

Mitsubishi Inverter
FR-F700P Series
FR-F720P-0.75K

Sample Screen Manual

Mitsubishi Electric Corporation

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REVISIONS

Sample Screen Manual

| Date | Control No.* | Description |
|---------|------------------|--------------------------------------|
| 2013/10 | BCN-P5999-0107 | First edition |
| 2015/2 | BCN-P5999-0107-2 | Device Specification for Document ID |
| | | |
| | | |
| | | |
| | | |

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

Project data

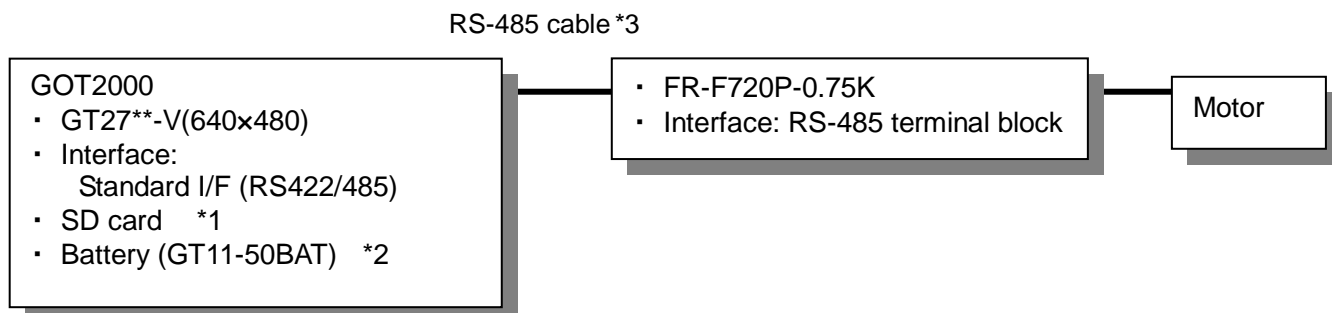
| Date | Project data | GT Designer3* | Description |
|---------|----------------------------------|---------------|--------------------------------------|
| 2013/10 | MITSUBISHI_FR-F700P_V_Ver1_E.GTX | 1.100E | First edition |
| 2015/2 | MITSUBISHI_FR-F700P_V_Ver2_E.GTX | 1.126G | Device Specification 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 FR-F700P (FR-F720P-0.75K) inverter in serial (RS-485) communication. The sample screens can be used to change the running speed and rotation direction, monitor the output frequency and output current, or give the inverter instructions to perform other operations.

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)".

3. GOT

3.1 System Applications That Are Automatically Selected

| Type | System application name | | |
|----------------------|-----------------------------|--------|----------------------|
| Standard Function | Standard System Application | | |
| | Standard Font | | Japanese |
| Communication Driver | FREQROL 500/700 | | |
| Extended Function | Standard Font | | Chinese (Simplified) |
| | Outline Font | Gothic | Alphanumeric/Kana |
| | | | Japanese (Kanji) |
| | | | Chinese (Simplified) |
| | Document Display | | |

3.2 Controller Setting of Screen Design Software

Detail Setting

| Item | Set value | Remarks |
|--------------------------|-----------|----------------------------|
| Transmission Speed (BPS) | 38400 bps | (Initial value: 19200 bps) |
| Data Bit | 7 bit | |
| Stop Bit | 1 bit | |
| Parity | Odd | |
| Retry (Times) | 3 | |
| Timeout Time (Sec) | 3 | |
| Delay Time (ms) | 10 | |

3.3 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. INVERTER FR-F700P

4.1 Inverter FR-F700P Communication Settings

| Item | Set value | Remarks |
|---|-----------|---|
| RS-485 communication station number | 0 | Station number 0 |
| RS-485 communication station speed | 384 | 38400 bps (initial value: 9600 bps) |
| RS-485 communication stop bit length | 10 | 1 bit (initial value: 1) |
| RS-485 communication parity check selection | 1 | Odd parity (initial value: 2) |
| RS-485 communication retry count | 9999 | No error stop (initial value: 1) |
| RS-485 communication check time interval | 9999 | No communication check (initial value: 0) |
| RS-485 communication waiting time setting | 0 | (Initial value: 9999) |
| RS-485 communication CR/LF selection | 1 | With CR |
| Protocol selection | 0 | Mitsubishi inverter protocol |
| Operation mode selection | 0 | External operation mode at power ON |
| Communication startup mode selection | 2 | Network operation mode (initial value: 0) |
| Communication EEPROM write selection | 0 | Write to EEPROM and RAM |

4.2 Inverter FR-F700P Parameter Settings

The following setting values were used to confirm operation at Mitsubishi.

| Item | Set value | Remarks |
|------------------------------------|-----------|---------------|
| Torque boost | 6.0 | Initial value |
| Maximum frequency | 120 | Initial value |
| Minimum frequency | 0 | Initial value |
| Multi-speed setting (high speed) | 60 | Initial value |
| Multi-speed setting (medium speed) | 30 | Initial value |
| Multi-speed setting (low speed) | 10 | Initial value |

