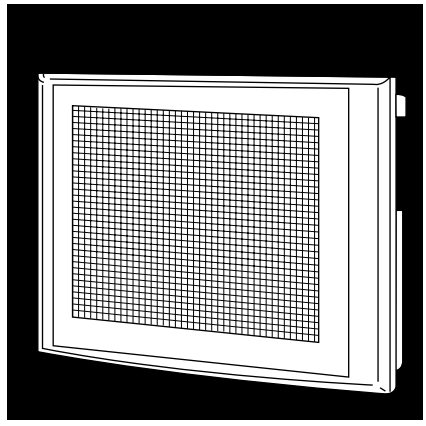
MITSUBISHI

SW0NIW-A8GOTP Graphic Settings Software Package

Operating Manual (Data Transmission/Debugging/ Document Creation Manual)



GRAPHIC OPERATION TERMINAL

800 Series

GOT MELSEC

Mitsubishi Graphic Operation Terminal

Revisions

* The manual number is noted at the lower left of the back cover.

Print Date	*Manual Number	Revision
Feb. 1996	IB(NA)-66840-A	First printing (Japanese manual Version B)

Introduction

Thank you for purchasing the Mitsubishi Graphic Operation Terminal.

Before using the equipment, please read this manual carefully to develop full familiarity with the functions and performance of the graphic operation terminal you have purchased, so as to ensure correct use.

Please forward a copy of this manual to the end user.

Contents

About the Manuals

The following product manuals are available. Please use this table as a reference to request the appropriate manual as necessary.

Related Manuals

Manual Name	Manual No. (Model Code)
A870GOT Graphic Operation Terminal User's Manual This describes the specifications and performance of the A870GOT main unit, as well as the hardware configuration, procedures for installing optional units, operation in on-line mode, error codes, and troubleshooting guidelines.	IB-66628 (13J830)
SW0NIW-A8GOTP Graphic Settings Software Package Operating Manual (Introductory Manual) This manual is designed for the first-time user of the A870GOT. It describes how to create monitor screens with the A8GOTP, how to send monitor data to the A870GOT, and what the various screen displays mean.	IB-66629 (13JF21)
SW0NIW-A8GOTP Graphic Settings Software Package Operating Manual (Startup Manual) This describes the configuration of the A8GOTP system, precautions regarding the configuration, and the specifications of the various functions, as well as the installation procedures, startup procedures, screen configurations, and basic operation procedures.	IB-66630 (13JF22)
SW0NIW-A8GOTP Graphic Settings Software Package Operating Manual (Monitor Screen Creation Manual) This describes procedures for creating monitor screens, monitor functions that can be used with the A870GOT, procedures for setting the monitor functions, precautions to be observed when creating monitor screens, and precautions to be observed when appropriating conventional GOT monitor data for use with the A870GOT.	IB-66633 (13JF25)
A870GOT Graphic Operation Terminal Operating Manual (Expanded Functions Manual) This manual describes the operation procedures for using system monitor functions, monitor functions for special function units, and the dedicated monitor screens used with the circuit monitor functions.	IB-66632 (13JF24)
A8GT-MCA Memory Cassette with Built-in Circuit Monitoring Function User's Manual This manual explains how to install the circuit monitor cassette in the A870GOT.	IB-66634 (13J831)
A8GT-RS4 RS-422 Serial Communication Unit User's Manual (Hardware Manual) This manual describes the names and settings for the various parts of the interface unit, and how to install it in the A870GOT.	IB-66635 (13J832)
A7GT-BUS Bus Connection Interface Unit User's Manual (Hardware Manual) This describes the specifications of the bus connection unit, the names of parts, and how to enter settings.	IB-66556 (13JE92)

Manual Name	Manual No. (Model Code)
A7GT-J71AP23/R23 Data Link User's Manual This manual contains the specifications for the MELSECNET (II) Optical Data Link Unit/ MELSECNET (II) Coaxial Data Link Unit, as well as the names and settings for the various parts.	IB-66438 (13JE26)
A7GT-J71AT23B Data Link Unit User's Manual This contains the specifications for the MELSECNET/B Data Link Unit, as well as the names and settings for the various parts.	IB-66439 (13JE27)
A7GT-J71LP23/BR13 Network Unit User's Manual This manual contains the specifications for the MELSECNET/10 Optical Loop Network Unit/ MELSECNET/10 Coaxial Bus Network Unit, as well as the names and settings for the various parts.	IB-66558 (13JE94)
MELSECNET, MELSECNET/B Data Link System Reference Manual This manual contains an overview of the MELSECNET (II) and MELSECNET/B, as well as the specifications, names of parts, and the various settings.	IB-66350 (13JF70)
MELSECNET/10 Network System Reference Manual (For PC Networks) This manual contains an overview of the MELSECNET/10, along with the specifications, names of parts, and the settings.	IB-66440 (13JE33)
Computer Link Unit User's Manual (Computer Link Functions/Printer Functions Manual) This manual describes the unit settings, wiring, programming, troubleshooting procedures, and other information concerning communication with peripheral equipment using the dedicated protocol, the no-protocol mode and the bi-directional mode for the computer link unit, as well as printer functions. This manual can be used with the following computer link units: A1SJ71UC24-R2, A1SJ71UC24-R4, A1SJ71UC24-PRF, AJ71UC24, A2CCPUC24, A2CCPUC24-PRF, and A1SCPUC24-R2	SH-3511 (13JE77)
AJ71UC24 Computer Link Unit User's Manual (Hardware Manual) This manual explains the system configuration when using the unit, the unit specifications, and the names of parts and the settings, and contains diagrams of the external dimensions.	IB-66559 (13JE95)
A1SJ71UC24-R4 Computer Link Unit User's Manual (Hardware Manual) This manual explains the system configuration when using the unit, the unit specifications, and the names of parts and the settings, and contains diagrams of the external dimensions.	IB-66582 (13J805)

Chapter 1

Overview

1. Overview

This manual describes the data transmission functions used to send created monitor data to the A870GOT, as well as how to install the system program (circuit monitors, system monitors, and other elements) and how to create and debug documents.

1.1 Configuration of the Manual

This manual consists of five chapters, which are described below.

Chapter 1

Describes the configuration of the manual, how it is used, and abbreviations used in the manual.

Chapter 2

Describes the system configuration when data is transmitted, debugging is done, and documents are created.

Chapter 3

Explains how to upload and download data, debug without using a sequencer, and install the software package.

Chapter 4

Explains the settings used when creating documents, and how to create original documents using a general-purpose word processor.

Chapter 5

Explains error messages which may appear when sending data or creating documents, and what steps should be taken to correct the problem.

1.2 Structure and Guide to the Use of This Manual

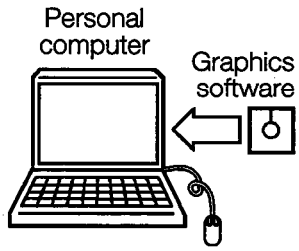
When this graphics software is purchased, it comes with five operating manuals. The GOT also comes with a user's manual. Manuals are categorized according to the purpose for which they are used. Please read the manual that corresponds to your particular objective in order to become familiar with the operations and functions of the software.

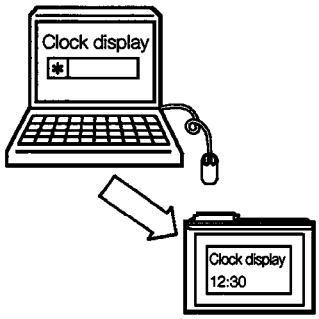
SW□NIW-A8GOTP Operating Manual

- Install the graphics software in the computer.
- Start up the graphics software.
- Learn fundamental information and basic operations for the graphics software.

SW□NIW-A8GOTP Operating

Startup manual





- Create simple graphics, monitor using the GOT, and learn the flow of a series of operations.

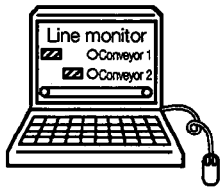
SW□NIW-A8GOTP Operating

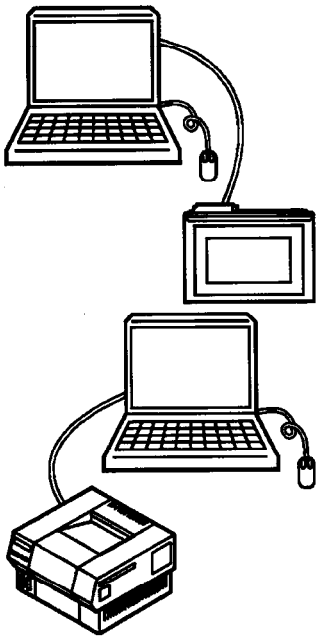
Introductory manual

- Actually create screens for monitoring using the GOT.
  - Drawing graphics
  - Sprite settings
- Edit the data which has been created.

SW□NIW-A8GOTP Operating

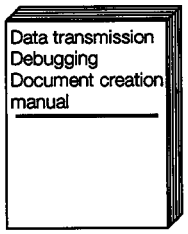
Monitor screen creation manual

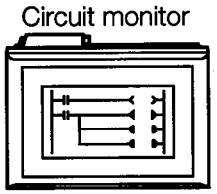


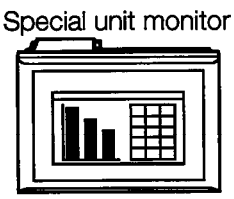


- Install the OS program and communications driver in the GOT.
- Download created graphics to the GOT.
- Debug graphics between the computer and GOT.
- Create data documents.

SW□NIW-A8GOTP Operating

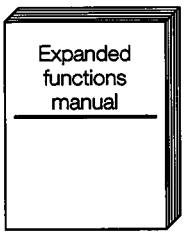






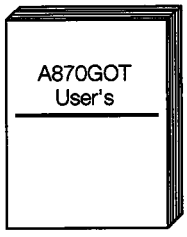
- Monitor circuits.
- Monitor the system.
- Monitor the special unit.

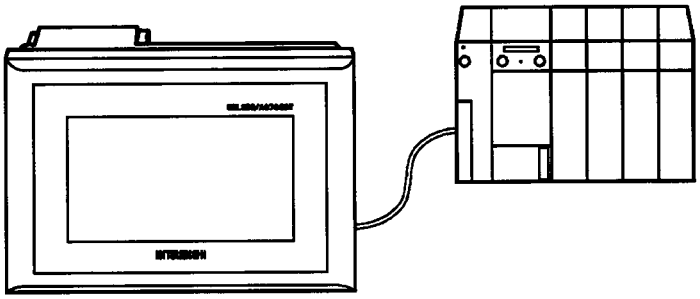
A870GOT Operating



A870GOT User's Manual

- Install optional units (communications unit, power supply unit) in the GOT.
- Connect the GOT and sequencer CPU.
- Find out how to attach the GOT and its external dimensions.
- Select a model.

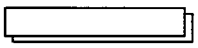
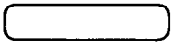
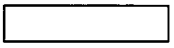
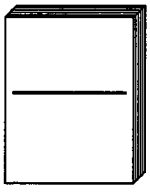




1.3 Abbreviations and Symbols Used in This Manual

The following abbreviations and symbols are used in this manual.

Abbreviation/Terminology	Contents
Graphics software	This refers to the SW□NIW-A8GOTP.
Computer	This refers to the peripheral device in which the graphics software has been installed.
GOT	This indicates the A870GOT.
Conventional GOT	This indicates the A77GOT (S3/S5).
Canvas graphics	This indicates graphics and text data for still images.
Sprite	This refers to setting data used for moving images.
Screen data	This is the data specified for graphics and sprites, in units of one screen.
Common screen data	This is the data for the specified GOT type and screen switching device.
Comment data	This is character string data created in order to display comments with the message display function.
Parts data	This is graphic data registered in order to display graphics with the part display function.
Title data	This is title data that comes with each of the various screens.
Project data	This refers to all of the data that has been created, and all of the data saved in the specified directory.

Symbol	Contents
	This indicates a command on a menu.
	This indicates a dialog box tab.
[ ]	This indicates a displayed dialog box.
< >	This indicates an item in a dialog box for which a setting can be entered.
	This indicates a dialog box command button.
POINT	This indicates that the information is particularly important.
	This indicates an item which can be referenced in this manual.
	This indicates an item which can be referenced in another manual.

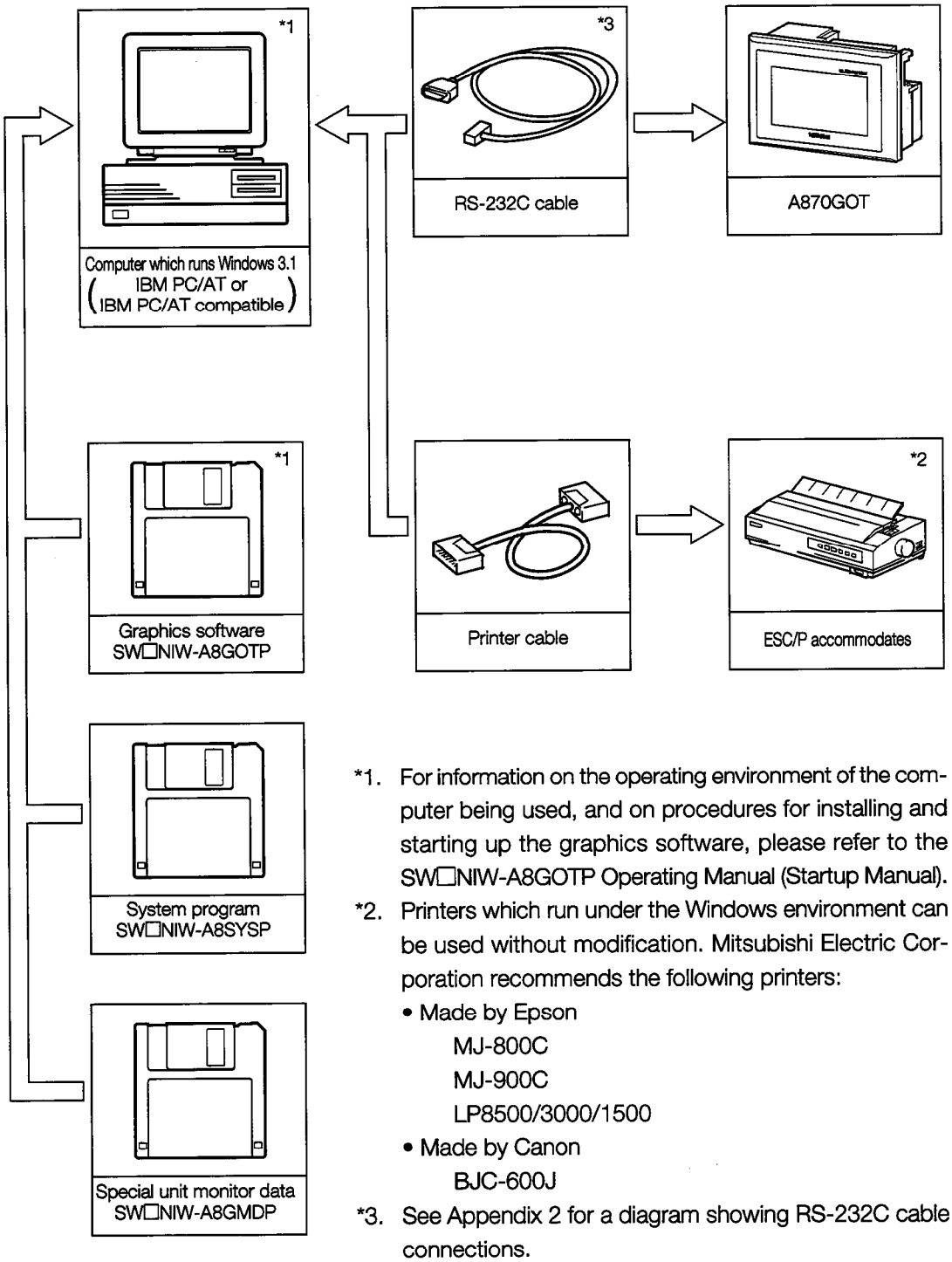
MEMO

Chapter 2

System Configuration

2. System Configuration

This shows the system configuration when transmitting data, debugging, and creating documents.



