

# **FANUC PROGRAM TRANSFER TOOL**

## **OPERATOR'S MANUAL**

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# **SAFETY PRECAUTIONS**

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This "SAFETY PRECAUTIONS" section describes the precautions which must be observed to ensure safety when using machines equipped with the Program Transfer Tool and a FANUC CNC. Users are requested to read "SAFETY PRECAUTIONS" carefully before using functions described in this manual. Users should also read the relevant descriptions in the Operator's Manual to become fully familiar with the functions to be used.

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## DEFINITION OF WARNING, CAUTION, AND NOTE

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This manual includes safety precautions for protecting the user and preventing damage to the machine. Precautions are classified into **Warnings** and **Cautions** according to their bearing on safety. Also, supplementary information is described as **Notes**. Read the **Warnings**, **Cautions**, and **Notes** thoroughly before attempting to use the machine.

 **WARNING**

Applied when there is a danger of the user being injured or when there is a danger of both the user being injured and the equipment being damaged if the approved procedure is not observed.

 **CAUTION**

Applied when there is a danger of the equipment being damaged, if the approved procedure is not observed.

**NOTE**

Notes is used to indicate supplementary information other than Warnings and Cautions.

- Read this manual carefully, and store it in a safe place.

## GENERAL WARNINGS AND CAUTIONS

### **WARNING**

- 1 Before operating the machine, thoroughly check the entered data. Operating the machine with incorrectly specified data may result in the machine behaving unexpectedly, possibly causing damage to the workpiece and/or machine itself, or injury to the user.
- 2 Never attempt to machine a workpiece without first checking the programmed value, compensation value, current position, and external signal settings. Also, never attempt to machine a workpiece without first checking the operation of the machine. Before starting a production run, ensure that the machine is operating correctly by performing a trial run using, for example, the single block, feedrate override, or machine lock function, or by operating the machine with neither a tool nor workpiece mounted. Failure to confirm the correct operation of the machine may result in the machine behaving unexpectedly, possibly causing damage to the workpiece and/or machine itself, or injury to the user.
- 3 Ensure that the specified feedrate is appropriate for the intended operation. Generally, for each machine, there is a maximum allowable feedrate. The appropriate feedrate varies with the intended operation. Refer to the manual provided with the machine to determine the maximum allowable feedrate. If a machine is run at other than the correct speed, it may behave unexpectedly, possibly causing damage to the workpiece and/or machine itself, or injury to the user.
- 4 When using a tool compensation function, thoroughly check the direction and amount of compensation. Operating the machine with incorrectly specified data may result in the machine behaving unexpectedly, possibly causing damage to the workpiece and/or machine itself, or injury to the user.
- 5 The parameters for the CNC and PMC are factory-set. Usually, there is no need to change them. When, however, there is no alternative other than to change a parameter, ensure that you fully Failure to set a parameter correctly may result in the machine behaving unexpectedly, possibly causing damage to the workpiece and/or machine itself, or injury to the user.

**⚠ CAUTION**

- 1 Immediately after switching on the power, do not touch any of the keys on the MDI panel until the position display or alarm screen appears on the CNC unit.

Some of the keys on the MDI panel are dedicated to maintenance or other special operations. Pressing any of these keys may place the CNC unit in other than its normal state. Starting the machine in this state may cause it to behave unexpectedly.

- 2 The operator's manual for Program Transfer Tool describes all the basic functions of the CNC, including the optional functions. The selected optional functions vary with the machine. Some functions described in this manual may not, therefore, be supported by your machine. Check the machine specifications before using Program Transfer Tool.
- 3 Some machine operations and screen functions are implemented by the machine tool builder. For an explanation of their usage and related notes, refer to the manual provided by the machine tool builder.  
For example:
  - On some machines, executing a tool function causes the tool change unit to operate. When executing a tool function on such a machine, stand well clear of the tool change unit. Otherwise, there is a danger of injury to the operator.
  - Many auxiliary functions trigger physical operations, such as rotation of the spindle. Before attempting to use an auxiliary function, therefore, ensure that you are fully aware of the operation to be triggered by that function.

**NOTE**

Command programs, parameters, and variables are stored in nonvolatile memory in the CNC. Generally, the contents of memory are not lost by a power on/off operation. However, the contents of memory may be erased by mistake, or important data in nonvolatile memory may have to be erased upon recovering from a failure.

To enable the restoration of data as soon as possible if such a situation arises, always make a backup of the data in advance.

## WARNINGS AND NOTES RELATING TO THE PROGRAM TRANSFER TOOL

Warnings and notes relating to the Program Transfer Tool are described below and also in the chapters in this manual. Before using the Program Transfer Tool, read this manual thoroughly and be familiar with the contents of the warnings, cautions, and notes.

### **WARNING**

- 1 When using a program on an actual CNC machine, ensure that the machine and tool controlled by the program instructions operate safely before starting to operate the machine.  
If an incorrect program is used for a reason, or if a program is used incorrectly, the machine or tool may operate unpredictably, possibly causing damage to the tool, machine, or workpiece, or a danger of the user being seriously injured.
- 2 This software transfers programs to a CNC machine, but the software does not check whether these programs operate on the CNC machine properly. When using a program on an actual CNC machine, therefore, observe the instructions described in warning 1 above.
- 3 When even a program that has run normally on an actual CNC machine is used repeatedly, the contents of the program input to the CNC machine may change because of degradation of the storage medium of the program or change in communication environment if the program is transferred by a communication function. Therefore, when using a program on the actual CNC machine, observe the instructions described in warning 1 above.

In this manual, programs for giving CNC machines instructions to operate are referred to as programs. In manuals of CNC machines, these programs are sometimes called machining programs, part programs, or programs. When these terms have the same meanings and purposes as the term "program" used in this manual, be sure to observe the warnings described above.

**Exclusive control for files****NOTE**

Be careful not to attempt to perform more than one operation such as downloading, uploading, editing, copying, movement, and deletion for one program at the same time.

**Downloading to the program memory and Series 30*i*/ 31*i* /32*i* DATA SERVER****NOTE**

O numbers and file names stored in the program memory or DATA SERVER are not file names on the personal computer but are O numbers and file names written in files.

It is recommended that the write protection parameter of the CNC be set to prevent unpredictable overwriting.

**Downloading of data other than programs****NOTE**

When tool offsets, custom macros, and workpiece origin offsets are downloaded, values in the CNC are changed.

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# **I. GENERAL**



# 1

## OUTLINE OF THIS MANUAL

---

This manual applies to the Program Transfer Tool edition 3.0.  
This chapter provides an outline of this manual.

### Organization

This manual is outlined below.

#### **SAFETY PRECAUTIONS**

This part describes notes that the user needs to bear in mind when reading this manual.

#### **I. GENERAL**

This part outlines this manual.

#### **II. INSTALLATION**

This part describes how to install the Program Transfer Tool.  
Be sure to read this part before installing the tool.

#### **III. SETTING**

This part describes the settings to be made for using the individual functions.

#### **IV. OPERATION**

This part describes how to operate each screen.

#### **APPENDIX**

This part describes the settings to be made for the CNC or Windows OS.

## Related manuals

The table below lists manuals related to this manual.  
When using this manual, refer to the manuals listed below as well.

### Related manuals of Ethernet board

Manual name	Specification number
Fast Ethernet / Fast Data Server For Series 30i-A OPERATOR'S MANUAL	B-64014EN
Fast Ethernet Board / Fast Data Server OPERATOR'S MANUAL	B-63644EN
Ethernet Board / Data Server Board OPERATOR'S MANUAL	B-63354EN

### Related manuals of FANUC Series 30i/300i, 31i/310i, 32i/320i -A

Manual name	Specification number
DESCRIPTIONS	B-63942EN
CONNECTION MANUAL (HARDWARE)	B-63943EN
CONNECTION MANUAL (FUNCTION)	B-63943EN-1
USER'S MANUAL (Common to Lathe System/Machining Center System)	B-63944EN
USER'S MANUAL (For Lathe System)	B-63944EN-1
USER'S MANUAL (For Machining Center System)	B-63944EN-2
MAINTENANCE MANUAL	B-63945EN
PARAMETER MANUAL	B-63950EN

### Related manuals of FANUC Series 16i/160i, 18i/180i, 21i/210i -A

Manual name	Specification number
DESCRIPTIONS	B-63002EN
CONNECTION MANUAL (HARDWARE)	B-63003EN
CONNECTION MANUAL (FUNCTION)	B-63003EN-1
Series 16i/18i/160i/180i/160is/180is –TA OPERATOR'S MANUAL	B-63004EN
Series 16i/18i/160i/180i/160is/180is –MA OPERATOR'S MANUAL	B-63014EN
Series 21i/210i/210is –TA OPERATOR'S MANUAL	B-63084EN
Series 21i/210i/210is –MA OPERATOR'S MANUAL	B-63094EN
MAINTENANCE MANUAL	B-63005EN
Series 16i/18i/160i/180i/160is/180is –A PARAMETER MANUAL	B-63010EN
Series 21i/210i/210is –A PARAMETER MANUAL	B-63090EN

## Related manuals of FANUC Series 16i/160i, 18i/180i, 21i/210i -B

Manual name	Specification number
DESCRIPTIONS	B-63522EN
CONNECTION MANUAL (HARDWARE)	B-63523EN
CONNECTION MANUAL (FUNCTION)	B-63523EN-1
Series 16i/18i/160i/180i –TB OPERATOR'S MANUAL	B-63524EN
Series 16i/160i/160is–MB, Series 18i/180i/180is –MB5, Series 18i/180i/180is –MB OPERATOR'S MANUAL	B-63534EN
Series 21i/210i –TB OPERATOR'S MANUAL	B-63604EN
Series 21i/210i –MB OPERATOR'S MANUAL	B-63614EN
MAINTENANCE MANUAL	B-63525EN
Series 16i/18i/160i/180i/160is/180is –B PARAMETER MANUAL	B-63530EN
Series 21i/210i –B PARAMETER MANUAL	B-63610EN

## Related manuals of FANUC Series 0i -B

Manual name	Specification number
DESCRIPTIONS	B-63832EN
CONNECTION MANUAL (HARDWARE)	B-63833EN
CONNECTION MANUAL (FUNCTION)	B-63833EN-1
Series 0i–TB OPERATOR'S MANUAL	B-63834EN
Series 0i–MB OPERATOR'S MANUAL	B-63844EN
MAINTENANCE MANUAL	B-63835EN
PARAMETER MANUAL	B-63840EN

## Related manuals of FANUC Series 0i -C

Manual name	Specification number
DESCRIPTIONS	B-64112EN
CONNECTION MANUAL (HARDWARE)	B-64113EN
CONNECTION MANUAL (FUNCTION)	B-64113EN-1
Series 0i–TC OPERATOR'S MANUAL	B-64114EN
Series 0i–MC OPERATOR'S MANUAL	B-64124EN
Series 0i–TTC OPERATOR'S MANUAL	B-64284EN
MAINTENANCE MANUAL	B-64115EN
PARAMETER MANUAL	B-64120EN

## Related manuals of FANUC Series 0i -D

Manual name	Specification number
DESCRIPTIONS	B-64302EN
CONNECTION MANUAL (HARDWARE)	B-64303EN
CONNECTION MANUAL (FUNCTION)	B-64303EN-1
USER'S MANUAL (Common to Lathe System/Machining Center System)	B-64304EN
USER'S MANUAL (For Lathe System)	B-64304EN-1
USER'S MANUAL (For Machining Center System)	B-64304EN-2
START-UP MANUAL	B-64304EN-3
MAINTENANCE MANUAL	B-64305EN
PARAMETER MANUAL	B-64310EN

## Related manuals of FANUC Series 20i -B

Manual name	Specification number
DESCRIPTIONS	B-63522EN
CONNECTION MANUAL (HARDWARE)	B-64193EN
CONNECTION MANUAL (FUNCTION)	B-63523EN-1
OPERATOR'S MANUAL	B-64204EN
MAINTENANCE MANUAL	B-64195EN
PARAMETER MANUAL	B-64200EN

Related manuals of FANUC Power Mate *i* -D/H

Manual name	Specification number
DESCRIPTIONS	B-63172EN
CONNECTION MANUAL (HARDWARE)	B-63173EN
CONNECTION MANUAL (FUNCTION)	B-63173EN-1
OPERATOR'S MANUAL	B-63174EN
MAINTENANCE MANUAL	B-63175EN
PARAMETER MANUAL	B-63180EN

## License agreement

The terms and conditions set forth by FANUC must be agreed upon by a customer who purchases the Program Transfer Tool.

These terms and conditions represent the license agreement between the customer and FANUC LTD. (referred to as FANUC) related to the software product (referred to as the software) purchased by the customer.

### Article 1 Licensing of right for use

FANUC grants the customer the following right related to the software:

- <1> The software may be used on one computer.
- <2> When the software is used on multiple computers, the customer shall obtain licenses for the software as many as the number of computers even if the software is not used at the same time on those computers.
- <3> When the software is read through the network to the temporary memory of each computer, the customer shall obtain license for the software as many as the number of computers used.
- <4> Only one copy of the software may be produced for backup.

### Article 2 Copyright

FANUC possesses the copyright of the software. Accordingly, the customer shall not copy the software for any purpose except for the purpose stipulated in Article 1, "Licensing of right for use".

### Article 3 Restrictions

The customer shall not transfer, lend, sell, distribute, lease, or rent the software to a third party.

### Article 4 Warranty

If the distributed media or manual of the software contains a physical defect, and the customer so notifies FANUC within ninety days after the reception of the software, FANUC replaces the defective item with a new one at no cost.

### Article 5 Exemption

FANUC does not provide any warranty and guarantee related to the software except the warrant stipulated in Article 4, "Warranty".

Namely, FANUC is not liable for any direct or indirect damages arising from the use of the software.

## Abbreviations

In this manual, the following abbreviations may be used:

**Abbreviations used in this manual**

<b>Term</b>	<b>Abbreviation</b>
Personal computer	PC
Operating system	OS

# 2

## FUNCTION OVERVIEW

---

The Program Transfer Tool is a software tool running on a personal program (PC) to input programs to and output them from CNC memory or a data server. The CNC and PC are connected via Ethernet.

**NOTE**

The available functions vary depending on the Ethernet device and options of the CNC. See Chapter 3, "OPERATING ENVIRONMENT".

The functions of this tool are outlined below.

## 2.1 CONNECTION TO A CNC

---

To connect the tool to CNCs, an Ethernet is required.  
Settings for communication with up to 255 CNCs are made in advance.  
One of these CNCs is selected on the operation screen to perform program transfer.

## 2.2 PROGRAM TRANSFER TO AND FROM THE PROGRAM MEMORY

---

The following operations can be performed on the program memory of the CNC:

- (1) Downloading a program from the PC to the program memory
- (2) Uploading a program from the program memory to the PC
- (3) Displaying a list of programs stored in the program memory on the screen
- (4) Deleting a program in the program memory
- (5) Displaying a list of tool offsets, custom macro common variables, and workpiece origin offset data, which can be transferred between the PC and CNC
- (6) Transferring tool offsets, custom macro common variables, and workpiece origin offsets between the PC and CNC.

When such data is uploaded, the format of the data is the same as the format used when the data is output from the CNC to an external device.

**NOTE**

When tool offsets, custom macro common variables, and workpiece origin offsets are downloaded from the PC to CNC, they replace data in the CNC.

When the tool communicates with the Series 30i/31i/32i, the following processing can also be performed:

- (1) Downloading a folder and its subfolders and files from the PC to the program memory
- (2) Uploading a folder and its subfolders and files from the program memory to the PC
- (3) Deleting a folder in the program memory
- (4) Renaming a file or folder in the program memory
- (5) Creating a new folder in the program memory

## **2.3 PROGRAM TRANSFER TO AND FROM A DATA SERVER**

---

The following operations can be performed on external storage devices (compact flash memory and hard disk drive) of a data server:

- (1) Downloading a file from the PC to the connection destination
- (2) Downloading a folder and its subfolders and files from the PC to the connection destination
- (3) Uploading a file from the connection destination to the PC
- (4) Uploading a folder and its subfolders and files from the connection destination to the PC.
- (5) Displaying lists of folders and files stored in the connection destination
- (6) Deleting a file or a folder in the connection destination
- (7) Renaming a file or folder in the connection destination
- (8) Creating a new folder in the connection destination

## **2.4 OPERATION ON FILES ON THE PC**

---

The following operations can be performed on files and folders on the PC:

- (1) Displaying a folder tree and a file list
- (2) Viewing and editing text files. The user can select a viewer for viewing such files and an editor for editing them.
- (3) Copying, moving deleting and renaming a file
- (4) Creating, deleting, and renaming a folder

# 3

## OPERATING ENVIRONMENT

This chapter explains the operating environment required for using this tool.

### Ethernet devices and CNC options

The following lists the Ethernet devices and CNC options required for transferring files and non-program data to and from program memory and a data server:

CNC type	Ethernet device used	CNC option required for transferring files and non-program data to and from program memory	CNC option required for transferring files and non-program data to and from data server (FTP server setting required)
Series 30i /31i /32i -A	Embedded Ethernet	No option required (*1)	(Communication not enabled)
	Fast Data Server board	Ethernet functions	Data Server functions
Series 16i /18i /21i -B	Embedded Ethernet	No option required (*1)	(Communication not enabled)
	Ethernet board	Ethernet functions	(Communication not enabled)
	Fast Ethernet board		Data Server functions
	Data Server board		
Fast Data Server board			
Series 16i /18i /21i -A	Ethernet board	Ethernet functions Extended driver and libraries function	(Communication not enabled)
	Fast Ethernet board		Data Server functions
	Data Server board		
Fast Data Server board			
Series 0i -D	Embedded Ethernet	No option required	(Communication not enabled)
	Fast Data Server board	Ethernet functions	Data Server functions
Series 0i -C	Fast Ethernet board	Ethernet functions	(Communication not enabled)
	Fast Data Server board		Data Server functions
Series 0i -B	Fast Ethernet board	Ethernet functions	(Communication not enabled)
	Built-in I/O board with data server		Data Server functions
Series 20i -B	Embedded Ethernet	No option required (*1)	(Communication not enabled)
	Fast Ethernet board	Ethernet functions	
Power Mate i -D/H	Ethernet board	Ethernet functions Extended driver and libraries function	(Communication not enabled)
	Fast Ethernet board		

\*1 To use the embedded Ethernet function in the Series 32i-A, Series 21i-B, and Series 20i-B, specify the main CPU board with the embedded Ethernet function. No option is required on the CNC side.

#### NOTE

- 1 For details of Ethernet devices, see Section 3.1, "CNC".
- 2 The PCMCIA LAN card is not supported.

## 3.1 CNC

### Ethernet board or data server board and CNC options

The following table lists the Ethernet boards and data server boards that can be used with this tool and necessary CNC options.

Ethernet board or data server board and required CNC options (1/3)

No	Name	Applicable model	Drawing number	CNC option	Control software	
1	Ethernet board for LCD-mounted type CNC	FS 16i /18i /21i -TA/MA	A02B-0236-J292	A02B-XXXX-S707 *1 A02B-0207-J800 *2	A02B-0236-J561 #6561	
2		FS 16i /18i /21i -TB/MB	A02B-0281-J292	A02B-XXXX-S707 *1		
3	ATA data server board for LCD-mounted type CNC	FS 16i /18i /21i -TA/MA	A02B-0236-J145	A02B-XXXX-S707 *1 A02B-0207-J800 *2 A02B-XXXX-S737 *3		
4		FS 16i /18i /21i -TB/MB	A02B-0281-J145	A02B-XXXX-S707 *1 A02B-XXXX-S737 *3		
5	Ethernet board for stand-alone type CNC	FS 16i /18i /21i -TA/MA	A02B-0265-J291	A02B-XXXX-S707 *1 A02B-0207-J800 *2		
6		FS 16i /18i /21i -TB/MB	A02B-0281-J298	A02B-XXXX-S707 *1		
7	ATA data server board for stand-alone type CNC	FS 16i /18i /21i -TA/MA	A02B-0265-J145	A02B-XXXX-S707 *1 A02B-0207-J800 *2 A02B-XXXX-S737 *3		
8		FS 16i /18i /21i -TB/MB	A02B-0281-J148	A02B-XXXX-S707 *1 A02B-XXXX-S737 *3		
9	RISC+ATA data server board for stand-alone type CNC	FS 16i /18i -TA/MA	A02B-0265-J154	A02B-XXXX-S707 *1 A02B-0207-J800 *2 A02B-XXXX-S737 *3		
10		FS 16i /18i -TB/MB	A02B-0281-J158 A02B-0281-J160 *4	A02B-XXXX-S707 *1 A02B-XXXX-S737 *3		
11	Ethernet board	Power Mate <i>i</i> -D/H	A02B-0259-J230	A02B-0259-J862 *5 A02B-0259-J847 *6		A02B-0259-J561 #6561
12	Fast Ethernet board for LCD-mounted type CNC	FS 16i /18i /21i -TA/MA	A02B-0236-J293	A02B-XXXX-S707 *1 A02B-0207-J800 *2		A02B-0281-J561 #6567
13		FS 16i /18i /21i -TB/MB	A02B-0281-J293	A02B-XXXX-S707 *1		A02B-0281-J561 #6567
14		FS 0i-TC/MC	A02B-0281-J293	A02B-XXXX-S707 *1		A02B-0281-J561 #656W
15		FS 0i-TC/MC	A02B-0309-J293	A02B-XXXX-S707 *1		A02B-0281-J561 #656W

Ethernet board or data server board and required CNC options (2/3)

No	Name	Applicable model	Drawing number	CNC option	Control software
16	Fast Ethernet board for stand-alone type CNC	FS 16i /18i /21i -TA/MA	A02B-0265-J293	A02B-XXXX-S707 *1 A02B-0207-J800 *2	A02B-0281-J561 #6567
17		FS 16i /18i /21i -TB/MB	A02B-0281-J299	A02B-XXXX-S707 *1	A02B-0281-J561 #6567
18		FS 0i-TB/MB	A02B-0281-J299	A02B-XXXX-S707 *1	A02B-0281-J561 #6567
19	ATA fast data server for LCD-mounted type CNC	FS 16i /18i /21i -TA/MA	A02B-0236-J140	A02B-XXXX-S707 *1 A02B-0207-J800 *2 A02B-XXXX-S737 *3	A02B-0281-J561 #6567
20		FS 16i /18i /21i -TB/MB	A02B-0281-J146	A02B-XXXX-S707 *1 A02B-XXXX-S737 *3	A02B-0281-J561 #6567
21		FS 0i-TC/MC	A02B-0281-J146	A02B-XXXX-S707 *1 A02B-XXXX-S737 *3	A02B-0281-J561 #656W
22	Fast data server for FS 0i-C	FS 0i-TC/MC	A02B-0309-J146	A02B-XXXX-S707 *1 A02B-XXXX-S737 *3	A02B-0281-J561 #656W
23	ATA fast data server for stand-alone type CNC	FS 16i /18i /21i -TA/MA	A02B-0265-J140	A02B-XXXX-S707 *1 A02B-0207-J800 *2 A02B-XXXX-S737 *3	A02B-0281-J561 #6567
24		FS 16i /18i /21i -TB/MB	A02B-0281-J149	A02B-XXXX-S707 *1 A02B-XXXX-S737 *3	A02B-0281-J561 #6567
25	Built-in I/O board (with data server) for stand-alone type CNC	FS 0i -TB/MB	A02B-0299-H021	A02B-XXXX-S707 *1 A02B-XXXX-S737 *3	A02B-0281-J561 #6567
26	RISC+ATA fast data server for stand-alone type CNC	FS 16i /18i -MA	A02B-0265-J157	A02B-XXXX-S707 *1 A02B-0207-J800 *2 A02B-XXXX-S737 *3	A02B-0281-J561 #6567
27		FS 16i /18i -MB	A02B-0281-J161 A02B-0281-J162 *4	A02B-XXXX-S707 *1 A02B-XXXX-S737 *3	
28	Embedded Ethernet for LCD-mounted type/stand-alone type CNC	FS 16i /18i -TB/MB	-	Not required *7	A02B-0281-J571 #656A
29	Embedded Ethernet for LCD-mounted type/stand-alone type CNC *8	FS 21i -TB/MB	-	Not required *8	
30	Fast Ethernet board	Power Mate i -D/H	A02B-0259-J293	A02B-0259-J862 *5 A02B-0259-J847 *6	A02B-0259-J555 #6567
31	Fast Ethernet board for LCD-mounted type/stand-alone type CNC	FS 30i /31i /32i -A	A02B-0303-J146 *9	A02B-XXXX-S707 *10 A02B-XXXX-S737 *11	A02B-0303-J561 #6569 A02B-0303-J572 #656F
32	Embedded Ethernet for LCD-mounted type/stand-alone type CNC	FS 30i /31i -A	-	Not required *12	A02B-0303-J571 #656E A02B-0303-J572 #656F

Ethernet board or data server board and required CNC options (3/3)

No	Name	Applicable model	Drawing number	CNC option	Control software
33	Embedded Ethernet for LCD-mounted type/stand-alone type CNC *13	FS 32i -A	-	Not required *13	
34	Embedded Ethernet *14	FS 20i-TB/FB	-	Not required *14	A02B-0281-J571 #656V
35	Fast Ethernet board	FS 20i-TB/FB	A02B-0281-J293	A02B-XXXX-S707 *1	A02B-0281-J561 #656W
36	Fast Ethernet board for LCD-mounted type CNC	FS 0i -TD/MD	A02B-0319-J146	A02B-XXXX-S707 *1 A02B-XXXX-S737 *3	A02B-0319-J561 #658W

\*1 A02B-XXXX-S707: Ethernet function for the Series 16i/18i/21i/0i/20i

This option is required when the tool communicates with the program memory through an Ethernet board. When only the function for communicating with the data server is used, this option is not required.

XXXX specifies a drawing number according to the CNC type as follows:

CNC type	16i -TA	16i -MA	16i -TB	16i -MB	18i -TA	18i -MA	18i -TB	18i -MB
Value of XXXX	0236	0237	0281	0282	0238	0239	0283	0284

CNC type	21i -TA	21i -MA	21i -TB	21i -MB	0i -TB	0i -MB	0i -TC	0i -MC
Value of XXXX	0247	0248	0285	0286	0299	0300	0309	0310

CNC type	0i -TD	0i -MD	20i -TB	20i -FB
Value of XXXX	0319	0320	0287	0288

\*2 A02B-0207-J800: Extended driver and libraries for the Series 16i/18i /21i

This option is required when Model A is used.

When Model B is used, this option is unnecessary regardless of whether the embedded function or external board is used.

\*3 A02B-XXXX-S737: Data server function

This option is required when the function for communicating with the data server is used.

XXXX specifies a drawing number according to the CNC type. See \*1.

\*4 A02B-0281-J160 is a high-speed version of A02B-0281-J158.  
A02B-0281-J162 is a high-speed version of A02B-0281-J161.

\*5 A02B-0259-J862: Ethernet function for the PowerMate i-D/H

- \*6 A02B-0259-J847: Extended driver and libraries for the PowerMate *i-D/H*
- \*7 When the embedded Ethernet function is used with the Series 16*i*/18*i*-TB/MB, no CNC option is required.
- \*8 When the embedded Ethernet function is used with the Series 21*i*-TB/MB, the main CPU board with the embedded Ethernet function must be specified. No CNC option is required.
- \*9 A02B-0303-J146: Fast Ethernet board for LCD-mounted type and stand-alone type CNCs  
This board provides the Ethernet function and/or the data server function according to the CNC option used.
- \*10 A02B-XXXX-S707: Ethernet function for the Series 30*i*/31*i*/32*i*-A  
This option is required for using the function for communicating with programs. When only the function for communicating with the data server is used, this option is not required. XXXX specifies one of the following drawing numbers according to the CNC type:  
0303 (30*i* -A)      0307 (31*i* -A)      0308 (32*i* -A)
- \*11 A02B-XXXX-S737: Data server function for the Series 30*i*/31*i*/32*i*-A  
This option is required for using the function for communicating with the data server. XXXX specifies a drawing number according to the CNC type. See \*10.
- \*12 When the embedded Ethernet function is used with the Series 30*i*/31*i*-A, no CNC option is required.
- \*13 When the embedded Ethernet function is used with the Series 32*i*-A, the main CPU board with the embedded Ethernet function must be specified. No CNC option is required.
- \*14 When the embedded Ethernet function is used with the Series 20*i*-B, the main CPU board with the embedded Ethernet function must be specified. No CNC option is required.

## **3.2 PERSONAL COMPUTER/HARDWARE**

---

The following hardware is required for running this tool:

### **Computer**

#### IBM PC/AT compatible machine

- CPU: Pentium® 300MHz or higher is recommended.
- Physical memory: 128MB or more
- HDD: Free space of at least 30MB
- Keyboard, mouse, and CD-ROM required.
- Ethernet function required

### **Display**

- Resolution: 1024 × 768 dots or higher
- Color: 16 colors or more

## 3.3 PERSONAL COMPUTER/SOFTWARE

---

### When the OS is Windows Vista

(1) and (2) below are required:

- (1) Microsoft Windows Vista® Business (32 bit version OS)
- (2) Microsoft Internet Explorer 7.0 or later

**NOTE**

- 1 To do the following operations of this tool on Windows Vista, the user must belong to the Administrators group.
  - a) Installation
  - b) Uninstallation
  - c) Upgrade installation
- 2 This tool does not support the user switching function of Windows Vista.

### When the OS is Windows XP

(1) and (2) below are required:

- (1) Microsoft Windows XP® Professional Service Pack 2 or later (32 bit version OS)
- (2) Microsoft Internet Explorer 6.0 or later

**NOTE**

- 1 To use this tool on Windows XP, the user must belong to the Administrators group.
- 2 Only the user who has installed this tool can use this tool.  
This tool does not support the user switching function of Windows XP.

### When the OS is Windows 2000

(1) and (2) below are required:

- (1) Microsoft Windows 2000® Professional ServicePack 4 or later
- (2) Microsoft Internet Explorer 6.0 or later

**NOTE**

- 1 To use this tool on Windows 2000, the user must belong to the Administrators group.
- 2 Only the user who has installed this tool can use this tool.

**Supported Language**

English, Japanese, and Simplified Chinese

The language displayed with this tool is automatically selected according to the language of OS when you install this tool. English will be selected if this tool is installed in OSs other than the language of the above.



## **II. INSTALLATION**



# 1

## INSTALLATION

---

This chapter explains the procedure for installing the Program Transfer Tool.

**NOTE**

- 1 The screen images used in this chapter are screen images on the Microsoft operating system Windows Vista Business.
- 2 To install and upgrade this tool, the user needs to have the Administrator privilege.
- 3 In the following OS, only the user who has installed this tool can use this tool.
  - Windows XP
    - \* This tool does not support the user switching function.
  - Windows 2000

## 1.1 PREPARATION

This tool uses the TCP/IP protocol to communicate with a CNC via Ethernet.

Make sure that the TCP/IP function is installed in the personal computer in which this tool is to be installed and that the IP address and subnet mask (and the default gateway if necessary) of the personal computer are set.

## 1.2 INSTALLATION

To install this tool, use the setup program on the installation CD.

### NOTE

- 1 To install this tool, the user must have the Administrator privilege.
- 2 Before starting to install this tool, end all programs being running.

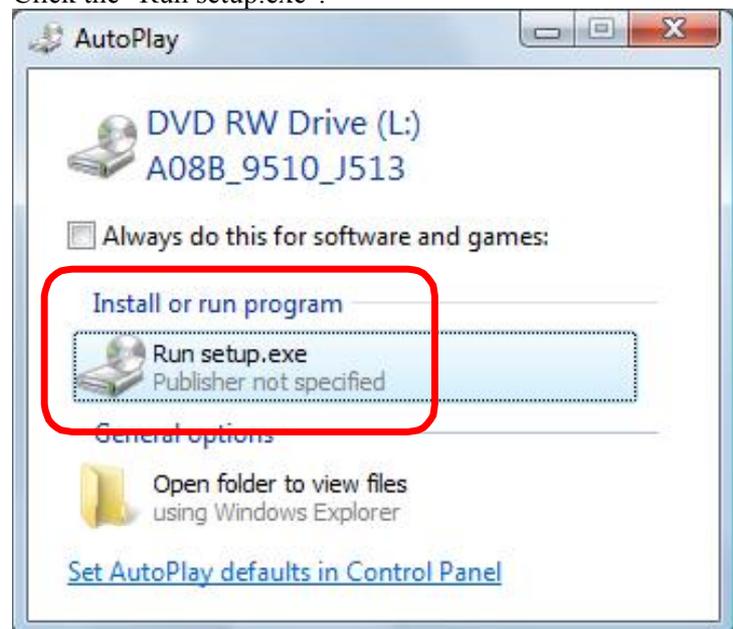
- (1) Start the computer, and set the installation CD.

When the installation CD is set, the installer is started automatically.

Depending on the using OS and the settings on the personal computer, it might be displayed as follows:

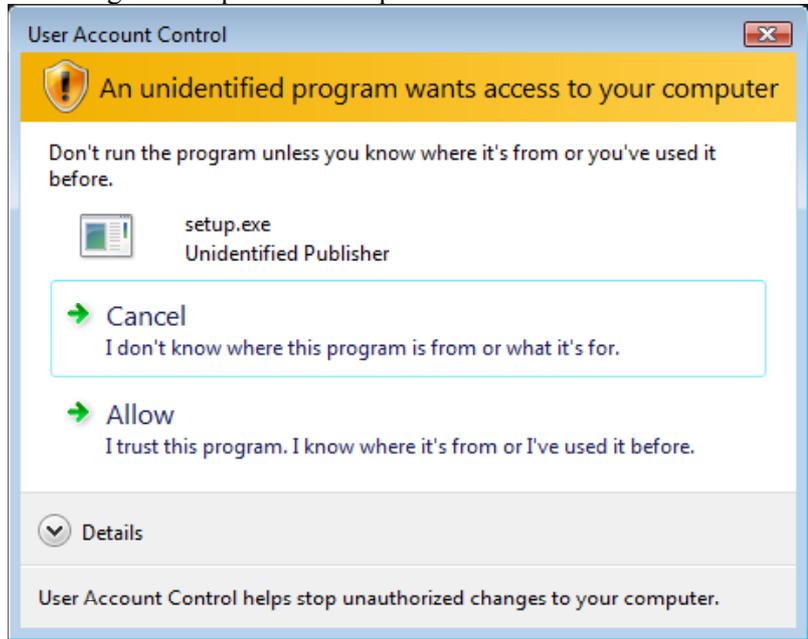
- (a) AutoPlay dialog is displayed.

Click the "Run setup.exe".

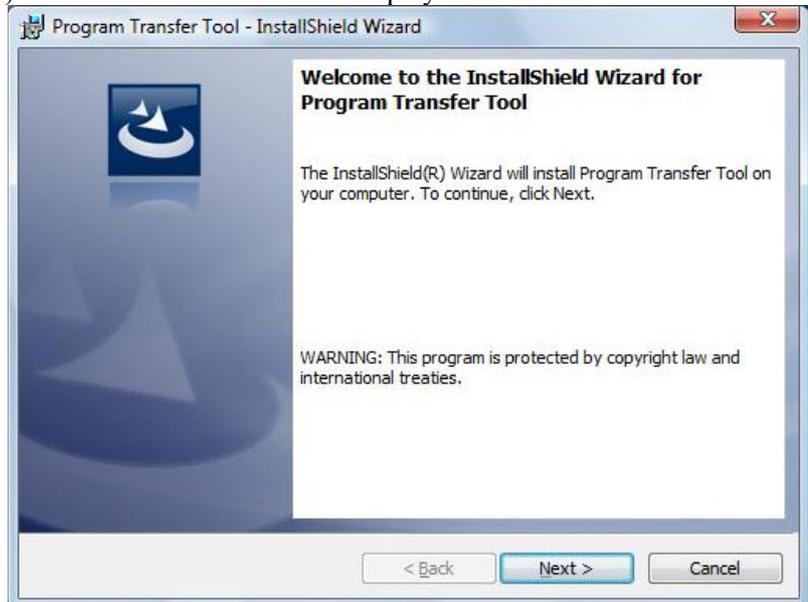


- (b) The file on the installation CD are displayed by the explore. Start setup.exe on the installation CD.
- (c) Nothing is displayed. Start setup.exe on the installation CD with the explorer.

- (2) When the "User Account Control" screen is displayed, click the "Allow".  
\* The screen isn't displayed depending on the using OS and the settings on the personal computer.



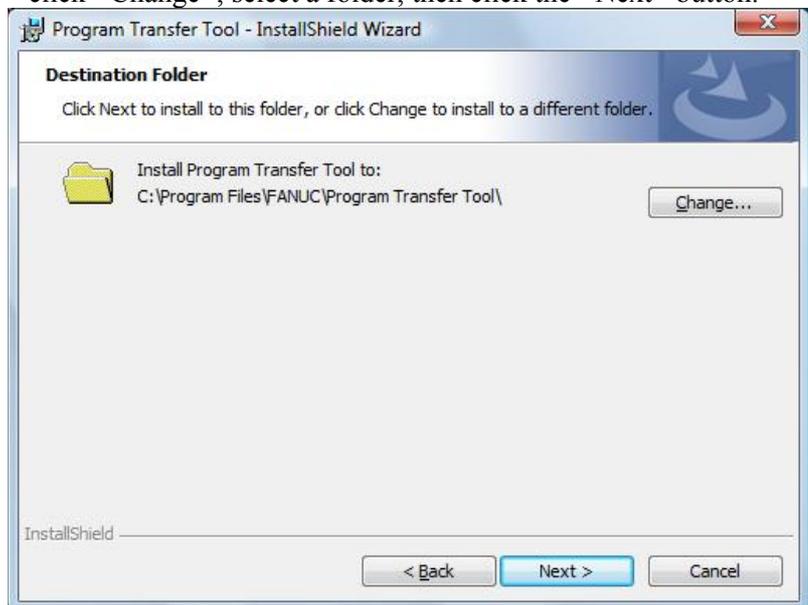
- (3) The installer start screen is displayed. Click the <Next> button.



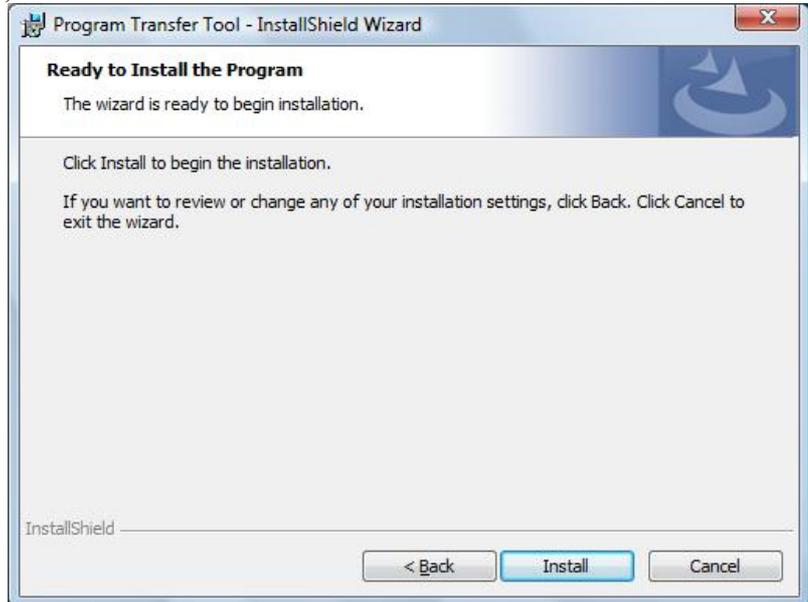
- (4) The terms in the software license agreement are displayed. Read the license agreement carefully. When accepting the terms in the license agreement, select the "I accept the terms in the license agreement" and click the <Next> button.



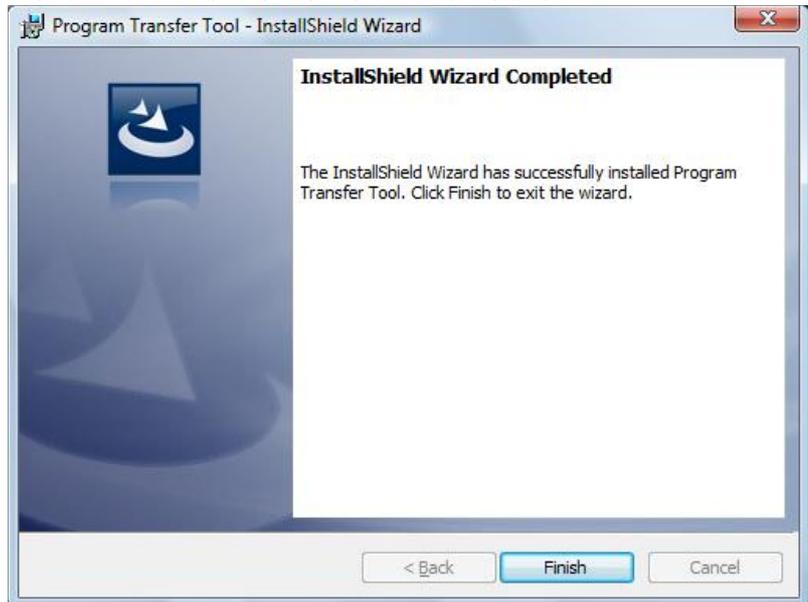
- (5) Determine the installation folder. Check the "Install Program Transfer Tool to". To install the tool in the indicated destination folder, click the <Next> button. To change the destination folder, click <Change>, select a folder, then click the <Next> button.



- (6) Click the <Install> button. Installation then starts.



- (7) When installation is completed, the screen shown below is displayed.  
Click the <Finish> button to exit the installer.



This completes the installation.

