

Standard Screen
Trend Graph Display

Sample Screen Manual

Mitsubishi Electric Corporation

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REVISIONS

Sample Screen Manual

Date	Control No.*	Description
2014/8	BCN-P5999-0304	First edition

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

Project Data

Date	Project data	GT Designer3*	Description
2014/8	Trend-Graph_V_Ver1_E.GTX	1.117X	First edition

* 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.

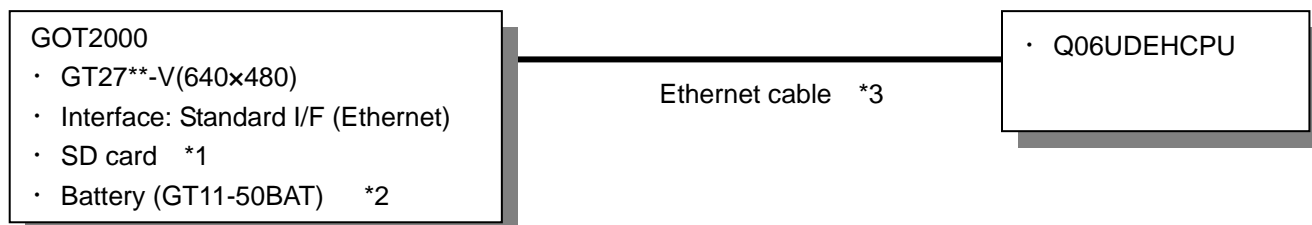
1. OUTLINE

This manual explains the sample screens of GOT2000 connected to a MELSEC-Q Series PLC (Q06UDEHCPU) via Ethernet, which can be used to display the values collected with the Logging function in a trend graph.

1.1 Reusing Standard Screen Samples

Standard screen samples include multiple patterns of screens that can be used by the customers depending on the intended use. Screens should be reused for the customers screen data by using [Utilize Data (Screen)]. For more details about [Utilize Data (Screen)], please refer to the "GT Designer3 (GOT2000) Help".

2. SYSTEM CONFIGURATION



*1 : The SD card is used for the logging 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)".

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)

3.2 Controller Setting of Screen Design Software

Detail Setting

Item	Set value	Remarks
GOT NET No.	1	
GOT Station	2	
GOT Standard 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 Standard Ethernet Setting

Item	Set value	Remarks
Reflect GOT Standard 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

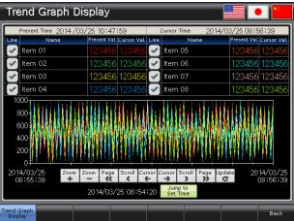
4. SCREEN SPECIFICATIONS

4.1 Display Language

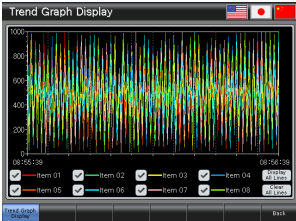
The language of the text displayed on the screen can be switched between Japanese, English and Chinese (Simplified). The text strings in each language are registered in the columns No.1 to No.3 in the comment groups No.351 to No.357 as shown below. When the column No. is set in the language switching device, the language corresponding to the column No. will appear.

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

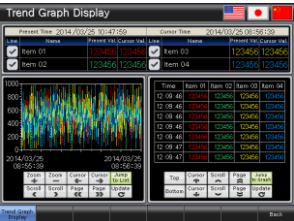
4.2 Screen List/Transition



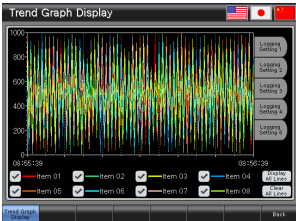
Base screen B-30001: Trend Graph Display 1



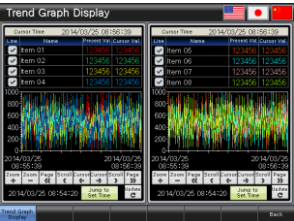
Base screen B-30005: Trend Graph Display 5



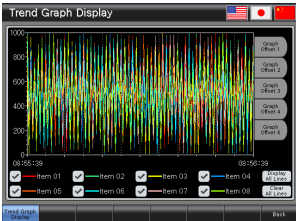
Base screen B-30002: Trend Graph Display 2



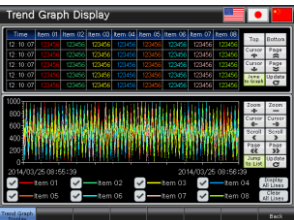
Base screen B-30006: Trend Graph Display 6



