

Recipe Function

Sample Screen Manual

Mitsubishi Electric Corporation

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REVISIONS

Sample Screen Manual

Date	Control No.*	Description	
2013/8/19	BCN-P5999-0116	First edition	-
2016/5	BCN-P5999-0116-2	Version A	Recipe display (record list) supported
2016/8	BCN-P5999-0116-2a	Version B	Changes in explanation of screens caused by screen specification improvement
2017/7	BCN-P5999-0116-2b	Version C	C1:[2. SYSTEM CONFIGURATION] Added the description of the SD card C2:[4.6 Recipe List] Corrected the description in accordance with screen data correction

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

Project Data

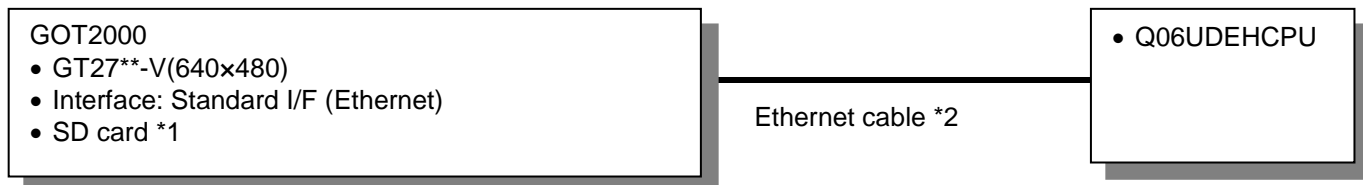
Date	Project data	GT Designer3*	Description	
2013/8/19	Recipe_V_Ver1_E.GTX	1.100E	First edition	-
2016/5	Recipe_V_Ver2_E.GTX	1.155M	Version A	Recipe display (record list) supported, design partially changed
2016/8	Recipe_V_Ver2a_E.GTX	1.156N	Version B	Operability improved in changeover screens
2017/7	Recipe_V_Ver2b_E.GTX	1.178L	Version C	[Recipe No. 30001] Corrected the setting in the device tab

* 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 when using the recipe function.

2. SYSTEM CONFIGURATION



*1 The SD card is used for the recipe function.

*2 For more details about the cable, please refer to the "GOT2000 Series Connection Manual (Mitsubishi Products)".

3. GOT

3.1 System Applications That Are Automatically Selected

Type	System application name	
Standard Function	Standard System Application	
	Standard Font	Japanese
Communication Driver	Ethernet Connection	Ethernet (MELSEC), Q17nNC, CRnD-700, Gateway
Extended Function	Standard Font	
	Chinese (Simplified)	
	Outline Font	Alphanumeric/Kana
		Japanese (Kanji)
		Chinese (Simplified)
	Device Data Transfer	
	Recipe Display (Record List)	

