12 Writing Excel Data in Device/PLC

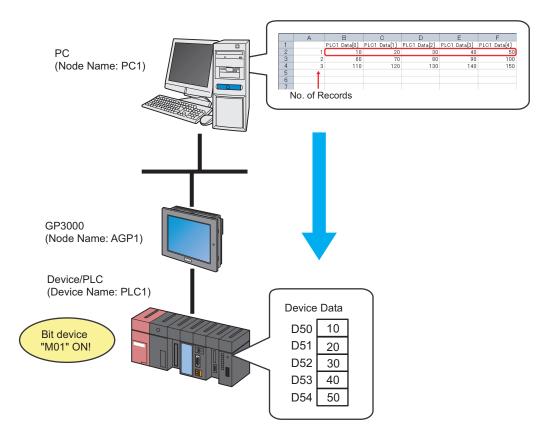
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12.1 Try to Write Recipe Data in Device/PLC

[Action Example]

Detect the rising of the trigger device (bit device: "M01") of Device/PLC and write recipe sheet data created in Excel into 5 devices (word device: address "D50" to "D54") of Device/PLC.

(Example) Writing the data of record No. "1" of a recipe sheet.



This section describes the setting procedures for executing the above action (ACTION) as an example.

[Setting Procedure]

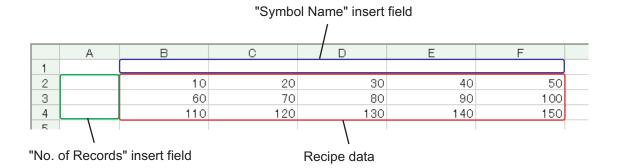
1	Creating a Recipe Sheet (page12-4)	This step creates a recipe sheet in 'Microsoft Excel' to write in Device/PLC.	
	+		
2	Starting 'Pro-Studio EX' (page12-5)	This step starts 'Pro-Studio EX'.	
	+		
3	Registering Entry Nodes (page12-5)	This step registers the PC and the display units as entry nodes.	
4	Registering Symbols (page12-6)	This step registers as a symbol the device of Device/ PLC to write data in.	
5	Specifying a Recipe Sheet and its Output File (page12-8)	This step sets the following items:Specify a recipe sheetSpecify an output file	
6	Setting the Contents of a Recipe Sheet (page12-11)	This step sets the following items:Set a writing deviceSet the area to read out	
	+		
7	Setting ACTION Node/Process Completion Notification (page12-24)	This step sets the name of an ACTION node and the alert setting whether it should be tuned on or off when the ACTION is completed.	
8	Verifying Setting Result (page12-26)t	This step verifies setting results on the setting content list screen.	
	+		
9	Saving a Network Project File (page12-28)	This step saves the current settings as a network project file and reloads.	
	+		
10	Transferring a Network Project File (page12- 29)	This step transfers a saved network project file to the display unit.	
	+		
11	Executing ACTION (page12-29)	This step verifies that recipe data is written in the specified area of Device/PLC when the preset trigger condition has become effective.	

12.1.1 Creating a Recipe Sheet

This step creates a recipe sheet where data to write in Device/PLC exists.

1 Start 'Microsoft Excel' and create the recipe sheet below in Sheet 1.

[Creation Example]



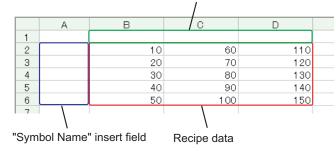
Leave both spaces for "Symbol Name" (Cells B1 to F1) and those for "Record No." (Cells A2 to A4) blank for these will be automatically allotted and filled in after completing the setting.

• You can prepare multiple recipe data on Excel. Allot a record No. for each recipe to specify data to write in Device/PLC. For details, refer to "12.1.6 Setting the Contents of a Recipe Sheet" mentioned later.

- **2** Save the recipe sheet with the file name "recipe.xls" on PC desktop after creating.
 - NOTE

You can create a recipe sheet in the direction (horizontal) as shown below.

"No. of Records" insert field



12.1.2 Starting 'Pro-Studio EX'

This step starts 'Pro-Studio EX'.

Refer to "3 Trial of Pro-Server EX" for details about starting method.

12.1.3 Registering Entry Nodes

This step registers the PC and the display unit connected with network as nodes. Refer to "31 Node Registration" for details about entry nodes.



Node Name	:PC1
IP Address	:192.168.0.1



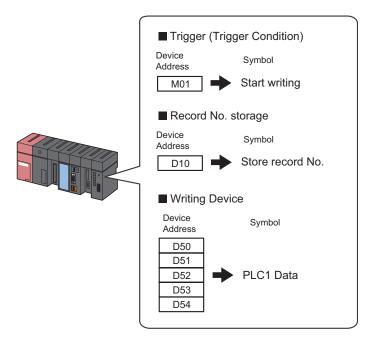
Node Name	:AGP1
IP Address	:192.168.0.100
Device/PLC Inform	nation



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

12.1.4 Registering Symbols

This step registers as a symbol the device address of Device/PLC to which device data is written. Refer to "32 Symbol Registration" for details about symbols.





• Trigger (Trigger Condition)

Setting item	Setting content
Symbol Name	Start writing
Data Type	Bit
Device address for symbol registration	"01" of Device/PLC (PLC1)
No. of Devices	1

Record No. storage

Setting item	Setting content
Symbol Name	Record No. Storage
Data Type	16Bit (Unsigned)
Device address for symbol registration	"10" of Device/PLC (PLC1)
No. of Devices	1

• Writing Device

Setting item	Setting content
Symbol Name	PLC1 data
Data Type	16Bit (Signed)
Device address for symbol registration	"D50" to "D54" of Device/PLC (PLC1)
No. of Devices	5

12.1.5 Specifying a Recipe Sheet and its Output File

This step specifies the pre-created recipe sheet and its output file. Refer to "12.3 Setting Guide" for more details.

Ex.

Setting item		Setting content		
Specify a Template	Template File	C:\Documents and Settings\Administrator\Desktop\recipe.xls		
	Folder Name	C:\Documents and Settings\Administrator\Desktop		
	File Name	Recipe write.xls		
Output File	Start with the output file displayed	Not checked		
	Do not save the output file when ACTION runs.	Not checked		

1 Click the [Feature] icon on the toolbar.

Save
ice Name
as a glob
<u>-</u>

2 Select [ACTION] from the tree display on the left of the screen, then click the [Add] button.

饕 Pro-Studio EX	test.npx				
File Edit Tool P	rogramming	Assist	Setti	ng He	lp
💋 Start 🔉		Node	»	\triangleright	Symbol
Add	Import				
Edit	Delete	;		A	ACTION
ACTION Trigger Con Data Trans Device Cac	fer			u u It	n addition sing appli sing Acce n the Pro-S eferred to «

3 Click the [ACTION Type] list button, and select "Create form using Excel".

Then, enter the name of ACTION to set in the [ACTION Name] field. In this example, enter "Recipe Write".

NOTE	• [ACTION Name] can be an arbitrary name.

Set ACTION Name/Parameter	×
Add a new ACTION. Specify an ACTION name, and set its parameter.	
ACTION Type Create form using Excel.	-
ACTION Name Writes Data to CSV file. ACTION Name Writes Data from CSV file. Upload of GP JPEG Data. Upload of GP Log Data. Writes Data to E-Mail. Upload to the database. Download from the database.	
Next Cancel	

4 Click the [Click here to set the ACTION parameter] button.

ACTION Type Create form using Excel.	•
Display the Actions of the old version of Pro-Server	
ACTION Name RecipeWrite	
Click here to set the ACTION parameter.	

- **5** Make settings regarding an Excel template and its output file.
 - 1) Click the [Reference] button of [Template File] to set the template file "templete.xlt" which you created.

-Template Designatio	٦							
Please specify the name of Excel template file that is the source of forms. When you use the wizard, the theme template file is copied to a file with this name. When you create a new template, please specify the file name.								
Template File	Template File C: Documents and Settings\AdministratorDesktop'template.x Reference							
	Edit Template							
Output File								
The template file st	ores setting info. The actual output result will be displayed in the following file.							
Folder Name	E:\Program Files\Pro-face\Pro-Server EX\WpxDatabase Reference							
File Name	Report_%Y%M%D.xls Return to Default Settings							
☑ Start from Displayed State								
□ Do not save the output file when ACTION runs. (Please use the Save or Save by Macro of Excel.)								
	OK Cancel							

2) Click the [Reference] button of [Folder Name] and specify "Desktop" as a folder to save the output file.

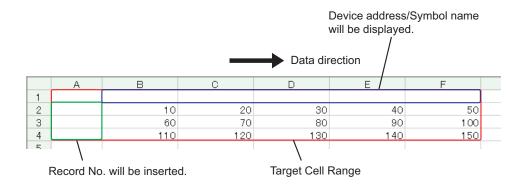
The template file stores setting info. The actual output result will be displayed in the following file. Folder Name C:'Documents and Settings\Administrator\Desktop								
File Name	Report_%Y%M%D.xls	Return to Default Settings						
	alayed State le output file when ACTION runs. a Save or Save by Macro of Excel.)							
		OK Cancel						

3) Set the file name "Recipe Write.xls" in the [File Name] field for the output file to set.

Output File								
The template file stores setting info. The actual output result will be displayed in the following file.								
Folder Name	C:\Documents and Settings\Administra	ator'Desktop Reference						
File Name	RecipeWrite.xls	Return to Default Settings						
Start from Displa	ayed State							
Do not save the (Please use the	output file when ACTION runs. Save or Save by Macro of Excel.)							
		OK Cancel						

12.1.6 Setting the Contents of a Recipe Sheet

This step sets the contents of a recipe sheet for writing data to Device/PLC. The example below shows the setting of data write area (recipe area) of a recipe sheet. Refer to "12.3 Setting Guide" for more details.



/ Ex. /

Setting item	Setting content
Entry Node	AGP1
Device Name	PLC1
Device Address/Symbol Group	PLC1 data
Add Device Address/ Symbol Name	Checked
Target Cell Range	A1 to F4
Data Direction	Specify the direction of record No.s as "Vertical".
Trigger Condition Name	Turn on write start bit
Trigger Condition	When "Start writing" (M01) is ON

1 Click the [Edit Template] button.

Create form using Exce		
		Version 1.22
┌─Template Designation —		
When you use the wiza	e of Excel template file that is the source of forms. ard, the theme template file is copied to a file with this name. w template, please specify the file name.	
Template File	C:/Documents and Settings/Administrator/Desktop/template.xl	Reference

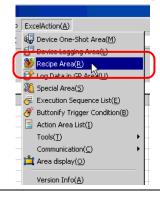
The recipe sheet appears.