5. SCREEN SPECIFICATIONS

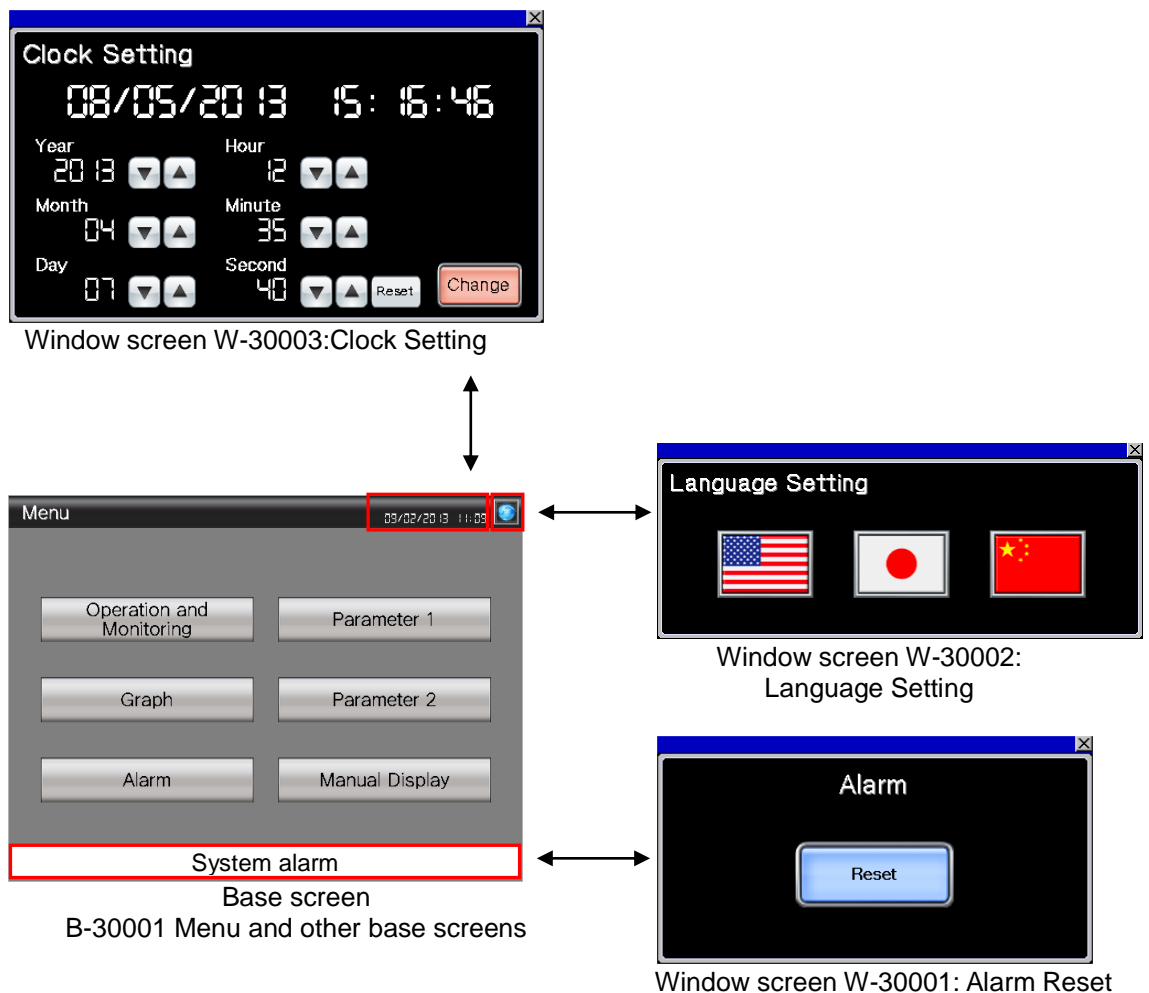
5.1 Display Language

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.

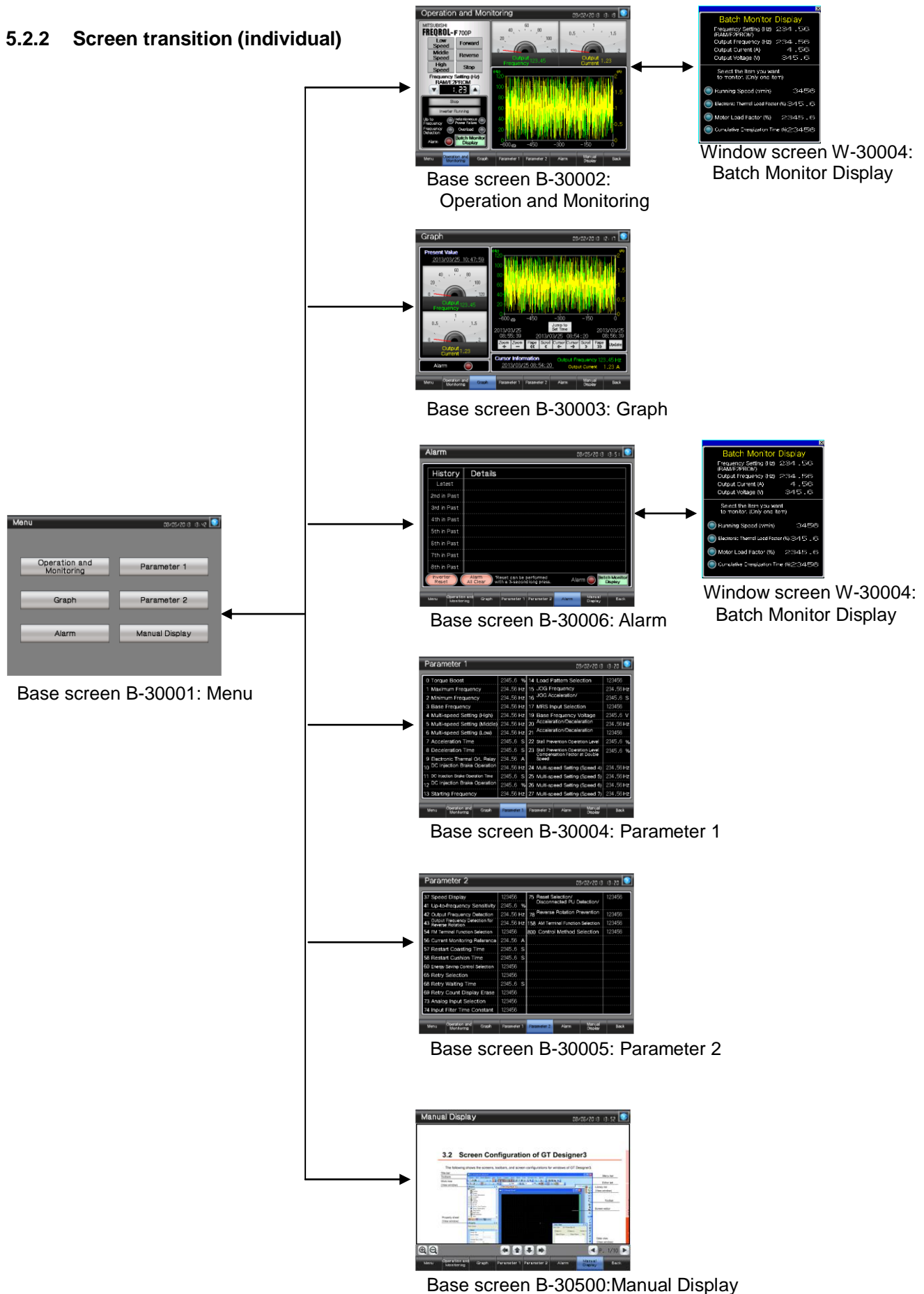
| Column No. | Language |
|------------|----------------------|
| 1 | English |
| 2 | Japanese |
| 3 | Chinese (Simplified) |

