28 Simply Confirming On-site Status

28.1	This chapter describes available monitoring tools	
28.2	Monitoring Operational Status	28-5
28.3	Monitoring Device Values	
28.4	Monitoring Symbol Values	28-19
28.5	Monitoring System Event Logs	
28.6	Monitoring Using Excel Graphs	

28.1 This chapter describes available monitoring tools.

Monitoring Operational Status

This feature allows you to monitor the current status of any GP or Device/PLC registered in a network project file under operation.

Provide the second status and the second sta

Monitoring Device Values

This feature allows you to display the current values of specified devices all at once. *** "28.3 Monitoring Device Values"

Monitoring Symbol Values

This feature allows you to display the current values of device addresses by each registered symbol. The "28.4 Monitoring Symbol Values"

Monitoring System Event Logs

This feature allows you to display a list of various information (logs) occurred during operation.

Setting Guide

The following explains the displayed contents of the status monitor screen.

🂱 Pro-Studio EX 🛛 AGP.npx		
File Edit Tool Programming Assist	Setting Help	
Start 💙 🟹 Node	e ≫ 🍐 Symbol ≫ ≷ Feature ≫ 📄 Save ≫ 🆄 Transfer	Monitor Status
Status Monitor	Pro-ServerEX Status of this PC	
Device Monitor	Running with another network project file	Reload
🚑 Symbol Monitor		Stop Pro-Server EX
Log Viewer		
Device Access Log	Network Project being loaded by Pro-Server EX	
	C:\Documents and Settings\mhori\Desktop\test.npx	
	Build No. 3	
	Network Project being opened with Pro-Server EX	
	C:\Documents and Settings\mhori\Desktop\AGP.npx	
	Build No. 2	

Setting item	Setting content
Status Monitor	Perform status monitoring. ⁽³⁷⁾ "28.2 Monitoring Operational Status"
Device Monitor	Perform device monitoring. ^(CP) "28.3 Monitoring Device Values"
Symbol Monitor	Perform symbol monitoring. ^(F) "28.4 Monitoring Symbol Values"
Log Viewer	Perform log viewing. ^(CP) "28.5 Monitoring System Event Logs"
Device Access Log	Perform device access logs. ⁽²⁷⁾ "29.6 Device Access Log"
Pro-Server EX Status of this PC	 The ongoing operational status of 'Pro-Server EX' is displayed. "Under suspension" 'Pro-Server EX' is out of operation. "In operation with a blank network project" The network project is not loaded in 'Pro-Server EX'. "In operation with a read network project file" 'Pro-Server EX' is run by a loaded network project.
Reload	 Reload the network project file under editing in 'Pro-Server EX'. NOTE • Editing is to be invalid if the network project file is not saved.

Setting item	Setting content
Stop Pro-Server EX	Stop 'Pro-Server EX'. MPORTANT Please exit all applications using 'Pro-Server EX' before exiting 'Pro-Server EX', if any.
Network Project being loaded by Pro-Server EX	Displays the name of the network project file loaded by 'Pro-Server EX'.
Network Project being opened with Pro-Studio EX	Displays the name of the network project file opened with 'Pro-Studio EX'.
Build No.	Displays the build. No of the network project file.

28.2 Monitoring Operational Status

28.2.1 Monitoring Status

This feature allows you to monitor the current status of any GP or Device/PLC registered in a network project file under operation.





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Refer to "36 Error Information" for details about errors occurring in 'Pro-Server EX'.

The displayed items and contents on the status monitor are as follows: (The contents differ according to the type of entry node.)

	Type of entry node					
Display item	GP4000 Series/ GP3000 Series/ WinGP/LT3000	Device/PLC of GP4000 Series/ GP3000 Series/ WinGP/LT3000	GP Series	Pro-Server EX		
Tag Scan Time			0			
Device/PLC Communication Cycle Time		0	О			
Device/PLC Communication Error Count		0				
Device/PLC Communication Error No.		0	0			
Device/PLC Communication Error No. (Extended)			О			
Error Time		О				
2Way Error No.	0		0			
System Version	0	0	О	O		
2Way Version			0			
Protocol Version		0	О			
Model	0		О	О		

O: Displayed ---: Not displayed

1 Click the [Monitor Status] icon on the status bar.

The status monitor screen appears to indicate the ongoing status of 'Pro-Server EX'.

🂱 Pro-Studio EX 🛛 AGP.npx		
File Edit Tool Programming Assist	Setting Help	
Start 🔉 🟹 Node	>> 🌽 Symbol >> ≷ Feature >> 📄 Save >> 🆄 Transfer	Monitor Status
📑 Status Monitor		
Device Monitor	Pro-ServerEX Status of this PC	
<u>A</u>	Running with another network project file	Reload
🦉 Symbol Monitor		Stop Pro-Server EX
Log Viewer		
Device Access Log	Network Project being loaded by Pro-Server EX [C:\Documents and Settings\mhori\Desktop\test.npx Build No. 3	
	Network Project being opened with Pro-Server EX [C:\Documents and Settings\mhori\Desktop\AGP.npx Build No. [2]	

Refer to "28.2.2 Setting Guide" for more details about the screen.

2 Click the [Status Monitor] button.

If you click the [Status Monitor] button without 'Pro-Server EX' running, 'Pro-Studio EX' once saves the network project currently opened and starts based on the network project.

