

Chapter 8

Recipe Input Screen

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Recipe Input Screen

Instruction

The recipe input screen is a screen to write recipes (a group of data) registered in a memory device to consecutive addresses in a device/PLC at one time. Also this screen is limited to access and prevents from erroneous operation. On the operation log screen, you can record when, how, and by whom operations are performed.

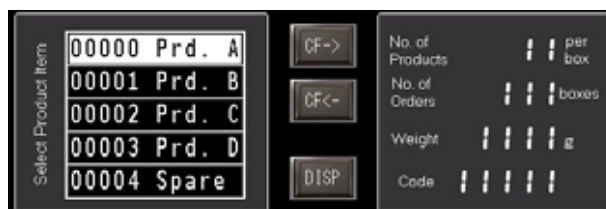


Recipe Input Screen



Operation Log Screen

- 1) Displays items in registered recipes in a list and writes data of the selected item to a device/PLC. (→ See page 8-2.)



- 2) Enter a user ID and a password to enter the recipe input screen. (→ See page 8-14.)



- 3) Records when, how, and by whom operations are performed. (→ See page 8-18.)





Perform/Set up Recipe Feature

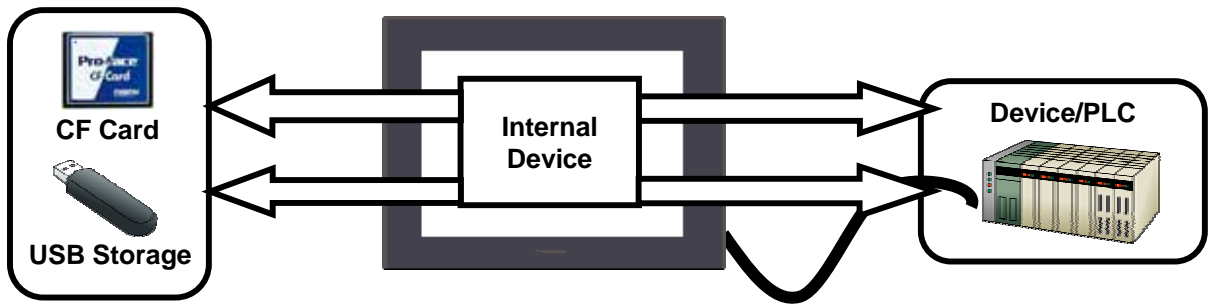
Instruction

The Recipe feature is a feature to write groups of data (recipes), which have been registered in the GP unit, into addresses in a device/PLC by transferring specified recipes.

• Transfer CSV Data Feature

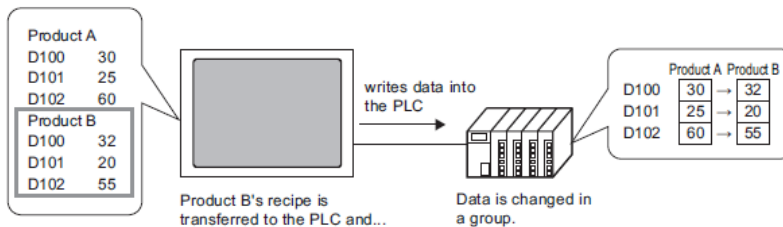
The Transfer CSV Data feature allows you to transfer data in CSV format (CSV Data) between a memory device in the GP unit and a device/PLC.

There are two ways to transfer CSV data; filing and logging. Here in this practice, let's use this feature as a filing usage.



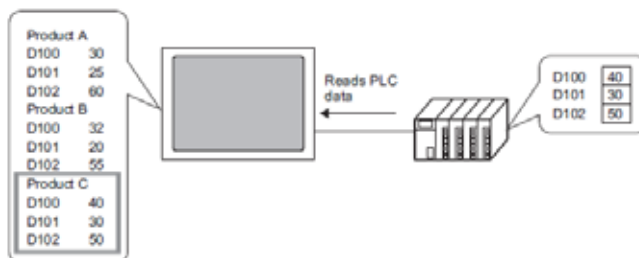
<Use as Filing>

CSV Data saved in a memory device can be transferred to a device/PLC directly.



<Use as Logging>

Data in a device/PLC can be transferred to a memory device directly in CSV format.

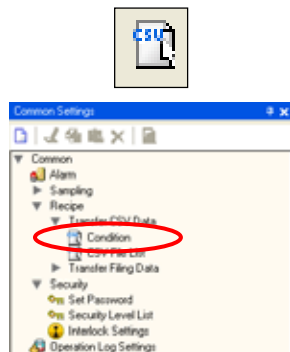


You can also read data in a device/PLC and register it as a new recipe.

Setup procedure of the Transfer CSV Data feature

- 1) Set the conditions of the recipe transfer.

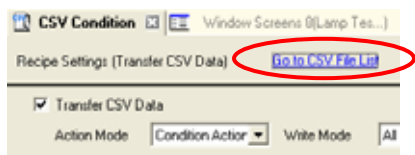
Transfer CSV Data (Condition)



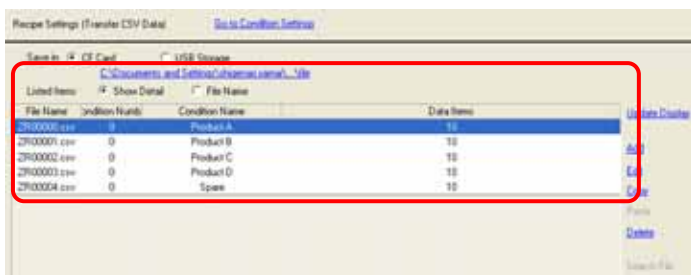
CSV Condition



- 2) Set the recipe (the CSV file).



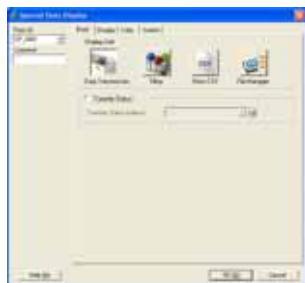
Recipe settings



- 3) Open the base screen, place and set a Special Data Display (Data Transmission).

- * Place a special data display or a file item switch only when manual transfer. It is unnecessary for automatic transfer.

Special Data Display Settings



- 4) Save the project file and transfer the data to the GP unit.

★ **One Point**

Methods of Recipe transfer

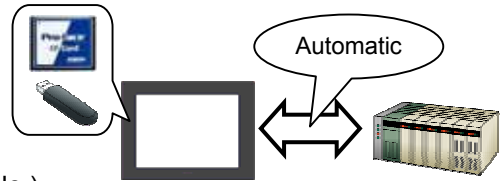
There are two methods for transferring CSV Data: Transfer by a trigger from a device/PLC (Automatic Transfer) and transfer by a trigger from a display for data transmission which is placed on a GP screen (Manual Transfer).

