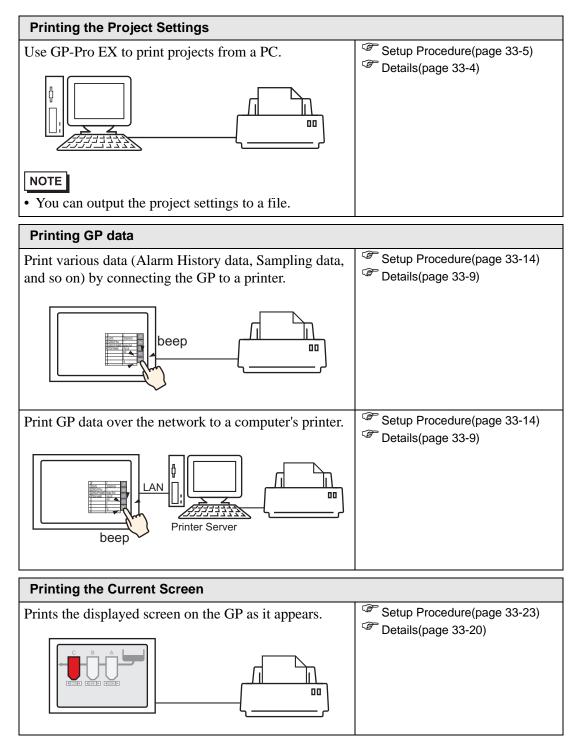
# 33 Print

This chapter explains how to print screens and project settings from the GP-Pro EX editor, and how to print data and display screens from the GP. Please begin by reading "33.1 Settings Menu" (page 33-2) and then turn to the corresponding page.

33.1	Settings Menu	33-2
33.2	Printing the Project Settings	33-4
33.3	Printing GP data	33-9
33.4	Printing the Current Screen	
33.5	Cancel Printing	
33.6	Settings Guide	
33.7	Restrictions	

# 33.1 Settings Menu



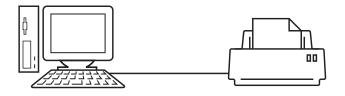
Cancel Printing	
You can cancel the printing of data and display screens. If you cancel, all the print processes being performed are canceled.	Setup Procedure(page 33-33) Details(page 33-30)
Stop	

# 33.2 Printing the Project Settings

#### 33.2.1 Detail

You can print the project settings for a file from GP-Pro EX. This feature is useful for debugging and documenting projects.

Also, you can output them in the rich text file (\*.rtf) format.



#### Print Example

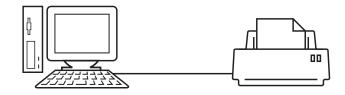
			2005/10/28 11:31 test.prx	
Summary Project Name Last Saved Date Creator Title Send Data Size Model	and Time	test.prx Fri Oct 28 11:24:41 2005 Pro-face 75843 Bytes ACP-3500T		
Device/PLC 1 Printer Bar Code 1 Bar Code 2 Script 1 Script 2	Cammon Setti	ng(Sampling)	2005/10/28 11:33 te	st.prx
	Sampling Set Group1 Addressing Sampling Top No. of Sampling Per Start Time End Time Sampling Per Start Time End Time Sampling Cyr No. of Time Data Full Bj Data Cleart B Backup to Sf Overwrite fi No. of Days Time Data Data Valid/J	tings/Font Type tings (Detail) ) Address ing Words ondition mit Bit Address the Address it Address it Address M mom the oldest data invalid Flag : in CSV Settings gg	ASCII Standard Font Group Sequential [PLCI]D00100 1 16Bit Time Specification [PLCI]MD00100 00:00:00 00:00:00 00:00:00 1 Times D0:00:00 1 Times D0:00:00 1 Times D0:00:00 1 Times D0:00:00 1 Times D0:00 1 Times D0:00 1 Times D0:00 00:00 1 Times D0:00 00	

#### 33.2.2 Setup Procedure

```
NOTE
```

• Please refer to the Settings Guide for details. \*\* "33.6.1 Print Settings Guide" (page 33-40)

Output the Project Information, Alarm Settings, and Sampling Settings from a PC to a printer.



1 Select the [Project (F)] menu and choose the [Print (P)] command or click 🔄 to open the [Print] dialog box.

Print						
Printer						
Printer Name (N)	Printer Name		-		Properties (P)	
			Г	Output to a	File (RTF Format	1
Туре	Microsoft Office	Document Image Writer D	rium			, 
Location		-	liver			
	MICrosoft Docun	nent Imaging Writer Port:				
Comment						
Items		Detail				
; Cover Page	-					
Project Informati	on	Title				_
- 🗌 Summary						
System Setti	ings					
🛄 🗌 🖂 🗔	Reference					
	ion	_				_
Logic		Date/Time				
— 🔲 I/O Settings						
🖻 🔲 Common		🔲 Company Name				_
Alarm						
Sampling						
Recipe			1			
Security		□ Name				_
Operation Lo		I Name	1			
— 🔲 Time Sched	ule	_				_
🗖 Sound		🗖 Image				
— 🔲 Text Table						
🔲 Global D-Sc			Brow	se	Layout	
Extended So	erint 🔟					
	Print Preview	Preferences F	Print	Cancel	Appl	,

2 Select a printer to use in [Printer Name (N)].

**3** Select the [Project Information] check box and all the sub items (e.g., select [Summary], [System Settings], [Global Cross Reference]).



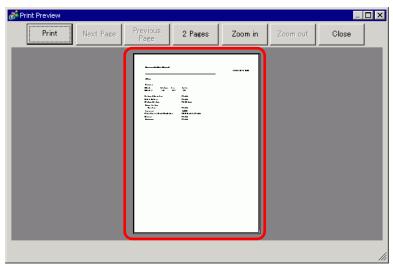
4 Under [Common], select the [Alarm] check box. Select all the Alarm boxes to print in [Item] (e.g., [Common], [Alarm History]).

Items	Detail
I/O Settings	
Common	Common
Alarm	🔽 Alarm History
Recipe	🔽 Banner
····□ Security ····□ Time Schedule	🔽 Summary

5 Under [Common], select the [Sampling] check box. Select [Detail] for the Sampling [Print Contents].

Items		Detail		
└── 🗖 I/O Settings				
🖃 🔽 Common		Print Contents	C Summary	💿 Detail
Alarm				
- 🔽 Sampling				
Recipe				
Security				

6 Click [Print Preview] and check the print status.



Click [Print] to return to the dialog box.

7 Click [Print] to start Printing.

Print	×
Printer	
Printer Name (N) Printer Name	Properties (P)
	Output to a File (RTF Format)
Tura Minara Office	Document Image Writer Driver
	ment Imaging Writer Port:
Comment	
Items	Detail
: Cover Page	
□-▼ Project Information	Title
Summary	
Global Cross Reference	
Creen Information	
Logic	Date/Time
- I/O Settings	
E- Common	Company Name
- 🔽 Alarm	
Sampling	
- Recipe	
- Security	
Operation Log Settings	Name
Time Schedule	
Sound	☐ Image
Text Table	
Global D-Script	Browse Layout
Extended Scrint	
Print Preview	Preferences Print Cancel Apply

To output to a rich text file without printing, check the [Output to a File (RTF Format)] box.

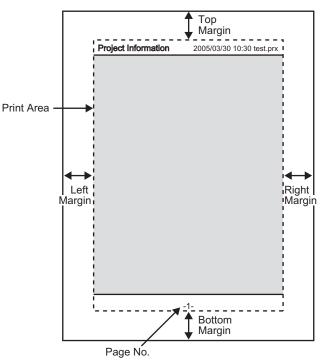
💰 Print				X
Printer				
Printer Name ( <u>N</u> )	Printer Name	•	Properties ( <u>P</u> )	
			Output to a File (RTF Format)	)
Туре				
Location				

Click [Print] and the following dialog box appears. Select the [Save in] location and [File name] and click [Save].

Print					? ×
Savejn:	🔁 Database		•	+ 🗈 💣 🎟 -	
<b>i</b> History	🛄 data 🛅 file				
Desktop					
My Documents					
My Computer					
My Network P	File <u>n</u> ame:			•	<u>S</u> ave
My Network P	Save as <u>type</u> :	RTF Files (*.rtf)		T	Cancel

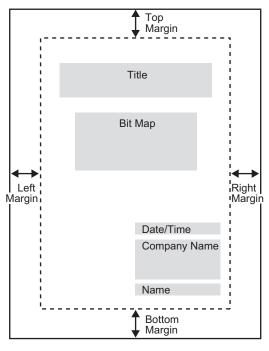
#### 33.2.3 Print Layout

For example, Project Settings



- The print item name is printed on the top left corner, and the printout date/time and the project file name on the top right corner.
- A page number can be set in Preferences.

For example, Cover Page



- Image files can be placed from the line after Title to two lines before Date/Time. When printing an image that exceeds this area, the image is automatically reduced to fit into the area.
- Bitmap images can be moved within the print area.

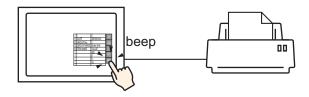
### 33.3 Printing GP data

#### 33.3.1 Details

You can print GP data such as Alarm History data and Sampled Data over the network to a computer's printer.

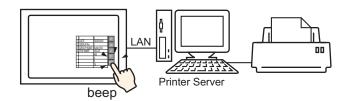
#### ■ Connecting Directly to a Printer

You can print GP data by connecting a printer directly to the GP. You can connect one printer to the GP at a time.



