

Mitsubishi Programmable Controller
MELSEC-FX Series
FX3U-16MCPU
(RS-232 Connection)

Sample Screen Manual

Mitsubishi Electric Corporation

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REVISIONS

Sample Screen Manual

Date	Control No.*	Description
2014/8	BCN-P5999-0389	First edition
2015/2	BCN-P5999-0389-2	Device Specification for Document ID

* The Control No. is noted at the lower right of each page.

Project Data

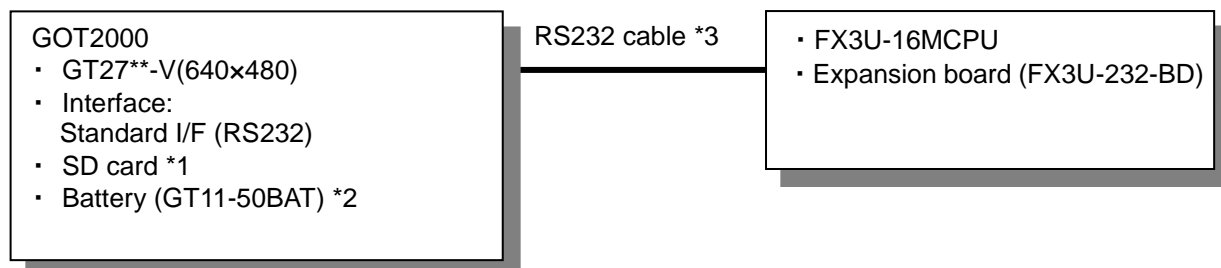
Date	Project data	GT Designer3*	Description
2014/8	mitsubishi_fxcpu-rs232_v_ver1_e.gtx	1.117X	First edition
2015/2	mitsubishi_fxcpu-rs232_v_ver2_e.gtx	1.126G	Device Specification for Document ID

* The version number of screen design software used to create the project data is listed. Please use the screen design software with the listed version or later.

1. OUTLINE

This manual explains the sample screens of GOT2000 connected to a MELSEC-FX Series PLC (FX3U-16MCPU) in serial (RS-232) communication. The sample screens are created for using the alarm function, logging function, and device monitor.

2. SYSTEM CONFIGURATION



*1: The SD card is used for the logging and document display functions.

*2: The battery is used for the backup of the clock data and the logging data in the SRAM user area. (The battery is provided with the GOT as standard.)

*3: For more details about the cable, please refer to the "GOT2000 Series Connection Manual (Mitsubishi Products)".

2.1 Device Monitor Range

The device monitor range for this sample is as follows.

Device	Device monitor range
X	0000-0377 (octal)
Y	0000-0377 (octal)
M	0-7679
D	0-7999

3. GOT

3.1 Required System Applications

Type	System application name	
Standard Function	Standard System Application	
	Standard Font	Japanese
Communication Driver	MELSEC-FX	
Extended Function	Standard Font	
	Chinese (Simplified)	
	Outline Font	Alphanumeric/Kana
		Japanese (Kanji)
		Chinese (Simplified)
	FX Ladder Monitor *1	
	Document Display	

*1: When writing system applications to a GOT, only the FX Ladder Monitor should be selected manually. For more details about manual selection method, please refer to "6.1 Selecting System Applications Manually".

3.2 Controller Setting of Screen Design Software

Detail Setting

Item	Set value	Remarks
Transmission Speed (BPS)	115200 bps	
Retry (Times)	0	
Timeout Time (Sec)	3	
Delay Time (ms)	0	

3.3 Overlap Window Setting of Screen Design Software

To close the window screen when switching base screens, the [Close the window when switching base screens] checkbox is checked in [Detail Setting] of Overlap Window in the [Screen Switching/Window] setting.

4. SCREEN SPECIFICATIONS

4.1 Display Language

The language of the text displayed on the screen can be switched between Japanese, English and Chinese (Simplified). The text strings in each language are registered in the columns No. 1 to No. 3 in the comment groups No. 495 to No. 500 as shown below. When the column No. is set in the language switching device, the language corresponding to the column No. will appear.

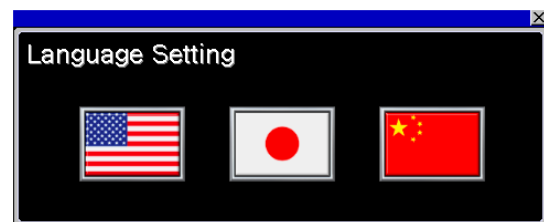
Column No.	Language
1	English
2	Japanese
3	Chinese (Simplified)

4.2 Screen Transition

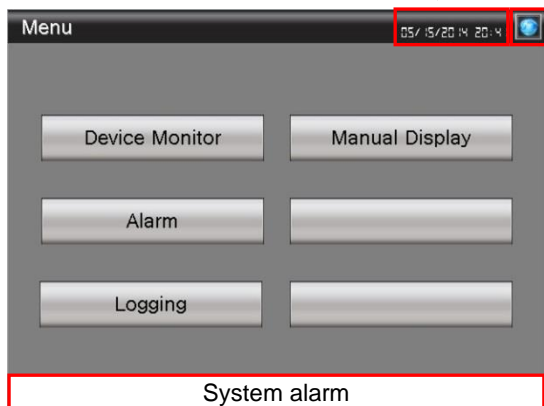
4.2.1 Screen transition (common)



