Chapter 4

Excel form

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Chapter 4 Excel form

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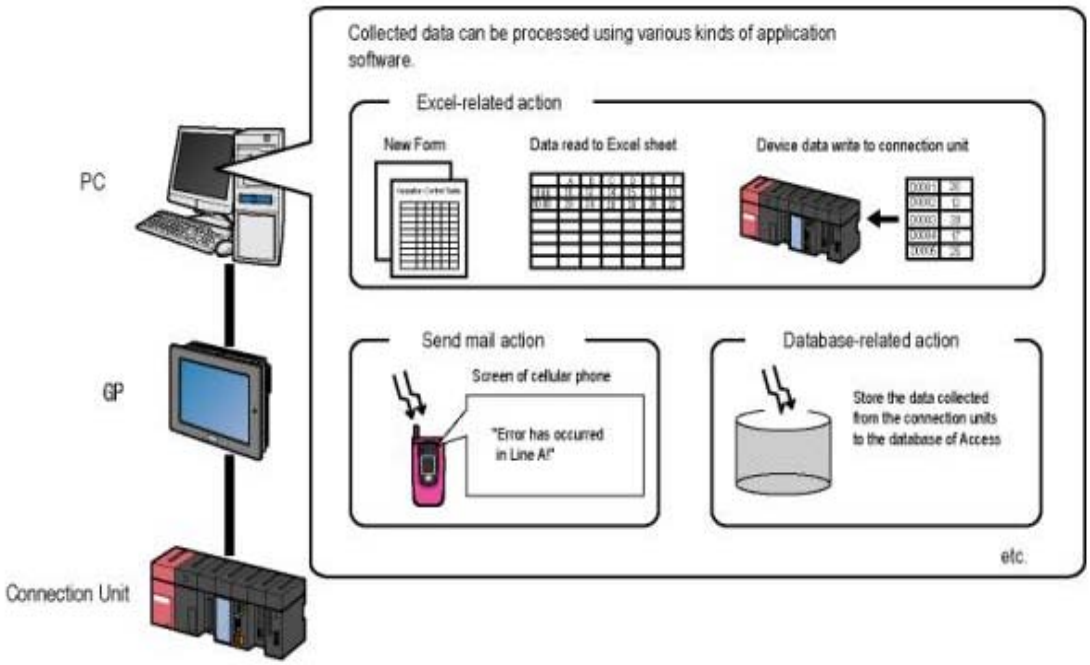
解説

Action

≪About action≫

The special processing which utilized the application software in personal computers, is called "Action." Field/site data can be linked with various software including Excel and Access.

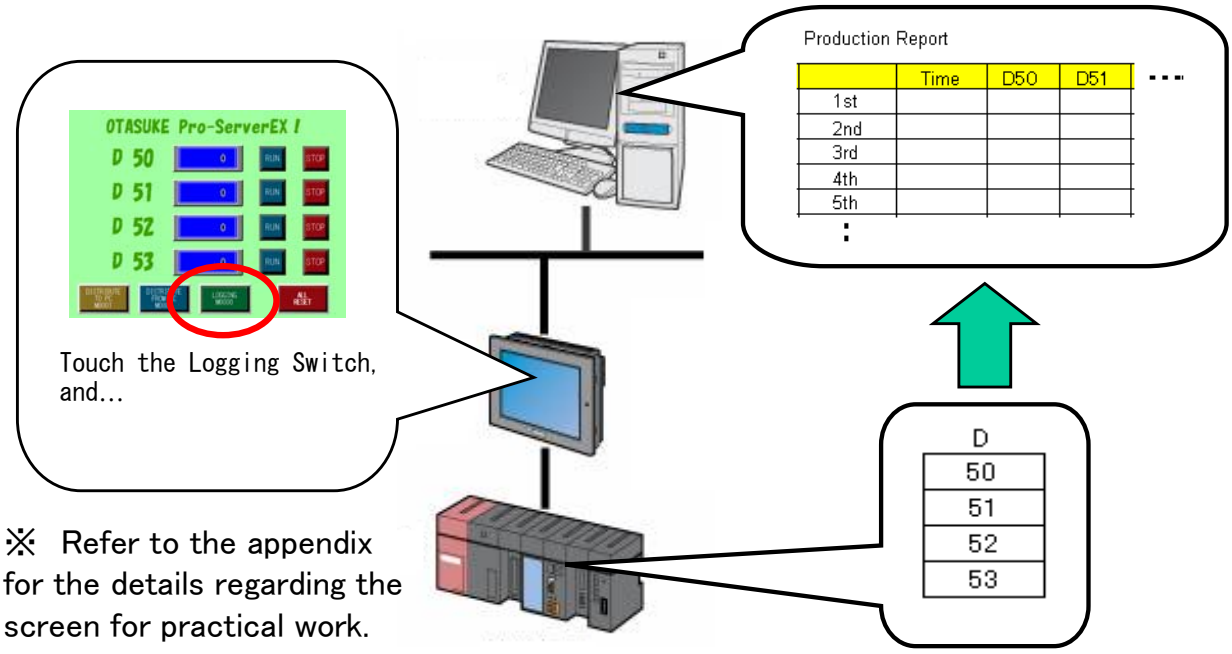


Practical work of "logging to excel" that collects the data of connection unit on excel sheet,is performed from excel related action. Refer to Reference Manual " Chapter 5 Report to be created using Excel" for Details.

Practical work for excel form

≪Action outline of practical work≫

The data saved in device D 50-53 of PLC is logged to Excel on a personal computer.



※ Refer to the appendix for the details regarding the screen for practical work.

≪Setup steps≫

① Create the template of Excel.

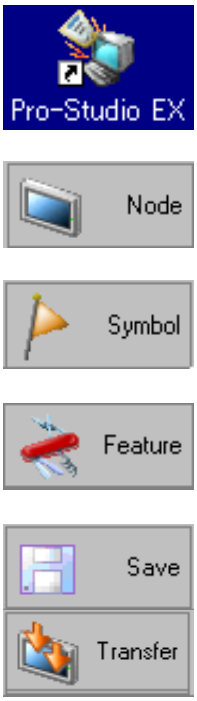
② Start the Pro-Studio EX and create the network project file (NPX).
(Use the items created from 1st chapter)

③ Register the participating node.
(Registered in Chapter 1)

④ Register the symbol of the device address which is to be used.
(Registered in Chapter 1)

⑤ Set up the feature (action and trigger conditions).
・The area which records data on the template of ① is created.
・Trigger conditions are set in each area.

⑥ Transfer NPX after performing save/reload.
⑦ Check the action.



→ As for the practical work from the next page,perform it ⑤ onwards after creating the template for ①, as a items in which ②~④ are already exist.

〔1〕 The template for Excel is created as follows.

	A	B	C	D	E	F
1	Production Report					
2						
3		Time	D50	D51	D52	D53
4	1st					
5	2nd					
6	3rd					
7	4th					
8	5th					
9	6th					
10	7th					
11	8th					
12	9th					
13	10th					
14	total		0	0	0	0

4 words data value of D50~53 is selected in productions and it is a template for the 10th time record arranging it horizontally.