#### Printing Over the Network to a Computer Printer

When the GP is connected to a computer over the network, you can print to the computer's printer if the computer is set up as a printer server. Install "GP Remote Printer Server" to the connected computer.





• Limited models can use "GP Remote Printer Server". Refer to the following.

You can print the following data from the GP.

Feature	Print Contents
Screen Hard Copy	Prints the displayed screen on the GP as it appears. <sup>(F)</sup> "33.4 Printing the Current Screen" (page 33-20)
Alarm Banner	Prints an alarm message in the displayed language (table) when it triggers or recovers.
	<ul> <li>NOTE</li> <li>[GP Remote Printer Server] doesn't support Real-time Printing. When the [GP Remote Printer Server] receives printing instructions, it prints one sheet per line.</li> </ul>
Indicates Alarm	Real-time Print Prints when an alarm triggers, is confirmed, or recovers.
	<ul> <li>NOTE</li> <li>[GP Remote Printer Server] doesn't support Real-time Printing. When the [GP Remote Printer Server] receives printing instructions, it prints one sheet per line.</li> </ul>
	Batch Print Prints all the alarm history in a specified format when a specified [Print Word Address] Bit 0 is turned ON.
Sampling	Real-time Print Prints in the print format specified in [Sampling] each time it collects data.
	<ul> <li>NOTE</li> <li>[GP Remote Printer Server] doesn't support Real-time Printing. When the [GP Remote Printer Server] receives printing instructions, it prints one sheet per line.</li> </ul>
	Batch You can print in Block units when in the [Sampling] screen's [Mode] tab, [Extended] settings area, the [Overwrite old data after finishing the specified cycles] check box is cleared. Prints the collected data in block unit in a specified print format when a specified [Print Word Address] Bit 0 is turned ON.
CSV Data Print	Prints the displayed CSV data when you touch the print key on a special data display [Show CSV]. You can select whether to print only the displayed portion or to print the whole data.
Script Printer Output	When printer operation functions are run from D-Script, Global D-Script, and Extended Script, only the specified bytes are printed. This type of printing is not supported by the [GP Remote Printer Server].

NOTE

• Some printers used cannot print Alarm History and Sampling per line in realtime printing. This is because the printers don't support paper feed per line.

#### • GP Supported Printer Types

You can use the following printers.

- NEC PC-PR201/PL command compatible
- EPSON ESC/P24-J84 (C) command compatible
- HP Laser Jet PCL 4 command compatible
- Some models of EPSON PM/Stylus (6 Colors) and Stylus (4 Colors)

For supported printer models, refer to the Pro-face support site "Otasuke Pro!" (http://www.pro-face.com/otasuke/).

Connect to this site by clicking the [Help (H)] menu and choose the [Connect to Support Site - "Otasuke Pro!" (O)] command.

 Help (H)

 Reference Manual (M)

 Device/PLC Manual (S)

 Hardware Manual (T)

 Maintenance/Troubleshooting (D)

 Online User Registration (R)

 Connect to Support Site=""Otasuke Pro!" (O)

 Access Digital's Website (P)

 Confirm Update of GP-Pro EX (U)

 Version Info (A)

IMPORTANT	<ul> <li>Supported models may change due to GP upgrades.</li> <li>Printing may not work if you use an unlisted printer as a supported model. Make sure your printer is compatible before you begin.</li> </ul>
L	• You cannot use a Windows only printer with GP Please use the command-

• You cannot use a Windows only printer with GP. Please use the command-compatible machines listed above or equivalent printers.

#### Printer and Interface

Connect a printer using COM1 (RS-232C), USB, or LAN. The USB connection supports USB direct and USB-PIO conversion. The following interface corresponds to each printer.

		Interface				
		COM1	USB Direct	USB-PIO	LAN (LPR/IPP)	
	NEC PR Series	0	Х	0	0	
	EPSON ESC/P (High Speed)	0	Х	0	0	
	EPSON ESC/P (High Quality)	0	Х	0	0	
Printer	HP LASERJET Series	0	Х	0	0	
	EPSON PM/Stylus (6 Colors)	Х	0	0	0	
	EPSON Stylus (4 Colors)	Х	0	0	0	
	GP Remote Printer Sever	Х	Х	Х	0	
	Text ASCII	0	Х	0	Х	

NOTE

• COM2 cannot be used to connect a printer.

- Use a USB/PIO converter to connect a Centronics parallel interface printer. For supported USB-PIO converters, refer to Digital Electronics Corporation support site "Otasuke Pro!" by clicking the [Help (H)] menu and choosing [Connect to Support Site - "Otasuke Pro!" (O)] command.
- For USB direct connections, confirm the supported models. A complex printer with a scanner and storage cannot be used for USB direct printing.
   GP Supported Printer Types" (page 33-11)
- When printing with LAN connection, there may be a short delay before the print starts.
- [GP Remote Printer Server] displays in the list only when a Ethernet connection supported model is selected.

Print Feature	COM1	USB	LAN	GP Remote Printer Server
Screen Hard Copy	0	0	0	0
Alarm (Banner) Print	0	0	Х	X*1
Alarm (History) Real-time Print	0	0	Х	X*1
Alarm (History) Batch Print	0	0	Х	0
Sampled Data Real-time Print	0	0	Х	X*1
Sampled Data Batch	0	0	Х	0
CSV Data Print	0	0	Х	0
Script Printer Output	0	O*2	Х	X

#### **Output Port and Printing Features**

\*1 Alarm banner and Real-time printing are not supported. When the printer receives printing instructions, it prints one sheet per line.

\*2 Script printer output with USB connection supports only USB-PIO conversion.

#### ♦ Operating Environment for GP Remote Printer Server

To use a computer with a LAN connection as a printer server, install "GP Remote Printer Server".

" "Printer Server Settings" (page 33-16)

The operating environment for "GP Remote Printer Server" is as follows.

	Required Specifications	Remarks
Display	<ul> <li>GP3000 Series with Ethernet support (except GP3200 Series)</li> <li>LT Series with Ethernet support</li> </ul>	"1.3 List of Supported Functions by Device" (page 1-5)
Operating System	Windows <sup>®</sup> 2000 (Service Pack 3 or later), Windows <sup>®</sup> XP (Home Edition and Professional), Windows <sup>®</sup> Server 2003	
Hard Disk Space	800 KB or more	This capacity is required to install Movie Converter.
Language	English, Japanese	
LAN port	100Base-T	
FTP Sever	FTP server component enclosed in IIS	IIS version • Windows <sup>®</sup> 2000: IIS5.0 • Windows <sup>®</sup> XP: IIS5.1 • Windows <sup>®</sup> Server 2003: IIS6.0
Others	.NET Framework Ver.1.1 (Service Pack 1) or later	Automatically installed in a computer without .NET Framework Ver.1.1 (Service Pack 1) or later. For information about the disk space required, please refer to the Microsoft home page.

#### 33.3.2 Printer Setup Procedure

#### Connecting a Printer Directly to GP

Configure settings to connect the GP and a printer using a USB-PIO converter.

1 Select [Printer] from the System Settings window.

System Settings 🛛 📮 🗙	Display Unit
Display	Series GP3000 Series Model AGP-3500T
Display	Orientation Landscape
Display Unit	Printer
Logic Programs	Summary
<u>Video/Movie</u>	Type Disable Port COM1
Font	
Peripheral Settings	
Peripheral List	
Device/PLC	
Printer	
Input Equipment Settings	
Script I/O Settings	
1/0 Driver	
FTP Server	
Modem	
Video Modules	
[View (V)] me	Settings] tab does not display in the Work Space, select the enu, select the [Work Space (W)] option, and choose the
[System Settin	ngs (S)] command.

2 Configure the printer type to use and the output port. (For example, [Type] EPSON PM/ Stylus 6 Color, [Port] USB/PIOÅj

Display Unit Series Model	GP3000 Series AGP-3500T	
Orientation	Landscape	
Printer		
Summarv		

• If the port is being used by another device, the **()** mark displays next to the box. Select a port that is not used by another device/PLC.

**3** Configure the [Print Method], [Rotate Screen], [Print Scale], [Reverse Black/White], [Paper Size], [Paper Orientation] [Top Margin] output settings.

Output Setting	
Print Method	O Monochrome 💿 Color
Rotate Screen	🔿 Enable 🛛 🕢 Disable 🔺
Print Scale	β Ξ ∰ Multiple
🔽 Reverse Black/White	
Paper Size	A4 297x210mm
Paper Orientation	O Landscape 💿 Portrait
Top Margin	3 📑 🏾 mm

The printer connection settings are complete.

Connect the printer to the GP with a specified output port (USB/PIO) and configure print settings for each feature. The printer starts.

• For a monochrome GP model, the print will be monochrome even if [Color] is selected for the [Print Method].

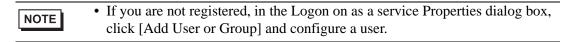
#### ■ Printing from GP, Over the Network, to a Computer Printer

When using a PC connected over the network as a printer server, define the printer settings. You can install [GP Remote Printer Server] driver on a computer even without GP-Pro EX installed.

#### **Printer Server Settings**

1 In the Windows Control Panel, double-click [Administrative Tools] and open [Local Security Policy] to display the [Local Security Settings].

To confirm that the defined user is registered, double-click [Local Policy], open [User Rights Assignment], then open [Log on as a service] and check that the user is registered.



