



Operation Manual

NTT ADVANCED TECHNOLOGY CORPORATION

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About this document

This "WinActor Operation Manual" (hereinafter referred to as "this manual") is the operation manual for WinActor.

This manual is intended for those who use WinActor to create scenarios and those who run scenarios.

Notes on this manual

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- The descriptions in this manual assume that users understand Windows operations and functions. For information that is not described in this manual, see the documents provided by Microsoft.

Symbols in this manual

The symbols used in the manual have the following meanings.

	Particularly important information
	Supplementary information for texts, window descriptions, operations, and others
	Reference information to other pages of this manual or other manuals
	Functions available only with the license type of edition "FULL edition." Descriptions for users who create and edit scenarios. There are two types of licenses for WinActor, "FULL edition" and "RUN edition." The available functions are different for each type.  For "FULL edition" and "RUN edition," see "1.3 License Types of editions and Available Functions."

Precautions for using WinActor

When using WinActor, take notice of the following points:

- WinActor has functions of recording and saving user's operations by its nature. Therefore, it is possible to record and save personal information.
- WinActor has functions to perform operations automatically. Do not use WinActor for any act that is contrary to public order or morality such as automatic operations to annoy others.
- If WinActor behaves differently from the recorded operation during its automatic execution, suspend WinActor immediately.



In case of operating an application containing a tab or an application with its controls dynamically changed, WinActor may not work properly.

- If you operate a keyboard or a mouse during the automatic execution, the system shall process both automatic and manual operations simultaneously. It may cause unexpected behavior or result.
- WinActor may input or output data at a higher speed than normal manual-operation. In such a case, the target system may have a heavy load. Consider to run a scenario at a proper speed depending on the network and hardware.
- When WinActor is used in a DaaS or VDI environment, the desktop environment supplier may update the operating system or change the security policy settings, which may cause WinActor startup to fail, the license registration information to be deleted, and so on.
- In a DaaS or VDI environment where the desktop returns to the initial state when logging off, license information may not be registered.
- WinActor uses the VBScript execution environment. In an environment where VBScript execution is restricted, WinActor cannot be used because an error will occur at startup.

Limitations

See "Release Note."

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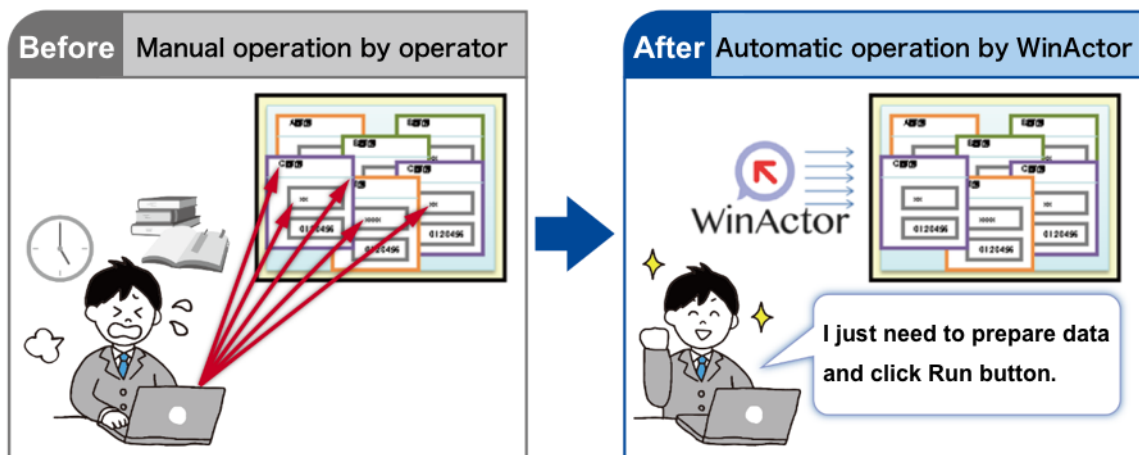
1. Overview of WinActor

This chapter describes the operating environment and functions of WinActor.

1.1 WinActor

WinActor is a tool that records the operation procedure of applications running on Windows such as Excel, browsers, business systems as scenarios and automatically operates (executes operations on behalf of) a Windows computer according to the scenarios.

Figure 1-1 Image of using WinActor



By using WinActor, complicated business procedures and repetitive tasks can be simplified. It is also effective in reducing human errors such as procedure errors and typos as well as the user's terminal operation time.

WinActor has the following functions:

- Record Function to record user's operations as scenarios
- Edit Function to set the order of scenarios, the number of loops, run conditions, etc.
- Run Function to automatically operate a terminal according to scenarios

By recording operations on application windows, the user can create scenarios even without knowing the specifications of communication between a server and a client or the structure of a database. In addition, WinActor can be installed even without modifying existing systems.

In WinActor, scenarios are visually represented by flowchart diagrams, and the user can edit the scenarios by operating the displayed flowchart. Since the recorded scenarios can be made into parts and reused, the user can also create scenarios by combining those parts.

1.2 Operating Environment

This section describes the hardware and software environment of WinActor.

1.2.1 Recommended environment

It is recommended that the environment in which WinActor is installed meets the following specifications and conditions.

■ Hardware environment

The recommended hardware specifications are as follows.

Table 1-1 Recommended specifications

Item	Recommended specifications
CPU	X86 bit or x64 bit processor with Core i3-6100 (2 cores, 3.7 GHz) or higher
Memory	2.0GB or more
HDD	3.0GB of free space or more
Display	Those that support FHD (1920×1080)
Sound	Sound function to make a sound in a scenario (including a speaker)  It is not required if you do not use the sound function.



- These recommended specifications assume that WinActor is launched by itself. If it is expected that applications to be launched at the same time as WinActor will consume the CPU, memory, HDD and the like, prepare a high-end hardware.
- If WinActor and applications running at the same time are operated when the usage of the CPU, memory, and HDD is high, the response performance may drop significantly.
- When using WinActorEye, see also "Recommended environment" in "WinActorEye Operation Manual."

■ Software environment

The software environment conditions are as follows.

Table 1-2 Software environment conditions

Item	Outline specifications
Operating system	Microsoft Windows 11 Pro Microsoft Windows Server 2016 Microsoft Windows Server 2019 Microsoft Windows Server 2022 Microsoft Windows Server 2025  Hereinafter referred to as Windows 11, Windows Server 2016, Windows Server 2019, Windows Server 2022, and Windows Server 2025.
Execution environment	Microsoft .NET Framework 4.8 or higher
Web browser	Automatic recording/operation supported: Google Chrome, Mozilla Firefox, and Microsoft Edge(Chromium)
Application	In WinActor, when a process is automatically executed, values read from an external file can be stored in variables used in a scenario and the execution result can be written to an external file. For the external file format, CSV format and Excel format (extensions xls,xlsx,xlsm) are available. When using Excel format, Microsoft Office Excel 2021 or 2024 should be installed.



- When the same user makes multiple remote logins to the same Windows Server 2016, Windows Server 2019, Windows Server 2022, or Windows Server 2025 at the same time, "Clipboard Sharing" should be disabled.
- If the user who runs WinActor and the user who runs the target application are different, it will not run properly. (Example: WinActor is launched as usual, and the target application is launched by selecting a user different from the one who logged on using the "Run as different user" option and the like.)
- Touch-screen operations are not subject to the Record function.
- When using WinActorEye, see also "Recommended environment" in "WinActorEye Operation Manual."



For procedures for creating scenarios to operate Google Chrome, Microsoft Edge(Chromium), and Mozilla Firefox, see "WinActor Browser Operation Scenario Creation Manual."

■ Network environment

An internet connection is necessary for using functions that need communication with the WinActor site, such as online updates of WinActor or User library, Collect logs for inquiry, Online scenario management, Generative AI integrated features, and so on.



To use a proxy server, you need to configure the settings on the 'Proxy server' tab in the 'Option' dialog.



For the settings, see "Proxy server tab" in the 'Option' dialog.

1.2.2 Folder structure

This section describes the folder structure of WinActor.

■ Installation folder

The folder structure of WinActor is as shown in "Table 1-3 WinActor installation folder structure." The following folder structure is automatically created under the WinActor installation folder when the WinActor installation is complete.

 For the installation procedures of WinActor, see "WinActor Installation Manual."

Table 1-3 WinActor installation folder structure

No.	Folder name	Filename	Description
(1)	WinActor \	WinActor7.exe	WinActor executable file
(2)		unins000.exe	Uninstaller
(3)	lib \	-	For library files
(4)	webdriver \	-	For Web operation module
(5)	libraries \	-	For User Library included with WinActor
(6)	WinActor_Documents \	-	-
(7)	English \	-	For English manuals
(8)	Japanese\		For Japanese manuals



WinActor for standard user does not include the uninstaller.

■ User folder

The following user folders shown in "Table 1-4 WinActor user folder structure" are created when WinActor is installed.

Table 1-4 WinActor user folder structure

No.	Folder name	Description
(1)	Documents\WinActor\	WinActor user folder
(2)	download \	For downloaded updates
(3)	libraries \	For User Library
(4)	logs \	For collected logs for inquiry
(5)	subscenarios \	For built-in Subscenario and User Subscenario.
(6)	webdriver \	For Web operation module.
(7)	winactor_documents \	For WinActor manuals when WinActor for administrator is installed WinActor creates this when downloading the manuals.

■ Working folder

The following working folder is created when WinActor is installed.

Table 1-5 WinActor working folder structure

No.	Folder name	Description
(1)	C:\ProgramData\WinActor\<User name>\	WinActor working folder

1.3 License Types of editions and Available Functions

This section describes the license types of editions of WinActor and the functions available for each license of edition.

1.3.1 License types of editions

WinActor has three types of licenses as shown in "Table 1-6 License types of editions."

Table 1-6 License types of editions

No.	License type of edition	Description
(1)	FULL edition	All WinActor functions including Record, Edit, and Run functions are available.
(2)	RUN edition	Only windows related to running scenarios are displayed. Users can load and run scenarios.
(3)	Managed RUN edition (only for the floating license)	For the Managed mode only. Runs a scenario operated by the management server. Only windows related to running scenarios are displayed. The user of WinActor can only use some setting functions and cannot use the functions such as Record, Edit, and Run.  For the Managed mode, see "1.16 Linkage with Management Server."

There is no Managed RUN edition of the node-locked license nor the AI integration license. However, the FULL edition or Run edition of WinActor works the same as the Managed RUN edition by setting it to the Managed mode.

 For the node-locked license, the floating license, and the AI integration license, see "1.4 License Types."

1.3.2 Functions available for each license

WinActor has different functions available for each license.

Table 1-7 License types of editions and available functions

○: Available △: Partially unavailable -: Unavailable

No.	Function	Pane name or operation	License type of edition		
			FULL edition	RUN edition	Managed RUN edition
(1)	Window display	Toolbar	○	△ ^{*1}	△ ^{*1}
(2)		Option	○	△ ^{*1}	△ ^{*1}
(3)		Flowchart	○	△ ^{*2}	△ ^{*2}
(4)		Variable list	○	△ ^{*2}	△ ^{*2}
(5)		Data list	○	○	△ ^{*2}
(6)		Log	○	○	△ ^{*2}
(7)		WinWatcher list	○	-	-
(8)		Image	○	-	-
(9)		Property	○	-	-
(10)		Mail	○	○	○
(11)		Breakpoint list	○	-	-
(12)		Subroutine	○	△ ^{*2}	△ ^{*2}
(13)		Translation dictionary	○	△ ^{*2}	△ ^{*2}
(14)		Event watcher list	○	-	-
(15)	Loading a scenario	Open	○	○	-
(16)	Running a scenario	Whole run, Partial run, Run from here, Pause, Pause after loop, Resume, Resume and pause after loop, Stop	○	△ ^{*3}	△ ^{*4}
(17)	Editing and saving a scenario	New, Record, Edit scenario, Import, Export, Save, and Save as	○	-	-
(18)	Create WinActor shortcut	Create WinActor shortcut	○	○	-
(19)	Startup password settings	Startup password	○	-	-
(20)	License management	Show version information, Register a license	○	○	○
(21)	Server settings	Server connection settings	○	○	○

No.	Function	Pane name or operation	License type of edition		
			FULL edition	RUN edition	Managed RUN edition
(22)	Quit	Quit	○	○	○

*1 The Record and the Edit menus are not displayed.

*2 View only. The change operations are not available.

*3 In the RUN edition, Partial run nor Run from here is not available.

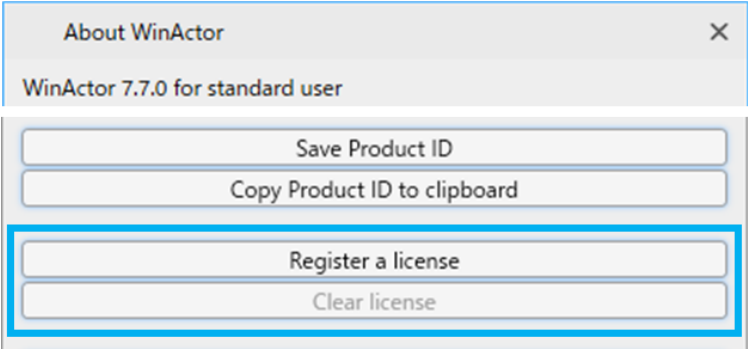
*4 In the Managed RUN edition, only Whole run operated by the management server is available.

1.4 License Types

There are three types of WinActor licenses: Node-locked license, Floating license, and AI integration license.

- Node-locked license (NL)
This license is managed on a computer where WinActor is installed.
To use AI integrated features, additional contract for the Generative AI service is necessary.
- Floating license (FL)
This license is managed on a license management server.
To use AI integrated features, additional contract for the Generative AI service is necessary.
- AI integration license (AL)
This license is manager on the AI integration license management server.
The Ai integration license management server is provided by NTT-AT.
This license enables using AI integrated features without additional contract for the Generative AI service.

Table 1-8 Window displays by license type ('About WinActor' dialog)

	'About WinActor' dialog
Node-locked license	'Register a license' button exists. 
Floating license	"FL" exists at the end of the version information.

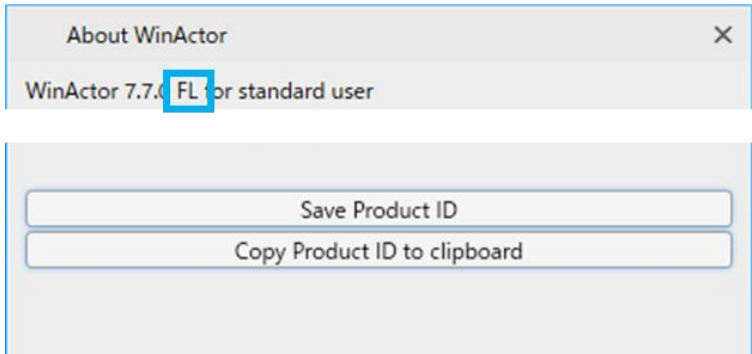
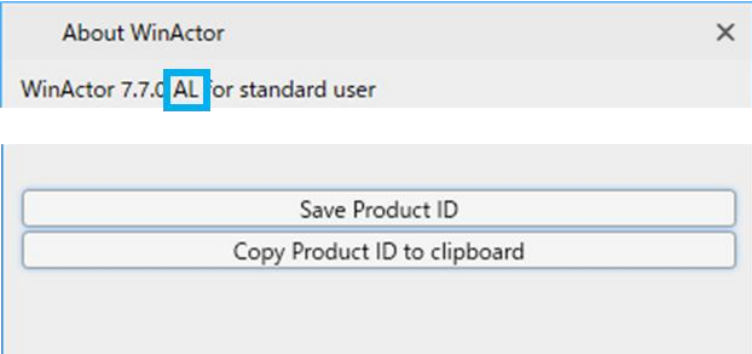
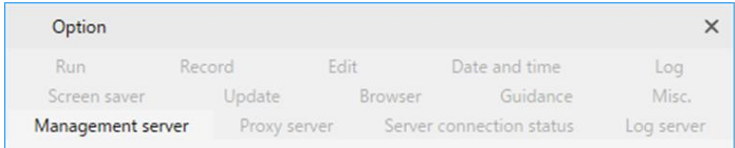
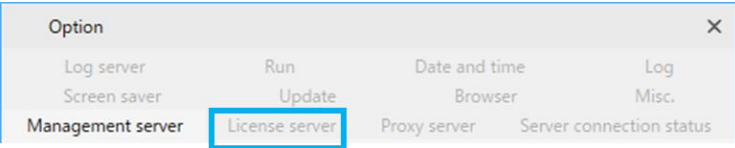
	'About WinActor' dialog
	
AI integration license	"AL" exists at the end of the version information. 

Table 1-9 Window displays by license type ('Option' dialog)

	'Option' dialog
Node-locked license	No 'License server' tab exists. 'AI integration license server' tab does not exist. 
Floating license	'License server' tab exists. 'AI integration license server' tab does not exist. 
AI integration license	'License server' tab does not exist. 'AI integration license server' tab exists.

	'Option' dialog
	Option Server connection status Log Management server Log server Screen saver AI integration license server Run Update Browser Date and time Misc. Proxy server

Table 1-10 Window displays by license type (Splash window)

	Splash window
Node-locked license	Bluish background color  NTT Advanced Technology Corporation  Red color icon
Floating license	Reddish background color  NTT Advanced Technology Corporation  Blue color icon
AI integration license	Reddish background color  NTT ADVANCED TECHNOLOGY CORPORATION  Yellow color icon

1.5 Generative AI integrated features

WinActor has the Generative AI integrated features that makes use of the Generative AI services.

To use the Generative AI integrated features, it is necessary to configure the connection to a Generative AI service on the Generative AI integration window under the 'Tool' menu beforehand.

However, when you use the AI integration license, such a configuration is not necessary.



Due to the nature of the Generative AI, the generated output may contain errors, inaccuracies, or incomplete information. Users are advised to review and verify the content before relying on or using the output.



For details of the configuration of the connection, see "Generative AI integration window."

"Generative AI integration window" opens when you click the 'Generative AI' button on the 'External service integration' dialog, which opens by clicking 'Tool' > 'External service integration.'



For the AI integration license, see "1.4 License Types."

Regarding the usage charge of the Generative AI API directly contracted by you, inquire your contract partner because the charge depends on the service contract of the API.

The conditions to use the Generative AI integrated features and the list of the features with their activation conditions are as follows.

Table 1-11 List of Generative AI features without subscenarios

No.	Features	(1) License type	(2) License type of edition
Menu bar			
'File' menu > 'New' >			
(1)	'New scenario with Generative AI'  "1.22 Scenario creation with Generative AI"	-	FULL only
'View' menu > 'Variable list' >			
(2)	'Template and data extraction (using Generative AI)'  "Template and data extraction (using Generative AI)"	-	FULL only
'Tool' menu >			
(3)	'Convert VBScript library to Python'  "Convert VBScript library to Python"	AL only	FULL only
'Help' menu >			
(4)	'AI Help'  "AI Help"	-	FULL and RUN

Table 1-12 List of Generative AI features of subscenarios

No.	Item	(1) License type	(2) License type of edition	(3) Property settings
'05_生成 AI' >				
(1)	チャット応答取得(AI 連携ライセンス)	AL only	-	-
(2)	チャット応答取得(Azure OpenAI)	-	-	needed
(3)	チャット応答取得(Gemini)	-	-	needed
(4)	チャット応答取得(OpenAI)	-	-	needed

* Japanese titled subscenarios only



When using Generative AI from a subscenario, set the API key in the property of the subscenario.

For details, see "WinActor Subscenario Sample Manual" (Japanese only).



To use a proxy server, you need to configure the settings on the 'Proxy server' tab in the 'Option' dialog.



For the settings, see "Proxy server tab" in the 'Option' dialog.

1.6 Preparations for Using WinActor

The following is the preparations before using WinActor.

(1) Install WinActor on a computer.



For the installation procedures of WinActor, see "WinActor Installation Manual."



If you install WinActor within the evaluation period, you will have the Evaluation license. If it is outside the evaluation period, it will be in an unlicensed state. You can check which state you are in on the notification appears right after launching WinActor.

Figure 1-2 Notification with the Evaluation license applied

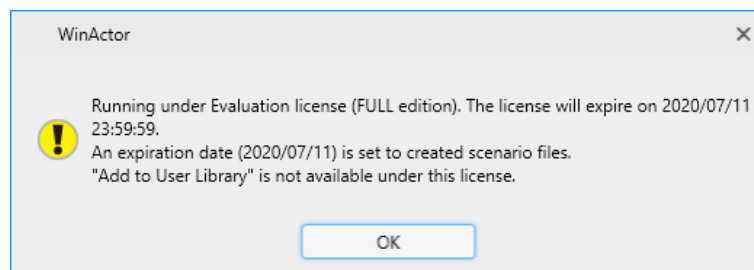
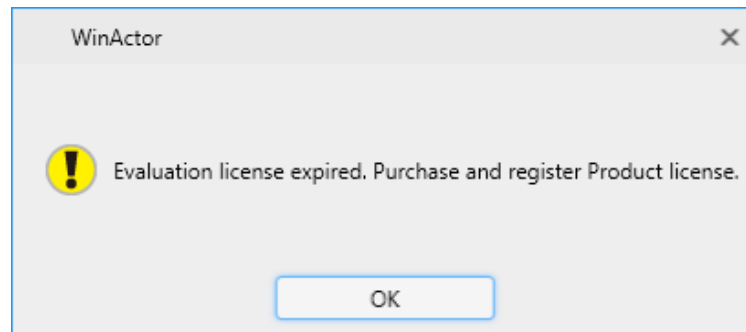


Figure 1-3 Notification with the Evaluation license not applied



(2) Launch WinActor



If you use WinActor with the Evaluation license, the following steps are not necessary.

(3) Register a WinActor license

 For the WinActor license registration procedures, see "WinActor Installation Manual."



A license can be checked and registered on the 'About WinActor' dialog.



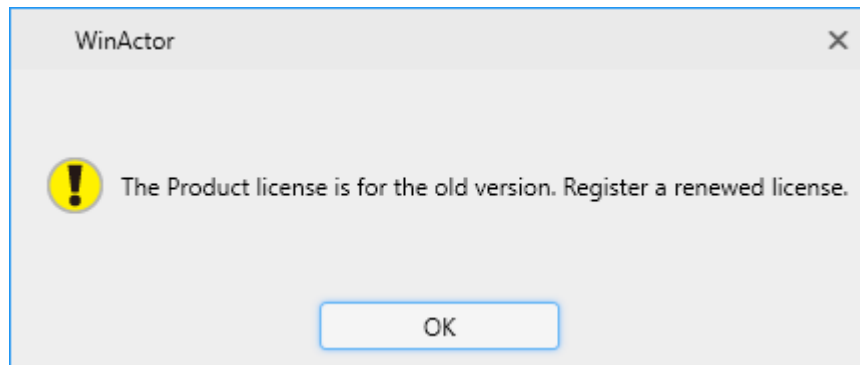
For details, see "3.13 'About WinActor' Dialog."

(4) Quit and restart WinActor

1.7 Notification Regarding the Product License

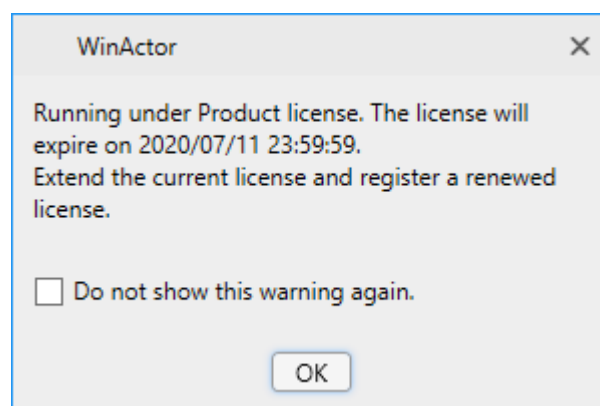
If the new version of WinActor is launched with the license of the old version registered, the warning as shown in Figure 1-4 will be displayed. In this case, register a license corresponding to the new version of WinActor or install and use the old version of WinActor.

Figure 1-4 Warning with the license of the old version registered



When the license expires within 30 days, the following warning appears.

Figure 1-5 Warning regarding license expiration



1.8 Flow from Creating to Running a Scenario

This section describes the cycle of scenario creation and the flow to run a scenario.

1.8.1 Flow of scenario creation

In WinActor, a scenario is created by repeating the cycle of recording, editing, and checking operations.

■ Record

WinActor learns operations on a terminal and creates a scenario template.

■ Edit

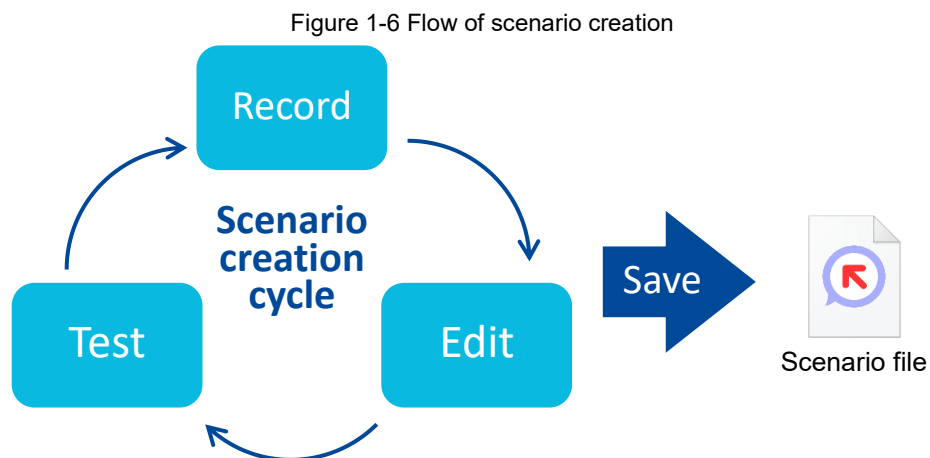
Set the operating conditions for a scenario. For example, make the following settings:

- Set the conditional decision or loop condition for recording operations
- Set the location linked with the data on Excel in the data input operation
- Set the timing to load data or the timing to start inputting data
- Set the behavior when an error occurs

■ Operation check

Test a scenario you are creating to check if it operates as you intended.

A scenario created by repeating the cycle of recording, editing, and checking operations can be saved as a scenario file.



1.8.2 Flow to run a scenario

To run a scenario, simply load a scenario file and input data you want to run and click the 'Run scenario' button.

By using startup options, operations such as specifying a scenario file to be loaded or a data file to be input or clicking the 'Run scenario' button can be skipped, and the scenario can be run by the instruction from a batch file or an external program.

A scenario can also be run on a regular basis by registering it with Windows Task Scheduler.

Figure 1-7 Flow to run a scenario



1.9 Operation Recording

FULL

Operation recording is the process that WinActor learns user operations performed on the terminal and creates a scenario template. The user operations that WinActor can learn are operations to input data into text boxes, click buttons, select items in a dropdown list, and select check boxes. The operations WinActor has learned are displayed on the flowchart window and can be used as parts for creating scenarios for automatic operations.

1.9.1 Automatic operation interfaces of WinActor

WinActor has the following automatic operation interfaces, and scenarios can be created by combining these interfaces.

With the UI-oriented interface and the position-oriented interface, WinActor learns operations demonstrated by a user. With the image-oriented interface and the file-oriented interface, scenarios can be created by specifying locations to click and/or files to access in the setting window of the automatic operation parts prepared in advance.

Figure 1-8 Automatic operation interfaces of WinActor and their target applications

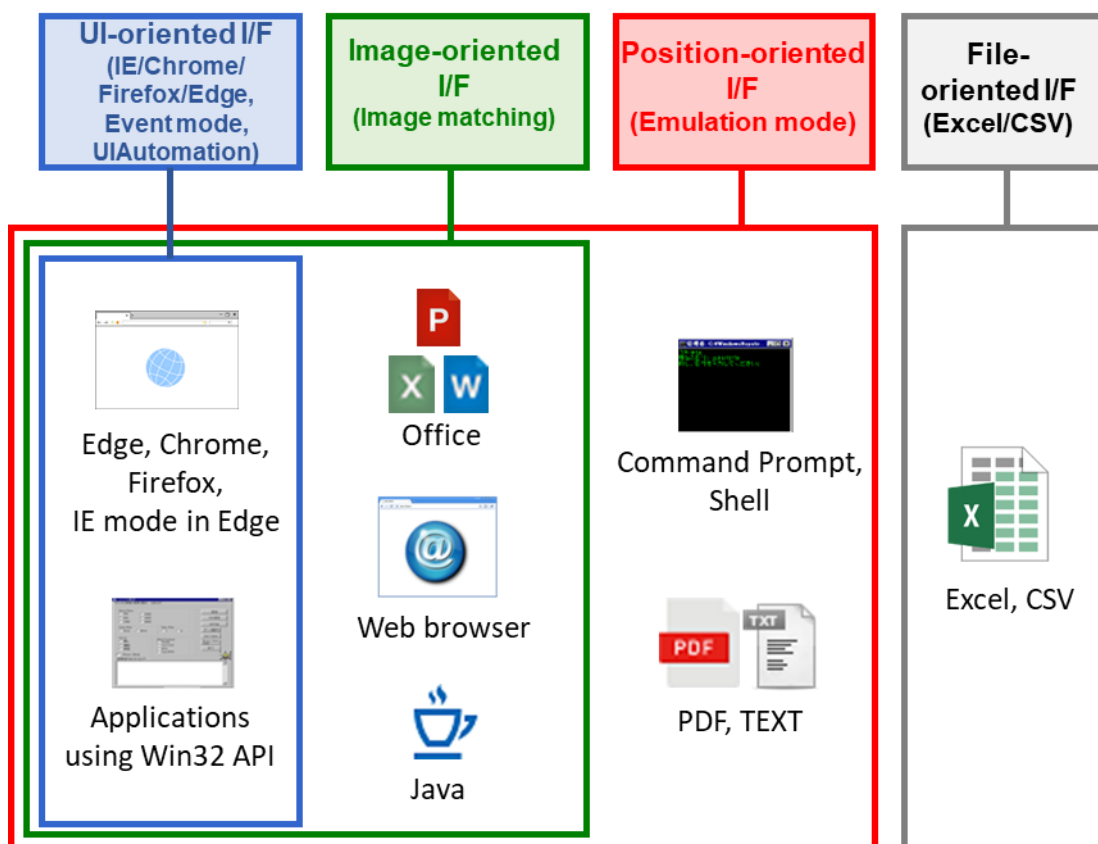


Table 1-13 Automatic operation interfaces

No.	Interface	Description
(1)	UI-oriented interface	Text boxes and buttons on a window are managed by serial numbers assigned to them. WinActor memorizes the numbers for operated text boxes and buttons and performs automatic operations. Number information such as "Click the third button on the window" or "Input strings in the fifth text box on the window" will be recorded in a scenario. Although this recording method is simple, applications on which operations can be recorded are limited. In addition, the method is not suitable for automatic operations on a window in which the number of buttons and/or the number of text boxes increase or decrease each time the window is displayed. Operations are recorded in a scenario by using the recording modes of 'IE mode,' 'Event mode,' 'Chrome mode,' 'Firefox mode,' 'Edge mode,' and 'UI Automation.'
(2)	Image-oriented interface (Image matching)	WinActor learns images of icons or text boxes and performs automatic operations. WinActor can click the icon with the same shape as when the operation is recorded, or move the cursor to the input field with the same shape as when the operation is recorded. The shape of icon or text box will be recorded as an image data in a scenario. When performing automatic operations on a window where the font size and the zoom level can be changed, it is necessary to unify the font size and the zoom level at the time of recording operations and at the time of running a scenario. Operations are recorded in a scenario by using the 'Image Matching' node.
(3)	Position-oriented interface (Emulation mode)	WinActor learns how the mouse cursor is moved on a window, and when the keyboard or mouse is operated and performs automatic operations. The information such as "Click 10 pixels to the right and five pixels down from the upper left of the window" or "Press Ctrl+V on the keyboard" will be recorded in a scenario. When performing automatic operations on a window where text box positions change when the window size changes, it is necessary to unify the window size at the time of recording operations and at the time of running a scenario. Operations are recorded in a scenario by using the recording mode called 'Emulation mode.' In case the operations are click only, they can be recorded in a scenario also by using the recording mode called 'Image matching mode.'
(4)	File-oriented interface	WinActor can read or write data by specifying a file name, sheet name, or cell name for Excel format and CSV format files. Operations are recorded in a scenario by using the 'Excel Operation' node.

1.9.2 Types of recording modes

The recording modes for recording user operations include eight modes: 'Event' mode, 'Emulation' mode, 'IE' mode, 'Chrome' mode, 'Firefox' mode, 'Edge' mode, 'UI Automation,' and 'Image matching' mode. The operations that can be recorded differ depending on each mode. Moreover, the 'Automatic switch' can be selected to switch among those eight modes automatically while recording operations.

The recording modes and their methods are shown in the table below.

WinActor automatically selects an appropriate recording mode when you select a window for recording operations prior to the start recording. To record in a recording mode other than the automatically selected one, change the recording mode manually.

When you select 'Automatic switch' for the recording mode, the window to record operations can be changed while recording, and an appropriate recording mode for the changed window is selected automatically. You can also change the recording mode manually while recording.

Table 1-14 Types of recording modes

No.	Recording mode	Interface	Description
(1)	Event mode	UI-oriented interface	Buttons and text boxes on a window are managed by serial numbers to record the numbers for operated buttons and text boxes.
(2)	Emulation mode	Position-oriented interface	WinActor records the positions of mouse clicks and the order of keyboard operations.
(3)	IE mode	UI-oriented interface	A recording mode for the IE mode in Microsoft Edge (Chromium) only. Buttons and text boxes on a window are managed by serial numbers to record the numbers for operated buttons and text boxes.
(4)	Chrome mode	UI-oriented interface	A recording mode for Google Chrome only. Buttons and text boxes on a window are managed by XPath to record XPath for operated buttons and text boxes.
(5)	Firefox mode	UI-oriented interface	A recording mode for Mozilla Firefox only. Buttons and text boxes on a window are managed by XPath to record XPath for operated buttons and text boxes.

No.	Recording mode	Interface	Description
(6)	Edge mode	UI-oriented interface	A recording mode for Microsoft Edge(Chromium) only. Buttons and text boxes on a window are managed by XPath to record XPath for operated buttons and text boxes.
(7)	UI Automation	UI-oriented interface	Buttons and text boxes of an application are managed as GUI elements to record operations performed.
(8)	Image matching mode	Position-oriented interface	When the window is operated by mouse, the mouse operations are recorded together with the small field around the mouse cursor position.
(9)	Automatic switch	-	The target window to record can be changed while recording user operations in this mode. An appropriate recording mode for the changed window is selected automatically, and recording continues. You can also change the recording mode manually while recording.

1.9.3 Event mode

In the Event mode, buttons and text boxes on a window are managed by serial numbers assigned to them. WinActor memorizes the numbers for operated buttons and text boxes and performs automatic operations.

In the Event mode recording, WinActor detects user operations by monitoring signals (events) on the Windows OS. Therefore, the applications in which operations can be recorded are limited to those developed with Win32 APIs.

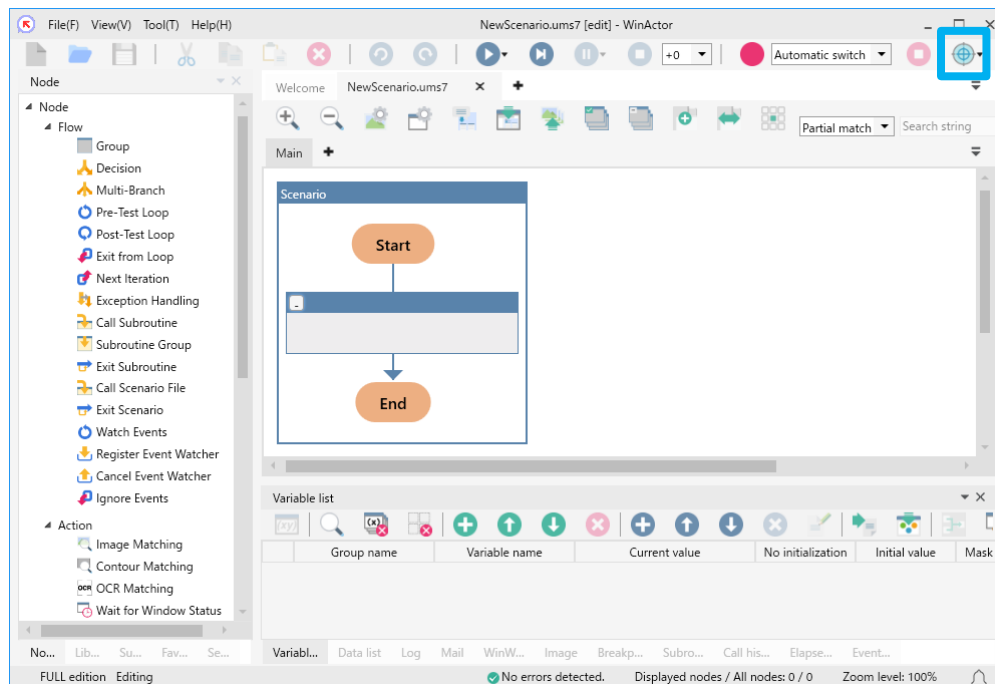


If operations cannot be recorded in the Event mode, record them in the Emulation mode.
Operations with Calculator in Windows cannot be recorded in the Event mode.

The following describes the Event mode recording procedure using an original application.

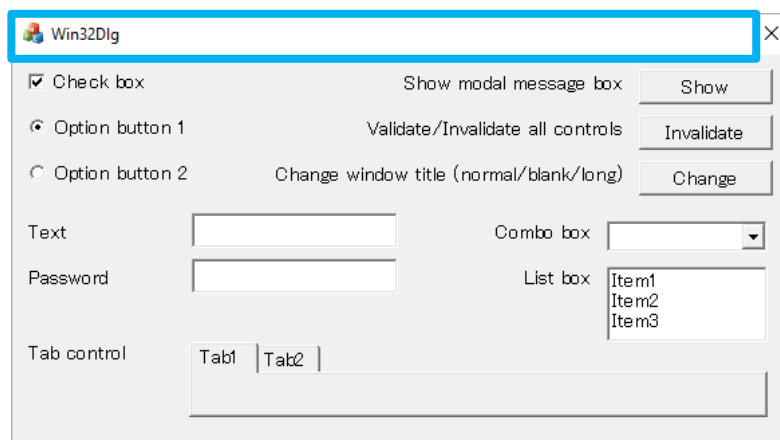
Steps

1. Click the 'Select window for recording' icon  on the toolbar.



The mouse cursor changes into .

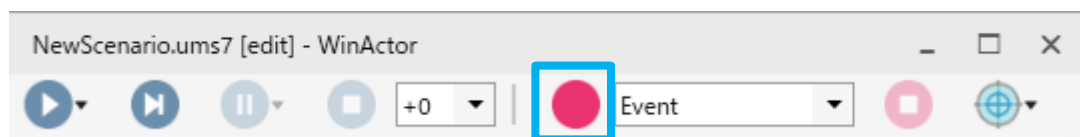
2. Click the title bar of the application for recording.



'Event' is automatically selected.



3. Click the 'Start recording' icon.

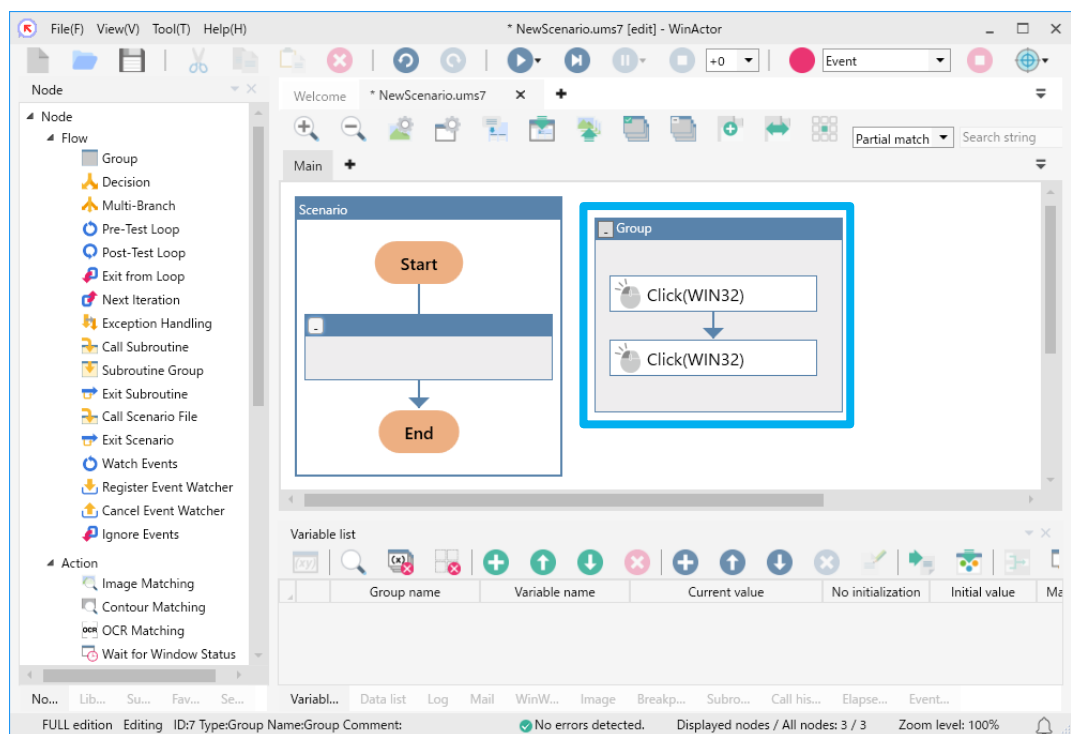


Recording starts.

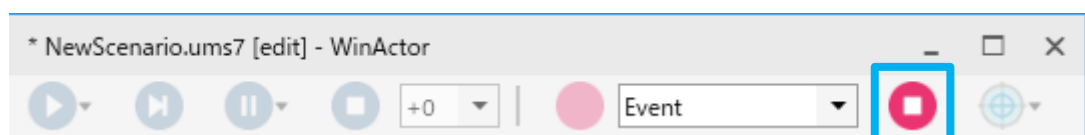
4. Click a check box and a radio button on the application.



The operations on the application are recorded and are displayed in the flowchart area.

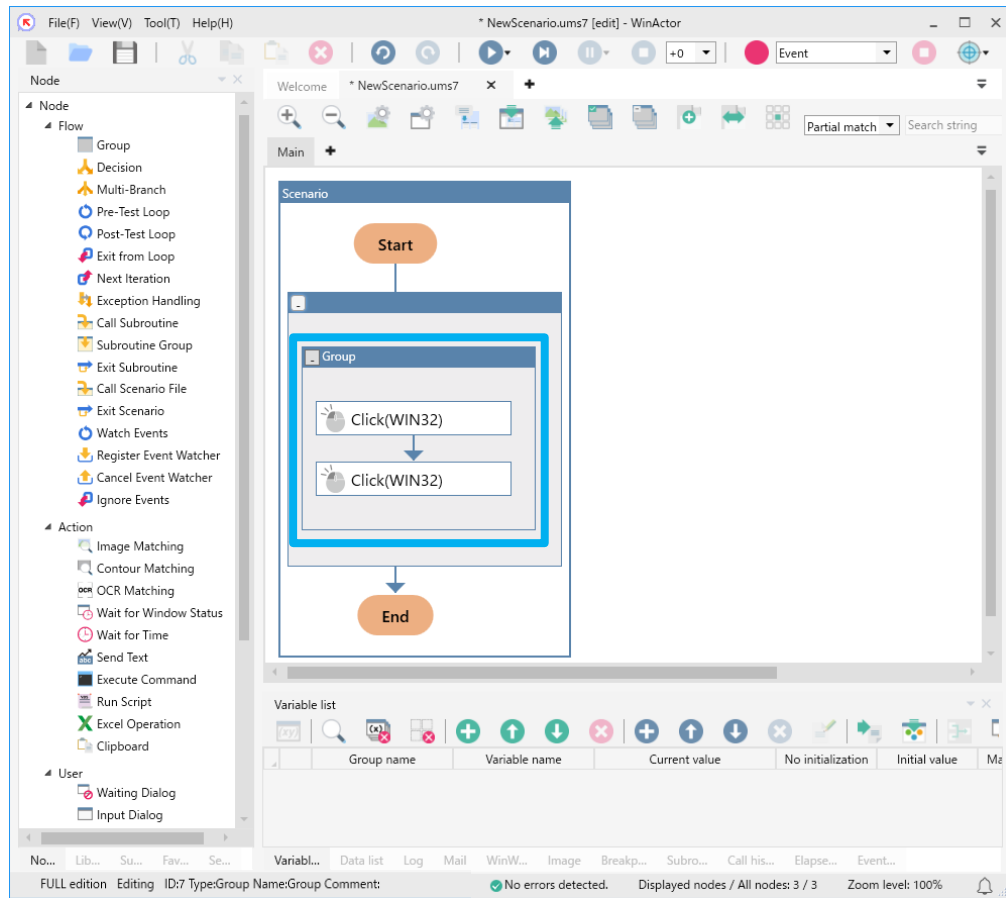


5. Click the 'Stop recording' icon.



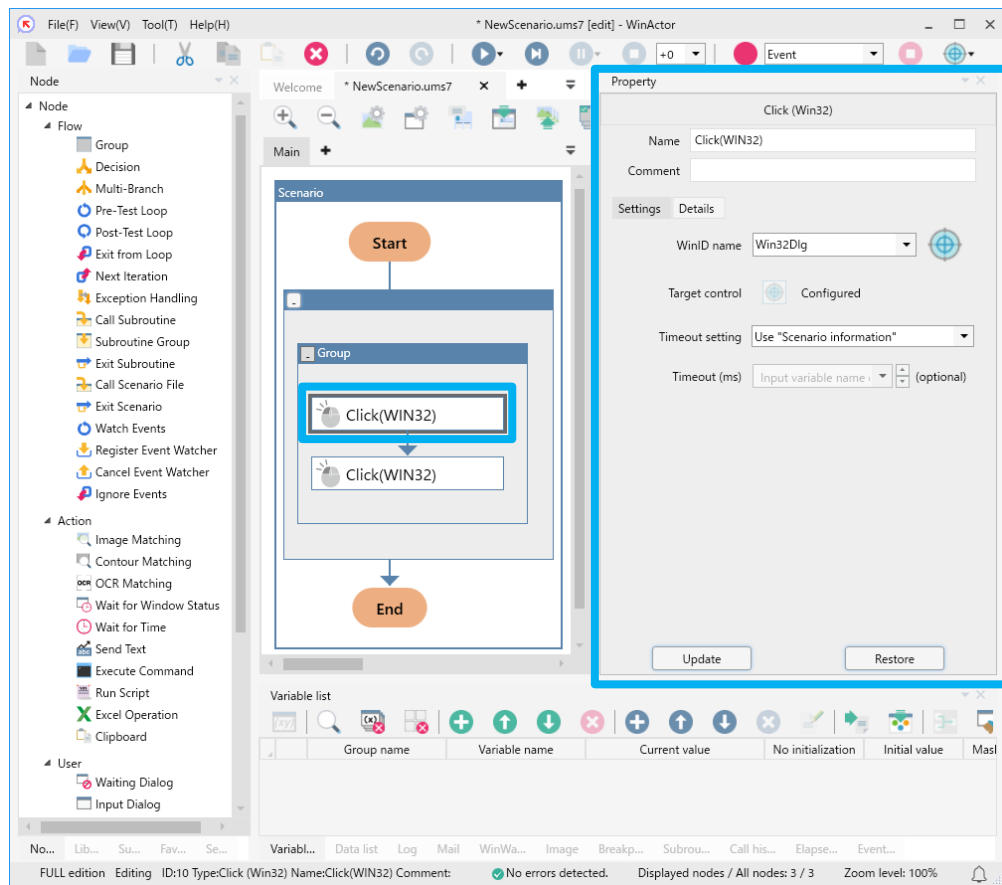
Recording stops.

6. Drag and drop the group of recorded operations between 'Start' and 'End' in the Scenario box.



The scenario is ready to run.

7. Double-click the recorded operation.



The Property pane is displayed on the right side of the WinActor window.

The application name is recorded in the 'Settings' tab of the Property pane.

Property

Click (Win32)

Name Click(WIN32)

Comment

Settings Details

WinID name Win32Dlg

Target control Configured

Timeout setting Use "Scenario information"

Timeout (ms) Input variable name (optional)

Update Restore

The serial number assigned to the button or text box that has been operated is recorded in the 'Details' tab.

Property

Click (Win32)

Name Click(WIN32)

Comment

Settings Details

☒ Parameter name Value

☒ Instance Value=> 1

☒ Text Value=>

☐ Position Value=> 13,42

Update Restore

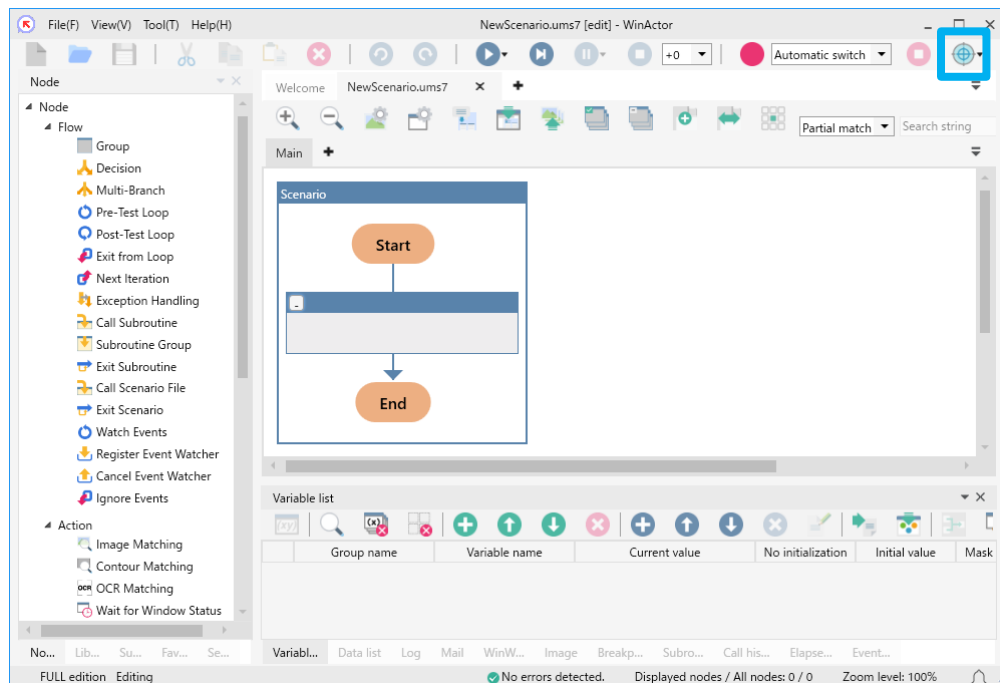
1.9.4 Emulation mode

In the Emulation mode, WinActor learns the positions of mouse clicks and the order of keyboard operations and performs automatic operations.

The following describes the Emulation mode recording procedure using Calculator in Windows. Use the Emulation mode when the operations cannot be recorded in the Event mode, the IE mode, nor other such modes.

Steps

1. Click the 'Select window for recording' icon  on the toolbar.

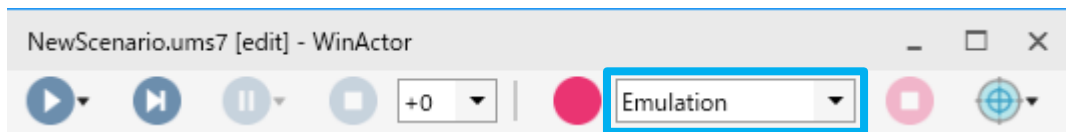


The mouse cursor changes into .

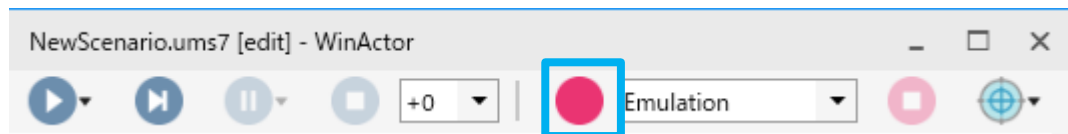
- 2.** Click the title bar of the application for recording.



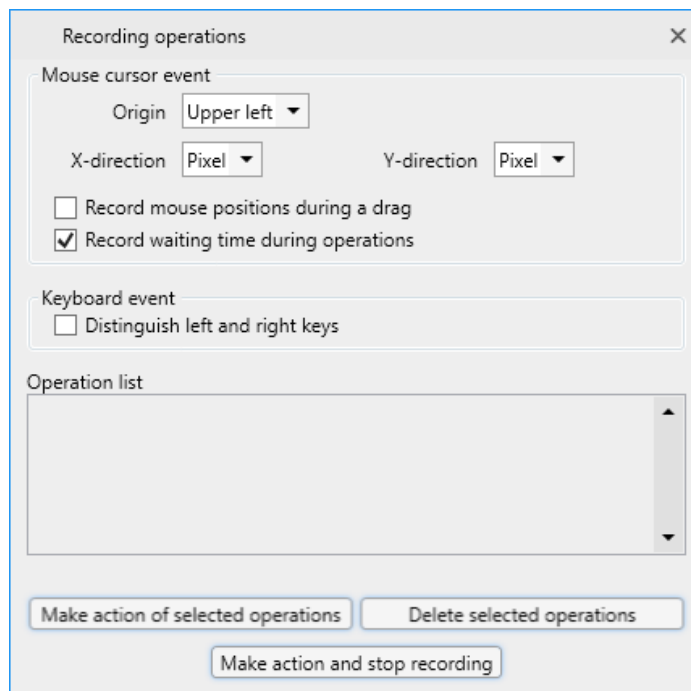
- 3.** Confirm that 'Emulation' is selected as the recording mode.



4. Start recording.



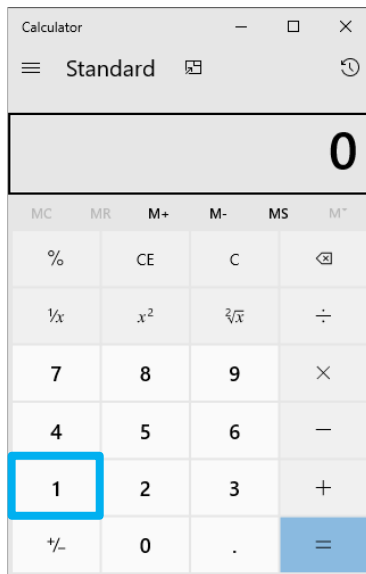
The 'Recording operations' window appears.



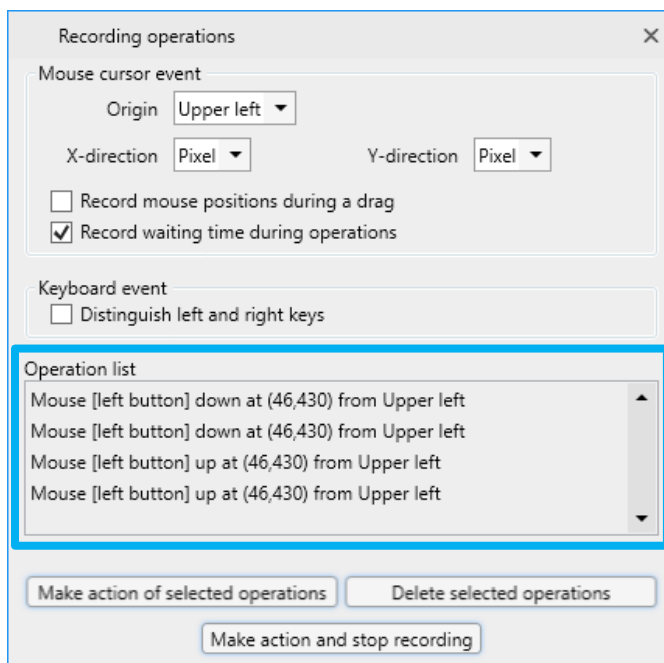
5. Bring the "Calculator" window to the front and click the title bar.



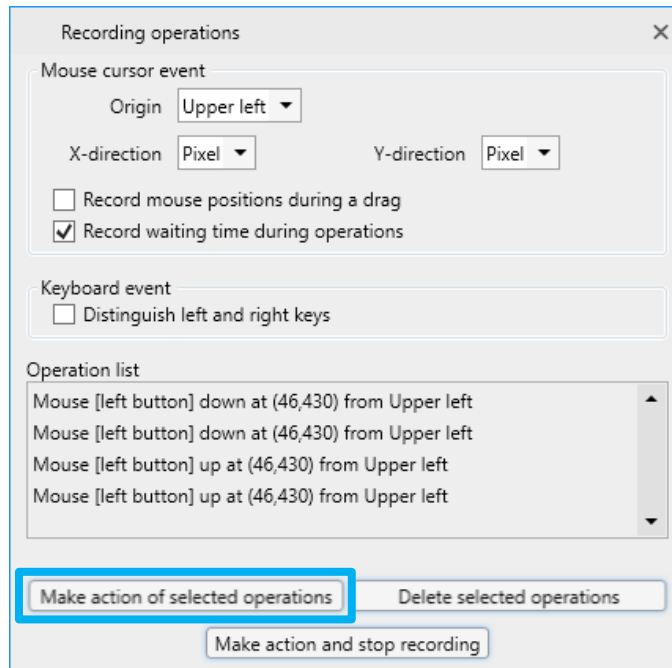
6. Click the button on Calculator.



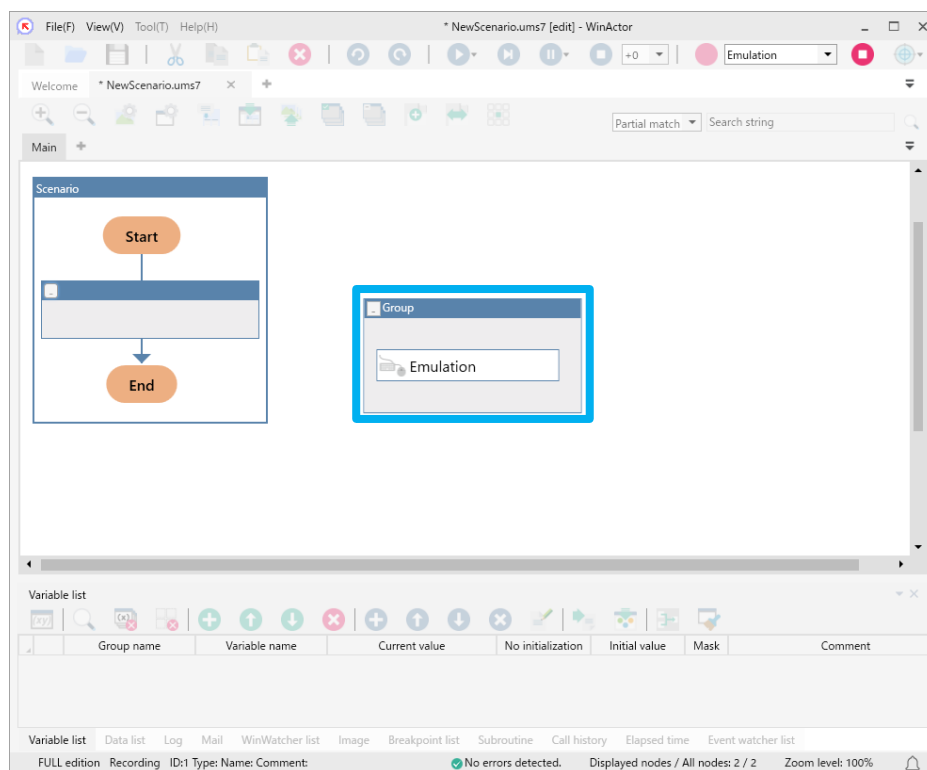
The operations of clicking the title bar and button of Calculator are recorded in 'Operation list.'



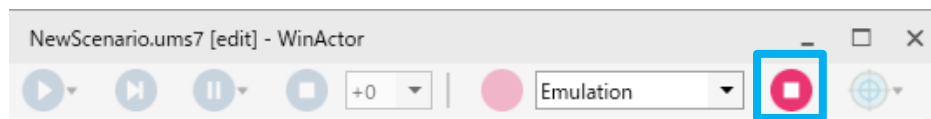
7. Click 'Make action of selected operations.'



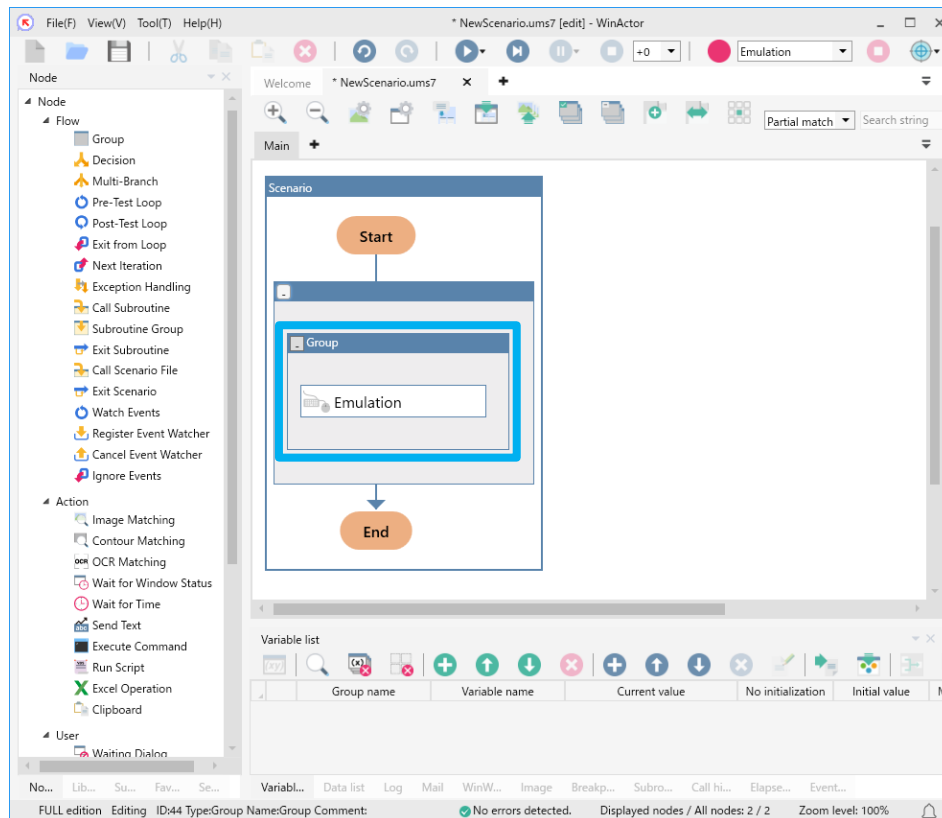
The operations registered in 'Operation list' are recorded in the flowchart area with the name 'Emulation.'



8. Stop recording.



9. Drag and drop the recorded operations between 'Start' and 'End' in the Scenario box.

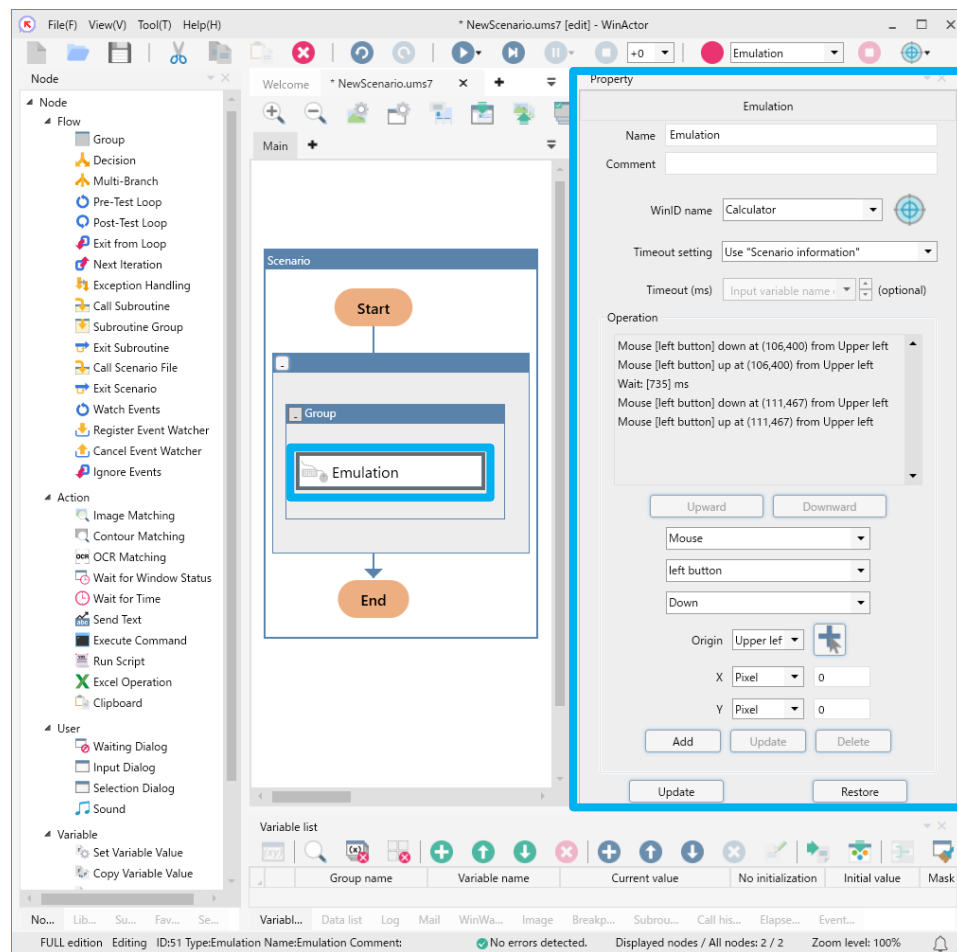


The scenario is ready to run.



In Edge or some Windows Store applications, recording in the emulation function may not work properly.

10. Double-click the recorded operations to open the Property pane.



The window on which the operations were performed is recorded.

1.9.5 IE mode

The IE mode in WinActor is a recording mode for IE mode in Edge. In the IE mode, buttons and text boxes on a window are managed by serial numbers assigned to them. WinActor memorizes the numbers for operated buttons and text boxes and performs automatic operations.



If operations cannot be recorded in the IE mode, record them in the Emulation mode.

The following describes the IE mode recording procedure using a sample file "Tutorial.html."



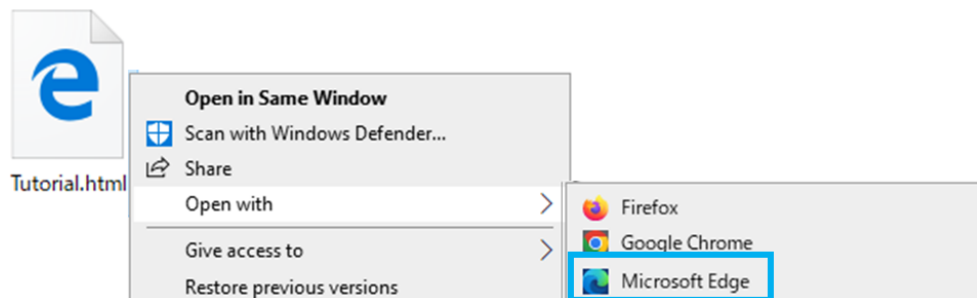
"Tutorial.html" is stored in the "Tutorial" folder in "WinActor_Documents\English\Tutorial" under the WinActor 'Installation folder,' or in "winactor_documents\English\Tutorial" under the WinActor 'User folder.'



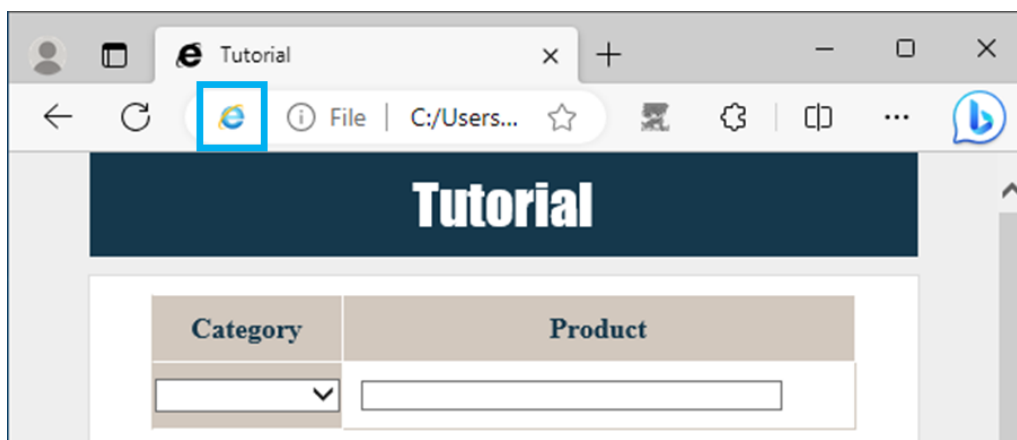
For details of the folder structure, see "1.2.2 Folder structure."

Steps

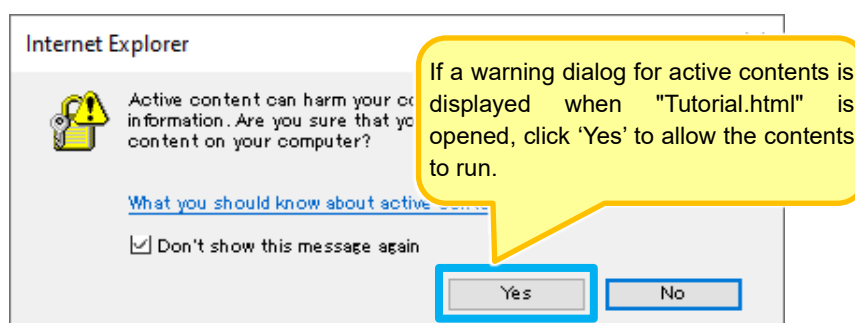
1. Right-click "Tutorial.html" and select 'Open with' > 'Microsoft Edge.'



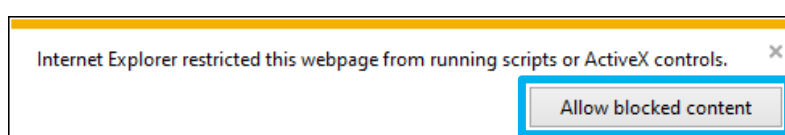
When the "Tutorial.html" page (hereinafter, Tutorial page) is displayed in Edge, reload the page in IE mode. Then, the 'e' icon is displayed in IE mode in Edge.



- If a warning dialog for active contents is displayed, click the 'Yes' button to allow the contents to run.

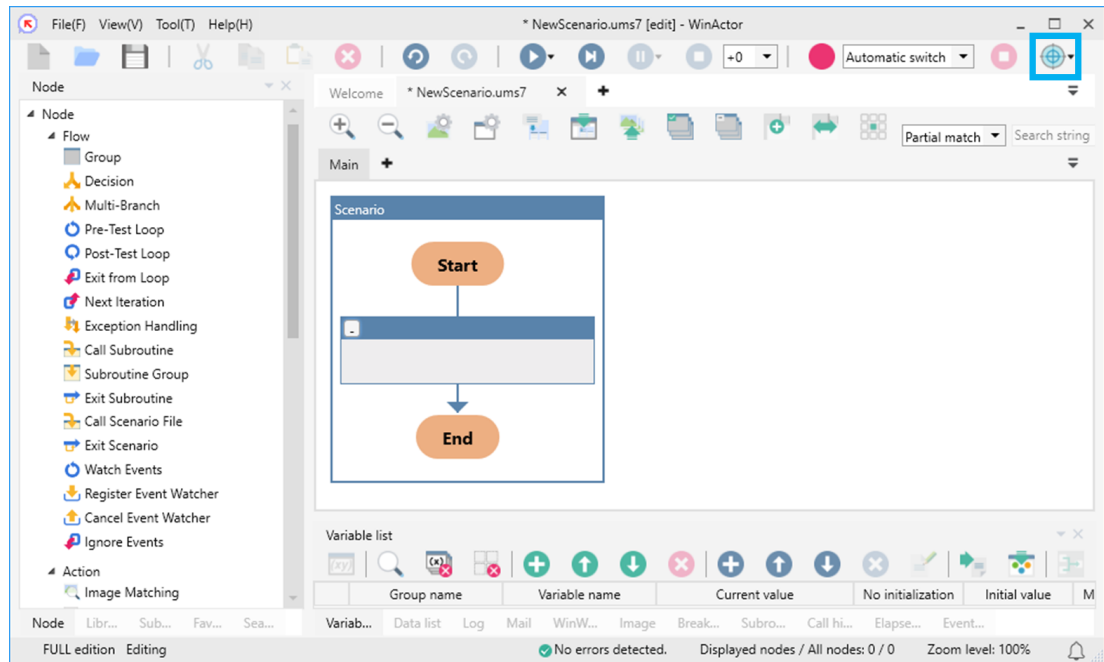


- If a warning dialog as shown below is displayed, click 'Allow blocked contents.'



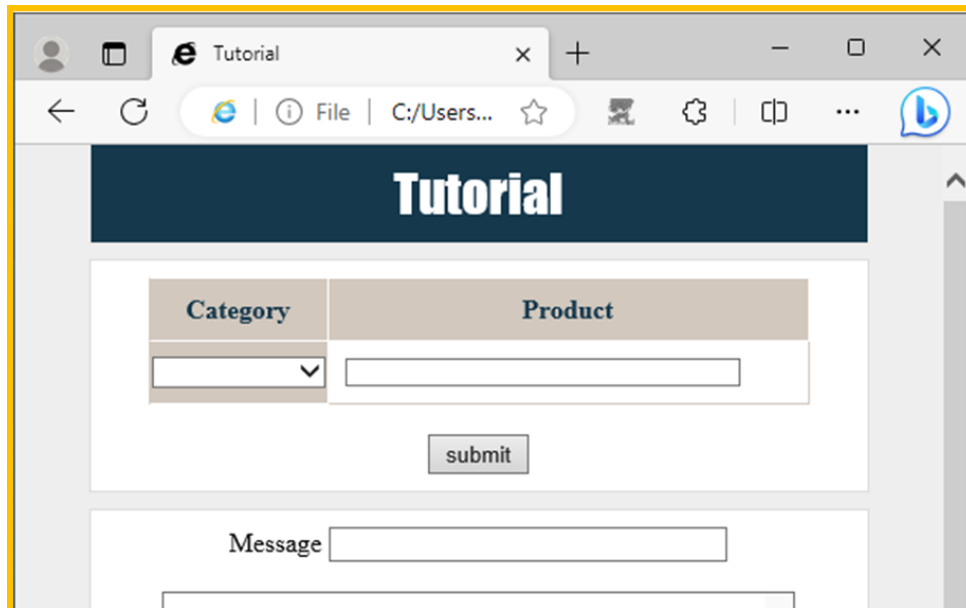
- If it is displayed in a browser other than Edge, close the browser, launch Edge, and drag and drop "Tutorial.html" into Edge to display it.

2. Click the 'Select window for recording' icon  on the toolbar.

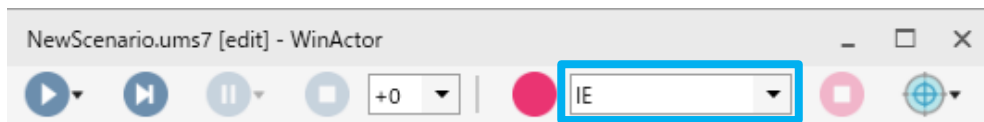


The mouse cursor changes into .

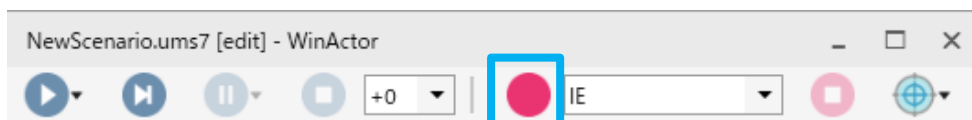
3. Click the Tutorial page window.



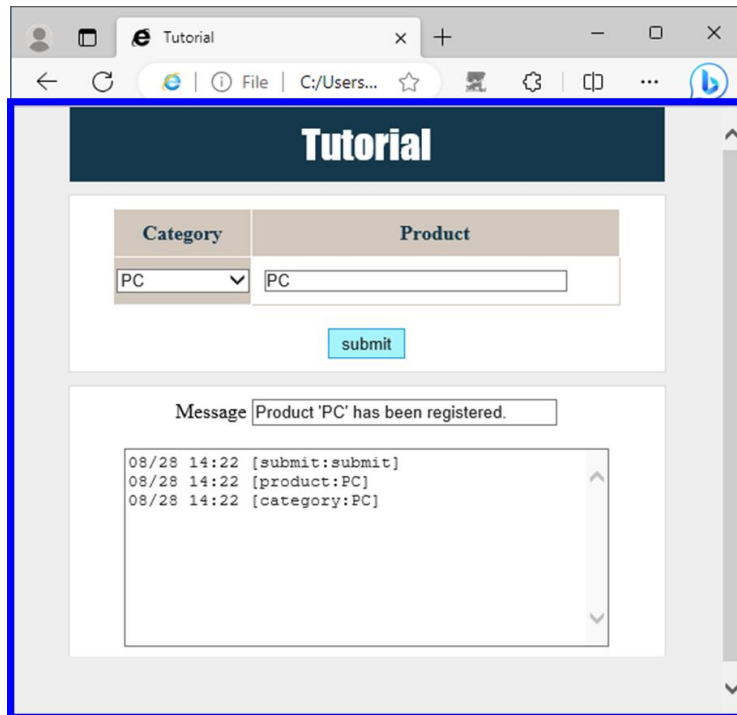
4. Confirm that the 'IE' recording mode is selected.



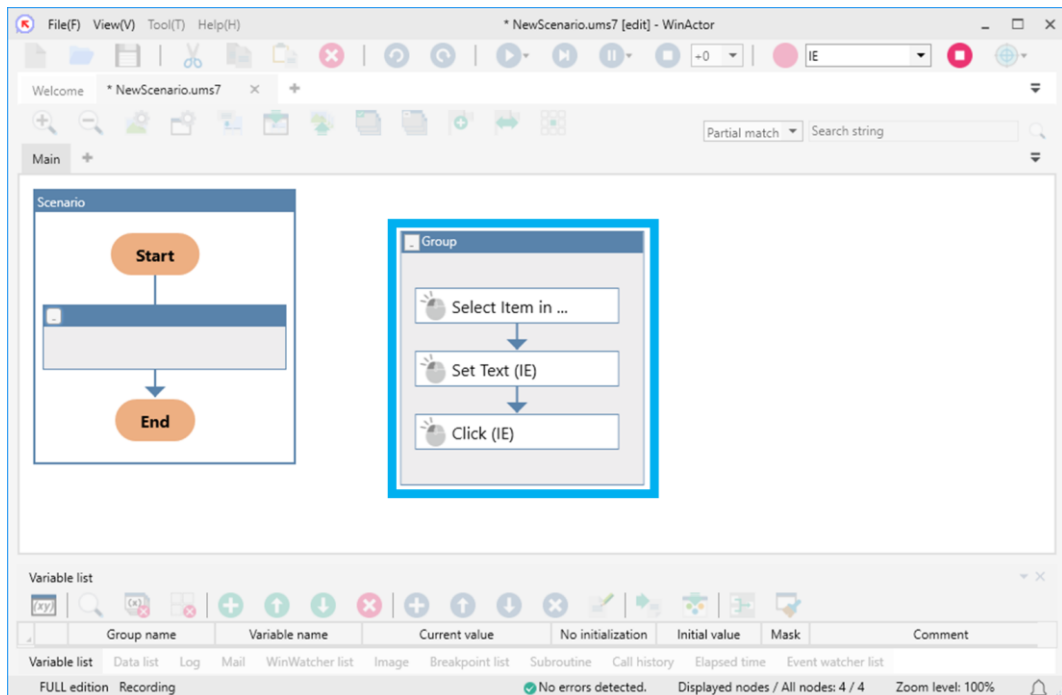
5. Start recording.



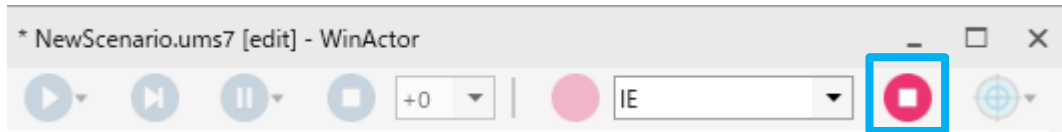
6. Operate the Tutorial page in the following order.
- (1) Select 'PC' in the dropdown list of 'Category.'
 - (2) Enter 'PC' in the text box of 'Product.'
 - (3) Click the 'submit' button.



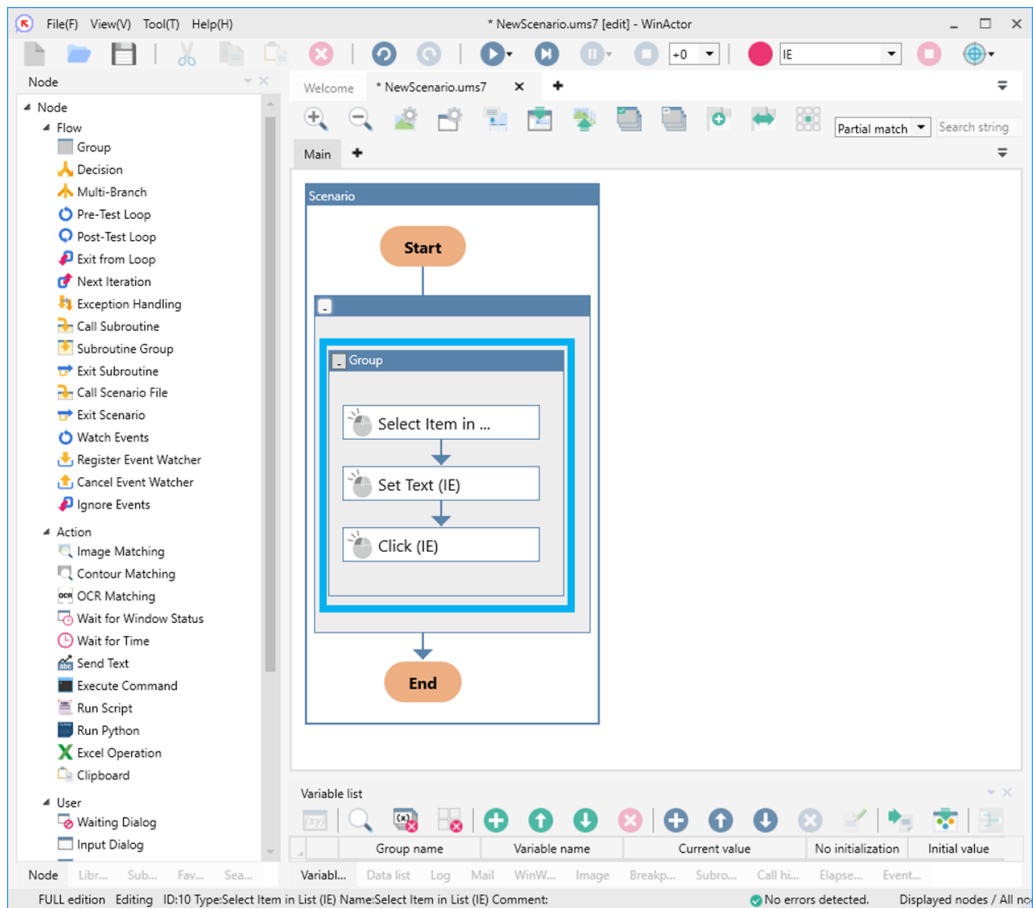
The operations on the Tutorial page are added in the flowchart area.



7. Stop recording.

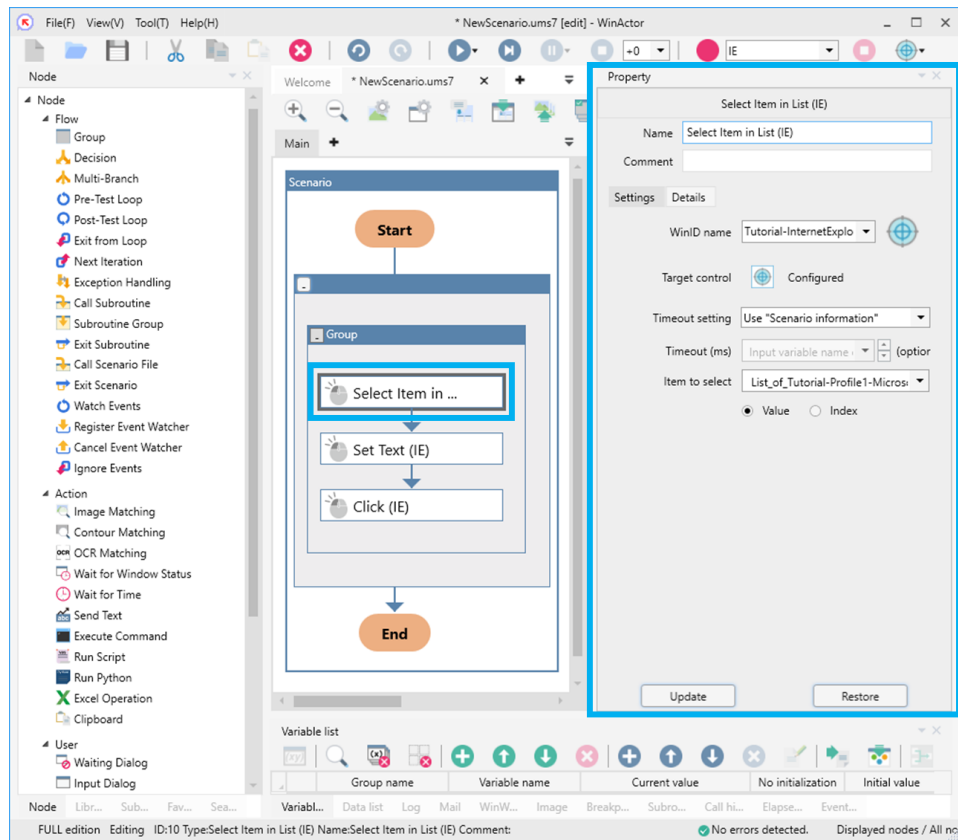


8. Drag and drop the recorded operations between 'Start' and 'End' in the Scenario box.



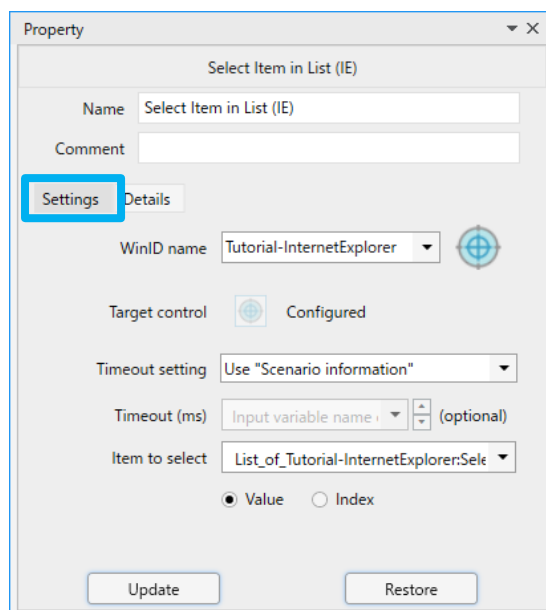
The scenario is ready to run.

9. Double-click the recorded operation.

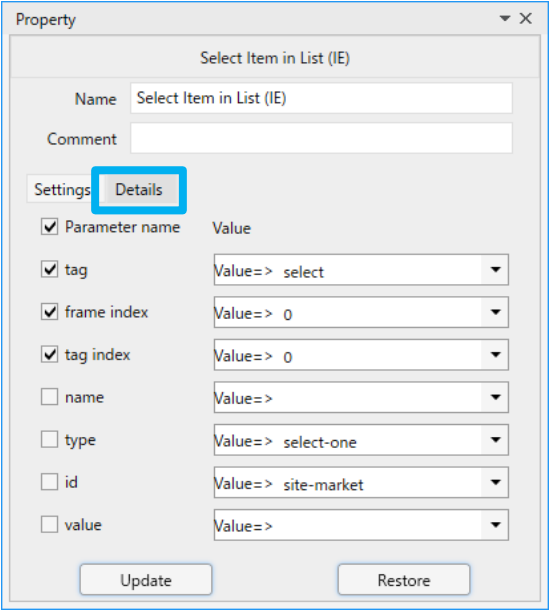


The Property pane is displayed.

The operated window is recorded in the 'Settings' tab of the Property pane.



The serial number assigned to the button or text box that has been operated is recorded in the 'Details' tab.



Property

Select Item in List (IE)

Name: Select Item in List (IE)

Comment:

Settings Details

☒ Parameter name	Value
☒ tag	Value=> select
☒ frame index	Value=> 0
☒ tag index	Value=> 0
☐ name	Value=>
☐ type	Value=> select-one
☐ id	Value=> site-market
☐ value	Value=>

Update Restore



- If Protected Mode or Enhanced Protection Mode is enabled in IE mode in Edge, recording may not be performed correctly.



For details, see "6.3 Protected Modes in IE mode in Edge."

- Webpages with dynamically generated elements cannot be recorded.

1.9.6 Chrome mode

The Chrome mode is a recording mode for Google Chrome. In the Chrome mode, buttons and text boxes on a window are managed by XPaths. WinActor memorizes XPaths for operated buttons and text boxes and performs automatic operations.



If operations cannot be recorded in the Chrome mode, record them in the Emulation mode.



To record in the Chrome mode, WinActor7 Browser Agent for Chrome should be installed in the Google Chrome browser separately in addition to WinActor.



When using the Chrome mode, see "WinActor Chrome Agent Installation Manual."

The following describes the Chrome mode recording procedure using a sample file "Tutorial.html."



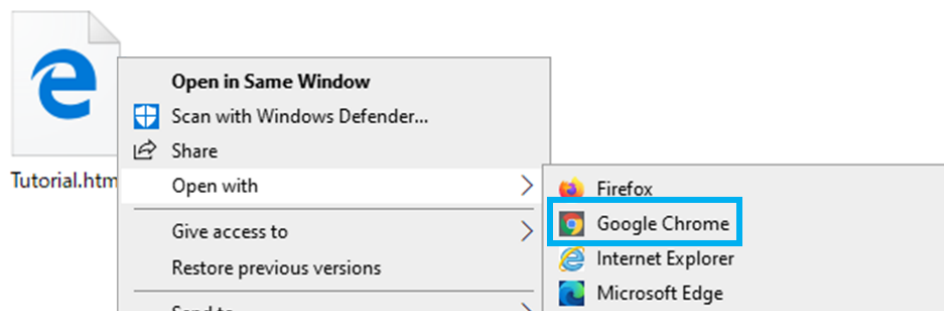
"Tutorial.html" is stored in the "Tutorial" folder in "WinActor_Documents\English\Tutorial" under the WinActor 'Installation folder,' or in "winactor_documents\English\Tutorial" under the WinActor 'User folder.'



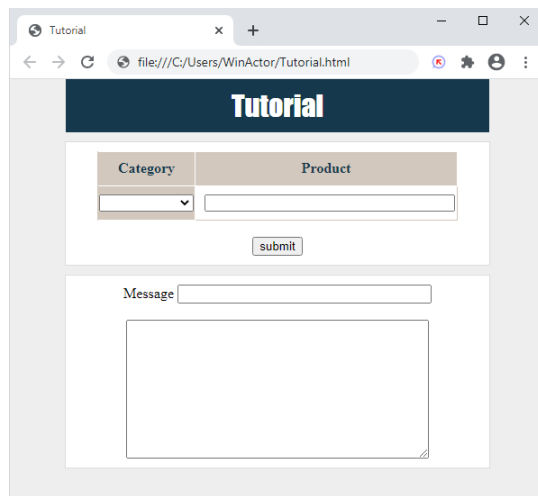
For details of the folder structure, see "1.2.2 Folder structure."

Steps

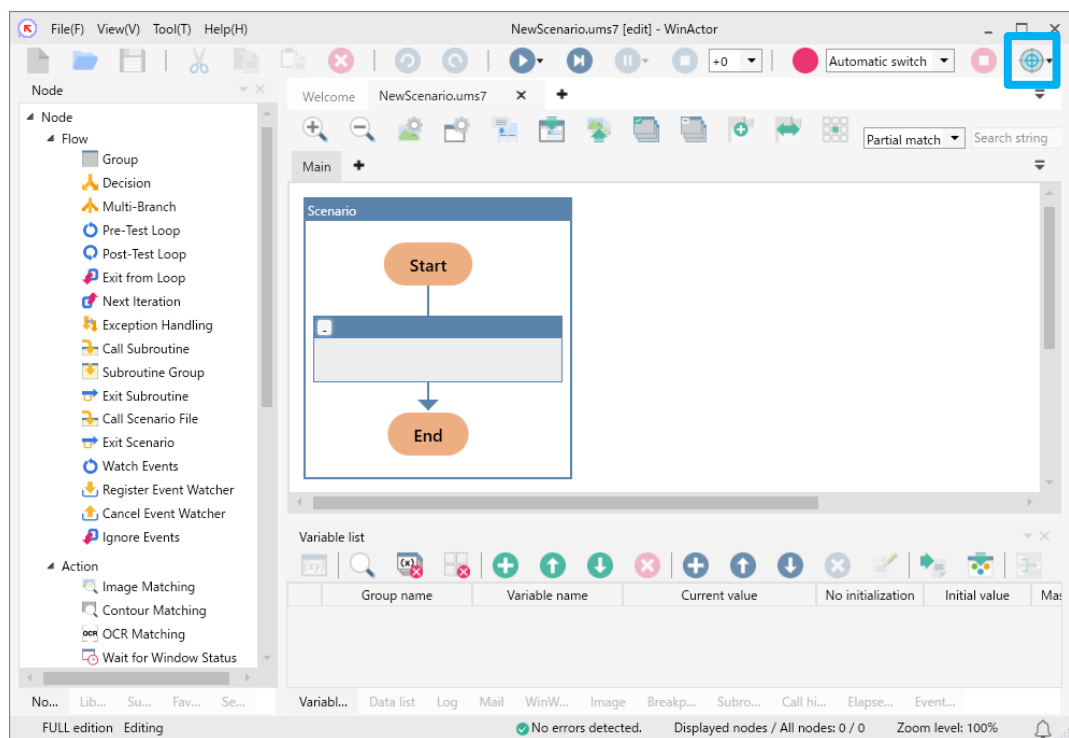
1. Right-click "Tutorial.html" and select 'Open with' > 'Google Chrome.'



The window of the "Tutorial.html" page (hereinafter, Tutorial page) is displayed in Google Chrome.

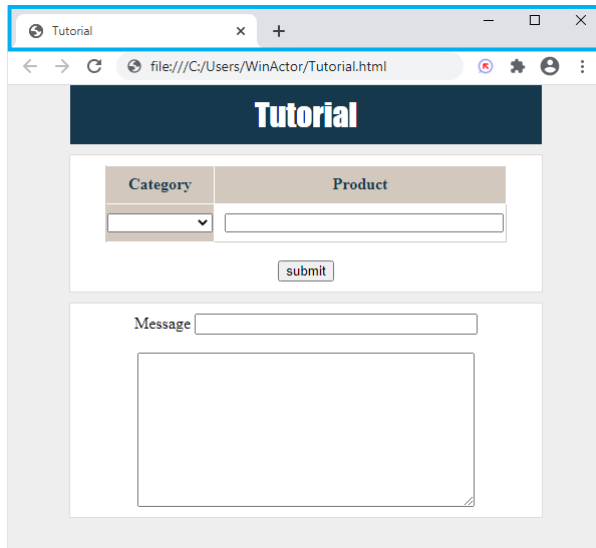


2. Click the 'Select window for recording' icon  on the toolbar.

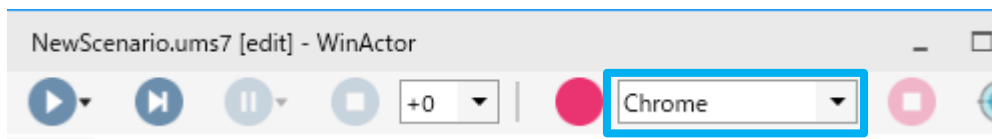


The mouse cursor changes into .

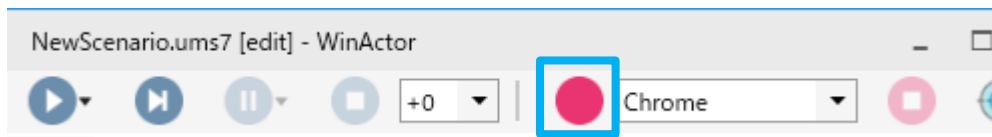
- 3.** Click the title bar of the Tutorial page window.



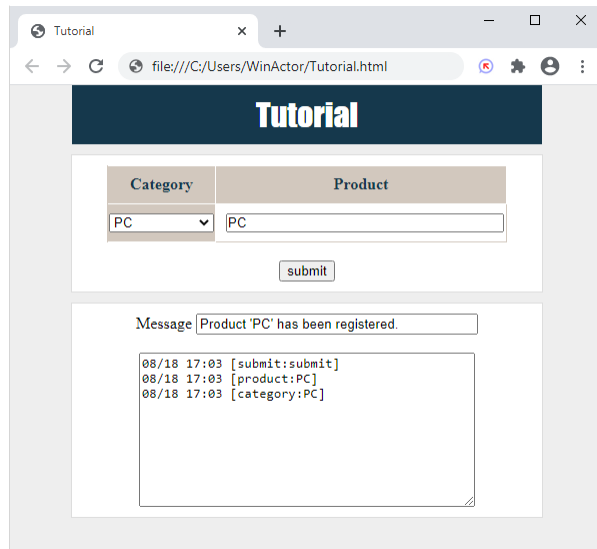
- 4.** Confirm that the recording mode 'Chrome' is selected.



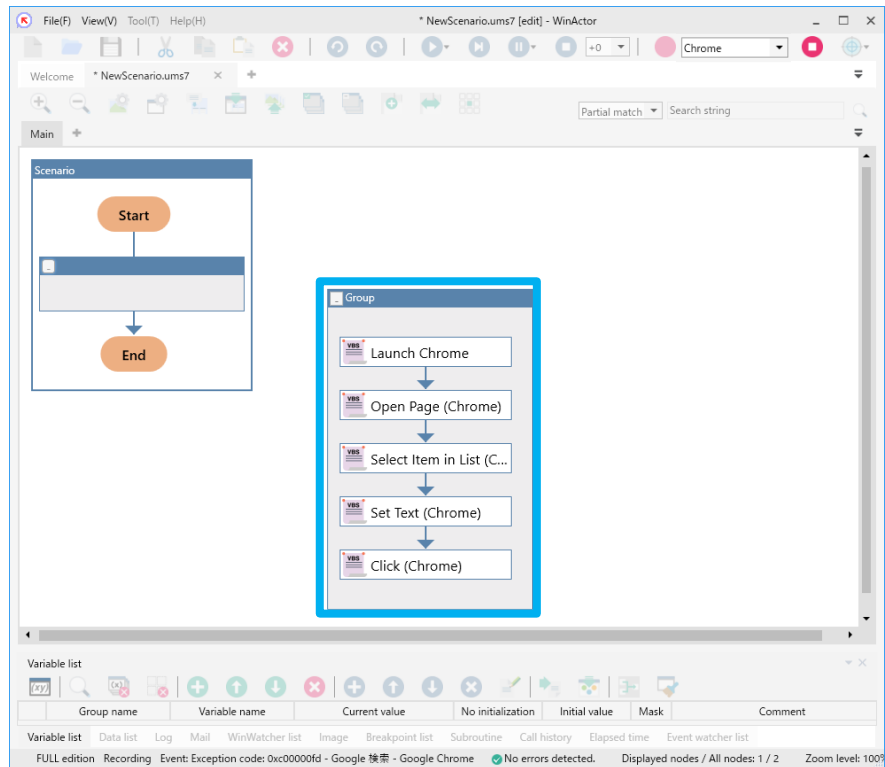
- 5.** Click the 'Start recording' icon on the toolbar.



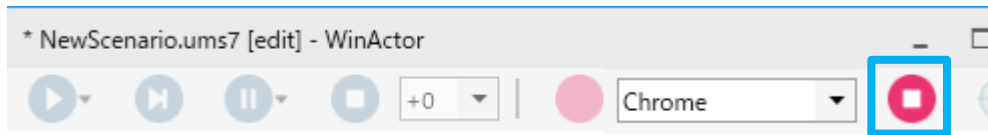
6. Operate the Tutorial page in the following order.
- (1) Select 'PC' in the dropdown list of 'Category.'
 - (2) Enter 'PC' in the text box of 'Product.'
 - (3) Click the 'submit' button.



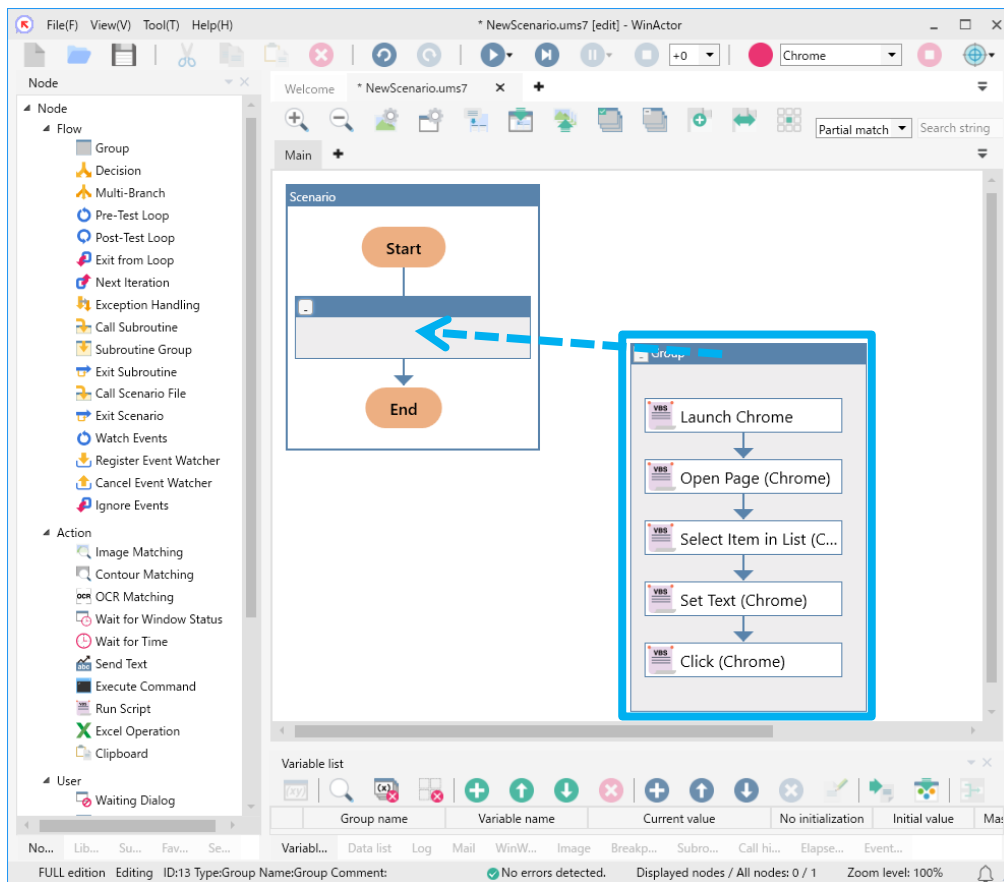
The operations on the Tutorial page are added in the flowchart area.



7. Stop recording.

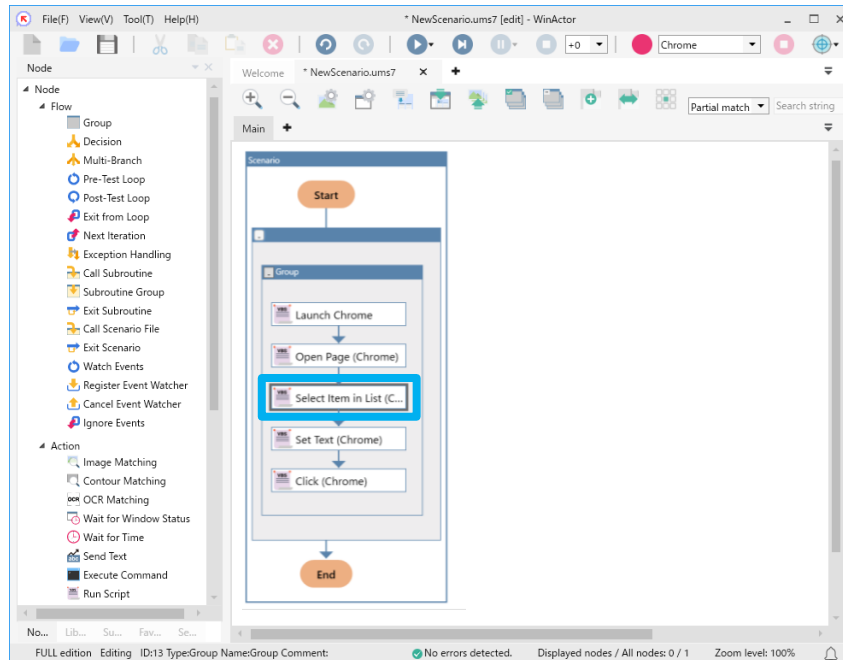


8. Drag and drop the group of recorded operations between 'Start' and 'End' in the Scenario box.



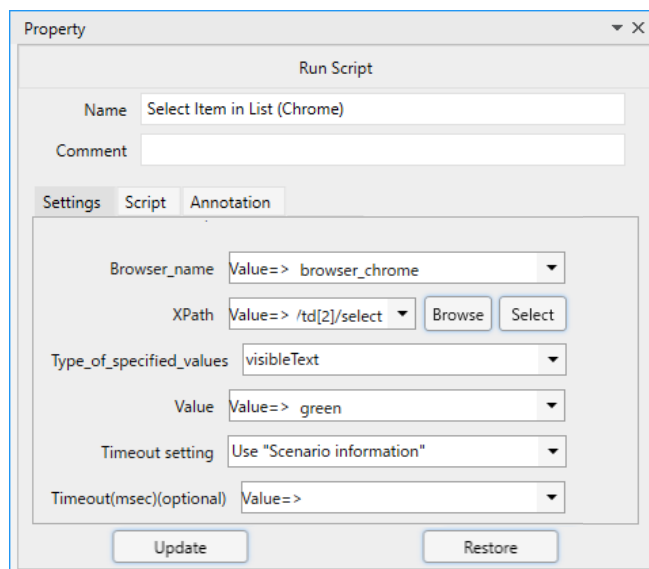
The scenario is ready to run.

9. Double-click the recorded operation.



The Property pane is displayed.

The value according to the operation is recorded in the 'Settings' tab of the Property pane.



XPath for the element for operation is recorded in 'XPath.'

The value according to the operation is recorded in 'Value_type.'



Webpages with dynamically generated elements cannot be recorded.

1.9.7 Firefox mode

The Firefox mode is a recording mode for Mozilla Firefox. In the Firefox mode, buttons and text boxes on a window are managed by XPath. WinActor memorizes XPaths for operated buttons and text boxes and performs automatic operations.



If operations cannot be recorded in the Firefox mode, record them in the Emulation mode.



To record in the Firefox mode, WinActor7 Browser Agent for Firefox should be installed in the Mozilla Firefox browser separately, in addition to WinActor.



When using the Firefox mode, see "WinActor Firefox Agent Installation Manual."

The recording procedure in the Firefox mode is the same as that in the Chrome mode.



See "1.9.6 Chrome mode" by replacing Chrome with Firefox.

1.9.8 Edge mode

The Edge mode is a recording mode for Microsoft Edge (Chromium). In the Edge mode, buttons and text boxes on a window are managed by XPath. WinActor memorizes XPaths for operated buttons and text boxes and performs automatic operations.



If operations cannot be recorded in the Edge mode, record them in the Emulation mode.



To record in the Edge mode, WinActor7 Browser Agent for Edge should be installed in the Edge (Chromium) browser separately, in addition to WinActor.



When using the Firefox mode, see "WinActor Chrome Agent Installation Manual."

The recording procedure in the Edge mode is the same as that in the Chrome mode.



See "1.9.6 Chrome mode" by replacing Chrome with Edge (Chromium).

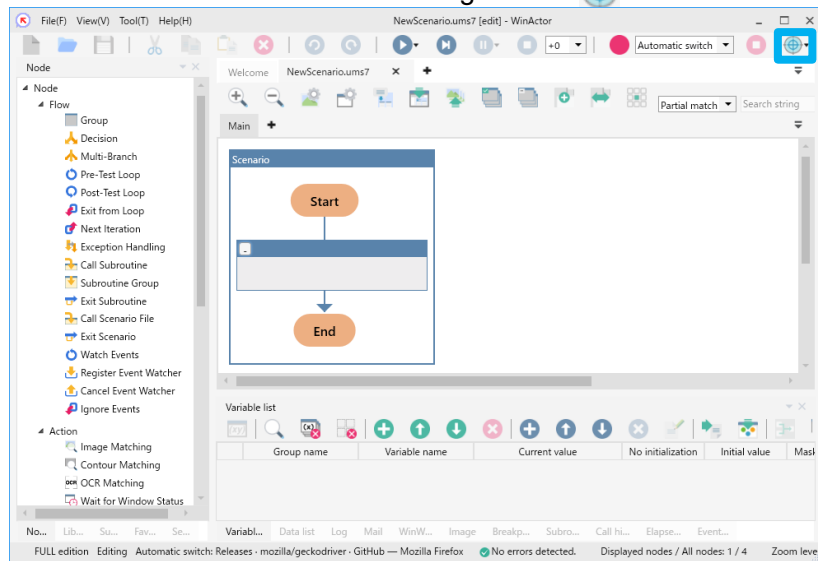
1.9.9 UI Automation mode

In the UI Automation mode, application operations are recorded at the GUI elements level for automatic operations.

The following describes the recording procedure in the UI Automation mode using Calculator in Windows.

Steps

1. Click the 'Select window for recording' button  on the toolbar.

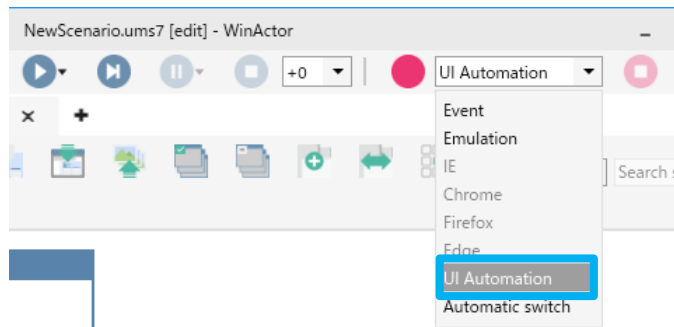


The mouse cursor changes into .

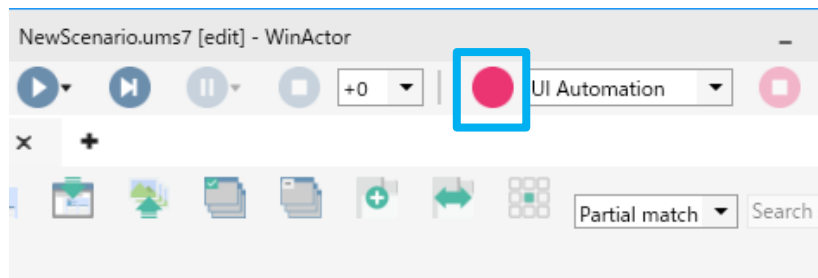
2. Click the title bar in the window for recording.



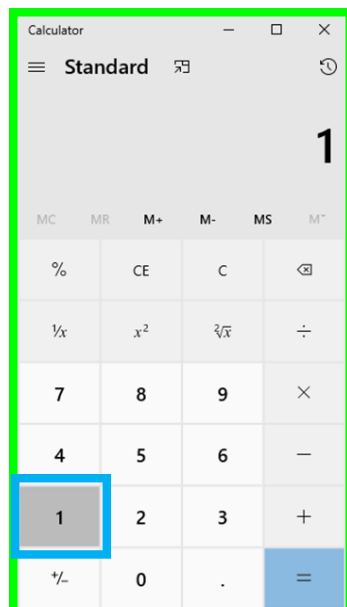
3. Switch the recording mode to 'UI Automation.'



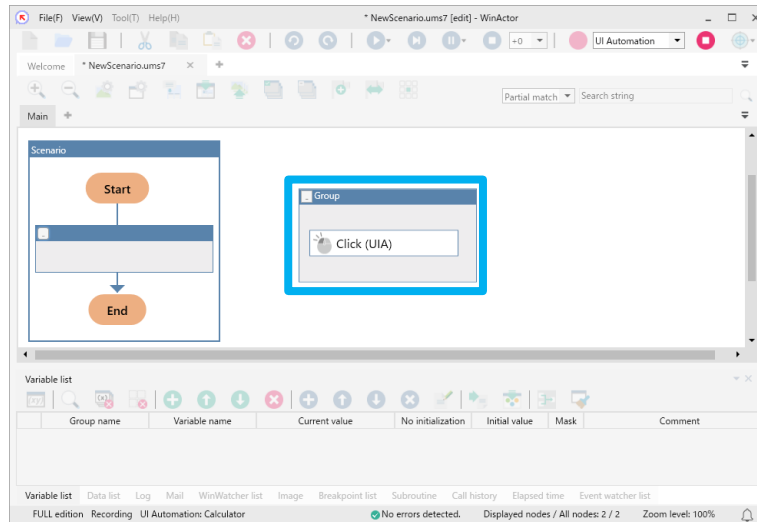
4. Start recording.



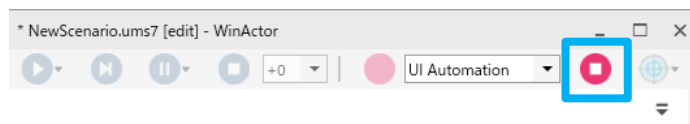
5. Click the button on Calculator.



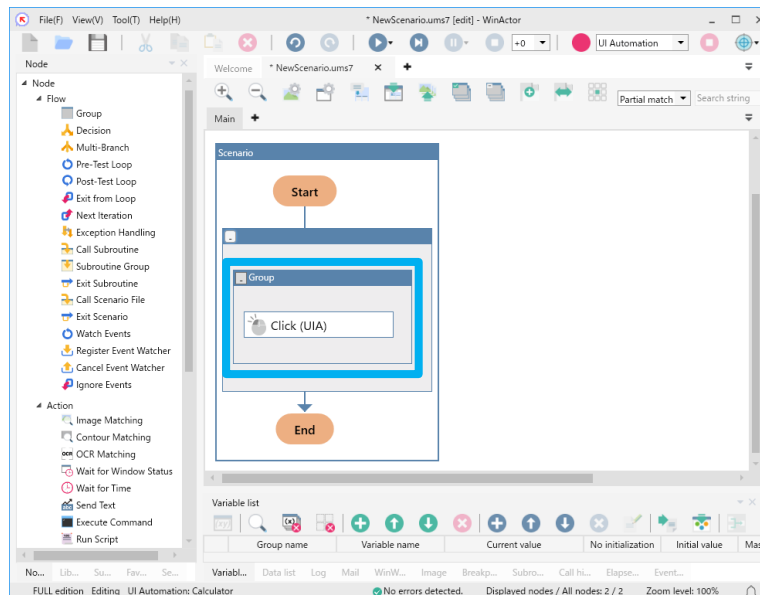
The operation 'Click (UIA)' is added to the flowchart area.



6. Stop recording.

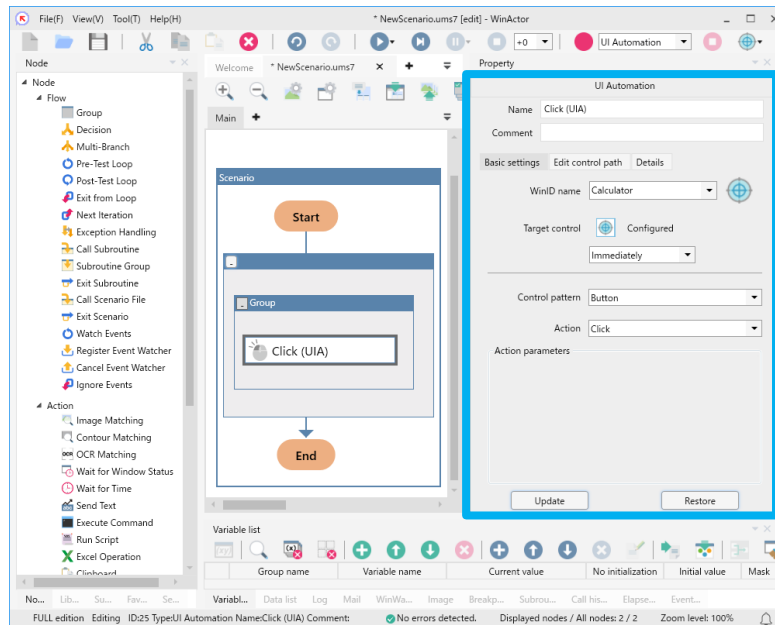


7. Drag and drop the recorded operation between 'Start' and 'End' in the Scenario box.



The scenario is ready to run.

8. Double-click the recorded operation to open the Property pane.



The performed operation is recorded in the 'Settings' tab of the Property pane.



The operations that can be automatically recorded in the UI Automation mode are as follows:

- Mouse button left click events
 - Expand collapsed menu elements
 - Click button elements
 - Click toggle elements
 - Select selection elements
- Scroll events

>> For UI Automation, see "4.9.1 UI Automation."

1.9.10 Image matching mode

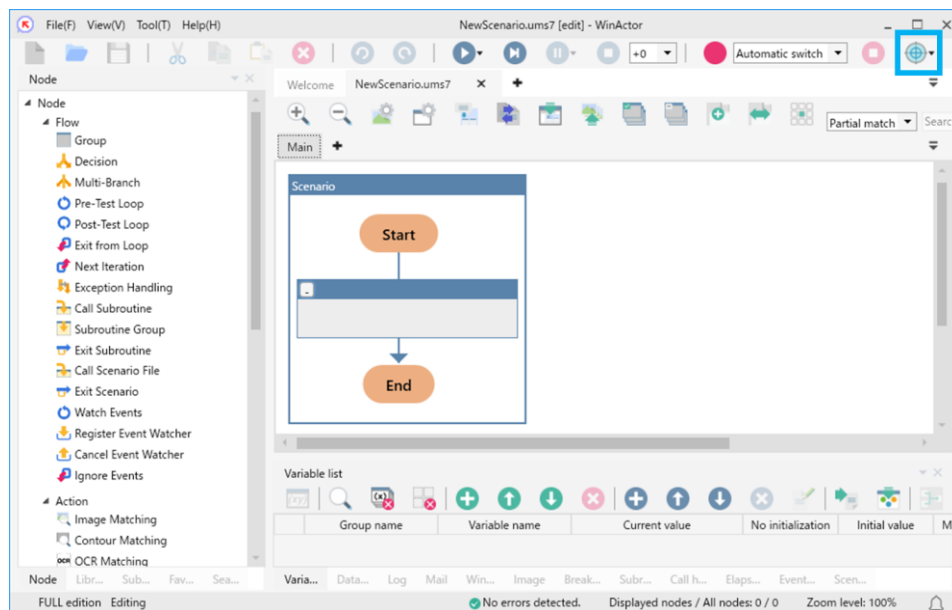
In the Image matching mode, WinActor memorizes the recording target window's display, positions where the mouse is clicked, and the order among mouse operations, and performs automatic operations.

Since this mode records captured images of the recording target window and mouse operations, it is used for applications whose window has unrecognizable image elements in the display (for example, buttons) or for applications whose window layout changes during the mouse operations and is difficult to record the mouse operations by using the mouse positions.

The following describes the recording procedure in the Image matching mode using Notepad in Windows.

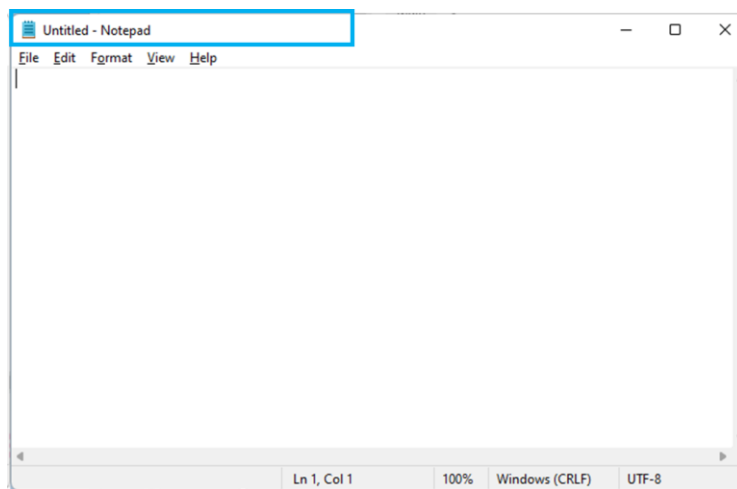
Steps

1. Click the 'Select window for recording' icon  on the toolbar.



The mouse cursor changes into  .

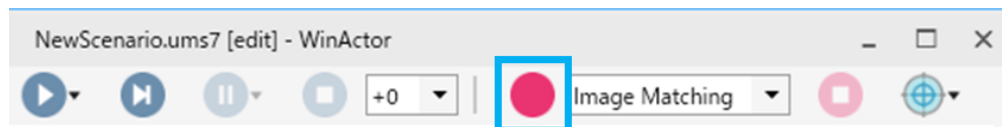
2. Click the title bar of the application for recording.



3. Confirm that 'Image matching' is selected as the recording mode.

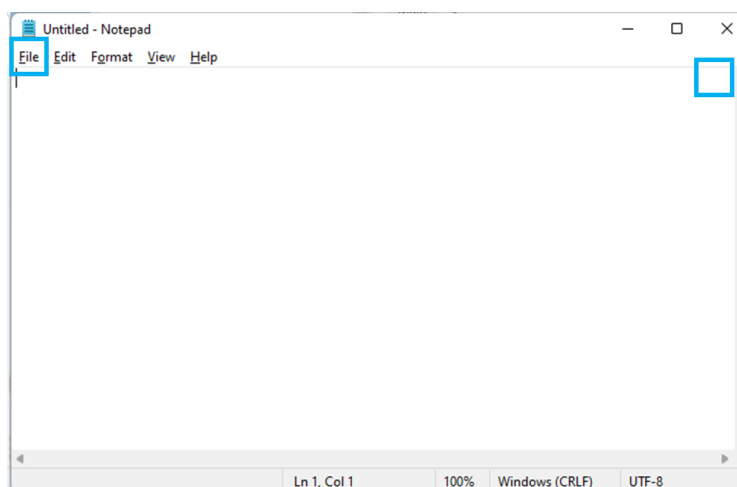


4. Click the "Start recording" icon.

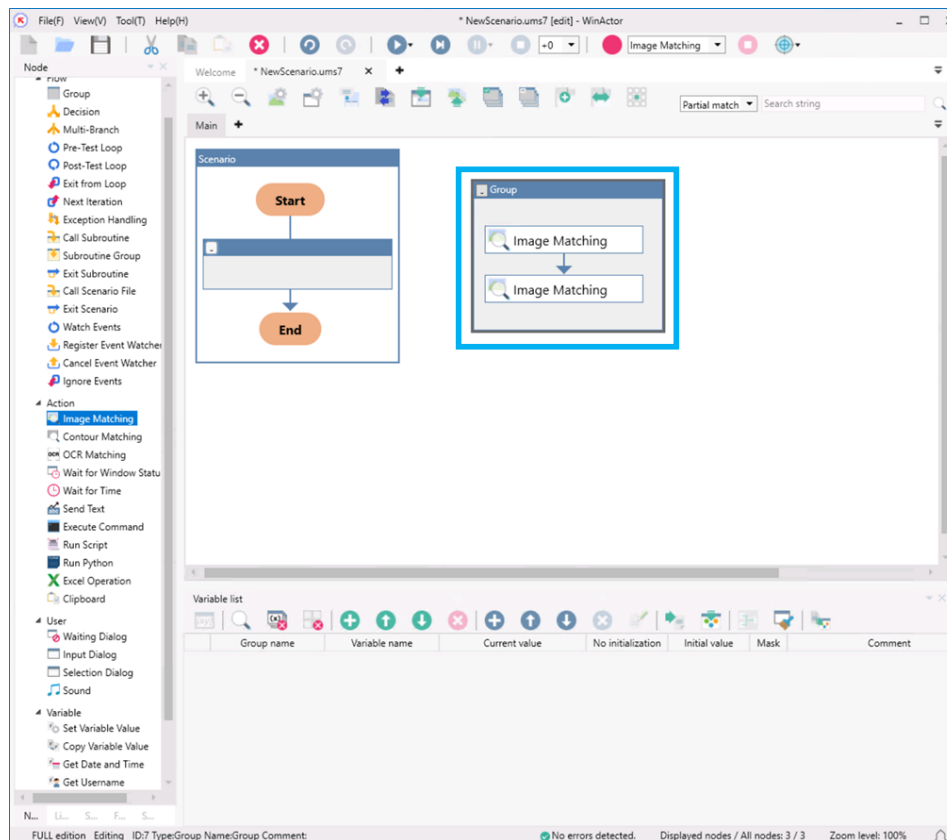


Recording starts.

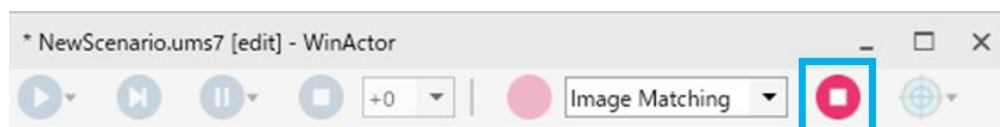
5. Click in the application window.



Operations to the application are recorded and they are displayed in the flowchart area.

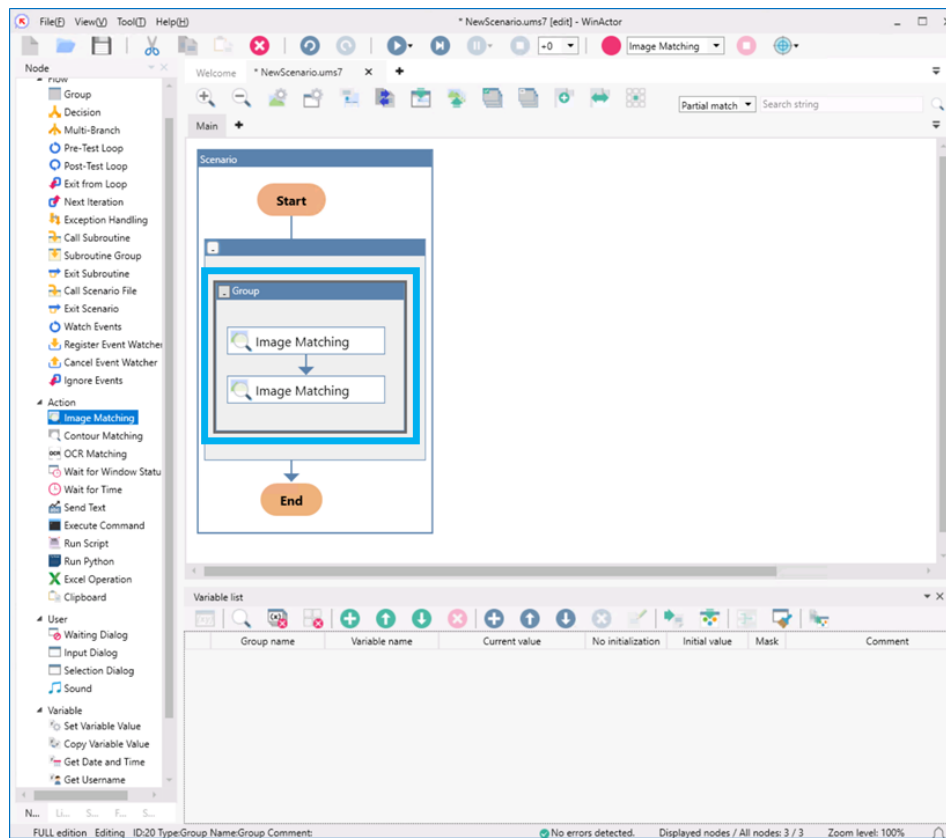


6. Click the 'Stop recording' icon.



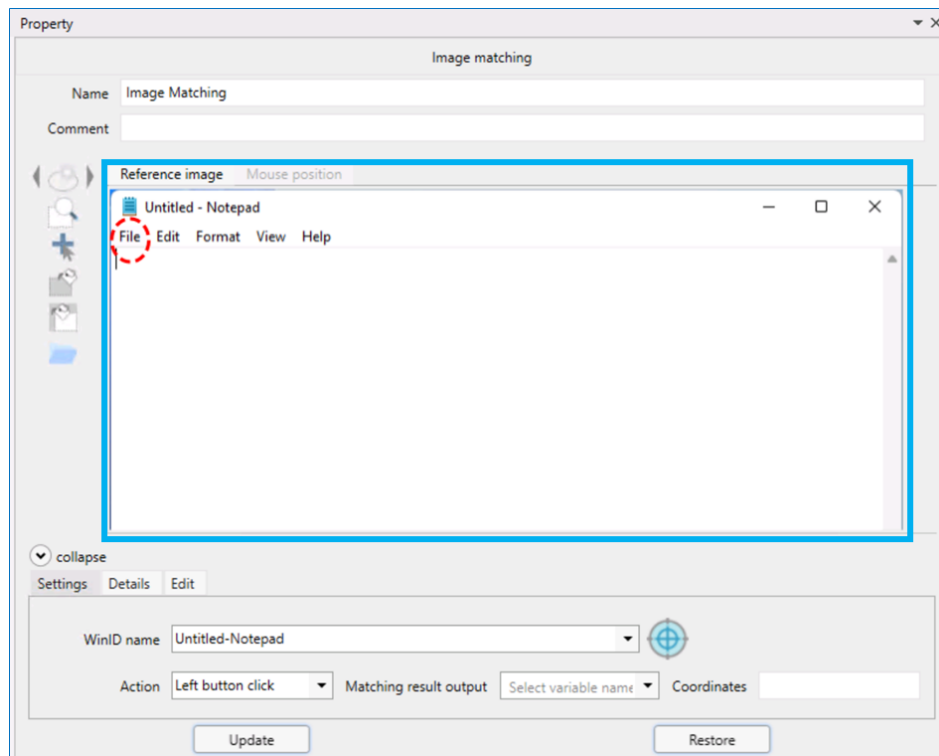
Recording stops.

7. Stop recording.



The scenario is ready to run.

8. Double-click the recorded operation in order to display the Property pane.



Mouse operations are recorded in the 'Settings' tab.

Image matching mode records just the mouse operations, each of which consists of mouse cursor position, small area surrounding the position at the moment the mouse is clicked, and classification of the mouse operation.



The following operations can be recorded in the Image matching mode.

- left button click of the mouse
- left button double-click of the mouse
- left button triple-click of the mouse
- right button click of the mouse
- right button double-click of the mouse
- right button triple-click of the mouse

Search target image is specified as the small area the center of which is the click position.

During the scenario run, search scope is the whole window.



Or image matching, see "4.4.1 Image Matching."



Due to the characteristics of the image matching, the intended positions may not be operated during the scenario run in the following cases.

- Multiple similar positions exist in the same window; for example, painted all over in one color.
- Contents displayed in the window change regardless of the operations.

When recorded in the 'Image matching mode,' window images are recorded for operation by operation thus the whole memory size of the entire scenario could become quite large.

1.9.11 Automatic switch mode

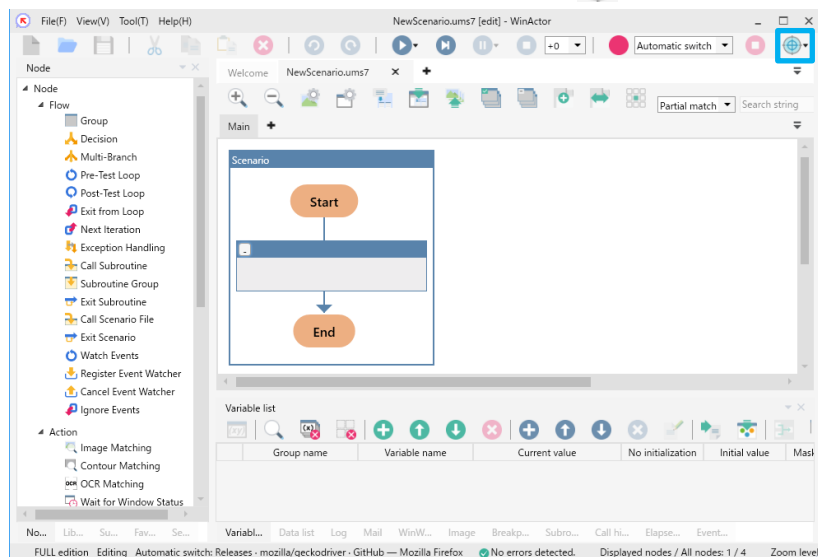
In the Automatic switch mode, the target window for recording can be changed while recording. Therefore, multiple windows can be recorded consecutively.

Switching the target window, an appropriate recording mode is automatically selected, and the recording continues. Alternatively, you can manually change the recording mode while recording operations.

The following describes the recording procedure in the Automatic switch mode using Calculator and IE mode in Edge.

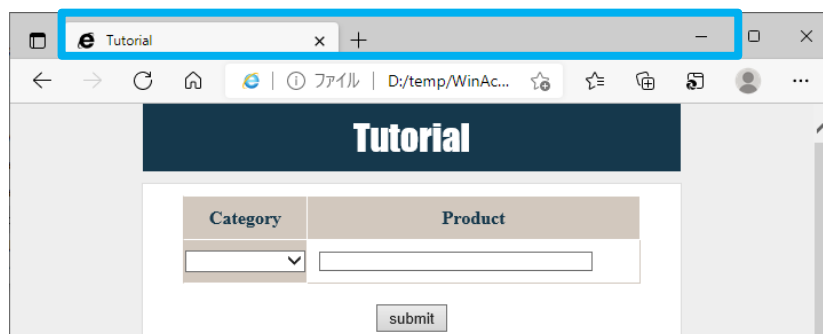
Steps

1. Click the 'Select window for recording' button  on the toolbar.

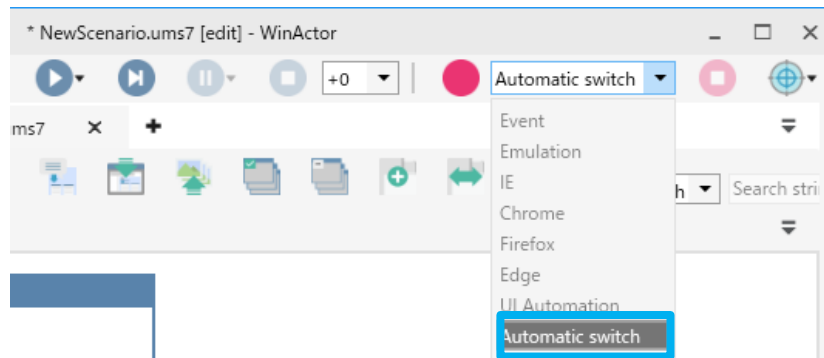


The mouse cursor changes into .

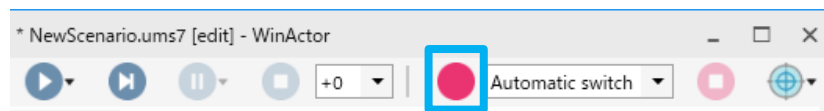
2. Click the title bar in the first window for recording.



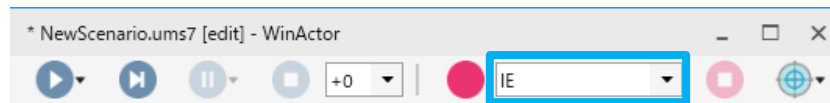
3. Switch the recording mode to 'Automatic switch.'



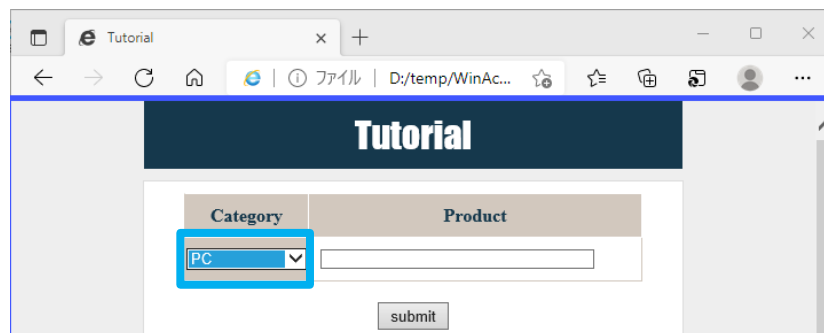
4. Start recording.



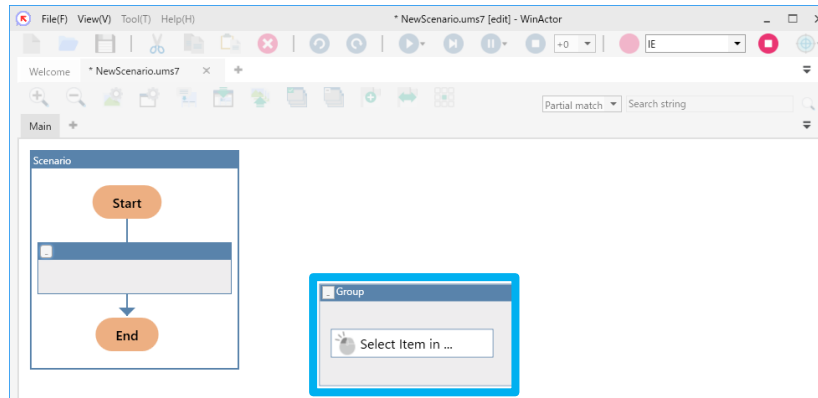
A recording mode is automatically selected.