In addition, Automatic Transfer has two actions: Condition Action with which you set destination addresses beforehand and Address Action with which you can change destination addresses at each time of transfer

Automatic Transfer

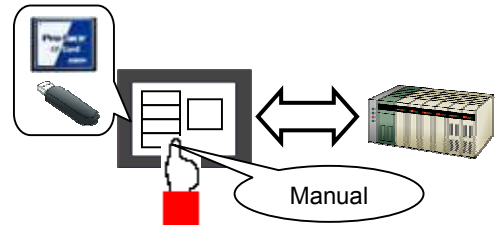
Data is transferred automatically by a trigger by the device.

- { **Condition Action** (Destination address is fixed.)
- { **Address Action** (Destination address is variable.)



Manual Transfer

Data is transferred by screen operation using the Special Data Display: Data Transmission.

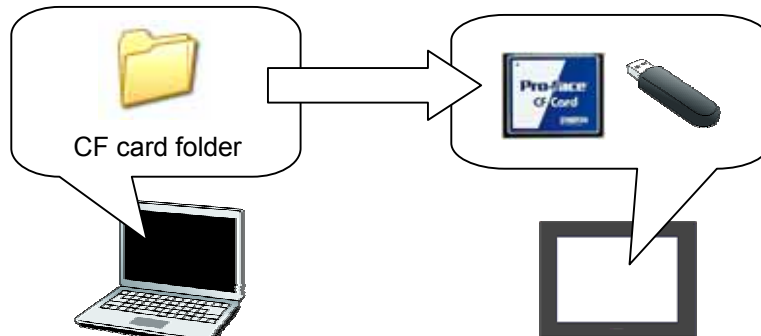
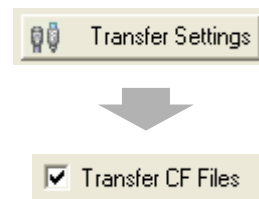


NOTE

Transferring a Recipe file

A CSV file to be used as a recipe is created in the CF card folder located in your computer when creating screens.

To transfer the recipe data in the CF card folder, check "Transfer CF Files" in the Transfer Settings dialog box of the Transfer Tool when transferring screen data.



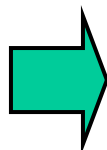


Let's Enter Data from Recipe

<Practice Screen>




<Completed Screen>

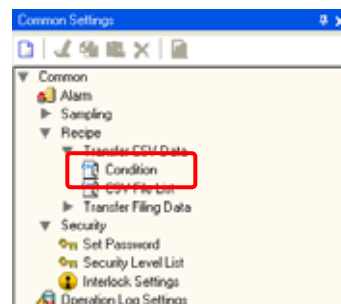


[Setup Procedure]

1. Open the base screen "8".
2. Set [Recipe: Transfer CSV Data].
3. Select and place a Special Data Display: Data Transmission.

(1) Select Transfer CSV Data (Condition)

In the [Common Settings] window, select [Recipe] → [Transfer CSV Data] → [Condition].
 Or click the [Transfer CSV Data (Condition)]  icon on the tool bar.

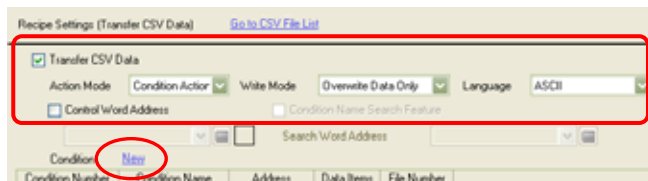


(2) CSV Condition

- 1) Check [Transfer CSV Data].

Here, make settings as below.
 Write Mode: Overwrite Data Only
 Language: ASCII
 Control Word Address: Not checked

①



②

- 2) Click [New](#) .

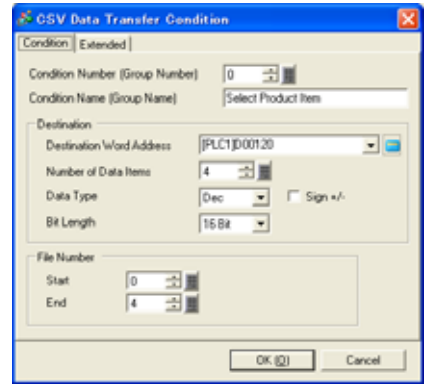



3) The [CSV Data Transfer Condition] window will open.

3

Here, make settings as below.

Condition Number (Group Number): 0
 Condition Name (Group Name): Select Product Item
 Destination Word Address: D120
 Number of Data Items: 4
 Data Type: Dec
 Bit Length: 16 Bit
 Start: 0
 End: 4

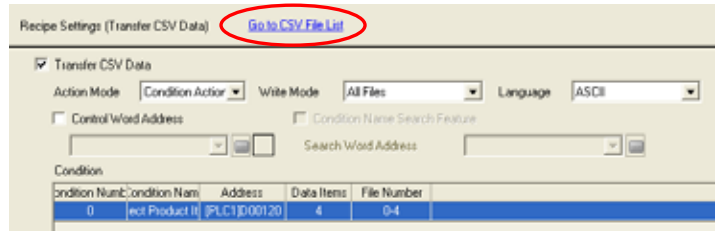


Click  to close the window after completing the settings.

(3) Select Transfer CSV Data (CSV File List)

1

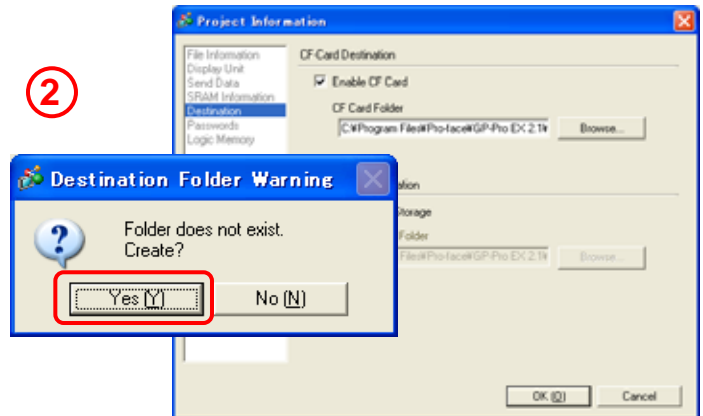
1) Click [Go to CSV File List].



2) Create a destination folder.
 When a message box asking if you want to create a folder, click [Yes].

2

Next, the Project Information window appears.
 Check [Enable CF Card] and specify the destination folder.

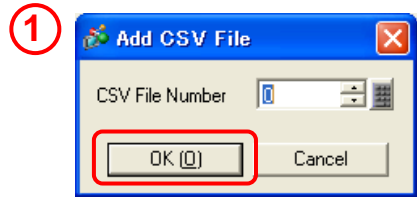


3) Click [Add] to make a list to display registered recipe files.



(4) Add and Edit CSV File

1) The [Add CSV File] window will appear.
Click [OK].



