

Mitsubishi Temperature Control Module  
MELSEC-Q Series  
Q64TCTTN

Sample Screen Manual

Mitsubishi Electric Corporation

## Using the Samples

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## REVISIONS

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### Sample Screen Manual

Date	Control No.*	Description
2013/10	BCN-P5999-0108	First edition
2015/6	BCN-P5999-0108-2	Device Specification for Document ID

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

### Project data

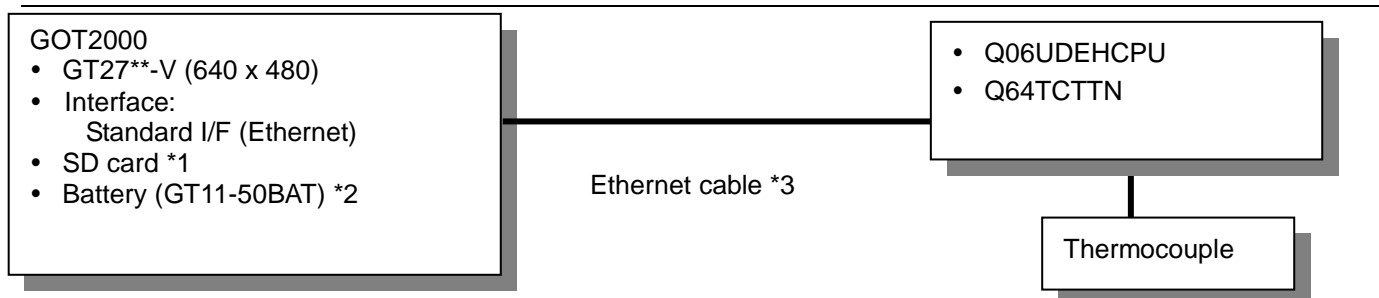
Date	Project data	GT Designer3*	Description
2013/10	mitsubishi_Q64TCTTN_V_Ver1_E.GTX	1.100E	First edition
2015/6	mitsubishi_Q64TCTTN_V_Ver2_E.GTX	1.128J	Device Specification for Document ID

\* 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-Q Series PLC (Q06UDEHCPU) via Ethernet. The sample screens can be used for changing SV values and monitoring PV and MV values of Temperature Control Module (Q64TCTTN).

## 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, user alarm 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)".

## 3. GOT

### 3.1 System Applications That Are Automatically Selected

Type	System application name	
Standard Function	Standard System Application	
	Standard Font	Japanese
Communication Driver	Ethernet connection	Ethernet (MELSEC), Q17nNC, CRnD-700, Gateway
Extended Function	Standard Font	Chinese (Simplified)
	Outline Font	Alphanumeric/Kana
		Japanese (Kanji)
		Chinese (Simplified)
	Document Display	

### 3.2 Controller Setting of Screen Design Software (Detailed Setting)

Detail Setting

Item	Set value	Remarks
GOT NET No.	1	
GOT Station No.	2	
GOT Ethernet Setting	Refer to table below	
GOT Communication Port No.	5001	
Retry (Times)	3	
Startup Time (Sec)	3	
Timeout Time (Sec)	3	
Delay Time (ms)	0	

#### GOT Ethernet Setting

Item	Set value	Remarks
Reflect GOT Ethernet setting in the GOT	Checked	
GOT IP Address	192.168.3.18	
Subnet Mask	255.255.255.0	
Default Gateway	0.0.0.0	
Peripheral S/W Communication Port No.	5015	
Transparent Port No.	5014	

### 3.3 Ethernet Setting of Screen Design Software

	Host	Net No.	Station	Unit Type	IP Address	Port No.	Communication
1	*	1	1	QnUD(P)V/QnUDEH	192.168.3.39	5006	UDP

### 3.4 Overlap Window Setting of Screen Design Software

[Close the window when switching base screens] of [Detail Setting] for overlap window in the [Screen Switching/Window] setting is enabled to close the window when switching base screens.

## 4. TEMPERATURE CONTROL MODULE

### 4.1 Start I/O Number of Module

The module's start I/O number is set to 0H. For more details about changing the start I/O number, please refer to "8.1 Changing Start I/O Number".

### 4.2 Parameter Setting of Temperature Control Module

The following set values were used to check the operation at Mitsubishi.

Item	Set value	Remarks
Input range	2: Thermocouple K measured temperature range (0 to 1300°C)	Initial value
Proportional band (P)	3.0	Initial value
Integral time (I)	240	Initial value
Derivative Time (D)	60	Initial value
Upper limit output limiter (OH)	100.0	Initial value
Lower limit output limiter (OL)	0	Initial value

## 5. SCREEN SPECIFICATIONS

### 5.1 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. 499 and 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.

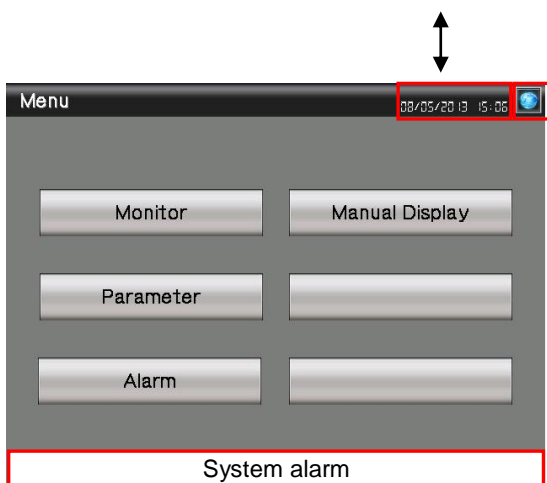
Column No.	Language
1	English
2	Japanese
3	Chinese (Simplified)

### 5.2 Screen Transition

#### 5.2.1 Screen list/transition(common)



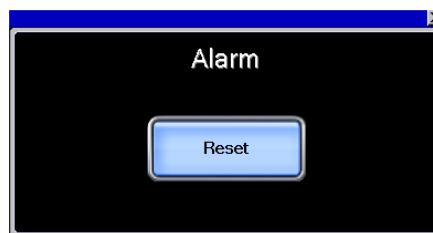
Window screen W-30003:  
Clock Setting



Base screen  
(B-30001 Menu and other base screens)

