5 Start to End

This chapter explains about "From Start to Finish" in GP-Pro EX, and the basic operations used to manage project files and change addresses.

Start by reading "5.1 Settings Menu" (page 5-2), and then turn to the corresponding page.

5.1	Settings Menu	5-2
5.2	Starting/Creating/Saving/Finishing	5-6
5.3	Backing Up a Project File	5-17
5.4	Entering a Password in a Project File	5-21
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5.1 Settings Menu









5.2 Starting/Creating/Saving/Finishing

5.2.1 Details

This section explains how to, after starting GP-Pro EX, create/save/edit a project file.



Project File

A file created by GP-Pro EX is called a "Project File".

A project file (*.prx) is a selection of data concerning the created screens, etc. If you transfer a created project file to the GP, you can communicate with a device/PLC and display/operate the project file.



5.2.2 Setup Procedure

• Refer to the settings guide for details.

- ⁽³⁷⁾ "5.13.2 [New] Settings Guide" (page 5-67)
- "5.13.6 [System Settings Window] Settings Guide" (page 5-99)



Starting

1 Double-click the shortcut on the Desktop screen or click the [Start] menu, select [Programs] - [Pro-face] - [GP-Pro EX 1.10], and click [GP-Pro EX]

		Programs	,	Ē.	Pro-face	۲	Ē	GP-Pro EX 1.10	i.	Manual (Help) 🔹 🕨
Ë	1000	- rograma		E.	Accessories	۲	SOX	MovieConverter	5	GP-Pro EX
1.9		Documents	►	i.	Startup	۲				Readme
8	R.	о. <i>н</i> г		۲	Internet Explorer				្ឋេវិ	TransferTool
Ιē	\$ \$\$	Settings	1	\$	Outlook Express				3	Uninstall
Ē		Search	►	\odot	Windows Media Player				ø	Project Converter
8							r			
0	ø.	Help								
B	2	Run								
		Shut Down								
: :	Start									

2 GP-Pro EXstarts up and the following screen is displayed.



3 The main window and the [Welcome to GP-Pro EX] dialog box appear. Select [Create new project] and click [OK].

💑 GP-Pro EX				_ 🗆 🗙
Project (E) View (\underline{V}) Help (\underline{H})				
e welcome to GP-Pro Ex				
Screen List	Create new project)		
Screen Type	Open existing project			
Refine Searc	O Open recent project			
12 倍 能				
×				
				7 ×
			Lancel	
Suste I Addre Com				

- NOTE Select the main window's [Project (F)] menu [New (N)] command, or click the to create a new project. The [New Project File] dialog box is displayed.
- 4 The following screen will be displayed. In [Series], select [GP3000 Series], then select the screen size series, [Model], and [Installation Method], and click [Next].
 ^(**) "3.3 Supported Model List" (page 3-7)

Series	GP3000 Series	-
	AGP35** Series	-
Model	AGP-3500T	•
Installation Method	Horizontal	
Specification		
Screen Size	10.4 type	
Resolution	640x480 dots (VGA)	
Display Type	TFT Color LCD	
Display Colors	65536 Colors	
Internal Memory	8Mbyte	
Backup Memory	320Kbyte	
CUM1	RS-232C/RS-422(RS-485)	
	R5-422(R5-485)	
	2 Folt	
CE	Enable	
Video Signal	Disable	
Internal Board	Disable	
	Back (B)	al

- **NOTE** [Specification] displays detailed specifications of the selected GP model.
 - If you select [GP 2000 Series], you can exit GP-Pro EX and start up GP-PRO/PB III for Windows. However, GP-PRO/PB III for Windows must be installed first.

5 The following screen will appear. Select the device/PLC's [Maker], [Driver], and [Port] and click [Communication Settings].

💰 New Project File		×
67-7ro 🕅	Device/PLC Maker Mitsubishi Electric Corporation Driver Q/QnA Serial Communication	
	Recent Device/PLC Digital Electronics: Corporation Me Mitsubishi: Electric: Corporation Q/	mory Link QnA Serial Communication
p.	Use System Area Connection Method	Refer to the manual of this Device/PLC
	Port COM1	
		<u>Go to Device/PLC Manual</u>
Back	B) Communication Settings New Log	jic New Screen Cancel

• To create a screen without configuring communication settings for the device/ PLC driver, click [New Screen] to display the drawing screen [Base 1]. To create a logic program, click [New Logic] to display the new logic screen [MAIN].

^{CP} "Chapter 29 Logic Programming" (page 29-1)

• If you specify [Use System Area], you can assign the GP internal system data area to the device/PLC.

"5.13.6 [System Settings Window] Settings Guide System Area Settings" (page 5-120) 6 Close the [New Project File] dialog box, and [Peripheral List] will appear in the main window. Click [Device/PLC1].

Display Type Driver Model Installation	n Method	GP3000 Series AGP-3500T Horizontal				
Peripheral Lis Device/PLC: Maker 1M Driver : Q Printer Type : D Bar Code1 Type : D Bar Code2 Type : D Script1 Type : D Script2 Type : D VM Unit Touch Out;	t List of Itsubishi Ele /QnA Serial isable isable isable isable isable	Device/PLC Manac	ement Addresses V1.10.02.β1	Port:	COM1	
1						AGP-3500T

7 When [Device/PLC Settings] is displayed, specify the communication settings.

immary	Change Device/PLC
Maker Mitsubishi	Electric Corporation Driver Q/QnA Serial Communication Port COM1
Text Data Mode	2 Change
mmunication Settings	8
SIO Type	RS232C RS422/485(2wire) RS422/485(4wire)
Speed	19200
Data Length	07 08
Parity	O NONE O EVEN
Stop Bit	© 1 C 2
Flow Control	O NONE O ER(DTR/CTS) O XON/XOFF
Timeout	3 (sec)
Retry	2
Wait To Send	0 (ms)
RI / VCC	© RI C VCC
In the case of RS	3232C, you can select the 9th pin to RI (Input) er Supplu). If you use the Digital's BS32C
Isolation Unit, ple	ase select it to VCC. Default

• The [Communication Settings] description differs depending on each device/PLC series. Refer to the "GP-Pro EX Device/PLC Connection Manual". However, [Timeout], [Retry], and [Wait To Send] are recommended to be used with their initial settings.

Creating/Saving

8 Open the Screen List Window, and double-click the displayed base screen.

Screen List		д X
Screen Type All		•
Refine Search		Search
°• 🔁 🕮 🗙 🚆	1 💋 💺	
👺 Base Screen		
	0001	(Untitled)
👺 Window Screen		
👺 Logic Screen		
	INIT	(Untitled)
	MAIN	(Untitled)
👺 I/O Screen		
•		
🕅 Syste 🔛 Addre	e 🚺 🛛 Cor	🔡 Scree

• If the [Screen List] tab is not displayed in the Work Space, select the [View (V)] menu - [Work Space (W)] option - [Screen List Window (G)] command.

• To create a logic program, double-click the logic screen. If you have selected a model that does not support the logic features, you will be able to create a logic program but it will not run on the GP.

^{CP} "Chapter 29 Logic Programming" (page 29-1)

9 The following [Base Screen] is displayed.

Screen List 7 🛪	📮 Base 1	4 Þ	×
Screen Type All			-
Refine Search Search		-	
'¤ 🔂 🛍 🗙 🖳 🖉 🙀			
🚱 Base Screen	:		
I 0001 (Untitled)			
🎲 Window Screen	:		
S Logic Screen	:		
INIT (Untitled)	2		
MAIN (Unitled)		+	
🚱 I/O Screen	:		
	3		
	:		
	:		
	4		-
🕅 Syste 🔛 Addre 🔛 Com 🔡 Scree	•	٩ 🗌	

10 Create a screen.

Screen List 7 🛪	📮 Base 1	4 ▷ 🗙
Screen Type All	••••0•••••4••••••5••••••	<u>6 · · · · · · · · · · · · · · · · · · ·</u>
Refine Search Search		-
📁 🔁 🛍 🗙 🗏 🗮 🎒 💺		
🚱 Base Screen		
I Continued)		
🥪 Window Screen		
🚱 Logic Screen		
INIT (Unitled)		
MAIN (Untitled)		
😵 I/O Screen		
• •		
🕅 Syste 🔛 Addre 🞑 Com 🔢 Scree		

11 Add a new screen.

Select the [Screen (S)] menu - [New Screen (N)] command or click **[**, and the following dialog box appears. Select a [Screen Type], specify the [Screen No.] and [Title], and click [New].

💰 New Scre	en 🗙
Screen Type	Base
Screen No.	2 * #
Title	Untitled
Use Templa	ate
Select T	emplate from List
Recentl	y Used Template
	New Cancel

12 The [Base 2] screen is displayed. Create a screen.



13 Select the [Project (F)] menu - [Save as (A)] command or click the icon 📳.



14 The [Save As] dialog box is displayed. Set the file's storage location and file name and click [Save].

iave As					
Save jr	n: 🔄 Database		<u> </u>	* ⊞ *	
History					
7					
Deskter					
My Documents					
My Computer					
	File <u>n</u> ame:	test.prx			<u>S</u> ave
My Network P	Save as type:	Project File (*.prx)		.	Cance
	Comment				
	Comment				

- NOTE
- Input a file name with up to 255 single-byte characters including the path and extension.

The initial storage location is \Program Files\Pro-face\GP-Pro EX\Database.

- The following error message is displayed in the [Error Check] window if there is a problem saving the file.
- "32.9 Checking Errors" (page 32-52)

Error Ch	ieck		4	×
♥ ₩	V 🖪	🤑 Even if you save	e this data, you can't transfer it to the main unit.	
Level	Error No.	Screen-Location	Summary	
Error	1000	Peripheral Settings	Ports settings are duplicated. Check the Peripheral List.	

Modifying

15 Select the [Project (F)] menu - [Open (O)] command or click the 🝺 icon.



16 When the [Open] dialog box appears, designate the location where the file is saved, select a project file (*.prx) you want to open, and click [Open].

Open			? ×
Look in:	: 🔁 Database		
History History Desktop My Documents My Computer	test.prx		
Mu Network P	File <u>n</u> ame:	test.prx	<u>O</u> pen
my rothont in	Files of type:	Project File (*.prx)	Cancel
	Comment Display	GP3000 Series	

17 The existing project file's main window is displayed.

Screen List	÷ ×
Screen Type All	×
Refine Search	Search
🗀 🛳 🗙 🗏 😹 🐉	1
Rase Screen	
	1 (Untitled)
	0 01-01-0
	2 (Untitled)
🚱 Window Screen	
🚱 Logic Screen	
	T (Untitled)
MAIN	
🖽 🗝 MAI	N (Untitled)
S I/O Screen	
No. Conta 1999. Antica 1971 (•
And share 1985 Vogle 1 70 (Juna 🚾 Scree

- You can also open an existing file easily by directly double-clicking the project file (*.prx).
 - You can start two different project files at the same time.

18 Double-click the [Base Screen] to modify from the Screen List in the Screen List Window and the base screen will be displayed in the editing area.



• To modify the logic screen, in the screen list, double-click [Logic Screen] to display the logic screen in the edit area.

19 Modify the screen.



20 Select the [Project (F)] menu - [Save (S)] command or click 🔝 to save the modified file.

	Project (<u>F</u>)		
	New (<u>N</u>)		1
	Open (<u>O</u>)	Ctrl+O	
(Save (<u>S</u>)	Ctrl+S	D
	Save as (<u>M</u>)		Γ
	Properties Ø	•	
	System Settings (<u>C</u>)		
	Transfer Project (<u>G</u>)	•	
	Utility 🗇	•	
	Print (<u>P</u>)	Ctrl+P	L
	Print Preview 💟		
	Recent Project (J)	•	
	Exit 🖄		

Finishing

21 Select the [Project (F)] menu - [Exit (X)] command or click the icon 🗷 in the top right corner of the screen.

Project (E)	
New (<u>N</u>)	
Open (<u>O</u>)	Ctrl+O
Save (S)	Ctrl+S
Save as (<u>A</u>)	
Properties Ø	•
System Settings (<u>C</u>)	
Transfer Project (G)	۱.
Utility 🗇	۱.
Print (<u>P</u>)	Ctrl+P
Print Preview (V)	
Recent Project (<u>J</u>)	۱.
Exit 🖄	

22 If you change a project file and try to exit the application without saving it, the [Confirm Project File Save] dialog box is displayed.

💰 Confirn	n Project File Save	×			
test.prx has been updated. Do you want to save it?					
	Yes [Y] No (N) Cancel				

If you click [Yes], the project will be saved in the current state and closed.

If you click [No], the project will be closed with the last saved information.

If you click [Cancel], the project will return to the state before the operation without being closed.

5.3 **Backing Up a Project File**

5.3.1 Details



A backup file (*.bak) can be automatically created in case of a project file's destruction or abnormal updates when saving a file. You can use the backup file as a history of the previous data. To recover a project file, change the backup file's extension to ".prx".



• When a project's abnormal termination occurs, a project file is automatically copied in the "backup" folder, which prevents a file loss.

5.3.2 Setup Procedure

■ Backup as a History Procedure



1 Select the [View (V)] menu - [Option Settings (O)] command and the following [Option Settings] dialog box is displayed. Put a check mark next to the [Save Backup on Overwriting] box.

Option Settings			>
General Screen Edit Style Script Toolbar Logic Edit Style Monitor Step Error Check	General Settings for the Editor System Set Online Update Check for Update when the program starts Action Language English Backup Save Backup on Overwriting		,
	<u> </u>) Cance	<u>)</u>

- **NOTE** A backup file is saved as "Original Project File Name.bak".
 - A backup file is saved in the same location where the original file exists.

Backup on Abnormal Termination and File Startup

When abnormal termination is caused by memory shortage because there were too many processes to execute, a project file is automatically copied (backed up) in the "backup" folder. If there is a file that needs restoring in the "backup" folder, the following dialog box will open when you start up GP-Pro EX again.

💰 Welcome to GP-Pro EX		×
67-7ro E X	A file auto-saved before the abnormal termination Please select it from the list and execute Edit/De	n was found. lete.
	File Name	Save Date
	C:\Program Files\Pro-face\GP-Pro EX\Database\	2006/05/26 14:06:21
	Restore	Delete Next (N)

♦ When fixing and restarting an abnormally terminated project file

1 Select the file you want to fix, put a check mark next to the [Restore] option, and click [Next].



2 The file will be automatically fixed, and will open as an "Auto-saved file".



3 Overwrite the file used before abnormal termination.

♦ When starting GP-Pro EX without fixing the abnormally terminated project file

1 Select the file that does not need to be fixed and click [Delete]. The file automatically saved in the "backup" folder will be deleted.

🕉 Welcome to GP-Pro EX		X
GP-Pro	A file auto-saved before the abnormal terminat Please select it from the list and execute Edit/E	ion was found. Delete.
	File Name	Save Date
	Festore	Delete Next (N)

2 Click [Next], and start a project file as usual. The previously abnormally terminated project file opens in its most recently saved state.

• If you click next without deleting and start GP-Pro EX normally, the next time you start GP-Pro EX the dialog box will appear again.

5.4 Entering a Password in a Project File

5.4.1 Details



You can protect a project file by setting a password for the file's editing or transfer. When you edit or transfer a project file, a window that confirms the password is displayed. If you enter a password and it is confirmed, you can edit or transfer the project file.

NOTE
Be sure to remember your password in order to edit/transfer a project file.
For information on setting a transmission password, refer to the following.
"32.6 Transferring with Password" (page 32-31)

5.4.2 Setup Procedure

• Refer to the settings guide for details. [™] "5.13.3 [Properties] Settings Guide ◆ Password" (page 5-74)

Settings for an Edit Project File Password

When you are about to open a project file, a dialog box to input a password opens.



1 Select the [Project (F)] menu - [Properties (I)] option - [Protect Data (P)] command.



2 The [Password] setting screen is displayed on the [Project Information] dialog box.

File Info	n Password		×
Send Data SRAM Info	Edit		
Password	Edit Project File		Password Settings
includy orage	Send/Receive		
	Send/Receive Project File		Password Settings
	*To open/send/receive, b Keep it at hand.	e sure to remember	your password.
		0	K (<u>D)</u> Cancel

3 Click Edit's [Password Setting]. The following dialog box will open.

💰 For Project File Edit ManagementPassword Settings 🛛 🛛 🗙					
For Project File Edit Management Set a password.					
Password					
Password (Reenter)					
Caution					
If you forget your password, you can't open Project File.					
Keep your password private and save it in a secure location.					
	OK (D) Cancel				

4 Enter a password of up to 10single-byte alphanumeric characters in [Password]. Confirm the password by entering the same input in [Password (Reenter)].

For Project File Edit Management Set a password.				
Password	******			
Password (Reenter)	******			

- 5 Complete setting the password by clicking [OK].
 - When opening a project file set with a password, the [Protection Release]dialog box is displayed. If you input the set password and click [OK], the protection is released and you can edit the project file.

💰 Protection Release - A manufacture syst 🗙				
PassWord				

This project file is protected. Please enter the password.				
OK (<u>0</u>) Cancel				

Releasing or Changing the Password for Editing a Project File

Use the [Project Information] dialog box as well to release or change the previously set password.

1 Select the [Project (F)] menu - [Properties (I)] option - [Protect Data (P)] command. The [Project Information] dialog box appears.

File Info	Password		E
SRAM Info	Edit Edit Project File	REFERENCES	Password Settings
	Send/Receive Send/Receive Project File "To open/send/receive, be Keep it at hand.	sure to remember ;	Password Settings your password.
		0	K (D) Cancel

2 Click Edit's [Password Settings]. The following dialog box will appear.

💰 For Project File Edit Ma	anagementPassword Settings
Set the current For Project	File Edit Management password.
Password	
For Project File Edit Manage	ement Set a password.
Password	
Password (Reenter)	
Caution	
If you forget your pa	assword, you can't open Project File.
Keep your password	d private and save it in a secure location.
	OK (<u>D</u>) Cancel

3 Enter the currently set password.

Set the current For Project File Edit Management password.				
Password	******			

4 To change the password, enter a new password with up to 10 single-byte alphanumeric characters, enter the same password in [Password (Reenter)] as well, and click [OK]. To release the password, click [OK] leaving the boxes blank without inputting a new password.

For Project File Edit Management Set a password.			
Password			
Password (Reenter)			

5.5 Confirming the List of Addresses being Used in a Project File

5.5.1 Details

You can check the addresses specified in a project file in the two following ways.

Map Format

Address Settings 🛛 🕂 🗙						
O Device	Device Address O Symbol Variable					
Туре [Bit Address 💌					
Address	[PLC1]M000018					
м	2 3 4 5 6 7 8 9 1011 12131415					
000000						
000016						
000032						
000048						
000064						
000080						
000096						
000112						
000128						
000144						
Feature	Location Screen					
	SL_0000 Base 2					
-						
🕅 Syste	em 🛗 Addre 🔛 Commo 🔡 Screen 📔					

				List Format				
💰 Cross R	eference							×
Target ,	All	•	Device/PLC	PLC1 💌	Туре	Bit Address	-	Address Block Conversion
Ado	dress	Screen	Location			Feature		
[PLC1]M00	0012	Base 1	SL_0000	Bit Address				
[PLC1]M00	0011	Base 1	SL_0007	Bit Address				
[PLC1]M00	0013	Base 1	SL_0001	Bit Address				
[PLC1]M00	0014	Base 1	SL_0002	Bit Address				
[PLC1]M00	0035	Base 2	SL_0001					
[PLC1]M00	0036	Base 2	SL_0002					
[PLC1]X001	00	Base 2	SL_0000					

5.5.2 Setup Procedure

• Refer to the settings guide for details. [©] "5.13.4 [Utility] Settings Guide ■ Cross Reference" (page 5-81)

Setting Procedure to Display the List of Addresses in Use

Displays a list of the addresses specified in a project file.

1 Select the [Project (F)] menu - [Utility (T)] option - [Cross Reference (R)] command. The following [Cross Reference] dialog box is displayed.

