

# CONTENTS

<b>1 GENERAL DESCRIPTION</b>	<b>1- 1 to 1-5</b>
1.1 Abbreviations and Terms in This Manual	1- 1
1.2 Operating Procedures Before Starting Communication	1- 2
1.3 Term Definitions	1- 3
1.4 List of Utilities	1- 5
<b>2 MONITORING DEVICES</b>	<b>2- 1 to 2-11</b>
2.1 Monitoring via Computer Link Module (Serial Communication)	2- 1
2.2 Monitoring via Ethernet	2- 5
2.3 Monitoring via Direct Connection to PC CPU (RS-422)	2- 9
2.4 Monitoring via MELSECNET/10	2-10
<b>3 COMPUTER LINK UTILITY</b>	<b>3- 1 to 3- 7</b>
3.1 Start Method	3- 1
3.2 Function	3- 1
3.3 System Menu	3- 2
3.4 Buttons	3- 2
3.5 Diagnosis	3- 3
3.6 Communication	3- 4
3.7 Target	3- 5
3.8 Version	3- 7
<b>4 ETHERNET UTILITY</b>	<b>4- 1 to 4- 7</b>
4.1 Start Method	4- 1
4.2 Function	4- 1
4.3 System Menu	4- 1
4.4 Buttons	4- 2
4.5 Diagnostics	4- 3
4.6 Communication	4- 4
4.7 Target	4- 5
4.8 Version	4- 7
<b>5 RS-422 UTILITY</b>	<b>5- 1 to 5- 5</b>
5.1 Start Method	5- 1
5.2 Function	5- 1
5.3 Buttons	5- 2
5.4 Diagnostics	5- 3
5.5 Target	5- 4
5.6 Version	5- 5

<b>6 MELSECNET/10 UTILITY</b>	<b>6- 1 to 6-12</b>
-------------------------------	---------------------

6.1 Start Method	6- 1
6.2 Function	6- 1
6.3 Buttons	6- 2
6.4 Card List	6- 3
6.5 Card Information	6- 4
6.5.1 Card Information	6- 4
6.5.2 Rooting Parameter Setting	6- 6
6.6 Loop Monitor	6- 7
6.7 Each Sta. Status	6- 9
6.8 Err. History Monitor	6-10
6.9 Version	6-12

<b>7 DEVICE MONITOR UTILITY</b>	<b>7- 1 to 7-16</b>
---------------------------------	---------------------

7.1 Start Method	7- 1
7.2 Function	7- 1
7.3 Menu	7- 2
7.3.1 Batch Monitor	7- 2
7.3.2 16-Point Register Monitor	7- 3
7.3.3 Close	7- 4
7.4 Setting	7- 5
7.4.1 Network Setting	7- 5
7.4.2 Device Setting	7- 6
7.5 Device Write	7- 8
7.5.1 Data Changing	7- 8
7.5.2 Continuous Change in Data	7- 9
7.5.3 Bit Device Setting	7-11
7.5.4 Bit Device Resetting	7-12
7.6 Data Format	7-13
7.7 Help	7-14
7.7.1 Help	7-14
7.7.2 Version	7-14
7.8 Other Operations	7-15

<b>8 ERROR VIEWER</b>	<b>8- 1 to 8- 7</b>
-----------------------	---------------------

8.1 Start Method	8- 1
8.2 Function	8- 1
8.3 Screen	8- 2
8.4 Log	8- 3
8.5 View	8- 5
8.6 Help	8- 7

**9 ACCESSIBLE DEVICES** **9- 1 to 9-14**

9.1 Cautions on Device Access ..... 9- 1

9.2 Accessible Devices ..... 9- 2

    9.2.1 Local Station Devices ..... 9- 2

    9.2.2 Other Station Devices ..... 9- 3

        (1) Computer Link Communication ..... 9- 3

        (2) Ethernet Communication ..... 9- 6

        (3) RS-422 Communication ..... 9- 9

        (4) MELSECNET/10 Communication ..... 9-12

**10 ACCESSIBLE RANGE** **10- 1 to 10-13**

10.1 Accessible Range ..... 10- 1

    10.1.1 Computer Link Communication ..... 10- 2

        (1) When C24 serves as a module connected ..... 10- 2

        (2) When UC24 serves as a module connected ..... 10- 4

        (3) When QC24(N) serves as a module connected ..... 10- 6

    10.1.2 Ethernet Communication ..... 10- 7

        (1) When E71 serves as a module connected ..... 10- 7

        (2) When QE71 serves as a module connected ..... 10- 9

    10.1.3 RS-422 Communication ..... 10-10

        (1) When AnN, AnA, or AnU serves as a CPU connected ..... 10-10

        (2) When QnA serves as a CPU connected ..... 10-12

    10.1.4 MELSECNET/10 Communication ..... 10-13

**11 USING SHARED DEVICES** **11- 1 to 11- 2**

**12 REFRESHING DEVICES** **12- 1 to 12- 4**

12.1 Familiarizing Yourself with Shared Device Server Process ..... 12- 1

    12.1.1 Starting and Terminating Shared Device Server Process ..... 12- 1

12.2 Refreshing Devices ..... 12- 2

**13 SHARED DEVICES** **13- 1 to 13- 7**

13.1 Specifications ..... 13- 1

13.2 System Area Information ..... 13- 2

    13.2.1 Personal Computer System Information ..... 13- 3

    13.2.2 Machine Basic Configuration Information ..... 13- 3

    13.2.3 Optional Card Information ..... 13- 4

    13.2.4 Drive Information ..... 13- 6

    13.2.5 Printer Information ..... 13- 7

<b>14 SHARED DEVICE UTILITY</b>	<b>14- 1 to 14- 4</b>
---------------------------------	-----------------------

14.1 Start Method .....	14- 1
14.2 Function .....	14- 1
14.3 Buttons .....	14- 2
14.4 Parameter Setting .....	14- 3
14.5 Version .....	14- 4

<b>15 SHARED DEVICE SERVER UTILITY</b>	<b>15- 1 to 15- 8</b>
--	-----------------------

15.1 Start Method .....	15- 1
15.2 Function .....	15- 1
15.3 Buttons .....	15- 2
15.4 Refresh Range Setting .....	15- 3
15.5 List Indication .....	15- 6
15.6 Status Monitor .....	15- 7
15.7 Version .....	15- 8

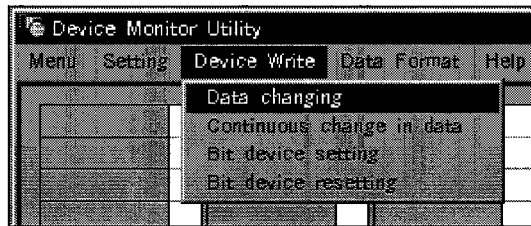
## 7.5 Device Write

### 7.5.1 Data Changing

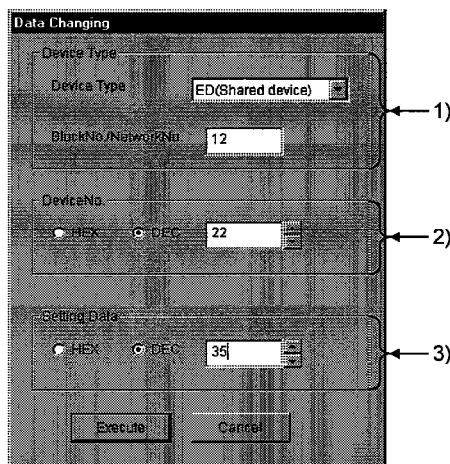
This screen allows you to change the data of the specified word device.

#### (1) Menu Selection

Click [**Device Write**]-[**Data changing**] in order on the menu bar.



#### (2) Dialogue Box



#### 1) Device Type

Specifies the type and block number of a device whose data will be changed and a network number.

#### 2) Device No.

Specifies the number of a device whose data will be changed.  
(HEX: Hexadecimal numeral DEC: Decimal numeral)

#### 3) Setting Data

Sets data to be changed.  
(HEX: Hexadecimal numeral DEC: Decimal numeral)



**DANGER**

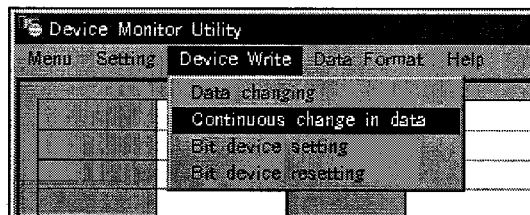
- Make sure to provide an interlock circuit in a sequence program so that the overall system always operates safely for data change control to the PC in operation. Also, make sure to designate corrective actions or countermeasures for data communication errors between the personal computer and the PC CPU.

## 7.5.2 Continuous Change in Data

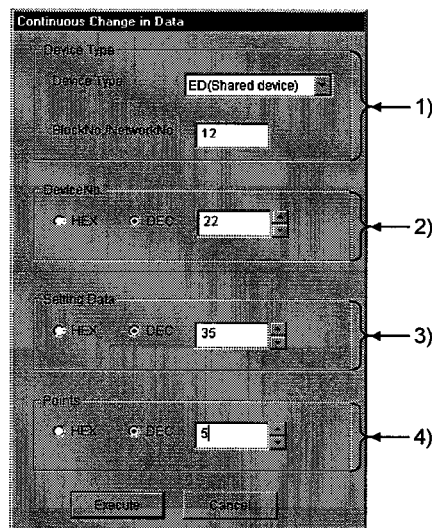
This screen allows you to change the specified word device into the specified data according to the specified number of points.

## (1) Menu Selection

Click [Device Write]-[continuous change in data] in order on the menu bar.



## (2) Dialogue Box



## 1) Device Type

Specifies the type and block number of a device whose data will be changed and a network number.

## 2) Device No.

Specifies the head number of a device whose data will be changed.  
(HEX : Hexadecimal numeral, DEC : Decimal numeral)

## 3) Setting Data

Sets data to be changed. (HEX : Hexadecimal numeral, DEC : Decimal numeral)

### 4) Points

Sets the number of points whose data will be changed.



#### **DANGER**

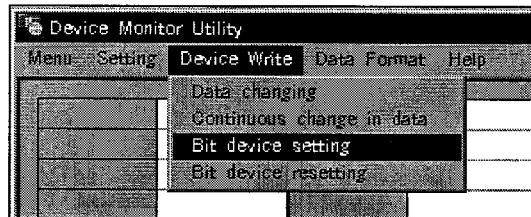
- Make sure to provide an interlock circuit in a sequence program so that the overall system always operates safely for data change control to the PC in operation. Also, make sure to designate corrective actions or countermeasures for data communication errors between the personal computer and the PC CPU.

### 7.5.3 Bit Device Setting

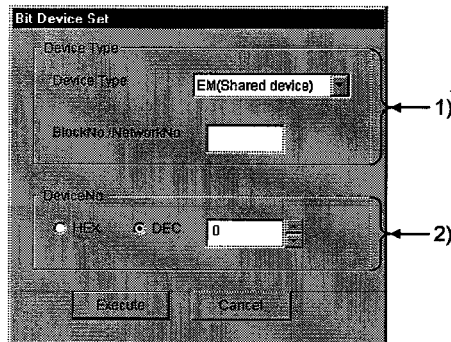
This screen allows you to activate a specified bit device.

#### (1) Menu Selection

Click **[Device Write]-[Bit device set]** in order on the menu bar.



#### (2) Dialogue Box



#### 1) Device Type

Specifies the type and block number of a device to be activated and a network number.

#### 2) Device No.

Specifies the number of a device to be activated.

(HEX : Hexadecimal numeral, DEC : Decimal numeral)



**DANGER**

- Make sure to provide an interlock circuit in a sequence program so that the overall system always operates safely for data change control to the PC in operation. Also, make sure to designate corrective actions or countermeasures for data communication errors between the personal computer and the PC CPU.

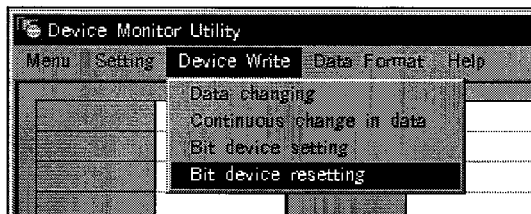


## 7.5.4 Bit Device Resetting

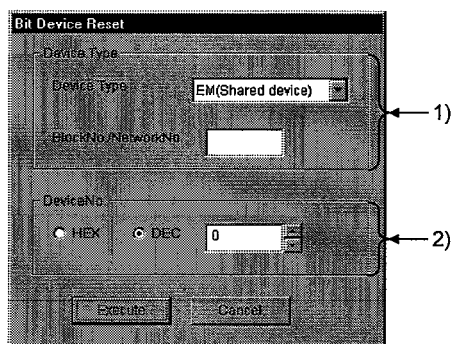
This screen allows you to deactivate the specified bit device.

## (1) Menu Selection

Click [Device Write]-[Bit device resetting] in order on the menu bar.



## (2) Dialogue Box



## 1) Device Type

Specifies the type and block number of a device to be inactivated and a network number.

## 2) Device No.

Specifies the number of a device to be inactivated.

(HEX : Hexadecimal numeral, DEC : Decimal numeral)



**DANGER**

- Make sure to provide an interlock circuit in a sequence program so that the overall system always operates safely for data change control to the PC in operation. Also, make sure to designate corrective actions or countermeasures for data communication errors between the personal computer and the PC CPU.

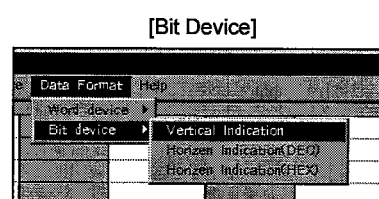
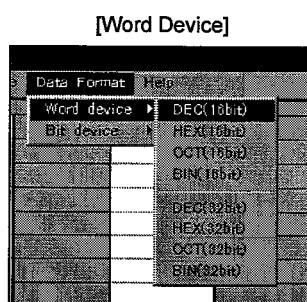
## 7.6 Data Format

This screen allows you to switch a display format in device monitoring to a specified format. The menu selection differs depending on the monitor type (batch monitor or 16-point register monitor).

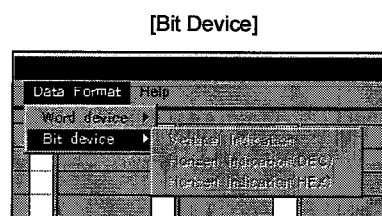
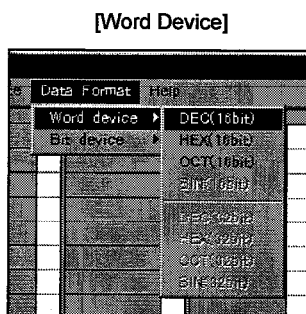
## (1) Menu Selection

Click **[Data Format]-[Word (Bit) device]** in order on the menu bar.

## (a) Batch monitoring



## (b) 16-point register monitoring



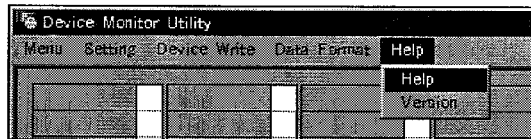
7.7 Help

7.7.1 Help

This screen displays the Help menu of the Device Monitor Utility.

(1) Menu Selection

Click **[Help]-[Help]** in order on the menu bar.

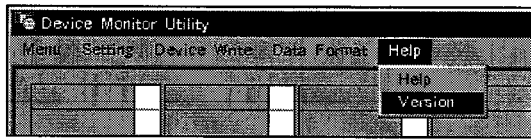


7.7.2 Version

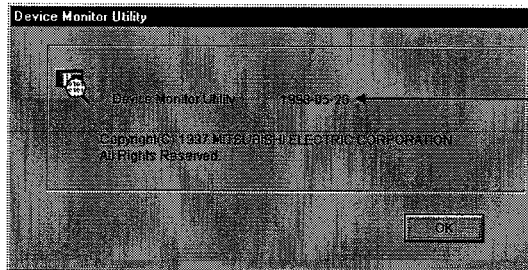
This screen indicates the version of the Device Monitor Utility.

(1) Menu Selection

Click **[Help]-[Version]** in order on the menu bar.



(2) Display Screen



Indicate the version of the Device Monitor Utility.

7.8 Other Operations

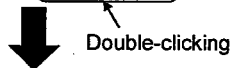
Double-clicking a device number on the screen during device monitoring changes the word device data or activates or deactivates the bit device.

(1) Word Device

The following shows the operations to be performed for word device change (only for 16-bit display format).

Device Monitor Utility			
Menu Setting Device Write Data Format Help			
ED0 0	19781	ED0 16	0
ED0 1	17477	ED0 17	0
ED0 2	16	ED0 18	0
ED0 3	12336	ED0 19	0
ED0 4	65	ED0 20	0
ED0 5	0	ED0 21	0

1) Double-click the number of a word device to be changed.



