



HITACHI
S10 α SERIES

SOFTWARE MANUAL
OPTION

J.NET
For Windows[®]

2 α
S10mini
SERIES

Applicable to :

HITACHI-S10/2 α	NESP-S25E
HITACHI-S10/2 α E	NESP-2 α E
HITACHI-S10/2 α H	NESP-2 α H
HITACHI-S10/2 α Hf	NESP-2 α Hf
S10mini model S	
S10mini model H	
S10mini model F	
S10mini model D	

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- Read this manual thoroughly and follow all the safety precautions and instructions given in this manual before operations such as system configuration and program creation.
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- If you have any question concerning any part of this manual, contact your nearest Hitachi branch office or service engineer.
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- If an emergency stop circuit, interlock circuit, or similar circuit is to be formulated, it must be positioned external to the programmable controller. If you do not observe this precaution, equipment damage or accident may occur when the programmable controller becomes defective.
- Before changing the program, generating a forced output, or performing the RUN, STOP, or like procedure during an operation, thoroughly verify the safety because the use of an incorrect procedure may cause equipment damage or other accident.



“RUN/STOP” SWITCH CAUTION

The “RUN/STOP” switch only stops execution of the ladder logic program or HI-FLOW program. Digital and analog outputs are left in the active state when execution stops, unless the optional rungs described in the CPU manual have been added. The “RUN/STOP” switch does not affect the operation of C-language or FA-BASIC language programs. Outputs can still be produced in response to C-language or FA-BASIC programs, or by the action of programmers typing in commands in these languages, while the “RUN/STOP” switch is in the “STOP” position.

DO NOT DEPEND ON THE STOP SWITCH TO STOP MOVING PARTS OR TO PREVENT UNEXPECTED MOTION OR ENERGIZATION. USE HARDWIRED SAFETY DISCONNECT AND LOCK OUT POWER AND CONTROL VOLTAGES BEFORE WORKING ON ELECTRICAL CIRCUITS OR PARTS THAT CAN MOVE.

PREFACE

We greatly appreciate your purchase of this J.NET system.

This system runs on a personal computer and carries out a variety of setup operations for the J.NET module.

This manual describes the operation of the J.NET system.

This manual is applicable to the following system versions.

System name/version
J.NET SYSTEM For Windows® 07-02

System versions 05-00 and earlier do not support the Microsoft® Windows® 98 operating system. They support the Microsoft® Windows® 95 operating system only.

For the J.NET module, refer to the following manual supplied with the module.

<Related manuals>

- HARDWARE MANUAL OPTION J.NET (Manual number SAE-2-121)
- S10mini HARDWARE MANUAL OPTION J.NET (Manual number SME-1-104)
- S10mini HARDWARE MANUAL OPTION J.NET-INT (Manual number SME-1-107)

See the following list when you use the NESP (Nissan Electronic Sequence Processor) series.

【HITACHI-S10α series】		【NESP series】
HITACHI-S10/2α	NESP-S25E
HITACHI-S10/2αE	NESP-2αE
HITACHI-S10/2αH	NESP-2αH
HITACHI-S10/2αHf	NESP-2αHf

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Systems Supported by Windows® 2000 and Windows® XP

The systems supported by Microsoft® Windows® 2000 operating system (hereafter abbreviated as Windows® 2000) and Microsoft® Windows® XP operating system (hereafter abbreviated as Windows® XP) are shown in the following table.

Systems of earlier versions than those shown in the following table are not supported by Windows® 2000 and Windows® XP but supported by only Microsoft® Windows® 95 operating system (hereafter abbreviated as Windows® 95) and Microsoft® Windows® 98 operating system (hereafter abbreviated as Windows® 98). (The system names in the following table are hereafter abbreviated as each system.)

<Table of Systems Supported by Windows® 2000 and Windows® XP>

No.	System name	Type	Version	Windows® 2000	Windows® XP
1	S10Tools SYSTEM	S-7890-01	07-05	√	√
2	LADDER CHART SYSTEM	S-7890-02	07-05	√	√
3	HI-FLOW SYSTEM	S-7890-03	07-02	√	√
4	CPMS LOADING SYSTEM	S-7890-04	07-04	√	√
5	CPMSE LOADING SYSTEM	S-7890-05	07-04	√	√
6	CPMS DEBUGGER SYSTEM	S-7890-06	07-02	√	√
7	CPMSE DEBUGGER SYSTEM	S-7890-07	07-02	√	√
8	GP-IB LOADING SYSTEM	S-7890-08	07-01	√	√
9	BACKUP RESTORE SYSTEM	S-7890-09	08-01	√	√
10	RPDP/S10 SYSTEM	S-7891-10	03-03	√ (*2)	ns (*1)
11	NX/Tools-S10 SYSTEM	S-7890-13	07-02	√	√
12	4α LADDER CHART SYSTEM	S-7890-17	07-05	√	√
13	4αH LADDER CHART SYSTEM	S-7890-18	07-05	√	√
14	LADDER COMMENT CONVERTER SYS	S-7890-19	06-01	√	√
15	HIGH SPEED REMOTE I/O SYSTEM	S-7890-21	07-01	√	√
16	CPU LINK SYSTEM	S-7890-22	07-01	√	√
17	4ch ANALOG PULSE COUNTER SYS	S-7890-23	07-01	√	√
18	EXTERNAL SERIAL LINK SYSTEM	S-7890-24	07-02	√	√
19	S10ET LINK SYSTEM	S-7890-25	07-02	√	√
20	J.NET SYSTEM	S-7890-27	07-02	√	√
21	OD.RING/SD.LINK SYSTEM	S-7890-28	07-03	√	√
22	ET.NET SYSTEM	S-7890-29	07-01	√	√
23	FL.NET SYSTEM	S-7890-30	07-03	√	√
24	D.NET SYSTEM	S-7890-31	07-04	√	√
25	LADDER CHART MONITOR SYSTEM	S-7890-34	07-04	√	√
26	HI-FLOW MONITOR SYSTEM	S-7890-35	07-01	√	√
27	IR.LINK SYSTEM	S-7890-36	07-02	√	√
28	Crossing C compiler (manufactured by Mentor graphics company)	MCP68K	5.3	√ (*2)	ns (*1)

√: Supported ns: Not supported

(*1) Crossing C compiler (No.28) is not supported by Windows® XP. Use it on Windows® 2000.

(*2) Crossing C compiler (No.28) must be a version supported by Windows® 2000 (later than version 5.3) as a premise.

<Definitions of Terms>

N coil: A ladder program converted into a form that can be run on the PCs by pasting a symbol on the sheet displayed on a PC.

Process: A HI-FLOW program converted into a form that can be run on the PCs by pasting a symbol on the sheet displayed on a PC.

Compile: To convert an application program such as a ladder chart and HI-FLOW into a form (N coil, process, etc.) that can be run on the PCs.

Build: To compile only a corrected application program.

Rebuild: To compile every existing application program.

Sheet: Paper to prepare an application program of ladder chart and HI-FLOW, etc. This paper is controlled on a PC.

PCs: An abbreviation of Programmable Controllers.
This is a general term for PLC such as the S10 α and S10mini series.

PLC: An abbreviation of Programmable Logic Controller.
This is an industrial electronic device to exert sequence control, having an incorporated program.
The S10 α and S10mini series come under this PLC.