#### NOTE

It is necessary to set the Windows Firewall to communicate with DATA SERVER with some of Windows OS.

Refer to the Appendix B, "Windows Firewall Settings".

## 1.3 UPGRADE INSTALLATION

By the upgrade installation, you can upgrade this tool without uninstalling the old version.

After upgrading, setting items in the old version can be used as it is.

To upgrade this tool, use the setup program on the upgrade CD.

### NOTE

- 1 The Program Transfer Tool cannot be installed only by the upgrade CD.
- 2 To upgrade this tool, the user must have the Administrator privilege.
- 3 Before starting to upgrade this tool, terminate all programs being running.
- 4 The serial numbers of the following specification are necessary to upgrade.
  - Program Transfer Tool (A08B-9510-J513)
  - Program Transfer Tool Upgrade (A08B-9510-J514)

The procedure of the upgrade installation is different depending on the version of the Program Transfer Tool that has already been installed. When the version is prior to 2.0, refer to (a). When the version is 2.0 or later, refer to (b).

\* You can confirm the version by selecting the [Version] in the [Help] menu of the Program Transfer Tool Settings screen.

### (a) The version of Program Transfer Tool that has already been installed is prior to 2.0.

- (1) Back up the settings of the Program Transfer Tool that has already been installed.

About the backup procedure, refer to the "1.6 MAINTENANCE OF SETTINGS" in the "Part III. SETTING".

### NOTE

Don't store the backup file in the folder that have been installed the Program Transfer Tool. This folder is removed when uninstalling.

- (2) Uninstall the Program Transfer Tool that has already been installed.

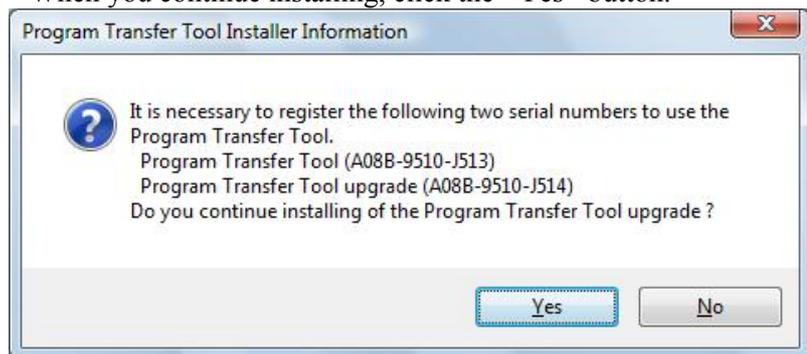
Before uninstalling, write down the folder name where the version 1.0 is installed.

About the uninstallation procedure, refer to the "2 UNINSTALLATION".

**NOTE**

Uninstall from the "Uninstall a program" or the "Add/Remove Programs" in the "Control Panel" of Windows. Don't uninstall by using the installation CD.

- (3) When the upgrade CD is set, the installer is started automatically. The installer isn't started automatically depending on the using OS and the settings on the personal computer. Refer to the (1) and the (2) in the "1.2 INSTALLATION", start the installer.
- (4) The information on the necessary serial number is displayed. When you continue installing, click the <Yes> button.

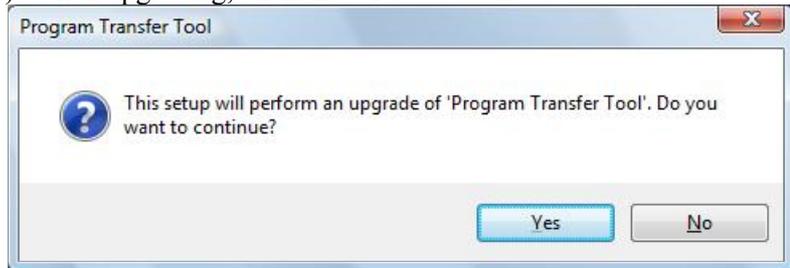


- (5) Install the version 2.0 to the folder where the version 1.0 had installed. The installation procedure after this is similar to the normal installation procedure. Refer to the (3) or later in the "1.2 INSTALLATION".
- (6) After the installation is completed, start the Settings screen. Enter the serial numbers of the following specification.
- Program Transfer Tool (A08B-9510-J513)
  - Program Transfer Tool Upgrade (A08B-9510-J514)
- (7) Restore the settings of the Program Transfer Tool backed up on the (1). About the restoration procedure, refer to the "1.6 MAINTENANCE OF SETTINGS" in the "Part III. SETTING".

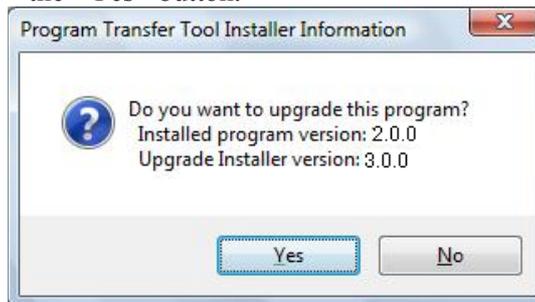
**(b) The version of the Program Transfer Tool that has already been installed is 2.0 or later.**

- (1) When the upgrade CD is set, the installer is started automatically. The installer isn't started automatically depending on the using OS and the settings on the personal computer. Refer to the (1) and the (2) in the "1.2 INSTALLATION", start the installer.

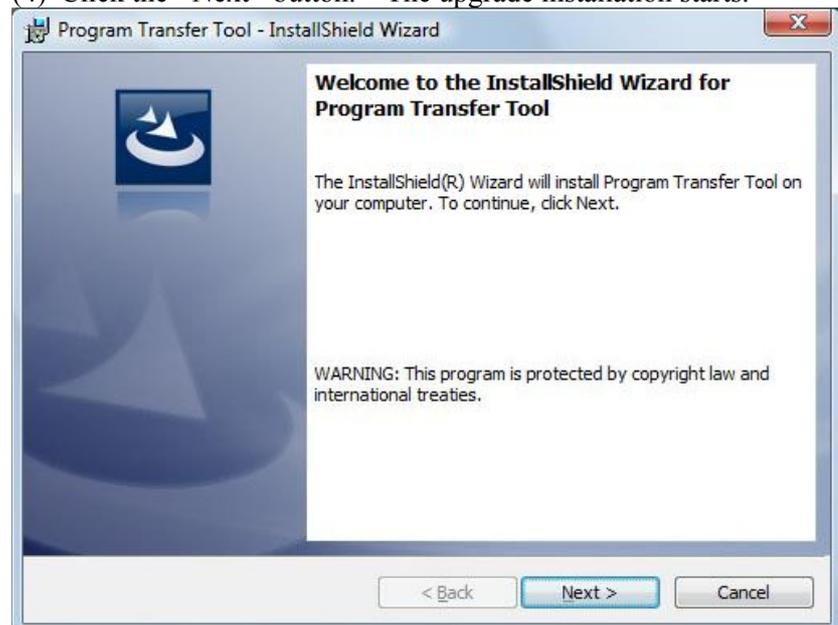
- (2) When upgrading, click the <Yes> button.



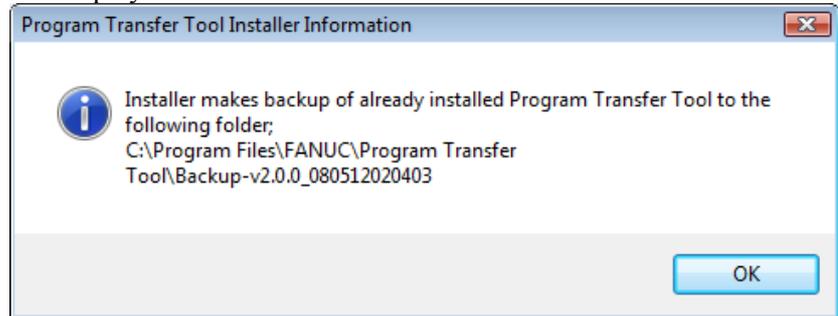
- (3) The versions of each program are displayed. To continue, click the <Yes> button.



- (4) Click the <Next> button. The upgrade installation starts.

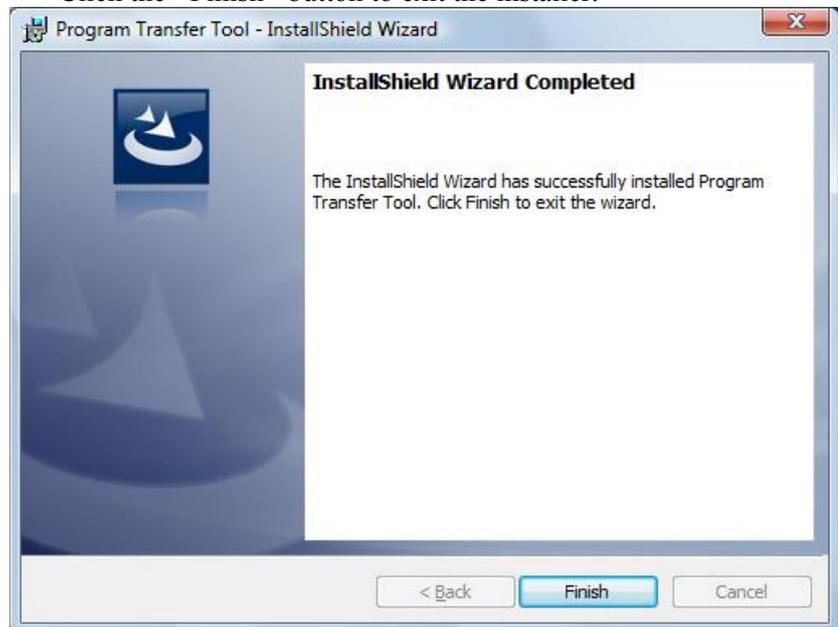


- (5) The information on the folder where the backup is preserved is displayed. Click the <OK> button.



- (6) When the upgrade installation is completed, the screen shown below is displayed.

Click the <Finish> button to exit the installer.



- (7) Start the Settings screen, and enter the serial number of the following specification.

- Program Transfer Tool upgrade (A08B-9510-J514)

If the serial number of the Program Transfer Tool (A08B-9510-J513) has not been entered, it is necessary to enter the serial number of the Program Transfer Tool too.

# 2

## UNINSTALLATION

This chapter explains the procedure for uninstalling the Program Transfer Tool.

This tool is uninstalled by using one of the following two ways.

(1) <Windows Vista>

Use the "Uninstall a program" in the "Control Panel" of Windows.

<Windows XP or Windows 2000>

Use the "Add/Remove Programs" in the "Control Panel" of Windows.

(2) Use the installation CD.

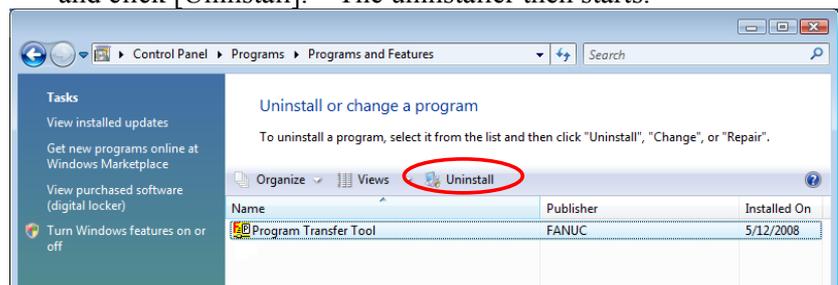
Normally, uninstall the program by using "Add/Remove Programs" in (1).

### NOTE

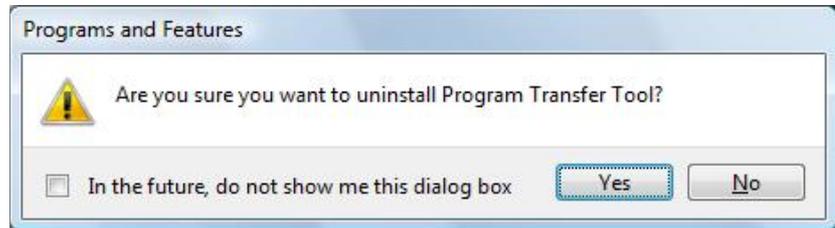
- 1 The screen images used in this chapter are screen images on the Microsoft operating system Windows Vista Business.
- 2 To uninstall this tool, the user needs to have the administrator privilege.
- 3 Before starting uninstallation, end all running programs.

### Using "Add/Remove Programs" to uninstall this tool

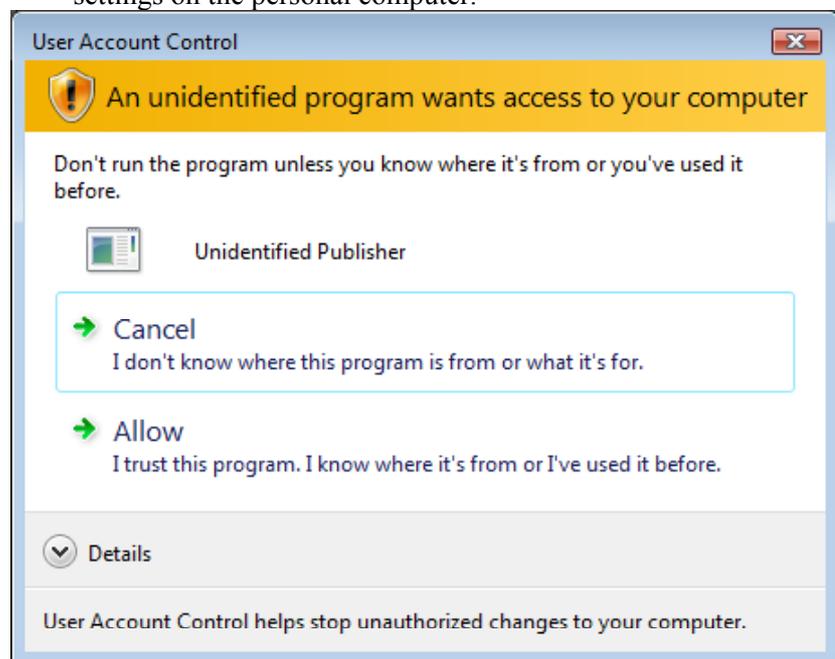
- (1) Choose [Start] → "Control Panel" of Windows to display the "Control Panel" screen.
- (2) Click the "Uninstall a program" on the "Control Panel".
- (3) From a list of installed programs, select "Program Transfer Tool", and click [Uninstall]. The uninstaller then starts.



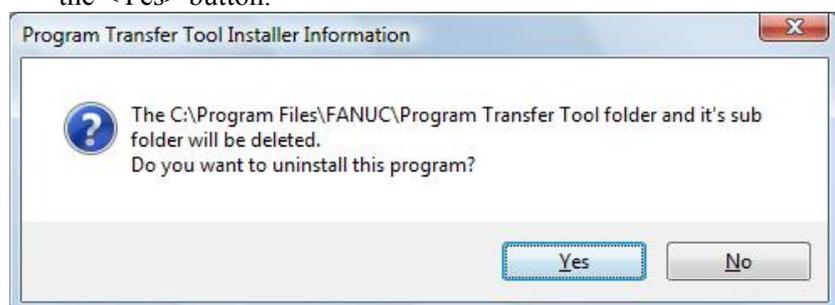
- (4) A message box appears to ask the user whether to uninstall the tool. Click the <Yes> button.



- (5) When the "User Account Control" screen is displayed, click the "Allow".  
\* The screen isn't displayed depending on the using OS and the settings on the personal computer.



- (6) The folders that installed the Program Transfer Tool and its subfolders are will be deleted. Confirm that a necessary file such as backup files doesn't exist. When it is no problem, click the <Yes> button.



- (7) When the uninstallation is completed, the "Program Transfer Tool" is removed from the list of the (3).

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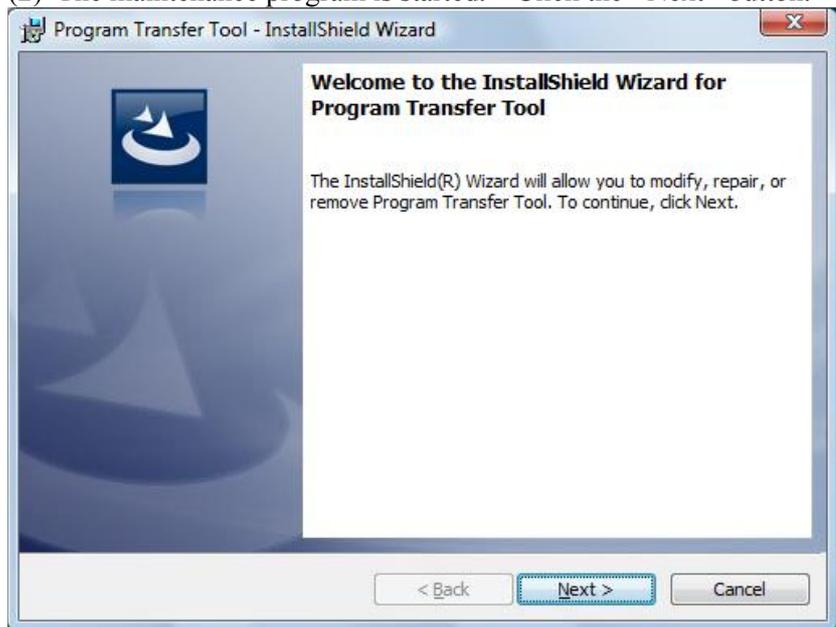
## Using the installation CD to uninstall the tool

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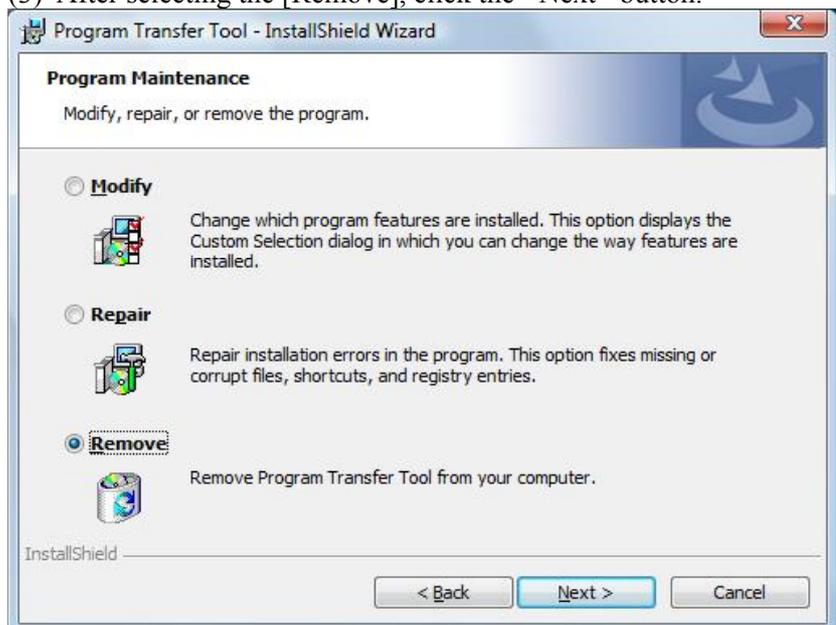
- (1) When the installation CD is set, the installer is started automatically.

The installer isn't started automatically depending on the using OS and the settings on the personal computer. Refer to the (1) and the (2) in the "1.2 INSTALLATION", start the installer.

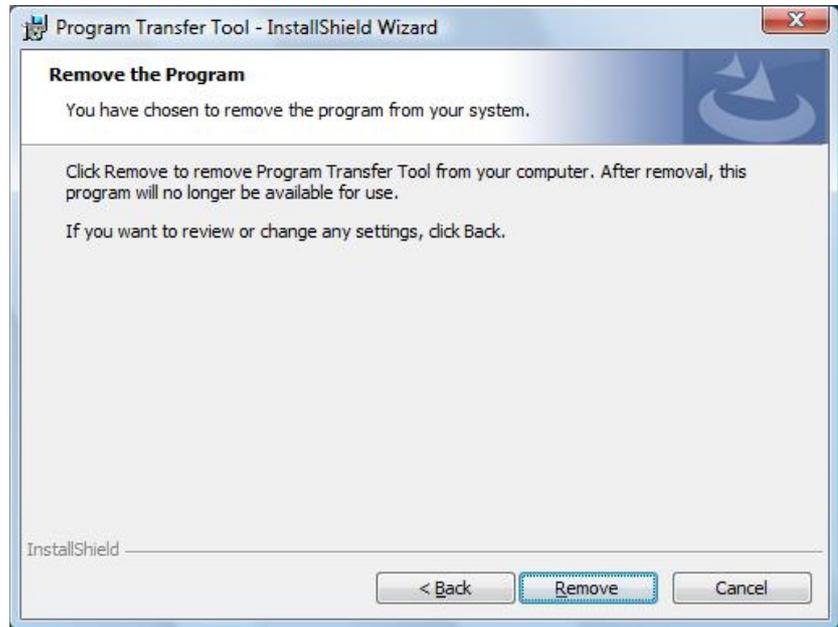
- (2) The maintenance program is started. Click the <Next> button.



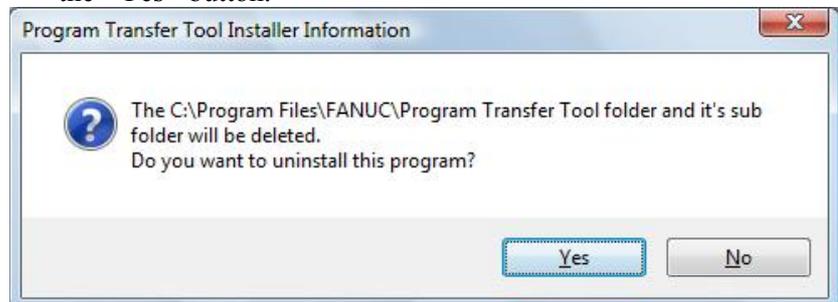
- (3) After selecting the [Remove], click the <Next> button.



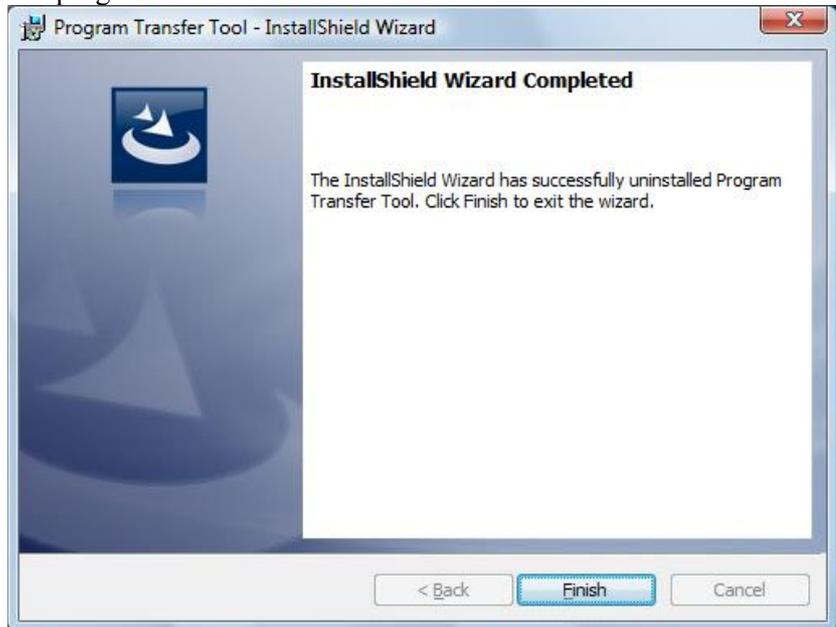
- (4) The confirmation screen of the uninstallation is displayed. Click the <Remove> button.



- (5) The folders that installed the Program Transfer Tool and its subfolders are will be deleted. Confirm that a necessary file such as backup files doesn't exist. When it is no problem, click the <Yes> button.



- (6) When the uninstallation is completed, the screen shown below appears. Click the <Finish> button to exit the maintenance program.



### **III. SETTING**



# 1

## SETTING

On the setting dialog, set the machine with which this tool is to perform data transfer.

Program Transfer Tool Settings

File Serial No Maintenance Help

Machine No: 1

**Machine Info.** Program Memory Data Server Display

Machine Name: McnName\_001

CNC Type: Other

Control Path: 1

Save Cancel Exit

On the setting dialog, set the following:

- (1) Serial No  
Enter the factory-set serial number provided together with the installation CD. Unless the serial number is entered, settings cannot be made on the setting dialog.
- (2) Machine Info.  
Set the machine name, the CNC type, and the number of paths.
- (3) Program Memory  
Make settings for communicating with the program memory.
- (4) Data Server  
Make settings for communicating with the data server.
- (5) Display  
Make display-related settings.

## Starting setting

Choose "Setting dialog" in the "Program Transfer Tool" group.

### NOTE

It is impossible to use the Program Transfer Tool and the setting dialog at the same time.

- Before starting setting, end the Program Transfer Tool.
- Before using the Program Transfer Tool, end the setting dialog.

## Ending setting

Click the <Exit> button. Alternatively, click [Exit] in the [File] menu.

## Setting method

Setting items are classified by function into tabs.

Set items by following the steps below.

- (1) Select a machine No.
- (2) Make settings, then click the <Save> button or click [Save] in the [File] menu.
- (3) Click the <Exit> button or click [Exit] in the [File] menu to end the screen.

To cancel the settings made so far, click the <Cancel> button. However, settings once saved by <Save> cannot be canceled.

When the user selects another machine No. or clicks the Exit button without clicking the Save button after making settings, a message appears to ask the user whether to save the settings. To save the settings, click the <OK> button.

## 1.1 SERIAL NUMBER

To use the Program Transfer Tool, the serial number provided together with the installation CD must be entered on the setting dialog. Unless the serial number is entered, it is impossible to make settings. Once the serial number is entered, it need not be entered again.

Click [Admin] in the [Serial No] menu. The "Serial No. administration" dialog box is then displayed. Enter the serial number provided together with the installation CD of the Program Transfer Tool.

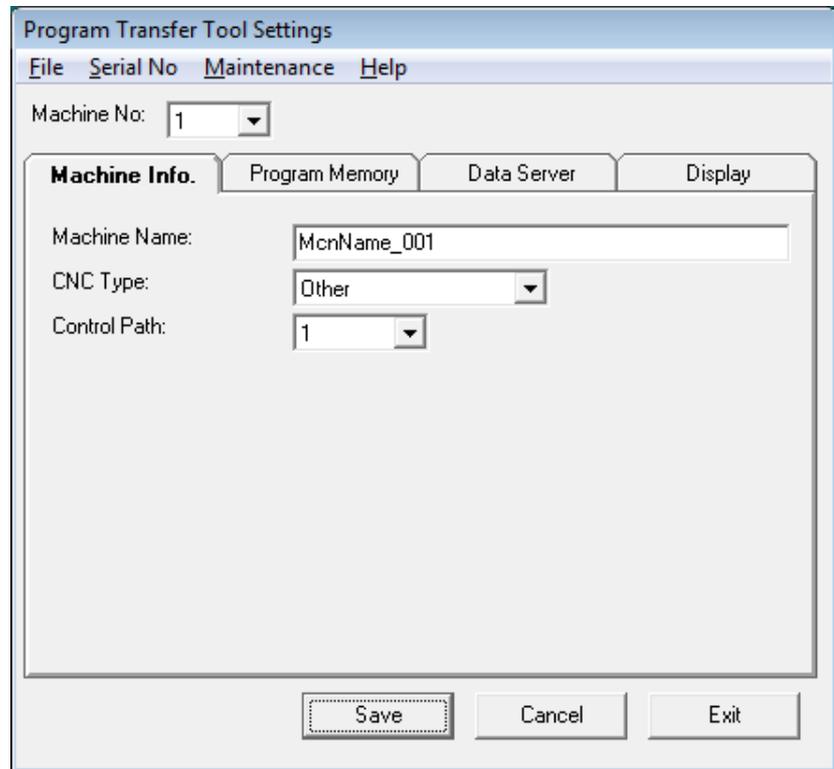
This figure is an example.  
Please input a correct serial number.

This figure is an example.  
Registered specification number and serial number will be displayed.

The screenshot shows a dialog box titled "Serial No. administration". It has two main sections. The first section, "Serial No. setting", contains a text input field with the value "1234-1234-1234-1234-1234-1234". The second section, "Registered Serial No.", contains a text area with the value "A08B-9510-J513(v3.0.0) (Serial No. is not registered.)". At the bottom of the dialog, there are three buttons: "Save", "Cancel", and "Exit".

- (1) Serial No. setting  
Enter a 24-digit serial number. When a lowercase letter is entered, it is converted to the uppercase letter. An already registered serial number cannot be entered.
- (2) Registered Serial No.  
Registered serial No. and specification number will be displayed.

## 1.2 MACHINE INFO.TAB



Set machine information in the Machine Info. tab.

- (1) Machine No  
Select a machine number for which settings are to be made.
- (2) Machine Name  
Set a name consisting of up to 40 one-byte characters (up to 20 two-byte characters) for each machine. It is impossible to delete a machine name or to set the same name as the name of another existing machine. Names are case-sensitive. The machine name set here is displayed in the machine list of the Program Transfer Tool.  
The default is "McnName\_XXX", where XXX is a 3-digit machine number.
- (3) CNC Type  
Select the type of the CNC.

**NOTE**

If the type of the CNC selected and the type of the CNC connected are different, it is not possible to use this tool.

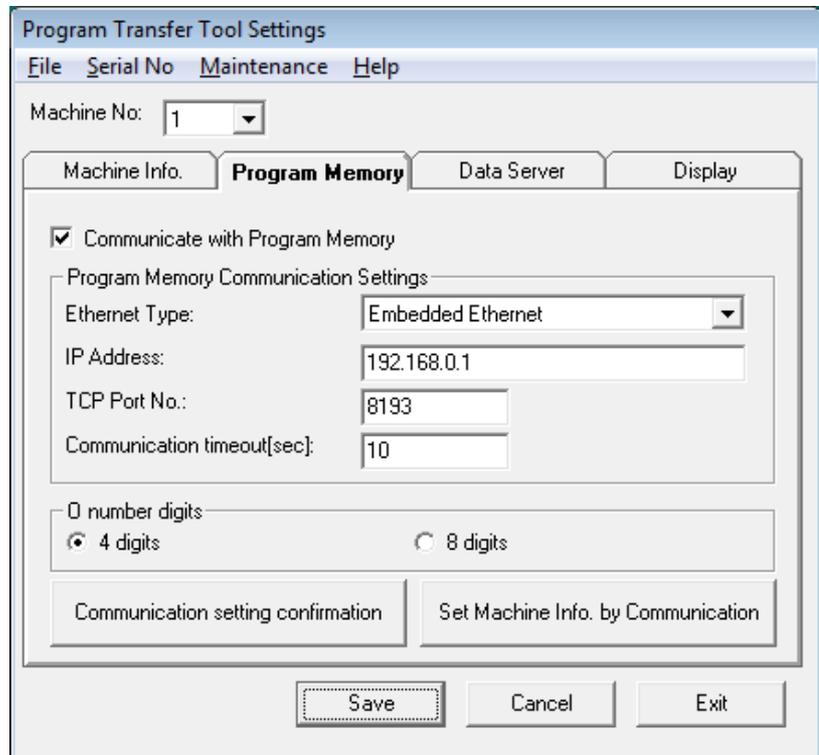
- (4) Control Path  
Select the number of paths controlled by the CNC.

### **Automatic setting through communication**

When communication with the CNC via FOCAS2/Ethernet is enabled, CNC Type and Control Path can also be set through communication with the CNC. If communication with the CNC is enabled when these items are set, automatic setting through communication should be performed to prevent setting errors.

For details, see (9), "Set Machine Info. by Communication", in Section 1.3, "SETTING COMMUNICATION WITH PROGRAM MEMORY".

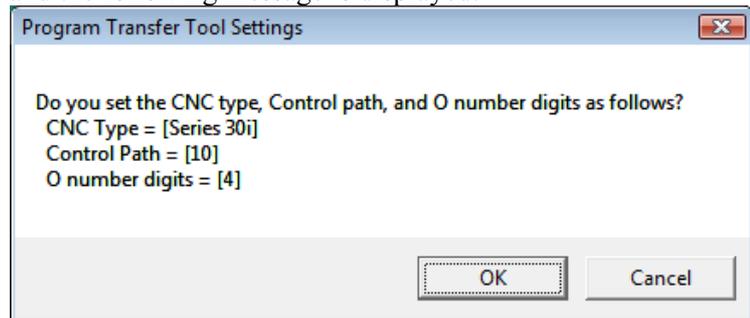
## 1.3 SETTING COMMUNICATION WITH PROGRAM MEMORY



In the Program Memory tab, settings are made to communicate with a program memory to transfer data other than programs.

- (1) Machine No  
Select a machine number for which settings are to be made.
- (2) Communicate with Program Memory  
When communication with the program memory is to be performed, check this check box. This enables setting in this tab.  
If this check box is not checked, setting in this tab cannot be performed.
- (3) Ethernet Type  
For communication with the program memory, select which type, [Embedded Ethernet] or [Ethernet Board/DATA SERVER], is to be used.
  - (A) When [Embedded Ethernet] is selected  
The IP address used for the program memory and the IP address used for the data server must not be set to the same value.
  - (B) When [Ethernet Board/DATA SERVER] is selected  
The IP address used for the program memory and the IP address used for the data server must not be set to different values. When [Ethernet Board/DATA SERVER] is selected, it becomes impossible to set an IP address in the Data Server tab, and the IP address set in the Program Memory tab is displayed.

- (4) IP Address  
Enter the value set as the IP address of the CNC. Up to 63 one-byte characters can be entered. This item is always required. The value to be set must not be the same as the value set as the IP address for another machine. A host name may also be entered. When a host name is used, it is not case sensitive. For the setting method for each CNC, see Appendix.
- (5) TCP Port No.  
Enter the value set as the TCP port number of the CNC. This item is always required. A value from 5001 to 65535 can be entered. The default is 8193. For the setting method for each CNC, see Appendix.
- (6) Communication timeout  
Enter a timeout period in seconds to be applied during communication. This item is always required. A value from 0 to 600 can be entered. If 0 is entered, the tool waits infinitely without causing a timeout. The default is 10.
- (7) O number digits  
When connecting the tool to a CNC that can use 8-digit O numbers, check 8 digits. The default is 4 digits.
- (8) Communication setting confirmation  
Correct communication with the CNC can be confirmed. After adding or modifying settings in this tab, be sure to confirm communication. For details, see Subsection 1.3.1, "Confirming Communication Settings".
- (9) Set Machine Info. by Communication  
CNC Type and Control Path, which are entered in the Machine Info. tab, can be set through communication with the CNC. When this button is clicked, communication with the CNC is performed to obtain the values of CNC Type and Control Path, and the following message is displayed:



When the OK button is clicked, the indicated values are set.

### 1.3.1 Confirming Communication Settings

When the <Communication setting confirmation> button in the Program Memory tab is clicked, a screen for confirming communication settings is displayed.

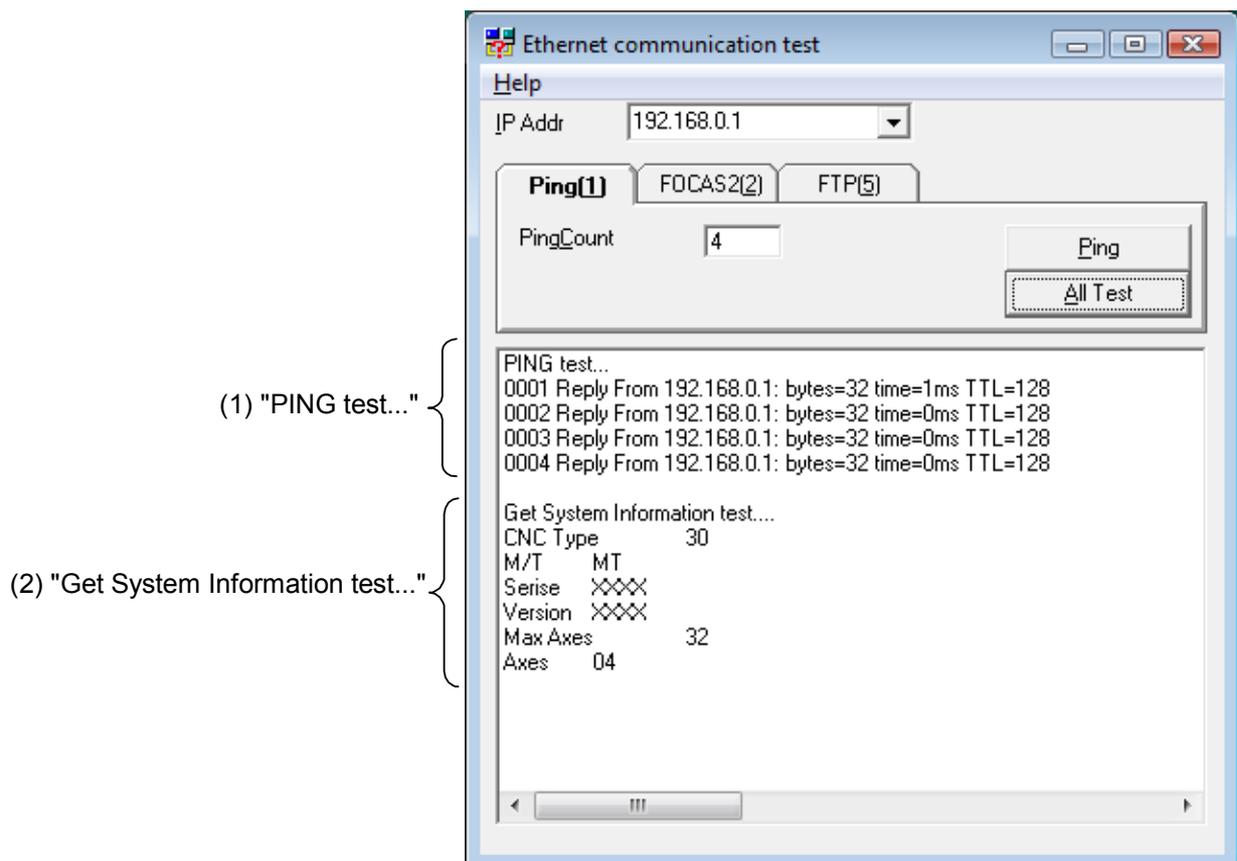
This subsection shows screen examples displayed when the settings are correct and when there are setting errors and explains how to correct these setting errors.

#### NOTE

The buttons on the screen are used for checking communication problems.  
In normal operation, these buttons must not be used.

#### Screen display when the settings are correct

If the IP addresses of the PC and CNC are correct, and the power to the CNC is on, a screen as shown below is displayed:



- (1) "PING test..." shows the results of a PING command test for the CNC.
- (2) "Get System Information test..." shows CNC system information.
  - CNC Type:** Indicates the type of the CNC.
  - Number: Indicates the model number of the *i* Series.  
Example: 30 represents the Series 30 *i*.
  - PD: Power Mate *i* -D
  - PH: Power Mate *i* -H
  - M/T:** Indicates the M/T type.
  - Series:** Indicates the series number of the CNC software with a 4-digit character string.
  - Version:** Indicates the version number of the CNC software with a 4-digit character string.
  - Max axes:** Indicates the maximum number of axes that can be controlled.
  - Axes:** Indicates the number of controlled axes.

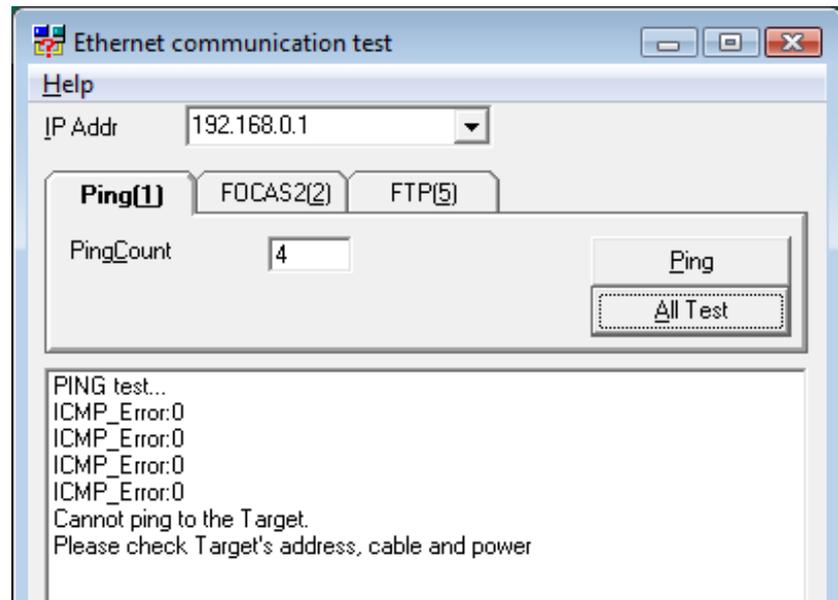
## Retesting on the communication confirmation screen

Retesting for confirming communication can be performed without ending this screen and returning to the communication setting dialog, by following the steps below:

- (1) Enter the IP address of the communication destination in [IpAddr].
- (2) Click the <All Test> button.

When communication confirmation has been performed by retesting, re-enter correct values on the communication setting dialog.