*1. For information on the operating environment of the computer being used, and on procedures for installing and starting up the graphics software, please refer to the SW□NIW-A8GOTP Operating Manual (Startup Manual).

*2. Printers which run under the Windows environment can be used without modification. Mitsubishi Electric Corporation recommends the following printers:

- Made by Epson
  - MJ-800C
  - MJ-900C
  - LP8500/3000/1500
- Made by Canon
  - BJC-600J

*3. See Appendix 2 for a diagram showing RS-232C cable connections.

MEMO

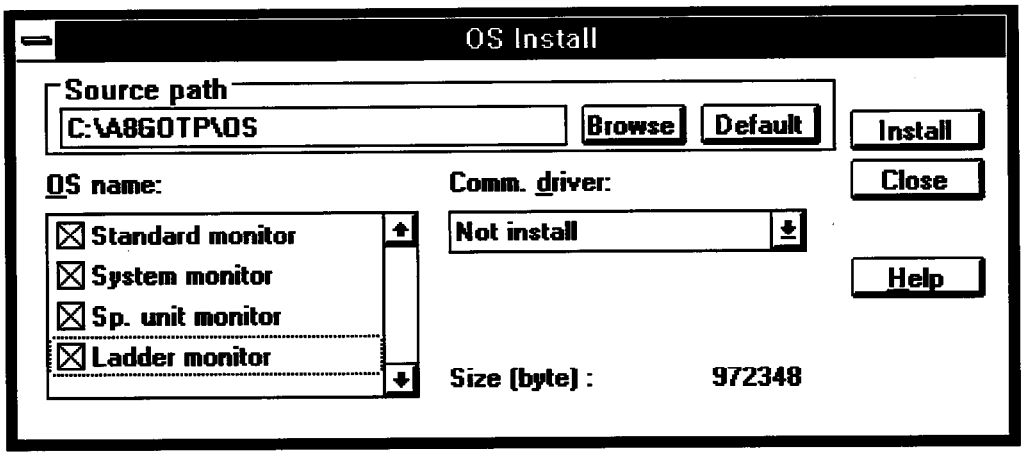
3. Communications

3.1 Installing the System Program (OS)

When is this function used?

- The system program is installed in the GOT main unit when you are ready to run circuit monitor functions, system monitor functions, and special unit monitor functions.

1. Select OS Install on the Communications menu.
2. The "OS Install" dialog box is displayed.



POINT

When the system program is installed, it will overwrite any system programs which have already been installed previously.

Expanded functions manual

Browse

Item to Set	Description of Setting
"Source path"	• Specify the drive and path containing the system program file. • Clicking on Browse displays the file name reference dialog box. • Clicking on Default displays the OS directory contained in the directory specified when the program was installed.
"OS name"	Select the system program to be installed, by placing a check mark in the box.
"Comm. driver"	Specify the communications driver that corresponds to the communications cassette being used.

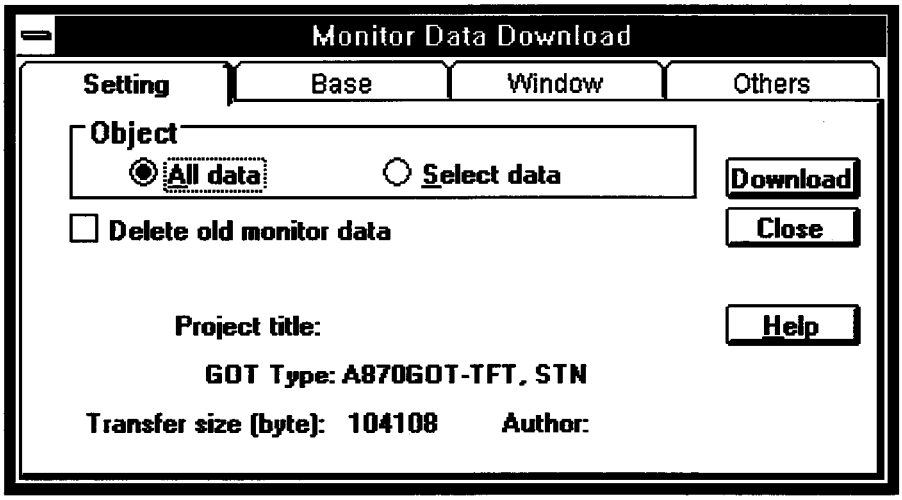
3.2 Downloading Data

3.2.1 Downloading Monitor Data

When is this function used?

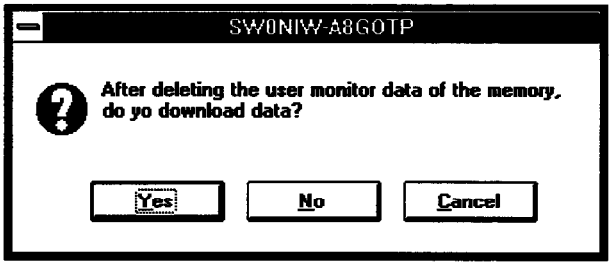
- Monitor data is downloaded when the created monitor data is written to the built-in memory in the GOT.

1. On the Communications menu, select [Download] and then [Monitor Data].
2. The "Monitor Data Download" dialog box is displayed.



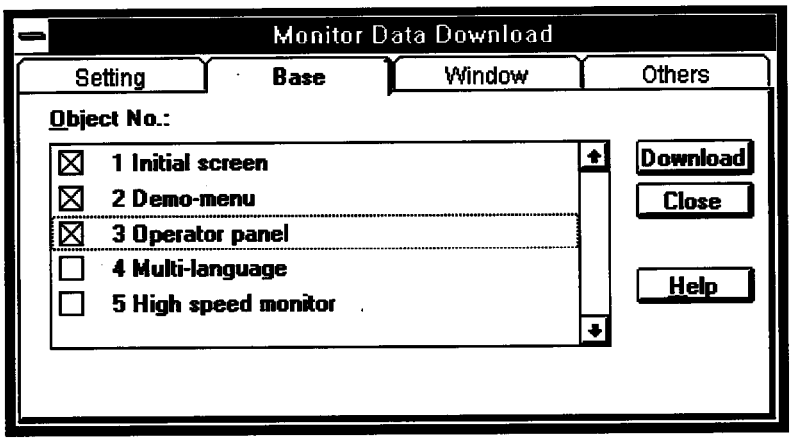
POINT

If the same data as that being downloaded already exists in the built-in memory in the GOT, the previous data will be overwritten.

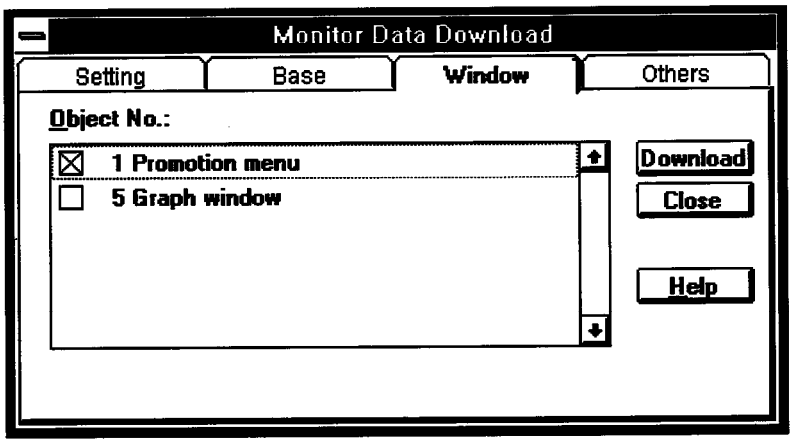
Item to Set	Description of Setting
"Object"	Using the radio button, select the data to be downloaded.
"Delete old monitor data"	Clicking on [Download] after selecting the data with the check box displays a confirmation dialog box like that shown below.  [Yes] : Deletes monitor data already in the GOT built-in memory before downloading new data. [No] : Downloads data without deleting data already stored in the memory. [Cancel] : Interrupts the downloading process and returns to the screen window.

3. If "Select" is chosen under "Object", clicking on the tab name displays the screen shown below.

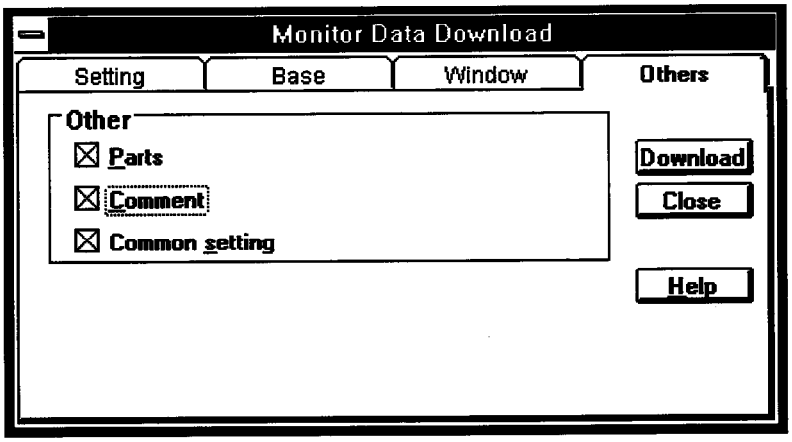
   Select the objects to be downloaded on the various screens.



Items which were created or modified in the Base screen window are downloaded here, along with setting items which are common to all of the windows.



Items which were created or modified in the Window screen window are downloaded here, along with setting items which are common to all of the windows.



Parts data created on the screen window, part names, comments which have been created, and setting items which are common to all of the windows are downloaded here.

- Contents specified using [Setting] and then [Project] on the Common Settings menu cannot be downloaded.
- The following contents are displayed in the lower part of the "Monitor Data Download" dialog box.

Display	Contents Displayed
"Project title" "By"	Displays contents specified using [Setting] and then [Project] on the Common Settings menu
"GOT Type"	Displays contents specified using [GOT Type] on the Common Settings menu
"Size (byte)"	Displays the size of the monitor data being transmitted

POINT

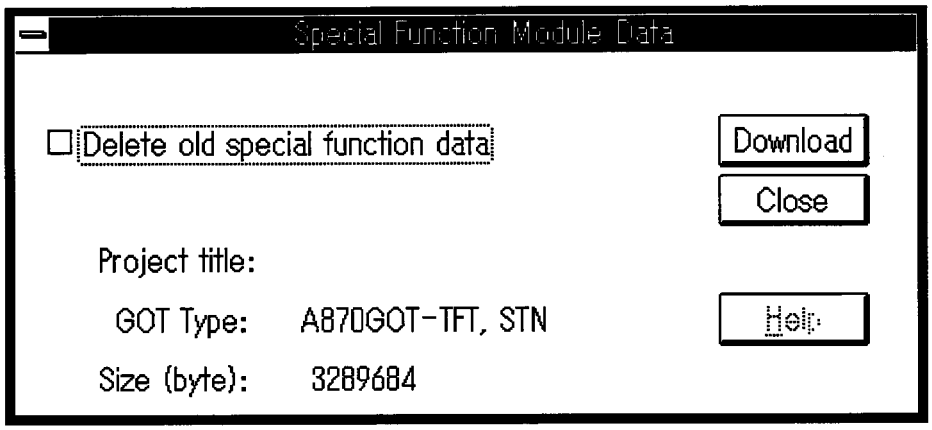
While data is being downloaded, all GOT functions currently running are stopped. When all of the data has been downloaded, the stopped functions resume automatically.

3.2.2 Downloading Special Unit Monitor Data

When is this function used?

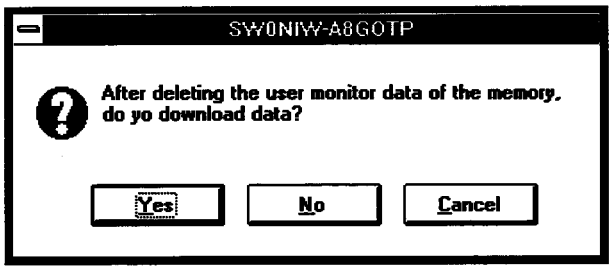
- Special unit monitor data is downloaded when data is written to the built-in memory in the GOT.

1. On the Communications menu, select [Download] and then [Special Unit Monitor Data].
2. The "Special Function Module Data" dialog box is displayed.



POINT

If the same data as that being downloaded already exists in the built-in memory in the GOT, the previous data will be overwritten.

Item to Set	Description of Setting
"Delete old special function data"	Clicking on [Download] after selecting the data with the check box displays a confirmation dialog box like that shown below.  [Yes] : Deletes special function data already in the GOT built-in memory before downloading new data. [No] : Downloads data without deleting data already stored in the memory. [Cancel] : Interrupts the downloading process and returns to the screen window.

3. Running the downloading function initiates downloading of special unit monitor data saved in the drive and directory specified by File under Options on the Project menu.
4. All of the special unit monitor data which has been installed is downloaded at one time.
5. For information on installing special unit monitor data, please see the manual noted below.
   A870GOT Graphic Operation Terminal Operating Manual (Expanded Functions Manual)
   IB-66632

POINT

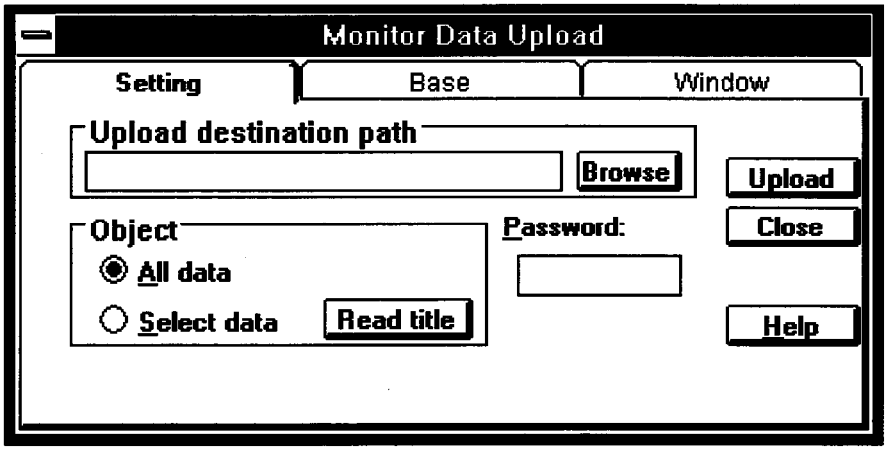
While data is being downloaded, all GOT functions currently running are stopped. When all of the data has been downloaded, the stopped functions resume automatically.