<Note for storage capacity calculations>

- Memory capacities and requirements, file sizes and storage requirements, etc. must be calculated according to the formula 2^n . The following examples show the results of such calculations by 2^n (to the right of the equals signs).

1 KB (kilobyte) = 1024 bytes

1 MB (megabyte) = 1,048,576 bytes

1 GB (gigabyte) = 1,073,741,824 bytes

- As for disk capacities, they must be calculated using the formula 10^n . Listed below are the results of calculating the above example capacities using 10^n in place of 2^n .

1 KB (kilobyte) = 1000 bytes

1 MB (megabyte) = 1000^2 bytes

1 GB (gigabyte) = 1000^3 bytes

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1 BEFORE USE

1 BEFORE USE

This manual is intended for personal computer programmers using the Windows®.

1.1 System Overview

J.NET for Windows® (hereinafter simply referred to as J.NET) is used to edit the system and NET information retained by the HITACHI-S10α series and S10mini series J.NET module, monitor a refresh cycle, and register user arithmetic functions through operations similar to those used by Windows® application users.

1.2 Hardware and Software Requirements

Using each system requires the following hardware and software.

<Personal Computers (hereafter abbreviated as PC)>

Item \ OS	Windows® 95 (*1)	Windows® 2000 (*1)	Windows® XP (*1)
	Windows® 98 (*1)		(*2)
CPU	Pentium 133 MHz or more		Pentium 300 MHz or more
Memory (RAM)	32 MB or more	64 MB or more	128 MB or more
Free hard disk capacity (*3)	20 MB or more/system (However, 10 MB or more/system for OS loading and option module support software)		
Floppy disk drive	1 unit or more (required to install software by FD)		
CD-ROM drive	1 unit or more (required to install software by CD-ROM)		
Ethernet (10BASE-T)	1 port or more (required to connect a PC with the ET.NET module)		
Serial (D-sub 9-pin)	1 port or more (required to connect the PCs with a PC by RS-232C or set an IP address for the ET.NET module)		
PC card (conforming to the PC Card Standard (JEITA V4.2) TYPE II or TYPE III)	1 slot or more (required to connect a PC with the parallel interface module (LWZ400). At this time, the following GP-IB card is also required.) GP-IB card: PCMCIA-GPIB (Model: 777438-02) (manufactured by National Instruments Corporation)		
Display	Resolution of 800 × 600 pixels or more		
Microsoft® Internet Explorer	Version 4.01 or later		

(*1) For the OS service pack, refer to the attached reference materials for software.

(*2) No.10 and No.28 in <Table of Systems Supported by Windows® 2000 and Windows® XP> in “PREFACE” are excepted.

(*3) This is a capacity required to install each system. A free capacity to save user programs is also required.

<Hardware other than PC>

- CPU for HITACHI-S10 α series (2 α , 2 α E, 2 α H, 2 α Hf) or S10mini series
- Power supply for HITACHI-S10 α series or S10mini series
- Backboard for HITACHI-S10 α series or S10mini series
- Connection cable between the personal computer and PCs
- Remote I/O stations, other power supplies and backboards, cards, and wiring as required

NOTICE

Users of this product require knowledge of the Windows® environment and user interface. The J.NET system conforms to the Windows® standard. This manual is intended for users who have mastered the basic usage of Windows®.

NOTE FOR PERSONAL COMPUTER SETTING

When you use a personal computer with the suspend function, disable the function. The personal computer may malfunction if the suspend function remains enabled during execution of the J.NET system.

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2 INSTALLATION

2 INSTALLATION

2.1 Installing the System (*)

First, check if your CD is correct.

To install each system, double-click the Setup.exe file saved in the DISK1 folder of the system CD. After installing it, an installed program window is not displayed.

To install each system, install Microsoft® Internet Explorer 4.01 or later. If it is not installed, install each system after installing it.

NOTE

- To operate each system, install Microsoft® Internet Explorer 4.01 or later. If it is not installed, each system does not operate normally.
- Before installing each system, be sure to terminate such a program residing in the memory as virus monitoring software. If each system is installed without terminating the program, an error may occur. In this case, uninstall the system by referring to “2.2 Uninstalling the System” and terminate all Windows® programs. Then, install each system once again.
- To install and uninstall each system by using Windows® 2000, set “Administrator” or “Member of Administrators” as the user account to be logged on.
- To install and uninstall each system by using Windows® XP, set “Computer administrator” as the user account to be logged on. If “Account with limitations” is set, each system does not operate normally.

(*) No.10 and No.28 in <Table of Systems Supported by Windows® 2000 and Windows® XP> in “PREFACE” are excepted.

2.2 Uninstalling the System (*)

To uninstall each system for version-up, observe the following procedure.

(1) Uninstalling from Windows® 95 or Windows® 98

Open [Settings] in the [Start] menu – [Control Panel]. Double-click [Add/Remove Programs], select “Each System” by the [Install/Uninstall] tab, and click the button. When the [Confirm File Deletion] window is displayed, click the button.

(2) Uninstalling from Windows® 2000

Open [Settings] in the [Start] menu – [Control Panel]. Double-click [Add/Remove Programs], click [Change or Remove Programs], select “Each System,” and click the button. When the [Confirm File Deletion] window is displayed, click the button.

(3) Uninstalling from Windows® XP

Open ([Settings] –) [Control Panel] in the [Start] menu. Double-click [Add or Remove Programs], click [Change or Remove Programs], select “Each System,” and click the button. When the [Confirm File Deletion] window is displayed, click the button.

When a shortcut of each system executable file has been created on the desktop, etc. delete this shortcut.

NOTE

- When the [Remove Shared File?] window is displayed while each system is uninstalled on Windows®, click not to delete the shared file.
- To install and uninstall each system by using Windows® 2000, set “Administrator” or “Member of Administrators” as the user account to be logged on.
- To install and uninstall each system by using Windows® XP, set “Computer administrator” as the user account to be logged on.
- If the [Add/Remove Programs] window is locked (inoperable) when each system is uninstalled by using Windows® 2000, log off from [Shut Down] in the [Start] menu of Windows®, and then log on again on the [Log On to Windows] window.

(*) No.10 and No.28 in <Table of Systems Supported by Windows® 2000 and Windows® XP> in “PREFACE” are excepted.

2 INSTALLATION

2.3 Starting Up the System (*)

- (1) The system to be installed by each system is automatically registered in the [Start] menu of Windows®. From this [Start] menu, select [Programs (All Programs)] – [Hitachi S10] – “Each System” to start the system.

If the logged-on user name in installing each system is different from the user name in starting each system, each system is not displayed in the [Start] menu. In this case, create a shortcut of the executable file (extension .exe) for each system shown below and then double-click this shortcut to start each system.

