Yaskawa Electric Corporation
Robot Controller YRC1000/YRC1000micro

Sample Screen Manual

Mitsubishi Electric Corporation

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Contents

REVISIONS

Sample Screen Manual

Revisions	Control No.*	Description
May 2022	BCN-P5999-1552	First edition
September 2022	BCN-P5999-1552-1b	Supported YRC1000micro.

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

Project Data

Revisions	Project Data	GT Designer3*	Description
May 2022	YASKAWA_YRC1000_V_Ver1_E.GTX	1.270G	First edition
September 2022	YASKAWA_YRC1000_V_Ver1a_E.GTX	1.280S	Supported YRC1000micro.

* 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 versions.
* Graphics mode is GOT Graphic Ver.2.

1. OUTLINE

This manual explains the sample screens for GOT2000 connected to Yaskawa Electric Robot Controller YRC1000/YRC1000micro over Ethernet. The sample screens allow monitoring and changing variables.

2. SYSTEM CONFIGURATION

2.1 Supported GOTs

Supported GOTs in the sample screens are as follows.

- GT27 model
- GT25 model
- GT SoftGOT2000

* The sample screens are created in accordance with GT27**-V (640×480).
For how to change the GOT model, refer to "GT Designer3 (GOT2000) Screen Design Manual".

2.2 Necessary Equipment

Necessary equipment to use the sample screens is as follows.

Equipment	Application	Remarks
GOT	Equipment for system configuration	-
Robot controller YRC1000/YRC1000 micro		The high-speed Ethernet server function (option) of YRC1000/YRC1000micro is required.
Manipulator *1		-
Ethernet cable		-
Power cable *2		-
SD card	Recipe function (save files)	-
	Alarm data	Stores CSV files for displaying alarm detail.
Battery (GT11-50BAT)	Clock data	Included in a GOT as standard.

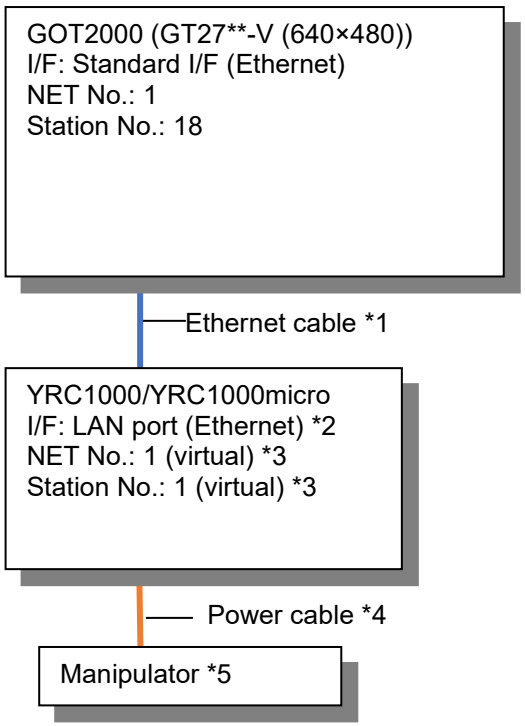
*1: For connectable manipulators, contact Yaskawa Electric Corporation.
*2: For details on the cables, contact Yaskawa Electric Corporation.

2.3 Connection Configuration

The following connection configuration is available in the sample screens.

⇒ (1) Connection with a robot controller using Ethernet

(1) Connection with a robot controller using Ethernet



*1: For details on the cable, refer to the following manual.
⇒ "GOT2000 Series Connection Manual (Non-Mitsubishi Electric Products 2) For GT Works3 Version1"

*2: The high-speed Ethernet server function (option) of YRC1000/YRC1000micro is required.
For more information, contact Yaskawa Electric Corporation.

*3: There is no setting item on the robot controller side; however, virtual values are required on the GOT side.
For how to set the virtual values, refer to the following manual.
⇒ "GOT2000 Series Connection Manual (Non-Mitsubishi Electric Products 2) For GT Works3 Version1"

*4: For details on the cable, contact Yaskawa Electric Corporation.

*5: For connectable manipulators, contact Yaskawa Electric Corporation.

3. GOT PROJECT SPECIFICATIONS

3.1 System Application

Type	System Application Name		
Standard Function	Standard System Application		
	Standard Font		Japanese
Communication Driver	Ethernet Connection	Ethernet (Yaskawa High Speed Ethernet Server), Gateway	
Extended Function	Key Window Design Information		
	Standard Font		Chinese (Simplified)
	Outline Font	Gothic	Alphanumeric/Kana
			Japanese Kanji
			Chinese (Simplified) Kanji
	Device Data Transfer		

3.2 Controller Setting

■Settings for each channel

CH	Item	Set value	Remarks
CH1	Manufacturer	Yaskawa	-
	Controller Type	Yaskawa Robot Controller	
	I/F	Ethernet: Multi	
CH2	None		-
CH3	None		-
CH4	None		-

■CH1 detail setting

Item	Set value		Remarks
GOT Net No.	1	(Default value)	Fixed value
GOT Station	18	(Default value)	-
GOT Communication Port No.	5037	(Default value)	-
Retry (Times)	3	(Default value)	-
Startup Time (Sec)	3	(Default value)	-
Timeout Time (Sec)	3	(Default value)	-
Delay Time (ms)	0	(Default value)	-

■CH1 connected Ethernet controller setting

	Host	Net No.	Station	Unit Type	IP Address	Port No.	Communication
1	*	1 (Fixed value)	1	Yaskawa(YRC1000)	192.168. 3.1	10040 (Fixed value)	UDP (Fixed value)

3.3 GOT Ethernet Setting

■GOT IP address setting

Port	Item	Set value	Remarks
Standard Port	Update GOT Ethernet Standard Port setting	Selected (Default value)	-
	GOT IP Address	192.168.3.18 (Default value)	-
	Subnet Mask	255.255.255.0 (Default value)	-
Extended Port	None		-
Wireless LAN	None		-

■GOT Ethernet common setting

Item	Set value	Remarks
Default Gateway	0.0.0.0 (Default value)	-
Peripheral S/W Communication Port No.	5015 (Default value)	-
Transparent Port No.	5014 (Default value)	-

3.4 Graphics Mode (Graphics Setting)

Graphics mode is GOT Graphic Ver.2.

3.5 Device List

Some of the devices set 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 details on [Batch Edit], refer to "GT Designer3 (GOT2000) Screen Design Manual".

3.5.1 Controller devices

Refer to "GOT2000 Series Connection Manual (Non-Mitsubishi Electric Products 2) For GT Works3 Version1".

3.5.2 GOT internal devices

■GB devices (unchangeable)

Type	Device No.	Application
Bit	GB40	Script trigger (Always ON)

■GB devices (changeable)

Type	Device No.	Application
Bit	GB30000 to GB37000	Used in the sample screens
Bit	GB65300	Used in the sample screens

■GD devices (changeable)

Type	Device No.	Application
Word	GD30000 to GD39000	Used in the sample screens
	GD65200 to GD65298	Used in the sample screen common label (GT Designer3).
	GD65300 to GD65305	Used in the sample screens

■GS devices (unchangeable)

Type	Device No.	Application
Bit	GS512.b0	Time change information
Word	GS513 to GS516	Changed time
	GS650 to GS652	Current time

■Script parts temporary device area (changeable) *1

Type	Device No.	Application
Word	PTMP600 to PTMP996	Used for script operation

*1 PTMP is a local variable that is accessible by the scripts of each script parts object.

3.5.3 Labels (GT Designer3)

■Label: No.100 Com_Label

Label name	Data type	Assigned (Device)	Application
u16_Com_CngBsDv	Unsigned BIN16	GD65200	Screen switching device (base screen)
u16_Com_CngOvrRpDv1	Unsigned BIN16	GD65201	Screen switching device (overlap window 1)
u16_Com_CngOvrRpDv2	Unsigned BIN16	GD65204	Screen switching device (overlap window 2)
u16_Com_CngOvrRpDv3	Unsigned BIN16	GD65207	Screen switching device (overlap window 3)
u16_Com_CngOvrRpDv4	Unsigned BIN16	GD65210	Screen switching device (overlap window 4)
u16_Com_CngOvrRpDv5	Unsigned BIN16	GD65213	Screen switching device (overlap window 5)
u16_Com_CngSprInpsDv1	Unsigned BIN16	GD65216	Screen switching device (superimpose window 1)
u16_Com_CngSprInpsDv2	Unsigned BIN16	GD65217	Screen switching device (superimpose window 2)
u16_Com_CngDlgDv	Unsigned BIN16	GD65218	Screen switching device (dialog window)
s16_Com_CngLngDv	Signed BIN16	GD65221	Language switching device
s16_Com_CngSytmLanDv	Signed BIN16	GD65222	System language switching device
s16_Com_StmInfRd	Signed BIN16	GD65231	System information reading device/ System Signal 1-1
s16_Com_StmInfWt	Signed BIN16	GD65241	System information writing device/ System Signal 2-1
s16_Com_StmInfWt_NtcBsDv	Signed BIN16	GD65250	Base screen No. being displayed
u16_Com_DocIDNum	Unsigned BIN16	GD65280	Document display ID
u16_Com_DocPageNum	Unsigned BIN16	GD65281	Document display page No.
u16_Com_DocStNtcDspDv	Unsigned BIN16	GD65282	Document Display status display notice device
u16_Com_DocEndPageNum	Unsigned BIN16	GD65283	Document Display final page No. notice device
u16_Com_RcpCmCntlDv	Unsigned BIN16[0..2]	GD65290	Recipe common settings external control information
u16_Com_RcpCmNtcDv	Unsigned BIN16[0..2]	GD65293	Recipe common settings external notice information
u16_Com_StChgDv	Unsigned BIN16	GD65296	Station No. switching device
u16_Com_StmAlmNumOfOccStr	Unsigned BIN16	GD65297	System alarm observation occurrence No. storage
u16_Com_BufMemUnitNumDv	Unsigned BIN16	GD65298	Buffer memory unit No. switching device

3.6 Comment

The characters of the comment group No.400 and No.500 displayed on the screen can be displayed in two languages: Japanese and English. Characters of each language are registered to Column No.1 to 2 of comment group No.400 and 500. Storing the column No. in the language switching device displays the language corresponding to the column No.

Column No.	Language
1	English
2	Japanese

Comment Group No.	Application
400	Comments peculiar to the sample screens are registered.
401	Alarm comments to be displayed on the YRC1000 are registered. The alarm codes and comment Nos. are the same. English is not supported.
402	Alarm comments to be displayed on the YRC1000micro are registered. The alarm codes and comment Nos. are the same. English is not supported.
500	Comments used commonly in the sample screens are registered.

3.7 Recipe

3.7.1 Recipe common setting

External Control Information	
External control device	Blank
Recipe No. storage device	Blank
Record No. storage device	Blank
External Notice Information	
External notice device	$Com_Label:u16_Com_RcpCmNtcDv[0]
Recipe No. notice device	Assigned to device obtained by external notice device + 1.
Record No. notice device	Assigned to device obtained by external notice device + 2.

3.7.2 Recipe

Recipe No.	Application
30001	The time and alarm setting status acquired on the Preventive Maintenance screen are saved.
30002	The information set on the system setting screen is saved.

3.8 Device Data Transfer

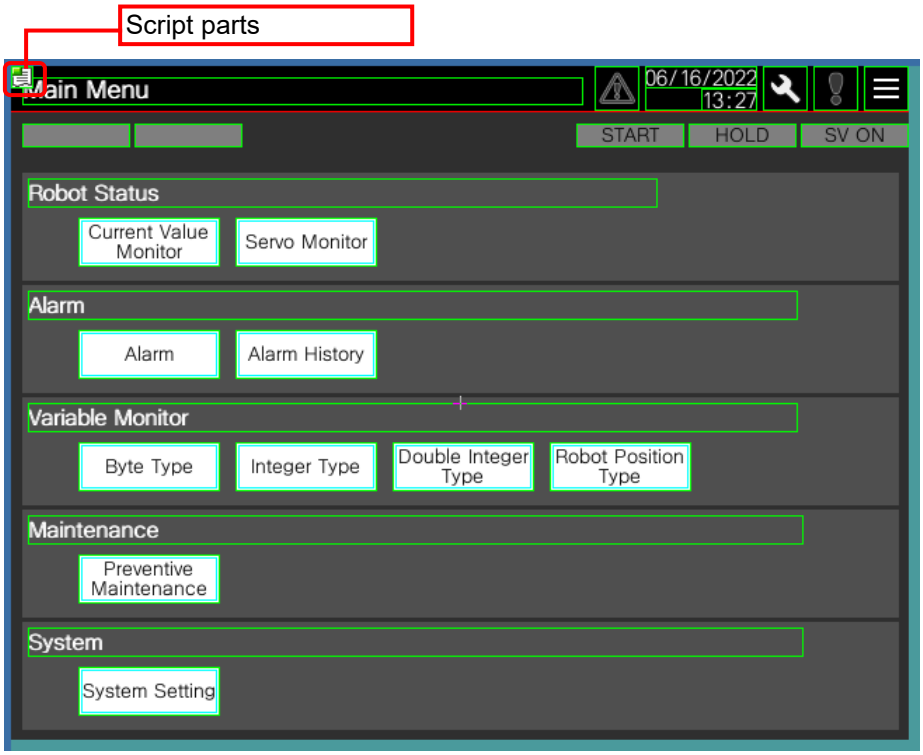
ID	Application
201	Obtains and writes data for robot position type variables.
202	Writes the parameters after changing the data type.

3.9 Script

Item	Script No./Object ID	Setting Screen
Project script	Script No.30001	-
Screen script	Script No.30101	B-30100 to 30103, B-30110 to 30113, B-30120 to 30122, B-30130 to 30132
Object script	Not available	-
Script symbol	Available	-
Script parts	Available (Placed on the upper left of each screen)	B-30000, B-30100 to 30103, B-30110 to 30113, B-30120 to 30122, B-30130 to 30132, B-30200 to 30201, B-30300 to 30303, B-30400, B-31000, B-31010, B-32000
Script parts symbol	Available	B-31000

■Position of Script Parts

Example: Main Menu (B-30000)



4. ROBOT CONTROLLER

Set the IP address and subnet mask using a programming pendant.

■LAN interface setting

Item	Description
IP Address	IP address on the robot controller *1
Subnet Mask	Subnet mask on the robot controller

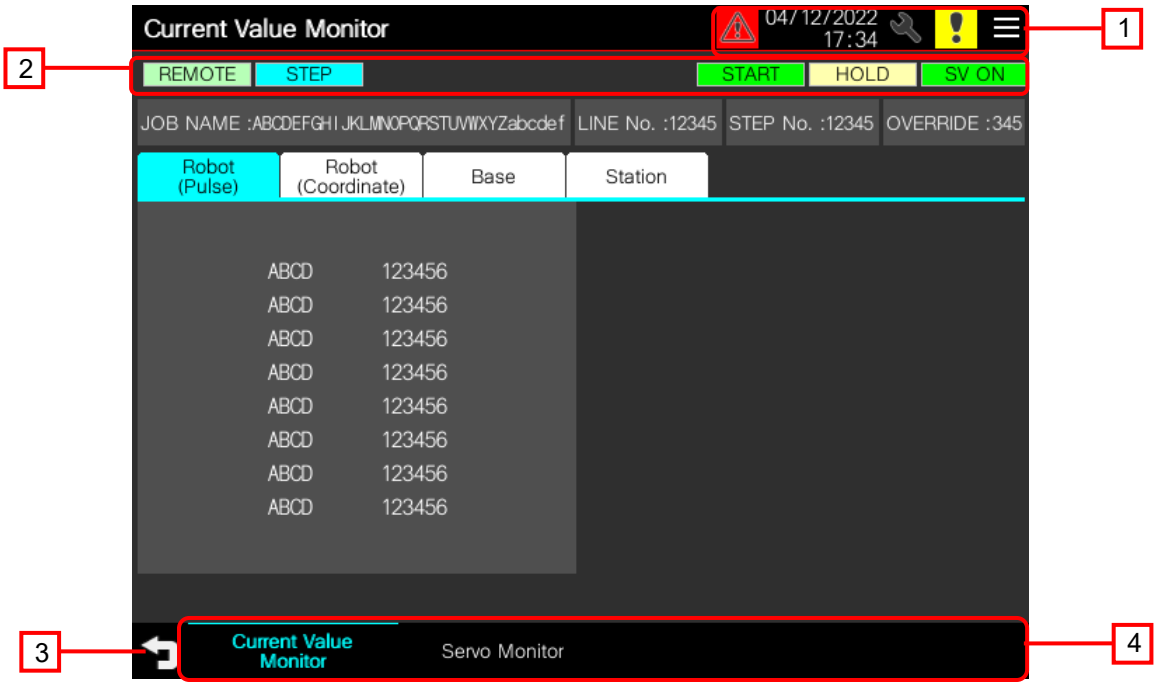
*1 Set the same setting as the one on the GOT.