5.2 Screen Transition

5.2.1 Screen transition (common)

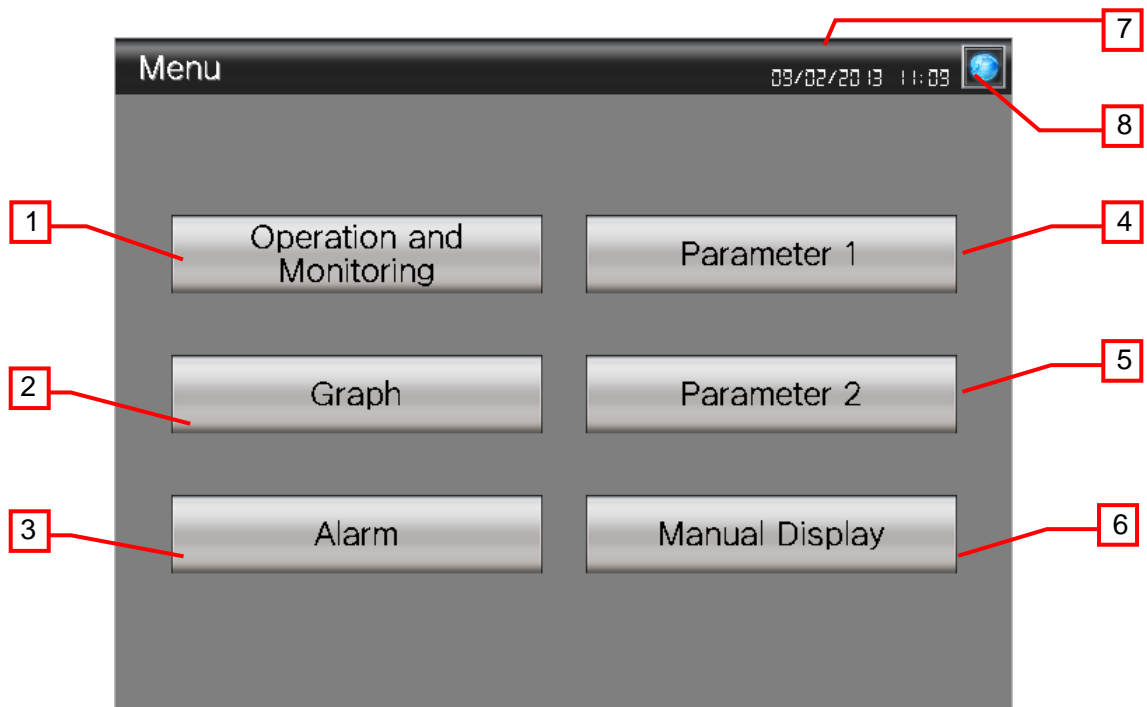


5.2.2 Screen transition (individual)



5.3 Explanation of Screens

5.3.1 Menu (B-30001)



Outline

This is the Menu screen.

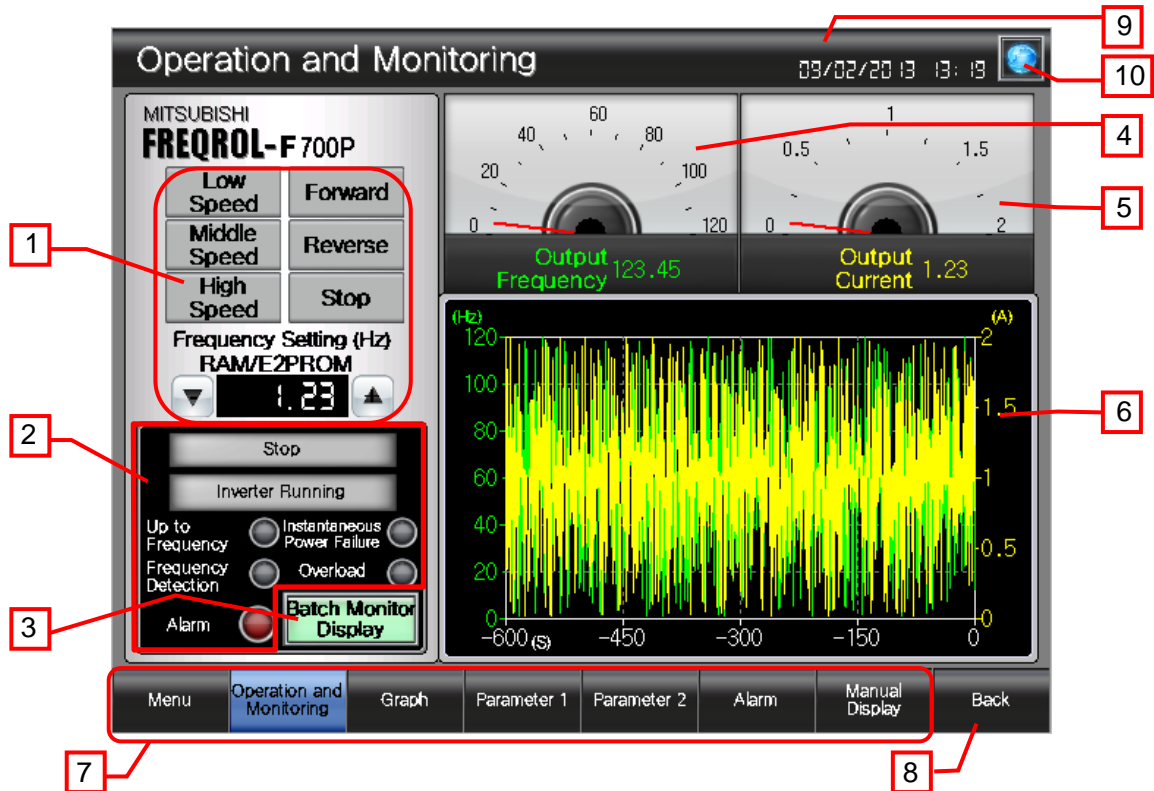
Description

1. Switches to the [Operation and Monitoring] screen.
2. Switches to the [Graph] screen.
3. Switches to the [Alarm] screen.
4. Switches to the [Parameter 1] screen.
5. Switches to the [Parameter 2] screen.
6. Switches to the [Manual Display] 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. Touch the alarm message to open the [Alarm Reset] window.

5.3.2 Operation and Monitoring (B-30002)



Outline

This screen is used to issue the inverter operation commands, display various monitors, and display a historical trend graph of the output frequency and output current data collected by the logging function.