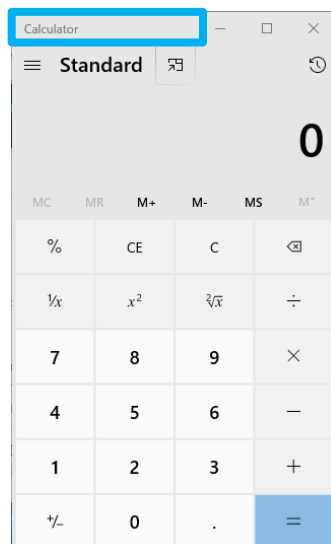
5. Operate in the window of IE mode in Edge.



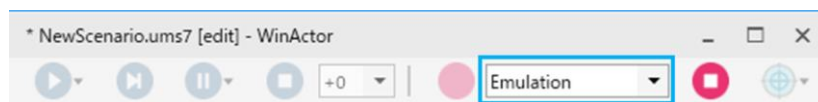
The operation is recorded to the flowchart area.



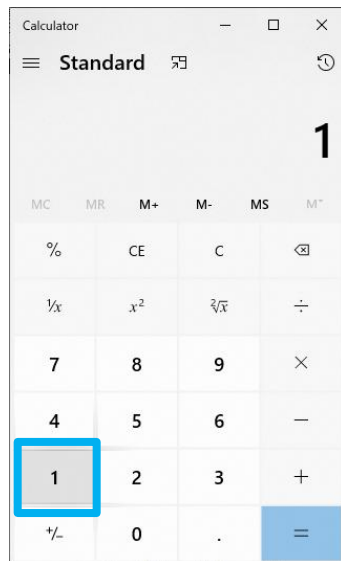
6. Click the title bar of the next window, Calculator, for recording.



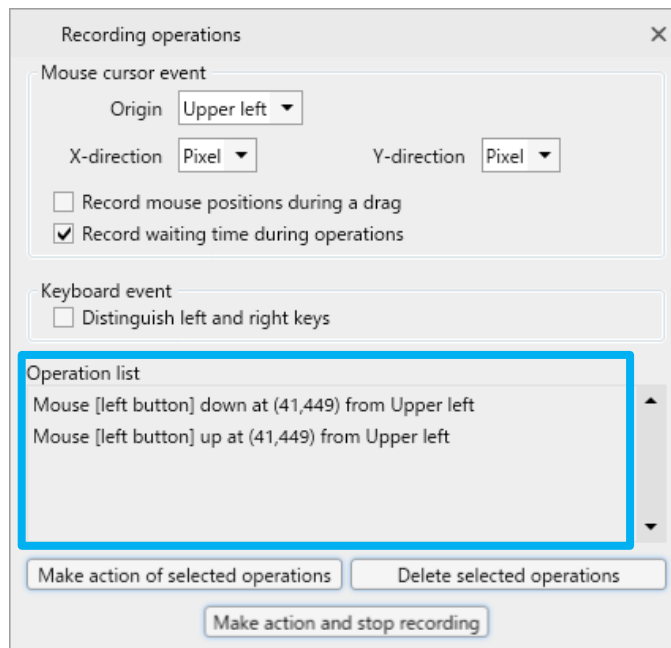
A recording mode is automatically selected.



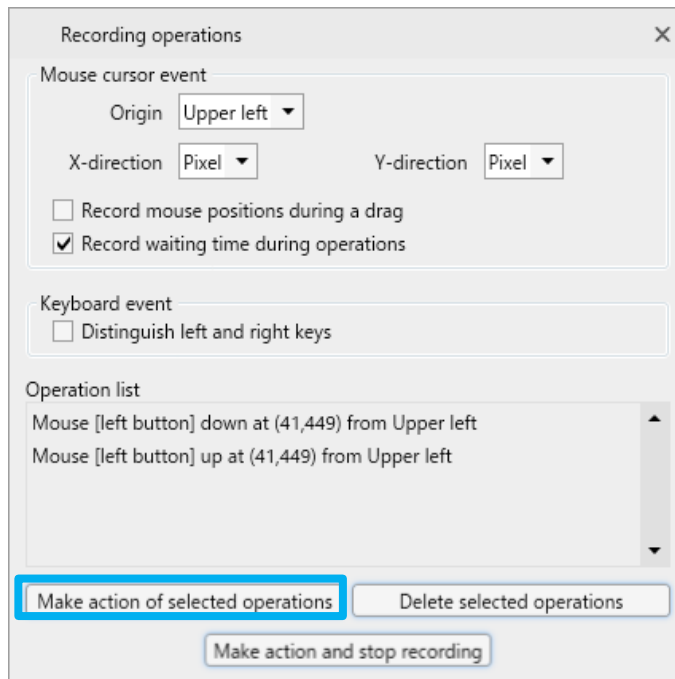
7. Click a button on the calculator.



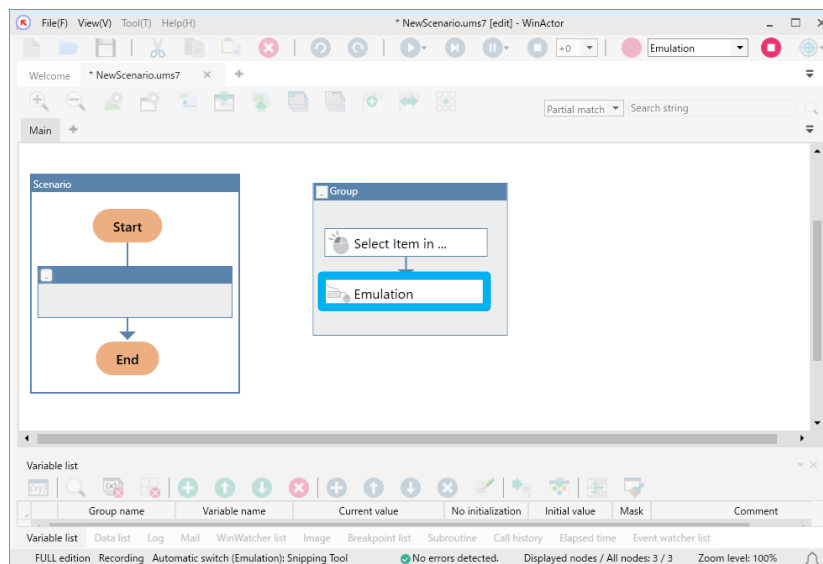
The operations of clicking the button of the calculator are recorded in 'Operation list.'



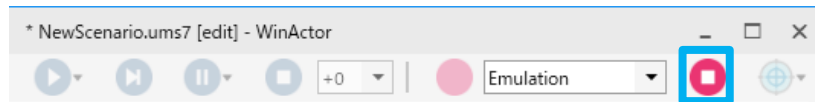
8. Click 'Make action of selected operations.'



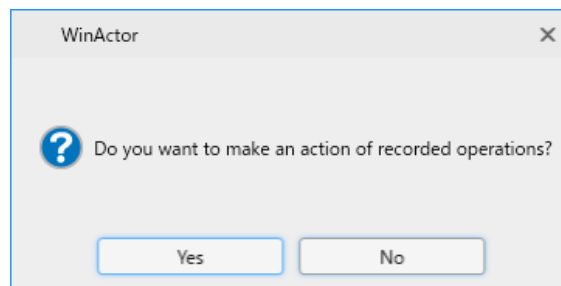
The operations registered in 'Operation list' are recorded in the flowchart area.



9. Stop recording.



In the Automatic switch mode, the confirmation dialog is displayed when the target window for recording 'Emulation mode' operations is changed without making the action of the operations.



When 'Yes' is clicked, the target window for recording is changed with making the action of the operations. When 'No' is clicked, the action of the operations is not made.

When the recording mode is manually changed without switching the target window for recording, the action of the operations is not made, too. Be careful.

1.9.12 Cases where operations cannot be recorded

If operations cannot be recorded, check whether the following cases apply.

■ Administrator privileges

If the application for which operations are to be recorded is launched with administrator privileges, the operations cannot be recorded in WinActor. If the application can be launched without administrator privileges, launch it without administrator privileges before recording the operations.

If the application for which operations are to be recorded can only be launched with administrator privileges, launching WinActor with administrator privileges may help.

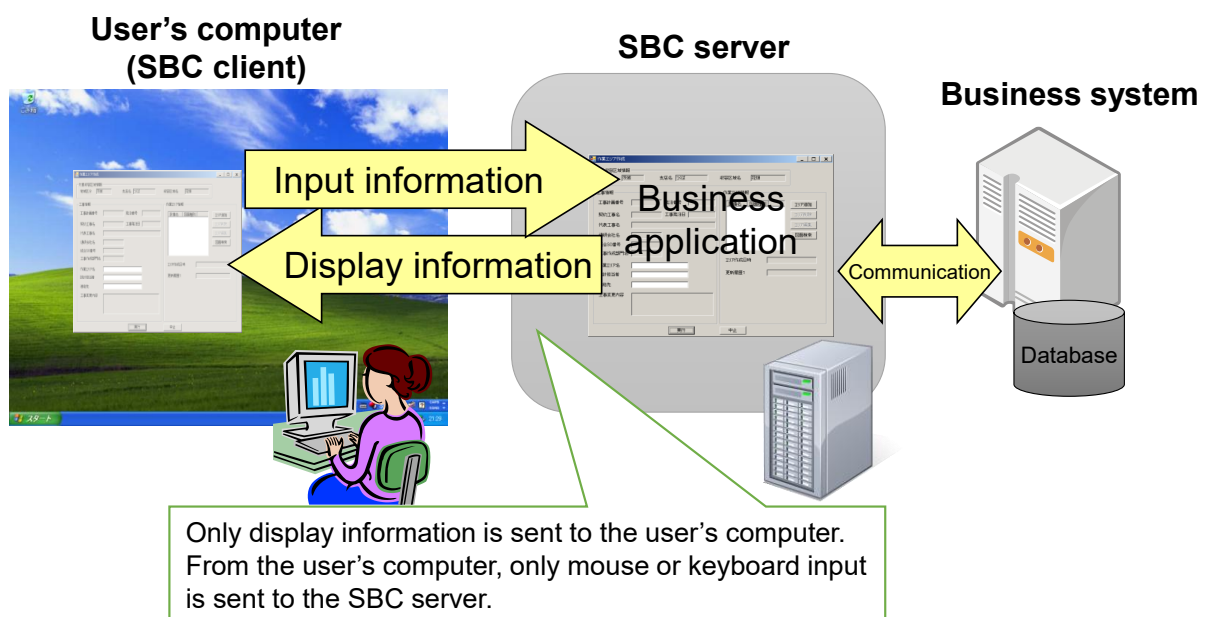
■ Protected Mode

If Protected Mode is enabled for the application for which operations are to be recorded, the operations cannot be recorded in WinActor. Disable Protected Mode before recording the operations. Applications that can be set to Protected Mode include IE mode in Microsoft Edge and Adobe Acrobat Reader.

■ Emulation and Image Matching

For applications such as Java, Remote Desktop, SBC Client, input operations and click operations cannot be recorded in the Event mode, the IE mode, nor other such modes. In this case, record operations by combining the Emulation mode and 'Image Matching' of the Image-oriented interface.

Figure 1-9 Image of SBC environment



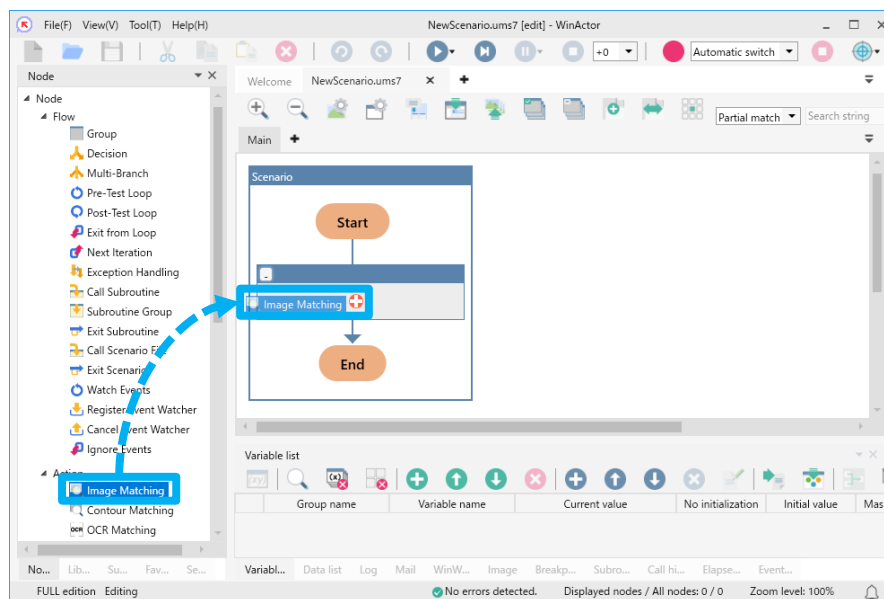
1.10 Creating a Scenario

FULL

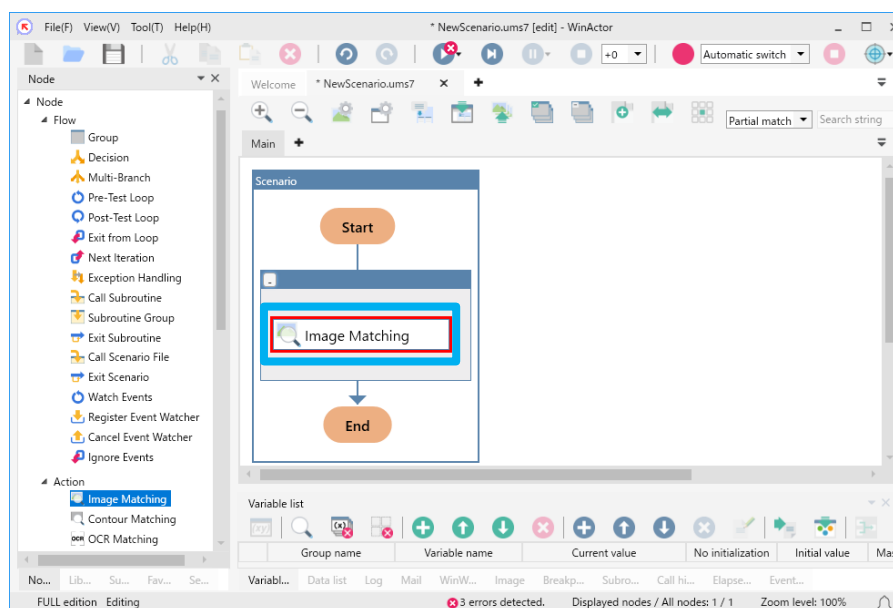
In WinActor, a scenario can be created by dragging and dropping nodes and libraries from the Node palette and the Library palette to the flowchart area.

Steps

1. Drag a node or library from the Node palette or Library palette.
As the node or library approaches the flowchart, the planned drop location in the flowchart will be indicated by a red plus icon .

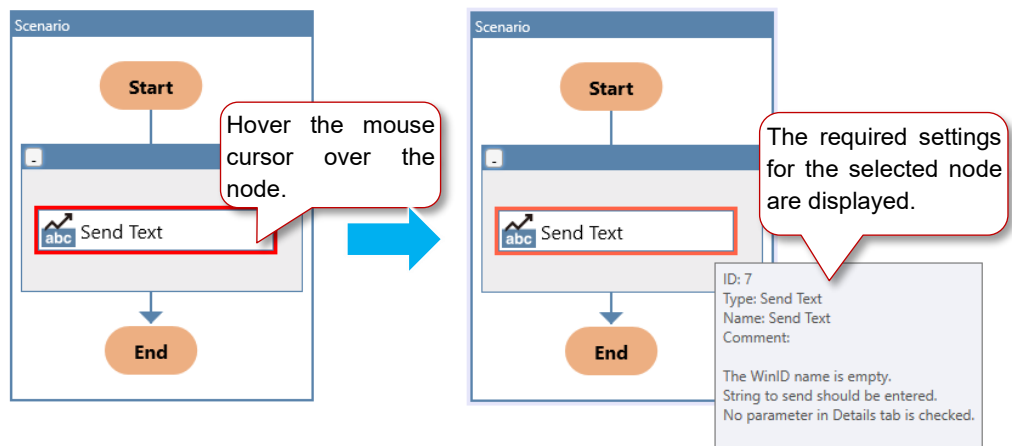


2. When dropped, the node will be placed where the red plus icon is.



A node with items required to be set is displayed with a red frame as shown in Figure 1-10. You can check the required settings for the node by hovering the mouse cursor over the node.

Figure 1-10 Checking the required settings for the node



1.11 Editing a Scenario

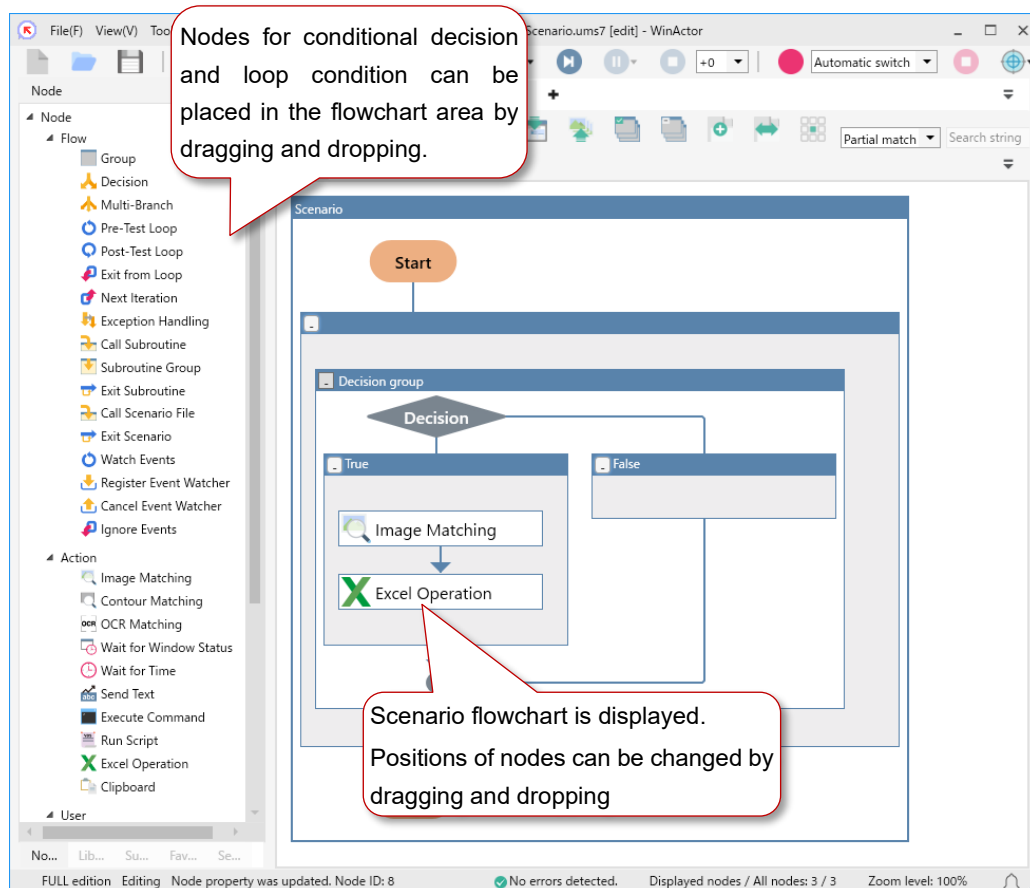
FULL

A scenario can be edited to set operation conditions for the scenario. For example, the following settings can be made by editing the scenario.

- Setting for a conditional decision or loop condition for recorded operations
- Setting for a location to link with data on Excel in the data input operation
- Setting for a timing to load data and start data input
- Setting for a behavior when an error occurs

These settings can be made on the flowchart window. Editing can be performed by drag and drop operations and click operations.

Figure 1-11 Flowchart window to edit a scenario

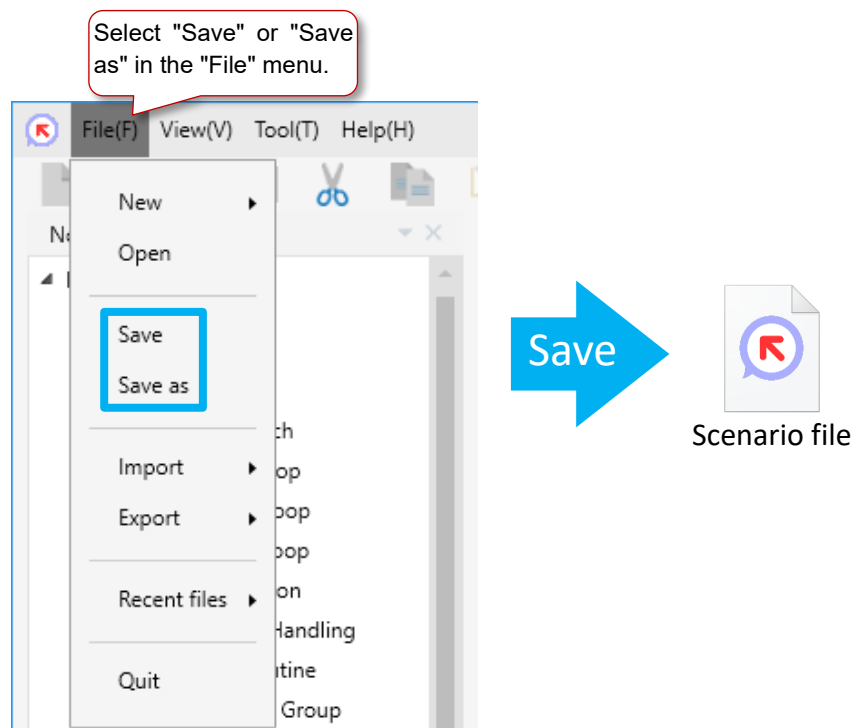


1.12 Saving a Scenario

FULL

A scenario can be saved as a file.

Figure 1-12 Menu to save a scenario

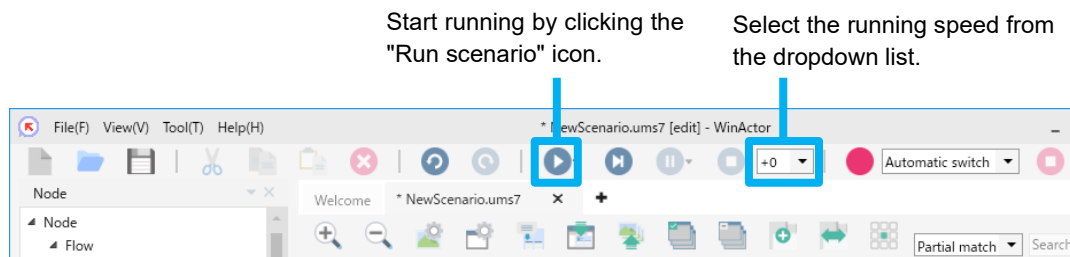


1.13 Running a Scenario

A scenario can be run by loading a scenario and input-data files and clicking the 'Run scenario' icon on the toolbar.

The speed at which a scenario is run can be adjusted in the range of '+0' to '+10.'

Figure 1-13 Running a scenario

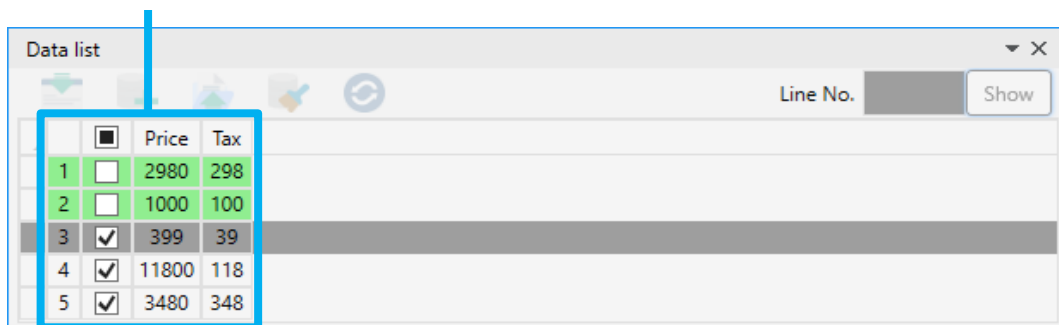


As input of a scenario, the table data of Excel file can be loaded in the 'Data List' tab pane. When the scenario is run, the rows of data in the data list are read one by one as input, and the process will be repeated for the number of rows.

»» For details, see "3.9.2 Data list tab pane" and "5.4.8 Run loop."

Figure 1-14 Data List tab pane

The data being loaded is displayed in gray, and the data loaded is displayed in green.



While running a scenario, the next node to be executed in the flowchart is highlighted with a blue frame. The progress of execution is displayed in the 'Log' tab pane.

Figure 1-15 Flowchart while running a scenario

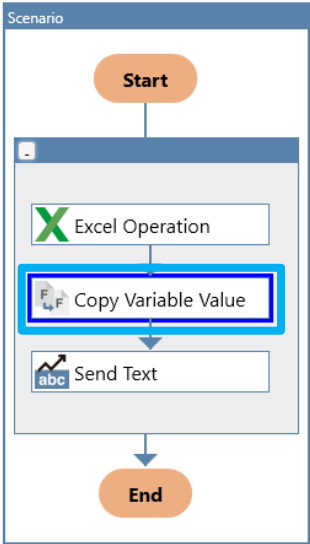
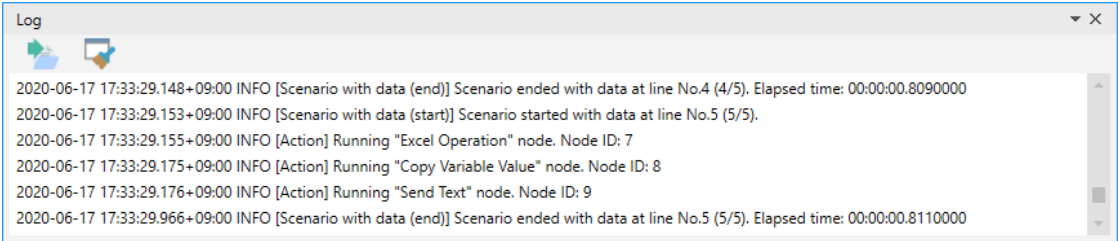


Figure 1-16 Log tab pane



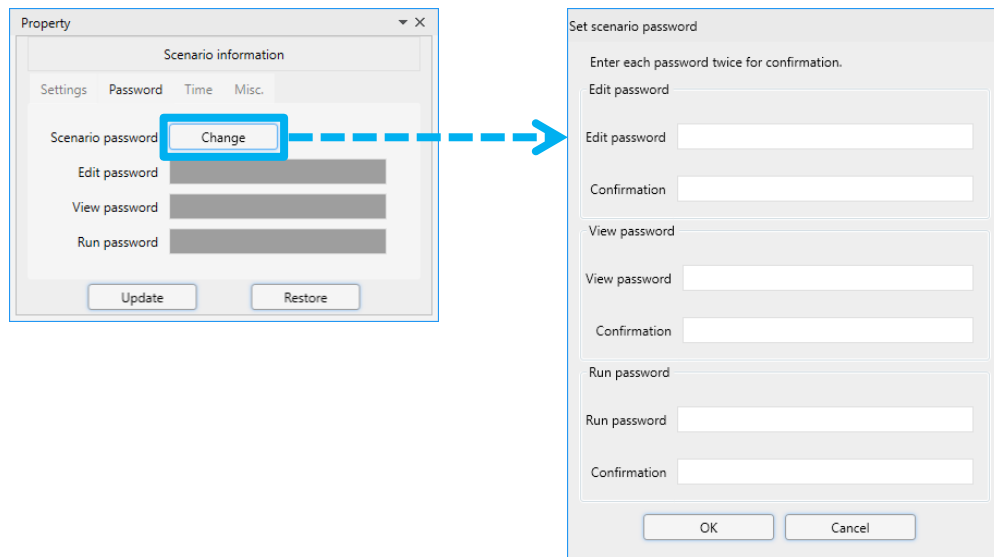
1.14 Security Mode by Setting Scenario Password

In WinActor, the operations of editing, viewing, and running a scenario can be restricted by setting the scenario password for a created scenario file. The scenario password includes 'Edit password,' 'View password,' and 'Run password.'

The scenario password can be set in the 'Scenario information' window for each scenario. Click the 'Change' button in the 'Password' tab of the 'Scenario information' window to display the 'Set scenario password' window.

 For the scenario password, see "3.8.2 Password tab."

Figure 1-17 How to set the scenario password



1.14.1 Requirements for a password

- The password should be between 8 and 64 characters.

 For the characters that can be used for the password, see "7.5 Usable Characters for Password."

- The same password cannot be set for 'Edit password,' 'View password,' and 'Run password.'
- In 'Confirmation' of each password, the same password as each password should be entered.

1.14.2 Patterns of scenario password settings

The table below shows the patterns of scenario password settings.

Table 1-15 Patterns of scenario password settings

	(1)	(2)	(3)	(4)	(5)
Edit password	Not set	Set	Set	Set	Set
View password	Not set	Not set	Set	Set	Not set
Run scenario	Not set	Not set	Not set	Set	Set

(1) Pattern 1

No password has been set. The user is not prompted for the password when opening the scenario. The user can edit, view, and run the scenario after opening it.

(2) Pattern 2

The user is prompted for the password when opening the scenario. The user can edit, view, and run the scenario after opening it. If the user cancels the password entry, the user cannot edit the scenario but can view and run the scenario.

(3) Pattern 3

The user is prompted for the password when opening the scenario. If the user enters the Edit password, the user can edit, view, and run the scenario after opening it. If the user enters the View password, the user cannot edit the scenario but can view and run the scenario. If the user cancels the password entry, the user cannot edit or view the scenario but can only run the scenario.

(4) Pattern 4

The user is required to enter one of the Edit password, View password, and Run password. If the user enters the Edit password, the user can edit, view, and run the scenario. If the user enters the View password, the user cannot edit the scenario but can view and run the scenario. If the user enters the Run password, the user cannot edit or view the scenario but can only run the scenario.

(5) Pattern 5

The user is required to enter either the Edit password or the Run password. If the user enters the Edit password, the user can edit, view, and run the scenario. If the user enters the Run password, the user cannot edit or view the scenario but can only run the scenario.

1.14.3 Security modes

The table below shows the overview of the security modes of WinActor.

Table 1-16 Overview of the security modes

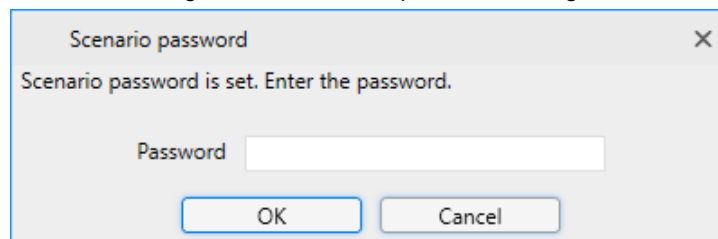
Security mode	Description
Edit mode	All operations of recording, editing, saving, and running are available.
View mode	Operations of recording, editing, and saving are not available. Operations of viewing the contents and property settings of a scenario, and running a scenario are available. Although, the 'Breakpoint list' tab pane in the Function Area is not displayed, and the 'Partial run' and the 'Run from here' cannot be used.
Run mode	Operations of recording, editing, and saving are not available. Only the operation of running a scenario stored in the scenario file is available. Thus, only the 'Data List,' 'Log,' and 'Mail' tab pane in the Function area, and buttons for running a scenario on the toolbar are operational.

1.14.4 Scenario password and security mode (FULL edition)

If the license type of edition is the FULL edition, the 'Scenario password' dialog will be displayed when opening a scenario for which the scenario password has been set.

When opening a scenario with the same password as the one set to the scenario used just before opening it, the 'Scenario password' dialog will not be displayed.

Figure 1-18 'Scenario password' dialog



The security mode switches depending on the password entered in the 'Scenario password' dialog.

Table 1-17 Scenario password setting patterns and security modes

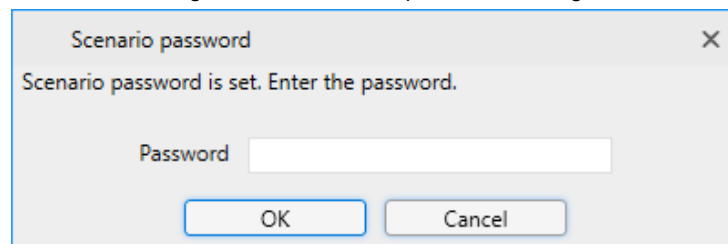
	1	2	3	4	5
Edit password	Not set	Set	Set	Set	Set
View password	Not set	Not set	Set	Set	Not set
Run password	Not set	Not set	Not set	Set	Set
When entering the Edit password	Scenario password dialog is not displayed	Edit mode	Edit mode	Edit mode	Edit mode
When entering the View password		-	View mode	View mode	-
When entering the Run password		-	-	Run mode	Run mode
When cancelling the scenario password entry		View mode	Run mode	Not open	Not open
Other	Edit mode at all times	-	-	-	-

1.14.5 Scenario password and security mode (RUN edition)

If the license type of edition is the RUN edition, the 'Scenario password' dialog will be displayed when opening a scenario for which the 'View password' and/or 'Run password' is set.

When opening a scenario with the same password as the one set to the scenario used just before opening it, the 'Scenario password' dialog will not be displayed.

Figure 1-19 'Scenario password' dialog



The security mode switches depending on the password entered in the 'Scenario password' dialog.

Table 1-18 Scenario password setting patterns and security modes

Case	1	2	3	4	5
Edit password	Not set	Set	Set	Set	Set
View password	Not set	Not set	Set	Set	Not set
Run password	Not set	Not set	Not set	Set	Set
When entering the Edit password	Scenario password dialog is not displayed		Error	Error	Error
When entering the View password			View mode	View mode	—
When entering the Run password			—	Run mode	Run mode
When cancelling the scenario password entry			Run mode	Not open	Not open
Other	View mode at all times		—	—	—



When entering the Edit password in the RUN edition, the message "Scenario password is incorrect." appears and the scenario file cannot be opened. Enter the View password or Run password.

1.15 Date Format and Time Zone

The table below shows the date format and time zone to be set on the WinActor 'Option' dialog and "Scenario information" window.

Table 1-19 Date format and time zone

No.	Item		Usage
(1)	'Option' dialog	Date format	• Displayed on the 'About WinActor' dialog • License expiration date • License expiration date and evaluation period displayed on the "Scenario information" window • Mail reception
(2)		Date format (log)	• Displayed and output in the scenario execution log • Added to a filename to split when "Split logs by date 1" is executed for writing execution logs to a file. * If the format with "/" is selected, it will be with "/" excluded.
(3)		Time zone	• License authentication • Scenario expiration date and evaluation period • Execution log • Mail reception
(4)	"Scenario information" window	Date format	• "Get Date and Time" node • "Wait for Time" node • Database • "Copy Mail Information" node • "Get Mail Information" node
(5)		Time zone	• "Get Date and Time" node • "Wait for Time" node • Database • "Copy Mail Information" node • "Get Mail Information" node



With the date data loaded by linking with a database, if the date format and/or time zone on the "Scenario information" window is changed, the changed date format and/or time zone will also be applied to the date data in the "Data list" pane.

1.16 Linkage with Management Server

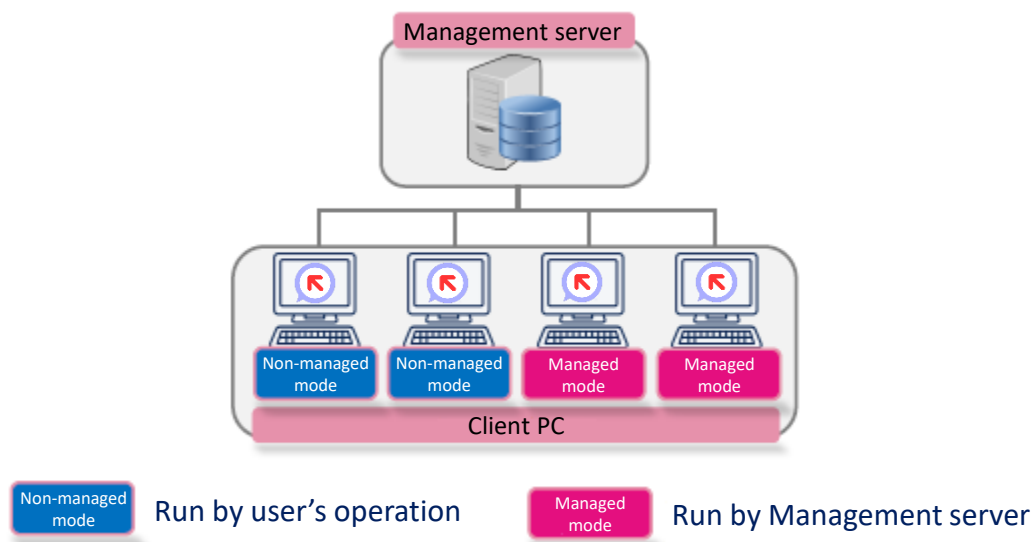
In WinActor, "Managed mode" that runs a scenario according to the instruction from the management server can be used by setting a linkage with the management server.

In the Managed mode, users cannot perform edit and run operations on WinActor.

WinActor in the Managed mode runs a scenario according to the instruction from the management server.

To use the Managed mode, a management server construction or contract is required.

Figure 1-20 Example of a linkage with the management server



To turn on the Managed mode, click 'Tool' > 'Option' on the menu bar to display the 'Option' dialog.

In the "Management server" tab, check the box of "Operated by Management server" and set the server information.

>> For details of the "Management server" tab, see "Management server tab" in "3.14 Option Dialog."

Table 1-20 Managed mode

Checkbox of "Operated by Management server"	Mode
Checked	Managed mode ON
Unchecked	Managed mode OFF

1.17 Translation Function

WinActor has a translation function that aims to operate scenarios created in a specific language environment such as Japanese environment without modification in other language environments.

For example, the window title of Notepad in Windows is "メモ帳" in Japanese environment, but it changes to "Notepad" in English environment.

If a scenario that operates an application whose window title changes as described above is run, WinActor may not be able to find the application because the window title is different, and it may not be able to run the scenario.

The translation function performs a "window title translation processing" that automatically translates those window titles included in a scenario.

By performing the window title translation processing when running a scenario, WinActor prevents the scenario run from failing due to the window title change depending on the language environment.

The languages supported by the translation function are Japanese and English (US).

The language before translation is determined by the Windows language environment at the time of scenario creation as shown in "Table 1-21 Language determination rule" below.

It cannot be changed.

Table 1-21 Language determination rule

Language in Windows	Language before/after translation
Japanese	Japanese
English (US)	English (US)
English (exc. US)	English (US)
Other than the above	English (US)

The initial value of language after translation is also determined by the rule in "Table 1-21 Language determination rule" depending on the Windows language environment when the scenario is run.

The language after translation can be changed in the 'Option' dialog.

■ Translation dictionaries

The translation function has translation dictionaries for window title translation processing.

The translation dictionaries consist of multiple translation rules.

Each of translation rule is a set of window title strings in different languages.

The following shows some examples of strings in the translation dictionaries.

Table 1-22 Example of strings in the translation dictionaries

Japanese	English
電卓	Calculator
メモ帳	Notepad
ワードパッド	WordPad
ペイント 3D	Paint 3D
ペイント	Paint
無題	Untitled

There are two types of translation dictionaries: "System translation dictionary" and "User translation dictionary."

Both translation dictionaries are applied to the window title translation processing.

Table 1-23 Types of translation dictionaries

Type	Description
System translation dictionary	It is a translation dictionary provided in WinActor. It cannot be changed. It can be used in all scenarios.
User translation dictionary	It is a translation dictionary that users can define for each scenario. It is defined by the user importing a CSV file when editing a scenario, and it is associated with that scenario. Once defined, it is saved and loaded with the scenario. The number of translation rules per scenario is up to 100.  For how to import the user translation dictionary, see "Import > Translation dictionary (CSV)." Whether or not to use the user translation dictionary for window title translation when running a scenario can be set on the "Scenario information" window.  For details, see "3.8.5 Misc. tab."

■ Window title translation processing

In the window title translation processing, when a scenario is run, the window title string included in the scenario is compared with the translation dictionaries, and the window title is translated into a string in another language according to the matched translation rules.

The language after translation can be specified in the 'Option' dialog.

The window title translation will be processed only when the language environment at the time of scenario creation and the specified language environment are different. If the languages are the same, the translation will not be processed.

 For how to specify a language after translation, see "Run tab."

The string of the window title and the translation rules in the translation dictionaries are compared with a partial match.

For example, the translation rule "メモ帳, Notepad" partially matches the window title "無題 - メモ帳," and the window title is translated to "無題 – Notepad." If there is the translation rule "無題, Untitled," it will be further translated to "Untitled – Notepad."

If there are multiple matched translation rules, the rule with the longer string will be applied.

For example, the two translation rules "ワード, Word" and "ワードパッド, WordPad" both match the window title "ワードパッド," but the translation rule with the longer string "ワードパッド, WordPad" is applied.

The window title translation processing applies the user translation dictionary with priority over the system translation dictionary.

If the system translation dictionary and the user translation dictionary have the same string translation rule, the rule of the user translation dictionary will be applied. In this case, if the string after translation in the user translation dictionary is an empty string, the translation will not be processed. Specify an empty string to make a certain definition in the system translation dictionary invalidated.

The window title translation processing when running a scenario can be enabled/disabled in the 'Option' dialog.

 For the setting methods, see "Run tab."

1.18 WinActor Scenario Script

WinActor Scenario Script (hereinafter referred to as "WSS") is a programming language that enables users to edit scenarios with a text editor and manage differences in scenarios.

Advanced WinActor users can create scenarios programmatically rather than in a GUI.

This section describes how to handle "WSS-enabled" scenarios.

For WSS programming language specifications, see "Programming Language WinActor Scenario Script."

1.18.1 Standard scenario and WSS-enabled scenario

There are two types of scenarios handled by WinActor: "Standard scenario" from WinActor Ver.6 or earlier, and "WSS-enabled scenario" written in WSS.

"Standard scenario" has a filename extension ".ums7."

"WSS-enabled scenario" consists of two files, a text-formatted program file (extension .wss7) and a binary data file (extension .uss7).

The wss7 and uss7 files are always used as a set. As a general rule, it is not used by only one of them.

The scenario creator of WSS-enabled scenario can create a scenario by combining the following two editing methods:

- Edit a wss7 file in a text editor
- Edit in the flowchart area of WinActor.

In WinActor, specify a uss7 file when saving a WSS-enabled scenario in a file or loading it from a file. If a uss7 file is specified, a wss7 file will also be saved or loaded with the uss7 file.

WinActor can save a WSS-enabled scenario as a ums7 file, in other words, a WSS-enabled scenario can be converted to a standard scenario. However, note that a standard scenario cannot be converted to a WSS-enabled scenario. WinActor cannot load a ums7 file into a WSS-enabled scenario and cannot convert a ums7 file to a wss7 or uss7 file.

The differences between a standard scenario and a WSS-enabled scenario are as follows.

Table 1-24 Differences between a standard scenario and a WSS-enabled scenario

Operation	Standard scenario	WSS-enabled scenario
Editing with a text editor	×	○
Editing on WinActor	○	○
Running on WinActor	○	○
File extension	.ums7	.wss7 and .uss7
Loading a standard scenario file (.ums7)	○	×
Loading a WSS-enabled scenario file (.wss7, .uss7)	×	○
Saving as a standard scenario file (.ums7)	○	○
Saving as a WSS-enabled scenario file (.wss7, .uss7)	×	○
Importing a standard scenario file	○	×
Importing a WSS-enabled scenario file	×	×
Copying components from a standard scenario	○	×
Copying components from a WSS-enabled scenario	○	○

1.18.2 Saving and loading a WSS-enabled scenario

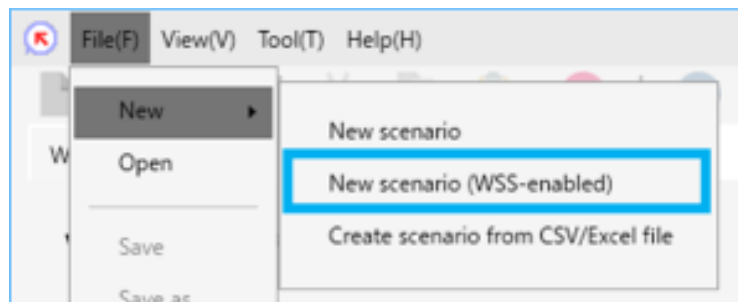
■ Creating a new WSS-enabled scenario

FULL

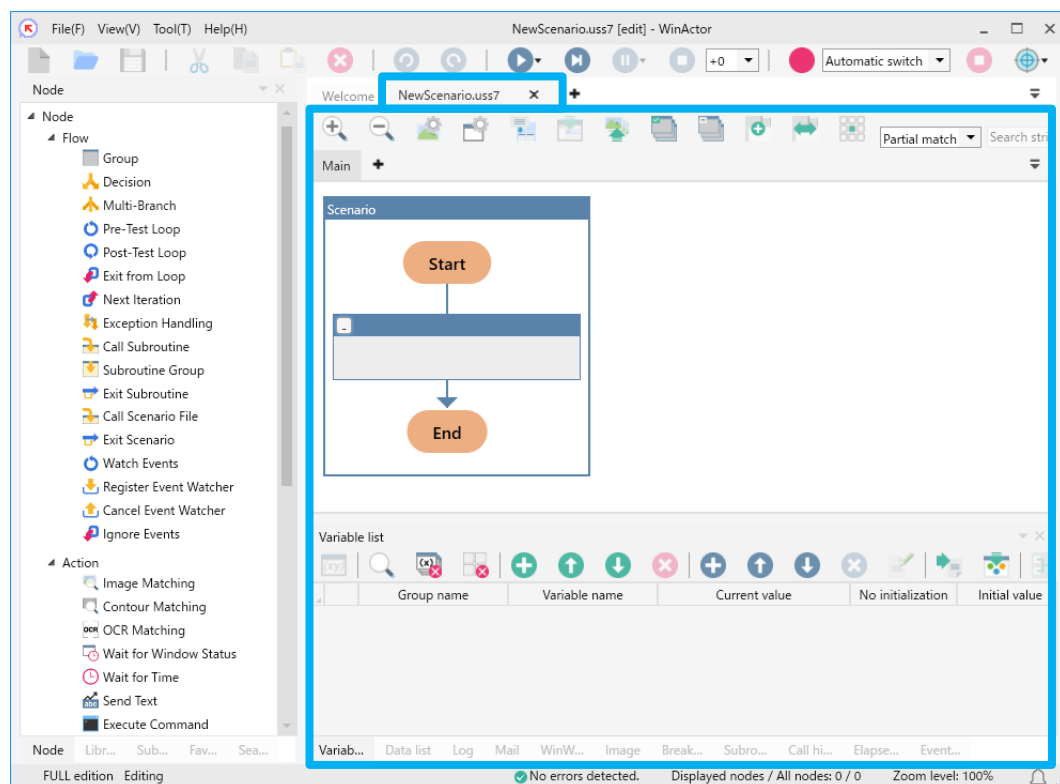
To create a new WSS-enabled scenario, use 'New scenario (WSS-enabled)' in the "File" menu.

Steps

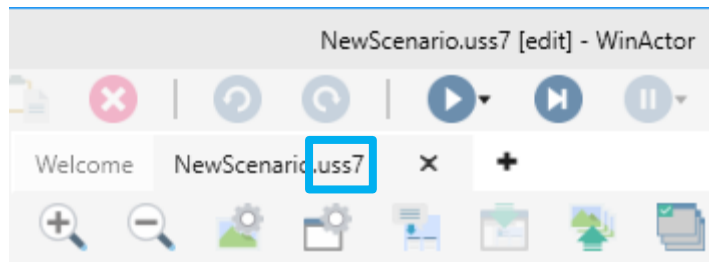
1. Click 'File' > 'New' > 'New scenario (WSS-enabled).'



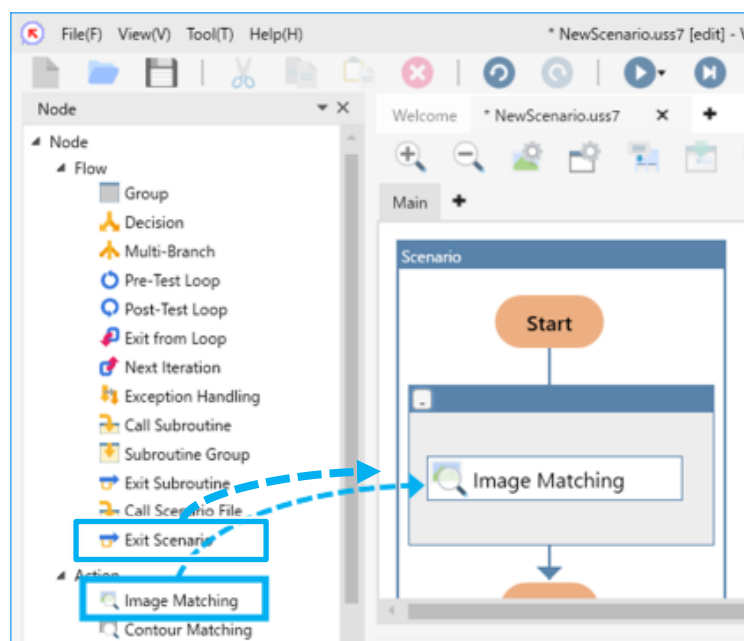
'WSS-enabled scenario' is added as a new tab for switching scenarios.



The filename of the WSS-enabled scenario displayed on the tab has an extension .uss7.



As with the standard scenario, the WSS-enabled scenario can be edited in the flowchart area and run with the 'Run scenario' button.

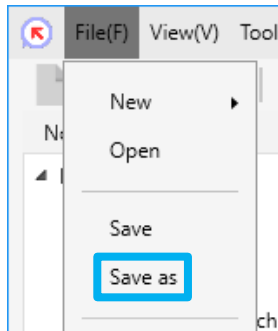


■ Saving as a WSS-enabled scenario

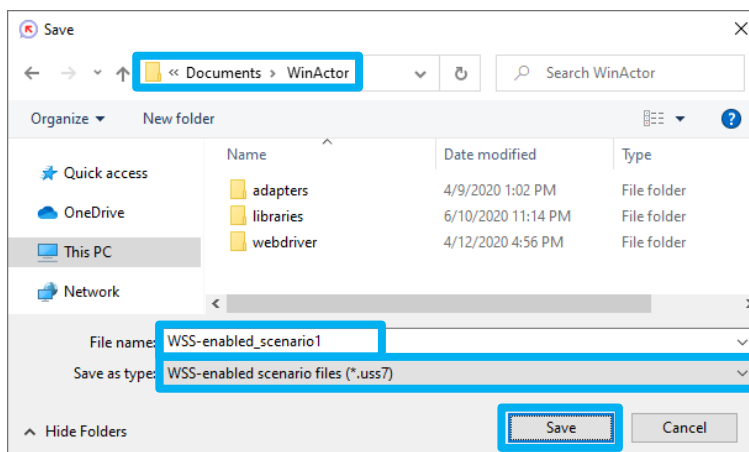
FULL

Steps

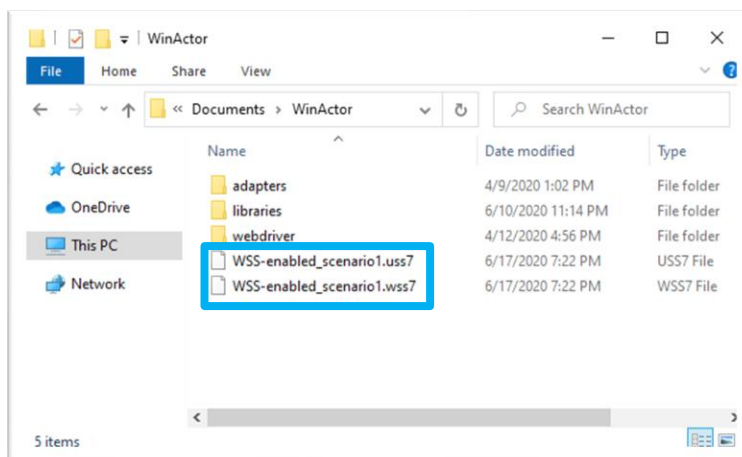
1. Click 'File' > 'Save as.'



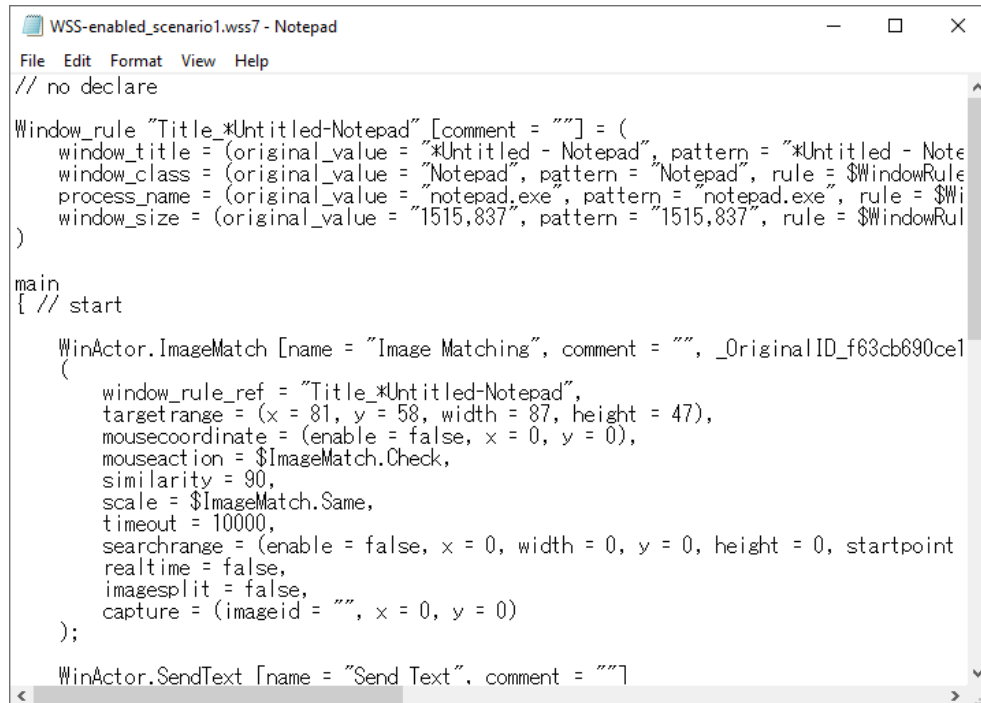
2. Select a folder to save the scenario and 'WSS-enabled scenario files (*.uss7)' for 'Save as type,' enter a filename, and click the 'Save' button.



Two types of files with extensions '.uss7' and '.wss7' are saved.



3. Open the 'WSS-enabled scenario' file with the extension .wss7 in any editor for programming.

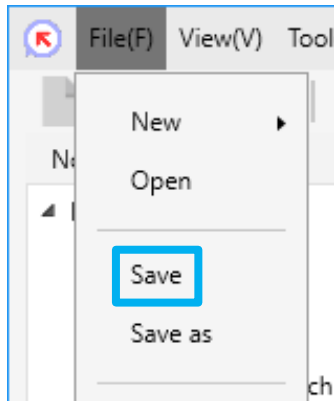
A screenshot of a Notepad window titled "WSS-enabled_scenario1.wss7 - Notepad". The window contains a script for a WSS-enabled scenario. The script starts with a comment "// no declare". It defines a "Window_rule" for "Title_?Untitled-Notepad" with a comment of "". The rule specifies window_title, window_class, process_name, and window_size. The "main" block starts with a comment "{ // start". It contains a "WinActor.ImageMatch" action with a name of "Image Matching", a comment of "", and a _OriginalID of "f63cb690ce1". The action parameters include window_rule_ref, targetrange, mousecoordinate, mouseaction, similarity, scale, timeout, searchrange, realtime, imagesplit, and capture. The script ends with a "WinActor.SendText" action with a name of "Send Text" and a comment of "".

■ Saving a WSS-enabled scenario

FULL

Steps

1. Click 'File' > 'Save.'

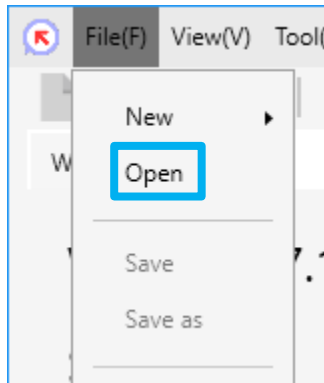


The 'WSS-enabled scenario' file is overwritten.

■ Opening a WSS-enabled scenario

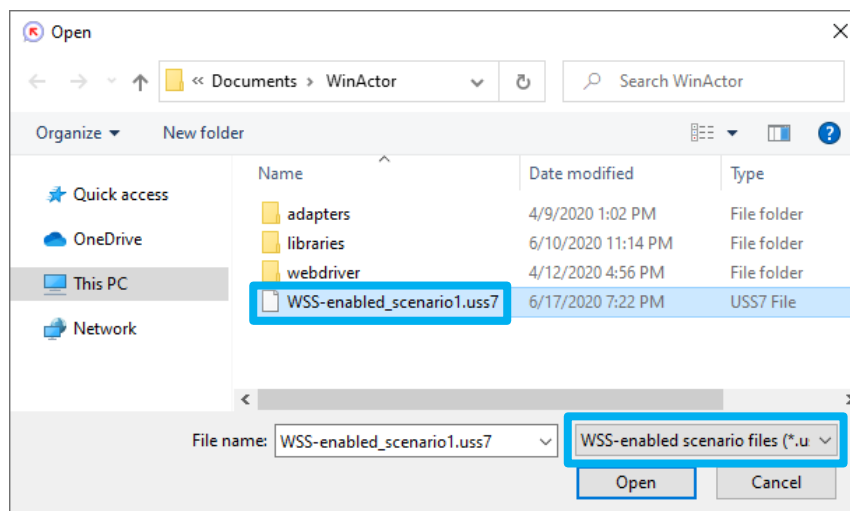
Steps

1. Click 'File' > 'Open.'



The 'Open' window appears.

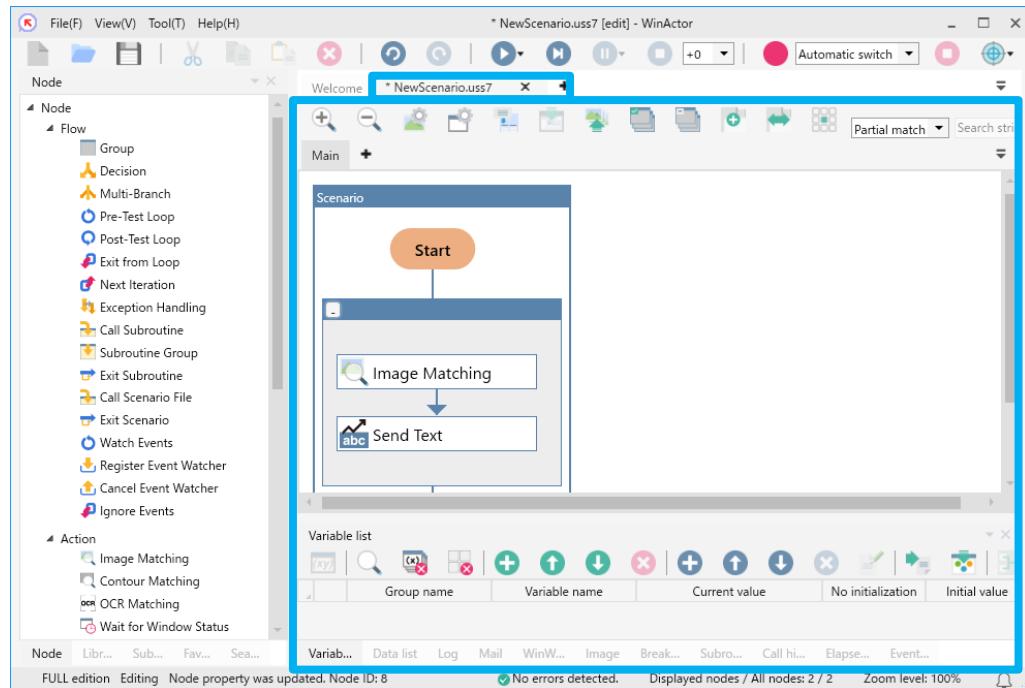
2. Select 'WSS-enabled scenario files (*.uss7)' as a file type and a WSS-enabled scenario file (with the extension .uss7) for the File name, and click the 'Open' button.



Two files, the selected WSS-enabled scenario file (with the extension uss7) and the file with the same name with the extension .wss7, are loaded from the same folder.

The .wss7 file is compiled and is linked with the contents of the .uss7 file.

The linked scenario will be displayed in a new tab on the flowchart window.



The extension of the filename written on the tab is .uss7, and it can be confirmed that it is the WSS-enabled scenario.

If an error is detected at compile time, an error dialog will be displayed and loading will be canceled.

If a warning is detected at compile time, a warning dialog will be displayed but loading will continue.

If the .wss7 file cannot be loaded due to an error such as a compilation error, delete the .wss7 file and load only the .uss7 file.

In this case, the scenario at the time it was saved will be restored from the data saved in the .uss7 file.

■ Notes on saving a WSS-enabled scenario and its reproducibility

WSS is designed to describe the behavior of WinActor.

As a result, the structure of nodes and flowcharts in a scenario may not be accurately reproduced when loaded.

For example, even if a WSS-enabled scenario is saved and loaded as it is, a flowchart with a different node and flowchart structure in the scenario may be displayed.

This is because it was optimized in compilation when loaded and the flowchart was modified. (Example 1)

Also, if a scenario with an error is saved, an error may be detected during loading and it may not be loaded. (Example 2)

In this case, the scenario can be loaded by deleting the .wss7 file and then loading the .uss7 file.



(Example 1) Independent Four Arithmetic Operations node: The Four Arithmetic Operations nodes that do not affect the result may be omitted.

(Example 2) In the case of a scenario where there is an error in a node in the variable category ('Set Variable Value,' 'Copy Variable Value,' 'Get Date and Time,' 'Get Username,' 'Four Arithmetic Operations,' 'Count Up'), it may not be loaded even it can be saved.

1.19 Functions for Disabling the Screen Saver

You can use the functions for disabling the screen saver to prevent the screen saver from being activated while running a scenario, or to disable the screen saver that is already activated when running a scenario.

In WinActor that utilizes screen transition, if the screen saver is activated and the screen is hidden, scenario execution may be hindered.

However, by using the functions for disabling the screen saver, the screen saver is disabled and the scenario can be run smoothly even if the user does not touch the key for a long time or the scenario is run using the Managed RUN mode in an environment where there is no user.

1.19.1 Settings for disabling the screen saver

The settings for disabling the screen saver can be configured on the Screen saver tab of the Option dialog.

In the Option dialog, you can set the functions (1) and (2) in the table below for disabling the screen saver.

If a password is required to unlock the screen saver, set a password in (3).

Table 1-25 Settings for disabling the screen saver

No.	Item	Description
(1)	Disable the screen saver while running a scenario	Suppresses the activation of the screen saver while running a scenario. The screen saver will not be turned on while running a scenario.
(2)	Cancel the screen saver when running a scenario	The screen saver will be automatically disabled if the screen saver is already activated when you start running a scenario, or if the screen saver is activated while running a scenario.
(3)	Password	When you select (2)'Cancel the screen saver when running a scenario,' enter a password to unlock the screen saver.



For the specific setting method, see "Screen saver tab" on the Option dialog.



To use the functions for disabling the screen saver, the virtual keyboard driver that comes with WinActor is required to be installed.



For how to install the virtual keyboard driver, see "WinActor Installation Manual."



- The functions for disabling the screen saver cannot be used in an environment where WinActor is running via a remote desktop.
 - If the keyboard of the environment in which WinActor is running does not have Japanese or English key layouts, it may fail to unlock the screen saver with the unlock password.
-

1.20 Generate scenario template

This is a function to read a scenario template file written in Excel or CSV and convert it to a WinActor scenario.

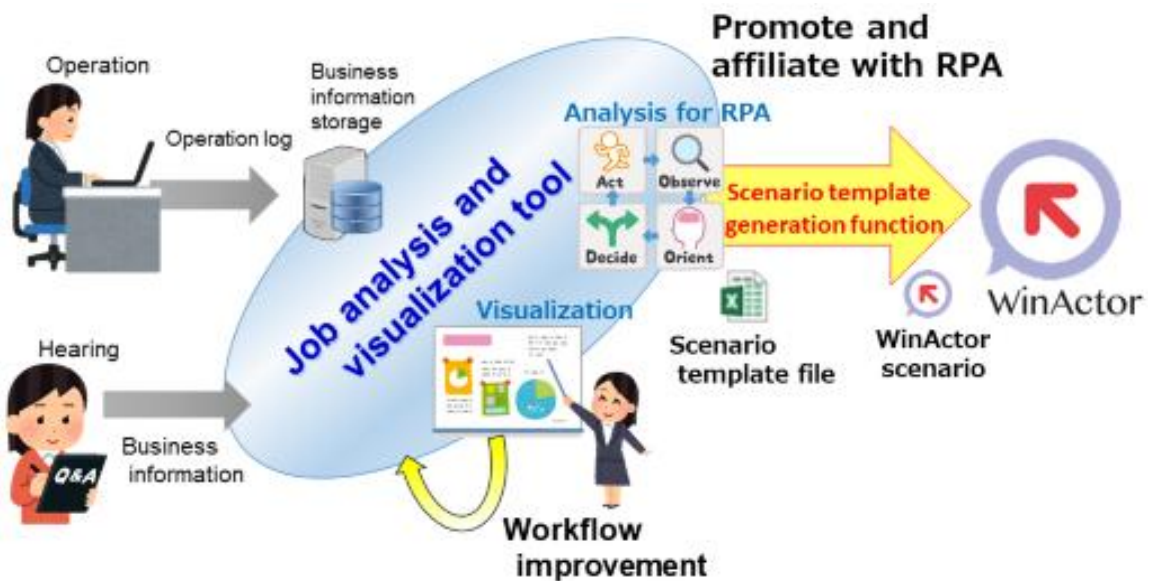
A scenario template file describes the general flow of a scenario in order, and some can be output by business analysis/visualization tools.

By generating a WinActor scenario from a scenario template file and creating detailed operations, you can improve the work efficiency of scenario creation.

This section describes how to use the function to generate a scenario template.

For the description specifications of the scenario template file, see "WinActor Scenario Template File."

Figure 1-21 Use case of the function to generate a scenario template



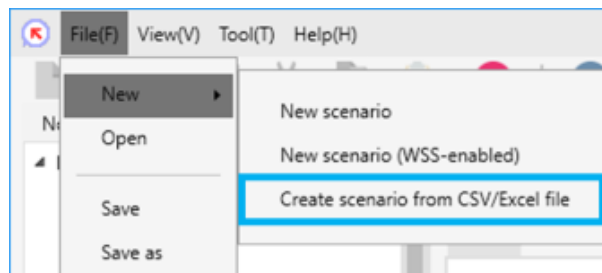
1.20.1 Reading a scenario template file

The following is the procedure for reading a scenario template file and creating a new scenario.

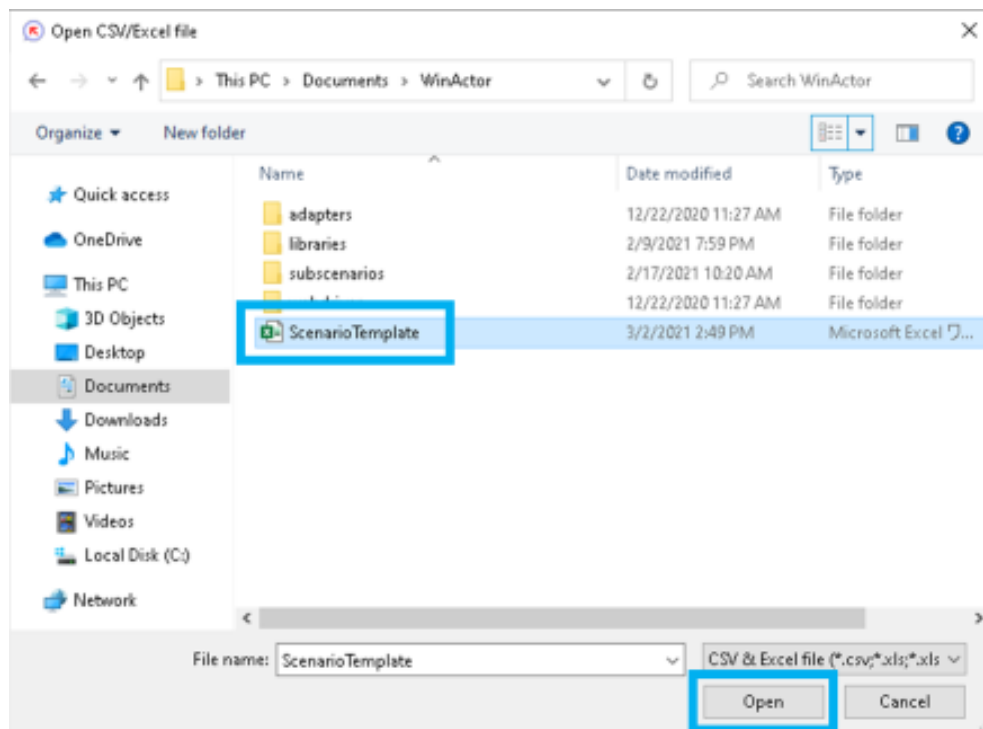
It is necessary to prepare a scenario template file according to the specifications described in "WinActor Scenario Template File" in advance.

Steps

1. Click the "File" menu and select 'New' > 'Create scenario from CSV/Excel file.'



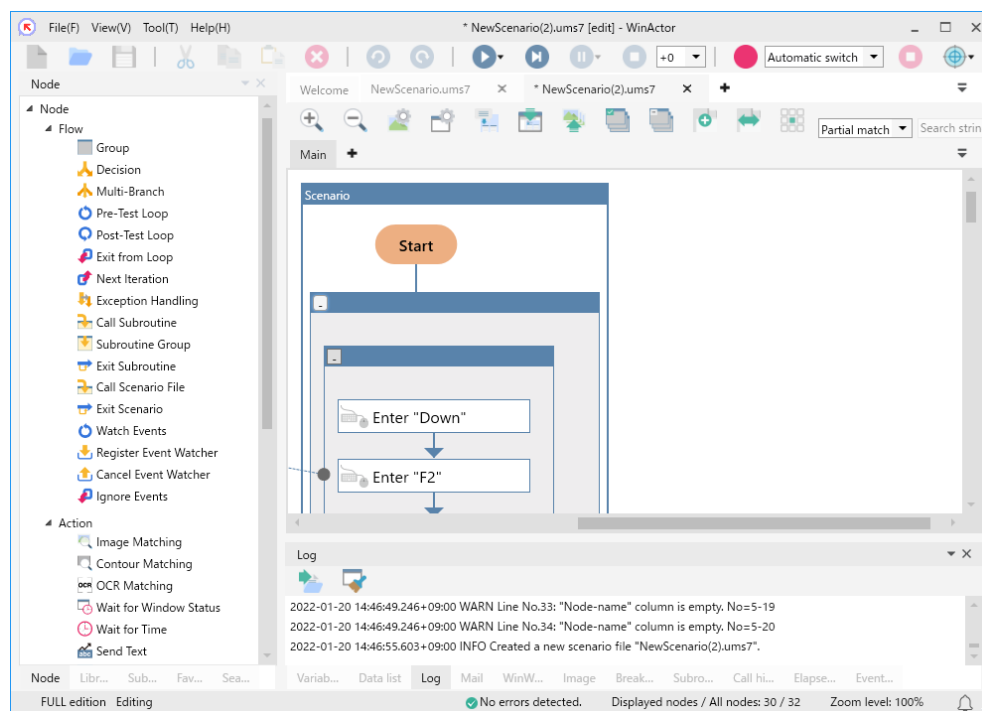
2. The 'Open CSV/Excel file' window appears.
Select a scenario template file and click the 'Open' button.



3. The 'Preview' window appears.
Click the 'Create scenario' button.

No	Node-name	Comment	Sticky-note	Event-type	Application	Window-title	Param1	Param2	Param3	Param4	Param5
1	"OrderSlip.csv - E	Chart 5 No.1	"Exception handl	Group							
1-1	Enter "Down"	Chart 5 No.3		Keyboard	EXCEL	OrderSlip.csv - E>	Down				
1-2	Enter "F2"	Chart 5 No.4		Keyboard	EXCEL	OrderSlip.csv - E>	F2				
1-3	Enter "Shift+Up"	Chart 5 No.5	The column C co	Keyboard	EXCEL	OrderSlip.csv - E>	Up	Shift			
1-4	Copy "25000001"	Chart 5 No.6		Copy	EXCEL	OrderSlip.csv - E>					
1-5	Copy "25000001"	Chart 5 No.6-2	Copying in the E	Copy	EXCEL	OrderSlip.csv - E>	a.xlsx	Sheet1	A1		
2	"Slip manager"	Chart 5 No.7		Group							
2-1	Enter "Ctrl+V"	Chart 5 No.9		Paste	Order slip system	Slip Management					
3	"OrderSlip.csv - E	Chart 5 No.11		Group							
3-1	Left-click "B2"	Chart 5 No.13		Select	EXCEL	OrderSlip.csv - E>	a.xlsx	Sheet1	B1		
3-2	Copy "11111111"	Chart 5 No.14		Copy	EXCEL	OrderSlip.csv - E>					
4	"Slip manager"	Chart 5 No.15		Group							
4-1	Enter "Ctrl+V"	Chart 5 No.17		Paste	Order slip system	Slip Management					
5	"OrderSlip.csv - E	Chart 5 No.18		Group							
5-1	Left-click "C2"	Chart 5 No.21		Select	EXCEL	OrderSlip.csv - E>	a.xlsx	Sheet1	C2		

The contents of the 'Preview' window are converted into a scenario and displayed as a new scenario.



Logs including warnings when converting to a scenario are displayed in the Log pane.



In the scenario generated from a scenario template, the 'Restrict the number of characters for variable values' checkbox in 'Scenario information' window is unchecked.



- You can rewrite the contents on the 'Preview' window.

Preview						
No	Node-name	Comment	Sticky-note	Event-type	Application	Window-title
1		Chart S No.1	*Exception handl Warning is displa	Group		
1-1	Enter "Down"	Chart S No.3		Keyboard	EXCEL	OrderSlip.csv - Ex
1-2	Enter "F2"	Chart S No.4		Keyboard	EXCEL	OrderSlip.csv - Ex
1-3	Enter "Shift+Up"	Chart S No.5	The column C co When the colum	Keyboard	EXCEL	OrderSlip.csv - Ex
1-4	Copy "25000001"	Chart S No.6		Copy	EXCEL	OrderSlip.csv - Ex

- You can insert or delete a row by right-clicking on the 'Preview' window.

Preview						
No	Node-name	Comment	Sticky-note	Event-type	Application	Window-title
1		Chart S No.1	*Exception handl Warning is displa	Group		
1-1	Enter "Down"	Chart S No.3		Keyboard	EXCEL	OrderSlip.csv - Ex
1-2	Enter "F2"	Chart S No.4		Keyboard		erSlip.csv - Ex
1-3	Enter "Shift+Up"	Chart S No.5	The column C co When the colum	Keyboard		erSlip.csv - Ex
1-4	Copy "25000001"	Chart S No.6		Copy		erSlip.csv - Ex

- Click the 'Cancel' button on the 'Preview' window to close the 'Preview' window without creating a new scenario.



The encoding of the CSV file is automatically detected in the order of following priorities.

1. The encoding set in the 'CSV file encoding' in the Run tab of the Option dialog
2. UTF-8
3. MS932

If texts are garbled, select the correct encoding in the 'CSV file encoding.'



See "Run tab" for details of the 'CSV file encoding.'

The warning logs of reading a scenario template are showed in the 'Error list' of the 'Preview' window.

The background color of the rows corresponding to the warning logs are changed and emphasized.

Preview

No	Node-name	Comment	Sticky-note	Event-type	Application	Window-title	Param1	Param2	Param3	Param4	Param5
1		Chart S No.1	"Exception handl Warning is displa	Group							
1-1	Enter "Down"	Chart S No.3		Keyboard	EXCEL	OrderSlip.csv - Ex	Down				
1-2	Enter "F2"	Chart S No.4		Keyboard	EXCEL	OrderSlip.csv - Ex	F2				
1-3	Enter "Shift+Up"	Chart S No.5	The column C co When the colum	Keyboard	EXCEL	OrderSlip.csv - Ex	Up	Shift			
1-4	Copy "25000001"	Chart S No.6		Copy	EXCEL	OrderSlip.csv - Ex					
1-5	Copy "25000001"	Chart S No.6-2	Copying in the B It is converted to	Copy	EXCEL	OrderSlip.csv - Ex	axlsx				
2	"Slip managemer	Chart S No.7		Group							
2-1	Enter "Ctrl+V"	Chart S No.9		Paste	Order slip system	Slip Managemen					
3	"OrderSlip.csv - E	Chart S No.11		Group							
3-1	Left-click "B2"	Chart S No.13		Select	EXCEL	OrderSlip.csv - Ex	axlsx	B2			
3-2	Copy "11111111"	Chart S No.14		Copy	EXCEL	OrderSlip.csv - Ex					
4	"Slip managemer	Chart S No.15		Group							
4-1	Enter "Ctrl+V"	Chart S No.17		Paste	Order slip system	Slip Managemen					
5	"OrderSlip.csv - E	Chart S No.18		Group							
5-1	Left-click "C2"	Chart S No.21		Select	EXCEL	OrderSlip.csv - Ex	C2				

Error list

Update

Line No.6: The parameter is invalid. Check "Param3". No=1-5, Node-name=Copy "25000001"
Line No.10: The parameter is invalid. Check "Param3". No=3-1, Node-name=Left-click "B2"
Line No.15: The parameter is invalid. Check "Param3". No=5-1, Node-name=Left-click "C2"
Line No.17: The parameter is invalid. Check "Param3". No=5-3, Node-name=Left-click "D2"

Create scenario

Cancel

Double clicking a warning log will change the corresponding row to the selected state.

Preview

No	Node-name	Comment	Sticky-note	Event-type	Application	Window-title	Param1	Param2	Param3	Param4	Param5
1		Chart S No.1	"Exception handl Warning is displa	Group							
1-1	Enter "Down"	Chart S No.3		Keyboard	EXCEL	OrderSlip.csv - Ex	Down				
1-2	Enter "F2"	Chart S No.4		Keyboard	EXCEL	OrderSlip.csv - Ex	F2				
1-3	Enter "Shift+Up"	Chart S No.5	The column C co When the colum	Keyboard	EXCEL	OrderSlip.csv - Ex	Up	Shift			
1-4	Copy "25000001"	Chart S No.6		Copy	EXCEL	OrderSlip.csv - Ex					
1-5	Copy "25000001"	Chart S No.6-2	Copying in the B It is converted to	Copy	EXCEL	OrderSlip.csv - Ex	axlsx				
2	"Slip managemer	Chart S No.7		Group							
2-1	Enter "Ctrl+V"	Chart S No.9		Paste	Order slip system	Slip Managemen					
3	"OrderSlip.csv - E	Chart S No.11		Group							
3-1	Left-click "B2"	Chart S No.13		Select	EXCEL	OrderSlip.csv - Ex	axlsx	B2			
3-2	Copy "11111111"	Chart S No.14		Copy	EXCEL	OrderSlip.csv - Ex					
4	"Slip managemer	Chart S No.15		Group							
4-1	Enter "Ctrl+V"	Chart S No.17		Paste	Order slip system	Slip Managemen					
5	"OrderSlip.csv - E	Chart S No.18		Group							
5-1	Left-click "C2"	Chart S No.21		Select	EXCEL	OrderSlip.csv - Ex	C2				

Error list

Update

Line No.6: The parameter is invalid. Check "Param3". No=1-5, Node-name=Copy "25000001"
Line No.10: The parameter is invalid. Check "Param3". No=3-1, Node-name=Left-click "B2"
Line No.15: The parameter is invalid. Check "Param3". No=5-1, Node-name=Left-click "C2"
Line No.17: The parameter is invalid. Check "Param3". No=5-3, Node-name=Left-click "D2"

Create scenario

Cancel

Editing rows on the 'Preview' window activates the 'Update' button. When the 'Update' button is clicked, the 'Error list' is renewed.

Preview

No	Node-name	Comment	Sticky-note	Event-type	Application	Window-title	Param1	Param2	Param3	Param4	Param5
1		Chart S No.1	*Exception handl Warning is displa	Group							
1-1	Enter "Down"	Chart S No.3		Keyboard	EXCEL	OrderSlip.csv - Ex	Down				
1-2	Enter "F2"	Chart S No.4		Keyboard	EXCEL	OrderSlip.csv - Ex	F2				
1-3	Enter "Shift+Up"	Chart S No.5	The column C co When the colum	Keyboard	EXCEL	OrderSlip.csv - Ex	Up	Shift			
1-4	Copy "25000001"	Chart S No.6		Copy	EXCEL	OrderSlip.csv - Ex					
1-5	Copy "25000001"	Chart S No.6-2	Copying in the E It is converted to	Copy	EXCEL	OrderSlip.csv - Ex	a.xlsx				
2	"Slip managemer	Chart S No.7		Group							
2-1	Enter "Ctrl+V"	Chart S No.9		Paste	Order slip system	Slip Managemen					
3	"OrderSlip.csv - E	Chart S No.11		Group							
3-1	Left-click "B2"	Chart S No.13		Select	EXCEL	OrderSlip.csv - Ex	a.xlsx	B2			
3-2	Copy "11111111"	Chart S No.14		Copy	EXCEL	OrderSlip.csv - Ex					
4	"Slip managemer	Chart S No.15		Group							
4-1	Enter "Ctrl+V"	Chart S No.17		Paste	Order slip system	Slip Managemen					
5	"OrderSlip.csv - E	Chart S No.18		Group							
5-1	Left-click "C2"	Chart S No.21		Select	EXCEL	OrderSlip.csv - Ex	C2				

Error list

Update

Line No.6: The parameter is invalid. Check "Param3". No=1-5, Node-name=Copy "25000001"
Line No.10: The parameter is invalid. Check "Param3". No=3-1, Node-name=Left-click "B2"
Line No.15: The parameter is invalid. Check "Param3". No=5-1, Node-name=Left-click "C2"
Line No.17: The parameter is invalid. Check "Param3". No=5-3, Node-name=Left-click "D2"

Create scenarioCancel

1.21 Scenario creation with guidance

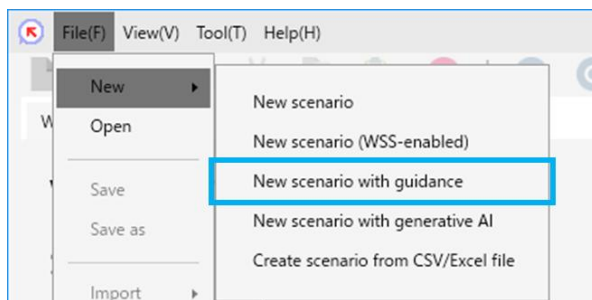
'New scenario with guidance' is a menu to create WinActor scenarios easily even for beginners. It enables WinActor scenario creation beginners to set up items confidently because it displays and prompts setting up items step by step with guidance.

It is based on Graphical User Interface (GUI), and users can set up items by mouse rather than by keyboard.

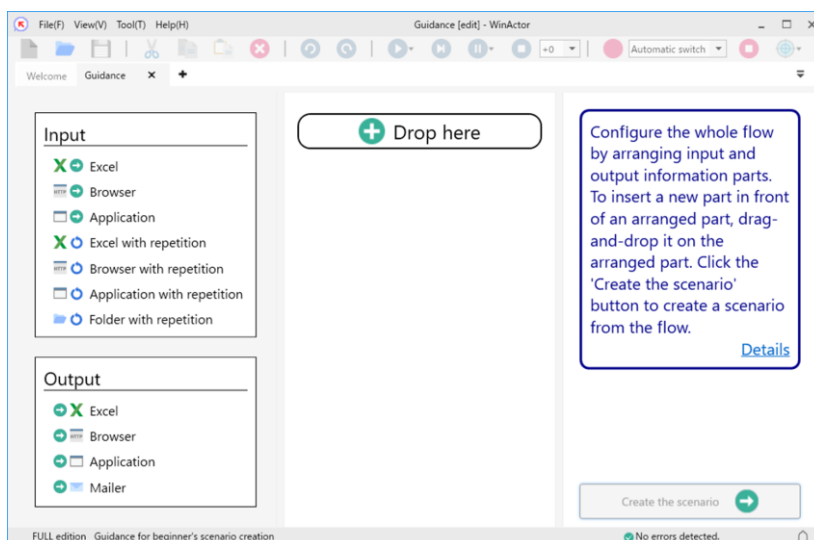
To create a new scenario with guidance, start from the 'File' menu. When Japanese language is selected, you can also start from the "Welcome" window.

Steps

1. Click 'File(F),' and select 'New' > 'New scenario with guidance' consecutively.



A new tab for switching scenarios is added and the new scenario creation area with guidance is displayed.



1.21.1 Scenario creation area with guidance

The scenario creation area with guidance is described here.

■ Components of the scenario creation area with guidance

Figure 1-22 Components of the scenario creation area with guidance

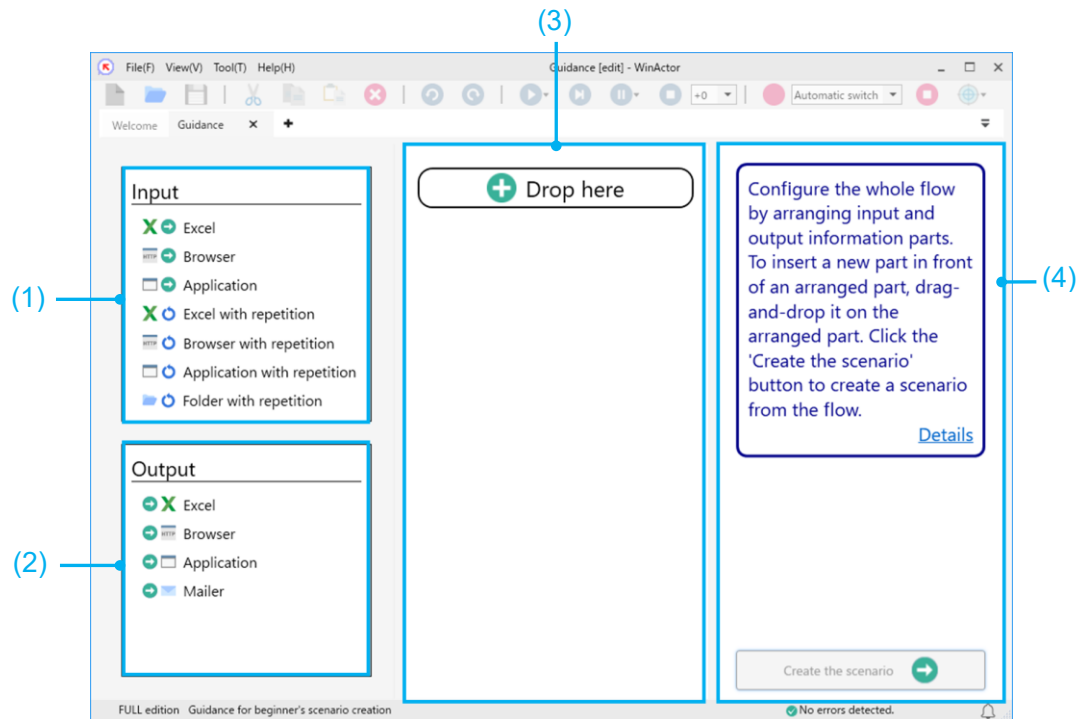


Table 1-26 Components of the scenario creation area with guidance

No.	Name	Description
(1)	Input parts area	The palette of input parts
(2)	Output parts area	The palette of output parts
(3)	Tiny scenario edit area	The area to edit a tiny scenario
(4)	Guidance area	The area to show guidance of settings and operations



The 'Guidance area' is made invisible by unchecking the box 'Display guidance messages' on the 'Guidance' tab in the 'Option' dialog.



See "Guidance tab" for the setting.

■ Input parts area

The input parts area is a palette of input parts, by which information is obtained from Excel, browsers, etc. The input parts are categorized into two groups: the parts without repetition that obtain information only once, and the parts with repetition that obtain information repeatedly.

Figure 1-23 Input parts area

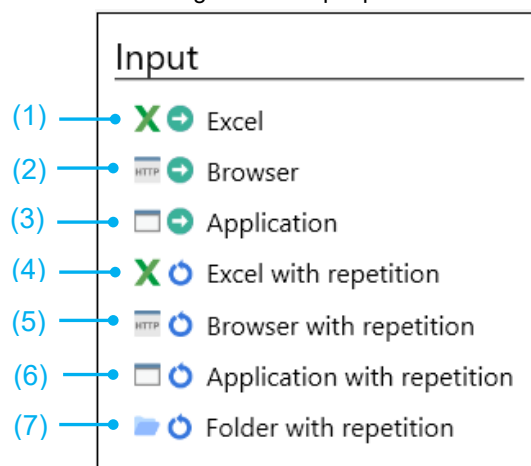


Table 1-27 Input parts area

No.	Name	Description
(1)	Excel	Inputs information form Excel (without repetition)
(2)	Browser	Inputs information form a browser (without repetition)
(3)	Application	Inputs information form an application (without repetition)
(4)	Excel with repetition	Repeatedly inputs information from Excel (with repetition)
(5)	Browser with repetition	Repeatedly inputs information from a browser (with repetition)
(6)	Application with repetition	Repeatedly inputs information from an application (with repetition)
(7)	Folder with repetition	Repeatedly inputs information from folders (with repetition) The variation of this part without repetition does not exist.

Each row of input and output part icons shows the part name and its operation.

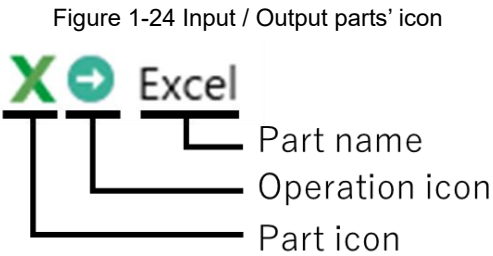


Table 1-28 Input / Output parts' icon

Icon	Operation	Part name or description
	-	Excel
	-	Browser
	-	Application
	-	Folder
	-	Mail
	Input/output	The relative position of the operation icon against the part icon shows whether this part is input or output. When the operation icon is on the right of the part icon, this is an input part. When the operation icon is on the left, this is an output part. This arrow sign is displayed as an operation icon for the part without repetition. The loop sign in the next row is displayed for the part with repetition.
	Repetition	A part with repetition

■ Output parts area

The output parts area is a palette of output parts, by which information is output to Excel, browsers, etc. The output parts output information only once without repetition.

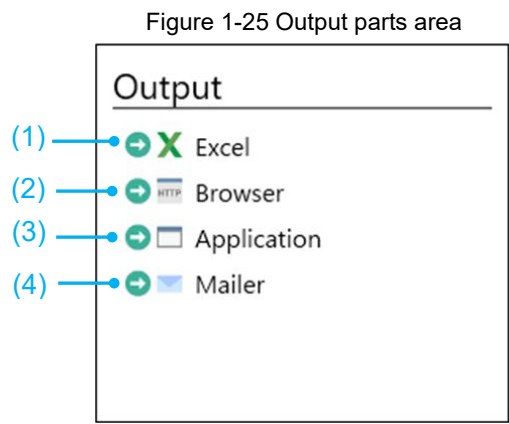


Table 1-29 Output parts area

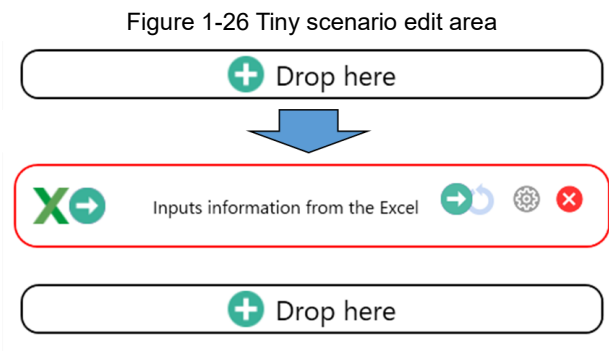
No.	Name	Description
(1)	Excel	Outputs information to Excel
(2)	Browser	Outputs information to a browser
(3)	Application	Outputs information to an application
(4)	Mail	Sends a mail

■ Tiny scenario edit area

The tiny scenario edit area is an area where a user drags and drops various parts, and composes a tiny scenario. The drop area is in the tiny scenario edit area and shown as 'Drop here.'

Dragging and dropping a part from the input or output parts area to the drop area makes the part arranged in the tiny scenario.

The drop area moves downward below the just arranged part. Therefore, the tiny scenario grows downward by dragging and dropping parts one after another.



■ Guidance area

The guidance area is composed of two areas: the area of the 'Overall guidance' that guides a user to compose a whole flow of parts, and the area of the 'Part guidance' that guides a user to set up items in a part.

Figure 1-27 Guidance area

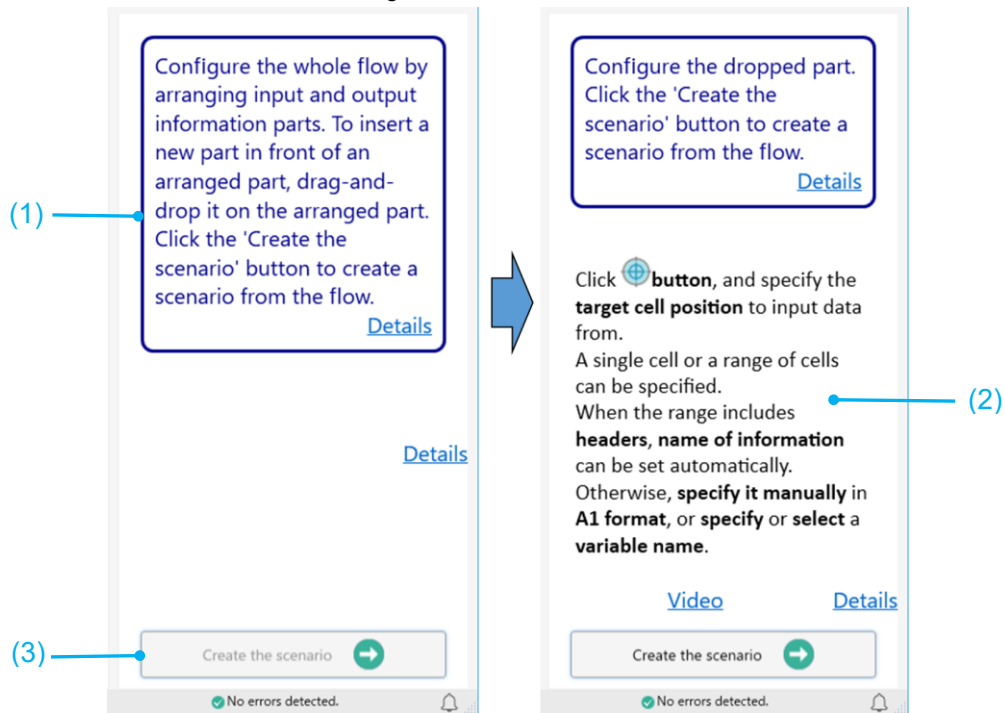


Table 1-30 Guidance area

No.	Name	Description
(1)	Overall guidance	This area guides a user and shows the next-step operation to compose the whole flow of parts in the tiny scenario creation.
(2)	Part guidance	This area guides a user and shows the next-step operation to configure in the current setting-up part. The part guidance is shown when the configuration area, which is described later, of the part is expanded.
(3)	'Create the scenario' button	Clicking this button generates a WinActor scenario from the tiny scenario.



- When the link 'Details' in the 'Guidance area' is clicked, the manual is opened in another window and the detailed guidance is shown.
- When the link 'Video' or 'Image' in the 'Guidance area' is clicked, the video or image related to the guidance is opened in another window and the detailed guidance is shown.

1.21.2 Common layout of parts

The common layout of parts is described here.

■ Without repetition

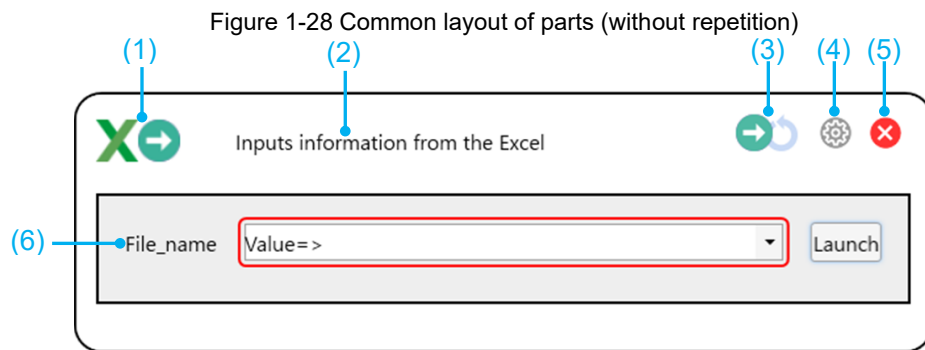


Table 1-31 Common layout of parts (without repetition)

No.	Name	Description
(1)	Part icon	This icon shows the type of the part.  For the meaning of each icon, see "Table 1-28 Input / Output parts' icon."
(2)	Operation description	The operation description of the part
(3)	Repetition mode toggle button	Clicking this button toggles between the part without repetition and the part with repetition except for the 'Folder' parts.
(4)	Configuration area toggle button	Clicking this button expands or collapses the configuration area of the part. Only a configuration area of one part can be displayed at a time in the tiny scenario edit area. Clicking this button of a part, the configuration area of the part is expanded when it is not expanded, and the expanded configuration area of another part is collapsed if it exists. The configuration area of the part is collapsed when it is expanded at the time of clicking the button.
(5)	Delete button	Clicking this button deletes the part in the tiny scenario edit area. Confirmation dialog is displayed when deleting.
(6)	Configuration area	Items of the part to set up is shown in this area. The item to set up next step is framed red. When an item is configured, the next item to set up is shown. This area extends downward until all the items to set up are configured.

■ With repetition

A part colored pale green repeats a procedure multiple times.

This is used when repeating a procedure such as getting data from each row of an Excel file multiple times

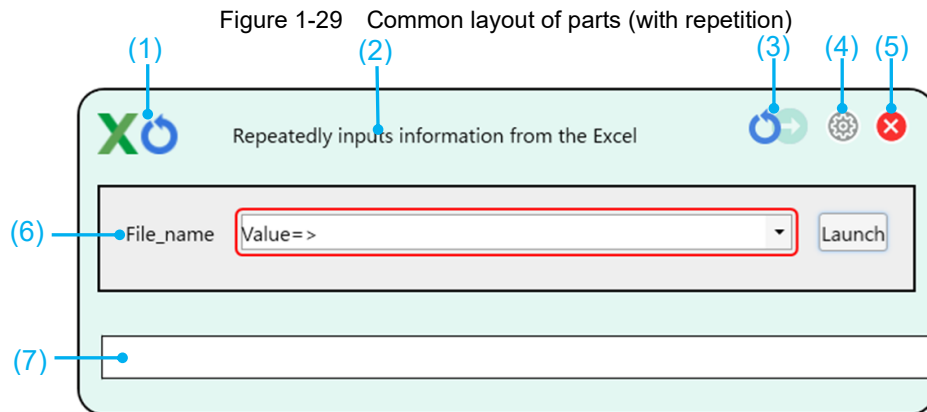
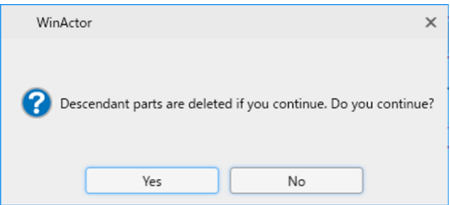
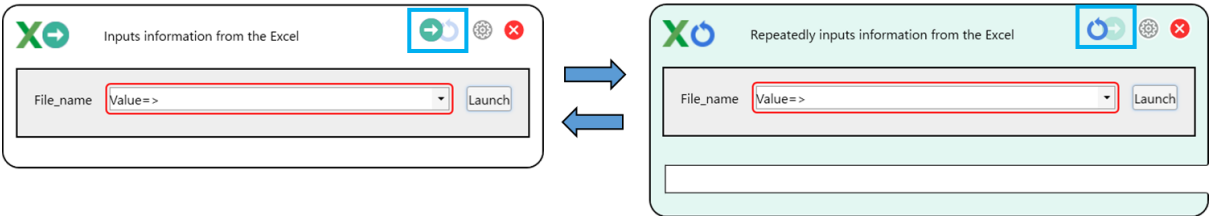


Table 1-32 Common layout of part (with repetition)

No.	Name	Description
(1)	Part icon	This icon shows the type of the part.  For the meaning of icons, see "Table 1-28 Input / Output parts' icon."
(2)	Operation description	The description of the operation of the part
(3)	Repetition mode toggle button	Clicking this button toggles between the part without repetition and the part with repetition except for the 'Folder' parts.
(4)	Configuration area toggle button	Clicking this button expands or collapses the configuration area of the part. Only a configuration area of one part can be displayed at a time in the tiny scenario edit area. Clicking this button of a part, the configuration area of the part is expanded when it is not expanded, and the expanded configuration area of another part is collapsed if it exists. The configuration area of the part is collapsed when it is expanded at the time of clicking the button.
(5)	Delete button	Clicking this button deletes the part in the tiny scenario edit area. Confirmation dialog is displayed when deleting.
(6)	Configuration area	Items to set up of a part is shown in this area. The item to set up next step is framed red. When an item is configured, the next item to set up is shown. This area extends downward until all the items to set up are configured.
(7)	Descendant parts area	The parts the repeatedly obtained information is passed are place in this area.

Clicking the 'Repetition mode toggle button' toggles between the part without repetition and the part with repetition except for the 'Folder' parts.

Figure 1-30 Common layout of parts (repetition mode toggle button)



When changing the part with repetition to the part without repetition, this confirmation dialog is displayed.

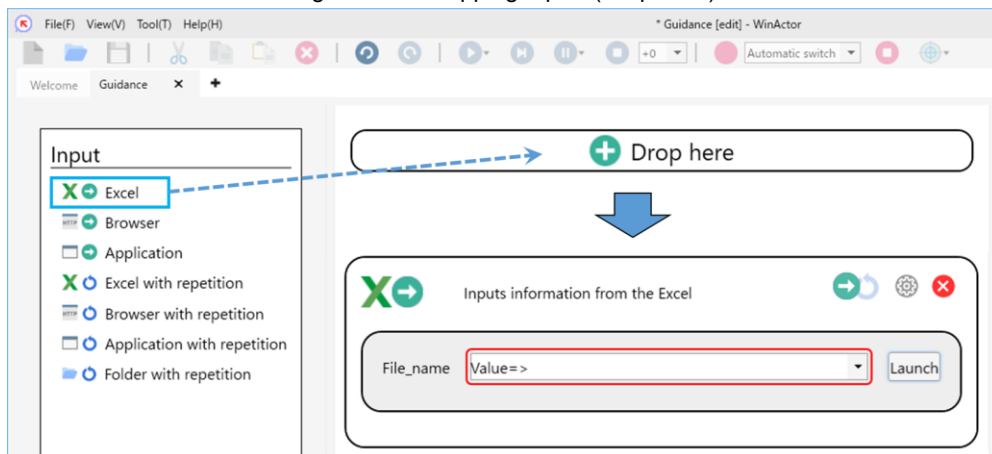
Click 'Yes' to delete all the descendant parts.

1.21.3 Arranging parts

■ Drag and drop

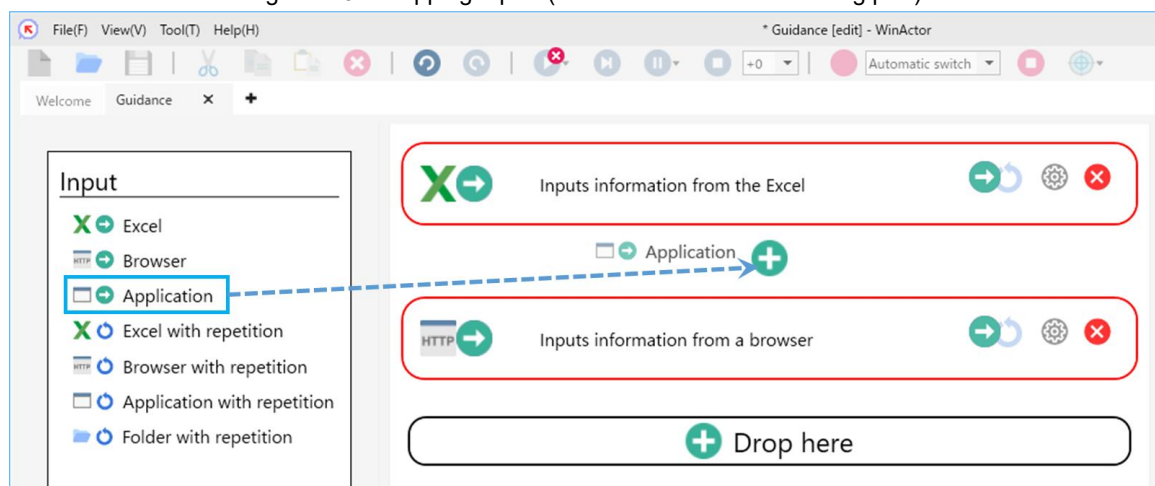
A part can be arranged in the tiny scenario edit area when dragging and dropping it by mouse from the input or output parts area to the drop area displayed as 'Drop here.'

Figure 1-31 Dropping a part (Drop area)



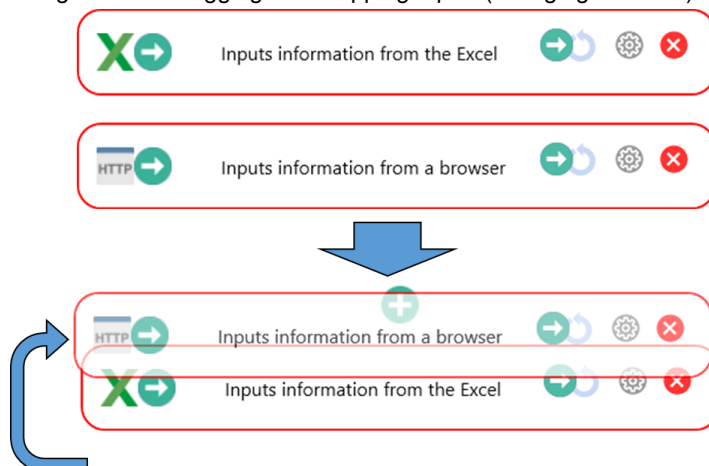
When dragging a part near an existing part in the area, the  mark is displayed. By dropping the part on the mark, it can be arranged above or below the existing part.

Figure 1-32 Dropping a part (above or below of an existing part)



The order of the parts arranged in the tiny scenario edit area can be changed by dragging and dropping them.

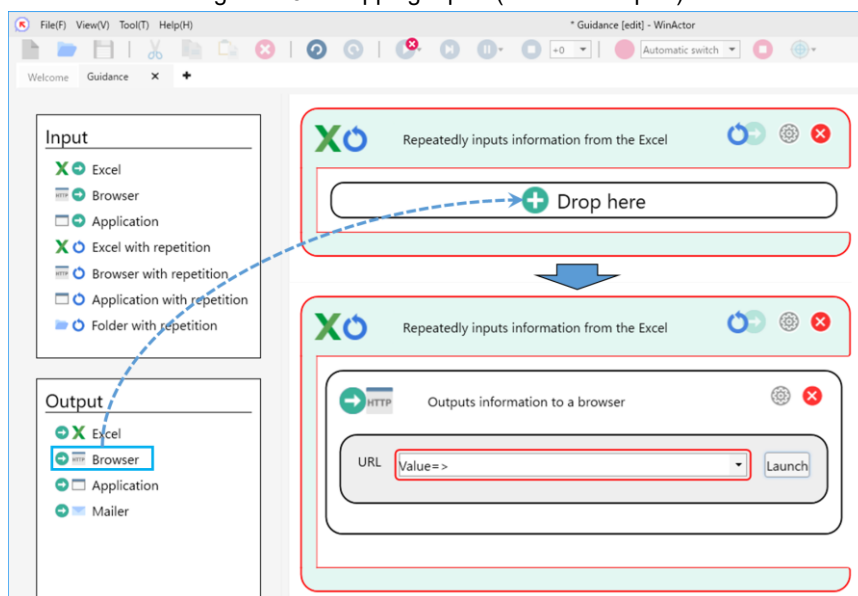
Figure 1-33 Dragging and dropping a part (changing an order)



■ Descendant parts

Parts with repetition can pass the repeatedly obtained information to its descendant parts. For a part to receive the obtained information, drag and drop the part to the descendant parts area of the part with repetition that obtains the information.

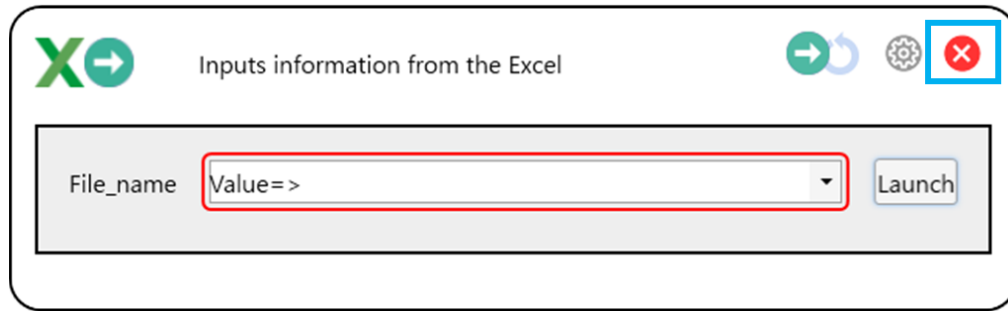
Figure 1-34 Dropping a part (descendant part)



■ Delete

To delete an arranged part, click the 'Delete button' in the part. When the 'Delete button' is clicked, the confirmation dialog of the deletion is displayed, and clicking the 'Yes' button will proceed to delete the part.

Figure 1-35 Deleting a part



- Alternatively, you can press the 'Delete' key selecting the part to delete, or select the menu item 'Delete' in the right-click menu on the part.
- Checking the box 'Omit the confirmation dialog box when deleting selected items,' the selected part can be deleted without displaying the confirmation dialog of the deletion.



See "Edit tab" for details of the setting.

1.21.4 Setting up parts

■ Red frame and guidance

In the scenario creation with guidance, settings of a part can be completed by setting the red-framed items step by step following the guidance.



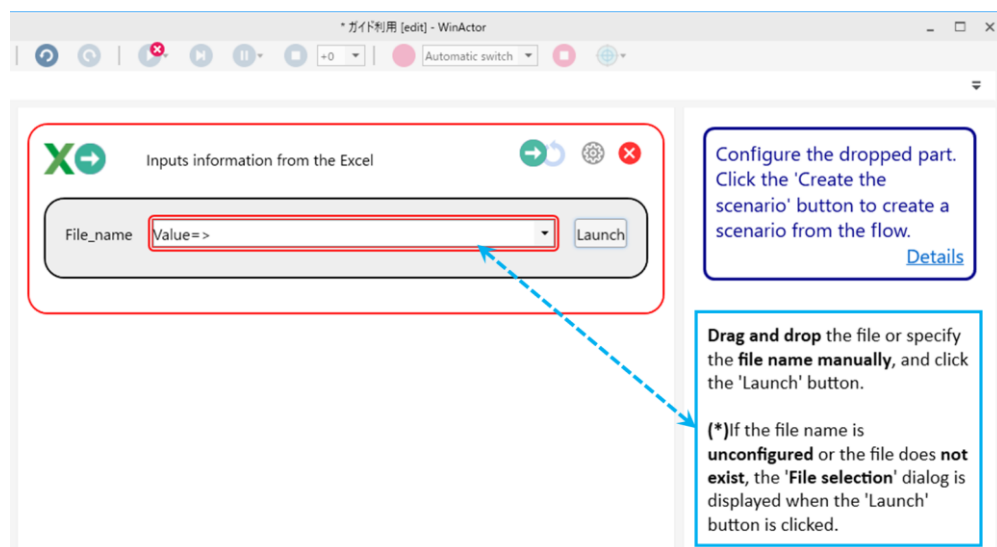
Changing the setting 'Display the red frame for guidance' or 'Display setting items step by step' on the 'Guidance' tab in the 'Option' dialog, the red frame or the setting items becomes invisible or become visible respectively.



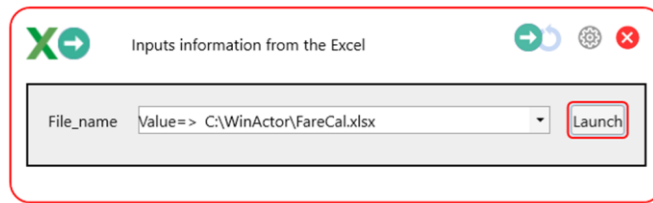
See "Guidance tab" for the settings.

Steps

1. In the configuration area of a part, the item to set up is framed red.
The specific guidance to set up the item is shown in the guidance area.
Set up the red-framed item seeing the specific guidance for reference.



2. The next item to set up is framed red in turn, and the specific guidance also changes in accordance. Set up the red-framed item seeing the specific guidance for reference.



Inputs information from the Excel

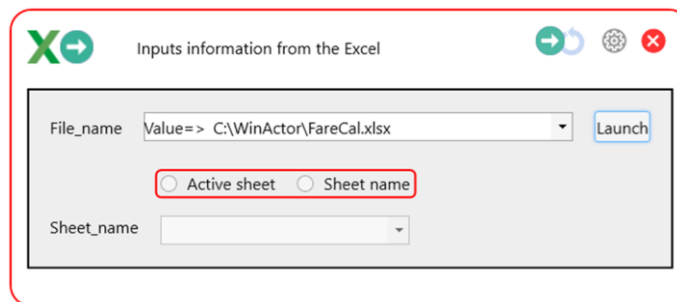
File_name Value=> C:\WinActor\FareCal.xlsx

Launch

Open the Excel file by clicking the 'Launch' button.

(*) If the file name is **unconfigured** or the file does **not exist**, the 'File selection' dialog is displayed when the 'Launch' button is clicked.

3. Once a group of items are completed, next group of items are shown below the previous ones in the extended configuration area. Set up the red-framed item seeing the specific guidance for reference.



Inputs information from the Excel

File_name Value=> C:\WinActor\FareCal.xlsx

Launch

☒ Active sheet ☐ Sheet name

Sheet_name

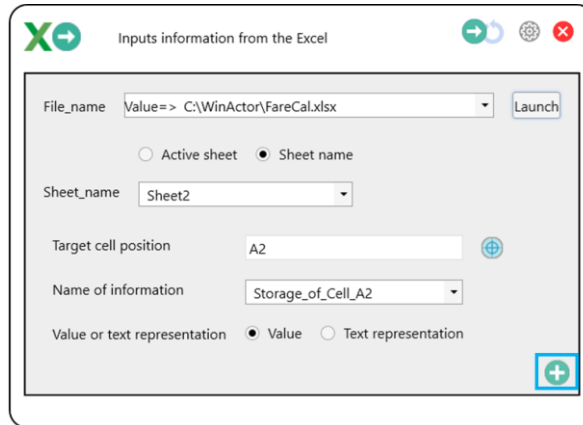
Check which sheet to operate on, the **active sheet** or the **sheet name** sheet selected from the **drop-down list**.

4. Repeat setting up the red-framed items one after another seeing the specific guidance for reference. When no red-framed item is left, the part is configured.

■ Additional items to set up

When setting up items of a part is completed, the 'Extend' button is displayed at the bottom-right corner of the configuration area.

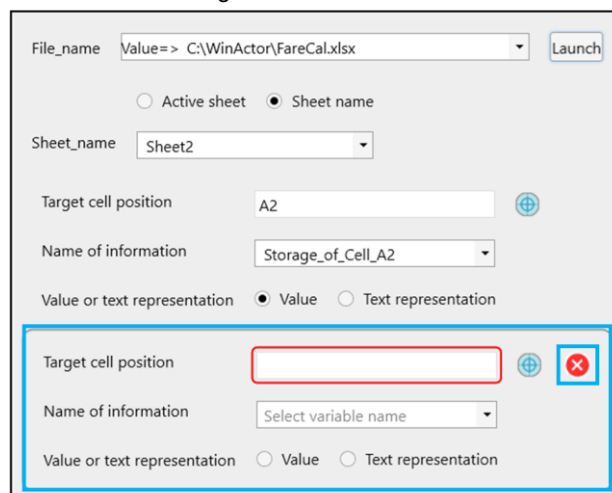
Figure 1-36 Extend button



Clicking the 'Extend' button, the configuration area is extended downward and additional items to set up are displayed. By setting up those additional items, other information can be obtained or output successively from or to the same target.

>> For additional items for each type of parts, see "1.21.5 Setting up input parts" and "1.21.6 Setting up output parts."

Figure 1-37 New items



When the additional items are not necessary, delete them with the delete button.

■ Check all settings

Right-click on the 'Tiny scenario edit area,' and select 'Check all settings' in the dropdown list, Then, the settings of all the arranged parts are expanded and displayed.

Figure 1-38 Check all settings



The 'Check all settings' displaying state can be canceled by some action such as clicking 'Configuration area toggle button,' dropping a new part in the 'Tiny scenario edit area,' etc.

1.21.5 Setting up input parts

Items to set up for input parts are described here.

Input parts are 'Excel,' 'Browser,' 'Application,' and 'Folder.'

Each of them except 'Folder' have the two variations 'without repetition' and 'with repetition.'

■ Excel

This part obtains information from Excel.

Additional items are (6),(7),(8).

Figure 1-39 Input part Excel

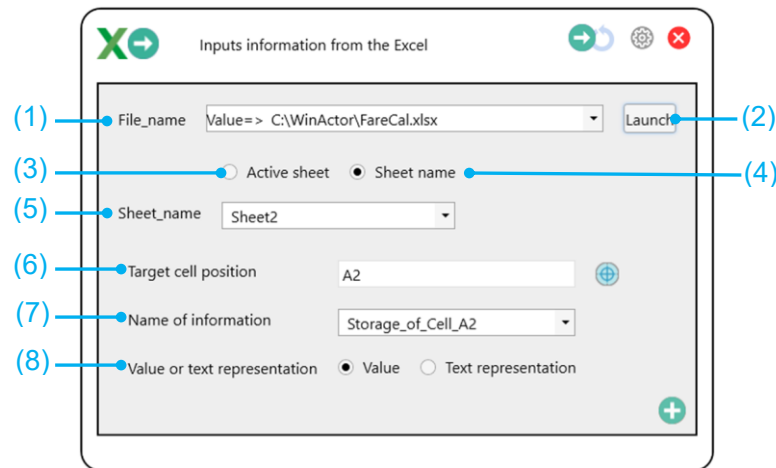


Table 1-33 Input part Excel

No.	Name	Description
(1)	File_name	Specify a file path by dragging and dropping an Excel file, or by variable or value.
(2)	Launch	Clicking this button launches Excel, and opens the Excel file specified for 'File_name.' When 'File_name' is not specified or the file does not exist, a file selection dialog is displayed.
(3)	Active sheet	Check this to obtain information from the active sheet.
(4)	Sheet name	Check this to specify a sheet with the 'Sheet_name.'
(5)	Sheet_name	Select a sheet name from the dropdown. This field is effective only when the 'Sheet name' is checked.
(6)	Target cell position	Specify the cell to obtain information from by A1 format. Alternatively, it can be specified with mouse operations via clicking the  button.  For mouse operations, see "Single selection of the target cell position in Excel."

No.	Name	Description
(7)	Name of information	Specify a name, which is a variable name, to store the obtained information. Other parts can refer to the stored information via the name.
(8)	Value or text representation	Check either 'Value' or 'text representation' as a way to obtain information. When 'Value' is checked, the value of the specified cell is obtained. When 'Text representation' is checked, the text representation of the specified cell is obtained.

■ Browser

This part obtains information from a browser.

Additional items are (3),(4),(5).

Figure 1-40 Input part Browser

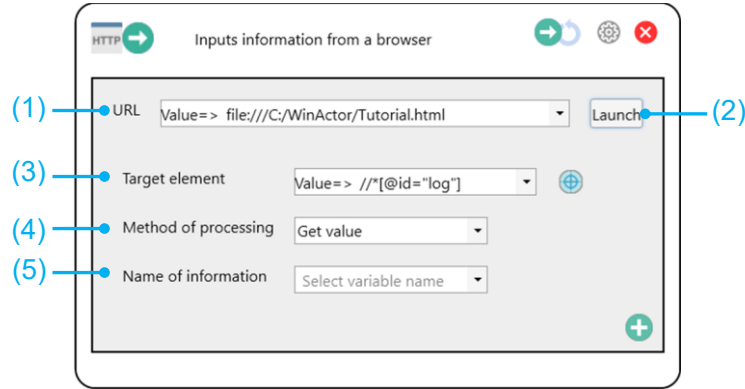


Table 1-34 Input part Browser

No.	Name	Description
(1)	URL	Specify a URL by dragging and dropping the webpage to access into this box. Alternatively, specify a URL by variable or value. When a browser is opened by another part, the name of the browser can be selected.
(2)	Launch	Clicking this button launches a browser, and opens the webpage specified for 'URL.' When the 'Launch' button is right-clicked without specifying the 'URL,' the 'Favorites' menu is displayed.
(3)	Target element	Specify the element from which to obtain information. Alternatively, it can be specified with mouse operations via clicking the  button.  For mouse operations, see "Single selection of the target element on the browser."
(4)	Method of processing	Select from the dropdown a way to process information obtained from the location specified for 'Target element.'
(5)	Name of information	Specify a name, which is a variable name, to store the obtained information. Other parts can refer to the stored information via the name.



- The 'Favorites' menu is the list of items from the 'Favorites' page of a browser. Microsoft Edge is regarded as the default browser for the 'Favorites' page.
- Switching the selection for 'Select the browser to view favorites' on the 'Guidance' tab in the 'Option' dialog, you can change the browser to Google Chrome.



See “Guidance tab” in the ‘Option’ dialog for the setting.

■ Application

This part obtains information from an application.
Additional items are (2),(3),(4).

Figure 1-41 Input part Application

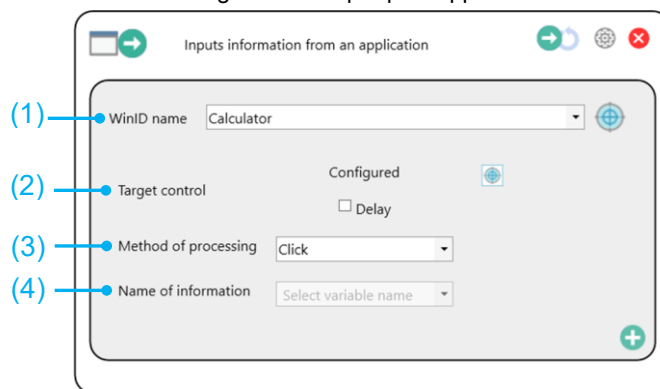


Table 1-35 Input part Application

No.	Name	Description
(1)	WinID name	Click the  button to specify the application window from which to obtain information.  For specifying the window, see "Setting up the 'WinID name' and the 'Target control' of an application."
(2)	Target control	Click the  button to specify the target control from which to obtain information. When the box 'Delay' is checked, the start of the target specification is delayed for 10 seconds.  For specifying the control, see "Setting up the 'WinID name' and the 'Target control' of an application."
(3)	Method of processing	Select from the dropdown a way to process information obtained from the location specified for 'Target control.'
(4)	Name of information	Specify a name, which is a variable name, to store the obtained information. Other parts can refer to the stored information via the name.



- Check the box 'Delay' under the 'Target control' when some preparation is required in the application between the clicking of the  button and the change of the cursor shape. This function is useful when selecting an item in a dropdown list.
- The delay time can be changed with the selection for 'Select delay time for applications' on the 'Guidance' tab in the 'Option' dialog.

■ Excel with repetition

This part repeatedly obtains information from Excel.

The first half of the setting items are the same as the Excel part without repetition. Only the second half of the setting items are described here.

Additional items to set up are also the same as the Excel part without repetition.

Figure 1-42 Input part Excel with repetition

Table 1-36 Input part Excel with repetition

No.	Name	Description
(1)	Direction	Select either 'Vertical' or 'Horizontal' as the direction to repeat.
(2)	Repetition test	Select either 'Pre-test' or 'Post-test' as the timing to judge the '(5) Condition to repeat.' When 'Pre-test' is selected, repetition is judged before each repeat. When 'Post-test' is selected, repetition is judged after each repeat.
(3)	Increments	Specify the increments to add to the item 'Name of information,' which is a variable, at each repeat.
(4)	Number of repetitions	When specifying the number of repetitions, check this and specify the number.
(5)	Condition to repeat	When specifying the condition to repeat, check this and specify the condition. Left field: Select a name of information, which is a variable. Center filed: Select a sign of equality, inequality, etc. Right field: Select a name of information, which is a variable, or a value.

■ Browser with repetition

This part repeatedly obtains information from a browser.

The first half of the setting items are the same as the Browser part without repetition. Only the second half of the setting items are described here.

Additional items to set up are also the same as the Browser part without repetition.

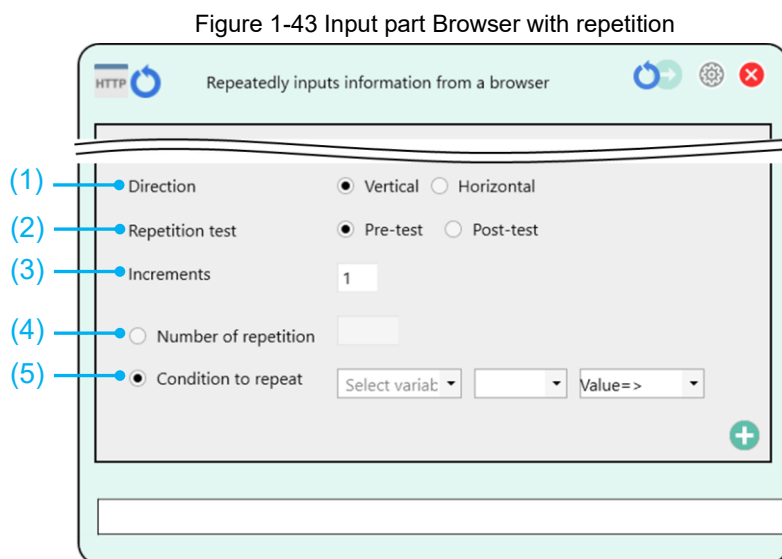


Table 1-37 Input part Browser with repetition

No.	Name	Description
(1)	Direction	Select either 'Vertical' or 'Horizontal' as the direction to repeat.
(2)	Repetition test	Select either 'Pre-test' or 'Post-test' as the timing to judge the '(5) Condition to repeat.' When 'Pre-test' is selected, repetition is judged before each repeat. When 'Post-test' is selected, repetition is judged after each repeat.
(3)	Increments	Specify the increments to add to the item 'Name of information,' which is a variable, at each repeat.
(4)	Number of repetitions	When specifying the number of repetitions, check this and specify the number.
(5)	Condition to repeat	When specifying the condition to repeat, check this and specify the condition. Left field: Select a name of information, which is a variable. Center filed: Select a sign of equality, inequality, etc. Right field: Select a name of information, which is a variable, or a value.

■ Application with repetition

This part repeatedly obtains information from an application.

The first half of the setting items are the same as the Application part without repetition. Only the second half of the setting items are described here.

Additional items to set up are also the same as the Application part without repetition.

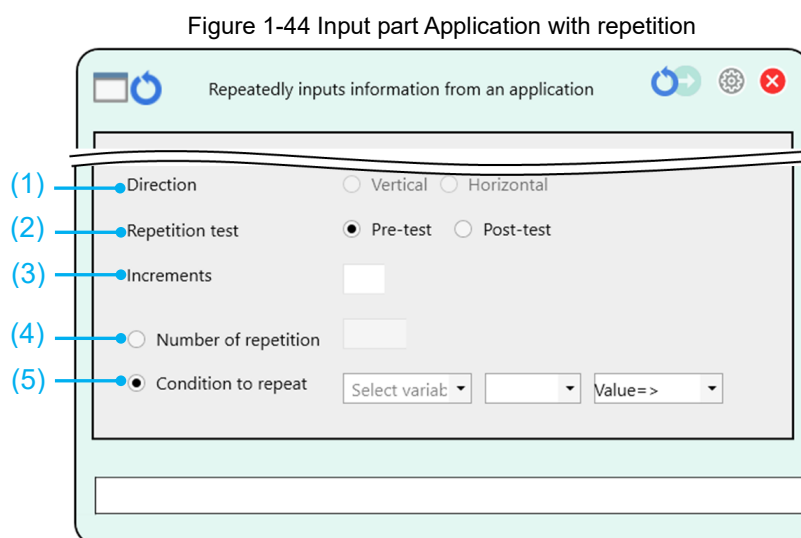


Table 1-38 Input part Application with repetition

No.	Name	Description
(1)	Direction	Direction to repeat cannot be selected for the input part Application with repetition. The radio buttons are disabled.
(2)	Repetition test	Select either 'Pre-test' or 'Post-test' as the timing to judge the '(5) Condition to repeat.' When 'Pre-test' is selected, repetition is judged before each repeat. When 'Post-test' is selected, repetition is judged after each repeat.
(3)	Increments	Specify the increments to add to the item 'Name of information,' which is a variable, at each repeat.
(4)	Number of repetitions	When specifying the number of repetitions, check this and specify the number.
(5)	Condition to repeat	When specifying the condition to repeat, check this and specify the condition. Left field: Select a name of information, which is a variable. Center filed: Select a sign of equality, inequality, etc. Right field: Select a name of information, which is a variable, or a value.

■ Folder with repetition

This part obtains folder information.

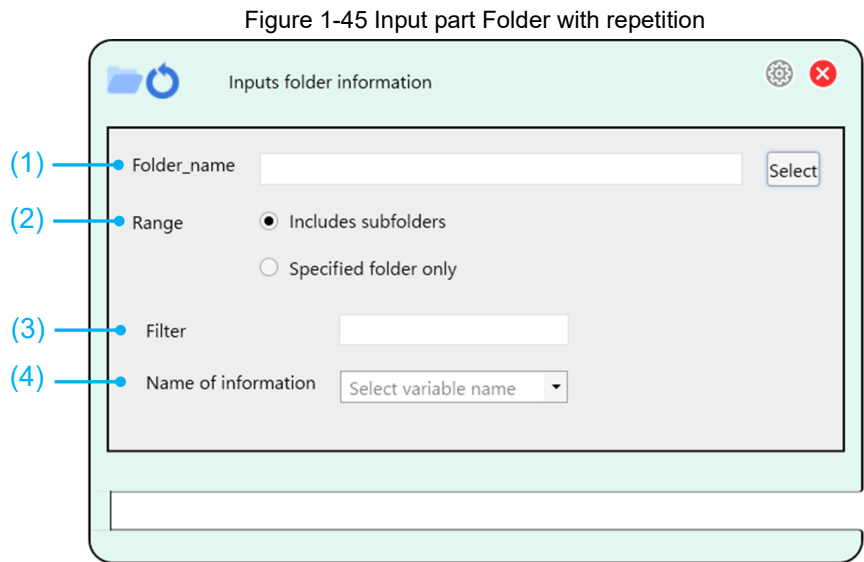


Table 1-39 Input part Folder with repetition

No.	Name	Description
(1)	Folder_name	Specify a folder path by dragging and dropping the folder, or by manually typing the folder name into this box. Alternatively, click the 'Select' button and select the folder by mouse.
(2)	Range	Select either 'Include subfolders' or 'Specified folder only' as the range of obtaining folder information.
(3)	Filter	Specify patterns to filter folder information to obtain. They are case insensitive. The effective wildcards are '*' (zero or more characters) and '?' (any single character). When specifying multiple patterns, concatenate them with the character ',' (comma).
(4)	Name of information	Specify the name of information, which is a variable name, to store the obtained folder information.

1.21.6 Setting up output parts

This subsection describes additional items to set up for output parts.

■ Excel

This part outputs information to Excel.

Additional items are (8),(9).

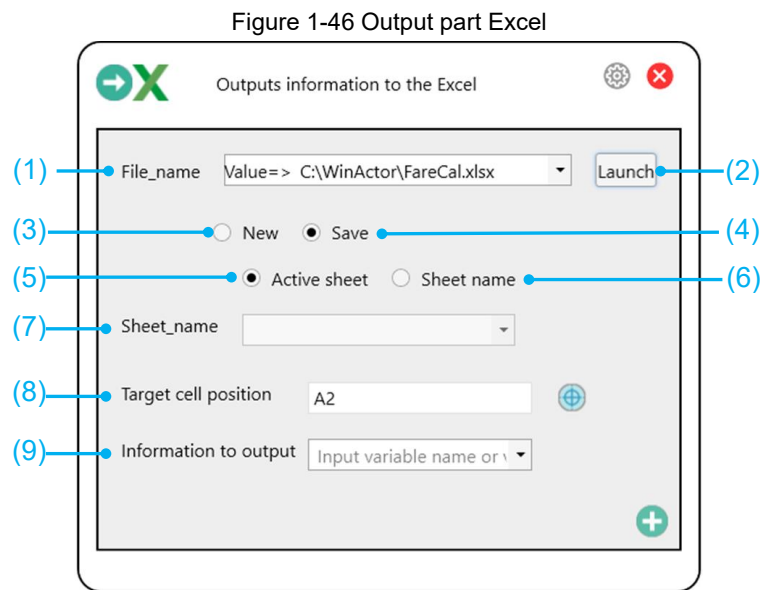


Table 1-40 Output part Excel

No.	Name	Description
(1)	File_name	Specify a file path by dragging and dropping an Excel file, or by variable or value.
(2)	Launch	Clicking this button opens the Excel file specified for the 'File_name.' When 'File_name' is not specified or the file does not exist, a file selection dialog is displayed.
(3)	New	Select either 'New' or 'Save.'
(4)	Save	When 'New' is selected, a new Excel file is created. When 'Save' is selected, information is written over the existing Excel file.
(5)	Active sheet	Check this to output information to the active sheet.
(6)	Sheet name	Check this to specify a sheet with the 'Sheet_name.'
(7)	Sheet_name	Select a sheet name from the dropdown. This field is effective only when the 'Sheet name' is checked.

No.	Name	Description
(8)	Target cell position	Specify the cell to output information to by A1 format. Alternatively, it can be specified with mouse operations via clicking the  button.  For mouse operations, see “Single selection of the target cell position in Excel.”
(9)	Information to output	Specify the name of information, which is a variable name, that stores data to output. Alternatively, a value to output can be directly specified.

■ Browser

This part outputs information to a browser.

Additional items are (3),(4),(5).

Figure 1-47 Output part Browser

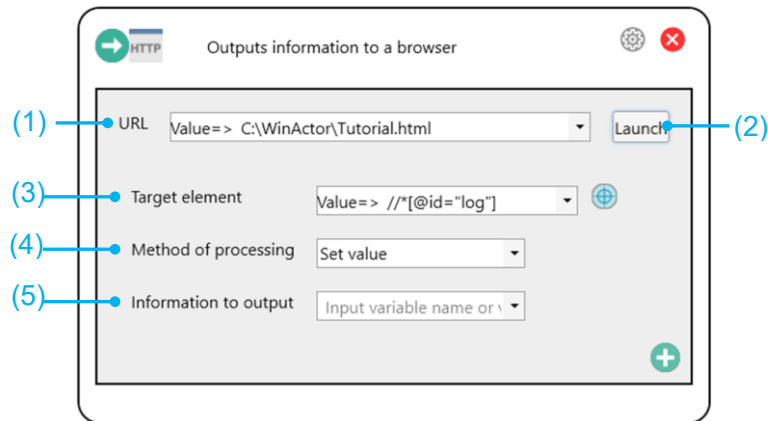


Table 1-41 Output part Browser

No.	Name	Description
(1)	URL	Specify the URL by dragging and dropping the webpage to access into this box. Alternatively, specify the URL by variable or value. When a browser is opened by another part, the name of the browser can be selected.
(2)	Launch	Clicking this button launches a browser, and opens the webpage specified for 'URL.' When the 'Launch' button is right-clicked without specifying the 'URL,' the 'Favorites' menu is displayed.
(3)	Target element	Specify the element to output information to. Alternatively, it can be specified with mouse operations via clicking the  button.  For mouse operations, see "Single selection of the target element on the browser."
(4)	Method of processing	Select a way to process the location specified for 'Target element' from the dropdown.
(5)	Name of information	Specify the name of information, which is a variable name, that stores data to output. Alternatively, a value to output can be directly specified.



- The 'Favorites' menu is the list of items from the 'Favorites' page of the browser. Microsoft Edge is regarded as the default browser for the 'Favorites' page.
- Switching the selection for 'Select the browser to view favorites' on the 'Guidance'

tab in the 'Option' dialog, you can change the browser to Google Chrome.



See "Guidance tab" for the setting.

■ Application

This part outputs information to an application.

Additional items are (2),(3),(4).

Figure 1-48 Output part Application

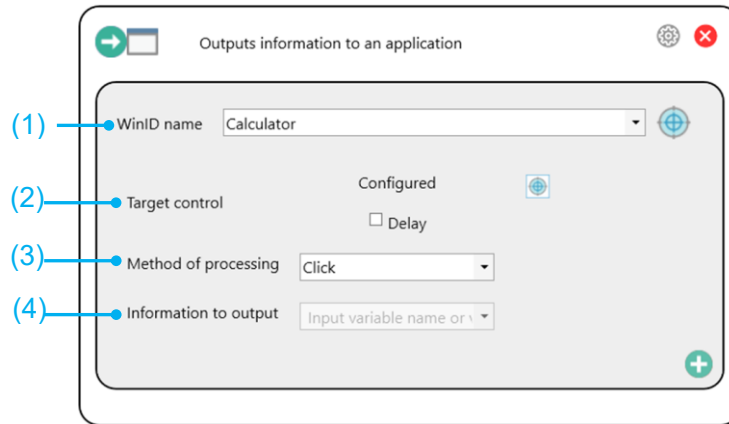


Table 1-42 Output part Application

No.	Name	Description
(1)	WinID name	Click the  button to specify the application window to output information to.  For specifying the window, see "Setting up the 'WinID name' and the 'Target control' of an application."
(2)	Target control	Click the  button to specify the target control to output information to. When the box 'Delay' is checked, the start of the target specification is delayed for 10 seconds.  For specifying the window, see "Setting up the 'WinID name' and the 'Target control' of an application."
(3)	Method of processing	Select a way to process the location specified for 'Target control' from the dropdown.
(4)	Information to output	Specify the name of information, which is a variable name, that stores data to output. Alternatively, a value to output can be directly specified.