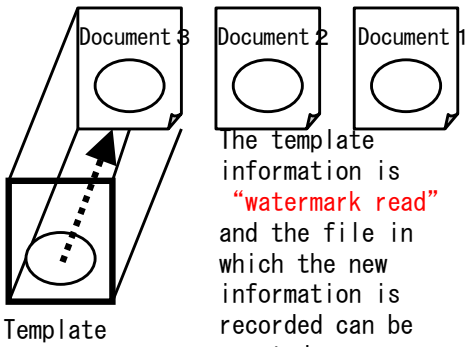
A1 : Character "Productions report"
B3 : Character "Time"
C3 ~ F3(Row) : Character "D50" "D51" "D52" "D53"
A4 ~ A12(Column) : Character "1st time" ~ "10th time"
A14 : Character "Total"
C14 : Total value of C4~C13
D14 : Total value of D4~D13
E14 : Total value of E4~E13
F14 : Total value of F4~F13
A3 ～ F3(Row) : Fill with yellow color
A14 ～ F14(Row) : Fill with gray color
A3 ～ F14(Row・Column) : Ruled line enclosed with each cell

If the above-mentioned figure is drawn, the name of "Logging template .xls" is given/attached and it will be saved at desktop.

One point

About template

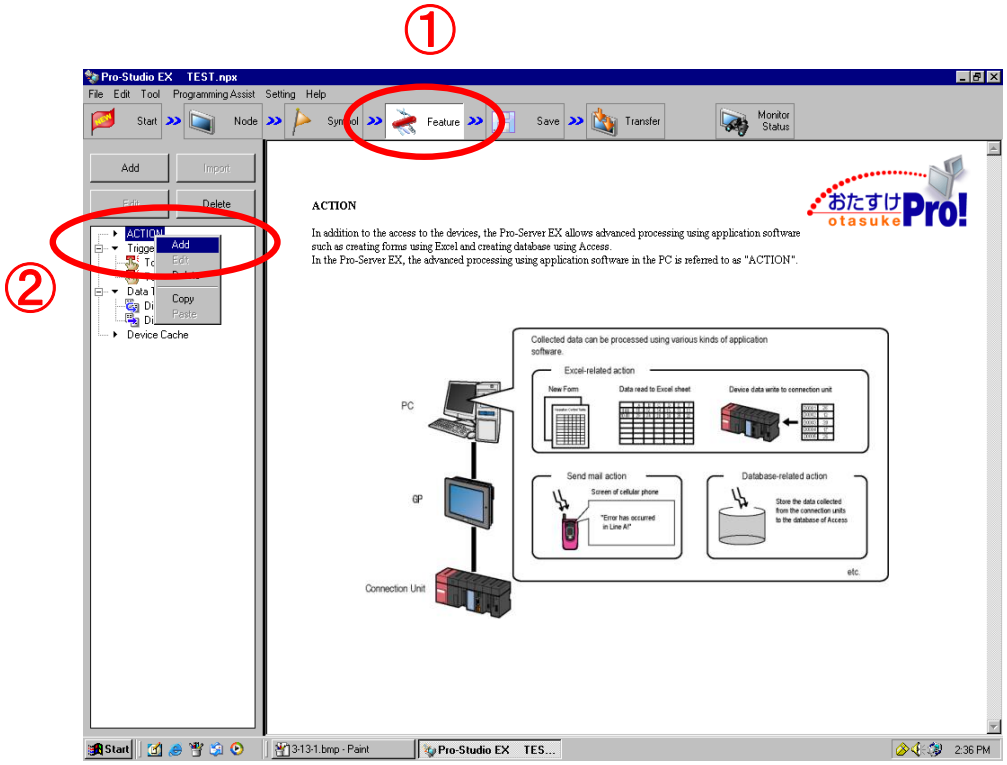
It is "Model" and "Foundation" while creating a document.
The format and function on a template, macro etc. are used, in addition to that one template is used by generating the file in which new data is recorded.

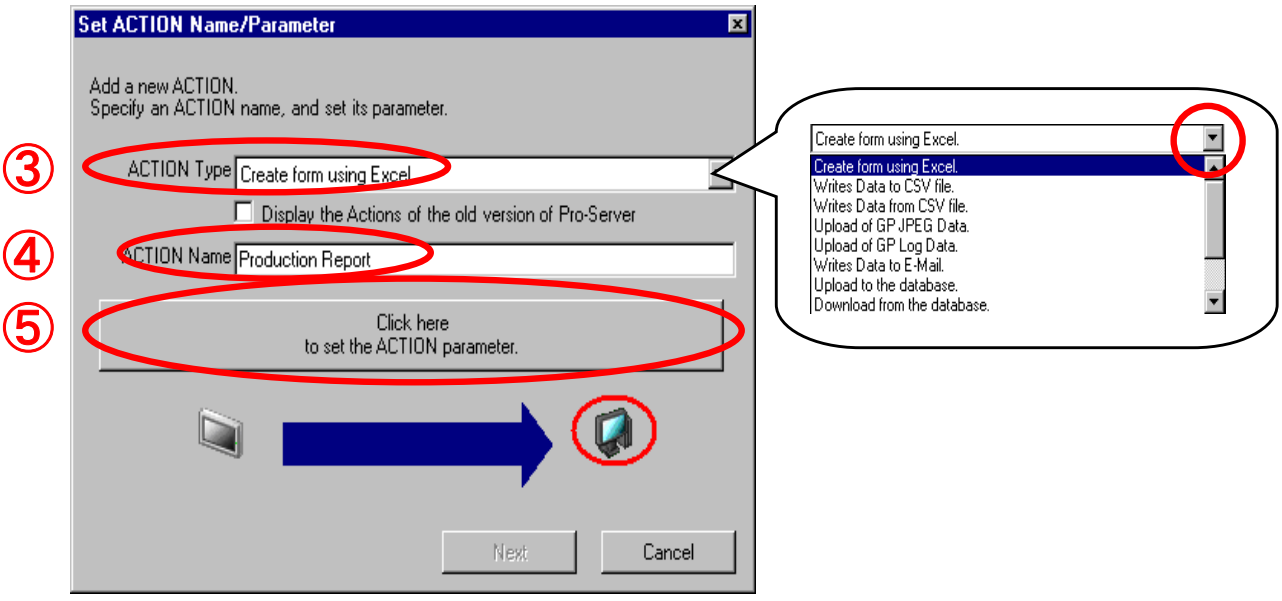


〔2〕 Set up the action.