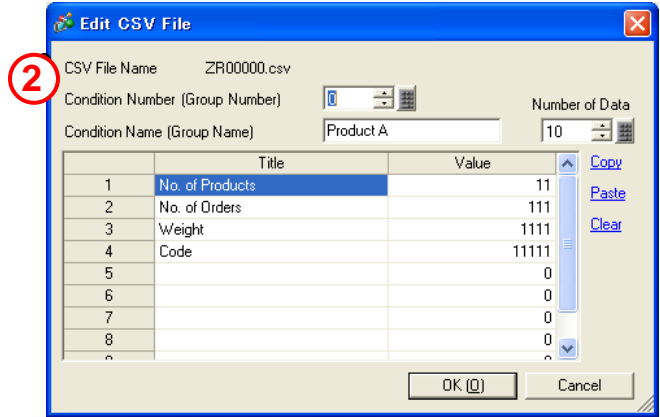
2) The [Edit CSV File] window will open.
Here, set each item name and recipe data as below.

Condition Number (Group Number):
Condition Name (Group Name):

Prod A

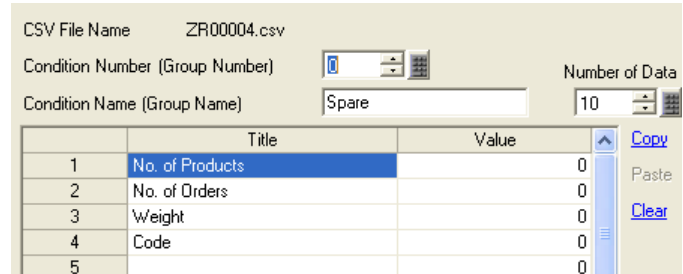
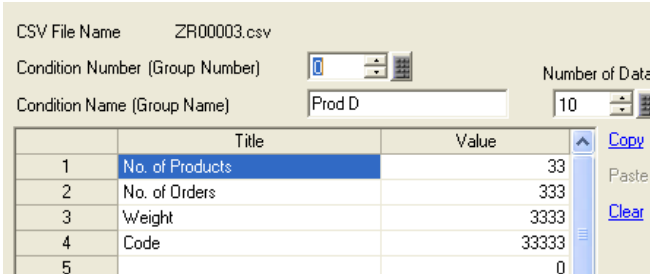
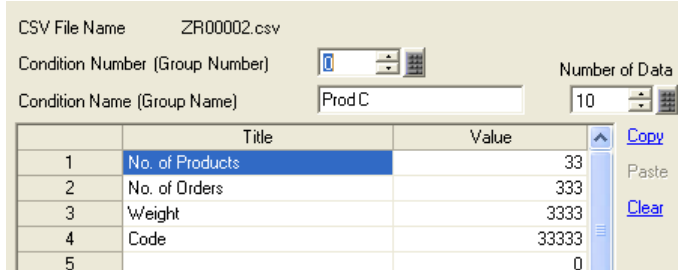
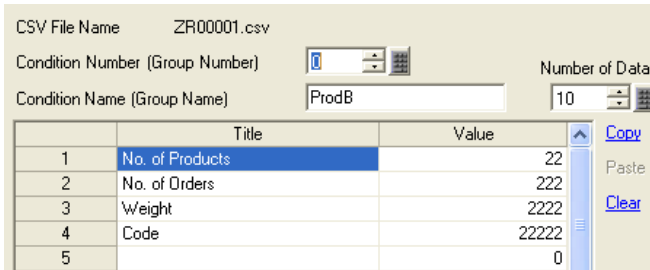
Number of Data: 4

	Title	Value
1:	No. of Products	11
2:	No. of Orders	111
3:	Weight	1111
4:	Code	11111

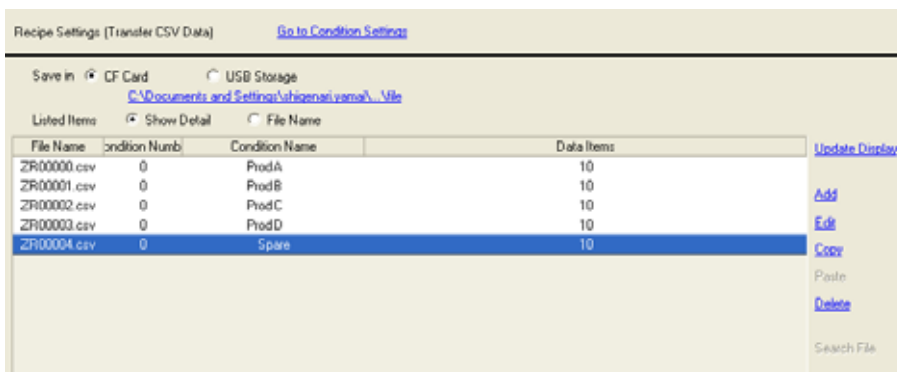


Click  to finish the settings.

In the same way, add and set 4 other CSV files as below.



3) 5 CSV files are created. A list as below will be created.



(5) Select/Place Special Data Display

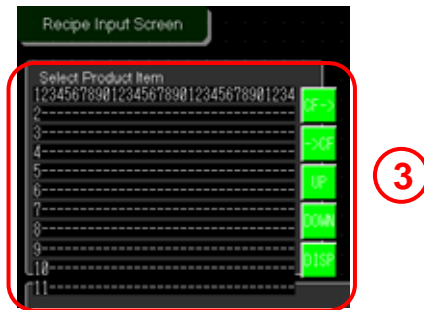
1) Open the base screen "8".



2) Click the [Special Data Display] icon on the tool bar.



3) Click the screen where to place the special data display.



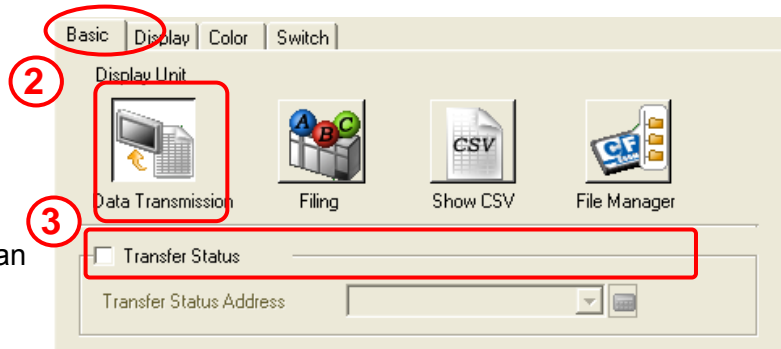
(6) Basic Settings

1) Double-click the placed special data display.

2) Select [Data Transmission] from [Display Unit].

3) **Transfer Status:**
Specify whether or not to set an address to check transfer conditions or result (status) when transferring.

