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	This step creates a recipe sheet in 'Microsoft Excel' to write in Device/PLC.
	+	
2	Starting 'Pro-Studio EX'	This step starts 'Pro-Studio EX'.
	+	
3	Registering Entry Nodes	This step registers the PC and the GPs as entry nodes.
4	Registering Symbols	This step registers as a symbol the device of Device/ PLC to write data in.
5	Specifying a Recipe Sheet and its Output File	This step sets the following items:Specify a recipe sheetSpecify an output file
	+	
6	Setting the Contents of a Recipe Sheet	This step sets the following items:Set a writing deviceSet the area to read out
	+	
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.
	+	
8	Verifying Setting Result	This step verifies setting results on the setting content list screen.
	+	
9	Saving a Network Project File	This step saves the current settings as a network project file and reloads.
10	Transferring a Network Project File	This step transfers a saved network project file to the GP.
11	Executing ACTION	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.



- **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 GP 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 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

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.

🎕 Pro-Studio EX 🛛 ?	.npx		
File Edit Tool Pro	gramming Assist Set	ting Help	
Start ン	Node >	Symbol Symbol	🔡 Save 🕻
Symbol		Node Name AGP1	Device Name
Group	Ungroup	Sheet Name Sheet3	- E Setitasa glob
Insert	Delete		

 $2 \hspace{0.1 cm} \text{Select [ACTION] from the tree display on the left of the screen, then click the [Add] button.}$

物 Pro-Studio EX	test.npx	
File Edit Tool P	rogramming Assist	Setting Help
Start 🔉	Node	s 🔉 눧 Symbol
Add	Import	
Edit	Delete	ACTION
ACTION Trigger Con Data Transi Device Cac	ier	In addition using appliv using Acce In the Pro-S referred to «

 ${f 3}$ 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 • [AC	TION Name] can be an arbitrary name.
------------	--------------------------------------

Set ACTION Name/Para	meter		×
Add a new ACTION. Specify an ACTION name	, and set its parame	ter.	
ACTION Type Creat	e form using Excel.		•
ACTION Name Write: Uploa Uploa Write: Uploa	e form using Excel s Data to CSV file. s Data from CSV file. d of GP Log Data. s Data to E-Mail. d to the database. load from the databa	ase.	
		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 Designation					
When you use the t	name of Excel template file that is the source of forms. wizard, the theme template file is copied to a file with this name. new template, please specify the file name.				
Template File	C:\Documents and Settings\Administrator\Desktop\template x				
	Edit Template				
Output File The template file stores setting info. The actual output result will be displayed in the following file.					
Folder Name	E: \Program Files \Pro-face \Pro-Server EX\NpxDatabase Reference				
File Name	Report_%Y%M%D.xls Return to Default Settings				
🔽 Start from Displ	ayed State				
	output file when ACTION runs. 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.

Folder Name	tores setting info. The actual output result will be dis C:'Documents and Settings\Administrator'D		Reference
File Name	Report_%Y%M%D.xls	Return to	Default Settings
	played State le output file when ACTION runs. e Save or Save by Macro of Excel.)		
		ок	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 b		owing file.
Folder Name	C:\Documents and Settings\Administra	itor\Desktop	Reference
File Name	RecipeWrite.xls	Return to I	Default Settings
🔽 Start from Dis	splayed State		
	the output file when ACTION runs. he Save or Save by Macro of Excel.)		

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	Excel	
		Version 1.22
_ ⊤Template Designa	tion	
When you use t	ne name of Excel template file that is the source of forms. ne wizard, the theme template file is copied to a file with this name. e a new template, please specify the file name.	
Template File	C:/Documents and Settings/Administrator/Desktop/template.xl	Reference
	Edit Template	

The recipe sheet appears.

