

# 11 | Changing and Saving Screens

This chapter describes changing and saving screens in GP-Pro EX, and the basic operations used to change settings.

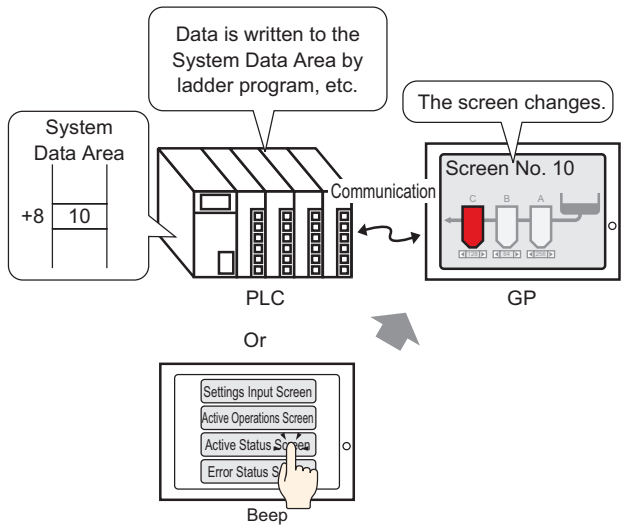
Please start by reading "11.1 Settings Menu" (page 11-2), and then turn to the corresponding page.

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## 11.1 Settings Menu

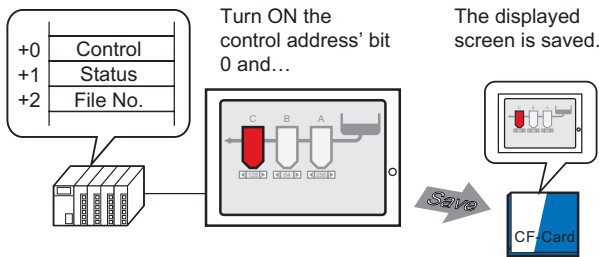
Changing Screens by Touch			
<p>Settings Input Screen Active Operations Screen Active Status Screen Error Status Screen</p> <p>Beep</p> <p>Screen No. 10</p>	<ul style="list-style-type: none"> <li>☞ Setup Procedure (page 11-5)</li> <li>☞ Introduction (page 11-4)</li> </ul>		
Choosing the Screen to Display when the GP Turns On			
<p>Power ON</p> <p>Settings Input Screen Active Operations Screen Active Status Screen Error Status Screen</p> <p>The chosen screen appears.</p>	<ul style="list-style-type: none"> <li>☞ Setup Procedure (page 11-8)</li> <li>☞ Introduction (page 11-7)</li> </ul>		
Changing Screens from a Device/PLC			
<p>Data is written to the System Data Area by ladder program, etc.</p> <p>The screen changes.</p> <p>Communication</p> <p>PLC</p> <p>GP</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td style="padding: 5px;">System Data Area</td> </tr> <tr> <td style="text-align: center; padding: 5px;">+8    10</td> </tr> </table>	System Data Area	+8    10	<ul style="list-style-type: none"> <li>☞ Setup Procedure (page 11-11)</li> <li>☞ Introduction (page 11-10)</li> </ul>
System Data Area			
+8    10			

Changing the Displayed Screen from both Touch and a Device/PLC



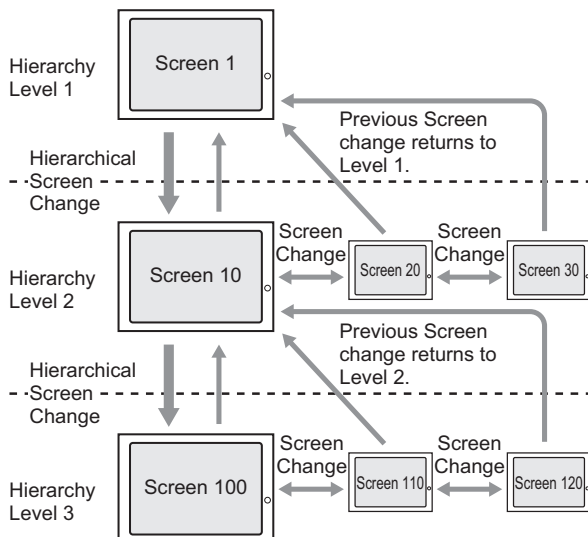
- ☞ Setup Procedure (page 11-14)
- ☞ Introduction (page 11-13)

Saving the Displayed Screen



- ☞ Setup Procedure (page 11-19)
- ☞ Introduction (page 11-18)

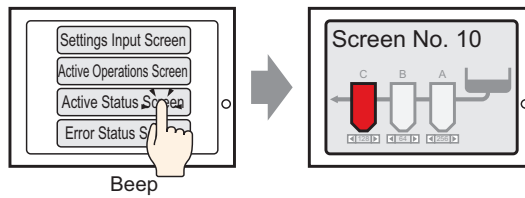
Changing the Displayed Screen by Hierarchical Structure



- ☞ Setup Procedure (page 11-22)
- ☞ Introduction (page 11-21)

## 11.2 Changing Screens by Touch

### 11.2.1 Introduction



Place the switch on the screen, set it to [Screen Change], and you can create a switch which changes to the desired screen.