- Check the box 'Delay' under the 'Target control' when some preparation is required in the application between the clicking of the  button and the change of the cursor shape. This function is useful when selecting an item in a dropdown list.
- The delay time can be changed with the selection for 'Select delay time for applications' on the 'Guidance' tab in the 'Option' dialog.

■ Mail (Gmail)

This part sends a mail.

Additional items are (2),(3),(4),(5).

The WinActor user needs to have signed in Google Workspace account to use this part. For details, refer “WinActor Gmail Scenario Manual.”

Figure 1-49 Output part Mail (Gmail)

Figure 1-49 shows the 'Outputs information to a mail' dialog box. It contains five fields, each with a callout number:

- (1) Mailer: A dropdown menu showing 'Gmail'.
- (2) Recipient's name (option): A dropdown menu showing 'Value=>'.
- (3) Recipient's mail address: A dropdown menu showing 'Value=>'.
- (4) Subject: A dropdown menu showing 'Value=>'.
- (5) Message body: A dropdown menu showing 'Value=>'.

Table 1-43 Output part Mail (Gmail)

No.	Name	Description
(1)	Mailer	Select 'Gmail.'
(2)	Recipient's name (option)	Specify the recipient's name of the mail by variable or value. This is optional.
(3)	Recipient's mail address	Specify the recipient's mail address by variable or value.
(4)	Subject	Specify the subject of the mail by variable or value.
(5)	Message body	Specify the message body of the mail by variable or value.

■ Mail (Outlook)

This part sends a mail.

Additional items are (2),(3),(4),(5).

When Outlook is not launched, this part launches it on execution.

Figure 1-50 Output part Mail (Outlook)

The screenshot shows a configuration window for the 'Mail (Outlook)' output part. The window has a title bar with a green arrow icon, a mail icon, and the text 'Outputs information to a mail'. The main area contains five labeled fields: (1) Mailer (set to Outlook), (2) Recipient(To) (Value=>), (3) Recipient(Cc) (Value=>), (4) Subject (Value=>), and (5) Body (Value=>). A green plus icon is in the bottom right corner.

Table 1-44 Output part Mail (Outlook)

No.	Name	Description
(1)	Mailer	Select 'Outlook.'
(2)	Recipient(To)	Specify the recipient of the mail by variable or value.
(3)	Recipient(Cc)	Specify the CC recipient of the mail by variable or value.
(4)	Subject	Specify the title of the mail by variable or value.
(5)	Body	Specify the body of the mail by variable or value.

1.21.7 Setting up with Graphical User Interface (GUI)

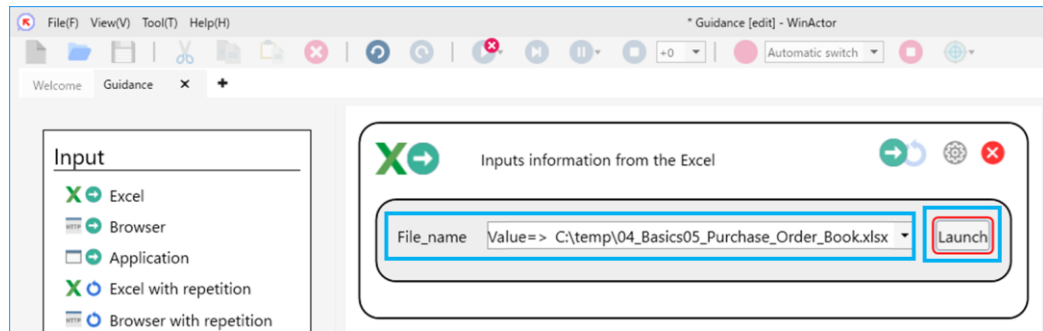
This subsection describes how to use Graphical User Interface (GUI) that enables users to set up items by directly manipulating the application to be operated with WinActor with mouse.

■ Single selection of the target cell position in Excel

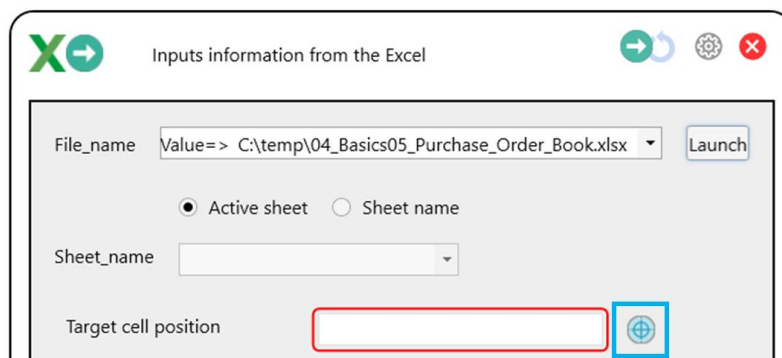
The setting item 'Target cell position' in the Excel part can be specified either in single selection, which is to select only one cell, or range selection, which is to select arbitrary range of cells. The procedure of single selection is described here.

Steps

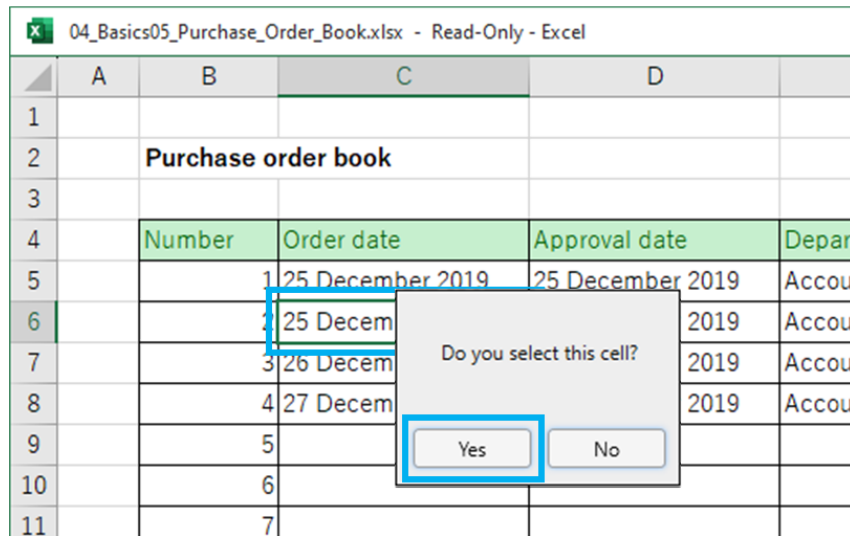
1. Specify an Excel file for 'File_name,' and click the 'Launch' button. Excel is launched, and the specified file is opened.



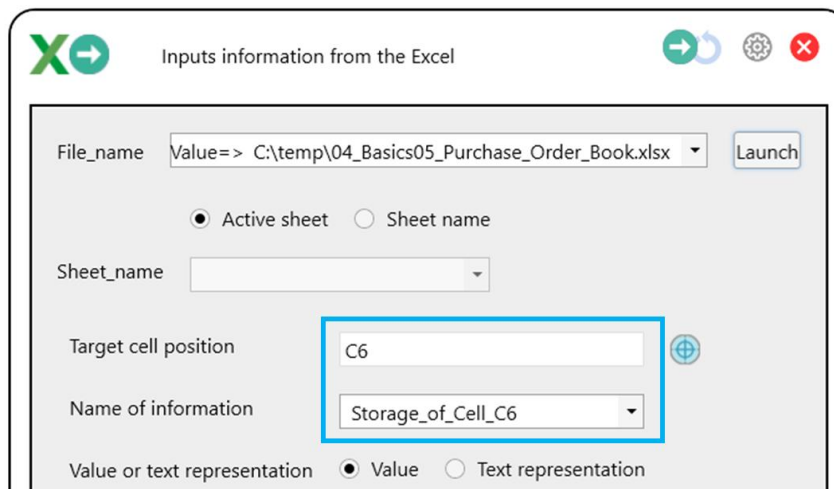
2. Check either 'Active sheet' or 'Sheet name,' and click the  button in the row of 'Target cell position.'



3. When a cell in Excel is clicked, the dialog shown below is displayed. Click 'Yes.'



4. The selected cell position and the name of information, which is a variable name, are automatically set. The name of information is changeable.



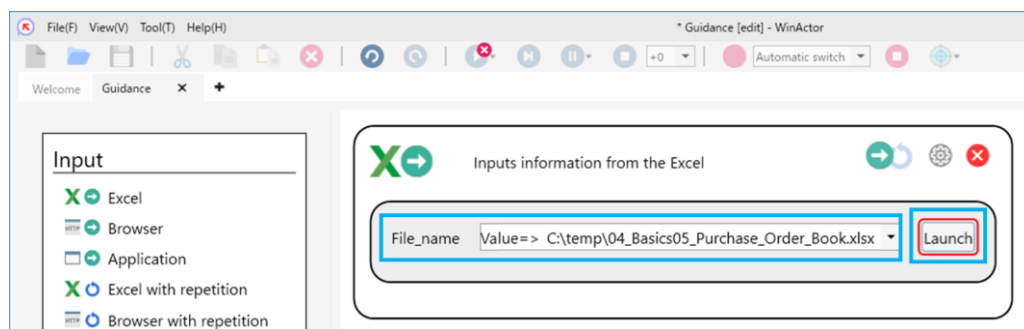
■ Range selection of the target cell position in Excel

Setting of the item 'Target cell position' in the Excel part can be specified either in single selection, which is to select only one cell, or range selection, which is to select arbitrary range of cells. The procedure of range selection is described here.

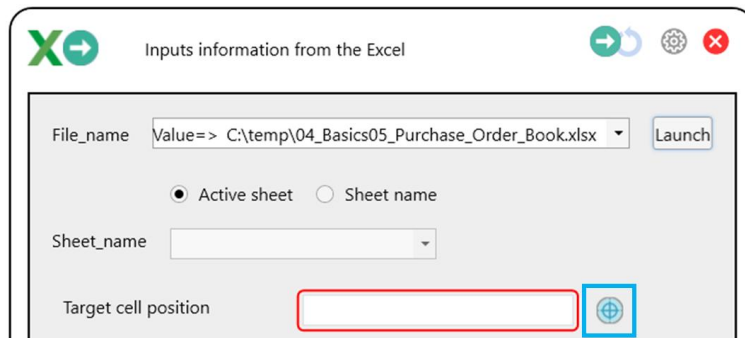
Range-selection is available only in 'Input' parts of 'Excel' and 'Excel with repetition.'

Steps

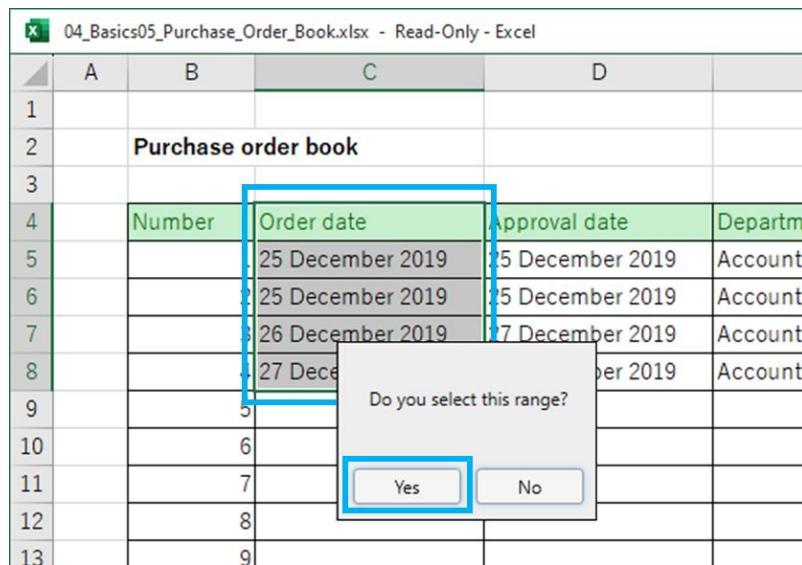
1. Specify an Excel file for 'File_name,' and click the 'Launch' button. Excel is launched, and the specified file is opened.



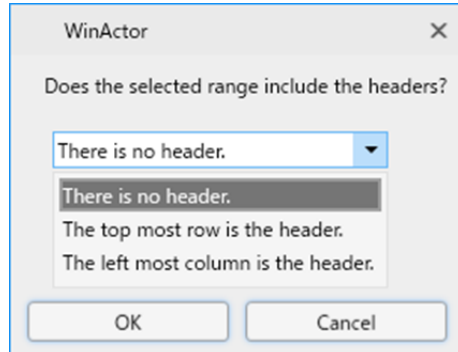
2. Check either 'Active sheet' or 'Sheet name,' and click the  button in the row of 'Target cell position.'



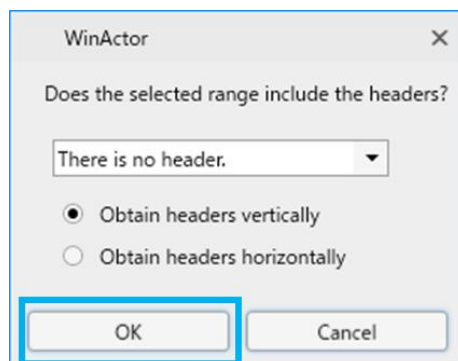
3. Drag over cells in Excel to specify a range. Then, the dialog shown below is displayed. Click 'Yes.'



4. The dialog to check if headers are included in the specified range appears. Select an option from the dropdown, and click 'OK.' Here, 'header' means a title other than data such as the "Order date" in the example image above.



When 'There is no header.' is selected, select a radio button below the dropdown to specify the direction to obtain data.



5. The selected cell position, the name of information, which is a variable name, and the repetition information are automatically set. The name of information is changeable.

When the input part is without repetition, it is changed to the input part with repetition automatically.

File_name Value=> C:\temp\04_Basics05_Purchase_Order_Book.xlsx Launch

☒ Active sheet ☐ Sheet name

Sheet_name

Target cell position C5

Name of information Order date

Value or text representation ☒ Value ☐ Text representation

☒ Vertical ☐ Horizontal

☒ Pre-test ☐ Post-test

1

4

☐ Condition to repeat Select variab Value=>

(1) Direction

(2) Repetition test

(3) Increments

(4) Number of repetition

The automatically set items of the repetition information are listed below.

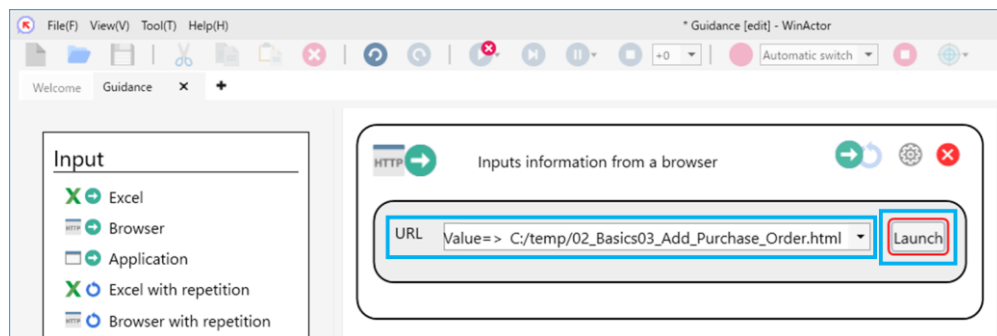
No.	Name	Description
(1)	Direction	When 'There is no header.' is selected, 'Vertical' is selected. When 'The top most row is the headers.' is selected, 'Vertical' is selected. When "The left most column is the headers." is selected, 'Horizontal' is selected.
(2)	Repetition test	Pre-test
(3)	Increments	1
(4)	Number of repetition	When 'There is no header.' is selected, the number of selected rows is specified. When 'The top most row is the headers.' is selected, the number of selected rows subtracted by 1 is specified. When 'The left most column is the headers.' is selected, the number of selected columns subtracted by 1 is specified.

■ Single selection of the target element on the browser

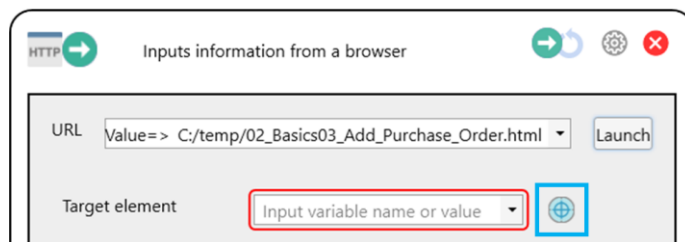
The single selection procedure of setting the 'Target element' in the Browser part by mouse is described here.

Steps

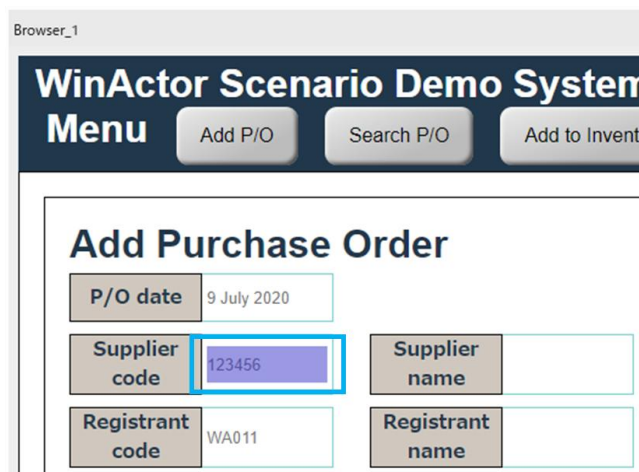
1. Specify a webpage for 'URL,' and click the 'Launch' button. A browser is launched, and the specified webpage is opened.



2. Click the  button in the row of 'Target element.'



3. Moving around a mouse cursor on the browser, selectable element changes its color to purple. Click the element to obtain information from or to output information to.



4. 'Target element' and 'Method of processing' are automatically set.
'Method of processing' can be selected again from the dropdown.

Inputs information from a browser

URL Value=> C:/temp/02_Basics03_Add_Purchase_Order.html Launch

Target element Value=> /*[@id="i_text2"]

Method of processing Get value

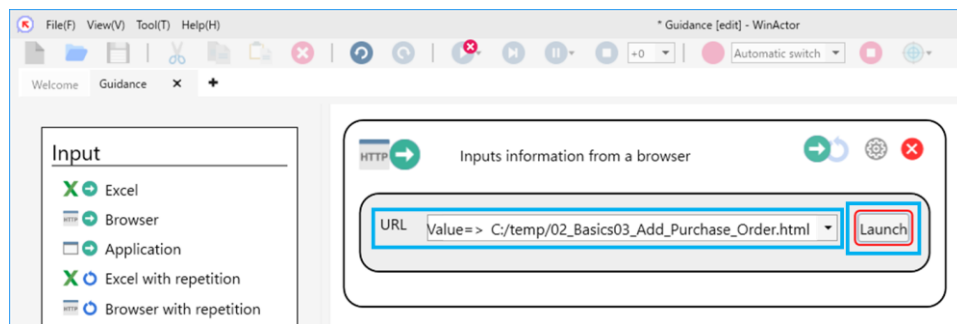
Name of information Select variable name

■ Table selection as the target element on the browser

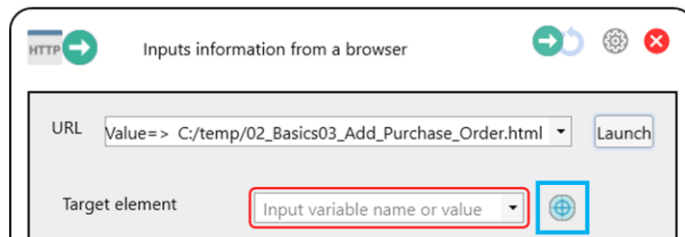
The table selection, which is to set a table in a browser for the 'Target element' item by mouse operations, is available only for the Browser input part.

Steps

1. Specify a webpage for 'URL,' and click the 'Launch' button. A browser is launched, and the specified webpage is opened.



2. Click the  button in the row of 'Target element.'



3. Moving a mouse cursor around on the browser, selectable element changes its color to purple when the cursor hovers over it. Click the table to select.

ブラウザ

WinActor Scenario Demo System

Menu Add P/O Search P/O Add to Inv

Add Purchase Order

P/O date 9 July 2020

Supplier code 123456 Supplier name

Registrant code WA011 Registrant name

Product code	Product name	
P001	PC	1
P002	TV	1
P003	Camera	1
P004	Mobile phone	1

4. When the dialog “Do you obtain extra values on the table?” is displayed, check the appropriate selection, and click ‘OK.’

In case of selecting a single element instead of a table, check the “Selected values only.”

WinActor

Do you obtain extra values on the table? Row:1, Column:3

☐ Selected values only

☒ Obtains values on the table vertically

☒ Obtains values on the table horizontally

OK Cancel

5. 'Target element,' 'Method of processing,' and the repetition information are automatically set.

'Method of processing' can be selected again from the dropdown.

When the input part is without repetition, it is changed to the input part with repetition automatically.

Repeatedly inputs information from a browser

URL: Value=> C:/temp/02_Basics03_Add_Purchase_Order.html [Launch]

Target element: Value=> /html/body/div[2]/div/ [⊕]

Method of processing: Get value in table

Name of information: Select variable name

(1) Direction: ☐ Vertical ☒ Horizontal

(2) Repetition test: ☒ Pre-test ☐ Post-test

(3) Increments: 1

(4) Number of repetition: 2

☐ Condition to repeat: Select variat: Value=>

(5) Direction: ☒ Vertical ☐ Horizontal

(6) Repetition test: ☒ Pre-test ☐ Post-test

(7) Increments: 1

(8) Number of repetition: 3

☐ Condition to repeat: Select variat: Value=>

The automatically set items of the repetition information are listed below.

When 'Horizontal' is checked:

No.	Name	Description
(1)	Direction	Horizontal
(2)	Repetition test	Pre-test
(3)	Increments	1
(4)	Number of repetition	Number of columns in the table

When 'Vertical' is checked:

No.	Name	Description
(5)	Direction	Vertical
(6)	Repetition test	Pre-test
(7)	Increments	1

No.	Name	Description
(8)	Number of repetition	Number of rows in the table

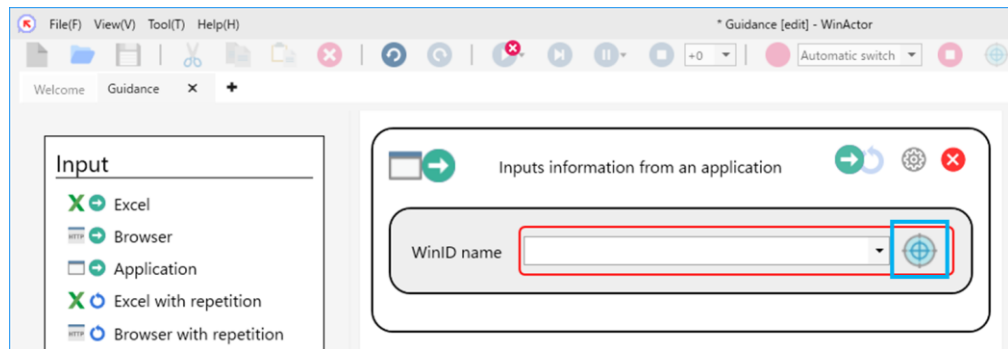
■ Setting up the 'WinID name' and the 'Target control' of an application

The procedure to set up 'WinID name' and 'Target control' of an application part with mouse operations is described here.

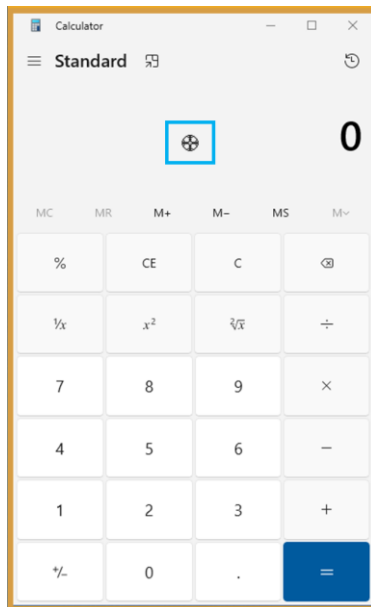
Steps

1. Click the  button at the row of 'WinID name.'

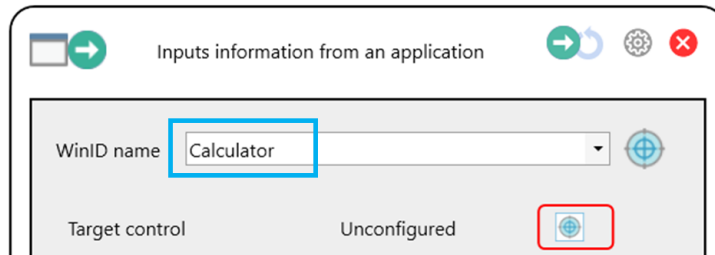
The mouse cursor is changed to .



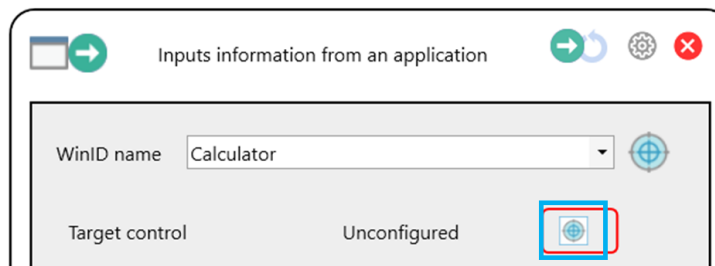
2. Move the mouse cursor, and click on the application to obtain information from or output information to.



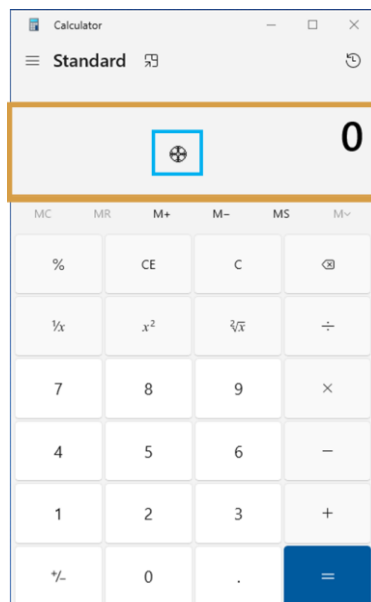
3. 'WinID name' is automatically set.



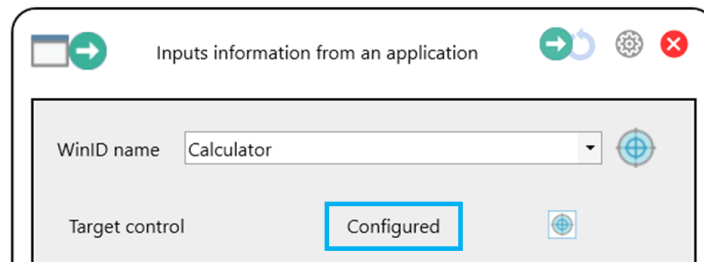
4. Click the  button at the row of 'Target control.'
- The mouse cursor is changed to .



5. Move the mouse cursor, and click on the element to obtain information from or output information to.



6. 'Target control' is changed to 'Configured.'



1.21.8 Edit operations

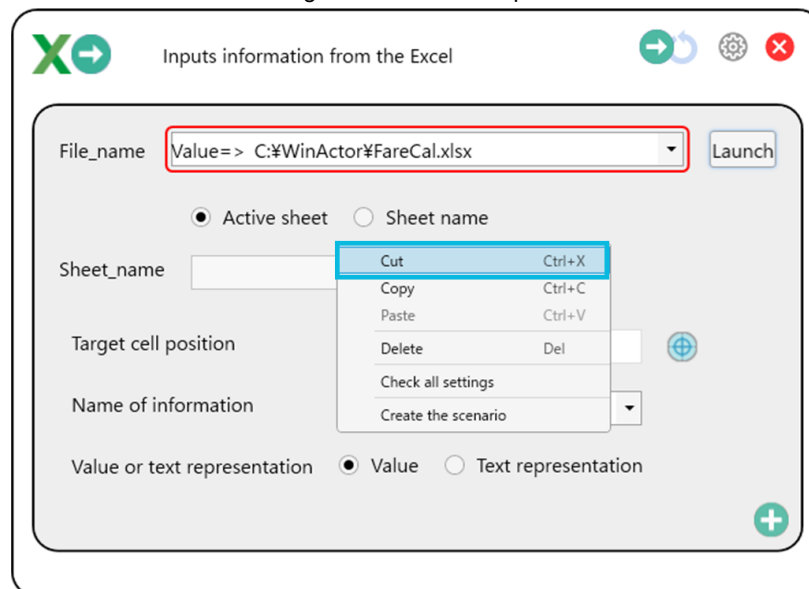
This subsection describes 'Cut,' 'Copy,' and 'Paste' of a part, and 'Undo' and 'Redo' of an operation.

■ Cut

Right-clicking on a part and selecting 'Cut' in the menu moves the part from WinActor display to a temporary storage, and the part displayed on WinActor disappears..

The formerly-cut part can be inserted to WinActor display via the 'Paste' operation.

Figure 1-51 'Cut' of a part



Alternatively, you can 'Cut' a part by pressing 'Ctrl' + 'X' keys.

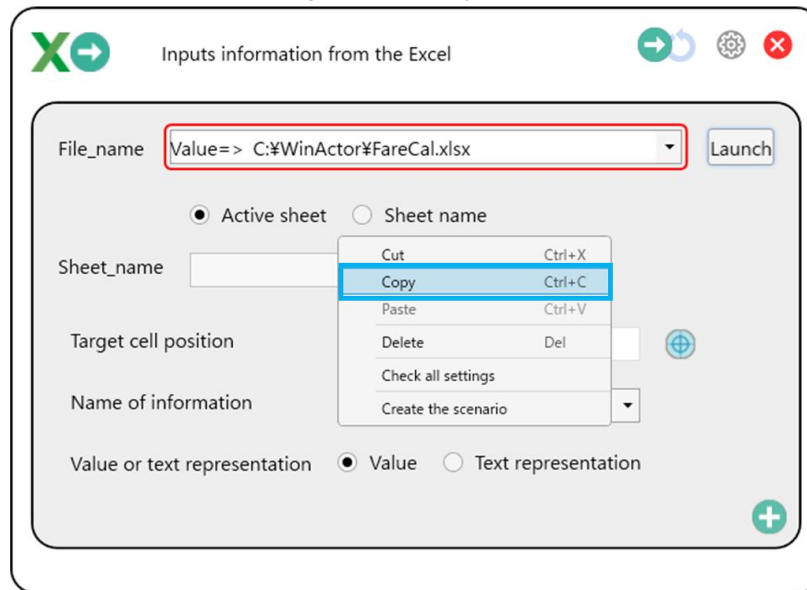
In that case, the part the configuration area is opened is the cutting target.

■ Copy

Right-clicking on a part and selecting 'Copy' in the menu copies the part on WinActor display to a temporary storage.

The formerly-copied part can be inserted to WinActor display via the 'Paste' operation.

Figure 1-52 'Copy' a part



Alternatively, you can 'Copy' a part by pressing 'Ctrl' + 'C' keys.

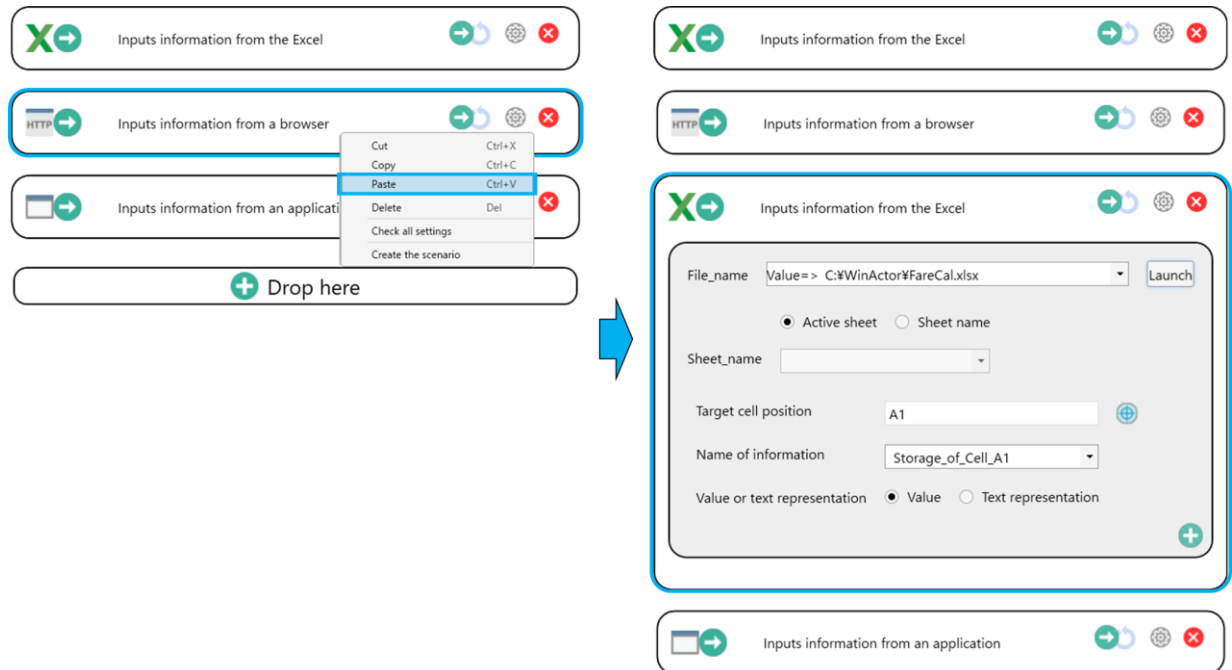
In that case, the part the configuration area is opened is copied.

■ Paste

Right-clicking on a part or the 'Tiny scenario edit area' and selecting 'Paste' in the menu copies the part in the temporary storage, which is stored by 'Cut' or 'Copy' operation, to WinActor display.

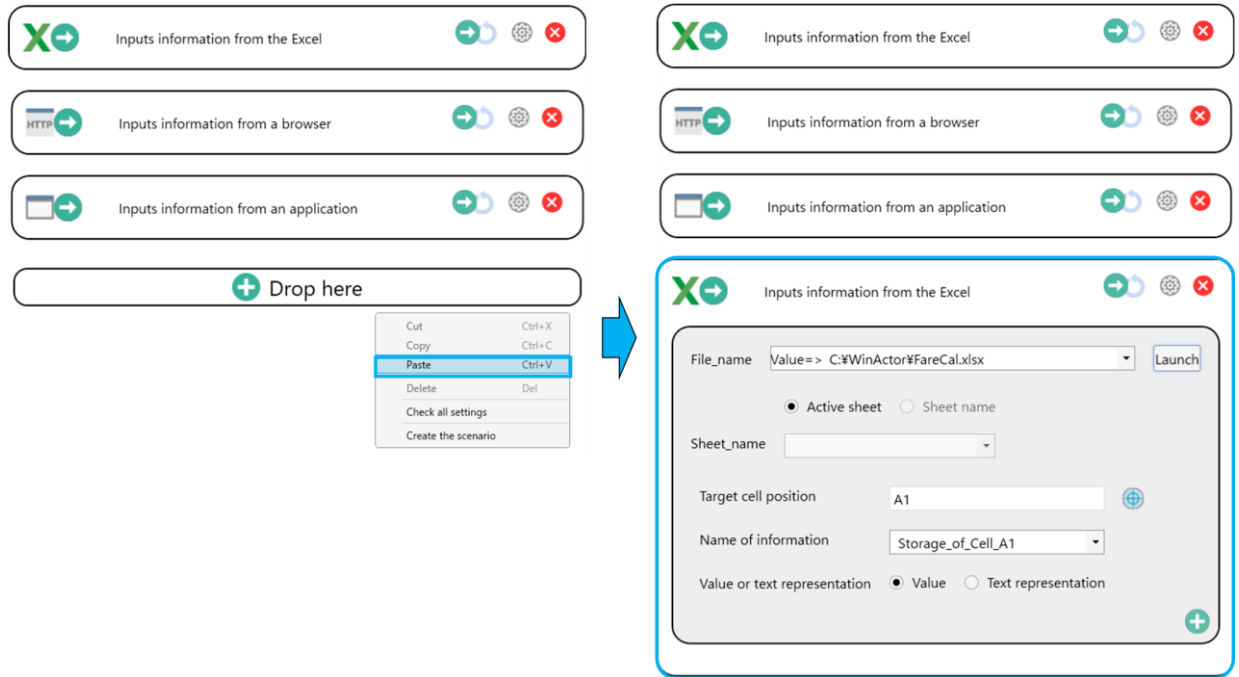
The pasted part is inserted just next to the right-clicked part.

Figure 1-53 'Paste' a part (when right clicked a part)



When an object other than a part is right-clicked, the pasted part is inserted at the tail end of arranged parts.

Figure 1-54 'Paste' a part (when right clicked the 'Tine scenario edit area')



Alternatively, you can 'Paste' a part by pressing 'Ctrl' + 'V' keys.

In that case, the part is appended at the tail end; it is the same as right clicking on an object other than a part.

■ Undo

When the 'Undo' icon is clicked, the previous edit operation is canceled, and the state just before the previous edit operation is recovered.

This operation is to cancel the result of an accidental edit on a tiny scenario such as inserting, deleting, or setting a wrong part.

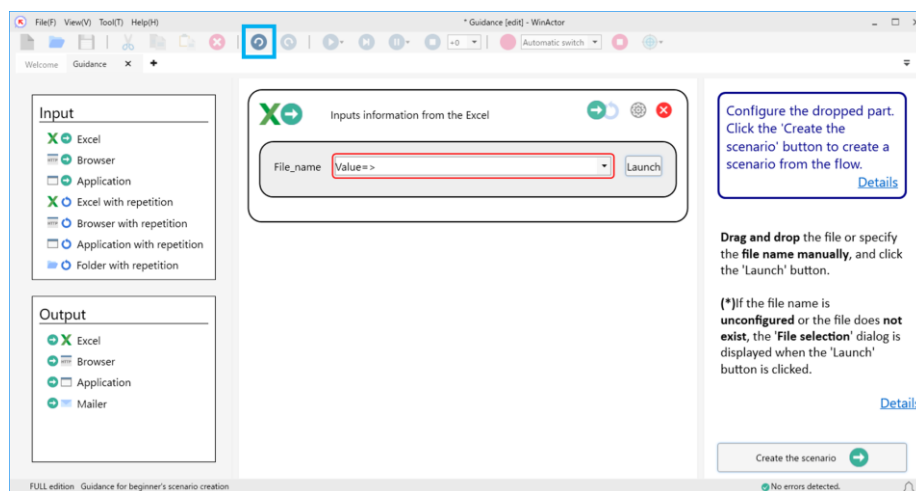


- Alternatively, you can 'Undo' an operation by pressing 'Ctrl' + 'Z' keys.
- Up to 39 operations can be undone.

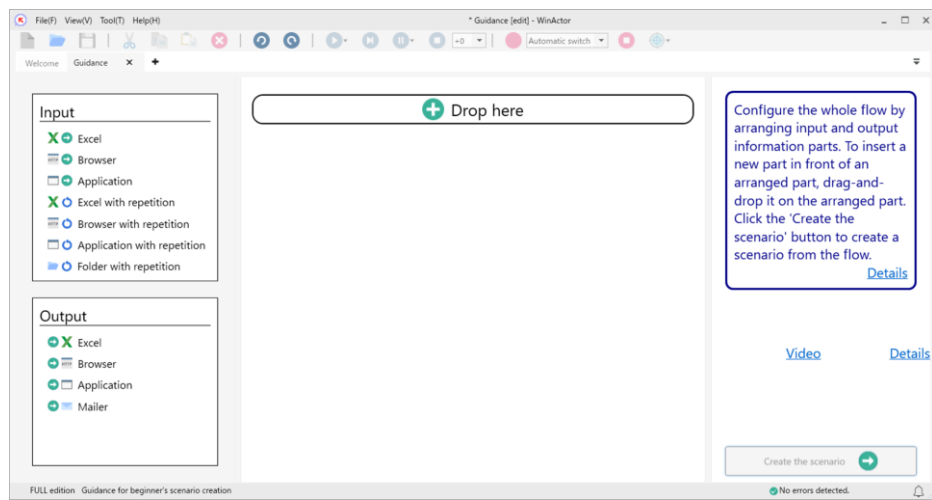
The procedure to 'Undo' an operation of inserting a part just after the operation is described below.

Steps

1. Click the 'Undo' icon on the toolbar..



'Tiny scenario edit area' is recovered to the state just before inserting the part.



■ Redo

When the 'Redo' icon is clicked just after the 'Undo' operation, the 'Undo' operation is canceled.

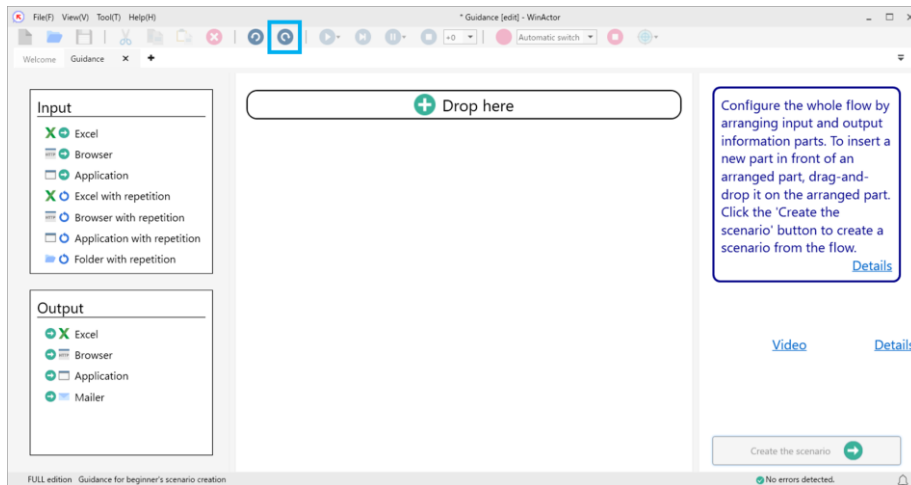


Alternatively, you can 'Undo' an operation by pressing 'Ctrl' + 'Y' keys.

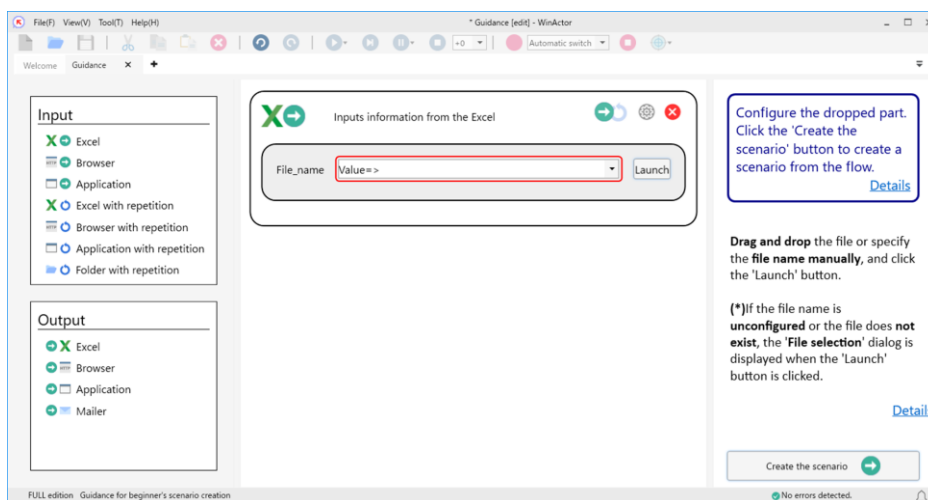
The procedure to 'Redo' the operation canceled via the 'Undo' operation, which have just undone an adding-part operation, is described below.

Steps

1. Click the 'Redo' icon on the toolbar..



The 'Undo' operation is canceled.



1.21.9 Scenario creation

The scenario creation from a tiny scenario is described.

■ 'Create the scenario' button

Completing parts settings in the tiny scenario edit area, click the 'Create the scenario' button to start converting to the WinActor scenario.

When the conversion completes, the converted scenario is displayed in a newly created tab on WinActor.



Alternatively, you can start the conversion by selecting 'Create the scenario' from the right-click menu.

Figure 1-55 'Create the scenario' button

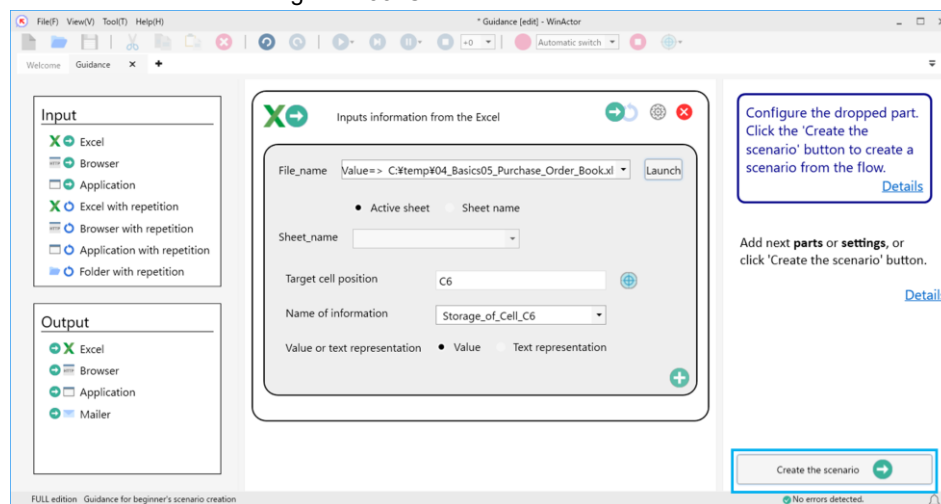
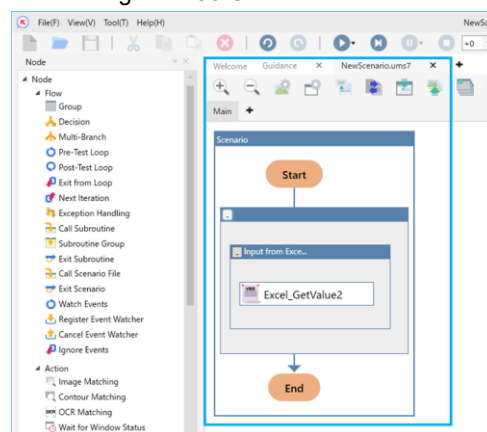


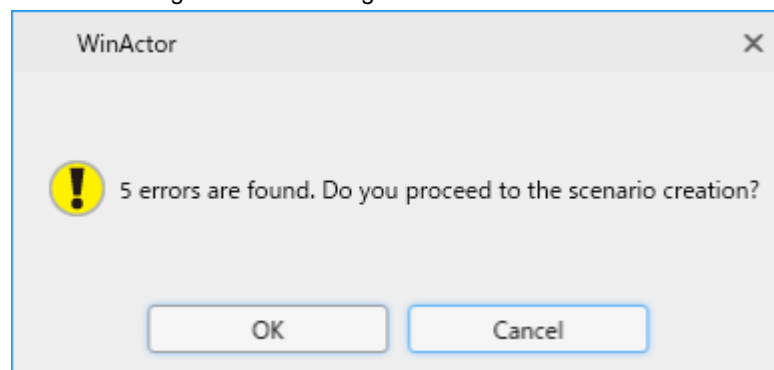
Figure 1-56 Created scenario



■ Unconfigured items

When unconfigured items are included in the parts in the tiny scenario edit area, the WinActor scenario cannot be created. If the 'Create the scenario' button is clicked leaving any unconfigured items, a warning dialog is displayed. Click the 'Cancel' button, and configure the unconfigured items. The number of unconfigured items can be checked by the number of errors displayed on the dialog and below the guidance area.

Figure 1-57 Unconfigured items are remained

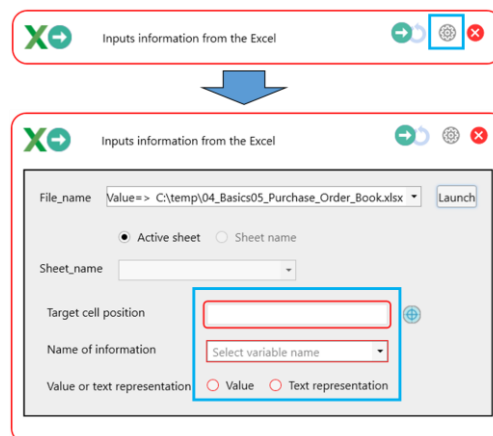


- If 'OK' is clicked on the warning dialog, the WinActor scenario is created leaving the unconfigured items. Except for special cases, select 'Cancel,' and set unconfigured items.
- The number of errors is the total number of unconfigured items.

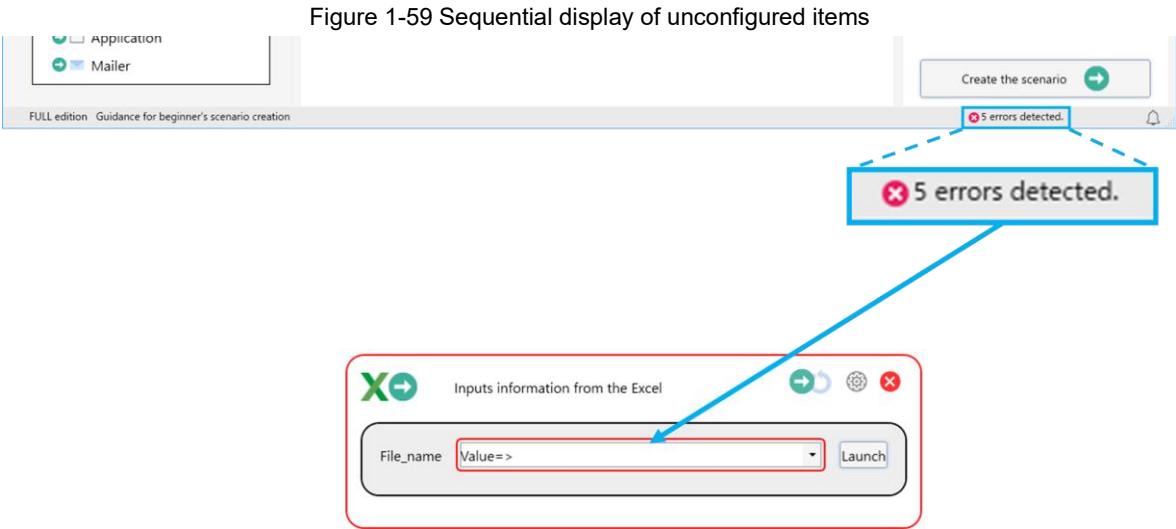
The parts with unconfigured items are framed red in the tiny scenario edit area.

Expanding the configuration area of the red-framed part by clicking the 'Configuration area toggle button,' each unconfigured item is framed red in the area. Set the items until no red-framed item is left.

Figure 1-58 Red frame of unconfigured items



When the number of errors displayed on the footer is clicked, unconfigured items are sequentially displayed with a red frame.



■ Closing the scenario creation with guidance

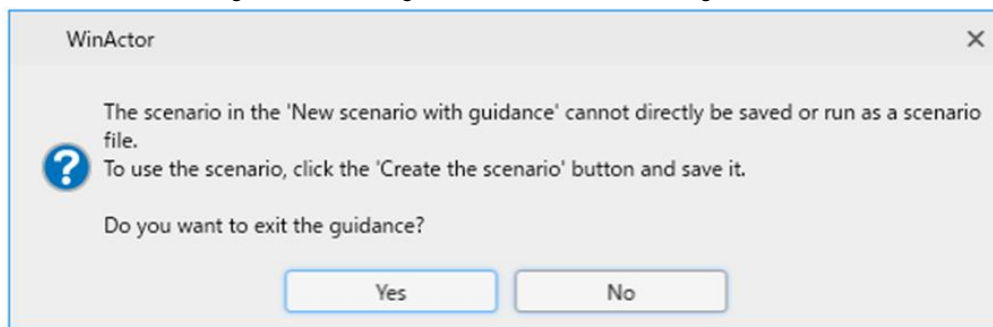
When the 'Close' button on the tab of the scenario creation with guidance is clicked, a confirmation dialog is displayed.

Because the tiny scenario created with guidance cannot be directly saved, click 'No' and proceed to 'Create the scenario' to save the scenario.

Click 'Yes' to just close the tab without saving the scenario.

When WinActor is closed leaving the tab of the scenario creation with guidance unclosed, the same dialog is shown.

Figure 1-60 closing the scenario creation with guidance



1.22 Scenario creation with Generative AI

A schematic flow of a scenario can be generated with Generative AI. To use this function, the settings to connect to the Generative AI for Generative AI integration are necessary on the Generative AI integration window from the 'Integration of external services' in the "Tool" menu.

However, when you use the AI integration license, those settings are not necessary.



For the details in setting the Generative AI, see the "Generative AI integration window."

The "Generative AI integration window" can be opened by clicking the settings button of 'Generative AI' on the 'Integration of External services' window displayed by clicking the 'Tool' - 'Integration of external services' on the Menu bar.

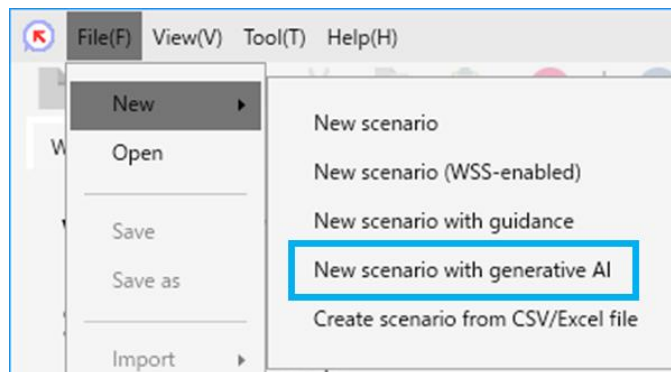
Regarding the usage charge of the Generative AI API directly contracted by you, inquire your contract partner because the charge depends on the service contract of the API.



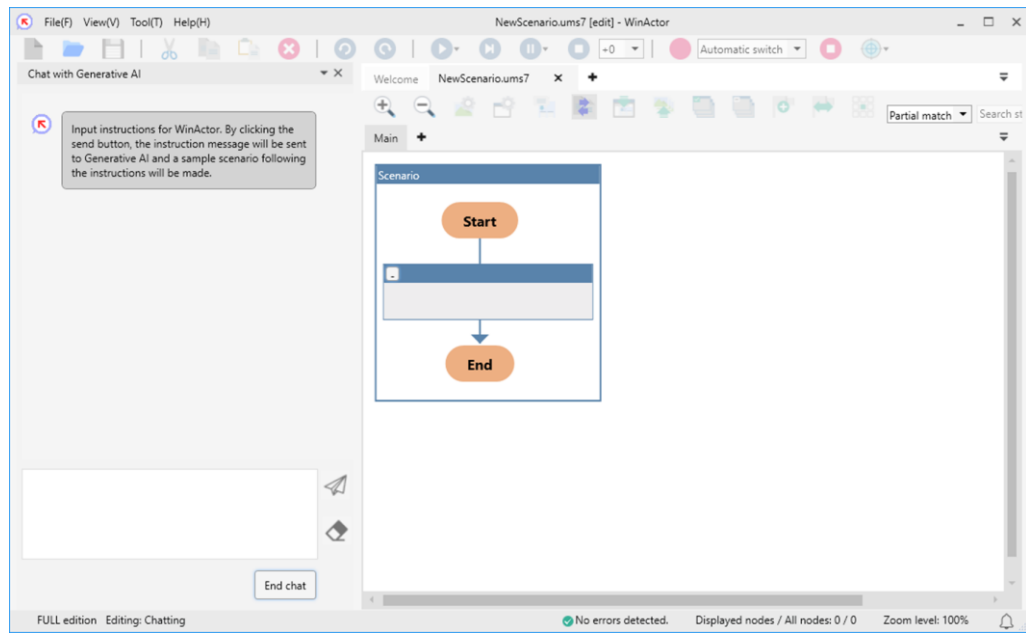
As the current version of this function is tuned only for Japanese dialogue, the scenario generated with this function via English dialogue may include Japanese versions of nodes, libraries, variables, sticky notes, etc.

Steps

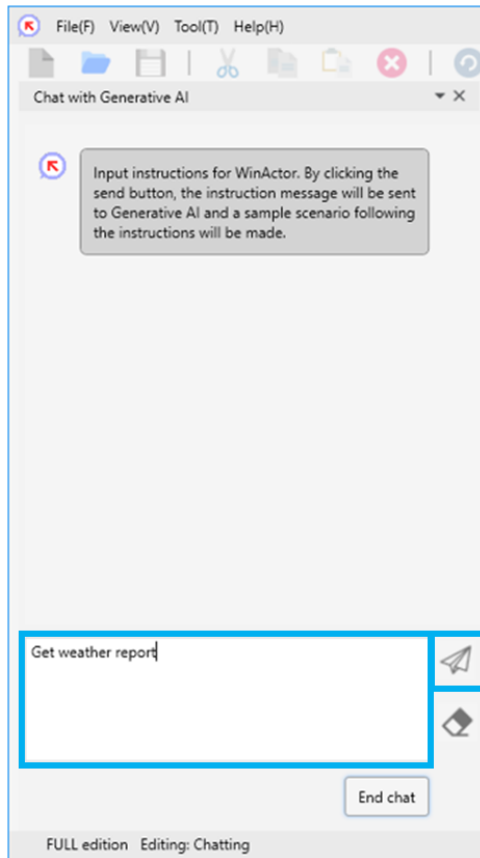
1. Click the "File" menu and select 'New' > 'New scenario with generative AI.'



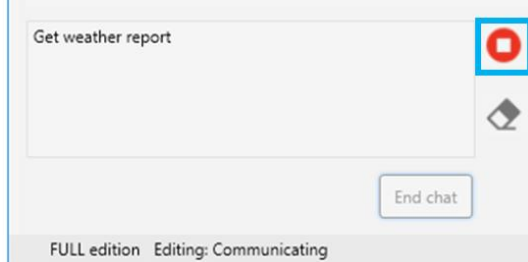
Chat tab pane to create flows, the dialogue on which can be in Japanese, and a new scenario file are displayed.



2. Describe what to do on WinActor in the chat dialog. Then, click the 'Send the message' button, which looks as a paper plane icon, to send the chat message to the Generative AI to create a scenario.



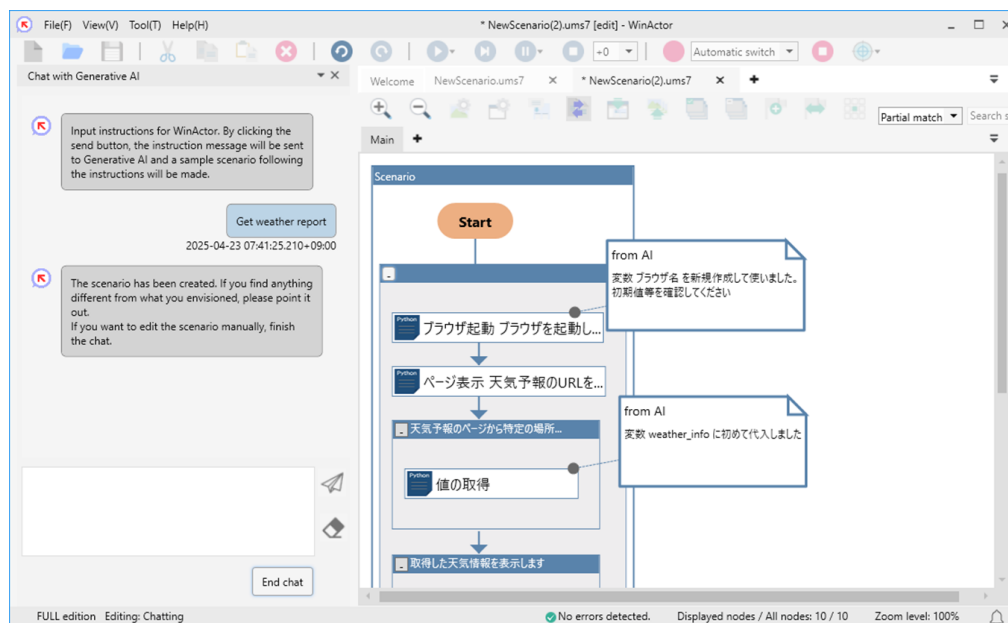
During the scenario creation by the Generative AI, the 'Send the message' button (paper plane icon) turns to the 'Stop sending the message' button.



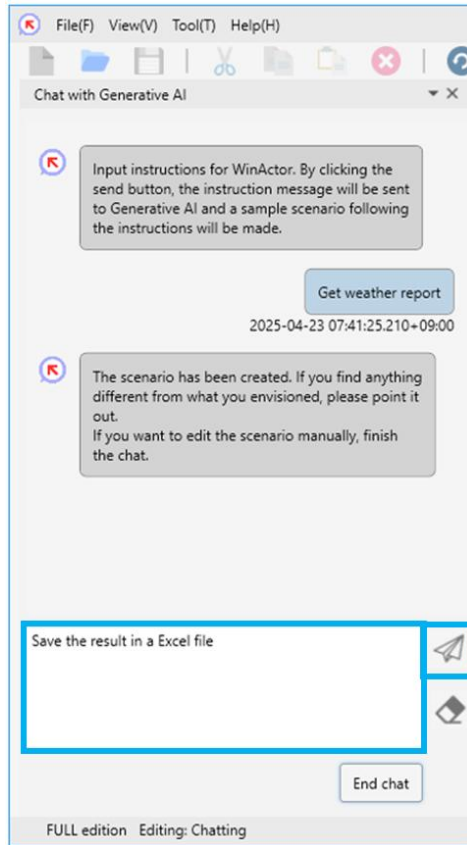
Scenario creation by Generative AI may take long time.

By clicking the 'Stop sending the message' button, you can disconnect the communication with Generative AI.

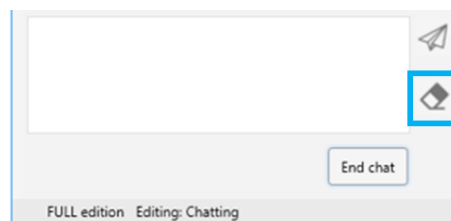
When the scenario creation succeeds, the scenario on display is renewed.
The created scenario can be checked its contents on the 'Scenario edit area.'



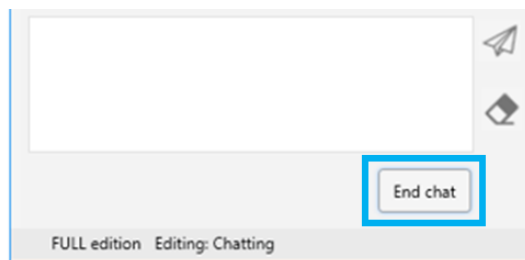
3. The created scenario can be revised through the dialog with Generative AI. For the revision, describe how you want to change in the chat dialog and click the 'Send the message' button.



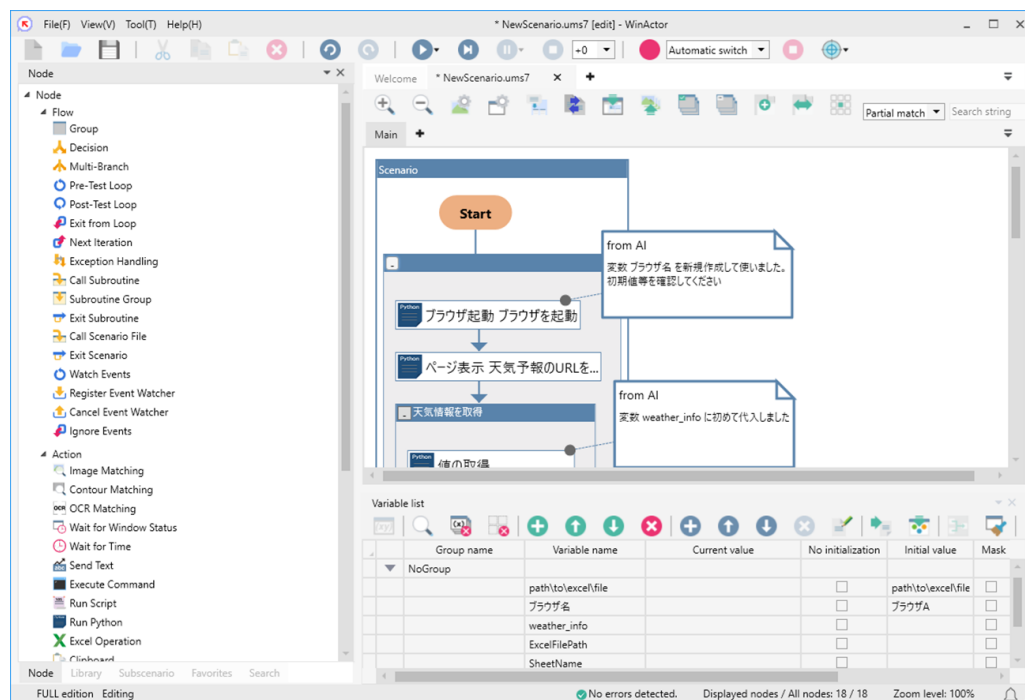
Clicking the 'Clear the message' button, which looks as an eraser icon, with some text in the chat dialog, the text is cleared.



4. In order to save, manually edit, or run the created scenario, click the 'End chat' button.



Chat tab pane closes, and the created scenario can be edit in the same manner as a scenario created by 'New scenario' in the 'File' menu.



1.22.1 Survey on scenario creation with Generative AI

In order to improve the quality of the scenario creation using Generation AI, we appreciate your cooperation in filling out the questionnaire. The questionnaire is displayed on the first closing of the scenario created with Generative AI.



- This survey is conducted only when the scenario is created selecting the 'Use Azure OpenAI via NTT-AT with NTT-AT's license.' on the 'Generative AI integration' window.
 - * When the AI integration license is applied, the 'Use Azure OpenAI via NTT-AT with NTT-AT's license.' is selected as default.
- If you do not wish the questionnaire to be displayed, select an appropriate period of time to skip displaying the questionnaire from the list box at the bottom of the survey dialog. The selected setting will apply even when the survey dialog is closed without sending the answer of the questionnaire,

Figure 1-61 Dialog of the survey on scenario creation with Generative AI

Survey on scenario creation using Generative AI

In order to improve the quality of the scenario creation using Generation AI, we appreciate your cooperation in filling out the questionnaire. When you click the 'Send' button, the information you entered on the chat screen with Generation AI, which is shown on the right of the questionnaire, and the scenario information created by Generation AI will also be sent to the server managed by NTT ADVANCED TECHNOLOGY CORPORATION.

Please indicate your level of satisfaction with the scenario created. (Required)

☒ Everything was helpful.

☐ Generally helpful

☐ Somewhat helpful

☐ Useless

☐ Completely useless

Please provide any reasons for the above, comments, etc. (optional)

If you do not wish the questionnaire to be displayed, please select an appropriate period of time from the list below to skip displaying the questionnaire. If you close this dialog without sending the questionnaire, the settings you selected will still apply.

Display the questionnaire every t ▼

Get weather. 2025-08-01 15:20:16.692+09:00

Save it into an Excel file. 2025-08-01 15:20:59.577+09:00

Send Close without sending Cancel

When you click the 'Send' button, the information entered on the chat screen with Generation AI, which is shown on the right of the questionnaire, and the scenario information created by Generative AI will also be sent to the server managed by NTT ADVANCED TECHNOLOGY CORPORATION.

1.23 Scenario-difference visualization

Scenario-difference visualization compares the scenario currently being edited with the scenario that has already been stored, and it visualizes the positions, where differences exist between the compared scenarios, and the classification of each difference.

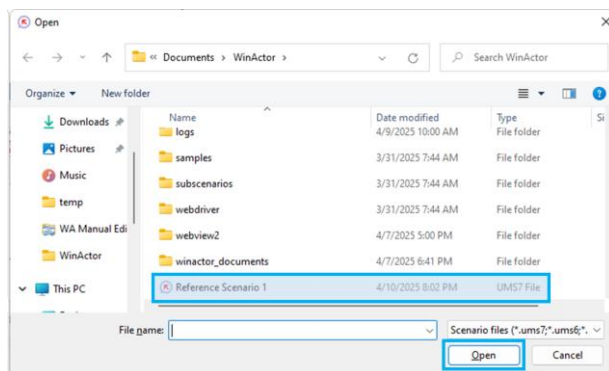
Steps

1. Click the 'Scenario-difference visualization' icon in the Flowchart toolbar during the editing of a scenario.

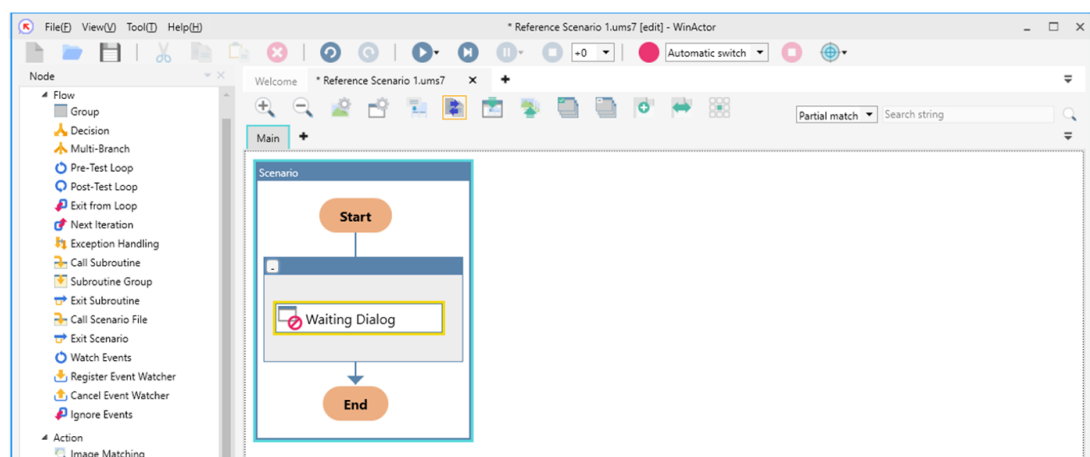


'Open' dialog appears.

2. Select a scenario for visualizing differences with the currently edited scenario, and click the 'Open' button.



The following window is displayed after loading the scenario file to be compared.

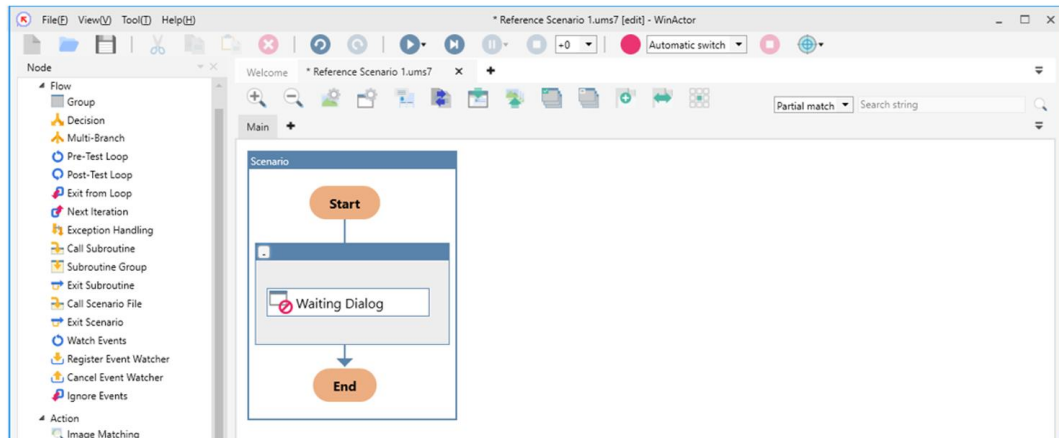


'Scenario-difference visualization' icon is framed in orange.

3. Click the 'Scenario-difference visualization' icon again.



Scenario-difference visualization ends.

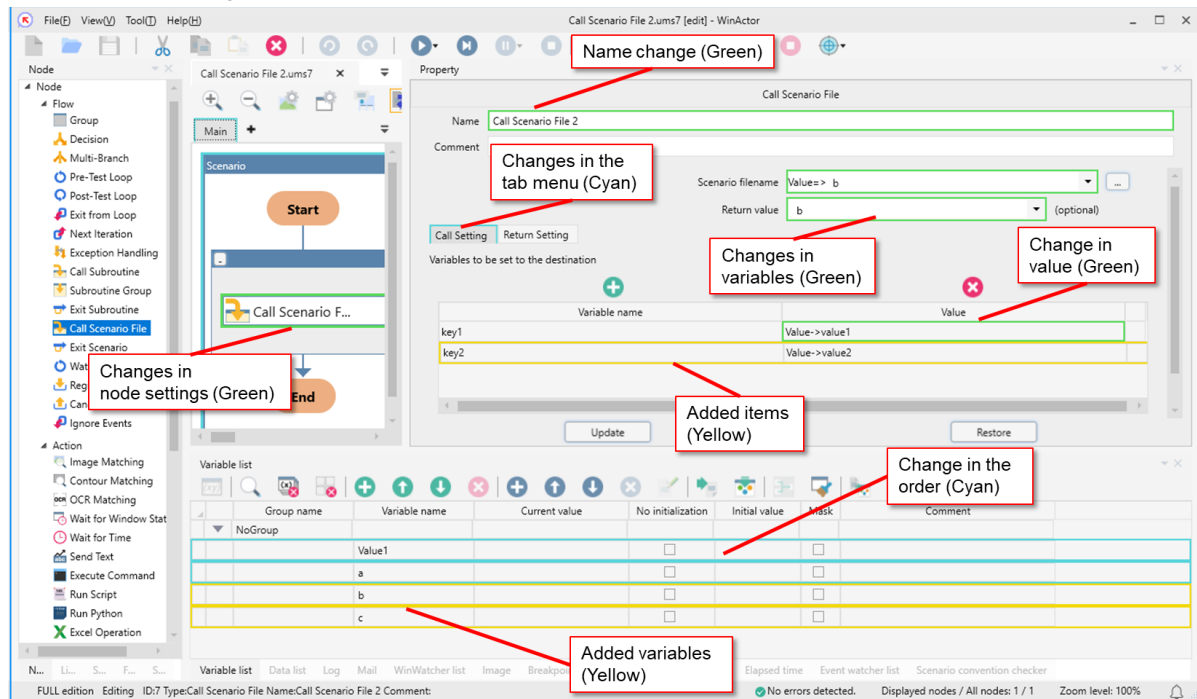


As the Scenario-difference visualization ends, the orange frame on the 'Scenario-difference visualization' icon disappears.

Table 1-45 Classification of the difference

Classification	FrameColor	Description
No difference	None	When judged that there is no difference between two scenarios, the scenario is shown the same as before.
Addition	Yellow	When judged that the element does not exist in the scenario for comparison, it is framed in yellow as an added element.
Alteration	Green	When judged that the element's setting specification is changed, although the element does exist in the scenario for comparison, it is framed in green as an altered element. However, the 'Alteration' is shown only when the user can easily recognize the change by sight in the property pane and so on.
Other differences	. Cyan	When judged that the element's setting specification is changed, although the element does exist in the scenario for comparison; but it is difficult or unable for the user to recognize by sight, it is framed in cyan as an altered element different from 'Alteration.' (Examples) • Change in placement location of the node in a flow chart • Change of items not shown in the property pane • Difference in nodes included in a closed group node • Change of the order in the variables list

Figure 1-62 Example of difference visualization of a 'Call scenario file' node



- Scenario-difference visualization does not show concrete details of the difference such as name change or addition of variables, and so on.
- When a specific element is deleted from either of the scenarios, it is judged as 'No difference.'
- Since Scenario-difference visualization is based on the information at the time of closing the dialog to select the scenario file for comparison, editing operations during the Scenario-difference visualization are not reflected.



- Changes in the setting of a scenario are not reflected before the confirmation of the changes such as closing the property pane after the changes.
If the setting is changed during the Scenario-difference visualization, it is required to finish the Scenario-difference visualization once after the change is confirmed and to re-start the Scenario-difference visualization to reflect the change.
- Some dialogs or sub-windows of the property may not work properly with the start and end of the Scenario-difference visualization. In this case, close the dialog or window once and re-open it.

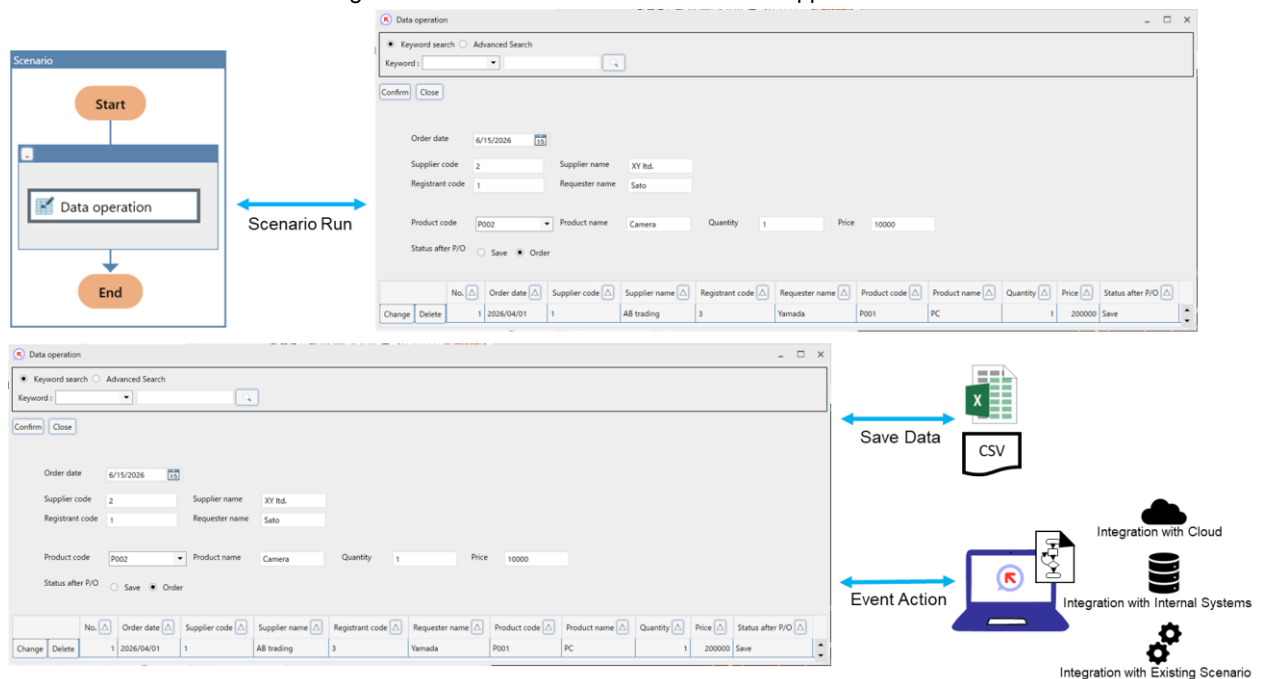
1.24 Local business application

The 'Local business application' appears when a scenario containing a 'Data operation' node runs.

'Local business application' is a business application with WinActor functions which enable collaboration with various other applications.

➤➤ For the 'Data operation' node, see "4.4.11 Data operation."

Figure 1-63 Introduction of Local business application



Operations of adding new data, changing existing data, and deleting data, and event processing triggered by those operations collaborating with an existing scenario are possible on the business application window.

Figure 1-64 Example of Local business application (Registering an order)

Data operation

☒ Keyword search ☐ Advanced Search
 Keyword:

Order date: 6/15/2026
 Supplier code: 2 Supplier name: XY Ltd.
 Registrant code: 1 Requester name: Sato

Product code: P002 Product name: Camera Quantity: 1 Price: 10000

Status after P/O: ☐ Save ☒ Order

	No.	Order date	Supplier code	Supplier name	Registrant code	Requester name	Product code	Product name	Quantity	Price	Status after P/O
Change Delete	1	2026/04/01	1	AB trading	3	Yamada	P001	PC	1	200000	Save

As collaboration with an existing scenario is possible in the event processing, 'Local business application' can be deployed reusing existing automation scenarios.

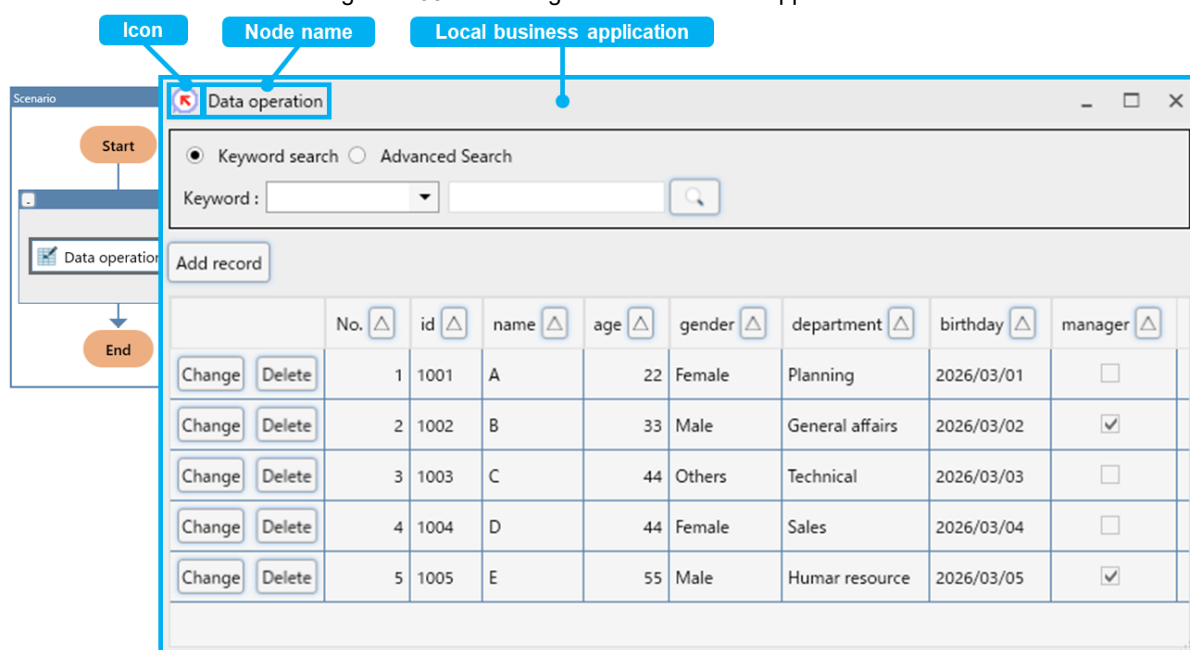
For example, 'Local business application' can be used as a replacement for various kind of applications which collaborate with WinActor, and also as a user interface to the data operations newly integrated with WinActor.

1.24.1 Preparation for Local business application

This section describes the preparation steps for the 'Local business application,' which is launched while the 'Data operation' node is executed.

>> For the 'Data operation' node, see "4.4.11 Data operation."

Figure 1-65 Launching the local business application



Steps

1. Create a scenario including a 'Data operation' node, configure settings in the Property pane of the node, and run the scenario.
2. When the run of the scenario reaches the 'Data operation' node, the 'Local business application' starts.
The size and the location of the window, and the width of each column in the record list are restored to their ending states of the previous execution.
3. The 'Local business application' is kept launched until the user closes the window, and the execution of the scenario stays at the 'Data operation' node while it is launched.
4. In the 'Local business application' window, a user can search, sort, add, update, delete records of the data source, etc.
5. Clicking the 'x' (close) button on the title bar of the 'Local business application,' the application exits, and the execution of the next node to the 'Data operation' node starts.



Even though the 'Local business application' is a part of WinActor, it acts and looks like an independent application for users. Thus, it acts as follows.

- When the application is launched, the main window of WinActor is minimized.
 - Creating a shortcut link with the menu item 'Create WinActor shortcut,' the scenario including the application can be directly executed.
 - When an icon is selected while creating a WinActor shortcut, the WinActor icon on the title bar of the window, on the task bar, and in the task tray are changed to the selected icon.
 - After the 'Local business application' exits, WinActor is restored to the previous status.
-

1.24.2 Local business application window

Figure 1-66 Local business application window

The screenshot shows a window titled "Data operation" with three main sections:

- (1) Search area:** Contains radio buttons for "Keyword search" (selected) and "Advanced Search". Below is a "Keyword:" label, a dropdown menu, a text input field, and a search icon button.
- (2) Add record area:** A single button labeled "Add record".
- (3) Record list area:** A table with 10 columns: No., id, name, age, gender, department, birthday, and manager. Each row has "Change" and "Delete" buttons to its left. The table contains 5 records.

No.	id	name	age	gender	department	birthday	manager
1	1001	A	22	Female	Planning	2026/03/01	☐
2	1002	B	33	Male	General affairs	2026/03/02	☒
3	1003	C	44	Others	Technical	2026/03/03	☐
4	1004	D	44	Female	Sales	2026/03/04	☐
5	1005	E	55	Male	Humar resource	2026/03/05	☒

Table 1-46 Local business application window

No.	Name	Description
(1)	Search area	The area to search and refine records in the record list
(2)	Add record area	The area to add a new record. A record input form is shown when adding a record, or just an 'Add record' button is shown when not adding a record.
(3)	Record list area	This area vertically shows the list of records in the data source. A user can sort records, and switch to the input form to delete or update a record.

1.24.3 Data source

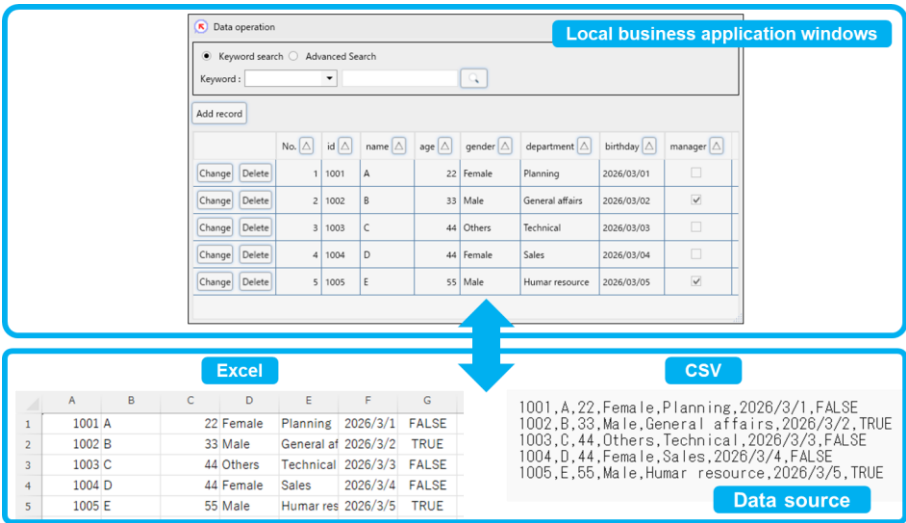
The data source for the 'Local business application' is an Excel or a CSV file. The location of the file can be specified in the Property pane, and a new file is created if the file does not exist at the specified path.

- Input from the data source file is done, in principle, just once at the launch of the application.
- Output to the data source file is done every time a record is added, updated, or deleted. The file is saved each time.
- The newly added record is appended to the end of the data source file. The order of the added record in the file will not change after that.

■ Data structure of the data source

The record list of the 'Local business application' and the data in the data source have the relation as follows.

Figure 1-67 Data source and data structure



- When you use an Excel file as the data source and select 'horizontal' for the 'Direction,' read the words "row" and "column" of the data source as the words "column" and "row" respectively hereafter in this section.
- The local business application ignores headers in the data source. Therefore, existence nor locations of headers does not influence the function. Headers in an existing file will be ignored, and a new file will be created without headers.

■ Data source and controls

The relations between the controls arranged on the 'UI design' tab in the Property pane and the data in the data source are as follows.

Table 1-47 Data source and controls

No.	Type	Description
(1)	Label	Label is ignored while inputting or outputting.
(2)	String	This is assigned to a single column in the data source. The value is treated and stored as a string.
(3)	Number	This is assigned to a single column in the data source. The value is treated and stored as a number, which is between $\pm 7.9228 \times 10E28$.
(4)	Date	This is assigned to a column in the data source. The value is treated as a date ignoring the time. The value is stored as a string or as a date and time.
(5)	Selection 1 (Combo box)	This is assigned to a single column in the data source. The choice is stored. If the choice does not exist, the combo box is left unselected.
(6)	Selection 2 (Radio buttons)	This is assigned to a single column in the data source. The choice is stored. If the choice does not exist, the radio buttons are left unselected.
(7)	Check box	This is assigned to a single column in the data source. The choice is treated and stored as a boolean value (TRUE/FALSE). While listing or editing records, the value is displayed as a checked or unchecked box.

■ Notices

Followings are notices on the input and output from and to Excel and CSV files.

Excel file

- An Excel file is treated as the data source depending on the settings in the Property pane. The file is opened and locked while this application is running.
- The extensions `xlsx`, `xls`, `xlsm` are available.
- Data type of each column in the data source is specified on the 'Input data' tab in the Property pane.
- When the data source is read, values of all the cells are input at once. When the record list is displayed, instead of the value, the formatted string taken from the corresponding cell is displayed for the record the 'Category' of which is set to 'Text.'
- When a record is deleted, the corresponding record in the data source is cleared to vacant. The row nor column numbers of records will not change with the deletion.
- When the data source file has already been opened with another application and locked, an error message will be displayed because the file is not editable.

CSV file

- A CSV file is treated as the data source depending on the settings in the Property pane. The file is opened and closed every time this application inputs and operates the file.
- The extension `csv` is available.
- The string columns and the date columns are embraced with double quotes when stored, and other columns are stored without quotes.
- Each field including special characters are embraced with double quotes in the data source, and a double quote in a field is escaped to a double-double quote `""`.
- When a record is deleted, the corresponding record in the data source is completely deleted, and all the row numbers of the records below the deleted record are subtracted by one.

1.24.4 Record list area

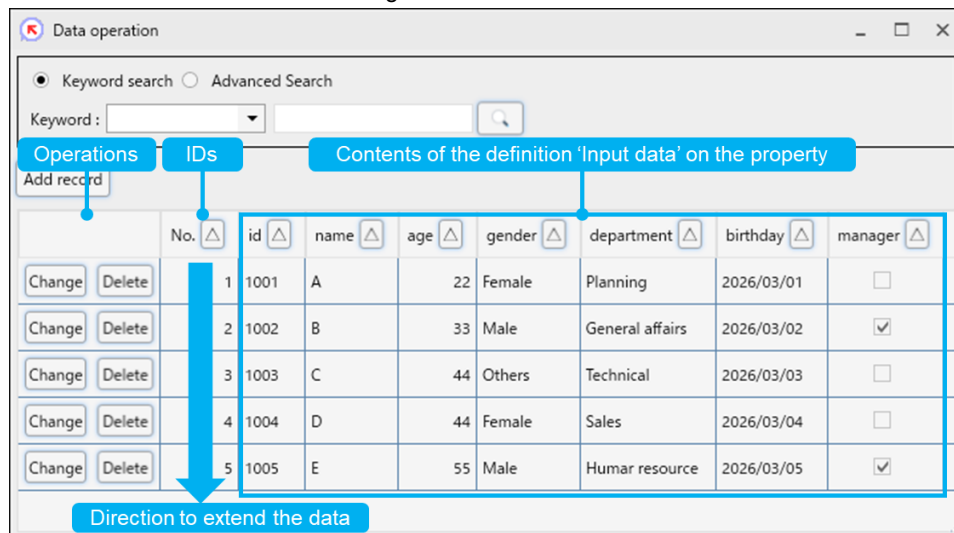
In the record list area, the records registered in the data source are displayed row-by-row according to the settings in the Property pane.

Even when 'Excel' file and 'Horizontal' direction is selected, records are listed row-by-row.

The columns of the data-type number are right aligned, those of the data-type boolean are center aligned, other columns are left aligned to display.

Records can be searched, filtered, sorted, and deleted on the record list. Adding and editing of a record is done on the record input form, which is described later.

Figure 1-68 Record list



The items set on the Property pane without checking their 'Display' settings are not shown on the record list.

The index numbers (starting from 1) that are assigned to the records in ascending order while reading a CSV file, or the row or column numbers of an Excel file for the vertical or horizontal direction of records are used as identification numbers for various operation. Each identification number is assigned to the 'No.' column of a record in the record list.

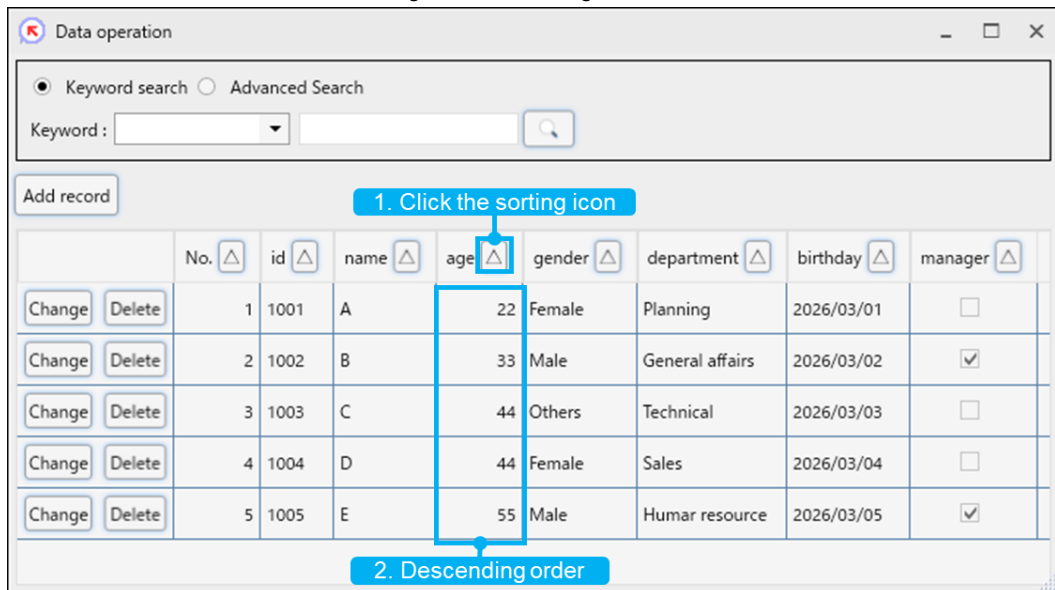
The item names set in the Property pane are used for the column headers other than the 'No.' column.

■ Sorting records

Click the icon, which is either '▲' or '▼', in the column headers to sort records by the column, and then, the order toggles between the ascending '▲' and the descending '▼' order each time the icon is clicked.

The initial state is the ascending order by the 'No.' column, which is the order of original records. The sorted order is temporal, that is, it has no influence with the data source, and is not saved.

Figure 1-69 Sorting records

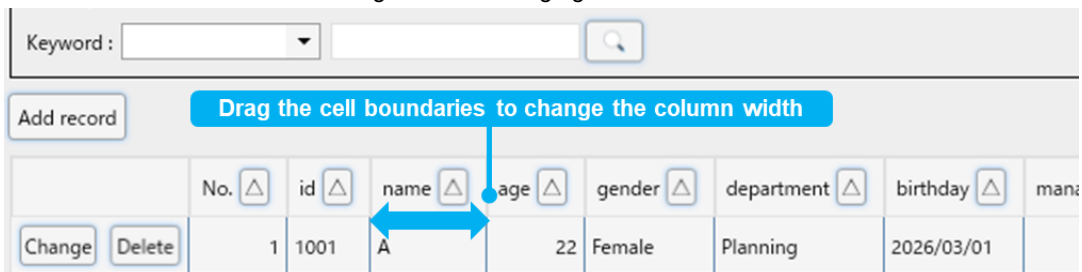


■ Changing column width

Drag the boundary of column headers to change the column width. The changed column width is saved for each user, and restored on the next execution.

Double-click the boundary of column headers to adjust the column width to the contents of the cell automatically.

Figure 1-70 Changing column width



■ Exchanging columns

Drag and drop a column header to change the order of columns except for the 1st and 2nd columns, which are the operations' and the 'No.' columns respectively.

The exchanged column order is temporal, that is, it has no influence with the data source, and is not saved.

Figure 1-71 Exchanging columns

Keyword :

Drag and droop the header cells to exchange columns

	No. ▲	id ▲	name ▲	age ▲	gender ▲	department ▲	birthday ▲	mane
Change Delete	1	1001	A	22	Female	Planning	2026/03/01	

1.24.5 Search area

The 'Keyword search' and the 'Advanced search' through the record list are possible. The initial selection is the 'Keyword search.'

■ Keyword search

When 'Keyword search' is selected as the search type, the combo box to select the column name to search and the text box to enter the keyword are displayed. A simple search through a column is possible by using those boxes.

Figure 1-72 Keyword search

The screenshot shows a search interface with two radio buttons: 'Keyword search' (selected) and 'Advanced Search'. Below them is a 'Keyword:' label, a dropdown menu showing 'gender', and a text input field containing 'Female'. A magnifying glass icon is to the right of the input field. Below this is a row of three blue buttons: '1.Specify the column', '2.Input the keyword', and '3.Search'. Below the buttons is a table with columns: No., id, name, age, gender, department, birthday, and manager. The first two rows of data are visible. The first row has values: 1, 1001, A, 22, Female, Planning, 2026/03/01, and a checkbox. The second row has values: 4, 1004, D, 44, Female, Sales, 2026/03/04, and a checkbox. A blue box highlights the 'gender' column in the first row, and a blue callout box at the bottom says '4.The records the 'gender' column of which are "Female"'. There are also 'Change' and 'Delete' buttons for each row.

No.	id	name	age	gender	department	birthday	manager
1	1001	A	22	Female	Planning	2026/03/01	☐
4	1004	D	44	Female	Sales	2026/03/04	☐

Steps

1. Select the name of the column to search at the combo box.
2. Input the keyword to search in the text box.
3. Click the magnifying glass button.
4. The record list displays the records that partially or exactly match the keyword when the data type of the column is string or others respectively.
5. To cancel the search results, make the keyword box vacant and click the magnifying glass button again.



AND search can be performed by inputting multiple keywords separated by spaces. OR search can be performed by inputting multiple keywords concatenated by 'OR' or '|.'

Blank letters, both full and half width, before and after a single keyword or multiple keywords are eliminated.



As far as the input value is valid, it is treated as a number or a date when the data type of the column to search is number or date respectively.

When the data type of the column is boolean, the string 'TRUE' and the string 'FALSE' is treated as true and false respectively.

■ Advanced search

When 'Advanced search' is selected as the search type, the input area of filter expression is displayed. A complex search over multiple columns is possible by using the input area..

Figure 1-73 Advanced search

The screenshot shows the 'Advanced Search' interface. At the top, there are two radio buttons: 'Keyword search' and 'Advanced Search' (which is selected). Below them is a text box for the 'Filter expression' containing the text 'age >= 40 AND gender <> 'Male''. To the right of the text box is a magnifying glass icon. Below the text box are two blue buttons: '1.Specify the filter expression' and '2.Apply filter'. Below these buttons is a table with columns: No., id, name, age, gender, department, birthday, and manager. The table has two rows of data. The first row has values: 3, 1003, C, 44, Others, Technical, 2026/03/03, and a checkbox. The second row has values: 4, 1004, D, 44, Female, Sales, 2026/03/04, and a checkbox. Below the table is a blue box with the text: 'The records that match the filter expression.'the age is equal or more than40 and the gemder is male'.

No.	id	name	age	gender	department	birthday	manager
3	1003	C	44	Others	Technical	2026/03/03	☐
4	1004	D	44	Female	Sales	2026/03/04	☐

Steps

1. Input a filter expression into the text box.
2. Click the magnifying glass button.
3. The record list displays the records that matches the filter expression.
4. To cancel the filter expression results, make the box of filter expression vacant and click the magnifying glass button again.

Table 1-48 Available filter expression

No.	Type	Description
(1)	Comparison operator	= (equal), <> (not equal), < (greater than), > (less than), <= (greater or equal), >= (less or equal)
(2)	Numerical operator	+ (add), - (subtract), * (multiply), / (divide)
(3)	Boolean operator	AND, OR, NOT.
(4)	LIKE operator	Specify string expression with wild cards, which are '*' or '%'. A wild card can be placed either at the head or at the tail, and matches any length of characters more than or equal to 0. If the original string includes '*' or '%', the character can be escaped by being embraced in [].
(5)	IN operator	Equals to any of the listed values. Example: "IN(100,200,300)" means the value is equal to 100, 200, or 300.
(6)	IS operator	IS NULL (the value is null), IS NOT NULL (the value is not null)
(7)	Special function	Len (returns the number of characters). IIF (returns different values depending on whether the condition is met), Substring (returns a part of the string)



The filter expression is basically a subset of operators and functions available in WHERE expression of SQL for Microsoft SQL server.

[Examples of filter expressions]

- Substring(gender,1,2) = 'Fe' : Extract the records the top two characters of the 'gender' column of which are "Fe."
- Len(gender) = 4 : Extract the records the 'gender' column of which are 4 characters.
- age IN(25,40,64) : Extract the records the 'age' column of which are 25, 40, or 64.
- age / 10 > 3 : Extract the records the 'age' column of which are more than 30.
- age IS NULL : Extract the records the 'age' column of which are NULL.
- name IS NOT NULL : Extract the records the 'name' column of which are not NULL.
- name + 'A' = 'AA' : Extract the records the 'name' column of which are 'A.'
- IIF(age >=30,'O30','U30') : Return 'O30' for the records the 'age' column of which are more than 30, and 'U30' for other records.

* IIF(condition, value_for_TRUE, value_for_FALSE)

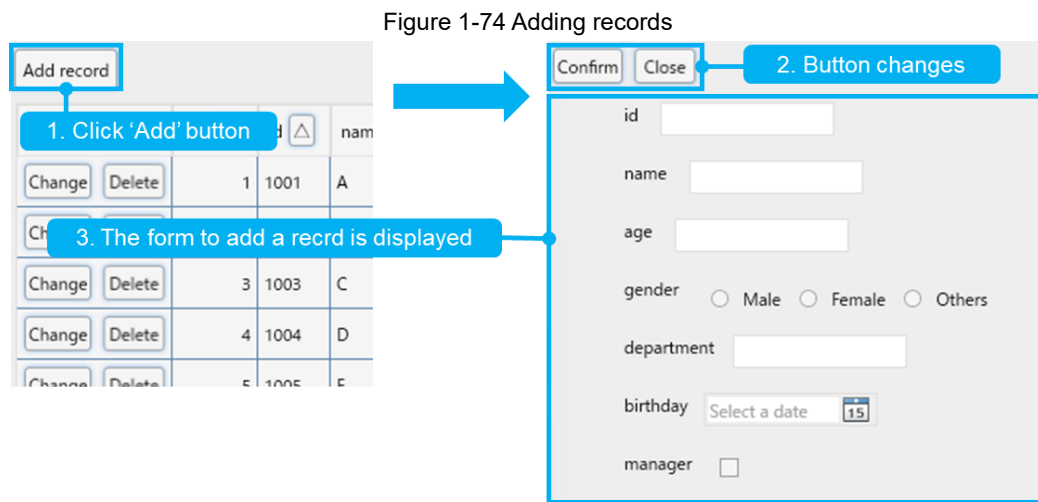
■ Add records

Click the 'Add record' button to append a new record at the tail of the record list.

When the 'Add record' button is clicked, the record input form is displayed under the button corresponding to the schema configured on the Property pane, and the button changes to the 'Confirm' and 'Close' buttons.

When the form is closed, the 'Confirm' and 'Close' buttons return to the 'Add record' button.

 For details, see "1.24.6 Record input form."



Confirmation of adding a record does not close the record input form as the 'Change' button does, to prompt multiple record inputs in a row.

To close the record input form, click the 'Close' button.

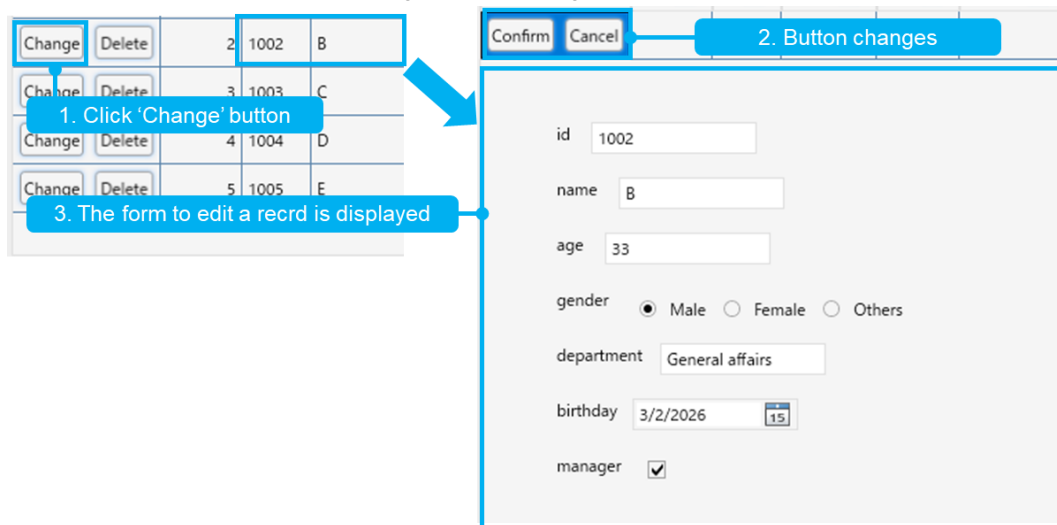
■ Change record

Click the 'Change' button at the beginning of the row of a record to modify and update the record. When the 'Change' button is clicked, the record input form is displayed under the row corresponding to the schema configured on the Property pane, and the 'Change' and 'Delete' buttons change to the 'Confirm' and 'Cancel' buttons.

When the form is closed due to the completion or cancel of the record modification, the 'Confirm' and 'Cancel' buttons return to the 'Change' and 'Delete' buttons.

 For details, see "1.24.6 Record input form."

Figure 1-75 Change a record



Change	Delete	2	1002	B
Change	Delete	3	1003	C
Change	Delete	4	1004	D
Change	Delete	5	1005	E

Confirm Cancel

id 1002

name B

age 33

gender ☒ Male ☐ Female ☐ Others

department General affairs

birthday 3/2/2026 15

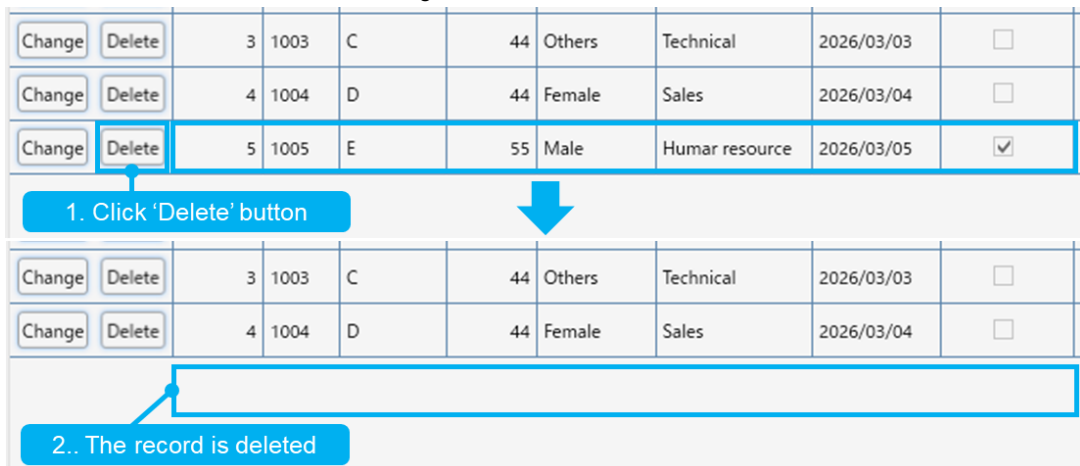
manager ☒

■ Delete record

Click the 'Delete' button at the beginning of the row of a record to delete.

When the 'Delete' button is clicked, the record in the data source is deleted, the data source is saved, and the displayed record list is updated.

Figure 1-76 Delete a record



Change	Delete	3	1003	C	44	Others	Technical	2026/03/03	☐
Change	Delete	4	1004	D	44	Female	Sales	2026/03/04	☐
Change	Delete	5	1005	E	55	Male	Humar resource	2026/03/05	☒

Change Delete

3 1003 C 44 Others Technical 2026/03/03 ☐

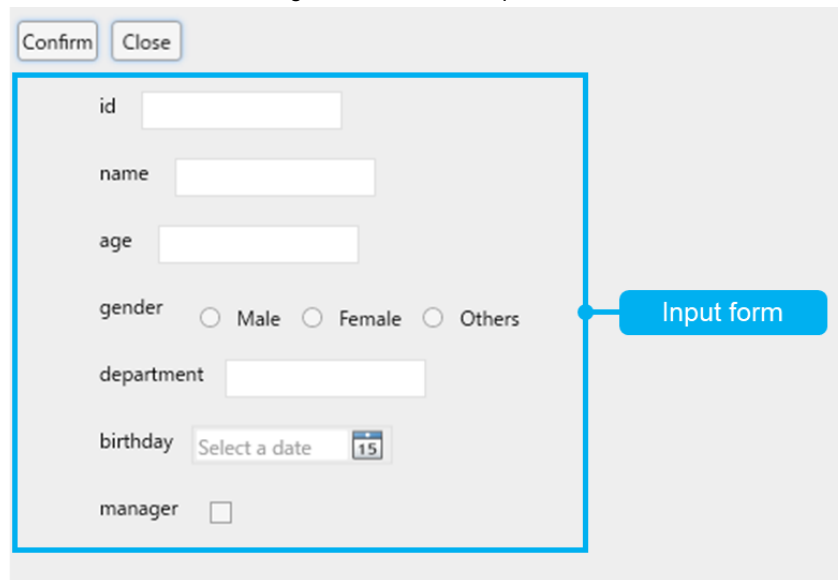
Change Delete

4 1004 D 44 Female Sales 2026/03/04 ☐

1.24.6 Record input form

Click the 'Change' button at the beginning of the row of an existing record or the 'Add record' button to display the record input form.

Figure 1-77 Record input form

The image shows a 'Record input form' dialog box. At the top left are 'Confirm' and 'Close' buttons. The main area contains several input fields: 'id' (text box), 'name' (text box), 'age' (text box), 'gender' (radio buttons for 'Male', 'Female', 'Others'), 'department' (text box), 'birthday' (calendar picker showing '15'), and 'manager' (checkbox). A blue box highlights the entire form area, and a blue callout bubble with the text 'Input form' points to this box.

Steps

1. Clicking the 'Change' button at the beginning of the row of an existing record or the 'Add record' button, the record input form is displayed.

The record input form follows the arrangement (type, size, position, etc.) of controls configured on the 'UI design' tab in the Property pane.

2. The initial values of each control are current values of the target record when changing the record, default values configured on the Property pane when adding the record, and undefined or vacant values when adding a record but default values are not configured. Change the values if necessary, and confirm the input values.

3. If you want to cancel the change or addition of the record, click the 'Cancel' or 'Close' button to close the input form.

If you operate to display another input form, the result will be the same as clicking the 'Cancel' button of this form.

 For details, see "Cancel input."

4. When you click the 'Confirm' button after completing the input to the record input form, the

input values for each control are validated against its settings.

 For details, see “Validate input.”

- 5.** After the validation of the control is completed, a subroutine can optionally be called by the property setting just before processing.

You can control the execution flow of the processing by passing the processing contents to the subroutine when calling it, or by specifying the return value from it. Making use of these features, validations over multiple controls can be implemented.

 For details, see “Passing parameters to subroutines.”

- 6.** After all the validations are completed, input values are reflected to the record list and the data source, and the data source is saved.

Subroutines can optionally be called just after the processing, and the processing contents can be notified of.

 For details, see “Passing parameters to subroutines.”

- 7.** The record input form closes automatically when the record change completes normally, and closes by clicking the ‘Close’ button when records are added. The result of sorting or filtering records is cleared at the same time.

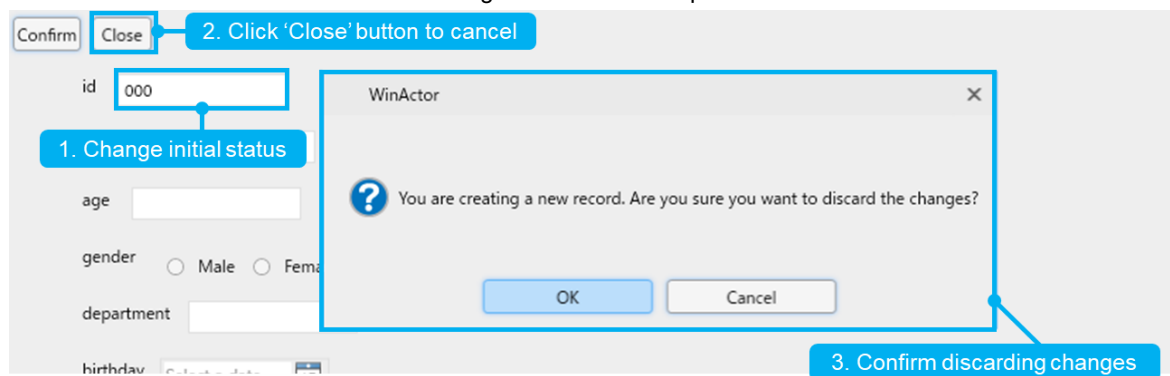
■ Cancel input

Input is canceled and the record input form is closed when the 'Cancel' or the 'Close' button is clicked, when the operation to display other input form is performed, or when the record list is sorted or searched.

When the value is modified from the original value, the dialog to confirm if the modified value can be discarded is displayed.

The input form is restored to the original state and the record input form is closed when the 'Cancel' is proceeded, or returns to the inputting state when the 'Cancel' is canceled.

Figure 1-78 Cancel input

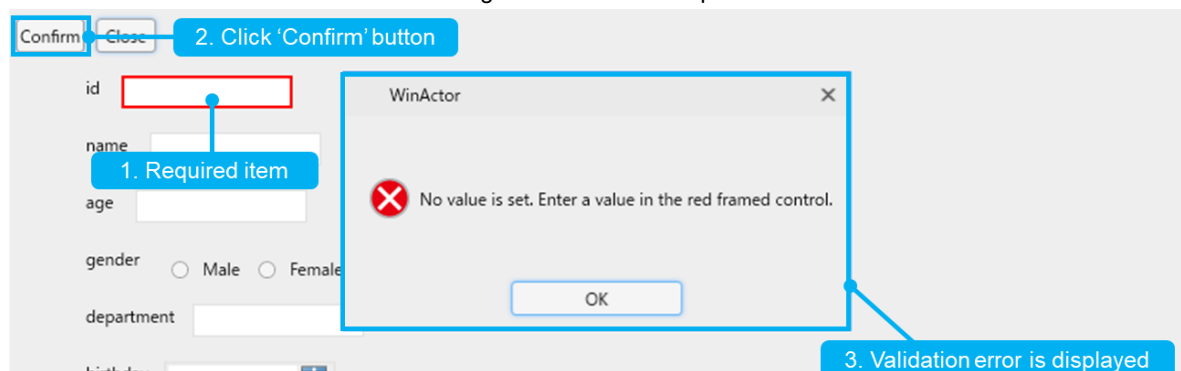


■ Validate input

Input values are validated against the settings for each control configured in the Property pane.

If the format of the input value is inconsistent with the settings (data type, mandatory items, etc.) configured on the Property pane, the input control is framed red and a notification dialog is popped up to prompt the correction.

Figure 1-79 Validate input



1.24.7 Event processing (optional)

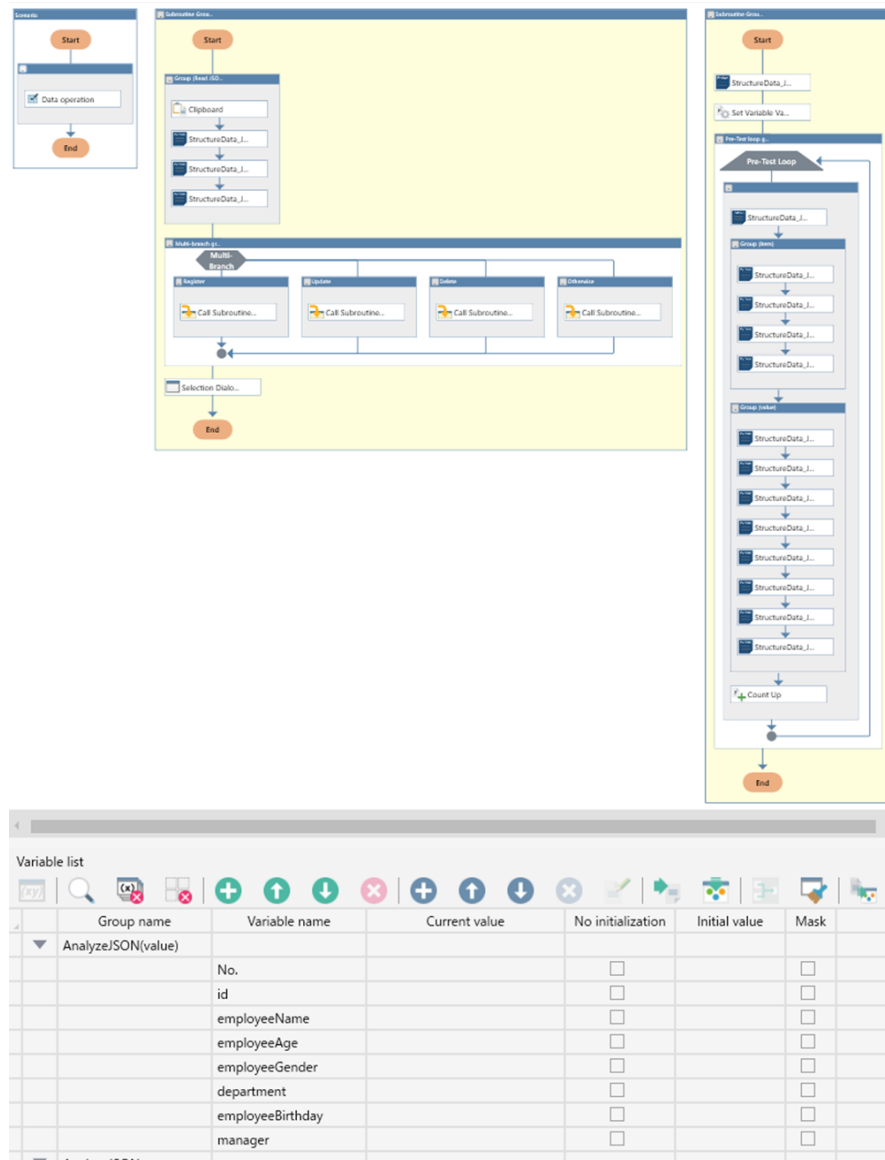
An arbitrary subroutine group can be called just before or after an operation of a record, or an occurrence of an error,. The settings for the subroutine to be called are configured on the 'Event management' tab in the Property pane.

When the subroutine is called, scenario execution jumps to the subroutine group and returns to the 'Data operation' node after the execution. When no subroutine is specified, no subroutine is called.

■ Passing parameters to subroutines

The variables to be passed to subroutines as arguments can be specified on the 'Event management' tab in the Property pane. If no argument is specified, the subroutine is called without a parameter. When the arguments are specified, the information of the record to operate is set to the arguments as a JSON string. The JSON data is analyzed in the subroutine and used if necessary.

Figure 1-80 Example of subroutine calls and parameter analysis



The sample scenarios “DataOperationCSV+SubroutineAnalysis.ums7” and “DataOperationEXCEL+SubroutineAnalysis.ums7,” which are the same as the scenario in the figure above, are stored either in the folder “WinActor_Documents\English\Tutorial” under the WinActor installation folder, or in the folder “winactor_documents\English\Tutorial” under the WinActor user folder.



See “1.2.2 Folder structure” for the folder structure.

The files “EmployeeList.csv” and “EmployeeList.xlsx,” which are the input data to the sample scenarios, are also stored in the same folder.

Specify “EmployeeList.csv” for ‘Filename’ of the ‘Input data’ tab of the ‘Data operation’ node in the “DataOperationCSV+SubroutineAnalysis.ums7,” and “EmployeeList.xlsx” for that in the “DataOperationEXCEL+SubroutineAnalysis.ums7” to use each of the sample scenarios.

■ Return value form subroutine

The return value from a subroutine can be received by specifying a variable to store the return value in the Property pane. If the 'Post-processing' is specified for the 'Timing,' the return value is ignored. If the return value is not specified, it also is ignored.

When the return value is specified and the 'Pre-processing' is specified for the 'Timing,' execution control by the return value is possible. The execution continues if the return value is TRUE, and is canceled if the return value is FALSE. Making use of this feature, a validation function with complicated conditions becomes possible to implement.



The completion of the execution is notified of when the return value from a subroutine is TRUE, but the execution is just canceled and no action to inform user of the matter is taken when the return value from a subroutine is FALSE.

Therefore, you need to launch a dialog, etc. inside the subroutine to notify the user of the matter.

Values other than TRUE or FALSE are invalid as a completion notification, and result in an error..

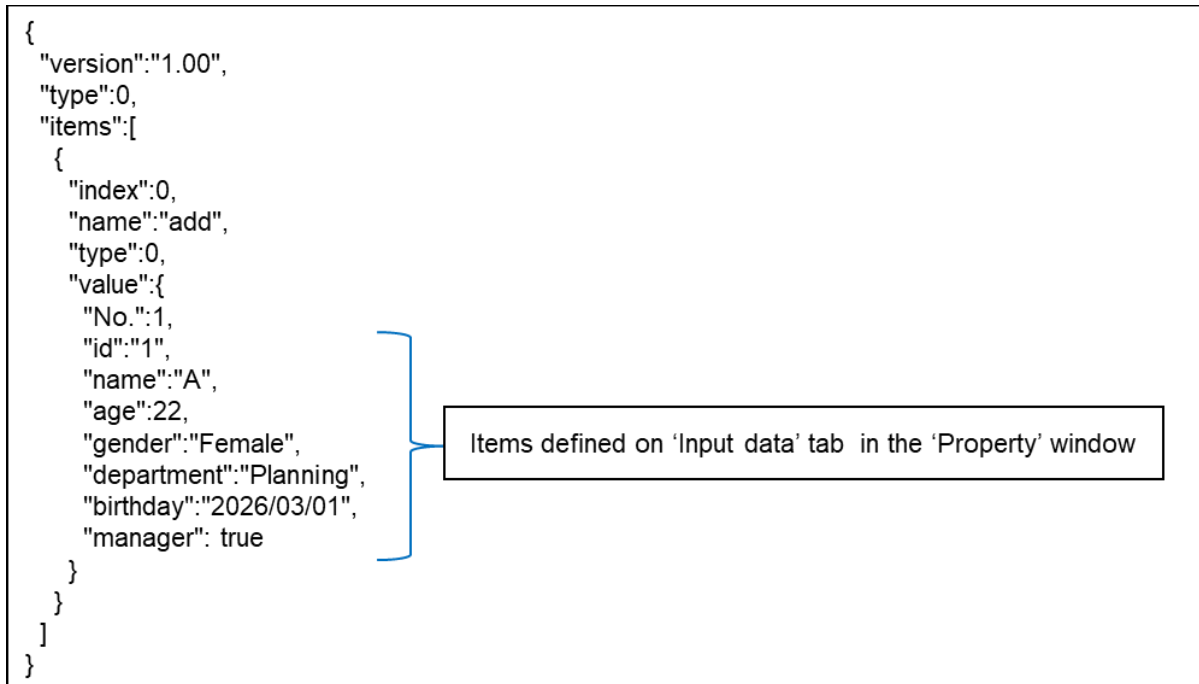
■ Record registration event

Followings are the specifications and sample data of the arguments to the subroutine called on an occurrence of a record registration event.

Table 1-49 Data specifications (Record registration event)

No.	Item 1	Item 2	Item name	Data type	Require	Value	Note
(1)	version	-	Version	string	○	-	
(2)	type	-	Call type	number	○	0	0 fixed
(3)	items	-	Data items	array	○	1 item	-
(4)	-	index	Index	number	○	-1	-1 fixed
(5)	-	name	Item name	string	○	add	'add' fixed
(6)	-	type	Data type	number	○	0	0 fixed
(7)	-	value	argument	string	-	The target record	

Figure 1-81 JSON sample (Record registration event)



■ Record update event

Followings are the specifications and sample data of the arguments to the subroutine called on an occurrence of the record update event.

Table 1-50 Data specifications (Record update event)

No.	Item 1	Item 2	Item name	Data type	Require	Value	Note
(1)	version	-	Version	string	○	-	
(2)	type	-	Call type	number	○	1	1 fixed
(3)	items	-	Data items	array	○	2 items	-
(4)	-	index	Index	number	○	Target record position	
(5)	-	name	Item name	string	○	modify	'modify' fixed
(6)	-	type	Data type	number	○	0-1	0: new data 1: old data
(7)	-	value	argument	string	-	The target record	

Figure 1-82 JSON sample (Record update event)

```
{
  "version": "1.00",
  "type": 1,
  "items": [
    {
      "index": 1,
      "name": "modify",
      "type": 0,
      "value": {
        "No.": 1,
        "id": "1",
        "name": "A",
        "age": 22,
        "gender": "Female",
        "department": "Planning",
        "birthday": "2026/03/01",
        "manager": true
      }
    },
    {
      "index": 1,
      "name": "modify",
      "type": 1,
      "value": {
        "No.": 1,
        "id": "1",
        "name": "A",
        "age": 22,
        "gender": "Female",
        "department": "Planning",
        "birthday": "2026/03/01",
        "manager": true
      }
    }
  ]
}
```

Items defined on 'Input data' tab in the 'Property' window

Items defined on 'Input data' tab in the 'Property' window

■ Record delete event

Followings are the specifications and sample data of the arguments to the subroutine called on the occurrence of a record delete event.

Table 1-51 Data specifications (Record delete event)

No.	Item 1	Item 2	Item name	Data type	Require	Value	Note
(1)	version	-	Version	string	○	-	
(2)	type	-	Call type	number	○	2	2 fixed
(3)	items	-	Data items	array	○	1 item	-
(4)	-	index	Index	number	○	Target record position	
(5)	-	name	Item name	string	○	delete	'delete' fixed
(6)	-	type	Data type	number	○	0	0 fixed
(7)	-	value	argument	string	-	The target record	

Figure 1-83 JSON sample (Record delete event)

```

{
  "version": "1.00",
  "type": 2,
  "items": [
    {
      "index": 1,
      "name": "delete",
      "type": 0,
      "value": {
        "No.": 1,
        "id": "1",
        "name": "A",
        "age": 22,
        "gender": "Female",
        "department": "Planning",
        "birthday": "2026/03/01",
        "manager": true
      }
    }
  ]
}

```

Items defined on 'Input data' tab in the 'Property' window

■ Record error event

Set a subroutine in the row of the 'Error' on the 'Event management' tab in the Property pane to call it on an incompleteness of the data operation due to an error. Followings are the specifications and sample data of the arguments to the subroutine called on the occurrence of a record error event.

Table 1-52 Data specifications (Record error event)

No.	Item 1	Item 2	Item name	Data type	Require	Value	Note
(1)	version	-	Version	string	○	-	
(2)	type	-	Call type	number	○	3	3 fixed
(3)	items	-	Data items	array	○	1 or more than 1 item	-
(4)	-	index	Index	number	○	-	Record position (-1 for unknown)
(5)	-	name	Item name	string	○	-	Error description
(6)	-	type	Data type	number	○	0,1,2	0 = adding 1 = updating 2 = deleting
(7)	-	value	argument	string	-	The target record	

Figure 1-84 JSON sample (Record error event)

```
{
  "version": "1.00",
  "type": 3,
  "items": [
    {
      "index": 1,
      "name": "<Error message>",
      "type": 0,
      "value": {
        "No.": 1,
        "id": "1",
        "name": "A",
        "age": 22,
        "gender": "Female",
        "department": "Planning",
        "birthday": "2026/03/01",
        "manager": true
      }
    }
  ]
}
```

Items defined on 'Input data' tab in the 'Property' window

2. Launch and Quit WinActor

This chapter describes how to launch and quit WinActor.

2.1 Launch WinActor

This section describes how to launch WinActor.

2.1.1 Procedure for launching WinActor

The following is the procedure for launching WinActor.

Steps

1. Double-click the startup icon of WinActor7 on your desktop.



A splash window appears while WinActor is being launched. It will automatically disappear when the launch of WinActor is complete.



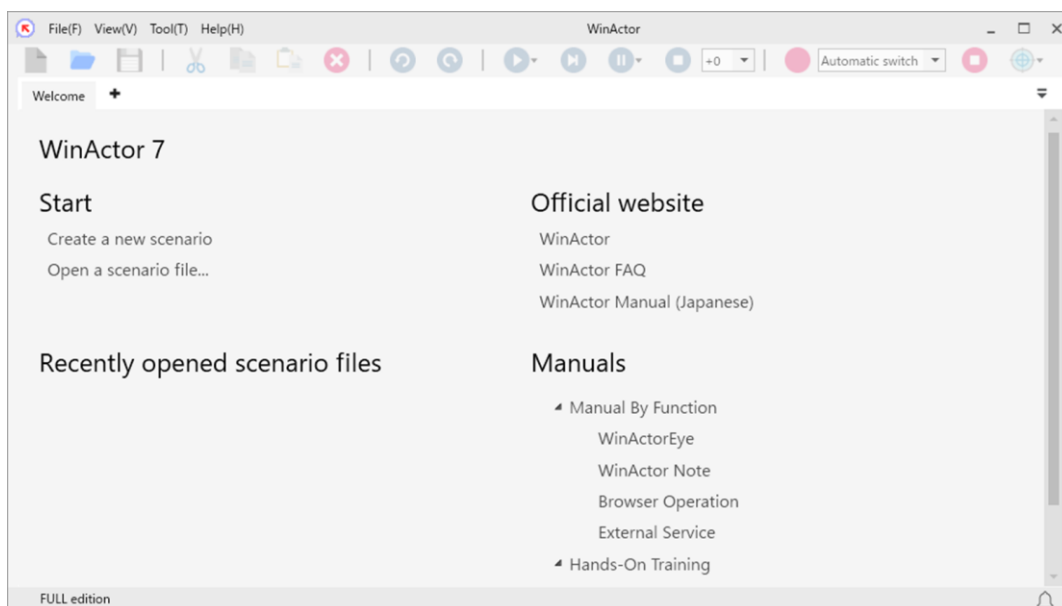
You can cancel the launch of WinActor by clicking the x button at the upper right of the splash window.



If the startup icon of WinActor7 is not placed on your desktop:

- If the shortcut is not created when WinActor is installed, launch WinActor from the "Start" Menu of Windows.
- If WinActor for standard user is installed, launch WinActor by double-clicking WinActor7.exe in the folder in which WinActor is installed.

2. The "Welcome" window opens when WinActor is launched.



- Click the 'Create new scenario' icon  on the upper left or select 'File' > 'New' to display a window for creating a new scenario.
- Click the 'Open scenario file' icon  on the upper left or select 'File' > 'Open' and select a scenario file to display a window for running or editing the selected scenario.



See "3. WinActor's Window."

When the license type of edition is FULL-edition and the language selection is Japanese, either of the "Welcome" windows shown below opens.





Clicking the toggle button on the top-right corner of these "Welcome" windows switches between two types of "Welcome" windows: the upper one enables to start creating scenario using sample scenarios, and the lower one enables to create or run a scenario file from the recently opened scenario files. Notice that the toggle button exists only in Japanese "Welcome" windows, and the English "Welcome" window does not have it.

2.1.2 Case that WinActor does not open even though the startup icon is clicked

If the window of WinActor does not appear after the startup icon is clicked, check the following points.

- WinActor cannot run more than one instances. WinActor that has already been launched may be minimized and stored in the task tray. Check the task tray.
- It may take some time for the splash window of WinActor to appear right after the computer starts up.

2.1.3 Startup options for WinActor

Startup options that can be specified when launching WinActor are as shown in "Table 2-1 Startup options for WinActor" below. They can be specified in a shortcut file by using a function to create a startup shortcut.

 See "3.11 Create WinActor Shortcut Window."



In "Table 2-1 Startup options for WinActor," scenario filenames and data filenames to be specified following the options are shown in italics.

Table 2-1 Startup options for WinActor

No.	Option	Description
(1)	<i>-f filename.ums7</i>	Specifies a file path of a scenario file to be opened at startup. If a scenario template file is specified, a scenario is created from the file and opened.
(2)	<i>-s scenariopassword</i>	Opens a scenario file by specifying a scenario password set for a scenario and applying the security mode corresponding to that password. It is used in combination with "-f."  See "1.14 Security Mode by Setting Scenario Password."
(3)	<i>-r</i>	Runs a scenario after startup. It is used in combination with "-f."
(4)	<i>-d datafilepath</i>	Specifies a file path of a data list file to be opened at startup. It is used in combination with "-f."
(5)	<i>-w delay</i>	Waits for a specified time (milliseconds). Specify with half-width integer. It is used in combination with "-r."
(6)	<i>-x exportfilepath</i> <i>-x</i>	Specifies a file path to save a data list file after a scenario is completed. If exportfilepath is omitted, the data list file will be overwritten and saved. If an uncaught exception occurs while running a scenario, the data list will not be saved. It is used in combination with "-d," and "-e" or "-ec."
(7)	<i>-e</i>	Quits WinActor after a scenario is completed. If an uncaught exception occurs while running a scenario, WinActor will not be quit. It is used in combination with "-r."  • If a running scenario is stopped or paused manually, and run or resumed, WinActor does not quit on completion of the scenario execution.

No.	Option	Description
(8)	-ec	Closes WinActor and returns the exit status after a scenario is completed. If an error occurred, 1 is returned. Otherwise, 0 is returned as the status. It is used in combination with "-f."  • If a running scenario is stopped or paused manually, and run or resumed, WinActor does not quit on completion of the scenario execution. After that, manually quitting WinActor returns the status 0. • When receiving the status from the command prompt, Input "start /wait WinActor7.exe -ec ..." and wait for WinActor to quit.
(9)	-t	Launches WinActor in the task tray (minimized state) without displaying its window.
(10)	-p <i>password</i>	Specifies a startup password.  See "3.12 Set/Change/Remove Startup Password."  • Available for the license type of edition "FULL edition" only. • Valid only when a startup password is set. • If it is used for a scenario with no startup password set, WinActor will be launched after a warning dialog is displayed.
(11)	-od <i>datasource</i>	Specifies a data source name of a database in the "Data List" pane.
(12)	-ou <i>user</i>	Specifies a username of a database in the "Data List" pane.
(13)	-op <i>password</i>	Specifies a password of a database in the "Data List" pane.
(14)	-ot <i>table</i>	Specifies a table name of a database in the "Data List" pane.
(15)	-sl	Suppresses displaying dialogs when launching WinActor or running a scenario. If an error occurred, 1 is returned. Otherwise, 0 is returned as the status. It is used in combination with "-r."  • *Dialogs included in a scenario such as 'Waiting Dialog,' 'Input Dialog,' and 'Selection Dialog' are displayed even if this option is set.
(16)	-sa <i>filename.ums7</i>	Closes WinActor saving the scenario into the file specified as <i>filename.ums7</i>. It is used in combination with "-f."



For details of file paths, see "5.6 File Path."

2.2 Quit WinActor

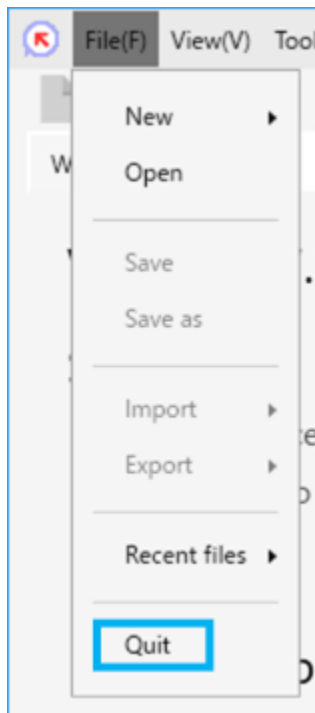
This section describes how to quit WinActor.

Steps

1. Click 'File' > 'Quit.'



- You can also quit WinActor by clicking the 'Close' button  on the upper right of the window.
- You can also quit WinActor by clicking 'Quit' in the dropdown menu of the WinActor7 icon in the task tray.



WinActor will be quit.



- If the data in 'Data list' has been changed and has not been saved, the confirmation dialog for saving changes will be displayed.
- If there are scenarios that have been changed and have not been saved, the confirmation dialog for saving changes will be displayed.

3. WinActor's Window

This chapter describes the areas, menus, and status bar on the window of WinActor.

3.1 WinActor's Basic Window Configuration

This section describes the basic window configuration on WinActor.