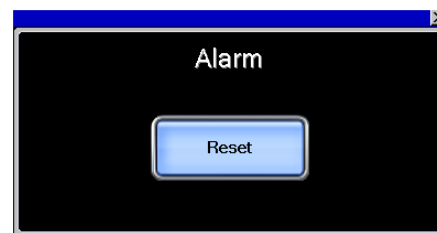
Window screen W-30003: Clock Setting



Window screen W-30002: Language Setting

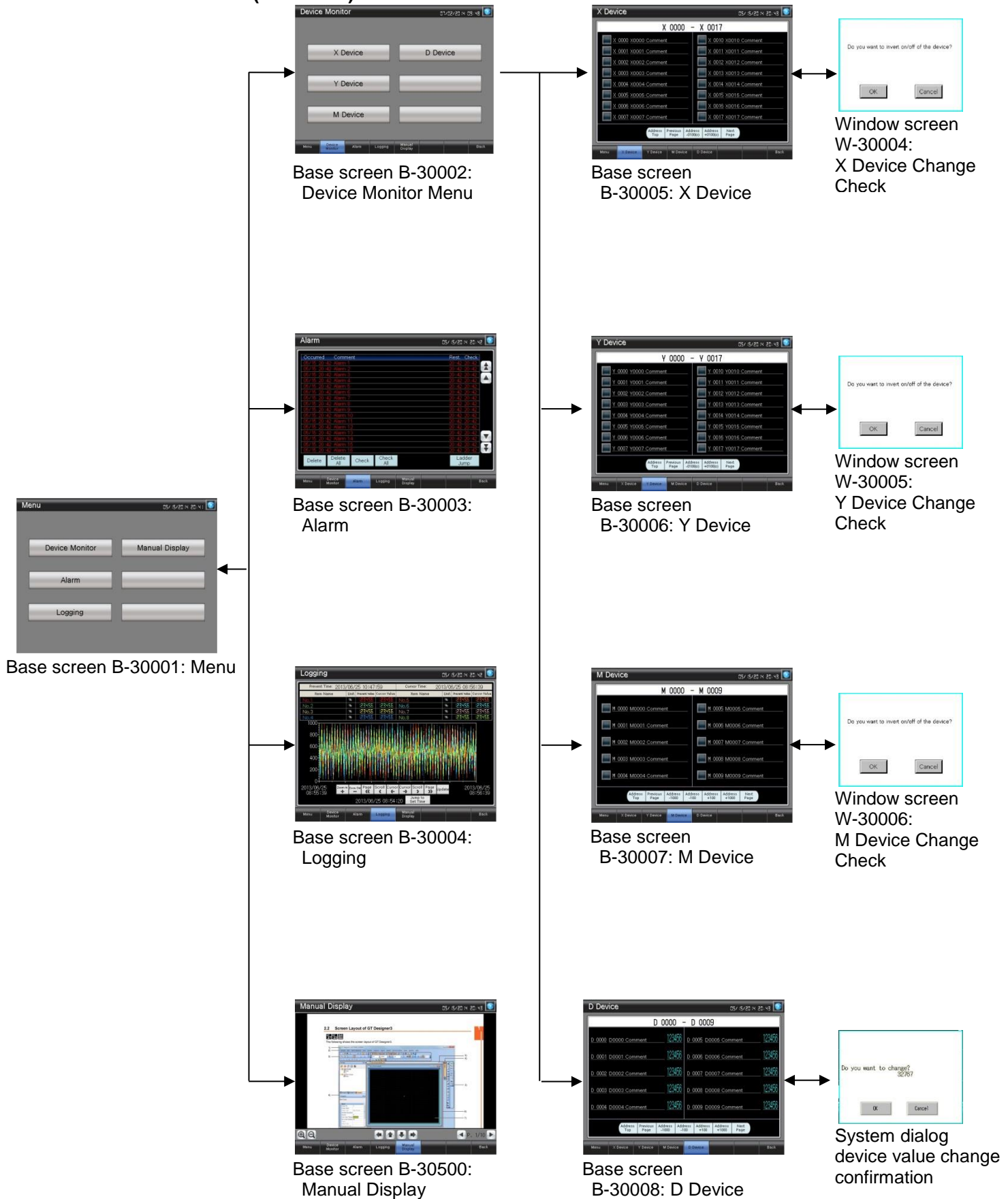


Base screen:
B-30001 Menu and other base screens



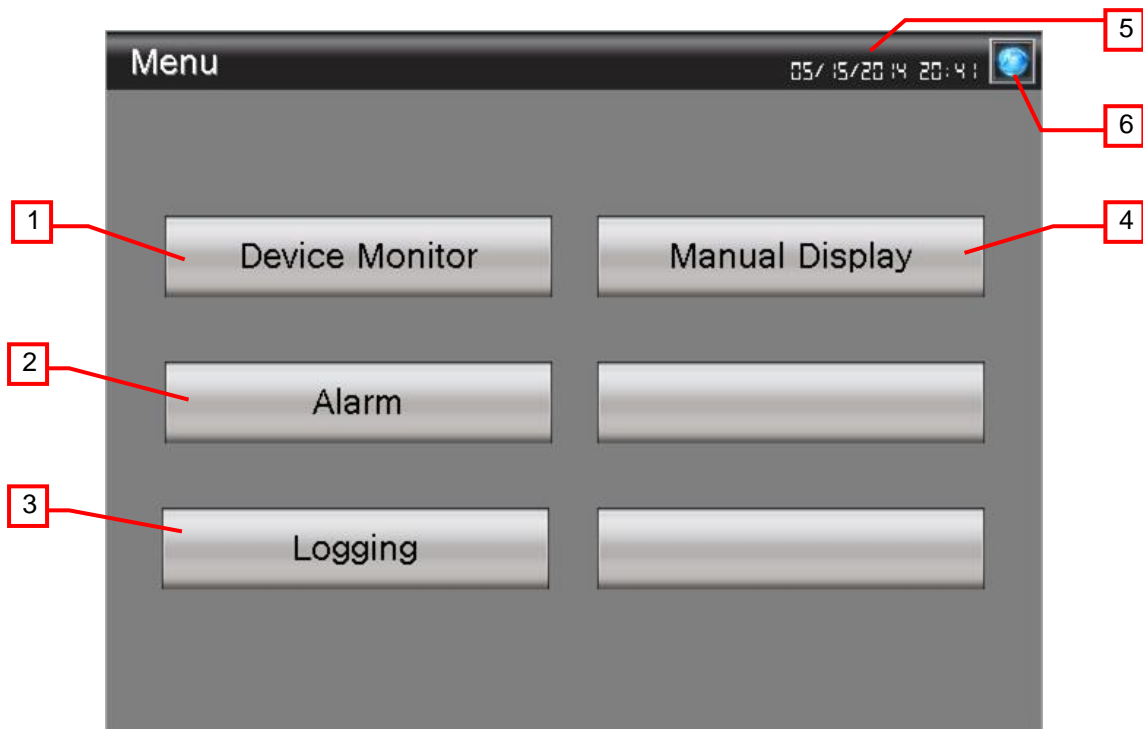
Window screen W-30001: Alarm Reset

4.2.2 Screen transition (individual)



4.3 Explanation of Screens

4.3.1 Menu (B-30001)



Outline

This is the Menu screen.

Description

1. Switches to the [Device Monitor] menu screen.
2. Switches to the [Alarm] screen.
3. Switches to the [Logging] screen.
4. Switches to the [Manual Display] screen.
5. Displays the current date and time. Touch the area to open the [Clock Setting] window.
6. Opens the [Language Setting] window.

Remarks

- If a system alarm occurs, the alarm message will appear at the bottom of the screen. When touching the left end of the message, the display position of the message changes in the order of upper, center, and lower. When touching the other part of the message, the [Alarm Reset] window appears.

4.3.2 Device Monitor Menu (B-30002)



Outline

This is the device monitor menu screen.

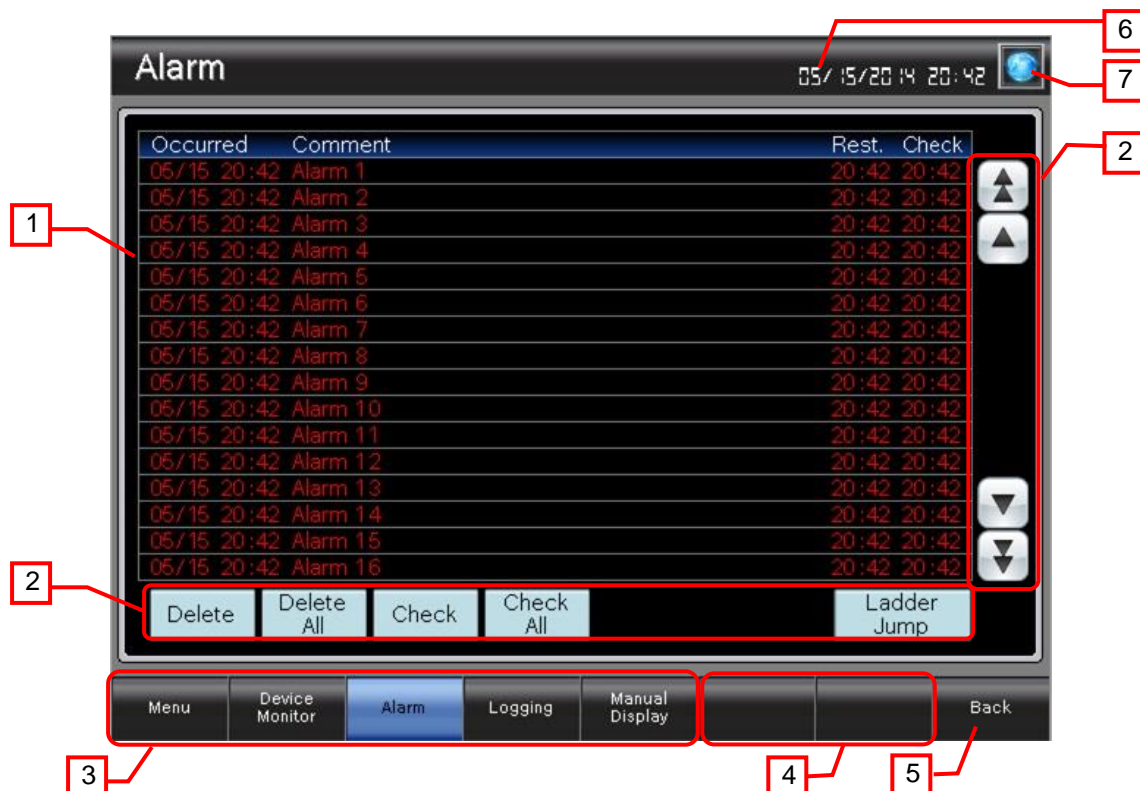
Description

1. Switches to the [X Device] screen.
2. Switches to the [Y Device] screen.
3. Switches to the [M Device] screen.
4. Switches to the [D Device] screen.
5. Switches to each screen. The blue switch indicates the currently displayed screen, thus selecting this switch will not switch the screen.
6. Shows unused switches for base screen switching.
7. Switches to the previously opened screen.
8. Displays the current date and time. Touch the area to open the [Clock Setting] window.
9. Opens the [Language Setting] window.