- 2 Install the [GP Remote Printer Server] driver on the computer used as the printer server. Place the GP-Pro EX installation CD-ROM (Disk2) in the computer's CD drive.
- **3** When the GP-Pro EX setup screen displays, click [GP Remote Printer Server].



Once installation begins, follow the instructions on the screen.

4 The following screen displays when installation is complete.

Set the [UserName] and login [Password] of the computer used as the printer server then click [Install].

	👫 GpRemotePrinterServer Setting 📃 🗖 🗙
	Domain 🔽 Use Domain
	UserName
	Password
	Exit
NOTE	• A user-defined "default printer" is used for printing.

**5** When the GP-Pro EX setup screen displays, click [Exit] to close the screen.

#### **GP-Pro EX Printer Settings**

6 Select [Printer] from the System Settings window.

System Settings 4 × Display Display	Display Unit Series GP3000 Series Model AGP-3500T Drientation Landscape
<u>Display Unit</u>	Printer
Logic Programs	Summary
Video/Movie	Type Disable  Port COM1
Font	
Peripheral Settings	
Peripheral List	
Device/PLC	
Printer	
Input Equipment Settings	
Script I/O Settings	
I/O Driver	
FTP Server	
Modem	
Video Modules	

NOTE	• If the [System Settings] tab does not display in the Work Space, select the [View (V)] menu, select the [Work Space (W)] option, and choose the
	[System Settings (S)] command.

7 Select [GP Remote Printer Server] as the printer type.

	Printer	
	Summary	
	Туре	Disable Port COM1
	(	Disable NEC PR201 EPSON ESC/P High Speed EPSON ESC/P High Quality HP Laser Jet EPSON PM/Stylus 6 Colors EPSON PM/Stylus 6 Colors EPSON Stylus 4 Colors GP Remote Printer Server
NO	ТΕ	• When [GP Remote Printer Server] is selected, the following message displays.
		💰 GP Remote Printer Server
		Please install the GP Remote Printer Server driver from the install disk onto the server.
		Do not display this message in the OK
	•	• If the selected model does not support Ethernet connections, [GP Remote
		Printer Server] cannot be selected as the Printer Type.

8 Configure the print output: [Paper Size], [Orientation], [Print Size] and printer [Margin].

Output Setting	
output setting	
Paper Size	A4 297x210mm
Orientation	O Horizontal ◀ O Vertical 🔺
Print Size	O original Size  Fit to Printer Margins
Margin	20 🕂 🏢 mm
15 📩 🌉 mm	15 🔆 🎬 mm
	20 🕂 🏥 mm

**9** Configure the communication settings: [IP Address] of the printer server, [Port] for FTP connections, and the printer server [User Name] and [Password].

Communication Settings	
IP Address	0.0.0 🔽 PASV
Port	21 📑 🇱
User Name	
Password	

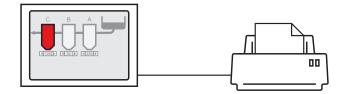
The printer connection settings are complete.

Printing begins when the GP and printer server are connected with Ethernet cables and each feature's print settings are defined.

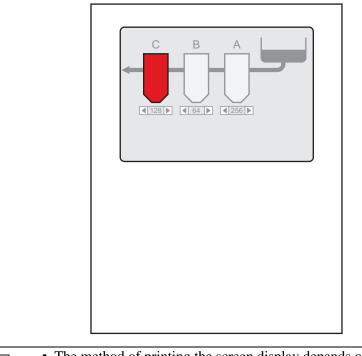
# 33.4 Printing the Current Screen

#### 33.4.1 Details

Prints the GP screen contents as an image.



#### Print Example



NOTE	• The method of printing the screen display depends on the communication
NOTE	method (direct access or memory link).
	• You can save the currently displayed screen as a JPEG file to a CF Card,
	USB storage device, or FTP server.
	"11.6 Saving the Displayed Screen" (page 11-18)

#### 33.4.2 Operation Method

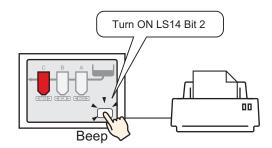
The following methods are used to start printing the displayed screen. The operation method varies depending on the communication method (direct access or memory link).

For more details on the communication method, refer to:
 "A.1.2 Communicating with a Device/PLC Using the Direct Access Method" (page A-4)
 "A.1.3 Using the Memory Link Method with Unsupported Devices/PLCs" (page A-7)

#### Direct Access Method

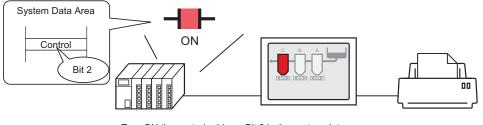
Operating by Screen Touch ☞ " ◆ To Trigger Printing the Current Screen by Touch" (page 33-23)

If you turn ON the GP internal device LS14 (control address) Bit 2 (print start bit) using a switch, the displayed screen will print.



Operating from a Device/PLC ☞ " ◆ To Trigger Printing the Current Screen from a Device/PLC" (page 33-25)

If you turn ON control address Bit 2 in the system data area allocated to a device/PLC, the displayed screen will print.



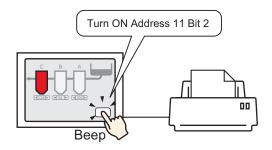
Turn ON the control address Bit 2 in the system data area allocated to a device/PLC...and

Screen hard copy will start.

#### Memory Link Method

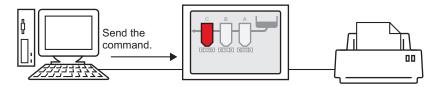
Operating by Screen Touch ☞ " ◆ To Trigger Printing the Current Screen by Touch" (page 33-27)

If you turn ON '0011' (control address) Bit 2 (print start bit) in the GP internal device (#MEMLINK) using a switch, the displayed screen will print.



Operating from a Host (PC) ☞ " ◆ To Trigger Printing the Current Screen from a PC Host" (page 33-29)

If you send the command to write '0004h' to '0011' (control address) from a host (PC), the displayed screen will print.



NOTE

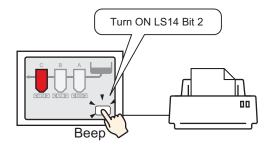
#### 33.4.3 Setup Procedure

#### Direct Access Method

#### • To Trigger Printing the Current Screen by Touch

 For details of the part placement method and the address, shape, color, and label setting method, refer to the "Part Editing Procedure".
 \*\* "8.6.1 Editing Parts" (page 8-52)

Create a switch to operate the internal device LS14 bit 2.



- 1 Configure connection settings for the printer. <sup>(2)</sup> "33.3.2 Printer Setup Procedure" (page 33-14)
- 2 From the [Part (P)] menu, select [Switch Lamp (C)], click [Bit Switch (B)] and draw the Switch Part on the screen. Alternatively, you can click 兽 and then draw the Switch Part.
- **3** Double-click the placed Switch part. The following dialog box appears.

💰 Switch/Lamp			×
Switch/Lamp Parts ID SL 0000 Comment Comment Normal Select Shape No Shape	Switch Feature Switch Common	Bit Switch	Selector Switch
	Add Delete Copy and Add		
Help (H)		OK (0)	Cancel

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

5 [Designate the GP internal device LS14 Bit 2 (print start bit) in [Bit Address].

Click the icon to display an address input keypad.

NOTE

Select #INTERNAL from the device/ PLC, select the "LS" device, input "1402" for the address, and then click "ENT."

Bit Address [PLC1]X00000 Click	Input Address         Image: Constraint of the second	Bit Address [#INTERNAL]LS001402
• Alternatively, sel	ect the variable #H Cont	rol_HardcopyPrint from the [Bit

Address] pull-down menu to create the same operation switch.

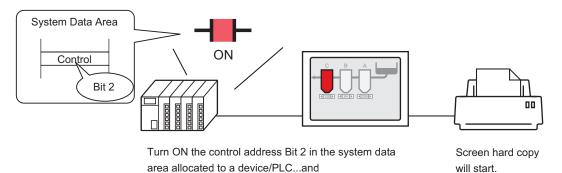
6 From [Bit Action], choose [Bit Invert].

Bit Action	
Bit Invert	•

7 As needed, set the color and display text on the [Color] tab and [Label] tab, and click [OK]. A switch used to start screen hard copy has been created.

• While printing the displayed screen, LS6 (status address) Bit 2 (printing bit) in the GP internal device is ON. After printing, this bit automatically turns OFF. Confirm this bit OFF and then turn OFF LS14 Bit 2(print start bit).

#### ♦ To Trigger Printing the Current Screen from a Device/PLC



- Configure connection settings for the printer.
   "33.3.2 Printer Setup Procedure" (page 33-14)
- 2 Click the System Settings window [Display Unit] to open the [System Area] tab.

System Settings 🛛 📮 🗙	Display Unit Series GP3000 Series
Display	Model AGP-3500T
Display	Drientation Landscape
Display Unit	Display Unit
Logic Programs	Display Operation Mode Logic System Area Extended Settings Remote Viewer
Video/Movie	Display
Font	System Area Device PLC1
Peripheral Settings	Sustem Data Area
Peripheral List	System Area Start Address [PLC1]D00000
Device/PLC	Read Area Size
Printer	Enable System Data Area
Input Equipment Settings	System Data Area Items Number of Words in use: 0
Script I/O Settings	Current Screen: (1 Word)
I/O Driver	Error Status: (1 Word)
ETP Server	Clock Data (Current): (4 Word)
Modem	E Status: (1 Word)
Video Modules	E Reserved (Write): (1 Word)
	Change-To Screen: (1 Word)
	n Settings] tab does not display in the Work Space, select th enu, select the [Work Space (W)] option, and choose the

[System Settings (S)] command.