## Setting error (1)



If the IP addresses of the PC and CNC are not correct, or if the power to the CNC is off, a screen as shown below may appear:

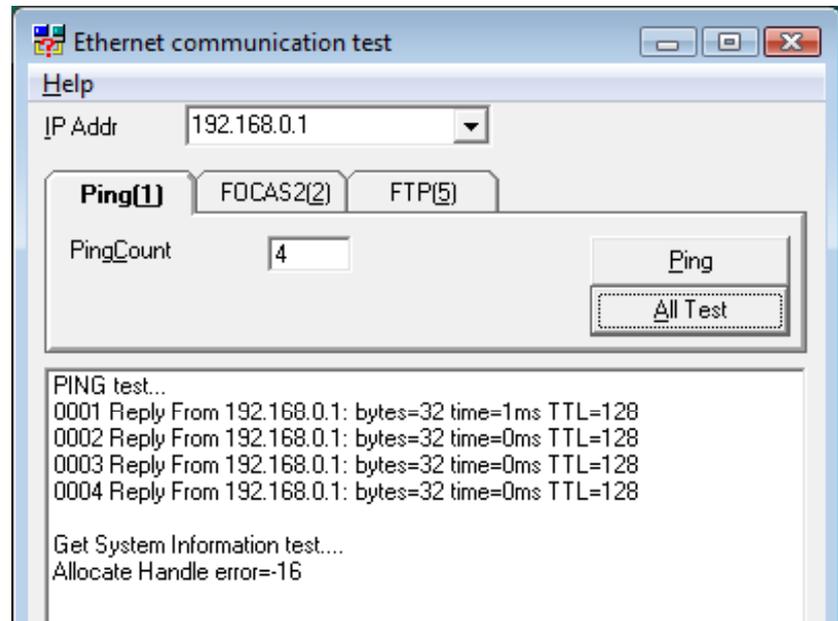
When "Reply From ..." lines are not displayed, possible causes are as follows:

- (1) The power to the CNC is off, or there is a cable not connected.
- (2) The IP address of the CNC and the setting on the setting dialog do not match.
- (3) The set CNC network address and host address are incorrect.

For the IP address, refer to the manual of the Ethernet board.

## Setting error (2)

If the IP addresses of the PC and the CNC are correct, and the power to the CNC is on, but another setting error is present, a screen as shown below may appear:

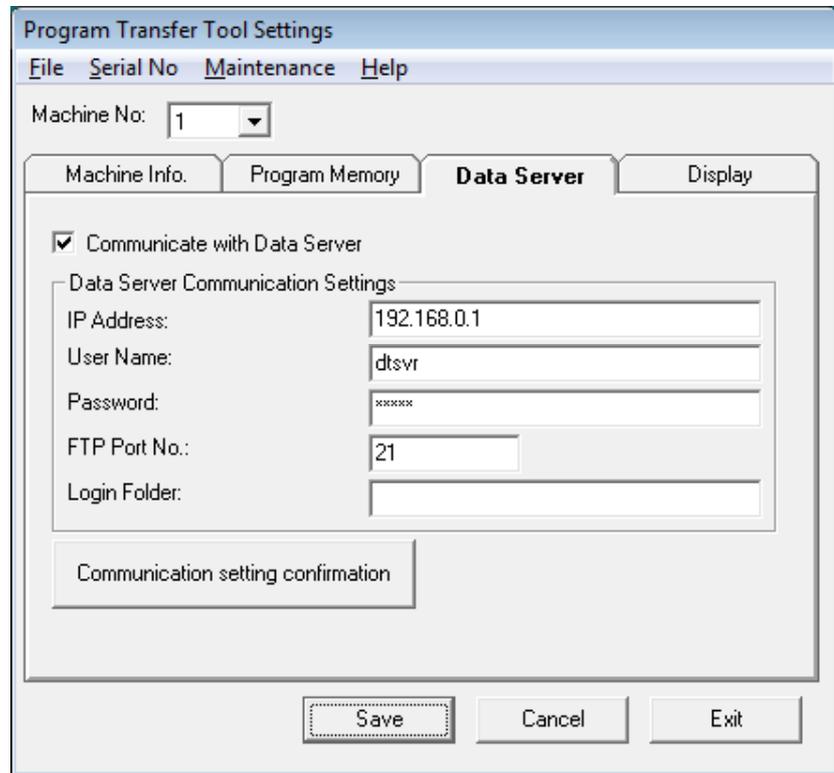


If no CNC system information is displayed following the "Get System Information test..." line, possible causes are as follows:

- (1) The set IP address is not the IP address of the CNC but the IP address of a device such as a PC for which TCP/IP is set.
- (2) The value set in "TCP Port No." of the CNC is incorrect.
- (3) The CNC is provided with a data server option, and communication parameters are correct, but there is no Ethernet option.

If "No option (Extended driver and libraries function)" is indicated, the extended driver and libraries option is missing in the CNC.

## 1.4 SETTING COMMUNICATION WITH DATA SERVER



In the Data Server tab, settings are made to communicate with the FTP server of a data server.

- (1) Machine No  
Select a machine number for which settings are to be made.
- (2) Communication with Data Server  
When communication with the FTP server of the data server is to be performed, check this check box. This enables setting in this tab.  
If this check box is not checked, setting in this tab cannot be performed.
- (3) IP Address  
Enter the IP address set for the CNC. Up to 63 one-byte characters can be entered. This item is always required. The value to be set must not be the same as the value set as the IP address in data server communication settings for another machine. A host name may also be entered. When a host name is used, it is not case sensitive. For the setting method for each CNC, see Appendix.  
When communication with the program memory is enabled, and [Ethernet Board/DATA SERVER] is selected as the Ethernet type, the IP address entered in the Program Memory tab is used, so no IP address can be entered in the Data Server tab.

- (4) User Name  
Enter the user name set for the CNC. Up to 31 one-byte characters may be entered. This item is always required. The default is "dtsvr". For the setting method for each CNC, see Appendix.
- (5) Password  
Enter the password set for the CNC. The entered characters are indicated with asterisks (\*). Up to 31 one-byte characters may be entered. This item is always required. The default is "dtsvr". For the setting method for each CNC, see Appendix.
- (6) FTP Port No.  
A value from 1 to 65535 can be entered. This item is always required. The default is 21. Normally, use the default without modification.
- (7) Login Folder  
Enter a login folder if it is specified. Up to 128 one-byte characters may be entered. This item may be omitted.
- (8) Communication setting confirmation  
Correct communication with the data server can be confirmed. After adding or modifying settings in this tab, be sure to confirm communication. For details, see Subsection 1.4.1, "Confirming Communication Settings".

## 1.4.1 Confirming Communication Settings

When the <Communication setting confirmation> button on the data server communication setting dialog is clicked, a screen for confirming communication settings is displayed.

This subsection shows screen examples displayed when the settings are correct and when there are setting errors and explains how to correct these setting errors.

### NOTE

The buttons on the screen are used for checking communication problems.  
In normal operation, these buttons must not be used.

### Screen display when the settings are correct

The screenshot shows a window titled "Ethernet communication test" with a "Help" button and a "JP Addr" dropdown set to "192.168.0.1". There are three tabs: "Ping(1)", "FOCAS2(2)", and "FTP(5)". The "FTP(5)" tab is active, showing "Username" as "dtsvr" and "Password" as "\*\*\*\*\*". There are "Connect Test" and "All Test" buttons. The main area displays test results:

(1) PING test

```

PING test...
0001 Reply From 192.168.0.1: bytes=32 time=1ms TTL=128
0002 Reply From 192.168.0.1: bytes=32 time=0ms TTL=128
0003 Reply From 192.168.0.1: bytes=32 time=0ms TTL=128
0004 Reply From 192.168.0.1: bytes=32 time=0ms TTL=128
  
```

(2) FTP Connect test

```

FTP Connect test...
220 FANUC FTP server ready.
331 User name okay, need password.
230 User logged in, proceed.
257 "/" is current directory.
  
```

(3) FTP Directory List test

Name	Size
Folder1/	
00011	500
File00001	3500

When the settings are correct, (1) to (3) are all displayed. Their meanings are as follows:

- (1) "PING test" shows the results of a PING command test for the communication destination. If the communication settings are correct, "Reply from ..." is returned from the communication destination as shown in the figure.
- (2) "FTP Connect test" shows the results of a test of connection to the communication destination. If the communication settings are correct, a message indicating the current directory set after login is displayed, such as "257 "/NCDATA" is current directory" displayed in the last line.
- (3) "FTP Directory List test" shows the results of testing the display of the directory of the communication destination. If the communication settings are correct, a list of folders or files in the current folder set immediately after login is displayed.

After this test, a logout takes place.

If the data server contains neither files nor folders, the following is displayed without displaying a file or folder list:

Name	Size
-----	-----
-----	-----

### Meanings of messages displayed by the FTP Connect test

The message displayed with a number varies depending on the specification of the communication destination software. The following shows the meanings of the numbers and display examples in a data server:

No.	Meaning and display example in data server
220	The communication destination becomes ready for accepting a new user. Example: FANUC FTP server ready.
331	Login starts, and a password is requested. Example: User name okay, need password.
230	Login is completed. Example: User logged in, proceed.
257	The path name (the current directory in the test) has been changed. Example: "/NCDATA" is current directory.
530	Login has not been performed. Example: Not logged in.

### Retesting on the communication confirmation screen

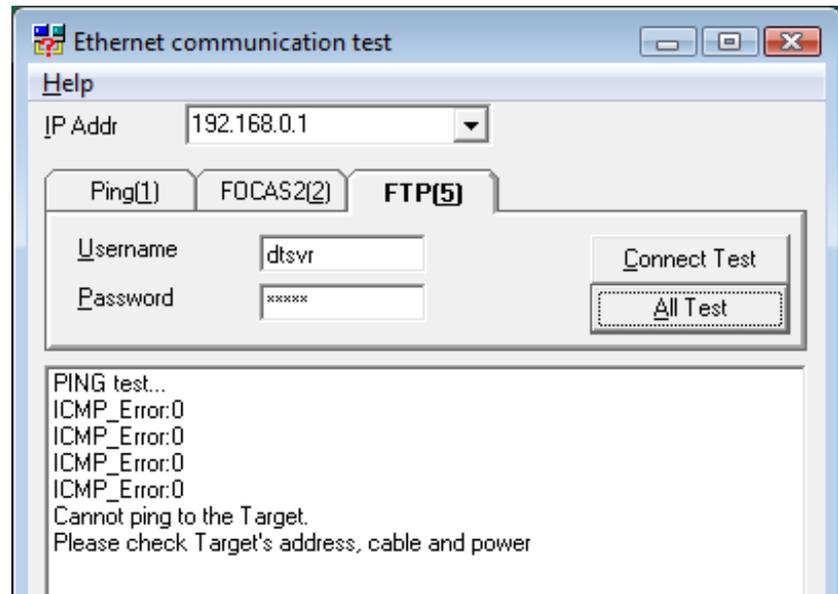
Retesting for confirming communication can be performed without ending this screen and returning to the communication setting dialog, by following the steps below:

- (1) Enter the IP address of the communication destination in [IpAddr].
- (2) Enter the user name in [Username].
- (3) Enter the password in [Password].
- (4) Click the <Connect Test > button.

When communication confirmation has been performed by retesting, re-enter correct values on the communication setting dialog.

## Setting error (1)

If the IP address of the communication destination is not correct, or the power to the communication destination is off, "(1) PING test" may appear as shown below.



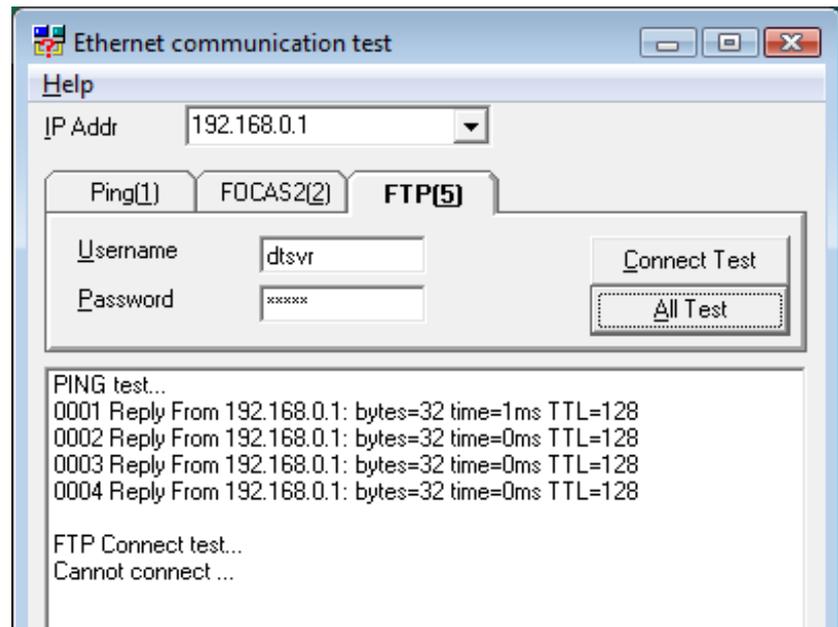
When "Reply From ..." lines are not displayed, possible causes are as follows:

- (1) The power to the CNC is off, or there is a cable not connected.
- (2) The IP address of the CNC and the setting on the setting dialog do not match.
- (3) The setting of CNC network address and host address are incorrect.

## Setting error (2)

If the connected data server does not use the FTP server function, "(2) FTP Connect test" may fail even when "(1) PING test" succeeds.

In this case, a message indicating that the communication destination is ready to accept the user, such as "220 FANUC FTP Server ready", is not displayed, but "Cannot connect ..." is displayed. Set a correct connect destination.

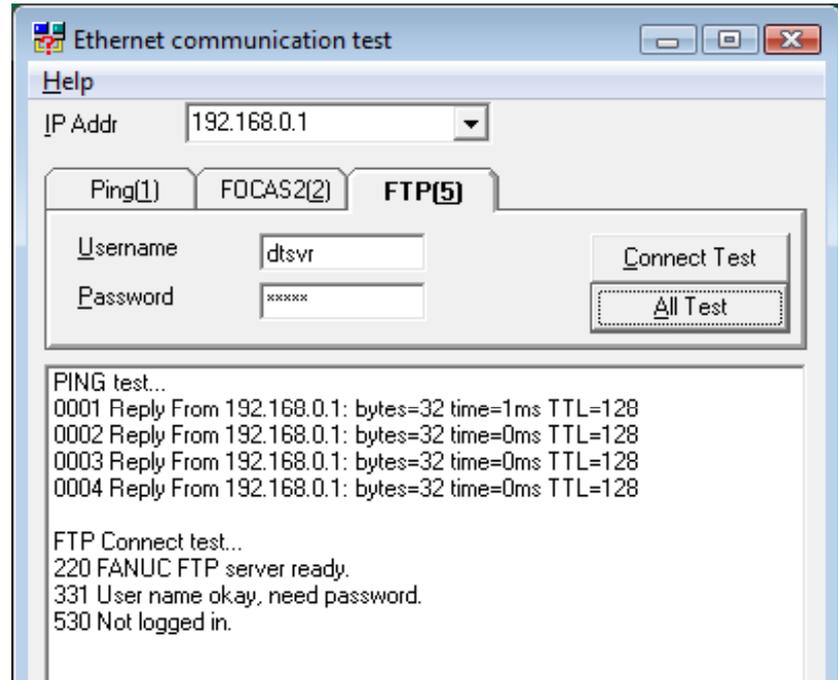


If a screen as shown above is displayed, possible causes are as follows:

- (1) The FTP server setting for the data server is incorrect or is not found.
- (2) The ATA card of the data server is not present or fails, so the FTP server function is disabled.

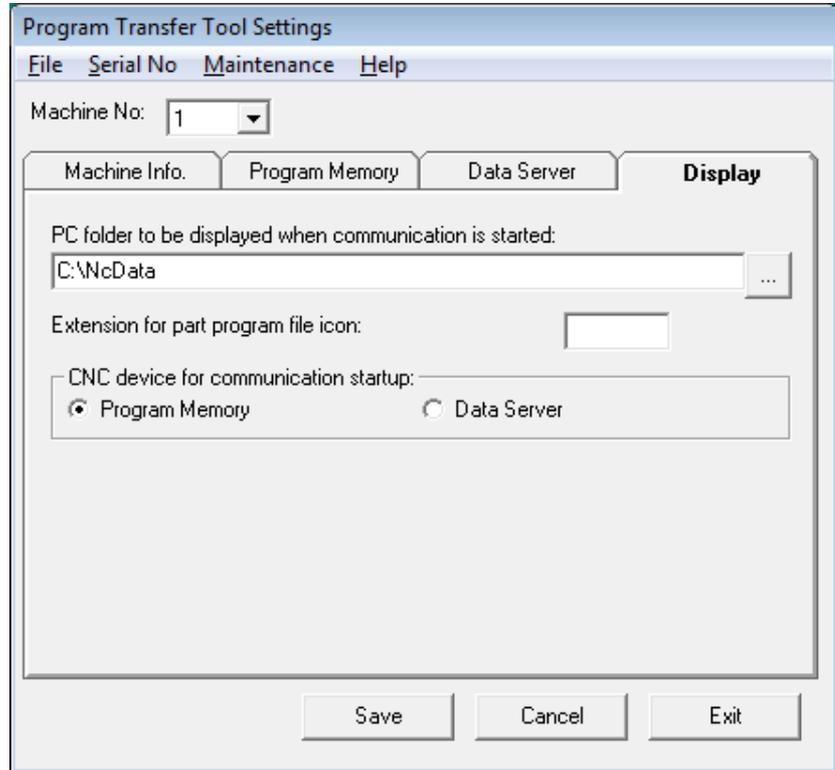
### Setting error (3)

If the set user name or password is incorrect, "(2) FTP Connect test" may fail even when "(1) PING test" succeeds. In this case, a message indicating that the communication destination is ready to accept the user, such as "220 FANUC FTP Server ready.", is displayed, but a message indicating that login failed, such as "530 Not logged in.", is displayed.



If a screen as shown above is displayed, a possible cause is as follows:  
(1) The user name or password is incorrect. It is necessary to enter uppercase and lowercase letters correctly.

## 1.5 DISPLAY



In the Display tab, items related to display are set:

- (1) Machine No  
Select a machine number for which settings are to be made.
- (2) PC folder to be displayed when communication is started  
Set the folder on the PC that is to be displayed in the PC file list of the Program Transfer Tool when communication with the machine starts. Clicking the right button displays PC folders for selection. This item is always required. A folder name consisting of up to 248 characters can be specified without adding \ at the end.
- (3) Extension for part program file icon  
The Program Transfer Tool can display a special icon to represent programs so that they can be distinguished from other files.



Program icon

Set an extension to display the icon for programs. Up to 5 one-byte characters can be entered. This item may be omitted.

Example:

To display a file having file name "xxx.PRG" with the program icon, enter the following:  
"PRG"

When a program is uploaded from the program memory of CNC except Series 30i/31i/32i to PC, the extension set here is added to the program name automatically.

(4) CNC device for communication startup

This item specifies whether to display a program memory list or data server list when the Program Transfer Tool starts to communicate with the machine.

When "Communicate with Program Memory" is checked in the "Program Memory" tab, the <Program Memory> button becomes valid.

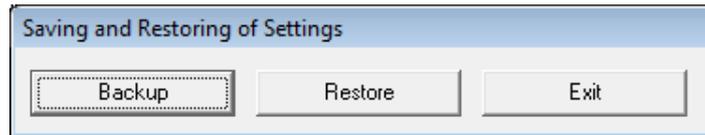
When "Communicate with Data Server" is checked in the "Data Server" tab, the <Data Server> button becomes valid.

When both buttons are valid, the user can select one of these buttons.

## 1.6 MAINTENANCE OF SETTINGS

---

When [Saving and Restoring of Settings] is chosen from the [Maintenance] menu, the "Saving and Restoring of Settings" dialog box is displayed. By using this dialog box, settings can be saved in one setting file. It is also possible to restore settings by reading a setting file.



- (1) Backup  
Settings are backed up in one file. Click the <Backup> button to display the "Save As" dialog box. Specify a folder and a file name.
- (2) Restore  
Backed up settings are restored. Click the <Restore> button to display the "Open" dialog box. Settings are then read from a specified backup file.
- (3) Exit  
This button ends this dialog box.

## 1.7 MENU

---

The following menu functions are provided on the screen:

### File menu

Cancel	Cancels settings made by modification, and reads the most recently saved data. The same function as the <Cancel> button on the screen is provided.
Save	Saves settings made by modification. The same function as the <Save> button on the screen is provided.
Exit	Ends the screen. The same function as the <Exit> button on the screen is provided.

### Serial No. menu

Admin	Inputs a serial number. For details, see Section 1.1, "SERIAL NUMBER".
-------	--

### Maintenance menu

Saving and Restoring of Settings	Backs up or restores settings. For details, see Section 1.6, "MAINTENANCE OF SETTINGS".
----------------------------------	---

## **IV. OPERATION**



# 1

## OPERATION

---

This chapter describes the method of operating the tool.

Chapter 1, "OPERATION", consists of the following sections:

1.1	STARTING THE TOOL .....	64
1.2	SCREEN CONFIGURATION OF THE PROGRAM TRANSFER TOOL .....	64
1.3	PC FILE LIST OPERATION.....	68
1.4	FILE TRANSFER TO AND FROM THE PROGRAM MEMORY .....	77
1.5	TRANSFER OF DATA OTHER THAN PROGRAMS .....	95
1.6	FILE TRANSFER TO AND FROM THE DATA SERVER ...	103
1.7	SETTING OF OPTIONS.....	118

# 1.1 STARTING THE TOOL

## Starting the tool

Choose <Program Transfer Tool> from the [Program Transfer Tool] group on the [start] menu of Windows.

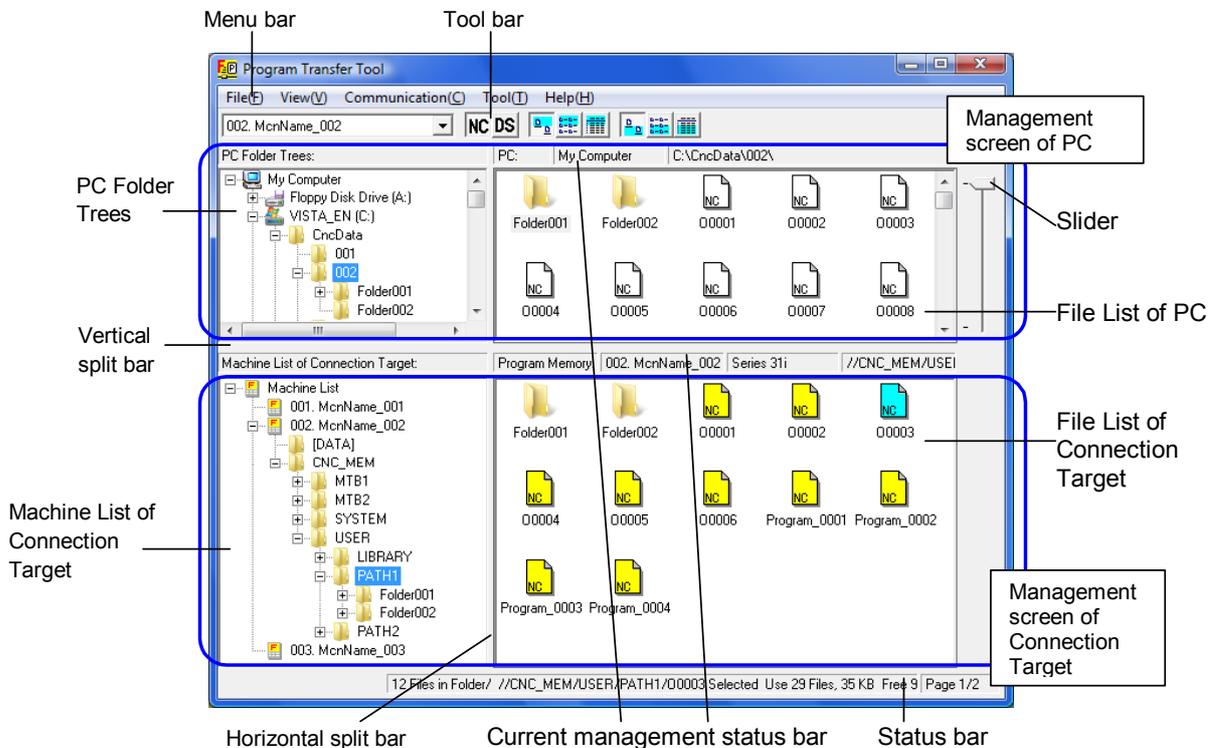
**NOTE**

The Program Transfer Tool and setting dialog cannot be executed at the same time.

- Terminate the Program Transfer Tool before making a setting.
- Quit the setting dialog before using the Program Transfer Tool.

# 1.2 SCREEN CONFIGURATION OF THE PROGRAM TRANSFER TOOL

The screen of the Program Transfer Tool is shown below. The screen is divided into an upper screen and lower screen. The upper screen is a PC management screen, and the lower screen is a screen for managing connection destinations such as a program memory and data server.



---

## 1.2.1 Menu and Toolbar

---

### Menu bar

The menu bar includes commands for operating the Program Transfer Tool screen

### Toolbar

The toolbar displays buttons for frequently used commands.

### Vertical/Horizontal Split bar

By dragging the mouse by a desired width after placing the mouse on the split bar between the PC folder tree or Machine List of Connection Target and the file list or between the PC management screen and connection destination management screen, the width and height of each divided screen can be adjusted.

### Status bar

The status bar displays the total number of files of the currently selected file list. If a command that consumes a longer time, such as a command for folder switching or connection processing, is executed, a message is displayed to indicate that command processing is in progress.

### Slider

The slider is used to switch the page of the PC file list.

When the number of files of the currently selected folder exceeds the maximum number of files displayable one one page of the file list, the rest is displayed on subsequent pages.

The maximum number of files displayable per page of the file list can be set to an arbitrary value ranging from 100 to 5000 on the options screen.

If all files can be displayed on one page, the slider is not displayed.

## 1.2.2 Display of the Upper Screen (PC Information)

### PC folder tree

The PC folder tree is located in the upper-left area of the Program Transfer Tool screen. The PC folder tree displays "My computer" (folder on Windows). An arbitrary file or folder on "My computer" can be downloaded to or uploaded from a connection destination.

### File list

The upper-right area of the Program Transfer Tool screen displays a PC file list. The PC file list displays the icons of the files of the folder currently selected in the PC folder tree.

Files are displayed using the icons corresponding to types as indicated below according to the file names and extensions.

File name and extension	Icon	Type
File name with an extension specified for programs on the setting dialog (A file name with no extension may be specified.)		Program
File name for data other than programs (*1)		Data
File names and extensions other than the above		Other

\*1 The table below indicates the file names for data other than programs.

	Tool offset	Custom macro variable	Workpiece origin offset
Series 30i/31i/32i-A Series 0i-D	TOOLOFST.TXT	MACRO.TXT	EXT_WKZ.TXT
Series 16i/18i/21i-A/B Series 0i-B/C Series 20i-B	TOOLOFST.DAT	MACROVAR.DAT	WORK-G54.DAT
Power Mate i-D/H	TOOLOFST.DAT	MACROVAR.DAT	None

\* The file names above are for data of the first path. For data of a second or subsequent path, the extension "P-path-number" is used. However, for the tenth path, the extension is "P10".  
Example:

Tool offset data of the second path: TOOLOFST.P-2

Tool offset data of the tenth path: TOOLOFST.P10

#### NOTE

The file name of data other than programs is the same as given when bit 0 of parameter No. 138 is set to 1 on the CNC and data is output to a memory card without specifying a file name.

### Current management status bar

The PC side current management status bar displays the path of the folder currently selected in the PC folder tree.

## **1.2.3 Display of the Lower Screen (Connection Destination Information)**

---

### **Machine List of Connection Target**

The lower-left area of the Program Transfer Tool screen displays a Machine List of Connection Target. The Machine List of Connection Target displays a Machine List.

The Machine List displays machines for which a communication setting has already been made on the setting dialog.

When a machine is selected from the Machine List, communication is performed with the machine and the list of programs at the connection destination is read and displayed as a file list.

When a connection is made with the Series 30i/31i/32i or a data server, a folder list is displayed in tree form.

### **File list**

The lower-right area of the Program Transfer Tool screen displays a connection destination file list. A list of programs read by performing communication with a machine is displayed.

### **Current management status bar**

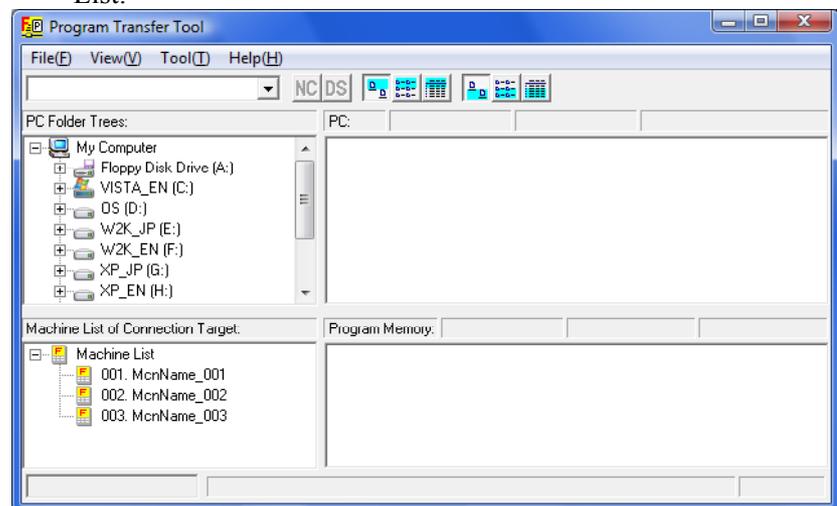
The connection destination current management status bar displays information (machine number, machine name, path number, and so forth) about the machine currently selected in the Machine List of Connection Target. If the selected machine is not connected, the machine name only is displayed.

## 1.3 PC FILE LIST OPERATION

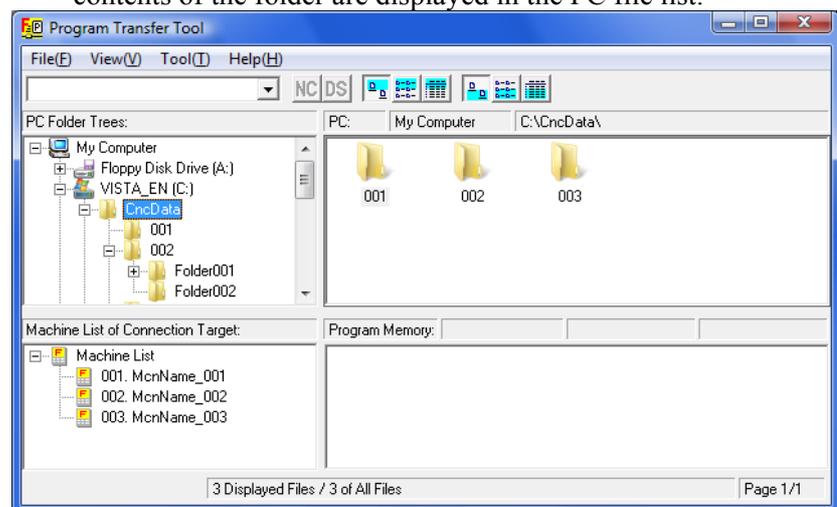
### 1.3.1 Changing the Display of the PC Side Current Management Folder

The PC side current management folder is the current operation target folder on the PC side. A list of files is displayed.

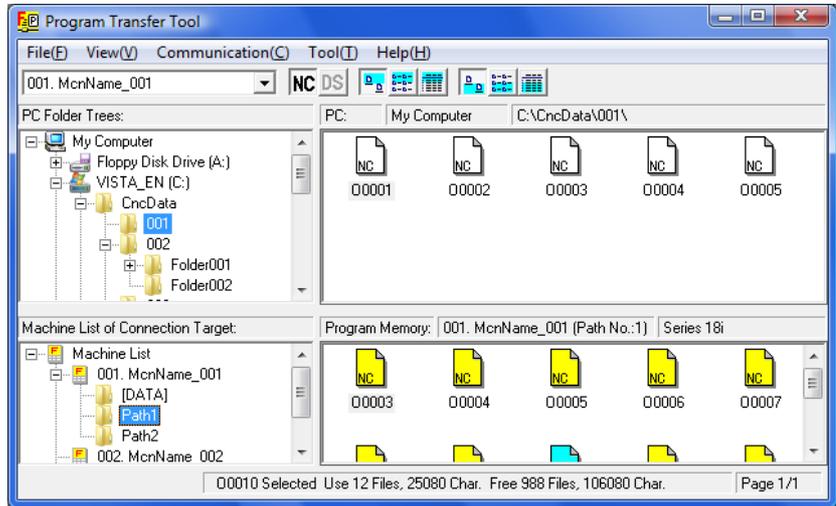
- (1) Initially, when the Program Transfer Tool screen is started, the PC folder tree displays a list of the drives under "My computer", and the Machine List of Connection Target displays a Machine List.



- (2) When the user clicks a folder in the PC folder tree, the folder is selected as the PC side current management folder and the contents of the folder are displayed in the PC file list.



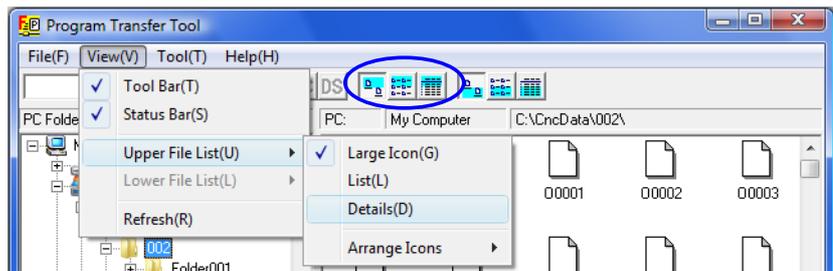
When the user clicks a machine in the Machine List of Connection Target, the PC folder that is set for the machine and is displayed at communication start time is selected in the PC folder tree and the contents of the PC folder are displayed in the PC file list.



A connection destination device can also be selected from the list box on the left side of the toolbar.

### 1.3.1.1 Changing the method of display

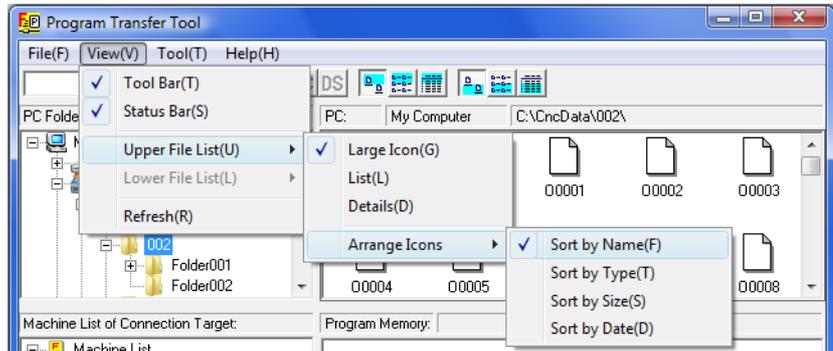
The method of display can be changed as indicated below by choosing from the [Upper File List] menu on the [View] menu or choosing from the corresponding buttons on the toolbar.



Command name on [Upper File List]	Button on the toolbar	File list display method
[Large Icons]		Large icon
[List]		Small icon
[Details]		Detailed display of the following: File name, file type, size (bytes), last modification data and time

### 1.3.1.2 Changing the order of display

By choosing [Upper File List] then [Arrange Icons] from the [View] menu, the user can make a selection from Sort by Name, Sort by Type, Sort by Size, and Sort by Date (last modification date and time).

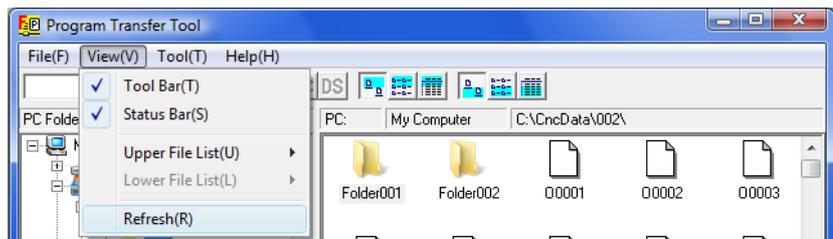


If [Details] is selected as the file list display format, a display order selection can also be made by clicking [File Name], [Type], [Size], or [Last Modification Date] at the top of the file list.

### 1.3.1.3 Updating the display

Press the [F5] function key or click the [Refresh] command on the [View] menu.

The PC file list and connection destination file list are updated to the latest information.



## 1.3.2 Operating Files and Folders on the PC

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This subsection describes the methods of operating files and folders displayed in the PC file list. View, edit, copy, move, delete, rename, and create (folders only) operations can be performed.

### 1.3.2.1 Viewing a file

---

A file on the PC can be viewed. A viewer for view operation can be specified using the Options dialog box. For details, see Subsection 1.7.2, "View, Edit Tab". If no viewer is specified, the file viewer built into the Program Transfer Tool is used.

The procedure is as follows:

- (1) Click a file to be viewed in the PC file list.
- (2) Perform a mouse operation or menu operation as described below.
  - A) Mouse operation  
Double-click a file to be viewed in the PC file list. The viewer is started.
  - B) Menu operation
    - B-1) Click a file to be viewed in the PC file list.
    - B-2) Click the [View] command on the [File] menu or on the menu displayed by right-clicking the selected file. The viewer is displayed.

#### **NOTE**

- 1 [File Viewer] enables only one file to be viewed at a time.
- 2 [File Viewer] is a text viewer, so that it cannot be used to view a binary file.
- 3 The maximum size of a file displayable by [File Viewer] is 32K bytes. If a file larger than 32K bytes is viewed, the 32K-byte contents of the file starting from the top of the file are displayed.
- 4 Only when [View] is selected from [Double click on PC file list] in the [Options] dialog box, the viewer can be started. For details, see Subsection 1.7.1, "Listing Tab".

### 1.3.2.2 Editing a file

A file on the PC can be edited. An editor for edit operation can be specified using the Options dialog box. For details, see Subsection 1.7.2, "View, Edit Tab". If no editor is specified, the Notepad available with the Windows OS is used.

The procedure is as follows:

- (1) Click a file to be edited in the PC file list.
- (2) Perform a mouse operation or menu operation as described below.
  - A) Mouse operation  
Double-click a file to be edited in the PC file list. The editor is started.
  - B) Menu operation
    - B-1) Click a file to be edited in the PC file list.
    - B-2) Click the [Edit] command on the [File] menu or on the menu displayed by right-clicking the selected file. The editor is displayed.

#### NOTE

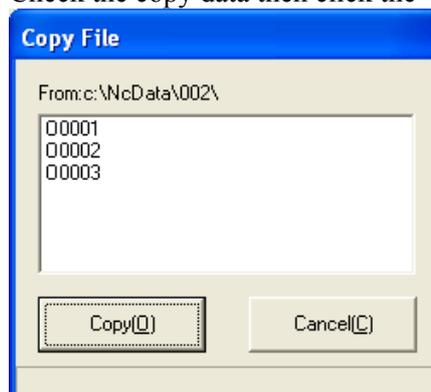
Only when [Edit] is selected from [Double click on PC file list] in the [Options] dialog box, the editor can be started. For details, see Subsection 1.7.1, "Listing Tab".

### 1.3.2.3 Copying a file

The procedure for copying a file on the PC to another PC folder is described below.

#### Copying a file by drag and drop

- (1) Click a file to be copied in the PC file list.  
To select multiple files, click each file while holding down the [Ctrl] key.
- (2) Drag a selected file to a desired folder in the PC folder tree or the PC file list then drop the file while holding down the [Ctrl] key.
- (3) The [Copy File] dialog box is displayed.  
Check the copy data then click the <Copy> button.



## Copying a file by menu or keyboard operation

- (1) Click a file to be copied in the PC file list.  
To select multiple files, click each file while holding down the [Ctrl] key.
- (2) Click the [Copy] command on the [File] menu or on the menu displayed by right-clicking a selected file, or press the [Ctrl+C] key.
- (3) Select a copy destination from the folders in the PC folder tree or the PC file list then click the copy destination.
- (4) Click the [Paste] command on the [File] menu or on the menu displayed by right-clicking the PC file list, or press the [Ctrl+V] key.
- (5) The [Copy File] dialog box is displayed.  
Check the copy data then click the <Copy> button.
- (6) If a file is copied by a menu or keyboard operation, the copy source file is preserved. So, the file can be copied to another folder in succession.  
Pressing the [ESC] key clears the copy source file information.

### NOTE

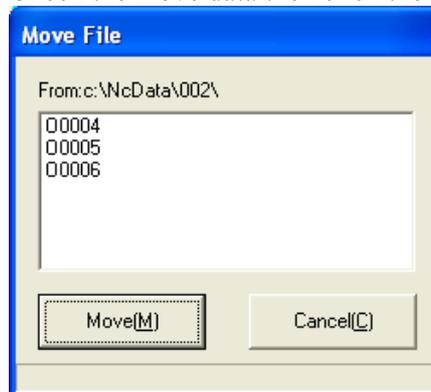
If a copy source and a copy destination are the same folder, the file cannot be copied.

## 1.3.2.4 Moving a file

The procedure for moving a file on the PC to another PC folder is described below.

### Moving a file by drag and drop

- (1) Select a file to be moved in the PC file list.  
To select multiple files, click each file while holding down the [Ctrl] key.
- (2) Drag a selected file to a desired folder in the PC folder tree or the PC file list then drop the file without pressing any key.
- (3) The [Move File] dialog box is displayed.  
Check the move data then click the <Move> button.



**Moving a file by menu or keyboard operation**

- (1) Click a file to be moved in the PC file list.  
To select multiple files, click each file while holding down the [Ctrl] key.
- (2) Click the [Cut] command on the [File] menu or on the menu displayed by right-clicking a selected file, or press the [Ctrl+ X] key.
- (3) Select a copy destination from the folders in the PC folder tree or the PC file list then click the copy destination.
- (4) Click the [Paste] command on the [File] menu or on the menu displayed by right-clicking the PC file list, or press the [Ctrl+V] key.
- (5) The [Move File] dialog box is displayed.  
Check the move data then click the <Move> button.