<Executable File Storage Directory Table>

No.	System name	Type	Executable file storage directory (*1)	Executable file name
1	S10Tools SYSTEM	S-7890-01	C:\Hitachi\S10	S10Ladder.exe
				S10Tool.exe
2	LADDER CHART SYSTEM	S-7890-02	C:\Hitachi\S10\2ALDC	S10Ladder.exe
3	HI-FLOW SYSTEM	S-7890-03	C:\Hitachi\S10\HF	S10Tool.exe
4	CPMS LOADING SYSTEM	S-7890-04	C:\Hitachi\S10\CPMS	Cpms.exe
5	CPMSE LOADING SYSTEM	S-7890-05	C:\Hitachi\S10\CPMSE	Cpmse.exe
6	CPMS DEBUGGER SYSTEM	S-7890-06	C:\Hitachi\S10\DEBUG	Debugger.exe
7	CPMSE DEBUGGER SYSTEM	S-7890-07	C:\Hitachi\S10\DEBUGE	DebuggerE.exe
8	GP-IB LOADING SYSTEM	S-7890-08	C:\Hitachi\S10\GPIB	Gpib.exe
9	BACKUP RESTORE SYSTEM	S-7890-09	C:\Hitachi\S10\BACKUP	SysAllSaveLoad.exe
10	NX/Tools-S10 SYSTEM	S-7890-13	C:\Hitachi\S10\NX	NXTool.exe
11	4 α LADDER CHART SYSTEM	S-7890-17	C:\Hitachi\S10\4ALDC	S10Ladder_4A.exe
12	4 α H LADDER CHART SYSTEM	S-7890-18	C:\Hitachi\S10\4AHLDC	S10Ladder_4AH.exe
13	LADDER COMMENT CONVERTER SYS	S-7890-19	C:\Hitachi\S10\CFCONV	Cfconv.exe
14	HIGH SPEED REMOTE I/O SYSTEM	S-7890-21	C:\Hitachi\S10\HISRIO	HiSpeedRIO.exe
15	CPU LINK SYSTEM	S-7890-22	C:\Hitachi\S10\CPULINK	CpuLink.exe
16	4ch ANALOG PULSE COUNTER SYS	S-7890-23	C:\Hitachi\S10\ANALOG	AnalogPuls.exe
17	EXTERNAL SERIAL LINK SYSTEM	S-7890-24	C:\Hitachi\S10\EXLINK	ExLink.exe
18	S10ET LINK SYSTEM	S-7890-25	C:\Hitachi\S10\ETLINK	EtherNet.exe
19	J.NET SYSTEM	S-7890-27	C:\Hitachi\S10\JNET	JNet.exe
20	OD.RING/SD.LINK SYSTEM	S-7890-28	C:\Hitachi\S10\ODRING-SDLINK	ODRing.exe
21	ET.NET SYSTEM	S-7890-29	C:\Hitachi\S10\ETNET	Et_Net.exe
22	FL.NET SYSTEM	S-7890-30	C:\Hitachi\S10\FLNET	FLnet.exe
23	D.NET SYSTEM	S-7890-31	C:\Hitachi\S10\DNET	DNet.exe
24	LADDER CHART MONITOR SYSTEM	S-7890-34	C:\Hitachi\S10\2ALDCM	S10LadderM.exe
25	HI-FLOW MONITOR SYSTEM	S-7890-35	C:\Hitachi\S10\HFM	S10ToolM.exe
26	IR.LINK SYSTEM	S-7890-36	C:\Hitachi\S10\IRLINK	IrLink.exe

(*1) Directory name when “C” is the drive name of installing destination.

(*) No.10 and No.28 in <Table of Systems Supported by Windows® 2000 and Windows® XP> in “PREFACE” are excepted.

- (2) The [J.NET SYSTEM] window is displayed, showing that J.NET has been started up. Click the desired command button.

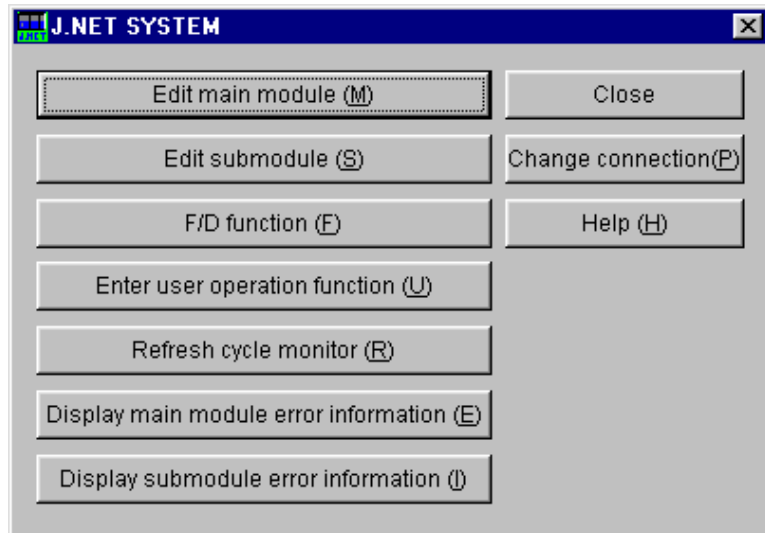


Figure 2-1 [J.NET SYSTEM] Window

2.4 Terminating the System

J.NET can be terminated by clicking the or button on the [J.NET SYSTEM] window shown in Figure 2-1.

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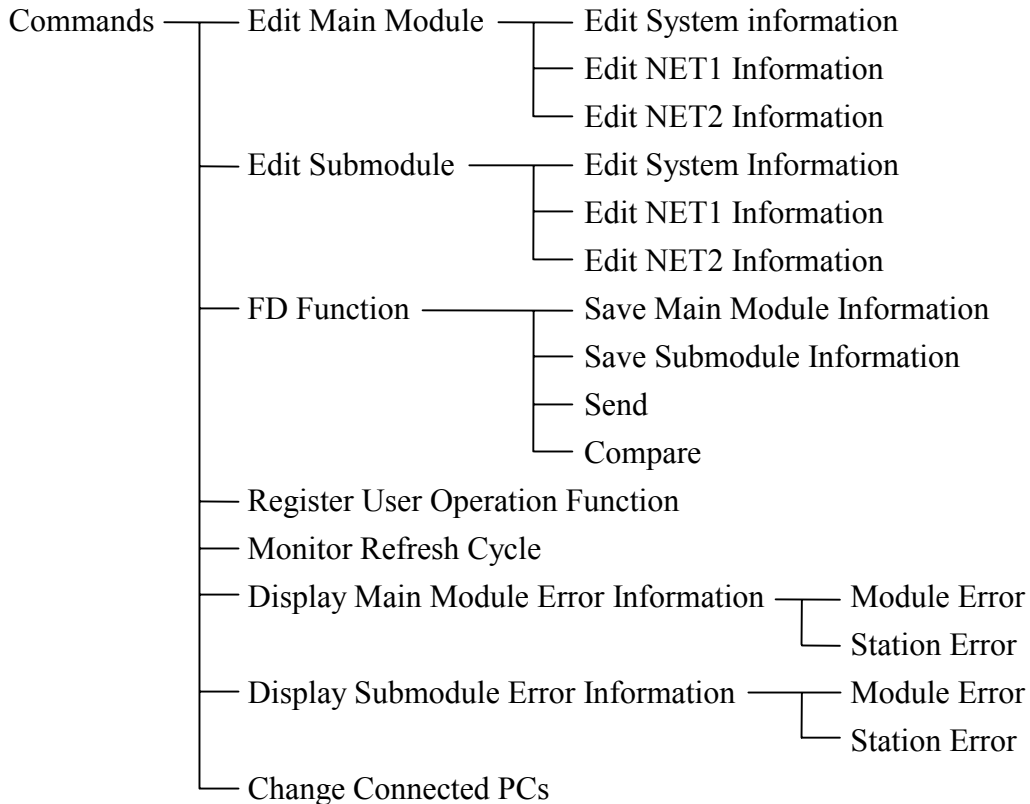
3 COMMANDS

3 COMMANDS

3.1 Command System

The J.NET command system is shown below.