💰 Cross Reference				×
Target 🔠	Device/PL	C All	▼ Type All ▼	Address Block Conversion
Address	Screen	Location	Feature	
#H_CurrentYear	Logic system reserved	-	•	
#H_CurrentMonth	Logic system reserved	-	•	
#H_CurrentDay	Logic system reserved	-	•	
#H_CurrentHour	Logic system reserved	-	•	
#H_CurrentMinute	Logic system reserved	•	•	
#H_CurrentSecond	Logic system reserved	-	•	
#H_CurrentDayofTheWeek	Logic system reserved	-	•	
[PLC1]D00000	Main Unit Settings	-	Watchdog Write Address	
[PLC1]D00000	Main Unit Settings	-	System Area Start Address	
[#INTERNAL]LS0020	Video Module Settings	-	Video Control Address	
[#INTERNAL]LS0021	Video Module Settings	-	Video Control Address	
[#INTERNAL]LS0022	Video Module Settings	-	Video Control Address	
(#INTERNAL)LS0023	Video Module Settings	-	Video Control Address	-
				Close (<u>C)</u>

2 Select the screen or setting to be displayed from [Target].

💰 Cross Reference				
Target	AI			
A	ddress.	Screen		
#H_Curre	entYear	Logic system reserved		

3 Select the Device/PLC of the target to be displayed.

Device/PLC	PLC1	•
	,	_

4 Select the [Type] of the address to be displayed.

Туре	Bit	•

5 The list of addresses in use is displayed.

💰 Cross	Reference						×
Target	All	•	Device/PLC	PLC1	Type Bit A	Address	Address Block Conversion
A	ddress	Screen	Location		F	eature	
[PLC1]M0	00012	Base 1	SL_0000	Bit Address			
[PLC1]M0	000011	Base 1	SL_0007	Bit Address			
[PLC1]M0	00013	Base 1	SL_0001	Bit Address			
[PLC1]M0	000014	Base 1	SL_0002	Bit Address			
[PLC1]M0	00035	Base 2	SL_0001				
[PLC1]M0	00036	Base 2	SL_0002				
[PLC1]X0	0100	Base 2	SL_0000				

• To switch each item content display between ascending order and descending order, click each item cell to display the arrow. Each time you click the arrow, the display switches between ascending order and descending order.



- To convert the listed addresses as a block, click [Address Block Conversion]. ** "5.6 Converting the Addresses in a Project File in Block" (page 5-33)
- If you specify [All] to the Cross Reference's [Target], it may take a long time to get all the screens' address information and display it.
- For [Base Screen] and [Window Screen], double-click the cell and the screen's editing area is displayed.

Displaying Addresses In Use with a Map

```
NOTE
```

Refer to the settings guide for details.
 ^{CP} "5.13.5 [Work Space] Settings Guide ■ Address Settings Window" (page 5-86)

Displays the list of the addresses specified in a project file with a map.

Address 9	Settings 🛛 🕂 🗙
O Device	e Address C Symbol Variable
Type Address	Bit Address [PLC1]M000018
M 000000 000016 000032 000048 000064 000080 000096 000112 000128 000144	
Feature	Location Screen
	SL_UUUU Base 2
🕅 Sus	tem 🗰 Addre 🛛 🗳 Commo 🕮 Screen L

1 Click the [Address Settings] tab in the Work Space.



• If the [Address Settings] tab is not displayed in the Work Space, select the [View (V)] menu - [Work Space (W)] option - [Address Settings Window (A)] command.

2 The following [Address Settings] window is displayed.

Address	Settings 🛛 🕂 🗙
O Device	e Address O Symbol Variable
Type Address	Bit Address
×	0 1 2 3 4 5 6 7 8 9 A B C D
00000	
00010	
00020	
00030	
00040	
00050	
00060	
00070	
00080	
00090	
000A0	
000B0	
00000	
Feature	Location Screen
🕅 Sys	tem 🇰 Addres 🕼 Comm 🔡 Screen

3 Select the target to display from [Device Address] or [Symbol Variable].

Address Settings		₽ x
Device Address	C Symbol Variable	

4 In [Type], select the address type from [Bit Address] or [Word Address].

Туре	Bit Address
Address	Bit Address Word Address

5 Select the address of the target to display. (e.g. M010)



6 You can verify which addresses are used on the address map.

Address S	Gettings 🛛 🕂 🗙				
⊙ Device Address ○ Symbol Variable					
Туре	Bit Address				
Address	[PLC1]M000018				
м	2 3 4 5 6 7 8 9 1011 12131415				
000000					
000016					
000032					
000048					
000064					
000080					
000096					
000112					
000128					
000144					
Feature	Location Screen				
	SL_0000 Base 2				
🕅 Sys	tem 🏢 Addre 🕼 Commo 🔡 Screen 🛛				

Changing the Screen Address of the Edit Part from the Address Map

1 Open the screen on which the part whose address you want to change is placed.



2 Click the Window's [Address Settings] tab and open the address map for reference.



3 If you drag the address from the address map onto a part in the drawing screen, the [Feature List] window is displayed. Select the address row in the displayed [Feature List].



4 Release the drag and the address will be allotted to the part.



5.6 Converting the Addresses in a Project File in Block

5.6.1 Details



You can convert addresses by specifying the top/end addresses before conversion and the top address after conversion.

Converts the addresses specified in a project file to other addresses as a block. There are two conversion methods: [Whole Project], which converts the addresses in the whole project file as a block, and [Individual Settings], which sets and converts the conversion target screens individually.

5.6.2 Setup Procedure

```
NOTE
```

• Refer to the settings guide for details. ⁽²⁷⁾ "5.13.4 [Utility] Settings Guide ■ Address Block Conversion" (page 5-78)

Converts the addresses set on the specified screens as a block.



You can convert addresses by specifying the top/end addresses before conversion and the top address after conversion.

1 Select the [Project (F)] menu - [Utility (T)] option - [Convert Addresses (A)] command. The following [Address Block Conversion] dialog box will be displayed.

💰 Address Block Conversion 🛛 🛛 🔀			
Convers	sion Target		
Whole	e Project	Individual Settings >>	
Address	: Туре		
 Bit 	C Word		
Address	Before Conversion		
Тор	[PLC1]X00000		
End	[PLC1]X00000		
Address	After Conversion		
Тор	[PLC1]X00000		
	Conver	t Close	

2 Click [Individual Settings] to display the setting items for each conversion target.

Address Block Conversion		
Conversion Target	Screen Alarm Common Settings	
Individual Settings KX Whole Project Address Type Image: Comparison Color Image: Comparison Top [PLC1]×00000 End [PLC1]×00000 Address After Conversion Top [PLC1]×00000	Screen Current Screen All Screens Image: Start Screen No. 1 1 1 Image: Start Screen No. 1 1 1	
	Convert Close	

3 Set the screen you want to convert and the screen number or features.

💰 Address Block Conversion	×
Conversion Target	Screen Alarm Common Settings
Individual Settings <u><< Whole Project</u>	Screen <u>Current Screen</u> <u>All Screens</u>
Address Type	✓ Base Screen
Bit O Word	Start Screen No. 1 📑 🏢 End Screen No. 1 📑 🏢
Address Before Conversion	Start Screen No. 1 📑 📰 End Screen No. 2000 📻 📰
Top [[PLC1]X00000	Video Module Settings
End [PLC1]X00000	Header/Footer
Address After Conversion Top [PLC1]X00000	🗖 Logic
	Convert Close

4 Select the [Address Type] from [Bit] or [Word]. (e.g.: Bit)

Address	Туре	
 Bit 	C Word	

5 Set the [Address Before Conversion]'s [Top] and [End]. (e.g.: Top Address M10, End Address M17)

Address	Before Conversion	
Тор	[PLC1]M000010	
End	[PLC1]M000017	

- For [Address Before Conversion]'s [Top] and [End], you cannot specify a different device address.
- 6 Set the [Address After Conversion]'s [Top]. (e.g.: Top Address M200)

Address After Conversion		
Тор	[PLC1]M000200	

7 Click [Convert]. The [Address Block Conversion] dialog box with the process completion message appears so click [OK].

💰 Address Block Conversion		×	
Address Block Conversion was completed successfully.			
	<u> </u>		

- If you selected [Symbol Variable] for the addresses, the [Address Block Conversion] will not work properly.
 - If the total number of addresses (End Address Top Address) before conversion is greater than the total number of addresses (End Address Top Address) after conversion, the device's last address is assigned to all the unconverted addresses.

5.7 Seeing the Project information

5.7.1 Details

Project Information		
File Info Model Info Send Data SRAM Info CF-Card Destination Password Memory Usage	File Info	
	File Name	Unsaved
	Last Saved Date and Time	Thu May 25 18:32:26 2006
	Creator	GP_User
	Title	
		OK (<u>D</u>) Cancel

You can check all information on File Creator and Last Saved Data, Model and Device/PLC, the data sent by Project Transfer, backup SRAM's usage size, logic program you are creating, the registered variable size, etc.

You can also specify a CF-Card Output Folder and Password.
5.7.2 Setup Procedure

NOTE

• Refer to the settings guide for details. ^{CP™} "5.13.3 [Properties] Settings Guide ■ Project Information" (page 5-69)

Checking [Project Information]

1 Select the [Project (F)] menu - [Properties (I)] option - [Project Information (I)] command.



2 The [Project Information] dialog box will be displayed. If you click each item in the left window, the displayed information changes.

💣 Project Informati	on		×
File Info	File Info		
His Info Model Info Send Data SRAM Info CF-Card Destination Password Memory Usage	File Info File Name Last Saved Date and Time Creator Title	Unsaved Thu May 25 18:32:26 2006 GP_User	
		OK (<u>D</u>)	Cancel

3 Confirm it and click [OK] to close the [Project Information] dialog box.

■ CF-Card Output Folder Setting Procedure

Set the location to temporarily store the data to be saved in a CF-card.

1 Select the [Project (F)] menu - [Properties (I)] option - [CF-Card Output Folder (C)] command.



2 The [Project Information] dialog box will be displayed. Put a check mark next to the [Enable CF-Card] box.

Project Informal	tion	×
File Into Model Info Send Data SRAM Info DF-Gard Destination Password Memory Usage	CF-Card Destination CF-Card Output Folder C:\Program Files\Pro-face\GP-Pro EX 1.10\Dat Reference	
	OK (0) Cancel	

3 Click [Reference] and designate a CF-card output folder.

Browse For Folder	? ×
	-
🖻 🛄 GP-Pro EX	_
E Converter	
🕀 🗁 Database	
ErrorLog	
🛅 Font	
E Fonts	
ja	
Carl Keymap	-
Make New Folder OK Can	:el
	111

• The initial settings in\Program Files\Pro-face\GP-Pro EX 1.10\Database\ (project file name and folder with the same name) are automatically specified as the CF-card Output Folder.

Click [OK] to return to the [Project Information] dialog box.

4 Click [OK]. If a CF-card folder does not exist in the specified output folder (when you specified the CF-card output folder for the first time), the following confirmation message is displayed. Click [Yes].

💰 CF-Caro	l Folder Warr	ning	\times
?	No folder exis Do you want	ts. to create a folder?	
	Yes [Y]	No (<u>N</u>)	

Folders ([data], [file], etc.) that store data to be saved in a CF-card are automatically created.

5.8 Copying a Screen from another Project

5.8.1 Details

You can copy a screen created in another project to the project currently being edited. There are two copying methods: specify necessary screens and copy them, or copy all the screens of another project.

Copying the specified screens in another project



Copying all the screens from another project



5.8.2 Setup Procedure

• Refer to the settings guide for details. NOTE ⁽^C) "5.13.4 [Utility] Settings Guide ♦ Whole Project" (page 5-78)

Copy the project "A.prx"'s Base Screen: 10 to the project "B.prx".

Copy from another Project



- 1 Open the copy-to project file.
- 2 Select the [Project (F)] menu [Utility (T)] option [Copy from another Project (C)] command.

Project (<u>F</u>)			
Open (<u>U</u>)	GtrI+O		
Save (<u>S</u>)	Ctrl+S		
Save as (<u>A</u>)			
Properties Ø		۲	
System Settings (<u>C</u>)			
Transfer Project (<u>G</u>)		۲	
Utility (T)		•	Convert Addresses (<u>A</u>)
Print (P)	Gtrl+P	1	Cross Poference (B)
Print Preview (V)	Carri	U	Copy from another Project (C)
		_	Error Oheck (E)
Recent Project (<u>J</u>)		F	
Exit 🖄			

3 When the [Copy from another Project] dialog box is displayed, click [Reference].

File	ject	×
Copy Target 💿 All	C Specify Screen	
Copy Target Screen		
🔽 Base Screen	Top 1 📑 🗰 End 9999 📻 🖩	
🔽 Copy includin	; the set header and footer.	-
💌 Window	Top 1 芸 🏥 End 2000 芸 🟥	
💌 Keypad	Top 1 拱 🏭 End 8999 拱 🟥	
🔽 Video Module	Top 1 🕂 🏭 End 512 🕂 🚆	
Copy-To Screen No.		
Base Screen	Top 1 😴 📰	
Window	Top 1 😴 🌉	
Keypad	Top 1 😴 🏢	
Video Module	Top 1 😴 🌉	
	Copy Cancel	

4 When the following dialog box is displayed, specify the [Look in] and [File name] and click [Open].

Open a copy file	of another projec	:t.			? ×
Look jn:	🔁 Database		•	+ 🗈 💣 🎟	•
History History Desktop My Documents My Computer My Computer	û [®] A.prx				
	File <u>n</u> ame:	A.prx		-	pen
	Files of type:	Project File		•	Cancel

5 Return to the [Copy from another Project] dialog box. Click [Specify Screen] and specify the Copy Target Base Screen's [Top] number and [End] number in [Base Screen]. (e.g.: [Top][End]10).

💰 Cop	y from ar	nother Pr	oject	×
File	C:\Prog	ram Files\f	Pro-face\\A.prx Referenc	e
Сору	Target	O All	Specify Screen	
C	opy Targel	t Screen		
	🗸 Base So	creen	Top 10 🕂 🏢 End 10	3

6 In [Copy-To Screen No.], specify the copy-to Base Screen's [Top] number.

Copy-To Screen N	0.			
Base Screen	Тор	20	÷ #	
Window	Тор	1		

7 Click [Copy].

NOTE	•	If a screen of the same number exists in the copy destination, the following
- <u></u>		confirmation dialog box opens.

💰 Confi	irm Screen	Overwrite				
2	Base Sc Do you v	reen 1 already exists in want to overwrite it?	the project file.			
	All Yes (<u>A</u>)	(Yes Y)	No (<u>N</u>)	All No (L)	Cancel	

8 When the copy is complete, the following message is displayed. Click [OK].

💰 Copy f	rom another Project	×
•	Copy from another project was successfully completed.	
	(<u> </u>	

9 When the [Copy from another Project] dialog box is displayed, click x to close it.

Copy from another Pro	ject	×
File C:\Program Files\Pr	o-face\.	VA.prx
Copy Target 🔿 All	Θs	Specify Screen
Copy Target Screen		· · · · · · · · · · · · · · · · · · ·
🔽 Base Screen	Тор	10 🕂 🇱 End 10 🕂 🏭
🔽 Copy including	g the se	et header and footer.
🗌 Window	Тор	1 📑 🏥 End 2000 芸 🏥
🗌 Keypad	Тор	1 📑 🏥 End 8999 🚍 🏥
🔲 Video Module	Тор	1 🚍 🏢 End 512 🚍 🏭
Copy-To Screen No.		
Base Screen	Тор	20 🗧 🏢
Window	Тор	1 📑
Keypad	Тор	1 💼
Video Module	Тор	1 🕂
		Copy Cancel

5.9 Registering Addresses with Comprehensive Names

5.9.1 Details



You are free to name and manage addresses as required. (The name is called "symbol."). You can specify a symbol for a part address. You can change the symbol addresses all at once without changing the part settings.

5.9.2 Setup Procedure

NOTE

• Refer to the settings guide for details.

- ^{CP} "5.13.5 [Work Space] Settings Guide Address Settings Window" (page 5-86)
 ^{CP} "5.13.8 [Common Settings] Settings Guide Symbol Variable Settings" (page 5-137)
- For the addresses that can be used with logic features, see the next page. $\widehat{}$
 - "29.3 Registering Addresses" (page 29-12)



Registering the [Symbol Variable Settings]

1 Select the [Common Settings (R)] menu - [Symbol Variable Settings (V)] command.



2 The [Symbol Variable Settings] screen is displayed.

В	ase 1 🔌 Symbol				4	×
Edit S	ymbol Variable				<u>Utility</u>	
	Name	Туре	Array	Count	Address	
×						

3 Click a cell in the [Name] column and specify the symbol variable name.

Edit 9	Edit Symbol Variable												
	Name	7	Туре										
1	LineA_production		Word Address										
2	LineB_production		Word Address										
3	LineC_production		Word Address										
4	LineD_production		Word Address										
×													

4 Click each cell in the [Type] column and select the symbol's address type.

Туре
Word Address 🔹
Bit Address
Word Address
Bit Variable
Integer Variable
Float Variable
Real Variable
Timer Variable
Counter Variable
Date Variable
Time Variable
PID Variable

5 Click each cell in the [Address] column to display
 (e.g.: Line A Production: D100, Line B Production: D101, Line C Production: D102, Line D Production: D103)

Click the icon to display an address input keypad.	Select device "D", input "100" as the address, and press the "Ent" key.		
	Input Address Device/PLC PLC1 Image: Constraint of the state	•	[[PLC1]D00100

- 6 The settings to register an address as a symbol are complete.
- 7 Set the symbols registered in Data Displays. Select the [Part (P)] menu [Data Display (D)] option [Numeric Display (N)] command, or click the icon, and place it on the screen.
- **8** Double-click the placed Data Display and the settings dialog box opens.

💰 Data Display	
Part ID DD_0000 ** Comment	Basic Settings Display Settings Alarm/Color Settings Processing Display Data Numeric Display Text Display Date/Time Date/Time Statistical Display Show Limit Value
ABC Select Shape	Monitor Word Address
	Data Type 16 Bit Dec
Help (<u>H</u>)	OK (<u>D</u>) Cancel

- **9** Select the Data Display shape from [Select Shape].
- 10 In [Monitor Word Address], specify the symbol of the address (e.g.: Line A Production = D100) which will store the value to be displayed.



11 Set the type of data that will be displayed (e.g. "16 Bit Dec") in [Data Type].

Monitor Word Address									
Data Type	put/Display Ra 16 Bit Dec 16 Bit Dec 16 Bit Hex 16 Bit Oct 16 Bit Bit 16 Bit Bin 32 Bit Dec	ange	🗖 Sign +/-	E Round Off					
	32 Bit Hex 32 Bit Bin	•							

- 12 As needed, specify the Data Display's color and text on the [Alarm/Color Settings] tab and [Display Settings] tab, and click [OK].
- 13 Set the Data Displays for the symbols of "Line B Production", "Line C Production", and "Line D Production" as well.

Setting Procedure to Confirm the Symbol Registration with a List

1 Click the [Address Settings] tab in the Work Space.

Address Settings 🛛 📮 🗙													
Device Address O Symbol Variable													
Туре	Bit Address												
Address	; [PLC1]X00000												
х	0 1 2 3 4 5 6 7 8 9 A B	СD											
00000													
00010													
00020													
00030													
00040													
00050													
00060													
00070													
00080													
00090													
000A0													
000B0													
000C0	•	٦Ť											
Feature	Location Screen	_											
🕅 Syst	en 🎹 Addres 🚺 Comm 🔡 So	creen											



2 Select [Symbol Variable].



3 In [Type], select the address type from the list.



4 In [Attribute], select the device/PLC for the symbol variable to display. The symbol variable's address list is displayed.

Address Settir	ngs		4 ×
O Device Ac	ldress	⊙ Symbol∨	ariable
Type 🛛 🕅	ord A	ddress	•
Attribute A	I		_
Name	Δ	Туре	Address
LineA_produc	tion	Word Address	E [PLC1]D00100
LineB_produc	tion	Word Address	; [PLC1]D00101
LineC_produc	tion	Word Address	FLC1]D00102
LineD_produc	tion	Word Address	EPLC1]D00103
4			
▲ Feature	Loo	cation S	▶ creen
• Feature	Loc	cation S	L L L L L L L L L L L L L L L L L L L

- **NOTE** The address selected in the list can be dragged to connect it to a part placed on the drawing screen.
 - By double-clicking the address in the list, you can open the [Edit Symbol Variable] screen.

5.10 Putting a Header/Footer on the Screen

5.10.1 Details



You can display a footer on each screen.

You can display a common header/footer on multiple screens.

5.10.2 Setup Procedure



You can display a footer on each screen.

1 You can display a footer on each screen. Select the [View (V)] menu - [Footer (F)] command or click the [Edit Footer] button at the bottom of the drawing screen to display the footer screen area.

		-
2		
· · · · · · · · · · · ·	Footer is Undetermined	
4	[Place arrange some objects or parts.)	

NOTE • To specify a Header, select the [View (V)] menu - [Header (H)] command or the [Edit Header] button at the top of the drawing screen to display the header screen area.

2 Create a screen in the footer editing area.



3 Click the [disable footer edit] button _____ in the footer editing area and the footer editing area will be released.

Base	e 1		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
	0.		• •	• •		1	1	•	• •		• •	1	•	• 2	•	• •	1	• •		• •	3	• •	• •			• •	4	• •	• •	•	• •	1	5	• •	• •		۰.	• •	• 6		1
	ar				-										2		0					1000										181	_	_				_	_	_	8
	8	5	et	Sc	re	js ei	1 1	np	nu!						S	C)	- CI	n						R		Sc	re	en	of					A1.	ar	x	Sc	re	en		10000

• You can specify a comment in each header/footer screen. The comment is displayed in the bottom right corner of a header/footer screen. To specify a comment, select the [View (V)] menu - [Work Space (W)] option - [Properties Window (P)] command. When the Properties Window is displayed, specify the [Comment].