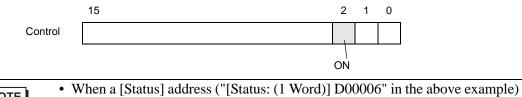
**3** Select which device/PLC to allocate the system data area in [System Area Device]. The system data area can only be set to one device/PLC.

4 Designate the start address of the system area in [System Area Start Address] and select the [Enable System Data Area] check box. (For example, D00000)

Display Unit Display   Operation   Mode   Logic   System Area	a   Evtended Settings   Bernate Viewer
Display Display	
System Area Device PLC1	<b>_</b>
System Data Area	
System Area Start Address [PLC1]D000	000
Read Area Size 0 🗧	#
💌 Enable System Data Area	
System Data Area Items	Number of Words in use: 16
🔽 Current Screen: (1 Word)	[PLC1]D00000
🔽 Error Status: (1 Word)	[PLC1]D00001
🔽 Clock Data (Current): (4 Word)	[PLC1]D00002
🔽 Status: (1 Word)	[PLC1]D00006
Reserved (Write): (1 Word)	[PLC1]D00007
🔽 Change-To Screen: (1 Word)	[PLC1]D00008
🔽 Screen Display ON/OFF: (1 Word)	[PLC1]D00009
🔽 Clock Data (Preset Value): (4 Word)	[PLC1]D00010
🔽 Control: (1 Word)	[PLC1]D00014
Reserved (Read): (1 Word)	[PLC1]D00015
🔲 Window Control: (1 Word)	
🔲 Window Screen: (1 Word)	
🔲 Window Display Position: (2 Words)	

5 Select the [Control: (1 Word)] check box.

If you turn ON Bit 2 in the address that displays on the right side ('D00014' in the above example), the displayed screen will print.



• When a [Status] address ("[Status: (1 Word)] D00006" in the above example) is allocated to the device/PLC, bit 2 of this address (printing bit) is ON while printing the displayed screen. After printing, this bit automatically turns OFF. Create the [Script] to turn OFF the control address ([Control: (1 Word)] D00014) bit 2 after making sure this bit has turned OFF.

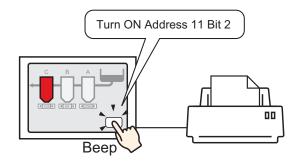
#### Memory Link Method

#### ◆ To Trigger Printing the Current Screen by Touch

NOTE

 For details of the part placement method and the address, shape, color, and label setting method, refer to the "Part Editing Procedure".
 \*\* "8.6.1 Editing Parts" (page 8-52)

Create a switch to operate the internal device address '0011' Bit 2.



- 1 Configure connection settings for the printer. <sup>(C)</sup> "33.3.2 Printer Setup Procedure" (page 33-14)
- 2 From the [Part (P)] menu, select [Switch Lamp (C)], click [Bit Switch (B)] and draw the Switch Part on the screen. Alternatively, you can click such that the draw the Switch Part.
- **3** Double-click the placed Switch part. The following dialog box appears.

Switch/Lamp				×
Switch/Lamp Parts ID SL 0000 Comment Normal Select Shape No Shape	Switch Feature Switch Common	Lamp Feature Color Label Bit Switch Word Switch Word Bit Address [PLC1]X00000 Copy from Lamp Copy to Lamp Bit Action Bit Momentary Switch Copy for Lamp	Special Switch	Selector Switch >>Extended
Help (H)			DK (0)	Cancel

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

5 Designate the GP internal device address '0011' Bit 2 (print start bit) in [Bit Address].

Click the icon to display an address input keypad.

NOTE

Select #MEMLINK from Device/ PLC, input "1102" as the address, and click the "ENTER" key.

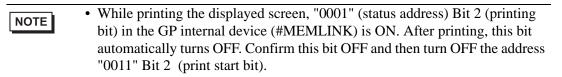
Bit Address [#MEMLINK]000000	Input Address       Device/PLC       #MEMLINK	Bit Address [#MEMLINK]001102
Click	Back         Cir           A         B         C         7         8         9           D         E         F         4         5         6           1         2         3         0         Ent	enter la Unederse Drivet forme des (Die

Alternatively, select the variable #H\_Control\_HardcopyPrint from the [Bit Address] pull-down menu to create the same operation switch.

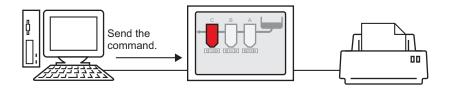
6 From [Bit Action], choose [Bit Invert].

Bit Action	
Bit Invert	-

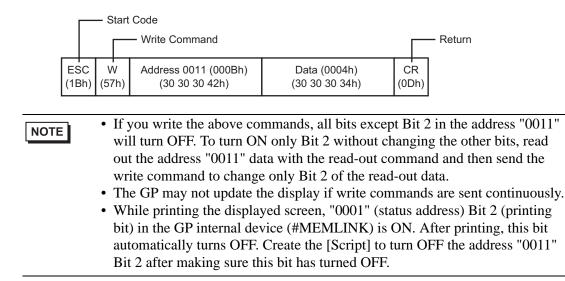
7 As needed, set the color and display text on the [Color] tab and [Label] tab, and click [OK]. A switch used to start screen hard copy has been created.



♦ To Trigger Printing the Current Screen from a PC Host



- 1 Configure connection settings for the printer. <sup>(3)</sup> "33.3.2 Printer Setup Procedure" (page 33-14)
- **2** Send the write command to turn ON the internal device address "0011" Bit 2 (print start bit). For all inputs, use the ASCII code.

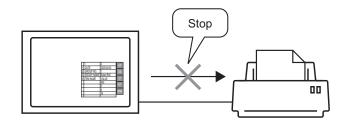


# 33.5 Cancel Printing

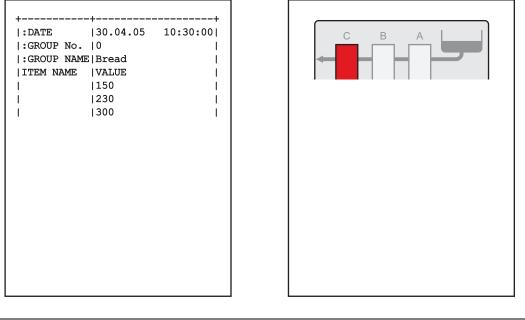
#### 33.5.1 Details

You can cancel data or screen print jobs.

If you cancel, the print processes for all features that have been set will be canceled.



For example, 1) Canceling the (CSV data) printout For example, 2) Canceling the screen display printout



NOTE	• The method of canceling print differs depending on the communication
	method (direct access or memory link).

#### 33.5.2 How to Cancel Printing

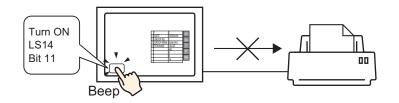
The following methods are used to cancel printing. The operation method differs depending on the communication method (direct access or memory link).

For more details on the communication method, refer to:
 "A.1.2 Communicating with a Device/PLC Using the Direct Access Method" (page A-4)
 "A.1.3 Using the Memory Link Method with Unsupported Devices/PLCs" (page A-7)

#### Direct Access Method

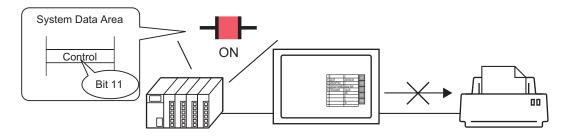
Operating by Screen Touch ☞ " ♦ To Cancel Printing by Touch" (page 33-33)

If you turn ON LS14 (control address) Bit 11 (print cancel bit) in the GP internal device using a switch, printing will be canceled.



Operating from a Device/PLC ☞ " ◆ To Cancel Printing from a Device/PLC" (page 33-35)

If you turn ON the [Control] address Bit 11 in the system data area allocated to a device/PLC, printing will be canceled.



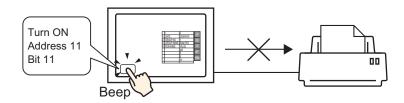
• The internal device LS14 or the device/PLC (control address) Bit 11 does not automatically turn OFF. While Bit 11 is ON, none of the print features will operate. Be sure to turn it OFF after canceling the print.

#### Memory Link Method

Operating by Screen Touch

☞ " ◆ To Cancel Printing by Touch" (page 33-37)

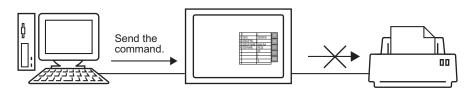
If you turn ON Address 11 (control address) Bit 11 (print cancel bit) in the GP internal device (#MEMLINK) using a switch, printing will be canceled.



#### Operating from a Host (PC)

<sup>(</sup> <sup>(</sup> ) ◆ To Cancel Printing from a PC Host" (page 33-39)

If you send the command to write '0800h' to Address 11 (control address) from a host (PC), printing will be canceled.



# • "0011" (control address) bit 11 in the GP internal device (#MEMLINK) does not automatically turn OFF. While Bit 11 is ON, none of the print features will operate. Be sure to turn it OFF after canceling the print.

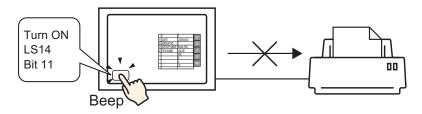
#### 33.5.3 Setup Procedure

#### Direct Access Method

#### To Cancel Printing by Touch

• For details of the part placement method and the address, shape, color, and label setting method, refer to the "Part Editing Procedure".