Description

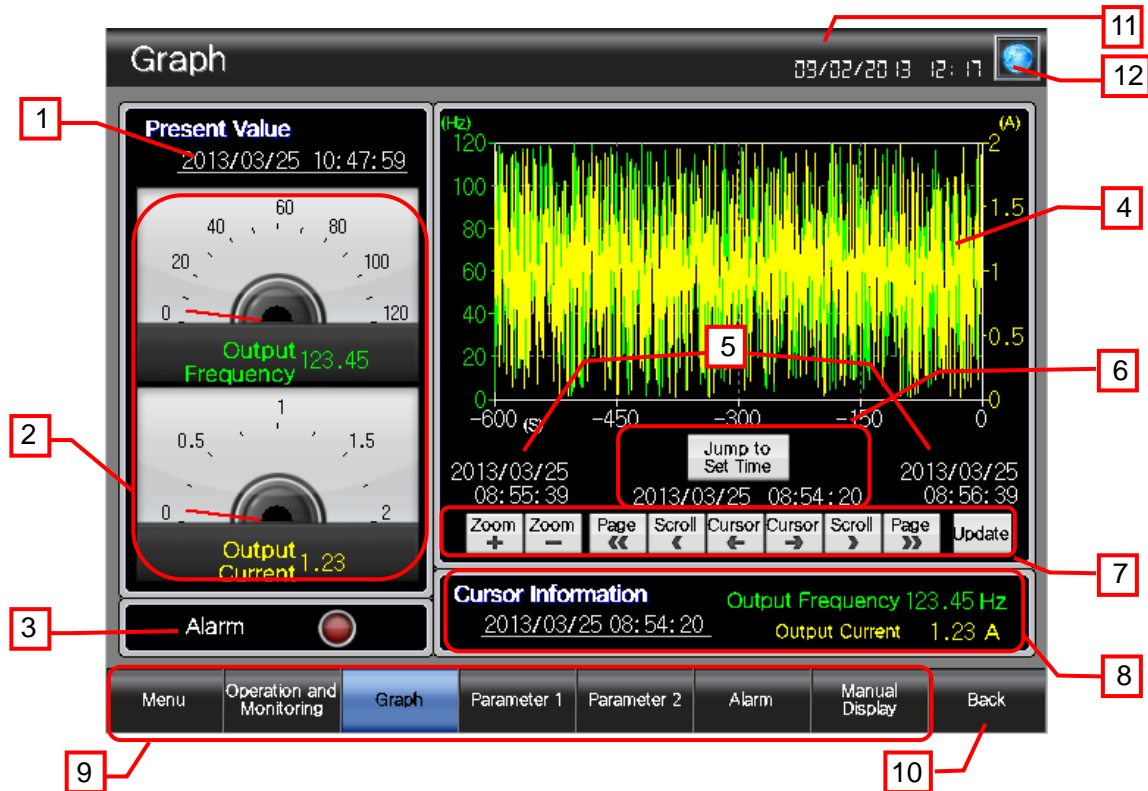
- Sets the speed and rotation direction.
 - Touch [Low Speed Operation], [Medium Speed Operation] or [High Speed Operation]. Then, touch [Forward Rotation] or [Reverse Rotation].
The inverter will operate at the respective speed pre-set with the parameters.
Touch [Stop] to stop the operation.
 - Set the speed directly by inputting a numeric value. Then, touch [Forward Rotation] or [Reverse Rotation].
The touch switches to the left and right of the value input area will increment or decrement the speed by one.
Touch [Stop] to stop the operation.
- Displays inverter status with lamps.

| | |
|-----------------------------|---|
| Stop/Forward/Reverse | : The rotation direction status is indicated with a light. |
| Inverter Running | : Lights while the inverter is running. |
| Up to Frequency | : Lights when the output frequency reaches the set frequency. |
| Frequency Detection | : Lights when the output frequency is detected. |
| Instantaneous Power Failure | : Lights during an instantaneous power failure. |
| Overload | : Lights while the stall prevention function is activated. |
| Alarm | : Blinks when an alarm occurs. |
- Opens the [Batch Monitor Display] window.
- Displays the output frequency with a panel meter and a numerical display.
- Displays the output current with a panel meter and a numerical display.
- Displays the output frequency and output current with a historical trend graph.
- Switches to each screen. The blue switch indicates the currently displayed screen, so selecting this switch will not switch the screen.
- 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

- Object scripts are set for the speed and rotation direction switches. For more details about scripts, please refer to "5.6 Script List".
- The inverter will retain the speed and rotation set with the [Operation and Monitoring] screen even when the screen is switched.
- If a system alarm occurs, the alarm message will appear at the bottom of the screen. Touch the alarm message to open the [Alarm Reset] window.

5.3.3 Graph (B-30003)



Outline

This screen displays the output frequency and output current data collected using the logging function in a historical trend graph.

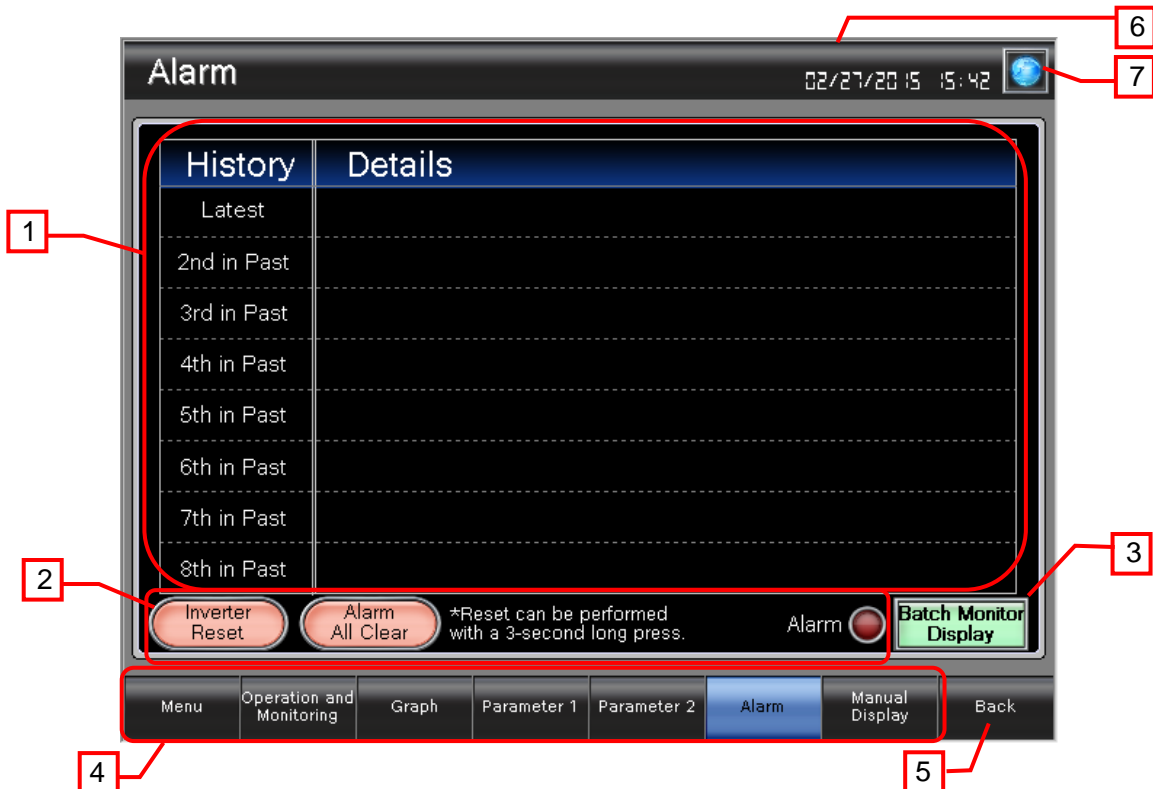
Description

1. Displays the current date and time.
2. Displays the current output frequency and output current values with panel meters and numerical displays.
3. Blinks when an alarm occurs.
4. Displays the output frequency and output current in a historical trend graph. 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.
5. Displays the historical trend graph's beginning position time and end position time.
6. 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.
7. 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 new data.
8. Displays the date/time, output frequency and output current of the cursor position.
9. Switches to each screen. The blue switch indicates the currently displayed screen, so selecting this switch will not switch the screen.
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

- An object script is set for the [Jump to Set Time] switch. For more details about scripts, please refer to "5.6 Script List".
- The inverter will retain the speed and rotation set with the [Operation and Monitoring] screen even when the screen is switched.
- If a system alarm occurs, the alarm message will appear at the bottom of the screen. Touch the alarm message to open the [Alarm Reset] window.

