15 | Starting Optional Application

15.1　Try to Start Optional Application

[Action Example]

Detect the rising of the trigger device (bit device: "M01") of Device/PLC and start the application software of PC,

"Notepad" (File name: Alarm occurrence.txt).
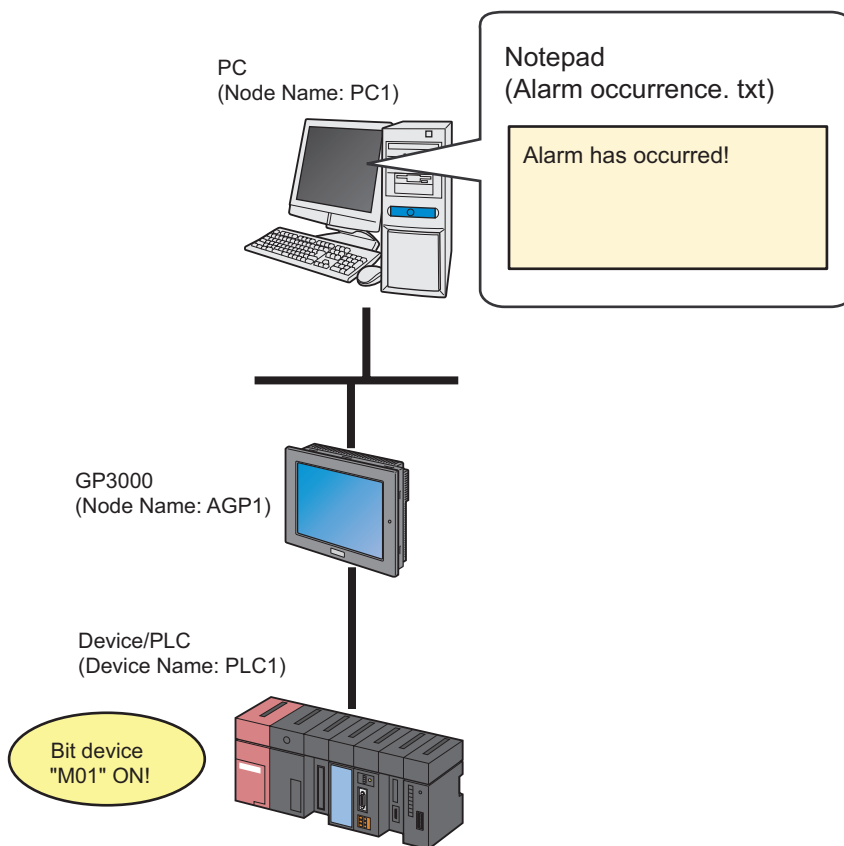
This section describes the setting procedures for executing the above action (ACTION) as an example.

[Setting Procedure]

1	Creating Text	This step creates text (message) to display on "Notepad".

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 which serves as a trigger condition (trigger).

5	Parameter Setting for Feature (ACTION)	This step sets the following items: • Application name • Startup option • Current folder

6	Setting Trigger Conditions	This step sets conditions (trigger) for starting application software.

7	Setting Data Received by ACTION	This step sets a constant value to transfer.

8	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.

9	Verifying Setting Result	This step verifies setting results on the setting content list screen.

10	Saving a Network Project File	This step saves the current settings as a network project file and reloads.

11	Transferring a Network Project File	This step transfers a saved network project file to the GP.

12	Executing ACTION	This step verifies that a specified piece of application software starts when the preset trigger condition has become effective.

15.1.1　Creating Text

This step creates text (message) to display on "Notepad".

1 Start "Notepad" to create the text shown below.

[Creation Example]
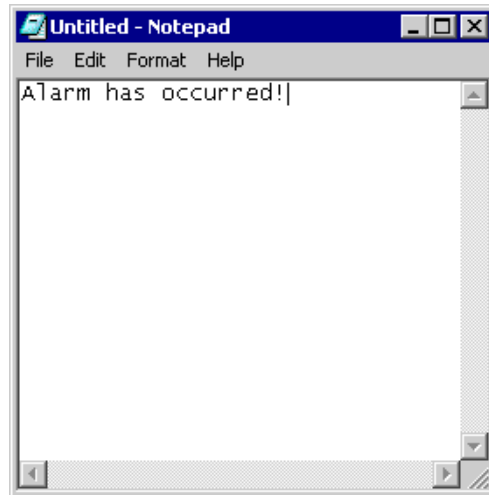
2 Save it on PC desktop with the file name "Alarm occurrence.txt" after creating.