Create a switch to turn ON the internal device LS14 Bit 11.



- 1 From the [Part (P)] menu, select [Switch Lamp (C)], click [Bit Switch (B)] and draw the Switch Part on the screen. Alternatively, you can click such that the draw the Switch Part.
- **2** Double-click the placed Switch part. The following dialog box appears.

Switch/Lamp					×
Parts ID SL 0000 * Comment Normal Select Shape No Shape	Switch Feature Switch Common	Bit Switch Bit Address [PLC1]X00000	el Screen Change	Special Switch	Selector Switch
	Add       Delete       Copy and Add				
Help (H)				)K (O)	Cancel

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

4 Designate the GP internal device LS14 Bit 11 (print cancel bit) in [Bit Address].

Click the icon to display an address input keypad.

Select #INTERNAL from the Device/PLC, select the "LS" device, input "1411" for the address, and then click "ENTER."

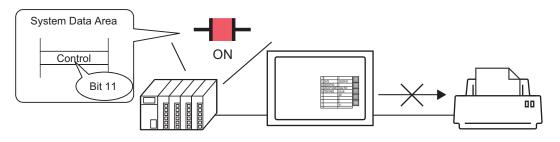
Bit Address [[PLC1]X00000	Click	Input Address         Image: Constraint of the second	Bit Address [#INTERNAL]LS001411 💌 📻
NOTE	• Alternatively, se	lect the variable #H_Cont	rol_PrintCancel from the [Bit

- Address] drop-down menu to create the same operation switch.
- 5 Confirms that [Bit Momentary] has been selected for [Bit Action].

Bit Action	
Bit Momentary	-

6 As needed, set the color and display text on the [Color] tab and [Label] tab, and click [OK]. A momentary switch to cancel the print has been created.

#### To Cancel Printing from a Device/PLC



1 Click the System Settings window [Display Unit] to open the [System Area] tab.

System Settings 7 X Display <u>Display</u>	Display Unit Series GP3000 Series Model AGP-3500T Orientation Landscape
Display Unit Logic Programs Video/Movie Eont	Display Unit Display   Operation   Mode   Laic System Area Extinded Settings   Remote Viewer   Display System Area Device   PLC1 -
Peripheral Settings <u>Peripheral List</u> <u>Device/PLC</u> <u>Printer</u>	System Data Area System Area Start Address [PLC1]D00000 Read Area Size 0 Enable System Data Area
Input Equipment Settings Script I/O Settings I/O Driver ETP Server Modem Video Modules	System Data Area Items     Number of Words in use: 0       Current Screen: (1 Word)       Error Status: (1 Word)       Clock Data (Current): (4 Word)       Status: (1 Word)       Reserved (Write): (1 Word)
[View (V)] m	n Settings] tab does not display in the Work Space, select the enu, select the [Work Space (W)] option, and choose the ngs (S)] command.

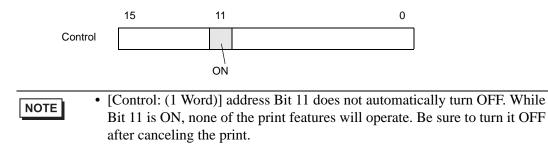
**2** Select which device/PLC to allocate the system data area in [System Area Device]. The system data area can only be set to one device/PLC.

**3** Designate the start address of the system area in [System Area Start Address] and select the [Enable System Data Area] check box. (For example, D00000)

Display Unit			
Display Operation Mode Logic System Are	ea Extended Settings Remote Viewer		
Display			
System Area Device PLC1			
System Data Area			
System Area Start Address [PLC1]D0	0000		
Read Area Size 0 📑			
🔽 Enable System Data Area			
System Data Area Items	Number of Words in use: 16		
Current Screen: (1 Word)	[PLC1]D 00000		
🔽 Error Status: (1 Word)	[PLC1]D00001		
Clock Data (Current): (4 Word)	[PLC1]D00002		
🔽 Status: (1 Word)	[PLC1]D00006		
Reserved (Write): (1 Word)	[PLC1]D00007		
🔽 Change-To Screen: (1 Word)	[PLC1]D00008		
Screen Display ON/OFF: (1 Word)	[PLC1]D00009		
Clock Data (Preset Value): (4 Word)	[PLC1]D00010		
Control: (1 Word)	[PLC1]D00014		
Reserved (Read): (1 Word)	[PLC1]D00015		
Window Control: (1 Word)			
Window Screen: (1 Word)			
Window Display Position: (2 Words)			

4 Select the [Control: (1 Word)] check box.

If you turn ON Bit 11 in the address that displays on the right side ('D00014' in the above example), printing will be canceled.



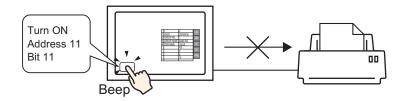
#### Memory Link Method

#### ♦ To Cancel Printing by Touch

#### NOTE

 For details of the part placement method and the address, shape, color, and label setting method, refer to the "Part Editing Procedure".
 \*\* "8.6.1 Editing Parts" (page 8-52)

Create a switch to turn ON the internal device address '0011' Bit 11.



- 1 From the [Part (P)] menu, select [Switch Lamp (C)], click [Bit Switch (B)] and draw the Switch Part on the screen. Alternatively, you can click such that the draw the Switch Part.
- **2** Double-click the placed Switch part. The following dialog box appears.

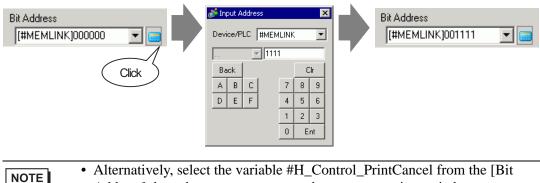
💰 Switch/Lamp		E	×
Switch/Lamp Parts ID SL 0000 Comment Comment Normal Select Shape No Shape	Switch Feature Switch Common		X
Help (H)	Add Delete Copy and Add	OK (0) Cancel	

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

4 Designate the GP internal device '0011' Bit 11 (print cancel bit) in [Bit Address].

Click the icon to display an address input keypad.

Select " #MEMLINK" from Device/ PLC, input "1111" as the address, and click the "ENTER" key.

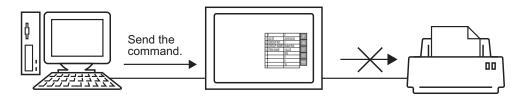


- Address] drop-down menu to create the same operation switch.
- 5 Confirms that [Bit Momentary] has been selected for [Bit Action].

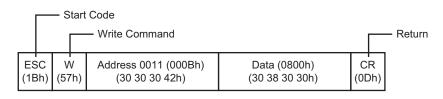
Bit Action	
Bit Momentary	•

6 As needed, set the color and display text on the [Color] tab and [Label] tab, and click [OK]. A momentary switch to cancel the print has been created.

To Cancel Printing from a PC Host



1 Send the write command to turn ON the internal device address "0011" Bit 11 (print cancel bit). For all inputs, use the ASCII code.



- If you write the above commands, all bits except Bit 11 in the address "0011" will turn OFF. To turn ON only Bit 11 without changing the other bits, read out the address "0011" data with the read-out command and then send the write command to change only Bit 11 of the read-out data.
  - The GP may not update the display if write commands are sent continuously.
  - The address "0011" Bit 11 does not automatically turn OFF. While Bit 11 is ON, none of the print features will operate. Be sure to turn it OFF after canceling the print.

# 33.6 Settings Guide

### 33.6.1 Print Settings Guide

Prints the settings for the currently open project file in GP-Pro EX.

🖗 Print						×
Printer						
Printer Name (N)	Printer Name		-		Properties (P)	
				Output to a	File (RTF Format	1
Туре	Microsoft Office	Document Image Writer D	lriver			·
Location		ment Imaging Writer Port:	invoi			
Comment	Microsoft Docu	nent maying while Fort.				
Lomment						
Items		Detail				
····· Cover Page	<b>_</b>					
Project Informat	ion	Title				-
- Summary						
📃 🗔 System Set	tings					
Global Cros	s Reference					
Screen Informal	tion					_
Logic		🗖 Date/Time				
I/O Settings						
E- Common		Company Name				
🗖 Alarm						
🗖 Sampling						
🗖 Recipe			1			
Security		□ Name				-
Operation L			1			
Time Scheo	lule	-				_
Sound		🗖 image				
Text Table						
Global D-So			Brow	/se	Layout	
Extended S	cunt 🛄					
	Print Preview	Preferences	Print	Cancel	Apply	,

Setting	Description
Printer Name	Select the printer to use.
Properties	The print setting dialog box appears for the printer selected in [Printer Name]. Configure settings for the paper size, direction, layout etc.
Output to a File (RTF format)	Put a check mark here for direct output to a file (*.rtf), not to a printer. The file output is in the same layout as for printing. <b>NOTE</b> • Reduced bitmap images are outputted.
Items	Select the items to print. Check the boxes for all the items you want to print in [Cover Page], [Project Information], [Screen Info], [Common] and [Comment]. [Project Information] and [Common] have sub menu items for print settings.
Detail	Detailed printing of the print contents selected in [Detail].
Apply	Saves the settings.
Cancel	Closes the [Print] dialog box.