5. SCREEN SPECIFICATIONS

5.1 Screen Specifications

This section explains the details of the sample screens.

5.1.1 Common items on each screen



Outline

Functions and settings common to each screen are described.

Description

1. The behavior of each item is as follows.

 : Notifies the occurrence of alarms and errors of connected devices. It lights red when an alarm or error occurs. Touch to display the Alarm screen.

 : Displays the current date and time. Touch to open the Option Setting screen.

 : Touch to display the Option Setting screen.

 : Notifies the system alarm occurred in the GOT. It lights yellow when an alarm occurs. Touch to display the System Alarm (GOT) screen.

 : Display the Main Menu screen.

2. Displays the status of YRC1000/YRC1000micro.

REMOTE : Switches to REMOTE, PLAY, and TEACH.

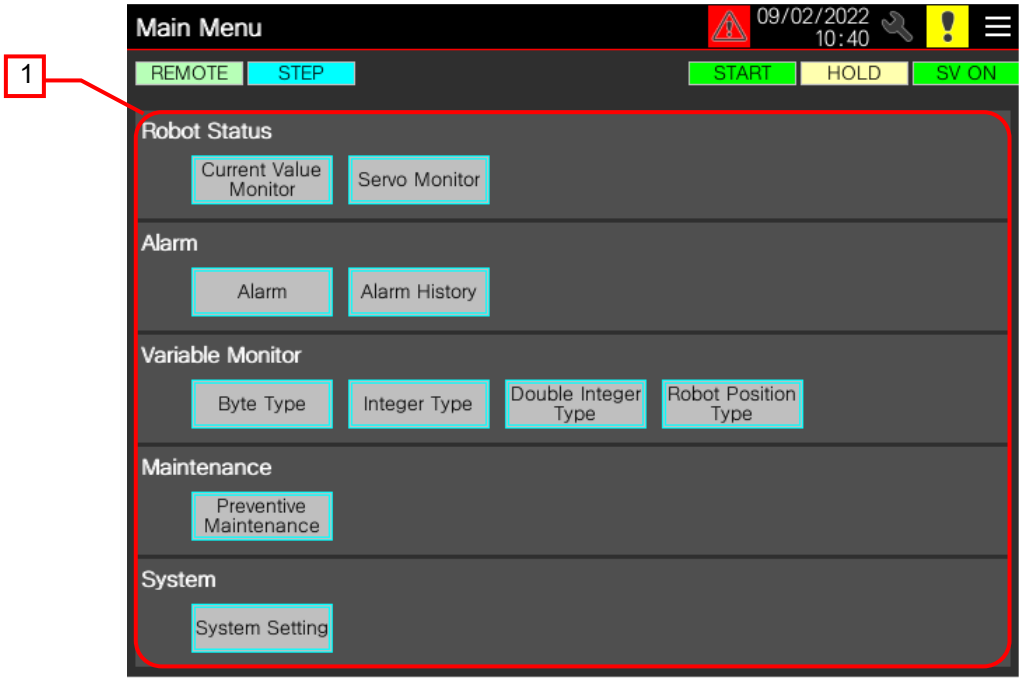
STEP : Switches to STEP, 1 CYCLE, and AUTO.

Other than above : When each status turns ON, the lamp lights up.

3. Displays the previously displayed screen.
4. Display each screen. A switch with a light blue text indicates that the screen is currently displayed.

Remarks

5.1.2 Main Menu (B-30000)



Outline

Each function screen is displayed from this screen. This screen is displayed when starting a sample screen.

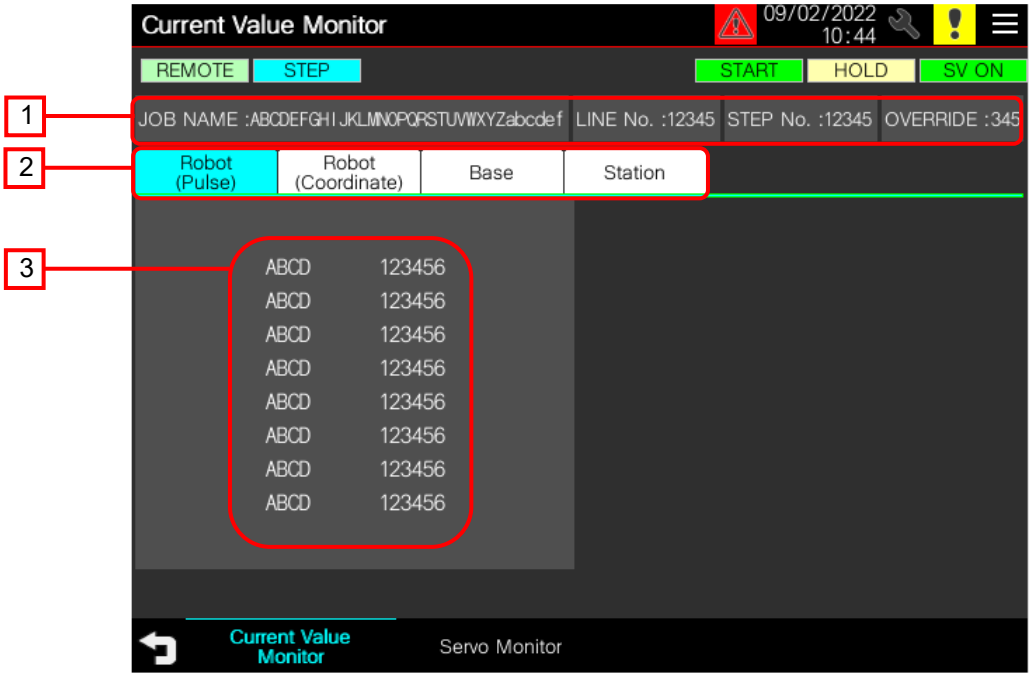
Description

1. Touch the switch to display each screen.
   The switch is grayed out and cannot be operated while reading the System Setting and Preventive Maintenance recipe files.

Remarks

- When this screen is displayed for the first time, the Preventive Maintenance Setting and the System Setting are read from the recipe file. Screen transition is not possible until reading of the recipe file is completed. For the content of the recipe file, refer to "3.7 Recipe".

5.1.3 Current Value (Pulse/Base/Station) (B-30100, B-30102 to 30103)



Outline

This screen displays the position data of the robot.

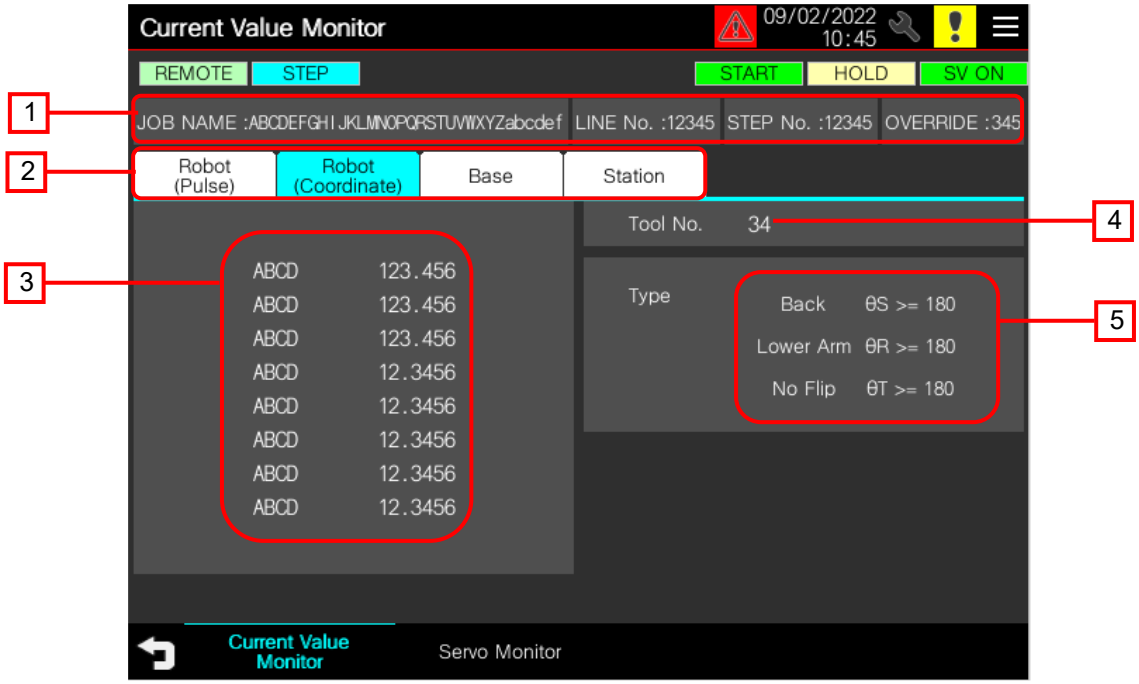
Description

1. Displays the job that is running.
2. Touch to switch the screen displayed on the Current Value Monitor. A light blue switch indicates that the screen is currently displayed. "Base" and "Station" are displayed only when Robot Struct Base and Robot Struct Station are ON in the System Setting (B-30500).
3. Displays the pulses of each axis. An axis that does not have a name will be hidden.

Remarks

- This screen is displayed when Robot Type Setting (Dual-arm) is OFF in the System Setting (B-30500).

5.1.4 Current Value (Coord) (B-30101)



Outline

This screen displays the position data of the robot.

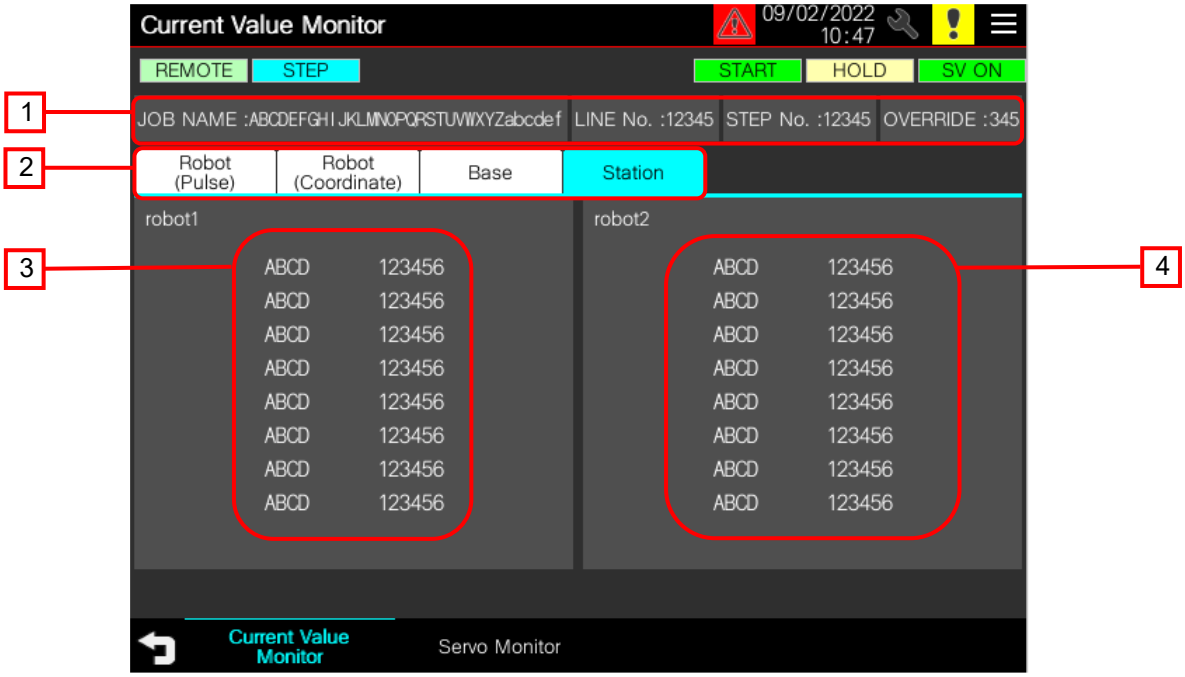
Description

1. Displays the job that is running.
2. Touch to switch the screen displayed on the Current Value Monitor. A light blue switch indicates that the screen is currently displayed. "Base" and "Station" are displayed only when Robot Struct Base and Robot Struct Station are ON in the System Setting (B-30500).
3. Displays the coordinate of each axis. An axis that does not have a name will be hidden.
4. Displays the tool No.
5. Displays the type.

Remarks

- This screen is displayed when Robot Type Setting (Dual-arm) is OFF in the System Setting (B-30500).

5.1.5 Current Value (Pulse/Base/Station) Dual-arm (B-30110, B-30112 to 30113)



Outline

This screen displays the position data of Robot1 and Robot 2.

Description

1. Displays the job that is running.
2. Touch to switch the screen displayed on the Current Value Monitor. A light blue switch indicates that the screen is currently displayed. "Base" and "Station" are displayed only when Robot Struct Base and Robot Struct Station are ON in the System Setting (B-30500).
3. Displays the pulses of each axis of Robot 1. An axis that does not have a name will be hidden.
4. Displays the pulses of each axis of Robot 2. An axis that does not have a name will be hidden.

Remarks

- This screen is displayed when Robot Type Setting (Dual-arm) is ON in the System Setting (B-30500).

5.1.6 Current Value (Coord) Dual-arm (B-30111)

Outline

This screen displays the position data of Robot1 and Robot 2.

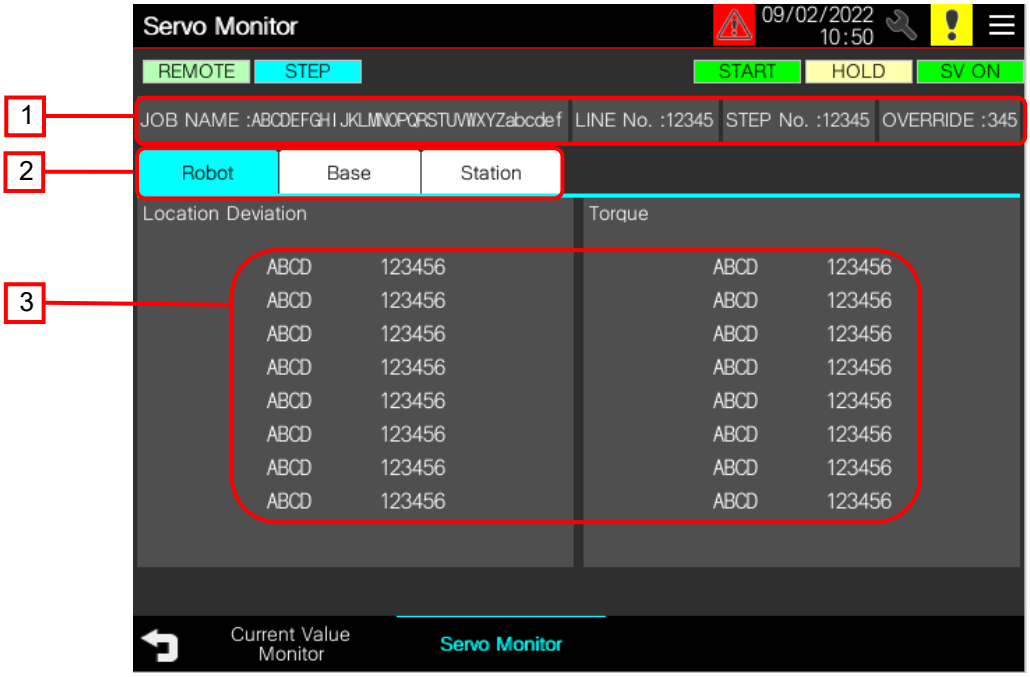
Description

1. Displays the job that is running.
2. Touch to switch the screen displayed on the Current Value Monitor. A switch light blue with indicates that the screen is currently displayed. "Base" and "Station" are displayed only when Robot Struct Base and Robot Struct Station are ON in the System Setting (B-30500).
3. Displays the following information on Robot 1.
   Displays the coordinate of each axis. An axis that does not have a name will be hidden.
   Displays the tool No.
   Displays the type.
4. Displays the following information on Robot 2.
   Displays the coordinate of each axis. An axis that does not have a name will be hidden.
   Displays the tool No.
   Displays the type.