15.1.2　Starting 'Pro-Studio EX'

This step starts 'Pro-Studio EX'.

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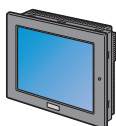
15.1.3 Registering Entry Nodes

This step registers the PC and the GP connected with network as nodes.

Refer to "30 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

Ex.

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

15.1.4   Registering Symbols

This step registers as a symbol the device address of Device/PLC which serves as a trigger condition.

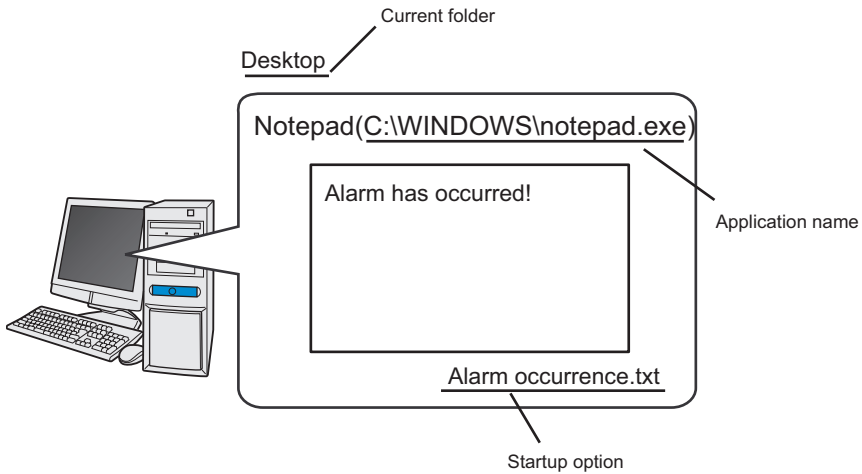Refer to "31 Symbol Registration" for details about entry nodes.

Ex.
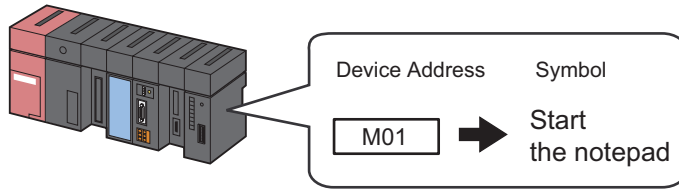
Setting item	Setting content
Symbol Name	Start Notepad
Data Type	Bit
Device address for symbol registration	"M01" of Device/PLC (PLC1)
No. of Devices	1

15.1.5　Parameter Setting for Feature (ACTION)

This step makes settings to start application software. (Parameter settings)

Refer to"15.2 Setting Guide" for more details about ACTION parameters.

Current folder

Desktop

Notepad(C:\WINDOWS\notepad.exe)

Alarm has occurred!

Application name

Alarm occurrence.txt

Startup option

Ex.

Setting item	Setting content
ACTION Name	Start Notepad
Application Name	C:\WINDOWS\notepad.exe
Startup Option	Alarm occurrence
Current folder	C:\Documents and Settings\Administrator\Desktop