3.2 Controller Setting of Screen Design Software

Detail Setting

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

GOT Ethernet Setting

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

3.3 Ethernet Setting of Screen Design Software

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

4. SCREEN SPECIFICATIONS

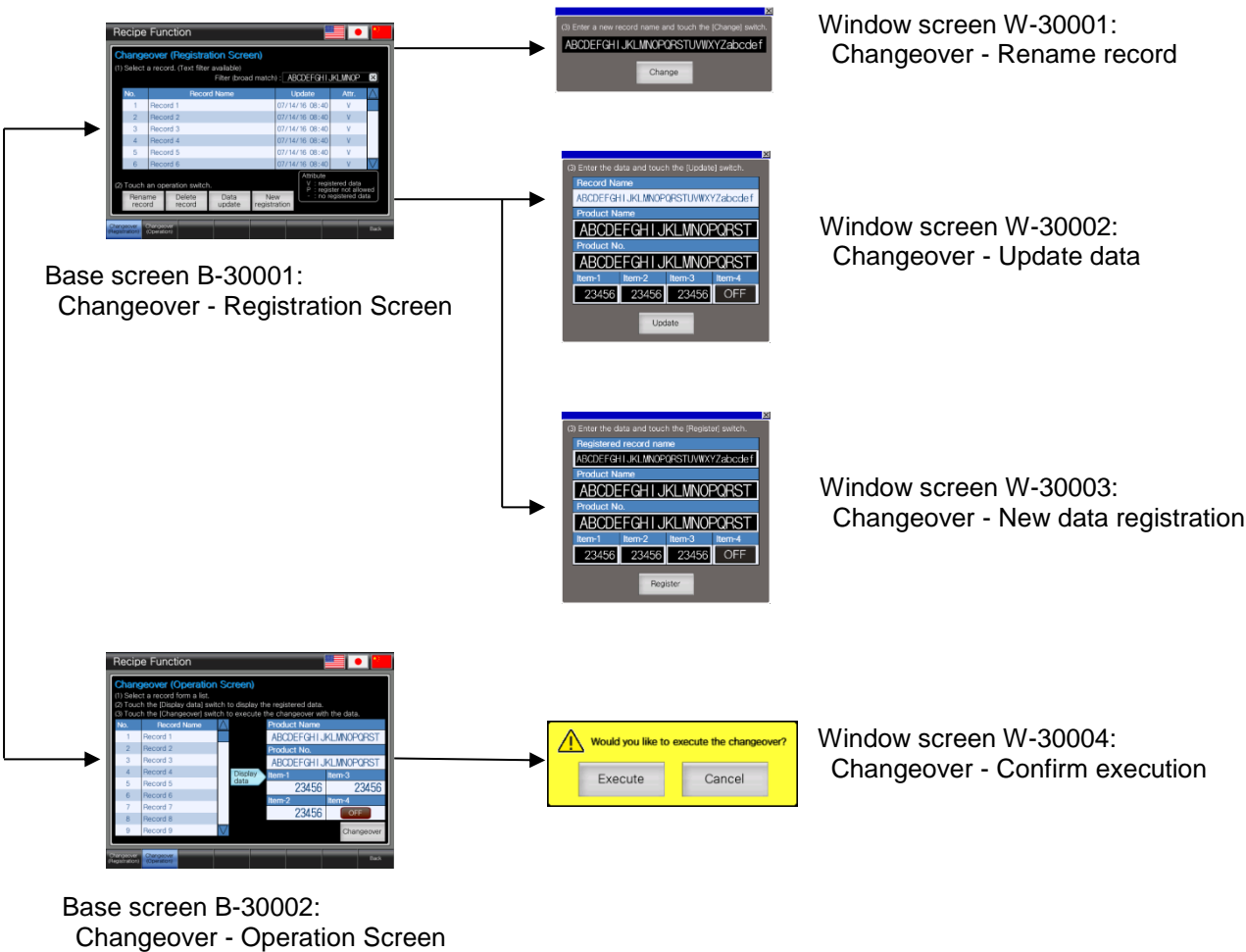
4.1 Display Language

The language of the text displayed on the screen can be switched between Japanese, English and Chinese (Simplified). The text strings in each language are registered in the columns No. 1 to No. 3 in the comment group 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)