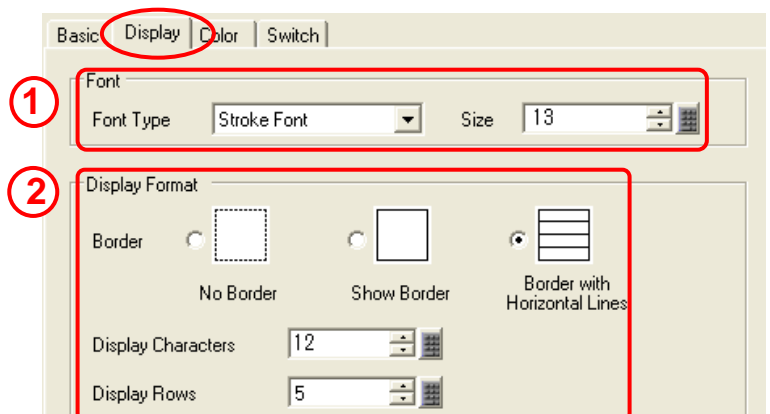
Here, check off the box.



(7) Display Settings

1) Set [Font] and [Size] of texts to be displayed.
Here, select "Stroke Font" for [Font Type] and set [Size] to "13".

2) Set Display Format.
Here, make settings as below.
Border: Border with Horizontal Lines
Display Characters: 12
Display Rows: 5

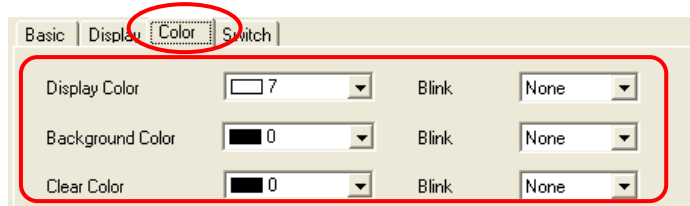


Display Characters:
Specify the number of characters to be displayed in a row.
The range is from 1 to 100.

Display Rows:
Specify the number of rows to be displayed for item names.
Set it between 1 and 50.

(8) Color Settings

Set [Display Color], [Background Color], and [Clear Color] as you like.



(9) Switch Settings

- 1) Select a desired shape for switches.
- 2) Select switches to place with the special data display.

Transfer from CF/USB to Device/PLC:
Sets a switch to transfer CSV data from a CF card or USB storage to a device/PLC.

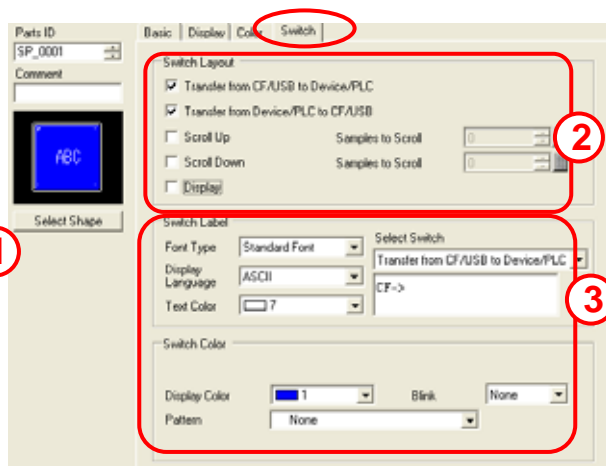
Transfer from Device/PLC to CF/USB:
Sets a switch to transfer CSV data from a device/PLC to a CF card or USB storage.

Scroll Up: Sets a switch to scroll up on the data display.

Scroll Down: Sets a switch to scroll down on the data display.

Display: Sets a switch to display selected CSV data in [CSV DISPLAY].

Here, check off [Scroll Up], [Scroll Down] and [Display].



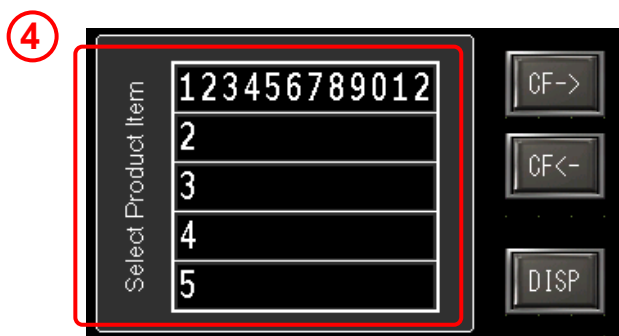
- 3) Select a font type and set switch labels as follows.
Transfer from CF/USB to Device/PLC: CF ->
Transfer from Device/PLC to CF/USB: -> CF

Set a switch color as you like.

- 4) Click [OK] and adjust the position of the special data display.



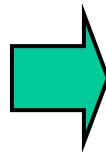
Switches can be also created individually and placed on the base screen as shown on the right.





Let's Check Recipe Data on Display Unit

<Practice Screen>



<Completed Screen>



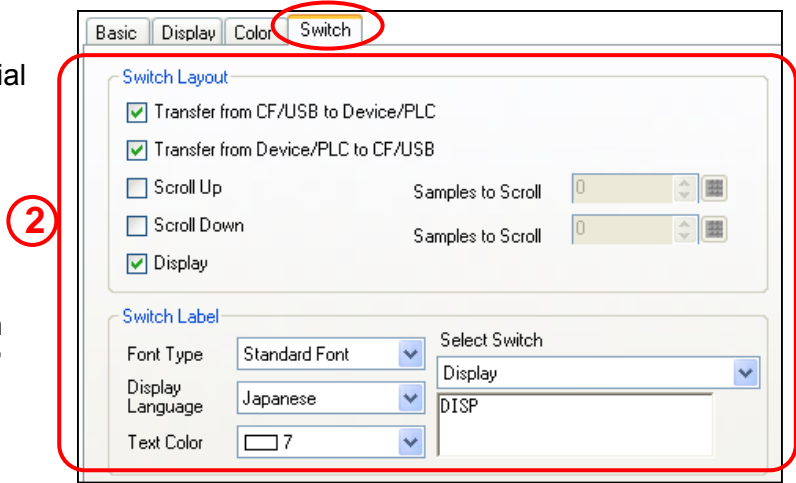
- [Setup Procedure]
1. Open the base screen "8".
 2. Set a switch with the Special Data Display: Data Transmission.
 3. Place a Special Data Display: Show CSV.

(1) Set Special Data Display (Data Transmission)

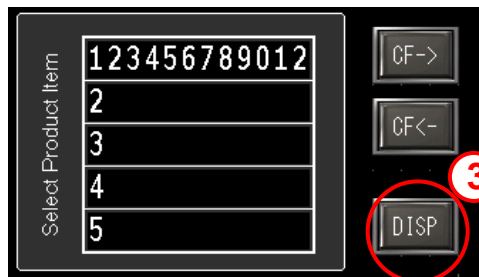
1) Open the base screen "8".
Double-click the placed special data display (Data Transmission).

2) Select the [Switch] tab.

Check [Display] in the Switch Layout field and enter "DISP" for the switch label.



3) Click [OK] and adjust the position of the switch.

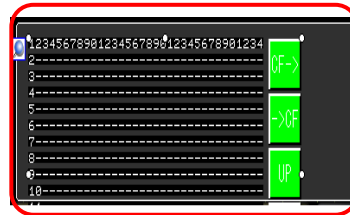


(2) Select/Place Special Data Display (Show CSV)

1) Open the base screen "8".