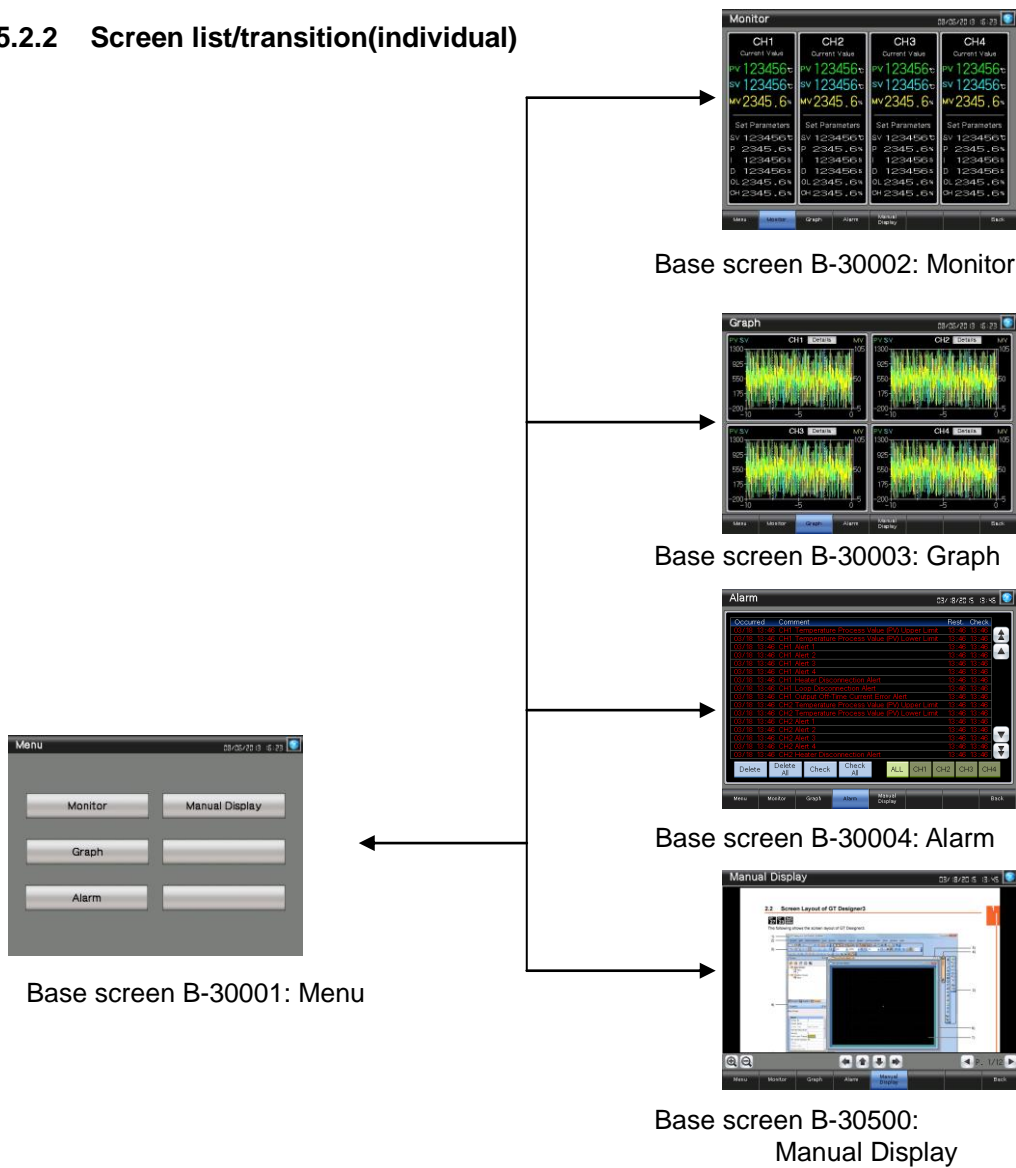


Window screen W-30002:  
Language Setting



Window screen W-30001: Alarm Reset

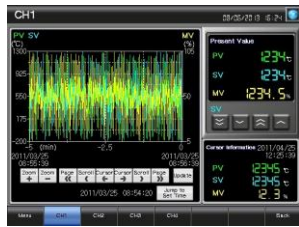
## 5.2.2 Screen list/transition(individual)



To next page



To previous page



Base screen B-30011: Graph-CH1



Base screen B-30012: Graph-CH2



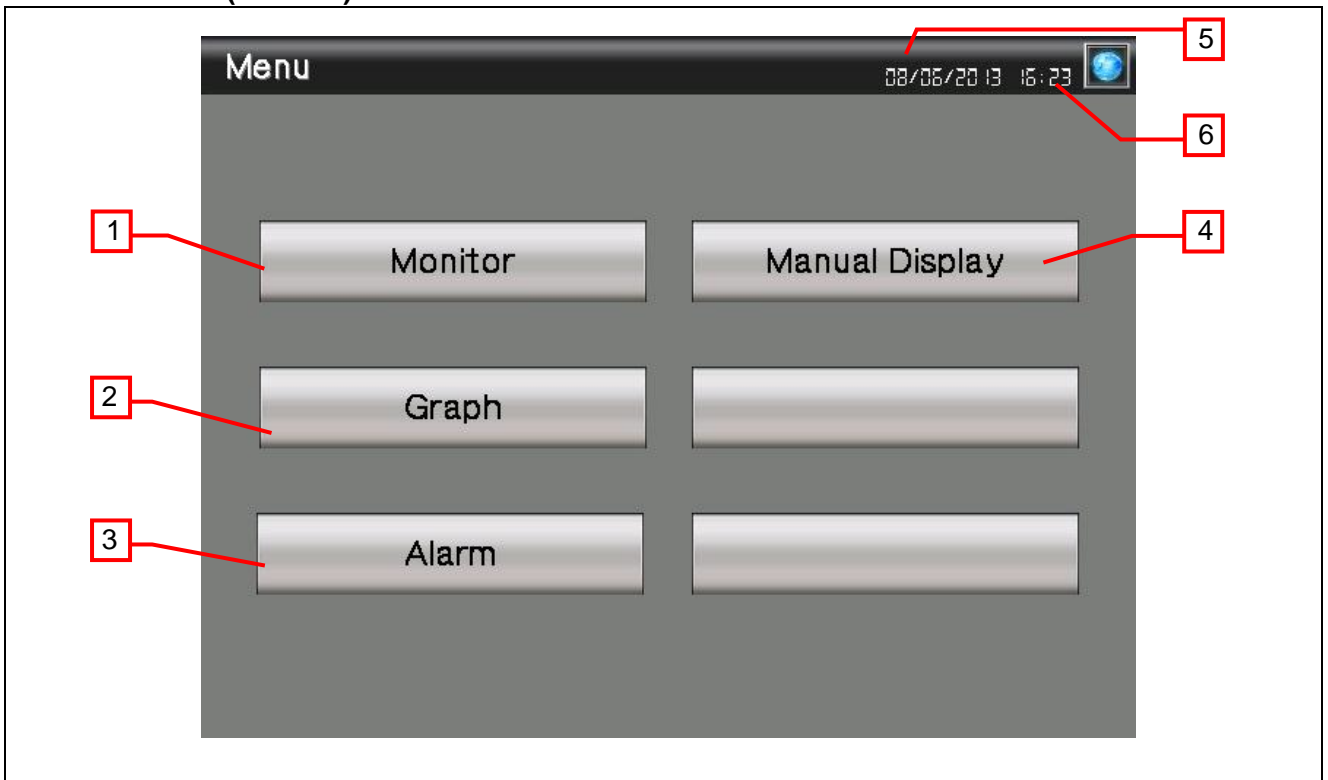
Base screen B-30013: Graph-CH3



Base screen B-30014: Graph-CH4

## 5.3 Explanation of Screens

### 5.3.1 Menu (B-30001)



#### Outline

This is the Menu screen.