Base screen B-30003: Trend Graph Display 3



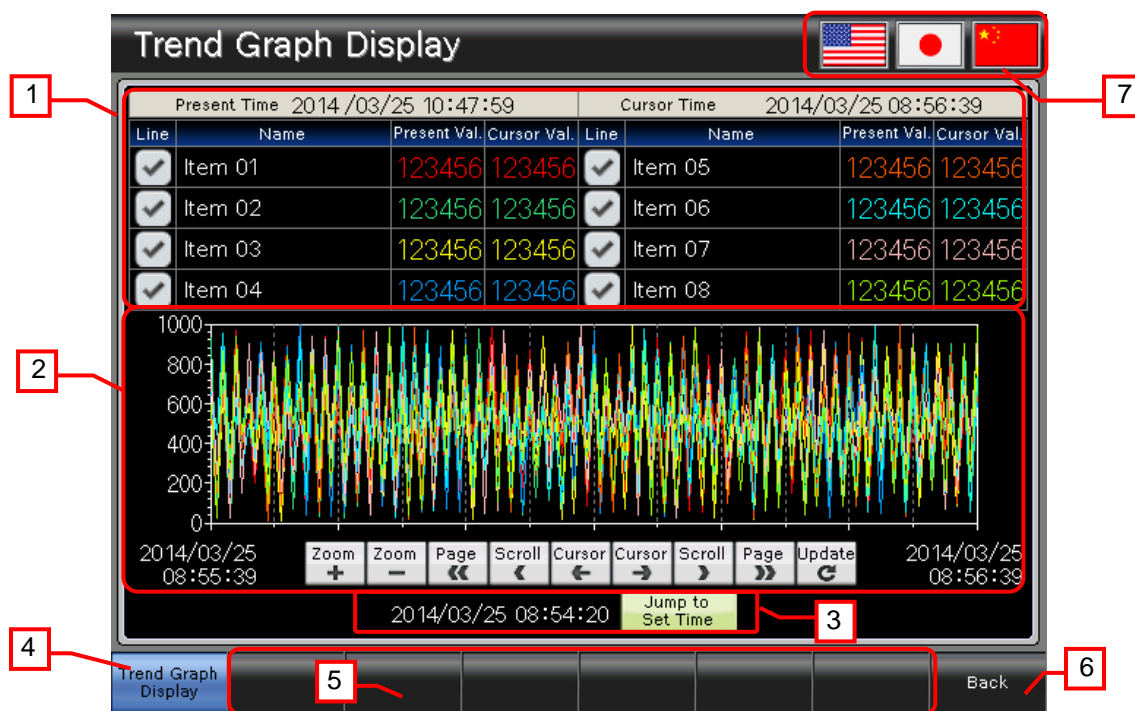
Base screen B-30007: Trend Graph Display 7



Base screen B-30004: Trend Graph Display 4

4.3 Explanation of Screens

4.3.1 Trend Graph Display 1 (B-30001)



Outline

This screen displays the values collected with the Logging function in numerical values or in a historical trend graph.

