Chapter 10

Recipe Input Screen

Chapter 10 Recipe Input Screen

１０．１ Recipe Input Screen

What's Recipe Input Screen? ・・・・・・・・・・・・・・**１０－３**

１０．２ Recipe Settings

Recipe Feature Operation/Setup Method ・・・・・・・**１０－５**

Let's input the data in block from the recipe ・・・・**１０－８**

How to input data from a Barcode Reader ・・・・・・**１０－１５**

Let's input data from the bar-code reader! ・・・・・**１０－１７**

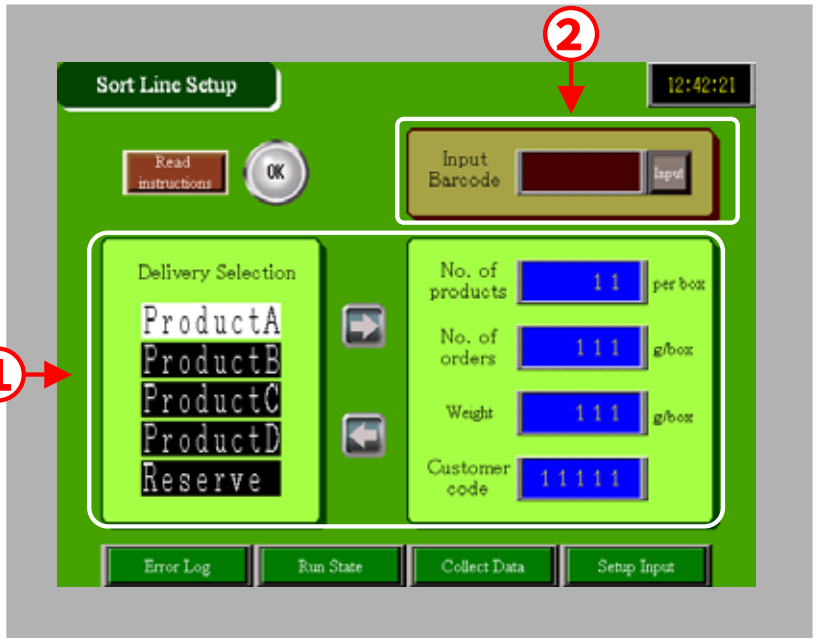
10.1

Recipe Input Screen

解説

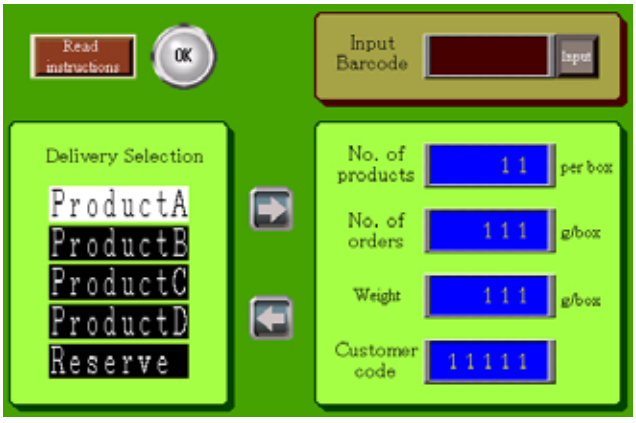
What's Recipe Input Screen?

The Recipe Input Screen is created to write the recipe(Data Group) that has been registered in the GP as a block into consecutive addresses in the connected device, and to input data from the bar-code reader.



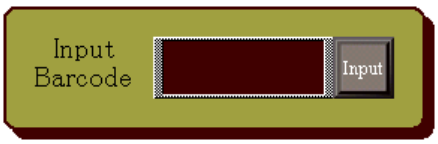
① The items in the already registered recipe file are displayed in a list and the registered data of the selected item is written as a block to the connected device.

(-> P10－5～ for details)



② The data read via the barcode reader is written to the connected device.

(-> P10－13～ for details)



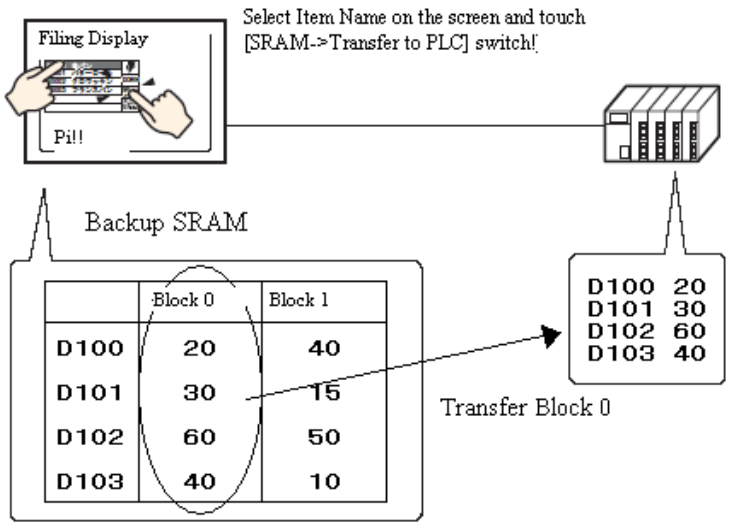
10.2

Recipe Settings

解説

Recipe Feature Operation/Setup Method

To write the data as a block to consecutive addresses in the connected device, use the [Recipe Settings:Transfer Filing Data] feature.
There are two methods, [Manual] and [Automatic] for the Transfer of Filing Data. With [Manual], data is written as a block via a screen operation. With [Automatic], data is written as a block via a trigger from the connected device. Here, the manual transfer method will be explained.

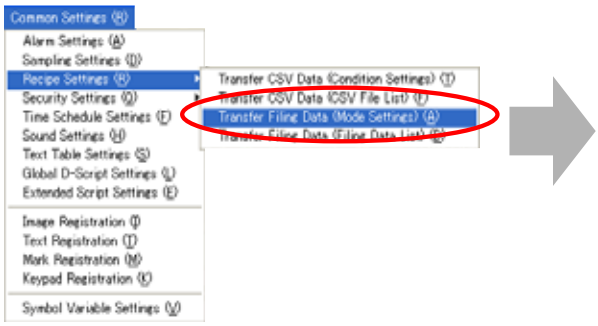


*1 The recipe feature registers (in advance) the recipe data in the display unit, or in the CF Card and writes this data as a block to the connected device when needed.