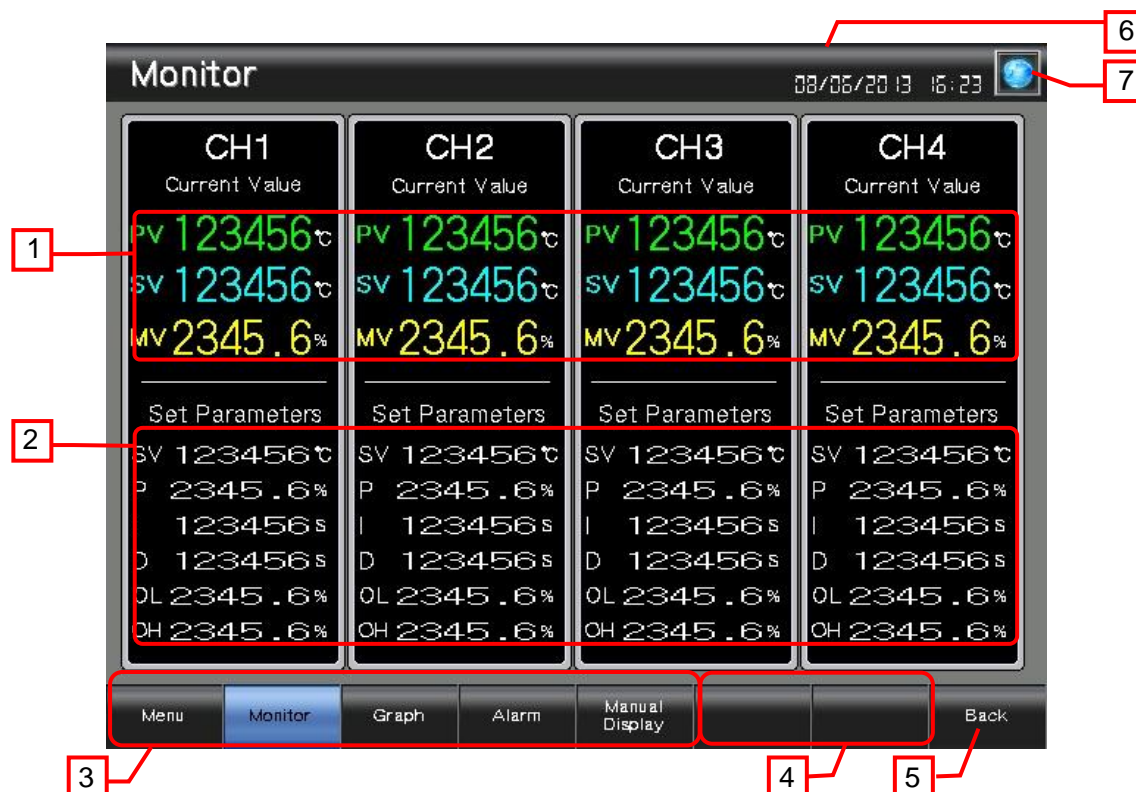
#### Description

1. Switches to the [Monitor] screen.
2. Switches to the [Graph] screen.
3. Switches to the [Alarm] 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.

### 5.3.2 Monitor (B-30002)



#### Outline

This screen displays the SV, PV, and MV of CH1 to CH4. The parameter setting values can be changed.

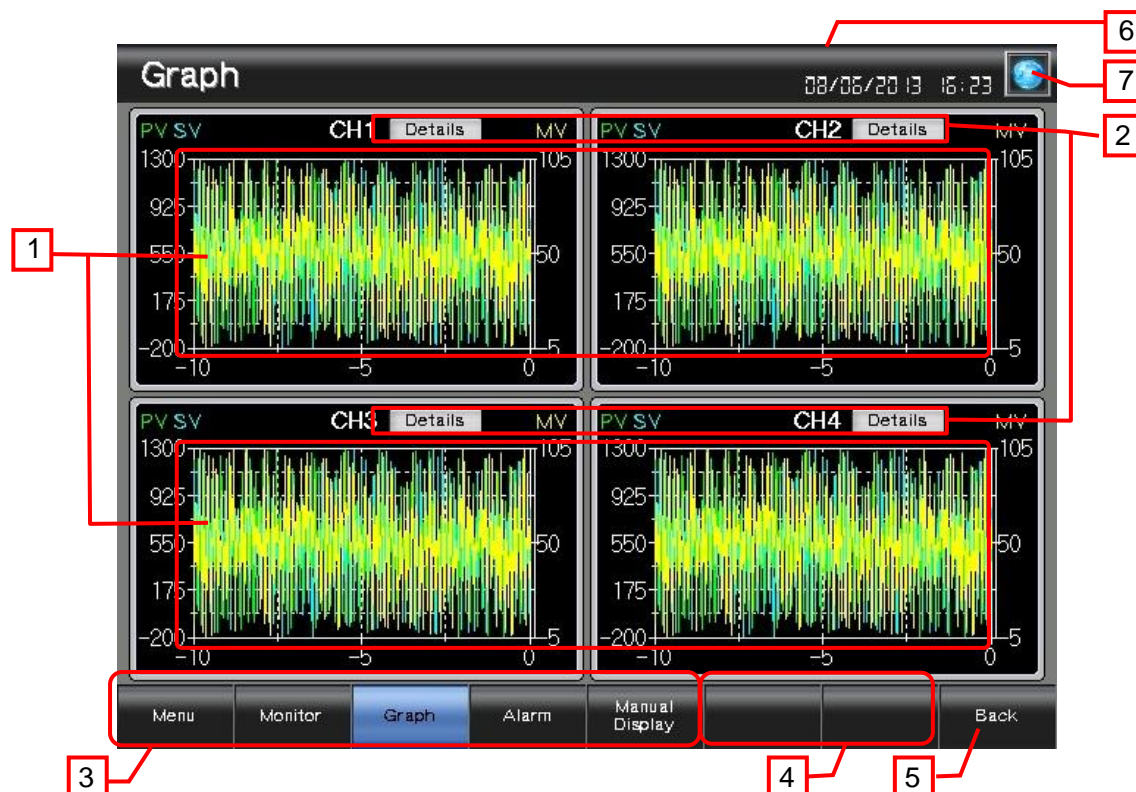
#### Description

1. Displays the current PV, SV, and MV of CH1 to CH4.
2. Displays the parameters of CH1 to CH4. Touch a value to change the set value.
3. Switches to each screen. The blue switch indicates the currently displayed screen, thus selecting this switch will not switch the screen.
4. Shows unused switches for base screen switching.
5. Switches to the previously opened screen.
6. Displays the current date and time. Touch the area to open the [Clock Setting] window.
7. 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.