Figure 3-1 WinActor's window configuration

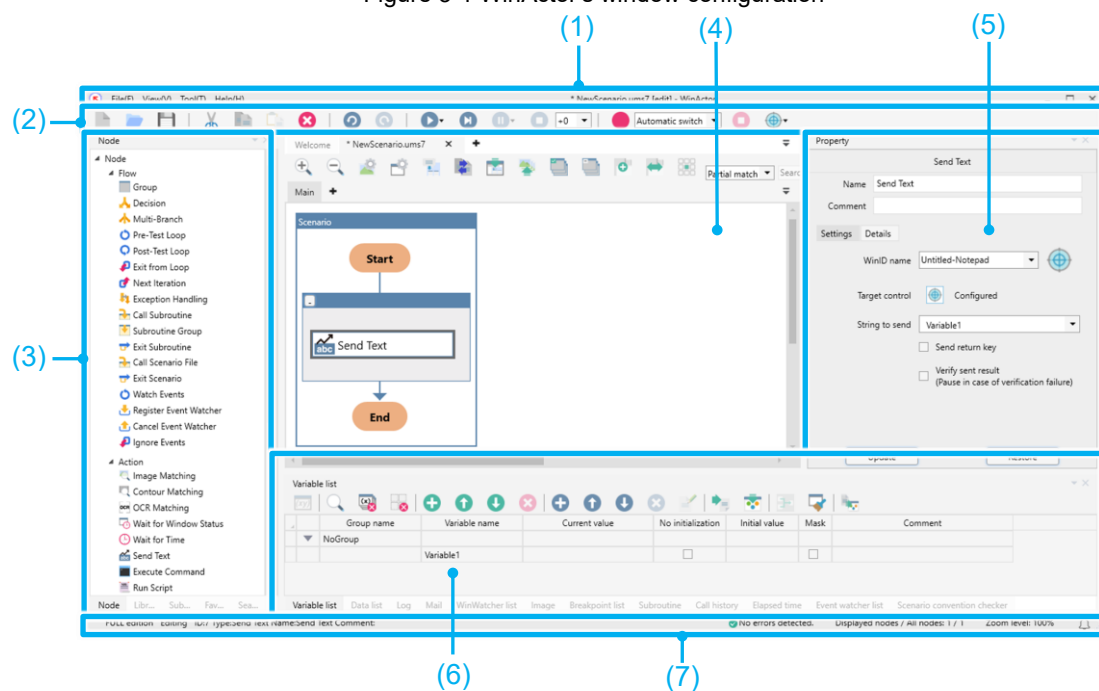


Table 3-1 WinActor's window configuration

No.	Name	Function
(1)	Menu bar	Basic menus of WinActor can be selected. ➤ See "3.2 Menu Bar."
(2)	Toolbar	Icons for running, editing, and recording a scenario are placed. ➤ See "3.3 Toolbar."
(3)	Palette area	"Node," "Library," "Subscenario," and "Favorites" tabs can be displayed by switching them. ➤ See "3.4 Palette Area."

No.	Name	Function
(4)	Scenario edit area	This is the window to edit a scenario. It consists of "Scenario tab" for switching between multiple scenarios, "Flowchart toolbar," "Flowchart tab," "Flowchart area," and "Node search box."  See "3.5 Scenario Edit Area." The focus is moved by pressing 'Ctrl' + '1' keys.
(5)	Property area	This is the Property pane for editing the properties of the currently selected node in the scenario edit area. In addition to properties, scenario information and conditional expressions are also displayed in this area. If settings are required in the function edit area, they will also be displayed in this area. When the Property pane is displayed, you can close the Property pane and display the scenario edit area widely by clicking the flowchart area.  See "3.6 Property Pane."
(6)	Function area	This area is for editing the functions of the currently selected scenario in the scenario edit area. Each function can be displayed by switching tabs.  See "3.9 Function Area."
(7)	Status bar	Shows the license type of edition, scenario status, and elapsed time of scenario run on the left side and the video logging status, number of errors, number of displayed nodes and all nodes, zoom level, and bell-shaped icon of 'Check for updates' are shown on the right side.  For the "Check for updates," see "Check for updates" of the "Help Menu."  For the video log, see "7.6 Video Log"

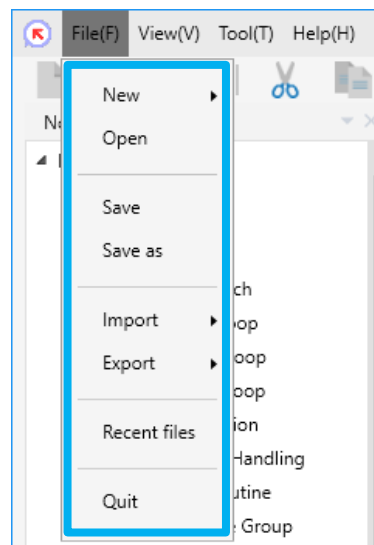
3.2 Menu Bar

This section describes the menu bar on WinActor.

3.2.1 File Menu

The following operations can be selected from the "File" menu.

Figure 3-2 "File" menu



■ New scenario

FULL

Select 'File' > 'New' > 'New scenario' when creating a new scenario.

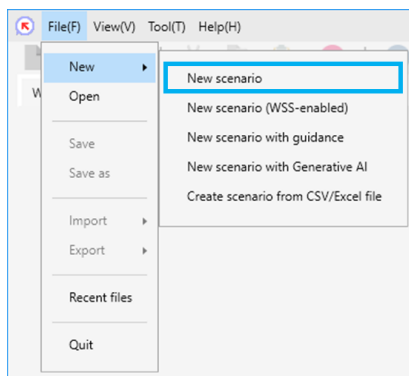
A tab for the new scenario will be created in addition to the tab of the currently loaded scenario or scenario being created in the scenario edit area. The tab panes such as the 'Variable List' tab pane and the 'Data list' tab pane in the function area will be in the initial state. Multiple scenarios can be opened.



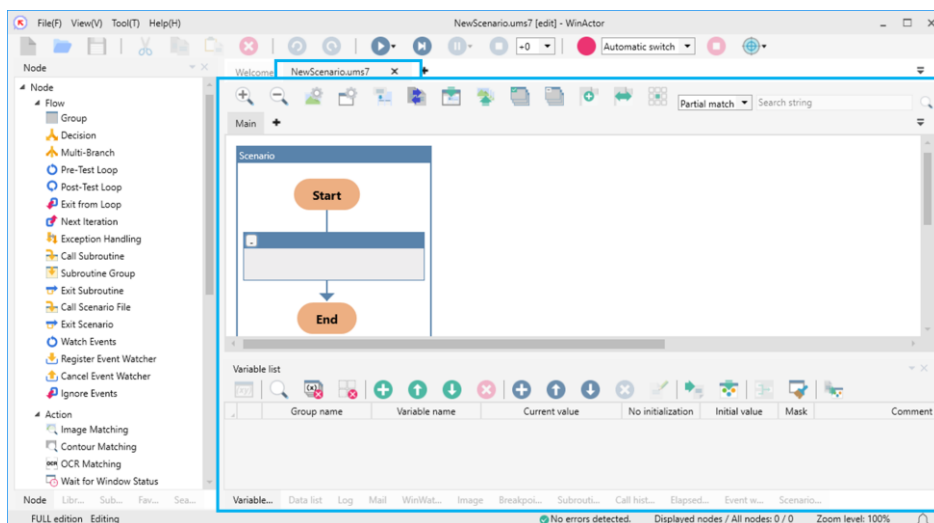
- 'New' is not selectable while running, pausing, and recording a scenario.

Steps

1. Click the "File" menu and select 'New' > 'New scenario.'



A tab for the new scenario is added to the scenario tab.

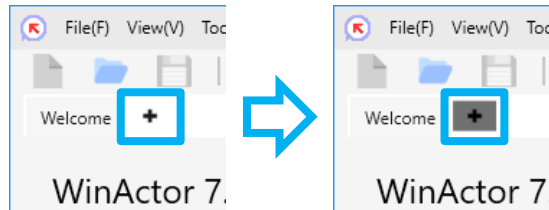




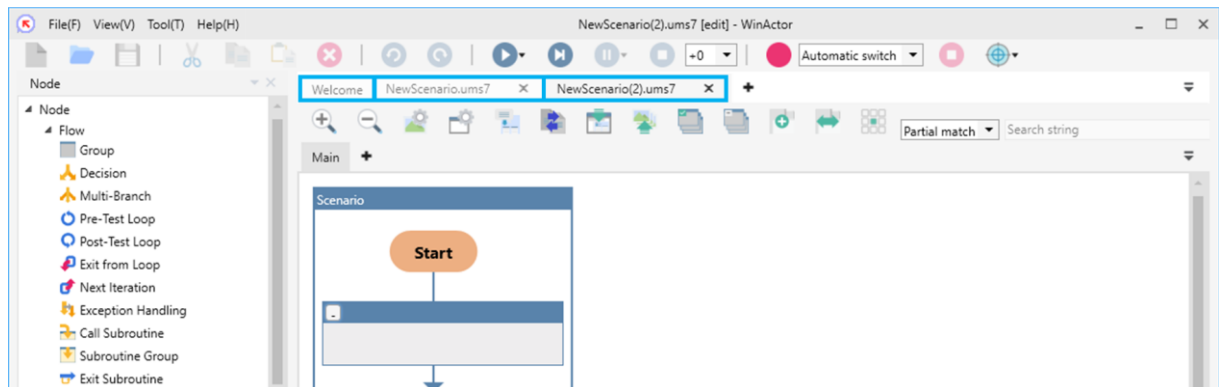
This operation is the same as clicking the 'Create new scenario' icon on the toolbar.



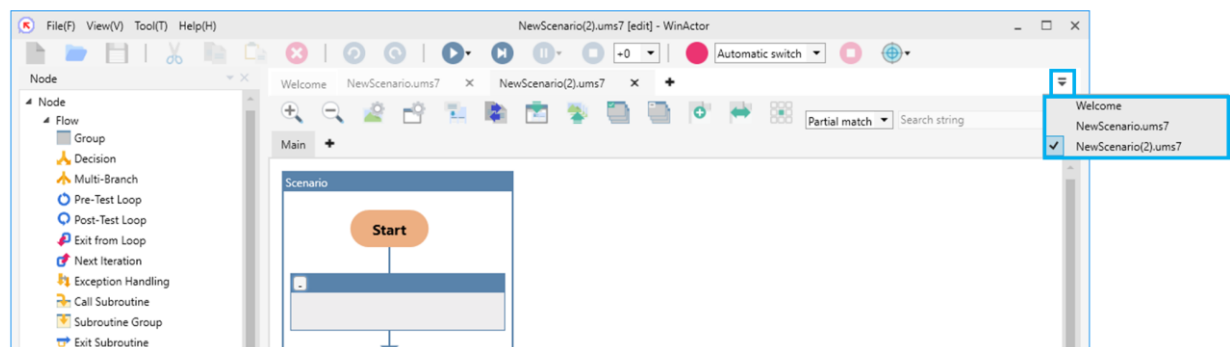
You can also add a new scenario by clicking the '+' button on the scenario tab. Hover the mouse cursor over the '+' button and click it after its color changes.



You can switch a scenario to be displayed by clicking tabs.



You can also select a scenario from the dropdown list by clicking the '▼' button on the far right of the scenario tab.



■ Open

Select 'File' > 'Open' when loading a created scenario file.

Multiple scenarios can be opened.



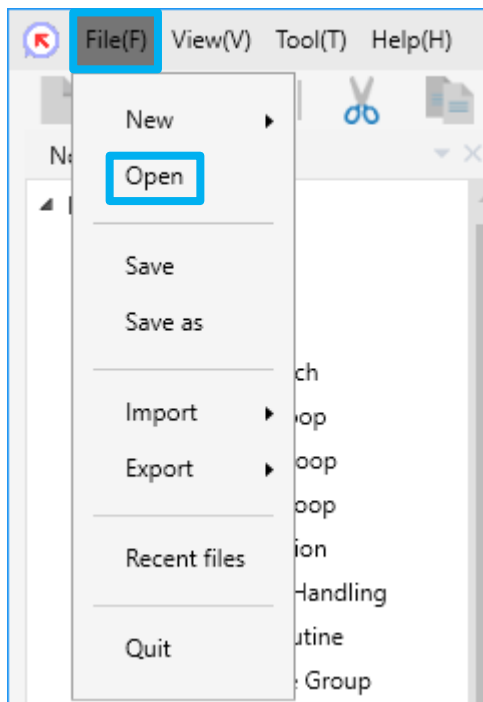
This operation is the same as clicking the 'Open scenario file' icon on the toolbar.



- 'Open' is not selectable while running, pausing, and recording a scenario.
-

Steps

1. Click the "File" menu and select 'Open.'

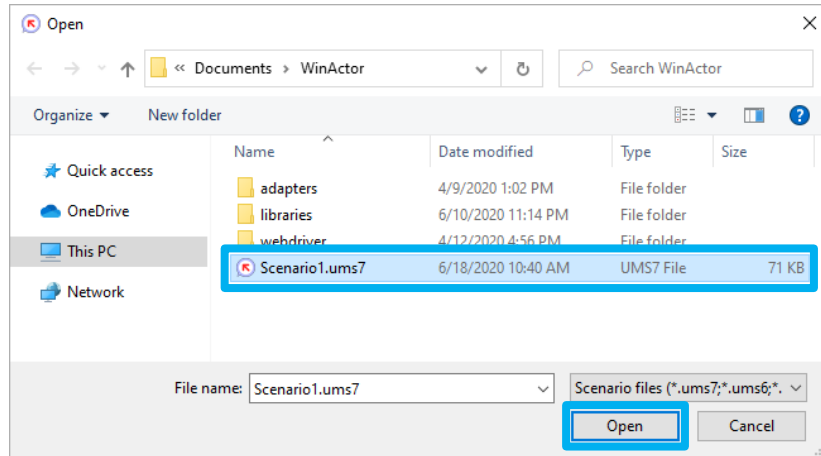


The 'Open' window appears.

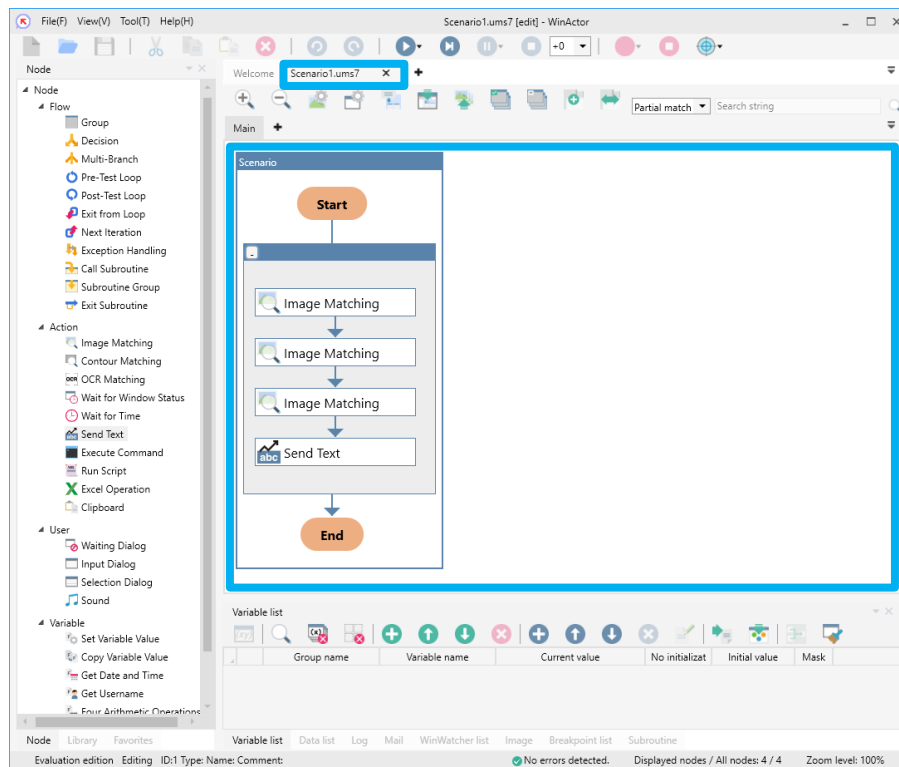
2. Select a scenario file and click the 'Open' button.



- The scenario file that can be selected on the 'Open' window is a file with one of the extensions '.ums7,' '.uss7,' '.wsb7,' '.ums6,' and '.ums5.'
- You can select the extension from the file type dropdown list.



The loaded scenario is displayed in a new tab in the scenario edit area.



■ Save

FULL

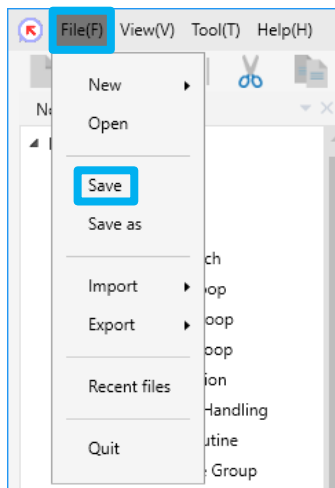
Select 'File' > 'Save' when overwriting a scenario being created.



This operation is the same as clicking the 'Save scenario file' icon on the toolbar.

Steps

1. Click the "File" menu and select 'Save.'



The scenario file will be overwritten.



- 'Save' is not selectable while running, pausing, and recording a scenario.
- If selecting 'Save' without executing 'Save as' after creating a new scenario, the 'Save' window will be displayed.
- If opening and editing a scenario file in the previous format (.ums6, .ums5) or Storyboard file format (.wsb7), the 'Save' window will be displayed and it will be converted to the '.ums7' file format and saved.
It cannot be saved in the previous file format (.ums6, .ums5) or Storyboard file format (.wsb7).
- A backup file with the extension '.bak' will be created after overwriting a scenario.
- There are some folders where files cannot be saved from WinActor.



See "6.1 Limitations of File Location."

■ Save as

FULL

Select 'File' > 'Save as' when saving a scenario being created as a name.



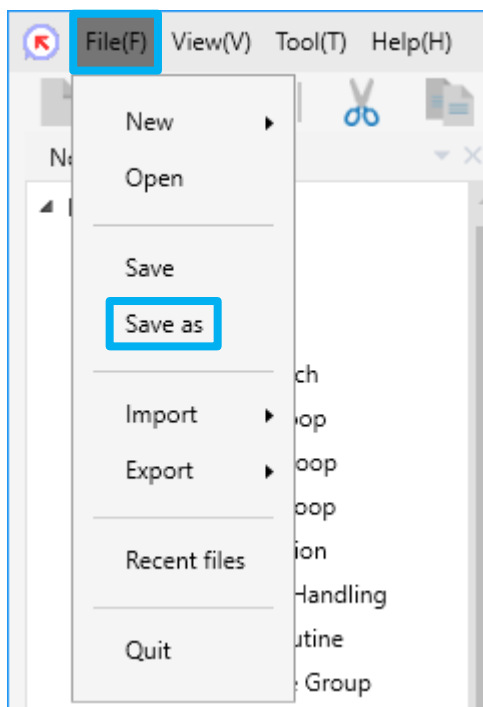
- 'Save as' is not selectable while running, pausing, and recording a scenario.
- The file format that can be saved is '.ums7' only. It cannot be saved in the previous file format (.ums6, .ums5) nor the Storyboard file format (.wsb7).
- A backup file with the extension '.bak' will be created after overwriting a scenario.
- There are some folders where files cannot be saved from WinActor.



See "6.1 Limitations of File Location."

Steps

1. Click the "File" menu and select 'Save as.'

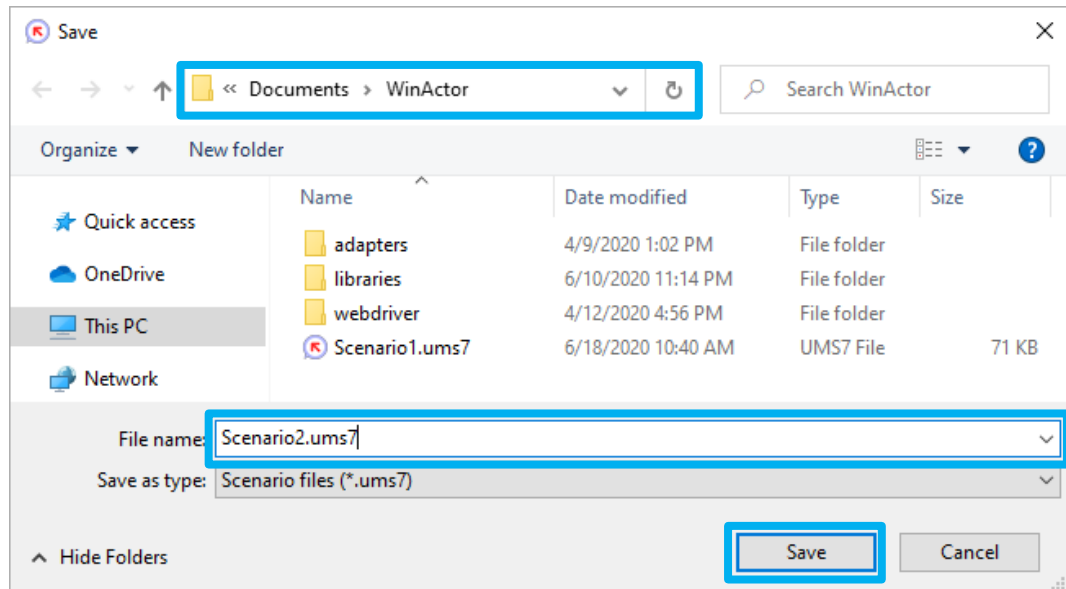


The 'Save as' window appears.

2. Select a folder for saving, enter a filename, and click the 'Save' button.



If an extension other than '.ums7' is entered, 'ums7' will be added automatically.



■ Import > Scenario

FULL

Select 'File' > 'Import' > 'Scenario' when importing a part of another scenario file into a scenario being created. By using 'Import,' a new scenario can be created by diverting subroutines created in another scenario.



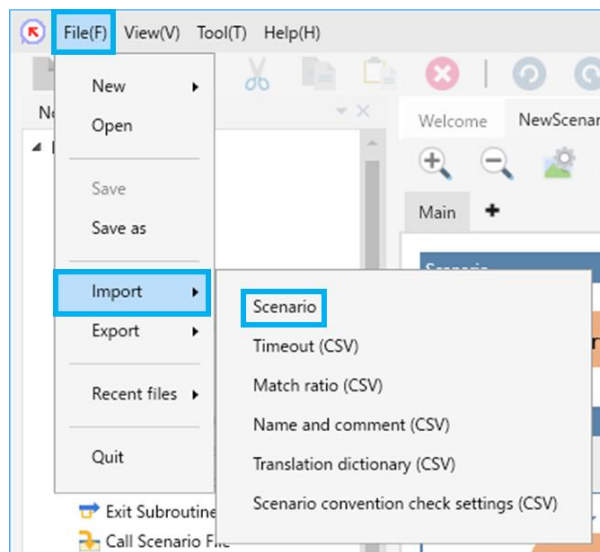
This operation is the same as clicking the 'Import scenario' icon on the toolbar in the scenario edit area.



'Import' > 'Scenario' cannot be operated while running, pausing, and recording a scenario.

Steps

1. Click the "File" menu and select 'Import' > 'Scenario.'

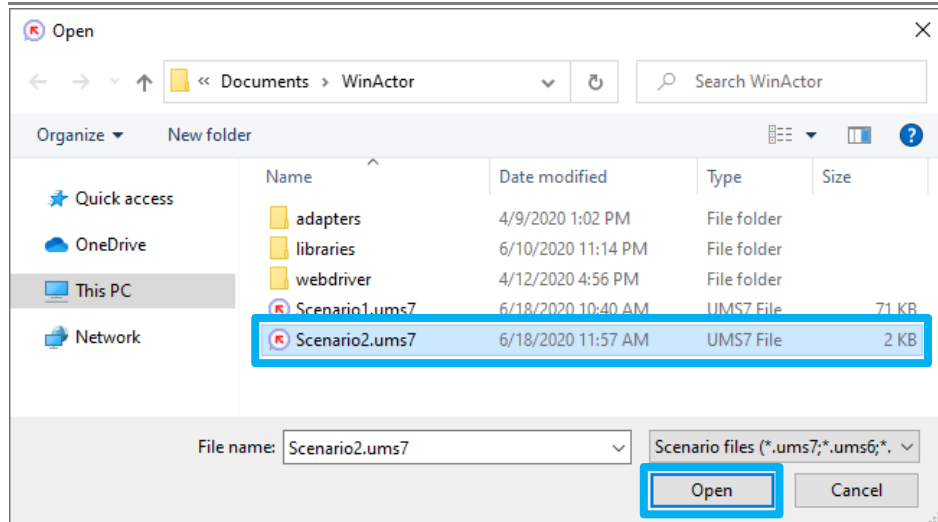


The 'Open' window appears.

2. Select a scenario file you want to import and click the 'Open' button.



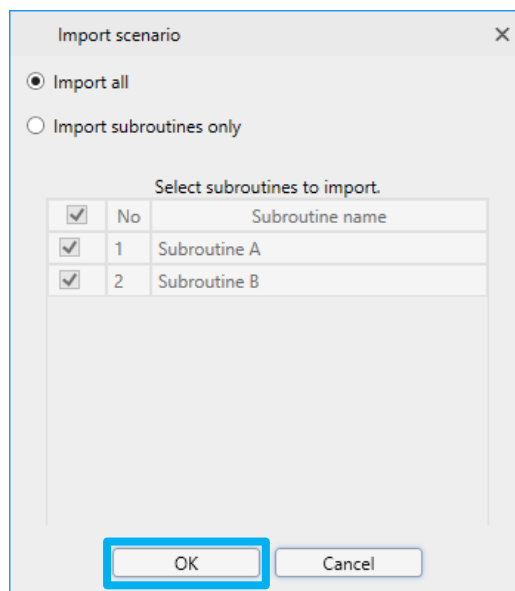
The scenario file that can be selected on the 'Open' window is a file with one of the extensions '.ums5,' '.ums6,' and '.ums7.'



The 'Import scenario' window appears.

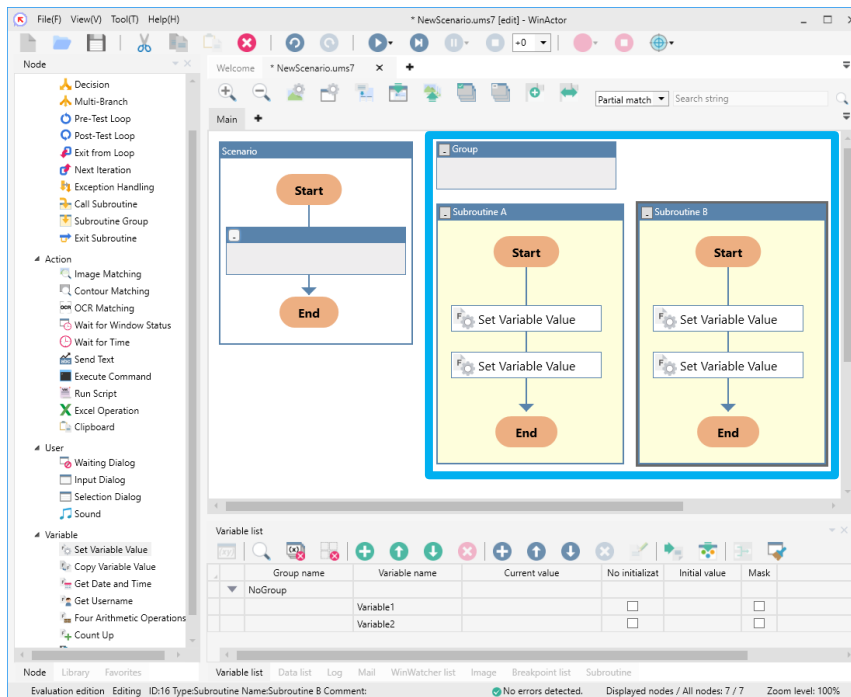
3. Select either 'Import all' or 'Import subroutines only' and click the 'OK' button.

If selecting 'Import subroutines only,' select subroutines you want to import.



If the scenario import is successful, the following window will be displayed.

4. The imported scenario is displayed in the flowchart area.



- If a scenario password is set for a scenario you want to import, the 'Scenario password' dialog will be displayed.

The 'Scenario password' dialog box is shown. It has a title bar with a close button (X). The text inside says 'Scenario password is set. Enter the password.' Below this text is a text input field labeled 'Password'. At the bottom of the dialog are two buttons: 'OK' and 'Cancel'.

In that case, enter the set Edit password and click the 'OK' button to continue the operation.

- If the same variable names are used in the scenario you want to import and the one you are editing, the 'Duplicated variable name' window will be displayed when importing the scenario.

If you want to treat both variables as separate variables, click the 'OK' button with the boxes checked. In that case, the variable names handled in the imported scenario will be changed to the new variable names. The new variable names can be modified on the 'Duplicated variable name' window.

If you want to treat both variables as the same variable, click the 'OK' button with the boxes unchecked. In that case, the variable names handled in the imported scenario will be the ones listed in the 'Duplicated variable name' column.

If it is difficult to make a judgment, click the 'OK' button with the boxes checked.

Duplicated variable name

×

The following variables will be renamed because they duplicate existing variables.
Uncheck the variables below to keep the duplicated variable names.
New variable names can be changed.
* If a variable is unchecked, its value will be overwritten.

☒	No	Duplicated variable name	New variable name
☒	1	Variable1	Variable1_1
☒	2	Variable2	Variable2_1

OK

Cancel

- If the user translation dictionary is linked to the scenario you want to import, the user translation dictionary will not be imported. The user translation dictionary for the scenario you are editing remains unchanged.
-

■ Import > Timeout (CSV)

FULL

Import > Timeout (CSV) is the operation to update timeout values of nodes which have the timeout setting at once. It is assumed to be used for the following nodes in the following procedure.

Nodes with a timeout setting

- Wait for Window Status
- Image Matching
- Contour Matching

Procedure

- (1) Exporting timeout values
- (2) Editing timeout values
- (3) Importing timeout values

➤➤ For the export steps and data format, see "Export > Timeout (CSV)."

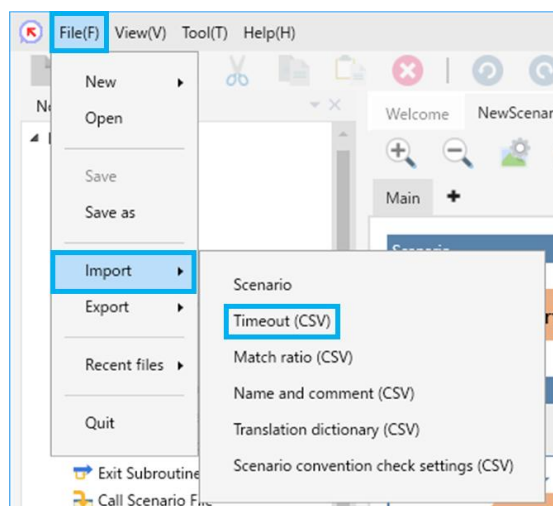


- Export > Timeout (CSV) cannot be operated while running, pausing, and recording a scenario.
- There are some folders where files cannot be saved from WinActor.

➤➤ See "6.1 Limitations of File Location."

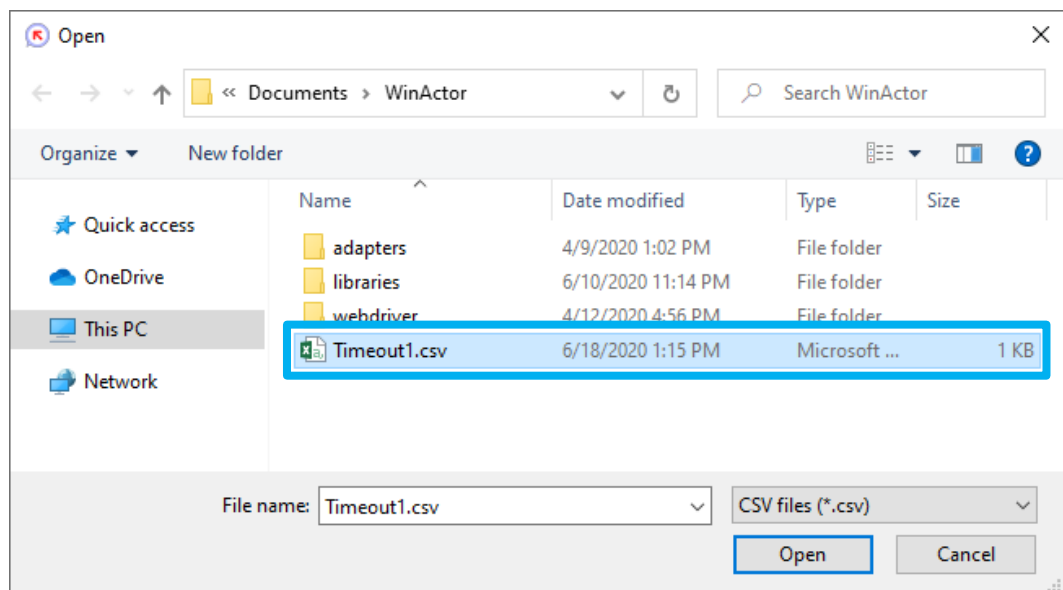
Steps

1. Click the "File" menu and select 'Import' > 'Timeout (CSV).'



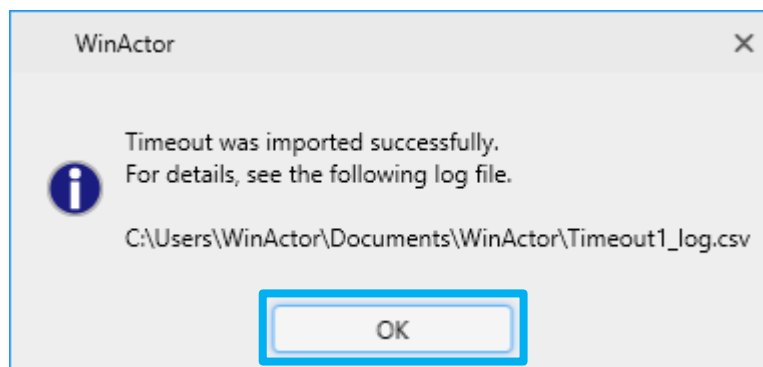
The 'Open' window appears

2. Select a CSV file you want to import and click the 'Open' button.

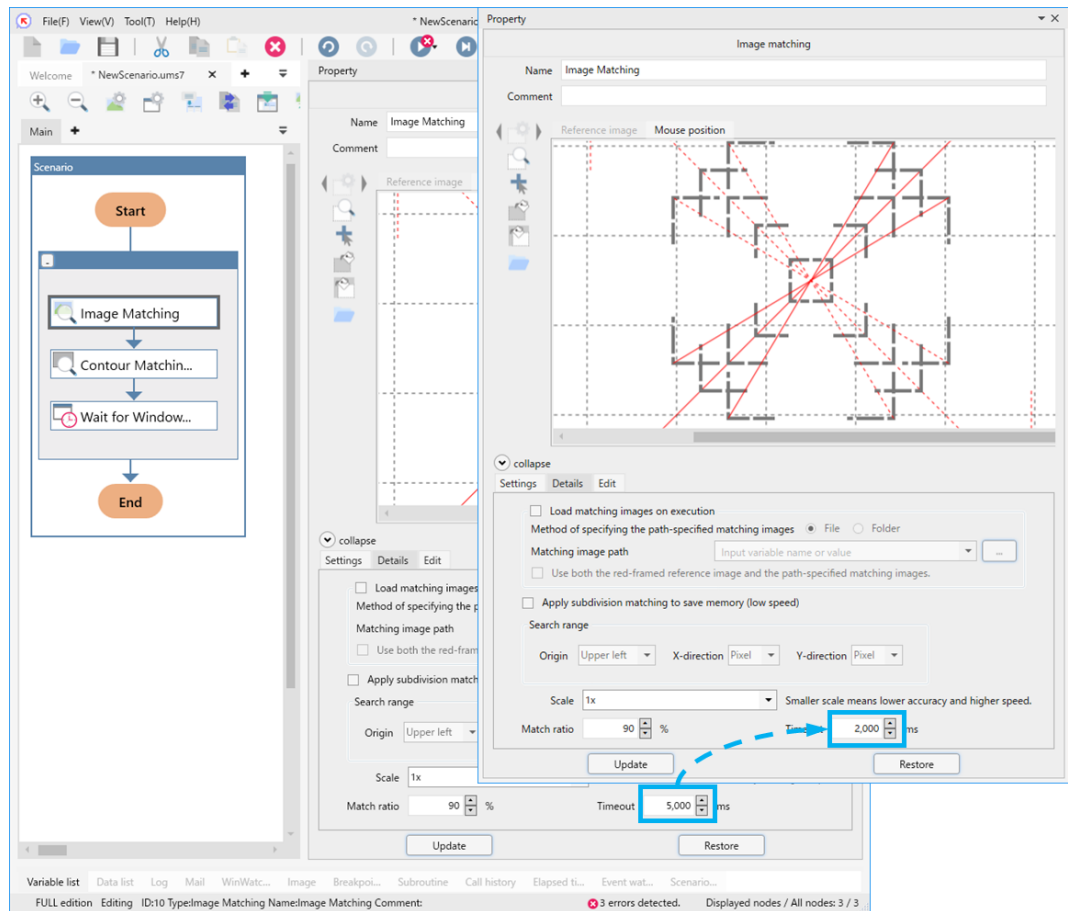


When the timeout import is complete, the following dialog appears.

3. Click the 'OK' button.



The timeout value of the target node in the flowchart area is updated to the set value.



- A log file is generated in the same folder in which the selected file is located, and you can check the result of the import.

A1						
	A	B	C	D	E	F
1	ID	Type	Name	Comment	Timeout	Result
2	7	Image Matching	Image Matching		2000	ok
3	8	Contour Matching	Contour Matching		5000	skip
4	9	Wait for Window Status	Wait for Window Status		5000	error
5						

Timeout1_log

"ok" if the timeout value is successfully updated
 "skip" if the timeout value is identical
 "error" in case of error such as no node

- If you do not have write permission for the same folder in which the selected file is located, the import itself will be performed but the error message "Failed to write CSV file" will be displayed.

■ Import > Match ratio (CSV)

FULL

Import > Match ratio (CSV) is the operation to update match ratio values of nodes which have the match ratio setting at once. It is assumed to be used in the following procedure.

- (1) Exporting match ratio values
- (2) Editing match ratio values
- (3) Importing match ratio values

➤➤ For the export steps and data format, see "Export > Match ratio (CSV)."

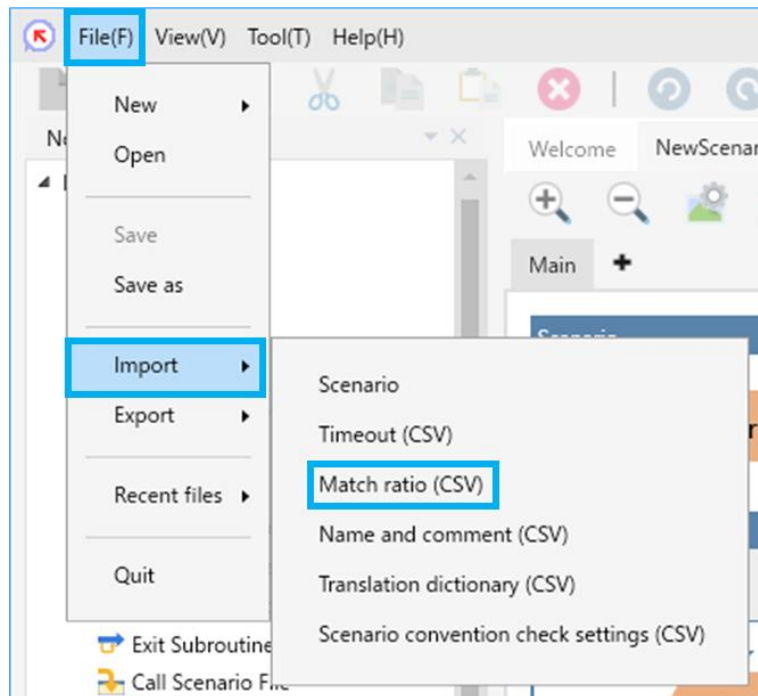


- Import > Match ratio (CSV) cannot be operated while running, pausing, and recording a scenario.
- There are some folders where files cannot be saved from WinActor.

➤➤ See "6.1 Limitations of File Location."

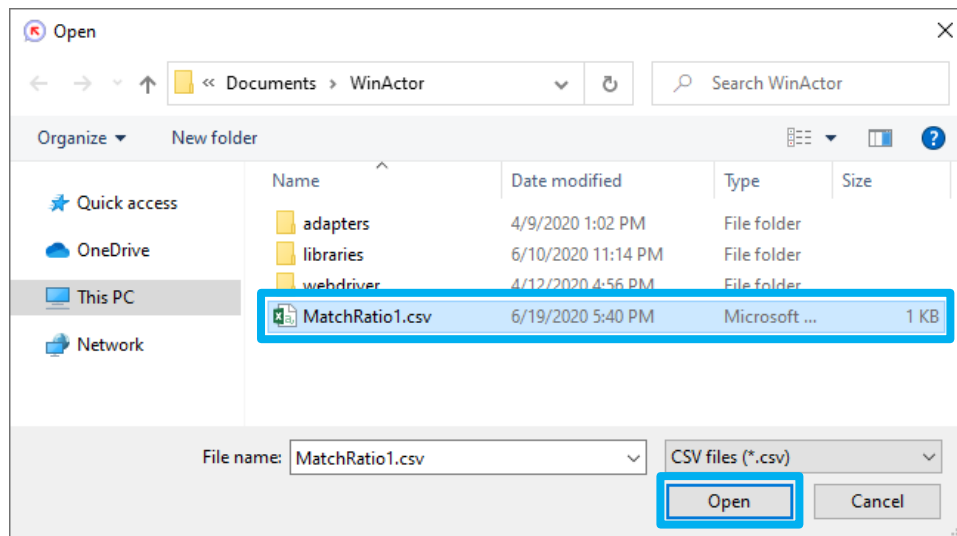
Steps

1. Click the "File" menu and select 'Import' > 'Match ratio (CSV).'



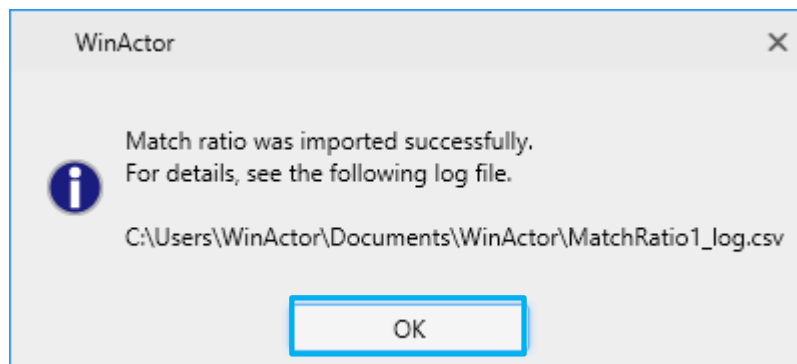
The 'Open' window appears.

- 2.** Select a CSV file you want to import and click the 'Open' button.

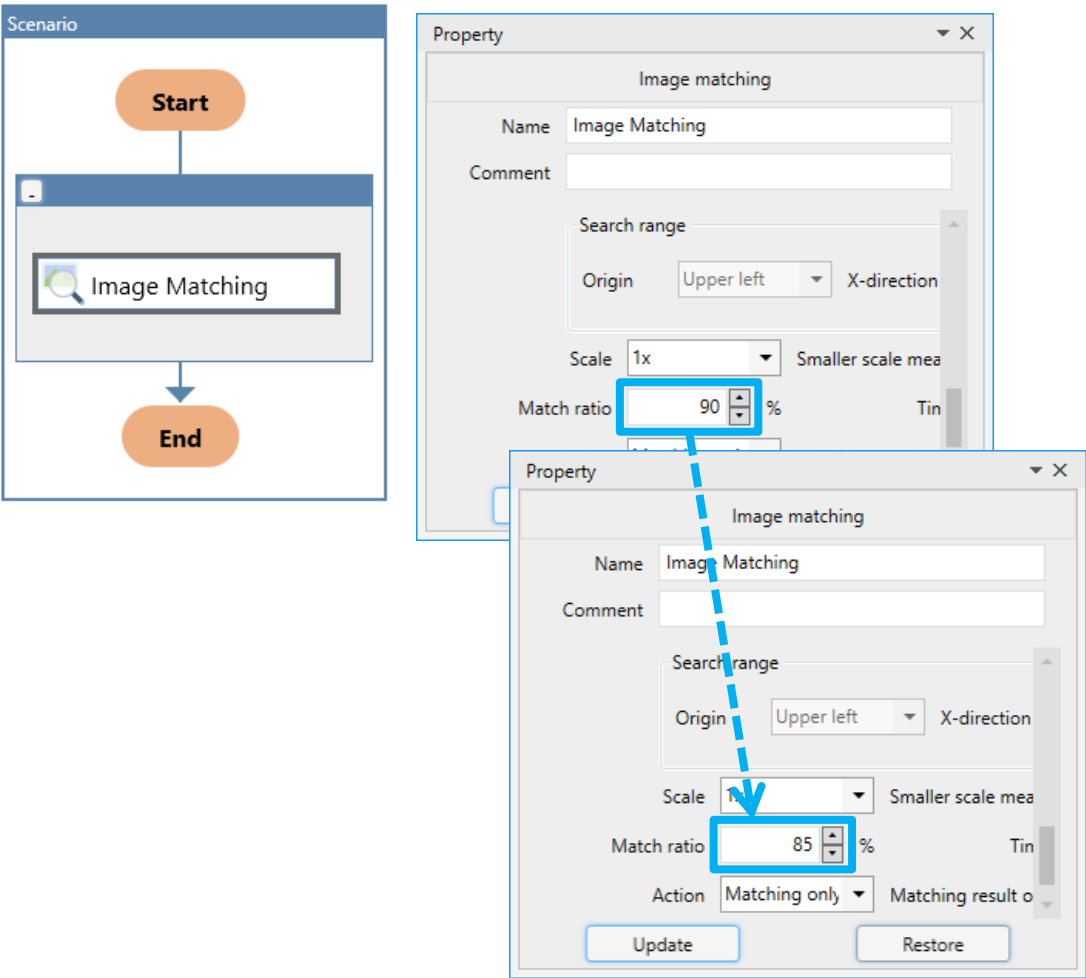


When the match ratio import is complete, the following dialog appears.

- 3.** Click the 'OK' button.



The match ratio value of the target node in the flowchart area is updated to the set value.





- A log file is generated in the same folder in which the selected file is located, and you can check the result of the import.

MatchRatio1_log.csv - Excel

File Home Insert Page Layout Formulas Data Review View Developer

Calibri 11

Paste

Clipboard Font

A9

"ok" if the match ratio value is successfully updated
"skip" if the match ratio value is identical
"error" in case of error such as no node

	A	B	C	D	E	F
1	ID	Type	Name	Comment	Match ratio	Result
2	7	Image Matching	Image Matching		85	ok
3	7	Image Matching	Image Matching		85	skip
4	8	Image Matching	Image Matching		85	error
5						
6						

MatchRatio1_log

Ready

- If you do not have write permission for the same folder in which the selected file is located, the import itself will be performed but the error message "Failed to write CSV file" will be displayed.

■ Import > Name and comment (CSV)

FULL

Import > Name and comment (CSV) is the operation to update name and comment values of nodes which have the name and comment settings at once. It is assumed to be used in the following procedure.

- (1) Exporting name and comment values
- (2) Editing name and comment values
- (3) Importing name and comment values

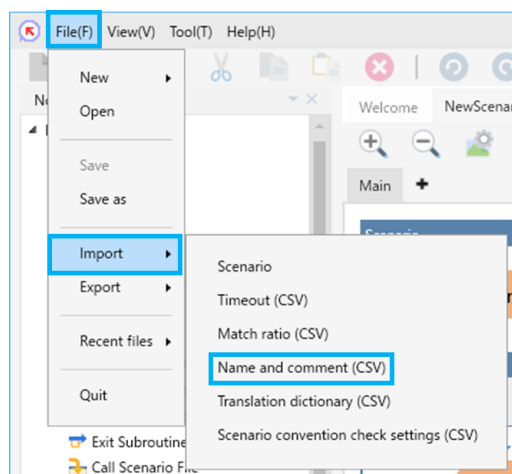
➤➤ For the export steps and data format, see "Export > Name and comment (CSV)."



- The following limitations apply when importing names and comments.
 - (1) The name should be 255 characters or less to be imported.
 - (2) The comment should be 255 characters or less to be imported.
 - If the target to be updated is a subroutine group, the following limitations apply.
 - See "Subroutine Group property."
 - (1) Names that already exist cannot be imported.
 - (2) Names consisting of whitespace characters cannot be imported.
 - Import > Name and comment (CSV) cannot be operated while running, pausing, and recording a scenario.
 - There are some folders where files cannot be saved from WinActor.
- See "6.1 Limitations of File Location."

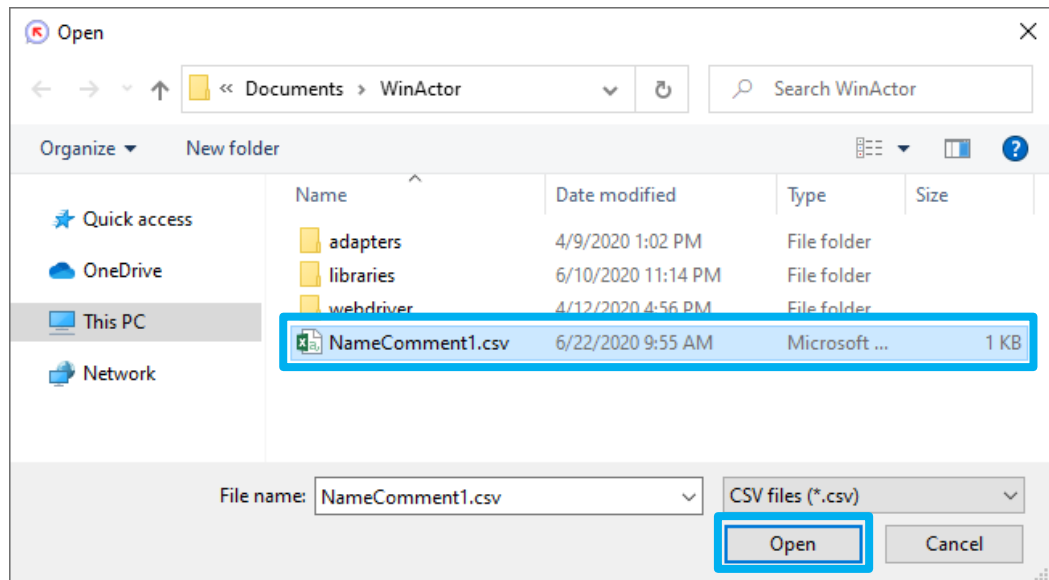
Steps

1. Click the "File" menu and select 'Import' > 'Name and comment (CSV).'



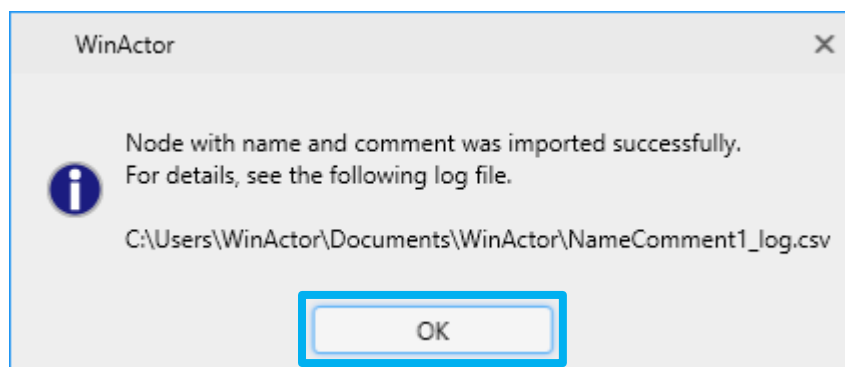
The 'Open' window appears.

2. Select a CSV file you want to import and click the 'Open' button.

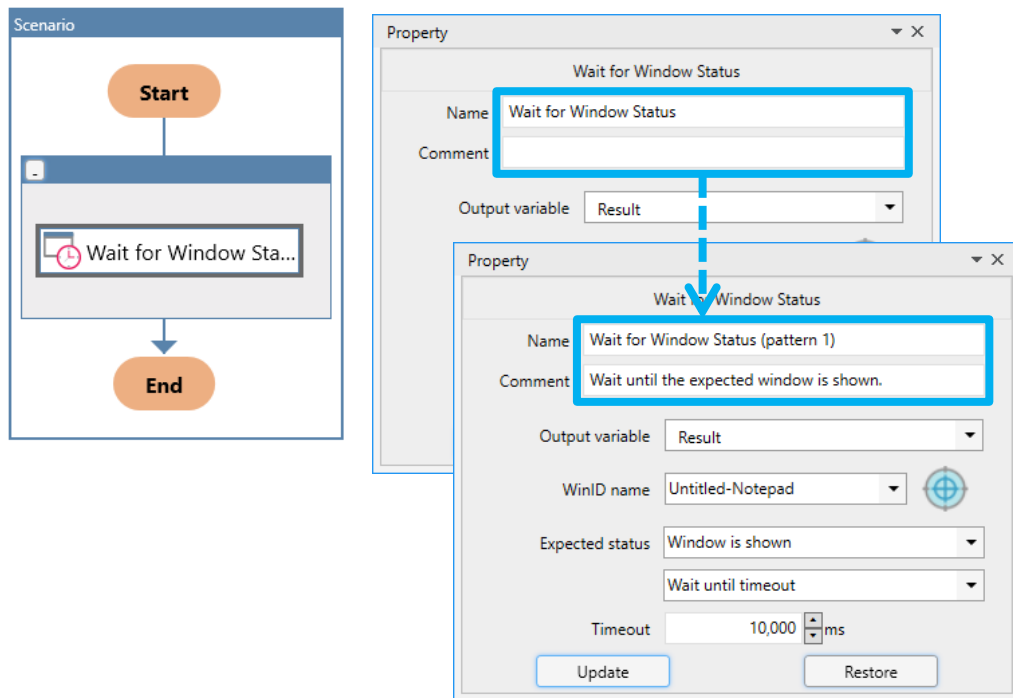


When the name and comment import is complete, the following dialog appears.

3. Click the 'OK' button.



The name and comment values of the target node in the flowchart area are updated to the set values.





- A log file is generated in the same folder in which the selected file is located, and you can check the result of the import.

"ok" if the name and comment values are successfully updated
"skip" if the name and comment values are identical
"error" in case of error such as no node

	A	B	C	D	E	F
1	ID	Type	Name	Comment	Result	
2	7	Image Matching	Image Matching	Image Matching 2	ok	
3	8	Wait for Window Status	Wait for Window Status	Wait for Window Status 1	skip	
4	9	Wait for Time	Wait for Time	Wait for Time 1	skip	
5						

- If you do not have write permission for the same folder in which the selected file is located, the import itself will be performed but the error message "Failed to write CSV file." will be displayed.

■ Import > Translation dictionary (CSV)

FULL

Import > Translation dictionary (CSV) is the operation to load a CSV-formatted user translation dictionary created by the user.

The imported user dictionary will be linked with the scenario currently being edited. The user translation dictionary linked with the scenario before importing will be discarded and replaced with the imported user translation dictionary.

After the import is complete, the user translation dictionary for the scenario being edited will be set to 'use.'

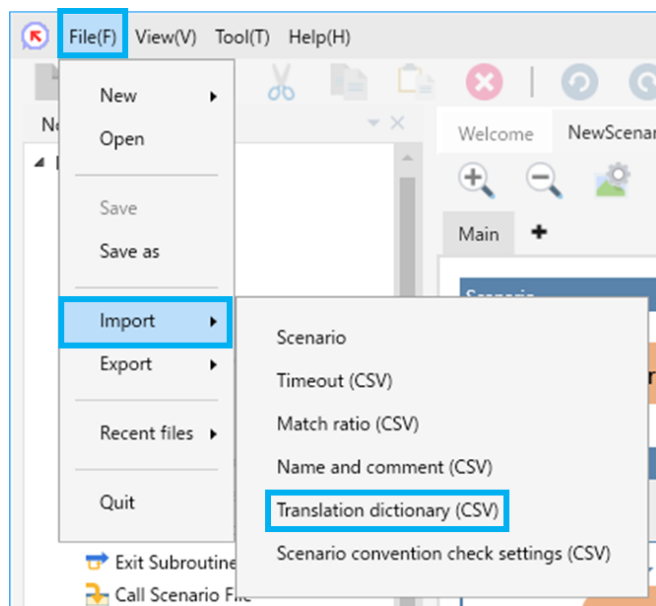
➤ For the setting of using or not using the user translation dictionary, see "3.8.5 Misc. tab."



- Import > Translation dictionary (CSV) cannot be operated while running, pausing, and recording a scenario.

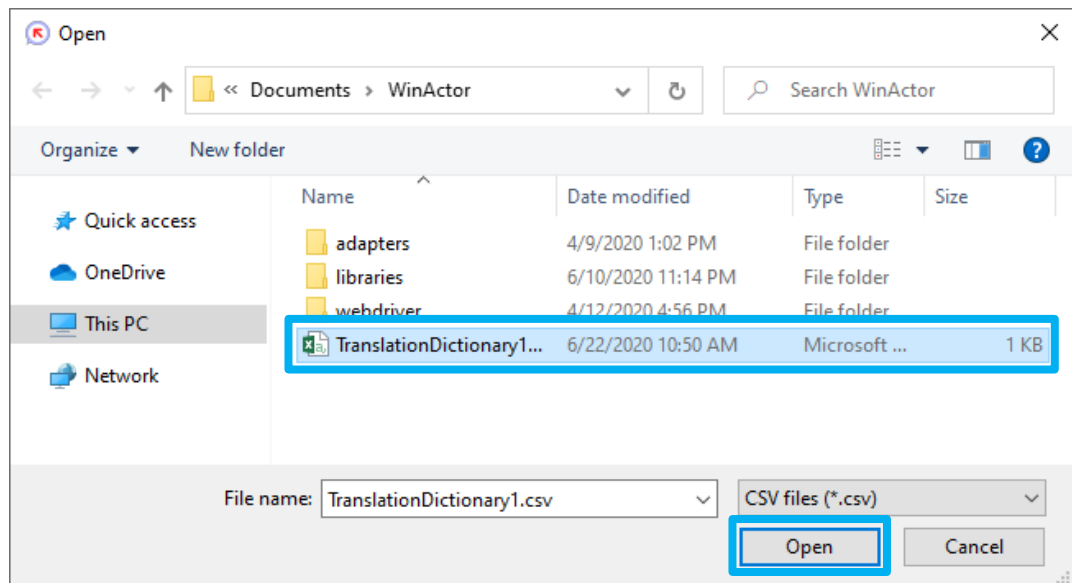
Steps

1. Click the "File" menu and select 'Import' > 'Translation dictionary (CSV).'



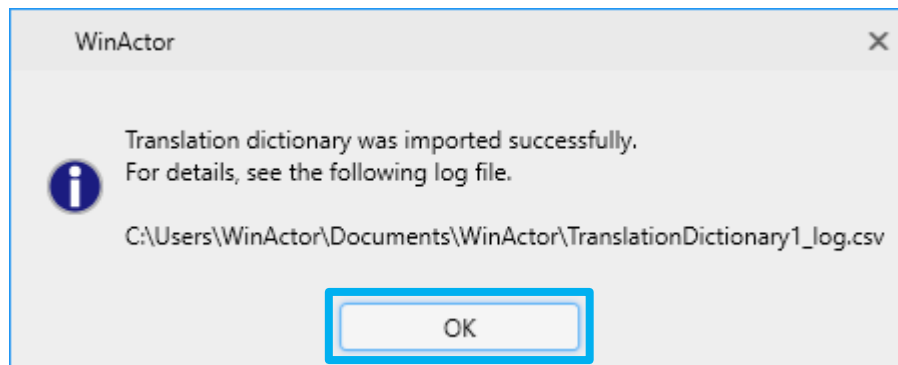
The 'Open' window appears.

2. Select a CSV file you want to import and click the 'Open' button.

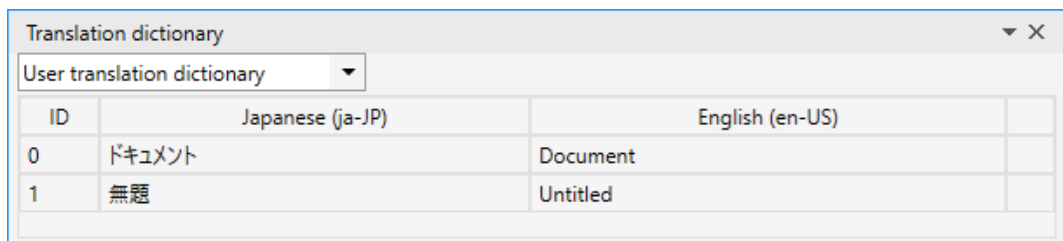


When the user translation dictionary import is complete, the following dialog appears.

3. Click the 'OK' button.



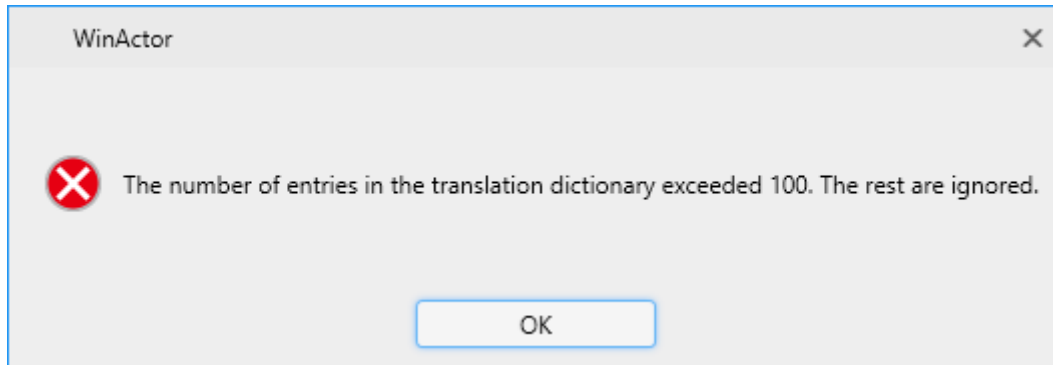
The contents of 'User translation dictionary' in 'Translation dictionary' are updated.



The maximum number of rules in the user translation dictionary is 100.

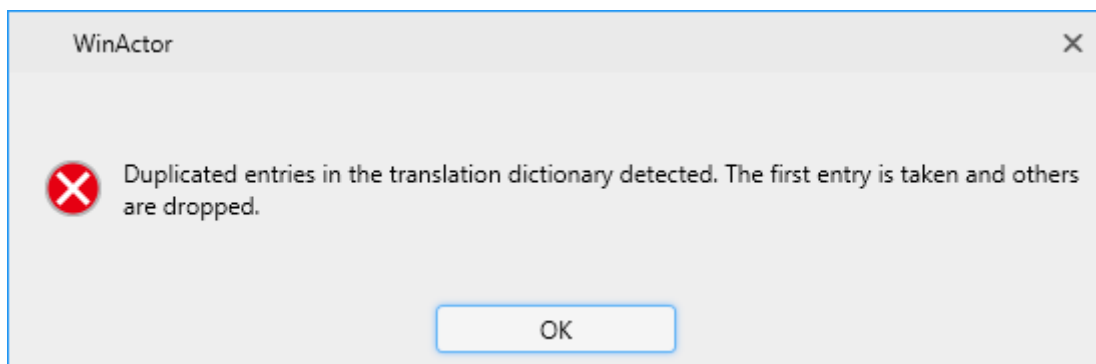
If the number of imported data exceeds 100, the following dialog will be displayed.

In this case, the data up to the 100th will be imported, and the data after the 101st will not be imported.



If the imported data contains duplicated entries, the following dialog will be displayed after the import.

For duplicated entries, the first loaded entry becomes valid, and the entries loaded later and determined to be duplicate are ignored.



The CSV file format is as follows.

```
ja-JP,en-US  
ペイント,Paint  
ペイント 3D,Paint 3D  
レジストリ エディター,Registry Editor  
...
```

The first row is the header, and 'ja-JP' and 'en-US' are set.

'ja-JP' means that the column has Japanese entries.

'en-US' means that the column has US English entries.

In the second and subsequent rows, the strings before and after translation are listed side by side.

The empty string has a special usage.

If the string before translation is also defined in the system translation dictionary and the string after translation in the user translation dictionary is an empty string, the translation will not be performed.

Specify an empty string to make a certain definition in the system translation dictionary invalidated.

If the file format of the CSV file is incorrect, some data may be ignored during import, or the import itself may result in an error.

■ Import > Scenario convention check settings (CSV)

FULL

Import > Scenario convention check settings (CSV) is the operation to load a CSV-formatted enable/disable-setting and check exclusion parameters states of the check items on the 'Scenario convention checker' tab.

It is assumed that the CSV-formatted file exported with Export > Scenario convention check settings (CSV) is imported, and the enable/disable-setting and check exclusion parameters states of the 'Scenario convention checker' tab at the time of exporting is restored.

➤➤ For the export procedure, see "Export > Scenario convention check settings (CSV)."



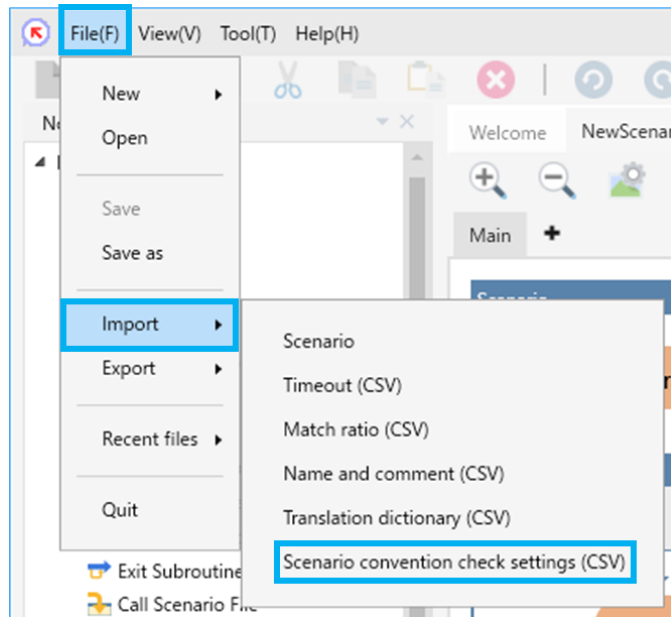
- Import > Scenario convention check settings (CSV) cannot be operated while running, pausing, and recording a scenario.
- There are some folders where files cannot be saved from WinActor.



See "6.1 Limitations of File Location."

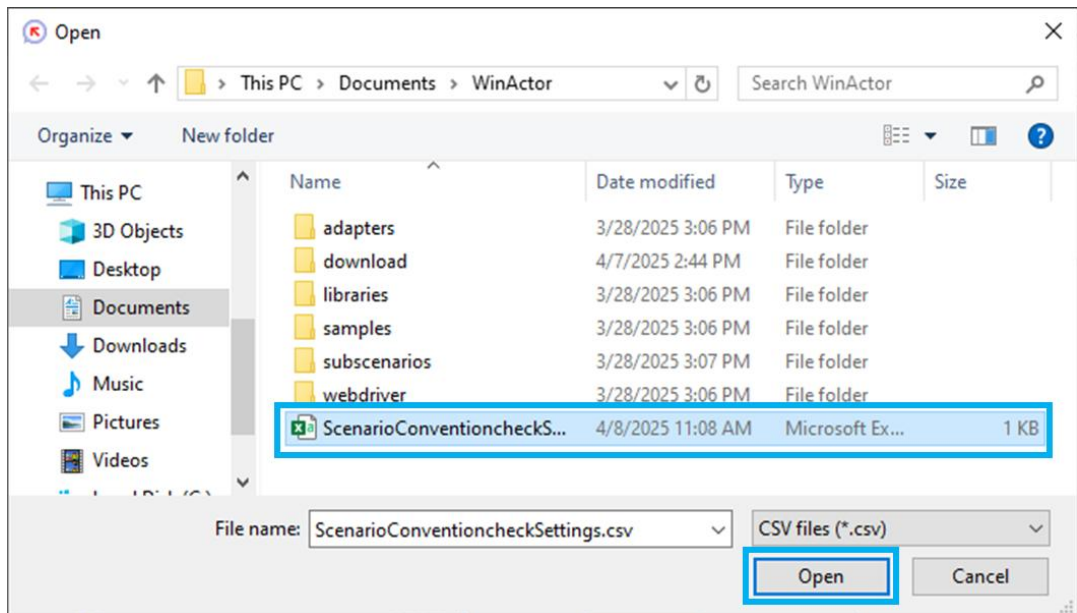
Steps

1. Click the "File" menu and select 'Import' > 'Translation dictionary (CSV).'



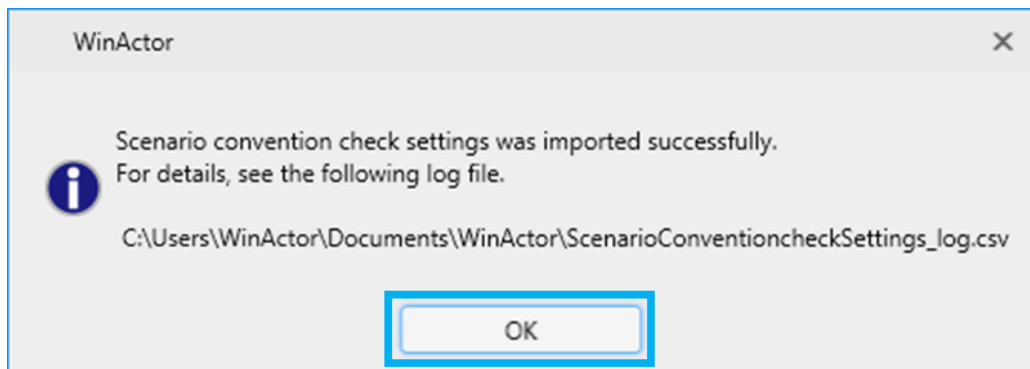
The 'Open' window appears.

2. Select a CSV file you want to import and click the 'Open' button.

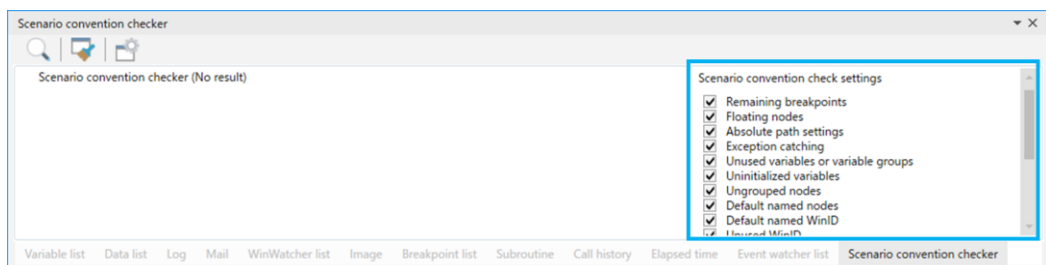


When the user translation dictionary import is complete, the following dialog appears.

3. Click the 'OK' button.



The contents of 'Scenario convention checker settings' on 'Scenario convention checker' tab are updated.



■ Export > Timeout (CSV)

FULL

Export > Timeout (CSV) is the operation to save information and timeout values of nodes which have the timeout setting in a scenario to a CSV file.

By using it in combination with the 'Import' function, the timeout values can be updated all at once.

>> See "Import > Timeout (CSV)."

Nodes with a timeout setting

- Wait for Window Status
- Image Matching
- Contour Matching



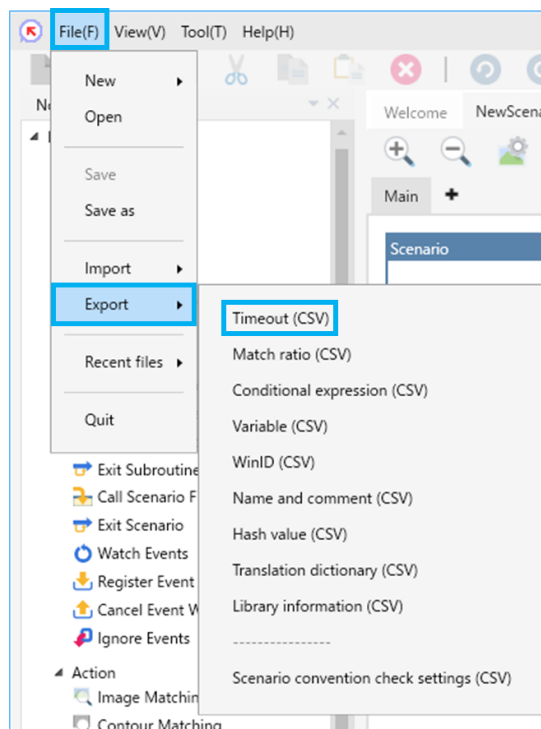
- Export > Timeout (CSV) cannot be operated while running, pausing, and recording a scenario.
- There are some folders where files cannot be saved from WinActor.



See "6.1 Limitations of File Location."

Steps

1. Click the "File" menu and select 'Export' > 'Timeout (CSV).'

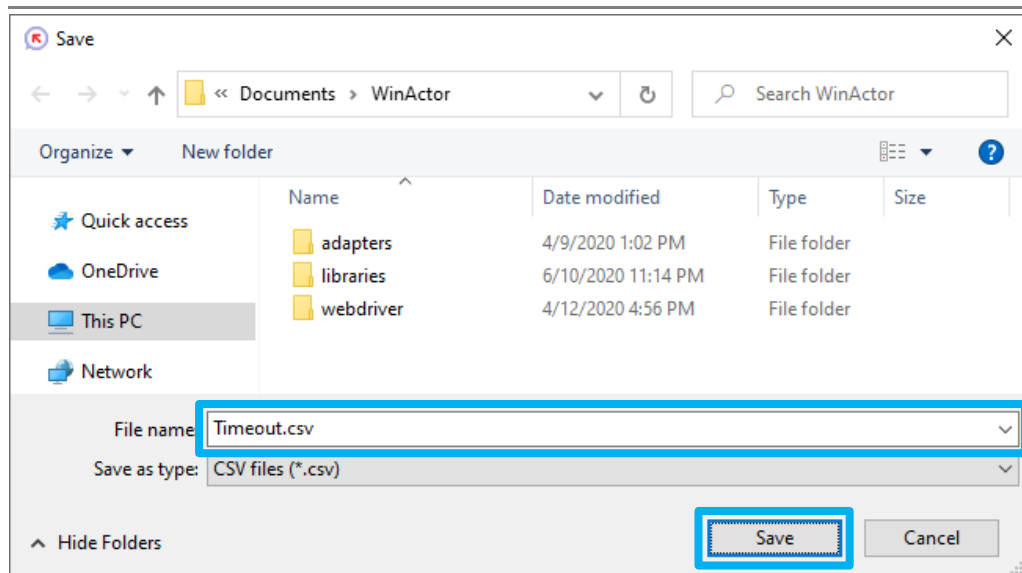


The 'Save' window appears.

2. Select a folder for saving, enter a filename of the CSV file to be exported, and click the 'Save' button.

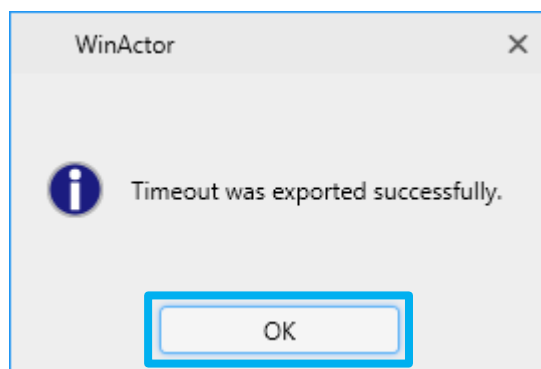


Only CSV can be selected in 'Save as type.'



The specified CSV file will be saved.

3. Click the 'OK' button.





The data format of the CSV file for export is the same as that of the CSV file for import.

>> See "Import > Timeout (CSV)."

Item names are listed in order of "ID," "Type," "Name," "Comment," and "Timeout" in the first row.

ID	Type	Name	Comment	Timeout
7	Image Matching	Image Matching		5000
8	Contour Matching	Contour Matching		5000
9	Wait for Window Status	Wait for Window Status		10000

Values are listed in order of "ID," "Type," "Name," "Comment," and "Timeout" for each node after the second row.

■ Export > Match ratio (CSV)

FULL

Export > Match ratio (CSV) is the operation to save information and match ratio values of nodes which have the match ratio setting in a scenario to a CSV file.

By using it in combination with the 'Import' function, the match ratio values can be updated all at once.

➤➤ See "Import > Match ratio (CSV)."



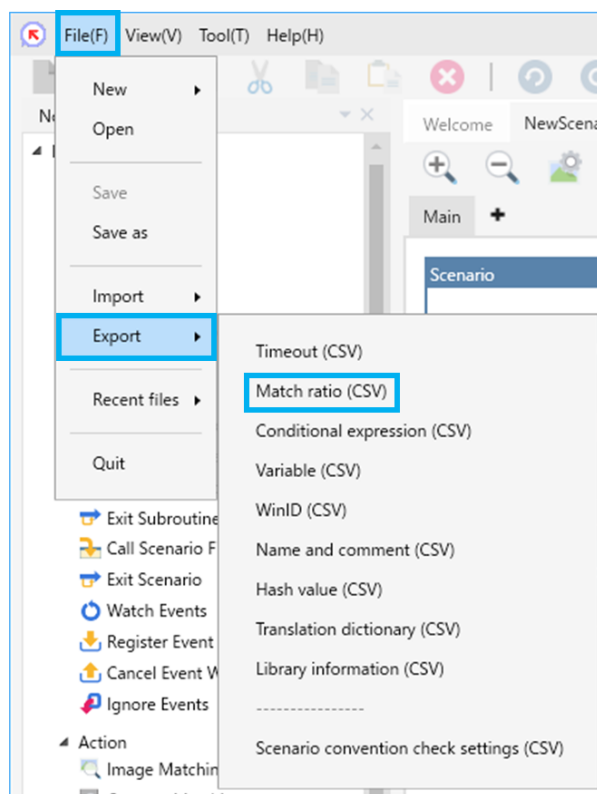
- Export > Match ratio (CSV) cannot be operated while running, pausing, and recording a scenario.
- There are some folders where files cannot be saved from WinActor.



See "6.1 Limitations of File Location."

Steps

1. Click the "File" menu and select 'Export' > 'Match ratio (CSV).'

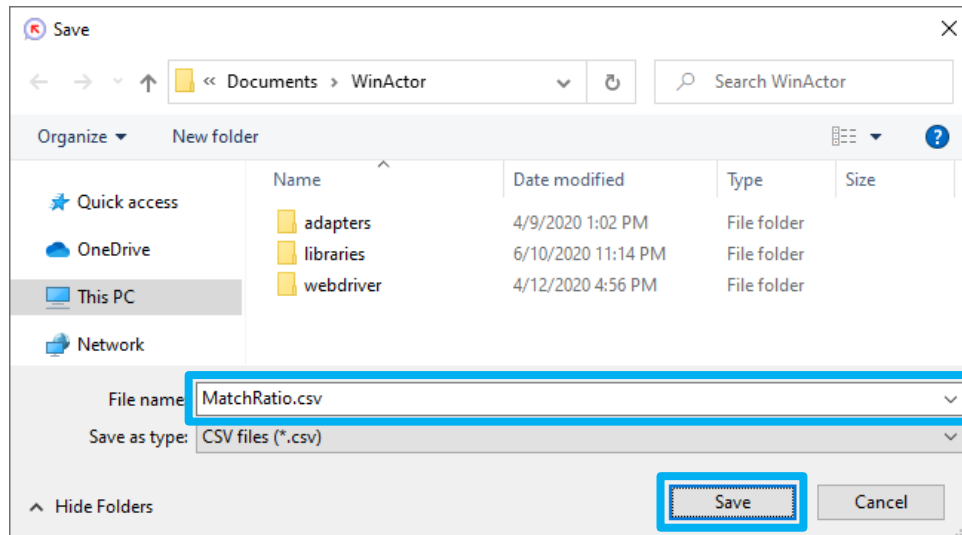


The 'Save' window appears.

2. Select a folder for saving, enter a filename of the CSV file to be exported, and click the 'Save' button.



Only CSV can be selected in 'Save as type.'



The CSV file will be saved.

3. Click the 'OK' button.



4. Check the saved CSV file.

The data format of the CSV file for export is the same as that of the CSV file for import.

>> See "Import > Match ratio (CSV)."

Item names are listed in order of "ID," "Type," "Name," "Comment," and "Match ratio" in the first row

ID	Type	Name	Comment	Match ratio
7	Image Matching	Image Matching		100
8	Image Matching	Image Matching		90
9	Image Matching	Image Matching		80

Values are listed in order of "ID," "Type," "Name," "Comment," and "Match ratio" for each node after the second row.

■ Export > Conditional expression (CSV)

FULL

Export > Conditional expression (CSV) is the operation to save information and conditional expressions of nodes which have the conditional expression setting in a scenario to a CSV file.

➤ See "4.3.2 Decision" and "4.3.3 Multi-Branch" for conditional expressions, and "4.3.4 Pre-Test Loop" and "4.3.5 Post-Test Loop" for loop conditions.



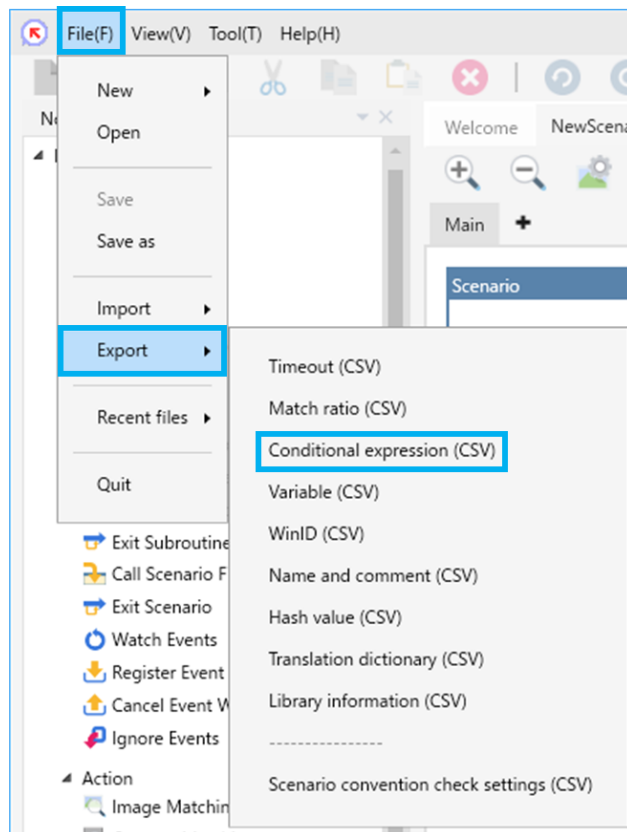
- Export > Conditional expression (CSV) cannot be operated while running, pausing, and recording a scenario.
- There are some folders where files cannot be saved from WinActor.



See "6.1 Limitations of File Location."

Steps

1. Click the "File" menu and select 'Export' > 'Conditional expression (CSV).'

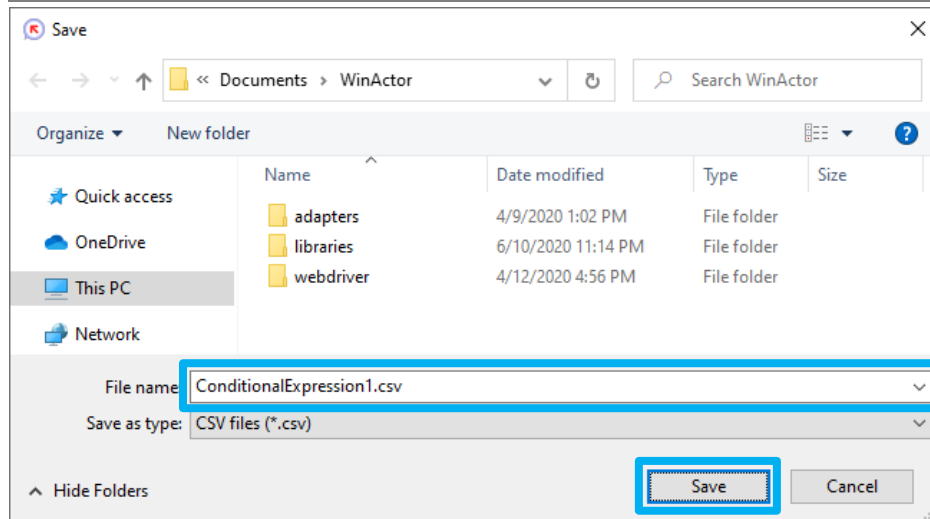


The 'Save' window appears.

2. Enter a filename and click the 'Save' button.

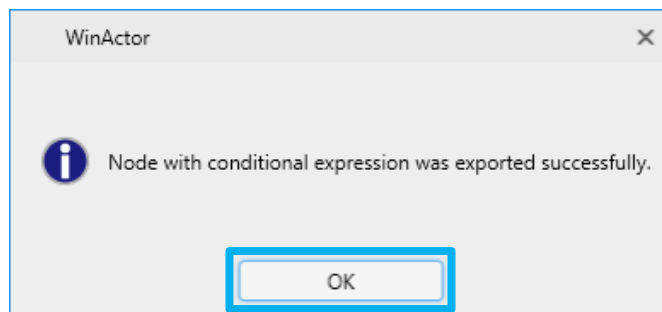


Only CSV can be selected in 'Save as type.'



When the CSV file is saved, the result message "Node with conditional expression was exported successfully." appears.

3. Click the 'OK' button.



4. Check the saved CSV file.

ID	Type	Name	Comment	Branch No.	Branch name	Conditional type	Conditional expression
7	Decision	Decision group				Conditional expression	[ApplePrice] is equal to '100'
14	Pre-Test Loop	Pre-Test loop group				Iteration count	'5'
18	Multi-Branch	Multi-branch group		1	Branch_1	Conditional expression	'30' is not equal to [Variable1]
18	Multi-Branch	Multi-branch group		2	Branch_2	Conditional expression	[Variable2] = '40'
28	Post-Test Loop	Post-Test loop group				Range	'-10'



- Item names are listed in order of 'ID,' 'Type,' 'Name,' 'Comment,' 'Branch No,' 'Branch name,' 'Conditional type,' and 'Conditional expression' in the first row.
 - Values are listed in order of 'ID,' 'Type,' 'Name,' and 'Comment,' 'Conditional type,' and 'Conditional expression' for each node and 'ID,' 'Type,' 'Name,' 'Comment,' 'Branch No,' 'Branch name,' 'Conditional type,' and 'Conditional expression' for each multi-branch node after the second row.
-

■ Export > Variable (CSV)

FULL

Export > Variables (CSV) is the operation to save information and variable names of the nodes and 'Event Watcher's which have settings of variable names in a scenario to a CSV file.



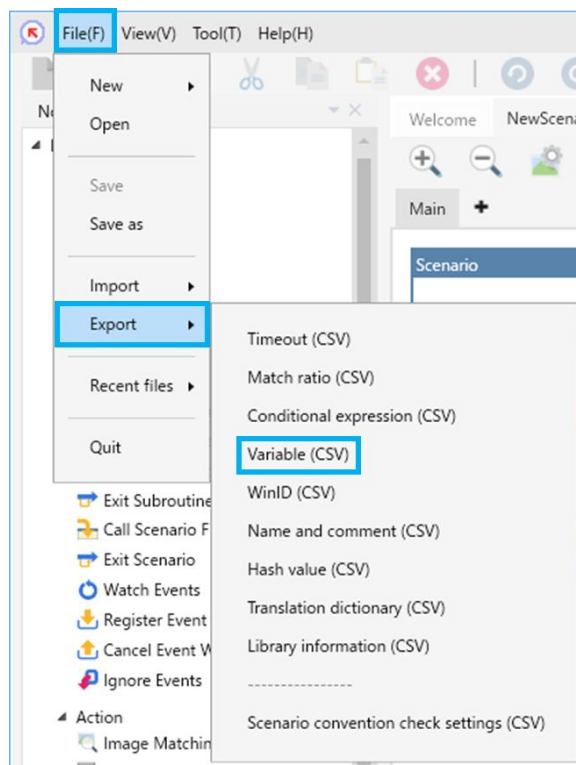
- Export > Variable (CSV) cannot be operated while running, pausing, and recording a scenario.
- There are some folders where files cannot be saved from WinActor.



See "6.1 Limitations of File Location."

Steps

1. Click the "File" menu and select 'Export' > 'Variable (CSV).'

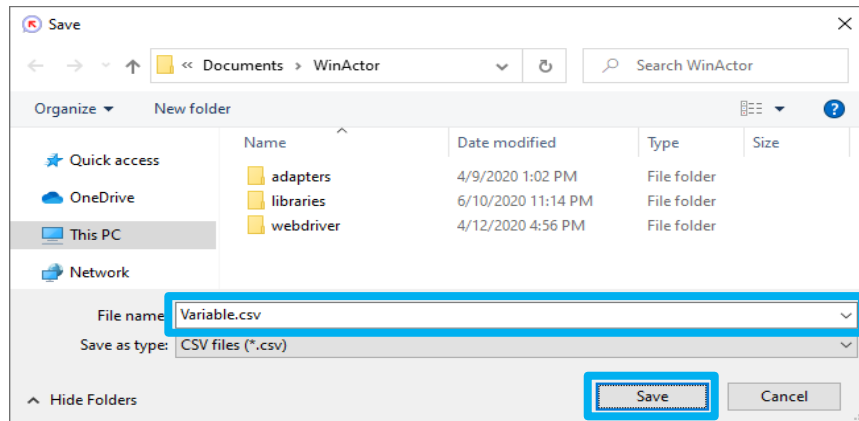


The 'Save' window appears.

2. Enter a filename and click the 'Save' button.

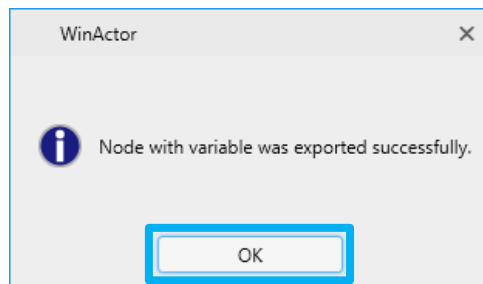


Only CSV can be selected in 'Save as type.'



When the CSV file is saved, the result message "Node with variable was exported successfully." appears.

3. Click the 'OK' button.



4. Check the saved CSV file.

ID	Type	Name	Comment	Variable name	
7	Waiting Dialog	Waiting Dialog		Variable1	
8	Wait for Time	Wait for Time		Variable2	
9	Send Text	Send Text		Variable3	
-		Event:Time (specified time)		Variable4	



- Item names are listed in order of 'ID,' 'Type,' 'Name,' 'Comment,' and 'Variable name' in the first row.
 - Values are listed in order of 'ID,' 'Type,' 'Name,' and 'Comment,' and 'Variable name' for each node after the second row.
-

■ Export > WinID (CSV)

FULL

Export > WinID (CSV) is the operation to save information and WinIDs of nodes which have the WinID name setting in a scenario to a CSV file.



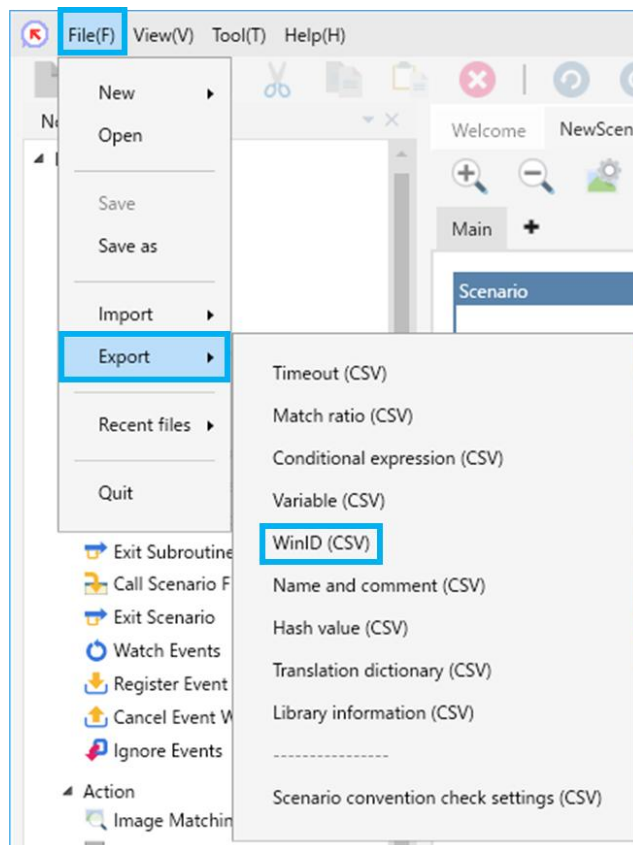
- Export > WinID (CSV) cannot be operated while running, pausing, and recording a scenario.
- There are some folders where files cannot be saved from WinActor.



See "6.1 Limitations of File Location."

Steps

1. Click the "File" menu and select 'Export' > 'WinID (CSV).'

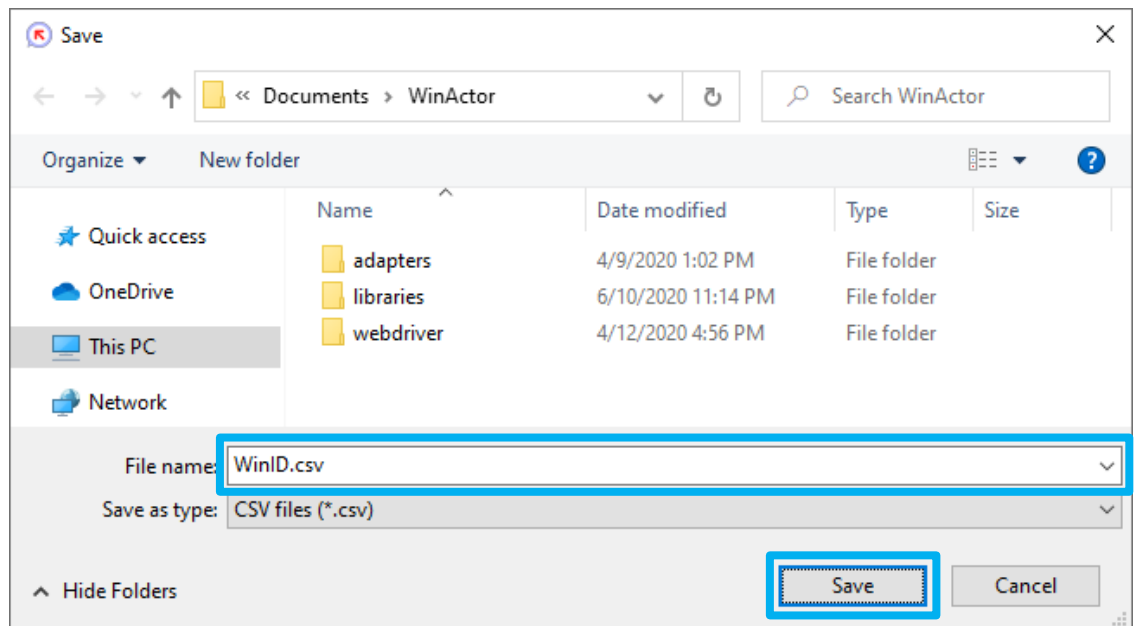


The 'Save' window appears.

2. Select a folder for saving, enter a filename of the CSV file to be exported, and click the 'Save' button.

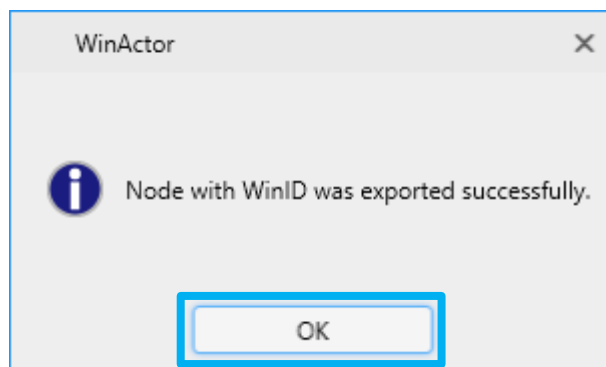


Only CSV can be selected in 'Save as type.'



When the CSV file is saved, the result message "Node with WinID was exported successfully." appears.

3. Click the 'OK' button.



4. Check the saved CSV file.

Item names are listed in order of "ID," "Type," "Name," "Comment," and "WinID name" in the first row.

ID	Type	Name	Comment	WinID name
7	Image Matching	Image Matching		Calculator
8	Wait for Window Status	Wait for Window Status		Untitled-Notepad
9	Send Text	Send Text		Tutorial-InternetExplorer

Values are listed in order of "ID," "Type," "Name," "Comment," and "WinID name" for each node after the second row.

■ Export > Name and comment (CSV)

FULL

Export > Name and comment (CSV) is the operation to save information of nodes which have the name and comment settings in a scenario to a CSV file.



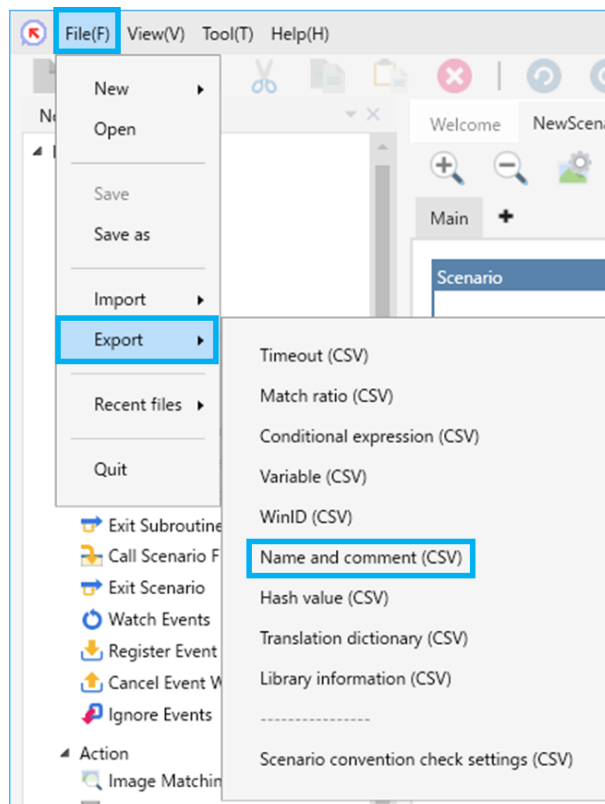
- Export > Name and comment (CSV) cannot be operated while running, pausing, and recording a scenario.
- There are some folders where files cannot be saved from WinActor.



See "6.1 Limitations of File Location."

Steps

1. Click the "File" menu and select 'Export' > 'Name and comment (CSV).'

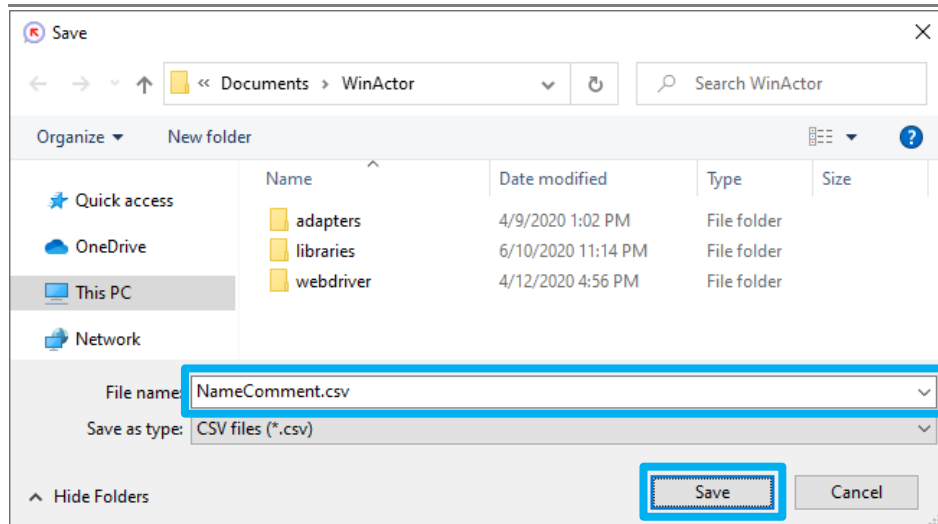


The 'Save' window appears.

2. Enter a filename and click the 'Save' button.

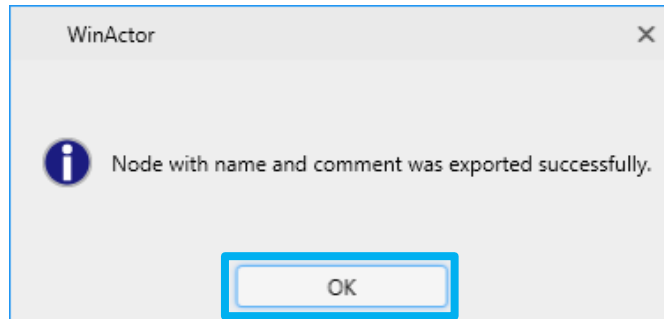


Only CSV can be selected in 'Save as type.'

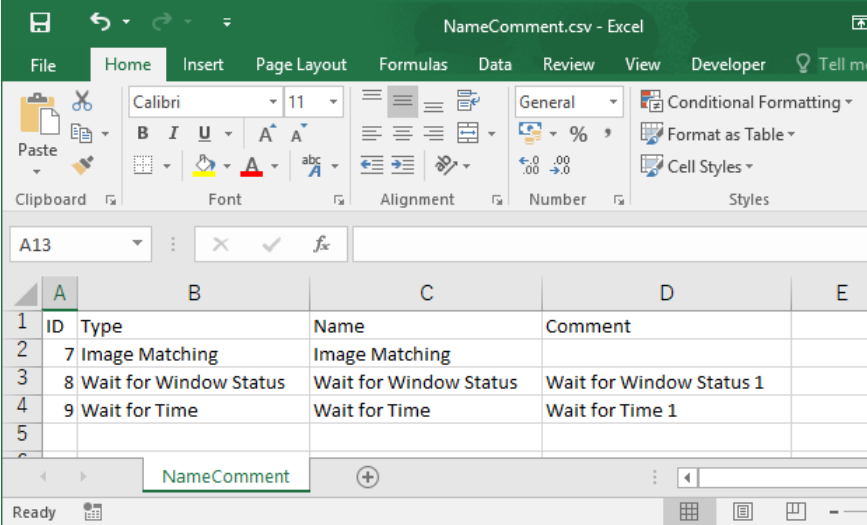


When the CSV file is saved, the result message "Node with name and comment was exported successfully." appears.

3. Click the 'OK' button.



4. Check the saved CSV file.



	A	B	C	D	E
1	ID	Type	Name	Comment	
2	7	Image Matching	Image Matching		
3	8	Wait for Window Status	Wait for Window Status	Wait for Window Status 1	
4	9	Wait for Time	Wait for Time	Wait for Time 1	
5					



- Item names are listed in order of 'ID,' 'Type,' 'Name,' and 'Comment' in the first row.
- Values are listed in order of 'ID,' 'Type,' 'Name,' and 'Comment' for each node after the second row.

■ Export > Hash value (CSV)

FULL

Export > Hash value (CSV) is the operation to save hashed information of setting values in all nodes in a scenario to a CSV file.



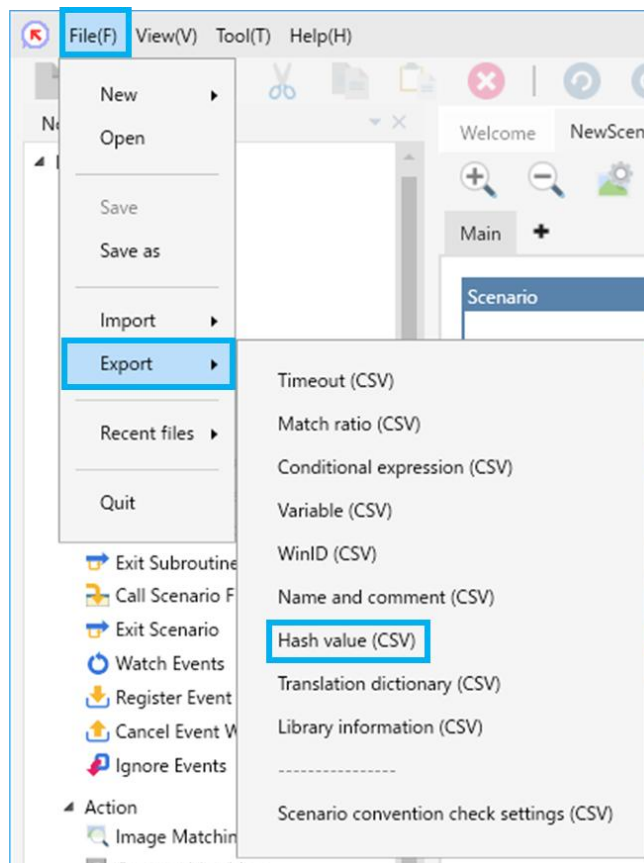
- Export > Hash value (CSV) cannot be operated while running, pausing, and recording a scenario.
- There are some folders where files cannot be saved from WinActor.



See "6.1 Limitations of File Location."

Steps

1. Click the "File" menu and select 'Export' > 'Hash value (CSV).'

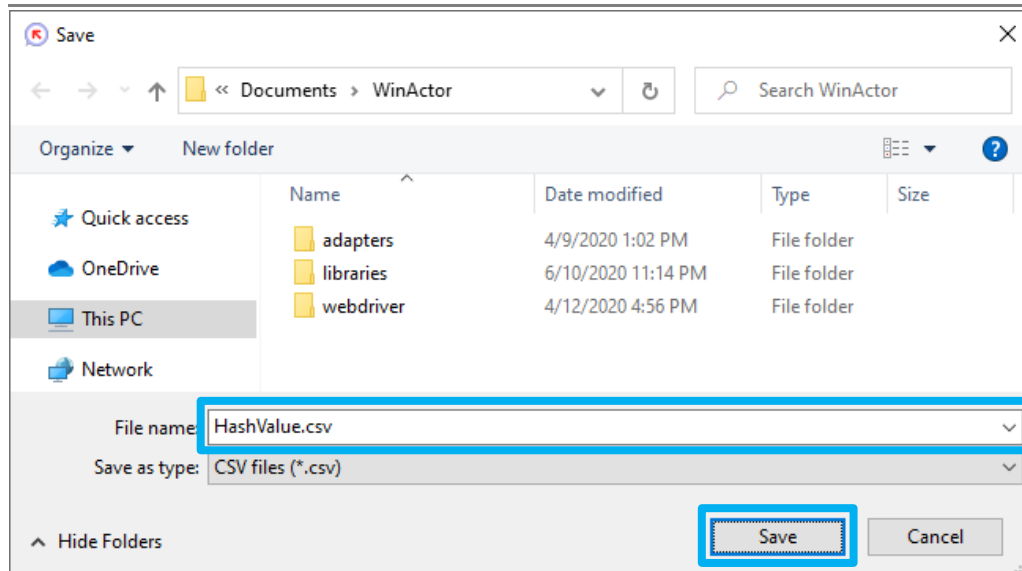


The 'Save' window appears.

2. Enter a filename and click the 'Save' button.

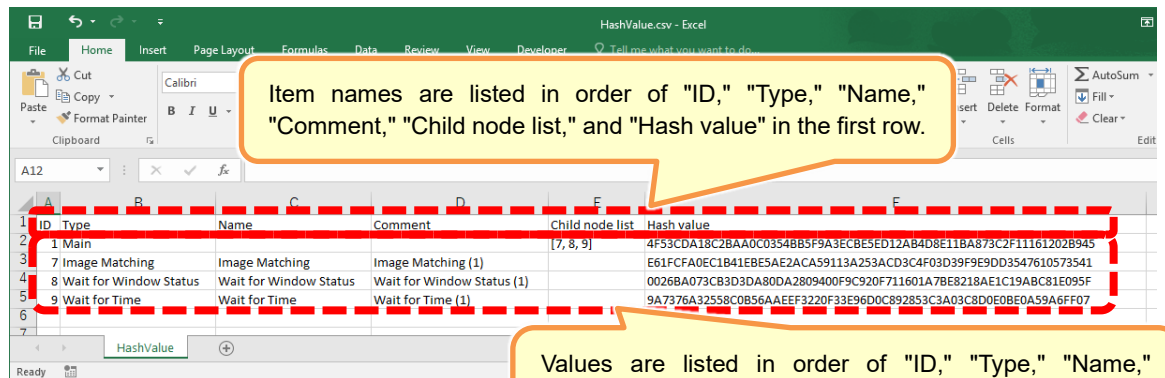


Only CSV can be selected in 'Save as type.'



The CSV file will be saved.

3. Check the saved CSV file.



- Item names are listed in order of 'ID,' 'Type,' 'Name,' 'Comment,' 'Child node list,' and 'Hash value' in the first row.
- Values are listed in order of 'ID,' 'Type,' 'Name,' 'Comment,' 'Child node list,' and 'Hash value' for each node after the second row.

■ Export > Translation dictionary (CSV)

FULL

Export > Translation dictionary (CSV) is the operation to save a user translation dictionary linked with a scenario being edited to a CSV file.



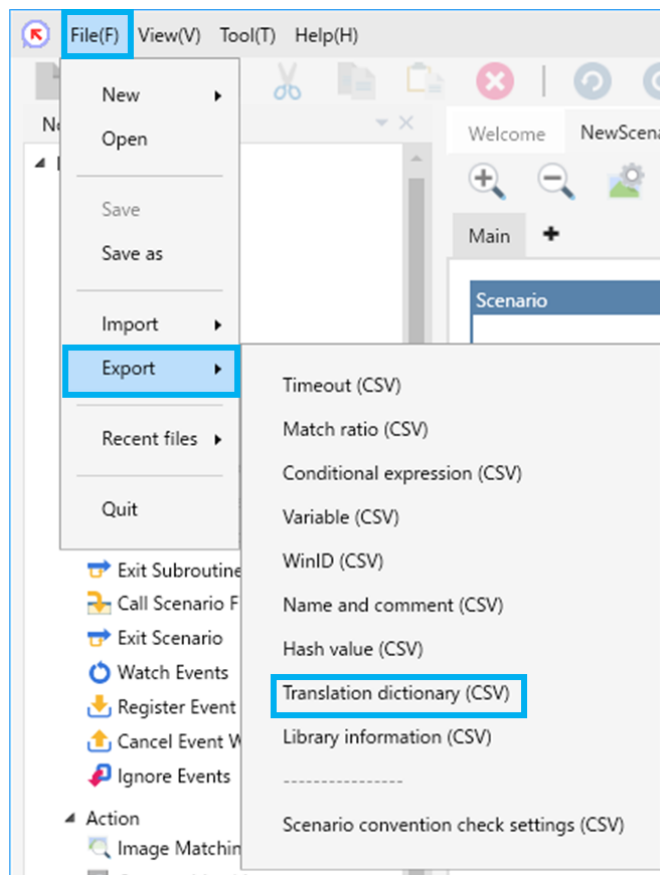
- Export > Translation dictionary (CSV) cannot be operated while running, pausing, and recording a scenario.
- There are some folders where files cannot be saved from WinActor.



See "6.1 Limitations of File Location."

Steps

1. Click the "File" menu and select 'Export' > 'Translation dictionary (CSV).'

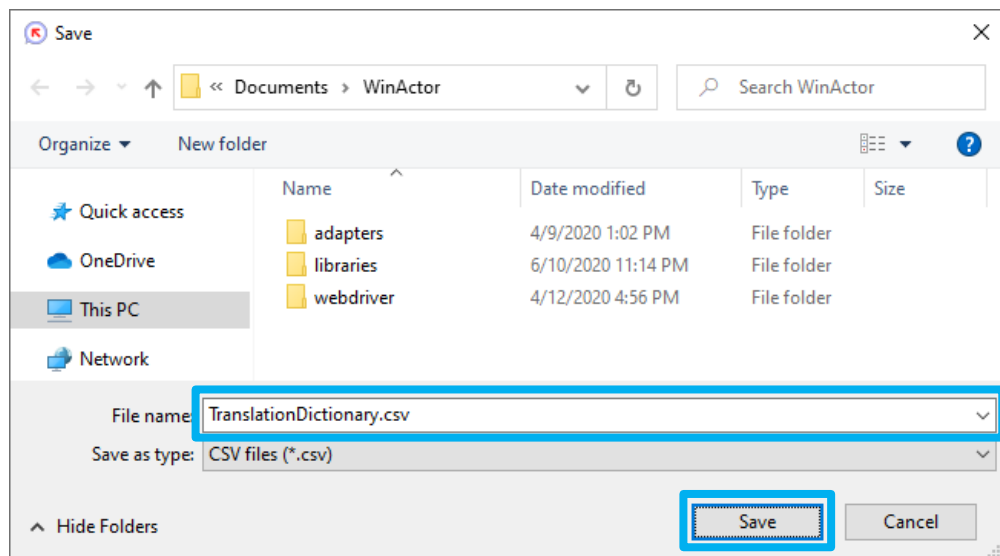


The 'Save' window appears.

2. Select a folder for saving, enter a filename of the CSV file to be exported, and click the 'Save' button.

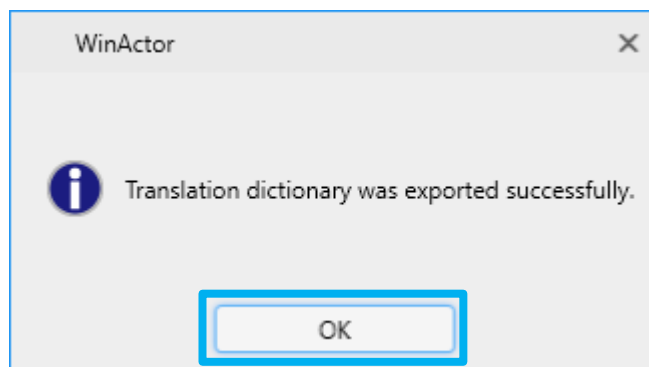


Only CSV can be selected in 'Save as type.'



The specified CSV file will be saved.

3. Click the 'OK' button.



- The data format of the CSV file for export is the same as that of the CSV file for import.
- See "Import > Translation dictionary (CSV)."
- If the user translation dictionary is not linked with the scenario being edited, only the header row will be exported.

■ Export > Library information (CSV)

FULL

Export > Library information (CSV) is the operation to save information of libraries in a scenario to a CSV file.

'Run Script' nodes that have 'Version' information are the target to export.

Items 'ID,' 'Name,' 'Comment,' 'Library name,' 'Library ID,' 'Version,' and 'Provider' are exported.



- Export > Library information (CSV) cannot be operated while running, pausing, and recording a scenario.

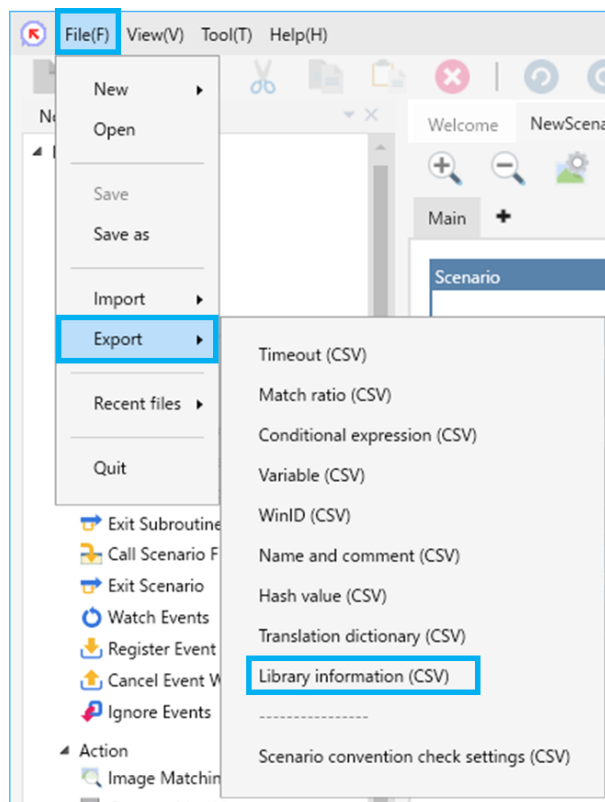
- There are some folders where files cannot be saved from WinActor.



See "6.1 Limitations of File Location."

Steps

1. Click the "File" menu and select 'Export' > 'Library information (CSV).'

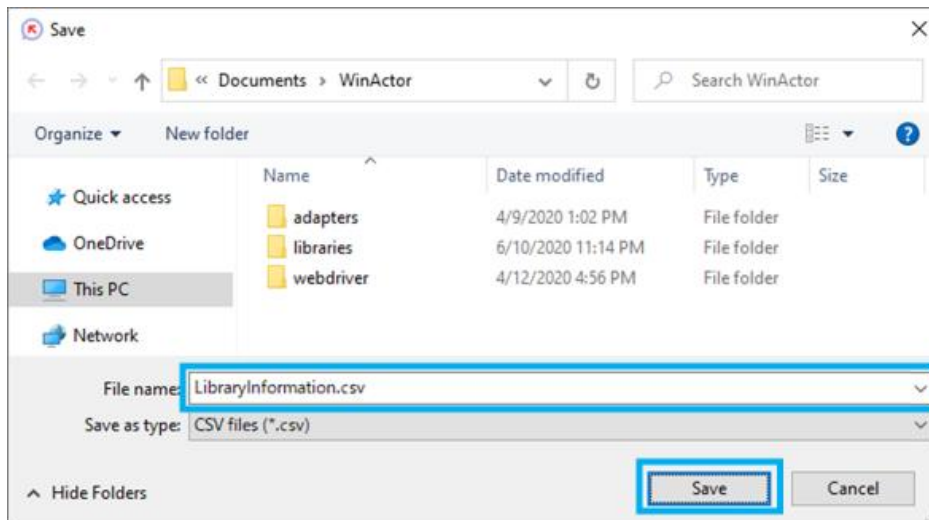


The 'Save' window appears.

2. Enter a filename and click the 'Save' button.

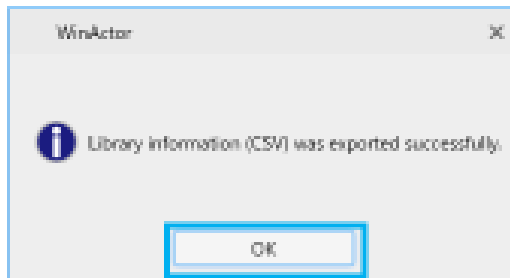


Only CSV can be selected in 'Save as type.'



The specified CSV file is saved.

3. Click the 'OK' button.



4. Check the saved CSV file.

File

Home

Insert

Page Layout

Formulas

Data

Review

View

Tell me...

Share

LibraryInformation.csv - Excel

A1

ID

	A	B	C	D	E	F	G	H	I	J	K
1	ID	Name	Comment	Library name	Library ID	Version	Provider				
2	7	Browser_Click		Browser_CAT23005L	1.1.0		NTT Advanced Technology Corporation				
3	8	Browser_SetValue		Browser_SAT23027L	1.1.0		NTT Advanced Technology Corporation				
4	10	Browser_Browse		Browser_EAT23018L	1.1.0		NTT Advanced Technology Corporation				
5	11	Browser_Launch		Browser_LAT23014L	1.2.0		NTT Advanced Technology Corporation				
6											

LibraryInformation

Ready

■ Export > -----

This field is not selectable.



This field corresponds to an operation for Japanese environment only.

■ Export > Scenario convention check settings (CSV)

FULL

Export > Scenario convention check settings (CSV) is the operation to save enable/disable-setting and check exclusion parameters states of the check items on the 'Scenario convention checker' tab to a CSV file.

By using this in combination with the 'Import' function, the setting states can be saved and restored or moved to another PC at once.

➤➤ See "Import > Scenario convention check settings (CSV)."



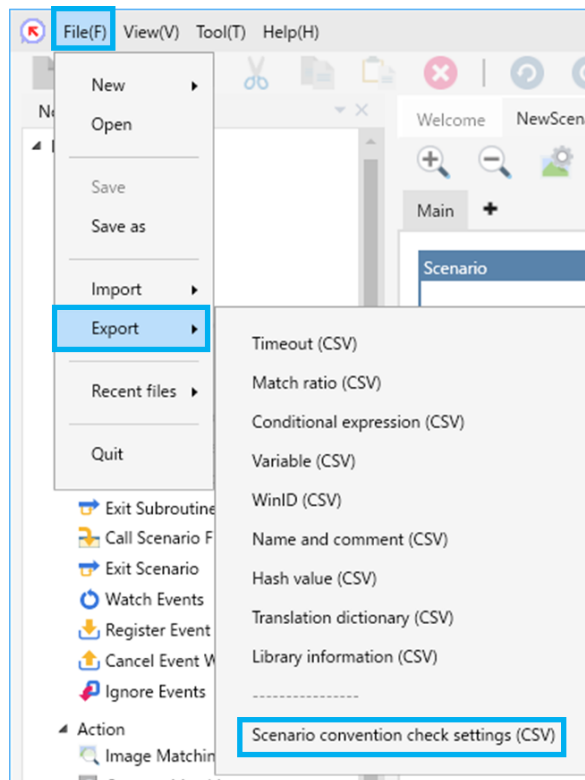
- Export > Scenario convention check settings (CSV) cannot be operated while running, pausing, and recording a scenario.
- There are some folders where files cannot be saved from WinActor.



See "6.1 Limitations of File Location."

Steps

1. Click the "File" menu and select 'Scenario convention check settings (CSV)'

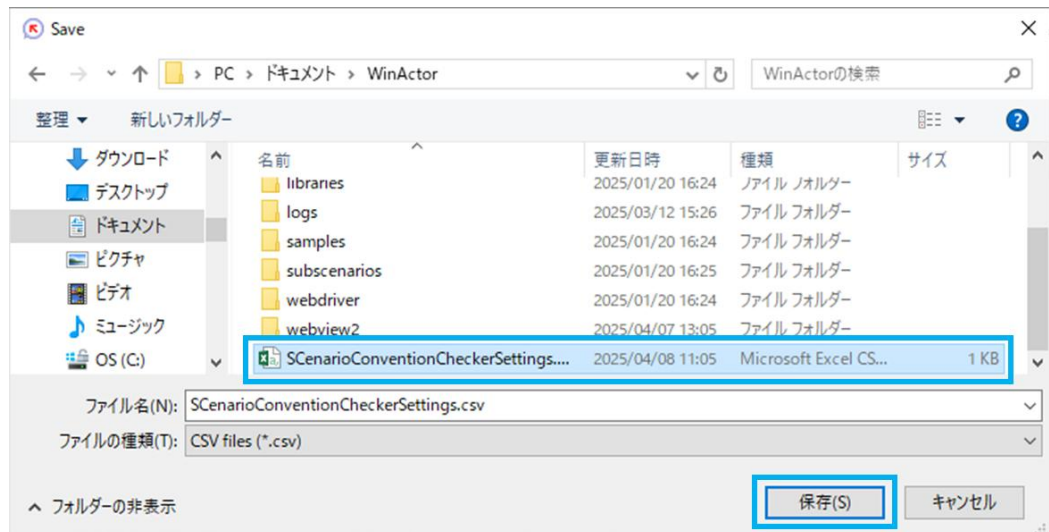


The 'Save' window appears.

2. Select a folder for saving, enter a filename of the CSV file to be exported, and click the 'Save' button.

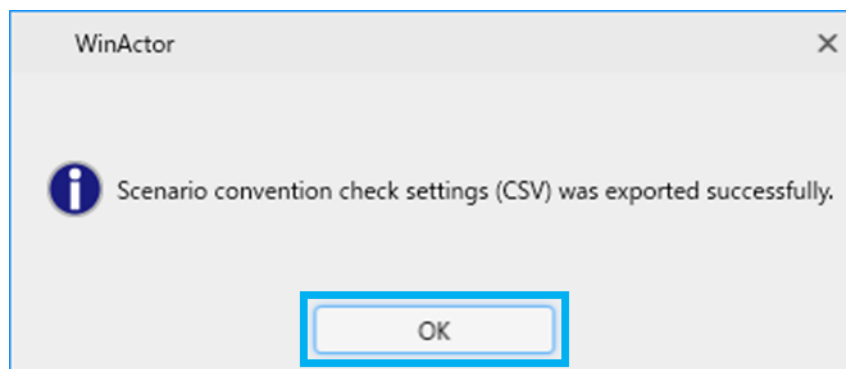


Only CSV can be selected in 'Save as type.'



The specified CSV file will be saved.

3. Click the 'OK' button.



■ Quit

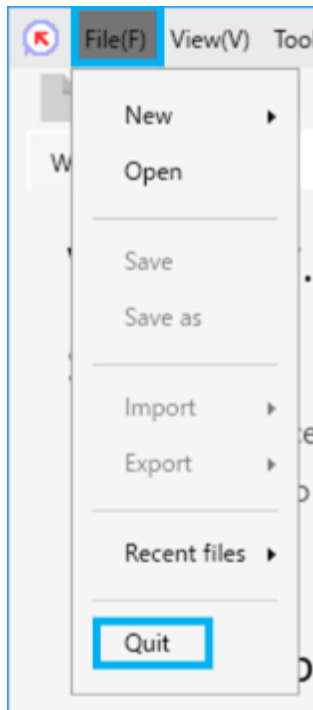
Click 'File' > 'Quit' to quit WinActor.



- You can also quit WinActor by clicking 'X' button on the upper right of the window.
- You can also quit WinActor by clicking 'Quit' in the right-click menu of the WinActor7 icon in the task tray.

Steps

1. Click the "File" menu and select 'Quit.'



WinActor will be quit.



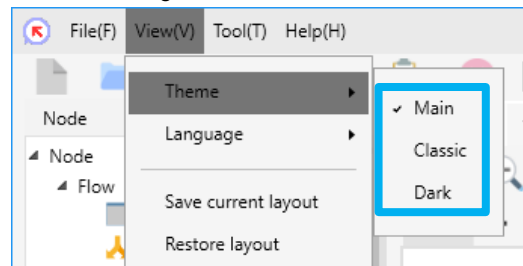
- If the data in 'Data list' has been changed and has not been saved, the confirmation dialog for saving changes will be displayed.
- If there are scenarios that have been changed and have not been saved, the confirmation dialog for saving changes will be displayed.

3.2.2 View Menu

■ Theme

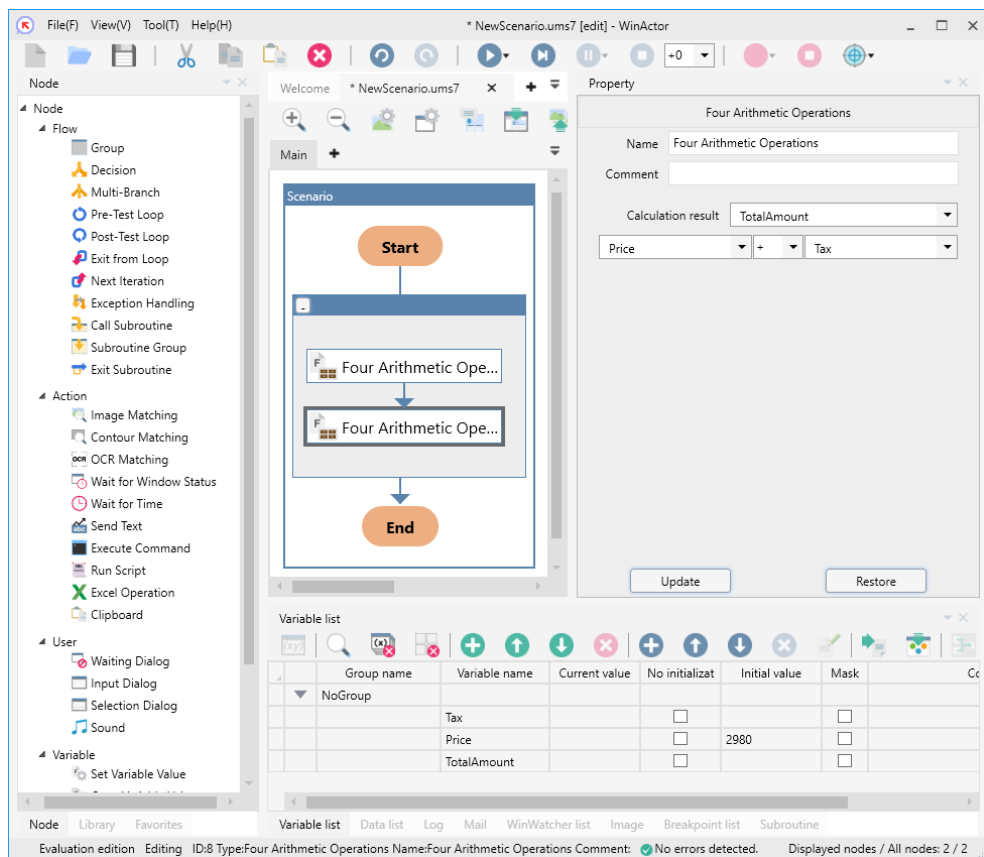
In 'Theme' in the "View" menu, the theme of WinActor can be selected from 'Main,' 'Classic,' and 'Dark.'

Figure 3-3 View > Theme



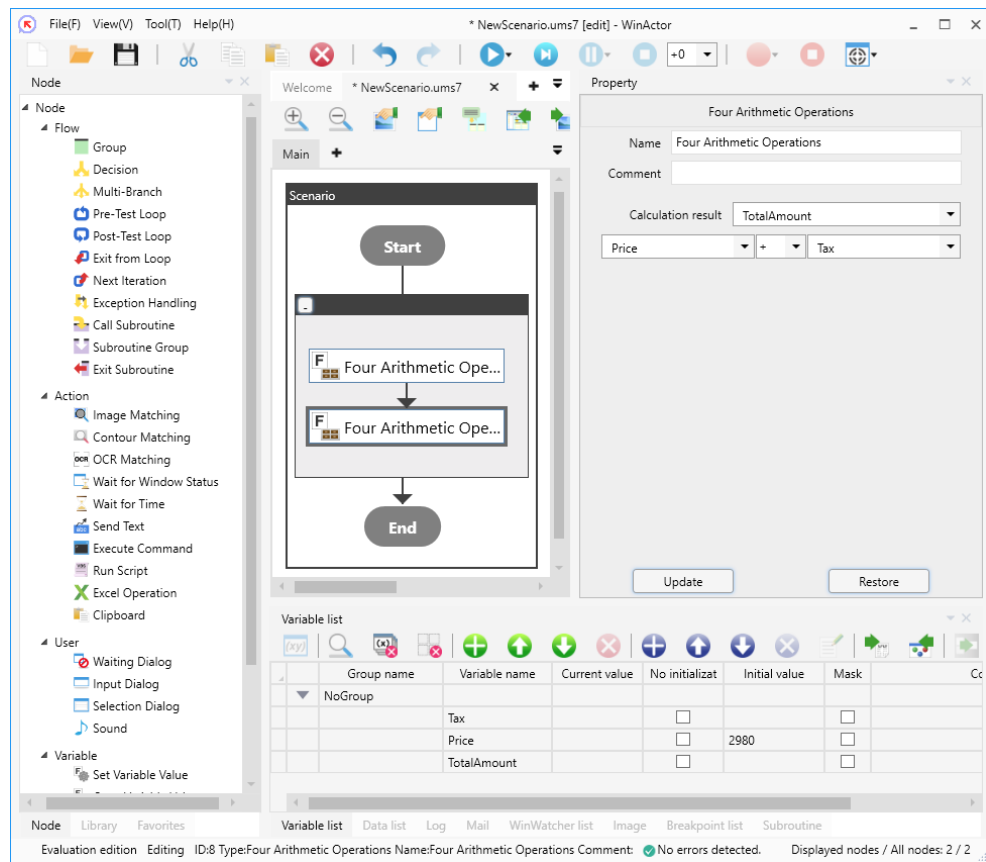
(1) Main

Figure 3-4 When 'Main' is selected



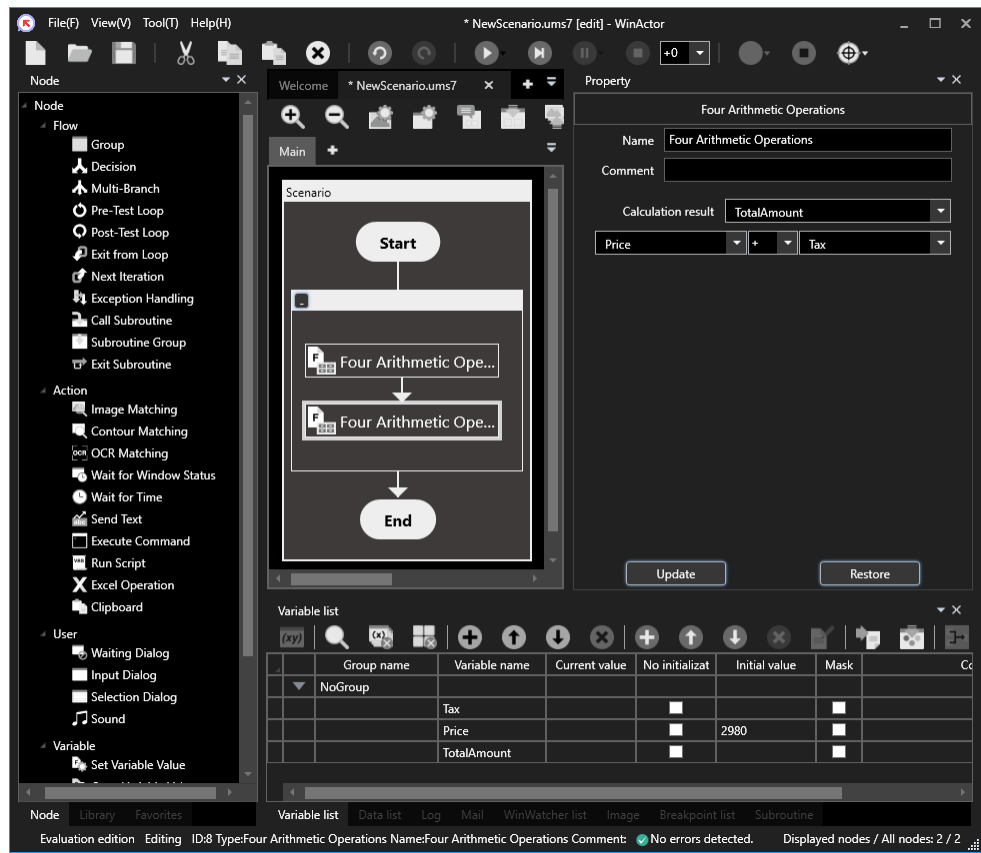
(2) Classic

Figure 3-5 When 'Classic' is selected



(3) Dark

Figure 3-6 When 'Dark' is selected



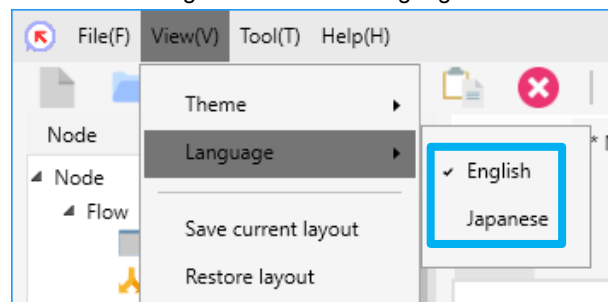
■ Language

In 'Language' in the "View" menu, the language environment of WinActor can be selected from English and Japanese.

The display language of menus and tabs will be switched to the selected language.

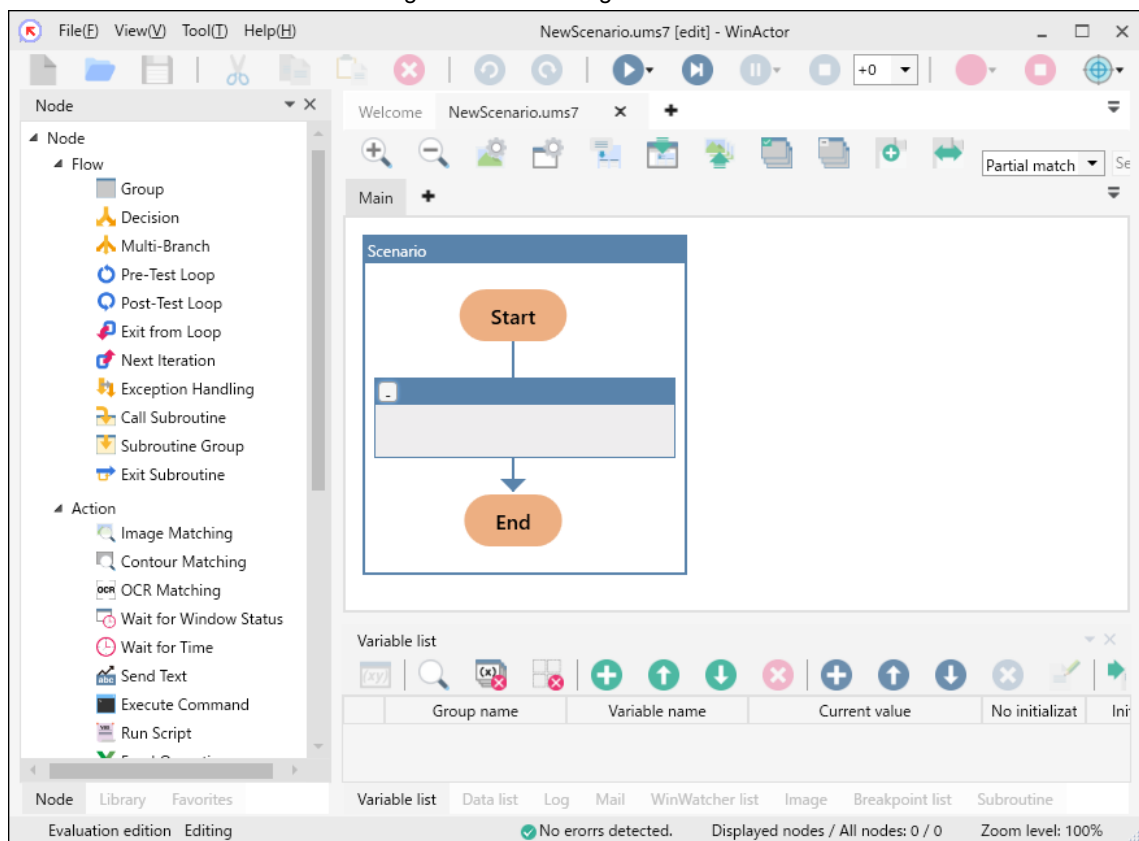
The display language of placed scenarios and nodes will not be changed.