■ Calling a Header/Footer

- 1 Select the [Screen (S)] menu [New Screen] command or click the [New Screen] button 🛅 .
- 2 When the [New Screen] dialog box is displayed, specify [Screen Type], [Screen No.], and [Title] and click [New].

💰 New Scre	en 🗙
Screen Type	Base
Screen No.	2 📑
Title	Untitled
Use Lempi	ate
Select 1	emplate from List
Recent	y Used Template
	New Cancel

3 A new base screen is displayed. Select the [View (V)] menu - [Footer (F)] command or click the [Edit Footer] button at the bottom of the drawing screen.

0	• •	• •	• •	• •	• 1	• •	• •	• •	• •	2	• •	• •	• •	• •	• 3	• •	• •	• •	• 4	• •	• •	• •	• •	5	• •	• •	• •	• •	6	
	0	-																												
r																														
l																														
l																														
l																														
l																														
l																														
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L				Ľ.																										

4 The footer screen editing area is displayed. Click the [Next Footer] button **b**.



5 The footer is displayed. Click the [disable footer edit] button _____ in the editing area and the editing area will be released.



Releasing a Header/Footer

1 Display the screen with a footer you want to release and click the [Edit Footer] button



- **NOTE** To release a Header, select the [View (V)] menu [Header (H)] command or the [Edit Header] button at the top of the drawing screen to display the header screen area.
- 2 When the footer screen area is displayed, click the [Next Footer] button **b** and specify a blank header.



3 Click the [disable footer edit] button _____ in the editing area and the editing area will be released.



NOTE • If you change from a large resolution GP main unit model to a small resolution model, a header/footer that exceeds the range due to the change is not displayed. After changing the GP type, you need to adjust the header/footer's size and position.

5.11 Changing the Screen No./Title/Screen Color

5.11.1 Details



You can change the screen number, screen title, and screen color in a project file.

5.11.2 Setup Procedure

NOTE • Refer to the settings guide for details. [©] "5.13.5 [Work Space] Settings Guide ■ Screen List Window" (page 5-89)

Bas	e Screen		
	B1 Menu Screen	0001	Menu Screen
Bas	e Screen	nge	
	B100 Menu Screen	0100	Main Screen

1 Select the screen with the attribute you want to change from [Screen List Window] and click the [Change Attribute] icon 🖳 .

Screen List		₽ x
Screen Type All		•
Refine Search		Search
°¤ 🔂 🛍 🗙 🖳	# N	
😳 Base Screen		
	0001	(menu screen)
💕 Window Screen		
🌍 Logic Screen		
	NUT	01cu II

2 The [Change Screen Attribute] dialog box is displayed.



3 Change the [Screen No.], [Title] and [Background Color]. (e.g.: Screen No.: 100, Title: Main Screen)

💰 Change Screen Attribute 🛛 🛛 🔀				
Screen No.	100 🗦 🏢			
Title	Menu Screen			
Background Color	1	Blink	None	•
Pattern	No Pattern			•
Pattern Color	— 0 —	Blink	None	$\overline{}$
Security Level	0 🗧 🏢			
	Change		Cancel	



• To specify the [Security Level], refer to the following. ** "22.2 Creating Screens that Only Specific People can Use" (page 22-3)

4 The changed screen attribute is displayed.

Screen List		₽ x
Screen Type All		•
Refine Search		Search
°¤ 🔁 🛍 🗙 💂	<i>6</i> 9 💺	
😵 Base Screen		
	0100	(main screen)
🥩 Window Screen		
S Logic Screen		
	INIT	(I Intitled)

5.12 Copying/Deleting a Screen

5.12.1 Details



You can copy or delete a screen easily.

5.12.2 Setup Procedure

NOTE • Refer to the settings guide for details. ☞ "5.13.5 [Work Space] Settings Guide ■ Screen List Window" (page 5-89)



■ Copying a Screen

1 Select the screen you want to copy from [Screen List Window] and click the [Copy] 🔁.



2 Then click the [Paste] icon \square .

Screen List		₽ ×				
Screen Type All		•				
Refine Search	Search					
°¤ 🕂 🕄 🗶 💻	<i>6</i> 9 💺					
🥵 Base Screen						
	0010	(Untitled)				
🥩 Window Screen						
🚱 Logic Screen						

3 When the [Paste Screen] dialog box is displayed, specify the [Paste-To Start Screen No.] and [Screen No. after Paste] and click [Paste]. (e.g.: [Paste-To Start Screen No.] 20)

🕈 Paste Screen 🛛 🗙
Paste-To Start Screen No.
20 🗦 🏢
Coreen Ma. effer Parts
00020
Paste D Cancel

4 The reduced display of the pasted screen is displayed in the [Screen List Window]'s list.

Screen List	7 ×						
Screen Type	Screen Type All						
Refine Search		Search					
🗀 🔂 🛍 🕻	°= 🕰 🛍 🗙 🚊 🏭 🍇						
😵 Base Screer	🎲 Base Screen						
	0010	(Untitled)					
	0020	(Untitled)					
🚱 Window Screen							
🌍 Logic Scree	n						

• To select multiple screens at a time, select the target screen on the [Screen List Window]'s list with the [Shift] key + click, or the [Ctrl] key + click.

Delete a Screen

1 Select the reduced screen display of the screen you want to delete from [Screen List Window] and click the [Delete] icon 🗙.

Screen List 🛛 🕂 🗙							
Screen T	Screen Type All						
Refine Se	Refine Search Search						
°а 🕁	12 🔁 🛍 🗙 🚊 🏭 💺						
😂 Base	🚱 Base Screen						
	N 102 N 102	0010	(Untitled)				
		0020	(Untitled)				
🍪 Window Screen							
🍪 Logic	Screen						

2 The screen is deleted from the [Screen List Window].

Screen List		₽ ×			
Screen Type All	•				
Refine Search	Search				
° 4 8 × 1 2 <i>8</i> %					
🚱 Base Screen					
	0020	(Untitled)			
🐝 Window Screen					
🚱 Logic Screen					

• To select multiple screens at a time, select the target screen on the [Screen List Window]'s list with the [Shift] key + click, or the [Ctrl] key + click.

5.13 Settings Guide

5.13.1 Main Window's Part Names

GP-Pro EX's basic screen part names and functions are as follows.

Title Bar	S GP-Pro EX	X
X	Project (E) Edit (E) View (V) Common Settings (R) Draw (D) Part (P) Screen (S) Help (H)	
Menu Bar		
State Bar	🖸 🗀 🖪 🔁 🔽 🖑 🗞 🎝 🛍 46 🗙 100% 💿 🖬 🗉	
<u> </u>	A ・ / ベロ 〇 〇 (『 智 囂 目	
Tool Bar	●	
loor Bar	6 🖬 🔁 🖓 🐜 🕲 🕼 🕺 🖉 🛱 📓 🛱 🖬 🖓 🛱	
	◎近街におけて雨山県県県長や鹿山谷のや小市	
	Screen List 🛛 🗣 🗙 📮 Base 1	×
	Screen Type All	
	Refine Search	
Work Space	🖆 🕾 🗙 🗏 😹 🙀 👘 🕴 👘 The second	
	Base Screen	
-		
	🚱 Window Screen	
	Logic Screen Editing Area	
Status Bar		
\searrow		
*	Ma Syste - [🔐 Addres 🔐 Lomm 🛗 Screen	
	AGP-3500T	11

Setting	Description
Title Bar	Displays a project file name or screen title.
Menu Bar	Displays the menu to operate GP-Pro EX. Select from these to display a pull-down menu.
State Bar	Select the operation state from [System Settings], [Edit], [Preview], [Transfer Project], or [Monitor] to switch to the operation screen.
Tool Bar	Displays command icons, such as Part, Draw or Edit. Click one of these icons with the mouse to execute the operation. The Tool Bar can be switched between Show/Hide by selecting the [View (V)] menu - [Tool Bar (T)] command. Also, the bar can be moved by dragging it and placed in the left, right, top, or bottom of the screen. There are the following types of Tool Bar.

Continued

Setting		Description			
	Normal	🗋 🇀 🖪 🗳 🎦 🚰 🍕 🞸 🖒 端 🕾 🛍 🖌 100%			
	Edit	(2) [1] [1] [1] [2] [2] [2] [2] [2] [3] [3] [4] [4] [4] [4] [4] [4] [4] [4] [4] [4			
	Display	State 0 (DFF) 🔹 Table1 🔹 🔚			
L	Draw				
l Ba	Part	🔍 · · · · · · · · · · · · · · · · · · ·			
Too	Command	■ 閏 閏 1+ 44 ◇ 字 �� ♥ ♥			
	Package				
	Common Settings				
	Screen Block				
Wo	rk Space	Displays a Window. By dragging a Window, you can move and place it in the desired position. Displays the following types of Windows.			
	System Settings Window/ Address Settings Window/ Common Settings Window/ Screen List	 Displays the [System Settings Window], [Address Settings Window], [Common Setting Window], or [Screen List Window]. System Settings Window" (page 5-84) Address Settings Window [@] " ■ Address Settings Window" (page 5-86) Common Setting Window [@] " ■ Common Setting Window" (page 5-87) Screen List Window [@] " ■ Screen List Window" (page 5-89) 			
	Properties Window	Displays the selected part or screen's attributes to confirm or edit the attributes. ^(G) "■ Properties Window" (page 5-91) NOTE • This window is displayed as popup the first time you start up the GP.			
	Screen Data ListDisplays a list of the Draw and Parts placed on the screen by editing screens and keypads.Image: Image Screen Data List WindowImage Screen Data List WindowImage Screen Data List WindowImage Screen Data List Window				
	Comment List Window	[™] "5.13.5 [Work Space] Settings Guide ■ Comment List Window" (page 5-93)			
	Watch List Window	[™] "5.13.5 [Work Space] Settings Guide ■ Watch List Window" (page 5-94)			
	Error Check Window	Displays a list of errors found on the created screen. You can execute a error check by clicking the icon displayed in the window. ⁽³⁾ "■ Error Check" (page 5-135)			
	PID Monitor Window	[©] "5.13.5 [Work Space] Settings Guide ■ PID Monitor Window" (page 5-95)			

Continued

Setting	Description
Editing Area	This is an area in which to edit a screen. The editing area mainly displays Base Screens, Window Screens, or the registration of each function's [Common Settings] and setting screens. You can change the display method of the editing area by selecting the [View (V)] menu - [Screen Block (B)] command. Also, when displaying Base Screens or Window Screens, you can change the display state by using the [View (V)] menu's [Zoom (Z)] or [Change Language (L)] com- mand.
Status Bar	Displays the specified main unit model and the coordinate position of the mouse pointer in the editing area.

5.13.2 [New] Settings Guide

[Project(F)] menu - [New (N)] command, or click i and the following dialog box appears. Set the display model.

The Display Device Settings

💰 New Project File			×
62.2co	Display Type		٦.
	Series	GP3000 Series	
		AGP35** Series	
	Model	AGP-3500T	
	Installation Method	Horizontal	
	Specification		5
	Screen Size	10.4 type	
	Resolution	640x480 dots (VGA)	
	Display Type	TFT Color LCD	
	Display Colors	65536 Colors	
	Internal Memory	8Mbyte	
	Backup Memory	320Kbyte	
	COM1	RS-232C/RS-422(RS-485)	
	COM2	RS-422(RS-485)	
	USB	2 Port	
	LAN	1 Port	
	CF	Enable	
	Video Signal	Disable	
	Internal Board	Disable	
		Next (N) Cancel	1

Setting	Description		
Select Series	Select the display to use from [GP3000 Series] or [GP2000 Series]. NOTE • If you select [GP2000 Series], the following dialog box is displayed. If you click the icon, GP-Pro EX exits and GP-PRO/PB3 starts up. However, GP-PRO/PB 3 will not start up if it is not installed. Image: Comparison of the image of the		
Display Type	Set the Display Type.		
Series	Select the Series.		
Model	Set the display model that can be specified in the selected [Series].		
Installation Method	Select the display installation method from [Horizontal] or [Vertical].		
Specification	Displays the specifications of the display specified in [Display Type].		

Device/PLC Driver Settings

Click [Next] after the setting the display device and the following dialog box will be displayed. Select the Device/PLC.



Setting		Description		
Device/PLC		Set the device/PLC.		
	Maker	Select the device/PLC's maker name.		
	Driver	Select the driver for the device/PLC selected in [Maker].		
	Recent Device/PLC	Displays the maker name and driver name of up to three devices/PLCs recently specified in the [New Project File] dialog box. Click each display to specify the [Maker] and [Driver].		
	Use System Area	Designate whether or not to assign the GP internal system data area to the device/PLC. ^{CP™} "5.13.6 [System Settings Window] Settings Guide ◆ System Area Settings (page 5-120)		
	Refer to the manual of this Device/PLC	Displays the page in "GP-Pro Device/PLC Connection Manual" explain- ing about the selected device/PLC.GP-Pro EX		
Со	nnection Method	Set the connection method of the GP and device/PLC.		
	Port	Select the port to assign to the device/PLC from [COM1], [COM2], [Ethernet (UDP)], or [Ethernet (TCP)].		
Go to Device/PLC Manual		GP-Pro EXDisplays the top page of the "GP-Pro Device/PLC Connection Manual".		

5.13.3 [Properties] Settings Guide

This section explains about each item displayed by selecting the [Project (F)] menu - [Properties (I)] command.

Project Information

Displays the screen information to check that there is no problem in sending the project file to the GP.

File Info

Displays information of a project file.

Project Informati	ion		×
File Info Model Info	File Info		
Send Data SRAM Info CF-Card Destination Password	File Name Last Saved Date and Time	Unsaved Fri May 26 18:52:20 2006	
Memory Usage	Creator	GP_User	
	Title		
		OK (<u>0</u>) Ca	incel

Setting	Description	
File Name	Displays a project file name.	
Last Saved Date and Time	Displays the year, date, day of the week, and time when the last project file was saved. The format is [Day of the Week (English abbreviation)], [Month (English abbreviation)], [Date], [Time (hh:mm:ss)], and [Year].	
Creator	Set the name of the project file creator. You can input up to 30 characters.	
Title	Set a comment for the project file. You can input up to 60 characters.	

♦ Model Info

Displays the type or name of the specified devices/PLCs and peripheral devices. Displays [Unused] for unused devices.

đ	🖗 Project Informat	ion		×
	File Info	Model Info		
	Send Data SRAM Info CF-Card Destination Password Memory Usage	Main Unit Model Name	AGP-3500T	
		Device/PLC 1	Mitsubishi Electric Corporation Q/QnA Serial Communication COM1	
		Device/PLC 2	(Unused)	
		Device/PLC 3	(Unused)	
		Device/PLC 4	(Unused)	
		Printer	(Unused)	
		Bar Code1	(Unused)	
		Bar Code2	(Unused)	
		Script 1	(Unused)	
		Script 2	(Unused)	
			OK (<u>0</u>) Cancel	

Setting	Description		
Main Unit Model Name	Displays the display model name.		
Device/PLC 1			
Device/PLC 2	Displays the specified device/PLC's driver (type). ^{CP} "5.13.6 [System Settings Window] Settings Guide ■ [Device/PLC Settings] Settings Guide" (page 5-124)		
Device/PLC 3			
Device/PLC 4			
Printer	Displays the specified printer type. ⁽²⁷⁾ "33.6.2 System Settings [Printer Settings] Guide" (page 33-48)		
Bar Code 1	Displays the specified barcode type.		
Bar Code 2	*8.4.1 [Bar Code Settings] Setting Guide" (page 8-20)		
Script 1	Displays the specified script type.		
Script 2	^{CF} "5.13.6 [System Settings Window] Settings Guide ■ [Script Settings] Settings Guide" (page 5-127)		

Send Data

Displays information of the data to transfer to the display.

File Info Model Info Send Data Send Data Send Size 79.046 Byte (0.9%)	
SHAM Info CF-Card Destination Password Fonts to Use Japanese Standard Font English Standard Font English Stroke Font Chinese(Traditional) Standard Font Chinese(Simplified) Standard Font Korean Stanard Font	

Setting	Description
Send Size	Displays the total size of the project data to send. The data exceeding the maximum size that the GP can send is displayed with red characters.
Fonts to Use	Displays a list of fonts to send. Designate the fonts for a project in [System Settings]'s [Font Settings]. ^(CP) "6.4 [Font Settings] Settings Guide" (page 6-19)

♦ SRAM Info

Displays information of GP's backup SRAM capacity.

Project Informat	ion		×
File Info	SRAM Info	Capacity:320 KB	
Send Data	Alarm Backup	0 Byte	
CF-Card Destination Password	Sampling	0 Byte	
Memory Usage	Backup Area	0 Byte	
	Recipe	0 Byte	
	Total Size	2,320 Byte	
	Remaining Capacity	325,360 Byte	
		OK (<u>D</u>)	Cancel

Setting	Description
Capacity	Displays the specified display's backup SRAM's capacity by the Kbyte.
Alarm Backup	Displays the SRAM size used for Alarm History.
Sampling	Displays the SRAM size used for Sampling.
Backup Area	Displays the SRAM size used for the GP internal device's backup.
Recipe	Displays the SRAM size used for Recipe.
Total Size	Displays the total size used for the SRAM by the byte.
Remaining Capacity	Displays the remaining capacity by the byte. If the total size exceeds the usable capacity, the value is displayed with a minus.
♦ CF-Card Destination

Set the storage location of the data to transfer to a CF-card in the GP.

Project Informat	ion 🗙
Project Informat	Item X CF-Card Destination ✓ Enable CF-Card CF-Card Output Folder CF-Card Output Folder C:\Program Files\Pro-face\GP-Pro EX 1.10\Dat Reference
	OK (0) Cancel

Setting	Description
Enable CF-Card	Select whether or not to use a CF-card in a project.
CF-Card Output Folder	Set the storage location of data to be saved in a CF-card. The initial stor- age location is \Program Files\Pro-face\GP-Pro EX 1.10\Database\ (the project file name and the folder with the same name).

Password

Set a password for editing or transferring a project file.

Project Informat	ion	×
Project Informat File Info Model Info Send Data SRAM Info CF-Card Destination Password Memory Usage	Password Edit Edit Edit Project File Send/Receive	×
	Send/Receive Project File Password Settings "To open/send/receive, be sure to remember your password. Keep it at hand.	
	OK (<u>D</u>) Cancel	

Setting		Description	
Ed	it	Set a password to permit editing of a project file.	
Edit Project File Displays a password for editing with "*****" if it is		Displays a password for editing with "*****" if it is set.	
		Click this button and the following dialog box will be displayed.	
	Password Settings	Crick this button and the following dialog box will be displayed.	
		Continued	

Setting		Description	
	Password	Set a password with up to 10 single-byte alphanumeric characters.	
Edit	Password (Reenter)	Confirm the password by entering the same input. NOTE • If you click [OK] leaving this box blank, the password is released.	
Se	nd/Receive	Set a password to permit a project transfer.	
	Send/Receive Project File	Displays a password for sending/receiving with "*****" if it is set.	
		Click this button and the following dialog box will be displayed.	
	Password Settings	For Project File Transfer ManagementPassword Settings For Project File Transfer Management Set a password. Password (Reenter) Caution If you forget your password, you can't send/receive Project File. Keep your password private and save it in a secure location. OK (D) Cancel	
	Password	Set a password with up to 24 single-byte alphanumeric characters.	
	Password (Reenter)	Confirm the password by entering the same input. NOTE • If you click [OK] leaving this box blank, the password is released.	

Memory Usage

You can check the current logic capacity, symbol variable capacity, address points, and comment memory of the logic program. You can also change the proportion of the logic capacity and comment memory as required.