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

M	🔀 Microsoft Excel - template.xlt 📃 🗌 🗙											
	Belle Edit View Insert Format Tools Data Window Help ExcelAction(A)											
	□ 😅 🖬 🚑 🚳 💼 🕫 τ 🍓 Σ ≉ 🛃 🛍 🕐 🐥 Arial 💿 τ 10 τ Β Ι Ψ ≡ Ξ 🗒 τ 🖄 τ								🕭 - 🏅			
	6 8 0		9 🛱 🖪									
	01 0	-	=									
	A Recipe	e Area	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												
8								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						_ 🗆 X
Action Settings	Record No. Se	ttings Trigger Condition Set	tings			
Device S	ettings					
	Node	(Trigger-Source Node)	<u> </u>	Device Name	•	
	Address/Symbol Group	AGP1 (Trigger Source Node)		No. of Devices	1 📫	
D	ata Type	16Bit(Signed)				
✓ Add	Device Address	/Symbol Name	me		ecifying inconcecutive blease use a group	

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

Recipe			_ 🗆 >
Action Settings	Record No. Se	ttings Trigger Condition Settings	
Device S	, Settings Node Address/Symbol Group	AGP1 Device PLC1 Name Name No. of PLC1 No. of PLC1 Devices PLC1	
	rata Type I Device Address	16Bit(Signed)	

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

Necipe 😽						_ I ×
Action Settings Record No. Se	ettings Trigger Condition Settir	ngs				
Device Settings	AGP1		Device Name	91.01	•	
Device Address/Symbol Group		🔽 🖃 L				
Data Type	16Bit(Signed)		BecordN			
Add Device Address	:/Symbol Name	(PLC1dat			

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

👹 Recipe			_ 🗆 X
Action Settings	Record No. Se	ttings Trigger Condition Settings	
Device 9	ettings Node	AGP1 Device PLC1 V	
Device	Address/Symbol Group	PLC1data No. of Devices	
D	ata Type (16Bit(Signed)	
Mada Ada	I 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 Condition Se	ettings				
Device S	ettings Node	AGP1	_	Device Name	PLC1		
	\ddress/Symbol Group	FF PLC1 data	_	No. of Devices	1 🔅		
D	ata Type	16Bit(Signed)					
	memory data, please use a group						

- 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 B C B C B C B C B C B C B	Sample An image of writing to a cell is shown below. The arrow points in the direction of arranging recipe data.
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	- 1	J	K	
1	}											
2		10	20	30	40	50)						
3		60	70	80	90	100)						
4		110	120	130	140	150						
5				Specify F	tange			? ×				
6				Dia and an	:C bb							
7				Please sp	ecify 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	
Target Cell \$A\$1:\$F\$4	Sample
Data Direction	An image of writing to a cell is shown below. The arrow points in the direction of arranging recipe data.
Devi	D101 D102 D103 D104
No. of Records 3 📑	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
	4 10 10 10 70 1

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

Layout Settings Target Cell \$A\$1:\$F\$4	Sample
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 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

3 Specify a record No.

Specify the recipe data by entering a record No. in the symbol "Record No. storage" from GP 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			_ 🗆 🗙
Action Settings Record No. Settings rigger Condition Settings			
Device Settings			1 H
Node AGP1	Device Name	PLC1	
Device Address/Symbol IPLC1data	No. of Devices	5 🔅	

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

👹 Recipe	_ 🗆 X							
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 Ingger-Source Node Name								
Device Data Type 16Bit(Signed)								
No. of Characters								
C 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.

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

*	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. a	it Write Recipe					
	Spece	ify by device/symbol v	alue				
	Node	rigge	er-Source Node) 💌 📖	Device Name			
	Device Address	/Symbol	1 geNSource Node)	Data Type	16Bit(Signed)		
				No. of Chara	cters 1 📑		

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

Becipe	_ 🗆 X					
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 AGP1 Device #INTERNAL .						
Device Address/Symbol						
No. of Characters						

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					
	Action Settings Record No	o. Settings Trigger Co	ondition Settings			
	The recipe has two o	or more records. Pleas	se configure the specificat	tion method of them.		
	Record No. at Write Rec	ipe				
	Specify by device	e/symbol value				
	Node	AGP1	Device	PLC1	•	
	Device Address/Symbol	=	🔽 🖃 Local			
				VriteStart lecordNoStorage		
	C Specify by cell v	alue		LLIdata 😽		
		\$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.

8	Recipe							_ 🗆 X
	Action Settings	Record No. S	ettings Trigger C	ondition Settings				
	The recip	e has two or m	ore records. Pleas	se configure the	specification m	ethod of them.		
	Record No. a	at Write Recipe						
	Spece	;ify by device/sj	mbol value					
	Node		AGP1	▼	Device Name	PLC1	-	
	Device Address	/Symbol	RecordNoS	torage 🛛 🔻	Data Type	16Bit(Signed)		

The "Trigger Condition Settings" screen will appear.