牧 Pi	ro-Stu	dio EX	AGP.npx				
File	Edit	Tool	Programmin	g Assist	Sett	ing He	lp
) 9	Start	»	Node	>>	\triangleright	Symbol .
		Statu	s Monitor	\supset		Pro-S	erverEX
		Devic	e Monitor				
4		Symb	ol Monitor			Ru	nning wi
		Log	l Viewer				
	De	evice.	Access Log			Network	Project beir

NOTE • Refer to "28.2.3 Displayed Messages" for details about the messages displayed when starting the status monitor.

The status monitor screen appears to indicate the entry node(s) registered in the network project file under operation.

3 Click the [Update the status of All Nodes] button. Or, click the [Update the status of Checked Nodes] button after checking the entry node(s) to be confirmed.

Fratus - Monito	r of Pro-Server E		
Update the status of Checked Nodes	Update the status of All Nodes	Clear the errors of checked Nodes	
Node : Dev PC1 AGP1 PLC2 PLC3 PLC1	192	Address 2.168.1.1 2.168.1.2	Tag Scan Tir

- NOTE
- The status is updated in 3-second cycles with each button pressed.It takes some time before the status appears.

The status of entry nodes is indicated on the right of the screen. Scroll the screen to check the status of the entry nodes. When the status monitoring is updated, the status is indicated in light blue.

Refer to "28.2.2 Setting Guide" for more details about the screen.



28.2.2 Setting Guide

The following explains the displayed contents of the status monitor screen.

🚰 Status - Monitor o	of Pro-Server EX				
The status of each	node is monitored.				
Update the status of Checked Nodes	Update the status of All Nodes	Clear the errors of checked Nodes			
PC1 PC2 PLC2 PLC3 PLC1	CEPPIG 1192 192	Haaress .168.1.1 .168.1.2	ine Deuice∕i	210 Communication	
		•			
Node	e list		Status disp	olay area	

Setting item	Setting content
Node List	Displays the entry node(s) and Device/PLC(s) registered in the network project file that is under operation. The node status is displayed by clicking the check box and then the status update button.
Status display area	Displays the status of the entry node(s) and Device/PLC(s) checked in the node list.
Update the status of Checked Nodes	The entry nodes checked in the node list are updated in 3-second cycles. The status update will finish by clicking this button again.
Update the status of All Nodes	All the entry nodes in the node list are automatically checked, and will be updated in 3- second cycles. The status update will finish by clicking this button again.
Clear the errors of checked Nodes	 Each operation will be performed according to the type of entry nodes. In the case of GP4000 Series, GP3000 Series, WinGP and LT3000 Set the 2way error No. (Value of Device "LS2075") to zero. In the case of GP Series Set the error No. ("LS2039"), error No. (Extended) ("LS2070") and 2way error No. ("SYS0073") to zero. In the case of Pro-Server EX No operation will be performed.

28.2.3 Displayed Messages

The following explains the contents of the messages.

Message	Status of 'Pro-Server EX'
"Pro-Server EX is to be started to communicate with an entry node. Continue?"	Pro-Server EX is under suspension. To execute various monitors, it is required to start 'Pro-Server EX'.
"The network project file is being edited. To communicate with entry nodes, it is required to save the network project file under editing and reload to 'Pro-Server EX'. Continue to save and reload?"	The network project file is not reloaded in 'Pro-Server EX'. Or, the same network project file that is reloaded in 'Pro- Server EX' is opened but is being edited by 'Pro-Studio EX'. It is required to save and reload the file.
"Pro-Server EX is running by a different network project file. To communicate with entry nodes, the network project file that is being edited needs to be reloaded to Pro-Server EX. Continue to reload?"	A network project file other than the one reloaded in 'Pro- Server EX' is opened. It is required to save and reload the network project file being opened.
"Pro-Server EX is running by a different network project file. To communicate with entry nodes, the network project file that is being edited needs to be saved and reloaded to Pro-Server EX. Continue to save and reload?"	A network project file other than the one reloaded in 'Pro- Server EX' is opened and edited by 'Pro-Studio EX'. It is required to save and reload the file.

28.3 Monitoring Device Values

28.3.1 Monitoring Devices

This feature allows you to display the whole current device values sequentially starting with the specified device address.



1 Click the [Monitor Status] icon on the status bar.

The status monitor screen appears to indicate the ongoing status of 'Pro-Server EX'.

🂱 Pro-Studio EX 🛛 AGP.npx		_ 🗆 ×
File Edit Tool Programming Assist	Setting Help	
💋 Start ン 🟹 Node	>> ≽ Symbol >> ≷ Feature >> 📄 Save >> 🆄 Transfer	Monitor
Status Monitor	Pro-ServerEX Status of this PC	
Device Monitor	Dupping with Plank Natural Project File	Reload
💻 Symbol Monitor	Running with Blank Network Project File	
Log Viewer		Stop Pro-Server EX
Device Access Log	Network Project being loaded by Pro-Server EX	
	Build No.	
	Network Project being opened with Pro-Server EX	
	C:\Documents and Settings\mhori\Desktop\AGP.npx	
	Build No. 2	

NOTE • To perform device monitoring, 'Pro-Server EX' should be operating. When 'Pro-Server EX' is under suspension, click the [Reload] button to start the operation.