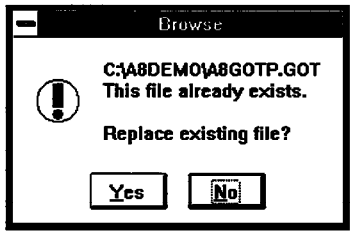
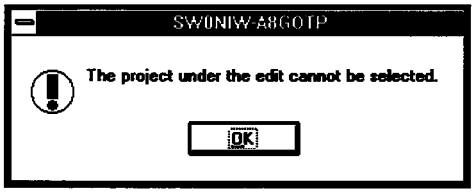
3.3 Uploading Data

When is this function used?

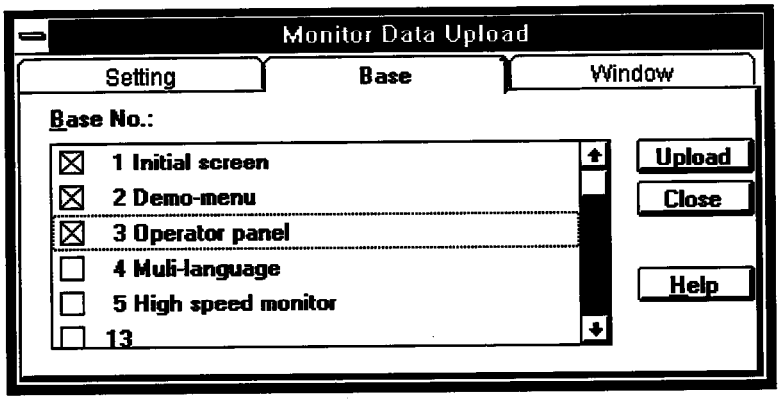
- Data is uploaded when monitor data which has been saved to the built-in memory of the GOT is to be read to a graphics software file.

1. Select Upload on the Communications menu.
2. The "Monitor Data Upload" dialog box is displayed.

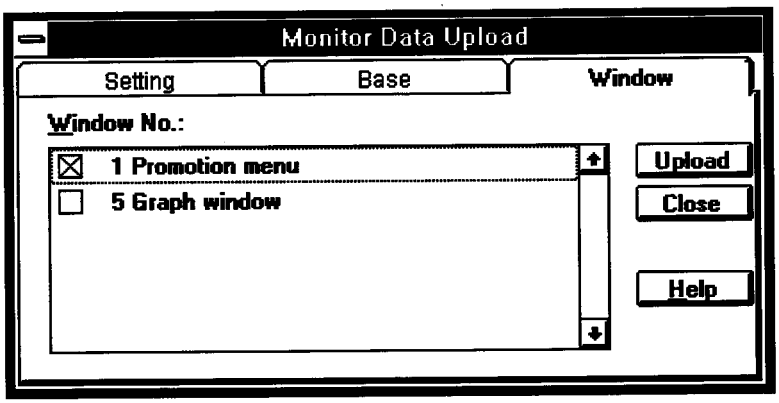


Item to Set	Description of Setting
"Upload destination path"	• Specify the drive and path to which the data is to be uploaded. • If a file which already exists is specified as the upload destination, the following message dialog box is displayed.  • If the file currently being edited is specified as the upload destination, the following message dialog box is displayed. 
"Object"	• The data to be uploaded is selected using the radio buttons. • Choosing "Select data" and clicking on Read title reads out the titles of monitor data saved to the built-in memory of the GOT.
"Password"	If a password has been specified for data transmission, enter the specified password here.

3. When "Select data" is chosen under "Object" and the monitor data has been read out from the built-in memory of the GOT by clicking on [Read title], clicking on the tab name displays a screen like that shown below. This screen can then be used to select the data to be uploaded.



This uploads the data of the specified Base screen, as well as parts data, comments, and setting items common to all of the windows.



This uploads the data of the specified Window screen, as well as parts data, comments, and setting items common to all of the windows.

POINT

(1) Parts data, comments, and setting items common to all of the windows are always uploaded.

(2) While data is being downloaded, all GOT functions currently running are stopped. When all of the data has been downloaded, the stopped functions resume automatically.

3.4 Reading Information From the Built-in Memory

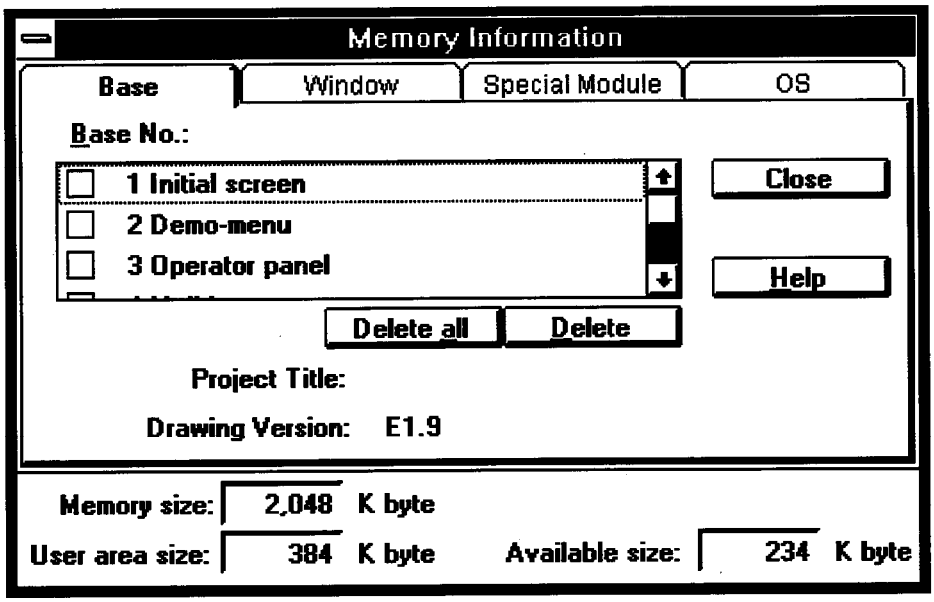
3.4.1 Checking Information in the Built-in Memory

When is this function used?

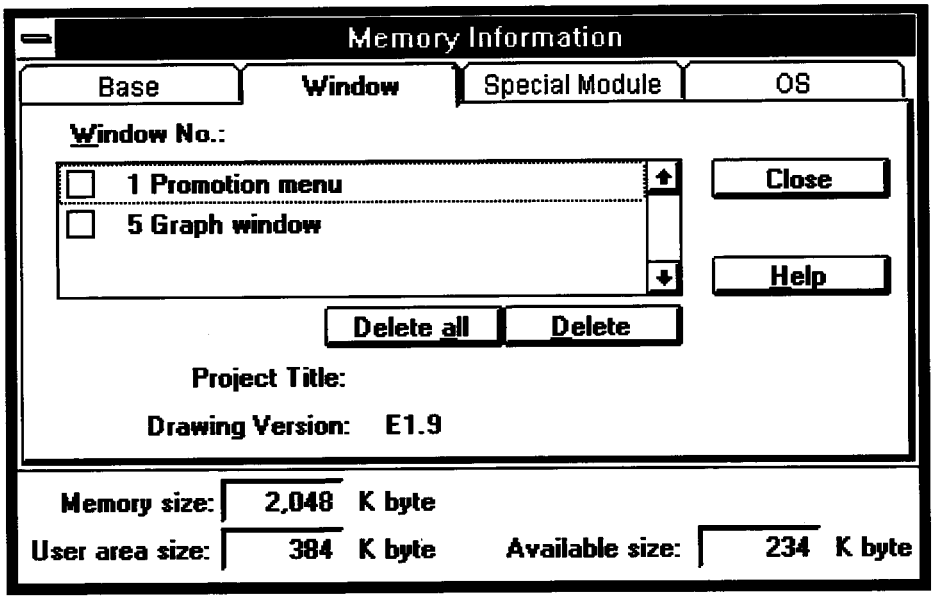
- This function is used when you want to confirm data information which has been written to the built-in memory of the GOT.

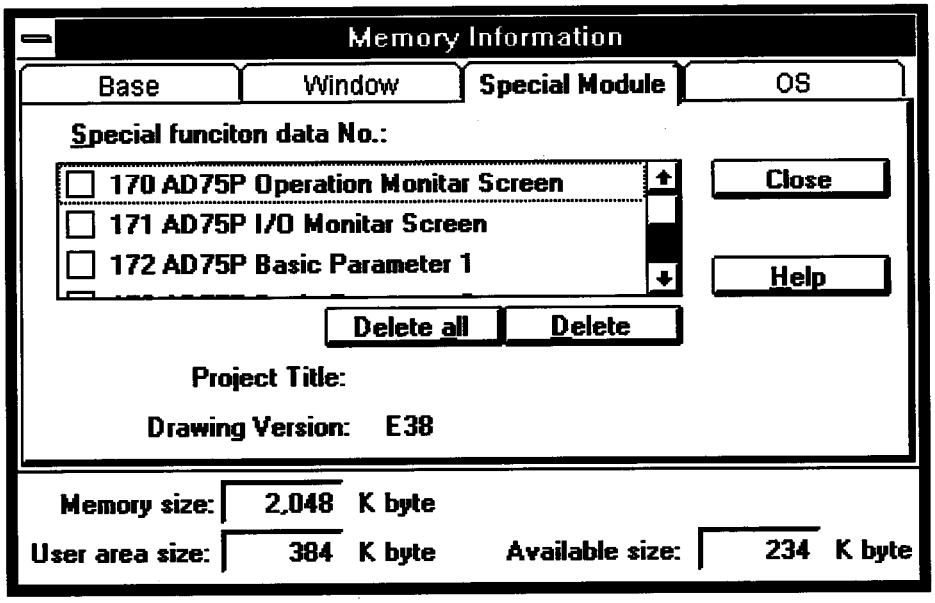
1. Selecting [Memory Information] on the Communications menu displays the "Communicating" dialog box shown below, and reads out the information in the built-in memory of the GOT.

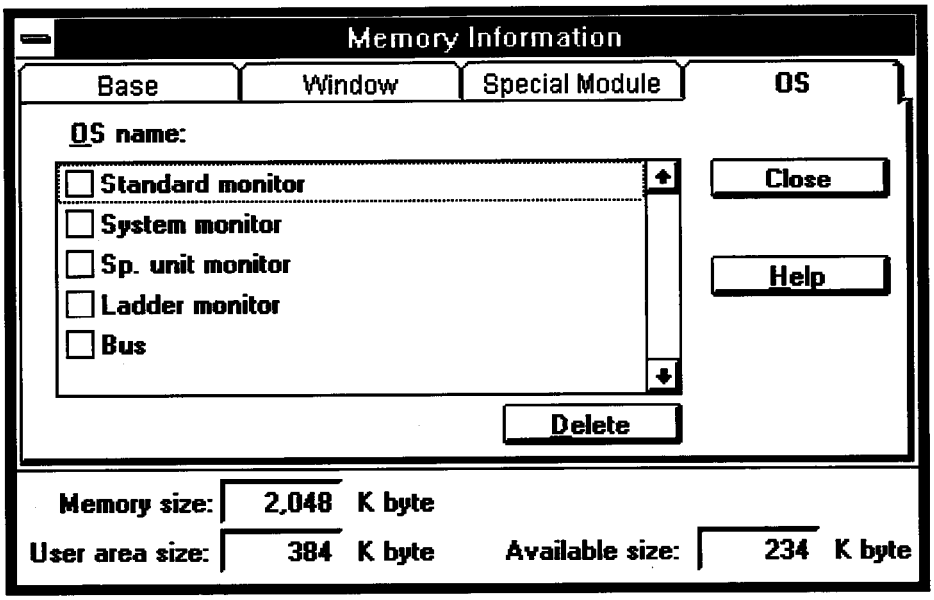
2. After all of the information has been read out, the "Memory Information" dialog box is displayed.



3. Clicking on a tab name switches the information data displayed.






Memory Information
Base
Window
Special Module
OS
OS name:
Standard monitor
System monitor
Sp. unit monitor
Ladder monitor
Bus
Close
Help
Delete
Memory size: 2,048 K byte
User area size: 384 K byte
Available size: 234 K byte

3.4.2 Deleting Information From the Built-in Memory

When is this function used?

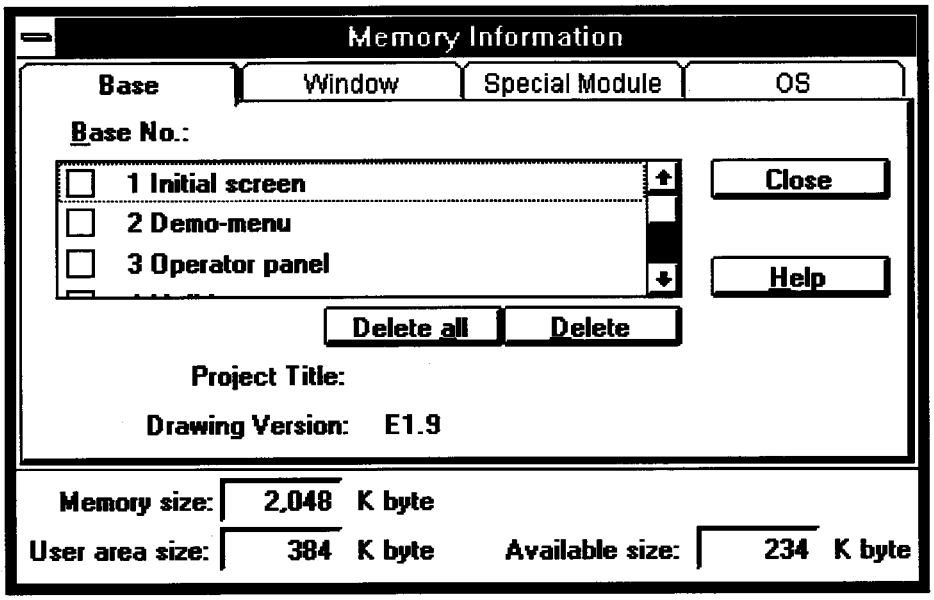
- This function is used when you want to delete data from the built-in memory of the GOT.

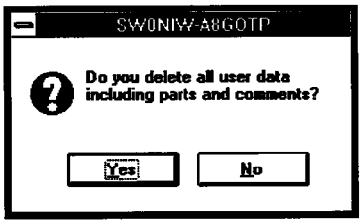
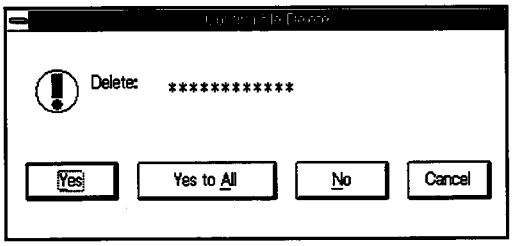
1. Selecting Memory Information on the Communications menu displays the "Memory Information" dialog box.

☞ **For further information, see Section 3.4.1.**

POINT

"Standard monitor" cannot be deleted.



Item to Set	Description of Setting
"Delete All"	Clicking on [Delete All] displays the following screen.  [Yes] : Deletes all of the data (parts data, comments, common settings). [No] : Interrupts the deletion process and returns to the screen window.
"Delete"	• Select the data to be deleted from the list box (more than one item may be selected). • Clicking on [Delete] displays the following message dialog box.  [Yes] : Deletes only one data item, and displays the same dialog box for the next data item. [Delete All] : Deletes all of the data selected in the list box. [No] : Goes to the next data item selected in the list box without deleting the first one, and displays the above dialog box again for the next item. [Cancel] : Interrupts the process of deleting data from the built-in memory and returns to the screen window.