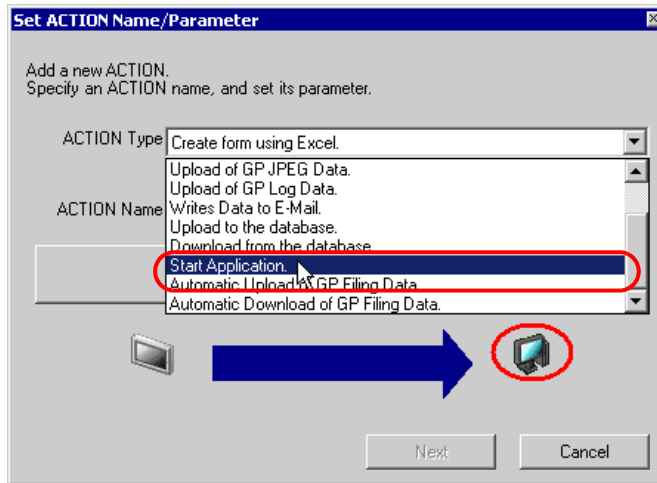1 Click the [Feature] icon on the status bar.
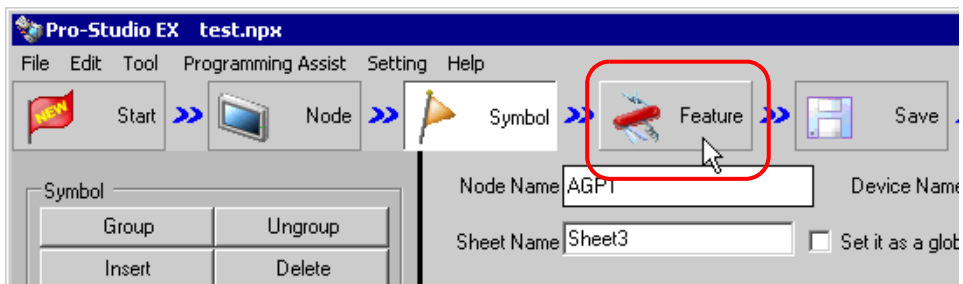
2 Select [ACTION] from the tree display on the left of the screen, then click the [Add] button.
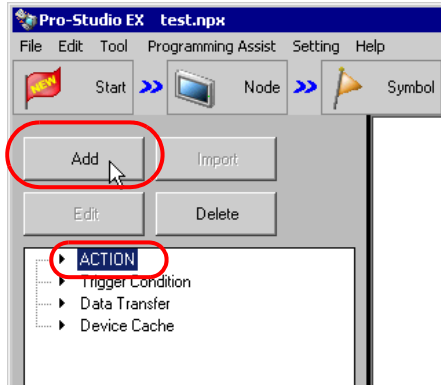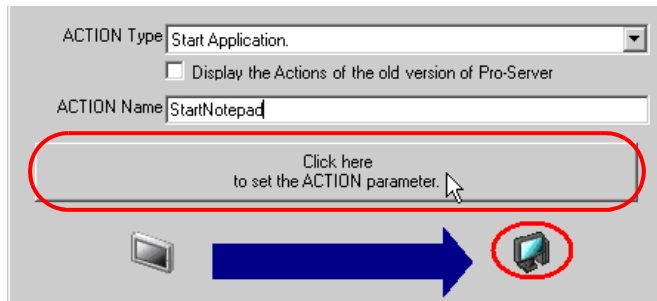

3 Click the [ACTION Type] list button, and select "Start Application".

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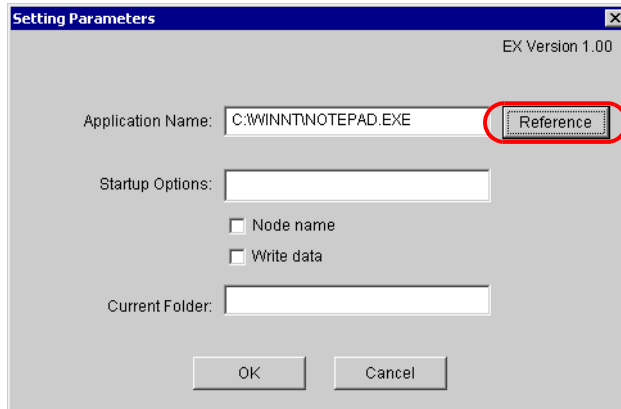

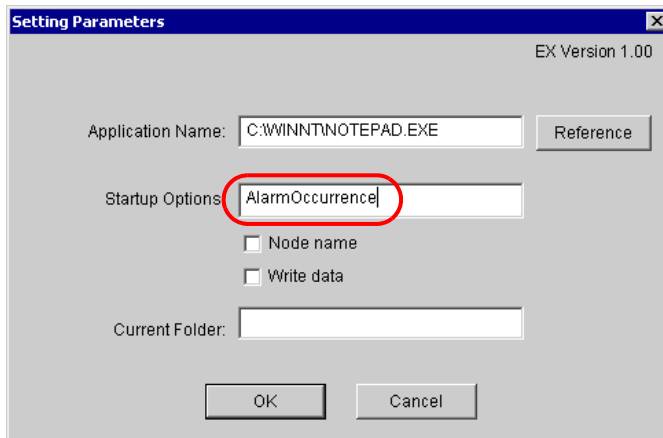4 Click the [Click here to set the the ACTION parameter] button.