Each of these commands is described in Section 3.2 and later. For details on each command, refer to Help.



3.2 Editing Main Module

Function: Allows the user to select the main module system information, NET1 information, and NET2 information editing functions and write the resulting edited information to the PCs.

Operation: See the operation procedure below.

- (1) Click the button on the [J.NET SYSTEM] window.
- (2) The [Edit] window is displayed.

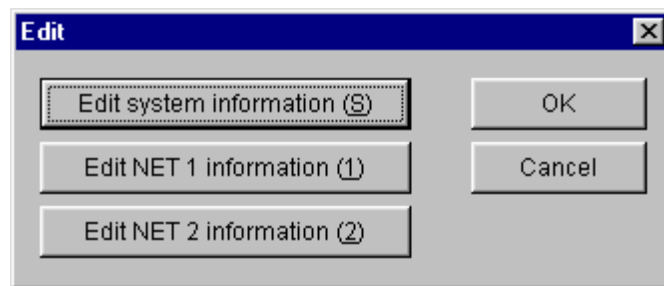


Figure 3-1 [Edit] Window

- (3) For detailed instructions to observe when you click the , , or button, see “3.2.1 Editing system information,” and subsequent sections.
- (4) When you click the button after completion of all or one of the information editing operations mentioned in Step (3) above, the edited information is written to the PCs. If you click the button without editing anything, the information read from the PCs is written as is to the PCs. However, if the edited information contains an odd-numbered byte setting, it may not be written to the PCs depending on the version/revision of the employed J.NET module. The odd-numbered byte setting is not supported by the J.NET module versions/revisions earlier than indicated in Table 3-1.

Table 3-1 J.NET Module Versions/Revisions Providing Odd-Numbered Byte Setting Support

Model	Version	Revision
LWE580	2	5
LQE040	1	2
LQE045	1	1

3 COMMANDS

If you click the **OK** button when the employed J.NET module does not support the odd-numbered byte setting, the [J.NET] dialog box shown in Figure 3-2 opens (in situations where the LWE580 J.NET module is employed).

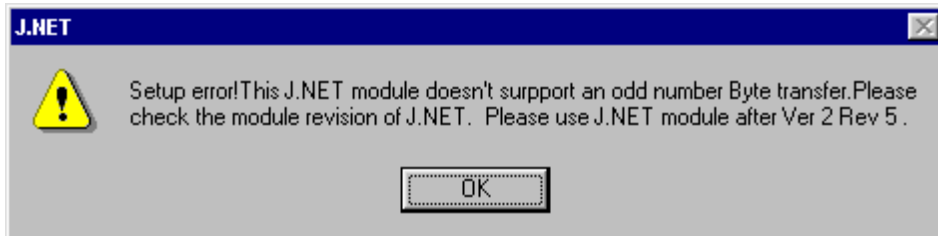


Figure 3-2 [J.NET] Dialog Box (Odd-Numbered Byte Setting Error)

If you click the **Cancel** or **X** button, the edited information will not be written to the PCs.

3.2.1 Editing system information

Function: Allows the user to edit the system information retained by the main module.

Operation: See the operation procedure below.

- (1) Click the **Edit system information** button on the [Edit] window.
- (2) The [Edit system information] window is displayed.

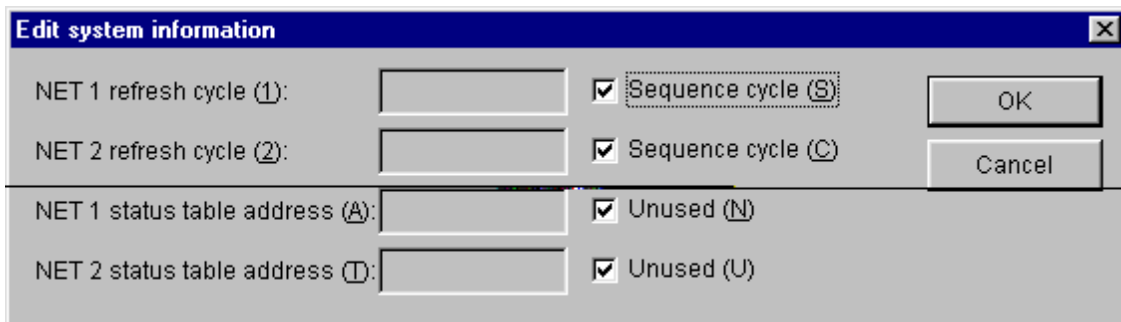


Figure 3-3 [Edit system information] Window

- (3) When system information entry is completed, click the **OK** button to set it. If you want to cancel the entry, click the **Cancel** button.

3.2.2 Editing NET1 information

Function: Allows the user to edit the NET1 information retained by the main module.

Operation: See the operation procedure below.

- (1) Click the Edit NET1 information button on the [Edit] window.
- (2) The [Edit information] window and [Confirmation] dialog box open. The [Confirmation] dialog box is displayed over the [Edit information] window. If you check the “Do not open this dialog box again” check box from the [Confirmation] dialog box, the [Confirmation] dialog box does not open again. However, if you restart J.NET, the [Confirmation] dialog box opens.

Click the Close or ✕ button.