2) Click the [Special Data Display] icon on the tool bar and place it on the screen.



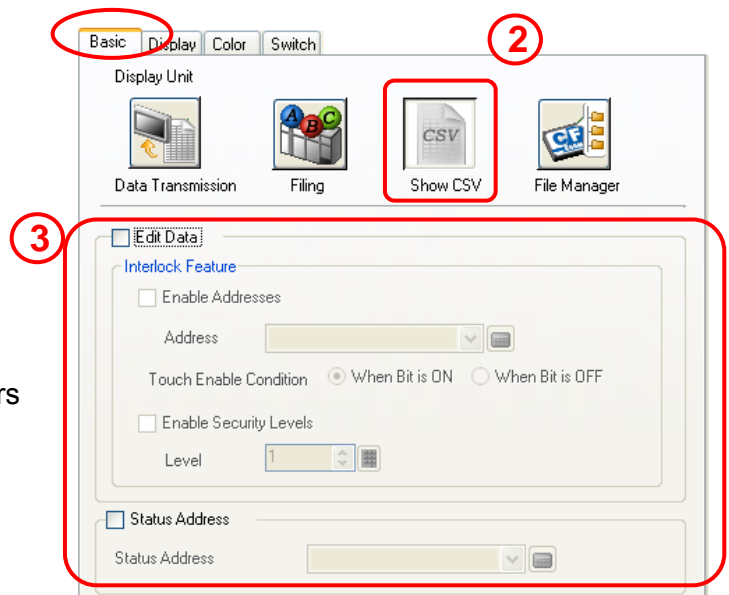
(3) Basic Settings

1) Double-click the placed special data display.

2) Select [Show CSV] from [Display Unit].

3) **Edit Data:**
Specify whether or not to edit recipe data on the special data display. If checked, the editing screen appears when you touch a cell of data to edit.

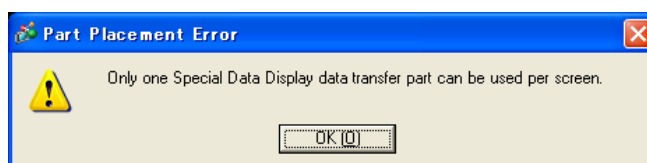
Status Address:
Specify whether or not to check the process status or error contents with the designated address when editing or printing data.



Here, check off both [Edit Data] and [Status Address].

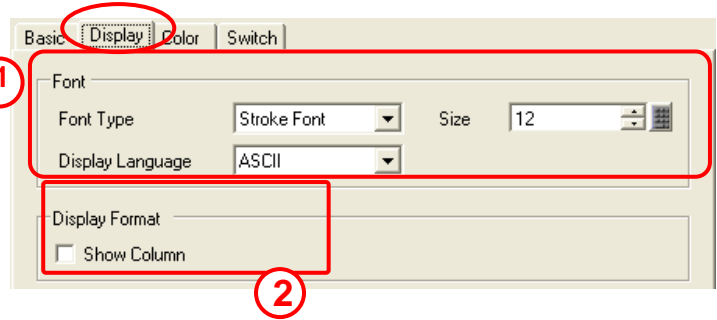
★ One Point

Only one Special Data Display (Data Transmission) can be placed per screen. If you place a Special Data Display (Data Transmission) on a screen where another Special Data Display (Data Transmission) has been already placed, the message window below will appear.



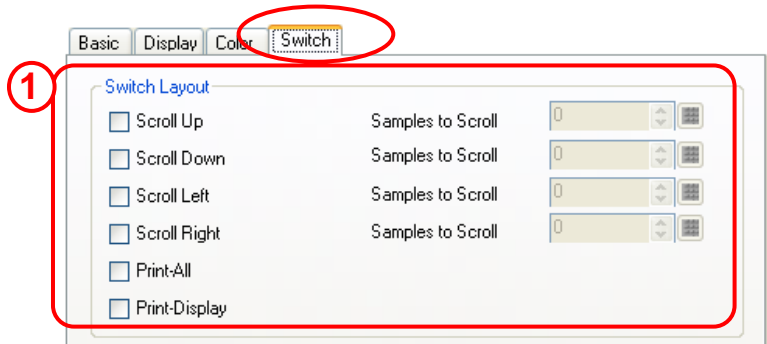
(3) Display Settings

- 1) Set [Font] and [Size] of texts to be displayed.
Here, select “Stroke Font” for [Font Type] and set [Size] to “12”.
- 2) **Show Column:**
Specify whether or not to display the row number and column number in the CSV display.
Here, check off [Show Column].

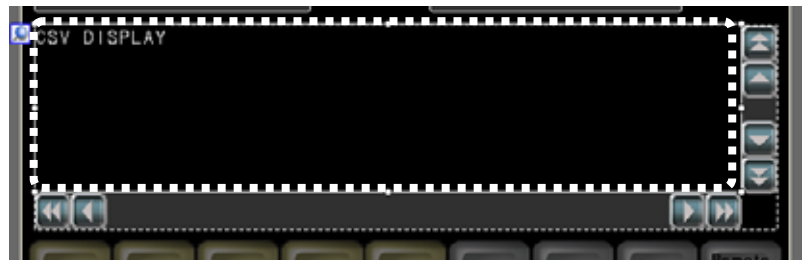


(4) Switch Settings

- 1) Check off all the items in the Switch Layout field
- 2) Click [OK] and adjust the position of the CSV display.



According to the frame of the already placed switches, adjust the display frame size.

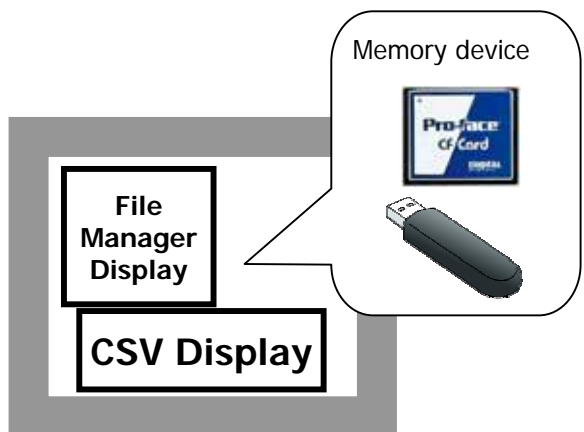


★ One Point

Select/Display CSV File

You can select a CSV file in a memory device using the “Special Data Display: File Manager” and display and edit data using the “Special Data Display: Show CSV”.

Combining these displays enables you to operate data saved in a CSV file on a GP screen, and you don't have to re-insert a memory device into your computer.



