

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



Mitsubishi Programmable Controller

SAFTY PRECAUTIONS

(Prior to use, please read these precautions.)

When using the type SW1D5F-CSKP-E Communication Support Package, thoroughly read this manual and the associated manuals referenced within.

Also pay careful attention to safety and handle the product carefully. These precautions apply only to the type SW1D5F-CSKP-E Communication Support Package. For a description of the safety precautions applicable to a general-purpose personal computer used for running the product, refer to the manuals for your computer.

These safety precautions classify the safety precautions into two categories 'DANGER' and 'CAUTION'.



Procedures which may lead to a dangerous condition and cause death or serious injury if not carried out correctly.



Procedures which may lead to a dangerous condition and cause superficial to medium injury, or physical damage only, if not carried out correctly.

Depending on circumstances, procedures indicated by **CAUTION** may also be linked to serious results. In any case, it is important to follows the directions for usage.

Store this manual in a safe place so that you can take it out and read it whenever necessary. Always make it available to the end user.

[DESIGN PRECAUTIONS]

(Î) DANGER

- When connecting the Communication Support Package to a programmable controller (PC) or any other
 control device, install an external safety circuit that keeps the entire system safe even when there are
 problems with the external power supply or the personal computer
- Any write operation that modifies data in the programmable controller will directly affect the mechanical control.
- The machine may move in an unexpected way if you incorrectly specify a device name or a device number.
 - Check the specified device names and numbers before operating your machine.

REVISIONS

* The manual number is given on the bottom left of the back cover.

Print Date	*Manual Number	Revision	
Sep. 1998	IB(NA)66871-A	First edition	

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INTRODUCTION

Thank you for purchasing the type SW1D5F-CSKP-E Communication Support Package.

This Operating Manual describes the method and procedure for operating each utility. Read this manual and understand the package functions thoroughly in advance for correct use. Please make this manual available to the end user.

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About Manuals

The table below list the other manuals provided for the SW1D5F-CSKP-E Communication Support Tool.

Related Manuals

Manual Name	Manual No. (Model Code)
Type SW1D5F-CSKP-E Communication Support Tool Startup Manual	
This manual describes the features, system configuration and installation-	IB-66870
related items of the communication support package.	(1LMS35)
(This manual comes with the software package.)	
Type SW1D5F-CSKP-E Communication Support Tool Programming Manual	
This manual describes each function of the MELSEC Data Link Library attached	IB-66872
to the CSKP-E.	(1LMS36)
(This manual comes with the software package.)	
Error List Manual for General-Purpose Personal Computer Software Package	
This manual explains the error codes that could be returned while using a	IB-66873
utility or function and gives corrective actions.	(1LMS37)
(This manual comes with the software package.)	-

1 GENERAL DESCRIPTION

This manual describes the method and procedure for operating each utility. If using these utilities for the first time, read the Startup Manual that comes with this software package in advance.

1.1 Abbreviations and Terms in This Manual

Unless otherwise stated, this manual uses the following abbreviations and terms to discuss the type SW1D5F-CSKP-E Communication Support Tool.

Abbreviation/Term	Explanation
CSKP-E	Abbreviation for SW1D5F-CSKP-E Communication Support Tool.
Windows NT 4.0	Abbreviation for Microsoft Windows NT Workstation 4.0.
Windows 95	Abbreviation for Microsoft Windows 95.
Windows 98	Abbreviation for Microsoft Windows 98.
Windows	Generic name for Microsoft Windows 95, Windows 98, and Windows NT Workstation 4.0.
Personal computer	Abbreviation for IBM PC/AT compatible models running DOS/V.
PC	Generic term for A/QnA type large-scale and small-scale PCs.
C24	Generic term for A1SCPUC24-R2, A1SJ71C24-PRF, A1SJ71C24-R2, A2CCPUC24, A2CCPUC24-PRF, AJ71C24-S6, and AJ71C24-S8.
UC24	Generic term for AJ71UC24, AJ71UC24-PRF, A1SJ71UC24-R2, and A1SJ71UC24-PRF.
QC24	Generic term for AJ71QC24, AJ71QC24-R2, AJ71QC24-R4, A1SJ71QC24, A1SJ71QC24-R2, AJ71QC24N, AJ71QC24N-R2, AJ71QC24N-R4, A1SJ71QC24N and A1SJ71QC24N-R2.
E71	Generic term for AJ71E71, AJ71E71-S3, A1SJ71E71-B2, A1SJ71E71-B5, AJ71E71-B2-S3 and A1SJ71E71-B5-S3.
QE71	Generic term for AJ71QE71, AJ71QE71-B5, A1SJ71QE71-B2, and A1SJ71QE71-B5.
P25/R15	Generic term for AJ72P25 and AJ72R15.
LP25/BR15	Generic term for AJ72LP25 and AJ72BR15.
QLP25/QBR15	Generic term for AJ72QLP25 and AJ72QBR15.

1.2 Operating Procedures Before Starting Communication

Operating procedures for each communication channel are explained before starting communication.

(1) When MELSEC data link library is used

Operating procedures are explained when MELSEC data link library is to be used.

 Set a parameter and so forth by using the communication channel utility to be used. (See Chapters 3 to 6, and 14)



2) Carryout programming.(See CSKP-E Programming Manual)

POINTS

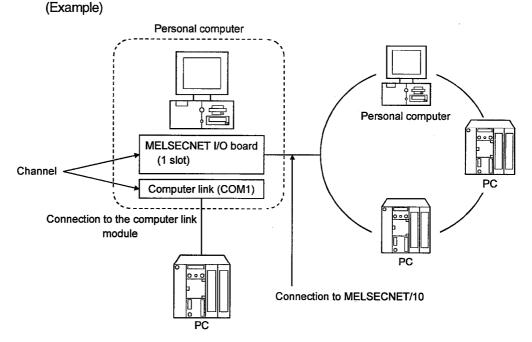
- · After setting a parameter and so forth for each utility, use the device monitor utility to confirm that proper communication is maintained.
- · For a program, refer to the sample program.
- · For the setting instructions, see Chapters 2 and 11.

1.3 Term Definitions

This section describes the meaning of the main terms in this manual.

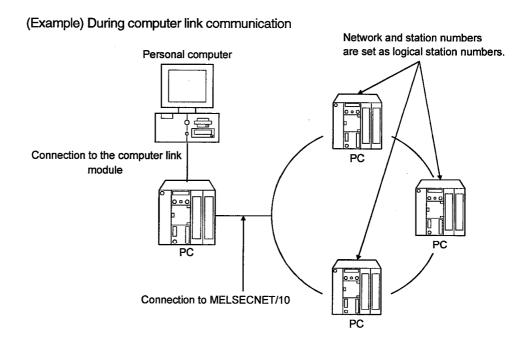
·Channel

Refers to a medium for personal computer communication. This term also indicates a form of connection in personal computer communication.



·Logical station number

Information about destinations in computer link communication or Ethernet communication.



·Shared device

Refers to virtual devices on personal computers. Shared devices are classified as EM (bit device) or ED (word device). However, they can be used only with the Windows NT 4.0 operating system.

EM (Bit device)		ED (Word device)	
No. of blocks	Device range	No. of blocks	Device range
(0 to 255)	(0 to 8191)	(0 to 255)	(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

1.4 List of Utilities

The following tables lists the CSKP-E utilities.

Name	Meaning	Refer to subsection
Computer Link Utility	This utility is used for communication via the computer link module (serial communication).	Chapter 3
Ethernet Utility	This utility is used for communication via Ethernet.	Chapter 4
RS-422 Utility	This utility is used for communication in directly connecting CPU to personal computer.	Chapter 5
MELSECNET/10 Utility	This utility is used for communication via MELSECNET /10.	Chapter 6
Device Monitor Utility	This utility is used to monitor the state of each device via the network.	Chapter 7
Error Viewer	This utility is used to display the log of errors occurred in the past.	Chapter 8
Shared Device Utility	This utility is used to make settings for using the EM or ED device.	Chapter 14
Shared Device Server Utility	This utility is used to refresh devices between the personal computers or between the personal computer and PC.	Chapter 15

MONITORING DEVICES

This chapter describes how to monitor device information with the CSKP-E.

2.1 Monitoring via Computer Link Module (Serial Communication)

This section describes how to monitor device information via the computer link module (serial communication).

(1) Setting the computer link module (serial communication)

Set the computer link module switches as shown below.

```
<QC24(N)>
```

- 1. Mode Setting Switch :5 (Type 5)
- 2. Transmission specifi-

```
cation setting switches: SW1
                                 :OFF
                   SW2
                                 :ON
                   SW3
                                 :ON
                                 :OFF
                   SW4
                   SW5
                                 :OFF
                   SW6
                                 :ON
                   SW7
                                 :ON
                                 :OFF
                   SW8
                   SW9 to SW12 :ON OFF ON OFF or OFF ON ON OFF
```

(ON ON ON OFF *1)

SW13 to SW15:OFF

*Can be set only in case of QC24N

<C24 or UC24>

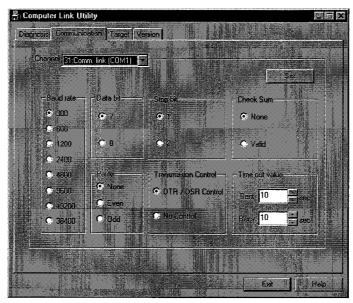
1. Mode Setting Switch : 1(Type 1) Choose one of the switches 1, 5, and A according to the port to be used. There are no additional restrictions.

(2) Starting the Computer Link Utility

See Section 3.1 to start the Computer Link Utility.

(3) Setting a baud rate, data bit, etc.

Set a baud rate, data bit, etc. on the Communication screen.



To use QC24(N), be sure to make settings as follows.

Baud rate : Make sure to set the same baud rate designated with

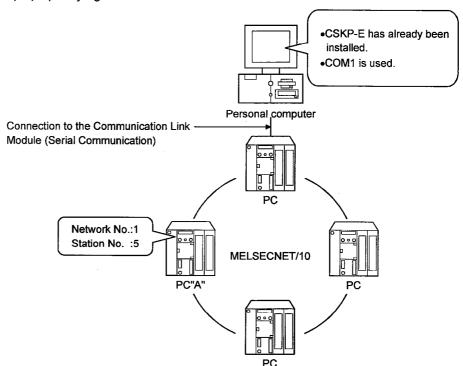
the transmission specification switch.

Data bit : 8-bit
Stop bit : 1-bit
Check Sum : Available
Parity bit : Odd number
Transmission control
Time out value : User preference

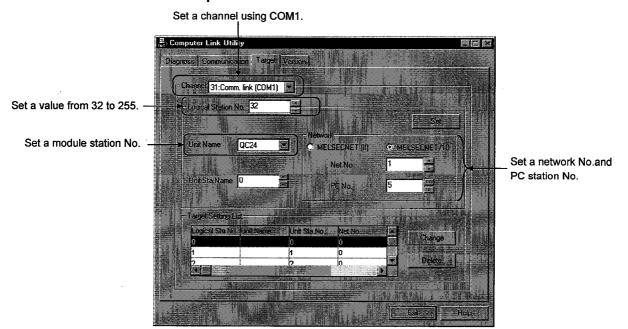
(4) Setting a channel and a logical station number

Set a transfer rate, data bit, etc. on the Communication screen.

(Example) Specifying the PC "A" connected to MELSECNET/10

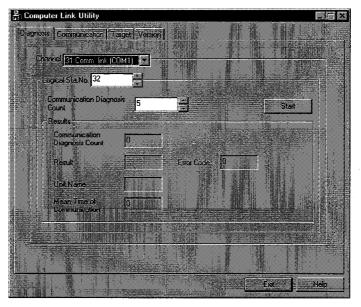


<Setup Screen>



(5) Checking if communication can be performed

Display the **Diagnosis screen** to check if communication can be performed.



(6) Collecting device information

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

2.2 Monitoring via Ethernet

This section explains how to monitor device information via Ethernet.

(1) Setting the Ethernet Interface Modules

Refer to the Ethernet Interface Module User's Manual to set these modules. In addition, set the communication condition switches as follows.

<Communications Condition Switch>

SW1 : OFF SW2 : ON SW3 : OFF SW5 : OFF SW6 : OFF SW7 : ON SW8 : OFF

(2) Setting the Ethernet card

Refer to the pertinent Ethernet card manual.

(3) Editing the HOSTS file.

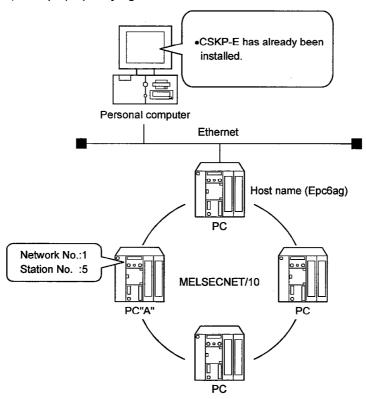
(4) Starting the Ethernet Utility

See Section 4.1 to start the Ethernet Utility.