2) Enter a desired value on the dialogue box shown at left.



3) Select "Yes" on the dialogue box at left or "No" to cancel.



Data change completed.

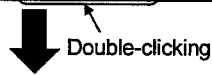
<p><b>DANGER</b></p>	<ul style="list-style-type: none"> <li>Make sure to provide an interlock circuit in a sequence program so that the overall system always operates safely for data change control to the PC in operation. Also, make sure to designate corrective actions or countermeasures for data communication errors between the personal computer and the PC CPU.</li> </ul>
----------------------	--

(2) Bit Device

The following shows the operations to be performed for bit device activation or deactivation. Note that these operations can be performed only for display in descending order).

Device ID	Status	Device ID	Status	Device ID
B 0000	1	B 0010	1	B 0020
B 0001	0	B 0011	0	B 0021
B 0002	1	B 0012	1	B 0022
B 0003	0	B 0013	0	B 0023
B 0004	1	B 0014	1	B 0024
B 0005	0	B 0015	0	B 0025
B 0006	1	B 0016	1	B 0026
B 0007	0	B 0017	0	B 0027

1) Double-click the number of a bit device number to be changed.



The selected bit device is ON.

The selected bit device is OFF.

2) Select "Yes" on the dialogue box at left or "No" to cancel.



Data change completed.



**DANGER**

- Make sure to provide an interlock circuit in a sequence program so that the overall system always operates safely for data change control to the PC in operation. Also, make sure to designate corrective actions or countermeasures for data communication errors between the personal computer and the PC CPU.

## 8 ERROR VIEWER

This chapter describes how to set up and use the Error Viewer.

### 8.1 Start Method

Click [Start]-[Programs]-[MELSEC APPLICATION]-[COMMUNICATION SUPPORT(C-SKP-E)]-[Error Viewer] in order.

### 8.2 Function

The following table lists the functions of the Error Viewer.

		Explanation	Reference Section
Log	Type of Error Register Source	Indicates an error log group displayed.	Section 8.4
	Open the Selected File	Opens the log files saved so far.	
	Save with a Name	Saves an error log information currently chosen in the file specified.	
	Delete	Deletes the error log specified.	
	Log Setting	Sets a control method for a log exceeding a register size.	
	Exit	Terminates the Error Viewer.	
View	All Errors	Displays information on all error logs.	Section 8.5
	Specific Error	Sets a condition on a error to be displayed.	
	Search	Searches for an error log according to a source name and an error number.	
	Details	Displays the details of an error registered.	
	Renew	Displays the latest information on the screen.	
Help	Help	Displays the Help screen of Error Viewer.	Section 8.6
	Version	Displays the version information of Error Viewer.	

## 8.3 Screen

This section describes the Error Viewer screen.

Type	Date and Time	Time	Source	Error No.	Message Contents

1) 2) 3) 4) 5) 6)

1) **Type**

Indicates the types of errors by the following symbols.



... **Normal message** (Informational message concerning a normal operation.)



... **Warning message** (Message signaling a caution rather than an error)



... **Error message** (Explains the error that occurred in each module. Double-click it and see the detailed explanations of this error so as to immediately solve the error for the line to which this message has been given.)

2) **Date and Time**

Indicates the date at which an error occurred.

3) **Time**

Indicates the time at which an error occurred.

4) **Source**

Indicates the source of an error.

5) **Error No.**

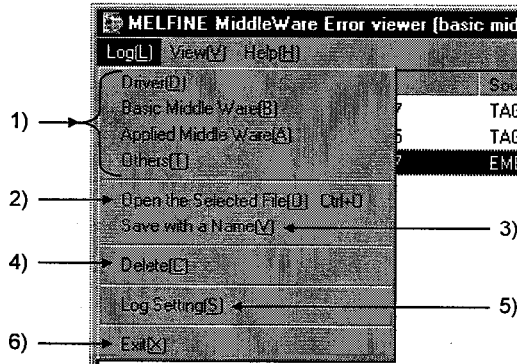
Indicates the number of the error that occurred. For details of error number, see Error List Manual.

6) **Message Contents**

Explains the error.

8.4 Log

This section describes the items of the log menu



1) Selection of Type of Error Register Source

Chooses a type of error register source displayed in Error Viewer.

**Driver** ..... Displays messages from a driver for a shared memory device, etc.

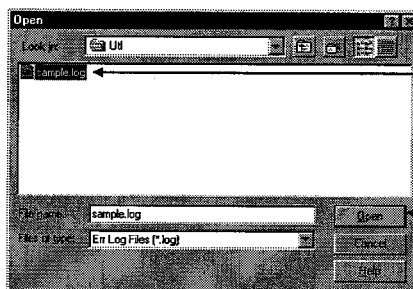
**Basic Middle Ware** ..... Displays messages from a shared device server process.

**Applied Middle Ware** ... Displays messages from an applied middle ware.

**Others** ..... Displays messages from an application package.

2) Open the Selected File

Use the dialogue box below to open the error log file (\*.log).



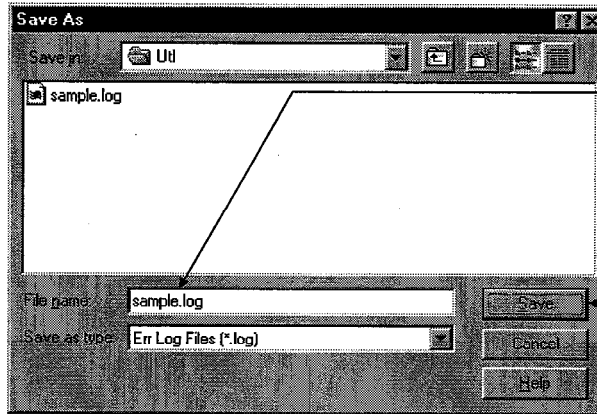
Select an error log file to be opened.

Click this button to open the selected error log file.



3) **Save with a Name**

Saves the error log information of an error register source (driver, basic middle ware, etc.) currently chosen in the file specified in the dialogue box below.



Specify the name of a file to save the error log.

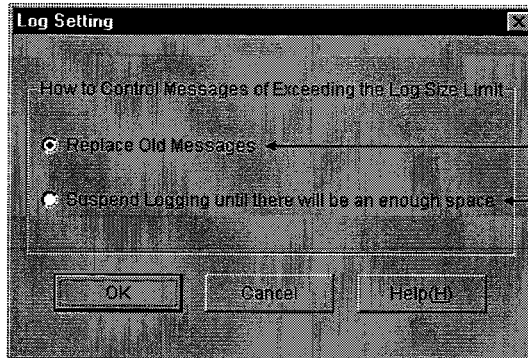
Click here to save error log information in the specified file.

4) **Delete**

Deletes error log information on an error register source (driver, basic middle ware, etc.) currently displayed. Delete the error log information according to the instructions in the dialogue box.

5) **Log Setting**

Chooses action taken when the number of error logs exceeds the maximum register number.



Overwrite in historical order.

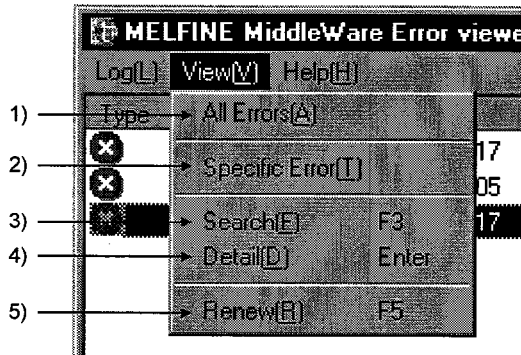
Do not register information unless space is reserved by old information deletion.

6) **Exit**

Terminates the Error Viewer.

8.5 View

This section describes the items of the viewer.

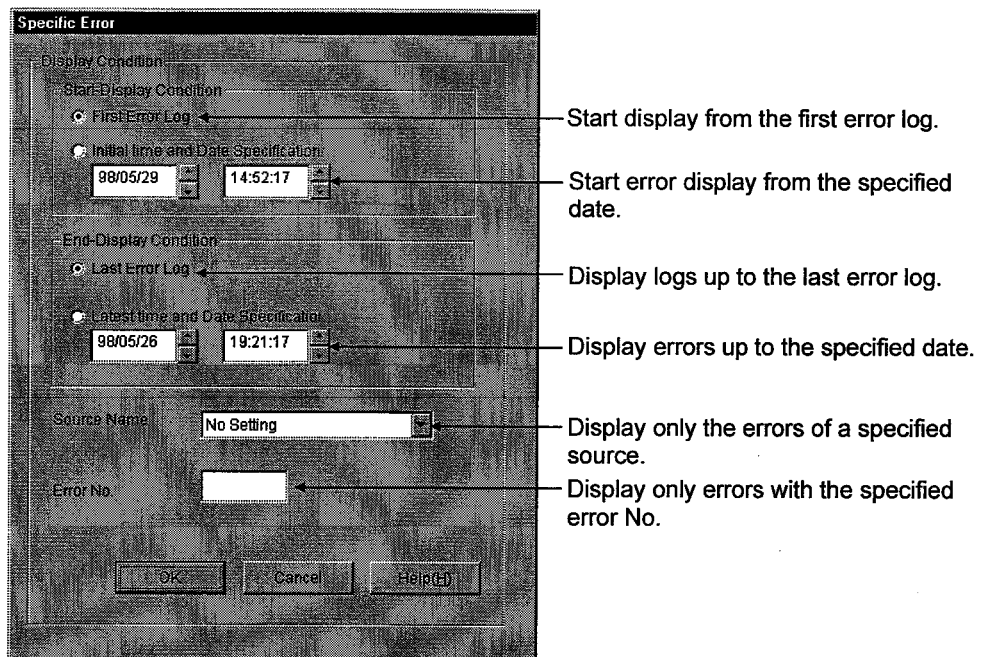


1) All Errors

Displays the errors by the type of error register source.

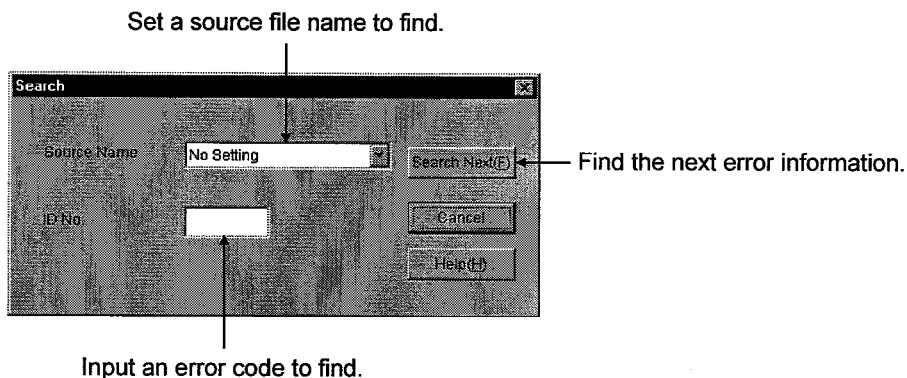
2) Specific Error

Displays the errors on the screen according to the conditions specified in the dialogue box below.



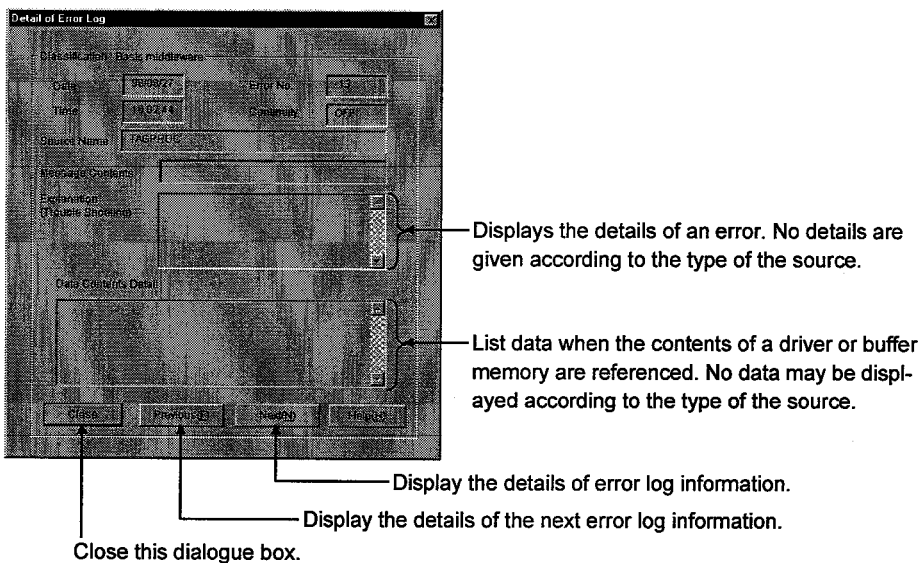
3) Search

The dialogue box below allows you to find the source names and error information of an error code by referring to the details of the error log currently displayed. (Pressing the F3 key does this as well.)



4) Detail

Displays the detailed information about the current error log. (You can also do this by pressing the ENTER key after the items displayed are chosen.)

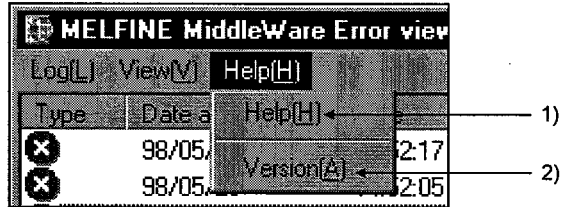


5) Renew

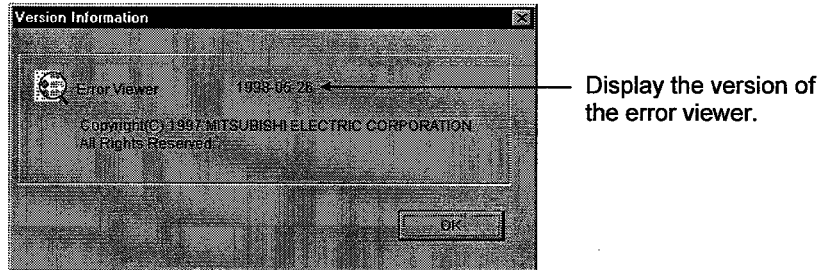
Renews the current information.

8.6 Help

This section describes the items of the Help menu.



- 1) **Help**  
Displays the Help screen of the Error Viewer.
- 2) **Version**  
Displays the version information of the Error Viewer.



**9 ACCESSIBLE DEVICES**

This chapter describes the accessible devices in each communication mode.

**9.1 Cautions on Device Access**

This section explains the cautions on extended file register access.

It is possible (depending on the type of memory cassette mounted on the PC CPU) that no errors will occur even when a device is read and written by specifying a block number which does not exist. In such a case, the data read is not correct. Further, writing to that device may destroy the user memory of the PC CPU. Make sure to use the function described here, after fully confirming the kind of memory cassette, details of parameter setting, etc. For details, refer to the AnACPU and AnUCPU User's Manual.

9.2 Accessible Devices

The following are devices which can be used in each communication mode.

<b>POINT</b>	<ul style="list-style-type: none"> <li>· “Batch” or “Random” in the table implies the following</li> <li>Batch ······Batch read/Batch write</li> <li>Random ····Random read/Random write/Bit set/Bit reset</li> </ul>
--------------	---

9.2.1 Local station Devices

The following table lists the accessible devices in the local station.

Device		Connecting Type with Programmable Controller CPU
		Connecting with MELSECNET/10
X	Batch	○
	Random	
Y	Batch	○
	Random	
Special M(SM), SB (Link Special B for MNET/10)	Batch	○
	Random	
Special D(SD), SW (Link Special W for MNET/10)	Batch	○
	Random	
B	Batch	○
	Random	
W	Batch	○
	Random	
RECV function for QnA	Batch	○
	Random	×
EM (Shared Device)	Batch	○
	Random	
ED (Shared Device)	Batch	○
	Random	

9.2.2 Other Station Devices

The following lists the accessible devices in the other stations.

