

Pro-face

by Schneider Electric

FANUC
FANUC Robot series
R-30iB/R-30iB Mate
Sample Project

Technical Guide



Revision History

Revision No.	Date	Descriptions
00	04/11/2014	New
01	24/04/2020	Update 4.2. Target HMI Devices

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• For details on the settings and operation of the robot controller, R-30iB or R-30iB Mate, refer to the FANUC R-30iB or R-30iB Mate Controller Manual.

1. Overview

This sample project file is a sample program for connecting an R-30iB or R-30iB Mate controller of the robot series, made by FANUC CORPORATION to a GP series unit. This product provides the following functions to enable you to use the robot in a more useful fashion.

- Easily connect to a robot controller of the R-30iB/R-30iB Mate Series.
- Able to check input/output status of standard IO (DO, DI, RI, RO, UI, UO).
- Display values of standard devices (R, PR, SR).
- Able to check alarms occurring on a robot controller and their detailed information.
- Provide monitoring screens of greasing up and battery replacement time for a maintenance screen.

Notes : For WVGA (800×480 pixels),there is function button area at the right of the screen. Please read the manual," Functions Added to Sample Project File for SP5000 Wide Model".

2. Restrictions

1) Limitations

This screen data is taken from screenshots showing the representative features and functions of the GP4000 Series.

When using the sample project file, be sure to reference our product manual or the connection device manual, including the usage restrictions and safety precautions. In addition, please be aware that we are unable to accept responsibility for damage arising from reasons that cannot be attributable to us, loss of customer opportunity or profit arising from the malfunction of our product, damage arising from special circumstances regardless of whether or not we had foreknowledge of those circumstances, secondary damage, compensation for accidents, damage to our products, or other business-related guarantees.

2) Notes

- The intellectual property rights for the files provided by Digital Electronics Corporation belong to us.
- Downloaded files and the data extracted from those files are no guarantees of our product specifications. Please be aware of this fact.
- The liability for use of this service lies with the customer.
- In any case, this is not intended as a warranty for any work for a system that makes use of the data on these screens.
- Any modifications made to this service by a customer are entirely at the responsibility of the customer.
- Please be aware that we cannot respond to any inquiries for the purpose of modifying these data.
- The content and information in the data on these screens and documentation are subject to change without prior notification.

3. How to use this project file

When using this project file (henceforth known as "the file"), be sure to confirm the following details:

1. When using the file as-is

Confirm the communication settings.

When using this file as-is, transfer it in GP-Pro EX to a display console with a touch panel.

When connecting, refer to section "Communication settings" of this Instructions for Use.

For networking cables, refer to sections "Networking cables" and "Communication settings" of this Instructions for Use.

2. How to combine with other files

In GP-Pro EX, select [Project] → [Utilities] → [Copy from Another Project].

However, there are issues to be aware of, such as overlapping screen numbers, so also refer to sections 3) and later.

3. Screen numbers when combining

There may be times when things get overwritten, such as when there are duplicate screen numbers. When combining the file with a file currently being created, be aware of the screen numbers. Refer to section "Screen types" for screen numbers that are being used by the file.

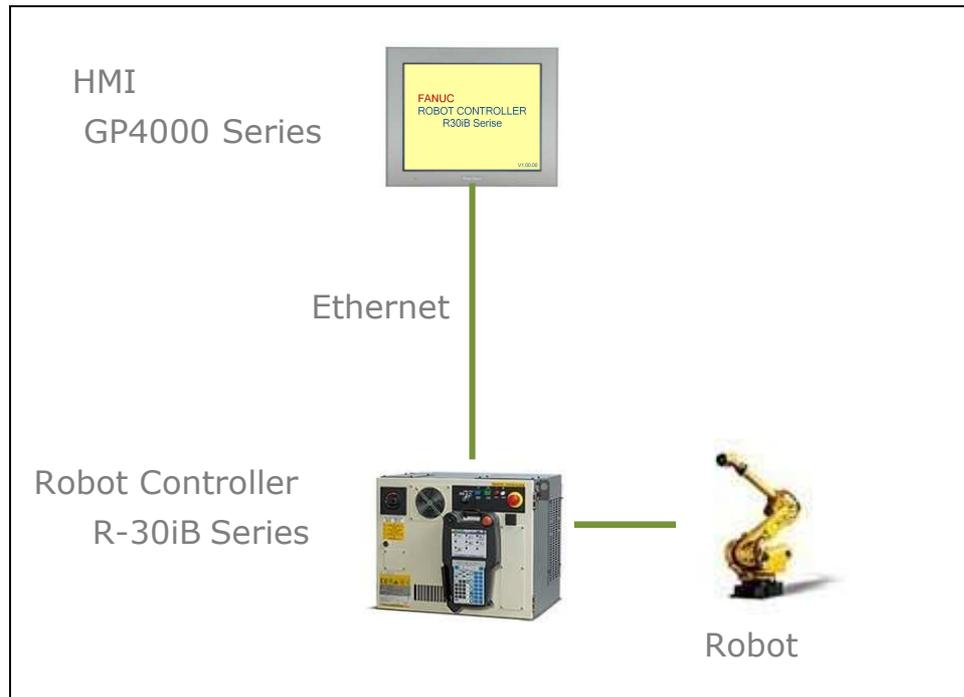
When combining with 2), it is possible to designate a copy destination screen number before starting to copy. Before combining, be sure to either designate a screen number when copying, or change the screen number in advance. When changing a screen number, be sure to also change the screen number for the screen replacement switch. Be aware that if no changes are made to the screen replacement destination screen number, unexpected operations may occur.

4. Changing addresses

When changes are made to the address of a connection device that has been configured on the screen, it will not operate properly. Do not make changes to these addresses.

4. System configuration

4.1. System configuration



For further details, check the catalogs or hardware manuals.

4.2. Target HMI Devices

The following shows the display device types for use with this sample project file. The module name below is the module selecting on GP-Pro-EX

The notation in table point the below project file.

VGA : connection_gp4501_v_FANUC-R30iB_ml_V100.prx

WVGA : connection_sp5400_wv_FANUC-R30iB_ml_V100.prx

QVGA : connection_gp4301_q_FANUC-R30iB_ml_V100.prx

Table 4-2 Target HMI Devices

Series	Unit / Display Module	Target project module			Remark
		VGA	WVGA	QVGA	
GP4000 Series	GP-4104				
	GP-4105				
	GP-4106				
	GP-4107				
	GP-4114T				
	GP-4115T				
	GP-4116T				
	GP-4115T3				GP-Pro EX Over Ver.4.07.300
	GP-4201T			OK*1	
	GP-4201TM (Modular Type)				
	GP-4201TW				
	GP-4203T				
	GP-4301T			OK	