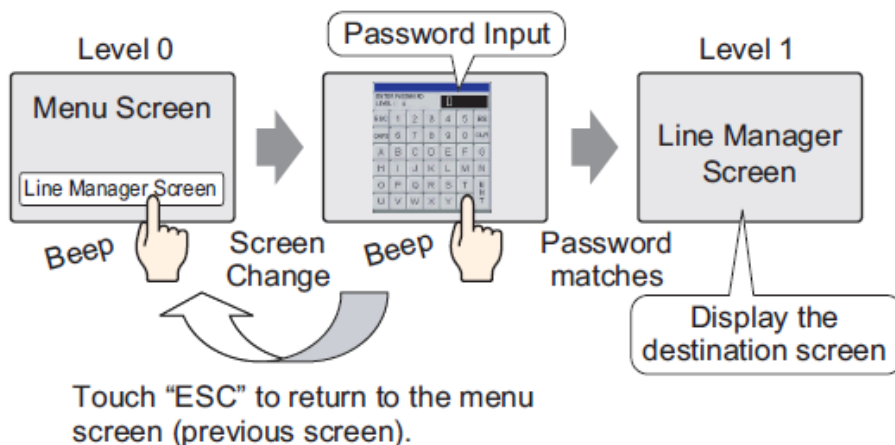


How to set [Security]

Instruction

Use Security Settings if you want to create a screen that only specified people can watch or operate. If a specified user ID and password are not entered, the screen will not be changed because of a lock.

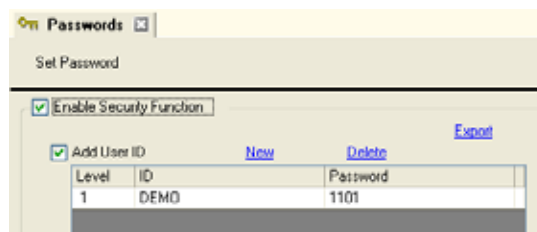
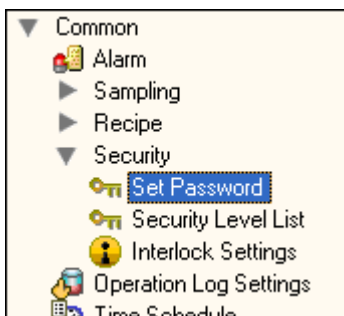
Example of use



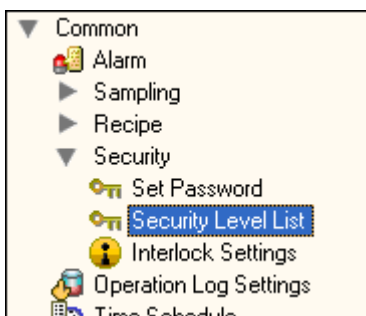
How to set Security

Make the following settings on the [Security] settings.

(1) In the [Set Password] settings, set an optional ID and password.



(2) On the Security Level List, set a security level for each screen.



Screen	Security Level
B1	0 Menu Screen
B2	0 Run State Screen
B3	0 Device Monitor Screen
B4	0 Operation / Guide Screen
B5	0 Set Value Input Screen
B6	0 Alarm History Screen
B7	0 Data Sampling Screen
B8	1 Recipe Input Screen
B9	0 Remote PC Operation Screen

✓ Practice **Let's Create Screen with Access Limited**

The user ID/password entry screen appears before the recipe operation screen opens.




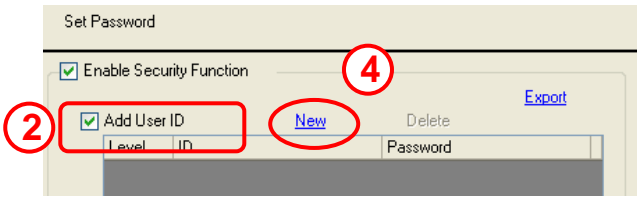
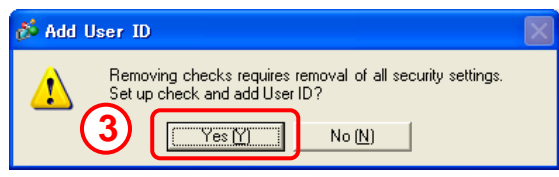
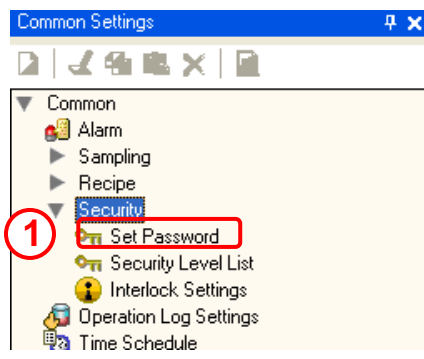
When you change to the base screen "8", the user ID/password entry screen appears. Touch to pop up the keypad and enter.

If the ID and password are correct, the recipe operation screen opens. But if not, an error is displayed and it does not open.

[Setup Procedure]
1. In the Common Settings window, set a password.

(1) Set Password

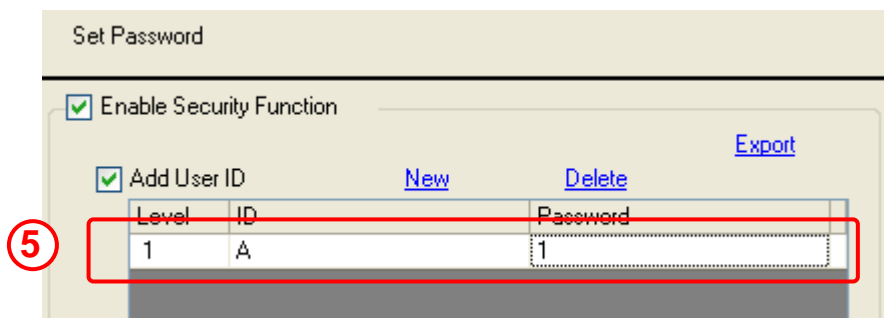
- 1) In the [Common Settings] window, select [Set Password].
Or click the [Set Password]  icon on the tool bar.
- 2) Check [Enable Security Function] and [Add User ID].
- 3) The Add User ID message box will appear. Click [Yes].



- 4) Click [New](#).

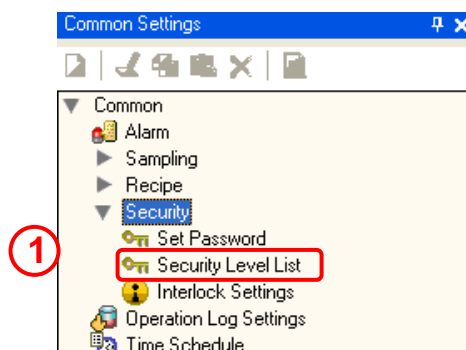


- 5) Set [ID] to "A" and [Password] to "1".



(6) Security Level List

- 1) In the [Common Settings] window, select [Security] → [Security Level List].



- 2) Set [Security Level] from 0 to 15. Security Level 0 means no security is set. When a screen with Security Level 0 is changed to another screen with Security Level 1, the set ID and password are required.