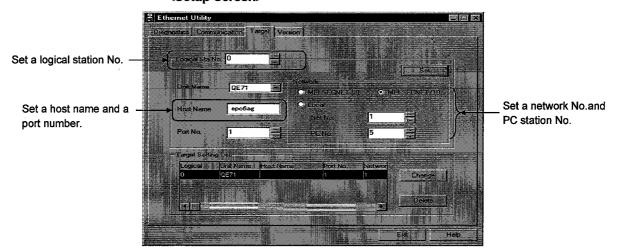
(5) Setting a logical station number

Specify a logical station number on the Target screen.

(Example) Specifying the PC "A" connected to MELSECNET/10.

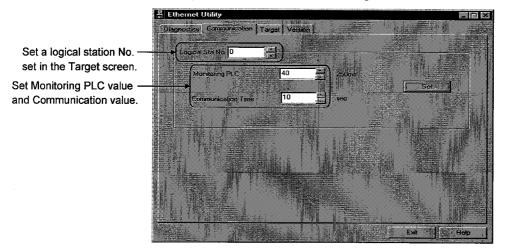


<Setup Screen>



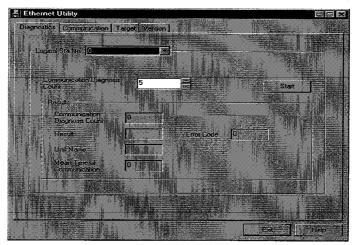
(6) Set Monitoring PLC value and Communication Time value to the Logical Station Number

Open the "Communication" screen, designate the Logical Sta. No. set in the "Target" screen, and set Monitoring PLC value and Communication Time value.



(7) Checking if communication can be performed

Display the **Diagnostics screen** to check if communication can be performed.



(8) Collecting device information

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

IMPORTANT

- The communication line is disconnected when a CPU is down or an Ethernet module reset takes place during communication between a personal computer and the Ethernet module. In this situation, perform the procedure below.
- When using the MELSEC Data Link Library Execute line close processing (mdClose), then perform line reopen processing (mdOpen).

POINTS

- The error code (receiving error, 103) given on the first transmit request differs from that (transmitting error, 102) given on the second or the subsequent if the communication line is disconnected upon power failure or CPU reset for the E71,QE71 channel opened normally by mdOpen processing.
 - To resume communication, close the channel and reopen it.
- · Access can be made within the same segment during Ethernet communication.

2.3 Monitoring via Direct Connection to PC CPU (RS-422)

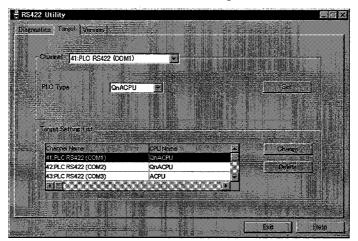
This section explains how to monitor device information by direct connection to PC CPU (RS-422).

(1) Starting the RS-422 Utility

See Section 5.1 to start the RS-422 Utility.

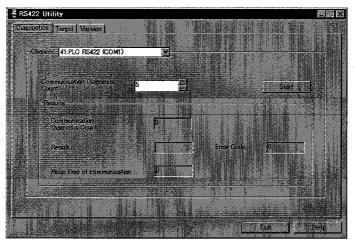
(2) Setting the channel to be used

Set the channel to be used on the Target screen.



(3) Checking if communication can be performed

Display the **Diagnostics screen** to check if communication can be performed.



(4) Collecting device information

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

2.4 Monitoring via MELSECNET/10

This section explains how to monitor device information via MELSECNET/10. (Assuming that the communication driver has already been installed.)

(1) Setting the network module.

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

(2) Setting the MELSECNET/10 card.

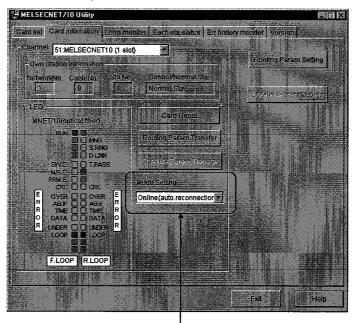
Consult the MELSECNET/10 Interface Card Users Manual to make proper settings.

(3) Starting the MELSECNET/10 Utility.

See Section 6.1 to start the MELSECNET/10 Utility.

(4) Setting the interface card to Online mode.

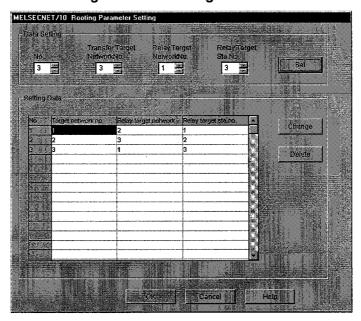
Open the **Card Information screen** and set the Mode Setting items to **Online (auto reconnection)** on the screen.



Set to Online (auto reconnection)

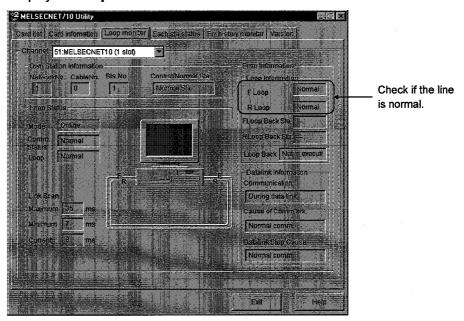
(5) Setting the Routing parameters (when accessing devices on another network)

To access a device on another network, click the Routing Param. Setting button on
the MELSECNET/10 Utility Card Information screen. Then, make proper settings
on the Rooting Parameter Setting screen.



(6) Checking if the line is normal.

Display the Loop Monitor screen to check if the line is normal.



(7) Collecting device information.

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

3 COMPUTER LINK UTILITY

This chapter describes how to set up and use the Computer Link Utility.

3.1 Start Method

 $\label{lem:communication} \mbox{Click [Start]-[Programs]-[MELSEC APPLICATION]-[COMMUNICATION SUPPORT(C-SKP-E)]-[C24 Utility] in order.}$

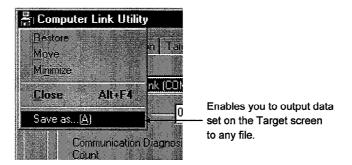
3.2 Function

This section lists the functions of the Computer Link Utility.

Functions Explanations		Reference Section
Diagnosis	Communicates with the computer link module connected (serial communication) to diagnose whether or not communication takes place normally.	Section 3.5
Communication	Sets communications conditions on the COM port to be used.	Section 3.6
Target	Specifies logical station numbers to be used in communication.	Section 3.7
Version	Indicates the versions of CSKP-E and communication link utility.	Section 3.8

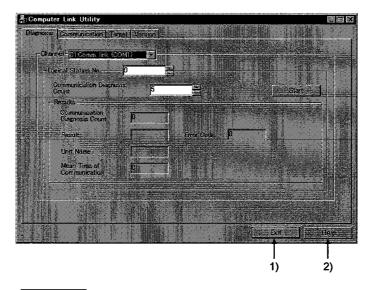
3.3 System Menu

The system menu of the Computer Link Utility includes the function "Save As..." on the menu.



3.4 Buttons

This section describes the function of each button.

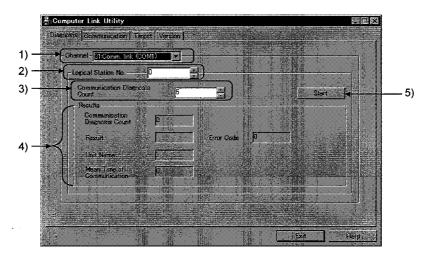


- 1) Exit button

 Terminates the Computer Link Utility.
- 2) Help button
 Displays the Help menu of the Computer Link Utility.

3.5 Diagnosis

This screen allows you to diagnose the communication status (normal or abnormal) by communicating with PCs via the Computer Link (Serial Communication) module.



1) Channel

Specifies a channel to be used.

2) Logical Station No.

Specifies a logical station number.

3) Communication Diagnosis Count

Specifies the number of times communication diagnosis takes place.

4) Results

Indicates the results of communication diagnosis.

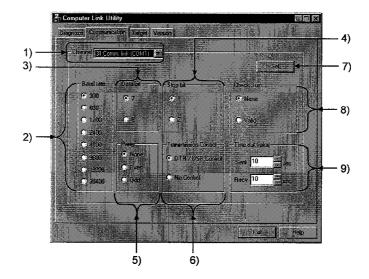
Communication Diagnosis Count ·	· Indicates the number of times communication diagnosis takes place.
Result·····	Indicates the results of communication diagnosis.
Unit Name · · · · · · · · · · · · · · · · · · ·	 Indicates the model name of the current module.
Mean Time of Communication · · · ·	· Indicates the average time taken for communication.
Error code······	 Indicates the error code of a diagnosis result. (For details on error codes, consult the Error List Manual.)



Diagnoses communication.

3.6 Communication

This screen allows you to set communication conditions of the COM port to be connected to the Computer Link Module.



1) Channel

Specifies a channel to be used.

2) Baud rate

Specifies a baud rate in communicating with the Computer Link Module.

3) Data bit

Specifies a data bit length in communicating with the Computer Link Module.

4) Stop bit

Specifies a stop bit in communicating with the Computer Link Module.

5) Parity

Specifies a parity bit in communicating with the Computer Link Module.

6) Transmission Control

Specifies flow control in communicating with the Computer Link Module.

7) Set button

Registers the current settings.

8) Check Sum

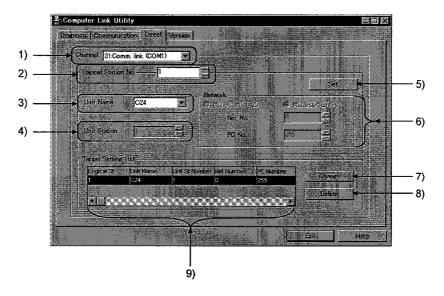
Specifies whether to take a check sum in communicating with the Computer Link Module.

9) Time out value

Specifies the time lapsed when communication cannot be performed normally during data transmission/reception.

3.7 Target

This screen allows you to set logical station numbers when the Computer Link Module communicates with the MELSEC Data Link Library.



1) Channel

Specifies a channel to be used.

2) Logical Station No.

0 to 31 : Users need not specify the module station numbers, networknumbe-

rs, and PC numbers because the numbers are identical to the

module numbers that are already set.

32 to 255 : Logical station numbers must be specified when PC CPUs in the

other stations communicate via the network with the CPUs in which

the Computer Link Module has been installed.

3) Unit Name

Specifies the model name of the Computer Link Module to be used.

4) Unit Station

Specifies a station number set by the rotary switch on the front of the Computer Link Module. (0 to 31)

5) Set button

Registers the current settings.

6) Network

Specifies the settings to be made for network communication.

MELSECNET(II), · · · · · Selects a network configuration. MELSECNET/10

Net No. Specifies the network number of another station linked via a network with a PC in which the Computer Link Module has been installed.

<Setting Range>

MELSECNET(II): 0 (Fixed) MELSECNET/10: 0 to 239

PC No..... Specifies the PC number of another station linked via a network with a PC in which the Computer Link Module has been installed.

<Setting Range>

MELSECNET(II): 0 to 64 MELSECNET/10: 0 to 64

7) Change button

Displays the setting of the current line in the field to change it.

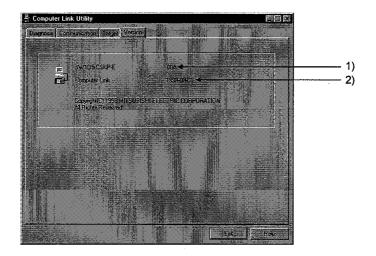
8) Delete button
Deletes the current line.

9) Target Setting List

Lists the settings registered so far.

3.8 Version

This screen displays the versions of the CSKP-E and Computer Link utility.



1) Package Version

Indicates the version of the CSKP-E.

2) Utility Version

Indicates the version of the Computer Link Utility.

4 ETHERNET UTILITY

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

4.1 Start Method

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

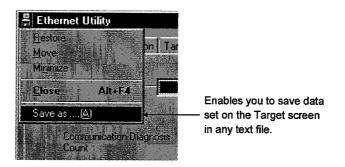
4.2 Function

The following table lists the functions of the Ethernet Utility.

Function	Explanation	Reference Section	
Diagnostics	Communicates with the connected Ethernet module to check the communication status (normal or abnormal).	Section 4.5	
Communication	Sets a CPU monitor timer value and a packet time-out value for a logical station number.		
Target	Sets a logical station number to be for communication.	Section 4.7	
Version	Indicates the versions of the CSKP-E and Ethernet Utility.	Section 4.8	

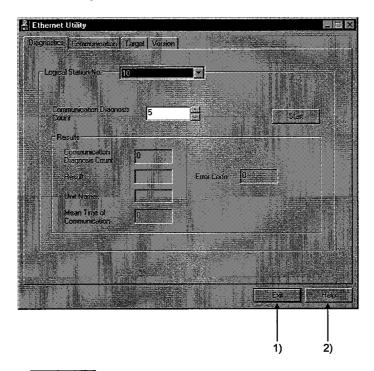
4.3 System Menu

The system menu of the Ethernet Utility includes the function "Save As..." that is not available with the regular system menu.