Remarks

- This screen is displayed when Robot Type Setting (Dual-arm) is ON in the System Setting (B-30500).

5.1.7 Servo Monitor (Robot/Base/Station) (B-30120 to 30122)



Outline

This screen displays the servo information.

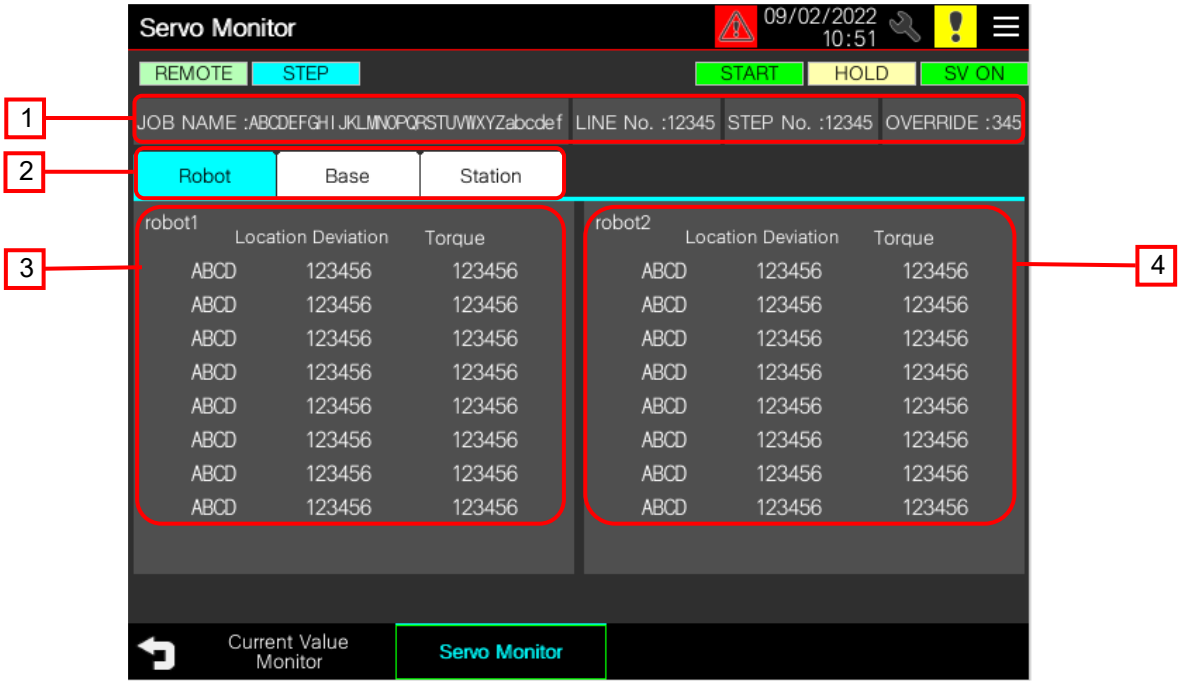
Description

1. Displays the job that is running.
2. Touch to switch the screen displayed on the Current Value Monitor. A light blue switch indicates that the screen is currently displayed. "Base" and "Station" are displayed only when Robot Struct Base and Robot Struct Station are ON in the System Setting (B-30500).
3. Displays the location deviation and torque of each axis. An axis that does not have a name will be hidden.

Remarks

- This screen is displayed when Robot Type Setting (Dual-arm) is OFF in the System Setting (B-30500).

5.1.8 Servo Monitor (Robot/Base/Station) Dual-arm (B-30130 to30132)



Outline

This screen displays the servo information of Robot 1 and Robot 2.

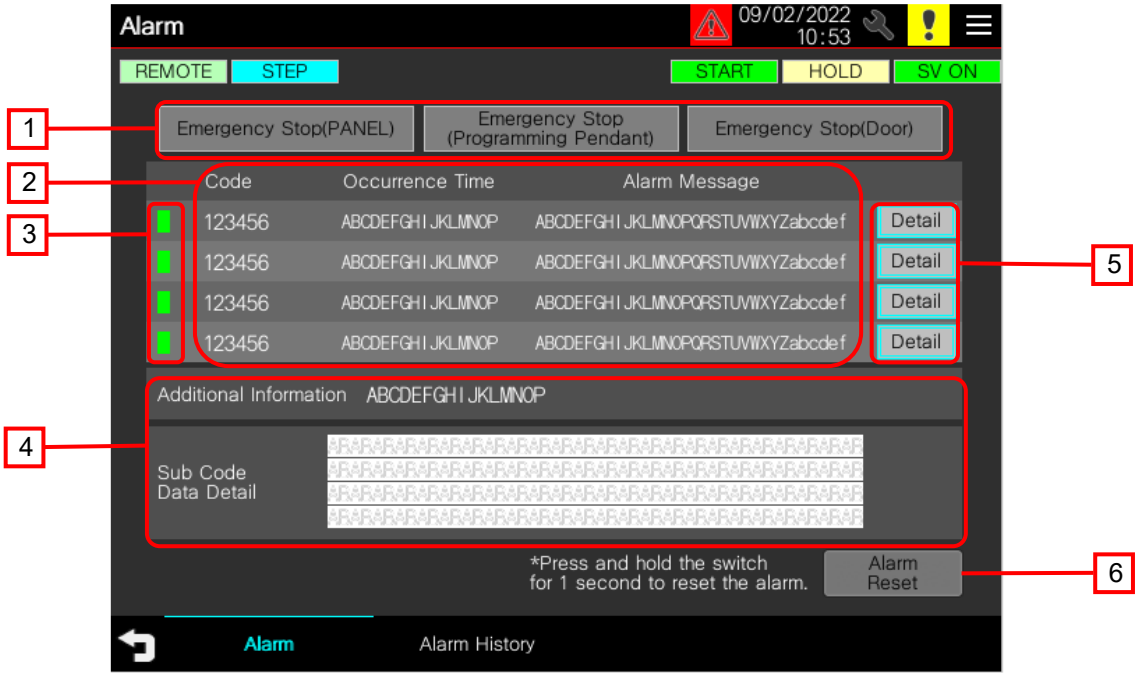
Description

1. Displays the job that is running.
2. Touch to switch the screen displayed on the Current Value Monitor. A light blue switch indicates that the screen is currently being displayed. "Base" and "Station" are displayed only when Robot Struct Base and Robot Struct Station are ON in the System Setting (B-30500).
3. Displays the location deviation and torque of each axis of Robot 1. An axis that does not have a name will be hidden.
4. Displays the location deviation and torque of each axis of Robot 2. An axis that does not have a name will be hidden.

Remarks

- This screen is displayed when Robot Type Setting (Dual-arm) is ON in the System Setting (B-30500).

5.1.9 Alarm (B-30200)



Outline

This screen displays alarms.

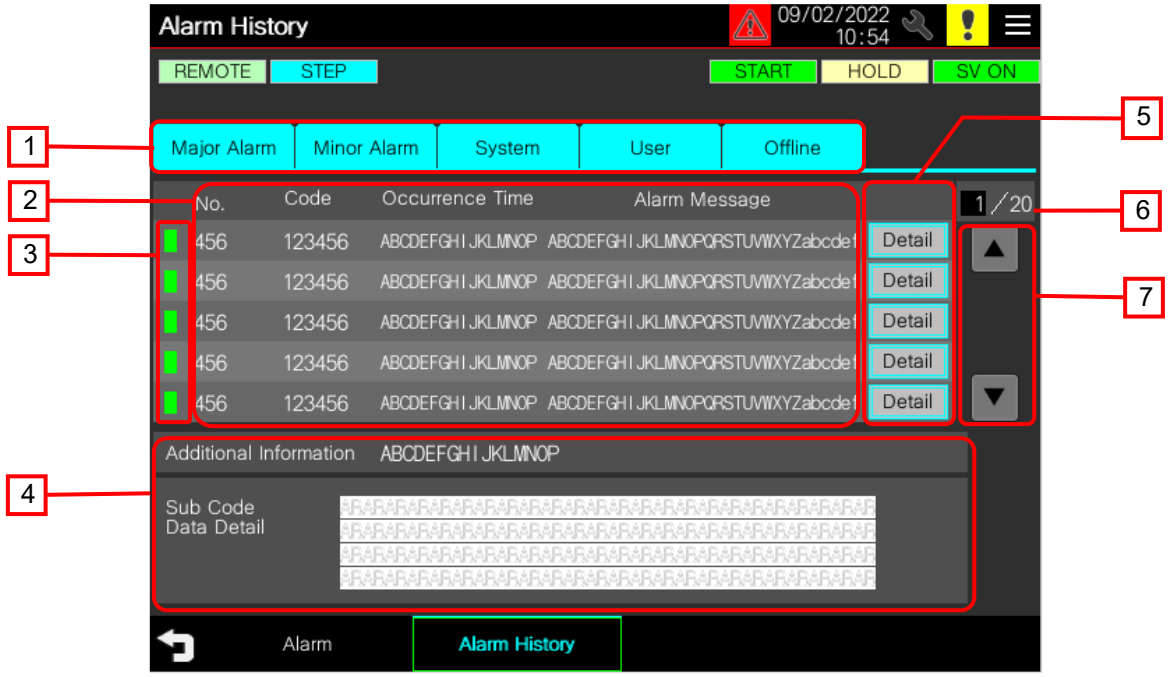
Description

1. Displays the statuses of each emergency stop switch.
   For YRC1000micro, "Emergency Stop (Door)" is not displayed.
2. Displays the alarms that are occurring. Up to four alarms are displayed.
3. Indicates which row is currently selected.
4. Displays the additional information of the sub code and its details. Displays the current alarm information. Touch an alarm to display the alarm information.
5. Switches to the Alarm Detail (B-31000) screen. Touch the Detail switch to display detailed information on the alarm code. The switch is available only when the display language of the sample screen is "Japanese".
6. Resets the alarms that are occurring. Press and hold the switch for one second to reset.

Remarks

- Open the sample screen in the same language as YRC1000/YRC1000micro. Otherwise, the alarm message may not be displayed correctly.

5.1.10 Alarm History (B-30201)



Outline

This screen displays the alarm history.

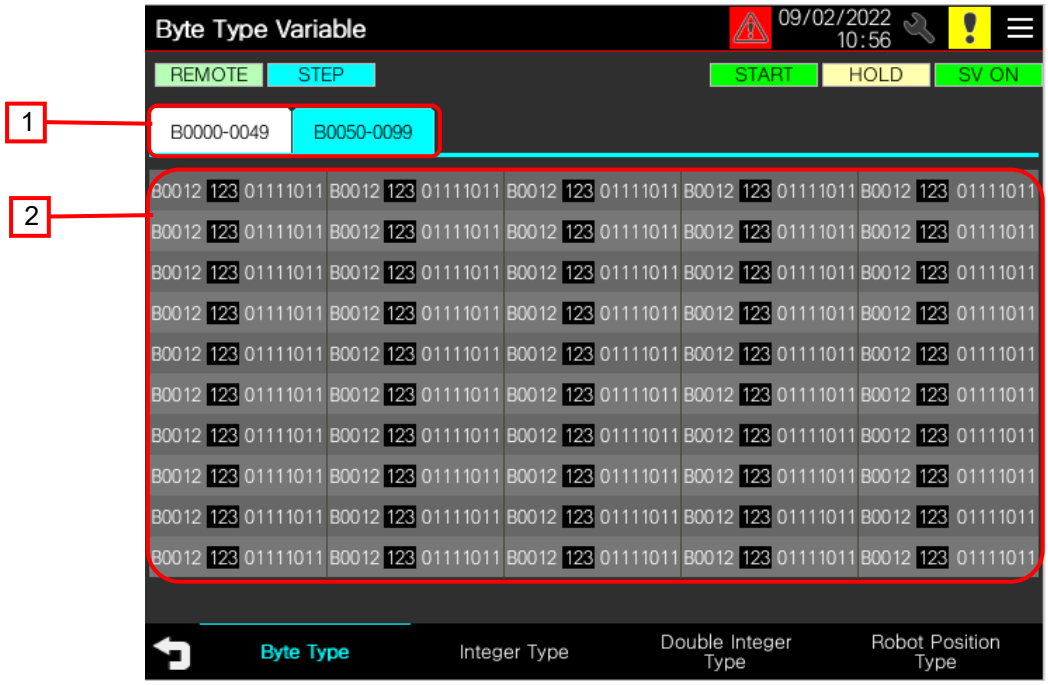
Description

1. Touch to switch the alarm to display in the Alarm History. A light blue switch indicates that the alarm is currently displayed.
2. Displays the alarm history. Up to five items can be displayed on one screen.
3. Indicates which row is currently selected.
4. Displays the additional information of the sub code and its details. Displays the alarm information at the top of the displayed alarm history. Touch the alarm history to display the alarm information.
5. Switches to the Alarm Detail (B-31000) screen. Displays the detailed information based on the alarm code of the touched line. The switches are available only when the display language of the sample screen is "Japanese". Additionally, the switches are not available in "System" and "User".
6. Indicates the page No. of the alarm history. Enter a number to switch pages.
7. Switches the items of the alarm history every five items. Up to 100 items can be switched.

Remarks

- Open the sample screen in the same language as YRC1000/YRC1000micro. Otherwise, the alarm message may not be displayed correctly.

5.1.11 Byte Type Variable (B-30300)



Outline

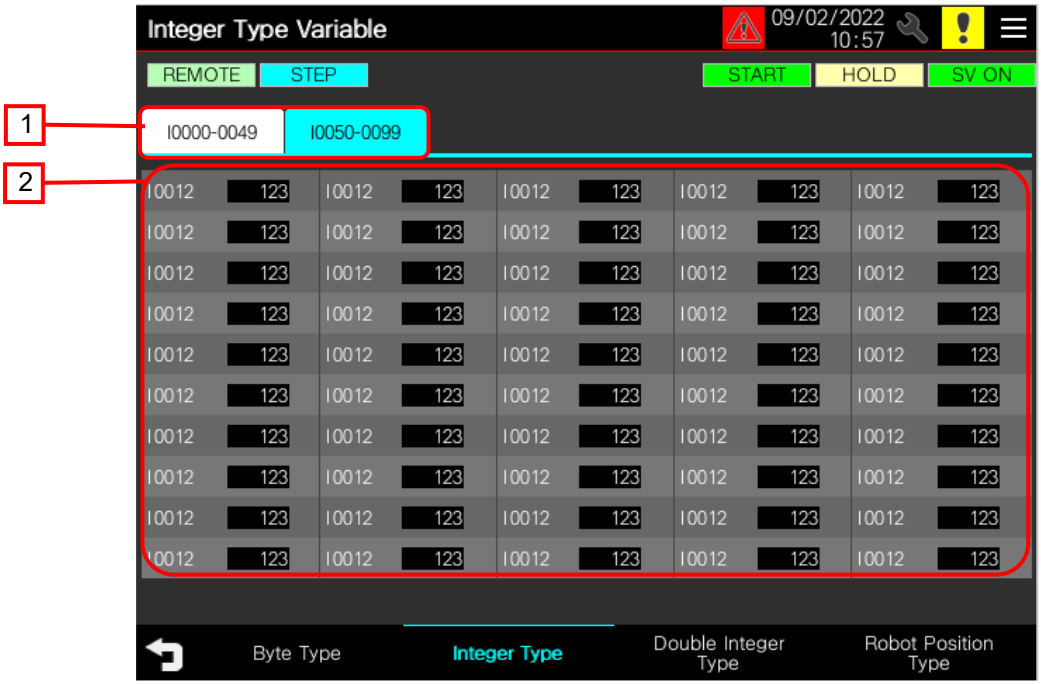
This screen allows setting byte type variables.