5 Click the [Reference] button of [Application Name] and specify the "Notepad" startup file
"C:WINDOWS\NOTEPAD.EXE".

6 Enter "Alarm Occurrence" in [Startup Options] as a Notepad' file name to start.
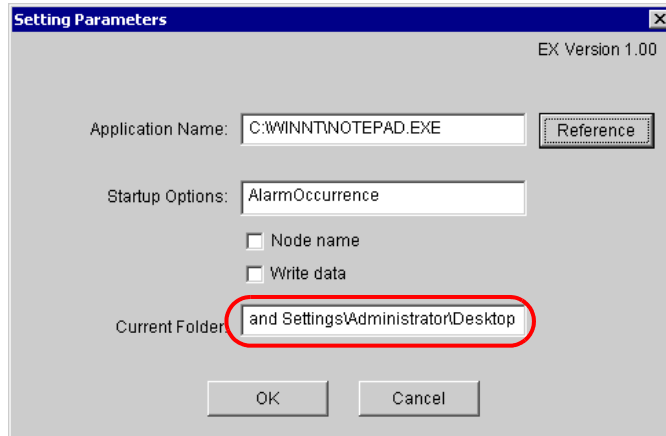

NOTE
• To start only application software without specifying any file, you do not have to specify [Startup Options] and [Current Folder].
• You can specify appropriate file names among multiple files by utilizing "Node name" or "Write data".

☞ "15.2 Setting Guide"

7 Enter "C:\Documents and Settings\Administrator\Desktop" as a current folder name of the "Notepad" file "Alarm Occurrence" to start.

8 Click the [OK] button.

This is the end of the feature (ACTION) settings.

15.1.6　　　Setting Trigger Conditions

This step sets conditions (trigger bit ON) for starting application software.

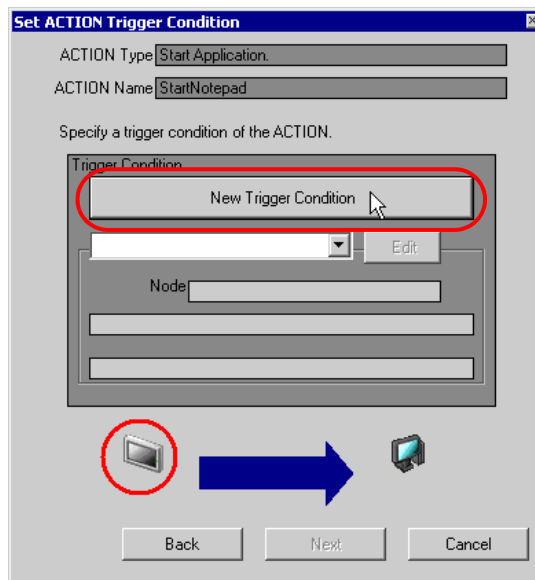Refer to "32 Trigger Conditions" for details about trigger conditions.

Ex.

- Trigger Condition Name: Turn on Notepad start bit
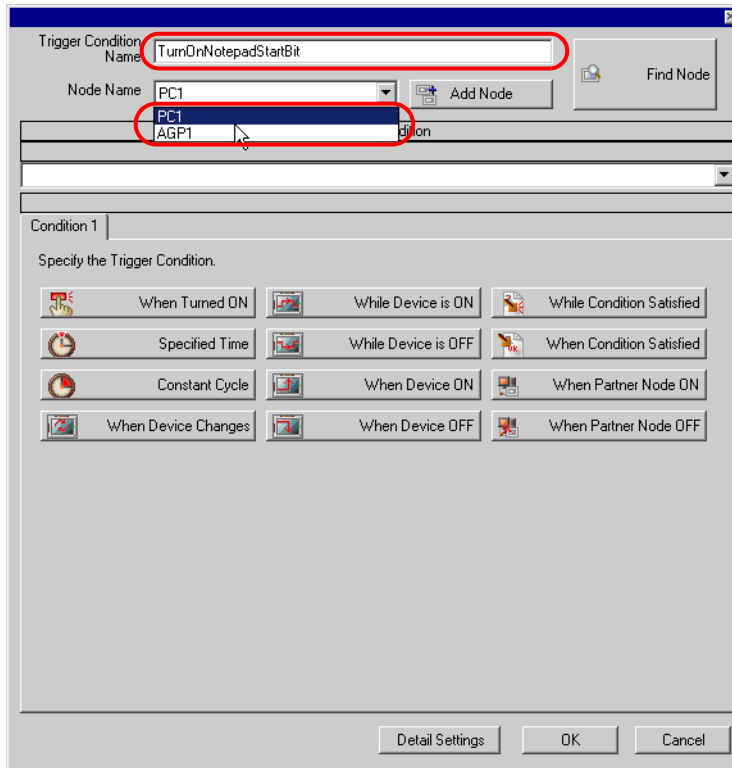- Trigger Condition: When "Start Notepad" (M01) is ON

