum number of registered records is exceeded.	"Add" was pressed when there were the maximum number (80 entries) of NC names registered in the table.
Import DB file	File extension is incorrect	"OK" was pressed after you've entered a file name with an extension other than ".mdb" in "File name".
Export DB file	Directory ***** is not found	The "OK" button was pressed when the path entered in the "Folder" doesn't exist.
Parameter setting	The setting is out of range	Data outside the setting range has been input.
Others	Please confirm the OLE library version	OLE initialization (AfxOleInit()) has failed.
	Cannot find the application	Failed to find the application's path, the default parameter files (ALL_D.PRM, ALL_T.PRM) or guidance file.
	Do not enter more than 256 characters for the destination	The number of characters included in the file's full path name has exceeded 256.
	File name is illegal	An invalid character such as '\', '/', ':', '*', '?', '"', '<', '>' and ' ' is included.

5. Error Messages

Menu	Message	Description
Open Close Save NC project Save all NC projects Save As Exit	EZSocket connection error 01	Failed to register the component, "EZSocketNc.EZNcCommunication.10" in the registry while connecting EZSocket.
	EZSocket connection error 02	Failed to generate a communication object while connecting EZSocket.
	EZSocket connection error 03	Failed to set TCP/IP communication while connecting EZSocket.
	EZSocket connection error 04	Failed to open channel while connecting EZSocket.
Edit NC program, NC file	Cannot find the file, Create?	This message appears in the course of opening NC program or NC file, which doesn't exist.
	Save the NC program?	You have switched the LIST VIEW items while editing the NC program.
	The specified NC program has already existed	When you attempted to create new NC program, a file has already existed in the designated device.
	NC program *** already exists, Save?	A file has already existed in the designated device when you attempted to add an NC program. The file name is displayed at ***.
	The NC program name is incorrect	An invalid file name was designated when newly creating or adding NC program.
	Tool offset type is incorrect, Create?	The tool offset type has been changed when "Tool offset" is selected.
	Tool life type is incorrect, Create?	The tool life type has been changed when "Tool life management" is selected.
	Cannot open the file	Failed to open the selected NC program or NC file.
	Cannot save the file	Failed to open the NC file when you attempted to save edited NC program or NC file.
	NC file Format is incorrect, Create?	This message appears when opening an NC file is attempted under either of the following conditions. <ul style="list-style-type: none"> · The parameter and NC file format don't match. · The NC file content is not correct.
Tool life management screen	The number of records exceeded the maximum	"Add" was pressed while the maximum specification life data have already been registered in "Tool life data list".
	Delete the record?	This message appears when deleting life data is attempted by pressing the "Delete" button.
	Tool No. duplicate, OK?	The registered tool numbers are duplicated.
	Change the same group's Method and Life?	This message appears when you attempt to change the grouped tool's "Life" and "Method" data registered in L system tool life management II.

Appendix 1. How to Add Motor Type

NC Configurator has the parameter lists of servo and spindle motors as CSV formatted files.

- (1) Servo motor's parameter list INITSV.csv
- (2) Spindle motor's parameter list INITSP.csv

When you use special or latest motors, edit these parameter lists to enable adding the selectable motor types in NC Configurator initial setup.

(Note) The parameter list exists in the following folder.

(A folder to which NC Configurator is installed) \NC Configurator\default

NC Configurator is installed to C:\Program Files\MELSOFT by default.

How to operate (Procedure to edit parameter list)

- (1) Move to a folder where a parameter list is saved.

(Example) C:\Program Files\MELSOFT\NC Configurator\default

- (2) Double-click on INITSV.csv or INITSP.csv.

Spreadsheet software starts up.

	A	B	C	D	E
1	(INIT SERVO MOTOR DATA)				
2		HF75	HF105	HF54	HF104
3	2201	1	1	1	1
4	2202	1	1	1	1
5	2203	33	33	33	33
6	2204	0	0	0	0
7	2205	100	100	100	100
8	2206	0	0	0	0
9	2207	0	0	0	0
10	2208	1364	1364	1364	1364
11	2209	20480	10240	20480	10240
12	2210	20480	10240	20480	10240
13	2211	768	512	3072	1280
14	2212	768	512	3072	1280
15	2213	800	800	800	800

(Note) The above example is of INITSV.csv.

- (3) Move a cursor on any empty column of the parameter list.

	AP	AQ	AR	AS	AT
1					
2	HFKP23	HFKP43	HFKP73		
3	1	1	1		
4	1	1	1		
5	33	33	33		
6	0	0	0		
7	5	10	30		
8	0	0	0		
9	0	0	0		
10	1364	1364	1364		
11	20480	10240	4096		
12	20480	10240	4096		
13	1536	768	768		
14	1536	768	768		
15	800	800	800		

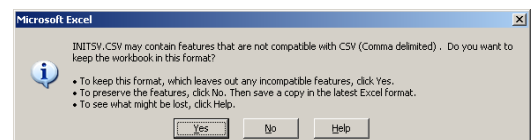
Appendix 1. How to Add Motor Type

- (4) Input data in an empty column of the list.
Input a motor type in the 2nd line and parameters in the 3rd line and below.

	AP	AQ	AR	AS	AT
1					
2	HFKP23	HFKP43	HFKP73	HP1203	
3	1	1	1	1	
4	1	1	1	1	
5	33	33	33	33	
6	0	0	0	0	
7	5	10	30	100	
8	0	0	0	0	
9	0	0	0	0	
10	1364	1364	1364	1364	
11	20480	10240	4096	4096	
12	20480	10240	4096	4096	
13	1536	768	768	1536	
14	1536	768	768	1536	
15	800	800	800	800	

- (5) Save the edited file.

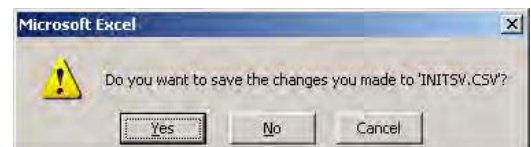
A confirmation dialog appears to ask whether to save the book in CSV form.



- (6) Press "YES".

- (7) Terminate the spreadsheet software.

A confirmation dialog is displayed to check if it's OK to save the modified file.



- (8) Press "No (N)".

The spreadsheet software quits.

(Note 1) When you edit the spindle motor's parameter list (INITSP.csv), insert "¥" between the motor type and drive unit (SP,SPJ3) in the second line cell.

(Note 2) When you start NC Configurator while a parameter list is opened in spreadsheet software, an error dialog is displayed. Thus, close the parameter list before starting NC Configurator.

Revision History

Date of revision	Manual No.	Revision details
Feb.2009	IB(NA)1500910-B	First edition created.

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Notice

Every effort has been made to keep up with software and hardware revisions in the contents described in this manual. However, please understand that in some unavoidable cases simultaneous revision is not possible.

Please contact your Mitsubishi Electric dealer with any questions or comments regarding the use of this product.

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MITSUBISHI CNC



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