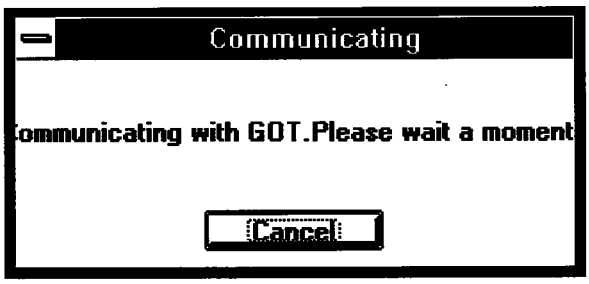
3.5 Reading Information From a Memory Card

3.5.1 Checking Information on a Memory Card

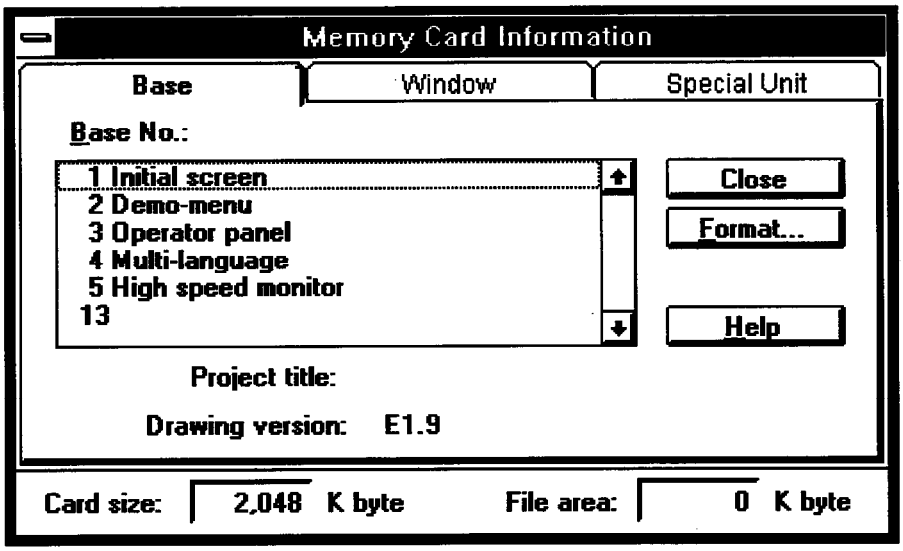
When is this function used?

- This function is used when you want to check the information contained on an IC memory card installed in the GOT.

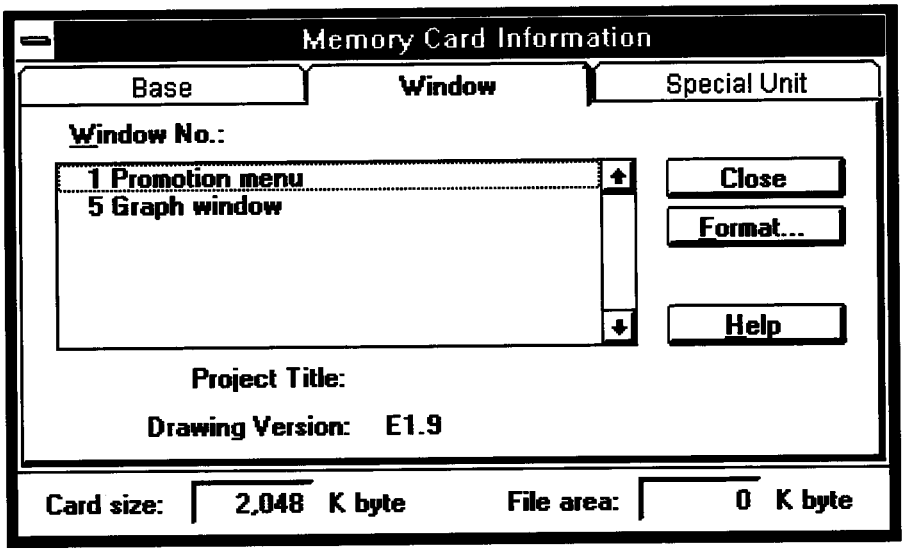
1. Selecting [Memory Information] on the Communications menu displays the "Communicating" dialog box shown below, and reads out the information on the memory card installed in the GOT.

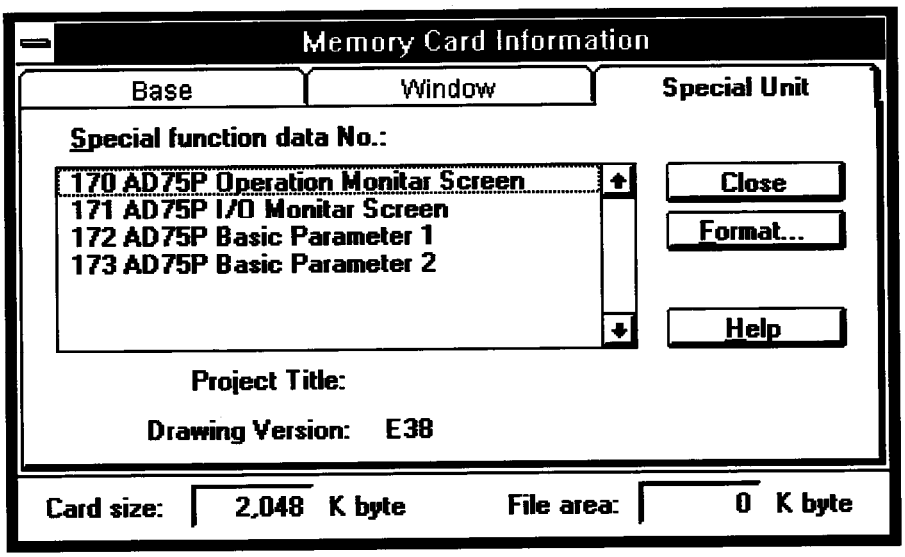


2. After all of the information has been read out, the "Memory Information" dialog box is displayed.



3. Clicking on a tab name switches the information data displayed.





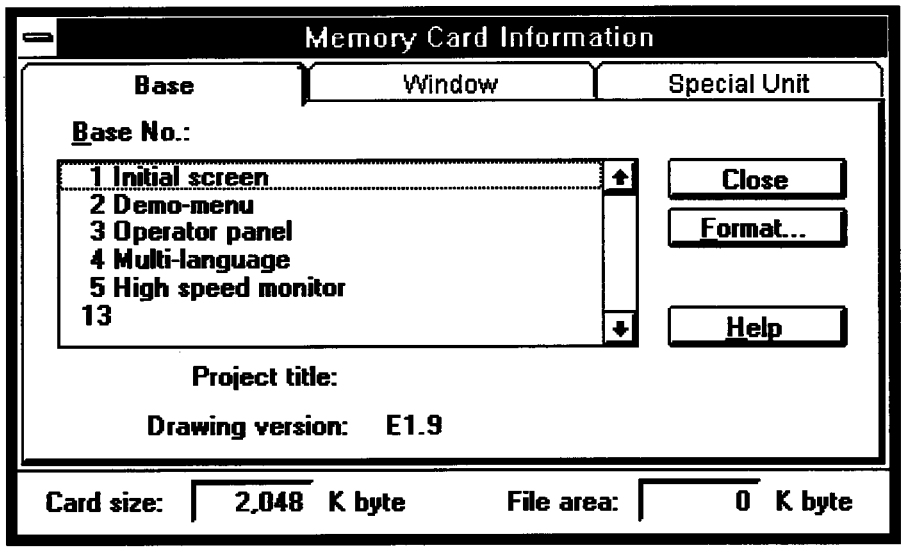
3.5.2 Formatting Memory Cards

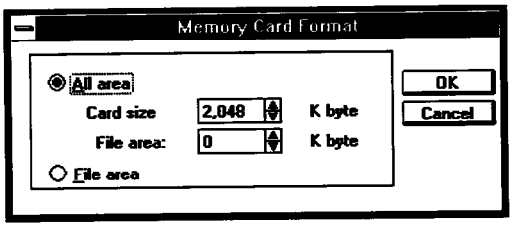
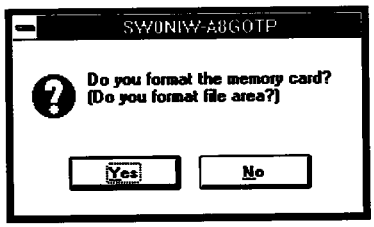
When is this function used?

- This function is used when you want to format an IC memory card installed in the GOT.

1. Selecting Memory Information on the Communications menu displays the "Memory Information" dialog box.

☞ **For further information, see Section 3.5.1.**

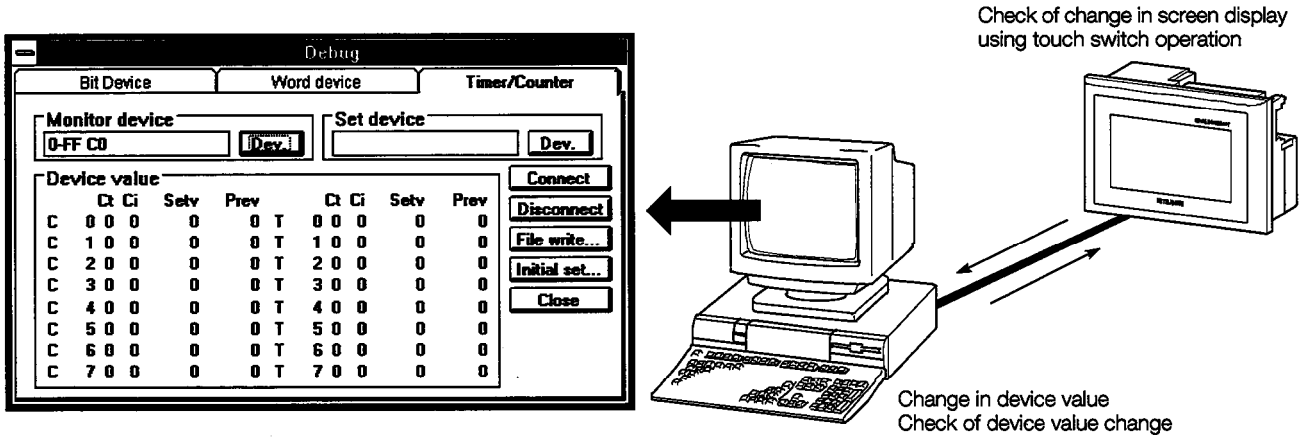


Item to Set	Description of Setting
Format	• Clicking on Format displays the following screen.  • In the spin boxes, specify the memory card size and the file area. OK : Displays the dialog box shown below. Cancel : Interrupts the formatting process and returns to the screen window.  Yes : Formats the IC memory card. No : Interrupts the formatting process and returns to the screen window.

3.6 Debugging Without a Sequencer

Changes can be made to the device value, and any changes made to the value can be checked, simply by connecting the GOT main unit to the computer being used.

This makes it easier to debug design rooms and other data in advance.



POINT

(1) The various device values set when debugging is carried out are written to a file, so default values do not need to be set the next time debugging is done.

(2) The sequence program is not run with this function. (The status is the same as when the sequencer CPU is stopped.)

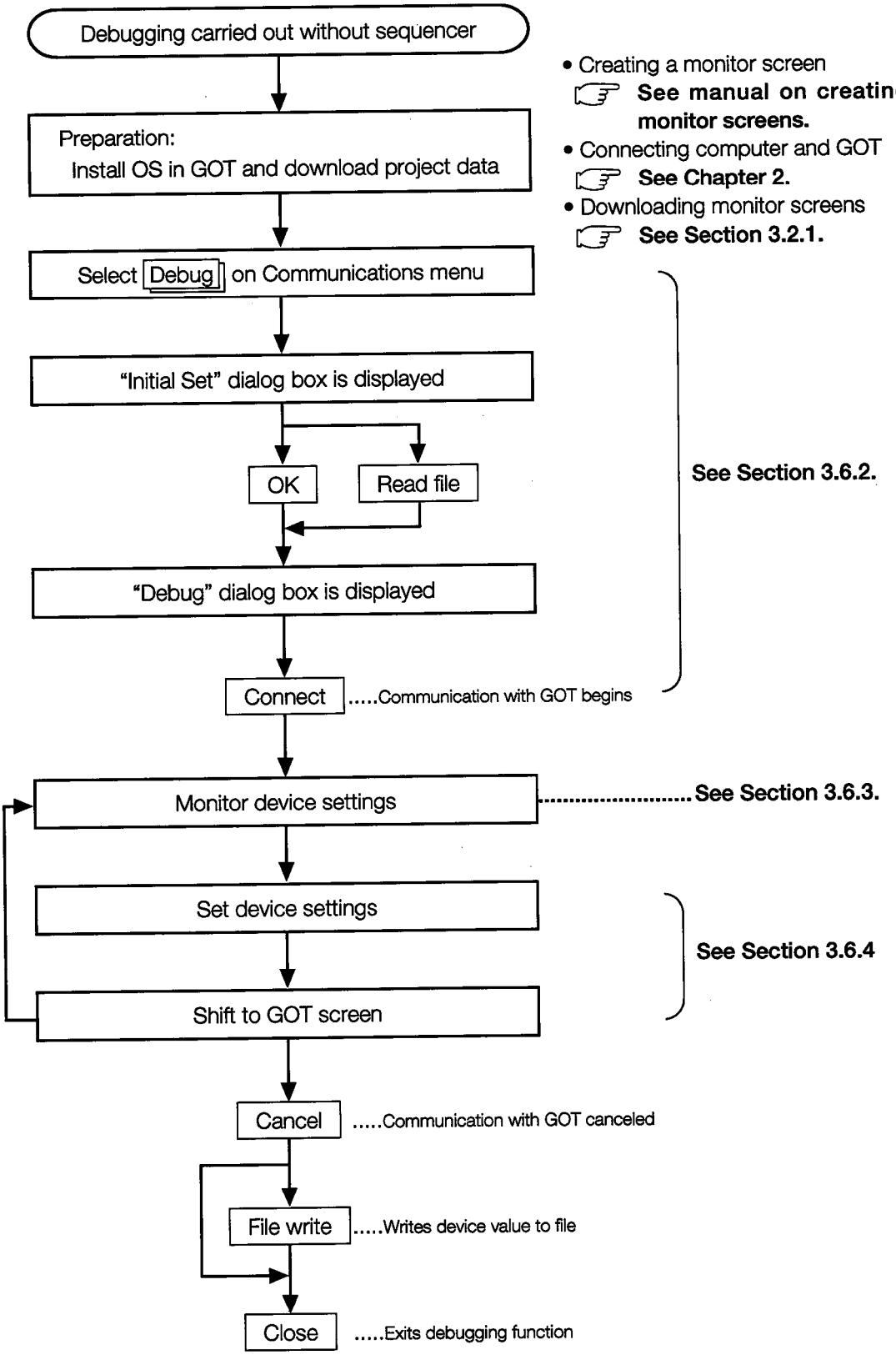
(3) The table below shows devices which can be debugged, and the device ranges.

Device		Setting Range
Bit device	X	0~1FFF
	Y	0~1FFF
	M	0~8191
	F	0~2047
	B	0~1FFF
Word device	D	0~8191
	W	0~1FFF
Timer/counter	T	0~255
	C	0~255

(4) Values for word devices can be set within a range of -32768 ~ +32767.