Description

1. Touch to switch the variable area to be displayed. A light blue switch indicates that the variable area is currently displayed.
2. Set byte type variables. The available range is 0 to 255.
   The value of a byte type variable is converted to binary.

Remarks

5.1.12 Integer Type Variable (B-30301)



Outline

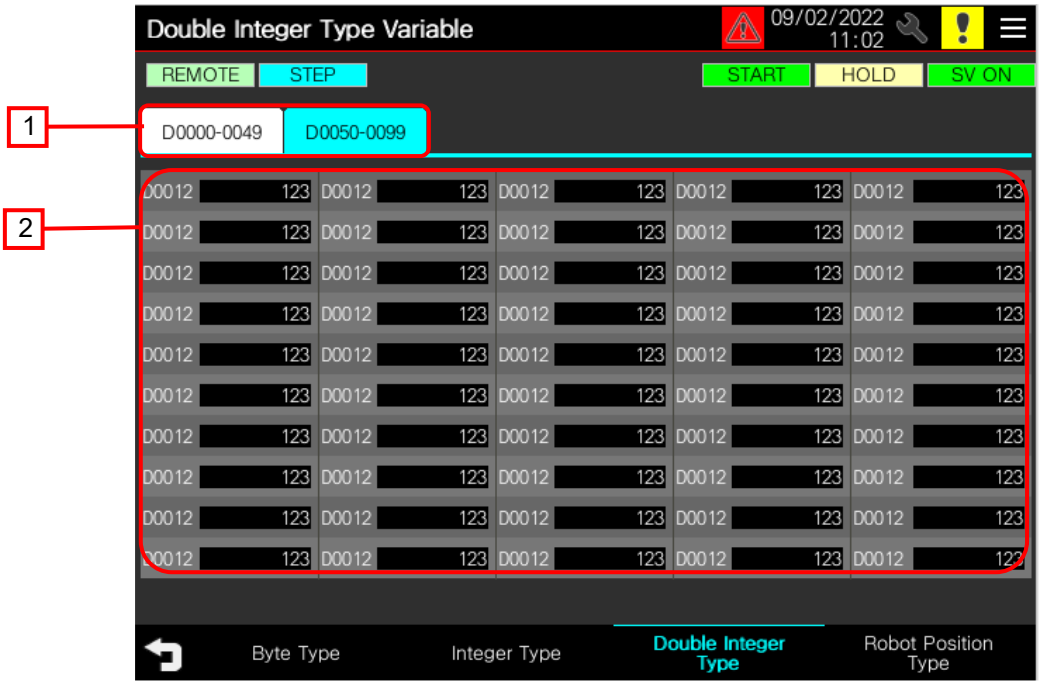
This screen allows setting integer type variables.

Description

1. Touch to switch the variable area to be displayed. A light blue switch indicates that the variable area is currently displayed.
2. Set integer type variables. The available range is -32768 to 32767.

Remarks

5.1.13 Double Integer Type Variable (B-30302)



Outline

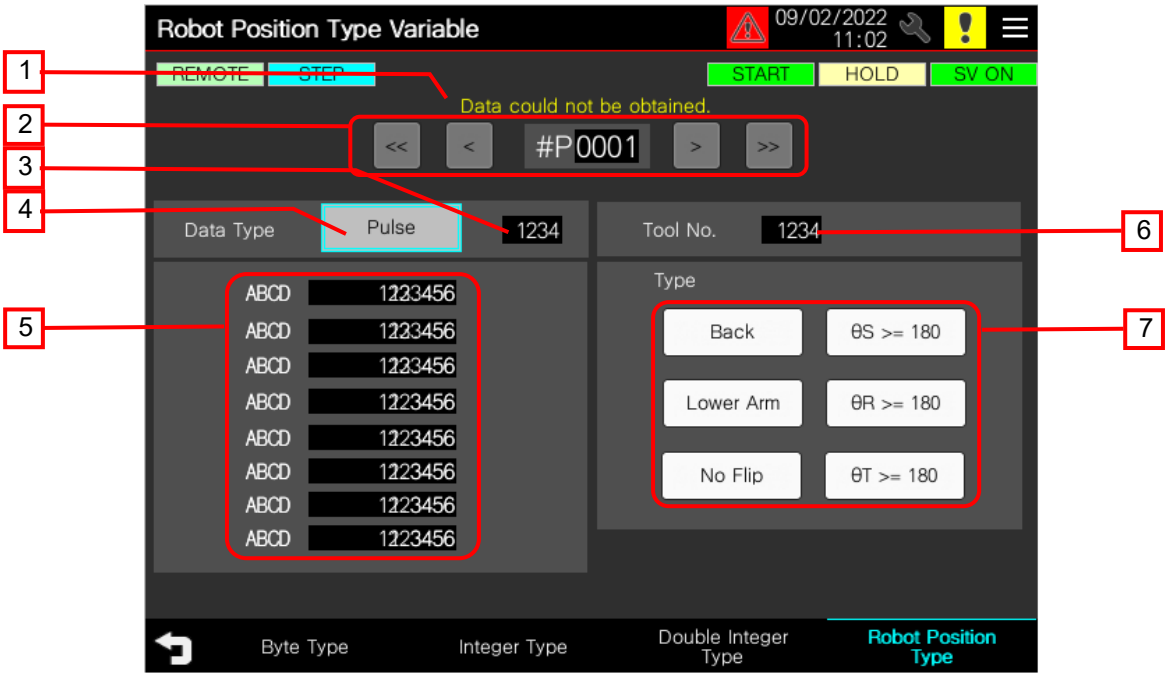
This screen allows setting double integer type variables.

Description

1. Touch to switch the variable area to be displayed. A light blue switch indicates that the variable area is currently displayed.
2. Set double integer type variables. The available range is -2147483648 to 2147483647.

Remarks

5.1.14 Robot Position Type Variable (B-30303)



Outline

This screen allows setting robot position type variables.

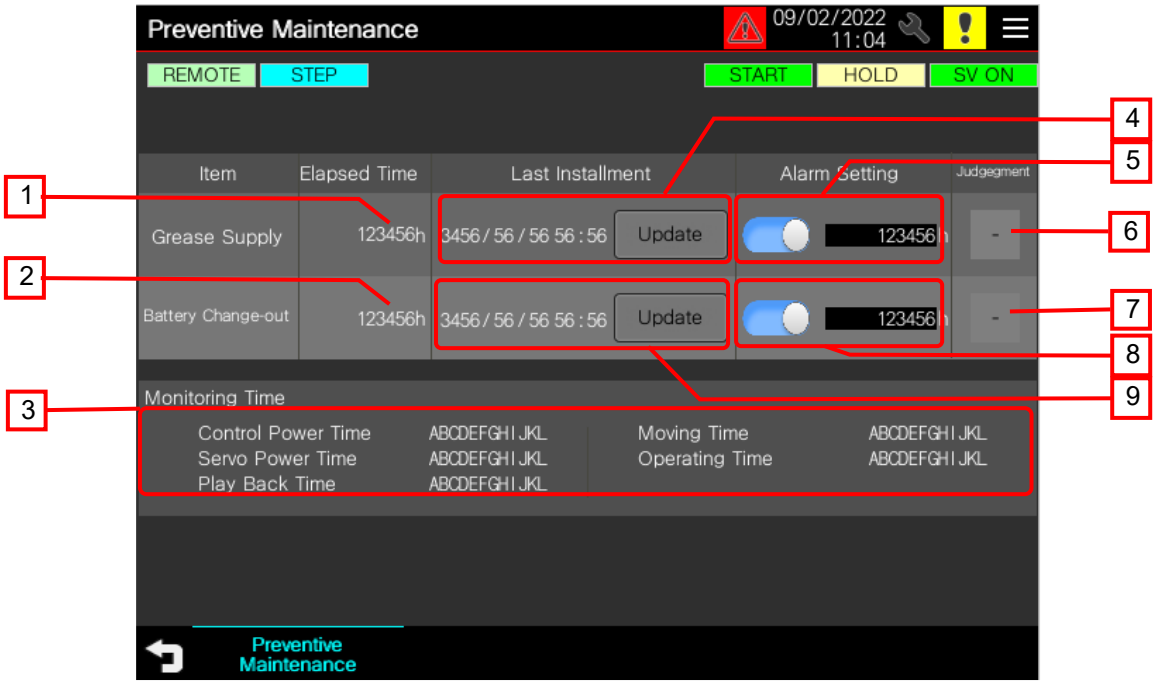
Description

1. Displays a warning when the robot position type variable cannot be obtained.
   Normal: Blank
   Error: "Data could not be obtained."
2. Specify the No. of the robot position type variable to be set. The available range is 0 to 127.
   [<<]/[>>] switch increments/decrements the variable number by 10.
   [<]/[>] switch increments/decrements the variable number by 1.
3. Set the user coordinate number. It displays only when the data type is "User".
   The available range is 1 to 63.
4. Switches to the Change Data Type screen (B-31010).
5. Set pulse values or coordinate values. An axis that does not have a name will be hidden
   Depending on the data type, the pulse value and coordinate value are switched.
   Available range for pulse: -2147483648 to 2147483647
   Available ranges for other than pulse: Decimal three digits: -99999.998 to 99999.998
   Decimal four digits: -180.0000 to 180.0000
6. Set a tool No. The available range is 0 to 63.
7. Set the type. Touch the item to switch the setting items.

Remarks

- If a variable number with no data type is specified, a GOT error will occur.

5.1.15 Preventive Maintenance (B-30400)



Outline

This screen displays information about grease replenishment and battery replacement, as well as settings and management time.

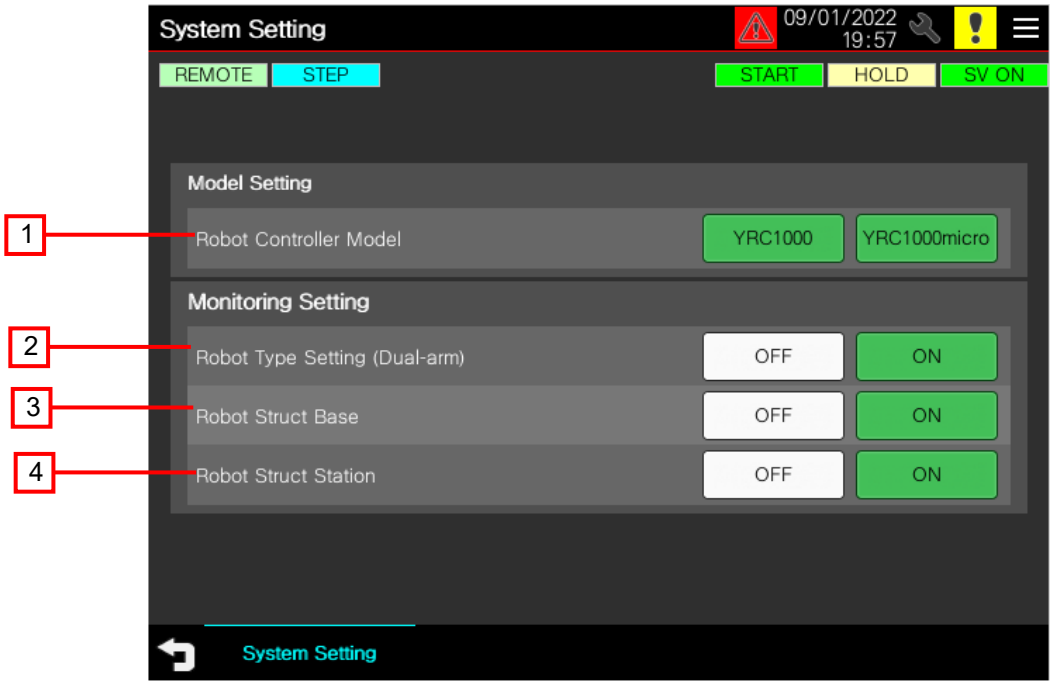
Description

1. Displays the time elapsed from the date of the last grease replenishment in hours on the basis of the clock in the GOT.
   If the last implementation date is not stored, '0' is displayed in "Elapsed Time".
2. Displays the time elapsed from the date of the last battery replacement in hours on the basis of the clock in the GOT.
   If the last implementation date is not stored, '0' is displayed in "Elapsed Time".
3. Displays various monitoring times.
4. Displays the last grease replenishment date and time. By pressing and holding "Update" for two seconds, the previous implementation date will be updated according to the clock in the GOT.
5. Switches ON/OFF of the function that issues an alarm according to the elapsed time since the last grease replenishment. The initial value is OFF.
   Set an alarm value for grease replenishment alarm setting. The available range is 0 to 10000000.
6. Determines the state by comparing the elapsed time since the last grease replenishment with the alarm value.
   When the alarm value is not exceeded: [OK]
   When the alarm value is exceeded: [NG]
   When the alarm setting is not valid :[-]
7. Determines the status by comparing the elapsed time since the last battery replacement with the alarm value.
   When the alarm value is not exceeded: [OK]
   When the alarm value is exceeded: [NG]
   When the alarm setting is not valid :[-]
8. Switches ON/OFF of the function that issues an alarm according to the elapsed time since the last battery replacement. The initial value is OFF.
   Set an alarm value for battery replacement alarm setting. The available range is 0 to 10000000.
9. Displays the date and time when the battery was last replaced. By pressing and holding "Update" for two seconds, the previous implementation date will be updated according to the clock in the GOT.

Remarks

- If you change the settings in "Last Installment" or "Alarm Setting", the changes will be saved in the recipe file. When the Main Menu screen (B-30000) is displayed for the first time after restarting the GOT, it is read from the recipe file (retention at power failure). For the content of the recipe file, refer to "3.7 Recipe".

5.1.16 System Setting (B-30500)



Outline

This screen allows making settings related to the monitoring of the sample screens.

Description

1. Set the robot controller model. The initial value is YRC1000.
2. For a dual-arm robot, turn ON the setting. The initial value is OFF.
3. When using a base, turn ON the setting. The initial value is OFF.
4. When using a station, turn ON the setting. The initial value is OFF.

Remarks

- When you change the settings of each item, the changes will be saved in the recipe file.
  When the Main Menu screen (B-30000) is displayed for the first time after restarting the GOT, it is read from the recipe file (retention at power failure). For the content of the recipe file, refer to "3.7 Recipe".

5.1.17 Alarm Detail (B-31000)

Outline

This screen displays the details of the alarm.