👺 Recipe	_ 🗆 🗙
Action Settings Record No. Settings Trigger Condition Settings Action Area No. Image: Condition button) is satisfied, this area is executed. Please specify a trigger type. New Trigger Condition New Trigger Button Write Image: Condition Image: Condition New Trigger Button Write Image: Condition Image: Condition New Trigger Condition Image: Condition Image: Condition	
ОК	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	гQ	Find Node
Node Name	PC1 Add Node		T ING NODE
(AGP1		
			•

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

Condition 1			
👫 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 #INTERNAL Turn OFF the Specified Device Address after Processing. Data Type 16Bit(Signed)			
Limited Time Offer Check Cycle Always			
	Detail Settings	Cancel	

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

Device Name		
PLC1	Turn OFF the Specified Device Address after Local Sheet3	
Device Address	WriteStart	
	- Recordiviziorage	
Data Type 16Bit(Signed)	····· PLC I data	
Limited Time Offer		
0 ★ hour 0 ★ min - 0 ★ hou		
		el

[Data Type] automatically appears after selection, too.

7) Click the [OK] button.

Device Name PLC1	- Turn DFF the Specified Device Address after Processing.
Device Address	, loossing.
writeStart	
Data Type Bit	
Limited Time Offer	Check Cycle 🧮 Always
0 + hour 0 + min · 0 + hour	0 <u>→</u> min 500 → ms
	Detail Settings OK Cancel

8) Click the [Close] button.

Set Trigger Condition	×
Specify a trigger condition of the ACTION.	
Trigger Condition	1
New Trigger Condition	
TurnOnWriteStartBit Edit	
Node AGP1	
When WriteStart of Node AGP1 is Turned ON	
Close	D

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

New Trigger Condition New Trigger B	lutton
Edit Delete	Read Edit Delete
Trigger Condition	Trigger Condition

10) Click the [OK] button.

(Ì)	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	port Action - Info X
•	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.

NOTE

• Can display Data/Time on an Excel sheet.

- "5.2 Writing Date/Time in a Form"
- 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	
File Edit View Insert Format Tools Data	Window Help ExcelAction(A)
Ctrl+N	🔰 🛍 😨 🐥 Arial 🔹 10 🔹 🖪 🖌 💆 📲 🔛 🔹 🕭 🔹
Ctrl+O	: A 🖾 🔭 -
 Llose 	
Save Ctrl+S	
💼 Save as Web Page	DEFGHIJ
1 Web Page Preview	30 40 50
3 Page Setup	80 90 100
4 Print_Area	▶ <u>130</u> <u>140</u> <u>150</u>
5 A Print Preview	
6 7 ₽ Print Ctrl+P	
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 <u>3</u> \Documents and Settings\m\aaaa.xls	
13 <u>4</u> \Documents and Settings\mh\test.xls	
14 15 Exit	
10	
16 ×	
18	
(
	· ·
Ready	

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

Excel Rep	ort Action	- Completion	Confirmation	X
Save changes to the template and finish editing?				
	Yes 2	No	Cancel	

 ${\bf 6}\,$ On the "Create form using Excel" screen, click the [OK] button.

Folder Name	C: Documents and Settings\Administrate	pr/Desktop Reference
File Name	RecipeWrite.xls	Return to Default Settings
	played State he output file when ACTION runs. he Save or Save by Macro of Excel.)	
	Г	OK N Cancel

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 Rečeivo Notification 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	
the execu	bification Exists ecify the politier 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
	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
T
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.

🎕 Pro-Studio EX	?.npx	
File Edit Tool	Programming Assist	S
Start 2	Node	ر ا
Add	Import	
Edit	Delete	
ACTION Action	ndiday InWriteStartBit Isfer	

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

Setting Help	
>> ≽ Symbol >> ≷ Feature >> 📄 Save >> 🖄	Transfer Monitor Status
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 Condition Data	Rename
Completion TurnOn 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	?	.npx		
File	Edit	Tool	Pro	grammin	g Assist	
	1	Start 2	>>		Node	•
	Ac	ld		Impo	nt	
	Ed	dit		Dele	te	
	Č		ondi)nW Isiei	ion riteStartB		

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

					_	
Setting Help						
» ┝ Symbol » 襓 Feature	» 🔡	Save ン	Ľ	🔰 Transfer		Monitor Status
Trigger Condition	Sec	juence D	iag	ram by Ti	rigger Condition	
		insfer ACTION/Data				
TurnOnWrib 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.
- **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.