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**NOTE**

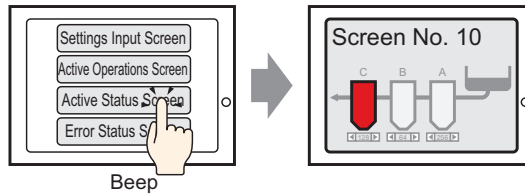
- A password can be set so that only certain people can switch the screen.  
☞ " 22.2Creating Limited Access Screens" (page 22-5)
-


## 11.2.2 Setup Procedure

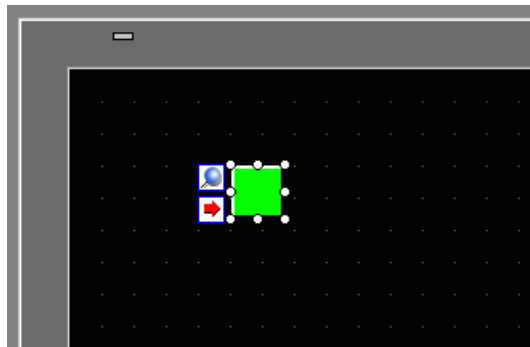
**NOTE**

- Please refer to the Settings Guide for details.  
☞ "10.15.3 Change Screen Switch" (page 10-69)
- For details about placing parts or setting addresses, shapes, colors, and labels, please refer to the "Part Editing Procedure".  
☞ "8.6.1 Editing Parts" (page 8-44)

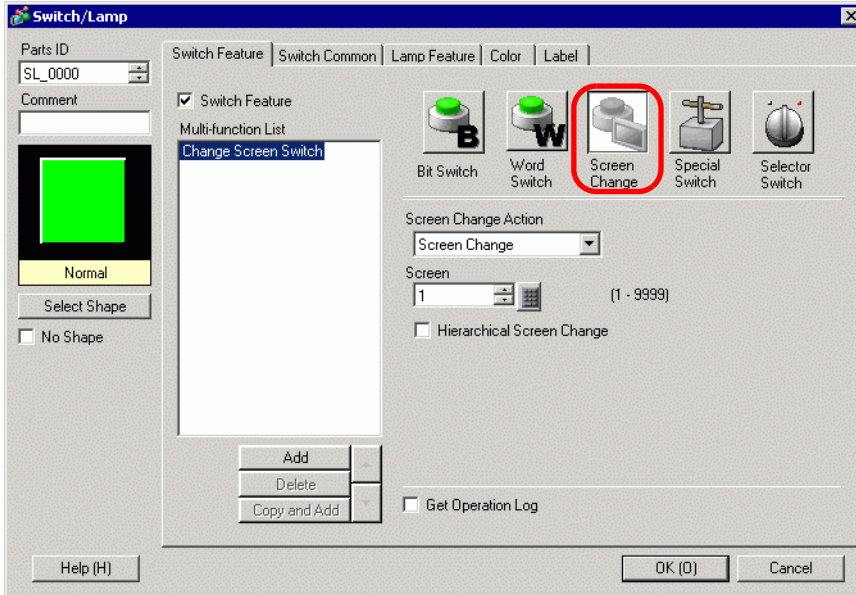
Create a Switch that changes the screen to Base Screen 10.



- 1 From the [Parts (P)] menu, point to [Switch Lamp (C)] and select [Change Screen Switch (C)], or click  from the toolbar, and place the switch on the screen.

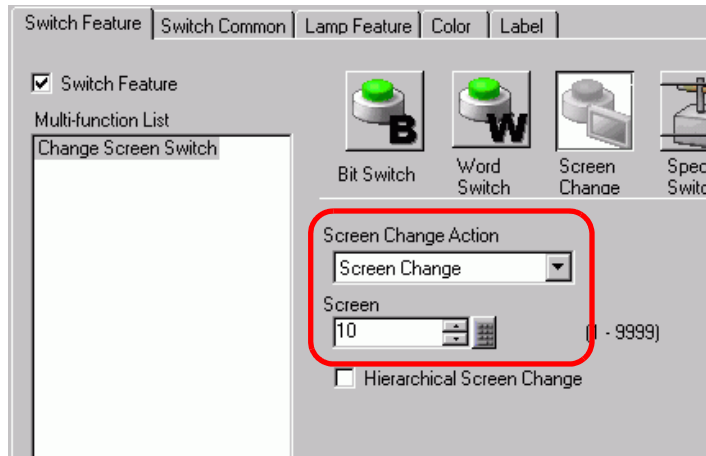


2 Double-click the placed Switch part. The following dialog box appears.




3 In [Select Shape], select the Switch shape.

4 From the [Screen Change Action] drop-down list, select [Screen Change]. Set [Screen Number] to the destination screen number (for example, 10).



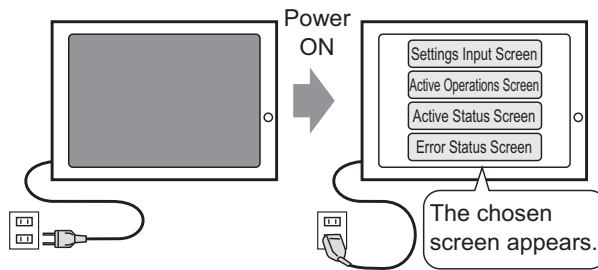
5 As needed, set the color and display text on the [Color] tab and [Label] tab, and click [OK].

**NOTE**

- Depending on the shape, you may not be able to change the color.
- When you select a switch and press the [F2] key, you can directly edit the Label text.
- After you define a change to screen, the  icon displays on the switch. Click this icon to jump to the designated screen. This feature is useful for changing or checking the screen setup.

## 11.3 Choosing the Screen to Display when the GP Turns On

### 11.3.1 Introduction



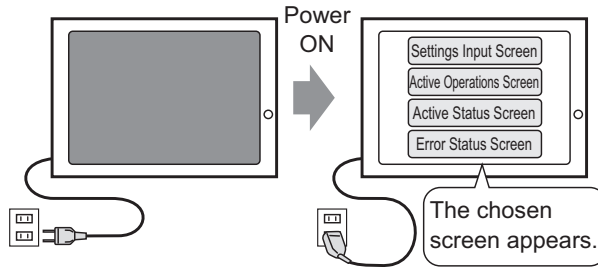
You can specify which screen is displayed when the GP power turns ON.

### 11.3.2 Setup Procedure

**NOTE**

- Please refer to the Settings Guide for details.  
    ☞ 5.17.6 [System Settings] Setting Guide ■ [Display Unit] Settings Guide ◆  
    Display Settings 5-147

Configure settings to display screen 1 when you turn ON the power.