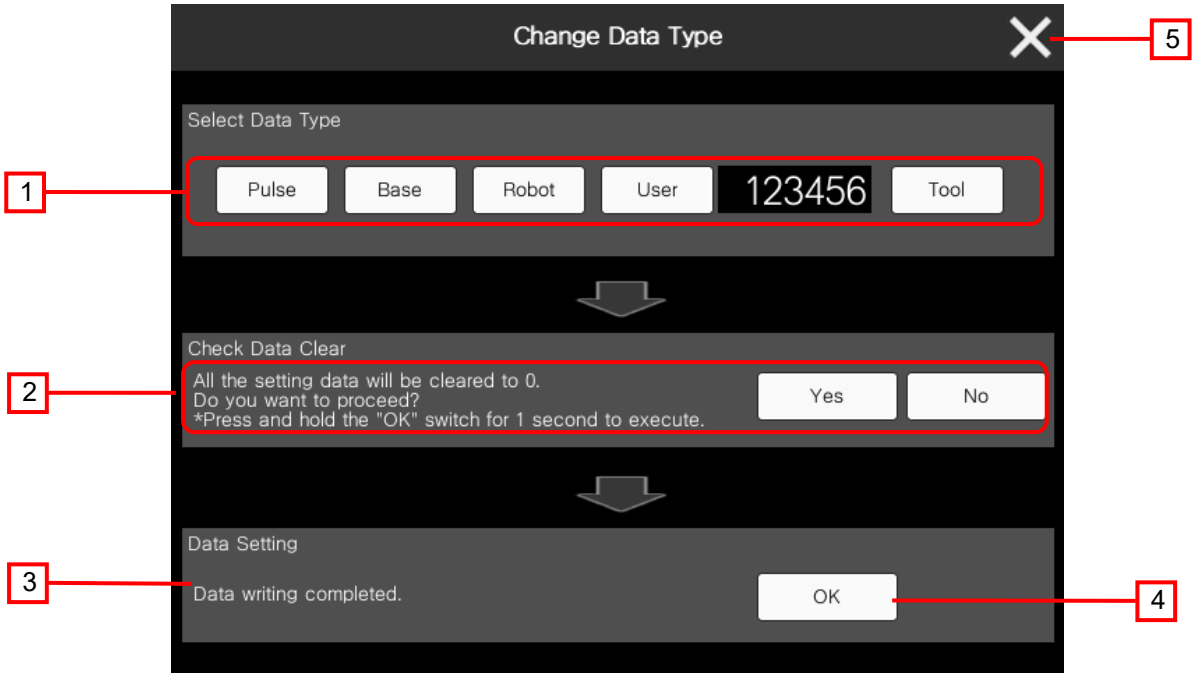
Description

1. Displays the alarm details for the row where the "Detail" switch is selected on the Alarm screen or Alarm History screen.
2. Displays the details of the alarm. Press [▲] or [▼] switch to switch the display line by line.
3. Displays the cause of the alarm. Press [<] or [>] switch to switch the cause.
4. Displays countermeasures against the alarm. Press [▲] or [▼] switch to switch the display line by line.
5. Displays the previously displayed screen.

Remarks

- When a system alarm occurs, an alarm message is displayed at the bottom of the screen.
  Touch the left edge of the message to switch the display position in the order of the top of the screen, the center of the screen, and the bottom of the screen. Touch any other area to display the Alarm Reset window.
- On this screen, the alarm details information is read from the CSV file. Therefore, if the CSV file is not stored in the SD card, it will not work properly. For more information, refer to "7.1 CSV File Used in the Alarm Detail Screen".

5.1.18 Change Data Type (B-31010)



Outline

This screen allows changing the data type setting.

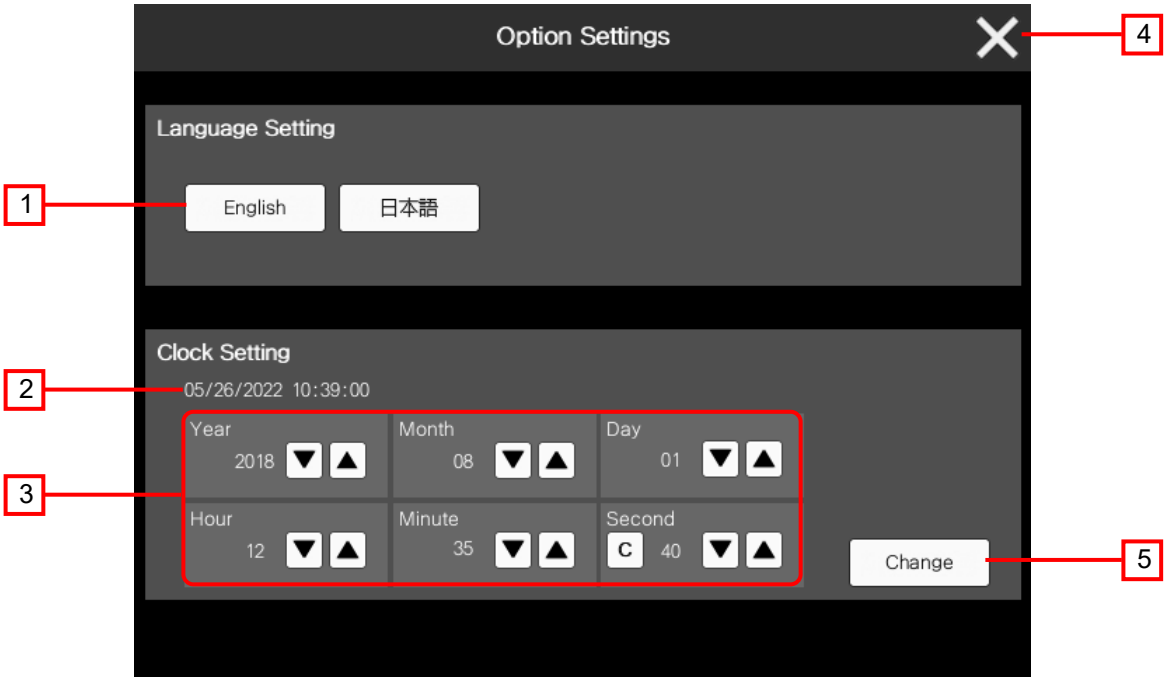
Description

1. Select a data type. The selected data type lights green. If you select "User", set the user number as well. The available range of the user number is 1 to 63.
2. When changing the data type, you are prompted to check whether all the setting values are set to '0'. When "Yes" is selected, '0' is written. Press and hold the switch for one second. When "No" is selected, the screen is switched to the Robot Position Type Variable screen (B-30303).
3. Displays the data writing status. Successful: Data writing completed. Failed: Data writing failed.
4. Touch the switch to return to the Robot Position Type Variable screen (B-30303).
5. Displays the previously displayed screen.

Remarks

- When a system alarm occurs, an alarm message is displayed at the bottom of the screen. Touch the left edge of the message to switch the display position in the order of the top of the screen, the center of the screen, and the bottom of the screen. Touch any other area to display the Alarm Reset window.

5.1.19 Option Setting (B-32000)



Outline

This screen allows changing the language displayed on the GOT and the GOT clock data.

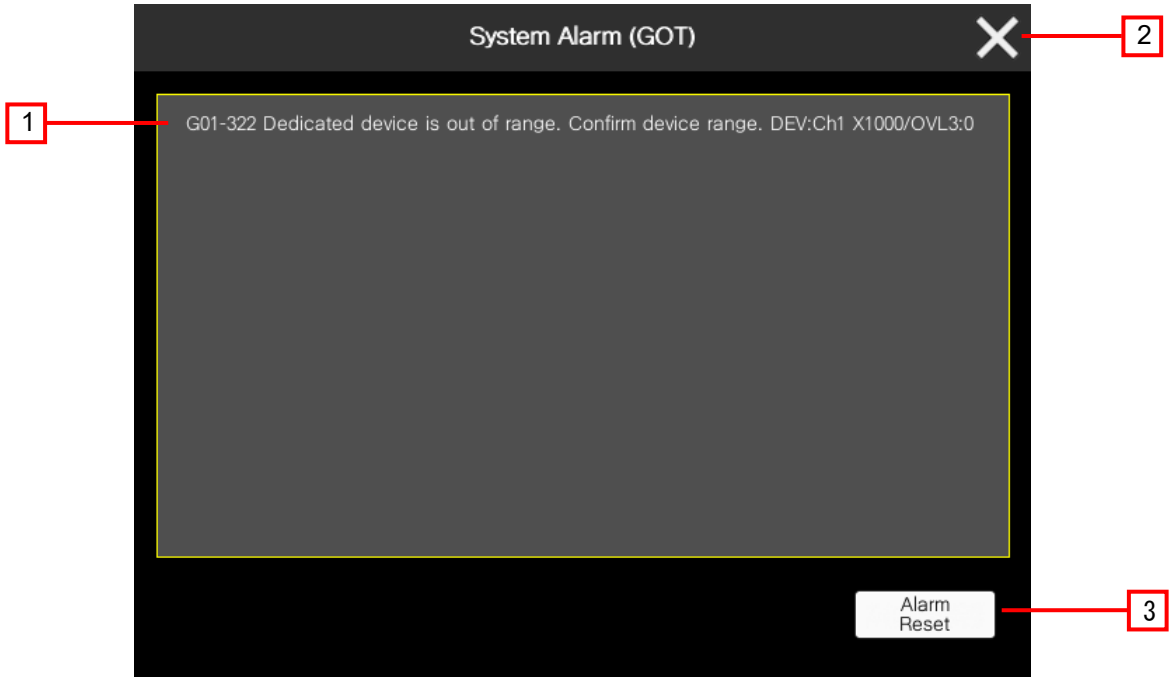
Description

1. Switches the display language.
2. Displays the current date and time.
3. Touch [▲] or [▼] switch to change the date and time. Press and hold [▲] or [▼] switch to continuously increase or decrease the value.
   Touch [c] switch to set the seconds to "0".
4. Displays the previously displayed screen.
5. Reflects the set date and time in the GOT clock data.

Remarks

- When a system alarm occurs, an alarm message is displayed at the bottom of the screen.
  Touch the left edge of the message to switch the display position in the order of the top of the screen, the center of the screen, and the bottom of the screen. Touch any other area to display the Alarm Reset window.

5.1.20 System Alarm (GOT) (B-32001)



Outline

This screen displays the system alarms currently occurring on GOT.

Description

1. Displays up to 12 system alarms that are occurring.
   Touch the system alarm to scroll the text left.
2. Displays the previously displayed screen.
3. Resets the system alarms that are currently occurring.

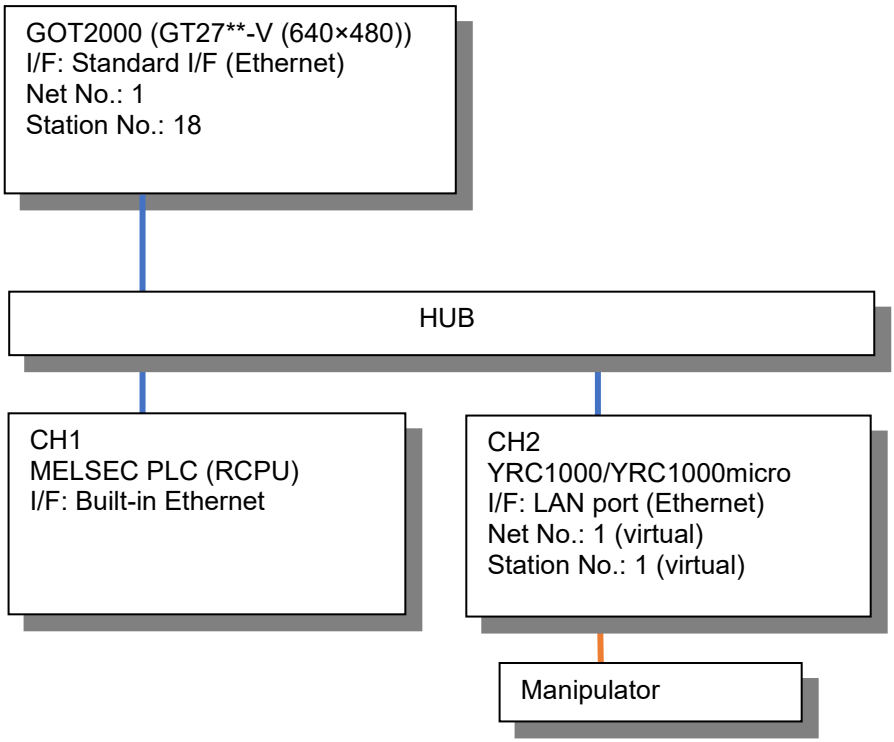
Remarks

- When a system alarm occurs, an alarm message is displayed at the bottom of the screen.
  Touch the left edge of the message to switch the display position in the order of the top of the screen, the center of the screen, and the bottom of the screen. Touch any other area to display the Alarm Reset window.

6. UTILIZE SAMPLE SCREENS

This section explains how to incorporate (hereafter utilize) the sample screens in your project data in the system configuration below When utilizing the sample screens, apply your system configuration to this system configuration.

Example: When utilizing the sample screens as the connected controller CH2 to your project data in which RCPU is set for the connected controller CH1.



6.1 Checks Before Utilization

Check and perform the items below before utilizing the sample screens.

(1) Backup

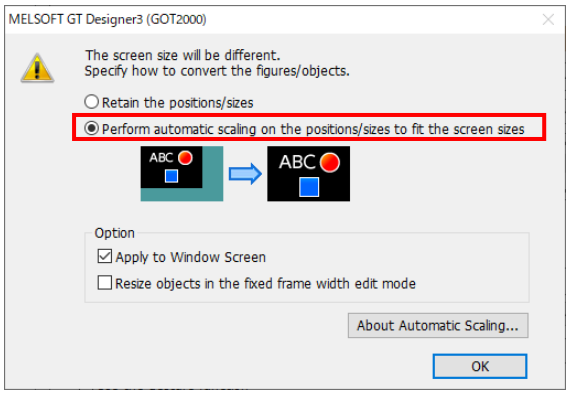
The settings of your project data are changed by utilizing the sample screens.
Be sure to back up your project data before utilizing the sample screens.

(2) Change GOT internal devices

GOT internal devices are used in the sample screens.
If the range of the GOT internal devices is overlapped, refer to "3.5 Device List" to modify the range on the sample screens or your project data.

(3) Change the resolution

The resolution of the sample screens is VGA.
Change the resolution of the sample screens in accordance with your GOT.
Select [Perform automatic scaling on the positions/sizes to fit the screen sizes] to automatically adjust the size of switches etc. in accordance with the resolution of the GOT.
For how to change the GOT model, refer to "GT Designer3 (GOT2000) Screen Design Manual".



6.2 Utilization Procedure

After performing "6.1 Checks Before Utilization", utilize the sample screens in accordance with the following procedure.

(1) Open the sample screen.
Customers who have installed the sample screens from the installer of GT Works3 *1 [soon available]
⇒ "6.2.1 How to open the sample screen installed to GT Designer 3"

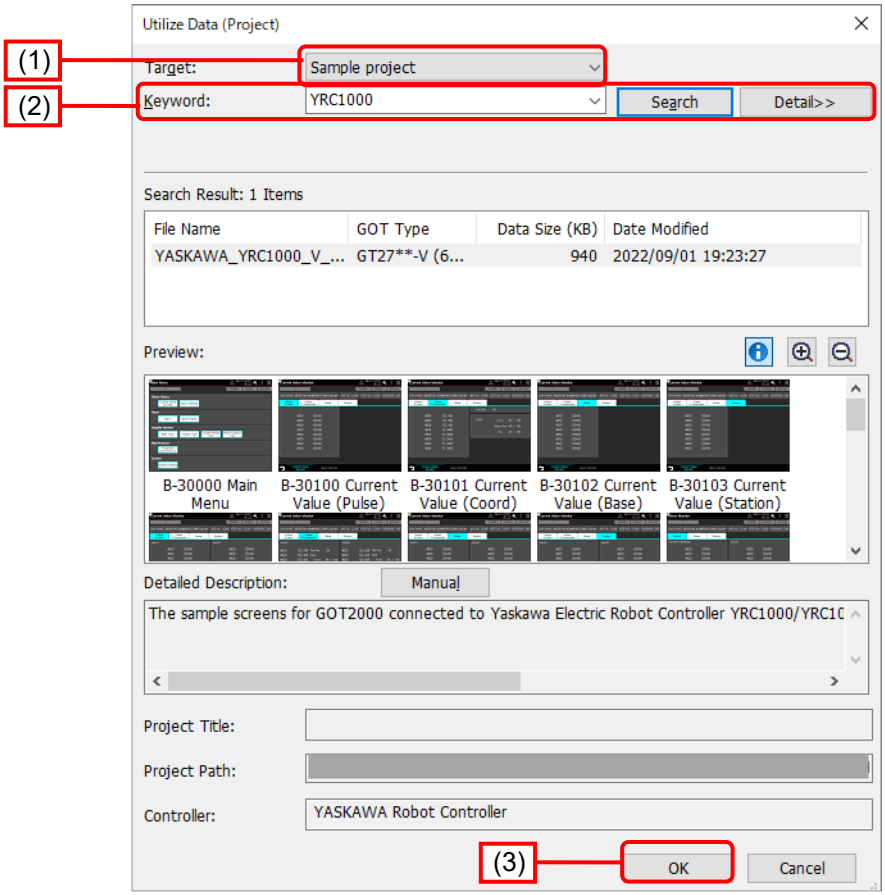
(2) In order to use the robot controller as CH2, add the robot controller setting to CH2 in the Controller Setting in the sample screens and your project data.
⇒ "6.2.2 Preparation before Utilization"

(3) Utilize the sample screens whose settings have been changed in (2) in your project data.
⇒ "6.2.3 Utilize another project"

*1:For the customers below
・Customers who executed SETUP.EXE in GTSample_E folder stored in Disk 2 of GT Works3 product DVD.

