REVISIONS

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INTRODUCTION

Thank you for choosing the Mitsubishi MELSEC-A Series of programmable controllers. Before using the equipment, please read this manual carefully to develop full familiarity with the functions and performance of the MELSEC-A Series so as to ensure correct use. Please forward a copy of this manual to the end user.

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BASICS

Chapter 1 to Chapter 5
These sections cover the general description and features of the software package, how to create a monitor screen for G controller unit, system configuration, performance specifications, etc.

EXPLANATION OF BASIC AND COMMON OPERATIONS

Chapter 6 to Chapter 9
These sections describe the basic operations of the mouse and the keyboard, common operations on windows, and how to switch menus when creating a monitor screen.

EXPLANATION OF OPERATIONS OF MENU OPTIONS IN MENU BOX

Chapter 10 to Chapter 15
These sections describe the operation procedures related to the menu options in the menu box displayed on the Edit file window.

EXPLANATION OF OPERATIONS OF MENU OPTIONS IN CONTROL MENU BOX

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About Manuals

The following manuals are also related to this product. Please order those that are relevant to your needs by referring to the table below.

Related Manuals

- **Graphic Operation Terminal System Monitor Function Software Package Operating Manual (IB-66555)**
  SW2IVD-GMDP
  This manual describes the functions and execution procedure of the system monitor function.

- **A77GOT-S5 Graphic Operation Terminal Reference Manual (IB-66549)**
  This manual describes the specifications and monitor functions of the A77GOT-S5.

- **A52GCPU(T21B) Reference Manual (IB-66420)**
  This manual describes the procedure, system configuration, monitor functions, monitor condition setting ranges, and precautions to be observed in use, for monitoring with an A52G.

- **AD57G-S3 Graphic Controller Unit Users Manual (IB-66380)**
  This manual describes the procedure, system configuration, monitor functions, monitor condition setting ranges, and precautions to be observed in use, for monitoring with an AD57G-S3.

- **A64GOT-L(T21B) Graphic Operation Terminal Reference Manual (IB-66417)**
  This manual describes the procedure, system configuration, monitor functions, monitor condition setting ranges, and precautions to be observed in use, for monitoring with an A64GOT.
This part, composed of the following sections, covers the general description and features of the software package, procedure used for creating a monitor screen for G controller unit, system configuration, and performance specifications.

Chapter 1 GENERAL DESCRIPTION ............................................. 1 - 1 - 1 - 12
Chapter 2 PROCEDURE FOR CREATING A MONITOR SCREEN .............. 2 - 1 - 2 - 8
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Chapter 4 SPECIFICATIONS ..................................................... 4 - 1 - 4 - 24
Chapter 5 HIERARCHICAL STRUCTURE OF MENUS AND ITEMS AND OUTLINES OF FUNCTIONS .............................. 5 - 1 - 5 - 12
1. GENERAL DESCRIPTION

This manual describes the procedure for creating a monitor screen using the SW2IVD-AGOTP (hereinafter referred to as the AGOTP).

The AGOTP is a software package designed to execute the following on a graphic operation terminal (hereinafter referred to as the G controller unit) for monitoring the PC CPU:

1) Drawing a canvas screen (the static portion of the monitor screen),
2) Drawing a component part (a graphic to be displayed on the canvas screen during monitoring),
3) Drawing a report canvas (the frame or title of a document to be printed out during monitoring),
4) Setting monitor functions (on the animation display portion of the monitor screen),
5) Creating monitor data based on the drawing data on the screens described in 1) to 3) above and the set data in 4) by converting them, and
6) Transferring (download) and upload monitor data to the G controller unit.
1. GENERAL DESCRIPTION

1.1 Features

The AGOTP has the following features:

(1) Compatible with all models of the GOT series
The software package is compatible with any model of the MELSEC-A
GOT series to create a monitor screen.

(2) Incorporates all functions necessary for operations from drawing to data
transfer
It incorporates all functions necessary for creating a monitor screen,
such as drawing, monitor condition setting, conversion, and transfer
functions.

(3) Interactive editing
Interactive data entry on the window through a mouse or keyboard
greatly facilitates creation of the monitor screen.
A mouse can be used together with a keyboard to position a cursor
precisely at the required coordinates when creating a monitor screen.

(4) Upgraded file copy function
File copy is possible for each monitor screen.
This function can merge two or more files created by different AGOTP
peripheral devices into one file.

(5) Monitor screen data for system monitor function is applicable
The monitor screen data stored in the system monitor function software
package (SW2[ ]-GMHD) is applicable to any monitor screen created by
the user (applicable with the file copy function).
The application of the screen data can make monitor screen creation
much easier.

(6) Improved documentation function
The data on monitor screens created or monitor function settings can
be printed out by the image display or device display function.
Since data is written to the bit map file with the extension *.BMP* by file
output function, it can be documented on a word processor.

(7) Panel-kit library adopted
The panel-kit library contains standard graphics required to draw can-
vas screen and component parts. Since they can be used in the original
form or by modifying them, drawing switches or lamps is no longer
necessary. (The standard graphics are listed in APPENDIX 3.)
Any graphic created by the user can be registered in the panel-kit
library, and it can be used any time.

(8) Touch key graphics can be set when touch key setting is performed
(A77GOT-S5 only)
Since, when setting a touch key, it is possible to set switches and
pushbuttons (touch key graphics) whose display changes, it is not
necessary to register these switches and pushbuttons as parts, which
saves memory capacity.
1.2 Structure and Guide to the Use of This Manual

This section gives the structure and a guide to the use of this manual which must be understood before starting with the AGOTP operation.

1.2.1 Structure of this manual

This manual consists of 25 sections, which are classified into the following six parts according to the contents, and appendices:

[BASICS]
Chapter 1 .....Gives the general description and features of the AGOTP and a guide to the use of this manual.
Chapter 2 .....Outlines the procedure for creating a monitor screen.
Chapter 3 .....Describes the system configuration with the AGOTP.
Chapter 4 .....Describes the performance specifications of the AGOTP.
Chapter 5 .....Describes the AGOTP menu options and their functions used to create a monitor screen.

[EXPLANATION OF BASIC AND COMMON OPERATIONS]
Chapter 6 .....Describes the basic usage of the mouse and the keyboard.
Chapter 7 .....Describes how to switch AGOTP menu options when creating a monitor screen.
Chapter 8 .....Describes how to select graphics or character strings to be edited when creating a canvas screen.
Chapter 9 .....Describes the basic operations on the monitor condition setting, conversion, and data transfer windows, and the operations on common windows.

[EXPLANATION OF OPERATIONS OF MENU OPTIONS IN MENU BOX]
Chapter 10 ( ) Describe the operations of the menu options displayed in the menu box, according to the software structure.
Chapter 15 ( ) Each section, in principle, has the following three elements:

(a) Function
The sub-functions of the function concerned are described in the first section of each section.

10. OPERATIONS OF FILE MENU

The File menu is to execute operations related to files, including creation of edit files and writing and reading of created monitor screen data from a file.

10.1 Functions

(1) Functions
The file menu has the functions as follows:

File

Open —To read the designated
(b) Outline of procedure
Subsequent to the description of function at the beginning of the section, the procedure used for executing it is outlined when necessary.

11. OPERATIONS OF EDIT MENU

(2) Flow of operation
The following is the flow outlining the operation of the Edit menu.

[Diagram of Edit menu operation]

(c) Details of items to set on the setting window
In the last section of each section, the details of items to set on the window for executing the function concerned or sub-function (hereinafter referred to as the setting window) are described.
The following is an example of a page that shows the details of items to be set on the setting window (example: error alert display setting):

Title of this section
Function/operation name described on this page
Menu or Item to be selected to open the setting window described on this page
Setting (display) item numbers (corresponding to the numbers shown below) *1
Description of setting to each item or details of item to be displayed *2

*1: menu
□: item
[ ]: operation
( ) : window or [ ] box

*2 Basic operation is described when there is no corresponding window.

Window to execute the function described on this page *2
Defaults, setting restrictions, notes, additional description, reference section, etc. of the item to be set *2
Setting range or option of the item to be set

Points in making settings or executing the function
1. GENERAL DESCRIPTION

[EXPLANATION OF OPERATIONS OF MENU OPTIONS IN CONTROL MENU BOX]
Chapter 16... Describes how to draw graphics and enter character strings.
Chapter 17... Describes how to edit the created portions in a monitor screen (copy, move, or deletion of graphics and/or character strings).
Chapter 18... Describes how to change the attributes (color, pattern, line thickness, line type, character type) of graphics and/or character strings in the created portions or portions to be created in a monitor screen.
Chapter 19... Describes how to read, write (register), and delete component parts (graphics) which can be displayed by the component part display function.
Chapter 20... Describes how to read, write (register), and delete the panel-kit library (graphics) usable in drawing a canvas screen or component part.
Chapter 21... Describes how to set, apply, and delete the monitor function.

[EXPLANATION OF OPERATIONS OF MENU OPTIONS IN TOOL BOX]
Chapter 22... Describe the operations of the menu options displayed in and ..... Each section is organized in the same manner as Chapters 10 to 15.
Chapter 23... Each section is organized in the same manner as Chapters 10 to 15.
Chapter 24... Describes error messages which may be displayed during operation of the AGOTP.

[GUIDE TO OPERATIONS FOR SETTING FUNCTIONS EXECUTED BY TOUCH KEY INPUT WHEN USING AN A77GOT-S5]
Section 25... Describes the setting of touch key codes, switch functions executed by touch key input, the device write (SET/RST) function and touch key graphic display function, when using the A77GOT-S5.

1.2.2 How to read this manual and sections to be referred to for specific operations

(1) This manual includes the general information applicable to all models of the GOT series G controller unit.
For details of settings, available monitor functions, monitor condition setting ranges and options concerning the G controller unit used, refer to its User's or Reference Manual, or Section 5.2 of this manual.

(2) This manual describes operations assuming the system configuration in which a color CRT is used as an AGOTP peripheral device.

(3) The following are the main operations and the corresponding sections:
(a) To know what to do first:
1) Display the Edit file window, position the mouse cursor on [Model selection] in the edit file window and click the left mouse button. Select the G controller unit which will use the monitor screen data in the GOT type window by referring to Section 9.2.4.
2) Set the monitor conditions described in (d) below before creating a canvas screen or setting the monitor functions.
(b) To know the procedure for creating a monitor screen:
Refer to Chapter 2.
1. GENERAL DESCRIPTION

(c) To read the data in a created file:
   1) After starting the system, display the Edit file window, and follow
      the steps to read a created file described in Section 10.2.

(d) To set the necessary monitor conditions:
   1) Display the Edit file window, and set the following:
      11.4......Setting screen/station number switching
      11.5......Setting PC type
      11.9......Setting special keys

(e) To create a canvas screen:
   1) Enter the corresponding monitor screen number in the screen
      No. column on the Edit file window, and follow the procedure
      explained in Section 11.2.
      The edit screen will appear. Then, carry out the following opera-
      tions:
      Chapter R16 to 22
      After setting the necessary data according to Sections 22.3 to 22.7 of
      Chapter 18, create or modify a canvas screen as detailed in Chap-
      ters 16 to 22.
   2) To use created graphics and/or character strings for drawing
      another canvas screen or component part, write (register) them
      to the panel-kit library mentioned in Section 20.3.
      The graphics registered in the panel-kit library can be called on
      the screen being edited by the read operation described in
      Section 20.2.

(f) To create a component part:
   1) Enter the screen number, on which the part will be displayed, in
      the monitor screen No. column on the Edit file window, and follow
      the procedure detailed in Section 11.2.
      The edit screen will appear. Create the part as described in the
      sections listed in (e) above.
   2) To write/read a component part in/from the component part file,
      refer to Chapter 19.
   3) To use created component parts in drawing another canvas
      screen or component part, write (register) them in the panel-kit
      library described in Section 20.3 beforehand.
      The component parts (graphics) registered in the panel-kit li-
      brary can be called on the screen being edited by the read
      operation described in Section 20.2.

(g) To set the monitor functions on a canvas screen:
   1) Set the monitor functions to be used according to Chapter 21 and
      25.

(h) To create a report canvas:
   1) Display the Edit file window, and create a report canvas following
      the report setting procedure explained in Section 11.6.
   2) Points in creating a report canvas are indicated in Section 4.1.5.
(i) To start monitoring on the G controller unit:
   1) Create the monitor data by conversion described in Section 12.2.
   2) Connect the AGOTP peripheral devices to the G controller unit, as explained in Chapter 3.
   3) Transfer the monitor data to the G controller unit as explained in Chapter 13.
      Refer to Chapter 13 also for transferring (download) the monitor data to the ROM writer.

(jj) To save/store the data created using the AGOTP:
   1) To continue operation after saving, carry out writing operation following the steps described in Section 10.3.
   2) To end the AGOTP operation after saving, carry out ending operation following the steps described in Chapter 15.
   3) To store the created data on a floppy disk or other media, carry out copy operation following the steps described in Section 10.5.

(kk) To know how to use the mouse and/or the keyboard:
   1) Refer to Chapter 6.

1.3 Abbreviations, General Terms, and Other Terms Used in the Manual

Listed below are the abbreviations, general terms, and other terms used in this manual:

(1) SW2IVD-AGOTP
   The abbreviation for the SW2IVD-AGOTP graphic operation terminal software package.

(2) AGOTP
   The abbreviation for the SW2IVD-AGOTP.

(3) A77GOT-S5
   The general term of the A77GOT-S5 graphic operation terminal of three models (A77GOT-L, EL, CL-S5).

(4) A77GOT-S3
   The general term of the A77GOT-S3 graphic operation terminal of six models (A77GOT-L/LD/EL/ELD/CL/CLD-S3).

(5) A77GOT (conventional model)
   The general term of the A77GOT graphic operation terminal of six models (A77GOT-L/LD/EL/ELD/CL/CLD).

(6) A77GOT
   The general term of the A77GOT-S5, A77GOT-S3, A77GOT (conventional model).

(7) A64GOT
   The general term of the A64GOT graphic operation terminal of two models (A64GOT-L/LT21B).

(8) A52GCPU
   The general term of the A52GCPU and the A52GCPU-T21B.

(9) AD57G
   The abbreviation for the AD57G-S3 graphic controller unit.
   When it is necessary to distinguish this unit from conventional AD57G unit, it will be referred to as AD57G-S3.
(10) G controller unit
The general term of the A77GOT, the A64GOT, the A52GCPU, and the AD57G.

(11) G controller
The abbreviation for the operating system (OS) for controlling the graphic function each G controller unit has.

(12) Canvas screen
Data of a static screen created by the user on a monitor screen.

(13) Report canvas
Frame and/or title data of a screen for creating a report or document.

(14) Drawn data
The general term of the data, such as canvas screen, report canvas, and component part, drawn by the user.

(15) Edit screen
The general term of screens used for drawing monitor canvas screens, setting monitor functions, creating/registering component parts, drawing monitor canvas, and setting the report function.

(16) Set data
The general term of the data, such as the data set for the monitor functions by the user corresponding to the G controller unit used.

(17) Monitor screen data, monitor data
The monitor screen data is the general term of the data created by the user (drawn data, set data). The monitor data is the data created when the monitor screen data is converted into the data compatible with the G controller unit used.

(18) PC/AT
IBM's PC/AT or completely compatible computer.
* IBM is a registered trademark of International Business Machines Corporation.

(19) Computer
The general term of AGOTP-installed computers, including PC/AT, capable of drawing a monitor screen.

(20) MS-DOS
An operating system (OS) from Microsoft Corporation.
* MS-DOS is a registered trademark of Microsoft Corporation.

(21) GEDE
The abbreviation for the SW0IX-GEDE graphic editor function software package.

(22) ACPU
The general term of the MELSEC-A series PC CPUs which can be monitored by the G controller unit.
1.4 Differences in Comparison with the Conventional AGOTP

The SW2IVD-AGOTP software package has the following additional functions and improvements in operability when compared with conventional AGOTP products.

A comparison of the functions of the SW2IVD-AGOTP and the conventional software packages, and details on data compatibility, are presented in section 1 of the Appendix; refer to these as necessary.

The check marks and crosses in the table indicate whether or not the relevant function can be used in drawing and setting operations with each type of G controller unit.

- O: Can be used
  - : Cannot be used

- Where there is an entry in brackets below the check mark, this indicates the software version of the relevant G controller unit.
  If the software version of the G controller unit you are using is other than that indicated in these brackets, it will be possible to use the corresponding function.

*1: When using A64GOT-L, the function can be used with software version A and later versions.
When using A64GOT-LT21B, the function can be used with software version G and later versions.

*2: When using A64GOT-L, the function can be used with software version K and later versions.
When using A64GOT-LT21B, the function can be used with software version S and later versions.

1.4.1 Differences in comparison with SW0[ ]-AGOTP

<table>
<thead>
<tr>
<th>Category of Additional Function or Operability Improvement</th>
<th>Details of Additional Function or Operability Improvement</th>
<th>A77GOT-SS</th>
<th>A77GOT-SS</th>
<th>A77GOT (Conventional Product)</th>
<th>A64GOT</th>
<th>A52GCPU</th>
<th>AD57G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional monitor condition setting functions</td>
<td>Setting of any bit of a word device as the monitor device for the monitor function</td>
<td>O</td>
<td>O</td>
<td>O (N)</td>
<td>O ('1)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Input of numerical values including a decimal point when using the numerical value input function</td>
<td>O</td>
<td>O</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Setting to enable different stations to be monitored by monitoring the same device</td>
<td>O</td>
<td>O</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Setting to enable switching to the system monitor screen or ladder monitor screen in a one-touch operation</td>
<td>O</td>
<td>O</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Setting for XOR synthesis of display colors where the canvas screen and part overlap when using the part display function</td>
<td>O</td>
<td>O (O)</td>
<td>O ('2)</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td></td>
<td>Setting of touch keys of any size and at any position in units measuring 48 dots (height) by 48 dots (width)</td>
<td>O</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Setting to display a switch, pushbutton, or lamp graphic (touch key graphic) for a set touch key (Touch key graphic display function)</td>
<td>O</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>Category of Additional Function or Operability Improvement</td>
<td>Details of Additional Function or Operability Improvement</td>
<td>AT7G0T-S5</td>
<td>AT7G0T-S3</td>
<td>AT7G0T (Conventional Product)</td>
<td>A64G0T</td>
<td>A52G0CPU</td>
<td>AD57Q</td>
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<tr>
<td>---------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------</td>
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</tr>
<tr>
<td>Additional monitor condition setting functions</td>
<td>Registration of passwords for monitor data, and uploading of monitor data stored in the internal memory/memory card of the G controller unit to an AGOTP peripheral device</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Additional AGOTP operation functions and display functions</td>
<td>Display of text characters in their actual color on the monitor screen when inputting them on the edit screen during creation of a canvas screen</td>
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<td>Displaying the grid on the edit screen as the front-most or rear-most screen during canvas screen editing (User-specified)</td>
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<td></td>
<td>Copying of any required monitor screen data and comment data of a specified system name and sub-system name to a file with another system name and sub-system name in canvas screen creation</td>
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<td>Use of the image display function to display part display function parts set on the edit screen (parts used for the purpose of display positioning)</td>
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<tr>
<td></td>
<td>Use of the image display function to display the touch key graphic that will be displayed after switching by the switching trigger set using the touch key graphic display function</td>
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<td></td>
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</tr>
<tr>
<td></td>
<td>Selection of the attributes of canvas screen graphics and character-strings that are to be changed, and changing of line color, filling pattern color, and character color attributes separately</td>
<td></td>
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<td></td>
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<td></td>
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<tr>
<td>AGOTP operability improvements</td>
<td>Simplification of menu option selection by displaying the normal display box on the edit screen</td>
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<td></td>
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</tr>
<tr>
<td></td>
<td>Consecutive setting of &quot;touch key position&quot; and &quot;device write&quot; in touch key setting</td>
<td></td>
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<tr>
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<td>Setting of monitor functions using the mouse only (support for character input box)</td>
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<tr>
<td></td>
<td>Display of cursor coordinates when inputting text characters</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td></td>
<td>Display from the drive selection window by file menu operation.</td>
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<td></td>
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<tr>
<td></td>
<td>Consecutive modification/utilization/deletion of multiple sprite data</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Execution of both monitor data transfer (download) and system monitor data transfer (download) from the same window (the download window) (The AGOTP discriminates between monitor data and system monitor data.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Setting of the G controller unit that will use the monitor screen data created in the Edit file window</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Display of an &quot;X&quot; mark in the center of the graphic when part graphics and panel-kit part graphics are read</td>
<td></td>
<td></td>
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<td></td>
<td></td>
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</tr>
</tbody>
</table>
### 1.4.2 Differences in comparison with SW1[ ]-AGOTP

<table>
<thead>
<tr>
<th>Category of Additional Function or Operability Improvement</th>
<th>Details of Additional Function or Operability Improvement</th>
<th>A77GOT-S5</th>
<th>A77GOT-S3</th>
<th>A77GOT (Conventional Product)</th>
<th>A64GOT</th>
<th>A52CPU</th>
<th>AD57G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Additional monitor condition setting functions</td>
<td>Setting of touch keys of any size and at any position in units measuring 40 dots (height) by 48 dots (width)</td>
<td>O</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Setting to display a switch, pushbutton, or lamp graphic (touch key graphic) for a set touch key</td>
<td>O</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>(Touch key graphic display function)</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Registration of passwords for monitor data, and uploading of monitor data stored in the Internal memory/memory card of the G controller unit to an AGOTP peripheral device</td>
<td>O</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Additional AGOTP operation functions and display functions</td>
<td>Use of the image display function to display the touch key graphic that will be displayed after switching by the switching trigger set using the touch key graphic display function</td>
<td>O</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Selection of the attributes of canvas screen graphics and character-strings that are to be changed, and changing of line color, filling pattern color, and character color attributes separately</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>AGOTP operability improvements</td>
<td>Consecutive modification/utilization/deletion of multiple sprite data</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td></td>
<td>Execution of both monitor data transfer (download) and system monitor data transfer (download) from the same window (the download window) (The AGOTP discriminates between monitor data and system monitor data.)</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>О (System monitor data transfer not possible)</td>
<td>О</td>
<td>О</td>
</tr>
<tr>
<td></td>
<td>Addition of the &quot;arrange&quot; menu option to the normal display box</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>О</td>
</tr>
<tr>
<td></td>
<td>Setting of the G controller unit that will use the monitor screen data created in the Edit file window</td>
<td>О</td>
<td>О</td>
<td>О</td>
<td>О</td>
<td>О</td>
<td>О</td>
</tr>
<tr>
<td></td>
<td>Display of an &quot;X&quot; mark in the center of the graphic when part graphics and panel-kit part graphics are read</td>
<td>О</td>
<td>О</td>
<td>О</td>
<td>О</td>
<td>О</td>
<td>О</td>
</tr>
</tbody>
</table>
1.4.3  Cautions when utilizing monitor data created using a conventional AGOTP

(1) When monitor data for an A77GOT-S5 is created with the SW2[ ]-AGOTP package by making use of existing monitor data created with a conventional AGOTP, always make a backup file of the existing data first.

Once the monitor data has been converted for use with the A77GOT-S5, it will no longer be usable with other G controller units.

(2) Do not attempt to file copy (see Section 10.5) monitor screen data created for use with an A77GOT-S5 to monitor screen data for use with a G controller unit other than the A77GOT-S5.

(3) When monitor data created with a conventional AGOTP package is read with the SW2[ ]-AGOTP and converted for monitor data for use with the A77GOT-S5, the required memory capacity may be greater than that for the original data created with the conventional AGOTP.

Always check what the data volume after conversion will be before transferring (downloading) monitor data.
2. PROCEDURE FOR CREATING A MONITOR SCREEN

This section outlines the procedure and other information regarding the creation of a monitor screen by the G controller unit.

2.1 Outline of Procedure

Start

Connect and install necessary devices to the computer according to the system configuration before creating a monitor screen or setting conditions. Refer to Section 3. The power to the computer must be turned OFF.

[Installation]

Carry out the following operations on the computer:
(1) Installing the AGOTP on the hard disk, and
(2) setting date, time, and printer type.
Refer to Sections 2.2 and 3. As for an IBM PC/AT, install the AGOTP in a convenient drive.
Refer to Sections 4.1.5 and 4.2.2.

[Starting the AGOTP]

Restart the computer, and start the AGOTP.
Refer to Section 2.2.

[Setting the G controller unit that will use the monitor screen data]

Open the Edit file window.
Set the G controller unit for which the monitor screen data is to be created (mandatory). Make this setting in the GOT type setting window by positioning the mouse cursor on [Model selection] and clicking the left mouse button (refer to Sections 9.2 and 9.2.4).

[Setting file names]

Set the G controller unit for which the monitor screen data is to be created (mandatory). Make this setting in the GOT type setting window by positioning the mouse cursor on [Model selection] and clicking the left mouse button (Refer to Sections 9.2 and 9.2.4).
2. PROCEDURE FOR CREATING
A MONITOR SCREEN

1-1

[Setting operating environment]
Select the Environ. menu in the Menu Box, and set the operating environment for the AGOTP.

Refer to Section 14. The Menu Box is displayed by pressing the right mouse button or the [Esc] key.

[Setting conditions common to all monitor windows]
Select the Edit menu in the Menu Box, and set the monitor conditions.

Refer to Sections 5.2 and 11. The following items must be set:
<Scrtn./Sta. switch>
<PC type>
<Printer model>......At print-out by printer.
The other functions should be set only when they are required.

[Creating a monitor screen]
Select the screen number, for which a monitor screen will be created, on the Edit file window, and the Edit menu in the Menu Box, and then <Screen edit> to start creating a monitor screen.

The Menu Box is displayed by pressing the right mouse button or the [Esc] key.

When the selected screen contains a monitor screen, the data will be displayed.
The control menu box appears on the screen to be edited.
By pressing the [Esc] key or the right mouse button, the control menu box and the Tool Box appear alternately.

For switching menus, refer to Section 7.

2-1
2. PROCEDURE FOR CREATING
A MONITOR SCREEN

Create a monitor screen.
(1) Draw a canvas screen (the static portion of the monitor screen).
(2) Draw a part for using the part displaying function (displaying,
   tracing, moving).
(3) Set the monitor functions (animation display of the monitor
   screen - sprite).
(4) Set the screen title.
Select the graphic to be drawn and the character string input from
the all-time displayed box.

Store the drawn monitor screen in the file.

Open the Edit file window.

Go to
(Creating a monitor screen) → NO
Have you drawn all monitor screens?

YES

[Setting the report function]
To use the report function, create a report canvas and set monitor
conditions.

Open the Edit file window.

[Setting auxiliary functions]
Select the Edit menu in the Menu Box, and set the necessary monitor
functions from among the G controller unit auxiliary functions.

The auxiliary functions are monitor functions not related to the display
of the monitor screen. Refer to Section 5.2 and 11.

The Menu Box is displayed by pressing the right mouse button or
the [Esc] key.

[Conversion]
Select "Yes" to each screen to be displayed on the G controller in the
Conversion box on the Edit file window.

Select "Yes".

Refer to Sections 16 to 22.
When the monitor functions for part
displaying are not to be used, a
part does not need to be drawn.

Refer to Section 23.2.

Refer to Section 7.

Refer to Section 11.6.
These operations are not
necessary when the report
function is not to be used.

Refer to Section 12.
2. PROCEDURE FOR CREATING
A MONITOR SCREEN

3-1

Select the Conversion menu in the Menu Box, and then the Conversion to create monitor data which will be transferred to the G controller unit.

Refer to Section 12.
The Menu Box is displayed by pressing the right mouse button or the [Esc] key.

[Transmit]

- Connect the G controller unit to the computer.

Refer to Section 3.
Data can be transferred to a ROM writer.

- Make the G controller unit ready to transfer the monitor data.

Refer to Section 13.2.

Select the Transmit menu in the Menu Box on the Edit file window, and then <Graphics controller> and <Mon.data.trans.> to transfer the monitor data to the G controller unit.

Refer to Section 13.
The following figures show the procedure for transferring monitor data to the internal memory of the G controller unit through the RS-232C cable.

The Menu Box is displayed by pressing the right mouse button or the [Esc] key.

Monitoring starts by the G controller unit.

Refer to the User's Manual and/or Reference Manual for the G controller unit used.
4-1

[Saving data in the file and ending AGOTP operation]

Select the OK menu in the Menu Box on the Edit file window, and follow the messages to save the created data in the file and end the AGOTP operation.

Refer to Section 15.

- Disconnect the G controller unit from the computer.
- Turn the computer OFF.

End
2. PROCEDURE FOR CREATING
A MONITOR SCREEN

2.2 Starting the AGOTP

(1) Following the steps below, register (install) the AGOTP.
The following procedure is an example of registering (installing) the
SW2IVD-AGOTP in the root directory when the destination hard disk
drive is the drive C and the SW2IVD-AGOTP is inserted in the drive A.

1) Turn the PC/AT on.
Insert the SW2IVD-AGOTP in the drive A.

2) Enter [I], [N], [S], [T], [H], [D], [SP], [/], and
[I] through the keyboard.

3) Press the [\-] key.

Register the AGOTP according to the messages displayed on the screen.

* For installing all functions of the software, free areas of the following capacities must be left
on the hard disk:
• SW2IVD-AGOTP...... 4M bytes
• SW2IVD-GMDP....... 4M bytes
  (for system monitor)
  (expected to be available in future)
• User-created data..... Created data capacity
  storage area x 2
(2) Set the present date and time on the PC/AT.

(3) Prior to the start-up of the AGOTP, prepare the following file to structure the environment enabling the AGOTP to start.
If the PC/AT operating environment is improper, the SW2IVD-AGOTP may not be able to start.

[CONFIG.SYS file]

1) Store the currently servicing CONFIG.SYS file in another name, and set the necessary drivers in the CONFIG.SYS on the root directory, as shown in 2).

2) The following drivers are necessary to work with the AGOTP.
   • EMS extended memory driver (1M byte or over)
   • Mouse driver (driver for the mouse used)
   • ANSI escape sequence driver
   • Printer driver

**POINT**

To start the AGOTP by the PC/AT, do not set DOS shells in the CONFIG.SYS file.

(4) After the file described in (3) was prepared, turn the PC/AT on again.

(5) When a prompt appears, start the AGOTP as follows (in the Japanese mode):

1) To transfer monitor data through port COM1 of the PC/AT, enter "AGOTE- COM1".

2) To transfer monitor data through port COM2 of the PC/AT, enter "AGOTE- COM2".

(Example)

```
C:> Restart
```

Reset the power, or turn the RESET switch on.

```
[C] [O] [SP] [A] [G] [O] [T] [-] .................. Switch the current directory.
```

```
[A] [G] [O] [T] [E] [SP] [-] .................. The AGOTP starts.
[C] [O] [M] [T] [-]
```

(The left shows an example when port COM1 of the PC/AT is to be used.)

```
AGOTP starts.
```

**POINTS**

(1) Starting the AGOTP by the PC/AT does not require the contents of the AUTOEXEC.BAT to be changed.

(2) To start the AGOTP by the PC/AT, do not set DOS shells in the CONFIG.SYS file.
2. PROCEDURE FOR CREATING
A MONITOR SCREEN

[Reference] Shown below is a configuration of the files necessary for the start-up of the AGOTP by the PC/AT:

Existing files

\(\text{(Root directory)}\)

\(\text{CONFIG}\.SYS\)
(required to change for AGOTP)

\(\text{AUTOEXEC}\.BAT\)

User-registered drivers

\(\text{ANSI}\.SYS\)

User-created files

\(\text{AGOT}\.EXE\) (AGOTP execution file)

Files created by installing SW2IVD-AGOTP

\(\text{\textbackslash SYS}\.SYS\)

\(\text{\textbackslash AGOT}\.ENV\)
(system default values for operating environment)

(Panel-kit library)

Files created by operating SW2IVD-AGOTP by user
(Refer to Section 4.4.)

\(\text{\textbackslash GOT1}\.MON1\)
\(\text{\textbackslash PARTS}\.REPORT\)
2. PROCEDURE FOR CREATING
A MONITOR SCREEN

2.3 Transferring Monitor Data (Download), Upload

(1) Transferring (download) monitor data to the G controller unit’s internal memory or memory card

1) This method of transfer (download) is applicable only to the A77GOT, A52GCPU, A64GOT, and AD57G (AD57G-S3 only).

2) Make connections between the AGOTP peripheral devices and the G controller unit, as shown in Section 3 SYSTEM CONFIGURATION.
Some configurations require an RS-232C - RS-422 converter. Select and use the appropriate converter and cables.

3) Select <Graphics controller> in the Transmit menu, and start transferring (download) the monitor data.

4) To transfer (download) the data to the memory card, format the card beforehand, and reserve an area for monitor data which must be larger than the data capacity. For details of the memory card, refer to Section 13.2.

5) Make the G controller unit ready to transfer (download) the monitor data, and select the destination memory on the Download window of the AGOTP. The monitor data will automatically be transferred (download).

* For operation of the G controller unit used, refer to its User’s Manual and/or Reference Manual.

(2) Uploading monitor data stored in the internal memory/memory card of the G controller unit to AGOTP peripheral devices

1) This uploading method is applicable only to the A77GOT-S5.

2) Make connections between the AGOTP peripheral device and A77GOT-S5, as shown in Section 3 SYSTEM CONFIGURATION.

3) Select G. Controller in the Transmit menu, and start the upload operation.

4) Make the A77GOT-S5 ready to upload the monitor data, select the source memory in the Upload window of the AGOTP, set the edit file name at the destination, and enter the password if one is registered for the source monitor data.
The monitor data will automatically be uploaded.

* For details on operating the G controller unit used, refer to the unit’s User’s Manual and/or Reference Manual.

(3) Transferring monitor data to EP-ROM of the ROM writer
Transfer the monitor data as described in 13.3.
This method applies to the AD57G.

2–9
3. SYSTEM CONFIGURATION

3.1 System Configuration for Drawing a Monitor Screen or Setting Conditions

- IBM PC/AT or 100% compatible machine
- SW[ ]IVD-AGOTP(3.5"
- Cable
- CRT
- Keyboard
- Parallel printer cable
- Printer (supports ESC/P)
- Mouse
3. SYSTEM CONFIGURATION

3.2 System Configuration for Transferring (download)/upload Monitor Data

(1) System configuration for transferring (download)/upload
The following is the system configuration for transferring monitor data to the G controller unit's internal memory and/or memory card:

*1: Connect the computer and the unit in either way, depending on the converter type to be used. The applicable type of converter and the wiring are as described on the following page.
(2) System configuration for transferring monitor data to a ROM writer

The following is the system configuration for transferring monitor data to a ROM writer:

* Monitor data can be transferred in no-protocol mode.
3. SYSTEM CONFIGURATION

3.3 Points in System Configuration

(1) Points in hardware configuration
   (a) Personal computer
      1) Applicable type
         • An IBM PC/AT or 100 % compatible machine can be used.
      2) Memory requirement
         • The capacity of internal memory should be 640 Kbytes or larger. (The free area should be 450 Kbytes or larger.)
      3) CRT
         • Use a 640 × 480 dot, color display.
   (b) Use a mouse designed for the PC/AT.
       Operations, however, can be executed through the keyboard without a mouse.
   (c) A ROM writer of the following type should be used:
       Use a general-purpose ROM writer which supports the extended INTELEC-HEX format for the transfer format and can be equipped with 4 M-bit ROM.
       Before connecting the writer to the computer through a parallel cable, check the computer and the ROM writer for parallel interface specifications.
   (d) The following type of printer can be used:
       • Printer supporting ESC/P
          Use a printer of ESC/P24 or a subsequent version.

(2) Points in software configuration
   (a) To install the AGOTP on the hard disk to create a monitor screen, the hard disk drive should have free areas of the following capacities:
       (Details)
       • Free capacity for installing the AGOTP......4 Mbytes
       • Free capacity for creating a monitor screen with the AGOTP
       (Refer to Section 4.3.)..............................(User-created data) × 2

REMARK
Installing the SW2VD-GMPD for system monitoring (to be released in future) requires another 4 M-byte memory.

   (a) If the SW21VD-AGOTP package is installed while the older SW21VD-AGOTP package is already installed, the SW11VD-AGOTP software is overwritten and cleared.
       If the SW21VD-GMPD package is installed while the older SW11VD-GMPD package is already installed, the SW11VD-GMPD software is overwritten and cleared.
   (b) For the mouse driver, use Microsoft’s standard driver (e.g.: MOUSE.SYS).
   (c) For the printer driver, use the one included in the OS.
   (d) Do not set DOS shells in the CONFIG.SYS for AGOTP start-up.

REMARK
Make sure that the available capacity of the internal memory is 450 Kbytes or over prior to start-up of the AGOTP.
### 3. SYSTEM CONFIGURATION

#### 3.3.1 List of component devices

<table>
<thead>
<tr>
<th>Category</th>
<th>Component Device</th>
<th>Type</th>
<th>A77GOT</th>
<th>A52G CPU</th>
<th>A54 GOT</th>
<th>AD57G</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal computer</td>
<td>PC/AT</td>
<td></td>
<td>●</td>
<td>●</td>
<td>●</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRT</td>
<td></td>
<td></td>
<td>●</td>
<td>●</td>
<td>●</td>
<td></td>
<td>Refer to Section 3.4.3.</td>
</tr>
<tr>
<td>CRT cable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Keyboard</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mouse</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td></td>
</tr>
<tr>
<td>Printer</td>
<td></td>
<td></td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td></td>
</tr>
<tr>
<td>Printer cable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Memory card</td>
<td></td>
<td>A8MEM-256KAW</td>
<td>O</td>
<td></td>
<td></td>
<td>O</td>
<td>256 Kbytes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A8MEM-512KAW</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>A8MEM-1024KAW</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>MF2567-L5DAT01</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>MF3512-L5DAT01</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>MF2567-M5DAT01</td>
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<td></td>
<td>MF3512-M5DAT01</td>
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<tr>
<td></td>
<td></td>
<td>MF2567-J1DAT01</td>
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<tr>
<td></td>
<td></td>
<td>MF3512-J1DAT01</td>
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<tr>
<td></td>
<td></td>
<td>MF3512-M1JDAT01</td>
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<tr>
<td></td>
<td></td>
<td>MF3512-M1JDAT01</td>
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<tr>
<td></td>
<td></td>
<td>MF3512-M1JDAT01</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H/W</td>
<td></td>
<td>A7GT-MCA256KFW</td>
<td>O</td>
<td>A77GOT</td>
<td></td>
<td>O</td>
<td>256 Kbytes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A7GT-MCA512KFW</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>A7GT-MCA768KFW</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>A7GT-MCA6K-LD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>For additional user memory (256 Kbytes)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A7GT-MCA256K-LD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>For additional user memory (512 Kbytes)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A7GT-MCA512K-LD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>For additional user memory (768 Kbytes)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>A7GT-MCA768K-LD</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>EP-ROM</td>
<td>128KWR</td>
<td></td>
<td></td>
<td>O</td>
<td>128 Kbytes</td>
</tr>
<tr>
<td></td>
<td></td>
<td>256KWR</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ROM writer</td>
<td>PECKER-11</td>
<td></td>
<td></td>
<td></td>
<td>Prepare according to Sections 3.4.2 and 3.4.3.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ROM writer cable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>G controller unit cable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>RS-422 ↔ RS-232C converter</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S/W</td>
<td></td>
<td>FD</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>MS-DOS (Ver. 3.2 or upgraded version), PC-DOS (Ver. 3.3 or upgraded version)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DOS</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Graphic operation terminal software package</td>
<td>SW[J]JVD-AGOTP</td>
<td></td>
<td></td>
<td></td>
<td>For creating screens, setting conditions, and transferring data (1 floppy disk)</td>
</tr>
<tr>
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<tr>
<td></td>
<td></td>
<td>Mouse driver</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Printer driver</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Front end processor</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*1: For component devices for monitoring, refer to the User's Manual and/or Reference Manual for the G controller unit used.
4. SPECIFICATIONS

This section shows the specifications of the drawing, monitor condition setting, conversion and transfer functions.

4.1 Specifications of Drawing Functions

4.1.1 Performance specifications

<table>
<thead>
<tr>
<th>Screen size</th>
<th>Specification</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Horizontal direction</td>
<td>Text screen: 80 columns</td>
<td>- Refer to Section 4.6.</td>
</tr>
<tr>
<td></td>
<td>Graphic screen: 640 dots</td>
<td>- Set the G controller unit type concerned on the select the appropriate model in the edit file window.</td>
</tr>
<tr>
<td>Vertical direction</td>
<td>Text screen: 25 lines</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Graphic screen: 400 dots</td>
<td></td>
</tr>
</tbody>
</table>

| Number of display colors | 15 colors (white, black, red, green, blue, sky blue, yellow, purple, gray, dark red, dark green, dark blue, dark sky blue, dark yellow, dark purple) | - The colors shown on a monitor screen depend on the display. |
| | - On a monochrome display, a screen or part should be drawn in black and white. |

| Character Input | Characters | 16-point characters | 222 characters (alphanumeric, special symbols) | - Display color attributes can be set to all characters. |
| | - The display positions of text characters are specified by line/column, or those of graphic characters by dot. |
| | - Text character input provides high-speed display. |

| Character display size | Character type | Standard | Half size *1 | Double size |
| (dots) | | | | |
| Half-size character | 8 x 16 | - | 16 x 32 |
| - The figures shown on the left are display dots (horizontal x vertical). |
| | Text characters are available only in the 16-point, standard size. |

| Drawing of graphics | Graphic types | Line type | Line width | Color | Pattern | Attributes that can be specified when drawing graphics |
| | Straight line | O | O | O | - | O: Attributes set for the graphic concerned effective during drawing. |
| | Continuous straight line | O | O | O | - | Δ: Filling in the set pattern possible after drawing. |
| | Polygon | O | O | O | Δ | -: Attributes set for the graphic concerned ignored during drawing. |
| | Rectangle | O | O | O | Δ | Fixed solid line: Graphics must be drawn in solid lines. |
| | Filled rectangle | - | - | O | O | Only polygons, rectangles, circles, and ellipses can be filled. |
| | Circle | Fixed solid line | O | O | Δ | |
| | Arc | Fixed solid line | O | O | - | |
| | Ellipse | Fixed solid line | O | O | Δ | |
| | Fill | - | - | O | O | Filling of graphics drawn |

| Line | Line types | 5 types (Solid line , Broken line --- , Dotted line ) |
| | Chain line , Chain double-dashed line | |
| Line width (dots) | 4 types (1, 2, 3, 4) | |

| Fill | 38 patterns x 2 sets | - Refer to Section 4.1.3. |
| | - Preselect the appropriate pattern on the GOT type setting window (refer to Section 9.2.4). |
### 4. SPECIFICATIONS

<table>
<thead>
<tr>
<th>Specification</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Editing of graphics/character strings</td>
<td>Character string input, drawing/copying/enlarging/reducing graphics, grouping graphics and/or character strings, rotating, deleting, restoring, moving to first/last page, horizontal moving, arrangement</td>
</tr>
<tr>
<td>Panel-kit library</td>
<td>For creating canvas screens and parts, for touch key graphics</td>
</tr>
<tr>
<td>Number of screens/parts/canvases</td>
<td></td>
</tr>
<tr>
<td>Canvas screen</td>
<td>250 screens (will be stored in a canvas file.)</td>
</tr>
<tr>
<td>Parts</td>
<td>255 parts (will be stored in a parts file.)</td>
</tr>
<tr>
<td>Report canvas</td>
<td>8 pages (will be stored in a report canvas file.)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*1 The characters for which half-size display is possible are the special symbols and the alphanumeric within the ASCII code ranges 20H to 7FH, A0H to DFH only.
4. SPECIFICATIONS

4.1.2 Specifications of graphics and characters

This section describes the specifications of the graphics and characters supported by the AGOTP’s drawing functions.

<table>
<thead>
<tr>
<th>Graphic</th>
<th>Presettable Attributes</th>
<th>Editing Examples</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Straight line</td>
<td>Line type, line width, display color</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continuous</td>
<td>Line type, line width, display color</td>
<td></td>
<td></td>
</tr>
<tr>
<td>straight line</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polygon</td>
<td>Line type, line width, display color</td>
<td></td>
<td>Polygons should be filled after drawn.</td>
</tr>
<tr>
<td>Rectangle</td>
<td>Line type, line width, display color</td>
<td></td>
<td>Rectangles should be filled after drawn.</td>
</tr>
<tr>
<td>Filled rectangle</td>
<td>Display color, pattern</td>
<td></td>
<td>Rectangles without frames. The display colors and/or pattern can be changed after drawn. This type of graphic is available from the A77GOT only.</td>
</tr>
<tr>
<td>Circle</td>
<td>Line type (solid line), line width, display color</td>
<td></td>
<td>Circles should be filled after drawn.</td>
</tr>
<tr>
<td>Ellipse</td>
<td>Line type, line width, display color</td>
<td></td>
<td>Ellipses should be filled after drawn. They are internally processed as polygons. Graphics of this type, when enlarged or reduced, may be displayed in the form of polygons.</td>
</tr>
<tr>
<td>Arc</td>
<td>Line type (solid line), line width, display color</td>
<td></td>
<td>Starting angle: 0°, 90°, 180°, 270°. Arc angle: 90° only.</td>
</tr>
<tr>
<td>Fill</td>
<td>Display color, pattern</td>
<td></td>
<td>Only polygons, rectangles, circles, and ellipses can be filled. Any line type can be selected. Two patterns are available. Preselect the appropriate pattern on the GOT Type window (Section 14.2). (Refer to Section 4.1.3)</td>
</tr>
</tbody>
</table>
### 4. SPECIFICATIONS

<table>
<thead>
<tr>
<th>Data to be Entered</th>
<th>Presettable Attributes</th>
<th>Editing Examples</th>
<th>Remark(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Standard (Actual Size)</td>
<td>Double Size</td>
</tr>
</tbody>
</table>
| Text character     | Display color          | ABC 123 (normal) | ABC 123 (reversed) | Unavailable | - The first character position is specified by line/column.  
- The display mode can be selected between normal and reversed.  
- Special symbols can be used in place of graphics. |
| Graphic character  | Character type, display color | ABC 123 | ABC 123 |          | - The first character position is specified by dot.  
- Only the normal display mode is available.  
- For half-size characters, refer to Section 4.1.1... |

*1: The characters displayed during drawing and during monitoring may seem a little different because of the AGOTP peripheral devices. Check the drawn data on a monitor screen.
4. SPECIFICATIONS

4.1.3 Specifications of fill patterns

The following are the graphic fill patterns. Select either pattern on the GOT Type window (Section 9.2.4) after starting the AGOTP. The user cannot create a new fill pattern or modify the existing patterns.

1) Pattern 1

2) Pattern 2

4.1.4 Panel-kit library

The AGOTP has a panel-kit library that manages each common graphic and character string used for creating parts, which will be displayed on the canvas screen (static portion) of a monitor screen or by the monitor functions, as a part. The panel-kit library is divided into the standard library, which the user can use any time, and the user’s original library. The parts registered in these libraries, such as switches and lamps, can be read and used (entered) on the screen being edited. Section 20 details the configuration and applications of the panel-kit library and how to read/write parts. The panel-kit library is very helpful in drawing a canvas screen or part. The standard parts (graphics) registered in the panel-kit library are listed in APPENDIX 3.
4. SPECIFICATIONS

4.1.5 Points in drawing

Described below are the points in drawing a canvas screen, part, or report canvas:

(1) Common points

(a) Before starting the AGOTP, set the following items:

- Date and time........Set the date and time correctly by the DATE/TIME command of MS-DOS.

(b) Before creating a monitor screen, set the following items on the Working Environment menu window (refer to Section 14).

- GOT type setting.....Set the G controller unit type to be used.
  On the GOT Type window, set also the graphic fill pattern.
- Package setting......Set whether the file to be edited should be fixed.
  On the Package Working Environment window, set also the colors of the window or [ ] box when creating a monitor screen.

(c) The graphic and character types to be displayed on a monitor screen are different depending on the G controller unit.
Check the specifications with the User's Manual and/or Reference Manual (see the section following the Contents) for the G controller unit used.

(d) Any ellipse is internally processed as a polygon.
The contour of a created ellipse, when enlarged or reduced, may not be a smooth curved line.
Check how it looks like in monitoring, and correct the ellipse size (vertical-horizontal ratio) using the AGOTP.

(e) At the end of operation, store the created data in a file according to either of the following menus:

1) Storage using the Menu Box menu
   Store the data by selecting the Write menu or OK menu (refer to Section 10.3 or Section 15).

2) Storage using the Tool Box menu
   Store the data by selecting the OK menu (refer to Sections 11.6.1 and 23.2).

If the above step is not followed, the created data will be lost.
(2) Points in drawing a canvas screen

(a) The name (directory name) of a canvas screen must be different from the report canvases and parts, and its number must be between 1 and 250. The created screen number is treated as the monitor screen number during monitoring.

(b) Data of up to 64 Kbytes can be created per canvas screen.

(c) Pay attention to the points described below when drawing a filled graphic on a canvas screen. At the same time, check the drawn screen by the Image menu of the AGOTP (refer to Section 22.9) to see if it is displayed as it is.

1) When placing a filled graphic on another one, only the solid fill pattern is available for the ground graphic.
Examples of placing a filled graphic on another one are shown below:

(Example 1) Graphic to be displayed

(Example 2) Graphic to be displayed

Drawing method: Draw the ground circle in the ordinary way. Place the inner circle on the ground circle, and fill its inside in black.

Drawing method: Draw the ground square in the ordinary way. Overlap another square, and fill the overlapping portion in black.

2) The graphic to be filled must be a polygon, rectangle, circle, or ellipse which forms a closed area.
To create a graphic having two or more closed areas, draw them one by one.

Graphic to be displayed

Graphic to be drawn

(1) Draw closed areas one by one.

(2) Fill each area.

Drawing method: Draw closed areas one by one. Then, fill each area.
(3) Points in drawing a part

(a) The name (directory name) of a part must be different from the canvas screens and report canvases, and its register number must be between 1 and 255. (Refer to Section 19.) The registered number is treated as the part number during monitoring.

(b) Regarding a part consisting of two or more graphics, specify and register the area which can include all the graphics, as illustrated below:

![Diagram showing an area with coordinates xa, xb, ya, and yb]

Size of a part

(4) Points in drawing a report canvas

(a) The name (directory name) of a report canvas must be different from the canvas screens and parts, and up to eight pages can be created. (Refer to Sections 4.4 and 11.6).

(b) On a report canvas, characters and ruled lines must not overlap one another. (Using previous data, which includes overlapping characters and lines, results in an error when converted.)

(Input example)

![Operator List]

<table>
<thead>
<tr>
<th>Type</th>
<th>Pattern</th>
<th>Code</th>
<th>Notes</th>
</tr>
</thead>
</table>


4 – 8
### 4.2 Specifications of Monitor Condition Setting, Convert, and Transfer Functions

#### 4.2.1 Performance specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screen size</td>
<td></td>
</tr>
<tr>
<td>Horizontal direction</td>
<td>80 columns</td>
</tr>
<tr>
<td>Vertical direction</td>
<td>25 lines</td>
</tr>
<tr>
<td>Number of display colors</td>
<td>15 colors (white, black, red, green, blue, sky blue, yellow, purple gray, dark red, dark green, dark blue, sky blue, dark yellow, dark purple)</td>
</tr>
</tbody>
</table>
| | • Refer to Section 4.5.  
• Set the G controller unit type concerned on the GOT type setting window (refer to Section 9.2.4).  
• The colors shown on a monitor screen depend on the display.  
• On a monochrome display, set black and white. |
| Displaying numerals and character strings | Characters | 16-point characters | 222 characters (alphanumeric, special symbols) |
| | • Display colors can be specified to all characters.  
• The character type shown on the monitor screen depends on the G controller unit.  
• The display positions are specified by distance and column. |
| Character display size (dots) | Character size | The options are different depending on the monitor functions. |
| Actual size | R X 16 |
| Double | 16 X 32 |
| 4 times | 32 X 64 |
| 8 times | 64 X 128 |
| Displaying of graphics | Point type | 8 types (● ▲ ▼ ○ ◆ △ ❯) |
| Point size | 3 sizes (small: 5 X 5, medium: 7 X 7, large: 9 X 9) |
| Display size (unit: dot) | For displaying scatter graphs |
| Line type | 5 types (Solid line—,—,—,—,—, Broken line—,—,—,—,—, Dotted line—,—,—,—,—,—, Chain line—,—,—,—,—,—, Chain double-dashed line—,—,—,—,—,—) |
| Line width (dots) | 4 types (1, 2, 3, 4) |
| Line size | For displaying graphs |
| Fill | 38 patterns x 2 sets |
| Editing of monitor condition settings | Newly setting/modifying/deleting monitor functions, batch-utilizing settings from another screen/file, utilizing set units on screen, deleting/batch-deleting set units on screen |
| Number of monitor function settings | Up to 32767 settings or 65328 bytes per screen |
| Monitor data transfer time (downloading) | Internal memory | Approx. 50 seconds |
| | Approx. 330 seconds | On the A77GOT-S5 |
| Monitor upload time | Internal memory | Approx. 60 seconds |
| | Approx. 400 seconds | On the A77GOT-S5 |

*1: It takes 1 to 1.5 seconds to transfer 1 K-byte data. (The first 1 K-byte requires 6 to 7.5 seconds.)  
*2: The characters for which half-size display is possible are the special symbols within the ASCII code ranges 20H to 7FH, ADH to DFH only.
4. SPECIFICATIONS

4.2.2 Points in operation

Described below are the points in setting monitor conditions of the monitor functions, and converting and transferring (downloading)/uploading data:

(1) Common points

(a) Before starting the AGOTP, set the following items:

- Date and time........ Set the date and time correctly by the DATE/TIME command of MS-DOS.

(b) Before creating a monitor screen, set the following items in the GOT type setting window after left clicking [Model selection] in the edit file window:

- GOT type setting ....Set the G controller unit type to be used
  On the GOT Type window, set also the graphic fill pattern.

(c) At the end of operation, store the created data in a file according to either of the following menus:

1) Storage using the Menu Box menu

   Store the data by selecting the Write menu or OK menu (refer to Section 10.3 or Section 15).

2) Storage using the Tool Box menu

   Store the data by selecting the OK menu (refer to Sections 11.6.1 and 23.2).

   If the above step is not followed, the created data will be lost.

   The window displayed when the OK menu is selected in the Menu Box

   ![Menu Box Window]

   The window displayed when the OK menu is selected in the Tool Box

   ![Tool Box Window]

   As soon as [Yes] is selected, the data will be stored in a file.
(2) Points in setting the monitor functions

(a) The available monitor functions are different depending on the G controller unit. Check the specifications with the User’s Manual/Reference Manual (the section following the Contents) for the G controller unit used.

(b) Be sure to set the following monitor functions/conditions, except for the system which can use the initial values:

<table>
<thead>
<tr>
<th>Monitor Function/Condition</th>
<th>Initial Value</th>
<th>Description</th>
<th>Reference Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screen/Station No. switching (screen switching device)</td>
<td>A3A-D0</td>
<td>To set the word device used for the screen switching function.</td>
<td>Section 11.4</td>
</tr>
<tr>
<td>PC type select</td>
<td>A3A</td>
<td>To set the PC CPU type.</td>
<td>Section 11.5</td>
</tr>
<tr>
<td>Special key setting</td>
<td>Set</td>
<td>To set the applications of the function keys F1 to F3, etc.</td>
<td>Section 11.9</td>
</tr>
<tr>
<td>Printer setting</td>
<td>ESC/P</td>
<td>To set the printer type on which data will be printed.</td>
<td>Section 11.13</td>
</tr>
</tbody>
</table>

(3) Points in converting data

(a) When a user-created screen or set data is converted into data understandable to the G controller unit, the monitor data capacity will be displayed. Make sure that the destination memory capacity is large enough to receive the monitor data.

(4) Points in transferring (downloading)/uploading data

An RS-232C ↔ RS-422 converter may be required to connect AGOTP peripheral devices and the G controller unit. Prepare a cable and a converter, as described in Section 3.
4. SPECIFICATIONS

4.3 Memory Capacity Requirement for Monitor Data

The monitor data, which the G controller unit will monitor and which will be stored in file ___ROM, is created by converting the following user-created monitor screen data (refer to Section 12):

- Canvas screen data
- Part data
- Monitor function setting data

The monitor data can be stored in the G controller unit's internal memory (including a memory cassette for additional memory), ROM or memory card. The memory capacity necessary for storing monitor data will be displayed on the Conversion window after the data is converted or on the Transfer (Monitor data) window during transfer. Check it on these windows.

The following is the method of calculating the necessary memory capacity (reference capacity) before storing monitor data.

Based on the graphics, character strings, and monitor functions to be used in creating monitor screen data, add all of the following values to calculate the necessary memory capacity.

<table>
<thead>
<tr>
<th>Item</th>
<th>Memory Capacity Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Calculation Method</td>
</tr>
<tr>
<td>System information storage area</td>
<td>Fixed</td>
</tr>
<tr>
<td>Memory capacity for all canvas screens</td>
<td>Refer to Section 4.3.1 (1).</td>
</tr>
<tr>
<td>Memory capacity for all parts</td>
<td>Refer to Section 4.3.1 (2).</td>
</tr>
<tr>
<td>Memory capacity for all report canvases (only when report functions are set)</td>
<td>Refer to Section 4.3.1 (3).</td>
</tr>
<tr>
<td>Memory capacity for all monitor conditions</td>
<td>Refer to Section 4.3.2.</td>
</tr>
<tr>
<td>External character area (only when external characters are used)</td>
<td>Fixed</td>
</tr>
<tr>
<td>Canvas screen management information storage area</td>
<td>*1 Number of graphics x 12 + 16 bytes (per screen)</td>
</tr>
<tr>
<td>Monitor screen's monitor condition management information storage area</td>
<td>*1 Number of monitor functions set x 4 x 4 bytes (per screen)</td>
</tr>
</tbody>
</table>

Total memory capacity

*1: Calculate the memory capacities for all screens.