(1) Computer Link Communication

Device		Destination							
		A1N	A0J2H A1S(-S1) A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A1FX	A2A(-S1) A2AS(-S1) A2AS-S30 A2AS-S60 A2AS-M128 A2U(-S1)	A2SH(-S1) A3N A3A A3U	A4U	Q2A(-S1) Q3A Q4A Q4AR Q2AS(-S1) Q2ASH(-S1)	Personal Computer	
X	Batch	○	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	○	×
Y	Batch	○	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	○	×
L	Batch	○	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	○	×
M	Batch	○	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	○	×
Special M(SM),SB	Batch	○	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	○	×
F	Batch	○	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	○	×
T (Contact Point)	Batch	○	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	○	×
T(Coil)	Batch	○	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	○	×
C (Contact Point)	Batch	○	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	○	×
C (Coil)	Batch	○	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	○	×
T (Current Value)	Batch	○	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	○	×
C (Current Value)	Batch	○	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	○	×
D	Batch	○	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	○	×
Special D(SD),SW	Batch	○	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	○	×
T (Main Set Value)	Batch	○	○	○	○	○	○	○	×
	Random	×	×	×	×	×	×	×	×
T (Sub Set Value 1)	Batch	×	×	○*1	○	○	○	○	×
	Random	×	×	×	×	×	×	×	×
T (Sub Set Value 2)	Batch	×	×	×	×	○	○	○	×
	Random	×	×	×	×	×	×	×	×
T (Sub Set Value 3)	Batch	×	×	×	×	○	○	○	×
	Random	×	×	×	×	×	×	×	×
C (Main Set Value)	Batch	○	○	○	○	○	○	○	×
	Random	×	×	×	×	×	×	×	×
C (Sub Set Value 1)	Batch	×	×	○*1	○	○	○	○	×
	Random	×	×	×	×	×	×	×	×

\*1 A2A(-S1)CPU is not allowed access.

Device		Destination						
		A1N	A0J2H A1S(-S1) A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A1FX	A2A(-S1) A2AS(-S1) A2AS-S30 A2AS-S60 A2AS-M128 A2U(-S1)	A2SH(-S1) A3N A3A A3U	A4U	Q2A(-S1) Q3A Q4A Q4AR Q2AS(-S1) Q2ASH(-S1)	Personal Computer
C (Sub Set Value 2)	Batch					○		
	Random	x	x	x	x	x	x	x
C (Sub Set Value 3)	Batch					○		
	Random	x	x	x	x	x	x	x
A	Batch							
	Random	x	x	x	x	x	x	x
Z	Batch							
	Random	x	x	x	x	x	x	x
V (Index Register)	Batch							
	Random	x	x	x	x	x	x	x
R (File Register)	Batch							
	Random	x	○	○	○	○	○	x
ER (Extended File Register)	Batch							
	Random	○	○	○	○	○	○	x
B	Batch							
	Random	○	○	○	○	○	○	x
W	Batch							
	Random	○	○	○	○	○	○	x
QnA Link Special Relay (on QnA CPU)	Batch							
	Random	x	x	x	x	x	○	x
Integrating Timer (Contact Point)	Batch							
	Random	x	x	x	x	x	○ x	x
Integrating Timer (Coil)	Batch							
	Random	x	x	x	x	x	○ x	x
QnA Link Special Register (on QnA CPU)	Batch							
	Random	x	x	x	x	x	○	x
QnA Edge Relay (on QnA CPU)	Batch							
	Random	x	x	x	x	x	○	x
Integrating Timer (Current Value)	Batch							
	Random	x	x	x	x	x	○	x
QnA SEND function (with confirmation of arrival)	Batch							
	Random	x	x	x	x	x	x	x
QnA SEND function (without confirmation of arrival)	Batch							
	Random	x	x	x	x	x	x	x
Direct Link Input	Batch							
	Random	x	x	x	x	x	○*2	x
Direct Link Output	Batch							
	Random	x	x	x	x	x	○*2	x
Direct Link Relay	Batch							
	Random	x	x	x	x	x	○*2	x

\*2 Access is not allowed unless there's a network module available.



Device		Destination						
		A1N	A0J2H A1S(-S1) A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A1FX	A2A(-S1) A2AS(-S1) A2AS-S30 A2AS-S60 A2AS-M128 A2U(-S1)	A2SH(-S1) A3N A3A A3U	A4U	Q2A(-S1) Q3A Q4A Q4AR Q2AS(-S1) Q2ASH(-S1)	Personal Computer
Direct Link Register	Batch	x	x	x	x	x	○*2	x
	Random	x	x	x	x	x	○*2	x
Direct Link Special Relay (on Network Unit)	Batch	x	x	x	x	x	○*2	x
	Random	x	x	x	x	x	○*2	x
Direct Link Special Register (on Network Unit)	Batch	x	x	x	x	x	○*2	x
	Random	x	x	x	x	x	○*2	x
Special Direct Buffer Register	Batch	x	x	x	x	x	○	x
	Random	x	x	x	x	x	○	x
EM (Shared Device)	Batch	x	x	x	x	x	x	x
	Random	x	x	x	x	x	x	x
ED (Shared Device)	Batch	x	x	x	x	x	x	x
	Random	x	x	x	x	x	x	x

\*2 Access is not allowed unless there's a network module available.

(2) Ethernet Communication

Device		Destination						
		A1N	A0J2H A1S(-S1) A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A1FX	A2A(-S1) A2AS(-S1) A2AS-S30 A2AS-S60 A2AS-M128 A2U(-S1)	A2SH(-S1) A3N A3A A3U	A4U	Q2A(-S1) Q3A Q4A Q4AR Q2AS(-S1) Q2ASH(-S1)	Personal Computer
X	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	×
Y	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	×
L	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	×
M	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	×
Special M(SM),SB	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	×
F	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	×
T (Contact Point)	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	×	×
T(Coil)	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	×	×
C (Contact Point)	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	×	×
C (Coil)	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	×	×
T (Current Value)	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	×
C (Current Value)	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	×
D	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	×
Special D(SD),SW	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	×
T (Main Set Value)	Batch	○	○	○	○	○	○	×
	Random	×	×	×	×	×	×	×
T (Sub Set Value 1)	Batch	×	×	○*1	○	○	○	×
	Random	×	×	×	×	×	×	×
T (Sub Set Value 2)	Batch	×	×	×	×	×	×	×
	Random	×	×	×	×	×	×	×
T (Sub Set Value 3)	Batch	×	×	×	×	×	×	×
	Random	×	×	×	×	×	×	×
C (Main Set Value)	Batch	○	○	○	○	○	○	×
	Random	×	×	×	×	×	×	×
C (Sub Set Value 1)	Batch	×	×	○*1	○	○	○	×
	Random	×	×	×	×	×	×	×

\*1 A2A(-S1)CPU is not allowed access.

Device		Destination						
		A1N	A0J2H A1S(-S1) A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A1FX	A2A(-S1) A2AS(-S1) A2AS-S30 A2AS-S60 A2AS-M128 A2U(-S1)	A2SH(-S1) A3N A3A A3U	A4U	Q2A(-S1) Q3A Q4A Q4AR Q2AS(-S1) Q2ASH(-S1)	Personal Computer
C (Sub Set Value 2)	Batch	x	x	x	x	x	x	x
	Random	x	x	x	x	x	x	x
C (Sub Set Value 3)	Batch	x	x	x	x	x	x	x
	Random	x	x	x	x	x	x	x
A	Batch	x	x	x	x	x	x	x
	Random	x	x	x	x	x	x	x
Z	Batch	x	x	x	x	x	x	x
	Random	x	x	x	x	x	x	x
V (Index Register)	Batch	x	x	x	x	x	x	x
	Random	x	x	x	x	x	x	x
R (File Register)	Batch	x	○	○	○	○	○	x
	Random	○	○	○	○	○	○	x
ER (Extended File Register)	Batch	○	○	○	○	○	○	x
	Random	○	○	○	○	○	○	x
B	Batch	○	○	○	○	○	○	x
	Random	○	○	○	○	○	○	x
W	Batch	○	○	○	○	○	○	x
	Random	○	○	○	○	○	○	x
QnA Link Special Relay (on QnA CPU)	Batch	x	x	x	x	x	○	x
	Random	x	x	x	x	x	○	x
Integrating Timer (Contact Point)	Batch	x	x	x	x	x	○	x
	Random	x	x	x	x	x	x	x
Integrating Timer (Coil)	Batch	x	x	x	x	x	○	x
	Random	x	x	x	x	x	x	x
QnA Link Special Register (on QnA CPU)	Batch	x	x	x	x	x	○	x
	Random	x	x	x	x	x	○	x
QnA Edge Relay (on QnA CPU)	Batch	x	x	x	x	x	○	x
	Random	x	x	x	x	x	○	x
Integrating Timer (Current Value)	Batch	x	x	x	x	x	○	x
	Random	x	x	x	x	x	○	x
QnA SEND function (with confirmation of arrival)	Batch	x	x	x	x	x	x	x
	Random	x	x	x	x	x	x	x
QnA SEND function (without confirmation of arrival)	Batch	x	x	x	x	x	x	x
	Random	x	x	x	x	x	x	x
Direct Link Input	Batch	x	x	x	x	x	x	x
	Random	x	x	x	x	x	x	x
Direct Link Output	Batch	x	x	x	x	x	x	x
	Random	x	x	x	x	x	x	x
Direct Link Relay	Batch	x	x	x	x	x	x	x
	Random	x	x	x	x	x	x	x

Device		Destination						
		A1N	A0J2H A1S(-S1) A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A1FX	A2A(-S1) A2AS(-S1) A2AS-S30 A2AS-S60 A2AS-M128 A2U(-S1)	A2SH(-S1) A3N A3A A3U	A4U	Q2A(-S1) Q3A Q4A Q4AR Q2AS(-S1) Q2ASH(-S1)	Personal Computer
Direct Link Register	Batch	x	x	x	x	x	x	x
	Random							
Direct Link Special Relay (on Network Unit)	Batch	x	x	x	x	x	x	x
	Random							
Direct Link Special Register (on Network Unit)	Batch	x	x	x	x	x	x	x
	Random							
Special Direct Buffer Register	Batch	x	x	x	x	x	x	x
	Random							
EM (Shared Device)	Batch	x	x	x	x	x	x	x
	Random							
ED (Shared Device)	Batch	x	x	x	x	x	x	x
	Random							

<b>POINT</b>
As for an accessible range, only the same segment can be accessed during Ethernet communication.

(3) RS-422 Communication

Device		Destination						
		A1N	A0J2H A1S(-S1) A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A1FX	A2A(-S1) A2AS(-S1) A2AS-S30 A2AS-S60 A2AS-M128 A2U(-S1)	A2SH(-S1) A3N A3A A3U	A4U	Q2A(-S1) Q3A Q4A Q4AR Q2AS(-S1) Q2ASH(-S1)	Personal Computer
X	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	×
Y	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	×
L	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	×
M	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	×
Special M(SM),SB	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	×
F	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	×
T (Contact Point)	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	×	×
T(Coil)	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	×	×
C (Contact Point)	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	×	×
C (Coil)	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	×	×
T (Current Value)	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	×
C (Current Value)	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	×
D	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	×
Special D(SD),SW	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	×
T (Main Set Value)	Batch	○	○	○	○	○	×	×
	Random	×	×	×	×	×	×	×
T (Sub Set Value 1)	Batch	×	×	○ *1	○	○	×	×
	Random	×	×	×	×	×	×	×
T (Sub Set Value 2)	Batch	×	×	×	×	○	×	×
	Random	×	×	×	×	×	×	×
T (Sub Set Value 3)	Batch	×	×	×	×	○	×	×
	Random	×	×	×	×	×	×	×
C (Main Set Value)	Batch	○	○	○	○	○	×	×
	Random	×	×	×	×	×	×	×
C (Sub Set Value 1)	Batch	×	×	○ *1	○	○	×	×
	Random	×	×	×	×	×	×	×

\*1 A2A(-S1)CPU is not allowed access.

Device		Destination						
		A1N	A0J2H A1S(-S1) A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A1FX	A2A(-S1) A2AS(-S1) A2AS-S30 A2AS-S60 A2AS-M128 A2U(-S1)	A2SH(-S1) A3N A3A A3U	A4U	Q2A(-S1) Q3A Q4A Q4AR Q2AS(-S1) Q2ASH(-S1)	Personal Computer
C (Sub Set Value 2)	Batch					○		
	Random	x	x	x	x	x	x	x
C (Sub Set Value 3)	Batch					○		
	Random	x	x	x	x	x	x	x
A	Batch							
	Random	x	x	x	x	x	x	x
Z	Batch							
	Random	x	x	x	x	x	x	x
V (Index Register)	Batch							
	Random	x	x	x	x	x	x	x
R (File Register)	Batch							
	Random	x	○	○	○	○	○	x
ER (Extended File Register)	Batch							
	Random	○	○	○	○	○	○	x
B	Batch							
	Random	○	○	○	○	○	○	x
W	Batch							
	Random	○	○	○	○	○	○	x
QnA Link Special Relay (on QnA CPU)	Batch							
	Random	x	x	x	x	x	○	x
Integrating Timer (Contact Point)	Batch						○	
	Random	x	x	x	x	x	x	x
Integrating Timer (Coil)	Batch						○	
	Random	x	x	x	x	x	x	x
QnA Link Special Register (on QnA CPU)	Batch							
	Random	x	x	x	x	x	○	x
QnA Edge Relay (on QnA CPU)	Batch							
	Random	x	x	x	x	x	○	x
Integrating Timer (Current Value)	Batch							
	Random	x	x	x	x	x	○	x
QnA SEND function (with confirmation of arrival)	Batch							
	Random	x	x	x	x	x	x	x
QnA SEND function (without confirmation of arrival)	Batch							
	Random	x	x	x	x	x	x	x
Direct Link Input	Batch							
	Random	x	x	x	x	x	○*2	x
Direct Link Output	Batch							
	Random	x	x	x	x	x	○*2	x
Direct Link Relay	Batch							
	Random	x	x	x	x	x	○*2	x

\*2 Access is not allowed unless there's a network module available.

Device		Destination						
		A1N	A0J2H A1S(-S1) A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A1FX	A2A(-S1) A2AS(-S1) A2AS-S30 A2AS-S60 A2AS-M128 A2U(-S1)	A2SH(-S1) A3N A3A A3U	A4U	Q2A(-S1) Q3A Q4A Q4AR Q2AS(-S1) Q2ASH(-S1)	Personal Computer
Direct Link Register	Batch	x	x	x	x	x	○ *2	x
	Random							
Direct Link Special Relay (on Network Unit)	Batch	x	x	x	x	x	○ *2	x
	Random							
Direct Link Special Register (on Network Unit)	Batch	x	x	x	x	x	○ *2	x
	Random							
Special Direct Buffer Register	Batch	x	x	x	x	x	○	x
	Random							
EM (Shared Device)	Batch	x	x	x	x	x	x	x
	Random							
ED (Shared Device)	Batch	x	x	x	x	x	x	x
	Random							

\*2 Access is not allowed unless there's a network module available.

(4) MELSECNET/10 Communication

Device		Destination						
		A1N	A0J2H A1S(-S1) A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A1FX	A2A(-S1) A2AS(-S1) A2AS-S30 A2AS-S60 A2AS-M128 A2U(-S1)	A2SH(-S1) A3N A3A A3U	A4U	Q2A(-S1) Q3A Q4A Q4AR Q2AS(-S1) Q2ASH(-S1)	Personal Computer
X	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	×
Y	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	×
L	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	×
M	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	×
Special M(SM),SB	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	×
F	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	×
T (Contact Point)	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	×	×
T(Coil)	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	×	×
C (Contact Point)	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	×	×
C (Coil)	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	×	×
T (Current Value)	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	×
C (Current Value)	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	×
D	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	×
Special D(SD),SW	Batch	○	○	○	○	○	○	×
	Random	○	○	○	○	○	○	×
T (Main Set Value)	Batch	○	○	○	○	○	×	×
	Random	×	×	×	×	×	×	×
T (Sub Set Value 1)	Batch	×	×	○ *1	○	○	×	×
	Random	×	×	×	×	×	×	×
T (Sub Set Value 2)	Batch	×	×	×	×	○	×	×
	Random	×	×	×	×	×	×	×
T (Sub Set Value 3)	Batch	×	×	×	×	○	×	×
	Random	×	×	×	×	×	×	×
C (Main Set Value)	Batch	○	○	○	○	○	×	×
	Random	×	×	×	×	×	×	×
C (Sub Set Value 1)	Batch	×	×	○ *1	○	○	×	×
	Random	×	×	×	×	×	×	×

\*1 A2A(-S1)CPU is not allowed access.