(5) The debugging function for the graphic software can only be used locally.

3.6.1 Debugging Operation Flow

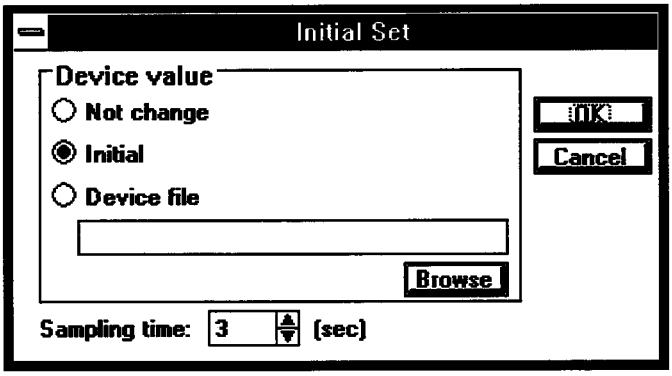


3.6.2 Communicating With the GOT Main Unit

When is this function used?

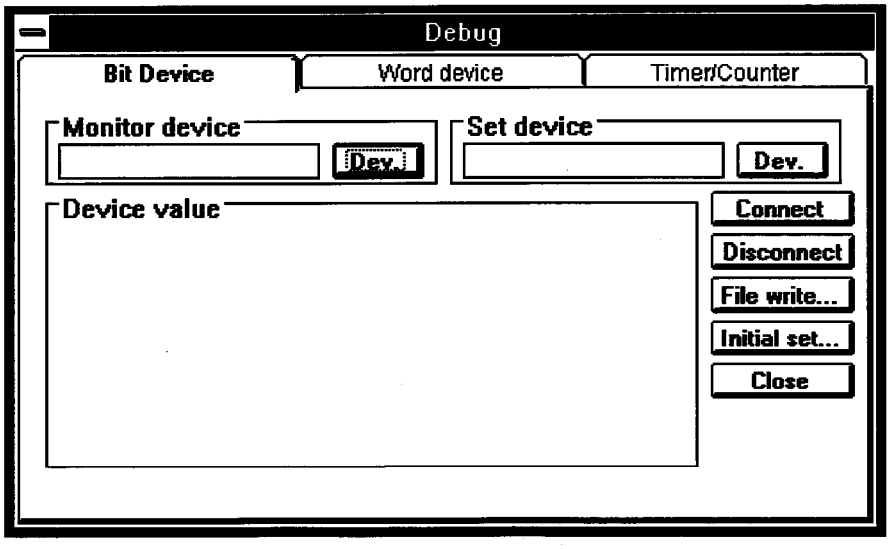
- This function is used to set up communications between the GOT and the computer in order to debug data.

1. Selecting [Debug] on the Communications menu displays the "Initial Set" dialog box.

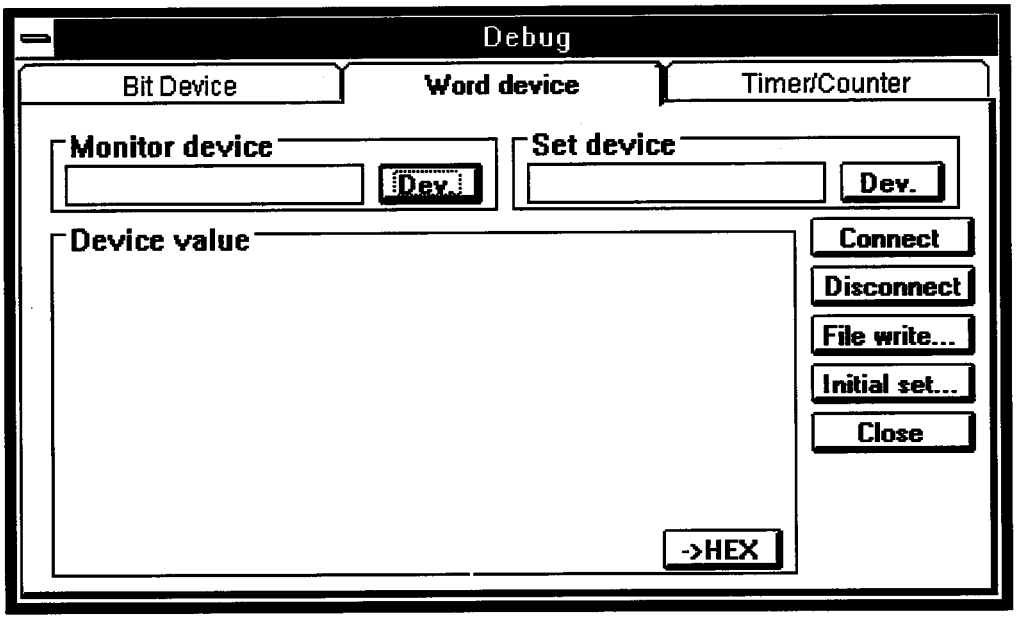


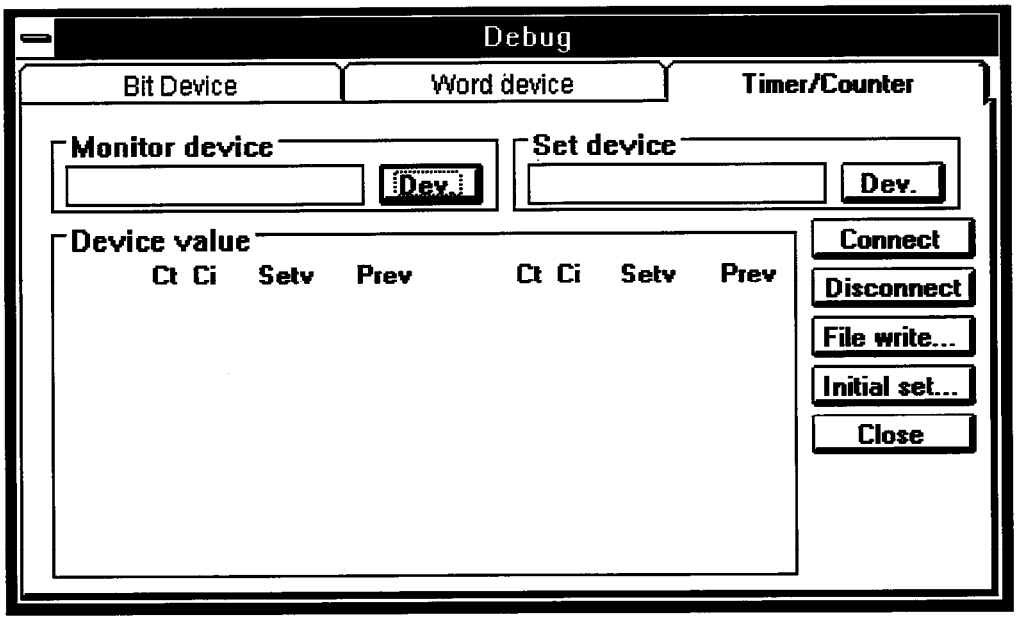
Item to Set	Description of Setting
"Device value"	• Use the radio buttons to select the device value used when the debugging function is started up. • Initial ..... This initializes the device value and starts the debugging function. • Device file ..... This starts the debugging function using the device value written to the specified device file. ☞ **See Section 3.6.5.**
"Display Timing"	Set the display timing for the device value when the bit device is in on/off status during communication with the computer to a value between 1 and 10 seconds.

2. Clicking on [OK] displays the "Debug" dialog box.



Clicking on the tab name displays the "Word device" and "Timer/Counter" debugging dialog boxes.





3. Clicking on [Connect] initiates communications between the GOT and the computer.

   While communications are being carried out, the following are disabled and cannot be selected: [Connect], [File write], [Initial set], and [Close].

3.6.3 Specifying the Device to be Monitored

When is this function used?

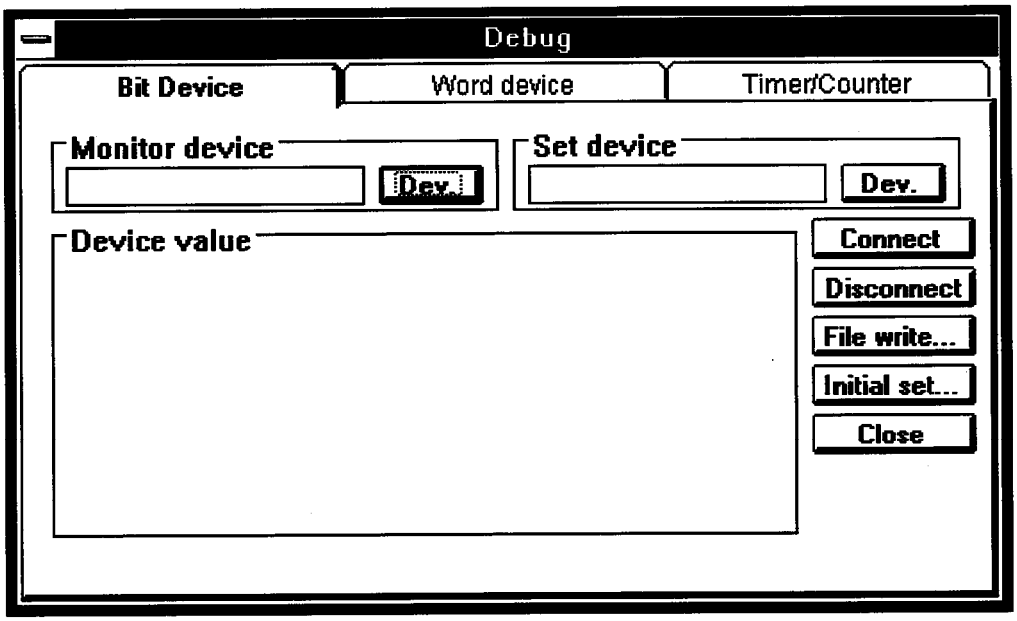
- This function is used to display the device value in order to change a device and check any changes that have been made.

1. Selecting Debug on the Communications menu brings up the initial settings entered in the "Initial Set" dialog box and displays the "Debug" dialog box.

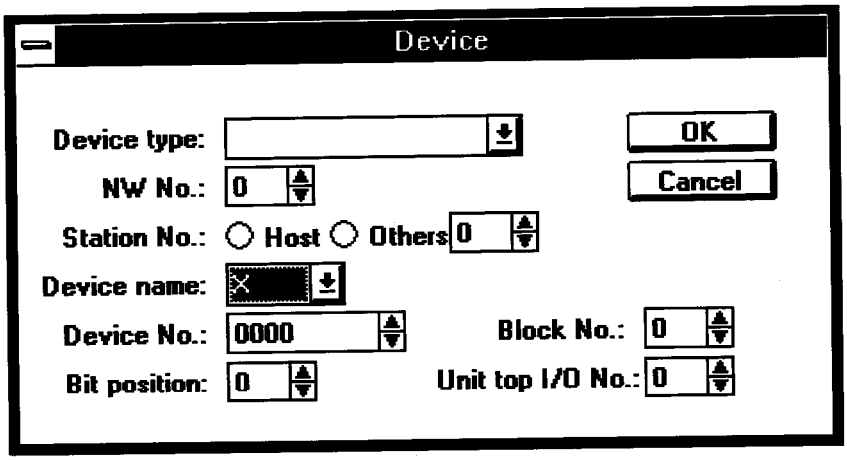
☞ **See Section 3.6.2.**

2. Clicking on Connect in the "Debug" dialog box initiates communications between the GOT and the computer.

☞ **See Section 3.6.2.**



3. Clicking on [Device] under the "Monitor Device" parameter displays the "Device" dialog box.



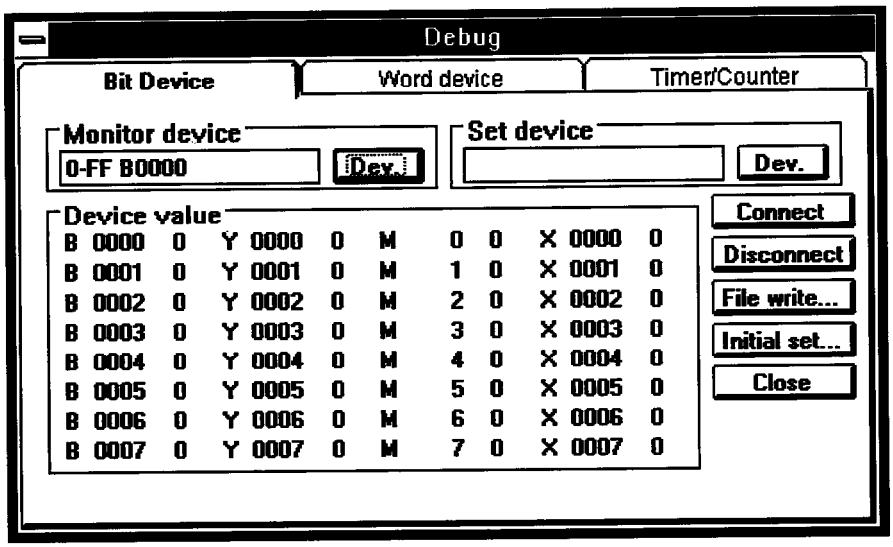
Item to Set	Description of Setting
"Device name"	• Select the device to be monitored from among those in the list box. • The following devices can be selected: - For a bit device ..... X, Y, M, F, B - For a word device ..... D, W - For the timer/counter .... T, C
"Device No."	Using the spin box, set the number of the device to be monitored.

POINT

In the "Device" dialog box under the debugging function, no settings other than "Device name" and "Device No." need to be entered.

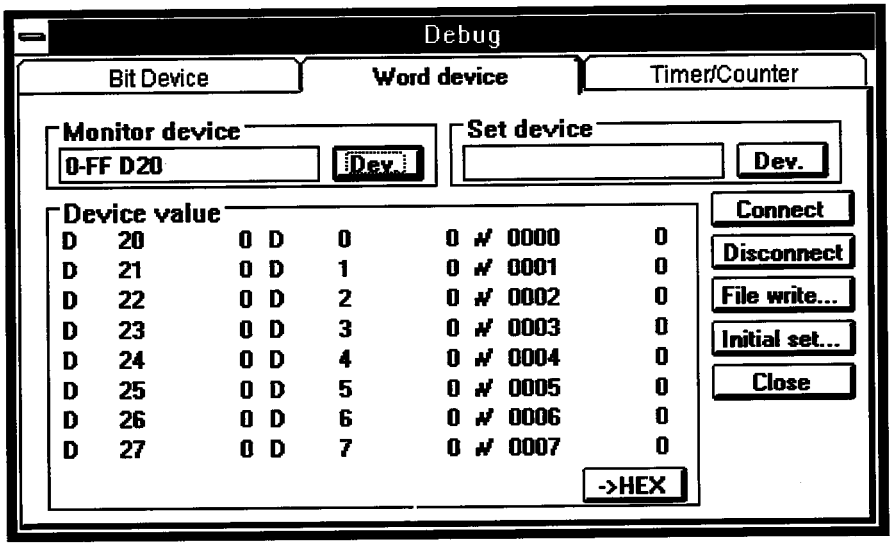
4. Example of monitor device display screen

Bit device



The specified device is shown at the top, in eight columns and four rows.