Save >> 🏹 Transfer	Monitor Status
Project File	Reload Stop Pro-Server EX

2 Click the [Device Monitor] button.

🎕 Pro-Studio EX 🛛 AGP.npx	
File Edit Tool Programming Assist S	Setting Help
Start 🍑 🟹 Node .	>> 🔑 Symbol
Status Monitor	Pro-ServerE>
Device Monitor	Running w
Symbol Monitor	I turning A
Log Viewer	
🛄 Device Access Log	Network Proiect bei



The device monitor screen appears.

 ${\bf 3}$ Click the list button of [Node] and select a node having a monitoring device.

🕎 Device - Monitor of Pro-Server EX	. 🗆 🗙
Node AGP1 💌 Device/PLC #INTERNAL 💌 Device Address 🖬 💌	
AGEP1 State Point State Point Data type PC1 VS 16Bit 32Bit Float Double String	
TIME TIME_OF_DAY DATE DATE_AND_TIME Set Start © Signed Dec. © Hex © BCD	
Polling time 1000ms Time expended for read Time expended for write	

4 Click the list button of [Device/PLC] and select a Device/PLC having a monitoring device.

Device - Monitor o	f Pro-Server EX	
Node AGP1 Data type Bit TIME © Signe	Device/PLC #INTERNAL Device Address Bit 16Bit 33 BELC1 Duble String TIME_OF_DAY DATE DATE_AND_TIME Set d Dec. Unsigned Dec. Hex BCD	▼ Start
Polling time 1000ms	Time expended for read Time expended for write	

5 Input directly the address of the monitoring device in [Device Address], or click the list button to select the symbol.

💻 Device - Monitor of P	Pro-Server EX			
Node AGP1	Device/PLC PLC1	💌 🛛 Device Address 🚍	T	
Data typeBit	8Bit 16Bit 32Bit Floa		E- Local symol sheet È- Sheet:Sheet3	
TIME © Signed E		C BCD	Symbol1 Symbol2	
Polling time 1000ms	Time expended for read	Time expended for write		

6 Select the data type and format to be displayed and click the [Start] button.

🕎 Device - Mor	nitor of Pro	-Server E	x									
Node AGP1		•	Device/	PLC PLC1		•	Dev	ice Address	Sheet3.Symbo	ol2	•	
Data type B	it 81	Bit 1	l 6Bit	32Bit	Float	Dou	ble	String	(
TI	ME	TIME_OF_C	DAY	DATE	DATE_	AND_TIM	ME	Set		Start ,		
6	Signed Dec	e. O	Unsigned	i Dec. 🛛 🔿	Hex C	D BCD						
Polling time 10)00ms	Time e	expended	for read 31	43ms	Tin	ne exp	ended for wri	ite			

Device values are displayed according to the screen size with the specified device address (symbol) at the top.

Address	+00	+01	+02	+03	+04	+05	+06	+07	+08
DM0050	60	70	80	90	100	105	1	1	1
DM0059	1	0	0	0	0	0	0	0	0
DM0068	0	0	100	200	300	0	0	0	0
DM0077	0	0	0	23	223	521	345	0	0
DM0086	0	0	0	0	23	223	521	345	0
DM0095	0	0	0	0	0	133	149	0	69
DM0104	96	0	0	0	0	0	142	23	23
DM0113	23	0	0	0	0	0	0	0	0
DM0122	0	0	0	0	0	35	0	0	0
DM0131	0	0	0	0	0	0	0	0	0
DM0140	0	0	0	0	0	0	0	0	0
DM0149	0	6	6	36	22	45	0	0	0
DM0158	0	0	0	0	0	0	0	0	0
DM0167	0	0	0	0	0	0	0	0	0
DM0176	0	0	0	0	0	0	0	0	0
DM0185	0	0	0	0	0	0	0	0	0
DM0194	0	0	0	0	0	0	17	13	18

NOTE

• Data type and format can be changed while device values are displayed.

Refer to "28.3.3 Setting Guide" for more details about the screen.

28.3.2 Writing Device Data

This feature allows you to write device data on the device monitor screen.

1 On the device monitor screen, double-click the device to write data in.

Address	+00	+01	+02	+03	+04
DM0050	60	70	80	90	100
DM0059	[1	N 0	0	0	0
DM0068	<u>هــــا</u>	<u>hộ</u>	100	200	300
DM0077	0	0	0	23	223
DM0086	0	0	0	0	23

The device data write screen appears.

	DMOC	60	þ	<	
	1	0	Address Hold		
Address	+00			+03	+04
DM0050	60			90	100
DM0059	1	0	0	0	0
DM0068	0	0	100	200	300
DM0077	0	0	0	23	223
DM0086	0	0	0	0	23

2 Enter a value in the text box, and press the ENTER key to fix the value.

	DMOC	60		×	
	1	0	Address Hold		
Address	+00 10			+03	+04
DM0050	60			J 90	100
DM0059	1	0	0	0	0
DM0068	0	0	100	200	300
DM0077	0	0	0	23	223
DM0086	0	0	0	0	23

After pressing it, the write screen switches to that of the next device for continuous writing.