Device		Destination						
		A1N	A0J2H A1S(-S1) A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A1FX	A2A(-S1) A2AS(-S1) A2AS-S30 A2AS-S60 A2AS-M128 A2U(-S1)	A2SH(-S1) A3N A3A A3U	A4U	Q2A(-S1) Q3A Q4A Q4AR Q2AS(-S1) Q2ASH(-S1)	Personal Computer
C (Sub Set Value 2)	Batch					○		
	Random	x	x	x	x	x	x	x
C (Sub Set Value 3)	Batch					○		
	Random	x	x	x	x	x	x	x
A	Batch	○	○	○	○	○	x	x
	Random							
Z	Batch	○	○	○	○	○	○	x
	Random							
V (Index Register)	Batch	○	○	○	○	○	x	x
	Random							
R (File Register)	Batch	x	○	○	○	○	○	x
	Random							
ER (Extended File Register)	Batch	x	○	○	○	○	○	x
	Random							
B	Batch	○	○	○	○	○	○	x
	Random							
W	Batch	○	○	○	○	○	○	x
	Random							
QnA Link Special Relay (on QnA CPU)	Batch	x	x	x	x	x	○	x
	Random							
Integrating Timer (Contact Point)	Batch	x	x	x	x	x	○	x
	Random						x	
Integrating Timer (Coil)	Batch	x	x	x	x	x	○	x
	Random						x	
QnA Link Special Register (on QnA CPU)	Batch	x	x	x	x	x	○	x
	Random							
QnA Edge Relay (on QnA CPU)	Batch	x	x	x	x	x	○	x
	Random							
Integrating Timer (Current Value)	Batch	x	x	x	x	x	○	x
	Random							
QnA SEND function (with confirmation of arrival)	Batch	x	x	x	x	x	○	x
	Random						x	
QnA SEND function (without confirmation of arrival)	Batch	x	x	x	x	x	○	x
	Random						x	
Direct Link Input	Batch	x	x	x	x	x	○	x
	Random							
Direct Link Output	Batch	x	x	x	x	x	○	x
	Random							
Direct Link Relay	Batch	x	x	x	x	x	○	x
	Random							

Device		Destination						
		A1N	A0J2H A1S(-S1) A1SH A1SJ(H) A2C(J) A2N(-S1) A2S(-S1) A1FX	A2A(-S1) A2AS(-S1) A2AS-S30 A2AS-S60 A2AS-M128 A2U(-S1)	A2SH(-S1) A3N A3A A3U	A4U	Q2A(-S1) Q3A Q4A Q4AR Q2AS(-S1) Q2ASH(-S1)	Personal Computer
Direct Link Register	Batch	x	x	x	x	x	○	x
	Random	x	x	x	x	x	○	x
Direct Link Special Relay (on Network Unit)	Batch	x	x	x	x	x	○	x
	Random	x	x	x	x	x	○	x
Direct Link Special Register (on Network Unit)	Batch	x	x	x	x	x	○	x
	Random	x	x	x	x	x	○	x
Special Direct Buffer Register	Batch	x	x	x	x	x	○	x
	Random	x	x	x	x	x	○	x
EM (Shared Device)	Batch	x	x	x	x	x	x	○
	Random	x	x	x	x	x	x	○
ED (Shared Device)	Batch	x	x	x	x	x	x	○
	Random	x	x	x	x	x	x	○

10 ACCESSIBLE RANGE

This chapter describes the access ranges in various communication.

10.1 Accessible Range

This section describes the range of access that can be accessed with the CSKP-E.

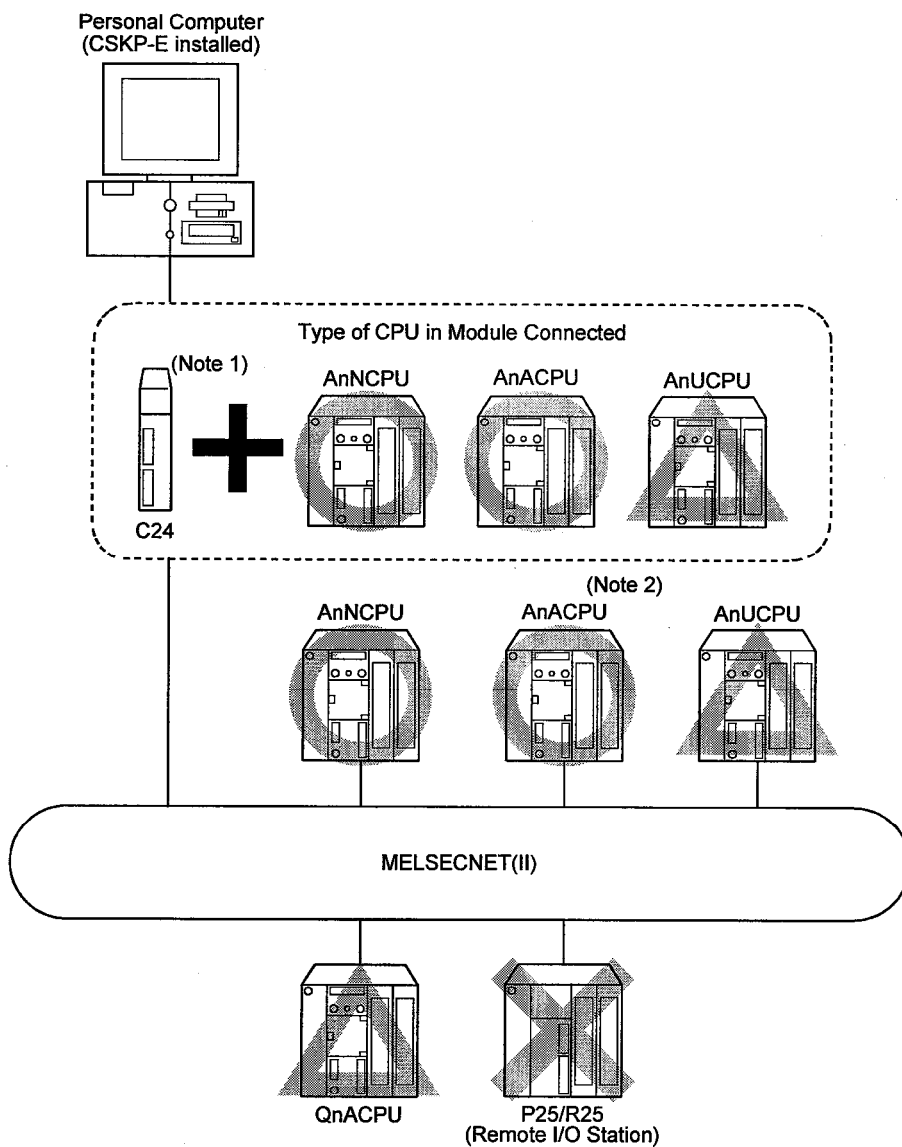
<b>POINT</b>
Other networks cannot be accessed during Computer Link or Ethernet communication.

- .....Accessible
- △.....Accessible as AnCPU
- ×.....Inaccessible

10.1.1 Computer Link Communication

(1) When C24 serves as a module connected

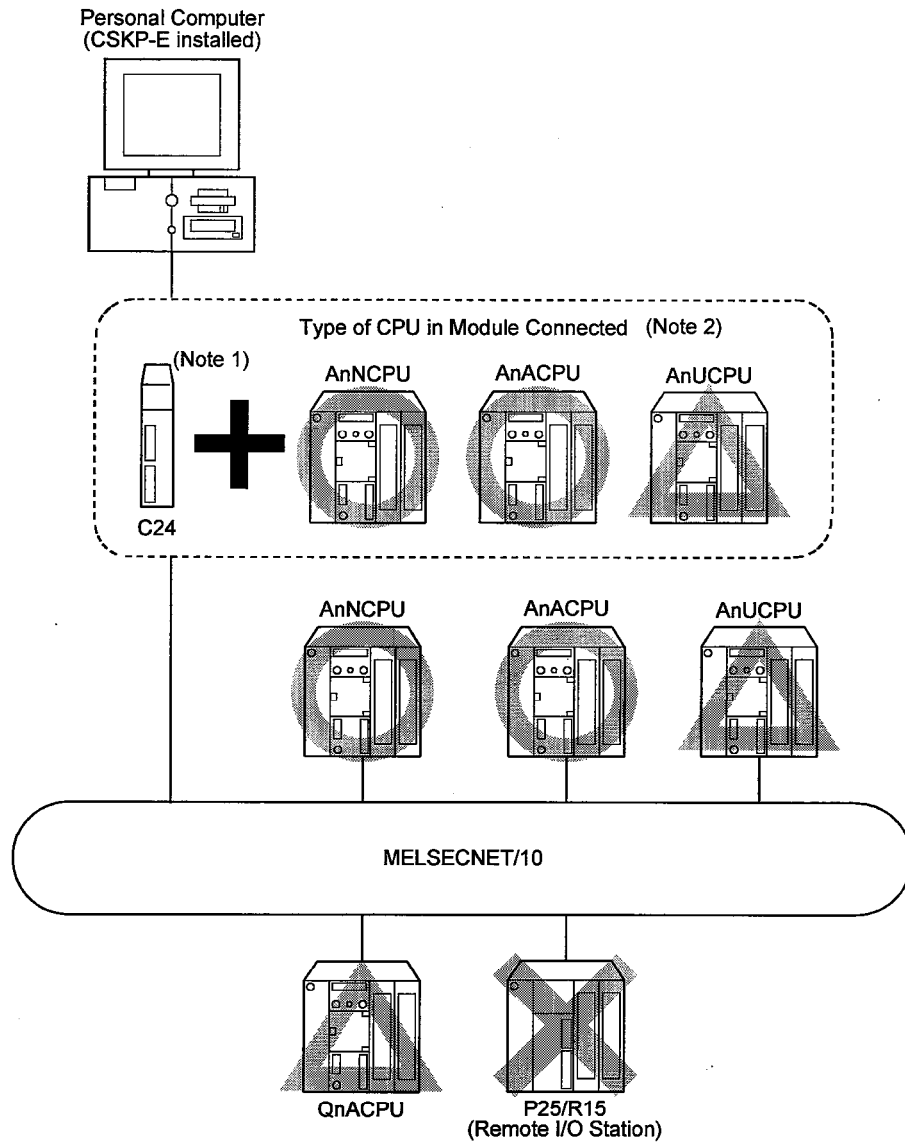
(a) MELSECNET(II)



(Note 1) C24 cannot access the extended R.  
C24-S can access the extended R.

(Note 2) When C24 is one of the following modules  
C24-S6 ..... Can be accessed as AnACPU.  
C24-S8 ..... Can be accessed as AnACPU.

(b) MELSECNET/10

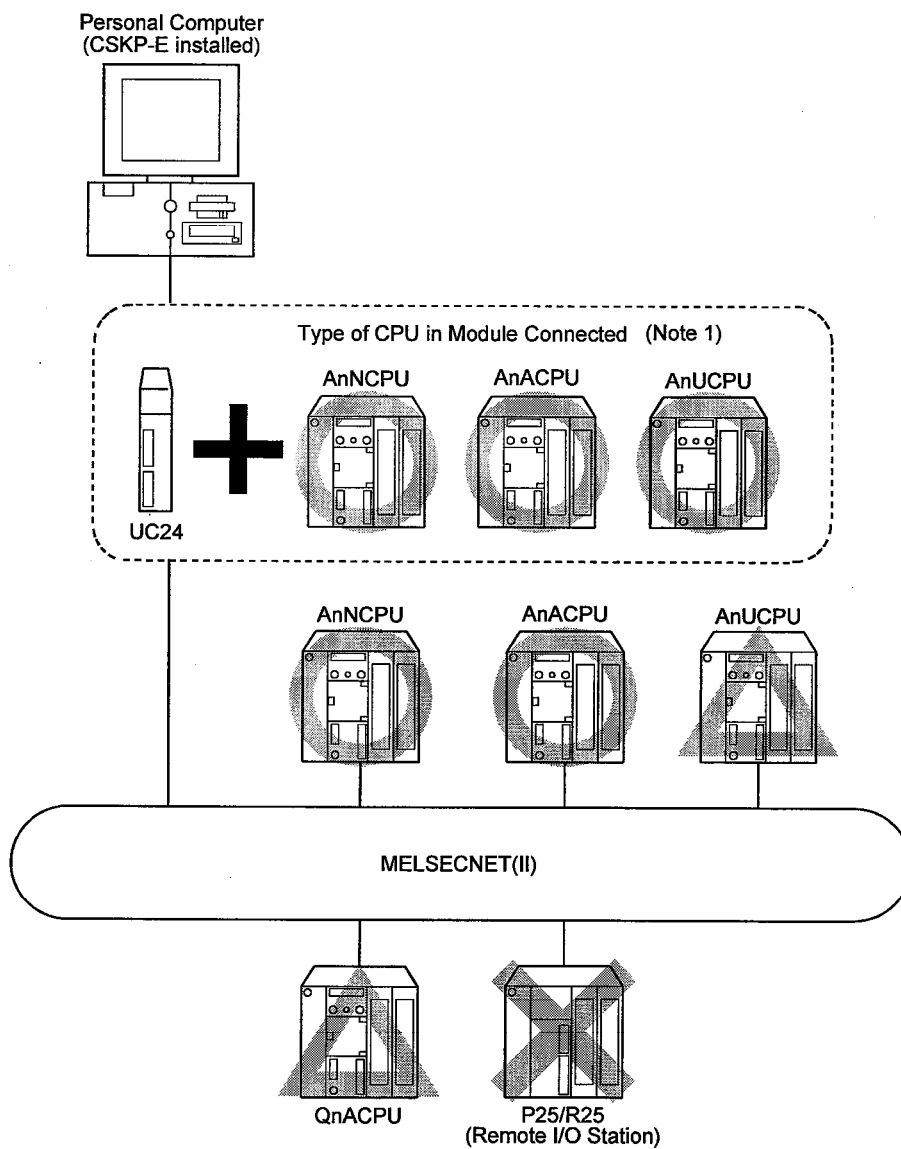


- (Note 1) When C24 is one of the following modules  
 C24-S6 ..... Can be accessed as AnACPU  
 C24-S8 ..... Can be accessed as AnACPU

- (Note 2) When the CPU module connected is that of a normal station, only the management station can be accessed.

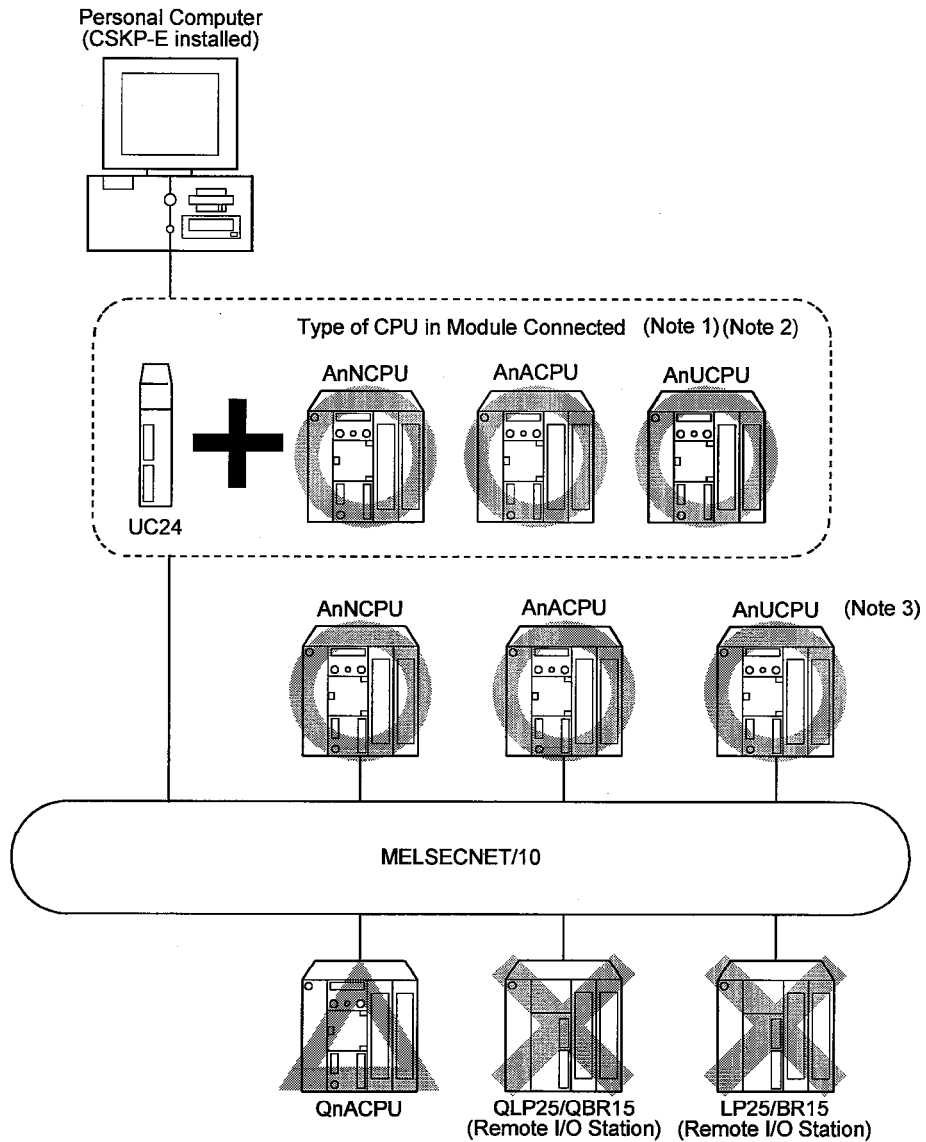
(2) When UC24 serves as a module connected