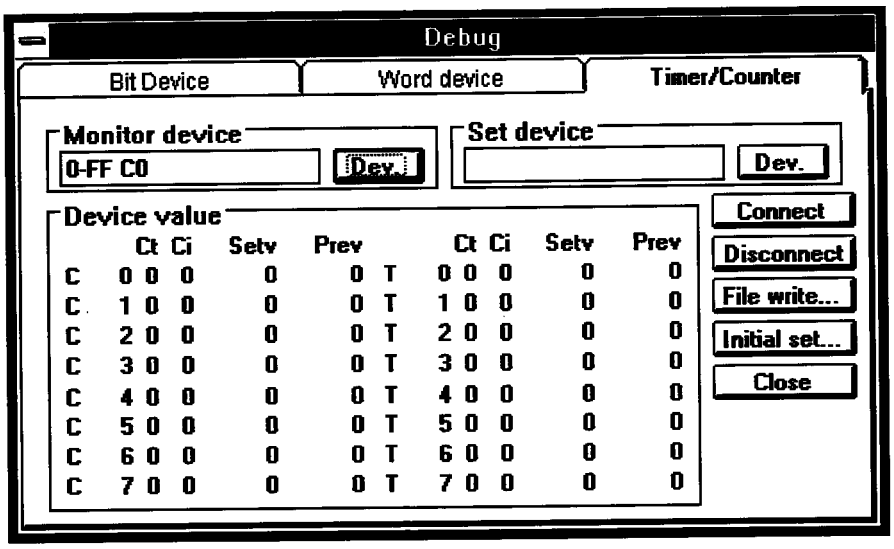
Word device



The specified device is shown at the top, in eight columns and three rows.

Clicking on [->HEX] / [->DEC] switches the display between hexadecimal and decimal values.

Timer/Counter



The specified device is shown at the top, in eight columns and two rows.

3.6.4 Changing Device Values

When is this function used?

- This function is used when you want to change the current value of the specified device.

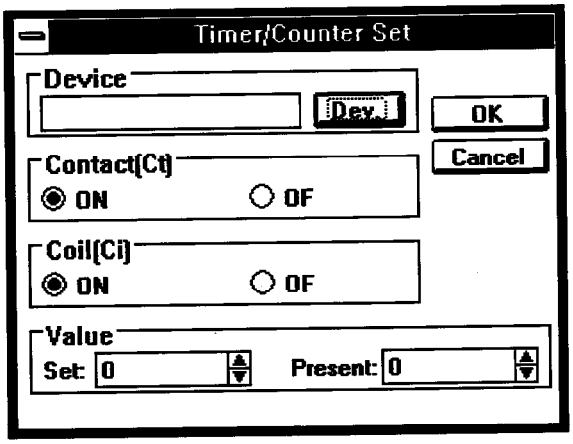
1. Selecting [Debug] on the Communications menu brings up the initial settings entered in the "Initial Set" dialog box. Clicking on [OK] displays the "Debug" dialog box.

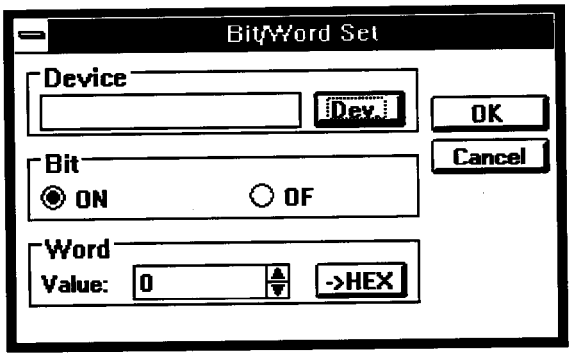
   ☞ **See Section 3.6.2.**

2. Clicking on [Device] under the "Monitor Device" parameter displays the device to be monitored.

   ☞ **See Section 3.6.3.**

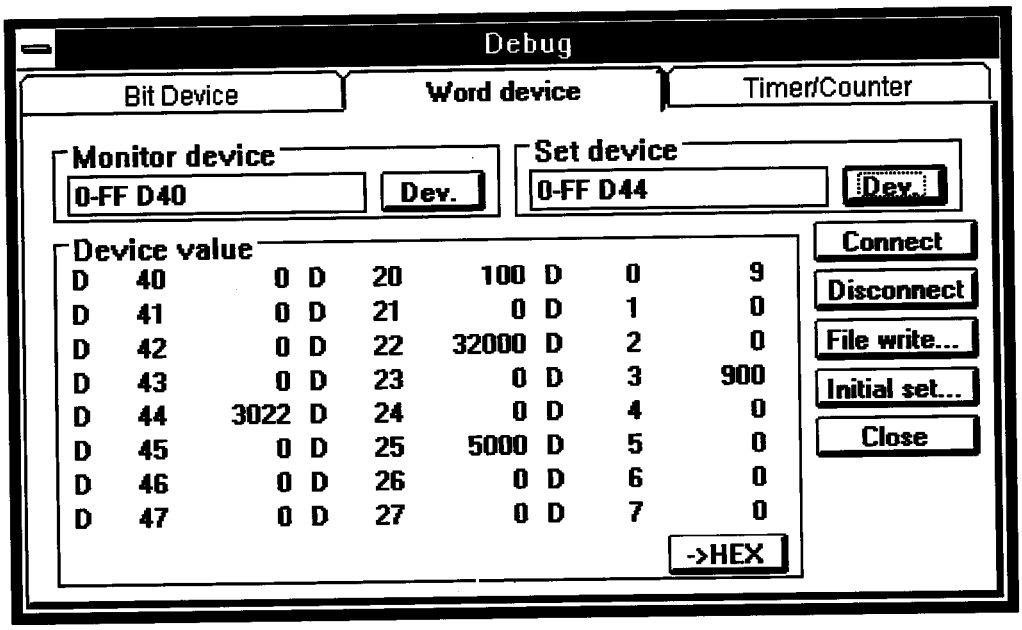
3. Clicking on [Device] under the "Set device" parameter in the "Debug" dialog box displays the "Bit/Word Set" and "Timer/Counter Set" dialog boxes.





Item to Set		Description of Setting
Bit/ Word Set dialog box	"Device"	• Clicking on [Device] displays the "Device Set" dialog box. ☞ **See Section 3.6.3.**
	"Bit"	• Using the radio buttons, select whether the specified bit device is on or off. • If a word device has been specified as the device, "Bit" cannot be selected.
	"Word"	• Using the spin box, set the value of the specified bit device. • Clicking on [->HEX] / [->DEC] switches the display between hexadecimal and decimal values. • If a bit device has been specified as the device, "Word" cannot be selected.
Timer/ Counter Set dialog box	"Device"	• Clicking on [Device] displays the "Device Set" dialog box. ☞ **See Section 3.6.3.**
	"Contact" "Coil"	• Using the radio buttons, select whether the contact/coil of the specified device is on or off.
	"Value"	• Using the spin box, set the setting values/current value of the specified bit device.

4. Clicking on [OK] displays the "Debug" dialog box.



5. The monitor screen of the GOT main menu changes to show the device value sent from the computer.

6. Clicking on [Disconnect] cancels communications with the GOT.

POINT

(1) While debugging is in process (communications with the GOT are in progress), the following are disabled and cannot be selected: [Connect], [File write], [Initial set], and [Close].

(2) The display timing for the device value is set in the "Initial Set" dialog box. The speed depends on the processing speed of the computer being used, however, so in some cases the speed may be slower than that specified for the display timing.

3.6.5 Saving the Device Value

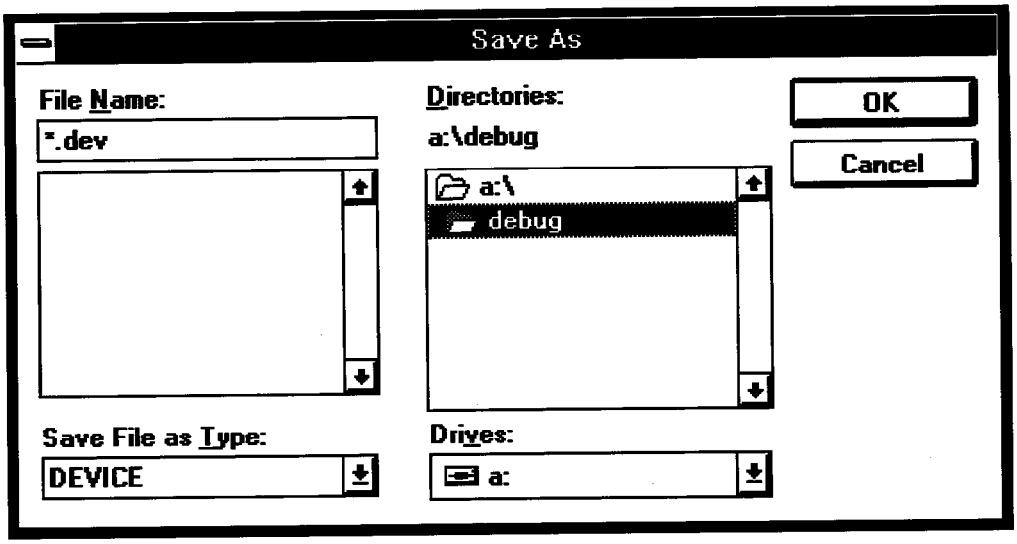
When is this function used?

- This function is used when you want to save the device value specified in the "Debug" dialog box under a file name.

1. Display the "Debug" dialog box.

☞ See Section 3.6.2.

2. Clicking on [File write] displays the "Save As" dialog box.



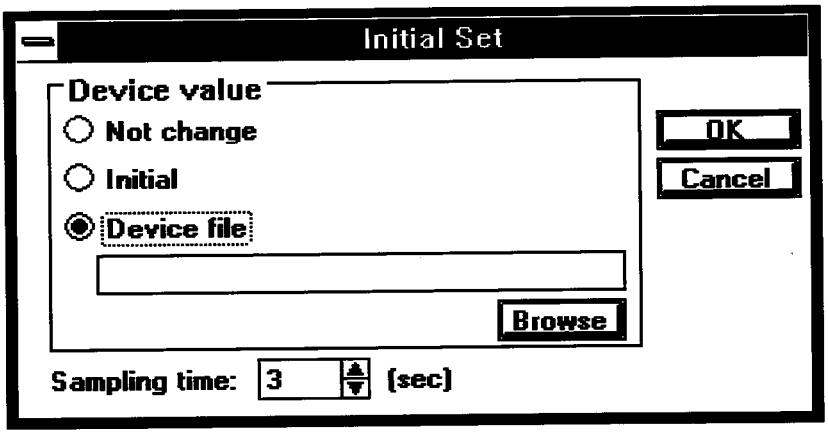
Item to Set	Description of Setting
"Drives"	• Select the drive to which the file is to be saved from among those in the list box.
"Directories"	• Specify the directory name for the file to be saved in the list box. (The file extension is fixed as "*.dev" and cannot be changed.)
"File Name"	• Input the desired file name in the text box.

3.6.6 Reading Device Files

When is this function used?

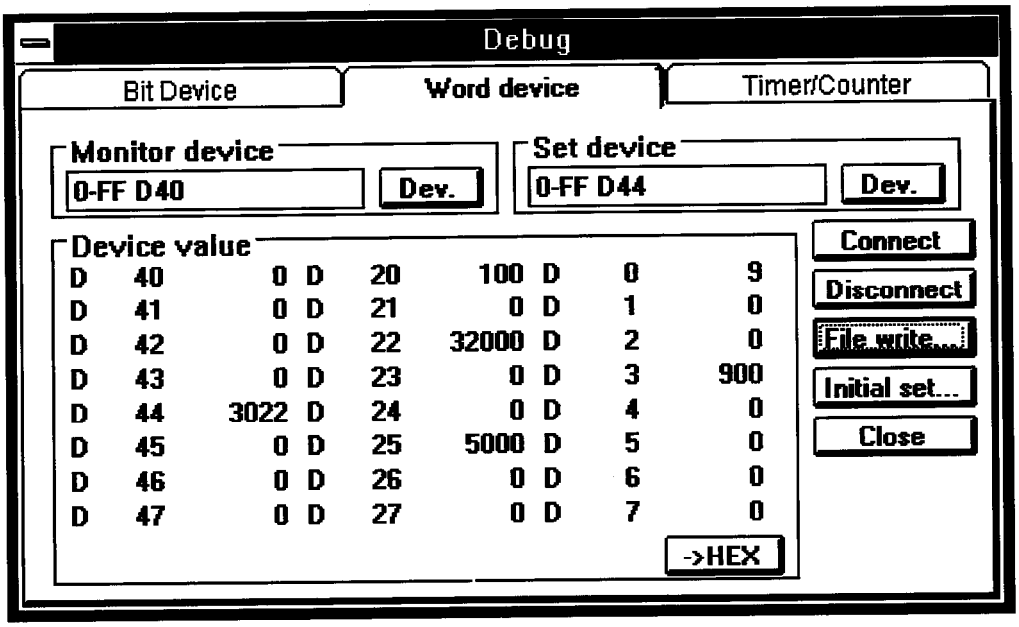
- This function is used when you want to read out the device value saved under a file name in the "Debug" dialog box.

1. Selecting [Debug] on the Communications menu displays the "Initial Set" dialog box.



Item to Set	Description of Setting
"Device value"	• Select "Device file" using the radio button, and input the file name under which the device value was saved in the text box. • Clicking on [Browse] displays the "Browse" dialog box.