Remarks

- If a system alarm occurs, the alarm message will appear at the bottom of the screen. When touching the left end of the message, the display position of the message changes in the order of upper, center, and lower. When touching the other part of the message, the [Alarm Reset] window appears.

4.3.3 Alarm (B-30003)



Outline

This screen displays the alarm history.

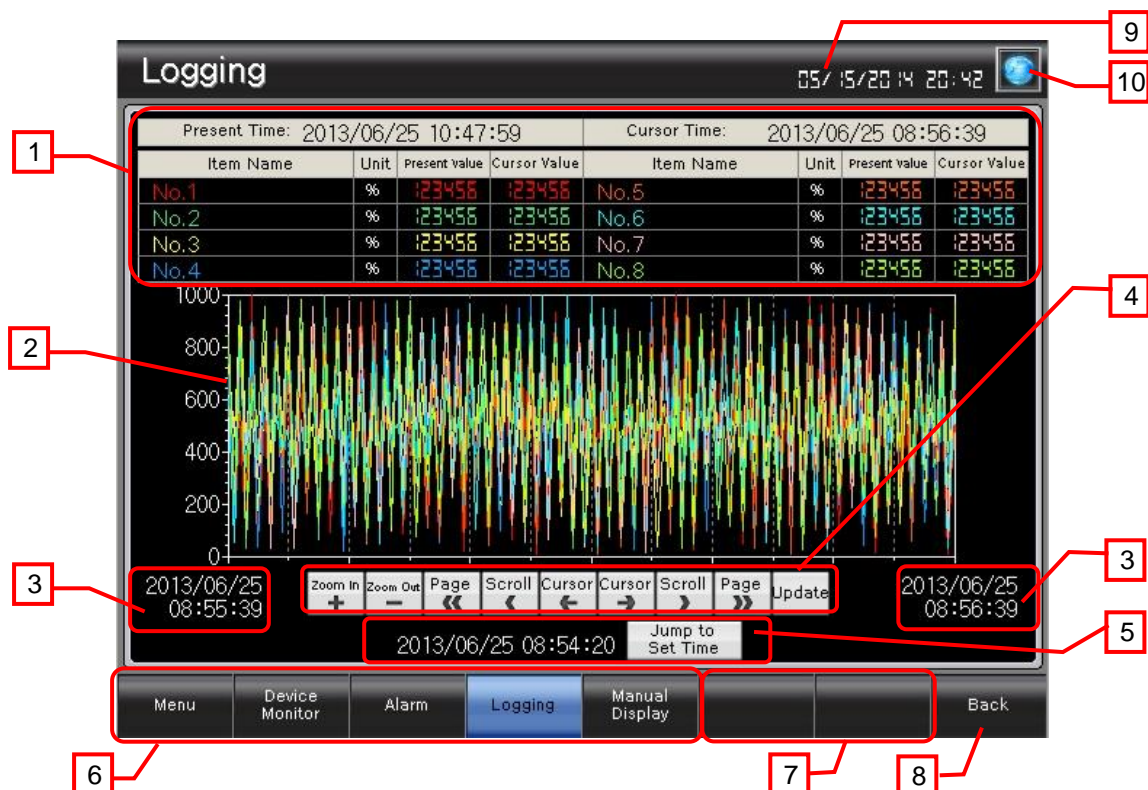
Description

- Displays alarms. Touch an alarm to display/hide the cursor. Touch an alarm to display/hide the cursor. While touching the alarm display area, flicking the area will scroll the alarms up and down.
- These switches operate alarms.
 - : Scrolls the page up and down.
 - : Scrolls alarms up and down line by line.
 - Delete : Deletes only the selected restored alarm.
 - Delete All : Deletes all the restored alarms.
 - Check : Displays the date and time of the selected alarm for checking.
 - Check All : Displays the date and time of all the alarms for checking.
 - Ladder Jump : Displays the ladder data of the selected alarm.
- Switches to each screen. The blue switch indicates the currently displayed screen, thus selecting this switch will not switch the screen.
- Shows unused switches for base screen switching.
- Switches to the previously opened screen.
- Displays the current date and time. Touch the area to open the [Clock Setting] window.
- Opens the [Language Setting] window.

Remarks

- If a system alarm occurs, the alarm message will appear at the bottom of the screen. When touching the left end of the message, the display position of the message changes in the order of upper, center, and lower. When touching the other part of the message, the [Alarm Reset] window appears.

4.3.4 Logging (B-30004)



Outline

This screen displays the values collected with the logging function in numerical values and a historical trend graph.

Description

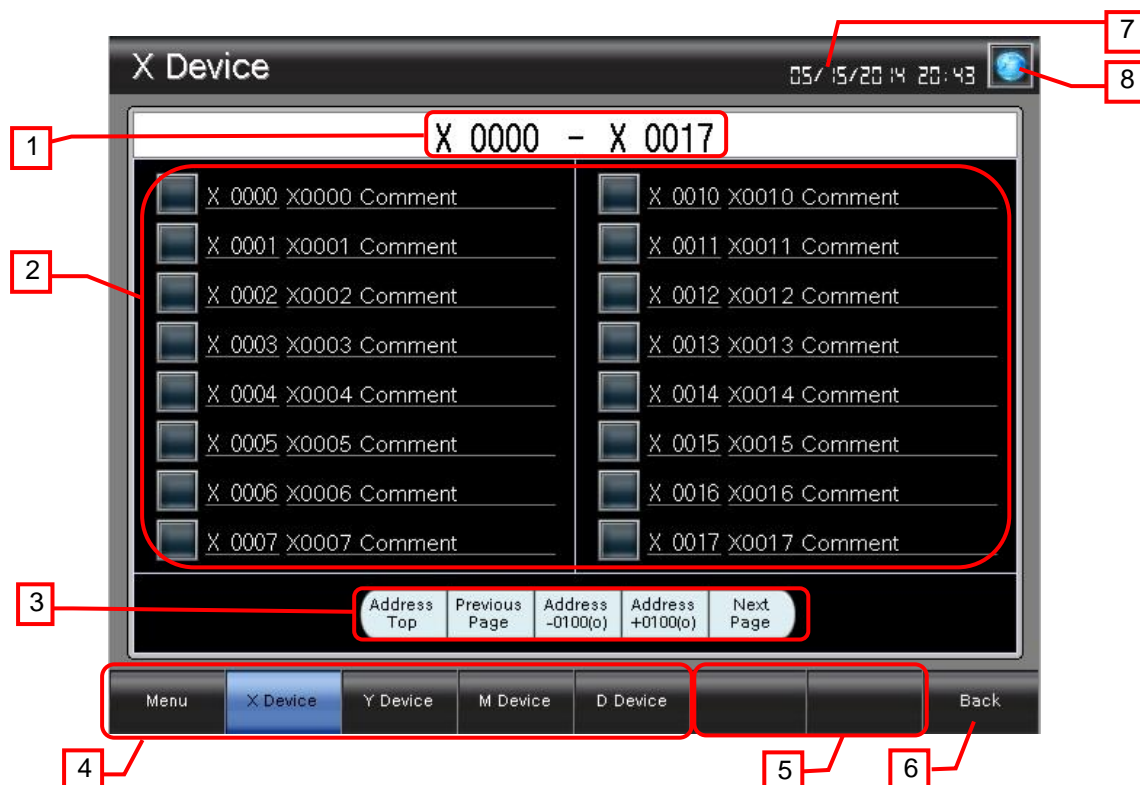
- Displays the current values of No.1 to No.8 and the values at the cursor display time.
- Displays a historical trend graph of values from No.1 to No.8. Touch the graph to show the cursor. While touching the graph area, flicking the area will scroll the graph left and right. Pinching out and in will zoom in and out the graph based on the time axis.
- Displays the historical trend graph's beginning position time and end position time.
- Operates the historical trend graph.