	GP-4301TM (Modular Type)				
	GP-4301TW				
	GP-4303T			OK*1	
	GP-4311HT	OK*1			GP-Pro EX Over Ver.4.06.000
	GP-4401T	OK*1			
	GP-4401WW		OK*1		
	GP-4501T (Analog Touch Panel)	OK			
	GP-4501T (Matrix Touch Panel)	OK*1			
	GP-4501TW				
	GP-4503T	OK*1			
	GP-4521T	OK*1			GP-Pro EX Over Ver.4.07.300
	GP-4601T (Analog Touch Panel)	OK*2			
	GP-4601T (Matrix Touch Panel)	OK*2			
	GP-4603T	OK*2			
	GP-4621T	OK*2			GP-Pro EX Over Ver.4.07.300
	GP-4G01 VGA (640*480)	OK*1			GP-Pro EX Over Ver.4.07.000
	GP-4G01 SVGA (800*600)	OK*2			GP-Pro EX Over Ver.4.07.000
	GP-4G01 WVGA (800*480)		OK*1		GP-Pro EX Over Ver.4.07.000
	GP-4000M (Rear Modular Type)				
LT4000 Series	LT-4201TM (Modular Type DIO)			OK*1	
	LT-4201TM (Modular Type Analog)			OK*1	
	LT-4301TM (Modular Type DIO)			OK*1	
	LT-4301TM (Modular Type Analog)			OK*1	
	LT-4000M (Rear Module DIO)			OK*1	
	LT-4000M (Rear Module Analog)			OK*1	
SP5000 Power Box (SP-5B10)	SP-5500TP VGA (640*480)	OK*1			
	SP-5500TP SVGA (800*600)	OK*2			
	SP-5600TP VGA (640*480)	OK*1			
	SP-5600TP SVGA (800*600)	OK*2			
	SP-5600TP XGA (1024*768)				
	SP-5600TA XGA (1024*768)				GP-Pro EX Over Ver.4.08.200
	SP-5660TP VGA (640*480)	OK*1			
	SP-5660TP SVGA (800*600)	OK*2			
	SP-5660TP XGA (1024*768)				
	SP-5700TP VGA (640*480)	OK*1			

	SP-5700TP SVGA (800*600)	OK*2			
	SP-5700TP XGA (1024*768)				
	SP-5700WC FWXGA (1366*768)				GP-Pro EX Over Ver.4.07.300
	SP-5800WC FWXGA (1366*768)				GP-Pro EX Over Ver.4.07.300
	SP-5400WA WVGA (800*480)		OK		
	SP-5500WA WXGA (1280*800)		OK*2		
	SP-5600WA WXGA (1280*800)		OK*2		
	DC Power Supply Adapter SVGA (800*600)	OK*2			GP-Pro EX Over Ver.4.08.000
	DC Power Supply Adapter XGA (1024*768)				GP-Pro EX Over Ver.4.08.000
SP5000 Open Box (SP-5B40, SP-5B41)	SP-5500TP SVGA (800*600)	OK*2			
	SP-5600TP SVGA (800*600)	OK*2			GP-Pro EX Over Ver.4.06.100
	SP-5600TP XGA (1024*768)				
	SP-5600TA XGA (1024*768)				GP-Pro EX Over Ver.4.08.200
	SP-5660TP SVGA (800*600)	OK*2			GP-Pro EX Over Ver.4.06.100
	SP-5660TP XGA (1024*768)				
	SP-5700TP SVGA (800*600)	OK*2			GP-Pro EX Over Ver.4.06.100
	SP-5700TP XGA (1024*768)				
	SP-5700WC FWXGA (1366*768)				GP-Pro EX Over Ver.4.07.300
	SP-5800WC FWXGA (1366*768)				GP-Pro EX Over Ver.4.07.300
	SP-5400WA WVGA (800*480)		OK*1		
	SP-5500WA WXGA (1280*800)		OK*2		
	SP-5600WA WXGA (1280*800)		OK*2		
	DC Power Supply Adapter SVGA (800*600)	OK*2			GP-Pro EX Over Ver.4.06.300
	DC Power Supply Adapter Other Resolution				GP-Pro EX Over Ver.4.06.300
	SP5000 Standard Box (SP-5B00)	SP-5500TP VGA (640*480)	OK*1		
SP-5500TP SVGA (800*600)		OK*2			
SP-5600TP VGA (640*480)		OK*1			
SP-5600TP SVGA (800*600)		OK*2			
SP-5600TP XGA (1024*768)					
SP-5600TA XGA (1024*768)					GP-Pro EX Over Ver.4.08.200
SP-5660TP VGA (640*480)		OK*1			

	SP-5660TP SVGA (800*600)	OK*2			
	SP-5660TP XGA (1024*768)				
	SP-5700TP VGA (640*480)	OK*1			
	SP-5700TP SVGA (800*600)	OK*2			
	SP-5700TP XGA (1024*768)				
	SP-5700WC FWXGA (1366*768)				GP-Pro EX Over Ver.4.07.300
	SP-5800WC FWXGA (1366*768)				GP-Pro EX Over Ver.4.07.300
	SP-5400WA WVGA (800*480)		OK*1		
	SP-5500WA WXGA (1280*800)		OK*2		
	SP-5600WA WXGA (1280*800)		OK*2		
	DC Power Supply Adapter SVGA (800*600)	OK*2			GP-Pro EX Over Ver.4.08.000
	DC Power Supply Adapter XGA (1024*768)				GP-Pro EX Over Ver.4.08.000
SP5000X eXtreme Box (SP-5B90)	SP-5490WA WVGA (800*480)		OK*1		GP-Pro EX Over Ver.4.08.200
	SP-5690WA WXGA (1280*800)		OK*2		GP-Pro EX Over Ver.4.08.200
	SP-5790WA FWXGA (1366*768)				GP-Pro EX Over Ver.4.08.200

- *1. Usable by making changes to the display type in the project file. But change layout or connection device settings if necessary.
- *2. Usable by making changes to the display model and convert resolution in the project file. But change layout or connection device settings if necessary.
- * A SD card or USB stick has been available to support all functions.
When using an Open Box (SP-5B40, SP-5B41), SD card is required.

4.3. Connection devices

No	Manufacturer	Product Name	Series	Model	Comments
1	FANUC	Robot Controller	R-30iB/ R-30iB Mate		

4.4. Software

No	Manufacturer	Product Name	Series	Model	Comments
1	Digital Electronics Corporation	GP-Pro EX		PFXEXEDV40	Ver4.03.000

These screen samples were created in GP-Pro EX version Ver4.03.000. Be sure to update the version to the latest one if using versions prior to Ver4.03.000.

4.5. Notes for using the Open Box(SP-5B40)

- An appropriate performance may not be attained due to loads of the program executed at the same time.
Customers are requested to perform sufficient operation check in the usage environments in customer's responsibility.
- In "Display Unit-WinGPS Settings" in the Gp-Pro EX, Please refer to the "Historical Data Retentive Settings-Save in" to "SRAM". "Display Settings" is set as required.
- "Strage" in the setting screen, Please set to "SD".
- If the write filter settings are enabled, disable them before transferring the project file. SP5000-specific functions such as "launcher" and "Write Filter", please refer to the "SP5000 series Open Box Reference Manual "

4.6. Communication settings

4.6.1. Pro-EX communication settings

The communication driver is "MODBUS IDA General MODBUS TCP Master". The communication settings to be configured on Pro-EX are as shown below. The target equipment is already registered, so only change the IP Address.