Continued

Se	tting	Description	
Pri	nt	Starts the print. Starts the file output when [Output to a File (RTF Format)] is designated.	
		The [Preferences] dialog box appears and you can set the page number, margin, black/white reverse display and other settings.	
		Image: Option Settings         Text Table used in Print         Reverse Black/White         Numbering         Print Page Numbers         Print Number on Cover Page         Start at         OK Qperiod         Cancel	
	Text Table used in Print	Designate the text table used for printing.	
	Reverse Black/ White	Check the box to print the screen display colors with black and white reversed.	
	Print Page Numbers	Check the box to print the page number.	
	Print Number on Cover Page	Select the check box to print the page number on the cover page. Otherwise, page numbers will begin numbering from 1 after the cover page.	
	Start At	Designate the number for the first page of the printout. The setting range is from 1 to 65,535.	
Pri	nt Preview	Opens the preview screen.	
Print Returns to the [H		Returns to the [Print] dialog box.	
	Next Page	Previews the page following the currently displayed page.	
	Previous Page	Previews the page preceding the currently displayed page.	

Continued

Se	tting	Description
Ň	2 Page	Previews 2 pages per screen.
Preview	Zoom in/Zoom out	Enlarges or reduces the display.
Print	Close	Closes the preview screen.

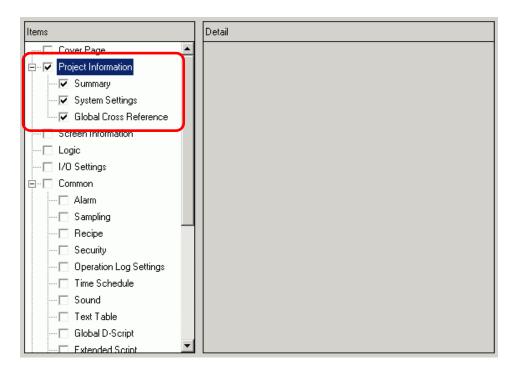
## Cover Page

Items	Detail
Cover Page	I Title
Summary	
Screen Information	
Logic	✓ Date/Time 2007/07/09 10:00
🗖 1/0 Settings	
Emmon	Company Name
Alarm	
Sampling	
Recipe	
🗖 Security	
Operation Log Settings	✓ Name     GP_User
- Time Schedule	
🗖 Sound	Image
Text Table	
Global D-Script	Browse Layout
Extended Scrint	

Setting	Description
Title	Select the check box to print the Title. Enter the name of the title using up to 60 single-byte or 30 double-byte characters.
Date/Time	Select the check box to print the Date/Time. The date and time displays in the "yyyy/mm/dd hh:mm" form. To change the form, enter up to 40 single-byte or 20 double-byte characters if required.
Company Name	Select the check box to print the Company Name. Then enter a name up to 60 single-byte or 30 double-byte characters.
Name	Select the check box to print the Name. The project file creator's name displays. You can change the form by entering up to 30 single-byte or double-byte characters if necessary.
Image (Display Unit)	Select the check box to print an image file on the cover page. The storage location and name of the file selected in [Browse] will display.
Browse	The [Open File] dialog box appears. Select the image file you want to print. You can use two types of files: [Bitmap (*.bmp)] and [JPEG (*.jpg, *.jpeg)].
Layout	The [Cover Page Bit Map Layout] dialog appears. You can change the layout alignment with the mouse.

#### Project Information

Select the check box beside the items you want to print: [Summary], [System Settings], and [Global Cross Reference].



Setting	Description
Summary	Prints the project information, such as a project file name, last saved date and time, display unit model name, device/PLC, etc.
System Settings	Prints the contents of the [Display Unit] and [Font] in the [System Settings] Window. <sup>(3)</sup> "5.15.6 [System Settings] Setting Guide" (page 5-128)
Global Cross Reference	Prints the addressing for the whole project. The addressing for all the screens is printed.

## Screen Information (List)

Items	Detail
Items   Cover Page   Project Information  Summary  System Settings  Global Cross Reference  Screen Information  Logic  Common  Alarm  Sampling  Recipe  Security  Time Schedule	Detail Print Contents
Sound Text Table Global D-Script	
Extended Script      User Defined Functions	

Setting	Description
Print Contents	Select the print contents from [List] or [Detail].
Base Screens	Select the check box to print all the [Base Screen] information set for the project file.
Window Screens	Select the check box to print all the [Window Screen] information set for the project file.
Print Method	<ul> <li>Select the Print Method.</li> <li>Thumbnail Prints multiple screens in reduced images.</li> <li>List Prints the screen information list in text.</li> </ul>
Thumbnail Size	<ul> <li>For [Thumbnail] in [Print Method], select the size from [Large], [Medium] or [Small].</li> <li>Large: Prints 6 reduced screen images per A4 sheet.</li> <li>Medium: Prints 12 reduced screen images per A4 sheet.</li> <li>Small: Prints 20 reduced screen images per A4 sheet.</li> </ul>

### ■ Screen Information (Detail)

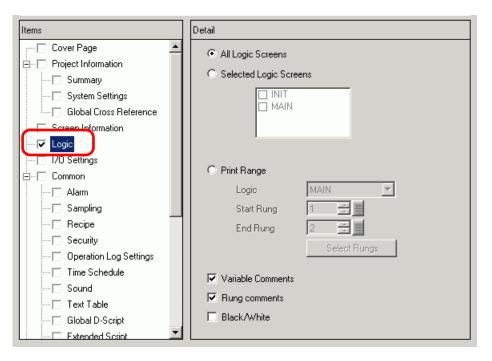
Items	Detail
Cover Page	Print Contents 🔿 List 💽 Detail
🗄 🖳 Project Information	
Summary	Base Screens  All C Specify Screen
System Settings	Start 🗍 🚍 📕 End 🕅 🚍 📕
Global Cross Reference	☑ Window Screens ⓒ All   ○ Specify Screen
Screen Information	Start End End
Logic	Print Items
⊡ I/O Settings	Screen Hard Copy
E Common	Screen Border Parts ID
- 🗌 Alarm	
Sampling	🗖 Parts Marker 🕅 Address
	🗖 Show Window Screen 🛛 🗖 Show Grid
🗖 Security	State State 0 (OFF)
- Time Schedule	✓ Parts List
🗖 Sound	D-Script
Text Table	
Global D-Script	Trigger Action
Extended Script	Cross Reference
User Defined Functions	

Setting Description	
Print Contents	Select the print contents from [List] or [Detail].
Base Screens	Select the check box to print the [Base Screen] information in the project file.
All/Specify Screen	To print base screen information, select [All] or [Specify Ranges]. For [Specify Ranges], specify the print range with screen numbers in [Start] and [End]. The setting range of screen numbers is from 1 to 9,999.
Window Screens	Select the check box to print the Window Screen information in the project file.
All/Specify Screen	To print window screen information, select [All] or [Specify Ranges]. For [Specify Ranges], specify the print range with screen numbers in [Start] and [End]. The setting range of screen numbers is from 1 to 2,000.

Continued

Setting		Description	
Print It	tems	Select the items to print.	
Screen Hard Copy		Select the check box to print the drawing screen. You can then select the following check boxes:	
		Screen Hard Copy	
		🗖 Screen Border 📄 Parts ID	
		🗖 Parts Marker 📁 Address	
		🗖 Show Window Screen 🛛 🗖 Show Grid	
		State State 0 (OFF)	
	Screen Border	Prints the Screen Border.	
Part Marker Show Window Screen	Prints the Part Marker.		
	Window	Prints the Window Screen.	
	Part ID	Prints the Part ID.	
	Address	Prints the setting address.	
	Show Grid	Prints the grid.	
State		Designate the State of the part to print.	
Parts List		Prints the information list of the placed part. Select the Print Contents from [List] or [Detail].	
D-	Script	Prints the settings for D-Script.	
Tri	igger Action	Prints the Triggered Action settings.	
Cr	oss Reference	Prints the addressing for the screen.	

### Logic

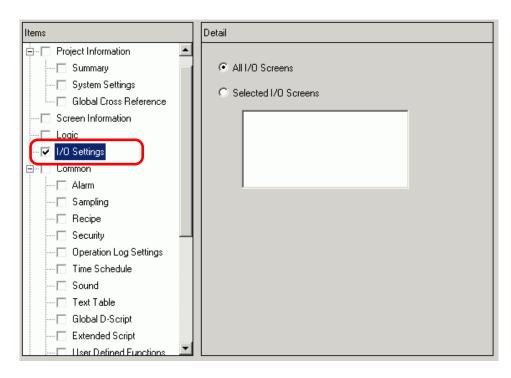


Setting	Description	
All Logic Screens	Print all logic screens.	
Selected Logic Screens	Select the logic screen to print from [INIT] or [MAIN]. If a subroutine program has been created, you can select from [SUB-01]-[SUB-32].	
Print Range	<ul> <li>Specify the print range.</li> <li>Logic <ul> <li>Select the logic screen to print from [INIT] or [MAIN]. If a subroutine program has been created, you can select from [SUB-01]-[SUB-32].</li> </ul> </li> <li>Start Rung <ul> <li>Specify the row from which to start printing.</li> </ul> </li> <li>End Rung <ul> <li>Specify the row at which to end printing.</li> </ul> </li> <li>Select Rungs <ul> <li>In the Logic, select and click a row to specify a row number for the [Start Rung] and [End Rung].</li> </ul> </li> </ul>	
Variable Comment	Print the comment specified for the variable.	
Rung Comments	Print the comment specified for the row.	
Black/White	Select whether to print background in black and white.	
NOTE	If an instruction on the screen does not fit in the space between the power bars, the size of the rung will be reduced in the printout. Rungs do not wrap in the printout.	