4.4 Buttons

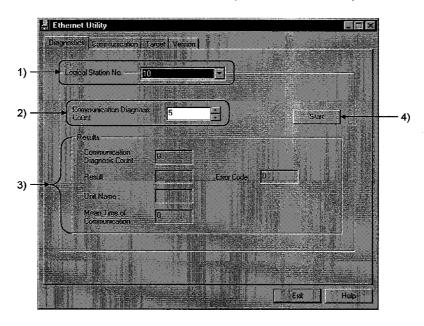
This section gives a brief description of two buttons on the screen below.



- 1) Exit button
 Terminates the Ethernet Utility.
- 2) Help button
 Displays the Help menu of the Ethernet Utility.

Diagnostics 4.5

This screen allows you to communicate with the PC via the Ethernet module and check the communication status (normal or abnormal).



1) Logical Station No.

Specify the logical station number of the station that should be subjected to the communication diagnosis.

2) Communication Diagnosis Count

Specifies the number of times communication diagnosis takes place.

3) Results

Indicates the results of communications diagnosis.

Communication Diagnosis Count · · · Indicates the number of times communication diagnosis takes place.

Indicates the results of communication diagnosis.

Indicates the model name of the current

module.

Mean Time of Communication · · · · · Indicates the average time taken for

communication.

Indicates the error code of a diagnosis

result. (For details on error codes, refer

to the Error List Manual.)

4) **button**

Unit Name · · · · · ·

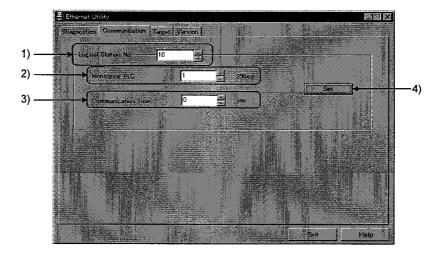
Diagnose the communication.

POINT

Only the same segment can be accessed during Ethernet communication.

4.6 Communication

This screen allows you to set the monitoring PLC and communication time for a logical station number.



1) Logical Station No.

Specifies a logical station number for which the monitoring PLC and communication time must be set.

2) Monitoring PLC

Sets the wait time until a response is returned to an Ethernet module from a PC CPU after a request is issued to the PC CPU by the Ethernet module. This value can be set in multiples of 250ms. If the value "3" is specified, 750ms is set. (Any value from 1 to 65535 can be set.)

3) Communication Time

Sets the time-out value every packet communication. (0 to 322767 seconds)

4) Set button

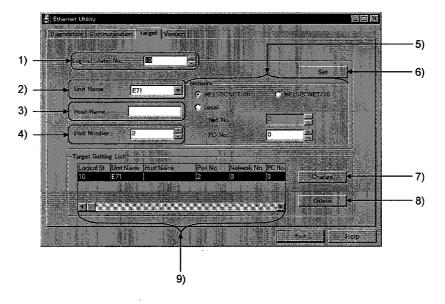
Registers the current settings.

POINT

Only the same segment can be accessed during Ethernet communication.

4.7 Target

This screen allows you to set a logical station number for Ethernet communication.



1) Logical Station No.

Specifies a logical station number.

2) Unit Name

Specifies the model name of the Ethernet module to be used.

3) Host Name

Specifies a host name corresponding to a target station IP address. The IP address and host name are specified in the HOSTS file.

4) Port Number

Specifies a port number to be used for communication.

POINT

Some port numbers may be in use or reserved by the system. When actual communication cannot be performed normally for the diagnosis function, change the set port number.

5) Network

Specifies a network to be used for communication.

MELSECNET(II), · · · · · · Selects a network configuration. MELSECNET/10

Net No. Specifies the network number of another station inked viaa network with a PC in which the Computer Link Module has been installed.

<Setting Range>
MELSECNET(II) : 0
MELSECNET/10 : 1 to 239
Ethernet : 0 (Fixed)

PC No. Specifies the PC number of another station linked via a network with a PC in which the Computer Link Module has been installed.

<Setting Range>

MELSECNET(II): 0 to 64

MELSECNET/10: 0 to 64

Ethernet: 255 (Fixed)

6) Set button

Registers the current setting.

- 7) Change button
 Displays the setting of the current line and allows you to change it.
- 8) Delete button
 Deletes the current line.

9) Target Setting List

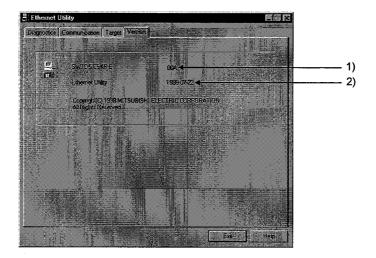
Lists the settings registered so far.

POINT

Only the same segment can be accessed during Ethernet communication.

4.8 Version

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



1) Package Version Indicates the version of the CSKP-E.

2) Utility Version Indicates the version of the Ethernet Utility.

5 RS-422 UTILITY

This chapter describes how to set up and use the RS-422 Utility.

5.1 Start Method

 $\label{linear_communication} \mbox{Click [Start]-[Programs]-[MELSEC APPLICATION]-[COMMUNICATION SUPPORT(C-SKP-E)]-[RS422 Utility] in order. }$

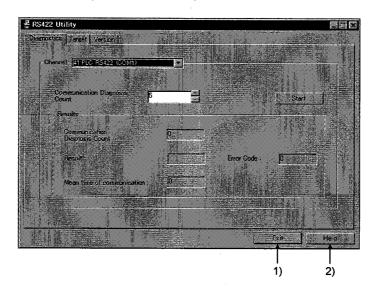
5.2 Function

The following table lists the functions of the RS-422 Utility.

Function	Explanations	Reference Section
Diagnostics	Communicates with a connected PC CPU to check the communication status (normal or abnormal).	Section 5.4
Target	Sets the model name of a connected module.	Section 5.5
Version	Indicates the versions of CSKP-E and RS-422 Utility.	Section 5.6

5.3 Buttons

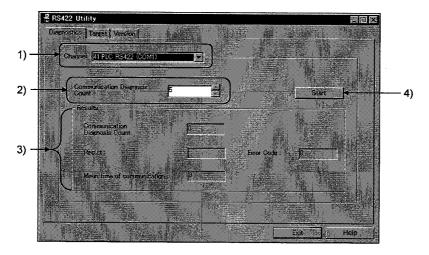
This section gives a brief description of buttons on the screen.



- 1) Exit button
 Terminates the RS-422 Utility.
- 2) Help button
 Displays the Help menu of the RS-422 Utility.

5.4 Diagnostics

This screen allows you to communicate with a PC to diagnose the communication status (normal or abnormal).



1) Channel

Specify the channel to be subjected to the communication diagnosis.

2) Communication Diagnosis Count

Specifies the number of times communication diagnosis takes place.

3) Results

Indicates the results of communications diagnosis.

Communication Diagnosis Count····· Indicates the number of times communication diagnosis takes place.

Result · · · · · · · · · · · · Indicates the results of communication diagnosis.

Mean Time of Communication · · · · · · Indicates the mean time required for communication.

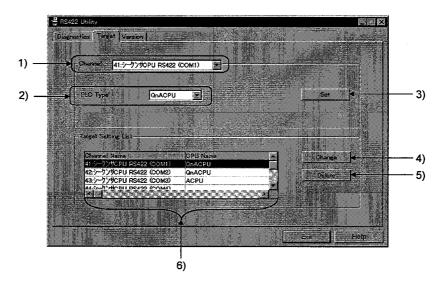
Error Code ····· Indicates the error code of a diagnosis result. (For details on error codes, refer to the Error List Manual.)

4) Start button

Starts communication diagnosis.

5.5 Target

This screen allows you to specify the model name of a PC CPU connected.



1) Channel

Specifies a channel to be used.

2) PLC Type

Specifies the model name of a target PC CPU.

QnACPU ··· QnA series PC
ACPU ···· A series PC
AnU ···· AnU series PC
AnA ···· AnA series PC
AnH ··· AnH series PC
AnN ··· AnN series PC

3) Set button

Registers the current setting.

4) Change button

Displays the setting of the current line and allows you to change it.

5) Delete button

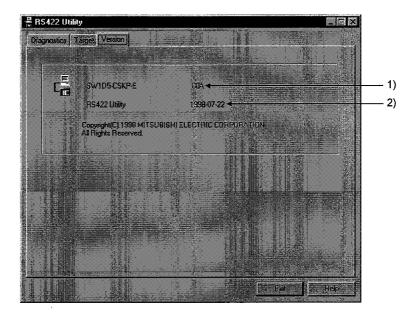
Deletes the current line.

6) Target Setting List

A list of setups for different channels are displayed.

5.6 Version

This screen indicates the version of the CSKP-E and the RS-422 Utility.



1) Package Version Indicates a CSKP-E version.

2) Utility Version Indicates an RS-422 Utility version.

6 MELSECNET/10 UTILITY

This chapter describes how to set up and operate the MELSECNET/10 Utility.

6.1 Start Method

 $\label{linear_communication} \mbox{Click [Start]-[Programs]-[MELSEC APPLICATION]-[COMMUNICATION SUPPORT(C-SKP-E)]-[MELSECNET10 Utility] in order.}$

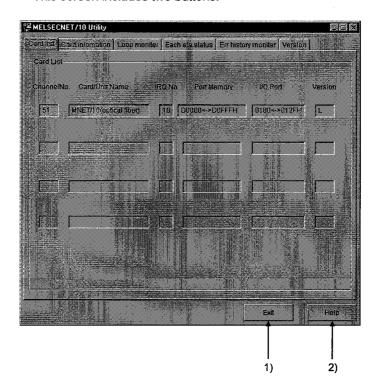
6.2 Function

The following table lists the MELSECNET/10 Utility functions.

Function	Explanation	Reference Section
Card list	Lists the hardware information contained in MELSECNET/10 Card installed.	Section 6.4
Card information	Indicates various kinds of information on the I/F Card installed and permits you to make settings.	Section 6.5
Loop monitor	Indicates the line conditions of a local station.	Section 6.6
Each Sta. status	Indicates the communication or loop conditions of each station.	Section 6.7
Err history monitor	Indicates error histories.	Section 6.8
Version	Indicates the version of MELSECNET/10 Utility.	Section 6.9

6.3 Buttons

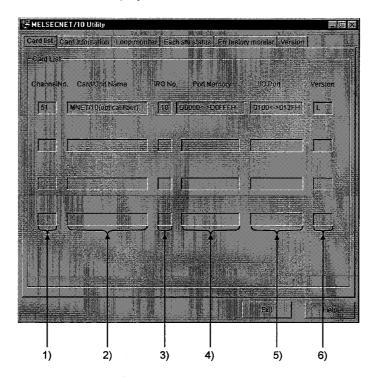




- 1) Exit button
 Terminates the MELSECNET/10 Utility.
- 2) Help button
 Displays the help menu for the MELSECNET/10 Utility.

6.4 Card List

This screen displays the hardware information set on the I/F card.



1) Channel No.

Indicates a channel No.

2) Card/unit name

Indicates the model name of the I/F card installed.

3) IRQ No.

Indicates the IRQ number to be used by the I/F card.

4) port memory

Indicates a range of port memory occupied by the I/F card.

5) I/O port

Indicates a range of I/O ports occupied by the I/F card.

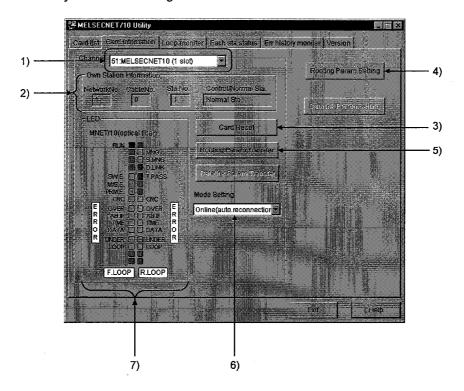
6) Version

Indicates the version of ROM installed on the I/F card.

6.5 Card Information

6.5.1 Card information

This screen displays various kinds of information on the I/F card installed and permits you to make settings.



1) Channel

Set a channel to be used.

2) Own station information

Indicates information concerning the local station.



Resets the I/F card of the channel selected in step 1).

4) Rooting Param. Setting button

Displays the Rooting Parameter Setting screen to set data.

5) Rooting Param. Transfer button

Transfers the settings made in Subsection 6.5.2 to the I/F card selected in 1).

6) Mode setting

Sets the mode of the I/F card and indicates the current values.

Mode	Explanation
On-line automatic return	Used for normal communication.
Off-line	Disconnects a network.
Forward loop test	Conducts a forward loop test.
Reverse loop test	Conducts a reverse loop test.
Inter-station test (master station)	Conducts a master-to-local station test.
Inter-station test (slave station)	Conducts a local-to-local station test.
Self loop-back test	Conducts a test on hardware including transmitting and receiving circuits in the transmission system for a single I/F card.
Self loop-back test (inside)	Conducts a test on hardware including transmitting and receiving circuits in the transmission system for a single I/F card.
Hardware test	Tests the hardware.