The screenshot shows the 'Device/PLC' configuration window. The 'Summary' section shows 'Manufacturer: Modbus-IDA', 'Series: General MODBUS TCP Master', and 'Port: Ethernet (TCP)'. The 'Communication Settings' section includes 'Port No.: 1024', 'Timeout: 3 (sec)', 'Retry: 0', and 'Wait To Send: 0 (ms)'. The 'Device-Specific Settings' section shows a table of 8 devices (RC1-RC8) with their respective IP addresses and Unit IDs. The 'Indirect Device Configuration' section shows a table with 1 indirect device (RCn) with IP Address=000.000.000.000, Port No.=502, Unit ID=25, Device ID Address=[INTERNAL]USR29990, and Initial ID=1.

No.	Device Name	Settings	Device ID	Add Indirect Device	Update Indirect Device Settings
1	RC1	IP Address=192.168.000.001,Port No.=502,Unit ID=25	1	[+]	[+]
2	RC2	IP Address=000.000.000.000,Port No.=502,Unit ID=25	2	[+]	[+]
3	RC3	IP Address=000.000.000.000,Port No.=502,Unit ID=25	3	[+]	[+]
4	RC4	IP Address=000.000.000.000,Port No.=502,Unit ID=25	4	[+]	[+]
5	RC5	IP Address=000.000.000.000,Port No.=502,Unit ID=25	5	[+]	[+]
6	RC6	IP Address=000.000.000.000,Port No.=502,Unit ID=25	6	[+]	[+]
7	RC7	IP Address=000.000.000.000,Port No.=502,Unit ID=25	7	[+]	[+]
8	RC8	IP Address=000.000.000.000,Port No.=502,Unit ID=25	8	[+]	[+]

No.	Indirect Device	Device ID Address	Initial ID
1	RCn	IP Address=000.000.000.000,Port No.=502,Unit ID=25	[INTERNAL]USR29990 1

4.6.2. R-30iB/R-30iBMate communication settings

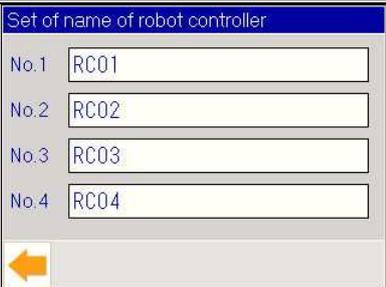
For use without changing the settings of this project file, configure parameter settings of R-30iB or R-30iBMate as shown below.

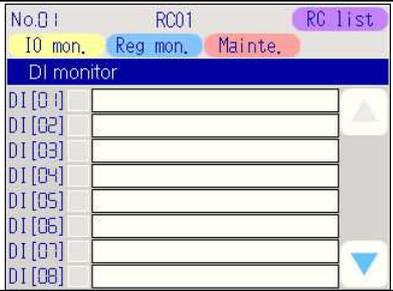
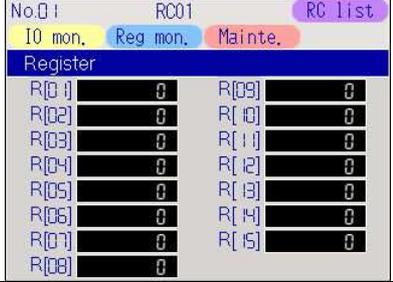
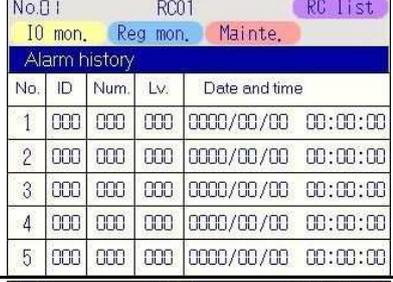
- Port to use common to all : 501
- IP Address RC1 : 192.168.0.1
RC2 : 192.168.0.2
RC3 : 192.168.0.3
RC4 : 192.168.0.4

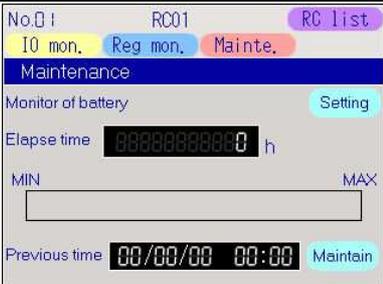
5. Screen configuration

5.1. Screen configuration

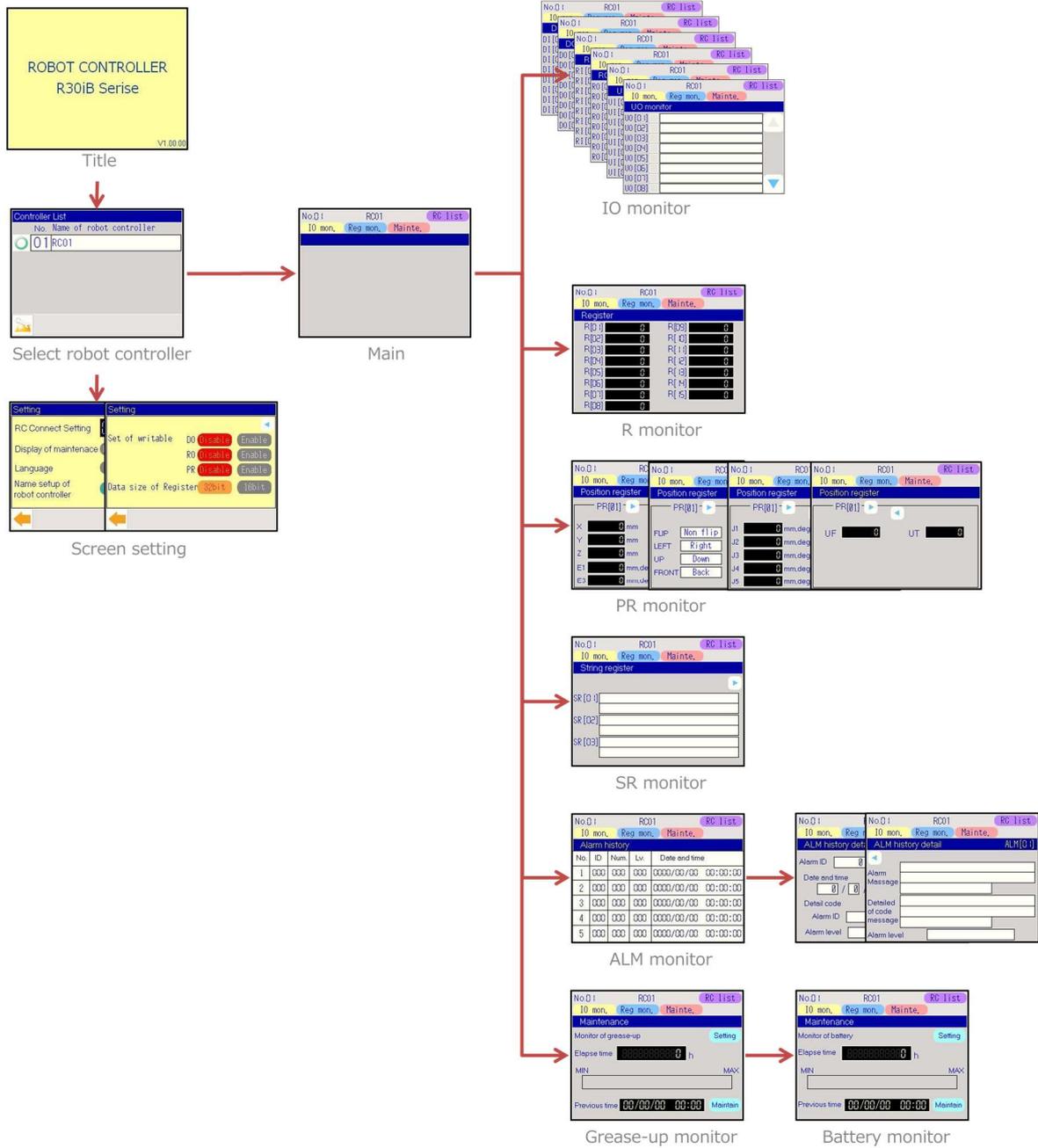
This sample project file provides the 7 types of functional screens below. Some screens are composed of multiple screens (which can be switched between).