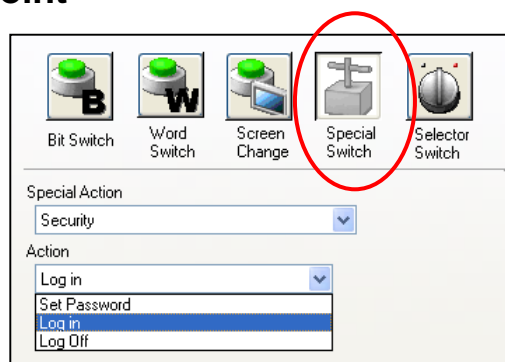
Screen	Security Level	Block Change
B1	0	Menu Screen
B2	0	Run State Screen
B3	0	Device Monitor Screen
B4	0	Operation / Guide Screen
B5	0	Set Value Input Screen
B6	0	Alarm History Screen
B7	0	Data Sampling Screen
B8	1	Recipe Input Screen
B9	0	Remote PC Operation Screen
B100	0	Line Background
B101	0	Pusher (for Package Register)
B102	0	Memory Card Saving Screen
B103	0	CSV Display Screen

Here, set "1" for [Security Level] of [B8 Recipe Input Screen] only.

★ One Point

Log in/Log Off switches

With [Special Switch] of switch parts, you can create switches for Log in/Log Off.




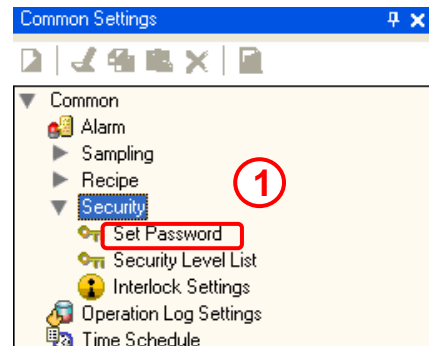
★ One Point

Clear Security Level

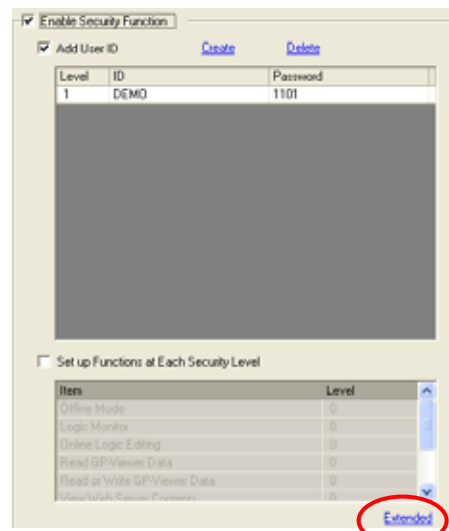
Once you log in, the security level you logged in at is enabled until you turn off the power, which means it is not necessary to enter a user ID and password.

Therefore, to enhance security, we recommend you to set to clear the security level after a specified time.

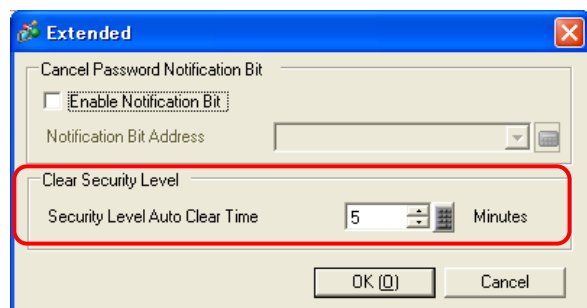
- 1) In the [Common Settings] window, select [Set Password]. Or click the [Set Password]  icon on the tool bar.



- 2) Click [Extended].



- 3) Set [Security Level Auto Clear Time] in the [Clear Security Level] field.



Cancel Password Notification Bit:

Check [Enable Notification Bit] to send a notification when the ESC key is used to exit the password input window after a change screen operation initiated by the device/PLC.

This will not work when changing screens by touch.

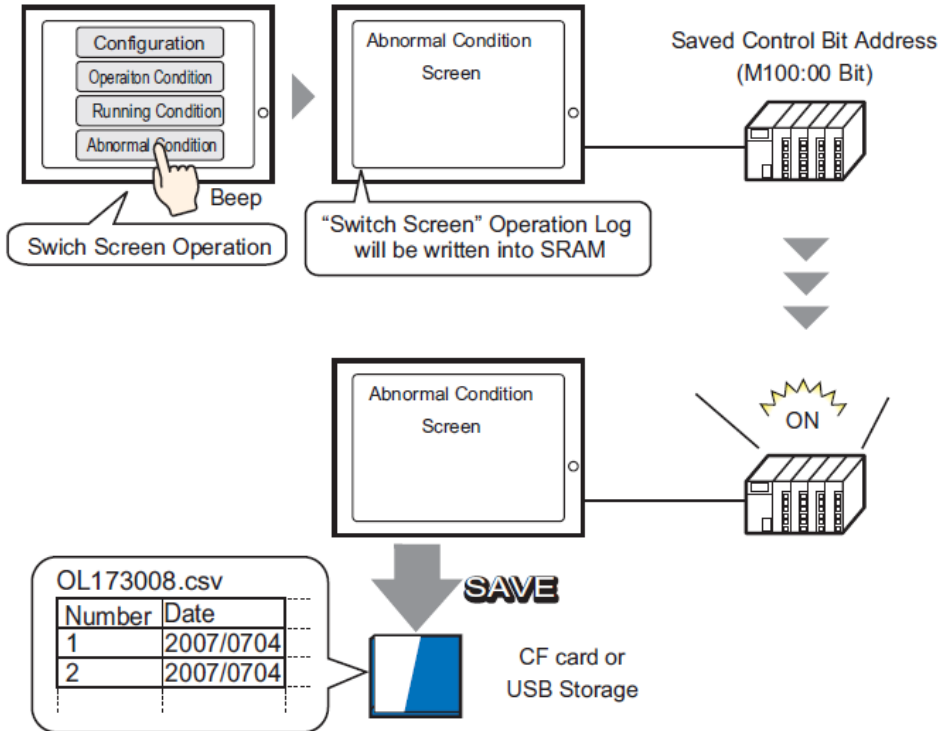


How to set [Operation Log]

Instruction

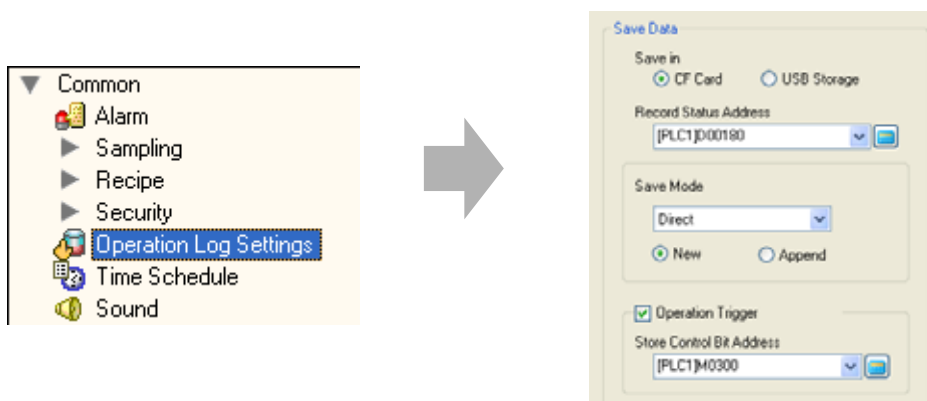
Use [Operation Log] if you want to keep histories like who operated the display and when. It's useful for checking man-caused operation mistakes and improving work efficiency. Also, using it together with Security Settings enables you to improve a security control system at site.