#### ■ I/O Settings

NOTE

• You can only print the settings on models that support logic functions. \* "1.3 List of Supported Functions by Device" (page 1-5)



Setting	Description
All I/O Screens	Print all I/O screens.
Selected I/O Screens	Select the I/O screen to print from either [DIO Driver] or [FlexNetwork].
	<ul><li>NOTE</li><li>You can only print if an I/O Driver is supported.</li></ul>

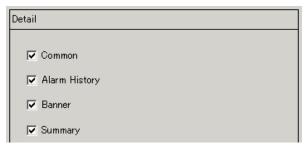
#### Common

Select all the items you want to print in the [Common] settings.

Items	Detail
E Common	
🔽 Alarm	
🔽 Sampling	
🔽 Recipe	N
🔽 Security	k -
🔽 Operation Log Settings	
···· 🔽 Time Schedule	
🔽 Sound	
🔽 Text Table	
🔽 Global D-Script	
Extended Script	
- 🔽 User Defined Functions	
- 🔽 Backlight Color Settings	
- 🔽 Image Registration	
- 🔽 Text Registration	
- 🔽 Mark Registration -	
🔽 Keypad Registration	
- 🔽 Movie	
Video Modules	

#### Alarm

Check the box for all the settings you want to print from [Common], [Alarm History], [Banner], and [Summary].



#### ♦ Sampling/Recipe

Detail		
Print Contents	Summary	🔿 Detail

Setting	Description
Print Contents	Select the print contents from [Summary] or [Detail].
	For example, For Sampling
	Summary : Prints a summary list of settings for each group.
	Detail : Prints the settings for all the items in each group.

### Global D-Script/User Defined Function

Detail			
Print Contents	Summary	O Detail	

Setting	Description
Print Contents	Select the print contents from [List] or [Detail].
	For example, For Global D-Script
	List: Prints a list of each [ID], [Comment], [Triggered Condition], and
	[Debug Function].
	Detail: Prints the settings for all the items in each ID.

#### ♦ Image Registration

Detail	
Print Method	⊙ Thumbnail C List
Thumbnail Size	Large
Print Range	All C Specify Range
	Start 📃 📰 🛛 End 🗌 🚞 🧱

Setting	Description
Print Method	Select the Print Method.
	Thumbnail
	Prints multiple [Image] screens in reduced images.
	• List
	Prints a list of each [Image] screen [Number] and [Comment].
Thumbnail Size	For [Thumbnail] in [Print Method], select the size from [Large], [Medium]
	or [Small].
	Large: Prints 6 reduced screen images per A4 sheet.
	Medium: Prints 12 reduced screen images per A4 sheet.
	Small: Prints 20 reduced screen images per A4 sheet.
Print Range For [Thumbnail] in [Print Method], select the Print Range fro	
	[Specify Range]. For [Specify Range], specify the Range with image
	numbers in [Start] and [End].

♦ Text

Detail	
Print Contents	O List ⊙ Detail
Print Range	All C Specify Range
	Start 🚺 📰 End 🕅 🚍
Table to Print	<ul> <li>Only Table Specified in Preferences</li> <li>All</li> </ul>

Setting	Description
Print Contents	<ul> <li>Select the print contents from [List] or [Detail].</li> <li>List <ul> <li>Prints a list of each text [Number], [Comment], [Language], [Maximum Chars], [Maximum Rows], etc.</li> </ul> </li> <li>Detail <ul> <li>Prints the input contents of each text.</li> </ul> </li> </ul>
Print Range	Select the Print Range from [All] or [Specify Range]. For [Specify Range], specify the Range with text numbers in [Start] and [End].
Table to Print	Select whether to print text with the text table specified in [Preferences] in the [Print] dialog box or with all the text tables.

#### Mark

Detail	
Print Method	🕫 Thumbnail 🕥 List
Print Range	All C Specify Range
	Start End 🗐

Setting	Description
Print Method	Select the Print Method.
	Thumbnail
	Prints multiple [Mark] screens in reduced images.
	• List
	Prints a list of each [Mark] screen [Number] and [Comment].
Print Range	For [Thumbnail] in [Print Method], select the Print Range from [All] or [Specify Range]. For [Specify Range], specify the Range with mark numbers in [Start] and [End].

### Keypad

Detail		
Print Contents	Summary	🔿 Detail
Summary		
Print Method	Thumbnail	C List
Thumbnail Size	Large 💌	
Detail		
🔲 Screen Hard Copy		
🗖 Parts List		
C All	🖲 Specify Range	
Start 1 🚊	End T	÷

Setting		Description
Print Contents		Select the print contents from [Summary] or [Detail].
Summary	Print Method Thumbnail Size	<ul> <li>Select the Print Method.</li> <li>Thumbnail Prints multiple [Keypad] screens in reduced images.</li> <li>List Prints a list of each [Keypad] screen [Number] and [Comment].</li> <li>For [Thumbnail] in [Print Method], select the size from [Large], [Medium] or [Small].</li> </ul>
	Screen Hard Copy	Large: Prints 6 reduced screen images per A4 sheet. Medium: Prints 12 reduced screen images per A4 sheet. Small: Prints 20 reduced screen images per A4 sheet. Check the box to print a [Keypad] screen.
Detail	Parts List	Check the box to print a list of parts with keypad settings.
	Print Range	<ul> <li>For [Detail] in [Print Contents], select the Print Range from [All] or [Specify Range]. For [Specify Range], specify the Range in [Start] and [End].</li> <li>NOTE</li> <li>This can only be specified when the print range is 'Screen Hard Copy' or 'Parts List' or when both are set.</li> </ul>

#### Movie

Select the [Movie File] or [Play List] with the list you want to print.

Detail	Detail		
🔽 Movie File			
🔽 Play List			

♦ Video Modules

ail	
Print Contents	💿 Summary 🔿 Detail
Summary	
Print Method	💿 Thumbnail 🛛 List
Thumbnail Size	Large 💌
Detail	
O ALL I S	ipecify Range
Start 1	🕂 🏭 End 1 📑 🏭
🔲 Screen Hard	і Сору
🔲 Screen B	order 🗖 Parts ID
🔲 Parts Mar	rker 🗖 Address

Setting		Description	
Print Contents		Select the print contents from [Summary] or [Detail].	
Summary	Print Method	<ul> <li>Select the Print Method.</li> <li>Thumbnail Print the multiple [Video Module] screens in a reduced size image.</li> <li>List Print a list of the [Numbers] and [Comments] for the [Video Module] screens.</li> </ul>	
	Thumbnail Size	For [Thumbnail] in [Print Method], select the size from [Large], [Medium] or [Small]. Large: Prints 6 reduced screen images per A4 sheet. Medium: Prints 12 reduced screen images per A4 sheet. Small: Prints 20 reduced screen images per A4 sheet.	
	All/Specify Range	Specify whether to print all the [VM Unit Window] screens or only print the screen Number's specified by [Start] and [End].	
Detail	Screen Hard Copy	When printing a hardcopy of the screen, specify if you want to include the following items in the hardcopy: Display [Screen Border], [Part ID], [Part Marker ], [Address], [Show Window Screen], and [Show Grid]. Also specify whether to print a hardcopy of the screen.	
	Parts List	Specify whether to print the list of parts specified in the Video Module Settings in [Summary] or [Detail].	

#### Comments List

Specify the [Variable], [System Variable] and [Rung] that you wish to print.

Detail	
🔽 System Variable	
🔽 Rung	

#### Comment

Enter a comment for the print contents. The comment can be up to 80 single-byte characters (40 double-byte characters) x 40 rows.

Items	Detail
Security	
Operation Log Settings	
Time Schedule	
Sound	
Text Table	
Global D-Script	
Extended Script	
Backlight Color Settings	
Image Registration	
Text Registration	
Mark Registration	
Keypad Registration	
🗖 Movie	
Video Modules	
Symbol Variable	

### 33.6.2 System Settings [Printer] Settings Guide

Set up and connect a printer to the display.

Printer		
Summary		
Type EPSON PM/Stylu	s 6 Colors 💌 Port 🛛 COM1 💽 😲	
Output Setting		
Print Method	C Monochrome 📀 Color	
Rotate Screen	C Enable 🔄 💿 Disable 🔺	
Print Scale	3 🗄 <u>∰</u> Multiple	
🔽 Reverse Black/White		
Paper Size	A4 297×210mm 💌	
Paper Orientation	C Landscape	
Top Margin	3 📑 🏢 mm	
Communication Settings —		
Speed	9600 💌	
Data Length	C 7 Bit 📀 8 Bit	
Parity	⊙ None ⊂ Odd ⊂ Even	
Stop Bit	C 2 Bit ⊙ 1 Bit	
Flow Control	C None @ RTS/CTS C ER(DTR/CTS)	

Setting	Description
Туре	Select the printer type to connect to from one of the following: [Do Not Use], [NEC PR201], [EPSON ESC/P High Speed], [EPSON ESC/P High Quality], [HP Laser Jet], [EPSON PM/Stylus 6 Colors], [EPSON PM/Stylus 4 Colors], [GP Remote Printer Server], [Text ASCII]. NOTE
	<ul> <li>[EPSON PM/Stylus 4 Colors] or [Text ASCII]. For [Text ASCII], the text's shape may be different because the print method is different.</li> <li>A different screen displays when [GP Remote Printer Server] is selected.</li> <li>GP Remote Printer Server Settings" (page 33-57)</li> </ul>
Port	Select the output port of the printer to connect from [COM1], [Ethernet], [USB], or [USB/PIO].
	<ul> <li>NOTE</li> <li>If the port is used by another device, the  mark displays next to the box.</li> </ul>