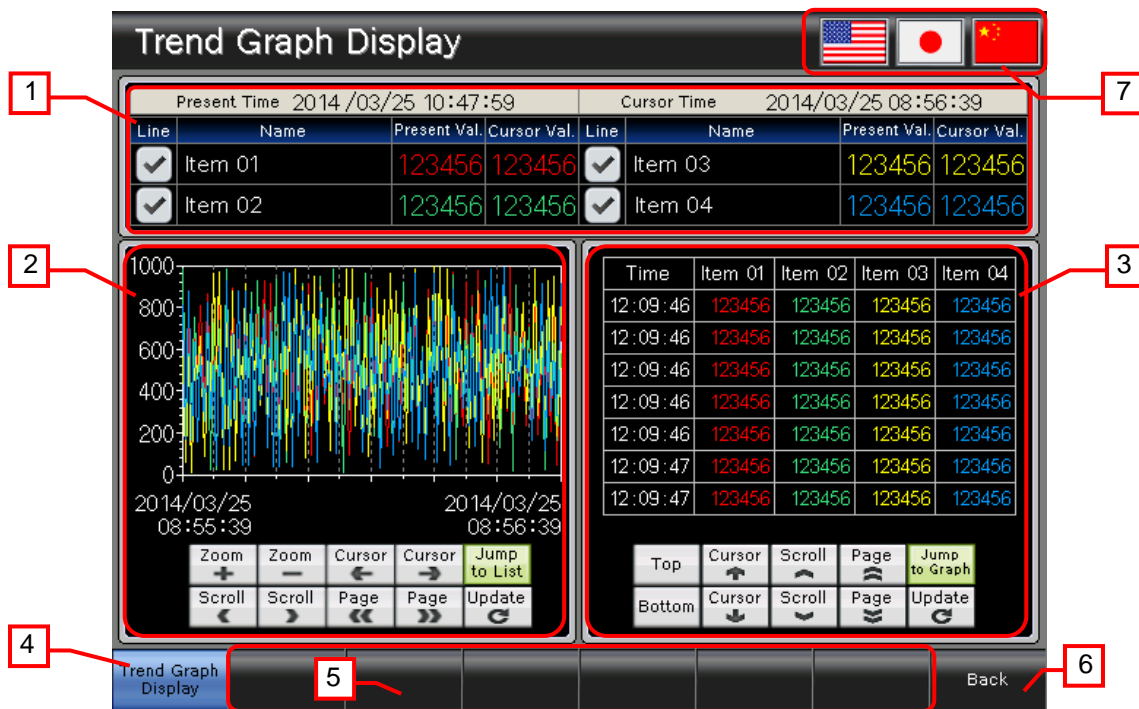
Description

- Displays the present time and the time of the cursor display position, also displays the present value and the value of the cursor display position of each logging target.
☒ : Displays or clears the graph line of each item.
- The data collected by the logging function is displayed in the historical trend graph. The beginning position time and the end position time are displayed under the graph.
 Display a cursor when the graph is touched. While touching the graph, flick the graph leftward/rightward to scroll the contents right/left. Pinch out/in horizontally to zoom in/out the graph display by time axis.
 Zoom + : Enlarges (twice) the time axis using the axis of new data as the reference.
 Zoom - : Reduces (half) the time axis using the axis of new data as the reference.
 Page << : Moves the graph left in units of page.
 Scroll < : Moves the graph left.
 Cursor < : Displays the cursor, and moves the cursor to the earlier data.
 Cursor > : Displays the cursor, and moves the cursor to the later data.
 Scroll > : Moves the graph right.
 Page >> : Moves the graph right in units of page.
 Update : Clears the cursor, and displays the latest data.
- When the date and time has been inputted, touch the switch [Jump to Set Time] to display the data obtained at specified time in the center of the graph. The current date and time are stored by the screen initial display.
- The switch indicates the currently displayed screen, thus selecting this switch will not switch screens.
- Shows unused switches for base screen switching.
- Switches to the previously opened screen.
- Switches languages.

Remarks

- The logging ID of the historical trend graph is set to “30001”.
- A screen script is set for the time specification jump function of the historical trend graph. For more details about the scripts, please refer to "4.6 Script List".
- To the switches marked with No.7, settings are made to switch system languages in conjunction with the change of the display language.

4.3.2 Trend Graph Display 2 (B-30002)



Outline

This screen displays the values collected with the Logging function in numerical values, in a historical trend graph, or in a historical data list display.

Description

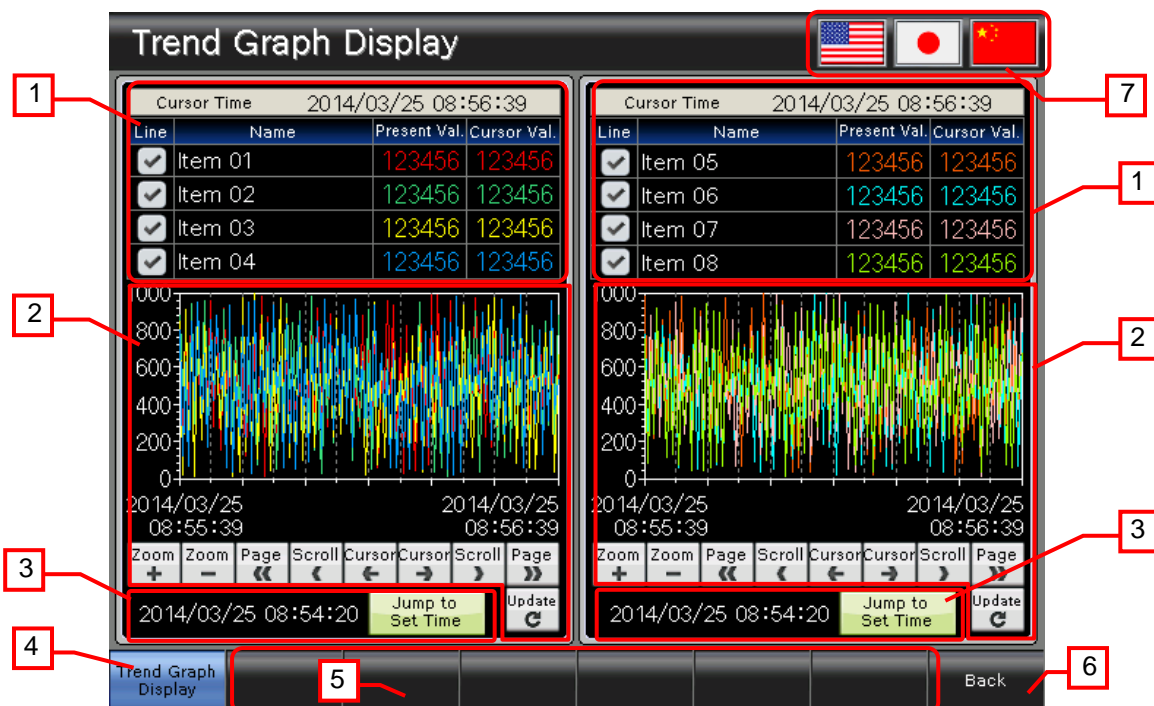
- Displays the present time and the time of the cursor display position, also displays the present value and the value of the cursor display position of each logging target.
☒ : Displays or clears the graph line of each item.
- The data collected by the logging function is displayed in the historical trend graph. The beginning position time and the end position time are displayed under the graph.
 Display a cursor when the graph is touched. While touching the graph, flick the graph leftward/rightward to scroll the contents right/left. Pinch out/in horizontally to zoom in/out the graph display by time axis.
 Zoom + : Enlarges (twice) the time axis using the axis of new data as the reference.
 Zoom - : Reduces (half) the time axis using the axis of new data as the reference.
 Cursor ← : Displays the cursor, and moves the cursor to the earlier data.
 Cursor → : Displays the cursor, and moves the cursor to the later data.
 Scroll < : Moves the graph left.
 Scroll > : Moves the graph right.
 Page << : Moves the graph left in units of page.
 Page >> : Moves the graph right in units of page.
 Jump to List : Displays the cursor in the list, whose cursor position time is the same as the graph.
 Update : Clears the cursor, and displays the latest data.
- The data collected by the logging function is displayed in the historical data list.
 Display a cursor when the list is touched. While touching the list, flick the list upward/downward to scroll the contents up/down.
 Top : Moves the cursor to the top of the list.
 Cursor↑ : Displays the cursor, and moves the cursor to the later data.
 Scroll ^ : Moves the list upward.
 Page ^ : Moves the list upward in units of page.
 Bottom : Moves the cursor to the bottom of the list.
 Cursor↓ : Displays the cursor, and moves the cursor to the earlier data.
 Scroll v : Moves the list downward.
 Page v : Moves the list downward in units of page.
 Jump to Graph : Displays the cursor in the graph, whose cursor position time is the same as the list.
 Update : Clears the cursor, and displays the latest data.
- The switch indicates the currently displayed screen, thus selecting this switch will not switch screens.