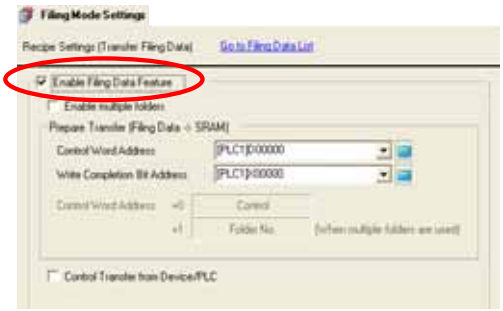
• Placement/Setting Procedure

①Set [Transfer Filing Data(Mode Settings)] from [Recipe Settings] of [Common Settings].

Select [Transfer Filing Data (Mode Settings)].

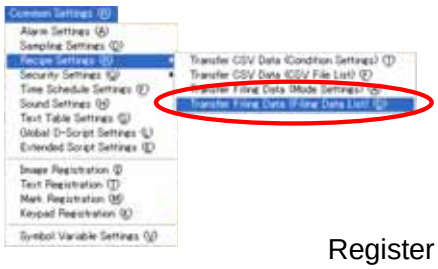


Set [Transfer Filing Data (Mode Settings)].

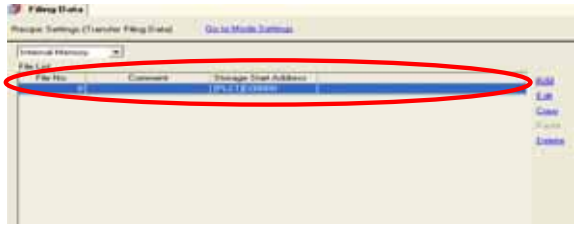


② Set [Transfer Filing Data (Filing Data List)] from [Recipe Settings] of [Common Settings].

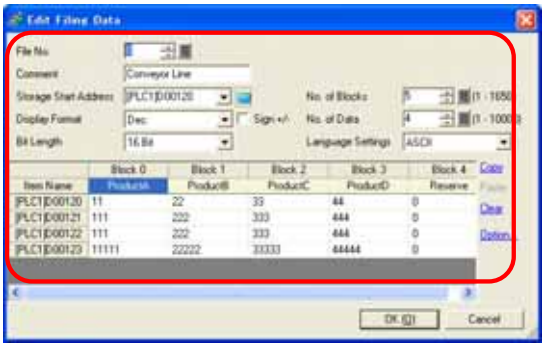
Select [Transfer Filing Data(Filing Data List)].



Add/Edit [Filing Data].



Register [Filing Data].



③Open the base screen and place/configure [Special Data Display (Filing)].

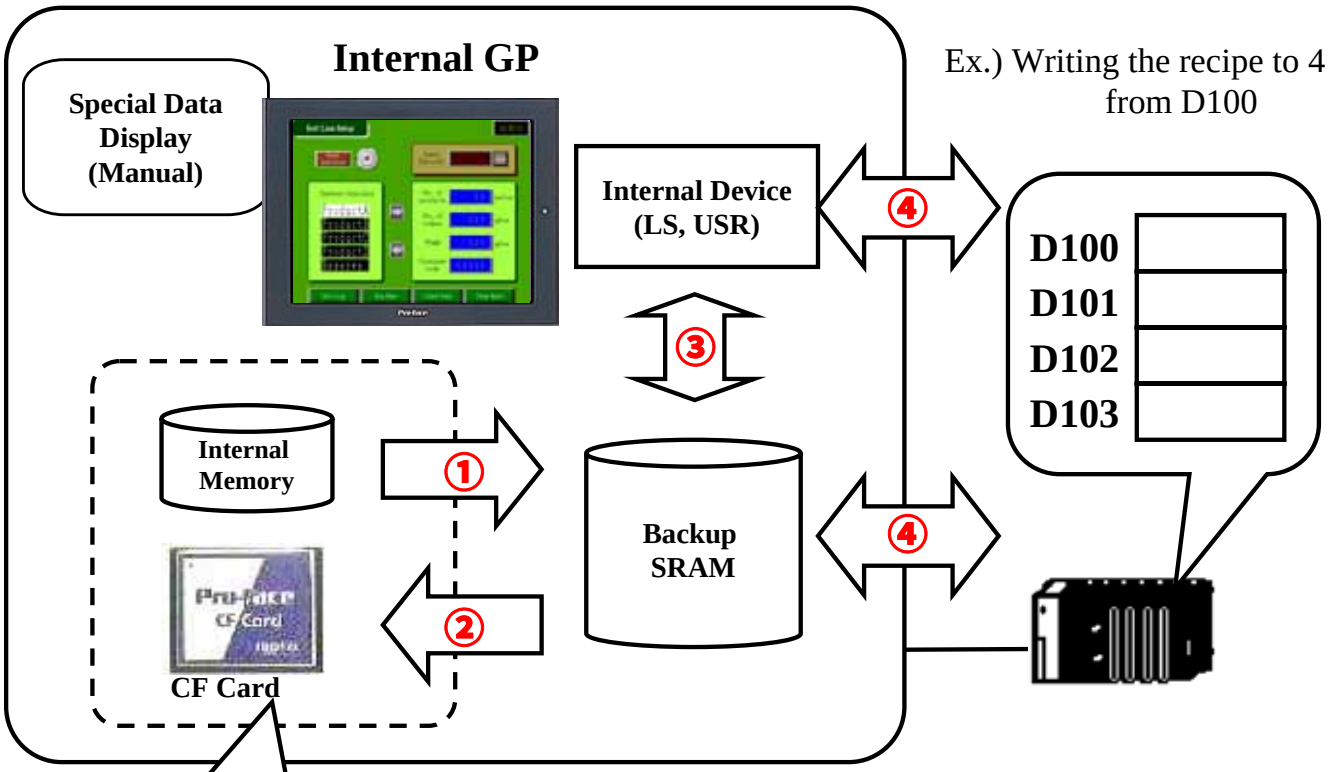
*For the Manual Transfer case only, place a special data display or a switch for filing items.
This is not necessary for Automatic Transfer.

Select [New Screen].

Place and set [Special Data Display].

④Save the project and transfer it to the GP.

Action Image of Filing Data Transfer



Filing Data (Recipe)

	SetupA	SetupB	SetupC	・・・
D100	60	10	90	・・・
D101	70	10	100	・・・
D102	80	90	30	・・・
D103	50	10	50	・・・

①Prepare Transfer (Filing Data->SRAM)

The filing data saved in the CF Card or the internal memory is stored in the Backup SRAM. To transfer the filing data to the connected device, be sure to go via the backup SRAM.