NOTE
Click the [Address Hold] button to continue to write data to the same device.
To write data collectively to sequential devices, separate each value with a space when entering values. Data of input number will be written into the device. (Example) If you enter "1 2 3", then "1", "2" and "3" are written to the sequential devices.
Enclose a character string using the bracket [] to specify the characters with hexadecimal code. (Example) abc[0D] is handled equally as 0x61,0x62,0x63,0x0D specified in binary code. Specify [by enclosing it in square brakets [[]. (Example) To specify the string "[ABC]", type [[]ABC[]]

28.3.3 Setting Guide

The following explains the displayed contents of the device monitor screen.

🌉 Device – Monit	tor of Pro-Serv	ver EX								_	
Node GP4000_	1 💌	Device/PL	C #INTER	VAL 💌	Device /	Address 🚟 🤅	Sheet1.Symbo	ol1	-		
Data type Bit	8Bit	16Bit	32Bit	Float De	ouble S	tring					
TIME	TIME_OF	DAY	DATE	DATE_AND_1	тіме	Set		Start			
● Sig	ned Dec. 🤇	Unsigned D	ec. O He	× O BCC	, ,			Sian			
Polling time 1000m	ns Time	expended fo	r read 4ms	1	lime expende	d for write					
											_
Address	+00	+01	+02	+03	+04	+05	+06	+07	+08	+09	
USR00000	0	0	0	0	0	0	0	0	0	0	
USR00010	0	0	0	0	0	0	0	0	0	0	
USR00020	0	0	0	0	0	0	0	0	0	0	
USR00030	0	0	0	0	0	0	0	0	0	0	
USR00040	0	0	0	0	0	0	0	0	0	0	
USR00050	0	0	0	0	0	0	0	0	0	0	
USR00060	0	0	0	0	0	0	0	0	0	0	
USR00070	0	0	0	0	0	0	0	0	0	0	
USR00080	Ő	0	0	Ö	Õ	0	0	Õ	Õ	Õ	
USR00090	Ň	0	0	Ö	<u>°</u>	<u> </u>	Ö	Õ	 Û	Õ	
USR00100	Ŏ	0	0	ŏ	<u>0</u>	0	Ŏ	Õ	Ŭ.	Õ	
											•

Name	Description						
Node	elect an entry node having a monitoring device.						
Device/PLC	Select a Device/PLC having a monitoring device. NOTE • It is not necessary to set when the entry node is GP Series or Pro-Server EX.						

Name	Description
	Set up the device address or symbol.
	• When specifying a device address: Enter directly from the Calculator icon.
	Calculator icon
	• When specifying a symbol: Select the symbol by clicking the list button.
Device Address	List button
	NOTE • Enter [Index] when you have selected Group Alignment from the symbol sheet list.
	Index 0 (0 - 9)
	Change the type of displayed data of device values.
Data type	 NOTE If you select "32Bit" for [Data type] and "Hex" for [Data Format], a value exceeding 8 digits entered during device data writing would be rounded off to the last 8 digits. If you select "Float" for [Data type], a value beyond the range of 1.175494351e-38F to 3.402823466e+38 entered during device data writing would cause the error "1.#INFO" to appear. If you select "Double" for [Data type], a value beyond the range of 2.2250738585072014e-308 to 1.7976931348623158e+308 entered during device data writing would cause the error "1.#INFO" to appear.
Data Format ([Signed decimal] to [BCD])	 Change the format of displayed data of device values. Set up is possible when [Data type] is 8 bits, 16 bits, or 32 bits. NOTE If you select "32Bit" for [Data type] and "Hex" for [Data Format], a value exceeding 8 digits entered during device data writing would be rounded off to the last 8 digits.
Clicking this button displays the "Setting of device monitor".	
Polling time	Refer to "■ "Setting of device monitor" Screen" for more details. Displays the update interval which is set on the "Setting of device monitor" screen.
Time expended for read	Displays the time taken to read 1-screen device data of a device monitor.
Time expended for write	Displays the time taken to write device data.

Name	Description
Start	Start device data polling. Click again to finish polling.
Device Monitor Display Area	Device values are displayed according to the screen size with the specified device address at the top. Click a device value to display the device write screen for data writing.

"Setting of device monitor" Screen

The following items are set on this screen.

Undate Cycle 1000 ms	
Update Cycle 1000 ms	
Floating-Point Display Digit Ol Integer Part Fractional Part Ol	
7 .]5 Can	el

Setting item	Setting content
Update Cycle	Set a polling interval (ms) of status monitoring. NOTE • Set the interval in the range of 0 to 1000000 ms.
Floating-Point Display Digit	 When "Single precision" or "Double precision" is selected as a data type, set each digit number of the integer and fractional portions of a floating point number. NOTE Maximum digit number of each integer and exponential portion of a floating point number is 15.

28.4 Monitoring Symbol Values

28.4.1 Monitoring Symbols

This feature allows you to display the current values of device addresses by each registered symbol. In addition, you can display the current values of non-sequential devices collectively.



The following explains the items and contents displayed on the symbol monitor.