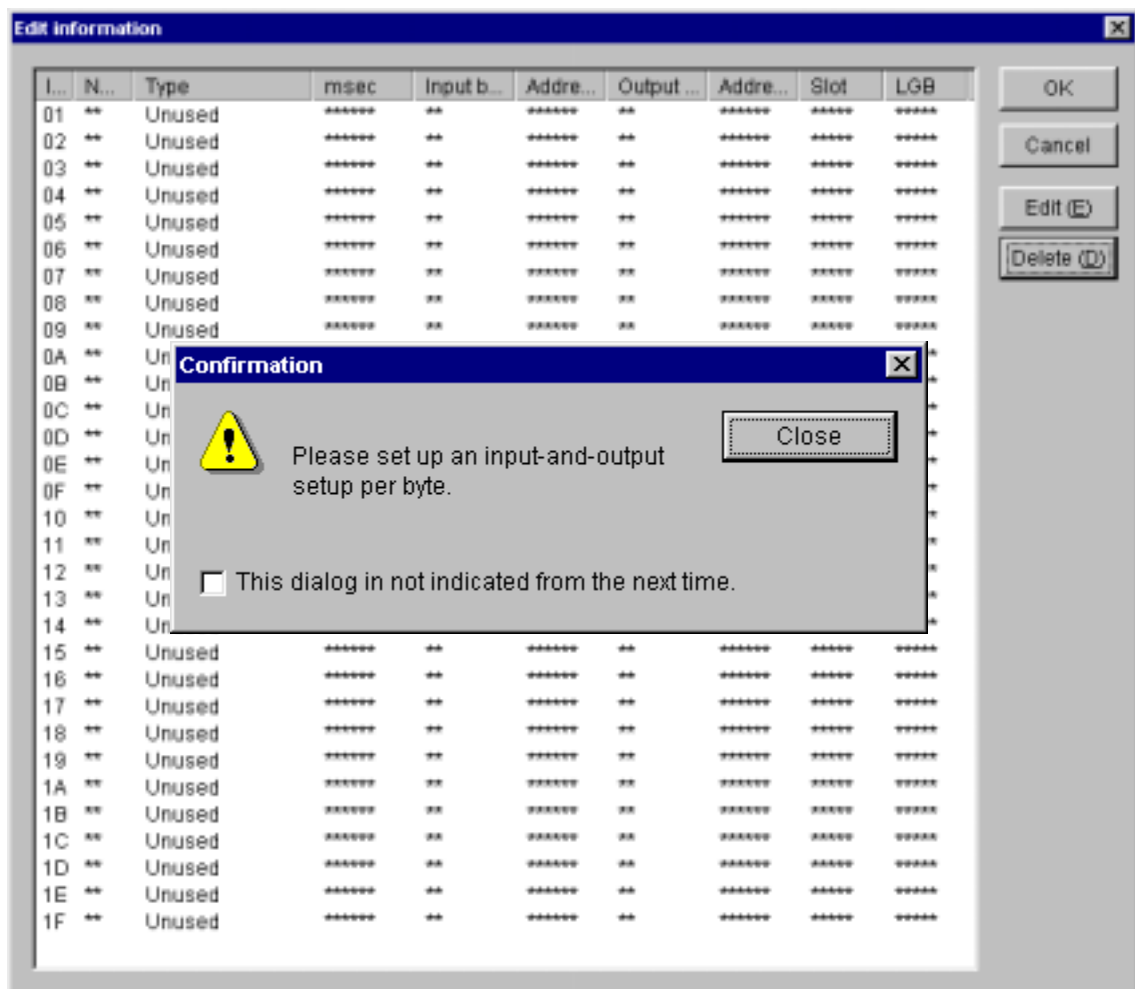


Figure 3-4 [Confirmation] Dialog Box and [Edit Information] Window

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- (3) The [Confirmation] dialog box closes, making the [Edit information] window active. Click the “ID” to be edited, and then click the button.
- (4) When the [Edit] window is displayed, enter a “Station number,” “Station type,” and “Refresh cycle.”

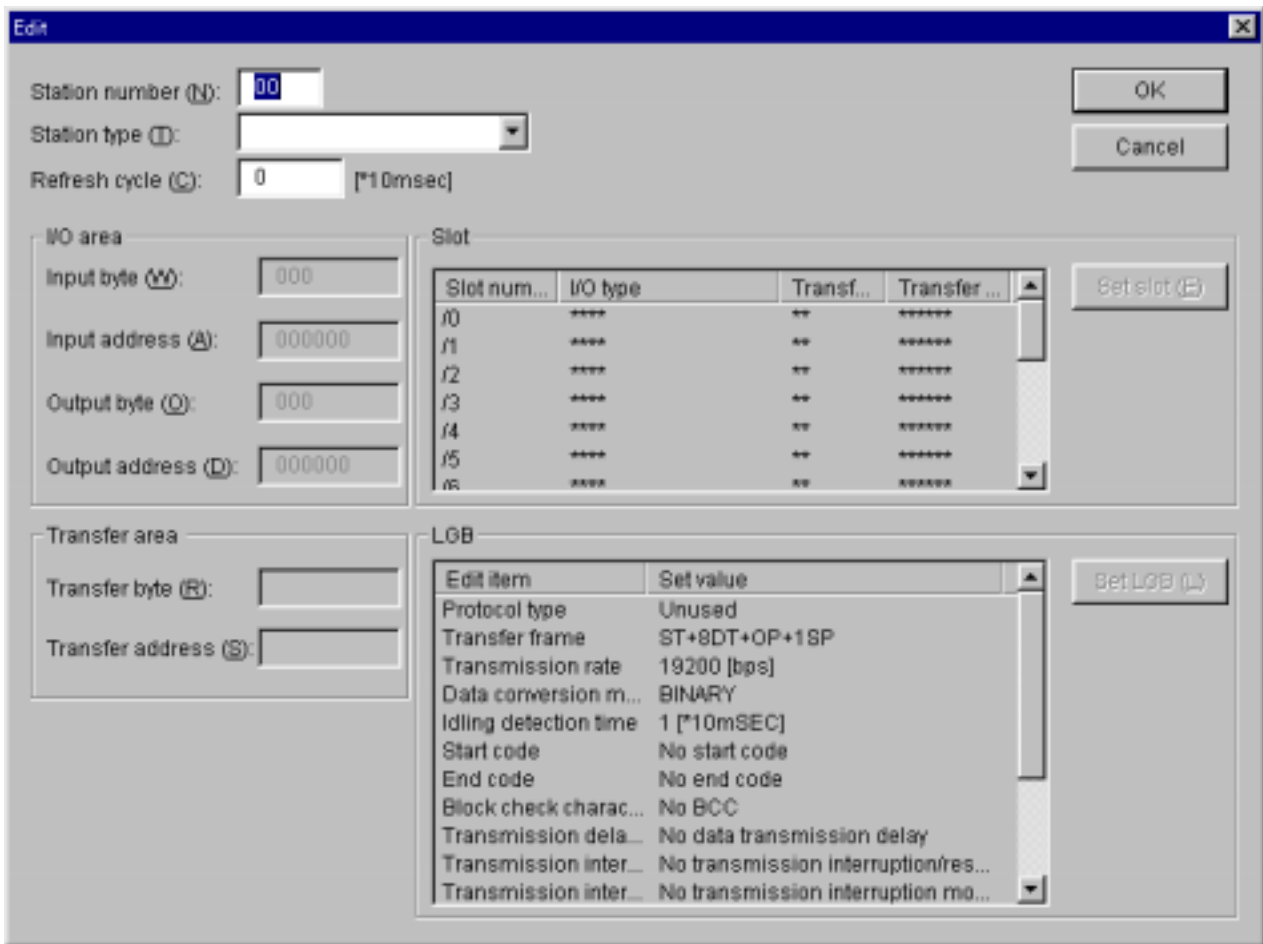


Figure 3-5 [Edit] Window

- (5) Selecting “I/O,” “I/O+DR/DW,” or “J.STATION(EXTENDED)” as the “Station type” enables slot setting.

Click a slot number and the **Set slot** button, in that order.

When the [Set slot information] window is displayed, enter values for each item. When slot information entry is completed, click the **OK** button to set the information. If you want to cancel the entry, click the **Cancel** button.

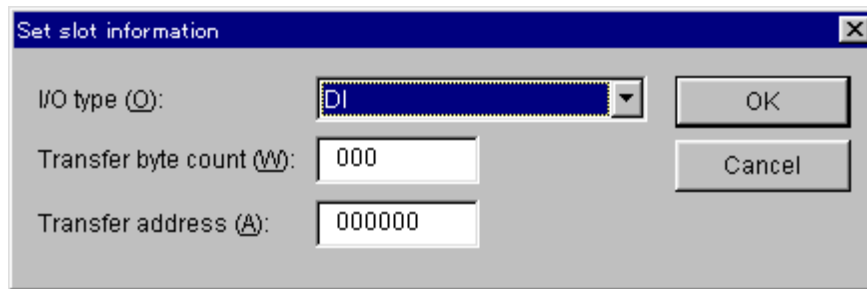


Figure 3-6 [Set slot information] Window

- (6) Selecting “J.STATION(EXTENDED)” as the “Station type” also enables “LGB” setting. Select an “Edit item,” and then click the **Set LGB** button.

When the setting window for the selected “Edit item” is displayed, select values for each item. When value selection for the item is completed, click the **OK** button to set the value. If you want to cancel the selection, click the **Cancel** button.