Zoom In	: Enlarges (×2) the graph's time axis based on the new data axis.
Zoom Out	: Reduces (×1/2) the graph's time axis based on the new data axis.
Page	: Scrolls the page to the left.
Scroll	: Scrolls the graph to the left.
Cursor	: Displays a cursor, and scrolls the cursor in the direction of the older data.
Cursor	: Displays a cursor, and scrolls the cursor in the direction of the newer data.
Scroll	: Scrolls the graph to the right.
Page	: Scrolls the page to the right.
Update	: Clears the cursor, and displays the latest data.
- When the date and time are entered and the [Jump to Set Time] switch is touched, the values for the specified date and time will appear at the center of the graph. The current date and time are stored when the screen is displayed initially.
- Switches to each screen. The blue switch indicates the currently display screen, thus selecting this switch will not switch the screen.
- Shows unused switches for base screen switching.
- Switches to the previously opened screen.
- Displays the current date and time. Touch the area to open the [Clock Setting] window.
- Opens the [Language Setting] window.

Remarks

- A screen script is set for the Jump to Set Time of the historical trend graph. For more details about scripts, please refer to "4.6 Script List".
- If a system alarm occurs, the alarm message will appear at the bottom of the screen. When touching the left end of the message, the display position of the message changes in the order of upper, center, and lower. When touching the other part of the message, the [Alarm Reset] window appears.

4.3.5 X Device (B-30005)



Outline

This screen allows monitoring and setting of X devices.

Description

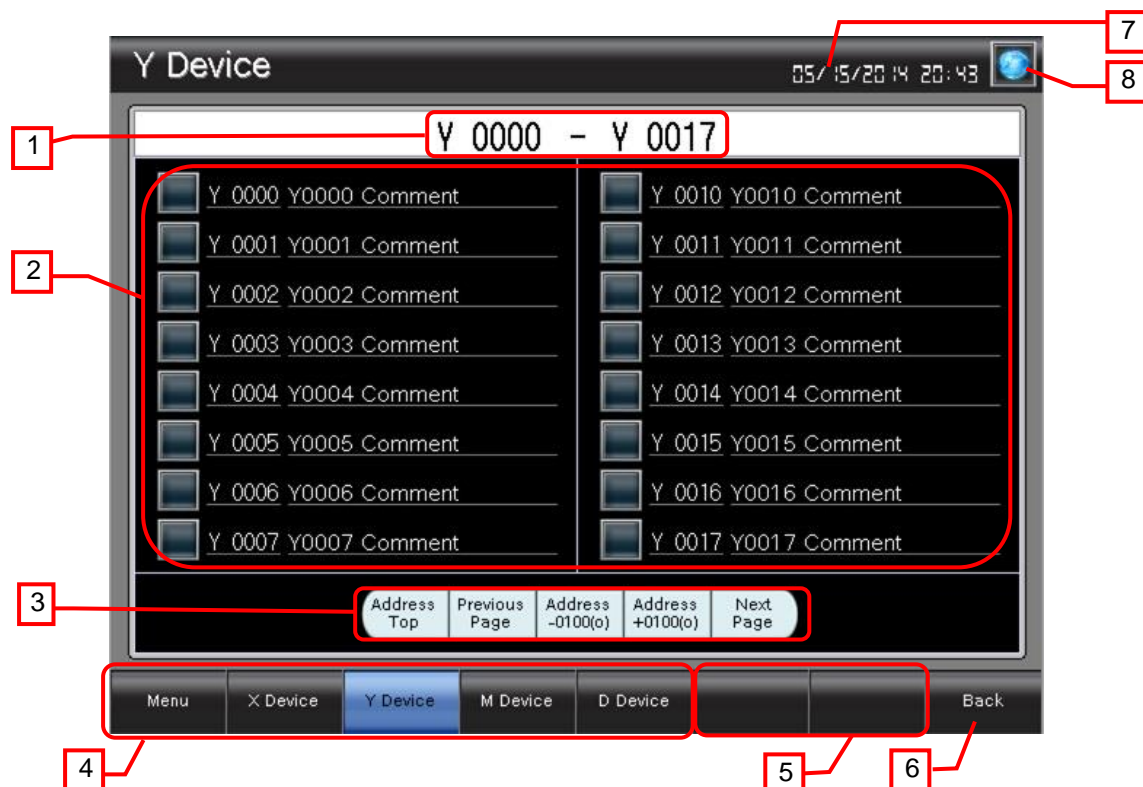
1. Displays the device range currently monitored.
2. Displays the current device statuses (lamps), device numbers, and comments. Touch a lamp or device number to invert the bit. The [Device Change Check] window is displayed when a change is made.
3. Manipulates the monitored device numbers.

Address Top	: Switches the device numbers to the first.
Previous Page	: Switches the device numbers in steps of -16 points.
Address -0100(o)	: Switches the device numbers in steps of -64 points.
Address +0100(o)	: Switches the device numbers in steps of +64 points.
Next Page	: Switches the device numbers in steps of +16 points.
4. Switches to each screen. The blue switch indicates the currently display screen, thus selecting this switch will not switch the screen.
5. Shows unused switches for base screen switching.
6. Switches to the previously opened screen.
7. Displays the current date and time. Touch the area to open the [Clock Setting] window.
8. Opens the [Language Setting] window.

Remarks

- If a system alarm occurs, the alarm message will appear at the bottom of the screen. When touching the left end of the message, the display position of the message changes in the order of upper, center, and lower. When touching the other part of the message, the [Alarm Reset] window appears.

4.3.6 Y Device (B-30006)



Outline

This screen allows monitoring and setting of Y devices.

Description

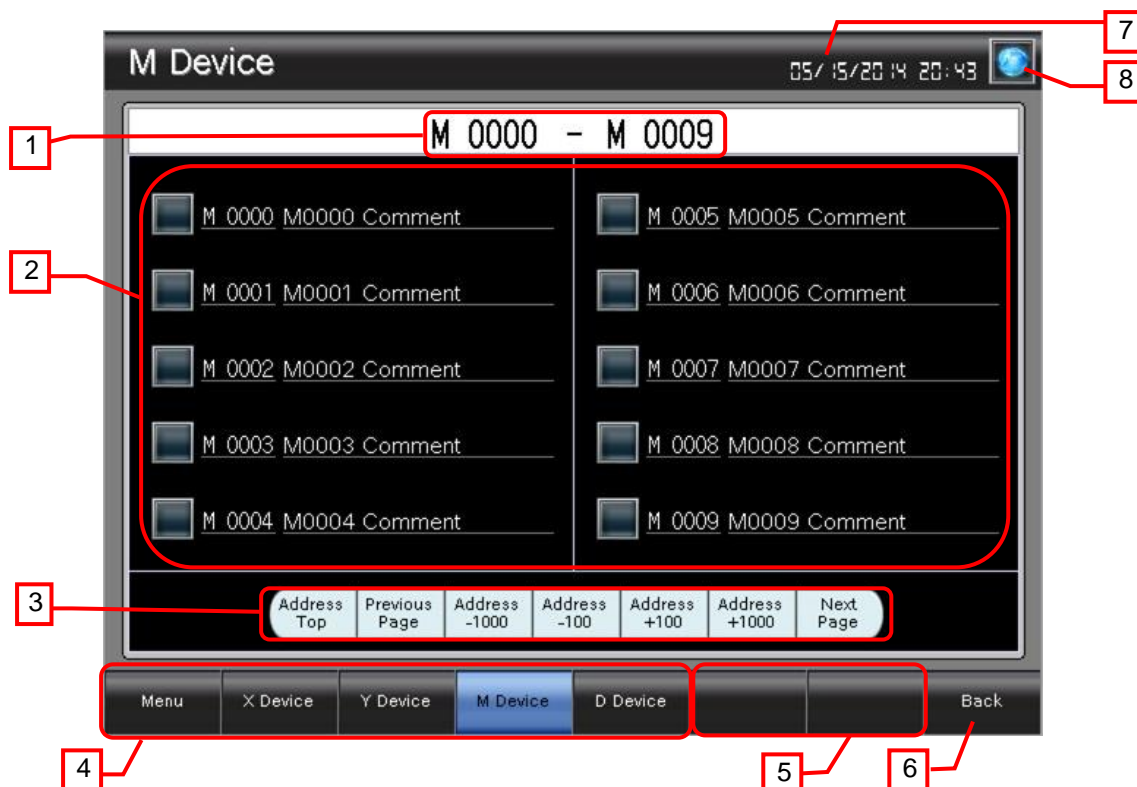
1. Displays the device range currently monitored.
2. Displays the current device statuses (lamps), device numbers, and comments. Touch a lamp or device number to invert the bit. The [Device Change Check] window is displayed when a change is made.
3. Manipulates the monitored device numbers.