- 2 Set a data write area.
 - 1) Click the [Recipe Area] icon on Excel.

M	🔣 Microsoft Excel - template.xlt										
Eile Edit View Insert Format Iools Data Window Help ExcelAction(A)											
	🗅 😅 🖬 🚑 📾 🖘 • 🍓 Σ 🏂 斜 🛍 🖗 🐐 Arial 🔹 • 10 • Β Ζ Ψ 📰 🗄 • 🖄 • *									🕭 - 🍹	
	J/ TS ▼I = A Recipe Area C D E F G H I J K T										
1			~	U	L					 I.V.	_
2		10	20	30	40	50					
3		60	70	80	90	100					
4		110	120	130	140	150					
5											
2								1			



• Selecting "Recipe Area" from [Excel Action] of the menu displays the same screen.



2) Click the list button of [Node] and select "AGP1" as a data transfer destination node.

👸 Recipe	. 🗆 🗙
Action Settings Record No. Settings Trigger Condition Settings	
Device Settings Node ITrigger-Source Node Name Device Address/Symbol Group Data Type IGBit(Signed) Device Settings	
Add Device Address/Symbol Name Note: When specifying inconcecutive memory data, please use a group symbol.	

3) Click the list button of [Device Name] and select "PLC1" as a data transfer destination device.

Recipe	
Action Settings Record No. Settings Trigge	er Condition Settings
Device Settings Node AGP1	Device Device Name HINTERNAL
Device Address/Symbol Group	No. of PLC1
Data Type 16Bit(Signed	:d)
Add Device Address/Symbol Nam	ne Note: When specifying inconcecutive memory data, please use a group symbol.

4) Click the list button of [Device Address/Symbol Group] and select "PLC1 data" as a symbol of the data to write in.

Action Settings Record No. Settings Trigger Condition Settings	IX
Node AGP1 V Device PLC1	
Device Address/Symbol Group Data Type 16Bit(Signed) Add Device Address/Symbol Name	

The device number "1" will be automatically entered in [No. of Devices], and "16Bit(Signed)" in [Data Type].

👺 Recipe	_ 🗆 X
Action Settings Record No. Settings Trigger Condition Settings	
Device Settings Node AGP1 Device PLC1	
Device Address/Symbol	
Data Type	
Add Device Address/Symbol Name Note: When specifying inconcecutive memory data, please use a group symbol.	

5) Check [Add Device Address/Symbol Name].

🖗 Recipe						_ 🗆 X
Action Settings Record No. Se	ettings 🛛 Trigger Condition Sel	ttings				
Device Settings Node	AGP1	•	Device Name	PLC1	•	
Device Address/Symbol Group	PLC1data	V	No. of Devices	1	÷	
Data Type	16Bit(Signed)					
Add Device Address/Symbol Name Note: When specifying inconcecutive memory data, please use a group symbol.						

- After the procedure of "12.1.9 Saving a Network Project File" described later, open the template again, and open the recipe setting dialog box. After confirming that the "Add Device Address/ Symbol Name" checkbox has been checked, click the [OK] button. Then, the device address/ symbol name will be reflected in the template.
- 6) Click the cell range specify button of [Target Cell Range].

Layout Settings Target Cell Range Data Direction C B B C B C B C B C	Sample An image of writing to a cell is shown below. The arrow points in the direction of arranging recipe data.
Ro. of Records 1 No. of Records 1 Note: The layout of a group symbol is fixed.	D101 D102 D103 D104 1 25 25 25 25 2 50 20 20 10 3 20 20 30 30 4 10 10 10 70

7) Drag the mouse to specify the data write area (cells A1 to F4). Then click the [OK] button.

	A	В	С	D	E	F	G	Н		J	K		
1													
2		10	20	30	40	50)							
3		60	70	80	90	100							
4		110	120	130	140	150)							
5				Specify R	ange			? ×					
6					ecify the rang								
-7				Please sp	eciry the rang	je.							
8													
9													
10													
11				\$A\$1:\$F	\$4								
12													
13					OK , Cancel								
14													
15													
16													

NOTE

• When specifying the area, cover the cells to insert record No.s and Device Address/Symbol Names.

8) Select "Vertical" of [Data Direction].

Layout Settings	Sample
Target Cell \$A\$1:\$F\$4	An image of writing to a cell is shown below.
Range Device Record	The arrow points in the direction of arranging
Data Direction S	recipe data.
No. of Records 3	D101 D102 D103 D104 1 25 25 25 25 2 50 20 20 10 3 20 20 30 30 4 710 10 10 70

9) Click [Allot Record No. from 1 to Cell Range].

Layout Settings	
Target Cell \$A\$1:\$F\$4	Sample An image of writing to a cell is shown below.
Data Direction	The arrow points in the direction of arranging recipe data.
No. of Records 3	D101 D102 D103 D104 1 25 25 25 25
Note: The layout of a group symbol is fixed.	2 50 20 20 10 3 20 20 30 30 4 10 10 10 70
	Allot Record No. from 1 to Cell Range

• Specify the recipe data to write in Device/PLC with record No.s. This example allots record No.s to the recipe data.

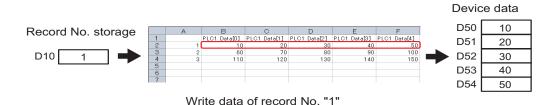
Record No.s and ruled lines are automatically added on the recipe sheet.

	A	В	С	D	E	F
1		PLC1data[0]	PLC1data[1]	PLC1data[2]	PLC1data[3]	PLC1data[4]
2	1	10	20	30	40	50
3	2	60	70	80	90	100
4	3	110	120	130	140	150
	-		1	1		

3 Specify a record No.

Specify the recipe data by entering a record No. in the symbol "Record No. storage" from display unit or Device/ PLC.

(Example) In case of storing device data "1" in the device "Record No. storage".



1) Click the [Record No. Settings] tab.

🛞 Recipe			_ 🗆 X
Action Settings Record No. Settings rigger Condition Settings			
Device Settings			1
Node AGP1	Device Name	PLC1 💌	
Device Address/Symbol EPLC1data	No. of Devices	5 🕂	

2) Click "Specify by device/symbol values" in [Record No. at Write Recipe].

📽 Recipe	_ 🗆 🗙
Action Settings Record No. Settings Trigger Condition Settings	
The recipe has two or more records. Please configure the specification method of them.	
Record No. at Write Recipe	
Specify by device/symbol value	
Node (Trigger-Source Node Device Name	
Device Tata Type 16Bit(Signed)	
No. of Characters	
Specify by cell value	
\$4\$1	
100 200 300 400 From Cell to PLC	

• If you select [Specify by cell value], specify any cell on Excel. The number entered in the cell is recognized as the record No.

Refer to "12.3 Setting Guide" for more details.

3) Click the list button of [Node] and select the node name "AGP1" which has the Device/PLC to store the record No.

🏶 Recipe			_ [_ X					
Action Settings	Record No. Settings	Trigger Condition Settings	8					
The reci	The recipe has two or more records. Please configure the specification method of them.							
Record No.	at Write Recipe							
Spe	cify by device/symbol v	alue						
Node		er-Source Node) 💌 💷	Device I					
Device Addres	s/Symbol	1 geNSource Node)	Data Type 16Bit(Signed)					
			No. of Characters					

4) Click the list button of [Device Name] and select the Device/PLC "PLC1" to store the record No.

8	Recipe							_ 🗆 🗙
	Action Settings	Record No. Set	tings Trigger Condi	tion Settings				
	The recipe has two or more records. Please configure the specification method of them.							
	Record No. a	at Write Recipe -						
	Spece	ify by device/sym	nbol value					
	Node		AGP1	•	Device Name	#INTERNAL		
	Device Address	/Symbol		_	Data Type			
					No. of Chara	acters 1	÷	

5) Click the list button of [Device Address/Symbol] and select the symbol name "Record NoStorage" of the device to store the record No.

*	Recipe				_ IX
	Action Settings Record	No. Settings Trigger Condition	n Settings		
	The recipe has two	or more records. Please conf	igure the specification	method of them.	
	⊢Record No. at Write R	scipe			
	Specify by dev	ice/symbol value			
	Node	AGP1	▼ Device	PLC1	•
	Device Address/Symbol	H	▼ ⊡- Local:She		
			- Write	Start ordNoStorage	
	C Specify by cell	value	PLUT	data	
		\$4\$1			

The device data type "16Bit(Unsigned)" will be automatically entered in [Data Type].

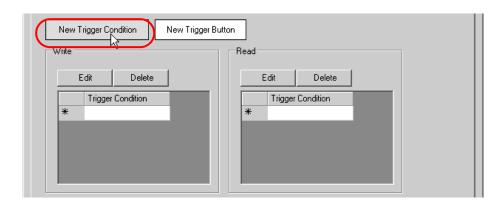
- 4 Set trigger conditions.
 - 1) Click the [Trigger Condition Settings] tab.

🏶 Recipe								
Action Settings	Record No. Se	ettings Trigger Cor	dition Settings	\mathbf{r}				
The recip	The recipe has two or more records. Please configure the specification method of them.							
Record No. a	at Write Recipe							
Specific	cify by device/sy	mbol value						
Node		AGP1	•	Device Name	PLC1	•		
Device Address	:/Symbol	RecordNoSto	age 🔻	Data Type	16Bit(Signed)			

The "Trigger Condition Settings" screen will appear.

👺 Recipe	
Section Record No. Settings Trigger Condition Settings Action Area No. Image: Condition Settings Image: Condition Settings When the specified trigger type (under-condition button) is satisfied, this area is executed. Please specify a trigger type. Image: Condition Settings New Trigger Condition New Trigger Button Image: Condition Settings Write Image: Condition Settings Image: Condition Settings Write Image: Condition Settings Image: Condition Settings Write Image: Condition Settings Image: Condition Settings Image: Condition Settings Image: Condition Settings Image: Condition Settings Image: Condition Settings Image: Condition Settings Image: Condition Settings Image: Condition Settings Image: Condition Settings Image: Condition Settings Image: Condition Settings Image: Condition Settings Image: Condition Settings Image: Condition Settings Image: Condition Settings Image: Condition Settings Image: Condition Settings Image: Condition Settings Image: Condition Settings Image: Condition Settings Image: Condition Settings Image: Condition Settings Image: Condition Settings Image: Condition Settings	
ΟΚ	Cancel

2) Click the [New Trigger Condition] button.