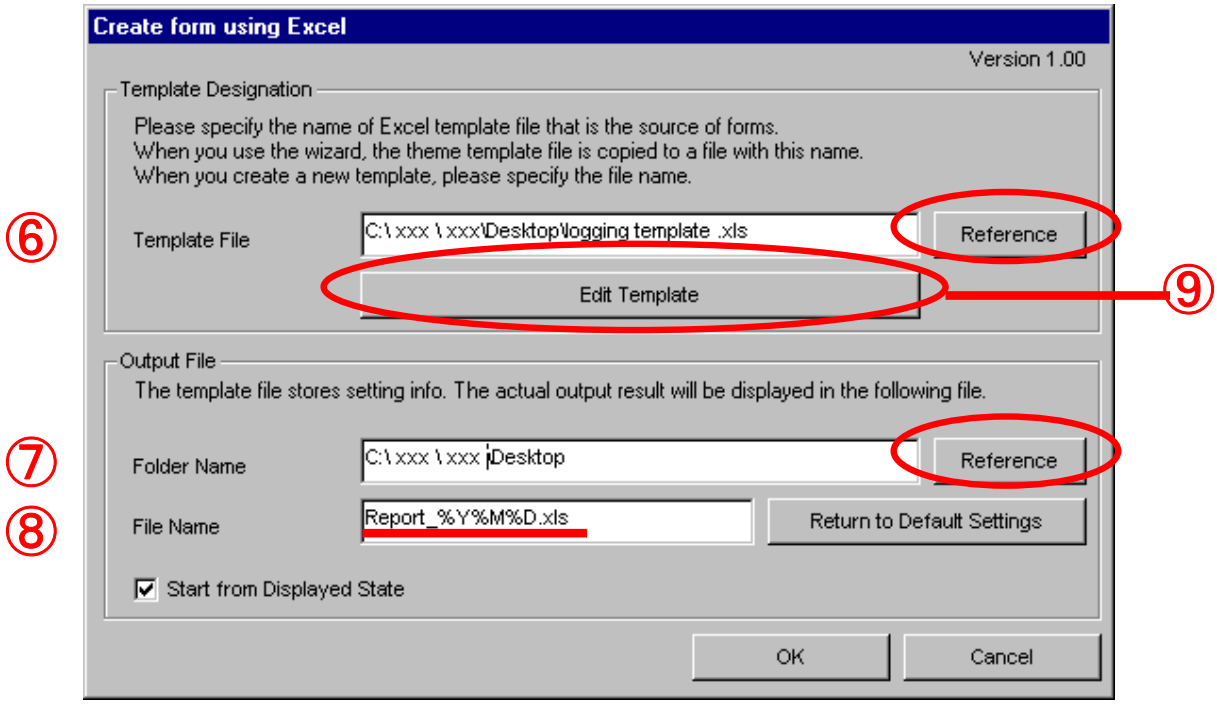
① Click [Feature] of a status bar.

② Right click the [Action] and click [Addition].





③ Select [Excel form] in types of action.
④ Enter an action name as "production report".
⑤ Click [Click here ..] button.



⑥ Click “Reference” of template file, select the template.

from P3 ″Creation of a template″

C:¥ *** ¥ *** ¥Desktop¥logging template.xls

→ Enter the folder name of the personal computer (which is used for practical work) in ″***.″

⑦ Select the desktop in the folder name of output file.

C:¥ *** ¥ *** ¥Desktop

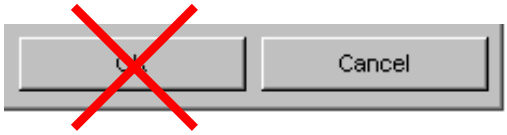
→ Enter the folder name of the personal computer (which is used for practical work) in ″***.″

⑧ Set the file name of output file as default.

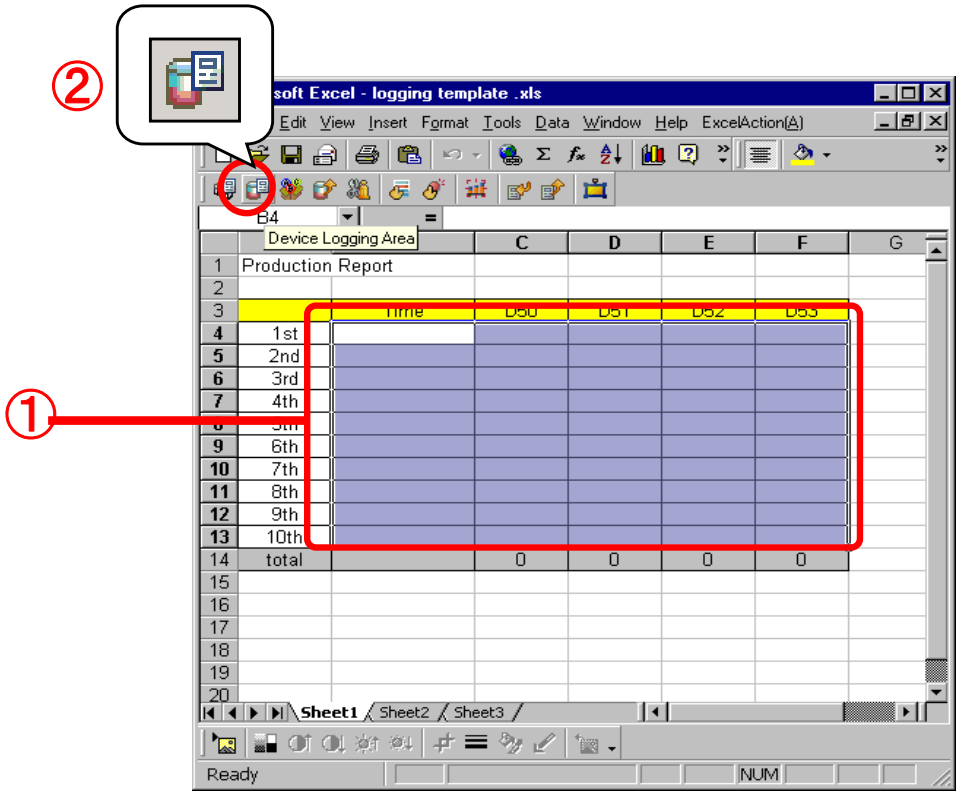
⑨ Click the ″edit template″ button.

Note

Next to the setup of ⑧, click the [Edit template] of ⑨ instead of clicking the [OK] button in the lower right.By doing this, the following setup will be proceeded.



〔3〕 Excel will get start and the following template which is created at the beginning will get opened.



① The range will be specified by dragging the cell from B4 to F13 on the template.

② Click the icon of "Device logging area" from excel action tool bar.