Address Top	: Switches the device numbers to the first.
Previous Page	: Switches the device numbers in steps of -16 points.
Address -0100(o)	: Switches the device numbers in steps of -64 points.
Address +0100(o)	: Switches the device numbers in steps of +64 points.
Next Page	: Switches the device numbers in steps of +16 points.
4. Switches to each screen. The blue switch indicates the currently display screen, thus selecting this switch will not switch the screen.
5. Shows unused switches for base screen switching.
6. Switches to the previously opened screen.
7. Displays the current date and time. Touch the area to open the [Clock Setting] window.
8. Opens the [Language Setting] window.

Remarks

- If a system alarm occurs, the alarm message will appear at the bottom of the screen. When touching the left end of the message, the display position of the message changes in the order of upper, center, and lower. When touching the other part of the message, the [Alarm Reset] window appears.

4.3.7 M Device (B-30007)



Outline

This screen allows monitoring and setting of M devices.

Description

1. Displays the device range currently monitored.
2. Displays the current device statuses (lamps), device numbers, and comments. Touch a lamp or device number to invert the bit. The [Device Change Check] window is displayed when a change is made.
3. Manipulates the monitored device numbers.

Address Top	: Switches the device numbers to the first.
Previous Page	: Switches the device numbers in steps of -10 points.
Address -1000	: Switches the device numbers in steps of -1000 points.
Address -100	: Switches the device numbers in steps of -100 points.
Address +100	: Switches the device numbers in steps of +100 points.
Address +1000	: Switches the device numbers in steps of +1000 points.
Next Page	: Switches the device numbers in steps of +10 points.
4. Switches to each screen. The blue switch indicates the currently display screen, thus selecting this switch will not switch the screen.
5. Shows unused switches for base screen switching.
6. Switches to the previously opened screen.
7. Displays the current date and time. Touch the area to open the [Clock Setting] window.
8. Opens the [Language Setting] window.

Remarks

- If a system alarm occurs, the alarm message will appear at the bottom of the screen. When touching the left end of the message, the display position of the message changes in the order of upper, center, and lower. When touching the other part of the message, the [Alarm Reset] window appears.

4.3.8 D Device (B-30008)



Outline

This screen allows monitoring and setting of D devices.

Description

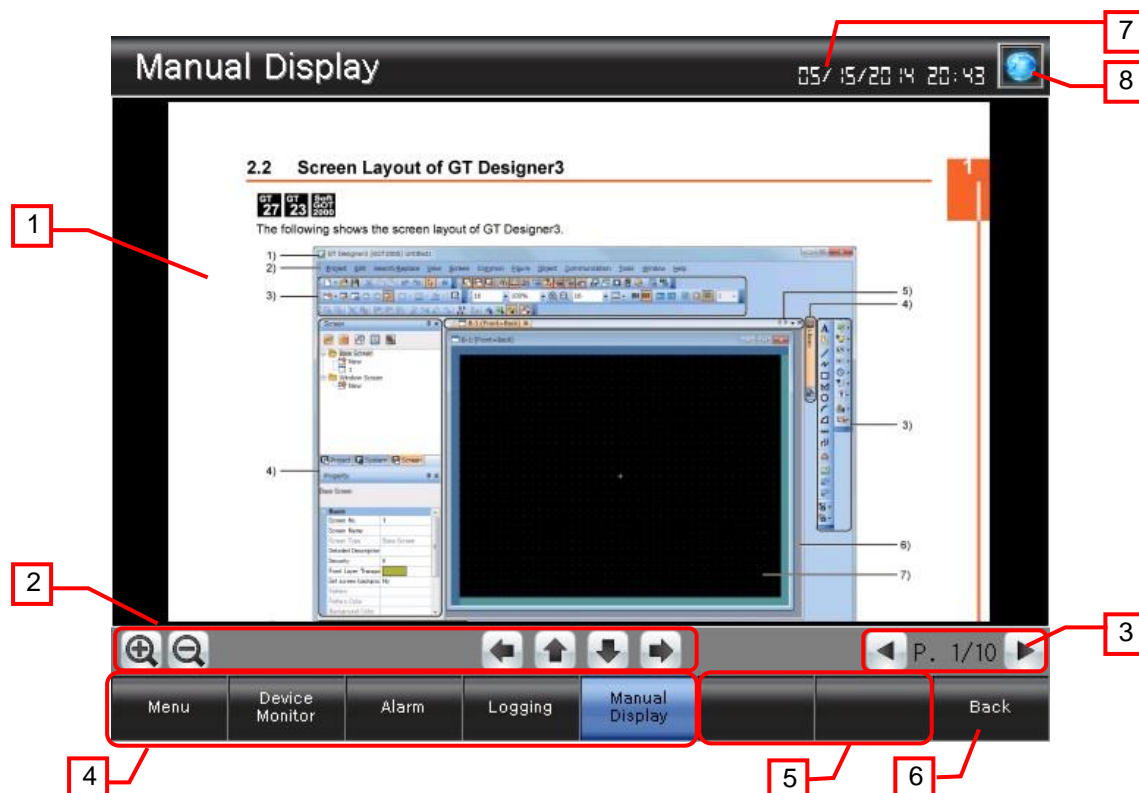
1. Displays the device range currently monitored.
2. Displays the current device statuses (lamps), device numbers, and comments. Touch a lamp or device number to invert the bit. The [Device Change Check] window is displayed when a change is made.
3. Manipulates the monitored device numbers.

Address Top	: Switches the device numbers to the first.
Previous Page	: Switches the device numbers in steps of -10 points.
Address -1000	: Switches the device numbers in steps of -1000 points.
Address -100	: Switches the device numbers in steps of -100 points.
Address +100	: Switches the device numbers in steps of +100 points.
Address +1000	: Switches the device numbers in steps of +1000 points.
Next Page	: Switches the device numbers in steps of +10 points.
4. Switches to each screen. The blue switch indicates the currently display screen, thus selecting this switch will not switch the screen.
5. Shows unused switches for base screen switching.
6. Switches to the previously opened screen.
7. Displays the current date and time. Touch the area to open the [Clock Setting] window.
8. Opens the [Language Setting] window.

Remarks

- If a system alarm occurs, the alarm message will appear at the bottom of the screen. When touching the left end of the message, the display position of the message changes in the order of upper, center, and lower. When touching the other part of the message, the [Alarm Reset] window appears.

4.3.9 Manual Display (B-30500)



Outline

This screen displays the manual of the currently displayed language.

Description

1. Manual Display displays a document with document ID (201 to 203) according to the language. The page 1 is displayed when the screen is displayed initially. While touching the document, flicking to 8 directions will scroll the document to 8 directions. While displaying the edge of the document, flicking the document will switch pages. Pinching out and in will zoom in and out the document in 3 steps (large, middle, and small).
2. These switches operate the displayed document.
 - : Enlarges or reduces the displayed document.
 - : Enlarges or reduces the displayed document.
 - : Scrolls the displayed document to the left or right.
 - : Scrolls the displayed document to the left or right.
 - : Scrolls the displayed document up or down.
 - : Scrolls the displayed document up or down.
3. These switches operate the displayed document page.
 - P. 1 : Displays the page number of the displayed document. Touch the value to change the page number.
 - : Switches to the previous or next page of the displayed document.
4. Switches to each screen. The blue switch indicates the currently displayed screen, thus selecting this switch will not switch the screen.
5. Shows unused switches for base screen switching.
6. Switches to the previously opened screen.
7. Displays the current date and time. Touch the area to open the [Clock Setting] window.
8. Opens the [Language Setting] window.