POINT

Prepare memory for storing monitor data.
If the memory capacity is insufficient, add memory, or modify and/or delete the graphics, character strings, or monitor functions used.
4.3.1 Memory capacity requirement for drawing data

(1) Canvas screen data

The following table shows the memory capacity necessary for each data comprising a canvas screen:

(Unit: byte)

<table>
<thead>
<tr>
<th>Graphic Type</th>
<th>Graphic Example</th>
<th>Memory Capacity Requirement</th>
<th>Graphic Type</th>
<th>Graphic Example</th>
<th>Memory Capacity Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Straight line</td>
<td></td>
<td>12</td>
<td>Ellipse</td>
<td></td>
<td>(6 \times (4 \times \text{number of apices}))</td>
</tr>
<tr>
<td>Rectangle (filled rectangle)</td>
<td></td>
<td>12 (30)</td>
<td>Circle, arc</td>
<td></td>
<td>24</td>
</tr>
<tr>
<td>Filled graphic (rectangle)</td>
<td></td>
<td>32</td>
<td>Polygon (closed graphic)</td>
<td></td>
<td>(6 \times (4 \times \text{number of apices}))</td>
</tr>
<tr>
<td>Filled graphic (other than rectangle)</td>
<td></td>
<td>(6 \times (\text{number of graphics}) \times (10 + 4 \times \text{number of apices}))</td>
<td>Continuous straight line</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Character Type</th>
<th>Character String Example</th>
<th>Memory Capacity Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Text character</td>
<td>As it is (6 \times (7 \times (\text{number of characters of a character string in half character size}) \times \text{all character strings}) / 1 \text{ character string}</td>
<td></td>
</tr>
<tr>
<td>Graphic character</td>
<td>Line ((18 + 4 \times (\text{number of characters of a character string in half character size})) \times \text{all character strings} / 1 \text{ character string}</td>
<td></td>
</tr>
</tbody>
</table>

(2) Part data

The following expression is to calculate the memory capacity necessary for a part:

\[
\frac{X\text{-axis dots of part}}{4} \times 2 \times Y\text{-axis dots of part} \text{ (bytes)}
\]

(Raise the decimals to a unit.)

(Calculation example) .......... Unit: dot

1) \(12/4 \times 2 \times 40 = 240\)
2) \(32/4 \times 2 \times 8 = 128\)
3) \(44/4 \times 2 \times 40 = 880\)

* Registering a part by dividing it into several portions requires less memory capacity.
(3) Report canvas data

The following table shows how to calculate the memory capacity necessary for each data comprising a report canvas:

(Unit: byte)

<table>
<thead>
<tr>
<th>Graphic Type</th>
<th>Example of Graphic Created</th>
<th>Memory Capacity Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Straight line</td>
<td></td>
<td>$6 + ((7 + (number of columns occupied by a graphic)) \times all graphics)$</td>
</tr>
<tr>
<td>Rectangle</td>
<td></td>
<td>Memory capacity necessary for a graphic</td>
</tr>
<tr>
<td>Character</td>
<td>Actual production output</td>
<td>$6 + ((7 + (number of characters of a character string in half character size)) \times all character strings)$</td>
</tr>
<tr>
<td>(text character)</td>
<td></td>
<td>Memory capacity necessary for a character string</td>
</tr>
</tbody>
</table>

### 4.3.2 Memory capacity requirements for monitor functions

The following table shows the memory capacity necessary for each monitor function set with the AGOTP:

<table>
<thead>
<tr>
<th>Monitor Function</th>
<th>Memory Capacity Requirement (unit: byte)</th>
<th>Reference Section</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A77GOT-S5</td>
<td>A77GOT-S3</td>
</tr>
<tr>
<td>Screen/Station No. switch setting</td>
<td>42</td>
<td>16</td>
</tr>
<tr>
<td>PC type setting</td>
<td></td>
<td>132</td>
</tr>
<tr>
<td>Report setting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Real-time report</td>
<td>34 + (140 + (number of devices \times 5) + A)</td>
<td>*1</td>
</tr>
<tr>
<td>Logging report</td>
<td>34 + (140 + (number of devices \times 5) + A)</td>
<td>*1</td>
</tr>
<tr>
<td>Announcement setting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time action setting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Special key setting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operation panel setting</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>482 (including switch settings)</td>
</tr>
<tr>
<td>Snap shot setting</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>System information setting</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>Printer type setting</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Back light off time setting</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Numerical display setting</td>
<td></td>
<td>42</td>
</tr>
<tr>
<td>Character string display setting</td>
<td></td>
<td>185</td>
</tr>
<tr>
<td>Alarm list display setting</td>
<td></td>
<td>34</td>
</tr>
<tr>
<td>Part display/locus/movement setting</td>
<td></td>
<td>36</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Device write setting</th>
<th>Numerical input</th>
<th>Word device SET</th>
<th>Character string input</th>
<th>SET/RST/Alternate</th>
<th>Touch key setting</th>
<th>Block data display setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Numerical</td>
<td>43</td>
<td>16</td>
<td>43</td>
<td>12</td>
<td>50 + touch key graphics</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(including switch settings)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(Continued on the next page)</td>
</tr>
<tr>
<td>Monitor Function</td>
<td>Memory Capacity Requirement (unit: byte)</td>
<td>Reference Section</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>-----------------------------------------------</td>
<td>-------------------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A77GOT-S3</td>
<td>A77GOT-S3 (Conventional model)</td>
<td>Other than A77GOT-S3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level display setting</td>
<td></td>
<td></td>
<td></td>
<td>Section 21.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trend graph setting</td>
<td></td>
<td></td>
<td></td>
<td>Section 21.10.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scroll type (screen display)</td>
<td>40</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scroll type (file storage)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overwrite type</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Batch display type</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bar graph setting</td>
<td></td>
<td></td>
<td></td>
<td>Section 21.10.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Normal type</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cumulative type</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Polygonal line graph setting</td>
<td></td>
<td></td>
<td></td>
<td>Section 21.10.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Spline graph setting</td>
<td></td>
<td></td>
<td></td>
<td>Section 21.10.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scatter graph setting</td>
<td></td>
<td></td>
<td></td>
<td>Section 21.10.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Circular graph setting</td>
<td></td>
<td></td>
<td></td>
<td>Section 21.10.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clock display setting</td>
<td></td>
<td></td>
<td></td>
<td>Section 21.11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Error alert display setting</td>
<td></td>
<td></td>
<td></td>
<td>Section 21.12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Station No. switch setting</td>
<td></td>
<td></td>
<td></td>
<td>Section 21.13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Comment setting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>For character string display</td>
<td></td>
<td></td>
<td></td>
<td>Section 22.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>For fixed character string display</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>For report ... For fixed character</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>string printout</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total number of characters included</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>in all comments + (10 x number of comments) + 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Setting of two or more functions to a key in device write</td>
<td>34 (requisite)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>multiple setting of write trigger keys</td>
<td>2 (per key)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*1: Calculate the value A using the following expression:
A = (((number of printout devices for a line x 10) + 133) x number of settings for a page) x all pages

*2: Required memory capacity for one touch key (40 dots by 48 dots). Calculate the memory capacity for the touch key graphics by referring to the memory capacity requirement in (1) "Canvas screen data".
### 4. SPECIFICATIONS

**REMARK**

The following table shows how much memory capacity (reference value) a memory card should have.
Add the memory capacities necessary for all the data to be stored, thereby obtaining the total memory capacity requirement.
The most appropriate memory card can be selected according to the value calculated.

<table>
<thead>
<tr>
<th>Area Name</th>
<th>Function/Data Type</th>
<th>Memory Capacity Requirement (unit: byte)</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitor data area</td>
<td>Monitor data</td>
<td>Conform to Section 4.3.1.</td>
<td>Necessary to store monitor data.</td>
</tr>
<tr>
<td></td>
<td>Canvas screen data, part data</td>
<td>Conform to Section 4.3.2.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Monitor condition data</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Collected data storage file for trend graph display</td>
<td>16-bit data</td>
<td>Per graph display setting.</td>
</tr>
<tr>
<td></td>
<td>[scroll type (file storage)]</td>
<td>32-bit data</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Collected data storage file for logging reports</td>
<td>(number of collection times) x ((total number of words included in logging data) + 10) x 2</td>
<td>Per report setting.</td>
</tr>
<tr>
<td>File area</td>
<td>Snap shot file</td>
<td>Approx. 5200 Kbytes (approx. 5 Kbytes)</td>
<td>To only one memory card. Capacity per file (screen). The number of snap shot files that can be stored depends on the file area size.</td>
</tr>
<tr>
<td></td>
<td>Type 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Numerical display function</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Character string display function</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Alarm list display function</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Block data display function</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Clock display function</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Error alert display function *1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Circle graph display function</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Polygonal line graph display function</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Spline graph display function</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Scatter graph display function function (batch display only)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Type 2</td>
<td>Screens other than above</td>
<td>Approx. 140000 Kbytes (approx. 136 Kbytes)</td>
</tr>
<tr>
<td>System monitor area</td>
<td>Monitor data for checking contents in memory of PC CPU, I/O units, and special function units</td>
<td>Refer to the System Monitor Function Operating Manual.</td>
<td>The memory capacity requirement is different depending on the number or type of screens to be converted.</td>
</tr>
</tbody>
</table>
*1: Only when no error alert is displayed.

*2: The memory capacity requirement is different depending on the file area size.

<table>
<thead>
<tr>
<th>File Area Size</th>
<th>Memory Capacity Requirement (unit: Kbyte)</th>
</tr>
</thead>
<tbody>
<tr>
<td>64</td>
<td>4</td>
</tr>
<tr>
<td>128</td>
<td>4</td>
</tr>
<tr>
<td>256</td>
<td>5</td>
</tr>
<tr>
<td>512</td>
<td>7</td>
</tr>
<tr>
<td>1024</td>
<td>13</td>
</tr>
</tbody>
</table>

*3: The numbers of snap shot files a memory card can retain are as follows:

<table>
<thead>
<tr>
<th>Monitor Screen Type</th>
<th>Memory Card Capacity (unit: Kbyte)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>file area capacity</td>
</tr>
<tr>
<td></td>
<td>64</td>
</tr>
<tr>
<td>Type 1 screen</td>
<td>5</td>
</tr>
<tr>
<td>Type 2 screen</td>
<td>0</td>
</tr>
</tbody>
</table>
4. SPECIFICATIONS

4.4 Types of Files to be Created and Their Locations in the Directory

On creation of a monitor screen, setting of conditions, or conversion of data by the AGOTP, some files are automatically created. The following are examples:

\( \text{(Root directory)} \) \rightarrow \text{\textbackslash G\textbackslash OT1} \rightarrow \text{\textbackslash MON1} \rightarrow \text{\textbackslash MON1.SET} \rightarrow \text{(System management data)}
\text{\textbackslash MON1.PC} \rightarrow \text{(PC type data)}
\text{\textbackslash MON1.DSP} \rightarrow \text{(Screen switching device data)}
\text{\textbackslash MON1.ALM} \rightarrow \text{(System alarm data)}
\text{\textbackslash MON1.TRD} \rightarrow \text{(File storage trend graph data)}
\text{\textbackslash MON1.AUX} \rightarrow \text{(Auxiliary function data)}
\text{\textbackslash MON1.ERR} \rightarrow \text{(Conversion error data)}
\text{\textbackslash MON1.ENV} \rightarrow \text{(Default value data)}
\text{\textbackslash MON1.Gnn} \rightarrow \text{(Canvas graphic data)}
\vdots
\text{\textbackslash MON1.Mnn} \rightarrow \text{(Sprite set data)}
\vdots
\text{\textbackslash MON1.Tnn} \rightarrow \text{(On-canvas-screen text character data)}
\text{\textbackslash MON1.TTL} \rightarrow \text{(Screen title data)}
\text{\textbackslash MON1.NDX} \rightarrow \text{(Comment retrieval data)}
\text{\textbackslash MON1.BBF} \rightarrow \text{(Comment data)}
\text{\textbackslash MON1.CMF} \rightarrow \text{(Comment data)}
\text{\textbackslash MON1.ROM} \rightarrow \text{(Transfer data)}
\text{\textbackslash MON1.TXT} \rightarrow \text{(Comment data)}
\text{\textbackslash MON1.HEX} \rightarrow \text{(Extended INTELEC-HEX data)}
\vdots
\text{\textbackslash PARTS} \rightarrow \text{\textbackslash PARTS.Dnn} \rightarrow \text{(Part graphic data)}
\vdots
\text{\textbackslash PARTS.Pnn} \rightarrow \text{(Part image data)}
\vdots
\text{\textbackslash PARTS.BTL} \rightarrow \text{(Part title data)}
\vdots
\text{\textbackslash REPORT} \rightarrow \text{\textbackslash REPORT.RPG} \rightarrow \text{(Report page management data)}
\vdots
\text{\textbackslash REPORT.Rnn} \rightarrow \text{(Ruled line data)}
\vdots
\text{\textbackslash REPORT.RTL} \rightarrow \text{(Report title data)}
\vdots
\text{\textbackslash PKIT} \rightarrow \text{\textbackslash PKIT.PTL} \rightarrow \text{(Panel-kit library data)}
\text{\textbackslash PKIT.BTL}
\vdots
\text{\textbackslash PKIT.BOI}

*1: The name specified by the user as an edit file name before creating a monitor screen.

*2: The name specified by the user as a part file name before newly registering a part to be displayed on a monitor screen.

*3: The name specified by the user as a report file name before creating a report canvas to be used with the report function.

**POINTS**

(1) Each user-created data, categorized into monitor screen (*1 above), part (*2), or report (*3), is batch-managed by system (transfer block). The edit file, part file, and report file names specified by the user, therefore, are used for respective directory and file names and managed in different directories.

(2) The created files, when the final directory names mentioned in *1 to *3 above match the file names, can be copied into another drive or parent directory to use.
4.5 Screen Configuration

This section describes the screen configuration while the AGOTP is in operation.
Using the indicators of the AGOTP peripheral devices, change the colors of
the windows and Menu Box to make operations easier.
The colors can be changed on the Working Environment window (refer to
Section 14.3).

(1) Screen

On the screen, various windows, including the Edit file window de-
scribed in Section 9.2.1, are displayed.
When a monitor screen or report canvas is created, the screen being
edited appears on the display, on which the Tool Box can be displayed.
(Such a screen or report canvas cannot be created on the hatching
area.)

Edit file window

(2) Cursor

Depending on what operation is being executed, one of the following
cursors appears on the screen:

<table>
<thead>
<tr>
<th>Mouse cursor</th>
<th>Cursor displayed</th>
<th>Status</th>
<th>Character cursor</th>
<th>Cursor displayed</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>During normal operation, or out of drawing area</td>
<td></td>
<td>Overwrite mode</td>
<td>Insert mode (default)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>While OS processing is being executed</td>
<td></td>
<td></td>
<td>Either cursor blinks when displayed.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>While a screen or graphic is being created</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>While a graphic is being moved</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(4) Dialog box
(4) Operation buttons
(5) Mouse cursor position display window
(6) Vertical slider
(7) Alert box
(7) Operation button
(3) □ to □ boxes

(a) When the Edit file window is displayed

The Menu Box appears where the mouse cursor is positioned, and any of the operations described in Sections 10 to 15 can be executed by selecting the corresponding menu option in the Box. * The Menu Box appears or disappears by pressing the right mouse button or the [Esc] key.

(b) When an edit screen for drawing a monitor screen is displayed

The control menu box appears when an edit screen is displayed first, and the Tool Box and the control menu box appear alternately with a press of the [Esc] key or the right mouse button. Any of the operations described in Sections 16 to 23 is available by selecting the corresponding menu option in the Tool Box or control menu box.

1) Control menu box

The control menu box is displayed at the top or bottom of the edit screen. By pressing the [.] key or the left mouse button with the mouse cursor out of the control menu box, the box moves to another position.

Displays the coordinate where the mouse cursor is located.
Displays the currently edited monitor screen number.
Mouse cursor switching (→ ↑) \ (arrow)
Sprite menu SP
Panel-kit menu (mallet)
Parts menu (bolt)
Change attribute menu (paint)
Arrange
Unigroup
Group
Undo
Cut
Copy
Character menu
Fill
Ellipse
Arc
Circle
Polygon
Filled rectangle
Rectangle
Continuous straight line
Straight line

For editing screens
For character input
For drawing screens
2) Tool Box

The Tool Box is displayed where the mouse cursor is located.

<table>
<thead>
<tr>
<th>Tool Box</th>
<th>Mirror V (vertical), Mirror H (horizontal), Rotate 90°… Rotating menus</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(applicable to graphics only)</td>
</tr>
<tr>
<td></td>
<td>Grid/Scale menu</td>
</tr>
<tr>
<td></td>
<td>Move forward and backward menus</td>
</tr>
<tr>
<td></td>
<td>All menu</td>
</tr>
<tr>
<td></td>
<td>Comment menu and Title menu</td>
</tr>
<tr>
<td></td>
<td>Image menu and Device menu</td>
</tr>
<tr>
<td></td>
<td>End menus</td>
</tr>
</tbody>
</table>

(c) When an edit screen for setting report function is displayed

The Tool Box related to report appears. Any of the operations described in Section 11.6 can be performed by selecting the corresponding menu option in the Box.

<table>
<thead>
<tr>
<th>Tool Box</th>
<th>Line Draw menu and Text menu</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Assignment menu, Parameter menu, and Title menu</td>
</tr>
<tr>
<td></td>
<td>Edit menus</td>
</tr>
<tr>
<td></td>
<td>End menus * The Tool Box appears or disappears by pressing the right mouse button or the [Esc] key.</td>
</tr>
</tbody>
</table>

(4) Dialog box and operation buttons

Just before the AGOTP executes an end or delete command, the dialog box appears, asking the user whether he or she really wants to do the operation.

The message and operation button names in the dialog box are different depending on what is going on.

* If the selection guide mark (♀) appears at the left corner of the dialog box, check the message, and select either operation button.
(5) Mouse cursor position display window

On the edit screen, the mouse cursor position display window is displayed opposite the mouse cursor, showing the current coordinate of the cursor.

(Example of mouse cursor position display window displayed when creating a monitor screen)

<table>
<thead>
<tr>
<th>X-axis coordinate</th>
<th>Y-axis coordinate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screen No. being created</td>
<td>1/X = 320 : Y = 200</td>
</tr>
</tbody>
</table>

* When a report canvas is created, the line and column coordinates are displayed.

(a) When the mouse cursor ✈️ is displayed

With a press of the [.-] key or the left mouse button with the mouse cursor out of the control menu box displayed on the edit screen for drawing a monitor screen, the control menu box disappears, and the mouse cursor position display window appears instead.
By pressing the [.-] key or the left mouse button when the mouse cursor position display window is displayed, the window disappears, and the control menu box appears.

(b) When the mouse cursor + is displayed

With a press of the [.-] key or the left mouse button, the control menu box disappears, and the mouse cursor position display window appears.
As the mouse cursor moves closer to the mouse cursor position display window, the window moves up left or down right.
By pressing the [.-] key or the left mouse button when the mouse cursor position display window is displayed, the window disappears, and the control menu box appears.
(6) **Vertical slider**

The vertical slider is displayed on any window. It shows the relative position of the area currently displayed the whole area. Moving the slider can change the area to be displayed. When the edit screen is enlarged on the display, the horizontal slider appears at the bottom of the screen. It works as described in (a) to (c) below, however, the screen scrolls horizontally.

(a) **Up (Down) arrow**

Every time the left mouse button is pressed once with the cursor \( \uparrow \) positioned on the up (or down) arrow, the area currently displayed scrolls up (or down) \( n \) steps. "\( n \)" is different depending on the window.

(b) **Upward (Downward) scroll area**

Every time the left mouse button is pressed once with the cursor \( \uparrow \) positioned on the upward (or downward) scroll area, the screen currently displayed scrolls to the top or bottom.

(c) **Slider**

Positioning the cursor \( \uparrow \) on the slider, hold down the left mouse button, and move the slider up or down to the desired position. As soon as the button is released, the area currently displayed will scroll up or down to the specified position.

(7) **Alert box and operation button**

When it detects an error, the AGOTP tells the user of his or her wrong operation through the alert box. The message in the alert box is different depending on the error. The operation button is displayed in response to the situation.

* If the warning mark \( \downarrow \) or information mark \( \downarrow \) appears at the top left corner of the alert box, follow the steps below:

  1. : The message displayed in the box is a warning. Carry out the next operation with care.

  1. : The message displayed in the box indicates that the operation specified last is being executed.
4.6 Screen Size and Coordinates

This section describes the maximum size and coordinates of the monitor screen.
The GOT type setting made before drawing a monitor screen determines the
drawing area (refer to Section 14.2).
The upper figure shows text coordinates <column, line>, and the lower one
illustrates graphic coordinates (X axis, Y axis).

(1) When the A77GOT, AD67G or A52GCPU is selected

(2) When the A64GOT is selected
5. HIERARCHICAL STRUCTURE OF MENUS AND ITEMS AND OUTLINES OF FUNCTIONS

This section describes the hierarchical structure of the AGOTP’s menus and items necessary for using its functions, and outlines the menu functions.

5.1 Hierarchical Structure of Menus and Items and Outlines of Functions

The menu options the AGOTP has are listed in the Menu Box, Tool Box, etc. By selecting a menu option, the corresponding item is displayed. For switching menu options, refer to Section 7.

5.1.1 Hierarchical structure of the Menu Box and outlines of menu functions

To perform operations related to files, including writing of monitor screen data to be created (or already created) to a file and file readout.

<table>
<thead>
<tr>
<th>Item</th>
<th>Outline of Function</th>
<th>Reference Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Read</td>
<td>Creates edit files and reads existing files.</td>
<td>Section 10.2</td>
</tr>
<tr>
<td>Write</td>
<td>Writes (Saves) edited data to a file, enabling the user to continue editing.</td>
<td>Section 10.3</td>
</tr>
<tr>
<td>Delete</td>
<td>Deletes files and/or directories.</td>
<td>Section 10.4</td>
</tr>
<tr>
<td>Copy</td>
<td>Copies all files or specified files in a source directory into a specified directory.</td>
<td>Section 10.5</td>
</tr>
<tr>
<td>Print</td>
<td>Generates set data onto the printer or file.</td>
<td>Section 10.6</td>
</tr>
</tbody>
</table>

To draw monitor screens and set monitor conditions required to monitor the PC on the G controller unit.

<table>
<thead>
<tr>
<th>Item</th>
<th>Outline of Function</th>
<th>Reference Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Screen edit/set</td>
<td>Draws the canvas screen for each monitor screen and sets monitor conditions.</td>
<td>Section 5.2</td>
</tr>
<tr>
<td>Screen utilize/</td>
<td>Utilizes existing monitor screen data for another monitor screen, or deletes it.</td>
<td>Section 11.3</td>
</tr>
<tr>
<td>delete</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Screen/</td>
<td>Sets monitor devices for switching monitor screens.</td>
<td>Section 11.4</td>
</tr>
<tr>
<td>Station switch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PC type select</td>
<td>Sets the PC CPU (self- or another station) type to be monitored.</td>
<td>Section 11.5</td>
</tr>
<tr>
<td>Report</td>
<td>Sets the report function.</td>
<td>Section 11.6</td>
</tr>
<tr>
<td>Announcement</td>
<td>Sets the announcement function.</td>
<td>Section 11.7</td>
</tr>
<tr>
<td>Time action</td>
<td>Sets the time action function.</td>
<td>Section 11.8</td>
</tr>
<tr>
<td>Special key</td>
<td>Sets functions to the F1 to F3 keys (for system/for user) and a key for switching between system monitor and circuit monitor.</td>
<td>Section 11.9</td>
</tr>
<tr>
<td>Operation panel</td>
<td>Sets key codes and switch functions to the operation panel.</td>
<td>Section 11.10</td>
</tr>
<tr>
<td>Snap shot</td>
<td>Sets the snap shot function.</td>
<td>Section 11.11</td>
</tr>
<tr>
<td>System information</td>
<td>Sets word devices required to store the monitor information about the G controller.</td>
<td>Section 11.12</td>
</tr>
</tbody>
</table>

(Continued on the next page)
5. HIERARCHICAL STRUCTURE OF MENUS
AND ITEMS AND OUTLINES OF FUNCTIONS

(Continued from the preceding page)

<table>
<thead>
<tr>
<th>Item</th>
<th>Outline of Function</th>
<th>Reference Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Printer type</td>
<td>Sets the type of printer on which data will be printed on paper or other materials by the report or announcement function.</td>
<td>Section 11.13</td>
</tr>
<tr>
<td>Back light off time</td>
<td>Sets the time the indicator back light of the G controller unit remains on (it will go off after the time has elapsed).</td>
<td>Section 11.14</td>
</tr>
<tr>
<td>Password</td>
<td>Registers password for the monitor screen data.</td>
<td>Section 11.15</td>
</tr>
</tbody>
</table>

Conversion

...To convert monitor screen data (drawn and set data) created by the functions of the Edit menu into monitor data acceptable to the G controller unit.

<table>
<thead>
<tr>
<th>Item</th>
<th>Outline of Function</th>
<th>Reference Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conversion</td>
<td>Checks and converts drawn and set data into monitor data.</td>
<td>Section 12.2</td>
</tr>
<tr>
<td>Error display</td>
<td>Checks drawn and set data, and displays errors detected in the middle of conversion into monitor data.</td>
<td>Section 12.3</td>
</tr>
<tr>
<td>INTEL HEX</td>
<td>Converts monitor screen data into monitor data in the extended INTELEC-HEX format to transfer it to a general-purpose ROM writer.</td>
<td>Section 12.4</td>
</tr>
</tbody>
</table>

Transfer

...To transfer (download) monitor data to the G controller unit or ROM writer, or to upload monitor data stored in the G controller unit to the peripheral device for AGOTP and provide remote terminal functions, such as memory card format.

<table>
<thead>
<tr>
<th>Item</th>
<th>Outline of Function</th>
<th>Reference Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graphics controller</td>
<td>Transfers (downloads)/uploads monitor data, Performs remote terminal processing.</td>
<td>Section 13.2</td>
</tr>
<tr>
<td>ROM Writer</td>
<td>Transfers monitor data to the ROM writer.</td>
<td>Section 13.3</td>
</tr>
</tbody>
</table>

Environ.

...To set the G controller unit type and the colors of the windows, Menu Box, etc. displayed while the AGOTP is in operation.

<table>
<thead>
<tr>
<th>Item</th>
<th>Outline of Function</th>
<th>Reference Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Package</td>
<td>Sets the colors of the windows, Menu Box, etc. displayed during AGOTP operation. Sets also the file to be edited every time.</td>
<td>Section 14.2</td>
</tr>
</tbody>
</table>

OK

...To end the AGOTP after writing (storing) edited data to a file. (Refer to Section 15.) The AGOTP can be terminated without writing edited data to a file.
5. HIERARCHICAL STRUCTURE OF MENUS AND ITEMS AND OUTLINES OF FUNCTIONS

5.1.2 Hierarchical structure of the control menu box and outlines of menu functions

This section describes the hierarchical structure of the control menu box displayed at the top or bottom of the screen being edited for drawing a monitor screen, and the outlines of the menu functions.

To draw selected graphics or enter selected characters on the canvas screen, the static portion of a monitor screen, or when drawing parts.

<table>
<thead>
<tr>
<th>Menu</th>
<th>Outline of Function</th>
<th>Reference Section</th>
</tr>
</thead>
</table>
| /      | Draws straight lines.                                    | Section 16.2.1 (1)
| N      | Draws continuous straight lines.                         | Section 16.2.1 (2)
| □      | Draws rectangles.                                        | Section 16.2.1 (3)
| ■      | Draws filled rectangles.                                 | Section 16.2.1 (4)
| △      | Draws polygons.                                          | Section 16.2.1 (5)
| ○      | Draws circles.                                           | Section 16.2.1 (6)
| ⌒      | Draws arcs.                                              | Section 16.2.1 (7)
| ○      | Draws ellipses.                                          | Section 16.2.1 (8)
| ⌢      | (Fill) Fills selected graphics in selected patterns.     | Section 16.2.1 (9)

Text
Enters text characters from specified line/column coordinates. (For canvas screens. Text character input provides high-speed display.)

Section 16.3.1

Graphic
Enters graphic characters from specified dot coordinates.

Section 16.3.2

To edit graphics and/or character strings created, including copying and deleting.

<table>
<thead>
<tr>
<th>Menu</th>
<th>Outline of Function</th>
<th>Reference Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>■</td>
<td>(Copy) Copies specified graphics and/or graphic character strings to another position on the same screen.</td>
<td>Section 17.2 (1)</td>
</tr>
<tr>
<td>❌</td>
<td>(Cut) Deletes specified graphics and/or graphic character strings.</td>
<td>Section 17.2 (2)</td>
</tr>
<tr>
<td>⊕</td>
<td>(Restore) Displays graphics and/or graphic character strings deleted just before the on-going operation.</td>
<td>Section 17.2 (3)</td>
</tr>
<tr>
<td>⨿</td>
<td>(Group) Groups two or more graphics and/or graphic character strings as a graphic.</td>
<td>Section 17.2 (4)</td>
</tr>
<tr>
<td>☞</td>
<td>(Ungroup) Ungroups grouped graphics and/or graphic character strings.</td>
<td>Section 17.2 (5)</td>
</tr>
<tr>
<td>⌒</td>
<td>(Arrange) Arranges the specified graphics/graphic character colors (overlapped).</td>
<td>Section 17.2 (6)</td>
</tr>
</tbody>
</table>
### 5. HIERARCHICAL STRUCTURE OF MENUS AND ITEMS AND OUTLINES OF FUNCTIONS

#### (Change attribute)

To change attributes for graphics and/or character strings to be created (or already created).

<table>
<thead>
<tr>
<th>Item</th>
<th>Outline of Function</th>
<th>Reference Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line color, Pattern color, character color</td>
<td>Changes the colors of graphic line, filling pattern, characters</td>
<td></td>
</tr>
<tr>
<td>Pattern</td>
<td>Changes the graphic fill pattern.</td>
<td></td>
</tr>
<tr>
<td>Line width</td>
<td>Changes the line width.</td>
<td></td>
</tr>
<tr>
<td>Line type</td>
<td>Changes the line type (solid line, dotted line, etc.).</td>
<td></td>
</tr>
<tr>
<td>Character type</td>
<td>Changes the graphic character type (standard size, double size, etc.).</td>
<td></td>
</tr>
</tbody>
</table>

#### (Parts)

To read parts from a parts file to display by the monitor functions, and write or delete them to or from it.

<table>
<thead>
<tr>
<th>Item</th>
<th>Outline of Function</th>
<th>Reference Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Read</td>
<td>Reads registered parts from a parts file.</td>
<td>Section 19.2</td>
</tr>
<tr>
<td>Write</td>
<td>Writes (register) parts to a parts file.</td>
<td>Section 19.3</td>
</tr>
<tr>
<td>Delete</td>
<td>Deletes specified, registered parts from a parts file.</td>
<td>Section 19.4</td>
</tr>
</tbody>
</table>

#### (Panel-kit)

To read graphics from the panel-kit library when drawing a canvas screen or part, or write or delete them into or from it.

<table>
<thead>
<tr>
<th>Item</th>
<th>Outline of Function</th>
<th>Reference Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Read</td>
<td>Reads registered graphics from the panel-kit library. These graphics can be utilized as a portion of a canvas screen or part.</td>
<td>Section 20.2</td>
</tr>
<tr>
<td>Write</td>
<td>Writes (register) graphics into the panel-kit library.</td>
<td>Section 20.3</td>
</tr>
<tr>
<td>Delete</td>
<td>Deletes registered, specified graphics from the panel-kit library.</td>
<td>Section 20.4</td>
</tr>
</tbody>
</table>
5. HIERARCHICAL STRUCTURE OF MENUS
AND ITEMS AND OUTLINES OF FUNCTIONS

SP (Sprite)

....To set, modify, utilize or delete monitor function settings for the edit screen being displayed.

<table>
<thead>
<tr>
<th>Item</th>
<th>Outline of Function</th>
<th>Reference Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Numerical</td>
<td>Sets the numerical display function.</td>
<td>Section 21.2</td>
</tr>
<tr>
<td>Character string</td>
<td>Sets the character string display function.</td>
<td>Section 21.3</td>
</tr>
<tr>
<td>Alarm list</td>
<td>Sets the alarm list display function.</td>
<td>Section 21.4</td>
</tr>
<tr>
<td>Part</td>
<td>Sets the part display/focus/movement function.</td>
<td>Section 21.5</td>
</tr>
<tr>
<td>Device write</td>
<td>Sets the numerical input, character string input function/operation panel, ten-key panel, keyboard panel key input, and SET/RST input functions.</td>
<td>Section 21.6</td>
</tr>
<tr>
<td>Touch key setting</td>
<td>Sets key codes of touch keys, switch functions executed by touch key input, and the device write (SET/RST) function.</td>
<td>Section 21.7, Chapter 25</td>
</tr>
<tr>
<td>Block data</td>
<td>Sets the numerical/character string block data display function.</td>
<td>Section 21.8</td>
</tr>
<tr>
<td>Level</td>
<td>Sets the level display function.</td>
<td>Section 21.9</td>
</tr>
<tr>
<td>Graph</td>
<td>Sets the display functions for graphs (trend, bar, polygonal line, spline, scatter, circle (band)).</td>
<td>Section 21.10</td>
</tr>
<tr>
<td>Clock</td>
<td>Sets the clock display function.</td>
<td>Section 21.11</td>
</tr>
<tr>
<td>Error alert</td>
<td>Sets the error alert display function.</td>
<td>Section 21.12</td>
</tr>
<tr>
<td>Station No. switch</td>
<td>Sets whether the PC CPU station number, which is monitored by the monitor devices of the monitor functions set for the monitor screen being displayed, should be switched.</td>
<td>Section 21.13</td>
</tr>
<tr>
<td>Modify</td>
<td>Modifies specified data.</td>
<td>Section 21.14</td>
</tr>
<tr>
<td>Utilize</td>
<td>Utilizes specified data in another position.</td>
<td>Section 21.15</td>
</tr>
<tr>
<td>Delete</td>
<td>Batch-deletes specified data.</td>
<td>Section 21.16</td>
</tr>
<tr>
<td>Change device</td>
<td>Batch-changes specified device names and numbers.</td>
<td>Section 21.17</td>
</tr>
</tbody>
</table>

....To end the on-going operation and switch the mouse cursor.

<table>
<thead>
<tr>
<th>Menu</th>
<th>Outline of Function</th>
<th>Reference Section</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Switches the mouse cursor to “- - -”.</td>
<td>Section 16.2.2</td>
</tr>
</tbody>
</table>
5. HIERARCHICAL STRUCTURE OF MENUS
AND ITEMS AND OUTLINES OF FUNCTIONS

5.1.3 Hierarchical structure of the Tool Box for drawing monitor screens and outlines of menu functions

This section describes the hierarchical structure of the Tool Box, which appears by pressing the right mouse button or the [Esc] key when the control menu box is displayed on the edit screen for drawing monitor screens, and the outlines of the menu functions.

---

### Tool Box

<table>
<thead>
<tr>
<th>Button</th>
<th>Function Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mirror H</td>
<td>Rotating menus</td>
</tr>
<tr>
<td>Mirror V</td>
<td>Move forward and backward menus</td>
</tr>
<tr>
<td>Bring Front</td>
<td>End menus</td>
</tr>
<tr>
<td>Grid/Scale</td>
<td>To rotate created graphics in specified directions or to specified angles.</td>
</tr>
<tr>
<td>Menu</td>
<td>Outline of Function</td>
</tr>
<tr>
<td>Mirror H</td>
<td>Mirror-images specified graphics horizontally.</td>
</tr>
<tr>
<td>Mirror V</td>
<td>Mirror-images specified graphics vertically.</td>
</tr>
<tr>
<td>90°</td>
<td>Rotates specified graphics 90° counterclockwise.</td>
</tr>
<tr>
<td>Grid/Scale</td>
<td>To specify grid matching, grid display, and enlarged screen display in creating monitor screens.</td>
</tr>
<tr>
<td>Menu</td>
<td>Outline of Function</td>
</tr>
<tr>
<td>Grid/Scale setting window</td>
<td>Specifies grid display and intervals between grids.</td>
</tr>
<tr>
<td>Window</td>
<td>Enlarges and displays created data (in three stages).</td>
</tr>
<tr>
<td>Menu</td>
<td>Outline of Function</td>
</tr>
<tr>
<td>Bring Front</td>
<td>Moves specified graphics and/or character strings to the first page.</td>
</tr>
<tr>
<td>Send Back</td>
<td>Moves specified graphics and/or character strings to the last page.</td>
</tr>
<tr>
<td>All</td>
<td>To select all graphics and/or character strings on the edit screen.</td>
</tr>
<tr>
<td>Menu</td>
<td>Outline of Function</td>
</tr>
<tr>
<td>All</td>
<td>Selects all graphics and/or graphic character strings on the edit screen for the data to be edited next. (They will be enclosed by a work frame.)</td>
</tr>
</tbody>
</table>

---

Section 22.2 (1)
Section 22.2 (2)
Section 22.2 (3)
Section 22.3
Section 22.4 (1)
Section 22.4 (2)
Section 22.5
5. HIERARCHICAL STRUCTURE OF MENUS
AND ITEMS AND OUTLINES OF FUNCTIONS

### Comment
To set comments to be displayed (printed out) by the character string display or report function.

<table>
<thead>
<tr>
<th>Window</th>
<th>Outline of Function</th>
<th>Reference Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comment creating window</td>
<td>Sets a comment to each comment number.</td>
<td>Section 22.6</td>
</tr>
</tbody>
</table>

### Title
To set titles of respective monitor screens.

<table>
<thead>
<tr>
<th>Window</th>
<th>Outline of Function</th>
<th>Reference Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title setting window</td>
<td>Sets screen titles.</td>
<td>Section 22.7</td>
</tr>
</tbody>
</table>

### Image
To display image of the data on the monitor screen being created when monitored.

<table>
<thead>
<tr>
<th>Menu</th>
<th>Outline of Function</th>
<th>Reference Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Image display</td>
<td>Displays also the image of the animation display of the monitor screen according to the set monitor conditions.</td>
<td>Section 22.8</td>
</tr>
</tbody>
</table>

### Device
To display the names of the monitor devices of the monitor functions set on the edit screen.

<table>
<thead>
<tr>
<th>Item</th>
<th>Outline of Function</th>
<th>Reference Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Device display</td>
<td>Displays the names of the monitor devices of the set monitor functions on the canvas screen.</td>
<td>Section 22.9</td>
</tr>
</tbody>
</table>

### (End)
To end the editing and setting of the edit screen being displayed.

<table>
<thead>
<tr>
<th>Menu</th>
<th>Outline of Function</th>
<th>Reference Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>OK (write end)</td>
<td>Writes edited and set data to a file, and returns the screen to the Edit file window.</td>
<td>Section 23.2</td>
</tr>
<tr>
<td>Cancel (forced end)</td>
<td>Ignores edited and set data, and returns the screen to the Edit file window.</td>
<td>Section 23.3</td>
</tr>
</tbody>
</table>
5. Hierarchical Structure of Menus and Items and Outlines of Functions

5.1.4 Hierarchical structure of the Tool Box in setting report functions and outlines of menu functions

This section describes the hierarchical structure of the Tool Box, which appears by pressing the right mouse button or the [Esc] key when the edit screen for setting the report functions described in Section 11.6, and the outlines of the menu functions.

---

**Tool Box**

<table>
<thead>
<tr>
<th>Line Draw</th>
<th>Text</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Parameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td></td>
</tr>
</tbody>
</table>

---

**Line Draw, Text**

To enter ruled lines (sheet frames, etc.) and character strings forming reports to be printed to create a report canvas.

<table>
<thead>
<tr>
<th>Menu</th>
<th>Outline of Function</th>
<th>Reference Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line Draw</td>
<td>Draws 1-dot-wide solid lines on the edit screen.</td>
<td>Section 11.6.3 (2)</td>
</tr>
<tr>
<td>Text</td>
<td>Enters text characters (x1 scale) on the edit screen.</td>
<td>Section 11.6.3 (3)</td>
</tr>
</tbody>
</table>

---

**Assignment**

To assign on a report canvas the data to be printed.

<table>
<thead>
<tr>
<th>Window</th>
<th>Outline of Function</th>
<th>Reference Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report (Printing allocation) window</td>
<td>Sets printing positions and data to be printed.</td>
<td>Section 11.6.6</td>
</tr>
</tbody>
</table>

---

**Parameter**

To set conditions for printing reports, etc.

<table>
<thead>
<tr>
<th>Window</th>
<th>Outline of Function</th>
<th>Reference Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Report parameter window</td>
<td>Sets conditions for collecting data to be printed on reports and for printing reports.</td>
<td>Section 11.6.4</td>
</tr>
</tbody>
</table>

---

**Title**

To set a title of each report.

<table>
<thead>
<tr>
<th>Window</th>
<th>Outline of Function</th>
<th>Reference Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title setting window</td>
<td>Sets a title of each report.</td>
<td>Section 22.8</td>
</tr>
</tbody>
</table>

---
5. HIERARCHICAL STRUCTURE OF MENUS
AND ITEMS AND OUTLINES OF FUNCTIONS

### (Edit)

<table>
<thead>
<tr>
<th>Menu</th>
<th>Outline of Function</th>
<th>Reference Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area</td>
<td>Specifies the area of ruled lines and/or character strings to be stored or deleted.</td>
<td>Sections 11.6.3 (3) and (4)</td>
</tr>
<tr>
<td>Copy</td>
<td>Copies the ruled lines and/or character strings within a specified area.</td>
<td></td>
</tr>
<tr>
<td>Cut</td>
<td>Cuts and stores the ruled lines and/or character strings within a specified area.</td>
<td></td>
</tr>
<tr>
<td>Paste</td>
<td>Pastes ruled lines and/or character strings stored.</td>
<td></td>
</tr>
</tbody>
</table>

---

### (End)

<table>
<thead>
<tr>
<th>Menu</th>
<th>Outline of Function</th>
<th>Reference Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>OK (Write end)</td>
<td>Writes edited and set data to a file, and returns the screen to the Report file window.</td>
<td>Section 11.6.1</td>
</tr>
<tr>
<td>Cancel (Forced end)</td>
<td>Ignores edited and set data, and returns the screen to the Report file window.</td>
<td></td>
</tr>
</tbody>
</table>

---

To delete or add created ruled lines and/or character strings.

To end the setting of the report functions for the edit screen being displayed.
## 5.2 Settings and Available Functions of Respective G Controller Units

<table>
<thead>
<tr>
<th>Main Menu</th>
<th>Main Menu Item</th>
<th>Control Menu Box/Tool Box Menu Item</th>
<th>Control Menu Box/Tool Box Menu Item</th>
<th>Control Menu Box/Tool Box Menu Sub-Item</th>
<th>Setting and Operation of G Controller Units (N: Necessary 0: Available x: Unavailable/Unnecessary)</th>
<th>Reference Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>File</td>
<td>Open</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>Section 10.2</td>
</tr>
<tr>
<td></td>
<td>Save</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>Section 10.3</td>
</tr>
<tr>
<td></td>
<td>Delete</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>Section 10.4</td>
</tr>
<tr>
<td></td>
<td>Copy</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>Section 10.5</td>
</tr>
<tr>
<td></td>
<td>Print</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>Section 10.6</td>
</tr>
<tr>
<td>Edit</td>
<td>Screen setup</td>
<td>(Graphics)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>Section 16.2.1</td>
</tr>
<tr>
<td></td>
<td>A</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>Section 16.3.1</td>
</tr>
<tr>
<td></td>
<td>Copy</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>Section 16.3.2</td>
</tr>
<tr>
<td></td>
<td>Delete</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>Section 16.3.3</td>
</tr>
<tr>
<td></td>
<td>Restore</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>Section 16.3.3</td>
</tr>
<tr>
<td></td>
<td>Group</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>Section 16.3.3</td>
</tr>
<tr>
<td></td>
<td>Degroup</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>Section 16.3.3</td>
</tr>
<tr>
<td></td>
<td>Change attribute</td>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>Section 18.2</td>
</tr>
<tr>
<td>Parts</td>
<td>Read</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>Section 19.2</td>
</tr>
<tr>
<td></td>
<td>Save</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>Section 19.3</td>
</tr>
<tr>
<td></td>
<td>Delete</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>Section 19.4</td>
</tr>
<tr>
<td>Panel-kit</td>
<td>Open</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>Section 20.2</td>
</tr>
<tr>
<td></td>
<td>Save</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>Section 20.3</td>
</tr>
<tr>
<td></td>
<td>Delete</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>Section 20.4</td>
</tr>
<tr>
<td>Control menu box</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sprite</td>
<td>Numerical</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>Section 21.2</td>
</tr>
<tr>
<td></td>
<td>Character (Char.) string</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>Section 21.3</td>
</tr>
<tr>
<td></td>
<td>Alarm list</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>Section 21.4</td>
</tr>
<tr>
<td>Part</td>
<td>Dev. (Device) write</td>
<td>Numerical/ Character string</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SET/RST</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>Section 21.6.1</td>
</tr>
<tr>
<td></td>
<td>Touch key</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>Section 21.6.2</td>
</tr>
<tr>
<td></td>
<td>Block data</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>Chapter 25</td>
</tr>
<tr>
<td></td>
<td>Level</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>Section 21.7</td>
</tr>
<tr>
<td>Graph</td>
<td>Trend graph</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>Section 21.8</td>
</tr>
<tr>
<td></td>
<td>Bar graph</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>Section 21.9</td>
</tr>
<tr>
<td></td>
<td>Polygonal line graph</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>Section 21.10.1</td>
</tr>
<tr>
<td></td>
<td>Spline graph</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>Section 21.10.2</td>
</tr>
<tr>
<td></td>
<td>Scatter graph</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>Section 21.10.3</td>
</tr>
<tr>
<td></td>
<td>Pie (Band) chart</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>Section 21.10.4</td>
</tr>
</tbody>
</table>

(Continued on the next page)
## 5. HIERARCHICAL STRUCTURE OF MENUS AND ITEMS AND OUTLINES OF FUNCTIONS

<table>
<thead>
<tr>
<th>Main Menu</th>
<th>Main Menu Item</th>
<th>Control Menu Box/Tool Box Menu</th>
<th>Control Menu Box/Tool Box Menu Item</th>
<th>Setting and Operation of G Controller Unit ((\ast): Necessary  O: Available x: Unavailable/Unnecessary)</th>
<th>Reference Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edit</td>
<td>Screen edit</td>
<td>Sprite</td>
<td>Clock</td>
<td>(\ast)</td>
<td>Section 21.11</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Error alert</td>
<td>(\ast)</td>
<td>Section 21.12</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Sta. (Station) switch</td>
<td>(\ast)  x  x  x</td>
<td>Section 21.13</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Correction</td>
<td>(\ast)</td>
<td>Section 21.14</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Utilize</td>
<td>(\ast)</td>
<td>Section 21.15</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Delete</td>
<td>(\ast)</td>
<td>Section 21.16</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Dev. (Device) change</td>
<td>(\ast)</td>
<td>Section 21.17</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(Arrow)</td>
<td>(\ast)</td>
<td>Section 16.2.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mirror V (vertical)</td>
<td>(\ast)</td>
<td>Section 22.2 (1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Mirror H (horizontal)</td>
<td>(\ast)</td>
<td>Section 22.2 (2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>90°</td>
<td>(\ast)</td>
<td>Section 22.2 (3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Grid/Scale</td>
<td>(\ast)</td>
<td>Section 22.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Bring Front</td>
<td>(\ast)</td>
<td>Section 22.4 (1)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Send Front</td>
<td>(\ast)</td>
<td>Section 22.4 (2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>All</td>
<td>(\ast)</td>
<td>Section 22.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Comment</td>
<td>(\ast)</td>
<td>Section 22.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Title</td>
<td>(\ast)</td>
<td>Section 22.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Image</td>
<td>(\ast)</td>
<td>Section 22.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Device</td>
<td>(\ast)</td>
<td>Section 22.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>OK (Write end)</td>
<td>(\ast)</td>
<td>Section 23.2</td>
</tr>
<tr>
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<td></td>
<td></td>
<td>Cancel (Forced end)</td>
<td>(\ast)</td>
<td>Section 23.3</td>
</tr>
<tr>
<td>Edit</td>
<td>Scrn util./del (Screen utilize/delete)</td>
<td></td>
<td>Scrm. (Screen)/Sta. (Station) switch</td>
<td>Screen switching device</td>
<td>Section 11.3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Monitoring station switching device</td>
<td>Section 11.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>PC type</td>
<td>Section 11.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Report</td>
<td>Section 11.6</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td>Announcement</td>
<td>Section 11.7</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td>Time action</td>
<td>Section 11.8</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td>Special key</td>
<td>Section 11.9</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>Operation panel</td>
<td>Section 11.10</td>
</tr>
<tr>
<td></td>
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<td></td>
<td>Snap shot</td>
<td>Section 11.11</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>System info. (information)</td>
<td>Section 11.12</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td>Printer type</td>
<td>Section 11.13</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td>Back light OFF time</td>
<td>Section 11.14</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Password</td>
<td>Section 11.15</td>
</tr>
</tbody>
</table>

(Continued on the next page)
### 5. HIERARCHICAL STRUCTURE OF MENUS AND ITEMS AND OUTLINES OF FUNCTIONS

<table>
<thead>
<tr>
<th>Main Menu</th>
<th>Main Menu Item</th>
<th>Control Menu Box/Tool Box Menu</th>
<th>Control Menu Box/Tool Box Menu Item</th>
<th>Setting and Operation of G Controller Units</th>
<th>Reference Section</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conversion</td>
<td>Set data conversion</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td></td>
<td>Error display</td>
<td></td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td></td>
<td>INTEL HEX</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Transfer</td>
<td>G controller</td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
<tr>
<td></td>
<td>ROM Writer</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Environ. (Environment)</td>
<td>Software (Package)</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>OK (End)</td>
<td></td>
<td>●</td>
<td>●</td>
<td>●</td>
<td>●</td>
</tr>
</tbody>
</table>

* Check the monitor condition setting of the monitor functions available with the G controller unit with its User's Manual and the Reference Manual.
EXPLANATION OF BASIC AND COMMON OPERATIONS

This part, including the following sections, describes the basic operation of the mouse and the keyboard, common operations on various windows, and how to switch menu options in creating monitor screens or setting the report function.

Chapter 6  BASIC OPERATION OF MOUSE AND KEYBOARD AND HOW TO ENTER CHARACTERS ........................................... 6 - 1 - 6 - 6

Chapter 7  SWITCHING MENUS ................................................................................. 7 - 1 - 7 - 4

Chapter 8  SELECTING GRAPHICS AND/OR CHARACTER STRINGS TO BE EDITED ......................................................... 8 - 1 - 8 - 3

Chapter 9  BASIC OPERATION OF EACH BOX AND WINDOW .................. 9 - 1 - 9 - 31
6. BASIC OPERATION OF MOUSE AND KEYBOARD
AND HOW TO ENTER CHARACTERS

This section describes the basic operation of the mouse and the keyboard required to use the functions of the AGOTP, and how to enter characters. Using the mouse and the keyboard together makes the positioning of the mouse cursor easier (refer to Section 6.2).

6.1 Basic Operation of the Mouse

The mouse cursor displayed on any window of the AGOTP or the edit screen can move to any intended position by rolling the mouse around or pressing the arrow keys.

Section 6.1 gives the applications and operation of the mouse. The keyboard is detailed in Sections 6.2 and 6.3.

6.1.1 Mouse buttons and their uses

1) The left button should be used (by single- and double-clicking) to:
   1) select an option/item in the Menu Box/Tool Box;
   2) determine the position on the edit screen where a graphic or character string will be placed;
   3) select a graphic or character string on the edit screen;
   4) make the mouse cursor position display window appear (open) or disappear (close);
   5) select or determine an item on a window;
   6) determine the display position (area) in the sprite settings;
   7) copy (print) the image display or device name display screen.

2) The right button should be used (by single- or double-clicking) to:
   1) make the Menu Box appear (open) or disappear (close);
   2) make switching between the control menu box and the Tool Box on the edit screen;
   3) abort the creation of a graphic or entry of a character string on the edit screen;
   4) cancel the selected graphic or character string on the edit screen;
   5) switch the cursor from " + " to " - ";
   6) cancel the setting of the display position (area) in the sprite settings;
   7) end image display or device display in the sprite settings.

6.1.2 Operation of the mouse

1) How to move the mouse
   1) Watching the mouse cursor and its coordinate on the screen, slide the mouse around on the pad to move the mouse cursor to the intended position. This movement of the mouse is called rolling.
   2) When a monitor screen or canvas report is created, the coordinate of the mouse cursor is displayed in the control menu box or mouse cursor position display window. (Refer to Sections 4.5 (3) (b) and 4.5 (5).)
6. BASIC OPERATION OF MOUSE AND KEYBOARD
AND HOW TO ENTER CHARACTERS

(2) Click
1) Move the mouse cursor to the intended position.
2) Click either mouse button once. (A graphic, character string, item, etc. will be selected or determined.)

(3) Double-click
1) Move the mouse cursor to the intended position.
2) Click either mouse button twice in rapid succession without moving the mouse. (Creating a graphic will be terminated, an item will be determined, or a selected item will be cancelled.)

(4) Delimiting an area
1) Move the mouse cursor to the point at which the area starts.
2) Click the left mouse button.
3) Move the mouse cursor to the point at which the area ends.
4) Click the left mouse button.

(5) Dragging
1) Move the mouse cursor to the object.
2) Press and hold down the left mouse button.
3) Move the mouse cursor to where you want to relocate the object.
4) Release the left mouse button.

* Dragging is possible within the movable range of the slider on each window.

**REMARK**
Any of the following mouse cursors is displayed according to the operation being executed:

- Normal cursor
- While the AGOTP system is executing a specified operation (for example, writing data to a file).
- While a graphic is being created.
- While a graphic or character is being moved, or the slider on the window is moving.
6. BASIC OPERATION OF MOUSE AND KEYBOARD  
AND HOW TO ENTER CHARACTERS  
MELSEC-A

6.2 Keys on the Keyboard to be Used in Place of the Mouse

This section shows the keys on the keyboard to be used in place of the mouse to perform the operations described in Section 6.1.

(1) Substitute keys to be used on the edit screen

<table>
<thead>
<tr>
<th>Operation</th>
<th>Substitute Key</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moving the mouse cursor (for graphics)</td>
<td>8 dots</td>
<td>Arrow keys</td>
</tr>
<tr>
<td></td>
<td>1 dot</td>
<td>[Shift] + arrow keys</td>
</tr>
<tr>
<td>Moving the character cursor (for characters)</td>
<td>1 column</td>
<td>[←]/[→]</td>
</tr>
<tr>
<td></td>
<td>1 line</td>
<td>[↑]/[↓]</td>
</tr>
<tr>
<td>Clicking the left mouse button</td>
<td>[←]</td>
<td>Move the mouse cursor to the intended position, and then press the key.</td>
</tr>
<tr>
<td>Clicking the right mouse button</td>
<td>[Esc]</td>
<td>Press the key to display the Tool Box.</td>
</tr>
<tr>
<td>Double-clicking the left mouse button</td>
<td>[←] [←]</td>
<td>To select a graphic or character string, to start or finish creating a screen, or to switch the mouse cursor, press the key twice without moving the mouse.</td>
</tr>
<tr>
<td>Double-clicking the right mouse button</td>
<td>[Esc] [Esc]</td>
<td>To cancel a selected graphic or character string, press the key twice without moving the mouse.</td>
</tr>
<tr>
<td>Delimiting an area</td>
<td>[←],</td>
<td>(cursor movement key)</td>
</tr>
<tr>
<td></td>
<td>[Esc]</td>
<td>Press the key to determine the starting point of the area, move the cursor to the end point, and press the key again.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Press the key to cancel the delimited area.</td>
</tr>
</tbody>
</table>

(2) Substitute keys to be used on each box (except for the boxes in (3) below) and window

<table>
<thead>
<tr>
<th>Operation</th>
<th>Substitute Key</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changing a set item or option in menu</td>
<td>Following</td>
<td>[Tab]</td>
</tr>
<tr>
<td></td>
<td>Preceding</td>
<td>[Shift] + [Tab]</td>
</tr>
<tr>
<td>Selecting an option in menu</td>
<td>Arrow keys</td>
<td>The square frame jumps from an option to another.</td>
</tr>
<tr>
<td>Moving the character cursor (for characters)</td>
<td>1 column</td>
<td>[←]/[→]</td>
</tr>
<tr>
<td></td>
<td>1 line</td>
<td>[↑]/[↓]</td>
</tr>
<tr>
<td>Clicking the left mouse button</td>
<td>[←]</td>
<td>Press the key to perform any of the operations described in Section 6.1.1 (1).</td>
</tr>
<tr>
<td>Clicking the right mouse button</td>
<td>[Esc]</td>
<td>Press the key to perform any of the operations described in Section 6.1.1 (2).</td>
</tr>
</tbody>
</table>

(3) Substitute keys to be used on the alert box and the dialog box

<table>
<thead>
<tr>
<th>Operation</th>
<th>Substitute Key</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selecting an option in menu</td>
<td>[Tab]</td>
<td>The square frame jumps from an option to another.</td>
</tr>
<tr>
<td>Clicking the left mouse button</td>
<td>[←]</td>
<td>Select an option in the menu, and then press the key.</td>
</tr>
</tbody>
</table>

* The expression [key 1] + [key 2] indicates to press [key 2] while holding down [key 1] (pressing the keys at the same time).
Using the mouse and the keyboard together in creating a monitor screen makes fine positioning of the mouse cursor easier. Shown below is an example of positioning the mouse cursor by using the mouse and the keyboard together.