• You can also activate ACTION by placing a button on Excel from [New Trigger Button] and clicking it. Refer to "12.3 Setting Guide" for more details.

3) Click the [New Trigger Condition] button.

Set Trigger Condition
Specify a trigger condition of the ACTION.
Trigger Condition
New Trigger Condition
Edit
Node
Close

 Enter the trigger condition name "TurnOnWriteStartBit" in [Trigger Condition Name], and select "AGP1" in [Node Name] as a name of the data transfer source.

			×
Trigger Condition Name	TumOnWriteStartBit	r Q	Find Node
Node Name	PC1 Add Node		
(AGP1		
			•

5) Click the [When Device ON] button in the [Condition 1] tab and select "PLC1" for the device name.

Condition 1 Specify the Trigger Condition.			
👫 When Turned ON	While Device is ON While Condition Satisfied		
G Specified Time	While Device is OFF When Condition Satisfied		
Constant Cycle	When Device ON ! When Partner Node ON		
When Device Changes	When Device OFF 📃 🤼 When Partner Node OFF		
Device Name Turn OFF the Specified Device Address after Processing. Data Type 16Bit(Signed)			
Limited Time Offer Check Cycle Always			
	Detail Settings OK Cancel		

6) Click the [Device Address] list button and select "WriteStart" for the device symbol name which serves as the trigger.

Device Name	Turn OFF the Constitution Address after	
PLC1	Turn OFF the Specified Device Address after Local Sheet3	
Device Address	WriteStart	
Image: Image	- Recordivationage	
Data Type 16Bit(Signed)		
Limited Time Offer		
0 → hour 0 → min · 0 → hou		
	e	

[Data Type] automatically appears after selection, too.

7) Click the [OK] button.

Device Name	um OFF the Specified Device Address after
	ocessing.
Device Address	
VriteStart 🗸	
Data Type Bit	
Limited Time Offer	Check Cycle 🧮 Always
0 + hour 0 + min - 0 + hour	0 - min 500 - ms
	Detail Settings OK Cancel

8) Click the [Close] button.

Set Trigger Condition 🛛 🛛 🕅
Specify a trigger condition of the ACTION.
Trigger Condition
New Trigger Condition
TurnOnWriteStartBit Edit
Node[AGP1
When WriteStart of Node AGP1 is Turned ON
Close

9) Click the blank line of [Write] and select "TurnOnWriteStartBit" as a trigger condition.

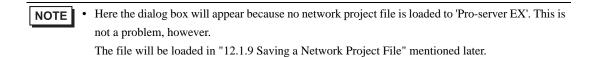
New Trigger Condition New Trigg	er Button
Edit Delete	Edit Delete
Trigger Condition	VriteStartBit

10) Click the [OK] button.

()	If two or more are specified, the Action is executed when any of them is satisfied. For more complicated operation, please configure from [Excel Action]-[Execution Sequence List] in the menu.
	OK Cancel

11) Click the [OK] button.

Excel Rep	oort Action - Info 🛛 🔀
•	Cannot perform Test Read. Please confirm the followings. - The network project file (npx) has been correctly loaded into Pro-Server EX. - The target node is participating. - The cable is not broken.
	ОК



This is the end of the content settings of a recipe sheet.

- Can display Data/Time on an Excel sheet.
 - Can display arrows on an Excel sheet.
 "5.3 Writing Arrows in a Form"
 - Can display a trigger source node on an Excel sheet.
 - "5.4 Writing Trigger Source Node Names in a Form"

5 Close 'Excel'.

Microsoft Excel - template.xlt	Window Help ExcelAction(A)
□ □ №ew Ctrl+N ▶ ✓ Open Ctrl+O ↓ ✓ Open Ctrl+O ↓ ↓ ↓ ↓	
Ctrl+S	
1 Web Page Preview	30 40 50
3 Page Setup	
4 Print Area 5 Q Print Preview	▶ <u>130 140 150</u>
6 B Print Ctrl+P	
7 8 Sen <u>d</u> To	• • • • • • • • • • • • • • • • • • •
9 10 <u>1</u> \Documents and Se\exceltablexis.xis	
11 2 \Documents and Settings\A\Book1.xls	
12 3 \Documents and Settings\m\aaaa.xls	
13 4 \Documents and Settings\mh\test.xls 14	
15 Exit	
16 × ×	
17	
I I M Sheet1	
Ready	

The following dialog box will appear, asking you if you want to save changes before closing. Click the [Yes] button.

Excel Report Action - Completion Confirmation 🛛 🗙				
Save changes to the template and finish editing?				
	Yes 💦	No	Cancel	

6 On the "Create form using Excel" screen, click the [OK] button.

Folder Name	C:\Documents and Settings\Administrator	Desktop Reference
File Name	RecipeWrite.xls	Return to Default Settings
🔽 Start from Disp	played State	
	ne output file when ACTION runs. e Save or Save by Macro of Excel.)	

12.1.7 Setting ACTION Node/Process Completion Notification

This step sets the name of an ACTION node and the alert setting whether it should be tuned on or off when the ACTION is completed.



- ACTION Node : PC1
- Receive Notification: OFF

1 On the "Set ACTION Name/Parameter" screen, click the [Next] button.

Set ACTION Name/Parameter
Add a new ACTION. Specify an ACTION name, and set its parameter.
ACTION Type Create form using Excel.
Display the Actions of the old version of Pro-Server
ACTION Name RecipeWrite
Click here
to set the ACTION parameter.
Next Cancel

 $2\,$ Click the list button of [ACTION Node] and select "PC1" as a node where ACTION operates.

Set ACTION Node/Process Completion Notification	×
ACTION Type Create form using Excel.	
ACTION Name RecipeWrite	
Specify an action node (Windows PC) where the ACTION works practical	y.
PC1 PC1 Rošeivo Netification Prists	
Please specify the notified device that will be informed of the execution of the ACTION. After the execution of the ACTION, it will be is turned on.	

3 Turn off the [Receive Notification Exists] check box, if checked.

ACTION Node PC1 Receive Notification Exists Please specify the notified device that will be informed of the execution of the ACTION. After the execution of the ACTION, it will be is turned on.	
Device Name	
,	
Notified Device	
Data Type Bit	



4 Click the [Complete] button.

The "Set ACTION Node/Process Completion Notification" screen will disappear. On the left of the screen, the name of ACTION you set will appear.

Device Name
#INTERNAL
Notified Device
₫
Data Type Bit
Back Complete Cancel

This is the end of the settings of the ACTION node and process completion notification.

12.1.8 Verifying Setting Result

This step verifies setting results on the setting content list screen.

• With the "Excel Report" ACTION, you cannot add, edit or delete a trigger condition in "ACTIONspecific Trigger Condition/Process List". To change a preset condition, click the [Set Parameter] button, and select [Edit Template] to change data on Excel.

1 Select the ACTION name "Recipe Write" from the tree display on the left of the screen.

牧 P	ro-St	udio E	x	?.npx		
File	Edit	Tool	P	ogrammin	g Assist	S
	1	Start	> >		Node	2
	Ac	Id		Impo	ort	l
Edit				Dele	te	L
		CTION Rec nigger S Tun Jata Tr Jevice	sipe\ Com hOn ¹ ansf	jitizgi WriteStartE er	3 it	

Confirm that the setting content appears on the right of the screen.

Setting Help	
🎾 ≽ Symbol 🎾 ≷ Feature 🎾 📄 Save 🎾 🆄	Transfer Monitor
ACTION-Specific Trigger Condition/Process List	ACTION
Add Edit Release	Delete ACTION
Data Source Node AGP1	RecipeWrite
Trigger When WriteStart of Node AGP1 is Tu Data	Rename
Completion TurnOn	Create form using Excel.
	Set Parameter
L	ACTION Node
	PC1

2 Select the trigger condition name "TurnOnWriteStartBit" from the tree display on the left of the screen.

🇞 P	ro-St	udio EX	?.пря	
File	Edit	Tool	Programmin	ig Assist
	1	Start 2	»	Node
	Ac	ld	Imp	ort
	Ed	dit	Dele	ete
	Č	CTION Recip rigger Co Turno rata Tran Pevice Ca	ondition InWriteStartf	

Confirm that the setting content appears on the right of the screen.

					-	. 🗆 🗙
Setting Help						
» ⋡ Symbol » 襓 Feature	» 🗄	Save ン	Ľ	🤰 Transfe	- 🔊	Monitor Status
Trigger Condition	Sec	luence D	iag	ram by Ti	rigger Condition	
		Collapse		Tra	ansfer ACTION/Data	
TurnOnWrit Edit	Feature	Source		Destinat	Receive/Process Co.	
Node AGP1	RecipeW	AGP1.#	->	PC1.Re		
						_
When WriteStart of Node AGP1						
						_

This is the end of the verification of the settings.

12.1.9 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.

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



12.1.10 Test Write

You can check if the settings are correct before transferring a created network project file to entry nodes.

NOTE	You do not necessarily have to perform a test write. If you skip this, proceed to "12.1.11 Transferring a Network Project File".
	Note that the data will be actually written in the Device/PLC when you specify the device of Device/PLC as a write destination. To perform a test write, it is necessary that 'Pro-Server EX', to which a created network project file has been loaded, is running.

- 1 Click the [Feature] button.
- 2 Click "ACTION" from the tree display on the left of the screen, then click the [Edit] button.
- $\mathbf{3}$ On the "Set ACTION Name/Parameter" screen, click the [Click here to set the ACTION parameter] button.
- **4** On the "Create form using Excel" screen, click the [Edit Template] button.