Screen Title	Screen	Function
Title		Appears at the time of boot.
Controller List		Displays a list of the currently connected robots. Touch any robot name or No. to move to the screen that shows information data of the robot.
Screen setting		Configure settings of the HMI unit on this screen.
RC Name set		Specify robot names to be displayed on the robot list screen.
RC Main		Appears when you select a robot on the robot list screen to show its information data.

<p>DI Monitor DO Monitor RI Monitor RO Monitor UI Monitor UO Monitor</p>		<p>IO Monitor Screen. Displays DI, DO, RI, RO, UI, and UO.</p>																														
<p>Register Monitor</p>		<p>Screen for register monitoring.</p>																														
<p>Position Register</p>		<p>Screen for position register monitoring.</p>																														
<p>String Register</p>		<p>Screen for string register monitoring.</p>																														
<p>ALARM Monitor</p>	 <table border="1" data-bbox="481 1400 874 1608"> <thead> <tr> <th>No.</th> <th>ID</th> <th>Num.</th> <th>Lv.</th> <th>Date and time</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>000</td> <td>000</td> <td>000</td> <td>0000/00/00 00:00:00</td> </tr> <tr> <td>2</td> <td>000</td> <td>000</td> <td>000</td> <td>0000/00/00 00:00:00</td> </tr> <tr> <td>3</td> <td>000</td> <td>000</td> <td>000</td> <td>0000/00/00 00:00:00</td> </tr> <tr> <td>4</td> <td>000</td> <td>000</td> <td>000</td> <td>0000/00/00 00:00:00</td> </tr> <tr> <td>5</td> <td>000</td> <td>000</td> <td>000</td> <td>0000/00/00 00:00:00</td> </tr> </tbody> </table>	No.	ID	Num.	Lv.	Date and time	1	000	000	000	0000/00/00 00:00:00	2	000	000	000	0000/00/00 00:00:00	3	000	000	000	0000/00/00 00:00:00	4	000	000	000	0000/00/00 00:00:00	5	000	000	000	0000/00/00 00:00:00	<p>Screen for alarm monitoring.</p>
No.	ID	Num.	Lv.	Date and time																												
1	000	000	000	0000/00/00 00:00:00																												
2	000	000	000	0000/00/00 00:00:00																												
3	000	000	000	0000/00/00 00:00:00																												
4	000	000	000	0000/00/00 00:00:00																												
5	000	000	000	0000/00/00 00:00:00																												
<p>Grease up Monitor</p>		<p>Maintenance Screen for monitoring Grease up. Displays elapsed time with numeric values and a graph.</p>																														

<p>Battery Monitor</p>		<p>Maintenance Screen for monitoring battery replacement.</p> <p>Displays elapsed time with numeric values and a graph.</p>
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5.2. Screen transitions

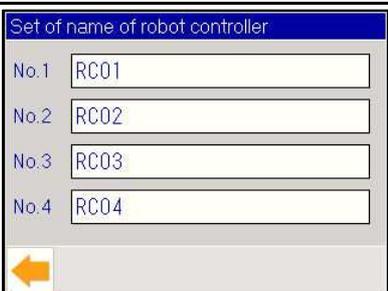


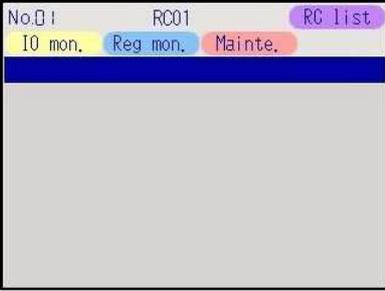
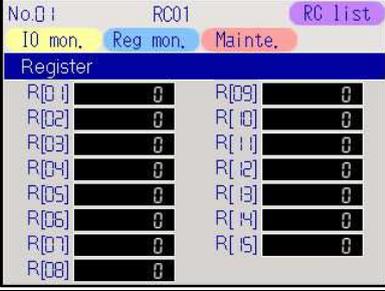
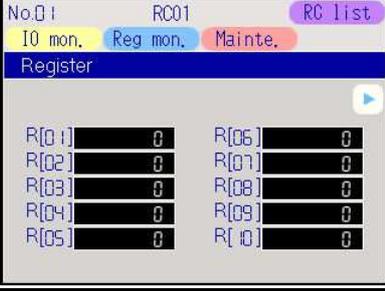
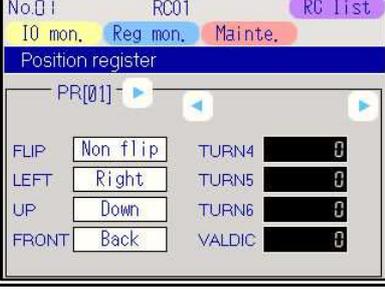
5.3. Screen List

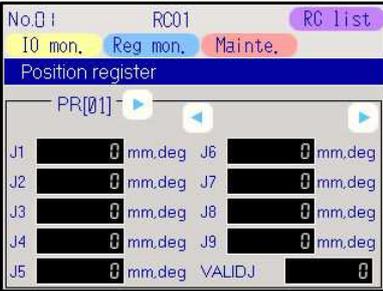
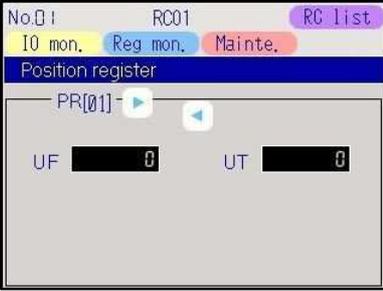
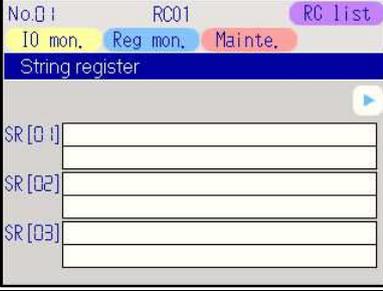
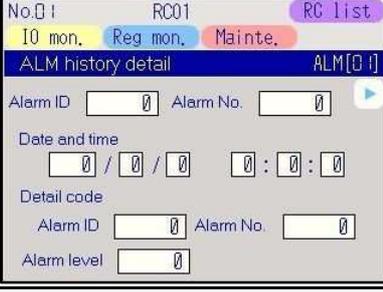
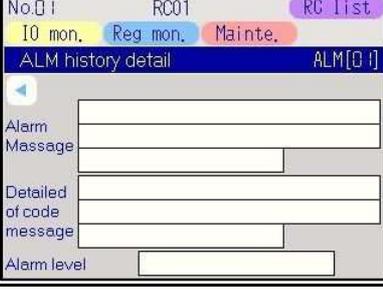
A list of the screens of this sample project file is shown below.