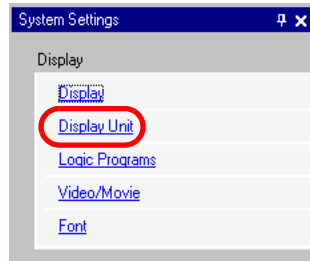


1 From the [View (V)] menu, point to [Work Space (W)] and select [System Settings (S)].

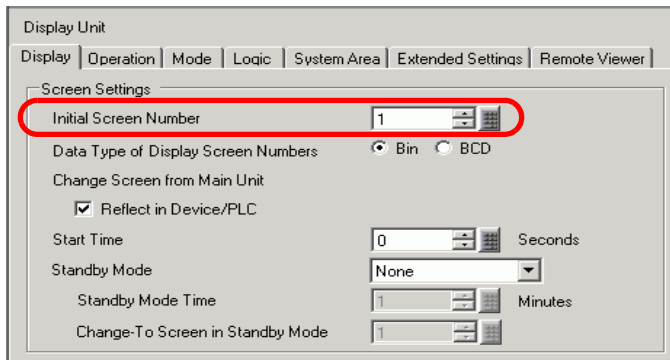




2 Under [Display], select [Display Unit].

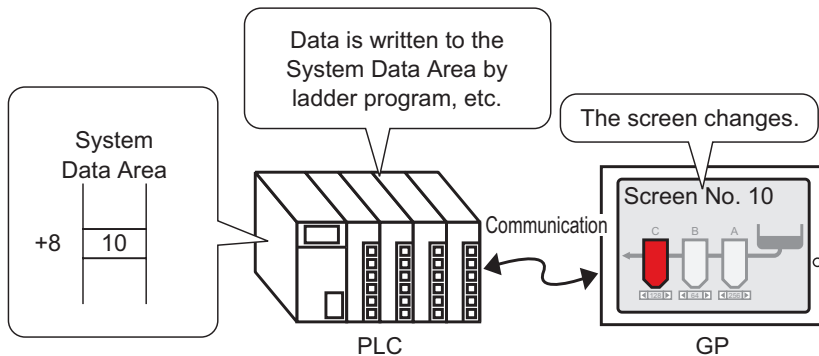


3 Under the [Display] tab, set the [Initial Screen Number] to 1 to display this screen when the GP turns ON. This will be the first screen to be displayed when the power is ON.



## 11.4 Changing Screens from a Device/PLC

### 11.4.1 Introduction



#### Method for changing the GP screen from a PLC

Usually, the GP communicates with a device/PLC to display the appropriate data.

By using a portion of the device/PLC area to place the necessary information for the GP operations, you can check the GP status or change operations from the device/PLC.

**NOTE**

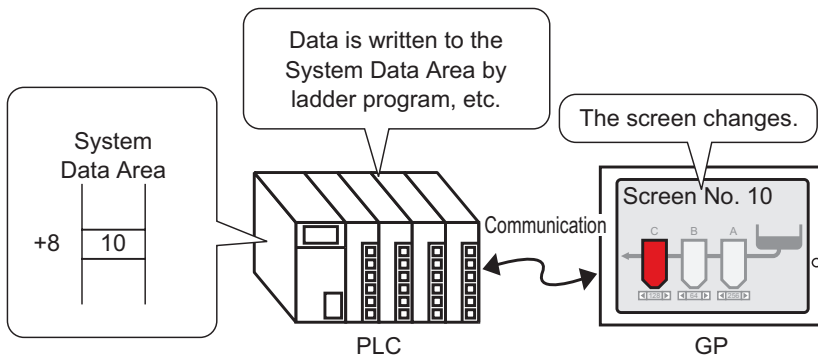
- Refer to the following to change screens using a Logic Program.  
 ☞ "28.2 Switching Screens Using a Logic Program" (page 28-4)

## 11.4.2 Setup Procedure

**NOTE**

- Please refer to the Settings Guide for details.  
 ☞ 5.17.6 [System Settings] Setting Guide ■ [Display Unit] Settings Guide ◆ Display Settings 5-147
- For more information about the System Data Area, please refer to the following.  
 ☞ "A.1.4.2 System Data Area" (page A-10)

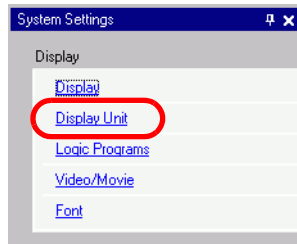
Configure settings to change screens from a device/PLC.