5 With the ACTION area selected, click the [Test Write] icon.

Microsoft Ex	cel - templa	te3.vlt									
Eile Edit V											围×
🗅 🖻 🖬 🗧) 🖨 🖪 🤅	😵 🖁		- 🔮 Σ	f= ĝ 🛍	🛛 🙄		•	• B	1 <u>U</u>	>> *
🖾 SnagIt 😭		-									
	، 🍕 🎎 ۹	of 🗉 🛱	S 🔊	Ľ							
	•	= =EMBE	D("Pro <mark>net</mark> S	Weite mOcx	.FormRange	Info.1","")					
A	В	С	D	E	F	G	Н		J	K	
1		4	,		l						
2 1											
3 2											
4 3			1								
5											
6											
7											

At this point, data is written in the Device/PLC.

- You can check that data is being written on the "Symbol Monitor" screen of "Status Monitor". For more details, refer to "28 Simply Confirming On-site Status".
 - Refer to "12.4 Restrictions" for details about the restrictions on test writes.

12.1.11 Transferring a Network Project File

This step loads a saved network project file to 'Pro-Server EX' and then transfers to entry nodes.

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

NOTE • Be sure to transfer a network project file. If not, ACTION will not work.

12.1.12 Executing ACTION

This step verifies that enabling a trigger condition activates ACTION and writes the data of the recipe sheet (File name: "Recipe write.xls") to the specified device of Device/PLC.

🐺 Symbol - Monitor of Pro-Server EX				
Node AGP1 Device/PLC PLC1 Device Act	Idress Sheet3			
Set Polling time 1000ms Time expended for read 3047ms	Time expended for write	Start		
G G Symbol Data type + Address Count	+00 +01	+02	+03	+04
WriteStart Bit M0001 1 RecordNoStor16Bit(Signed) D0010 1				
PLC1data 16Bit(Signed) D0050 5	10 20	30	40	50
1				



• You can check the write/read status using the symbol or device monitor. For more details, refer to "28 Simply Confirming On-site Status".

- If error occurs, you can check the log in the Log Viewer. For more details, refer to "28.5 Monitoring System Event Logs".
- If you want to achieve faster communication during ACTION, refer to "29 Tips for Faster Communication".

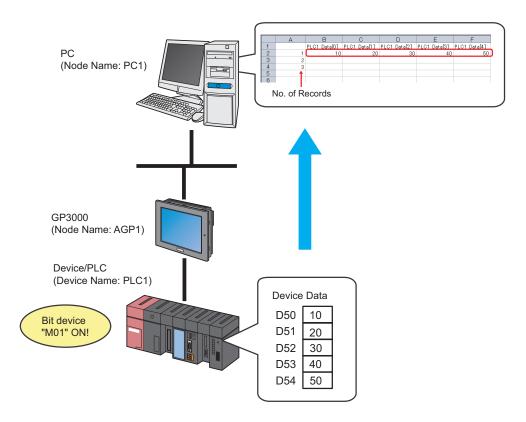
This is the end of the explanation of this ACTION.

12.2 Modifying Recipe Data from the Actual Values

[Action Example]

Detect the rising of the trigger device (bit device: "M01") of Device/PLC and read out the data of 5 devices (word device: address "D50" to "D54") of Device/PLC to an Excel recipe sheet.

(Example) Reading out the data to record No. "1" of a recipe sheet.



This section describes the setting procedures for executing the above action (ACTION) as an example.

[Setting Procedure]

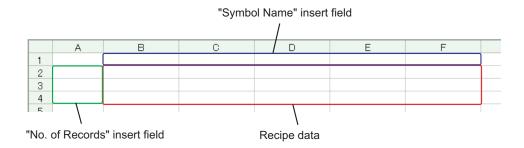
Creating a Recipe Sheet (page12-32)	This step creates a recipe sheet in 'Microsoft Excel' to write the data read from Device/PLC.			
Starting 'Pro-Studio EX' (page12-33)	This step starts 'Pro-Studio EX'.			
Registering Entry Nodes (page12-33)	This step registers the PC and the display units as entry nodes.			
+				
Registering Symbols (page12-34)	This step registers as a symbol the device of Device/ PLC from which data is read.			
Specifying a Recipe Sheet and its Output File (page12-36)	This step sets the following items:Specify a recipe sheetSpecify an output file			
Setting the Contents of a Recipe Sheet (page12-39)	This step sets the following items:Set a device to readSet a recipe write range			
Setting ACTION Node/Process Completion Notification (page12-52)	This step sets the name of an ACTION node and the alert setting whether it should be tuned on or off when the ACTION is completed.			
Verifying Setting Result (page12-54)	This step saves the current settings as a network project file and reloads.			
+				
Saving a Network Project File (page12-56)	This step saves the current settings as a network project file and reloads.			
+				
Transferring a Network Project File (page12- 57)	This step transfers a saved network project file to the display unit.			
+				
Executing ACTION (page12-57)	This step verifies that the data of Device/PLC is written in the specified area of a recipe sheet when the preset trigger condition has become effective.			
	Starting 'Pro-Studio EX' (page12-33) Registering Entry Nodes (page12-33) Registering Symbols (page12-34) Specifying a Recipe Sheet and its Output File (page12-36) Setting the Contents of a Recipe Sheet (page12-39) Setting ACTION Node/Process Completion Notification (page12-52) Verifying Setting Result (page12-54) Saving a Network Project File (page12-56) Transferring a Network Project File (page12-56)			

12.2.1 Creating a Recipe Sheet

This step creates a recipe sheet to write the data read from Device/PLC.

1 Start 'Microsoft Excel' and create the recipe sheet below in Sheet 1.

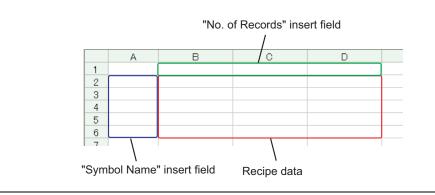
[Creation Example]



Leave both spaces for "Symbol Name" (Cells B1 to F1) and those for "Record No." (Cells A2 to A4) blank for these will be automatically allotted and filled in after completing the setting.

2 Save the recipe sheet with the file name "recipe.xls" on PC desktop after creating.

NOTE • You can create a recipe sheet in the direction (horizontal) as shown below.



12.2.2 Starting 'Pro-Studio EX'

This step starts 'Pro-Studio EX'.

Refer to "3 Trial of Pro-Server EX" for details about starting method.

12.2.3 Registering Entry Nodes

This step registers the PC and the display unit connected with network as nodes. Refer to "31 Node Registration" for details about entry nodes.



Node Name	:PC1
IP Address	:192.168.0.1



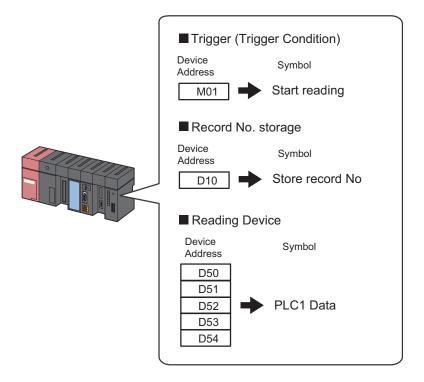
IP Address 192 168 0 100	:AGP1
	·192 168 0 100
Device/PLC Informa	



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

12.2.4 Registering Symbols

This step registers as a symbol the device address of Device/PLC to which device data is written. Refer to "32 Symbol Registration" for details about symbols.





• Trigger (Trigger Condition)

Setting item	Setting content
Symbol Name	Start reading
Data Type	Bit
Device address for symbol registration	"01" of Device/PLC (PLC1)
No. of Devices	1

Record No. Storage

Setting item	Setting content
Symbol Name	Record No. Storage
Data Type	16Bit (Unsigned)
Device address for symbol registration	"10" of Device/PLC (PLC1)
No. of Devices	1

Reading Device

Setting item	Setting content
Symbol Name	PLC1 data
Data Type	16Bit (Signed)
Device address for symbol registration	"D50" to "D54" of Device/PLC (PLC1)
No. of Devices	5

12.2.5 Specifying a Recipe Sheet and its Output File

This step specifies the pre-created recipe sheet and its output file. Refer to "12.3 Setting Guide" for more details.

Ex.

Setting item		Setting content
Specify a Template	Template File	C:\Documents and Settings\Administrator\Desktop\recipe.xls
	Folder Name	C:\Documents and Settings\Administrator\Desktop
Output File	File Name	Recipe read.xls
	Start with the output file displayed	Checked
	Do not save the output file when ACTION runs.	Not checked

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

💱 Pro-Studio EX 🛛 ?.	.npx	
File Edit Tool Pro	gramming Assist Sett	ing Help
💋 Start ン	Node >	Symbol 😺 ≷ Feature 🕨 📄 Save 2
Symbol		Node Name AGP1 Device Name
Group	Ungroup	Sheet Name Sheet3 🔲 Set it as a glob
Insert	Delete	

2 Select [ACTION] from the tree display on the left of the screen, then click the [Add] button.

饕 Pro-Studio EX	?.пря	
File Edit Tool	Programming Assist	Setting Help
Start >	Node	>> 🌔 Symbol .
Add	Import	
Edit	Delete	ACTION
ACTION Trigger Co Data Trans Device Ca	sfer	In addition using applic using Acce In the Pro-S referred to a

3 Click the [ACTION Type] list button, and select "Create form using Excel".

Then, enter the name of ACTION to set in the [ACTION Name] field. In this example, enter "Recipe Read".

NOTE	[ACTION Name] can be an arbitrary name.

Set ACTION Name/Parameter	×
Add a new ACTION. Specify an ACTION name, and set its parameter.	
ACTION Type Create form using Excel.	-
Create form using Excel. Writes Data to CSV file. ACTION Name Writes Data from CSV file. Upload of GP JPEG Data. Upload of GP Log Data. Writes Data to E-Mail. Upload to the database. Download from the database.	
OK Cancel	

4 Click the [Click here to set the ACTION parameter] button.

ACTION Type Create form using Excel.	•			
Display the Actions of the old version of Pro-Server				
ACTION Name RecipeRead				
Click here to set the ACTION parameter.				

- **5** Make settings regarding an Excel template and its output file.
 - 1) Click the [Reference] button of [Template File] to set the template file "templete.xlt" which you created.

Create form using Exc	el	
		Version 1.22
Femplate Designation -		
When you use the wi	me of Excel template file that is the source of forms. zard, the theme template file is copied to a file with this name. ew template, please specify the file name.	
Template File	C: Documents and Settings\Administrator\Desktop\template.x	Reference
	Edit Template	

2) Click the [Reference] button of [Folder Name] and specify "Desktop" as a folder to save the output file.