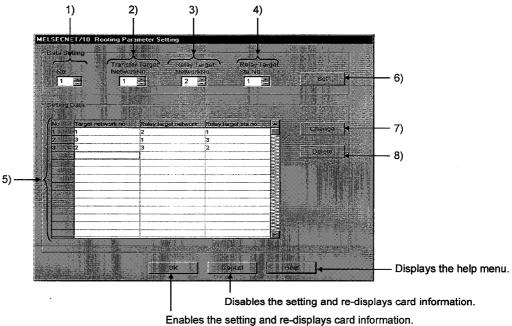
7) LED status

Indicates the status of the current I/F card.

LED Name	LED being Lit
RUN	Data link normal
SW.E.	Switch setting error
M/S.E.	Duplication of station numbers or management stations
PRM.E.	Parameter error
MNG	Management station
S.MNG	Sub management station
D.LINK	Under data linking
T.PASS	Executing baton pass
CRC	Code check error
OVER	Error of data read delay
AB.IF	All data received is 1.
TIME	Time elapsed
DATA	Receiving data error
UNDER	Transmitting data error
LOOP	Forward/Reverse loop receiving error

6.5.2 Rooting Parameter Setting

This screen displays the destination network number, relay network number, and relay station number.



Na

1) No.

Specifies the number of a line to be set or changed.

2) Transfer Target Network No.

Specifies the number of a transfer target network..

3) Relay Target Network No.

Specifies the number of a relay network.

4) Relay Target Sta. No.

Specifies the number of a relay target station.

5) Setting Data

Lists the settings made so far for data.

6) Set button

Registers the settings made in 1) to 4) in 5) (Setting Data).

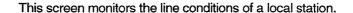
7) Change button

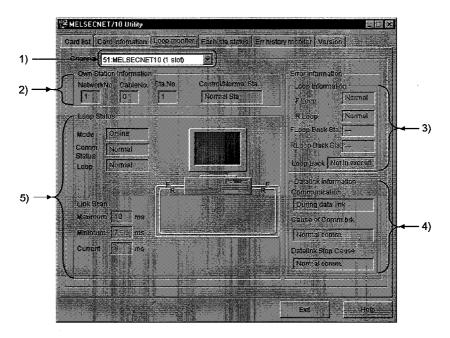
When changing the settings registered, select the line to be changed and click this button. (The same operation can be performed by double-clicking the line to be changed.)

8) Delete button

When deleting the settings registered, select the line to be deleted and click this button.

6.6 Loop Monitor





1) Channel Specifies a channel to be used.

2) Local Station Information Indicates the local station information.

3) Loop Information Indicates the status of the current loop.

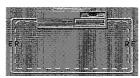
4) Data Link Information Indicates the status of the current data link.

5) Loop Status

Indicates the loop status of a local station with characters and a figure. The figure can be changed as follows depending on the conditions of connection.



Forward loop : Normal Reverse loop : Normal



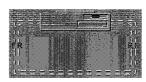
Forward loop : Normal Reverse loop : Abnormal



Forward loop : Abnormal Reverse loop : Normal



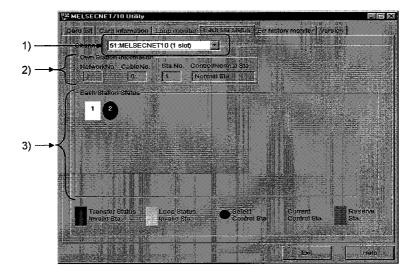
Data link by loop-back



Forward loop : Abnormal Reverse loop : Abnormal

6.7 Each Sta. Status

This screen indicates the communication status between stations and the loop status.



1) Channel

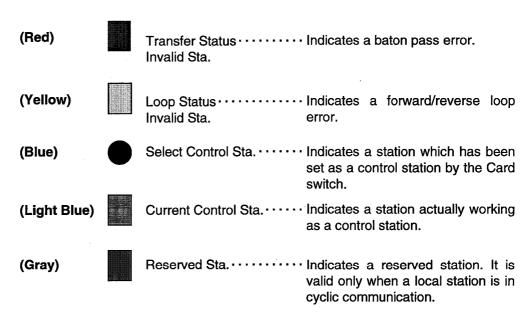
Specifies a channel to be used.

2) Own Station Information

Indicates information on a local station.

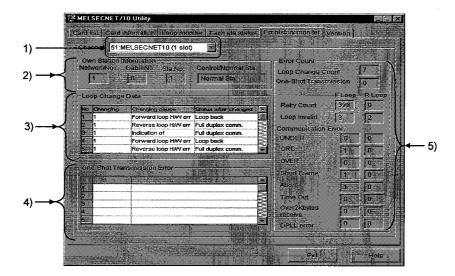
3) Each Station Status

Indicates the communications status and loop status for stations as many as the total number of link stations designated by the parameters.



6.8 Err. History Monitor

This screen displays the history of loop errors, communication errors, and transient transmission errors.



1) Channel

Specifies a channel to be used.

2) Own Station Information

Indicates information on a local station.

3) Loop Change Data

Indicates a loop change cause and the status after loop change (for optical loop only).

Changing · · · · · Indicates the number of a station which requested a loop change or loop-back.

Changing cause · · · · · Indicates the cause for which a loop change or loop-back was performed.

Normal return : Returned to the normal state after

error correction.

Hardware error : Error in cable or optical module

Forced error : Forced error for loop-back

Continual communications error : Communication is not stable

because the normal and abnormal

states arise alternate.

Status after changed · · · · Indicates the data link status after loop change.

POINT

Up to 16 history files can be created. When the number of history files exceeds 16, the oldest one is deleted.

(Oldest:No.1
Newest:No.16)

4) One-Shot Transmission Error

Indicates an error in transient transmission by a local station.

Error code ··· Indicates an error code occurred during transient transmission.

Error type ··· Indicates the type of error occurred during transient transmission.

POINT

For details of error codes and error types, refer to the MELSECNET/10 Network System Reference Manual (PC-to-PC Network).

5) Error Count

Indicates the number of errors occurred.

Loop Change Count · · · · · Indicates the number of loop change or loopback tries. One-Shot Transmission · · · · · Indicates the number of transient transmission errors. Retry Count · · · · Indicates the number of retries (repeated communications during communication error). **Loop Invalid · · · · · · · · · Indicates the number of line errors. Communication Error UNDER** ······Indicates the number of UNDER errors. **CRC** ····· Indicates the number of CRC errors.

OVERIndicates the number of OVER errors.

Short Frame Indicates the number of short frame errors.

Abort ······ Indicates the number of AB.IF errors.

Time Out ······Indicates the number of TIME errors.

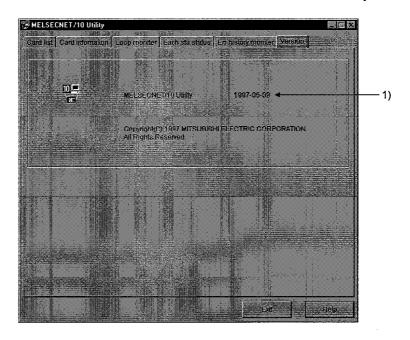
Over 2K Bytes Receive · · · · · Indicates the number of DATA errors.

DPLL Error Indicates the number of DPLL errors (Data cannot be recognized normally during sync-

hronization or modulation).

6.9 Version

This screen indicates the version of the MELSECNET/10 Utility.



1) Utility Version

Indicates the version of the MELSECNET/10 Utility.

7 DEVICE MONITOR UTILITY

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

7.1 Start Method

Click [Start]-[Programs]-[MELSEC APPLICATION]-[COMMUNICATION SUPPRT(C-SKP-E)]-[Device Monitor Utility] in order.

7.2 Function

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

		Explanations	Section /Subsection for Reference
Menu	Batch monitor	Indicates only one device specified.	Subsection 7.3.1
	16-Point register monitor	Monitors up to five bit devices and one word device at one time.	Subsection 7.3.2
	Close	Terminates the utility.	Subsection 7.3.3
Setting	Network setting	Sets a network for device monitoring.	Subsection 7.4.1
	Device setting	Sets a device being monitored.	Subsection 7.4.2
Device Write	Data changing	Changes the value of a word device specified.	Subsection 7.5.1
	Continuous change in data	Continually changes the value of a word device specified.	Subsection 7.5.2
	Bit device setting	Activates the bit of a bit device specified.	Subsection 7.5.3
	Bit device resetting	Inactivates the bit of a bit device specified.	Subsection 7.5.4
Data Format		Switches a display format for device monitoring.	Section 7.6
Help	Help	Displays the Help.	Subsection 7.7.1
	Version	Displays the version information of the Device Monitor Utility.	Subsection 7.7.2
Other Operations		Changes a device value when a device number is double-clicked.	Section 7.8

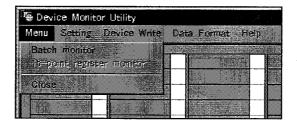
7.3 Menu

7.3.1 Batch Monitor

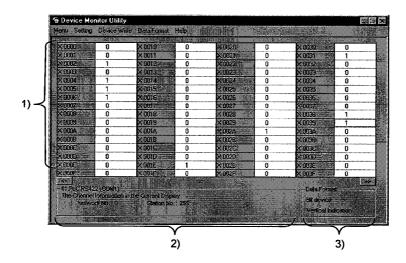
This function allows you to monitor only one specified device.

(1) Menu Selection

Click [Menu]-[Batch monitor] in order on the menu bar. (It can be chosen only when monitoring 16-point register.)



(2) Device Screen



1) Device Information

Indicates the current status of a device. See Section 7.6 for how to change a display type.

2) Network Status

Indicates the status of the current network. See Subsection 7.4.1 for how to specify a network.

3) Data Format

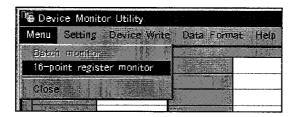
Indicates the type (word device or bit device) and display format of a device being displayed. See Subsection 7.4.2 for how to change the type of a device and see Section 7.6 for how to change a display format.

7.3.2 16-Point Register Monitor

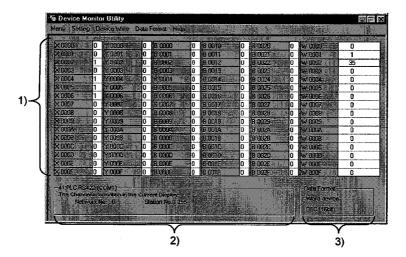
This function allows you to monitor a maximum of 5 bit devices and one word device at the same time.

(1) Menu Selection

Click [Menu]-[16-point register monitor] in order. (This menu can be selected in batch monitoring.)



(2) Display Screen



1) Device Information

Indicates the current status of a device. See Section 7.6 for how to change a display format.

2) Network Status

Indicates the status of the current network. See Subsection 7.4.1 for how to specify a network.

3) Data Format

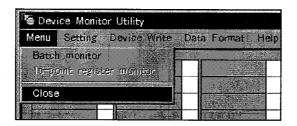
Indicates the type (word device or bit device) and display format of a device being displayed. See Subsection 7.4.2 for how to change the type of a device and see Section 7.6 for how to change a display format.

7.3.3 Close

This function allows you to close the Device Monitor utility.

(1) Menu Selection

Click [Menu]-[Close] in order on the menu bar.



(2) Dialogue Box

Click [Close], and the following dialogue box will be displayed.



Choosing [Yes] · · · Terminates the Device Monitor Utility.

Choosing [No] ···· Closes the dialogue box to redisplay the display screen.

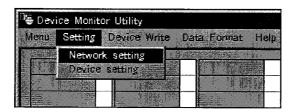
7.4 Setting

7.4.1 Network Setting

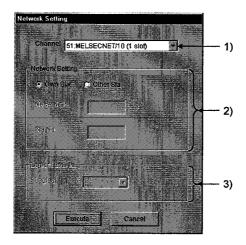
This screen allows you to set the network to be used for device monitoring. Make settings at the start of the Device Monitor utility.

(1) Menu Selection

Click [Setting]-[Network setting] in order on the menu bar.



(2) Dialogue Box



1) Channel

Sets a channel to be used.

2) Network Setting

Sets a local or other station, a network number, and a station number.

3) Logical Sta. No.

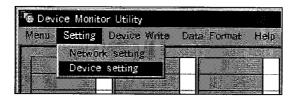
Sets a logical station number.

7.4.2 Device Setting

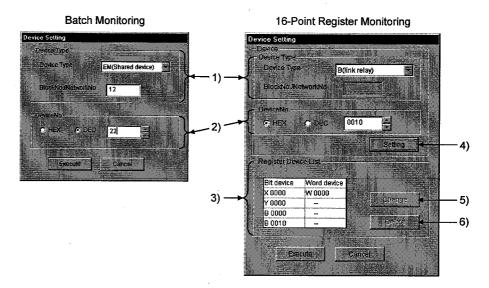
This screen allows you to specify a device to be monitored.

(1) Menu Selection

Click [Setting]-[Device setting] in order on the menu bar.



(2) Dialogue Box



1) Device Type

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

2) Device No.

Specifies a head number of a device to be monitored. (HEX: Hexadecimal numeral)

3) Register Device List

Lists the devices registered.

4) Setting button

Registers the settings made in 1) and 2) above, then adds them to 3) (Register Device List) above.

5) Change button

Changes the setting registered by clicking this button after choosing a device to be changed.