Continued

Setting		Description
bu	Print Method	Select the print method from [Monochrome] or [Color].
Output Setting		<ul> <li>NOTE</li> <li>For a monochrome display model, the output will be monochrome even if [Color] is selected for the [Print Method].</li> <li>Normally, these settings are only applied to Screen Hard Copy. When HP Laser Jet printer prints the alarm history, however, this setting is applied. For example, if you select [Color] for HP Laser Jet color printer model, it prints in color. If you select [Color] for a monochrome model, it cannot print properly.</li> </ul>
	Rotate Screen	Select the direction for printing the screen.
	Print Scale	Set the print scale to 1-4 only if the [Type] is [EPSON PM/Stylus 6 Colors] or [EPSON PM/Stylus 4 Colors].
	Reverse Black/White	Select whether or not to print the background in black or white.
	Connection Method	Select the LAN printer connection method from [LPR] or [IPP] only if the [Port] is [Ethernet].
	Paper Size	Select the paper size from [A3], [A4], [B4], [B5], or [Letter] only if the [Type] is [EPSON PM/Stylus 6 Colors] or [EPSON Stylus 4 Colors].
	Paper Orientation	Select the output paper orientation from [Landscape] or [Portrait] only if the [Type] is [EPSON PM/Stylus 6 Colors] or [EPSON Stylus 4 Colors].
	Top Margin	Specify the top margin from 3-20 only if the [Type] is [EPSON PM/Stylus 6 Colors] or [EPSON PM/Stylus 4 Colors].
		<ul> <li>NOTE</li> <li>When you use PM-G700, PM-G720, or PM-G730, specify the top margin of the screen display as 3mm for these models to print correctly.</li> </ul>

### **GP Remote Printer Server Settings**

nmary	
Type GP Remote P	Printer Server 🔽 Port Ethernet 💌
Output Setting	
Paper Size	A4 297x210mm
Orientation	C Horizontal 🖪 💽 Vertical 🔺
Print Size	O Original Size Fit to Printer Margins
Margin	20 2 3 3 mm mm 20 2 3 mm 15 2 3 mm mm
Communication Settings	
	0 0 0 0 🗖 PASV
IP Address	
IP Address Port	21 🗮
	21 🔆

Setting		Description				
ng	Paper Size	Select the print paper size: [A3], [A4], [Letter] and [Legal].				
etti	Orientation	Select either [Landscape] or [Portrait] for the printing orientation.				
Output Setting	Print Size	Select either [Original Size] or [Fit to Printer Margins] for the				
ltp		printing size of print screen.				
õ		When printing text, this setting is ignored.				
		NOTE				
		• When using [Original Size], print output outside the print area is not printed.				
	Margin	Specify the top, bottom, left, and right margins from 5 to 50 mm.				
	IP Address	Configure the print server IP address.				
gs	PASV	Specify whether to use PASV mode. This option is typically used				
Settings		when the connection is blocked by network security.				
	Port	Specify the IIS FTP server port number.				
tion	User Name	Define the login user name for the FTP server. You can use up to 16				
ica		single-byte alphanumeric characters for the user name.				
Communication	Password	Define the login password for the FTP server. You can use up to 16				
mu		single-byte alphanumeric characters for the password.				
ပိ						

### Communication Settings (for COM1)

-Communication Settings		
Speed	9600	V
Data Length	C 7 Bit	8 Bit
Parity	<ul> <li>None</li> </ul>	O Odd O Even
Stop Bit	$\bigcirc$ 2 Bit	⊙ 1 Bit
Flow Control	C None	RTS/CTS C ER(DTR/CTS)

Setting	Description				
Communication Speed	Select a communication speed to the printer from [2400], [4800], [9600], [19200], [38400], [57600] or [115200].				
Data Length	Choose the communication data length to the printer from [7 Bit] or [8 Bit].				
Parity	Select the communication parity bit to the printer from [None], [Odd], or [Even].				
Stop Bit	Choose the communication stop bit length to the printer from [2 Bit] or [1 Bit].				
Flow Control	Select the communication control method to the printer from [None], [RTS/CTS Control], or [ER (DTR/CTS) Control].				

### **Communication Settings (for Ethernet)**

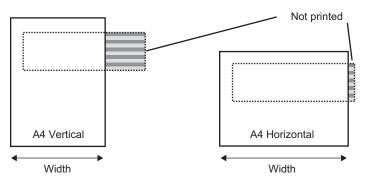
Communication Settings -	
IP Address	0.0.0.
Port	1024 📑 🏢
Timeout	90 🗮 🧱
User Name	noname
Printer Name	noname

Setting	Description				
IP Address	Configure the print server IP address.				
Port Configure the print server port number from 0 to 65,535.					
Time out	Set the output time out from 0 to 300 milliseconds.				
User Name	Enter the name of the user who requests a printing job only if the [Connection Method] is [LPR]. The name specified here displays in the owner field on the queue display. (For example, "Guest")				
Printer Name	Set the shared name of the printer server only if the [Connection Method] is [LPR]. (For example, "EPSONStyC61")				
Printer URI	This item displays only if the [Connection Method] is [IPP]. Set part of the printer's network name. (For example, "/printers/StyC61/.printer")				
NOTE	• When printing with LAN connection, there may be a short delay before the print starts.				

## 33.7 Restrictions

### 33.7.1 Restrictions for Printing from the GP

- Only one printer can be connected to the GP.
- The print is canceled if you switch to the offline screen or transfer screens during printing.
- Parts exceeding the paper width will not be printed or automatically line-fed.



• For Screen Hard Copy on a display with a screen size larger than SVGA, see below as to whether the data fits the paper. (VGA and QVGA fit both A4 and A3 papers.)

Screen Size	Rotate Screen	Pape	r Size
		A4	A3
SVGA	Enable	0	0
	Disable	Х	0
XGA	Enable	Х	0
	Disable	Х	Х

NEC PR201, EPSON ESC/P (High Speed), EPSON ESC/P (High Quality), HP LaserJet

Enable: Fits the paper, Disable: Does not fit the paper

EPSON PM/Stylus 6 Colors, EPSON PM/4 Colors

Screen Size	Rotate Screen	Paper Size								
		A4				A3				
		Magnification ratio				Magnification ratio				
		x 1	x 2	x 3	x 4	x 1	x 2	x 3	x 4	
SVGA	Enable	0	0	0	0	0	0	0	0	
	Disable	0	0	0	Х	0	0	0	0	
XGA	Enable	0	0	0	Х	0	0	0	0	
	Disable	0	0	Х	Х	0	0	0	Х	

Enable: Fits the paper, Disable: Does not fit the paper

• GP screen updates (parts and screen switching processing) will become slower when printing large amounts of data, especially when printing on EPSON PM/Stylus (6 Colors) or Stylus (4 colors),

- When printing the displayed screen in monochrome tone, the print results vary between PM/Stylus (6 Colors) or Stylus (4 Colors) and with other printers (such as NEC PC-PR201). This is because the color data is identified not by its density but by levels of shading.
- If the printer type is [Text ASCII], the text shape may be different because the print method is different.
- If you cancel, all the print processing features that have been set will cancel.
- When the communication method is direct access, use the system data area (the area that links to the system data area in the GP internal device) to control printing of the displayed screen or print canceling from a device/PLC. If multiple devices/PLCs are connected, the system data area can be set to only one device/PLC.
- If the communication method is Memory Link and write commands are sent continuously without pause, GP may not update its display.
- When printing with LAN connection, there may be a short delay before the print starts.
- If you print from the GP when the printer is not connected to it with a cable or when the printer is OFF, the GP temporarily saves the print data. When the connection with the printer recovers or when the printer turns ON, the GP outputs the temporarily saved print data to the printer.
- LAN connection (network printer) does not support Alarm (Banner) Print, Alarm (History) Real-time Print, Alarm (History) Batch Print, Sampled Data Real-time Print, Sampled Data Batch, CSV Data Print, or Script Printer Output.
- For a monochrome GP model, the print will be monochrome even if [Color] is selected for the [Print Method] in the [System Settings]'s [Printer].
- Regardless of whether [Printer] [Print Method] is set with monochrome or color settings, an Alarm History is printed out in color. However, if you have selected the printer [Type] as HP Laser Jet, an Alarm History prints out in monochrome if you select [Monochrome] for the [Print Method].
- Some printers used cannot print Alarm History and Sampling per line in real-time printing. This is because the printers don't support paper feed per line.

#### 33.7.2 Restrictions of GP Remote Printer Server

- Once you set up a GP Remote Printer Server for your display unit, you cannot change to a unit that does not support the GP Remote Printer Server. A warning message displays and the unit will not change if you attempt to do so.
- Even when printing a hard copy during screen capture, an error occurs and printing is not executed.
- When [GP Remote Printer Server] is set for printer settings, setting changes in the display cannot be made offline. When other drivers are set, the display unit cannot be changed to [GP Remote Printer Server] offline.
- Only English and Japanese languages are supported for the following features: Alarm (Banner) Print, Alarm (History) Real-time Print, Alarm (History) Batch Print, Sampled Data Real-time Print, Sampled Data Batch, and CSV Data Print. Any language other than Japanese and English will not print correctly.
- If a computer does not have a Japanese OS, Japanese text will not print correctly.