1. Have the edit screen displayed. (Refer to Section 2.1.)
2. Have the control menu box displayed.
3. Select the □ option in the box (for drawing rectangles).
4. Move the mouse cursor close to the starting point.
5. Put the mouse cursor on the starting point. [Shift] + arrow keys (Press them repeatedly.)
6. Fix the starting point. The control menu box disappears, and the mouse cursor position display window appears. [J]
7. Move the mouse cursor close to the end point.
8. Put the mouse cursor on the end point. [Shift] + arrow keys (Press them repeatedly.)
9. Fix the end point. [J]
10. The control menu box appears.
11. Select the □ option in the box. Click the left mouse button, or press the [J] key.

* In steps No. 4 and No. 7 in the basic operation, move the mouse cursor by rolling the mouse large. In steps No. 5 and No. 8, move the mouse cursor from the keyboard dot by dot. In steps No. 6 and No. 9, fix the area of the graphic to be created from the keyboard.
6.3 Keys on the Keyboard and Their Functions

This section describes the keys to be used to enter characters on the AGOTP, and those necessary for scrolling the screen.

Example of PC/AT keyboard layout
6. BASIC OPERATION OF MOUSE AND KEYBOARD
AND HOW TO ENTER CHARACTERS

(1) For entering characters

<table>
<thead>
<tr>
<th>No.</th>
<th>Key</th>
<th>Expression in Manual</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1)</td>
<td>Esc</td>
<td>Esc</td>
<td>To abort entry.</td>
</tr>
<tr>
<td>(2)</td>
<td>Tab</td>
<td>Tab</td>
<td>To move the cursor at high speed.</td>
</tr>
<tr>
<td>(4)</td>
<td>Shift + Tab</td>
<td>Shift + Tab</td>
<td>To move the cursor to the preceding option.</td>
</tr>
<tr>
<td>(3)</td>
<td>Caps Lock</td>
<td>Caps Lock</td>
<td>To switch characters from uppercase to lowercase and vice versa.</td>
</tr>
<tr>
<td>(4)</td>
<td>Shift</td>
<td>Shift</td>
<td>To select the character at the shift position.</td>
</tr>
<tr>
<td>(5)</td>
<td>Back Space</td>
<td>Back Space</td>
<td>To erase the character(s) to the left of the cursor (the characters to the right of the cursor move to the left by the number of characters erased).</td>
</tr>
<tr>
<td>(6)</td>
<td>Insert</td>
<td>Insert</td>
<td>To insert characters and/or numbers in existing data, or to select the insert or overwrite mode.</td>
</tr>
<tr>
<td>(7)</td>
<td>Delete</td>
<td>Delete</td>
<td>To erase the character pointed by the cursor (the characters to the right of the cursor move to the left by a character).</td>
</tr>
<tr>
<td>(8)</td>
<td>Home</td>
<td>Home</td>
<td>To return the cursor to the home position.</td>
</tr>
<tr>
<td>(9)</td>
<td>Enter</td>
<td>↓</td>
<td>To fix the input.</td>
</tr>
<tr>
<td>(10)</td>
<td>← → ↑ ↓</td>
<td>Arrow keys</td>
<td>To move the cursor up, down, right or left.</td>
</tr>
<tr>
<td>(11)</td>
<td>A, 1</td>
<td>A, 1</td>
<td>To enter characters and/or numbers.</td>
</tr>
<tr>
<td>(15)</td>
<td>Num Lock</td>
<td>Num Lock</td>
<td>To use the ten-key keyboard for entering numbers only.</td>
</tr>
</tbody>
</table>

(2) For scrolling screen

<table>
<thead>
<tr>
<th>No.</th>
<th>Key</th>
<th>Expression in Manual</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>(13)</td>
<td>Page Up</td>
<td>Page Up</td>
<td>To scroll the screen up.</td>
</tr>
<tr>
<td>(14)</td>
<td>Page Down</td>
<td>Page Down</td>
<td>To scroll the screen down.</td>
</tr>
<tr>
<td>(4)</td>
<td>Shift + Page Up</td>
<td>Shift + Page Up</td>
<td>To scroll the screen left.</td>
</tr>
<tr>
<td>(4)</td>
<td>Shift + Page Down</td>
<td>Shift + Page Down</td>
<td>To scroll the screen right.</td>
</tr>
</tbody>
</table>

* The expression [key 1] + [key 2] indicates to press [key 2] while holding down [key 1] (pressing the keys at the same time).
7. SWITCHING MENUS

This section describes how to switch an option in a menu to another to use different functions the AGOTP has.

The AGOTP starts each operation on the Edit file window from the Menu box, or on the edit screen from switching between the Tool Box and the control menu box.

By pointing the cursor (・) at the intended option in the (・・・) box displayed on the screen and pressing the left mouse button or the [・] key, the corresponding function becomes available.

7.1 Switching Menu Options on the Menu Box

![Diagram of Menu Box]

- **Start the AGOTP**
- **Have the Edit file window displayed.**
- **Position mouse cursor on the option to be selected, and press the left mouse button or the [・] key.**
- **Press the right mouse button or the [Esc] key.**

- **Menu Box**
  - **File**
    - Open
    - Save
    - Delete
    - Copy
    - Print
  - **Edit**
    - Screen edit
    - Scr/Scr util./del
    - Scr./Scr util.
    - Time action
    - Special key
    - Operation panel
    - Snap shot
    - System info.
  - **Conversion**
    - Conversion
    - Error display
    - Intel box
  - **Transfer**
    - G.Controller
    - BXW Writer
  - **Environ**
  - **End**

(Basically, the Menu Box is displayed where the mouse cursor is positioned.)

(To Chapter 10)
(To Section 7.2)
(To Chapter 11)
(To Chapter 12)
(To Chapter 13)
(To Chapter 14)
(To Chapter 15)
7.2 Switching Menu Options on the Edit Screen for Creating Monitor Screens

7.2.1 Switching menu options on the control menu box

- Select the number of the monitor screen to be created. (Press the left mouse button or the [↓] key.)
- Press the right mouse button or the [Esc] key.
- Position the mouse cursor on the Screen edit option, and press the left mouse button or the [↓] key.
- The edit screen appears (the data created is displayed).
- Press the right mouse button or the [Esc] key.

(Mouse cursor position display window)

Press the left mouse button or the [↓] key with the mouse cursor out of the control menu box.

(Control menu box)

1) to 2)

(Drawing graphics)

(To Chapter 16)

A

(Menu window/Window)

(To Chapter 16)

Character string input

(To Chapter 17)

(Screen edit)

(Change attribute)

(To Chapter 18)

(Part)

(To Chapter 19)

(Panel-kit)

(To Chapter 20)

(Sprite)

(To Chapter 21)

(To Section 16.2.2)

(To Section 7.2.2)
7.2.2 Switching menu options on the tool box

Select the number of the monitor screen to be created.
(Press the left mouse button or the [J] key.)

Press the right mouse button or the [Esc] key.

Position the mouse cursor on the Edit menu, and press the left mouse button or the [J] key.

Press the right mouse button or the [Esc] key.

Position the mouse cursor on the Screen edit option, and press the left mouse button or the [J] key.

The edit screen appears (the data created is displayed).

Press the right mouse button or the [Esc] key.

Open the Tool Box.

['Mirror V to Rotate 90°' (Rotating graphics)]

(To Section 22.2)

['Grid/Scale' (Window)]

(To Section 22.3)

['Bring Front' to 'Send Back' (Moving graphics/character strings forward or backward)]

(To Section 22.4)

['All']

(To Section 22.5)

['Comment']

(To Section 22.7)

['Title']

(To Section 22.8)

['Image']

(To Section 22.9)

['Device']

(To Section 22.10)
7.3 Switching Menu Options in Setting the Report Function

- Start
- Position the mouse cursor on the Edit menu, and press the left mouse button or the [\(-\)] key.
- Press the right mouse button or the [Esc] key.
- Position the mouse cursor on the Report menu, and press the left mouse button or the [\(-\)] key.
- Press the right mouse button or the [Esc] key.
- Select the page number of the report to be set. (Press the left mouse button or the [\(-\)] key.)

- Position the mouse cursor on the Edit option, and press the left mouse button or the [\(-\)] key.
- The edit screen appears (the data created is displayed).
- Press the right mouse button or the [Esc] key.
- Position the mouse cursor on the option to be selected, and press the left mouse button or the [\(-\)] key.

- \(\) Assignment
  - \(\) Parameter
  - \(\) Title

- \(\)OK \(\)Cancel

- As shown below
  - \(\)To Section 11.6.3
  - \(\)To Section 11.6.3

[Delete] [OK] [Cancel]

7 - 4
8. SELECTING GRAPHICS AND/OR CHARACTER STRINGS TO BE EDITED

This section describes how to select created graphics and/or graphic character strings for the edit operations listed below in drawing a monitor screen (text character strings cannot be selected):

- Edit operations (copy, delete, restore, group, move, enlarge/reduce) described in Section 17.
- Edit operations (rotate, move, arrange) described in Section 22.
- hanging attributes (display color, fill pattern, line width, line type, character type) described in Section 18.

8.1 Selecting a Graphic or Character String

This section describes the methods of selecting a graphic or graphic character string on the edit screen.

### Basic operation A Direct selection

1. Position the mouse on the graphic or character string to be selected. (The following is an example of selecting the rectangle.)

   ![Example of direct selection](image)

2. Double-click the left mouse button or press the [.] key twice to lock the graphic.

3. The work frame encloses the selected graphic.

   * When the left mouse button is double-clicked at a coordinate where a graphic and a character string exist together, the graphic or character string right below the coexisting graphic and character string will be selected. By double-clicking the left mouse button at a dot or two out of the work frame during graphic filling, the filled portion will be selected.

4. Change attributes or start editing.

### Basic operation B Selection by delimiting an area

1. Move the mouse cursor to a point to the left of and above the upper left corner of the graphic or character string to be selected. (The following is an example of selecting the rectangle.)

   ![Example of selection by delimiting an area](image)

2. Press the left mouse button or the [.] key to fix the starting point of the area.

3. Move the mouse cursor to a point to the right of and below the lower right corner of the graphic to be selected.

4. Press the left mouse button or the [.] key to fix the end point of the area.

5. The work frame encloses the graphic selected.

6. Change attributes and start editing.

### POINTS

1. To cancel a selected graphic or character string, double-click the right mouse button.
2. Text character strings cannot be selected in such a manner as described in this section. If it is necessary to edit (move or delete) existing text character strings, do the operation as they are (refer to Section 16.3.1).
8. SELECTING GRAPHICS
AND/OR CHARACTER STRINGS TO BE EDITED

8.2 Selecting Two or More Graphics or Character Strings

This section describes the methods of selecting two or more graphics or
graphic character strings.

<table>
<thead>
<tr>
<th>Basic operation A</th>
<th>Direct selection</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Position the mouse cursor on the graphic or character string to be selected. (The following is an example of selecting the rectangle and the triangle.)</td>
<td></td>
</tr>
<tr>
<td>2. Double-click the left mouse button or press the [J] key to lock the graphic.</td>
<td></td>
</tr>
<tr>
<td>3. The work frame encloses the selected graphic.</td>
<td></td>
</tr>
<tr>
<td>4. With the [Shift] key held down, move the mouse cursor to the next graphic.</td>
<td></td>
</tr>
<tr>
<td>5. Holding down the [Shift] key, double-click the left mouse button or press the [J] key twice to lock the graphic.</td>
<td></td>
</tr>
<tr>
<td>6. The work frame encloses the selected graphic.</td>
<td></td>
</tr>
<tr>
<td>7. Change attributes or start editing.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Basic operation B</th>
<th>Selection by delimiting an area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Move the mouse cursor to a point to the left of and above the upper left corner of the uppermost and leftmost graphic or character string to be selected. (The following is an example of selecting the rectangle and the triangle.)</td>
<td></td>
</tr>
<tr>
<td>2. Press the left mouse button or the [J] key to fix the starting point of the area.</td>
<td></td>
</tr>
<tr>
<td>3. Move the mouse cursor to a point to the right of and below the lower right corner of the lowest and rightmost graphic to be selected.</td>
<td></td>
</tr>
<tr>
<td>4. Press the left mouse button or the [J] key to fix the end point of the area.</td>
<td></td>
</tr>
<tr>
<td>5. Each graphic within the delimited area is enclosed by the work frame.</td>
<td></td>
</tr>
<tr>
<td>6. Change attributes or start editing.</td>
<td></td>
</tr>
</tbody>
</table>
(1) By grouping plural selected graphics as shown in Section 17.2 (4), they can be treated as a graphic in subsequent operations.

(2) To select and edit all graphics and graphic character strings on the edit screen, it is advisable to execute the All function in the Tool Box described in Section 22.5.

(3) To cancel selected graphics or character strings, double-click the right mouse button. All of them will be cancelled. (Only part of the graphics or character strings cannot be cancelled.)

(4) Text character strings cannot be selected in such a manner as described in this section. If it is necessary to edit (move or delete) existing text character strings, do the operation as they are (refer to Section 16.3.1).
9. BASIC OPERATION OF EACH BOX AND WINDOW

This section describes the basic operation of each window in the AGOTP and how to carry out operations on common windows in setting the monitor functions.

9.1 Common Operation

Described below is the basic setting operation on each box or window.

9.1.1 Selecting a menu or item

This section describes how to select an item in the menu box or window displayed on the screen.

1) Position the mouse cursor on the menu to be selected in the box, and press the left mouse button or the [+] key.

2) The window corresponding to the menu selected opens. Position the mouse cursor on the item to be selected, and press the left mouse button or the [+] key.

POINTS

(1) The menu(s) or item(s) in shading characters in the control menu box, Tool box, or a window cannot be selected.

(2) The term in angle brackets <> in the text represents the name of an item.
9. BASIC OPERATION OF EACH BOX AND WINDOW

9.1.2 Basic operation of each setting window

There are five basic ways of setting items on a setting window. Taking the following window as an example, this section describes the five ways.

[Example of setting items]

**Settings for displaying character strings**

<table>
<thead>
<tr>
<th>1</th>
<th>Trigger</th>
<th>Cond. Ordinary PC AM-PF Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Display position</td>
<td>R: 0, C: 0</td>
</tr>
<tr>
<td>3</td>
<td>Magnification</td>
<td>2, 4, 8 (times)</td>
</tr>
<tr>
<td>4</td>
<td>Monitor device</td>
<td>PC AM-PF Device</td>
</tr>
<tr>
<td>5</td>
<td>Bit device</td>
<td>Word device</td>
</tr>
<tr>
<td>6</td>
<td>ON Time display</td>
<td>Comment</td>
</tr>
<tr>
<td>8</td>
<td>Blink</td>
<td>High, Low, Mid</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Delete, ON, Next, Cancel</td>
</tr>
</tbody>
</table>

**Basic operation A** Opening an auxiliary window

1. Position the mouse cursor in the box or on the line of the item to be set, and click the left mouse button.

2. The auxiliary window opens, allowing the parameters of the item to be set.

3. Set all parameters, and close the auxiliary window.

4. The first setting window is reopened.

   **Corresponding items on window above**
   - 1), 2), 5), 7)

**Basic operation B** Selecting an item

1. Position the mouse cursor in the box of one among two or more options, and click the left mouse button.

2. The selected option is highlighted.

   **Corresponding items on window above**
   - 3), 4), 8), 11)

**Basic operation C** Switching an item

1. Position the mouse cursor on a set item or in the box of a set item, and click the left mouse button.

2. The set parameter is switched.

   **Corresponding items on window above**
   - 6)
9. BASIC OPERATION OF EACH BOX AND WINDOW

**Basic operation D** Entering numerals

1. Position the mouse cursor in the box of a set item, and click the left mouse button.
   
   \[ R: 1 \quad C: 1 \]

2. The numerical input box opens, and displays the character cursor.
   
   \[
   \begin{array}{cccccc}
   C & D & E & F & G & H \\
   8 & 9 & A & B & + & \quad 0 & 1 & 2 & 3 & - & J
   \end{array}
   \]

3. Move the cursor to the block where the new numeral will be entered, and click the left mouse button. Then, move the cursor to [-J], and click the left mouse button again. *1
   
   Or, enter the new numeral from the keyboard, and press the [-J] key.

4. The character cursor disappears (the numerical input box is closed).
   
   \[ R: 23 \quad C: 1 \]

---

**Basic operation E** Entering a comment

1. Position the mouse cursor in the box or on the line of the item to be set, and click the left mouse button.
   
   Comment

2. The comment input window opens, and the character cursor appears. (A comment can be typed from the keyboard.)

3. Enter a comment from the keyboard, and press the [-J] key.

4. The mouse cursor reappears (the character cursor disappears).

   Comment: \text{OPERATION COMPLETED!}

---

*1: Clicking the left mouse button with the mouse cursor positioned on [CL] in the middle of numerical input clears the set numeral in the box and displays 0 instead.

By clicking the right mouse button during the numerical input operation, the numerical input box closes, and the set numeral reappears.

---

Corresponding item on window on preceding page

9
9.2 Operation of Windows for Executing Files

This section describes the Edit file window displayed right after the AGOTP has been started, and the File selector window for selecting file names.

9.2.1 Edit file window

On the Edit file window, the following can be set:
- G controller unit that will use the created the monitor screen data.
- The number of the monitor screen which will be associated with monitor screen data to be created.
- Part file and report file names
- Whether created monitor screen data should be converted into monitor data or not.

![Edit file window diagram]

<table>
<thead>
<tr>
<th>Description of Setting/Display</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) The numbers of the monitor screens that can be displayed on the G controller unit are displayed.</td>
<td>Screen numbers are displayed by tens, from 1 to 250.</td>
<td>Refer to Section 22.8.</td>
</tr>
<tr>
<td>2) The * mark is displayed when a canvas screen exists and also when sprite setting data is fixed.</td>
<td></td>
<td>Position the mouse cursor on the line of the screen number concerned, and click the left mouse button. The line is highlighted.</td>
</tr>
<tr>
<td>3) The titles of the canvas screens determined when created are displayed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) Select the monitor screen number which will be associated with monitor screen data to be created.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) Set whether the data of each monitor screen should be converted.</td>
<td>Yes, No</td>
<td>In the Conversion box of the screen number associated with the created monitor screen data, &quot;Yes&quot; is the default.</td>
</tr>
</tbody>
</table>
### 9. BASIC OPERATION OF EACH BOX AND WINDOW

<table>
<thead>
<tr>
<th>Description of Setting/Display</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>6) Ten screen numbers are displayed in response to the dragging of the slider. When either up or down arrow is pointed at by the mouse cursor and the left mouse button is pressed, the screen scrolls up or down ten lines, displaying the following or previous ten screen numbers.</td>
<td>Dragging the slider and clicking the left mouse button makes the window display another ten screen numbers.</td>
<td></td>
</tr>
<tr>
<td>7) The screen number selected in step 8) is displayed.</td>
<td></td>
<td>With a click of the left mouse button with the mouse cursor positioned on [JUMP] after setting the screen number in step 8), the set number will be displayed.</td>
</tr>
<tr>
<td>8) Set the screen number to be displayed.</td>
<td></td>
<td>Click the left mouse button with the mouse cursor positioned in the [Module Selection] box to set the file name on the GOT type setting window (Refer to Section 9.2.4.).</td>
</tr>
<tr>
<td>9) Set the G controller unit that will use the created monitor screen data.</td>
<td></td>
<td>Click the left mouse button with the mouse cursor positioned in the [Part file] box to set the file name on the File selector window (Refer to Section 9.2.2.).</td>
</tr>
<tr>
<td>10) The name of a part file to be displayed as a sprite is set.</td>
<td></td>
<td>Click the left mouse button with the mouse cursor positioned in the [Report file] box to set the file name on the File selector window. (Refer to Section 9.2.2.)</td>
</tr>
<tr>
<td>11) The name of a report file is set.</td>
<td></td>
<td>Refer to *1.</td>
</tr>
<tr>
<td>12) The name of the file being edited on the screen is displayed.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*1: When the edit file name is not set on the Open item window in the File menu after the AGOTP has been started, the monitor screen data created will be stored temporarily to the following temporary file:

```
A:\AGOT\DAT\DAT.SET
```

AGOTP-installed drive

To store monitor screen data on a floppy disk, select Save in the File menu or OK in the Menu Box, and select or enter the destination directory name on the File selector window.
The data will be stored in the same edit file name as the last sub-directory name of the directory selected.

<Example> A:\GOT1\MON1 \MON1.SET

```
Last sub-directory name
```

Directory name.....Select or enter "A:\GOT1\MON1".

Edit file name.....Will automatically be set.

---

9 – 5
9. BASIC OPERATION OF EACH BOX AND WINDOW

POINTS

(1) Be sure to set the G controller unit before performing any operation.

(2) It is advisable to set the edit file name, the part file name, and the report file name prior to creation of data. (Refer to Section 9.2.3.)
   • Edit file name...... Must always be set.
   • Part file name...... Must be set when creating a part.
   • Report file name... Must be set when the report function will be used.

(3) Do not set SYSMON and SYSMONE as the directory name of an edit file name. SYSMON and SYSMONE are directory names for system monitor data.
9. BASIC OPERATION OF EACH BOX AND WINDOW

9.2.2 File selector window

The File selector window is intended to set an edit file name, part file name or report file name, or to select files to be deleted. When the File selector window opens, the Drive selector window opens at the same time. Set on the Drive selector window the name of the drive in which the file to be specified or deleted exists, and make settings on the File selector window. For setting on the Drive selector window, refer to Section 9.3.2.

File selector window

1) The names of the directories of the root directory are listed.

2) The name of the current directory is displayed.

3) The names of the files of the current directory are listed.

4) The name of a directory and the names of the files included in it are displayed in response to the dragging of the slider. When either up or down arrow is pointed at by the mouse cursor and the left mouse button is clicked, the screen scrolls up or down, displaying following or previous directory and file names.

5) The drive selector window for setting the drive, which stores the file to be specified in it, opens.

6) Select this item to delete a specified file.

7) Select this item after setting a file name.

8) Select this item to close the File selector window.
9.2.3 Procedure for setting or deleting the edit file name, the part file name, and the report file name

This section shows the procedure for setting the edit file name right after the AGOTP has started, and for setting or deleting the part file name and the report file name.

Points:
(1) The above procedure shows the flow of the steps in setting or deleting a file name right after the AGOTP has started.
(2) If a monitor screen has been created or the monitor functions have been set without setting a file name after start-up of the AGOTP, follow the message displayed on the screen at the end of each operation. The file name can be set, and the data can be saved.
### 9.2.4 GOT type setting window

#### Window display

1) Select the G controller unit which will use the created monitor screen data here.

- A77GOT-S5
- A77GOTS3
- A77GOT
- A64GOT
- AD67G-S3
- A52GCPU

2) Display the model name of the G controller unit set in 1) here.

3) Select the filling pattern to be used in screen creation here.

4) Select this option to close the window.

#### Description of Setting/Display | Setting Range/Options | Remarks
---|---|---
1 | Select the G controller unit which will use the created monitor screen data here. | A77GOT-S5, A77GOTS3, A77GOT, A64GOT, AD67G-S3, A52GCPU | Default: A77GOT-S5
2 | Display the model name of the G controller unit set in 1) here. | | 
3 | Select the filling pattern to be used in screen creation here. | 1,2 | Default: Pattern-1 Refer to Section 4.1.3
4 | Select this option to close the window. | | 

#### POINTS

1) When a monitor data for an A77GOT-S5 is created with the SW2[ ]-AGOTP by utilizing monitor data created with a conventional AGOTP, be sure to back up the monitor data created with the conventional AGOTP. Once converted, the monitor data for the A77GOT-S5 cannot be used by other G controller units.

2) When A64GOT monitor screen data is created, canvas screens out of the range of monitor screen and the monitor functions are not shown in the monitor screen in the following cases. However, the monitor screen data is not lost.
   - When a type other than A64GOT is set for the GOT type setting.
   - When monitor screen data is created with a type other than A64GOTset for the GOT type setting and then A64GOT is set for the GOT type setting.
9.3 Operation of Auxiliary Windows

This section describes the settings on auxiliary windows displayed in setting operations in the AGOTP.

9.3.1 Dialog box and alert box

(1) Dialog box

The dialog box shows a message (guidance), asking the operator whether he or she really wants to do the job. (Refer to Section 4.5 (4).)

[Details of items to be set]

Window display

<table>
<thead>
<tr>
<th>Description of Setting/Display</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) A message is displayed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Select this item to do the job according to the message.</td>
<td>After this item is selected, the job will be executed as directed, and the dialog box will close.</td>
<td></td>
</tr>
<tr>
<td>3) Select this item to stop (cancel) the job asked by the message.</td>
<td>When this item is selected, the dialog box will close without setting the job.</td>
<td></td>
</tr>
</tbody>
</table>
(2) Alert box
The alert box shows a message (guidance), telling the operator that he or she has made a mistake and prompting him or her to do right operation. (Refer to Section 4.5 (7).)

[Details of items to be set]

<table>
<thead>
<tr>
<th>Description of Setting/Display</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) A message is displayed.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2) Select this item after checking the message carefully.</td>
<td>The alert box will close after this item is selected.</td>
<td></td>
</tr>
</tbody>
</table>
9. BASIC OPERATION OF EACH BOX AND WINDOW

9.3.2 Drive selector window

On the drive selector window, select a drive. Set the name of the drive in which the file concerned is stored.

[Details of items to be set]

<table>
<thead>
<tr>
<th>Window display</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Select the name of the drive.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Select the name of the drive.</td>
<td>All drive names displayed on the window</td>
<td>Default: On the Drive selector window opened first after the AGOTP has started, the drive in which it is installed is displayed as the default. Default from the second opening of the Drive selector window: The drive name selected in the previous operation. The drive name currently selected is highlighted.</td>
</tr>
</tbody>
</table>
9.3.3 Select CPU window

The Select CPU window is to select the PC type.

[Details of items to be set]

Window display

<table>
<thead>
<tr>
<th>Description of Setting/Display</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Select the PC type used.</td>
<td>FF</td>
<td>Position the cursor in the box of the right PC type in the list displayed in 1), and click the left mouse button.</td>
</tr>
<tr>
<td></td>
<td>A1S, A0J2H</td>
<td>The window can be closed without selecting a PC type simply by clicking the right mouse button regardless of the position of the mouse cursor is.</td>
</tr>
<tr>
<td></td>
<td>A2C, A52G</td>
<td>Select &quot;FF&quot; to cancel the PC type currently set on the window.</td>
</tr>
<tr>
<td></td>
<td>A1N</td>
<td>The following PC CPU types can be selected with the options listed on the right:</td>
</tr>
<tr>
<td></td>
<td>A2N(S1), A3N(A73)</td>
<td>A1SJCPU: [A1S, A0J2H]</td>
</tr>
<tr>
<td></td>
<td>A2A(S1)</td>
<td>A2CJCPU: [A2C, A52G]</td>
</tr>
<tr>
<td></td>
<td>A3A</td>
<td>A2USCPU, A2ASCPU(S1)</td>
</tr>
<tr>
<td></td>
<td>A3H/A3M</td>
<td>: [A2U(S1)]</td>
</tr>
<tr>
<td></td>
<td>A2U(S1), A3U</td>
<td>A2SCPU : [A2N(S1)]</td>
</tr>
<tr>
<td></td>
<td>A4U</td>
<td></td>
</tr>
</tbody>
</table>

9 – 13
9.3.4 Data collection trigger

The Data collection trigger function is to set the data collection timing among sprite conditions.

1) Data collection trigger window
On the Data collection trigger window, set the timing of data collection by the G controller in such cases as setting a sprite.

<table>
<thead>
<tr>
<th>Details of items to be set</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Window display</strong></td>
</tr>
</tbody>
</table>

![Data collection trigger window](image)

<table>
<thead>
<tr>
<th>Description of Setting/Display</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Select the timing of data collection.</td>
<td>Ordinary, ON, OFF, Sampling</td>
<td>The combination of options is different depending on the sprite to be set.</td>
</tr>
<tr>
<td>2) Set the PC type and number of the bit device on the Select PC type window.</td>
<td></td>
<td>Default: Host PC type and number Select this item only when another PC type and number should be set. Refer to Section 9.3.14.</td>
</tr>
<tr>
<td>3) Set a bit device name when ON or OFF is selected in (1).</td>
<td>The names and numbers of available devices are different depending on the PC CPU type to be used.</td>
<td>The device box lists the names of the devices that can be set.</td>
</tr>
<tr>
<td>4) Set a bit device number when ON or OFF is selected in (1).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) Set the data collection interval when Sampling is selected in 1).</td>
<td>1 to 36000</td>
<td>Default: 6</td>
</tr>
</tbody>
</table>

**POINT**

(1) Before setting the PC type and number of the bit device to be specified in 2), available PC types and numbers must be set on the Select PC type window. (Refer to Section 11.5.)
9. BASIC OPERATION OF EACH BOX AND WINDOW

(2) Data collection trigger (Scroll) window
On the Data collection trigger (Scroll) window, set the timing of data collection by the G controller in setting the trend graph scroll type.

[Details of items to be set]

<table>
<thead>
<tr>
<th>Window display</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Data collection trigger (Scroll)" /></td>
</tr>
</tbody>
</table>

**Description of Setting/Display** | **Setting Range/Options** | **Remarks** |
--- | --- | --- |
1) Select whether data should be displayed on the screen or stored to a file as soon as it is collected. | Display, Filing | Default: Display |
2) Select the condition of data collection. | Conditions available for Display: Sampling, Bit device | Default: Sampling |
| | Conditions available for Filing: Sampling, Bit device, Time | |
3) Set the timing of data collection on the Data collection trigger window or Data collecting time designation window. | Memory card numbers: 1, 2 | Select 2), then set 3). Refer to Section 9.3.4 (1) or 9.3.5. |
4) When Filing is selected in 1), select the number of the memory card on which the data will be stored. | Maximum number of half-size characters: 32 (16 in full-size character) | The comment will be used to designate the file to retrieve the collected data from it using the G controller unit’s system menu function. |
5) When Filing is selected in 1), set the comment to be attached to the file to which the collected data will be stored. | | |
9. BASIC OPERATION OF EACH BOX AND WINDOW

(3) Data collection trigger (Overwrite) window
On the Data collection trigger (Overwrite) window, set the timing of data collection by the G controller in setting the trend graph overwrite type.

[Details of items to be set]

<table>
<thead>
<tr>
<th>Window display</th>
</tr>
</thead>
</table>

![Data collection trigger (Overwrite)](image)

<table>
<thead>
<tr>
<th>Description of Setting/Display</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Set the timing of starting data collection on the Data collection trigger window.</td>
<td>ON/OFF of bit device</td>
<td>Refer to Section 9.3.4 (1).</td>
</tr>
<tr>
<td>2) Set the timing of data collection.</td>
<td>ON/OFF of bit device, Sampling</td>
<td>Default: Sampling</td>
</tr>
<tr>
<td>4) When Bit dev. is selected in 3), set the device to be used on the Data collection trigger window.</td>
<td>ON/OFF of bit device</td>
<td>Refer to Section 9.3.4 (1).</td>
</tr>
<tr>
<td>5) When Freq. is selected in 3), set the frequency of data collection.</td>
<td>1 to 500</td>
<td>Default: 100</td>
</tr>
<tr>
<td>6) When Word dev. is selected in 3), set the word device to be used on the Monitor device window.</td>
<td></td>
<td>Refer to Section 9.3.13 (1). The specified word device number at the start of data collection will be treated as the frequency of data collection.</td>
</tr>
<tr>
<td>7) Set the timing of erasing the displayed graph on the Data collection trigger window.</td>
<td>ON/OFF of bit device</td>
<td>Refer to Section 9.3.4 (1).</td>
</tr>
</tbody>
</table>

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9. BASIC OPERATION OF EACH BOX AND WINDOW

9.3.5 Data collecting time designation window

On the data collecting time designation window, designate the times to collect or print data in setting the trend graph scroll type (filing) or a report.

[Details of items to be set]

Window display

1) Select whether data collection should take place periodically or at different designated times.

2) When Cont. is selected in 1), set the starting time of data collection.
Hour: 0 to 23
Minute: 0 to 59
Default: 0 hour 0 minute

3) When Cont. is selected in 1), set the cycle of data collection.
Minute: 1 to 60
Default: 1 minute

4) When Rand. is selected in 1), set the data collection time(s) on the corresponding setting line(s).

5) Other time setting lines are displayed in response to the dragging of the slider.
When either up or down arrow is pointed at by the mouse cursor and the left mouse button is clicked, the time setting lines scroll up or down.

On the data collecting time designation window, designate the times to collect or print data in setting the trend graph scroll type (filing) or a report.

Description of Setting/Display  Setting Range/Options  Remarks
1) Select whether data collection should take place periodically or at different designated times.  Cont., Rand.  Cont.: Data collection takes place at designated intervals.
Rand.: Data collection takes place at designated times.
Default: Rand.

2) When Cont. is selected in 1), set the starting time of data collection.
Hour: 0 to 23
Minute: 0 to 59
Default: 0 hour 0 minute

3) When Cont. is selected in 1), set the cycle of data collection.
Minute: 1 to 60
Default: 1 minute

4) When Rand. is selected in 1), set the data collection time(s) on the corresponding setting line(s).

5) Other time setting lines are displayed in response to the dragging of the slider.
When either up or down arrow is pointed at by the mouse cursor and the left mouse button is clicked, the time setting lines scroll up or down.

Dragging the slider and clicking the left mouse button makes the window display other time setting lines.

Positioning the mouse cursor on a time setting line and clicking the left mouse button opens the Time window.
Enter the data collection time via the keyboard.
To delete a set time, position the mouse cursor on the corresponding time setting line, and click the left mouse button. Then, move the cursor to [Delete] on the Time window, and click the left mouse button again.

9 – 17
9. BASIC OPERATION OF EACH BOX AND WINDOW

9.3.6 Display (Input) format window

Among sprite conditions, set the display (Input) format of the collected data on the Display (Input) format window.

[Details of items to be set]

![Table of Display (Input) Format]

- **Disp.(I/P) type**: Dec, Hex, Asc, Bin
- **Data type**: 16-bit, 32-bit
- **No. of digits**: 0 (1-13)
- **Sign**: Yes, No
- **Upper limit**: 32767
- **Lower limit**: -32768
- **Decimal point**: 0 (0-10)

**Description of Setting/Display**

| 1) | Select the data display type. | Dec, Hex, Asc, BIN | Default: Different depending on the set functions. |
| 2) | Set the data length of the device to be monitored. | 16-bit, 32-bit | Default: 16-bit |
| 3) | Set the number of digits of the data to be displayed (entered). | 16-bit: 1 to 13, 32-bit: 1 to 12 | Default: 6 Count every sign and decimal point as a digit. |
| 4) | Select whether a sign will be used or not. | Yes, No | Default: Yes |
| 5) | Set the maximum value of the device data that can be displayed. | Refer to POINT below. | Default: 16-bit 32767 |
| 6) | Set the minimum value of the device data that can be displayed. | Refer to POINT below. | Default: 16-bit -32768 |
| 7) | Set the position of the decimal point. | 0 to 10 | Default: 0 (no decimal point) |

**POINT**

(1) The maximum and minimum values of the device data that can be displayed in decimal are as follows:

<table>
<thead>
<tr>
<th>Sign</th>
<th>16-Bit</th>
<th>32-Bit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>32767 to 32767</td>
<td>-2147483648 to 2147483647</td>
</tr>
<tr>
<td>No</td>
<td>0 to 65535</td>
<td></td>
</tr>
</tbody>
</table>
9. BASIC OPERATION OF EACH BOX AND WINDOW

9.3.7 Display position (area) window

The Display position (area) window is to set the display positions or areas for sprites.

(1) Setting a display position
Set the sprite display position for characters, numerals, etc.

[Details of items to be set]

Window display

<table>
<thead>
<tr>
<th>Description of Setting/Display</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Move the cursor to the head of the position where a sprite will be displayed, and click the left mouse button.</td>
<td>R: 1 to 25</td>
<td>The mouse cursor position is always displayed at the top or bottom of the window.</td>
</tr>
<tr>
<td>2) The position where the mouse cursor is located is displayed.</td>
<td>C: 1 to 80</td>
<td></td>
</tr>
</tbody>
</table>

* The area except for 1) and 2) is a canvas screen.

9 – 19
9. BASIC OPERATION OF EACH BOX AND WINDOW

(2) Setting a display area
Set the sprite display area for a graph or alarm list.

[Details of items to be set]

**Window display**

```
  Specify display position by left click  1/X=680  Y=304
```

1) Move the mouse cursor to the end point on the upper left side of the display area, and click the left mouse button.

2) Move the mouse cursor to the end point on the lower right side of the display area, and click the left mouse button.

3) The position where the mouse cursor is located is displayed.

4) The display area is shown temporarily (display area setting frame).

<table>
<thead>
<tr>
<th>Description of Setting/Display</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>X: 0 to 639</td>
<td>With a click of the left mouse button, the frame showing the display area will enlarge from the point as the mouse cursor moves.</td>
</tr>
<tr>
<td></td>
<td>Y: 0 to 399</td>
<td></td>
</tr>
<tr>
<td>2)</td>
<td>X: 0 to 639</td>
<td>The mouse cursor position is always displayed at the top or bottom of the window.</td>
</tr>
<tr>
<td></td>
<td>Y: 0 to 399</td>
<td></td>
</tr>
</tbody>
</table>

**POINTS**

(1) Using the mouse and the keyboard together makes by-the-dot positioning of the mouse cursor easier.

(2) To discontinue setting when the display area setting frame is shown, click the right mouse button. The frame will be removed from the screen. Start resetting the frame from the beginning.

(3) To close the window without setting a display area, click the right mouse button regardless of the mouse cursor position.
9. BASIC OPERATION OF EACH BOX AND WINDOW

(3) Setting a part display position
   Set the sprite display position for a part.

**[Details of items to be set]**

<table>
<thead>
<tr>
<th>Description of Setting/Display</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Move the mouse cursor to the part display position (the end point on the upper left side of the part), and click the left mouse button.</td>
<td></td>
<td>When the part number is set on the Part selection window, the contour of the part will change in response to the movement of the mouse cursor.</td>
</tr>
<tr>
<td>2) The position where the mouse cursor is located is displayed.</td>
<td></td>
<td>The mouse cursor position is always displayed at the top or bottom of the window.</td>
</tr>
</tbody>
</table>

**POINTS**

(1) Using the mouse and the keyboard together makes display position setting easier.

(2) To close the window without setting a display position, click the right mouse button regardless of the mouse cursor position.
9. BASIC OPERATION OF EACH BOX AND WINDOW

9.3.8 Attribute window

Among numerical display conditions, set on the Attribute window the colors and attribute for numerals to be displayed when normal, upper limit or lower limit is selected.

<table>
<thead>
<tr>
<th>Details of items to be set</th>
</tr>
</thead>
<tbody>
<tr>
<td>Window display</td>
</tr>
</tbody>
</table>

![Attribute Window Diagram]

<table>
<thead>
<tr>
<th>Description of Setting/Display</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Select the item appropriate for the setting of display colors.</td>
<td>Normal, Up-lmt, Lo-lmt</td>
<td>Default: Normal</td>
</tr>
<tr>
<td>2) Select the display colors corresponding to the item set in 1).</td>
<td>Available colors: Blk (black), Gry (gray), Blu (blue), DkBl (dark blue), Red, DkRd (dark red), Mag (purple), DkMg (dark purple), Grn (green), DkGr (dark green), Cyn (sky blue), DkCy (dark sky blue), Yel (yellow), DkYe (dark yellow), Wht (white)</td>
<td>The selected colors will be highlighted. In the case of a monochrome display, select black or white.</td>
</tr>
<tr>
<td>3) Select the attribute for the item set in 1).</td>
<td>Norm., Rev.</td>
<td>Default: Norm.</td>
</tr>
<tr>
<td>4) The conditions set in 2) and 3) are displayed.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
9.3.9 Color selection window

Among sprite conditions, set the colors of characters, etc. to be displayed on the Color Selection window.

[Details of items to be set]

Window display

<table>
<thead>
<tr>
<th>Color Selection</th>
<th>Blk</th>
<th>Blu</th>
<th>Red</th>
<th>Gry</th>
<th>Cyn</th>
<th>Yel</th>
<th>Wht</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blk</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blu</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Red</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gry</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cyn</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yel</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wht</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1) Select the display colors.

<table>
<thead>
<tr>
<th>Available colors:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blk (black), Gry (gray), Blu (blue), DkBl (dark blue), Red, DkRd (dark red), Mag (magenta), DkMg (dark magenta), Gm (green), DkGr (dark green), Cyn (cyan), DkCy (dark cyan), Yel (yellow), DkYe (dark yellow), Wht (white)</td>
</tr>
</tbody>
</table>

The selected colors will be highlighted.

In the case of a monochrome display, select white or black.
9. BASIC OPERATION OF EACH BOX AND WINDOW

9.3.10 Line selection window

Among conditions of a trend graph, polygonal line graph or spline graph, set the color(s), type, and width of the graph lines on the Line selection window.

[Details of items to be set]

<table>
<thead>
<tr>
<th>Window display</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Line selection window diagram]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description of Setting/Display</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Select the line colors of the graph.</td>
<td>Available colors: Blk (black), Gry (gray), Blu (blue), DkBl (dark blue), Red, DkRd (dark red), Mag (magenta), DkMg (dark magenta), Grn (green), DkGr (dark green), Cyn (cyan), DkCy (dark cyan), Yel (yellow), DkYe (dark yellow), Wht (white)</td>
<td>The selected colors will be highlighted. In the case of a monochrome display, select white or black.</td>
</tr>
<tr>
<td>2) Select the line type of the graph.</td>
<td>Default: Solid line</td>
<td></td>
</tr>
<tr>
<td>3) Select the line width of the graph.</td>
<td>1, 2, 3, 4 (dots)</td>
<td>Default: 1 dot</td>
</tr>
</tbody>
</table>
9. BASIC OPERATION OF EACH BOX AND WINDOW

9.3.11 Point selection window

Among conditions of a scatter graph, set the colors, type, and size of points on the Point selection window.

[Details of items to be set]

Window display

<table>
<thead>
<tr>
<th>Description of Setting/Display</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Select the colors of the points to be displayed.</td>
<td>Available colors: Blk (black), Gry (gray), Blu (blue), DkBl (dark blue), Red, DkRd (dark red), Mag (magenta), DkMg (dark magenta), Grn (green), DkGr (dark green), Cyn (cyan), DkCy (dark cyan), Yel (yellow), DkYe (dark yellow), Wht (white)</td>
<td>The selected colors will be highlighted. In the case of a monochrome display, select white or black.</td>
</tr>
<tr>
<td>2) Select the type of the points to be displayed.</td>
<td>Default: ●</td>
<td></td>
</tr>
<tr>
<td>3) Select the size of the points to be displayed.</td>
<td>S (small) (5 dots), M (medium) (7 dots), L (large) (9 dots)</td>
<td>Default: S</td>
</tr>
</tbody>
</table>
9. BASIC OPERATION OF EACH BOX AND WINDOW

9.3.12 Fill pattern selection window

Among conditions of a pie chart, bar graph or level display, set the display colors of graph elements and the fill pattern on the Fill pattern selection window.

[Details of items to be set]

Window display

![Fill pattern selection window diagram]

<table>
<thead>
<tr>
<th>Description of Setting/Display</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Select the display colors of the pie chart, bar graph or level display.</td>
<td>Available colors: Blk (black), Gry (grey), Blu (blue), DkBl (dark blue), Red, DkRed (dark red), Mag (magenta), DkMg (dark magenta), Grn (green), DkGr (dark green), Cyn (cyan), DkC (dark cyan), Yel (yellow), DkYe (dark yellow), Wht (white)</td>
<td>The selected colors will be highlighted. In the case of a monochrome display, select white or black.</td>
</tr>
<tr>
<td>2) Select the fill pattern of the pie chart, bar graph or level display.</td>
<td></td>
<td>The selected pattern will be framed.</td>
</tr>
<tr>
<td>3) The selected fill pattern is displayed.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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9. BASIC OPERATION OF EACH BOX AND WINDOW

9.3.13 Monitor device setting

This section describes how to set the device to be monitored for data collection.

1) Monitor device window
   On the Monitor device window, set the device to be monitored.

[Details of items to be set]

<table>
<thead>
<tr>
<th>Description of Setting/Display</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Set the PC type and number of the device to be monitored on the Select PC type window.</td>
<td>Default: Host PC type and number Select this item only when another PC type and number should be set. Refer to Section 9.3.14.</td>
<td></td>
</tr>
<tr>
<td>2) Select the name of the device to be monitored.</td>
<td>The device names and numbers that can be set are different depending on the PC CPU type used. To monitor the data stored in the buffer memory of a special function unit, select [BM], and set the special function unit. (Refer to Section 9.3.13 (2).) When monitoring a device with the name L or S, select [M].</td>
<td></td>
</tr>
<tr>
<td>* TT : Timer contact</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* TC : Timer coil</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* CT : Counter contact</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* CC : Counter coil</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* BM : BM : Buffer memory</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* TN : Current timer value</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* CN : Current counter value</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Set the number of the device to be monitored.</td>
<td>Set the bit number when the designated bit of the word device will be monitored. Listed below are the monitor functions by which the bit number of a word device can be designated as the device to be monitored:</td>
<td></td>
</tr>
<tr>
<td>4) Designate the bit number of the word device to be monitored.</td>
<td>0 to 15</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Description of Setting/Display

5) Select whether the devices equivalent to the number of monitor points should automatically be set from the set device continuously (Cont.) or at random (Rand.).

<table>
<thead>
<tr>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
</table>
| Cont., Rand.          | Default: Cont.  
This item can be selected only in setting conditions of displaying graphs except for the scatter graph. |

#### POINT

(1) Before setting the PC type and number of the device to be monitored in 1), available PC types and numbers must be set on the Select PC type window. (Refer to Section 11.5.)
(2) Special unit window
To monitor the data stored in the buffer memory of a special function unit, set the unit on the Special unit window.

[Details of items to be set]

Window display

<table>
<thead>
<tr>
<th>Description of Setting/Display</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Select the model of the special unit.</td>
<td>Default: A68AD Refer to *1.</td>
<td></td>
</tr>
<tr>
<td>2) Set what address in the memory of the specified unit will be monitored.</td>
<td>0 to 8191</td>
<td></td>
</tr>
<tr>
<td>3) Set the first I/O number of the specified unit (in the first two digits of the three-digit number).</td>
<td>0 to 7F</td>
<td>Refer to *1.</td>
</tr>
<tr>
<td>4) Other special function unit models are displayed in response to the dragging of the slider. When either up or down arrow is pointed at by the mouse cursor and the left mouse button is clicked, the models scroll up or down.</td>
<td>Dragging the cursor and clicking the left mouse button makes the window display other special function unit models.</td>
<td></td>
</tr>
<tr>
<td>5) The number of I/O points occupied by the specified unit is displayed.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*1: The models of the special function units that can be monitored and the first I/O number of each unit loaded in slot 0 of the main base unit are as follows:

<table>
<thead>
<tr>
<th>Model</th>
<th>Unit's First I/O No.</th>
<th>Model</th>
<th>Unit's First I/O No.</th>
<th>Model</th>
<th>Unit's First I/O No.</th>
<th>Model</th>
<th>Unit's First I/O No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A68AD(S2)</td>
<td>00H</td>
<td>A68DAV/DAI</td>
<td>00H</td>
<td>A62LS</td>
<td>01H</td>
<td>A1SD61</td>
<td>00H</td>
</tr>
<tr>
<td>A618AD</td>
<td>00H</td>
<td>A68RD</td>
<td>00H</td>
<td>AD61(S1)</td>
<td>00H</td>
<td>AJ71UC24/C214</td>
<td>00H</td>
</tr>
<tr>
<td>A62DA-S1</td>
<td>00H</td>
<td>AD71(S1/52/57)</td>
<td>00H</td>
<td>AJ71PT32-S3(32)</td>
<td>00H</td>
<td>AD51FD</td>
<td>01H</td>
</tr>
<tr>
<td>A618DAV/DAI</td>
<td>00H</td>
<td>AD72</td>
<td>01H</td>
<td>AJ71PT32-S3(48)</td>
<td>00H</td>
<td>A1864AD</td>
<td>00H</td>
</tr>
<tr>
<td>A84AD</td>
<td>01H</td>
<td>AD70</td>
<td>00H</td>
<td>A81CPU</td>
<td>00H</td>
<td>A1862DA</td>
<td>00H</td>
</tr>
<tr>
<td>A618TD</td>
<td>00H</td>
<td>AD70D</td>
<td>00H</td>
<td>A18D71</td>
<td>01H</td>
<td>A1869ADA</td>
<td>00H</td>
</tr>
<tr>
<td>A68ADN</td>
<td>00H</td>
<td>AD61LS</td>
<td>00H</td>
<td>A18D70</td>
<td>01H</td>
<td>A1862RD3/4</td>
<td>00H</td>
</tr>
</tbody>
</table>
9. BASIC OPERATION OF EACH BOX AND WINDOW

(3) Edit monitor device window
Among conditions of displaying graphs except for the scatter graph, set the word devices to be monitored and the attributes for graphs.

[Details of items to be set]

<table>
<thead>
<tr>
<th>No.</th>
<th>PC No.</th>
<th>Device</th>
<th>Col.</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Description of Setting/Display

1) Select a line to set the device to be monitored and the color and attributes for the graph.

2) Other lines are displayed in response to the dragging of the slider.
When either up or down arrow is pointed at by the mouse cursor and the left mouse button is clicked, the lines scroll up or down.

3) The line number of the device to be monitored is displayed.

4) The PC type and number of the word device to be monitored are displayed.

5) The name and number of the word device to be monitored are displayed.

6) The color of the graph associated with the device to be monitored is displayed.

7) The attributes for the graph associated with the device to be monitored are displayed.

Setting Range/Options

Remarks

By clicking the left mouse button with the mouse cursor positioned on the selected (highlighted) line, the Monitor device window, the Line selection window, etc. will open.

Dragging the slider and clicking the left mouse button makes the window display other lines.

Line numbers equivalent to the number of monitor points set on setting windows will be displayed.

In 4) to 7), the settings made in 1) will be displayed.

POINT

(1) The Edit monitor device window cannot be closed even if [Delete] is selected.
To close the window after deleting data, select [Cancel].
9. BASIC OPERATION OF EACH BOX AND WINDOW

9.3.14 Select PC type window

When designating the bit device for setting the timing of data collection or a device of another PC as the device to be monitored, select the PC type and number. The default PC type and number are those of the host PC set on the Select PC type window (refer to Section 11.5).

[Details of items to be set]

Window display

<table>
<thead>
<tr>
<th>Host</th>
<th>A06</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>FF</td>
</tr>
<tr>
<td>1</td>
<td>FF</td>
</tr>
<tr>
<td>2</td>
<td>FF</td>
</tr>
<tr>
<td>3</td>
<td>FF</td>
</tr>
<tr>
<td>4</td>
<td>FF</td>
</tr>
<tr>
<td>5</td>
<td>FF</td>
</tr>
<tr>
<td>6</td>
<td>FF</td>
</tr>
<tr>
<td>7</td>
<td>FF</td>
</tr>
<tr>
<td>8</td>
<td>FF</td>
</tr>
<tr>
<td>9</td>
<td>FF</td>
</tr>
</tbody>
</table>

1) When designating a device of another PC, select the block corresponding to the PC type.

Description of Setting/Display  Setting Range/Options  Remarks

Move the mouse cursor to the block of the PC number which is set on the Select CPU window, and click the left mouse button. For PC types that can be monitored, refer to the User's Manual and/or Reference Manual for the G controller unit used.

POINT

(1) Before selecting a PC number, available PC types and numbers must be set on the Select PC type window. (Refer to Section 11.5.)
EXPLANATION OF OPERATIONS OF MENU OPTIONS IN MENU BOX

This part describes the operations of the menus in the Menu Box, which is displayed on the Edit file window, in the following sections:

Chapter 10 OPERATIONS OF FILE MENU ........................................ 10 - 1 - 10 - 15
Chapter 11 OPERATIONS OF EDIT MENU ..................................... 11 - 1 - 11 - 39
Chapter 12 OPERATIONS OF CONVERSION MENU ....................... 12 - 1 - 12 - 6
Chapter 13 OPERATIONS OF TRANSFER MENU ......................... 13 - 1 - 13 - 17
Chapter 14 OPERATIONS OF ENVIRON. MENU ............................ 14 - 1 - 14 - 3
Chapter 15 OPERATIONS OF OK MENU (FOR MENU BOX) .............. 15 - 1 - 15 - 2

Menu Box

<table>
<thead>
<tr>
<th>File</th>
<th>Edit</th>
<th>Conversion</th>
<th>Transmit</th>
<th>Environ.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

File menu.......................... To Chapter 10
Edit menu.......................... To Chapter 11
Conversion menu.................... To Chapter 12
Transmit menu...................... To Chapter 13
Environ. menu........................ To Chapter 14

OK menu............................ To Chapter 15
10. OPERATIONS OF FILE MENU

The File menu is to execute operations related to files, including creation of edit files and writing and reading of created monitor screen data to/from a file.

10.1 Functions

(1) Functions

The File menu has the functions as follows:

- **Open**
  - To read the designated monitor screen data out of the designated drive.
  - Before preparing monitor screen data, an edit file name can be created.
  - Section 10.2

- **Save**
  - To write created monitor screen data to the designated drive.
  - Section 10.3

- **Delete**
  - To delete the designated file from the designated drive.
  - Section 10.4

- **Copy**
  - To copy all monitor screen data stored in the designated directory to the designated drive.
  - Section 10.5

- **Print**
  - To print data which has been set using the AGOTP.
  - Output of set data to a bit map file is also possible.
  - Section 10.6
10. OPERATIONS OF FILE MENU

10.2 Open

**Menus/Items to be selected**

(Edit file window) — (Menu Box) — File — Open — (Drive selector window)

[Operation procedure]

**Transition of window**

![Transition of window]

**Steps after Drive Selector Window Opened**

1. Set the name of the drive holding the monitor screen data to be read on the Drive selector window.

2. Have the name of the directory, which includes the edit file retaining the monitor screen data to be read, displayed in 2).

3. Select the directory name.

4. Select [OK].

**Remarks**

Refer to Section 9.3.2.
The drive name set in 1) can be changed by positioning the mouse cursor in the box and clicking the left mouse button.

Click the left mouse button with the mouse cursor positioned in 3) or 4), or drag 5).

Position the mouse cursor on the directory name, and click the left mouse button.

The selected directory name will be displayed in 6), and the edit file name ([.SET] in the directory in 7).

Position the mouse cursor on [OK], and click the left mouse button.

The monitor screen data will be read out of the designated edit file, and the Edit file window will open.

**POINT**

(1) Procedure for setting the edit file name
Position the mouse cursor in 6), and click the left mouse button to display the character cursor. Enter the drive name and the directory name from the keyboard, press the [.] key (the edit file name will automatically be set). Then, position the mouse cursor on [OK], and click the left mouse button.
10. OPERATIONS OF FILE MENU

10.3 Save

Menus/Items to be selected

(Edit file window) → (Menu Box) → File → Save → (Drive selector window)

[Operation procedure]

Transition of window

Steps after Drive Selector Window Opened

When <Save> is selected with no edit file name set, the File selector window opens. Follow the steps described below. When the edit file name is set, save data according to the instructions on the screen.

1. Set on the Drive selector window the name of the drive in which the monitor screen data will be stored.

2. Type the name of the directory which includes the edit file for storing the created monitor screen data.

3. Select [OK].

Remarks

Refer to Section 9.3.2.
The drive name set in 1) can be changed by positioning the mouse cursor in the box and clicking the left mouse button.

Position the cursor in 2), and click the left mouse button to display the character cursor. Enter the drive name and the directory name from the keyboard, and press the [.] key. (The edit file name will automatically be set.)

(Example)
When the directory name \GOT1\MON1 is entered \GOT1\MON1\MON1.SET will be set as the edit file name.

Position the mouse cursor on [OK], and click the left mouse button.

The monitor screen data will be saved in the designated drive, and the Edit file window will open.
10. OPERATIONS OF FILE MENU

POINTS

(1) To save created data for the first time, type the directory name in alphanumeric characters (symbols are unacceptable) in step 2, and press the [.] key. (Up to eight characters can be typed.)

(2) When the edit file is already created, the File selector window does not open. Instead, a dialog box showing the message "Save data and continue operation?" opens. Select [Yes] on it. The created monitor screen data will be saved in the designated drive, and the Edit file window will open.

(3) This Save function enables the operator to execute the AGOTP while saving the created data.
10. OPERATIONS OF FILE MENU

10.4 Delete

**Menus/Items to be selected**

(Edit file window) → (Menu Box) → File → Delete → (Drive selector window)

**[Operation procedure]**

**Transition of window**

<table>
<thead>
<tr>
<th>Steps after Drive Selector Window Opened</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Set on the Drive selector window the name of the drive in which the file to be deleted is stored.</td>
<td>Refer to Section 9.3.2. The drive name set in 1) can be changed by positioning the mouse cursor in the box and clicking the left mouse button.</td>
</tr>
<tr>
<td>2. Have the name of the directory, which includes the file to be deleted, displayed in 2).</td>
<td>Click the left mouse button with the mouse cursor positioned in 3) or 4), or drag 5).</td>
</tr>
<tr>
<td>3. Select the name of the directory storing the file to be deleted.</td>
<td>Position the mouse cursor on the directory name, and click the left mouse button. The selected directory name will be displayed in 6), and the file name in the directory in 7).</td>
</tr>
<tr>
<td>4. Select the name of the file name to be deleted.</td>
<td>Position the cursor on the file name, and click the left mouse button. (Two or more file names can be selected.) The selected file name will be highlighted. To cancel the selected file name, position the mouse cursor on the name again, and click the left mouse button.</td>
</tr>
<tr>
<td>5. Select [Delete].</td>
<td>Position the mouse cursor on [Delete], and click the left mouse button. A dialog box requesting confirmation of deletion opens.</td>
</tr>
<tr>
<td>6. Select [Yes].</td>
<td>Position the mouse cursor on [Yes], and click the left mouse button. The file will be deleted.</td>
</tr>
</tbody>
</table>

(Continued on the next page)
Steps after Drive Selector Window Opened

(Continued from the preceding page)

7. After the file has been deleted, a dialog box showing the message *File deleted. Terminate operation?* appears. Select [Yes] or [No].