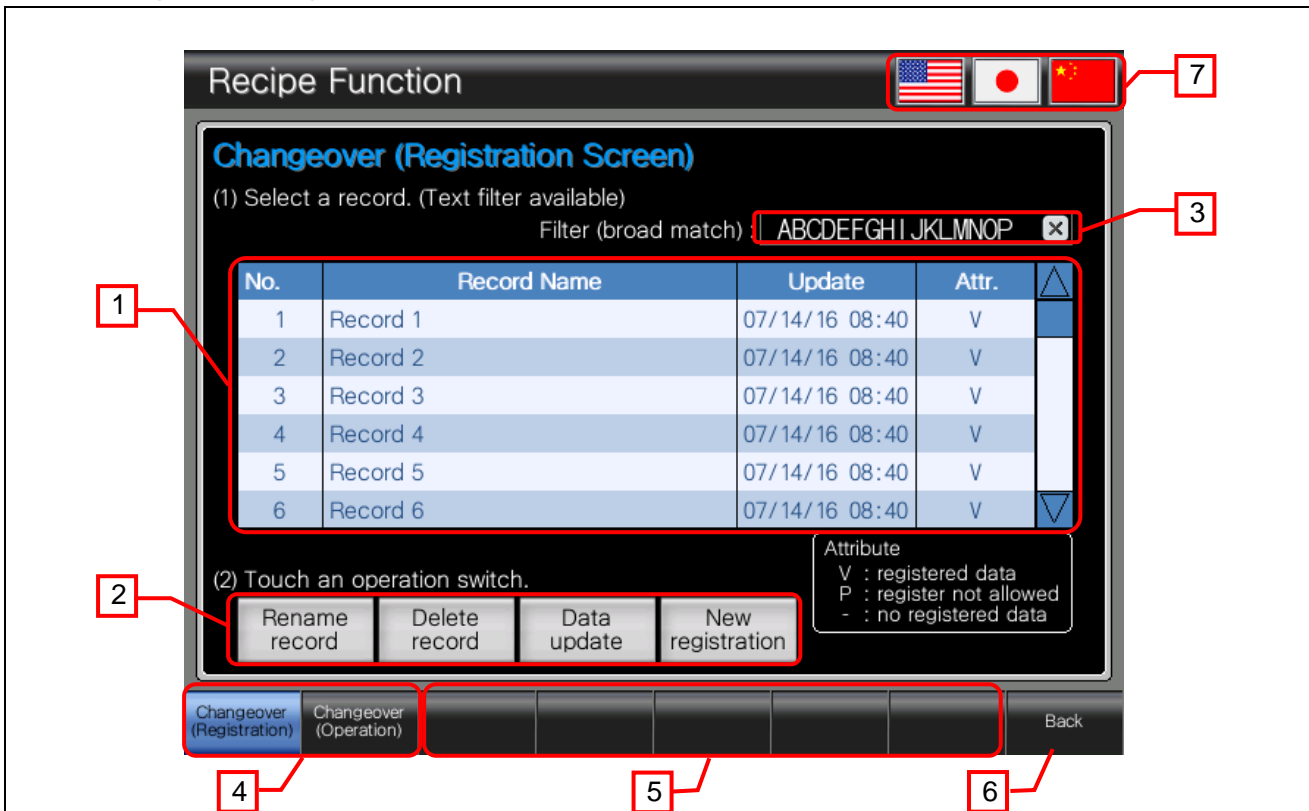
4.2 Screen Transition

4.4.1 Screen list/transition (individual)



4.3 Explanation of Screens

4.3.1 Changeover - Registration Screen (B-30001)



Outline

This screen is used to register the changeover data (to store the values in the recipe file in the SD card).