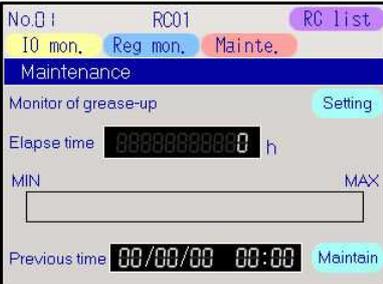
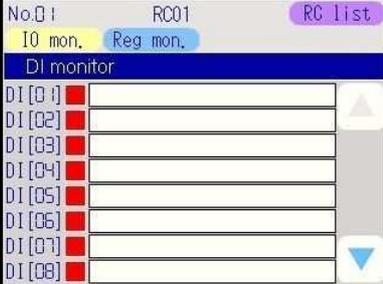
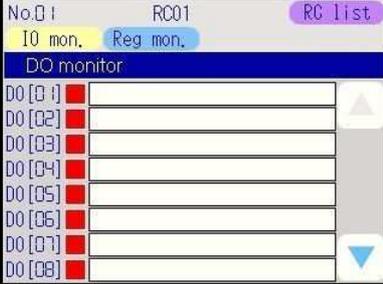
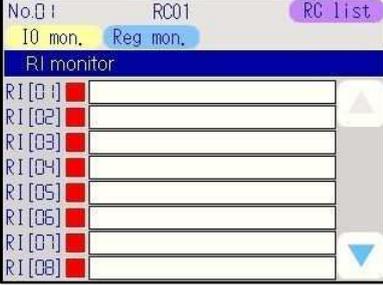
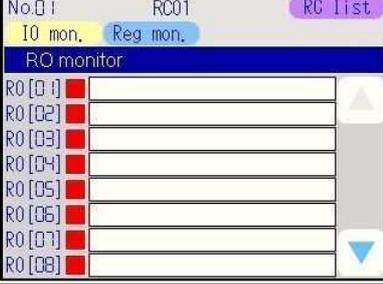
*Screen images that are used in the following description is that of GP-4301T.

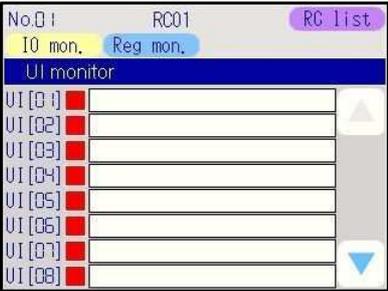
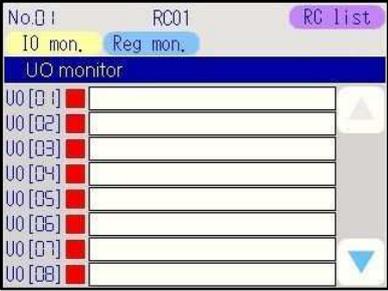
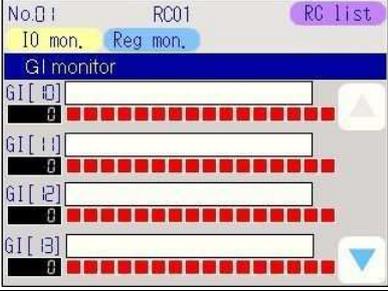
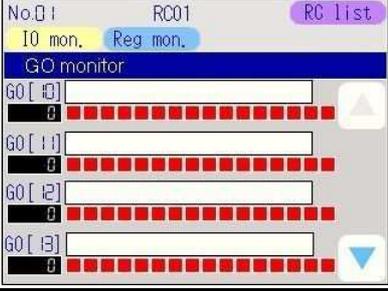
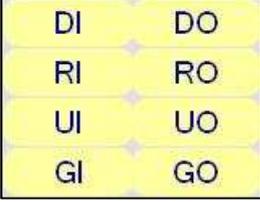
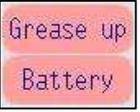
*(43):GP-4301T (45):GP-4501T

Screen No.	Screen Title	Screen	Function
B8000	Title		An initial screen of the sample project file. Makes initial processes to run the sample project file.
B8010	Controller List		A robot controller list screen. Displays currently connected robot controllers. Touch any robot controller to monitor it.
B8020	Screen Setting		Setting Screen for screen display. Configure the following settings. <ul style="list-style-type: none"> • The number of connected robot controller units • Display of Maintenance Screen • Switch language • Robot controller names
B8021	Screen Setting		Setting Screen 2 for screen display. Configure the following settings. <ul style="list-style-type: none"> • Permit writing • R device data size
B8030	RC Name set		Specify characters to be displayed for robot names on the robot controller list screen. Limited to one-byte alphanumeric characters.

Screen No.	Screen Title	Screen	Function
B8031	Set RC name (Keyboard)		Enter a robot controller name.
B8050	RC Main		Appears when the desired robot on the robot list is selected to show its information data. Touch the IO monitor, the Register monitor, or the Maintenance monitor button to switch to each screen.
B8100	Register Monitor		Screen for monitoring Register (R). Appears when the R device data size is 32bit.
B8101	Register Monitor (16bit)		Screen for monitoring Register (R). Appears when the R device data size is 16bit.
B8110	Position Register Monitor 1/4		Screen for monitoring Position Register (PR). Displays the first half of orthogonal data in the Position Register.
B8111	Position Register Monitor 2/4		Screen for monitoring Position Register (PR). Displays the second half of orthogonal data in the Position Register.