6.2.1 How to open the sample screen installed to GT Designer 3

Select [Project] - [Utilize Data] and perform the following operations to open the sample screens.
(1) Set "Sample project" to [Target].
(2) Enter "YRC1000" to [Keyword], and then select [Search].
(3) Click [OK].
(4) Save the opened project data in your local environment.

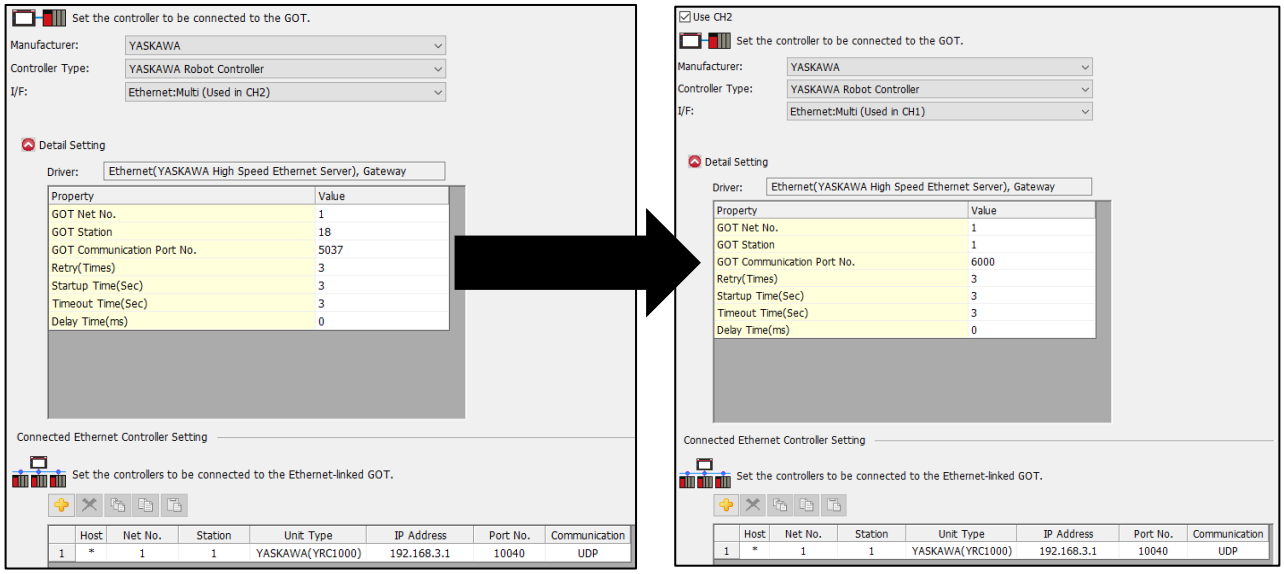


6.2.2 Preparation before utilization

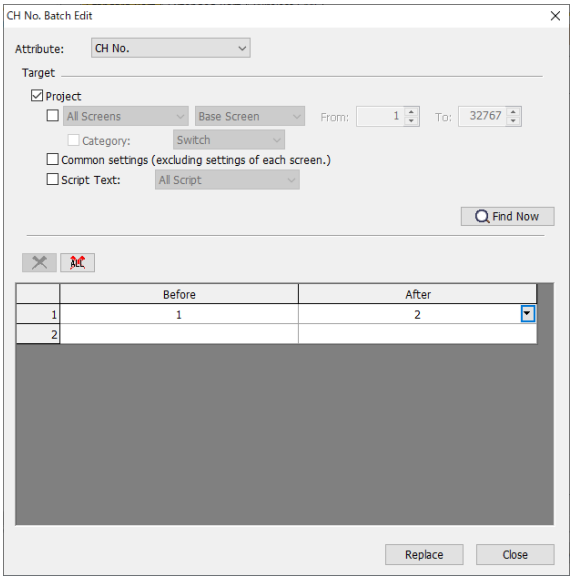
Modify the settings in the project data opened in "6.2.1 How to open the sample screens installed to GT Designer3" in accordance with the following procedure.

■To change the channel from CH1 to CH2 in [Controller Setting] of the sample screens

(1) Go to [Common] - [Controller Setting], and select [Use CH2] to set the same settings as those for CH1 to CH2. The same value cannot be set for CH1 and CH2 in [GOT Communication Port No.] and therefore no changes are required.



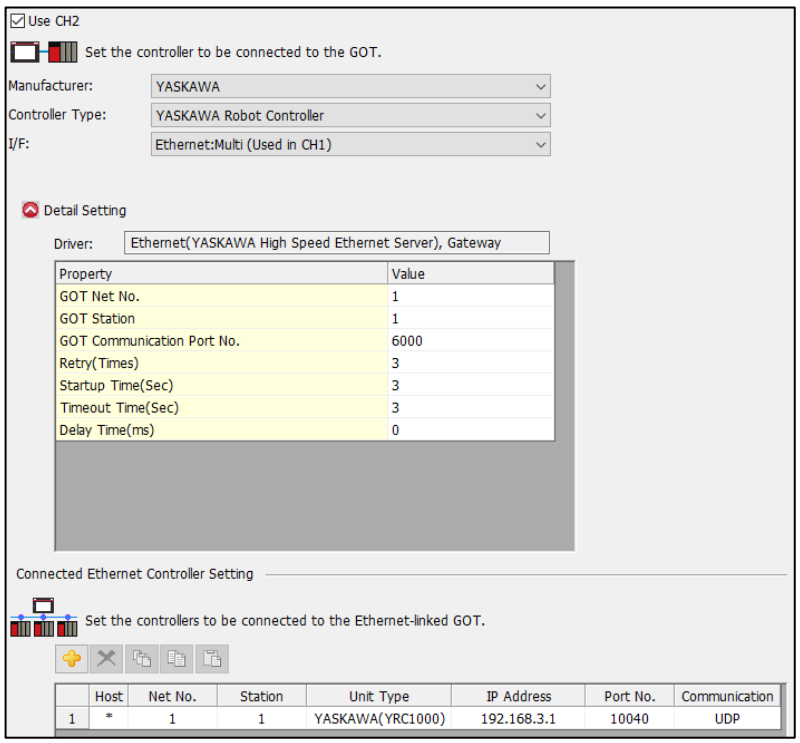
(2) Go to [Search/Replace] - [Batch Edit] - [CH No.]. Select [Target] in [Project], and click [Find Now]. '1' is displayed in "Before" and "After. Change the value to '2' in "After", and click [Replace]. The device set on the screen is changed from CH1 to CH2.



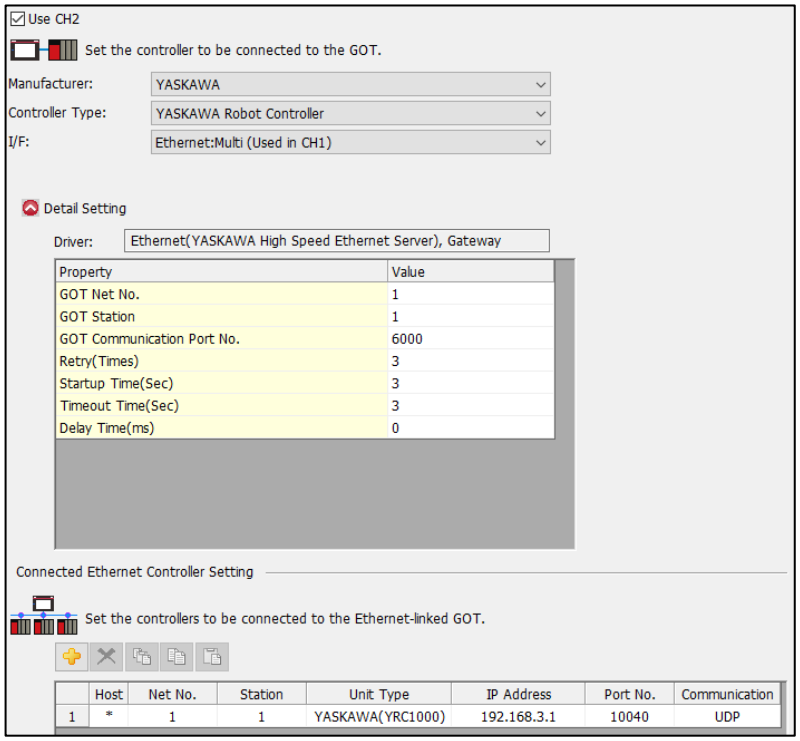
(3) Go to [Project] - [Save As] to save the project as another project.

■How to modify your project data

(1) Add the same settings as those set for Controller Setting in (1) of "■ To change the channel from CH1 to CH2 in [Controller Setting] of the sample screens" to CH2 of your project data.



(2) Change the settings in accordance with your system configuration.
The network No. is fixed to 1.



■After the completion of the procedure above, go to "6.2.3 Utilize another project".

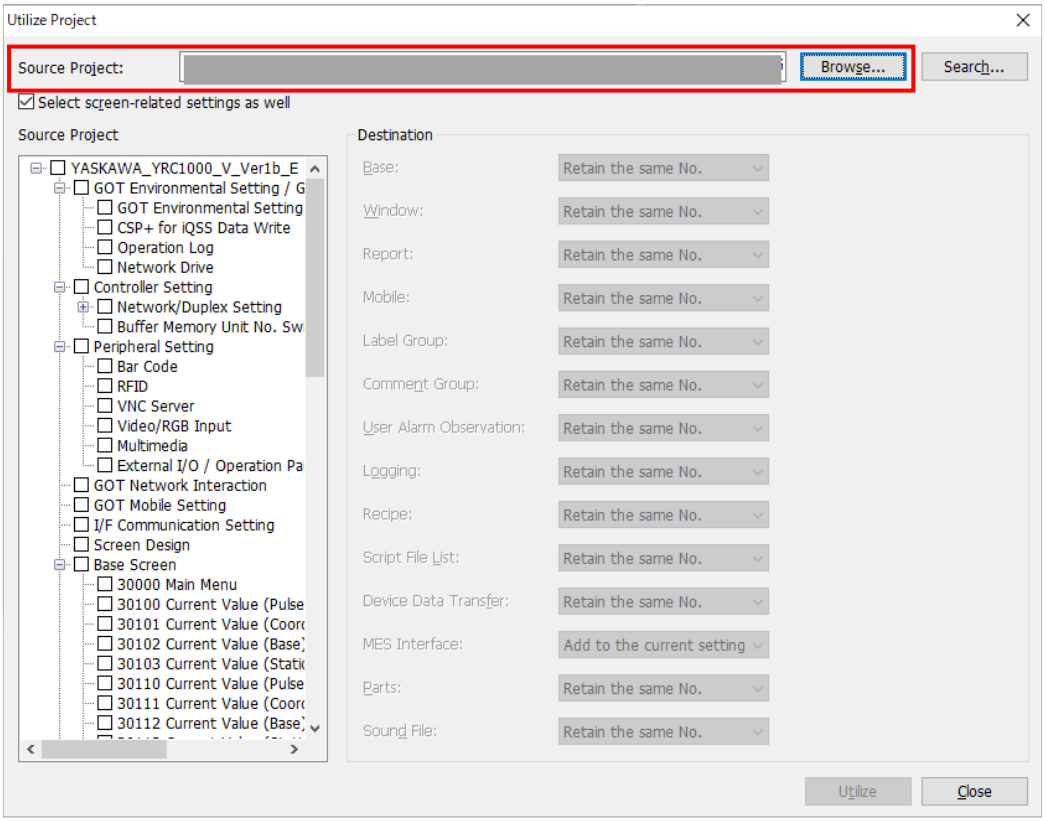
6.2.3 Utilize another project

Using your project data created in "6.2.2 Preparation before utilization" and the project data of the sample screens, utilize another project in accordance with the following procedure.

(1) Open your project data in GT Designer3 (GOT2000).

(2) Go to [Project] - [Utilize Project].

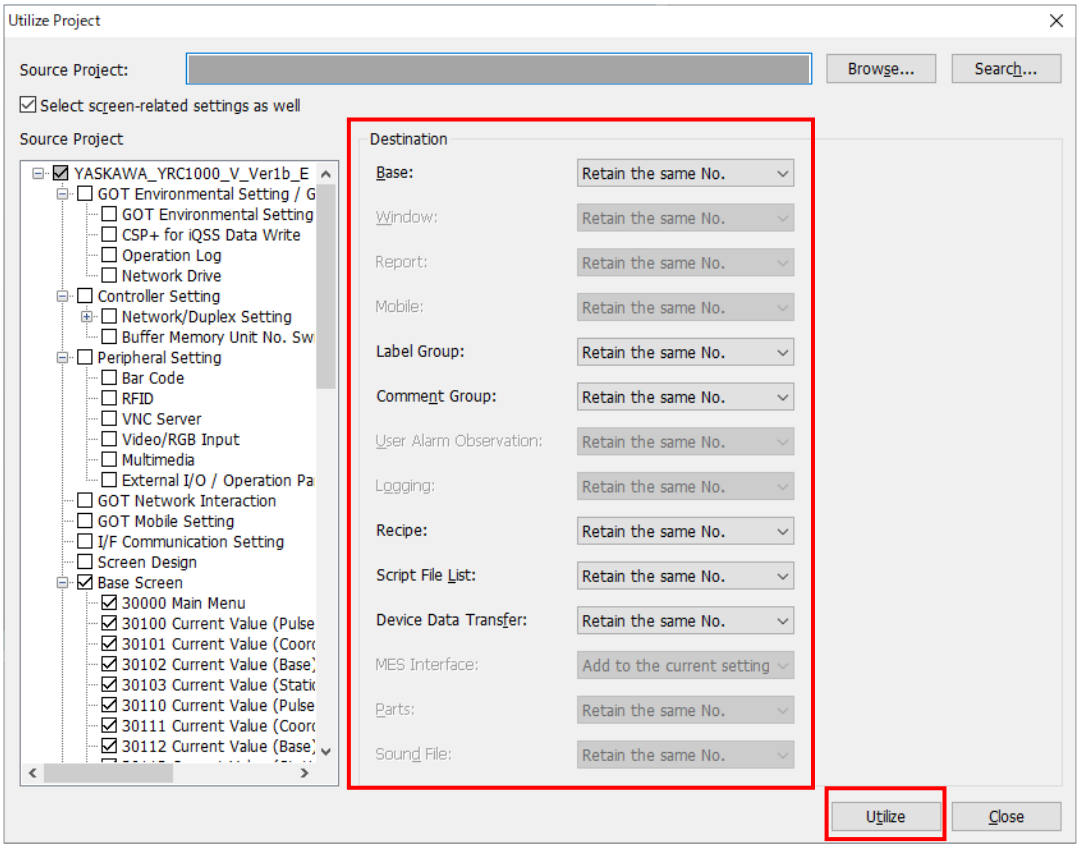
(3) Click [Browse] to open the project data of the sample screens created in "6.2.2 Preparation before utilization".



(4) Select the following items.

Item	
Base Screen	Select all.
Label	Select all.
Comment	Select all.
Alarm	Select [System Alarm Observation].
	Select [Alarm Popup Display].
Recipe	Select all.
Script	Select all.
Device Data Transfer	Select all.