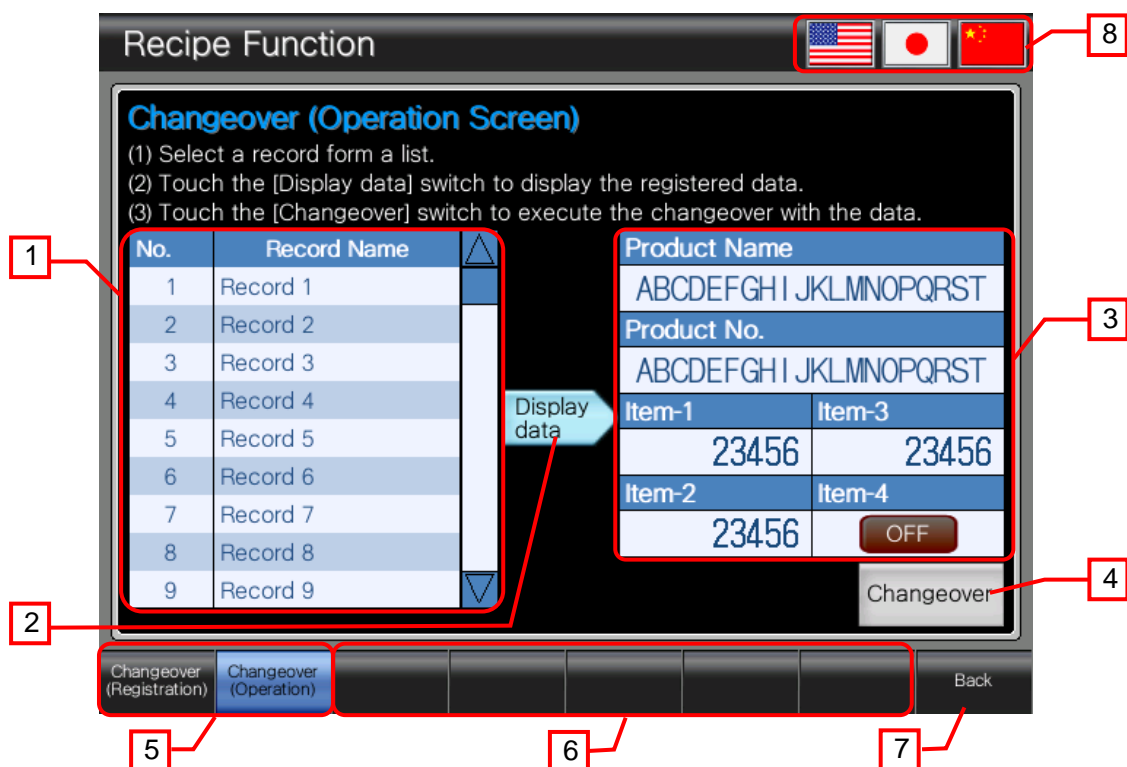
Description

- Displays the recipe file in the SD card on the recipe display (record list). The following operations are available. Select data to be operated from a list.
 - Title row.....Sort the record list in ascending or descending order.
 - Record rowsTouch a record row to select the record, and touch the row again to deselect the record.
 - Scroll bars.....Move the display area of the record rows up and down.
- Performs various recipe operations.
 - Rename record Displays a window to rename the record selected in [1].
 - Delete record Deletes the record selected in [1].
 - Update data..... Displays a window to update data of the selected record.
 - New data registration..... Deselects the record and displays a window to register new data.
- Narrow down the records to be displayed by specifying a character string (partial match). (up to 16 characters).
 - ✕: Deletes the character string (cancel narrowing down).
- Switches to each screen. The blue switch indicates the currently displayed screen, thus selecting this switch will not switch the screen.
- These are reserved switches for base screen switching.
- Switches to the previously displayed screen.
- Switches the display language.

Remarks

- Recipe No. 30001 is used.
- When a record that has no name and device value does not exist in the recipe file, a system alarm occurs in case new data is registered. In this sample, record names and device values of Record No.11 to No.20 are not registered to prevent the alarm from working.
- The meaning of symbols displayed on the attributes on the recipe display (record list) is as follows.
 - V : The record that has device value
 - P : The record that cannot be overwritten with the device value
 - : The record that has no device value
- Since the display target of the recipe display (record list) is set in [Writable records], the record that has no device value cannot be displayed in the list.
- The #7 switch also switches the system language corresponding to the display language.
- The recipe file is a binary file that requires conversion before being displayed or edited on a personal computer. For more details, please refer to "5. BINARY FILE → UNICODE TEXT/CSV FILE CONVERSION".

4.3.2 Changeover - Operation Screen (B-30002)



Outline

This screen is used to display the data registered on the B-30001 Changeover - Registration Screen (the values stored in the recipe file in the SD card).