6) Delete button

Deletes a device from the Register Device List when clicking this button after choosing a device to be deleted.

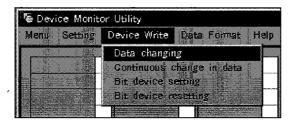
7.5 Device Write

7.5.1 Data Changing

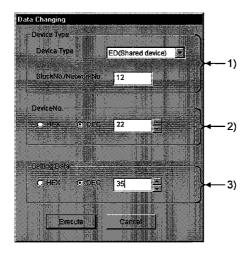
This screen allows you to change the data of the specified word device.

(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)



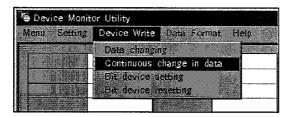
Make sure to provide an interlock circuit in a sequence program so that the
overall system always operates safely for data change control to the PC in
operation. Also, make sure to designate corrective actions or
countermeasures for data communication errors between the personal
computer and the PC CPU.

7.5.2 Continuous Change in Data

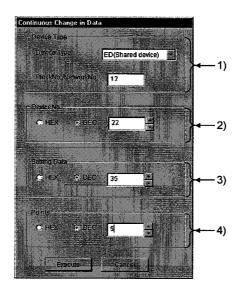
This screen allows you to change the specified word device into the specified data according to the specified number of points.

(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.

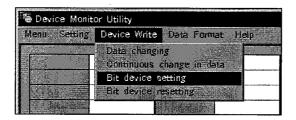
Make sure to provide an interlock circuit in a sequence program so that the overall system always operates safely for data change control to the PC in operation. Also, make sure to designate corrective actions or countermeasures for data communication errors between the personal computer and the PC CPU.

7.5.3 Bit Device Setting

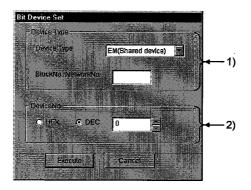
This screen allows you to activate a specified bit device.

(1) Menu Selection

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



(2) Dialogue Box



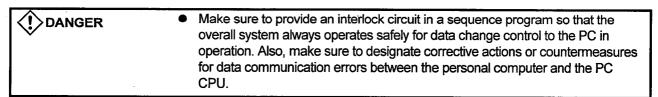
1) Device Type

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)

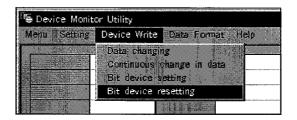


7.5.4 Bit Device Resetting

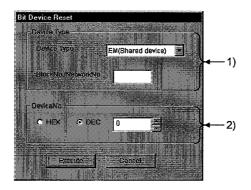
This screen allows you to deactivate the specified bit device.

(1) Menu Selection

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



(2) Dialogue Box



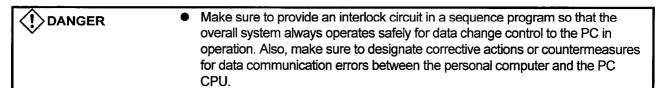
1) Device Type

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)



7.6 Data Format

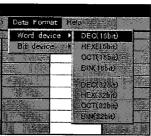
This screen allows you to switch a display format in device monitoring to a specified format. The menu selection differs depending on the monitor type (batch monitor or 16-point register monitor).

(1) Menu Selection

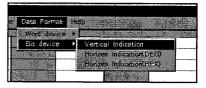
Click [Data Format]-[Word (Bit) device] in order on the menu bar.

(a) Batch monitoring



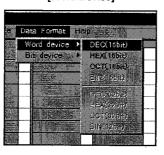


[Bit Device]



(b) 16-point register monitoring

[Word Device]



[Bit Device]



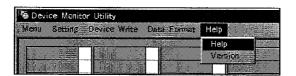
7.7 Help

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

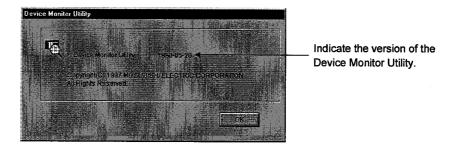
This screen indicates the version of the Device Monitor Utility.

(1) Menu Selection

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



(2) Display Screen

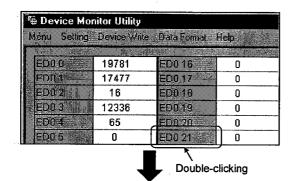


7.8 Other Operations

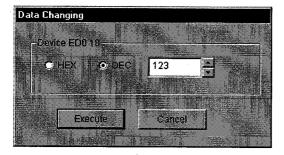
Double-clicking a device number on the screen during device monitoring changes the word device data or activates or deactivates the bit device.

(1) Word Device

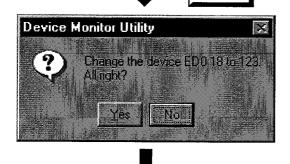
The following shows the operations to be performed for word device change (only for 16-bit display format).



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



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



Click

Execute

button.

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

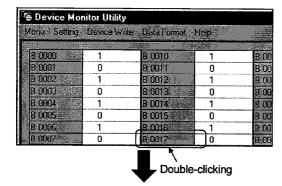




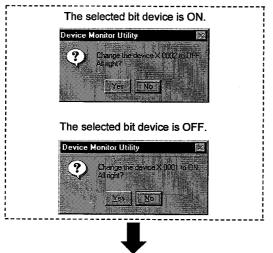
Make sure to provide an interlock circuit in a sequence program so that the
overall system always operates safely for data change control to the PC in
operation. Also, make sure to designate corrective actions or countermeasures
for data communication errors between the personal computer and the PC
CPU.

(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).



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



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





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

 $\label{lem:communication} \mbox{Click [Start]-[Programs]-[MELSEC APPLICATION]-[COMMUNICATION SUPPORT(C-SKP-E)]-[Error Viewer] in order.}$

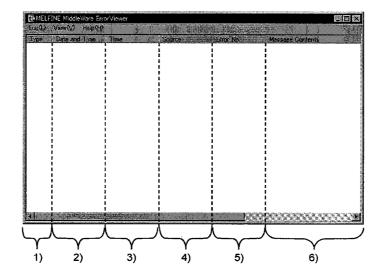
8.2 Function

The following table lists the functions of the Error Viewer.

		Explanation	Reference Section
	Type of Error Register Source	Indicates an error log group displayed.	
	Open the Selected File	Opens the log files saved so far.	
Log	Save with a Name	Saves an error log information currently chosen in the file specified.	Section 8.4
	Delete	Deletes the error log specified.	
	Log Setting	Sets a control method for a log exceeding a register size.	
	Exit	Terminates the Error Viewer.	
	All Errors	Displays information on all error logs.	
	Specific Error	Sets a condition on a error to be displayed.	•
View	Search	Searches for an error log according to a source name and an error number.	Section 8.5
	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.	Cootion 0.0
Lieb	Version	Displays the version information of Error Viewer.	Section 8.6

8.3 Screen





1) Type

Indicates the types of errors by the following symbols.

- ••• Normal message (Informational message concerning a normal operation.)
- 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.

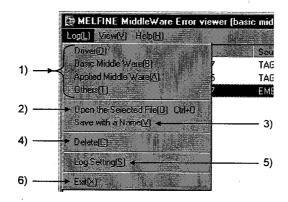
Indicates the number of the error that occurred. For details of error number, see Error List Manual.

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.

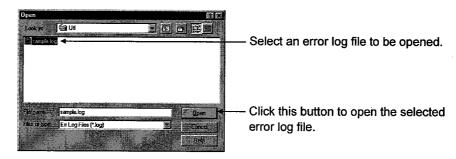
Basic Middle Ware Displays messages from a shared device server process.

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

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

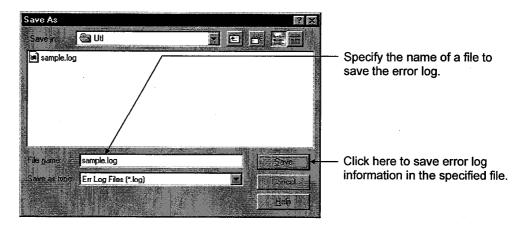
2) Open the Selected File

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



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.

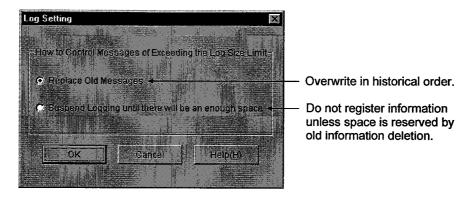


4) Delete

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.

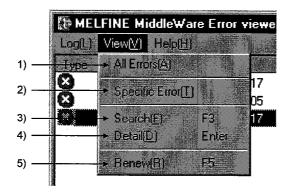


6) Exit

Terminates the Error Viewer.

8.5 View

This section describes the items of the viewer.

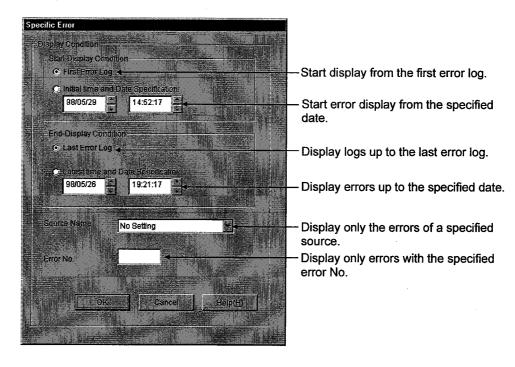


1) All Errors

Displays the errors by the type of error register source.

2) Specific Error

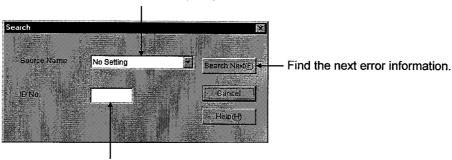
Displays the errors on the screen according to the conditions specified in the dialogue box below.



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.)

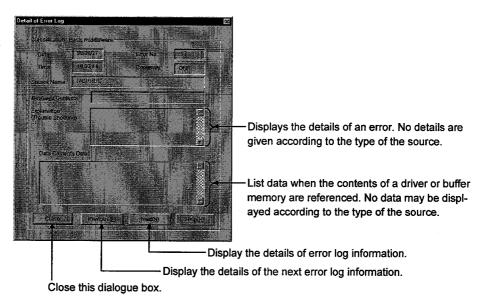
Set a source file name to find.



Input an error code to find.

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.)

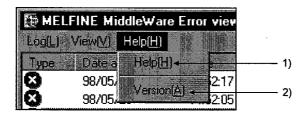


5) Renew

Renews the current information.

8.6 Help

This section describes the items of the Help menu.

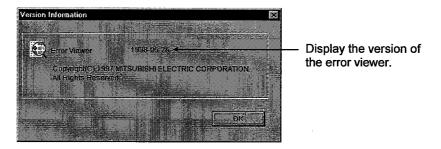


1) Help

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.

POINT

· "Batch" or "Random" in the table implies the following

Batch · · · · · · Batch read/Batch write

Random ···Random read/Random write/Bit set/Bit reset

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	0
^	Random	0
Υ	Batch	O
<u>'</u>	Random	0
Special M(SM), SB	Batch	0
(Link Special B for MNET/10)	Random	0
Special D(SD), SW	Batch	O
(Link Special W for MNET/10)	Random	9
В	Batch	0
	Random	9
W	Batch	0
VV	Random	9
RECV function for QnA	Batch	0
ALCV Idiction for QIIA	Random	×
EM (Shared Device)	Batch	0
Livi (Silated Device)	Random	0
ED (Shared Device)	Batch	0
ED (Shared Device)	Random	V

9.2.2 Other Station Devices

The following lists the accessible devices in the other stations.

(1) Computer Link Communication

				D	estinatio	n	:	
Device		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)		A4U	Q2A(-S1) Q3A Q4A Q4AR Q2AS(-S1) Q2ASH(-S1)	Personal Computer
х	Batch Random	0	0	0	0	0	0	×
Υ	Batch Random	0	0	0	0	0	0	×
L	Batch Random	0	0	0	0	0	0	×
М	Batch Random	0	0	0	0	0	0	×
Special M(SM),SB	Batch Random	0	0	0	0	0	0	×
F	Batch Random	0	0	0	0	0	0	×
T (Contact Point)	Batch Random	0	0	0	0	0	O ×	×
T(Coil)	Batch Random	0	0	0	0	0	0 ×	×
C (Contact Point)	Batch Random	0	0	0	0	0	O ×	×
C (Coil)	Batch Random	0	0	0	0	0	O ×	×
T (Current Value)	Batch Random	0	0	0 _	0	0	0	×
C (Current Value)	Batch Random	0	0	0	0	0	0	×
D	Batch Random	0	0	0	0	0	0	×
Special D(SD),SW	Batch Random	0	0	0	0	0	0	×
T (Main Set Value)	Batch	0	0	0	0	0	×	×
<u> </u>	Random Batch	×	×	× O*1	×	× 0	- ' '	.,
T (Sub Set Value 1)	Random	×	×	× ×	×		×	×
	Batch					× 0		
T (Sub Set Value 2)	Random	×	×	×	×	×	×	×
T (Sub Set Value 3)	Batch Random	×	×	×	×	O ×	×	· ×
C (Main Set Value)	Batch	0	0	0	0	0	×	×
(Random	×	×	×	×	×		
C (Sub Set Value 1)	Batch	×	×	O*1	0	0	×	×
	Random			× *1	×	×	not allawa	

^{*1} A2A(-S1)CPU is not allowed access.