1 From the [View (V)] menu, point to [Work Space (W)] and select [System Settings (S)].

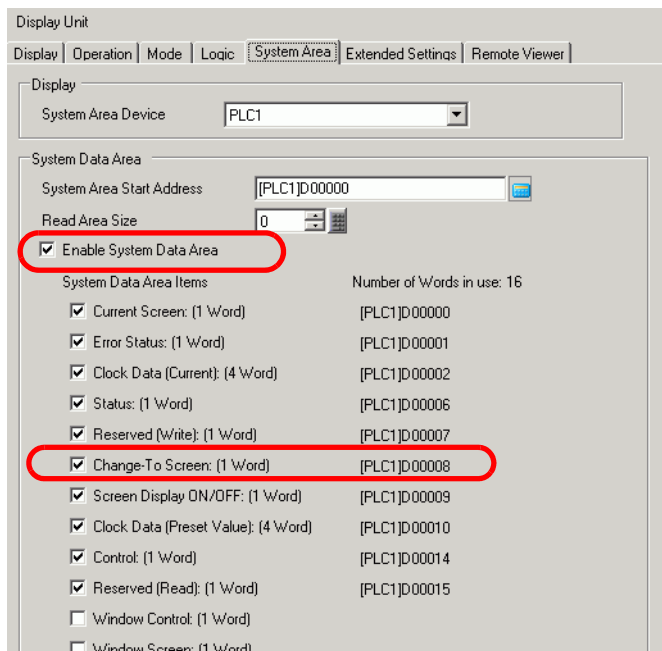


2 Under [Display], select [Display Unit].



3 Click the [System Area] tab and set the [System Area Start Address].

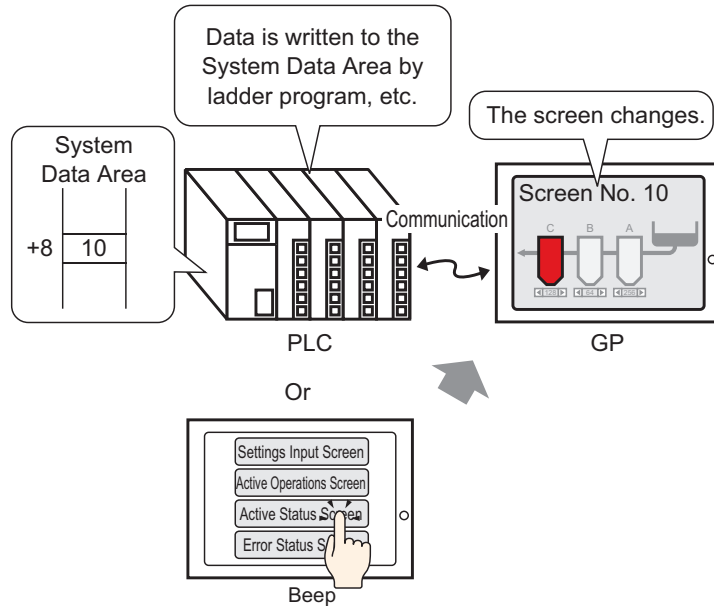
4 Select the [Enable System Data Area] check box and confirm that the [Change-To Screen Number: (1 Word)] check box is selected.



5 In the address defined in the [Change-To Screen Number: (1 Word)] field, you can use a logic program, program console, or other method to enter the screen number you want to display.

## 11.5 Changing the Displayed Screen from both Touch and a Device/PLC

### 11.5.1 Introduction



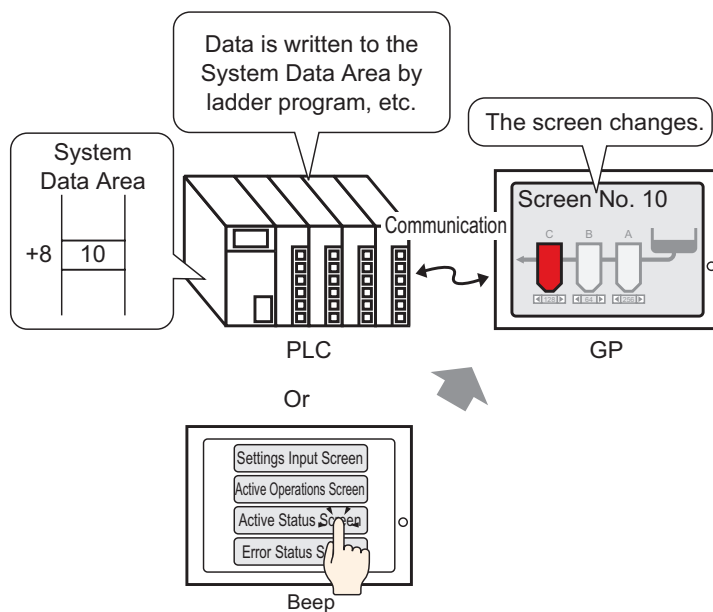
You can change screens either from a Change Screen Switch or the device/PLC.


## 11.5.2 Setup Procedure

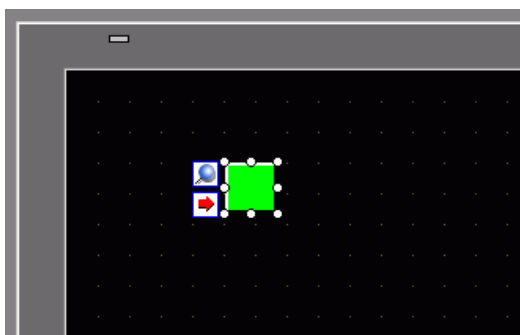
**NOTE**

- Please refer to the Settings Guide for details.  
 ☞ "10.15.3 Change Screen Switch" (page 10-69)
- For details about placing parts or setting addresses, shapes, colors, and labels, please refer to the "Part Editing Procedure".  
 ☞ "8.6.1 Editing Parts" (page 8-44)

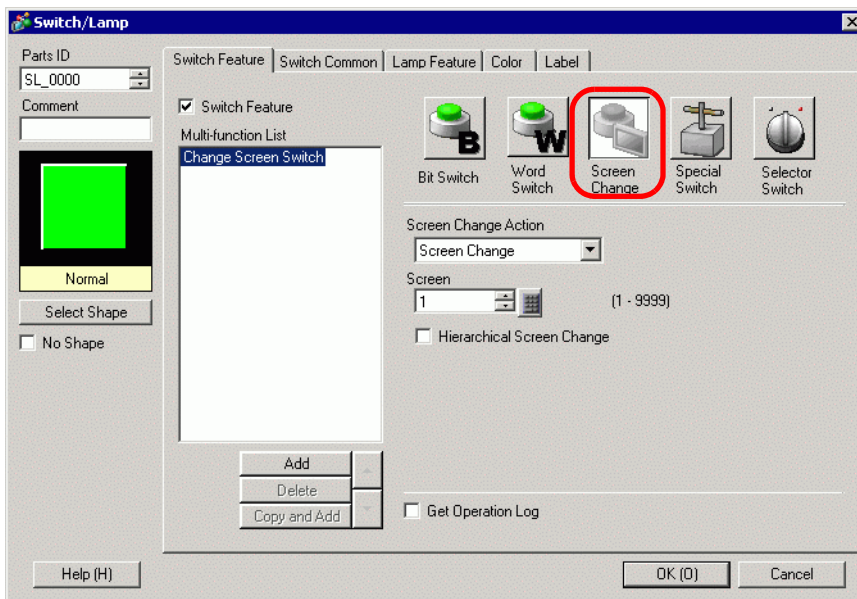
Configure settings to change the displayed screen by both touch and from a device/PLC. (For touch, the displayed screen changes to screen "10".)



- 1 From the [Parts (P)] menu, point to [Switch Lamp (C)] and select [Change Screen Switch (C)], or click  from the toolbar, and place the switch on the screen.