(5) When numbers of base screens etc. used for the sample screens and your project data do not overlap, set [Retain the same No.] in [Destination], and select [Utilize].
When the numbers overlap, select [Assign the first No.] or [Detail Setting], and perform the setting so that the numbers do not overlap.



Perform "6.3 Works after Utilization".

6.3 Works after Utilization

In the sample screens, function addition and modifications of the settings are required in accordance with your system configuration after utilization. Refer to the following sections for works after utilization.

⇒ "6.3.1 Setting labels (GT Designer3)"

⇒ "6.3.2 Setting GOT environmental setting"

⇒ "6.3.3 Setting script symbols/script parts symbols"

6.3.1 Setting labels (GT Designer3)

Change [Assign (Device)] of label (GT Designer3) in accordance with the device assignment of each setting set in your project data.

In the menu bar, go to [Common] - [Label] - [Open] to select the target label.

■Label Group No.100 Com_Label

Label name	Data type	Assignment (Device) *1 *2	Description
u16_Com_CngBsDv	Unsigned BIN16	GD65200	Screen switching device (base screen)
s16_Com_StmInfRd	Signed BIN16	GD65231	System information reading device/ System Signal 1-1
s16_Com_StmInfWt	Signed BIN16	GD65241	System information writing device/System Signal 2-1
u16_Com_RcpCmNtcDv	UnsignedBIN16[0..2]	GD65293	Recipe common settings external notice information
s16_Com_CngLngDv	Signed BIN16	GD65221	Language switching device
s16_Com_CngSytmLanDv	Signed BIN16	GD65222	System language switching device
u16_Com_StmAlmNumOfOccStr	Unsigned BIN16	GD65297	System alarm observation occurrence No. storage

*1: For the function not used in your project data, it is not required to change [Assign (Device)] of the label.

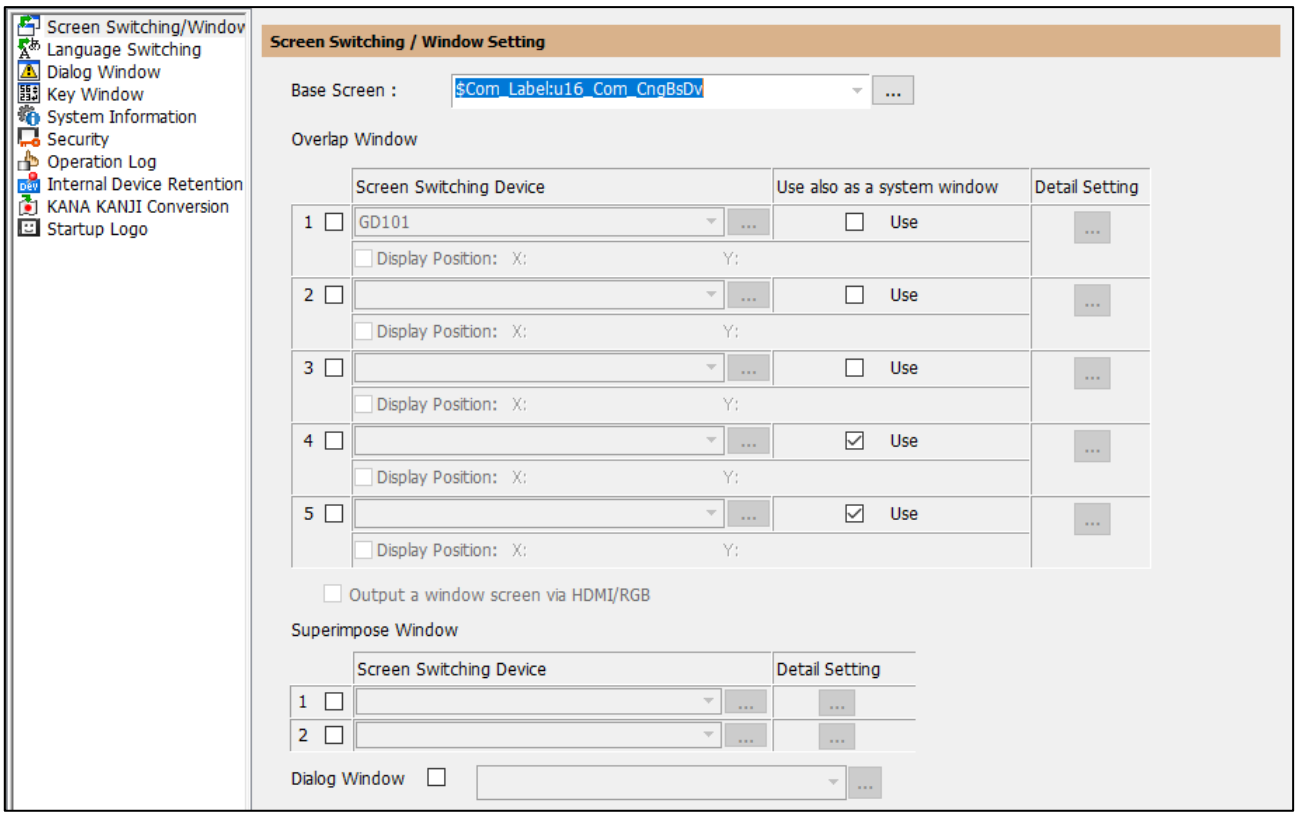
*2: When replacing with the devices of your project data, changing the settings of each object in your project data to labels (GT Designer3) is not required.

6.3.2 Setting GOT environmental setting

Change and add the following settings in the project data after utilization.

(1) [Screen Switching/Window Setting]

To change the screen switching settings, select [Common] - [GOT Environmental Setting] - [Screen Switching/Window Setting] to open the setting screen and set the following items.



■Base Screen

Change the screen switching device of [Base Screen] as follows.

Item	Setting
[Screen Switching Device]	$Com_Label:u16_Com_CngBsDv

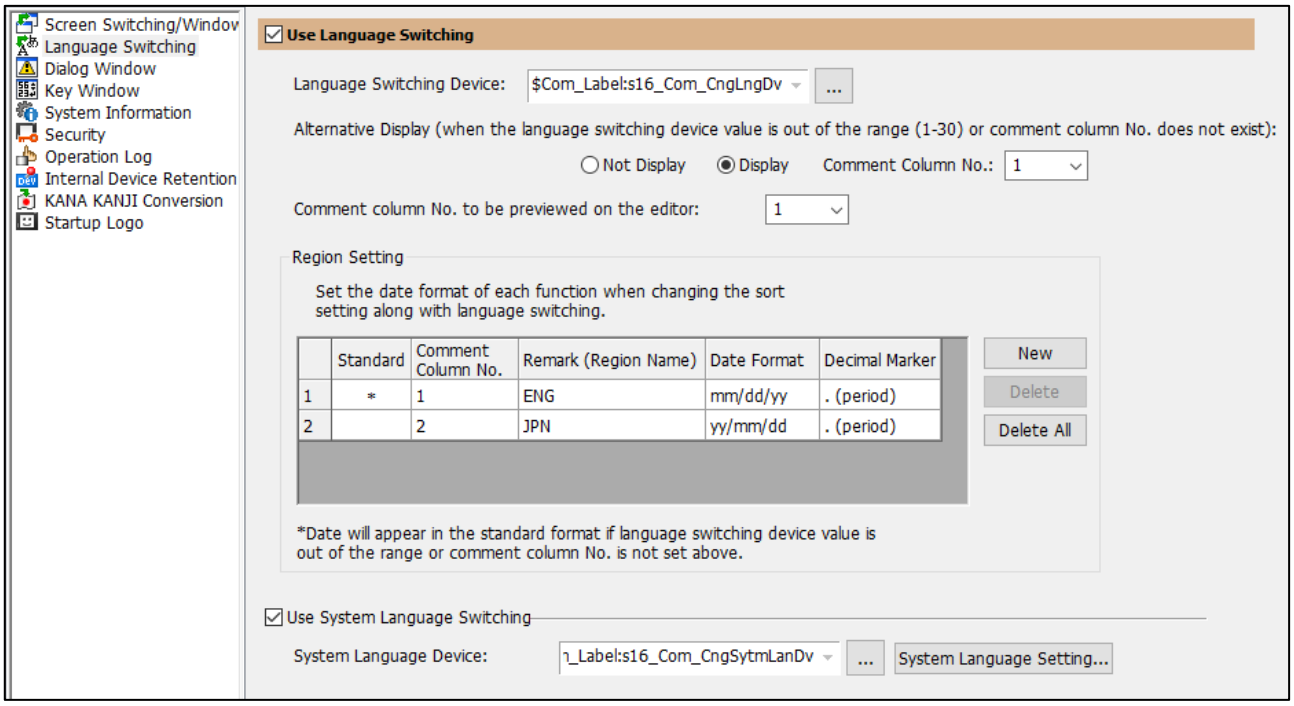
(2) [Language Switching]

The sample screens support language switching.

When switching language, go to [Common] - [GOT Environmental Setting] - [Language Switching] to open the setting screen and set the items below.

When not using language switching, the settings are not required.

Refer to "3.6 Comment" for language switching.



Item	Setting
[Use Language Switching]	Select
[Language Switching Device]	$Com_Label:s16_Com_CngLngDv
Alternative Display (when the language switching device value is out of the range (1 to 30) or comment column No. does not exist)	Display
	Comment Column No.1
[Use System Language Switching]	Select
[System Language Device]	$Com_Label:s16_Com_CngSytmLanDv

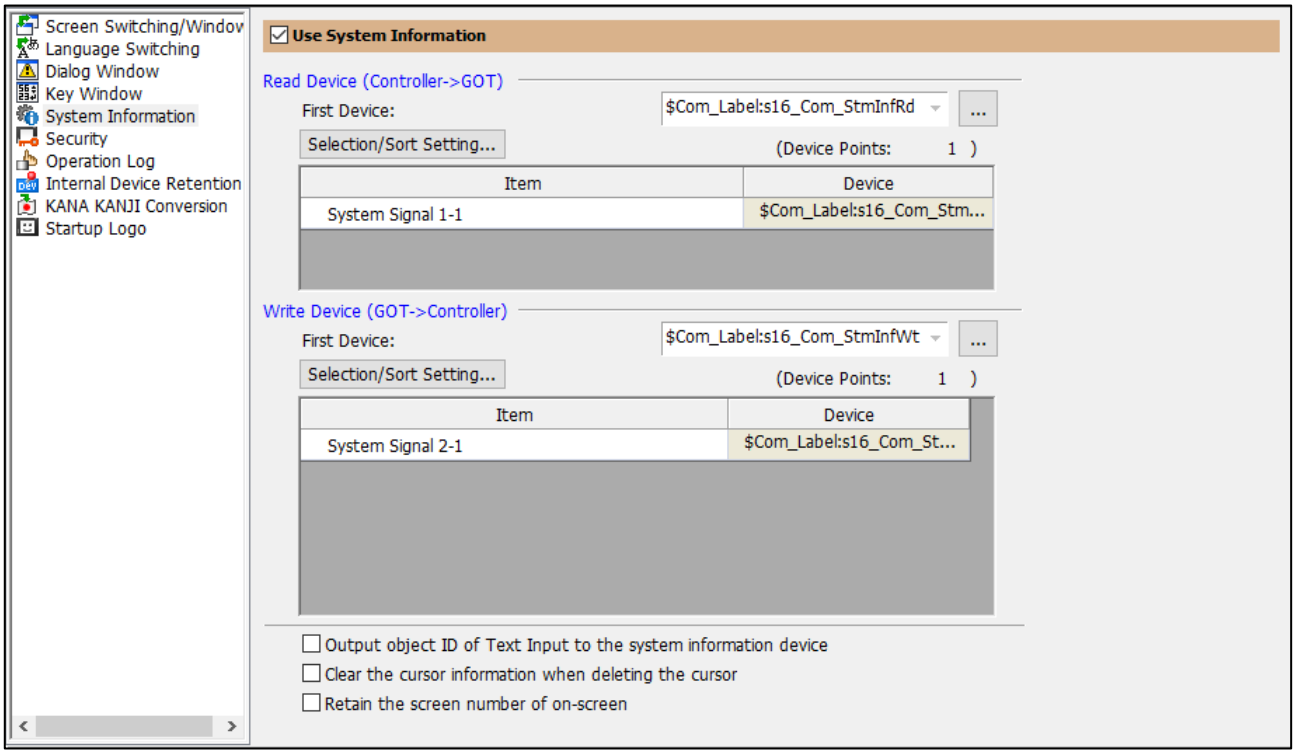
(3) [System Information]

In the sample screens, the switch that can reset system alarms when the system alarms occur in GOT is prepared.

When using the function to reset the system alarms, go to [Common] - [GOT Environmental Setting] - [System Information] to open the setting screen and set the following items.

When not using the reset switch, the settings are not required.

Refer to "5.1.20 System Alarm (GOT) (B-32001)" for the reset switch of system alarms.



Item	Setting
[Use System Information]	Select
[First Device] of [Read Device (Controller->GOT)]	$Com_Label:s16_Com_StmInfRd
[First Device] of [Write Device (GOT->Controller)]	$Com_Label:s16_Com_StmInfWt

6.3.3 Setting script symbols/script parts symbols

Refer to the "Changes required" column in the following table and change the settings of the script symbol/script parts symbol according to the settings of the project data after utilization.

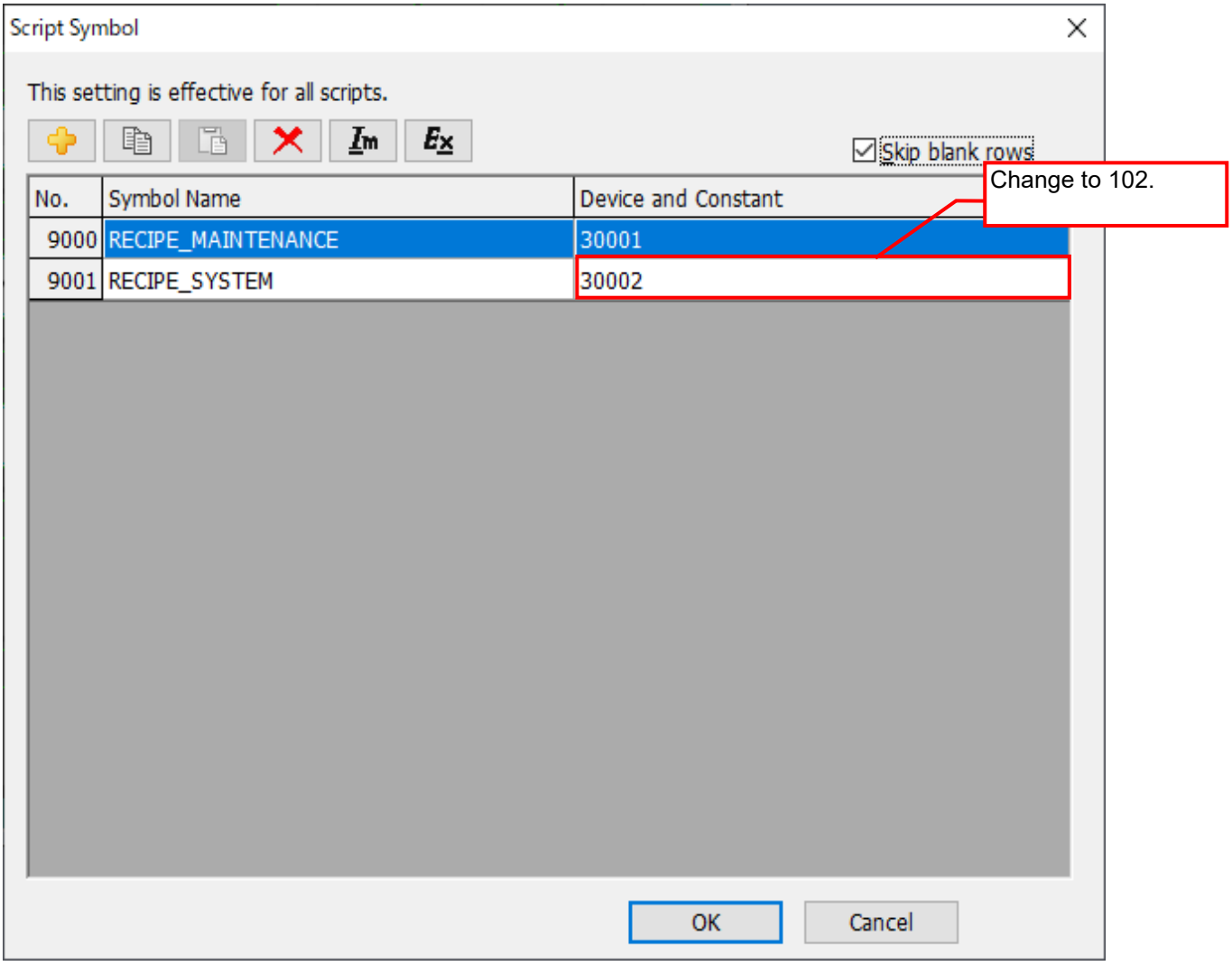
Changes required	Description
When a recipe No. was change at utilization	Refer to ″6.3.3.1 When a recipe No. was change at utilization″.
When a comment group No. was changed at utilization	Refer to "6.3.3.2 When a comment group No. was changed at utilization".