### 5.3.3 Graph (B-30003)



#### Outline

This screen displays a historical trend graph of the PV, SV, and MV of CH1 to CH4.

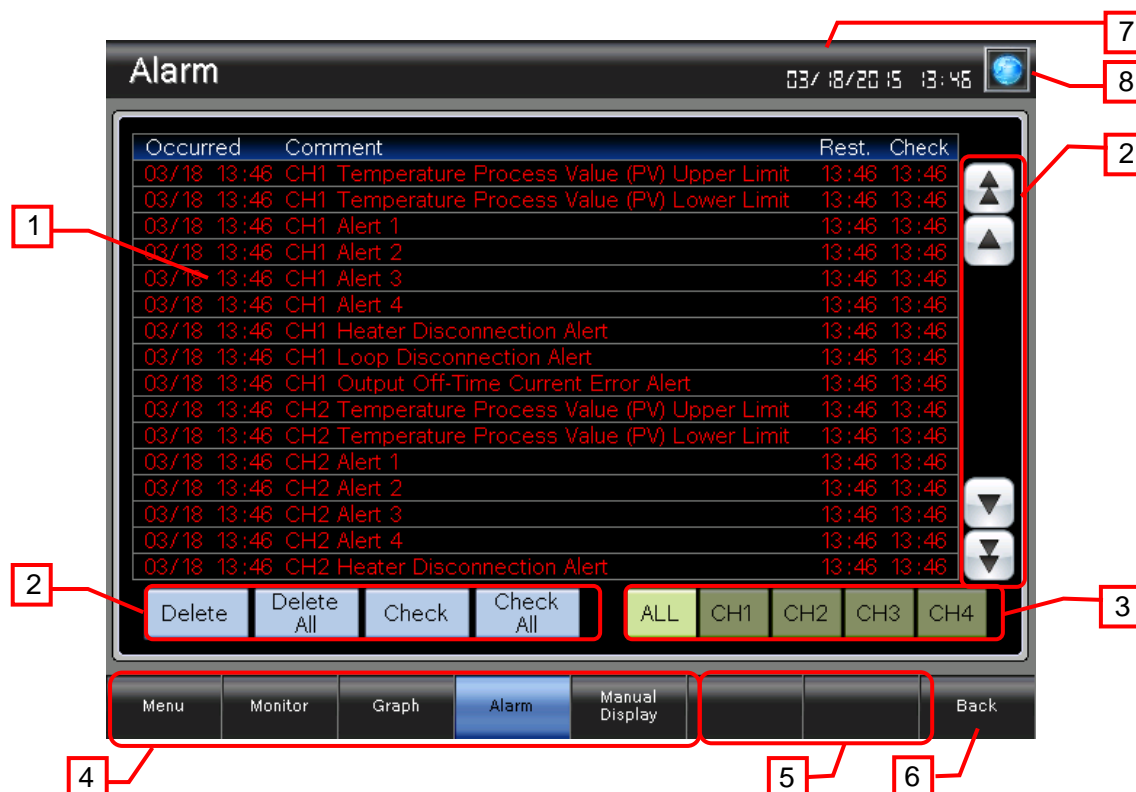
#### Description

1. Displays a historical trend graph of the PV, SV, and MV of CH1 to CH4. In the graph, the PV is shown in green, the SV in light blue, and the MV in yellow. 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.
2. Switches to the details screen of CH1 to CH4.
3. Switches to each screen. The blue switch indicates the currently displayed screen, thus selecting this switch will not switch the screen.
4. Shows unused switches for base screen switching.
5. Switches to the previously opened screen.
6. Displays the current date and time. Touch the area to open the [Clock Setting] window.
7. 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.

### 5.3.4 Alarm (B-30004)



#### Outline

This screen displays the alarms of CH1 to CH4.

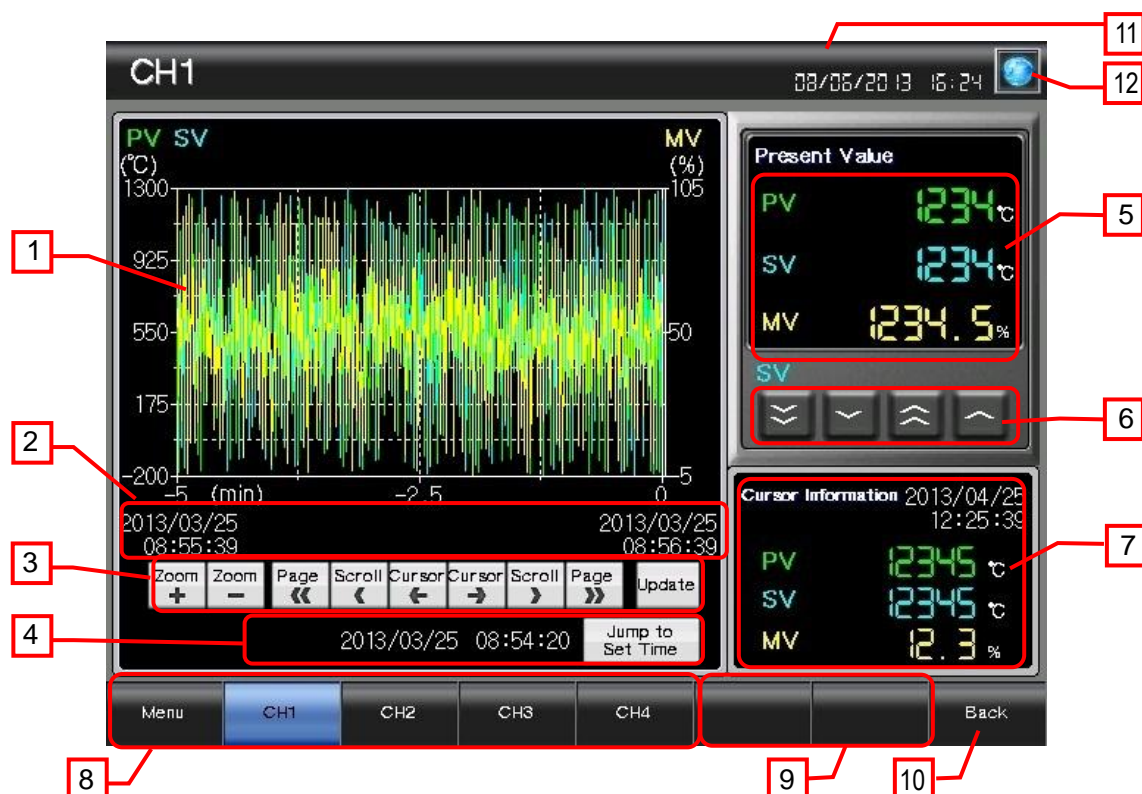
#### Description

- Shows alarms. Touch the screen to display 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.
  - Delete : Deletes the restored and selected 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.
  - ▲▼ : Scrolls the page up and down.
  - ▲▼ : Scrolls alarms up and down line by line.
- These switches switch the display of the user alarm display between all alarms and by CH.
  - ALL : Displays alarms of all CHs.
  - CH1 : Displays alarms of CH1.
  - CH2 : Displays alarms of CH2.
  - CH3 : Displays alarms of CH3.
  - CH4 : Displays alarms of CH4.
- 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.