5.3.4 Alarm (B-30006)



Outline

This screen displays the inverter's alarm history.

Description

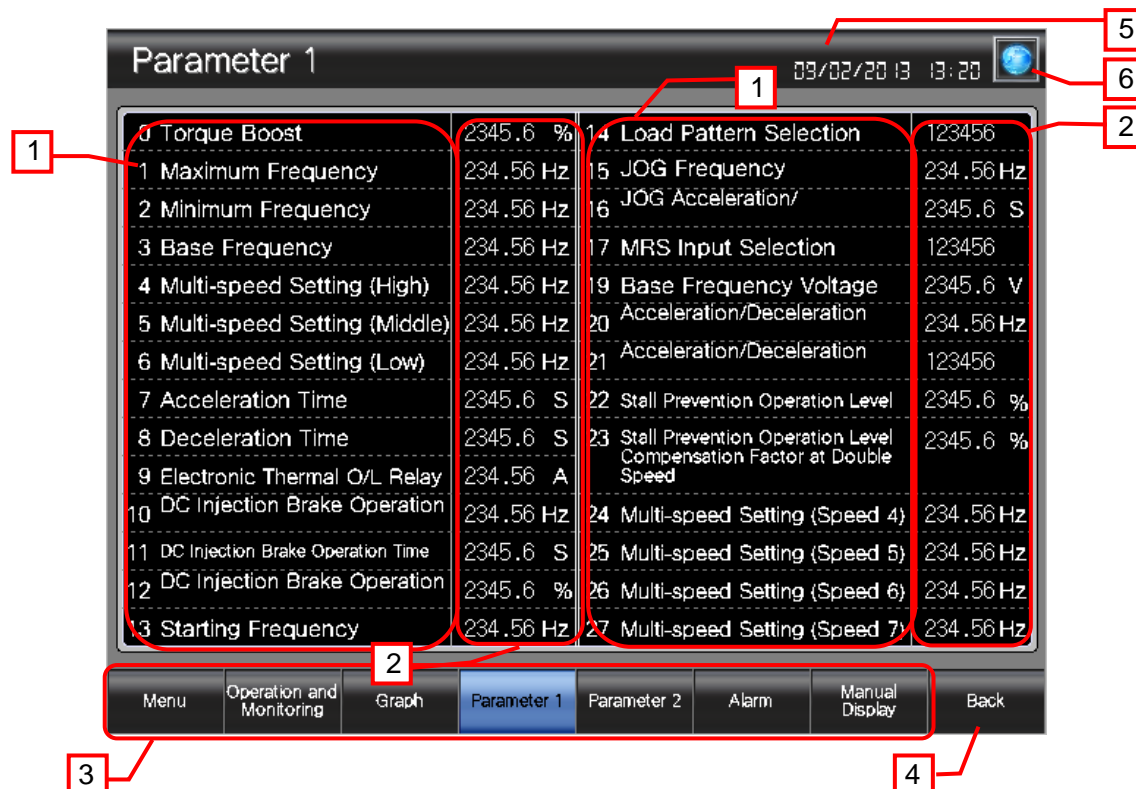
1. Displays the latest to eighth previous alarms using word lamps.
2. These are switches and lamps related to the alarm.
 - Inverter Reset : Resets the inverter.
 - Alarm All Clear : Clears all alarm history.
 - Alarm : Blinks when an alarm occurs.

Press [Inverter Reset] and [Alarm All Clear] for 3 seconds to activate.
3. Opens the [Batch Monitor Display] window.
4. Switches to each screen. The blue switch indicates the currently displayed screen, so selecting this switch will not switch the screen.
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

- The inverter will retain the speed and rotation set with the [Operation and Monitoring] screen even when the screen is switched.
- If a system alarm occurs, the alarm message will appear at the bottom of the screen. Touch the alarm message to open the [Alarm Reset] window.

5.3.5 Parameter 1 (B-30004), Parameter 2 (B-30005)



Outline

Displays and sets the inverter parameters.

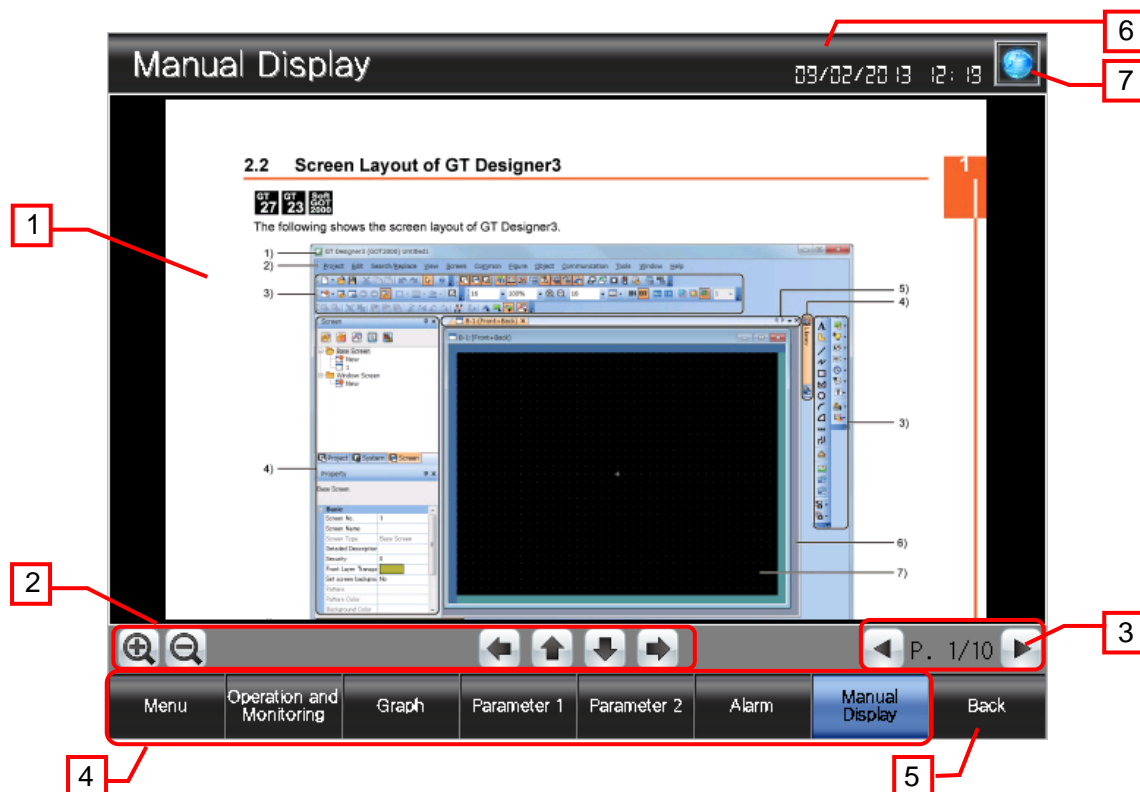
Description

1. Displays parameter data names.
2. Displays parameter setting values. The set values can be changed. On the GOT, a parameter set as 9999 with the inverter will be displayed as 65535, and a parameter set as 8888 will be displayed as 65520.
3. Switches to each screen. The blue switch indicates the currently displayed screen, so selecting this switch will not switch the screen.
4. Switches to the previously opened screen.
5. Displays the current date and time. Touch the area to open the [Clock Setting] window.
6. Opens the [Language Setting] window.