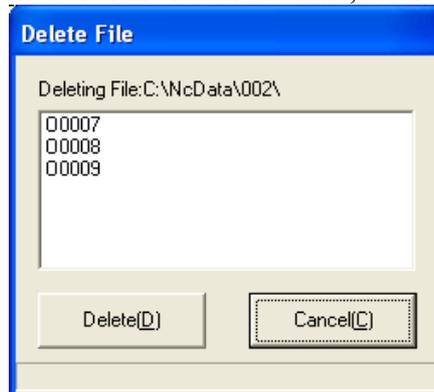
**NOTE**

If a move source and a move destination are the same folder, the file cannot be moved.

### 1.3.2.5 Deleting a file or folder

The procedure for deleting a file or folder on the PC is described below.

- (1) Click a file or folder (herein after simply referred to as a "file") to be deleted in the PC file list.  
To select multiple files to be deleted, click each file while holding down the [Ctrl] key.
- (2) The [Delete File] dialog box is displayed when one of the following operations is performed:
  - Press the [Delete] key.
  - Click the [Delete] command on the [File] menu.
  - Click the [Delete] command on the menu displayed by right-clicking a selected file.
- (3) Clicking the <Delete> button deletes a selected file. To cancel the deletion of a selected file, click <Cancel>.

**NOTE**

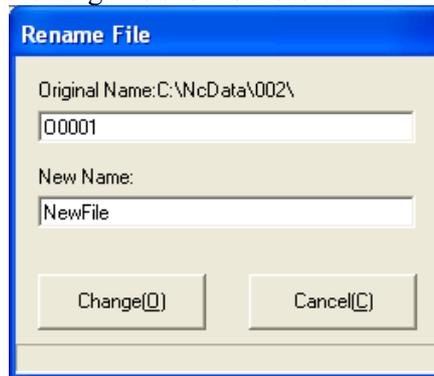
- 1 When a folder is deleted, all files and folders contained in the folder are deleted.
- 2 All deleted files and folders are completely erased from the personal computer and none of them are left in the recycle bin of Windows. Be very careful when deleting a folder.

### 1.3.2.6 Renaming a file or folder

---

The procedure for renaming a file or folder is described below.

- (1) Click a file or folder to be renamed in the PC file list.
- (2) Click the [Rename] command on the [File] menu or on the menu displayed by right-clicking the selected file or folder. The [Rename File] dialog box is displayed.
- (3) Enter a new name in the [New Name] text box then click the <Change> button. Until a name is entered in the text box, the <Change> button is disabled.

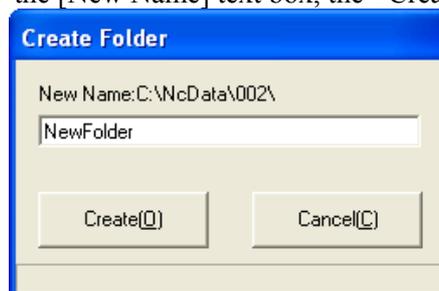


### 1.3.2.7 Creating a new folder

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The procedure for creating a new folder is described below.

- (1) Click a folder under which a new folder is to be created in the "My computer" (PC folder tree) then specify the folder as the PC side current management folder.
- (2) Click the [Create Folder] command on the [File] menu or on the menu displayed by right-clicking the file list. The [Create Folder] dialog box is displayed. However, when using the right-click menu, right-click the mouse button at a file list position where no files and folders are placed. If the user right-clicks the mouse button on a file or folder, the [Create Folder] command is not enabled.
- (3) Enter the name of a folder to be created in the [New Name] text box then click the <Create> button. Until a name is entered in the [New Name] text box, the <Create> button is disabled.



## 1.4 FILE TRANSFER TO AND FROM THE PROGRAM MEMORY

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Programs and folders in the program memory can be transferred.

### 1.4.1 Display of a List of Programs in the Program Memory

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Select a machine from the Machine List of Connection Target. When a machine is selected, communication starts according to the method specified on the setting dialog.

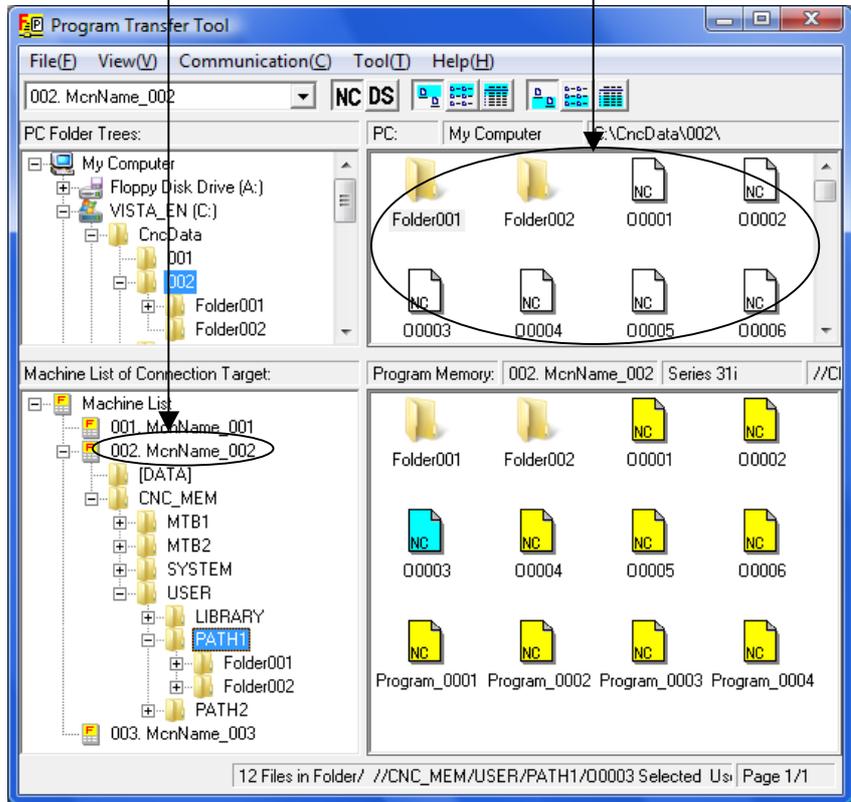
#### NOTE

If communication with the data server is started, switch the connection to the program memory by one of the methods indicated below. When the connection is switched, communication with the program memory of the selected machine is started.

- Click the [NC] button on the toolbar.
- Point to the [Change Connect] command on the [Communication] menu to display a list of connection destinations. Click [Program Memory].

The PC file list displays the contents of the PC folder that is set with the machine for display at communication start time. Refer to (2), "Selecting PC folder to be displayed when communication is started" in Section 1.5 "DISPLAY", of Part III, "Setting".

Select McnName\_002 → Display the file list in the folder allocated for McnName\_002.



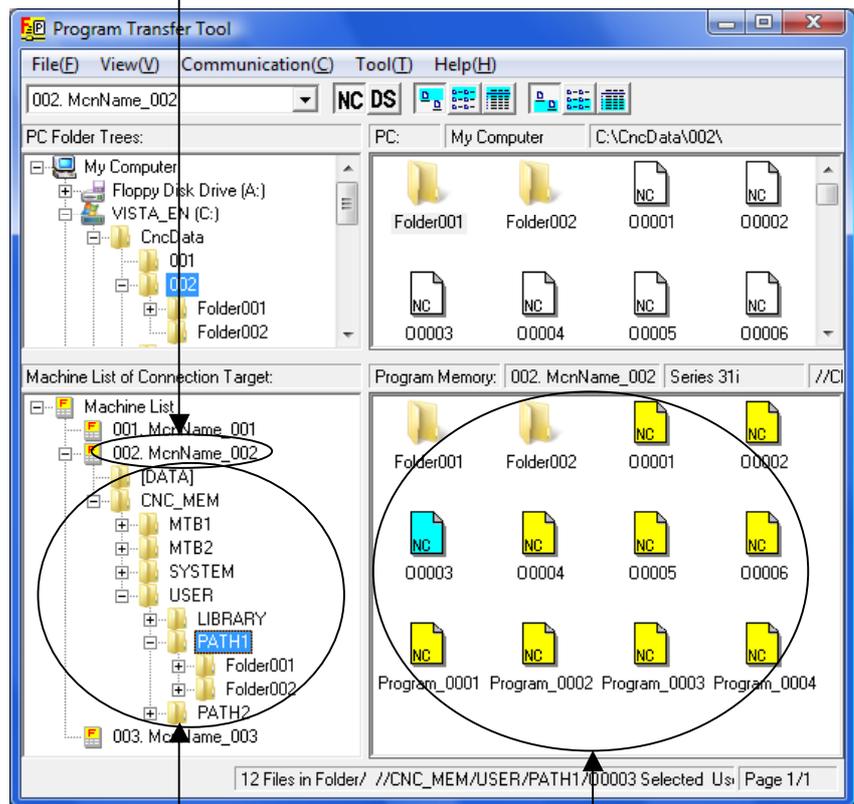
The Machine List of Connection Target and connection destination file list display the following data according to a connected CNC:

<For the Series 30i/31i/32i>

Under the connected machine name in the Machine List of Connection Target, the folders of the program memory are displayed in tree form. The tree also displays the [DATA] file used for transfer of data other than programs.

The connection destination file list displays a list of the folders set in the foreground of the first path of the CNC.

Select McnName\_002



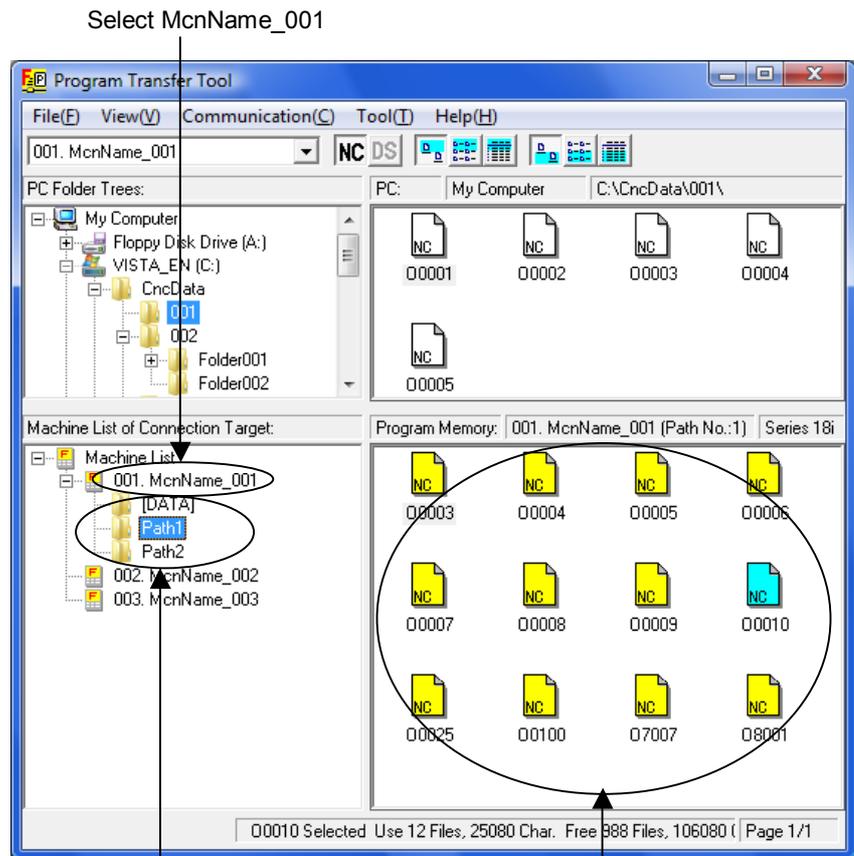
Folder tree in program memory of McnName\_002 is displayed

Program list in program memory of McnName\_002 is displayed

**<For other than the Series 30i/31i/32i>**

If only one path is set with the connection destination device on the setting dialog, the [DATA] folder used for transfer of data other than programs is displayed in tree form under the connected machine name in the Machine List of Connection Target. If two or more paths are set, the [DATA] folder and path information are displayed in tree form.

The connection destination file list displays a list of the files in the memory of the first path of the CNC.



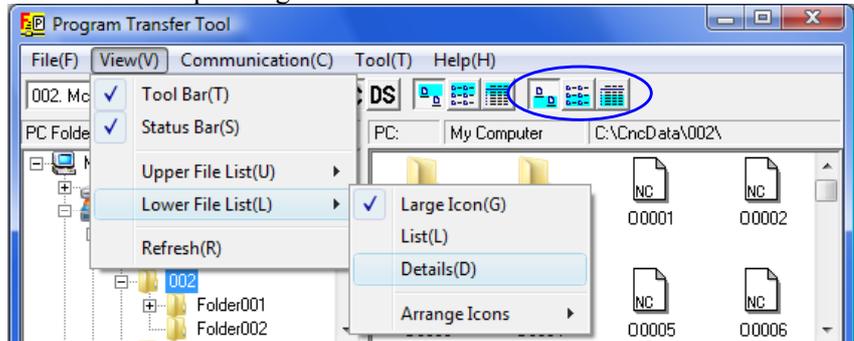
Path information of McnName\_001 is displayed

Program list in program memory of McnName\_001 is displayed

Each time the user clicks the [File List] command on the [Communication] menu, the list of files in the program memory is updated to the latest information.

### 1.4.1.1 Changing the method of display

The method of display can be changed as indicated below by choosing from the [Lower File List] menu on the [View] menu or choosing from the corresponding buttons on the toolbar.



Command name on [Lower File List]	Button on the toolbar	File list display method
[Large Icon]		Large icon
[List]		Small icon
[Details]		Display dependent on the communication destination device

When [Details] is selected for display, the following data is displayed according to the CNC at the communication destination:

<Program memory of the Series 30i/31i/32i>

File name, file/folder type, comments in a program, size, last modification date and time

<Program memory of other than the Series 30i/31i/32i>

O number, comments in a program, size, last modification date and time

### 1.4.1.2 Changing the order of display

By choosing [Lower File List] then [Arrange Icons] from the [View] menu, the user can make a selection from the following.

<Program memory of the Series 30i/31i/32i>

Sort by Name, Sort by Type, Sort by Comment, Sort by Size, Sort by Date (last modification date and time)

<Program memory of other than the Series 30i/31i/32i.>

Sort by O Number, Sort by Comment, Sort by Size, Sort by Date (last modification date and time)

If [Details] is selected as the file list display format, a display order selection can also be made by clicking the following at the top of the file list.

<Program memory of the Series 30i/31i/32i>

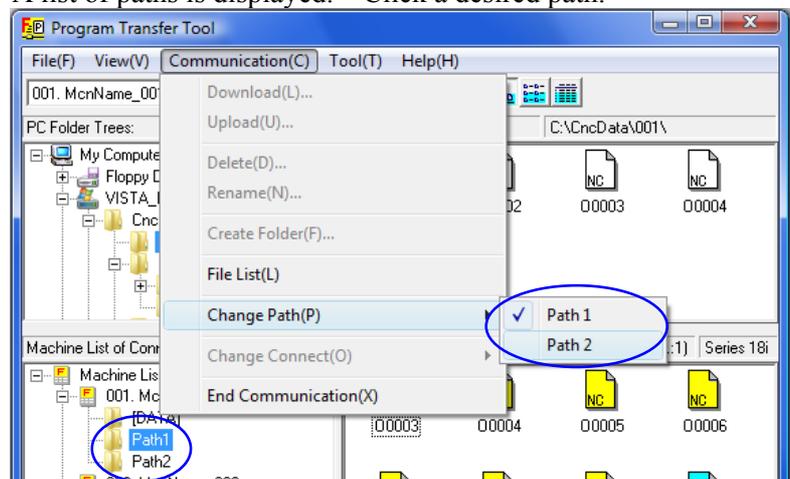
[File Name], [Type], [Comment], [Size], [Last Modification Date]

<Program memory of other than the Series 30i/31i/32i>  
 [O Number], [Comment], [Size], [Last Modification Date]

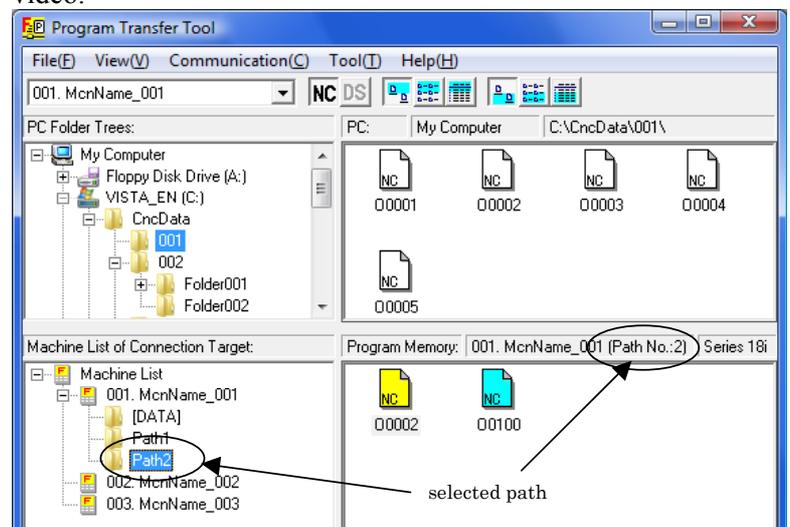
### 1.4.1.3 Changing the path of the CNC under communication

If two or more paths are set with a connection destination device other than the Series 30i /31i /32i on the setting dialog, the communication target path can be changed.

- (1) Paths are displayed under a machine name in the Machine List of Connection Target. Click a desired path. Alternatively, point to the [Change Path] command on the [Communication] menu. A list of paths is displayed. Click a desired path.



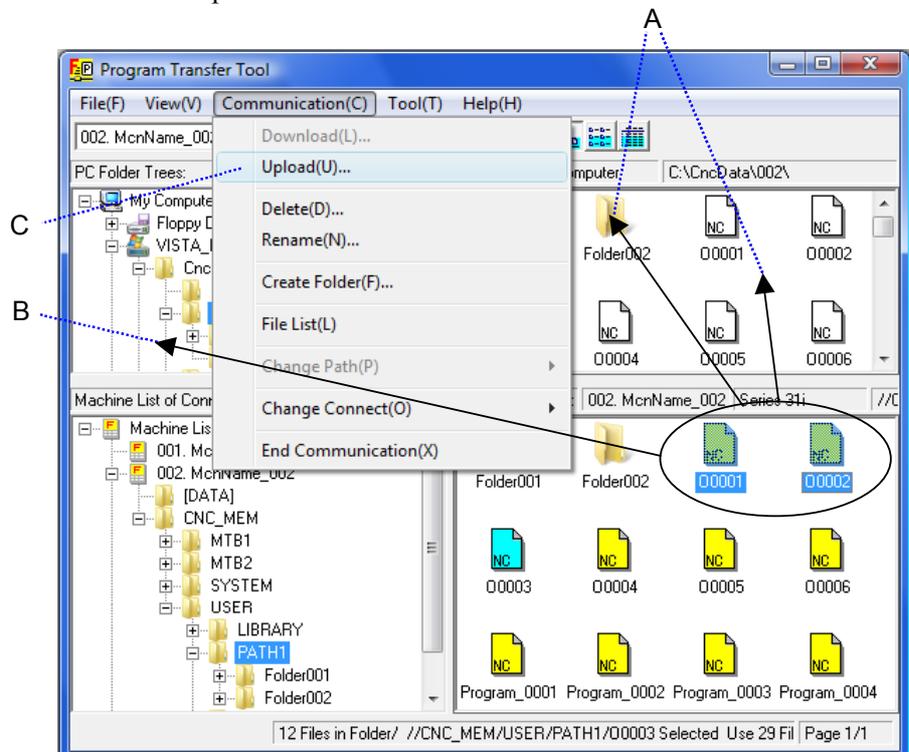
- (2) Communication is switched to the selected path, and the display of the connection destination file list switches to the information of the path selected for communication. The connection destination current management status bar displays the currently selected path. The Machine List of Connection Target displays the currently selected path in reverse video.



## 1.4.2 File Transfer to and from the Program Memory

### 1.4.2.1 Uploading from the program memory to the PC

- (1) Click a file to be uploaded in the connection destination file list. To select multiple files to be uploaded, click each file while holding down the [Ctrl] key. With the Series 30i/31i/32i, a folder can also be selected.
- (2) Perform one of the following operations:
  - A) Drag and drop a file selected in the connection destination file list onto the PC file list. When the selected file is dropped on a file or blank area of the PC file list, the file is uploaded to the folder displayed in the PC file list. When the file is dropped onto the folder in the PC file list, the file can be uploaded to the folder.
  - B) Drag and drop a file selected in the connection destination file list onto the PC folder tree.
  - C) Click the [Upload] command on the [Communication] menu or on the menu displayed by right-clicking a selected file. If a file is selected in the PC file list, the selected file is uploaded to the folder displayed in the PC file list. If a folder is selected in the PC file list, the selected file is uploaded to the folder.



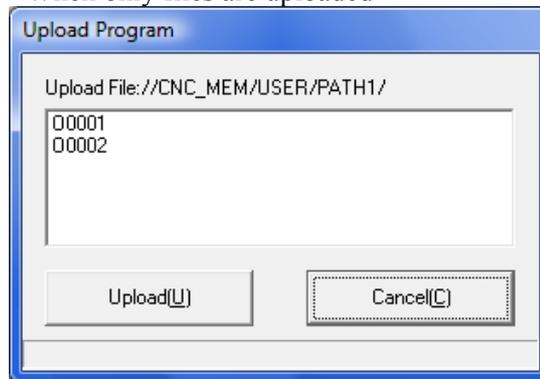
**NOTE**

When the [Upload] menu is used to upload a file, the file is uploaded to a folder selected, if any, in the PC file list. Before operating the menu, check for a file or folder selected in the PC file list.

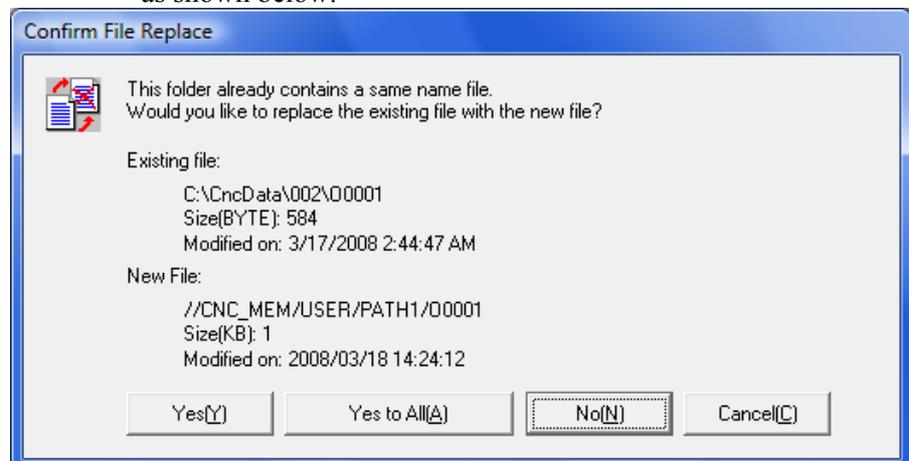
- (3) The [Upload Program] dialog box is displayed according to the contents to be uploaded.

When only files are uploaded, the dialog box shown below is displayed.

<When only files are uploaded>

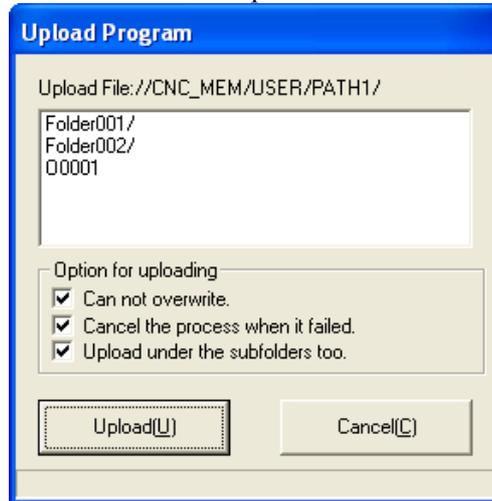


If a file with the same name exists on the PC, a message for checking whether the existing file may be overwritten is output as shown below.



When only folders are uploaded or files and folders are uploaded, the dialog box shown below is displayed. Select an upload option.

<When folders are uploaded>

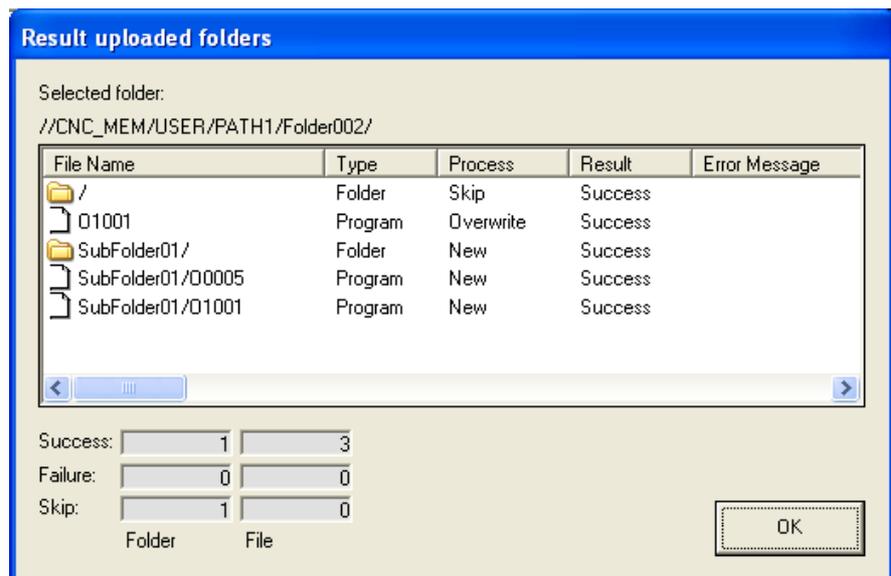


The upload options are described below.

- Can not overwrite      Does not write over a file with the same name if existing at the upload destination.
- Cancel the process when it failed.      Stops processing when a file or folder upload operation fails. No additional files and folders are uploaded.
- Upload under the subfolders too.      Upload all subfolders contained in a selected folder and all files under each of those subfolders.

(4) Click the <Upload> button.

If folders are included, the following result dialog box is displayed each time a selected folder is uploaded:



- Selected folder: Indicates the path of a folder to be uploaded. In the "File Name" column of the screen, "/" is indicated.

- Process: Indicates upload processing.

Process	Meaning
New	When a file is uploaded - There is no existing file with the same name on the PC, so that the file is uploaded. When a folder is uploaded - There is no existing folder with the same name on the PC, so that a folder is newly created.
Overwrite	When a file is uploaded - There is an existing file with the same name on the PC, so that the file is uploaded and written over the existing file.
Skip	When a file is uploaded - There is an existing file with the same name on the PC, so that the file is not uploaded. When a folder is uploaded - There is an existing folder with the same name on the PC, so that no folder is created. The files and subfolders under the target folder are uploaded.

- Result: Indicates whether uploading was successful or not.
- Error Message: An error message is displayed when uploading has failed.

- (5) A selected file is uploaded to the PC and the PC file list is updated to the latest information accordingly.

#### NOTE

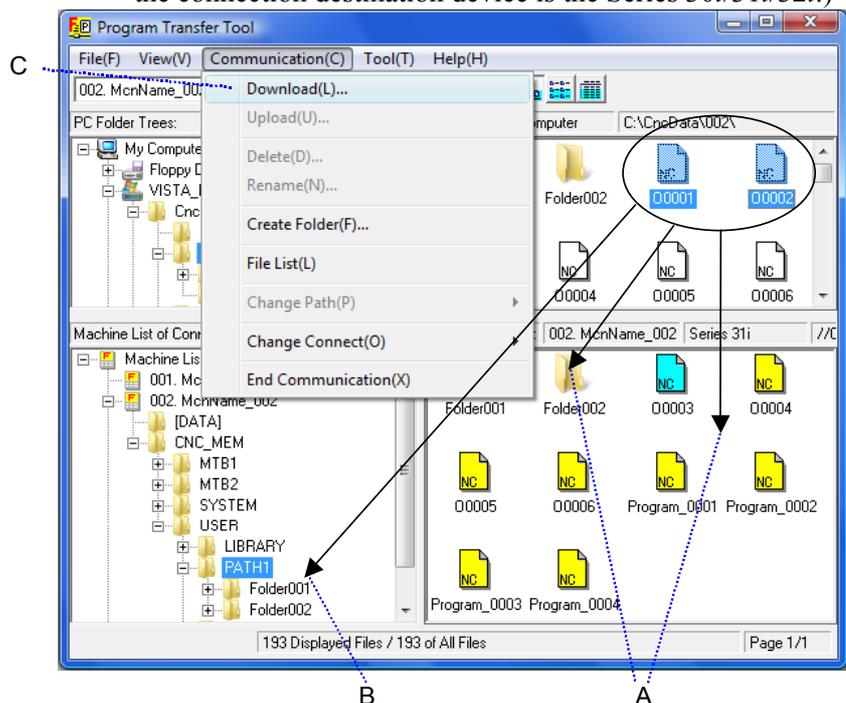
- 1 With a CNC supporting file name management such as the Series 30i/31i/32i, a distinction can be made between the uppercase and lowercase letters. With the Windows OS, however, such a distinction is impossible.  
With a CNC, therefore, a file named AAA and a file named aaa can be created. However, if AAA and aaa are uploaded in this order to the PC, AAA is replaced with aaa when aaa is uploaded.
- 2 Upload will be canceled if a Cancel button is clicked during upload.  
The folder and file which upload completed before cancellation remain in PC. Delete these, if these are unnecessary.  
The file uploaded at the time of cancellation is deleted.

## 1.4.2.2 Downloading from the PC to the program memory

- (1) Click a file to be downloaded in the PC file list. To select multiple files to be downloaded, click each file while holding down the [Ctrl] key. When the connection destination device is the Series 30i/31i/32i, a folder can also be selected.
- (2) Perform one of the following operations:
  - A) Drag and drop a file selected in the PC file list onto the connection destination file list. When the selected file is dropped on a file or blank area of the connection destination file list, the file is downloaded to the folder displayed in the connection destination file list. When the file is dropped onto the folder in the connection destination file list, the file can be downloaded to the folder. (Operation for dropping a file onto a folder is possible only when the connection destination device is the Series 30i/31i/32i.)
  - B) Drag and drop a file selected in the PC file list onto a folder under the connected machine name in the Machine List of Connection Target. (This operation is possible only when the connection destination device is the Series 30i/31i/32i.)
  - C) Click the [Download] command on the [Communication] menu or on the menu displayed by right-clicking a selected file.

If a file is selected in the connection destination file list, the selected file is downloaded to the folder displayed in the connection destination file list.

If a folder is selected in the connection destination file list, the selected file is downloaded to the folder. (Operation for downloading a file onto a folder is possible only when the connection destination device is the Series 30i/31i/32i.)

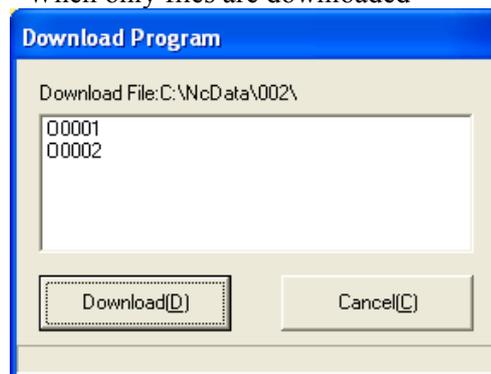


**NOTE**

- 1 When the connection destination device is the Series 30*i*/31*i*/32*i* and the [Download] command on the menu is used to download a file, the file is downloaded to a folder selected, if any, in the connection destination file list.  
Before operating the menu, check for a file or folder selected in the connection destination file list.
- 2 When the connection destination device is a multipath device other than the Series 30*i*/31*i*/32*i*, folders indicating path names are displayed in the Machine List of Connection Target. However, downloading to a path not created is impossible.

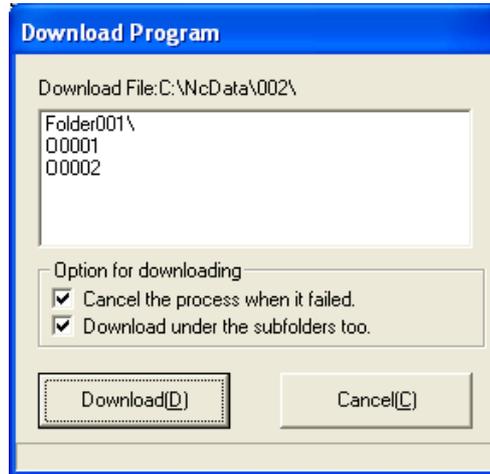
- (3) The [Download Program] dialog box is displayed according to the contents to be downloaded.  
When only files are downloaded, the dialog box shown below is displayed.

<When only files are downloaded>



When only folders are downloaded or files and folders are downloaded, the dialog box shown below is displayed. Select a download option.

<When folders are downloaded>

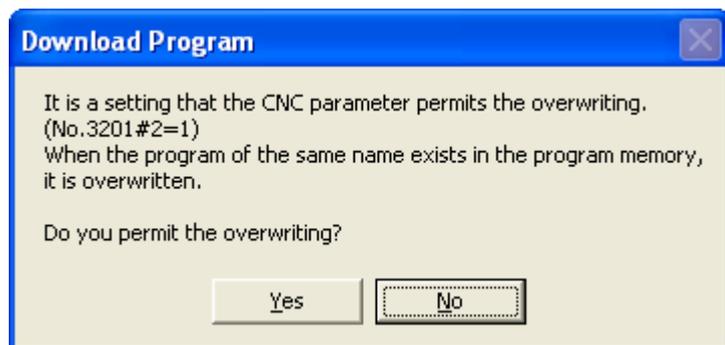


The download options are described below.

Cancel the process when it failed.	Stops processing when a file or folder download operation fails. No additional files and folders are downloaded.
Download under the subfolders too.	Downloads all subfolders contained in a selected folder and all files under each of those subfolders.

(4) Click the <Download> button.

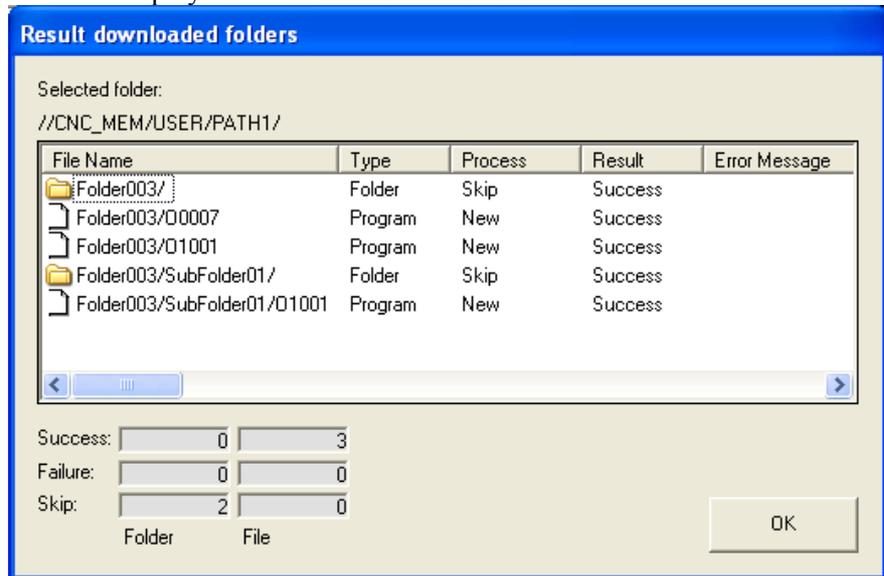
If the CNC parameter is set to enable overwriting (when bit 3 of parameter No. 3201 is set to 1), the user is requested to confirm whether to perform overwriting as indicated below.



<Yes>: Executes all download operations.

<No>: Cancels all download operations.

If folders are included, the following result dialog box is displayed each time a selected folder is downloaded:

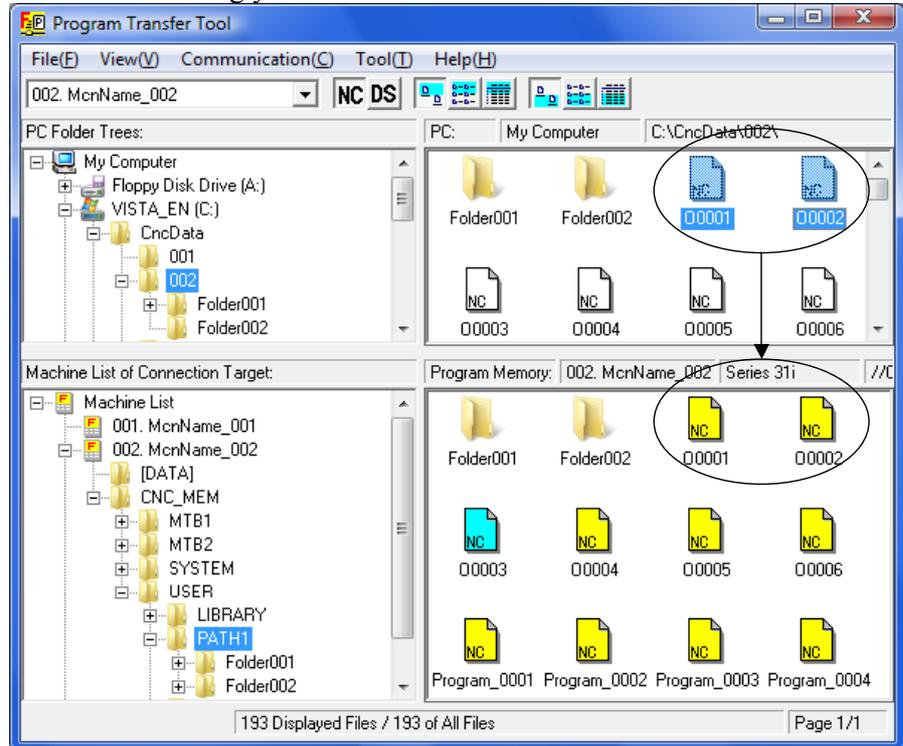


- Selected folder: Indicates the path of a download destination folder.
- Process: Indicates download processing.

Process	Meaning
New	When a file is downloaded - There is no existing file with the same name in the program memory, so that the file is downloaded. - There is an existing file with the same name in the program memory, so that the file is downloaded and written over the existing file. When a folder is downloaded - There is no existing folder with the same name in the program memory, so that a folder is newly created.
Skip	When a folder is downloaded - There is an existing folder with the same name in the program memory, so that no folder is created. The files and subfolders under the target folder are downloaded.

- Result: Indicates whether downloading was successful or not.
- Error Message: An error message is displayed when downloading has failed.

- (5) A selected file is downloaded to the CNC and the connection destination file list is updated to the latest information accordingly.



#### NOTE

- 1 A program name assigned by the CNC at download time is not the file name on the PC but the program name written in the file.
- 2 A program may be overwritten, depending on the setting of the CNC parameter for enabling overwriting. At the time of downloading, carefully check whether a program name with the same name exists.
- 3 Download will be canceled if a Cancel button is clicked during download.  
The folder and file which download completed before cancellation, and the file downloaded at the time of cancellation remain in CNC program memory. Delete these, if these are unnecessary.

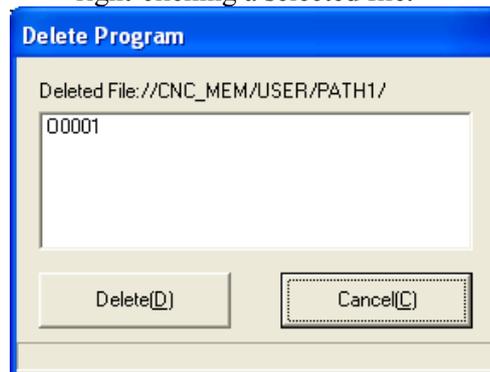
## 1.4.3 Operating Files and Folders in the Program Memory

### 1.4.3.1 Deleting a file or folder

**NOTE**

A folder in the program memory can be deleted only when communication is performed with the Series 30i/31i/32i.

- (1) Click a file or folder (herein after simply referred to as a "file") to be deleted in the file list.  
To select multiple files to be deleted, click each file while holding down the [Ctrl] key.
- (2) The deletion confirmation dialog box is displayed when one of the following operations is performed:
  - Press the [Delete] key.
  - Click the [Delete] command on the [Communication] menu.
  - Click the [Delete] command on the menu displayed by right-clicking a selected file.



- (3) Clicking the <Delete> button deletes a selected file. To cancel the deletion of a selected file, click <Cancel>.

**NOTE**

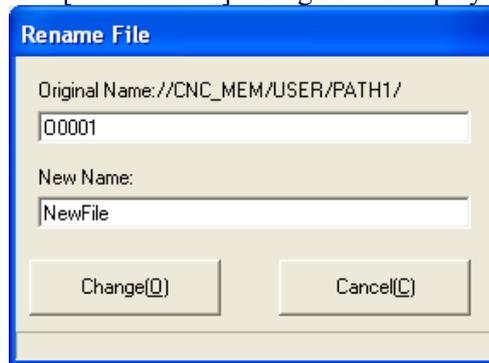
- 1 When a folder is deleted, all files and folders contained in the folder are deleted.
- 2 All deleted files and folders are completely erased from the connection destination. Use special care when deleting a file or folder.

### 1.4.3.2 Renaming a file or folder

**NOTE**

A file or folder in the program memory can be renamed only when communication is performed with the Series 30i/31i/32i.