### 5.3.5 Graph-CH1 (B-30011), CH2 (B-30012), CH3 (B-30013), CH4 (B-30014)



#### Outline

This screen displays the PV, SV, and MV in a graph and numerical values. The SV settings can be changed.

#### Description

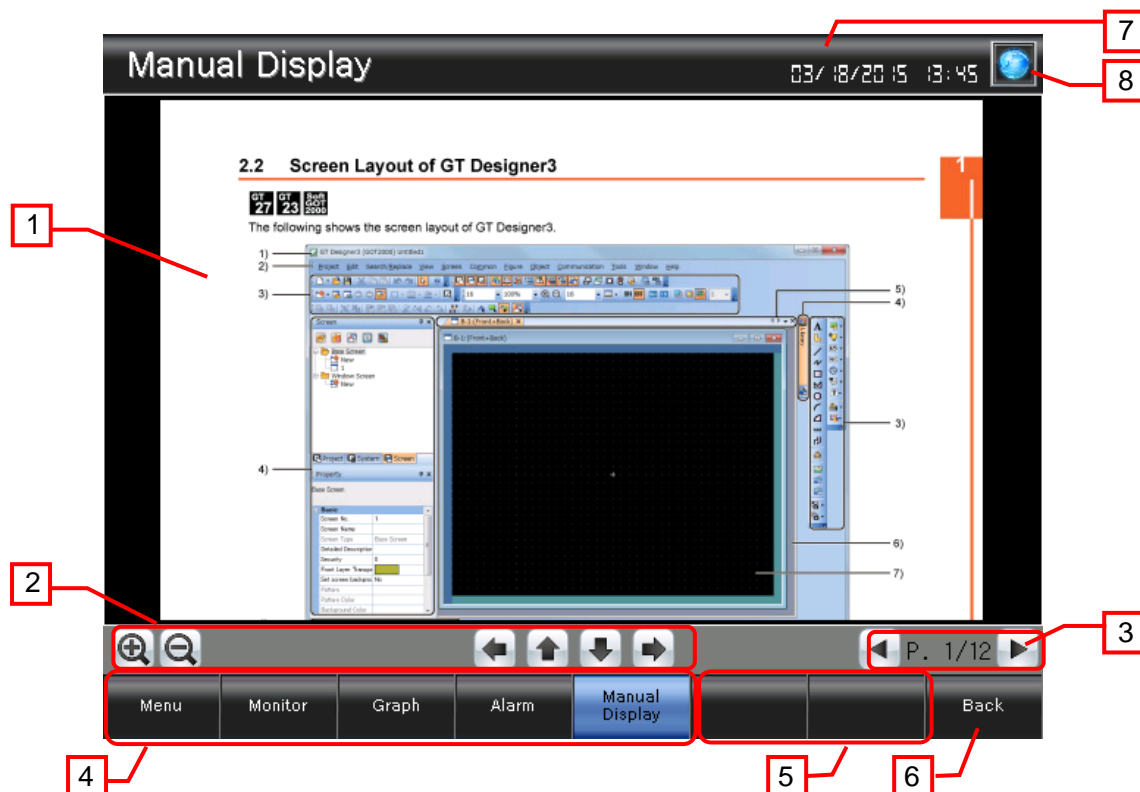
1. Displays a historical trend graph of the PV, SV, and MV. In the graph, the PV is shown in green, the SV in light blue, and the MV in yellow. Touch the graph to show the cursor. While touching the graph area, flicking the area will scroll the graph left and right. Pinching out and in will zoom in and out the graph based on the time axis.
2. Displays the historical trend graph's beginning position time and end position time.
3. Operates the historical trend graph.
  - Zoom In : Enlarges (x2) the graph's time axis based on the new data axis.
  - Zoom Out : Reduces (x1/2) 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.
4. Shows the specified date and time in the center of the graph when the date and time are entered and the [Jump to Set Time] switch is touched. The current date and time are stored when the screen is initially displayed.
5. Displays the current PV, SV, and MV. Touch the SV to change the setting value.
6. Changes the SV in increments of -10, -1, +1, or +10°C from the left.
7. Shows the date and time, PV, SV, and MV at the cursor position.
8. Switches to each screen. The blue switch indicates the currently displayed screen, thus selecting this switch will not switch the screen.
9. Shows unused switches for base screen switching.
10. Switches to the previously opened screen.
11. Displays the current date and time. Touch the area to open the [Clock Setting] window.
12. 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 "5.6 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.



### 5.3.6 Manual Display (B-30500)



#### Outline

This screen displays the manual of the currently displayed language.

#### Description

- 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).
- These switches operate the displayed document.
  - : Enlarges or reduces the displayed document.
  - : Scrolls the displayed document to the left or right.
  - : Scrolls the displayed document up and down.
- These switches operate the displayed document page.
  - : 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.
- 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.



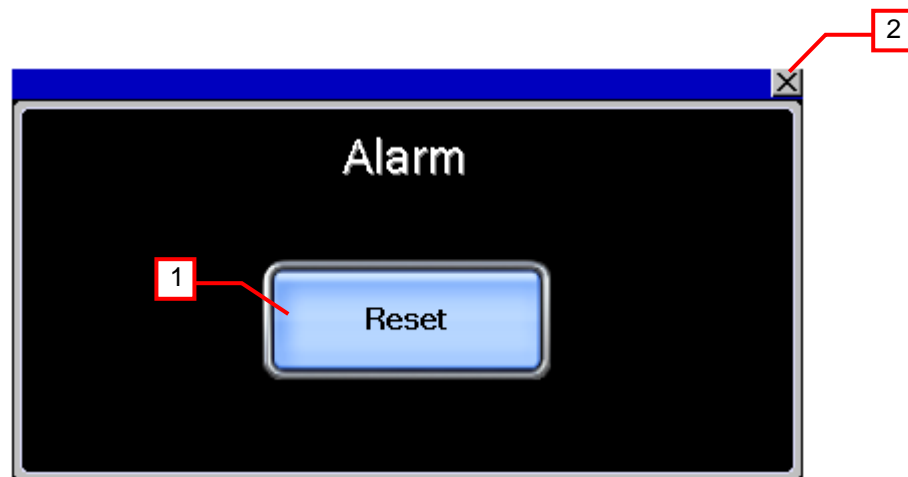
## Remarks

- 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 "5.6 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 "5.6 Script List".
- The document data for the manual display should be prepared by the customers. For more details, please refer to "6. 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.