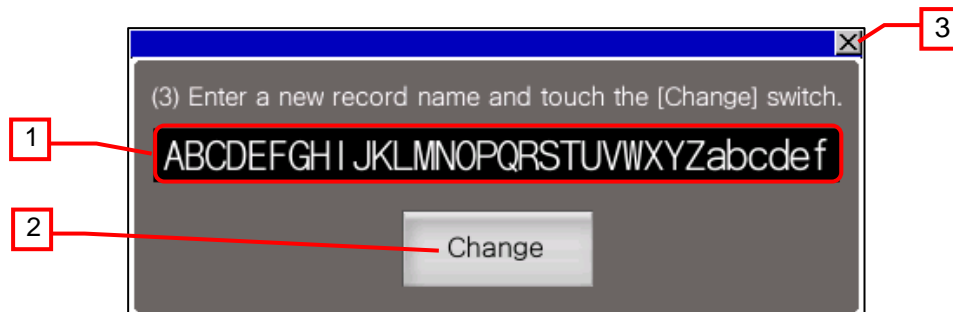
Description

- Displays the recipe file in the SD card on the recipe display (record list). The following operations are available. Select data to be displayed from a list.
 - Title row.....Sort the record list in ascending or descending order.
 - Record rowsTouch a record row to select the record, and touch the row again to deselect the record.
 - Scroll bars.....Move the display area of the record rows up and down.
- Select a record in [1] and touch this switch to display the values of the record in [3].
- Displays the data of the record.
 - Product Name, Product No. : Displays the registered character string.
 - Item-1 to Item-3 : Displays the registered value.
 - Item-4 : Displays the ON or OFF lamp.
- Displays a confirmation dialog window to execute the changeover.
- Switches to each screen. The blue switch indicates the currently displayed screen, thus selecting this switch will not switch the screen.
- These are reserved switches for base screen switching.
- Switches to the previously displayed screen.
- Switches the display language.

Remarks

- Recipe No. 30001 is used.
- Since the display target of the recipe display (record list) is set in [Writable records], the record that has no device value cannot be displayed in the list.
- The #8 switch also switches the system language corresponding to the display language.
- The recipe file is a binary file that requires conversion before being displayed or edited on a personal computer. For more details, please refer to "5. BINARY FILE → UNICODE TEXT/CSV FILE CONVERSION".

4.3.3 Changeover - Rename record (W-30001)



Outline

This window is used to rename a record selected on the recipe display (record list).

Description

1. Enter a new record name.
2. Rename the record and close the window.
3. Cancel renaming record and close the window.

Remarks

- Recipe No. 30001 is used.

4.3.4 Changeover - Update data (W-30002)

The screenshot shows a software window titled 'Update data' with a close button (X) in the top right corner. The window contains the following elements:

- Instruction: (3) Enter the data and touch the [Update] switch.
- Field 1: 'Record Name' with the text 'ABCDEFGH I JKLMNOPQRSTUVWXYZabcde f'.
- Field 2: 'Product Name' with the text 'ABCDEFGH I JKLMNOPQRST'.
- Field 3: 'Product No.' with the text 'ABCDEFGH I JKLMNOPQRST'.
- Table with 4 columns: 'Item-1', 'Item-2', 'Item-3', and 'Item-4'. The values are '23456', '23456', '23456', and 'OFF' respectively.
- Button: 'Update' at the bottom center.

Numbered callouts point to the following elements:

- 1: Points to the 'Record Name' field.
- 2: Points to the 'Product Name' and 'Product No.' fields.
- 3: Points to the 'Update' button.
- 4: Points to the close button (X) in the top right corner.

Outline

This window is used to update the data registered in the records of a recipe.

Description

1. Displays a record name to be updated.
2. Enter the data for the following.
 - Product Name, Product No : Enter an arbitrary character string.
 - Item-1 to Item-3 : Enter an arbitrary value.
 - Item-4 : Set to ON or OFF.
3. Update the data and close the window.
4. Cancel updating and close the window.

Remarks

- Recipe No. 30001 is used.

4.3.5 Changeover - New data registration (W-30003)

The screenshot shows a software window titled '(3) Enter the data and touch the [Register] switch.' with a close button (X) in the top right corner. The window contains several input fields and a 'Register' button at the bottom. Red boxes with numbers 1 through 4 point to specific elements: 1 points to the 'Registered record name' field, 2 points to the 'Product Name' and 'Product No.' fields, 3 points to the 'Register' button, and 4 points to the close button (X).