- (1) Click a file or folder to be renamed in the file list.
- (2) Click the [Rename] command on the [Communication] menu or on the menu displayed by right-clicking the selected file or folder. The [Rename File] dialog box is displayed.



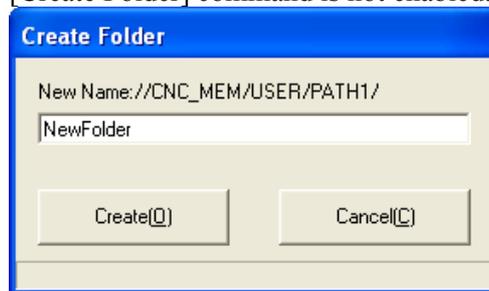
- (3) Enter a new name in the [New Name] text box then click the <Change> button. Until a name is entered in the text box, the <Change> button is disabled.

### 1.4.3.3 Creating a new folder

**NOTE**

A new folder can be created in the program memory only when communication is performed with the Series 30i/31i/32i.

- (1) Click a folder under which a new folder is to be created in the Machine List of Connection Target then specify the folder as the connection destination current management folder.
- (2) Click the [Create Folder] command on the [Communication] menu or on the menu displayed by right-clicking the connection destination file list. The [Create Folder] dialog box is displayed. However, when using the right-click menu, right-click the mouse button at a file list position where no files and folders are placed. If the user right-clicks the mouse button on a file or folder, the [Create Folder] command is not enabled.



- (3) Enter the name of a folder to be created in the [New Name] text box then click the <Create> button. Until a name is entered in the [New Name] text box, the <Create> button is disabled.

## 1.5 TRANSFER OF DATA OTHER THAN PROGRAMS

The following data other than programs can be transferred between the PC and CNC:

- Tool offset
- Custom macro variable (common variable)
- Workpiece origin offset

The format used for uploading these types of data is the same as the format used for output from the CNC to an external device.

### NOTE

- 1 The name of a file that is displayed with the Program Transfer Tool and contains data other than programs is the same as the name of a file used when bit 0 of parameter No. 138 is set to 1 on the CNC and data is output to a memory card without specifying a file name. When reading an uploaded file to the CNC by using a memory card, be sure to set bit 0 of parameter No. 138 to 1 on the CNC.
- 2 If the name of a file is changed at the time of uploading, a path number and data type need to be selected when the file is downloaded from the PC to the CNC. If an incorrect path number or data type is selected, data in the CNC can be destructed. Care must be taken.
- 3 If an uploaded file is transferred to a memory card then the data is read to the CNC from the memory card, the file name needs to satisfy the following 8.3 format:

XXXXXXXX.YYY

8 characters or less

3 characters or less for extension

## 1.5.1 Display of a Data List

When communication is performed with the program memory, the [DATA] folder is displayed in the tree view of the program memory. Clicking this folder displays a list of transferable data other than programs in the file list of the program memory.

### NOTE

- 1 This tool displays the [DATA] folder on the screen, but the [DATA] folder does not exist in the program memory of the CNC. The [DATA] folder is a virtual folder displayed on the screen by this tool.
- 2 Data that requires the CNC option, such as custom macro variables, is not displayed when the CNC option is not selected.

The table below indicates the file names for transferable data.

	Tool offset	Custom macro variable	Workpiece origin offset
Series 30i/31i/32i-A Series 0i-D	TOOLOFST.TXT	MACRO.TXT	EXT_WKZ.TXT
Series 16i/18i/21i-A/B Series 0i-B/C Series 20i-B	TOOLOFST.DAT	MACROVAR.DAT	WORK-G54.DAT
Power Mate i-D/H	TOOLOFST.DAT	MACROVAR.DAT	None

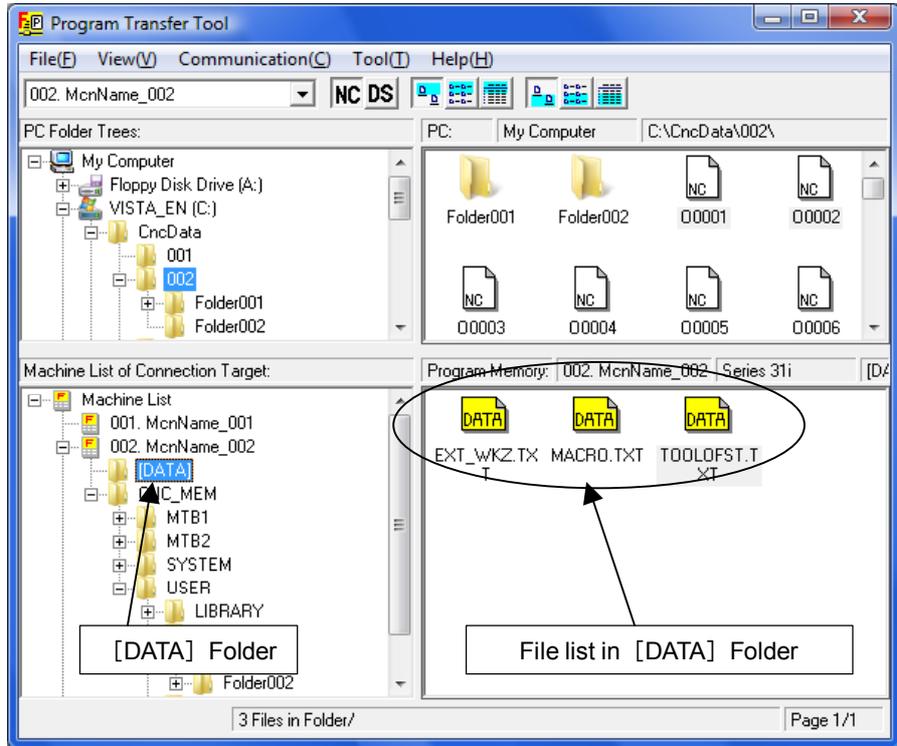
\* The file names above are for data of the first path. For data of a second or subsequent path, the extension "P-path-number" is used. However, for the tenth path, the extension is "P10".

Example:

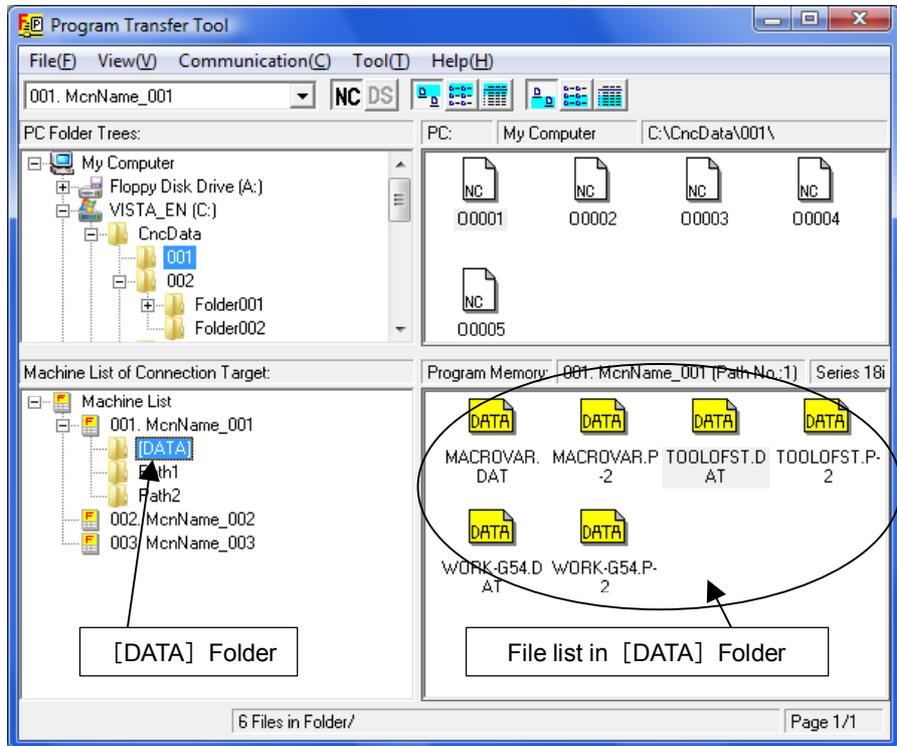
Tool offset data of the second path: TOOLOFST.P-2

Tool offset data of the tenth path: TOOLOFST.P10

**Example of display: For the Series 30i/31i/32i**

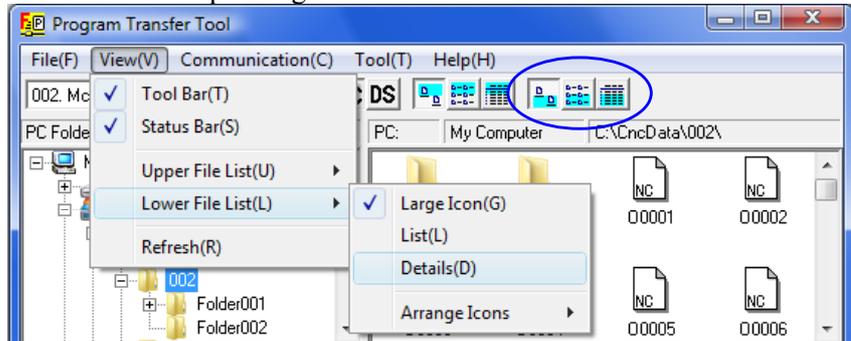


**Example of display: For other than the Series 30i/31i/32i**



### 1.5.1.1 Changing the method of display

The method of display can be changed as indicated below by choosing from the [Lower File List] menu on the [View] menu or choosing from the corresponding buttons on the toolbar.



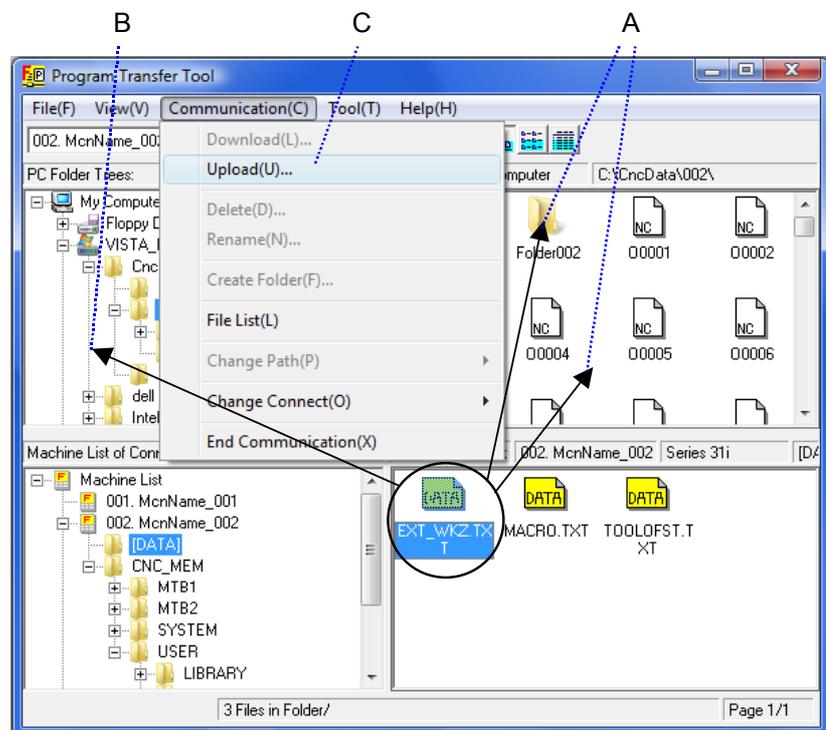
Command name on [Lower File List]	Button on the toolbar	File list display method
[Large Icon]		Large icon
[List]		Small icon
[Details]		Detailed display (file names only)

When [Details] is selected for display, file names, types, and path No. are displayed. No comment, size, and last modification date and time are displayed.

File Name	Type	Path No.
 MACROVAR.DAT	Custom macro	1
 MACROVAR.P-2	Custom macro	2
 TOOLOFST.DAT	Tool offset	1
 TOOLOFST.P-2	Tool offset	2
 WORK-G54.DAT	Workpiece origin offset	1
 WORK-G54.P-2	Workpiece origin offset	2

## 1.5.2 Uploading from the CNC to the PC

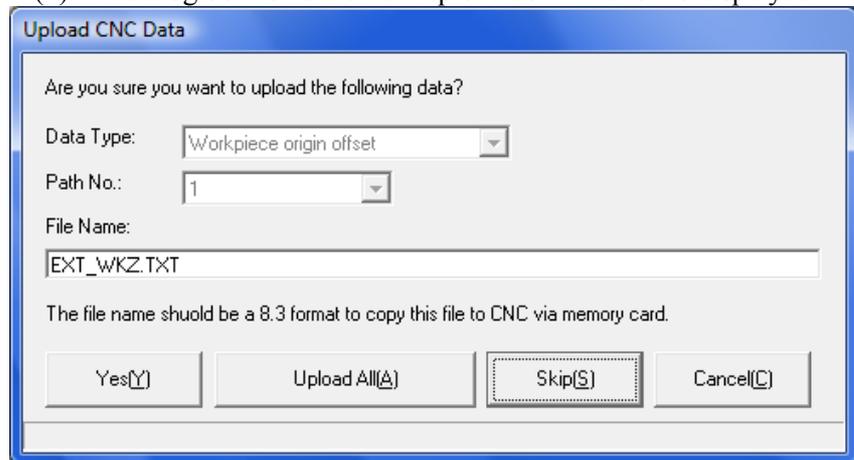
- (1) Click the [DATA] folder in the Machine List of Connection Target to display a list of data in the file list.
- (2) Click a file to be uploaded in the connection destination file list. To select multiple files to be uploaded, click each file while holding down the [Ctrl] key.
- (3) Perform one of the following operations:
  - A) Drag and drop a file selected in the connection destination file list onto the PC file list. When the selected file is dropped on a file or blank area of the PC file list, the file is uploaded to the folder displayed in the PC file list. When the file is dropped onto the folder in the PC file list, the file can be uploaded to the folder.
  - B) Drag and drop a file selected in the connection destination file list onto the PC folder tree.
  - C) Click the [Upload] command on the [Communication] menu or on the menu displayed by right-clicking a selected file. If a file is selected in the PC file list, the selected file is uploaded to the folder displayed in the PC file list. If a folder is selected in the PC file list, the selected file is uploaded to the folder. (This operation is omitted in the figure.)



### NOTE

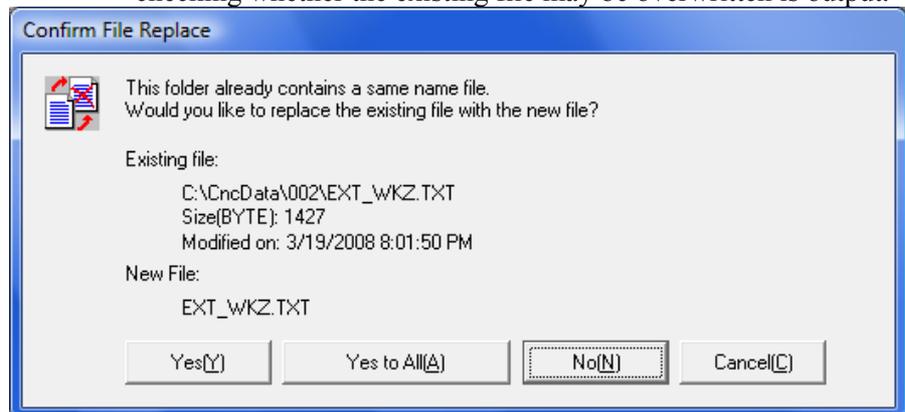
When the [Upload] menu is used to upload a file, the file is uploaded to a folder selected, if any, in the PC file list. Before operating the menu, check for a file or folder selected in the PC file list.

- (4) A dialog box for CNC data upload confirmation is displayed.



- <Yes>: Executes uploading.
- <Upload All>: Executes all subsequent upload operations without displaying the confirmation dialog box. The name of an uploaded file is the same as the selected file name. To the data set on this screen, the specified file name is assigned.
- <Skip>: Stops the uploading of the data being confirmed on this screen.
- <Cancel>: Cancels all subsequent upload operations.

- (5) Click the <Yes> or <Upload All> button.  
If a file with the same name exists on the PC, a message for checking whether the existing file may be overwritten is output.



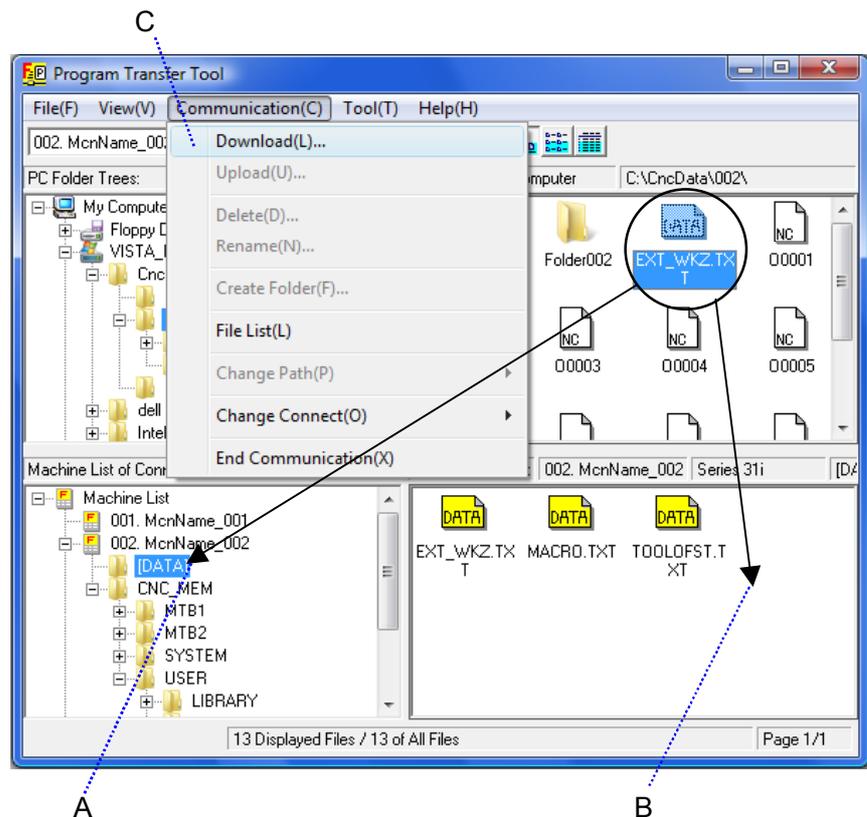
- (6) Upon completion of uploading to the PC, the PC file list is updated to the latest information accordingly.

### 1.5.3 Downloading from the PC to the CNC

#### NOTE

- 1 If the name of a file is changed at the time of uploading, a path number and data type need to be selected when the file is downloaded from the PC to the CNC. If an incorrect path number or data type is selected, data in the CNC can be destructed. Care must be taken.
- 2 If data such as tool offsets, custom macros, and workpiece origin offsets other than programs is downloaded from the PC to the CNC, the corresponding data of the CNC is updated. Before starting download operation, check whether the data of the CNC may be updated.

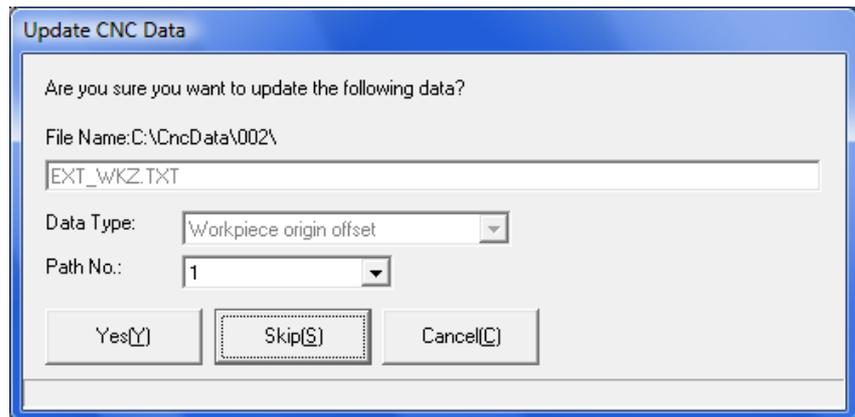
- (1) Click a file to be downloaded in the PC file list. To select multiple files to be downloaded, click each file while holding down the [Ctrl] key.



- (2) Perform one of the following operations:
  - A) Drag and drop a selected file onto the [DATA] folder in the Machine List of Connection Target.
  - B) Click the [DATA] folder in the Machine List of Connection Target then drag and drop a selected file onto the file list.

- C) Click the [DATA] folder in the Machine List of Connection Target. Then click the [Download] command on the [Communication] menu or on the menu displayed by right-clicking a selected file.

- (3) A dialog box for CNC data update confirmation is displayed.



- <Yes>: Executes downloading to update the data of the CNC.  
<Skip>: Stops the downloading of the data being confirmed on this screen.  
<Cancel>: Cancels all subsequent download operations.

- (4) Click the <Yes> button. The selected file is downloaded to the CNC to update the data of the CNC.

## 1.6 FILE TRANSFER TO AND FROM THE DATA SERVER

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By performing communication with the data server, programs and folders on an external storage media (such as a compact flash card and hard disk) of the data server can be transferred.

### 1.6.1 Display of a List of Files on the Data Server

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Select a machine from the Machine List of Connection Target. When a machine is selected, communication is started according to the method specified on the setting dialog.

**NOTE**

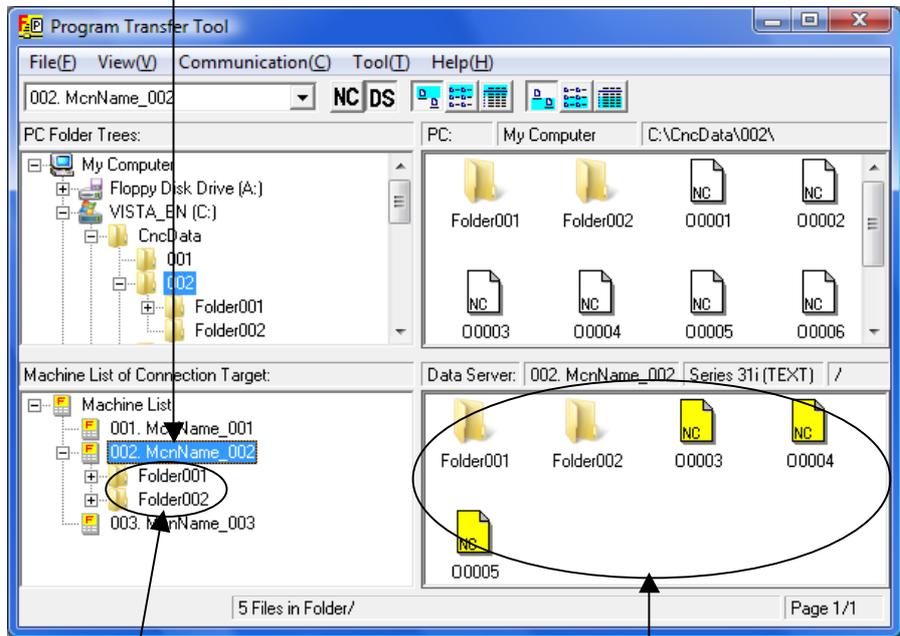
If communication with the program memory is started, switch the connection to the data server by one of the methods indicated below. When the connection is switched, communication with the data server of the selected machine is started.

- Click the [DS] button on the toolbar.
- Point to the [Change Connect] command on the [Communication] menu to display a list of connection destinations. Click [Data Server].

Under the connected machine name in the Machine List of Connection Target, the folders of the connection destination machine are displayed in tree form.

If a login folder is set on the setting dialog, the connection destination file list displays a list of the files of the folder. If no login folder is set, a list of the files of the login folder set at the connection destination is displayed.

Select McnName\_002



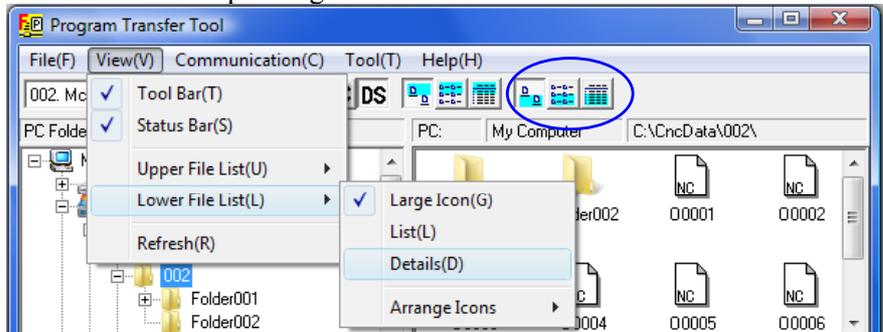
Folder information in DATA SERVER of McnName\_002 are displayed

Files in DATA SERVER of McnName\_002 are displayed

Each time the user clicks [File List] command on the [Communication] menu, the list of files at the connection destination is updated to the latest information.

### 1.6.1.1 Changing the method of display

The method of display can be changed as indicated below by choosing from the [Lower File List] menu on the [View] menu or choosing from the corresponding buttons on the toolbar.



Command name on [Lower File List]	Button on the toolbar	File list display method
[Large Icon]		Large icon
[List]		Small icon
[Details]		Detailed display of the following: File name, file/folder type, size (bytes), last modification data and time

### 1.6.1.2 Changing the order of display

By choosing [Lower File List] then [Arrange Icons] from the [View] menu, the user can make a selection from Sort by Name, Sort by Type, Sort by Size, and Sort by Date (last modification date and time).

If [Details] is selected as the file list display format, a display order selection can also be made by clicking [File Name], [Type], [Size], or [Last Modification Date] at the top of the file list.

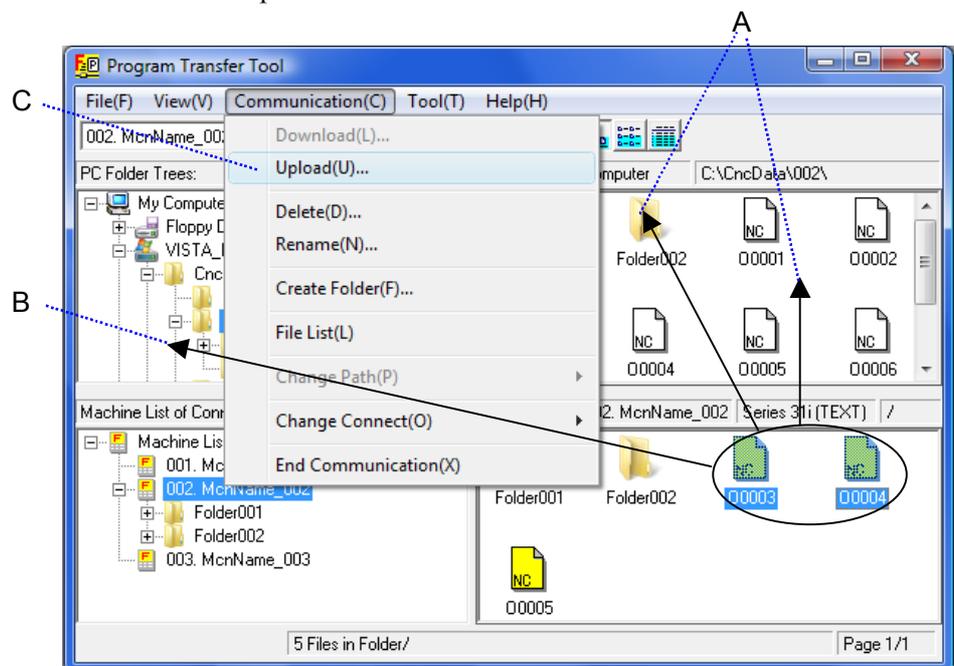
## 1.6.2 File Transfer to and from the Data Server

### NOTE

For file transfer to and from the data server, a file transfer format can be selected. For details, see Subsection 1.7.3, "Communication Tab".

### 1.6.2.1 Uploading from the data server to the PC

- (1) Click a file to be uploaded in the connection destination file list. To select multiple files to be uploaded, click each file while holding down the [Ctrl] key.
- (2) Perform one of the following operations:
  - A) Drag and drop a file selected in the connection destination file list onto the PC file list. When the selected file is dropped on a file or blank area of the PC file list, the file is uploaded to the folder displayed in the PC file list. When the file is dropped onto the folder in the PC file list, the file can be uploaded to the folder.
  - B) Drag and drop a file selected in the connection destination file list onto the PC folder tree.
  - C) Click the [Upload] command on the [Communication] menu or on the menu displayed by right-clicking a selected file. If a file is selected in the PC file list, the selected file is uploaded to the folder displayed in the PC file list. If a folder is selected in the PC file list, the selected file is uploaded to the folder.



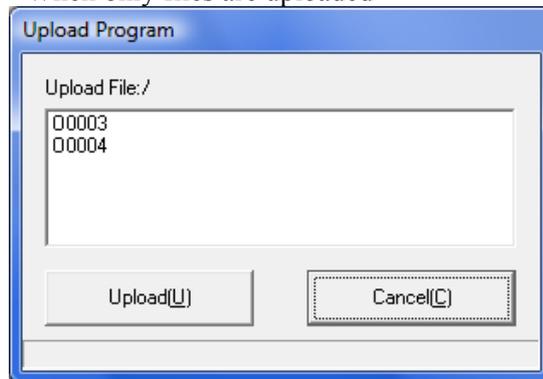
**NOTE**

When the [Upload] menu is used to upload a file, the file is uploaded to a folder selected, if any, in the PC file list. Before operating the menu, check for a file or folder selected in the PC file list.

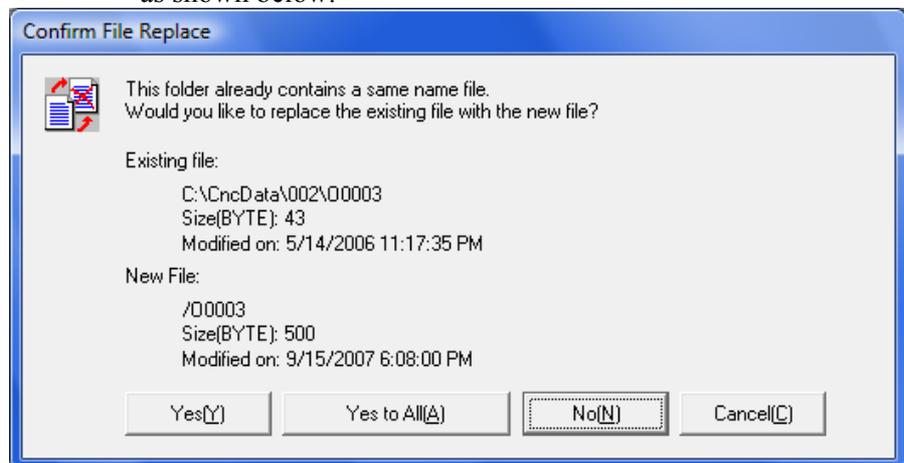
- (3) The [Upload Program] dialog box is displayed according to the contents to be uploaded.

When only files are uploaded, the dialog box shown below is displayed.

<When only files are uploaded>

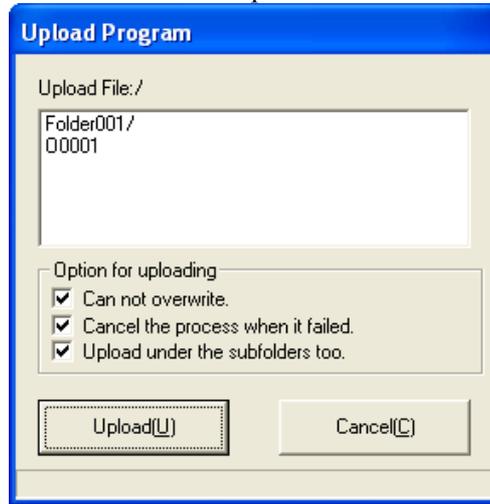


If a file with the same name exists on the PC, a message for checking whether the existing file may be overwritten is output as shown below.



When only folders are uploaded or files and folders are uploaded, the dialog box shown below is displayed. Select an upload option.

<When folders are uploaded>

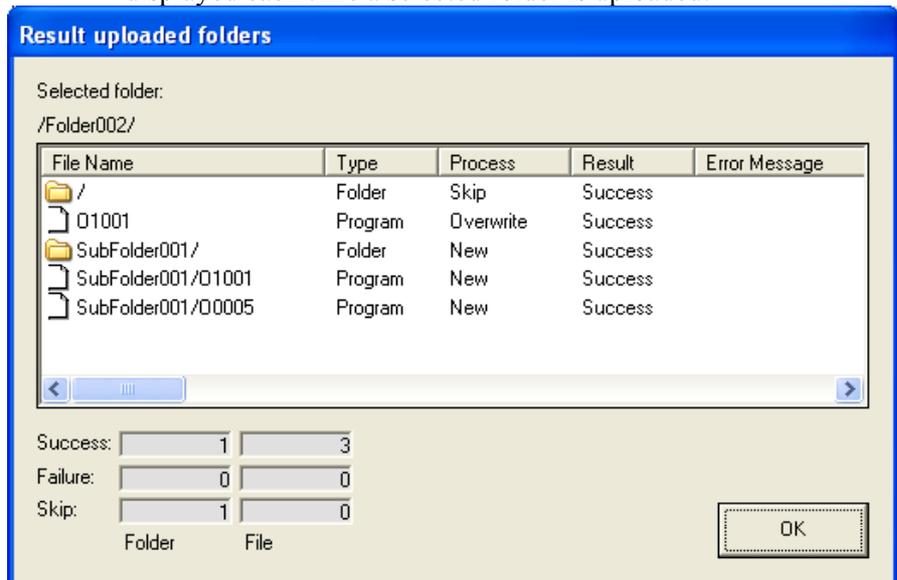


The upload options are described below.

- Can not overwrite      Does not write over a file with the same name if existing at the upload destination.
- Cancel the process when it failed.      Stops processing when a file or folder upload operation fails. No additional files and folders are uploaded.
- Upload under the subfolders too.      Upload all subfolders contained in a selected folder and all files under each of those subfolders.

(4) Click the <Upload> button.

If folders are included, the following result dialog box is displayed each time a selected folder is uploaded:



- Selected folder: Indicates the path of a folder to be uploaded. In the "File Name" column of the screen, "/" is indicated.
- Process: Indicates upload processing.

Process	Meaning
New	When a file is uploaded - There is no existing file with the same name on the PC, so that the file is uploaded. When a folder is uploaded - There is no existing folder with the same name on the PC, so that a folder is newly created.
Overwrite	When a file is uploaded - There is an existing file with the same name on the PC, so that the file is uploaded and written over the existing file.
Skip	When a file is uploaded - There is an existing file with the same name on the PC, so that the file is not uploaded. When a folder is uploaded - There is an existing folder with the same name on the PC, so that no folder is created. The files and subfolders under the target folder are uploaded.

- Result: Indicates whether uploading was successful or not.
- Error Message: An error message is displayed when uploading has failed.

(5) A selected file is uploaded to the PC and the PC file list is updated to the latest information accordingly.

#### NOTE

- 1 With a CNC supporting file name management such as the Series 30i/31i/32i and Series 0i-D, a distinction can be made between the uppercase and lowercase letters. With the Windows OS, however, such a distinction is impossible. With a CNC, therefore, a file named AAA and a file named aaa can be created. However, if AAA and aaa are uploaded in this order to the PC, AAA is replaced with aaa when aaa is uploaded.
- 2 Upload will be canceled if a Cancel button is clicked during upload.  
The folder and file which upload completed before cancellation, and the file uploaded at the time of cancellation remain in PC. Delete these, if these are unnecessary.

## 1.6.2.2 Downloading from the PC to the data server

### NOTE

If a file that has the same name as a file to be downloaded exists on the data server, the file cannot be downloaded and written over the existing file.



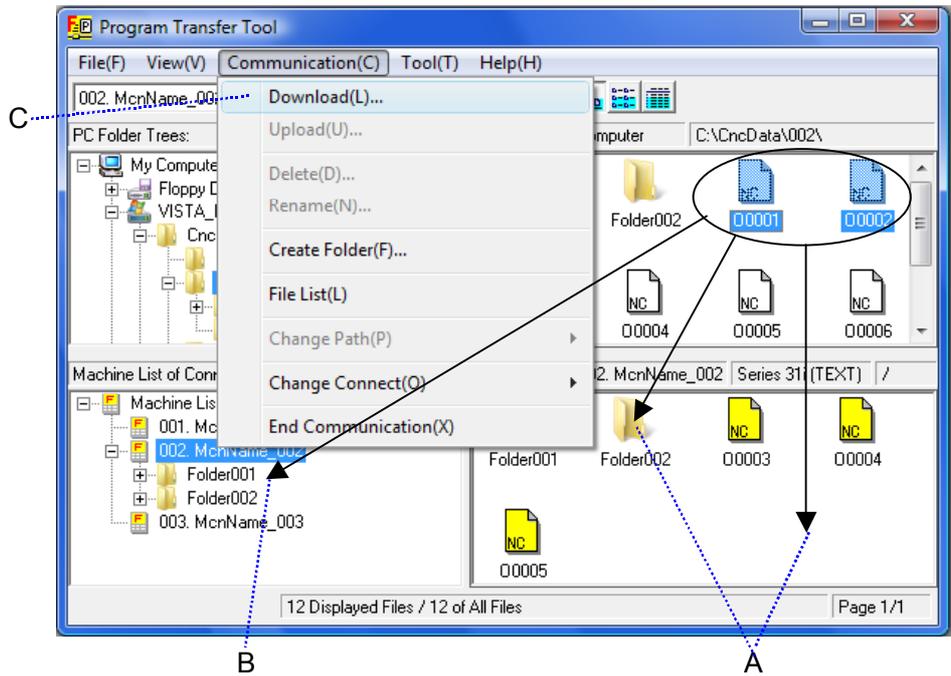
Before downloading the file, delete the existing file with the same name on the data server.

\* If the DataServer Explorer connection option is selected with the Series 30i/31i/32i, a file can be downloaded and written over an existing file with the same name by setting bit 2 of parameter No. 906 to 1 to enable overwriting. When downloading a file, carefully check whether a file with the same name exists.

- (1) Click a file to be downloaded in the PC file list. To select multiple files to be downloaded, click each file while holding down the [Ctrl] key.
- (2) Perform one of the following operations:
  - A) Drag and drop a file selected in the PC file list onto the connection destination file list. When the selected file is dropped on a file or blank area of the connection destination file list, the file is downloaded to the folder displayed in the connection destination file list. When the file is dropped onto the folder in the connection destination file list, the file can be downloaded to the folder.
  - B) Drag and drop a file selected in the PC file list onto a folder under the connected machine name in the Machine List of Connection Target.
  - C) Click the [Download] command on the [Communication] menu or on the menu displayed by right-clicking a selected file.

If a file is selected in the connection destination file list, the selected file is downloaded to the folder displayed in the connection destination file list.

If a folder is selected in the connection destination file list, the selected file is downloaded to the folder.

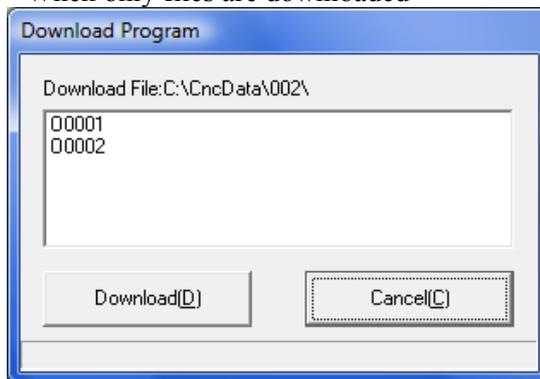


**NOTE**  
 When the [Download] command on the menu is used to download a file, the file is downloaded to a folder selected, if any, in the connection destination file list.  
 Before operating the menu, check for a file or folder selected in the connection destination file list.

- (3) The [Download Program] dialog box is displayed according to the contents to be downloaded.

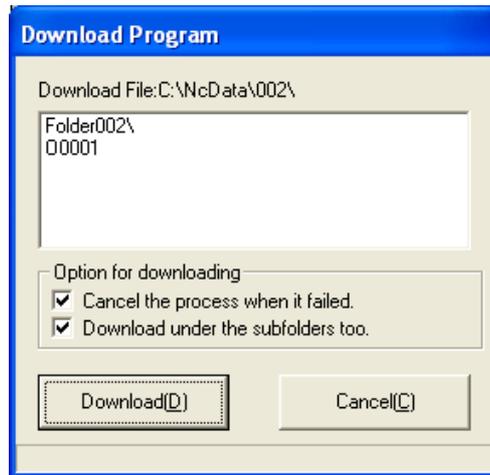
When only files are downloaded, the dialog box shown below is displayed.

<When only files are downloaded>



When only folders are downloaded or files and folders are downloaded, the dialog box shown below is displayed. Select a download option.

<When folders are downloaded>

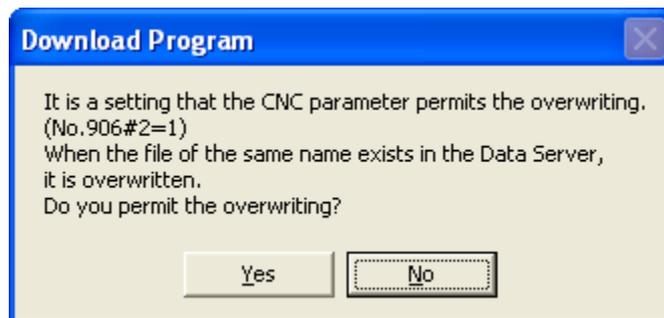


The download options are described below.

Cancel the process when it failed.	Stops processing when a file or folder download operation fails. No additional files and folders are downloaded.
Download under the subfolders too.	Downloads all subfolders contained in a selected folder and all files under each of those subfolders.