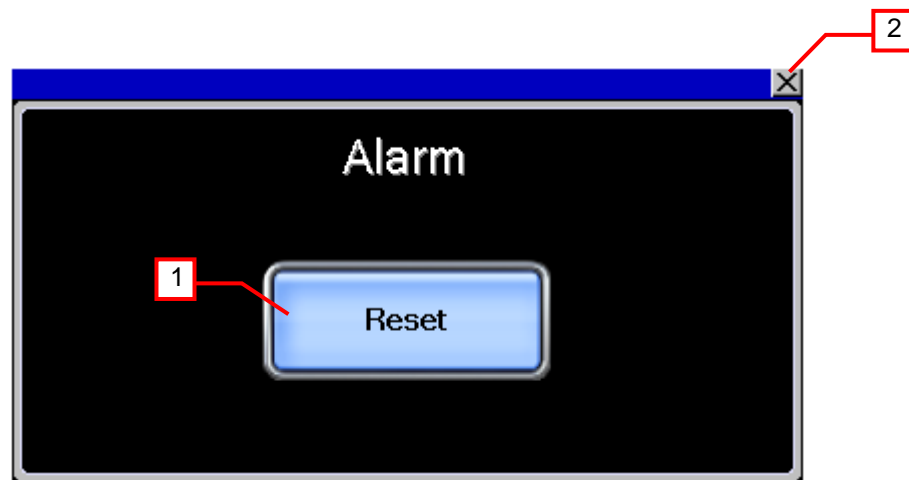
Remarks

- The language setting reflect documents for Manual display. The relation of the column No. of the comment group No., languages and document (Document ID) is shown below.

Column No. of the comment group No	Language	Document ID
1	English	201
2	Japanese	202
3	Chinese (Simplified)	203

- When GOT is started, the document page is set to No. "1" and the Document ID is set to "201" with the project script. For more details about scripts, please refer to "4.6 Script List".
- The page feed switches are set not to exceed the total number of document pages by object script. For more details about scripts, please refer to "4.6 Script List".
- The document data for the manual display should be prepared by the customers. For more details, please refer to "5. MANUAL DISPLAY".
- If a system alarm occurs, the alarm message will appear at the bottom of the screen. When touching the left end of the message, the display position of the message changes in the order of upper, center, and lower. When touching the other part of the message, the [Alarm Reset] window appears.

4.3.10 Alarm Reset (W-30001)



Outline

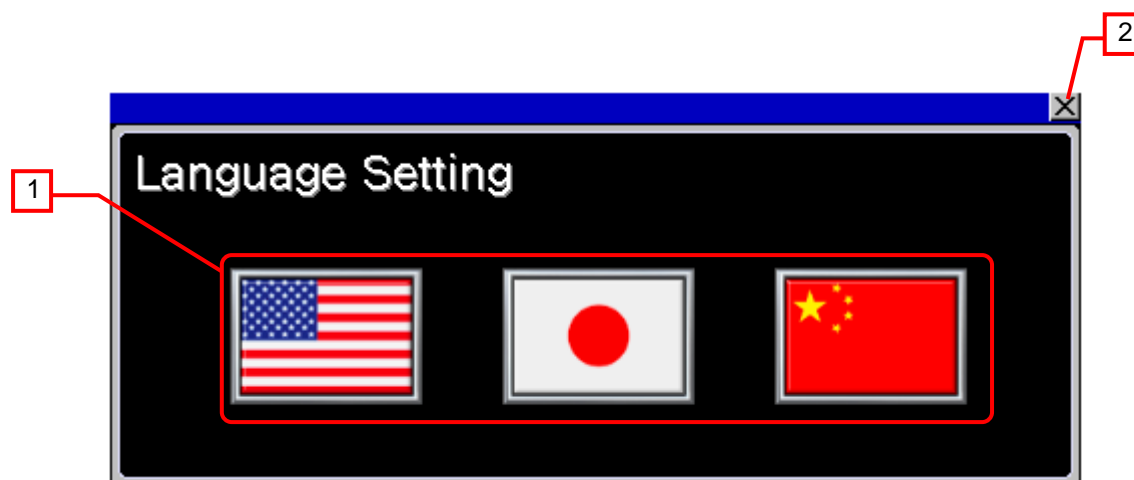
This window screen allows resetting the system alarm.

Description

1. Resets the system alarm, and closes the window screen after 1 second.
2. Closes the window screen.

Remarks

4.3.11 Language Setting (W-30002)



Outline

This window allows selecting the GOT language.

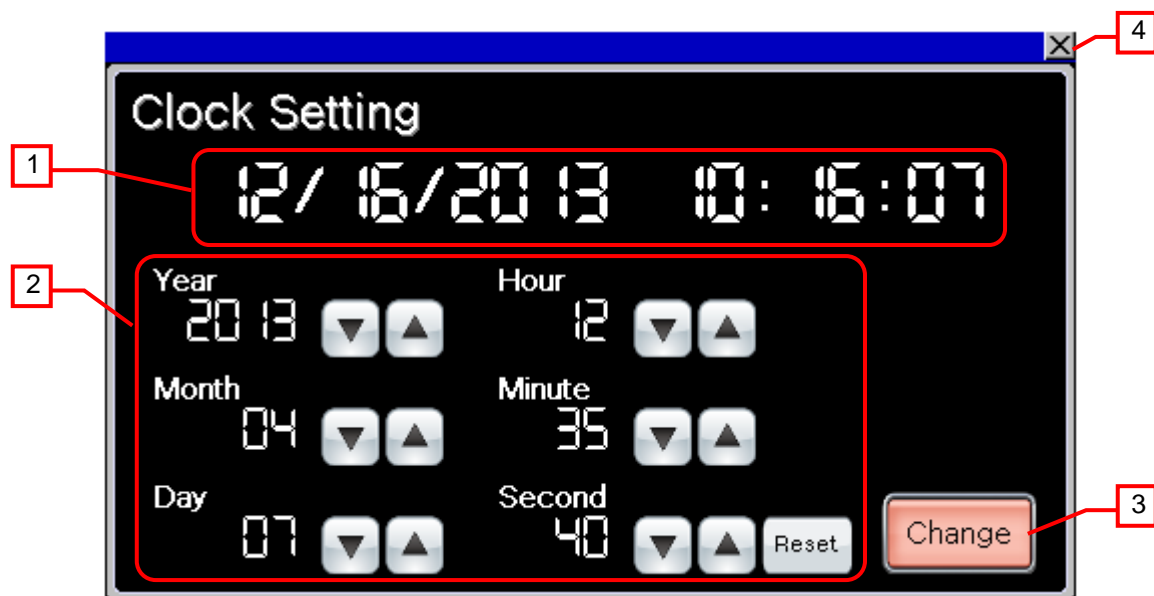
Description

1. Switches the language and closes the window screen.
2. Closes the window screen.

Remarks

- The system language and Document ID for manual display also switched corresponding to the display language.



4.3.12 Clock Setting (W-30003)



Outline

This window screen allows changing the GOT clock data.

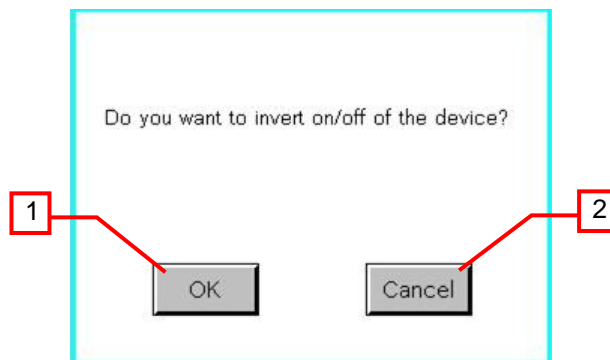
Description

1. Displays the current date and time.
2. Use   switches to change the date and time. Hold down the switches to increment or decrement the value continuously. The [Reset] switch resets the seconds.
3. Applies the set date and time to the GOT clock data, and closes the window screen after 1 second.
4. Closes the window screen.

Remarks

- The date and time at window opening are initially set as the clock data to be newly set.
- Object scripts are set for the numerical display of the year, month, date, hour, minute and second in the clock data to be newly set. For more details about scripts, please refer to "4.6 Script List".

4.3.13 X (Y and M) Device Change Check (W-30004 to 30006)



Outline

This window screen is used to select whether to invert the on/off of the bit device or to cancel the processing.

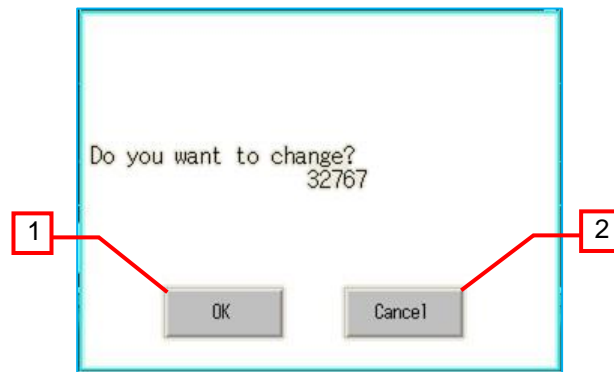
Description

1. Inverts the on/off of the bit device, and closes the window screen.
2. Closes the window screen without inverting the on/off of the bit device.