Output File		
The template file store:	s setting info. The actual output result will be dis	played in the following file.
Folder Name	C:\Documents and Settings\Administrator\D	esktop Reference
File Name	Report_%Y%M%D.xls	Return to Default Settings
🔽 Start from Displaye	ed State	
	utput file when ACTION runs. ive or Save by Macro of Excel.)	
		OK Cancel

3) Set the file name "RecipeRead.xls" in the [File Name] field for the output file to set.

Output File The template file sto	res setting info. The actual output result	will be displayed in the follo	wing file.
Folder Name File Name	C:\Documents and Settings\Admin RecipeRead.xls		Reference Default Settings
	aved State output file when ACTION runs. Save or Save by Macro of Excel.)		
		OK	Cancel

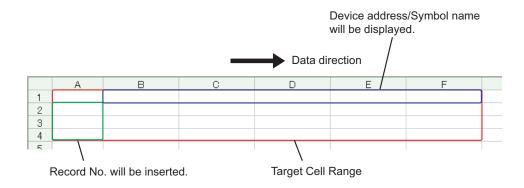
4) Check the [Start from Displayed State] check box.

Output File — The template file stores setting info. The actual output result will be displayed in the following file.							
Folder Name	C:\Documents and Settings\Administrator\D	esktop Reference					
File Name	RecipeRead.xls	Return to Default Settings					
	yed State outout file when ACTION runs. save or Save by Macro of Excel.)						
		OK					

- NOTE
- If you check [Start from Displayed State], you can read/write data with an output file displayed. This is useful if you need to confirm data immediately.

12.2.6 Setting the Contents of a Recipe Sheet

This step sets the contents of a recipe sheet to write the data read from Device/PLC. The example below shows the setting of data read area (recipe area) of a recipe sheet. Refer to "12.3 Setting Guide" for more details.



Ex.

Setting item	Setting content
Entry Node	AGP1
Device Name	PLC1
Device Address/Symbol Group	PLC1 data
Add Device Address/ Symbol Name	Checked
Target Cell Range	A1 to F4
Data Direction	Specify the direction of record No.s as "Vertical".
Trigger Condition Name	Turn on write start bit
Trigger Condition	When "Start writing" (M01) is ON

1 Click the [Edit Template] button.

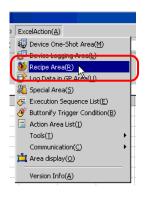
Create	form using Excel	
		Version 1.22
Tem	plate Designation ——	
W	hen you use the wizar	of Excel template file that is the source of forms. d, the theme template file is copied to a file with this name. template, please specify the file name.
Ter	nplate File	C: Documents and Settings\Administrator Desktop template.xl
	(Edit Template

- 2 Set a data read area.
 - 1) Click the [Recipe Area] icon on Excel.

Microsoft Excel - Recipe.	xlt								-	
Eile Edit View Insert I	F <u>o</u> rmat <u>T</u> ool	s <u>D</u> ata <u>W</u> in	idow <u>H</u> elp I	ExcelAction(A)				_	Ð×
0 🛩 🖬 🔒 🎒 🖻	K) + 🤮	Σ <i>f</i> * <mark>2</mark>	l 🛍 🛛	₽ Arial		v 10	• B I	Ū ≣ ≣	E 🛛 🕶 🗸	🥭 - 🎇
🔛 🖻 💆 🔽 🖬 🗆	• == ==	≓ € ₿	Α 🗟 🕇	<u>*</u> -						
- 5, 1 (💥)) XL 5, 1	gʻ 🙀 🛛	범 🔮 🖌								
	=									
A Recipe Area	С	D	E	F	G	Н		J	K	
1										
2										
3										
4										
5										

NOTE

• Selecting "Recipe Area" from [Excel Action] of the menu displays the same screen.



2) Click the list button of [Node] and select "AGP1" as a data transfer source node.

Recipe	
Action Settings Record No. Settings Trigger Cor	Settings
Device Settings	
Node Trigger-Source N	▼ … Device ▼
Device Address/Symbol	No. of Devices
Data Type 16Bit(Signed)	
Add Device Address/Symbol Name	Note: When specifying inconcecutive memory data, please use a group symbol.

3) Click the list button of [Device Name] and select "PLC1" as a data transfer source device.

Recipe						_ 🗆 X
Action Settings	Record No. Se	ttings 🛛 Trigger Condition Setti	ngs			
Device S	ettings Node	AGP1]]	Device Name	#INTERNAL -	1
	Address/Symbol Group		·	No. of Devices	PLC1	
D	ata Type	16Bit(Signed)				
M Add	I Device Address	/Symbol Name	me		ecifying inconcecutive lease use a group	

4) Click the list button of [Device Address/Symbol Group] and select "PLC1 data" as a symbol of the data to read out.

Necipe				_ 🗆 🗙
Action Settings Record No. Se	ettings Trigger Condition Setting	gs		
Device Settings Node	AGP1	Device Name	PLC1	
Device Address/Symbol Group		▼ ⊡- Local:Si	heet3 teStart	
Data Type	16Bit(Signed)		cordNoStorage	
Add Device Address	:/Symbol Name		Cidata	

The device number "1" will be automatically entered in [No. of Devices], and "16Bit(Signed)" in [Data Type].

📽 Recipe	_ 🗆 🗙
Action Settings Record No. Settings Trigger Condition Settings	
Device Settings Node AGP1 Device PLC1	-
Device Address/Symbol PLC1data No. of Devices	$\overline{\mathbf{b}}$
Data Type 16Bit(Signed)	
Add Device Address/Symbol Name Note: When specifying inconcecutive memory data, please use a group symbol.	

5) Check [Add Device Address/Symbol Name].

👹 Recipe						_ 🗆 X
Action Settings	Record No. Se	ttings Trigger Conditio	on Settings			
Device S	iettings Node	AGP1	•	Device Name	PLC1	•
	Address/Symbol Group	📻 PLC1data	•	No. of Devices	1	3
D	ata Type	16Bit(Signed)				
	I Device Address	/Symbol Name	me		ecifying inconcecut lease use a group	ive

- After the procedure of "12.2.9 Saving a Network Project File" described later, open the template again, and open the recipe setting dialog box. After confirming that the "Add Device Address/ Symbol Name" checkbox has been checked, click the [OK] button. Then, the device address/ symbol name will be reflected in the template.
- 6) Click the cell range specify button of [Target Cell Range].

Layout Settings	
Target Cell \$F\$10	
Data Direction	An image of writing to a cell is shown below. The arrow points in the direction of arranging recipe data.
ž d	D101 D102 D103 D104
No. of Records 1	1 25 25 25 25 2 50 20 20 10
Note: The layout of a group symbol is fixed.	3 20 20 30 30 4 10 10 10 70

7) Drag the mouse to specify the data read area (cells A1 to F4). Then click the [OK] button.

	Α	В	С	D	E	F	G	Н		J	K
1											
2											
3											
4											
5											
6				Spe	cify Range			? ×	1		
7				Plea	se specify th	e range.					
8				T IOC	ise specify dr	e range.					
9											
10											
11											
12				\$A:	\$1:\$F\$4						
13											
14							ок 🌓	Cancel			
15								1			
16											
17											
18											

NOTE • When specifying the area, cover the cells to insert record No.s and Device Address/Symbol Names.

8) Select "Vertical" of [Data Direction].

Layout Settings	Sample
Target Cell \$A\$1:\$F\$4	An image of writing to a cell is shown below.
Range	The arrow points in the direction of arranging
Data Direction	recipe data.
No. of Records 3	D101 D102 D103 D104 1 25 25 25 25 2 50 20 20 10 3 20 20 30 30 4 10 10 10 70

9) Click [Allot Record No. from 1 to Cell Range].

Layout Settings Target Cell \$A\$1:\$F\$4	Sample An image of writing to a cell is shown below.
Data Direction	The arrow points in the direction of arranging recipe data.
No. of Records 3	2 50 20 20 10 3 20 20 30 30 4 10 10 10 70
	Allot Record No. from 1 to Cell Range

NOTE

• Specify the recipe data to write in Device/PLC with record No.s This example allots record No.s to the recipe data.

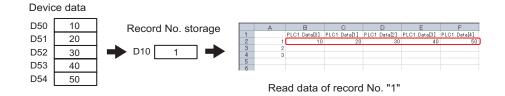
Record No.s and ruled lines are automatically added on the recipe sheet.

	А	В	С	D	E	F	G
1							
2	1						
3	2						
4	3						
5							
C							

3 Specify a record No.

Specify the recipe data area by entering a record No. in the symbol "Record No. storage" from display unit or Device/PLC.

(Example) In case of storing device data "1" in the device "Record No. storage".



1) Click the [Record No. Settings] tab.

Wecipe			_ 🗆 🗙
Action Setting Record No. Settings Trigger Condition Settings			
Device Settings			1 II
Node AGP1	Device Name	PLC1 💌	
Device Address/Symbol IPLC1data	No. of Devices	5 🔅	

2) Click "Specify by device/symbol value" in [Record No. at Write Recipe].

ecord No. at Write Recip Specify by device/ Node		Device		
Device Address/Symbol		_ Name Data Type	16Bit(Signed)	
C Specify by cell valu	-	No. of Char	acters	
C Specify by cell value	\$A\$1	R	(27mm	
100 20 300 40				

• NOTE

If you select [Specify by cell value], specify any cell on Excel. The number entered in the cell is recognized as the record No.

Refer to "12.3 Setting Guide" for more details.

3) Click the list button of [Node] and select the node name "AGP1" which has the Device/PLC to store the record No.

Record No. at Write Recipe	
Specify by device/symbol value	
	· Device I
Device Address/Symbol	▼ Data Type 16Bit(Signed)
	No. of Characters
C Specify by cell value	
\$A\$1	
100 200 300 400 From Cell to P	

4) Click the list button of [Device Name] and select the Device/PLC "PLC1" to store the record No.

Record No. at Write Recipe	
Specify by device/symbol value	
Node AGP1	Device HINTERNAL Name
Device Address/Symbol	Data Type
	No. of Characters
C Specify by cell value	
\$A\$1	
100 200 300 400	From Cell to PLC

5) Click the list button of [Device Address/Symbol] and select the symbol name "Record NoStorage" of the device to store the record No.