6.3.3.1 When a recipe No. was changed at utilization

The following shows an example when a recipe No. was changed at utilization.

Example)
When the recipe No. of the sample screen was changed from "30002" to "102" at utilization

⇒ Edit the content of the script symbol.
Change the [Device and Constant] of "RECIPE_SYSTEM" to "102.

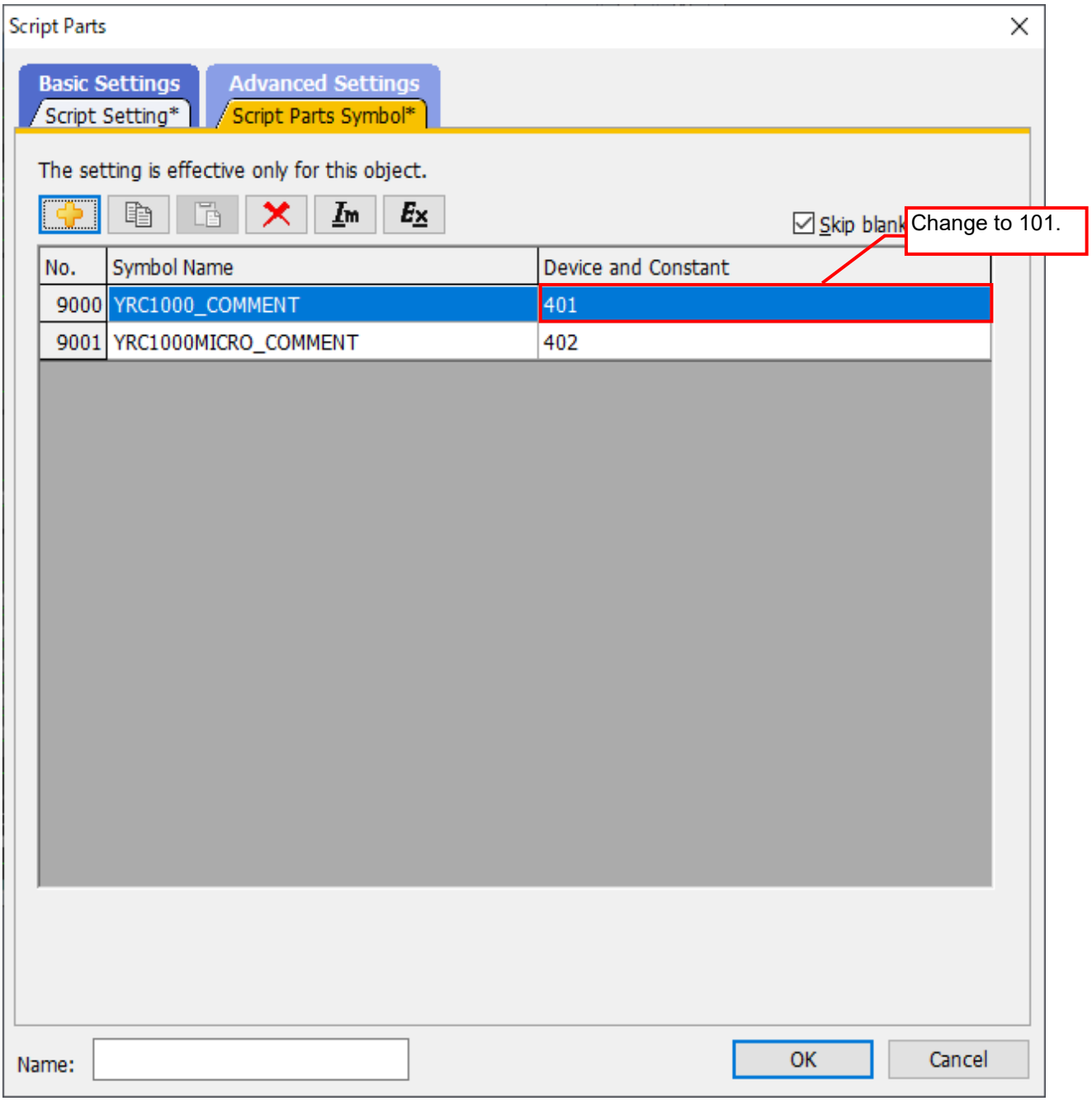


6.3.3.2 When a comment group No. was changed at utilization

The following shows an example when a comment group No. was changed at utilization.

Example)
When the comment group No. of a sample screen was changed from 401 to 101 at utilization

⇒ Edit the content of the script parts symbol of Alarm Detail (B-31000).
Change [Device and Constant] of "YRC1000_COMMENT" to "101".

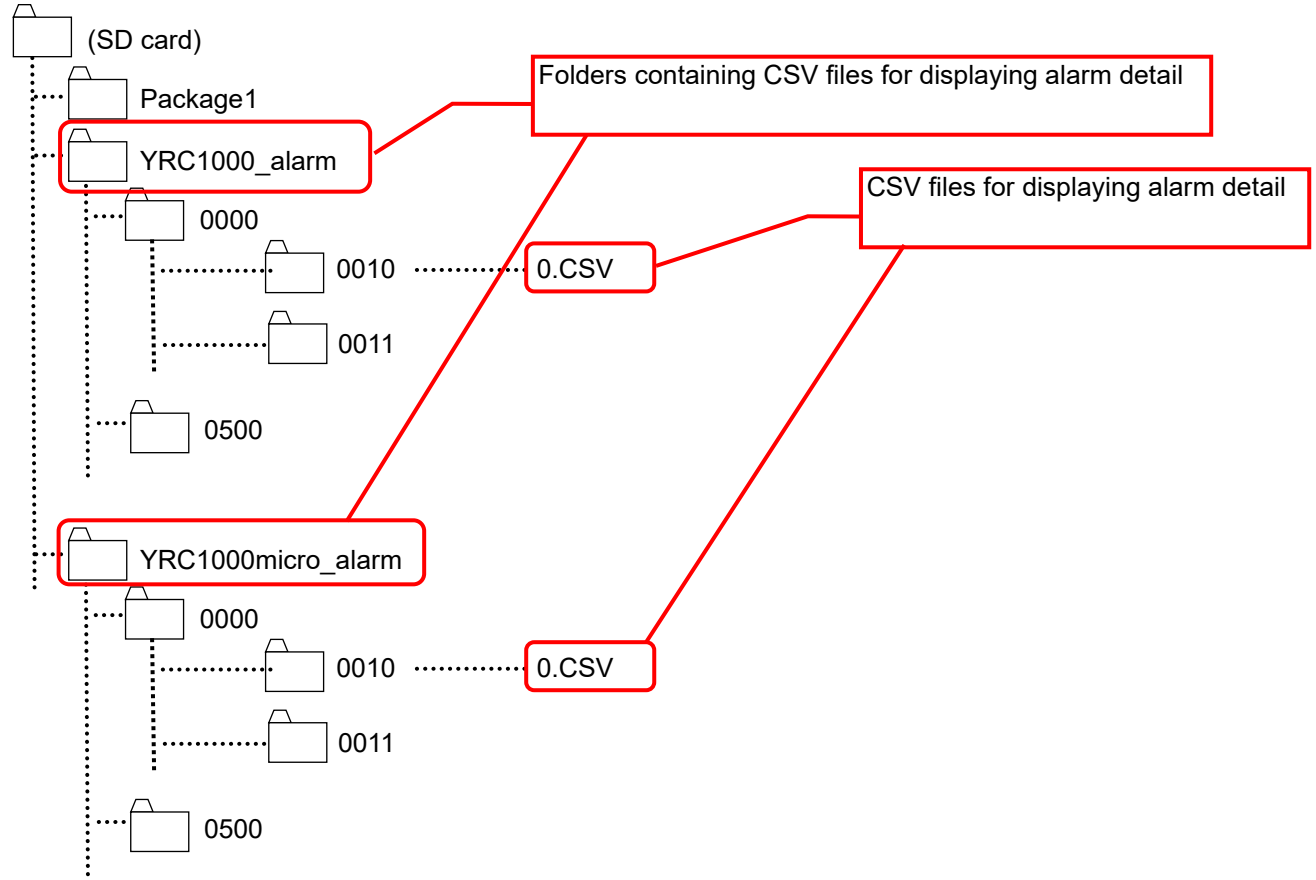


7. CUSTOMIZE GOT PROJECT

7.1 CSV File Used in the Alarm Detail Screen

The Alarm Detail screen (B-31000) obtains information from the CSV file. When using the Alarm Detail screen (B-31000), store the folder containing the CSV file for alarm details directly under the SD card.

(1) Unzip the compressed file (YRC1000_alarm.zip and YRC1000micro_alarm.zip) for displaying alarm details in the installation folder (... /GTD3_2000/App/SampleProject/en-US) of the sample screens, and store the entire YRC1000_alarm folder and YRC1000micro_alarm folder directly under the SD card.



Folder configuration of an SD card

■Note

(1) The folder name consists of an alarm code, and the CSV file name consists of a subcode. Do not modify the folder structure, file name, or contents of the CSV file. Data may not be acquired correctly.

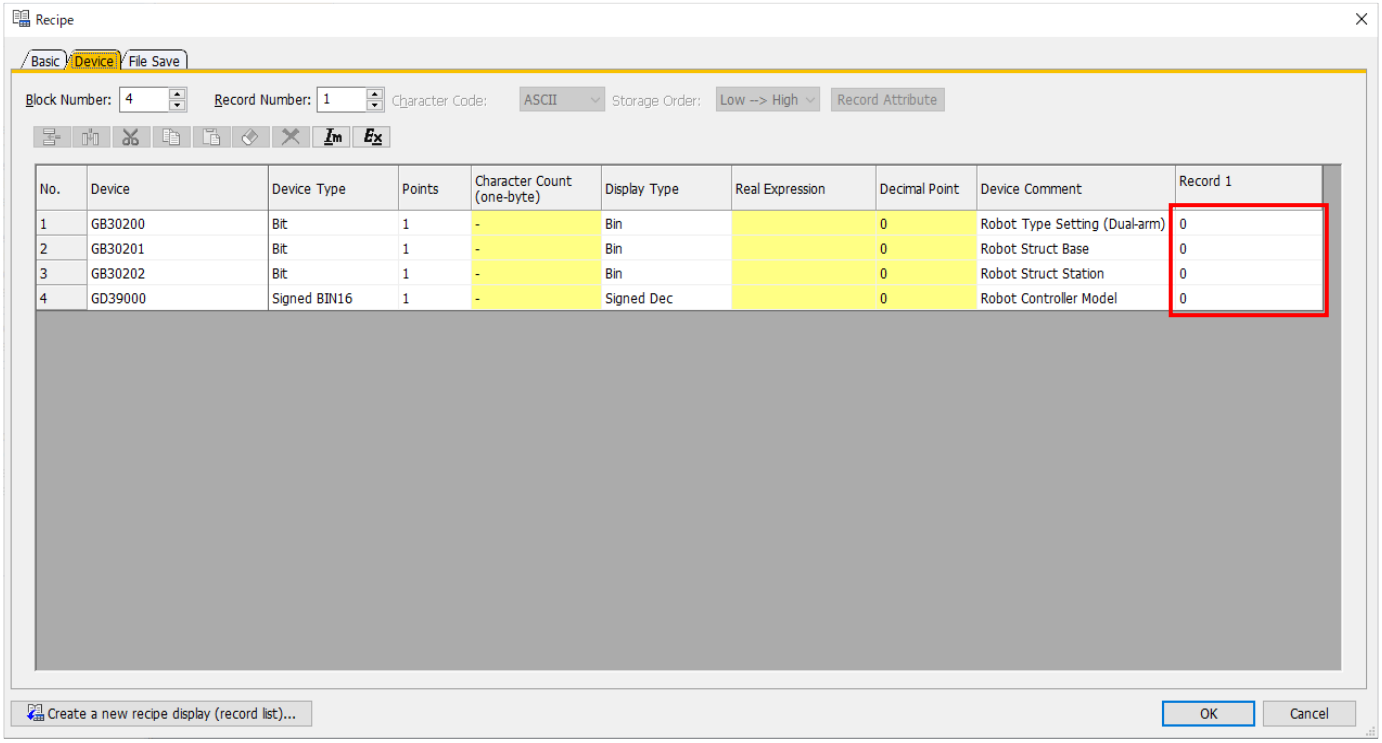
(2) Subcodes except decimal are regarded as 0.

(3) Some alarm codes and subcodes are not supported on the sample screens.
If a specific alarm code or subcode is not displayed on the Alarm Detail screen (B-31000), check the presence of the alarm code folder or subcode CSV file. If it does not exist, it is an unsupported alarm.

7.2 How to Directly Edit the Settings on the System Setting Screen (B-30500) in the Recipe File

The initial values of Model Setting and Monitoring Setting on the System Setting screen (B-30500) are set in the recipe file. When changing the settings, follow the steps below to change the record values in a recipe.

(1) Go to [Common] - [Recipe] - [Recipe List] to open No.30002 System Setting.
(2) Select the [Device] tab and change the record values of each device.



Item	Device	Description
Robot Type Setting (Dual-arm)	GB30200	0: Set the Robot Type Setting (Dual-arm) to OFF.
		1: Set the Robot Type Setting (Dual-arm) to ON.
Robot Struct Base	GB30201	0: Set the Robot Struct Base to OFF.
		1: Set the Robot Struct Base to ON.
Robot Struct Station	GB30202	0: Set the Robot Struct Station to OFF.
		1: Set the Robot Struct Station to ON.
Robot Controller Model	GD39000	0: Set the Robot Controller Type to OFF.
		1: Set the Robot Controller Type to ON.

8. TROUBLESHOOTING

The following shows the troubleshooting of the sample screens.

8.1 System Alarms

For the cause of the error and how to resolve it, refer to the following manual.

⇒ "GOT2000 Series User's Manual (Utility)"

9. PRECAUTIONS

This section explains the precautions on using the sample screens.

(1) Screen transition from the user screen

When transitioning from the user screen to a sample screen, be sure to go through the Main Menu screen (B-30000). Otherwise, the sample screens may not work properly.

(2) When changing the settings in the Recipe function set on the sample screen

If you change the settings in the Recipe function set on the sample screen, delete the recipe file saved in the SD card as well.
Not doing so will cause the system alarm in the GOT, and the Recipe function may not work properly.

(3) Triggers of the Recipe function

When using the Recipe function in your project data, be sure to set the recipe write trigger device and read trigger device to be turned OFF after the recipe operation.
Otherwise, the recipe settings on the sample screens do not work properly.

(4) Communication between the sample screens and YRC1000/YRC1000micro

If the GOT is activated before the YRC1000/YRC1000micro is completely started, a system alarm may occur on the GOT. Adjust the time displayed in the GOT setup title to avoid system alarms.

(5) SD card

When using the sample screens, be sure to power on the GOT with an SD card inserted.
If the SD card is inserted after the GOT is powered on, it may not work properly.

10. TRADEMARKS

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