💰 Project Informat	ion		×
File Info	Memory Usage		
Send Data SRAM Info		[Memory Settings
CF-Card Destination Password Memory Usage	Logic Capacity (Step)		3 / 15000
	Variable Capacity		
			0 / 6000
			Detail
	Number of Address in Logic Using		
			7 / 256
			Detail
	Comment Memory		
	Number of Variable Comment	0 / 210	
<u> </u>	Number of Rung Comment	0 / 55	
		OK (<u>D</u>)	Cancel

Setting	Description
Memory Settings	Click this button and the following dialog box will be displayed.
Logic Capacity	Displays the number of steps that you can create.
Variable Com- ment Capacity	Sets the upper limit for the symbol variable comment memory ranging from 0 to 15.
Rung Comment Capacity	Sets the upper limit for the row comment capacity ranging from 0 to 15.
	Continued

	Setting Description				
Variable Capacity		Displays the number of symbol variables currently used and the total configurable number.			
	Click this button to display the following dialog box. You can chec number of symbol variables currently used and the possible configu number, as well as the total number of symbol variables.				
		🕈 Variable Capacity Detail			
		Bit Variable 0 pieces 0 / 8000			
		Bit Variable Input 0 pieces 0 / 256			
		Bit Variable Output 0 pieces 0 / 256			
		Integer Variable 0 pieces 0 / 8000			
		Integer Variable Input 0 pieces 0 / 64			
	Details	Integer Variable Output 0 pieces 0 / 64			
		Float Variable 0 pieces 0 / 128			
		Real Variable 0 pieces 0 / 128			
		Timer Variable 0 pieces 0 / 512			
		Counter Variable 0 pieces 0 / 512			
		Date Variable 0 pieces 0 / 64			
		Time Variable 0 pieces 0 / 64			
		PID Variable 0 pieces 0 / 8			
		Total 0 pieces			
Addresses used in Displays the number of addresses actually used in the logic		Displays the number of addresses actually used in the logic program and			
Logic		the possible configurable number.			
	Click to display the following dialog box. You can check the current number used, and the possible configurable number, as well as the to number of bit variables, integers, and system variables.				
		Bit 0 pieces 0 / 256			
	Details	Integer 0 pieces 0 / 256			
		System Variables 7 pieces 7 / 64			
		Total 7 pieces 7 / 256			
Comment Memory		Displays the current number and configurable number of symbol variable comments and row comments			
		continents and fow continents.			

CF-Card Output Folder

Set the CF-Card Destination.

Protect Data

Set a password for editing or transferring a project file. ⁽²⁾ • ← Password" (page 5-74)

5.13.4 [Utility] Settings Guide

This section explains about each item displayed by selecting the [Project (F)] menu - [Utility (T)] command.

Address Block Conversion

Converts the sequential addresses specified in a project as a block. There are two conversion methods: [Whole Project], which converts the addresses in the whole project as a block, and [Individual Settings], which specifies and converts the conversion target screens or features.

Whole Project



	Setting	Description	
Conversion Target		Displays the conversion target.	
Whole Project Display this when converting all the addresses in a project file.		Display this when converting all the addresses in a project file.	
	Individual	Goes to the mode that sets the conversion target individually.	
	Settings	Individual Settings" (page 5-79)	
Address Type Select the address type to convert from [Bit] or [Select the address type to convert from [Bit] or [Word].	
Address Before Conversion		Set the range of sequential addresses to convert.	
	Тор	Set the top address to convert.	
	End	Set the end address to convert.	
Address After Conversion		Set the addresses after conversion.	
	Тор	Set the top address of the convert destination.	



• For [Address Before Conversion]'s [Top] and [End], you cannot specify a different device address.

• If the total number of addresses (End Address – Top Address) before conversion is greater than the total number of addresses (End Address – Top Address) after conversion, the device's last address is assigned to all the unconverted addresses.

Individual Settings

Sets the address conversion target screens individually and converts them.

💣 Address Block Conversion	×
Conversion Target	Screen Alarm Common Settings
Individual Settings CCWhole Project Address Type Bit C Word Address Before Conversion Top [[PLC1]×00000 End [[PLC1]×00000 Address After Conversion Top [[PLC1]×00000 CONVERSION CONVERSION CONVERSION CONVERSION CONVERSION CONVERSION CON	Screen Current Screen Image: Screen Start Screen No. 1 Start Screen No. 1 Image: Start Screen No.
	Convert Close

Setting		Description
Sci	reen	Select the block conversion target screens.
	Current Screen	Converts addresses as a block only for the screens that are currently being edited.
	All Screens	Converts addresses as a block for all screens. Turns ON all the check boxes on the [Screen] tab.
	Base Screen	Set whether or not to include Base Screens among the address block conversion targets.
	Start Screen No.	Set the start screen number of the address block conversion target Base Screens from 1 to 9,999.
	End Screen No.	Set the end screen number of the address block conversion target Base Screens from 1 to 9,999.
	Window Screen	Set whether or not to include Window Screens among the address block conversion targets.
	Start Screen No.	Set the start screen number of the address block conversion target Win- dow Screens from 1 to 2,000.
	End Screen No.	Set the end screen number of the address block conversion target Window Screens from 1 to 2,000.
	Video Module Settings	Determines whether to include the Video Module window in the address block conversion.
	Start Screen No.	Specifies the first Video Module window number to be included in the conversion from 1 to 512.
	End Screen No.	Specifies the last Video Module window number to be included in the conversion from 1 to 512.
	Header/ Footer	Set whether or not to include the addresses specified for Headers/Footers among the address block conversion targets.
	Logic	Determines whether to include the logic screen in the address block conversion.

	Setting	Description
Alarm		Select the block conversion target Alarm Settings.
	Alarm	Select the address block conversion target Alarm features from [Alarm History], [Banner Message], [Alarm Summary], or [Common Settings].
	All Alarm	Converts addresses as a block for all Alarm features. Switches ON in all the check boxes placed on the [Alarm] tab.
Common Settings		Select the block conversion target features other than [Alarm Settings] from [Common Settings].
	Common Settings	Select the address block conversion target features from [Sampling Set- tings], [Recipe Settings], [Security Settings], [Time Schedule Settings], [Sound Settings], [Text Table], [Global D-Script], [Extended Script], [User Define Function], or [Symbol].
	Common-To-All Settings	Converts addresses as a block for all Common Settings except Alarm. Switches ON in all the check boxes placed on the [Common Settings] tab.

Cross Reference

Displays the addresses used by screens and placed parts in a project.

🕈 Cross Reference 🛛 🗙				
Target	Device/PLI	C AI	▼ Type All ▼	Address Block Conversion
Address	Screen	Location	Feature	
#H_CurrentYear	Logic system reserved	•	•	
#H_CurrentMonth	Logic system reserved	-	•	
#H_CurrentDay	Logic system reserved	-	•	
#H_CurrentHour	Logic system reserved	-	•	
#H_CurrentMinute	Logic system reserved	-	•	
#H_CurrentSecond	Logic system reserved	•	•	
#H_CurrentDayofTheWeek	Logic system reserved	•	•	
[PLC1]D00000	Main Unit Settings	-	System Area Start Address	
[PLC1]D00000	Main Unit Settings	-	Watchdog Write Address	
[#INTERNAL]LS0020	Video Module Settings		Video Control Address	
[#INTERNAL]LS0021	Video Module Settings	-	Video Control Address	
[#INTERNAL]LS0022	Video Module Settings	-	Video Control Address	
[#INTERNAL]LS0023	Video Module Settings	•	Video Control Address	-
				Close (C)

Setting	Description
Target	Select the contents to display on the Cross Reference from [All], [Current Screen], [Base Screen], [Window Screen], [Header/Footer], [Logic Screen], [I/O Screen], [Alarm], [Sampling Settings], [Recipe Settings], [Security Settings], [Time Schedule Settings], [Sound Settings], [Text Table], [Global DScript], [Extended Script], [User Define Function], [Video Module Window Setting] or [System Settings].
Device/PLC	Select the contents to display on the Cross Reference from [All], [Symbol Variable], [PLC1] (device/PLC), [#INTERNAL] (internal device address), or [#MEMLINK] (only when using memory link).
Туре	Select the address type to display from [All], [Bit Address], [Word Address], [Bit Variable], [Integer Variable], [Float Variable], [Real Vari- able], [Timer Variable], [Counter Variable], [Date Variable], [Time Vari- able], [PID Variable], [System Variable(Bit)], [System Variable(Integer)].
Address Block Conversion	Displays the [Address Block Conversion] dialog box. Converts the addresses specified in a project as a block. There are two conversion methods: [Whole Project], which converts the addresses in the whole project as a block, and [Individual Settings], which sets and converts the conversion target screens individually.
Address	Displays the address or symbol name in use.
Screen	Displays the screen numbers, Alarms, Common Settings' types, etc. in use.
Location	Displays the part IDs in use or the group, block number, or row number an address belongs to.
Feature	Displays the usage of each address.

Copy from Another Project

Specifies another project file to copy necessary screens.

💰 Copy from another Pr	oject	×
File C:\Program Files\F	Pro-face\\A.prx	[Reference]
Copy Target 💿 All	C Specify Screen	
Copy Target Screen		
🔽 Base Screen	Top 1 🚊	# End 9999 🔆 #
🔽 Copy includi	ng the set header and f	ooter.
🔽 Window	Top 1 👘	🏥 End 2000 🕂 🏥
🔽 Keypad	Top 1 👘	🏥 End 8999 🕂 🏥
🔽 Video Module	Top 1 🚞	🏥 End 512 🕂 🏥
Copy-To Screen No.		
Base Screen	Top 1 🚍	
Window	Top 1 👘	100
Keypad	Top 1 🗮	
Video Module	Top 1 🚊	##
	C	opy Cancel

Setting	Description	
File	Displays the copy-from file.	
	The following dialog box is displayed. Set the copy-from file's storage location and select a file.	
	Open a copy file of another project.	
Reference	Look jn Patabase History History Desktop My Documents My Network P File game: A prx Desktop My Network P	
O anu Tannat		
Copy larget	Select the copy target from [All] or [Specify Screen].	
Copy Target Screen	Set the target screens when the Copy Target is [Specify Screen].	
Base Screen	Copies Base Screens in another project file.	
Тор	Set the copy-from Base Screen top number from 1 to 9999.	
End	Set the copy-from Base Screen end number from 1 to 9999.	
Copy including the set header and footer.	Set whether or not to copy including the header/footer in another project file.	

-			
		Setting	Description
	Wi	ndow	Copies Window Screens in another project file.
		Тор	Set the copy-from Window Screen top number from 1 to 2000.
een		End	Set the copy-from Window Screen end number from 1 to 2000.
Scr	Ke	ypad	Copies the keypad screen from another project file.
jet ;		Тор	Specifies the first copy-from keypad screen number from 1 to 8999.
Tarç		End	Specifies the last copy-to keypad screen number from 1 to 8999.
Copy -	Video Module Window		Copies the Video Module window from another project file.
Ŭ		Тор	Specifies the first copy-from Video Module window number from 1 to 512.
		End	Specifies the last copy-from Video Module window end number from 1 to 512.
Co	ру-Т	To Screen No.	Specifies the copy-to screen numbers.
	Base Screen		Specifies the copy-to Base Screen top number from 1 to 9999.
	Wi	ndow	Specifies the copy-to Window Screen top number from 1 to 1999.
	Ke	ypad	Specifies the first copy-to keypad screen top number from 1 to 8999.
Vi		leo Module	Specifies the first copy-to Video Module window top number from 1 to 512.

Error Check

Checks whether an error exists in the settings in a project.

No	error	exists.	
NU	enoi	CA1313.	

No error exists.	Error Check 🛛 🗘 🛪				×
	*∀ ₩	V 🖪			
	Level	Error No.	Screen-Location	Summary	
	Error			No error	
An error exists.	Error Che	ek 🛛		9	×
	₩ Ϋ	V 🖪	😣 Even if you save	this data, you can't transfer it to the main unit.	
	Level	Error No.	Screen-Location	Summary	
	Error	1000	Peripheral Settings	Ports settings are duplicated. Check the Peripheral List.	

	Setting		Description
uo	All	₩LL	Checks for errors in all settings.
Butt	Logic only	₫	Checks for errors in logic screen settings.
ation I	Screen only	V	Checks for errors in the new screen settings.
Oper	Settings	E	Displays the [Error Check] screen in [Option Settings].
Level			Displays the level of error as either [Error] or [Warning].
Error No.			Displays the error number. For details about error numbers, refer to "Maintenance/Troubleshooting."
Screen-Location			Displays the screen No., part No., or Row No. where the error occurred.
Summary			Displays the error details.
NOTE • Error checks are automatically performed when saving projects.			

5.13.5 [Work Space] Settings Guide

This section explains about each window displayed by selecting the [View (V)] menu - [Work Space (W)] command.

System Settings Window

This window is used to configure system settings for a project file.



	Setting	Description
Display Settings		Configure settings for the GP.
	Device Settings	Displays the GP's device settings and specifications. $$
	J	"■ [Device Settings] Settings Guide" (page 5-99)
	Main Unit	Configure detailed settings for the GP main unit.
	Settings	^C "■ [Main Unit Settings] Settings Guide" (page 5-100)
	Logic Program Settings	Configures the logic feature settings.
		"29.14.1 [System Settings Window] Settings Guide for Logic Features [Logic Program Settings] Setup Guide" (page 29-128)
	Video/Movie	Configures the settings for video play and movie recording.
	Settings	"27.9.1 [Video/Movie Settings] Settings Guide" (page 27-72)
	Font Settings	Set a font to display on the GP.
	r on Settings	"6.4 [Font Settings] Settings Guide" (page 6-19)

• ••	
Setting	Description
Peripheral Settings	Configure settings for each peripheral device.
Peripheral List	Displays a list of the specified peripheral devices.
	Image: Setting Guide (page 5-122)
Device/PLC	Configure settings for a device/PLC.
Settings	" ■ [Device/PLC Settings] Settings Guide" (page 5-124)
Printer Settings	Configure settings to communicate with the printer.
	"33.6.2 System Settings [Printer Settings] Guide" (page 33-48)
Bar code	Configure settings to communicate with the barcode.
Settings	*8.4.1 [Bar Code Settings] Setting Guide" (page 8-20)
Script Settings	Configure script settings.
ochpt octarigo	"20.8.1 Common Settings Guide for D-Script" (page 20-48)
I/O Driver	Configures the I/O driver settings.
Settings	"31.2.1 [I/O Driver Settings] Setup Guide" (page 31-9)
FTP Server	Registers FTP servers.
Settings	"27.9.2 [FTP Server Settings] Setting Guide" (page 27-89)
Modem Settings	Configures the settings for the modem connected to the GP.
Wodern Cettings	"32.10.2 [Modem Settings] Setup Guide" (page 32-61)
Video Module	Configures the Video Module window settings.
Settings	"27.9.6 Setup guide of [Video Module Settings]" (page 27-119)

l

Address Settings Window

Displays a map of the device/PLC addresses in use or a list of the symbol variables.

Address Settings 🛛 🕂 🗙	Address Settings 🛛 📮 🗙
Device Address Symbol Variable	C Device Addres
Type Bit Address Address [PLC1]×00000	Type All Attribute All
X 0 1 2 3 4 5 6 7 8 9 A B C D 00000 00010 00020 0	Name Yppe Address #L_ScanTime System Variable[Ir #L_Status System Variable[Ir #L_StopPending System Variable[8 #L_StopScans System Variable[8 #L_Time System Variable[Ir #L_Version System Variable[1r #L_Version System Variable[1r #L_Version System Variable[1r IceSupplyButton Bit Variable LargeCupButton Counter Variable Power01f Bit Variable Power0n Bit Variable Settles upplyCup Bit Variable
Feature Location Screen	SmallCupButton Bit Variable
🕅 System 🇱 Addres 💽 Comm 🞛 Screen	Feature Location Screen TON SodalnjectionTime 3 MAIN MDV 4000 SodalnjectionTime 3 MAIN NC SodalnjectionTime.Q 6 MAIN NC SodalnjectionTime.Q 6 MAIN

	Setting	Description
Select Model		Select the target for a list from [Device Address] or [Symbol Variable].
Device Address		Displays a map of the device/PLC addresses used in a project.
	Туре	Select the address type to list. The selectable items vary depending on the [Register Format] specified for [Logic Program Settings] in the System Settings Window. If you selected [Variable Format] for [Register Format], select the type from [Bit Address] or [Word Address]. If you selected [Address Format] for [Register Format], select the type from [Bit Address (Bit Variable)], [Word Address (Integer Variable), [Float Variable], [Real Variable], [Timer Variable], [Counter Variable], [Date Variable], [Time Variable] or [PID Variable].
	Address	Select the address of the target to display in the map area.
	Map Area	Displays a map of how the addresses are used.
Symbol Variable		Displays the symbol variables used in the project.
Select variableDisplays the symbol variables used in the project.Select the address type to list. The selectable items vary dependin [Register Format] specified for [Logic Program Settings] in the S Settings Window. If you selected [Variable Format] for [Register Format], select th from [All], [Bit Address], [Word Address], [Bit Variable], [Integ able], [Float Variable], [Real Variable], [Timer Variable], [Count able], [Date Variable], [Time Variable], [PID Variable], [System Variable(Bit)], or [System Variable (Integer)].If you selected [Address Format] for [Register Format], select th from [All], [Bit Address], [Word Address], [System Variable (Bi [System Variable (Integer)].		Select the address type to list. The selectable items vary depending on the [Register Format] specified for [Logic Program Settings] in the System Settings Window. If you selected [Variable Format] for [Register Format], select the type from [All], [Bit Address], [Word Address], [Bit Variable], [Integer Vari- able], [Float Variable], [Real Variable], [Timer Variable], [Counter Vari- able], [Date Variable], [Real Variable], [PID Variable], [Counter Vari- able], [Date Variable], [Time Variable], [PID Variable], [System Variable(Bit)], or [System Variable (Integer)]. If you selected [Address Format] for [Register Format], select the type from [All], [Bit Address], [Word Address], [System Variable (Bit)], or [System Variable (Integer)].

Setting		Description	
Attribute Select the symbol variable usage from [All], [In Use], or [No		Select the symbol variable usage from [All], [In Use], or [Not used].	
	Display Area	Displays a list of the symbol variables.	
Feature		Displays the usage of each address.	
Location		Displays the part IDs in use or the group, block number, or row number an address belongs to.	
Screen		Displays the screen numbers, Common Settings type, etc.	

Common Setting Window

Calls features common to a project file.



	Setting		Description
Alarm Settings			Displays the setting screen to register an alarm message. * "19.9.1 Alarm Settings Guide" (page 19-63)
Sampling Settings Sampling Group List		Group List	Displays a list of each setting content for sampling groups. ** "24.8.1 Sampling Settings Guide" (page 24-37)
Recipe Settings	Transfer CSV Data	Condition Settings	Displays the screen to configure condition settings for trans- ferring CSV data. ^{CP} "25.10.1 Setup Guide for Common Settings (Recipe Settings) ■ Transfering CSV Data (Condition Settings)" (page 25-56)
		CSV File List	Displays the screen to register CSV data. ^C "25.10.1 Setup Guide for Common Settings (Recipe Settings) ■ Transferring CSV Data (CSV File List)" (page 25-61)

Setting			Description
Recipe Transfer Action		Action	Displays the screen to specified filing data's transfer actions.
Settings	Filing Data	Settings	^C ² "25.10.1 Setup Guide for Common Settings (Recipe Settings) ■ Transferring Filing Data (Action Settings)" (page 25-63)
		Filing	Displays the screen to register filing data.
		Data List	^{CP} "25.10.1 Setup Guide for Common Settings (Recipe Settings) ■ Transferring Filing Data (Filing Data List)" (page 25-67)
Security	Security F	Password	Displays the screen to specify a security level and password.
Settings	Occurity	2330010	⁽²⁷⁾ "22.5.2 Security Level List" (page 22-12)
			Displays a list of the screens with the security settings and the
	Security L	evel List	security level.
			⁽²⁾ "22.5.1 Password Settings" (page 22-9)
			Displays a list of actions with the time schedule settings.
Time Sche	dule Settin	gs	"23.4 Common Settings (Time Schedule Settings) Guide" (page 23-10)
Sound Set	tings		Displays the screen to register sound.
Sound Set	ungs		"26.5 Settings Guide" (page 26-13)
Toyt Table	Sattings		Displays the text table to register text.
	Settings		"15.7.3 Text Table Settings Guide" (page 15-49)
Global D-S	Script Sottin	NG6	Displays a list of created global D-scripts.
Giobal D-C	Script Setti	iys	"20.8.1 Common Settings Guide for D-Script" (page 20-48)
Extended Seriet Settings		nac	Displays the screen to program extended scripts.
Extended Script Settings		nys	"20.8.1 Common Settings Guide for D-Script" (page 20-48)
			Displays the [Image] screen to register images.
Image			"10.5.1 Setup Guide for Common Settings (Image Registration)" (page 10-23)
Text			Displays the screen to register text.
			"15.7.2 Common Settings Guide (Text Register)" (page 15-48)
			Displays the screen to create marks.
Mark			"9.12.3 Common Settings (Mark Registration) Settings Guide" (page 9-79)
			Displays the screen to edit a keypad.
Keypad			"16.5.2 Setup Guide for the Common Settings (Keypad Registra- tion)" (page 16-23)
			Displays the [Movie Settings] screen for creating a movie list
Movie Settings			file.
			"27.9.3 Common Settings [Movie Settings (O)] Setting Guide" (page 27-91)
			Displays the screen for creating the Video Module window.
Video Module Settings		S	"27.9.5 Setup guide of common settings [Video Module Settings]" (page 27-112)
			Displays a screen to register a symbol.
Symbol Va	riable Setti	ngs	^C "5.9.2 Setup Procedure ■ Registering the [Symbol Variable Settings]" (page 5-45)
			"29.3 Registering Addresses" (page 29-12)

Screen List Window

Displays a list of created Base Screens or Window Screens.