(3) Enter the data and touch the [Register] switch.

Registered record name
ABCDEFGHIJ KLMNOPQRSTUVWXYZabcdef

Product Name
ABCDEFGHIJ KLMNOPQRST

Product No.
ABCDEFGHIJ KLMNOPQRST

Item-1	Item-2	Item-3	Item-4
23456	23456	23456	OFF

Register

Outline

This window is used to register new data to the records of a recipe.

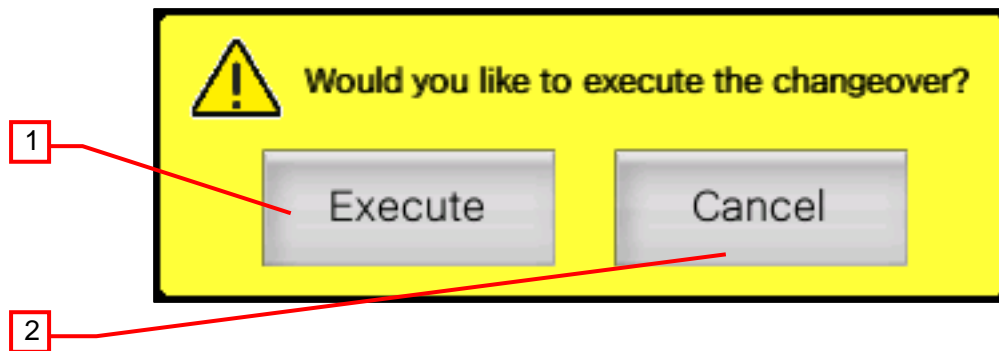
Description

1. Enter a new record name to be registered.
2. Enter the data for the following.
 - Product Name, Product No : Enter an arbitrary character string.
 - Item-1 to Item-3 : Enter an arbitrary value.
 - Item-4 : Set to ON or OFF.
3. Register new data and close the window.
4. Cancel the new data registration and close the window.

Remarks

- Recipe No. 30001 is used.
- If a record name in [1] is not entered, the new registration is cancelled and the window is closed even though the switch in [3] is pressed.

4.3.6 Changeover - Confirm execution (W-30004)



Outline

This is a confirmation dialog window to execute the changeover.

Description

1. Execute the changeover and close the window.
2. Cancel executing the changeover and close the window.

Remarks

- Recipe No. 30001 is used.
- When the changeover is executed, the registered data are transferred from the GOT internal devices to the devices of PLC via the device data transfer.

4.4 Device List

Some of the devices used for settings of the on-screen switches and lamps, etc., are also used for common settings in scripts, etc. 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) Screen Design Manual".

4.4.2 Devices of the controller

Type	Device No.	Application
Bit	M110	Changeover Item-4
Word	D100 to D119	Changeover Product Name
	D120 to D139	Changeover Product No.
	D140 to D142	Changeover Item-1 to Item-3

4.4.3 GOT internal devices

Type	Device No.	Application
Bit	GB60100	Recipe (No. 30001) write trigger
	GB60101	Recipe (No. 30001) read trigger
	GB60110	Recipe (No. 30001) Item-4
	GB60400.b0	Transfer 1 trigger device
Word	GD60000	Base screen switching
	GD60001	Overlap window 1
	GD60018	Dialog window
	GD60021	Language switching
	GD60022	System language switching
	GD60100 to GD60119	Recipe (No. 30001) Product Name
	GD60120 to GD60139	Recipe (No. 30001) Product No.
	GD60140 to GD60142	Recipe (No. 30001) Item-1 to Item-3
	GD60150	Recipe (No. 30001) record No. device
	GD60300 to GD60302	Recipe common settings
	GD61000 to GD61031	Record list object – Control target record name
	GD61100 to GD61115	Record list object – Narrow down record names