(a) MELSECNET(II)



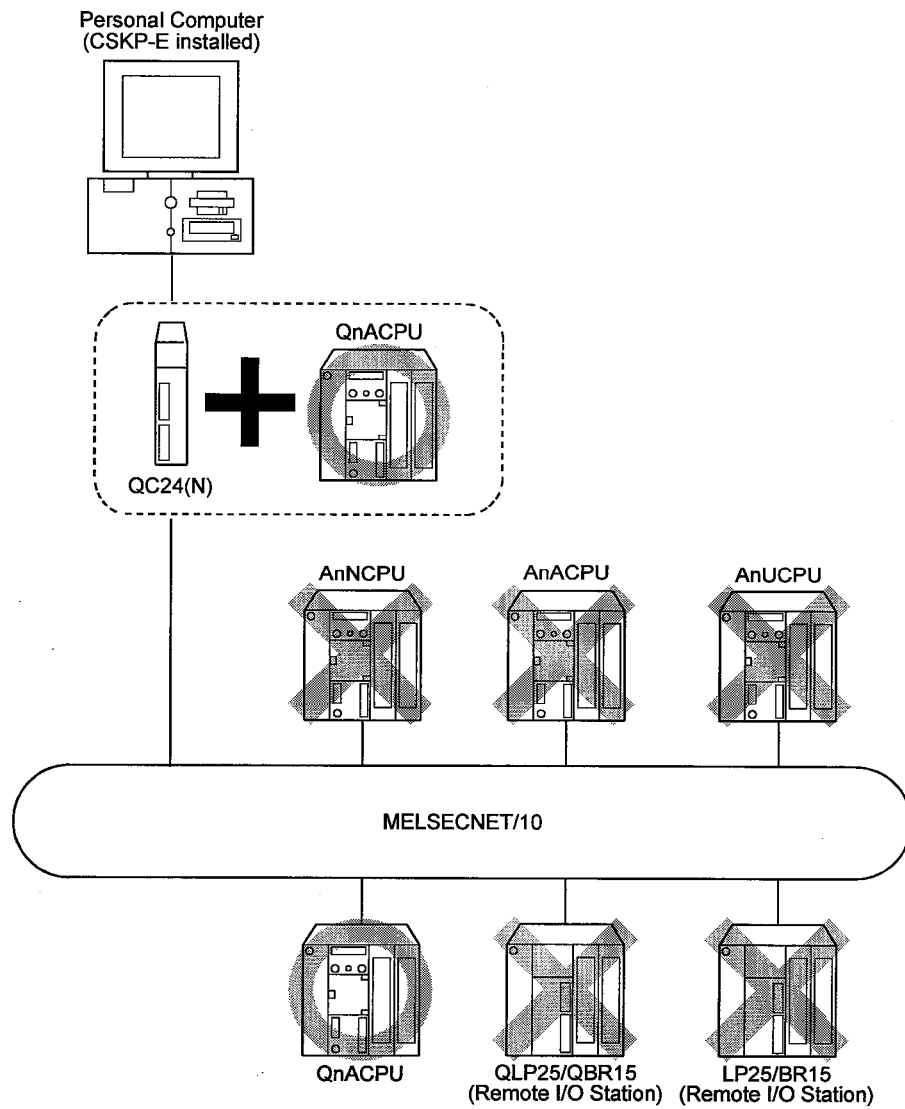
(Note1) Subprograms 2 and 3 cannot be accessed when the destination CPU is AnU-CPU while the CPU connected is not AnUCPU.

(b) MELSECNET/10



- (Note1) When the CPU connected is that of a normal station, the destination CPU can access only the management station.
- (Note2) Subprograms 2 and 3 cannot be accessed when the destination CPU is AnU-CPU while the CPU connected is not AnUCPU.
- (Note3) When the CPU connected is either AnN or AnA, it can be accessed as AnA.

(3) When QC24(N) serves as a module connected



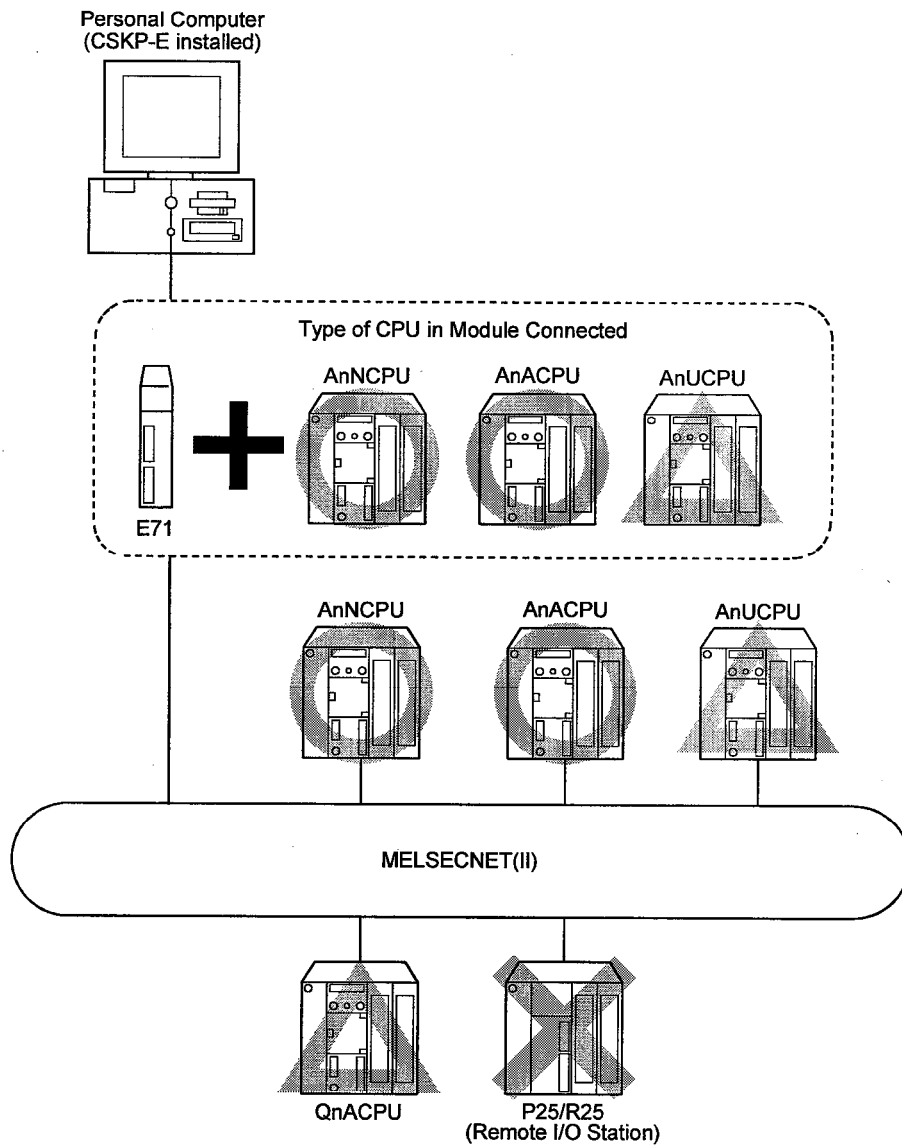
<b>POINT</b>
Access to CPUs and remote I/O stations on MELSECNET (II) is not allowed.



10.1.2 Ethernet Communication

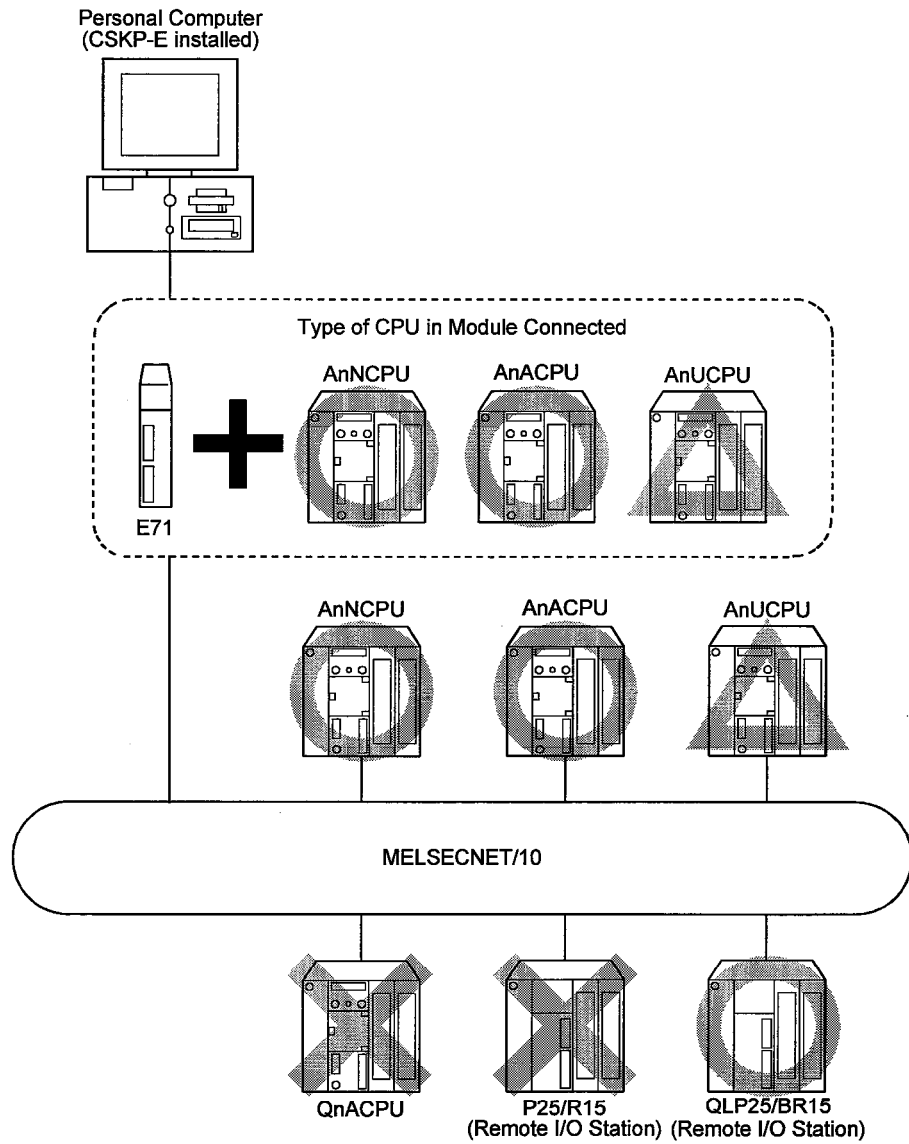
(1) When E71 serves as a module connected

(a) MELSECNET(II)



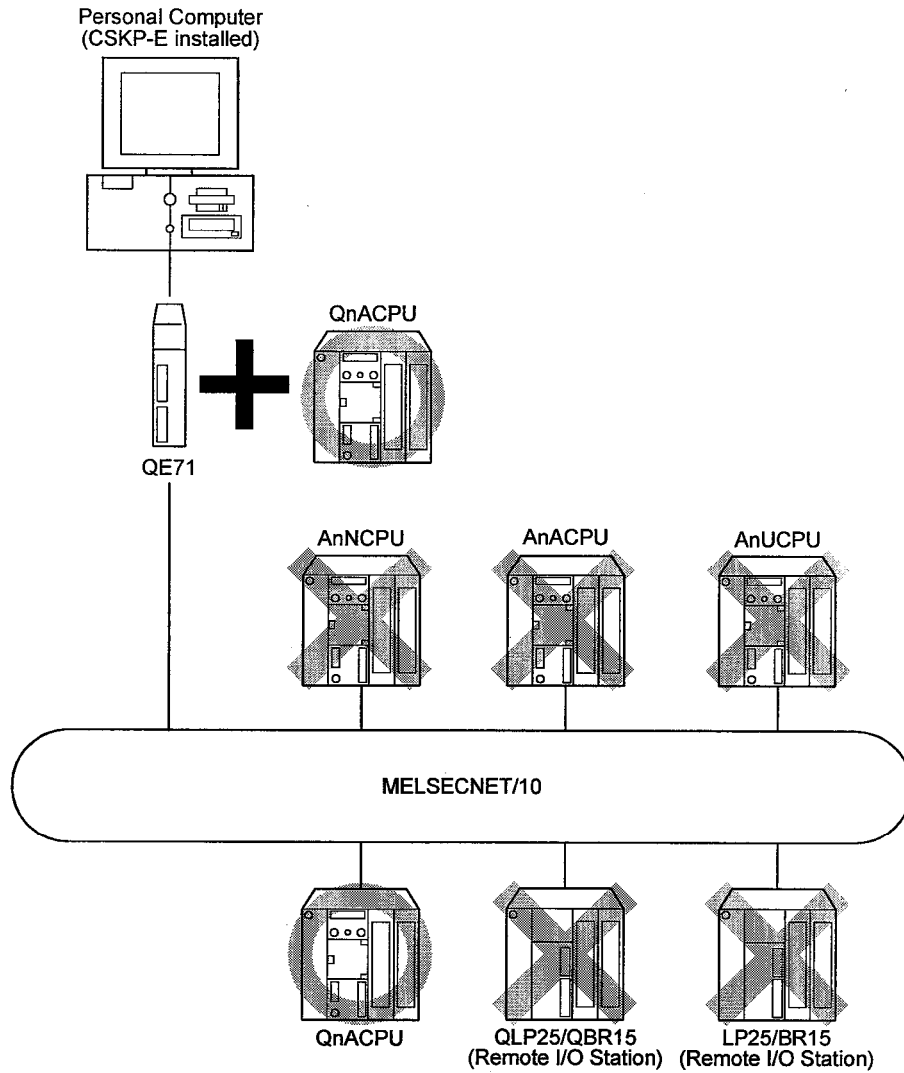
**POINT**  
 Only the same segment can be accessed during Ethernet communication.

(b) MELSECNET/10



**POINT**  
 Only the same segment can be accessed during Ethernet communication.

(2) When QE71 serves as a module connected



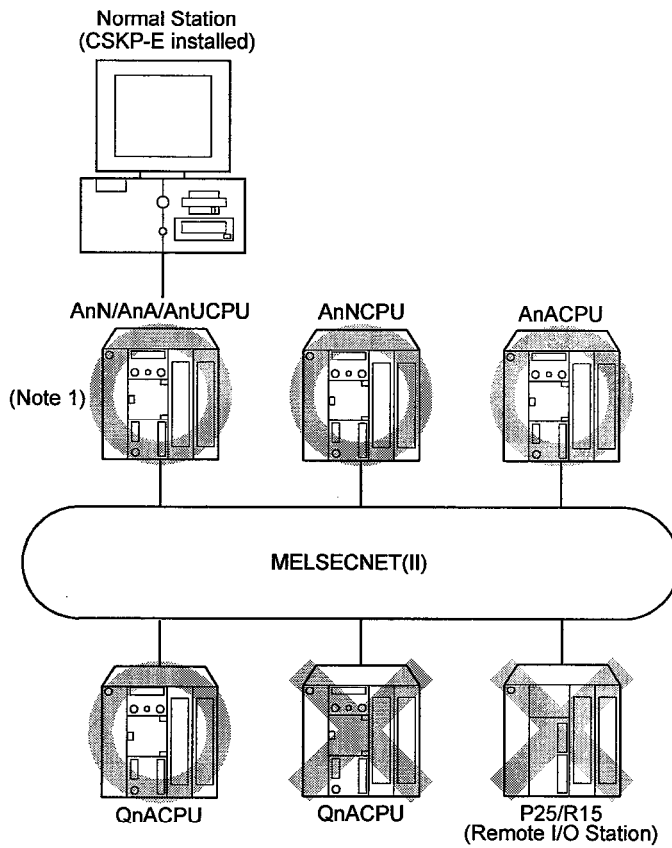
**POINTS**

- The CPUs and remote I/O stations on MELSECNET (II) cannot be accessed.
- Only the same segment can be accessed during Ethernet communication.