Screen No.	Screen Title	Screen	Function																														
B8112	Position Register Monitor 3/4	 <p>The screenshot shows the 'Position register' screen for RC01. It features a navigation bar with 'I/O mon.', 'Reg mon.', and 'Mainte.' tabs. Below the title 'Position register', there are navigation arrows and a 'PR[01]' label. The main area displays a grid of 10 data fields for axes J1 through J9, and a 'VALIDJ' field. Each field shows a numerical value followed by 'mm,deg'.</p>	<p>Screen for monitoring Position Register (PR).</p> <p>Displays each axis data in the Position Register.</p>																														
B8113	Position Register Monitor 4/4	 <p>The screenshot shows the 'Position register' screen for RC01. It features a navigation bar with 'I/O mon.', 'Reg mon.', and 'Mainte.' tabs. Below the title 'Position register', there are navigation arrows and a 'PR[01]' label. The main area displays two data fields: 'UF' and 'UT', each showing a numerical value.</p>	<p>Screen for monitoring Position Register (PR).</p> <p>Displays coordinate system numbers in the Position Register.</p>																														
B8120	String Register	 <p>The screenshot shows the 'String register' screen for RC01. It features a navigation bar with 'I/O mon.', 'Reg mon.', and 'Mainte.' tabs. Below the title 'String register', there are navigation arrows. The main area displays three text input fields labeled 'SR [01]', 'SR [02]', and 'SR [03]'.</p>	<p>Screen for monitoring String Register (SR).</p>																														
B8130	Alarm Monitor	 <p>The screenshot shows the 'Alarm history' screen for RC01. It features a navigation bar with 'I/O mon.', 'Reg mon.', and 'Mainte.' tabs. Below the title 'Alarm history', there is a table with the following columns: No., ID, Num., Lv., and Date and time. The table contains five rows of data.</p> <table border="1"> <thead> <tr> <th>No.</th> <th>ID</th> <th>Num.</th> <th>Lv.</th> <th>Date and time</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>000</td> <td>000</td> <td>000</td> <td>0000/00/00 00:00:00</td> </tr> <tr> <td>2</td> <td>000</td> <td>000</td> <td>000</td> <td>0000/00/00 00:00:00</td> </tr> <tr> <td>3</td> <td>000</td> <td>000</td> <td>000</td> <td>0000/00/00 00:00:00</td> </tr> <tr> <td>4</td> <td>000</td> <td>000</td> <td>000</td> <td>0000/00/00 00:00:00</td> </tr> <tr> <td>5</td> <td>000</td> <td>000</td> <td>000</td> <td>0000/00/00 00:00:00</td> </tr> </tbody> </table>	No.	ID	Num.	Lv.	Date and time	1	000	000	000	0000/00/00 00:00:00	2	000	000	000	0000/00/00 00:00:00	3	000	000	000	0000/00/00 00:00:00	4	000	000	000	0000/00/00 00:00:00	5	000	000	000	0000/00/00 00:00:00	<p>Screen for monitoring Alarm History (ALM).</p> <p>Touch each line of Alarm history to move to the screen that shows the selected alarm's detailed information.</p>
No.	ID	Num.	Lv.	Date and time																													
1	000	000	000	0000/00/00 00:00:00																													
2	000	000	000	0000/00/00 00:00:00																													
3	000	000	000	0000/00/00 00:00:00																													
4	000	000	000	0000/00/00 00:00:00																													
5	000	000	000	0000/00/00 00:00:00																													
B8135	Alarm Detail 1/2	 <p>The screenshot shows the 'ALM history detail' screen for RC01. It features a navigation bar with 'I/O mon.', 'Reg mon.', and 'Mainte.' tabs. Below the title 'ALM history detail', there are several input fields: 'Alarm ID', 'Alarm No.', 'Date and time' (YY/MM/DD HH:MM:SS), 'Detail code', 'Alarm ID', 'Alarm No.', and 'Alarm level'.</p>	<p>Displays detailed information of the selected alarm.</p>																														
B8136	Alarm Detail 2/2	 <p>The screenshot shows the 'ALM history detail' screen for RC01. It features a navigation bar with 'I/O mon.', 'Reg mon.', and 'Mainte.' tabs. Below the title 'ALM history detail', there are several input fields: 'Alarm Message', 'Detailed of code message', and 'Alarm level'.</p>	<p>Displays detailed information of the selected alarm.</p>																														

Screen No.	Screen Title	Screen	Function
B8150	Grease up Monitor		<p>Maintenance Screen for monitoring the timing of greasing up.</p> <p>Appears when display of maintenance screen is enabled.</p>
B8160	Battery Monitor		<p>Maintenance Screen for monitoring the timing of battery replacement.</p> <p>Appears when display of maintenance screen is enabled.</p>
(43) B8200 to B8206 (45) B8200 to B8204	DI Monitor		<p>Screen for monitoring Digital Input (DI).</p> <p>Displays DI[1] to DI[50].</p>
(43) B8210 to B8216 (45) B8210 to B8214	DO Monitor		<p>Screen for monitoring Digital Output (DO).</p> <p>Displays DO[1] to DO[50].</p>
(43) B8220 to B8226 (45) B8220 to B8224	RI Monitor		<p>Screen for monitoring Robot Input (RI).</p> <p>Displays RI[1] to RI[50].</p>
(43) B8230 to B8236 (45) B8230 to B8234	RO Monitor		<p>Screen for monitoring Robot Output (RO).</p> <p>Displays RO[1] to RO[50].</p>

Screen No.	Screen Title	Screen	Function
(43) B8240 to B8246	UI Monitor		Screen for monitoring Peripheral Device Unit Input (UI). Displays UI[1] to UI[50].
(45) B8240 to B8244			
(43) B8250 to B8256	UO Monitor		Screen for monitoring Peripheral Device Unit Output (UO). Displays UO[1] to UO[50].
(45) B8250 to B8254			
B8260 to B8263	GI Monitor		Screen for monitoring Group Input. Displays GI[10] to GI[15].
B8270 to B8273	GO Monitor		Screen for monitoring Group Output. Displays GO[10] to GO[15].
W1901	IO Monitor		Touch the IO monitor button of RC Main to display this window. Moves to the screen of the selected IO monitor.
W1902	Register		Touch the Register monitoring button of RC Main to display this window. Moves to the screen of the selected Register monitor.
W1903	Maintenance		Touch the Maintenance button of RC Main to display this window. Moves to the screen of the selected maintenance.

6. Settings

6.1. Robot Controller Settings

To use this sample project file, robot controller settings need to be configured.

6.1.1. Holding Register Allocation Settings

To use this sample project file, holding register allocation settings need to be configured. Specify system variables, \$SNPX_ASG on the robot controller's side as shown below.

Table 6-1-1 Holding Register Allocation Variable Settings

	\$ADDRESS	\$SIZE	\$VAR_NAME	\$MULTIPLY
\$SNPX_ASG[1]	1	30	R[1]	1
\$SNPX_ASG[2]	31	500	PR[1]	1
\$SNPX_ASG[3]	531	400	SR[1]	1
\$SNPX_ASG[4]	931	500	ALM[1]	1
\$SNPX_ASG[5]	1431	2000	DI[C1]	1
\$SNPX_ASG[6]	3431	2000	DO[C1]	1
\$SNPX_ASG[7]	5431	2000	RI[C1]	1
\$SNPX_ASG[8]	7431	2000	RO[C1]	1
\$SNPX_ASG[9]	9431	2000	UI[C1]	1
\$SNPX_ASG[10]	11431	2000	UO[C1]	1
\$SNPX_ASG[11]	13431	640	GI[C10]	1
\$SNPX_ASG[12]	14071	640	GO[C10]	1

7. Descriptions of functions

7.1. Number of robot controller units to be connected

To use this sample project file, specify the number of robot controller units to be connected to the HMI unit.

The default is 1. Follow the procedures below to increase the number of units to be connected.

- 1) Touch the frame indicated by (1) on the robot controller list screen to display the Setting screen.