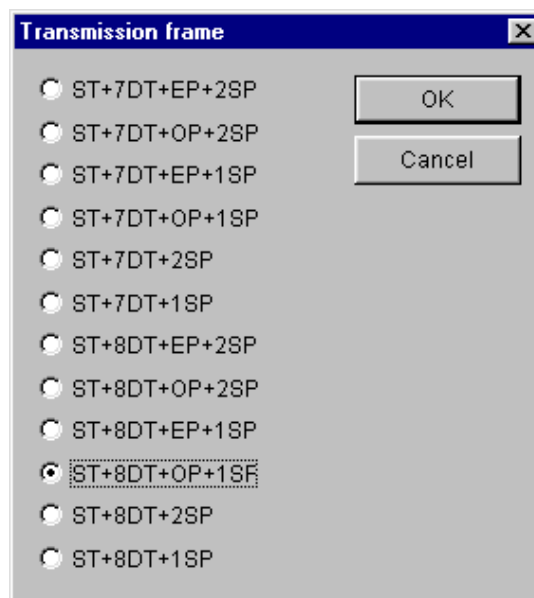


Figure 3-7 [Transmission frame] Window

- (7) When all the settings above are completed, click the **OK** button. If you want to cancel all the settings, click the **Cancel** button.

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3.2.3 Editing NET2 information

Function: Allows the user to edit the NET2 information retained by the main module.

Operation: The operation procedure used for interaction with this command is the same as with the Edit NET1 Information command.

See “3.2.2 Editing NET1 information.”

3.3 Editing Submodule

Function: Allows the user to select the submodule system information, NET1 information, and NET2 information editing functions and write the resulting edited information to the PCs.

Operation: This operation procedure used for interaction with this command is the same as with the Edit Main Module command.

See “3.2 Editing Main Module.”

3.4 FD Function

Function: Saves the given system information to the main module or submodule, sends such information to the PCs, and compares the existing system information between J.NET and the PCs.

Operation: See the operation procedure below.

- (1) Click the F/D function button on the [J.NET SYSTEM] window.
- (2) The [F/D] window is displayed.

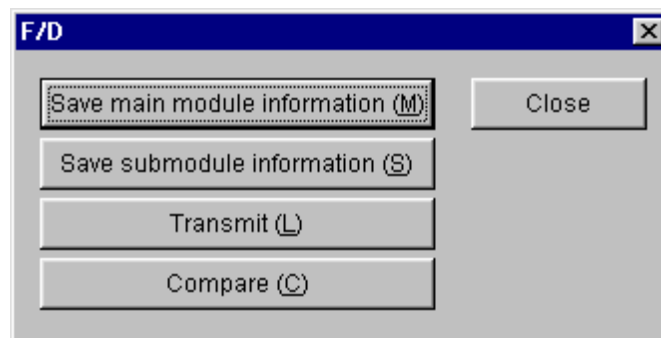


Figure 3-8 [F/D] Window

3.4.1 Saving main module information

Function: Saves the given system information to the main module.

Operation: See the operation procedure below.

- (1) Click the Save main module information button on the [F/D] window.
- (2) When the [Save As] window is displayed, enter a “File name.”

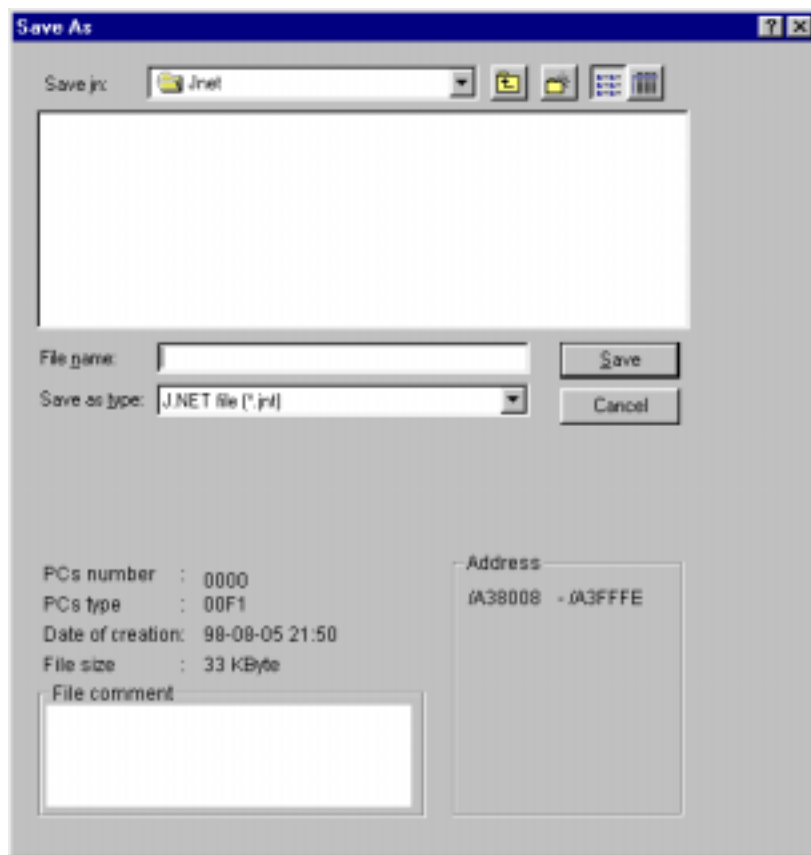


Figure 3-9 [Save As] Window

- (3) When file name entry is completed, click the Save button. If you do not want to save the information, click the Cancel button.

3.4.2 Saving submodule information

Function: Saves the given system information to the submodule.

Operation: The operation procedure used for interaction with this command is the same as with the Save Main Module Information command.

See “3.4.1 Saving main module information.”

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3.4.3 Sending

Function: Sends the given J.NET system information to the PCs.

Operation: See the operation procedure below.

- (1) Click the **Transmit** button on the [F/D] window.
- (2) When the [Open] window is displayed, enter a “File name.”
The “PCs number,” “PCs type,” and other information only when a file is selected with a pointing device.



Figure 3-10 [Open] Window

- (3) When file name entry is completed, click the **Open** button and thereby send it (Note 1).
The window shown in Figure 3-11 is displayed during a transmission. If you do not want to send the system information, click the **Cancel** button.