②Data Transfer from Backup SRAM to CF Card

The data stored in the Backup SRAM is saved in the CF Card.

*The data can never be transferred *to* the internal memory.

③Setting [Via Internal Registers]

The data is transferred to the connected device via the internal devices. It's possible to edit and check the filing data stored in the internal devices with Data Displays etc. and then transfer them.

*Via Internal Device is effective for the Manual Transfer only.

④Transferring Filing Data

The filing data stored in the Backup SRAM or the internal device is transferred to the connected device. There are 2 kinds of transfer methods;

Manual Transfer-Transferring data on the screen using a Special Data Display

Automatic Transfer-Transferring data from the control word address allocated in the connected device

*It's possible to store the filing data changed in the connected device into the Backup SRAM or the internal device.

Let's input the data as a block from the recipe.

The method to display the item names on the display and to manually trigger the writing of the recipe to the connected device will be described.

[Setup Flow]
1. Open the base screen [10].
2. Set [Recipe Settings:Transfer Filing Data].
3. Select, place, and transfer [Special Data Display:Filing].

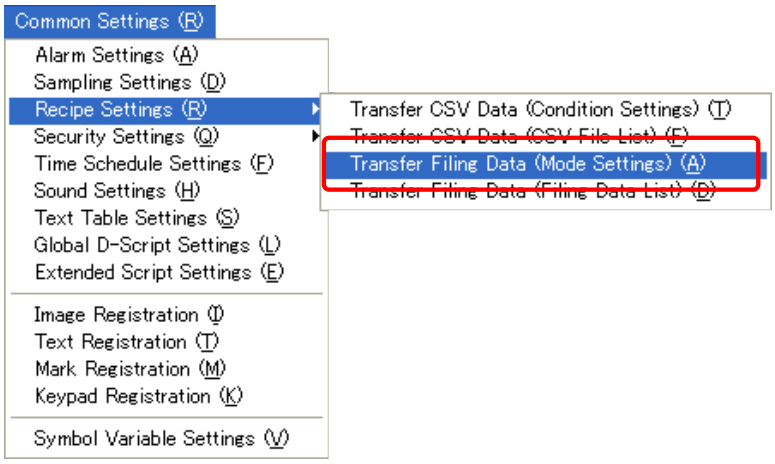
Open the base screen [10].

[For Exercise]

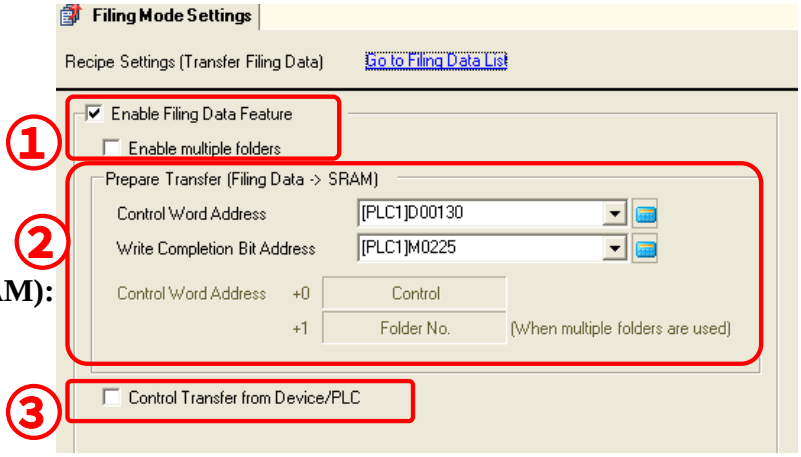
[Completed]

(1) Selecting Transfer Filing Data (Mode Settings)

Select [Transfer Filing Data (Mode Settings)] of [Recipe Settings] in the menu bar's [Common Settings].



(2) Filing Mode Settings



① **Enable Filing Data Feature:**
Check here.

Enable multiple folders:
Select it if you wish to register the recipe files divided in multiple folders.

② **Prepare Transfer (Filing Data->SRAM):**
Designate addresses that set information for writing the recipe to the SRAM.

Control Word Address:
Designate the word address that provides Trigger and Mode values for writing the recipe to the SRAM.

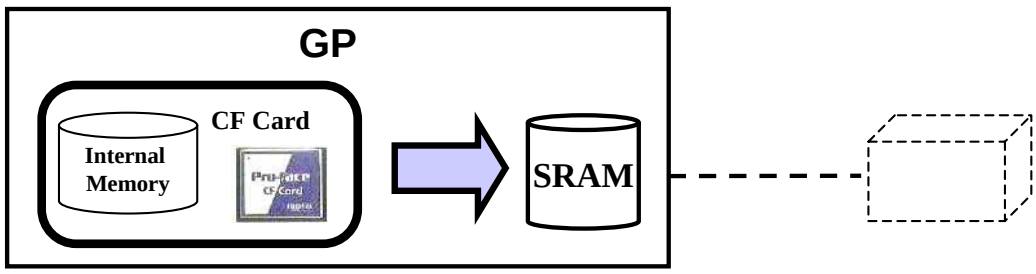
Write Completion Bit Address: Set the bit address that the GP turns ON when the filing data is written to the SRAM. After confirming its completion, turn this bit off.
Here, set [D130] for [Control Word Address] and [M225] for [Write Completion Bit Address].

③ **Control Transfer from Device/PLC:**Check here in the case of [Automatic Transfer] method.

*Not used this time.

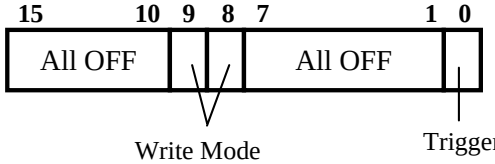
Hint!

Details of Control Word Address in [Prepare Transfer (Filing Data->SRAM]



①[When not using multiple folders]

Control



Trigger: Timing to write filing data to SRAM
[ON:Write] [OFF:Not write]

Mode: Designate the place where the filing data to transfer is found.

Bit 9	Bit 8	Write Mode
OFF	OFF	Internal Memory(FEPROM)
OFF	ON	CF Card

②[When using multiple folders]*2 words are used.

+0	**Control**
+1	**Folder No.**

Control (+0): Set Trigger and Mode. The same as above.

File No. (+1): Set the folder number that holds the file to write.