### 5.3.7 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

### 5.3.8 Language Setting (W-30002)



#### Outline

This window screen allows selecting the GOT language.

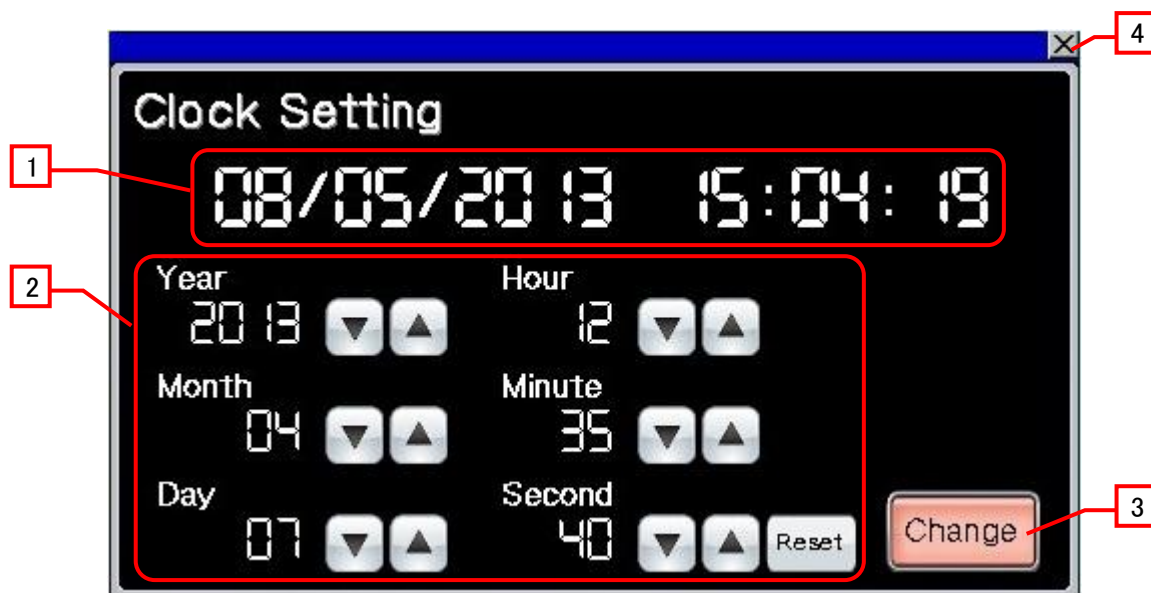
#### Description

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.



### 5.3.9 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 "5.6 Script List".

## 5.4 Device List

Some of the devices specified for the on-screen switches, lamps, or others 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".

### 5.4.1 Devices of the controller

Type	Device No.	Application
Word	U00-G5	CH1 Alert Content
	U00-G6	CH2 Alert Content
	U00-G7	CH3 Alert Content
	U00-G8	CH4 Alert Content
	U00-G9	CH1 Temperature Process Value (PV)
	U00-G10	CH2 Temperature Process Value (PV)
	U00-G11	CH3 Temperature Process Value (PV)
	U00-G12	CH4 Temperature Process Value (PV)
	U00-G13	CH1 Manipulated Value (MV)
	U00-G14	CH2 Manipulated Value (MV)
	U00-G15	CH3 Manipulated Value (MV)
	U00-G16	CH4 Manipulated Value (MV)
	U00-G34	CH1 Set Value (SV)
	U00-G35	CH1 Proportional Band (P)
	U00-G36	CH1 Integral Time (I)
	U00-G37	CH1 Derivative Time (D)
	U00-G42	CH1 Upper Limit Output Limiter (OH)
	U00-G43	CH1 Lower Limit Output Limiter (OL)
	U00-G66	CH2 Set Value (SV)
	U00-G67	CH2 Proportional Band (P)
	U00-G68	CH2 Integral Time (I)
	U00-G69	CH2 Derivative Time (D)
	U00-G74	CH2 Upper Limit Output Limiter (OH)
	U00-G75	CH2 Lower Limit Output Limiter (OL)
	U00-G98	CH3 Set Value (SV)
	U00-G99	CH3 Proportional Band (P)
	U00-G100	CH3 Integral Time (I)
	U00-G101	CH3 Derivative Time (D)
	U00-G106	CH3 Upper Limit Output Limiter (OH)
	U00-G107	CH3 Lower Limit Output Limiter (OL)
	U00-G130	CH4 Set Value (SV)
	U00-G131	CH4 Proportional Band (P)
	U00-G132	CH4 Integral Time (I)
	U00-G133	CH4 Derivative Time (D)
	U00-G138	CH4 Upper Limit Output Limiter (OH)
	U00-G139	CH4 Lower Limit Output Limiter (OL)

## 5.4.2 GOT internal devices

Type	Device No.	Application
Bit	GB40	Script Trigger (Always ON)
	GD60031.b13	GOT Error Reset Signal
	GD60100.b0, b1, b8 to b14	User Alarm Observation
	GD60110.b0, b1, b8 to b14	User Alarm Observation
	GD60120.b0, b1, b8 to b14	User Alarm Observation
	GD60130.b0, b1, b8 to b14	User Alarm Observation
	GS512.b0	Time Change Signal
Word	GD60000	Base Screen Switching
	GD60001	Overlap Window 1 Screen Switching
	GD60004	Overlap Window 2 Screen Switching
	GD60021	Language Switching
	GD60022	System Language Switching
	GD60031, GD60041	System Information
	GD60080 to GD60082	Document Display
	GD60100	Script - No. 30003
	GD60110	Script - No. 30003
	GD60120	Script - No. 30003
	GD60130	Script - No. 30003
	GD60140	Alarm Display (User)
	GD61200 to GD61202	CH1 Graph Information in Historical Trend Graph
	GD61203 to GD61206	CH1 Cursor Position Time in Historical Trend Graph
	GD61207 to GD61210	CH1 Beginning Position Time in Historical Trend Graph
	GD61211 to GD61214	CH1 End Position Time in Historical Trend Graph
	GD61215 to GD61217	CH1 Display Position Time Specification in Historical Trend Graph
	GD61230 to GD61232	CH2 Graph Information in Historical Trend Graph
	GD61233 to GD61236	CH2 Cursor Position Time in Historical Trend Graph
	GD61237 to GD61240	CH2 Beginning Position Time in Historical Trend Graph
	GD61241 to GD61244	CH2 End Position Time in Historical Trend Graph
	GD61245 to GD61247	CH2 Display Position Time Specification in Historical Trend Graph
	GD61260 to GD61262	CH3 Graph Information in Historical Trend Graph
	GD61263 to GD61266	CH3 Cursor Position Time in Historical Trend Graph
	GD61267 to GD61270	CH3 Beginning Position Time in Historical Trend Graph
	GD61271 to GD61274	CH3 End Position Time in Historical Trend Graph
	GD61275 to GD61277	CH3 Display Position Time Specification in Historical Trend Graph
	GD61290 to GD61292	CH4 Graph Information in Historical Trend Graph
	GD61293 to GD61296	CH4 Cursor Position Time in Historical Trend Graph
	GD61297 to GD61300	CH4 Beginning Position Time in Historical Trend Graph
	GD61301 to GD61304	CH4 End Position Time in Historical Trend Graph
	GD61305 to GD61307	CH4 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