Remarks

- The inverter will retain the speed and rotation set with the [Operation and Monitoring] screen even when the screen is switched.
- If a system alarm occurs, the alarm message will appear at the bottom of the screen. Touch the alarm message to open the [Alarm Reset] window.

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.
 - : 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.
- 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.
- Switches to each screen. The blue switch indicates the currently displayed screen, thus selecting this switch will not switch the screen.
- Switches to the previously opened screen.
- Displays the current date and time. Touch the button to open the [Clock Setting] window.
- Opens the [Language Setting] window.

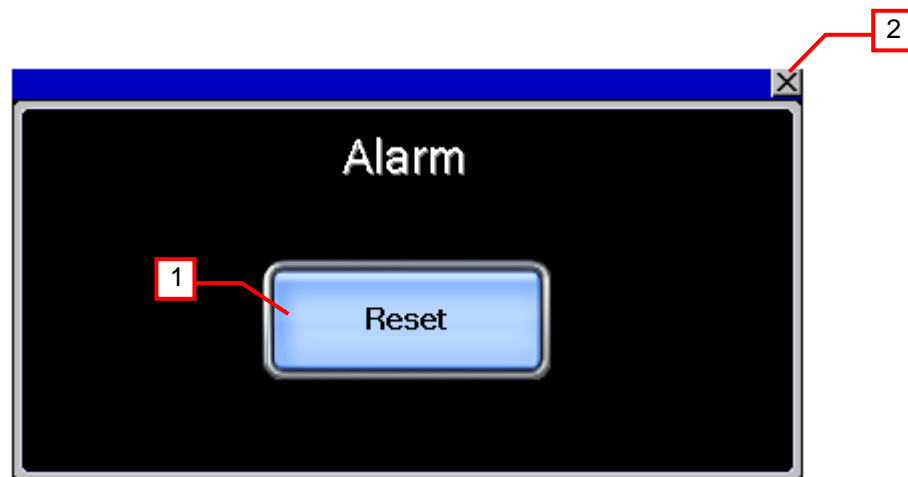
Remarks

- 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

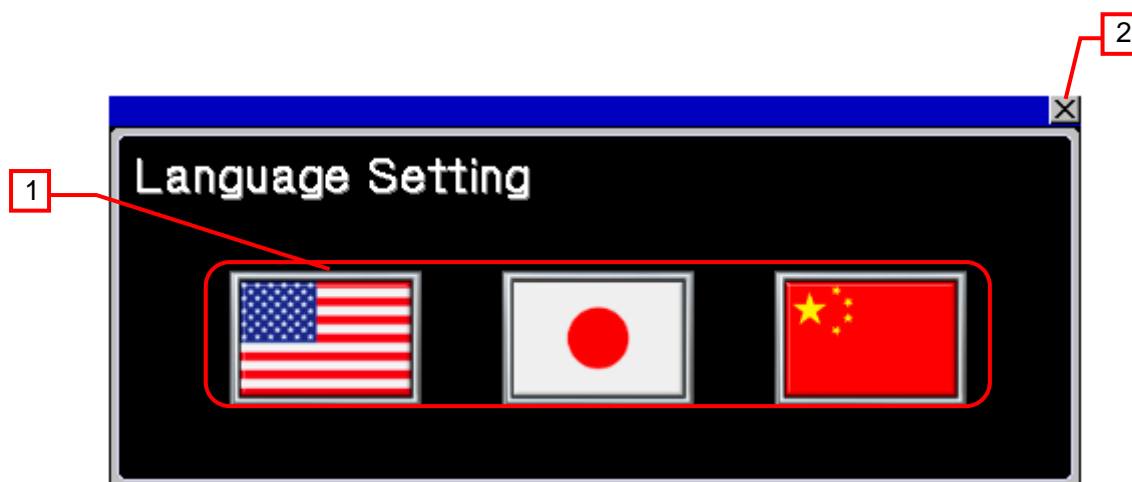
This window screen allows resetting the system alarm.

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.

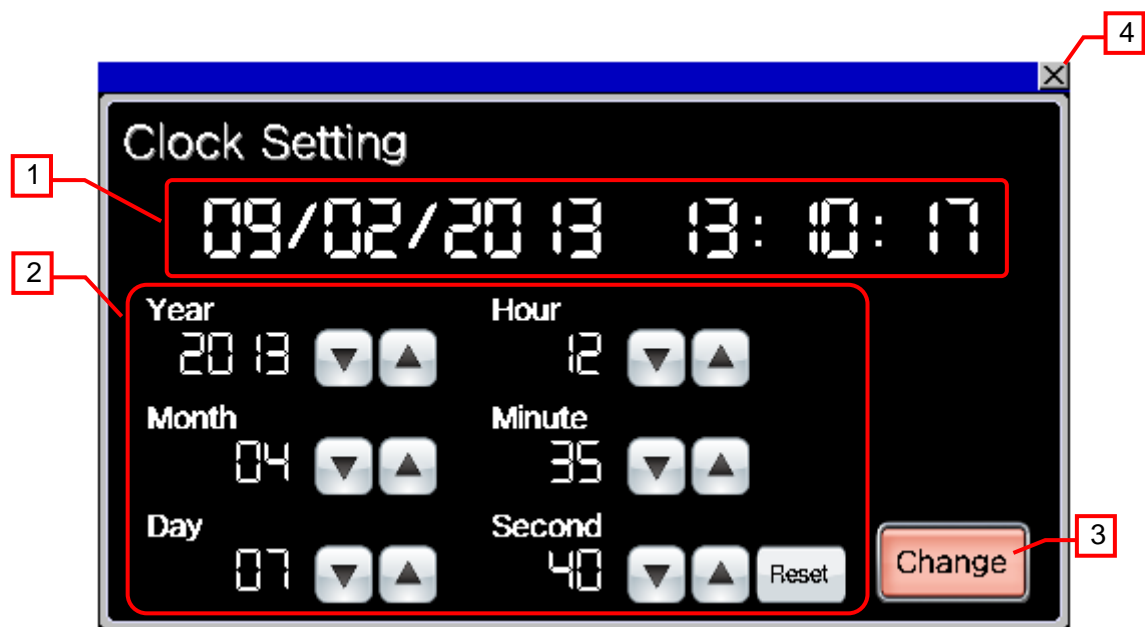
Description

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.