		Destination								
			AO IOLI	<u>, </u>	esunado	71 1	Τ			
Device		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 .	×	×	×	O ×	×	×		
C (Sub Set Value 3)	Batch Random	×	×	×	×	O ×	×	×		
A ⁻	Batch Random	×	×	×	×	×	×	×		
z	Batch Random	×	×	×	×	×	×	×		
V (Index Register)	Batch Random	×	×	×	×	×	×	×		
R (File Register)	Batch Random	×	0	0	0	0	0	×		
ER (Extended File Register)	Batch Random	0	0	0	0	0	0	×		
В	Batch Random	0	0	0	0	0	0	×		
w	Batch Random	0	0	0	0	0	0	×		
QnA Link Special Relay (on QnA CPU)	Batch Random	×	×	×	×	× .	0	×		
Integrating Timer (Contact Point)	Batch Random	×	×	×	×	х	O ×	×		
Integrating Timer (Coil)	Batch Random	×	×	×	×	×	O ×	×		
QnA Link Special Register	Batch	×	×	×	×	×	0	×		
(on QnA CPU) QnA Edge Relay	Random Batch						0			
(on QnA CPU) Integrating Timer	Random Batch	×	×	. X	×	×		×		
(Current Value) QnA SEND function	Random	×	×	×	×	×	0	×		
(with confirmation of arrival)	Batch Random	×	×	×	×	×	×	×		
QnA SEND function (without confirmation	Batch	×	×	×	×	×	×	~		
of arrival)	Random Batch	^		^				×		
Direct Link Input	Random	×	×	×	×	x '	O *2	х		
Direct Link Output	Batch Random	×	×	×	×	×	O *2	x		
Direct Link Relay	Batch Random	×	×	×	×	×	O *2	, x		

^{*2} Access is not allowed unless there's a network module available.

				D	estinatio	n	WWW.	
Device		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	×	J	×	×	×	O *2	
Direct Link riegister	Random	^	×	^	^	^	0 2	×
Direct Link Special Relay	Batch	×	×				O *2	
(on Network Unit)	Random	^	×	×	×	×	0 -2	×
Direct Link Special	Batch						0 ==	
Register (on Network Unit)	Random	×	×	×	×	×	O *2	×
Special Direct	Batch	×					0	
Buffer Register	Random	×	×	×	×	×		×
EM (Shared Device)	Batch	×	×	×	×	×	×	×
(Griared Device)	Random Batch							
ED (Shared Device)	Random	×	×	×	×	×	×	×

^{*2} Access is not allowed unless there's a network module available.

(2) Ethernet Communication

				D	estinatio	n		
Device		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
х	Batch Random	0	0	0	0	0	0	×
. Y	Batch Random	0	0	0	0	0	0	×
L	Batch Random	0	0	0	0	0	0	×
M	Batch Random	0	0	0	0	0	0	×
Special M(SM),SB	Batch Random	0	0	0	0	0	0	×
F	Batch Random	0	0	0	0	0	0	×
T (Contact Point)	Batch Random	0	0.	0	0	0	0 ×	×
T(Coil)	Batch Random	0	0	0	0	0	0 ×	×
C (Contact Point)	Batch Random	0	0	0	0	0	O ×	×
C (Coil)	Batch Random	0	0	0	0	0	O ×	×
T (Current Value)	Batch Random	0	0	0	0	0	0	×
C (Current Value)	Batch Random	0	0	0	0	0	0	×
D -	Batch Random	0	0	0	0	0	0	×
Special D(SD),SW	Batch Random	0	0	0	0	0	0	×
T (Main Set Value)	Batch	0	0	0	0	0	×	×
,	Random	×	×	×	×	×		
T (Sub Set Value 1)	Batch Random	×	×	O *1 ×	O ×	<u>О</u> х	×	×
T (Sub Set Value 2)	Batch Random	×	×	×	×	×	×	×
T (Sub Set Value 3)	Batch Random	×	×	×	×	×	×	×
C (Main Set Value)	Batch	0	0	0	0	0	×	×
	Random	×	×	×	×	X	-,	-,
	Batch			O *1	0 1	0	,	

^{*1} A2A(-S1)CPU is not allowed access.

				n	estinatio	\n		
Device	Ratch		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	A4U	Q2A(-S1) Q3A Q4A Q4AR Q2AS(-S1) Q2ASH(-S1)	Personal Computer
C (Sub Set Value 2)	Batch Random	×	×	×	×	×	×	×
C (Sub Set Value 3)	Batch Random	×	×	×	×	×	×	×
Α	Batch Random	×	×	×	×	×	×	×
Z	Batch Random	×	×	×	×	×	×	×
V (Index Register)	Batch Random	×	×	×	×	×	×	×
R (File Register)	Batch Random	×	0	0	0	0	0	×
ER (Extended File Register)	Batch Random	0	0	0	0	0	0	×
В	Batch Random	0	0	0	0	0	0	×
w	Batch Random	0	0	0	0	0	0	×
QnA Link Special Relay (on QnA CPU)	Batch Random	x	×	x	×	×	0	×
Integrating Timer (Contact Point)	Batch Random	×	×	×	×	×	O ×	×
Integrating Timer (Coil)	Batch Random	×	×	×	×	×	0 ×	×
QnA Link Special Register (on QnA CPU)	Batch Random	×	×	×	×	×	0	×
QnA Edge Relay (on QnA CPU)	Batch Random	×	х	×	×	×	0	×
Integrating Timer (Current Value)	Batch Random	×	×	×	×	×	0	×
QnA SEND function (with confirmation of	Batch	×	×	×	×	×	×	×
arrival) QnA SEND function	Random Batch		_					
(without confirmation of arrival)	Random	×	×	×	×	×	×	×
Direct Link Input	Batch Random	×	×	×	×	×	×	×
Direct Link Output	Batch Random	×	×	×	×	×	×	×
Direct Link Relay	Batch Random	×	×	×	×	×	×	×

					Destinati	on		
Device		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 Random	×	×	×	х	×	×	×
Direct Link Special Relay	Batch	×	×	×		.,		
(on Network Unit)	Random	^	_ ^	×	×	×	×	×
Direct Link Special Register	Batch							
(on Network Unit)	Random	×	×	×	×	×	×	×
Special Direct	Batch	×	,					
Buffer Register	Random	^	×	×	×	×	×	×
EM (Shared Device)	Batch Random	×	x	×	×	×	×	×
ED (Shared Device)	Batch Random	×	×	×	×	×	×	×

POINT

As for an accessible range, only the same segment can be accessed during Ethernet communication.

(3) RS-422 Communication

		Destination									
Device		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	A4U	Q2A(-S1) Q3A Q4A Q4AR Q2AS(-S1) Q2ASH(-S1)	Personal Computer			
х	Batch Random	0	0	0	0	0	0	×			
Y	Batch Random	0	0	0	0	0	0	×			
L	Batch Random	0	0	0	0	0	0	×			
М	Batch Random	0	0	0	0	0	0	×			
Special M(SM),SB	Batch Random	0	0	0	0	0	0	×			
F	Batch Random	0	0	0	0	0	0	×			
T (Contact Point)	Batch Random	0	0	0	0	0	×	×			
T(Coil)	Batch Random	0	0	0	0	0	0 ×	×			
C (Contact Point)	Batch Random	0	0	0	0	0	O ×	×			
C (Coil)	Batch Random	0	0	0	0	0	0 ×	×			
T (Current Value)	Batch Random	0	0	0	0	0	0	×			
C (Current Value)	Batch Random	0	0	0	0	0	0	×			
D	Batch Random	0	0	0	0	0	0	х			
Special D(SD),SW	Batch Random	0	0	0	0	0	0	×			
T (Main Set Value)	Batch Random	0 ×	· O	0 ×	0 ×	0 ×	×	×			
T (Sub Set Value 1)	Batch Random	×	×	O*1 ×	0 ×	0 ×	×	x			
T (Sub Set Value 2)	Batch Random	×	×	×	×	0 ×	×	×			
T (Sub Set Value 3)	Batch Random	×	×	×	×	Ŏ ×	×	×			
C (Main Set Value)	Batch Random	0 ×	0 ×	0 ×	O ×	O ×	×	×			
C (Sub Set Value 1)	Batch Random	×	×	^ O *1 ×	o ×	, O ×	×	×			

^{*1} A2A(-S1)CPU is not allowed access.

				<u>D</u>	estinatio	on	,	
Device	į	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	×	×	×	×	O ×	×	×
C (Sub Set Value 3)	Batch Random	×	×	×	×	O ×	×	×
А	Batch Random	×	×	×	×	×	×	×
Z	Batch Random	×	×	×	,×	×	×	×
V (Index Register)	Batch Random	×	×	×	×	×	×	×
R (File Register)	Batch Random	×	0	0	0	0	0	×
ER (Extended File Register)	Batch Random	0	0	0	0	0	0	×
В	Batch Random	0	0	0	0	0	0	×
W	Batch Random	0	0	0	0	0	0	×
QnA Link Special Relay (on QnA CPU)	Batch Random	×	×	×	×	×	0	×
Integrating Timer (Contact Point)	Batch Random	×	×	×	×	×	0 ×	×
Integrating Timer (Coil)	Batch Random	×	×	×	×	×	0 ×	х
QnA Link Special Register (on QnA CPU)	Batch Random	×	×	×	×	×	0	×
QnA Edge Relay (on QnA CPU)	Batch Random	×	×	×	×	×	0	×
Integrating Timer (Current Value)	Batch Random	×	×	×	×	×	0	×
QnA SEND function (with confirmation of arrival)	Batch Random	×	×	×	×	×	×	×
QnA SEND function (without confirmation of	Batch	×	×	×	×	×	×	×
arrival)	Random Batch			, ,				^
Direct Link Input	Random	×	×	×	×	×	O *2	×
Direct Link Output	Batch Random	×	×	×	×	×	O *2	×
Direct Link Relay	Batch Random	×	×	×	×	×	O *2	×

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

				D	estination	on .		
Device		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)		A4U	Q2A(-S1) Q3A Q4A Q4AR Q2AS(-S1) Q2ASH(-S1)	Personal Computer
Direct Link Register	Batch	×	×	×	×	×	O *2	×
	Random							
Direct Link Special Relay	Batch	×	×	×	×	×	O *2	×
(on Network Unit)	Random						 	
Direct Link Special	Batch						O *2	
Register (on Network Unit)	Random	×	×	×	х	×	0.2	×
Special Direct	Batch							
Buffer Register	Random	×	×	×	×	×	0	×
EM (Shared Device)	Batch							
Livi (Griared Device)	Random	×	×	×	×	×	×	×
ED (Shared Device)	Batch	×	×	×	×	×	×	,
LD (Chared Device)	Random	^	^	· ^	^	^	^	×

^{*2} Access is not allowed unless there's a network module available.

(4) MELSECNET/10 Communication

				C	estinatio	n		
Device	Ratch		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
Х	Batch Random	0	0	0	0	0	0	×
Υ	Batch Random	0	0	0	0	0	0	×
L	Batch Random	0	0	0	0	0	0	×
М	Batch Random	0	0	0	0	0	0	×
Special M(SM),SB	Batch Random	0	0	0	0	0	0	×
F	Batch Random	0	0	0	0	0	0	×
T (Contact Point)	Batch Random	0	0	0	0	0	O ×	×
T(Coil)	Batch Random	0	0	0	0	0	O ×	×
C (Contact Point)	Batch Random	0	0	0	0	0	О ×	×
C (Coil)	Batch Random	0	0	0	0	0	O ×	×
T (Current Value)	Batch Random	0	0	0	0	0	0	×
C (Current Value)	Batch Random	0	0	0	0	0	0	×
D	Batch Random	0	0	0	0	0	0	×
Special D(SD),SW	Batch Random	0	0	0	0	0	0	×
T (Main Set Value)	Batch Random	0 ×	0 ×	O ×	. O ×	0 ×	×	×
T (Sub Set Value 1)	Batch Random	×	×	O*1	ô ×	o ×	×	×
T (Sub Set Value 2)	Batch Random	×	×	×	×	O ×	×	×
T (Sub Set Value 3)	Batch Random	×	×	×	×	0 ×	×	×
C (Main Set Value)	Batch Random	O ×	O ×	O ×	0 ×	0 ×	×	×
C (Sub Set Value 1)	Batch Random	×	×	O *1	ô ×	ô ×	×	×
	1 IGNUUIII		l	X	X			

^{*1} A2A(-S1)CPU is not allowed access.