- (4) Click the <Download> button.

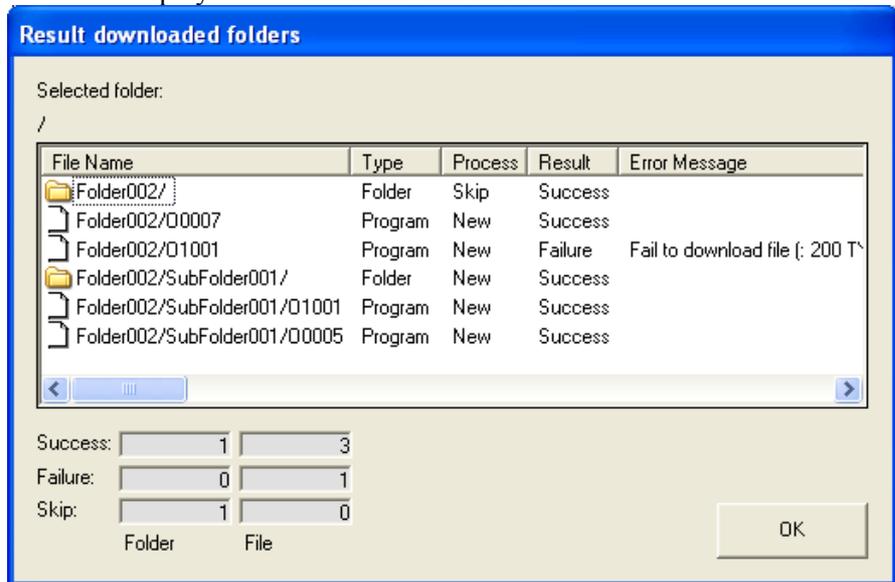
If the DataServer Explorer connection option is selected with the Series 30i/31i/32i and bit 2 of CNC parameter No. 906 is set to 1 to enable overwriting, the user is requested to confirm whether to perform overwriting as indicated below.



<Yes>: Executes all download operations.

<No>: Cancels all download operations.

If folders are included, the following result dialog box is displayed each time a selected folder is downloaded:

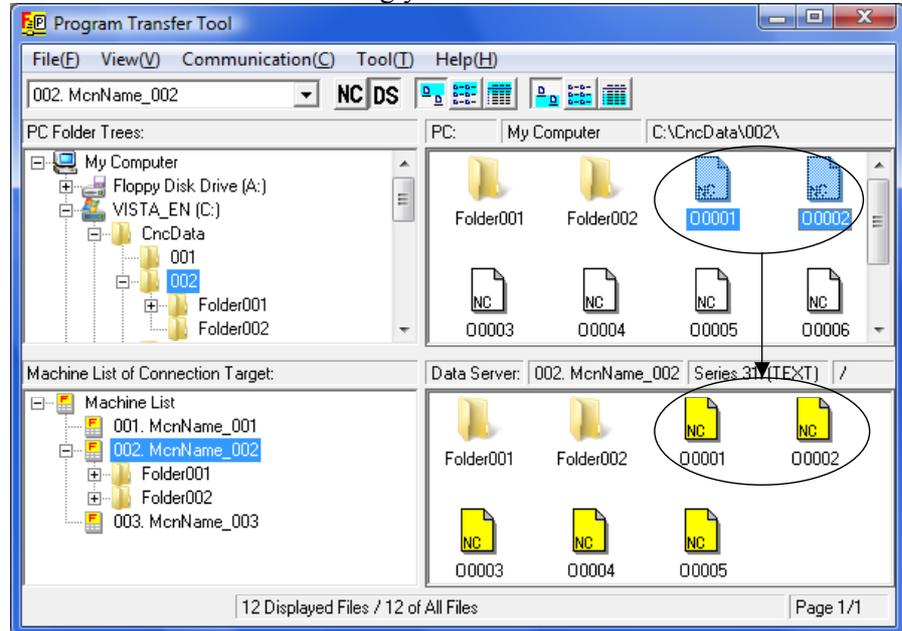


- Selected folder: Indicates the path of a download destination folder.
- Process: Indicates download processing.

Process	Meaning
New	When a file is downloaded - There is no existing file with the same name on the data server, so that the file is downloaded. - There is an existing file with the same name on the data server, so that the file is downloaded and written over the existing file. When a folder is downloaded - There is no existing folder with the same name on the data server, so that a folder is newly created.
Skip	When a folder is downloaded - There is an existing folder with the same name on the data server, so that no folder is created. The files and subfolders under the target folder are downloaded.

- Result: Indicates whether downloading was successful or not.
- Error Message: An error message is displayed when downloading has failed.

- (5) A selected file is downloaded to the connection destination and the connection destination file list is updated to the latest information accordingly.



#### NOTE

- 1 The file name assigned by the data server to a downloaded file is the same as for a file to be downloaded. With other than the Series 30i/31i/32i and Series 0i-D, if the format of the file name is not the 8.3 format, however, the format is automatically converted to the 8.3 format. Note that when files handled as separate files on the PC are downloaded to the data server, those files may be assumed to have the same name.
  - 2 With the Series 30i/31i/32i and Series 0i-D, the program name in a downloaded file depends on the data server transfer format as described below.
    - <For binary transfer>
      - The program name in the file remains unchanged.
    - <For text transfer>
      - The program name in the file is changed to the same as for the name of a file to be downloaded.
- With other than the Series 30i/31i/32i and Series 0i-D, the program name in a downloaded file remains unchanged.

**NOTE**

- 3 If a file not in the program format is downloaded to the data server of the Series 30*i*/31*i*/32*i* and Series 0*i*-D, the contents of the file may be automatically modified.

Example:

When a file with no program name is downloaded by text transfer

File name on the PC: EXT\_WKZ.TXT

```
%  
G90  
G10L2P0X2.2Y0.0Z0.0C0.0  
---  
M02  
%
```



Downloaded

```
%  
<EXT_WKZ.TXT>  
G90  
G10L2P0X2.2Y0.0Z0.0C0.0  
---  
M02  
%
```

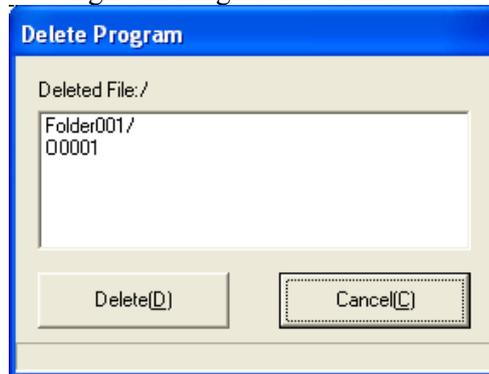
← A program name is added.

- 4 Download will be canceled if a Cancel button is clicked during download.  
The folder and file which download completed before cancellation, and the file downloaded at the time of cancellation remain in DATA SERVER. Delete these, if these are unnecessary.

## 1.6.3 Operating Files and Folders on the Data Server

### 1.6.3.1 Deleting a file or folder

- (1) Click a file or folder (herein after simply referred to as a "file") to be deleted in the file list.  
To select multiple files to be deleted, click each file while holding down the [Ctrl] key.
- (2) The deletion confirmation dialog box is displayed when one of the following operations is performed:
  - Press the [Delete] key.
  - Click the [Delete] command on the [Communication] menu.
  - Click the [Delete] command on the menu displayed by right-clicking a selected file.



- (3) Clicking the <Delete> button deletes a selected file.  
To cancel the deletion of a selected file, click <Cancel>.

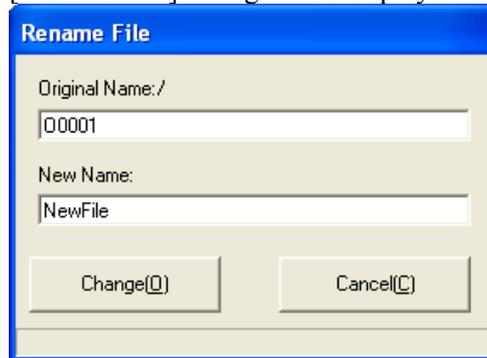
#### NOTE

- 1 When a folder is deleted, all files and folders contained in the folder are deleted.
- 2 All deleted files and folders are completely erased from the connection destination. Be very careful when deleting a file or folder.

### 1.6.3.2 Renaming a file or folder

---

- (1) Click a file or folder to be renamed in the file list.
- (2) Click the [Rename] command on the [Communication] menu or on the menu displayed by right-clicking the selected file. The [Rename File] dialog box is displayed.

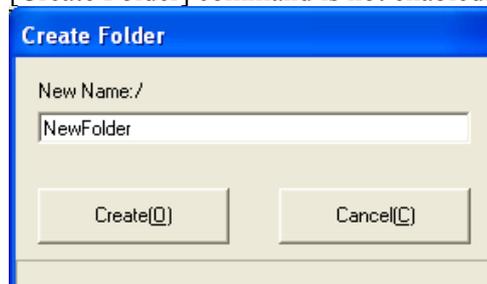


- (3) Enter a new name in the [New Name] text box then click the <Change> button. Until a name is entered in the text box, the <Change> button is disabled.

### 1.6.3.3 Creating a new folder

---

- (1) Click a folder under which a new folder is to be created in the Machine List of Connection Target then specify the folder as the connection destination current management folder.
- (2) Click the [Create Folder] command on the [Communication] menu or on the menu displayed by right-clicking the connection destination file list. The [Create Folder] dialog box is displayed. However, when using the right-click menu, right-click the mouse button at a file list position where no files and folders are placed. If the user right-clicks the mouse button on a file or folder, the [Create Folder] command is not enabled.



- (3) Enter the name of a folder to be created in the [New Name] text box then click the <Create> button. Until a name is entered in the [New Name] text box, the <Create> button is disabled.

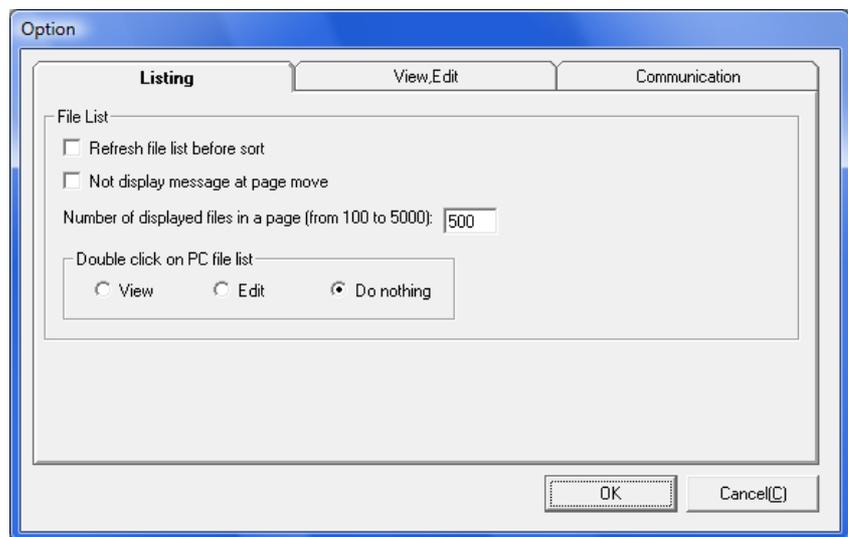
## 1.7 SETTING OF OPTIONS

Clicking the [Options] command on the [Tools] menu displays the [Options] dialog box.

New settings can be made effective by clicking the <OK> button after making the settings.

To cancel settings and return to the original values, click the <Cancel> button.

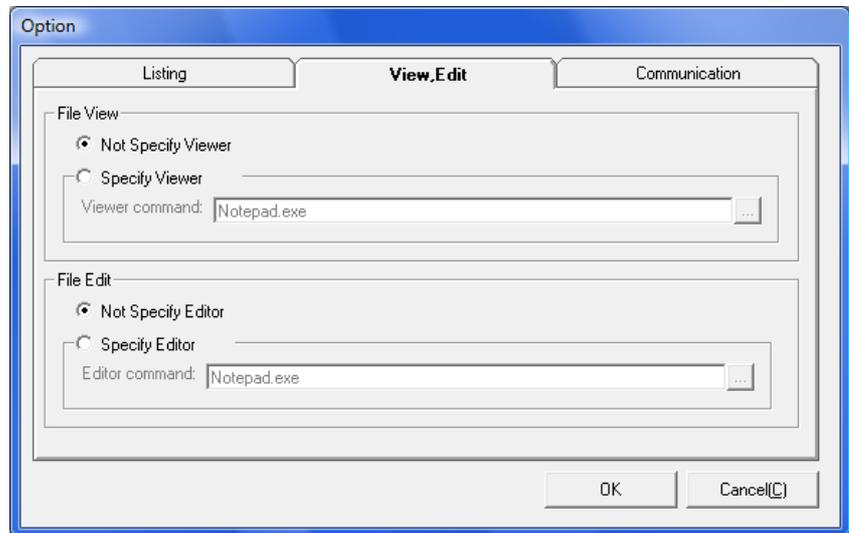
### 1.7.1 Listing Tab



In the [File List] frame, make settings related to file list display.

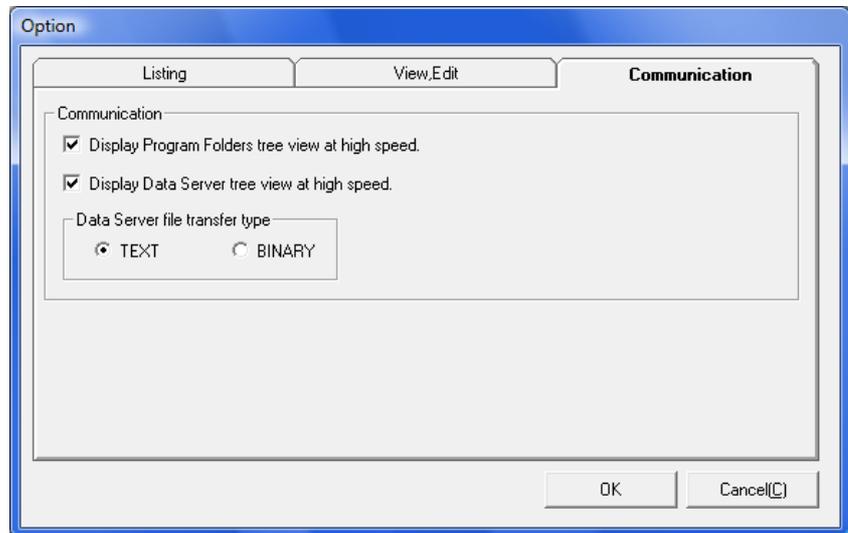
- If the [Refresh File List before sort] check box is checked, the latest file list information is acquired before changing the order of file list display.  
If this check box is not checked, the order of file list display is changed according to the contents currently displayed in the file list.  
If the file list consists of multiple pages of data, the latest file list information is acquired before changing the order of file list display, regardless of the setting of this check box.
- If the [Not display message at page move] check box is checked, the file list page switch confirmation dialog box is not displayed.
- If the value of the [Number of displayed files in a page] box is changed, the number of files displayable per page of the file list can be changed.
- In the [Double click on PC file list] frame, the user can select an operation to be performed when the user double-clicks each file.

## 1.7.2 View, Edit Tab



- (1) In the [File View] frame, make a setting related to file viewing.
  - When the [Not Specify Viewer] option is selected, [File Viewer] built into the Program Transfer Tool is used to view a file.
  - When the [Specify Viewer] option is selected, a file can be viewed using a specified viewer. In the [Viewer command] box, enter a viewer command to be started.
- (2) In the [File Edit] frame, make a setting related to file editing.
  - When the [Not Specify Editor] option is selected, Notepad of the Windows OS is used to edit a file.
  - When the [Specify Editor] option is selected, a file can be edited using a specified editor. In the [Editor command] box, enter an editor command to be started.

### 1.7.3 Communication Tab



In the [Communication] frame, make settings related to communication with the CNC.

- By checking the [Display Program Folders tree view at high speed] check box, a tree view of program memory folders displayed when the program memory is connected can be displayed at high speed. However, the mark (+) is prefixed to each folder, regardless of whether child folders are present (with the Series 30i/31i/32i only).
- By checking the [Display Data Server tree view at high speed] check box, a tree view of the data server displayed when the data server is connected can be displayed at high speed. However, the mark (+) is prefixed to each folder, regardless of whether child folders are present.
- In the [Data Server file transfer type] frame, a type of file transfer to and from the data server can be selected.

#### NOTE

With the data server of Series 6569/Edition 14 or later for the Series 30i/31i/32i and the data server of Series 658W for Series 0i-D, the data storage format can be set using parameter No. 929, regardless of the transfer mode specification on the PC.

0: Data is stored according to the transfer mode specified on the PC (as conventionally done).

1: Data is stored in the text format.

2: Data is stored in the binary format.

When using a data server with this parameter made valid, set the parameter above to 0 to enable the transfer mode of this tool.

# **APPENDIX**



# A

## SETTING OF THE CNC

---

The Ethernet setting of the CNC is described below.

### CAUTION

When using the Ethernet board or Fast Ethernet board function for the first time, carefully set an IP address and so forth and sufficiently conduct a communication test, consulting with the network administrator of your company.

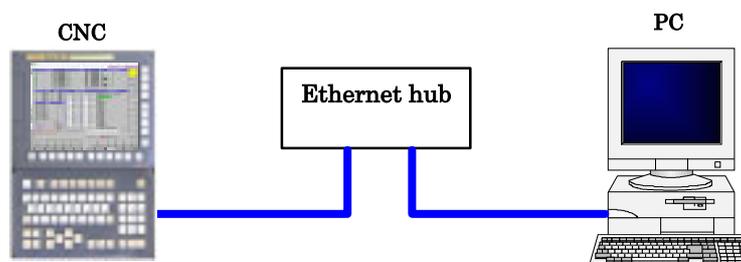
If an IP address, for example, is set incorrectly, the operation of the entire network can suffer from a communication error. Care must be taken. Particularly, if a duplicate IP address is set, a communication error can occur intermittently, resulting in a CNC system error. Care must be taken.

### NOTE

- 1 To use the FOCAS2/Ethernet function, the option function for each CNC used is required. For details, see "Ethernet board or data server board and CNC options" in Section 3.1, "CNC", of Chapter 3, OPERATING ENVIRONMENT", of Part I, "GENERAL".
- 2 This chapter describes an example of setting for creating a new small network (with no router) where a PC and CNC are connected with each other.  
When building a large network or making an addition to an existing network, set the IP addresses, subnet masks, and router IP addresses of a PC and CNCs, consulting with the network administrator of your company.

### Setting for using the function for communication with the program memory

An example of minimum required setting for operating the function for communication with the program memory on a small network is provided below.



Example of CNC setting

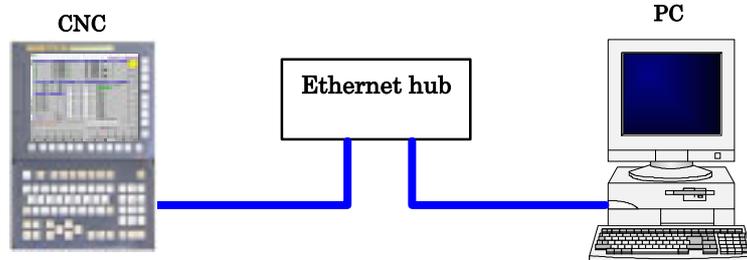
Location of setting	Setting item	CNC setting value	Remarks
Ethernet parameter screen of the CNC	IP address	192.168.0.1	Ensure that this IP address does not duplicate the IP addresses of other CNCs and personal computers.
	Subnet mask	255.255.255.0	
	Router IP address	None	
	TCP port number	8193	

Example of PC setting

Location of setting	Setting item	PC setting value	Remarks
"Microsoft TCP/IP properties" of Windows OS	IP address	192.168.0.101	Ensure that this IP address does not duplicate the IP addresses of other CNCs and personal computers.
	Subnet mask	255.255.255.0	
	Default gateway	None	
Program Transfer Tool setting screen Program memory tab	IP address	192.168.0.1	Set the IP address set for the CNC.
	TCP port number	8193	Set the port number set for the CNC.

**Setting for using the function for communication with the data server**

An example of minimum required setting for operating the function for communication with the data server on a small network is provided below. An FTP Server on CNC is required.



**Example of CNC setting**

Location of setting	Setting item	CNC setting value	Remarks	
Ethernet parameter screen of the CNC	IP address	192.168.0.1	Ensure that this IP address does not duplicate the IP addresses of other CNCs and personal computers.	
	Subnet mask	255.255.255.0		
	Router IP address	None		
	FTP server	Port number	21	
		User name	dtsvr	
		Password	dtsvr	
		Login DIR	None	

**Example of PC setting**

Location of setting	Setting item	PC setting item	Remarks
"Microsoft TCP/IP properties" of Windows OS	IP address	192.168.0.101	Ensure that this IP address does not duplicate the IP addresses of other CNCs and personal computers.
	Subnet mask	255.255.255.0	
	Default gateway	None	
Program Transfer Tool setting screen Data server tab	IP address	192.168.0.1	Set the IP address set for the CNC.
	User name	dtsvr	Set the user name set for the CNC.
	Password	dtsvr	Set the password set for the CNC.
	FTP port number	21	Set the port number set for the CNC.
	Login folder	None	

# B

## Windows Firewall Settings

---

It is necessary to set the Windows Firewall to communicate with DATA SERVER with some of Windows OS.

However, if you don't communicate with DATA SERVER, the following setting is not necessary.

## **B.1** In Case of Using Windows 2000 Service Pack 4

---

It is not necessary to set the Windows Firewall to communicate with DATA SERVER.

## **B.2** In Case of Using Windows XP Service Pack 2

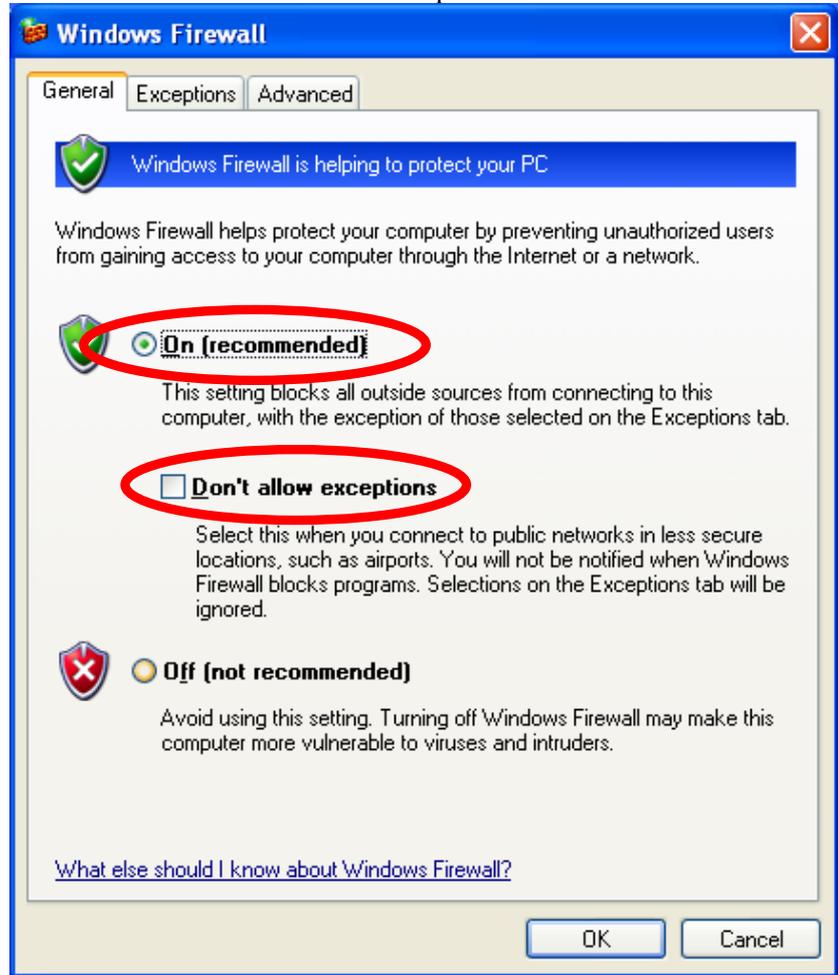
---

Set the Windows Firewall as the following procedure.

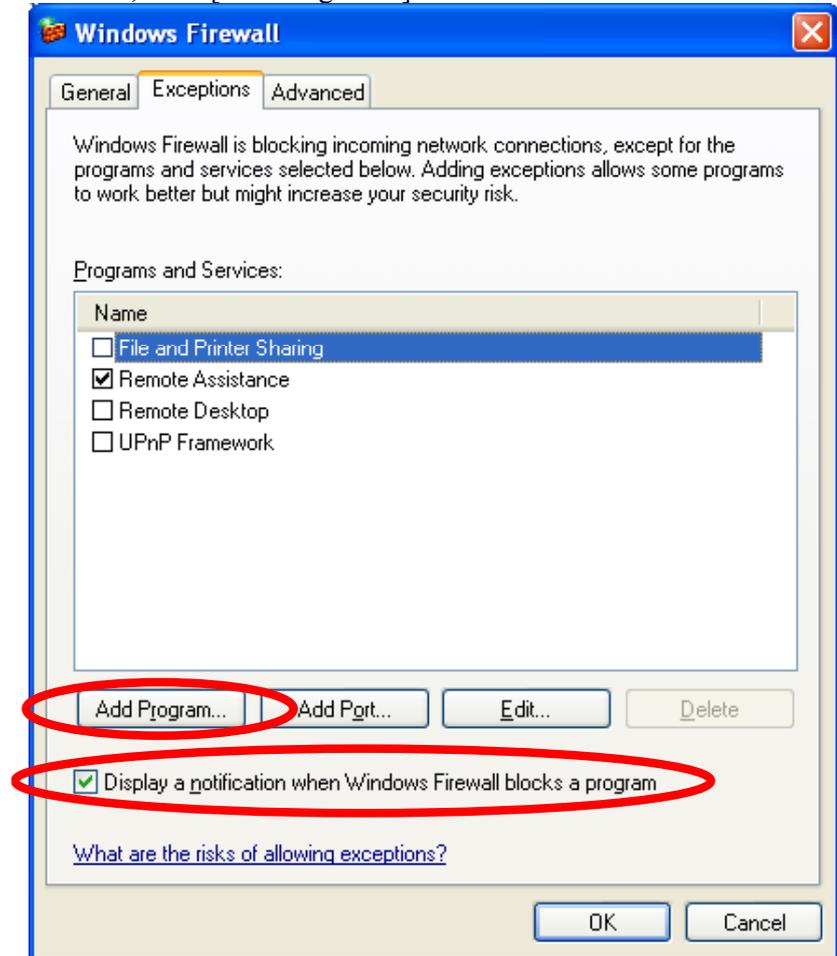
- (1) Open the "Control panel", activate the "Security Center", and click the "Windows Firewall".



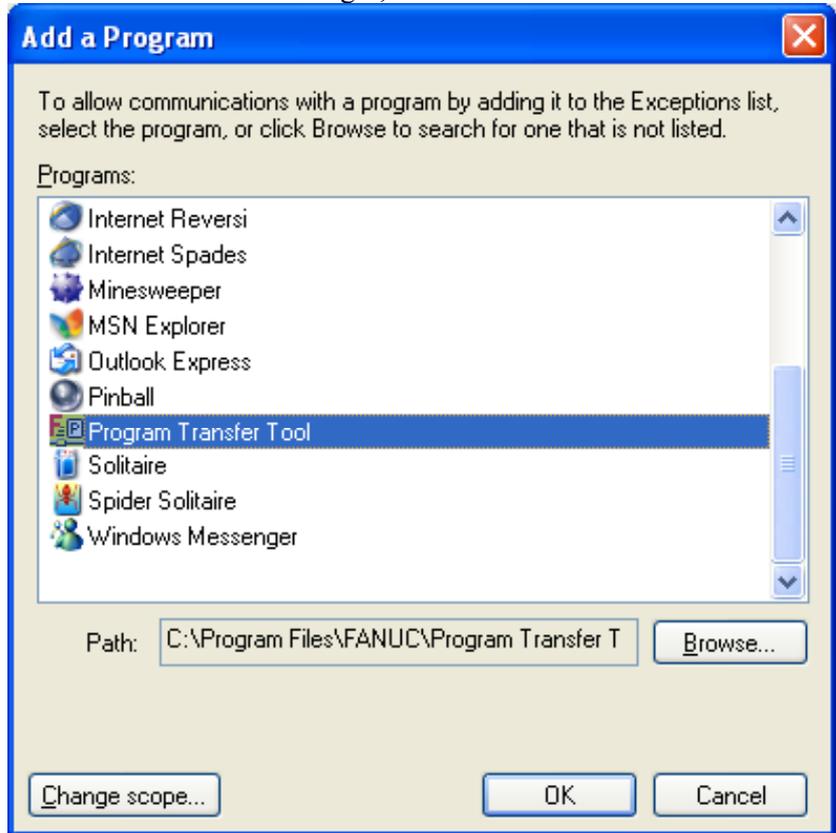
- (2) In "General" tab, confirm that "On (recommendation)" is checked and "Don't allow exceptions" is not checked.



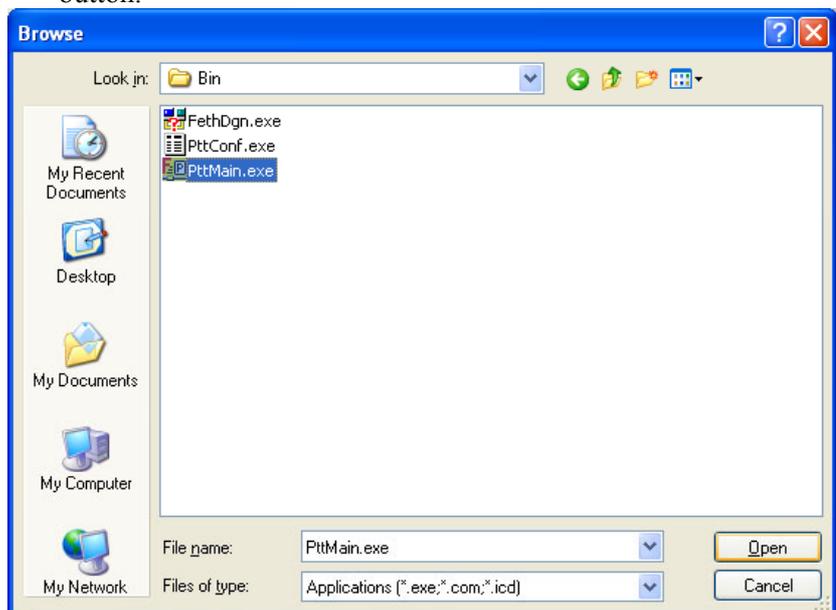
- (3) Click "Exceptions" tab, and confirm "Display a notification when Windows Firewall blocks a program" is checked.  
Next, click [Add Program...] button.



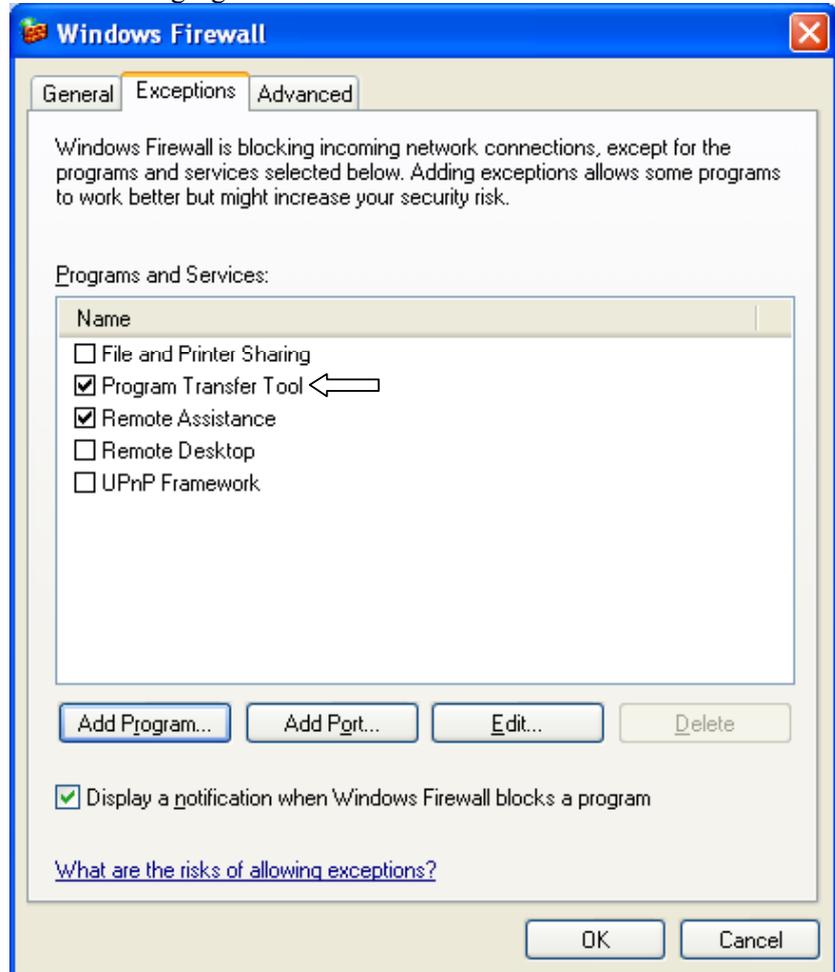
- (4) There is the "Program Transfer Tool" on the "Add a Program" screen. After selecting it, click the <OK> button.



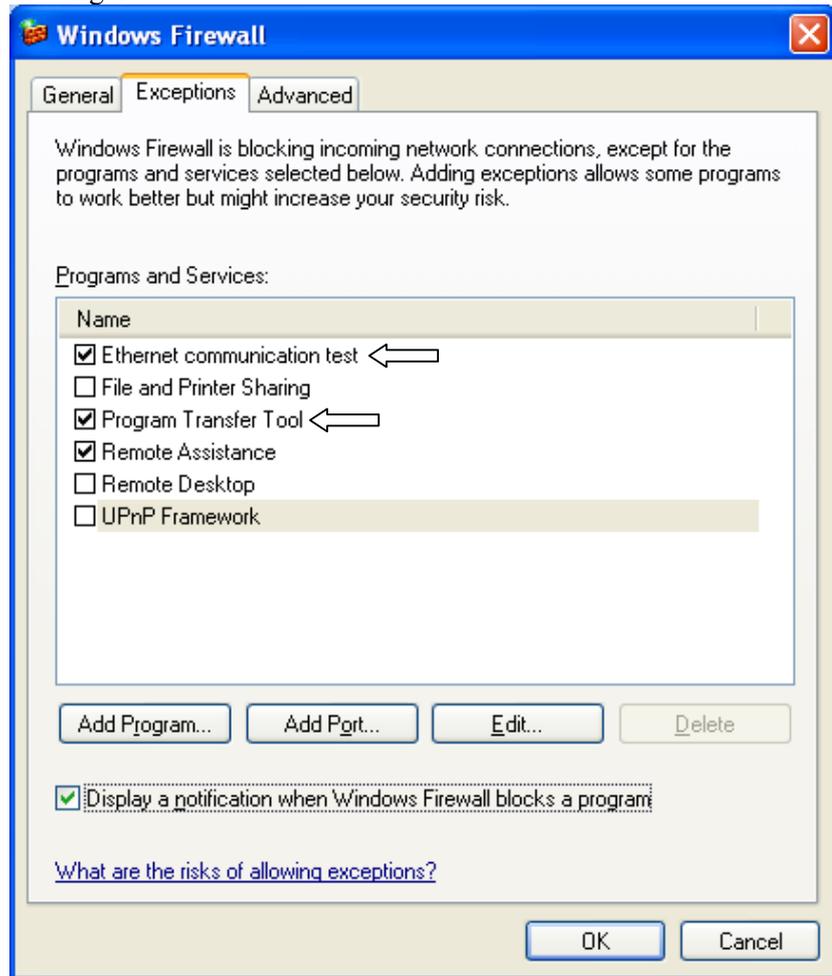
When there is not "Program Transfer Tool", click the "Browse" button. Display the "Bin" folder under the folder where you install Program Transfer Tool. Then select the "PttMain.exe" and click the <Open> button. Since the "Add a Program" screen is displayed again, select the "PttMain.exe" and click the <OK> button.



- (5) Confirm that the "Program Transfer Tool (or PttMain.exe)" was added to the "Programs and Services" list as shown in the following figure.



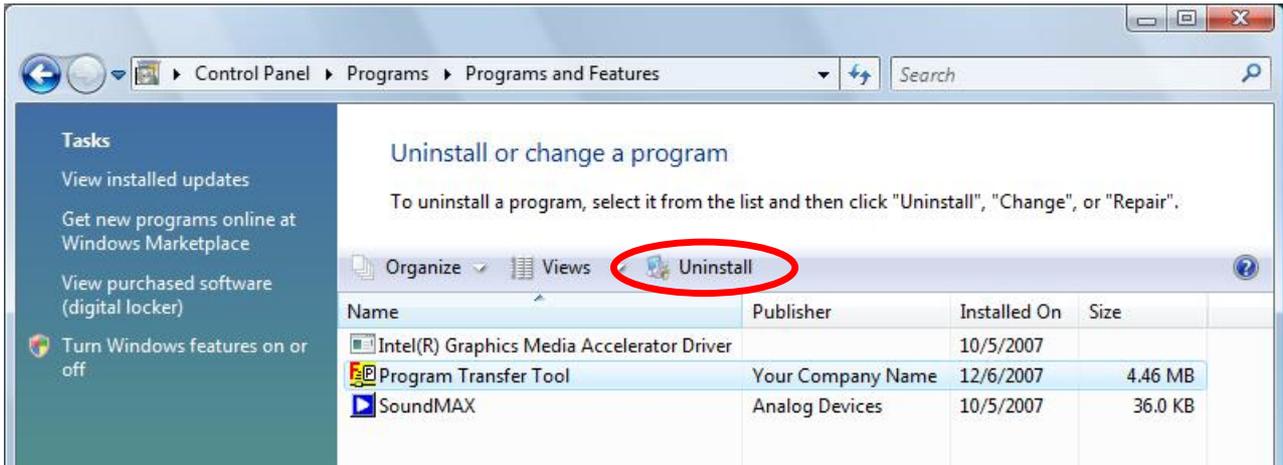
- (6) Add "FethDgn.exe" to the "Exceptions" by above procedures. In the procedure (4), select "Ethernet communication test" instead of "Program Transfer Tool" and "FethDgn.exe" instead of "PttMain.exe". Then confirm that the "Ethernet communication test (or FethDgn.exe)" and the "Program Transfer Tool (or PttMain.exe)" are added to the "Program or port" list as shown in the following figure.



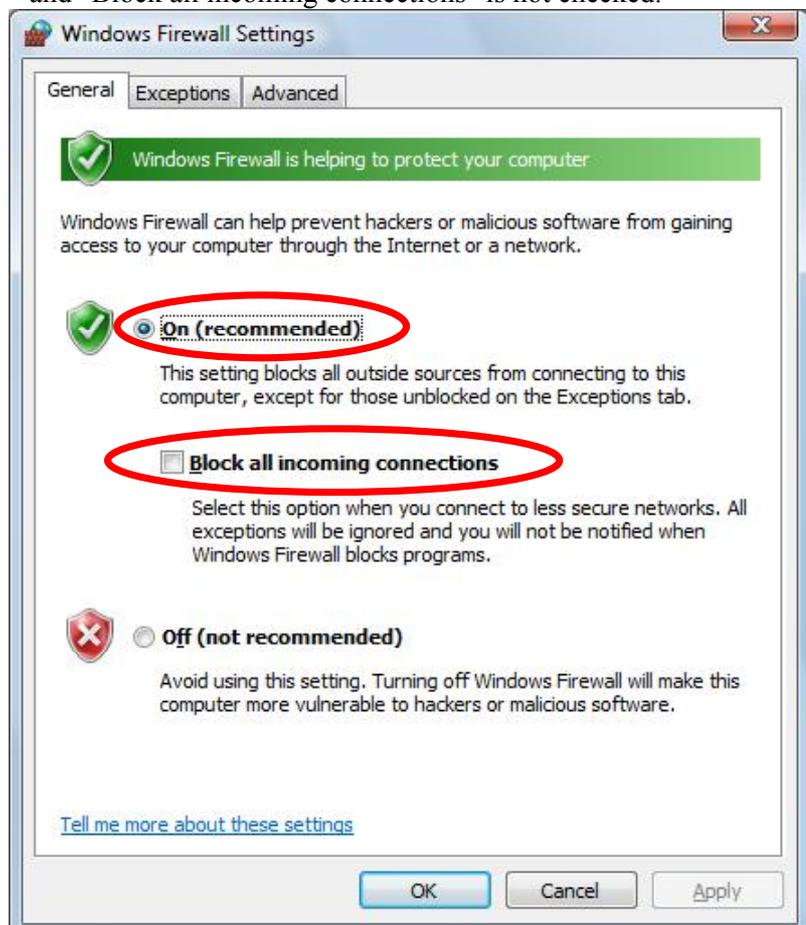
## B.3 In Case of Using Windows Vista

Set the Windows Firewall as the following procedure.