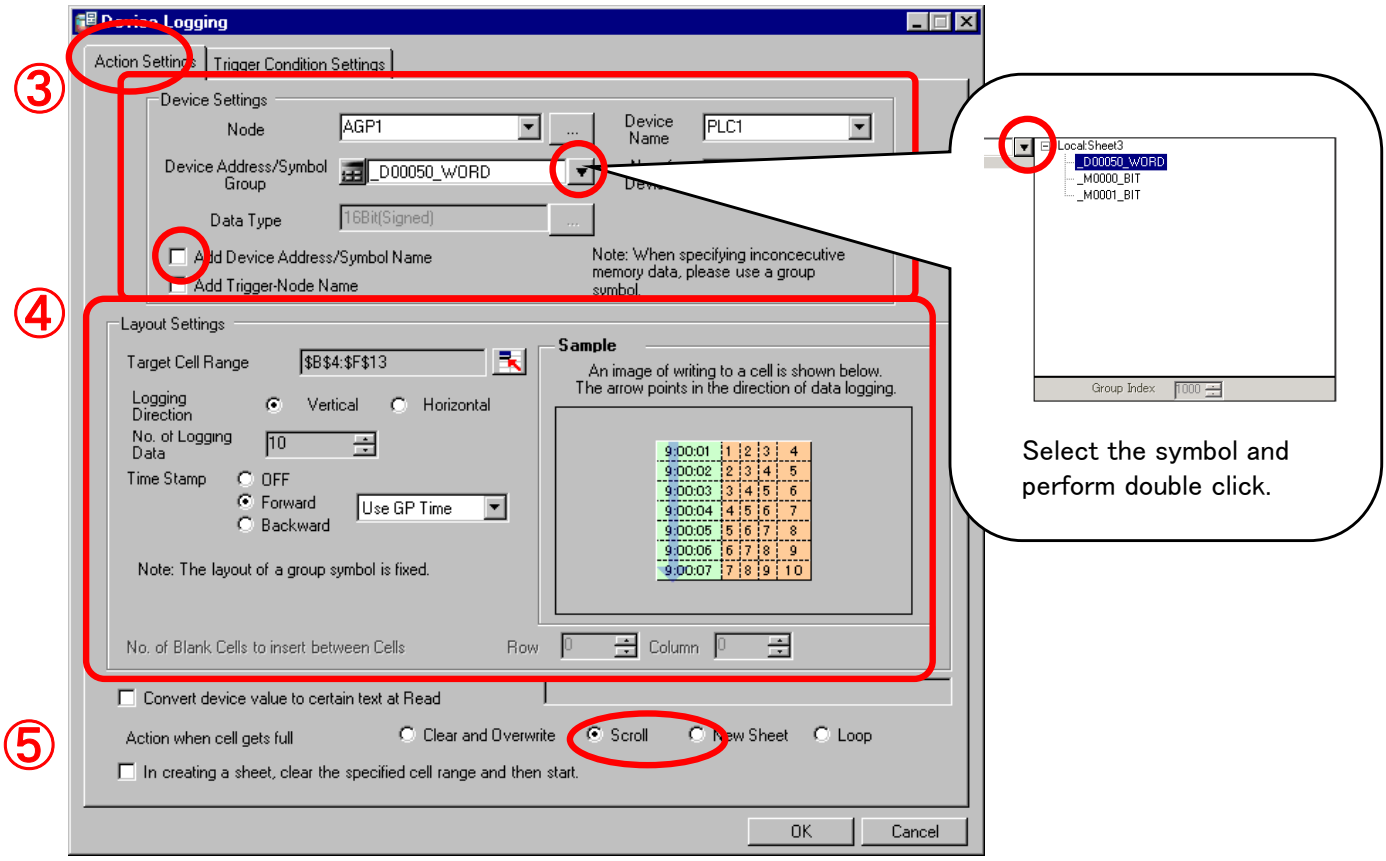
One point

Regarding Excel action tool bar

The report with various features can be created by selecting each icon.
Refer to Reference Manual "Chapter 5 Report to be created in Excel" for Details.

Edit the device logging area

Action setting tab (it sets up which data is recorded in what way.)



③ Device setup The following items are selected from the pull down button.

Participating department : AGP1

Model name : PLC1

Device address / symbol group :_D00050_WORD

Remove the check of "adding a device address / symbol name".

④ Layout setup

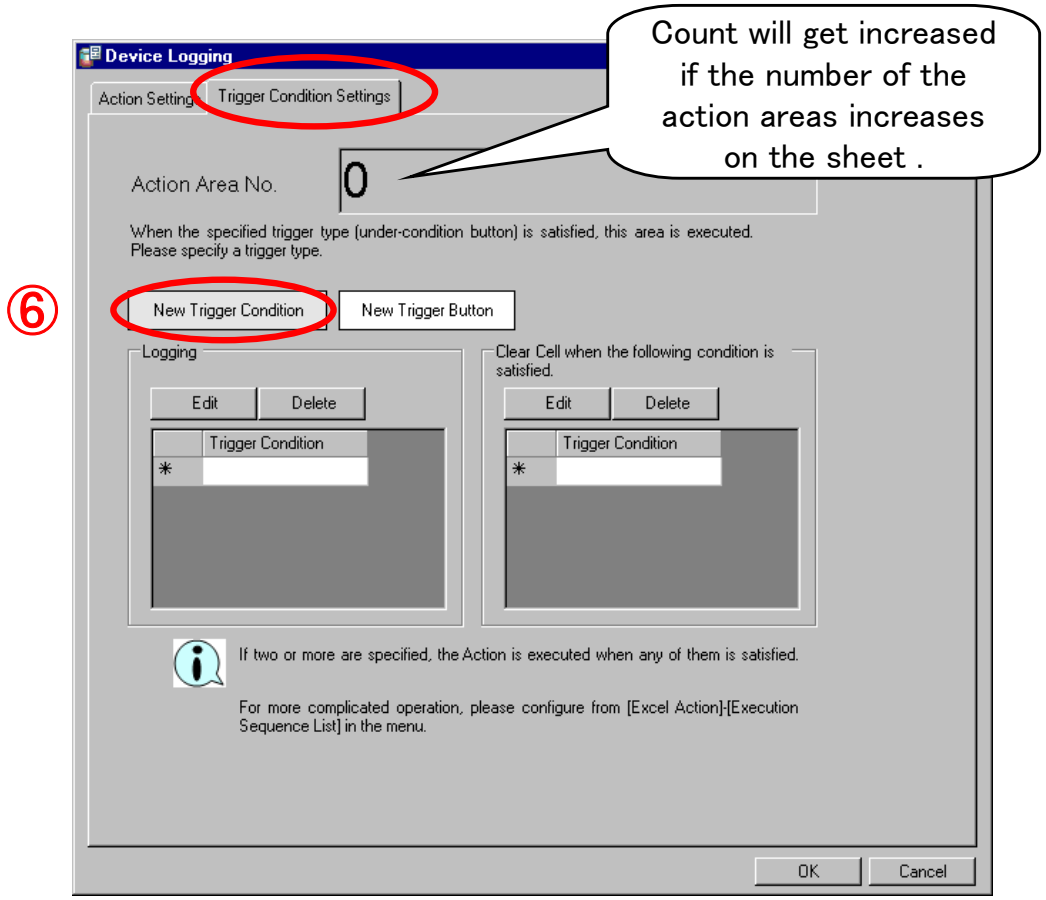
Time stamp : "Forward"

⑤ Action when cell gets full :Scroll

Enter other items as per above figure.