5. Shows unused switches for base screen switching.
6. Switches to the previously opened screen.
7. Switches languages.

Remarks

- Both logging ID of the historical trend graph and the historical data list are set to “30001”.
- To identify the target of key action, user IDs are specified to the graph and the switches which are marked with No.2 and No.3.
- To the switches marked with No.7, settings are made to switch system languages in conjunction with the change of the display language.

4.3.3 Trend Graph Display 3 (B-30003)



Outline

This screen displays two different values, which are collected with the Logging function using two different settings, in numerical values or in historical trend graphs separately for each setting.

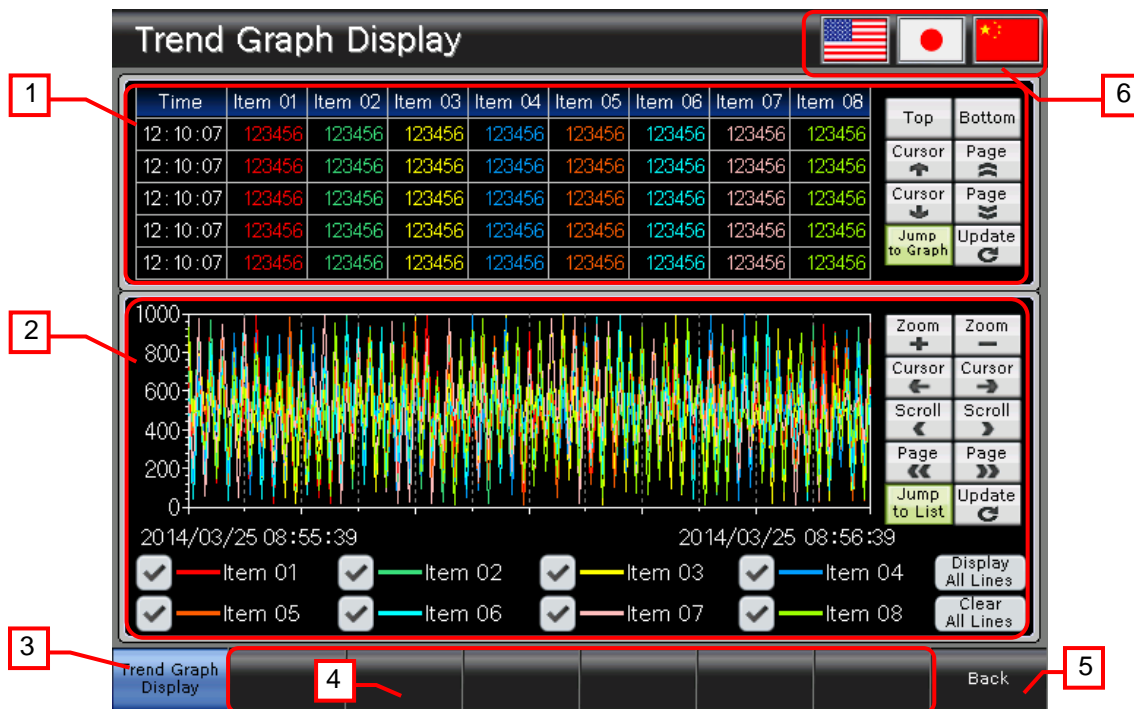
Description

- Displays the time of the cursor display position, also displays the present value and the value of the cursor display position of each logging target.
☒ : Displays or clears the graph line of each item.
- The data collected by the logging function is displayed in the historical trend graph. The beginning position time and the end position time are displayed under the graph.
 Display a cursor when the graph is touched. While touching the graph, flick the graph leftward/rightward to scroll the contents right/left. Pinch out/in horizontally to zoom in/out the graph display by time axis.
 Zoom + : Enlarges (twice) the time axis using the axis of new data as the reference.
 Zoom - : Reduces (half) the time axis using the axis of new data as the reference.
 Page << : Moves the graph left in units of page.
 Scroll < : Moves the graph left.
 Cursor ← : Displays the cursor, and moves the cursor to the earlier data.
 Cursor → : Displays the cursor, and moves the cursor to the later data.
 Scroll > : Moves the graph right.
 Page >> : Moves the graph right in units of page.
 Update : Clears the cursor, and displays the latest data.
- When the date and time has been inputted, touch the switch [Jump to Set Time] to display the data obtained at specified time in the center of the graph. The current date and time are stored by the screen initial display.
- The switch indicates the currently displayed screen, thus selecting this switch will not switch screens.
- Shows unused switches for base screen switching.
- Switches to the previously opened screen.
- Switches languages.