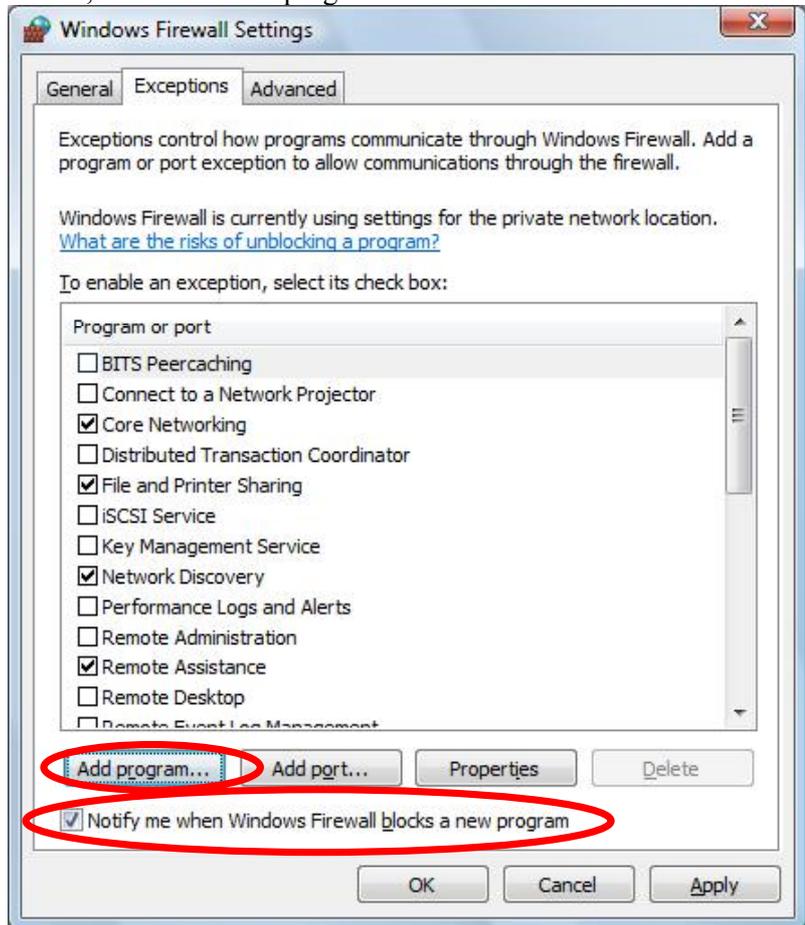
- (1) Open the "Control Panel", and click the "Allow a program through Windows Firewall" of the "Security".



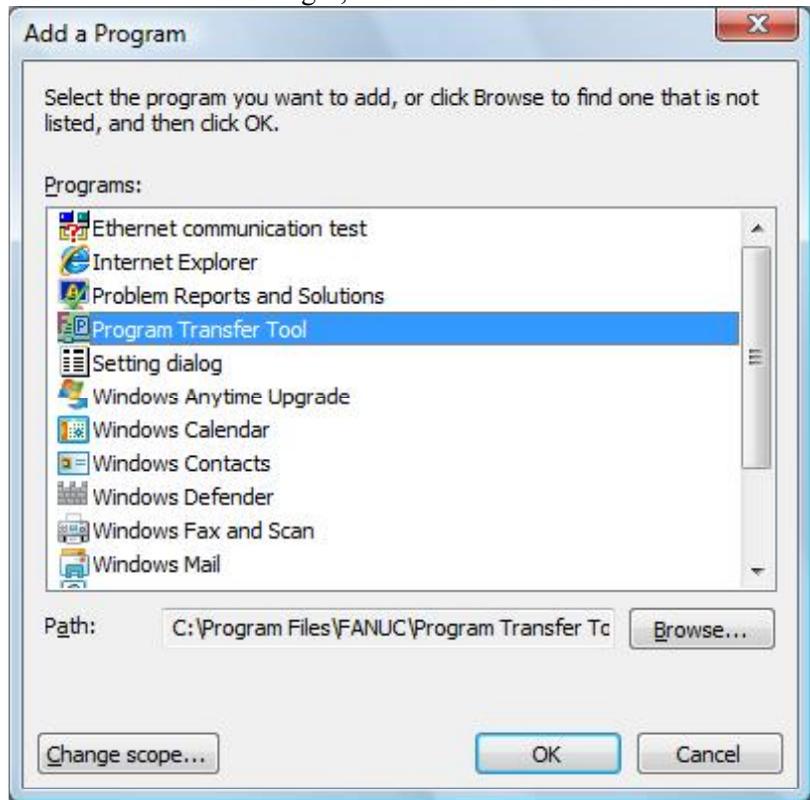
- (2) In "General" tab, confirm that "On (recommended)" is checked and "Block all incoming connections" is not checked.



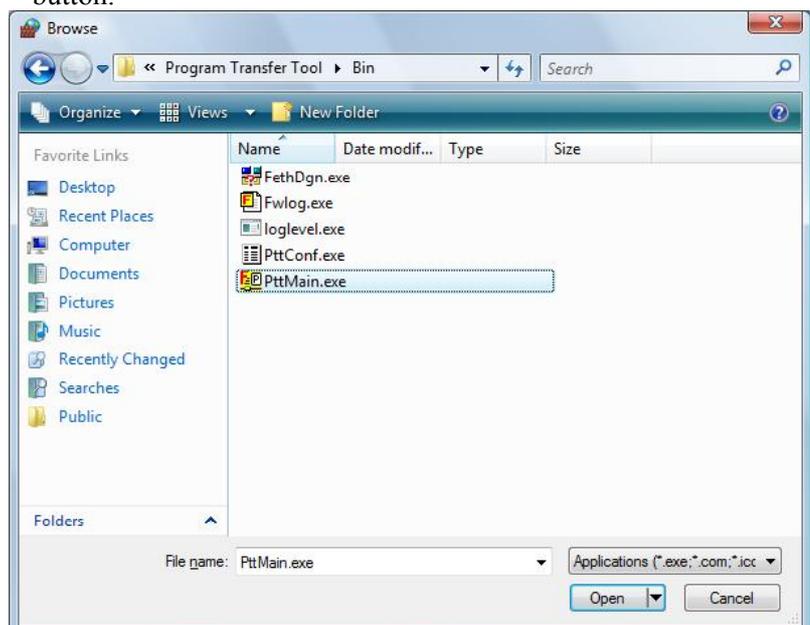
- (3) Click "Exceptions" tab, and confirm "Notify me when Windows Firewall blocks a new program" is checked.  
Next, click the <Add program> button.



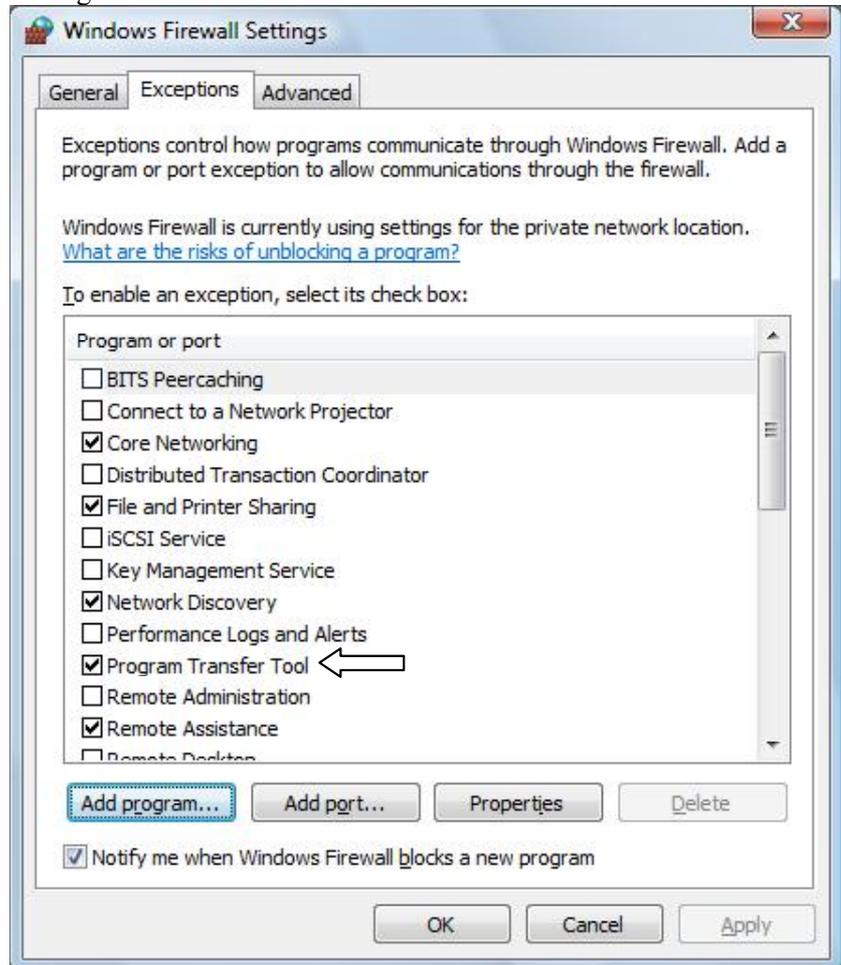
- (4) There is the "Program Transfer Tool" on the "Add a Program" screen. After selecting it, click the <OK> button.



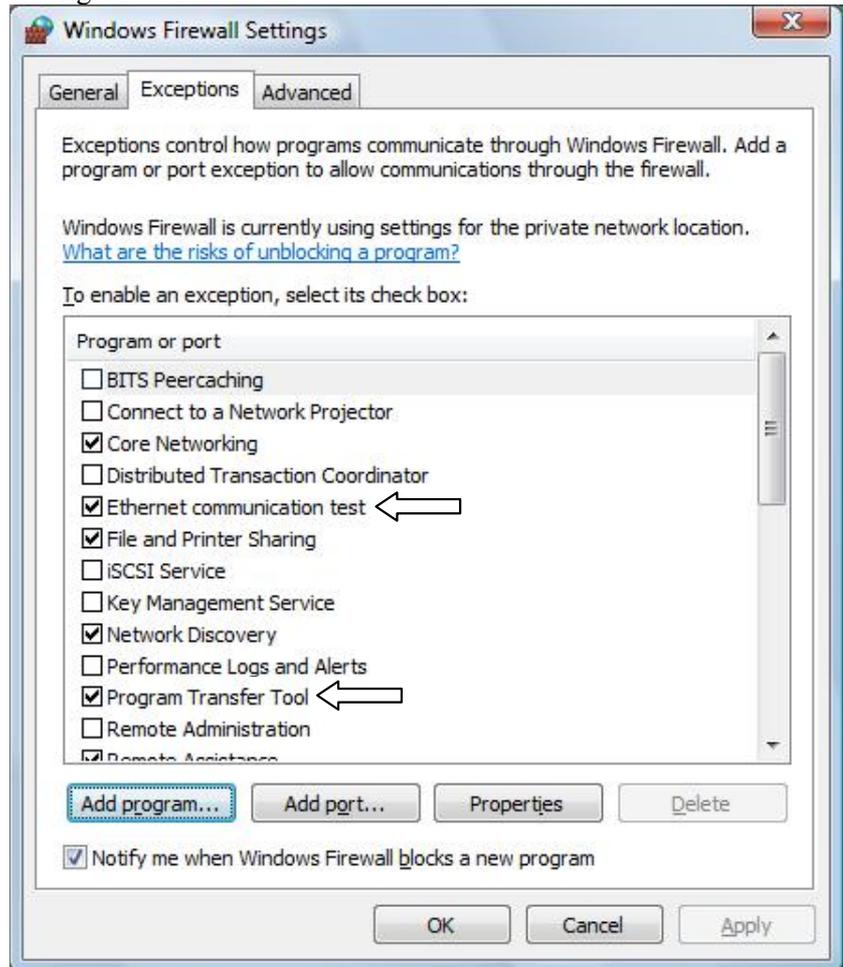
When there is not "Program Transfer Tool", click the "Browse" button. Display the "Bin" folder under the folder where you install Program Transfer Tool. Then select the "PttMain.exe" and click the <Open> button. Since the "Add a Program" screen is displayed again, select the "PttMain.exe" and click the <OK> button.



- (5) Confirm that the "Program Transfer Tool (or PttMain.exe)" was added to the "Program or port" list as shown in the following figure.



- (6) Add "FethDgn.exe" to the "Exceptions" by above procedures. In the procedure (4), select "Ethernet communication test" instead of "Program Transfer Tool" and "FethDgn.exe" instead of "PttMain.exe". Then confirm that the "Ethernet communication test (or FethDgn.exe)" and the "Program Transfer Tool (or PttMain.exe)" are added to the "Program or port" list as shown in the following figure.





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Revision Record

FANUC PROGRAM TRANSFER TOOL OPERATOR'S MANUAL (B-64344EN)

Edition	Date	Contents	Edition	Date	Contents
02	Jun., 2008	<ul style="list-style-type: none"> <li>- Applicable to Version 3.0</li> <li>- Reflected the contents of the technical report for the operator's manual Version 01</li> <li>- Applied to Series 0i -D</li> </ul>			
01	Sep., 2007	_____			



Date October 21, 2008

General Manager of  
1st Software Laboratory

FANUC PROGRAM TRANSFER TOOL OPERATOR'S MANUAL

Additional explanation about the function to transfer data related to the tool management  
of Series 30i/31i/32i-A



1. Communicate this report to:

<input type="radio"/>	Your information
<input type="radio"/>	GE Fanuc Intelligent Platforms, Fanuc GE CNC Europe
<input type="radio"/>	FANUC Robotics America, FANUC Robotics Europe
<input type="radio"/>	Machine tool builder
<input type="radio"/>	Sales agency
<input type="radio"/>	End user

2. Summary for Sales Documents

This report explains about the function to transfer data related to the tool management of Series 30i/31i/32i-A.

3. Notice

This report is available for the following version.

- Program Transfer Tool Version 4.0 or later
- Program Transfer Tool Upgrade Version 4.0 or later

4. Attached Document:

Export Control:

- Controlled (Related item No. of Foreign Exchange Order Attachment List of Japan: \_\_\_\_\_)
- Non-controlled for item No. 2 to 15 of Foreign Exchange Order Attachment List of Japan

Drawing No.	B-64344EN/02-1 (from 1/10 to 10/10)
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No.SRLB6-08/A161  
Date Oct. 21, 2008

Acceptance (Technical Administrative Division)			
General Manager	Manager	Section Manager	Person in Charge



Original section of issuer of issue			
Vice General Manager	Department Manager	Section Manager	Person in Charge

**FANUC PROGRAM TRANSFER TOOL OPERATOR'S MANUAL**  
 The function to transfer data related to the tool management  
 of Series 30*i*/31*i*/32*i* - MODEL A

1.Type of applied technical documents

Name	FANUC PROGRAM TRANSFER TOOL OPERATOR'S MANUAL
Spec.No./Ed.	B-64344EN/02

2.Summary of Change

Group	Name/Outline	New Add Correct Delete	Applicable Date
Basic Function	The following function was added. <ul style="list-style-type: none"> <li>• The function to transfer data related to the tool management of Series 30<i>i</i>/31<i>i</i>/32<i>i</i> - MODEL A</li> </ul>	Add	Immediately
Optional Function			
Unit			
Maintenance Parts			
Notice	Applied Version: <ul style="list-style-type: none"> <li>• A08B-9510-J513 Version 4.0 or later</li> <li>• A08B-9510-J514 Version 4.0 or later</li> </ul> Confirm followings in this document: <ul style="list-style-type: none"> <li>• Applied software of Series 30<i>i</i>/31<i>i</i>/32<i>i</i> - MODEL A (Page 4)</li> <li>• Applied software of FAST Ethernet board / FAST Data Server board (Page 4)</li> </ul>		
Correction			
Another			

				TITLE: FANUC PROGRAM TRANSFER TOOL OPERATOR'S MANUAL		
01	08.10.09	Ogawa	Newly registered	DRAW.NO. B-64344EN/02-1		
EDIT	DATE	DESIGN	DESCRIPTION	<b>FANUC LTD.</b>	SHEET	1/10

We updated "FANUC Program Transfer Tool".

1. Version number

Old version	New version
3.0	4.0

2. Ordering information

Software	Drawing number
Program Transfer Tool CD	A08B-9510-J513
Program Transfer Tool Upgrade CD	A08B-9510-J514

\*Upgrade CD is used to update the Program Transfer Tool of the old version to the latest version.

3. Contents of the change

- The function to transfer data related to the tool management

The function to transfer data related to the tool management of Series 30*i*/31*i*/32*i* - MODEL A has been added.

See the following "FANUC PROGRAM TRANSFER TOOL OPERATOR'S MANUAL" for details.

				TITLE: FANUC PROGRAM TRANSFER TOOL OPERATOR'S MANUAL		
01	08.10.09	Ogawa	Newly registered	DRAW.NO. B-64344EN/02-1		
EDIT	DATE	DESIGN	DESCRIPTION	FANUC LTD.	SHEET	2/10

# FANUC PROGRAM TRANSFER TOOL OPERATOR'S MANUAL

The function to transfer data related to the tool management

The function to transfer the following data related to the tool management of Series 30*i*/31*i*/32*i* - MODEL A has been added.

No.	Data type
1	Tool management data
2	Magazine data
3	Tool life status name data
4	Name data of customize data
5	Customize data displayed as tool management data
6	Spindle waiting position name data
7	Decimal point position data of customize data
8	Tool geometry data
9	Tool geometry size data

This manual is a supplementary manual for the above-mentioned function. Other explanations (existing functions, operation, etc.) are described in the following manual.

Name of Manual	Spec.No.
FANUC PROGRAM TRANSFER TOOL OPERATOR'S MANUAL	B-64344EN

				TITLE: FANUC PROGRAM TRANSFER TOOL OPERATOR'S MANUAL		
01	08.10.09	Ogawa	Newly registered	DRAW.NO. B-64344EN/02-1		
EDIT	DATE	DESIGN	DESCRIPTION	<b>FANUC LTD.</b>	SHEET	3/10

# 1

## Outline

The function to transfer data related to the tool management has been added to the Program Transfer Tool.

### 1.1 Applied Software

The function to transfer data related to the tool management can be used with the following version of Program Transfer Tool.

Software	Drawing number	Edition
Program Transfer Tool CD	A08B-9510-J513	4.0
Program Transfer Tool Upgrade CD	A08B-9510-J514	

This function can be used with Series 30*i*/31*i*/32*i* - MODEL A.

The following software series and edition is necessary.

Software	Series	Edition
Series 30 <i>i</i> /300 <i>i</i> /300 <i>is</i> - MODEL A CNC System Software	G00C, G01C, G02C G003, G013, G023	32.0
	G00B, G01B, G02B G002, G012, G022	49.0
Series 31 <i>i</i> /310 <i>i</i> /310 <i>is</i> - MODEL A CNC System Software	G103, G113	32.0
	G101, G111	49.0
Series 31 <i>i</i> /310 <i>i</i> /310 <i>is</i> - MODEL A5 CNC System Software	G12C, G13C G123, G133	32.0
	G12B, G13B G121, G131	49.0
Series 32 <i>i</i> /320 <i>i</i> /320 <i>is</i> - MODEL A CNC System Software	G203	32.0
	G201	49.0

To use FAST Ethernet board or FAST Data Server board, the following software series and edition is necessary.

Software	Drawing number	Edition
Control software for FAST Ethernet board / FAST Data Server board	A02B-0303-J561#6569	24

				TITLE: FANUC PROGRAM TRANSFER TOOL OPERATOR'S MANUAL			
01	08.10.09	Ogawa	Newly registered	DRAW.NO. B-64344EN/02-1			
EDIT	DATE	DESIGN	DESCRIPTION	FANUC LTD.		SHEET	4/10

# 1.2 Data can be transferred

Since the function to transfer data related to the tool management was added, this tool could transfer the following data. (The masked area shows additional data in this version 4.0)

Table 1 Data can be transferred

No	Data type	File name *2	Data management type for path: Common / Each path	Remarks
1	Tool management data *1	TOOL_MNG.TXT	Common	Additional data in this version 4.0
2	Magazine data *1 *3	MAGAZINE.TXT		
3	Tool life status name data	STATUS.TXT		
4	Name data of customize data *3	CUSTOMIZ.TXT		
5	Customize data displayed as tool management data	DISPCSTM.TXT		
6	Spindle waiting position name data	POSNAME.TXT		
7	Decimal point position data of customize data	POINTPOS.TXT		
8	Tool geometry data	TOOLGEOM.TXT		
9	Tool geometry size data	TOOLSIZE.TXT	Each path	
10	Tool offsets	TOOLOFST.TXT	Each path	Already available
11	Custom macros	MACRO.TXT		
12	Workpiece origin offsets	EXT_WKZ.TXT		

- \*1 The tool management data and the magazine data not only can be transferred but also can be deleted.
- \*2 The file name has been basically decided for each data. The file names of the description are the following data.
  - A data which is not managed for each path by CNC
  - The 1st path data which is managed for each path by CNC

These file name is the same as given when data is output to a memory card without specifying a file name.

For data of a second or subsequent path, the extension "P-path-number" is used. However, for the 10th path, the extension is "P10" without "-".

Example:

  - Tool geometry size data of the 1st path: TOOLSIZE.TXT
  - Tool geometry size data of the 2nd path: TOOLSIZE.P-2
  - Tool geometry size data of the 10th path: TOOLSIZE.P10

These file name is the same as given when bit 0 of parameter No. 138 is set to 1 on the CNC and data is output to a memory card without specifying a file name.
- \*3 When FAST Ethernet board / FAST Data Server board is used, the name data of customize data and the magazine data cannot be downloaded.

				TITLE: FANUC PROGRAM TRANSFER TOOL OPERATOR'S MANUAL		
01	08.10.09	Ogawa	Newly registered	DRAW.NO. B-64344EN/02-1		
EDIT	DATE	DESIGN	DESCRIPTION	FANUC LTD.	SHEET	5/10

# 1.3 Displaying of data List

When this tool connects to the CNC program memory, filenames in the "Table 1 Data can be transferred" of "1.2 Data can be transferred" will be displayed on the file list of the "[DATA]" folder. Data is not displayed on the screen when the option is not in CNC though the CNC option is necessary for data.

Following icons are used for displaying the data related to the tool management as well as the tool offset data, etc.

Large	List / Detail
	

When displaying data in detail, "Type" and "Path No." besides "File name" are displayed as shown in the figure below.

Example: Displaying detail data list of 2 path CNC

File Name	Type	Path No.
 CUSTOMIZ.TXT	Name data of customize data	1
 DISPCSTM.TXT	Customize data displayed as tool management data	1
 EXT_WKZ.P-2	Workpiece origin offset	2
 EXT_WKZ.TXT	Workpiece origin offset	1
 MACRO.P-2	Custom macro	2
 MACRO.TXT	Custom macro	1
 MAGAZINE.TXT	Magazine data	1
 POINTPOS.TXT	Decimal point position data of customize data	1
 POSNAME.TXT	Spindle waiting position name data	1
 STATUS.TXT	Tool life status name data	1
 TOOL_MNG.TXT	Tool management data	1
 TOOLGEOM.TXT	Tool geometry data	1
 TOOLOFST.P-2	Tool offset	2
 TOOLOFST.TXT	Tool offset	1
 TOOLSIZE.P-2	Tool geometry size data	2
 TOOLSIZE.TXT	Tool geometry size data	1

A path number of data is displayed in the "Path No." in case of a data managed for each path by CNC.

"1" is displayed in the "Path No." in case of a data not managed for each path by CNC.

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## 1.4 Operation of screen

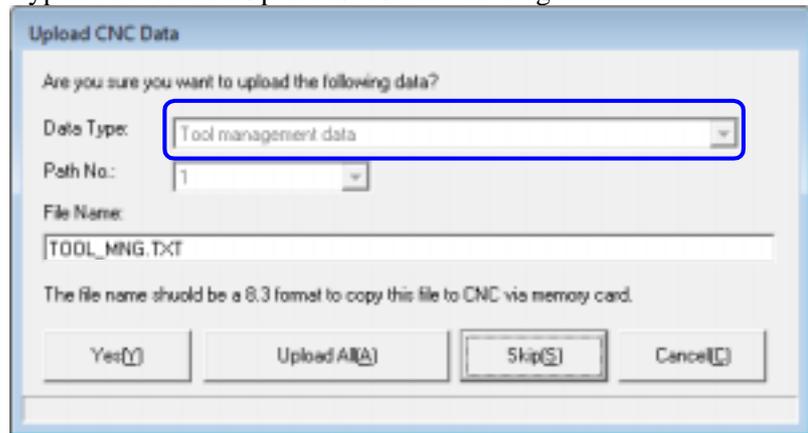
Both types of data transferring, Upload (from CNC to PC) and Download (from PC to CNC), are available.

The tool management data and the magazine data in CNC not only can be transferred but also can be deleted.

### 1.4.1 Upload (Transferring from CNC to PC)

Data in the "Table 1 Data can be transferred" of "1.2 Data can be transferred" can be uploaded.

The data type of selected data in the screen will be displayed in the "Data Type" field of the "Upload CNC Data" dialog.



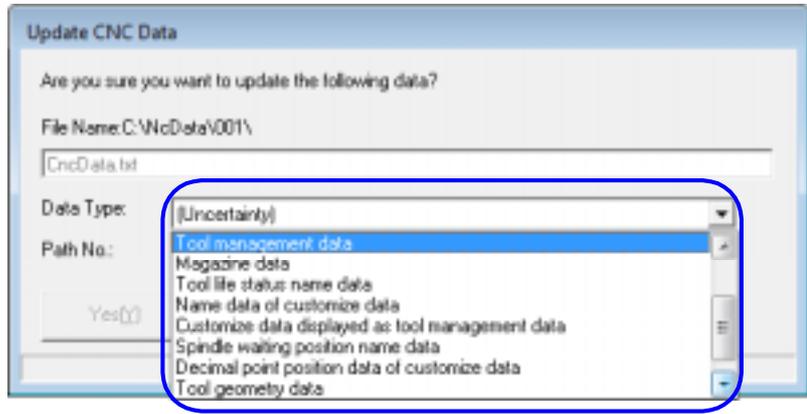
### 1.4.2 Download (Transferring from PC to CNC)

Data in the "Table 1 Data can be transferred" of "1.2 Data can be transferred" can be downloaded.

If the selected file name is same as the format of "Table 1 Data can be transferred", the downloaded data type and path number are automatically selected.

If the selected file name is different from the format of "Table 1 Data can be transferred", it is necessary to select the downloaded data type and path number on the "Update CNC Data" dialog.

				TITLE: FANUC PROGRAM TRANSFER TOOL OPERATOR'S MANUAL		
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**Note**

1. The alarm might be generated by CNC though download ends normally. Confirm the CNC state and the downloaded data is correctly set to CNC.
2. A data that is managed for each path by CNC can be downloaded by changing the path number.  
Example: The tool geometry size data in the 1st path can be downloaded to the 2nd path.
3. When the customize data displayed as tool management data (DISPCSTM.TXT) or the decimal point position data of customize data (POINTPOS.TXT) was downloaded, CNC should be restart.
4. When FAST Ethernet board / FAST Data Server board is used, the name data of customize data (CUSTOMIZ.TXT) and the magazine data (MAGAZINE.TXT) cannot be downloaded.

				TITLE: FANUC PROGRAM TRANSFER TOOL OPERATOR'S MANUAL			
01	08.10.09	Ogawa	Newly registered				
EDIT	DATE	DESIGN	DESCRIPTION	FANUC LTD.		SHEET	8/10

When the tool management function for oversize tools has been used on CNC, keep the following in mind.

**Note**

1. If a target tool is registered in a magazine and interferes with other tools in registration or modification of the tool geometry data of the tool management data, alarm PS5360 is issued. (The data is not input.)  
Correct interference with other tools.
2. If a tool interferes with other tools in registration or modification to the magazine management table, alarm PS5360 is issued. (The data is not input.)  
Correct interference with other tools.
3. If an attempt is made to modify the tool geometry data, and the tool for which the tool geometry data number subject to modification is set is registered in the magazine, alarm PS5360 is issued. (The data is not input.)  
Delete the magazine data before downloading.
4. When the tool geometry data (TOOLGEOM.TXT), the tool management data (TOOL\_MNG.TXT), and the magazine data (MAGAZINE.TXT) in CNC are deleted, and these data are downloaded again, these data should be downloaded by the following procedure:
  - (a) When the data file for downloading is specified one by one:  
These data should be specified in order of the tool geometry data, the tool management data, and the magazine data.
  - (b) When plural data files for downloading are specified at the same time:  
This tool downloads data in order as (a).

				TITLE: FANUC PROGRAM TRANSFER TOOL OPERATOR'S MANUAL			
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EDIT	DATE	DESIGN	DESCRIPTION	FANUC LTD.		SHEET	9/10

### 1.4.3 Deleteing a data in CNC (Tool management data and magazine data)

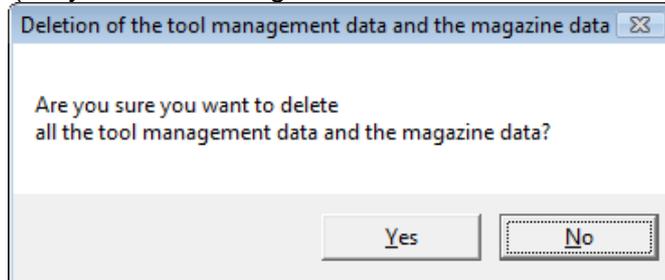
When the tool management data, the magazine data, and the tool geometry data are downloaded to CNC which has these data, the data might not be changed by the interference with tools etc. In this case, delete the tool management data or the magazine data in CNC before downloading with this tool.

To delete the tool management data or the magazine data:

- Select the tool management data (TOOL\_MNG.TXT) or the magazine data (MAGAZINE.TXT) in the file list of the [DATA] folder.
- Then, operate one of the following deletion operations.
  - Click the [Delete] command on the [Communication] menu.
  - Click the [Delete] command on the context menu displayed by right-clicking a selected file.
  - Press the [Delete] key.

#### Note

1. When deletion operations are operated for the icon of the tool management data or the magazine data, the data in CNC is deleted. But the icon on the screen remains being displayed.
2. When the tool management data (TOOL\_MNG.TXT) has been selected, the magazine data is deleted together. (Only the tool management data cannot be deleted.)



3. When the plural data have been selected, the data cannot be deleted even if the tool management data or the magazine data has been selected.

				TITLE: FANUC PROGRAM TRANSFER TOOL OPERATOR'S MANUAL			
01	08.10.09	Ogawa	Newly registered	DRAW.NO. B-64344EN/02-1			
EDIT	DATE	DESIGN	DESCRIPTION	FANUC LTD.		SHEET	10/10

Date 13. Apr. 2010

General Manager of  
Basic Software Laboratory



FANUC PROGRAM TRANSFER TOOL OPERATOR'S MANUAL  
Additional explanation about Windows 7 support

1. Communicate this report to:

✓	Your information
✓	FANUC CNC America, FANUC CNC Europe S.A.
	FANUC Robotics America, FANUC Robotics Europe
✓	Machine tool builder
	Sales agency
✓	End user

2. Summary for Sales Documents

3. Notice

This report is available for the following version.

- Program Transfer Tool Version 5.0 or later
- Program Transfer Tool Upgrade Version 5.0 or later

4. Attached Document:

Export Control:

- Controlled (Related item No. of Foreign Exchange Order Attachment List of Japan: \_\_\_\_\_)
- Non-controlled for item No. 2 to 15 of Foreign Exchange Order Attachment List of Japan

Drawing No.	B-643444EN/02-2 (1/11 - 11/11)
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No.SRLB6-10/4078

Date 13. Apr. 2010

Acceptance (Technical Administration Dept.)			
Manager	Section Manager	Chief	Person in Charge

Order section of issuer of issue		
Department Manager	Office Manager	Person in Charge

**FANUC PROGRAM TRANSFER TOOL**  
The additional explanation about Windows 7 support

1.Type of applied technical documents

Name	FANUC PROGRAM TRANSFER TOOL OPERATOR'S MANUAL
Spec.No./Ed.	B-64344EN/02

2.Summary of Change

Group	Name/Outline	New Add Correct Delete	Applicable Date
Basic Function	The following function was added. · Windows 7 has been supported.	Add	Immediately
Optional Function			
Unit			
Maintenance Parts			
Notice	Applied Version: · A08B-9510-J513 Version 5.0 or later · A08B-9510-J514 Version 5.0 or later		
Correction			
Another			

				TITLE: FANUC PROGRAM TRANSFER TOOL The additional explanation about Windows 7 support			
01	10.04.13	Matsukura	Newly registered	DRAW.NO. B-64344EN/02-2			
EDIT	DATE	DESIGN	DESCRIPTION	FANUC LTD.		SHEET	1/11

We updated "FANUC Program Transfer Tool".

1. Version number

Old version	New version
4.0	5.0

2. Ordering information

Software	Drawing number
Program Transfer Tool CD	A08B-9510-J513
Program Transfer Tool Upgrade CD	A08B-9510-J514

\*Upgrade CD is used to update the Program Transfer Tool of the old version to the latest version.

3. Contents of the change

- Windows 7 support

Applied to Windows 7 Professional (32bit OS) English, Japanese, and Simplified Chinese.

				TITLE: FANUC PROGRAM TRANSFER TOOL The additional explanation about Windows 7 support		
01	10.04.13	Matsukura	Newly registered	DRAW.NO. B-64344EN/02-2		
EDIT	DATE	DESIGN	DESCRIPTION	FANUC LTD.	SHEET	2/11

Please replace the section "3.3 PERSONAL COMPUTER/SOFTWARE" of "I. GENERAL" by the following explanation.

### 3.3 PERSONAL COMPUTER/SOFTWARE

#### When the OS is Windows 7

(1) and (2) below are required:

- (1) Microsoft Windows 7® Professional (32 bit version OS)
- (2) Microsoft Internet Explorer 8.0 or later

#### NOTE

- 1 To do the following operations of this tool on Windows 7, the user must belong to the Administrators group.
  - a) Installation
  - b) Uninstallation
  - c) Upgrade installation
- 2 This tool does not support the user switching function of Windows 7.

#### When the OS is Windows Vista

(1) and (2) below are required:

- (1) Microsoft Windows Vista® Business Service Pack 2 or later (32 bit version OS)
- (2) Microsoft Internet Explorer 7.0 or later

#### NOTE

- 1 To do the following operations of this tool on Windows Vista, the user must belong to the Administrators group.
  - a) Installation
  - b) Uninstallation
  - c) Upgrade installation
- 2 This tool does not support the user switching function of Windows Vista.

				TITLE: FANUC PROGRAM TRANSFER TOOL The additional explanation about Windows 7 support		
01	10.04.13	Matsukura	Newly registered	DRAW.NO. B-64344EN/02-2		
EDIT	DATE	DESIGN	DESCRIPTION	FANUC LTD.	SHEET	3/11

## When the OS is Windows XP

(1) and (2) below are required:

- (1) Microsoft Windows XP® Professional Service Pack 3 or later (32 bit version OS)
- (2) Microsoft Internet Explorer 6.0 or later

### NOTE

- 1 To use this tool on Windows XP, the user must belong to the Administrators group.
- 2 Only the user who has installed this tool can use this tool.  
This tool does not support the user switching function of Windows XP.

## When the OS is Windows 2000

(1) and (2) below are required:

- (1) Microsoft Windows 2000® Professional ServicePack 4 or later
- (2) Microsoft Internet Explorer 6.0 or later

### NOTE

- 1 To use this tool on Windows 2000, the user must belong to the Administrators group.
- 2 Only the user who has installed this tool can use this tool.

## Supported Language

English, Japanese, and Simplified Chinese

The language displayed with this tool is automatically selected according to the language of OS when you install this tool.

English will be selected if this tool is installed in OSs other than the language of the above.

				TITLE: FANUC PROGRAM TRANSFER TOOL The additional explanation about Windows 7 support		
01	10.04.13	Matsukura	Newly registered	DRAW.NO. B-64344EN/02-2		
EDIT	DATE	DESIGN	DESCRIPTION	FANUC LTD.	SHEET	4/11

Please replace the section "B Windows Firewall Settings" of "B. APPENDIX" by the following explanation.

# B

## Windows Firewall Settings

It is necessary to set the Windows Firewall to communicate with DATA SERVER or FTP server with some of Windows OS. However, if you don't communicate with DATA SERVER or FTP server, the following setting is not necessary.

 **CAUTION**

The setting as described below changes the network security. Therefore, before you change the settings as described below, consult with your network administrator, and take special care.

When the communication of an existing program is carelessly permitted, the loss of the network security might be caused.

				TITLE: FANUC PROGRAM TRANSFER TOOL The additional explanation about Windows 7 support	
01	10.04.13	Matsukura	Newly registered	DRAW.NO.	B-64344EN/02-2
EDIT	DATE	DESIGN	DESCRIPTION	<b>FANUC LTD.</b>	SHEET 5/11

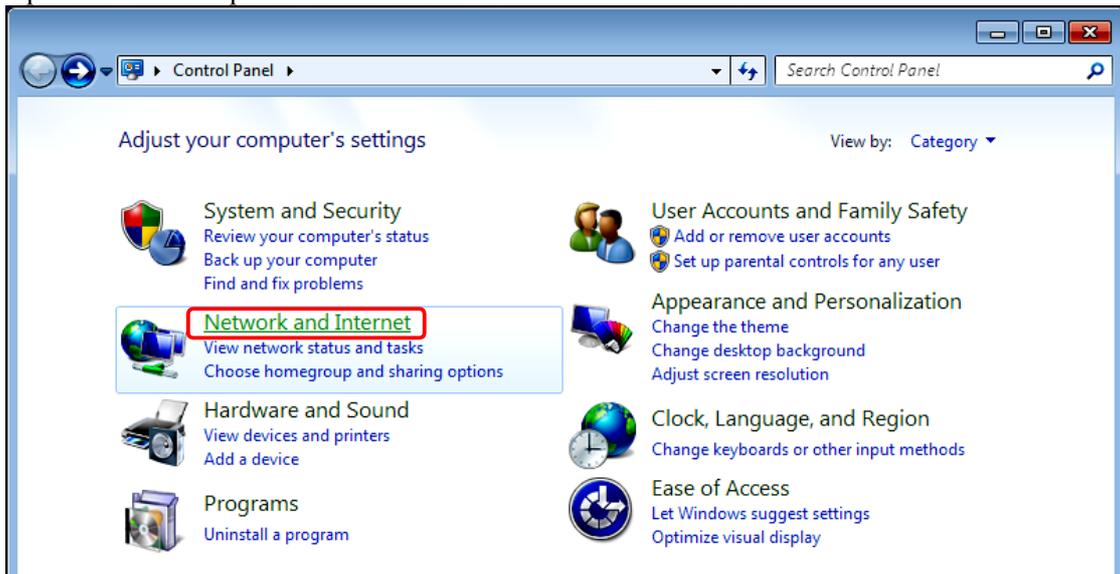
Please add the following explanation to the section "B.4 In Case of Using Windows 7" of "B. APPENDIX"

## B.4 In Case of Using Windows 7

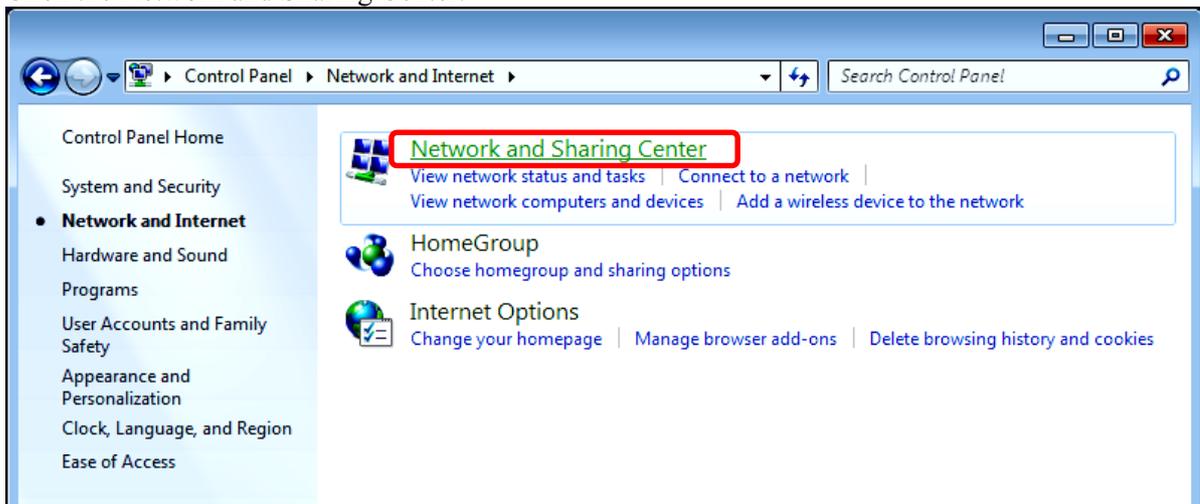
Set the Windows Firewall as the following procedure.

First, write down the "Active network" type in the "View your active networks" with procedure from (1) to (3). Then, setup Windows Firewall to communicate programs of the Program Transfer Tool in the "Active network" with procedure from (4) to (9).

- (1) Open the "Control panel" and click the "Network and Internet".