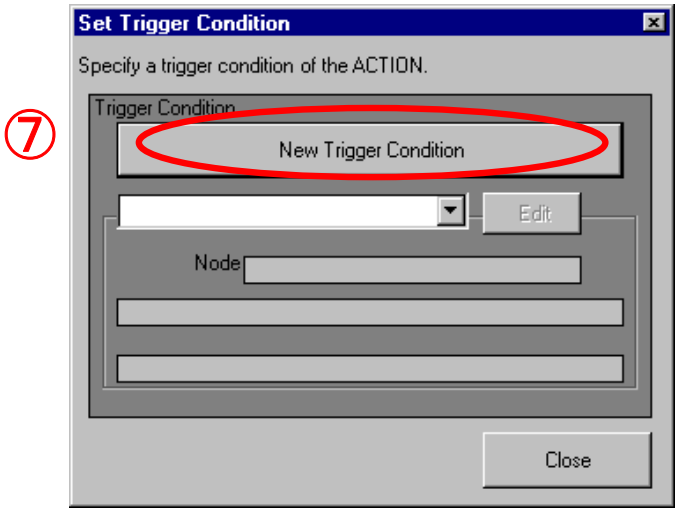
→ Next, click the "Trigger condition setup" tab.

Trigger condition setting tab　(the timing in which data is recorded, is set up)

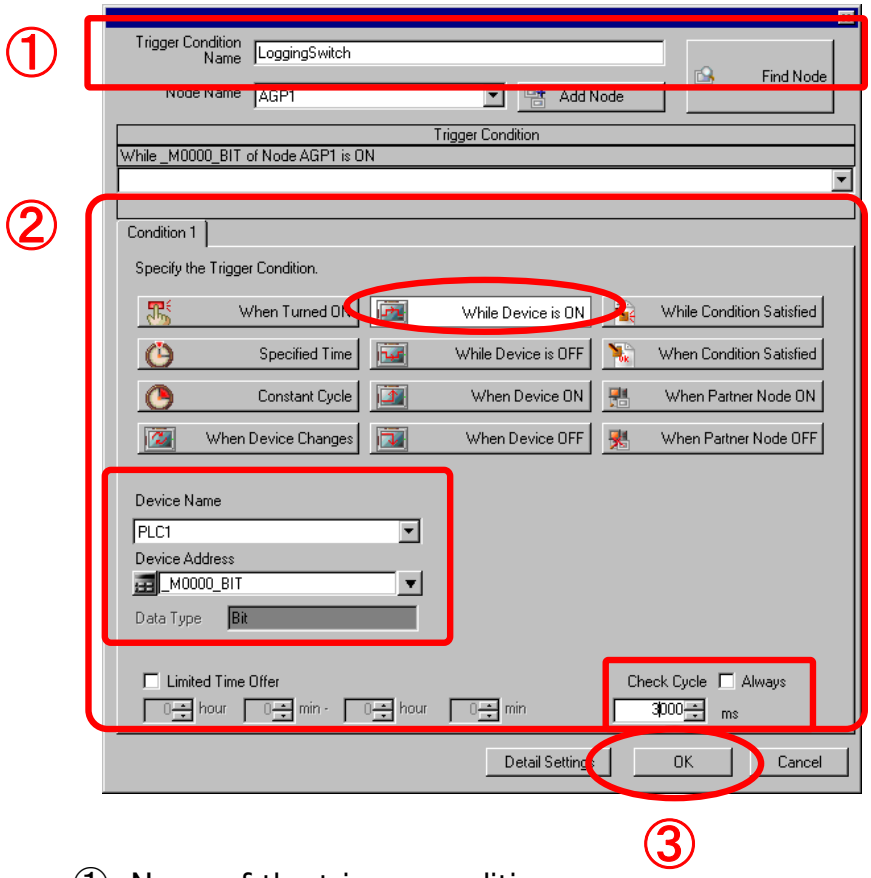


⑥ Click [New trigger conditions].

⑦　Click [New trigger condition] button from “Trigger condition setup”



〔4〕 Set the new trigger conditions.



① Name of the trigger condition: Logging switch

Node name: AGP1

② Condition: Select “While device is ON”

Device name: PLC1

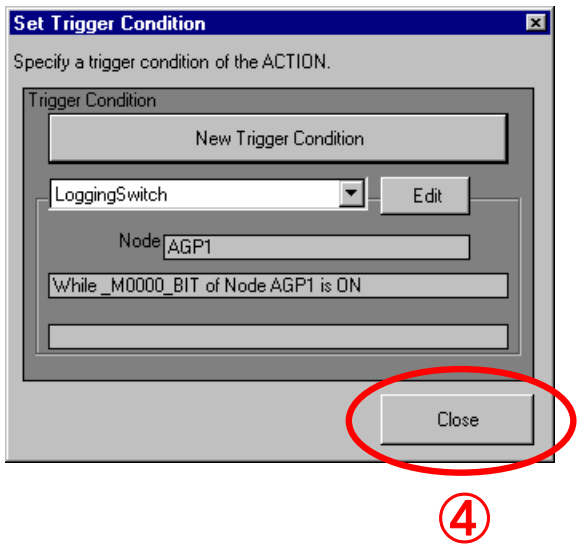
Device address: _M0000_BIT

Check cycle: 3000 ms

③ Click [OK] button.

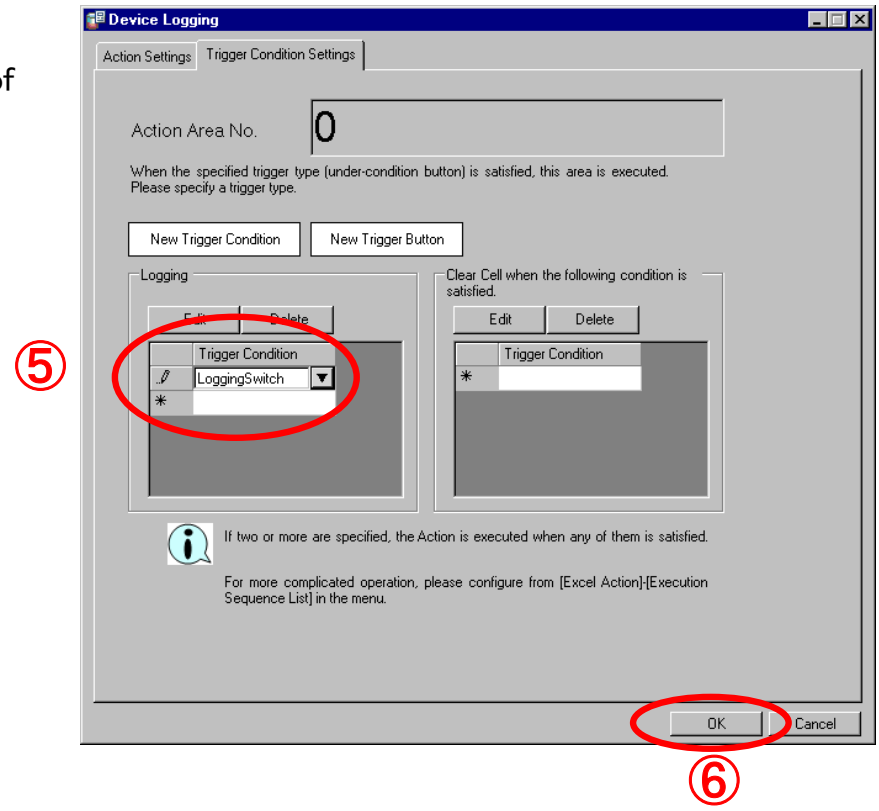
The trigger condition logging switch is created above.