(3) Selecting Transfer Filing Data (Filing Data List)

① Click [Go to Filing Data List].

② Set the saving destination of the recipe file.

③ The registered recipe file is displayed in a list.

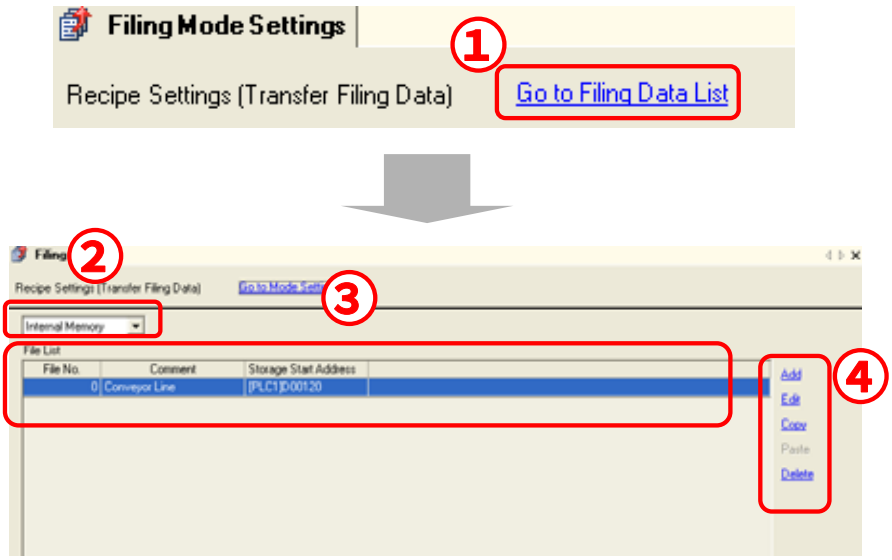
④ **Add:** To add a new file.

Edit: To edit an already existing file.

Copy: To copy a registered file.

Paste: To paste a copied file.

Delete: To delete a registered file.



Here, select [0:] 「0:Conveyor Line] and click [Edit].

(4) Filing Data

①**File No.:**Set a file number. (Range 0～2047)

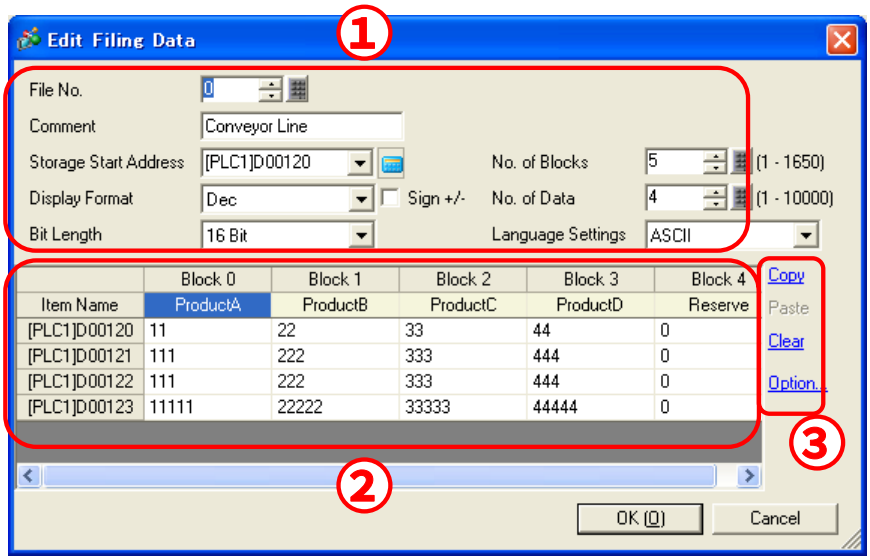
Comment: Enter a comment for the file.

Storage Start Address: Set the start address of the transfer destination on the connected device.

Display Format: Select the data format from [Dec], [Hex], or [BCD]

Bit Length: Select the data bit length from [16 bit] or [32 bit].

No. of Blocks: Set the No. of recipe blocks to be registered in the file.



No. of Data: Set the number of data in a block.

Language Settings: Set the language used for item names of the filing data.

②Register item name and recipe data for each block.

Here, register them as shown above.

③ **Copy:** Copies the registered data.

Paste: Pastes the copied data.

Clear: Deletes the registered data.

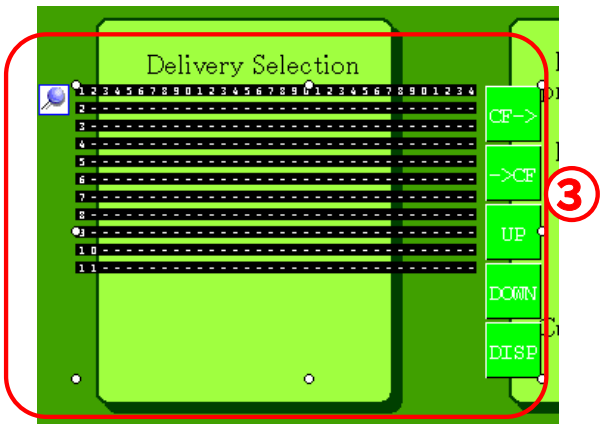
Option: Sets Transfer of the item name and the block number

(5) Selecting/Placing the Special Data Display

① Open the base screen [10].

② Click the [Special Data Display] icon from the Tool Bar.

③ Click on the location desired to place it.



(6) Basic Settings

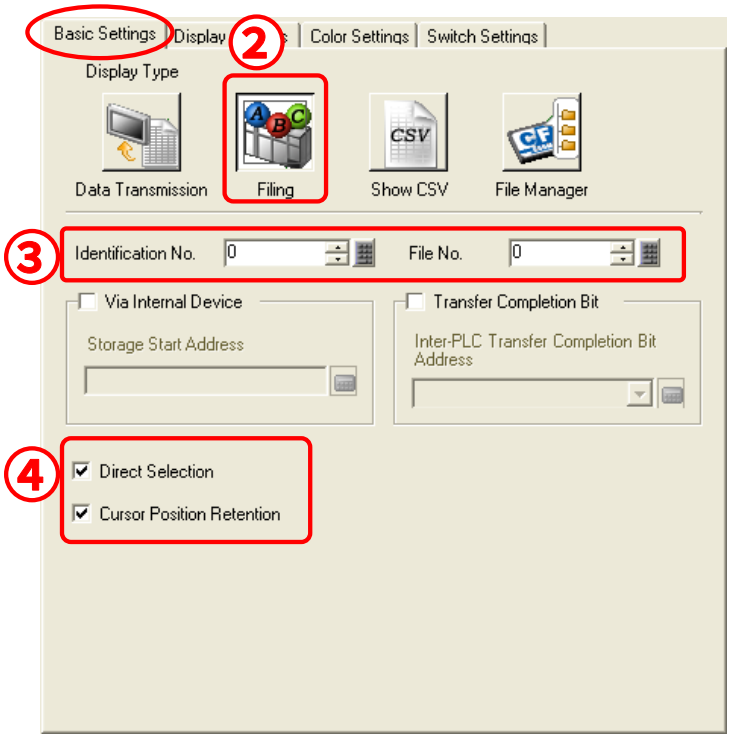
① Double-click the placed Special Data Display.