Click the left mouse button with the mouse cursor positioned on [Yes]. The Edit file window will open.

Click the left mouse button with the mouse cursor positioned on [No]. Deleting will restart.

POINTS

(1) All files in a directory can be deleted by selecting [Delete] after step 3. The directory will be deleted as well.

(2) In step 4, a file name having a specific identifier can be designated to be deleted by using wildcards as shown in the following example after positioning the mouse cursor in 8) and clicking the left mouse button.

(Example)

File name MON1.M*

(3) Usage of wildcards

Wildcards represent two or more file names of specific patterns or those with specific extensions to be batch-processed.

The same processing procedure must be repeated several times until all files having names that start with an "A", for example, are processed in a regular way.

The use of wildcards, however, makes it possible to process such files on only one attempt. Question marks (?) or asterisks (*) are used as wildcards in file names or extensions when they are designated. Each symbol has the following function:

?...... The symbol used in place of a character in a file name or extension is considered to be matching it, whether or not the character is actually set.

*...... The characters of a file name or extension, from the position, where a "*" is used, to the end, are all replaced by the above-mentioned "?".

1) Example of representing all files with an extension * or ?????????????

2) Example of representing all files without an extension *

3) Example of representing all files having file names starting with an "A"

A*. or A???????????

4) Example of representing all files having the file name "ABC"

ABC.* or ABC.??

5) Example of representing all files having extensions starting with a "G"

*.G* or ???????????.G??
10. OPERATIONS OF FILE MENU

10.5 Copy

Menus/Items to be selected

(Edit file window) — (Menu Box) — File — Copy — (Drive selector window)

[Operation procedure]

Steps after Drive Selector Window Opened

1. Set on the Drive selector window the name of the drive in which the source directory to be displayed in 2) is stored.

2. Have the name of the directory, which is the source used for copying data and includes the edit file retaining the monitor screen data to be copied, displayed in 2).

3. Select the directory name.

4. Set the name of the drive in which the directory to be displayed in 8) is stored.

(Continued on the next page)

Remarks

Refer to Section 9.3.2.

The drive name set in 1) can be changed by positioning the mouse cursor in the box and clicking the left mouse button.

Click the left mouse button with the mouse cursor positioned in 3) or 4), or drag 5).

Position the mouse cursor on the directory name, and click the left mouse button.

The selected directory name will be displayed in 6).

Click the left mouse button with the mouse cursor positioned in 7), and set the drive name on the Drive selector window (Section 9.3.2).
## 10. OPERATIONS OF FILE MENU

<table>
<thead>
<tr>
<th>Steps after Drive Selector Window Opened</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Continued from the preceding page)</td>
<td></td>
</tr>
<tr>
<td>5. Have the destination directory, which includes the edit file for receiving the monitor screen data, displayed in 8), and select the directory name. Do not select the directory of which the edit file is being edited. The monitor screen data cannot be copied to the edit file currently edited. When creating a destination directory, enter the name from the keyboard.</td>
<td>Refer to steps 2 and 3. Click the left mouse button with the mouse cursor positioned in (9) to display the character cursor. Then, type the drive name and the directory name, and press the [J] key.</td>
</tr>
<tr>
<td>6. Select [OK].</td>
<td>Position the mouse cursor on [OK], and click the left mouse button. The Copy object selection window will open.</td>
</tr>
<tr>
<td>7. Select the data to be copied. When [All data] is selected</td>
<td>Position the mouse cursor on [All data], [Screen] or [Comment], and click the left mouse button. All data: Copies all monitor screen data. Screen: Copies the monitor screen data of the designated screen number. Comment: Copies the comment of the designated comment number.</td>
</tr>
<tr>
<td></td>
<td>Click the left mouse button with the mouse cursor positioned in 10) to display the character cursor. Then, type the screen number or comment number.</td>
</tr>
<tr>
<td>8. Enter the source screen number or comment number in 10)</td>
<td>Click the left mouse button with the mouse cursor positioned in 11) to display the character cursor. Then, type the screen number or comment number.</td>
</tr>
<tr>
<td>9. Enter the destination screen number or comment number in 11.</td>
<td>Click the left mouse button with the mouse cursor positioned in 12) to display the character cursor. Then, enter the number of screens or comments to be used for copying. When [Screen] is selected, for example When '1' is set in the Source box and '3' in the Number box, the screen numbers from 1 to 3 will be copied.</td>
</tr>
<tr>
<td>10. When the screen numbers or comment numbers subsequent to those set in 10) and 11) are to be used for copying, enter the number of screens or comments in 12).</td>
<td>Position the mouse cursor on [OK], and click the left mouse button. Copying starts. Click the left mouse button with the mouse cursor positioned on [Yes]. The Edit file window will open. Click the left mouse button with the mouse cursor positioned on [No]. Copying will restart.</td>
</tr>
<tr>
<td>11. Select [OK].</td>
<td></td>
</tr>
</tbody>
</table>

**REMARK**
The method for integrating monitor screen data created at a number of AGOTP peripheral devices is described in the APPENDIX 7.
10. OPERATIONS OF FILE MENU

10.6 Print

**Menus/Items to be selected**

(File selector window) → (Menu Box) → File → Print

**[Details of items to be set]**

![Diagram of setting options]

**Description of Setting** | **Setting Range/Options** | **Remarks**
---|---|---
1) Select this item when it is necessary to generate set data on the printer.

2) Select this item when it is necessary to save set data to a file.

Select this item when software capable of editing bit map files is used.

3) Set the name of the bit map file to which set data will be saved when [File] is selected in 2) above.

Drive name:

Peripheral devices that can be designated

Set the drive name, the directory name, the file name, and the extension.

4) Select the set data to be generated on the printer or saved to a file.

- All data
- Editing environment
- Comment data
- Sprite data
- Part data
- Panel-kit data
- Scrn switch/Snap shot/key
- Report
- Announcement
- Time action
- Printer type

Position the mouse cursor on the intended set data name, and click the left mouse button.

Refer to (1).
Refer to (2).
Refer to (3).
Refer to (4).
Refer to (5).
Refer to (6).
Refer to (7).
Refer to (8).
Refer to (9).
Refer to (10).
Refer to (11).
### 10. OPERATIONS OF FILE MENU

<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>5) Set the first monitor screen number to be printed when printing sprite data.</td>
<td>1 to 250</td>
<td>Default: 1</td>
</tr>
<tr>
<td>6) Set the range of comment data, sprite data or part data to be printed.</td>
<td>Comment data: 0 to 32767</td>
<td>Set the number of rows according to the printer type used, settings, and paper size.</td>
</tr>
<tr>
<td></td>
<td>Sprite data : 1 to 250</td>
<td>Before printing, make sure that the printer is ready to print.</td>
</tr>
<tr>
<td></td>
<td>Part data : 1 to 255</td>
<td></td>
</tr>
<tr>
<td>7) Set the number of rows to be printed on a page.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8) Select this item to print the selected set data on the printer or save it to the designated file.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9) Select this item when the Setting data printout window should be closed.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### POINTS

1. When [File] is selected, the set data will be saved to a bit map file with the extension ".BMP". Any data, which is saved to a file by this function, can be read by software capable of editing bit map files and printed with additional comments on the printer.

2. Set a file name according to the specifications of software that can provide bit map file editing.
(1) Example of all data printout
All data, from editing environment to printer type, is printed.

(2) Example of editing environment printout
Data edited on the Edit file window (Section 9.2.1) is printed.

<table>
<thead>
<tr>
<th>Screen No.</th>
<th>Canvas</th>
<th>Sprite</th>
<th>Screen Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>*</td>
<td>*</td>
<td>Description of AGOT demonstration</td>
</tr>
<tr>
<td>2</td>
<td>*</td>
<td>*</td>
<td>Polygonal line graph/Spline graph</td>
</tr>
<tr>
<td>3</td>
<td>*</td>
<td>*</td>
<td>Bar graph</td>
</tr>
<tr>
<td>4</td>
<td>*</td>
<td>*</td>
<td>Pie chart</td>
</tr>
<tr>
<td>5</td>
<td>*</td>
<td>*</td>
<td>Trend graph</td>
</tr>
<tr>
<td>6</td>
<td>*</td>
<td>*</td>
<td>Level display</td>
</tr>
<tr>
<td>7</td>
<td>*</td>
<td>*</td>
<td>General description of part</td>
</tr>
</tbody>
</table>

*: Set

GOT type A77GOT5
Edit file name A:\PRESENT\PRESENT.SET
Part name A:\PRESENT\BHN
Report name A:\PRESENT\REP

Report No. | Report Title             |
-----------|--------------------------|
1-1        | Real time (continuous) report |
2-1        | Logging report           |

(3) Example of comment data printout
Comments created on the Comment window (Section 22.7) are printed.

<table>
<thead>
<tr>
<th>Comment data</th>
<th>Attribute: Normal Blink: No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Comment No. 0</td>
<td>Color: Blue Comment: End operation</td>
</tr>
<tr>
<td>Comment No. 1</td>
<td>Color: Red Comment: Start operation</td>
</tr>
<tr>
<td>Comment No. 2</td>
<td>Color: Green Comment: Move left</td>
</tr>
<tr>
<td>Comment No. 3</td>
<td>Color: Purple Comment: Move right</td>
</tr>
<tr>
<td>Attribute: Reverse Blink: Medium speed</td>
<td></td>
</tr>
<tr>
<td>Attribute: Reverse Blink: Low speed</td>
<td></td>
</tr>
<tr>
<td>Attribute: Normal Blink: Low speed</td>
<td></td>
</tr>
</tbody>
</table>
(4) Example of sprite data printout
Sprite data (Section 21) set on each screen number is printed.

[Sprite parameters]

[Screen No. 1]

1. Numerical display
   - Display position R:2 C:11
   - Data collection trigger: Condition: Ordinary
   - Scale: x2 Display type: Decimal
   - Data type: 32-bit Number of digits: 11 Sign: Yes Decimal point: 0
   - Magnification: 65535 Offset: 32767
   - Number of monitors: 2 PC No.: FF Device: W0000
   - Display attributes: Ordinary Color: Blue Attribute: Normal Character type: Full-size
     - Upper limit: Color: Yellow Attribute: Reverse
     - Lower limit: Color: Red Attribute: Reverse
   - Upper limit: 2147483647
   - Lower limit: -2147483648

2. Device write (SET, RST, ALT)
   - Group number: 1
   - Trigger key code: FFH Operation setting code: SET
   - PC No.: FF Storage device: X000

3. Touch key/switch setting
   - Group No.: 1 Key code: FFH
   - Switch device: Station No. **Device**
   - Switch type: Key Synchronous
   - Drawing area: (40,10)-(200, 112)
   - Drawing method: Reverse
   - Graphic type: Basic graphic 2
   - Graphic device: Station No. **Device**

4. Grouping data

(5) Example of part data printout
Part names included in set part data (Section 19) are printed.

[Part data]

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Part Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Part 1</td>
</tr>
<tr>
<td>2</td>
<td>Part 2</td>
</tr>
<tr>
<td>4</td>
<td>Part 3</td>
</tr>
<tr>
<td>5</td>
<td>Part 4</td>
</tr>
</tbody>
</table>
(6) Example of panel-kit data printout
Library names included in set panel-kit data (Section 20) are printed.

### [Panel-kit data]

<table>
<thead>
<tr>
<th>Library No.</th>
<th>Library Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Standard library</td>
</tr>
<tr>
<td>2</td>
<td>Extended library 1</td>
</tr>
<tr>
<td>4</td>
<td>Extended library 2</td>
</tr>
<tr>
<td>5</td>
<td>Extended library 3</td>
</tr>
</tbody>
</table>

(7) Example of scrn switch/snap shot/key printout
Set data on Edit menu’s screen switching/monitoring station switching devices (Section 11.4), snap shot (Section 11.11), special key (Section 11.9), and operation panel (Section 11.10) is printed.

### [Screen switching device/monitoring station switching device]

Display screen  PC No.: FF  Device: W020
Station switching  PC No.: FF  Device: W021

### [Snap shot device]

Snap shot device  PC No.: FF  Device: M15  Condition: Start

### [Key settings]

<table>
<thead>
<tr>
<th>Special keys</th>
<th>System menu key code: 91H</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ten-key window key code: 92H</td>
</tr>
<tr>
<td></td>
<td>Snap shot key code: 93H</td>
</tr>
<tr>
<td></td>
<td>System monitor key code: FFH</td>
</tr>
<tr>
<td>Circuit monitor key code: FFH</td>
<td></td>
</tr>
</tbody>
</table>

Operation panel key codes

<table>
<thead>
<tr>
<th>I/O No.</th>
<th>PC No.</th>
<th>Device</th>
<th>I/O No.</th>
<th>PC No.</th>
<th>Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.000</td>
<td>FF</td>
<td>TT10</td>
<td>No.020</td>
<td>**</td>
<td>*****</td>
</tr>
<tr>
<td>No.001</td>
<td>**</td>
<td>*****</td>
<td>No.021</td>
<td>**</td>
<td>*****</td>
</tr>
<tr>
<td>No.002</td>
<td>**</td>
<td>*****</td>
<td>No.022</td>
<td>**</td>
<td>*****</td>
</tr>
<tr>
<td>No.003</td>
<td>**</td>
<td>*****</td>
<td>No.023</td>
<td>**</td>
<td>*****</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.01D</td>
<td>**</td>
<td>*****</td>
<td>No.03D</td>
<td>**</td>
<td>*****</td>
</tr>
<tr>
<td>No.01E</td>
<td>**</td>
<td>*****</td>
<td>No.03E</td>
<td>**</td>
<td>*****</td>
</tr>
<tr>
<td>No.01F</td>
<td>**</td>
<td>*****</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10 – 13
(8) Example of report printout
Set data on the report function in the Edit menu (Section 11.6) is printed.

![Report]

![Print format: Page 1]

1: 9:
3: 4:
5: 6:
7: 8:
9: 10:
11: 12:
13: 14:
15: 16:
17: 18:
19: 20:
21: 22:
23: 24:
25:

![Machining Performance Date and Time of Collection:]

<table>
<thead>
<tr>
<th>Machine</th>
<th>Data and Time of Collection:</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC1-A-1</td>
<td>Machine</td>
</tr>
<tr>
<td>MC2-A-1</td>
<td>Data and Time of Collection:</td>
</tr>
<tr>
<td>MC3-A-1</td>
<td></td>
</tr>
<tr>
<td>MC4-A-2</td>
<td></td>
</tr>
<tr>
<td>MC5-A-2</td>
<td></td>
</tr>
<tr>
<td>MC6-A-2</td>
<td></td>
</tr>
</tbody>
</table>

![Printing allocation data: Page 1]

<table>
<thead>
<tr>
<th>Printing allocation data: Page 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data collection time:</td>
</tr>
<tr>
<td>R. 4 C. 55</td>
</tr>
</tbody>
</table>

(9) Example of announcement printout
Set data on the announcement function in the Edit menu (Section 11.7) is printed.

![Set announcement data]

<table>
<thead>
<tr>
<th>PC</th>
<th>Device</th>
<th>Alarm</th>
<th>Printer</th>
<th>Announcement Message</th>
</tr>
</thead>
<tbody>
<tr>
<td>A3A-FF</td>
<td>M100</td>
<td>OFF</td>
<td>ON</td>
<td>[---------------- Host PC --------------- ]</td>
</tr>
<tr>
<td>A3A-FF</td>
<td>M901</td>
<td>ON</td>
<td>OFF</td>
<td>[Alarm message M901 ON ]</td>
</tr>
<tr>
<td>A3A-FF</td>
<td>M200</td>
<td>ON</td>
<td>ON</td>
<td>[Alarm/Printer message M200 ON ]</td>
</tr>
</tbody>
</table>
(10) Example of time action printout
Set data on the time action function in the Edit menu (Section 11.8) is printed.

[Set time action data]

<table>
<thead>
<tr>
<th>No.</th>
<th>PC</th>
<th>Device</th>
<th>Start Time</th>
<th>End Time</th>
<th>Day</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A3A-FF</td>
<td>X000</td>
<td>0 h. 0 min.</td>
<td>0 h. 5 min.</td>
<td>Mon.</td>
<td>Wed.</td>
</tr>
<tr>
<td>2</td>
<td>A3A-FF</td>
<td>Y000</td>
<td>10 h. 0 min.</td>
<td>11 h. 0 min.</td>
<td>Tues.</td>
<td>Wed.</td>
</tr>
<tr>
<td>3</td>
<td>A3A-FF</td>
<td>X001</td>
<td>5 h. 0 min.</td>
<td>5 h. 30 min.</td>
<td>Mon.</td>
<td>Thru.</td>
</tr>
<tr>
<td>4</td>
<td>A3A-FF</td>
<td>X002</td>
<td>13 h. 0 min.</td>
<td>15 h. 0 min.</td>
<td>Sun.</td>
<td>Sat.</td>
</tr>
<tr>
<td>5</td>
<td>A3A-FF</td>
<td>M10</td>
<td>12 h. 0 min.</td>
<td>13 h. 0 min.</td>
<td>Wed.</td>
<td>Thurs.</td>
</tr>
<tr>
<td>6</td>
<td>A3A-FF</td>
<td>Y010</td>
<td>8 h. 0 min.</td>
<td>10 h. 0 min.</td>
<td>Mon.</td>
<td>Tues.</td>
</tr>
<tr>
<td>7</td>
<td>A3A-FF</td>
<td>M10</td>
<td>16 h. 0 min.</td>
<td>16 h. 30 min.</td>
<td>Wed.</td>
<td>Thurs.</td>
</tr>
<tr>
<td>8</td>
<td>A3A-FF</td>
<td>Y012</td>
<td>15 h. 10 min.</td>
<td>16 h. 30 min.</td>
<td>Mon.</td>
<td>Tues.</td>
</tr>
</tbody>
</table>

(11) Example of printer type output
Set data on the printer type setting function in the Edit menu (Section 11.13) is printed.

[Set printer data]

Printer used [ESC/P24 ]
11. OPERATIONS OF EDIT MENU

The Edit menu is used to start creating a monitor screen and set monitor functions unrelated to monitor screens.

11.1 Functions and Flow of Operation

(1) Functions
The Edit menu has the following functions:

- **Screen edit**
  - To open the edit screen for creating a monitor screen for the screen number which is selected on the Edit file window.
  - Section 11.2

- **Scrн util./del**
  - To utilize or delete created canvas screen data or batch-utilize or batch-delete the sprite data set on a canvas screen.
  - Section 11.3

- **Scrн./Stа. switch**
  - To set a word device for switching from the monitor screen number being displayed to another, and one for switching to and monitoring the information on the same device of another PC when a monitor screen is displayed.
  - Section 11.4

- **PC type**
  - To select the PC types of the host, master, and local stations in the data link system.
  - Section 11.5

- **Report**
  - To set the report function.
  - Section 11.6

- **Announcement**
  - To set the announcement function.
  - Section 11.7

- **Time action**
  - To set the time action function.
  - Section 11.8

- **Special key**
  - When setting the special key function for the A77GOT-S3 and A77GOT-S5
    - To set key codes for switching from a monitor screen to a system menu screen, for opening the Ten key panel (TK) setting window, etc.
    - When setting the special key function for terminals other than the A77GOT-S3 and A77GOT-S5
      - To set whether the [F1] to [F3] keys on the keyboard, touch panel display, operation panel, keyboard panel or ten key panel should be used as the system's special keys or for the user's desired key codes.
  - Section 11.9

- **Operation panel**
  - To set (change) the key codes to the operation panel, keyboard panel, and ten key panel.
  - The switching function available on the operation panel, keyboard panel, and ten key panel can also be set.
  - Section 11.10
1. Snap shot
   To set the snap shot function.
   Section 11.11

2. System info.
   To set the word device to which the system information on the G
   controller (G controller's error codes, screen number being displayed,
   etc.) will be stored.
   Section 11.12

3. Printer type
   To set the type of the printer for printing data in combination with the
   report, announcement or snap shot function when the G controller unit
   is on-line.
   Section 11.13

4. Back light off
   To set the time from the termination of data entry from the keyboard or
   of data modification on the screen to the turning OFF of the back light.
   Section 11.14

5. Password
   To register a password for the monitor screen data.
   Section 11.15
11. OPERATIONS OF EDIT MENU

(2) Flow of operation
The following is the flow outlining the operation of the Edit menu.

1. The Edit file window opens.
2. Click the right mouse button.
3. The Menu Box opens.
4. Select the Edit menu.
5. The Edit window opens.
6. Select an item to set.
   - When <Screen edit> is selected
     - The edit screen opens.
     - Refer to Chapters 16 to 23.
   - When <Report> is selected
     - The corresponding window opens.
     - Refer to Section 11.6.
   - Set the items on the window.

7. Options:
   - **Delete**
     - Existing data will be deleted, and the window being displayed will be closed.

8. Options:
   - **OK**
     - Set data will be saved, and the window being displayed will be closed.

9. Options:
   - **Cancel**
     - Set data will not be saved, and the window being displayed will be closed.

10. The window closes.
11. The Edit file window opens.
11. OPERATIONS OF EDIT MENU

11.2 Screen Edit

<table>
<thead>
<tr>
<th>Menus/Items to be selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Edit file window) → (Menu Box) → Edit → Screen edit → (Edit screen opens.)</td>
</tr>
</tbody>
</table>

The edit screen opens.
Create monitor screen data according to Chapters 16 to 23.
### 11. OPERATIONS OF EDIT MENU

#### 11.3 Scrn Util./Del

**Menus/Items to be selected**

(Edit file window) → (Menu Box) → **Edit** → **Scrn util./del**

**[Details of items to be set]**

#### Window display

![Window Display Diagram]

**Description of Setting** | **Setting Range/Options** | **Remarks** |
--- | --- | ---
1) Select Utilize or Delete. | Utilize, Delete | Default: Utilize |
2) Select the name of the data to be utilized or deleted. When the GOT type is set as A77GOT-S5, [Touchkey] cannot be selected. | Canvas, Sprite, All data, Touch key | Default: Canvas<br>Canvas: Canvas screen data (including text characters) will be utilized or deleted.<br>Sprite: Set sprite data (including set touch key data) will be utilized or deleted.<br>All data: All monitor screen data will be utilized or deleted.<br>Touch key: Set touch key data (including switching function) will be utilized or deleted. |
3) Set the number of the monitor screen holding the data to be utilized. | 1 to 250 | Default: 1 |
4) Set the number of the destination monitor screen. | 1 to 250 | Default: 1 |
5) Set the number of the monitor screen holding the data to be deleted. | 1 to 250 | Default: 1 |
6) Set a new number when the data of the screens following those set in 3) and 5) will be utilized or deleted. | Default: 1<br>When '1' is set in the Delete box and '3' in the No. box, for example, monitor screens No.1 to No.3 will be deleted. |
7) Select this item to start utilizing or deleting the screen. | | |
8) Select this item to close the window. | | |
11. OPERATIONS OF EDIT MENU

11.4 Scrn./Sta. Switch

Menus/Items to be selected

(Edit file window) — (Menu Box) — Edit — Scrn./Sta. switch

[Details of items to be set]

Window display

Description of Setting  Setting Range/Options  Remarks

1) Set on the Monitor device window the word device that specifies the destination screen number to be displayed in place of the current screen by switching.

Default: A5A-FF
D0
Refer to Section 9.3.13 (1).

2) Set on the Monitor device window the word device that specifies the PC No. to be switched from that of the device being monitored on the monitor screen.

Refer to Section 9.3.13 (1).
11. OPERATIONS OF EDIT MENU

11.5 PC Type

Menus/Items to be selected

(Edit file window) ——— (Menu Box) ——— Edit ——— PC type

[Details of items to be set]

Window display

<table>
<thead>
<tr>
<th>PC Type</th>
<th>A3A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master 0</td>
<td>FF FF FF FF FF FF FF FF</td>
</tr>
<tr>
<td>Local 10</td>
<td>FF FF FF FF FF FF FF FF</td>
</tr>
<tr>
<td>20</td>
<td>FF FF FF FF FF FF FF FF</td>
</tr>
<tr>
<td>30</td>
<td>FF FF FF FF FF FF FF FF</td>
</tr>
<tr>
<td>40</td>
<td>FF FF FF FF FF FF FF FF</td>
</tr>
<tr>
<td>50</td>
<td>FF FF FF FF FF FF FF FF</td>
</tr>
<tr>
<td>60</td>
<td>FF FF FF FF FF FF FF FF</td>
</tr>
</tbody>
</table>

1) Select the PC type of the host station (the PC CPU loaded or connected with the G controller unit) on the Select CPU window.

2) Select the PC numbers and types of the master and local stations on the Select CPU window when the host station is a local one and the device of the master station in the data link system, which the host station belongs to, is to be monitored, or when the host station is the master one and the device of a local station in the data link system, which the host station belongs to, is to be monitored.

Description of Setting

Setting Range/Options

Remarks

Default: A3A
Position the mouse cursor in 1), and click the left mouse button.
The Select CPU window will open.
(Refer to Section 9.3.3.)

PC numbers: 1 to 64
Position the mouse cursor in the block of the PC number to be monitored in 2), and click the left mouse button.
The Select CPU window will open.
(Refer to Section 9.3.3.)
To cancel (FF) the PC type of the set station number, select [FF] on the Select CPU window.
11. OPERATIONS OF EDIT MENU

* The following table shows the PC types to be set on each type of G controller unit.
Set "FF" in place of the PC type of any station that does not exist or is not to be monitored.

<table>
<thead>
<tr>
<th>G Controller unit</th>
<th>Condition/Location</th>
<th>PC Types to be Selected</th>
<th>Host Station</th>
<th>aster/Local</th>
<th>Other than Station No.00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connected to ACPU</td>
<td>Connected to computer link (Connected station)</td>
<td>Maste station</td>
<td>FF (Setting unnecessary)</td>
<td>PC type of each station for same tier</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Connected to bus (* Applicable only to A77GOT-S5)</td>
<td>Local station</td>
<td>PC type of master station for same tier</td>
<td>FF (Setting unnecessary)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MELSECNET(II), MELSECNET/B</td>
<td>Contl station</td>
<td>PC type of each station for same loop</td>
<td>FF (Setting unnecessary)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MELSECNET/10</td>
<td>Normal station</td>
<td>FF (Setting unnecessary)</td>
<td>FF (Setting unnecessary)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Maste station</td>
<td>FF (Setting unnecessary)</td>
<td>FF (Setting unnecessary)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>No data link/network</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Connected to data link/network

| MELSECNET(II), MELSECNET/B | (Local station) | PC type of master station for same tier | PC type of each station for same loop |
| MELSECNET/10 | (Normal station) | PC type of control for same loop | PC type of each station for same loop (Set FF in A77GOT-S3 and A77GOT-S5) |

With data link (host station)

| MELSECNET(II), MELSECNET/B | Maste station for tier 2 | FF (Setting unnecessary) | PC type of each station in tier 2 |
| Local station for tier 2 | PC type of master station for tier 2 | FF (Setting unnecessary) |
| Maste station for tier 3 | PC type of master station for tier 2 | FF (Setting unnecessary) |
| Local station for tier 3 | PC type of master station for tier 3 | FF (Setting unnecessary) |

A52GCU

| MELSECNET(II), MELSECNET/B | Maste station for tier 2 | FF (Setting unnecessary) | PC type of each station in tier 2 |
| Local station for tier 2 | PC type of master station for tier 2 | FF (Setting unnecessary) |
| Maste station for tier 3 | PC type of master station for tier 2 | FF (Setting unnecessary) |
| Local station for tier 3 | PC type of master station for tier 3 | FF (Setting unnecessary) |

A64GOT

| MELSECNET(II), MELSECNET/B | Maste station | PC type of each station for same tier |
| Local station | PC type of master station for same tier | FF (Setting unnecessary) |

Without data link

| MELSECNET/B | (Local station) | PC type of master station for same tier | FF (Setting unnecessary) |

Connected to data link
### 11. OPERATIONS OF EDIT MENU

#### MELSEC-A

(Continued)

<table>
<thead>
<tr>
<th>AD57G</th>
<th>With data link</th>
<th>(Loaded station)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>MELSECNET(II), MELSECNET/B</td>
<td>Maste station for tier 2</td>
<td>FF (Setting unnecessary)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PC type of master station for same tier</td>
<td>PC type of each station for tier 2</td>
</tr>
<tr>
<td></td>
<td>Local station for tier 2</td>
<td>PC type of master station for tier 2</td>
<td>FF (Setting unnecessary)</td>
</tr>
<tr>
<td></td>
<td>Maste station for tier 3</td>
<td>PC type of master station for tier 2</td>
<td>PC type of each station for tier 3</td>
</tr>
<tr>
<td></td>
<td>Local station for tier 3</td>
<td>PC type of master station for tier 3</td>
<td>FF (Setting unnecessary)</td>
</tr>
</tbody>
</table>

**Linked via network**

<table>
<thead>
<tr>
<th>MELSECNET/B</th>
<th>Control station</th>
<th>PC type of master station for same tier</th>
<th>FF (Setting unnecessary)</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Only to AnUCPU</em></td>
<td>Normal station</td>
<td>FF (Setting unnecessary)</td>
<td>FF (Setting unnecessary)</td>
</tr>
<tr>
<td></td>
<td>Master station</td>
<td>FF (Setting unnecessary)</td>
<td>FF (Setting unnecessary)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>No data link/network</th>
<th></th>
<th>PC type of master station for same tier</th>
<th>FF (Setting unnecessary)</th>
</tr>
</thead>
</table>

*1 This setting is made for the loop containing the module set as the "effective module number" in the "set number of modules" settings of the MELSECNET/10 parameter settings that are written in the ACPU to which the G controller unit is connected (installed).
11.6 Report

11.6.1 Process of setting the report function

The following is the process of setting the report function.

1. The Edit file window opens.
2. Click the right mouse button.
3. The Menu Box opens.
4. Select the Edit menu.
5. Select <Report>.

[Setting initial report conditions]
Set the size and orientation of the paper for printing. Section 11.6.2

[Selecting report to be created or set]
Select the report title for which a report canvas will be created or monitor conditions will be set. Section 11.6.2

Select Edit.

The edit screen opens. Screen for creating a report canvas or setting monitor conditions

[Setting title]
Click the right mouse button.

The Tool Box opens.

Select Title.

The Title window opens. Chapter 24

Set the title of the report to be created.

2-1
11. OPERATIONS OF EDIT MENU

2-1
The edit screen opens.

2-2
[Creating report canvas]
Click the right mouse button.
The Tool Box opens.
Select one of the edit menus to create a report canvas. Section 11.6.3

NO
Creation of report canvas is completed.

YES
The edit screen opens.

[Setting report parameters]
Click the right mouse button.
The Tool Box opens.
Select Parameter.
The Report parameter window opens. Section 11.6.4

Report format
Real/cont.
Set the following parameters:
[Report format]
[Trigger]
[Start position]
[Repeat range] *1

Real/page
Set the following parameters:
[Report format]
[Trigger]

Log/page
Set the following parameters:
[Report format]
[Trigger]
[Start position]
[Repeat range]
[Sample setting/Overwrite]
[Data del timing]
[Print trigger]
[Mem. card/Comment] *1

Select OK.

*1: For Repeat range, set the last page of the report to be printed.
11. OPERATIONS OF EDIT MENU

3-1

The edit screen opens.

[Setting printing allocation]

Click the right mouse button.

The Tool Box opens.

Select Assignment.

The Report (Printing allocation) window opens.

Sections 11.6.6 and 11.6.7

Print type

Print time

Set the Print position and Print type parameters.

Logging time/Colmn. time

Set the Print position and Print type parameters.

Logging data/Collection

Set the Print position, Print type, Common setting, and Logging data or Real-time report parameters.

Select Print format.

The Print format window opens.

Section 11.6.8

Set the data printing format.
4-1

[Setting repeat range]

NO

Set Repeat range?

Only the last page of the report to be printed can be set.

YES

Click the right mouse button.

The Tool Box opens.

Select Parameter.

The Report parameter window opens.

Set the Repeat range parameter. Section 11.6.5

Select OK.

The edit screen opens.

Click the right mouse button.

The Tool Box opens.

Select OK.

The Report file window opens. Section 11.6.2

Set report number and number of report canvases. Section 11.6.2

1-1

NO

Setting of creating conditions and parameters of all reports and report canvases is completed.

YES

Select OK. *4

The Edit file window opens.

*4: When no report file name is set on the Edit file window, the File selector window opens. Designate the directory in which the report file will be stored. The data will be stored in the designated directory, with the same name (report file name) as the last sub-directory.
11. OPERATIONS OF EDIT MENU

11.6.2 Report file window

Menus/Items to be selected

(Edit file window) — (Menu Box) — Edit — Report

[Details of items to be set]

Window display

1) Set the report number and the number of report canvases (pages) comprising the report.
   With each click of the left mouse button with the mouse cursor positioned in a report number box, the next page of the report designated in the preceding box can be set, or a new report and its first page can be specified.

2) Select the report title for which a report canvas will be created and the monitor conditions will be set.

3) Select the size of paper for printing data on the printer.
   A4, B5, B4, A3, 10 in., 15 in.
   Default: A4
   Refer to "1."

4) Select the orientation of paper.
   Port, Land
   Default: Port
   Refer to "1."

5) The number of rows and the number of characters per row that can be printed on a page are displayed after 3) and 4) were set.

6) Select this item when creating a report canvas or setting report parameters or printing allocation.

7) Select this item when deleting an existing report.

Description of Setting/Display

1) Report No.: 1 to 8
   Page No.: 1 to 8
   Up to eight report numbers can be set after creating a report canvas and setting the monitor conditions.

Setting Range/Options

2) Del line

Remarks

1) The title(s) set on the Title window will be displayed.

2) The edit screen will open by selecting this item.

3) Before selecting this item, designate the report title (highlighted) in 2).
"1: The paper sizes, the orientation, the number of printable rows per page and that of printable characters per row are as follows.

After the paper size and the orientation are set, the number of rows and the number of characters matching the settings will be displayed on the right side of the [Orientation] box.

Based on these numbers, create a report canvas and set the monitor conditions.

<table>
<thead>
<tr>
<th>Paper Size</th>
<th>Orientation</th>
<th>Number of Rows</th>
<th>Number of Characters/Row</th>
</tr>
</thead>
<tbody>
<tr>
<td>A4</td>
<td>Port</td>
<td>59</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>Land</td>
<td>40</td>
<td>117</td>
</tr>
<tr>
<td>B5</td>
<td>Port</td>
<td>49</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td>Land</td>
<td>34</td>
<td>102</td>
</tr>
<tr>
<td>B4</td>
<td>Port</td>
<td>70</td>
<td>102</td>
</tr>
<tr>
<td></td>
<td>Land</td>
<td>49</td>
<td>132</td>
</tr>
<tr>
<td>A3</td>
<td>Port</td>
<td>81</td>
<td>117</td>
</tr>
<tr>
<td></td>
<td>Land</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 in.</td>
<td>Port</td>
<td>53</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>Land</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15 in.</td>
<td>Port</td>
<td>53</td>
<td>130</td>
</tr>
<tr>
<td></td>
<td>Land</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The numbers of rows and those of characters per row in the above table are the numbers when TOP and L-END of Start position on the Report parameter window (refer to Section 11.6.4) are both set at 0 mm. The number of rows and the number of characters per row will decrease as follows when numbers other than 0 mm are set:

- Number of rows: The number decreases by one as the value of TOP is increased by 5 mm.
- Number of characters: The number decreases by two in 1-bit character as the value of L-END is increased by 5 mm.
11. OPERATIONS OF EDIT MENU

11.6.3 Creating a report canvas

A report canvas can be created by selecting the menus in the Tool Box which appears on the edit screen with a click of the right mouse button.

<table>
<thead>
<tr>
<th>Tool Box</th>
<th>Line Draw menu</th>
<th>To draw lines on a report canvas.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Text menu</td>
<td>To enter character strings on a report canvas.</td>
</tr>
<tr>
<td>Assignment Parameter</td>
<td>Assignment menu</td>
<td>To set the parameters for printing allocation.</td>
</tr>
<tr>
<td>Title</td>
<td>Parameter menu</td>
<td>To set the report parameters.</td>
</tr>
<tr>
<td>Copy</td>
<td>Title menu</td>
<td>To set the title of a report canvas.</td>
</tr>
<tr>
<td>Cut</td>
<td>Area menu</td>
<td>To specify the area to be stored or cut by the following functions.</td>
</tr>
<tr>
<td>Paste</td>
<td>Copy menu</td>
<td>To store specified lines or character strings in a buffer.</td>
</tr>
<tr>
<td>OK</td>
<td>Cut menu</td>
<td>To cut and store specified lines or character strings in a buffer.</td>
</tr>
<tr>
<td>Cancel</td>
<td>Paste menu</td>
<td>To display (add) lines or character strings stored in a buffer in specified positions.</td>
</tr>
</tbody>
</table>

(1) Process of creating a report canvas

The edit screen opens.

Click the right mouse button.

The Tool Box opens.

Editing lines and character strings

Drawing lines

Select one of the edit menus.

Select the Line Draw menu.

The Tool Box closes, and the + cursor for drawing lines appears.

Draw lines on the report canvas.

Entering character strings

Select the Text menu.

The Tool Box closes, and the character cursor appears.

Enter character strings on the report canvas.

NO

Drawing lines, entering character strings or editing is completed.

YES

To report parameter or printing allocation setting.

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11. OPERATIONS OF EDIT MENU

(2) Drawing lines (Line Draw menu)

**Menus to be selected**

(Edite screen) → (Tool Box) → Line Draw

**Basic operation**

1. Move the mouse cursor to the starting point.

   ![Starting point diagram]

2. Fix the starting point by pressing the left mouse button or the [J] key.

3. Move the mouse cursor to the end point.

   ![End point diagram]

4. Fix the end point by pressing the left mouse button or the [J] key.

   ![End point diagram]

* The Line Draw menu can help draw vertical and horizontal straight lines or rectangles.

(3) Entering character strings (Text menu)

**Menus to be selected**

(Edite screen) → (Tool Box) → Text

**Basic operation**

1. Move the character cursor (blinking) to the head of the position where a character string will be entered.

   ![Character string diagram]

2. Enter a character string. After entering the last character, fix the string.

   ![Fixing string diagram]

**POINTS**

1. Lines and character strings can be drawn and entered in one operation.
2. Lines are shown in 1-dot-wide solid line, and characters in actual half- or 2-bit characters.
3. Lines and character strings cannot overlap with each other.
4. To cancel the fixed starting point, double-click the right mouse button with the mouse cursor positioned on it.
5. To discontinue drawing lines or entering character strings, press the right mouse button or the [Esc] key.
(3) Copying lines and character strings
(Copy menu)

Menus to be selected
(Select screen) — (Tool Box) — Area

Basic operation:
1. Move the mouse cursor to the starting point of the area to be copied.
2. Fix the starting point by pressing the left mouse button or the [↓] key.
3. Using the arrow keys, move the mouse cursor to the end point of the area to be copied. (The specified area is highlighted.)
4. Fix the end point by pressing the left mouse button or the [↑] key.
5. Press the right mouse button or the [Esc] key to have the Tool Box displayed and select the Copy menu in it.
6. The lines and the character strings within the area are being stored in a buffer.
7. Press the right mouse button or the [Esc] key to have the Tool Box displayed and select the Paste menu.
8. Move the mouse cursor to the position to which the lines and character strings will be copied. (Here, the specified area will be copied in a position starting from the upper left of it.)
9. Fix the target position by pressing the left mouse button or the [↓] key.

(4) Cutting lines and character strings
(Cut menu)

Menus to be selected
(Select screen) — (Tool Box) — Area

Basic operation:
1. Move the mouse cursor to the starting point of the area to be cut.
2. Fix the starting point by pressing the left mouse button or the [↓] key.
3. Using the arrow keys, move the mouse cursor to the end point of the area to be cut. (The specified area is highlighted.)
4. Fix the end point by pressing the left mouse button or the [↑] key.
5. Press the right mouse button or the [Esc] key to have the Menu Box displayed and select the Cut menu.
6. The lines and the character strings within the area are being cut. (The cut lines and character strings will be stored in a buffer.)
   To restore the cut lines and character strings, repeat steps 7 to 9 in (3).

POINTS

(1) Before copying or cutting lines and character strings, be sure to select the Area menu to fix the area to be copied or cut.
(2) To discontinue copying or cutting lines and character strings, press the right mouse button or the [Esc] key.
(3) To cancel the fixed area, double-click the right mouse button.
11. OPERATIONS OF EDIT MENU

11.6.4 Report parameter window

Menu to be selected

(Entry screen) → (Tool Box) → Parameter

[Details of items to be set]

Window display

<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Select the report format.</td>
<td>Real/cont., Real/page, Log/page</td>
<td>&quot;Page&quot; means printing the report page by page according to the set report format, and &quot;continuous&quot; refers to printing of the report without pagination.</td>
</tr>
<tr>
<td>2) Select the condition of collecting data from the designated word device.</td>
<td>Real-time report: Bit device, Time Logging report: Sampling, Bit device, Time</td>
<td>Default: Bit device Set the word device from which data will be collected on the Report (Printing allocation) window (refer to Section 11.6.8.)</td>
</tr>
<tr>
<td>3) Set the data collection timing on the Data collection trigger or Time window.</td>
<td></td>
<td>Refer to Section 9.3.4 (1) or Section 9.3.5. Set 3) after 2).</td>
</tr>
<tr>
<td>4) Set the position (in mm from the top and left ends) from which printing will start on paper.</td>
<td>TOP : 1 to 100 mm L-END: 1 to 100 mm</td>
<td>Default: TOP = 0 mm, L-END = 0 mm (Refer to Section 11.6.2 (*1).)</td>
</tr>
<tr>
<td>5) When Real/cont. or Log/page is selected in 1), set the range of a page required to be reprinted.</td>
<td>Start: 1st to 83rd line End: 1st to 83rd line</td>
<td>Default: Start and End = 0 (no range to be reprinted) The edit screen will open by setting the parameters of this item. (Refer to Section 11.6.5.) The area can also be set directly on the edit screen.</td>
</tr>
<tr>
<td>6) When Log/page is selected in 1) and the repeat range is set in 5), set the number of reprinting times.</td>
<td>1 to 499</td>
<td>Default: 0 (no reprinting)</td>
</tr>
</tbody>
</table>
### 11. OPERATIONS OF EDIT MENU

<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>7) When Log/page is selected in 1), set the number of times the collected data will be</td>
<td>1 to 500</td>
<td>Default: 1</td>
</tr>
<tr>
<td>stored to a file. (The number will be the number of records in the file.)</td>
<td></td>
<td>The number of data collection times may be limited depending on the number of monitor devices from which data will be collected. (Refer to POINT in Section 11.6.5.)</td>
</tr>
<tr>
<td>8) Select whether data should be further collected and overwritten to the stored data or</td>
<td>Overwrite Yes ..........</td>
<td>Default: No</td>
</tr>
<tr>
<td>data collection and storage should be discontinued after the data has been collected and</td>
<td>Data collection will</td>
<td>Even if No is selected, data collection can be resumed by setting the data delete timing.</td>
</tr>
<tr>
<td>stored the number of times set in 7).</td>
<td>continue.</td>
<td></td>
</tr>
<tr>
<td>Overwrite No ..........</td>
<td>Data collection will</td>
<td></td>
</tr>
<tr>
<td>Data collection will discontinue.</td>
<td>discontinue.</td>
<td></td>
</tr>
<tr>
<td>9) When Log/page is selected in 1), select the timing of deletion of the data stored to a</td>
<td>Power ON .........</td>
<td>Default: Print</td>
</tr>
<tr>
<td>file.</td>
<td>Data will be deleted when the G controller is turned on.</td>
<td>When Bit device is selected, click the left mouse button with the mouse cursor positioned on [Bit device] to highlight it. Then, open the Data collection trigger window by positioning the mouse cursor on 14) and clicking the left mouse button, and set the condition and the bit device name.</td>
</tr>
<tr>
<td></td>
<td>Print ...............</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Data will be deleted after it is printed according to 10.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bit device ...........</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Data will be deleted when the designated bit device is turned on or off.</td>
<td></td>
</tr>
<tr>
<td>10) Set the condition according to which the G controller will order the printer to print the data stored to a file.</td>
<td>Bit device, Time</td>
<td>Default: Bit device</td>
</tr>
<tr>
<td></td>
<td>Refer to Section 9.3.4 (1) or Section 9.3.5. Set 11) after 10).</td>
<td></td>
</tr>
<tr>
<td>11) Set on the Data collection trigger or Time window the timing of printing data according to the condition set in 10).</td>
<td>Memory card No.: 1, 2</td>
<td>Default: 1</td>
</tr>
<tr>
<td>12) When Log/page is selected in 1), select the memory card number for storing the collected data.</td>
<td>Number of 1-bit characters: 32 (Number of 2-bit characters: 16)</td>
<td>This comment will be used to designate and retrieve the collected data.</td>
</tr>
<tr>
<td>13) When Log/page is selected in 1), set a comment to be affixed to the file storing the collected data.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
11. OPERATIONS OF EDIT MENU

11.6.5 Setting repeat range

Item to be selected

(Report parameter window) → [Repeat range] → (Edit screen)

[Operation procedure]

Transition of window

<Edit screen>

<Report parameter window>

Steps after Edit Screen Opened

1. Set the start line of the range to be reprinted.

2. Set the end line of the range to be reprinted.

Remarks

Move the mouse cursor to the Start box, set the number, and click the left mouse button. The set start line number will be highlighted.

Move the mouse cursor to the End box, set the number (it is highlighted, and the start line number returns to normal), and click the left mouse button. The Report parameter window will open. In the Start and End boxes of Repeat range, the line numbers set on the edit screen will be displayed.
11. OPERATIONS OF EDIT MENU

11.6.6 Report (Printing allocation) window

Menu to be selected

(Write screen) — (Tool Box) — Assignment

[Details of items to be set]

Window display

<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Set the position where the data will be allocated and printed.</td>
<td>R: 1 to 83 C: 1 to 132</td>
<td>By clicking the left mouse button with the mouse cursor positioned on 1), the edit screen will open. (Refer to Section 11.6.7.) The print position can be set directly on the screen.</td>
</tr>
<tr>
<td>2) Select the type of the data to be printed in the set print position.</td>
<td>Real-time report: Print time, Colln. time, Collection Logging report: Print time, Log time, Log data</td>
<td>Default: Real-time report: Collection Logging report: Log data</td>
</tr>
<tr>
<td>3) When Log time or Log data is selected in 2) with Logging report set, select whether the data should be printed in order in which they were stored or from most to least recent.</td>
<td>Old, New</td>
<td>Default: Old</td>
</tr>
<tr>
<td>4) When Log time or Log data is selected in 2) with Logging report set, set what (record) number of data, counted from the latest or oldest, should be printed.</td>
<td>1 to 500</td>
<td>Default: 1 Set a number equal to or below the number set in the Sampling setting box on the Report parameter window.</td>
</tr>
<tr>
<td>5) When Collection is selected in 2) with Real-time report set or Log data is selected with Logging report set, set on the Monitor device window the device from which data will be collected.</td>
<td>The device name and number that can be set are different depending on the PC CPU used.</td>
<td>By clicking the left mouse button with the mouse cursor positioned on [Real-time report] or [Logging report], the Monitor device window will open. When Logging report is selected, the number of available devices may be limited according to the number of data collection times. (Refer to POINT below.)</td>
</tr>
</tbody>
</table>
6) When Collection or Log data is selected in 2), set on the Print format window the format for printing the collected or stored data.

7) Select this item to set printing allocation again.

Refer to Section 11.6.8.

By selecting this item, the Report (Printing allocation) window set most recently will open.

---

**POINT**

(1) A one-page report can collect data from up to 256 word devices. When Logging report is set, however, the number of words calculated by multiplying the number of data collection times and the number of devices to be monitored together must be less than 16,000.
11.6.7 Setting print position

**Item to be selected**

(Report (Printing allocation) window) — [Print position] — (Edit screen)

**[Operation procedure]**

**Transition of window**

**<Edit screen>**

<table>
<thead>
<tr>
<th>Machine</th>
<th>A1</th>
<th>A2</th>
<th>A3</th>
<th>A4</th>
</tr>
</thead>
<tbody>
<tr>
<td>M1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**<The Report (Printing allocation window)>**

**Steps after Edit Screen Opened**

1. Set the position where the data will be printed.

**Remarks**

Setting range:
- R: 1 to 83, C: 1 to 132

Move the mouse cursor to the position for printing data, and click the left mouse button.

The Report (Printing allocation) window will open.

**POINTS**

1. When it is not necessary to set the print position, click the right mouse button regardless of where the mouse cursor is on the edit screen.

2. The asterisk * (printing allocation mark) on the edit screen indicates that the data to be printed is already allocated from the position of the mark. The mark will appear as soon as the settings are all made and OK is selected on the Report (Printing allocation) window.

3. When correcting allocated data for printing, click the left mouse button with the mouse cursor positioned on the printing allocation mark to specify the data that requires correction and open the Report (Printing allocation) window on which the data is set. Correct the improper settings.
11. OPERATIONS OF EDIT MENU

11.6.8 Print format window

**Item to be selected**

(Report (Printing allocation) window) — [Print format]

**[Details of items to be set]**

### Window display

<table>
<thead>
<tr>
<th>Print format</th>
<th>Dec</th>
<th>Hex</th>
<th>Comm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data type</td>
<td>16 bit</td>
<td>32 bit</td>
<td></td>
</tr>
<tr>
<td>No. of rows</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sign</td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Upper limit</td>
<td>32767</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lower limit</td>
<td>-32768</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Decimal point</td>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Description of Setting/Display**

1) Select the format for printing data. Dec, Hex, Comm

When Comm is selected, monitor device numbers will be interpreted as comment numbers during monitoring, and the comment set in Section 22.7 will be printed.

2) When Dec or Hex is selected in 1), select the length (type) of the data to be collected from the monitor device. 16 bit, 32 bit Default: 16 bit

3) When Dec or Hex is selected in 1), set the number of rows (digits) of the figures to be printed. 16 bit 32 bit Default: 6 Count a sign or decimal point as a digit.

Dec 1 to 13 1 to 13
Hex 1 to 4 1 to 8

4) When Dec is selected in 1), select whether a sign will be used or not. Yes, No Default: Yes

5) When Dec or Hex is selected in 1), the upper limit of device data that can be printed is displayed.

6) When Dec or Hex is selected in 1), the lower limit of device data that can be printed is displayed.

7) When Dec is selected in 1) and the figures to be printed require a decimal point, set the position of the point. 0 to 10 Default: 0 (no decimal point)
11. OPERATIONS OF EDIT MENU

11.7 Announcement

Menus/Items to be selected

(Edit file window) → (Menu Box) → Edit → Announcement

[Details of items to be set]

Window display

Description of Setting | Setting Range/Options | Remarks
--- | --- | ---
1) Select the line on which a message will be entered. |  | Position the mouse cursor on the line for setting a message (highlighted), and click the left mouse button. The Announcement window will open.

2) The rest of the message lines appear in response to the dragging of the slider. By clicking the left mouse button with the mouse cursor positioned on either up or down arrow, the message lines scroll up or down. |  | Dragging the slider and clicking the left mouse button changes the message lines displayed.

3) When it is turned on, set on the Monitor device window the bit device of which the message will be displayed on the monitor screen or printed. |  | Refer to Section 9.3.13 (1).

4) Select whether the message should be displayed as an error alarm (ON) or not (OFF). | ON, OFF | Default: OFF
When ON is selected, the message will be displayed as an error alarm. (Refer to Section 21.12.)

5) Select whether the message should be printed (ON) on the printer or not (OFF). | ON, OFF | Default: OFF

6) When the specified bit device is turned on, set in the Message box the message to be printed. | Number of 1-bit characters: 48 (Number of 2-bit characters: 24) |
<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>7) Select this item after setting 3) to 6).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8) Select this item when it is necessary to insert a line between existing ones.</td>
<td></td>
<td>By selecting this item, the Announcement list window will open, displaying all messages and settings. Before selecting this item, specify the position (specified line) where a line is being inserted. As soon as 8) is selected after selecting the line for insertion, the new line will be inserted under the specified line, and the following ones will move down one line each. Set a message on the inserted line. When 256 messages are already set, not a line can be inserted.</td>
</tr>
<tr>
<td>9) Select this item when deleting all the data from the specified line.</td>
<td></td>
<td>Before selecting this item, specify the line to be deleted. As soon as it is selected, the data will be deleted from the specified line (highlighted), and the following lines will move up one line each.</td>
</tr>
</tbody>
</table>

**POINTS**

1. As for a message extending over more than one line, enter part of it on the first line (a line is 48 1-bit characters long) according to steps 1) to 7). Then, move the mouse cursor to the second line, and click the left mouse button to open the Announcement window and type the rest of the message.

2. Up to 256 bit devices can be set. If the message of a bit device is two or more lines long, however, the number of bit devices will decrease by the number of lines occupied by the message.
11. OPERATIONS OF EDIT MENU

11.8 Time Action

Menus/Items to be selected

(Edit file window) —— (Menu Box) —— Edit —— Time action

[Details of items to be set]

Window display

Description of Setting | Setting Range/Options | Remarks
---|---|---
1) Set on the Time action (Time set) window the times and days a bit device will be turned "ON" and "OFF". | | By positioning the mouse cursor on the line for setting (highlighted) and clicking the left mouse button, the Time action (Time set) window will open.

2) Set on the Monitor device window the bit device to be turned "ON" and "OFF". | | Refer to Section 9.3.13 (1).

3) Set the time to turn "ON" the set bit device. | h : 0 to 23 min. : 0 to 59 | Set the time in a 24-hour system.

4) Set the time to turn "OFF" the set bit device. | h : 0 to 23 min. : 0 to 59 | Set the time in a 24-hour system.

5) Select whether the set bit device should be turned "ON" and "OFF" at the set start and end times on each designated day (Daily) or should be kept "ON" for more than two days (Thru). | Daily, Thru | Default: Daily

6) Set the day the bit device will be turned "ON". | S., M., T., W., T., F., S. | The day will be highlighted and set with a click of the left mouse button. To cancel the set day, position the mouse cursor on it, and click the left mouse button again.

7) Select this item after setting 2) to 6). | | The Time action list window will open, displaying all settings.
<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>8) Select this item when it is necessary to insert a new line between existing ones.</td>
<td></td>
<td>Before selecting this item, specify the position (specified line) where a line is being inserted. As soon as 8) is selected after selecting the line for insertion, the Time action (Time set) window will open. Set the start and end times. When all the eight lines contain time action settings, not a line can be inserted.</td>
</tr>
<tr>
<td>9) Select this item when deleting all the data from the specified line.</td>
<td></td>
<td>Before selecting this item, specify the line to be deleted. As soon as it is selected, the data will be deleted from the specified line (highlighted), and the following lines will move up one line each.</td>
</tr>
</tbody>
</table>
11. OPERATIONS OF EDIT MENU

11.9 Special Key

The settings of the Special key function are different depending on the G controller unit used. Prior to this setting operation, set the G controller unit used on the GOT Type window. (Refer to Section 9.2.4)

When the A77GOT-S3 and A77GOT-S5 is set on the GOT Type window, the window shown in (1) will open. Or, when a G controller unit type other than the A77GOT-S3 is set, the window described in (2) will open.

(1) When the A77GOT-S3 and A77GOT-S5 is set

Menus/Items to be selected

(Edit file window) — (Menu Box) — Edit — Special key

[Details of items to be set]

Window display

<table>
<thead>
<tr>
<th>System menu</th>
<th>Key code</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ten key window</td>
<td>Key code</td>
<td>Function</td>
</tr>
<tr>
<td>Snap shot</td>
<td>Key code</td>
<td>Function</td>
</tr>
<tr>
<td>System monitor</td>
<td>Key code</td>
<td>Function</td>
</tr>
<tr>
<td>Ladder</td>
<td>Key code</td>
<td>Function</td>
</tr>
</tbody>
</table>

1) Select the mode in which key codes will be entered in 3) to 7).

2) Select Set or Cancel.

3) Set or change the key for switching from the monitor screen to the system menu screen. To disable such switching, set the key code "FF".

4) Set or change the key code for opening the Ten key window to be used with the device write (numeral and character string input) function on the monitor screen.

When it is not necessary to open the Ten key window, set the key code "FF".