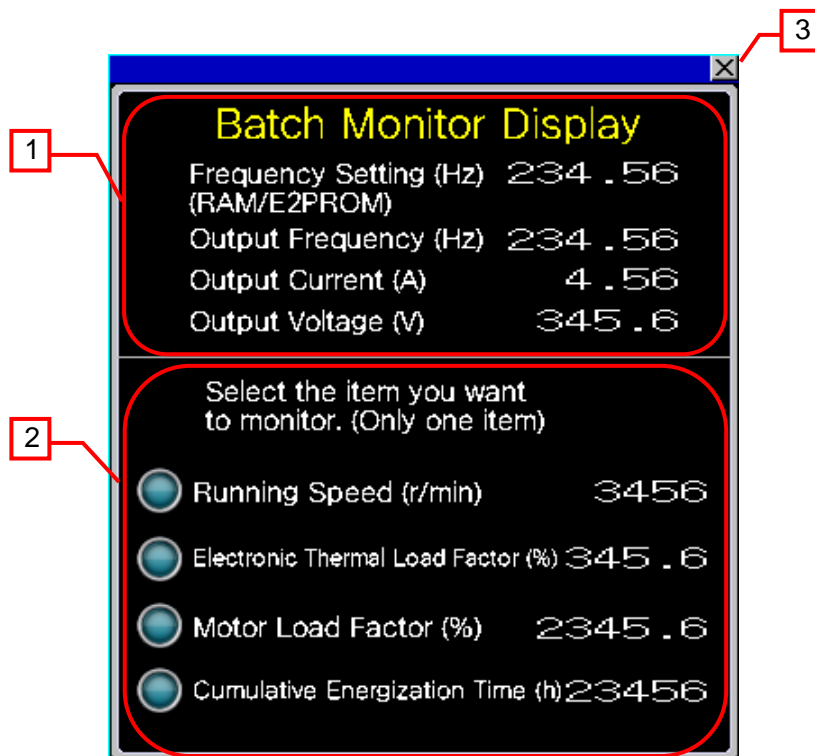
Description

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".

5.3.10 Batch Monitor Display (W-30004)



Outline

This screen displays a batch monitor and a special monitor of data items.

Description

1. Displays the frequency setting, output frequency, output current and output voltage values.
2. Displays the special monitor items of the inverter. Touch and select the item names to be monitored. When an item is selected, the indicator is lit and the numerical display appears. The numerical displays of non-selected items are deleted.
3. Closes the window.

Remarks

- Object scripts are set for numerical displays of the special monitor. For more details about scripts, please refer to "5.6 Script List".

5.4 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".

5.4.1 Devices of the controller

| Type | Device No. | Application |
|------|------------|--|
| Bit | RS0:0 | Running |
| | RS1:0 | Forward rotation |
| | RS2:0 | Reverse rotation |
| | RS3:0 | Up to frequency |
| | RS4:0 | Overload |
| | RS5:0 | Instantaneous power failure |
| | RS6:0 | Frequency detection |
| | RS7:0 | Alarm |
| Word | A0:0 | 2nd in past |
| | A1:0 | Latest |
| | A2:0 | 4th in past |
| | A3:0 | 3rd in past |
| | A4:0 | 6th in past |
| | A5:0 | 5th in past |
| | A6:0 | 8th in past |
| | A7:0 | 7th in past |
| | Pr0:0 | Torque boost |
| | Pr1:0 | Maximum frequency |
| | Pr2:0 | Minimum frequency |
| | Pr3:0 | Base frequency |
| | Pr4:0 | Multi-speed setting (high) |
| | Pr5:0 | Multi-speed setting (medium) |
| | Pr6:0 | Multi-speed setting (low) |
| | Pr7:0 | Acceleration time |
| | Pr8:0 | Deceleration time |
| | Pr9:0 | Electronic thermal O/L relay |
| | Pr10:0 | DC injection brake operation frequency |
| | Pr11:0 | DC injection brake operation time |
| | Pr12:0 | DC injection brake operation voltage |
| | Pr13:0 | Starting frequency |
| | Pr14:0 | Load pattern selection |
| | Pr15:0 | JOG frequency |
| | Pr16:0 | JOG acceleration/deceleration time |
| | Pr17:0 | MRS input selection |
| | Pr19:0 | Base frequency voltage |
| | Pr20:0 | Acceleration/Deceleration reference frequency |
| | Pr21:0 | Acceleration/Deceleration time increments |
| | Pr22:0 | Stall prevention operation level |
| | Pr23:0 | Stall prevention operation level compensation factor at double speed |
| | Pr24:0 | Multi-speed Setting (Speed 4) |
| | Pr25:0 | Multi-speed Setting (Speed 5) |
| | Pr26:0 | Multi-speed Setting (Speed 6) |
| | Pr27:0 | Multi-speed Setting (Speed 7) |
| | Pr37:0 | Speed display |
| | Pr41:0 | Up-to-frequency sensitivity |
| | Pr42:0 | Output frequency detection |
| | Pr43:0 | Output frequency detection for reverse rotation |
| | Pr54:0 | FM terminal function selection |
| | Pr56:0 | Current monitoring reference |
| | Pr57:0 | Restart coasting time |
| | Pr58:0 | Restart cushion time |
| | Pr60:0 | Energy saving control selection |
| | Pr65:0 | Retry selection |

| Type | Device No. | Application |
|------|------------|---|
| Word | Pr68:0 | Retry waiting time |
| | Pr69:0 | Retry count display erase |
| | Pr73:0 | Analog input selection |
| | Pr74:0 | Input filter time constant |
| | Pr75:0 | Reset selection/Disconnected PU detection/PU stop selection |
| | Pr78:0 | Reverse rotation prevention selection |
| | Pr158:0 | AM terminal function selection |
| | Pr800:0 | Control method selection |
| | SP110:0 | Setting frequency (RAM, EEPROM) |
| | SP111:0 | Output frequency |
| | SP112:0 | Output current |
| | SP113:0 | Output voltage |
| | SP114:0 | Special monitor |
| | SP115:0 | Special monitor selection No. |
| | SP116:0 | Alarm all clear |
| | SP122:0 | Run command |
| | SP125:0 | Inverter reset |

5.4.2 GOT internal devices

| Type | Device No. | Application |
|------|--------------------|---|
| Bit | GB40 | Script trigger (Always ON) |
| | GB60131 | Temporary bit for forward rotation switch script |
| | GB60132 | Temporary bit for reverse rotation switch script |
| | GB60133 | Temporary bit for low-speed script switch |
| | GB60134 | Temporary bit for medium-speed script switch |
| | GB60135 | Temporary bit for high-speed script switch |
| | GB60136 | Script trigger (Forward rotation switch) |
| | GB60137 | Script trigger (Reverse rotation switch) |
| | GB60138 | Script trigger (Low-speed switch) |
| | GB60139 | Script trigger (Medium-speed switch) |
| | GB60140 | Script trigger (High-speed switch) |
| | GD60031.b13 | GOT error reset signal |
| | 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 |
| | GD61201 to GD61202 | 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 |