10.1.3 RS-422 Communication

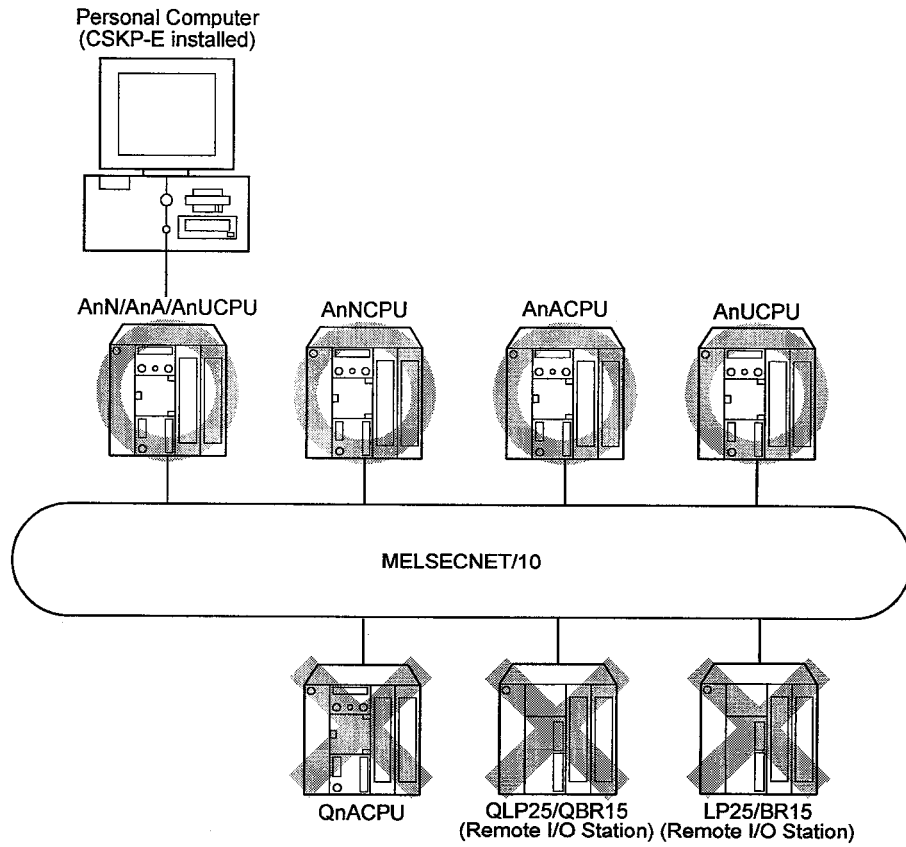
(1) When AnN, AnA, or AnU serves as a CPU connected

(a) MELSECNET(II)



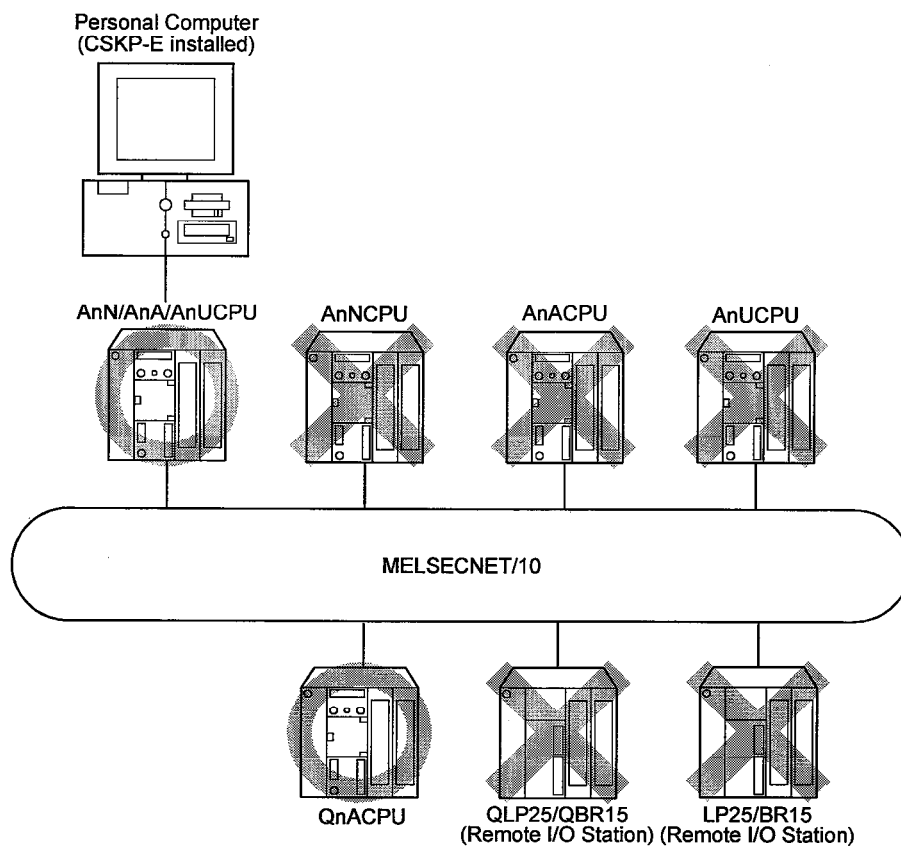
(Note 1) The destination CPU can be accessed as AnACPU when the CPU connected is AnN, AnH or AnACPU while the destination CPU is AnCPU.

(b) MELSECNET/10



(Note 1) The destination CPU can be accessed as AnACPU when the CPU connected is AnN, AnH or AnACPU while the destination CPU is AnCPU.

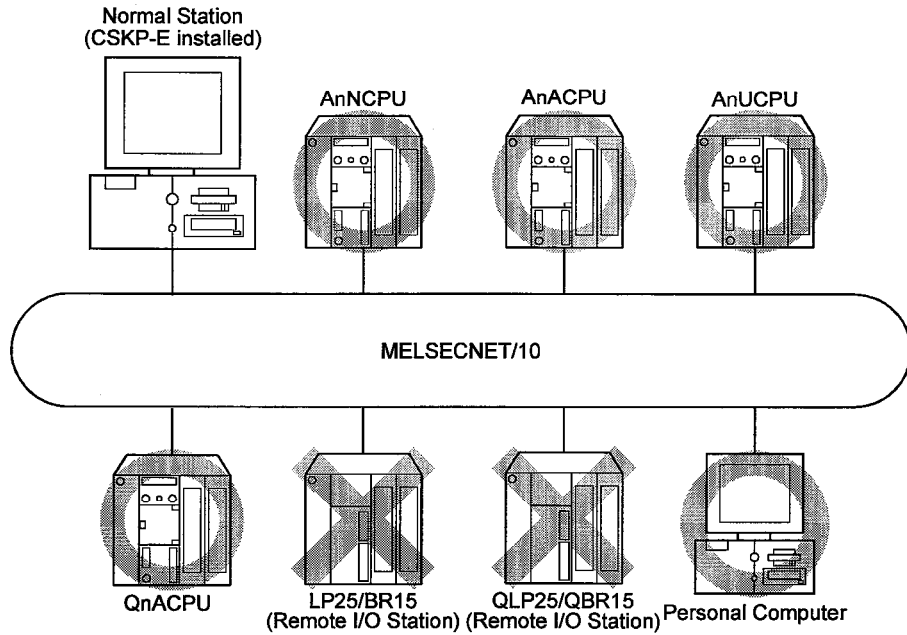
(2) When QnA serves as a CPU connected



<b>POINT</b>
CPU and remote I/O stations on MELSECNET(II) cannot be accessed.

10.1.4 MELSECNET/10 Communication

The normal and management stations can be accessed.



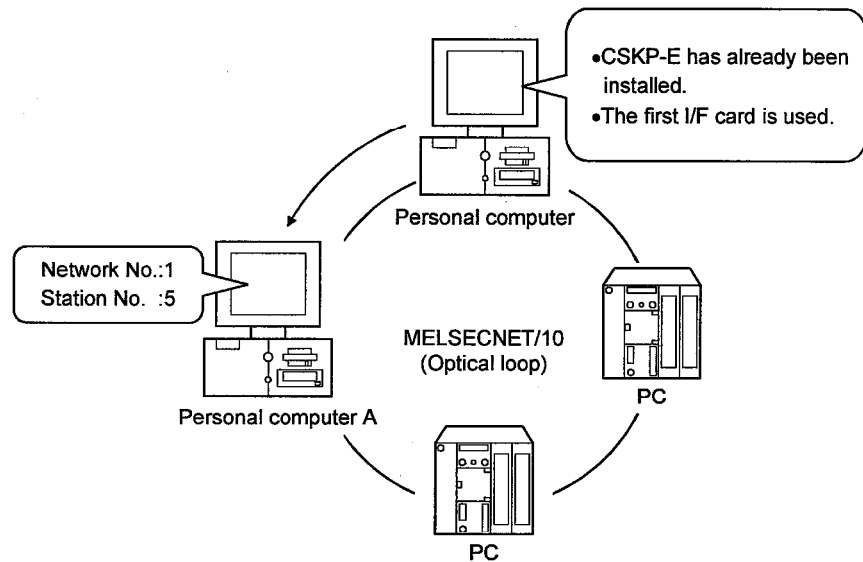
**POINT**  
 For details of access range, refer to the MELSECNET/10 Network System Reference Manual (Network between PCs).

11 USING SHARED DEVICES

This chapter uses an example to show how to use shared devices.

(Example) Monitoring the ED 5 (0) of personal computer "A" connected to MELSECNET/10

Number of blocks to be set : 10 blocks  
 Channel used : MELSECNET/10 (1ST card)



<b>POINT</b>
The shared device can be set only when using Windows NT 4.0. It cannot be set under Windows 95 and Windows 98.



**(1) Setting the Network Modules**

Consult the MELSECNET/10 Network System Reference Manual to make settings.

**(2) Setting MELSECNET/10 Card**

Consult the MELSECNET/10 Interface Card User's Manual to make settings.

**(3) Starting MELSECNET/10 Utility to make communication settings**

See Chapter 6 to start the MELSECNET/10 Utility and set the parameters.

**(4) Starting the Shared Device Utility**

See Section 14.1 to start the Shared Device Utility.

**(5) Setting the system area and the number of blocks to be used**

Click the **Setting** button after entering the value "10" as the number of blocks.

Enter 10 as the number of blocks.



**(6) Restart Windows to make these settings take effect.**

**(7) Collecting Device Information**

To collect device information, use the MELSEC Data Link Library or Device Monitor Utility.

**POINT**  
 When a channel is used to access the EM or ED device at another station, it must be on the card connected to the station.

**12 REFRESHING DEVICES**

This chapter describes how to refresh the devices using the Shared Device Server Process and Shared Device Server Utility.

**12.1 Familiarizing Yourself with the Shared Device Server Process**

The Shared Server Device Process refreshes the device designated according to the information set with the Shared Device Server Utility. This process must be made active before refresh range start or termination can be performed on the **Status Monitor** screen.

**12.1.1 Starting and Terminating the Shared Device Server Process****(1) Start method**

Click [Start]-[Programs]-[MELSEC APPLICATION]-[COMMUNICATION SUPPORT(CSKP-E)]-[EM ED]-[EM ED Server Process] in order.

**(2) Termination method**

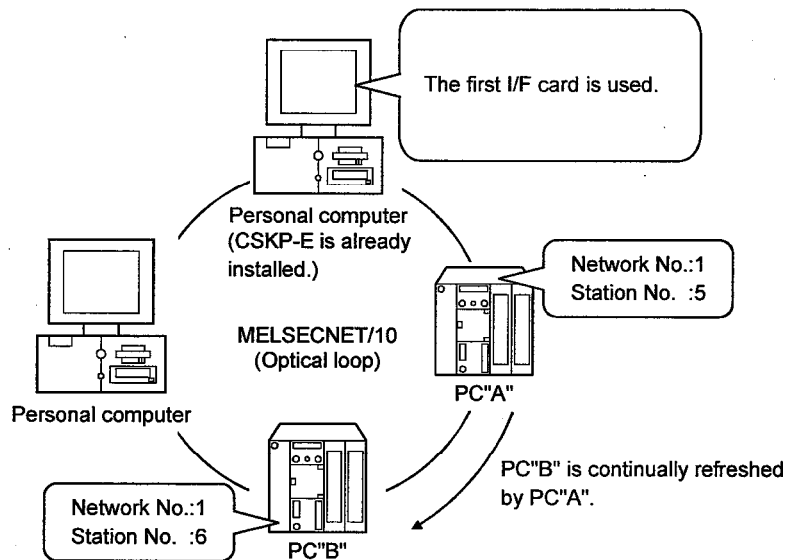
Terminate the process forcibly to quit the Shared Device Server process.

12.2 Refreshing Devices

This section describes the procedure for refreshing devices, using the example below. For details, see Chapter 15 of this manual. (Descriptions in this chapter assume that CSKP-E has already been installed.)

(Example) The device information of the PC "A" connected to MELSECNET/10 is continually refreshed onto the device of the PC "B."

Channel to be used : MELSECNET/10 (1 slot)  
 Device to be refreshed : X0 to X7 (PC A) -> M8 to M15 (PC B)  
 Number of bytes to be refreshed : 8 bytes



**POINT**

The device can be refreshed only using Windows NT 4.0.  
 It cannot be used under Windows 95 and Windows 98.

**(1) Starting the shared device server process**

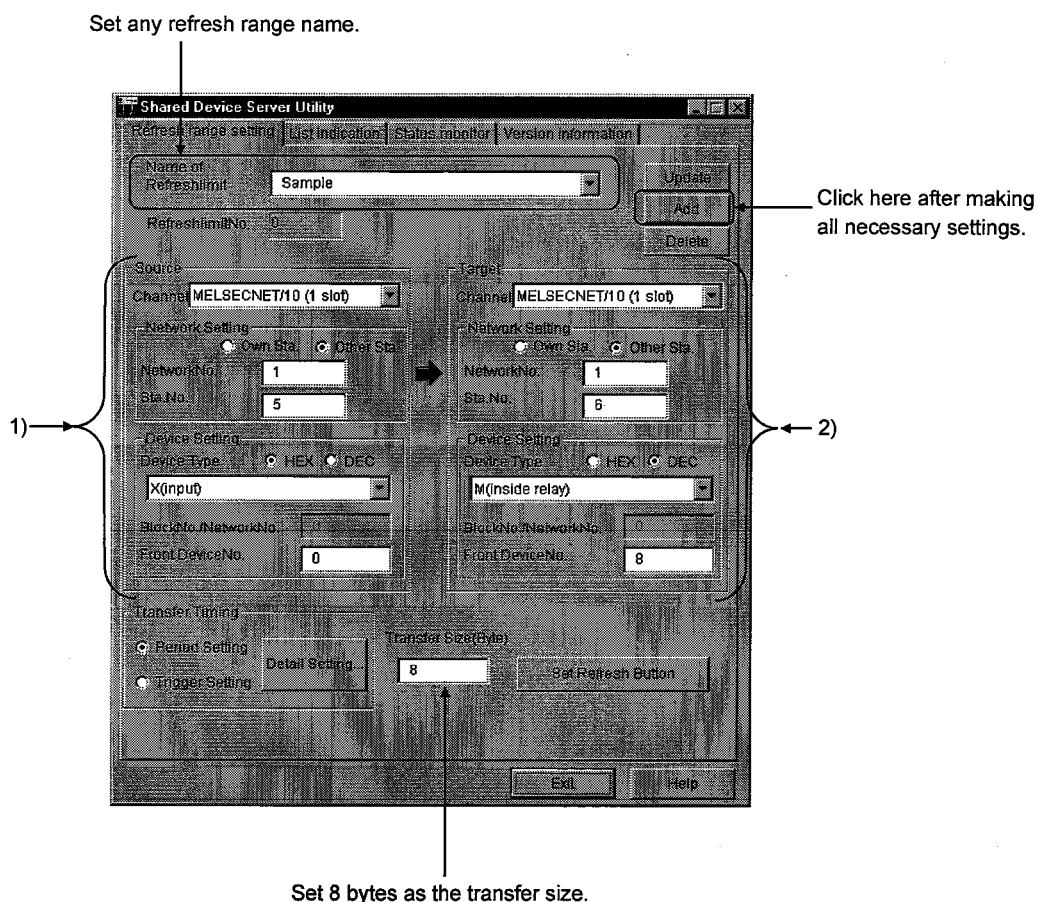
See Subsection 12.1.1 to start the shared device server process.

**(2) Starting the shared device server utility**

See Section 15.1 to start the Shared Device Server Utility.

**(3) Setting a refresh range on the Refresh range setting screen**

Make settings as shown below. For details, see Chapter 15. (Refreshing is carried out left to right.)