		Destination							
Device		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	A4U	Q2A(-S1) Q3A Q4A Q4AR Q2AS(-S1) Q2ASH(-S1)	Personal Computer	
C (Sub Set Value 2)	Batch Random	×	×	×	×	O ×	×	×	
C (Sub Set Value 3)	Batch Random	×	×	×	×	0 ×	×	×	
Α	Batch Random	0	0	0	0	0	×	×	
Z	Batch Random	0	0	0	0	0	0	×	
V (Index Register)	Batch Random	0	0	0	0	0	×	×	
R (File Register)	Batch Random	×	0	0	0	0	0	×	
ER (Extended File Register)	Batch Random	×	0	0	0	0	0	×	
В	Batch Random	0	0	0	0	0	0	×	
W	Batch Random	0	0	0	0	0	0	х	
QnA Link Special Relay (on QnA CPU)	Batch Random	×	×	×	x .	×	0	x	
Integrating Timer (Contact Point)	Batch Random	×	×	×	×	×	O ×	×	
Integrating Timer (Coil)	Batch Random	×	×	×	×	×	0 ×	×	
QnA Link Special Register (on QnA CPU)	Batch Random	×	×	×	×	×	0	×	
QnA Edge Relay (on QnA CPU)	Batch Random	×	×	×	х	×	0	×	
Integrating Timer (Current Value)	Batch Random	×	×	×	×	×	0	×	
QnA SEND function (with confirmation of	Batch	×	×	×	×	×	0	×	
arrival) QnA SEND function	Random		^	^		^	×	^	
(without confirmation of arrival)	Batch Random	×	×	×	×	×	0 ×	×	
Direct Link Input	Batch Random	×	×	×	×	×	0	×	
Direct Link Output	Batch Random	×	×	×	×	×	0	×	
Direct Link Relay	Batch Random	×	×	×	×	×	0	×	

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)	A3N A3A	A4U	Q2A(-S1) Q3A Q4A Q4AR Q2AS(-S1) Q2ASH(-S1)	Personal Computer	
Direct Link Register	Batch	× .	×	×	×	×	0	×	
	Random								
Direct Link Special Relay (on Network Unit)	Batch	×	×	×	×	×	0	x	
	Random								
Direct Link Special Register (on Network Unit)	Batch	×	×	×	×	×	0	×	
	Random								
Special Direct Buffer Register	Batch	×	×	×	x	×	0	×	
	Random								
EM (Shared Device)	Batch Random	×	×	×	×	×	×	0	
ED (Shared Device)	Batch Random	×	×	×	×	×	×	0	

10 ACCESSIBLE RANGE

Accessible as AnCPU

This chapter describes the access ranges in various communication.

10.1 Accessible Range

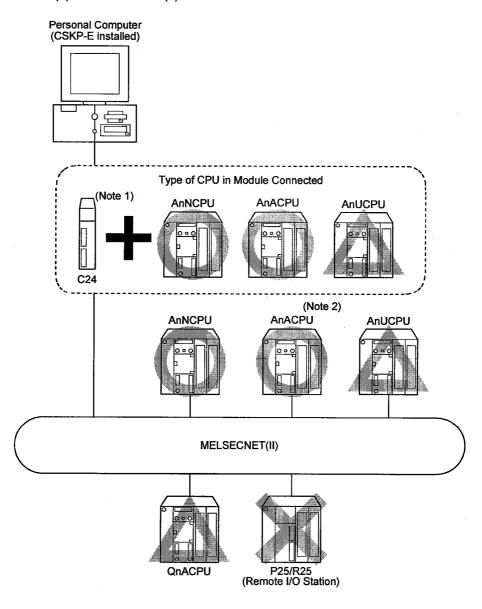
This section describes the range of access that can be accessed with the CSKP-E.

POINT Other networks cannot be accessed during Computer Link or Ethernet communication. O......Accessible

10.1.1 Computer Link Communication

(1) When C24 serves as a module connected

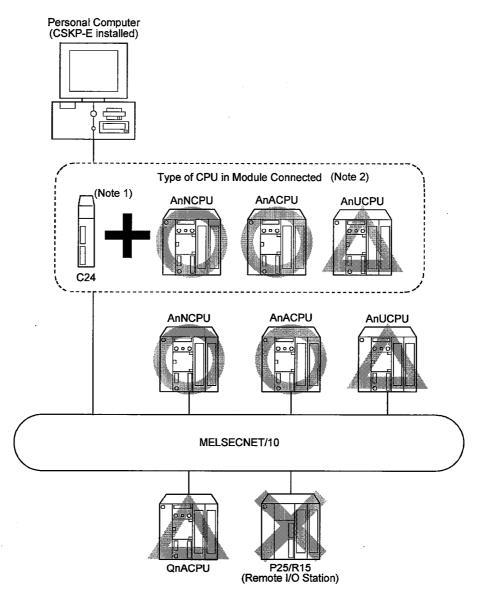
(a) MELSECNET(II)



(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

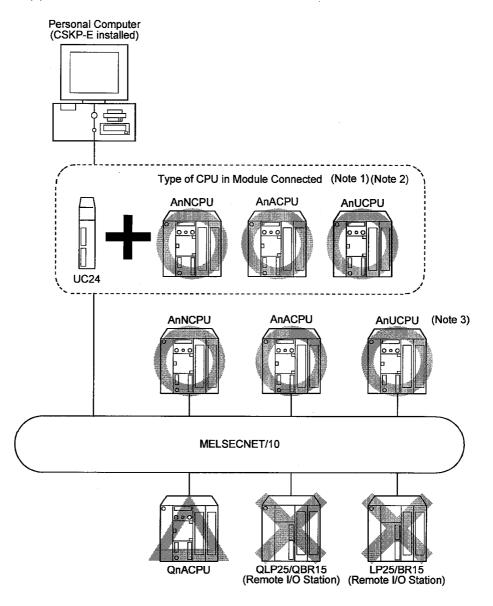
(a) MELSECNET(II) Personal Computer (CSKP-E installed) Type of CPU in Module Connected (Note 1) **AnACPU AnNCPU AnUCPU** UC24 **AnNCPU AnACPU AnUCPU** MELSECNET(II)

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

P25/R25 (Remote I/O Station)

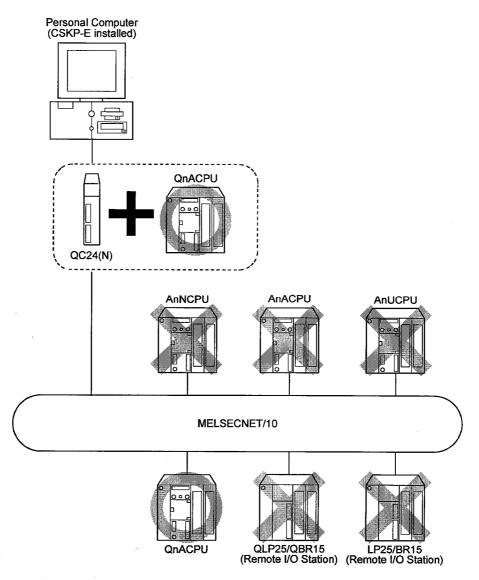
QnACPU

(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



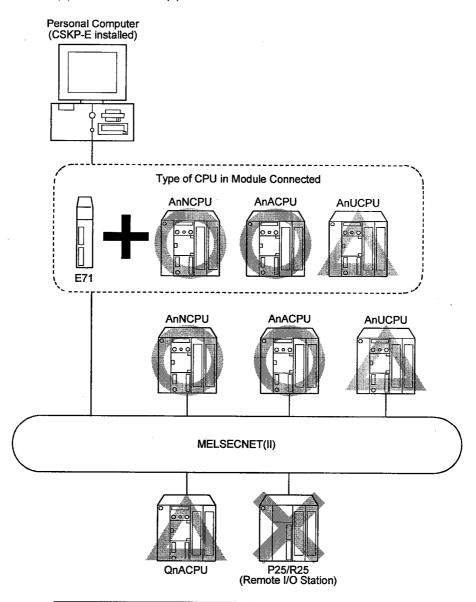
POINT

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

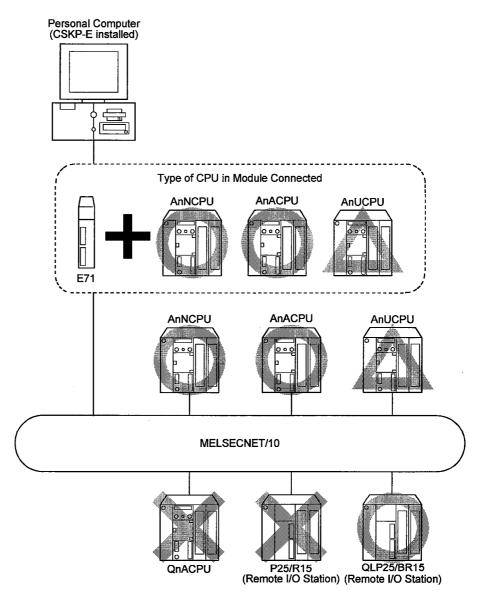
(a) MELSECNET(II)



POINT

Only the same segment can be accessed during Ethernet communication.

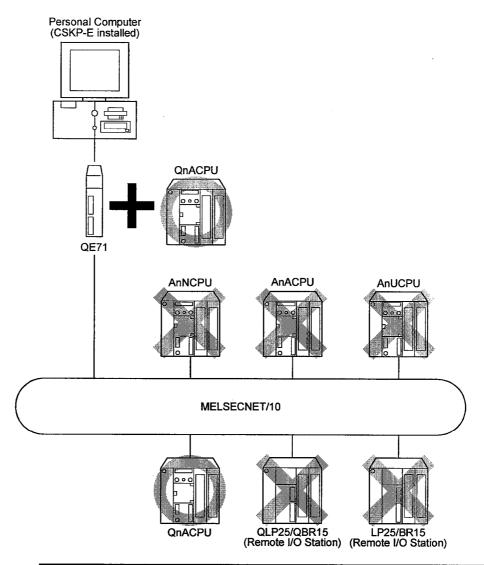
(b) MELSECNET/10



POINT

Only the same segment can be accessed during Ethernet communication.

(2) When QE71 serves as a module connected



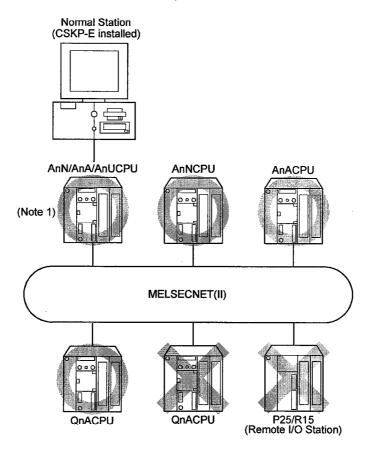
POINTS

- · 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

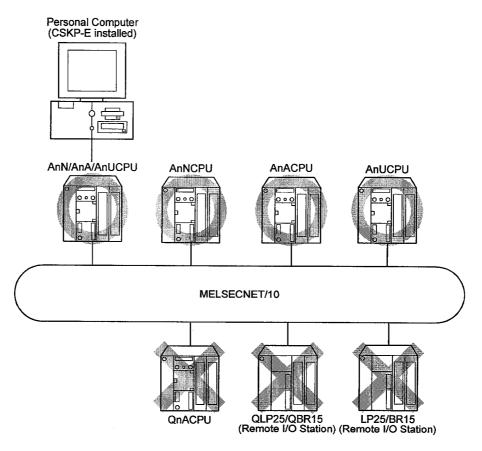
(1) When AnN, AnA, or AnU serves as a CPU connected

(a) MELSECNET(II)



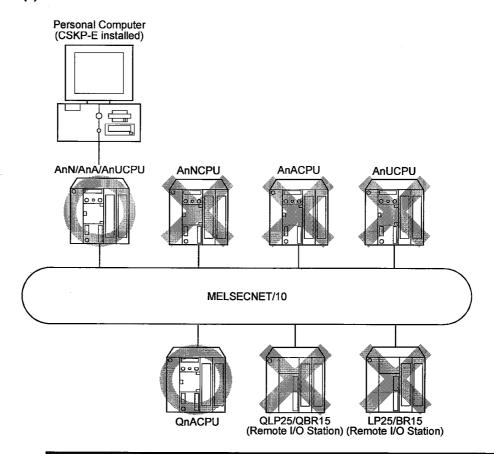
(Note 1) The destination CPU can be accessed as AnACPU when the CPU connected is AnN, AnH or AnACPU while the destination CPU is AnCPU.

(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

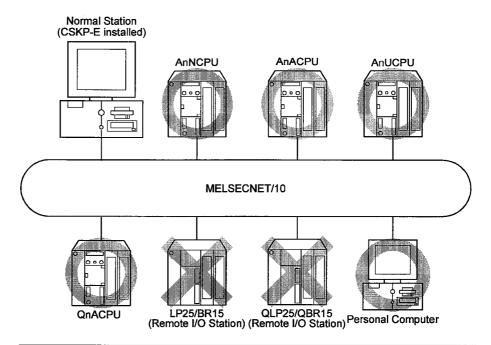


POINT

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).

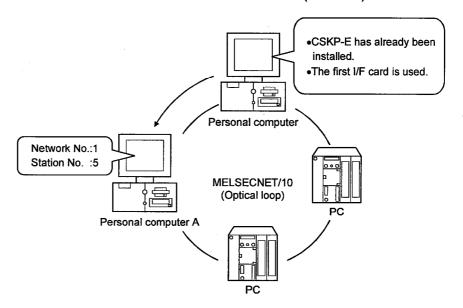
11 USING SHARED DEVICES

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)



POINT

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.