Name	Description				
G	 Click "+" to display the symbols in the lower hierarchy if they are grouped. NOTE The symbol monitor displays 1 line per 1 symbol. Click the [Device Monitor] icon if the number of displayed data exceeds the maximum capacity of 256. This shows the "Device Monitor" screen, displaying on it the data with the device address of the symbol as the first address. 				
Symbol	Displays the symbol name(s) in a selected symbol sheet. NOTE • To change the element No. of group alignment, click the group name and enter an element No. on the element No. entry screen. Group1 K Index 0 : (0 - 9) K				
Data type	Symbol data type is displayed.				
+	Displays "+" which indicates sequence if sequential device addresses are specified.				
Address	Displays the first device address of a symbol.				
Count	Displays the device number that a symbol holds.				

1 Click the [Monitor Status] icon on the status bar.

The status monitor screen appears to indicate the ongoing status of 'Pro-Server EX'.

🎕 Pro-Studio EX 🛛 AGP.npx		
File Edit Tool Programming Assist	Setting Help	
p Start >> 🟹 Node	>> 🌽 Symbol >> ≷ Feature >> 📄 Save >> 🆄 Transfer	Monitor Status
📑 Status Monitor	Pro-ServerEX Status of this PC	
💻 Device Monitor	Running with Blank Network Project File	Reload
🚑 Symbol Monitor		Stop Pro-Server EX
Log Viewer		
Device Access Log	Network Project being loaded by Pro-Server EX	

NOTE • To perform symbol monitoring, 'Pro-Server EX' should be operating. When 'Pro-Server EX' is under suspension, click the [Reload] button to start the operation.

Save 🔉 🏠 Transfer	Monitor Status
Project File	Reload
	Stop Pro-Server EX

2 Click the [Symbol Monitor] button.

🎕 Pro-Studio EX 🛛 AGP.npx	
File Edit Tool Programming As	sist Setting Help
对 Start ン 🟹 N	ode 🔉 눧 Symbol
📑 Status Monitor	Pro-ServerE>
💻 Device Monitor	
Symbol Monitor	Running w
Log Viewer	
Device Access Log	Network Project bei



The symbol monitor screen appears.

 $\mathbf{3}$ Click the list button of [Node] and select a node having a monitoring device.

Node Device/PLC Device Address PC1	💯 Symbol - Monitor of Pro-Server EX	_ 🗆 🗡
	PC1	

4 Click the list button of [Device/PLC] and select a Device/PLC having a monitoring device.

📮 Symbol - Monitor of Pro-Serv	/er EX			
Node AGP1	Device/PLC HINTERNAL HINTERNAL PLC1 PLC1	Device Address	pr write	Start

5 Input directly the symbol sheet name to be monitored in [Symbol Sheet], or click the list button to select the symbol sheet.

	Symbol - N	100 Monitor of Pro-Si	erver EX				
	Node AG	P1 🔽	Device/PLC	PLC1	 Device Address 	T	
Г	Set	Polling time	1000ms	Time expended for read	T	Local symol sheet	
NC	DTE •	Please mak group sym		pecify a symbol	sheet. You car	nnot specify any devi	ce address, symbol and

6 Click the [Start] button in the case that the symbol sheet name is directly entered.

遲 Symbol - Monil	tor of Pro-Server EX				_ 0 2	×
Node AGP1	Device/PLC	PLC1	Device Address	Sheet3		
Set	Polling time 1000ms	Time expended for read 10	15ms Ti	me expended for write 53ms	Start	

The symbols in the specified symbol sheet are displayed, and the device values are displayed from the first device address according to the screen size.

G G Symbol	Data type	+	Address	Count	+00	+01	+02
Svmbol1	Bit		0000.00	1	0		
🖳 Svmbol2	16Bit(Signed)		DM0050	1	60		
1							

Refer to "28.4.3 Setting Guide" for more details about the screen.

28.4.2 Writing Device Data

This feature allows you to write device data on the symbol monitor screen.

1 On the symbol monitor screen, double-click the device to write data in.

G G Symbol	Data type	+	Address	Count	+00	+01	+02
Svmbol1	Bit		0000.00	1	0		
🖳 Svmbol 2	16Bit(Signed)		DM0050	5	60	70	80
					hà l	,	

The device data write screen appears.

 $2\,$ Enter a value in the text box, and press the ENTER key to fix the value.

					DM0050	×	
					1 0	Address Hold	
G G Symbol	Data type	+	Address	Count	40		+02
🖳 Svmbol 1	Bit		0000.00	1	- <u>L</u>		
🖳 Svmbol 2	16Bit(Signed)		DM0050	5		30 70	80

After pressing it, the write screen switches to that of the next device for continuous writing.

NOTE • Click the [Address Hold] button to continue to write data to the same device.

- Writing a block of data to consecutive device addresses is done in 1 symbol units (data set up on a single row). Separate each value in the block write operation with a space.
 (Example) If you enter "1 2 3", then "1", "2" and "3" are written to the sequential devices.
- Enclose a character string using square brackets [] to specify the characters in hexadecimal code. (Example) abc[0D] is handled equally as 0x61,0x62,0x63,0x0D specified in binary code.
 Specify [by enclosing it in square brackets [[]. (Example) To specify the string "[ABC]", type [[]ABC[]]

28.4.3 Setting Guide

The following explains the displayed items and contents of the symbol monitor screen.