**1) Setting a source**

Set the channel, network, and device type of a source as follows:

- Channel : MELSECNET/10
- Network Setting : Other Sta., Network No.1, Sta. No. 5
- Device Setting : X, Front Device No. 0

**2) Setting a target**

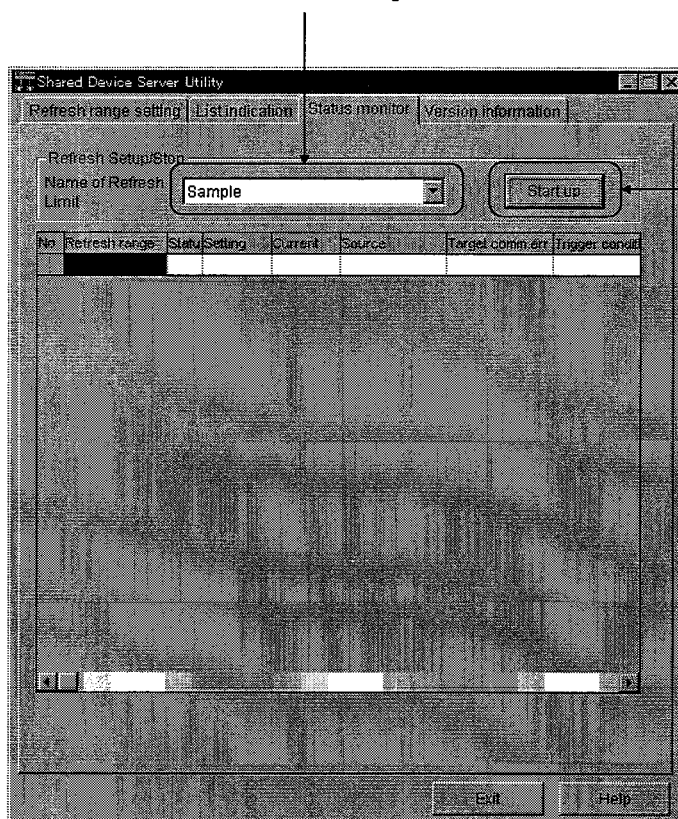
Set the channel, network, and device type of a target as follows:

- Channel : MELSECNET/10
- Network Setting : Other Sta., Network No.1, Sta. No. 6
- Device Setting : M, Front Device No. 8

**(3) Displaying the status monitor screen and refreshing a device on that screen**

Refresh the device by entering a refresh range (“Sample” in this example) in the refresh range name field, then clicking the Setup button. The Shared Device Server Utility may be terminated.

Set the created refresh range name.



Click here after setting the created refresh range name.

13 SHARED DEVICES

This chapter describes the shared devices (EM, ED) available when the CSKP-E is installed.

13.1 Specifications

The following table lists the specifications of the shared devices (EM, ED).

EM (Bit Device)		ED (Word Device)	
Number of Blocks (0 to 255)	Device Range (0 to 8191)	Number of Blocks (0 to 255)	Device Range (0 to 8191)
EM0 *1	EM0(0) to EM0(8191)	ED0 *1	ED0(0) to ED0(8191)
EM1	EM1(0) to EM1(8191)	ED1	ED1(0) to ED1(8191)
EM2	EM2(0) to EM2(8191)	ED2	ED2(0) to ED2(8191)
.	.	.	.
.	.	.	.
.	.	.	.
EM255	EM255(0) to EM255(8191)	ED255	ED255(0) to ED255(8191)

\*1 System Information Area

POINTS
<ul style="list-style-type: none"> <li>· The shared devices can be used only when the operating system (OS) is Windows NT 4.0. They cannot be used under Windows 95 and Windows 98.</li> <li>· The number of blocks to be used differs depending on how the Shared Device Utility is set.</li> <li>· The shared devices exist only in the personal computers rather than PC.</li> </ul>

13.2 System Area Information

The system area information is stored in the block No. 0 of the shared devices (EM, ED).

	ED0	EM0
0 to 99	Personal computer system information (Subsection 13.2.1)	Reserved
100 to 199	Information on machine basic configuration (Subsection 13.2.2)	
200 to 399	Information on optional card (Subsection 13.2.3)	
400 to 599	Drive information (Subsection 13.2.4)	
600 to 999	Printer information (Subsection 13.2.5)	
1000 to 8191	Reserved	

**POINT** System area information is all read-only information. No data can be written to this system area.

### 13.2.1 Personal Computer System Information

The following table lists the personal computer system information that is stored in up to the ED block 0.

Device number	Name	Explanation
0 to 1	Shared device identifier	EMED is stored as a 4-character shared device identifier.
2	Number of shared device blocks	The number of blocks of a shared device (EM or ED) is stored.
3 to 4	Shared device driver version	The driver version ( 00A, 10B, or 20C) of a shared device is stored in 3 letters.
5 to 99	Reserved	Unused areas

### 13.2.2 Machine Basic Configuration Information

The following table lists the machine basic configuration information that is stored in up to the ED block 0 (device No. 100 to device No. 199).

Device number	Name	Explanation
100 to 101	CPU type	Information about the processor mounted on a personal computer is stored in numerals as follows: 386: i386CPU, 486: i486CPU, 586: Pentium CPU
102 to 103	Main memory size	The overall physical size of main memory is stored in four bytes as shown below. Device No.102 : Lower 2 bytes of overall physical size (Data : 0 to 0xFFFF) Device No.103 : Upper 2 bytes of overall physical size (Data : 0 to 0xFFFF)
104 to 199	Reserved	Unused areas



13.2.3 Optional Card Information

The following table lists the optional card information that is stored in up to the ED block 0 (device No. 200 to device No. 199).

Device Number	Name	Explanation
200	Number of optional cards	The total number of optional cards installed in a personal computer is stored. A value from 0 to 8 is stored.
201 to 336	Information on Optional Cards	<p>Information for up to 8 optional cards (installed on the personal computer) is stored in the following format..</p> <p><b>Information on the first card</b></p> <p>Device No. 201 : Upper two digits of head address in shared memory address which is occupied by I/F card</p> <p>Device No. 202 : Switch number for I/F card interrupt signal setting switch</p> <p>Device No. 203 : 100H/300H</p> <p>Device No. 204 to 211 : Card name (16 characters)                      "MELSECNET"                      "MELSECNET10"</p> <p>Device No. 212 : Hardware version (ROM version, two characters)                      A, B etc.</p> <p>Device No. 213 to 214 : Software version (driver version, three characters)                      00A, 0B, etc.</p> <p>Device No. 215 : LED status *1 }                      Device No. 216 : LED status *2 } (See subsequent pages)                      Device No. 217 : LED status *3 }</p> <p style="text-align: center;"><b>to</b></p> <p><b>Information on 8th card.</b></p> <p>Device No. 320 : BD No.</p> <p>Device No. 321 : IT No.</p> <p>Device No. 322 : 100H/300H</p> <p>Device No. 323 to 330 : Machine model code</p> <p>Device No. 331 : Hardware version</p> <p>Device No. 332 to 333 : Software version</p> <p>Device No. 334 : LED status *1 }                      Device No. 335 : LED status *2 } (See subsequent pages)                      Device No. 336 : LED status *3 }</p>
337 to 399	Reserved	Unused areas

\*1 The following table lists the details of data with LED being lit. (0: Abnormal 1: Normal)

Bit	MELSECNET/10 Card	Bit	MELSECNET/10 Card
0	UNDER RUN Forward loop	8	UNDER RUN Reverse loop
1	DATA Forward loop	9	DATA Reverse loop
2	TIME Forward loop	10	TIME Reverse loop
3	ABORT.IN-ER Forward loop	11	ABORT.IN-ER Reverse loop
4	OVER RUN Forward loop	12	OVER RUN Reverse loop
5	CRC Forward loop	13	CRC Reverse loop
6	PRM error	14	F.LOOP
7	M/S error	15	R.LOOP

\*2 The following table lists the details of data when LED is lit. (0: Abnormal 1: Normal)

Bit	MELSECNET/10 Card	Bit	Explanation
0	T.PASS	8	Detecting disconnection of forward loop
1	D.LINK	9	Detecting forced error on forward loop
2	S.MNG	10	Alarm signal for forward loop luminous energy
3	MNG	11	Always 1
4	SW error	12	Detecting disconnection of reverse loop
5	DUAL	13	Detecting forced error on reverse loop
6	REMORT	14	Alarm signal for reverse loop luminous energy
7	PC	15	Always 1

\*3 The table below lists details of data with LED being lit. (0: Abnormal 1: Normal)

Bit	MELSECNET/10 Card	Bit	Explanations
0	Card RUN (0: Stop 1: RUN)	8	Unused
1	Unused	9	Unused
2	Unused	10	Unused
3	Unused	11	Unused
4	Unused	12	Unused
5	Unused	13	Unused
6	Unused	14	Unused
7	Unused	15	Unused

13.2.4 Drive Information

The following table lists the drive information that is stored in up to the ED block 0 (device No. 400 to device No. 599).

Device No.	Name	Explanations
400	Number of Drives	The total number of drives existing in a personal computer is stored.
401 to 530	Drive Information	<p>Each type of drive, total disc capacity, and free disk capacity existing in a personal computer are stored in the following format:</p> <p><b>A Drive Information</b>                      Device No. 401 :Type of drive                                        2...Changeable drive                                        3...Fixed drive                                        4...Network drive                                        5...CD-ROM drive</p> <p>Data listed below are stored in No. 402 to 405 only when a fixed drive is used                      Device No. 402 :Lower two bytes of total disk capacity                      Device No. 403 :Upper two bytes of total disk capacity                      Device No. 404 :Lower two bytes of vacant disk capacity                      Device No. 405 :Upper two bytes of vacant disk capacity</p> <p style="text-align: center;"><b>to</b></p> <p><b>Z Drive Information</b>                      Device No. 401 :Type of drive                                        2...Changeable drive                                        3...Fixed drive                                        4...Network drive                                        5...CD-ROM drive</p> <p>Data listed below is stored in No. 527 to 530 only when a fixed drive is used                      Device No. 527 :Lower two bytes of total disk capacity                      Device No. 528 :Upper two bytes of total disk capacity                      Device No. 529 :Lower two bytes of vacant disk capacity                      Device No. 530 :Upper two bytes of vacant disk capacity</p>
531 to 599	Reserved	Unused areas

## 13.2.5 Printer Information

The following table lists the printer information that is stored in up to the ED block 0 (device No. 600 to device No. 999).

Device No.	Name	Explanation
600	Number of Printers Connected	The total number of printers specified in the printer port of a personal computer is stored. (Network printers not included)
601 to 984	Information on Printers Connected	Information on a printer connected to the printer port of a personal computer is stored in the following format.  <b>LPT1 : Information</b> Device No. 601 to 664 : Printer name (128 characters) Device No. 665 to 728 : Driver name (128 names)  <b>LPT2 : Information</b> Device No. 729 to 792 : Printer name (128 characters)) Device No. 793 to 856 : Driver name (128 names)  <b>LPT3 : Information</b> Device No. 857 to 920 : Printer name (128 characters) Device No. 921 to 984 : Driver name (128 names)
985 to 999	Reserved	Unused areas

## 14 SHARED DEVICE UTILITY

This chapter describes how to set up and use the Shared Device Utility.

### POINT

The Shared Device Utility can handle shared devices when the operating system (OS) is Windows NT 4.0.  
It cannot handle shared devices when the operating system is Windows 95 or Windows 98.

### 14.1 Start Method

Click [Start]-[Programs]-[MELSEC APPLICATION]-[COMMUNICATION SUPPORT(C-SKP-E)]-[EM ED]-[EM ED Utility] in order.

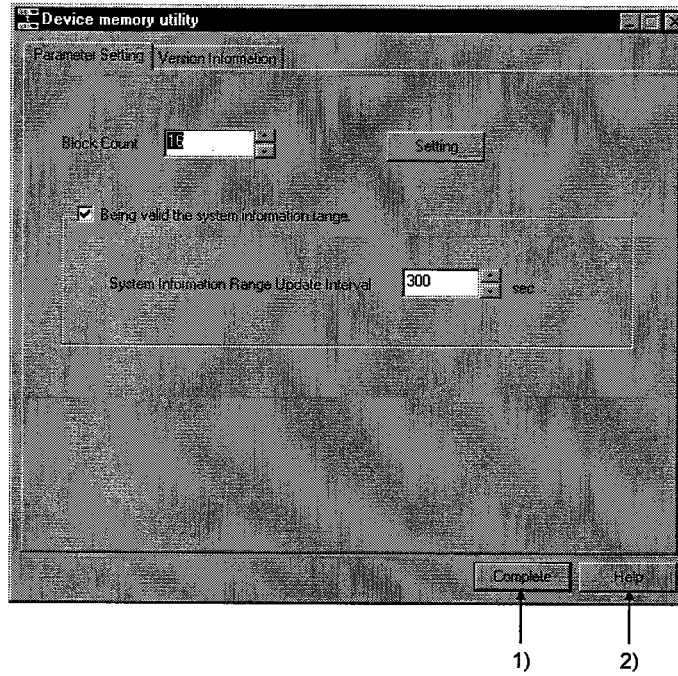
### 14.2 Function

The following table lists the functions of the Shared Device Utility.

Function	Explanation	Reference Section
Parameter Setting	Specifies the total number of shared devices to be used or the validity of system information areas.	Section 14.4
Version	Displays the versions of CSKP-E and Shared Device Utility.	Section 14.5

## 14.3 Buttons

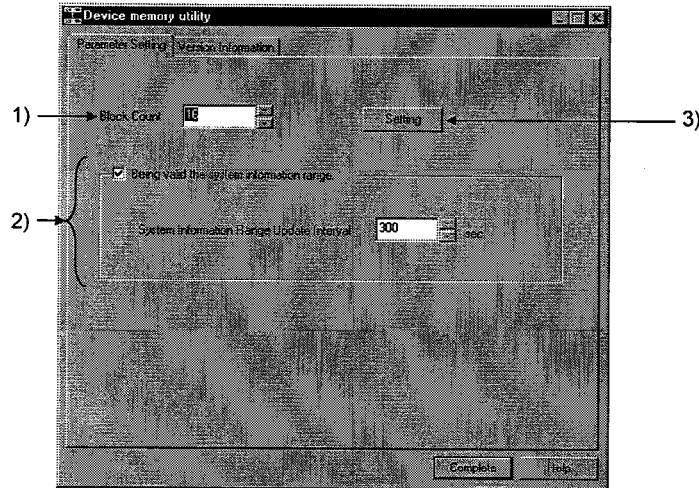
This section gives a brief description of buttons on the screen.



- 1) **Complete button**  
Terminates the Shared Device Utility.
- 2) **Help button**  
Displays the Help menu of the Shared Device Utility.

14.4 Parameter Setting

This screen allows you to specify the total number of shared devices and the validity of system information areas.



1) **Block Count**

Displays and sets the current total number of shared device blocks. (Values from 0 to 256 can be set.)

2) **System Information Area**

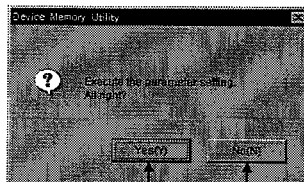
Determines whether to use the area of ED block number 0 of a shared device as a system information area.

**Checked** ..... The area of ED block number 0 of a shared device is used as a system information area. Set a system information update interval because the system information range update interval will be effective. (Settings can be within a range of 60 to 32767 seconds.)

**Not checked** ... The area of ED block number 0 of a shared device is used as a user area rather than the system information area.

3) **Setting button**

Specifies whether to make the current settings effective on the dialogue box displayed by clicking this button.

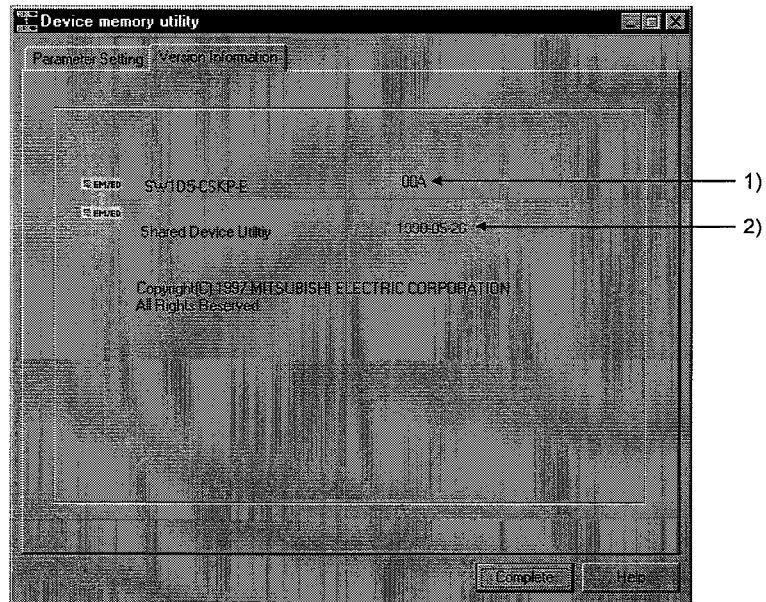


The Parameter Setting screen is redisplayed without parameter setting.  
 The Parameter Setting screen is redisplayed after parameter setting.