Record No. at Write Recipe		
Specify by device/sy	ymbol value	
Node	AGP1 Device PLC1 AGP1	
Device Address/Symbol	El Cocal:Sheet3 Cocad:Sheet3 Cocad:Sheet3 Cocad:Sheet3 Cocad:Shee	
	\$4\$1	
100 200 300 400		

The device data type "16Bit(Unsigned)" will be automatically entered in [Data Type].

- 4 Set trigger conditions.
 - 1) Click the [Trigger Condition Settings] tab.

🎬 Recipe				
Action Settings Record No. S	etting Trigger Condition Settin	gs		
The recipe has two or r	nore records. Please configure th	ne specification n	nethod of them.	
Record No. at Write Recipe				
Specify by device/s	ymbol value			
Node	AGP1 .	Device Name	PLC1	
Device Address/Symbol		📕 Data Type	16Bit(Signed)	

2) Click the [New Trigger Condition] button.

• You can also activate ACTION by placing a button on Excel from [New Trigger Button] and clicking it. Refer to "12.3 Setting Guide" for more details.

3) Click the [New Trigger Condition] button.

Set Trigger Condition 🛛 🛛
Specify a trigger condition of the ACTION.
Trigger Condition
New Trigger Condition
Edit
Node
Close

 Enter the trigger condition name "TurnOnReadStartBit" in [Trigger Condition Name], and select "AGP1" in [Node Name] as a name of the data transfer source.

			×
Trigger Condition Name	TurnOnReadStartBit	-0	5 (1)
Node Name	PC1 Add Node		Find Node
	AGP1		
	· W		•

5) Click the [When Device ON] button in the [Condition 1] tab and select "PLC1" for the device name.

Condition 1			
Specify the Trigger Condition.			
👫 When Turned ON	📷 While Device is ON 隆 While Condition Satisfied		
G Specified Time	📷 While Device is OFF 💦 When Condition Satisfied		
Constant Cycle	When Device ON 📜 When Partner Node ON		
When Device Changes	📷 When Device OFF 🔀 When Partner Node OFF		
Device Name Turn OFF the Specified Device Address after Processing. UNITERNAL Data Type 168it(Signed)			
Limited Time Offer	Check Cycle C Always		
	Detail Settings OK Cancel		

6) Click the [Device Address] list button and select "ReadStart" for the device symbol name which serves as the trigger.

Device Name PLC1	Turn OFF the Specified Device Address after Processing.	
Device Address		
writeStart	▼ ⊡- Local:Sheet3]
Data Type 16Bit(Signed)	ReadStatt Record Strage PLC1data	
Limited Time Offer		
0 + hour 0 + min · 0 +	hou	
		:el

[Data Type] automatically appears after selection, too.

7) Click the [OK] button.

Condition 1	
Specify the Trigger Condition.	
👫 When Turned ON	While Device is DN 🙀 While Condition Satisfied
G Specified Time	While Device is OFF 🛛 💦 When Condition Satisfied
Constant Cycle	When Device ON 🐘 When Partner Node ON
When Device Changes	🔯 When Device OFF 🔀 When Partner Node OFF
Device Name PLC1 Device Address ReadStart	Turn OFF the Specified Device Address after Processing.
Data Type 16Bit(Signed)	Check Cycle 🧮 Always
0 thour 0 the min -	0 → hour 0 → min 500 → ms
	Detail Settings

8) Click the [Close] button.

Set Trigger Condition
Specify a trigger condition of the ACTION.
Trigger Condition
New Trigger Condition
TurnOnReadStartBit Edit
Node AGP1
When WriteStart of Node AGP1 is Turned ON

9) Click the blank line of [Clear Cel when the following condition is satisfied] and select "TurnOnReadStartBit" as a trigger condition.

Edit Delete Edit Trigger Condition	it Delete Trigger Condition
	TurnOnReadStartBit

10) Click the [OK] button.

If two or more are specified, the Action is executed when any of them is satisfied.
For more complicated operation, please configure from [Excel Action]-[Execution Sequence List] in the menu.

11) Click the [OK] button.



Here the dialog box will appear because no network project file is loaded to 'Pro-server EX'. This is not a problem, however.
 The file will be loaded in "12.2.9 Saving a Network Project File" mentioned later.

This is the end of the content settings of a recipe sheet.

- Can display Data/Time on an Excel sheet.
 - Can display arrows on an Excel sheet.
 - "5.3 Writing Arrows in a Form"
 - Can display a trigger source node on an Excel sheet.
 - "5.4 Writing Trigger Source Node Names in a Form"

5 Close 'Excel'.

Microsoft Excel - Book1.xls	_ [] ×
File Edit View Insert Format Tools Data	a Window Help ExcelAction(A)
Ctrl+N	↓ 🔃 🕄 💙 🔹 🔹 🖬 • 💩 • *
Ctrl+O	
Uose	
Save Ctrl+S	
🛁 🙀 Save as Web Page	celFormOcx.FormRangeInfo.1","")
1 Web Page Preview	E F G H I J K
2 Web Page Preview	
3 Page Setup	
4 Print_Area	
5 0 Print Preview	
6 Brint Ctrl+P	
8 Send To	•
9	
10 1 Locuments and Settings\A\Book1.xls 11 2 \Documents and Settings\Ad\test.csv	
11 2 \Documents and Settings\Ad\test.csv 12 3 \Documents and Settin\FlingData.xls	
13 4 \Documents and Se\mailmessage.xls	
14	
15 Exit	
16 ° ¥	
17	
I I I I I Sheet1 / Sheet2 \Sheet3 /	
Ready	

The following dialog box will appear, asking you if you want to save changes before closing. Click the [Yes] button.

Excel Report Action - Completion Confirmation 🛛 🔀									
?	Save changes to the template and finish editing?								
	Yes No	Cancel							

6 On the "Create form using Excel" screen, click the [OK] button.

Output File The template file s	tores setting info. The actual output result will be disp	played in the following file.
Folder Name	E: Documents and Settings Owner Desktop	Reference
File Name	RecipeRead.xls	Return to Default Settings
	layed State e output file when ACTION runs. e Save or Auto-save function of Excel.)	
		OK Cancel

12.2.7 Setting ACTION Node/Process Completion Notification

This step sets the name of an ACTION node and the alert setting whether it should be tuned on or off when the ACTION is completed.



- ACTION Node : PC1
- Receive Notification: OFF

 $1 \ \ \, \text{On the "Set ACTION Name/Parameter" screen, click the [Next] button.}$

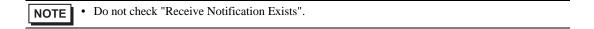
Set ACTION Name/Parameter
Add a new ACTION. Specify an ACTION name, and set its parameter.
ACTION Type Create form using Excel.
☐ Display the Actions of the old version of Pro-Server
ACTION Name RecipeRead
Click here to set the ACTION parameter.

 $2\,$ Click the list button of [Action Node] and select "PC1" as a node where ACTION operates.

Set ACTION Node/Process Completion Notification	×
ACTION Type Create form using Excel.	
ACTION Name RecipeWrite	
Specify an action node (Windows PC) where the ACTION works practical ACTION Node	ly.
PC1 PC1 Bablive Motification Exists	
Please specify the notified device that will be informed of the execution of the ACTION. After the execution of the ACTION, it will be is turned on.	

3 Turn off the check box of [Receive Notification Exists], if checked.

ACTION Node	
PC1	
Please sp the execu	utification Exists ecity the notified device that will be informed of tion of the ACTION. After the execution of the it will be is turned on.
	Device Name
	#INTERNAL 💌
	Notified Device
	Ⅲ ▼
	Data Type Bit



4 Click the [Complete] button.

The "ACTION Node/Process Completion Notification Settings" screen will disappear. On the left of the screen, the name of ACTION you set will appear.

	Device Name
	Notified Device
	T
	Data Type Bit
Bad	k Complete Cancel

This is the end of the settings of the ACTION node and process completion notification.

12.2.8 Verifying Setting Result

This step verifies setting results on the setting content list screen.

NOTE	•	In case of the "Excel Report" ACTION, you cannot add, edit or delete trigger conditions from
·		"Trigger Condition/Process List per ACTION". To change the settings, click the [Parameters
		Settings] button and change the settings in [Edit Template] on Excel.

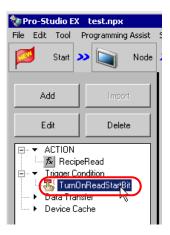
1 Select the ACTION name "RecipeRead" from the tree display on the left of the screen.

🍖 P	ro-St	udio E	x t	est.npx			
File	Edit	Tool	Pro	ogramming	g Assist		
	1	Start	>>		Node		
	Ac	ld		Impo	nt		
	Edit Delete						
		CTION Reci rigger C Turn ata Tra evice (ond OnR Insfe	tion eadStartB r	łit		

Confirm that the setting content appears on the right of the screen.

Setting Help	
>> ≽ Symbol >> 襓 Feature >> 📄 Save >> 🖄	Transfer Monitor Status
ACTION-Specific Trigger Condition/Process List	ACTION
Add Edit Release	Delete ACTION
Data Source Node AGP1	RecipeRead
Trigger When WriteStart of Node AGP1 is Tu Data	Rename
Completion TurnOn TurnOn	Create form using Excel.
	Set Parameter
	ACTION Node
	PC1

2 Select the trigger condition name "TurnOnReadStartBit" from the tree display on the left of the screen.



Confirm that the setting content appears on the right of the screen.

Setting Help					
>> 🔑 Symbol >> ≷ Feature	» 🗄	Save 义		🧃 Transfe	r Monitor Status
Trigger Condition	Sec	juence D	iag	ram by T	rigger Condition
	Collapse Tra			nsfer ACTION/Data	
TurnOnRea 💌 🗕 Edit	Feature	Source		Destinat	Receive/Process Co
Node AGP1	 RecipeR 	AGP1.#	->	PC1.Re	
When WriteStart of Node AGP1					

This is the end of the verification of the settings.

12.2.9 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.

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



- Path of network project file
- Title

: Desktop\monitor.npx : EXCEL Report ACTION

12.2.10 Test Read

You can check if the settings are correct before transferring a created network project file to entry nodes.

When executing ACTION, the setting data is output to an output file. However, when executing a test read, it is reflected in a template file.

NOTE	You do not necessarily have to perform a test read.
	If you skip this, proceed to "12.2.11 Transferring a Network Project File".