🔀 Mie	crosoft Exe	cel - templa	ite3.xlt								_	
E 🛛	ile <u>E</u> dit <u>V</u> ie	ew <u>I</u> nsert	F <u>o</u> rmat <u>T</u> ool	s <u>D</u> ata <u>W</u> in	ndow <u>H</u> elp I	ExcelAction(Ð				_	Ъ×
] 🗅 🕻	ž 🔒 🔒) 🖨 🖪	🌮 🐰 🖻		- 🔮 Σ ,	f* 👌 🚺	ļ 🛛 🖓		•]	• B	I U	» ▼
🛛 🛱 Sr		Window	•									
🤬 🕻	P 👋 🞷	• 🍇 🥳 -	ogi 📃 🙀	S 🔊	ц		elnfo.1","") G					
		-	= =EMBE	D("Pro	Write mOcx.	.FormRang	elnfo.1","")					
	A	В	С	D	E	F	G	Н		J	K	
1				1			T					
2	1						l .					
3	2						Ť					
4	3		_]					
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 Ad	dress 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
RecordNoStor16Bit(Signed) D0010 1				
PLC1data 16Bit(Signed) D0050 5	10 20	30	40	50
	1			

NOTE

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]
----------	------------

oungi	locedulej					
1	Creating a Recipe Sheet	This step creates a recipe sheet in 'Microsoft Excel' to write the data read from Device/PLC.				
2	Starting 'Pro-Studio EX'	This step starts 'Pro-Studio EX'.				
	+					
3	Registering Entry Nodes	This step registers the PC and the GPs as entry nodes.				
	+					
4	Registering Symbols	This step registers as a symbol the device of Device/ PLC from which data is read.				
	+					
5	Specifying a Recipe Sheet and its Output File	This step sets the following items:Specify a recipe sheetSpecify an output file				
6	Setting the Contents of a Recipe Sheet	This step sets the following items:Set a device to readSet a recipe write range				
	+					
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.				
8	Verifying Setting Result	This step saves the current settings as a network project file and reloads.				
9	Saving a Network Project File	This step saves the current settings as a network project file and reloads.				
	-					
10	Transferring a Network Project File	This step transfers a saved network project file to the GP.				
	+					
11	Executing ACTION	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.				

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 GP 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			
Davis a /DL C lafa ma atia a				

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

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	
	File Name	Recipe read.xls	
Output File	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.

饕 Pro-S	tudio EX	?.прх							
File Edit	Tool Pr	rogramming Assist	Settin	g Hel	Р				
1	Start >	Node	>>		Symbol	e ≷	Feature	 	Save 🕽
Symbol				N	ode Name	AGP1	-hj	De	evice Name
	Group	Ungroup		Sk	neet Name	Sheet3			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	?.прх	
File Edit Tool P	rogramming Assist	Setting Help
对 Start 🔉	Node	>> ≽ Symbol .
Add D	Import	
Edit	Delete	ACTION
ACTION Trigger Con Data Transf Device Cac	er	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.	•
ACTION Name Writes Data to CSV file. Writes Data to 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 Excel		
		Version 1.22
┌─ Template Designation ───		
When you use the wizard	of Excel template file that is the source of forms. I, the theme template file is copied to a file with this name. emplate, 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
	ed State utput file when ACTION runs. ave 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 st	ores setting info. The actual output resul	It will be displayed in the following file.	
Folder Name	C:\Documents and Settings\Admi	inistrator/Desktop Reference	
File Name	RecipeRead.xls	Return to Default Settings	
🔽 Start from Disp	ayed State		
	e 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 store	es setting info. The actual output result will be dis	played in the following file.
Folder Name	C:\Documents and Settings\Administrator\De	esktop Reference
File Name	RecipeRead.xls	Return to Default Settings
	yed State nutout file when ACTION runs. ave or Save by Macro of Excel.)	
		OK Cancel