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### 11. OPERATIONS OF EDIT MENU

<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>5) Set or change the key code for the snap shot trigger on the monitor screen.</td>
<td></td>
<td>Default: 93 ([F3] key) For setting, refer to Remarks of 3).</td>
</tr>
<tr>
<td>When a trigger key is not necessary for snap shot or the snap shot function is not used, set the key code &quot;FF&quot;.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) Set or change the key code for switching from the monitor screen to the system monitor main menu screen.</td>
<td></td>
<td>Default: FF For setting, refer to Remarks of 3).</td>
</tr>
<tr>
<td>When such switching is unnecessary, set the key code &quot;FF&quot;.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7) Set or change the key code for switching from the monitor screen to the circuit monitor screen.</td>
<td></td>
<td>Default: FF For setting, refer to Remarks of 3).</td>
</tr>
<tr>
<td>When such switching is unnecessary, set the key code &quot;FF&quot;.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**POINT**

For 3) to 7), set key codes except those used for the system (refer to APPENDIX 4) and used with the device write function (refer to Section 21.6) (that is, other than the numerical/character string input keys and the write trigger keys).
11. OPERATIONS OF EDIT MENU

(2) When a G controller unit type other than the A77GOT-S3 and A77GOT-S5 is set

[Details of items to be set]

Window display

<table>
<thead>
<tr>
<th>Key (Special key code set)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sp. key</strong></td>
</tr>
<tr>
<td>F1: Enable</td>
</tr>
<tr>
<td>Disable</td>
</tr>
<tr>
<td>1)</td>
</tr>
<tr>
<td>F2: Enable</td>
</tr>
<tr>
<td>Disable</td>
</tr>
<tr>
<td>2)</td>
</tr>
<tr>
<td>F3: Enable</td>
</tr>
<tr>
<td>Disable</td>
</tr>
<tr>
<td>3)</td>
</tr>
<tr>
<td>[Delete] [OK] [Cancel]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Select whether the [F1] key should be used as the system menu display key or not.</td>
<td>Enable, Disable</td>
<td>Default: Enable</td>
</tr>
<tr>
<td>2) Select whether the [F2] key should be set as a key for the system or not.</td>
<td>Enable, Disable</td>
<td>Default: Enable</td>
</tr>
<tr>
<td>3) Select whether the [F3] key should be set as a key for the system (snap shot trigger key, for example) or not.</td>
<td>Enable, Disable</td>
<td>Default: Enable</td>
</tr>
</tbody>
</table>

POINTS

(1) The above settings are available for the keyboard, touch panel, operation panel, keyboard panel or ten key panel used with the G controller unit adopted. Make the settings according to the User's Manual and/or Reference Manual for the G controller unit.

(2) When the [F1] to [F3] keys are not to be used as special keys (Select Delete.)
   - The [F1] to [F3] keys can be used with any key code.

(3) When the [F1] to [F3] keys are used as special keys (Select OK.)
   - The [F1] to [F3] keys will be dedicated the system.
   - Do not change the key codes of the [Fn] keys (91 to 97) and of the arrow keys (80 to 83).
11. OPERATIONS OF EDIT MENU

11.10 Operation Panel (Setting Key Codes and Switches, Checking I/O Numbers)

Menus/Items to be selected

(Edit file window) ➔ (Menu Box) ➔ Edit ➔ Operation panel

[Details of items to be set]

Window display

1) Set the operation panel type.  
   KP, TK

2) Select this item after setting 1).

<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
</table>
| 1) Set the operation panel type. | KP, TK | Default: KP  
   A644G-KP, FP5-MD41-A,  
   KP..... A644G-KP, FP5-MD41-B  
   TK..... A7GT-TK |
| 2) Select this item after setting 1). | | The Ten key panel (TK) setting window or Operation panel (KP) setting window will open. |
### 11. OPERATIONS OF EDIT MENU

<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
</table>
| 3) Select the mode in which key codes will be entered in 5).                           | Key, Hex              | Default: Key  
Key:  
A key code entered from the keyboard will be set as it is.  
Hex:  
A key code will be entered and set in hexadecimal. |
| 4) Select Set or Cancel.                                                               | Set, Cancel           | Default: Set  
To set or change a key code or a bit device in Switch, select [Set].  
To cancel a key code or a bit device in Switch, select [Cancel]. |
| 5) Select the block of the key code to be set, changed or cancelled. Enter a new key code when the specified block is blank or the key code in the specified block must be changed. |                       | After selecting 4), position the mouse cursor on the desired block, and click the left mouse button.  
When setting a new code or changing the existing key code, set a new one in the selected input mode.  
For setting a key code in hexadecimal, refer to APPENDIX 4.  
To cancel a key code, click the left mouse button with the mouse cursor positioned on the corresponding block.  
"FF" will be displayed in it. |
| 6) Select the block of the switching function to be set, changed or cancelled. When setting a switching function or changing the existing function, set the bit device on the Monitor device window. |                       | After selecting 4), position the mouse cursor on the desired block, and click the left mouse button.  
The Monitor device window will open in setting a switching function or changing the existing function.  
Refer to Section 9.3.13 (1).  
The device name in a block will be cancelled by positioning the mouse cursor on it and clicking the left mouse button. |
| 7) Select this item to check the I/O number of each key corresponding to the key input information stored in buffer memory of the G controller unit. |                       | The numbers shown in 5) will be switched to I/O numbers.  
The I/O numbers displayed are independent of those used for access from the PC CPU to the G controller unit by FROM/TO instructions. |

### POINTS

1. Set a switching function to key codes except those used for the system (refer to APPENDIX 4) and used with the device write function (refer to Section 21.6) (that is, other than the numerical/character string input keys and the write trigger keys).

2. All switch settings to the operation panel, keyboard panel or ten key panel will be enabled by concurrent key operation.

---

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11. OPERATIONS OF EDIT MENU

11.11 Snap Shot

Menus/Items to be set

(Edit file window) (Menu Box) Edit Snap shot

[Details of items to be set]

Window display

1) Set on the Data collection trigger window the bit device to be used as the snap shot trigger.

Description of Setting | Setting Range/Options | Remarks
---|---|---

Refer to Section 9.3.4 (1). The setting described on the left is for turning ON the bit device as the snap shot trigger. When the specified bit device is turned "ON", monitor screen data will be stored to a snap shot file.

POINT

(1) The snap shot trigger can be set in two ways: setting the ON condition of the specified bit device, and key input from the keyboard, touch panel or operation panel.

When entering the snap shot trigger from the keyboard, set the key code for the snap shot trigger on the Special key code set window, or set the [F3] key as a key for the system (select Enable) on the Key (Special key code set) window. (Refer to Section 11.9.)

By pressing the key of the set key code or [F3] key during monitoring, the data will be stored to a snap shot file.
11. OPERATIONS OF EDIT MENU

11.12 System Info.

**Menus/Items to be selected**

(Edit file window) (Menu Box) Edit System info.

[Details of items to be set]

**Window display**

<table>
<thead>
<tr>
<th>Description of Display</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Set on the Monitor device window the word device to which the system information from the PC CPU to control the G controller will be stored.</td>
<td>Information of a word device Refer to Section 9.3.13 (1).</td>
<td></td>
</tr>
<tr>
<td>2) Set on the Monitor device window the first word device to which the system information from the G controller to report the G controller condition to the PC CPU will be stored.</td>
<td>Information of 15 word devices Refer to Section 9.3.13 (1).</td>
<td></td>
</tr>
</tbody>
</table>

**POINTS**

(1) The same word devices as the devices for switching screens must not be set.

(2) For details of system information (of 16 word devices), refer to the Reference Manual for the G controller unit used.
11. OPERATIONS OF EDIT MENU

11.13 Back Light OFF

Menus/Items to be selected

(Edit file window) — (Menu Box) — Edit — Back light off

[Details of items to be set]

Window display

<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
</table>
| 1) Set the time from the termination of data entry from the keyboard or of screen modification to the turning OFF of the back light. | 0 to 60 | Default: 0
| | | When 0 is set, the back light is always ON. |
### 11. OPERATIONS OF EDIT MENU

#### 11.14 Password

**Menus/Items to be selected**

(Edit file window) → (Menu Box) → Edit → Password

**[Details of items to be set]**

**Window display**

<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Select this item to register/change a password.</td>
<td></td>
<td>The password registration window opens.</td>
</tr>
<tr>
<td>2) Select this item to delete the registered password.</td>
<td></td>
<td>The password verification window opens. Refer to *1.</td>
</tr>
<tr>
<td>3) Select this item to close the window.</td>
<td></td>
<td>Half-size alphanumeric characters: 1 to 8</td>
</tr>
<tr>
<td>4) Enter a password.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) Select this item to confirm the password entered.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) Select this item to close the window.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
11. OPERATIONS OF EDIT MENU

*1 Procedure for changing or deleting the registered password

The edit screen opens.

Eight asterisks (*) are shown when a password is registered.

(To change the password)

Select OK

The password verification window opens.

Enter the registered password.

Select OK

If the entered password is not correct.

The password registration window opens.

Enter the password to be changed.

Select OK

The edit file window opens.

(To delete the password)

Select Delete

The password verification window opens.

Enter the registered password.

Select OK

If the password entered is not correct.

A dialog box opens.

Select Yes

POINTS

(1) Be sure to register a password prior to conversion of monitor data. Any password registered after conversion of monitor data is invalid.

(2) If you forget the registered password, the upload operation is not possible. Make sure this does not happen.
12. OPERATIONS OF CONVERSION MENU

The Conversion menu is used to convert created monitor screen data into monitor data for the G controller unit.

12.1 Functions and Flow of Operation

Conversion

- **Conversion**
  - To convert all monitor screen data (drawn and set data) created by the user into monitor data for the G controller unit.
  - Section 12.2

- **Error display**
  - To display the errors which occurred during set data conversion.
  - Section 12.3

- **INTEL HEX**
  - To convert monitor data for the G controller unit into that in the extended INTELEC HEX format (create INTEL HEX files to be transferred to the ROM writer).
  - Section 12.4

(1) Flow of operation

The following is the flow outlining the operation of the Conversion menu:

- The Edit file window opens.
- Click the right mouse button.
  - Even if "No" is set, the monitor screen number will not be changed.
- The Menu Box opens.
- Select the Conversion menu.
- The Conversion window opens.
- Select «Conversion».
- The Conversion window opens.
12. OPERATIONS OF CONVERSION MENU

[Diagram showing the steps of conversion and error handling]

*1: To transfer monitor data to the ROM writer (refer to Section 13.3) in the no-protocol mode, be sure to create an INTEL HEX file after the data is converted.
12. OPERATIONS OF CONVERSION MENU

12.2 Conversion

Menus/Items to be selected

(Edit file window) — (Menu Box) — Conversion — Conversion

[Details of items to be set]

Window display

Description of Setting/Display

1) Select this item before starting conversion into monitor data.

2) Select this item when conversion into monitor data must be discontinued.

3) Select this item before closing the window.

4) The progress of conversion into monitor data is displayed.

5) The data undergoing the process indicated in 4) is displayed.

6) The number of monitor screens still unconverted (left) and the total number of monitor screens to be converted (right) are displayed.

7) The capacity of monitor data after converted is displayed.

Remarks

The capacity represents the size of data when transferred.
12. OPERATIONS OF CONVERSION MENU

12.3 Error Display

Menus/Items to be selected

| (Edit file window) | (Menu Box) | Conversion | Error display |

[Details of items to be selected]

Window display

<table>
<thead>
<tr>
<th>1)</th>
<th>2)</th>
<th>3)</th>
<th>4)</th>
<th>5)</th>
<th>6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>Check the number of conversion errors.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2)</td>
<td>The setting causing the error is displayed.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3)</td>
<td>The canvas screen number with the error and the sprite register number (in parentheses) with a device setting error related to sprite setting are displayed.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4)</td>
<td>The description of the conversion error is displayed.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5)</td>
<td>Other errors are displayed in response to the dragging of the slider. By positioning the mouse cursor on the up or down arrow and clicking the left mouse button, the error lines scroll up or down.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6)</td>
<td>Select this item to print the error data.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7)</td>
<td>Select this item when deleting a file retaining error information (ERR file).</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8)</td>
<td>Select this item before closing the window.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Description of Setting/Display

Remarks

By dragging 5) or clicking the left mouse button with the mouse cursor positioned on the up or down arrow, the lines will scroll up or down.

The sprite register number is helpful in finding the sprite requiring correction on the list window.

Dragging the slider or clicking the left mouse button with the mouse cursor positioned on either arrow changes the errors displayed.

By dragging 5) or clicking the left mouse button with the mouse cursor positioned on the up or down arrow, the lines will scroll up or down.
### POINTS

1. The Delete function of the Error list window is used to delete a file storing error information (ERR file), not to delete a setting causing a conversion error.

2. The following are the possible causes of conversion errors:

   a) Errors related to device number setting

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description of Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>All device settings</td>
<td>An error occurs when a set device number is out of the acceptable range, or when a PC type, which is smaller than the PC selected before sprite setting in capacity, is selected after the setting.</td>
</tr>
</tbody>
</table>

   b) Errors related to set numbers

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description of Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trend graph setting</td>
<td></td>
</tr>
<tr>
<td>File storage type</td>
<td>An error occurs when the total number of scroll types (file storage) set on all canvas screens is over 16.</td>
</tr>
<tr>
<td>Scroll (other than file storage)/Batch-display type</td>
<td>An error occurs when the total number of scroll types other than file storage and batch display types set on a canvas screen is over 16.</td>
</tr>
<tr>
<td>Bit device write</td>
<td>An error occurs when more than 20 bit devices for any one of SET, RST, and alternate input operations are set to a device write trigger key.</td>
</tr>
<tr>
<td>Word device write</td>
<td>An error occurs when more than 10 word devices for word device SET input are set to a device write trigger key.</td>
</tr>
<tr>
<td>Report setting</td>
<td></td>
</tr>
<tr>
<td>Real-time/Logging report</td>
<td>An error occurs when more than 256 word devices for data collection are set for a report.</td>
</tr>
<tr>
<td>Logging report</td>
<td>An error occurs when the product of the number of word devices and the number of data collection times is over 16,000.</td>
</tr>
</tbody>
</table>
12. OPERATIONS OF CONVERSION MENU

12.4 INTEL HEX

Menus/Items to be selected

(Edit file window) → (Menu Box) → Conversion → INTEL HEX

[Details of items to be set]

Window display

<table>
<thead>
<tr>
<th>Intel hex</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROM data size</td>
</tr>
<tr>
<td>HEX data size</td>
</tr>
</tbody>
</table>

1) Select this item before conversion into INTEL HEX data.
   This item is used to start creating INTEL HEX data in the extended INTELEC HEX format.

2) Select this item before closing the window.

3) The size of ROM data still unconverted (left) and the total size of ROM data being converted are displayed.
   The ROM data size is the same as the conversion size on the Conversion window.

4) The converted INTEL HEX data size is displayed.

POINTS

(1) Conversion into INTEL HEX data is possible only after conversion of monitor screen data into monitor data.
(2) The converted INTEL HEX data size will almost double the monitor data size before converted.
(3) The original monitor data (ROM file) will be retained even after converted into INTEL HEX data.
13. OPERATIONS OF TRANSFER MENU

The Transfer menu is used to transfer (download) monitor data to the G controller unit or ROM writer, and transfer (upload) monitor data stored in the G controller unit to an AGOTP peripheral device.

13.1 Functions and Flow of Operation

(1) Functions

The functions of the Transfer menu are as follows:

- **Graphics controller**
  - To transfer monitor data to the G controller unit through a memory card or internal memory, to transfer monitor data stored in the internal memory/memory card of the G controller unit to an AGOTP peripheral device, or to format a memory card.

- **Download**
  - To transfer (download) monitor data for the G controller unit to the memory card or internal memory (edit file name, ROM).
  - To transfer (download) system monitor data to the memory card (SYSMON.ROM). Refer to *1.

- **Upload**
  - To transfer (upload) monitor data stored in the internal memory/memory card of the G controller unit to an AGOTP peripheral device (only when the GOT type is set to A77GOT-S5).

- **Mem. card info.**
  - To read and display the size of each area in the formatted memory card.

- **Mem. card format**
  - To format a memory card and reserve monitor, file, and system monitor areas of specified sizes in it.

- **File format**
  - To format the file area of the memory card for storing logging data on trend graph (scroll type file storage) setting or on report setting, or screen image data on snapshot setting.

- **Mon. data source**
  - To change (switch) the destination to which monitor data used by the G controller unit will be stored.

- **ROM writer**
  - To transfer (download) monitor data for the G controller unit and save it to ROM.
13. OPERATIONS OF TRANSFER MENU

*1: To use system monitor functions, install the following software package according to 1) and 2).
After the software package is installed, system monitor data can be transferred (download) by switching the system monitor screen.

1) For monitoring on the A77GOT-S3 and A77GOT-S5
This type of G controller unit incorporates a CPU device monitor function and a special function unit buffer memory monitor function in it.
When system monitor functions other than the above are necessary, install the SW2IVD-GMDP type system monitor software package (which will be introduced in the future) to convert and transfer (download) data.

2) For monitoring on the A77GOT, A52GCP0 or AD57G-S3
Each type of G controller unit does not have any system monitor functions.
When they are necessary, install the SW2IVD-GMDP type system monitor software package (which will be introduced in the future) to convert and transfer (download) data.

The SW2IVD-GMDP software package cannot be used for the A64GOT.
For details of system monitor functions, refer to the SW2IVD-GMDP Operating Manual.
(2) Flow of operation

The following is the flow outlining the operation of the Transfer menu:

(a) Flow when Graphics controller is selected

- The Edit file window opens.
- Connect the AGOTP peripheral devices to the G controller unit, enabling them to communicate with the unit.
- Click the right mouse button.
- The Menu Box opens.
- Select the Transfer menu.
- Select <Graphics controller>.
- The Graphics controller window opens.
- Select a function to use. *2

Section 13.2

Select [Upload].
Select OK.
Refer to (b).

The Memory card information opens. (Section 13.2.3)
The Memory card format window opens. (Section 13.2.4)
The File format window opens. (Section 13.2.5)
The Monitor data source window opens. (Section 13.2.6)

The download window open (Section 13.2.1)
Select OK.
Select OK.

- A message box is displayed on the window during data transfer (download). To discontinue data transfer (download), position the mouse cursor on [Cancel] in the message box and click the left mouse button. *3 When data transfer (download) is completed, the alert box showing the message 'Transfer completed' appears.

- When the operation is completed, the alert box showing the message 'Operation completed' appears.

Check the data.
Check the data.

The selected window closes.
The Graphics controller window opens.
Select OK.
The Graphics controller window closes.
The Edit file window opens.

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13. OPERATIONS OF TRANSFER MENU

*1: Referring to the description below, make necessary settings on the G controller unit used.

[A77GOT-S5]

1) To transfer (download/upload) monitor data to the internal memory:
   • Press the F1 key, and select line mode from the system menu functions.

2) To transfer (download) monitor data to the memory card inserted in the A77GOT-S5:
   • Press the F1 key, and select line mode from the system menu functions.
   • Turn ON the memory card access switch of the A77GOT-S5.

3) To transfer (upload) monitor data of the memory card inserted in the A77GOT-S5:
   • Press the F1 key, and select line mode from the system menu functions.
   • Turn ON the memory card access switch of the A77GOT-S5.

[A77GOT (conventional model) and A77GOT-S3]

1) To transfer (download) monitor data to the internal memory:
   • Press the F1 key, and select <Off line mode> from the system menu functions.
   • Turn ON the monitor data transfer switch.

2) To transfer (download) monitor data to the memory card inserted in the A77GOT:
   • Press the F1 key, and select <Off line mode> from the system menu functions.
   • Turn ON the memory card access switch.

3) To transfer (download) monitor data to the memory card inserted in the A77GT-MIF:
   • Press the F1 key, and select <Off line mode> from the system menu functions.
   • Turn ON the memory card access switch of the A77GT-MIF.

[A52GCPU]

1) To transfer (download) monitor data to the internal memory:
   • Set the RUN/STOP key switch of the GCPU to STOP.
   • Turn ON the monitor data transfer switch.

2) To transfer (download) monitor data to the memory card inserted in the A77GT-MIF:
   • Set the RUN/STOP key switch of the GCPU to STOP.
   • Turn ON the memory card access switch of the A77GT-MIF.
13. OPERATIONS OF TRANSFER MENU

[A64GOT]

1) To transfer (download) monitor data to the internal memory:
   - Press the F1 key, and select <Download> from the system menu functions.
   - Set the write protect switch to Enable.

[AD57G]

1) To transfer (download) monitor data to the memory card:
   - Set the RUN/STOP key switch to STOP to select the stop mode.
   - Turn ON the memory card access switch.

*2: Before transferring monitor data to a new memory card, mount a battery on the memory card, and format it.

*3: Data transfer can be discontinued by pressing the [..] key instead of clicking the left mouse button with the mouse cursor positioned on [Cancel].
(b) Flow when [Upload] is selected

- Upload window opened
- Select the source memory (internal memory/memory card).
- Position the mouse cursor on [Edit file name] and click the left mouse button.
- The file selector window opens.
- Set destination edit file name.
- Select OK
- The upload window opens.
- Set part file name or report file name if necessary.
- Is a password registered for the destination monitor data?
- YES
- Position the mouse cursor on [Password] and click the left mouse button.
- The password entry window opens.
- Enter the source password
- Select OK
- The upload window opens.
- Select OK

- If the password entered is not the correct one, the password entry window opens. Enter the password again (the password can be entered as many times as required).

- A message box is displayed. To discontinue data uploading, position the mouse cursor on [Cancel] in the message box and click the left mouse button.
- When monitor data has been read from the G controller unit, the file development window opens automatically.

The memory capacity of the monitor data being uploaded is displayed here.
Details on the upload processing are displayed here.
13. OPERATIONS OF TRANSFER MENU

1-1

Details on the development file processing are displayed here.

- The file development window is displayed. To discontinue file development, position the mouse cursor on [Cancel] in the file development window and click the left mouse button.
- When file development is completed, an alert box containing the message "File development completed" appears.

Confirmation

The upload window closes.

The graphic controller window opens.

Select Cancel

The graphic controller window closes.

Edit file window open.

*1 If a part file name and report file name are not set and there are part data and report function data in the data to be uploaded, a part file name and report file name are automatically set using the directory name of the edit file name already set and the data is stored in these files.
13. OPERATIONS OF TRANSFER MENU

(c) Flow when <ROM writer> is selected

The Edit file window opens.

Connect the AGOTP peripheral devices to the ROM writer, and mount ROM on it.

Refer to Section 3. Erase the stored data from ROM beforehand.

Click the right mouse button.

The Menu Box opens.

Select the Transfer menu.

The Transfer window opens.

Select <ROM writer>.

The ROM Writer Data Transfer window opens.

Set the transfer method and the communication cable.

Section 13.3

Match the communication conditions displayed on the ROM Writer Data Transfer window to the ROM writer.

Select Start.

- A message box is displayed on the window during data transfer (download). To discontinue data transfer (download), position the mouse cursor on [Cancel] in the message box and click the left mouse button, or press the [-] key. When data transfer (download) is completed, the alert box showing the message "Transfer completed" appears.

Check the data.

The ROM Writer Data Transfer closes.

The Edit file window opens.
13. OPERATIONS OF TRANSFER MENU

13.2 Graphics Controller

Menus/Items to be selected

(Edit file window) — (Menu Box) — Transfer — Graphics controller

[Details of items to be set]

Window display

1) Select the communication cable connected to the G controller unit.
   RS232C, RS422

2) Select the function to execute.
   Download, Upload, Mem. card unfor, Mem. card format, File format, Mmn. data source.
   Default: Download
   To transfer (download) the system monitor data, select [Download].

3) Select this item before starting the function selected in 2).

4) Select this item before closing the window.

By selecting this item, the window for executing the selected function will open.
(Refer to Sections 13.2.1 to 13.2.6.)
13. OPERATIONS OF TRANSFER MENU

13.2.1 Download

Menus/Items to be selected

(Edit file window) → (Menu Box) → Transfer → Graphics controller → [Download]

[Details of items to be set]

Window display

Description of Setting | Setting Range/Options | Remarks
---|---|---
1) Select the destination to which monitor data and system monitor data will be transferred (downloaded) here. | Internal memory M-CARD 1 M-CARD 2 | Default: Internal memory System monitor data [Internal memory] cannot be selected during data transfer (download).

2) The G controller unit type set on the GOT Type is displayed here.

3) Select this item before starting data transfer (download).

4) Select this item before closing the window.

5) The size of the data to be stored in the memory card is displayed here.

POINTS

(1) Cautions on discontinuing data transfer (downloading) (when a memory card with data stored in it is installed)
   - Once data transfer (download) is started, the existing data in the memory card (data before overwriting) will be erased even if transfer is interrupted.

(2) Transferring data to the internal memory (download)
   - For details on data transfer (download), refer to the User's Manual and Reference Manual for the G controller unit used.
   - Data transfer to the internal memory may be impossible with certain types of G controller unit.

(3) When transferring monitor data with a password registered, be sure to register the password before converting the monitor data.
### 13. OPERATIONS OF TRANSFER MENU

#### 13.2.2 Upload

#### Menus/Items to be selected

| (Edit file window) --- (Menu Box) --- Transfer | Graphics controller --- [Upload] |

#### Window display

<p>| 1) | Select the memory that contains the source monitor data here. | Internal memory | Default: Internal memory |
| 2) | Set the destination edit file name in the file selector window. | M-CARD 1 | |
| 3) | The edit file name set in step 2) is displayed here. | | Refer to Section 9.2.2. The edit file name currently being edited cannot be uploaded. |
| 4) | If the part display function is set for the source monitor data, set the part file name in the file selector window. | | Refer to Section 9.2.2. |
| 5) | The part file name just set in the step 4) is displayed here. | | Refer to Section 9.2.2. |
| 6) | If the report function is set for the source monitor data, set the report file name in the file selector window. | | |
| 7) | The report file name set in step 6) is displayed here. | | |
| 8) | If a password is registered for the source monitor data, enter the password in the password entry window. | | |
| 9) | Eight asterisks (*******) are displayed here if a password is entered in step 8). | | |
| 10) | Select this item to start data transfer (upload). | | |
| 11) | Select this to close the window. | | |</p>
<table>
<thead>
<tr>
<th>POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) Data transfer (upload) can be carried out whether or not a password is registered.</td>
</tr>
<tr>
<td>(2) If you forget the password for the source monitor data (when it does not match the password for the monitor data), data transfer (upload) is not possible.</td>
</tr>
<tr>
<td>(3) For the time that data is transferred, refer to Section 4.2.1.</td>
</tr>
</tbody>
</table>
13. OPERATIONS OF TRANSFER MENU

13.2.3 Memory card information (Mem. card info.)

Menus/Items to be selected

(Edit file window) → (Menu Box) → Transfer → Graphics controller → [Mem. card info.]

[Details of items to be set]

Window display

<table>
<thead>
<tr>
<th>Description of Setting/Display</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Select the number of the G controller unit's memory card connector equipped with the memory card in which the area sizes will be confirmed.</td>
<td>M-CARD 1, M-CARD 2</td>
<td>Default: M-CARD 1</td>
</tr>
<tr>
<td>2) Select this item before confirming the area sizes in the memory card.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Select this item before closing the window.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) The area sizes in the memory card are displayed after confirmed. Check them one by one.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
13. OPERATIONS OF TRANSFER MENU

13.2.4 Memory card format (Mem. card format)

Menus/Items to be selected

(EDIT file window) (Menu Box) Transfer Graphics controller

[Mem. card format]

[Details of items to be set]

Window display

<table>
<thead>
<tr>
<th>Memory card format</th>
</tr>
</thead>
<tbody>
<tr>
<td>Memory card</td>
</tr>
<tr>
<td>Card size</td>
</tr>
<tr>
<td>Monitor area</td>
</tr>
<tr>
<td>File area</td>
</tr>
<tr>
<td>System monitor</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Description of Setting | Setting Range/Options | Remarks

1) Select the number of the memory card connector equipped with the memory card to be formatted. M-CARD 1, M-CARD 2 Default: M-CARD 1

2) Set the size of the memory card to be formatted. 256, 512, 1024, 2048 (Kbytes) Default: 256

3) Set the area size necessary for transferring monitor data. 0 to 2048 Kbytes Default: 0 The size can be set by 64 Kbytes.

4) Set the necessary file area size. 0 to 2048 Kbytes Default: 0 The size can be set by 64 Kbytes.

5) Set the area size necessary for transferring system monitor data. 0 to 2048 Kbytes Default: 0 The size can be set by 64 Kbytes.

6) Use the up or down arrow to increase or decrease the values to the right sizes in 2) to 5). The values in 2) to 5) can be entered directly from the keyboard.

7) Select this item before formatting the memory card.

8) Select the item before closing the window.
13. OPERATIONS OF TRANSFER MENU

13.2.5 File format

Menus/Items to be selected

(Edit file window) ➔ (Menu Box) ➔ Transfer ➔ Graphics controller

[File format]

[Details of items to be set]

Window display

<table>
<thead>
<tr>
<th>Description of Setting/Display</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Select the number of the memory card connector equipped with the memory card in which file areas will be set.</td>
<td>M-CARD 1, M-CARD 2</td>
<td>Default: M-CARD 1</td>
</tr>
<tr>
<td>2) Select this item before setting the file area.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) Select this item before closing the window.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) The sizes of the areas in the memory card is displayed.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

POINT

(1) Automatic communication right after the window opened

- As soon as the window opens, communication automatically starts. In this communication, the file area size and each area size in the memory card equipped with the memory card connector are confirmed.

- When a memory card is equipped with both of the memory card connectors No.1 and No.2 of the G controller unit, the file area size of the memory card, which is not selected in 1), can be displayed on the window by switching the memory card number setting to the other after communication is over.
13. OPERATIONS OF TRANSFER MENU

13.2.6 Monitor data source (Mon. data source)

Menus/Items to be selected

(Edit file window) — (Menu Box) — Transfer — Graphics controller

[Mon. data source]

[Details of items to be set]

Window display

<table>
<thead>
<tr>
<th>Monitor data source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitor data source</td>
</tr>
</tbody>
</table>

1) When changing monitor data the G controller unit uses, select the source of the monitor data.

2) Select this item before changing the monitor data source.

3) Select this item before closing the window.

Description of Setting | Setting Range/Options | Remarks

- When changing monitor data, select Memory (ROM), M-CARD 1, M-CARD 2.

Change = Switch the setting.

POINT

(1) Automatic communication right after the window opened
- As soon as the window opens, communication automatically starts. In this communication, the monitor data source currently selected is confirmed.
13. OPERATIONS OF TRANSFER MENU

13.3 ROM Writer

Menus/Items to be selected

(Edit file window) → (Menu Box) → Transfer → ROM writer

[Details of items to be set]

Window display

Description of Setting/Display | Setting Range/Options | Remarks
--- | --- | ---
1) Select the transfer method. | Free | Fixed at Free
   | | Refer to POINT below.
2) Select the communication cable connected between the AGOTP peripheral devices and the ROM writer. | RS232C, Parallel | Default: RS232C
   | | Refer to POINT below.
3) The G controller unit type set on the GOT Type window is displayed.
4) Check the communication conditions, and set the parameters for the ROM writer according to them.
5) A message is displayed, prompting the operator to do so.
6) Select this item before starting data transfer.
7) Select this item before closing the window.
8) The size of the data to be stored to ROM is displayed.

POINT

(1) Select the transfer method in 1) and the communication cable type in 2) according to the following table:

<table>
<thead>
<tr>
<th>Communication Cable</th>
<th>RS-232C Cable</th>
<th>Parallel Cable</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROM Writer Used</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General-purpose ROM writer</td>
<td>1) : Select [Free].</td>
<td>1) : Select [Free].</td>
</tr>
<tr>
<td></td>
<td>2) : Select [RS232C].</td>
<td>2) : Select [Parallel].</td>
</tr>
</tbody>
</table>
14. OPERATIONS OF ENVIRON. MENU

The Environ. menu is used to set the colors of the windows and boxes in the AGOTP.

14.1 Functions and Flow of Operation

(1) Functions
The functions of the Environ. menu are as follows:

To set whether the monitor screen data of the designated edit file should be read or not be read when the AGOTP is started up next, and/or to set the colors of the windows and boxes in the AGOTP.

(2) Flow of operation
The following is the flow outlining the operation of the Environ. menu:

- The Edit file window opens.
- Click the right mouse button.
- The Menu Box opens.
- Select the Environ. menu.
- The Environment window opens.
- Select <Package>.

The Working Environment window opens.

Set each item.

Select OK.

The Working Environment window closes.

The Edit file window opens.

Section 14.2
14. OPERATIONS OF ENVIRON. MENU

14.2 Package

Menus/Items to be selected

(Edit file window) —— (Menu Box) —— Environ.

[Details of items to be set]

Window display

1) Select whether a file should be opened or need not be opened at the next start-up of the AGOTP.

2) The edit file name is displayed when Fixed is selected in 1).

3) Select whether window colors will be set or whether box colors will be set.

4) Select an item of which colors will be set.

---

<table>
<thead>
<tr>
<th>Description of Setting/Display</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
</table>
| 1) Select whether a file should be opened or need not be opened at the next start-up of the AGOTP. | Select, Fixed | Default: Select
Select: A file opens.
Fixed: No file opens.
When [Fixed] is selected, the File selector window opens (refer to Section 9.2.2). Set the edit file name to open at the next start-up of the AGOTP. |
| 2) The edit file name is displayed when Fixed is selected in 1). | | The monitor screen data of the indicated edit file name will be read at the next start-up of the AGOTP. |
| 3) Select whether window colors will be set or whether box colors will be set. | Window, Box | Default: Window |
| 4) Select an item of which colors will be set. | Title bar
Title text
Background
Text
Rim
Select. back
Select. text | Default: Title bar |
<table>
<thead>
<tr>
<th>Description of Setting/Display</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>5) Select colors of the item set in 4).</td>
<td>Bik (black), Gry (gray), Blu (blue), DkBl (dark blue), Red, DkRd (dark red), Mag (magenta), DkMg (dark magenta), Grn (green), DkGr (dark green), Cyn (cyan), DkCy (dark cyan), Yel (yellow), DkYe (dark yellow), Wht (white)</td>
<td>The selected colors are highlighted. Default of each item: Title bar : DkBl Title text : Wht Background : Gry Text : Blk Rim : Blk Select. back : Blk Select. text : Wht</td>
</tr>
</tbody>
</table>

6) The colors of the item is displayed.

7) Select this item when it is necessary to reset the color of each item to the default.

8) Select this item when a monochrome display is used to run the AGOTP.
15. OPERATIONS OF OK MENU (FOR MENU BOX)

The OK menu is used to have the Edit file window displayed to end both the on-going creation of monitor screens and the operation of the AGOTP.

**REMARK**

Terminate the creation of a single monitor screen with the OK function of the Tool Box displayed on the edit screen.
Refer to Section 23.

15.1 Function and Flow of Operation

(1) **Function**

The function of the OK menu is as follows:

- **OK** — To store all created and set data to a file while the AGOTP is running and then close the AGOTP, or to close the AGOTP without storing such data to a file.

(2) **Flow of operation**

The following is the flow outlining how to close the AGOTP by the OK menu.

- Dialog box that opens in the step indicated by *1
  - Do you want to save changes?
  - Yes
  - No

  When "No" is selected in the step indicated by *2, the AGOTP will end its operation without storing data to a file.

- The Edit file window opens.
- Click the right mouse button.
- The Menu Box opens.
- Select the OK menu.
- The dialog box opens.
- Select Yes.

- Is an edit file set?
  - NO *1
    - The dialog box opens.
    - *2
    - Select Yes.
    - The File selector window opens.
  - YES

- Set the name of the directory for storing the edit file. (The file will be given the same name as that of the last sub-directory of the specified directory.)
- Select Yes.

- Data is stored to the edit file.

End the operation of the AGOTP.
15. OPERATIONS OF OK MENU (FOR MENU BOX)

15.2 OK

Menus/Items to be selected

(Edit file window) — (Menu Box) — OK

Dialog box

Do you want to save changes?

Yes  No

Steps after Dialog Box Opened  Remarks

1) Select [Yes] or [No].

Position the mouse cursor on [Yes], and click the left mouse button.

The monitor screen data will be stored to the specified edit file, and the AGOTP will end its operation.

Position the mouse cursor on [No], and click the left mouse button.

The AGOTP will end its operation.
Select this item only after the monitor screen data has been stored to the specified edit file by the Save function of the File Menu.

POINT

(1) As soon as the name of the directory for storing the edit file is set, the monitor screen data will be stored to the file, and the AGOTP will end its operation.
The edit file will be given the same name as that of the last sub-directory of the specified directory.
EXPLANATION OF OPERATIONS OF MENU OPTIONS IN CONTROL MENU BOX

This part describes how to execute each menu in the control menu box displayed on the edit screen for creating monitor screens.

Chapter 16 OPERATIONS OF GRAPHIC MENUS ........................................ 16 - 1 - 16 - 14
Chapter 17 OPERATIONS OF SCREEN EDIT MENUS ............................ 17 - 1 - 17 - 6
Chapter 18 OPERATIONS OF CHANGE ATTRIBUTE MENU ................. 18 - 1 - 18 - 4
Chapter 19 OPERATIONS OF PARTS MENU ................................... 19 - 1 - 19 - 8
Chapter 20 OPERATIONS OF PANEL-KIT MENU ................................. 20 - 1 - 20 - 10
Chapter 21 OPERATIONS OF SPRITE MENU .................................... 21 - 1 - 21 - 45

Arrow menu ................................ Refer to Section 16.2.2.

Sprite menu ................................ Refer to Chapter 21.
Panel kit menu ................................ Refer to Chapter 20.
Parts menu ................................ Refer to Chapter 19.
Change attribute menu ................................ Refer to Chapter 18.
Screen edit menu ................................ Refer to Chapter 17.
Graphic menu ................................ Refer to Chapter 16.
16. OPERATIONS OF GRAPHIC MENUS

The graphic menus are used to draw graphics and enter character strings on the edit screen in creating a canvas screen for a monitor screen and creating parts.

16.1 Functions and Flow of Operation

(1) Functions
The functions of the graphic menus are as follows:

- **To draw straight lines.**
  - Section 16.2.1 (1)

- **To draw continuous straight lines.**
  - Section 16.2.1 (2)

- **To draw rectangles.**
  - Section 16.2.1 (3)

- **To draw filled rectangles.**
  - Section 16.2.1 (4)

- **To draw polygons.**
  - Section 16.2.1 (5)

- **To draw circles.**
  - Section 16.2.1 (6)

- **To draw arcs.**
  - Section 16.2.1 (7)

- **To draw ellipses.**
  - Section 16.2.1 (8)

- **To fill a selected graphic (polygon, rectangle, circle, ellipse) in a selected pattern.**
  - Section 16.2.1 (9)

- **To enter text character strings on text coordinates (column, line).**
  - Section 16.3.1

- **To enter graphic character strings on graphic coordinates (X axis, Y axis).**
  - Section 16.3.2

- **To end drawing and switch the mouse cursor to " ".**
  - Section 16.2.2
(2) Flow of operation
The following are the flows outlining graphic drawing and character string input by the graphic menus.

(a) Flow of graphic drawing by the graphic menus (Refer to Section 16.2.1.)

- The edit screen opens.

- Change the edit screen display conditions.
  - Change the settings of grid display/alignment, and enlargement/reduction.

- Change the attributes for the graphic to be drawn.
  - Change the settings of display colors, fill pattern, line width, and line type.

- Select the graphic to be drawn.

- The + cursor for drawing appears.

  Drawing same graphic

- Draw or fill the graphic selected.

- Select the menu.
  - Section 16.2.2

- The cursor appears.

*1: When the control menu box is displayed in the position for drawing or filling, move the mouse cursor out of the box, and press the left mouse button or the [.-] key. It will move up or down.
(b) Flow of text character input (Refer to Section 16.3.1.)

1. The edit screen opens.
2. Select the A menu in the control menu box.
3. The Character string input window opens.
4. Select <Text>.
5. The character cursor appears on the edit screen.
6. Click the right mouse button.
7. The Tool Box for text character input opens.
8. Select <Attribute>.
   - Change the display colors and the character display attribute.
10. Select the display colors and the character display mode.
11. Select OK.
12. Entering character strings of same attributes
   - Using the arrow keys, move the character cursor to the starting position of the character string to be entered.
   - Enter character strings.
13. Changing attributes
   - Click the right mouse button.
   - The Tool Box for text character input.
14. Select the OK menu.
   - Fix the character string entered.
15. Select the Cancel menu.
   - Discontinue entering the character string.
   (The character string entered will be erased.)
(c) Flow of graphic character input (Refer to Section 16.3.2.)

| The edit screen opens.                      |
| Change the edit screen display conditions. |
| * Change the settings of grid display/alignment, and enlargement/reduction. |
| Change the attributes for the character string to be entered. |
| * Change the settings of display colors and character size. |
| Select the A menu in the control menu box. |
| The Character string input window opens.   |
| Select <Graphic>.                          |
| The + cursor for drawing appears.         |
| Entering character strings of same attributes | Move the cursor to the starting position of the character string to be entered, and click the left mouse button. |
| *1 | Enter character string. |
| Select the menu.                           |
| The Tool Box closes, and the cursor appears. |

*1: When the control menu box is displayed in the position for entering character strings, move the mouse cursor out of the box, and click the left mouse button. It will move up or down.
16. OPERATIONS OF GRAPHIC MENU

16.2 Drawing Graphics and Switching the Cursor

16.2.1 Drawing graphics

Menus/Items to be selected

(1) Drawing a straight line

Basic operation: Straight line ( /

1. Move the mouse cursor to the starting point.

2. Fix the starting point by pressing the left mouse button or the [J] key.

3. Move the mouse cursor to the end point.

4. Fix the end point by pressing the left mouse button or the [J] key.

5. Position the mouse cursor on the [ ] menu, and select it by pressing the left mouse button or the [J] key.

(2) Drawing a continuous straight line

Basic operation: Continuous straight line (/)

1. Move the mouse cursor to the starting point.

2. Fix the starting point by pressing the left mouse button or the [J] key.

3. Move the mouse cursor to the next point.

4. Fix the point by pressing the left mouse cursor or the [J] key.

5. Fix the end point by double-clicking the left mouse button or pressing the [J] key twice in rapid succession.

6. Position the mouse cursor on the [ ] menu, and select it by pressing the left mouse button or the [J] key.

POINTS

(1) Same graphics of same attributes can be drawn one after another.

(2) By selecting Grid alignment [ON] and Grid display [End]/[Front] in the Grid /Scale menu described in Section 22.3 in advance, the drawing points can be aligned with the grids.

(3) To discontinue drawing, press the right mouse button or the [Esc] key.

(4) If it is necessary to edit (move, delete, rotate, etc.) a completed graphic, carry out the operation according to Sections 17 and 22.
(3) Drawing a rectangle

1. Move the mouse cursor to the starting point.

2. Fix the starting point by pressing the left mouse button or the \[.\] key.

3. Move the mouse cursor to the end point.

4. Fix the end point by pressing the left mouse button or the \[.\] key.

5. Position the mouse cursor on the \[.\] menu, and select it by pressing the left mouse button or the \[.\] key.

(4) Drawing a filled rectangle

Before drawing a filled rectangle, select the change attribute menu to set the fill pattern and the display colors. (Refer to Section 18.)

1. Move the mouse cursor to the starting point.

2. Fix the starting point by pressing the left mouse button or the \[.\] key.

3. Move the mouse cursor to the end point.

4. Fix the end point by pressing the left mouse button or the \[.\] key.

5. Position the mouse cursor on the \[.\] menu, and select it by pressing the left mouse button or the \[.\] key.

When the fill pattern is

* The filled rectangle of the pattern set on the Change attribute window is displayed. When a frame is necessary, fill the drawn rectangle using the fill menu.

**POINTS**

1. Do not use a filled rectangle on a canvas screen for G controller units other than the A77GOT. (It is, however, available as a graphic displayed by the part display function.)

2. Same graphics of same attributes can be drawn one after another.

3. By selecting Grid alignment ON and Grid display End/Front in the Grid/Scale menu described in Section 22.3 in advance, the drawing points can be aligned with the grids.

4. To discontinue drawing, press the right mouse button or the [Esc] key.

5. If it is necessary to edit (move, delete, rotate, etc.) a completed graphic, carry out the operation according to Sections
(5) Drawing a polygon

Basic operation: Polygon (△)

1. Move the mouse cursor to the starting point.

2. Fix the starting point by pressing the left mouse button or the [J] key.

3. Move the mouse cursor to the next point.

4. Fix the point by pressing the left mouse button or the [J] key.

5. Fix the end point by double-clicking the left mouse button or pressing the [J] key twice in rapid succession.

6. Position the mouse cursor on the menu, and select it by pressing the left mouse button or the [J] key.

---

(6) Drawing a circle

Basic operation: Filled rectangle (○)

1. Move the mouse cursor to the starting point (upper left corner) of the area (square frame) where a circle is being drawn.

2. Fix the starting point by pressing the left mouse button or the [J] key.

3. Move the cursor to the end point (lower right corner) of the area (square frame) where a circle is being drawn.

4. Fix the end point by pressing the left mouse button or the [J] key.

5. Position the mouse cursor on the menu, and select it by pressing the left mouse button or the [J] key.

* A solid line (——) circle will be drawn. (Refer to Section 4.1.2.)

---

POINTS

(1) Same graphics of same attributes can be drawn one after another.

(2) By selecting Grid alignment [ON] and Grid display [End]/[Front] in the Grid/Scale menu described in Section 22.3 in advance, the drawing points can be aligned with the grids.

(3) To discontinue drawing, press the right mouse button or the [Esc] key.

(4) If it is necessary to edit (move, delete, rotate, etc.) a completed graphic, carry out the operation according to Sections 17 and 22.

16 – 7
(7) Drawing an arc

**Basic operation:** Arc ( )

1. Move the mouse cursor to the starting point (0°/90°/180°/270°) of the area where an arc is being drawn.

2. Fix the starting point by pressing the left mouse button or the [J] key.

3. Move the mouse cursor to the end point (90°/180°/270°/360°) of the area where an arc is being drawn. (Only an arc equal to a quarter of the circumference of a circle can be drawn.)

4. Fix the end point by pressing the left mouse button or the [J] key.

5. Position the mouse cursor on the [ ] menu, and select it by pressing the left mouse button or the [J] key.

* A solid line (——) arc will be drawn. (Refer to Section 4.1.2.)

(8) Drawing an ellipse

**Basic operation:** Ellipse ( )

1. Move the mouse cursor to the starting point (upper left corner) of the area (square frame) where an ellipse is being drawn.

2. Fix the starting point by pressing the left mouse button or the [J] key.

3. Move the mouse cursor to the end point (lower right corner) of the area (square frame) where an ellipse is being drawn.

4. Fix the end point by pressing the left mouse button or the [J] key.

5. Position the cursor on the [ ] menu, and select it by pressing the left mouse button or the [J] key.

* A solid line (——) arc will be drawn. (Refer to Section 4.1.2.)

**POINTS**

1. Same graphics of same attributes can be drawn one after another.
2. By selecting Grid alignment [ON] and Grid display [End]/[Front] in the Grid/Scale menu described in Section 22.3 in advance, the drawing points will be aligned with the grids.
3. To discontinue drawing, press the right mouse button or the [Esc] key.
4. If it is necessary to edit (move, delete, rotate, etc.) a completed graphic, carry out the operation according to Sections 17 and 22.
(9) Filling a graphic

Before filling a graphic, select the change attribute menu to set the fill pattern and the display colors. (Refer to Section 18.)

1. Select the menu.

2. Position the mouse cursor on the fill menu, and select it by pressing the left mouse button or the [-] key.

3. Position the mouse cursor on a graphic to fill, and double-click the left mouse button or the [-] key twice in rapid succession. (For selection of a graphic, refer to Section 8.)

   A message asking for designation of inside coordinate is displayed here.
   The following graphics can be filled:
   Polygon, rectangle, circle, ellipse
   * Non-solid line graphics can be filled.

4. Position the mouse cursor inside the graphic to fill, and press the left mouse button or the [-] key (to designate an inside coordinate).

5. The selected graphic is filled in the set fill pattern.

6. Position the mouse cursor on the menu, and select it by pressing the left mouse button or the [-] key.

POINTS

(1) Only polygons, rectangles, circles, and ellipses can be filled.
   After a graphic is filled, a frame of the same color as the fill color will be superimposed on the graphic frame.

(2) Graphics can be filled one after another as they are selected.

(3) Graphics of which the line is two dots wide can also be filled.

(4) If it is necessary to edit (move, delete, rotate, etc.) a completed graphic, carry out the operation according to Sections 17 and 22.

(5) To fill a graphic that is to be registered in the panel kit or as a part, specify an inside coordinate at the center of the graphic.
   If an inside coordinate is specified other than at the center of the graphic, the graphic may not be displayed correctly in the part selection window (image display) described in Section 19.2, (2), and the library part selection (image display) window described in Section 20.2, (4).
16.2.2 Switching to the arrow cursor

**Menus/Items to be selected**

<table>
<thead>
<tr>
<th>(Edit screen)</th>
<th>(Graphic)</th>
<th>Ending drawing/Input</th>
<th>Double-clicking</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Graphic)</td>
<td>A</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Basic operation A**  Switching by \( \Rightarrow \) menu

1. Draw a graphic or enter graphic characters. (Refer to Sections 16.2.1 and 16.3.2.)
2. Select the menu.

**Basic operation B**  Switching by double-clicking

1. Draw a graphic or enter graphic characters. (Refer to Sections 16.2.1 and 16.3.2.)
2. Double-click the right mouse button, or press the [Esc] keys twice in rapid succession.

**POINT**

(1) This operation is necessary to switch the mouse cursor from \( \Rightarrow \) to \( \Rightarrow \) and end the on-going drawing or character input.
16. OPERATIONS OF GRAPHIC MENU

16.2 Entering Characters

On a monochrome display, enter characters in black and white. Use text or graphic characters according to the following table:

(O: Can be set  Δ: Can be set according to positioning  X: Cannot be set)

<table>
<thead>
<tr>
<th>Object</th>
<th>Attribute Setting</th>
<th>Input Position Setting</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Display Color</td>
<td>Character Size</td>
<td>Text Coordinate</td>
</tr>
<tr>
<td>Canvas</td>
<td>O</td>
<td>X</td>
<td>O</td>
</tr>
<tr>
<td>Text</td>
<td></td>
<td></td>
<td>Normal</td>
</tr>
<tr>
<td>character</td>
<td>X</td>
<td></td>
<td>Reverse</td>
</tr>
<tr>
<td>Part</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Graphic</td>
<td>O</td>
<td>O</td>
<td>X</td>
</tr>
<tr>
<td>xcharacter</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canvas</td>
<td>O</td>
<td>O</td>
<td>X</td>
</tr>
<tr>
<td>Part</td>
<td>O</td>
<td>O</td>
<td>X</td>
</tr>
</tbody>
</table>
16. OPERATIONS OF GRAPHIC MENU

16.3.1 Entering text characters

**Menus/items to be selected**

(Edit screen)  A  Text

**Basic operation** Text characters

1. The character cursor is displayed on the edit screen.*1
   Press the right mouse button or the [Esc] key to display the Tool Box for text character input.

2. Position the character cursor on Attribute, and select it by pressing the left mouse button or the [J] key.

3. Set on the Change text attribute window the display colors and attribute of the characters to be entered.

4. Position the character cursor on [OK], and select it by pressing the left mouse button or the [J] key.

5. Move the character cursor to the starting position of a character string to be entered.

6. Enter a character string.
   [M] [C] [1] [-J]

7. Press the right mouse button or the [Esc] key to display the Tool Box for text character input.

8. Position the character cursor on [OK], and select it by pressing the left mouse button or the [J] key. *2

9. The character cursor disappears.

*1: The shape of the character cursor displayed is different depending on the input mode, as shown below. The input mode can be switched with the [Insert] key.

   - Overwrite mode (The character under the character cursor will be replaced by the newly entered character.)
   - Insert mode (A character will be inserted in the position of the character cursor.)

*2: When [Cancel] is selected, all characters entered will be erased.

**POINTS**

1. Before entering character strings, be sure to set the attributes (display colors, character attribute) for character strings to be entered.

2. The attributes for the entered character strings are unchangeable.

3. Character strings of same attributes can be entered one after another.

4. If it is necessary to edit (move, delete) entered character strings, use the [Back Space] or [Delete] key on the keyboard. Character strings can be moved on the same line only.

5. Text characters cannot be used for editing graphics described in Sections 18 and 22.
16. OPERATIONS OF GRAPHIC MENU

16.3.2 Entering graphic characters

**Menus/Items to be selected**

(Add screen) → (Tool Box) → Grid/Scale → (Add screen) → A → Graphic

**Basic operation: Graphic characters**

Before entering graphic characters, select the change attribute menu to set the display colors and size of characters. (Refer to Section 18.)

1. Move the mouse cursor to the starting position of a character string to be entered.

2. Fix the starting position by pressing the left mouse button or the [·] key. "1"

3. The mouse cursor disappears, and the character cursor appears. "2"

4. Enter a character string.

5. Fix the character string by pressing the [·] key.

6. Position the character cursor on the menu, and select it by pressing the left mouse button or the [·] key.

*1: The relationship between the mouse cursor and the character position is as shown in the following table:

<table>
<thead>
<tr>
<th>Character Size</th>
<th>Standard</th>
<th>1/4 Size</th>
<th>Double Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Character to be entered</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Display size of character to be entered</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*2: The shape of the character cursor displayed is different depending on the input mode, as shown below. The input mode can be switched with the [Insert] key.

*: Overwrite mode (The character under the character cursor will be replaced by the newly entered character.)

—*: Insert mode (A character will be inserted in the position of the character cursor.)

**POINTS**

(1) Characters of same attributes can be entered one after another.

(2) By selecting Grid alignment [ON] and Grid display [End]/[Front] in the Grid /Scale menu described in Section 22.3 in advance, the character string input position can be aligned with the grids.

(3) To discontinue entering character strings, press the [Esc] key.

(4) If it is necessary to edit (move, delete, etc.) an entered character string, carry out the operation according to Sections 17 and 22. But the rotation menu described in Section 22.2 cannot be executed.
16. OPERATIONS OF GRAPHIC MENU

16.4 Utilizing Graphics Registered in Panel-Kit Library and Registering Graphics

In creating a canvas screen or part, the panel-kit menu enables the graphics (parts) registered in the panel-kit library to be utilized on the screen being edited, or graphics to be registered in the user’s original library.

If necessary, select the Open function in the Panel-kit menu described in Section 20 to fetch a registered graphic from the panel-kit library of the AGOTP or from the user's original library and utilize it on the edit screen.

To register graphics and character strings displayed on the edit screen in the user's original library, select the Save function in the Panel-kit menu.
17. OPERATIONS OF SCREEN EDIT MENUS

The screen edit menus are used to edit graphics or character strings on the edit screen in creating a canvas screen for a monitor screen or a part.

17.1 Functions and Flow of Operation

(1) Functions

The functions of the screen edit menus are as follows:

- **Copy**: To copy selected graphics or character strings to another position on the same screen.
- **Cut**: To cut (remove) selected graphics or character strings.
- **Undo**: To undo the last deleted graphic or character string again in the position where it was.
- **Group**: To group selected graphics as a graphic.
- **Ungroup**: To ungroup grouped graphics or character strings selected.
- **Arrange**: To arrange (overlap) selected graphics or character strings.

**POINTS**

(1) Graphics and character strings can also be edited in the ways described in Section 22.

(2) Text character strings entered on the edit screen cannot be edited with the edit menus.

(3) Touch key graphics and touch key character strings (Refer to Section 25.5) can be edited with this menu only on the touch key edit screen.

(2) Flow of operation

The following is the flow outlining how to edit graphics and graphic character strings using the screen edit menus.

- **The edit screen opens.**
- **Click the right mouse button.**
- **The Tool Box opens.**
- **Select All.**
- **To discontinue editing**
  - **Double-click the right mouse button.**
- **Select Screen edit.**
- **Select graphics or character strings to be edited on the screen.**
- **To continue editing selected graphics or character strings**
  - **To terminate editing of graphics or character strings**
  - **Double-click the right mouse button.**
17. OPERATIONS OF SCREEN EDIT MENUS [>] [X]

17.2 Screen Edit

**Menus/Items to be selected**

(Edit screen) Other than all

[Selecting graphic]

All (Tool Box) All

(Screen edit)

(1) Copy

**Basic operation** (COPY)

1. Position the mouse cursor on the graphic or character string to be copied, and select it by double-clicking the left mouse button or pressing the [J] key twice in rapid succession.

2. Position the mouse cursor on the copy menu, and select it by pressing the left mouse button or the [J] key.

3. A copy of the selected graphic or character string is displayed.

**POINTS**

(1) The copy menu is a function to use same graphics or graphic character strings without redrawing or reentering them.

(2) Two or more graphics or character strings can be selected and copied.

(3) Copied graphics or character strings can be moved to target position by the method described in Section 17.5.

(4) For copying to another screen, refer to Section 17.6.

(5) Before modifying or editing graphics or character strings, it is advisable to copy (save) the graphics or character strings and delete the copy data after such modification or editing is completed.

(6) To cancel the selected graphics or character strings, double-click the right mouse button.

(2) Cut

**Basic operation** (CANCEL)

1. Position the mouse cursor on the graphic or character string to be cut, and select it by double-clicking the left mouse button or pressing the [J] key twice in rapid succession.

2. Position the mouse cursor on the cut menu, and select it by pressing the left mouse button or the [J] key.

3. The selected graphic or character string is cut.

**POINTS**

(1) The cut menu is a function to remove unnecessary graphics or character strings from the edit screen.

(2) Two or more graphics or character strings can be selected and cut. All graphics and character strings can be cut by the screen delete function described in Section 11.3.

(3) To cancel the selected graphics or character strings, double-click the right mouse button.
17. OPERATIONS OF SCREEN EDIT MENUS

(3) Undo

- Basic operation: (undy)

(Right after operation described in (2) is done)
1. Current edit screen

2. Position the mouse cursor on the undo menu, and select it by pressing the left mouse button or the [J] key.

3. The last deleted graphic or character string is displayed in the position where it was.

(4) Group

- Basic operation: (gr)

1. Position the mouse cursor on the graphic to be grouped, and select it by double-clicking the left mouse button or pressing the [J] key twice in rapid succession.

2. Position the mouse cursor on the next graphic to be grouped, and select it by double-clicking the left mouse button with the [Shift] key held down or pressing the [J] key twice in rapid succession with the [Shift] key held down.