• To perform a test read, it is necessary that 'Pro-Server EX', to which a created network project file has been loaded, is running.

- **1** Click the [Feature] button.
- 2 Click "ACTION" from the tree display on the left of the screen, then click the [Edit] button.
- **3** On the "Set ACTION Name/Parameter" screen, click the [Click here to set the ACTION parameter] button.
- **4** On the "Create form using Excel" screen, click the [Edit Template] button.
- **5** With the ACTION area selected, click the [Test Read] icon.

	licrosoft Ex	cel - templa	ite3.xlt								-	
	<u>File E</u> dit <u>V</u> i	ew <u>I</u> nsert	F <u>o</u> rmat <u>T</u> oo	ls <u>D</u> ata <u>W</u> ir	ndow <u>H</u> elp	ExcelAction(<u>A</u>)					_	Ъ×
	🖻 🖬 🔒) 🖨 🖪	🌮 🐰 🖻		- 🔮 Σ	f× 👌 🛍	2 ×		•	• B	I U	» ▼
-	SnagIt 😭]								
	🗊 👋 💋	• 🍇 🥳 -	🐠 🗏 🛱	E 💅 鹶	Ľ							
		•	= =EMBE	D("Pront")	WritemOcx	.FormRange	Info.1","")					
	A	В	С	D 1030	E	F	G	Н		J	K	
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2	. 1											
3	2											
4	, 3			L								
5												
6												

The setup contents will be read in the template.

NOTE • Refer to "6.4 Restrictions" for details about the restrictions on test reads.

12.2.11 Transferring a Network Project File

This step loads a saved network project file to 'Pro-Server EX' and then transfers to entry nodes. Refer to "26 Transferring" for details about transferring a network project file.

NOTE • Be sure to transfer a network project file. If not, ACTION will not work.

12.2.12 Executing ACTION

This step verifies that enabling a trigger condition activates ACTION, opens a recipe sheet (file name: "recipe read.xls"), and then writes the device data in the specified location on the sheet.

		A	В	С	D	E	F	G
	1		PLC1data[0]	PLC1data[1]	PLC1data[2]	PLC1data[3]	PLC1data[4]	
	2	1	10	20	30	40	50	
	3	2						
	4	3						
1	5							
1	6							
	7							

• If error occurs, you can check the log in the Log Viewer. For more details, refer to "28.5 Monitoring System Event Logs".

• If you want to achieve faster communication during ACTION, refer to "29 Tips for Faster Communication".

This is the end of the explanation of this ACTION.

12.3 Setting Guide

This section explains how to set each screen in detail.

- 12.3.1 "Creating form using Excel" Screen
 - "■ "Creating form using Excel" Screen"
- 12.3.2 "Recipe" Screen

"Action Settings" Tab

Action Settings Record No. Settings Trigger Condition Sett Device Settings Node (Trigger-Source Node) Device Address/Symbol Data Type 16Bit(Signed) Add Device Address/Symbol Name Layout Settings	ings Device No. of Devices Mote: When specifying inconcecutive memory data, please use a group symbol.
Data Direction B\$1:\$F\$1 No. of Records 1 Note: The layout of a group symbol is fixed.	Sample An image of writing to a cell is shown below. The arrow points in the direction of arranging recipe data. DIOI DIO2 DIO3 DIO4 1 25 25 25 25 2 50 20 20 10 3 20 20 30 30 4 10 10 10 10 70 Allot Record No, from 1 to Cell Range

Setting item		Setting content
	Node	 Selects a node which has a device to read/write data NOTE Clicking the [] button can retrieve or add entry nodes. Selecting "(Trigger-Source Node)" will select the entry node that has triggered the action.
	Device Name	 Selects a node which has a device to read/write data NOTE It is not necessary to set when the entry nodes are GP Series nodes and Pro- Server EX nodes.
Device Settings	Device Address/ Symbol Group	Sets the device address or symbol to be used. • When specifying a device address: Enter directly from the Calculator icon. Calculator icon Device Address/Symbol Group • When specifying a symbol: Select the symbol by clicking the list button. List button Device Address/Symbol Calculator icon List button NOTE • When setting non-sequential devices, be sure to specify a group symbol.
	Data Type	 When specifying a device address: Specify the data type. Data Type Deselect 16Bit(Signed) 32Bit(Signed) Bit 16Bit(Unsigned) 32Bit(Unsigned) Float 16Bit(HEX) 32Bit(HEX) Double When specifying a symbol: Data type automatically appears. Displays the number of devices to read/write, automatically calculating it from the selected cell range.
	No. of Devices	 • If a group symbol has been selected, the number will be "1".

Setting item		Setting content		
Device Settings	Add Device Address/ Symbol Name	Displays Device Address, Symbol Name, and/or Group Symbol Name above or on the left of the cells where the data is written, serving as a guide to identify the data. For the display location, specify above or left in "Data Direction" mentioned later. NOTE Refer to the image figure shown in the lower right of the dialog box. • Vertical I <u>1</u> <u>25</u> <u>25</u> <u>25</u> <u>25</u> <u>25</u> <u>3</u> <u>20</u> <u>20</u> <u>20</u> <u>10</u> <u>4</u> <u>10</u> <u>10</u> <u>10</u> <u>70</u> • Horizontal I <u>1 <u>2</u> <u>3</u> <u>4</u> <u>DIOI</u> <u>25</u> <u>20</u> <u>20</u> <u>10</u> <u>DIO2</u> <u>25</u> <u>20</u> <u>10</u> <u>DIO3</u> <u>25</u> <u>20</u> <u>10</u> <u>DIO4</u> <u>25</u> <u>10</u> <u>30</u> <u>70</u></u>		
	Target Cell Range	 Specifies the cell range to which data will be written/read. Clicking the button can select the cell range on Excel. NOTE For the process on how to select cell ranges, refer to "■ Action Area Settings" in "5.1.2 Setting Guide". The useful function is available to check the specified cell range (Action area).Refer to "■ Action Area List" in "5.1.2 Setting Guide". 		
Layout Settings	Data Direction	Sets the data write direction when selecting multiple cells. Device Vertical) Sequentially from top to bottom. Record Vertical) Sequentially from top to bottom. Vertical Sequentially from top to bottom. Vertical Vertical Sequentially from top to bottom. Vertical Vertical		
	No. of Records	Sets and displays the number of records used for a recipe, automatically calculating it from the specified cell range.		

Setting item	Setting content		
Allot Record No. from 1 to Cell Range	Automatically inserts record No.s in the area specified in [Data Direction] of [Target Cell Range]. It is possible to enter record No.s directly on Excel, but this could cause erroneous operation due to typing error. For this, we recommend entering with the [Allot Record No. from 1 to Cell Range] button. NOTE • Clicking this button also inserts ruled lines in [Target Cell Range] automatically.		

"Record No. Settings" Tab

Wecipe	×
Action Settings Record No. Settings Trigger Condition Settings	
The recipe has two or more records. Please configure the specification method of them.	
Record No. at Write Recipe	
Specify by device/symbol value	
Node (Trigger-Source Node Device Name	
Device Address/Symbol Data Type 16Bit(Signed)	
No. of Characters	
C Specify by cell value	
\$4\$1	
100 200 300 400 From Cell to PLC	
Record No. at Read Actual Value	
Specify by device/symbol value	
Node (Trigger-Source Node Device	
Device Address/Symbol Data Type 16Bit(Signed)	
No. of Characters	
C Specify by cell value	
SA\$1 T00 200 300 400 From PLC to Cell	
OK Cancel	

Setting item			Setting content
Record No. at		Specifies the recipe data by entering a record No. in the device or symbol sp by display unit or Device/PLC.	
Write Recipe / Record No. at Read Actual Value	Specify by device/ symbol value	Node	 Selects a node which has the device where a recipe record No. exists. NOTE Clicking the [] button can retrieve or add entry nodes. Selecting "(Trigger-Source Node)" will select the entry node that has triggered the action.

Setting item			Setting content		
	Specify by device/ symbol value	Device Name	 Selects a Device/PLC which has the device where recipe record No.s exist. NOTE It is not necessary to set when the entry nodes are GP Series nodes and Pro-Server EX nodes. 		
Record No. at Write Recipe / Record No. at Read Actual Value		Device Address /Symbol	Sets the device address or symbol to be used. • When specifying a device address: Enter directly from the Calculator icon. Calculator icon Device Address/Symbol Group • When specifying a symbol: Select the symbol by clicking the list button. List button Device Address/Symbol Group NOTE • When setting non-sequential devices, be sure to specify a group symbol. • When specifying a device address:		
		Data Type No. of	Specify the data type. Deselect 16Bit(Signed) 32Bit(Signed) Bit 16Bit(Unsigned) 32Bit(HEX) Double		
		Charact- ers	Specifies the number of readable characters of a record No. when the specified data type of the record No. is "character string".		
	Specify by cel	l value	 Recognizes the entered value or character string in any specified cell on Excel, as a record No. Therefore, you can select [Specify by cell value] on condition that you use recipe data in such environment as the office having PCs. NOTE Be sure to place cells to specify record No.s on the same sheet as recipe data. 		

"Trigger Condition Settings" tab

Wecipe	_ 🗆 ×
Action Settings Record No. Settings Trigger Condition Settings	1
Action Area No. When the specified trigger type (under-condition button) is satisfied, this area is executed. Please specify a trigger type. New Trigger Condition New Trigger Button Write Edit Delete Trigger Condition Edit Delete Trigger Condition Trigger Condition Trigger Condition	
If two or more are specified, the Action is executed when any of them is satisfied. For more complicated operation, please configure from [Excel Action]-[Execution Sequence List] in the menu.	
ОК	Cancel

Setting item	Setting content		
Action Area No.	Displays No. allocated to each ACTION area by template.		
New Trigger Condition	Displays the "Trigger Condition Settings" dialog box. Click here to set a new trigger condition.		
New Trigger Button	Displays the "Create Trigger Button" dialog box. Refer to "5.6.2 Setting Guide" for more details.		
	Selects a trigger condition to write recipe data. Click the blank line of [Trigger Condition] and then the list button to display the registered trigger condition.		
Write	 NOTE When plural trigger conditions have been specified, satisfying at least one of those conditions executes ACTION. Clicking the [Edit] button can edit the specified trigger conditions. Clicking the [Delete] button deletes the specified trigger conditions. 		