Remarks

- When the window is closed, the device number blinking in the base screen returns to the normal display.
- A screen script is set to execute the above operation. For more details about scripts, please refer to "4.6 Script List".

4.3.14 System Dialog



Outline

This window screen is used to select whether to change the word device value or to cancel the processing.

Description

1. Changes the word device value, and closes the window screen.
2. Closes the window screen without changing the word device value.

Remarks

4.4 Device List

Some of the devices specified to the on-screen switches and lamps, etc., are also used for common settings of functions such as scripts. Using [Batch Edit] is recommended to change these devices in a batch. For more details about using [Batch Edit], please refer to the "GT Designer3 (GOT2000) Help".

4.4.1 Devices of the controller

Type	Device No.	Application
Bit	X0000 to X0017	Monitor Device (X)
	Y0000 to Y0017	Monitor Device (Y)
	M0 to M0009	Monitor Device (M)
	M0 to M0019	User Alarm History Monitoring Device (ID30001)
Word	D0 to D0009	Monitor Device (D)
	D0 to D0007	Logging Device (ID30001)

4.4.2 GOT internal devices

Type	Device No.	Application
Bit	GB40	Script trigger (Always ON)
	GD60031.b13	GOT error reset signal
	GD60041.b11	Key Window Output Signal (System Signal 2-1)
	GD61009.b0 to GD61009.b15	X, Y, M device screen, numerical display style condition
	GS512.b0	Time change signal
Word	GD60000	Base screen switching
	GD60001	Overlap window 1 screen switching
	GD60004 to GD60006	Overlap window 2 screen switching
	GD60004	Action condition trigger device of X, Y, M device screen and device number operation switch
	GD60021	Language switching
	GD60022	System language switching
	GD60031, GD60041	System information
	GD60055	Current user display user ID (system information) D device screen, numerical input style condition
	GD60080 to GD60082	Document display
	GD61000	X device screen offset device
	GD61001	Y device screen offset device
	GD61002	M device screen offset device
	GD61003	D device screen offset device
	GD61009	Script No.30102 X, Y, M device screen, numerical display style condition batch clear
	GD61010	X device change check screen offset device
	GD61011	Y device change check screen offset device
	GD61012	M device change check screen offset device
	GD61201 to GD61208	Graph information in historical trend graph
	GD61221 to GD61224	Cursor position time in historical trend graph
	GD61225 to GD61228	Beginning position time in historical trend graph
	GD61229 to GD61232	End position time in historical trend graph
	GD61233 to GD61235	Display position time specification in historical trend graph
	GD63990 to GD63995	Clock digital switch
	GS513 to GS516	Changed time
	GS650 to GS652	Current time
	TMP950 to TMP996	For script operation

4.5 Comment List

Comment group No.	Comment No.	Where comments are used
495	No.1 to No.16	B-30005
496	No.1 to No.16	B-30006
497	No.1 to No.10	B-30007
498	No.1 to No.10	B-30008
499	No.1 to No.20	B-30003 (User Alarm Observation ID 30001)
500	No.1 to No.6	B-30001 to B-30008, B-30500
	No.11	B-30002
	No.12	B-30001
	No.13	B-30500
	No.21 to No.29	B-30003
	No.31 to No.53	B-30004
	No.61	B-30002, B-30005
	No.62	B-30002, B-30006
	No.63	B-30002, B-30007
	No.64	B-30002, B-30008
	No.71 to No.72	B-30005 to B-30008
	No.73 to No.76	B-30005 to B-30006
	No.77	B-30005 to B-30008
	No.78 to No.81	B-30007 to B-30008
	No.101	W-30001
	No.102	W-30001, W-30003
	No.103	W-30002
	No.104 to No.111	W-30003
	No.112 to No.114	W-30004 to W-30006

4.6 Script List

Item	Settings
Project script	Specified
Screen script	B-30004, B-30500 , W-30004, W-30005, W-30006
Object script	B-30500,W-30003

4.6.1 Project script

Script No.	30001	Script name	Script30001
Comment	Initial Setting		
Data type	Signed BIN16	Trigger type	Rise, GB40
[w:GD60080]=201; //Set Document ID to 201 [w:GD60081]=1; //Set Document page No. to 1			

4.6.2 Screen script

Base screen 30004

Script No.	30101	Script name	Script30101
Comment	Obtain Present Time		
Data type	Signed BIN16	Trigger type	Rise, GB40
//Store Year, Month, Day, Hour, Minute, Second When Screen Is Displayed [w:GD61233]=[w:GS650]; [w:GD61234]=[w:GS651]; [w:GD61235]=[w:GS652];			

Base screen 30500

Script No.	30002	Script name	Script30002
Comment	DocumentDisplayProcessOfLastPage		
Data type	Signed BIN16	Trigger type	Ordinary
<pre> ////Check the total number of document pages is not 0. if([w:GD60082]!=0){ ////Compare the current page number to the total number of document pages to see if the current page number exceeds the total number. if([w:GD60081]>[w:GD60082]){ ////Set the last page to display. [w:GD60081]=[w:GD60082]; } } </pre>			

Window screen 30004 to 30006

Script No.	30102	Script name	Script30102
Comment	Blink Display Stop		
Data type	Signed BIN16	Trigger type	When closing a screen
<pre> //Stop Blink Display of Specified Device Number [w:GD61009]=0; </pre>			

4.6.3 Object script**Base screen 30500**

Object	Switch	Object ID *1	20025
Script user ID	1		
Data type	Signed BIN16	Trigger type	Device Writing
<pre> //Do not exceed the total number of the document pages. if([u16:GD60081] >= [u16:GD60082]){ [u16:GD60081] = [u16:GD60082] - 1; } </pre>			

Window screen 30003

Object	Numerical Display	Object ID *1	20014
Script user ID	1		
Data type	Unsigned BIN16	Trigger type	Rise, GB40
<pre> //Obtain Today's Year & Month from Clock Data [w:TMP950] = [w:GS650] & 0xF000; //Obtain Tenths Digit of "Last 2-Digits of Year" from Clock Data for Setting [w:TMP960] = [w:TMP950] >> 12; //Decimal Alignment [w:TMP968] = [w:TMP960] * 10; //BCD->BIN [w:TMP951] = [w:GS650] & 0x0F00; //Obtain Ones Digit of "Last 2-Digits of Year" from Clock Data for Setting [w:TMP961] = [w:TMP951] >> 8; //BCD->BIN [w:TMP973] = 2000 + [w:TMP968] + [w:TMP961]; //Set Year to TMP973 as BIN [w:GD63990] = [w:TMP973]; //Set Year [w:TMP952] = [w:GS650] & 0x00F0; //Obtain Tenths Digit of Month from Clock Data for Setting [w:TMP962] = [w:TMP952] >> 4; //Decimal Alignment [w:TMP969] = [w:TMP962] * 10; //BCD->BIN [w:TMP953] = [w:GS650] & 0x000F; //Obtain Ones Digit of Month from Clock Data for Setting [w:TMP974] = [w:TMP969] + [w:TMP953]; //Set Month to TMP974 as BIN [w:GD63991] = [w:TMP974]; //Set Month [w:TMP954] = [w:GS651] & 0xF000; //Obtain Tenths Digit of "Last 2-Digits of Day" from Clock Data for Setting [w:TMP963] = [w:TMP954] >> 12; //Decimal Alignment [w:TMP970] = [w:TMP963] * 10; //BCD->BIN [w:TMP955] = [w:GS651] & 0x0F00; //Obtain Ones Digit of "Last 2-Digits of Day" from Clock Data for Setting [w:TMP964] = [w:TMP955] >> 8; //BCD->BIN [w:TMP975] = [w:TMP970] + [w:TMP964]; //Set Day to TMP975 as BIN [w:GD63992] = [w:TMP975]; //Set Day [w:TMP956] = [w:GS651] & 0x00F0; //Obtain Tenths Digit of Hour from Clock Data for Setting [w:TMP965] = [w:TMP956] >> 4; //Decimal Alignment [w:TMP971] = [w:TMP965] * 10; //BCD->BIN </pre>			

```

[w:TMP957] = [w:GS651] & 0x000F; //Obtain Ones Digit of Hour from Clock Data for Setting
[w:TMP976] = [w:TMP971] + [w:TMP957]; //Set Hour to TMP976 as BIN
[w:GD63993] = [w:TMP976]; //Set Hour

[w:TMP958] = [w:GS652] & 0xF000; //Obtain Tenths Digit of "Last 2-Digits of Minute" from Clock Data for Setting
[w:TMP966] = [w:TMP958] >> 12; //Decimal Alignment
[w:TMP972] = [w:TMP966] * 10; //BCD->BIN
[w:TMP959] = [w:GS652] & 0x0F00; //Obtain Ones Digit of "Last 2-Digits of Minute" from Clock Data for Setting
[w:TMP967] = [w:TMP959] >> 8; //BCD->BIN
[w:TMP977] = [w:TMP972] + [w:TMP967]; //Set Minute to TMP977 as BIN
[w:GD63994] = [w:TMP977]; //Set Minute

[w:TMP993] = [w:GS652] & 0x00F0; //Obtain Tenths Digit of Second from Clock Data for Setting
[w:TMP995] = [w:TMP993] >> 4; //Decimal Alignment
[w:TMP996] = [w:TMP995] * 10; //BCD->BIN
[w:TMP994] = [w:GS652] & 0x000F; //Obtain Ones Digit of Second from Clock Data for Setting
[w:TMP978] = [w:TMP996] + [w:TMP994]; //Set Second to TMP978 as BIN
[w:GD63995] = [w:TMP978]; //Set Second