Figure 3-7 View > Language



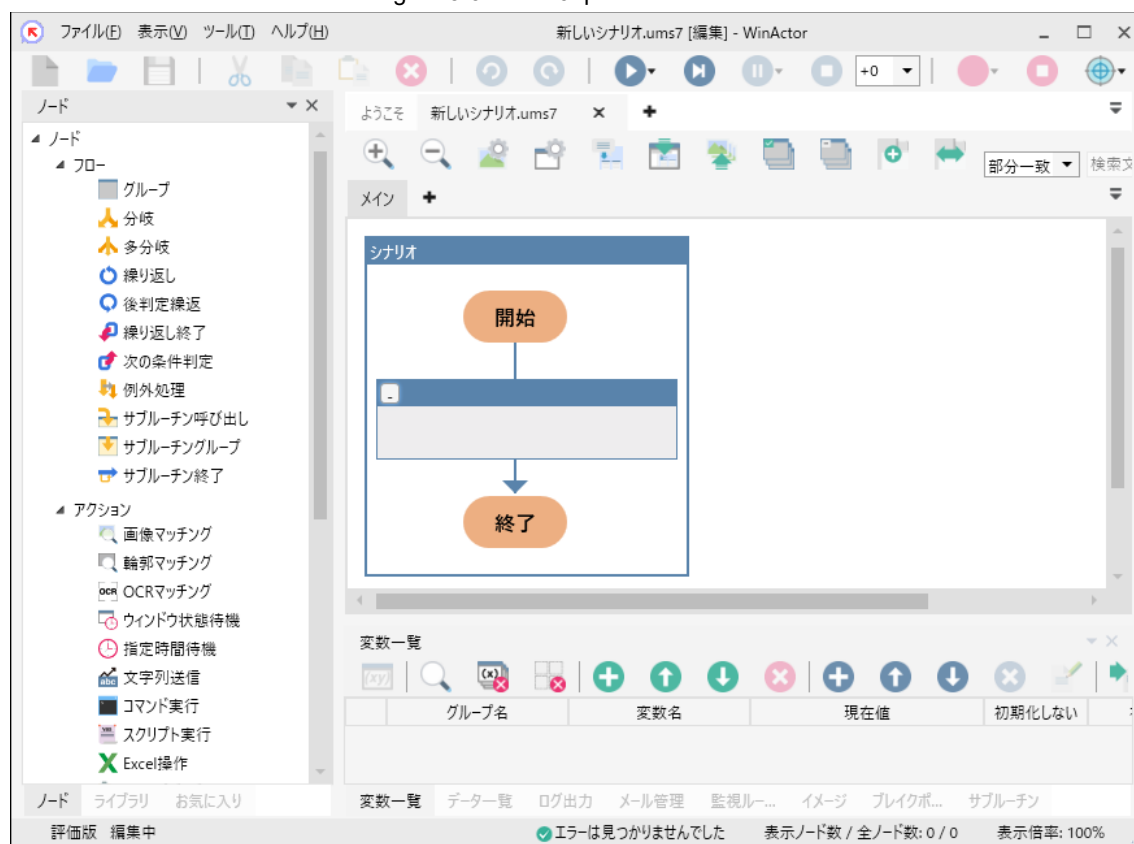
(1) English

Figure 3-8 When English is selected



(2) Japanese

Figure 3-9 When Japanese is selected

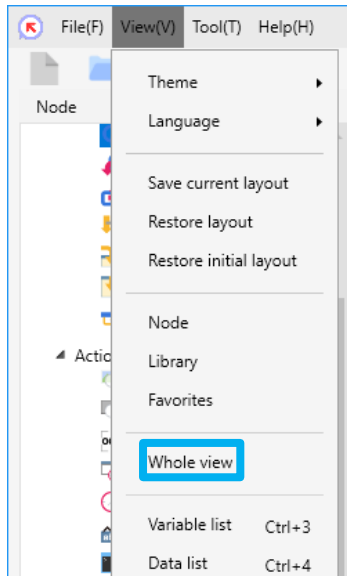


■ Whole view

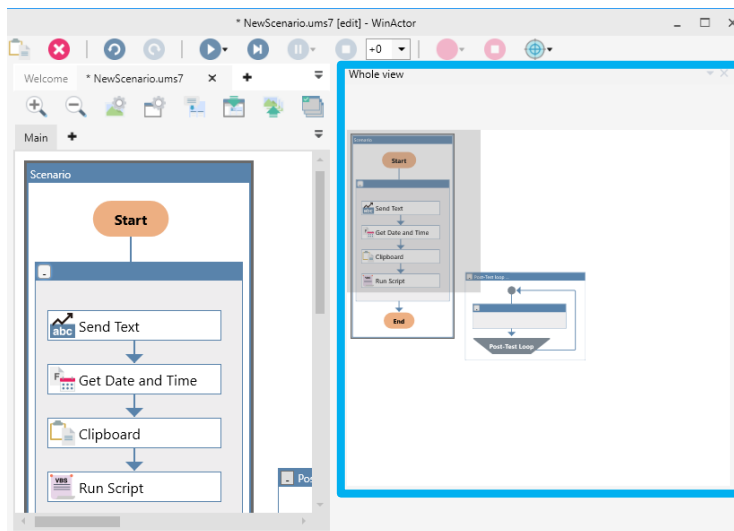
If a flowchart grows and it is difficult to find a particular node in a scenario, you can display the whole view of the scenario to find that node.

Steps

1. Click 'View' > 'Whole view.'

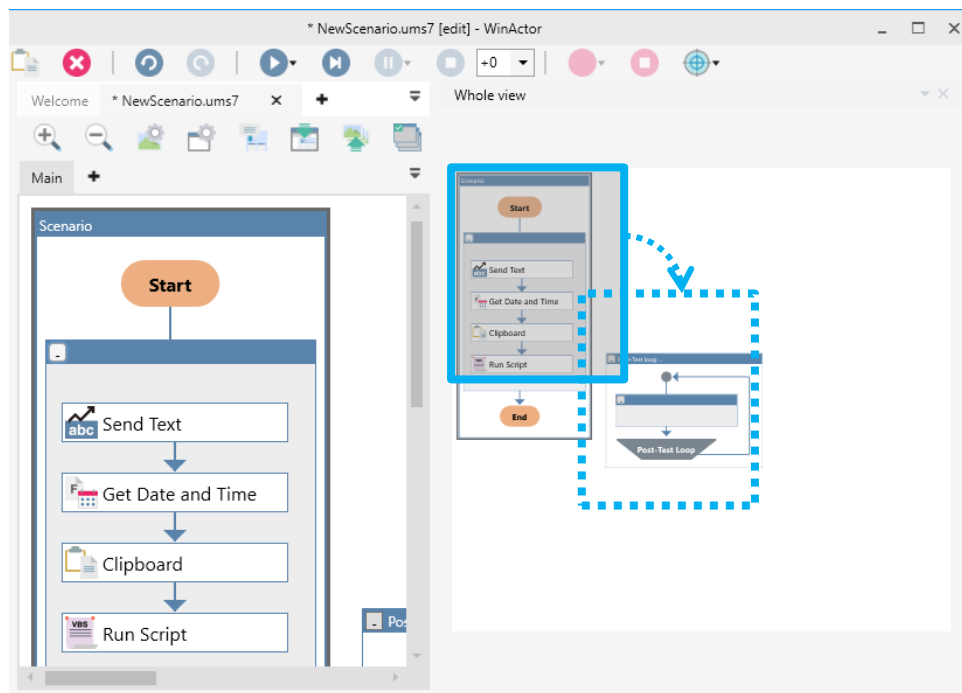


The whole view is displayed in the property area.

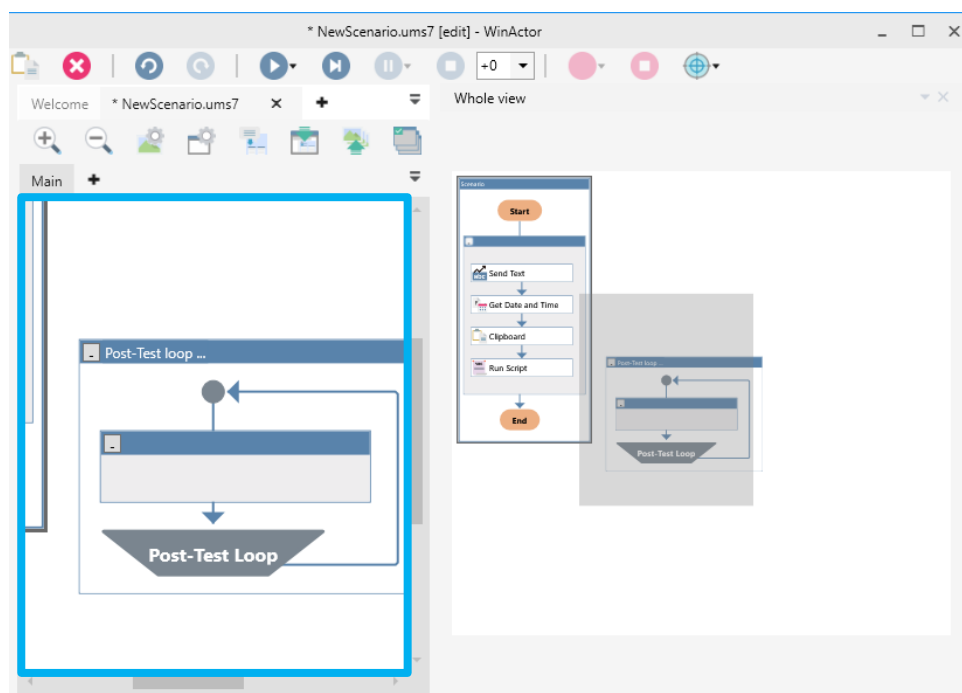


You can also display the whole view by double-clicking the Scenario box part in the flowchart area.

2. Drag the display area in gray to move it.



The display area of the flowchart area is changed.



■ View menu for the docking window and tab panes

In addition to 'Theme,' 'Language,' and 'Whole view,' the "View" menu contains the operations for saving and restoring the layout of the docking window and displaying the tab panes of the palette area and the function area.

Figure 3-10 View menu for the docking window and tab panes

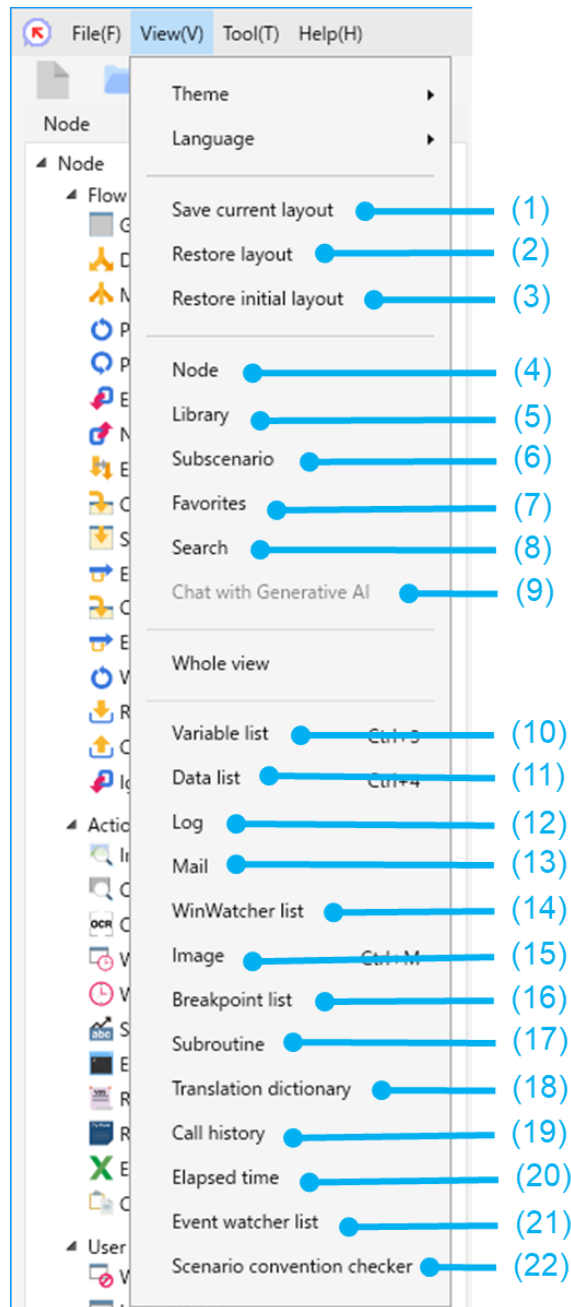


Table 3-2 View menu for the docking window and tab panes

No.	Menu	Description
(1)	Save current layout	Saves the current layout in the docking window.
(2)	Restore layout	Restores the saved layout in the docking window.
(3)	Restore initial layout	Restores the initial layout in the docking window.
(4)	Node	Brings the 'Node' tab pane to the front. Redisplays it if it is hidden in the docking window.
(5)	Library	Brings the 'Library' tab pane to the front. Redisplays it if it is hidden in the docking window.
(6)	Subscenario	Brings the 'Subscenario' tab pane to the front. Redisplays it if it is hidden in the docking window.
(7)	Favorites	Brings the 'Favorites' tab pane to the front. Redisplays it if it is hidden in the docking window.
(8)	Search	Brings the 'Search' tab pane to the front. Redisplays it if it is hidden in the docking window.
(9)	Chat with Generative AI	Brings the 'Chat with Generative AI' tab pane to the front. Redisplays it if it is hidden in the docking window. This is selectable when creating a scenario via the menu item 'New scenario with Generative AI.'
(10)	Variable list	Brings the 'Variable list' tab pane to the front. Redisplays it if it is hidden in the docking window. It can also be redisplayed with 'Ctrl' + '3' keys.
(11)	Data list	Brings the 'Data list' tab pane to the front. Redisplays it if it is hidden in the docking window. It can also be redisplayed with 'Ctrl' + '4' keys.
(12)	Log	Brings the 'Log' tab pane to the front. Redisplays it if it is hidden in the docking window.
(13)	Mail	Brings the 'Mail' tab pane to the front. Redisplays it if it is hidden in the docking window.
(14)	WinWatcher list	Brings the 'WinWatcher' tab pane to the front. Redisplays it if it is hidden in the docking window.
(15)	Image	Brings the 'Image' tab pane to the front. Redisplays it if it is hidden in the docking window.
(16)	Breakpoint list	Brings the 'Breakpoint list' tab pane to the front. Redisplays it if it is hidden in the docking window.
(17)	Subroutine	Brings the 'Subroutine' tab pane to the front. Redisplays it if it is hidden in the docking window.
(18)	Translation dictionary	Brings the 'Translation dictionary' tab pane to the front. Redisplays it if it is hidden due to the initial layout or if it is hidden in the docking window.
(19)	Call history	Brings the 'Call history' tab pane to the front. Redisplays it if it is hidden in the docking window.

No.	Menu	Description
(20)	Elapsed time	Brings the 'Elapsed time' tab pane to the front. Redisplays it if it is hidden in the docking window.
(21)	Event watcher list	Brings the 'Event watcher list' tab pane to the front. Redisplays it if it is hidden in the docking window.
(22)	Scenario convention checker	Brings the 'Scenario convention checker' tab pane to the front. Redisplays it if it is hidden in the docking window.



For details of the docking window, see "3.10 Docking Window."



For details of tab panes, see "3.4 Palette Area" and "3.9 Function Area."



If the license type of edition is the RUN edition, 'Node,' 'Library,' 'Subscenario,' 'Favorites,' 'Search,' 'WinWatcher list,' 'Image,' 'Breakpoint list,' 'Call history,' 'Elapsed time,' 'Event watcher list,' and 'Scenario convention checker' will not be displayed in the "View" menu.

3.2.3 Tool Menu

The following operations can be selected from the "Tool" menu.

Figure 3-11 "Tool" menu

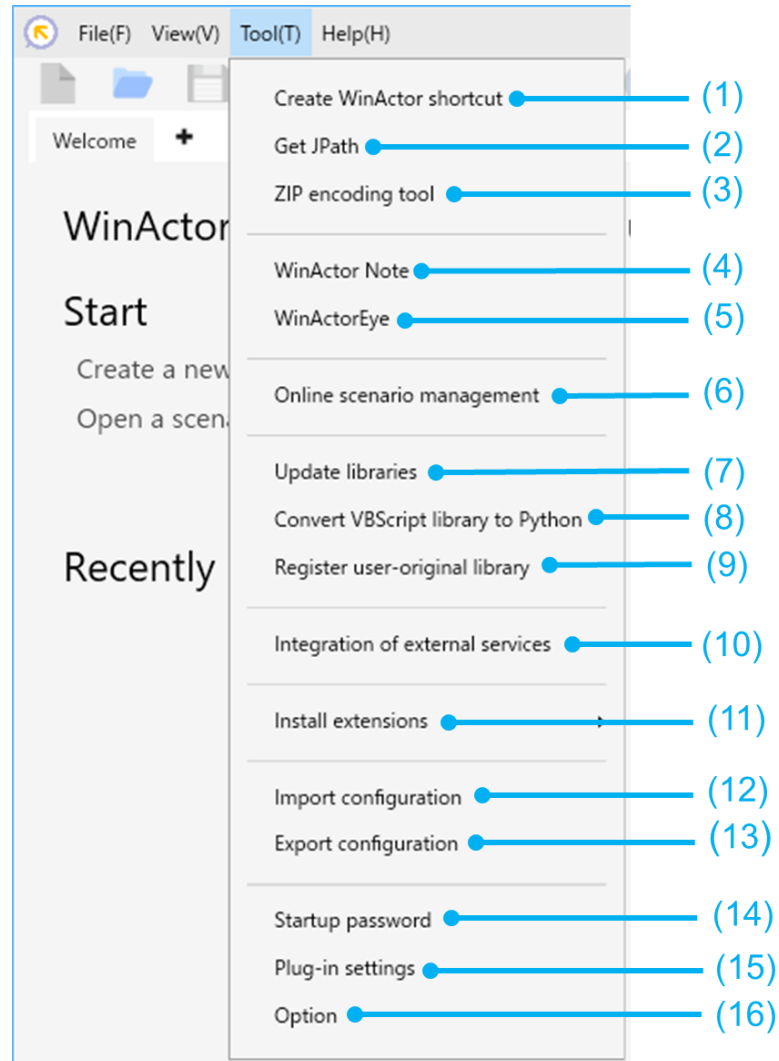


Table 3-3 "Tool" menu

No.	Menu	Description
(1)	Create WinActor shortcut	Displays the 'Create WinActor shortcut' window. » For details, see "3.11 Create WinActor Shortcut Window."
(2)	Get JPath	Launches JPath Acquisition Tool. » For details, see "WinActor Java Application Operation Scenario Creation Manual."

No.	Menu	Description
(3)	ZIP encoding tool	Launches the ZIP encoding tool window. » For details, see "ZIP encoding tool."
(4)	WinActor Note	Launches WinActor Note. » For details, see "WinActor Note Operation Manual," "WinActor Note Text Processing Scenario Creation Manual," and "WinActor Note Terminal Function Scenario Creation Manual."
(5)	WinActorEye	Launches WinActorEye. » For details, see "WinActorEye Operation Manual" and "WinActorEye Scenario Creation Manual."
(6)	Online scenario management	Displays the 'Online scenario management' window for uploading and downloading scenario files to and from WinActor Manager on Cloud. » For details, see "3.18 Online Scenario Management Window."
(7)	Update libraries	Updates libraries of scenario files. » For details, see "Update libraries."
(8)	Convert VBScript library to Python	Converts VB script in a library to Python script. » For details, see "Convert VBScript library to Python."
(9)	Register user-original library	Registers a user-original library in the library DB file. » For details, see "Register user-original library."
(10)	Integration of external services	Integrates external services. » For details, see "Integration of external services."
(11)	Install extensions	Installs the extension in the web browser. » For details, see "WinActor Chrome Agent Installation Manual" and "WinActor Firefox Agent Installation Manual."
(12)	Import configuration	Imports settings of the 'Option' dialog from a file. » For details, see "Import configuration."
(13)	Export configuration	Exports settings of the 'Option' dialog to a file. » For details, see "Export configuration."
(14)	Startup password	Displays the 'Set/Change/Remove startup password' window » For details, see "3.12 Set/Change/Remove Startup Password."
(15)	Plug-in settings	Displays the 'Plug-in settings' window. » For details, see "Plug-in settings window."
(16)	Option	Displays the 'Option' dialog. » For details, see "3.14 Option Dialog."



For the "Tool" menu, if the license type of edition is the RUN edition, 'Get JPath,' 'ZIP encoding tool,' 'WinActor Note,' and 'WinActorEye' will not be displayed and 'Startup password' will not be selectable.



- The "Tool" menu is not selectable while running, pausing, and recording a scenario.
-

■ ZIP encoding tool

FULL

The ZIP encoding tool is a tool for changing the filenames of files compressed in a ZIP file to UTF-8 (Unicode) format.

It is recommended that the filenames in the ZIP file should be encoded in UTF-8. However, in Japan, files encoded in MS932 (Windows-31, extended variant of the ShiftJIS encoding) are often used.

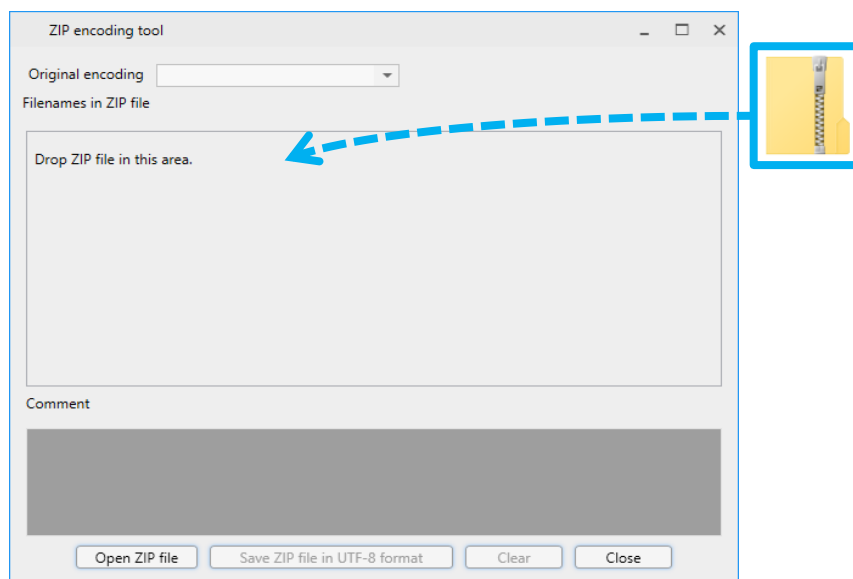
WinActor which handles ZIP files automatically recognizes the filenames to some extent, but due to the misrecognition of the encoding method, the automatic recognition may not be performed correctly, and the characters may be garbled.

This ZIP encoding tool saves ZIP files with the EFS mark, which indicates that they are saved in UTF-8 format.

By adding the EFS mark, the misrecognition of the encoding method is eliminated, and the characters are prevented from being garbled.

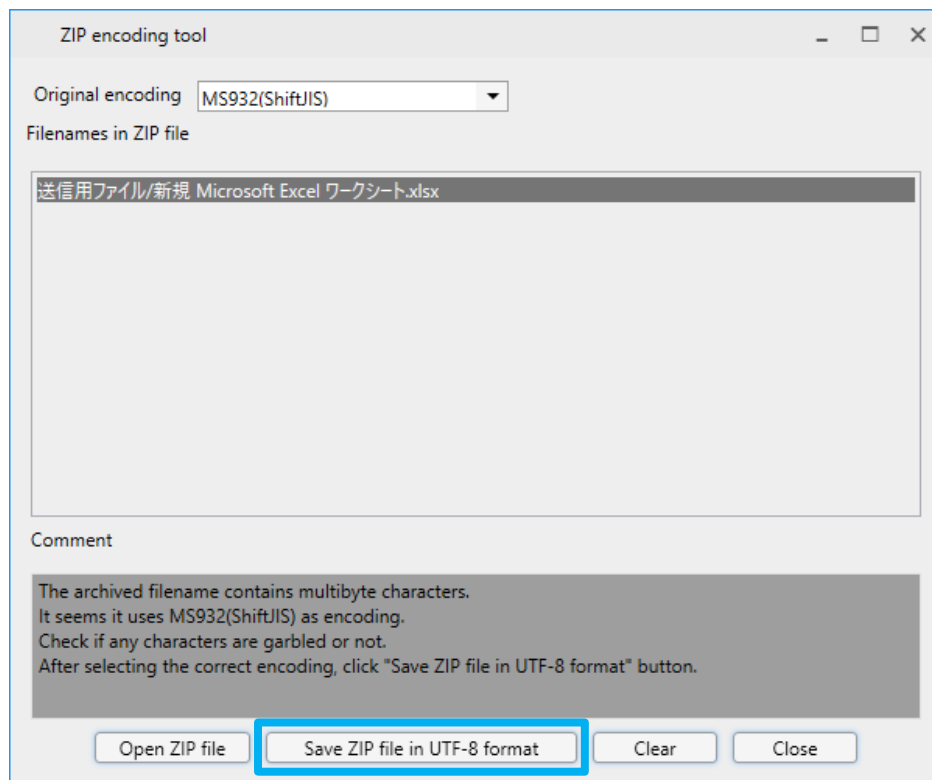
Steps

1. Drop a ZIP file for which you want to change the encoding on the ZIP encoding tool window.



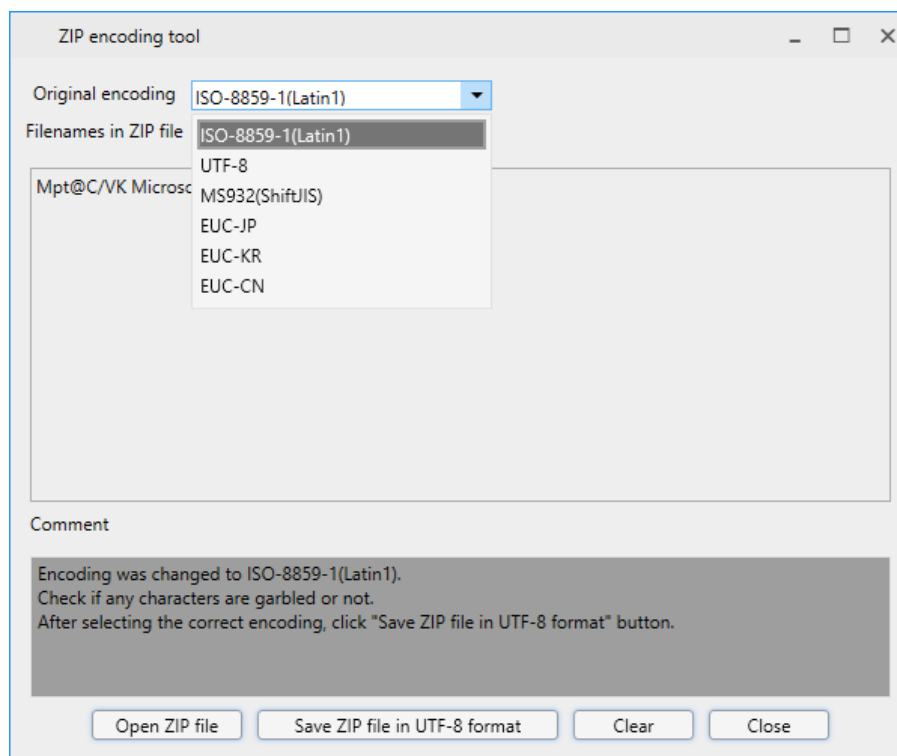
2. In the comment field, a list of filenames in the dropped ZIP file and the analysis result of the encoding are displayed.

If the ZIP file is analyzed as "It seems it uses MS932(ShiftJIS) as encoding," click the 'Save ZIP file in UTF-8 format' button according to the comment and save it with a different name.



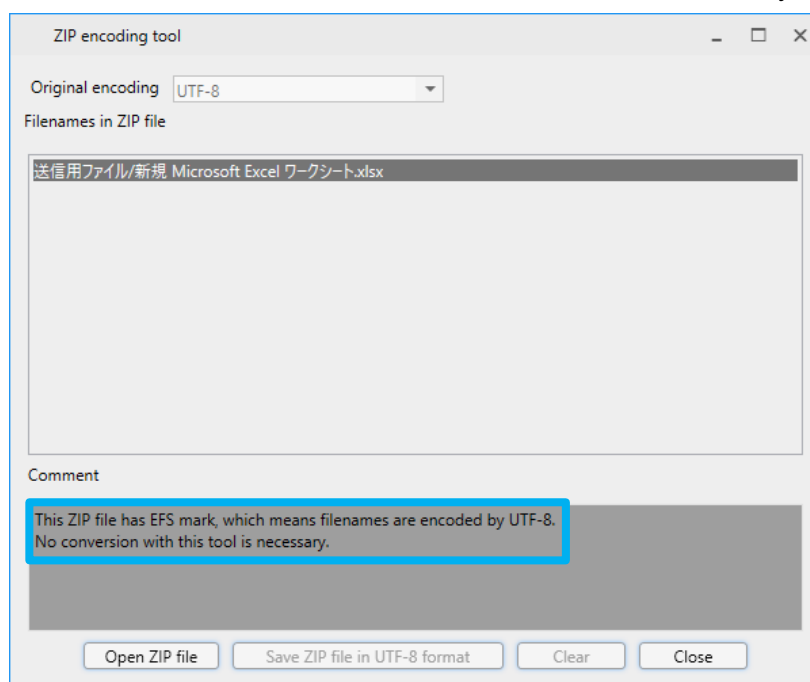
It cannot be overwritten. If you try to overwrite and save, the error message "Failed to save in UTF-8 format." will be displayed.

If the filenames are garbled, select the correct encoding from the dropdown menu of 'Original encoding.'



If the filenames are already encoded in UTF-8, no conversion using 'ZIP encoding tool' is necessary.

In the comment field, "No conversion with this tool is necessary." is displayed.



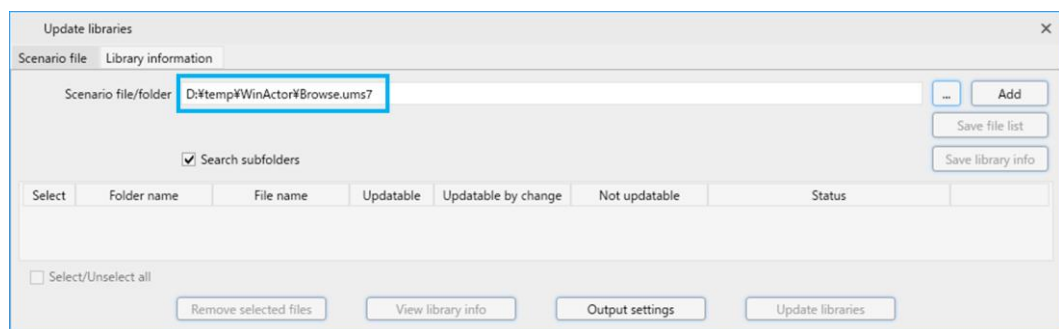
■ Update libraries

FULL

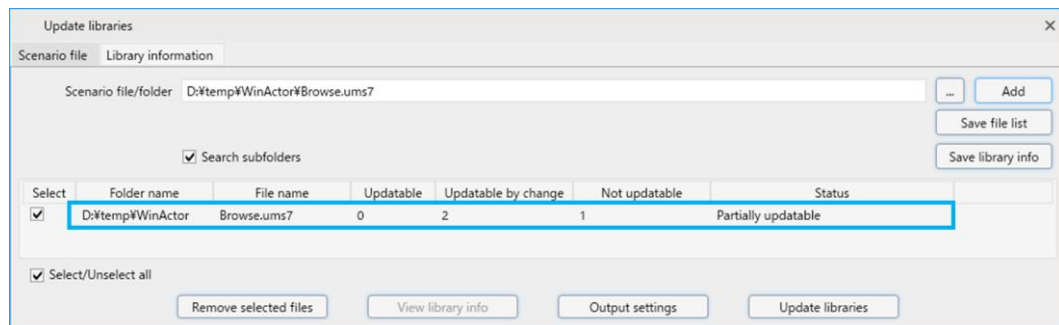
The 'Update libraries' updates libraries used in scenario files.

Steps

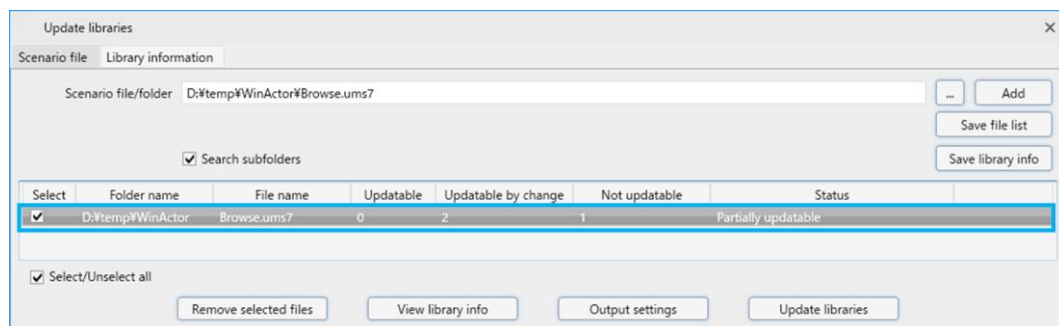
1. Select 'Update libraries' on the "Tool" menu, then 'Update libraries' window is displayed. Click the '...' button to launch the 'Open' dialog, select a scenario file on the dialog to update its libraries, and click the 'Add' button. You can alternatively select a folder on the dialog.



The filename of the scenario is added on the list, and updatable libraries included in the scenario are shown.

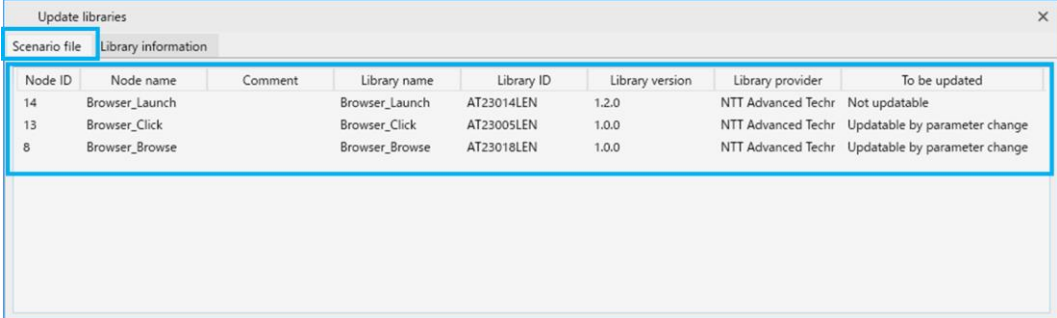


2. Double click a scenario file on the list.



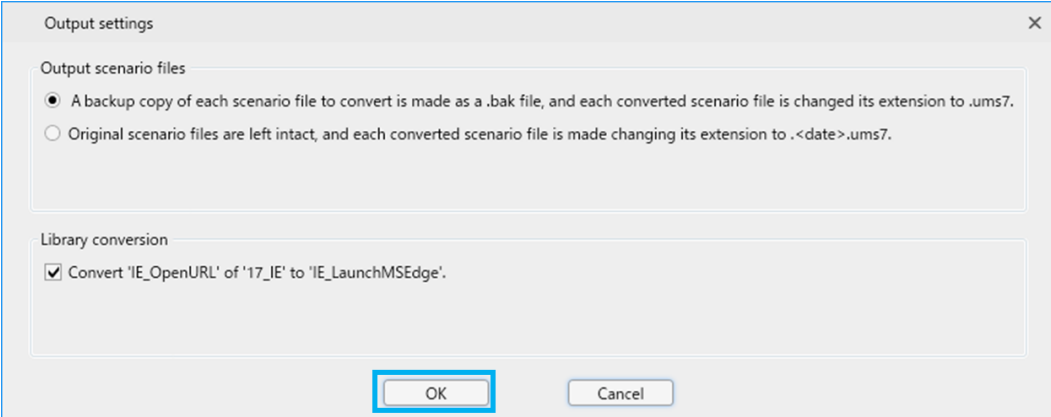
The 'Library information' tab is displayed, and information for each library in the scenario file is shown.

Click the 'Scenario file' tab to switch back to the tab.



Node ID	Node name	Comment	Library name	Library ID	Library version	Library provider	To be updated
14	Browser_Launch		Browser_Launch	AT23014LEN	1.2.0	NTT Advanced Techn	Not updatable
13	Browser_Click		Browser_Click	AT23005LEN	1.0.0	NTT Advanced Techn	Updatable by parameter change
8	Browser_Browse		Browser_Browse	AT23018LEN	1.0.0	NTT Advanced Techn	Updatable by parameter change

- Click the 'Output settings' button to launch the 'Output settings' dialog. Set up items, such as whether to overwrite the current scenario file or not, and click the 'OK' button.



Output settings

Output scenario files

☒ A backup copy of each scenario file to convert is made as a .bak file, and each converted scenario file is changed its extension to .ums7.

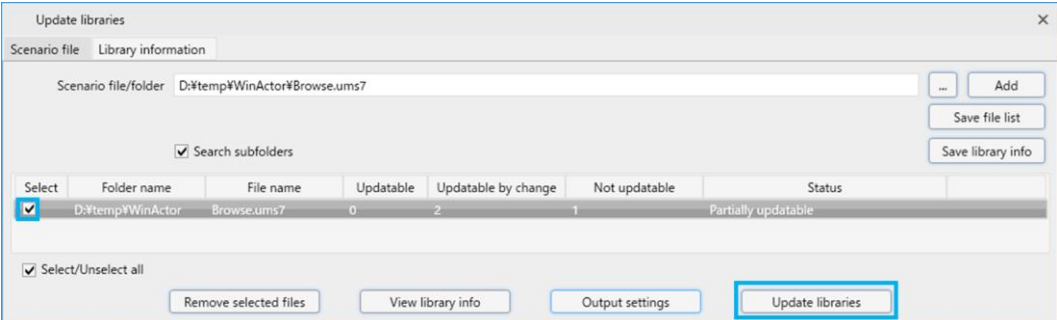
☐ Original scenario files are left intact, and each converted scenario file is made changing its extension to .<date>.ums7.

Library conversion

☒ Convert 'IE_OpenURL' of '17_IE' to 'IE_LaunchMSEdge'.

OK Cancel

- Check boxes of the scenario files to update libraries, and click the 'Update libraries' button. Updated scenario files are output as specified on the 'Output settings' dialog.



Update libraries

Scenario file Library information

Scenario file/folder D:\temp\WinActor\Browse.ums7

☒ Search subfolders

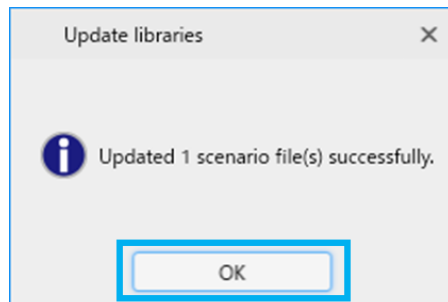
Buttons: Add, Save file list, Save library info

Select	Folder name	File name	Updatable	Updatable by change	Not updatable	Status
☒	D:\temp\WinActor	Browse.ums7	0	2	1	Partially updatable

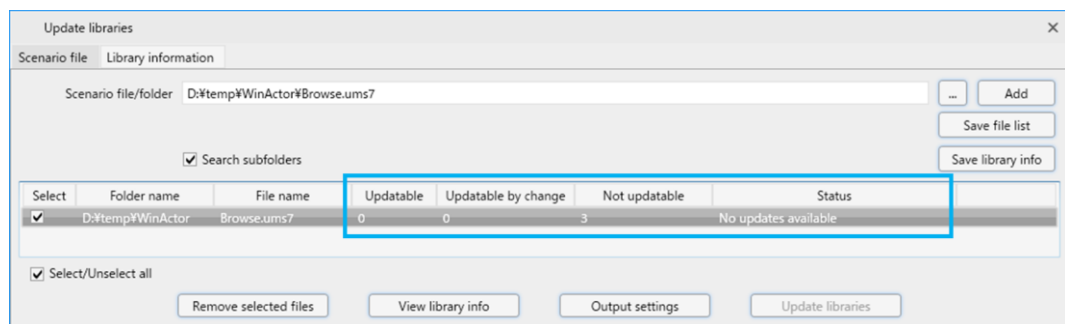
☒ Select/Unselect all

Buttons: Remove selected files, View library info, Output settings, Update libraries

5. When the confirmation dialog is displayed, click the 'OK' button.



Check that the libraries are updated.



- Scenario files with the extension '.ums5,' '.ums6,' or '.ums7' can be specified.
- Libraries in the scenario files opened with WinActor are not updatable. Close the scenario files before updating their libraries.
- User libraries in WinActor Ver5.0 or later, and user-original libraries registered by the function "Register user-original library" are subject to update. User libraries with modified scripts are not subject to update.
- The user library listed below is not updatable with this function. This library needs to be updated manually.
 - Library name: Note_ReadBlockLoop
Version: NTTAT_v6.2.0
- The 'Update libraries' outputs logs to the 'Log' tab pane. If there is any scenario file that is not successfully output, check error and warning logs.
- Scenario files with scenario passwords require inputting passwords when clicking 'Update libraries' or 'Save library info' button.

Double click the scenario file on the list, or select the scenario file and click 'View library info' button. Then, the dialog inquiring 'Scenario password' is displayed, and you can input the scenario password on it.

Figure 3-12 Update libraries 'Scenario information' tab

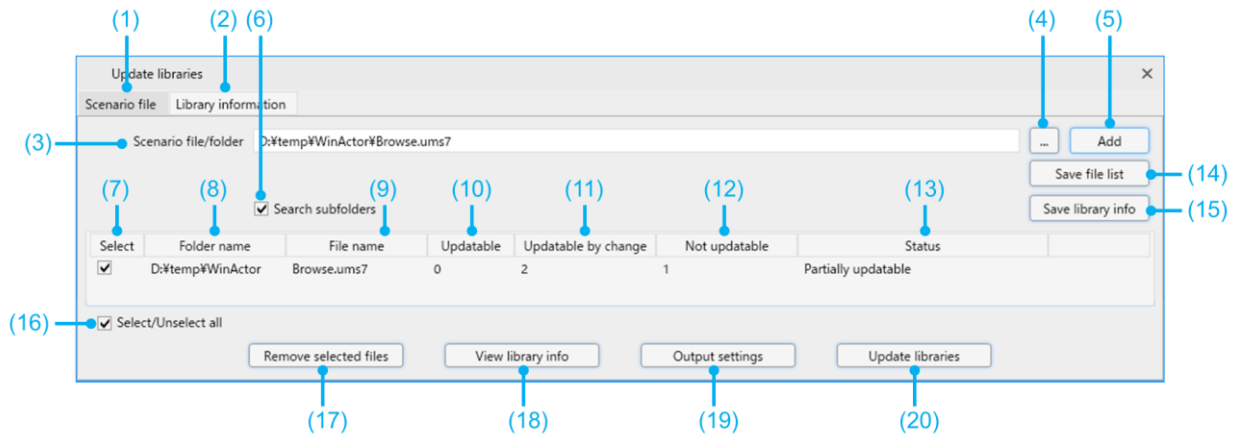


Table 3-4 Update libraries 'Scenario information' tab

No.	Name	Description
(1)	Scenario information tab	Displays 'Scenario information' tab.
(2)	Library information tab	Displays 'Library information' tab.
(3)	Scenario file/folder	Specify a path name of a scenario file or a folder.
(4)	'...' button	Displays the 'Open' dialog to select a scenario file.
(5)	'Add' button	Adds the scenario file or the scenario files included in the folder specified for 'Scenario file/folder' into the list.
(6)	Search subfolders	When specifying a folder path for 'Scenario file/folder' and clicking the 'Add' button with this box checked, scenario files under the subfolders of the folder are also searched.
(7)	Select	Check the boxes of the scenario files to select.
(8)	Folder name	Shows the path name of the folder.
(9)	File name	Shows the file name of the scenario.
(10)	Updatable	Shows the number of updatable libraries in the scenario file.
(11)	Updatable by change	Shows the number of libraries in the scenario file that are updatable with adding, modifying, or deleting parameters.
(12)	Not updatable	Shows the number of libraries in the scenario file that are latest or not subject to update.

No.	Name	Description
(13)	Status	'Updatable': Libraries in this scenario file are updatable. 'Partially updatable': Some of Libraries in this scenario file are updatable but others are not. 'No updates available': Libraries in this scenario file are not subject to update. 'Error': An error occurred while analyzing libraries in this scenario and accurate information is not available. 'Scenario password protected': A scenario password is set in this scenario and the password is required. 'Not updatable (Occupied by WinActor)' As the scenario file is currently used by WinActor, libraries of the scenario cannot be updated. In order to update them, the scenario file needs to be closed in advance.
(14)	'Save file list' button	Saves the columns, such as numbers of 'Updatable' and so on, of the scenario files that are selected on the list into a CSV file.
(15)	'Save library info' button	Saves library information of the scenario files that are selected on the list into a CSV file.
(16)	Select/Unselect all	Selects or unselects all the scenario files.
(17)	'Remove selected files' button	Removes the scenario files that are selected on the list from the list.
(18)	'View library info' button	Shows library information of the scenario file that are focused on the list on the 'Library information' tab. For the scenario file with scenario passwords, a dialog to require inputting a password is displayed. Input a password on the dialog.
(19)	'Output settings' button	Displays the 'Output settings' dialog.
(20)	'Update libraries' button	Updates the libraries of the scenario files that are selected on the list, and outputs the updated scenario files.

Figure 3-13 Update libraries 'Library information' tab

(1) Node ID	(2) Node name	(3) Comment	(4) Library name	(5) Library ID	(6) Library version	(7) Library provider	(8) To be updated
14	Browser_Launch		Browser_Launch	AT23014LEN	1.2.0	NTT Advanced Techr	Not updatable
15	Browser_Click		Browser_Click	AT23005LEN	1.0.0	NTT Advanced Techr	Updatable by parameter change
16	Browser_Browse		Browser_Browse	AT23018LEN	1.0.0	NTT Advanced Techr	Updatable by parameter change

Table 3-5 Update libraries 'Library information' tab

No.	Name	Description
(1)	Node ID	Shows the node id.
(2)	Node name	Shows the node name.
(3)	Comment	Shows the comment.
(4)	Library name	Shows the library name.
(5)	Library ID	Shows the library id.
(6)	Library version	Shows the library version.
(7)	Library provider	Shows the library provider.
(8)	To be updated	'Updatable': This library is updatable. 'Updatable by parameter change': This library is updatable. Some parameters of the library will be added or deleted. 'Not updatable': This library is not subject to update. 'Error': An error occurred while analyzing this library and accurate information is not available.

■ Convert VBScript library to Python

FULL

'Convert VBScript library to Python' is a function to convert scripts in a library file, which are written in VBScript, to those written in Python, by using Generative AI.

To use this function, the settings to connect to Generative AI are necessary on the Generative AI integration window from the 'Integration of external services' in the 'Tool' menu.

For the AI integration license, the settings to connect to Generative AI are not necessary.

» For the details in settings, see "Generative AI integration window."

The 'Generative AI integration window' can be opened by clicking the settings button of 'Generative AI' on the 'Integration of External Services' window displayed by clicking the 'Tool' – 'Integration of external services' on the Menu bar.

» The 'Convert VBScript library to Python' is available only for the AI integration license.

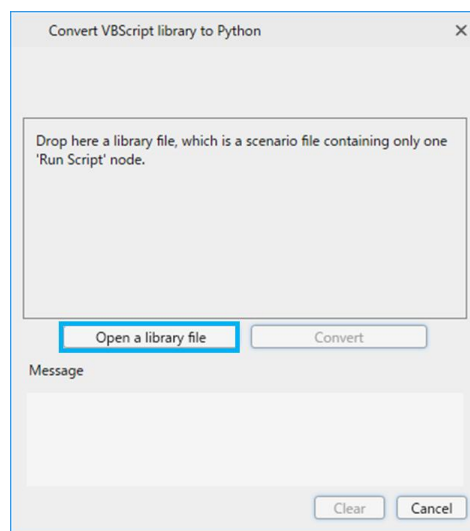
For details of the AI integration license, see "1.4 License Types."

For details of the Generative AI integrated features, see "1.5 Generative AI integrated features."

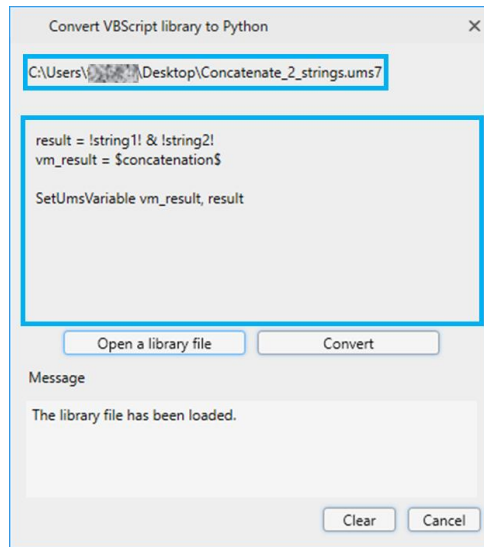
Steps

1. 'Convert VBScript library to Python' window is displayed, by clicking 'Tool' – 'Convert VBScript library to Python' on the Menu bar.

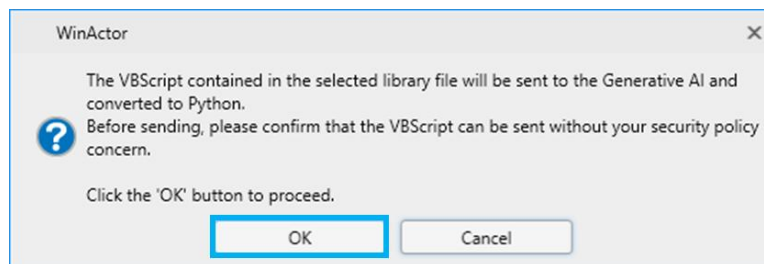
The 'Open' file dialog appears, by clicking the 'Open a library file' button, then select library file that you want to convert to Python. Otherwise, drop the target file into the designated box



2. After the target file loading ends, the selected file name and their VBScripts are shown.



3. Confirmation dialog is shown, by clicking the 'Convert' button. Conversion to Python starts by clicking the 'OK' button.



4. The converted library is opened as a new scenario file.
5. Since the new library, which are converted to Python by Generative AI, is not guaranteed to work properly, please verify the output Python codes and save them.



- Only scenario files with extensions '.ums5,' '.ums6,' '.ums7,' or '.uss7' can be selected.
- Scenario files locked against editing cannot be selected.
- The subject of the 'Convert VBScript library to Python' is scenario files including a single script execution node.
- The log of 'Convert VBScript library to Python' is shown in the message area of the window. If the log is not output properly, please check messages and/or the alert dialog.
- A scenario file locked with a scenario password requires a read password or an edit password. As the 'Scenario Password' window will open at the loading of the library, enter either the read or edit password of the file.

Figure 3-14 Convert VBScript library to Python window

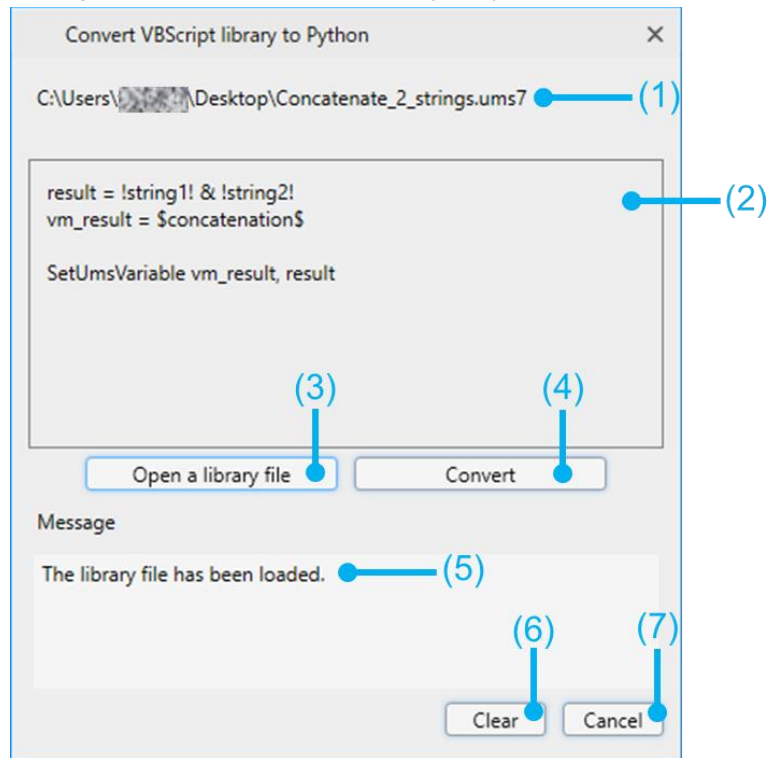


Table 3-6 Convert VBScript library to Python window

No.	Name	Description
(1)	Loaded file name	Shows the path of the loaded library file.
(2)	Script display area	Shows the scripts of the loaded library file.
(3)	'Open a library file' button	Displays 'Open' window for selecting a library file to be loaded.
(4)	'Convert' button	Converts the loaded library file to the library in Python.
(5)	Message area	Shows the logs and results of the conversion.
(6)	'Clear' button	Deletes the contents shown in (1) Loaded file name, (2) Script display area, and (5) Message area.
(7)	'Cancel' button	Closes the 'Convert VBScript library to Python' window.

■ Register user-original library

FULL

The 'Register user-original library' is a function to register user-original libraries which are created by users themselves with the 'Run Script' node or 'Run Python' node.

The registered user-original libraries can be updated by using the 'Update libraries.'

➤ For details of 'Run Script' node and 'Run Python' node, see "4.4.8 Run Script" and "4.4.9 Run Python."

➤ For detailed procedure to update libraries, see "Update libraries."

Figure 3-15 Register user-original library 'Register' tab

Register user-original libraries

Register Search

Register the created user-original library into the DB file to update it.

(1) Filename (2) ... (3) Add

(4) Select	(5) Node name	(6) Library name	(7) Version	(8) User memo	(9) Delete
☒	Python Library #1	My Library #1	1	Library #1 in Python	
☐	Python Library #2		1		Delete
☐	Python Library #3		1		Delete

(10) Filename C:\Users\...\Desktop\MyLibraries1.ums7 (13) Search

(11) Node name Python Library #1

(12) Library name My Library #1

(14) User memo Library #1 in Python

(15) Version 1 (16) Parameter settings (17) Close

(18) Register

DataBase Ver.20260413091926

Table 3-7 Register user-original library 'Register' tab

No.	Name	Description
(1)	File name	Input the scenario file path.
(2)	[...] button	Displays the 'Open' file dialog for selecting a scenario file.
(3)	'Add' button	Adds a user-original library in the selected scenario file into the list.
(4)	'Select' check box	If checked, the selected libraries become the registration target.
(5)	Node name	Shows the node names.
(6)	Library name	Shows the library names.
(7)	Version	Shows the library versions.
(8)	User memo	Shows memorandum freely set by the user.
(9)	'Delete' button	Deletes the selected user-original libraries from the list.

No.	Name	Description
(10)	File name	Shows the file path of the scenario file.
(11)	Node name	Shows the node name.
(12)	Library name	Inputs the library name.
(13)	'Search' button	Searches among the already registered libraries.
(14)	User memo	Inputs user memorandum.
(15)	Version	Shows the versions of the selected user-original libraries.
(16)	'Parameter settings' button	Opens the parameter settings window.
(17)	'Close' button	Closes the settings window of the selected library.
(18)	'Register' button	Registers the selected user-original libraries.

Figure 3-16 Register user-original library 'Search' tab

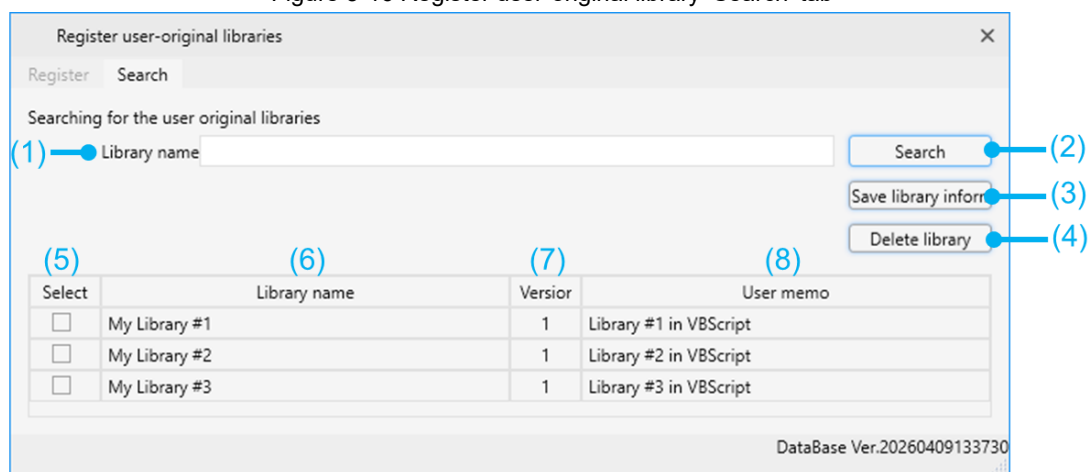


Table 3-8 Register user-original library 'Search' tab

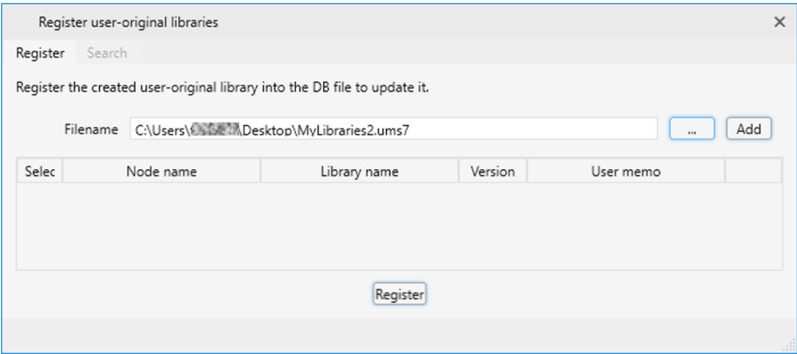
No.	Name	Description
(1)	Library name	Inputs name of the user-original library to be searched.
(2)	'Search' button	Searches the user-original library.
(3)	'Save library Information' button	When clicked, dialog for saving will be displayed and information of the selected user-original libraries in the list will be saved as CSV format.
(4)	'Delete library' button	Deletes the selected user-original libraries in the list. Not only the displayed version, but also all the versions of the selected libraries will be deleted.
(5)	'Select' check box	If checked, information of the checked libraries will be saved by 'Save library information,' or deleted by 'Delete library.'
(6)	Library name	Shows library names.

No.	Name	Description
(7)	Version	Shows versions of the user-original libraries.
(8)	User memo	Shows user-set memorandum.

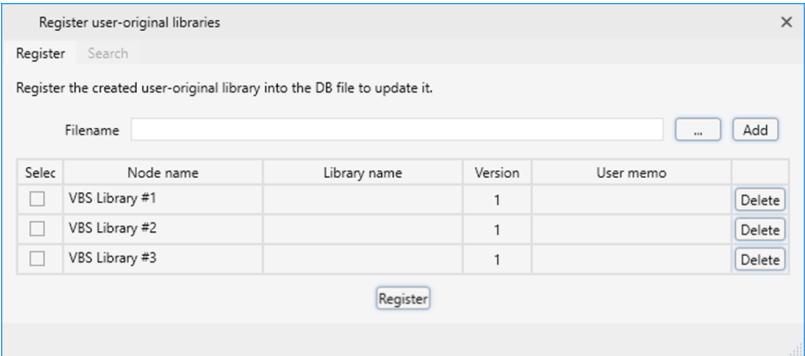
■ ■ Procedure to register user-original libraries

Steps

1. Since a dialog for selecting a file appears by clicking the ‘...’ button, select a scenario file which includes the target library to be registered, and then click the ‘Add’ button.



‘Run Script’ nodes and ‘Run Python’ nodes embedded in the selected scenario file are shown in the list.



2. Click the line of the user-original library to be registered for opening the setting details.

Register user-original libraries

Register Search

Register the created user-original library into the DB file to update it.

Filename ... Add

Selec	Node name	Library name	Version	User memo	
☒	VBS Library #1		1		Delete
☐	VBS Library #2		1		Delete
☐	VBS Library #3		1		Delete

Filename C:\Users\...Desktop\MyLibraries2.ums7

Node name VBS Library #1

Library name Search

User memo

Version 1 Parameter settings Close

Register

3. Specify any library name in the 'Library name' box.

Register user-original libraries

Register Search

Register the created user-original library into the DB file to update it.

Filename ... Add

Selec	Node name	Library name	Version	User memo	
☒	VBS Library #1	My Library #1	1		Delete
☐	VBS Library #2		1		Delete
☐	VBS Library #3		1		Delete

Filename C:\Users\...Desktop\MyLibraries2.ums7

Node name VBS Library #1

Library name My Library #1 Search

User memo

Version 1 Parameter settings Close

Register

To update the already registered user-original library, input the library name and click the 'Search' button. Then, names of the candidate libraries are shown so that select the name of the library to be updated.

The first screenshot shows a search bar with the text 'My Library' and a 'Search' button. The second screenshot shows a dropdown menu with the following options: 'My Library #1', 'My Library #2', and 'My Library #3'. The third screenshot shows the search bar with 'My Library #1' selected.

4. Input user memo, if necessary.

Select	Node name	Library name	Version	User memo	
☒	VBS Library #1	My Library #1	1	Library #1 in VBScript	Delete

Filename: C:\Users\...\Desktop\MyLibraries2.ums7

Node name: VBS Library #1

Library name: My Library #1

User memo: Library #1 in VBScript

Version: 1

Buttons: Parameter settings, Close, Delete

5. Check the 'Select' check box to turn this library to checked state.

Select	Node name	Library name	Version	User memo	
☒	VBS Library #1	My Library #1	1	Library #1 in VBScript	Delete

Filename: C:\Users\...\Desktop\MyLibraries2.ums7

Node name: VBS Library #1

Library name: My Library #1

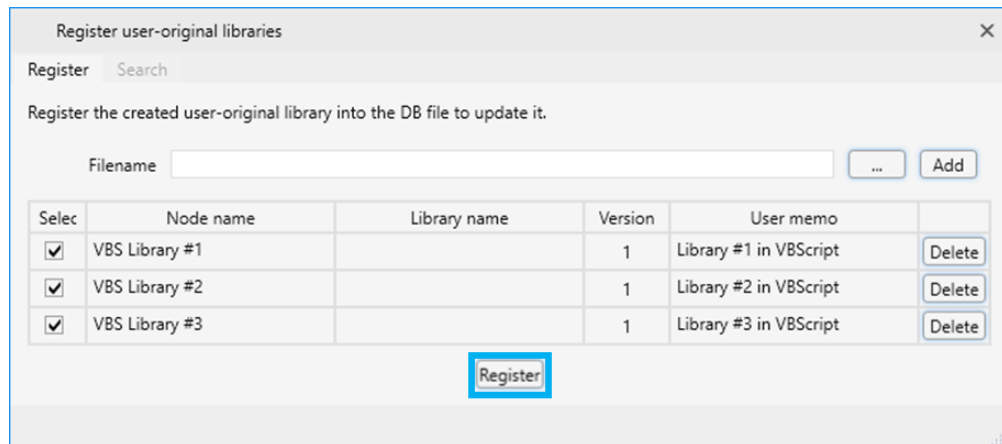
User memo: Library #1 in VBScript

Version: 1

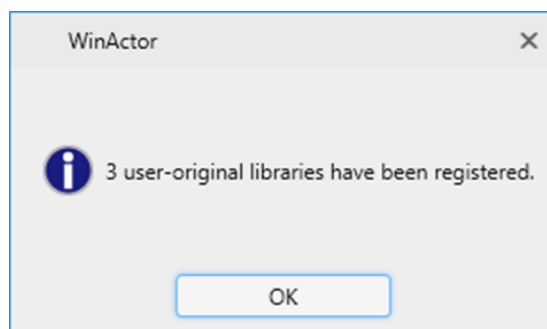
Buttons: Parameter settings, Close, Delete

6. To register multiple user-original libraries, repeat Steps 2 to 5.

7. Click the 'Register' button.



8. Close the confirmation dialog.



- Only scenario files with extensions '.ums5,' '.ums6,' and '.ums7' can be selected.
- It is impossible to register multiple user-original libraries with the same library name since user-original libraries are identified by their library name.
- It is impossible to register multiple versions of the same user-original library at once.
- For a scenario file locked with the scenario password, entering edit password is required after the 'Add' button is clicked.

■ Procedure to verify the registered user-original libraries

Steps

1. Click the 'Search' tab of the 'Register user-original libraries' window.
2. Input the library name to be verified in the 'Library name' box, and then click the 'Search' button.

The screenshot shows the 'Register user-original libraries' window with the 'Search' tab selected. The text 'Searching for the user original libraries' is displayed. The 'Library name' input field contains the text 'My Library'. To the right of the input field are three buttons: 'Search', 'Save library inform', and 'Delete library'. Below the input field is a table with four columns: 'Select', 'Library name', 'Versior', and 'User memo'. The table is currently empty. At the bottom right of the window, the text 'DataBase Ver.20260409133730' is visible.

3. Information of the user-original libraries that are matched to the search criteria are shown in the list..

The screenshot shows the 'Register user-original libraries' window with the 'Search' tab selected. The text 'Searching for the user original libraries' is displayed. The 'Library name' input field is empty. To the right of the input field are three buttons: 'Search', 'Save library inform', and 'Delete library'. Below the input field is a table with four columns: 'Select', 'Library name', 'Versior', and 'User memo'. The table contains three rows of data, each with a checkbox in the 'Select' column.

Select	Library name	Versior	User memo
☐	My Library #1	1	Library #1 in VBScript
☐	My Library #2	1	Library #2 in VBScript
☐	My Library #3	1	Library #3 in VBScript

At the bottom right of the window, the text 'DataBase Ver.20260409133730' is visible.

■ Procedure to update parameters of the registered user-original libraries

When updating the already registered user-original libraries, it is possible to take over the existing settings of the parameters whose names are changed, by additional settings in the 'Parameter settings' dialog.

Figure 3-17 Parameter settings dialog

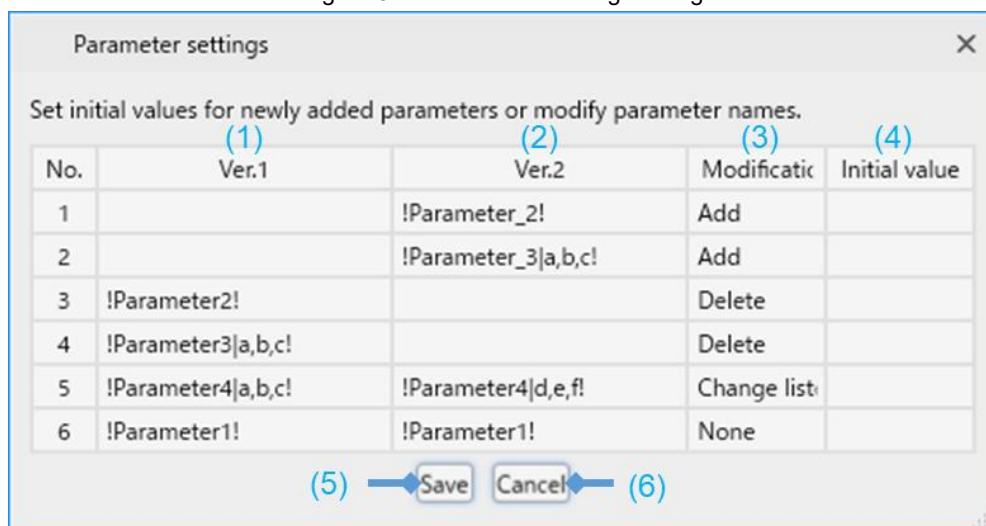


Table 3-9 Parameter settings dialog

No.	Name	Description
(1)	Ver.X	Shows parameters of the user-original library before the update.
(2)	Ver.X+1	Shows parameters of the user-original library after the update.
(3)	Modification type	Shows modification types of the parameters by the update.
		None No change by the update.
		Add Added by the update.
		Delete Deleted by the update.
		Rename Parameter name is changed by the Update.
		Change list Parameter names in the list are changed by the update.
	Change listed options	Parameter items in the list are changed by the update.
(4)	Initial Value	Default value can be set for the parameters added by the update.
(5)	'Save' button	Saves the parameter settings and closes the dialog.
(6)	'Cancel' button	Closes the dialog without saving the parameter settings.



- The definition of script parameters mean name and type of parameters shown in the settings window of 'Script Run' nodes and 'Python Run' nodes.
- Depending on the script parameter type, it may be impossible to take over the already existing value of the parameter.

Steps

1. Add user-original libraries to the list, in the same manner as "Procedure to register user-original libraries" Step 1. Then, set library names and user memos, if necessary, in the same manner as those of Step 2 to Step 4.
2. Click the 'Parameter settings' button, then, the parameter settings dialog is shown.

Python library #4 My Library #4 2 Delete

Filename C:\Users\%USER%\AppData\Local\Temp\WinActor\MyLibrary4Rums7

Node name Python library #4

Library name My Library #4 Search

User memo

Version 2 Parameter settings Close

3. If parameter names are changed during the user-original library creation, select the parameters both before and after the name change with Ctrl-click and then, right-click them.

Parameter settings

Set initial values for newly added parameters or modify parameter names.

No.	Ver.1	Ver.2	Modificatic	Initial value
1		!Parameter_2!	Add	
2		!Parameter_3 a,b,c!	Add	
3	!Parameter2!		Delete	
4	!Parameter3 a,b,c!		Delete	
5	!Parameter4 a,b,c!	!Parameter4 d,e,f!	Change list	
6	!Parameter1!	!Parameter1!	None	

Save Cancel

4. Click 'Rename' in the right-click menu, and unify them into a single parameter.

No.	Ver.1	Ver.2	Modificatic	Initial value
1		!Parameter_2!	Ad	
2		!Parameter_3 a,b,c!	Ad	
3	!Parameter2!		De	
4	!Parameter3 a,b,c!		Delete	

Rename
Revert

No.	Ver.1	Ver.2	Modificatic	Initial value
1	!Parameter2!	!Parameter_2!	Rename	
2		!Parameter_3 a,b,c!	Add	
3	!Parameter3 a,b,c!		Delete	
4	!Parameter4 a,b,c!	!Parameter4 d,e,f!	Change list	
5	!Parameter1!	!Parameter1!	None	



If wrong pair of parameters are unified, select these parameters and then, right-click. They can be restored by clicking 'Revert' in the right-click menu.

5. Set default value of the parameters whose modification types are 'Add,' if necessary.

Parameter settings ×

Set initial values for newly added parameters or modify parameter names.

No.	Ver.1	Ver.2	Modificatic	Initial value
1	!Parameter2!	!Parameter_2!	Rename	
2		!Parameter_3 a,b,c!	Add	Default va
3	!Parameter3 a,b,c!		Delete	
4	!Parameter4 a,b,c!	!Parameter4 d,e,f!	Change list	
5	!Parameter1!	!Parameter1!	None	

Save Cancel

6. Click the 'Save' button and close the dialog.
7. Register user-original libraries in the same manner as those of "Procedure to register user-original libraries" Step 5 to Step 8.

■ Plug-in settings window

The 'Plug-in settings' window is used for setting plug-ins such as enabling or disabling plug-ins. A plug-in is a module that can be called from WinActor by embedding it in WinActor. Plug-ins for WinActor Note and WinActorEye are included.

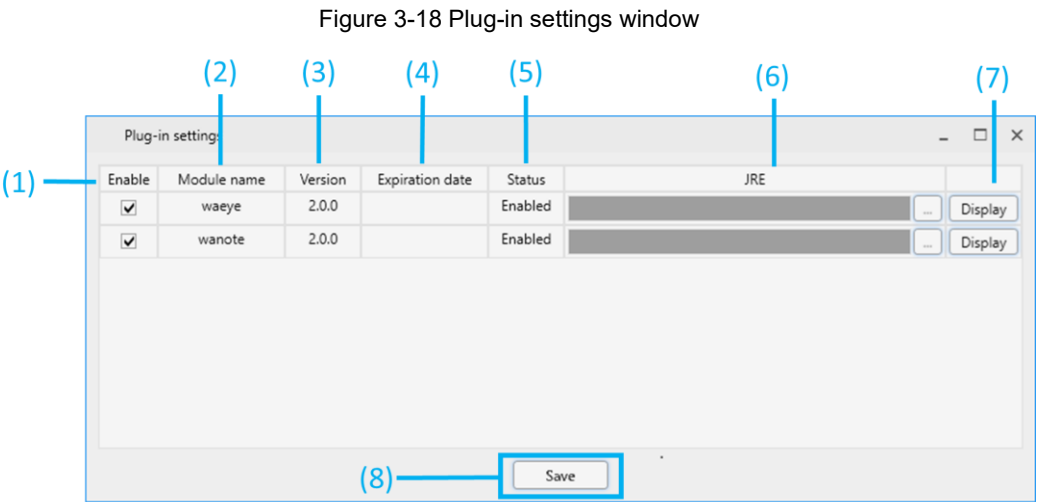


Table 3-10 Plug-in settings window

No.	Name	Description
(1)	Enable	Check/uncheck the box for enabling/disabling the plug-in. Check the box when enabling plug-in. The initial value is enabled. Uncheck the box when disabling it. The disabled plug-in cannot be used. For example, if you disable the module name 'wanote,' WinActor Note will not be available and libraries that use WinActor Note will fail to run. By disabling the plug-in, you can reduce the memory usage of WinActor by the amount used by the plug-in
(2)	Module name	The module name of each plug-in is displayed. The module name 'wanote' is WinActor Note. The module name 'waeye' is WinActorEye.
(3)	Version	The version of each plug-in is displayed.
(4)	Expiration date	The expiration date of each plug-in is displayed. If it is indefinite, the date will not be displayed.

No.	Name	Description
(5)	Status	The status of each plug-in is displayed. 'Enabled' means that the plug-in is enabled and running. 'Disabled' means that the plug-in is disabled. 'Expired' means that the plug-in is enabled but expired. 'Error' means that the plug-in is enabled but failed to start due to an error.
(6)	JRE	Set the JRE (Java Runtime Environment) installation folder to execute the plug-in implemented in the Java language. (Specify the path equivalent to JAVA_HOME. No need to specify the bin folder) (Setting example) C:\Program Files\Java\jdk1.8.0_xxx Cannot be set for plug-ins with extensions other than jar.
(7)	'Display' button	Displays the plug-in window. If the module name is 'waeye,' the window of WinActorEye will be displayed.
(8)	'Save' button	Saves the plug-in settings. Restart WinActor to apply set items after clicking the 'Save' button. If "Failed to save Plug-in settings due to a permission error. Start WinActor with the permissions required to save Plug-in settings and try again." is displayed, start WinActor with administrator privileges and change the settings again. If you install WinActor again due to a version upgrade of WinActor and the like, the settings will be in the initial state and so you need to make the settings again.

■ Integration of external services

The 'Integration of external services' window is to control integration of external services.

The window to set up integration of Microsoft, Google, Box, and Generative AI, which includes OpenAI and Azure OpenAI, is displayed when this is selected.

Also, current settings of integration of Microsoft, Google, Box, and Generative AI can be checked on this window.

Figure 3-19 Integration of external services window

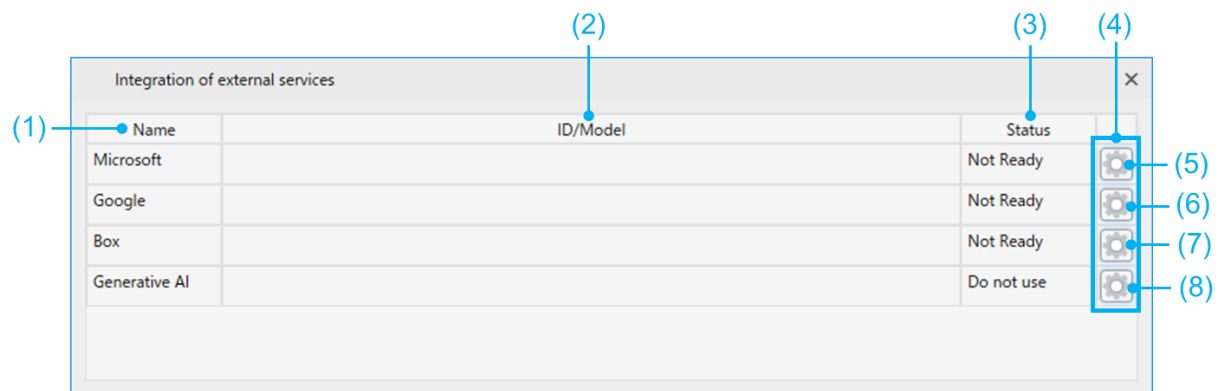


Table 3-11 Integration of external services window

No.	Name	Description
(1)	Name	The name of the external service to integrate is displayed.
(2)	ID/Model	The client ID of the external service to integrate, or the service name and the model name of the Generative AI to use are displayed. (example) OpenAI(with my license)/gpt-4o-mini Only the service name is displayed when the Generative AI via NTT-AT with NTT-AT's license is used. (example) Azure OpenAI(via NTT-AT with NTT-AT's license)
(3)	Status	The status of each service is displayed. Rows of Microsoft, Google, Box: 'Ready' means that the service is signed in. 'Not ready' means that the service is not signed in, or is signed out. Row of Generative AI: 'Use' means using the Generative AI integrated features. 'Do not use' means not using the Generative AI integrated features.

No.	Name	Description
(4)	'Settings' button	Clicking each of these buttons displays the window of settings for the corresponding external service.

Table 3-12 settings windows

No.	Name	Description
(5)	Microsoft integration	This is for signing in a Microsoft account and obtaining a token.  For details, see "Microsoft integration window."
(6)	Google integration	This is for signing in a Google Workspace account. For details, see "WinActor Gmail Scenario Manual."
(7)	Box integration	This is for signing in a Box account.  For details, see "Box integration window."
(8)	Integration of Generative AI	Displays the 'Generative AI integration' window.  For details, see "Generative AI integration window."

■ Microsoft integration window

The 'Microsoft integration' window is to log in to a Microsoft account and get a token.

This token is required to use the functions that utilize Microsoft Graph.

If you want to run a scenario that includes functions that utilize Microsoft Graph, perform Microsoft account authentication in this window in advance and get a valid token.

The token has an expiration time. Even if it expires, it will be automatically refreshed during a run of a scenario which includes Microsoft Graph functions.

Figure 3-20 Microsoft integration window

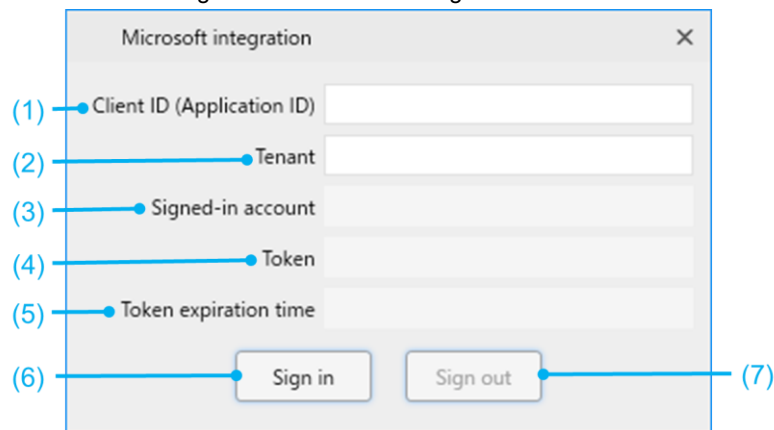


Table 3-13 Microsoft integration window

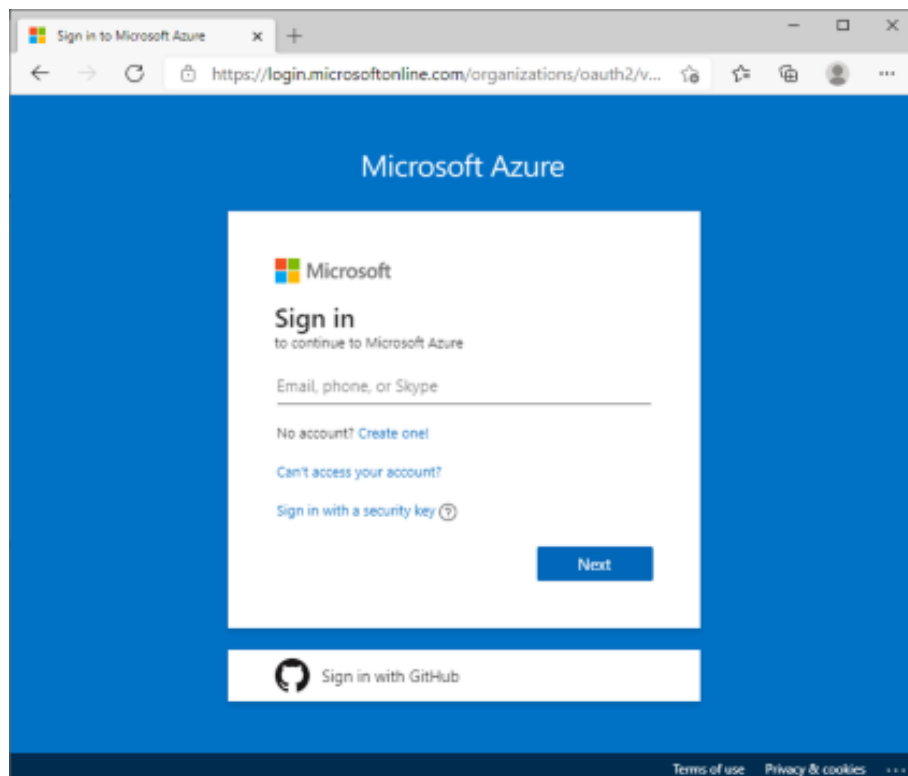
No.	Name	Description
(1)	Client ID (Application ID)	Enter an application (client) ID issued on the Microsoft Azure portal site. This is a string with the form of "XXXXXXXX-XXXX-XXXX-XXXX-XXXXXXXXXXXX." (X is 0-9 or a-f).
(2)	Tenant	Enter a directory (tenant) ID or tenant name issued on the Microsoft Azure portal site. ID is a string with the form of "XXXXXXXX-XXXX-XXXX-XXXX-XXXXXXXXXXXX." (X is 0-9 or a-f). The tenant name is one of common, organizations, or consumers.
(3)	Signed-in account	Shows the account name if it is already signed in.
(4)	Token	Shows the acquired token if it is already signed in. This token is used for functions that utilize Microsoft Graph.
(5)	Token expiration time	Shows the expiration time of the acquired token if it is already signed in. It is usually one hour after it is acquired.
(6)	Sign in	Authenticates the Microsoft account and gets a token.
(7)	Sign out	Discards the acquired token and returns it to the state before sign-in.

■ Steps to issue a client ID (application ID)

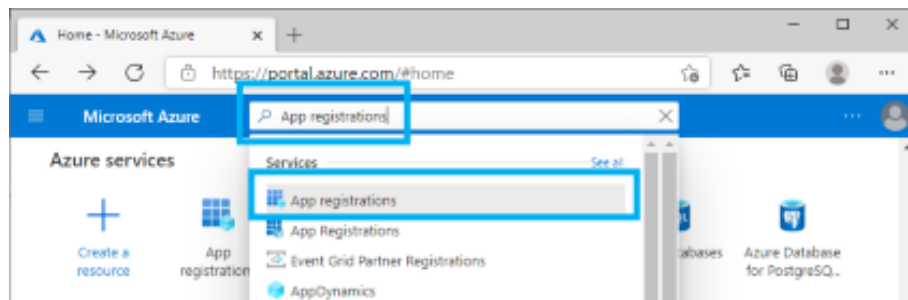
Only for the first time, you need to issue a client ID (application ID) in 'Register an application' on the Microsoft Azure portal site.

Steps

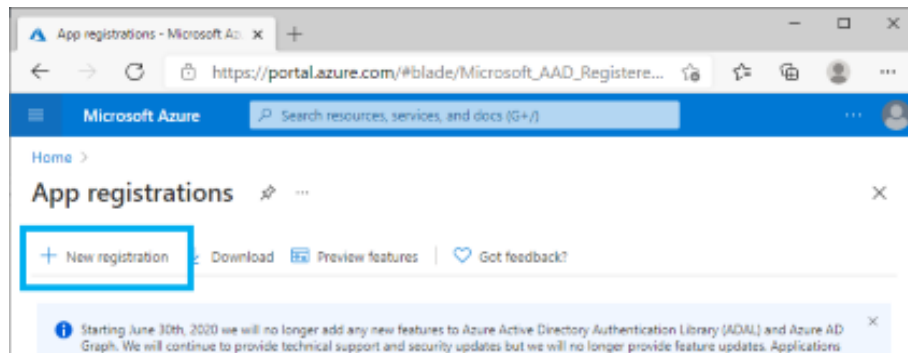
1. Open <https://portal.azure.com/> in your web browser and sign in with your Microsoft account.



2. Enter 'App registrations' in the search box at the top of the page, and click the displayed 'App registrations.'



3. Click 'New registration.'



4. The application registration page will be displayed. Enter the following details.
- For 'Name,' enter any name that represents the use in WinActor.
 - For 'Supported account types,' specify a range to allow access.
 - For 'Redirect URI,' select 'Public client/native (mobile & desktop)' and enter "https://login.microsoftonline.com/common/oauth2/nativeclient" in URL.
 - Click 'Register.'

Register an application - Microsoft Azure

Home > App registrations >

Register an application

This application will not be associated with any directory and will be subject to limitations. You should not create production apps outside of a directory.

Name

The user-facing display name for this application (this can be changed later).

Supported account types

Who can use this application or access this API?

- ☒ Accounts in any organizational directory (Any Azure AD directory - Multitenant)
- ☐ Accounts in any organizational directory (Any Azure AD directory - Multitenant) and personal Microsoft accounts (e.g. Skype, Xbox)
- ☐ Personal Microsoft accounts only

[Help me choose...](#)

Redirect URI (optional)

We'll return the authentication response to this URI after successfully authenticating the user. Providing this now is optional and it can be changed later, but a value is required for most authentication scenarios.

Public client/native (mobile ... e.g. myapp://auth

By proceeding, you agree to the Microsoft Platform Policies

Register

- Information such as 'Application (client) ID', 'Directory (tenant) ID', and 'Supported account types' will be displayed, and issuance is complete.

WinActor7_microsoft_sign_in - Microsoft Azure

Home > App registrations >

Overview

Search (Ctrl+F)

Delete Preview features

Got a second? We would love your feedback on Microsoft identity platform (previously Azure AD for developer).

Essentials

Display name : [redacted]

Application (client) ID : [redacted]

Object ID : [redacted]

Redirect URIs : 0 web, 0 spa, 1 public client

■ Steps to sign in to Microsoft with WinActor

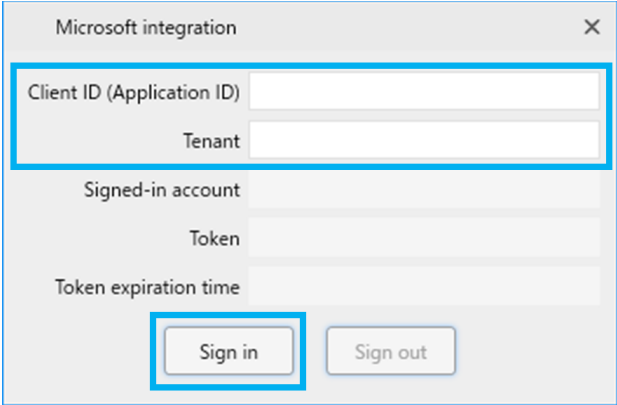
In the 'Microsoft integration' window of WinActor, sign in to Microsoft using 'Application (client) ID,' 'Directory (tenant) ID,' and 'Supported account types' issued in the above steps.

Steps

1. Enter 'Application (client) ID' in the 'Client ID (Application ID)' field on the 'Microsoft integration' window.

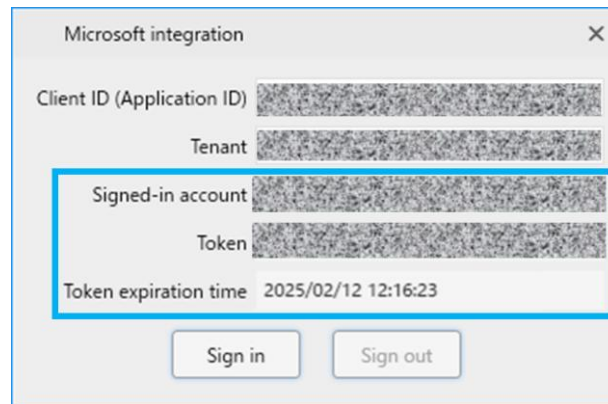
In the 'Tenant' field, enter one of the following, depending on the 'Supported account types.'

- For 'My organization only,' enter 'Directory (tenant) ID'
- For 'Multiple organizations,' enter 'organizations.'
- For 'All Microsoft account users,' enter 'common.'
- For 'Personal Microsoft account user,' enter 'consumers.'



2. Click 'Sign in' to authenticate your Microsoft account and get a token.
At this time, you may be asked to perform two-factor authentication or enter a password, depending on your Microsoft account settings.

- 3.** If the sign-in is successful, the acquired token will be displayed in the 'Token' field.



The screenshot shows a 'Microsoft integration' dialog box with a close button (X) in the top right corner. It contains the following fields and buttons:

- Client ID (Application ID): [Redacted]
- Tenant: [Redacted]
- Signed-in account: [Redacted]
- Token: [Redacted]
- Token expiration time: 2025/02/12 12:16:23
- Sign in button
- Sign out button

A blue rectangular box highlights the 'Signed-in account', 'Token', and 'Token expiration time' fields.

If the sign-in fails, an error message is displayed.

Check the settings on the Microsoft Azure portal and the information entered in the 'Microsoft integration' window.

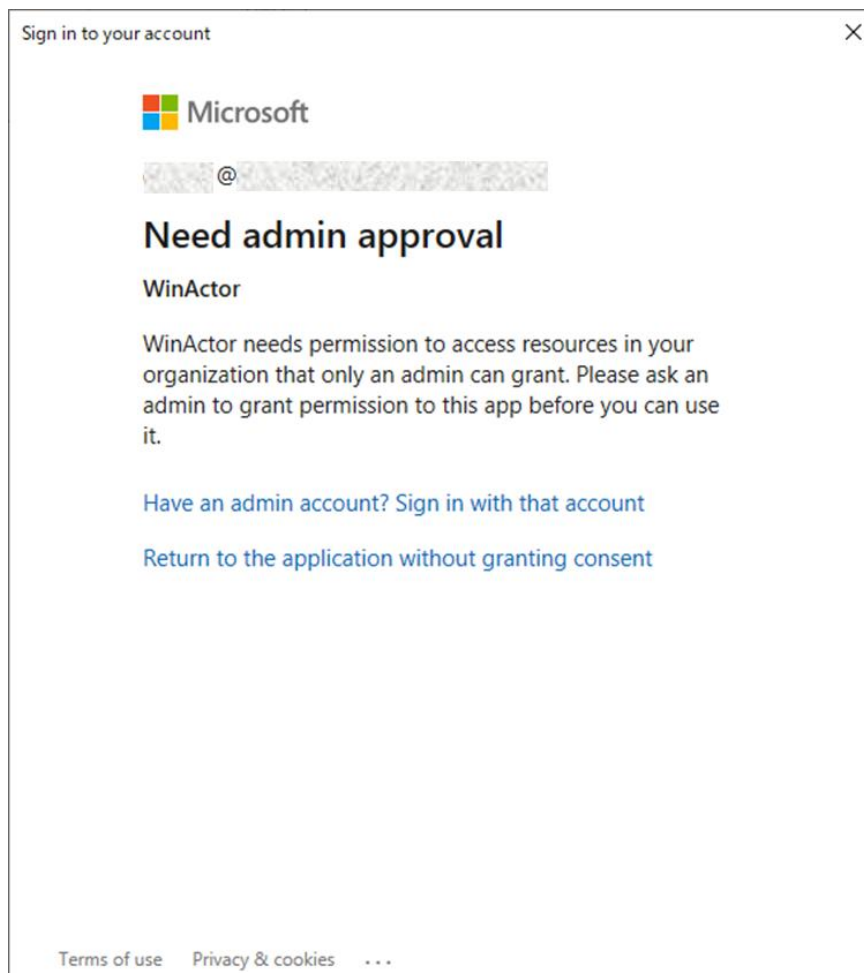
■ ■ Procedures when administrator approval is required

If the account used for sign-in does not have the Cloud Application Administrator role or higher, administrator approval is required. In that case, please perform one of the following.

- Follow the steps described in the URL below to ask the tenant's Global Administrator to enable the consent workflow.

<https://learn.microsoft.com/en-us/entra/identity/enterprise-apps/configure-admin-consent-workflow>

- Follow the "Steps to set up Access Permissions" described next to add the necessary access permissions to the registered application.

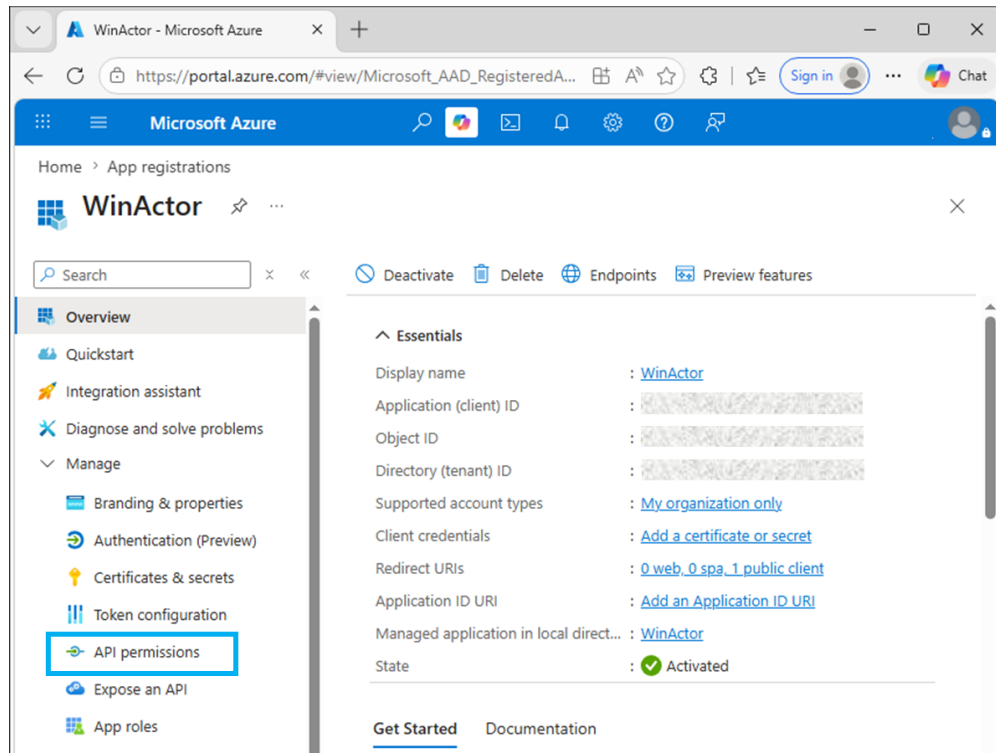


■ Steps to set up Access Permissions

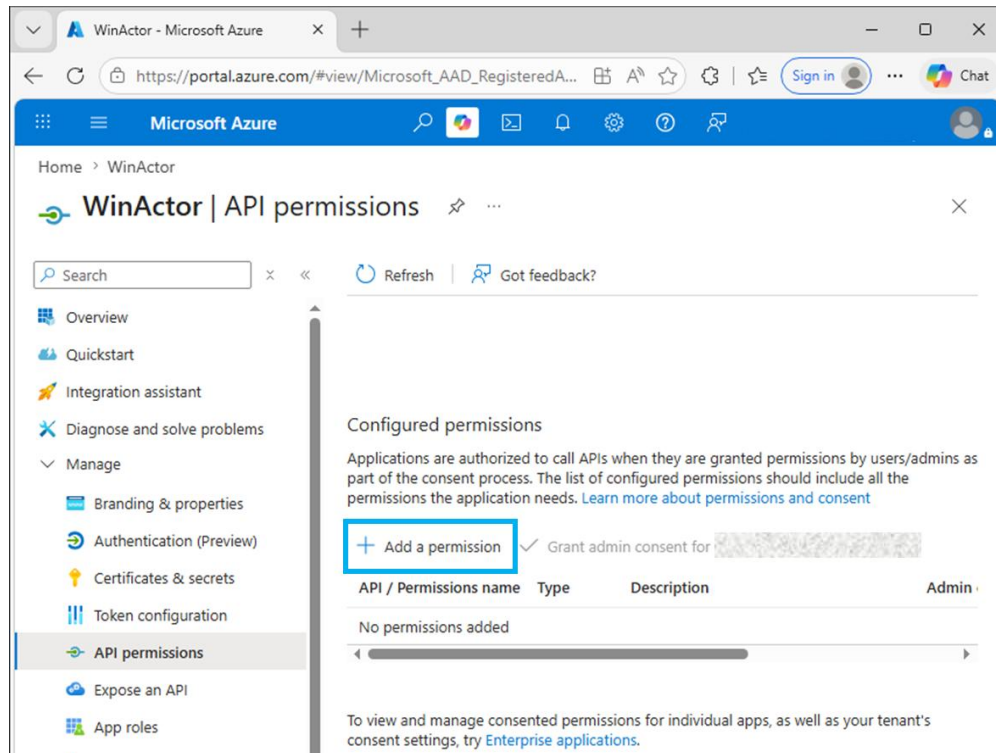
Add access permissions to the application registered on the Microsoft Azure site.

Steps

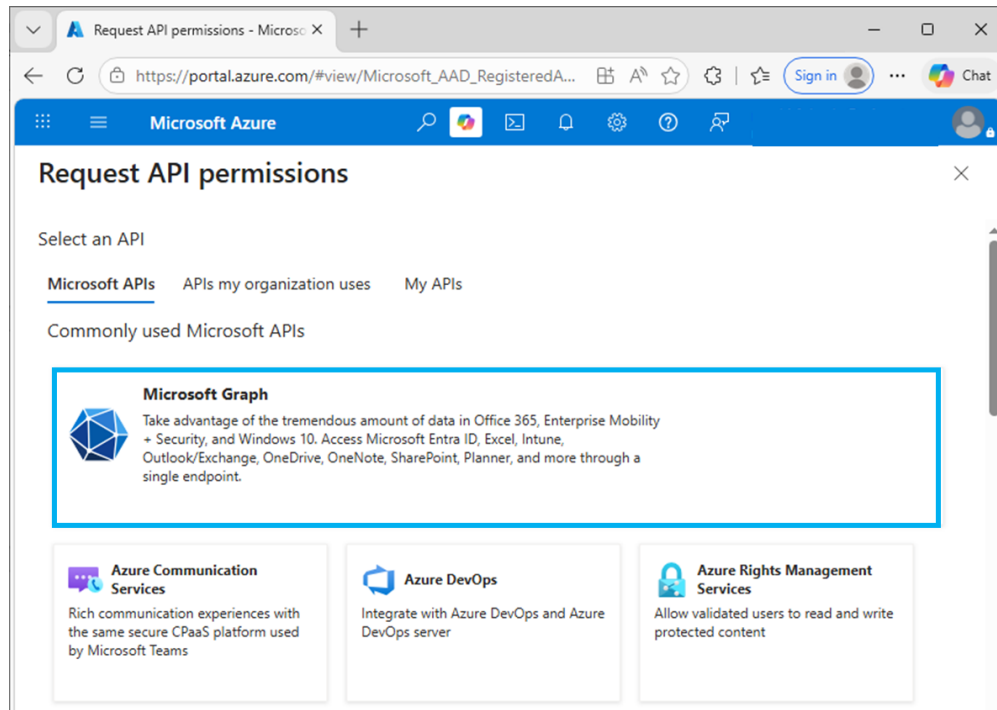
1. Open the application registered in the 'App Registrations' service on the Microsoft Azure site, and click the 'API permissions' under the 'Manage.'



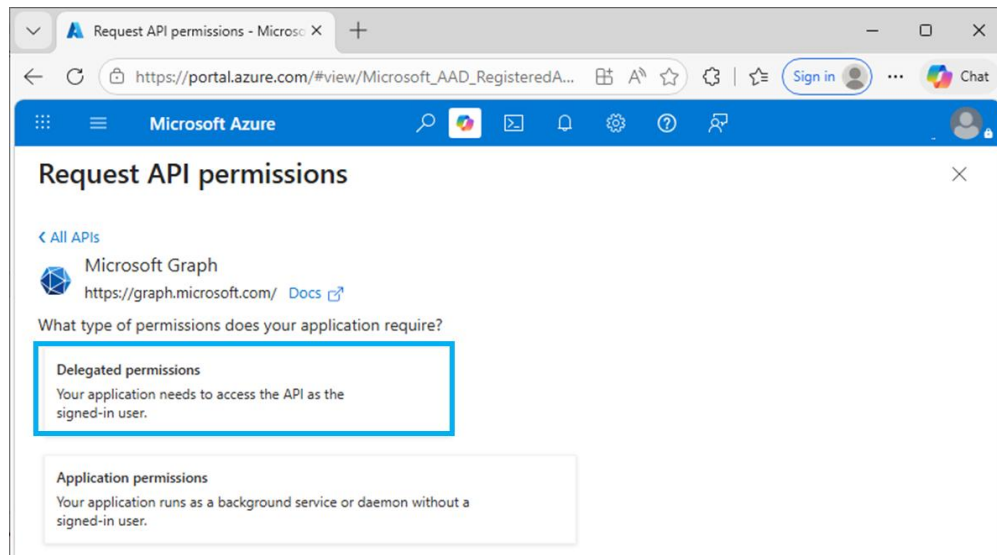
2. Click the 'Add Access Permission.'



3. Click the 'Microsoft Graph.'



4. Click the 'Delegated Permissions.'



5. Select the permissions to add and click the 'Add Permissions.' The required permissions are as follows. Please add all of them.

- Mail.Send
- Mail.ReadWrite
- MailboxSettings.Read
- Calendars.ReadWrite

Request API permissions

< All APIs

Microsoft Graph
<https://graph.microsoft.com/> Docs

What type of permissions does your application require?

Delegated permissions
Your application needs to access the API as the signed-in user.

Application permissions
Your application runs as a background service or daemon without a signed-in user.

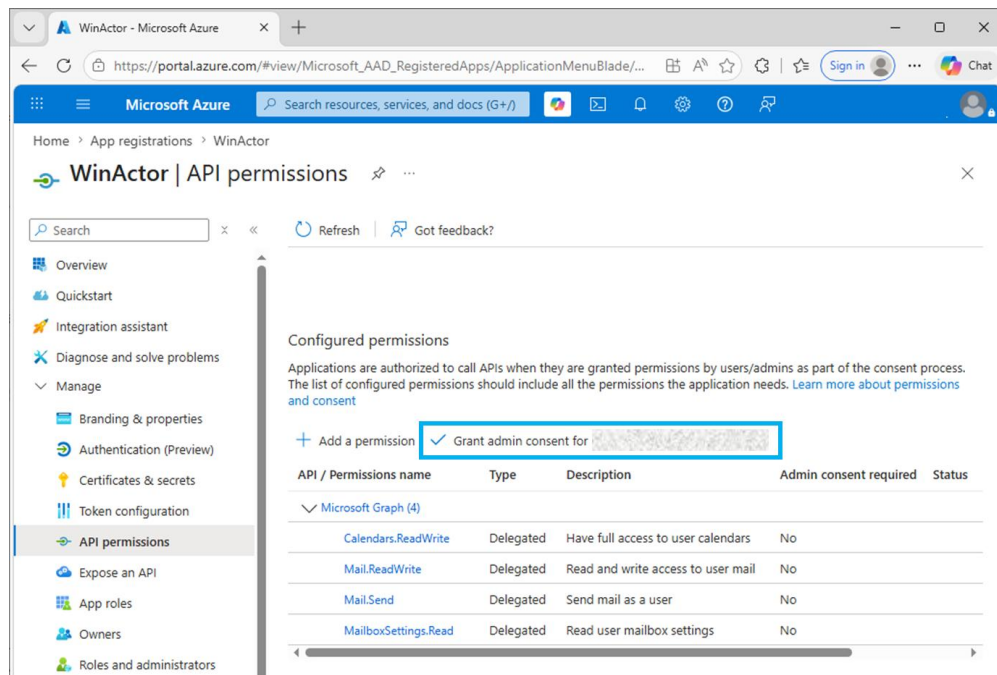
Select permissions expand all

Mail.Send

Permission	Admin consent required
Mail (1)	
☒ Mail.Send ⓘ Send mail as a user	No
☐ Mail.Send.Shared ⓘ Send mail on behalf of others	No

Add permissions Discard

6. Click the 'Grant admin consent for <Tenant Name>'. This action requires a role equivalent to or higher than the cloud application administrator. Please ask the appropriate person.



The Microsoft Azure site shown here is captured at the time of writing this manual, and they might have been changed.

■ Box integration window

The 'Box integration' window is to get a token via logging in to a Box account or via the server-side account authentication.
This token is required to use the subscenarios that cooperate with Box, which are provided only in Japanese.

If you want to run a scenario utilizing the subscenarios that cooperate with Box, perform Box account authentication in this window and get a valid token in advance.
The token has an expiration time. If it has expired, authenticate the Box account in this window again.

For the radio button of the authentication method in the 'Box integration' window, select the same method as you specified for the 'Authentication Method' on the Box Developer Console.

For the way to create a Box app, see “■■ Example of creating a Box application.”

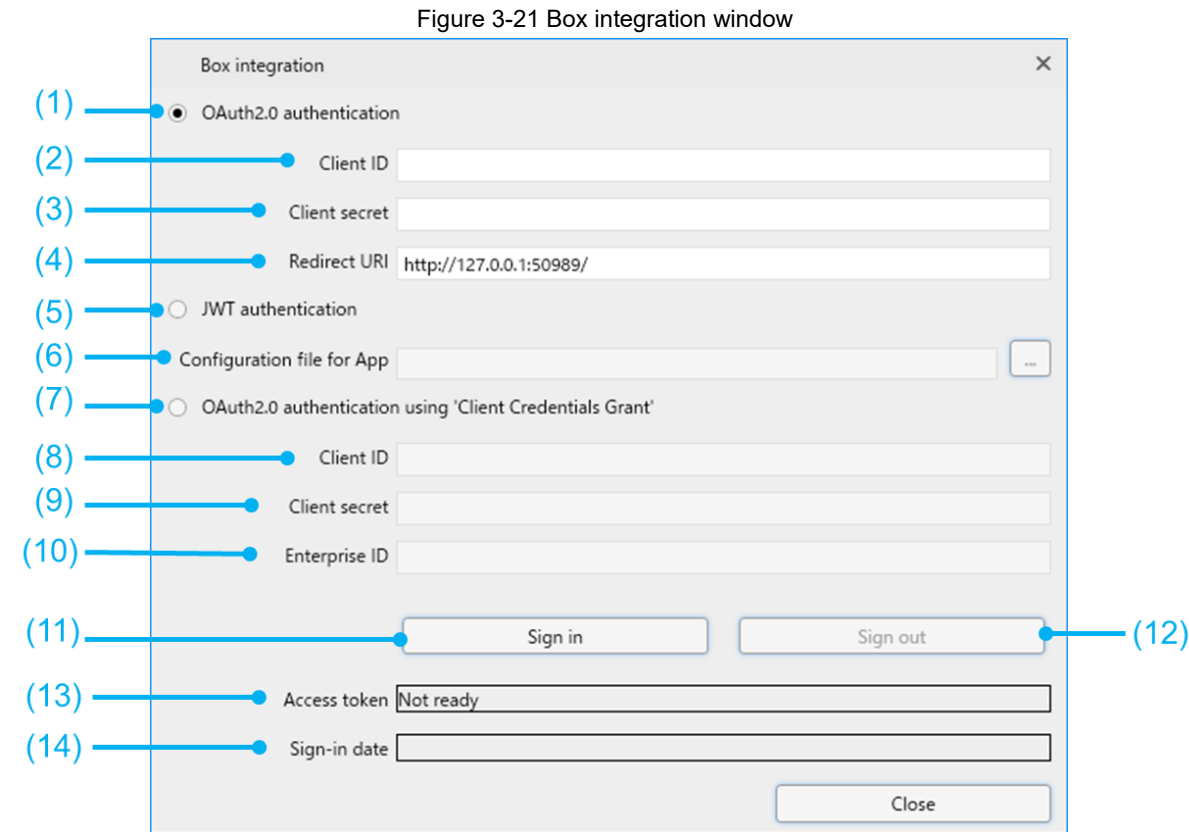


Table 3-14 Box integration window

No.	Name	Description
(1)	OAuth2.0 authentication	Set this when authenticating to the Box account with OAuth2.0 authentication.

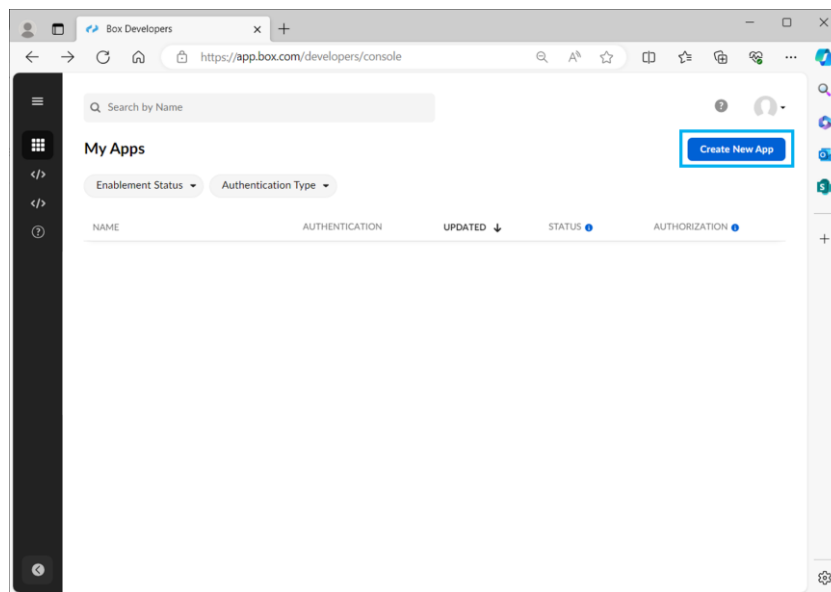
No.	Name	Description
(2)	Client ID	Enter the client ID issued for a Box application.
(3)	Client secret	Enter the client secret issued for the Box application.
(4)	Redirect URI	An example URI of a loopback address, which is usable for WinActor, is initially displayed. The specified URI is used to acquire a token by WinActor. This redirect URI needs to be set also for the Box application.
(5)	JWT authentication	Set this when authenticating to the Box account with JWT authentication.
(6)	Configuration file for App	Set the file path of the configuration file for the App obtained from the Box App. When the file path is a relative path, the base path is a WinActor path or an Installation path. It cannot be a Scenario path.  For the file paths, see "5.6 File Path."
(7)	OAuth2.0 authentication using 'Client Credentials Grant'	Set this when authenticating to the Box account with OAuth authentication with Client Credentials Grant.
(8)	Client ID	Set the client ID set in the Box App.
(9)	Client secret	Set the client secret set in the Box App.
(10)	Enterprise ID	Set the enterprise ID obtained from the Box App.
(11)	Sign in	Authenticates the Box account and gets a token.
(12)	Sign out	Discards the acquired token and returns to the state before sign-in.
(13)	Access token	'Ready' is displayed when the sign-in is succeeded.
(14)	Sign-in date	The date when the sign-in was successful is displayed.

■ Example of creating a Box application

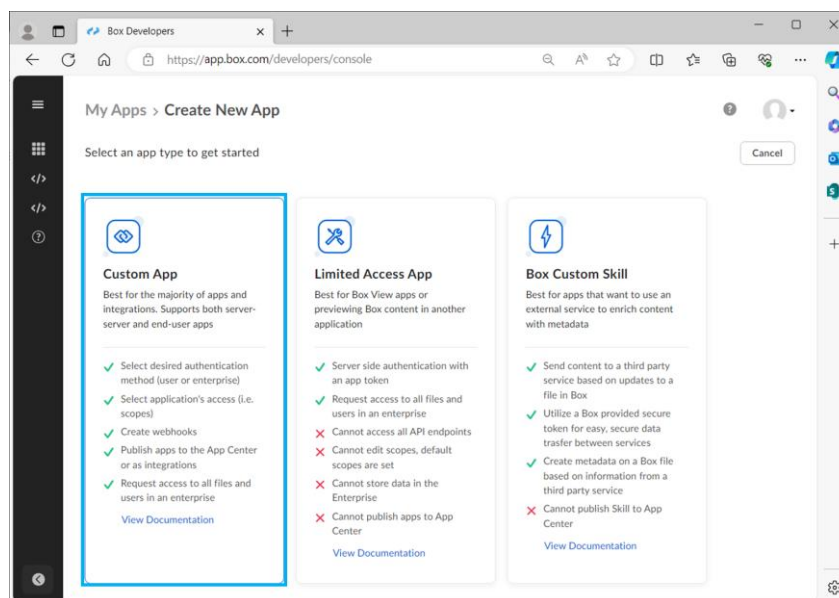
On the developer's console, it is possible to create a Box application, to set 'Client ID,' 'Client secret,' 'Redirect URI,' and so on, and to obtain 'Configuration file for App' and 'Enterprise ID.' Ask the administrator of your Box environment about the details of the settings beforehand.

Steps

1. Open <https://app.box.com/developers/console> in your web browser and click the 'Create New App' button.



2. Select the 'Custom App.'



3. Set the 'App Name' and the 'Purpose' according to the user application, and click the 'Next' button.

Create a Custom App

STEP 1 OF 2

Enter a name for your app. You can change the name later in General Settings.

App Name

Enter app name

Description (optional)

Enter app description

Personalize how your app will be organized and integrated with content on Box.

Purpose

Select an option

Cancel Next

4. Select an authentication method you want to use on WinActor, and click the 'Create App' button.

Create a Custom App

STEP 2 OF 2

Select an authentication method.

Authentication Method

☒ **Server Authentication (with JWT)**

- Best for building integrations or apps with external collaborators - [Learn More](#)
- The app authenticates using a JSON Web Token. Requires a public/private key-pair for added security.

☐ **User Authentication (OAuth 2.0)**

- Best for building mobile or web apps - [Learn More](#)
- Users must authenticate with their Box login.

☐ **Server Authentication (Client Credentials Grant)**

- Best for scripting and back office integrations - [Learn More](#)
- The app authenticates using Client ID and Client Secret.

By clicking "Create App", you agree to the terms of the [Box Developer Agreement](#) and the [Box Privacy Policy](#).

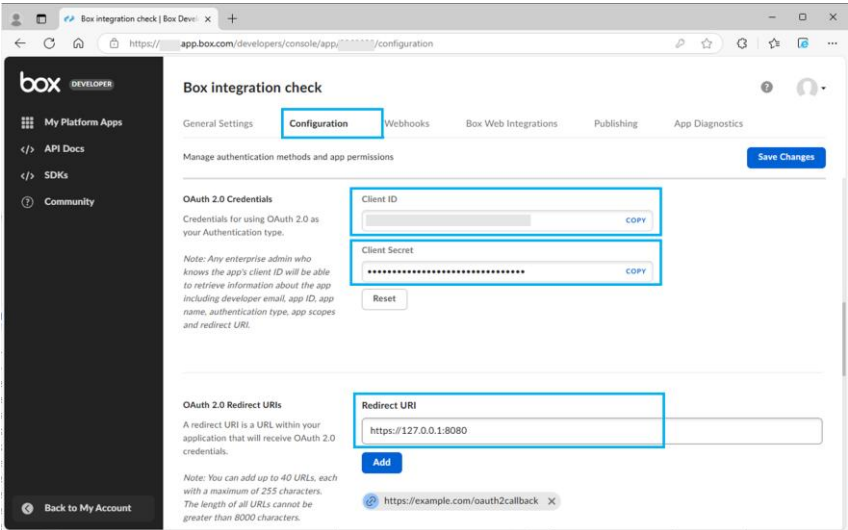
Back Cancel Create App

■ ■ Obtaining an authentication

Authentication method 1: OAuth2.0 authentication

Steps

1. Select the app you have created, and click the 'Configuration' tab.



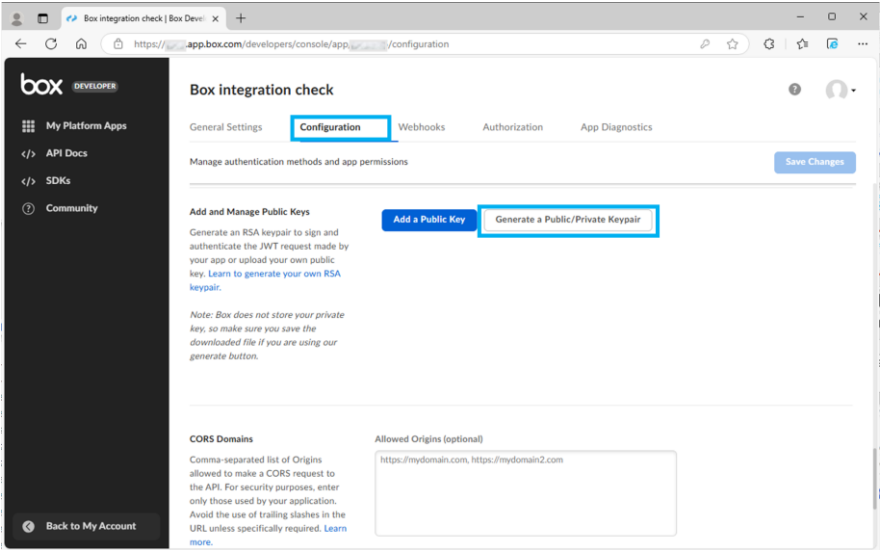
No.	Name	Description
(1)	Client ID	Copy and paste this value to the 'Client ID' in the Box integration window.
(2)	Client secret	Copy and paste this value to the 'Client secret' in the Box integration window.
(3)	Redirect URI	Enter the redirect URI shown on the Box integration window.

2. Input the 'Client ID,' 'Client secret,' and 'Redirect URI' obtained at 'Step 1.' into the 'Box integration' window for the Box account to be authenticated.
For the Box authentication, see “■ ■ Example procedure of signing in to Box with WinActor.”

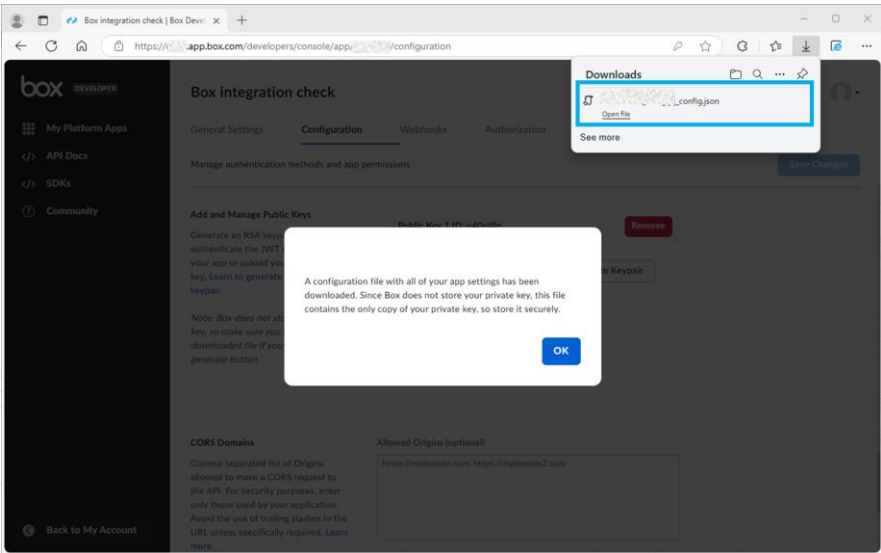
Authentication method 2: JWT authentication

Steps

- 1. Click the 'Generate a Public/Private Keypair' button in the 'Add and Manage Public Keys' on the 'Configuration' tab.



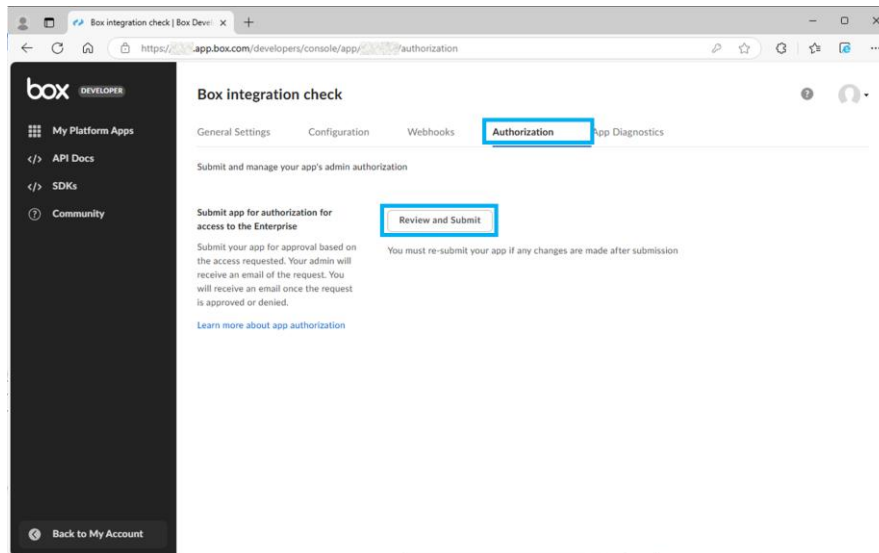
- 2. Download the JSON file and perform the operation described below.



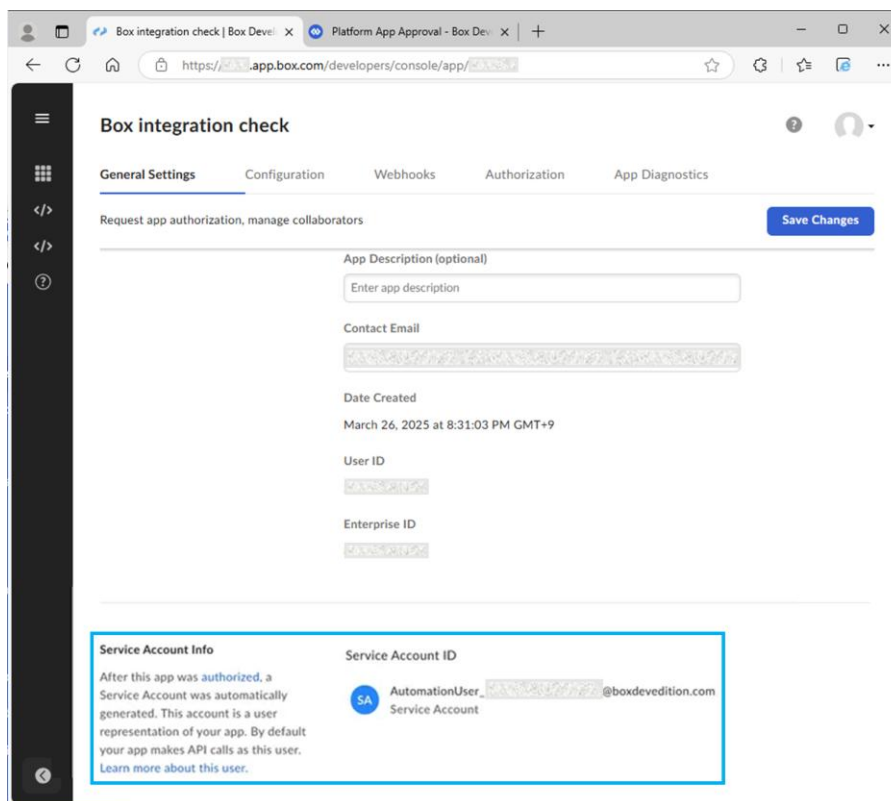
No.	Name	Description
(1)	Configuration file for App	Set the path to the downloaded file for 'Configuration file for App' in the 'Box integration' window.

3. Click the 'Review and Submit' button on the 'Authorization' tab.

To use the App using JWT authentication or OAuth2.0 authentication with Client Credentials Grant must be authorized by a Box Admin before use.



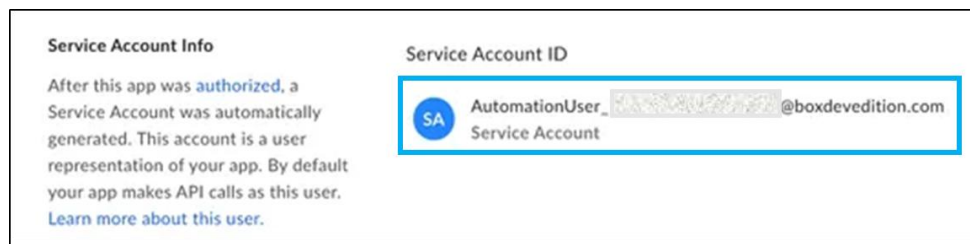
4. When the Box Admin has authorized the App, 'Service account information' on the 'General Settings' tab is displayed.



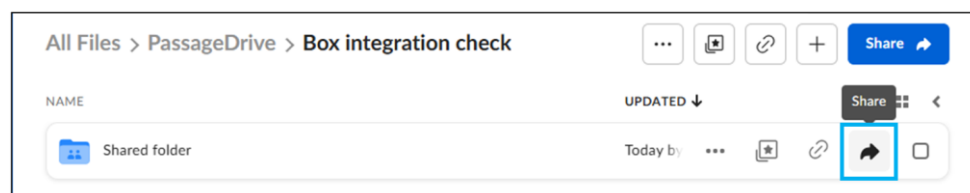


When operating a file or a folder using custom application with server-side authentication, which is JWT authentication and OAuth2.0 authentication with Client Credentials Grant, settings in the step 5 to 7 of the 'Authentication method 2: JWT authentication' are necessary.

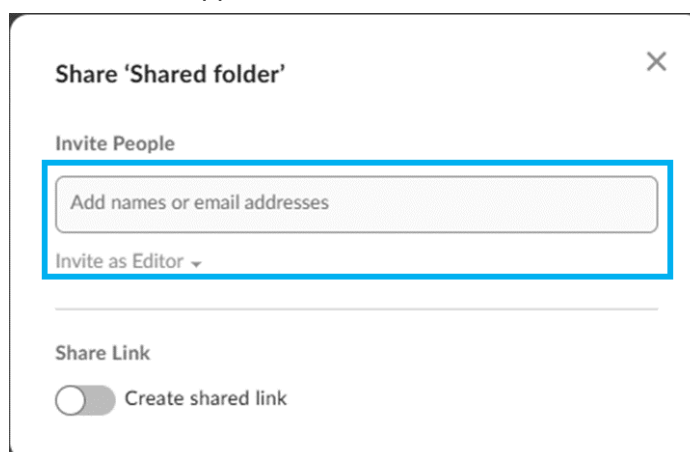
5. Copy the mail address of the service account displayed in the 'Service account information' on the 'General Settings' tab.



6. Click the 'Share' button of the folder to operate..



7. Paste the copied mail address into the 'Invite People' column to invite the service account of the custom app.

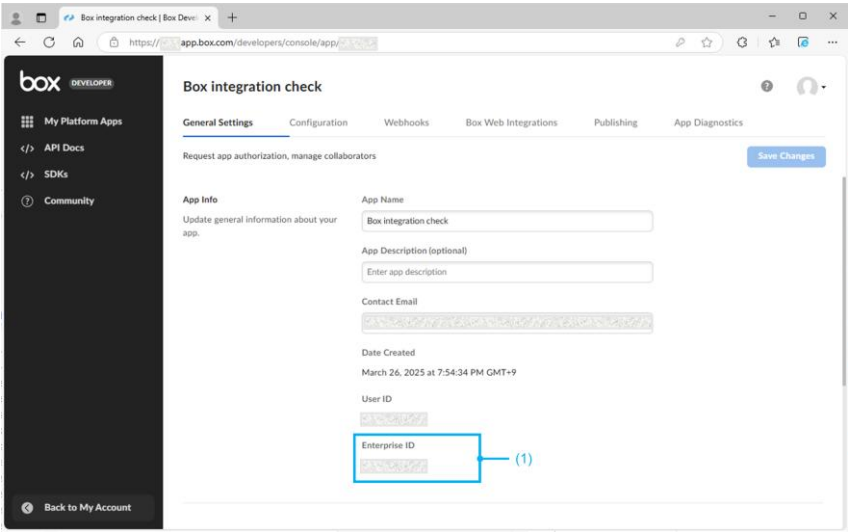


8. Input the file path of 'Configuration file for App' obtained at 'Step 2.' into the 'Box integration' window for the Box account to be authenticated.
For the Box authentication, see “■■ Example procedure of signing in to Box with WinActor.”

Authentication method 3: OAuth2.0 authentication with Client Credentials Grant

Steps

- 1. Select the app you have created, click the 'Configuration' tab, and obtain the authentication information. For details, see the step 1 of the 'Authentication method 1: OAuth2.0 authentication.'
- 2. Select the created app, click the 'General Settings' tab, and perform the operation described below.



No.	Name	Description
(1)	Enterprise ID	Set this value as the 'Enterprise ID' on the 'Box integration' window..

- 3. Select the created app, and click the 'Authorization' tab and the 'Review and Submit' button on it to request authorization by the Box Admin.
For details, see the steps 3 and 4 of the 'Authentication method 2: JWT authentication.'
- 4. When operating an existing file or folder, invite the service account of the custom app to the file or folder.
For details, see the steps from 5 to 7 of the 'Authentication method 2: JWT authentication.'
- 5. Input the 'Client ID,' 'Client secret,' and 'Enterprise ID' obtained at 'Step 1.' and 'Step 2.' into the 'Box integration' window for the Box account to be authenticated.
For the Box authentication, see "■■ Example procedure of signing in to Box with WinActor."



The Box webpages shown here are captured at the time of writing this manual, and they might have been changed.

■ ■ Example procedure of signing in to Box with WinActor

Using the 'Client ID,' the 'Client secret,' and the 'Redirect URI' acquired through the procedure described previously, WinActor can sign in to Box.

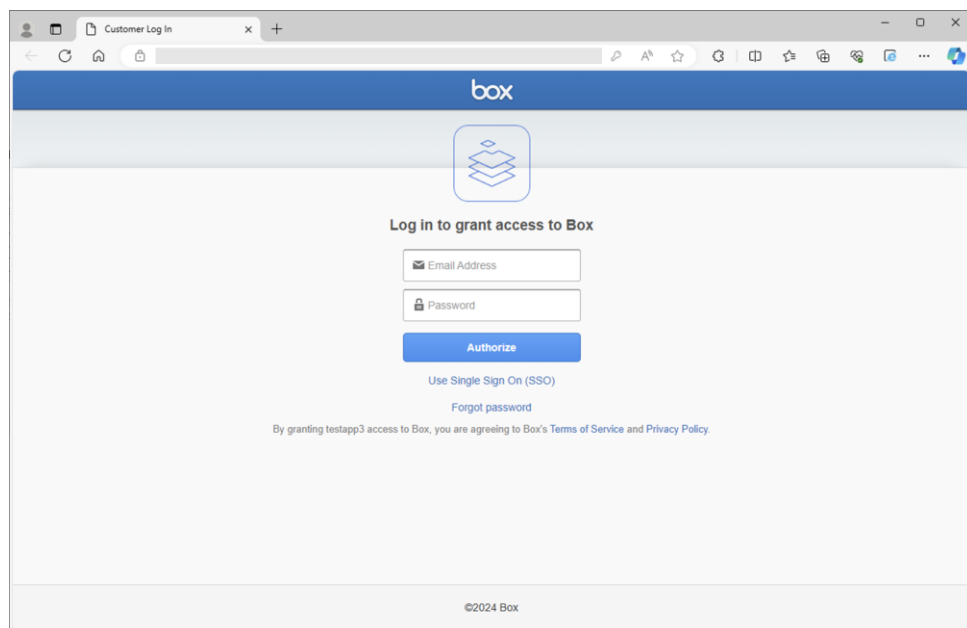
The procedure described here is using OAuth2.0 authentication for the account to be authorized.

Steps

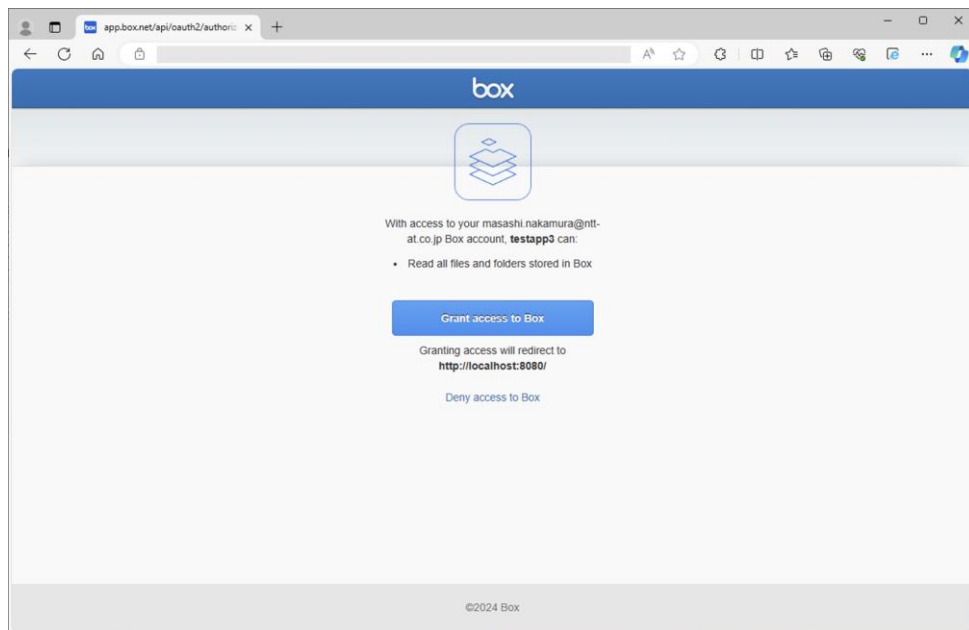
1. Enter the 'Client ID,' the 'Client secret,' and the 'Redirect URI' in the 'Box integration' window, and click the 'Sign in' button.



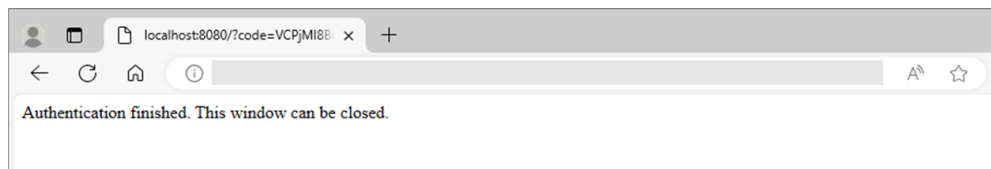
2. When the Box 'Log in' webpage is shown, input e-mail address and password, and click the 'Authorize' button.



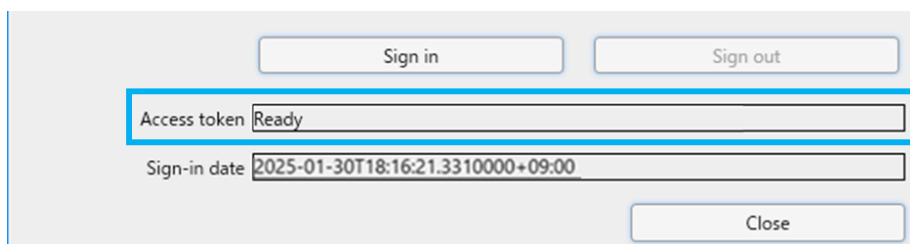
3. When the 'Log in' succeeds, the next webpage is shown. Click the 'Grant access to Box' button.



4. When the access to Box is successfully granted, the following webpage will be shown. Then, close the webpage.



5. Once tokens are successfully acquired, 'Ready' is shown for the 'Access token' in the 'Box integration' window.



When the 'Access token' is shown to be 'Ready,' close the 'Box integration' and the 'Integration of external services' windows because the subscenarios with Box integration have become usable.



The Box webpages shown here are captured at the time of writing this manual, and they might have been changed.

■ Generative AI integration window

The 'Generative AI integration' window is used to set up configuration items to connect to Generative AI. This settings are necessary to use the Generative AI integrated features.

Figure 3-22 Generative AI integration window

The screenshot shows the 'Generative AI integration' dialog box. It has a title bar with a close button (X). The main area contains several radio buttons and text input fields. Callouts (1) through (12) point to the following elements:

- (1) Radio button for 'Do not use Generative AI integration.' (selected)
- (2) Radio button for 'Use Generative AI integration.'
- (3) Radio button for 'Use Azure OpenAI via NTT-AT with NTT-AT's license.'
- (4) Radio button for 'Use OpenAI with my license.'
- (5) Text input field for 'API Key' (under 'Use OpenAI with my license')
- (6) Text input field for 'Organization ID' (under 'Use OpenAI with my license')
- (7) Dropdown menu for 'Model' (under 'Use OpenAI with my license')
- (8) Radio button for 'Use Azure OpenAI with my license.'
- (9) Text input field for 'API Key' (under 'Use Azure OpenAI with my license')
- (10) Text input field for 'Resource name' (under 'Use Azure OpenAI with my license')
- (11) Text input field for 'Deployment name' (under 'Use Azure OpenAI with my license')
- (12) Text input field for 'API version' (under 'Use Azure OpenAI with my license')

Below the input fields, there is a section titled 'Generative AI integrated features listed below are subject to the settings on this window.' It lists menu bar features and a subscenario:

- Menu bar features:
 - File(F) > New > New scenario with Generative AI
 - View(V) > Variable list > Template and data extraction (using Generative AI)
 - Tool(T) > Convert VBScript library to Python (*)
 - Help(H) > AI Help (*)
- Subscenario
 - '05_生成AI > チャット応答取得(AI連携ライセンス) (*)

A footnote at the bottom states: (*) These features work with 'Azure OpenAI via NTT-At with NTT-AT's license' even when you set 'Use OpenAI with my license.' or 'Use Azure OpenAI with my license.'

At the bottom are 'OK' and 'Cancel' buttons.



- The “Figure 3-22 Generative AI integration window” is a window on the AI integration license (FULL edition).

Depending on the combination of the 'license type' and the 'license type of edition,' some of the Generative AI integrated features may not be available.



For available Generative AI integrated features, see “1.5 Generative AI integrated features.”