Screen List		₽ ×
Screen Type All		•
Refine Search		Search
°• 🕘 🏨 🗙 4	n 🛃 🛃	
🌍 Base Screen		
	0001	(Untitled)
🥩 Window Screen	-	
👺 Logic Screen	-	
	INIT	(Untitled)
	MAIN	(Untitled)
🚱 I/O Screen	-	
•		Þ
🕅 Syste 🔛 Add	re 🚺 Com	🔡 Scree

Setting		Description		
Screen Type		Select the screens to list from [All], [Base Screen], [Window Screen], [Logic Screen], or [I/O Screen].		
Re	fine Search	Set up to 128 single-byte characters for the search target text.		
New Screen 🛅		Displays the [New Screen] dialog box.		
	Сору (С) 🗧	Copies the selected screen.		
	Paste 😭	Pastes the copied screen on the Screen List.		
	Delete 🗙	Deletes the selected screen from the project.		
Operation Button	Change Attribute 💂	The following dialog box is displayed. You can change the screen number, title, and color.		

Setting			Description			
Operation Button	Change Display Mode	<i>#</i>	Changes the display mode of the [Screen List]. Reduced Screen Display List Display Screen List Screen Type Refine Search Refine Search Base Screen Window Screen Changes the display mode of the [Screen List]. Screen List Screen Type All Refine Search Base Screen Window Screen Changes the display mode of the [Screen List]. Screen List Screen Type All Refine Search Base Screen Window Screen S			
	Nesting	툍	Displays screens hierarchically.			
Screen List			Displays a list of screens registered in a project. Double-click the screen row you want to open and the screen is displayed in the right editing area. You can select a screen and copy or delete it easily, for example.			

Properties Window

Displays the selected part or screen's attributes/settings. Using this window, you can check the attributes or change the settings easily.

- Not all of the setting information for the selected part will be displayed in this NOTE window.
 - · Attributes and setting information for parts whose placement position and setting information is fixed with fixed pins in will not be displayed. For more details on the fixed pins, refer to:

⁽³⁾ "9.6.3 Fix/Unfix Objects" (page 9-48)

Whe	n Creating a Screen	When Cre	When Creating Logic			
Properties Window		Properties Window	₽ ×			
Switch/Lamp		Logic Screen MAIN	•			
4 a 4		Rungs 11 Steps 76				
Attribute Name	Setting Value	Lable List				
Part Information		1 - MAIN START				
Part ID	SL_0001	4 - LABEL-001				
Comment		11 - MAIN END				
 Coordinate 						
Top Left X-Coordinat	340					
Top Left Y-Coordinat	120	🛶 🛥 🚽				
Width	141					
Height	61	Attribute Name	Attribute Name			
 Switch Feature 		Logic				
Switch Feature	Enable	Title	無題			
🔻 Bit Switch		Rung				
Bit Action	Bit Set	Rung No.	2			
Bit Address	[PLC1]M000011	Comment				
Switch Common		 Instruction 				
Lamp Feature		Instruction Name	NO			
Color		OperandS1				
Label		Value/Address name	スイッチ1			
		Туре	Bit Variable			
		Detail Settings				
<u> </u>		Address				
		Array size	0			
		Кеер	Clear			
		Comment				

Setting		Description	
Part Name Display Area (When creating a screen)		The name of the selected part or screen is displayed. If multiple parts are selected, the number of selected parts is displayed.	
Part Name Display Area (When creating logic)		For how to create a logic program using the [Logic Program Window], refer to "29.13.5 Using Reference Features to Search Logic Programs" (page 29-118).	
	Logic Screen	When creating a [MAIN], [INT], or subroutine screen, select the logic screen from [SUB-01] to [SUB-32].	
	Rungs	Displays the total number of rows in the logic program.	
	Steps	Displays the total number of steps in the logic program.	
	Label List	Displays a list of the labels in the logic program.	

When Creating a Screen

Setting			Description
Button Area			Opens and closes the category display on the window.
	Expand All		Expands and displays all categories.
	Collapse All		Reduces and hides all categories.
	Expand to 1st Level	₽	Expands and displays only top level categories.
Attribute Display/ Setting Area			Displays the setting content for each attribute. You can change the set- tings in this area.

Screen Data List Window

Displays a list of the Parts and Draw placed on the screen.

Screen Data Li	st	×
Target All	•	
Draw/Parts	Information	
MD_0000	[PLC1]X00000	
	-	
Edit D	elete	* *

Setting		Description
Target		Select the targets to display on the display list from [All], [Draw], or [Part].
Target Assistance		Select the targets to display on the display list when the [Target] is [Draw] or [Part].
Display List		Displays a list of the Parts and Draw placed on the screen. Double-click a row and each setting dialog box opens for editing.
Draw/Parts Displays the Draw type when the [Target] is [Draw] and the Part I ber when the [Target] is [Part]. Displays "Group Object" for a grot target. And displays "D-script" when [D-Script] is selected.		Displays the Draw type when the [Target] is [Draw] and the Part ID num- ber when the [Target] is [Part]. Displays "Group Object" for a grouped target. And displays "D-script" when [D-Script] is selected.
Information		Displays the coordinate when the [Target] is [Draw] and all the Part's addresses when the [Target] is [Part]. Displays the ID number and comment when [D-Script] is selected, and the coordinate and all the addresses in a group when Group Object is selected.
Show Fixed Pins		You can confirm whether or not the part or drawing is fixed. For more details on the fixed pins (), see the following. (9.6.3 Fix/Unfix Objects" (page 9-48)
Edit		Displays the setting dialog box for the Part/Draw selected on the display list.
Delete		Deletes the Part/Draw selected on the display list.
Order (Top)		Moves the item selected on the display list to the top.
Order (Bottom)		Moves the item selected on the display list to the bottom.

Comment List Window

Comment List	4 ×
Target Item Variable	•
Z X Z	
Screen:Rung/Address	Comment
PowerOn	Press the power button to start
SodalnjectionTime	Set time to keep the soda valve
₹	
词 Syst 🔛 Addr 🕻	🕽 Com 🔡 Scre 🍓 Com

Setting		Description	
Target Item		Selects the item to be displayed from [Variable], [System Variable], or	
iui	got nom	[Rung].	
c	Edit 🛃	You can edit comments in [Variable] and [Rung].	
utto	Delete 🗙	You can delete comments in [Variable] and [Rung].	
B		Clicking the icon displays the [Address Input] dialog box when	
tior		[Address Format] has been selected in [Register Format]. You can spec-	
era	Add 👱	ify addresses and add logic addresses.	
Ope		"29.3.3 Using Symbol Variables with Fixed Addresses (Address Format) Logic Address Display" (page 29-33)	
		[Variable] displays the symbol variable name. [System Variable] dis-	
		plays the system variable name. Double-click to switch the window to	
80	roon: Pung/Addrog	the [Address Settings] window and the relevant variable will be	
Screen: Rung/Address		selected.	
		[Rung] displays the logic name and row No. of the logic screen. Dou-	
		ble-click to select the relevant row in the logic program.	
Comment		Displays the comment for the selected row.	
		Double click to edit [Variable] and [Rung].	

Watch List Window

Watch List 🛛 🕂 🗙			
Type All			
🗹 🗙 10 1	6		
Address	Туре	Radix	Curren
switch1	Bit Variable		OFF
lamp1	Bit Variable	-	OFF
IceSupplyButt	Bit Variable	-	ON
LargeCupButti	Bit Variable	-	ON
PowerOff	Bit Variable	-	ON
PowerOn	Bit Variable	-	ON
SetIceSupply(Bit Variable		OFF
SmallCupButto	Bit Variable		ON
SodaValve	Bit Variable		ON
 	Befere	ence indic	► ation >>
🕅 Sus 🗰 Ad	id 🚺 Co	B Scr	💹 Wat

Setting			Description	
Туре			Selects the type of symbol variable or system variable registered in the [Watch List] window. For how to register, refer to the following. * "29.10.2 Monitor the Current Values of Symbol Variables" (page 29-78)	
u	Edit	Ľ	You can edit registered symbol variables.	
Butt	Delete	×	You can delete registered symbol variables.	
on E	Decimal	10	Change the display format to decimal format.	
Operati	Hexadecimal	16	Change the display format to hexadecimal format.	
Ad	dress		Displays the variable name that was added to the watch list.	
Туре			Displays the variable type that was added to the watch list window.	
Ra	dix		Displays the variable format that was added to the watch list.	
Current Value			Displays the current value that was added to the watch list. If the type is [Bit Variable], right-click to select [ON] or [OFF]. If the type is [Integer Variable], [Float Variable], or [Real Variable], click to input the value.	
Display Example			You can configure the settings only when the type is [Integer Variable]. Select [Specify Bit], [Specify Byte], or [Specify Word]. Decimal/hexadecimal displays are available if you select [Specify Byte] or [Specify Word].	

PID Monitor Window

PID monitor	₽ ×
Target PID Variable pid	V
Item	Value
Targeted value(SP)	80
Tieback(TB)	20
Proportional constant	2.00
Integral calculus time	1.00sec
Differential calculus time	4.00sec
Processing invalidity range	2
Bias	10
Frequency in sampling	1200ms
Range: 1000-65535	
Graph Settings Update	Undo
🕅 Sy 🛗 Ad 🞑 Co 🔡 S	cr 🔛 Wa 界 Pl

Setting	Description		
Target PID Variable	Select the PID variable that you want to monitor.		
List of PID Adjustments	You can input values and adjust the PID while referring to the graph.		
Graph Display	The PID instruction values are displayed in a graph that can be monitored.		
	You can specify how to display the graph. Click to display the settings dialog box.		
Graph Settings	imit 4095 Low limit 0 Display width 50 Imit 0 Imit 50 Imit 0 Imit Cancel		
Display Items	Select the check box to display [Current Value], [Target Value], [Output Value], [Output Invalidity Range], or [Output Range].		
Graph Display Range	Specifies the [Upper Limit], [Lower Limit] and [Width] for the graph display.		
Update	Compulsorily updates the graph with the values specified in the PID adjustments.		
Undo	Returns to the state before inputting the PID adjustment values.		

PID Adjustments

ltem	Value
Target Value (SP)	Specifies the target value. Input the minimum and maximum output value. The input range depends on the PID instruction output settings. For details, refer to the PID instructions.
Tieback (TB)	Specifies the output value when the monitor is off. The input range depends on the PID instruction output settings. For details, refer to the PID instructions.
Proportional Constant	 Specifies the proportion for compare control. A larger value will reach the target value sooner. A smaller value will approach the target value more gradually, resulting in less overshoot. The settings range from 0.01 to 1000.00. For details about proportional constants, see the next page. ✓ "5.13.5 [Work Space] Settings Guide ◆ Proportional Action (P Action)" (page 5-97)
Integral Calculus Time	Specifies the intervals between integral calculations. The settings range from 0.10 to 3000.00 (S). For details about integral calculus time, see the next page. [™] "5.13.5 [Work Space] Settings Guide ◆ Integral Action (I Action)" (page 5- 97)
Differential Calculus Time	 Specifies the intervals between differential calculations. The settings range from 0.00 to 3000.00 (S). For details about differential calculus time, see the next page. ^C "5.13.5 [Work Space] Settings Guide ◆ Derivative Action (D Action)" (page 5-98)
Processing Invalidity Range	Specifies the range in which PID instructions are not operated. The deviation in the settings range is "0" and \pm the processing invalidity range is based on the target value. The settings range from 0 to (maximum output value – minimum output value) / 2.
Bias	The value specified here is added to the output value in advance. The settings range from the minimum output value to the maximum output value.
Frequency in sampling	Specifies the PID operation sampling frequency. The frequency is subject to the scan time and the PID is operated in the scan executed after the specified frequency. The settings range from the operation frequency to 60000 (ms).

Proportional Action (P Action)

Calculates the operation volume (output value) proportionate to the deviation (deviation between the target value and current value). The formula for the relation between deviation (E) and operation volume (CV) is as follows.

 $CV = KP \times E$ (The constant of proportion calls KP "proportional gain.") When the deviation is fixed, the proportional action is as follows.



The operation volume varies in the range of 0 to 4095 (initial value). As KP increases, the operation volume proportionate to the deviation increases and the correcting action strengthens and causes offset (residual deviation).

Integral Action (I Action)

Continuously changes the operation volume (output value) to eliminate any deviation (deviation between the target value and current value). This can eliminate the offset caused in the proportional action.

Once deviation is caused in the integral action, the operation volume changes to the operation volume of the proportional action. The time required for the change is called "integral calculus time" and is indicated as TI. A smaller TI results in stronger integral action. If the deviation is fixed, the integral action is as follows.



Uses the integral action as "PI action" combined with the proportional action, or as "PID action" combined with the proportional action and derivative action." Integral action alone cannot be used.

Derivative Action (D Action)

Adds the operation volume (output value) proportionate to any deviation (deviation between the target value and current value) in order to eliminate deviation. This prevents the control target from drastically changing due to external disturbances.

Once deviation occurs in the derivative action, the operation volume changes to the operation volume of the integral operation. The time required for the change is called "differential calculus time" and is indicated as TD.

A larger TD results in stronger derivative action.

If the deviation is fixed, the derivative action is as follows.



Uses the derivative action as "PD action" combined with the proportional action, or as "PID action" combined with the proportional action and integral action. Derivative action alone cannot be used.

5.13.6 [System Settings Window] Settings Guide

This section explains about the screens called from each item displayed in the [System Settings Window].

■ [Device Settings] Settings Guide

Displays the specified display's specifications.

System Settings Window	🕂 🗙 🛛 Device Settings		
Display Settings Device Settings Main Unit Settings	Display Type Driver Model Installation Meth	GP3000 Series AGP-3500T od Horizontal	<u>Change Display</u>
Logic Program Settings	-Specifications		
Video/Movie Settings	Screen Size	10.4 type	
Font Settings	Resolution	640x480 dots (VGA)	
	Display Type	TFT Color LCD	
Peripheral Settings	Display Colors	65536 Colors	
Peripheral List	Internal Memory	8Mbyte	
Device/PLC Settings	Backup Memory	320Kbyte	
Printer Settings	COM1	RS-232C/RS-422(RS-485)	
Bar Code Settings	COM2	RS-422(RS-485)	
Script Settings	USB	2 Port	
1/0 Driver Settings	LAN	1 Port	
FTP Server Settings	CF	Enable	
Modem Settings			
Video Module Settings			

	 Displays the display's model. NOTE Commonly displayed on all the screens called from the System Settings 		
	• Commonly displayed on all the screens called from the System Settings		
Display Type	$-1 \bullet$ Commonly displayed on an me screens called from the system settings		
	Window.		
Driver	Displays the series name of a display.		
Model	Displays the model name that supports the display series.		
Installation Method	Displays the display installation method with [Horizontal] or [Vertical].		
Specifications	Displays the specifications of the display specified in [Display Type].		
Change Display	The [Change Display] dialog box will appear. Change the display model to be used for the project file.		

Setting		Description
	Current Display	Displays the series name, model name and installation method of the cur- rently specified display.
	Convert-To Display	Set the [Size], [Model], and [Installation Method] of the change-to display.

■ [Main Unit Settings] Settings Guide

Display Settings

Screen

•

System Settings Window # X Display Settings Device Settings	Display Type Driver GP3000 Series Model AGP-3500T Installation Method Horizontal
Man Unit Settings Logic Program Settings Video/Movie Settings Eont Settings Peripheral Settings Settings Settings Sciol Settings LVD Driver Settings ETP Secure Settings	Main Unit Settings Display Settings Display Settings Display Settings Display Settings Display Settings Initial Screen No. Data Type of Display Screen No. Data Type of Display Setter No. Data Type of Display Settings None Standby Mode Time Display Settings Disp
Modem Settings Video Module Settings	Color Settings 16384 Colors, 3-Speed Blink If Reverse Display If Show Brightness/Contrast Control Bar Dark Blink Black Dark Blink Black Dark Blink Black Dark Color Disable Menu and Error Settings System Language Settings English Offline Language English Show System Menu Lower Part Show Error Online Clear at Recovery
Settings Screen Settings Initial Screen No. Data Type of Display Scre	en No.

Initial Screen No.	1 🕂 🏛
Data Type of Display Screen No.	💿 Bin 🔘 BCD
Change Screen from Main Unit	
Reflect in Device/PLC	
Start Time	0 🕂 🏛 Sec
Standby Mode Settings	None
Standby Mode Time	1 📑 🧮 Minute
Change-To Screen No. in Standby Mode	1 🚍 🧱

Setting	Description
Initial Screen No.	 Set the number of the screen that will display at startup. "12.3 Choosing the Screen that will Display when the GP Turns on" (page 12-7) NOTE Set the screen number from 1 to 9999 when the [Data Type of Display Screen No.] is [Bin], and from 1 to 7999 for [BCD].
	Continued

Setting		Description	
Data Type of Display Screen No.		Select the data type of the screen number specified when changing screens from [Bin] or [BCD].	
Change Screen from Main Unit		Set whether or not to reflect the settings in the device/PLC when the screen is changed from the main unit.	
	Reflect in Device/PLC	The updated screen number (the currently displayed screen number) is written into the connected device's [System Data Area Top Address] + 8 address. This must be specified to change screens from a Screen Change switch and connected device. ** "12.5 Changing the Displayed Screen from both Touch and a Device/PLC" (page 12-13)	
Start Time		Set the time it takes for the display to start up after the power turns ON from 0 to 255 seconds.	
Standby Mode Settings		 Select the standby mode from [None], [Screen OFF], or [Screen Change]. Unchecked The screen does not change to the standby mode. Screen OFF Clears the screen if there is no screen touch, screen change or alarm message display after the time specified in [Standby Mode Time] passes. Screen Change Changes to the screen specified in [Change-To Screen No. in Standby Mode] if there is no screen touch, screen change or alarm message display after the time specified in [Standby Mode] if there is no screen touch, screen change or alarm message display after the time specified in [Standby Mode] if there is no screen touch, screen change or alarm message display after the time specified in [Standby Mode Time] passes. 	
	Standby Mode Time	Set the time to automatically clear the screen to protect the display from 1 to 255 minutes. Automatically clears the screen display or changes to the specified screen when the specified time passes without any display operations.	
	Change-To Screen No. in Standby Mode	 Set the screen number to change to after the [Standby Mode Time] passes when the [Standby Mode Settings] is [Screen Change]. NOTE Set the screen number from 1 to 9999 when the [Data Type of Display Screen No.] is [Bin], and from 1 to 7999 for [BCD]. 	

• Display Settings

Display Settings			
Color Settings	16384 Colors, 3-Speed Blink		
🔲 Reverse Display			
Show Brightness/Contrast Control Bar			
Dark Blink	O Black 💿 Dark Color		
D-Script_debug() Function Feature	💿 Enable 🔿 Disable		

Setting	Description		
	Set the color for the display.		
	Туре	Color Setting Range	
Color Cottings	TFT Display	65536 Colors, No Blink and 16384 Colors, 3-Speed Blink	
Color Settings	STN Display	4096 Colors, 3-Speed Blink	
	Monochrome Display	Monochrome 16 Levels 3-Speed Blink	

Setting	Description
	Set whether or not to display the screen with black/white reversed.
Reverse Display	NOTE
	• This can be set only when a monochrome display is selected.
Show Brightness/ Contrast Control Bar	Set whether or not to show the [Brightness/Contrast Control Bar] to con- trol the brightness and contrast by touch input.
Dark Blink	Select the reverse-to color of a part or picture with blink from [Black] or [Dark Color]. If you select [Dark Color], the blink is reversed to the dark color of the color specified to the part or picture.
D-Script_debug () Function Feature	Set whether or not to execute the debug() function data described in D-script. ** "21.7.1 Debug Function" (page 21-61)

• Menu and Error Settings

Menu and Error Settings			
System Language Settings	English		
Offline Language	English		
Show System Menu	Lower Part		
Show Error Online	Clear at Recovery		
Error Display Position	C Upper Part 💿 Lower Part		
Auto Recovery on System Error	○ Enable ⊙ Disable		

Setting	Description
System Language Settings	Set the language of "System Menu", "Brightness/Contrast Control", and "Error Message" (a one-line message and detail message) displayed on the GP from [Japanese] or [English].
Offline Language	Select the offline menu's display language from [Japanese] or [English].
Show System Menu	Select the system menu position from [Do Not Display], [Upper Part], or [Lower Part].
Show Error Online	 Select the timing for clearing online error displays from [None], [Clear at Recovery], or [Clear on Screen Change]. IMPORTANT The error message that occurs when the device/PLC cannot be written to due to a communication error will not be deleted from the GP screen, even if [Clear at Recovery] is specified. You can delete this error message by initiating a screen change.
Error Display Position	Select the error display position from [Upper Part] or [Lower Part].
Auto Recovery on System Error	Set whether or not to perform auto recovery on system errors.