④ Click [Close].



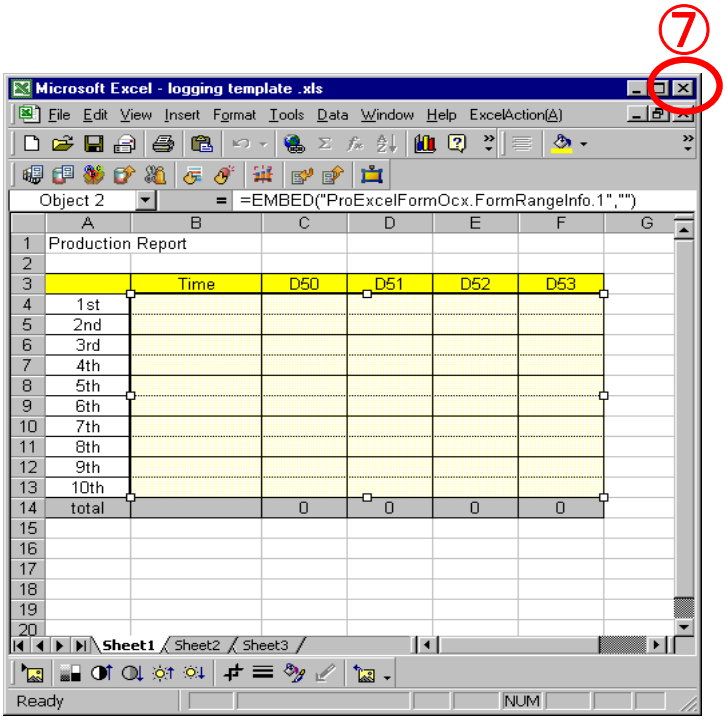
⑤ Double click the [Logging switch] from pull down button of trigger condition and select it.

⑥ Click [OK] button.

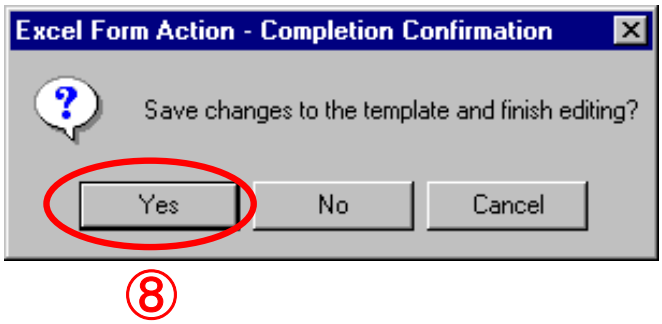


⑦ Excel will get close after clicking [X] mark icon of upper right corner of window.

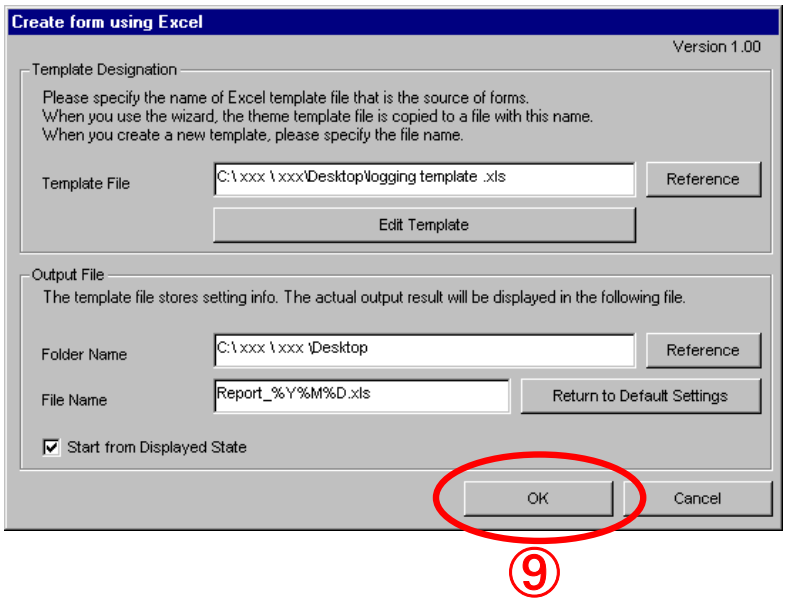
※The screen will get color in action area.



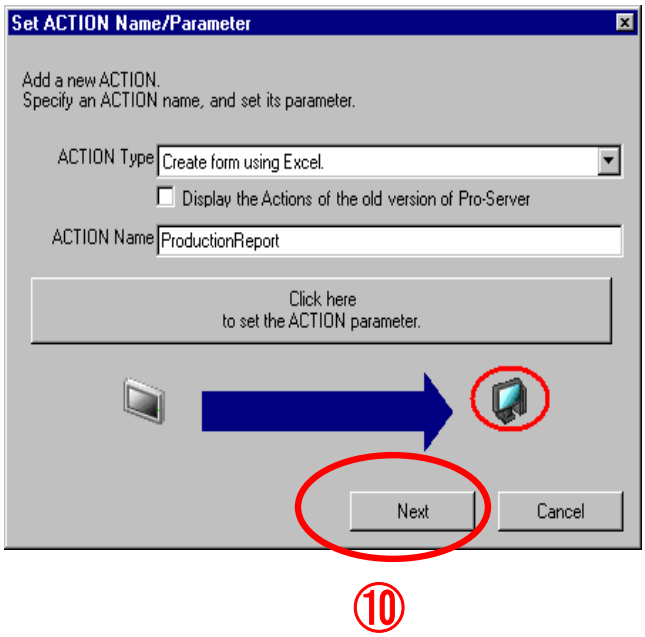
⑧ Click [Yes] in the "Completion confirmation" dialog box.



⑨ Click [OK] button in the dialog box of “create form using excel”

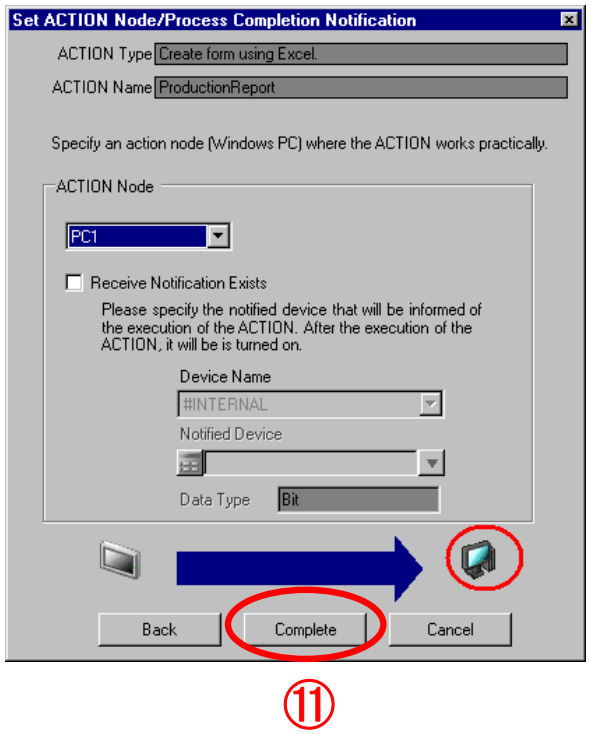


Dialog box of “Set action name/parameter” will get open.