Remarks

- The logging ID of each historical trend graph are set to “30001(the left side of the screen)” and “30002(the right side of the screen)”.
- To identify the target of key action, user IDs are specified to the graph and the switches which are marked with No.2.
- Screen scripts are set for the time specification jump function of the historical trend graphs which are marked with No.2. For more details about the scripts, please refer to "4.6 Script List".
- To the switches marked with No.7, settings are made to switch system languages in conjunction with the change of the display language.

4.3.4 Trend Graph Display 4 (B-30004)



Outline

This screen displays the values collected with the Logging function in a historical trend graph or in a historical data list display.

Description

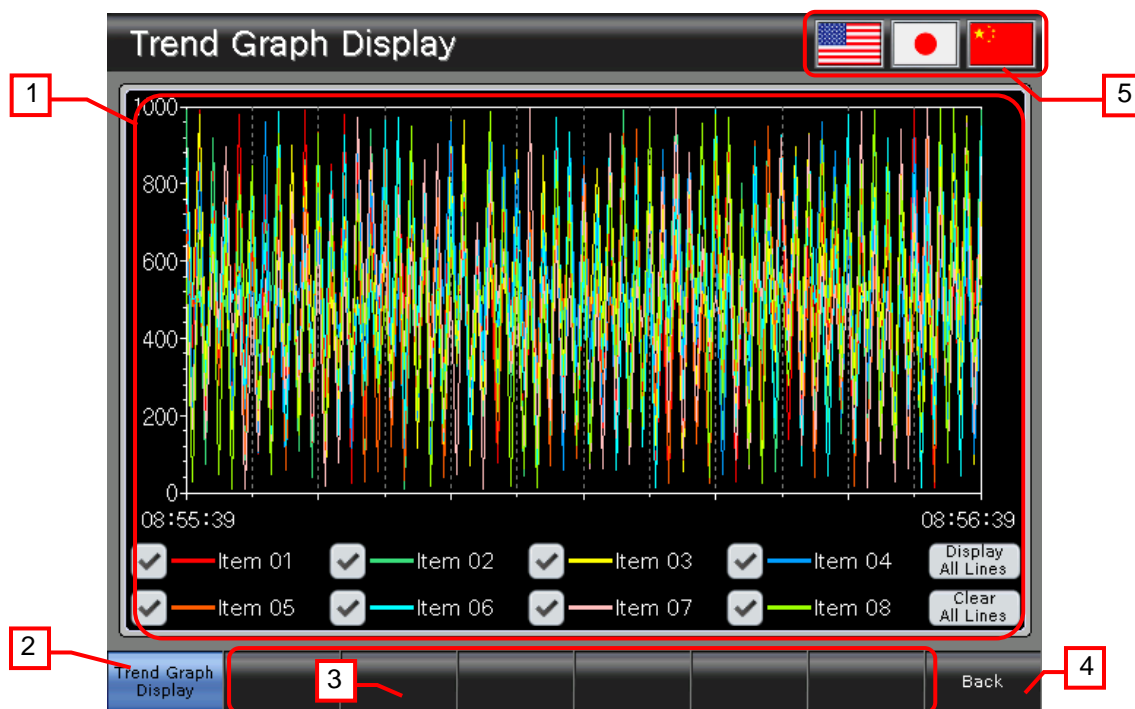
- The data collected by the logging function is displayed in the historical data list.
Display a cursor when the list is touched. While touching the list, flick the list upward/downward to scroll the contents up/down.
 - Top : Moves the cursor to the top of the list.
 - Bottom : Moves the cursor to the bottom of the list.
 - Cursor↑ : Displays the cursor, and moves the cursor to the later data.
 - Cursor↓ : Displays the cursor, and moves the cursor to the earlier data.
 - Page⌞ : Moves the list upward in units of page.
 - Page⌝ : Moves the list downward in units of page.
 - Jump to Graph : Displays the cursor in the graph, whose cursor position time is the same as the list.
 - Update : Clears the cursor, and displays the latest data.
- The data collected by the logging function is displayed in the historical trend graph. The beginning position time and the end position time are displayed under the graph.
Display a cursor when the graph is touched. While touching the graph, flick the graph leftward/rightward to scroll the contents right/left. Pinch out/in horizontally to zoom in/out the graph display by time axis.
 - Zoom + : Enlarges (twice) the time axis using the axis of new data as the reference.
 - Zoom - : Reduces (half) the time axis using the axis of new data as the reference.
 - Cursor ← : Displays the cursor, and moves the cursor to the earlier data.
 - Cursor → : Displays the cursor, and moves the cursor to the later data.
 - Scroll < : Moves the graph left.
 - Scroll > : Moves the graph right.
 - Page << : Moves the graph left in units of page.
 - Page >> : Moves the graph right in units of page.
 - Jump to List : Displays the cursor in the list, whose cursor position time is the same as the graph.
 - Update : Clears the cursor, and displays the latest data.
 - ✓ : Displays or clears the graph line of each item.
 - Display All Lines : Displays all of the graph lines.
 - Clear All Lines : Clears all of the graph lines.
- The switch indicates the currently displayed screen, thus selecting this switch will not switch screens.
- Shows unused switches for base screen switching.
- Switches to the previously opened screen.