② Select [Filing] from [Display Type].

③ **Identification No.:**Set the number that relates the display with the operation switches. When placing multiple displays, make sure that the identification numbers do not overlap.

File No.: Set the file number that displays the item name.

Here, set [0] for both [Identification No.] and [File No.].



④ **Direct Selection:**Touch the display directly to select it.

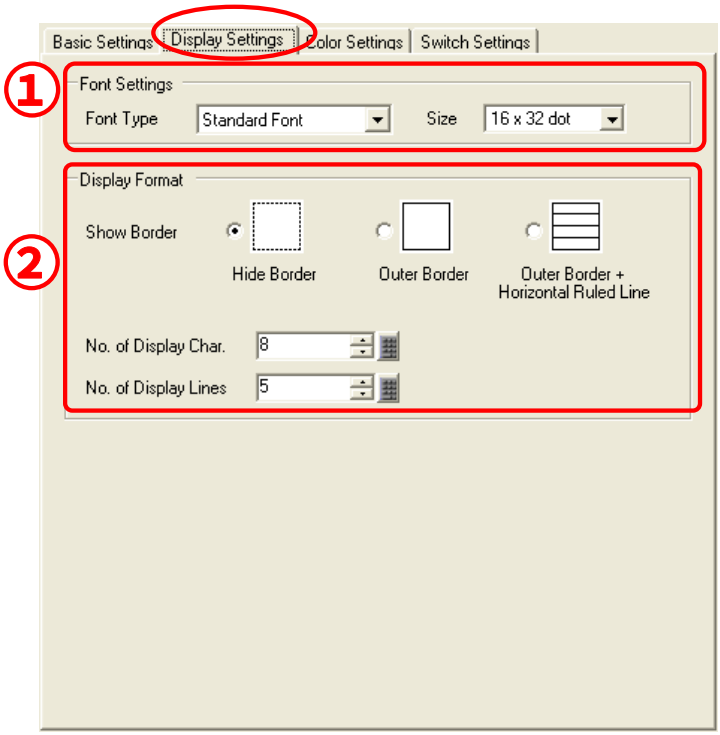
Cursor Position Retention: The cursor position is retained even when the screen is changed.

Here, set [Direct Selection] and [Cursor Position Retention] as you like.

(7) Display Settings

① Set the font and size of the characters to display.

Here, set [Standard Font] for [Font Type] and [16 x 32 dot] for [Size].



② **Show Border:**Select a border.

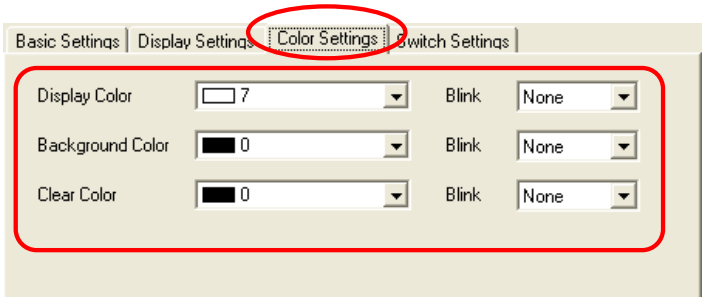
No. of Display Char.: Set the No. of characters in one line. The range is 1 to 100.

No. of Display Lines: Set the number of display lines for item names. The range is 1 to 50.

Here, set [Show Border] as you like and set [8] for [No. of Display Char.] and [5] for [No. of Display Lines].

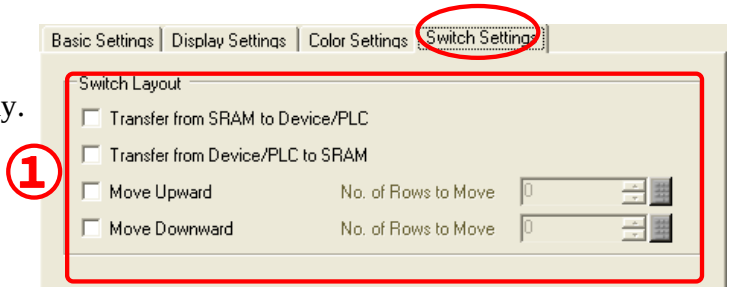
(8) Color Settings

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



(9) Switch Settings

① Select the switch for File operation which will be placed together with File Item Display.



Transfer From SRAM to Device/PLC:
Place the switch that transfers the filing data from the Backup SRAM to the connected device/PLC.

Transfer From Device/PLC to SRAM:
Place the switch that transfers the filing data from the connected device/PLC to the Backup SRAM.

Move Upward: Place the switch that moves the cursor upward.

Move Downward: Place the switch that moves the cursor downward.

As the File operation Switch has been already placed on the screen, uncheck all.

② Click [OK] and adjust the placement position.