4.5 Comment List

Comment Group No.	Comment No.	Where comments are used
500	No.1 to 5	B-30001,B-30002
	No.6	B-30001,B-30002,W-30002
	No.7 to 12	B-30002,W-30002,W-30003
	No.201 to 212	B-30001
	No.301 to 306	B-30002
	No.1001 to 1002	W-30001
	No.1101 to 1102	W-30002
	No.1201 to 1203	W-30003
	No.1301 to 1303	W-30004

4.6 Recipe List

4.4.4 Common Setting

External Control information	
External Control device	GD60300
Recipe No. Storage Device	GD60301
Record No. Storage Device	GD60302

Recipe No. 30001 Recipe 1

Item		Settings
Recipe file	Recipe file	Use a recipe file (read and write)
	File format	G2P (Binary)
	Drive name	A: Standard SD Card
	Folder name	Package1
	File name	ARP30001.G2P
Trigger device	Write trigger 1	GB60100
	Read trigger 1	GB60101
	Record No. device	GD60150
Block number		4
Record number		20
Character Code		Unicode
Storage Order		High-->Low
Block 1	Device	GD60100
	Device type	String
	Point	20
Block 2	Device	GD60120
	Device type	String
	Point	20
Block 3	Device	GD60140
	Device type	Signed BIN16
	Point	3
Block 4	Device	GD61404
	Device type	Bit
	Point	1

4.7 Device Data Transfer List

ID: 201 Transfer 1

Item		Settings
Device data transfer trigger	Trigger type	Rise
	External control device	GD60400
	Trigger device	GD60400.b0
	Transfer inverting flag device	GD60400.b1
External notification information	External notification device	None
	Device Data Transfer notification Signal	None
	BCD conversion error notification signal	None
	Device data transfer error notification signal	None
Device	Block number	2
Block 1	Device type	Signed BIN16
	Point	43
	Source Device	GD60100
	Destination Device	D100
	Offset	None
Block 2	Device type	Bit
	Point	1
	Source Device	GB60110
	Destination Device	M110
	Offset	None

4.8 Script List

Item	Settings
Project script	Not specified
Screen script	Not specified
Object script	Not specified
Script Symbol	Not specified
Object Script Symbol	Not specified

4.4.5 Project script

Not used

4.4.6 Screen script

Not used

4.4.7 Object script

Not used

4.4.8 Script Symbol

Not used

4.4.9 Object Script Symbol

Not used

5. BINARY FILE → UNICODE TEXT/CSV FILE CONVERSION

The recipe file created with the recipe function is a binary file (*.G2P). To display and edit the recipe file on a personal computer, it must be converted into a Unicode text file or CSV file. The following methods can be used to convert the file.

- (1) Conversion using the devices
 1. Specify the [External Control Information] settings (Recipe Common Setting) and set the [File Conversion External Control] (Recipe (File Save tab)).
 2. Write the recipe No. in the recipe No. storage device, and turn on b8 (recipe file convert signal) of the external control device.
- (2) Conversion using the recipe operation window
 1. Select [Enable recipe file operation on the monitor] in the [Recipe Common Setting].
 2. Touch the special function switch:[Recipe Information] or the [Oper.] switch on [Recipe information] in the utility.
- (3) Conversion using the utility
 1. Select the G2P file in the [Recipe Information] of the utility. Then touch G2P→CSV or G2P→TXT.
- (4) Conversion using GT Designer3
 1. Save the binary file on the personal computer.
 2. Select the [Tools] - [Resource Data Conversion] - [Recipe File] menu of GT Designer3.
- (5) Conversion using the special function switch:[Recipe File Operation].
 1. Set the recipe number and select [Import] or [Export] for [Operation Type] on the special function switch:[Recipe File Operation].

For more details, please refer to "3. Editing recipe files (4)" and "4. Converting a recipe file (1) to (4)" in "9.3.2 How to use the recipe" in the "GT Designer3 (GOT2000) Screen Design Manual".