6. Switches languages.

Remarks

- Both logging ID of the historical trend graph and the historical data list are set to “30001”.
- To identify the target of key action, user IDs are specified to the list, the graph and the switches which are marked with No.1 and No.2.
- To the switches marked with No.6, settings are made to switch system languages in conjunction with the change of the display language.

4.3.5 Trend Graph Display 5 (B-30005)



Outline

This screen displays the values collected with the Logging function in a historical trend graph.

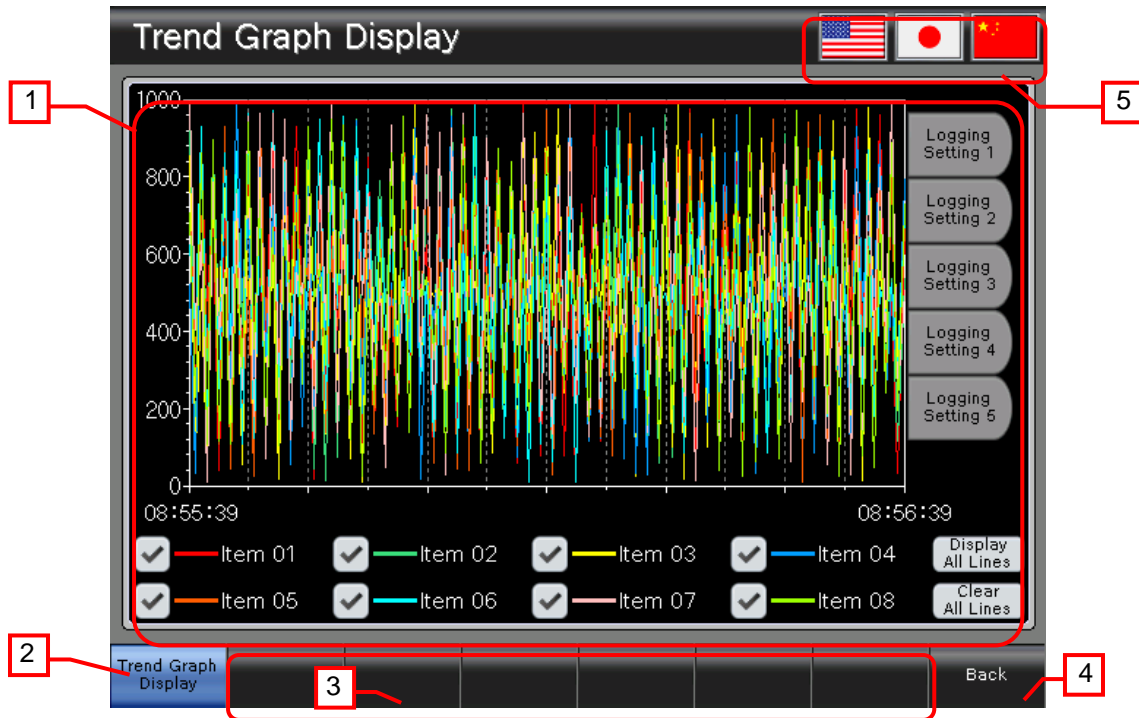
Description

1. The data collected by the logging function is displayed in the historical trend graph. The beginning position time and the end position time are displayed under the graph.
While touching the graph, flick the graph leftward/rightward to scroll the contents right/left. Pinch out/in horizontally to zoom in/out the graph display by time axis. Touch again to display the latest data.
☒ : Displays or clears the graph line of each item.
 Display All Lines : Displays all of the graph lines.
 Clear All Lines : Clears all of the graph lines.
2. The switch indicates the currently displayed screen, thus selecting this switch will not switch screens.
3. Shows unused switches for base screen switching.
4. Switches to the previously opened screen.
5. Switches languages.

Remarks

- The graph marked with No.1 is overlapped with the switch, which updates the graph.
- The logging ID of the historical trend graph is set to "30001".
- To the switches marked with No.5, settings are made to switch system languages in conjunction with the change of the display language.

4.3.6 Trend Graph Display 6 (B-30006)



Outline

This screen switches display values that are collected with the Logging function using logging settings 1 to 5, in a historical trend graph.

Description

1. The data collected by five different logging can be displayed in the historical trend graph; [Logging Setting 1] to [Logging Setting 5] specify which logging to be displayed. The beginning position time and the end position time are displayed under the graph.

While touching the graph, flick the graph leftward/rightward to scroll the contents right/left. Pinch out/in horizontally to zoom in/out the graph display by time axis. Touch again to display the latest data.