Table 3-15 Generative AI integration window

No.	Name	Description
(1)	Do not use Generative AI integration.	Set this to not use Generative AI integrated features.
(2)	Use Generative AI integration	Set this to use Generative AI integrated features. When this is selected, specify a Generative AI to be integrated to the features from 3 choices described below. (1) 'Use Azure OpenAI via NTT-AT's license.' (2) 'Use OpenAI with my license.' (3) 'Use Azure OpenAI with my license.'
(3)	Use Azure OpenAI via NTT-AT with NTT-AT's license.	Set this to use Azure OpenAI via NTT-AT with NTT-AT's license for Generative AI integrated features.  When the scenario is created with setting this item and selecting 'File' > 'New' > 'New scenario with Generative AI' on the menu bar, a survey dialog is displayed at the first closing of the scenario.  For details, see "1.22.1 Survey on scenario creation with Generative AI."
(4)	Use OpenAI with my license.	Set this to use OpenAI with your license for Generative AI integrated features.
(5)	API Key	Specify the API key when using OpenAI for Generative AI integrated features.
(6)	Organization ID	Specify the organization ID to select the organization to use when you belong to multiple organizations and use OpenAI for Generative AI integrated features.
(7)	Model	Specify the model when using OpenAI for Generative AI integrated features.  Not only selected from the list, the model can be directly specified. Example: gpt-5, gpt-5.4-mini, etc. For available models, refer to the authorized information source such as the official OpenAI website.
(8)	Use Azure OpenAI with my license.	Set this to use Azure OpenAI with your license for Generative AI integrated features.
(9)	API Key	Specify the API key when using Azure OpenAI for Generative AI integrated features.
(10)	Resource name	Specify the resource name when using Azure OpenAI for Generative AI integrated features.
(11)	Deployment name	Specify the model deployment name when using Azure OpenAI for Generative AI integrated features.

No.	Name	Description
(12)	API version	Specify the API version to use when creating scenarios with Azure OpenAI.



- The 'Use Generative AI integration.' and the 'Use Azure OpenAI via NTT-AT with NTT-AT's license.' are selected as default when the AI integration license is applied.
The 'Do not use Generative AI integration.' is selected as default when any other license type is applied.
 - When using Generative AI from a subscenario, the API key needs to be set in the property of the subscenario.
For details, see "WinActor Subscenario Sample Manual" (Japanese only).
-

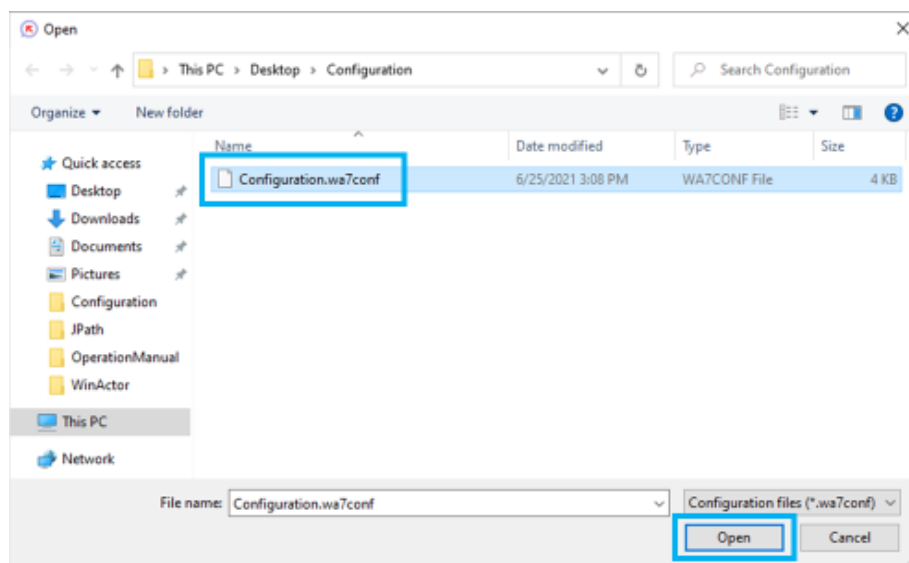
■ Import configuration

The 'Import configuration' is a menu item to import settings of the 'Option' dialog. The files to import are previously exported files via the 'Export configuration.' The extension of the files is '.wa7conf.'

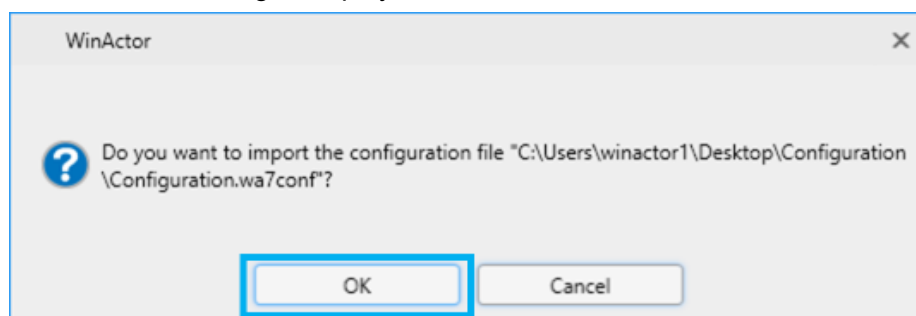
To make the imported settings take effect, WinActor have to be restarted.

Steps

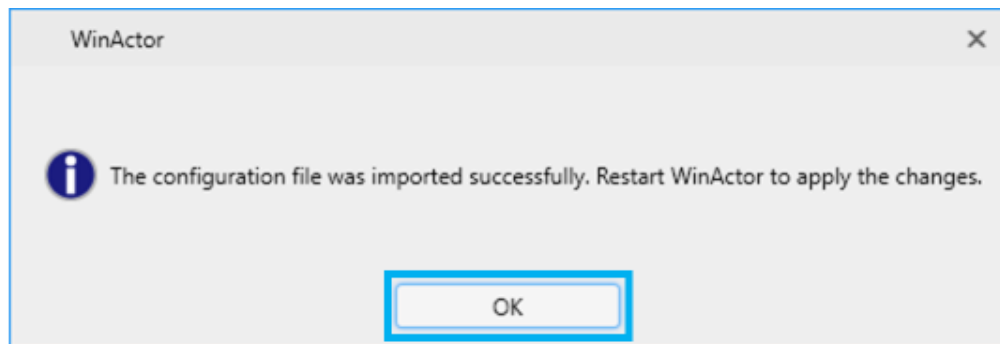
1. Select the 'Import configuration,' then the 'Open' file dialog is displayed.
2. Select the file to import, and click the 'Open' button.



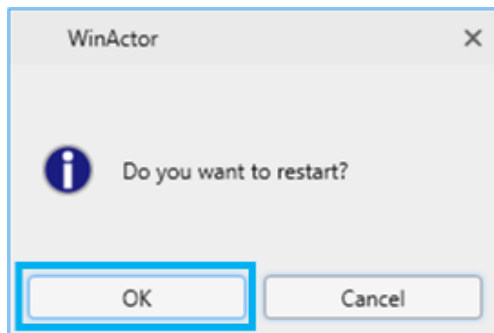
3. A confirmation dialog is displayed. Click the 'OK' button.



4. When the importation is successful, a confirmation dialog is displayed. Click the 'OK' button.



5. When the dialog "Do you want to restart?" is displayed, click the 'OK' button, and restart WinActor. The imported settings will take effect.

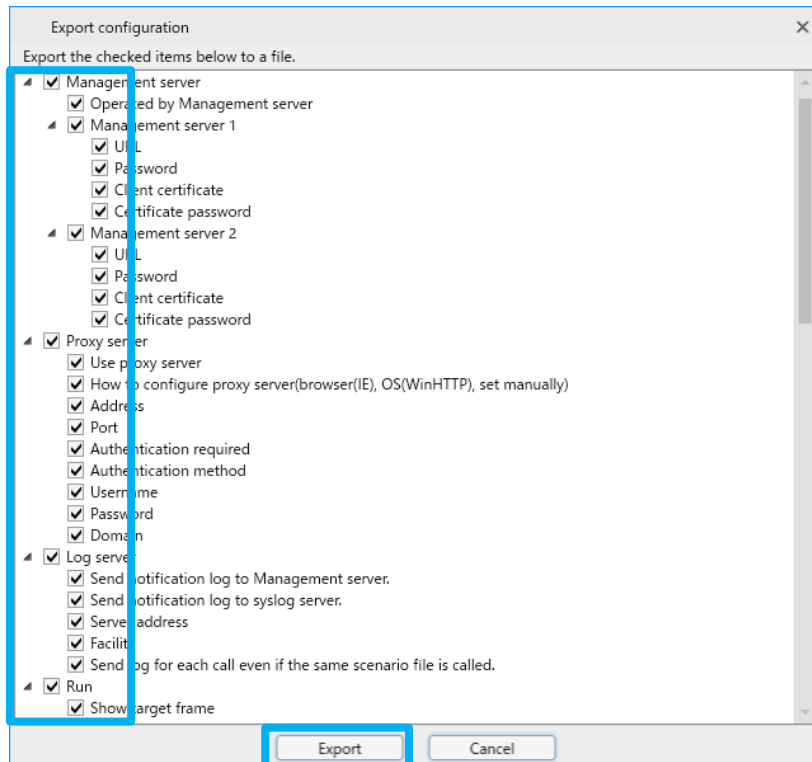


■ Export configuration

The 'Export configuration' is a menu item to export settings of the 'Option' dialog.

Steps

1. Select the 'Export configuration' for the 'Export configuration' window to be displayed. Check the items to export, and click the 'Export' button.

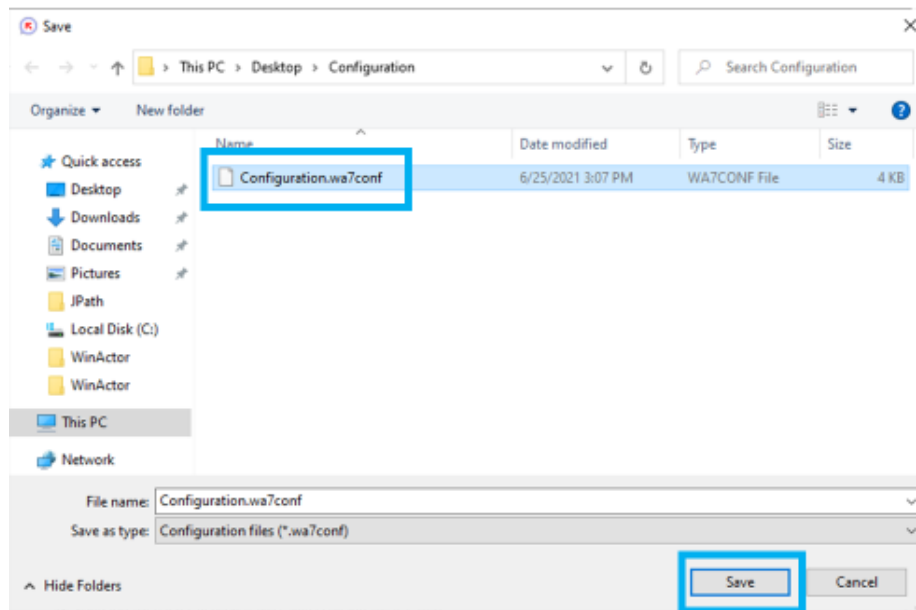


The 'Save' file dialog is displayed.



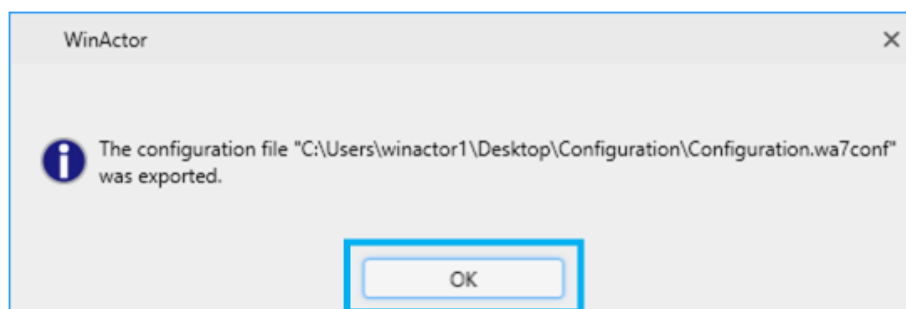
Only the checked settings are exported. The unchecked settings are left intact while importing the exported file.

2. Input a filename, and click the 'Save' button.



Only the `wa7conf` can be selected for the 'Save as' type.

3. When the exportation is successful, a confirmation dialog is displayed. Click the 'OK' button.



3.2.4 Help Menu

With the 'Help' menu, the WinActor manuals and the 'About WinActor' dialog can be displayed, inquiries on WinActor can be answered by Generative AI, logs for inquiry can be collected, and updates can be checked for.

Figure 3-23 "Help" menu

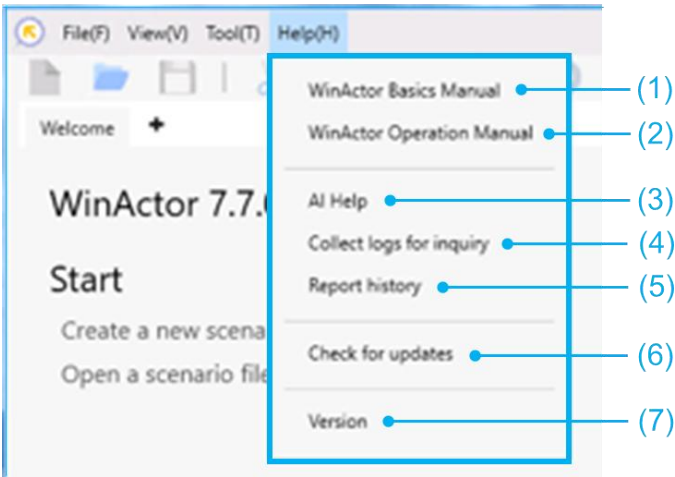


Table 3-16 "Help" menu

No.	Menu	Description
(1)	WinActor Basics Manual	Displays "WinActor Basics Manual."
(2)	WinActor Operation Manual	Displays "WinActor Operation Manual."
(3)	AI Help	Inquiries on WinActor are answered by Generative AI. » For details, see "."
(4)	Collect logs for inquiry	Collects logs, and archive them into a .zip file or send them to the WinActor site. » For details, see "Collect logs for inquiry."
(5)	Report history	Checks for updates of WinActor, WebDriver, User library, Subscenario, and CloudLibrary. » For details, see "Report history."
(6)	Check for updates	Displays history of sending reports via the 'Collect logs for inquiry.' » For details, see "Check for updates."
(7)	Version	Displays the 'About WinActor' dialog. » For details, see "3.13 'About WinActor' Dialog."

■ AI Help

AI Help gives answers to inquiries on WinActor by Generative AI. To use this function, the settings to connect to the Generative AI are necessary on the Generative AI integration window from the 'Integration of external services' in the 'Tool' menu.

For the AI integration license, the settings to connect to Generative AI are not necessary.

» For details of the settings, see the "Generative AI integration window."

The 'Generative AI integration window' can be opened by clicking the settings button of 'Generative AI' on the 'Integration of External Services' window displayed by clicking the 'Tool' – 'Integration of external services' on the Menu bar.

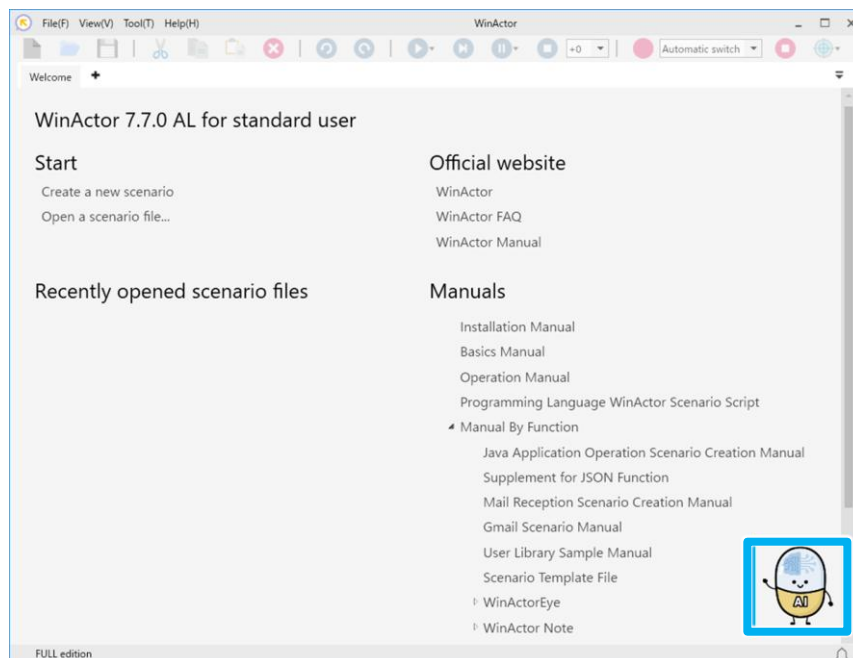


AI Help is available when the 'Use Generative AI integration.' is selected on the 'Generative AI integration' window.

Even when the 'Use OpenAI with my license.' or the 'Use Azure OpenAI with my license.' is selected, Azure OpenAI with NTT-AT's license is used for this feature.

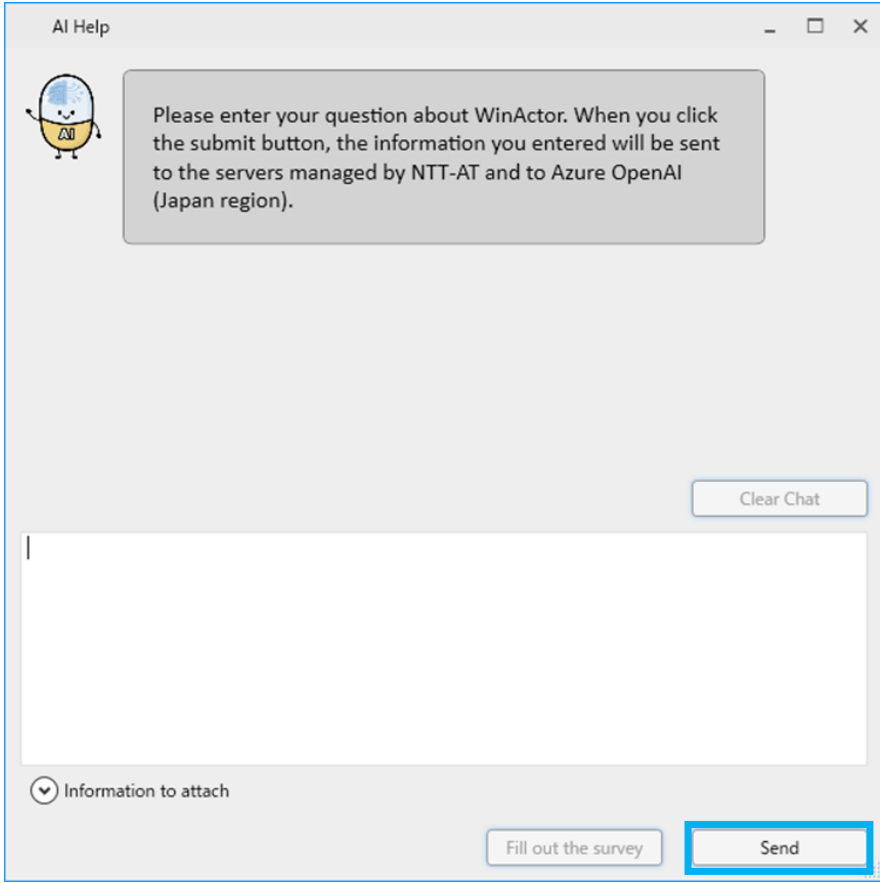
Steps

1. AI Help is launched by clicking an icon at the bottom-right corner of the 'Welcome' window of WinActor. Otherwise, it can be launched by clicking the 'Help' – 'AI Help' on the Menu bar.



By right-clicking the icon, it is possible to hide it.

2. Describe inquiries on WinActor in the chat dialog. Then, click the 'Send' button, and the answers to the inquiries are obtained from the Generative AI.



The screenshot shows a window titled "AI Help" with a standard Windows title bar (minimize, maximize, close buttons). Inside the window, there is a cartoon character of a yellow circle with a blue face and a small antenna. To the right of the character is a gray text box containing the message: "Please enter your question about WinActor. When you click the submit button, the information you entered will be sent to the servers managed by NTT-AT and to Azure OpenAI (Japan region)." Below this text box is a large white text input area. To the right of the input area is a "Clear Chat" button. At the bottom of the window, there is a section labeled "Information to attach" with a dropdown arrow. To the right of this section are two buttons: "Fill out the survey" and "Send". The "Send" button is highlighted with a red border.



Inquiries on how to use WinActor can be sent by using AI Help.

(Examples)

- Show me about ○○ (function name).
- Show me how to transfer the license.
- Error message "Failed in image analysis" appeared, when the image matching node runs.

3. Additional information can be sent, such as information on the scenario, that on the environment, and the scenario execution log, if necessary.



Additional information is not compulsory; however, it might be possible to obtain more detailed answers, when additional information is also sent to the Generative AI.

For sending the inquiry with additional information to the Generative AI, click the 'Information to attach' button.

After checking the information to be sent, click the 'Send' button.

AI Help

References:

- [WinActor_Operation_Manual.pdf, 4.4 Nodes in Action Category]
- https://faq.winactor.biz/winactor_en/faq.asp?faqno=ENG00175
- [WinActor_Operation_Manual.pdf, ■ Image Matching properties]

Clear Chat

Error message "Failed in image analysis" appeared when the image Matching node runs

Information to attach

To respond to customer inquiries, we will send scenario, environment, and execution log information. If it is okay to include an item in the information to be sent, please check the box for each item below. You can click the button on the right side of each item to open the corresponding file and add or delete content as needed.

Recollect

(1) ☐ Check All

(2) ☐ WinActor information

(3) ☐ Environment information

(4) ☐ Execution logs

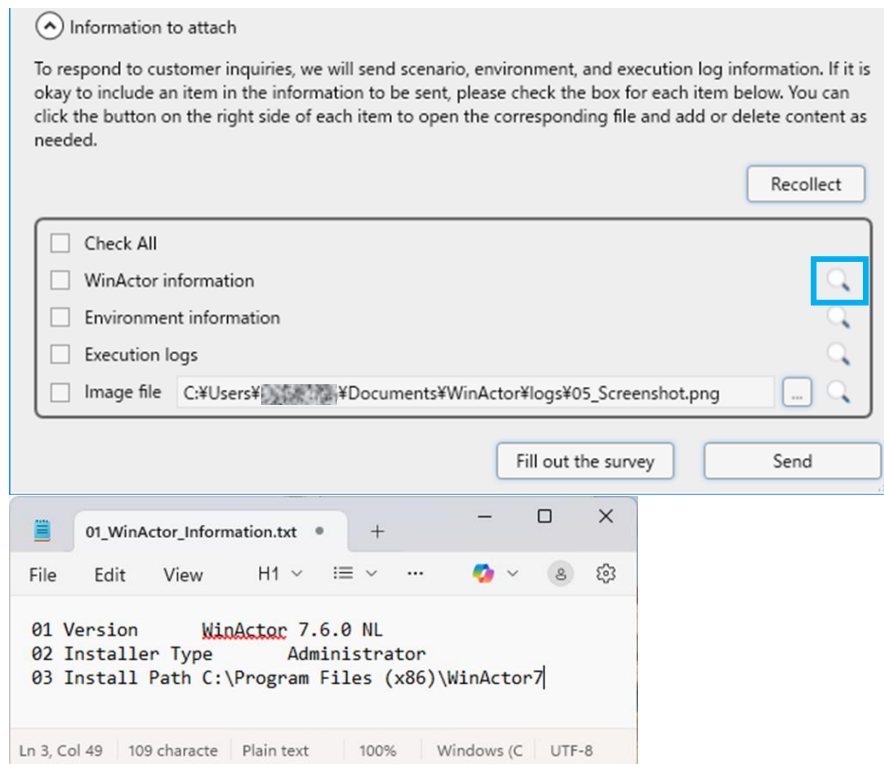
(5) ☐ Image file C:\Users\%USER%\Documents\WinActor\logs\05_Screenshot.png ...

Fill out the survey Send

The following table shows the description of the 'Information to attach.'

No.	Name	Description
(1)	Check All	All the following items are checked.
(2)	WinActor information	Version of WinActor, installation information, and so on.
(3)	Environment information	Versions of OS, browser, Microsoft Office, and so on.
(4)	Execution logs	Execution logs of the scenario runs.
(5)	Image file	Screen shot of the entire desktop. Any image file format (.bmp, .png, .jpg, .jpeg) can be selected by pressing "... " button at the right-hand side.

4. By clicking the  icon at the right end of each information, details of that information will be shown and their verification is possible.



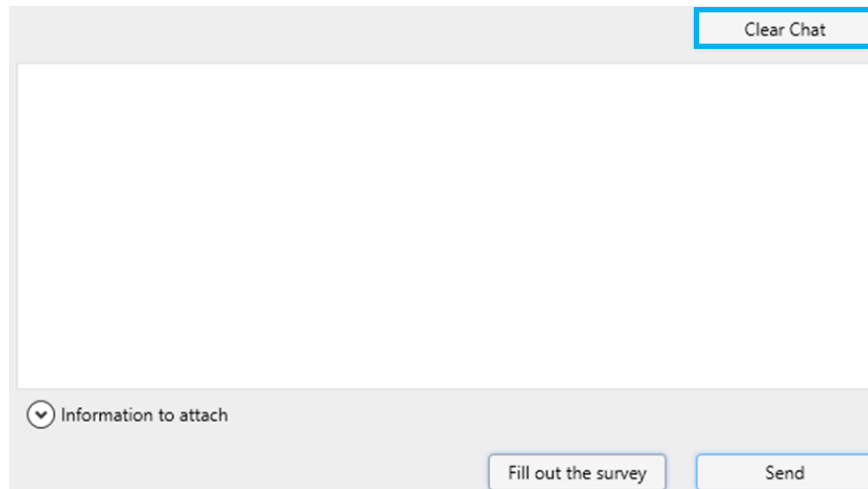
5. If any information needs to be recollected, click the 'Recollect' button.



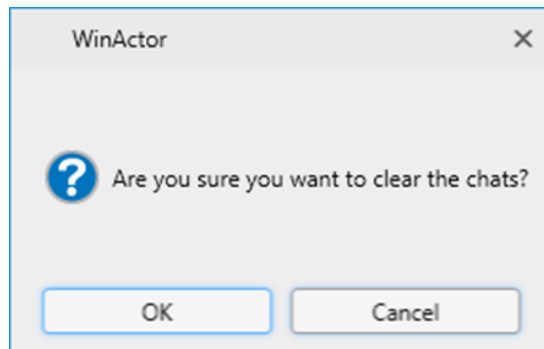
When logs and information for the previous inquiry are still remained, the dialog to confirm their deletion will be shown.

 For logs for inquiry, see "Collect logs for inquiry."

6. Click 'Clear Chat' button, in order to delete the chat history.



Confirmation dialog will be shown after the 'Clear Chat' button is clicked.



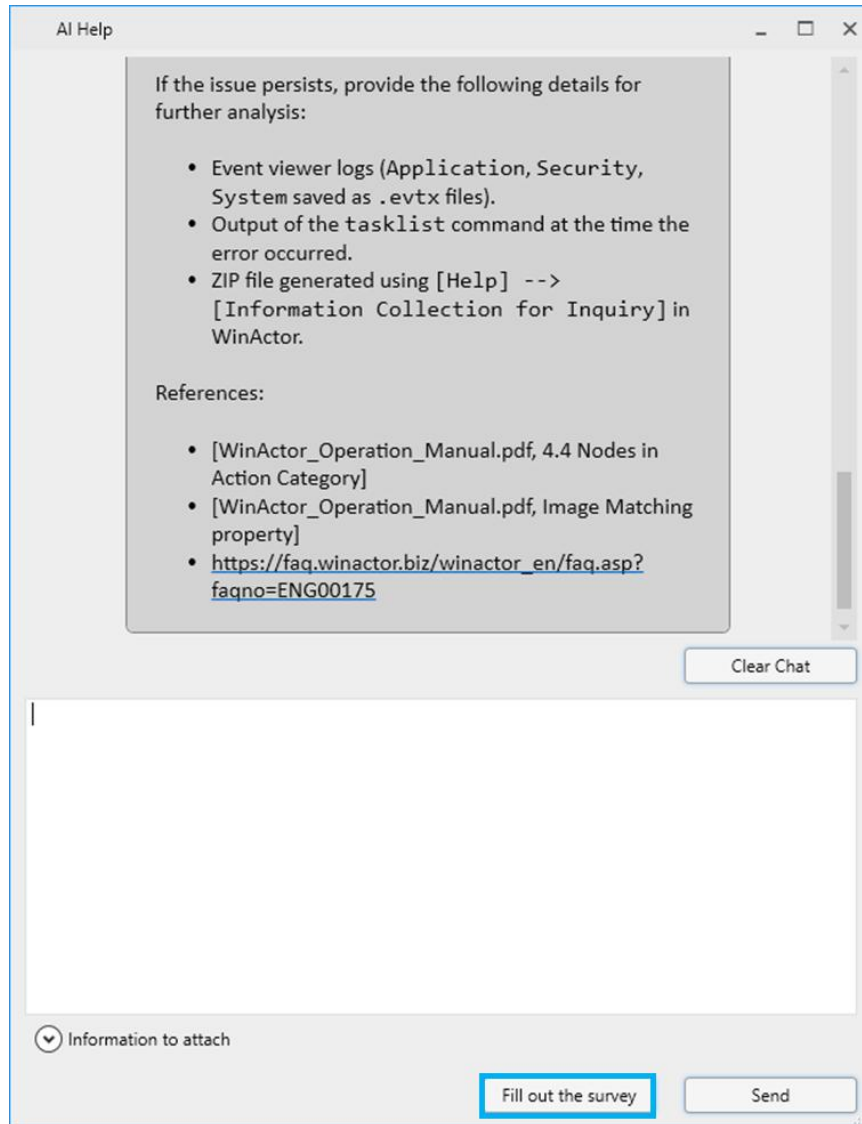
All the chat history is deleted by clicking the 'OK' button.

■ Survey on the AI Help

In order to improve the quality of AI Help, we appreciate your cooperation in filling out the questionnaire. The questionnaire is displayed by clicking the 'Fill out the Survey' button.

Steps

1. 'Collect logs for inquiry' window is displayed.



'AI Help Survey' window will be shown.

The 'AI Help Survey' window is titled 'AI Help Survey' and contains the following elements:

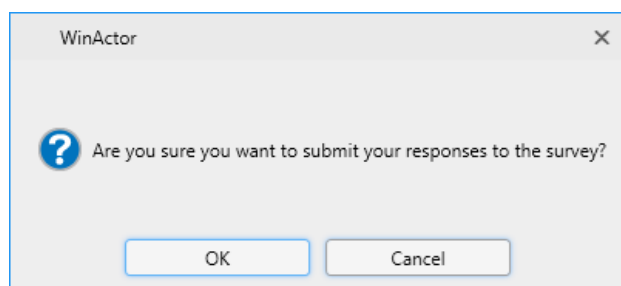
- Header:** A message stating: "To improve this service, we request your cooperation in completing the survey. By clicking the submit button, the information you enter, along with the most recent conversation history displayed on the right, will be transmitted to the servers managed by NTT ADVANCED TECHNOLOGY CORPORATION."
- Left Panel:**
 - Question: "Did the responses provided by the Generative AI prove to be helpful? (Required)"
 - Options: ☐ Everything was helpful., ☐ Generally helpful, ☐ Somewhat helpful, ☐ Useless, ☐ Completely useless
 - Text: "Please provide any reasons for the above, comments, etc. (optional)"
 - A large empty text area for comments.
- Right Panel:**
 - Header: "Error 'Failed in image analysis' appeared, when the Image Matching node runs." with a timestamp "2026-04-01 13:59:37.599+09:00".
 - Content: A message from a cartoon AI character stating: "The error 'Failed in Image Analysis' usually occurs due to a mismatch or issue in the Image Matching settings. To resolve this:"
 - Section: "1. Review the Reference Image and Search Range Settings:"
 - List:
 - Ensure the reference image is accurately captured and includes the target area precisely defined with the red frame.
 - Verify the search range (green frame) is set correctly so the matching is conducted within an appropriate region.

At the bottom, there are two buttons: "Return to the chat window" and "Send".

2. Reply to the questionnaire, and then, click 'Send' button.

This image shows the same 'AI Help Survey' window as above, but with the 'Send' button highlighted by a red rectangle. Additionally, the 'Everything was helpful.' radio button in the left panel is now selected.

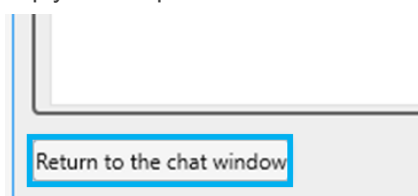
Confirmation dialog will be shown.



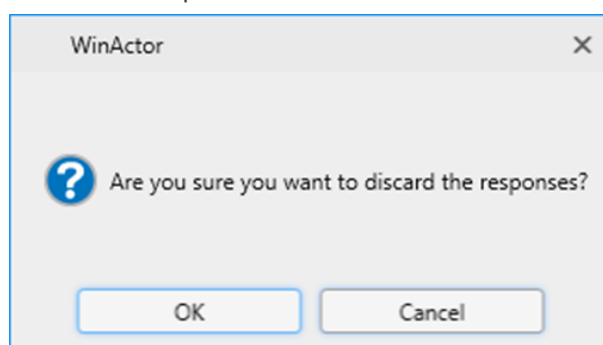
When you click the 'OK' button, the information entered on the chat screen with Generative AI, which is shown on the right of the questionnaire, will also be sent to the server managed by NTT ADVANCED TECHNOLOGY CORPORATION.



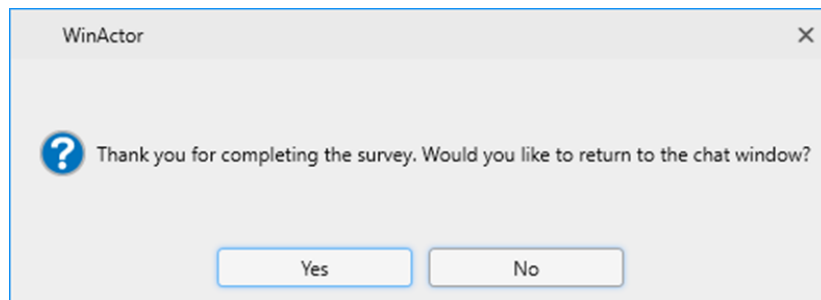
When the 'Return to the chat window' button is clicked, confirmation dialog to delete your reply to the questionnaire will be displayed.



When you click the 'OK' button, the reply to the questionnaire is deleted and you return to the 'AI Help' window.



- 3.** When the reply to the questionnaire is properly sent, the confirmation dialog to return to the chat window will be shown.



When 'Yes' button is clicked, you return to the "AI help" window.

When 'No' button is clicked, AI help will be terminated.

■ Collect logs for inquiry

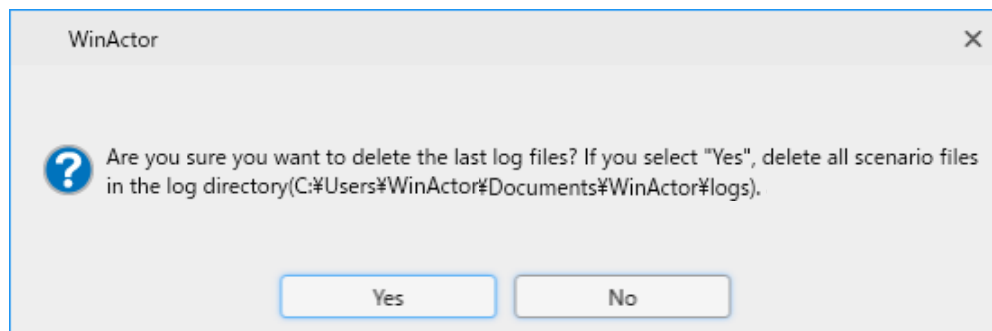
When asking WinActor agency about the behavior of WinActor, various WinActor logs and information may be needed to submit.

'Collect logs for inquiry' collects the logs and information, hereinafter 'Logs for inquiry,' at once, and can archive them into a .zip file and send them to the WinActor site.

Steps

1. Select the 'Collect logs for inquiry' in "Help" menu to collect logs and information that WinActor agency may need. The collected logs and information are stored in the folder for collected logs.

When the logs and information collected last time are left in the folder, the confirmation dialog is displayed to ask if the last logs and information may be removed.



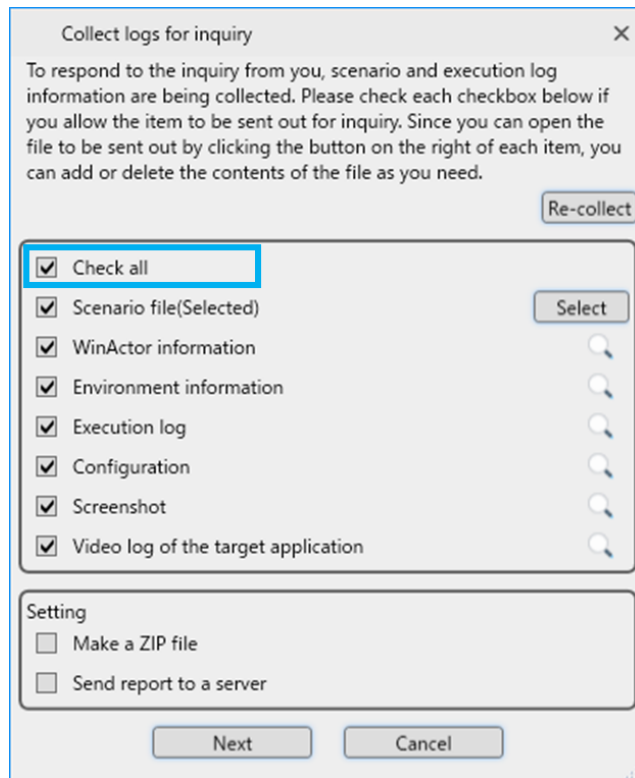
When 'Yes' is clicked, the last logs and information in the folder are removed, and the logs and information collected this time are stored in the folder.

When 'No' is clicked, the last logs and information in the folder remains intact, and the logs and information collected this time are not stored in the folder.

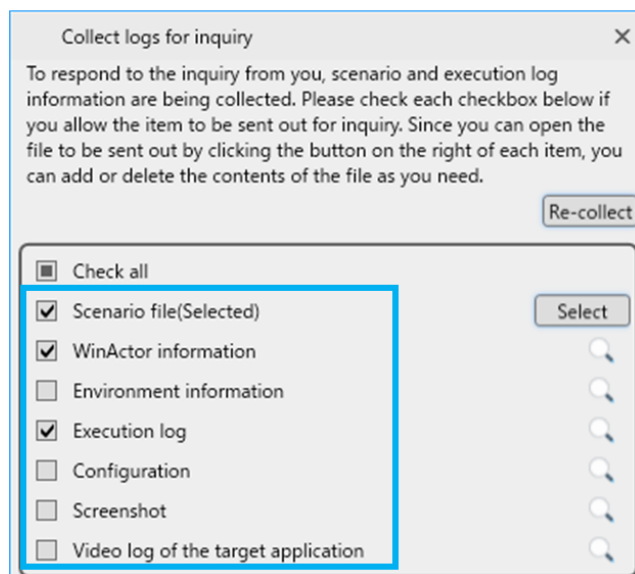
2. 'Collect logs for inquiry' window is displayed.

Select logs and information to be archived into a .zip file or sent to the WinActor site from the collected logs and information for inquiry.

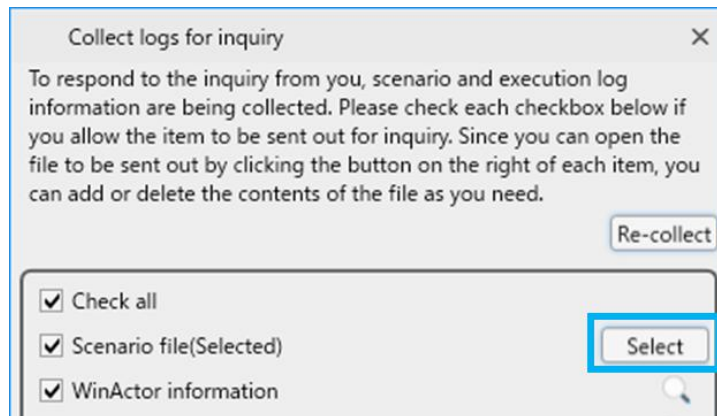
When the 'Check all' box is checked, all the collected logs and information for inquiry are subject to archive or send.



Otherwise, check the logs and information to archive or send separately.

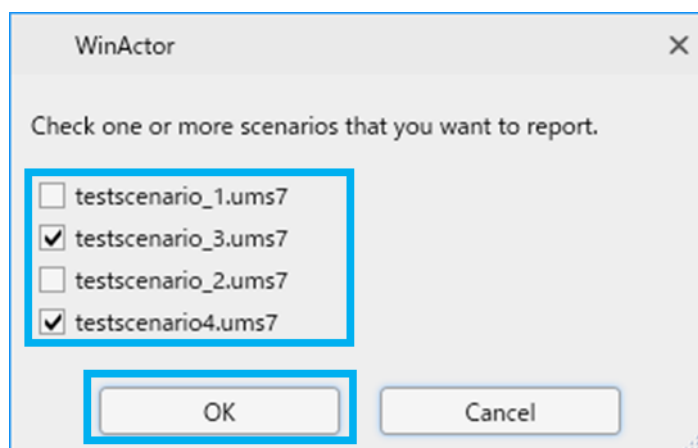


3. Click 'Select' button to include or exclude scenario files separately.



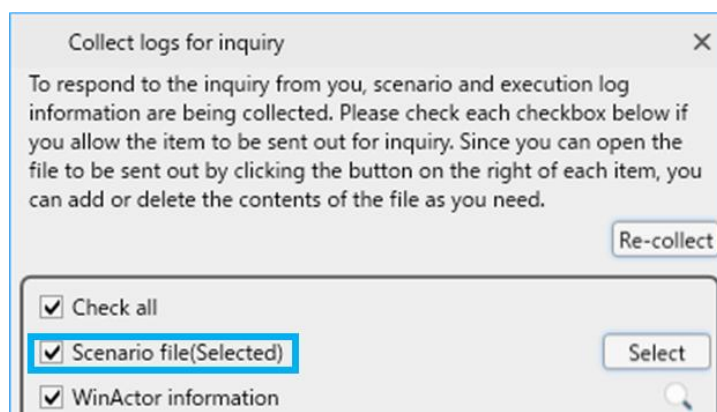
The scenario selection dialog is displayed.

Currently opened scenario files that have already been saved are listed up. Check the boxes of the files to archive or send.



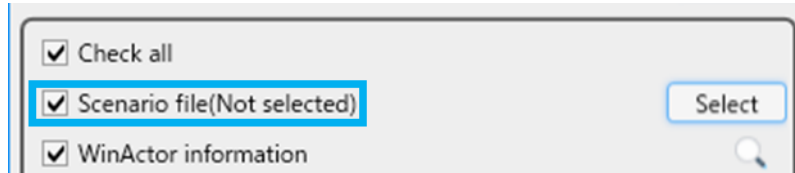
Click the 'OK' button, and return to the 'Collect logs for inquiry.'

Check the box 'Scenario file(Selected).'

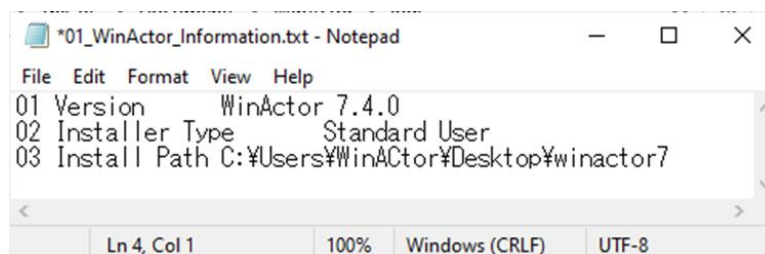
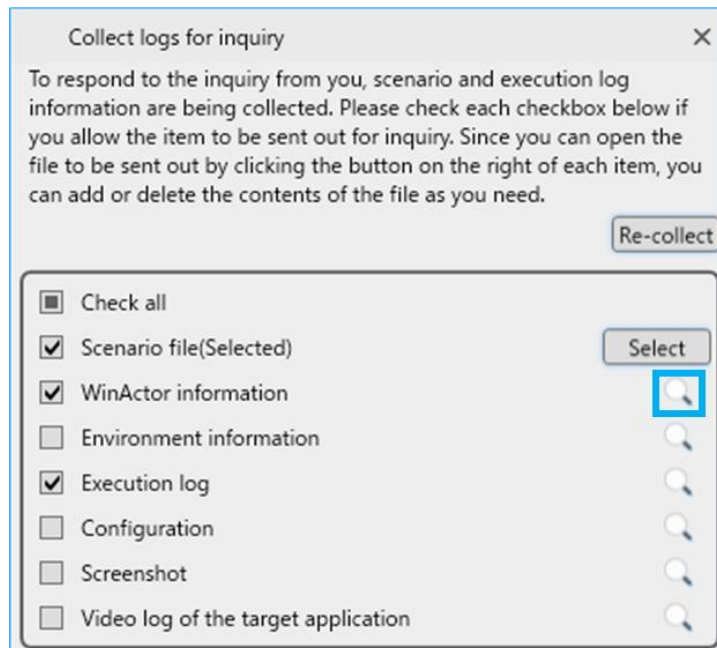




- If the 'Scenario file(Selected)' box is unchecked, the selected files in the scenario selection dialog will not be archived nor sent.
- When no file is selected in the scenario selection dialog, 'Scenario file (Not selected)' is displayed in 'Collect logs for inquiry' window.



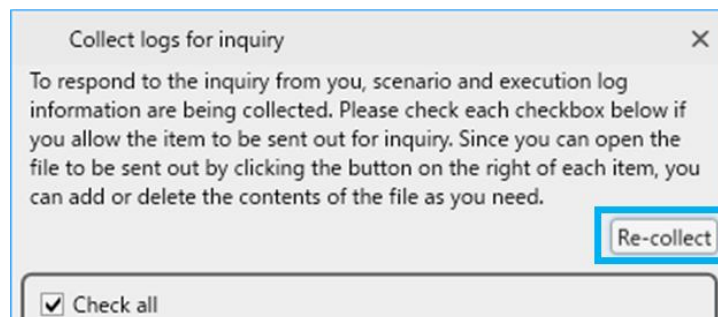
4. By clicking the  icon on the right side of each log or information, you can see and check the contents of the log or information.



Abstracts of the logs and information are described below.

No.	Name	Description
(1)	Scenario file	Scenario files that are currently opened by WinActor and have already been saved
(2)	WinActor information	Version and installation information of WinActor
(3)	Environment information	Version information of OS, web browsers, Microsoft Office, and etc.
(4)	Execution log	The execution log of the last run of the scenario
(5)	Configuration	License information and settings of WinActor
(6)	Screenshot	The screenshot of the desktop
(7)	Video log of the target application	Video log taken in the last scenario run

- 5.** When you need to recollect the logs and information, click the 'Re-collect' button.



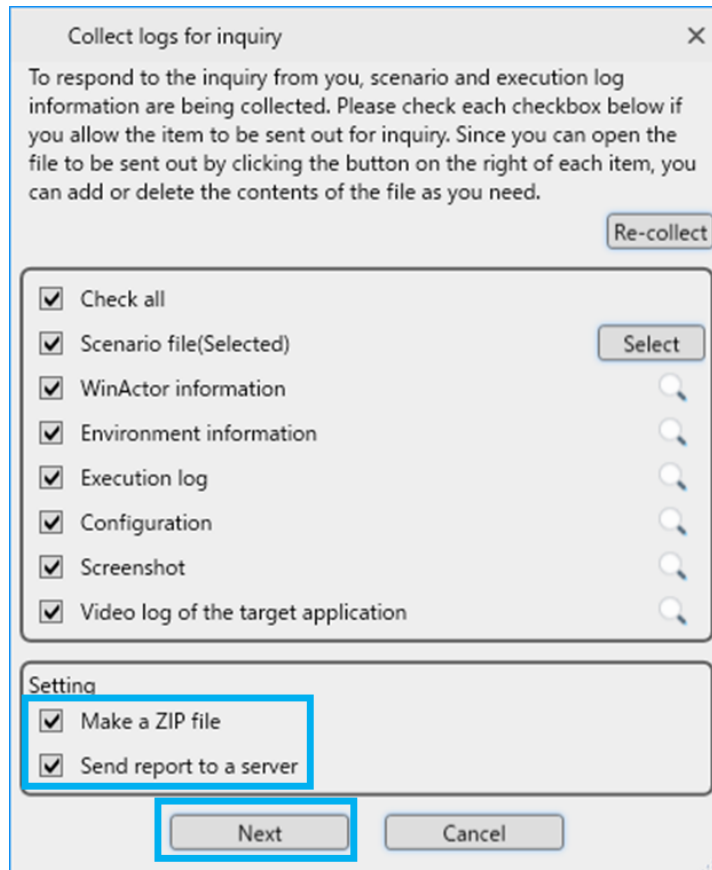
When the previous logs and information remains, the confirmation dialog is displayed as Step 1.

6. Check the boxes in 'Settings.'

To archive the collected logs and information into a .zip file, check the box 'Make a ZIP file.'

To send the collected logs and information to the WinActor site, check the box 'Send report to a server.'

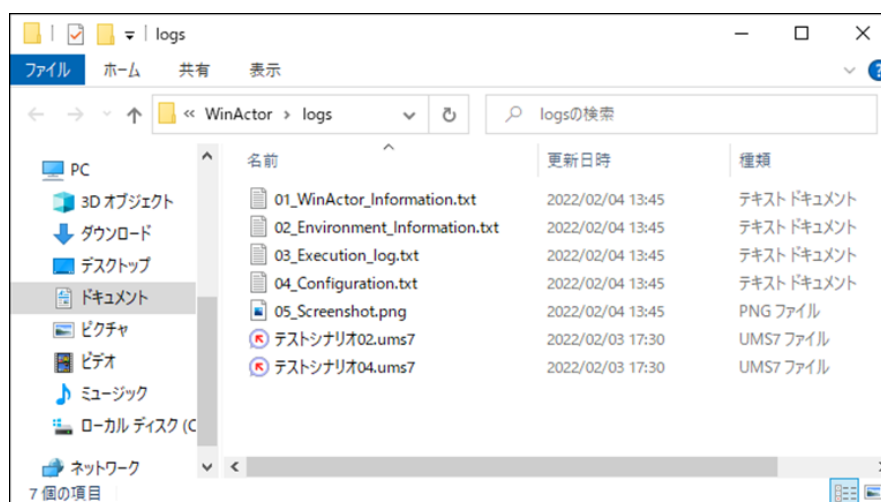
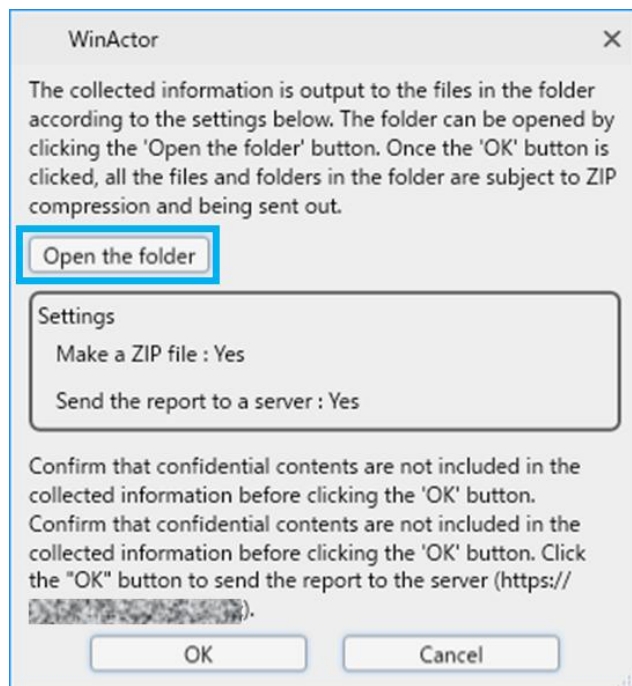
Then, click the 'Next' button.



- To send a report to the server, settings on the 'Proxy' tab in the 'Option' dialog is necessary under the network environment using a proxy server.
-  For the settings, see "Proxy server tab" in the "Option Dialog."
- The maximum size of the file to send to the server is 100MB.

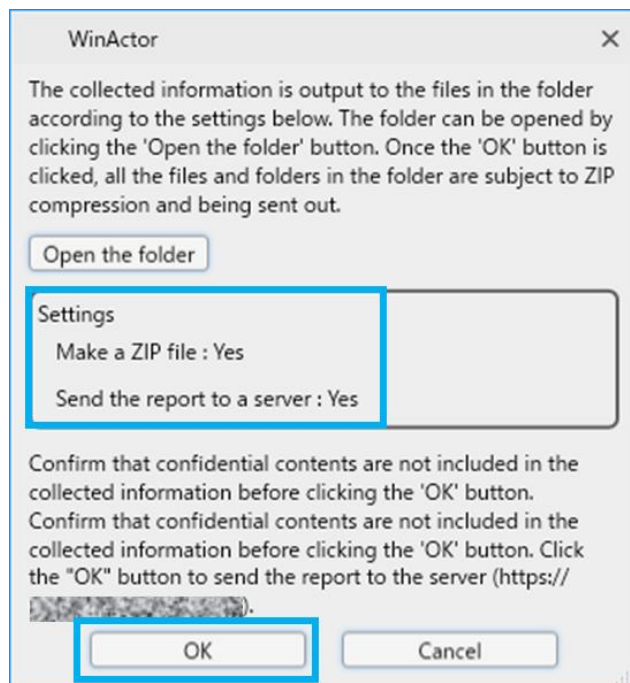
7. The output confirmation dialog is displayed.

Clicking the 'Open the folder' button, the folder of the collected logs and information is opened, and you can check the files.

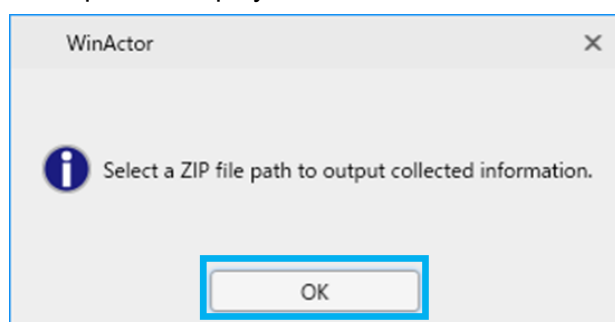


Check the settings in the 'Settings,' and click the 'OK' button.

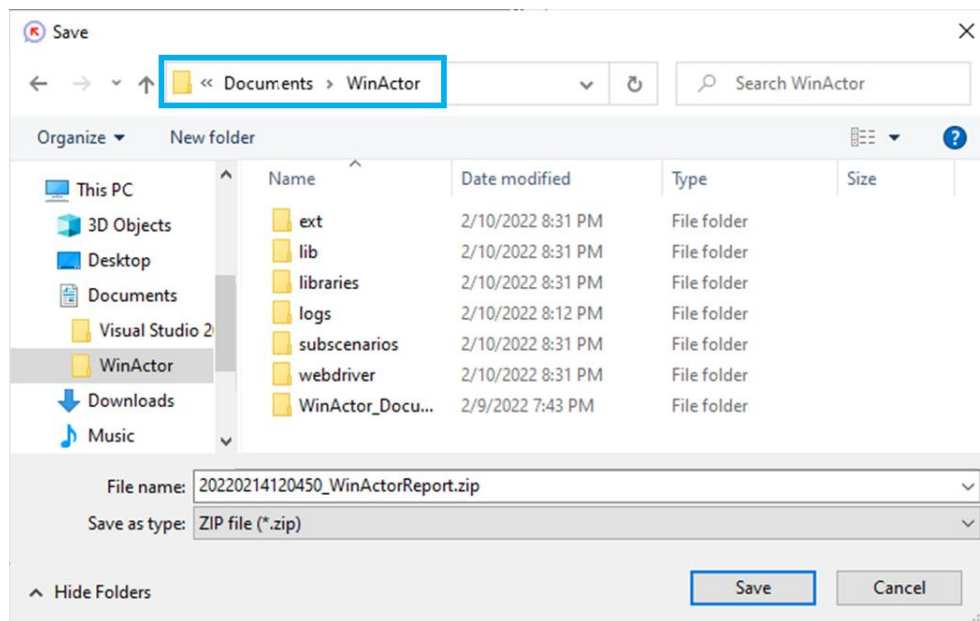
When the 'OK' button is clicked, the collected logs and information are archived into a .zip file or sent to the WinActor site in accordance with the selections in the 'Settings.'



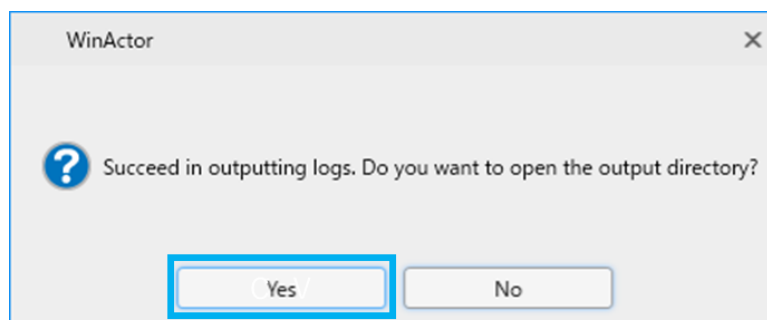
8. When the box 'Make a ZIP file' is checked, the dialog to prompt selecting a folder to store the .zip file is displayed.



Clicking the 'OK' button, the explorer is opened. Select the folder to store the .zip file on the explorer, and click the 'Save' button.

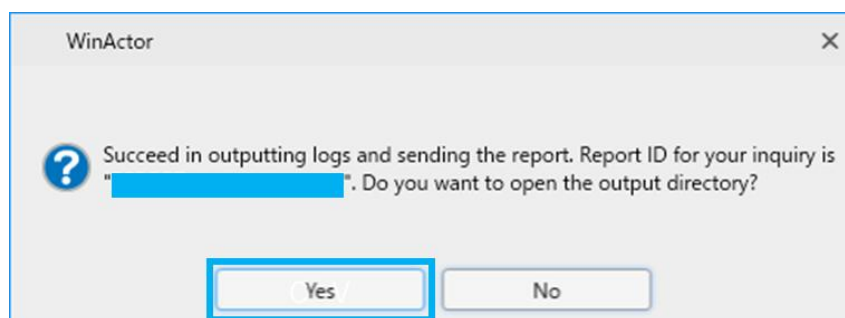


When the .zip file is successfully saved, the following confirmation dialog is displayed.



Click the 'Yes' button to open the folder of the collected logs and information.

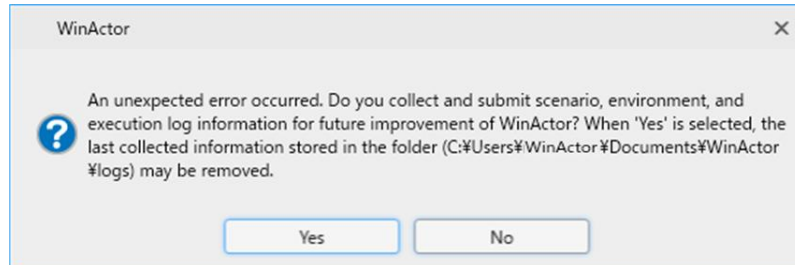
9. When the box 'Send report to a server' is checked, a report ID is displayed. WinActor staff will be able to access the logs and information you have reported by your notification of the report ID to the staff.



When the 'Yes' button is clicked, the folder of the collected logs and information is opened.



If an unexpected error occurs while operating WinActor, the confirmation dialog of collecting logs and information is displayed.



When the 'Yes' button is clicked, the collection of logs and information proceeds as the 'Collect logs for inquiry,' and the last collected logs and information are removed.

When the 'No' button is clicked, the logs and information are not collected.

■ Report history

The 'Report history' is a menu item to display the history of reports sent to the WinActor site via the 'Collect logs for inquiry.'

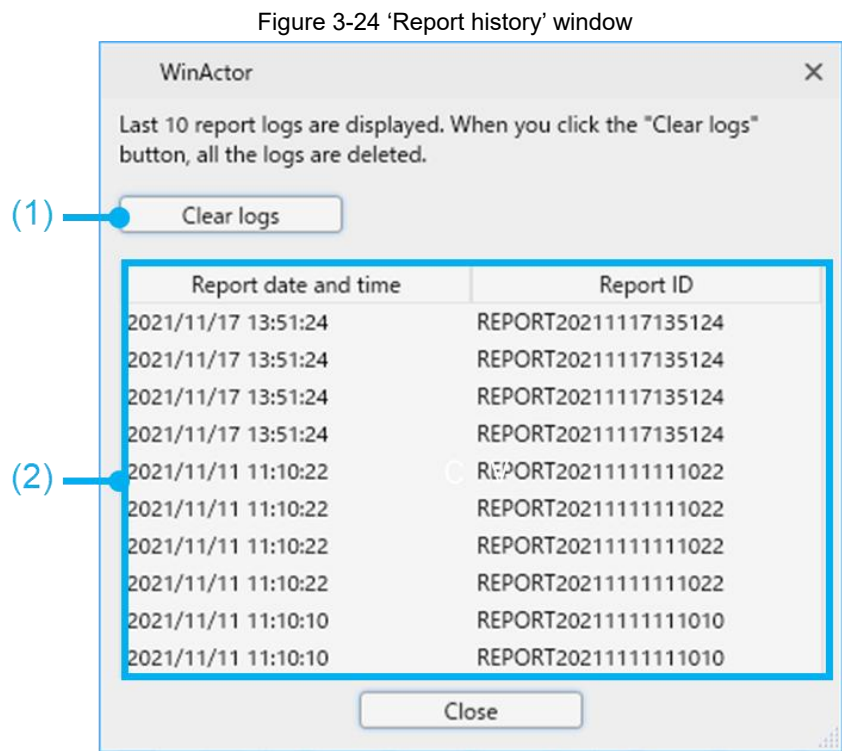


Table 3-17 'Report history' window

No.	Item	Description
(1)	Clear logs	Clears the history of the reports. When this button is clicked, the confirmation dialog of clearing the history is displayed.
(2)	Report history information	Shows the history of the last 10 reports. This contents can be copied into the clipboard by selecting the contents and pressing the 'Ctrl' + 'C' keys.

■ Check for updates

The 'Check for updates' is an online update function to check for updates of WinActor, WebDriver, User library, Subscenario, and CloudLibrary.



When using proxy server, you need to adjust settings in 'Proxy server' tab in the 'Option' dialog.



For the settings, see "Proxy server tab" in the "Option Dialog."

Whether to check for updates, and to apply updates manually or automatically can be set on 'Update' tab in the 'Option' dialog for each of WinActor, WebDriver, User library, Subscenario, and CloudLibrary.



For the settings, see "Update tab" in the "Option Dialog."

The result of 'Check for updates' is showed by the bell-shaped icon at the right end of the status bar.

Figure 3-25 The result of 'Check for updates'

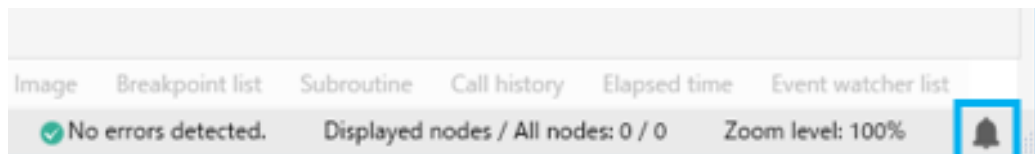


Table 3-18 The result of 'Check for updates'

No.	Icon	Description
(1)		Update information is currently being downloaded or checked. This icon does not accept a click.
(2)		No update exists, or updates have been applied. When this icon is clicked, the update dialog showing the message "No notification" is displayed.
(3)		Updates exist. They are manually applicable. When this icon is clicked, the update dialog showing the list of updates is displayed.

The update dialog shows the list of updates. When each icon is clicked, the manual application of the update begins.

Figure 3-26 Update dialog

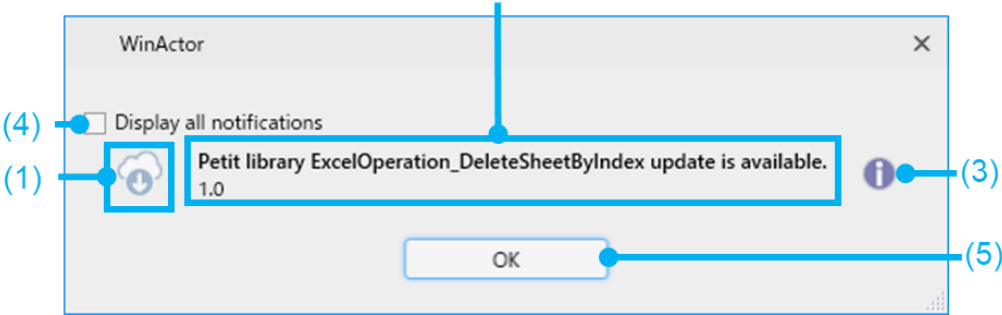


Table 3-19 Update dialog

No.	Item	Description
(1)	Icon	Shows the status of the update. The status can be changed by clicking this icon. See the table below.
(2)	Update information	Shows update information.
(3)	Details of the information	This button is displayed only when the description of the update information exists on the winactor.biz web site. When this button is clicked, a web browser is launched and shows the description page.
(4)	Display all notifications	When this box is checked, update notifications for all the language environments are displayed. When this box is unchecked, just the update notifications for the current language environment are displayed. Update notifications of WinActor and WebDrivers are always displayed regardless of whether this box is checked or unchecked.
(5)	'OK' button	Closes the update dialog.

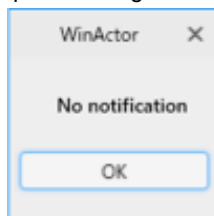
Table 3-20 Icons in the update dialog

No.	Icon	Description
(1)		An update exists. When clicked, the update of the application begins. When the update is of the WebDriver of the Microsoft Edge, a confirmation dialog is displayed. See the complementary information described at the end of this subsection.
(2)		The update has been completed.
(3)		The update is being applied. When clicked, the update will be canceled.
(4)		The update is currently being canceled.

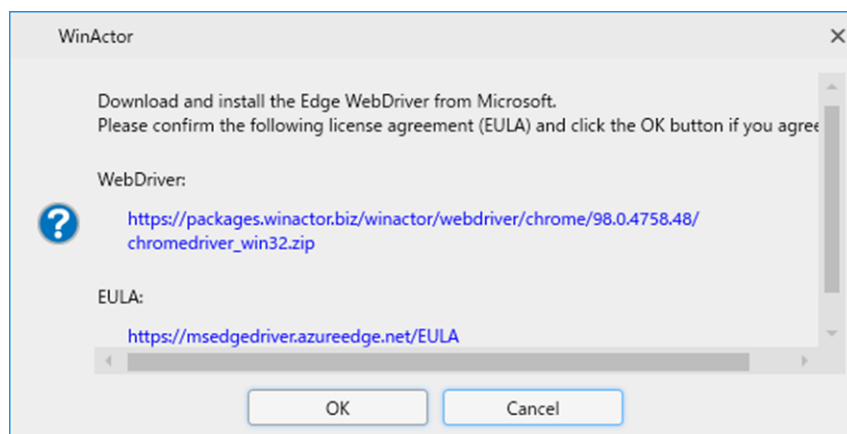
No.	Icon	Description
(5)		The update has been canceled or failed. Click this icon to return to (1).
(6)		Waiting for WinActor to quit and begin the application of the update.

When no update exists, the update dialog showing the message "No notification" is displayed.

Figure 3-27 Update dialog showing no update



When an update of the WebDriver of the Microsoft Edge begins, the following confirmation dialog is displayed. Read the license agreement (EULA) carefully, and click the 'OK' button if you agree with its terms and conditions.



3.3 Toolbar

The toolbar contains icons related to the operations of running, editing, and recording a scenario.

This section describes the functions of the toolbar icons in order from the left.

Figure 3-28 Toolbar

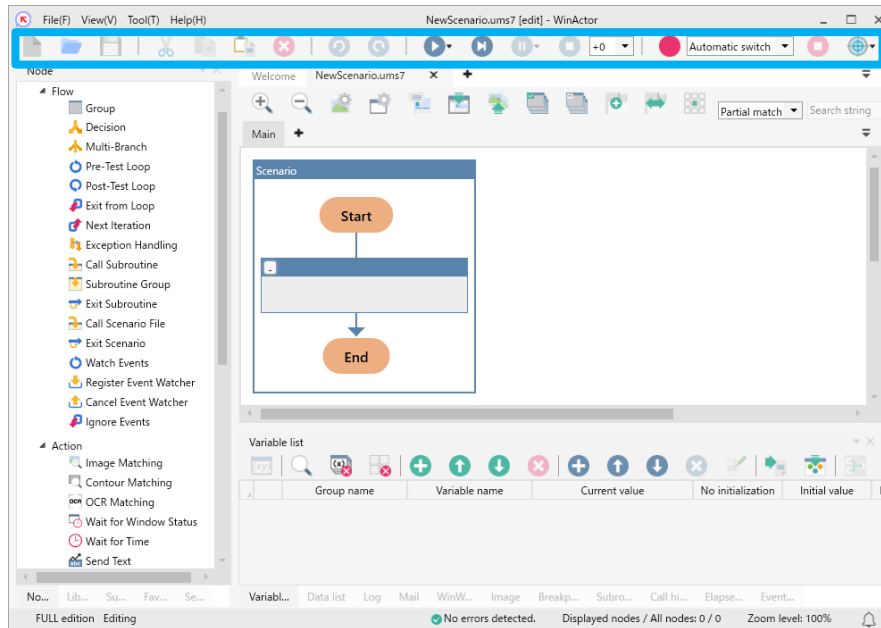
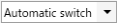


Table 3-21 Toolbar

Icon	Name	Function
	Create new scenario	Adds a tab for creating a new scenario in the scenario edit area. ➤➤ See "New scenario."
	Open scenario file	Displays a scenario by selecting a saved scenario file. ➤➤ See "Open."
	Save scenario file	Saves a scenario currently selected in the scenario edit area. ➤➤ See "Save."
	Cut	Cuts elements selected in the flowchart area. ➤➤ See "Cut."
	Copy	Copies elements selected in the flowchart area. ➤➤ See "Copy."

Icon	Name	Function
	Paste	Pastes elements copied or cut in the flowchart area into the flowchart area.  See "Paste."
	Delete	Deletes elements selected in the flowchart area.  See "Delete."
	Undo	Restores the operation to the previous state. Saves a history of up to 40 operations. If 'New' or 'Save' is selected, the history will be cleared.  See "Undo."
	Redo	Redoes the operation that was restored by 'Undo.'  See "Redo."
	Run scenario	Starts running a scenario.  See "3.3.2 Run scenario by using icons."
	Run one step	Runs a scenario one step.  See "3.3.3 Run one step."
	Pause	Pauses a running scenario.  See "3.3.2 Run scenario by using icons."
	Stop scenario	Stops a running scenario.  See "3.3.2 Run scenario by using icons."
	Speed adjustment	You can adjust the running speed of a scenario. At '+0,' the scenario will be run with no waiting time. From '+1' to '+10,' the scenario will be run by waiting before each node is run. The waiting time increases by 0.1 seconds each time the number increases by 1.  See "3.3.2 Run scenario by using icons."
	Start recording	Starts recording a scenario.  See "3.3.4 Edit / Record."
	Recording mode	You can select a recording mode from items in the list. There are eight recording modes in the list: 'Event,' 'Emulation,' 'IE,' 'Chrome,' 'Firefox,' 'Edge,' 'UI Automation,' and 'Automatic switch.'  See "1.9.2 Types of recording modes."  See "3.3.4 Edit / Record."
	Stop recording	Stops recording a scenario.  See "3.3.4 Edit / Record."

Icon	Name	Function
	Select window for recording	The mouse cursor is changed to the target shape, and you can select an application window for recording user operations. By clicking '▼' on the right side, the application window for recording can be selected from the displayed list.  See "3.3.4 Edit / Record."

3.3.1 Edit scenario by using icons

FULL

This section describes the icons for operating nodes in the scenario edit area.

■ Cut

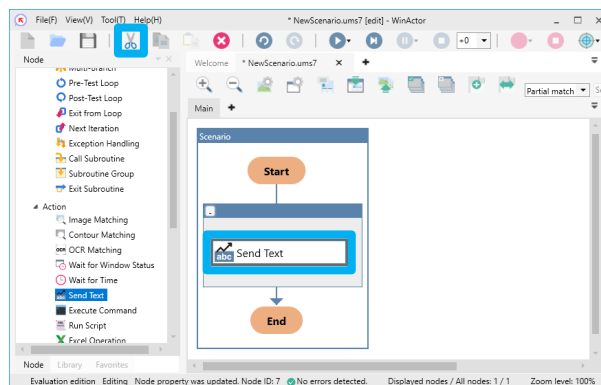
The 'Cut' icon is used to cut nodes selected in the flowchart area and keep them in a temporary storage. The cut nodes can be pasted to another location by using the 'Paste' function.



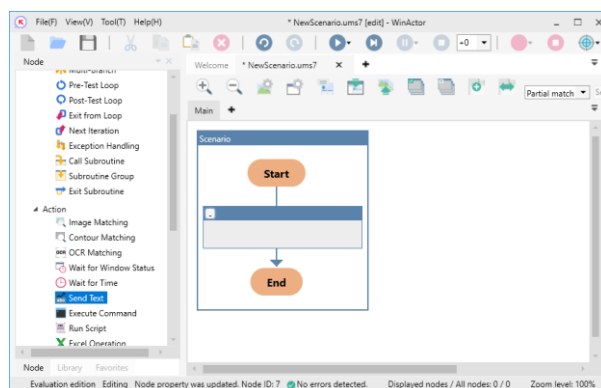
'Subroutine' cannot be cut when it is referred.

Steps

1. Select a node you want to cut in the flowchart area and click the 'Cut' icon on the toolbar.



The cut node disappears from the flowchart area and is kept in a temporary storage.



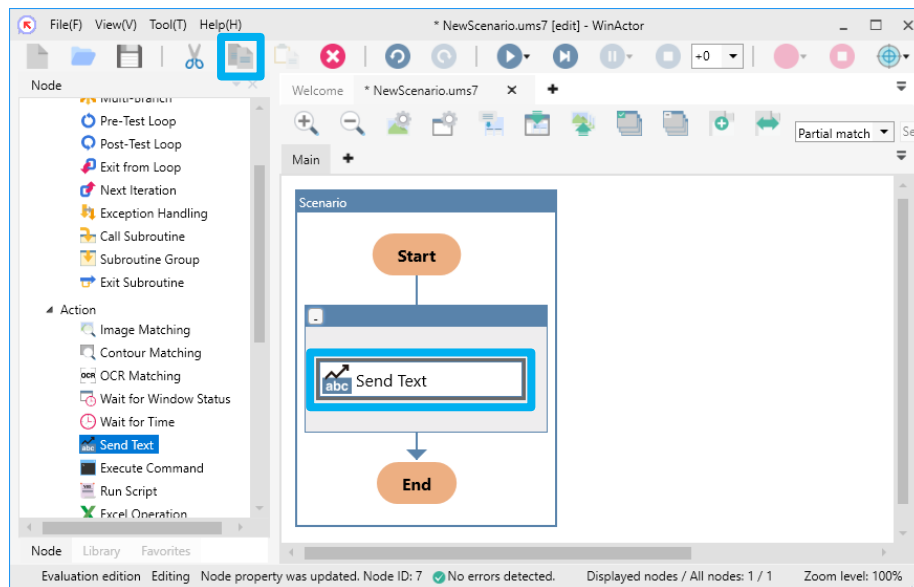
You can also cut nodes by pressing the 'Ctrl' + 'X' keys or by right-clicking it and selecting 'Cut' from the displayed menu.

■ Copy

The 'Copy' icon is used to copy nodes selected in the flowchart area and keep them in a temporary storage. The copied nodes can be pasted to another location by using the 'Paste' function.

Steps

1. Select a node you want to copy in the flowchart area and click the 'Copy' icon on the toolbar.



The copied node will be kept in a temporary storage.



You can also copy nodes by pressing the 'Ctrl' + 'C' keys or by right-clicking it and selecting 'Copy' from the displayed menu.

■ Paste

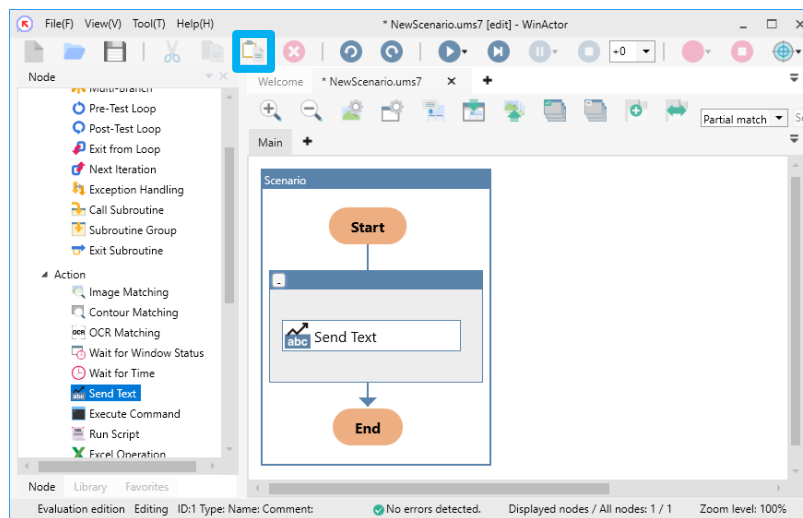
The 'Paste' icon is used to paste nodes kept in a temporary storage by 'Cut' or 'Copy' into an empty area of the flowchart area.



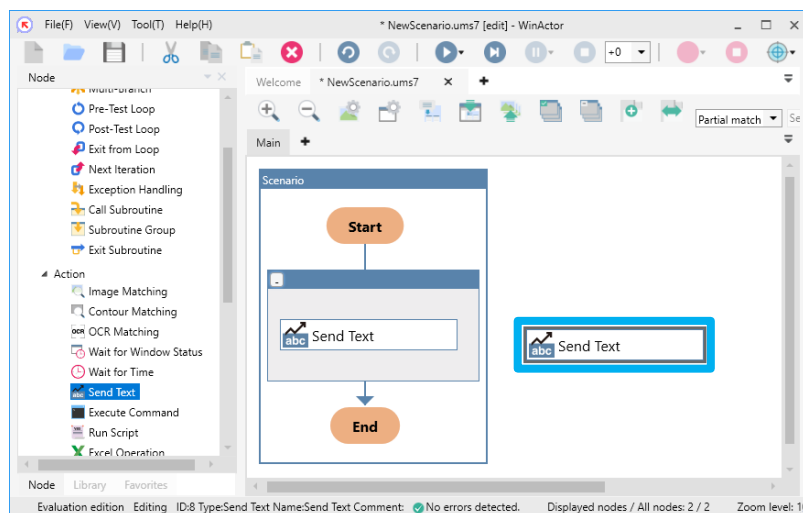
If the name of 'Subroutine' is duplicated when pasted, the name of the pasted subroutine will be changed automatically.

Steps

1. Click the 'Paste' icon on the toolbar.



The node is pasted in an empty area of the flowchart area.



You can also paste nodes by pressing the 'Ctrl' + 'V' keys or by right-clicking it and selecting 'Paste' from the displayed menu.

■ Delete

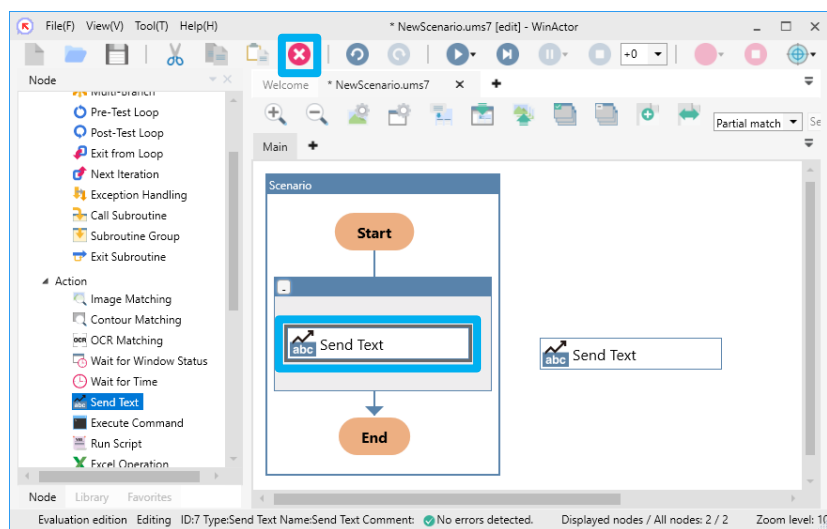
The 'Delete' icon is used to delete nodes selected in the flowchart area.



- 'Subroutine' cannot be deleted when it is referred.
- Unlike the 'Cut' icon, the deleted nodes will not be kept in a temporary storage.

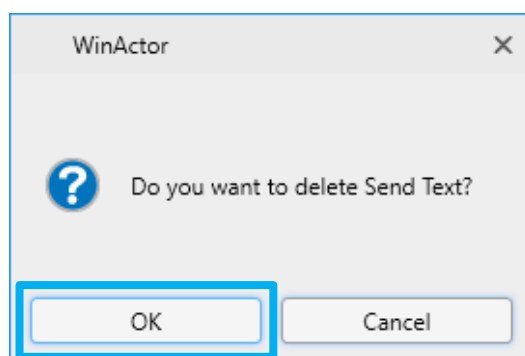
Steps

1. Select a node you want to delete in the flowchart area and click the 'Delete' icon on the toolbar.

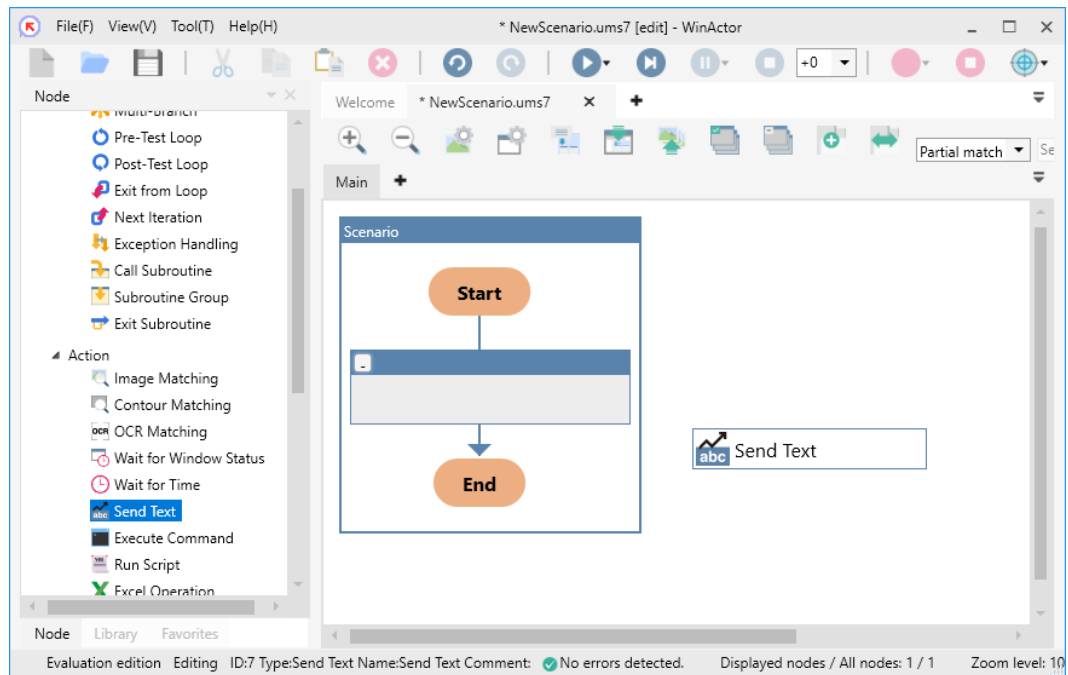


The confirmation dialog to delete nodes appears.

2. Click the 'OK' button.



The selected node is deleted and disappears from the flowchart area.



- You can also delete nodes by pressing the 'Delete' key or by right-clicking it and selecting 'Delete' from the displayed menu.
- Multiple nodes can also be selected and deleted.
- Checking the 'Omit confirmation dialog box when deleting selected items' box on the 'Edit' tab in the 'Option' dialog, selected items can be deleted without displaying the confirmation dialog.



For the settings, see "Edit tab" in the "Option Dialog."

■ Undo

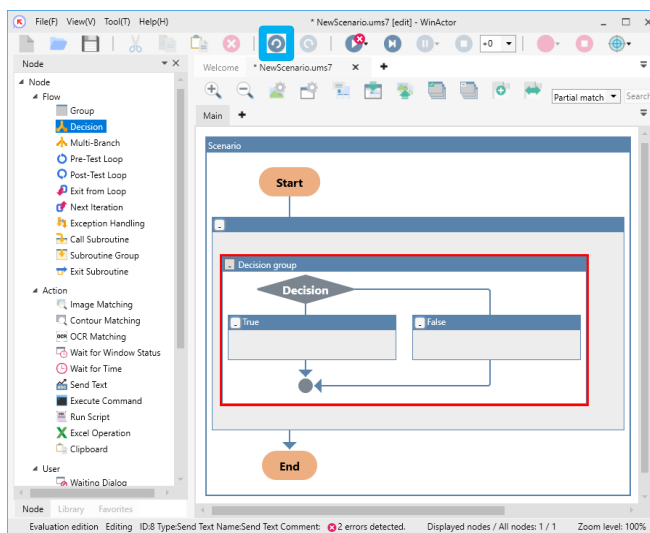
The 'Undo' icon is used to undo the last edit operation and return to the state before the last edit operation if a scenario is accidentally edited.

Up to 39 operations can be undone. However, the operation history will be deleted when a scenario is newly created or saved.

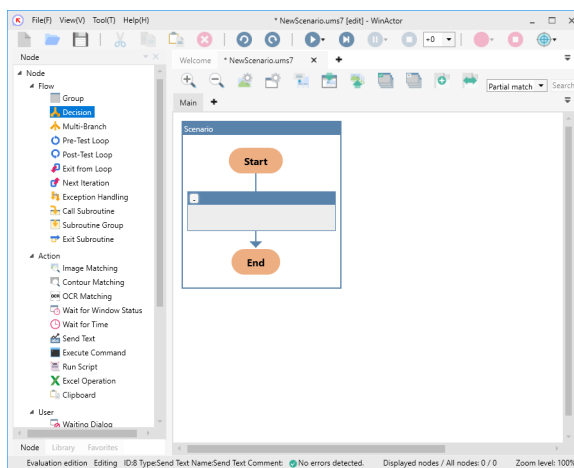
The following shows the procedure for performing the 'Undo' operation from the state immediately after adding the 'Decision' node.

Steps

1. Click the 'Undo' icon on the toolbar.



It returns to the state immediately before the last operation.



You can also undo the operation by pressing the 'Ctrl' + 'Z' keys.

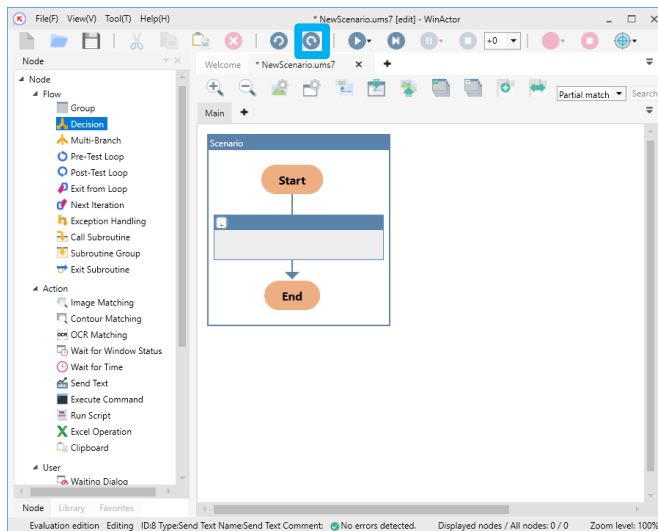
■ Redo

The 'Redo' icon is used to cancel the operation of the 'Undo' icon.

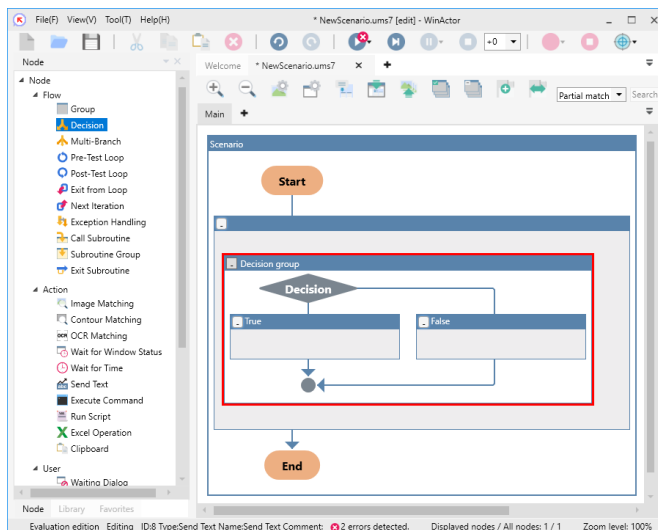
The following shows the procedure for performing the 'Redo' operation from the state after undoing the operation to add the 'Decision' node.

Steps

1. Click the 'Redo' icon on the toolbar.



The undone operation is canceled.



You can also redo the operation by pressing the 'Ctrl' + 'Y' keys.

3.3.2 Run scenario by using icons

Use the icons on the toolbar to run a scenario. The operations that can be performed vary depending on whether the scenario is in the state of waiting for running, running state, or paused state.

Figure 3-29 Icons for running a scenario



 The scenario can also be started with the shortcut key 'F5.'

■ State of waiting for running

When a scenario is waiting for running, use the icons on the toolbar to adjust the running speed and to start running the scenario.

Figure 3-30 Toolbar when a scenario is waiting for running

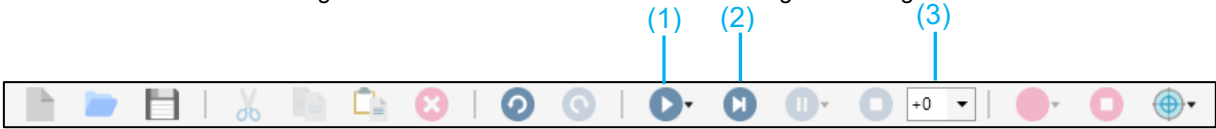


Table 3-22 Toolbar when a scenario is waiting for running

No.	Icon	Function
(1)	Run scenario	Starts running a scenario.
(2)	Run one step	Runs a scenario one step.
(3)	Speed adjustment	You can adjust the running speed of a scenario. At '+0,' the scenario will be run with no waiting time. From '+1' to '+10,' the scenario will be run by waiting before each node is run. The waiting time increases by 0.1 seconds each time the number increases by 1.

 If the license type of edition is the RUN edition, the 'Run one step' icon will not be selectable.

■ Running state

When a scenario is running, use the icons on the toolbar to stop or pause the scenario.

Figure 3-31 Toolbar when a scenario is running

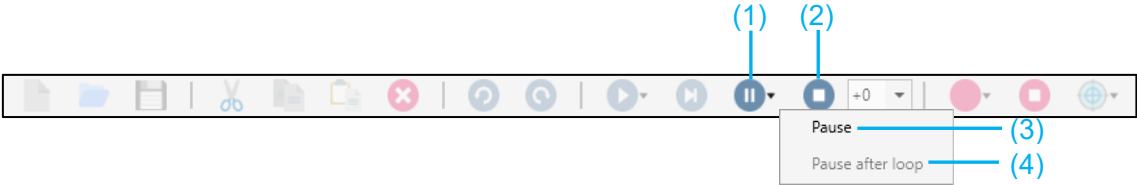


Table 3-23 Toolbar when a scenario is running

No.	Icon and menu	Function
(1)	'Pause' icon	Pauses a running scenario. Click '▼' on the right to display (3)'Pause' and (4)'Pause after loop.'
(2)	'Stop scenario' icon	Stops a running scenario.
(3)	'Pause' menu	Pauses a running scenario.
(4)	'Pause after loop' menu	It is used during a loop. Pauses when the scenario for one record of data ends.  For details of the loop, see "5.4.8 Run loop."

 When a scenario is running, the palette area on the left side of the WinActor window will be hidden and the flowchart area will be displayed widely.

■ Paused state

When a running scenario is paused, use the icons on the toolbar to stop or resume the scenario.

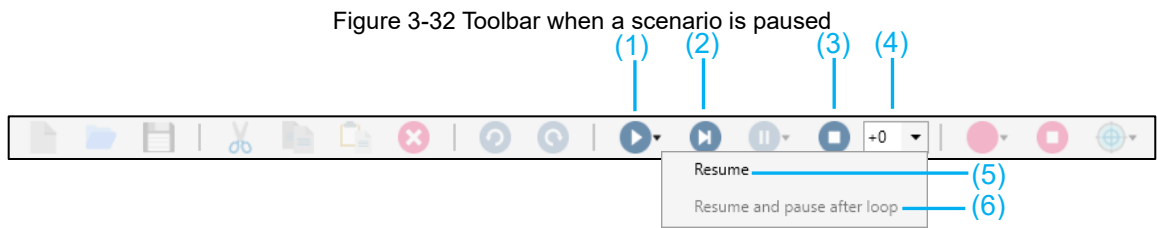


Table 3-24 Toolbar when a scenario is paused

No.	Icon and menu	Function
(1)	'Run scenario' icon	Resumes running a scenario. Click '▼' on the right to display (5)'Resume' and (6)'Resume and pause after loop.'
(2)	'Run one step' icon	Runs a scenario one step.
(3)	'Stop scenario' icon	Stops a running scenario.
(4)	Speed adjustment	You can adjust the running speed of a scenario. At '+0,' the scenario will be run with no waiting time. From '+1' to '+10,' the scenario will be run by waiting before each node is run. The waiting time increases by 0.1 seconds each time the number increases by 1.
(5)	'Resume' menu	Resumes running a scenario.
(6)	'Resume and pause after loop' menu	It is used during a loop. Pauses when the scenario for one record of data ends.  For details of the loop, see "5.4.8 Run loop."

 When a running scenario is paused, the palette area on the left side of the WinActor window will be hidden and the flowchart area will be displayed widely.

 If the license type of edition is the RUN edition, the 'Run one step' icon will not be selectable.

3.3.3 Run one step

FULL

'Run one step' is the operation to run nodes in a scenario one by one.

'Run one step' is available when the scenario is in the paused state or the state of waiting for running.

This section describes the procedure for 'Run one step' while the scenario is in the state of waiting for running.

Steps

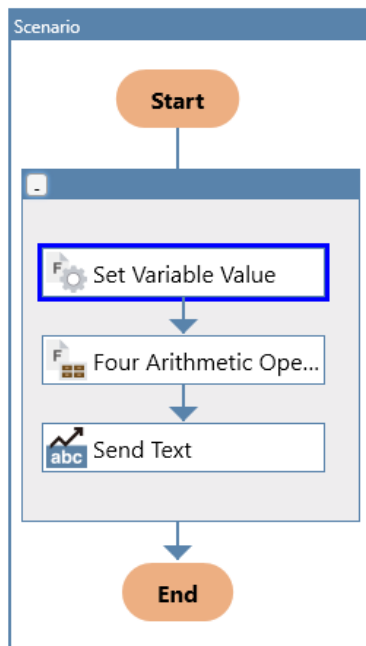
1. Click the 'Run one step' icon on the toolbar.



The scenario starts running.

It is paused right before the first node is run.

The first node to be run next is highlighted with a blue frame.



- 'Run one step' can also be run with the shortcut key 'F7.'
- The shortcut key for 'Run one step' can be set on the 'Run' tab in the 'Option' dialog.



See "Run tab."

2. Click the 'Run one step' icon on the toolbar again.

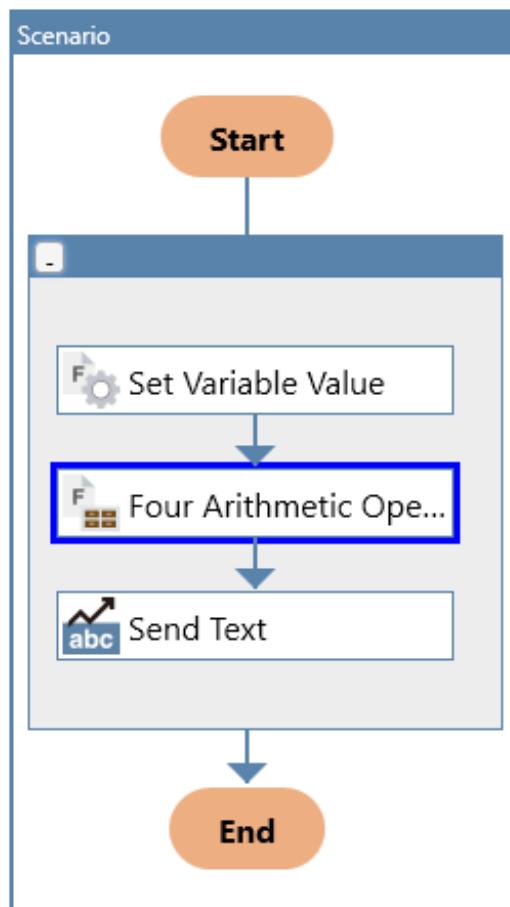


The paused scenario resumes running.

The first node is run.

The scenario is paused when the first node finishes running.

The second node to be run next is highlighted with a blue frame.



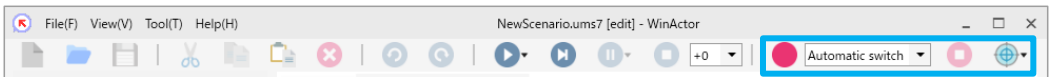
- When running one step for nodes in a closed group, the group will be opened automatically. The same applies to a closed subroutine group.
- Libraries that cannot be opened will not be opened.

3.3.4 Edit / Record

FULL

The operations for recording terminal operations as a scenario can be performed from the toolbar.

Figure 3-33 Toolbar icons for recording operations



■ State of waiting for recording

Figure 3-34 Toolbar in the state of waiting for recording

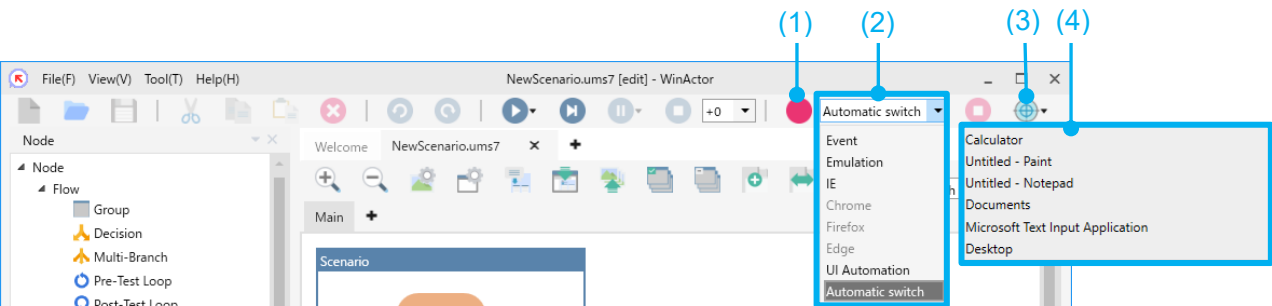


Table 3-25 Toolbar in the state of waiting for recording

No.	Icon and menu	Function
(1)	'Start recording' icon	Starts recording a scenario. This icon is available even before selecting an application for recording. When an application for recording is not selected, the recording mode is 'Automatic switch,' and you can begin recording with selecting an application for recording.
(2)	Recording mode	Select a recording mode from the dropdown list in this window. There are eight recording modes: 'Event,' 'Emulation,' 'IE,' 'Chrome,' 'Firefox,' 'Edge,' 'UI Automation,' and 'Automatic switch.' >> For recording modes, see "1.9.2 Types of recording modes." Depending on the type of application for recording, some recording modes may not be selectable, and are shown in gray letters.
(3)	'Select window for recording' icon	Clicking the icon, the mouse cursor is changed to the target shape, and you can select an application window for recording by clicking.
(4)	Dropdown list of applications for recording	Click '▼' on the right side of the 'Select window for recording' icon to select an application window for recording from the dropdown list.

>> For procedures for recording operations, see "1.9 Operation Recording."



After clicking the 'Start recording' icon, do not operate the recording target until it is in the recording state.

■ Recording state (Normal display)

Figure 3-35 Toolbar during recording

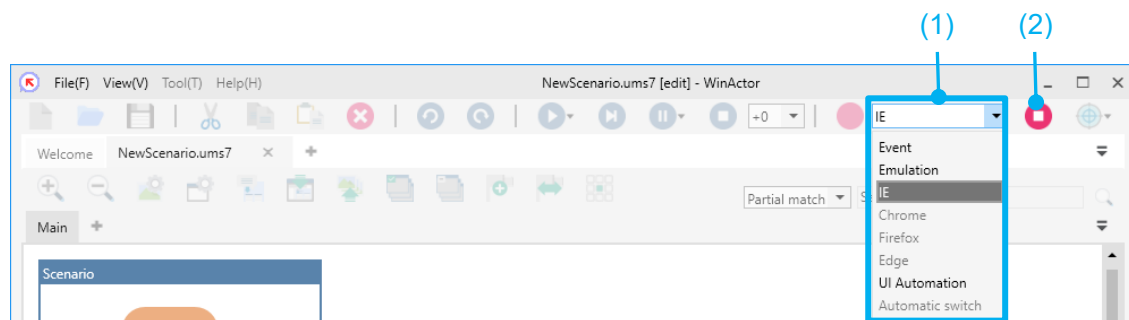
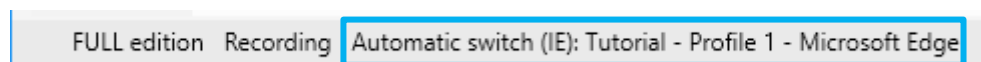


Table 3-26 Toolbar during recording

No.	Icon	Function
(1)	Recording mode	The selected recording mode is displayed here. Recording with 'Automatic switch' mode, the recording mode is selected automatically in accordance with the current target application, and displayed. You can also change the recording mode manually from the dropdown list. The recording mode and the target application name are displayed on the status bar.
(2)	'Stop recording' icon	Stops recording a scenario.

Figure 3-36 Status bar during recording



■ Recording state (Simplified display)

When 'Simplify WinActor window when recording.' on 'Record' tab in the 'Option' dialog is set ON, WinActor window is simplified while recording operations.

Figure 3-37 WinActor during recording (Simplified display)

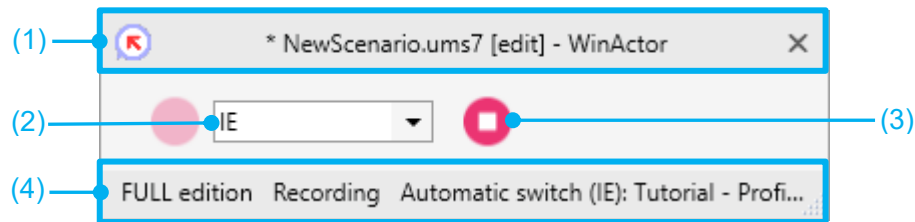


Table 3-27 WinActor during recording (Simplified display)

No.	Icon	Function
(1)	Title bar	The title of the currently editing scenario is displayed. Clicking the 'X' button on the right end, WinActor finishes recording operations, and changes its window from simplified display to normal display.
(2)	Recording mode	The selected recording mode is displayed. Recording with 'Automatic switch' mode, the recording mode is selected automatically in accordance with the current target application, and displayed. You can also change the recording mode manually from the dropdown list.
(3)	'Stop recording' icon	Click the icon to stop recording a scenario. WinActor changes its window from simplified display to normal display.
(4)	Status bar	The license type of edition, scenario status, recording mode, and the target application name are displayed.



When WinActor is tried to change its window from simplified display to normal display via the task bar or the status bar, the WinActor window becomes normal display, and the current recording continues.

3.4 Palette Area

FULL

In the palette area, elements to be placed in the flowchart area are displayed by category.

There are five palettes, Node, Library, Subscenario, Favorites, and Search, which can be displayed by switching between the 'Node' tab, 'Library' tab, 'Subscenario' tab, 'Favorites' tab, and 'Search' tab at the bottom of the palette area.

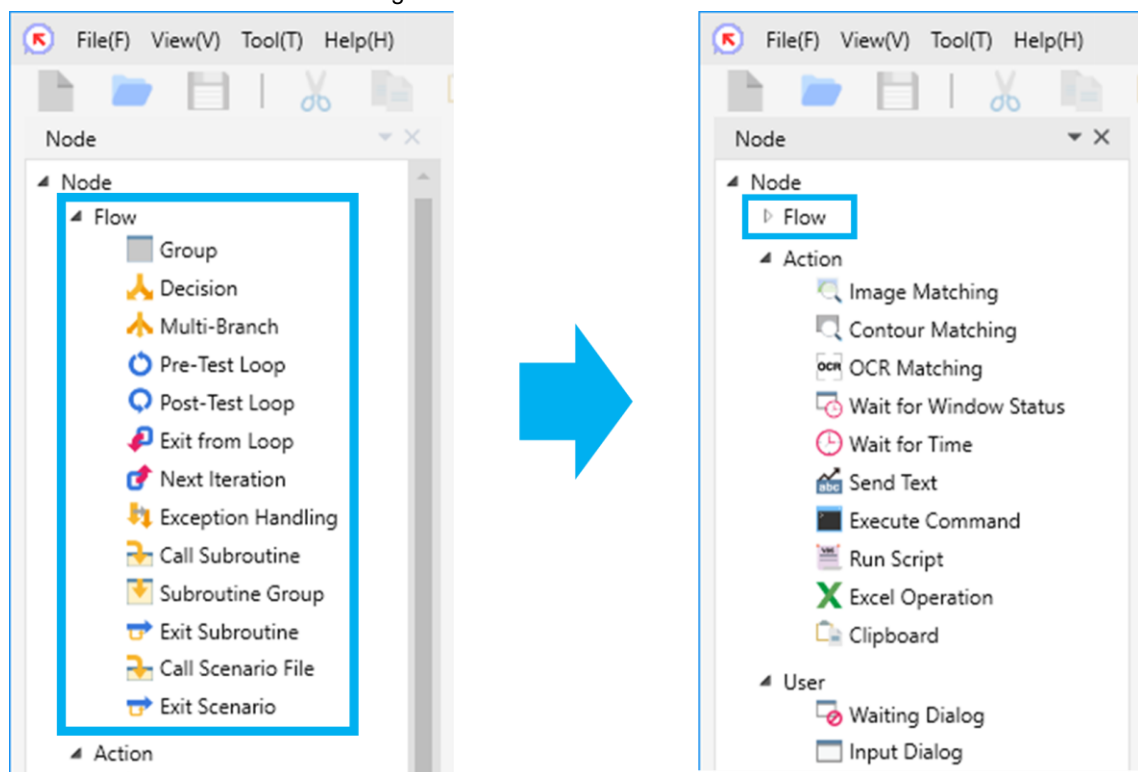
3.4.1 Node palette

This section describes the Node palette.

To add a node when editing a flowchart, drag and drop the node in the Node palette to the flowchart area.

The hierarchical view of nodes can be collapsed or expanded by clicking the ▴ and ▾ buttons on the Node palette.

Figure 3-38 Hierarchical view of nodes



■ Flow category

The hierarchy shows the nodes that belong to the 'Flow' category in the Node palette.

The nodes that belong to the Flow category are listed in the table below.

 For details of each node in the Flow category, see "4.3 Nodes in Flow Category."

Table 3-28 Nodes in the Flow category

No.	Icon	Name (Correspondence with programming language)	Description
(1)		Group	A series of operation scenarios can be grouped together. By grouping nodes, the nodes can be copied, cut, pasted, and dragged and dropped in group units, which improves the convenience of edit operations.
(2)		Decision (if, else)	Makes a branch in a scenario. It is used when selecting and running one scenario from two scenarios.
(3)		Multi-Branch (if, else if, else)	Makes branches in a scenario. It is used when selecting and running one scenario from three or more scenarios.
(4)		Pre-Test Loop (while)	It is used when repeating a series of operations. Judges the conditions for continuing or ending the repetition before performing the series of operations.
(5)		Post-Test Loop (do, while)	It is used when repeating a series of operations. Judges the conditions for continuing or ending the repetition after performing the series of operations.
(6)		Exit from Loop (break)	It is placed in a position where you want the iteration to end. It is used in 'Pre-Test Loop' or 'Post-Test Loop.'
(7)		Next Iteration (continue)	It is placed in the middle of a series of repeated operations. It is used when you want to skip to the condition judgment position without performing the subsequent series of operations. It is used in 'Pre-Test Loop' or 'Post-Test Loop.'
(8)		Exception Handling (try, catch)	It is used for creating a scenario to be run when an error occurs.
(9)		Call Subroutine (call sub)	It is placed in a position where you want to call a subroutine.
(10)		Subroutine Group (sub)	It is used when creating a subroutine. A series of operations can be put together in the same way as 'Group,' and they can be run at the position where Call Subroutine is placed.

No.	Icon	Name (Correspondence with programming language)	Description
(11)		Exit Subroutine (return)	It is placed in a subroutine. It is used when skipping to the end position without running the subsequent scenarios in the subroutine.
(12)		Call Scenario File (call scenario)	It is placed in a position where you want to call a scenario file.
(13)		Exit Scenario (end scenario)	It is placed in a scenario. Returns processing to the called scenario without running the subsequent nodes in the scenario.
(14)		Watch Events	It starts watching the trigger conditions of registered event watchers defined in the 'Event watcher list' tab pane. When a watching trigger condition is met, the action of the corresponding event watcher is called.
(15)		Register Event Watcher	It registers an event watcher prepared in the 'Event watcher list' tab pane as the target of watching.
(16)		Cancel Event Watcher	It cancels the registration of an event watcher as the target of watching.
(17)		Ignore Events	It terminates watching the target.

■ Action category

The hierarchy shows the nodes that belong to the 'Action' category in the Node palette.

The nodes that belong to the Action category are listed in "Table 3-29 Nodes in the Action category" below.

 For details of each node in the Action category, see "4.4 Nodes in Action Category."

Table 3-29 Nodes in the Action category

No.	Icon	Name	Description
(1)		Image Matching	Searches for a specified image on a window and performs operations such as mouse click.
(2)		Contour Matching	Searches for a specified image on a window and performs operations such as mouse click. Unlike Image Matching, extracts the contour of an image and matches the contour-extracted image using the multi-scale analysis that repeats scaling.
(3)		OCR Matching	Searches for a specified string on a window and performs operations such as mouse click.
(4)		Wait for Window Status	It is used to wait for a window you want to operate to be displayed, to wait for a window to disappear, or to check the display status of a window.
(5)		Wait for Time	Waits for the next operation to run for a specified time or until a specified time, or checks if the current date and time is within the range of a specified time.
(6)		Send Text	Sends a specified character string to a window character by character. The string will be added on the window. From the standpoints of reliability and running speed, it is recommended to use 'Set text' when using in the 'Event' mode and the 'IE' mode.
(7)		Execute Command	Executes a specified command.
(8)		Run Script	Runs a code written in VBScript.
(9)		Excel Operation	It has the following three functions. • Stores a cell value of an Excel file in a variable. • Writes a value to a cell in an Excel file. • Runs a macro of an Excel file.
(10)		Clipboard	Sets a specified variable or value in the clipboard or stores a value of the clipboard in a variable.

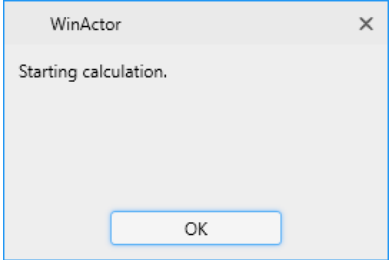
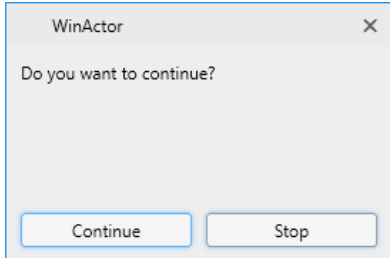
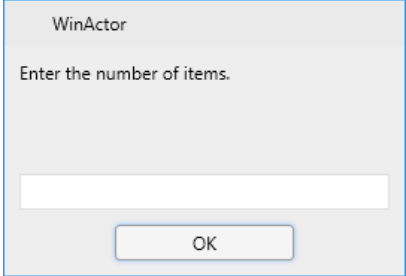
■ User category

The hierarchy shows the nodes that belong to the 'User' category in the Node palette.

The nodes that belong to the User category are listed in "Table 3-30 Nodes in the User category" below.

 For details of each node in the User category, see "4.5 Nodes in User Category."

Table 3-30 Nodes in the User category

No.	Icon	Name	Description
(1)		Waiting Dialog	Suspends processing and displays a message. There are two types of Waiting Dialog. • Displays a message.  • Allows the user to select 'Continue' or 'Stop.' 
(2)		Input Dialog	Suspends the continuation of processing and waits for input from the user.  The entered value will be stored in a variable.

No.	Icon	Name	Description
(3)		Selection Dialog	Suspends processing and waits for the user to select from preset choices.  The string of the selected choice will be stored in a variable.
(4)		Sound	Sounds a buzzer or plays a sound of the specified WAVE file.

■ Variable category

The hierarchy shows the nodes that belong to the 'Variable' category in the Node palette.

The nodes that belong to the Variable category are listed in "Table 3-31 Nodes in the Variable category" below.

 For details of each node in the Variable category, see "4.6 Nodes in Variable Category."

Table 3-31 Nodes in the Variable category

No.	Icon	Name	Description
(1)		Set Variable Value	Sets any specified value to a specified variable.
(2)		Copy Variable Value	Copies a value from a specified variable to another specified variable.
(3)		Get Date and Time	Stores the current date and time in a variable.
(4)		Get Username	Stores a username logged in to Windows in a variable.
(5)		Four Arithmetic Operations	Performs four arithmetic operations on specified variables or two values. Stores the calculation result in a variable.
(6)		Count Up	Adds a specified value to a variable.
(7)		Full/Half-Width Conversion	Unifies characters contained in a string stored in a variable with full-width or half-width characters.

3.4.2 Library palette

The user libraries are displayed in the Library palette.

A part of a created scenario can be saved as a user library, and the saved user library can be reused when creating other scenarios.

■ Library toolbar

The following describes the functions of the icons on the Library toolbar in order from the left.

Table 3-32 Library toolbar

Icon	Name	Function
	Add to User Libraries	Saves a node, group, or subroutine group selected in the flowchart area as a user library.  See "Add to User Libraries."
	Add to flowchart	Adds a selected user library to the flowchart area.  See "Add to flowchart."
	Update Library	Updates the contents of the libraries folder.  See "Update Library."
	Open Library folder	Opens the libraries folder in Explorer. Folders created under the libraries folder will be displayed in the hierarchical tree in the Library palette. You can create folders, delete, move, and copy user libraries from Explorer. Click the Update Library icon to reflect the operation result in Explorer on the WinActor window.  See "Open Library folder."

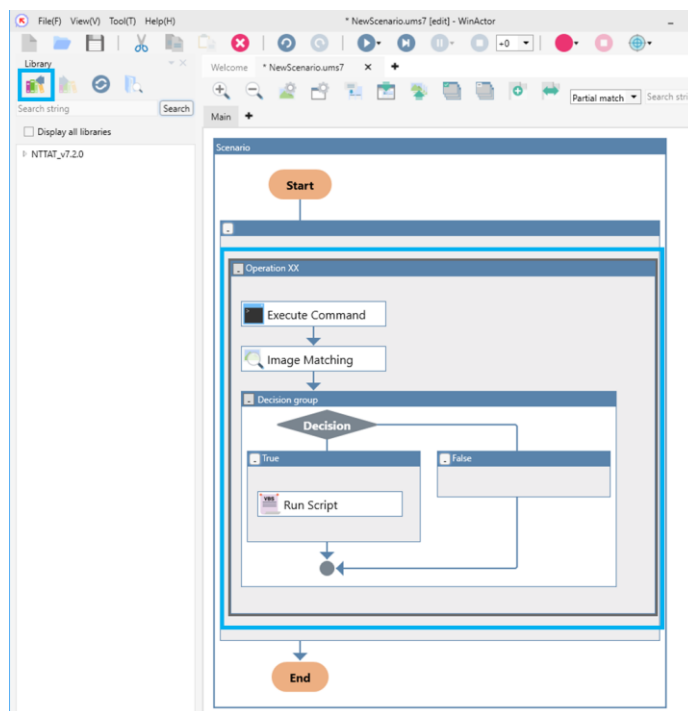
■ Add to User Libraries

By saving a part of a created scenario as a user library, it can be reused when creating other scenarios.

The following is the procedure for adding a scenario to the Library palette.

Steps

1. In the flowchart area, select a node, group, or subroutine group you want to add to the Library palette and click the 'Add to User Libraries' icon on the toolbar.



The selected node, group, or subroutine group is added to the Library palette.



- The selected node, group, or subroutine group can also be added to the Library palette by right-clicking it and selecting 'Add to User Libraries' from the displayed menu.



See "Add to User Libraries."

- The name given to the target node will be registered as the user library name.
 - The added user library will be saved as a user library file under the "My Document\WinActor\libraries" folder.
-  For the folder structure, see "Table 1-4 WinActor user folder structure."
- Saved user libraries can be moved or copied for use in other

environments.



- The 'Call Subroutine' node or the group or subroutine that contains the 'Call Subroutine' node cannot be added to the Library palette.
 - If multiple nodes are selected, they cannot be added to the Library palette.
-

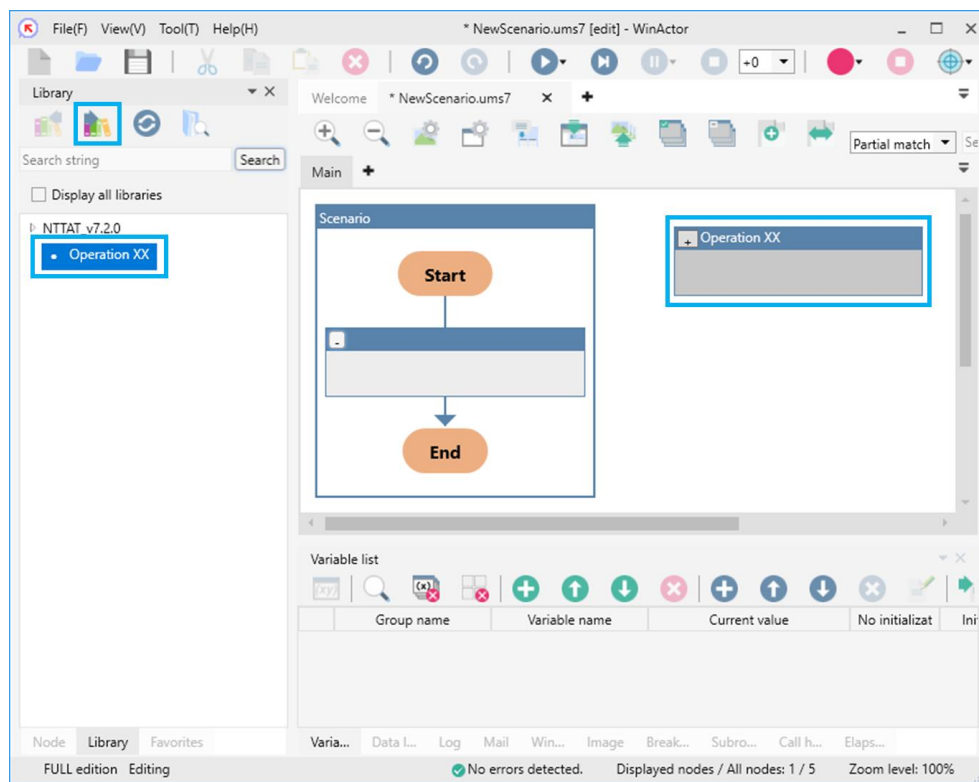
■ Add to flowchart

By saving a part of a created scenario as a user library, it can be reused when creating other scenarios.

The following is the procedure for placing a user library in the flowchart area.

Steps

1. Select any user library in the Library palette and click the 'Add to flowchart' icon.
The selected user library is displayed in the empty area of the flowchart area.



'Group' or 'Subroutine Group' will be placed in the flowchart area in the closed state.

■ Update Library

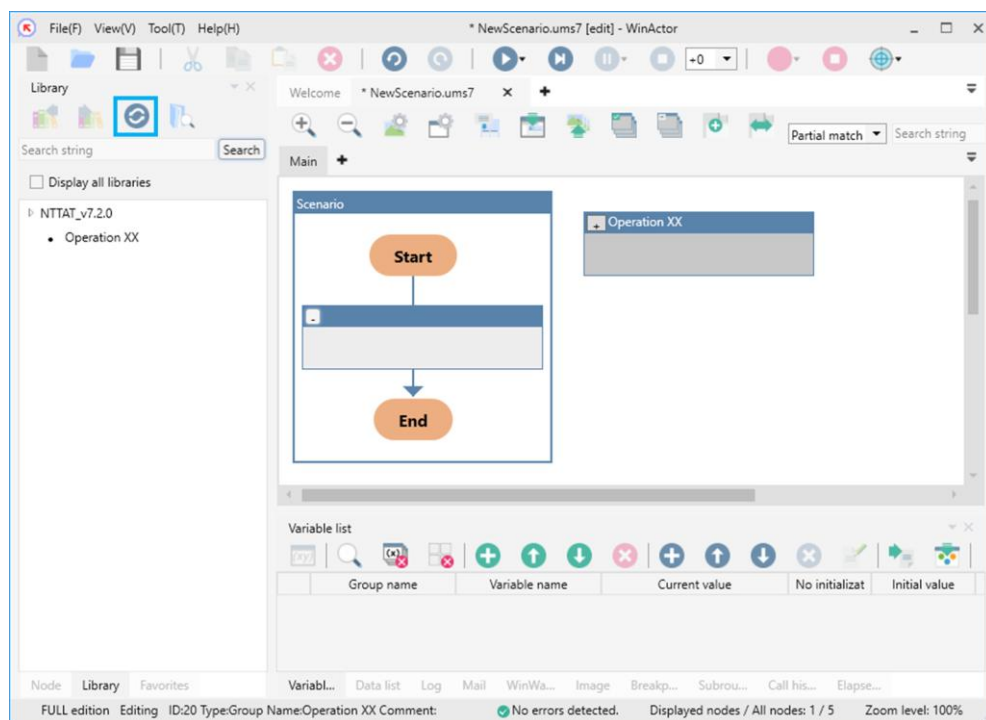
The contents of the libraries folder for the Library palette can be updated to the latest state.

This is the operation to update the contents of the libraries folder when the contents of the flowchart area and the contents of the file system are different.

Steps

1. Click the 'Update Library' icon.

The contents of the 'Library' tab will be updated.

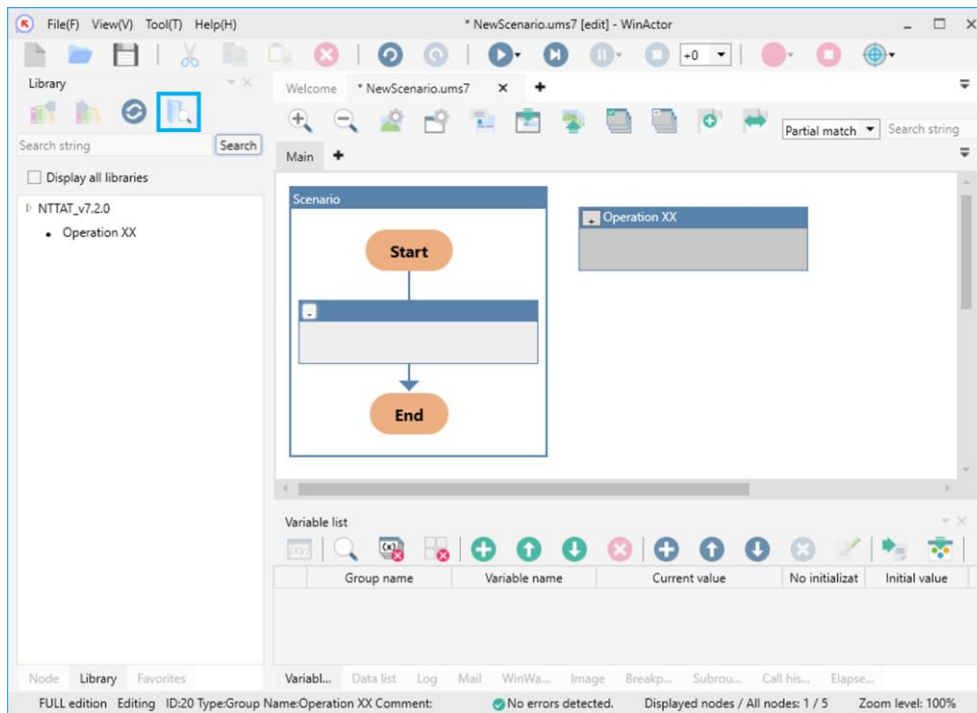


■ Open Library folder

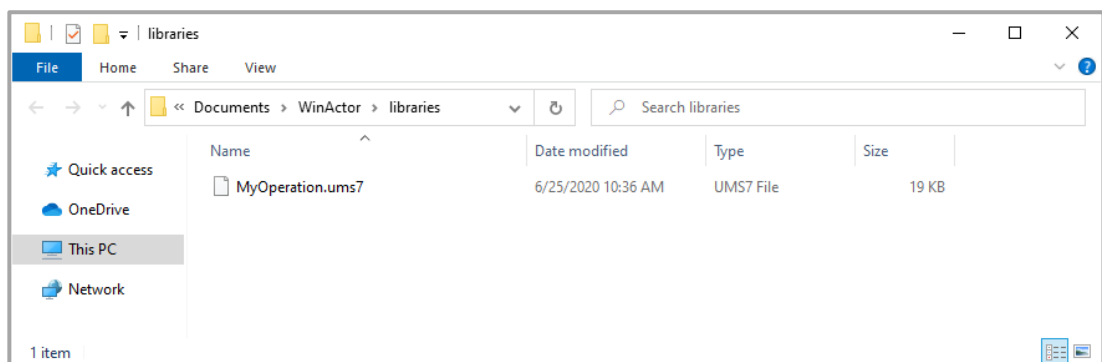
'Open Library folder' is the operation to display the libraries folder in Explorer. It is used to change the contents of the libraries folder.

Steps

1. Click the 'Open Library folder' icon.



Explorer that displays the libraries folder opens.

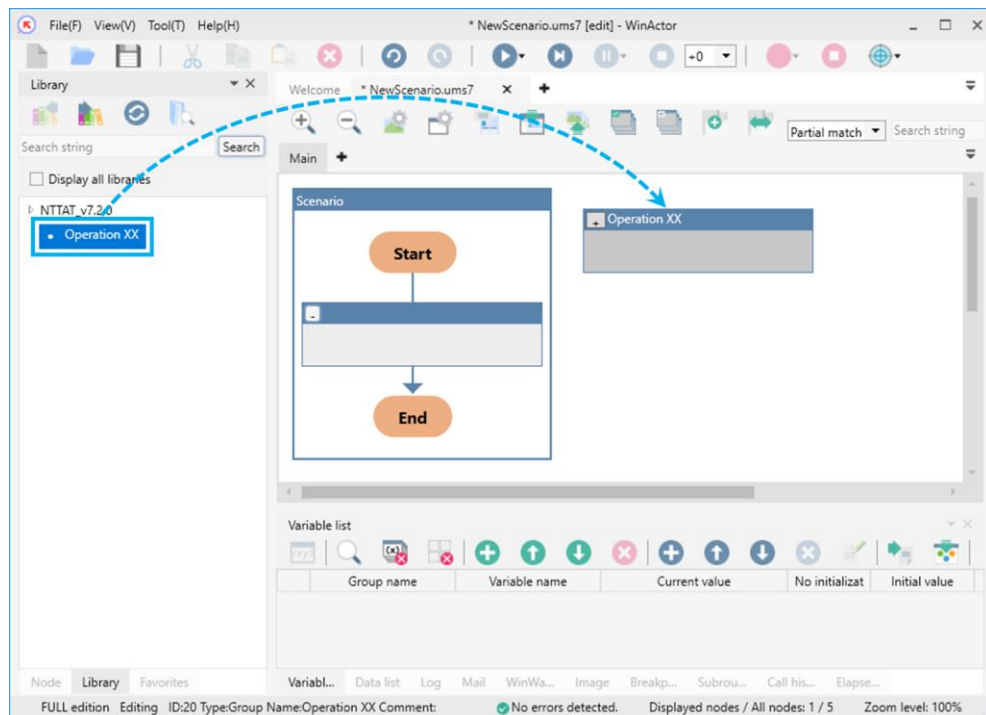


■ Placing a user library in the flowchart area by dragging and dropping

The following is the procedure for dragging and dropping a user library and placing it in the flowchart area.

Steps

1. Select any user library in the Library palette and drag and drop it to a location where you want to place it in the flowchart area.



The selected user library is placed in the flowchart area.



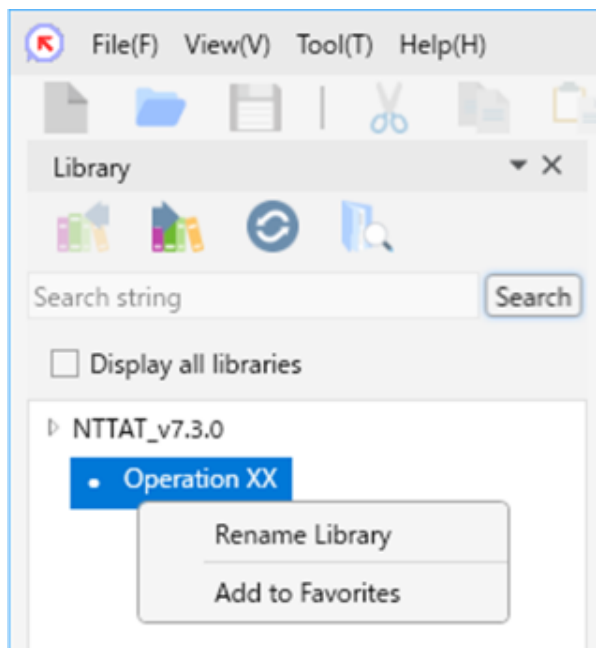
- 'Group' or 'Subroutine Group' will be placed in the flowchart area in the closed state.
- 'Subroutine Group' will be added as a floating flow.

■ Renaming a library

The following is the procedure for renaming a user library.

Steps

1. In the Library palette, right-click a user library you want to rename and select 'Rename Library.'



2. Enter a library name and click anywhere other than the library name.

The library name will be changed.



You can also change a library name by selecting a user library you want to rename and pressing the 'F2' key.

■ Library search

The following is the procedure for searching a user library in the Library palette.

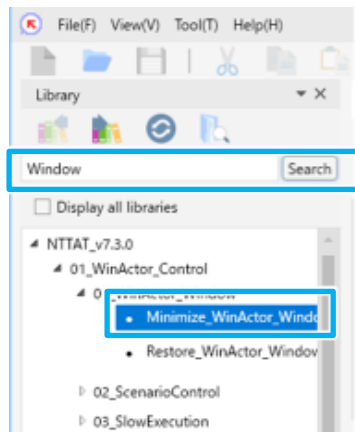
Steps

1. Enter a keyword in the search box and click the 'Search' button.

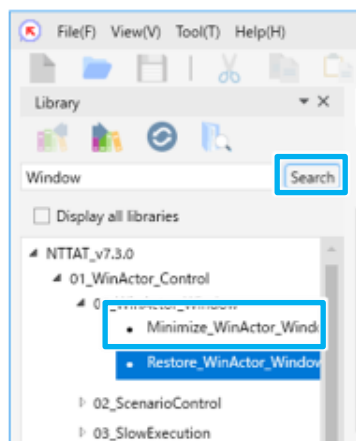


You can also search a library by pressing the 'Enter' key after entering a keyword in the search box.

The entered keyword is searched by partial match in the library palette, and the corresponding library is displayed in the selected state.



2. Click the 'Search' button again.



The corresponding library below the first selected library is displayed in the selected state.



If you want to search from the middle of the Library palette, select a user library or folder in the Library palette before searching, and libraries below that will be searched. If there is no corresponding library until the end, it will be searched again from the top.

■ Display all libraries

The Library palette shows only the libraries for the environment of the language selected in 'Language' in the View menu.

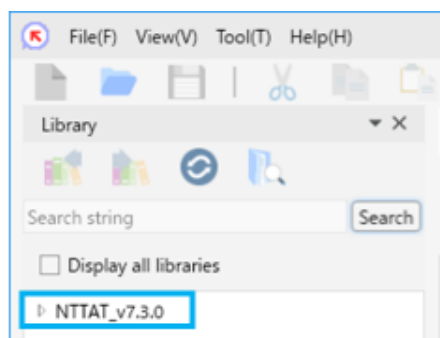
If 'Display all libraries' is checked, the libraries in all language environments will be displayed.

The default setting of the check box is off.

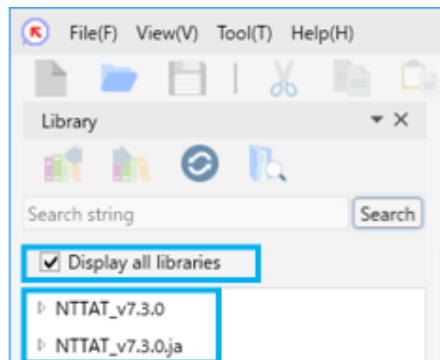
The state of the check box is retained even after WinActor is closed.

Steps

1. When unchecked, only libraries in English environment are displayed.



2. When checked, libraries in both English and Japanese environments are displayed.



3.4.3 Subscenario palette

The available subscenarios are displayed in the Subscenario palette hierarchically.

Subscenarios are scenario files that can be called from the Call Scenario File node. They are provided as convenient parts that can be used repeatedly in specific situations.

There are two types of subscenarios:

Table 3-33 Subscenario types

Type	Description
Built-in subscenarios	Subscenarios included in WinActor. Displayed in tree format in the Subscenario palette with the folder name 'NTTAT' or 'NTTAT.ja.'
User subscenarios	Subscenarios created by the user. By placing the created scenario files in the user's document folder "Documents\WinActor\subscenarios\," they will be displayed in the Subscenario palette as user subscenarios.

■ Subscenario toolbar

The following describes the functions of the icons on the Subscenario toolbar.

Table 3-34 Subscenario toolbar

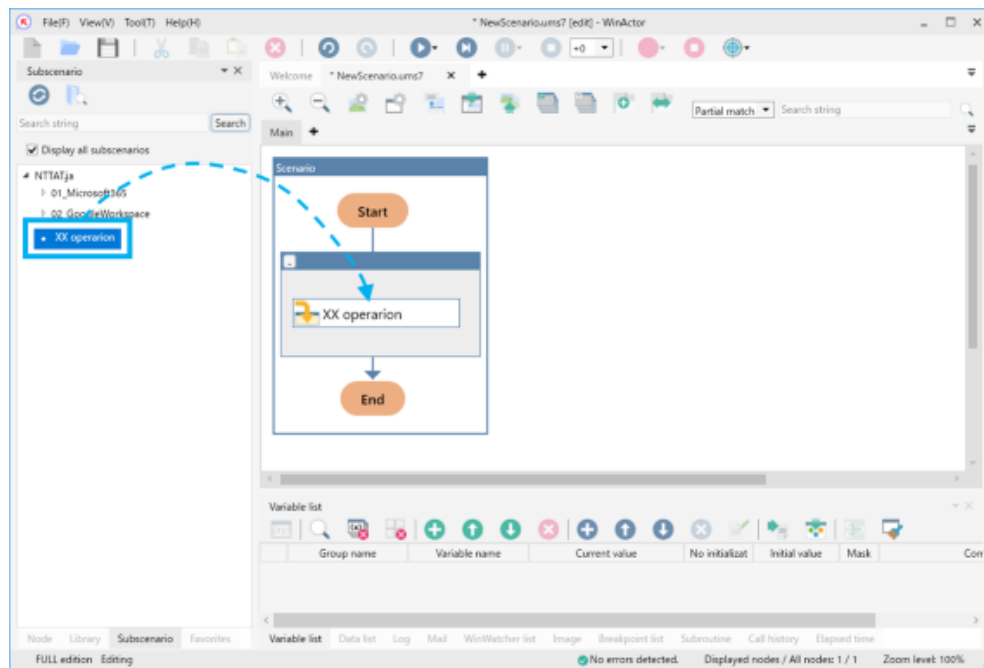
Icon	Name	Function
	Update Subscenario	Updates the contents of the subscenarios folder.  See "Update Subscenario."
	Open Subscenario folder	Opens the folder where user subscenarios are located in Explorer. Folders created under the user subscenarios folder will be displayed in the hierarchical tree in the Subscenario palette. You can create folders, delete, move, and copy user subscenarios from Explorer. Click the Update Subscenario icon to reflect the operation result in Explorer on the WinActor window.  See "Open Subscenario folder."

■ Placing a subscenario in the flowchart area by dragging and dropping

The following is the procedure for dragging and dropping a subscenario and placing it in the flowchart area.

Steps

1. Select any subscenario in the Subscenario palette and drag and drop it to a location where you want to place it in the flowchart area.



A Call Scenario File node that calls the selected subscenario is placed in the flowchart area.



In the scenario being edited, only the Call Scenario File node is placed and the scenario file of the subscenario is not included.