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 E	cel 🛛
	Version 1.22
F Template Designation	٦
When you use the	name of Excel template file that is the source of forms. wizard, the theme template file is copied to a file with this name. .new template, please specify the file name.
Template File	C: Documents and Settings\Administrator\Desktop\template.x
	Edit Template

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

Microsoft Excel - Recipe.	xlt								_	
Eile Edit View Insert f	= <u>o</u> rmat <u>T</u> ool	s <u>D</u> ata <u>W</u> ir	ndow <u>H</u> elp I	ExcelAction(A)				_	Ð×
] D 🛩 🖬 🔒 🎒 🖻	K) y 🤮	₀ Σ <i>f</i> * <mark>2</mark>	1 🛍 🛛	∛ Arial		v 10	• B <i>I</i>	U ≣ ≣	E 🛛 🕶 🗸	🦻 - 🐥
🔛 🖻 📃 🔽 🖬 🗆 🕬	• == ==		Α 🖾 🕇	≫						
- se di 😻 🌶 🛍 🕫 d	9° 🗰 🛛	🖆 🧐 🤘								
	=									
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.

Wecipe	_ 🗆 X
Action Settings Record No. Settings Trigger Condition Settings	
Device Settings Node [Trigger-Source Node] Device	
Device Address/Symbol AGP1 Group (Trigger Qurce Node)	
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	
Action Settings Record No. Settings Trigger Condition	on Settings
Device Settings Node AGP1 Device Address/Symbol	Device INTERNAL No. of Devices
Data Type 16Bit(Signed)	
Add Device Address/Symbol Name	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 read out.

🔆 Recipe							- I ×
Action Settings	Record No. Se	ettings Trigger Condition Se	ettings				
Device S	ettings Node	AGP1	•	Device Name	PLC1	•	
	\ddress/Symbol Group	H	•	Local:She			
D	ata Type	16Bit(Signed)			rdNoStorage		
☑ Add	Device Address	s/Symbol Name		PLC1			

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	
Device Address/Symbol PLCTdata No. of Devices	
Data Type 16Bit(Signed)	
Add Device Address/Symbol Name Note: When specifying inconcecutive memory data, please use a group symbol.	
symbol.	

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

Recipe					
Action Settings Record No. Se	ettings Trigger Condition Sel	ttings			
Device Settings Node	AGP1	•	Device Name	PLC1	•
Device Address/Symbol Group	PLC1 data	V	No. of Devices	1	Ð
Data Type	[16Bit(Signed)				
Add Device Address	/Symbol Name	me		ecifying inconcecutive lease use a group	•

- 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 Range	Sample An image of writing to a cell is shown below. The arrow points in the direction of arranging
Data Direction	recipe data.
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	ise specify the	e range.					
8						o rango.					
9											
10											
11				_							
12				\$A:	\$1:\$F\$4						
13											
14							ок	Cancel			
15								-			
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 Image: Constraint of the layout of a group symbol is fixed.	The arrow points in the direction of arranging recipe data.
	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.

	А	В	С	D	E	F	G
1							
2	1						
3	2						
4	3						
5							
0							

3 Specify a record No.

Specify the recipe data area by entering a record No. in the symbol "Record No. storage" from GP 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			_ 🗆 🗙
Action Settings Record No. Settings Trigger Condition Settings			
Device Settings			1
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].

Record No. at Write Recipe	
Specify by device/symbol value	
Node (Trigger-Source	e Node Device
Device Address/Symbol	▼ Data Type 16Bit(Signed)
	No. of Characters
Specify by cell value	
\$4\$1	
100 200 300 400	From Cell to PLC

NOTE

٠

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.

 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	
Node rigger-Source Node) 💌	Name
Device Address/Symbol	Data Type 16Bit(Signed)
	No. of Characters
Specify by cell value	
\$4\$1	
1100 2007 300 400 From Cell to PL	

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 Mane
Device Address/Symbol	
	No. of Characters
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/symbol value
Node AGP1 Device PLC1 💌
Device Address/Symbol Address/Symbol
C Specify by cell value
\$4\$1
100 200 300 400 From Cell to PLC

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	etting Trigger Condition Settings				
The recipe has two or m	ore records. Please configure the	specification m	nethod of them.		
Record No. at Write Recipe					
Specify by device/sy	Specify by device/symbol value				
Node	AGP1	Device Name	PLC1		
Device Address/Symbol	RecordNoStorage	Data Type	16Bit(Signed)		

2) Click the [New Trigger Condition] button.