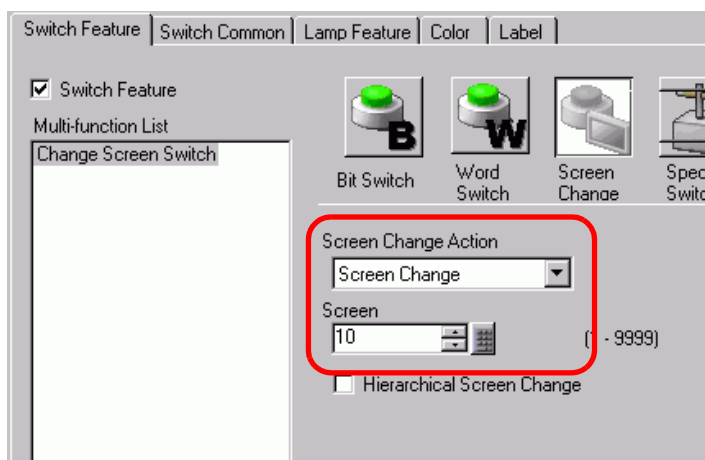


2 Double-click the placed Switch part. The following dialog box appears.




3 In [Select Shape], select the Switch shape.

4 From the [Screen Change Action] drop-down list, select [Screen Change]. [In the [Screen Number] field, set the destination screen number to 10.



5 As needed, set the color and display text on the [Color] tab and [Label] tab, and click [OK].

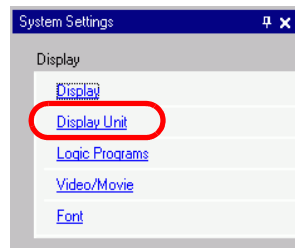
**NOTE**

- Depending on the shape, you may not be able to change the color.
- When you select a switch and press the [F2] key, you can directly edit the Label text.
- When change screen switch is set, the  icon will appear next to the switch on the screen editor. Click this icon to jump to the designated screen. This feature is useful for checking the screen setup.

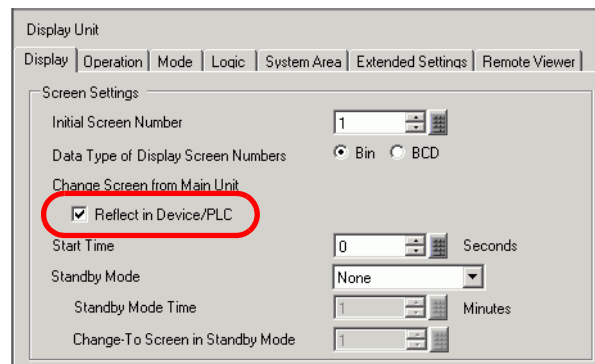
6 From the [View (V)] menu, point to [Work Space (W)] and select [System Settings (S)].



7 Under [Display], select [Display Unit].



8 Click the [Display] tab and select the [Reflect in Device/PLC] check box.



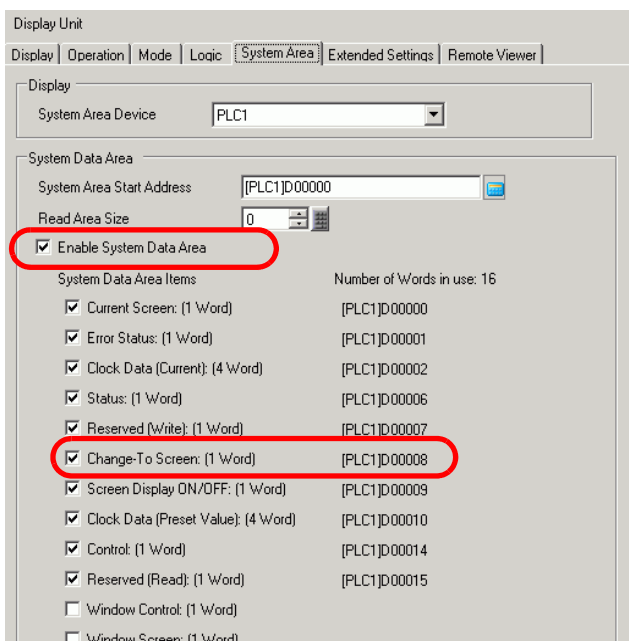


**NOTE**

- When selecting the [Reflect in Device/PLC] check box, the screen number set as the initial screen number immediately after GP started will be written in the [Change-To Screen Number] address. When [Reflect in Device/PLC] is not selected, the screen will switch to the screen number written in the [Change-To Screen Number] address. but if the screen number does not have [Change-To Screen Number] values, the screen set as the initial screen number will display.
- Selecting the [Reflect in Device/PLC] check box enables writing the current screen number to the device/PLC when you change screens using a switch. If this check box is not selected, and you change screens using a switch, not only is the screen number not written to the device/PLC, but there may be instances when the device/PLC cannot initiate a change screen operation.

9 Click the [System Area] tab and set the [System Area Start Address].

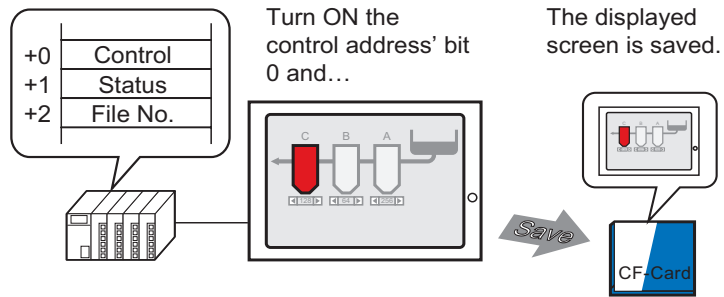
10 Select the [Enable System Data Area] check box and confirm that the [Change-To Screen Number: (1 Word)] check box is selected.



11 To change the displayed screen by touch, use the [Change Screen Switch]. To change the displayed screen from the device/PLC, write the destination screen number to the [Change-To Screen Number: (1 Word)] address. You can now change the displayed screen either by touch or from the device/PLC.

## 11.6 Saving the Displayed Screen

### 11.6.1 Introduction



You can capture the screen displayed on the GP to a CF card. The screen capture is saved as a JPEG file (\*.jpg).