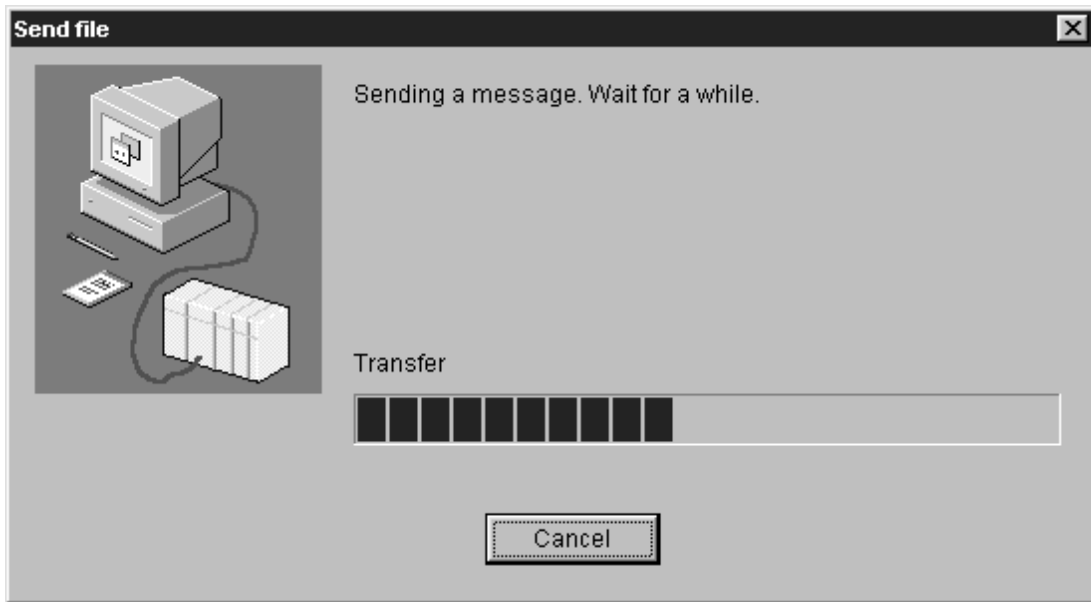


Figure 3-11 [Send file] Window (System Information Transmission in Progress)

Note 1: If the J.NET system information contains an odd-numbered byte setting, transmission may not be accomplished depending on the version/revision of the employed J.NET module. Odd-numbered byte transfer is not supported by the J.NET module versions/revisions earlier than indicated in Table 3-2.

Table 3-2 J.NET Module Versions/Revisions Permitting Odd-Numbered Byte Transmission

Model	Version	Revision
LWE580	2	5
LQE040	1	2
LQE045	1	1

If a transmission request is made, the [J.NET] dialog box shown in Figure 3-12 opens (when the LWE580 J.NET module is used).

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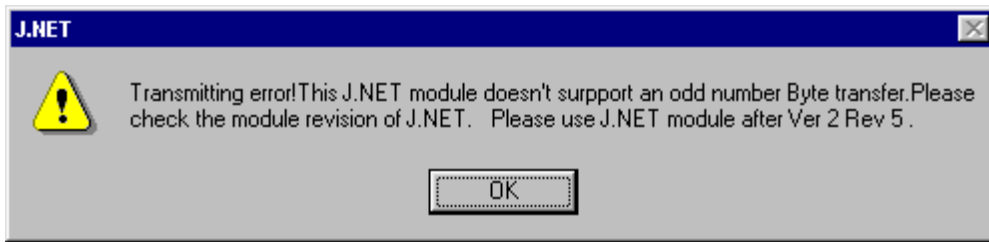


Figure 3-12 [J.NET] Dialog Box (Odd-Numbered Byte Transmission Not Supported)

Note 2: Do not click the button during the transmission of J.NET system information. If it is clicked for some reason, it is necessary to reset the PCs or turn it OFF and then back ON again.

3.4.4 Comparing

Function: Compares the existing system information between J.NET and the PCs.

Operation: The operation procedure used for interaction with this command is the same as with the Send command.

See “3.4.3 Sending.”

Note: When a comparison is made, a conflict may occur in the areas listed below. If no other conflict is encountered, the J.NET system information in the saved file matches the contents of the memory. If any other conflict is encountered, the contents of the saved file do not match the contents of the memory.

J.NET module (main) mounted /A3BFFE

J.NET module (sub) mounted /ABBFFE

3.5 Registering User Arithmetic Function

Function: Registers user arithmetic functions.

Operation: See the operation procedure below.

- (1) Click the **Enter user operation function** button on the [J.NET SYSTEM] window.
- (2) When the user [Operation function table] window is displayed, select the desired function “Number” and then click the **Set** button.

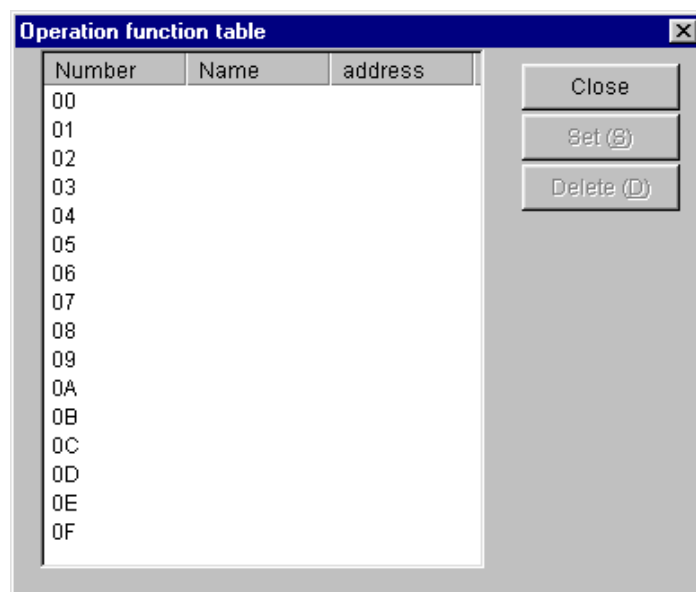


Figure 3-13 [Operation function table] Window

- (3) When the [Set] window is displayed, enter the desired “Name.”

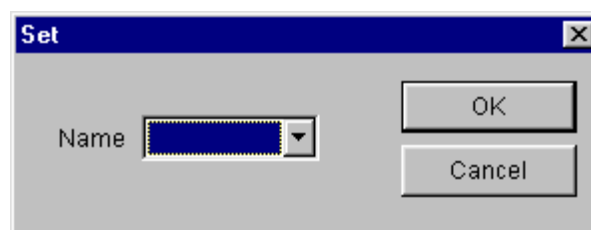


Figure 3-14 [Set] Window

- (4) When name entry is completed, click the **OK** button to register the function. If you want to cancel the entry, click the **Cancel** button.

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3.6 Monitoring Refresh Cycle

Function: Monitors the refresh cycle.

Operation: See the operation procedure below.

- (1) Click the **Refresh cycle monitor** button on the [J.NET SYSTEM] window.
- (2) The [Refresh cycle monitor] window is displayed.