Logging Setting 1: Displays the data collected by the Logging function whose logging ID is "30001".

Logging Setting 2: Displays the data collected by the Logging function whose logging ID is "30002".

Logging Setting 3: Displays the data collected by the Logging function whose logging ID is "30003".

Logging Setting 4: Displays the data collected by the Logging function whose logging ID is "30004".

Logging Setting 5: Displays the data collected by the Logging function whose logging ID is "30005".

☒ : Displays or clears the graph line of each item.

Display All Lines : Displays all of the graph lines.

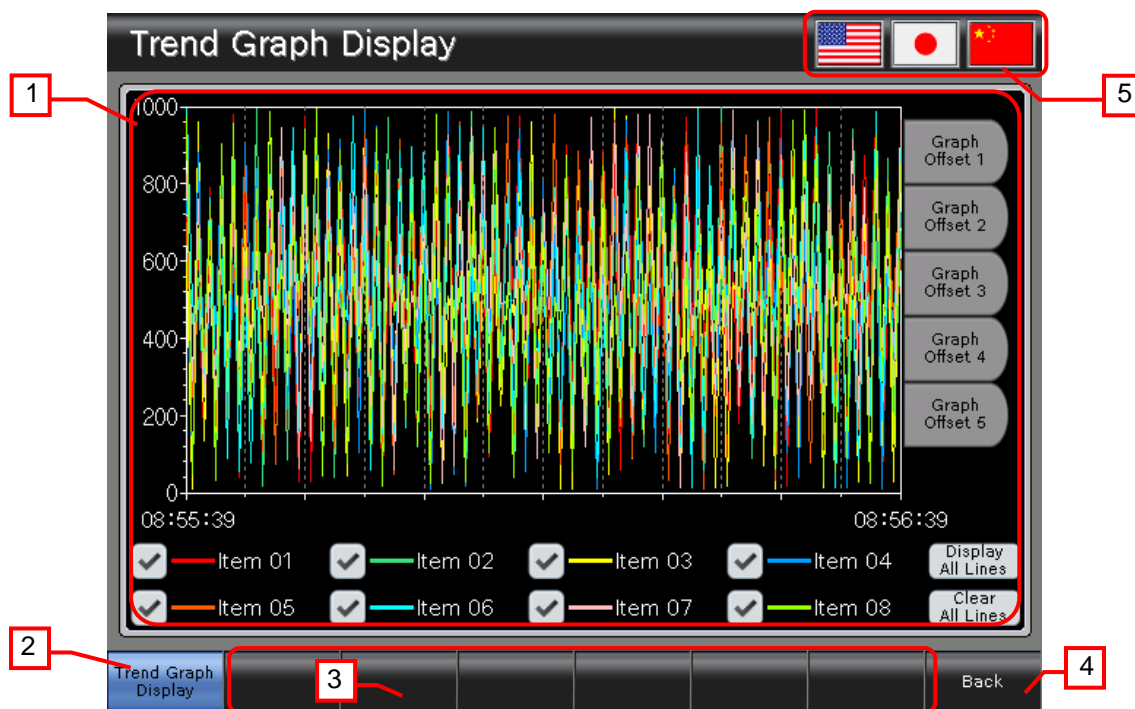
Clear All Lines : Clears all of the graph lines.

2. The switch indicates the currently displayed screen, thus selecting this switch will not switch screens.
3. Shows unused switches for base screen switching.
4. Shows unused switches for base screen switching.
5. Switches languages.

Remarks

- The graph marked with No.1 is overlapped with the switch, which updates the graph.
- The logging ID range of the historical trend graph is from "30001" to "30005".
- A screen script is set for the historical trend graphs. For more details about the scripts, please refer to "4.6 Script List".
- To the switches marked with No.5, settings are made to switch system languages in conjunction with the change of the display language.

4.3.7 Trend Graph Display 7 (B-30007)



Outline

This screen switches display values of the logging target specified with the graph offset 1 to 5, which are collected with the Logging function, in a historical trend graph.

Description

1. The data of the logging targets (40 points) collected by the logging function can be displayed in the historical trend graph; [Graph Offset 1] to [Graph Offset 5] specify which 8 continuous points to be displayed. The beginning position time and the end position time are displayed under the graph. While touching the graph, flick the graph leftward/rightward to scroll the contents right/left. Pinch out/in horizontally to zoom in/out the graph display by time axis. Touch again to display the latest data.
 Graph Offset 1 : Displays the data of the logging point 1 to 8 in the graph.
 Graph Offset 2 : Displays the data of the logging point 9 to 16 in the graph.
 Graph Offset 3 : Displays the data of the logging point 17 to 24 in the graph.
 Graph Offset 4 : Displays the data of the logging point 25 to 32 in the graph.
 Graph Offset 5 : Displays the data of the logging point 33 to 40 in the graph.
☒ : Displays or clears the graph line of each item.
 Display All Lines : Displays all of the graph lines.
 Clear All Lines : Clears all of the graph lines.
2. The switch indicates the currently displayed screen, thus selecting this switch will not switch screens.
3. Shows unused switches for base screen switching.
4. Switches to the previously opened screen.
5. Switches languages.