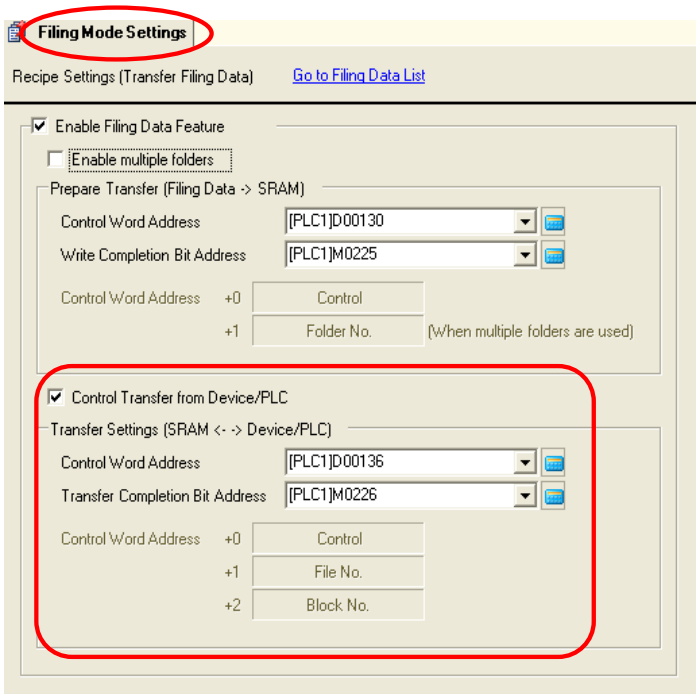
To customize Recipe Input

(1) To input data in block form from the Device/PLC.

Control Transfer from Device/PLC:
Set whether Transfer of filing data is controlled from Device/PLC or not.

Control Word Address:
Designate the word address that controls transfer of filing data between SRAM and Device/PLC. Use 3 words starting at the designated address.

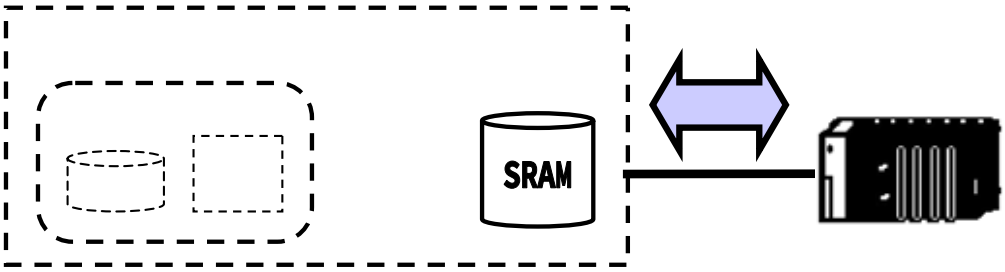
Transfer Completion Bit Address:
Designate the bit address that confirms completion of the transfer. After confirming the completion, turn OFF this address.



Hint!

Details of Control Word Address in [Transfer Settings (SRAM<->Device/PLC)]

*3 words are used.



+0	Control
+1	File No.
+2	Block No.

Control (+0)

Trigger: Triggers the writing of filing data to PLC
[ON:Write] [OFF:No Action]

Mode: Set Transfer Method of filing data.

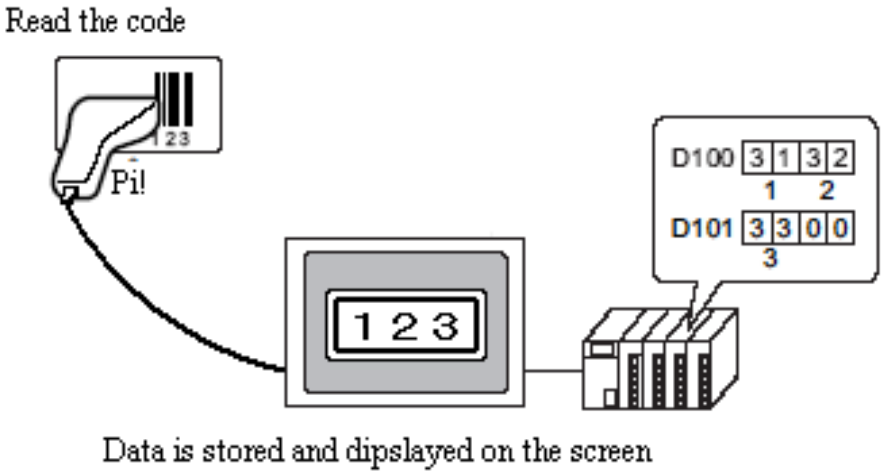
Bit 9	Bit 8	Write Mode
OFF	OFF	SRAM → PLC
OFF	ON	PLC → SRAM

File No. (+1): Set the file number to be transferred.
Block No. (+2): Set the block number to be transferred.

解説

How to input data from a Barcode Reader

Store the data read via the barcode reader into the designated address of the connected device and display them on the screen. To connect the barcode reader to the display unit, set [Bar Code Settings] from [System Settings Window].



• Placement/Configuration Procedure

①Open the base screen and place/configure [Data Display] for input.

Select [Data Display]

Place/Configure [Data Display]

②Place/Configure [Switch Lamp:Bit Switch] for an operation of Input Permit.

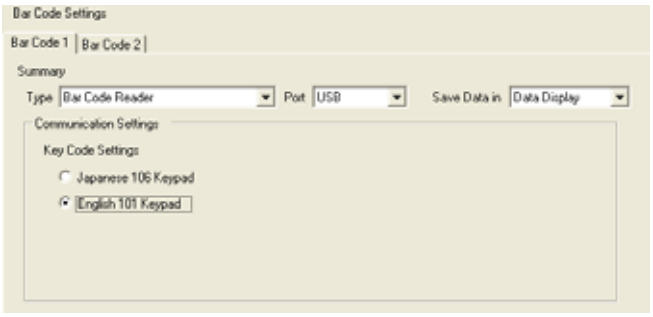
Select [Switch].

Place/Configure the [Switch]

③Select [Bar Code Settings] from [System Settings Window] and make the Bar Code Settings.

Select [Bar Code Settings].

Set the [Bar Code Settings].

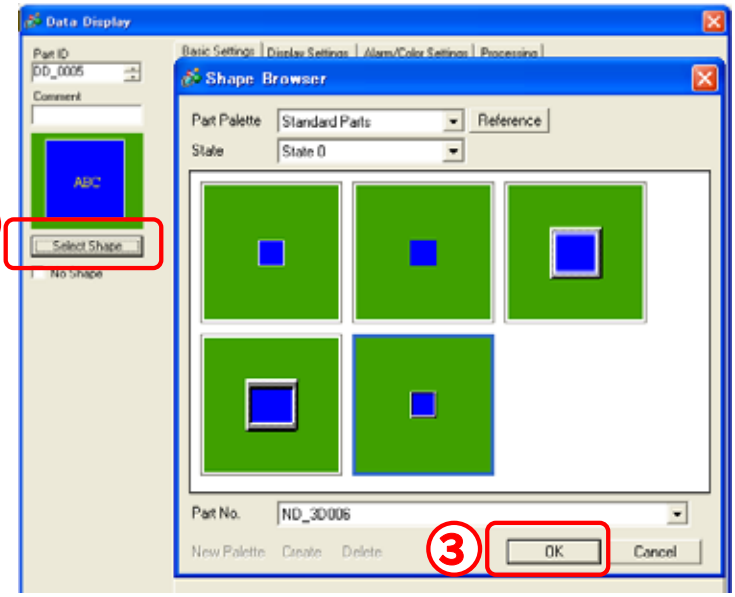


(2) Selecting a picture

① Double-click the placed [Data Display].