1 On the "Set ACTION Name/Parameter" screen, click the [Next] button.
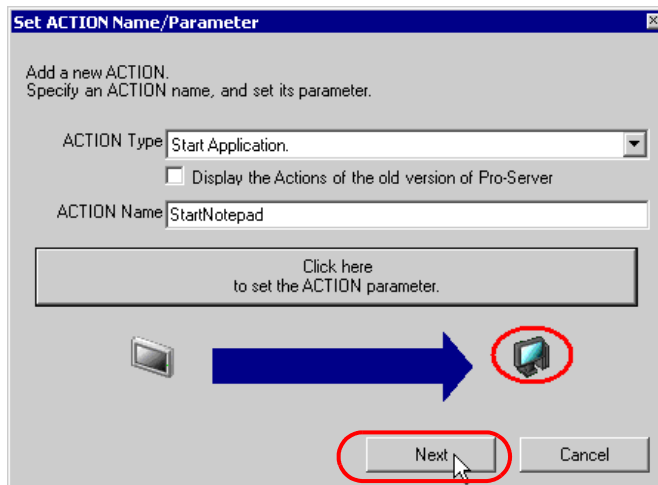
2 Click the [New Trigger Condition] button.

3 Enter the trigger condition name "TurnOnNotepadStartBit" in [Trigger Condition Name], and select "AGP1" in [Node Name] which has the device to serve as the trigger condition (trigger).
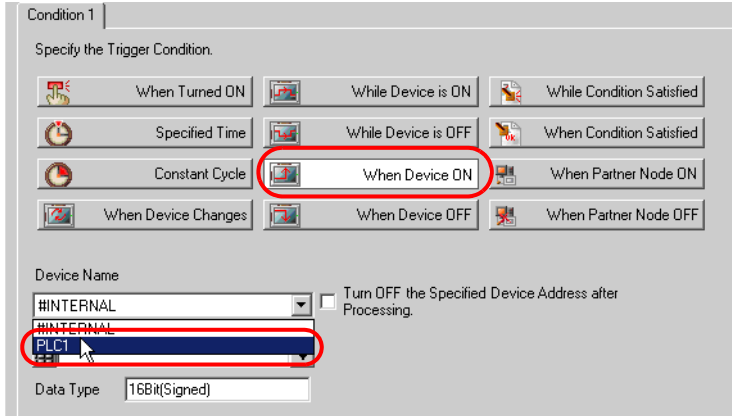

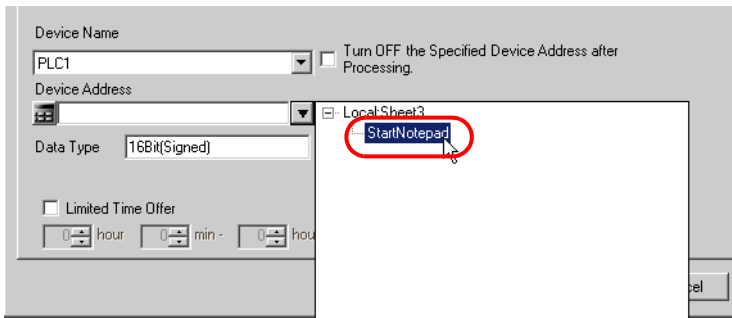| NOTE	• Here, you are to specify the node having the device to be the trigger condition or having data to transfer.

)☞ "32 Trigger Conditions"

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

5 Click the [Device Address] list button and select "StartNotepad" for the symbol name of the device which serves as the trigger condition.

[Data Type] automatically appears after selection, too.
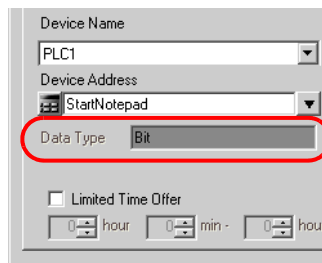
NOTE

• You can also set trigger conditions by combining 2 different types of conditions ("And" condition or "Or" condition).

☞ "32 Trigger Conditions"

6 Click the [OK] button.

This is the end of trigger condition settings.

15.1.7   Setting Data Received by ACTION

You can use transfer data to deliver parameters dynamically to a startup application.