Remarks

- The graph marked with No.1 is overlapped with the switch, which updates the graph.
- The logging ID of the historical trend graph is set to "30006".
- To the switches marked with No.5, settings are made to switch system languages in conjunction with the change of the display language.

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	Not Used	
Word	D0 to D39	For Logging
	D100 to D139	For Logging

4.4.2 GOT internal devices

Type	Device No.	Application
Bit	GB40	Script Trigger (Always ON)
	GB61001 to GB61008	Graph Line Clear Device in Historical Trend Graph
Word	GD60000	Base Screen Switching
	GD60021	Language Switching
	GD60022	System Language Switching
	GD61001 to GD61008	Cursor Position Data Device
	GD61021 to GD61024	Cursor Position Time in Historical Trend Graph Display Position Time in Historical Data List
	GD61025 to GD61028	Beginning Position Time in Historical Trend Graph
	GD61029 to GD61032	End Position Time in Historical Trend Graph
	GD61033 to GD61035	Display Position Time in Historical Trend Graph Cursor Position Time in Historical Data List
	GD61041 to GD61044	Cursor Position Time in Historical Trend Graph
	GD61045 to GD61048	Beginning Position Time in Historical Trend Graph
	GD61049 to GD61052	End Position Time in Historical Trend Graph
	GD61053 to GD61055	Display Position Time in Historical Trend Graph
	GD61060	Graph Offset in Historical Trend Graph
	GD61070	Logging ID Storage in Historical Trend Graph
	GS650 to GS652	Present Time

4.5 Comment List

Comment group No.	Where comments are used
351	B-30001
352	B-30002
353	B-30003
354	B-30004
355	B-30005
356	B-30006
357	B-30007

4.6 Script List

Item	Settings
Project script	Nothing
Screen script	B-30001、B-30003、B-30006
Object script	Nothing

4.6.1 Screen script

Base screen 30001、30003

Script No.	30001	Script Name	Script30001
Comment	Get Present Time 1		
Data Type	Signed BIN16	Trigger Type	Rise GB40
//Store Year, Month, Day, Hour, Minute, Second When Screen Is Displayed [w:GD61033]=[w:GS650]; [w:GD61034]=[w:GS651]; [w:GD61035]=[w:GS652];			

Base screen 30003

Script No.	30002	Script Name	Script30002
Comment	Get Present Time 2		
Data Type	Signed BIN16	Trigger Type	Rise GB40
//Store Year, Month, Day, Hour, Minute, Second When Screen Is Displayed [w:GD61053]=[w:GS650]; [w:GD61054]=[w:GS651]; [w:GD61055]=[w:GS652];			

Base screen 30006

Script No.	30003	Script Name	Script30003
Comment	Logging ID Setting		
Data Type	Signed BIN16	Trigger Type	Rise GB40
//Store Logging ID When Screen Is Displayed [w:GD61070]=30001;			

5. TEMPLATES

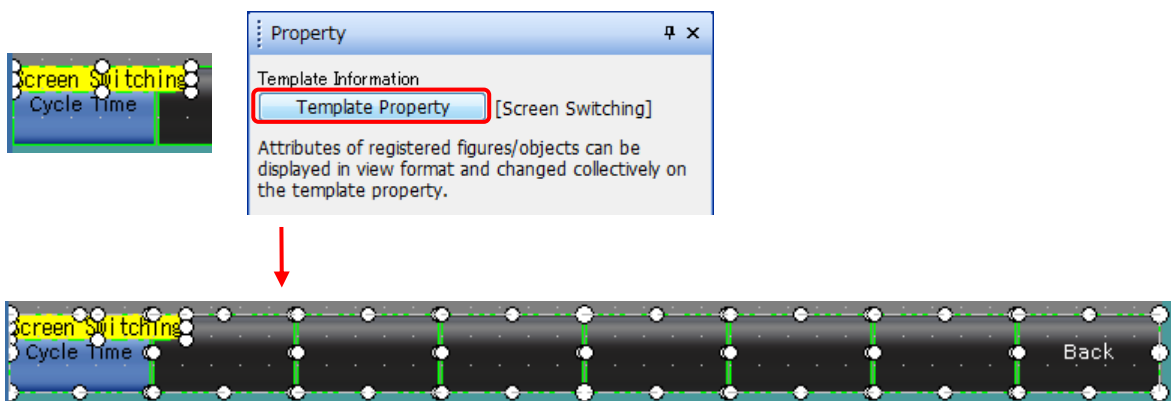
Templates are a group of figures and objects. Related settings are grouped into template attributes and registered, so the devices and colors, etc. can be easily changed in a batch. For more details about changing the attribute settings, please refer to the "GT Designer3 (GOT2000) Help".



The template information is only displayed on the screen design software's editing screen. It is not displayed on the GOT display screen.

Example: Changing the color of switches (Each Screen)

(1) Select [Template Information], and click on [Template Property] (or double-click [Template Information]).



The figures and objects that are registered in the template are changed to the selected state.

(2) Double-click on [Setting Value] of [Switch(Each Screen)_Shape Color], and select the new color.