Operation Settings

System Settings Window 🛛 🕈 🗙	Display Type
Display Settings	Driver GP3000 Series Model AGP-3500T Installation Mathematical
Device Settings	
Main Unit Settings	Main Unit Settings
Logic Program Settings	Display Settings Operation Settings Action Settings Logic Settings System Area Settings
Video/Movie Settings	System Password Settings 0 0:No Password
Font Settings	Touch Panel Detection ON Detect OFF Detect
Peripheral Settings	☑ Touch Buzzer Sound
	Output to External Buzzer Terminal
Peripheral List	Touch Panel Operation on Back Light Off Detection 📀 Operational 🔘 Operation Inhibit
Device/PLC Settings	
Printer Settings	
Bar Code Settings	
Script Settings	
1/0 Driver Settings	
FTP Server Settings	
Modem Settings	
Video Module Settings	

Setting	Description
System Password Settings	Set the system password for the initial settings or to go offline from 0 to 99999999. Set "0" when a system password is unnecessary.
Touch Panel Detection	Select the detection timing from [ON Detect] (when touching the touch panel) or [OFF Detect] (when taking your finger off the touch panel).
Touch Buzzer Sound	Set whether or not to sound the built-in buzzer when touching the screen.
Output to External Buzzer Terminal	Set whether or not to output the touch panel buzzer to the external buzzer terminal.
Touch Panel Operation on Back Light Off Detection	Set whether or not to enable the touch panel operation on back light off detection. Select from [Operational] or [Operation Inhibit].

♦ Action Settings

System Settings Window 4 × Display Settings Display Settings Main Unit Settings Video/Movie Settings Font Settings Peripheral Settings Peripheral Settings Peripheral List Device/PLC Settings	Display Type Driver GP3000 Series Model AGP-3500T Instalation Method Horizontal Main Unit Settings Display Settings Operation Setting: Action Settings ogic Settings System Area Window Operation Disable Image: Setting Settings System Area Global Window Operation Disable Image: Setting Setting	S Settinos Backup Internal Device Backup Satt Address Backup Area Size
Printer Settings Bar Code Settings Social Settings I/O Driver Settings ETP Server Settings Moden Settings Video Module Settings	Screen Capture Settings Capture Action Capture Action Capture Action Control World Address BlackWrite Reverse Display Screen/Video Capture Settings File No. Auto Increment File Auto Delete Looy Capture Image Quality Low-Quality Image High-Capture Image Usity Low-Quality Image High-Capture Image Usity Low-Quality Image Low-Capture Image Outon Low-Quality Image High-Capture Image Usity	Memory Card Settings

• Window Settings Set the Global Window's display settings

Window Settings	
Global Window Operation	Disable 💌

	Setting	Description		
Global Window		Select the action of the Global Window commonly displayed on all		
Operation		screens from [Disable], [Direct], or [Indirect].		
	DisableDoes not specify a Global Window.			
		Displays the Window Screen number to display and its position in a fixed state. Control the display by operating the address (LS16) in the GP internal device or the device/PLC to which the system data area is assigned.		
		Setting Screen Internal Device Addresses to Use		
	Direct	Global Window Operation Window Screen No. Display Position X-Coordinate Display Position Y-Coordinate 240 1 240 250 2 1 0 Control Address Controls the display of a Global Window. If you turn ON Bit 0, a Win- dow is displayed. 2 1 0 Window Interchange 0: Interchange is valid. 1: Interchange is invalid. 0 - 1: Display window		
		 NOTE To use a system data area on the device/PLC, specify this using four sequential words of the assigned address. ^{CP} " ◆ System Area Settings" (page 5-120) 		
	Window Screen No.	Set the Global Window's screen number from 1 to 2000.		
		Continued		

Setting		Setting	Description
Global Window Operation	Direct	Display Position X- Coordinate/ Y-Coordinate	Set the Global Window's display position. Even if the screen changes, the Window is displayed in the same position. The coordinate specified here is the top left corner of the Window. Y-Coordinate Y-Coordinate Window Base Screen NOTE • Specifies the X-coordinate by 4 dots. If the display position is not specified by 4 dots, the position is automatically corrected by 4 dots to the left of the specified coordinate to display the Global Window.
Indirect Set the Vindow Screen numbrish in the GP internal device's action the device of the data area to the device of the data area to the device of the display position for the display of a Green Indirect Control Address Controls the display of a Green of dow is displayed. 15 R • Window Screen No. Specify the number of the V		lirect	Set the Window Screen number to display and its position by storing data in the GP internal device's address (LS16 to LS19). If you assign a sys- tem data area to the device/PLC, you can switch Window Screens or change the display position from the device/PLC. Setting Screen Internal Device Addresses to Use Setting Screen Internal Device Addresses to Use LS0016 Control Address Use Use Use Use Use Data Type Bin BCD LS0017 Window Screen No. Display Position (X-Coordinate) LS0019 Display Position (Y-Coordinate) Usplay Position (Y-Coordinate) • Control Address Controls the display of a Global Window. If you turn ON Bit 0, a Win- dow is displayed. 15 2 1 0 Window Interchange is valid. 1: Interchange is valid. 0 - 1: Display window

	Setting	Description			
Global Window Operation	Indirect	 Display Position X-Coordinate/Y-Coordinate Set the Global Window's display position. If you change the value to store in the address, you can move the Window. The coordinate speci- fied here is the top left corner of the Window. X-Coordinate Y-Coordinate Y-Coordinate Window Base Screen NOTE • To use a system data area on the device/PLC, specify this using four sequential words of the assigned address. © " ◆ System Area Settings" (page 5-120)			
	Data Type	Select the type of data to store in the address from [Bin] or [BCD].			

• Screen Capture Settings Prints hard copy of the GP screen or video screen.

Screen Capture Settings							
Capture Action							
Capture Action							
Control Word Address							
Black/White Reverse Display							
Screen/Video Capture Settings							
File No. Auto Increment							
File Auto Delete							
Loop							
Capture Image Quality							
· · · · · · · · · · · ·							
Low-Quality Image 80 📑 🏨 High-Quality Image High Compression (1)							



Setting		Description						
			Details of JPEG Error Code					
			Bit 12 to 15	Description	Details			
			0000	Completed Successfully	When the process was completed successfully.			
			0001	Reserved				
			0010	Reserved				
			0011	Reserved				
			0100	No CF-Card	When a CF-card is not inserted or the CF- card hatch is open during screen capture or when JPEG data is displayed.			
			0101	CFWrite Error	When there is not sufficient free space in the CF-card or the CF-card is removed while the data is written during screen capture.			
			0110	Reserved				
	Control Word Address		0111	CFCard Error	When the CF-card is unformatted.			
			1000	Reserved				
Capture Settings			1001	Excess of No. of Auto Increment Files	When the file number exceeds 65535 in the auto increment feature.			
		(⊢ D "(A	 (Hard Copy File No.) Designates the "*****" Eportion in a screen capture file's name "CP*****.jpg" The value can be from 0 to 65535. When using the [File No. Auto Increment] function, this address will automatically store the file number. Details of Capture Action 					
			the capture pleted, co OFF the f turned OI of the cor	re process was composition onfirm that the file of file output bit from FF, the GP turns OF ntrol and status duri	pleted. After the capture process was com- output completion bit is ON and then turn the device/PLC. If the file output bit is F the file output completion bit. The timing ng capture is as follows.			
			File Out (Contro	tput Bit ON I) OFF	*			
			File Out (Status)	tputting Bit ON OFF				
			File Out (Status)	tput Completion Bit ON OFF				
			Capture	Process	Capture Processing			
			\bigcirc =GP turns OFF. \diamond =Turn OFF the bit.					
		1						
		 If you turn OFF the file output bit (control) before the file output completion bit turns ON, the file output completion bit is automatically turned OFF. If an error occurs while processing screen capture, the status area is not cleared when the control address' rigger bit is turned OFF. It will be cleared next time the process is completed successfully. 						
	Setting	Description						
-------------------------------	--------------------------------	--	------------	--	-------------------------	--------------------------	--	
		Set whether or not to save the screen captured in a CF-card with black and white reversed. NOTE • On a monochrome or color model of GP the black/white reverse states						
		are displayed	as follo	WS.				
		PC Screen	GP Type	GP Screen	Black/White R (in CF	everse Display -Card)		
Capture Settings	Black/White Reverse Display		Monochrome	Enable Disat Image: Disat Image:	White			
		(White O)	Color	White White Green	Black Green	White Unite Green		
		You can reverse only black or only white.						
		Color inversion is not available.						
Screen/Video Capture Settings	File No. Auto Increment	 Color inversion is not available. When a screen is captured, a new file is created with a file name automatically assigned (numbering) by adding 1 to the highest file number of files saved on the CF-card. The automatically numbered file number will be written to designated [Control Word Address] +2. Numbering will occur to a maximum file number of 65535. After that screen capture will not function. To continue, use the [File Auto Delete] function or the [Loop] function. NOTE The GP searches for the highest file number upon GP power-up, upon opening/closing of the CF-card cover, and upon insertion/removal of a CF-card. When using this function, file numbers specified to the designated [Control Word Address] +2 are ignored. 						

	Setting Description						
		Deletes existing files and allows new files to be saved even when the CF- Card does not have sufficient free space or the file number exceeds 65535.					
		When a file with the highest file number exists When a file exists in the CF-card with the highest file number (65535), all existing files are deleted and new files are created starting from file number 0.					
		e.g.) When "CP65535.JPG" exists in the CF-card					
		CF-Card CF-Card					
ings		CP00100.JPG CP00101.JPG CP00102.JPG : : CP65535.JPG After capture					
Sett							
o Capture	File Auto Delete	All screen capture files in the CF-card "CP *****.JPG" are deleted and "CP00000.JPG" is saved.					
n/Vide		• All files are deleted so this can take from a few seconds to a few minutes.					
Scree		If no free space is available on the CF-card This feature deletes the file with the lowest file number and creates a file with the highest file number $+ 1$.					
		e.g.) Files with file numbers "CP00100.JPG" to "CP00300.JPG" are saved on the CF-Card.					
		CF-Card CF-Card					
		CP00100.JPG CP00101.JPG CP00102.JPG : : CP00300.JPG CP00300.JPG CP00300.JPG CP00300.JPG CP00300.JPG CP00300.JPG CP00300.JPG CP00300.JPG					
		The file with the smallest number, "CP00100.JPG", is deleted and the new file "CP00301.JPG" is created.					

	Setting	Description						
		 During screen capture, a new file is created with the file number assigned by adding 1 to the file number with the most recent time stamp among file numbers in the CF-card. When files with file Nos. 00000 through 65535 exist on the CF-card, the files will be overwritten sequentially from file No. 00000 and the screen captures will continue. NOTE File timestamps are checked each time a file is created. The latest file has the highest file number When the latest file number is 65535, a new file is created with file No. 00000. e.g.) Files with file numbers "CP65531.JPG" to "CP65535.JPG" are saved on the CF-Card. 						
		CF-Card CF-Card						
oture Settings		CP65531.JPG 9:00 CP65532.JPG 10:00 CP65533.JPG 11:00 CP65535.JPG 12:00 CP65535.JPG 13:00						
eo Cap	Loop	A new file, "CP00000.JPG", is created.						
Screen/Vide		If no free space is available on the CF-card During screen capture, the oldest file is deleted and the new file is saved with a file number 1 larger than the latest file.						
		CF-Card CF-Card						
	The oldes "CP00001 NOTE	CP00000.JPG 14:00 CP65531.JPG 9:00 CP65532.JPG 10:00 CP65533.JPG 11:00 CP65534.JPG 12:00 CP65535.JPG 13:00						
		The oldest file, "CP65531.JPG", is deleted and the new file "CP00001.JPG" is created.						
		• When a file is deleted due to insufficient free space, the oldest file is deleted in order to create a new file. In such a case, it may take twice as long to save a file compared to saving when there is sufficient free space.						
	Capture Image Quality	 Set the capture image quality from 1 to 100. You can also specify by directly inputting numeric values. 1 : Low-Quality Image, High Compression 100 : High Quality Image, Low Compression 						

Backup Internal Device

Copies data stored in the internal device address's user area to the backup SRAM. If you specified the Backup Internal Device, the GP will start up maintaining the data stored in the internal device address when you turn ON the GP again.

• The data stored in the GP internal device is cleared when turning OFF the GP or when the GP goes offline. You can use this function to back up the data in the user area.

Backup Internal Device						
🔲 Backup						
Backup Sta	rt Address					
Backup Are	a Size	1	÷ #			

Setting	Description							
	Set whether or not	to backup the	GP internal	device.				
	NOTE							
	• Backs up the data stored in sequential addresses in the user area. Select the user area range from LS or USR (system area or USR for the memory link method). You cannot back up multiple ranges. If you select the LS area in the direct access method, only one of the two user areas (red frame portion) is backed up. This holds true for selecting the system area in the memory link method.							
	Dir	rect Access Meth LS Area	od Me	emory Link Meth System Area	od			
Backup	LS0000	System Data		System Data	0000			
Васкир	LS0020	Area		Area	0020			
	(LS0276)	Area		User Area				
	LS2032	Area Special Relay		Special Relay	2032			
	LS2048	Area		Area	2048			
	LS2096	Reserved Area		Reserved Area	2096			
		User Area		User Area				
	LS8999				8999			
L					Continued			

Setting	Desc	cription			
Backup Start Address	Set the start address of the internal device to back up. Set the start address within the range to ensure the [Backup Area Size]. For direct access method, the start address should be specified within the range of LS20 to LS2031, LS2096 to LS8999, or USR0 to USR29999. For memory link method, the start address should be specified within the range of 20 to 2031, 2096 to 8999, or USR0 to USR29999.				
Backup Area Size	 Set the internal device size to back up. IMPORTANT If the [Backup Start Address] + [Backup Area Size] exceeds the valid range of the internal device's backup, the backup function will not work. NOTE For the LS area or MtoM device (memory link), specify from 1 to 6,096. For the USR area, specify from 1 to 30000. The internal device's backup size depends on the backup area size. Calculation 16 + (4*1 × Backup Area Size) 				
	e.g.) Settings Description Backup Start Address LS2096 Backup Area 6096 Calculation Result (16) + (4 × 6096) = 24400 bytes (approximately 24 Kbytes) *1 The value is 4 for the LS device address and the memory link. The value is 2 for the USR device address. If the Backup Area Size is an odd number, add 1 to the value.				

• Memory Card Settings Configures the settings for saving data to various memory cards.

N 0.10 W		
Memory Lard Settings		
CF-Card Data Storage		
Control Word Address		
CF-Card Free Space		
Free Space Storage Address		
External Memory Available Sp	ace	
Available Storage Addresses		
SRAM Auto Backup		
Control Word Address		

Setting	Description				
	Set whether or not to save the data stored in the backup SRAM when the				
CE-Card Data	GP is active such as filing data or CSV files (Alarm Sampling etc.) in a				
Storage	CE card				
Olorage					
	"5.14.2 Notes on CF-Card Saving" (page 5-147)				
	This address controls the writing of data to the CF-card. Writes a com-				
	mand to th	e addre	ss after designating a file number.		
	Control Word Address Command/Status				
	Command	/Status			
	Write the o	commar	nd and the data is written to the CF-card. The operation		
	result (stat	us) is re	eflected in the address.		
	Mode	Data	Description		
		0001h	Filing Data		
		0002h	GP-PRO/PB III for Windows Logging data (compatible)		
		0003h	GP-PRO/PB III for Windows Line Chart data (compatible)		
	Command	0004h	GP-PRO/PB III for Windows Sampling data (compatible)		
		0005h	Block 1's Alarm History data		
		0006h	Block 2's Alarm History data		
Control Word		0007h	Block 3's Alarm History data		
		0008h	Block 4's Alarm History data		
Address		0009h	Block 5's Alarm History data		
		000ah	Block 6's Alarm History data		
		000bh	Block 7's Alarm History data		
		UUUCN	Block 8 S Alarm History data		
		0020h	(compatible)		
		00016	GP-PRO/PB III for Windows Logging loop auto-save		
		002 m	completion (compatible)		
		0000h	Completed Successfully		
		0100h	Write Error		
		0200h	No CF-card is inserted, or the cover is open.		
		0300h	No data to be loaded (when no data is specified)		
	Status	0400h	File No. Error (File number is outside of range)		
	Clatte	0500h	Conflict error with Pro-Server request		
		2000h	responding correctly (compatible) While the Control Address has this value, the auto-save		
			mode continues. When the value is changed, the auto-save mode finishes.		

Setting	Description			
	File Name When [Enal range of 1 to After writh card's [AL Alar e.g.) Co	a [Enable multiple folders] is specified for filing data, specify within the of 1 to 8,999. When it is not specified, the file number is fixed with "1". writing a command, Alarm History data will be saved to the CF-s [ALARM] folder with the following file name. Z 1 * * * * * . CSV Alarm History Data File No. Block No. e.g.) Control Word Address +1 0005h +1		
	NOTE • When the created to	e CF-card is reset by the GP unit, a folder will auto to save data.	omatically be	
	Folder	Data to be saved	File Name	
	\FILE			
Control Word		CD DDO/DD III for Windows Logging data (compatible)		
Address		GF-FRO/FB III for Windows Logging data (compatible)		
		Sound Data	O*****.BIN	
	CAPTURE	Screen Capture Video Capture	CP****.JPG	
	\MOVIE	Movie File	*.SDX	
	\TREND	GP-PRO/PB III for Windows Line Chart data (compatible)	ZT****.CSV	
		GP-PRO/PB III for Windows Sampling data (compatible)	ZS****.CSV	
		Block 1's Alarm History data	Z1****.CSV	
		Block 2's Alarm History data	Z2****.CSV	
		Block 3's Alarm History data	Z3****.CSV	
	\ALARM	Block 4's Alarm History data	Z4****.CSV	
	γ ιΞ , ιι τιτι	Block 5's Alarm History data	Z5****.CSV	
		Block 6's Alarm History data	Z6****.CSV	
		Block 7's Alarm History data	Z7****.CSV	
		Block 8's Alarm History data	Z8****.CSV	
	∖SRAM	Backup SRAM data	ZD****.BIN	
	\SAM0P1	Sampling Group 1's data	SA****.CSV	
	•			
	•	·	•	
		Sampling Group 64's data	·	
	SAIVIP04	Samping Group 04 S data	0A****.00V	
CF-Card Free Space	Set whether or not to store the CF-card's free space in an internal device. You can know the CF-card's free space.			

Setting	Description
Free Space Storage Address	Set the address to store CF-card free space. For direct access method, the start address should be specified within the range of LS20 to LS2031, LS2096 to LS8999, or USR0 to USR29999. For direct access method, the start address should be specified within the range of 20 to 2031, 2096 to 8999, or USR0 to USR29999. Stores the value within the range of 0 to 65,535 (FFFFh) in the specified address. The unit of a value to be stored is the Kbyte.
	 When a CF-card is not inserted, the GP cannot check the free space successfully and displays it as 0 Kbyte. The CF-card free space is only an estimate. You may not always be able to save data exactly the size of the free space. If free space exceeds 65,535 (FFFFh) Kbytes, the value of the LS area is 65,535 (FFFFh).
External Memory Available SpaceDetermines whether to save the free space in the external memory (memory, etc.) to the internal device. The approximate free space in external memory is shown.	
Available Storage Address	 Configures the address where the free space in the external memory (USB memory, etc.) is saved. For direct access method, the start address should be specified within the range of LS20 to LS2031, LS2096 to LS8999, or USR0 to USR29999. For direct access method, the start address should be specified within the range of 20 to 2031, 2096 to 8999, or USR0 to USR29999. Stores the value within the range of 0 to 65,535 (FFFFh) in the specified address. The unit of a value to be stored is the Kbyte. NOTE Note that if the external memory is not inserted, the free space will not be recognized and will be displayed as 0K byte. The free space in the external memory is only an estimate. You may not always be able to save data exactly the size of the free space.
SRAM Auto Backup	 If free space exceeds 65,535 (FFFFh) Kbytes, the value of the LS area is 65,535 (FFFFh). Set whether or not to automatically transfer all the backup SRAM data to a CF-card.