Setting item	Setting content
	Selects a trigger condition to read recipe data. Click the blank line of [Trigger Condition] and then the list button to display the registered trigger condition.
Read	 NOTE When plural trigger conditions have been specified, satisfying at least one of those conditions executes ACTION. Clicking the [Edit] button can edit the specified trigger conditions. Clicking the [Delete] button deletes the specified trigger conditions.

12.4 Restrictions

Changing the Security Settings

To execute the Excel Form Creation Action, you need to change the Excel security settings. If you do not change the settings, the following problems will occur.

• $[Tool] \rightarrow [QC Chart]$

Pareto graph tools cannot be used.

• [Tool] \rightarrow [Insert Sample]

Form templates cannot be used.

The setting change steps vary depending on the Excel version.

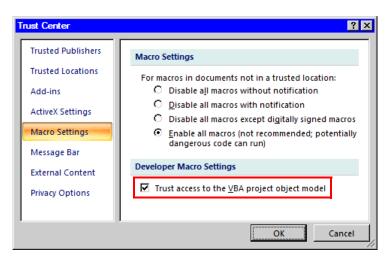
Change the security settings according to the following steps.

- 'Microsoft Excel 2000'
- 1 Click [Security] from [Macro] under the Excel [Tool] menu.
- 2 Check "Middle" or "Low" on the [Security Level] tab in the [Security] dialog box.

'Microsoft Excel 2002' and 'Microsoft Excel 2003'

- 1 Click [Security] from [Macro] under the Excel [Tool] menu.
- 2 Check "Middle" or "Low" on the [Security Level] tab in the [Security] dialog box.
- 3 Check the [Trust Access to Visual Basic Project] option on the [Trusted Publisher] in the [Security] dialog box.
- "Microsoft Excel 2007' or 'Microsoft Excel 2010'
- 1 'Microsoft Excel 2007': Click the [Office] button and [Excel Options].'Microsoft Excel 2010': From the [File] tab, click [Options].
- 2 'Microsoft Excel 2007': Click [Popular] in the [Excel Options] dialog box.
 'Microsoft Excel 2010': From the [Excel Options] dialog box, click [Customize Ribbon].
- 3 'Microsoft Excel 2007': Check the "Show Developer tab in the Ribbon" option.'Microsoft Excel 2010': From the [Main Tabs] list, select the [Developer] check box.
- 4 Click [Macro Security] on the [Developer] tab.
- 5 Click [Macro Settings] in the [Trust Center] dialog box.
- 6 Check the [Enable all macros] option under [Macro Settings].

7 Check the [Trust access to the VBA project object model] option.



Combined Cells

Do not set an ACTION area on combined cells.

For example, if you set an ACTION area in the cells as shown below, correct operation cannot be guaranteed.

	A	В	С	D
1	D1 00	D1 01	D1 02	D1 03
2				
3				
4				
5				
6				
7				

Over-pasted ACTION Areas

When you over-paste plural ACTION areas of different size, read/write will be executed in the pasted order.

Writing Data of Excel in the Device/PLCs

When the data type is "Character string", write null characters (NULL) in empty cells in Excel, and in the other cases write "0".

Writing Character String Data

When writing "Character string" data in Excel, format the cell(s) to write data in as "Character string".

Excel Window

If the setting screen is hidden behind the Excel window, the screen and task tray windows will blink and notify the user. Blinking will stop automatically when the setting screen comes forward.

Operation in ACTION area when error occurs

When you actually write/read in all the functions, such as "Device One-Shot" and "Device Logging", and exceed the ACTION area, perform the common operation as follows:

1) When performing a test read/ a test write

Error screen is displayed.

2) When executing ACTION in runtime

It will be recorded as ACTION error in the log viewer of the 'Pro-Server EX'.

In the case of closing the displayed output book

If you have mistakenly closed an output book of Excel Report ACTION, follow these steps to open it again: Dragging and dropping the book to open will make it read-only and the start button etc. invalid.

- 1. Double-click the output book.
- 2. When the following dialog box appears, select "No" to open it.

Microso	Microsoft Excel							
į)	Report_20060415.xls is already open. Reopening will cause any changes you made to be discarded. Do you want to reopen Report_20060415.xls?						
		<u>Y</u> es <u>N</u> o						

Receive notification

You cannot set the receive notification which indicates the completion of ACTION.

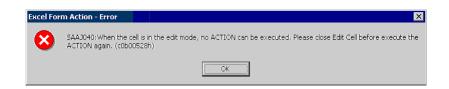
When setting "Trigger-Source Node"

When setting "Trigger-Source Node" at node in Excel Report action, node type and device are uncertain. Therefore, the device address is displayed in red.But, it is no problem.

Edit the output file

While Excel Report Action is executing, you can not edit the output file.

Therefore, it becomes very difficult to operate Excel at the setting in which the Trigger condition satisfies at a short cycle.Moreover, the following error message is displayed when the Action is executed during editing the output file.



Save the output file Do not use

Do not use multiple Excel form actions to save output files to the same destination.

If you set the same destination for file outputs, Pro-Studio and Pro-Server EX may not be able to run.

About the 1500 row limit for Action Area settings

Exceeding 1500 rows for the Action Area could cause the action to run longer. If you use Device One Shot or Device Logging's text conversion, the action could take even longer.

Restrictions on Copying or Cutting and Pasting the Action Area

When you paste the Action area using Ctrl+C & Ctrl+V or Ctrl+X & Ctrl+V, specify [Target Cell Range] for the copied Action area.

The Action area just after pasting remains the same [Target Cell Range] as that for the original Action area.

	A	В	С	D
1				
1 2 1				
131				
4				
5				
6				
7				

Excel Auto Save Function

The Excel auto save function does not operate due to the Excel restrictions. To save automatically, create the Excel save macro using the following procedure and execute the created save macro by Action.

1 Open a template you want to save automatically using 'Pro-Studio EX'.

Create form using Excel						
			Version 1.22			
_ Template Designation —						
When you use the wiza	e of Excel template file that is the source of forr d, the theme template file is copied to a file wit template, please specify the file name.					
Template File	C:\Documents and Settings\Administrator\D	esktop\template.x	Reference			
	Edit Template]			
Output File	setting info. The actual output result will be dis	played in the follo	wing file			
The template life stores	setting into. The actual output result will be als	played in the folio	wing nie.			
Folder Name	C:\Documents and Settings\Administrator\Do	esktop	Reference			
File Name	Report_%Y%M%D.xls	Return to D	efault Settings			
🔽 Start from Displayed	l State					
Do not save the output file when ACTION runs. (Please use the Save or Save by Macro of Excel.)						
		ок	Cancel			

2 Select "Macro" and "Record New Macro" from the "Tools" menu.

lt								
t	Tools Data Window He	lp	ExcelAction(A)					
¥	💱 Spelling F7		f≈ ĝ↓ 🛍	. 🕐 🐥 A	rial	-		
-	<u>A</u> utoCorrect							
-	Share Workbook							
-	<u>T</u> rack Changes	۲						
c	Merge <u>W</u> orkbooks		F	G	Н			
	Protection	١						
	Online Collaboration	1						
	<u>G</u> oal Seek							
	Sc <u>e</u> narios							
	Auditing	1						
	Macro	7	Macros		AL	F0		
_	Add-Ins	L	<u>R</u> ecord Ne	w Macro				
	Customize	C	Security	, и	2			
_	Options	_	着 Visual Basi	ic Editor	Alt+F	11		
			👀 Microsoft :	Script Editor	Alt+Shift+F	11		

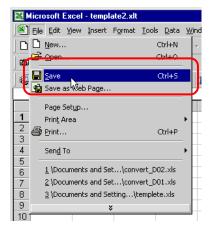
3 Enter the macro name "Macro1" and click the [OK] button.

Recording the macro starts.

Record Macro ? 🗙						
Macro name: Macro1						
Shortcut <u>k</u> ey: Ctrl+	Store macro in: This Workbook					
Description: Macro recorded */*/200* by *****r						
	OK Cancel					

4 Select "Save" from the "File" menu.

"Macro1" is recorded in the macro.

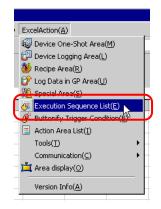


5 Select "Macro" and "Stop Recording" from the "Tools" menu.

Recording the macro is complete.

	ols <u>D</u> ata <u>W</u> indow <u>H</u>						
₩BC ✓	Spelling F7	$ f_i $	z↓	🛍 🐼	» ▼	Arial	
	Share Workbook						
	-						
	Protection	1					
	Online Collaboration						
	<u>M</u> acro		Macros			Alt I FO	_
	<u>C</u> ustomize		Stop Re	ecording	N		
	Options		Security	,	N		
	2	-	-				-
	Ŷ	- 2	<u>V</u> isual E	asic Edito	r	Alt+F11	
				ft Script B		Alt+Shift+F11	

6 Select "Execution Sequence List" from the "Excel Action" menu.



7 Create the trigger condition save automatically.

8 Select the created trigger condition and "Excel Operation Function".

execution Sequence List				_0,
ecute when Trigger Condition sa	isfied Execute when Trigger Button clicked Execu	ite from another applicatio	n]	
	When Trigger Condition is satisf	ied, Action is ex	ecuted.	
New Trigger Condition Edit Insert Clear	Please place actions to execute or EXCEL of	peration commands in ord	ler of execution.	
Trigger Condition	1 2 3	4	5	6
CreateForm *	Excel Operation Function			
*				
•				Þ
			OK	Cancel

9 Select "Execute Macro" and enter the macro name "Macro1".

E	ool	Operation Fur	oti	0.0	
- 41	GGI	operation run	cu	511	
	С	New Sheet	C	Print Sheet	Sheet Name sheet1
	C	New Book			
	С	Show Book	C	Hide Book	
	С	Print Book	С	Close Excel	
(C	Execute Macro		Macro1	
	С	Export			
		File Name		Report_%	Y%M%D%n.csv Default
		Saving Folde	١ſ		
		Saving		CSV(.c	csv]
		Format		Export Report	only the last page except Action t.
				O HTML(.	.htm]
					OK Cancel

- 10 Click the [OK] button.
- **11** Finish editing the template.
- 12 Save/Reload the setting contents.

According to the created trigger condition, the template is automatically saved.