New Trigger Condition New Trigger B	Button
Edit Delete	Edit Delete
Trigger Condition	Trigger Condition

• 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	
Node Name	PC1 Add Node	Find 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 🙀 Whil	e Condition Satisfied				
G Specified Time	🙀 While Device is OFF 🚺 Whe	n Condition Satisfied				
Constant Cycle	🚺 When Device ON 🕌 Wh	en Partner Node ON				
When Device Changes	🔟 When Device OFF 🕺 Whe	en Partner Node OFF				
Device Name #INTERNAL Important Control Important Processing. Important Important Data Type 16Bit(Signed)						
Limited Time Offer Check Cycle 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 Turn OFF the Specified Device Address after PLC1 Processing.	
Device Address	
whiteStart 🗸 🖃 Local:Sheet3	
Data Type 16Bit(Signed) Record State Record State	
PLC1data	
Limited Time Offer	
0 🔹 hour 0 🔹 min - 0 🔹 hou	
	cel

[Data Type] automatically appears after selection, too.

7) Click the [OK] button.

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 PLC1 Image: Turn OFF the Specified Device Address after Processing. Device Address ReadStart Data Type						
Limited Time Offer Check Cycle Always						
	Detail Settings					

8) Click the [Close] button.

Set Trigger Condition
Specify a trigger condition of the ACTION.
Trigger Condition
New Trigger Condition
TurnOnReadStartBit
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.

New Trigger Co Logging	ondition New Ti	igger Button Clear Cell when the following condition is satisfied.
Edit	Delete	Edit Delete
Trigger	Condition	Trigger Condition

10) Click the [OK] button.

\mathbf{i}	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			
Eile Edit View Insert Format Tools Data	Window Help ExcelAction(A)		_ & ×
Ctrl+N	2 (11 (2) *	• • B I U	E = 🛛 • 🕭 • •
Ctrl+O	: A 🖾 🞘 -		
Close			
 ↓ ∰ Save Ctrl+S			
💼 Save as Web Page	celFormOcx.FormRangeInfo.1","")		
	E F G	H I	J K
2 Web Page Preview			
3 Page Setup	<u>р</u>		
4 Print Area	>		
5 🖸 Print Preview			
6 B Print Ctrl+P			
8 Send To	▶ ·		
9			
10 <u>1</u> \Documents and Settings\A\Book1.xls			
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			
18			_ _
H + H Sheet1 / Sheet2 Sheet3	1		
] 🔚 🖬 🛈 🔍 🕅 斗 🗕 ಶ 🖉 📍	- E		
Ready			

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

Excel Rep	oort 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	E:\Documents and Settings\Owner\Desktop	Reference
File Name	RecipeRead.xls	Return to Default Settings
🔽 Start from Disp	layed State	
Do not save the (Please use the	e output file when ACTION runs. : Save or Auto-save function of Excel.)	

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 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	1
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 practice	illy.
PC1 PC1 Robline 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.	

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

Please sp the execu	ntification Exists ecity the political device that will be informed of tion of the ACTION. After the execution of the t 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
	Data Type Bit
Ba	ck 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
- <u></u>		"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.

牧 P	ro-St	udio E>	(t	est.npx				
File	File Edit Tool Programming Assist							
	1	Start	>>		Node	•		
	Ac	ld		Impo	rt			
	Edit			Delete				
		CTION Recip rigger C Turn(ata Trai evice C	ond DnR nsfe	tiol 2 eadStartB r	it			

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

Setting Help	
>> ≽ Symbol >> ≷ 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 Condition Data	Rename
Completion TurnOn	Create form using Excel.
	Set Parameter
L	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 🔉	Ľ	🤰 Transfe	r Monitor Status
Trigger Condition	Sec	juence D	iag	ram by Ti	rigger Condition
	•	Collapse		Tra	ansfer 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.