Setting		Desc	ription			
	Backs up the SRAM data to a CF-card in operating mode. Specify the control address to trigger the backup. The processing status is saved to an address created from the specified control address +1.					
	+0 Control +1 Status • Control Turn On Bit 0 to start the backup. 15 0 Transfer Trigger Bit					
Control Word Address	Status When the transfer has successfully completed, Bit 0 (Transfer Completion Bit) turns ON. Confirm that Bit 0 is ON, and turn OFF Bit 0 of the control address. The transfer completion bit will then turn OFF automatically.					
	[0000]: C [0100]: N [0101]: C [0111]: C The details of	Completed Successfully to lo CF-Card CF-Card Write Error F-Card Error F-Card Error	llows.			
	Error Code	Error Name	Details			
	0000	Completed Successfully	When the backup process was completed successfully.			
	0100	No CF-Card	When a CF-card is not inserted at backups or the CF-card hatch is open.			
	0101	0101 CF-Card Write Error When there is no sufficient free in the CF-card at backups or the card is removed while the data i written.				
	0111	CFCard Error	When the CF-card is unformatted.			

Setting	Description					
	The timing during transfer is as follows.					
	Transfer Trigger Bit ON (Control) OFF					
	Transfer Completion Bit ON (Status) OFF					
	$\begin{array}{c} \text{SRAM} \rightarrow \text{CF-Card} \\ \text{Transfer Action} \end{array} \qquad \qquad \begin{array}{c} & \\ & \\ \hline \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\$					
Control Word Address	O=GP turns OFF 					
	NOTE					
	• After confirming that the data is not being saved in the CF-card by					
	another feature and that the [Transfer Completion Bit] is OFF, transfer					
	• When transferring SRAM data to the CF-card, make sure the [Transfer					
	Trigger Bit] and [Transfer Completion Bit] are OFF at the start of					
	operation in case the power is turned OFF during transfer. • Maintain the [Transfer Trigger Bit]'s ON or OFE for a longer time than					
	[Communication Cycle Time] ^{*1} or [Display Scan Time] ^{*2} .					

- *1 The Communication Cycle Time is the time from when the GP requests data from the external device to when the data arrives. This value is stored in internal device LS2037 as a binary value, in units of 10 ms.
- *2 Display Scan Time is the time required to process one screen. This value is stored in internal device LS2036 as a binary value, in millisecond units.

Logic Settings

Display Settings Oper	ation Settings Action	Setting Logic S	ettings Sy	istem Area Settino
Eived Scan Time		10	- =	ms
C CPU Scan Perc	, entade	50		%
WDT(Watchdog Ti	mer) Settings	500		ms
				• Extend
			2	<u> </u>
Logic Settings Run at Start Up				
Logic Settings Run at Start Up © RUN	© STOP			
─Logic Settings Run at Start Up ⓒ RUN ┌─ I/O Settings	C STOP			

Setting		Description		
Sys	stem Settings	Configures the system settings for logic features.		
	Fixed Scan Time/CPU Scan Percentage	 Selects the mode for logic scan time. If you select [Fixed Scan Time], you can specify the logic time frequency from 10 ms to 2000 ms (unit: ms). ⁽²⁾ "29.13.3 Adjusting Logic Scan Time ◆ Fixed Scan Time" (page 29-111) If you select [CPU Scan Percentage], you can specify the logic time occupancy. The settings range from 0% to 50% (unit: %). ⁽²⁾ "29.13.3 Adjusting Logic Scan Time ◆ CPU Scan Percentage" (page 29-112) 		
	WDT (Watchdog Timer) Settings	You can configure the monitoring time for the logic scan time. An error will occur if the logic scan time exceeds the WDT (Watch- dog Time). The settings range from 100 ms to 3000 ms (unit: ms).		
	>>Extension/< <basic< td=""><td>Click [>>Extension] to specify the [Address Refresh] speed.</td></basic<>	Click [>>Extension] to specify the [Address Refresh] speed.		
	Address Refresh	Select the address refresh speed from [Low], [Medium], and [High].		
Logic Settings		Click [Keep Area Settings] to display the [Keep Setting] dialog box. [Variable Format] specifies the symbol variable keep/clear points. [Address Format]specifies the symbol variable keep/clear range. ** "29.3.1 Usable Addresses • Keep Area Settings" (page 29-16)		
	Run at Start Up	Select the logic program status at GP start up from [Run] or [Stop].		
	I/O Settings	Determines whether to enable input/output to and from the I/O unit. Select the check box to enable input and output.		
	Minor Errors	Select whether to [Continue] or [Stop] the logic program when a minor error occurs.		

System Area Settings



Setting		Description	
Device Settings		Specify a device/PLC.	
	System Area Device	Select the device/PLC to specify the system data area.	
Sy	stem Data Area	Set the system data area.	
	System Area Start Address	Designate the start address used for the system area.	
	Read Area Size	Set the number of words in the [Read Area] that stores the data used com- monly on all screens or the line chart block display data from 0 to 256. NOTE • Cannot be specified when a device/PLC is connected with the memory	
		link method.	
	Enable System Data Area	Set whether or not to enable the system data area.	
	Select System Data Area Item	Set the system data area items to use. For details of each item, refer to " "A.1.4.2 System Data Area" (page A-10) for the direct access method, and " "A.1.5.2 System Data Area" (page A-25) for the memory link method.	
	No. of Words to Use	Displays the total number of words for the items specified to the system data area.	

Setting		Description	
Watchdog Settings		Monitors the communication state of the GP and the PLC. The GP writes "00FF" to the PLC's word address at every setting time. The PLC confirms at every setting time that "00FF" has been written and that communication is performed.	
	Watchdog Timer Settings	Set the watchdog's monitoring cycle time from 0 to 65535 seconds.	
	Watchdog Write Address	Set the write address for the watchdog.	

■ [Peripheral List] Settings Guide

Displays a list of the specified peripheral devices.

System Settings Window 4 🗙 Display Settings	Display Type Driver GP3000 Series Model AGP-3500T Installation Mathod Horizontal
Device Settings	
Main Unit Settings	Peripheral List <u>List of Device/PLC Management Addresses</u>
Logic Program Settings	Device/PLC1 Malas - Mita hiski Electric Consustion Best - COM1
Video/Movie Settings	Driver : Q/QnA Serial Communication V1.10.02,β1
Font Settings	Printer
Peripheral Settings	Type : Disable BarCode1
Peripheral List	lype :Disable
Device/PLC Settings	Type :Disable
Printer Settings	Script1
Bar Code Settings	Type :Disable
Script Settings	Script2 Type :Disable
1/0 Driver Settings	VM Unit
FTP Server Settings	Touch Output : Disable
Modern Settings	
Video Module Settings	

Setting	Description		
List of Device/PLC Management Addresses	Displays a list of the specified device/PLC management addresses.		
Device/PLC	Displays the specified device/PLC driver numbers.		
Device	Displays the specified device/PLC names.		
Communication Cycle Time	Displays the internal device addresses in which to store the specified device/PLC's communication cycle time *1.		
SCAN ON/OFFDisplays the internal device addresses storing the bit address switches ON or OFF the communication scan *2 of the spec PLCs.			
	Continue		

	Setting	Description
Device/PLC1 to 4		Displays the memory size of the font being used in the user screen area. The user screen area capacity depends on the GP model. ** "1.3 List of Supported Functions by Device" (page 1-4)
	Maker	Displays the currently specified device/PLC's maker.
	Series	Displays the series of the currently specified PLC.
	Version	Displays the device/PLC driver version.
	Port	 Displays the ports that can be connected to a device/PLC. NOTE If the port is also used for other devices/PLCs, 9 is displayed to the right of the [Port].
Pri Ba Ba Sc Sc	nter, r Code 1, r Code 2, ript 1, ript 2,	Displays and edits the settings of the specified [Printer], [Bar Code 1], [Bar Code 2], [Script 1], and [Script 2].
	Туре	Displays the types of the specified peripheral devices.
	Port	 Displays the connecting ports of the specified peripheral devices. NOTE If the port is also used for other devices/PLCs, 9 is displayed to the right of the [Port].

*1 The communication cycle time is the time it takes to request and take in data from the GP unit to the PLC. It is stored in the internal device's LS2037 as binary data. The unit is 10 ms.

*2 The communication scan is the action that transmits the request from the GP unit sequentially to each device/PLC in the running mode.

■ [Device/PLC Settings] Settings Guide

Set the details of a device/PLC.

System Settings Window 👎 🗙 Display Settings Device Settings	Display Type Driver GP3000 Series Model AGP-3500T Installation Method Horizontal
Main Unit Settings	Device/PLC Settings
Logic Program Settings	Add Device/PLC Delete Device/PLC Device/PLC 1
Video/Movie Settings	
Font Settings	Summary Change Device/PLC
	Maker Mitsubishi Electric Corporation Driver Q/QnA Serial Communication Port COM1
Peripheral Settings	Text Data Mode 2 Change
Peripheral List	Communication Settings
Device/PLC Settings	SID Type
Printer Settings	Speed 19200 V
Bar Code Settings	Data Length O 7 C 8
Script Settings	Parity C NONE C EVEN 📀 ODD
1/0 Driver Settings	Stop Bit 💿 1 💿 2
FTP Server Settings	Flow Control C NONE C ER(DTR/CTS) C XON/XOFF
Modern Settings	Timeout 3 💼 (sec)
Video Module Settings	Retry 2
	Wait To Send 0 🚉 (ms)
	RI/VCC © RI C VCC
	In the case of RS232C, you can select the 9th pin to RI (Input) or VCC (SV Power Supply). If you use the Digital's RS232C Isolation (Juit dease steal'th by VC
	Device-Specific Settings
	Allowable No. of Device/PLCs 16 Unit(s)
	No. Device Name Settings
🕅 Sys 🧱 A., 🕼 Co 🔛 Scr	I JPLUI IStation No.=0,Network No.=0,PC No.=255,Request destination module I/U N

Setting		Description		
Add Device/PLC		Adds the device/PLC settings. Use this setting when one GP is communi- cating with multiple devices/PLCs.		
		NOTE		
		• The number of device/PLC drivers that the GP can communicate with at the same time depends on the type of GP.		
		"1.3 List of Supported Functions by Device" (page 1-4)		
De	lete Device/PLC	Deletes the specified device/PLC.		
Ch	ange Device/PLC	Changes the settings of the device/PLC.		
Su	mmary	Displays the settings of the currently specified devices/PLCs.		
	Maker	Displays the currently specified device/PLC's maker.		
	Driver	Displays the currently specified device/PLC series name.		
		Displays the connection port of the currently specified device/PLC.		
	Port	NOTE		
		• If the port is also used for other devices/PLCs, 😣 is displayed to the right of the [Port].		
Text Data Mode Displa		Displays the text data mode of the currently specified devices/PLCs.		
		Continued		

		Setting	Description			
		-	When the [Change Text Data Mode] dialog box is displayed, you can change the text data mode. Normally the text data mode is specified according to each device/PLC.			
С						
			Select a text data mode from the following list.			
			Data Device Byte in Word In Double Word Text Data Select			
	Ch	hange	Store from Top Data LH Order LH Order 4 O HL Order 1H Order 2 • HL Order 1H Order 5 O HL Order 1 O LH Order 6 O			
			Store from Last Data HL Order 7 C HL Order 8 C HL Order 3 C			
			Change Cancel			
Jummary		Data Device Storage Order	Select the data device storage order from [Store from Top Data] or [Store from Last Data]. e.g.) Storing the text "ABCDE". • Store from Top Data: (When the [Text Data Mode] is "5") • Store from Last Data: (When the [Text Data Mode] is "5") • (When the [Text Data Mode] is "8") $D100 \qquad A \qquad B \qquad D100 \qquad E \qquad 00h \qquad D101 \qquad C \qquad D \qquad D100 \qquad D101 \qquad C \qquad D \qquad D102 \qquad A \qquad B \qquad A \qquad A$			
		Byte in Word LH/HL Storage	Select the data storage order to specify in one word (16 bits) from [LH Order] or [HL Order]. e.g.) Storing the text "ABCDE". • HL Order (When the [Text Data Mode] is "5") (When the [Text Data Mode] is "4") $H \ L$ D100 $A \ B$ D101 D102 $E \ 00h$ NULL= "00(h)"			
		In Double Word LH/HL Storage	Select the data storage order to specify in two words (32 bits) from [LH Order] or [HL Order]. e.g.) Storing the text "ABCDE". • HL Order (When the [Text Data Mode] is "1") • LH Order (When the [Text Data Mode] is "1") • (When the [Text Data Mode] is "4") H = L = 00h [00h [00h] 00h] = 00h [00h] 00h = 00h [00h] 00h] = 00h [00h] 00h = 00h [00h] 00h] = 00h [00h] 00h [00h] 00h = 00h [00h] 00h [0			
			Continued			

Setting		Setting	Description		
Summary	Change	Text Data Mode	Displays the combination number of the text data mode storage orders.		
		Select	Select the text data mode to be used.		
Communication Settings		unication JS	Set this according to each device/PLC. Each device/PLC series has dif- ferent settings. Refer to "GP-Pro EX Device/PLC Connection Manual" However, [Timeout], [Retry], and [Wait To Send] are recommended to be used with their initial settings.		
De Se	vice tting	e-Specific Js	Set this according to each device/PLC.		
	Alle De	owable No. of vices/PLCs	Displays the allowable number of devices/PLCs for the selected device/ PLC type.		
	[Ac ton	dd Device But-	Each time you click the [Add Device Button], one device/PLC is added. This cannot be added when the [Allowable No. of Devices/PLCs] is one.		
	[Delete Device Button]		Deletes the device/PLC's settings.		
	No).	Displays the specified device/PLC's number.		
Device Name When adding the oname.		vice Name	 Set a device/PLC's name with up to 20 single-byte characters. NOTE When adding the desired [Device Name], ensure not to use a repeated name. 		
[Device Settings Set settings as needed for the device/PLC. Opens [Device Settings Galage box. [NOTE] Image: Comparison of the setting of the setti		evice Settings tton]	 Set settings as needed for the device/PLC. Opens the [Individual Device Settings] dialog box. NOTE • [The [Individual Device Settings] dialog box settings differ depending on the PLC. For more information on each device/PLC's settings, refer to "GP-Pro EX Device/PLC Connection Manual". 		

■ [Script Settings] Settings Guide

Configure settings to communicate with the device/PLC using scripts.

System Settings Window ෫ 🗙 Display Settings	Display Type Driver Model	GP3000 Series AGP-3500T		
Device Settings	Installation Method Horizontal			
Main Unit Settings	Script Settings			
Logic Program Settings	Script 1 Script 2			
Video/Movie Settings	Summary			
Font Settings	Type Extended Scrip	t 🔽 Port COM1 💌 9		
Peripheral Settings	Communication Setting	\$		
Peripheral List	SIO Type Speed	RS232C		
Device/PLC Settings	Data Length	C 7 Bit ⊙ 8 Bit		
Printer Settings	Parity	● None ○ Odd ○ Even		
Bar Code Settings	Stop Bit	◯ 2 Bit ◯ 1 Bit		
Script Settings	Flow Control	C None RTS/CTS Control C ER(DTR/CTS) Control		
1/0 Driver Settings	5V Power Supply	🔿 Enable 💿 Disable		
FTP Server Settings				
Modem Settings				

	Setting	Description		
Туре		Select [D-Script/Global D-Script] to use the "SIO Port Operation" func- tion, which communicates using a serial port for D-script or global D- script. Select [Extended Script] to use extended scripts.		
Port		 Select a port for scripts from [COM1] or [COM2]. NOTE If the port is also used for other devices/PLCs, is displayed to the right of the [Port]. 		
Communication Settings		 Configure communication settings. NOTE This is not displayed when the [Type] is [Do Not Use]. The [Communication Settings] description differs depending on the specified device/PLC. For more information on each device/PLC's settings, refer to "GP-Pro EX Device/PLC Connection Manual". 		
	SIO Type	Select the communication method from [RS232C], [RS422/485 (4wire)], or [RS422/485 (2wire)].		
	Speed	Select a communication speed from [2400], [4800], [9600], [19200], [38400], [57600] or [115200].		
	Data Length	Choose the communication data length from [7 bit] or [8 bit].		
	Parity	Select the communication parity bit from [None], [Odd], or [Even].		
	Stop Bit	Choose the communication stop bit length from [2 bit] or [1 bit].		
	Flow Control	If the communication method is [RS232C], select the communication control method from [None], [RTS/CTS Control] or [ER (DTR/CTS) Control].		
	5V Power Supply	If the communication method is [RS232C], 5Vdesignate whether or not to specify the 5V power supply. Only specify it to Enable if the connected device requires a power supply. If a 5V power supply is not needed and you specify it to Enable, damage can occur to the connected device or the GP. Confirm the specifications of the connected device and cable when setting this.		

5.13.7 [Option Settings] Settings Guide

This section explains about each item on the [Option Settings] dialog box displayed by selecting the [View (V)] menu - [Option Settings (O)] command.

General

Configure general settings for the editor system.

💰 Option Settings		ĸ
General Screen E dit Style Script Toolbar Logic E dit Style Monitor Step	General Settings for the Editor System Set Online Update	2
Error Check	Action Language English Backup Save Backup on Overwriting	
	OK (D) Cancel	

S	etting	Description
Set Online Update	Check for Update when the program starts	Set whether or not to perform an online update when the pro- gram starts.
Action	Language	 Select the language of menus displayed on from [Japanese] or [English]. NOTE After modifying this setting, you have to restart the GP-Pro EX.
Backup	Save Backup on Overwriting	Set whether or not to automatically back up the file before over- writing when you overwrite a project file. [©] "5.3.2 Setup Procedure ■ Backup as a History Procedure" (page 5-18)

Edit Screen

Configure settings relevant to Screen Edit Style.

Option Settings		×
Option Settings Freneral Screen Edit Style Sorp Toolbar Logic Edit Style Monitor Step Error Check	Configure Settings relevant to Screen Edit Style Action Show Guide on Move or Resize Upper Edge Horizontal Center Right Edge Upper Edge Vertical Center Bottom Edge Snap to Grid Grid Size Width 20 + Height 20 + Display Display Show Fixed Pins of Part Show Ruler Show Ruler Show Part ID Show Part ID Show Address Show Touch Area	×
	Show Window Part Screen	
	OK (<u>D</u>) Cancel	

Setting		ting	Description	
Ac	tion			Set the actions for editing screens.
	Show Guide on		Guide on	Shows guides to place pictures or parts in alignment with the placed pic-
	Mc	ove	or Resize	tures or parts when moving them.
		Le	ft Edge	Displays a guide on move in alignment with the left edge.
		Ho Ce	orizontal enter	Displays a guide on move in alignment with the horizontal center.
		Rig	ght Edge	Displays a guide on move in alignment with the right edge.
		Up	per Edge	Displays a guide on move in alignment with the upper edge.
		Ve Ce	rtical enter	Displays a guide on move in alignment with the vertical center.
		Во	ttom Edge	Displays a guide on move in alignment with the bottom edge.
		Sn	ap to Grid	Displays a guide for Pictures/Parts on move in alignment with the grid.
		Gr	id Size	Set the grid size.
			Width	Set the grid size in the X-coordinate direction from 4 to 120.
			Height	Set the grid size in the Y-coordinate direction from 4 to 120.
Dis	spla	у		Set the display for editing screens.
	Sh	ow I	Fixed Pins	Shows fixed pins of a Part.
	of Part		t	[™] "5.13.5 [Work Space] Settings Guide ■ Screen Data List Window" (page 5-92)
	Sh	ow	Ruler	Shows the ruler.
	Sh	ow	Grid	Shows the grid.
	Or	der		Select whether or not to show the grid at the [Front] or the [Back] of the pictures or parts.
	Shape		1	Set the grid's shape from [Dot] or [Grid].

		-
Setting		Description
	Show Part ID	Shows a Picture or Part's label.
Display	Show Address	Shows the address of a Part with address settings.
	Show Touch Area	Shows the area where you touch touchable Parts in orange.
	Show Window Part Screen	Shows Window Screens that refer to window Parts.

Script

Configure settings relevant to D-Script, Global D-Script, Extended Script, and User Define Function.

You can also specify this in the [Extended Script] and [Global D-Script] dialog boxes. The "20.8.1 Common Settings Guide for D-Script" (page 20-48)

ð	Option Settings				×
	General Screen Edit Style Script	Configure Settings relevant to D-Scrip Define Function Input Assistance	pt, Global [D-Script, Extended Script, and	User-
	Logic Edit Style	Show Row No.		Auto Indent Control	
	Monitor Step Error Check	Function Input Assistance	2	Address Input Dialog	
		Auto Syntax Complement	v	Auto Syntax Analysis	
		Format			
		Font Type Fon	nt Size	No. of Tab Key Indentations	
		MS Gothic 💌 10).5 🕂 🏛	4 🕂 🏢	
1					
					Lancel

Setting	Description
Input Assistance	Configure settings of input assistance in D-Script, Global D-Script, Extended Script, and User Define Function.
Show Row No.	Shows the row number to the right of the program.