**NOTE**

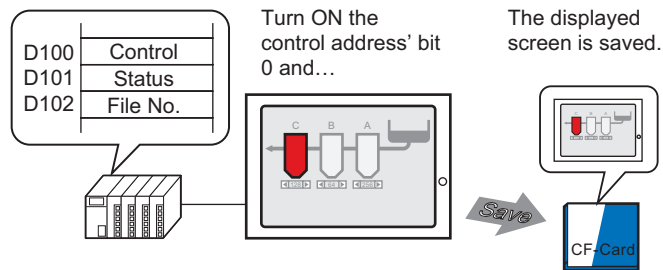
- Other than the CF Card, you can also save to the USB Storage or FTP server.

## 11.6.2 Setup Procedure

**NOTE**

- Please refer to the Settings Guide for details.  
 5.17.6 [System Settings] Setting Guide ■ [Display Unit] Settings Guide ◆ Mode 5-152

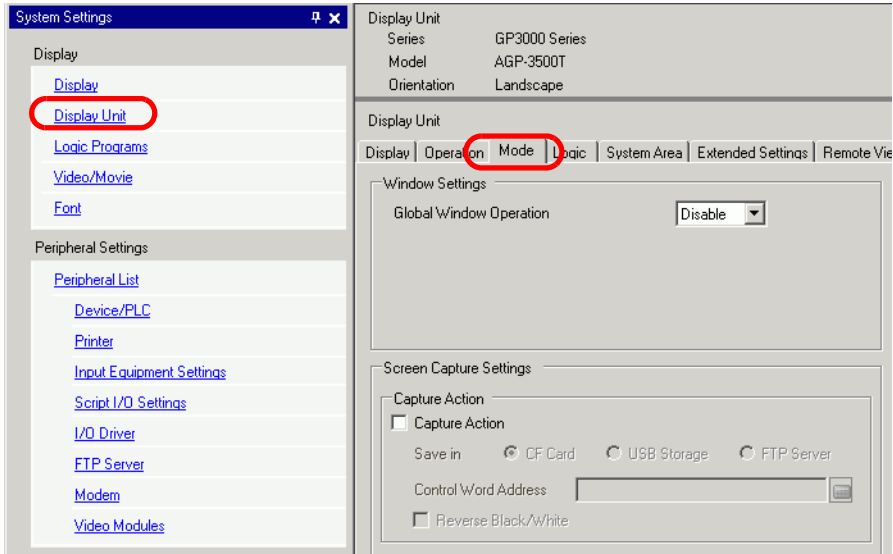
Configure settings to capture the displayed screen in the GP (Use "D100" as the control address for the capture).



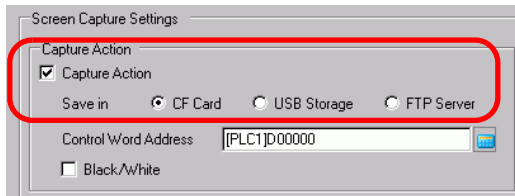
1 From the [View (V)] menu, point to [Work Space (W)] and select [System Settings (S)].



2 In the [Display] section, select [Display Unit] to open the [Mode] tab.



3 Select the [Capture Action] check the box under [Screen Capture Settings] and select [CF Card] for [Save in]



**NOTE**

- Other than the CF Card, you can also save to the USB Storage or FTP server. As supported save locations vary depending on the model, please use the following to confirm the save location.  
 ☞ "1.3 Supported Features" (page 1-5)
- Open [System Setting] to register a FTP Server in [FTP server registration].

4 Set D100 in [Control Word Address].



5 A screen capture occurs when the bottom bit in the [Control Word Address] D100 turns ON after storing the file number in the address D102 under [Control Word Address] +2. In the file name [CP\*\*\*\*\*.jpg], the asterisks represent the file number defined by [Control Word Address]+2.

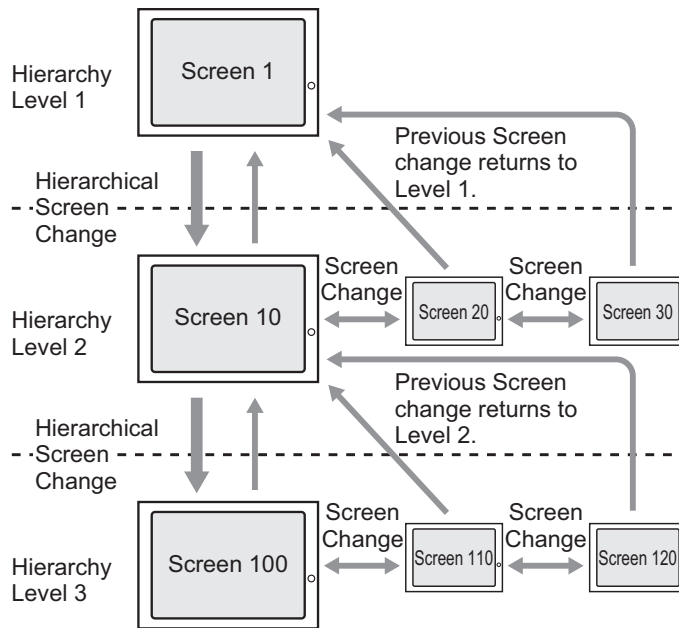
D100 Control	0 0	~	0 0 1
D101 Status			
D102 File No.			

For the screen capture, three consecutive words will be used starting from the specified [Control Word Address].

When the screen capture completes normally, the [Control Word Address] +1's address "D101" bit 1 turns ON. Confirm this bit ON and then turn OFF "D100" Bit 0.

## 11.7 Changing the Displayed Screen by Hierarchical Structure

### 11.7.1 Introduction



You can create a hierarchical structure for the screen changes.

Using a [Hierarchical Screen Change] switch, you can move up or down a level in the screen hierarchy.

Using a Previous Screen switch moves you up a level in the screen hierarchy. Using a Screen Change switch moves you through screens on the same level.