Microsoft Excel - templa	ate3.xlt						_	
Eile Edit View Insert	F <u>o</u> rmat <u>T</u> ools <u>D</u> ata <u>W</u> ir	ndow <u>H</u> elp ExcelAction(A)				_	ЪХ
🗅 🛎 🖬 🔒 🎒 📐	🌄 🕺 🖪 💼 🗠	- 🕵 Σ 🏂 🛓 🛄	2 ¥		-	• B	I U 🗏	» ▼
🛛 🛱 SnagIt 😭 🛛 Window	•							
🤀 💕 👋 😭 💥 👼	🔗 🗉 🗰 💅 鹶	ц ц						
•	= =EMBED("Pro	Write MOcx.FormRange	elnfo.1","")					
A B	C D	E F	G	Н	1	J	K	
			·					
2, 1								_
3 2			·					
4 3								
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						
5							
6							
7							

NOTE

• 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

Recipe Action Settings Record No. Settings Trigger Condition Settings Device Settings (Trigger-Source Node) • Device Address/Symbol • • Device Address/Symbol • • Data Type 16Bit(Signed) • ✓ Add Device Address/Symbol Name •	ings Device Name No. of 4 Devices Note: When specifying inconcecutive memory data, please use a group symbol.
Layout Settings Target Cell \$8\$1:\$F\$1 Data Direction 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.
	DK Cancel

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 Group
	Data Type	 When specifying a device address: Specify the data type. Data Type Deselect 16Bit(Signed) 32Bit(Signed) Bit 16Bit(Unsigned) 732Bit(Unsigned) Float 16Bit(HEX) 32Bit(HEX) Double When specifying a symbol: Data type automatically appears.

Setting item		Setting content
	No. of Devices	Displays the number of devices to read/write, automatically calculating it from the selected cell range. NOTE If a group symbol has been selected, the number will be "1".
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 $ \begin{array}{r} \hline 1 & 25 & 25 & 25 & 25 \\ 2 & 50 & 20 & 20 & 10 \\ \hline 3 & 50 & 20 & 20 & 10 \\ \hline 4 & 10 & 10 & 10 & 70 \\ \hline \end{array} $ • Horizontal $ \begin{array}{r} \hline 1 & 2 & 3 & 4 \\ \hline \hline 1 & 25 & 25 & 25 & 25 \\ \hline 2 & 50 & 20 & 10 \\ \hline 1 & 25 & 50 & 20 & 10 \\ \hline 1 & 25 & 50 & 20 & 10 \\ \hline 1 & 25 & 50 & 20 & 10 \\ \hline 1 & 25 & 50 & 20 & 10 \\ \hline 1 & 25 & 50 & 20 & 10 \\ \hline 1 & 10 & 10 & 10 & 70 \\ \hline \end{array} $

Setting item		Setting content
Layout Settings	Target Cell Range	 Specifies the cell range to which data will be written/read. Clicking the button can select the cell range on Excel. Drag the mouse to select the cell range. NOTE Set the target cell range under the following conditions. Row: 65536 or less Column: 256 or less JInstead of using the mouse, you can type the cell range. Click the Excel screen, enter the cell range on the "Specify Range" screen, and then click the [OK] button. Specify Range ? X Please specify the range. When you specify the cell range including 1501 lines or more, only the top-left cell of the selected range seems to be specified on the display. Management Board The useful function is available to check the specified cell range (Action area).Refer to "■ Action Area List" in "5.1.2 Setting Guide".

Setting item		Setting content
Layout Settings	Data Direction	Sets the data write direction when selecting multiple cells.
	No. of Records	Sets and displays the number of records used for a recipe, automatically calculating it from the specified cell range.
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

🖗 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 Data Type 16Bit(Signed)
No. of Characters
O Specify by cell value
\$A\$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 Name
Device Data Type 16Bit(Signed)
No. of Characters
O Specify by cell value
\$A\$1 100 200 300 400 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 speci by GP 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
		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	Specify by device/ symbol 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.
		Data Type	 When specifying a device address: Specify the data type. Data Type Deselect 16Bit(Signed) 32Bit(Signed) Bit 16Bit(Unsigned) Float 16Bit(HEX) 32Bit(HEX) Double When specifying a symbol: Data type automatically appears.
		No. of 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 cell 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

👹 Recipe
Action Settings Record No. Settings Trigger Condition Settings
Action Area No. O 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 Wite Edit Delete Trigger Condition New Trigger Condition Wite Edit Delete Trigger Condition Image: Edit Delete Image: Trigger Condition Image: Edit Delete <td< td=""></td<>
OK 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.