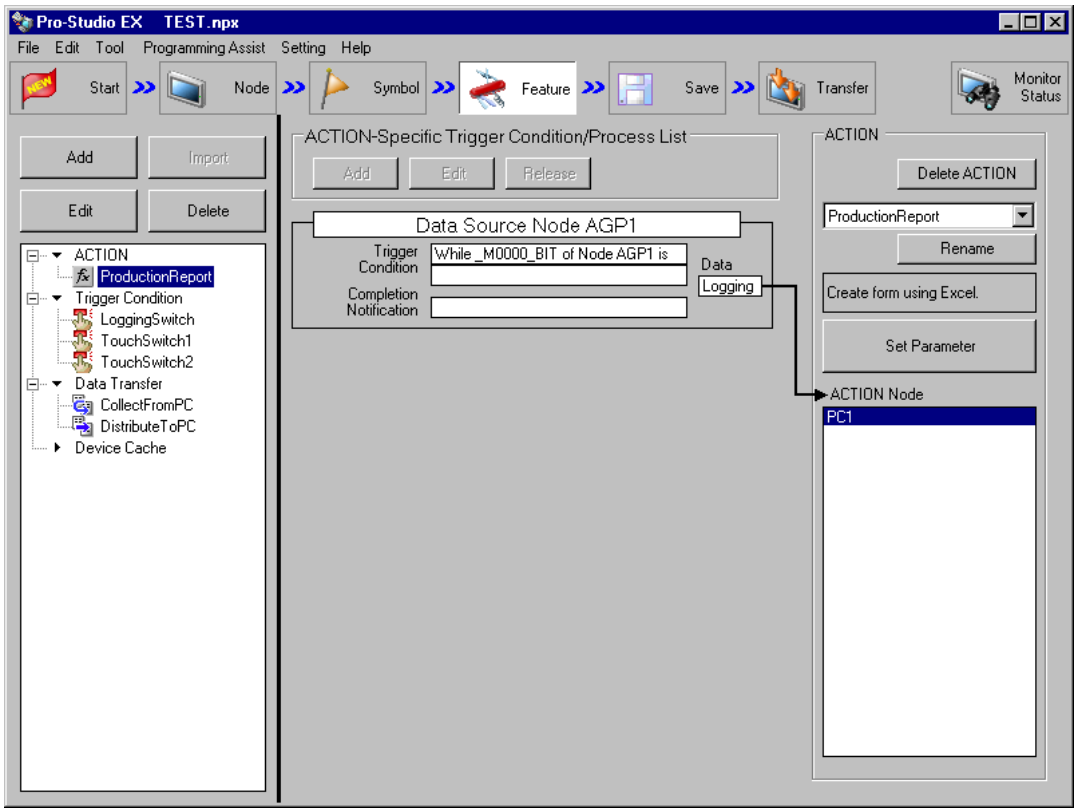
⑩ Click [Next] button.

Dialog box of “Set action node/process completion notification” will get opened.



⑪ Click [Complete] button.

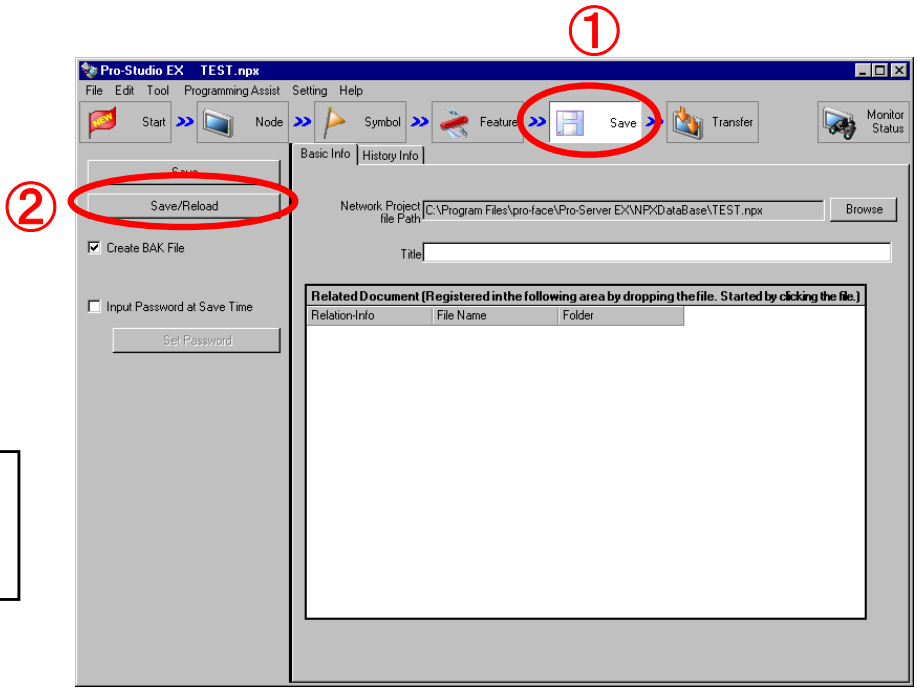
Trigger conditions of action “productions report” and the process list are displayed.



〔5〕 Save/reload NPX and it will transfer to AGP.

① Click [Save] on status bar.

② Click [Save/reload].

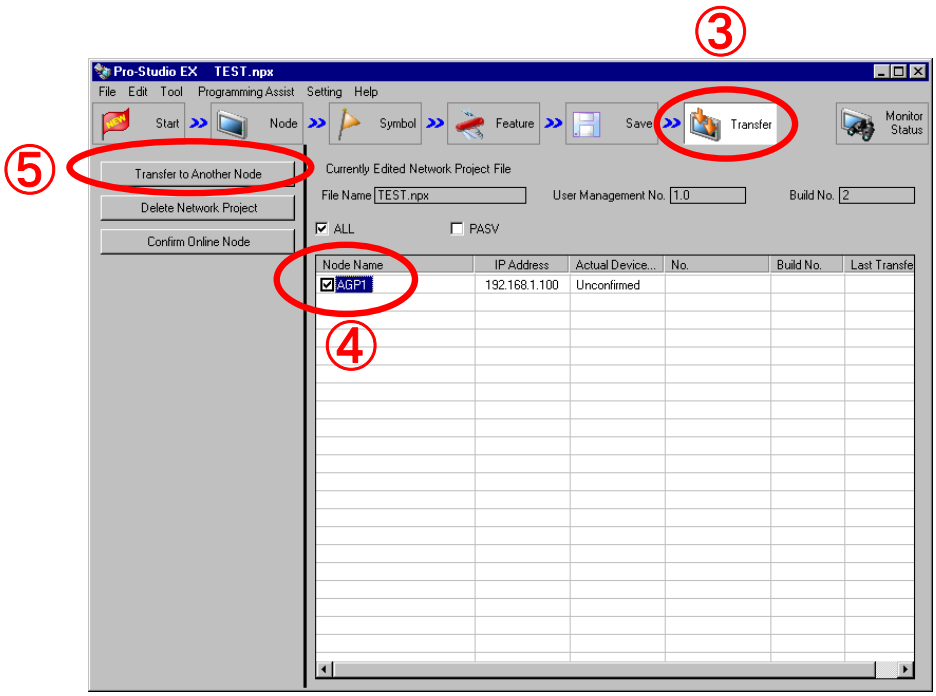


If it is not yet saved, save 2 – 4 pages for reference.