## 5.5 Comment List

Comment group No.	Comment No.	Where comments are used
499	No. 1 to No. 36	B-30004 (User Alarm Observation ID 30001)
500	No. 1, No. 2	B-30001 to B-30500
	No. 3	B-30001 to B-30004, B-30500, W-30001
	No. 4	B-30001 to B-30004, B-30500
	No. 5 to No. 8	B-30011 to B-30014
	No. 9	B-30002 to B-30004, B-30500
	No. 10	B-30002 to B-30500
	No. 11	B-30001, B-30500
	No. 20, No. 21	B-30002
	No. 22 to No. 28	B-30002 to B-30003
	No. 29 to No. 36	B-30002
	No. 40 to No. 51	B-30004
	No. 52	B-30003
	No. 60 to No. 78	B-30011 to B-30014
	No. 100	W-30001
	No. 101	W-30002
	No. 102 to No. 109	W-30003

## 5.6 Script List

Item	Setting
Project script	Specified
Screen script	B-30011~30014、B-30500
Object script	B-30500、W-30003

### 5.6.1 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			
Script No.	30003	Script name	Script30003
Comment	Alarm Transfer		
Data type	Signed BIN16	Trigger type	Ordinary
//Since G Devices Cannot Be Used in User Alarm Observation, Transfer Data to GOT Internal Devices  [w:GD60100] = [w:U00-G5]; //CH1 [w:GD60110] = [w:U00-G6]; //CH2 [w:GD60120] = [w:U00-G7]; //CH3 [w:GD60130] = [w:U00-G8]; //CH4			

## 5.6.2 Screen script

### Base screen 30011

Script No.	30101	Script name	Script30101
Comment	B-30011 Obtain Present Time		
Data type	Signed BIN16	Trigger type	Rise, GB40
//Store Year, Month, Day, Hour, Minute, Second When Screen Is Displayed [w:GD61215]=[w:GS650]; [w:GD61216]=[w:GS651]; [w:GD61217]=[w:GS652];			

### Base screen 30012

Script No.	30102	Script name	Script30102
Comment	B-30012 Obtain Present Time		
Data type	Signed BIN16	Trigger type	Rise, GB40
//Store Year, Month, Day, Hour, Minute, Second When Screen Is Displayed [w:GD61245]=[w:GS650]; [w:GD61246]=[w:GS651]; [w:GD61247]=[w:GS652];			

### Base screen 30013

Script No.	30103	Script name	Script30103
Comment	B-30013 Obtain Present Time		
Data type	Signed BIN16	Trigger type	Rise, GB40
//Store Year, Month, Day, Hour, Minute, Second When Screen Is Displayed [w:GD61275]=[w:GS650]; [w:GD61276]=[w:GS651]; [w:GD61277]=[w:GS652];			

### Base screen 30014

Script No.	30104	Script name	Script30104
Comment	B-30014 Obtain Present Time		
Data type	Signed BIN16	Trigger type	Rise, GB40
//Store Year, Month, Day, Hour, Minute, Second When Screen Is Displayed [w:GD61305]=[w:GS650]; [w:GD61306]=[w:GS651]; [w:GD61307]=[w:GS652];			

### Base screen 30500

Script No.	30002	Script name	Script30002
Comment	DocumentDisplayProcessOfLastPage		
Data type	Unsigned BIN16	Trigger type	Ordinary
//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]; } }			

## 5.6.3 Object script

### Base screen 30500

Object	Switch	Object ID *1	20030
Script user ID	1		
Data type	Unsigned BIN16	Trigger type	Device Writing
//Prevents exceeding the total number of the document pages. if([u16:GD60081] >= [u16:GD60082]){ [u16:GD60081] = [u16:GD60082] - 1; }			



## Window screen 30003

Object	Numerical display	Object ID *1	10014
Script user ID	1		
Data type	Unsigned BIN16	Trigger type	Rise, GB40
//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 [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	10015
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	10016
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	10017
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	10018
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	10019
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.

## 6. MANUAL DISPLAY

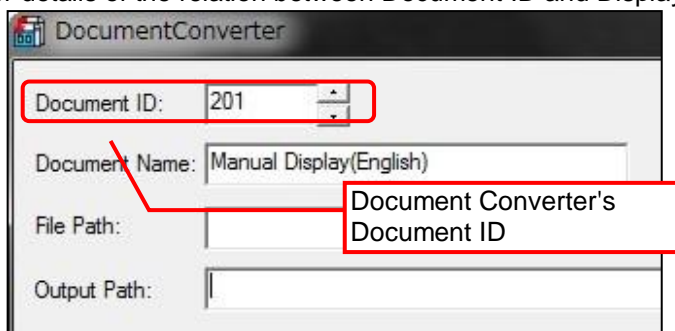
Manuals can be displayed using the document display function. For more details about the document display function, please refer to the "GT Designer3 (GOT2000) Help". Please note that the document display function does not support language switching. Therefore, in the sample screens, the language of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

### 6.1 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.

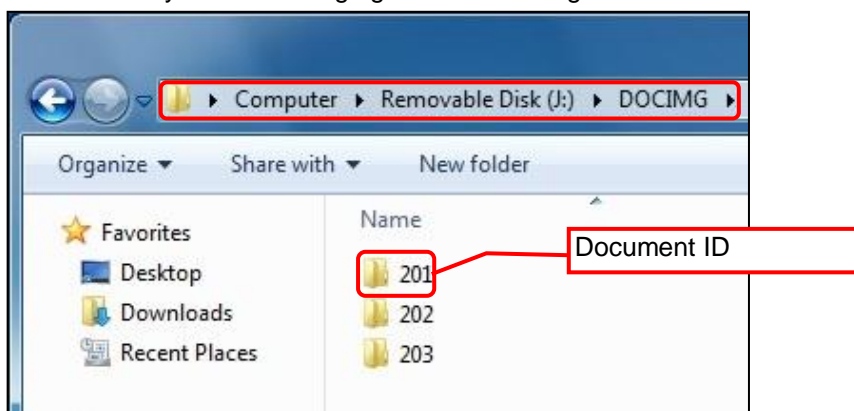


Column No. of the comment group No	Language	Document ID
1	English	201
2	Japanese	202
3	Chinese (Simplified)	203

\*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.