As for fixed parameters, specify them in ACTION settings. ("15.2 Setting Guide")

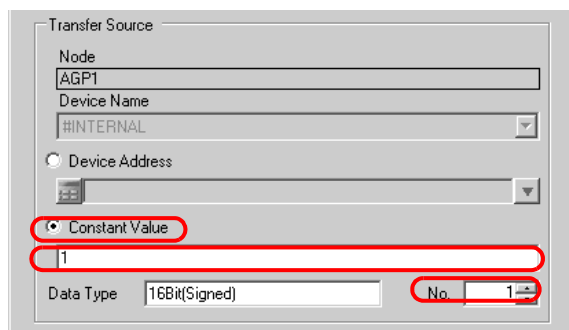If not, any transfer data (constant value) is acceptable.

Ex.

• Constant Value to Transfer:1 (Any value is acceptable)

1 On the "Set ACTION Trigger Condition" screen, click the [Next] button.
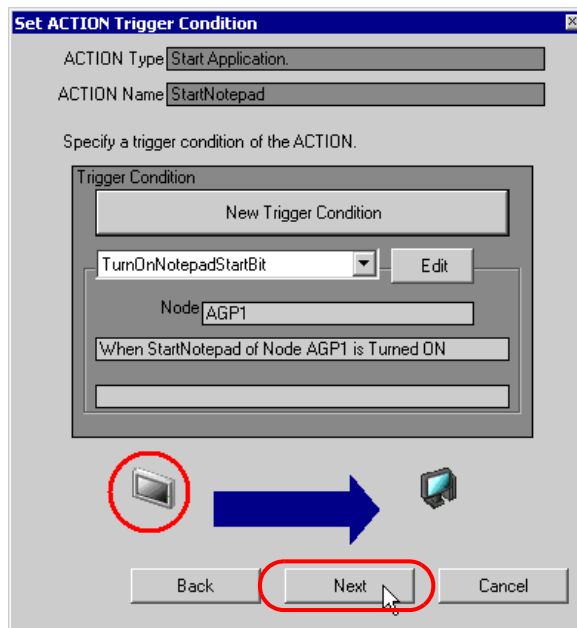
2 After clicking [Constant Value], enter "1" in the text box for the constant value to transfer and "1" in [No.].

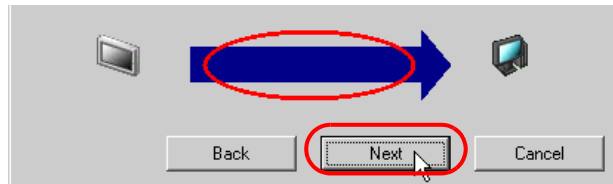This is the end of the setting of data received by ACTION.

15.1.8   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.
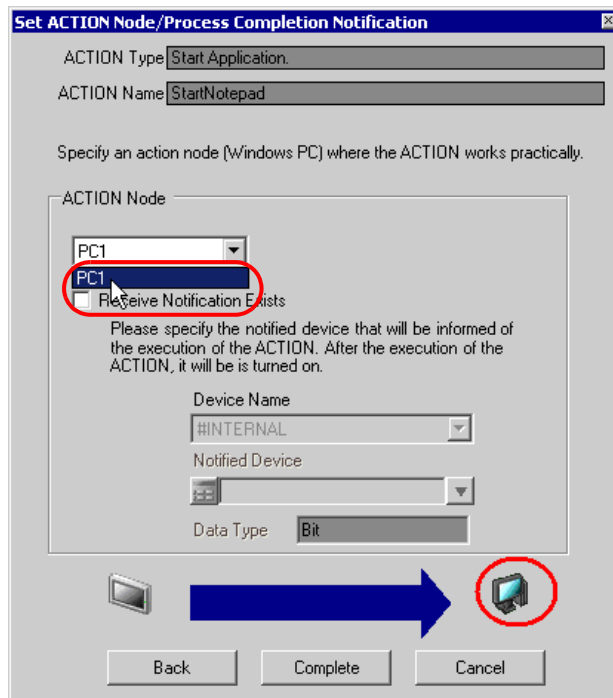
▰▱ Ex. ▰▱

- ACTION Node : PC1
- Receive Notification: OFF

1 On the "Data settings to be received by ACTION" screen, click the [Next] button.

2 Click the list button of [ACTION Node] and select "PC1" as a node where ACTION operates. Also, clear the check if [Receive Notification Exists] has been checked.


NOTE • When "Receive Notification Exists" is turned on, the specified bit device will be turned on when the ACTION is completed. This can be used as the trigger condition of the subsequent ACTION when you want to execute two or more ACTIONs sequentially.