```

Object	Numerical Display	Object ID *1	20015
Script user ID	2		
Data type	Unsigned BIN16	Trigger type	Ordinary

//BIN -> BCD Conversion

```

[w:TMP979] = [w:GD63990] - 2000; //Last 2-Digits of Year

```

```

[w:TMP980] = (([w:TMP979] / 10) << 4) + ([w:TMP979] % 10); //Year BIN -> BCD
[w:TMP981] = (([w:GD63991] / 10) << 4) + ([w:GD63991] % 10); //Month BIN -> BCD
[w:TMP982] = (([w:GD63992] / 10) << 4) + ([w:GD63992] % 10); //Day BIN -> BCD
[w:TMP983] = (([w:GD63993] / 10) << 4) + ([w:GD63993] % 10); //Hour BIN -> BCD
[w:TMP984] = (([w:GD63994] / 10) << 4) + ([w:GD63994] % 10); //Minute BIN -> BCD
[w:TMP985] = (([w:GD63995] / 10) << 4) + ([w:GD63995] % 10); //Second BIN -> BCD

```

Object	Numerical Display	Object ID *1	20016
Script user ID	3		
Data type	Unsigned BIN16	Trigger type	Ordinary

//Year & Month Setting

```

[w:GS513] = ([w:TMP980] << 8) + [w:TMP981]; //Set Year & Month to Change Time Device

```

Object	Numerical Display	Object ID *1	20017
Script user ID	4		
Data type	Unsigned BIN16	Trigger type	Ordinary

//Date & Time Setting

```

[w:GS514] = ([w:TMP982] << 8) + [w:TMP983]; //Set Date & Time to Change Time Device

```

Object	Numerical Display	Object ID *1	20018
Script user ID	5		
Data type	Unsigned BIN16	Trigger type	Ordinary

//Minute & Second Setting

```

[w:GS515] = ([w:TMP984] << 8) + [w:TMP985]; //Set Minute & Second to Change Time Device

```

Object	Numerical Display	Object ID *1	20019
Script user ID	6		
Data type	Unsigned BIN16	Trigger type	Ordinary

//Day of Week Setting

```

[w:TMP986] = [w:GD63990]; //Year (BIN)
[w:TMP987] = [w:GD63991]; //Month (BIN)

```

```

[w:TMP988] = [w:GD63992]; //Day (BIN)

if(([w:TMP987] == 1) || ([w:TMP987] == 2)){ //Correction Processing to Calculate January and February as
13th/14th Month
    [w:TMP986] = [w:TMP986] - 1; //Subtract 1 from Year
    [w:TMP987] = [w:TMP987] + 12; //Add 12 to Month
}

[w:TMP989] = [w:TMP986]/4; //Create Items Required for Zeller's Congruence
[w:TMP990] = [w:TMP986]/100; //Create Items Required for Zeller's Congruence
[w:TMP991] = [w:TMP986]/400; //Create Items Required for Zeller's Congruence
[w:TMP992] = (13*[w:TMP987]+8)/5; //Create Items Required for Zeller's Congruence

//Calculate Day of Week Using Zeller's Congruence and Set the Day to Change Time Device
[w:GS516] = ([w:TMP986]+[w:TMP989]-[w:TMP990]+[w:TMP991]+[w:TMP992]+[w:TMP988])%7;

```

*1 The Object ID might be changed when a screen is utilized.

5. MANUAL DISPLAY

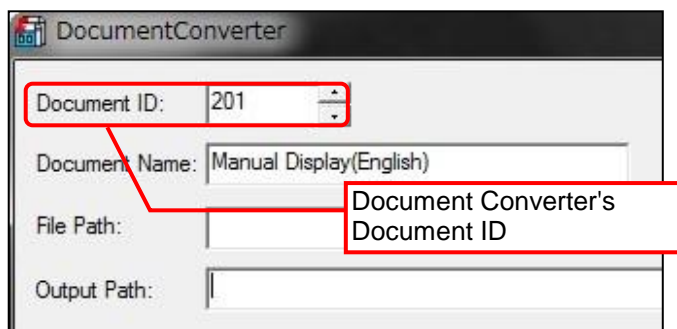
Manuals can be displayed using the document display function. For more details about the document display function, please refer to the "GT Designer3 (GOT2000) Help". Please note that the document display function does not support language switching. Therefore, in the sample screens, the language of document is switched by switching the document (Document ID) specified for a display language.

5.1 Preparing Document Data for Manual Display

Example: Displaying a English manual (document) for Manual Display on the base screen B-30500

- (1) Convert the manual (Word or Excel, etc.) to be displayed into the document data (JPEG file) that can be used with the document display function by using Document Converter. Set the Document Converter's [Document ID] to 201.

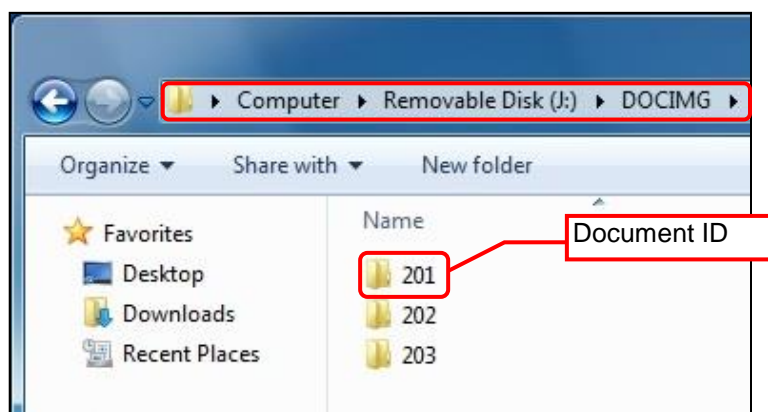
*For details of the relation between Document ID and Display language, please refer to the table below.



Column No. of the comment group No	Language	Document ID
1	English	201
2	Japanese	202
3	Chinese (Simplified)	203

*Please use Document Converter 2.09k or later. The total number pages and pages switches cannot work properly with 2.08 or older versions.

- (2) The document data is generated in the 201 folder in the DOCIMG. Save the entire DOCIMG folder into the SD card root directory without changing the folder configuration inside the DOCIMG folder.



SD card folder configuration

Note: In case the total number of pages is 100 or more.

This sample is made with the assumption that the total number of pages is up to 99 pages. If it exceeds 99 pages, please modify the format of numerical input (the number of "#") that displays the total number of pages and the page number of the currently displayed page.

6. OTHERS

6.1 Selecting System Applications Manually

Refer to the following procedure to select the system applications that are not selected automatically when writing the package data to a GOT.

Example: Selecting the FX Ladder Monitor function