2. Clicking on [Initial Set] in the "Debug" dialog box displays the "Initial Set" dialog box.



MEMO

Chapter 4

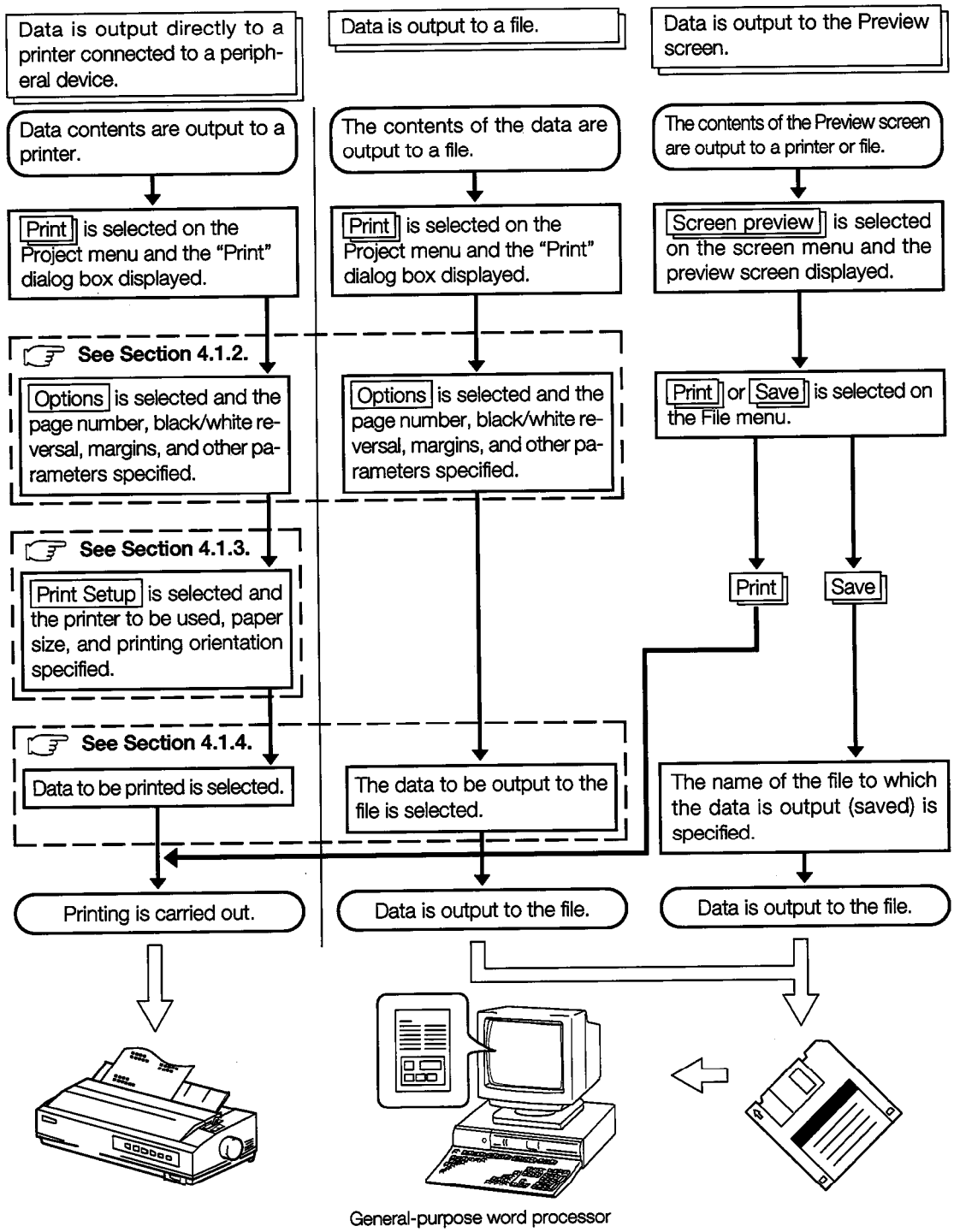
Document Creation

4. Document Creation

4.1 Creating a Document

Original documents can be created by taking the contents of the data specified in the graphics software and outputting them to a printer or to a file which is then read using a general-purpose word processor.

4.1.1 Document Creation Flow



4.1.2 Specifying the Options for the Output Destination

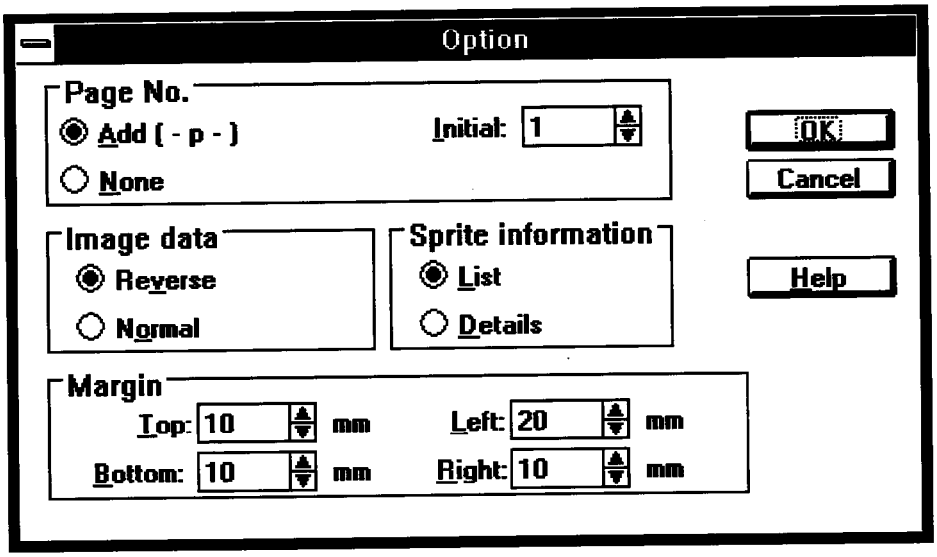
When is this function used?

- This function is used when you want to set the options used with the output destination (printer or file) when a document is created.

1. Selecting [Print] on the Project menu displays the "Print" dialog box.

☞ **See Section 4.1.4.**

2. Selecting [Option] displays the "Option" dialog box.



Item to Set	Description of Setting
"Page No."	• If page numbers are to be added, the radio buttons are used to specify the type of numbering and the initial page number.
"Image data"	• The radio buttons are used to determine whether the screen image is to be normal or reversed when output to the printer or file.
"Sprite Information"	• The radio buttons are used to select the output format for the sprite information. - "List" ..... Outputs the devices and positions. - "Details" ..... Outputs detailed contents such as conditions, formats, displays, and positions.
"Margin"	• The spin buttons are used to specify the margins used for printing.

4.1.3 Selecting the Printer Type

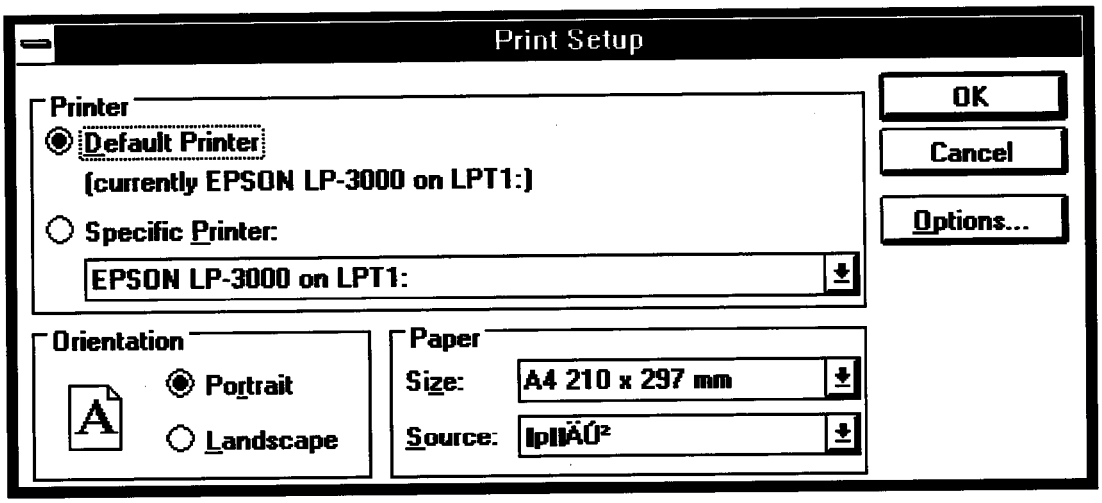
When is this function used?

- This function is used to specify the type of printer, the paper size, and the orientation of the printing.

1. Selecting [Print] on the Project menu displays the "Print" dialog box.

☞ See Section 4.1.4.

2. Selecting [Print Setup] displays the "Print Setup" dialog box.



Item to Set	Description of Setting
"Printer"	• The radio buttons are used to select the type of printer to be used. • "Specific Printer" can be selected and the drop-down menu used to specify a type of printer different from the standard printer.
"Paper"	• The drop-down menus are used to select the paper size and the method by which paper will be supplied.
"Orientation"	• The radio buttons are used to select whether printing will be done in the vertical or horizontal direction.

POINT

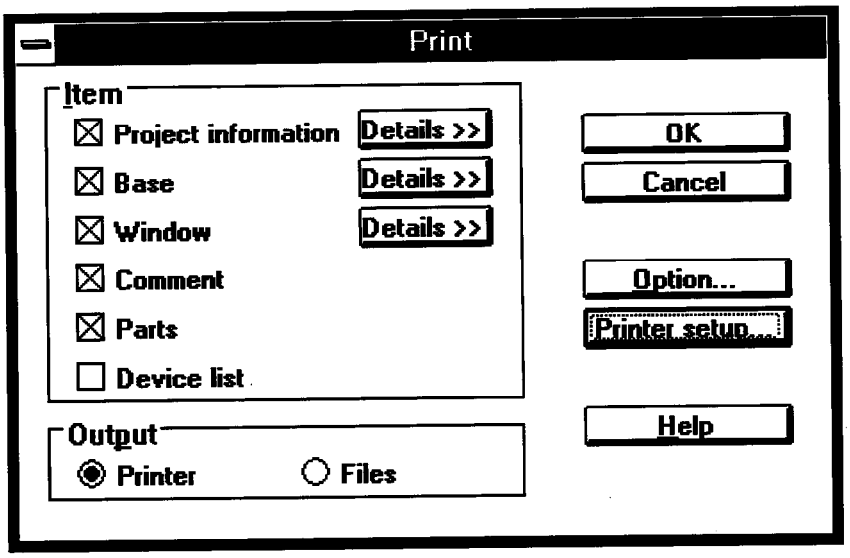
The contents of the "Print Setup" dialog box may vary depending on the printer driver in the Windows version being used.

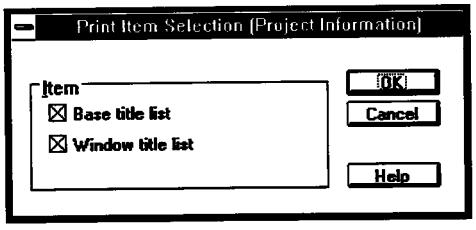
4.1.4 Specifying the Data to be Output to a Printer/File

When is this function used?

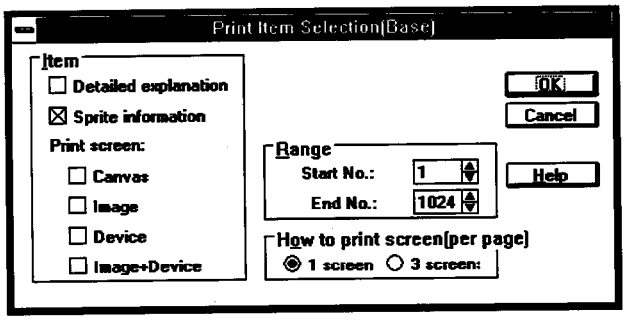
- This function is used to specify the data to be output to a printer or file.

1. Select [Print] on the Project menu.
2. The "Print" dialog box is displayed.

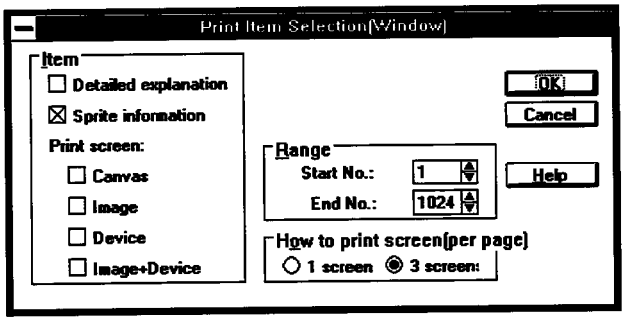


Item to Set	Description of Setting
"Item"	• Using the check boxes, select the data to be output to a printer or file. • Clicking on "Details" enables detailed printing items to be specified. "Print Item Selection [Project Information]" dialog box  (Continued on next page)

"Print Item Selection [Base]" dialog box



"Print Item Selection [Window]" dialog box



- In the "Print Item Selection [Base]" and "Print Item Selection [Window]" dialog boxes, the starting and ending screen numbers can be specified, using the spin boxes.
- In the "Print Item Selection [Window]" dialog box, the method of printing hard copies can be specified.
  - "1 screen" ..... Prints each screen on its own page.
  - "3 screen" ..... Prints three screens on one page.

"Output"

- The radio buttons are used to selected the destination to which the data is to be output.
- The file names used when data is output to a file are listed below.

Data Item		File Name
Project Information		PROJECT.TXT
Base screen information	Detailed description of screen	BASE.TXT
	Sprite information	BASE.TXT
	Canvas hard copy	BC****.BMP
	Image hard copy	BI****.BMP
	Hard copy of specified device	BD****.BMP
	Hard copy of image + specified device	BA****.BMP
Window screen information	Detailed description of screen	WINDOW.TXT
	Sprite information	WINDOW.TXT
	Canvas hard copy	WC****.BMP
	Image hard copy	WI****.BMP
	Hard copy of specified device	WD****.BMP
	Hard copy of image + specified device	WA****.BMP
Comment information		COMMENT.TXT
Parts information		PARTS.TXT

(**** indicates that a screen number between 1 and 1024 will be added automatically.)

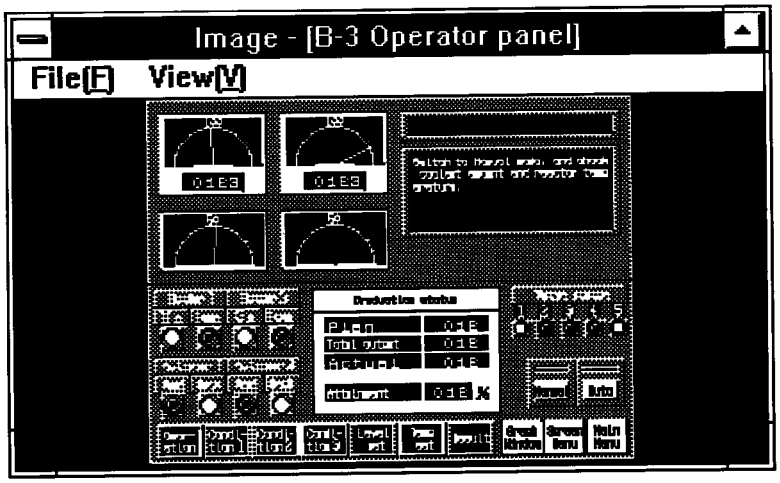
- Files are output to the "¥DOCUMENT" directory contained in the Project directory.

4.2 Outputting Data From the Image Display Screen to a Printer/File

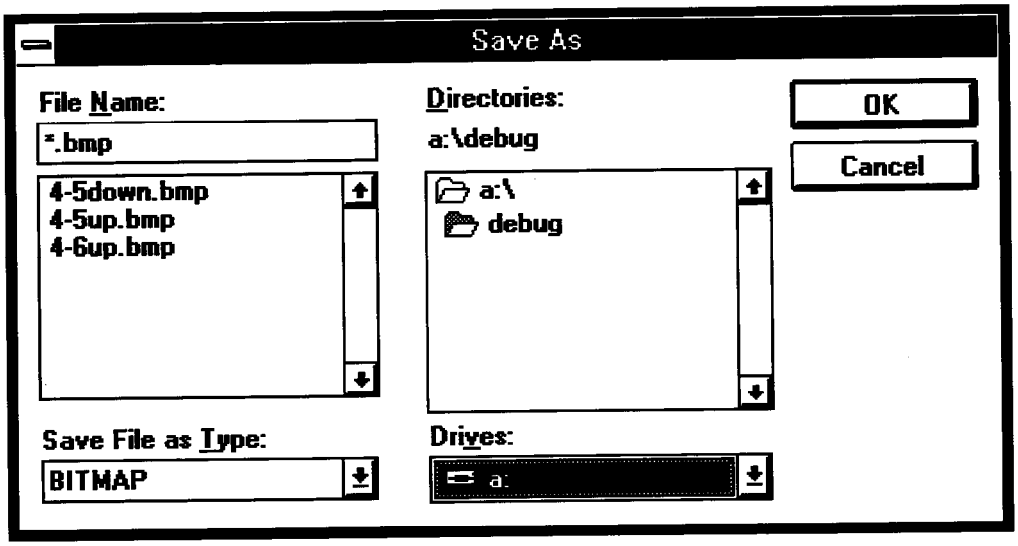
When is this function used?