👰 Symbol - Moni	tor of Pro-Server EX							_ 🗆 ×
Node AGP1	Device/PLC Polling time 1000ms	PLC1 Time expended for rea		dress Sheet3 Time expended for w	▼ rite 97ms	Start Start		
G G Symbol	Data type	+ Address	Count	+00	+01	+02	+03	+04 🔺
Symbo 11 Symbo 12	Bit 16Bit(Signed)	00000 DM00050	<u>1</u> 5	<u> </u>	70	80	90	100
1								

Setting item	Setting content				
Node	Select an entry node having a symbol sheet that performs monitoring.				
	Select a Device/PLC having a symbol sheet that performs monitoring.				
Device/PLC	NOTE				
	• It is not necessary to set when the entry node is GP Series or Pro-Server EX.				
Davias Address	Select a sheet name having a symbol that performs monitoring from the symbol sheet list.				
Device Address	It is not possible to set any device address, symbol and group symbol.				
Set	The "Setting of symbol monitor" screen appears.				
	Refer to "■ "Setting of symbol monitor" Screen" for more details.				
Polling time	Displays the update interval which is set on the "Detailed Settings of Symbol Monitor" screen.				
Time expended for read	Displays the time taken to read 1-screen device data.				
Time expended for write	Displays the time taken to write device data.				
Start	Start device data polling. Click again to finish polling.				
Symbol Monitor Display Area	Device values are displayed according to the screen size by the specified symbol sheet. Click a device value to display the device write screen for data writing.				

"Setting of symbol monitor" Screen

The following items are set on this screen.

Setting of symbol monitor	x
Update Cycle 1000 Floating-Point Display Digit Integer Part Fractional Part 7 5	ms OK Cancel

Setting item	Setting content				
Update Cycle	Set a polling interval (ms) of status monitoring. NOTE • Set the interval in the range of 0 to 1000000 ms.				
Floating-Point Display Digit	 When "Single precision" or "Double precision" is selected as a data type, set each digit number of the integer and fractional portions of a floating point number. NOTE Maximum digit number of each integer and exponential portion of a floating point number is 15. 				

28.5 Monitoring System Event Logs

28.5.1 Monitoring Logs

This feature allows you to display a list of various information (logs) occurred during operation.

	Log View	ver
PC	Time Level 2006/04/20 16:52:20 Sys Msg 2006/04/20 16:52:49 Sys Msg	Message Pro-Server EX:Pro-Server Pro-Server EX:Network Pi

1 Click the [Monitor Status] icon on the status bar.

The status monitor screen appears to indicate the ongoing status of 'Pro-Server EX'.

🎕 Pro-Studio EX 🛛 AGP.npx		
File Edit Tool Programming Assist	Setting Help	\frown
Start > 🟹 Node	>> ≽ Symbol >> ≷ Feature >> 📄 Save >> 🆄 Transfer	Monitor Status
Status Monitor	Pro-ServerEX Status of this PC	
📃 Device Monitor		
🚑 Symbol Monitor	Running with Blank Network Project File	Reload
<u> </u>		Stop Pro-Server EX
Log Viewer		
🛄 🛛 Device Access Log	Natural Distantial and the De Course DV	
	Network Project being loaded by Pro-Server EX	
	Build No.	
	Network Project being opened with Pro-Server EX	
	C:\Documents and Settings\mhori\Desktop\AGP.npx	
	Build No. 2	

2 Click the [Log Viewer] button.

饕 Pro-St	udio EX	AGP.npx			
File Edit	Tool	Programming	g Assist	Setting	Help
	Start	»	Node	»»	> Symbol .
F	Statu	s Monitor		Du.	0 -
	Devio	Pro-ServerE			
<u> </u>	Symbo	ol Monitor			Running wi
	Log	Viewer	\Box		
	Device	Access Log		Netv	vork Project beir



The "Pro-Server EX Log Viewer" screen appears, displaying a list of logs.

🕫 [Online] - Pro-Server EX Log Viewer									
$File(\underline{F}) Edit(\underline{\forall}) Configure$	e(<u>5</u>) Help(<u>H</u>)								
🗅 🛩 🖬 💡									
Time	Level	Message							
2006/04/20 16:54:46	Sys Msg	Pro-Server EX:Pro-Server EX started.							
2006/04/20 16:57:25	Sys Msg	Pro-Server EX:Network Project (C:\Program File							
		-							

NOTE

• The log viewer can hold up to 200 single-byte characters in 1 line. Also, it can hold 500 messages at maximum. When the number of messages exceeds 500, the oldest message will be automatically overwritten in turn.

- To hide the tool bar or status bar on the log viewer screen, clear the check of [Tool Bar] or [Status Bar] from [Display] on the menu bar.
- You can open previously saved log data on the log viewer screen.

"28.5.3 Confirming Previously Saved Logs"

Clearing Log Data

Click [Clear online log] from [Setting] on the menu bar.

The "Clear online log?" message appears. Then click the [Yes] button.

Saving Log Data

To save log data as a new file, click [Save As] from [File] on the menu bar, and specify a file name and its saving destination on the "Save As" screen, and then save it.

For overwriting, click [Overwrite Save].

Auto saving is available each time new log data occurs. (@" "28.5.4 Setting Guide")



• The log viewer can hold up to 256 single-byte characters for a file path name to be specified. Note that a double-byte character is regarded as 2 single-byte characters.

Exiting Log Viewer

Click [Exit Application] from [File] on the menu bar.

28.5.2 Outputting Log Data to CSV File

This feature allows you to output displayed log data as a CSV file.