## 7. OTHERS

### 7.1 Changing Start I/O Number

Follow the procedure below to change the start I/O number of the module to a value other than 0H.  
(Example: Changing the start I/O number from 0H to 20H)

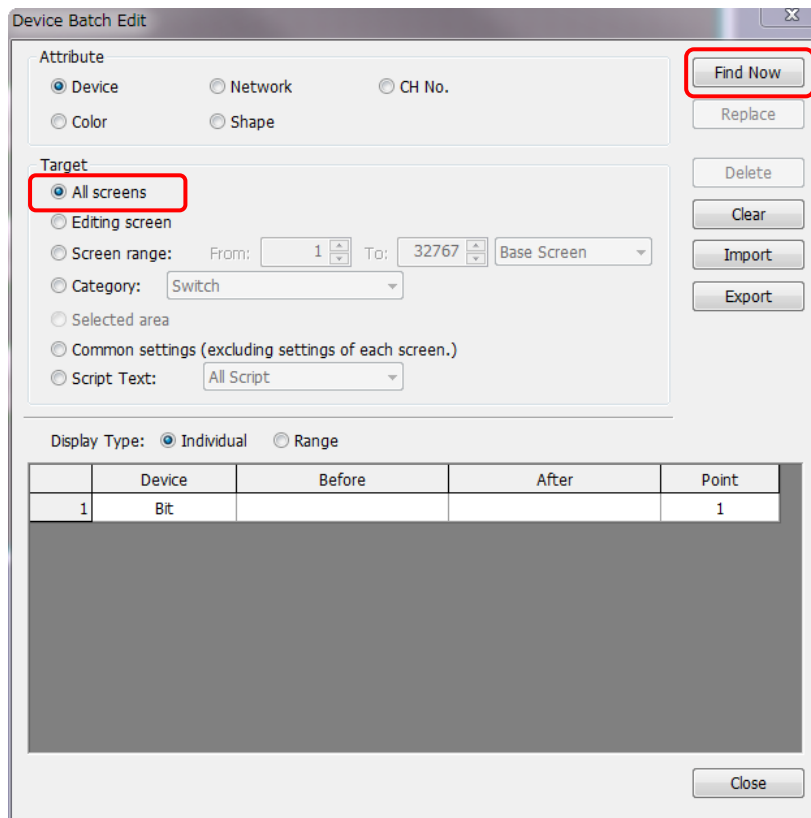
#### 7.1.1 When the device is set on the screen

To change a device set on the screen, select [All Screens] as the target of the device batch edit.  
The devices changed by selecting [All Screens] are U00-G9 to U00-G139.

- (1) Select [Search/Replace] - [Batch Edit] - [Device].



- (2) In the displayed setting dialog, select [All Screens], and click [Find Now].



- (3) Set the [After] device and [Point], and execute the batch edit.  
Set [Before] to U00-G9, [After] to U02-G9, and [Point] to 131, and click [Replace]. U00-G9 to U00-G139 will be changed to U02-G9 to U02-G139.

Device Batch Edit

Attribute

☒ Device ☐ Network ☐ CH No.

☐ Color ☐ Shape

Find Now

Replace

Delete

Clear

Import

Export

Target

☒ All screens

☐ Editing screen

☐ Screen range: From: 1 To: 32767 Base Screen

☐ Category: Switch

☐ Selected area

☐ Common settings (excluding settings of each screen.)

☐ Script Text: All Script

Display Type: ☒ Individual ☐ Range

	Device	Before	After	Point
76	Word	GD63995	GD63995	1
77	Word	U00-G9	U02-G9	131
78	Word	U00-G10	U00-G10	1
79	Word	U00-G11	U00-G11	1
80	Word	U00-G12	U00-G12	1
81	Word	U00-G13	U00-G13	1
82	Word	U00-G14	U00-G14	1
83	Word	U00-G15	U00-G15	1
84	Word	U00-G16	U00-G16	1

Close

### 7.1.2 When the device is set in the common setting

To change a device set with various functions such as [GOT Environmental Setting] and advanced alarm, select [Common Settings] as the target of the device batch edit. Follow the same procedure as 8.1.1

The devices to be changed by selecting [Common Settings] are U00-G9 to U00-G130.

Set [Before] to U00-G9, [After] to U02-G9, and [Point] to 122, and click [Replace]. U00-G9 to U00-G130 will be changed to U02-G9 to U02-G130.

Device Batch Edit

Attribute

☒ Device ☐ Network ☐ CH No.

☐ Color ☐ Shape

Find Now

Replace

Delete

Clear

Import

Export

Target

☐ All screens

☐ Editing screen

☐ Screen range: From: 1 To: 32767 Base Screen

☐ Category: Switch

☐ Selected area

☒ Common settings (excluding settings of each screen.)

☐ Script Text: All Script

Display Type: ☒ Individual ☐ Range

	Device	Before	After	Point
44	Word	GD60031	GD60031	1
45	Word	GD60041	GD60041	1
46	Word	U00-G9	U02-G9	122
47	Word	U00-G10	U00-G10	1
48	Word	U00-G11	U00-G11	1
49	Word	U00-G12	U00-G12	1
50	Word	U00-G13	U00-G13	1
51	Word	U00-G14	U00-G14	1
52	Word	U00-G15	U00-G15	1

Close

### 7.1.3 When the device is set in script text

To change a device set in script text, select [Script Text] as the target of the device batch edit. Follow the same procedure as 8.1.1

The devices to be changed by selecting [Script Text] are U00-G5 to U00-G8.

Set [Before] to U00-G5, [After] to U02-G5, and [Point] to 4, and click [Replace]. U00-G5 to U00-G8 will be changed to U02-G5 to U02-G8.

Device Batch Edit

Attribute

☒ Device ☐ Network ☐ CH No.

☐ Color ☐ Shape

Find Now

Replace

Target

☐ All screens

☐ Editing screen

☐ Screen range: From: 1 To: 32767 Base Screen

☐ Category: Switch

☐ Selected area

☐ Common settings (excluding settings of each screen.)

☒ Script Text: All Script

Delete

Clear

Import

Export

Display Type: ☒ Individual ☐ Range

	Device	Before	After	Point
29	Word	GS516	GS516	1
30	Word	GS650	GS650	1
31	Word	GS651	GS651	1
32	Word	GS652	GS652	1
33	Word	U00-G5	U02-G5	4
34	Word	U00-G6	U00-G6	1
35	Word	U00-G7	U00-G7	1
36	Word	U00-G8	U00-G8	1
37	Bit			1

Close