Example of use



How to set Operation Log

Open the [Operation Log Settings], set the status address etc.



In this practice, set the control bit address, operate the bit with the switch on the screen, and save the Operation Log in the CF card.

Practice Let's Check When, How, and by Whom Operation was Performed

<Practice Screen>



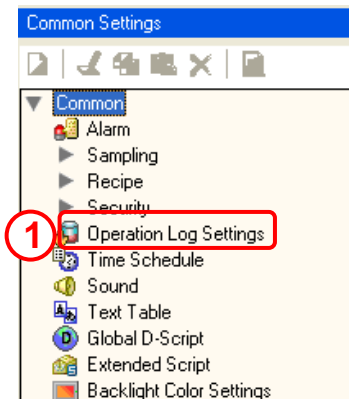
<Completed Screen>



- [Setup Procedure]
1. In the Common Settings window, make operation log settings.
 2. Create a switch to output operation log data on the base screen "104".

(1) Operation Log Settings

- 1) In the [Common Settings] window, select [Operation Log Settings].
Or click the [Operation Log Settings] icon on the tool bar.



- 2) Check [Enable Operation Log Function] and set [SRAM Records] to “300”.

Operations to Log:

Select functions for operations to log.

Here, select all.

- 3) **CSV Format:**

Set a display format when saving data in CSV format.

Set as you like here.

- 4) **Save Data**

Save in: Here, select [CF Card].

Record Status Address:

Specify an address to check the condition of writing data in to a CF card or USB storage.

Here, specify “M180.”

Operation Trigger:

Specify whether or not to save operation log data at a specified timing.

Here, put a check mark on it.

Store Control Bit Address:

Starts writing data to a CF card when the specified address turns on.

When the writing is completed successfully, Bit 0 of the status address turns on.

Here, set it to “M300”.

Operation when there is insufficient space:

Select either operation when there is not enough space in a CF card.

Here, select [Stop Operation Log].

Operation Log Settings

Enable Operation Log Function

SRAM Records: 300

Operations To Log

Bit Switch
 Word Switch
 Change Screen Switch
 Special Switch
 Selector Switch
 Data Display
 Sampled Data
 Show CSV
 System Menu
 Startup
 Offline
 Change Language

Select All Clear All

CSV Format

Date: yy/mm/dd
Hour: 24:00
Language: ASCII

Save Data

Save in: CF Card USB Storage

Record Status Address: [PLC1]D00180

Save Mode: Direct

New Append

Operation Trigger

Store Control Bit Address: [PLC1]M0300

Operation When Space Is Limited

Stop Operation Log
 First In First Out Data Queue

(2) Set/Place Operation Log File Output Switch

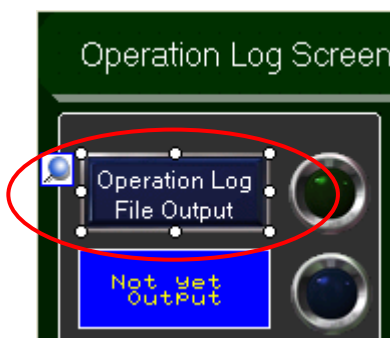
Drag and drop a shape from the Parts Toolbox onto a screen and edit it on the Properties window as right.

Controls the "Store Control Bit Address" set in the Operation Log settings.

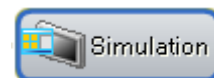
Enter "Operation Log File Output."

Attribute Name	Value
Parts Information	
Coordinate	
Switch Feature	Enable
Bit Switch	
Bit Action	Bit Momentary
Bit Address	[PLC1]M0300
Include in Operation Log	OFF
Switch Common	
Lamp Feature	
Color	
Label	
Text Type	Direct Text
Fixed Position	ON
Normal	
Text	Operation Log\nFile Output
Font Type	Image Font
Automatically Adjust Text	OFF
Select Font	Microsoft Sans Serif 9 pt
Alignment	Align Center
Text Color	7
Blink	None
Background Color	Transparent
Animation	
Settings	Disable

Setting Example

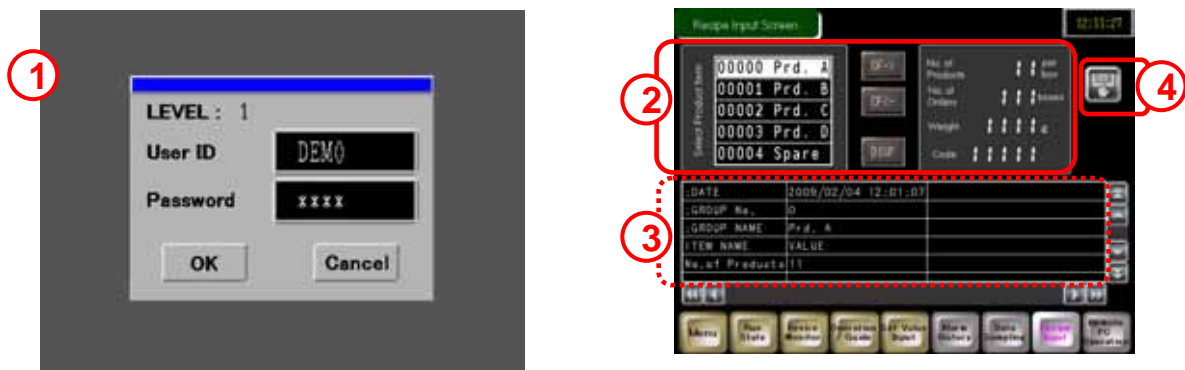



Check the performance in the Simulation mode.



Or F12 key

Performance Check



- 1) The user ID/password entry screen appears before the recipe input screen. If the user ID and password are correct, the recipe input screen will open.
- 2) Display item names on the data displays and write recipe data into a device/PLC.
- 3) Display details of recipe data by the [DISP] switch.
- 4) Change the screen to the operation log screen by touching the  switch.



- 5) Output operation log data to a CS card by touching the [Operation Log File Output] switch.
- 6) Display operation log data in File Manager by touching the [File Manager] switch.

NOTE

To transfer the recipe data in the CF card folder, check "Transfer CF Files" in the Transfer Settings dialog box of the Transfer Tool when transferring screen data.