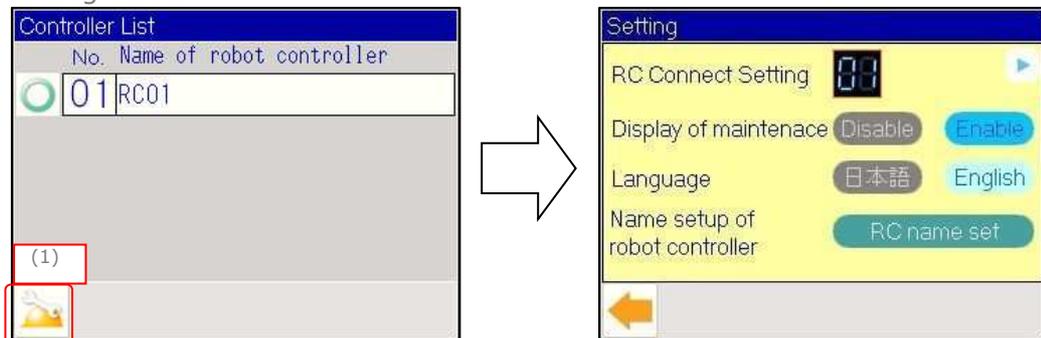


Figure 7-1-1 Setting of the number of robot controller units to be connected (1)

- 2) Touch the numeric value of "RC Connect Setting" in the frame indicated by (2) to display a keypad. Enter the number of robot controller units to be connected.

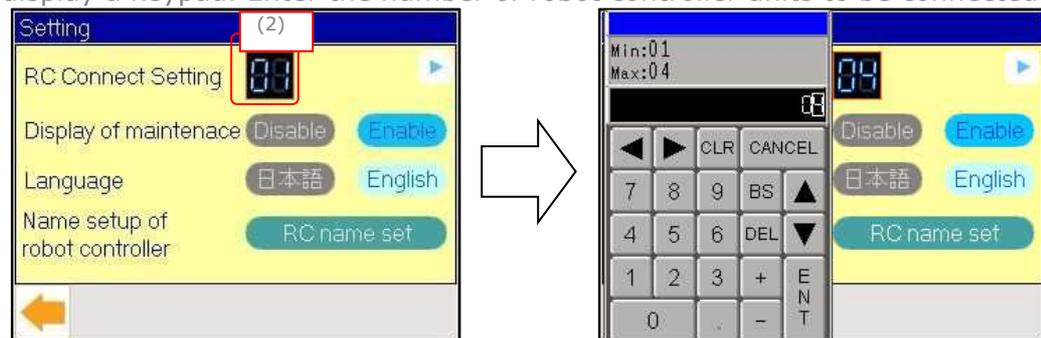


Figure 7-1-2 Setting of the number of robot controller units to be connected (2)

- 3) Touch the arrow button in the frame (3) on the bottom left of the screen to return to the robot controller list screen. Make sure that the list shows as many units as you selected.

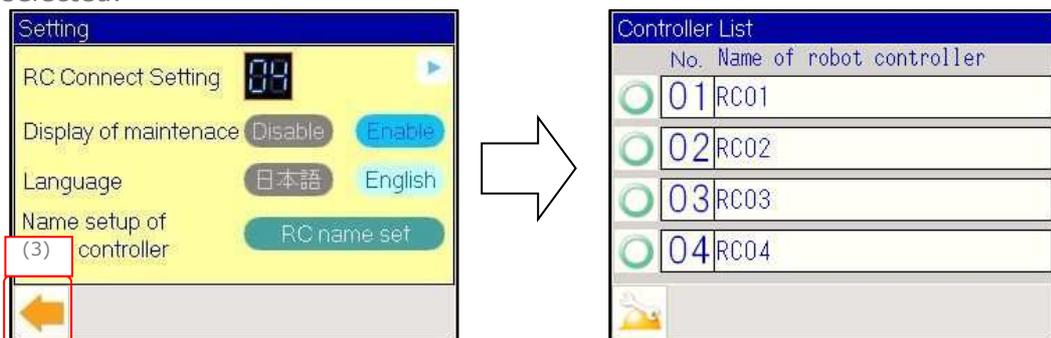


Figure 7-1-3 Setting of the number of robot controller units to be connected (3)

7.2. Maintenance Screen Display

Select either 'display' or 'non-display' of the button to move to the Maintenance screen (Grease up and Battery replacement).

The default is 'non-display'. To show the button, follow the procedures below.

- 1) Touch the button in the frame (1) on the robot controller list screen to display the Setting screen.

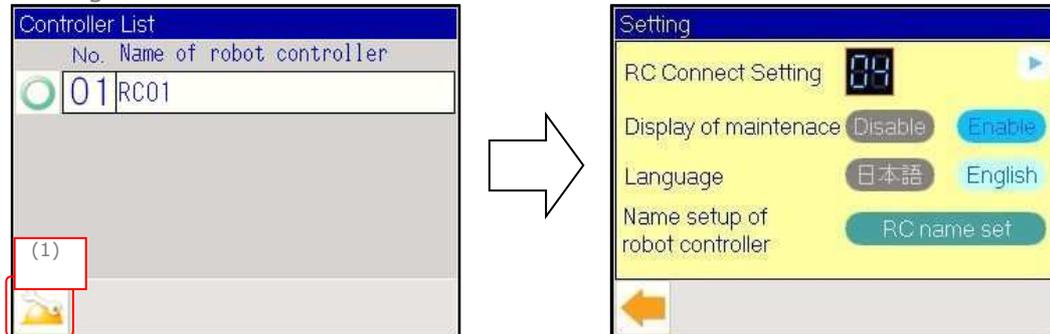


Figure 7-2-1 Maintenance Screen Display Setting (1)

- 2) Touch 'Enable' in the frame (2) for [Display of maintenance].

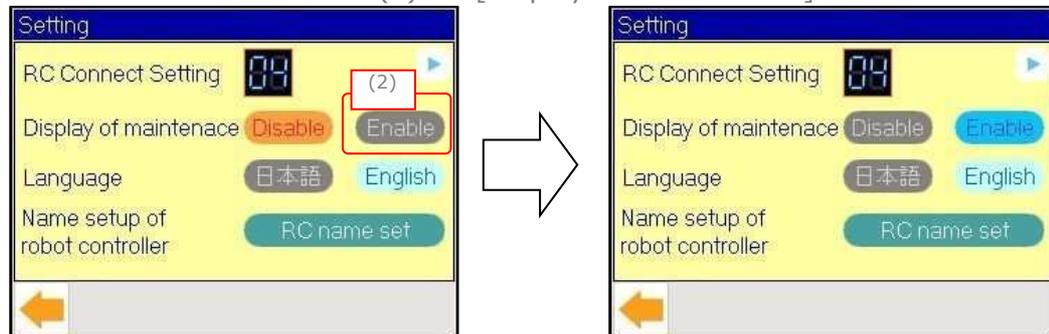


Figure 7-2-2 Maintenance Screen Display Setting (2)

- 3) Touch the arrow button on the bottom left of the screen to return to the robot controller list screen. Touch any line of robot controller as shown below, for example the first line shown in the frame (3), to move to the main screen. Make sure that the Maintenance button shown in the frame (4) is displayed on the screen.