**NOTE**

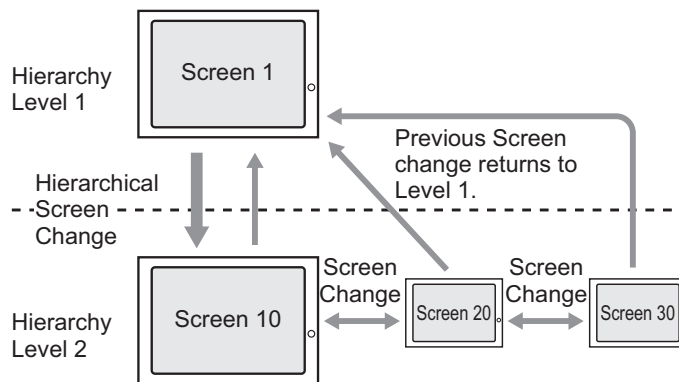
- If [Hierarchical Screen Change] is not selected, the screen changes will be on the same hierarchy level.
- A maximum of 32 levels can be set.
- You cannot force a Hierarchical Screen Change from the device/PLC. You can only change screens within the same hierarchy level.

## 11.7.2 Setup Procedure


**NOTE**

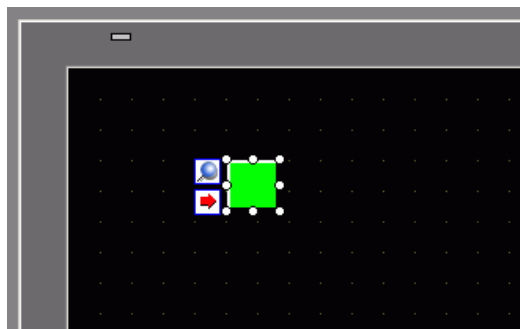
- Please refer to the Settings Guide for details.  
 ☞ "10.15.3 Change Screen Switch" (page 10-69)
- For details about placing parts or setting addresses, shapes, colors, and labels, please refer to the "Part Editing Procedure".  
 ☞ "8.6.1 Editing Parts" (page 8-44)

Create a Change Screen Switch to move up or down a level in the screen hierarchy. First, place a Switch on Base Screen "1" to change from Hierarchy Level 1 (Screen "1") to Hierarchy Level 2 (Screen "10").

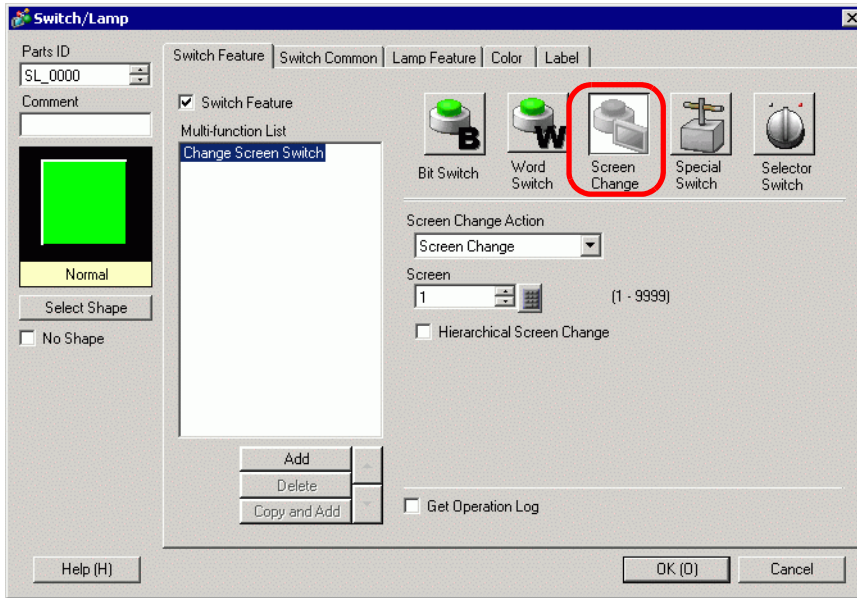


Then place a switch on Screen "10" to move up to Base Screen "1".

- 1 From the [Parts (P)] menu, point to [Switch Lamp (C)] and select [Change Screen Switch (C)] or click  on the toolbar. Place the switch on [Base 1].

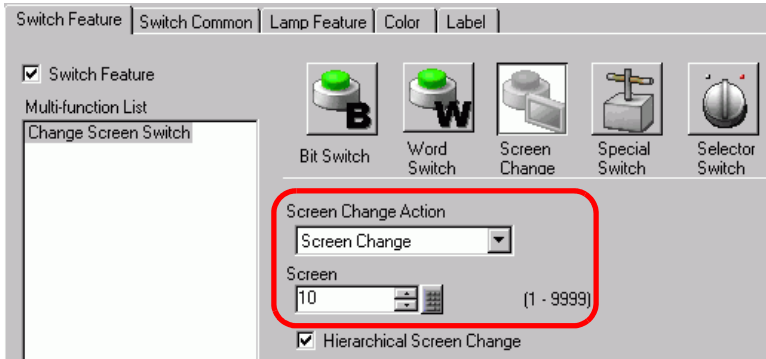


2 Double-click the placed Switch part. The following dialog box appears.




3 In [Select Shape], select the Switch shape.


4 From the [Screen Change Action] drop-down list, select [Screen Change]. In the [Screen] field, set the destination screen number to 10 and select the [Hierarchical Screen Change] check box.

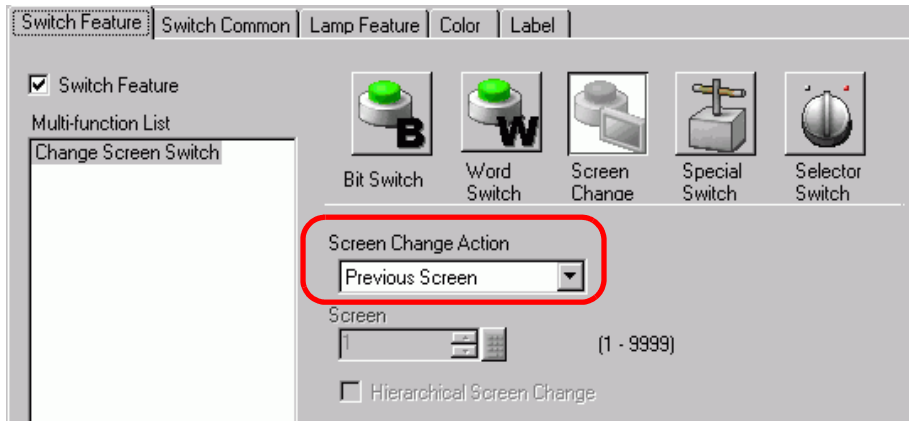


5 As needed, set the color and display text on the [Color] tab and [Label] tab, and click [OK].

- NOTE**
- Depending on the shape, you may not be able to change the color.
  - When you select a switch and press the [F2] key, you can directly edit the Label text.
  - When change screen switch is set, the  icon will appear next to the switch on the screen editor. Click this icon to jump to the designated screen. This feature is useful for checking the screen setup.