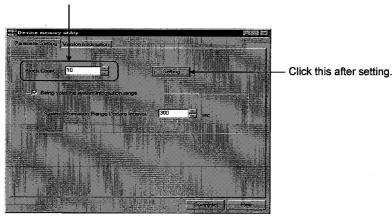
(4) Starting the Shared Device Utility

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."

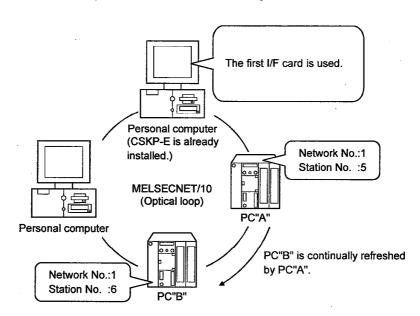
Channel to be used

: 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.)

Set any refresh range name. Sample Click here after making all necessary settings. Channel MELSECNET/10 (1 slot) MELSECNET/10 (1 slot) 1

Set 8 bytes as the transfer size.

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:

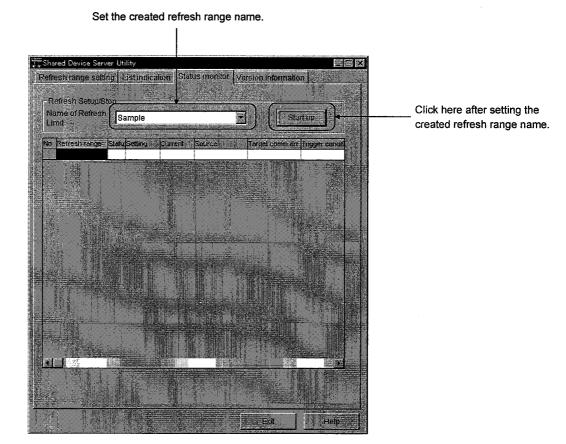
Channel

: 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.



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	Device Range	Number of Blocks	Device Range	
(0 to 255)	(0 to 8191)	(0 to 255)	(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)	
•	•	•	•	
•	•	•		
		•	4	
	•	•	•	
EM255	EM255(0) to EM255(8191)	ED255	ED255(0) to ED255(8191)	

^{*1} System Information Area

POINTS

- · 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.
- · The number of blocks to be used differs depending on how the Shared Device Utility is set.
- · The shared devices exist only in the personal computers rather than PC.

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)	
100 to 199	Information on machine basic configuration (Subsection 13.2.2)	
200 to 399	Information on optional card (Subsection 13.2.3)	Reserved
400 to 599	Drive information (Subsection 13.2.4)	neserveu
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	The total number of optional cards installed in a personal computer is		
200	cards	stored. A value from 0 to 8 is stored.		
		Information for up to 8 optional cards (installed on the personal		
		computer) is stored in the following format		
		Information on the first coul		
		Information on the first card		
		Device No. 201 : Upper two digits of head address in shared memory address which is occupied by I/F card		
		Device No. 202 : Switch number for I/F card interrupt signal		
		setting switch		
		Device No. 203 : 100H/300H		
		Device No. 204 to 211: Card name (16 characters)		
		"MELSECNET"		
		"MELSECNET10"		
		Device No. 212 : Hardware version (ROM version, two		
		characters)		
		A, B etc.		
		Device No. 213 to 214 : Software version (driver version, three characters)		
201 to 336	Information on	00A, 0B, etc.		
201 10 000	Optional Cards	00A, 0D, 6tc.		
		Device No. 215 : LED status *1		
		Device No. 216 : LED status *2 } (See subsequent pages)		
		Device No. 217 : LED status *3 J		
		•		
		į to		
		Information on 8th card.		
		Device No. 320 : BD No.		
		Device No. 321 : IT No.		
-		Device No. 322 : 100H/300H		
		Device No. 323 to 330 : Machine model code		
		Device No. 331 : Hardware version		
		Device No. 332 to 333 : Software version		
٠		Device No. 334 : LED status *1		
		Device No. 335 : LED status *2 (See subsequent pages)		
007.1- 000	December	Device No. 336 : LED status *3		
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		es existing in a personal computer is
			disc capacity, and free disk capacity puter are stored in the following format:
		A Drive Information	
		Device No. 401 :Ty	pe of drive
		2	·Changeable drive
		3	Fixed drive
		4	Network drive
		5	·CD-ROM drive
		Data listed below are store	ed in No. 402 to 405 only when a fixed
		drive is used	
		Device No. 402 :Lo	wer two bytes of total disk capacity
			per two bytes of total disk capacity
	:	Device No. 404 :Lo	wer two bytes of vacant disk capacity
401 to 530	Drive Information	Device No. 405 :Up	per two bytes of vacant disk capacity
		to	
		Z Drive Information	
			pe of drive
		- 1	· · Changeable drive
		3.	··Fixed drive
		4	··Network drive
	·		··CD-ROM drive
			d in No. 527 to 530 only when a fixed
		drive is used	
,·			wer two bytes of total disk capacity
			per two bytes of total disk capacity
		- I	wer two bytes of vacant disk capacity
			per two bytes of vacant disk capacity
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)
		Information on a printer connected to the printer port of a personal computer is stored in the following format.
		LPT1 : Information
	Information on Printers	Device No. 601 to 664 : Printer name (128 characters)
		Device No. 665 to 728 : Driver name (128 names)
601 to 984		
	Connected	LPT2 : Information
		Device No. 729 to 792 : Printer name (128 characters))
		Device No. 793 to 856 : Driver name (128 names)
		LPT3 : Information
		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.

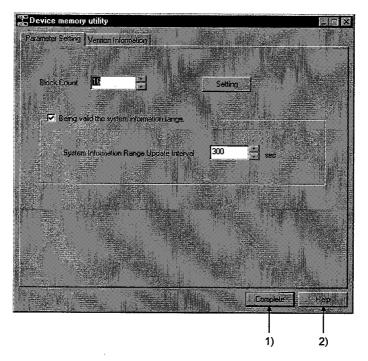
14.2 Function

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

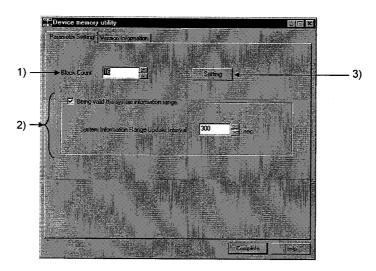




- 1) Complete button
 Terminates the Shared Device Utility.
- 2) Help button
 Displays the Help menu of the Shared Device Utility.

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.

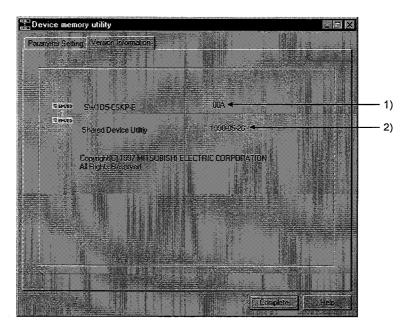
The Parameter Setting screen is redisplayed after parameter setting.

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.

POINT

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

It cannot be used under Windows 95 and Windows 98.

15.1 Start Method

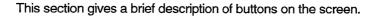
Click [Start]-[Programs]-[MELSEC APPLICATION]-[COMMUNICATION SUPPORT(C-SKP-E)]-[EM ED]-[EM ED Server Utility] in order.

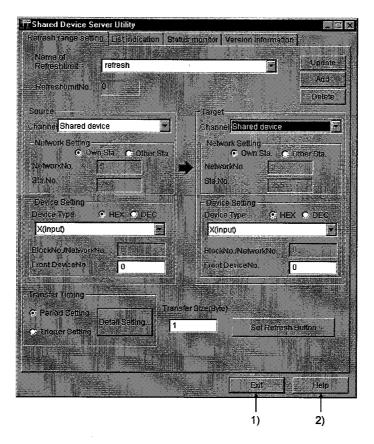
15.2 Function

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

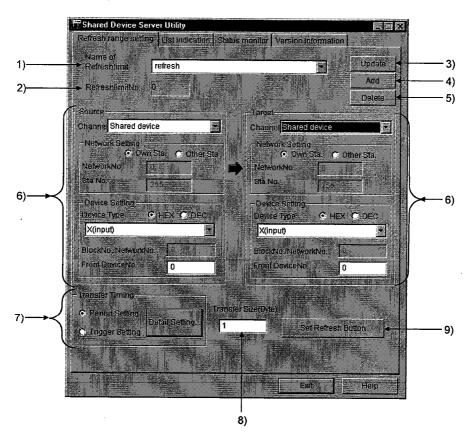




- 1) Exit button
 Terminates the Shared Device Server Utility.
- 2) Help button
 Displays the Help menu of the Shared Device Server Utility.

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.)

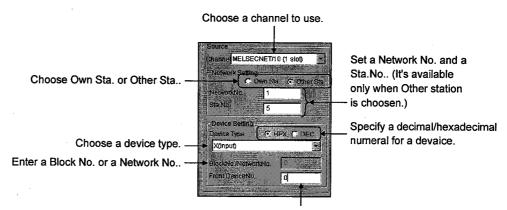
2) Refresh Limit No.

Unique number to be used for control by the utility. It is transparent to users.

- Update buttonUpdates 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.



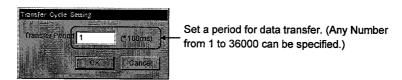
Enter a head device number for a source or destination device. (Specify with a multiple of 8 if a bit device is choosen.)

7) Transfer Timing

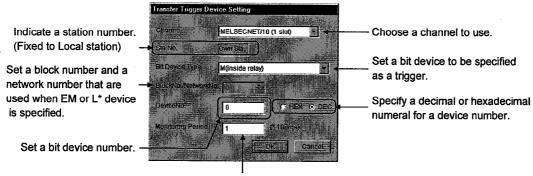
Sets the timing for data transfer. Click the **Detail Setting button**, and the following screen will be displayed.



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



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



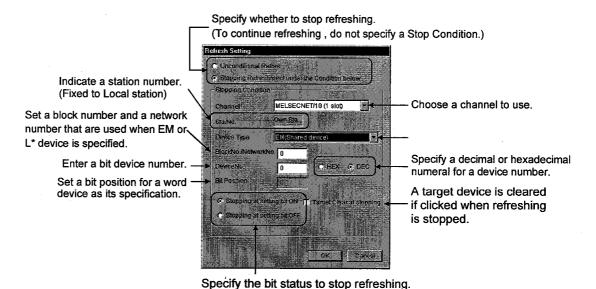
Set a period for checking the status of a specified bit device. (Any number from 1 to 36000 can be specified.)

8) Transfer Size

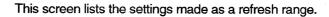
Specifies how many bytes of transfer device data (starting from the head device) will be transferred. (Any byte from 1 to 16384 bytes can be set.)

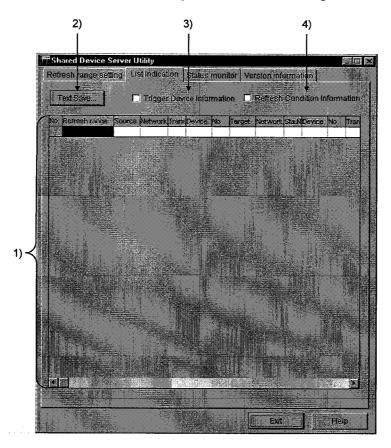
9) Set Refresh Button button

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



15.5 List Indication





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

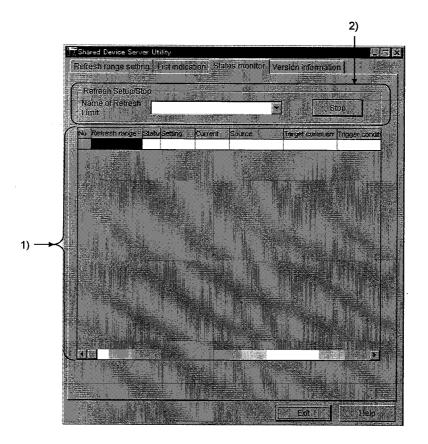
Adds the trigger device items to the table by checking here.

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.

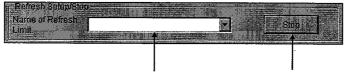


1) List of Refresh Range Status

Lists and displays the status of a refresh range specified.

2) Refresh Setup/Stop

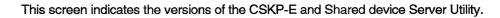
Starts or stops a refresh range specified.

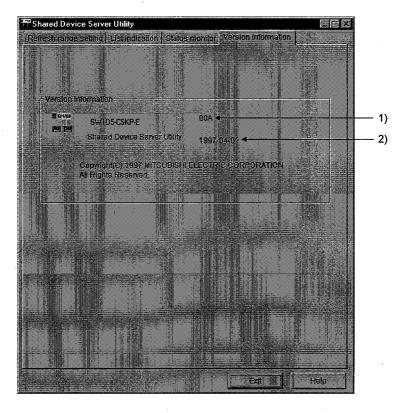


Choose the name of a refresh range in which start or stop is specified.

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





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	



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