• $[\text{Tool}] \rightarrow [\text{QC Chart}]$

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'
- 1 Click the [Office] button and [Excel Options] in 'Microsoft Excel 2007'.
- 2 Click [Popular] in the [Excel Options] dialog box.
- **3** Check the "Show Developer tab in the Ribbon" option.



- 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.



Using 'Microsoft Excel 2002' or later

When using these features with 'Microsoft Excel 2002' or later, turn on the following check box of the window.

- (1) On the menu bar, select [Tools] [Macro] [Security].
- (2) On the security screen, click the [Trust Sources] tab.
- (3) Check the [Trust access to Visual Basic Project] check box.

Security	? 🗙
Security Level Irusted Sources	1
	*
	<u> </u>
Trust all installed add-ins and templates	Remove
Trust access to Visual Basic Project	
No virus scanner installed.	
OK	Cancel

If not checked, an error may occur while using the following features.

• [Tool] - [QC Chart]

Tools of Pareto graph, etc. cannot be used.

• [Tool] - [Insert Sample]

Form templates cannot be used.

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.

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>Yes</u> <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.



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	—			
2				
3				
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 Exc	el				
		Version 1.22			
Template 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.xl	Reference			
	Edit Template				
-Output File					
The template file store	es setting info. The actual output result will be displayed in the follow	ing file.			
Folder Name	C:\Documents and Settings\Administrator\Desktop	Reference			
File Name	Report_%Y%M%D.xls Return to Der	fault Settings			
Start from Display	ved 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 Help	ExcelAction(A)	
X	💞 Spelling F7	f∗ 2↓ 🛍 🛛 Ϋ	Arial 👻
-	<u>A</u> utoCorrect		
	Share Workbook		
-	Track Changes 🔹 🕨		
c	Merge <u>W</u> orkbooks	F G	H I
-	Protection •		
	Online Collaboration		
	<u>G</u> oal Seek		
	Sc <u>e</u> narios		
	Auditing •		
	Macro	<u> Macrosm</u>	Altiro
	Add-Ins	Record New Macro	
	<u>C</u> ustomize	Security	45
_	Options	췸 Visual Basic Editor	Alt+F11
		OD Microsoft Script Edito	or Alt+Shift+F11

 $\mathbf{3}$ 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	
	ОК Д	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.



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

ExcelAction(A)	
🕼 Device One-Shot Area(M)	F
Device Logging Area(L)	ŀ
😻 Recipe Area(<u>R</u>)	
😰 Log Data in GP Area(<u>U</u>)	
Special Area(S)	
Execution Sequence List(E)	
Buttonify Trigger Condition(B)	ŀ
🔤 Action Area List(I)	
– Tools(<u>T</u>)	H
Communication(⊆)	H
— 📩 Area display(<u>O</u>)	H
Version Info(<u>A</u>)	

7 Create the trigger condition save automatically.

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

Execution Sequence List				<u>_0×</u>				
Execute when Trigger Condition satisfi	ed Execute when Trigger Button clicked Execute	from another application	on]					
۷	When Trigger Condition is satisfied, Action is executed.							
New Trigger Condition Edit Insert Clear	New Trigger Condition Please place actions to execute or EXCEL operation commands in order of execution.							
Trigger Condition 1	2 3	4	5	6				
CreateForm *	Excel Operation Function							
*				in the second				
•				T				
			OK	Cancel				

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

Ехс	cel	Operation Fun	cti	on			_ 🗆 🗙
		New Sheet New Book	0	Print Sheet	Sheet Name	sheet1	
	C	Show Book	C	Hide Book			
	C	Print Book	c	Close Excel			
(e	Execute Macro		Macro1			-)
	С	Export					
		File Name		Report_%	′%M%D%n.csv	De	fault
		Saving Folde	r				
		Saving		CSV(.c	sv]		
		Format		Export Report.	only the last page	e except Action	
				O HTML(.	htm)		
					ОК	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.