Next, place a Switch on each screen to return from Hierarchy Level 2 (Screen "10", Screen "20", Screen "30") back to Hierarchy Level 1 (Screen "1").

- 6 Open Base Screen 10. From the [Parts (P)] menu, point to [Switch Lamp (C)] and select [Change Screen Switch (C)] or click  on the toolbar. Place the switch on Screen 10.
- 7 Click the new switch. The Switch/Lamp dialog box appears.
- 8 In [Select Shape], select the Switch shape.
- 9 In the [Screen Change Action] drop-down list, select [Previous Screen].



- 10 As needed, set the color and display text on the [Color] tab and [Label] tab, and click [OK].

**NOTE**

- Depending on the shape, you may not be able to change the color.

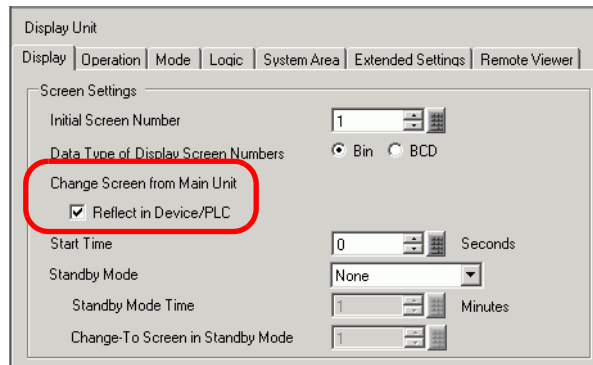
- 11 Also, place a similar switch on Base Screen 20 and 30. When you touch the Switch placed on any screen on Hierarchy Level 2 (Screen "10", "20", "30") it returns to Base Screen 1 in hierarchical level 1.



## 11.8 Restrictions

### 11.8.1 Restrictions for Screen Change

- When a screen number that does not exist is set, a screen change will not function.
- LS8 viewed by direct access method and address 15 viewed by memory link method are internally the same. However, if [Reflect in Device/PLC] is not selected in the system settings, LS8 will change from communication in direct access mode immediately after writing with memory link mode, therefore a screen change using true memory link mode becomes impossible.

**NOTE**

- For more information about the System Data Area, please refer to the following.  
☞ "A.1.4.2 System Data Area" (page A-10)

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## 11.8.2 Restrictions for Screen Capture

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- Screen capture processing time depends on the image quality and screen size. The file size for a screen quality of 80 will be around 200 KB and the capture will take about 5-6 seconds.
- The screen display (Parts, screen change, etc.) will not update during a screen capture.
- When capturing a screen set with Blink, the blinking is not captured.
- When the [Auto Increment File Number] feature is set but neither the [Auto Delete File] feature nor the [Loop] feature are used and when the CF Card or USB storage device have no free space or the largest file number (65535) exists, the Snapshot will not occur even when bit 0 of the [Control Address] is turned on.
- When the [Auto Delete File] feature is set, the file cannot be deleted if it is a read-only file or if the file is currently open. A write error will occur.
- The more JPG files exist, the more time it takes for the [Auto Delete File]. It may take several minutes to complete the capture.
- When the [Loop] feature is set, screen capture will not execute if the file to be overwritten is a read-only file or if the file is currently open. A write error will occur.
- When overwriting a file, the CF Card or USB storage device must have enough free space for the data. If the data is larger than the available space, a write error will occur.
- If a write error occurs, any file that has not finished loading may remain on the CF Card or USB storage device.
- When saving data on a CF Card or USB storage device, if the target folder (\CAPTURE) does not exist, a folder will be automatically created and the data will be saved there. However, if the CF Card is not reset or any other case occurs where the folder cannot be created, a CF Card error will occur.
- The number of times that data can be written on a CF Card is limited. (Approximately 100,000 times for rewriting 500 KB.)
- When saving to the FTP Server, the automatic file number computation function is not available. A folder (\CAPTURE) will be created in the root directory for logging in. The file name will be saved as the time stamp (year/month/day/hour/minute/second) when the save operation begins.
- The FTP Server timeout is 75 seconds. An error will occur if connection to the FTP Server does not occur within the timeout period.

### ■ CF Card Cautions for Use

- When ejecting a CF Card, make sure that the CF Card access LED lamp turns OFF. Otherwise, the data on the CF Card may be damaged.
- When accessing a CF Card, be sure not to power OFF or reset the GP, or eject the CF Card. Create an application screen on which the CF Card cannot be accessed, and on that application screen, you may power OFF or reset the GP, open and close the CF Card cover, and eject the CF Card.
- When inserting a CF Card, check the front and back sides and the connector position of the card. If the CF Card is inserted the wrong way, the data, the CF Card, or the GP may be damaged.
- Use a CF Card manufactured by Digital Electronics Corporation. If a CF Card manufactured by another company is used, the contents of the CF Card may be damaged.
- Please make sure to back up all CF Card data.
- Please refrain from doing the following, as it can result in damage to data and equipment:
  - Bending the CF Card
  - Dropping the CF Card
  - Spilling water on the card
  - Touching the CF Card's connectors directly
  - Disassembling or modifying the CF Card

### ■ USB Storage Cautions for Use

- Do not reset the GP or remove the USB storage device when accessing the device.
- Please make sure to back up all data on the USB storage device.
- GP does not initialize the USB storage device. Please format as FAT on a computer.
- Even if multiple USB storage devices are connected to the GP, you can only use the USB storage that is first recognized.