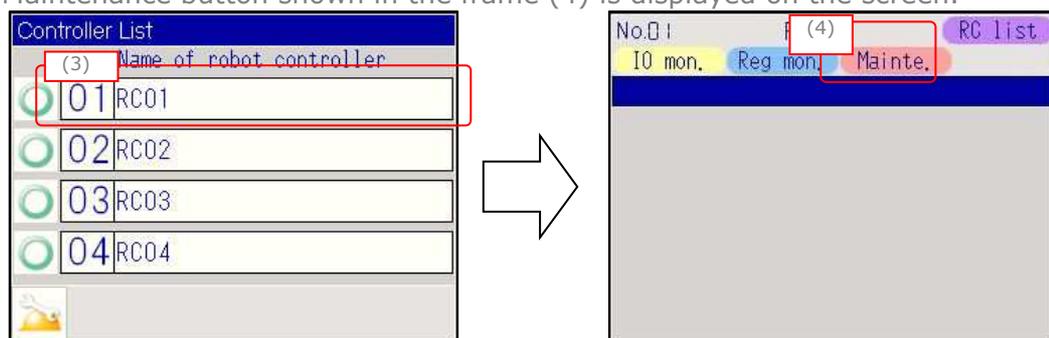


Figure 7-2-3 Maintenance Screen Display Setting (3)

7.3. Switching Language

Switch language displayed on screens between Japanese and English. The default is Japanese.

The following shows how to switch it.

- 1) Touch the button indicated by (1) on the robot controller list screen to display the Setting screen.

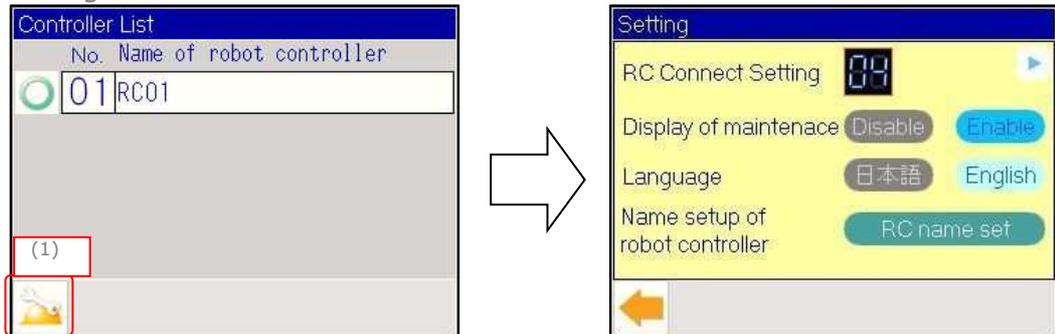


Figure 7-3-1 Switch Language Setting (1)

- 2) Touch either Japanese (日本語) or English shown in the frame (2) for [Language] to switch between the languages.



Figure 7-3-2 Switch Language Setting (2)

7.4. Robot Controller Name Setting

Specify robot names to be displayed on the robot controller list screen. The default is RC**(** shows an axis number).

Change robot names following the procedures below.

- 1) Move from the robot controller list screen to the Setting screen. Touch the "RC name set" button for [Name setup of robot controller] on the Setting screen to move to the name setting screen.

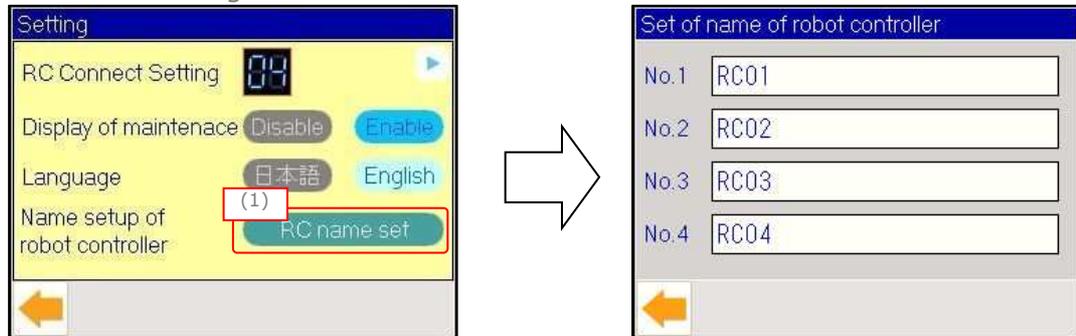


Figure 7-4-1 Robot Controller Name Setting (1)

- 2) Touch any name you want to change to display a keypad for entering a name. Enter a name. Only one-byte alphanumeric characters can be entered.

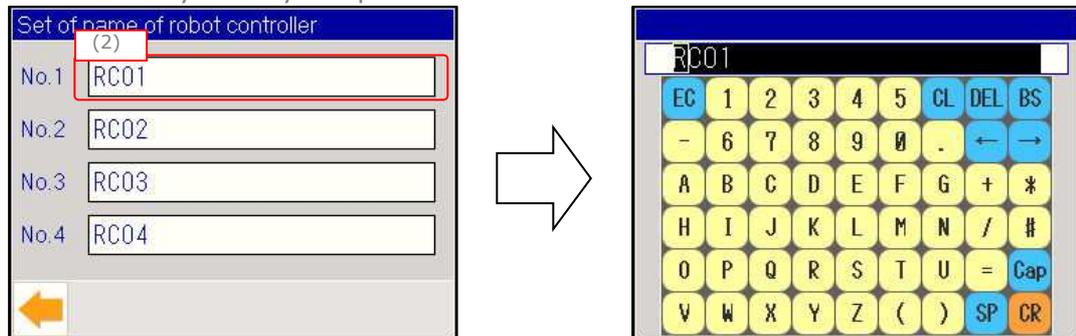


Figure 7-4-2 Robot Controller Name Setting (2)

7.5. Choose whether or not to use a robot controller

You can choose whether or not to use each of the robot controller units displayed on the robot controller list.

For that setting, follow the procedures below.

- 1) Touch the 'O' button on the left of the axis of the robot controller you don't want to use, which is indicated by (1) on the robot controller list.

The name and the 'O' button on the same line as the touched 'O' button will disappear as shown in the area indicated by (2).

The robot controller is not in use under this condition.

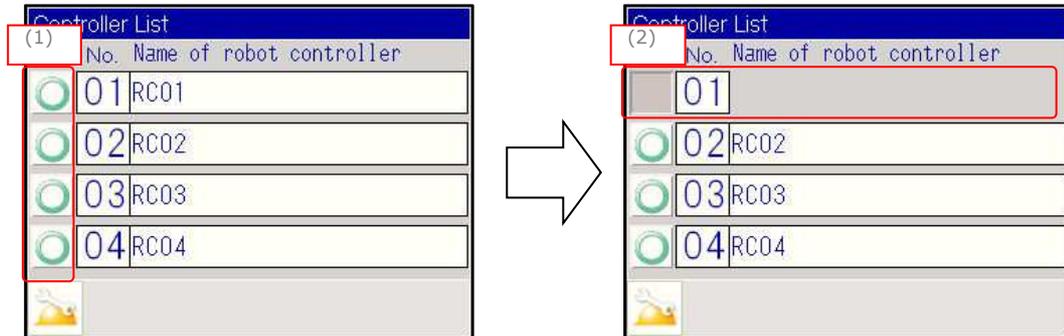


Figure 7-5-1 Robot Controller Use/Not Use Setting

When use of a robot controller is disabled as shown above, no communication with the robot controller is made. Also, it's impossible to move to the robot controller's monitoring screens.