**POINT**  
 Parameter settings will be effective after system restart.

## 14.5 Version

This screen indicates the versions of the CSKP-E and Shared Device Utility.

**1) Package Version**

Indicates the version of the CSKP-E.

**2) Utility Version**

Indicates the version of the Shared Device Utility.



## 15 SHARED DEVICE SERVER UTILITY

This chapter describes how to set up and use the Shared Device Server Utility.

<b>POINT</b>
--------------

<p>The Shared Device Server Utility can be used only when the operating system (OS) is Windows NT 4.0.</p>
--

<p>It cannot be used under Windows 95 and Windows 98.</p>
---

### 15.1 Start Method

Click [Start]-[Programs]-[MELSEC APPLICATION]-[COMMUNICATION SUPPORT(C-SKP-E)]-[EM ED]-[EM ED Server Utility] in order.

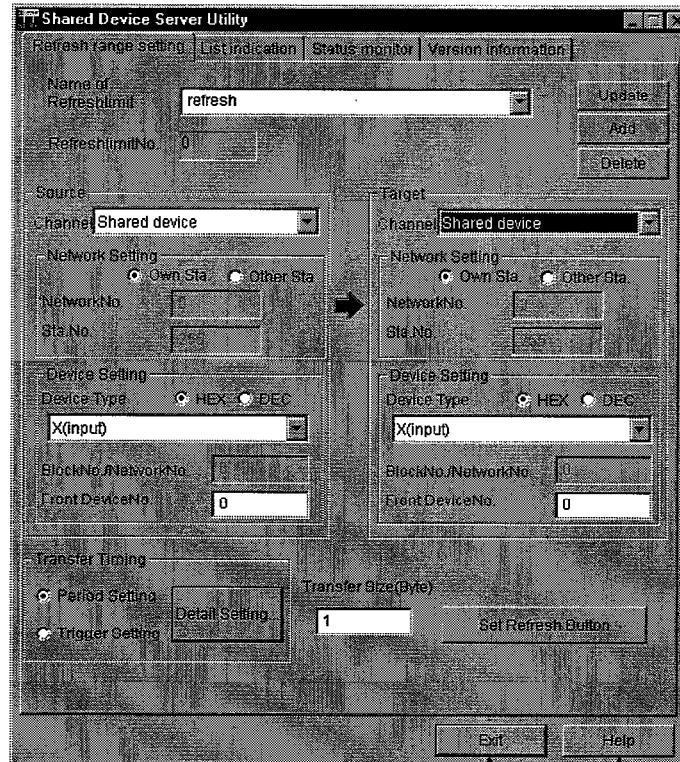
### 15.2 Function

The following table lists the functions of the Shared Device Server Utility.

Function	Explanations	Reference Section
Refresh range Setting	Specifies a device to be refreshed, a timing, and a range for a target or source.	Section 15.4
List indication	Lists the settings made as a refresh range.	Section 15.5
Status monitor	Displays the start/stop status of each refresh range, a period specified, a communication error.	Section 15.6
Version	Displays the versions of the CSKP-E and Shared Device Server Utility.	Section 15.7

15.3 Buttons

This section gives a brief description of buttons on the screen.

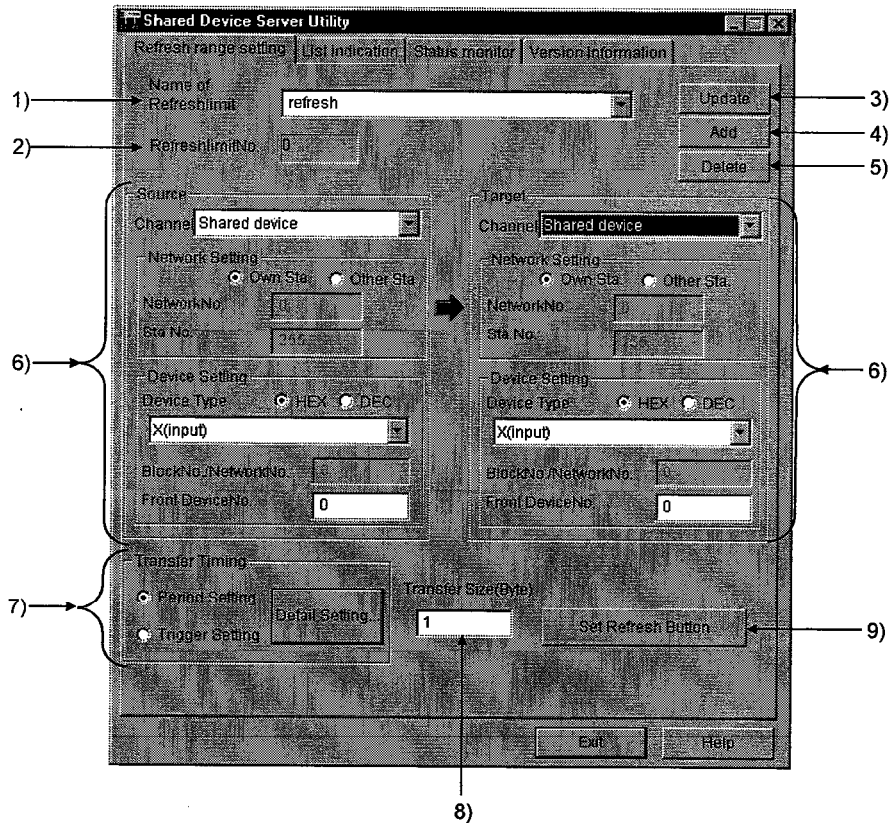


1) 2)

- 1) **Exit button**  
Terminates the Shared Device Server Utility.
- 2) **Help button**  
Displays the Help menu of the Shared Device Server Utility.

## 15.4 Refresh Range Setting

This screen allows you to set the source and target devices for refreshing the size and timing of transfer.



- 1) **Name of Refresh Limit**  
Assigns a name for the current refresh range. (Only half-size alphanumeric characters can be entered.)
- 2) **Refresh Limit No.**  
Unique number to be used for control by the utility. It is transparent to users.
- 3) **Update button**  
Updates the settings made on this screen.
- 4) **Add button**  
Newly adds a refresh range.
- 5) **Delete button**  
Deletes the name of the current refresh range.

6) Source/Target Device Setting

Specifies a source or target device to be refreshed.

Choose a channel to use.

Choose Own Sta. or Other Sta..

Choose a device type.

Enter a Block No. or a Network No..

Set a Network No. and a Sta.No.. (It's available only when Other station is chosen.)

Specify a decimal/hexadecimal numeral for a device.

Enter a head device number for a source or destination device. (Specify with a multiple of 8 if a bit device is chosen.)

7) Transfer Timing

Sets the timing for data transfer. Click the **Detail Setting** button, and the following screen will be displayed.

Click either Period Setting or Trigger Setting.

a) Check "Period Setting", then click the **Detail Setting** button

Set a period for data transfer. (Any Number from 1 to 36000 can be specified.)

b) Check "Trigger Setting", then click the **Detail Setting** button

Indicate a station number. (Fixed to Local station)

Set a block number and a network number that are used when EM or L\* device is specified.

Set a bit device number.

Choose a channel to use.

Set a bit device to be specified as a trigger.

Specify a decimal or hexadecimal numeral for a device number.

Set a period for checking the status of a specified bit device. (Any number from 1 to 36000 can be specified.)

8) **Transfer Size**

Specifies how many bytes of transfer device data (starting from the head device) will be transferred. (Any byte from 1 to 16384 bytes can be set.)

9) **Set Refresh Button** button

Sets a condition to stop a refresh action when the dialogue box below is displayed.

The 'Refresh Setting' dialog box contains the following elements and annotations:

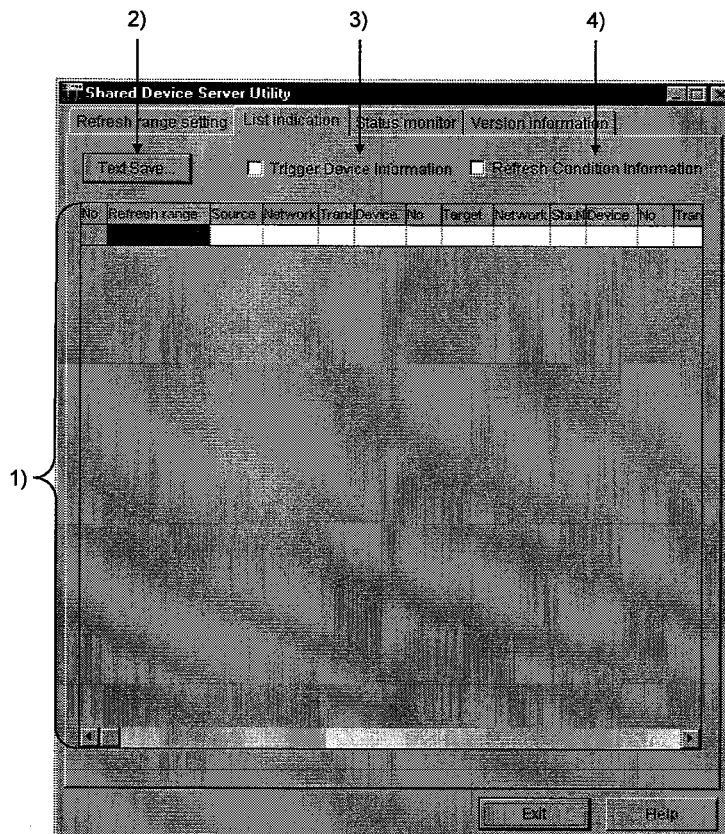
- Unconditional Refresh**: A radio button option.
- Stopping Refreshment under the Condition below**: A radio button option, which is selected.
- Stopping Condition**: A section containing:
  - Channel**: A dropdown menu showing 'MELSECNET1/10 (1 stop)'. Annotation: 'Choose a channel to use.'
  - Sta.No.**: A text box with '0'. Annotation: 'Indicate a station number. (Fixed to Local station)'
  - Device Type**: A dropdown menu showing 'EM(Shared Device)'. Annotation: 'Set a block number and a network number that are used when EM or L\* device is specified.'
  - Block No.**: A text box with '0'. Annotation: 'Enter a bit device number.'
  - Device No.**: A text box with '0'. Annotation: 'Specify a decimal or hexadecimal numeral for a device number.'
  - Bit Position**: A text box with '0'. Annotation: 'Set a bit position for a word device as its specification.'
  - HEX / DEC**: Radio buttons to specify the numeral system.
  - Stopping at setting bit ON**: A radio button option.
  - Stopping at setting bit OFF**: A radio button option.
  - Target Clear at stopping**: A checkbox. Annotation: 'A target device is cleared if clicked when refreshing is stopped.'
- Buttons**: 'OK' and 'Cancel' buttons at the bottom.

Additional annotations for the dialog box:

- 'Specify whether to stop refreshing. (To continue refreshing, do not specify a Stop Condition.)' points to the 'Stopping Condition' section.
- 'Specify the bit status to stop refreshing.' points to the 'Stopping at setting bit ON/OFF' options.

15.5 List Indication

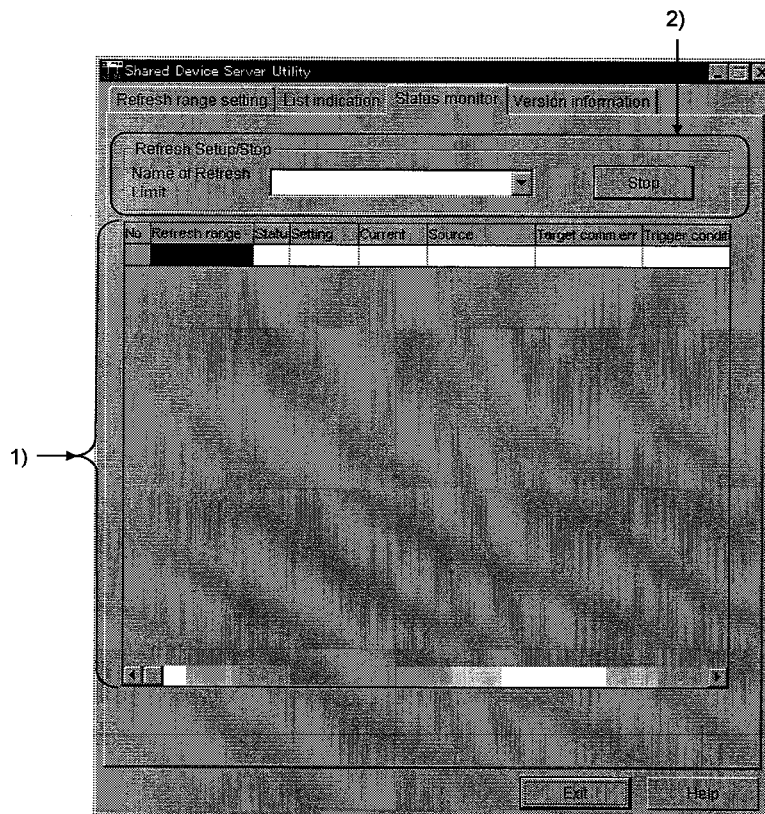
This screen lists the settings made as a refresh range.



- 1) **List of Settings**  
Lists the names of refresh ranges specified so far.
- 2) **Text Save button**  
Saves the listed settings in the file.
- 3) **Trigger Device information**  
Adds the trigger device items to the table by checking here.
- 4) **Refresh Condition Information**  
Sets the refreshing items in the table by clicking here.

15.6 Status Monitor

This screen displays or specifies the start/stop status in each refresh range and also lists the communications errors.



1) List of Refresh Range Status

Lists and displays the status of a refresh range specified.

2) Refresh Setup/Stop

Starts or stops a refresh range specified.

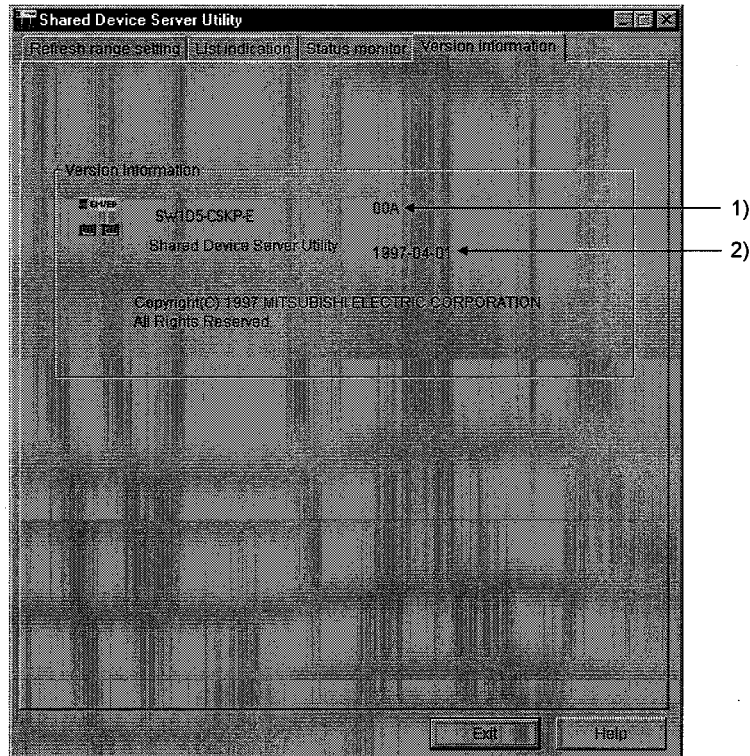


Choose the name of a refresh range in which start or stop is specified.

This button allows you to make start/stop settings for refreshing. When refreshing is being performed, it displays 'Stop'. When refreshing is stopped, it displays 'Run'.

## 15.7 Version

This screen indicates the versions of the CSKP-E and Shared device Server Utility.

**1) Package Version**

Indicates the version of the CSKP-E.

**2) Utility Version**

Indicates the version of the Shared Device Server Utility.



# Type SW1D5F-CSKP-E Basic Communication Support Tool Operating Manual

MODEL	SW1D5F-CSKP-E-O-E
MODEL CODE	1LMS34
IB(NA)66871-A(9809)MEE	

 **MITSUBISHI ELECTRIC CORPORATION**

HEAD OFFICE : MITSUBISHI DENKI BLDG MARUNOUCHI TOKYO 100-8310 TELEX : J24532 CABLE MELCO TOKYO  
NAGOYA WORKS : 1-14, YADA-MINAMI 5, HIGASHI-KU, NAGOYA, JAPAN

When exported from Japan, this manual does not require application to the  
Ministry of International Trade and Industry for service transaction permission.

Specifications subject to change without notice.