1 Click [Export to CSV] on the menu bar.

🚥 (On	🚥 [Online] - Pro-Server EX Log Viewer								
File(F)	Edit(V)	Con	figure(S)	F	lelp(H)				
Curr	ent Log	(N)							
	n(0)		Ctrl+O		el		Message		
Save	*(5) e as(A)		Ctrl+S		Msg		Pro-Server EX:P		
				-	Msg		Pro-Server EX:N		
Expo	ort to CSV		<u> </u>	_					
Rece	nt Files		`	_	1				
Quit	Log Viewe	er(X)							

The "Save As" screen appears.

2 Set the folder and file name to which data is output and click the [Save] button.

Save As					? ×
Save in:	🖄 My Documen	ts	•	+ 🗈 💣 🗉	H •
History Desktop My Documents	My eBooks				
My Computer	File name:	logdata		•	Save
My Network P	Save as type:	csv file(*.csv)		•	Cancel

The displayed log data is output as a CSV file.

Data is output in comma-delimited format in order of "Time", "Level" and "Message".

28.5.3 Confirming Previously Saved Logs

The log viewer displays real-time log status (in online mode), and on the other hand, it can also display a previously saved log file (*.2lg) by opening it and changing its screen from online to offline mode.

1 Click [Open] from [File] on the menu bar.



2 Specify a file name and click the [Open] button.

Open					? ×
Look in:	🔄 My Document	8	•	+ 🗈 💣 🎟	•
istory	My eBooks My Pictures (Online],2lg				
Desktop					
My Computer					
	File name:	[Online].2lg		•	Open
My Network P	Files of type:	2Way Event log fi	le(*.2lg)	•	Cancel

The message appears informing of change to offline mode.



3 Click the [OK] button.

The log viewer screen is changed to offline mode and displays the contents of the selected log file. (In offline mode, the background of the log viewer becomes black.)

🚾 [Online].2lg - Pro-Ser	ver EX Log Viewe	r 💶 🗆 🔟 🗙
File(E) Edit(⊻) Configure	(<u>5</u>) Help(<u>H</u>)	
🗅 😅 🖬 🤶		
Time	Level	Message
2006/04/20 16:54:46	Sys Msg	Pro-Server EX:Pro-Server EX started.
2006/04/20 16:57:25	Sys Msg	Pro-Server EX:Network Project (C:\Program Files\Pro-face\Pro-Server EX\NPXDa
4		E
Ready		



• To return to online mode, select [Current Log] from [File] on the menu bar.

28.5.4 Setting Guide

The following explains the displayed items and contents of the log viewer screen.

💴 [Online] - Pro-S	ierver EX L	.oa ¥iewer	_ □ ×	
File(E) Edit(Y) Configure(5) Help(H)				
🗅 🚅 🖬 💡				
Time	Le	vel	Message	
2006/04/20 17:0	4:55 <mark>Sy</mark>	/s Msg	Pro-Server EX:Pro-Server EX started.	
2006/04/20 17:0	5:16 <mark>Sy</mark>	/s Msg	Pro-Server EX:Network Project (C:\Program Files\Pro-face\Pro-Server EX\NPXDa	
•			<u>ا</u>	
Ready				

Setting item	Setting content
Title BarDisplays the name of an opened log file (*.2lg).	
Menu Bar	Displays the menus for operating the log viewer. Clicking one of the items displays each pull-down menu.
Tool Bar	Displays the icons of frequently used commands. Clicking one of the icons executes each command.
Status Bar	Displays messages related to operations.

Setting item		Setting content			
	Time	Displays the dates and times when logs occurred.			
		Displays log levels. There are 8 kinds of log levels as shown below.			
		Level	Message		
l		Sys Msg	System message		
		Sys Err	System error message		
		Error	Error messages of user-defined programs		
		Start	Starting messages of user-defined programs		
		End	Ending messages of user-defined programs		
		Warning	Warning messages of user-defined programs		
		Message1	Detailed messages 1 of user-defined programs		
		Message2	Detailed messages 2 of user-defined programs		
Log Display Area	Level	NOTEYou can select which items to be displayed in the log viewed		e] is	
 checked, the online log will be overwritten every tin When a System Err or Error displays, refer to the 36.3 'Pro-Server EX' Error 			3.		
	Message	Displays log messages. In addition, the ACTION names set by 'Pro-Studio EX' are simultaneously displayed.			

28.6 Monitoring Using Excel Graphs

28.6.1 Try to Display Using Excel Graphs

'Pro-Server EX' incorporates the DDE server function and enables the data transfer with an application including the DDE client function.

This feature allows you to read device data of Device/PLC to a sheet created by Excel with simple operation. You can create a monitor sheet in various formats by using features, such as the Excel graph wizard and functions.

Monitor 4 device values of Device/PLC device addresses (word device: "D50" to "D53") on an Excel sheet and show them in a graph.



(1) Creating an Excel Sheet

This step creates a sheet for monitoring device data.

[Creation Example]



Leave the file open after creating.

NOTE

• As for a graph to be shown on the Excel sheet, create it by using Excel features like the graph wizard or functions.

(2) Registering Entry Nodes

This step registers as entry nodes the PC and the GPs which serve as trigger conditions (trigger). Refer to "31 Node Registration" for details about entry nodes.