② Click [Select Shape] and select a picture for the display.

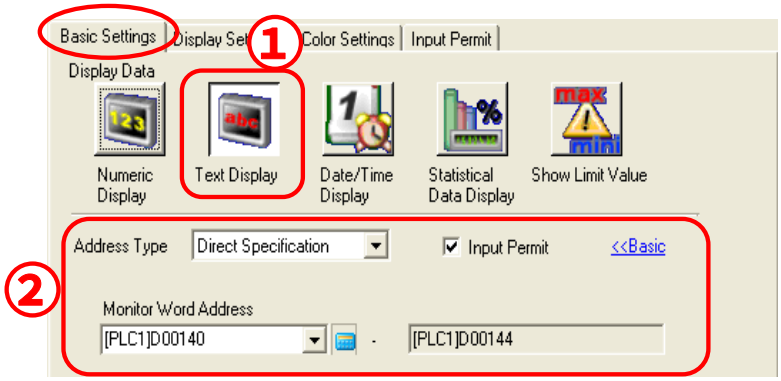
③ After selecting the picture you like, click [OK].



(3) Basic Settings

① Select [Text Display] from [Display Data].

② Set [D140] for [Monitor Word Address] and check [Input Permit].

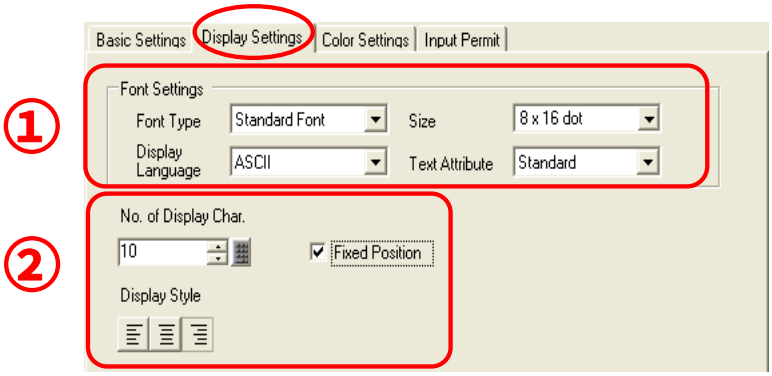


(4) Display Settings

① Set [Standard Font] for [Font Type], [8 x 16 dot] for [Size], [ASCII] for [Display Language],and [Standard] for [Text Attribute].

② Set [10] for [No. of Display Char.].

*Checking [Fixed Position] causes the display position to be fixed on the center.



Let's input data from the bar-code reader!

The method of inputting data to Device/PLC using a barcode reader will be described.

[Setup Flow]
1. Open the base screen [10].
2. Place/Configure [Special Data Display].
3. Place/Configure [Switch].
4. Configure [Bar Code Settings].

Open the base screen [10].

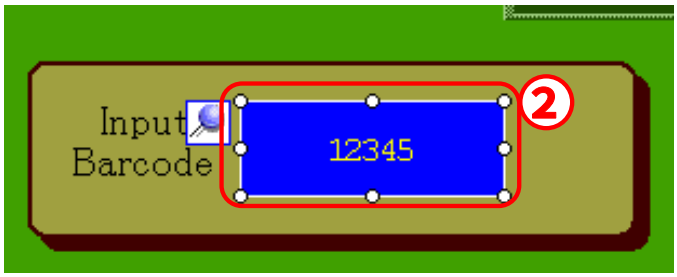
[For Exercise]

[Completed]

(1) Selecting/Placing Data Display

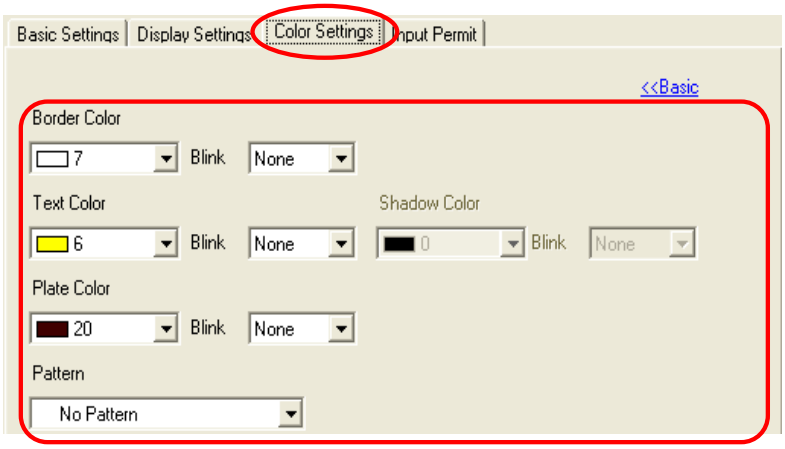
① Click the [Data Display] icon from the Tool Bar.

② Drag the pointer for the area of placement.



(5) Color Settings

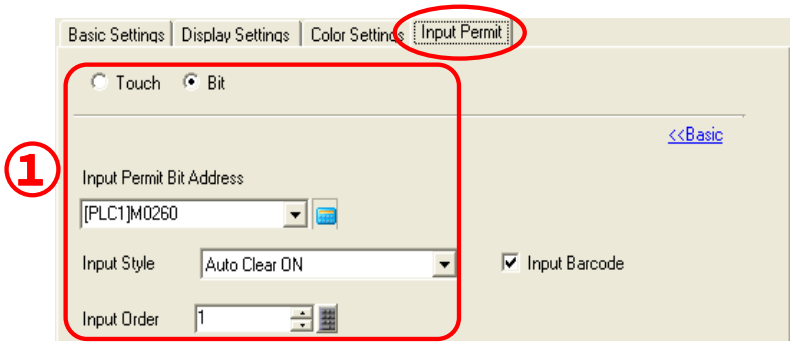
Set [Border Color],[Text Color], and [Plate Color] as you like.



(6) Input Permit

① Check [Bit] and set [M260] for [Input Permit Bit Address].