3. Position the mouse cursor on the group menu, and select it by pressing the left mouse button or the [J] key.

4. The selected graphics a grouped as a graphic.

POINTS

(1) The undo menu is a function to restore and display the last deleted graphic or graphic character string in the position where it was.

(2) Only the last deleted graphic or character can be restored.

(3) To cancel the selected graphic or character string, double-click the right mouse button.

POINTS

(1) The group menu is a function to enable selected graphics to be treated as a graphic.

(2) All graphics on the edit screen can be grouped (except character strings).

(3) To select all graphics and character strings on the edit screen, it is advisable to use the All function described in Section 22.5.
(5) Ungroup

1. Position the mouse cursor on the grouped graphic to be degrouped, and select the group by double-clicking the left mouse button or pressing the [.] key twice in rapid succession.

2. Position the mouse cursor on the degroup menu, and select it by pressing the left mouse button or the [.] key.

3. The graphic selected is ungrouped.

(6) Arrange

1. Position the mouse cursor on the graphic or character string to be arranged, and select it by double-clicking the left mouse button or pressing the [.] key twice in rapid succession.

2. Position the mouse cursor on the next graphic or character string to be arranged, and select it by double-clicking the left mouse button with the [Shift] key held down or pressing the [.] key twice in rapid succession with the [Shift] key held down.

3. Position the mouse cursor on the arrange menu, and select it by pressing the left mouse button or the [.] key.

4. The graphic forms and character strings are arranged at the central coordinate of the graphic forms and character strings selected (overlapped).

* The graphic form/character string drawn up last falls on the most significant position. To return this arranged state to the original one, move the graphic form/character string one by one.

POINTS

(1) The ungroup menu is a function to un-group individual graphics grouped.

(2) Two or more grouped graphics can be selected and ungrouped at the same time.

(3) To cancel the selected graphics after ungrouped, double-click the right mouse button.

POINT

(1) The arrange function serves to overlap the graphic forms and character strings in the edit screen.
17.3 Switching the Cursor

Operations using the screen edit menus can be performed even if the "+" mouse cursor, which indicates that editing is being executed, is displayed. For switching the mouse cursor from "+" to "X", refer to Section 16.2.2.
17. OPERATIONS OF SCREEN EDIT MENUS

17.4 Enlarging/Reducing Graphics

This section describes how to enlarge or reduce graphics on the edit screen. There is no menu available for graphic enlargement or reduction. Follow the procedures below.

**Basic operation A**

1. Position the mouse on the graphic to be enlarged or reduced on the edit screen, and select it by double-clicking the left mouse button or pressing the [-] key twice in rapid succession.

2. Move the mouse cursor to the center point of the work frame (it has eight points) corresponding to direction of enlargement or reduction (up, down, left, right).

3. Fix the direction of enlargement or reduction by pressing the left mouse button or the [-] key.

4. Move the cursor in the direction of enlargement or reduction.

5. Fix the enlarged or reduced graphic by pressing the left mouse button or the [-] key.

**Basic operation B**

1. Position the mouse cursor on the graphic to be enlarged or reduced on the edit screen, and select it by double-clicking the left mouse button or pressing the [-] key twice in rapid succession.

2. Move the mouse cursor to a point of the work frame (it has eight points).

3. Fix the starting point of enlargement or reduction by double-clicking the left mouse button or pressing the [-] key twice in rapid succession.

4. Move the mouse in the direction of enlargement (outward) or reduction (inward).

5. Fix the enlarged or reduced graphic by pressing the left mouse button or the [-] key.

**POINTS**

1. To cancel the selected graphic, double-click the right mouse button.
2. By selecting Grid alignment [OFF] in the Grid/Scale menu described in Section 22.3 in advance, graphics can be enlarged or reduced by the dot.

Using the mouse and the keyboard together makes fine positioning of the mouse cursor easier. (Refer to Section 6.2.)

By selecting Grid alignment [ON] and Grid display [End]/[Front] in the Grid/Scale menu in advance, graphics can be enlarged or reduced by the grid.

3. Character strings cannot be enlarged or reduced.
4. The shapes of graphics cannot be changed.
17. OPERATIONS OF SCREEN EDIT MENUS

17.5 Moving Graphics and Character Strings

This section describes how to move graphics or character strings on the edit screen. There is no function available for moving graphics or character strings. Follow the procedure below.

**Basic operation:**

1. Position the mouse cursor on the graphic or character string to be moved, and select it by double-clicking the left mouse button or pressing the [J] key twice in rapid succession.

2. Start moving the selected graphic or character string by pressing the left mouse button or the [J] key.

3. Move the mouse cursor to the target position.

4. Fix the position of the graphic or character string moved.

**POINTS**

1. To cancel the selected graphic or character string, double-click the right mouse button.

2. To discontinue moving a graphic or character string, click the right mouse button.

3. By selecting Grid alignment [ON] in the Grid/Scale menu described in Section 22.3 in advance, graphics or character strings can be moved by the dot. Using the mouse and the keyboard together makes fine positioning of the mouse cursor easier. (Refer to Section 6.2.) By selecting Grid alignment [ON] and Grid display [End]/[Front] in the Grid/Scale menu in advance, graphics or character strings can be moved by the grid.

4. Two or more graphics or character strings can be selected and moved at the same time. Position the mouse cursor on one of the selected graphics or character strings, and move them.

5. Graphics or character strings cannot be moved to another screen. To use same graphics or character strings on another screen, copy them by according to the procedure described in Section 17.6.
17. OPERATIONS OF SCREEN EDIT MENUS

17.6 Copying Graphics/Character Strings from One Screen to Another

The following functions are helpful in utilizing graphics or character strings on edit screen on another screen.

(1) Method using the screen utilize function
The screen utilize function described in Section 11.3 enables all graphics and character strings to be utilized as they are.
In this case, however, all the data created or entered on the target screen will be erased by the utilized data.

(2) Method using the panel-kit library
By saving the graphics and graphic character strings, which were created and entered in creating a monitor screen, to the user's original library of the panel-kit library and taking them out, they can be utilized on another screen.

17.7 Printing Created Data

Print the data created on the edit screen as shown below:

(1) Printing display image and canvas screen during monitoring
Print the created data using the image display function described in Section 22.9 and the device display function in Section 22.10.
Parts alone cannot be printed. A part should be displayed on the edit screen and printed as a graphic on a canvas screen.

(2) Printing set monitor functions
Print the set monitor functions using the print function described in Section 10.6.
The monitor conditions will be printed together.
18. OPERATIONS OF CHANGE ATTRIBUTE MENU

The change attribute menu is used to set or change the attributes for graphics to be created on the edit screen or already created and for graphic character strings to be entered or already entered, in creating a canvas screen for a monitor screen or a part.

18.1 Function and Flow of Operation

(1) Function
The function of the change attribute menu is as follows:

To change set attributes, such as line colors, full fill, character colors, fill pattern, line width, line type, and character size, as specified.

(2) Flow of operation
The following is the flow outlining how to change attributes using the change attribute menu.

(a) When setting attributes for a graphic to be drawn or for a character string to be entered

The edit screen opens.
The Change attribute window opens.
Set or change the attribute.
Select OK.
The Change attribute closes.

Draw a graphic, or enter a character string

Section 16.2.1
Section 16.3.2

POINT
(1) For attributes that can be changed, refer to Section 4.1.2.
(b) When changing attribute for a graphic already drawn or for a character string already entered.

The edit screen opens. *1

Select a graphic or character string for which attributes should be changed. Section 8

Select the change attribute menu. ..... The current attributes of the selected graphic or character string are displayed.

The change attribute window open.

Select the attributes to be changed. Section 18.2

Change the attributes. Section 18.2

Select OK

The change the attribute closes.

*1 It is possible to select a number of graphics and character strings and change their attributes collectively.
When the change attribute window is opened with a number of graphics and character strings selected, the display color of each attribute shown in the window has nothing to do with the attributes of the graphics and character strings selected.

The attributes of graphics selected to be changed are indicated by the mark "•".
Those attributes not subject to change are indicated by the mark "□".
18. OPERATIONS OF CHANGE ATTRIBUTE MENU

18.2 Setting/Changing Attributes for Graphics/Character Strings

[Menus/Items to be selected]

(Change screen) [ ]

[Details of items to be set]

Window display

1) Select the attributes of the selected graphics or character strings that to be changed. When the change attribute window is opened, the attributes of the selected graphics and character strings that are to be changed are marked by "X".

2) Select the attributes to be changed/specified.

3) Select the display color of the attributes selected in step 2) (to be selected by the character block).

4) The selected color of each attribute selected in step 2) is displayed.

5) Select the display color of the attributes selected in step 2) (to be selected by the character block).

6) Select the line width of the graphic. 1, 2, 3, 4 (dots)

7) Select the line type of the graphic.

Description of Setting | Setting Range/Options | Remarks
--- | --- | ---
1) Select the attributes of the selected graphics or character strings that are to be changed. The change attribute window is opened, the attributes of the selected graphics and character strings that are to be changed are marked by "X".

2) Select the attributes to be changed/specified.

3) Select the display color of the attributes selected in step 2) (to be selected by the character block).

Line color, Pattern color, Character color

4) The selected color of each attribute selected in step 2) is displayed.

5) Select the display color of the attributes selected in step 2) (to be selected by the character block).

Default: Full fill
The selected pattern will be framed. The patterns displayed are different depending on the pattern setting on the GOT Type window.

Default: Line color

Default: Whlt
The selected color box will be framed. When a monochrome display is used to monitor data, select Whlt (white) or Blk (black).

Default: Line color

Default: Whlt
The selected color box will be framed. When a monochrome display is used to monitor data, select Whlt (white) or Blk (black).

Default: 1 dot

Default: Solid line
18. OPERATIONS OF CHANGE ATTRIBUTE MENU

<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>8) Select the character size of the character string.</td>
<td>Standard, 1/4, Double</td>
<td>For display size, refer to Section 4.1.1. Double is twice as high and wide as Standard (actual size). Default: Standard</td>
</tr>
<tr>
<td>9) Select this item when fixing or specifying the changed attributes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10) Select this item when resetting the attributes before changed.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**POINT**

The defaults shown in [Remarks] are the settings displayed when the Change attribute window is opened on the edit screen for the first time. From and after the second opening, the window displays the attributes set in the last operation as the defaults.
19. OPERATIONS OF PARTS MENU

The parts menu is used to fetch or write parts from or to a part file that holds parts to be displayed by the part display, part locus display or part movement display function of the G controller unit.

19.1 Functions and Flow of Operation

(1) Functions

The functions of the parts menu are as follows:

<table>
<thead>
<tr>
<th>Parts (Parts)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Open</strong></td>
</tr>
<tr>
<td>To load parts from the part file.</td>
</tr>
<tr>
<td>Section 19.2</td>
</tr>
<tr>
<td><strong>Save</strong></td>
</tr>
<tr>
<td>To save parts to the part file.</td>
</tr>
<tr>
<td>Section 19.3</td>
</tr>
<tr>
<td><strong>Delete</strong></td>
</tr>
<tr>
<td>To delete parts from the part file.</td>
</tr>
<tr>
<td>Section 19.4</td>
</tr>
</tbody>
</table>

POINTS

(1) The parts covered by the parts menu will be displayed by the monitor functions above. They are different from the parts accessible through the panel-kit menu described in Section 20. The panel-kit menu helps the AGOTP manage common graphics and character strings as individual parts which are to be used by the user in creating a canvas screen or parts shown in this section.

(2) Up to 255 parts can be displayed by the monitor functions and saved to the part file.
(2) Flow of operation
The following is the flow outlining how parts are fetched, saved, and deleted by the parts menu.

The edit screen opens.

Open Save Delete

Select a graphic or character string to be saved.

Select the parts menu.

The Part window opens.

Select <Open> *1 Select <Save> *1 Select <Delete> *1

The Part selection (List) window opens.

Select the part to be fetched. Select the part number to be saved. Select the part to be deleted.

Select OK. Enter the name of the part to be saved.

The Part selection (List) window closes. The Part selection (List) window closes.

Move the part to the target position by dragging the mouse cursor.

Click the left mouse button.

*1: When no part file name is set on the Edit file window, the File selector window will open.
Designate a directory in which the part file will be stored.
The data will be stored in the specified directory with a part file name that is the same as the last sub-directory name in it.
19.2 Open

Menus/Items to be selected

(Edit screen) → (Part window) → Open → Part selection (List) window → Part selection (Image) window → [Move] → (Edit screen)

[Details of items to be set]

(1) Part selection (List) window

Window display

Description of Setting/Display

1) A list of part numbers and part names entered by the user is displayed. The mark * indicates that the part exists.

2) Other part numbers and names are displayed in response to the dragging of the slider. By clicking the left mouse button with the mouse cursor positioned on the up or down arrow, the part numbers and names scroll up or down.

3) The part numbers and names following the number set in the box on the left of this item are displayed. Enter the number from the keyboard.

4) Select this item when displaying the image of the part of which the name is indicated.

Setting Range/Options

To select the part to be fetched, saved or deleted, position the mouse cursor on the line, and click the left mouse button. (The line will be highlighted.)

Dragging the slider and clicking the left mouse button will display other part numbers and names in 1). Refer to Section 4.5 (6).

Remarks

After the number is set in the left box, the part numbers and names displayed in 1) will change by clicking the left mouse button with the mouse cursor positioned on [JUMP].

This item can switch this window to the Part selection (Image) window described in 2).
<table>
<thead>
<tr>
<th>Description of Setting/Display</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>5) The character cursor for entering part name is displayed. Enter a part name in alphanumerical characters (symbols unacceptable), then press the [J] key.</td>
<td></td>
<td>The part name must be from 1 to 32 characters long.</td>
</tr>
<tr>
<td>6) Select this item when deleting the part selected (highlighted) in 1).</td>
<td></td>
<td>Deleting can be executed only when &lt;Delete&gt; is selected on the Part window.</td>
</tr>
<tr>
<td>7) Select this item when fetching the part selected (highlighted) in 1).</td>
<td></td>
<td>The part will be fetched.</td>
</tr>
<tr>
<td>8) The window closes when this item is selected.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### (2) Part selection (Image) window

#### Window display

<table>
<thead>
<tr>
<th>Description of Setting/Display</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) The number of the part shown is displayed.</td>
<td>The numbers will change in response to the display switching operation in 3) or 4).</td>
<td>Click the left mouse button to select the part to be fetched, saved or deleted.</td>
</tr>
<tr>
<td>2) The image of the saved part corresponding to each part number is displayed.</td>
<td></td>
<td>Dragging the slider and clicking the left mouse button will display other part numbers and part images in 1) and 2). Refer to Section 4.5 (6).</td>
</tr>
<tr>
<td>3) Other part numbers and part images are displayed in response to the dragging of the slider. By clicking the left mouse button with the mouse cursor positioned on the up or down arrow, the blocks displaying parts scroll up or down.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) The parts following the part number set in the box on the left of this item are displayed.</td>
<td>After the number is set in the left box, the part numbers and part images displayed in 1) and 2) will change by clicking the left mouse button with the mouse cursor positioned on [JUMP].</td>
<td></td>
</tr>
<tr>
<td>5) Select this item to list the names of the parts being displayed.</td>
<td>This item can switch this window to the Part selection (List) window described in (1).</td>
<td>Deleting can be executed only when &lt;Delete&gt; is selected on the Part window.</td>
</tr>
<tr>
<td>6) Select this item when deleting the part selected in 2).</td>
<td></td>
<td>The part selected will be fetched.</td>
</tr>
<tr>
<td>7) Select this item when fetching the part selected in 2).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8) The window closes when this item is selected.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

19 - 5
19. OPERATIONS OF PARTS MENU

**Basic operation**

1. Have the edit screen displayed.

2. Position the mouse cursor on the \[ \] menu, and select it by pressing the left mouse button or the [+] key.

3. Position the mouse cursor on the parts menu, and select it by pressing the left mouse button or the [-] key.

4. The Part window opens.
   Position the mouse cursor on <Open>, and select it by pressing the left mouse button or the [-] key.

5. The Part selection (List) window opens.
   Position the mouse cursor on the line of the part to be fetched, and select it by pressing the left mouse button or the [-] key.

6. Position the mouse cursor on [OK], and select it by pressing the left mouse button or the [-] key.

7. The fetched part appears on the edit screen.
   "x" is displayed at the center of the fetched part.

8. Move the part to the target position (by dragging the mouse cursor, refer to Section 17.5).

9. Fix the position of the part by pressing the left mouse button or the [-] key.

10. Double-click the right mouse button to cancel the selected part.

**POINTS**

(1) Fetch a part:
   1) When utilizing the part as a graphic on the canvas screen:
   2) When fixing the position for displaying a part in setting the monitor conditions (delete the part after the position is fixed.):
   3) When modifying a part saved, etc.

(2) To fill a graphic that is to be registered as a part, specify an inside coordinate at the center of the graphic.
   If an inside coordinate is specified other than at the center of the graphic, the graphic may not be displayed correctly in the part selection window (image display).
19.3 Save

Menus/Items to be selected

(Edit screen) → [Selecting a graphic or character string] → \(\text{(Part window)}\) → \(\text{Part selection (List) window}\) → Save

*For details of the settings on each window, refer to Section 19.2.

**Basic operation:**

1. Create a part to be saved on the edit screen. (Refer to Section 16.)

2. Select a part (graphic or character string) to be saved. (Refer to Section 8.) Double-click the left mouse button or press the [J] key twice in rapid succession.

3. Position the mouse cursor on the parts menu, and select it by pressing the left mouse button or the [J] key.

4. The Part window opens. Position the mouse cursor on <Save>, and select it by pressing the left mouse button or the [J] key.

5. The Part selection (List) window opens. Position the mouse cursor on the line of the part number to be save, and select it by pressing the left mouse button or the [J] key.

6. Position the mouse cursor on the Name box, and select it by pressing the left mouse button or the [J] key.

7. Enter the part name. [P] [A] [T] [T] [S] [ ] [2]

8. Press the [J] key. (Saving starts.)

9. As soon as the part is saved, the edit screen will appear.

*1: Up to one screen of created parts can be saved as a part. The time required to display parts, however, varies with their sizes. Create as small parts as possible.
19. OPERATIONS OF PARTS MENU

19.4 Delete

**Menus/Items to be selected**

(Edit screen) ➔ (Part window) ➔ Delete ➔ Part selection (List) window ➔ Part selection (Image) window

*For details of the settings on each window, refer to Section 19.2.

**Basic operation**

1. Have the edit screen displayed.

2. Position the mouse cursor on the menu, and select it by pressing the left mouse button or the [J] key.

3. Position the mouse cursor on the parts menu, and select it by pressing the left mouse button or the [J] key.

4. The Part window opens.
   Position the mouse cursor on <Delete>, and select it by pressing the left mouse button or the [J] key.

5. The Part selection (List) window opens.
   Position the line of the part to be deleted, and select it by pressing the left mouse button or the [J] key.

6. Position the mouse cursor on [Delete], and select it by pressing the left mouse button or the [J] key.

7. Position the mouse cursor on [Yes], and select it by pressing the left mouse button or the [J] key.

8. Position the mouse cursor on [Cancel], and select it by pressing the left mouse button or the [J] key.

19.5 Utilizing Graphics Registered in the Panel-Kit Library and Registering Graphics

In creating a canvas screen or part, the panel-kit menu in the control menu box enables the graphics (parts) registered in the panel-kit library to be utilized on the screen being edited, or graphics to be registered in a user's original library.

If necessary, select the Open function in the Panel-kit menu described in Section 20 to fetch a registered graphic from the panel-kit library of the AGOTP or from a user's original library and utilize it on the edit screen.

To register the graphics and character strings displayed on the edit screen in a user's original library, select the Save function in the Panel-kit menu.
20. OPERATIONS OF PANEL-KIT MENU

The panel-kit menu is used to fetch or save parts from or to the panel-kit library in which common graphics and character strings to be used in creating a canvas screen or part are stored.

The structure and functions of the panel-kit library is as shown below:

(1) Structure of the panel library

```
Panel-kit library
  Standard library incorporated in AGOTP (Refer to APPENDIX 3.)
  User's original library
    (Group)
      Switch 1
      Switch 2
      Lamp 1
      Lamp 2
      Miscellaneous 1
      Miscellaneous 2
      Original library 1
      Original library 2
      Original library n
      ...
      Original library 50

Part 1
      ... Part n
```

*1: 1) Up to one screen of created data can be saved as a part.
     2) Up to 50 original library can be established.
     3) Up to 128 parts can be stored in 1 original library.
     4) The user can attach a panel-kit name to original library n.

(2) Applications of the panel-kit library

1) A part can be fetched directly from the standard library to the edit screen.

2) A part can be fetched from the standard library and displayed after edited (modified).
   Edited data can be stored in an original library and utilized on another edit screen.

3) The user can enter any desired graphic or character string in an original library and utilize it on another edit screen.
(3) Restrictions on the use of the panel-kit library
For creating a canvas screen for a G controller unit type other than the A77GOT, use only the panel-kits of the standard library shown in the table below. Panel-kits of other numbers cannot be used. When a similar graphic is necessary, draw it according to the panel-kits. As graphics to be displayed by the part display function, all the panel-kits are available for all types of G controller unit.

Available Panel-Kit Numbers for Creating Canvas Screen

<table>
<thead>
<tr>
<th>Group Name</th>
<th>G Controller Unit</th>
<th>Other than A77GOT</th>
<th>A77GOT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Switch 1</td>
<td></td>
<td>No. 29 to No. 43</td>
<td>All available</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No. 55 to No. 72</td>
<td></td>
</tr>
<tr>
<td>Switch 2</td>
<td></td>
<td>No. 5, No. 15 to No. 18</td>
<td>All available</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No. 21 to No. 34</td>
<td></td>
</tr>
<tr>
<td>Lamp 1</td>
<td></td>
<td>All available</td>
<td></td>
</tr>
<tr>
<td>Lamp 2</td>
<td></td>
<td>All available</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous 1</td>
<td></td>
<td>All unavailable</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous 2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

20.1 Functions and Flow of Operation

(1) Functions
The functions of the panel-kit menu are as follows:

Panel-kit (♀)

- **Open** — To fetch parts from the panel-kit library.
  - Section 20.2
- **Save** — To save parts to an original library.
  - Section 20.3
- **Delete** — To delete an original library, or parts from an original library.
  - Section 20.4
(2) Flow of operation
The following is the flow outlining how parts are fetched, saved, and deleted by the panel-kit menu:

The edit screen opens.
Select a graphic or character string to be saved.

Select the panel kit menu.

The Panel-kit window opens.
Select <Open>.
Select <Save>.
Select <Delete>.

The Library name selection window opens.
Select the library from which parts will be fetched.
Select the library to which parts will be saved.
Select the library from which parts will be deleted.
Standard library selected
User library selected
Enter the library name if it is the first time.

To delete a part
To delete all parts
Select OK.
Select Delete.

The group windows open.
Select the group to be fetched.

Library part selection window.
Select the group from which parts will be fetched.
Select the group to which parts will be saved.
Select the group from which parts will be deleted.

The Library part selection (List) window opens.
Select the part to be fetched.
Select the part number to be saved.
Select the part to be deleted.

Select OK.
Enter the part name if it is newly created.
The Library part selection (List) window closes.
Select Delete.
Select Yes.
Select Cancel.

The selected part is displayed on the edit screen (the part can be moved).
Move the part to the target position by dragging the mouse cursor.

Click the left mouse button.
20. OPERATIONS OF PANEL-KIT MENU

20.2 Open

Menus/Items to be selected

(Edit screen)  
[Move]  
[Edit screen]  
Panel-kit window  
Library part selection (List) window  
Open  
Library name selection window  
Group window  
Library name selection window

[Details of items to be set]

(1) Library name selection window

Window display

1) The names of the AGOTP's panel-kit library and user's original library are displayed.

2) The library names following the library number set in the box on the left of this item are displayed.

3) Other library names are displayed in response to the dragging of the slider. By clicking left mouse button with the mouse cursor positioned on the up or down arrow, the library names scroll up or down.

4) The character cursor is displayed when the part is to be saved to a new library. Enter the library name in alphanumerical characters (symbols unacceptable), then press the [J] key.

5)  
6)  
7)  
8)  
9)  
10)

To select the library to be fetched, saved or deleted, position the mouse cursor on the line of the library, and click the left mouse button. (The line will be highlighted.)

After the number is set in the left box, the library numbers and names displayed in 1) will change by clicking the left mouse button with the mouse cursor positioned on [JUMP].

Dragging the slider and clicking the left mouse button will display other library names in 1).

The library name must be from 1 to 32 characters long.
5) Select this item when deleting the original library selected (highlighted) in 1).

6) The library selected (highlighted) in 1) is processed as specified on the Panel-kit window.

7) Select this item when closing the window without selecting a library name.

Deleting can be executed only when <Delete> is selected on the Panel-kit window.

Preparation for fetching a library, saving to a library or deleting a part from a library will be made.

### (2) Group window

<table>
<thead>
<tr>
<th>Window display</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Group Window" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) When standard library is selected, select the group including the part to be fetched.</td>
<td>Switch 1, Switch 2, Lamp 1, Lamp 2, Misc.1, Misc.2</td>
<td>The group selection window is displayed only when standard library is selected.</td>
</tr>
</tbody>
</table>
(3) Library part selection (List) window

![Part selection (List) window diagram]

<table>
<thead>
<tr>
<th>Description of Setting/Display</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) The numbers and names of the parts entered by the user in the library.</td>
<td></td>
<td>To select the part to be fetched, saved or deleted, position the mouse cursor on the line of the part, and click the left mouse button. (The line will be highlighted.)</td>
</tr>
<tr>
<td>2) Other part numbers and names are displayed in response to the dragging of the slider. By clicking the left mouse button with the mouse cursor positioned on the up or down arrow, the part numbers and names scroll up or down.</td>
<td></td>
<td>Dragging the slider and clicking the left mouse button will display other part numbers and names in 1). Refer to Section 4.5 (8).</td>
</tr>
<tr>
<td>3) The part numbers and names following the part number set in the box on the left of this item are displayed. Enter the number from the keyboard.</td>
<td></td>
<td>After the number is set in the left box, the part numbers and names displayed in 1) will change by clicking the left mouse button with the mouse cursor positioned on [JUMP].</td>
</tr>
<tr>
<td>4) Select this item when displaying the image of the part of which the name is indicated.</td>
<td></td>
<td>This item can switch this window to the Library part selection (Image) library described in 4). The part name must be from 1 to 32 characters long.</td>
</tr>
<tr>
<td>5) The character cursor for entering part name is displayed. Enter the part name in alphanumeric characters, then press the [.] key.</td>
<td></td>
<td>Deleting can be executed only when &lt;Delete&gt; is selected on the Panel-kit window.</td>
</tr>
<tr>
<td>6) Select this item when deleting the part selected (highlighted) in 1).</td>
<td></td>
<td>The part will be fetched.</td>
</tr>
<tr>
<td>7) Select this item when fetching the part selected (highlighted) in 1).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8) The window closes when this item is selected.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

20 - 6
(4) Library part selection (Image) window

**Window display**

1) The number of the part shown is displayed.

2) The image of the saved part corresponding to each number is displayed.

3) Other part numbers and names are displayed in response to the dragging of the slider. By clicking the left mouse button with the mouse cursor positioned on the up or down arrow, the blocks displaying parts scroll up or down.

4) The numbers and parts following the number set in the box on the left of this item are displayed. Enter the number from the keyboard.

5) Select this item to list the names of the parts being displayed.

6) Select this item when deleting the part selected in 2).

7) The part selected in 2) is processed as specified on the Panel-kit window.

8) Select this item when closing the window without selecting a part stored in the library.

**Description of Setting/Display**

**Setting Range/Options**

**Remarks**

The numbers will change in response to the display switching operation in 3) or 4).

Click the left mouse button to select the part to be fetched or deleted.

Dragging the slider and clicking the left mouse button will display other numbers and parts in 1) and 2). Refer to Section 4.5 (6).

After the number is set in the left box, other numbers and parts will be displayed in 1) and 2) by clicking the left mouse button with the mouse cursor positioned on [JUMP].

This item can switch this window to the Library part selection (List) window.

Deleting can be executed only when <Delete> is selected on the Panel-kit window.

The part will be fetched.
20. OPERATIONS OF PANEL-KIT MENU

Basic operation:

1. Have the edit screen displayed.

2. Position the mouse cursor on the menu, and select it by pressing the left mouse button or the [J] key.

3. Position the mouse cursor on the panel-kit menu, and select it by pressing the left mouse button or the [J] key.

4. The Panel-kit window opens. Position the mouse cursor on <Open>, and select it by pressing the left mouse button or the [J] key.

5. The Library name selection window opens. Position the mouse cursor on the line of the library to be fetched, and select it by pressing the left mouse button or the [J] key.

6. Position the mouse cursor on [OK], and select it by pressing the left mouse button or the [J] key.

7. When standard library is selected, the Group window opens. Position the mouse cursor on the group to which the part will be saved, and select it by pressing the left mouse button or the [J] key.

8. The Library part selection window opens. (Example: Library part selection (Image) window) Position the mouse cursor on the part to be fetched, and select it by pressing the left mouse button or the [J] key.

9. Position the mouse cursor on [OK], and select it by pressing the left mouse button or the [J] key.

10. The fetched part is displayed on the edit screen. "x" is displayed at the center of the fetched part.

11. Move the part to the target position (by dragging the mouse cursor, refer to Section 20.5).

12. Fix the position of the part by pressing the left mouse button or the [J] key.

13. Double-click the right mouse button to cancel the selected part.

POINT

(1) To fill a graphic that is to be registered in the panel kit, specify an inside coordinate at the center of the graphic. If an inside coordinate is specified other than at the center of the graphic, the graphic may not be displayed correctly in the library part selection (image display) window.
20.3 Save

Menus/Items to be selected

(Selecting a graphic or character string) → (Panel-kit window) → (Save)

Library part selection window → Entering a library name → Library name selection window

*For details of the settings on each window, refer to Section 20.2.

Basic operation

1. Create a part to be saved on the edit screen.
   (Refer to Section 16.)

2. Select a part (graphic or character string) to be saved.
   (Refer to Section 8.)
   Double-click the left mouse button or press the [.] key twice in rapid succession.

3. Position the mouse cursor on the panel-kit menu, and select it by pressing the left mouse button or the [.] key.

   Position the mouse cursor on "Save", and select it by pressing the left mouse button or the [.] key.

5. The Library name selection window opens.
   Position the mouse cursor on the line of the library to which the part will be saved, and select it by pressing the left mouse button or the [.] key.

6. Position the mouse cursor on the Panel-kit name box, and select it by pressing the left mouse button or the [.] key.

7. The dialog box opens.
   Position the mouse cursor on [Yes], and select it by pressing the left mouse button or the [.] key.

8. Enter the library name.
   [L][1][9][R][A][R][Y][1][.] [.-]

9. The Library part selection (List) window opens.
   Position the mouse cursor on number of the line on which the part name will be entered, and select it by pressing the left mouse button or the [.] key.

10. Position the mouse cursor on the Name box, and select it by pressing the left mouse button or the [.] key.

11. Enter the part name.
    [P][A][R][T][ ] [1][.] [.-]

12. Press the [.] key. (Saving starts.)

13. As soon as the part is saved, the edit screen will appear.
20.4 Delete

Menus/Items to be selected

(Edit screen) → Panel-kit window → Delete → Library name selection window → Library part selection window

*For details of the settings on each window, refer to Section 20.2.

Basic operation:

1. Have the edit screen displayed.

2. Position the mouse cursor on the menu, and select it by pressing the left mouse button or the [J] key.

3. Position the mouse cursor on the panel-kit menu, and select it by pressing the left mouse button or the [J] key.

4. The Panel-kit window opens. Position the mouse cursor on «Delete», and select it by pressing the left mouse button or the [J] key.

5. The Library name selection window opens. Position the mouse cursor on the line of the library from which part will be deleted, and select it by pressing the left mouse button or the [J] key.

6. Position the mouse cursor on [OK], and select it by pressing the left mouse button or the [J] key.

7. The Library part selection window opens. (Example: Library part selection (Image) window) Position the mouse cursor on the part to be deleted, and select it by pressing the left mouse button or the [J] key.

8. Position the mouse cursor on [Delete], and select it by pressing the left mouse button or the [J] key. (Deleting starts.)

9. As soon as the part is deleted, the part name will be erased.

(To delete all parts from the selected library)

6. Position the cursor on [Delete], and select it by pressing the left mouse button or the [J] key. (Deleting starts.)

7. As soon as all the parts are deleted, the library name will be erased.
21. OPERATING METHOD OF SPRITE MENU

The Sprite menu is used to set the monitor function in the canvas screen (a screen varies depending on a state of a device). For details on the method for setting switch functions and device write (SET/RST) function executed by touch key input when the GOT type is set as A77GOT-S5, refer to Section 25.

21.1 Functions and Outlined Procedure

1) Functions

Functions of Sprite Menu are described below.

<table>
<thead>
<tr>
<th>Sprite</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Numerical format</strong></td>
</tr>
<tr>
<td>Section 21.2</td>
</tr>
<tr>
<td><strong>Character string</strong></td>
</tr>
<tr>
<td>Section 21.3</td>
</tr>
<tr>
<td><strong>Alarm list</strong></td>
</tr>
<tr>
<td>Section 21.4</td>
</tr>
<tr>
<td><strong>Part</strong></td>
</tr>
<tr>
<td>Section 21.5</td>
</tr>
<tr>
<td><strong>Device write</strong></td>
</tr>
<tr>
<td>Section 21.6</td>
</tr>
<tr>
<td><strong>Number, character string</strong></td>
</tr>
<tr>
<td>Section 21.6.1</td>
</tr>
<tr>
<td><strong>SET/RST</strong></td>
</tr>
<tr>
<td>Section 21.6.2</td>
</tr>
<tr>
<td><strong>Touch key setting</strong></td>
</tr>
<tr>
<td>Section 21.7</td>
</tr>
<tr>
<td><strong>Block data</strong></td>
</tr>
<tr>
<td>Section 21.8</td>
</tr>
<tr>
<td><strong>Level</strong></td>
</tr>
<tr>
<td>Section 21.9</td>
</tr>
</tbody>
</table>
Graph
Section 21.10

Trend
Section 21.10.1
Sets the trend graph display function in the edit screen.

Bar graph
Section 21.10.2
Sets the bar graph display function in the edit screen.

Polygon graph
Section 21.10.3
Sets the polygon graph display function in the edit screen.

Spline
Section 21.10.4
Sets the spline graph display function in the edit screen.

Scatter graph
Section 21.10.5
Sets the scatter graph display function in the edit screen.

Pie (band) chart
Section 21.10.6
Sets the pie (band) chart display function in the edit screen.

Other than A64GOT
: for displaying a pie chart
A64GOT
: for displaying a band graph

<Pie chart>
Clock — Sets the clock display function in the edit screen.
Section 21.11

Error alert — Sets the error alert function in the edit screen.
Section 21.12

Monitor Station switching — Sets whether the station switching is Valid or Invalid at every screen No.
Section 21.13

Correction — Corrects the sprite data being set in the edit screen.
After correcting data, other sprite data can be corrected and deleted successively.
There are the following two kinds of selecting methods of sprite data to be corrected.

- Asterisk mark *** — Corrects and deletes the sprite data by selecting an asterisk *** in the edit screen.
Section 21.14.1

- List — Corrects and deletes the sprite data by selecting a sprite data line in the sprite list display window.
Section 21.14.2

Utilization — Sets a new sprite data by utilizing the sprite data being set.
After the sprite data is set, other sprite data can be deleted successively.
There are the following two kinds of selecting methods of sprite data to be diverted.

- Asterisk mark *** — Utilizes the sprite data by selecting an asterisk *** in the edit screen.
Section 21.15.1

- List — Utilizes the sprite data by selecting a sprite data line in the sprite list display window.
Section 21.15.2

Delete — Deletes the sprite data being set in the edit screen.
There are the following two kinds of selecting methods of sprite data to be deleted.

- Asterisk mark *** — Deletes the sprite data by selecting an asterisk *** in the edit screen.
Section 21.16.1

- List — Deletes the sprite data by selecting a sprite data line in the sprite list display window.
Section 21.16.2

Device change — Changes the device being set under the monitor conditions of all monitor functions only in the canvas screen displayed in the current edit screen, or including other canvas screen, to the specified device.
Section 21.17
(2) Outlined procedure
This section describes the outlined operating procedure of sprite menu.

(a) Outlined procedure when setting the sprite data

1. The edit screen opens.
2. Select the SP menu.
3. The sprite window opens.
4. Select each item to be set.

When <Device write> and <Graph> are selected,

5. Open the subwindow of <Device write> and <Graph>.
6. Select each item to be set.

Each sprite setting window opens.

7. Set each item in the window.

- **Delete**
  - Deletes the data already written and closes the window.

- **OK**
  - Writes the data just set and closes the window.

- **Cancel**
  - Closes the window with the data just set not written.

- **Next**
  - Writes the data just set and opens the sprite setting window being set immediately before. Select this item when the same sprite setting is performed continuously.

Each sprite setting window closes.

The edit screen opens.

*1: When the monitor function of which display range is established is set, a sprite frame as well as an asterisk *** are displayed.
(b) Outlined procedure when correcting the sprite data

The edit screen in which the sprite data to be corrected is set opens.
Indicates the canvas screen and so forth.

Select the [SP] menu.

The sprite window opens.

Select <Correction>.

The correction subwindow opens.

Select the <Asterisk *> mark.

Enclose an asterisk *** mark of the sprite data to be corrected with the setting frame in the canvas screen.

Select the <List>.

The list display window opens.

Specify the sprite data line to be corrected.

The sprite setting window to be corrected opens.

Correct each item already being set.

Delete
• Deletes the sprite data being selected and closes the window.

OK
• Writes the data just corrected and closes the window.

Cancel
• Closes the window with the data just corrected not written.

Next
• Writes the data just corrected and opens the same sprite setting window being set subsequently. Select this item to correct the same sprite data being set continuously. Close the window when there is not any same sprite.

The sprite setting window just corrected closes.

The edit screen opens.

Yes
Correct/delete other sprite data?
Yes

The edit screen opens.

No

If the asterisk *** mark was selected, position the mouse cursor on [OK] and click the right mouse button; if was selected, position the mouse cursor on [OK] and click the left mouse button.

The same sprite setting window being set subsequently opens.
(c) Outlined procedure when utilizing the sprite data

The edit screen opens.

Select the SP menu.

The sprite window opens.

Select <Utilize>.

The utilization subwindow opens.

Select the <Asterisk *> mark.

Enclose an asterisk *** mark of the sprite data to be corrected with the setting frame in the canvas screen.

Select the <List>.

Open the list display window.

Specify the sprite data line to be diverted.

The sprite setting window to be diverted opens.

Change a part of item being set.

Delete
- Deletes the sprite data already being written and closes the window.

OK
- Writes the data just set and closes the window.

Cancel
- Closes the window with the data just set not written.

Next
- Writes the data just set and opens the sprite setting window being set immediately before. Select this item to perform the same sprite setting continuously.

Each sprite setting window closes.

The edit screen opens.

The sprite setting window being set immediately before opens.

Yes

Utilize other sprite data?

Yes

No

If the asterisk *** mark was selected, position the mouse cursor on [OK] and click the right mouse button: If was selected, position the mouse cursor on [OK] and click the left mouse button.

The edit screen opens.
(d) Outlined procedure when deleting the sprite data

The edit screen in which the sprite data to be deleted is set opens.

Select the SP menu.

The sprite window opens.

Select <Delete>.

The delete subwindow opens.

Select the <Asterisk *> mark.

Enclose an asterisk *** mark of the sprite data to be deleted with the setting frame in the canvas screen.

Select the <List>.

The list display window opens.

Specify the sprite data line to be deleted.

The dialog box opens.

Yes

The edit screen opens.

Delete other sprite data?

Yes

No

If the asterisk *** mark was selected, position the mouse cursor on [OK] and click the right mouse button; if was selected, position the mouse cursor on [OK] and click the left mouse button.

The edit screen opens.
21. OPERATING METHOD OF SPRITE MENU  [SP]  MELSEC-A

21.2 Numerical Format

Menus/Items to be selected

(Edit screen) — SP — Numerical format

[Details of items to be set]

Window display

<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Set a timing for the G controller to collect data with the Trigger setting window in order to display the number/character string.</td>
<td></td>
<td>Default value: Ordinary See Section 9.3.4, (1).</td>
</tr>
<tr>
<td>2) Set the head position for displaying the number/character string with the Display position setting window.</td>
<td>R: 1 to 25 C: 1 to 80</td>
<td>See Section 9.3.7, (1). It is also possible to directly enter the matrix value.</td>
</tr>
<tr>
<td>3) Select a display color and attribute of the number/character string to be displayed with the Display Attr. selecting window.</td>
<td></td>
<td>Default value: White Normal See Section 9.3.8.</td>
</tr>
<tr>
<td>4) Select a character size for displaying the number/character string.</td>
<td>16-point, 8-point</td>
<td>Default value: 16-point</td>
</tr>
<tr>
<td>5) Select the magnification of the character size just set in the item 4) when magnifying and displaying the number/character string.</td>
<td>1, 2, 4, 8 (times)</td>
<td>Default value: 1 (without magnification) The character size just set in the item 4) multiplied by magnification is the size to be displayed.</td>
</tr>
<tr>
<td>6) Set the data display format with the Display format setting window.</td>
<td></td>
<td>Default value: Display format: Decimal Data type: 16-bit Display digit: 6 Decimal point: 0 See Section 9.3.6.</td>
</tr>
</tbody>
</table>
21. OPERATING METHOD OF SPRITE MENU

<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>7) Set a multiplier/divisor when displaying the collected data multiplied or divided by any value. (Select [*] for multiplier setting or [/] for divisor setting before selecting the item 7.)</td>
<td>*...Multiplier setting /...Divisor setting Multiplier/divisor: 1 to 65535</td>
<td>Default value: Multiplier 1 (without multiplication and division) Capable of setting only in decimal, hexadecimal, and BIN. Refer to POINT (1).</td>
</tr>
<tr>
<td>8) Set an addend/subtrahend when displaying the collected data after adding or subtracting any value.</td>
<td></td>
<td>Default value: 0 (without addition and subtraction) Capable of setting only in decimal, hexadecimal, and BIN. See Section 9.3.13, (1). The following values are displayed during monitor operation: Device value * Multiplier + Offset value Device value / Divisor + Offset value Set in the item 7. Set in the item 8.</td>
</tr>
<tr>
<td>9) Set the word device, in which data to be collected is stored, with the monitor device setting window.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**POINTS**

(1) When data length is 32-bit, it is not possible to set data so as to multiply the specified scale by device value (capable of division).

(2) Total number of digits may exceed a range capable of being displayed depending on a combination of character size, magnification, display digits, and display position just set. If the message "Improper setting data" is displayed, perform the setting of character size/magnification/display digits/display position again.
### 21.3 Character String

**Menus/Items to be selected**

(Edit screen) → **SP** → Character string

**[Details of items to be set]**

<table>
<thead>
<tr>
<th>Window display</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Image of window display" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1)</strong> Set a timing for G controller to collect data with the Trigger setting window in order to display the comment being set in the item 7) or comment create window.</td>
<td></td>
<td>Default value: Ordinary See Section 9.3.4, (1).</td>
</tr>
<tr>
<td><strong>2)</strong> Set the head position for displaying the comment with the Display position setting window.</td>
<td>R: 1 to 25&lt;br&gt;C: 1 to 90</td>
<td>See Section 9.3.7, (1). It is also possible to directly enter the value.</td>
</tr>
<tr>
<td><strong>3)</strong> Select the magnification when magnifying and displaying the comment just set.</td>
<td>1, 2, 4, 8 (times)</td>
<td>Default value: 1 (without magnification)</td>
</tr>
<tr>
<td><strong>4)</strong> Select whether to display the comment being set in the item 7) by “ON”/“OFF” state of the bit device or to display the comment being set in the comment create window by means of word device value.</td>
<td>Bit device, Word device</td>
<td>Default value: bit device For comment create window, refer to Section 22.7.</td>
</tr>
<tr>
<td><strong>5)</strong> Set the PC type/station number, device name, device No. of the device selected at item 4) in the monitor device setting window.</td>
<td></td>
<td>See Section 9.3.13 (1). When the bit device is selected at item 4), bit number of the word device can be set as a monitor device. For the G controller unit that can be set, refer to Section 1.2.</td>
</tr>
<tr>
<td><strong>6)</strong> When the bit device is selected at item 4), set whether to display the comment set in the item 7) when the bit device is “ON” or to display the comment when the bit device is “OFF”.</td>
<td>ON, OFF</td>
<td>Default value: ON Switch over from [ON] to [OFF], or from [OFF] to [ON] by clicking the item 6) with the left mouse button.</td>
</tr>
<tr>
<td><strong>7)</strong> Set the comment, which is displayed under the conditions set at item 6), in the comment entry window.</td>
<td>80 characters</td>
<td>Open the comment entry window by clicking the item 7) with the left mouse button. The comment can be set separately for “ON” and “OFF”.</td>
</tr>
</tbody>
</table>

---

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### 21. OPERATING METHOD OF SPRITE MENU

<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>8) Set a color of the comment, which is displayed under the conditions set at item 6), in the color attribute selecting window.</td>
<td></td>
<td>Default value: White</td>
</tr>
<tr>
<td>9) Select whether to normally display the comment, which is displayed under the conditions at item 6), or to reverse display the comment.</td>
<td>Normal, Reverse</td>
<td>Default value: Normal</td>
</tr>
<tr>
<td>10) Select whether or not to blink the comment, which is displayed under the conditions set at item 6). When the comment is blinked, select its blinking frequency.</td>
<td>None, Low, Mid, High</td>
<td>Default value: None</td>
</tr>
</tbody>
</table>

### POINT

1) Total number of digits may exceed a range capable of being displayed depending on a combination of number of characters, magnification, display position being set in the character string setting window. If the message "Improper setting data" is displayed, perform the number of characters/magnification/display position setting again.
### 21.4 Alarm List

**Menus/Items to be selected**

(Edit screen) → SP → Alarm list

**[Details of items to be set]**

#### Window display

<table>
<thead>
<tr>
<th>Column</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>Wrap, Priority, Wrap, Yes, No, Sort, FIFO</td>
</tr>
<tr>
<td>2)</td>
<td>Trigger, Cond. Ordinary PC, AM-PP Device</td>
</tr>
<tr>
<td>3)</td>
<td>Sprite Frame, L-UP R: C, R-DN R: C</td>
</tr>
<tr>
<td>4)</td>
<td>Head No. of comment, Head</td>
</tr>
<tr>
<td>5)</td>
<td>Magnification, 2, 3, 4 (times)</td>
</tr>
<tr>
<td>6)</td>
<td>Storing device, PC, AM-PP Device</td>
</tr>
<tr>
<td>7)</td>
<td>Monitor device, PC, AM-PP Device</td>
</tr>
</tbody>
</table>

#### Description of Setting

<table>
<thead>
<tr>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
</table>
| 1) Select whether to display multiple comments or to display a single comment. | Default value: No  
No: Displays multiple comments.  
Yes: Displays a single comments.  |
| 2) Select the item "Sort" when displaying multiple comments. | Default value: Priority  
FIFO: Displays multiple comments in the order the monitor device is turned ON.  
Priority: Displays multiple comments in the order of number of monitor devices.  |
| 3) Indicate a timing (ordinary fixed) for the G controller to collect data in order to display the comments. |  |
| 4) Set the upper left end and lower right end of a range, in which the comment is displayed, in the sprite frame setting window. | R: 1 to 25  
C: 1 to 80  
See Section 9.3.7, (2).  
It is also possible to directly enter the value.  |
| 5) Set the head number of comment to be displayed. | 0 to 32767  
Default value: 0  
Set the comment number assigned to the head monitor device to be set at item 8.  
Set the comment according to Section 22.7.  |
| 6) Select magnification when magnifying and displaying the comments. | 1, 2, 3, 4 (times)  
Default value: 1 (without magnification)  |
<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>7) Set a monitor device, in which the number of devices being turned &quot;ON&quot; is written out of multiple bit devices set at items 1) and 8), in the Monitor device setting window.</td>
<td></td>
<td>See Section 9.3.13, (1). This setting allows the PC CPU or operator to make sure of the number of bit devices turned &quot;ON&quot; during monitoring. Displaying the number of bit devices by means of the numerical format function may serve to indicate an operator the number of appropriate comments in the alarm list. Accordingly, this may inform an operator that the comments other than those being displayed in the screen are subject to further being displayed.</td>
</tr>
<tr>
<td>8) Set the head bit device to be monitored to display the comment in the Monitor device setting window.</td>
<td></td>
<td>See Section 9.3.13, (1). The bit number of the word device can be set as the monitor device. For the G controller unit that can be set, refer to Section 1.2.</td>
</tr>
<tr>
<td>9) Set the number of comments for the item 5) and the number of bit devices for the item 8) used for the alarm list.</td>
<td>1 to 255</td>
<td>Default value: 16 When the bit number of the word device is set at item 8), the following items are to be monitored with the setting of the item 9): Example: &quot;Bit number 9 of D10&quot; is set at item 8). &quot;10&quot; is set at item 9). The following bit numbers are to be monitored: Bit numbers 9 through 15 of D10 Bit numbers 0 through 2 of D11</td>
</tr>
</tbody>
</table>

**POINT**

(1) Relation between the setting values of items 5), 8) and 9) is as follows:
- The range of comments subject to alarm list display from the comment number set at item 5) and the range of devices subject to alarm list display from the bit device number set at item 8) are set at item 9).
- When the bit device of the number set at item 8) is turned ON, the comment of the number set at item 5) (as described in Section 22.7) is displayed.
- When the bit device of the number following that number set at item 8) is turned ON, the comment of the number following that number set at item 5) is displayed.
21. OPERATING METHOD OF SPRITE MENU

21.5 Part (Display, Locus, Movement)

Menus/Items to be selected

| (Edit screen) | SP | Part |

[Details of items to be set]

**Window display**

| Display type | Display, Locus, Movement |
| Background | Replace, Background, XOR |
| Trigger | Cond., Ordinary, PC, INIT, Device |
| Blink | Low, Mid, High |
| Display switching | Word, Word, Bit, Word, Bit, Direct |
| Fixed | Device (1 to 500) |
| Word device | 
| No. (word) | 
| No. (bit) | ON : OFF : 
| Control (Fixed) | 

**Description of Setting**

<table>
<thead>
<tr>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Select whether to display the part at the fixed position (Display), or to change the display position by word device value 10) (Movement), or to change the display position by word device value 10) to leave its locus (Locus).</td>
<td>Display, Locus, Movement</td>
</tr>
</tbody>
</table>

| 2) Select whether to display the part with or without background of canvas screen. | | Default value: Without |

| 3) Set a timing for the G controller to collect data in order to display the part, in the Trigger setting window. | | Default value: Ordinary |

| 4) Select whether or not to blink the part. When the part is blinked, select its blinking frequency. | None, Low, Mid, High | Default value: None |

| 5) Select whether to fix the part to only one (Fixed) or to switch it over depending on a state of the device. When the part is switched over, select whether to switch the part previously specified by the indirectly specified word device (word device), or to switch it by turning ON/OFF the bit device (bit device), or to directly specify the part by the word device (Direct). | Fixed, Word device, Bit device, Direct | Default value: Fixed |

For details on Background settings, refer to APPENDIX 8.

For details on Section 9.3.4, (1).

Default value: Without "XOR" can be selected only when the [Display] is selected in 1.

For details on Background settings, refer to APPENDIX 8.

See Section 9.3.4, (1).
<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>6) When [Fixed] is selected at item 5), set the part number.</td>
<td>1 to 255</td>
<td>Default value: 1</td>
</tr>
<tr>
<td>7) When any display switching is set at item 5), the switching method selected is displayed here.</td>
<td></td>
<td>The devices set at item 5) to be monitored can be changed. Open the monitor device setting window by clicking the item 7) with the left mouse button before changing the device.</td>
</tr>
<tr>
<td>8) When the [Word device] is selected at item 5), set the number of parts to be displayed in correspondence with the specified value of the word device (0 to 7).</td>
<td>When the &quot;Display/Movement&quot; is selected at item 1): 0 to 255 When the &quot;Locus&quot; is selected at item 1): 1 to 255</td>
<td>Default value: 0 (not displayed)</td>
</tr>
<tr>
<td>9) When the [Bit device] is selected at item 5), set the number of parts to be displayed during ON/OFF of the specified bit devices.</td>
<td>When the &quot;Display/Movement&quot; is selected at item 1): 0 to 255 When the &quot;Locus&quot; is selected at item 1): 1 to 255</td>
<td>Default value: 0 (not displayed)</td>
</tr>
<tr>
<td>10) When the &quot;Display&quot; is selected at item 1), set the position to display the parts in the display position setting window.</td>
<td>X: 0 to 639 Y: 0 to 399</td>
<td>See Section 9.3.7, (3). It is also possible to directly enter the coordinate. Open the part number specifying window by clicking the [Locate (Fixed)] with the left mouse button. Since visible outline of the specified part is displayed in the display position setting window by specifying the part number to be displayed to the setting position, it is easy to set the display position. When the part number is not specified, enter the [ESC] key.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>See Section 9.3.13, (1). The part is displayed with the value stored in the word device of the device number specified as a X coordinate and the value stored in the word device of the device number specified + 1 as a Y coordinate.</td>
</tr>
</tbody>
</table>

When the [Locus/Movement] is selected, set the word device that stores the part coordinate in the monitor device setting window.
21.6 Device Write

21.6.1 Number input, character string input

Menus/Items to be selected

(Delete screen)  SP  Device write  Number

[Details of items to be set]

Window display

1) Set the head position, where the number and character string are entered, in the display position setting window.

R: 1 to 25
C: 1 to 60

See Section 9.3.7, (1).

It is also possible to directly enter the value.

2) Set a color of the number and character string to be entered in the color attribute selecting window.

Default value: White
See Section 9.3.9.

3) Select the number and character size to be entered.

16-point

16-point fixed

4) Set the input format to enter data in the input format setting window.

Default value:
- Input format: decimal
- Data type: 16-bit
- Number of input digits: 6
- Number of input digits: 0

See Section 9.3.6.
Refer to the POINT (1).

5) When the number to be entered is multiplied or divided by any value, set the multiplier or divisor.
(Select [*] for setting a multiplier and [/] for setting a divisor before entering a value in the item 5.)

6) When any value is added to or subtracted from the number to be entered, set the addend or subtrahend.

Default value: 0
<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>7) Set the key code of the trigger key when writing the number and character string just entered.</td>
<td>Default value: OD ([J])</td>
<td>Set the key code so as not to overlap with the key used in the system.</td>
</tr>
<tr>
<td>8) Set the word device, in which the number and character string just entered are written, in the monitor device setting window.</td>
<td></td>
<td>See Section 9.3.13, (1).</td>
</tr>
</tbody>
</table>

**POINT**

(1) When data length is 32-bits, it is not possible to set data so as to multiply the specified scale by device value (capable of division).
21. OPERATING METHOD OF SPRITE MENU

21.6.2 SET/RST Input

Menus/Items to be selected

(Edit screen) → SP → Device write → SET/RST

[Details of items to be set]

Window display

Description of Setting | Setting Range/Options | Remarks
--- | --- | ---
1) Select the entering method of the key codes when setting the trigger key. | Key, Hexadecimal | Default value: Key
Key: Key code of the key entered is set.
Hexadecimal: Key code is entered and set in hexadecimal.
Set the key code according to the entering method selected by clicking with the left mouse button.
Set the trigger key so that it does not overlap with the keys used for number and character string Input and system.
Open the device write (SET/RST input) setting window by clicking the setting line with the left mouse button.
When the device write condition setting data already set is corrected/deleted, click the No. line with the left mouse button to correct and delete it in the device write (SET/RST input) setting window.

2) Set the trigger key to switch over the "ON"/"OFF" state of the bit device or to write the value of Fix, Word device.

3) Select a setting line to set the device write condition.

4) Select whether to write the value of Word device, Fix, or to turn the bit device to "ON" or "OFF" by entering the trigger key set at item 2). | Data SET | Default value: Bit SET
Data SET:
Writes the value of Word device and
Fix by the trigger key input.
Bit SET:
Turns "ON" the bit device by the trigger key input.
Bit RST:
Turns "OFF" the bit device by the trigger key input.
Alternate:
Turns the bit device "ON" and "OFF" alternately by the trigger key input.
5) Set the bit device to switch over "ON"/"OFF" state or the word device to write the value of Fix, other word device, Fix & Word dev. 5) in the monitor device setting window.

6) When the [Data SET] is selected at item 4), select whether to write the value of Fix, other word device, Fix & word device 5).

7) When the [Data SET] is selected at item 4), set the data type to be written in the display format setting window.

8) When the [Fix] or [Word dev. & Fix] is selected, set the value of Fix.

9) When the [Word dev.] is selected at item 6), set the word device, in which the number to be written into the Word device 5) is stored, in the monitor device setting window.

10) Select this item after setting the items 4) to 9).

11) Select [OK] to close this window.