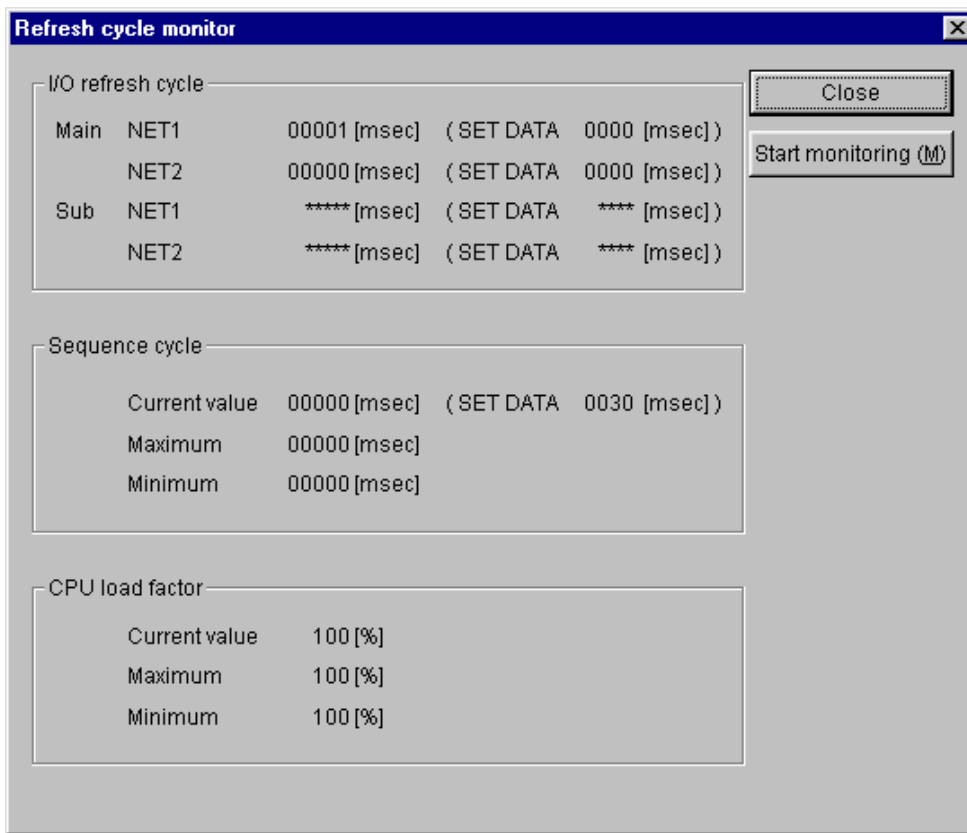


Figure 3-15 [Refresh cycle monitor] Window

- (3) To start refresh cycle monitoring, click the **Start monitoring** button. To stop refresh cycle monitoring, click the **Stop monitoring** button.
When you want to quit refresh cycle monitoring, click the **Close** button.

Note: The values of the “CPU load factor” are effective only when a ladder program is running.

3.7 Displaying Main Module Error Information

Function: Displays the error information (module and station errors) retained by the main module.

Operation: See the operation procedure below.

- (1) Click the button on the [J.NET SYSTEM] window.
- (2) The [Error information] window is displayed.

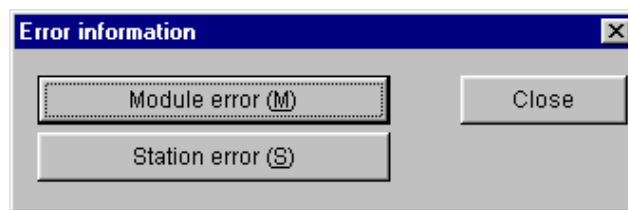


Figure 3-16 [Error Information] Window

3.7.1 Module error

Function: Display the error information retained by the main module.

Operation: See the operation procedure below.

- (1) Click the button on the [Error information] window. Then, if any error(s) have been detected in the main module, the [Module error] window is displayed.

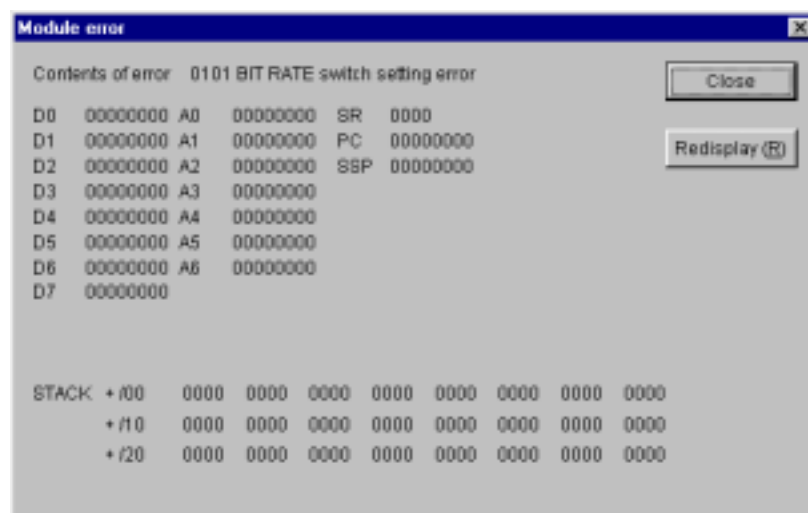


Figure 3-17 [Module error] Window

- (2) Clicking the button displays the latest error information. To quit error display, click the button.

3.9 Changing Connected PCs

Function: Sets a specified communication type for the PCs and personal computer.

Operation: See the operation procedure below.

- (1) Click the **Change connection** button on the [J.NET SYSTEM] window.
- (2) The [Communication type] window is displayed.

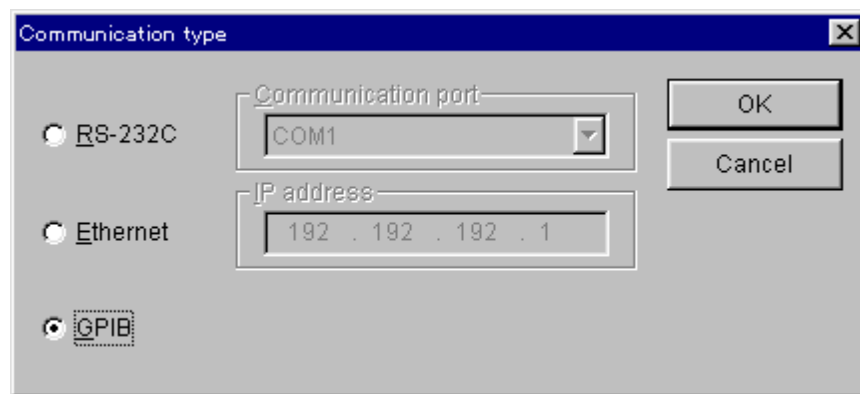


Figure 3-19 [Communication type] Window (PCs Connection Change)

- (3) If the desired communication type is RS-232C, click "RS-232C" radio button and select a "Communication port."



Figure 3-20 [Communication type] Window (RS-232C Port Selection)

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- (4) If it is Ethernet, click “Ethernet” and enter the “IP address” of the connection destination.

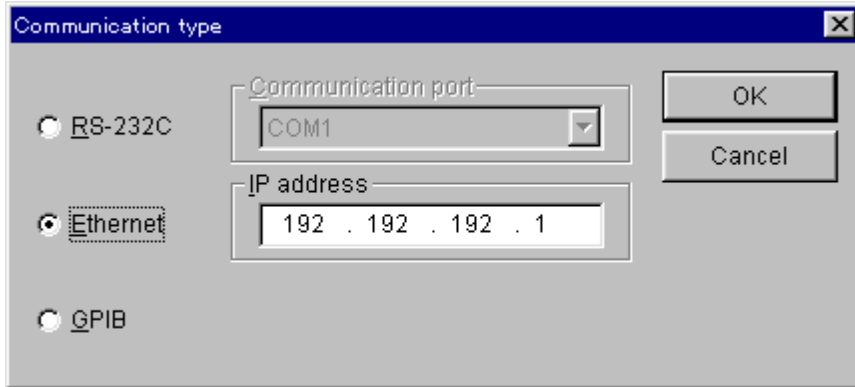


Figure 3-21 [Communication type] Window (Ethernet Connection)

- (5) If it is GP-IB, click “GPIB” radio button.



Figure 3-22 [Communication type] Window (GP-IB Connection)

NOTE

When connecting a personal computer to the S10mini series, select RS-232C or Ethernet because the S10mini series does not support GP-IB.

- (6) When communication type selection is completed, click the **OK** button to set the selection. If you want to cancel the selection, click the **Cancel** button.