☞ "32 Trigger Conditions"

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3 Click the [Complete] button.

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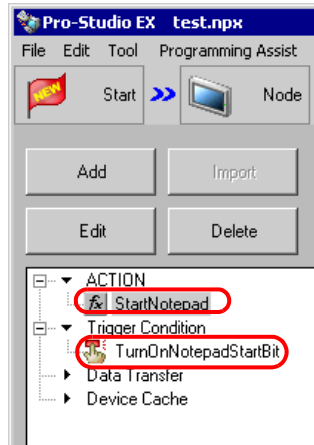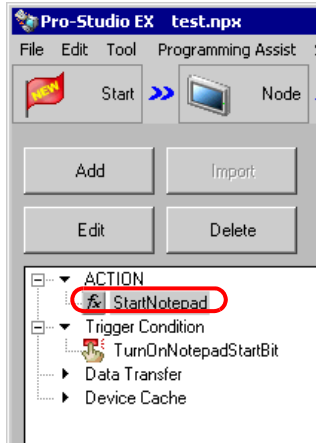

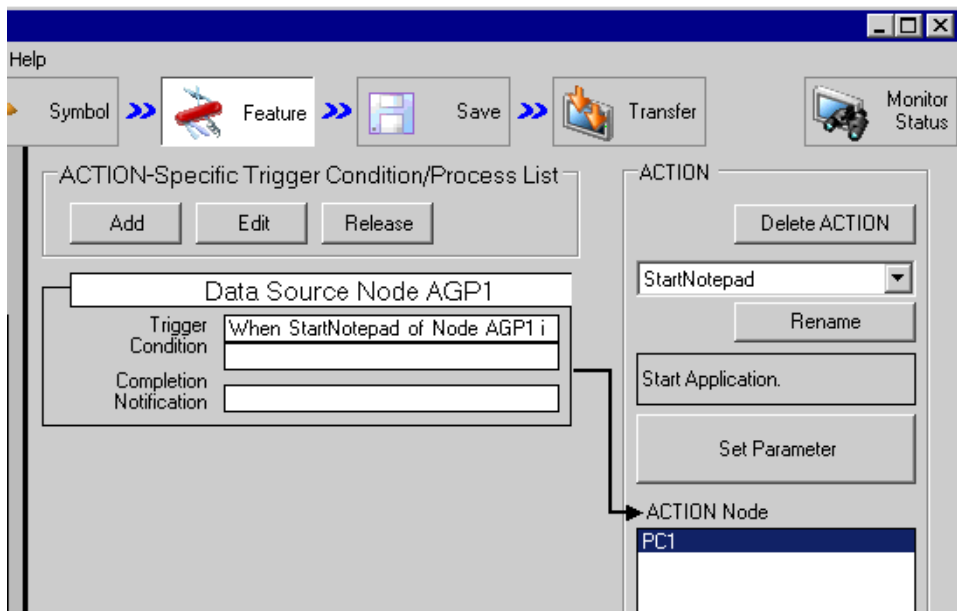This is the end of the settings of the ACTION node and process completion notification.

15.1.9　Verifying Setting Result

This step verifies setting results on the setting content list screen.
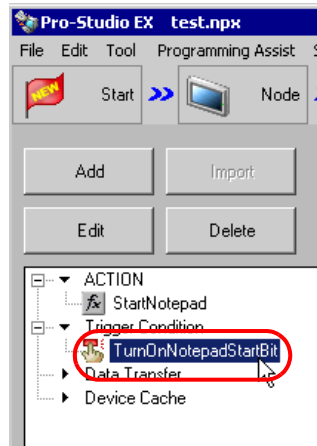
1 Click the ACTION name "StartNotepad" from the tree display on the left of the screen.
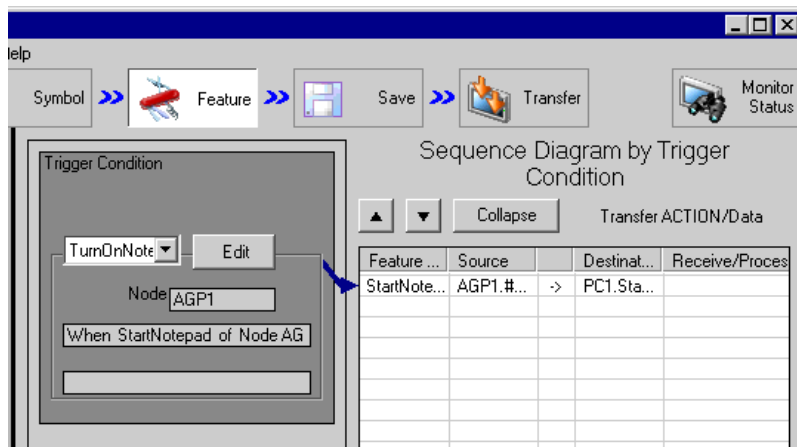

Confirm that the setting content appears on the right of the screen.