<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>5)</td>
<td></td>
<td>See Section 9.3.13, (1). When the bit SET, bit RST, alternate are selected at item 4), the bit number of the word device can be set as a device to switch over &quot;ON&quot;/&quot;OFF&quot; state. For the G controller that can be set, refer to Section 1.2.</td>
</tr>
<tr>
<td>6) When the [Data SET] is selected at item 4), select whether to write the value of Fix, other word device, Fix &amp; word device 5).</td>
<td>Fix, Word device, Word + Fix</td>
<td>Default value: Fix</td>
</tr>
<tr>
<td>7) When the [Data SET] is selected at item 4), set the data type to be written in the display format setting window.</td>
<td>16-bit, 32-bit</td>
<td>Default value: 16-bit See Section 9.3.6.</td>
</tr>
<tr>
<td>8) When the [Fix] or [Word dev. &amp; Fix] is selected, set the value of Fix.</td>
<td>16-bit: -32768 to 32767, 32-bit: -2147483648 to 2147483647</td>
<td>Default value: 0</td>
</tr>
<tr>
<td>9) When the [Word dev.] is selected at item 6), set the word device, in which the number to be written into the Word device 5) is stored, in the monitor device setting window.</td>
<td></td>
<td>See Section 9.3.13, (1). When [OK] is selected, the device write (SET/RST input) setting list window is opened to display the setting contents. When the device write condition is set after setting the touch key, the touch key setting window is opened to display the setting contents. When the device write condition is set to the same trigger key, select [Next].</td>
</tr>
</tbody>
</table>
21.7 Touch Key Setting (When the GOT type setting is other than A77GOT-S5)

Touch key setting involves setting the touch key's key code, setting the switch function executed by touch key input, and setting the device write (SET/RST) function.

For details on these settings when the GOT type is set to A77GOT-S5, refer to Section 25.

When setting a switch function executed by key input at an operation panel, ten-key panel, or keyboard panel, refer to Section 11.10.

When setting a device write (SET/RST) function executed by key input at an operation panel, ten-key panel, or keyboard panel, refer to Section 21.6.2.

**Menus/Items to be selected**

(Edit screen) → SP → Touch key setting

**[Details of items to be set]**

**Window display**

1) Set the key position of the touch key.

2) Select the key code entering method to set/change the key code.

**Description of Setting**

**Setting Range/Options**

**Remarks**

Move the touch key position setting cursor to the key position where the touch key is set, and click it with the right mouse button.

This opens the touch key setting window.

To cancel the key position setting, click the right mouse button at any position.

Default value: Key

Key:

Sets the key code of the key entered.

Hexadecimal:

Sets and enters the key code in hexadecimal.
3) Set/change the key code of the touch key.

4) Set the bit device, in correspondence with the key position of the touch key when it is used as a switch, in the monitor device setting window.
   When the bit device is set in the monitor device setting window, the dialog box of simultaneously ON prohibited setting is displayed.
   When simultaneous ON function of the touch key of the bit device just set is prohibited, select [Yes]; when simultaneous ON is allowed, select [No].

5) Select [Del] to delete the bit device set at item 4.

6) When the device write (SET/RST) function is set after setting the touch key, select a setting line to set the device write condition.

7) Select [OK] after setting the items 2) to 6).

Default value: Refer to the POINT. The default key code has been set at the key position where the touch key is set. When the default key code is used, this operation is not required. When the default key code is not used, set the key code using the entering method selected by clicking with the left mouse button. Set the key code so as not to be overlapped with those keys used for system.

See Section 9.3.13, (1).
   The bit number of the word device can be set.
   For the G controller that can be set, refer to Section 1.2.
   To change the bit device just set, click the [Set] with the left mouse button again and set the bit device to be changed in the monitor device setting window.
   For the details of simultaneously ON prohibited setting, refer to the Users /Reference manual of the G controller used.

By clicking the setting line with the left mouse button, the device write (SET/RST Input) setting window is opened (See Section 21.6.2).

When the touch key setting is performed continuously, select the [Next].
When [OK] is selected without setting the items 4) and 6), a dialogue box "Do you validate the touch key code though the write action is not set?" opens.
When only the key position and key code of the touch key are set, select [Yes].
If [No] is selected, the touch key position and key code are deleted, and it becomes the Edit screen.
POINTS

(1) The following default key codes (including kana key code) are set at each key position to set the touch keys.

When setting the touch keys of other than A64GOT

<table>
<thead>
<tr>
<th>A1</th>
<th>A2</th>
<th>A3</th>
<th>A4</th>
<th>A5</th>
<th>A6</th>
<th>A7</th>
<th>A8</th>
</tr>
</thead>
<tbody>
<tr>
<td>A9</td>
<td>AA</td>
<td>AB</td>
<td>AC</td>
<td>AD</td>
<td>AE</td>
<td>AF</td>
<td>B0</td>
</tr>
<tr>
<td>B1</td>
<td>B2</td>
<td>B3</td>
<td>B4</td>
<td>B5</td>
<td>B6</td>
<td>B7</td>
<td>B8</td>
</tr>
<tr>
<td>B9</td>
<td>BA</td>
<td>BB</td>
<td>BC</td>
<td>BD</td>
<td>BE</td>
<td>BF</td>
<td>C0</td>
</tr>
<tr>
<td>C1</td>
<td>C2</td>
<td>C3</td>
<td>C4</td>
<td>C5</td>
<td>C6</td>
<td>C7</td>
<td>C8</td>
</tr>
<tr>
<td>C9</td>
<td>CA</td>
<td>CB</td>
<td>CC</td>
<td>CD</td>
<td>CE</td>
<td>CF</td>
<td>D0</td>
</tr>
<tr>
<td>D1</td>
<td>D2</td>
<td>D3</td>
<td>D4</td>
<td>D5</td>
<td>D6</td>
<td>D7</td>
<td>D8</td>
</tr>
<tr>
<td>DA</td>
<td>DB</td>
<td>DC</td>
<td>DD</td>
<td>DE</td>
<td>DF</td>
<td>E0</td>
<td></td>
</tr>
</tbody>
</table>

When setting the touch keys of A64GOT

<table>
<thead>
<tr>
<th>A1</th>
<th>A2</th>
<th>A3</th>
<th>A4</th>
<th>A5</th>
<th>A6</th>
<th>A7</th>
<th>A8</th>
</tr>
</thead>
<tbody>
<tr>
<td>A9</td>
<td>AA</td>
<td>AB</td>
<td>AC</td>
<td>AD</td>
<td>AE</td>
<td>AF</td>
<td>B0</td>
</tr>
<tr>
<td>B1</td>
<td>B2</td>
<td>B3</td>
<td>B4</td>
<td>B5</td>
<td>B6</td>
<td>B7</td>
<td>B8</td>
</tr>
<tr>
<td>B9</td>
<td>BA</td>
<td>BB</td>
<td>BC</td>
<td>BD</td>
<td>BE</td>
<td>BF</td>
<td>C0</td>
</tr>
<tr>
<td>FF</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Setting position for emergency stop button

This can be set when the emergency stop button is not used for external output. To correct and delete the touch key setting data previously set at the emergency stop button, perform its operation by list selection.

(2) When the simultaneously ON prohibited function is enabled, all other touch key inputs are invalidated when the touch key in question is ON.

• Simultaneously ON prohibited touch key

• Simultaneously ON allowed touch key

• Simultaneously ON allowed touch key

The range enclosed by the markings "▲ — ▲" indicates the period when the touch key in question is ON.

Set the simultaneously ON allowed/prohibited function according to the G controller unit used as follows:

- A77GOT (conventional model), A77GOT-S3 ......................... Capable of setting each key arbitrarily.
- A52GCPU ................. Capable of setting each key arbitrarily.
- A64GOT .................. Set all keys to simultaneously ON allowed.
- AD57G ................. Set all keys to simultaneously ON allowed.
21. OPERATING METHOD OF SPRITE MENU

21.8 Block Data

Menus/Items to be selected

(Open screen) → SP → Block data

[Details of items to be set]

Window display

Description of Setting | Setting Range/Options | Remarks
--- | --- | ---
1) Set a timing for G controller to collect data with the Trigger setting window in order to display multiple numbers/character strings in a block format.

2) Set the most significant digit at the first block in the block data display (most significant digit at display intervals for horizontal type) with the Display position setting window.

3) Select a display color and attribute of the number/character string with the Display Attr. selecting window.

4) Select the Attribute of the number/character string out of Normal or Reverse.

5) Select a character size for displaying the number/character string.

6) Select the magnification of the character size just set in the item 5) when magnifying and displaying the number/character string.

7) Set the data display format with the Display format setting window.

Default value: Ordinary
See Section 9.3.4, (1).

R: 1 to 25
C: 1 to 80
See Section 9.3.7, (1).
It is also possible to directly enter the matrix value.

Default value: White
See Section 9.3.9.

Default value: Norm

Default value: 16-point

Default value:
1, 2, 4, 8 (times)
The character size just set in the item 5) multiplied by magnification is the size to be displayed.

Default value:
Display format: Decimal
Data type: 16-bit
Display digit: 6
Decimal point: 0
See Section 9.3.6.
### Description of Setting

| 8) Set a multiplier/divisor when displaying the collected data multiplied or divided by any value. (Select [*] for multiplier setting or [/] for divisor setting before selecting the item 8). |
|---|---|---|
| **Setting Range/Options** | **Remarks** |
| * ...Multiplier setting \ / ...Divisor setting
Multiplier/divisor: 1 to 65535 | Default value: Multiplier 1 (without multiplication and division) Capable of setting only in decimal, hexadecimal, and BIN. Refer to POINT (1). |

| 9) Set an addend/subtrahend when displaying the collected data after adding or subtracting any value. |
|---|---|
| **Setting Range/Options** | **Remarks** |
| V type, H type | Default value: H type |

| 10) Select whether to display multiple number/character string Vertically or Horizontally. |
|---|---|
| **Setting Range/Options** | **Remarks** |
| 1 to 20 | Default value: 1 |

| 11) Set the number of data to be displayed. |
|---|---|
| **Setting Range/Options** | **Remarks** |
| 6 to 40 | Default value: 8 |

| 12) When H type is selected at item 10), set the space between block data (including number of digits displayed). |
|---|---|
| **Setting Range/Options** | **Remarks** |
| See Section 9.3.13, (1). The following values are displayed during monitoring:
Device value * Multiplier + Offset value
Device value / Divisor + Offset value
Set in the item 8. |

| 13) Set the first word device to be monitored with the monitor device setting window. |
|---|---|
| **Setting Range/Options** | **Remarks** |
| It is automatically set by data length and number of blocks displayed. |

| 14) Display the number of devices to be monitored. |
|---|---|---|
| **Setting Range/Options** | **Remarks** |

---

**POINTS**

(1) When data length is 32-bit, it is not possible to set data so as to multiply the specified scale by device value (capable of division).

(2) Total number of digits may exceed a range capable of being displayed depending on a combination of display position, character size, magnification, and display digits just set.

If the message "Improper setting data" is displayed, perform the setting of display position/character size/magnification/display digits again.
21. OPERATING METHOD OF SPRITE MENU \[SP\]

21.9 Level

Menus/Items to be selected

(Edit screen) \[SP\] Level

[Details of items to be set]

Window display

<table>
<thead>
<tr>
<th>No.</th>
<th>Item</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1)</td>
<td>Trigger</td>
<td></td>
<td>Default value: Ordinary</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>See Section 9.3.4, (1).</td>
</tr>
<tr>
<td>2)</td>
<td>Sprite frame</td>
<td>X: 0 to 639 Y: 0 to 399</td>
<td>See Section 9.3.7, (2).</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Set the sprite frame in the form of</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>enclosing the range or graphic form to</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>display the level. It is also possible to</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>directly enter the coordinates.</td>
</tr>
<tr>
<td>3)</td>
<td>Display direction</td>
<td>To LH, RH, UP, LOW</td>
<td>Default value: UP</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>See Section 9.3.9.</td>
</tr>
<tr>
<td>4)</td>
<td>Bound, Start</td>
<td></td>
<td>Default value: White</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>See Section 9.3.9.</td>
</tr>
<tr>
<td>5)</td>
<td>Col. Fill</td>
<td>Within the range set</td>
<td>See Section 9.3.7, (1).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>in the item 2)</td>
<td></td>
</tr>
<tr>
<td>6)</td>
<td>Display format</td>
<td></td>
<td>Default value: White</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>See Section 9.3.12.</td>
</tr>
<tr>
<td>7)</td>
<td>Monitor device</td>
<td>16-bit: -32768 to 32767</td>
<td>Default value: Data type 16-bit</td>
</tr>
<tr>
<td></td>
<td></td>
<td>32-bit: -2147483648 to</td>
<td>Upper limit 32767</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2147483647</td>
<td>Lower limit -32767</td>
</tr>
<tr>
<td>8)</td>
<td></td>
<td></td>
<td>See Section 9.3.13, (1).</td>
</tr>
</tbody>
</table>

Default value: Ordinary

See Section 9.3.4, (1).

See Section 9.3.7, (2).

Set the sprite frame in the form of enclosing the range or graphic form to display the level. It is also possible to directly enter the coordinates.

Default value: UP

Default value: White

See Section 9.3.9.

Within the range set in the item 2)

Default value: White

See Section 9.3.12.

16-bit: -32768 to 32767

32-bit: -2147483648 to 2147483647

Default value: Data type 16-bit

Upper limit 32767

Lower limit -32767

See Section 9.3.13, (1).
21. OPERATING METHOD OF SPRITE MENU

21.10 Graph Display

21.10.1 Trend graph

Menus/Items to be selected

(Scan screen)  SP  Graph  Trend

[Details of items to be set]

Window display

<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Select a type of trend graph.</td>
<td>Scroll, Overwrite, Batch</td>
<td>Default value: Scroll</td>
</tr>
<tr>
<td>2) When the Scroll is selected at item 1), set several conditions for the G controller to collect data in order to display a graph with the trigger setting (scrolling) window. See Section 9.3.4, (2).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3) When the Overwrite is selected at item 1), set several conditions for the G controller to collect data in order to display a graph with the trigger setting (overwriting) window. See Section 9.3.4, (3).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4) When the Batch is selected at item 1), set a timing for the G controller to read data stored in the word device in order to display a graph with the trigger setting window. See Section 9.3.4, (1).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) Set the coordinates at the upper left end and lower right end of the sprite frame to display a graph with the display position setting window. X: 0 to 639, Y: 0 to 399. See Section 9.3.7, (2). It is also possible to directly enter the coordinates.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) Select the display direction of the graph from either left-hand or right-hand. From LH, RH Default value: LH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7) Set the point space on the X-axis in the graph displaying the device value. 1 to 500 Default value: 5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Description of Setting

6) Set the data type and upper/lower limits to display the data with the display format setting window.

<table>
<thead>
<tr>
<th>Setting Range/Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>16-bit: -32768 to 32767</td>
</tr>
<tr>
<td>32-bit: -2147483648 to 2147483647</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default value: Data type 16-bit</td>
</tr>
<tr>
<td>Upper limit 32767</td>
</tr>
<tr>
<td>Lower limit -32768</td>
</tr>
<tr>
<td>See Section 9.3.6.</td>
</tr>
</tbody>
</table>

7) Set the number of graph lines to be displayed.

<table>
<thead>
<tr>
<th>Setting Range/Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Default value: 1</td>
</tr>
<tr>
<td>See Sections 9.3.13, (3), 9.3.13, (1), and 9.3.10.</td>
</tr>
</tbody>
</table>

8) Set the device to be monitored and the graph line attribute with the monitor device editing window, monitor device setting window, and line attribute selecting window.

### POINTS

1. The trend graphs can be set only up to 16 in one canvas screen. Note that there occurs an error during conversion if more than 16 trend graphs are set.

2. The scroll type trend graphs (file storing) can be set only up to 16 in entire canvas screen. Note that there occurs an error during conversion if more than 16 scroll type trend graphs are set.
21. OPERATING METHOD OF SPRITE MENU  [SP]

21.10.2 Bar graph

Menus/Items to be selected

(Edit screen)  [SP]  Graph  Bar

[Details of items to be set]

Window display

```
<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
</table>
| 1 | Set a timing for the G controller to collect data to display a graph with the trigger setting window. Default: Ordinary See Section 9.3.4, (1).
| 2 | Set the coordinates at the upper left end and lower right end of the sprite frame displaying a graph with the display position setting window. X: 0 to 639 Y: 0 to 300 See Section 9.3.7, (2). It is also possible to directly enter the coordinates.
| 3 | Select the display direction of the graph vertically, or from left-hand or right-hand. (From) V, LH, RH Default value: V
| 4 | Set a distance from the origin of the graph to the position of the bar graph displayed close to the origin. 0 to 100 Default value: 0
| 5 | Set the bar width of the bar graph to be displayed. 1 to 500 Default value: 20
| 6 | Set the space between the bar graphs (including bar width). 1 to 500 Default value: 50
| 7 | Set the number of points to be displayed. 1 to 20 Default value: 10
| 8 | Set the data type and upper/lower limits to display a graph with the display format setting window. 16-bit: 32768 to 32767 Upper limit 32767 Lower limit -32768 Default value: Data type 16-bit See Section 9.3.6.
| 9 | Select the type of bar graph. Normal, Cumulative Default value: Normal
| 10| When " Cumulative" is selected at item 9), set the number of elements constituting a single bar graph. 1 to 5 Default value: 1
```

Delete  OK  Next  Cancel
21. OPERATING METHOD OF SPRITE MENU

<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>11) Set the word device to be monitored, color of bar graph, and fill pattern with the monitor device editing window, monitor device setting window, and fill attribute selecting window.</td>
<td></td>
<td>See Sections 9.3.13, (3), 9.3.13, (1) and 9.3.12.</td>
</tr>
<tr>
<td>12) Display the number of devices to be monitored.</td>
<td></td>
<td>This is automatically set according to the data length, number of bar graphs, data type, number of elements.</td>
</tr>
</tbody>
</table>

POINTS

(1) The setting values of items 4) to 6) are shown below in correspondence with the bar graph display.

(2) The number in the parentheses denotes the order of storing data of monitor device for graph display.

4): Offset
5): Width
6): Space

<table>
<thead>
<tr>
<th>Normal type</th>
<th>Cumulative type</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Diagram" /></td>
<td><img src="image2.png" alt="Diagram" /></td>
</tr>
</tbody>
</table>

No. : 2
Elements: 3
21. OPERATING METHOD OF SPRITE MENU [SP]

21.10.3 Polygon graph

Menus/Items to be selected

(Add screen) SP Graph Polygon

[Details of items to be set]

Window display

<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Set a timing for the G controller to collect data to display a graph with the trigger setting window.</td>
<td>Default: Ordinary See Section 9.3.4, (1).</td>
<td></td>
</tr>
<tr>
<td>2) Set the coordinates at the upper left end and lower right end of the sprite frame displaying a graph with the display position setting window.</td>
<td>X: 0 to 639 Y: 0 to 399 See Section 9.3.7, (2). It is also possible to directly enter the coordinates.</td>
<td></td>
</tr>
<tr>
<td>3) Set the number of points (number of data) to be displayed on the X-axis in a graph.</td>
<td>2 to 100 Default value: 100 When the number of X-axis points is entered, the space calculated from the X-axis coordinate set at item 2) and the number of X-axis points is automatically set to 7).</td>
<td></td>
</tr>
<tr>
<td>4) Set the data type and upper/lower limits to display a graph with the display format setting window.</td>
<td>16-bit: -32768 to 32767 Default value: Data type 16-bit Upper limit 32767 Lower limit -32768 See Section 9.3.6.</td>
<td></td>
</tr>
<tr>
<td>5) Set the number of graph lines to be displayed.</td>
<td>1 to 8 Default value: 1</td>
<td></td>
</tr>
<tr>
<td>6) Set the monitor device, graph line attribute with the monitor device editing window, monitor device setting window, and line attribute selecting window.</td>
<td>See Sections 9.3.13, (3), 9.3.13, (1) and 9.3.10.</td>
<td></td>
</tr>
</tbody>
</table>
21. OPERATING METHOD OF SPRITE MENU [SP] MELSEC-A

21.10.4 Spline graph

Menus/Items to be selected

(Edit screen) → [SP] → Graph → Spline

[Details of items to be set]

Window display

<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Set a timing for the G controller to collect data to display a graph with the trigger setting window.</td>
<td></td>
<td>Default: Ordinary See Section 9.3.4, (1).</td>
</tr>
<tr>
<td>2) Set the coordinates at the upper left end and lower right end of the sprite frame displaying a graph with the display position setting window.</td>
<td>X: 0 to 639 Y: 0 to 399</td>
<td>See Section 9.3.7, (2). It is also possible to directly enter the coordinates.</td>
</tr>
<tr>
<td>3) Set the number of points (number of data) to be displayed on the X-axis in a graph.</td>
<td>3 to 100</td>
<td>Default value: 100 When the number of X-axis points is entered, the space calculated from the X-axis coordinate set at item 2) and the number of X-axis points is automatically set to 7).</td>
</tr>
<tr>
<td>4) Set the data type and upper/lower limits to display a graph with the display format setting window.</td>
<td>16-bit: -32768 to 32767 32-bit: -2147483648 to 2147483647</td>
<td>Default value: Data type 16-bit Upper limit 32767 Lower limit -32768 See Section 9.3.6.</td>
</tr>
<tr>
<td>5) Set the number of graph lines to be displayed.</td>
<td>1 to 8</td>
<td>Default value: 1</td>
</tr>
<tr>
<td>6) Set the monitor device, graph line attribute with the monitor device editing window, monitor device setting window, and line attribute selecting window.</td>
<td></td>
<td>See Sections 9.3.13, (3), 9.3.13, (1).</td>
</tr>
</tbody>
</table>
21. OPERATING METHOD OF SPRITE MENU \([\text{SP}]\)  

**21.10.5 Scatter graph**

<table>
<thead>
<tr>
<th>Menus/Items to be selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Edit screen)</td>
</tr>
</tbody>
</table>

**[Details of items to be set]**

**Window display**

<table>
<thead>
<tr>
<th>Display type</th>
<th>Sample</th>
<th>Batch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trigger</td>
<td>Cond.</td>
<td>PC</td>
</tr>
<tr>
<td>Device</td>
<td>Cond.</td>
<td>PC</td>
</tr>
<tr>
<td>Sprite frame</td>
<td>L-UP X:</td>
<td>Y:</td>
</tr>
<tr>
<td></td>
<td>R-UP X:</td>
<td>Y:</td>
</tr>
<tr>
<td>Point attribute</td>
<td>Col.</td>
<td>Type</td>
</tr>
<tr>
<td>X axis parameter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Display type</td>
<td>16-bit Up.</td>
<td>32767 Low.</td>
</tr>
<tr>
<td>Monitor dev.</td>
<td>PC A3H-FF Device</td>
<td>No.</td>
</tr>
</tbody>
</table>

**Description of Setting**

1) Select the type of scatter graph.  
   Setting Range/Options: Sample type, Batch type  
   Remarks: Default value: Sample type

2) When the sample type is selected at item 1), set a timing for the G controller to collect data to display a graph with the trigger setting window.  
   When the batch type is selected at item 1), set a timing for the G controller to read the data stored in the word device to display a graph with the trigger setting window.  
   Remarks: See Section 9.3.4, (1).

3) When the sample type is selected at item 1), set a timing to collectively erase the graph displayed in the monitor screen with the trigger setting window.  
   Remarks: See Section 9.3.4, (1).

4) Set the coordinates at the upper left end and lower right end of the sprite frame displaying a graph with the display position setting window.  
   X: 0 to 639  
   Y: 0 to 399  
   Remarks: See Section 9.3.7, (2).  
   It is also possible to directly enter the coordinates.

5) Set the color, type, and size of a graph with the color attribute selecting window.  
   Default value: White, ●, S  
   See Section 9.3.11.

6) Select the data subject to setting of display type and monitor device parameter performed at items 7) and 8) to be X-axis data or Y-axis data.  
   X-axis, Y-axis  
   Remarks: X-axis and Y-axis display is alternated every time by clicking this item with the left mouse button.

7) Set the data type and upper/lower limits to display a graph with the display format setting window.  
   16-bit: −32768 to 32767  
   32-bit: −2147483648 to 2147483647  
   Default value: Data type  
   Upper limit: 32767  
   Lower limit: −32768  
   See Section 9.3.6.
<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>8) Set the word device to be monitored with the monitor device setting window.</td>
<td></td>
<td>See Section 9.3.13.</td>
</tr>
<tr>
<td>9) When the batch type is selected at item 1), set the number of word devices to be monitored.</td>
<td>1 to 100</td>
<td>Default value:1</td>
</tr>
</tbody>
</table>

**POINT**

(1) Set the item of display type and monitor device separately for X-axis data and Y-axis data. Setting is not completed unless both data of X-axis and Y-axis are set.
21. OPERATING METHOD OF SPRITE MENU [SP]

21.10.6 Pie (Band) chart

Menus/Items to be selected

(Edit screen) — SP — Graph — Pie (Band)

[Details of items to be set]

Window display

<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Set a timing for the G controller to collect data to display a graph with the trigger setting window.</td>
<td>Default: Ordinary See Section 9.3.4, (1).</td>
<td></td>
</tr>
<tr>
<td>2) Set the coordinates at the upper left end and lower right end of the sprite frame displaying a graph with the display position setting window.</td>
<td>X: 0 to 639 Y: 0 to 399</td>
<td>See Section 9.3.7, (2). It is also possible to directly enter the coordinates.</td>
</tr>
<tr>
<td>3) Set the boundary color between elements in a graph with the color attribute selecting window.</td>
<td>Default value: White See Section 9.3.9.</td>
<td></td>
</tr>
<tr>
<td>4) Set the data type to display a graph with the display format setting window.</td>
<td>16-bit: −32768 to 32767 32-bit: −2147483648 to 2147483647</td>
<td>Default value: Data type 16-bit Upper limit 32767 Lower limit −32768 See Section 9.3.6.</td>
</tr>
<tr>
<td>5) Set the number of elements constituting a graph.</td>
<td>1 to 16</td>
<td>Default value: 16</td>
</tr>
<tr>
<td>6) Set the monitor device, color/fill pattern of each element with the monitor device editing window, monitor device setting window, and fill attribute selecting window.</td>
<td>See Sections 9.3.13, (3), 9.3.13, (1) and 9.3.12. For the A64GOT, when a pie chart is set, a band graph is displayed (The A64GOT cannot display a pie chart).</td>
<td></td>
</tr>
</tbody>
</table>
21. OPERATING METHOD OF SPRITE MENU

21.11 Clock

Menus/Items to be selected

(Edit screen) → SP → Clock

[Details of items to be set]

Window display

Description of Setting | Setting Range/Options | Remarks
---|---|---
1) Set the head position to display a date with the display position setting window. | R: 1 to 25  C: 1 to 67 | See Section 9.3.7.  It is also possible to directly enter a matrix value.  Arrangement of clock data to be displayed is as follows:  Year of grace/month/day hour:minute  14 characters
21. OPERATING METHOD OF SPRITE MENU

21.12 Error Alert

Menus/Items to be selected

(Edit screen) → SP → Error alert

[Details of items to be set]

Window display

<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
</table>
| 1) Set the head position to display an error alert with the display position setting window. | R: 1 to 25  
C: 1 to 80 | See Section 9.3.7, (1).  
It is also possible to directly enter a matrix value. |
| 2) To magnify and display characters entered as an error alert message, select its magnification. | 1, 2, 4 (times) | Default value: 1 (times)  
(without magnification) |
| 3) Set the comment to be displayed with the alert message entering window. | 64 characters | Default value: Error!  
(For an error alert display, maximum 74 characters can be displayed including an error number.) |
| 4) Set a color of the message to be displayed with the color attribute selecting window. | Normal, Reverse | Default value: Red  
See Section 9.3.9. |
| 5) Select the attribute to display the message out of Normal or Reverse. | | |

**POINT**

1) Total number of digits may exceed a range capable of being displayed depending on a combination of display position, magnification, and number of characters just set.  
If the message "Improper setting data" is displayed, perform the setting of display position/magnification/number of characters again.
# 21. OPERATING METHOD OF SPRITE MENU [SP]

## 21.13 Monitoring Station Switching

### Menus/items to be selected

(Values screen) → SP → Monitoring station switching

### [Details of items to be set]

#### Window display

![Monitoring Station switching](image)

### Description of Setting | Setting Range/Options | Remarks
--- | --- | ---
1) When the monitor screen data of each screen No. is monitored, select the item of station switching to be either Valid or Invalid. | Valid, Invalid | Default value: Invalid
Valid: Performs the station switching.
Invalid: Does not perform the station switching.

The station switching function is set at each screen No.

---

### POINTS

1. For the details of station switching, refer to the Reference manual of the A77GOT-S3 and A77GOT-S5.
2. When the station switching is performed, be sure to set the station switching device (See Section 11.4).
21. OPERATING METHOD OF SPRITE MENU

21.14 Correction

21.14.1 "**" mark selection

** Menus/Items to be selected

(1) Specify a point by left click.

** Menu with the ** mark

| Production status | *
|-------------------|---
| Production output | 1
| Defectives        | 0

<Canvas screen>

X:230 Y:127

[Operating procedure]

<Setting window>

Steps after Canvas Screen Opened

1. Enclose an asterisk mark "**" of the sprite to be corrected with a setting frame.

2. Select [Yes] in the dialog box.

3. Set and select any items to be corrected in the setting window.

4. Select [OK] in the setting window.

5. To correct other sprite data, repeat the operation from step 1.
   To discontinue the correcting operation, click the right mouse button.

<table>
<thead>
<tr>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specify the upper left position of the &quot;[ ]&quot; by left click ([]).</td>
</tr>
<tr>
<td>Specify the lower right position of the &quot;[ ]&quot; by left click ([]).</td>
</tr>
<tr>
<td>The dialog box opens.</td>
</tr>
<tr>
<td>Select and open the setting window.</td>
</tr>
</tbody>
</table>

POINTS

(1) To discontinue the correcting operation, click the right mouse button at any position before operating the step 1.

(2) When the right mouse button is clicked after the operation of *, the setting frame can be set again.

(3) When [Cancel] is selected at the step 4., the correction data is erased (The setting data before correction is valid).

(4) When [Delete] is selected at the step 4., data previously set in the setting window is all deleted.
21. OPERATING METHOD OF SPRITE MENU [SP]  MELSEC-A

21.14.2 List selection

Menus/Items to be selected

(Select screen) — SP — Correction — List

[Operating procedure]

Window transition

Steps after Sprite List Window Opened

1. Display the sprite data line of the sprite to be corrected in the sprite list window.

2. Select the sprite data line to be corrected.

3. Select [Yes] in the dialog box.

4. Set and select any items to be corrected in the setting window.

5. Select [OK] in the setting window.

6. To correct other sprite data, repeat the operation from step 1.
   To discontinue the correcting operation, click [OK].

Remarks

Click item 1) with the left mouse button. (Perform dragging of slider 2).

Move a cursor to the sprite data line to be corrected and click it with the left mouse button.

The dialog box opens.

Select and open the setting window.

The sprite list window opens.

POINTS

1. To discontinue the correcting operation, click [OK] with the left mouse button before operating the step 2.

2. When [Cancel] is selected at the step 5., the correction data is erased (The setting data before correction is valid).

3. When [Delete] is selected at the step 5., data previously set in the setting window is all deleted.
21. OPERATING METHOD OF SPRITE MENU

21.15 Utilization

21.15.1 "***" mark selection

Menus/Items to be selected

(Edit screen) — SP — Utilization — *** mark

[Operating procedure]

Window transition

<Canvas screen>

X:230 Y:127 Specify starting point by left click

Production status
Production output
Defectives

Left click position

Setting frame

Left click position

<Setting window>

Steps after Canvas Screen Opened

1. Enclose an asterisk mark "***" of the sprite to be utilized with a setting frame.
   Specify the upper left position of the [+] by left click (*).
   Specify the lower right position of the [+] by left click.
   The dialog box opens.

2. Select [Yes] in the dialog box.
   Select and open the setting window.

3. Set and select any items to be changed in the setting window.

4. Select [OK] in the setting window.

5. To utilize other sprite data, repeat the operation from step 1.
   To discontinue the utilizing operation, click the right mouse button.

Remarks

POINTS

(1) To discontinue the utilizing operation, click the right mouse button at any position before operating the step 1.

(2) When the right mouse button is clicked after the operation of *, the setting frame can be set again.

(3) When [Cancel] or [Delete] is selected at the step 4., the changed data is erased.
21. OPERATING METHOD OF SPRITE MENU  [SP]  MELSEC-A

21.15.2 List selection

Menus/Items to be selected

(Edit screen) → SP → Utilization → List

[Operating procedure]

Window transition

Steps after Sprite List Window Opened

1. Display the sprite data line of the sprite to be utilized in the sprite list window.

2. Select the sprite data line to be utilized.

3. Select [Yes] in the dialog box.

4. Set and select any items to be changed in the setting window.

5. Select [OK] in the setting window.

6. To utilize other sprite data, repeat the operation from the step 1. To discontinue the utilizing operation, click [OK].

Remarks

Click item 1) with the left mouse button./Perform dragging of slider 2).

Move a cursor to the sprite data line to be utilized and click it with the left mouse button.

The dialog box opens.

Select and open the setting window.

The sprite list window opens.

POINTS

(1) To discontinue the utilizing operation, click [OK] with the left mouse button before operating the step 2.

(2) When [Cancel] or [Delete] is selected at the step 5., the changed data is erased.
21. OPERATING METHOD OF SPRITE MENU [SP]

21.16  Delete

21.16.1 "**" mark selection

Menus/Items to be selected

(Edit screen) ——— SP ——— Delete ——— "**" mark

[Operating procedure]

Window transition

<Canvas screen>

X:230 Y:127 Specify starting point by left click.

Production status
Production output
Defectives

Steps after Canvas Screen Opened

1. Enclose the "**" mark of the sprite to be deleted with the setting frame.

   Left click position

   Setting frame

   Left click position

   Specify the upper left position of the [ + ] by left click (*).

   Specify the lower right position of the [ + ] by left click.

   The dialog box opens.

2. Select [Yes] in the dialog box.

3. To delete other sprite data, repeat the operation from step 1.
   To discontinue the deleting operation, click the right mouse button.

   Select the item to execute the deleting operation.

   Points

   (1) To discontinue the deleting operation, click the left mouse button at any position before operating the step 1.

   (2) When the right mouse button is clicked after the operation marked by *, the setting frame can be set again.

   (3) When the sprite data set in the canvas screen is all deleted, perform it with the "Screen Utilization/Delete" selected in the edit menu (See Section 11.3).
21. OPERATING METHOD OF SPRITE MENU  [SP]  MELSEC-A

21.16.2 List selection

Menus/Items to be selected

(Edit screen)  SP  Delete  List

[Operating procedure]

Window transition

<Sprite list window>

Steps after Sprite List Window Opened

1. Display the sprite data line of the sprite to be deleted in the sprite list window.

2. Select the sprite data line to be deleted.

3. Select [Delete].

4. Select [Yes] in the dialog box.

5. To delete other sprite data, repeat the operation from step 1. To discontinue the deleting operation, click [OK].

Remarks

Click item 1) with the left mouse button./Perform dragging of slider 2).

Move a cursor to the sprite data line to be deleted and click it with the left mouse button.
(capable of selecting multiple sprite data lines)

The sprite data line selected is displayed in reverse video.
To cancel the sprite data line just selected, click the sprite data line with the left mouse button again.

Click [Delete] with the left mouse button.

The dialog box opens.

Select the item to execute the deleting operation.

The sprite list window opens.

POINTS

(1) To discontinue the deleting operation, click [OK] with the left mouse button before operating the step 3.

(2) When the sprite data set in the canvas screen is all deleted, perform it with the “Screen Utilization/Delete” selected in the edit menu (See Section 11.3).
21.17 Device Change

**Menus/Items to be selected**

(Edit screen) — SP — Device change

**[Details of items to be set]**

**Window display**

<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
</table>
| 1) Select "Screen(s)". |                       | Default value: Current
|                        | Current, All area     | Current: Changes the device name set by the monitor screen data currently created. All area: Changes the device name set by all monitor functions including all monitor screen data created. |
| 2) Set the device name to change and the bit number of the word device with the monitor device setting window. |                       | See Section 9.3.13, (1). |
| 3) Set the "Change to" device name and the bit number of the word device with the monitor device setting window. |                       | See Section 9.3.13, (1). |
| 4) Set the number of points. When the number of points is set, the device name following the device name to change and the bit number following those bit number of the word devices to change are also changed. | Default value: 1       | <Example>
|                        |                       | Device name to change D0
|                        |                       | Change to device name D10
|                        |                       | When the No. of points is set to "3", the device name D0, D1, D2 are changed to D10, D11, D12, respectively. |
| 5) Select [OK] to carry out device change. |                       |         |
| 6) Select [Cancel] to close this window. |                       |         |
21.18 How to Copy the Setting Contents between Screens

When the sprite data having been set is also used collectively for other canvas screens, the following function should be utilized:

(1) With the screen utilizing function
When the screen utilizing operation as described in Section 11.3 is employed, the sprite data so far having been set can be utilized to other canvas screens with the state unchanged.

21.19 How to Print Out the Setting Contents

When the display contents of the sprite data having been set is printed out, the following methods should be used:

(1) To print out the display image during execution of monitoring operation
Print out the setting contents using the image display function as shown in Section 22.9 and the device display function as shown in Section 22.10.

(2) To print out the sprite data having been set
Print out the setting contents using the printing function as shown in Section 10.6.
EXPLANATION OF OPERATIONS OF MENU OPTIONS IN TOOL BOX

These sections describe each operating method of a menu in the tool box displayed in the edit screen for creating the monitor screen. These sections also describe the error messages that are displayed when operating this software package.

Chapter 22  HOW TO OPERATE THE TOOL BOX MENU .........................22 - 1  22 - 19
Chapter 23  HOW TO OPERATE THE EXIT MENU (FOR TOOL BOX) ...23 - 1  23 - 3
Chapter 24  ERROR MESSAGE AND ERROR CONTENTS ................24 - 1  24 - 2
Chapter 25  GUIDE TO OPERATIONS FOR SETTING FUNCTION
EXECTED BY TOUCH KEY INPUT WHEN USING AN
A77GOT-S5 ..................................................................................26 - 1  25 - 24
22. HOW TO OPERATE THE TOOL BOX MENU

The tool box menu allows the following functions:

- Edits the graphic forms and graphics character strings in the edit screen (See Sections 22.2, 22.4, 22.5).
- Facilitates to draw up graphic forms (symbols) or enter characters by providing those functions such as Snapping ON/OFF, Grid/display Back/Front/No, Scale (section 22.3).
- Draws up comments (character strings) to be displayed /printed by the monitor function (section 22.6).
- Gives a title at every monitor screen to be created (See Section 22.7).
- Makes sure of or prints out the display image during execution of monitoring operation by means of monitor screen created (See Section 22.8).
- Makes sure of or prints out the monitor device name for the monitor functions already set (See Section 22.9).
22. HOW TO OPERATE THE TOOL BOX MENU

22.1 Functions and Outlined Procedure

(1) Functions

The functions of the tool box menu are described below.

- **Mirror H** — Vertically rotates the graphic form currently selected. Section 22.2,(1)
- **Mirror V** — Horizontally rotates the graphic form currently selected. Section 22.2,(2)
- **90°** — Counterclockwise rotates the graphic form currently selected by 90°. Section 22.2,(3)
- **Grid/Scale** — Specifies whether or not to perform snapping for graphic form draw-up, entry and movement of graphic characters to the grid position, to display the grid(s) in the edit screen, and specifies the resolution to display the grids. Magnifies and displays the range specified in the edit screen. Or exits the magnified display to return to the original display. Section 22.3
- **Bring Front** — Moves the graphic forms and character strings currently selected to the fore front. Section 22.4,(1)
- **Send Back** — Moves the graphic forms and character strings currently selected to the backmost. Section 22.4,(2)
- **All** — Selects all graphic forms and character strings in the edit screen to be subject to subsequent edit. Section 22.5
- **Comment** — Makes out the comment. Section 22.6
- **Title** — Gives a screen title to each monitor screen (setting of screen title). Gives a report title to each report (setting of report title). Section 22.7
- **Image** — Displays an image during execution of monitoring based on the contents of the monitor screen when it is created. Capable of making sure of and printing the display image of the monitor function just set. Section 22.8
- **Device** — Displays the monitor device name of the monitor function just set in the canvas screen, when the monitor screen is created. Capable of printing the display contents. Section 22.9
(2) Outlined procedure

This section describes an outlined procedure of the tool box menu.

(a) Outlined procedure of rotate menu, back and forth movement menu, all graphic menu, and arrange menu

The edit screen opens.

(When selecting all graphic) (When selecting other than all graphic)

Right click

The tool box opens.

Select all graphic menu.

Section 22.5.

(Halt editing.)

Right double-click

Select the graphic forms and character strings subject to screen editing.

Chapter 8.

Select the rotate menu, back and forth movement menu.

Sections 22.2, 22.4.

The graphic forms and character strings selected are edited.

Continues to edit the graphic forms and character strings selected.

Finish editing the graphic forms and character strings.

Right double-click

(b) Outlined procedure of grid/scale menu

The edit screen opens.

Right click

The tool box opens.

Select the grid/scale menu.

The grid/scale setting window opens.

Section 22.3.

Select the setting scale of the grid control.

To perform magnified display using the scale selection, move the mouse cursor to the center coordinate of the magnified display.
(c) Outlined procedure of comment menu and title menu

- The edit screen opens.
- Right click
- The tool box opens.

Select the comment menu.

The comment creating window opens.

Section 22.6.

Create a comment.

Set

Select the title menu

The title window opens.

Section 22.7.

Enter a title.

Set

(d) Outlined procedure of image display menu and device display menu

- The edit screen opens.
- Right click
- The tool box opens.

Select the image display menu.

Display an image during execution of monitoring based on the image contents.

Section 22.6.1.

Finish displaying the menu.

Print

Right click

Left click

Select an item.

OK

Completion of printer output/file output
22. HOW TO OPERATE THE TOOL BOX MENU

22.2 Rotate

Menu/Items to be selected

(Edit screen) → Other than all graphic → [Selection of graphic form] → (Tool box) → All → Rotate

(1) Mirror H

Basic operation: Mirror H

1. Select a graphic form to be rotated horizontally.
   Left double-click / [J] [J]

2. Display the tool box.
   Right click / [Esc]

3. Select the mirror H menu.
   Left click / [J]

4. The graphic form selected is rotated vertically.

(2) Mirror V

Basic operation: Mirror V

1. Select a graphic form to be rotated horizontally.
   Left double-click / [J] [J]

2. Display the tool box.
   Right click / [Esc]

3. Select the mirror V menu.
   Left click / [J]

4. The figure selected is rotated horizontally.

POINTS

(1) Mirror H function serves to rotate a graphic form vertically with the horizontal center line of the working frame as its axis.
   Example:

   ![Horizontal center line](image)

(2) Multiple graphic forms can be selected to concurrently be rotated vertically.

(3) To release the selecting operation of the graphic form, double-click the right mouse button.

(4) A character string cannot be rotated.

POINTS

(1) Mirror V function serves to rotate a figure horizontally with the vertical center line of the working frame as its axis.
   Example:

   ![Vertical center line](image)

(2) Multiple graphic forms can be selected to concurrently be rotated horizontally.

(3) To release the selecting operation of the graphic form, double-click the right mouse button.

(4) A character string cannot be rotated.
**22. HOW TO OPERATE THE TOOL BOX MENU**

(3) 90°

**Basic operation** 90°

1. Select a graphic form to be rotated by 90°.
   Left double-click / [ ] [ ]

2. Display the tool box.
   Right click / [Esc]

3. Select the 90° menu.
   Left click / [ ]

4. The graphic form selected is rotated counterclockwise by 90°.

---

**POINTS**

1. 90° function serves to rotate a graphic form counterclockwise by 90° with the central point of the working frame as its axis.

   Example:

   ![Diagram of working frame and central point](image)

2. Multiple graphic forms can be selected to concurrently be rotated by 90°.

3. To release the selecting operation of the graphic form, perform right double-click operation.

4. A character string cannot be rotated.
## 22. HOW TO OPERATE THE TOOL BOX MENU

### 22.3 Grid/Scale

**Menu/items to be selected**

(Edit screen) — (Tool box) — Grid/Scale

### [Details of items to be set]

#### Window display

| Grid/Scale | 1) Snapping | ON, OFF
|------------|-------------|--------
|            | 2) Grid/display | Back, Front, No
|            | 3) Resolution | 4, 8, 16
|            | 4) Scale | Std x 2 x 4

#### Description of Setting

1) Select whether or not the position to draw up the graphic forms, the position to enter the characters, and movement of graphic forms and character strings are snapped.

2) Select whether or not the grid is displayed at the backmost/forefront position in the edit screen.

3) When the grid/display setting 2) above is [Yes] (Back/Forefront), select a resolution to be displayed (unit: dot).

4) Select [Std] to display entire edit screen (1 time display).

5) Select [x2] to magnify and display the screen twice with the specified position of the edit screen as its center.

#### Setting Range/Options

<table>
<thead>
<tr>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>ON, OFF</td>
<td>ON : Snapped Off: Not snapped Default value: ON</td>
</tr>
<tr>
<td>Back, Front, No</td>
<td>Default: Back Back : Displays a grid at the backmost position (The grid display becomes invisible when a graphic form is drawn up on the grid display). Front : Displays a grid at the forefront position (The grid display remains visible when a graphic form is drawn up on the grid display). No : Does not display any grid. When any grid is displayed in the edit screen, a delimiter coordinate for touch key is displayed as &quot;*&quot; mark.</td>
</tr>
<tr>
<td>4, 8, 16</td>
<td>Default value: 8 when the GOT type is set as A77GOT-S5 16 when the GOT type is set as other than A77GOT-S5</td>
</tr>
</tbody>
</table>

Select [Std] to return the magnified display to the standard display (1 time display).

It is possible to draw up a detailed graphic form by means of selection of x2/x4 and snapping of [OFF] setting.
6) Select [x4] to magnify and display the screen four times with the specified position of the edit screen as its center.

7) Select [OK] to validate the grid/scale just selected.

8) Select [Cancel] to invalidate the grid/scale just selected.

### POINTS

(1) With the snapping ON/OFF setting, the following result is obtained when drawing up, entering, and editing:

Example of drawing up a graphic form:

<table>
<thead>
<tr>
<th>Snapping</th>
<th>Positions specified</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ON</td>
<td>+ : : : +</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(Drawn up on the closest grids)</td>
<td></td>
</tr>
</tbody>
</table>

(2) With the resolution setting, the display position of the grids in the edit screen can be at the coordinate of a multiple of 4/8/16 with reference to a graphic coordinate (0,0).

(3) When the scale setting [x2] or [x4] is selected, specify a reference point of magnified display and then move the mouse cursor to the center coordinate to be magnified and displayed.

(4) With the [x2] or [x4] of the scale setting selected, a length breadth ratio in the edit screen becomes twice or four times than the standard setting. However, the edit screen returns to the standard x1 scale setting when entering the text character as described in Section 16.3.1 is started.
22. HOW TO OPERATE THE TOOL BOX MENU

22.4 Back and Forth Movement

Menu/items to be selected

(Edit screen) → Other than all graphic → (Selection of graphic form) → All → (Tool box) → All → (Back and forth movement)

(1) Bring Front

Basic operation: Bring Front

1. Select a graphic form or character string to be moved to the forefront.
   Left double-click / [J] [J]

2. Display the tool box.
   Right click / [Esc]

3. Select the Bring Front menu.
   Left click / [J]

4. The graphic form or character string selected is moved to the forefront.

POINTS

(1) The Bring Front movement function is used to change the longitudinal arrangement (overlapping) of the graphic forms overlapped and graphic character strings. This function allows the graphic forms and character strings to be moved to the forefront.

(2) To release selection of graphic forms and character strings, perform right double-click operation.

(2) Send Back

Basic operation: Send Back

1. Select a graphic form or character string to be moved to the backmost.
   Left double-click / [J] [J]

2. Display the tool box.
   Right click / [Esc]

3. Select the Send Back menu.
   Left click / [J]

4. The graphic form or character string selected is moved to the backmost.

POINTS

(1) The Send Back movement function is used to change the longitudinal arrangement (overlapping) of the graphic forms overlapped and graphic character strings. This function allows the graphic forms and character strings to be moved to the backmost.

(2) To release selection of graphic forms and character strings, perform right double-click operation.
22. HOW TO OPERATE THE TOOL BOX MENU

22.5 All

Menu/items to be selected

(Edit screen) → (Tool box) → All

Basic operation All

1. Current state of edit screen

2. Display the tool box.
   Right click / [Esc]

3. Select the All menu.
   Left click / [-j]

4. All graphic forms and character strings in the edit screen are selected.

POINTS

(1) The All function serves to select all graphic forms and graphics character strings in the edit screen, and is used for batch selection of operations as described in Section 8.

(2) The graphic forms grouped are selected as it is.

(3) For the graphic forms and character strings selected by this function, it is possible to perform the attribute change operation described in Section 18 and the edit operation described in Sections 17 and 22.

(4) To release selection of graphic forms and character strings, perform right double-click operation.
22. HOW TO OPERATE THE TOOL BOX MENU

22.6 Comment

The comment menu is used to draw up a comment (character string) to be displayed and printed by the following monitoring functions:

1) Character string displaying function
   Displays this comment when the word device is set to the monitor device item with the character string setting window described in Section 21.3.

2) Alarm list displaying function
   Displays this comment when the monitor function is set with the alarm list setting window described in Section 21.4.

3) Report function
   Prints this comment when the comment is set to the print format item with the print format setting window described in Section 11.6.

POINT

1) The G controller units capable of displaying and printing this comment are as follows:

<table>
<thead>
<tr>
<th>G Controller Unit</th>
<th>Indication Using the Character String Displaying Function</th>
<th>Indication Using the Alarm List Displaying Function</th>
<th>Printing Using the Report Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>A77GOT, A77GOT-S5, A77GOT-S5</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>A52GCPU</td>
<td>O</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>A64GOT</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>A64GOT (with system monitoring function added)</td>
<td>O</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>A057G-S3</td>
<td>O</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

O: Possible  x: Impossible

Menu/items to be selected

(Edit screen) → (Tool box) → Comment

[Details of items to be set]

Window display

[Diagram of the comment window with numbered items for reference]
<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Select a line to draw up a comment and then enter the comment.</td>
<td>1 to 80</td>
<td>Click the line specified (line displayed in reverse video) with the left mouse button to open the comment entering window.</td>
</tr>
<tr>
<td>2) Select a line to set a display color of the comment.</td>
<td>Available colors: 15 colors</td>
<td>Default value: White The color just selected is enclosed with a frame and displayed in the column 13 of the line specified.</td>
</tr>
<tr>
<td>3) Select a line to set an attribute of the comment and then select the displaying attribute from either Normal or Reverse.</td>
<td>Normal, Reverse</td>
<td>Default value: Normal The attribute just selected is shown in reverse video and displayed in the column 14 of the line specified.</td>
</tr>
<tr>
<td>4) Select a line to set a blink display of the comment and then select the blinking frequency.</td>
<td>None, Low, Mid, High</td>
<td>The item just selected is shown in reverse video and displayed in the column 15 of the line specified.</td>
</tr>
<tr>
<td>5) Select this item to scroll the comment lines displayed in the window upward/downward in tens.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) Set a destination line number to be jumped and displayed when the comment line is jumped largely using item 7.</td>
<td>0 to 32767</td>
<td>Enter a value directly in item 6).</td>
</tr>
<tr>
<td>7) Select this item to jump the comment line largely and display it in the window.</td>
<td></td>
<td>Set the line number to be jumped at item 6 before selecting item 7).</td>
</tr>
<tr>
<td>8) When any comment previously drawn up at other line is copied, set a source line number in which that comment to be copied has been drawn up.</td>
<td>0 to 32767</td>
<td>Enter appropriate number and press the [J] key to move the cursor to item 9).</td>
</tr>
<tr>
<td>9) When any comment previously drawn up at other line is copied, set a destination line number in which that comment is copied from other line.</td>
<td>0 to 32767</td>
<td>Be sure to set item 8 before setting item 9). Enter an appropriate number and press the [J] key to open the dialog box for confirmation of execution.</td>
</tr>
<tr>
<td>10) Select [Read] to use data of the text file previously drawn up as a comment data.</td>
<td></td>
<td>Selection of this item allows the dialog box for confirmation of erasing current data to be opened.</td>
</tr>
<tr>
<td>11) Select [Write] to write the comment data drawn by this window into the text file.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12) Select [Del line] to delete the comment just drawn up.</td>
<td></td>
<td>Select a line to be deleted (line shown in reverse video) before selecting item 12).</td>
</tr>
</tbody>
</table>
22. HOW TO OPERATE THE TOOL BOX MENU

POINTS

(1) Sprite display
- The comments set by this window can be displayed by the character string displaying function and the alarm list displaying function, and printed by the report function.
When the comment Nos. (0 to 32767) has been stored in the setting word device, corresponding comments are displayed in the monitor screen and printed at the printer.
- The comments set by this window can be magnified and displayed.
Set the magnification by the character string displaying setting and alarm list setting.

(2) Deleting the comment data of the line specified
- The comments drawn up can be deleted by increments of one line.
Select the comment line (shown in reverse video) before selecting [Del line].

(3) Cautions when writing text file
- Out of the data drawn up by this window, only the character string data can be written in a text file. Data related to the display color and attribute is saved in another file.
- When the writing operation is implemented, a text file (with an identifier .TXT) is automatically be drawn up in the directory in which the canvas data is stored. User can edit a text file freely using a general-purpose editor.

(4) Cautions when reading text file
- Those character string data drawn up by this window and written in a text file or drawn up by a general-purpose editor can be read. Note that, for the latter character string data, when there are more than 80 characters entered in a line, those characters more than 80 ones are not read.

(5) Cautions when drawing up a text file using a general-purpose editor
- When a comment read in this window is drawn up by a general-purpose editor, be sure to suffix the [-] mark at the end of each line (The line with only the [-] mark is considered to have no comment setting).
- A text file to be drawn up should be stored, with an identifier .TXT, in the directory in which the canvas screen data is stored (machine name of canvas graphic data file .TXT).

(6) The comments drawn up are printed out according to the printing operation described in Section 10.6.
22. HOW TO OPERATE THE TOOL BOX MENU

22.7 Title

The title menu is used to select a monitor screen with a title, which is in a file editing window, by looking at its title of the monitor screen to be drawn up. The titles so far having been set are displayed in the file editing window described in Section 9.2.1. Those titles are not shown in the monitor screen during execution of monitoring operation.

**REMARK**

A title of a report is made when the report function is being set. The same window is displayed when setting the report title. The titles just set are displayed in the report file editing window.

### Menu/items to be selected

(Edit screen)—(Tool box)—Title

### [Details of items to be set]

#### Window display

![Title menu](image)

1) Display a list of titles drawn up by user.

2) Display a corresponding title by dragging a slider. Click an arrow with the left mouse button to scroll the range of title to be displayed upward/downward.

3) Display the titles following the one set with a number in the No. column. Enter the number from the keyboard.

4) Select this item after selecting the screen No. to which its title is set at item 1). A character cursor is shown. After entering a title by alphanumeric characters (excluding symbols), enter the [J] key.

5) Title

6) Del Line

7) Jump

8) OK

9) Cancel

### Description of Setting

<table>
<thead>
<tr>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Select a screen (report) No. to set a title by clicking with the left mouse button (shown in reverse video).</td>
<td>The display of 1) varies by dragging and clicking with the left mouse button.</td>
</tr>
<tr>
<td>After setting the No., click [JUMP] with the left mouse button to change the display of 1).</td>
<td>Use a 1-bit character to enter a title within 32 characters.</td>
</tr>
</tbody>
</table>
### 22. HOW TO OPERATE THE TOOL BOX MENU

<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>5) Select [Del line] to delete the title just drawn up.</td>
<td></td>
<td>Select a line to be deleted (shown in reverse video) at item 1) before selecting item 5).</td>
</tr>
<tr>
<td>6) [OK] allows user to close the window with the titles so far having been set to be valid.</td>
<td></td>
<td>The titles so far having been set are saved.</td>
</tr>
<tr>
<td>7) [Cancel] allows user to close the window with the titles so far having been set to be invalid.</td>
<td></td>
<td>Those titles having been set after opening the window is ignored.</td>
</tr>
</tbody>
</table>
22. HOW TO OPERATE THE TOOL BOX MENU

22.8 Image Display

22.8.1 Image display

**Menu/items to be selected**

(Edit screen) → (Tool box) → Image display

**Operating procedure**

**Editing screen transition**

```
<Canvas screen>

Production status
Production output
Detectives

<Image display>

Production status
Production output 1 2 3 4 5
Detectives

```

**Steps after Image Display Selected**

1. Image display during execution of monitoring operation is performed on the basis of the contents just drawn up in the edit screen. Confirm the contents to be displayed.

2. To finish the image display, click the right mouse button or press the [Esc] key. The tool box is displayed.

3. Click the right mouse button or press the [Esc] key. It returns to the edit screen.

**Remarks**

There are some monitor functions that does not take advantage of image display. Also refer to the POINTS below.

By clicking the left mouse button or pressing the [J] key, it is possible to perform the screen copy described in Section 22.9.2.

**POINTS**

1. The image display is not performed for those comments that are set at the character string display setting to be displayed when the bit device specified is turned "OFF".

2. Even if the sprite setting is made, the image display is not performed for part movement display, part locus display, device write (SET/RST input) setting, and touch key switch setting. For the part movement display and the part locus display, those parts subject to being displayed should be read and made sure by the part reading operation described in Section 19.2.