Setting		Description
		If you insert line feeds as below, tabs are automatically inserted accord- ing to the hierarchy.
	Auto Indent Control	Execution Expression Enlarge Execution Expression 0001 if (b: [PLC1]D000000]==1) 0003 if (b: [PLC1]D000100] 0004 if (b: [PLC1]D000100] 0005 { 0006 b: [PLC1]D000200]==1 0007 } 0008 end if 0010 011 0011 011
Input Assistance	Function Input Assistance	When the function and the initial bracket "(" are inputted as below, the function's format is displayed. Execution Expression Enlarge Execution Expression OU01 memcpy(OU02 memcpy(Copy To Address, Copy From Address, No. of Words) OU04 OU05 OU04 OU05 OU06 OU07
	Address Input Dialog	When creating a script, input a left-hand square bracket ([) and the [Input Address] dialog box will automatically display. You can input addresses in this dialog box.
	Auto Syntax Complement	When "if" or "loop" is inputted from the keypad, the remaining syntax is automatically placed.
	Auto Syntax Analysis	Automatically checks an execution expression being inputted when cre- ating scripts and notifies the [Message Area] of the results if the execu- tion expression has a problem. (e.g.) "Line 1:The expression is incorrect.)"
Fo	rmat	Set the format for scripts.
	Font Type	Select the font type to use.
	Font Size	Set the font size to use from 8 to 72 by the unit of 0.5.
	No. of Tab Key Indentations	Set the number of tab key indentations to use from 1 to 8.

Toolbar

Customize each Toolbar.

Option Settings	X
General Screen Edit Style Cogic Edit Style Monitor Step Error Check	Configure toolbar layout Parts Instruction Toolbar Settings
	OK (D) Cancel

Setting		Description
Parts Show Part preview		Set whether or not to show each tool band's parts image.
Instruction		Select the logic instruction icon to be displayed on the toolbar.
Toolbar Settings		 Opens the [Toolbar Settings] dialog box. NOTE For the toolbar settings, refer to the following. "29.2.4 Customizing the Toolbar" (page 29-7)

■ Logic Edit Style

💰 Option Settings	×
General Screen Edit Style Script Logic Edit Style Monitor Step Error Check	Configure editor layout Edit Image: Set up operands when adding instructions Display
	Rung comments I/O Address Font: Century Gothic, Normal, 9pt Change Font Color: Background Change Color
	OK (D) Cancel

Setting		Description	
Edit Set up Oper- ands when Adding Instructions Specifies operands at the same time as inserting logic programming.		Specifies operands at the same time as inserting the instruction in the logic programming.	
	Rung comments	Displays row comments on the logic screen.	
	I/O Address	Displays the I/O address if a symbol variable is allocated to an I/O terminal.	
Display	Change Font	Configures the font for the logic screen. The selected font is used for all the characters on the logic screen.	
	Color	Select [Background], [Rung Comment], [Instructions, Power Bar, Rung], [Operand], or [I/O Address] to change the color. Click [Change Color] and select the color in the dialog box.	

Monitor Step

Configures the settings for monitoring logic programs online.

Option Settings		x
General Screen Edit Style Script Toolbar Lagie Edit Style Monitor Step Error Check	Monitor Step Configuration Communication Settings Port USB CLAN IP Address 0.0.0.0 Monitor Frequency 500 mmm ms Retry Count 3 mm Display V Rung comments V I/O Address V Current Value V Forces	
	Font: Century Gothic, Normal, 9pt Change Font Color: Background Image Color	
	OK (Q) Cancel	///

Setting		Description	
Communication Settings	Port	From [USB] or [LAN], select the communication port for online monitoring.	
	IP Address	If you select [LAN] for [Port], specify the IP Address.	
Monitor	Frequency	Specifies the communication frequency from 200 to 3000.	
	Retry Count	Specifies the communication retry count from 200 to 3000.	
	Rung Comments	Displays row comments on the logic screen.	
	I/O Address	Displays the I/O address if a symbol variable is allocated to an I/O terminal.	
	Current Value	Displays the current values of symbol variables during online moni- toring.	
Display	Forces	Displays values that have been compulsorily changed during online monitoring.	
	Change Font	Configures the font for the logic screen. The selected font is used for all the characters on the logic screen.	
	Color	Select [Background], [Rung Comments], [Instruction, Power Bar, Rung], [Operand], [I/O Address], [Current Value], [Forces] or [Power Flow] to change the color. Click [Change Color] and select the color in the dialog box.	

Error Check

Configures the error check settings.

Option Settings		×
General Second Edit Stude	Error Check Settings	
Screen Eait Style	Display	
Toolbar Logic Edit Style	Display warnings	
Error Check	🗖 Display duplicate coil warnings	
<u> </u>		
	OK (<u>0</u>) Cancel	

Setting	Description
	Specify whether to display a warning in the error window after error
Dieplay Warpinge	checking.
Display Walthings	Unchecked: Only errors are displayed.
	Checked: Both errors and warnings are displayed.
Display duplicate coil	Displays a warning in the error window after error checking if an address
warnings	is used more than once.

5.13.8 [Common Settings] Settings Guide

Alarm Settings (F "19.9.1 Alarm Settings Guide" (page 19-63) Sampling Settings Ē "24.8.1 Sampling Settings Guide" (page 24-37) Recipe Settings Ŧ "25.10.1 Setup Guide for Common Settings (Recipe Settings)" (page 25-56) Security Settings P "22.5 Common Settings Guide (Security Settings)" (page 22-9) Time Schedule Settings F "23.4 Common Settings (Time Schedule Settings) Guide" (page 23-10) Sound Settings P "26.5.1 Common Settings (Sound Settings) Guide" (page 26-13) Text Table Settings (Figure 15.7.3 Text Table Settings Guide" (page 15-49) Global D-Script Settings "20.8.1 Common Settings Guide for D-Script" (page 20-48) Extended Script Settings ⁽²⁾ "20.8.1 Common Settings Guide for D-Script" (page 20-48) Image Registration (P "10.5.1 Setup Guide for Common Settings (Image Registration)" (page 10-23) Text Registration F "15.7.2 Common Settings Guide (Text Register)" (page 15-48) Mark Registration P "9.12.3 Common Settings (Mark Registration) Settings Guide" (page 9-79) Keypad Registration P "16.5.2 Setup Guide for the Common Settings (Keypad Registration)" (page 16-23) Movie Settings (j) "27.9.3 Common Settings [Movie Settings (O)] Setting Guide" (page 27-91) Video Module Window Settings (j) "27.9.5 Setup guide of common settings [Video Module Settings]" (page 27-112)

Symbol Variable Settings

Displays the screen for registering symbol variables.

NOTE • For details about registering symbol variables, refer to the following.

- "29.3.2 Using Symbol Variables with Arbitrary Names (Variable Format)" (page 29-19)
 - "29.3.3 Using Symbol Variables with Fixed Addresses (Address Format)" (page 29-31)



Setting	Description
Name	Specifies the symbol variable name.
Туре	Specifies the symbol variable type. If you selected [Variable Format] for [Register Format], select the type from [Bit Address], [Word Address], [Bit Variable], [Integer Variable], [Float Variable], [Real Variable], [Timer Variable], [Counter Variable], [Date Variable], [Time Variable], or [PID Variable]. If you selected [Address Format] for [Register Format], select the type from [Bit Address] or [Word Address].
Array	Determines whether to specify arrays.
Count	Specifies the array size of an [Array].
Address	If you specified [Bit Address] or [Word Address] for [Type], specify the Device/PLC address.
Кеер	Selects Keep/Clear.
Comment	Input comments.
Utility	 Import Imports CSV file format symbol variables. Export Exports CSV file format symbol variables.

5.13.9 [Screen] Settings Guide

This section explains about each item displayed by selecting the [Screen (S)] menu.

New Screen

Create a new screen.

💰 New Scree	en 🗙
Screen Type	Base
Screen No.	1 🗄 🏢
Title	Untitled
Use Templa	ite
Select T	emplate from List
Recently	Used Template
	Cancel

Setting		Description
Screen Type		Select the screen type to create or select a template from [Base], [Win- dow] or [Logic]
Screen No.		If you selected [Base] for [Screen Type], specify the number of the screen to create from 1 to 9999. If you selected [Window], specify the number from 1 to 2000. If you selected [Logic], specify from SUB-01 to SUB-32.
Tit	е	Set the title of a screen to create with up to 30 single-byte characters.
Use Template		Select a template.
	Select Template from List	Displays the [Select Template] dialog box to select a template.
	Recently Used Template	The names of recently used templates are displayed as popup.

Open Screen

Opens a screen.

Open Screen				×
Screen Type Base	_	•		
 Screen Into 				
	Scre	een No.		1
	Title			
No. Title		Header	Footer	
1				
	г		_	<u> </u>
	L	Upen		Lancei

Setting		Description	
Screen Type		Select the type of a screen to open from [Base], [Window], [Logic], or [I/O].	
Screen Info		Set whether or not to display the information and preview of a screen to open.	
Screen No. Displays the screen r number, the preview		Displays the screen number selected on the display list. If you rewrite the number, the preview is changed.	
	Title	Displays the screen title displayed in the preview.	
Display List		Displays a list of all the screens in a project file.	
	No.	Displays the number specified to the screen.	
	Title	Displays the title specified to the screen.	
	Header	When a Header is specified, the Header's [Title] is displayed.	
	Footer	When a Footer is specified, the Footer's [Title] is displayed.	

Close Screen

Closes the drawing screen.

Screen Information

Displays the specified screen information.

Screen Attribute		×
Type Number Title	Base 0001 Untitled	
Security Level Send Data	0	
Send Size No. of Addresses No. of Parts Information	1 Byte(s) (0.0%) 0 (Max1,152) 0 (Max384)	
		Close (C)

Setting		Description
Screen Attribute		Displays the information specified to the screen.
TypeDisplays the type of the specified screen with [Logic]. If you open the [Screen Info] when th can be edited, the Type is displayed with [Hea		Displays the type of the specified screen with [Base], [Window] or [Logic]. If you open the [Screen Info] when the screen's Header/Footer can be edited, the Type is displayed with [Header] or [Footer].
	Number	Displays the number specified to the screen.
	Title	Displays the title specified to the screen.
Security Level Displa		Displays the security level specified to the screen.
Se	nd Data	Displays the summary of data to send to the GP.
	Send Size	Displays the data size for one screen by the byte. Displays the usage rate of the screen total size in percentage in ().
	No. of Addresses	Displays the total number of addresses used for screens with [No. of Set Addresses (Max No. of Addresses)]. Displayed in red if it exceeds the maximum number of addresses.
	No. of Parts	Displays the total number of parts used for screens with [No. of Set Parts (Max No. of Parts)].
Information		Displays supplementary information on the specified screen.

Change View

Edit Screen

Changes the view to the drawing screen.

Part List

Displays a list of the attributes of the parts used on the selected screen. Does not display a list of [Draw], [Trigger Action], or [D-Script]. Displays a list of the attributes of the parts used on the selected screen. Does not display a list of [Draw], [Trigger Action], or [D-Script].



Setting		Description		
Part		Select the part type to list from all the parts placed on the screen.		
Filter		The [Filtering Settings] dialog box will appear. Set whether or not to display [Address], [Feature Detail], and [Label Text] on the Part List.		
Edit		Displays the setting dialog box for the part selected from the list.		
Export		The [Export Parts List] dialog box will appear. Set the location to save the [Parts List] in a CSV file (*.csv).		
Back to Screen		Changes the view to the drawing screen.		
Display List		Lists the details of parts.		
No. Numbers are sequentially assigned to the placed parts from the old starting from 1.		Numbers are sequentially assigned to the placed parts from the oldest, starting from 1.		
ID Displays the part IDs.		Displays the part IDs.		
Comment Displays the Comments specified to the parts.		Displays the Comments specified to the parts.		
Feature		Displays each part's feature names. e.g.) Bit - Comparison		
Address/ Address1Displays the address types and addresses specified to the parts.		Displays the address types and addresses specified to the parts.		
Feature	Details	Displays the detail text for a Part's features.		
Label/State 0		Displays the labels specified to the parts. If different labels are specified to each state of a part, a label is displayed for each state.		
Details		Displays other detailed information such as coordinates where parts are placed. The display contents depend on parts.		

Template Registration

Register the parts placed on the drawing screen except the header/footer as a template.

Register Template		×
Register	Cancel	

Setting	Description	
Register Template	Set the title of a template to create with up to 30 single-byte characters.	

Restrictions 5.14

Restrictions for Creating Screens 5.14.1

Screen Type

This section is about the types of screens created with project files.

A project file is mainly composed of two screens: a Base Screen and Window Screen. A Base Screen is a screen displayed on the GP. To display a screen on the GP, always use a Base Screen. A Window Screen is a screen called and displayed on a Base Screen. A Window Screen is used to display one screen on top of the other, such as a keypad input. P

"18.3 Displaying Windows" (page 18-7)



Base Screen

Base Screen + Window Screen

The logic screen and I/O screen are used for creating logic programs. NOTE ⁽²⁾ "29.2.3 Logic Screens" (page 29-6) ⁽⁽)</sup> "31.3.1 I/O Terminals in the GP Built-in DIO ■ Displaying the I/O Screen" (page 31-12)

No. of Screens that can be Created

Screen Type	Allowable Setting No. Range for Screens		
Base Screen	1 to 9999		
Window Screen	1 to 2000		

Data Capacity per Screen

The maximum capacity per screen is approximately 1 Mbyte.

The maximum capacity of the area that can maintain created screen data ([User Screen Area]) depends on each GP model.

"1.3 List of Supported Functions by Device" (page 1-4)

■ No. of Features that can be Placed on a Screen

The maximum allowable number of parts and features placed on a single screen is as follows. Each number is the maximum allowable number of parts on a newly created screen without any settings.

• The total number of parts that can be placed on a single screen is 384. The maximum number of addresses that can be specified is 1,152.

Part	Feature Type	Base Screen	Window Screen ^{*1}	
Alarma	Summary	1	1	
Alamis	Show History	384		
Text Alarm —		1	1	
	Normal Graph	384		
Graph	Statistical Graph			
	Meter Graph			
Key Part		384		
	Numeric Display ^{*2}	384		
	Text Display *2	384		
Data Display	Date/Time Display	384		
	Statistical Data Display	384		
	Show Limit Value	384		
	ON/OFF Display	384		
	State Display			
Picture Display	CF Image Display			
	Move Display (only when	30		
	Mark is selected)			
	Bit Switch	- 384		
	Word Switch			
Switch/Lamp	Screen Change			
Switch/Lamp	Special Switch			
	Selector Switch			
	Lamp			
Window*3	Window	294	0	
willdow ~	Global Window	304	0	
Movie Player			1	
		•	Continued	

GP-Pro EX Reference Manual
Part	Feature Type	Base Screen	Window Screen ^{*1}
Video Module Display	—	512*4	0
Message Display	Direct Input	- 384	
	Text Display		
D-Script		*5	
Sampling Data		1	1
Display *2		1	
Historical Trend		- 8	
Graph*6			
Data Block Display			
Graph *6			
Special Data Display	Data Transmission	1	1
	Filing	384	
	Show CSV *2	1	1
	File Manager	1	0
Trigger Action	Bit Action	384	
	Word Action		
	Screen Change		
	Draw Action		

*1 A maximum of 3 Windows can be displayed on the GP screen at the same time. For more details about displaying Windows, refer to the following:

"18.8.2 Restrictions for Show Window ■ Displaying multiple windows on a single screen" (page 18-30)

- *2 You cannot draw a Sampling Data Display and Special Data Display (Show CSV) at the same time. The same goes for drawing a Special Data Display (Show CSV) and a Data Display set up with Input Permit.
- *3 Up to three window parts with the [Continuous Read] option (two if using Global Windows) can be placed on a single screen. If three [Continuous Read] windows are placed on a screen, any additional windows will not operate.
- *4 You can display only one Video Module window on the GP screen at once.
- *5 The number of D-Scripts setting depends on the number of setting addresses on 1 screen (up to a total of 1,152) and the volume of screen data.
- *6 Maximum 8 [Historical Trend Graphs] and [Data Block Display Graphs].

Screen Display

• If you change the GP type from vertical to horizontal or from horizontal to vertical, the drawing content is displayed with a 90-degree rotation. Select the [Edit] menu - [Rotate/ Flip] command to edit the screen. Be sure to confirm the screen after changing it.



• If you change from a large resolution GP type to a small resolution GP type, the data that exceeds the range due to the change is not displayed. If you change to a large resolution GP type again, the data that exceeded the range is displayed.

The maximum number of display characters on a part in operation differs between a small resolution GP type and a large resolution GP type. If you change an alarm message created with a large resolution GP type to a small resolution GP type, any part that does not fall on the message screen is not displayed.

• When you reduce the screen edit area with the zoom function, some drawings may not display correctly, depending on the magnification.

5.14.2 Notes on CF-Card Saving

Notes on CF-Card Saving

- While data is being written to the CF-card, changes of parts and screens may slow down.
- It may take several seconds to write data, depending on the amount.
- After the Status data is read out from the GP, before the next command can be written be sure to allow time equal to at least one communication cycle^{*1} or one Display Scan Time^{*2} period, whichever is longer.
- Do not call up screens that use the CF-card when it is not installed in the GP. Otherwise, they will not function properly.
- If a write error occurs, any file that has not finished loading may remain on the CF-Card.
- When overwriting a file by transferring data to the CF-card, the CF-card must have enough free room to allow the data. If the data is larger than the available space, a write error will occur.
- When saving to the CF-card, if the target folder (\ALARM) does not exist, a folder will be automatically created, and the data will be saved there. However, if the CF-card does not reset or the folder can not be created, a read error will occur.
- There is a limit to the frequency that data can be written to the CF-card (500 KB of data can be rewritten around 100,000 times).

CF-Card Usage Warnings

- When removing the CF-card, verify that the access lamp is switched off. There is a chance that CF-card data can be lost or damaged.
- While accessing the CF-card, do not turn the GP unit off, reset the GP, or remove the CFcard. Create a preset verification screen for information about CF-card access. Turn off power, reset, open the CF-card cover, or remove the CF-card only after verifying that screen.
- When inserting the CF-card in the GP unit, make sure you have the correct side up and the correct location for the CF-card connector. If installed incorrectly, damage can occur to the data or to the CF-card/GP unit.
- Please use a CF-card made by Pro-face. If using another company's CF-card, damage may occur to the CF-card's data.
- 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
- *1 The Communication Cycle Time is the time from when the GP requests data from the external device to when the data arrives. This value is stored in internal device LS2037 as a binary value, in units of 10 ms.
- *2 Display Scan Time is the time required to process one screen. This value is stored in internal device LS2036 as a binary value, in millisecond units.

Screen Capture

- It takes five to six seconds to capture a screen, and the file size is approximately 200 KBytes (when the Image Quality is 80).
- The file size and capture time depend on the image quality and screen size.
- Part displays are not updated during capture.
- If you capture a screen with the Blink option, the captured image is displayed with no blink.
- If you create a file with other actions than screen capture while the CF-card is inserted, the file is overwritten with the next [File No. Auto Increment].
- When you use [File Auto Delete], it may take some time to delete many files. All files are deleted so this can take from a few seconds to a few minutes.

SRAM Auto Backup

- Make sure the CF-Card free space is larger than the backup SRAM size. Free space is checked before the process execution. If there is no sufficient free space in a CF-card, data is not saved in the CF-card.
- When you use the CF-card storage feature, confirm that the CF-card storage control address has no data. You can save the following data in a CF-card. Filing Data, Logging Data, Line Chart Data, Sampling Data (Data Sampling's Data), and Alarm Data
- If you execute the backup SRAM's backup while executing the CF-card storage feature, the backup does not start until the CF-card storage feature finishes. During this time the write to the CF-card is interrupted.
- While executing the backup SRAM's backup, the process of CF-card storage feature is interrupted. When automatically writing to the CF-card with the logging feature's loop action, the logging action is also interrupted until the write to the CF-card starts.
- Only one backup file can be saved in a CF-card.
- If you execute [Initialize CF-Card] under [Initialize Memory] in GP offline mode, a SRAM folder will be created.
- If you execute CF-Card → SRAM (Restore) in GP offline mode, all the saved data (such as sampling data) will be replaced with the newly stored data.
- If you execute CF-Card → SRAM (Restore) in GP offline mode, the adjusted values for Brightness, Contrast, and Sound Volume will not change. The adjusted values will be applied after you turn ON the power again or after the GP goes into operation mode.
- If you execute CF-Card → SRAM (Restore) in GP offline mode, the stored Japanese FEP learning information will be overwritten. For this reason, the display order of the convert-to characters may change according to the frequency of use.