Node Name	:AGP1
IP Address	:192.168.0.100

Device/PLC Information



Entry node	Setting item	Setting example	
PC	Node Name	PC1	
	IP Address	192.168.0.1	
	Туре	GP3000 series	
GP	Node Name	AGP1	
	IP Address	192.168.0.100	

(3) Registering Symbols

This step registers as a symbol the device address from which data is read.

Refer to "32 Symbol Registration" for details about symbols.



Setting item	Setting content			
Symbol Name	Line_A	Line_B	Line_C	Line_D
Data Type	16Bit (Signed)			
Device address for symbol registration	"D50" of Device/PLC (PLC1)	"D51" of Device/PLC (PLC1)	"D52" of Device/PLC (PLC1)	"D53" of Device/PLC (PLC1)
No. of Devices	1	1	1	1

(4) Saving a Network Project File

This step saves the current settings as a network project file and reloads to 'Pro-Server EX'.

Refer to "25 Saving" for details about saving a network project file.

IMPORTANT	'Pro-Server EX' reads a created network project file, and then executes ACTION		
	according to the settings in the file. The settings therefore need be saved in the network		
	project file.		
	Description of the method of the sector of the tell Description of the set ACTION will be the sector of the sector		

• Be sure to reload the network project file to 'Pro-Server EX'. If not, ACTION will not work.

(5) Transferring a Network Project File

This step transfers a saved network project file to entry nodes.

Refer to "26 Transferring" for details about transferring a network project file.

(6) Copying Data to an Excel Table

1 Click the [Symbol] icon on the status bar.



2 Click the symbol sheet where the symbol(s) to be monitored are registered.

Check Duplication/List Used Addresses	
Global Constant Setting Screen	
HINTERNAL Sheet2 HINTERNAL Sheet2 PLC1:Sheet3 A Reries CPU Dir VinGP L 13000 GP Series	
Global Symbol	
• • •	

3 Select "Line_A".

ng Help Symbol Symbol Feature Save Save Monitor Status									
Node Name AGP1		Device	Name PLC1						
Sheet Name Sheet3									
Symbol	Data Type	Consec	Device Address	No. of Data					
Symbol	Data Type	utive	Device Address	NU, ULD'ALA	Comment				
Line_A	16Bit(Signed)	utive	D0050	1					
		utive		1 1					
Line_A	16Bit(Signed)		D0050	1 1 1					
Line_A Line_B	16Bit(Signed) 16Bit(Signed)		D0050 D0051	1 1 1 1 1					
Line_A Line_B Line_C	16Bit(Signed) 16Bit(Signed) 16Bit(Signed)		D0050 D0051 D0052	1 1 1 1 1 1					

4 From [Programming Assist] on the menu bar, select [Excel] - [DDE].

💱 Pro-Studio EX 🛛 p	project02.npx	
<u>File E</u> dit <u>T</u> ool <u>Pr</u>	ogramming Assist Se	jetting <u>H</u> elp
Start .	VB & VBA	
Symbol	EXCEL > DDE	Node Name AGP1
Group	Ungroup	Sheet Name Sheet3
Insert	Delete	

A pop-up message appears.



The DDE server uses information which consists of 3 parts, including [Application Name], [Topic Name], [Item Name] shown below, to communicate with an application.

[Application Name]

Name of the DDE server. Specify PROSERVR when accessing the 'Pro-Server EX' data. Corresponds to the leading PROSERVR in the above dialog box.

[Topic Name]

Name of the data group on the DDE server. In 'Pro-Server EX', specify the node name of GP which joins the network, including the Device/PLC name, if necessary. Corresponds to AGP1.PLC1 in the above dialog box.

[Item Name]

Name of the individual data in the data group on the DDE server. In 'Pro-Server EX', specify the device address of PLC which connects to GP. The symbol name defined with 'Pro-Studio EX' can be used as it is. Corresponds to Qty. in Line A in the above dialog box.

5 Display the Excel sheet, right-click the cell of the "Production" column in the "Line A" row, and then select [Paste].

	A	В	С	D	E	F	G	Н	Γ
1									
2			Production	Setup					
3		Line A	V	 					
4		Line B	00 	Cu <u>t</u> Copy					
5		Line C							
6		Line D		Paste					
7			<u> </u>	Paste SpScial.					
8				T					
q				Insert					E

The device data of "Line_A" is pasted into the cell.

	Α	В	С	D	E	F	G	Н	
1									
2			Production	Setup					
3		Line A	40	200					
4		Line B		[200					
5		Line C		200					
6		Line D		200					
7									
8									
9									
10		250 -							
11		²⁰⁰ T							1

6 Repeat the procedures above to paste the device data of from "Line B" to "Line D" into the corresponding cells.

	A	В	С	D	E	F	G	Н	
1									
2			Production	Setup					
3		Line A	40	200					
4		Line B	70	200					
5		Line C	80						
6		Line D			1				
7			Land Cut Land Cut						
8			≌ <u>⊆</u> ору						
9			🛍 <u>P</u> aste	<u>.</u>					
10		250	Paste 😫	pecial					
11		250							
12			<u>I</u> nsert.						

The device data will be read out in real time to the cells on the Excel sheet.

• You cannot save the device data under monitoring. Use "Excel Report ACTION" etc for data saving.