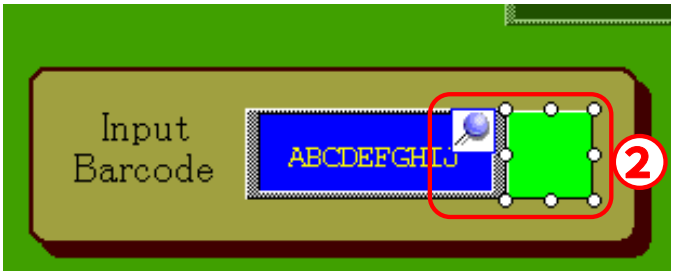
② Click [OK] to complete the settings.



(7) Selecting/Placing the Switch

① Click the [Switch] icon from the Tool Bar.

② Drag the pointer for the placement area.

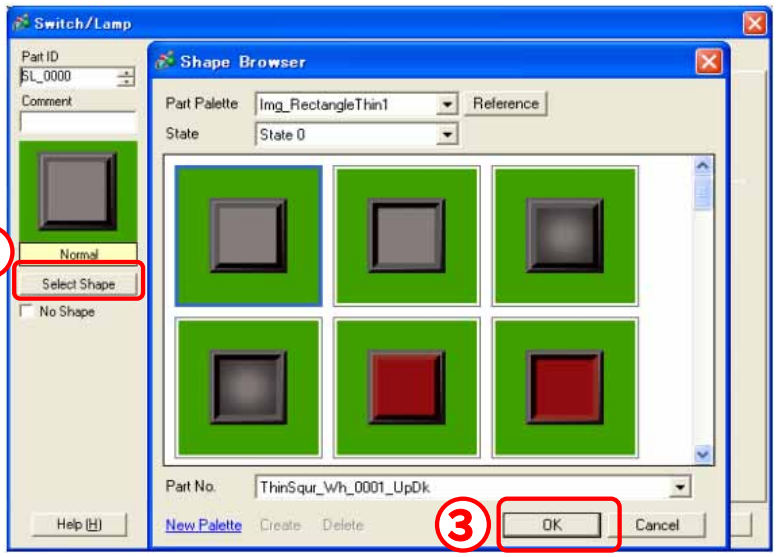


(8)Selecting a picture

① Double-click the placed [Bit Switch].

② Click [Select Shape] and select a picture for the display.

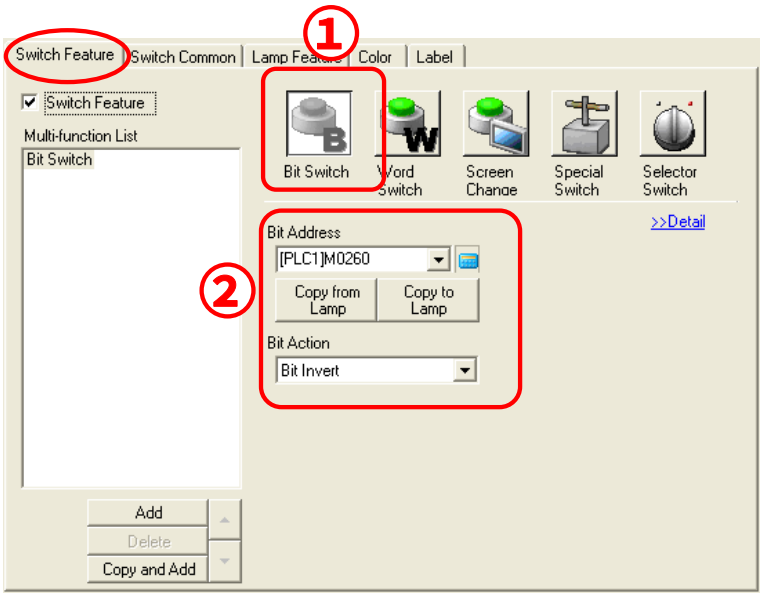
③ After selecting the picture you like, click [OK].



(9) Switch Feature

① Select [Bit Switch].

② Set [M260] for [Bit Address] and [Bit Invert] for [Bit Action].



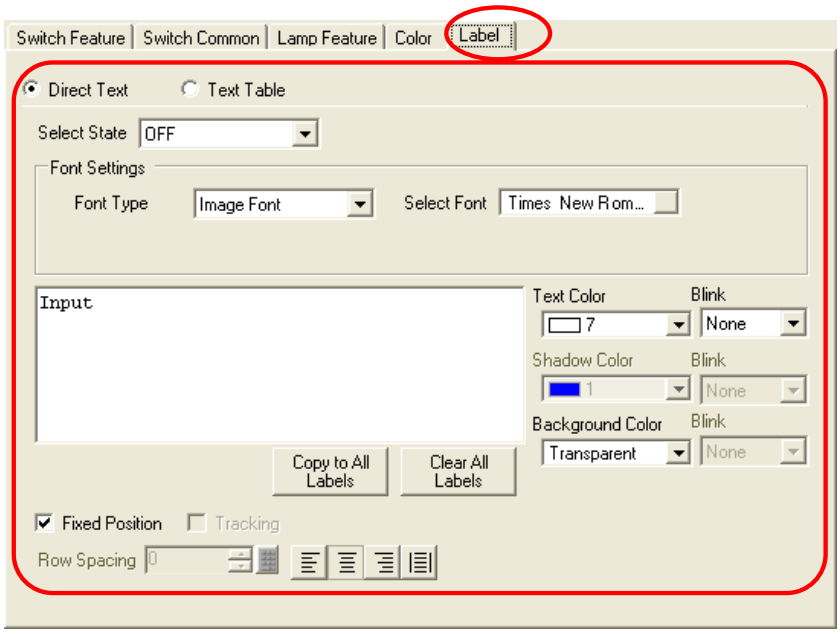
(10) Lamp Feature

① Check [Lamp Feature].

② Set [M260] for [Bit Address].
*Clicking [Copy from Switch] causes the [Bit Address] set in the [Switch Feature] to be copied automatically.

(11) Label

Set the label to be displayed on the switch as you like.



(12) Selecting Bar Code Settings

① Select [System Settings Window].

② Click [Bar Code Settings].

(13) Bar Code Settings

Set [Bar Code Reader] for [Type], [USB] for [Port], [Data Display] for [Save Data in], and [English 101 Keypad] for [Key Code Settings].

*This is for connecting a USB-type bar code reader.