2 Click the trigger condition name "TurnOnNotepadStartBit" from the tree display on the left of the screen.

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

This is the end of the verification of the settings.

15.1.10   Saving a Network Project File

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

Refer to "24 Saving" for details about saving a network project file.

IMPORTANT
- 'Pro-Server EX' reads a created network project file, and then executes ACTION according to the settings in the file. The settings therefore need be saved in the network project file.
- Be sure to reload the network project file to 'Pro-Server EX'. If not, ACTION will not work.

Ex.

- Path of network project file   : Desktop\Appli_run.npx
- Title   : Application Startup ACTION

15.1.11   Transferring a Network Project File

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

Refer to "25 Transferring" for details about transferring a network project file.

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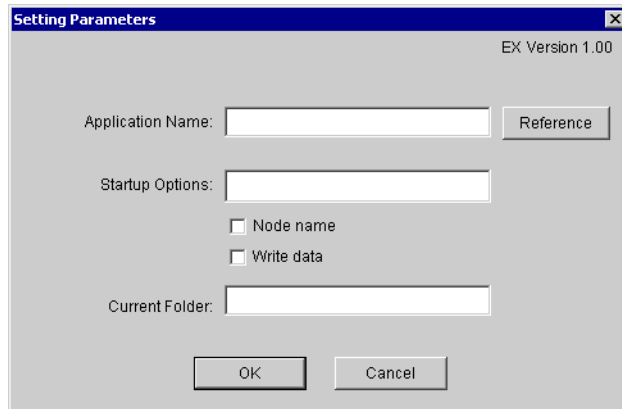

15.1.12   Executing ACTION

This step verifies that enabling a trigger condition activates ACTION and starts "Notepad".
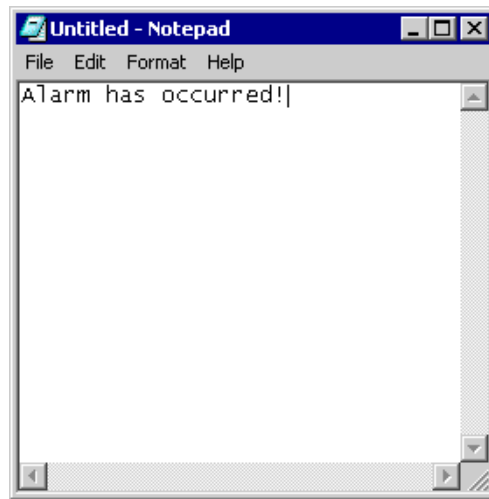
This is the end of the explanation of this ACTION.

15.2   Setting Guide

This section explains how to set the parameters of ACTION.

Setting item	Setting content
Application Name	Sets a startup file name (*.exe, *.com, and so on) of application software in full path. Enter directly or specify the file on the "Open File" screen by clicking the [Reference] button. **NOTE** • You can also start user-created application software. • This depends on the version of the application software.
Startup Options	Can execute specific functions or processes by adding the parameters specified here to an action file. For example, you can start application software by specifying a file name. **NOTE** • Refer to the manual of each application software about startup options.
Node name	Check when you want to add a node name to a startup option name. A single-byte space and a node name are added automatically after the startup option name. Example) When specifying a file name in [Startup Options] and the transfer source node name is "AGP1" Starts the application software by specifying the file "File Name AGP1".
Write data	Check if you want to add transferred data (write data) to a startup option name. Example) When specifying a file name in [Startup Options] and the transfer data is "3" Starts the application software by specifying the file "File Name 3". **NOTE** • If there are multiple transferred data, single-byte space and transfer data are added in turn.

Setting item	Setting content
Current Folder	Sets a current folder of the startup application software. When you want to specify the file which the startup application software opens, you do not have to specify the file name in full path by specifying a current folder here. **NOTE** • Even though a current folder has been set here, it forcibly changes to its own current folder according to the application software.