- This function is used to output image display screen data such as images, devices, image + device, and canvases to a printer or file.

1. On the Screen menu, select Screen Preview and then Image , Device , Image + Device , or Canvas .
2. The image display screen for the "Image", "Device", "Image + Device", or "Canvas" is displayed.



3. To output (write) the data on the image display screen to a file, select Save on the File menu.



Specify the drive, directory, and file name to which the data is to be output.

Clicking on OK writes the data to the file as a bitmap.

4. To output the data on the image display screen to a printer, select [Print] on the File menu.
5. The printer to be used can be changed by selecting [Print Setup] on the File menu.

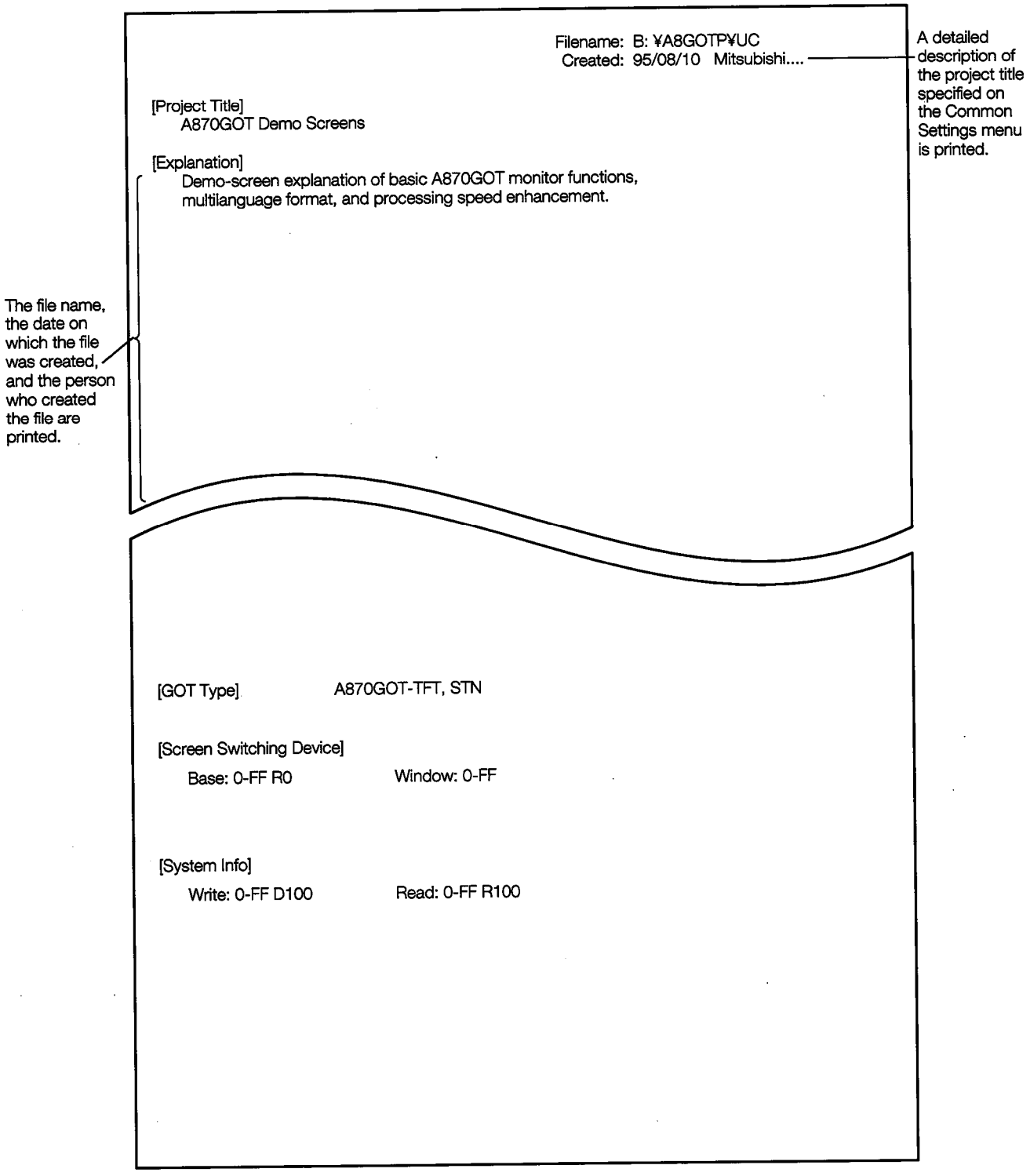
☞ **See Section 4.1.3.**

6. To reverse the image output to the printer or file, place check mark next to [Reverse Output] on the File menu.

4.3 Examples of Printing

The following are examples of printing when a document is created.

[Example of project title printing]



[Detailed description of base screen]

Filename: B: ¥A8GOTP¥UC
Created: 95/08/10 Mitsubishi....

Base: 3: Operation-Panel Screen

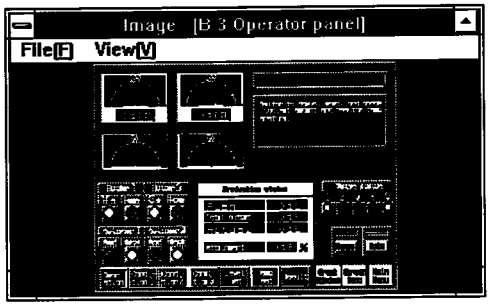
[Explanation]
In addition to essential switches, lamps, and panel meters, the panel provides enhanced alarm-list display, numerical displays, comment displays, and component displays. The panel can also display BMP image data obtained through a scanner or other device.

[Base screen (hard copy of screen image)

Filename: B: ¥A8GOTP¥UC
Created: 95/08/10 Mitsubishi....

Base: 3: Operation-Panel Screen

[Screen Image]



[Example showing printing of a list of base screen titles/window screen titles/parts screen titles]

Filename: B: ¥A8GOTP¥UC
Created: 95/08/10 Mitsubishi....

[Base-Screen Title Listing]
1. Initial Screen
2. Demo Menu Screen
3. Operation Panel
4. Multilanguage
5. Fast Data Display

[Window-Screen Title Listing]
1. Production Conditions
2. Tank A Coolant-Water Temperature Control Graph
3. Tank B Coolant-Water Temperature Control Graph

Filename: B: ¥A8GOTP¥UC
Created: 95/08/10 Mitsubishi....

[Component Title Listing]
1. Manual Buttons 1
2. Manual Buttons 2
3. Manual Buttons 3
4. Processing Work A
5. Processing Work B
6. Processing Work C

[Sprite information (list)]

```
                                          Filename: B: ¥A8GOTP¥UC
                                           Created: 95/08/10  Mitsubishi....
Base  3: Operation-Panel Screen

[Sprite information]
    Numerical Displays
      20.  Device; 255-FF-D1 (16B+-)          Position; 062, 188-157, 219
      22.  Device; 255-FF-D2 (16B+-)          Position; 274, 188-369, 219

    Comment Displays
      27.  Device; 255-FF-M9033 (16B+-)       Position; 022, 262-389, 277
      28.  Device; 255-FF-M9033 (16B+-)       Position; 020, 302-387, 397

    Lamps
       2.  Device; 255-FF-M9032 (16B+-)       Position; 032, 440-055, 463
       3.  Device; 255-FF-M9033 (16B+-)       Position; 064, 440-087, 463
       4.  Device; 255-FF-M9031 (16B+-)       Position; 096, 440-119, 463
       5.  Device; 255-FF-M9033 (16B+-)       Position; 128, 440-151, 463
       6.  Device; 255-FF-M9033 (16B+-)       Position; 160, 440-183, 463
       7.  Device; 255-FF-M9031 (16B+-)       Position; 192, 440-215, 463
       8.  Device; 255-FF-M9033 (16B+-)       Position; 224, 440-247, 463
       9.  Device; 255-FF-M9032 (16B+-)       Position; 256, 440-279, 463
      10.  Device; 255-FF-M9033 (16B+-)       Position; 288, 440-311, 463
      11.  Device; 255-FF-D11.7 (16B+-)       Position; 320, 440-343, 463
      12.  Device; 255-FF-D11.6 (16B+-)       Position; 352, 440-375, 463
      13.  Device; 255-FF-D11.5 (16B+-)       Position; 384, 440-407, 463
      14.  Device; 255-FF-D11.4 (16B+-)       Position; 416, 440-439, 463
      15.  Device; 255-FF-D11.3 (16B+-)       Position; 448, 440-471, 463
      16.  Device; 255-FF-D11.2 (16B+-)       Position; 480, 440-503, 463
```

[Sprite information (detailed)]

```
                                          Filename: B: ¥A8GOTP¥UC
                                           Created: 95/08/10  Mitsubishi....
Base  3: Operation-Panel Screen

[Sprite information]
    Numerical Displays
      20.  Device:     255-FF-D1 (16B+-)      Position:      062, 188-157, 219
           Condition:  ON/255-FF-M100         Magnification: 2 * 2
           Format:     Signed decimal/6 digits/no fraction/right/zero   Red/normal/blink
           Operation:  AND &HOFFF >> 5   ($$*250)+50
           Display:    1. Red/Normal/Blink  (Comparison)

      22.  Device:     255-FF-D2 (16B+-)      Position:      274, 188-369, 219
           Condition:  ON/255-FF-M101         Magnification: 2 * 2
           Format:     Signed decimal/6 digits/no fraction/right/zero   Red/normal/blink
           Operation:  AND &HOFFF >> 5   ($$*250)+50
           Display:    1. Red/Normal/Blink  (Comparison)

    Comment Displays
      27.  Device:     255-FF-M9033 (16B+-)   Position:      022, 262-389, 277
           Condition:  OK/255-FF-M110         Magnification: 2 * 2
           Display:    OFF. Red/Normal/Blink
                       Tank B Coolant-Water Temperature Abnormal

      28.  Device:     255-FF-M9033(16B+-)    Position:      020, 302-387, 397
           Condition:  ON/255-FF-M111         Magnification: 2 * 2
           Display:    OFF. Red/Normal/Blink
                       Tank A Coolant-Water Temperature Abnormal
```

Chapter 5

Error Messages

5. Error Messages

This section explains error messages which may appear when data is transmitted or printed, and the steps that should be taken to solve the problem.

5.1 Error Messages During Data Transmission

Message	Cause	Solution
Check communications cable.	Data cannot be exchanged normally between the computer and GOT.	Check cables and cable connections, and make sure the equipment is connected correctly.
Reduce data size.	The size of the project data being downloaded exceeds the size available for use by the user in the GOT.	Referring to the built-in memory information, reduce the size of the project data being downloaded so it is smaller than the available user memory in the GOT.
Input password is not correct.	The password specified when data was uploaded did not match the password registered in the GOT.	Specify the password correctly.
Please verify password.	An attempt was made to upload data from a GOT for which a password has been registered, without specifying the password first.	Specify a password before uploading the data.
Turn on memory card access switch.	An attempt was made to access a memory card with the memory card access switch on the GOT off.	When accessing a memory card, make sure the memory card access switch on the GOT has been turned on.
Memory card is defective; please replace.	There is a hardware problem with the memory card.	Replace the memory card.
Please install memory card.	No memory card has been installed.	Install a memory card.
	The memory card has been installed incorrectly.	Install the memory card correctly.
Cancel write protect function.	An attempt was made to write data to a memory card with the write protect function on.	Turn off the write protect function for the memory card.
Specified data does not exist in GOT.	When data was uploaded, a screen number was specified which does not exist in the GOT.	Specify a screen number which exists in the GOT before uploading data.
	An attempt was made to upload data from a GOT in which no project data exists.	Upload data from a GOT to which project data has been downloaded.
Hardware is defective; please replace.	There is a problem with the GOT hardware.	Contact your nearest service center or dealer and describe the problem.

5.2 Error Messages During Printing

Message	Cause	Solution
(The error sent from the printer driver being used is displayed.)	———	(Take whatever steps are necessary to solve the problem, based on the message sent from the printer driver.)

Appendix

Appendix

Appendix 1. Processing Times for Downloading and Uploading

Appendix 1.1 Processing Times for Monitor Data

This table shows the processing times required for downloading and uploading monitor data. These should be used as a guide when downloading or uploading data.

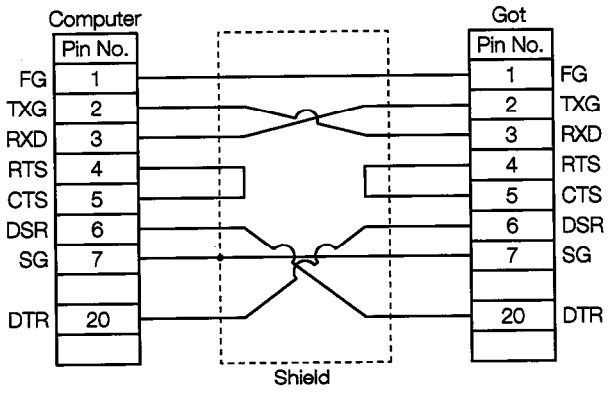
Item	No. of Screens		Processing Time (seconds)	Data Size (bytes)
Downloading	Base screen	1	19	1628
		4	39	7880
		8	77	16208
		16	115	32848
	Base screen 16 + window screen	4	138	33000
		16	158	35308
Uploading	Base screen	16	79	———
	Base screen 16 + window screen	16	94	

Appendix 1.2 Installation Times for the OS Program and Communications Driver

Name of OS program/communications driver		Installation time (sec.)	Notes
OS program	Basic OS	900	———
	System monitor functions OS	270	
	Circuit monitor functions OS	210	
Communications driver	Bus connections	45	Install the communications driver of your choice.
	RS-422 and QC24 connections	45	
	MNET II connections	50	
	MNET 10 connections	50	
	C24 and UC24 connections	40	

Appendix 2. RS-232C Cable Connections Diagram

This shows the internal connections diagram for the RS-232C cable used to connect the computer and the GOT. (The diagram shows a D-sub 25-pin RS-232C interface on the computer side.)



(1) When a D-sub 9-pin cable is used as the RS-232C interface on the computer side, a 9-pin ↔ 25-pin converter connector is required.

(2) If the RS-232C interface connector on the computer side is a half-pitch connector, a half-pitch ↔ 25-pin straight converter cable (connector) is required. Please check the instruction manual for your computer, and if a half-pitch ↔ 25-pin straight converter cable is required, have this type of cable on hand for the interface.

IMPORTANT

(1) System settings should be set up so that protective devices for the sequencer and safety circuits are installed externally.

(2) Printed circuit boards contain components that are susceptible to static electricity. If handling printed circuit boards directly, the following precautions should be taken:

① Make sure people and work benches or tables are grounded.

② Never directly touch conductive components or electrical parts of the product.

SW0NIW-A8GOTP Graphic Settings Software Package

Operating Manual (Data Transmission/Debugging/ Document Creation Manual)

MODEL	SW0-A8GOTP-DT-O-E
MODEL CODE	13JF23
IB(NA)66840-A(9602)MEE	

MITSUBISHI ELECTRIC CORPORATION

HEAD OFFICE : MITSUBISHI DENKI BLDG MARUNOUCHI TOKYO 100-0005 TELEX : J24532 CABLE MELCO TOKYO
NAGOYA WORKS : 1-14 , YADA-MINAMI 5 , HIGASHI-KU, NAGOYA , JAPAN