■ Update Subscenario

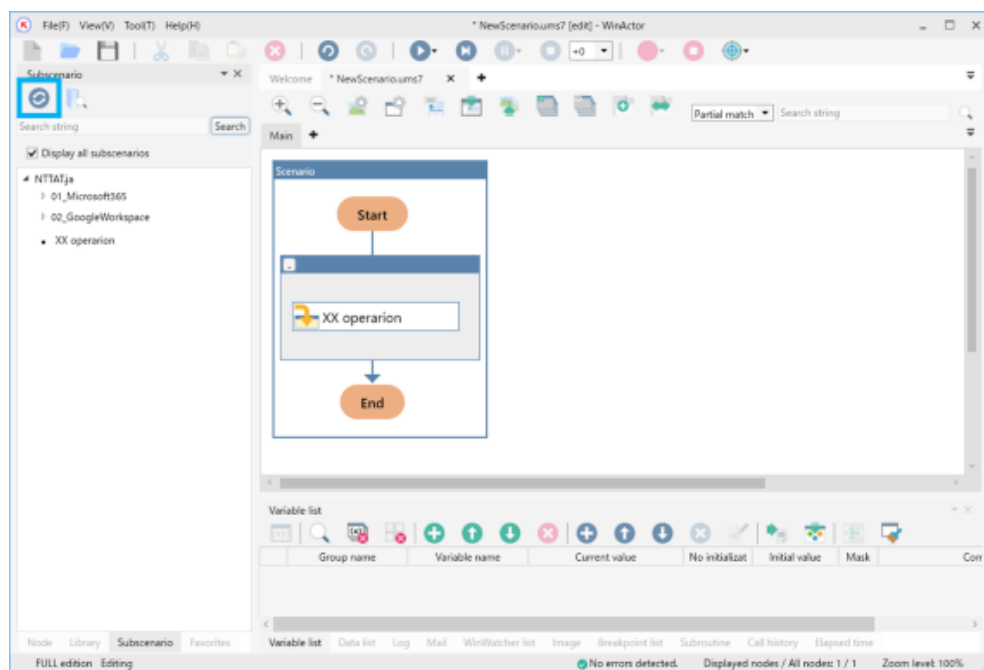
The contents of the Subscenario palette can be updated to the latest state.

It is used when a scenario file in the folder where user subscenarios are located is updated or a new scenario file is placed while using WinActor.

Steps

1. Click the 'Update Subscenario' icon.

The contents of the Subscenario palette will be updated.



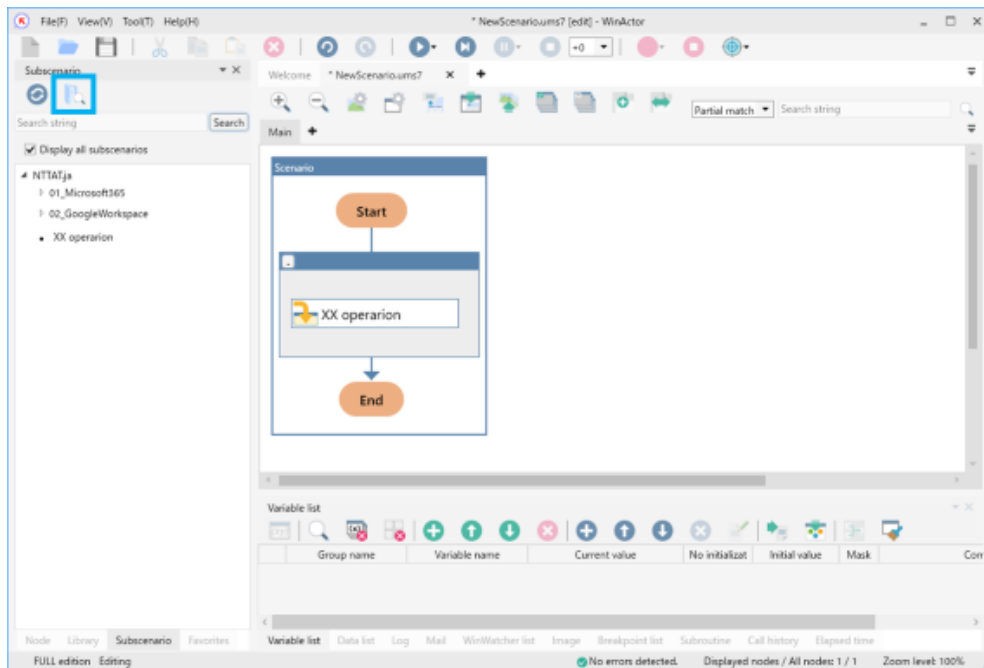
■ Open Subscenario folder

This is to display the folder where user subscenarios are located in Explorer.

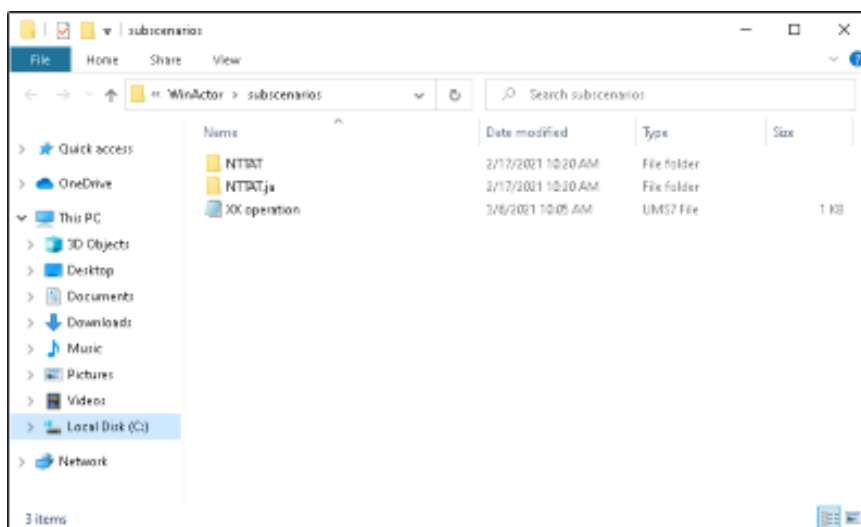
It is used to add, change, or delete a scenario file used as a user subscenario.

Steps

1. Click the 'Open Subscenario folder' icon.



Explorer that displays the subscenarios folder opens.



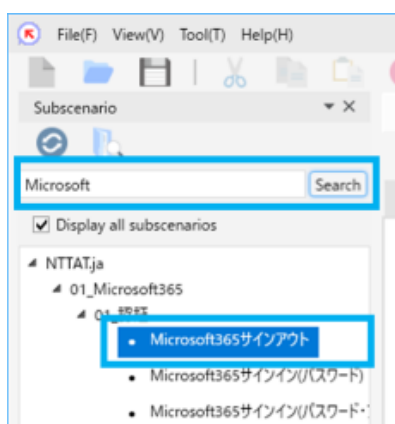
■ Subscenario search

The following is the procedure for searching a subscenario in the Subscenario palette.

Steps

1. Enter a keyword in the search box and click the 'Search' button.

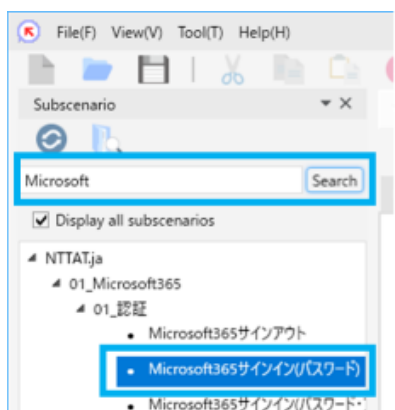
The entered keyword is searched by partial match in the Subscenario palette, and the corresponding subscenario is displayed in the selected state.



You can also search a subscenario by pressing the 'Enter' key after entering a keyword in the search box.

2. Click the 'Search' button again.

The corresponding subscenario below the first selected subscenario is displayed in the selected state.



If you want to search from the middle of the Subscenario palette, select a subscenario or folder in the Subscenario palette before searching, and subscenarios below that will be searched.

If there is no corresponding subscenario until the end, it will be searched again from the top.

■ Display all subscenarios

The Subscenario palette shows only the subscenarios for the environment of the language selected in 'Language' in the "View" menu.

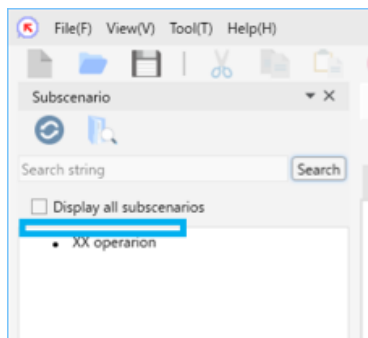
If 'Display all subscenarios' is checked, the subscenarios in all language environments will be displayed.

The default setting of the check box is off.

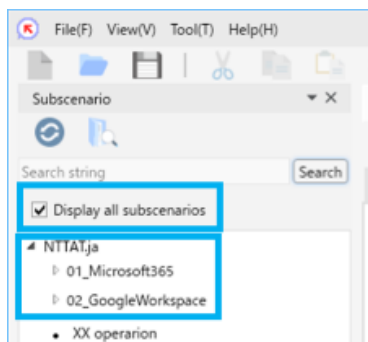
The state of the check box is retained even after WinActor is closed.

Steps

1. When unchecked, only subscenarios in English environment (currently nothing) are displayed.



2. When checked, subscenarios in both English and Japanese environments are displayed.



User subscenarios are always displayed, regardless of the state of the check box.



In WinActor, built-in subscenarios for the English environment are not included and will not be displayed (contents displayed on the palette will not change) even if the box of 'Display all subscenarios' is checked.

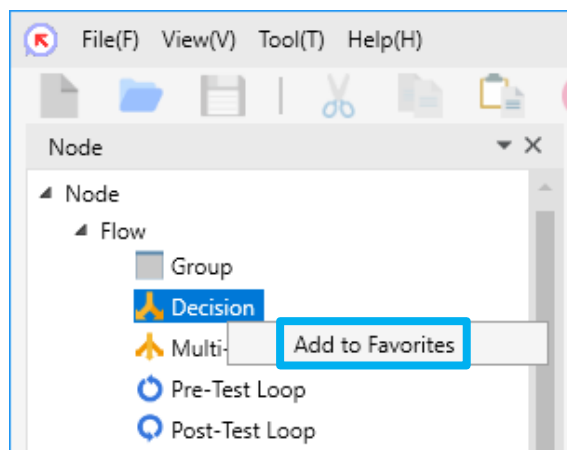
3.4.4 Favorites palette

In the Favorites palette, frequently used nodes and libraries can be registered as favorites. The registered nodes and libraries can be placed in the flowchart area by dragging and dropping them.

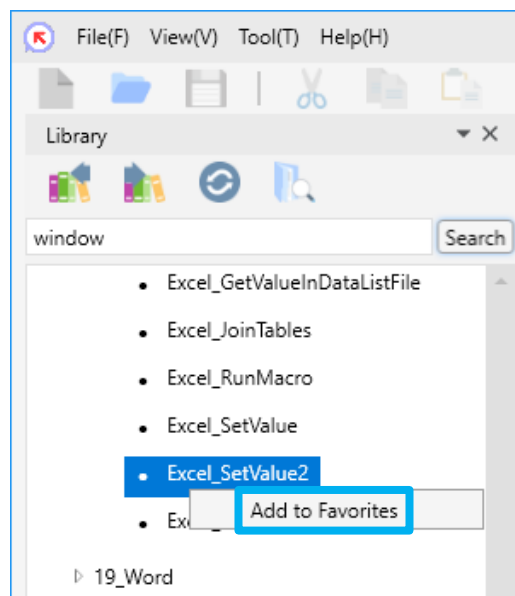
■ Add to Favorites

Steps

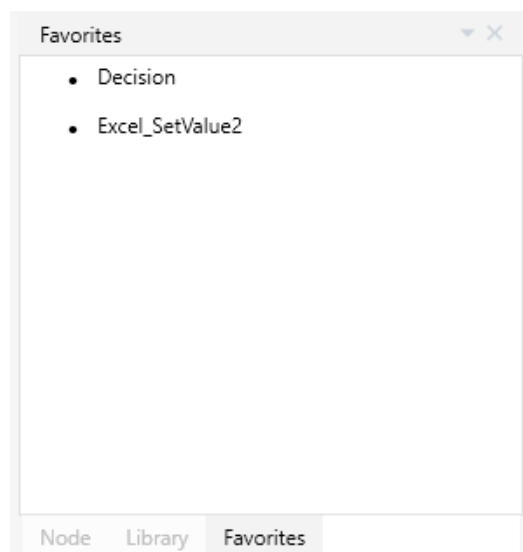
1. In the Node palette, right-click a node you want to add to Favorites and select 'Add to Favorites.'



2. Similarly, in the Library palette, right-click a library you want to add to Favorites and select 'Add to Favorites.'



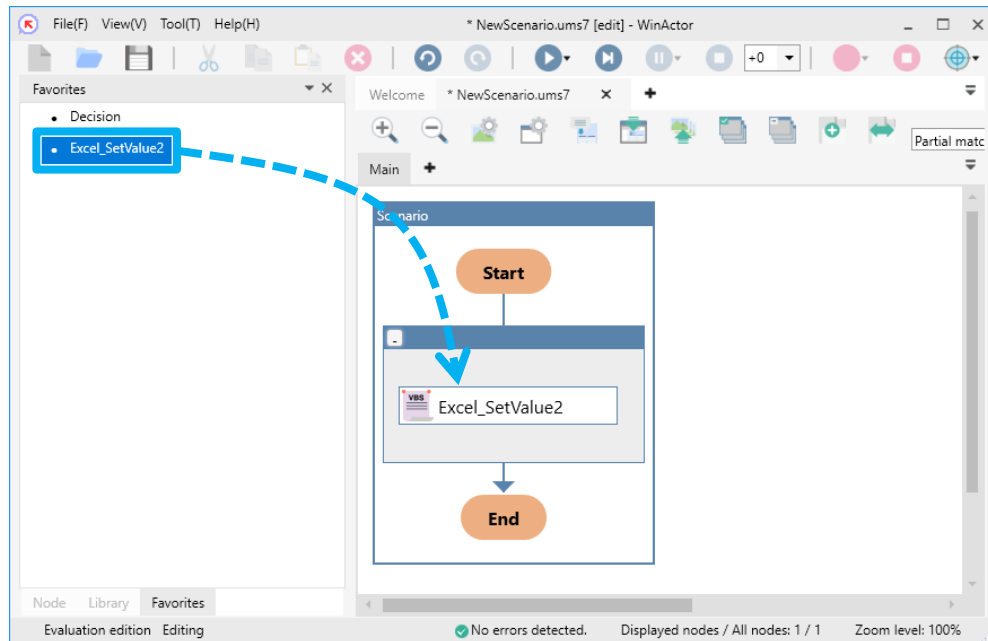
They are added to the Favorites palette.



■ Placing a node or library to the flowchart

Steps

1. Select a node or library in the Favorites palette and drag and drop it to a location where you want to place it in the flowchart area.

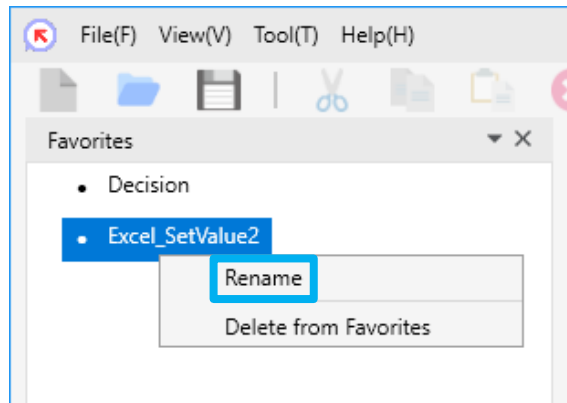


The selected node or library is placed in the flowchart area.

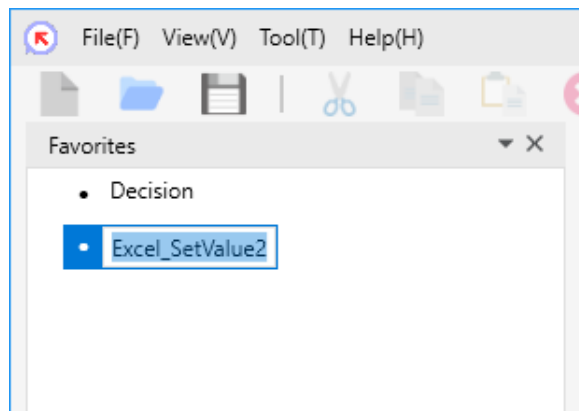
■ Renaming a node or library

Steps

1. In the Favorites palette, right-click a node or library you want to rename and select 'Rename.'



2. Enter a new name and press the 'Enter' key.

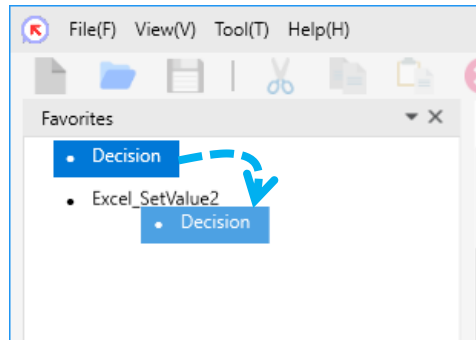


The name of the node or library will be changed.

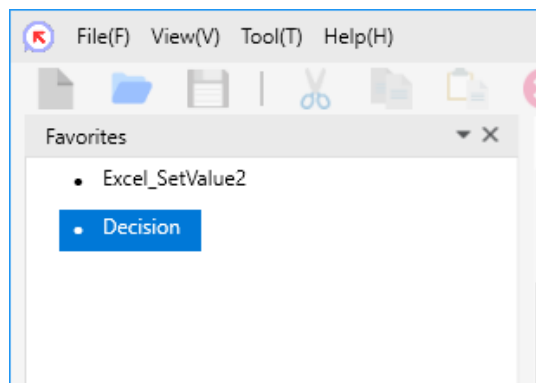
■ Sorting favorites

Steps

1. In the Favorites palette, drag a node, library, or folder for which you want to change the order and drop it in the desired order.



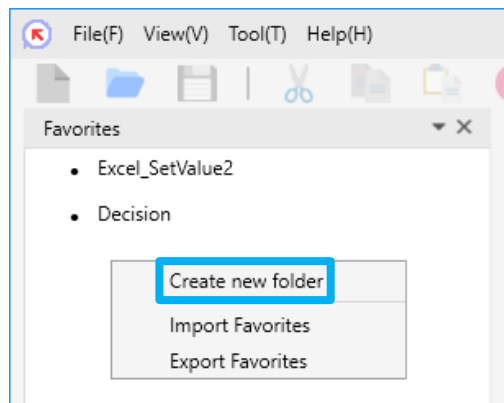
The order is changed.



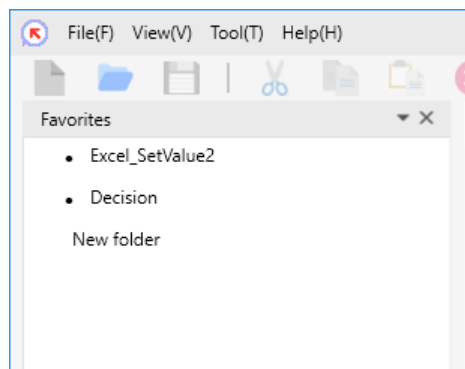
■ Create new folder

Steps

1. Right-click an empty area in the Favorites palette.
Click 'Create new folder.'

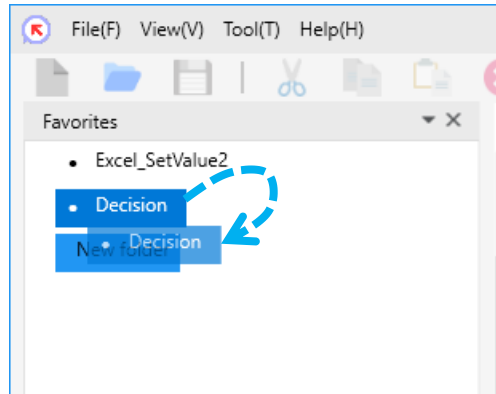


The new folder is created.

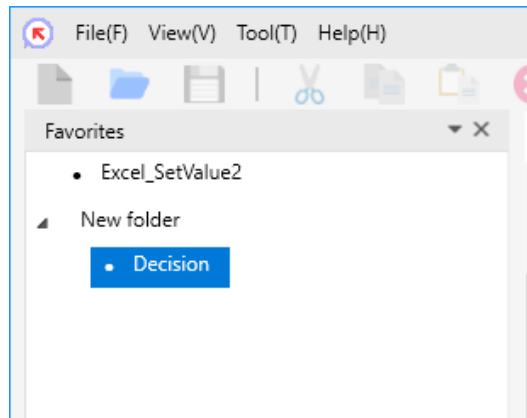


You can change a folder name in the same way as changing a name of a node or library in Favorites.

2. In the Favorites palette, drag and drop a node or library onto the folder.



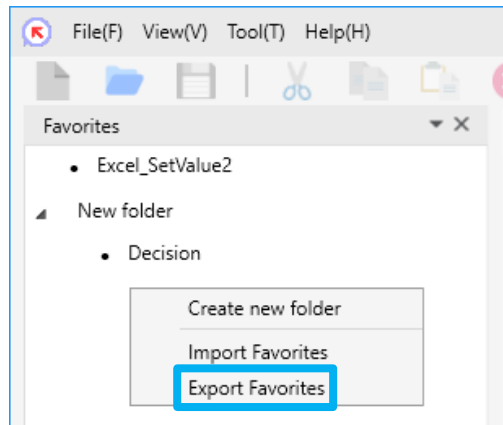
The node or library is moved into the folder.



■ Export Favorites

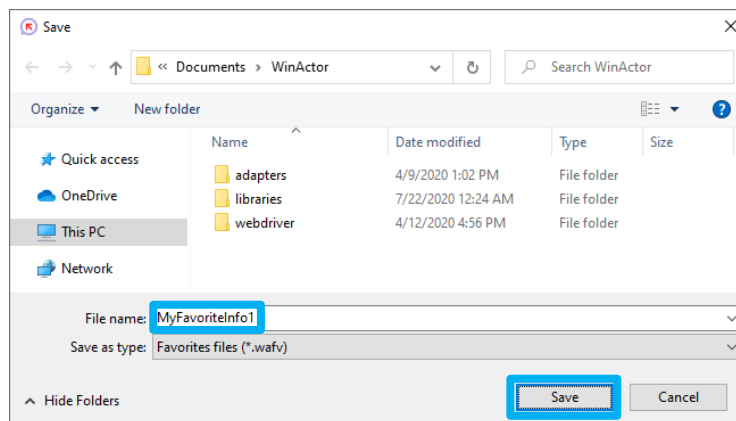
Steps

1. Right-click an empty area in the Favorites palette.
Click 'Export Favorites.'



The 'Save' window appears.

2. Select a folder for saving, enter a filename, and click the 'Save' button.



The favorite information will be saved in the file.

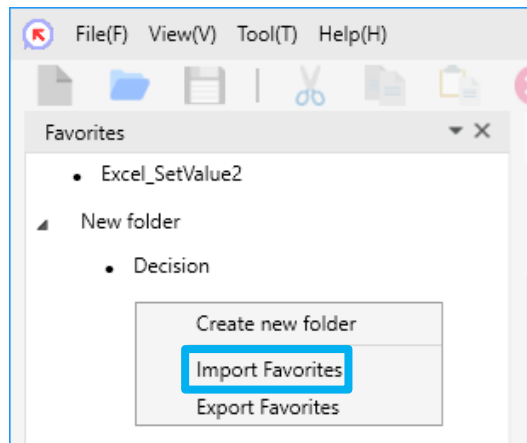


'Export Favorites' is not available when no favorites are registered.

■ Import Favorites

Steps

1. Right-click an empty area in the Favorites palette.
Click 'Import Favorites.'

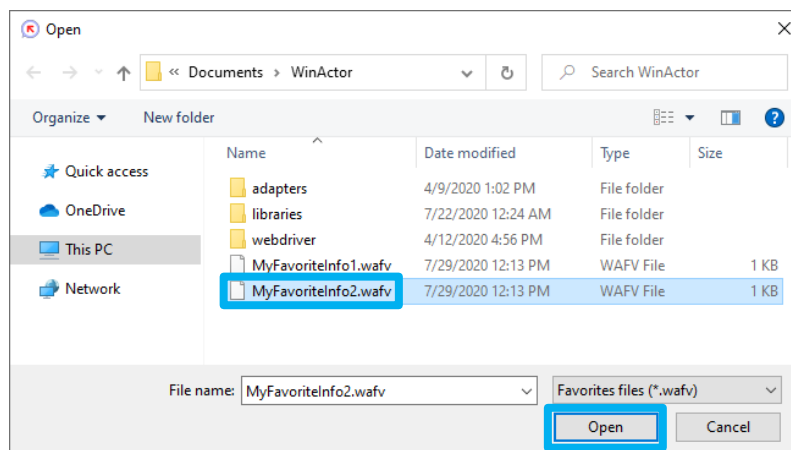


The 'Open' window appears.

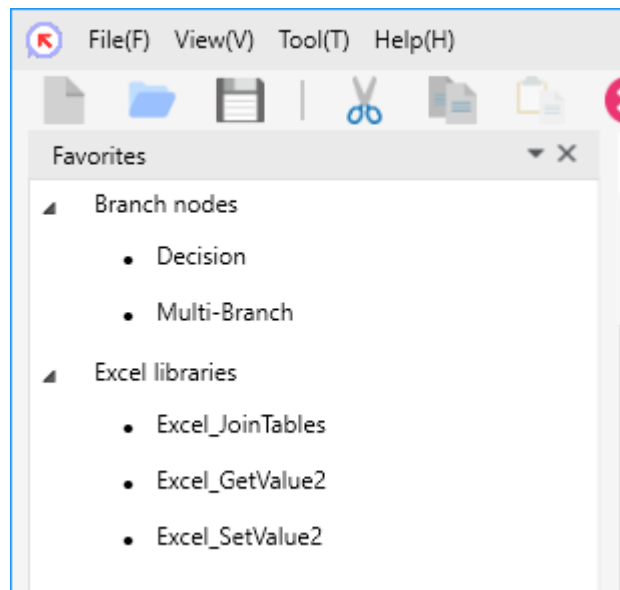


Note that when using 'Import Favorites,' the current favorites will be discarded and overwritten with the information of the favorites to be imported.

2. Select a file for favorites you want to import and click the 'Open' button.



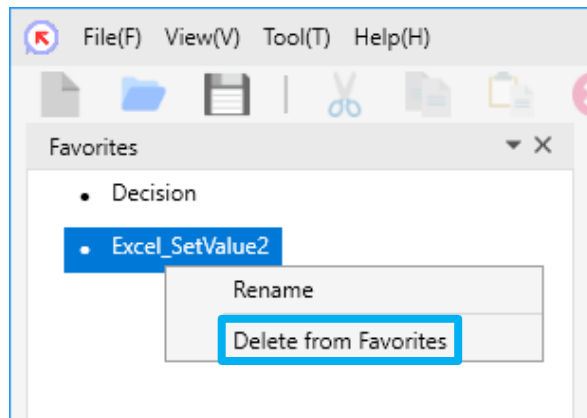
The favorites information is imported into the Favorites palette.



■ Delete from Favorites

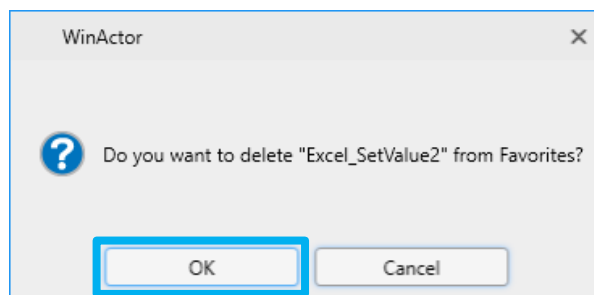
Steps

1. In the Favorites palette, right-click a node or library you want to delete and select 'Delete from Favorites.'

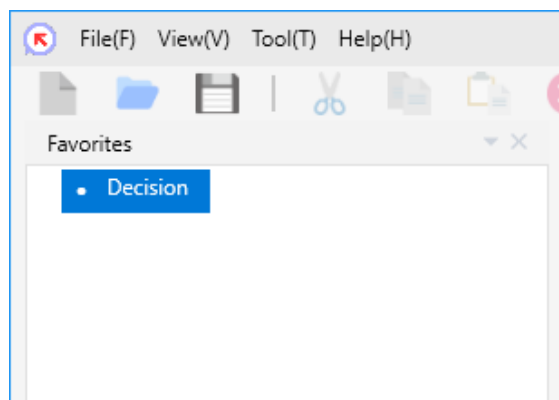


A confirmation dialog appears.

2. Click the 'OK' button.



The selected node or library is deleted from Favorites.



3.4.5 Search palette

In the Search palette, User library and Subscenario, and Sample scenario, Petit library, and Sweet library in CloudLibrary can be searched at once.

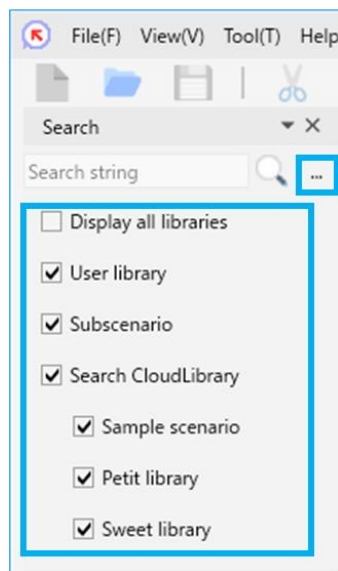
The found libraries and subscenarios except sample scenarios can be placed in the flowchart area by dragging and dropping them.

The procedure for searching in the Search palette is described below.

Steps

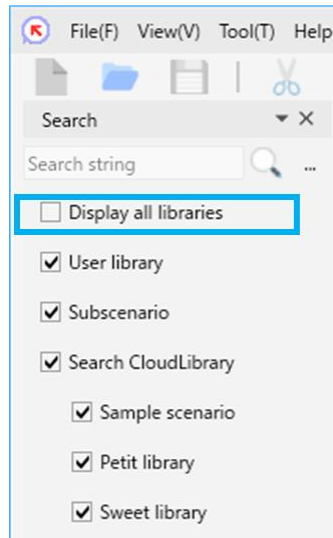
1. Clicking the '...' button on the right side of the search box, a list of checkboxes to select search targets is expanded and displayed.

Clicking the same button once again, the list is collapsed and becomes invisible.



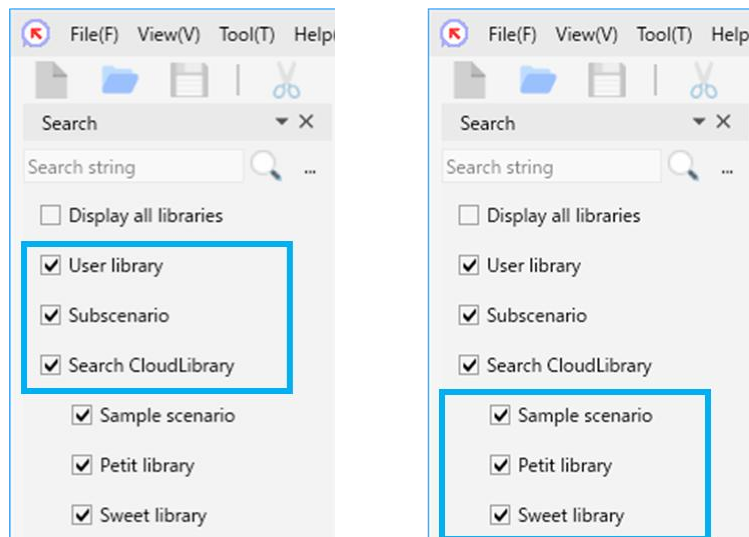
- 2.** When 'Display all libraries' is checked, libraries of all the language environments are searched.

When it is unchecked, libraries of the current language environment is searched.



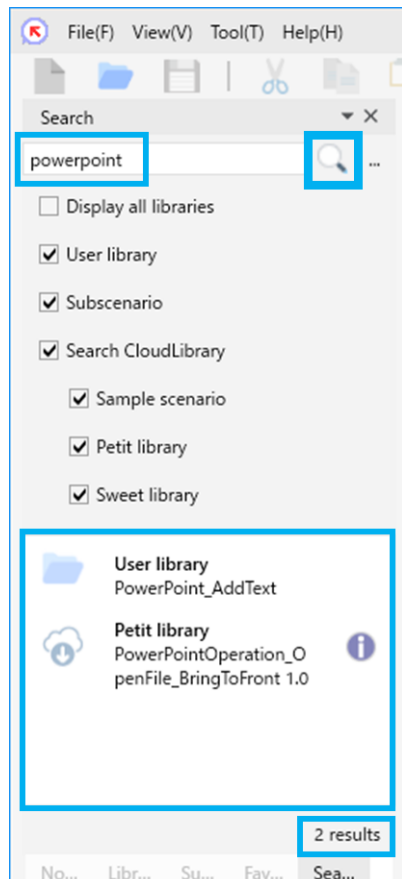
- 3.** Check the boxes of the search targets to include from 'User library,' 'Subscenario,' and 'CloudLibrary.'

When 'Search CloudLibrary' is checked, you can also select whether to search each of Sample scenario, Petit library, and Sweet library.



4. Enter a keyword in the search box and click the  icon.

User library, Subscenario, and CloudLibrary are searched for partial matching string, and found user libraries, subscenarios, sample scenarios, petit libraries, and sweet libraries are listed on the search result. The number of found libraries are also shown.



Alternatively, you can push down 'Enter' key to begin the search after entering a keyword in the search box.

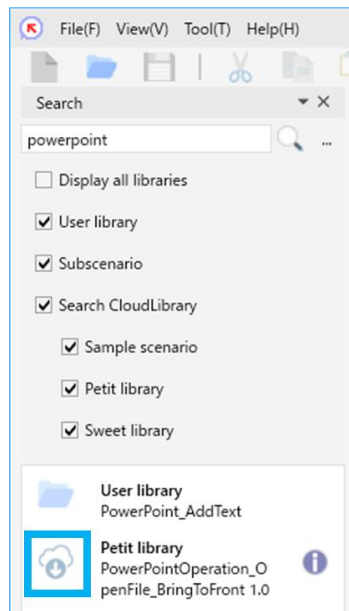


When using proxy server, you need to adjust settings in 'Proxy server' tab in the 'Option' dialog.

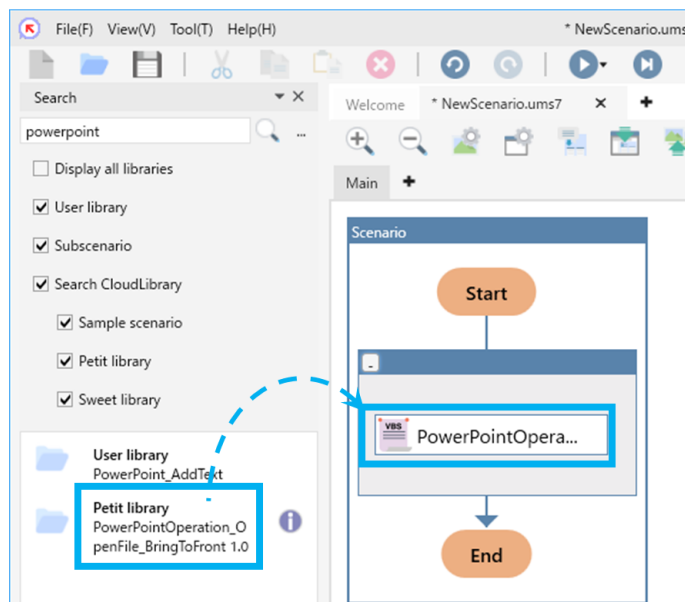


For the settings, see "Proxy server tab" in the "Option Dialog."

5. When the intended library is found, click the  icon to download it.



6. After the download is finished and the icon is changed to the , place the library, except 'Sample scenario,' in the flowchart area by dragging and dropping it.



When the  icon of a sample scenario is clicked, the folder that stores the scenario is displayed. The scenario and the necessary files to run it are stored in the folder all together, and you can check and use them.

The icons reflecting the status of the found libraries, the library names, and the details of the information buttons are displayed on the search result.

Figure 3-39 Search result

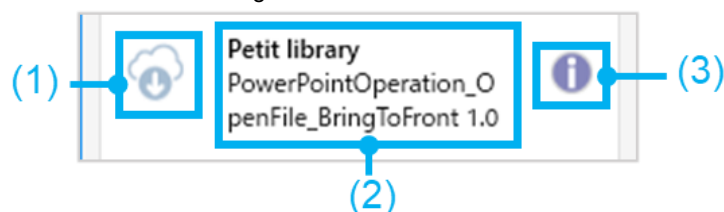


Table 3-35 Search result

No.	Items	Description
(1)	Icon	Shows the status of each found user libraries, subscenarios, sample scenarios, petit libraries, and sweet libraries. The status can be changed by clicking this. See the table below for details.
(2)	Name	Shows the name of each found user libraries, subscenarios, sample scenarios, petit libraries, and sweet libraries.
(3)	Details of the information button	When the description page of the library exists on the winactor.biz web site, a button is displayed. Clicking the button launches a web browser and shows the description page.

Table 3-36 Icons in search result

No.	Icon	Description
(1)		The found library or sample scenario is in CloudLibrary. Clicking this icon starts downloading it.
(2)		The found library, subscenario, or sample scenario is included in WinActor or already downloaded. Therefore, downloading it is unnecessary. Except for the sample scenario, it can be placed in the flowchart area by dragging and dropping the name part. For sample scenarios, clicking this icon displays the folder that stores the sample scenario. For petit or sweet libraries, clicking this icon creates a new scenario that includes the library.
(3)		Downloading Click this icon to cancel the download.
(4)		Canceling the download
(5)		Canceled or failed the download Click this icon to return to the status (1).

3.5 Scenario Edit Area

The scenario edit area is used when editing a scenario.

3.5.1 Configuration of the scenario edit area

This section describes the basic configuration of the scenario edit area.

Figure 3-40 Configuration of the scenario edit area

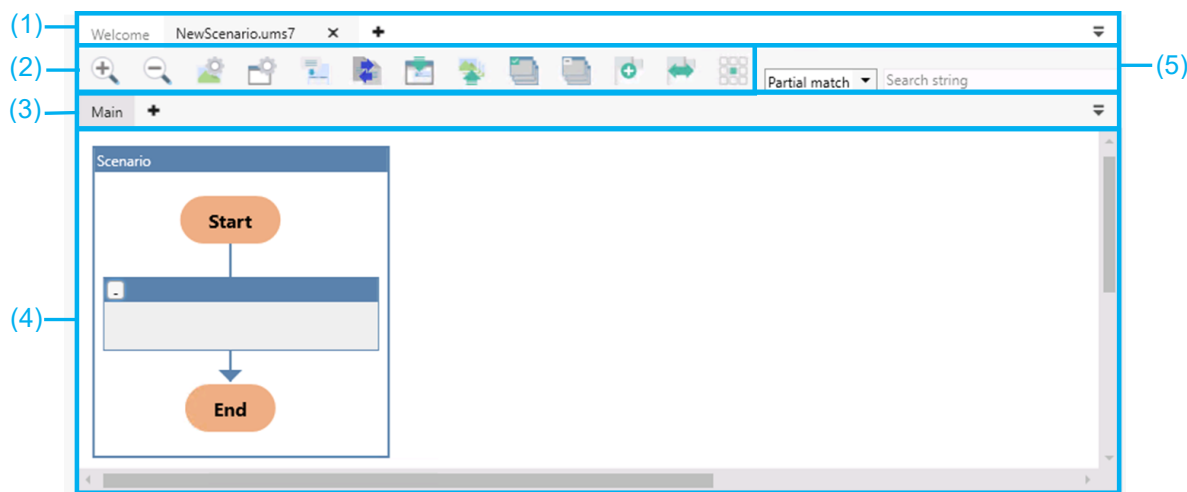


Table 3-37 Configuration of the scenario edit area

No.	Name	Function
(1)	Scenario tab	A scenario to be operated can be switched by clicking its tab.
(2)	Flowchart toolbar	Contains icons related to the operations of running, editing, and recording a scenario. >> See "3.5.2 Flowchart toolbar."
(3)	Flowchart tab	A tab currently used in the flowchart can be switched and displayed.
(4)	Flowchart area	A scenario is displayed in a flowchart diagram. The scenario can be edited in this area. >> See."3.5.3 Flowchart area."
(5)	Node search area	Used to search a node in the flowchart area. >> See "3.5.4 Node search."

3.5.2 Flowchart toolbar

The toolbar of the flowchart area contains the icons used for editing a scenario.

This section describes the functions of the icons on the flowchart toolbar in order from the left.

Figure 3-41 Flowchart toolbar

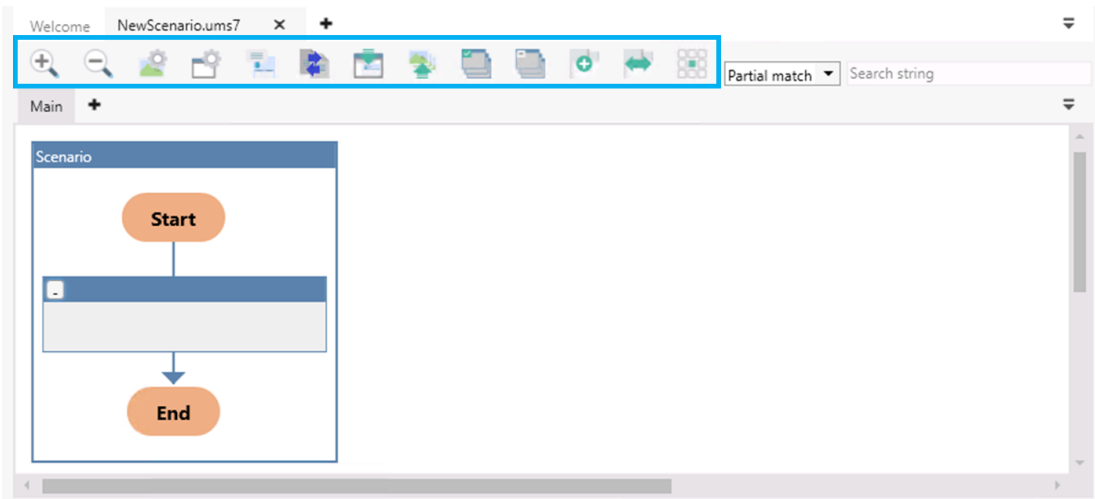


Table 3-38 Flowchart toolbar

Icon	Name	Function
	Zoom in	Increases the zoom level of the flowchart area to enlarge the display size of a flowchart. >> See "Zoom in."
	Zoom out	Decreases the zoom level of the flowchart area to reduce the display size of a flowchart. >> See "Zoom out."
	Image list	Displays the 'Image list' window. >> See "Image list."
	WinID management	Displays the 'WinID management' window. >> See "WinID management."
	Scenario information	Displays the "Scenario information" window. >> See "Scenario information."
	Scenario-difference visualization	Displays the differences between the currently edited scenario file and the already stored scenario file. >> See "Scenario-difference visualization."

Icon	Name	Function
	Import scenario	Imports a created or saved scenario file.  See "Import scenario."
	Save flowchart image	Saves a flowchart image displayed in the flowchart area to an image file.  See "Save flowchart image."
	Open all groups	Opens all closed groups at one time.  See "Open all groups."
	Close all groups	Closes all unselected groups at one time.  See "Close all groups."
	Add tab	Adds a new flowchart tab.  See "Add tab."
	Move node to another tab	Moves selected nodes to another tab.  See "Move node to another tab."
	Align nodes	Aligns nodes cluttered in the flowchart area  See "Align nodes."

■ Zoom in

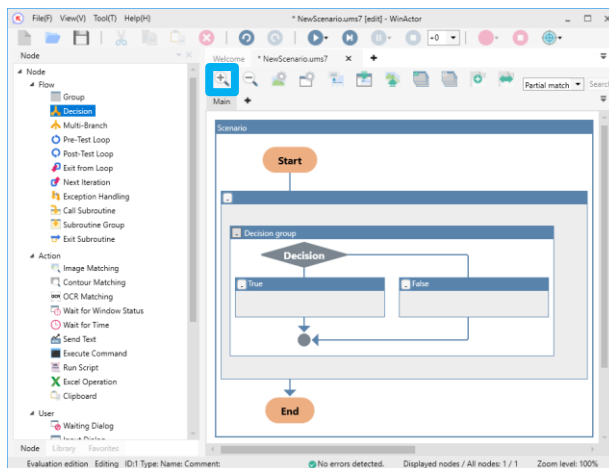
The 'Zoom in' icon is used to increase the zoom level of the flowchart area to enlarge the display size of a flowchart.

Steps

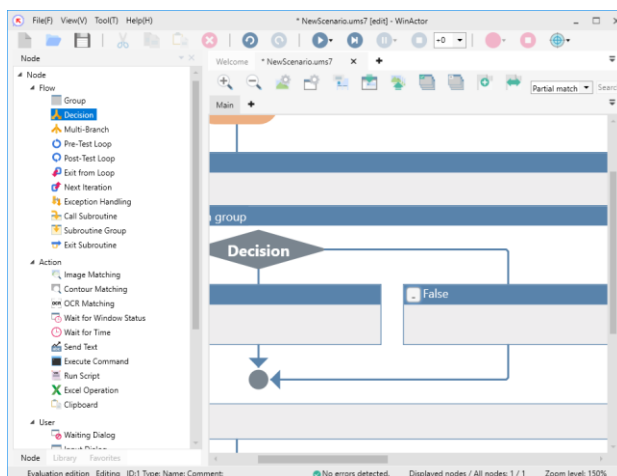
1. Click the 'Zoom in' icon on the flowchart toolbar.



- You can also zoom in the flowchart area by holding down the 'Ctrl' key and scrolling the mouse wheel up.
- Both the 'Zoom in' icon and 'Ctrl' + 'mouse wheel scrolling up' will increase the zoom level in the following order: 10%, 15%, 20%, 25%, 30%, 35%, 40%, 45%, 50%, 55%, 60%, 65%, 70%, 75%, 80%, 85%, 90%, 95%, 100%, 110%, 120%, 130%, 140%, 150%, 160%, 170%, 180%, 190%, 200%



The display size of the flowchart is enlarged.



■ Zoom out

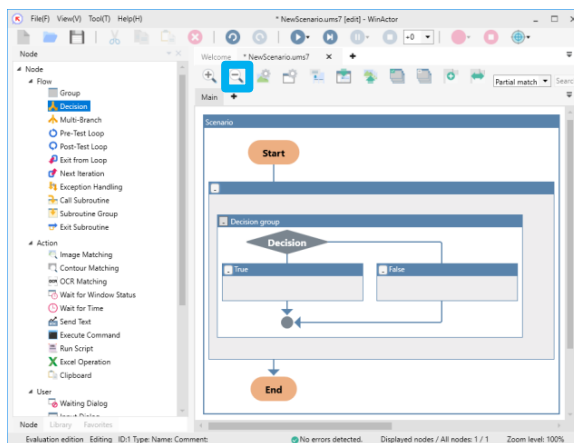
The 'Zoom out' icon is used to decrease the zoom level of the flowchart area to reduce the display size of a flowchart.

Steps

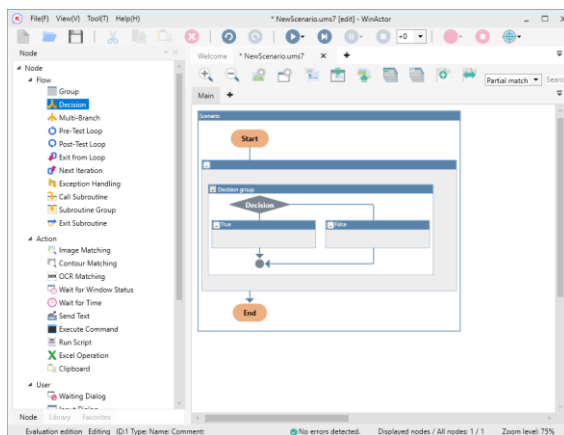
1. Click the 'Zoom out' icon on the flowchart toolbar.



- You can also zoom out the flowchart area by holding down the 'Ctrl' key and scrolling the mouse wheel down.
- Both the 'Zoom out' icon and 'Ctrl' + 'mouse wheel scrolling down' will decrease the zoom level in the following order: 200%, 190%, 180%, 170%, 160%, 150%, 140%, 130%, 120%, 110%, 100%, 95%, 90%, 85%, 80%, 75%, 70%, 65%, 60%, 55%, 50%, 45%, 40%, 35%, 30%, 25%, 20%, 15%, 10%



The display size of the flowchart is reduced.

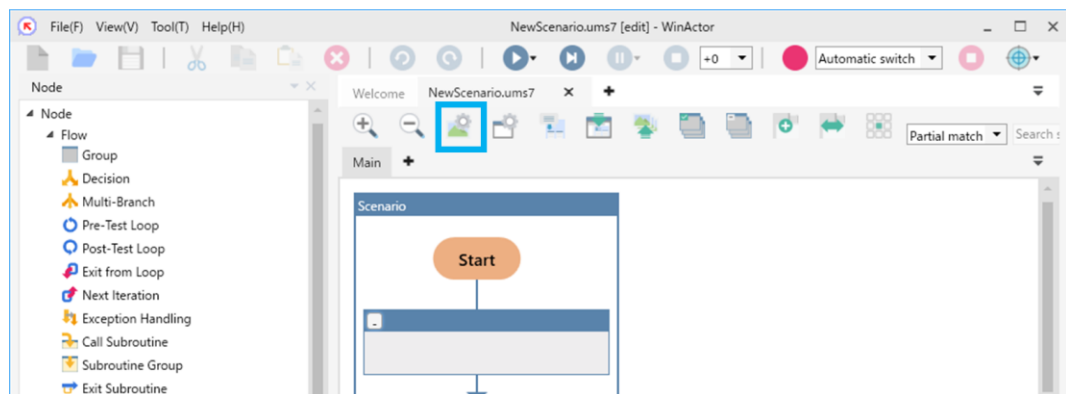


■ Image list

The 'Image list' icon is used to display the 'Image list' window. On the 'Image list' window, a list of window capture images recorded in a node is displayed, and what kind of images are saved in a scenario can be checked.

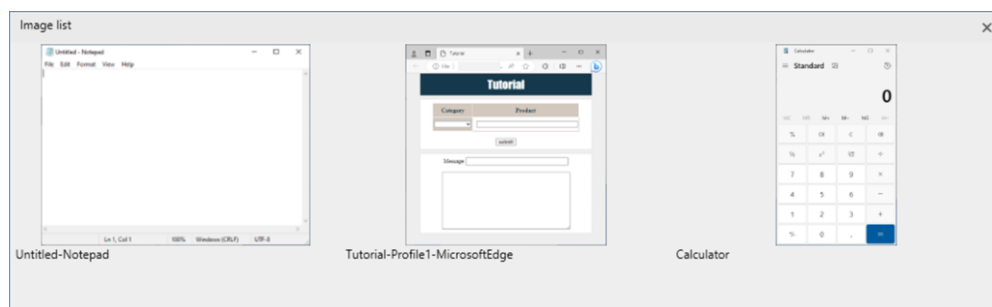
Steps

1. Click the 'Image list' icon on the flowchart toolbar.



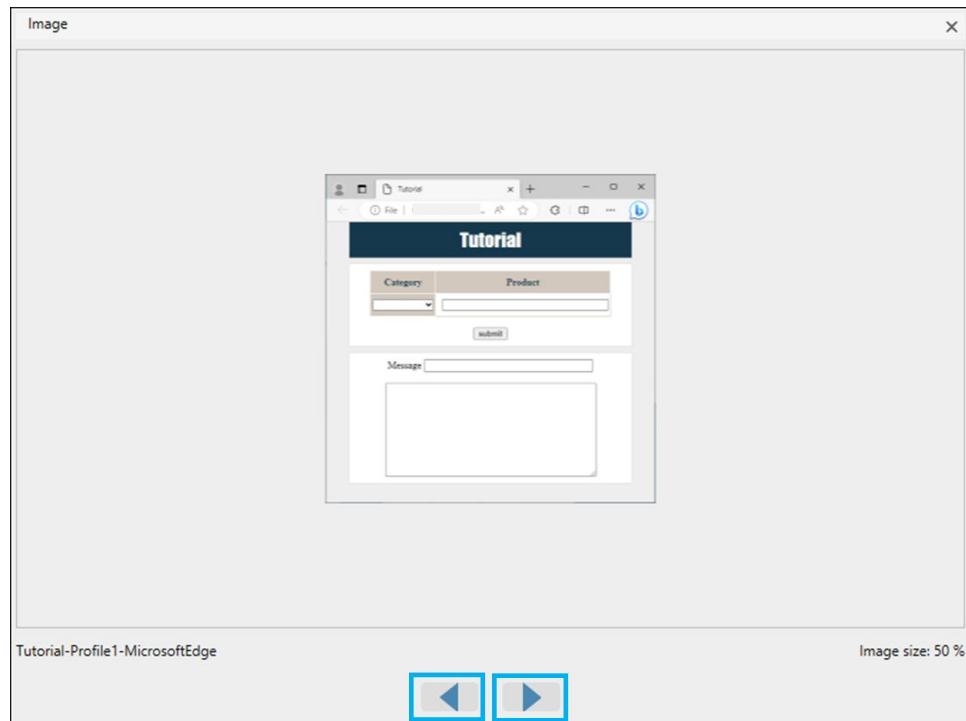
The 'Image list' window is displayed.

2. Double-click an image on the 'Image list' window.



The 'Image' window appears, and the selected image is displayed on the 'Image' window.

3. You can switch the image to be displayed by clicking the '◀' and '▶' buttons on the 'Image' window. You can also switch the image by using the left and right arrow keys, PgUp, and PgDn keys.



The images displayed on the 'Image list' window are managed in the 'Image' tab pane.

>> For details of the 'image' tab pane, see "3.9.6 Image tab pane."

■ WinID management

FULL

The 'WinID management' icon is used to display the 'WinID management' window.

In the 'WinID management' window, the rules for selecting a window to be operated when running a scenario are managed.

 For details of the 'WinID management' window, see "3.5.6 WinID management window."



The 'WinID management' window can also be displayed by pressing the 'Ctrl' + 'W' keys.

■ Scenario information

The 'Scenario information' icon is used to display the 'Scenario information' window.

The 'Scenario information' window shows information such as 'Last editor,' 'Last saved date and time,' 'Scenario expiration date,' 'Evaluation expiration date,' and 'Remarks.'

 For details of the "Scenario information" window, see "3.8 Scenario Information Window."



The 'Scenario information' window can also be displayed by pressing the 'Ctrl' + 'E' keys.

■ Scenario-difference visualization

'Scenario-difference visualization' icon is used to display the differences between the currently edited scenario and the already stored scenario.

It is possible to recognize positions and classifications of differences between the compared scenarios by sight.

 For details of the Scenario-difference visualization, see "1.23 Scenario-difference visualization."

■ Import scenario

FULL

The 'Import scenario' icon is used to import a part of another scenario file into a scenario being created. By using 'Import scenario,' a new scenario can be created by diverting subroutines created in another scenario.

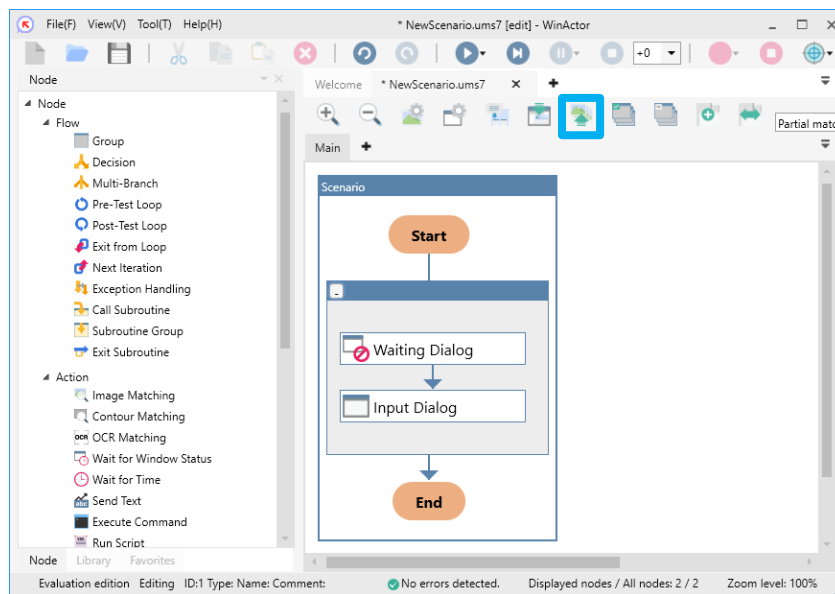
 For details of 'Import scenario,' see "Import > Scenario" in "3.2.1 File Menu."

■ Save flowchart image

The 'Save flowchart image' icon is used to save the entire flowchart to an image file. The image file will be saved at the same zoom level as that of the flowchart area.

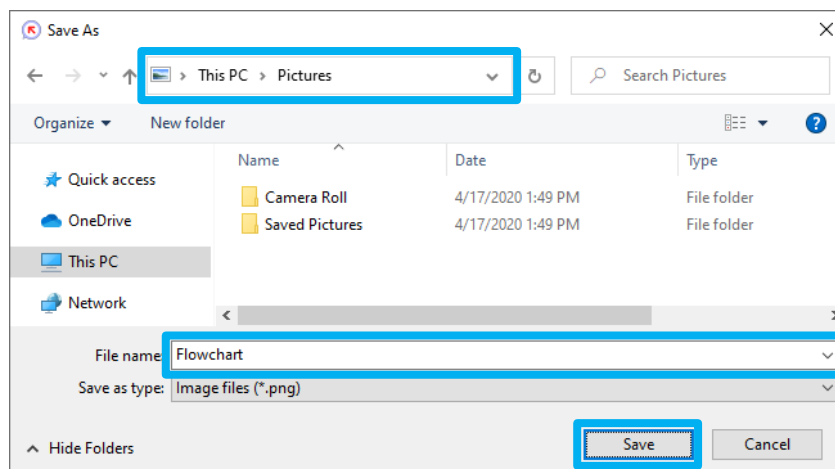
Steps

1. Click the 'Save flowchart image' icon on the flowchart toolbar.



The 'Save as' window appears.

2. Select a folder for saving, enter a filename in the text box of 'File name,' and click the 'Save' button.



The flowchart image file will be saved.



The file extension '.png' will be automatically added when saving a file. If an extension is entered, it will not be added automatically.



For details of the save format, see "Table 3-39 Save format."



- If the dialog "Out of memory. Reduce the size of the flowchart image you want to save." is displayed, take the following measures to adjust the width and height of the flowchart, and then save the image again.

- Close as many nodes as possible.



See "Opening and closing a group."

- Reduce the flowchart zoom level.

- Manually perform operations such as placing a floating flow near the main flow to change the layout and reduce the margins.

- There are some folders where files cannot be saved from WinActor.



See "6.1 Limitations of File Location."

Table 3-39 Save format

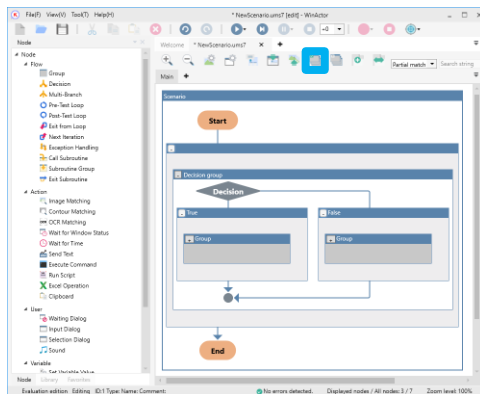
No.	Save format	Extension	Description
(1)	PNG	.png	An abbreviation for Portable Network Graphic. Bitmap data characterized by high image quality and small file size. It can be used in Office applications.

■ Open all groups

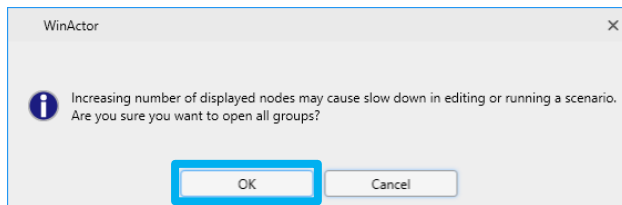
The 'Open all groups' icon is used to open all closed groups at once. Note that when groups are open, the number of displayed nodes increases, which may slow down the response speed when editing a scenario or the speed when running a scenario.

Steps

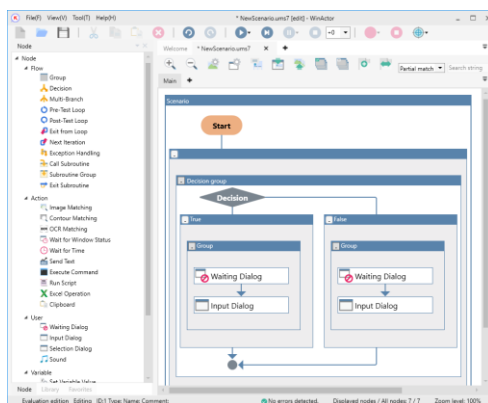
1. Click the 'Open all groups' icon on the flowchart toolbar.



2. A confirmation dialog appears. If you want to open them, click the 'OK' button.



All closed groups open.



You can also open all groups by pressing the 'Ctrl' + 'O' keys.

■ Close all groups

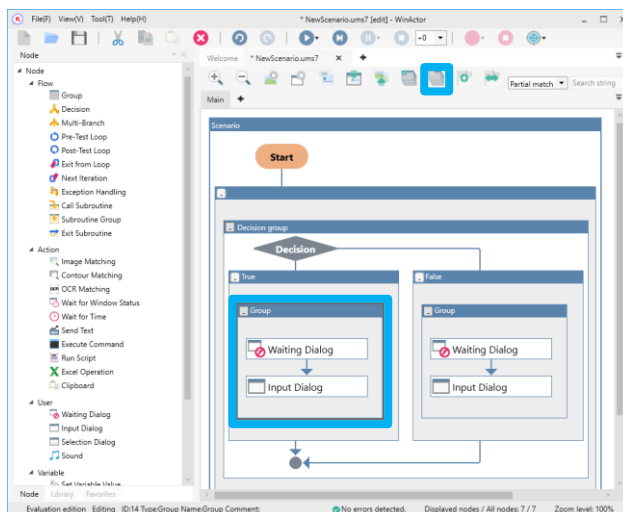
The 'Close all groups' icon is used to close all unselected groups at once. By closing groups, it will be easier to see the scenario edit area. In addition, if the number of displayed nodes is small, the response speed when editing a scenario will be faster.

Steps

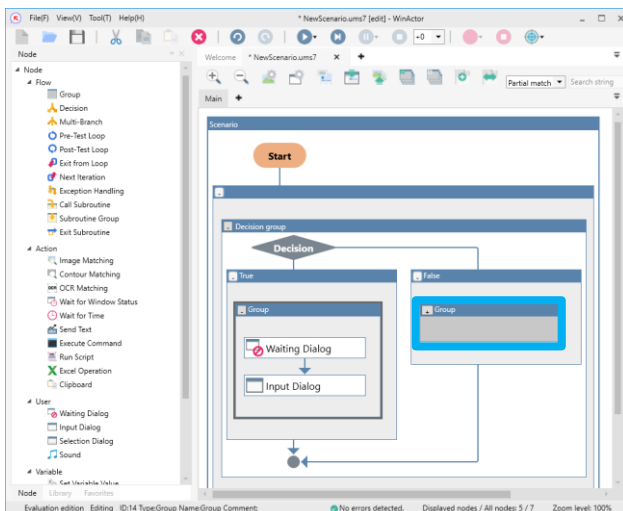
1. Select a group you want to keep open, and click the 'Close all groups' icon on the flowchart toolbar.



You can also close all groups by pressing the 'Ctrl' + 'L' keys.



The unselected group is closed.



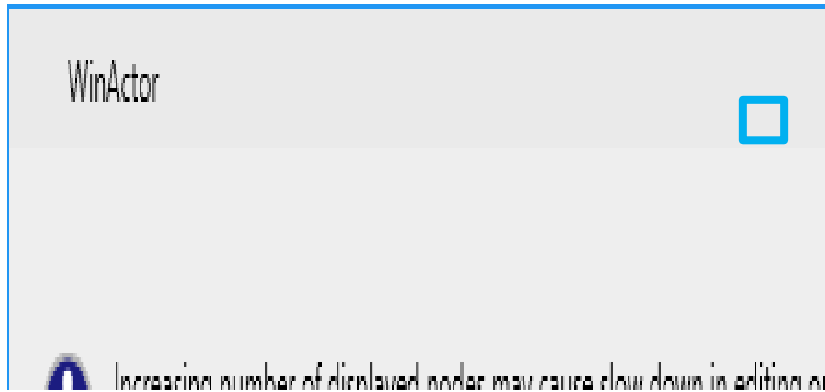
■ Add tab

FULL

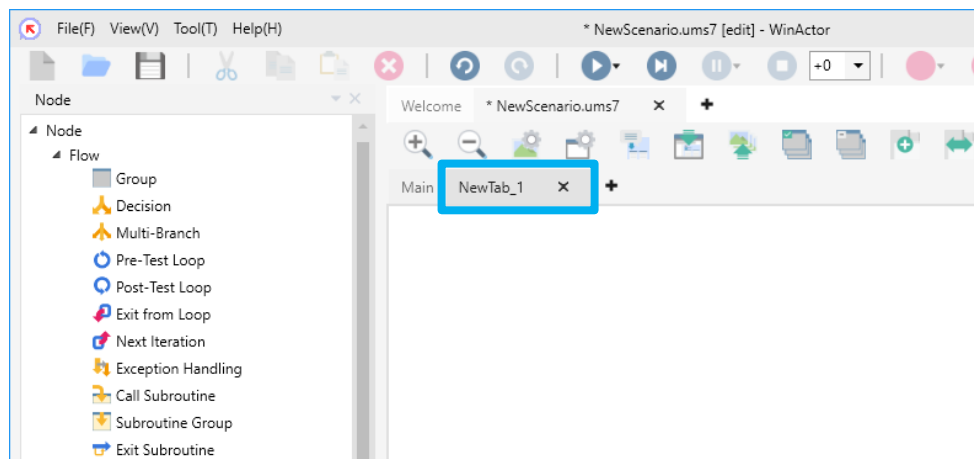
The 'Add tab' icon is used to add a new tab. Tabs can be used to organize the flowchart area.

Steps

1. Click the 'Add tab' icon on the flowchart toolbar.

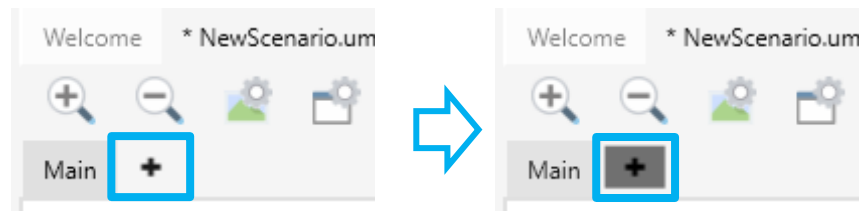


The new tab is added in the flowchart area.



You can also add a new tab by clicking the '+' button on the flowchart tab.

Hover the mouse cursor over the '+' button and click it after its color changes.



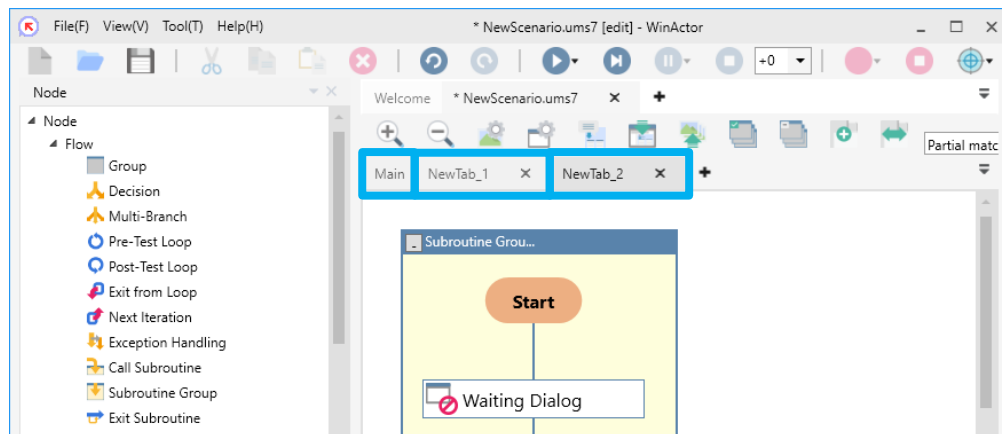


- You can rename a tab by double-clicking the tab name.
- You can also rename the 'Main' tab.

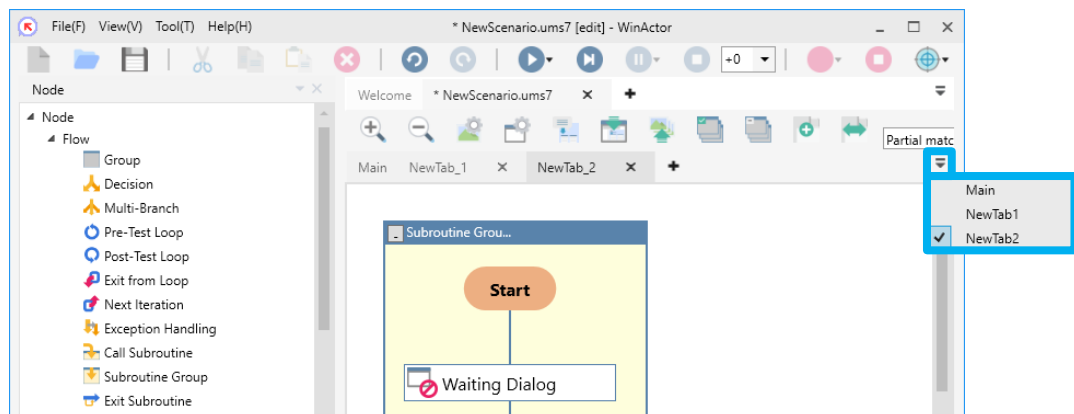


- To delete a tab, click 'X' to the right of the tab name.
- When deleting a tab, no nodes should be left in that tab.

You can switch a tab to be displayed by clicking tabs.



You can also select a tab from the dropdown list by clicking the '▼' button on the far right of the flowchart tab.



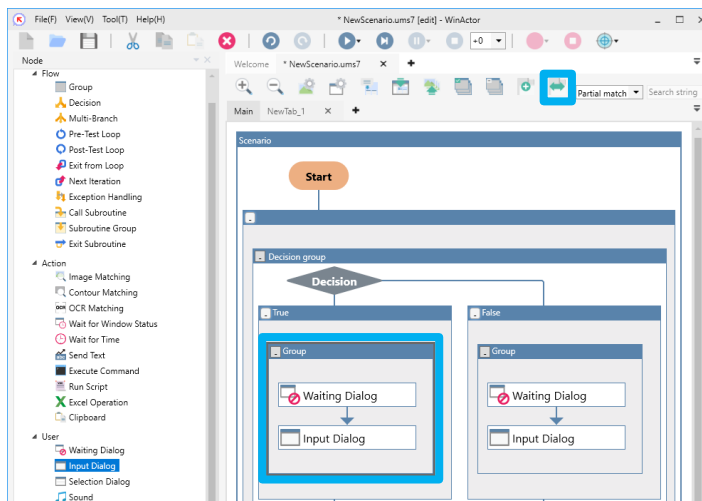
■ Move node to another tab

FULL

The 'Move node to another tab' icon is used to move selected nodes to another tab.

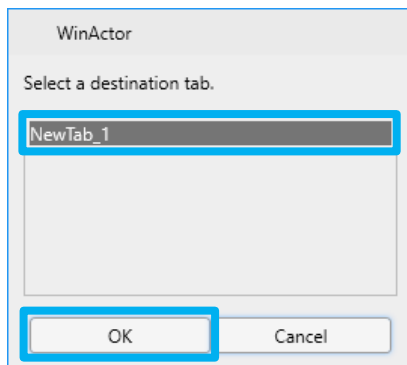
Steps

1. Select nodes you want to move and click the 'Move node to another tab' icon on the flowchart toolbar.

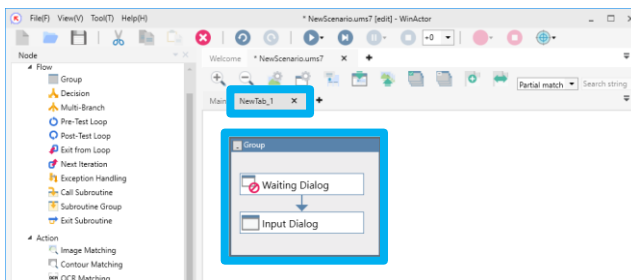


A window for selecting a destination appears.

2. Select a destination tab name and click the 'OK' button.



The selected nodes are moved to the specified destination tab.



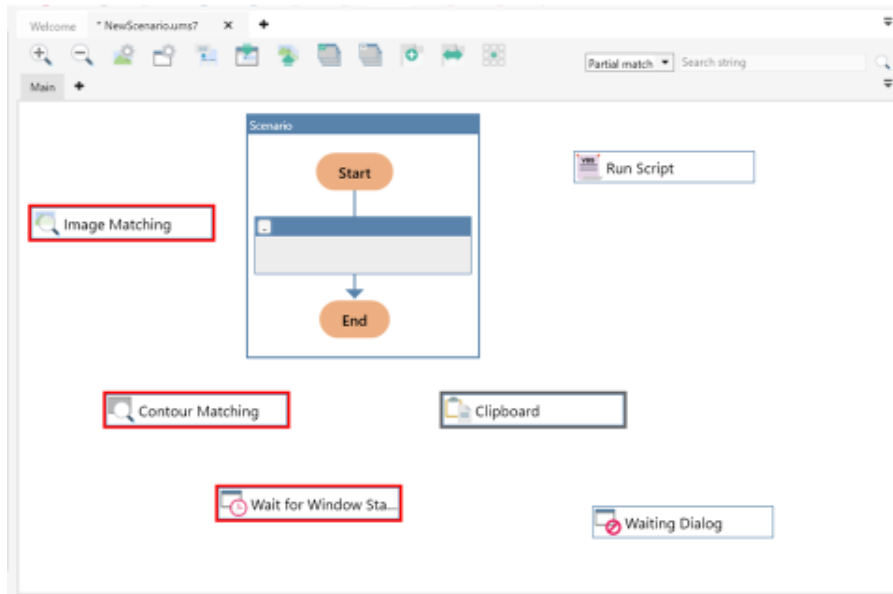
■ Align nodes

FULL

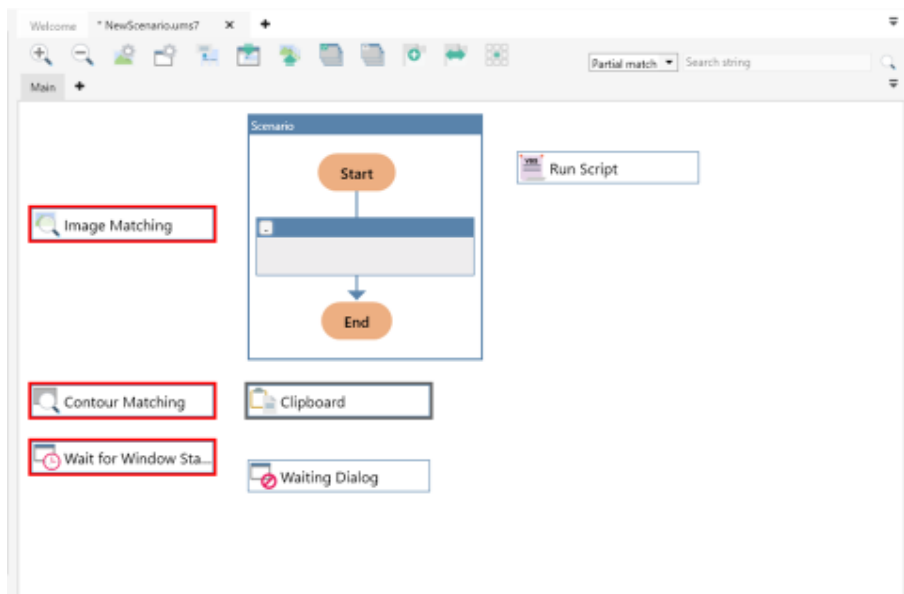
The 'Align nodes' icon is used to gather scattered nodes and align them in a grid shape.

Steps

1. Click the 'Align nodes' icon on the flowchart toolbar.



Nodes scattered in the flowchart area are aligned, and the flowchart area is resized to shrink the unoccupied area.





- The main flow in the currently selected tab, and nodes and sticky notes out of the main flow are aligned.
 - Nodes and sticky notes out of the displayed area are also aligned.
-

3.5.3 Flowchart area

The flowchart area is the area where a scenario is displayed in a flowchart diagram.

■ Operations available in the flowchart area

The following operations are available in the flowchart area.

Table 3-40 Operations available in the flowchart area

No.	Key	Mouse operation	Description
(1)	-	Click	Selects a node.
(2)	'Ctrl'	Click	Inverts the node selection.
(3)	'Shift'	Click	Inverts the node selection.
(4)	-	Right-click	Displays the right-click menu.
(5)	-	Drag with the left mouse button	When a drag is started on a node, moves the node. When a drag is started in an empty area, selects nodes in the specified range.
(6)	-	Drag with the right mouse button	Changes the display area.
(7)	-	Mouse wheel scroll	Changes the display area. (Vertical direction only)
(8)	'Shift'	Mouse wheel scroll	Changes the display area. (Horizontal direction only)
(9)	'Enter'	-	Displays the Property pane.
(10)	-	Double-click (Left)	Displays the Property pane.
(11)	'Ctrl' + 'X'	-	Cuts selected nodes
(12)	'Ctrl' + 'C'	-	Copies selected nodes
(13)	'Ctrl' + 'V'	-	Pastes selected nodes
(14)	'Delete'	-	Deletes selected nodes
(15)	'Ctrl' + 'Z'	-	Undoes the last operation
(16)	'Ctrl' + 'Y'	-	Redoes the last undone operation
(17)	'Ctrl' + 'S'	-	Saves a scenario.
(18)	'Ctrl'	Mouse wheel scroll	Changes the zoom level.
(19)	'↑' '↓' '←' '→'	-	Moves the selection cursor up, down, left, or right.
(20)	'*' '/'	-	Moves the selection cursor inside or outside a group.
(21)	'+' '-'	-	Opens or closes a group.

No.	Key	Mouse operation	Description
(22)	'Ctrl' + 'M'	-	Displays the 'Image' tab window.
(23)	'Ctrl' + 'W'	-	Displays the 'WinID management' window.
(24)	'Ctrl' + 'E'	-	Displays the 'Scenario information' window.
(25)	'Ctrl' + 'O'	-	Opens all closed groups at once.
(26)	'Ctrl' + 'L'	-	Closes all unselected groups at once.
(27)	'Ctrl' + 'J'	-	Displays 'Subroutine Group' called by 'Call Subroutine.'



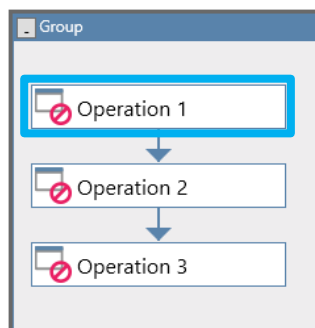
If the license type of edition is the RUN edition, operations related to editing will not be available.

■ Selecting a node with the mouse

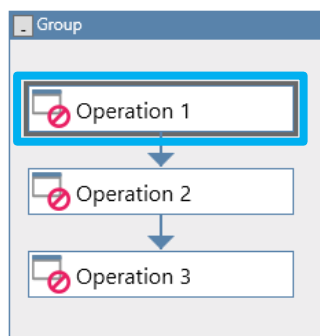
A node can be selected by operating the mouse.

Steps

1. Click a node in the flowchart area.



The node is in the selected state.



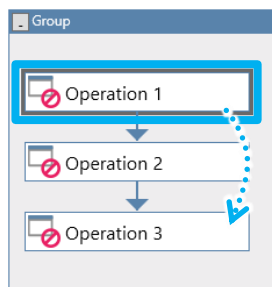
■ Moving a node

FULL

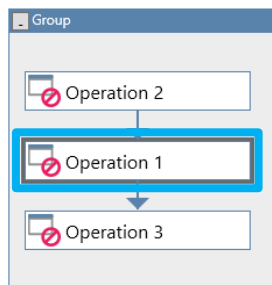
A node selected in the flowchart area can be swapped or moved by dragging it.

Steps

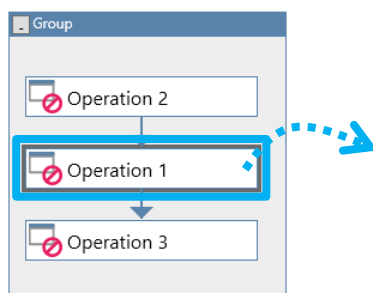
1. Drag a node you want to move and drop it between other nodes.



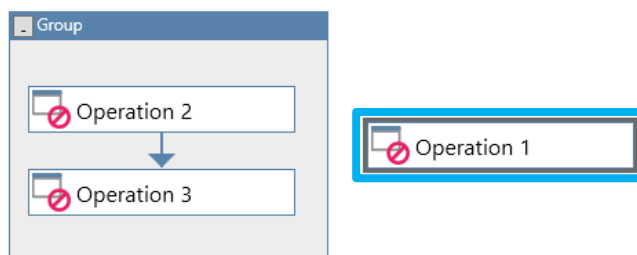
The order of nodes is changed.



2. Drag a node and drop it anywhere.



The node is moved.

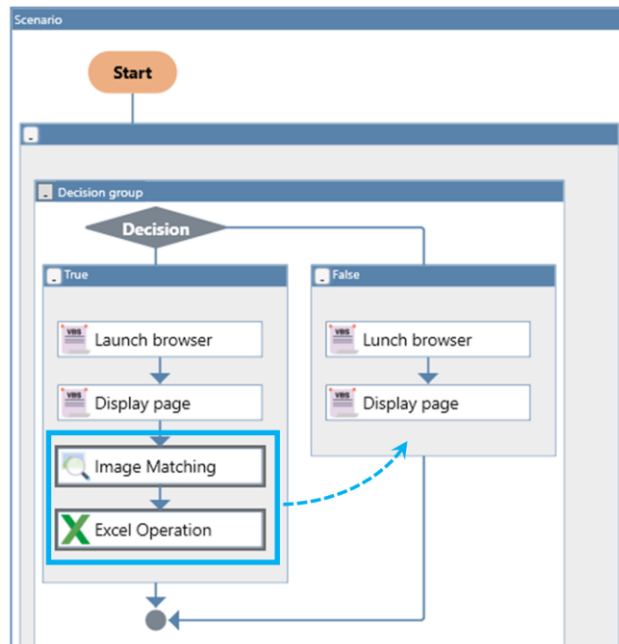


- Moving multiple nodes at the same time

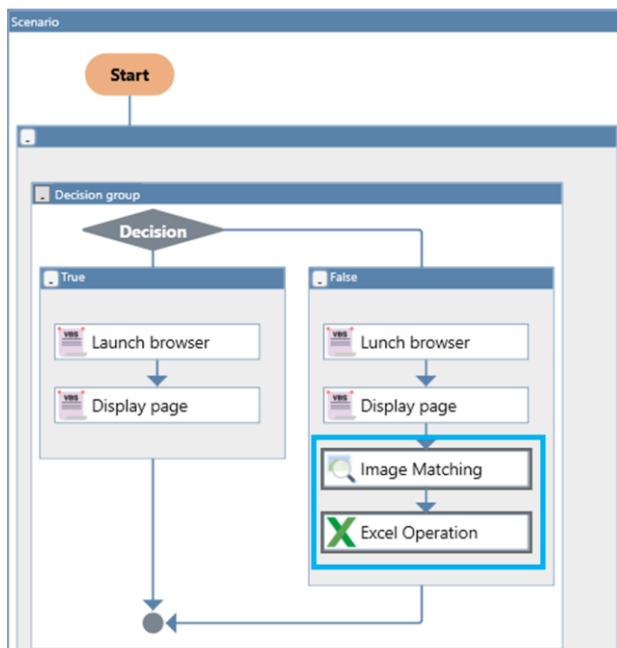
Multiple nodes can be selected and moved together in the flowchart.

Steps

1. Select multiple nodes and drag them.



2. Drop them in the flowchart.
Multiple nodes are moved.



■ Opening and closing a group

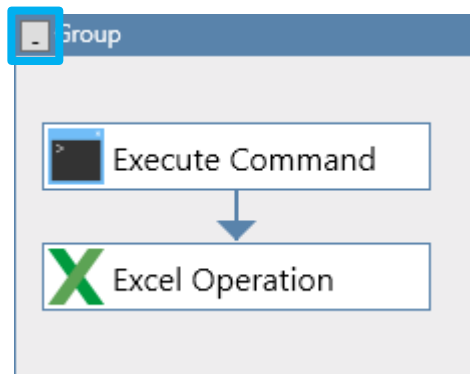
A group of nodes with the button of  or  can be opened or closed by clicking the button.

To close all opened nodes at once, use the 'Close all groups' icon on the flowchart toolbar.

 See "Close all groups."

Steps

1. Click the  button of the group.



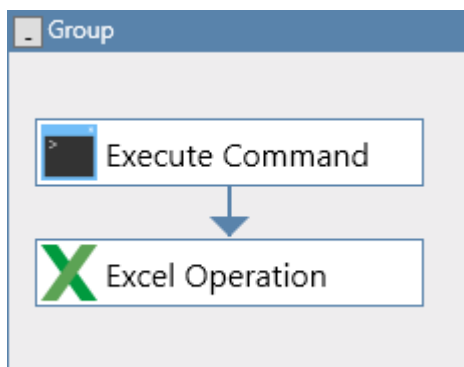
The group of nodes are closed.



2. Click the  button of the group.



The group of nodes are opened.



■ Operating a node with the keyboard

By selecting a node in the flowchart area and pressing the corresponding cursor key, a node above, below, on the right, or on the left of the selected node can be selected. Moreover, by pressing the corresponding cursor key, a group can be opened or closed, and a parent group or a child element can be selected.

The keys that correspond to operations are listed in the table below.

Table 3-41 Keys that correspond to operations

No.	Key	Description
(1)	'↓'	Follows downward from a selected node and selects the next node. An open empty group will be skipped.
(2)	'↑'	Follows upward from a selected node and selects the previous node. An open empty group will be skipped.
(3)	'→'	In 'Decision,' 'Multi-Branch,' and 'Exception Handling,' selects a node in the block to the right side of a selected node. An open empty block will be skipped.
(4)	'←'	In 'Decision,' 'Multi-Branch,' and 'Exception Handling,' selects a node in the block to the left side of a selected node. An open empty block will be skipped.
(5)	'*'	Selects a parent group of a selected node.
(6)	'/'	Selects the first node of child elements in a selected group.
(7)	'+'	Opens a selected group.
(8)	'-'	Closes a selected group.



- The selection cursor cannot be moved between the main flow, floating flow, and subroutines. To move the selection cursor, select a relevant node by clicking the mouse.
- Operations by pressing keys are available only when a single node is selected.

3.5.4 Node search

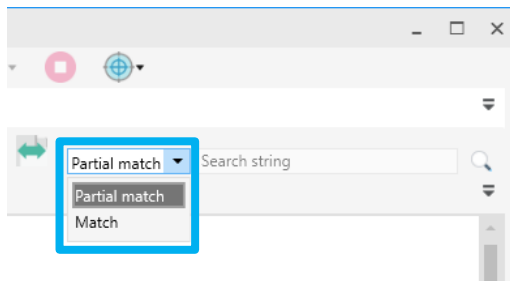
If a flowchart grows and it is difficult to find a particular node in a scenario, use the node search area to find that node.



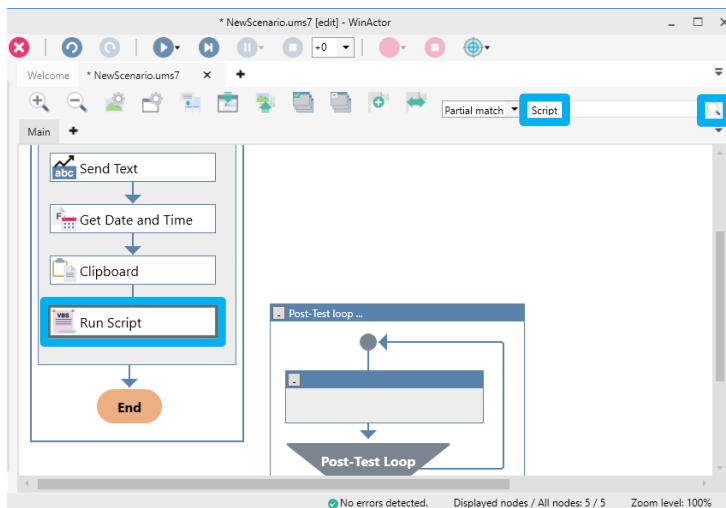
You can also press the 'Ctrl' + 'F' keys to move the focus to the node search area.

Steps

1. In the node search area displayed to the right of the flowchart toolbar, select 'Partial match' or 'Match' from the dropdown menu.



2. Enter a node name, comment, or node ID in the search box and click the search icon .



The corresponding node is selected.



- If there are multiple corresponding nodes, click the search icon  again and the next corresponding node will be selected.
- If you click the search icon  while the conditions that match multiple nodes are entered, tabs may switch.

3.5.5 Right-click menu

Right-click in the flowchart display area to display the right-click menu and select an operation from the displayed menu.

Figure 3-42 Right-click menu

Cut	Ctrl+X
Copy	Ctrl+C
Paste	Ctrl+V
Delete	Del
Add sticky note	
Show/Hide sticky notes at once	▶
Group	
Ungroup	
Change to subroutine	
Add to User Library	
Move node to another tab	
Skip this node	
Add breakpoint	
Partial run	
Run from here	
Jump to subroutine	Ctrl+J
Properties	

Table 3-42 Operations in the right-click menu

No.	Menu	Description
(1)	Cut	Cuts elements selected in the flowchart area. ➤➤ See "3.3.1 Edit scenario by using icons."
(2)	Copy	Copies elements selected in the flowchart area. ➤➤ See "3.3.1 Edit scenario by using icons."
(3)	Paste	Pastes elements copied or cut in the flowchart area into the flowchart area. ➤➤ See "3.3.1 Edit scenario by using icons."
(4)	Delete	Deletes elements selected in the flowchart area. ➤➤ See "3.3.1 Edit scenario by using icons."

No.	Menu	Description
(5)	Add sticky note / Show sticky notes / Hide sticky notes / Attach sticky note/ Detach sticky note:	Adds, shows, hides, attached, and detaches a sticky note.  See "Add sticky note."  See "Hide sticky notes"  See "Show sticky notes"  See "Detach sticky note."  See "Attach sticky note."
(6)	Show/Hide sticky notes at once	Shows or hides sticky notes at once.  See "Show/Hide sticky notes - Show."  See "Show/Hide sticky notes - Hide."
(7)	Group	Groups selected nodes into one group.  See "Group."
(8)	Ungroup	Ungroups a selected group.  See "Ungroup."
(9)	Change to subroutine	Changes a set of scenarios in a selected group into a subroutine.  See "Change to subroutine."
(10)	Add to User Library	Adds selected nodes to User Library.  See "Add to User Library."
(11)	Move node to another tab	Moves selected nodes to another tab.  Move node to another tab."
(12)	Skip this node / Run this node	Skips running a node you do not want to run temporarily or runs a skipped node.  See "Skip this node."  See "Run this node."
(13)	Add breakpoint / Disable breakpoint	Adds a breakpoint to a selected node or disables a breakpoint.  See "Add breakpoint."  See "Disable breakpoint."
(14)	Partial run	Runs only a part of a scenario.  See "Partial run."
(15)	Run from here	Starts a run from a part of a scenario.  See "Run from here."
(16)	Jump to subroutine	Moves the cursor to 'Subroutine Group' called by 'Call subroutine.'  See "Jump to subroutine."
(17)	Properties	Displays the Property pane of a selected node.  See "Properties."

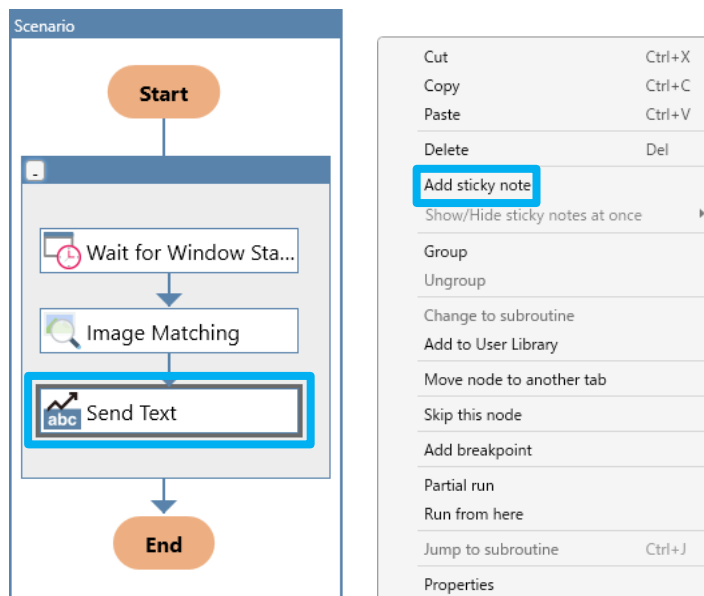
■ Add sticky note

FULL

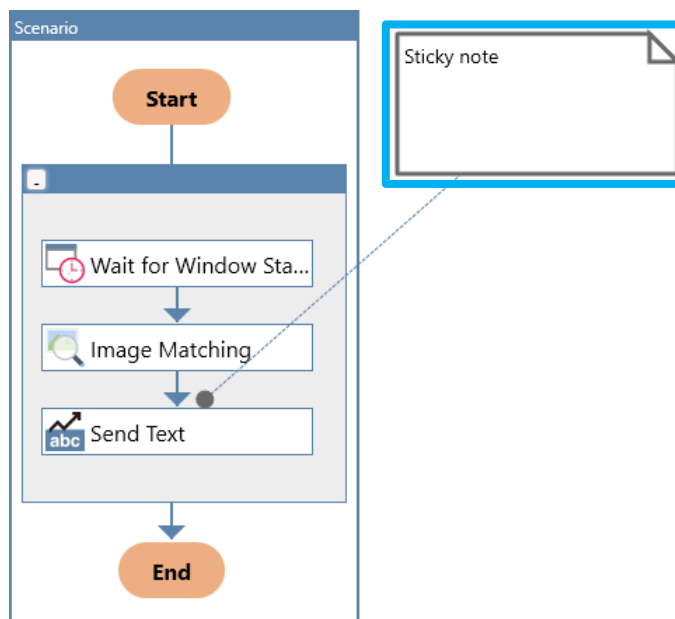
'Add sticky note' is used to add a sticky note. If a sticky note is added with a node selected, the sticky note will be attached to the selected node.

Steps

1. Select a node to which you want to add a sticky note in the flowchart area and select 'Add sticky note' from the right-click menu.



The sticky note is added.

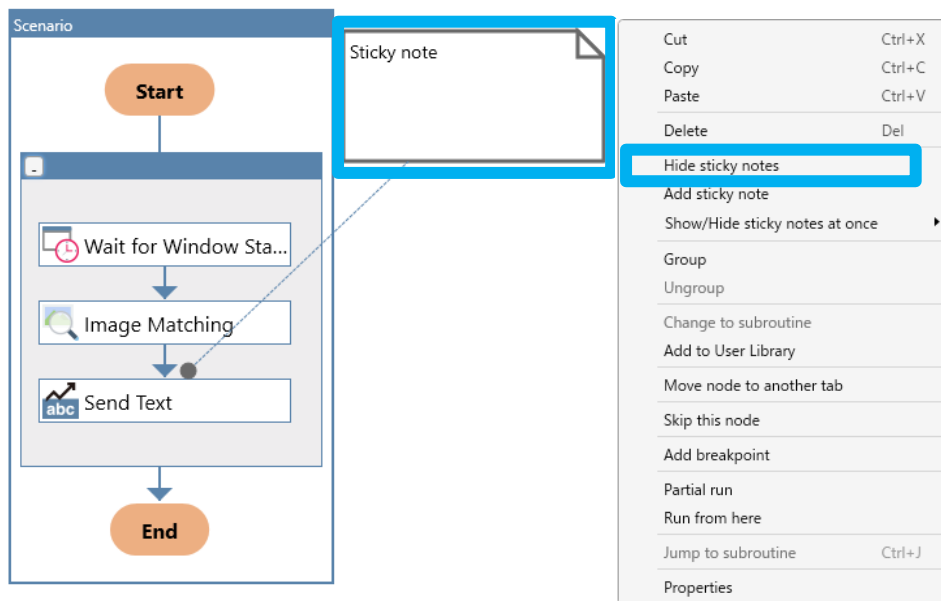


■ Hide sticky notes

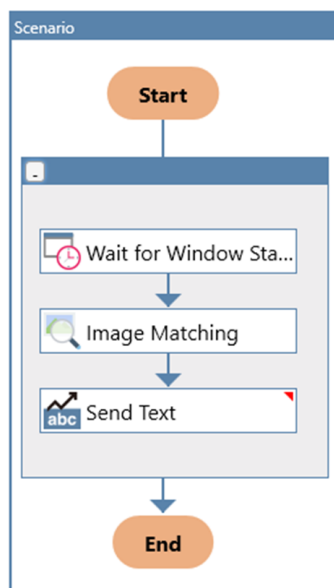
'Hide sticky notes' is used to hide sticky notes attached to a node. If a sticky note that is not attached to a node is selected, the 'Hide sticky notes' menu will not be displayed.

Steps

1. Select a sticky note attached to a node in the flowchart area and select 'Hide sticky notes' from the right-click menu.



The sticky note is hidden. The node with hidden sticky note(s) has a red triangle in the corner.

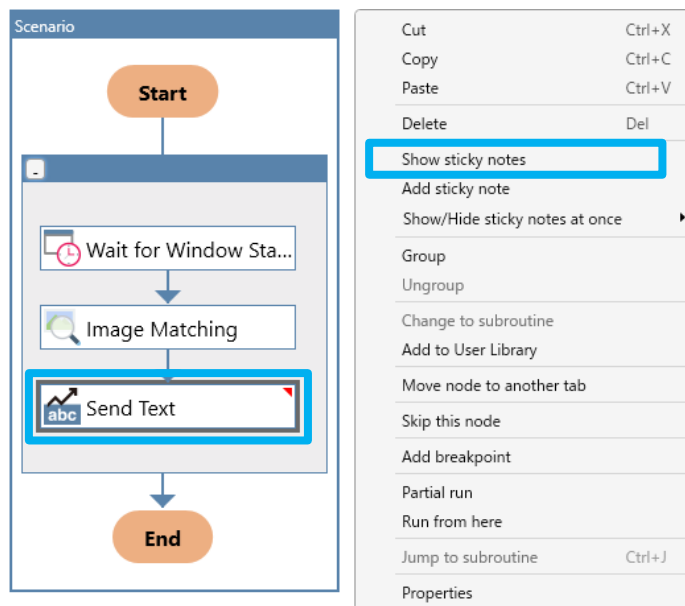


■ Show sticky notes

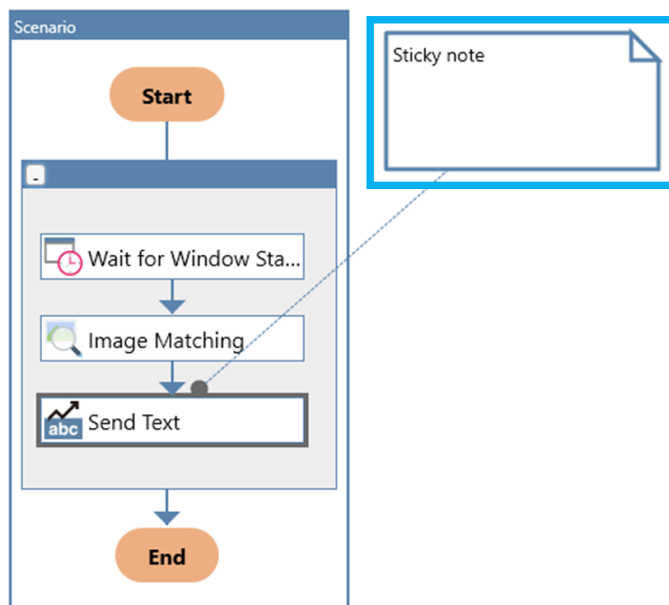
'Show sticky notes' is used to display hidden sticky notes. If a node without a red triangle in the corner is selected, the 'Show sticky notes' menu will not be displayed.

Steps

1. In the flowchart area, select a node with a red triangle in the corner and select 'Show sticky notes' from the right-click menu.



The sticky note is displayed and the red triangle on the node disappears.



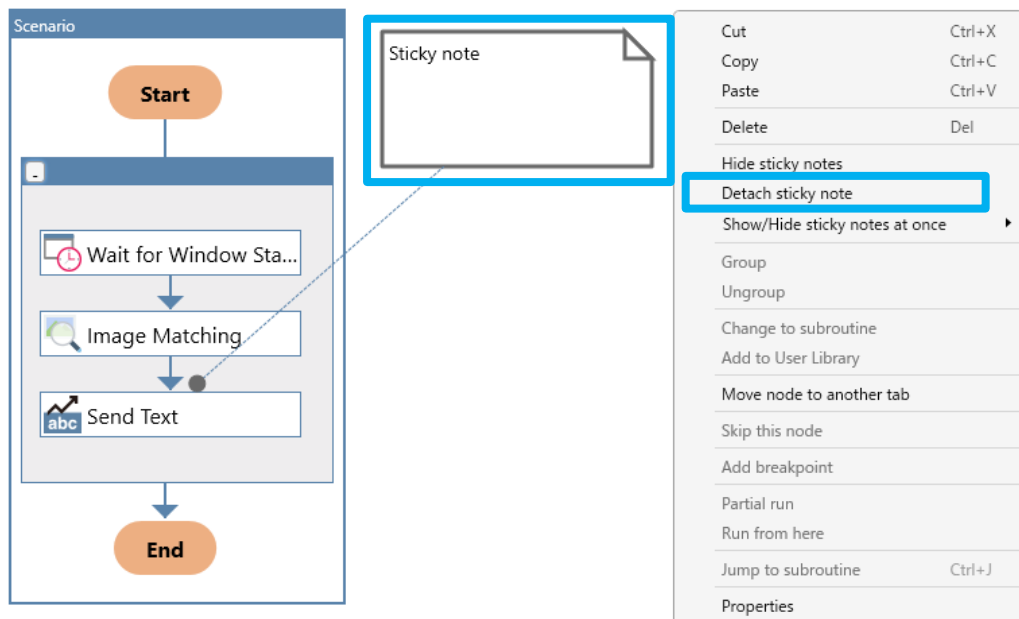
■ Detach sticky note

FULL

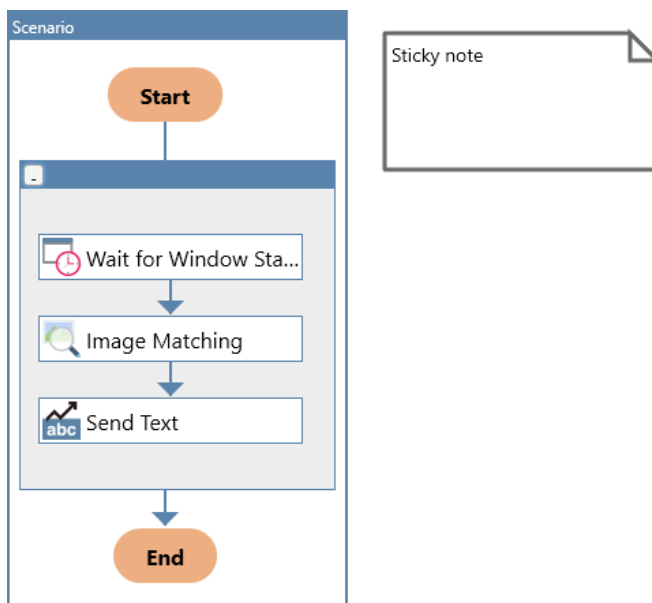
'Detach sticky note' is used to detach a sticky note attached to a node. If a sticky note that is not attached to a node is selected, the 'Detach sticky note' menu will not be displayed.

Steps

1. Select a sticky note attached to a node in the flowchart area and select 'Detach sticky note' from the right-click menu.



The sticky note is detached.



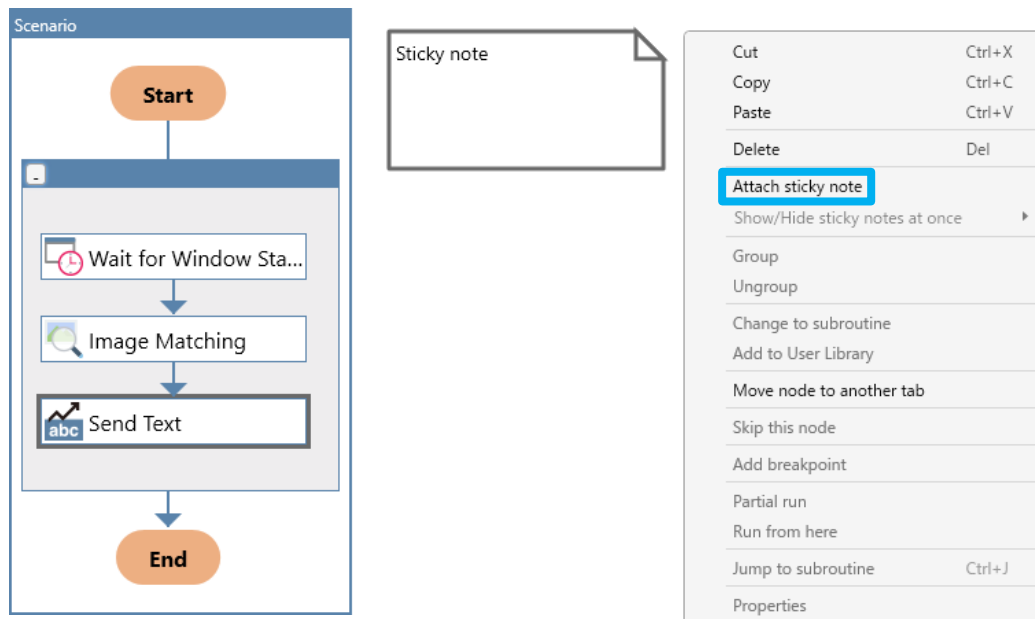
■ Attach sticky note

FULL

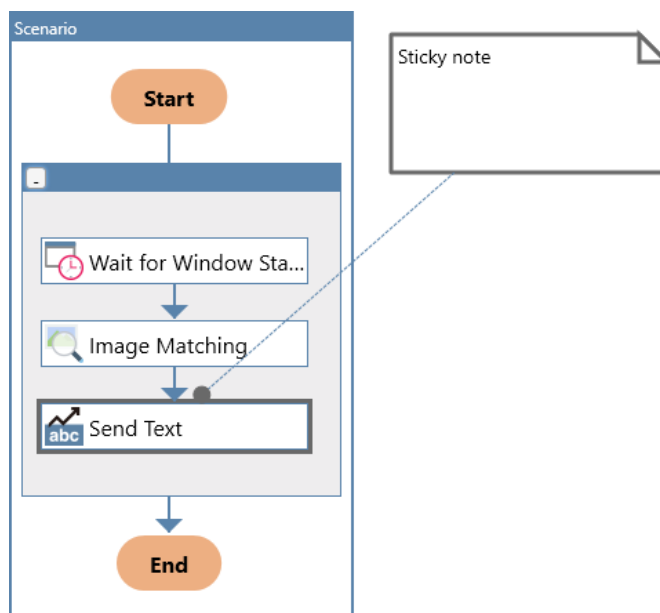
'Attach sticky note' is used to attach a sticky note to a selected node. The 'Attach sticky note' menu will be displayed when a node and a sticky note that is not attached to a node are selected.

Steps

1. Select a node and a sticky note that is not attached to a node in the flowchart area and select 'Attach sticky note' from the right-click menu.



The sticky note is attached to the node.

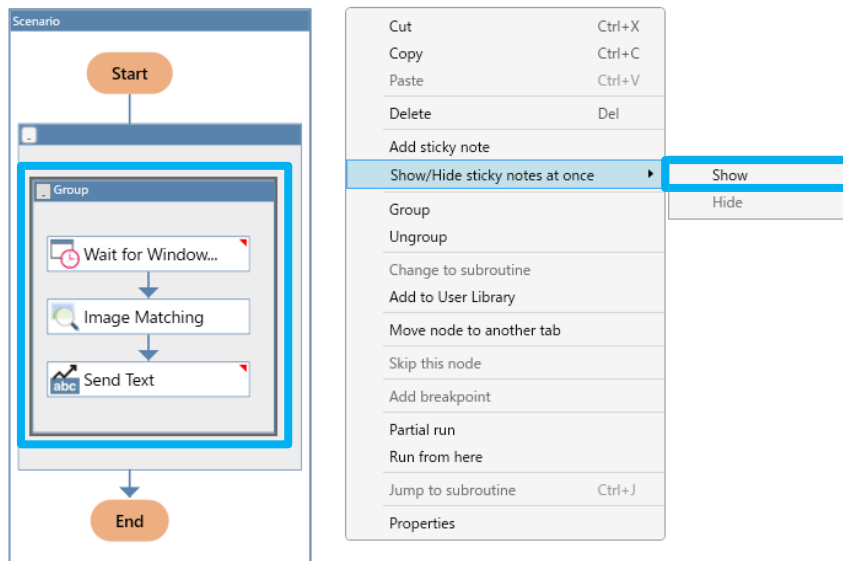


■ Show/Hide sticky notes - Show

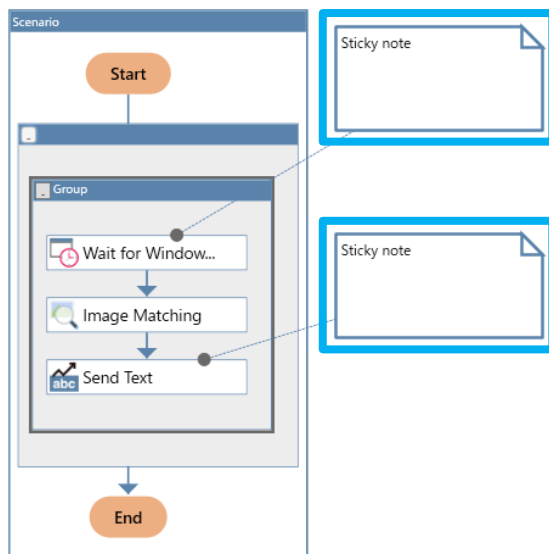
'Show' under 'Show/Hide sticky notes' menu is used to display selected or grouped sticky notes. Selecting 'Show' under 'Show/Hide sticky notes' menu without selecting any node will display all the hidden sticky notes in the flowchart area at once. Unattached sticky notes will be left intact.

Steps

1. Select nodes with red triangles or groups with the nodes with red triangles, and select 'Show' under 'Show/Hide sticky notes' from the right-click menu.



The sticky notes are shown, and the red triangles on the nodes disappear.

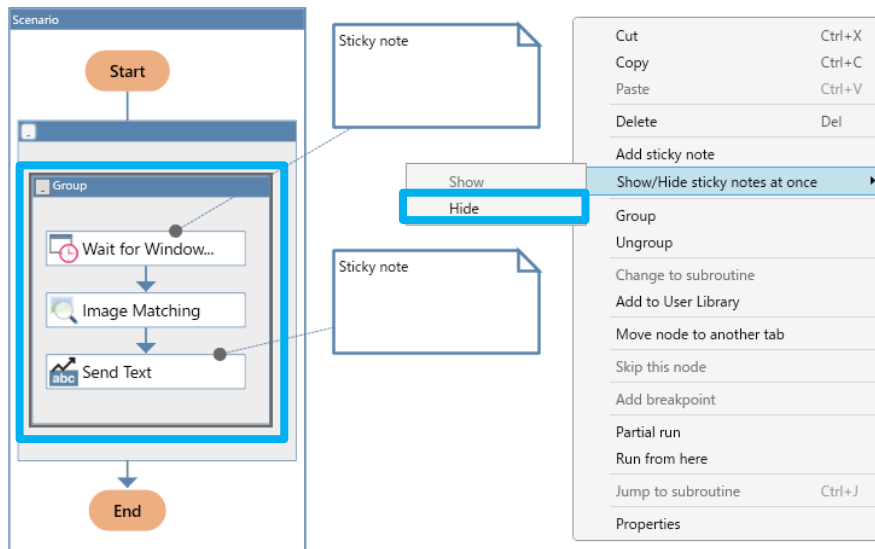


■ Show/Hide sticky notes - Hide

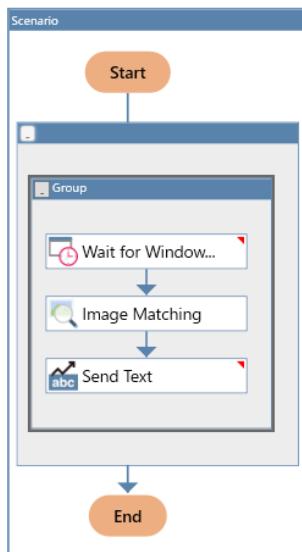
'Hide' under 'Show/Hide sticky notes' menu is used to hide selected or grouped sticky notes. Selecting 'Hide' under 'Show/Hide sticky notes' menu without selecting any node will hide all the shown sticky notes in the flowchart area at once. Unattached sticky notes will be left intact.

Steps

1. Select nodes with attached sticky notes or groups with the nodes with attached sticky notes, and select 'Hide' under 'Show/Hide sticky notes' from the right-click menu.



The sticky notes are hidden, and a red triangle is shown in the corner of each node.



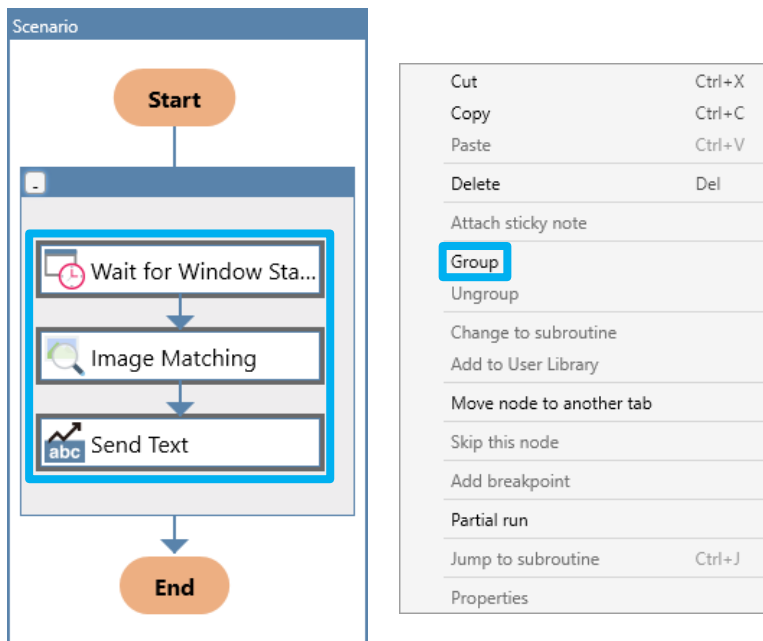
■ Group

FULL

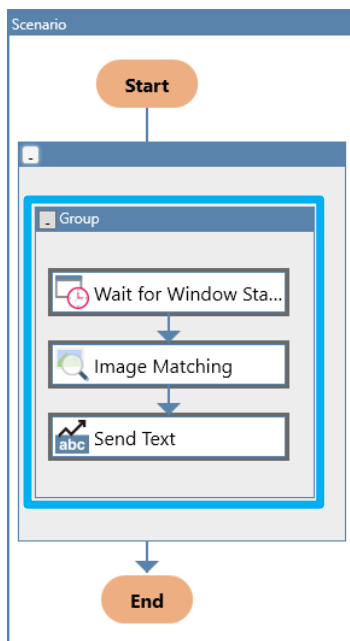
'Group' is the operation of grouping selected nodes into one group.

Steps

1. In the flowchart area, select a node or consecutive nodes you want to group in the main flow or floating flow and select 'Group' from the right-click menu.



The selected nodes are grouped.



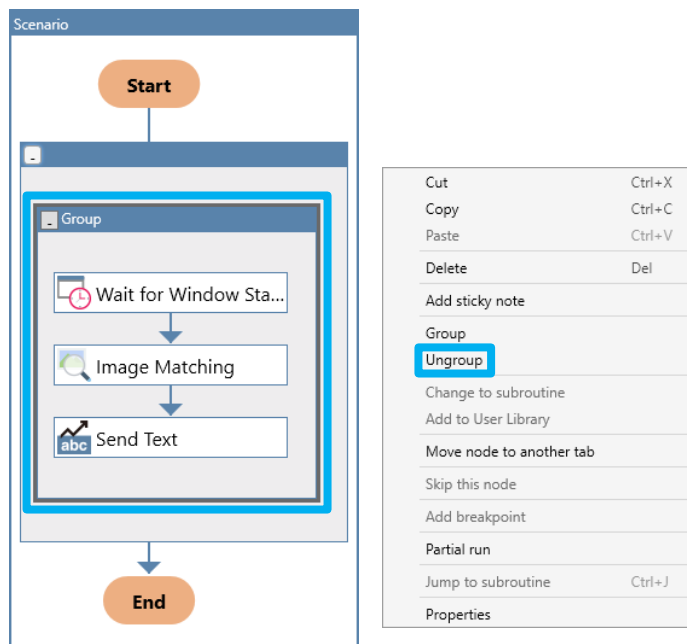
■ Ungroup

FULL

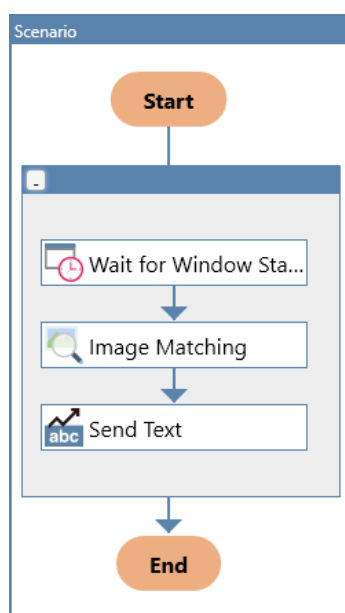
'Ungroup' is the operation of ungrouping a selected group of nodes and placing the nodes in the place where the group was located.

Steps

1. Select a group you want to ungroup in the flowchart area and select 'Ungroup' from the right-click menu.



The grouped nodes are ungrouped.



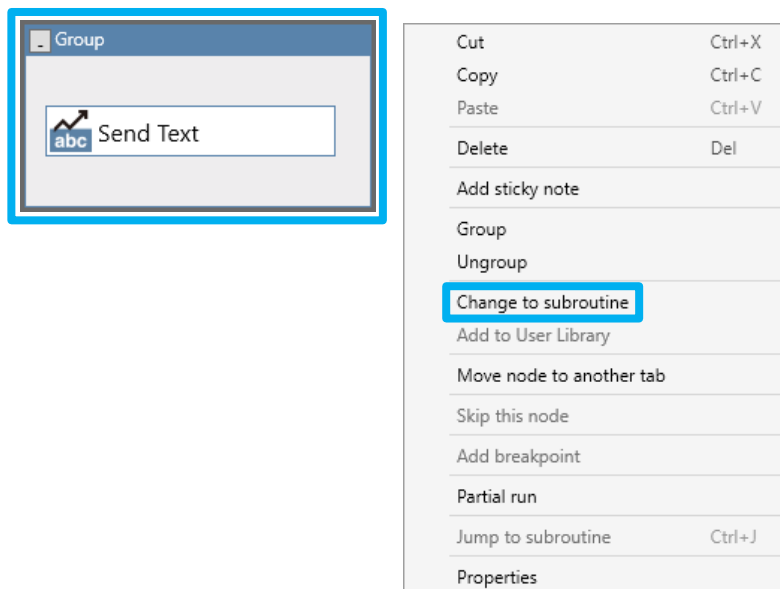
■ Change to subroutine

FULL

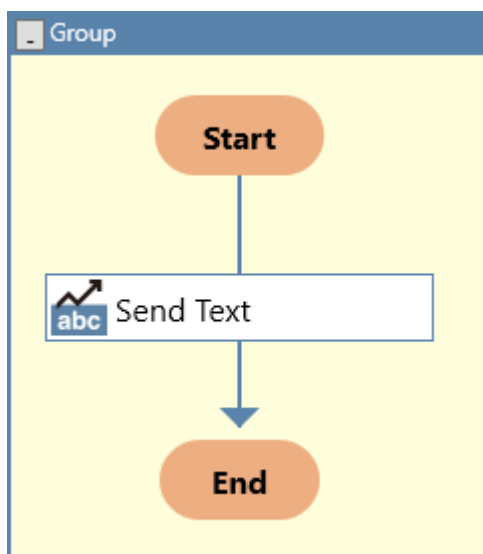
'Change to subroutine' is the operation of changing a set of scenarios in a selected group into a subroutine.

Steps

1. In the flowchart area, select a group you want to change into a subroutine in the floating flow and select 'Change to subroutine' from the right-click menu.



The group changed into the subroutine is displayed in yellow.



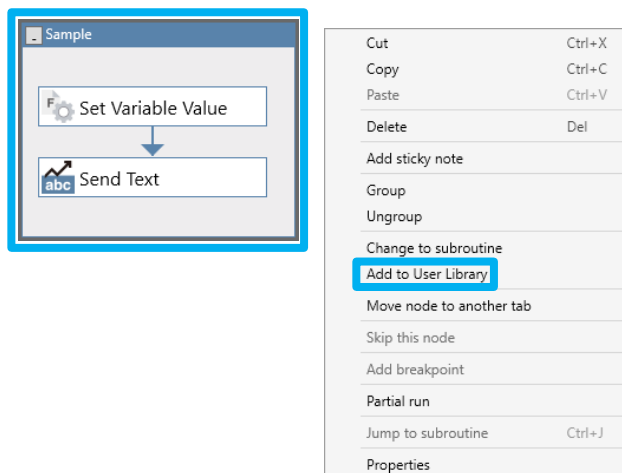
■ Add to User Library

FULL

'Add to User Library' is the operation of adding selected nodes to the Library palette so that they can be reused in other scenarios.

Steps

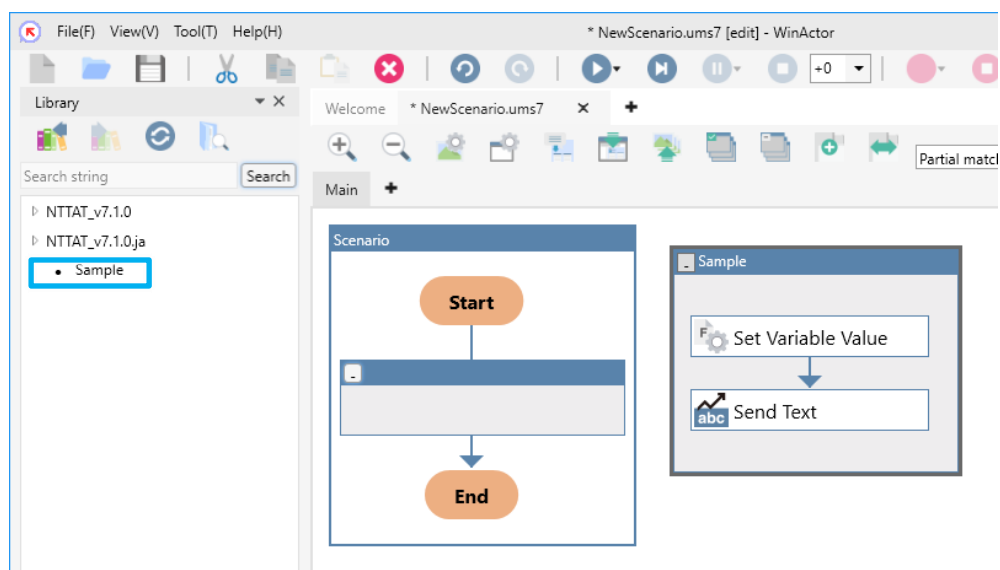
1. In the flowchart area, select a node, group, or subroutine group you want to add to the Library palette and select 'Add to User Library' from the right-click menu.



The selected node, group or subroutine group is added to the Library palette as a user library and is selected in the flowchart area. The name of the added user library will be the name of the selected node, group, or subroutine group.



It will be added to the Library palette only if a node that references a subroutine is not included.



■ Move node to another tab

FULL

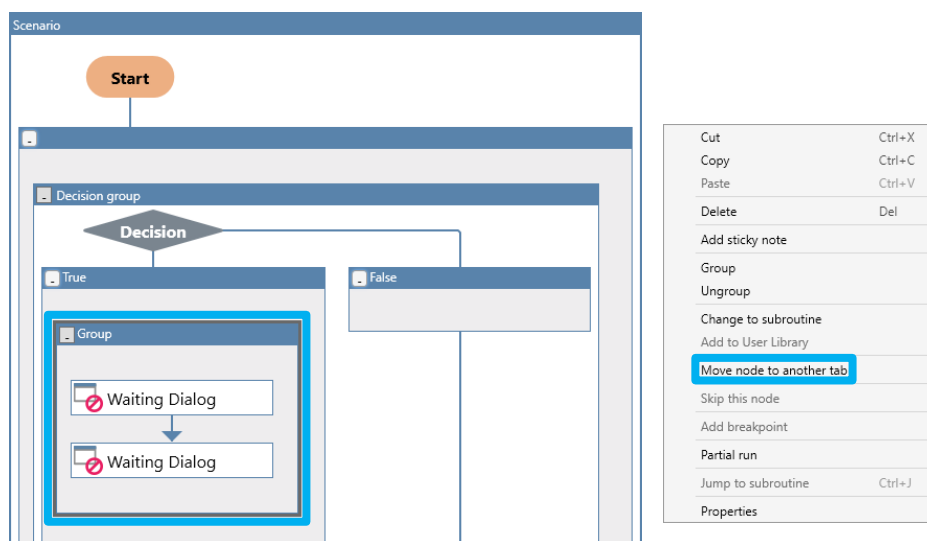
'Move node to another tab' is the operation of moving selected nodes to another tab.

It has the same function as the 'Move node to another tab' icon on the flowchart toolbar.

>> For the flowchart toolbar, see "3.5.2 Flowchart toolbar."

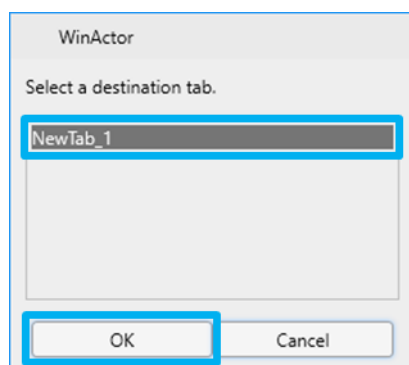
Steps

1. Select nodes you want to move in the flowchart area and select 'Move node to another tab' from the right-click menu.

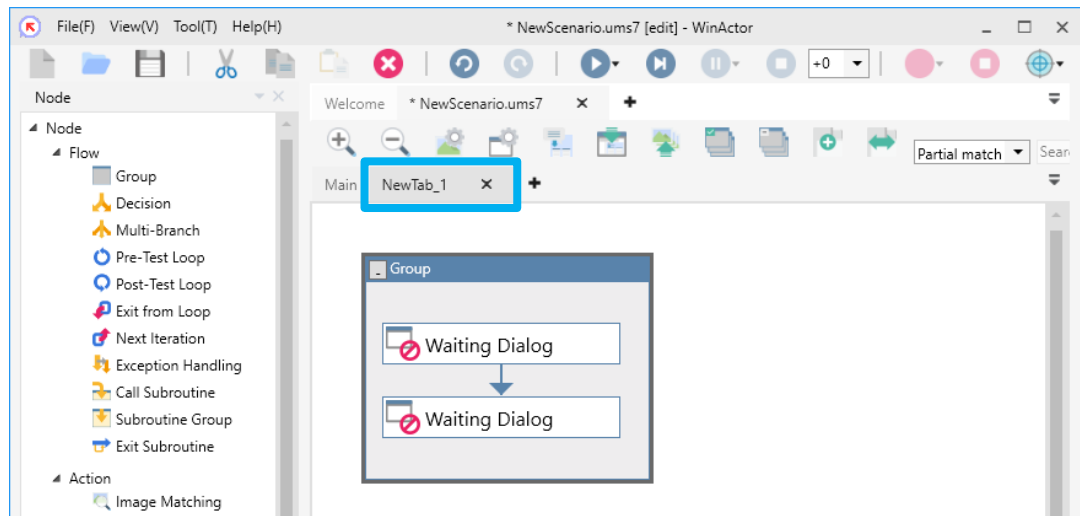


The dialog to select a destination tab appears.

2. Select a destination tab name and click the 'OK' button.



The nodes are moved to the selected tab.



■ Skip this node

FULL

‘Skip this node’ is used for a node you do not want to run temporarily. The node with ‘Skip this node’ set will not be processed and will be skipped running. If ‘Skip this node’ is set, the scenario will be in the editing state.

Steps

- 1. Select a node you want to skip running in the flowchart area and select ‘Skip this node’ from the right-click menu.

Scenario

Start

Waiting Dialog

abc

Send Text

End

Cut

Ctrl+X

Copy

Ctrl+C

Paste

Ctrl+V

Delete

Del

Add sticky note

Group

Ungroup

Change to subroutine

Add to User Library

Move node to another tab

Skip this node

Add breakpoint

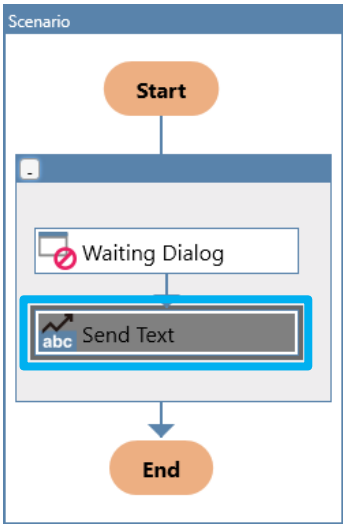
Partial run

Jump to subroutine

Ctrl+J

Properties

The background color of the text of the node with ‘Skip this node’ set is displayed in gray.



!

The status of the ‘Skip this node’ setting will not be saved to a scenario file unless ‘Save run/skip node status’ in the Misc. tab of the Scenario information window is checked.

■ Run this node

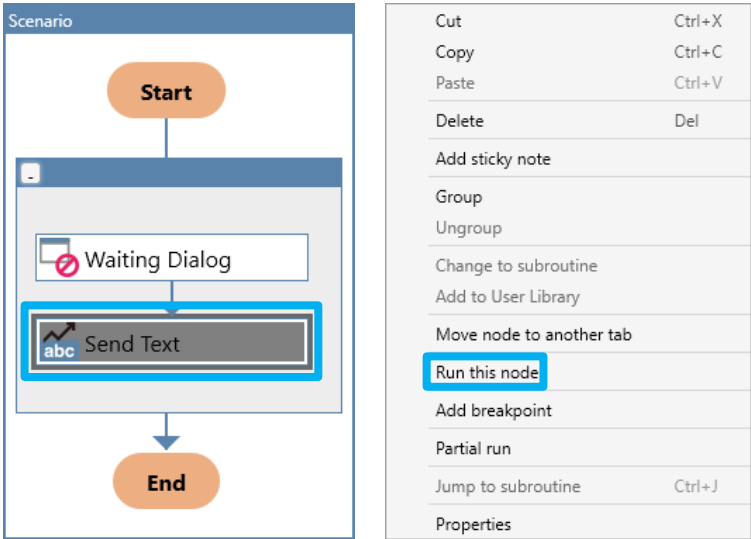
FULL

'Run this node' is used to cancel 'Skip this node' set for a node. By canceling 'Skip this node,' the node will be processed and run.

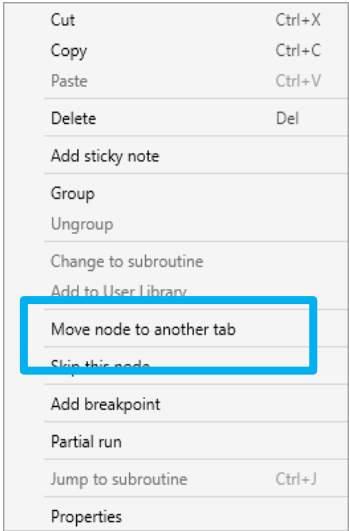
- 
- 'Run this node' can be selected when 'Skip this node' is set for the selected node.
 - If 'Skip this node' is canceled, the scenario will be in the editing state.

Steps

1. Select a node you want to cancel 'Skip this node' in the flowchart area and select 'Run this node' from the right-click menu.



The background color of the text of the node with 'Run this node' set is returned to the standard color.



■ Add breakpoint

FULL

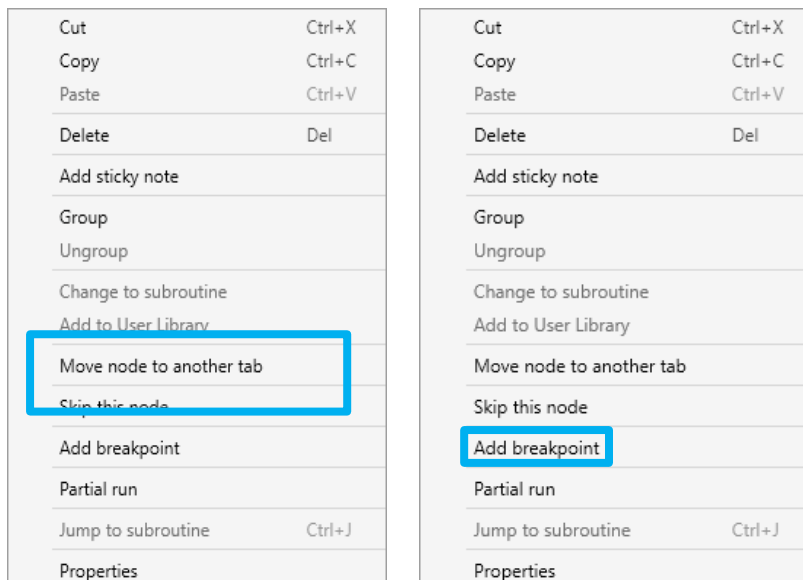
'Add breakpoint' is used to set a breakpoint for a selected node. The node with the breakpoint set will be displayed in an orange frame and will be paused when it is run (before it is run).



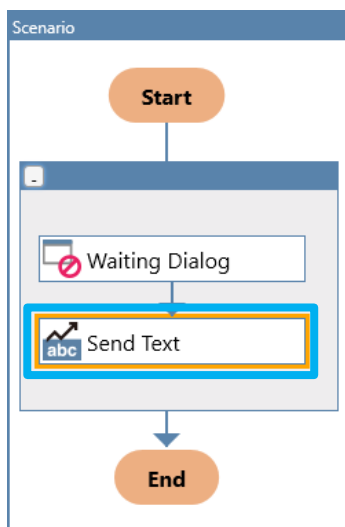
'Add breakpoint' can be selected when a breakpoint has not been set for the selected node.

Steps

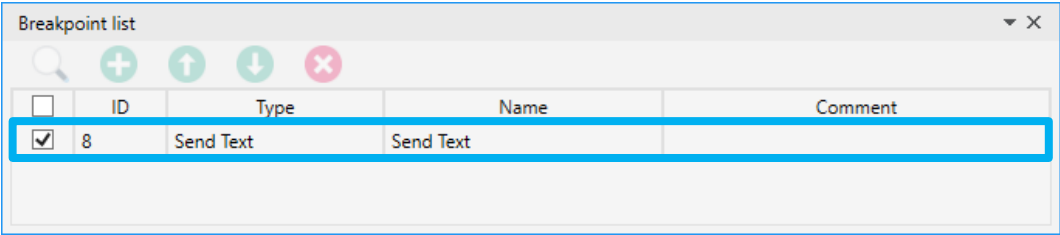
1. Select a node you want to set a breakpoint in the flowchart area and select 'Add breakpoint' from the right-click menu.



The node with the breakpoint added is displayed in an orange frame (when it is not selected).



The node with the breakpoint added is displayed in the 'Breakpoint list' pane.



 The status of the breakpoint setting will be saved in a scenario file.
However, it will not be saved with the operation to add to User Library.

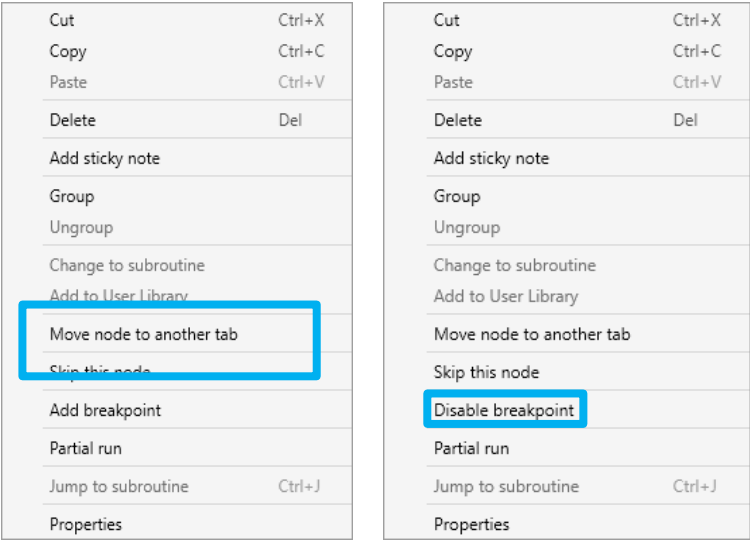
■ Disable breakpoint

FULL

'Disable breakpoint' is used to cancel the breakpoint added for a selected node.
'Disable breakpoint' can be selected when the breakpoint for the selected node is valid.

Steps

1. Select a node you want to disable the breakpoint in the flowchart area and select 'Disable breakpoint' from the right-click menu.



The frame of the node with the breakpoint disabled returns to the standard color.

Cut	Ctrl+X
Copy	Ctrl+C
Paste	Ctrl+V
Delete	Del
Add sticky note	
Group	
Ungroup	
Change to subroutine	
Add to User Library	
Move node to another tab	
Skip this node	
Add breakpoint	
Partial run	
Jump to subroutine	Ctrl+J
Properties	

In the 'Breakpoint list' pane, the check box of the node with the breakpoint disabled is unchecked.