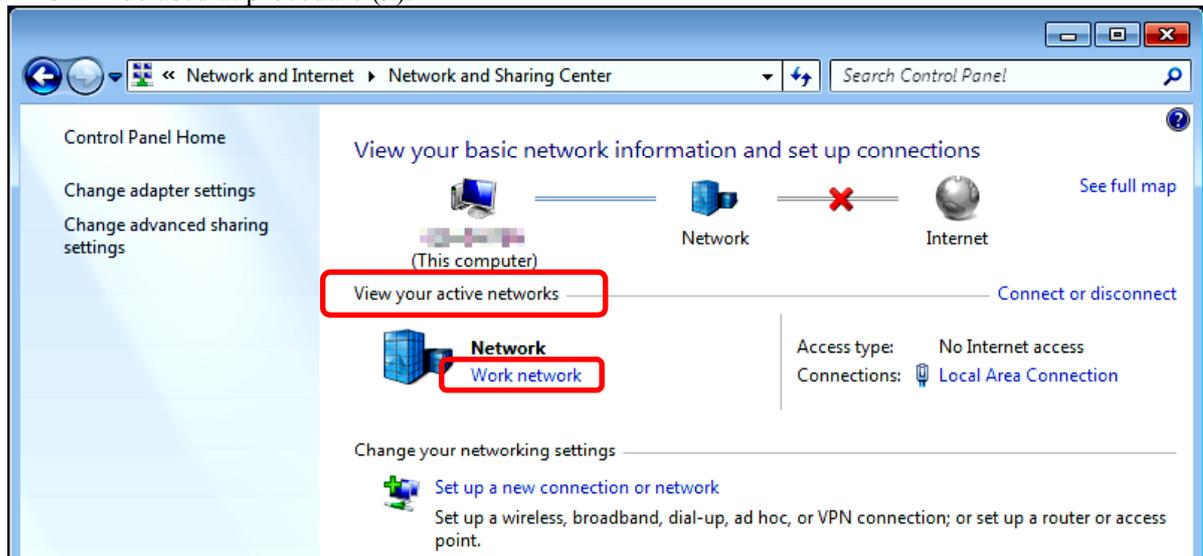
- (2) Click the Network and Sharing Center.



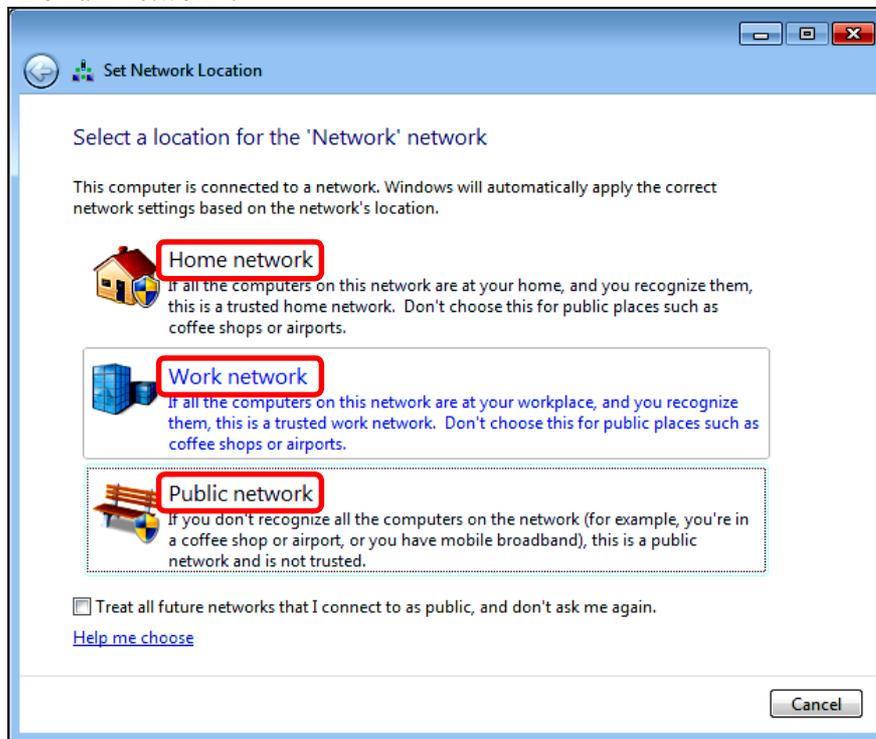
				TITLE: FANUC PROGRAM TRANSFER TOOL The additional explanation about Windows 7 support		
01	10.04.13	Matsukura	Newly registered	DRAW.NO. B-64344EN/02-2		
EDIT	DATE	DESIGN	DESCRIPTION	FANUC LTD.	SHEET	6/11

(3) Write down the network type displayed in the "View your active networks".

This will be used at procedure (9).



The "View your activate networks" will shows "Home network", "Work network", "Public network", or "Domain network".

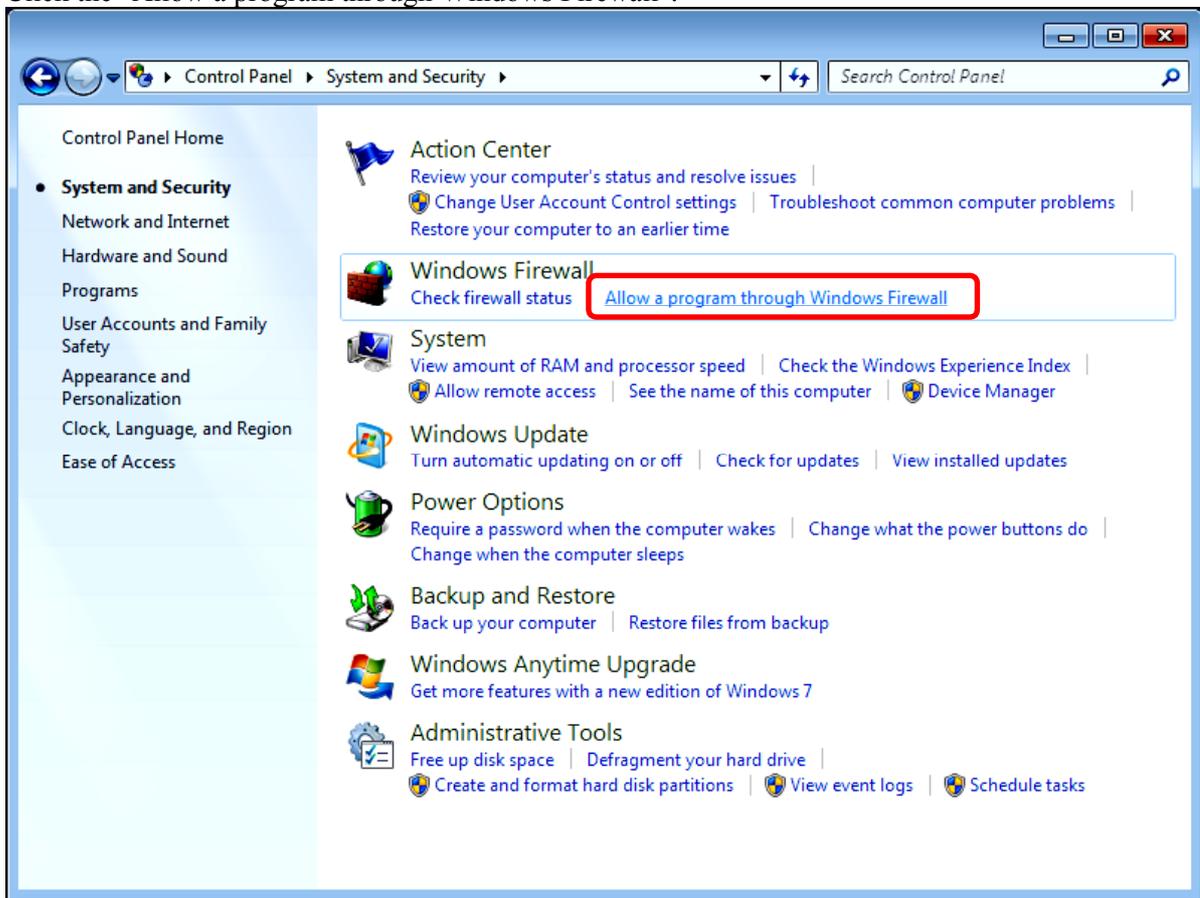


				TITLE: FANUC PROGRAM TRANSFER TOOL The additional explanation about Windows 7 support		
01	10.04.13	Matsukura	Newly registered	DRAW.NO. B-64344EN/02-2		
EDIT	DATE	DESIGN	DESCRIPTION	FANUC LTD.	SHEET	7/11

(4) Open the "Control panel" and click the "System and Security".

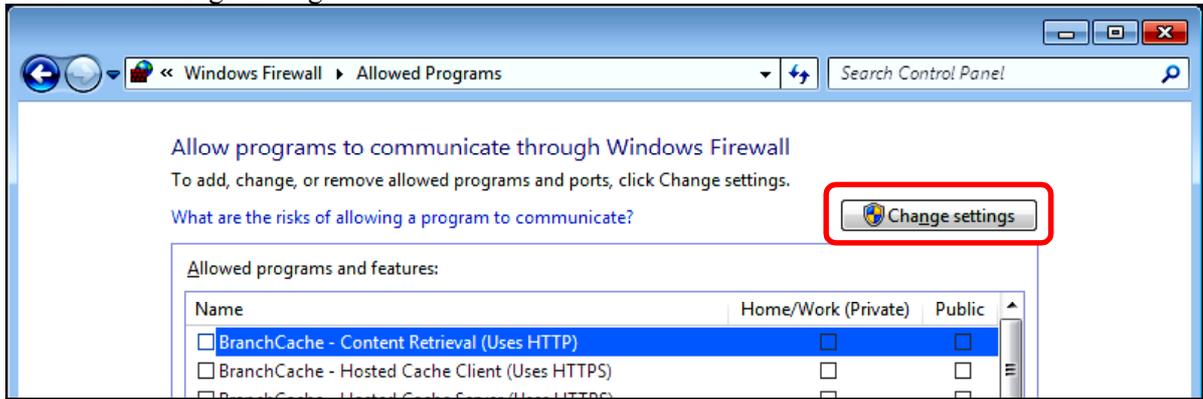


(5) Click the "Allow a program through Windows Firewall".

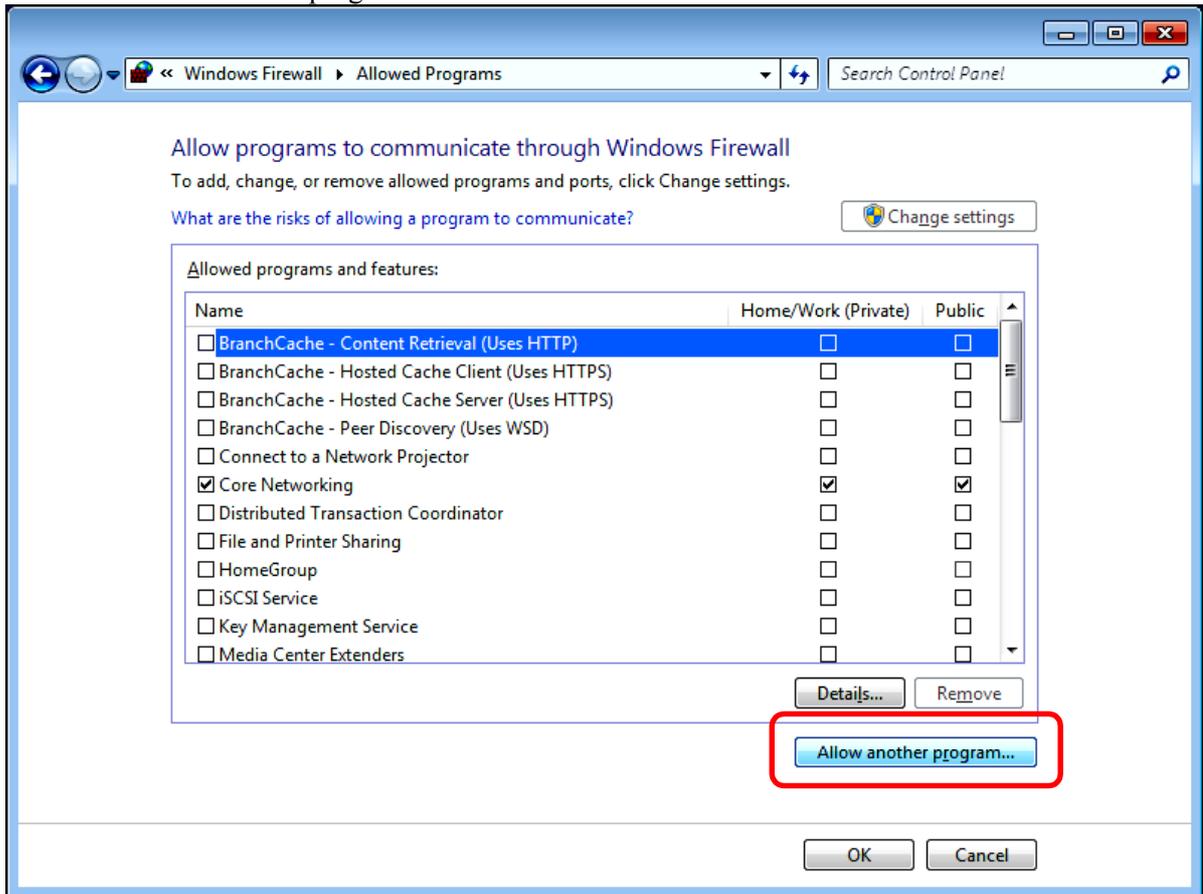


				TITLE: FANUC PROGRAM TRANSFER TOOL The additional explanation about Windows 7 support		
01	10.04.13	Matsukura	Newly registered	DRAW.NO. B-64344EN/02-2		
EDIT	DATE	DESIGN	DESCRIPTION	FANUC LTD.	SHEET	8/11

(6) Click the "Change settings".



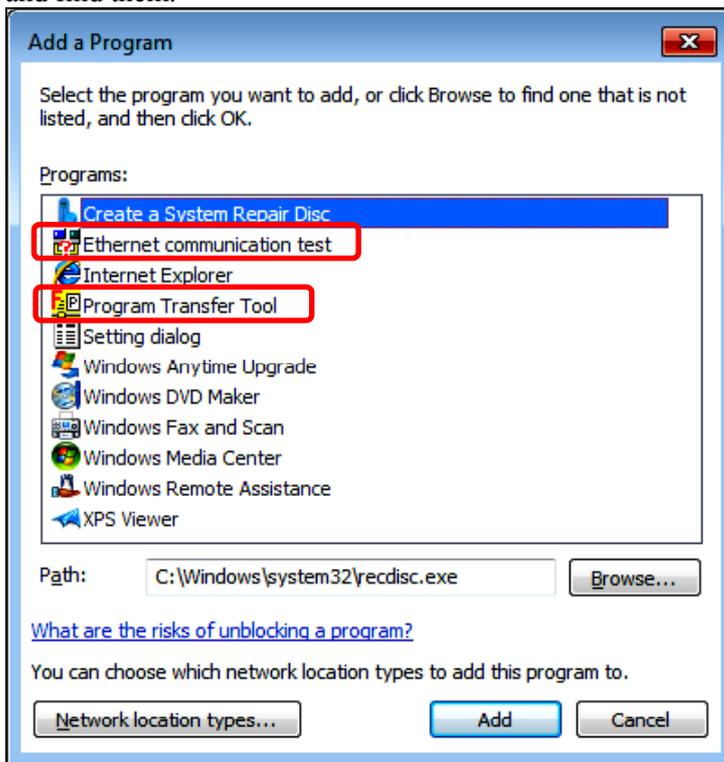
(7) Click the "Allow another program...".



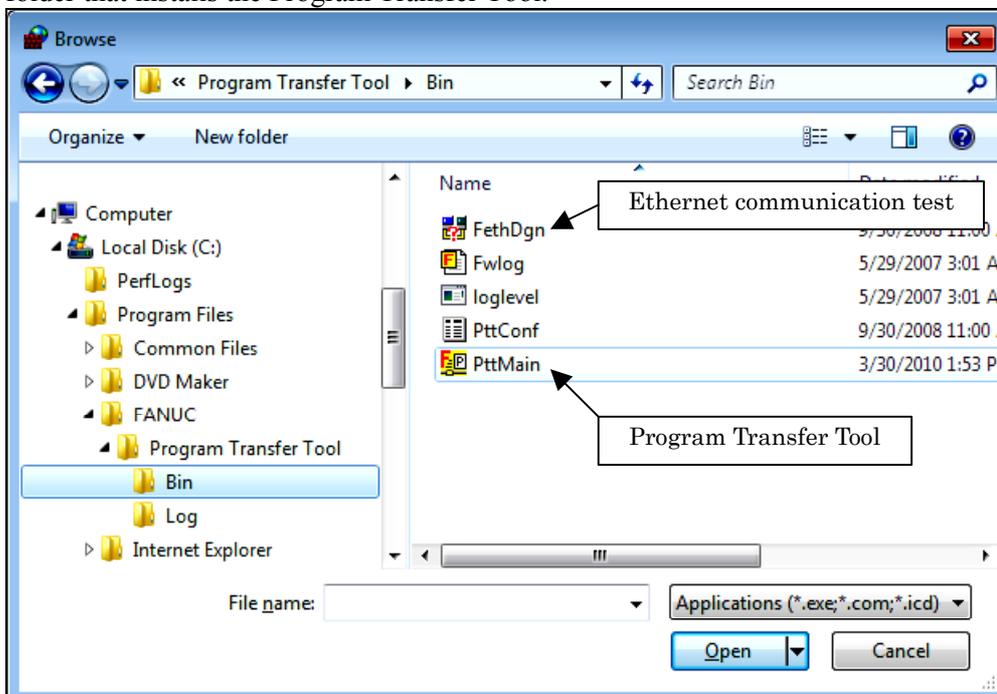
				TITLE: FANUC PROGRAM TRANSFER TOOL The additional explanation about Windows 7 support		
01	10.04.13	Matsukura	Newly registered	DRAW.NO. B-64344EN/02-2		
EDIT	DATE	DESIGN	DESCRIPTION	FANUC LTD.	SHEET	9/11

(8) Select the "Program Transfer Tool" and click the "Add". Then, select the "Ethernet communication test" and click the "Add".

If the "Program Transfer Tool" or the "Ethernet communication test" is not displayed, click the "Browse..." and find them.



The "Program Transfer Tool" and the "Ethernet communication test" are stored the Bin folder under the folder that installs the Program Transfer Tool.

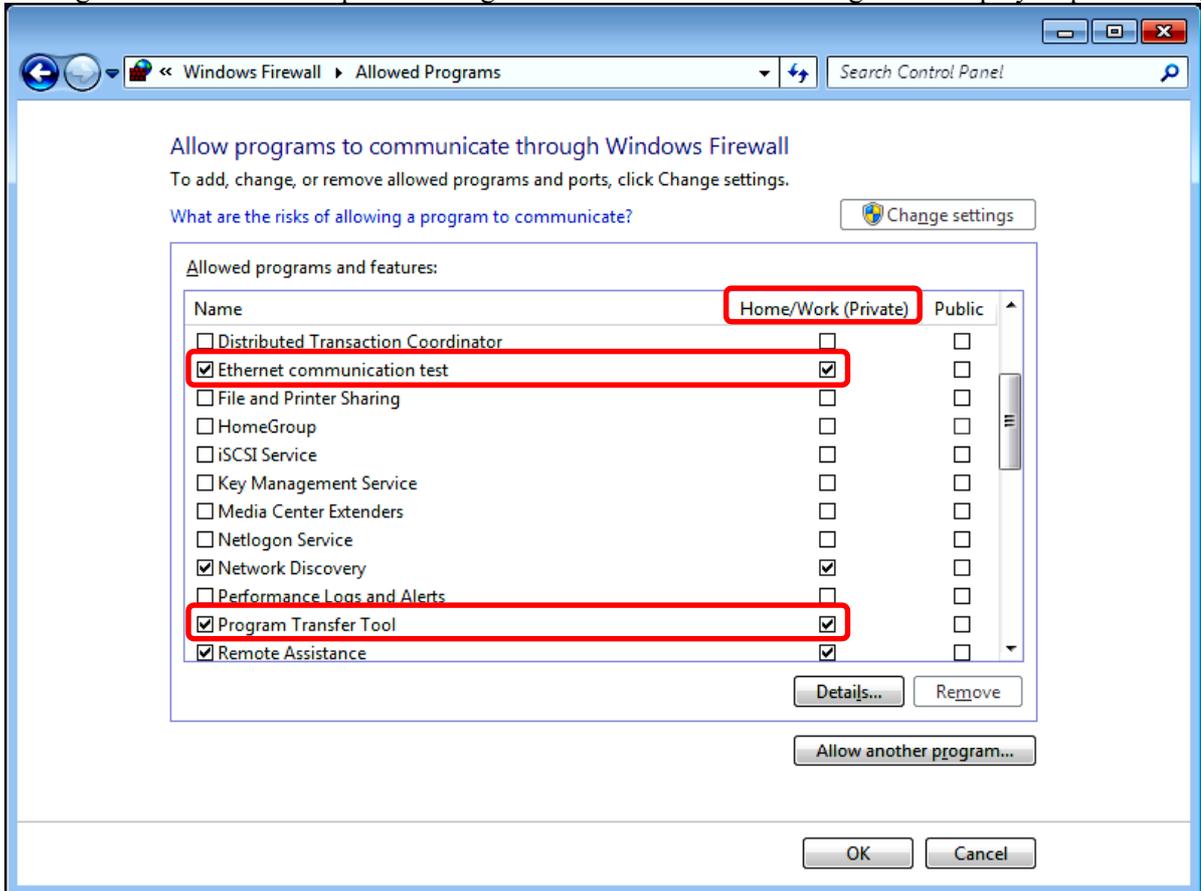


				TITLE: FANUC PROGRAM TRANSFER TOOL The additional explanation about Windows 7 support		
01	10.04.13	Matsukura	Newly registered	DRAW.NO.	B-64344EN/02-2	
EDIT	DATE	DESIGN	DESCRIPTION	FANUC LTD.	SHEET	10/11

(9) Set network features according to "Active network" written down in procedure (3).

"Active network" value	Network features
Home network	Home/Work (Private)
Work network	
Public network	Public
Domain network	Domain

The figure below is an example of setting for "Work network" according to the display of procedure (3).



				TITLE: FANUC PROGRAM TRANSFER TOOL The additional explanation about Windows 7 support		
01	10.04.13	Matsukura	Newly registered	DRAW.NO. B-64344EN/02-2		
EDIT	DATE	DESIGN	DESCRIPTION	FANUC LTD.	SHEET	11/11

FANUC PROGRAM TRANSFER TOOL OPERATOR'S MANUAL  
Additional explanation about Series 0i - PD support

1. Type of applied technical documents

Name	FANUC PROGRAM TRANSFER TOOL OPERATOR'S MANUAL
Spec.No. /Version	B-64344EN/02

2. Summary of change

Group	Name / Outline	New, Add, Correct, Delete	Applicable Date
Basic Function	The following function were added. Series 0i - PD has been supported. Windows 7 Professional 64 bit OS has been supported.	Add	Immediately
Optional Function			
Unit			
Maintenance parts			
Notice	Applied Version: A08B-9510-J513 Version 7.0 or later A08B-9510-J514 Version 7.0 or later		
Correction			
Another			

				TITLE FANUC PROGRAM TRANSFER TOOL ADDITIONAL OPERATOR'S MANUAL Additional explanation about Series 0i-PD support	
01	'11.03.07	Matsukura	New Issue	DRAW. NO. B-64344EN/02-4	CUST.
EDIT.	DATE	DESIG.	DESCRIPTION	<b>FANUC CORPORATION</b>	SHEET 1 / 3

"FANUC Program Transfer Tool" has been updated.

1. Version number

Old version	New version
6.0	7.0

2. Ordering information

Software	Drawing number
Program Transfer Tool CD	A08B-9510-J513
Program Transfer Tool Upgrade CD	A08B-9510-J514

\*Upgrade CD is used to update the Program Transfer Tool of the old version to the latest version.

3. Contents of the change

Series 0i-PD has been supported.

Windows 7 Professional 64bit OS has been supported.

				TITLE FANUC PROGRAM TRANSFER TOOL ADDITIONAL OPERATOR'S MANUAL Additional explanation about Series 0i-PD support	
01	'11.03.07	Matsukura	New Issue	DRAW. NO. B-64344EN/02-4	CUST.
EDIT.	DATE	DESIG.	DESCRIPTION	<b>FANUC CORPORATION</b>	SHEET 2 / 3

Add the the following underlined explanation to the No.36 of the "Ethernet board or data server board and required CNC options (3/3)" table in the "3.1 CNC" of "I. GENERAL".

Ethernet board or data server board and required CNC options (3/3)

No	Name	Applicable model	Drawing number	CNC option	Control software
36	Fast Ethernet for LCD-mounted type/ stand-alone type CNC	FS <u>0i</u> -TD/MD <u>FS 0i</u> -PD	A02B-0319-J146	A02B-XXXX-S707 * 1 A02B-XXXX-S737 * 3	A02B-0319-J561 #658W

XXXX specifies a drawing number according to the CNC type as follows:  
0319 (0i-TD), 0320 (0i-MD, 0i-PD)

Add the following underlined explanation to the "(3) CNC Type" in the "1.2 MACHINE INFO.TAB" of "III.SETTING".

(3) CNC Type

Select the type of the CNC.

Select the "Series 0i-D" for FS 0i-TD, 0i-MD, and 0i-PD.

Please add the following explanation to the section "3.3 PERSONAL COMPUTER/SOFTWARE" of "I. GENERAL".

### 3.3 PERSONAL COMPUTER/SOFTWARE

**When the OS is Windows 7**

(1) and (2) below are required:

(1) Microsoft Windows 7® Professional (32 bit OS or 64 bit OS)

(2) Microsoft Internet Explorer 8.0 or later

**NOTE**

1 To do the following operations of this tool on Windows 7, the user must belong to the Administrators group.

a) Installation

b) Uninstallation

c) Upgrade installation

2 This tool does not support the user switching function of Windows 7.

				TITLE FANUC PROGRAM TRANSFER TOOL ADDITIONAL OPERATOR'S MANUAL Additional explanation about Series 0i-PD support	
01	'11.03.07	Matsukura	New Issue	DRAW. NO. B-64344EN/02-4	CUST.
EDIT.	DATE	DESIG.	DESCRIPTION	<b>FANUC CORPORATION</b>	SHEET 3 / 3

FANUC PROGRAM TRANSFER TOOL OPERATOR'S MANUAL  
Additional explanation about Series 30i /31i /32i /35i - MODEL B support

1.Type of applied technical documents

Name	FANUC PROGRAM TRANSFER TOOL OPERATOR'S MANUAL
Spec.No./Ed.	B-64344EN/02

2.Summary of Change

Group	Name/Outline	New Add Correct Delete	Applicable Date
Basic Function	The following function was added. ▪ Series 30i /31i /32i /35i - MODEL B has been supported.	Add	Immediately
Optional Function			
Unit			
Maintenance Parts			
Notice	Applied Version: ▪ A08B-9510-J513 Version 6.0 or later ▪ A08B-9510-J514 Version 6.0 or later		
Correction			
Another			

				TITLE: FANUC PROGRAM TRANSFER TOOL ADDITIONAL OPERATOR'S MANUAL		
01	2010.10.13	Matsukura	Newly registered	DRAW.NO.      B-64344EN/02-3		
EDIT	DATE	DESIGN	DESCRIPTION	<b>FANUC LTD.</b>	SHEET	1/8

"FANUC Program Transfer Tool" has been updated.

1. Version number

Old version	New version
5.1	6.0

2. Ordering information

Software	Drawing number
Program Transfer Tool CD	A08B-9510-J513
Program Transfer Tool Upgrade CD	A08B-9510-J514

\*Upgrade CD is used to update the Program Transfer Tool of the old version to the latest version.

3. Contents of the change

Series 30*i* /31*i* /32*i* /35*i* -B, Series 30*i* /31*i* -LB, Series 30*i* /31*i* -PB has been supported.

				TITLE: FANUC PROGRAM TRANSFER TOOL ADDITIONAL OPERATOR'S MANUAL		
01	2010.10.13	Matsukura	Newly registered	DRAW.NO. B-64344EN/02-3		
EDIT	DATE	DESIGN	DESCRIPTION	FANUC LTD.	SHEET	2/8

Replace the "Related manuals of Ethernet board" in the "I.GENERAL 1.OUTLINE OF THIS MANUAL" to the following explanation.

Related manuals of Ethernet board

Manual name	Specification number
FANUC Series 30 <i>i</i> -MODEL A/B FANUC Series 31 <i>i</i> -MODEL A/B FANUC Series 32 <i>i</i> -MODEL A/B FANUC Series 35 <i>i</i> -MODEL B	B-64014EN
Fast Ethernet / Fast Data Server OPERATOR'S MANUAL	
Fast Ethernet Board / Fast Data Server OPERATOR'S MANUAL	B-63644EN
Ethernet Board / Data Server Board OPERATOR'S MANUAL	B-63354EN

Add the following explanation to the "Related manuals" in the "I.GENERAL 1.OUTLINE OF THIS MANUAL".

Related manuals of FANUC Series 30*i*/ 31*i*/ 32*i* MODEL-B

Manual name	Specification number
DESCRIPTIONS	B-64482EN
CONNECTION MANUAL (HARDWARE)	B-64483EN
CONNECTION MANUAL (FUNCTION)	B-64483EN-1
USER'S MANUAL (Common to Lathe System/Machining Center System)	B-64484EN
USER'S MANUAL (For Lathe System)	B-64484EN-1
USER'S MANUAL (For Machining Center System)	B-64484EN-2
MAINTENANCE MANUAL	B-64485EN
PARAMETER MANUAL	B-64490EN

Related manuals of FANUC Series 35*i* MODEL-B

Manual name	Specification number
DESCRIPTIONS	B-64522EN
CONNECTION MANUAL (HARDWARE)	B-64523EN
CONNECTION MANUAL (FUNCTION)	B-64523EN-1
USER'S MANUAL	B-64524EN
MAINTENANCE MANUAL	B-64525EN
PARAMETER MANUAL	B-64530EN

				TITLE: FANUC PROGRAM TRANSFER TOOL ADDITIONAL OPERATOR'S MANUAL		
01	2010.10.13	Matsukura	Newly registered	DRAW.NO. B-64344EN/02-3		
EDIT	DATE	DESIGN	DESCRIPTION	FANUC LTD.	SHEET	3/8

Add the following explanation to the "Ethernet devices and CNC options" table in the "I. GENERAL 3. OPERATING ENVIRONMENT".

CNC type	Ethernet device used	CNC option required for transferring files and non-program data to and from program memory	CNC option required for transferring files and non-program data to and from data server (FTP server setting required)
Series 30i /31i /32i-B	Embedded Ethernet	No option required	(Communication not enabled)
Series 31i-B5	Multi-function Ethernet (*3)	Ethernet functions	(Communication not enabled)
Series 35i-B (*2)			
Series 30i /31i-LB	Fast Ethernet board	Ethernet functions	Data Server functions(*2)
Series 30i /31i-PB			

\*2 Data server function cannot use on Series 35i-B.

\*3 Main board which supported Multi-function Ethernet function is required.

Add the following explanation to the "Ethernet board or data server board and required CNC options (3/3)" table in the "I. GENERAL 3. OPERATING ENVIRONMENT".

Ethernet board or data server board and required CNC options (3/3)

No	Name	Applicable model	Drawing number	CNC option	Control software
37	Embedded Ethernet for LCD-mounted type/ stand-alone type CNC	FS 30i/31i/32i/35i-B FS 31i-B5 FS 30i/31i-LB FS 30i/31i-PB	—	Not required	A02B-0323-J571 #658M
38	Multi-function Ethernet for LCD-mounted type CNC	FS 30i/31i/32i-B FS 31i-B5	A02B-XXXX-H102 A02B-XXXX-H213 A02B-XXXX-H211 A02B-XXXX-H215 A02B-XXXX-H216 A02B-XXXX-H217	A02B-XXXX-S707	A02B-0323-J561 #658K
		FS 35i-B	A02B-XXXX-H102		
		FS 30i/31i-LB FS 30i/31i-PB	A02B-XXXX-H102 A02B-XXXX-H211 A02B-XXXX-H215 A02B-XXXX-H217		
39	Fast Ethernet for LCD-mounted type/ stand-alone type CNC	FS 30i/31i/32i FS 31i-B5 FS 30i/31i-LB FS 30i/31i-PB	A02B-0323-J147 * 17	A02B-XXXX-S707 * 16 A02B-XXXX-S737 * 17	A02B-0323-J561 #658K
		FS 35i-B		A02B-XXXX-S707 * 16	

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XXXX specifies a drawing number according to the CNC type as follows:

0323(30i-B,30i-LB,30i-PB) , 0326(31i-B5), 0327(31i-B,31i-LB,31i-PB), 0328(32i-B), 0333(35i-B)

\* 16 A02B-XXXX-S707 : Ethernet function

This option is required when this tool transfers programs in CNC program memory.

\* 17 A02B-XXXX-S737 : Data server function

This option is required when this tool transfers programs in Data server.

Data server function cannot be used on Series 31i-B5.

**Replace the "(3) CNC Type" in the "III.SETTING 1.2 MACHINE INFO.TAB" to the following explanation.**

(3) CNC Type

Select the type of the CNC.

See the following table to setting CNC type for Series 3Xi-A/B

CNC	Value for the CNC Type
Series 30i-A/B、Series 30i-LB、Series 30i-PB	Series 30
Series 31i-A/B、Series 31i-A5/B5、Series 31i-LB、Series 31i-PB	Series 31
Series 32i-A/B	Series 32
Series 35i-B	Series 35

**NOTE**

If the type of the CNC selected and the type of the CNC connected are different, it is not possible to use this tool.

**Replace the "File list" table in the "IV.OPERATION 1.2.2 Display of the Upper Screen (PC Information)" to the following explanation.**

CNC	Tool offset	Custom macro variable	Workpiece origin offset
Series 30i/31i/32i-A Series 31i-A5 Series 30i/31i/32i/35i-B Series 31i-B5 Series 30i/31i-LB Series 30i/31i-PB Series 0i-D	TOOLOFST.TXT	MACRO.TXT	EXT_WKZ.TXT
Series 16i/18i/21i-A/B Series 0i-B/C Series 20i-B	TOOLOFST.DAT	MACROVAR.DAT	WORK-G54.DAT
Power Mate i -D/H	TOOLOFST.DAT	MACROVAR.DAT	None

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Replace the NOTE in the "IV.OPERATION 1.7.3 Communication Tab" to the following explanation.

**NOTE**

Fast ethernet board with the following software edition, the data storage format can be set using parameter No. 929, regardless of the transfer mode specification on the PC.

- Software edition of fast ethernet board:

For Series 30*i* /31*i* /32*i* -A : Series 6569 Edition 14 or later

For Series 0*i* -D : Series 658W Edition 01 or later

For Series 30*i* /31*i* /32*i* -B : Series 658K Edition 01 or later

- Parameter setting:

0: Data is stored according to the transfer mode specified on the PC (as conventionally done).

1: Data is stored in the text format.

2: Data is stored in the binary format.

When using a data server with this parameter made valid, set the parameter above to 0 to enable the transfer mode of this tool.

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Replace the "1.1 Applied Software" in the " ADDITIONAL INFORMATION B-64344EN/02-1" to the following explanation.

## 1.1 Applied Software

### Series 30i /31i /32i - MODEL A

The function to transfer data related to the tool management can be used with the following version of Program Transfer Tool.

Software	Drawing number	Edition
Program Transfer Tool CD	A08B-9510-J513	4.0
Program Transfer Tool Upgrade CD	A08B-9510-J514	

The following CNC System Software series and edition is necessary.

Software	Series	Edition
Series 30i - MODEL A	G004, G014, G024	01
	G00C, G01C, G02C, G003, G013, G023	32
	G00B, G01B, G02B, G002, G012, G022	49
Series 31i - MODEL A5	G124, G134	01
	G12C, G13C, G123, G133	32
	G12B, G13B, G121, G131	49
Series 31i - MODEL A	G104, G114	01
	G103, G113	32
	G101, G111	49
Series 32i - MODEL A	G204	01
	G203	32
	G201	49

To use Fast Ethernet board or Fast Data Server board, the following software edition is necessary.

Software	Drawing number	Edition
Control software for Fast Ethernet board /Fast Data Server board	A02B-0303-J561#6569	24

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## Series 30i /31i /32i - MODEL B

The function to transfer data related to the tool management can be used with the following version of Program Transfer Tool.

Software	Drawing number	Edition
Program Transfer Tool CD	A08B-9510-J513	6.0
Program Transfer Tool Upgrade CD	A08B-9510-J514	

The following CNC System Software series and edition is necessary.

Software	Series	Edition
Series 30i - MODEL B	G300, G310, G320	01
Series 31i - MODEL B5	G420, G430	01
Series 31i - MODEL B	G400, G410	01
Series 32i - MODEL B	G500	01

To use Fast Ethernet board or Fast Data Server board, the following software edition is necessary.

Software	Drawing number	Edition
Control software for Fast Ethernet function	A02B-0323-J561#658K	01

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FANUC PROGRAM TRANSFER TOOL OPERATOR'S MANUAL

Additional explanation

Power Motion *i* - MODEL A support

Series 0*i* Mate - MODEL D support

1.Type of applied technical documents

Name	FANUC PROGRAM TRANSFER TOOL OPERATOR'S MANUAL
Spec.No./Ed.	B-64344EN/02

2.Summary of Change

Group	Name/Outline	New Add Correct Delete	Applicable Date
Basic Function	The following CNCs have been supported. - Power Motion <i>i</i> - MODEL A - Series 0 <i>i</i> Mate- MODEL D	Add	Immediately
Optional Function			
Unit			
Maintenance Parts			
Notice	Applied Version: - A08B-9510-J513 Version 8.0 or later - A08B-9510-J514 Version 8.0 or later		
Correction			
Another			

				TITLE FANUC PROGRAM TRANSFER TOOL OPERATOR'S MANUAL Additional explanation Power Motion <i>i</i> -A / Series 0 <i>i</i> Mate-D support	
01	2011.08.12	Matsukura	New Issue	T.Hosaka	DRAW. NO. B-64344EN/02-5 CUST.
EDIT.	DATE	DESIG.	DESCRIPTION	<b>FANUC CORPORATION</b>	SHEET 1 / 4

"FANUC Program Transfer Tool" has been updated.

1. Version number

Old version	New version
7.0	8.0

2. Ordering information

Software	Drawing number
Program Transfer Tool CD	A08B-9510-J513
Program Transfer Tool Upgrade CD	A08B-9510-J514

\*Upgrade CD is used to update the Program Transfer Tool of the old version to the latest version.

3. Contents of the change

The following CNC have been supported.

- Power Motion *i* - MODEL A
- Series *0i* Mate - MODEL D

				TITLE FANUC PROGRAM TRANSFER TOOL OPERATOR'S MANUAL Additional explanation Power Motion <i>i</i> -A / Series <i>0i</i> Mate-D support	
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**Add the following explanation to the "Related manuals" in the "I.GENERAL 1.OUTLINE OF THIS MANUAL".**

Related manuals of FANUC Power Motion *i*-A

Manual name	Specification number
DESCRIPTIONS	B-64572EN
CONNECTION MANUAL (HARDWARE)	B-64573EN
CONNECTION MANUAL (FUNCTION)	B-64573EN-1
USER'S MANUAL	B-64574EN
MAINTENANCE MANUAL	B-64575EN
PARAMETER MANUAL	B-64580EN

**Add the following explanation to the "Ethernet devices and CNC options" table in the "I. GENERAL 3. OPERATING ENVIRONMENT".**

CNC type	Ethernet device used	CNC option required for transferring files and non-program data to and from program memory	CNC option required for transferring files and non-program data to and from data server (FTP server setting required)
Power Motion <i>i</i> -A	Embedded Ethernet	No option required	(Cannot be used) (*6)
	Multi-function Ethernet (*4)	Ethernet functions	
	Fast Ethernet board		
Series 0i Mate-D	Embedded Ethernet (*5)	No option required	

\*4 Main board with Multi-function Ethernet function is required.

\*5 Main board with Embedded Ethernet function is required.

\*6 Data server function cannot be used.

				TITLE FANUC PROGRAM TRANSFER TOOL OPERATOR'S MANUAL Additional explanation Power Motion <i>i</i> -A / Series 0i Mate-D support	
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**Add the following explanation to the "Ethernet board or data server board and required CNC options (3/3)" table in the "I. GENERAL 3. OPERATING ENVIRONMENT".**

Ethernet board or data server board and required CNC options (3/3)

No	Name	Applicable model	Drawing number	CNC option	Control software
40	Embedded Ethernet for LCD-mounted type/ stand-alone type CNC	Power Motion <i>i</i> -A	-	Not required	A02B-0334-J571 #658M
41	Multi-function Ethernet for LCD-mounted type CNC		A02B-0334-H102 or A02B-0334-H211	A02B-0334-S707	A02B-0334-J561 #658K
42	Fast Ethernet for LCD-mounted type/ stand-alone type CNC		A02B-0323-J147 * 18		
43	Embedded Ethernet	Series 0i Mate-D	A02B-0319-H125 * 19	Not required	Not required

- \* 18 A02B-0323-J147: Embedded Ethernet for LCD-mounted type/stand-alone type CNC  
Data server function cannot be used on Power Motion *i*-A.
- \* 19 A02B-0319-H125: Main board with Embedded Ethernet function.

**Add the following underlined explanation to the "(3) CNC Type" in the "III. SETTING 1.2 MACHINE INFO.TAB".**

(3) CNC Type

Select the type of the CNC.

Select the "Power Motion i" for Power Motion *i*-A.

Select the "Series 0i-D" for Series 0i Mate-D.

**Add the the following explanation to the following:**  
 - "File list" in the "IV.OPERATION 1.2.2 Display of the Upper Screen (PC Information)"  
 - "IV.OPERATION 1.5.1 Display of a Data List"

CNC	Tool offset	Custom macro variable	Workpiece origin offset
Power Motion <i>i</i> -A	TOOLOFST.TXT	MACRO.TXT	None
Series 0i Mate-D	TOOLOFST.TXT	MACRO.TXT	EXT_WKZ.TXT

				TITLE FANUC PROGRAM TRANSFER TOOL OPERATOR'S MANUAL Additional explanation Power Motion <i>i</i> -A / Series 0i Mate-D support	
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EDIT.	DATE	DESIG.	DESCRIPTION		FANUC CORPORATION SHEET 4 / 4