③ Click [Transfer] on status bar.

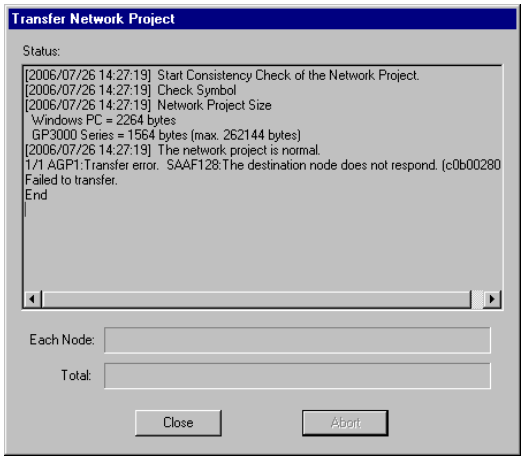
④ Select the participating node for transfer destination.

⑤ Click [Transfer to another node].



A message as shown in right side is displayed, and if there is no problem/issue with an error check, transfer will terminate normally.

Transfer to the personal computer itself is unnecessary.



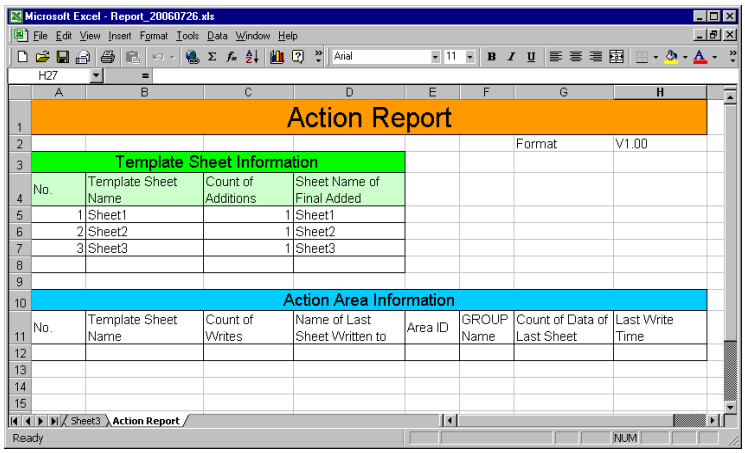
One point

Regarding Action Report

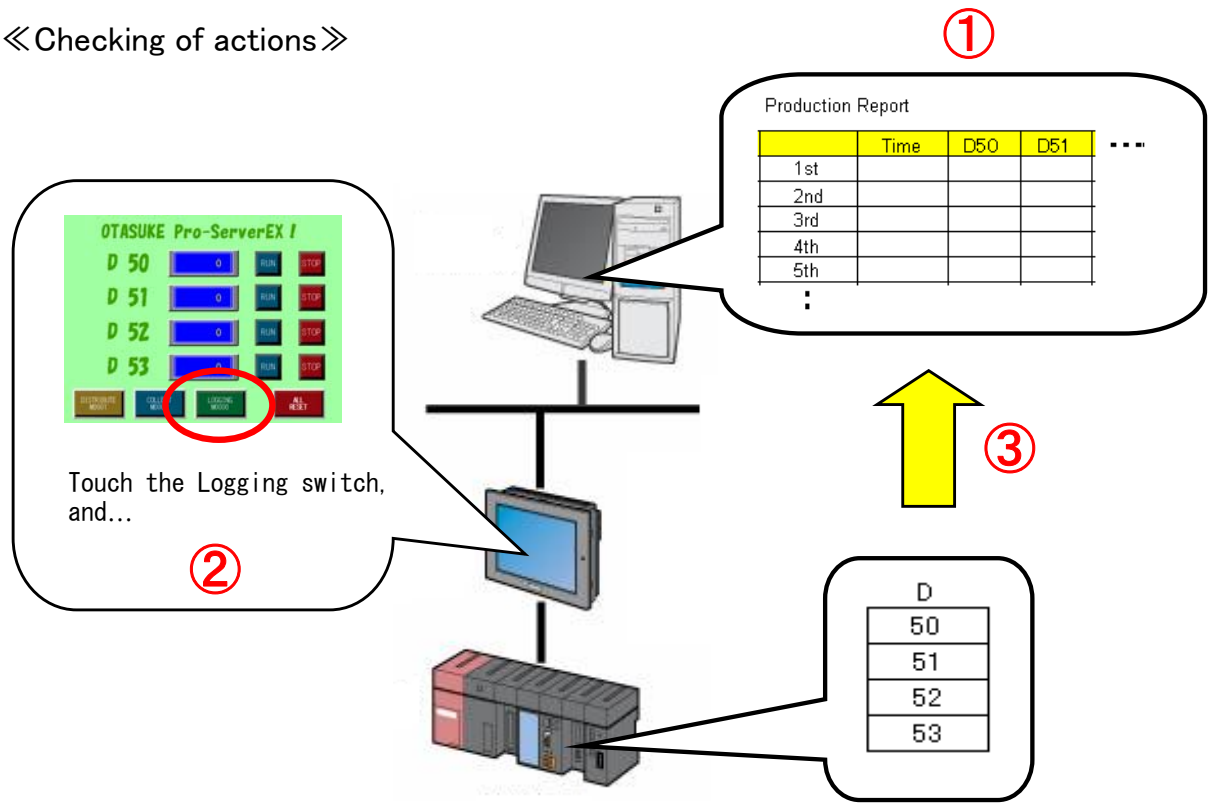
The Excel file which is generated at the time of reload will get open and "Action Report" will be added to the final sheet.

Do not delete the "Action Report."

It will become the cause by which defect will occur in action.



≪Checking of actions≫



① SHEET1 of Excel sheet file will get open.
② If the logging switch on GP screen is pressed, 4-word data from D50 of PLC1 will be written in Excel.
③ If it will be written till 10th time, it will be scrolled afterwards.

One point

Regarding scroll display

Since "scroll" is selected by action setup of device logging area, if the data of the 10th henceforth enters, the whole area scrolls and only the latest data for 10 time is saved. When all data is left out, "New sheet" is selected. If the data of the 10th henceforth enters, a new sheet will be created and it will keep on record.

When communication does not work, refer to the "communication setup of a personal computer and the check method" of introductory chapter and check the setup.

Memo （The following is blank space. Use it freely.）