5.5 Comment List

| Comment group No. | Comment No. | Where comments are used |
|-------------------|------------------|-------------------------|
| 499 | No.1 to No.56 | B-30006 |
| 500 | No.1 to No.4 | B-30001 to B-30500 |
| | No.4 | W-30001 |
| | No.5, No.6 | B-30001 to B-30500 |
| | No.7 | B-30001 |
| | No.8 | B-30002 to B-30500 |
| | No.11 to No.28 | B-30002 |
| | No.29, No.30 | B-30002 to B-30500 |
| | No.31 to No.34 | B-30002 |
| | No.41 to No.56 | B-30003 |
| | No.71 to No.97 | B-30004 |
| | No.98 to No.117 | B-30005 |
| | No.121 to No.134 | B-30006 |
| | No.151 | W-30001, W-30003 |
| | No.152 to No.160 | W-30003 |
| | No.171 to No.183 | W-30004 |

5.6 Script List

| Item | Settings |
|----------------|------------------------------------|
| Project script | Specified |
| Screen script | B-30003, B-30500 |
| Object script | B-30002, B-30500, W-30003, W-30004 |

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 | | | |

5.6.2 Screen script

Base screen 30003

| | | | |
|---|---------------------|--------------|-------------|
| Script No. | 30002 | Script name | Script30002 |
| 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. | 30003 | Script name | Script30003 |
| Comment | DocumentDisplayProcessOfLastPage | | |
| Data type | Signed 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 30002

| | | | |
|---|----------------|--------------|--------------------------|
| Object (Name) | Switch | Object ID *1 | 10016 to 10020 |
| Script user ID | 1 to 5 | | |
| Data type | Unsigned BIN16 | Trigger type | Rise, GB60136 to GB60140 |
| <pre> if([b:GB60131] == ON) && ([b:GB60133] == ON){ [0-0:w:SP122] = 10; //Forward & Low Speed Operation } if([b:GB60131] == ON) && ([b:GB60134] == ON){ [0-0:w:SP122] = 18; //Forward & Medium Speed Operation } if([b:GB60131] == ON) && ([b:GB60135] == ON){ [0-0:w:SP122] = 34; //Forward & High Speed Operation } if([b:GB60132] == ON) && ([b:GB60133] == ON){ [0-0:w:SP122] = 12; //Reverse & Low Speed Operation } if([b:GB60132] == ON) && ([b:GB60134] == ON){ [0-0:w:SP122] = 20; //Reverse & Medium Speed Operation } if([b:GB60132] == ON) && ([b:GB60135] == ON){ [0-0:w:SP122] = 36; //Reverse & High Speed Operation } </pre> | | | |

Base screen 30500

| | | | |
|--|--------------|--------------|----------------|
| Object | Switch | Object ID *1 | 20018 |
| 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 | 10014 |
| 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 </pre> | | | |

```

[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; | | | |

Window screen 30004

| | | | |
|--|-------------------|--------------|----------|
| Object (Name) | Numerical display | Object ID *1 | 10005 |
| Script user ID | 1 | | |
| Data type | Signed BIN16 | Trigger type | Ordinary |
| if([0-0:w:SP115] == 6){ //Action Conditions Satisfied my.active = 1; //Enable Updates redraw_object(); //Update Objects }else{ //Action Conditions Not Satisfied my.active = 0; //Disable Updates clear_object(); //Clear Objects } | | | |
| Object (Name) | Numerical display | Object ID *1 | 10006 |
| Script user ID | 3 | | |
| Data type | Signed BIN16 | Trigger type | Ordinary |
| if([0-0:w:SP115] == 10){ //Action Conditions Satisfied my.active = 1; //Enable Updates redraw_object(); //Update Objects }else{ //Action Conditions Not Satisfied my.active = 0; //Disable Updates clear_object(); //Clear Objects } | | | |
| Object (Name) | Numerical display | Object ID *1 | 10007 |
| Script user ID | 5 | | |
| Data type | Signed BIN16 | Trigger type | Ordinary |
| if([0-0:w:SP115] == 24){ //Action Conditions Satisfied my.active = 1; //Enable Updates redraw_object(); //Update Objects }else{ //Action Conditions Not Satisfied my.active = 0; //Disable Updates clear_object(); //Clear Objects } | | | |
| Object (Name) | Numerical display | Object ID *1 | 10008 |
| Script user ID | 7 | | |
| Data type | Signed BIN16 | Trigger type | Ordinary |
| if([0-0:w:SP115] == 20){ //Action Conditions Satisfied my.active = 1; //Enable Updates redraw_object(); //Update Objects } | | | |

```
}else{           //Action Conditions Not Satisfied  
my.active = 0;   //Disable Updates  
clear_object();  //Clear Objects  
}
```

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

6. MANUAL DISPLAY

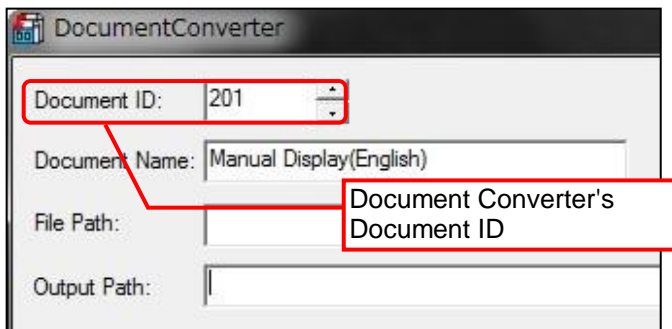
Manuals can be displayed using the document display function. For more details about the document display function, please refer to the "GT Designer3 (GOT2000) Help". Please note that the document display function does not support language switching. Therefore, in the sample screens, the language of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

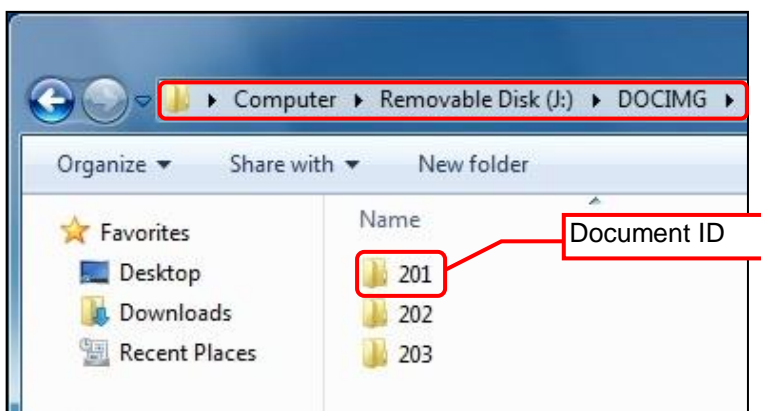
*For details of the relation between Document ID and Display language, please refer to the table below.



| 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.