3. The image display can be performed in a monitor screen (without the sprite setting) with the canvas screen only.

4. When the GOT type is set as A77GOT-S5 and touch key graphics are set for a device write (SET/RST input) or switch function executed by touch key input, the image display shows the touch key graphic after switching in accordance with the switching trigger condition.
22. HOW TO OPERATE THE TOOL BOX MENU

22.8.2 Screen copy of image display

Menu/items to be selected

(Edit screen)→(Tool box)→Image display→[Left click]→(Setting data printing window)

[Details of items to be set]

Window display

<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Select the item [Printer] to output the display contents of the image display to the printer.</td>
<td></td>
<td>For screen copy.</td>
</tr>
<tr>
<td>2) Select the item [File] to output the display contents of the image display to the file.</td>
<td></td>
<td>Select the item [File] when the software capable of editing the bitmap file is used.</td>
</tr>
<tr>
<td>3) When the item [File] is selected at the step 2, set the file name of the bitmap file in which the display contents is written.</td>
<td>Drive name: Specified possible range of peripheral device</td>
<td>Set all those items such as drive name, directory name, file name, and identifier.</td>
</tr>
<tr>
<td>4) Select the item [OK] to execute the Printer/File output.</td>
<td></td>
<td>Confirm that the printer is ready for operation before executing the printer output. After the item [OK] is selected, perform operation according to the messages.</td>
</tr>
<tr>
<td>5) Select the item [Cancel] to stop the Printer/File output or close the setting data printing window.</td>
<td></td>
<td>For stopping the output forcibly and closing the window.</td>
</tr>
</tbody>
</table>

POINTS

1) When the File output is selected, data is written to the bitmap file whose extension is "BMP". This allows the file outputted by this function to be read by the software capable of editing the bitmap file and to be outputted at the printer with the comments and so forth added.

2) Set the file name with the specification of the software capable of editing the bitmap file.

3) When the monitor conditions of the monitor functions already set are outputted at the printer, perform the printing operation described in Section 10.6.
22. HOW TO OPERATE THE TOOL BOX MENU

22.9 Device Display

22.9.1 Device display

Menu/Items to be selected

(Edited screen) → (Tool box) → Device display

[Operating procedure]

Editing screen transition

<Canvas screen>

<table>
<thead>
<tr>
<th>Production status</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Production output</td>
<td></td>
</tr>
<tr>
<td>Defectives</td>
<td></td>
</tr>
</tbody>
</table>

<Device display>

<table>
<thead>
<tr>
<th>Production status</th>
<th>D120</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production output</td>
<td>D100</td>
</tr>
<tr>
<td>Defectives</td>
<td></td>
</tr>
</tbody>
</table>

Steps after Device Display Selected

1. The monitor device name of the monitor function set in the canvas screen is displayed on the basis of the contents just drawn up in the edit screen. Confirm the contents to be displayed.

2. To finish device display, click the right mouse button or press the [Esc] key. The tool box is displayed.

3. Click the right mouse button or press the [Esc] key. It returns to the edit screen.

Remarks

The monitor device name is the setting contents of the monitor device in which the monitor conditions are set.

By clicking the left mouse button or pressing the [L] key, it is possible to perform the screen copy described in Section 22.10.2.

POINTS

(1) The device name displayed by the device display function is only the monitor device of the monitor function for monitor display in the edit screen.

(2) When there are multiple of monitor devices, the head monitor device only is displayed.

(3) Device display is not performed for the part movement/locus display in which the coordinates are not established, or for switch settings or device write (SET/RST) settings that use key input from an operation panel, ten-key panel, or keyboard panel device write (SET/RST input) setting.
22. HOW TO OPERATE THE TOOL BOX MENU

22.9.2 Screen copy of device display

**Menu/Items to be selected**

( Edit screen ) - ( Tool box ) - Device display - [ Left click ] - ( Setting data printing window )

[Details of items to be set]

**Window display**

<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Select the item [Printer] to output the display contents of the device display to the printer.</td>
<td></td>
<td>For screen copy.</td>
</tr>
<tr>
<td>2) Select the item [File] to output the display contents of the device display to the file.</td>
<td></td>
<td>Select the item [File] when the software capable of editing the bit map file is used.</td>
</tr>
<tr>
<td>3) When the item [File] is selected at the step 2), set the file name of the bit map file in which the display contents is written.</td>
<td>Drive name: Specified possible range of peripheral device</td>
<td>Set all those items such as drive name, directory name, file name, and identifier.</td>
</tr>
<tr>
<td>4) Select the item [OK] to execute the Printer/File output.</td>
<td></td>
<td>Confirm that the printer is ready for operation before executing the printer output. After the item [OK] is selected, perform operation according to the messages.</td>
</tr>
<tr>
<td>5) Select the item [Cancel] to stop the Printer/File output or close the setting data printing window.</td>
<td></td>
<td>For stopping the output forcibly and closing the window.</td>
</tr>
</tbody>
</table>

**POINTS**

1) When the File output is selected, data is written to the bit map file whose extension is ".BMP". This allows the file outputted by this function to be read by the software capable of editing the bit map file and to be outputted at the printer with the comments and so forth added.

2) Set the file name with the specification of the software capable of editing the bit map file.

3) When the monitor conditions of the monitor functions already set are outputted at the printer, perform the printing operation described in Section 10.6.
23. OPERATING METHOD OF EXIT MENU (FOR TOOL BOX)

The exit menu is used to display the tool box in the edit screen in which the monitor screen is drawn up, to finish drawing up current monitor screen, and to return it to the file editing window.

REMARK
To finish operation of the AGOTP, use the exit menu in the menu box displayed in the file editing window.
See Chapter 15.

23.1 Functions and Outlined Procedure

(1) Functions
This section describes the functions in the exit menu below.

- OK
  After all canvas screen data having been drawn up and all monitor function data having been set since the edit screen is displayed (opened) is written in the file, the edit screen is closed to return to the file editing window.

- Cancel
  With the canvas screen data having been drawn up and the monitor function data having been set since the edit screen is displayed (opened) ignored, the edit screen is closed and it returns to the file editing window.

(2) Outlined procedure
Outlined procedure to finish drawing up the monitor screen in the exit menu is described below:

```
The edit screen opens.

- Right click
  The tool box opens.

- Select the item <OK>
  The dialog box opens.
  - Yes: Data is written in the file.
    - Yes: The file editing window opens.
    - No: Section 23.2

- Select the item <Cancel>
  The dialog box opens.
  - Yes: Section 23.3
  - No:

Section 23.2
```
23. OPERATIONS OF PANEL-KIT MENU (FOR TOOL BOX) MELSEC-A

23.2 OK

Menus/Items to be selected

(Edit screen) — (Tool Box) — OK — (Dialog box) — Yes — (File editing window) No

[Operating procedure]

Dialog box making sure of OK operation

![Dialog box]

Exit with save?

Yes  No

OK Operation

Remarks

1) Display the tool box in the edit screen.
   Click the right mouse button or press the [Esc] key.

   ![Edit screen]

2) Select the item [OK].
   Click the left mouse button or press the [J] key.

3) The dialog box is opened.
   Select [Yes].
   Click the left mouse button or press the [J] key.

   ![Dialog box]

When [No] is selected, it returns to the edit screen.

The data having been drawn up and set after the edit screen is opened is written in the corresponding file.
23. OPERATIONS OF PANEL-KIT MENU (FOR TOOL BOX)  MELSEC-A

23.3 Cancel

**Menus/Items to be selected**

(Edit screen) → (Tool Box) → Cancel → (Dialog box) → Yes → (File editing window)

**Operating procedure**

**Dialog box making sure of Cancel operation**

![Dialog box image]

**Cancel Operation**

1) Display the tool box in the edit screen.
   Click the right mouse button or press the [Esc] key.

2) Select the item [Cancel].
   Click the left mouse button or press the [J] key.

3) The dialog box is opened.
   Select [Yes].
   Click the left mouse button or press the [J] key.
   
   When [No] is selected, it returns to the edit screen.
   
   The data having been drawn up and set after the edit screen is opened is erased.
   
   The contents of corresponding file is the same when the edit screen is open.
   
   Perform subsequent operation such as drawing up other monitor screen.

4) The file editing window is opened.
24. ERROR MESSAGE AND CONTENTS

This section describes the error messages displayed during operation of AGOTP and its contents. For the contents of the error messages of which possible cause or corrective action can easily be known, explanation is omitted in this section.

24.1 Error Messages during Operation of AGOTP Other than during Transfer Operation

<table>
<thead>
<tr>
<th>Error Message</th>
<th>Error Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conversion error</td>
<td>There occurs any error during execution of conversion. Confirm it in the error display window.</td>
</tr>
<tr>
<td>Touch key not set</td>
<td>When the touch key switch setting data set in other canvas screen is attempted to be utilized by the touch key switch setting, it is found that the touch key switch setting data is not set in the utilization source screen.</td>
</tr>
<tr>
<td>Cannot be deleted</td>
<td>Those files in the \AGOT directory can not be deleted by the file delete function.</td>
</tr>
<tr>
<td>Improper report parameter</td>
<td>Report parameter is incorrect. Or, after setting the report parameter/print allocation, the number of pages of a report (report number) is changed.</td>
</tr>
<tr>
<td>Improper setting data</td>
<td>Setting data is incorrect, has errors or items not set.</td>
</tr>
<tr>
<td>Cannot be set</td>
<td>The file specified is already set as a canvas/part/report file.</td>
</tr>
<tr>
<td>Drive not ready</td>
<td>User disk is not set properly to the drive specified.</td>
</tr>
<tr>
<td>Communication error</td>
<td>Communication cannot be carried out when transferring (download) data from the AGOTP to the ROM writer/G controller. Confirm connection.</td>
</tr>
<tr>
<td>Total setting number of digits in excess of allowable display range</td>
<td>The number of digits just set exceeds an allowable display range.</td>
</tr>
<tr>
<td>Data not set</td>
<td>When the print out function is performed, it is found that data for print out is not set.</td>
</tr>
<tr>
<td>PC type not set</td>
<td>After setting the device of master/local station, the sprite data is read again. However, since the PC type setting of the local station is canceled afterward, station number is changed to that of the device of its station.</td>
</tr>
<tr>
<td>Station number to be changed</td>
<td></td>
</tr>
<tr>
<td>Cannot be selected</td>
<td>The files in the \AGOT directory cannot be specified in the file selector window.</td>
</tr>
<tr>
<td>Improper setting of day of the week</td>
<td>The day of the week/time setting of the time action setting is incorrect. Or day of the week is not set.</td>
</tr>
<tr>
<td>Improper setting of time</td>
<td></td>
</tr>
<tr>
<td>Unacceptable address setting</td>
<td>Unacceptable address is set when a special unit is set.</td>
</tr>
<tr>
<td>Unacceptable unit head input/output number</td>
<td>Unacceptable unit head input/output number is set when a special unit is set.</td>
</tr>
<tr>
<td>Cannot be set. Or excessive device number</td>
<td>When multiple devices are set continuously for monitor device setting (such as monitor device editing), there are not the same number of devices as the device number specified.</td>
</tr>
<tr>
<td>Data not set</td>
<td>There is not any text file in question for comment data reading. Or, because of no data set, any comment cannot be written.</td>
</tr>
<tr>
<td>Excessive setting data</td>
<td>65529 bytes or more of sprite data or 32768 or more of sprite is set. Delete unnecessary data and convert again.</td>
</tr>
<tr>
<td>Directory specified cannot be deleted because it is not empty</td>
<td>There are subdirectory/file in the directory specified. After deleting the subdirectory/file, delete the directory specified.</td>
</tr>
<tr>
<td>Enter a value within allowable setting range</td>
<td>The value entered is out of allowable range. Enter a value within allowable setting range for the G controller used.</td>
</tr>
<tr>
<td></td>
<td>There are more than 201 directories. Reduce the number of directories of the drive in question to 200 or less.</td>
</tr>
</tbody>
</table>
### 24.2 Error Messages during Data Transfer (Download) to Memory Card/Built-In Memory

<table>
<thead>
<tr>
<th>Error Message</th>
<th>Error Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Format error occurred</td>
<td>There occurs an error related to memory card format.</td>
</tr>
<tr>
<td>Data transfer error occurred</td>
<td>There occurs an error related to transfer.</td>
</tr>
<tr>
<td>Error occurred</td>
<td>There occurs an error other than above.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Error Message</th>
<th>Error Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turn the RUN/STOP key to STOP</td>
<td>The processing specified cannot be performed.</td>
</tr>
<tr>
<td></td>
<td>The processing specified cannot be performed.</td>
</tr>
<tr>
<td></td>
<td>Change the mode of the G controller unit as follows:</td>
</tr>
<tr>
<td></td>
<td>• AD57G: Turn the RUN/STOP key switch to STOP to place in</td>
</tr>
<tr>
<td></td>
<td>the stop mode</td>
</tr>
<tr>
<td></td>
<td>• A52GCU: Turn the RUN/STOP key switch of the GCPU to</td>
</tr>
<tr>
<td></td>
<td>STOP to place in the stop mode.</td>
</tr>
<tr>
<td></td>
<td>• A64GOT: Enter the F1 key to select the download of the</td>
</tr>
<tr>
<td></td>
<td>system menu function.</td>
</tr>
<tr>
<td></td>
<td>• A77GOT(conventional): Enter the F1 key to select the</td>
</tr>
<tr>
<td></td>
<td>offline mode of the system menu function.</td>
</tr>
<tr>
<td>Not during remote mode</td>
<td>• A77GOT-S3, A77GOT-S5: Select the system menu screen to</td>
</tr>
<tr>
<td></td>
<td>select the offline mode of the system menu function.</td>
</tr>
<tr>
<td>Use RAM card</td>
<td>Other than RAM card is used. Or, the RAM card that cannot</td>
</tr>
<tr>
<td></td>
<td>be used for the G controller is used.</td>
</tr>
<tr>
<td>Replace hardware because of</td>
<td>Abnormal G controller cannot be used.</td>
</tr>
<tr>
<td>hardware abnormality</td>
<td></td>
</tr>
<tr>
<td>Use smaller card size</td>
<td>The card size of the memory card specified is too large.</td>
</tr>
<tr>
<td>Change transfer destination</td>
<td>The destination specified is not equipped with a memory</td>
</tr>
<tr>
<td></td>
<td>card and ROM.</td>
</tr>
<tr>
<td>Use the memory card with a file area</td>
<td>A file area is not set to the memory card.</td>
</tr>
<tr>
<td>specified</td>
<td></td>
</tr>
<tr>
<td>Use smaller data transfer size</td>
<td>When the memory card is used, data to be transferred is</td>
</tr>
<tr>
<td>Confirm monitor data area size</td>
<td>larger than the monitor data area size being set.</td>
</tr>
<tr>
<td>Receive error occurred</td>
<td>When the built-in memory is used, data to be transferred</td>
</tr>
<tr>
<td>Transmit error occurred</td>
<td>is larger than the built-in memory size.</td>
</tr>
<tr>
<td>Sum check error occurred</td>
<td>Transmision/reception of data cannot be done correctly.</td>
</tr>
<tr>
<td>Communication error</td>
<td>Confirm connection between the power supply and cable for</td>
</tr>
<tr>
<td></td>
<td>the G controller unit.</td>
</tr>
</tbody>
</table>

### 24.3 Errors during Data Transfer to ROM Writer

Those errors occurred when transferring the monitor data to the ROM writer in the remote mode and writing it to the ROM are displayed in the transfer window, in conjunction with the code No. and message returned from the ROM writer.  
When any error occurs, take a corrective action according to the instruction manual of the ROM writer used on the basis of the code No. and message. Those errors in no-protocol mode, incapable of being detected by AGOTP, are not displayed. Take a corrective action according to the instruction manual of the ROM writer used.
25. GUIDE TO OPERATIONS FOR SETTING FUNCTIONS EXECUTED BY TOUCH KEY INPUT WHEN USING AN A77GOT-S5

25.1 Functions and Outline of Procedure

(1) Functions

- **Sprite**
- **Touch key setting**

The touch key's key code, the switch function executed by touch key input, the device write (SET/RST) function, and the touch key graphic display function are set on the edit screen.

**Key code setting:** A key code is set when the touch key is used to execute a numerical value/character input function and/or change the screen display directly, e.g. to the system monitor screen or circuit monitor screen.

**Switch function setting:**

The switch function is set to turn a specified bit device ON for the duration of touch key input only.

**Device write (SET/RST) function setting:**

The device write (SET/RST) function is set to turn a specified bit device ON or OFF by touch key input or when a fixed value is written into the specified word device.

**Touch key graphic display function setting:**

The touch key graphic display function is set to display a touch key graphic (switch or pushbutton) that corresponds to the set touch key.

Since the display of touch key graphics can be changed according to the condition of the specified device, the condition of the objective device of the switch function or device write (SET/RST) function can be confirmed by changing the touch key graphic.

**POINT**

For details on setting a switch function executed by key input at an operation panel/tën-key panel, refer to Section 11.10; for details on setting the device write (SET/RST) function, refer to Section 21.6.2.
(2) Outline of procedure

(a) Outline of the procedure for setting the key codes for touch keys

- The edit screen opens.
- Select the [SP] menu.
- The sprite window opens.
- Select <Touch key setting>.
- The touch key display position (area) setting window opens.
- Set the size and position of the touch key.
- The touch key setting window opens.
- Set the key code.

Delete: Deletes the touch key's size and position settings and key code and closes the window.
OK: Writes the touch key size and position settings and key code and closes the window.
Cancel: Closes the window without writing the touch key size and position settings or key code.
Next: Writes the touch key size and position settings and key code, and opens the touch key display position (area) setting window. Select this item to continue setting key codes for other touch keys and/or to set switch functions or device write functions.

The edit screen opens.

The touch key display position (area) setting window opens.
(b) Outline of procedure for setting a switch function executed by touch key input

- The edit screen opens
- Select the [SP] menu.
- The sprite window opens.
- Select <Touch key setting>.
- The touch key display position (area) setting window opens.
- Set the size and position of the touch key.
- The touch key setting window opens.
- Set the bit device corresponding to the touch key.
- The dialog box for the simultaneously ON prohibited setting opens.

To prohibit simultaneous pressing: Yes  No  To allow simultaneous pressing:

- The touch key setting window opens.

Set a touch key graphic display function for the touch key? Yes  Go to (d) outline of procedure for setting a touch key graphic display function

- [Delete] Deletes the touch key's size and position settings and key code and closes the window.
- [OK] Writes the touch key size and position settings and key code and closes the window.
- [Cancel] Closes the window without writing the touch key size and position settings or key code.

The edit screen opens

- The touch key display position (area) setting window opens.

Write the touch key size and position settings and key code, and opens the touch key display position (area) setting window. Select this item to continue setting key codes for other touch keys and/or to set switch functions or device write functions.
(c) Outline of procedure for setting a device write (SET/RST) function executed by key input

The edit screen opens

Select the SP menu.

The sprite window opens.

Select <Touch key setting>.

The touch key display position (area) setting window opens.

Set the size and position of the touch key.

The touch key setting window opens.

Set the bit device corresponding to the touch key.

Select the touch key setting window line.

Yes

The device write (SET/RST) setting window opens.

Make the settings for the device write (SET/RST) function for the touch key.

Delete

Deletes the touch key's size and position settings and key code and closes the window.

Cancel

Closes the window without writing the touch key size and position settings or key code.

OK

Closes the window after writing the device write (SET/RST) function setting data.

Next

Writes the touch key size and position settings and key code, and opens the touch key display position (area) setting window. Select this item to continue setting key codes for other touch keys and/or to set switch functions or device write functions.

The touch key setting window opens.

Device write (SET/RST input) setting window

Yes

Set a touch key graphic display function for the touch key?

No

Go to (d) outline of procedure for setting a touch key graphic display function
25. GUIDE TO OPERATIONS FOR SETTING FUNCTIONS EXECUTED BY TOUCH KEY INPUT WHEN USING AN A77GOT-S5

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Delete

Deletes the touch key's size and position settings and key code and closes the window.

OK

Writes the touch key size and position settings and key code and closes the window.

Cancel

Closes the window without writing the touch key size and position settings or key code.

Next

Writes the touch key size and position settings and key code, and opens the touch key display position (area) setting window. Select this item to continue setting key codes for other touch keys and/or to set switch functions or device write functions.

The edit screen opens

The touch key display position (area) setting window opens.
(d) Outline of procedure for setting the touch key graphic display function

1. The touch key setting window opens.

2. Set the touch key graphic.

3. Position the mouse cursor on [Display mode] and click the left mouse button.

4. The display mode setting window opens.

5. Set the touch key graphic display conditions and the character string and display color of touch key graphics.

   - **OK**
     - The set data is written and the window closes.
   - **Cancel**
     - The window is closed without writing the set data.

6. The touch key setting window opens.

   - **Delete**
     - Deletes the touch key's size and position settings and key code and closes the window.
   - **OK**
     - Writes the touch key size and position settings and key code and closes the window.
   - **Cancel**
     - Closes the window without writing the touch key size and position settings or key code.
   - **Next**
     - Writes the touch key size and position settings and key code, and opens the touch key display position (area) setting window. Select this item to continue setting key codes for other touch keys and/or to set switch functions or device write functions.

7. The edit screen opens.

8. The touch key display position (area) setting window opens.
25. GUIDE TO OPERATIONS FOR SETTING FUNCTIONS EXECUTED BY TOUCH KEY INPUT WHEN USING AN A77GOT-S5

25.2 Touch Key Display Position (Area) Setting Window

This window is used to set the size and display position of a touch key. The touch key size can be set without restriction units of 40 dots by 48 dots.

Menus/Items to be selected

(Edit screen) —> SP —> Touch key setting

[Details of items to be set]

Window display

1) Position the mouse cursor at the upper left corner of the touch key and click the left mouse button.

2) The position of the mouse cursor is displayed here.

3) Move the mouse cursor to the lower right corner of the touch key and click the left mouse button.

<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Position the mouse cursor at the upper left corner of the touch key and click the left mouse button.</td>
<td>R: 1 to 8 C: 1 to 16</td>
<td>After the left mouse button has been clicked, a frame for setting the touch key display position area is displayed as the mouse cursor moves.</td>
</tr>
<tr>
<td>2) The position of the mouse cursor is displayed here.</td>
<td></td>
<td>This is always displayed, either in the upper or lower part of the window.</td>
</tr>
<tr>
<td>3) Move the mouse cursor to the lower right corner of the touch key and click the left mouse button.</td>
<td></td>
<td>On clicking the left mouse button, the touch key setting window opens.</td>
</tr>
</tbody>
</table>

POINTS

(1) The touch key cannot be set to overlap another, previously set, touch key.

(2) To close the window without setting the size and position of the touch key, click the right mouse button at any position.
25.3 Touch Key Setting Window

[Details of items to be set]

<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) To set a key code for the touch key, select the key code entering method.</td>
<td></td>
<td>Default: Key Key: The key code of the pressed key is set. Hex: Input the key code in hexadecimal notation.</td>
</tr>
<tr>
<td>2) Set the key code for the touch key.</td>
<td></td>
<td>Default: FFH (without key code) Click the left mouse button to set the key code in accordance with the entering method described in the item 1).</td>
</tr>
<tr>
<td>3) If a switch function is set for the touch key, set the corresponding bit device in the monitor device setting window. When this setting is made, the dialog box for the simultaneously ON prohibited setting is displayed. To disable the simultaneous ON function for the touch key whose bit device was just set, select [Yes]. To enable the simultaneous ON function, select [No].</td>
<td></td>
<td>See Section 9.3.13, (1). A bit number of a word device can be set. To change the bit device just set, click [Set] with the left mouse button again and set the bit device to be changed in the monitor device setting window. For details on the simultaneously ON prohibited setting, refer to the POINTS.</td>
</tr>
<tr>
<td>4) Select [Del] to delete the bit device set in 3).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5) The bit device set in 3) is displayed here. When [Yes] is selected for the simultaneously ON prohibited setting, it is prefixed by an asterisk ***.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6) When setting a device write (SET/RST) function for the touch key, select a setting line and set the device write conditions.</td>
<td></td>
<td>Left clicking the setting line will open the device (SET/RST input) setting window (refer to Section 25.4).</td>
</tr>
<tr>
<td>7) When setting a touch key graphic display function for the touch key using touch key graphics supported by the AGOTP, set the touch key graphics in the basic graphic window.</td>
<td></td>
<td>Refer to Section 25.5.1.</td>
</tr>
</tbody>
</table>
25. GUIDE TO OPERATIONS FOR SETTING FUNCTIONS EXECUTED BY TOUCH KEY INPUT WHEN USING AN A77GOT-S5

<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>8) When setting a touch key graphic display function for the touch key using touch key graphics drawn by the user, set the touch key graphics drawn by user in the user graphic window.</td>
<td>Refer to Section 25.5.2. The touch key graphics should be drawn in advance and registered in the panel kit.</td>
<td></td>
</tr>
<tr>
<td>9) Set this item to cancel the touch key graphics set in 7) and 8).</td>
<td>Refer to Section 25.5.3. The touch key display position (area) setting window will open, enabling the size and position of the touch keys to be changed (refer to Section 25.5.6).</td>
<td></td>
</tr>
<tr>
<td>10) After making the touch key graphic settings in 7) and 8), set the display conditions, character string, and display color of the touch key graphics in the display mode setting window.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11) Select this item to change the size/position of the touch keys set in the touch key display position (area) setting window.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**POINTS**

1. When a switch function or device write (SET/RST) function executed by touch key input is set, it is not necessary to set a key code for the touch key. When monitor data created with a conventional AGOTP is utilized, set all touch key codes to "FFH" (no key code).

2. When the simultaneously ON prohibited function is enabled, all other touch key inputs are invalidated when the touch key in question is ON.

The range delimited by the markings "▲—▲" indicates the period when the touch key in question is ON.
25.4 Device Write (SET/RST input) Setting Window

[Details of items to be set]

<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
</table>
| 1) Select whether a word device value or fixed value will be written, or whether the bit device will be turned "ON" or turned "OFF", in response to touch key input. | DATA SET BIT SET BIT RST ALT | Default: BIT SET
DATA SET: The value in a word device or a fixed value is written in response to touch key input.
BIT SET: The bit device is turned ON by the touch key input.
BIT RST: The bit device is turned OFF by the touch key input.
Alternate: The bit device is turned alternately ON and OFF by the touch key input. |
| 2) Set the bit device to switch the "ON"/"OFF" state or the word device for writing a fixed value, the value of another word device, or fixed value + (2) word device in the monitor device setting window. | Fix, Word dev., W dev. & Fix | Refer to Section 9.3.13, (1).
If BIT SET, BIT RST or ALT is selected in 1), the bit number of a word device can be set as the device whose "ON"/"OFF" state is switched. |
| 3) If DATA SET is selected in 1), select whether to write a fixed value, the value of another word device, or fixed value + (2) word device. | 16-bit, 32-bit | Default: 16-bit
Refer to Section 9.3.6. |
| 4) If DATA SET is selected in 1), set the data type to be written in the display (input) format setting window. | 16-bit: -32768 to 32767
32-bit: 2147483648 to 2147483647 | Default: 0 |
| 5) If [Fix] or [Word + Fix] is selected in 3), set the fixed value (Fix). | 16-bit: -32768 to 32767
32-bit: 2147483648 to 2147483647 | Refer to Section 9.3.13, (1). |
| 6) If [Word dev.] is selected in 3), set the word device, in which the number to be written into word device (2) is stored, in the monitor device setting window. | | |
25.5 Touch Key Graphic Display Function Setting Method

25.5.1 Touch key graphic setting (basic graphic window, user graphic window)

Either of the following two methods can be used to set the graphics displayed for a touch key.

(1) Set the touch key graphic by selecting one of the basic graphics 1, 2, or 3 supported by the AGOTP. Select "basic" for "touch key graphic" in the touch key setting window.

   (a) Types of basic graphic

<table>
<thead>
<tr>
<th>Basic Graphic 1</th>
<th>Basic Graphic 2</th>
<th>Basic Graphic 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Basic Graphic 1" /></td>
<td><img src="image" alt="Basic Graphic 2" /></td>
<td><img src="image" alt="Basic Graphic 3" /></td>
</tr>
</tbody>
</table>

The attributes of basic graphics cannot be changed. The display color and character string input of basic graphics are set in the display mode setting window.

(b) Procedure for selecting basic graphics (basic graphic window)

![Window display diagram](image)

<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Select the basic graphic to be displayed for the touch key.</td>
<td>Basic graphic 1 Basic graphic 2 Basic graphic 3</td>
<td>Position the mouse cursor in the field containing the basic graphic to be displayed and click the left mouse button to select it. The field containing the selected basic graphic number is highlighted.</td>
</tr>
<tr>
<td>2) Select this item to confirm selection of the basic graphic.</td>
<td></td>
<td>On selecting this item, the touch key setting window opens (refer to Section 25.3).</td>
</tr>
</tbody>
</table>

**POINTS**

(1) Do not overlap the display position of the touch key graphic with that of a canvas screen graphic, character string, or other monitor function display. If there is overlap, the canvas screen graphic, character string, or other monitor function will not be displayed.

(2) The basic graphics are displayed according to the touch key size set in the touch key display position (area) setting window.
(2) Set touch key graphics drawn by the user:
Select "user" for "touch key graphic" in the touch key setting window.

To use this method, the user must draw the touch key graphics before switching (OFF graphic) and after switching (ON graphic) and register (write) them in the user library of the panel kit before setting the touch key graphic display function (refer to Section 20).
The standard library graphics of the panel kit can also be used as the touch key graphics.

(a) Precautions when drawing the touch key graphics

1) The touch key graphics must be drawn in accordance with the touch key size set in the touch key display position (area) setting window.
If the size of the touch key graphic differs from the set touch key size, the touch key graphic is displayed by being enlarged or reduced with the center of the touch key as the reference point.
25. GUIDE TO OPERATIONS FOR SETTING FUNCTIONS EXECUTED BY TOUCH KEY INPUT WHEN USING AN A77GOT-S5

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2) If a clearance between the touch key frame and the touch key graphic is required, draw a black rectangular graphic the same size as the touch key frame.

[Touch key size] [Drawn touch key graphics] [Displayed touch key graphics]

48 dots 48 dots 48 dots
40 dots 40 dots 40 dots

3) When entering the character string into the touch key graphic, make sure it is contained within the frame.

[Touch key size] [Drawn touch key graphics] [Displayed touch key graphics]

48 dots 48 dots 48 dots
40 dots 40 dots 40 dots

48 dots 48 dots 48 dots
40 dots 40 dots 40 dots

The broken line (----) indicates the touch key area. The broken line indicated in the [Displayed touch key graphic] column is not actually displayed during monitoring.
(b) Procedure for drawing user graphics (user graphic window)

![Window display](image)

<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Read the touch key graphic to be displayed at the touch key position before switching (the OFF graphic) from those registered in the panel kit library.</td>
<td></td>
<td>Position the mouse cursor in the OFF graphic column and click the left mouse button. The library name selection window opens. Select the user library name under which the touch key graphic is registered (Refer to Section 20.2, (1)). The library part selection window opens. Select the part name under which the touch key graphic is registered (Refer to Section 20.2, (3)). Display the touch key graphic that is selected in the OFF graphic column.</td>
</tr>
<tr>
<td>2) Read the touch key graphic to be displayed at the touch key position after switching (the ON graphic) from those registered in the panel kit library.</td>
<td></td>
<td>Position the mouse cursor in the ON graphic column and click the left mouse button. Perform the same operation as that described above hereafter. Display the selected touch key graphic in the ON graphic column.</td>
</tr>
<tr>
<td>3) Select this to confirm the selection of the touch key graphic selected in 1) and 2).</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**POINTS**

1. The touch key graphic cannot be displayed by setting only an OFF graphic or only an ON graphic. Be sure to set both an OFF graphic and an ON graphic.

2. Do not overlap the display position of the touch key graphic with that of a canvas screen graphic, character string, or other monitor function display. If there is overlap, the graphic of canvas screen, character string, or other monitor function will not be displayed.
25.5.2 Touch key graphics display condition setting (display mode setting window)

[Details of items to be set]

<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Select the displaying method for the touch key graphics.</td>
<td>Reversed, Col./Char.</td>
<td>Refer to POINTS. This item cannot be selected when &quot;user&quot; is selected for &quot;touch key graphic&quot; in the touch key setting window.</td>
</tr>
<tr>
<td>2) Select the Switching trigger.</td>
<td>Touch key, Bit dev., Word dev.</td>
<td>Refer to POINTS.</td>
</tr>
<tr>
<td>3) Set the bit device in the monitor device setting window if &quot;Bit dev.&quot; was selected in 2), or set the word device if &quot;word dev.&quot; was selected.</td>
<td></td>
<td>Refer to Section 9.3.13 (1). The bit number of a word device can be set as the bit device.</td>
</tr>
<tr>
<td>4) If &quot;Word dev.&quot; was selected in 2), set the value of the fixed value.</td>
<td>-32768 to 32767</td>
<td>Default: 0 Refer to Section 9.3.6.</td>
</tr>
<tr>
<td>5) Select this item when entering a character string in the touch key graphic. If &quot;Col./Char.&quot; was selected in 1), select this item to enter the character string before switching by the switching trigger.</td>
<td></td>
<td>Clicking the left mouse button here opens the touch key edit screen (refer to Section 25.5.3). This item cannot be selected when &quot;user&quot; is selected for &quot;touch key graphic&quot; in the touch key setting window.</td>
</tr>
<tr>
<td>6) If &quot;Col./Char.&quot; was selected in 1), select this item to enter the character string after switching by the switching trigger.</td>
<td></td>
<td>Clicking the left mouse button here opens the touch key edit screen (refer to Section 25.5.3). This item cannot be selected when &quot;user&quot; is selected for &quot;touch key graphic&quot; in the touch key setting window.</td>
</tr>
<tr>
<td>7) Set the display color of the character string entered in 5) for the touch key graphic in the display color setting window. If &quot;color/character change&quot; was selected in 1), set the display color entered in 5) for the touch key graphic before switching by the switching trigger.</td>
<td></td>
<td>Refer to Section 25.5.5. Default display color for each item: Frame/Character: White Inside: Black If &quot;Reverse&quot; is selected in 1), both the frame and character string of the touch key graphic are the same color, and the inside color is fixed as black. This item cannot be selected when &quot;user&quot; is selected for &quot;touch key graphic&quot; in the touch key setting window.</td>
</tr>
</tbody>
</table>
8) If "color/character change" was selected in 1), set the display color entered in 6) for the touch key graphic after switching by the switching trigger.

<table>
<thead>
<tr>
<th>Description of Setting</th>
<th>Setting Range/Options</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Refer to Section 25.5.5. Default of display color of each item: Frame/Character: White Inside: Black If &quot;Reverse&quot; is selected in 1), this item cannot be selected. This item cannot be selected when &quot;user&quot; is selected for &quot;touch key graphic&quot; in the touch key setting window.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Points

1. The way the touch key graphic is displayed after switching differs according to the combination of the touch key graphic displaying method and the switching trigger setting, as shown in the table below.

   When "basic" is selected for "touch key graphic" in the touch key setting window:

<table>
<thead>
<tr>
<th>Switching Trigger</th>
<th>Touch Key</th>
<th>Bit Device</th>
<th>Word Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reverse</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
</tr>
<tr>
<td></td>
<td>SW1</td>
<td>SW1</td>
<td>SW1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>D100</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1 → 10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Specified</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>value</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>When the touch key graphic position is touched, the graphic is highlighted.</td>
<td>When the specified bit device is turned from OFF to ON, the touch key graphic is highlighted.</td>
<td>When the value of the specified word device, the touch key graphic is highlighted.</td>
</tr>
</tbody>
</table>

   When "color/character change" is selected for "touch key graphic" in the touch key setting window:

<table>
<thead>
<tr>
<th>Switching Trigger</th>
<th>Touch Key</th>
<th>Bit Device</th>
<th>Word Device</th>
</tr>
</thead>
<tbody>
<tr>
<td>Off</td>
<td>ON</td>
<td>ON</td>
<td>ON</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>D100</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1 → 10</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Specified</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>value</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>When the touch key graphic position is touched, the display color/character of the touch key graphic is switched.</td>
<td>When the specified bit device is turned from OFF to ON, the display color/character of the touch key graphic is switched.</td>
<td>When the value of the specified word device becomes the fixed value, the display color/character of the touch key graphic is switched.</td>
</tr>
</tbody>
</table>

2. When the displaying method setting is switched from "Reverse" to "Color/character change" or vice versa, switch character input and display color setting are performed again.

3. When neither the switch function or device write (SET/RST) function is set for the touch key, it is not possible to set "Touch key" for the switching trigger.
25. GUIDE TO OPERATIONS FOR SETTING FUNCTIONS EXECUTED BY TOUCH KEY INPUT WHEN USING AN A77GOT-S5

25.5.3 Touch key graphic character string entering procedure

(1) Outline of procedure for entering touch key graphic character strings

(Touch key edit screen)

Cross cursor for drawing

The normal display box allows selection of the "A", "A", "A", change attribute, and "A", menu options. (After the character string is entered, the screen editing menu can also be selected.)

A: Used to change from the "A", cursor to the "A", cursor.

A: Used to set the character size of character string to be entered

\: Used to change from the "A", cursor to the "A", cursor.

The touch key graphic being set is displayed here.

Canvas graphics and the \[\] mark for other sprite settings are not displayed in the touch key edit screen when entering the touch key graphic character strings.

Select the items for entering the character string in the display mode setting window.

The touch key edit screen opens.

Click the right mouse button.

The touch key tool box opens.

Select the "grid" option.

The grid/scale setting window opens.

Change the edit screen/screen display.

Changing of grid display and alignment

The touch key edit screen opens.

Select the change attribute option.

The change attribute window opens.

Change the character size attribute of the character string to be entered.

• The character size setting of the character string to be entered is changed.

• Attributes other than character size cannot be selected.

The display color of the character string is set in the display mode setting window.

The touch key edit screen opens.

Position the mouse cursor at the head of the character string to be entered and click the left mouse button.

"A" Enter the character string.

Refer to Section 25.5.4.

YES Edit the entered character string?

NO (1)
25. GUIDE TO OPERATIONS FOR SETTING FUNCTIONS EXECUTED BY TOUCH KEY INPUT WHEN USING AN A77GOT-S5

(1)

Click the right mouse button.

The touch key tool box opens.

Display an image of the entered character string and touch key graphic?

YES

Refer to Section 25.5.5.

NO

Select "OK" in the touch key tool box.

The display mode setting window opens.

Entered character string is displayed.

*1 When the normal display box is displayed at the position where characters are to be entered, move the mouse cursor to a position other than over a menu option in the box and click the left mouse button. The normal display box will be shifted vertically to another position.
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MELSEC-A

(2) Entering character strings

1. Move the mouse cursor to the head of the character string to be entered.

2. Confirm the head position setting. *1
   Left click or press [J].

3. The mouse cursor will disappear and the character cursor will be displayed. *2

4. Enter the character string.
   (Japanese entry is shown below)

5. Confirm the entry by pressing [J].

6. Display the touch key tool box. *3
   Right click or press [J].

7. Select "OK".
   Left click or press [J].

8. Select [Yes] in the dialog box.
   Left click or press [J].

9. The display mode setting window opens.

*1 Position of entered characters in relation to the mouse cursor.

<table>
<thead>
<tr>
<th>Character Size</th>
<th>Standard</th>
<th>1/4 size</th>
<th>Double size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entered character</td>
<td>One byte</td>
<td>Not possible</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Two byte</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*2 The way the character cursor is displayed depends on the input mode, as indicated below. The input mode can be changed by using the [Insert] key.

: Overwrite mode (the character at the cursor position is replaced by the input character)

: Insert mode (the character at the cursor position is displaced by insertion of the input character)

*3 If "Cancel" is selected, all entered character strings are cleared.

*4 "Selecting "Key Image" allows an image display for touch key graphic monitor functions.

When "Reverse" is selected as the displaying method:
Image display is performed for touch key graphics and character strings after switching by the switching trigger.

When "Color/character change" is selected as the displaying method:
Key image display is not possible.

POINTS

1. The character strings of touch key graphics can be entered at any position.

2. Character strings with the same attribute can be entered successively.

3. To cancel the input of character strings, press the [Esc] key.

4. When it is necessary to edit (move, delete, etc.) character strings after entering them, follow the operations described in Section 25.5.4.
25.5.4 Editing procedure for entered character strings

To edit an entered character string, first select an option from the normal display box in the touch key edit screen.

The editing procedure for character strings is the same as for graphics (apart from the "arrange" menu option [ɔ])

(1) Selecting character strings to be edited
Refer to the operating method in Section 8.

(2) Deleting selected character strings
Refer to the operating method in Section 17.2, (2).

(3) Restoring the character string deleted last
Refer to the operating method in Section 17.2, (3).

(4) Controlling a number of character strings currently selected as a single character string
Refer to the operating method in Section 17.2, (4).

(5) Breaking up the grouped character strings currently selected
Refer to the operating method in Section 17.2, (5).

(6) Moving the selected character strings to the center of the touch key graphic...

1. Select the character string to be moved to the center of the touch key graphic.
   Double-click the left mouse button or press [7][7].

2. Select the "arrange" (ɔ) menu option.
   Left click or press [J].

3. The character string will be moved to the center of the touch key graphic.

(7) Change from the "+" cursor to the "\ " cursor
Refer to the operating method in Section 16.2.2.

(8) Move the selected character string
Refer to the operating method in Section 17.5.
25. GUIDE TO OPERATIONS FOR SETTING FUNCTIONS EXECUTED BY TOUCH KEY INPUT WHEN USING AN A77GOT-S5

MELSEC-A

25.5.5 Display color setting for touch key graphic character strings (Color setting window)

[Details of items to be set]

<table>
<thead>
<tr>
<th>Color setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frame Blk Fil.</td>
</tr>
<tr>
<td>Fil. Blk</td>
</tr>
<tr>
<td>Char. Wht</td>
</tr>
</tbody>
</table>

---

1) Select the items to set the display color.

Description of Setting | Setting Range/Options | Remarks
---|---|---
1) Select the items to set the display color. | Frame, Fil., Char. | When the "Reversed" displaying method is selected in the display mode window, these items cannot be selected. Default: Frame

2) After setting 1) above, select the display color. When the "Reversed" displaying method is selected in the display mode window, select the display color for the frame and characters.

Available colors:
Blk, Gry, Blu, DkBl, Red,
DkRd, Mag, DkMg, Grn,
DkGr, Cyn, DkCy, Yel,
DkYe, Wht

3) The selected display color is displayed.

4) Select this item to use the selected display color.

5) Select this item to close the window.
25.5.6 Procedure for changing touch key size and position

(1) Enlarging or reducing the touch key size

1. Select touch key setting window "Rearrange" in the display mode setting window. Left click or press [J].

2. The touch key display position (area) setting window opens. Move the mouse cursor to the appropriate center of the working frame (there are 8 points) for the direction of enlargement/reduction up or down, right or left.

3. Determine the direction of enlargement/reduction. Left click or press [J].

4. Move the mouse cursor in the direction of enlargement/reduction.

5. Confirm the enlargement or reduction. Left click or press [J].

6. Display the touch key tool box. Right click or press [Esc].

7. Select the OK menu. Left click or press [J].

8. Select [Yes] in the dialog box. Left click or press [J].

9. The touch key setting window opens.

**POINTS**

(1) The character strings of touch key graphics cannot be enlarged or reduced.

(2) The character strings of touch key graphics will move in accordance with the enlargement or reduction.

(3) Enlargement or reduction cannot be performed with the center of the touch key as the reference point.
(2) Moving the touch key

1. Select touch key setting window "Rearrange" in the display mode setting window.
   Left click or press [J].

2. Start moving the touch key.
   Left click or press [J].

3. Move the mouse cursor to the desired position.

4. Complete movement and confirm the new position.
   Left click or press [J].

5. Display the touch key tool box.
   Right click or press [Esc].

6. Select "OK".
   Left click or press [Enter].

7. Select the [Yes] in the dialog box.
   Left click or press [Enter].

8. The touch key setting window opens.

POINT

(1) When the touch key position is moved, the character strings of the touch key graphic will also be moved to the new position.
APPENDICES

The appendices describes the comparison of functions with conventional software package, data compatibility, part and panel kit registering form and so forth.
### APPENDIX 1 COMPARISON WITH CONVENTIONAL SOFTWARE PACKAGE

#### 1.1 Comparison of Functions

For comparison with conventional AGOTP, refer to Section 1.2.

- **O**: With equivalent functions
- **Δ**: With equivalent functions except for some functions
- **×**: Without equivalent functions

<table>
<thead>
<tr>
<th>AGOTP Menu</th>
<th>AGOTP Item</th>
<th>SW1IX-AD57GPE Menu, Item</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>File</strong></td>
<td><strong>Read</strong></td>
<td>O</td>
</tr>
<tr>
<td></td>
<td><strong>Write</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Delete</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Copy</strong></td>
<td>×</td>
</tr>
<tr>
<td></td>
<td><strong>Print</strong></td>
<td>Δ (Executed by &lt;Print out&gt;)</td>
</tr>
<tr>
<td><strong>Screen editing/setting</strong></td>
<td><strong>(graphic form)</strong></td>
<td>× (Drawn up by the functions of GED)</td>
</tr>
<tr>
<td></td>
<td><strong>Text character</strong></td>
<td>O (Entered by &lt;Text canvas&gt;)</td>
</tr>
<tr>
<td></td>
<td><strong>Graphics character</strong></td>
<td>× (Entered by the functions of GED)</td>
</tr>
<tr>
<td></td>
<td><strong>Attribute change</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Screen display</strong></td>
<td>× (Controlled by the functions of GED)</td>
</tr>
<tr>
<td></td>
<td><strong>Screen edit</strong></td>
<td>* Capable of test display</td>
</tr>
<tr>
<td><strong>Edit</strong></td>
<td><strong>Sprite</strong></td>
<td>Δ (Incapable of setting alarm list display function and station number switching function. Incapable of changing device)</td>
</tr>
<tr>
<td></td>
<td><strong>Panel kit</strong></td>
<td>×</td>
</tr>
<tr>
<td></td>
<td><strong>Part</strong></td>
<td>× (Drawn up by the functions of GED)</td>
</tr>
<tr>
<td></td>
<td><strong>Comment</strong></td>
<td>O (Drawn up by &lt;Monitor setting&gt;)</td>
</tr>
<tr>
<td></td>
<td><strong>Title</strong></td>
<td>× (Drawn up by the functions of GED)</td>
</tr>
<tr>
<td></td>
<td><strong>OK</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Cancel</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Screen utilize/delete</strong></td>
<td><strong>Δ (Capable of sprite setting only)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Screen/station number switching</strong></td>
<td><strong>Δ (Station number switching. Incapable of device setting)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>PC type selection</strong></td>
<td><strong>O</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Report</strong></td>
<td><strong>Announce</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Time action</strong></td>
<td>O (Set by &lt;auxiliary function&gt;)</td>
</tr>
<tr>
<td></td>
<td><strong>Special key</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Operation panel and switch</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Snap shot</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>System information</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Printer type</strong></td>
<td>O (Set by &lt;auxiliary function&gt;)</td>
</tr>
<tr>
<td></td>
<td><strong>Back light OFF time</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Password</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Conversion</strong></td>
<td><strong>Setting data conversion</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Error display</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>INTEL HEX</strong></td>
<td>O</td>
</tr>
<tr>
<td><strong>Transfer</strong></td>
<td><strong>Graphics controller</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>ROM writer</strong></td>
<td>O</td>
</tr>
<tr>
<td><strong>Operating environment</strong></td>
<td><strong>GOT type</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Package</strong></td>
<td>×</td>
</tr>
<tr>
<td><strong>Exit</strong></td>
<td></td>
<td>O (Executed by &lt;Exit&gt;)</td>
</tr>
</tbody>
</table>
APPENDIX 2 TIMING AT WHICH THE USER CREATED DATA IS WRITTEN INTO A FILE

APPENDIX 2 describes those timings at which the data drawn up and set for monitor screen, the part produced for panel kit, and so forth are written in a file.

<table>
<thead>
<tr>
<th>Data Type</th>
<th>Writing Timing</th>
<th>Section Described</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setting data in the file editing window</td>
<td>When executing the writing operation by selecting the &lt;Write&gt; in the file menu box, and the exit menu in the menu box.</td>
<td>Sections 10.3 and 15.2</td>
</tr>
<tr>
<td>Monitor function setting data common to monitor screen</td>
<td>When executing the writing operation by selecting the &lt;Write&gt; in the part menu.</td>
<td>Section 23.2</td>
</tr>
<tr>
<td>Operating environment setting data</td>
<td></td>
<td>Section 20.3</td>
</tr>
<tr>
<td>Data created in the canvas screen</td>
<td></td>
<td>Section 19.3</td>
</tr>
<tr>
<td>Monitor function setting data at each monitor screen</td>
<td></td>
<td>Section 11.6.1</td>
</tr>
<tr>
<td>Parts displayed by the monitor function</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(parts described in Section 23)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parts in the panel kit library</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(parts described in Section 22)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drawing up and setting data for report function</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(monitor function described in Section 11.6)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*1: If there is no empty area in a disk when writing data, the forced exit alert box is displayed.

At this time, the following data just drawn up and set is erased:
- When drawing up the monitor screen:
  All data having been drawn up and set since the edit screen is opened.
- When setting the report function
  All data having been drawn up and set since the edit screen of the report page currently being set is opened.
- Other than above
  Data being set immediately before. Data being changed.

*2: When various data is created newly after starting up the AGOTP, the edit file name, part file name (only when producing the parts), and report file name (only when setting the report function) should be set in the file editing window.

When various data is created without setting each file name, the data is temporarily written into a temporary file under the following directories excluding the parts and then written in the file specified in the user-specified directory at the writing timing above.

The temporary file is deleted at this time.

For the parts, data is written into the file specified in the user-specified directory at the writing timing above. (Location in the directory of the temporary file)

\(\text{\texttt{\textbackslash Route}}\) — \(\text{\texttt{\textbackslash AGOTP}}\) — \(\text{\texttt{\textbackslash DAT}}\) — Temporary file for other than report

\(\text{\texttt{\textbackslash REP}}\) — Temporary file for report
POINTS

(1) Before starting up the AGOTP, correct date and time should be set on the peripheral devices for AGOTP. When data is written in a file, date and time is recorded in each file.

(2) Sufficient empty area should be provided for a disk in which data is written before starting up the AGOTP (See Chapter 3).
APPENDIX 3  STANDARD GRAPHIC SYMBOLS FOR PANEL KIT

APPENDIX 3 describes the graphic symbols registered for panel kit standard library that are provided by the AGOTP to user for canvas screen and parts. Confirm display color and size of each graphic symbols by reading the panel kit (See Section 20.2).

(1) [Switch] group

<table>
<thead>
<tr>
<th>No.</th>
<th>1 to 14</th>
<th>15 to 28</th>
<th>29 to 42</th>
<th>43</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part</td>
<td><img src="image" alt="Switch symbol" /></td>
<td><img src="image" alt="Switch symbol" /></td>
<td><img src="image" alt="Switch symbol" /></td>
<td><img src="image" alt="Switch symbol" /></td>
</tr>
<tr>
<td>(Display color differs depending on each No.)</td>
<td>(Display color differs depending on each No.)</td>
<td>(Display color differs depending on each No.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.</td>
<td>44</td>
<td>45, 46</td>
<td>47</td>
<td>48</td>
</tr>
<tr>
<td>Part</td>
<td><img src="image" alt="Switch symbol" /></td>
<td><img src="image" alt="Switch symbol" /></td>
<td><img src="image" alt="Switch symbol" /></td>
<td><img src="image" alt="Switch symbol" /></td>
</tr>
<tr>
<td>(Display color differs depending on each No.)</td>
<td>(Display color differs depending on each No.)</td>
<td>(Display color differs depending on each No.)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No.</td>
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* When a personal computer running DOS/V is used and operated in English mode, panel kit numbers 13 and 14 are not available.
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* When a personal computer running DOS/V is used and operated in English mode, panel kit numbers 13 and 14 are not available.
### APPENDIX 4  KEY CODE TABLE

When the key codes are set to the keys on both operation panel and keyboard and to the touch keys on the display unit with a touch panel, it is necessary to set the following codes to the function keys, numerical keys, alphabetic keys in order to execute the “Special key” and “Device write function” during monitoring operation.

(The keys in the parentheses denote those keys on the standard operation panel.)

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- The range of key codes that are not used for system is as follows:
  09H to 0CH, 0EH to 1FH, 84H to 87H, 89H to 8AH, 8DH to 90H, 94H to 9AH, 9CH to 9FH, E0H to EDH, EFH to F1H, F4H To FEH, FFH (FFH denotes without key code.)
## APPENDIX 5  PART REGISTERING AND RECORDING FORM

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APP - 11
APPENDIX 6  PANEL KIT REGISTERING AND RECORDING FORM

Copy this form before filling in the parts and then keep it.

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APPENDIX 7 CREATING A MONITOR SCREEN SHARED BY A NUMBER OF DEVICES

This appendix explains, with reference to examples, the situation when the monitor screen of a single G controller unit is shared between a number of AGOTP peripheral devices and integrated after completion of debugging, creation and merging of the monitor screen data, etc. For details on the kinds of files created by the AGOTP, refer to Section 4.4.

(1) Setting monitor functions/monitor conditions that are common to monitor screens
- The edit file name is set at each AGOTP peripheral device. If different names are set, they can be changed to the same name when merging data as described in item (2) below.
- The monitor functions common to monitor screens as indicated in Section 11 and the monitor condition setting data in Section 14 are set at each AGOTP peripheral device, except for the report function.
- These monitor functions and monitor condition setting data are debugged at the AGOTP peripheral device that merges all data and functions, including the report function, after completion of debugging. Therefore, both report file name setting and report drawing and setting are performed at a single AGOTP peripheral device only.

REMARK

The drawing/setting data of the report function is merged in the same manner as part data, whose merging is described below.

The file extension "nn" of the ruled line data file is the report page number of a report represented as a hexadecimal value.

Example of file creation:

```
User-specified report file name
"\REPORT REPORT.RPG REPORT.Rnn REPORT.RTL"
```

(2) Creation and merging of the various monitor screen data and comment data

(a) Creation
- Monitor screens and comments are created (registered) and debugged at each AGOTP peripheral device.
- Comment data is created and debugged as required.
- Graphics created by the user are registered in the panel kit and utilized as occasion demands.

(b) Merging
- Using the copy function of the AGOTP file menu (refer to Section 10.5), the created (registered) data is merged by copying it to a specified range of numbers in the AGOTP peripheral device.
- Ensure that there is no duplication of copy destination numbers.
- The screen title is copied during the merge operation.
(3) Creation and merging of the various part data

(a) Creation
- The same part file name is set at each AGOTP peripheral device involved in part creation.
- A part is created (registered) and debugged at every AGOTP peripheral device under the part number used by the actual system when creating the monitor screen.
- Graphics created by the user are registered in the panel kit and utilized as occasion demands.

(b) Merging
- Using a COPY command such as that of MS-DOS, the created (registered) data is merged by copying the following files.
  - Part graphic data file (extension .Bnn)
  - Part image data file (extension .Pnn)
  - The two files above are created for every part data. The extension file name "nn" of each file is the part number represented as a hexadecimal value.
- Ensure that there is no duplication of copy destination numbers.
- The part title is registered (or registered once again) by the AGOTP after the merging operation.

Example of file creation:

- User-specified part file name
  - VPARTS
  - PARTS.Bnn (Part graphic data)
  - PARTS.Pnn (Part image data)
  - PARTS.BTL (Part title data)

(4) Merging of panel kit data
- User-created panel kit data registered at every AGOTP peripheral device is entered into an unused monitor screen at every AGOTP peripheral device before emerging operation.
  - If all data cannot be entered on one screen, a number of screens are used.
  - There should be no duplication of the monitor screen numbers used at each AGOTP peripheral device.
- The created (registered) data is merged by copying it to a specified range of numbers in the AGOTP peripheral device, in accordance with the merging procedure for the monitor screen described in item (2) above.
- After copying the data, register it in the panel kit using the write function of panel kit menu (refer to Section 20.3) with the appropriate monitor screen displayed.
Files in which the drawing data of canvas screen and setting data of monitor function are stored.

Files in which various data relating to parts is stored.

Files in which various data relating to reports is stored.

Files in which data relating to the panel kit is stored.

* The extension file name 'nn' denotes the screen number, part number, or page number of a report.
APPENDICES

APPENDIX 8 [XOR] PART DISPLAY FUNCTION

(1) [XOR] function

When [XOR] is selected for "Background" in the part (display, locus, movement) setting window, the display colors of the canvas screen (stationary screen portion) and the part can be merged where they overlap during monitoring.

Example:

Canvas graphic + Part → Overlapped display

```
| START |
```

Display colors are determined by performing an exclusive logical sum operation on the numerical values (represented by bit statuses) corresponding to the overlapping colors (0: black, 1: blue, 2: green, 3: cyan, 4: red, 5: magenta, 6: yellow, 7: white).

Examples:

White + Black → White, White + Green → Magenta, White + White → Black

(2) Comparison of "With", "Without" and [XOR].

Display graphic of canvas screen → (Overlapped display) → Part

```
| "With" *1 |
```

```
| "Without" *2 |
```

```
| [XOR] |
```

The part of the canvas graphic that is overlapped is broken.
The part is obscured.
The part of the canvas graphic that is overlapped is displayed in combination with the overlapping part.

*1 This corresponds to the [Replace] option when using the AGOTP software version B or an earlier version.

*2 This corresponds to the [Background] option when using the AGOTP software version B or an earlier version.

(3) G controller units that support the [XOR] function

A77GOT-S3 (All models after software version C)
A64GOT-L (Models after software version K)
A64GOT-LT21B (Models after software version S)

(4) Software packages that can be used with models supporting [XOR]

```
| SW1SRX-AGOTP |
| SW1NX-AGOTP |
| SW1IVD-AGOTP |
```

(Software version C and later versions)
**IMPORTANT**

Design the configuration of a system to provide an external protective or safety inter locking circuit for the PCs.

Under no circumstances will Mitsubishi Electric be liable or responsible for any consequential damage that may arise as a result of the installation or use of this equipment.

All examples and diagrams shown in this manual are intended only as an aid to understanding the text, not to guarantee operation. Mitsubishi Electric will accept no responsibility for actual use of the product based on these illustrative examples.

Owing to the very great variety in possible applications of this equipment, you must satisfy yourself as to its suitability for your specific application.