Breakpoint list				
☐	ID	Type	Name	Comment
☐	8	Send Text	Send Text	

■ Partial run

FULL

'Partial run' is used to run only a part of a scenario.

In 'Partial run,' the selected nodes in the flowchart area will be run.

 For the operation procedure of "Partial run," see "5.4.2 Partial run."

■ Run from here

FULL

'Run from here' is used to start a run from a part of a scenario.

In 'Run from here,' the nodes after the selected node in the flowchart area will be run.

 For the operation procedure of "Run from here," see "5.4.3 Run from here."

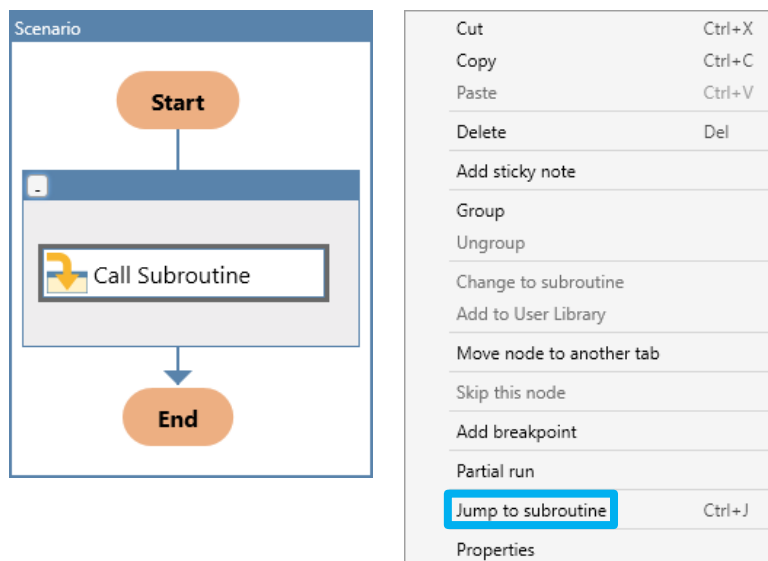
■ Jump to subroutine

FULL

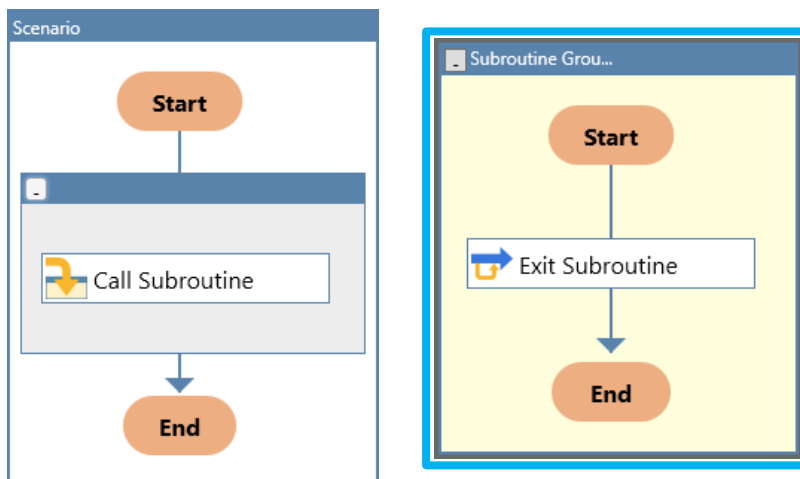
'Jump to subroutine' is used to jump to the 'Subroutine Group' node called from the 'Call Subroutine' node and set it to the selected state.

Steps

1. Select the 'Call Subroutine' node in the flowchart area and select 'Jump to subroutine' from the right-click menu.



The display changes to the called 'Subroutine Group' node, and it is in the selected state.



You can also perform 'Jump to subroutine' by pressing the 'Ctrl' + 'J' keys.

■ Properties

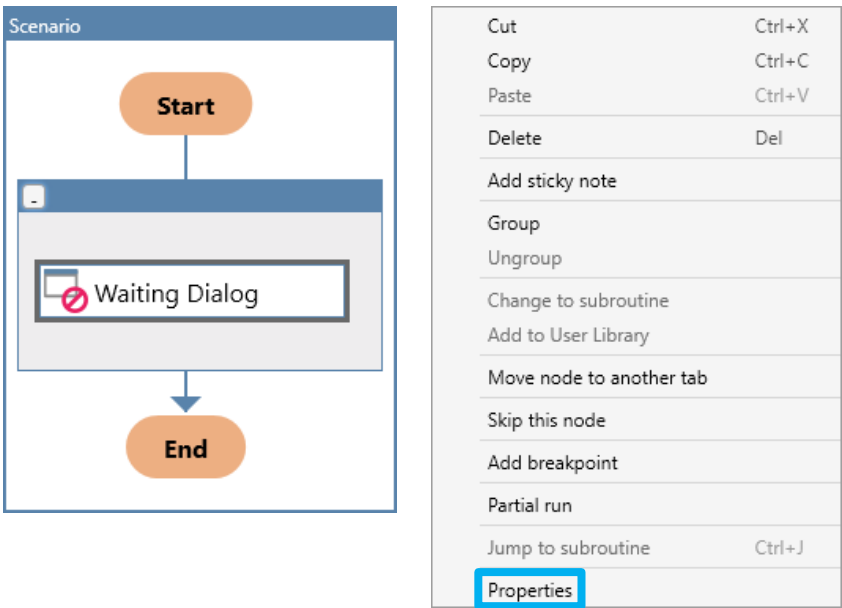
FULL

‘Properties’ is used to display the Property pane of a selected node.

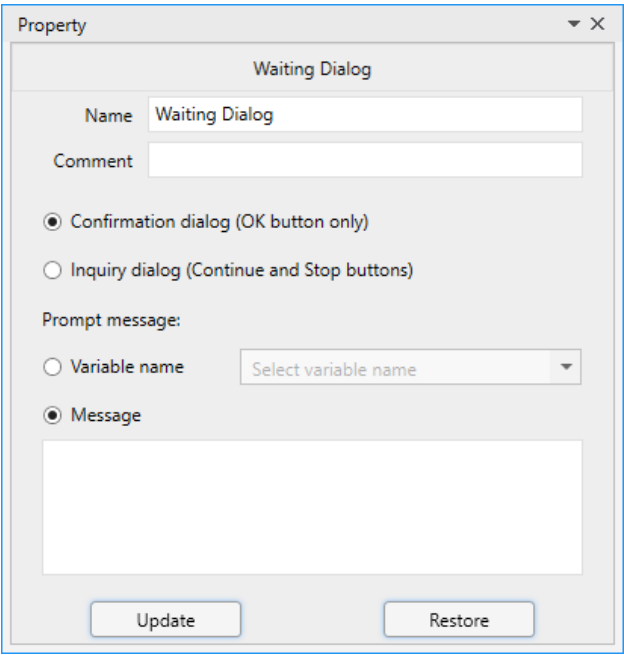
‘Properties’ can be selected when a single node is selected.

Steps

- 1. Select a node in the flowchart area and select ‘Properties’ from the right-click menu.



The Property pane of the selected node is displayed.



3.5.6 WinID management window

FULL

A window to be operated will be selected according to the rules set in the WinID management window when a scenario is run.

In the WinID management window, conditions for each of the window title, window class name, process name, and window size can be set.

To display the 'WinID management' window, click the 'WinID management' icon on the flowchart toolbar in the flowchart area.

Figure 3-43 Displaying the WinID management window

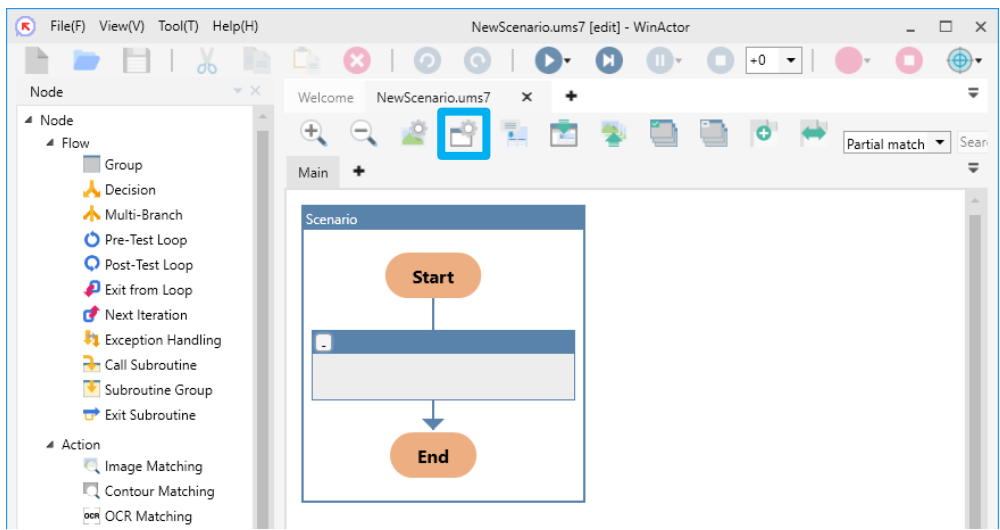
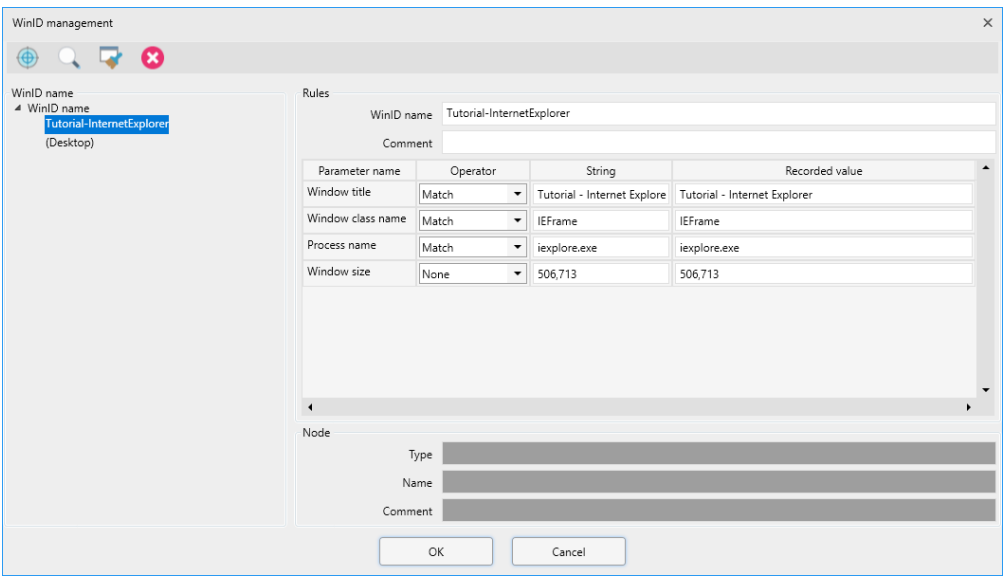


Figure 3-44 WinID management window



■ Configuration of the WinID management window

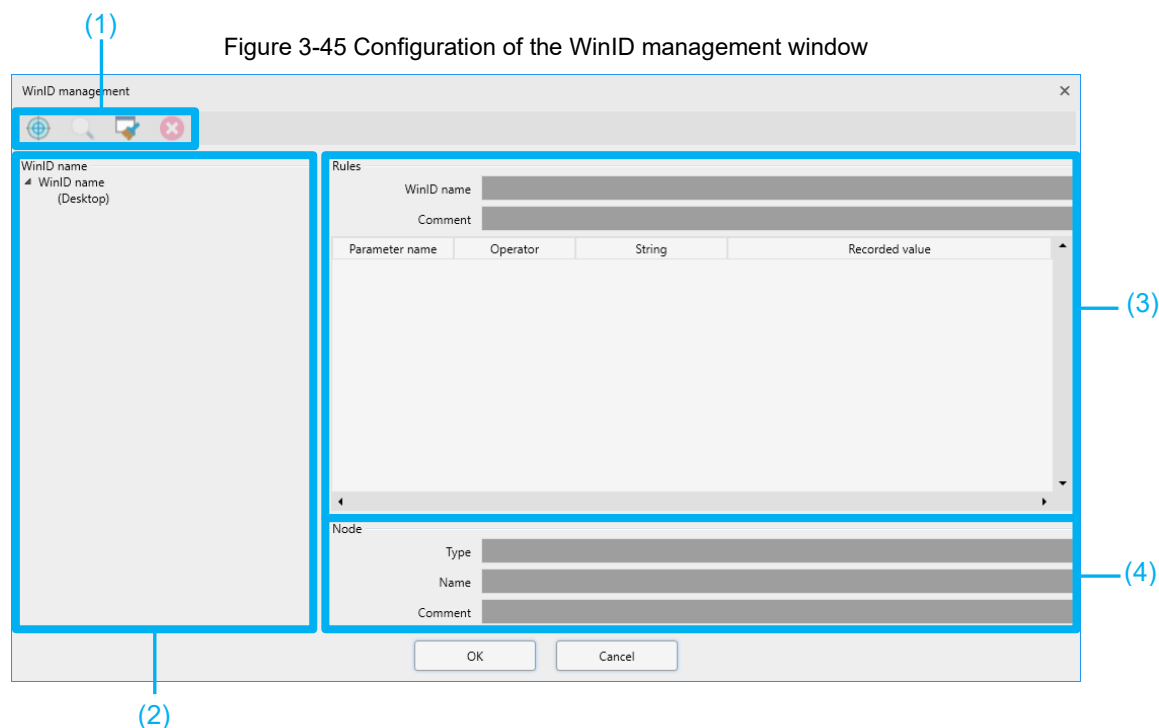


Table 3-43 Configuration of the WinID management window

No.	Elements	Description
(1)	WinID management toolbar	Contains icons for operating the WinID management window.
(2)	Tree area	WinID names and nodes are displayed in tree format.
(3)	Edit area	This is the area for editing rules.
(4)	Node information area	Node information is displayed.

■ WinID management toolbar

This section describes the functions of the toolbar icons on the WinID management window in order from the left.

Table 3-44 Toolbar on the WinID management window

Icon	Name	Function
	Select target window	Adds a WinID in the same way as specifying a recording target.
	Show node	Selects a node in the flowchart according to a node selected in the WinID name tree.
	Delete unused WinID	Deletes all WinIDs that do not have any nodes under the WinID name tree.
	Delete selected WinID	Deletes a selected WinID.

■ Tree area

Figure 3-46 Tree area of the WinID management window

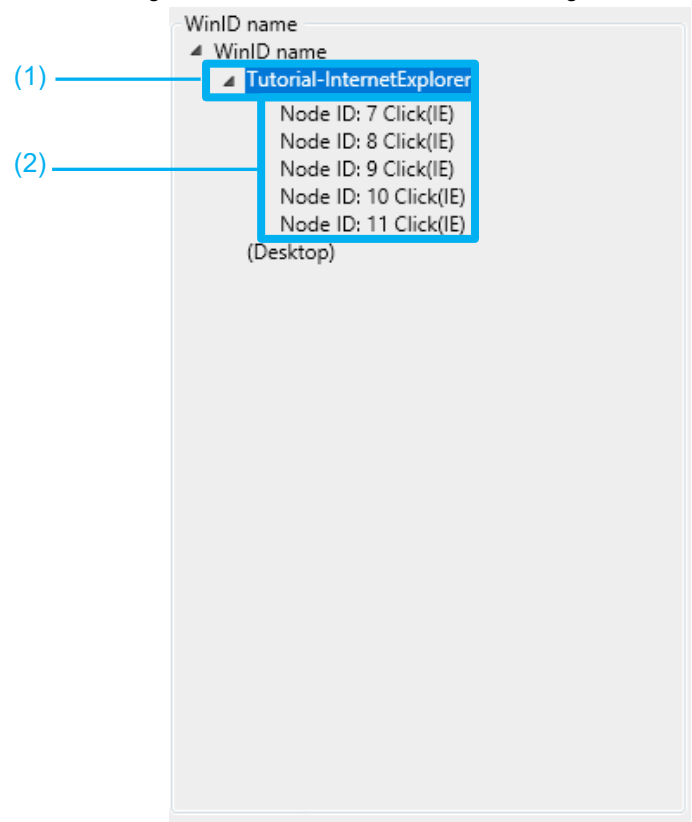


Table 3-45 Tree area of the WinID management window

No.	Name	Description
(1)	WinID name	The name of each WinID. WinID name can be changed by pressing the 'F2' key with a single WinID selected.  The rules for WinID name are as follows: • Up to 255 characters • Does not include white space (half/full width space, tab, line break) • Does not start with a half-width number or symbol.
(2)	Node	The ID and name of each node is displayed.

■ Edit area

Figure 3-47 Edit area of the WinID management window

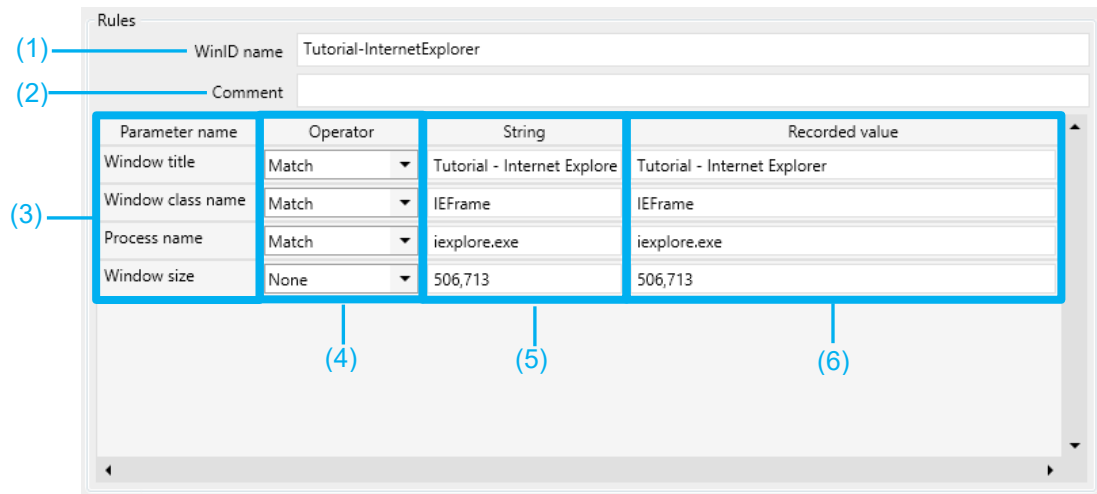
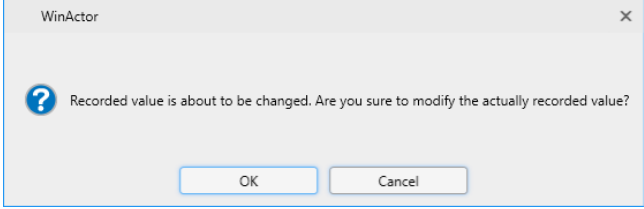


Table 3-46 Edit area of the WinID management window

No.	Name	Description
(1)	WinID name	Shows the WinID name selected in the tree.
(2)	Comment	Shows the comment for the WinID name selected in the tree.  Up to 255 characters
(3)	Parameter name	Automatically selected from the parameter names.  See "Parameter names and operators."
(4)	Operator	Select an operator for each parameter name.  See "Parameter names and operators."  Only available when a WinID name is selected.
(5)	String	The string to be compared is displayed. It can be edited. - Up to 255 characters - Only available when a WinID name is selected.

No.	Name	Description
(6)	Recorded value	Displays the recorded values for 'String' above. They can be edited. When editing for the first time, the following confirmation dialog will be displayed. Click the 'OK' button to change it.  The confirmation dialog will not be displayed from the second and subsequent times.  Up to 255 characters

■ Node information area

Figure 3-48 Node information area of the WinID management window



Table 3-47 Node information area of the WinID management window

No.	Name	Description
(1)	Type	Shows the type of the node selected in the tree.
(2)	Name	Shows the name of the node selected in the tree.
(3)	Comment	Shows the comment for the node selected in the tree.

■ Parameter names and operators

Parameter names and operators are selected as shown in the tables below when a target is selected.

Table 3-48 Parameter names

No.	Name	Description
(1)	Window title	Shows the string displayed in the title bar of the window. At runtime, the value set in the string is compared with the displayed window title using the operator.  See "Table 3-49 Options for operators (Window title)."
(2)	Window class name	Shows the internal name given to the application by the application author. At runtime, the value set in the string is compared with the displayed window class name using the operator.  See "Table 3-50 Options for operators (Window class name)."
(3)	Process name	Shows the filename of the target application. At runtime, the value set in the string is compared with the displayed process name using the operator.  See "Table 3-51 Options for operators (Process name)."
(4)	Window size	Shows the width and height of the window. At runtime, the value set in the string is compared with the displayed window size using the operator.  See "Table 3-52 Options for operators (Window size)."



If the target window has been minimized when the scenario is run, the size of the window itself cannot be obtained, and so the intended operation may not be performed.

Table 3-49 Options for operators (Window title)

No.	Name	Description
(1)	None	Select this if you do not want the window title to be the identification condition.
(2)	Match	Use this to select a window with the window title that matches the texts in the string.
(3)	Include	Use this to select a window with the window title that includes the texts in the string.
(4)	Start with	Use this to select a window with the window title that starts with the texts in the string.

No.	Name	Description
(5)	End with	Use this to select a window with the window title that ends with the texts in the string.
(6)	Regular expression	Use this to select a window with the window title that matches the regular expression in the string.  See "7.3 Format Examples of Regular Expressions."

Table 3-50 Options for operators (Window class name)

No.	Name	Description
(1)	None	Select this if you do not want the window class name to be the identification condition.
(2)	Match	Use this to select a window with the window class name that matches the texts in the string.

Table 3-51 Options for operators (Process name)

No.	Name	Description
(1)	None	Select this if you do not want the process name to be the identification condition.
(2)	Match	Use this to select a window with the process name that matches the texts in the string.



The comparison for the process name is not case sensitive.

Table 3-52 Options for operators (Window size)

No.	Name	Description
(1)	None	Select this if you do not want the window size to be the identification condition.
(2)	Same as	Use this to select a window with the window size equal to the numerical value in the string.
(3)	Bigger than	Use this to select a window with the window size bigger than the numerical value in the string.
(4)	Smaller than	Use this to select a window with the window size smaller than the numerical value in the string.

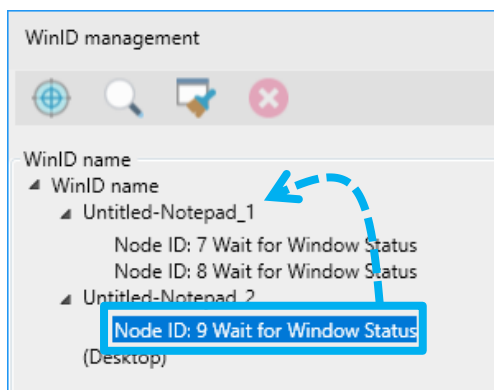
■ Collecting nodes into one WinID name

A node can be moved to the other WinID name by dragging and dropping.

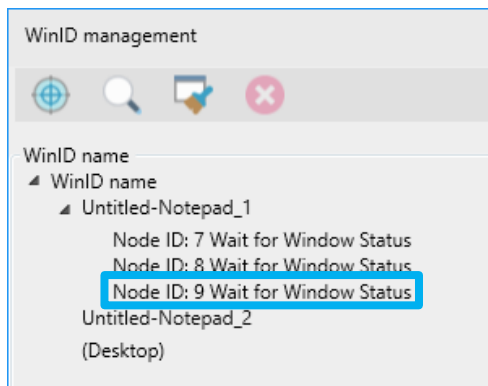
By using this function, the nodes that recorded operations for the same window can be collected into one WinID name.

Steps

1. Drag a node in the tree area and drop it on the WinID name you want to move it to.



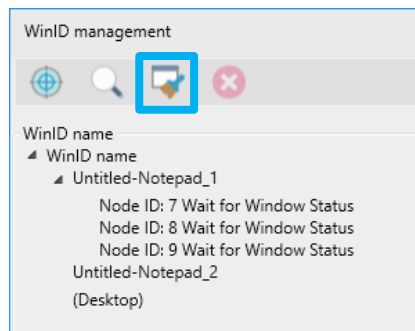
The node is moved to the other WinID name.



- If the 'Recorded value' of 'Window class name' for the source WinID is different from that for the destination WinID, a warning will be displayed when moving the node.
- If the 'Recorded value' of 'Process name' for the source WinID is different from the 'String' of 'Process name' for the destination WinID, a warning will be displayed when moving the node.



WinID names that are no longer needed can be deleted by using the 'Delete unused WinID' icon.



3.6 Property Pane

FULL

Double-click a node in the flowchart area to display the Property pane for setting the property items of the node.

 The whole view of a scenario is also displayed in the Property pane.



For details of the whole view, see "Whole view."

3.6.1 Configuration of the Property pane

This section describes the basic configuration of the Property pane and the items that are commonly displayed in the pane.

■ Settings tab

The following describes the basic configuration of the Property pane.

Figure 3-49 Configuration of the Property pane

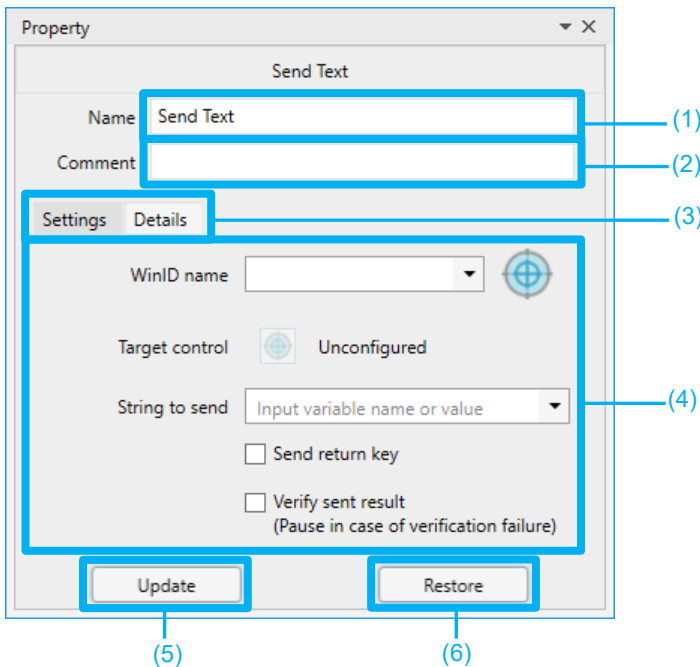


Table 3-53 Configuration of the Property pane

No.	Name	Description
(1)	Name	You can set a node name to be displayed in the flowchart area.

No.	Name	Description
(2)	Comment	You can set a comment for the node. This is a memo field when creating a scenario.
(3)	'Settings' tab / 'Details' tab	Switch the 'Settings' tab / 'Details' tab to set the items. >> See "Details tab (Node recorded in the Event mode)." >> See "Details tab (Node recorded in the IE mode)."
(4)	Setting area	The setting items vary depending on the node type. >> For details of setting items for each node, see "4. Node."
(5)	'Update' button	Updates the property settings.
(6)	'Restore' button	Cancels the property settings without updating. Returns to the setting state when the 'Update' button was last clicked.

If the Property pane is switched to the other pane without clicking the 'Update' button after changing the property items, a dialog asking whether to save the changes will be displayed.

Figure 3-50 Dialog to save property changes

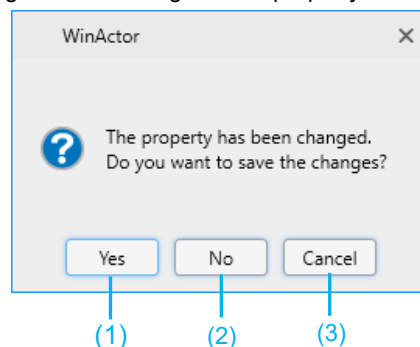


Table 3-54 Dialog to save property changes

No.	Buttons	Description
(1)	'Yes'	Saves property changes.
(2)	'No'	Discard property changes without saving.
(3)	'Cancel'	Cancels the switching operation from the Property pane and returns the focus to the Property pane.

The property changes can be automatically saved without displaying the confirmation dialog when the Property pane is switched.

>> For how to set auto save, see "Edit tab" in the 'Option' dialog.

■ Details tab (Node recorded in the Event mode)

The 'Details' tab window is displayed for the properties of the node recorded in the Event mode.

Checked items are the conditions for selecting the target control for the operation.

Figure 3-51 Details tab (Node recorded in the Event mode)

The screenshot shows a 'Property' dialog box with a title bar 'Property' and a close button. The main title is 'Set Text (Win32)'. There are two input fields: 'Name' with the text 'SetText(WIN32)' and 'Comment' which is empty. Below these are two tabs: 'Settings' and 'Details'. The 'Details' tab is selected. It contains a table with two columns: 'Parameter name' and 'Value'. The first row has a checked checkbox, the text 'Parameter name', and a dropdown menu showing 'Value=> 1'. The second row has an unchecked checkbox, the text 'Instance', and a dropdown menu showing 'Value=>'. The third row has an unchecked checkbox, the text 'Text', and a dropdown menu showing 'Value=>'. The fourth row has an unchecked checkbox, the text 'Position', and a dropdown menu showing 'Value=> 1,51'. At the bottom are two buttons: 'Update' and 'Restore'. Numbered callouts (1) through (4) point to specific elements: (1) points to the first checkbox, (2) to the 'Instance' dropdown, (3) to the 'Text' dropdown, and (4) to the 'Position' dropdown.

Table 3-55 Details tab (Node recorded in the Event mode)

No.	Name	Description
(1)	Select/deselect all	If checked, all parameter names will be selected. If unchecked, all selected parameter names will be deselected.
(2)	Instance	Enter a serial number assigned to the control after "Value=>" or specify it with a variable. The value is a number. The default value is the information when it was recorded.
(3)	Text	Enter a string displayed in the control after "Value=>" or specify it with a variable. The value is a string. The default value is the information when it was recorded.
(4)	Position	Enter coordinates of the control relative to the target window after "Value=>" or specify it with a variable. The value is in "x, y" format. The default value is the information when it was recorded.

■ Details tab (Node recorded in the IE mode)

The 'Details' tab window is displayed for the properties of the node recorded in the IE mode.
Checked items are the conditions for selecting the target control for the operation.

Figure 3-52 Details tab (Node recorded in the IE mode)

The screenshot shows a 'Property' dialog box with a 'Details' tab. The title is 'Select Item in List (IE)'. It has a 'Name' field with 'SelectItemInList(IE)' and a 'Comment' field. Below are two tabs: 'Settings' and 'Details'. The 'Details' tab is active, showing a table of parameters. A blue box highlights the 'Select/deselect all' checkbox, labeled (1). Other parameters are listed with their respective value dropdowns, labeled (2) through (8).

Parameter name	Value
☒ tag	Value=> select
☒ frame index	Value=> 0
☒ tag index	Value=> 0
☐ name	Value=> Category
☐ type	Value=> select-one
☐ id	Value=> sel_item
☐ value	Value=> PC

Buttons: Update, Restore

Table 3-56 Details tab (Node recorded in the IE mode)

No.	Name	Description
(1)	Select/deselect all	If checked, all parameter names will be selected. If unchecked, all selected parameter names will be deselected.
(2)	tag	Enter a name of the element of HTML after "Value=>" or specify it with a variable. The value is a string. The default value is the information when it was recorded.
(3)	frame index	Enter a serial number assigned to the frame in the document after "Value=>" or specify it with a variable. The value is a number. The default value is the information when it was recorded.
(4)	tag index	Enter a serial number assigned to the element in the frame after "Value=>" or specify it with a variable. The value is a number. The default value is the information when it was recorded.

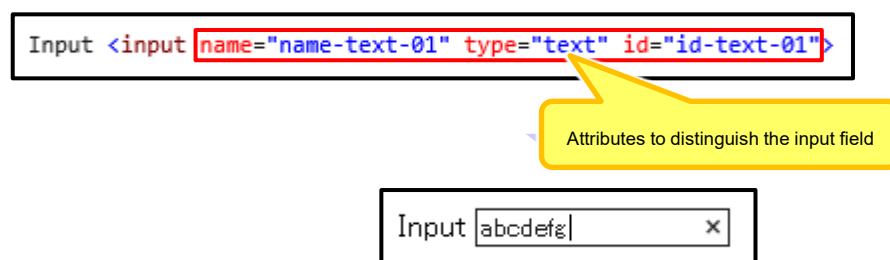
No.	Name	Description
(5)	name	Enter a name attribute value for 'tag' after "Value=>" or specify it with a variable. The value is a string. The default value is the information when it was recorded.
(6)	type	Enter a type attribute value for 'tag' after "Value=>" or specify it with a variable. The value is a string. The default value is the information when it was recorded.
(7)	id	Enter an id attribute value for 'tag' after "Value=>" or specify it with a variable. The value is a string. The default value is the information when it was recorded.
(8)	value	Enter a value attribute value for 'tag' after "Value=>" or specify it with a variable. The value is a string. The default value is the information when it was recorded.

■ Specifying attributes for 'tag'

In a web page, input fields can be designed by using a description method called HTML. The input field has attributes such as 'name,' 'type,' and 'id.'

By specifying these attributes in a node recorded in the IE mode, the accuracy when selecting the control can be improved.

Figure 3-53 Example of specifying attributes for 'tag'



Property Set Text (IE)

Name SetText(IE)

Comment

Settings Details

☒ Parameter name	Value
☐ tag	Value=> input
☐ frame index	Value=> 0
☐ tag index	Value=> 0
☒ name	Value=> name-text-01
☒ type	Value=> text
☒ id	Value=> id-text-01
☐ value	Value=> abcdefg

Update Restore



As described below, a value different from the type attribute value written in the HTML source may be obtained.

- If the type attribute of the input tag is omitted or an invalid value is set, the type attribute will be 'text.'
- The type attribute of the select tag is 'select-one' for single selection and 'select-multiple' for multiple selection.
- The value of the type attribute of the textarea tag is 'textarea' regardless of the value or whether it is set or not.
- If the type attribute value of the button tag is omitted or an invalid value is set, the value will be 'button.'

3.6.2 Entering a variable name and a variable value

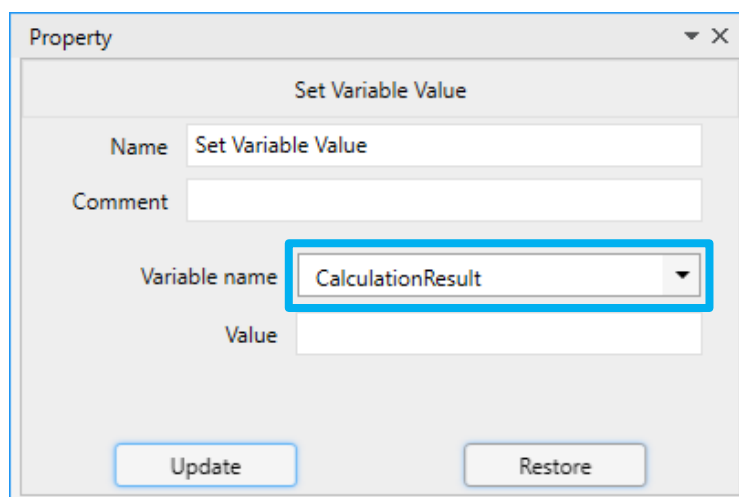
This section describes the procedure for entering a variable name and a variable value.

■ Entering a variable name

It is an input field (combo box) for entering a variable name. Enter a variable name manually or select a variable from the dropdown list. When there is no input, 'Select variable name' is displayed in the field. The following is the procedure for entering a variable name that is not registered in 'Variable list.'

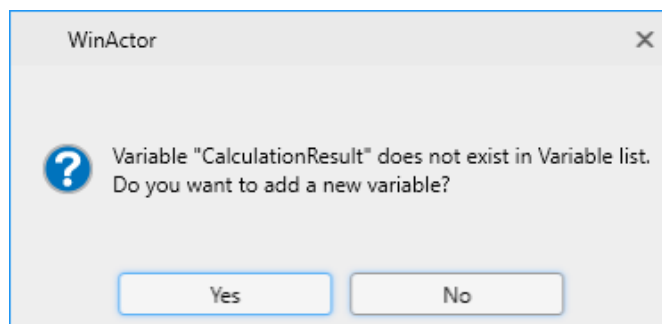
Steps

1. Enter a variable name manually in the 'Variable name' input field and click the 'Update' button in the Property pane.



If a variable name that is not registered in 'Variable list' is entered, the confirmation dialog "Do you want to add a new variable?" appears.

2. Click the 'Yes' button.

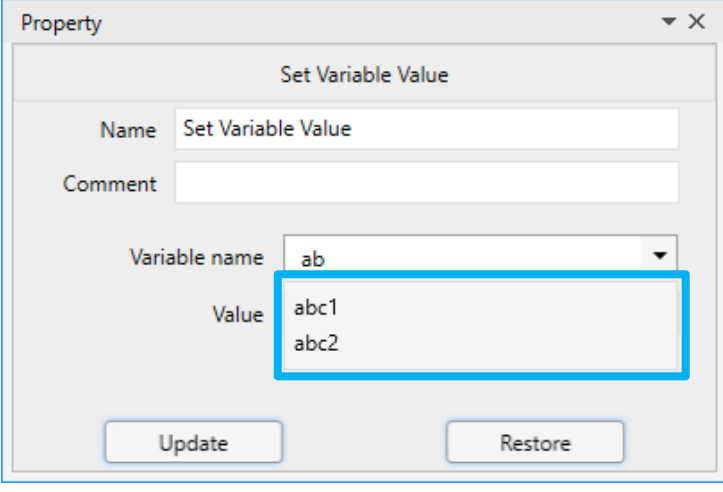


The variable name will be registered in the 'Variable list' tab pane.

Next, the following describes the procedure for completing the input with a variable name registered in 'Variable list.'

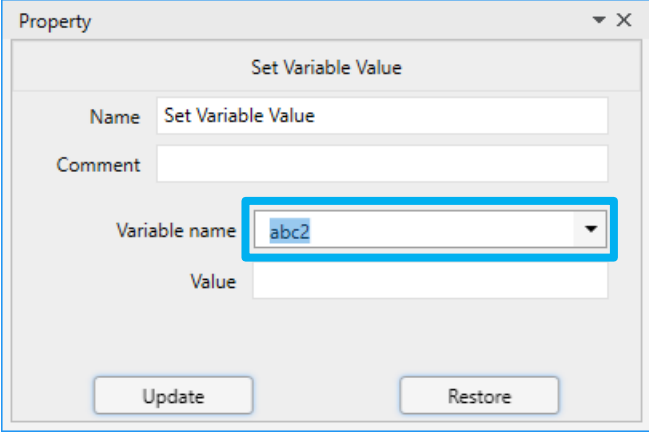
Steps

1. When entering the first few characters in the 'Variable name' input field manually, the matching variable names from 'Variable list' are displayed in the dropdown list as candidates.



The screenshot shows a 'Property' window titled 'Set Variable Value'. It contains a 'Name' field with 'Set Variable Value', a 'Comment' field, a 'Variable name' dropdown menu with 'ab' selected, and a 'Value' field with a list of candidates: 'abc1' and 'abc2'. The 'Value' field is highlighted with a blue border. At the bottom are 'Update' and 'Restore' buttons.

2. Select a variable name from the dropdown list. The selected variable name is entered.



The screenshot shows the same 'Property' window. The 'Variable name' dropdown menu now has 'abc2' selected and highlighted with a blue border. The 'Value' field is now empty. The 'Update' and 'Restore' buttons remain at the bottom.

Click the 'Update' button.

■ Entering a variable name or value

It is an input field (combo box) for entering a variable name or a value.

For a variable name, enter a variable name manually or select a variable from the dropdown list.

For a value, select "Value=>" from the dropdown list and then enter a value after "Value=>."

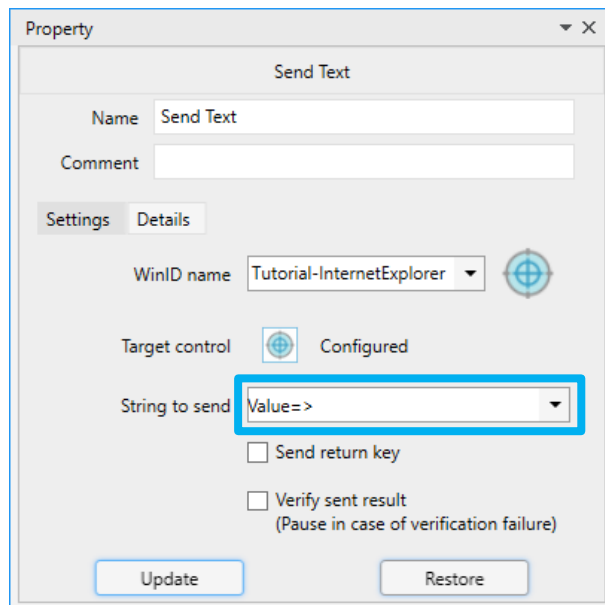
When there is no input, "Input variable name or value" is displayed in the field.

The following is the procedure for entering a value.

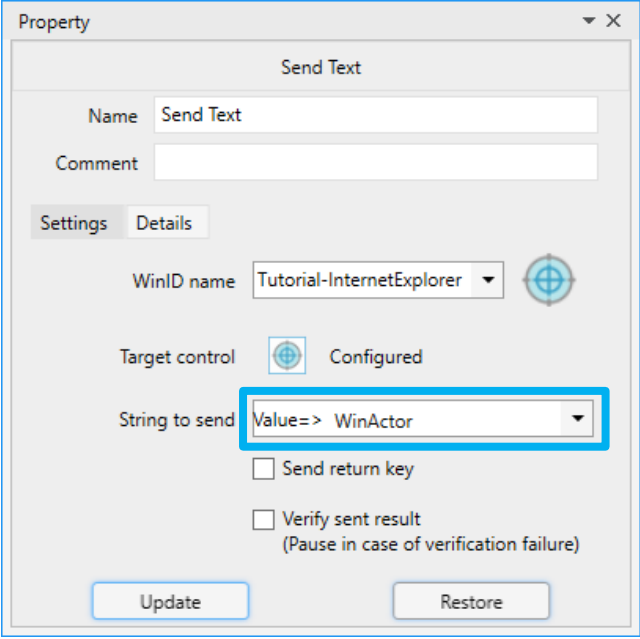
 For the procedures for entering a variable name, see "Entering a variable name."

Steps

1. Select "Value=>" from the dropdown list of 'String to send.'



2. Enter a value after "Value=>."



The screenshot shows a 'Property' dialog box with a title bar containing a dropdown arrow and a close button. The dialog is titled 'Send Text'. It has two tabs: 'Settings' (selected) and 'Details'. In the 'Settings' tab, there are several fields: 'Name' with the value 'Send Text', 'Comment' (empty), 'WinID name' with a dropdown menu showing 'Tutorial-InternetExplorer' and a target icon, 'Target control' with a target icon and the text 'Configured', and 'String to send' with a dropdown menu showing 'Value=> WinActor'. The 'String to send' dropdown is highlighted with a blue border. Below this dropdown are two checkboxes: 'Send return key' and 'Verify sent result (Pause in case of verification failure)'. At the bottom of the dialog are two buttons: 'Update' and 'Restore'.



If you copy a file and paste it in this input field with the 'Ctrl' + 'V' keys or drag and drop a file in this input field, "Value=>" will be selected and a path for the file will be entered. If the file exists in the same folder where the scenario is saved, only the filename will be entered.

3. Set other property items and click the 'Update' button.

3.7 Conditional Expression Pane

FULL

The 'Conditional expression' pane is the pane that is displayed when the 'Edit' button is clicked in the Property pane of the 'Decision' node, 'Multi-Branch' node, 'Pre-Test Loop' node, and 'Post-Test Loop' node. In this pane, branch conditions or loop conditions can be set.

Click 'Update' or 'Restore' to return to the Property pane of the node.

Figure 3-54 Example of branch condition settings

The screenshot shows a 'Property' dialog box with a 'Conditional expression' section. This section contains a row of four dropdown menus. The first dropdown is labeled 'Condition'. The second dropdown shows 'ApplePrice'. The third dropdown shows 'is equal to'. The fourth dropdown shows 'Value=> 100 yen'. To the right of the fourth dropdown is a small 'x' button. Below this row are two buttons: 'Update' and 'Restore'.

3.7.1 Comparison operators

The types of comparison operators are shown in "Table 3-57 Comparison operators" below.

Table 3-57 Comparison operators

No.	Operators	Description
(1)	is equal to	Select this to compare whether Value 1 and Value 2 are equal as strings.
(2)	is not equal to	Select this to compare whether Value 1 and Value 2 are not equal as strings.
(3)	=	Select this to compare whether Value 1 and Value 2 are equal as numerical values.
(4)	<>	Select this to compare whether Value 1 and Value 2 are not equal as numerical values.
(5)	>	Select this to compare whether Value 1 is greater than Value 2 as a numerical value.
(6)	<	Select this to compare whether Value 1 is less than Value 2 as a numerical value.
(7)	>=	Select this to compare whether Value 1 is greater than or equal to Value 2 as a numerical value.
(8)	<=	Select this to compare whether Value 1 is less than or equal to Value 2 as a numerical value.
(9)	is true	Select this to compare whether Value 1 is true. Value 2 will not be selectable.
(10)	is false	Select this to compare whether Value 1 is false. Value 2 will not be selectable.
(11)	is fuzzily equal to	Select this to compare whether Value 1 and Value 2 are equal as strings. It will be judged to be equal even if there is a difference in full-width/half-width of kana and alphanumeric characters or uppercase/lowercase of alphabets.
(12)	Regular expression	Select this to compare whether Value 1 matches a regular expression set in Value 2.  For examples of regular expressions, see "7.3 Format Examples of Regular Expressions."



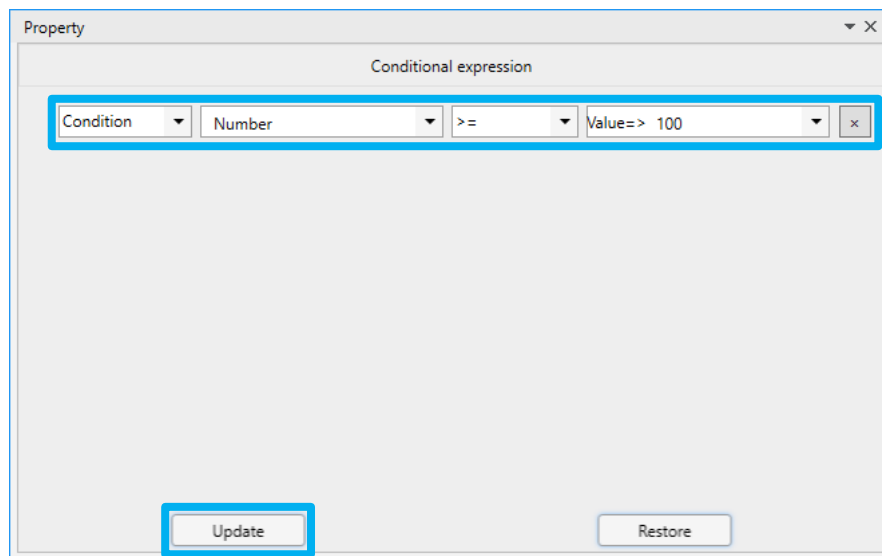
- The numerical value is an integer or a decimal.
- It is also possible to compare an integer and a decimal.

3.7.2 Setting a simple condition

The following is the procedure for setting a simple condition.

Steps

1. Enter values on the left and right sides of the conditional expression, select a comparison operator from the dropdown list, and click the 'Update' button.



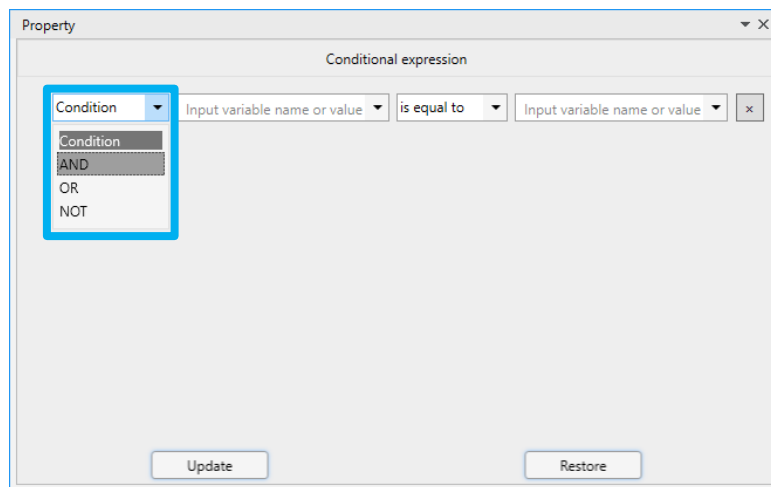
The conditional expression is set, and the pane returns to the Property pane.

3.7.3 Setting a complex condition

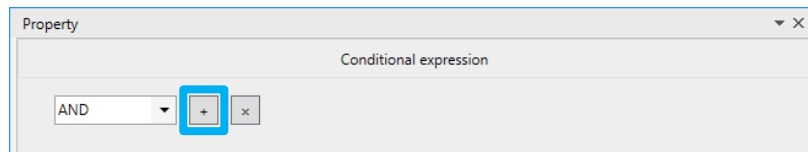
In a complex condition, the logical operators AND, OR, and NOT are combined to set conditions. The following describes the setting procedure from the initial state in which no conditions are set.

Steps

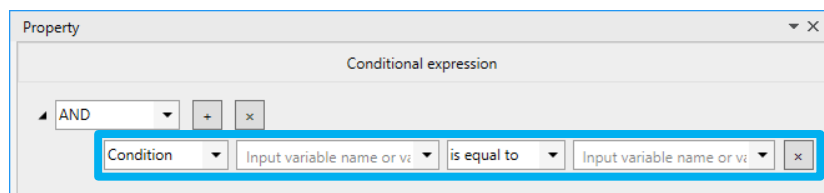
1. Select a logical operator from the dropdown list of 'Condition ▼.'



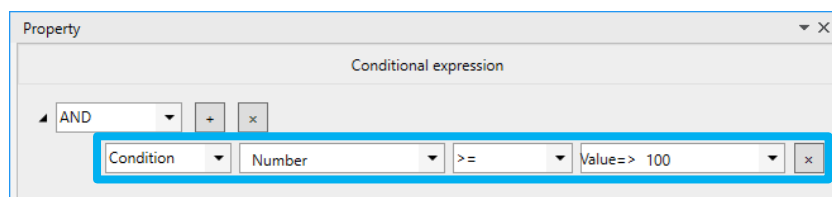
2. Click the '+' button to the right of the logical operator.



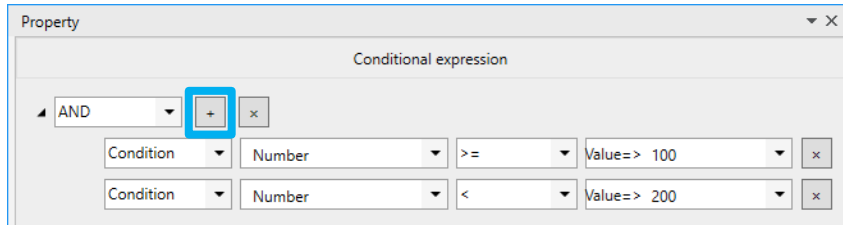
A row to set 'Condition' is added.



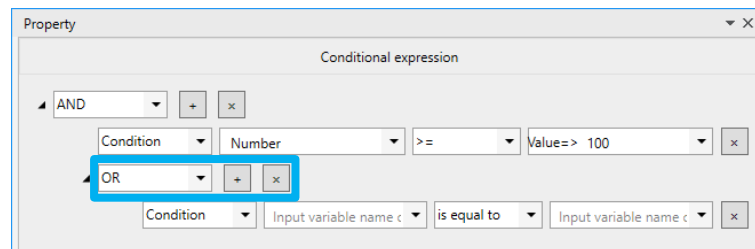
3. Set the conditional expression.



4. You can set a complex condition by clicking the '+' button to the right of the logical operator and adding rows for setting 'Condition.'

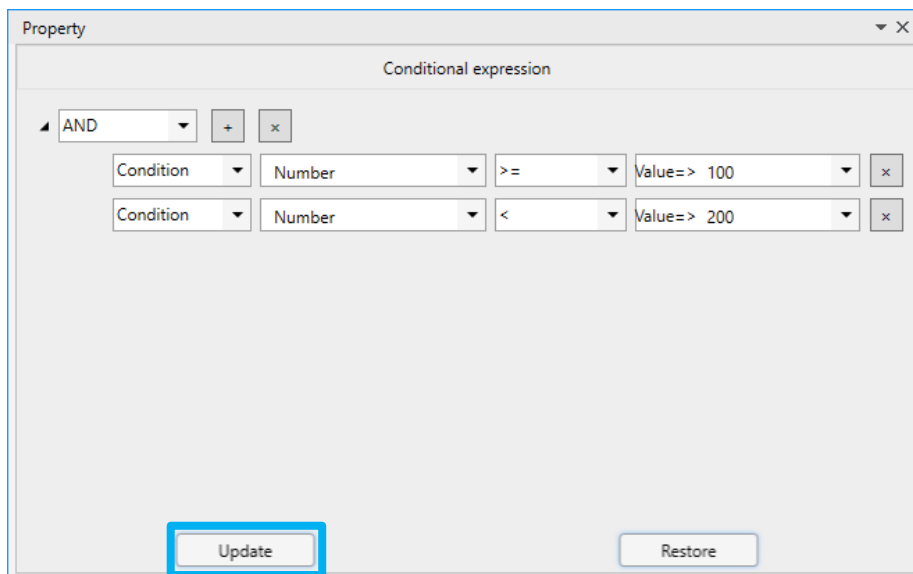


- You can set conditions with multiple logical operators by selecting a logical operator from the dropdown list of the added 'Condition ▼' and clicking the '+' button.



- The set conditional expression can be moved under multiple logical operators by dragging and dropping.

5. After completing the settings, click the 'Update' button.

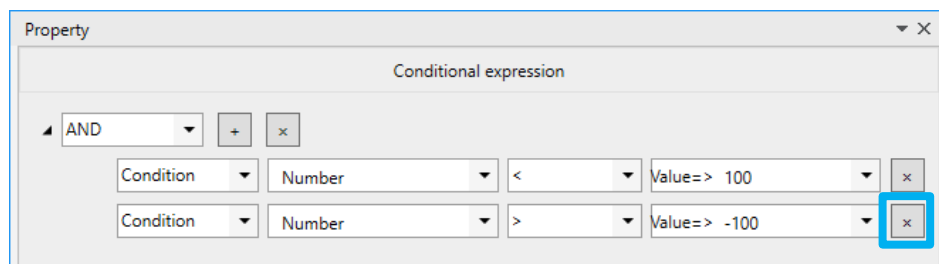


3.7.4 Deleting conditional expressions

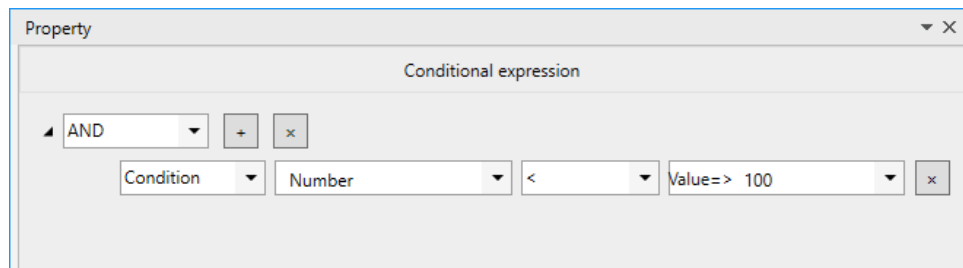
The following is the procedure for deleting unnecessary conditional expressions.

Steps

1. Click the 'X' button displayed to the right of the conditional expression or logical operator you want to delete.



The conditional expression is deleted.



If you delete a logical operator (AND, OR, NOT), the first 'Condition' under it remains.

3.8 Scenario Information Window

The 'Scenario information' window shows information such as 'Last editor,' 'Last saved date and time,' 'Scenario expiration date,' 'Evaluation expiration date,' and 'Remarks.'

Click the 'Scenario information' icon on the toolbar of the flowchart area to display the 'Scenario information' window in the Property pane.

3.8.1 Settings tab

The 'Settings' tab of the 'Scenario information' window shows the following information.

Figure 3-55 Settings tab of the Scenario information window

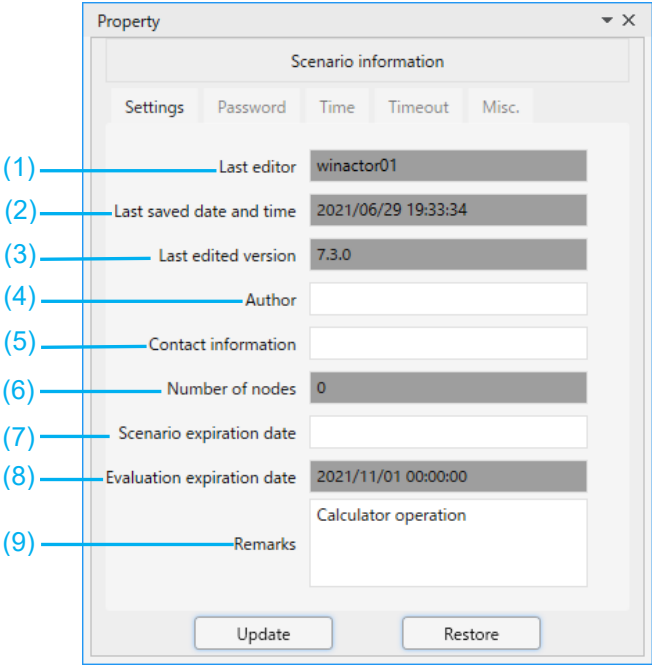


Table 3-58 Settings tab of the Scenario information window

No.	Name	Description
(1)	Last editor	Shows the Windows login name of the editor who last edited the scenario.  Only for reference. When creating a new scenario, it is blank before saving and will be set automatically after saving.

No.	Name	Description
(2)	Last saved date and time	Shows the date and time when the scenario was last saved.  - Only for reference. When creating a new scenario, it is blank before saving and will be set automatically after saving. - It is displayed in the date format and time zone specified in the 'Option' dialog.
(3)	Last edited version	Shows the version of WinActor in which the scenario is last edited.  Only for reference. When creating a new scenario, it is blank before saving and will be set automatically after saving.
(4)	Author	Shows the name of the scenario author.  Only for reference if the license type of edition is the RUN edition.
(5)	Contact information	Shows the contact information of the scenario author.  Only for reference if the license type of edition is the RUN edition.
(6)	Number of nodes	Shows the number of nodes recorded in the scenario. Includes the numbers of sticky notes and groups as well.  Only for reference.
(7)	Scenario expiration date	Shows the expiration date of the scenario. When setting the expiration date, set it in "year, month, date, time, minute, second." If "time, minute, second" are omitted, it will be set at 23:59:59 on the specified date.  - Only for reference if the license type of edition is the RUN edition. - It is displayed in the date format and time zone specified in the 'Option' dialog.
(8)	Evaluation expiration date	Shows the evaluation expiration date of the scenario.  - Only for reference. - It is displayed in the date format and time zone specified in the 'Option' dialog.
(9)	Remarks	Shows comments about the scenario.  Only for reference if the license type of edition is the RUN edition.



Information cannot be changed if the license type of edition is the RUN edition.



- The scenario that has passed the expiration date set in the Settings tab cannot be run. However, it can still be edited and recorded.
 - A scenario created with the Evaluation license has an evaluation expiration date. To remove the evaluation expiration date from the scenario, it is required to save the scenario with the WinActor that is run under the FULL edition product license. The scenario that has passed the evaluation expiration date cannot be run with the Evaluation license. It can be run with the product license.
 - The character limit in the Remarks box is 1,000 characters. If a dialog is output with this limit when loading a scenario created with ums5 or earlier, adjust the number of characters so that it is within the range.
-

3.8.2 Password tab

The Password tab is used to set the scenario password.

 For details of the scenario password, see "1.14 Security Mode by Setting Scenario Password."

■ Setting items in the Password tab

Figure 3-56 Password tab of the Scenario information window

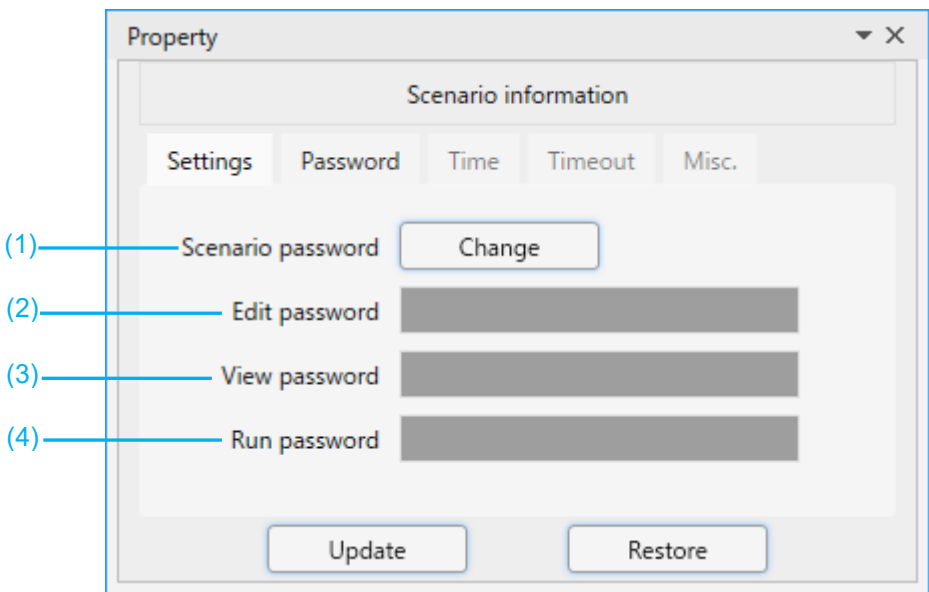


Table 3-59 Password tab of the Scenario information window

No.	Name	Description
(1)	'Change' button	Displays the 'Set scenario password' window to change the scenario password (Edit password, View password, Run password).  See "Set scenario password window."
(2)	Edit password	Shows "●●●●●●●●" if a password has been set. To set a password, click the 'Change' button.
(3)	View password	Shows "●●●●●●●●" if a password has been set. To set a password, click the 'Change' button.
(4)	Run password	Shows "●●●●●●●●" if a password has been set. To set a password, click the 'Change' button.



Information cannot be changed if the license type of edition is the RUN edition.

■ Set scenario password window

FULL

Click the 'Change' button of the scenario password on the 'Scenario information' window to display the 'Set scenario password' window.

>> For details of the scenario password, see "1.14 Security Mode by Setting Scenario Password."

Figure 3-57 Set scenario password window

The screenshot shows a 'Set scenario password' dialog box. It contains three sections: 'Edit password', 'View password', and 'Run password'. Each section has a label and an input field. Below these sections are 'OK' and 'Cancel' buttons. Numbered callouts (1-8) point to the following elements:

- (1) Edit password input field
- (2) Confirmation input field
- (3) View password input field
- (4) Confirmation input field
- (5) Run password input field
- (6) Confirmation input field
- (7) OK button
- (8) Cancel button

Table 3-60 Set scenario password window

No.	Name	Description
(1)	Edit password	Enter an edit password.
(2)	Confirmation	Enter an edit password again.
(3)	View password	Enter a view password again.
(4)	Confirmation	Enter a view password again.
(5)	Run password	Enter a run password.
(6)	Confirmation	Enter a run password again.
(7)	'OK' button	Applies the settings and closes the window.
(8)	'Cancel' button	Closes the window without applying the settings.

3.8.3 Time tab

Figure 3-58 Time tab of the Scenario information window

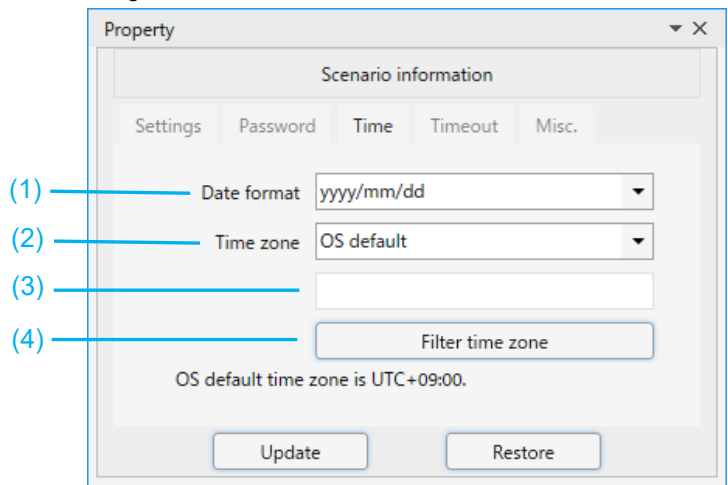


Table 3-61 Time tab of the Scenario information window

No.	Name	Description
(1)	Date format	Specify a date format used in the scenario. Can be selected from 'yyyy-mm-dd,' 'yyyy/mm/dd,' 'dd.mm.yy,' 'dd/mm/yyyy,' 'dd-mm-yy,' 'dd/mm/yy,' and 'mm-dd-yy.'  This setting will be applied to the date format used in the 'Set date and time' node, 'Wait for Time' node, Database, and mail reception.
(2)	Time zone	Specify a time zone used in the scenario. If 'Filter time zone' is executed, only the filtered time zone will be displayed.  - This setting will be applied to the time zone used in the 'Set date time' node, 'Wait for Time' node, Database, and mail reception. - Daylight saving time applies in areas where daylight saving time is used. If you do not want to apply daylight saving time, select a time zone from "UTC-xx:xxEtc/GMT+xx."
(3)	Filter time zone (text box)	Enter characters to filter the time zone.
(4)	Filter time zone (button)	When the button is clicked, time zones containing the entered characters will be displayed in (2). If it is clicked without entering characters, all selectable time zones will be displayed in (2).



Information cannot be changed if the license type of edition is the RUN edition.

3.8.4 Timeout tab

Figure 3-59 Timeout tab of the Scenario information window

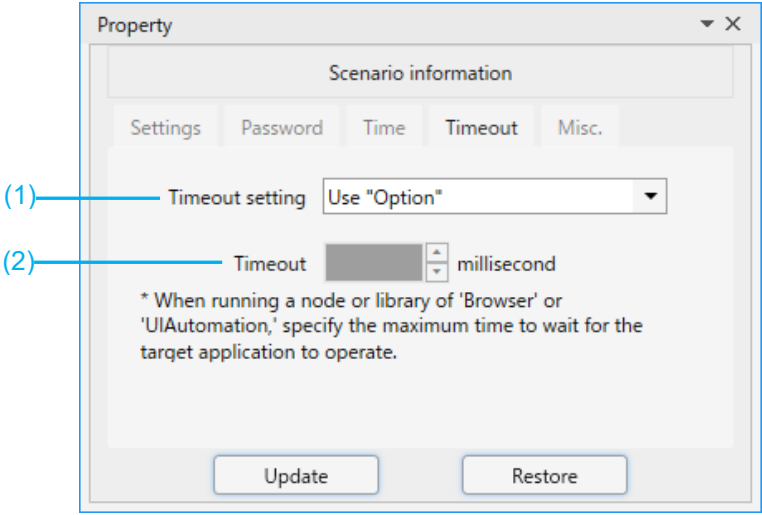


Table 3-62 Timeout tab of the Scenario information window

No.	Name	Description
(1)	Timeout setting	Select 'Use "Option"' or 'Use "Scenario information".' When 'Use "Scenario information"' is selected, the value set for 'Timeout' is effective.
(2)	Timeout	Specify the time to wait for the status change. It should be in the range of 100 to 3,600,000. The default value is 10,000 milliseconds. This value is effective only when 'Use "Scenario information"' is selected for 'Timeout setting.'



Information cannot be changed if the license type of edition is the RUN edition.

3.8.5 Misc. tab

Figure 3-60 Misc. tab of the Scenario information window

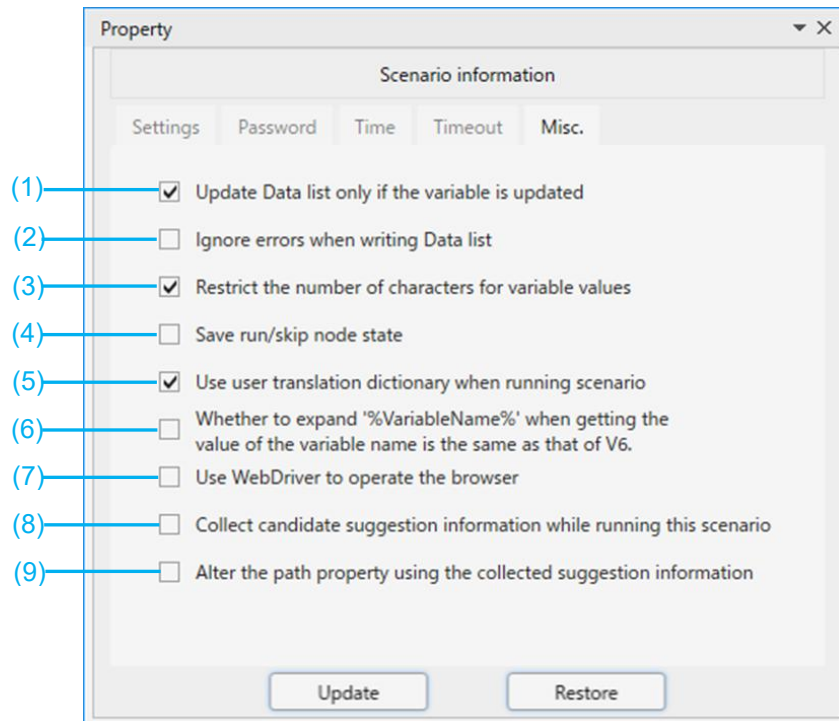


Table 3-63 Misc. tab of the Scenario information window

No.	Name	Description
(1)	Update Data list only if the variable is updated	Shows whether there is a setting to update only the target data in 'Data list' if the variable is updated in the scenario.
(2)	Ignore errors when writing Data list	Continues to run the scenario without pausing if writing the updated 'Data list' is failed when running the scenario.
(3)	Restrict the number of characters for variable values	Shows whether there is a 1,024-character limit for variable values "Value=>."
(4)	Save run/skip node status	Shows whether there is a setting to save the run/skip node status.
(5)	Use user translation dictionary when running scenario	Check the box to apply the user translation dictionary to the window title translation processing of the translation function. If unchecked, only the system translation dictionary will be applied. The initial value is ON.

No.	Name	Description
(6)	Whether to expand '%VariableName%' when getting the value of the variable name is the same as that of V6.	Specify whether the expansion of the string '%VariableName%' in a property pane of a node is limited to the places where WinActor Ver.6 also expands it. When this box is checked, each string '%VariableName%' is expanded only where Ver.6 expands it. When unchecked, it is expanded in even more places.  See "5.1.6 Use %VariableName%," for the places the string is expanded,
(7)	Use WebDriver to operate the browser	Specify whether to use WebDriver for operating each type of browsers during a scenario run. The browser types are Google Chrome, Microsoft Edge (Chromium), and Mozilla Firefox. When this box is checked, browsers are operated with WebDriver ignoring the settings on 'Browser' tab in the 'Option' dialog. For the scenarios created on WinActor Ver.6, Ver7.3.1 or earlier, the default value for this item is applied, and the value is 'ON.'  See "Browser tab" for the settings in the 'Option' dialog,
(8)	Collect candidate suggestion information while running this scenario	Specify whether to collect candidate-suggestion information during a scenario run at each node that specifies the target element with XPath. Candidate suggestion information is used to suggest substitute-candidate elements when the target element specified with a XPath is not found. The scenario may run slower when the candidate suggestion information is collected during the run of the scenario, For scenarios created on the version 7.4.4 or earlier to collect candidate-suggestion information for every node that specifies the target element with XPath, check this box and run the scenario through such nodes.  See "Browser Operation Scenario Creation Manual" for the suggestion of candidate elements and the selection of elements on the web browser window.

No.	Name	Description
(9)	Alter the path property using the collected suggestion information	Specify whether to alter the path property using the substitute-suggestion information collected during a scenario run. If this is unchecked, the path property is not altered, however, the substitute-suggestion information is stored and used to suggest substitute candidates of the target element specified with XPath. This setting is effective only when (8) 'Collect candidate suggestion information while running this scenario' is checked.



Information cannot be changed if the license type of edition is the RUN edition.

3.9 Function Area

In the function area, the functions to edit a scenario currently selected in the flowchart area can be displayed by switching tabs.

Figure 3-61 Function area

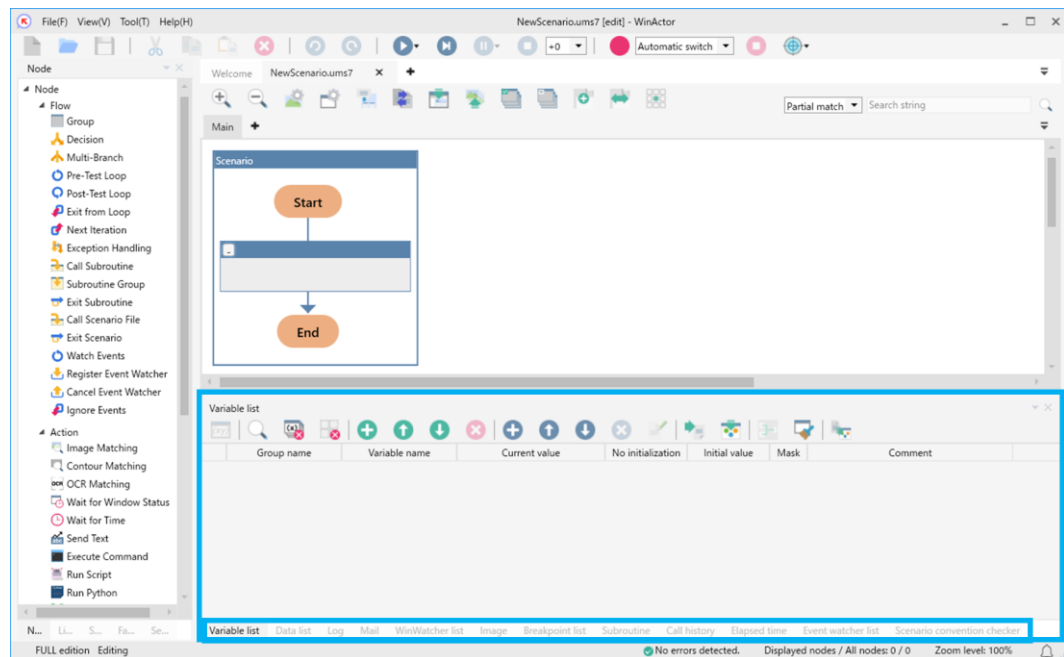


Table 3-64 Tabs in the function area

No.	Element	Description
(1)	'Variable list' tab	Shows the 'Variable list' tab pane. ➤➤ See "3.9.1 Variable list tab pane."
(2)	'Data list' tab	Shows the 'Data list' tab pane. ➤➤ See "3.9.2 Data list tab pane."
(3)	'Log' tab	Shows the 'Log' tab pane. ➤➤ See "3.9.3 Log tab pane."
(4)	'Mail' tab	Shows the 'Mail' tab pane. ➤➤ See "3.9.4 Mail tab pane."
(5)	'WinWatcher list' tab	Shows the 'WinWatcher list' tab pane. ➤➤ See "3.9.5 WinWatcher list tab pane."
(6)	'Image' tab	Shows the 'Image' tab pane. ➤➤ See "3.9.6 Image tab pane."
(7)	'Breakpoint list' tab	Shows the 'Breakpoint list' tab pane. ➤➤ See "3.9.7 Breakpoint list tab pane."

No.	Element	Description
(8)	'Subroutine' tab	Shows the 'Subroutine' tab pane. >> See "3.9.8 Subroutine tab pane."
(9)	'Translation dictionary' tab	Shows the 'Translation dictionary' tab pane. >> See "3.9.9 Translation dictionary tab pane."
(10)	'Call history' tab	Shows the 'Call history' tab pane. >> See "3.9.10 Call history tab pane"
(11)	'Elapsed time' tab	Shows the 'Elapsed time' tab pane. >> See "3.9.11 Elapsed time tab pane"
(12)	'Event watcher list' tab	Shows the 'Event watcher list' tab pane. >> See "3.9.12 Event watcher list tab pane"
(13)	'Scenario convention checker' tab	Shows the 'Scenario convention checker' tab pane. >> See "3.9.13 Scenario convention checker tab pane"

3.9.1 Variable list tab pane

The 'Variable list' tab pane is used to list the status of variables, to add variables, to set variable grouping, to import variable names from data in Excel or CSV files, and so on.

■ Configuration of the Variable list tab pane

The following is the basic configuration of the Variable list tab pane.

Figure 3-62 Configuration of the Variable list tab pane

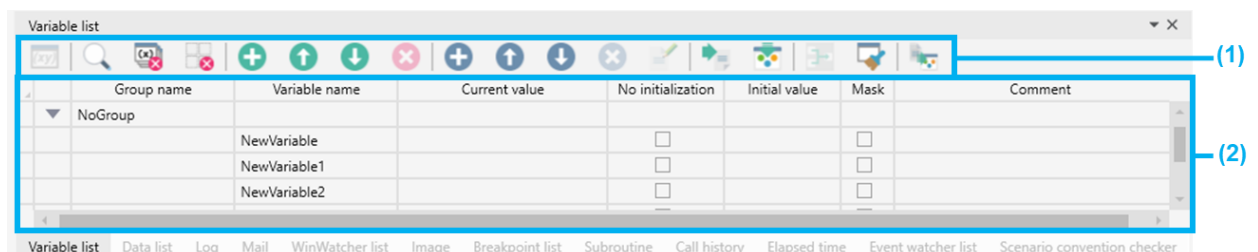


Table 3-65 Configuration of the Variable list tab pane

No.	Element	Description
(1)	Variable list toolbar	Contains icons for operating the 'Variable list' tab pane.
(2)	Variable area	Status of each variable is displayed.

■ Variable list toolbar

This section describes the functions of the icons on the Variable list toolbar in order from the left.

Table 3-66 Variable list toolbar

Icon	Name	Description
	Get or set value	Creates a node that imports data displayed on a target window and stores it as a variable.  For details, see the procedures for placing each node in "4.7 Nodes automatically generated in Event/IE Mode."
	Variable reference tree	Displays the 'Variable reference tree' window to find out where variables are used.  See "Variable reference tree window."
	Delete unused variables	Deletes all unused variables. Variables being used will not be deleted.
	Delete unused groups	Deletes all unused variable groups. Groups with variables will not be deleted.
	Add variable	Adds a new variable. If a variable row is selected, it will be added just below the selected row. If a group row is selected, it will be added to the bottom row in the selected group. Otherwise, it will be added to the bottom row of the 'No group' group.
	Move variable upward	Moves the display order of variables up one level. Click the icon when one or more variables are selected. If multiple variables are selected, they will be moved up together. If group rows are selected, they will not be moved. If variable rows in different groups are selected, they will not be moved.
	Move variable downward	Moves the display order of variables down one level. Click the icon when one or more variables are selected. If multiple variables are selected, they will be moved down together. If group rows are selected, they will not be moved. If variable rows in different groups are selected, they will not be moved.
	Delete variable	Deletes selected variables. Variables being used cannot be deleted.  For the procedure to find out where variables are used, see "Variable reference tree window."

Icon	Name	Description
	Add group	Adds a new variable group. If a variable row is selected, it will be added below the selected variable. If a group row is selected, it will be added below the selected group. Otherwise, it will be added to the bottom row of the 'No group' group.
	Move group upward	Moves the display order of variable groups up one level. Click the icon when one or more groups are selected. If multiple groups are selected, they will be moved up together. If variable rows are selected, they will not be moved.
	Move group downward	Moves the display order of variable groups down one level. Click the icon when one or more groups are selected. If multiple groups are selected, they will be moved down together. If variable rows are selected, they will not be moved.
	Delete group	Deletes selected variable groups. Groups with variables cannot be deleted.
	Change group	Changes a variable group of the selected variable.  See "Change group."
	Create template file	Outputs variables displayed in the 'Variable list' tab pane to a CSV or Excel file and creates a template file for a data list to be used when running a scenario.
	Import variable names	Registers variable names from a data list file. This is used when creating a scenario with the format of the data to be input fixed. Once the variable names are imported, those variable name can be selected from the dropdown list when entering variables in the Property pane.  See "Import variable names."
	Merge variables	Merges two selected variables into one.  See "Merge variables."
	Clear initial values	Clears initial values of selected variables.
	Template and data extraction (using Generative AI)	Extracts template and real data in the template from a CSV or Excel file by using Generative AI.  See "Template and data extraction (using Generative AI)."



Checking the 'Omit confirmation dialog box when deleting selected items' box on the 'Edit' tab in the 'Option' dialog, selected items can be deleted without displaying the confirmation dialog.



For the settings, see "Edit tab" in the "Option Dialog."

■ Variable area

This section describes the items displayed in the variable area.

Table 3-67 Items in the variable area

No.	Items	Description
(1)	Variable group tree	You can expand or collapse variable names under 'Group name.'
(2)	'Group name'	The name given to each group is displayed. The group name can be changed by selecting the group name column and pressing the 'F2' key.
(3)	'Variable name'	The name given to each variable is displayed. The variable name can be changed by selecting the variable name column and pressing the 'F2' key.
(4)	'Current value'	The value held by each variable is displayed. Displayed in the running state and paused state. If the license type of edition is the FULL edition, the current value can be modified when it is in the paused state. Select the current value column and press the 'F2' key to start editing.
(5)	'No initialization'	Check the box if you do not want to initialize the variable when looping.  For details of the loop, see "5.4.8 Run loop."
(6)	'Initial value'	Set a value that will be the current value when a scenario is started. The initial value can be changed by selecting the initial value column and pressing the 'F2' key. A new line can be started by pressing the 'Shift' key + 'Enter' key.
(7)	'Mask'	If checked, the display of stored variable values can be masked. The masked positions are displayed as "*****." Since the masked initial value cannot be changed, it is necessary to check it after setting the initial value. The mask can be removed by unchecking the box. At that time, the set initial value will be cleared.
(8)	'Comment'	It is a memo section in which the usage of the variable and the like can be described. The comment can be changed by selecting the comment column and pressing the 'F2' key. A new line can be started by pressing the 'Shift' key + 'Enter' key.



- Selected groups or variables can be deleted by pressing the 'Delete' key.
- A variable can be added by pressing the 'Insert' key.
- Information cannot be changed if the license type of edition is the RUN edition.

■ Variable reference tree window

FULL

The 'Variable reference tree' window is used to find out where variables are used.

If you select a variable name or a node in the 'Variable reference tree' window and click the 'Show node' button, the corresponding node in the flowchart area will be selected.

If you press the F5 key on the 'Variable reference tree' window, the displayed variable list will be updated.

Figure 3-63 Variable reference tree window

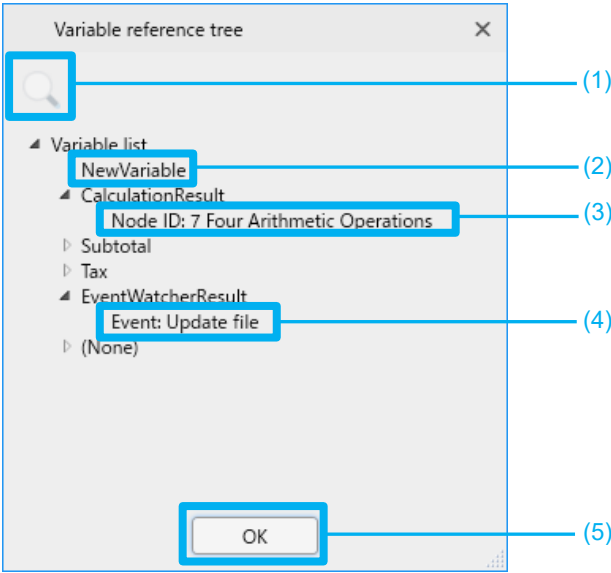


Table 3-68 Variable reference tree window

No.	Icon	Element	Description
(1)		'Show node' button	When the button is clicked, the node that refers to the part selected in (2) or (3) will be selected in the flowchart area.
(2)	—	Variable name	The name of each variable is displayed. In the position of (None), the node that does not use variables will be displayed.
(3)	—	Node	The ID and name of each node that refers to the variable is displayed.
(4)	—	Event watcher list	The 'Event watcher name' of the event watcher that refers to the variable is displayed.

No.	Icon	Element	Description
(5)	–	'OK' button	Click the button to close the 'Variable reference tree' window.

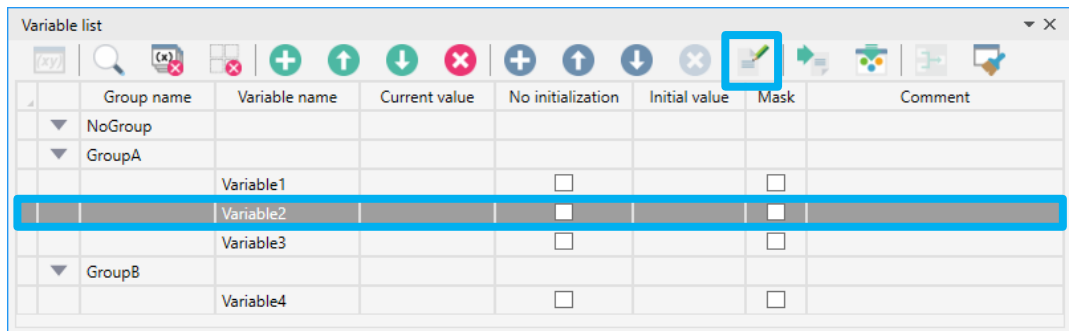
■ Change group

FULL

The 'Change group' window is used to change the group of variables selected in the variable area to the specified group.

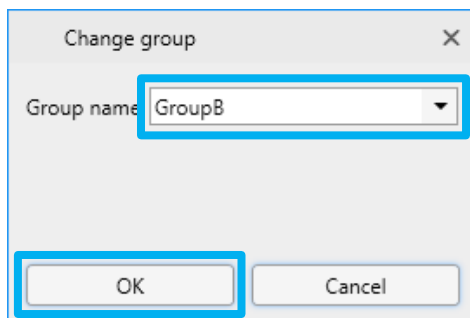
Steps

1. Select a variable in the variable area and click the 'Change group' icon on the Variable list toolbar.

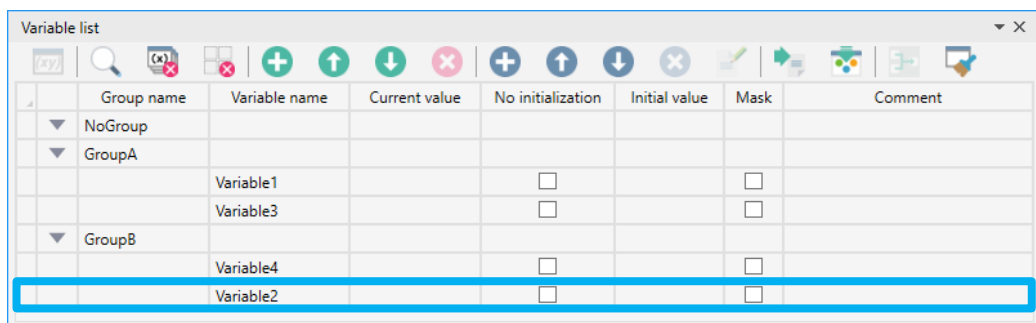


The 'Change group' window appears.

2. Select a new group from the dropdown list of 'Group name' and click the 'OK' button.



The variable group is changed.



■ Create template file

FULL

'Create template file' is the operation of creating a template for an input-data file after creating a scenario.

It outputs variables displayed in the 'Variable list' tab pane to a CSV or Excel file and creates a template file for a data list used when running a scenario.

 For the data format of the output data, see "Data for run loop."



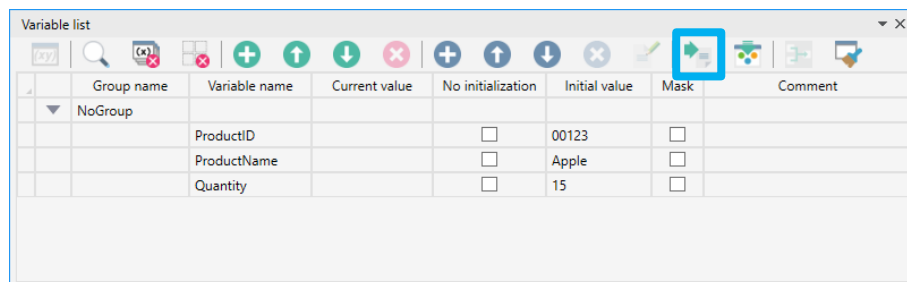
- In the created template file, the variable name will be output in the first row and the initial value will be output in the second row. The current value and comment will not be output.

- There are some folders where files cannot be saved from WinActor.

 See "6.1 Limitations of File Location."

Steps

1. Click the 'Create template file' icon on the Variable list toolbar.

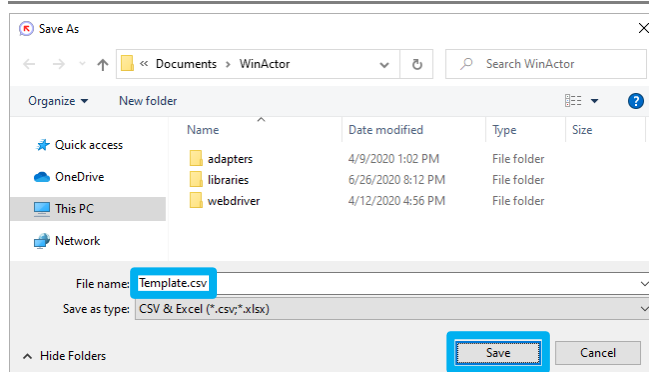


The 'Save as' window appears.

2. Enter a filename and click the 'Save' button.



Set the extension to 'xlsx' when saving a file in Excel format and to 'csv' when saving it in CSV format.



The template file will be saved.

■ Import variable names

FULL

'Import variable names' is the operation of registering variable names from a data list file. This is used when creating a scenario with the format of the data to be input fixed. Once the variable names are imported, those variable names can be selected from the dropdown list when entering variables in the Property pane.

➤➤ For the data format that can be loaded, see "Data for run loop."

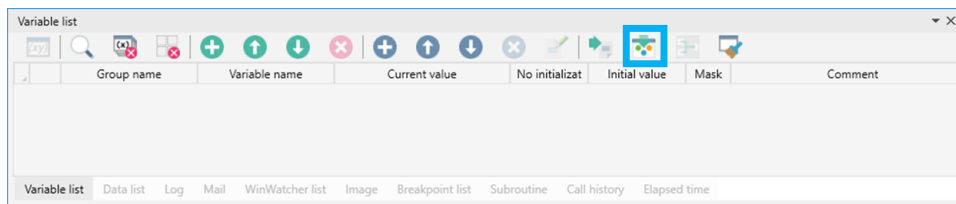
➤➤ For limitations on loading an Excel file, see "6.7 Limitations in the Loading Excel Data."



- 'Import variable names' is selectable only in the state of waiting for running. It is not selectable while running, pausing, and recording a scenario.
- For the variables with the same names as the variable names imported by 'Import variable names,' their initial value will be overwritten.

Steps

1. Click the 'Import variable names' icon on the Variable list toolbar.

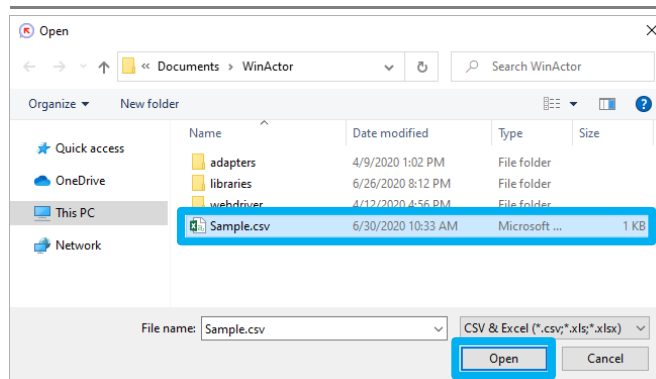


The 'Open' window appears.

2. Select a data file and click the 'Open' button.

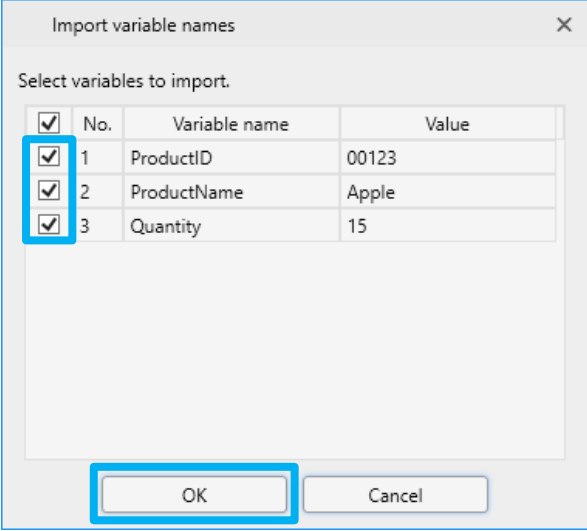


The data file that can be loaded is a file in Excel or CSV format.



The 'Import valuable names' window appears.

3. Check the boxes of variable names you want to import and click the 'OK' button.

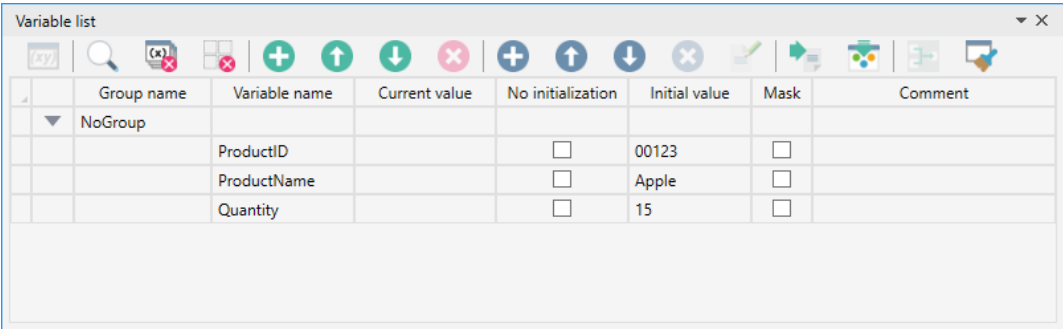


The 'Import variable names' dialog box is shown. It has a title bar with a close button. Below the title bar, it says 'Select variables to import.' There is a table with four columns: a checkbox, 'No.', 'Variable name', and 'Value'. The table contains three rows: 1. ProductID, 00123; 2. ProductName, Apple; 3. Quantity, 15. All three checkboxes are checked. Below the table is a large empty text area. At the bottom are 'OK' and 'Cancel' buttons. A blue box highlights the first column of the table, and another blue box highlights the 'OK' button.

☒	No.	Variable name	Value
☒	1	ProductID	00123
☒	2	ProductName	Apple
☒	3	Quantity	15

'Import variable names' is executed.

If the variable names are successfully imported, the imported variable names will be displayed in the 'Variable list' tab pane.



The 'Variable list' tab pane is shown. It has a title bar with a close button. Below the title bar is a toolbar with various icons. Below the toolbar is a table with eight columns: 'Group name', 'Variable name', 'Current value', 'No initialization', 'Initial value', 'Mask', and 'Comment'. The table has a group named 'NoGroup' which contains three variables: ProductID, ProductName, and Quantity. The 'No initialization' column has checkboxes for each variable, all of which are unchecked. The 'Initial value' column contains the values 00123, Apple, and 15. The 'Mask' column has checkboxes for each variable, all of which are unchecked.

Group name	Variable name	Current value	No initialization	Initial value	Mask	Comment
NoGroup	ProductID		☐	00123	☐	
	ProductName		☐	Apple	☐	
	Quantity		☐	15	☐	

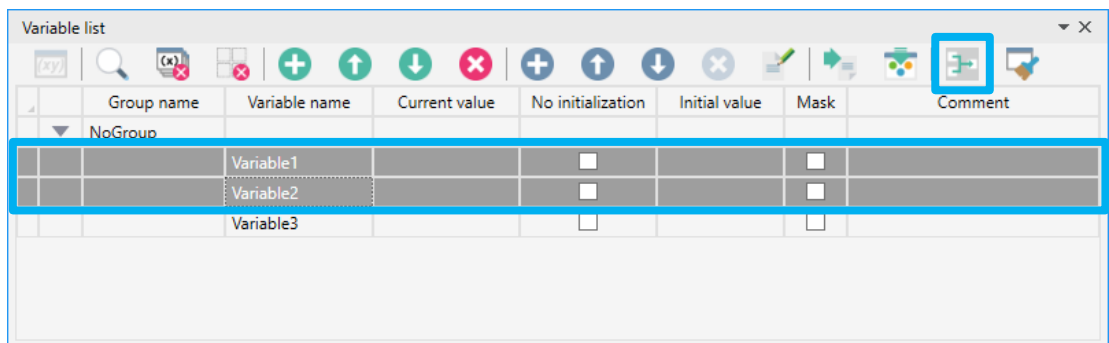
■ Merge variables

FULL

'Merge variables' is the operation of merging two variables into one variable.

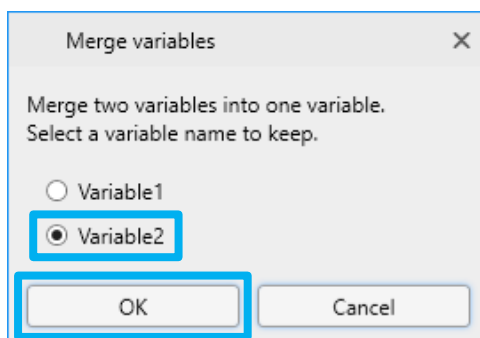
Steps

1. Select two variable names in the variable area and click the 'Merge variables' icon on the Variable list toolbar.

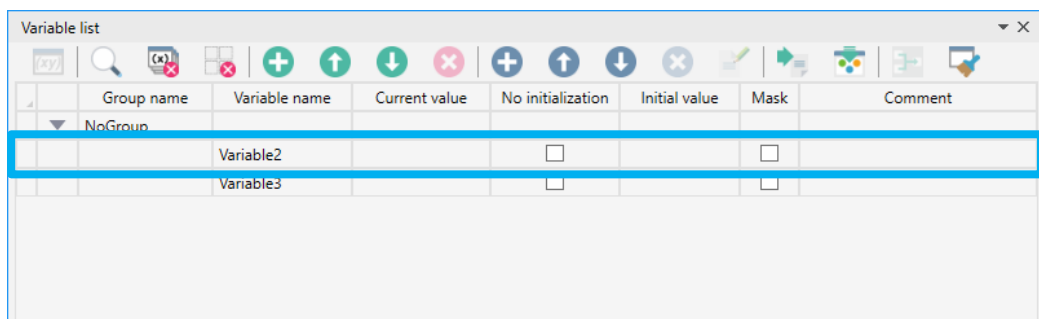


The 'Merge variables' window appears.

2. Select a variable name you want to keep and click the 'OK' button.



The variables are merged with the variable name selected in the 'Merge variables' window.



■ Template and data extraction (using Generative AI)

FULL

The 'Template and data extraction (using Generative AI)' extracts template and real data in the template from a CSV or Excel file by using Generative AI.

Extracted template (hereinafter referred to as Template) and real data stored in Template (hereinafter referred to as Data) are loaded to variables after transformed into the structured data.

» For limitations in the loading Excel file, see "6.7 Limitations in the Loading Excel Data."

You need to configure beforehand the communication with Generative AI to be used for 'Template and data extraction (using Generative AI)' in the 'Generative AI integration' window from the 'Integration of external services' window in the "Tool" menu.

However, when you use the AI integration license, the configurations are not necessary.

» For details, see "Generative AI integration window" in "3.2.3 Tool Menu."

Regarding the usage charge of the Generative AI API directly contracted by you, inquire your contract partner because the charge depends on the service contract of the API.

Single-sheet/ledger-sheet format data or tabular format data are extracted as Template from a CSV or Excel file.

In the following figures (from 3-61 to 64), examples of data extraction are shown separately a single-sheet/ledger-sheet format data and for a tabular format data. In fact, template and its data extracted from one CSV or Excel file are loaded to variables after transformed to one structured data.

Figure 3-64 Template and data extraction from a single-sheet/ledger-sheet format data
(an Excel file with template)

	A	B	C	D	E	F	G
1		Purchase Order					
2							
3		OOOO Company Ltd.					
4		Attention: Mr. xxxx					
5							
6		Subject	xxxx				
7		Delivery Date	Jan. 31, 2025				
8		Ship to	OOOO Company Ltd.				
9		Payment Terms	NET 30 EOM				
10							
11		No.	Item	Quantity	Unit	Unit Price (USD)	Total (USD)
12		1	XXX	1	set	100.00	100.00
13		2	OOO	1	set	75.00	75.00
14		3	OXO	1	piece	5.00	5.00
15		4					
16		5					
17						Sub Total	180.00
18						Tax	18.00
19						GRAND TOTAL	198.00

(Example) "Delivery Date"

(1) Template
Data name of "Delivery Date" and cell position of "Delivery Date"

(2) Data
Date data stored in the "Delivery Date" cell

Figure 3-65 Template and data extraction from a single-sheet/ledger-sheet format data
(Template and Data)

```
{
  "template": {
    {
      "single_or_ledger_sheet": [
        {
          "variable_name": "Subject", "data_position": ["C6"]},
          {"variable_name": "Delivery Date", "data_position": ["C7"]},
          {"variable_name": "Ship to", "data_position": ["C8"]},
          {"variable_name": "Payment Terms", "data_position": ["C9"]},
          {"variable_name": "Sub Total", "data_position": ["G17"]},
          {"variable_name": "Tax", "data_position": ["G18"]},
          {"variable_name": "GRAND TOTAL", "data_position": ["G19"]}
        ],
        "tablen": [ ... ]
      },
    },
    "data": {
      {
        "single_or_ledger_sheet": [
          ["xxxx"],
          ["Jan. 31, 2025"],
          ["OOOO Company Ltd."],
          ["NET 30 EOM"],
          ["180.00"],
          ["18.00"],
          ["198.00"]
        ],
        "tablen": [ ... ]
      },
    }
  }
}
```

"variable_name" = variable name associated with data name
"data_position" = position in the table, where the data is stored

(1)

Data are stored in [] according to the order written in the Template (from "Subject," "Delivery Date,"), separated by commas.

(2)

Figure 3-66 Template and data extraction from a tabular format data (an Excel file with template)

	A	B	C	D	E	F	G
1		Purchase Order					
2							
3		OOOO Company Ltd.					
4		Attention: Mr. xxxx					
5							
6		Subject	xxxx				
7		Delivery Date	Jan. 31, 2025				
8		Ship to	OOOO Company Ltd.				
9		Payment Terms	NET 30 EOM				
10							
11		No.	Item	Quantity	Unit	Unit Price (USD)	Total (USD)
12		1	XXX	1	set	100.00	100.00
13		2	OOO	1	set	75.00	75.00
14		3	OXO	1	piece	5.00	5.00
15		4					
16		5					
17						Sub Total	180.00
18						Tax	18.00
19						GRAND TOTAL	198.00

(Example) "Item"
 (1) Template
 Data name of "Item" and cell positions of "Item"
 (2) Data
 Merchandise name stored in the "Item" cells

Figure 3-67 Template and data extraction from a tabular format data (Template and Data)

```

{
  "template":
  {
    "single_or_ledger_sheet": [ . . . ],
    "table":
    [
      { "variable_name": "No.", "data_position": ["B12", "B13", "B14", "B15", "B16"] },
      { "variable_name": "Item", "data_position": ["C12", "C13", "C14", "C15", "C16"] },
      { "variable_name": "Quantity", "data_position": ["D12", "D13", "D14", "D15", "D16"] },
      { "variable_name": "Unit", "data_position": ["E12", "E13", "E14", "E15", "E16"] },
      { "variable_name": "Unit Price (USD)", "data_position": ["F12", "F13", "F14", "F15", "F16"] },
      { "variable_name": "Total (USD)", "data_position": ["G12", "G13", "G14", "G15", "G16"] }
    ]
  },
  "data":
  {
    "single_or_ledger_sheet": [ . . . ],
    "table":
    [
      [ "1", "2", "3", "4", "5" ],
      [ "XXX", "OOO", "OXO", "", "" ],
      [ "1", "1", "1", "", "" ],
      [ "set", "set", "piece", "", "" ],
      [ "100.00", "75.00", "5.00", "", "" ],
      [ "100.00", "75.00", "5.00", "", "" ]
    ]
  }
}

```

"variable_name" = variable name associated with data name
 "data_position" = position in the table, where the data is stored

Data are stored in [] according to the order written in the Template (from "No.", "Item,"), separated by commas.

Table 3-69 Configuration of Template and Data

No.	Element	Description
(1)	Template	Holds names of the data, which comprise a template, and their cell position information in a CSV or Excel file, where the real data are stored in the template.
(2)	Data	Holds the real data in the template. Each datum is associated with the data name and the cell position held in 'Template.'



You can acquire new data or renew data included in Template and Data for Pre/Post-Test Loop node or Libraries by using extracted Template and Data.



“4.3.4 Pre-Test Loop”



“4.3.5 Post-Test Loop4.3.5 Post-Test Loop”



For details of Libraries to handle Template and Data, see “WinActor User Library Sample Manual” stored in “WinActor Documents.”



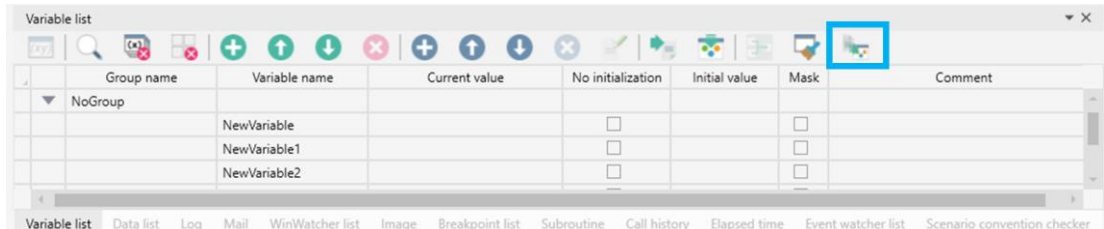
- Since ‘Template and data extraction (using Generative AI)’ is dependent on the response by Generative AI, retry the extraction by using a different mode if the extracted template and data are inaccurate.
- ‘Template and data extraction (using Generative AI)’ is active only in the state of waiting for running. It is not possible to be selected in the running state, paused state or recording state.
- Variable’s initial value will be overwritten, if its name is the same as that of the variable to be set ‘Template and Data,’ or if its name is the same as that of the data extracted as ‘Template and Data.’
- When there are no variables in the variable list, which have the same name that the data extracted by ‘Template and data extraction (using Generative AI)’ have, new variables will be registered by the same names.
- ‘Template and data extraction (using Generative AI)’ sends the contents of a CSV or Excel file to Generative AI. Please check in advance whether the contents are acceptable to be sent to Generative AI. It is possible for Generative AI to identify the template properly, by using sample data.
- It is possible for Generative AI to identify the template properly, by using the sample data in the template of a CSV or Excel file. Afterwards, it is possible to renew the sample data extracted as Template and Data into the data obtained from a CSV or Excel file by using Libraries.



Libraries for handling template and data, see “WinActor User Library Sample Manual” stored in “WinActor Documents.”

Steps

1. Click the 'Template and data extraction (using Generative AI)' icon in the Variable list toolbar.

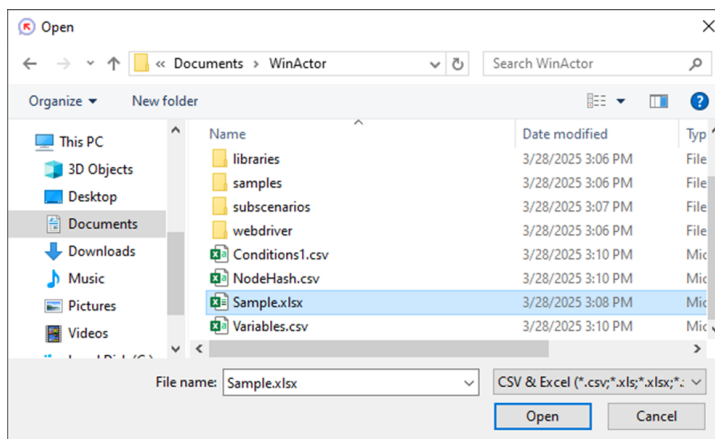


'Open' dialog will be displayed.

2. Select a data file and click the 'Open' button.

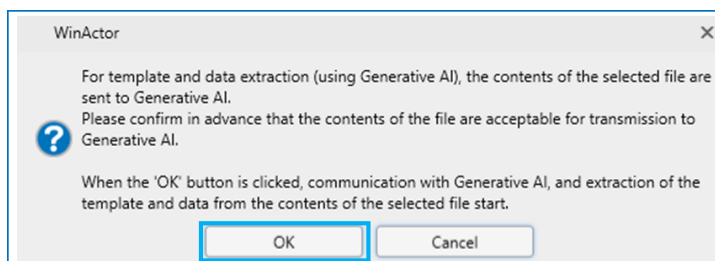


Only a CSV or Excel file is possible to be loaded.

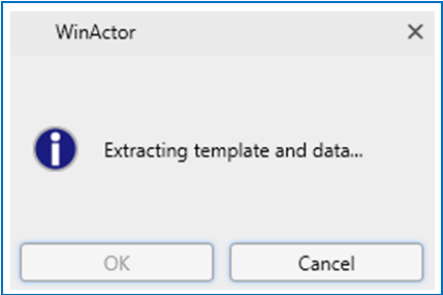


Dialog for confirming the usage of Generative AI appears.

3. Check the messages in the dialog and click the 'OK' button, if satisfied.



The following dialog appears during the communication with Generative AI. You can disconnect the communication by clicking the 'Cancel' button.



'Template and data extraction (using Generative AI)' window appears.

4. Check the boxes of variable names, which are the same that the data in the single-sheet/ledger-sheet format have, and check the boxes of rows of the tabular format, to be extracted as Template and Data. Input name of the variable, which will store the selected Template and Data and then click the 'OK' button.

Template and data extraction (using Generative AI)

Template and data selection

Select the template and data to be imported that are in the single-sheet or ledger-sheet format.
(*) The selected variable name, which is inherited from the data name, will be imported as a variable.

☒	No.	Variable name	Value
☒	1	Subject	xxxx
☒	2	Delivery Date	Jan. 31, 2025
☒	3	Ship to	OOOO Company Ltd.
☒	4	Payment Terms	NET 30 EOM
☒	5	Sub Total	180.00
☒	6	Tax	18.00
☒	7	GRAND TOTAL	198.00

Select the rows of the template and data to be imported that are in the tabular format.
*The data names corresponding to the selected rows will be imported as variables.

表1

☒	No.	Item	Quantity	Unit	Unit Price (USD)	Total (USD)
☒	1	XXX	1	set	100.00	100.00
☒	2	OOO	1	set	75.00	75.00
☒	3	OXO	1	piece	5.00	5.00
☒	4					
☒	5					

Enter the name of the variable to store the selected template and data.

Select variable name

OK Cancel

Selected Template and Data will be set as the initial value of this variable.

In addition, variable names, which are the same that the data in the single-sheet/ledger-sheet format have, and data name of the tabular format in the header row will be imported as variables.

Variable list							
	Group name	Variable name	Current value	No initialization	Initial value	Mask	Comment
▼	NoGroup	NewTemplate		☐	["template":{"single_or_ledger_sheet":{"variable_name":"Subject","data_position":{"C6"},"va	☐	
		Subject		☐	xxxx	☐	
		DeliveryDate		☐	Jan 31, 2025	☐	
		Shipto		☐	OOOO Company Ltd.	☐	
		PaymentTerms		☐	NET 30 EOM	☐	
		SubTotal		☐	180/00	☐	
		Tax		☐	18/00	☐	
		GRANDTOTAL		☐	198.00	☐	
▼	Table1	No.		☐	1	☐	
		Item		☐	XXX	☐	
		Quantity		☐	1	☐	
		Unit		☐	set	☐	

Variable listData listLogMailWinWatcher listImageBreakpoint listSubroutineCall historyElapsed timeEvent watcher listScenario convention checker

3.9.2 Data list tab pane

The 'Data list' tab pane is used to input data to the business system using data in an Excel file or CSV file, or to record the data displayed in the business system to an Excel file or CSV file.

Entering data using the data in 'Data list' is called a 'loop.'

>> For details of the loop, see "5.4.8 Run loop."

>> For the data format that can be handled, see "Data for run loop."

■ Configuration of the Data list tab pane

This section describes the basic configuration of the 'Data list' tab pane.

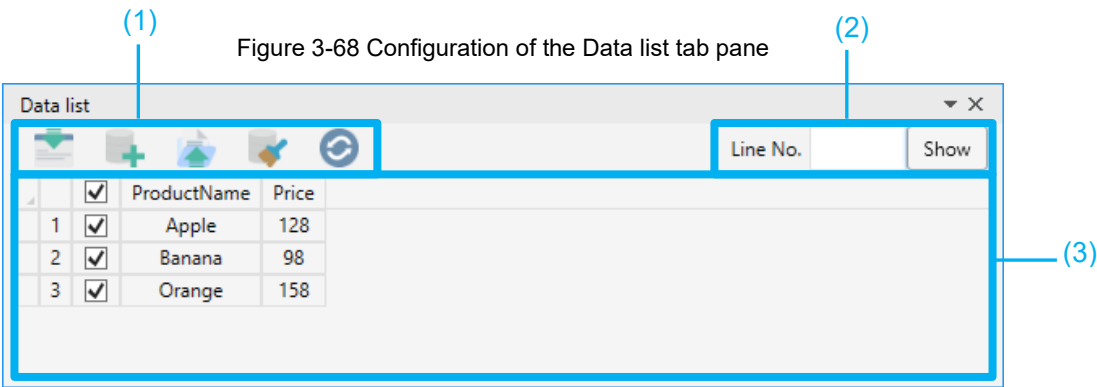


Table 3-70 Configuration of the Data list tab pane

No.	Element	Description
(1)	Data list toolbar	Contains icons for operating the Data list tab pane.
(2)	Specifying a line / 'Show' button	Enter a line number you want to display and click the 'Show' button. The specified line will be displayed and selected.
(3)	Data area	Loaded data for input is displayed.



All the data in the executed lines in the Data list pane will be recorded in Excel as updated when the scenario run is completed. (Data export is required separately to save it.)

If you do not want to update the data that has not changed, check the box of 'Update Data list only if the variable is updated' in the Misc. tab of the "Scenario information" window.

■ Data list toolbar

This section describes the functions of icons on the Data list toolbar.

Table 3-71 Data list toolbar

Icon	Name	Description
	Import data	Loads data in an Excel file or CSV file to the Data list pane.  See "Import data."
	Database	Links with a database and loads table contents of the database into the Data list pane.  See "Database."
	Export data	Saves the data in the Data list pane as an Excel file or CSV file.  See "Export data."
	Clear data list	Clears the data in the Data list pane.
	Reload data	Updates the information in the Data list pane.
—	Line No. / 'Show' button	Enter a line number you want to display and click the 'Show' button. The specified line will be selected. Enter a number greater than or equal to 1.



There are some folders where files cannot be saved from WinActor.



See "6.1 Limitations of File Location."

■ Data area

This section describes the items displayed in the data area.

The lines checked in the data area are the target of data input.

Table 3-72 Items in the data area

No.	Items	Description
(1)	Check box	Check lines for which you want to run a scenario. The lines for which the scenario run has been completed are unchecked. The operation to the check box of the header part is the operation to the check boxes of all lines.
(2)	Lines of variable names	The data name is displayed in the header.

■ Right-click Menu

Right-click in the data area of the Data list pane to display the right-click menu.

The check box can be operated from the right-click menu.

Figure 3-69 Right-click menu in the data area

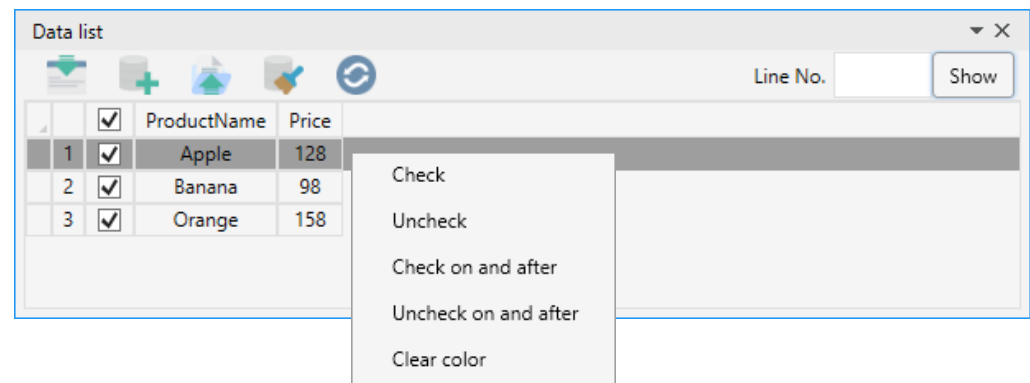


Table 3-73 Right-click menu in the data area

No.	Element	Description
(1)	Check	Checks the box of the selected line.
(2)	Uncheck	Unchecks the box of the selected line.
(3)	Check on and after	Checks the boxes of the selected line and the lines below. This menu will be displayed only when a single line is selected.
(4)	Uncheck on and after	Unchecks the boxes of the selected line and the lines below. This menu will be displayed only when a single line is selected.
(5)	Clear color	Clears the green background color marked to the lines where the scenario run has been completed.

■ Import data

'Import data' is the operation of loading data in an Excel file or CSV file into the Data list pane.



It supports *.csv, *.xls, *.xlsx, and *.xlsm files.



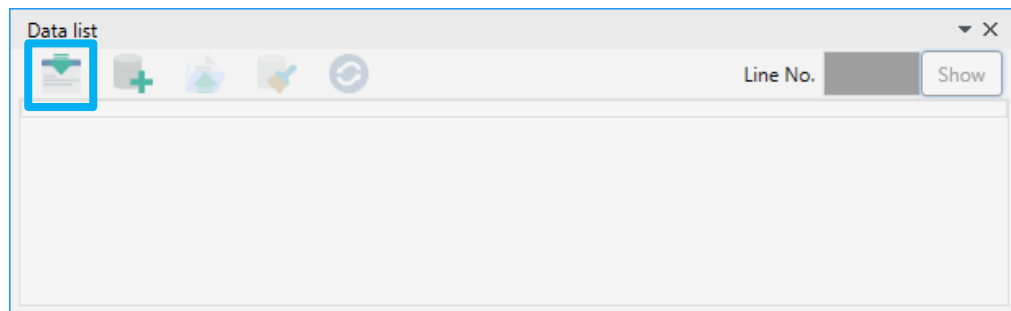
For the data format that can be handled, see "Data for run loop."



- If a file that does not support Excel is specified, an Excel warning dialog may be displayed. Operate WinActor after closing the warning dialog.
- For limitations on loading an Excel file, see "6.7 Limitations in the Loading Excel."
- 'Import data' is selectable only in the state of waiting for running. It is not selectable while running, pausing, and recording a scenario.
- If Excel that was started when the Excel file was imported into the Data list pane is closed before the loop ends, an execution error of WinActor will occur.
 - For details, see "Notes" in "5.4.8 Run loop."
- If Excel that was started when the Excel file was imported into the Data list pane is closed before the data is exported, an execution error of exporting data will occur.

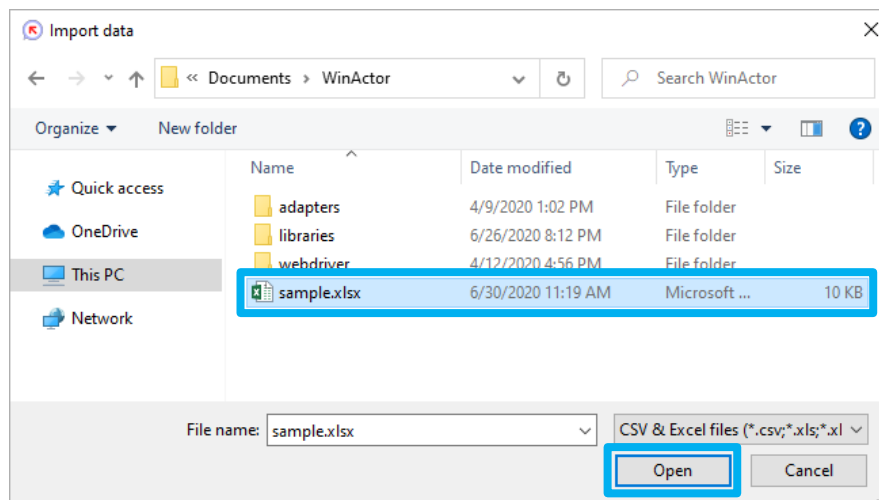
Steps

1. Click the 'Import data' icon on the Data list toolbar.



The 'Open' window appears.

2. Select a data file and click the 'Open' button.



If the data import is successful, the imported data will be displayed in the 'Data list' tab pane.

The screenshot shows the 'Data list' tab pane. It contains a table with 5 rows of data. The columns are: Line No., AddressCode, PostalCode, Prefecture, and Address. The data is as follows:

	☒	AddressCode	PostalCode	Prefecture	Address
1	☒	2720139000	587-0062	Osaka	Tai 1, Mihara-ku, Sakai-shi
2	☒	2720133700	587-0063	Osaka	Tai 2, Mihara-ku, Sakai-shi
3	☒	2720140000	587-0064	Osaka	Tai 3, Mihara-ku, Sakai-shi
4	☒	2720145000	587-0065	Osaka	Tai 4, Mihara-ku, Sakai-shi
5	☒	2720126000	587-0066	Osaka	Tai 5, Mihara-ku, Sakai-shi

■ Database

'Database' is the operation of linking with a database to load table contents in the database into the Data list pane or write the updates of the Data list pane to the database.

To start linking with a database, click the 'Database' icon in the Data list pane.



For the data format that can be handled, see "Data for run loop."



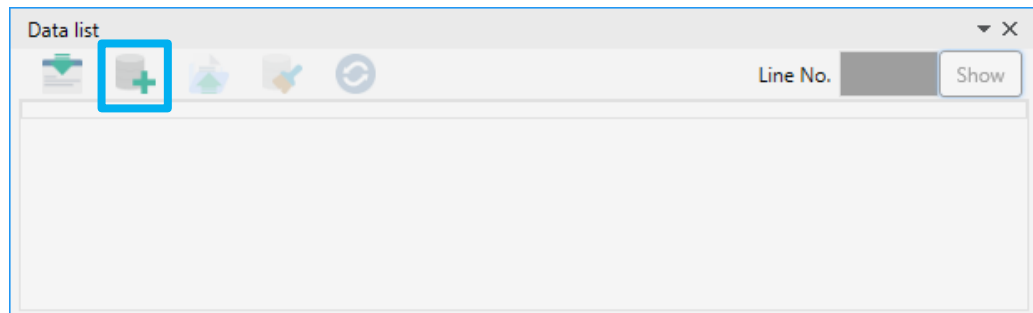
For limitations on Database, see "6.10 Limitations in the Database."



- When linking with a database, it is necessary to register the database to be used in ODBC Data Sources under Windows Administrative Tools in advance.
- 'Database' is selectable only in the state of waiting for running. It is not selectable while running, pausing, and recording a scenario.
- Data export is not required when using 'Database.' The result of the changes to the data list will be automatically written to the database.

Steps

1. Click the 'Database' icon on the Data list toolbar.



The 'Data Source' Property pane is displayed.

2. Enter information of the database and click the 'OK' button.

The screenshot shows a 'Property' dialog box with a 'Data Source' tab. It contains four text input fields: 'Data Source name', 'Username', 'Password', and 'Table name'. Blue lines with numbers (1) through (4) point to each field respectively. At the bottom of the dialog are 'OK' and 'Close' buttons.

Table 3-74 Data Source Property pane

No.	Name	Description
(1)	Data source name	Enter a data source name registered in advance in ODBC Data Sources.
(2)	Username	Enter a name of a user who uses the database.
(3)	Password	Enter a password set for the database.
(4)	Table name	Enter a table name of the database to be linked.



Some characters cannot be used for the table name.



See "6.10.2 Characters not allowed in table name."



The following describes the specifications related to the time zone applied in 'Database.'

In 'Database,' it is possible to apply the time zone when loading and writing dates and times.

The time zone to be applied in 'Database' can be set in the 'Time' tab of the "Scenario information" window.

The Time zone is applied in two steps: "Applying the time zone set in the OS" and "Applying the time zone set in the "Scenario information" window of WinActor"

[When loading dates and times]

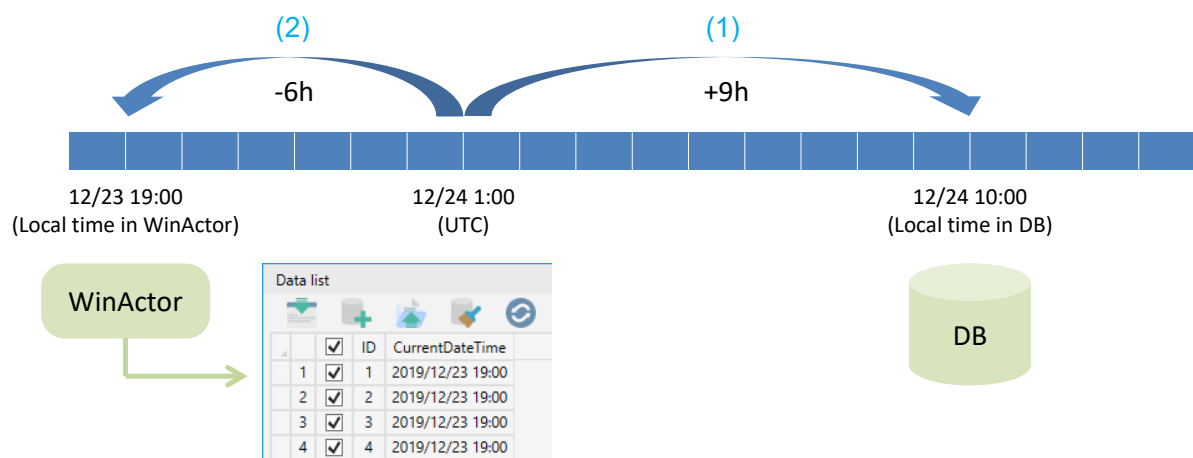
The time zone is applied in the following order when loading dates and times from a database.

- (1) UTC (Coordinated Universal Time) is determined by the time zone set in the OS.
- (2) The time zone set in WinActor is applied to UTC.

The dates and times displayed in the Data list pane are the ones after (2) is applied.

* Example of loading dates and times from a database to WinActor for the following settings:

- Registered date and time in the database: 2019/12/24 10:00:00
- Time zone set in the OS: Japan(UTC+9h)
- Time zone set in WinActor: America/Chicago(UTC-6h)



* Limitations

- In (1), if UTC points to BC, a load error will occur.
(Example) For the database date and time (0001/01/01 01:00 AD) and OS time zone (Japan(UTC+9h))
=> Error because UTC after the time zone applied points to (0001/12/31 16:00 BC).
- If the date and time after (2) is applied points to BC, WinActor will uniformly set the date and time to 00:00:00 on January 1, 0001 AD.
(Example) For the database date and time (0001/01/01 10:00 AD), OS time zone (Japan(UTC+9h)), and WinActor time zone (Cuba(UTC-5h))
=> Rounded to 00:00:00 on January 1, 0001 AD because the date and time after the time zone is applied points to (0001/12/31 20:00 BC).

[When writing dates and times]

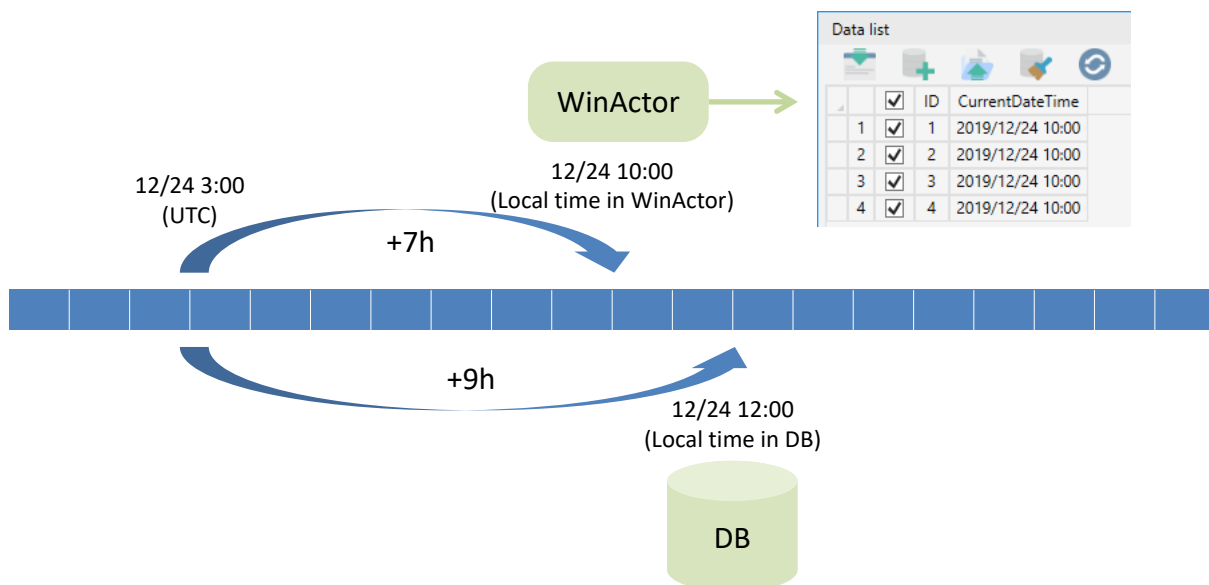
The time zone is applied in the following order when writing dates and times to a database.

- (1) UTC (Coordinated Universal Time) is determined by the time zone set in WinActor.
- (2) The time zone set in the OS is applied.

The dates and times written to the database is the ones after (2) is applied.

* Example of writing dates and times from WinActor to a database for the following settings:

- Registered date and time in WinActor: 2019/12/24 10:00:00
- Time zone set in WinActor: Asia/Bangkok(UTC+7h)
- Time zone set in the OS: Japan(UTC+9h)



* Limitations

- In (1), if UTC points to BC, a write error will occur.
(Example) For the variable value setting date and time (0001/01/01 1:00 AD) and WinActor time zone (Japan(UTC+9h))
=> Error because UTC after the time zone applied points to (0001/12/31 16:00 BC).
 - If the date and time after (2) is applied points to BC, WinActor will uniformly set the date and time to 00:00:00 on January 1, 0001 AD.
(Example) For the variable value setting date and time (0001/01/01 03:00 AD), WinActor time zone (Europe/Sofia(UTC+2h)), and OS time zone (Brazil/East(UTC-3h))
=> Rounded to 00:00:00 on January 1, 0001 AD because the date and time after the time zone is applied points to (0001/12/31 22:00 BC).
-

■ Export data

'Export data' is the operation of saving a data in the Data list pane to an Excel file or CSV file.



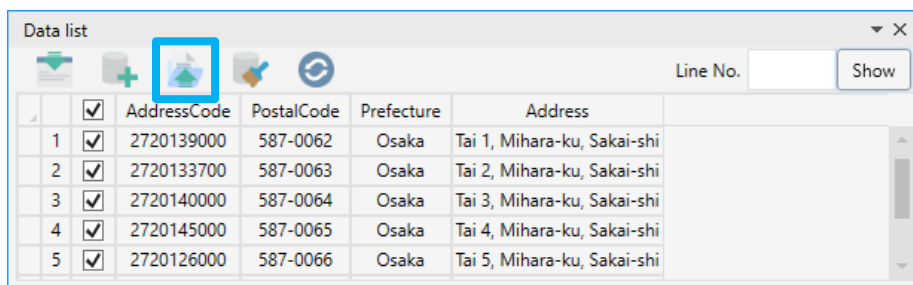
- 'Export data' is selectable only in the state of waiting for running. It is not selectable while running, pausing, and recording a scenario.
- The file format that can be saved is the same as that used in 'Import data.' The file will be saved in .xls format when imported in .xls format, in .xlsx format when imported in .xlsx format, and in .csv format when imported in .csv format. It cannot be changed. If the file is imported using 'Database,' 'Export data' cannot be used and the data will be written to the database.
- There are some folders where files cannot be saved from WinActor.



See "6.1 Limitations of File Location."

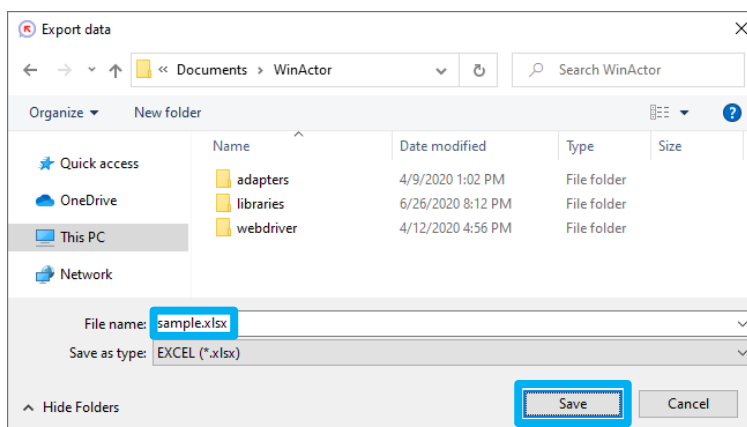
Steps

1. Click the 'Export data' icon on the Data list toolbar.



The 'Save' window appears.

2. Enter a filename and click the 'Save' button.



The data in the Data list pane will be saved in the file.

3.9.3 Log tab pane

The 'Log' tab pane is used to display scenario execution logs (progress of running a scenario).
To display the 'Log' pane, click the Log tab in the function area or select 'Log' in the View menu.

■ Configuration of Log tab pane

This section describes the basic configuration of the 'Log' tab pane.

Figure 3-70 Configuration of the Log tab pane

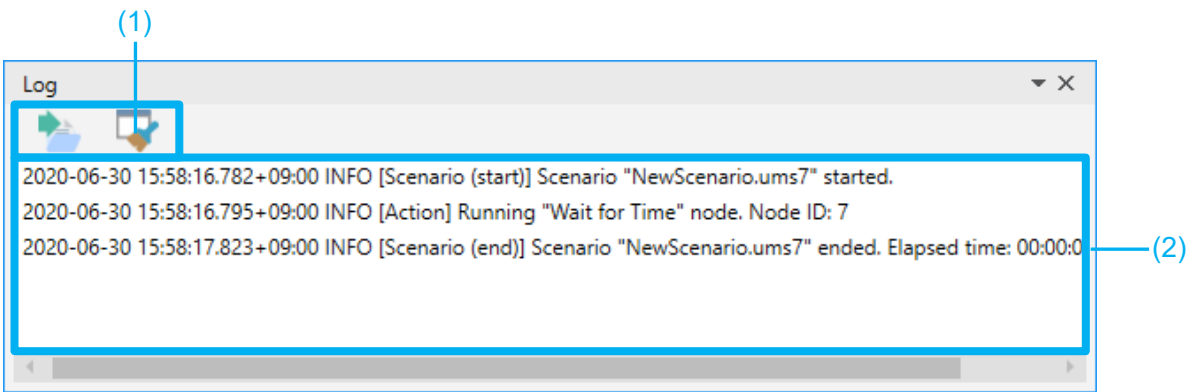


Table 3-75 Configuration of the Log tab pane

No.	Element	Description
(1)	Toolbar	Contains icons for operating the Log tab pane.
(2)	Log area	Logs are displayed.

■ Log toolbar

This section describes the functions of the icons on the Log toolbar in order from the left.

Table 3-76 Log toolbar

Icon	Name	Description
	Save logs	Saves logs displayed in the log area to a text file.
	Clear logs	Clears logs displayed in the log area.



There are some folders where files cannot be saved from WinActor.



See "6.1 Limitations of File Location."

■ Log area

In the log area, scenario execution logs (progress of running a scenario) are displayed.



For an example of log output, see "7.4 Example of Log."

The dates and times in the Log tab pane are displayed in the date format and time zone set in 'Date format (log)' and 'Time zone' in the 'Option' dialog.



For the settings of "Date format (log)" and "Time zone," see "Date and time tab" in the "Option Dialog."

There is a limit to the number of log lines that can be displayed. The default limit is 1,000 lines.

If the limit is exceeded, old logs will be cleared in increments of 100 lines.



For how to change the upper limit, see "Misc. tab" in the "Option Dialog."



When copying logs directly from the log area, set the character encoding of a file to which the logs are pasted to utf8 and save the file.

■ Identifying a location of an error/warning

A log shows the time, ID of the node that was run, the result, and so on.

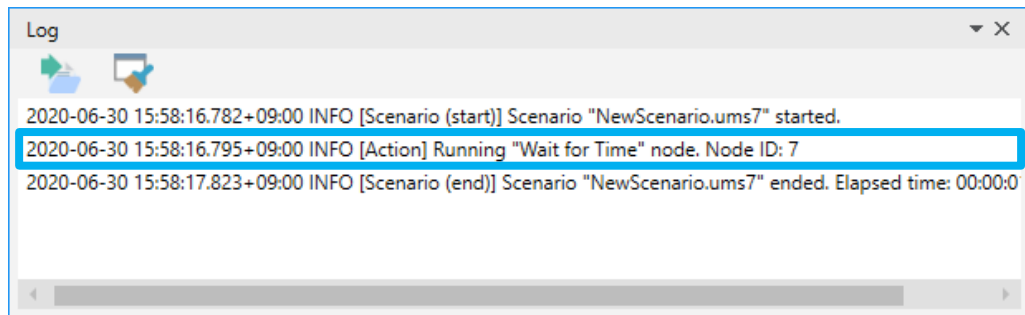
If an error or warning occurs, click the node ID displayed in the 'Log' tab pane to display the target node and identify the location where the error/warning occurred.

If variables are used in the location where the error occurred, the information that identifies the location where each of the variables was last updated is shown as a 'Supplementary information.'

■ Selecting a node by clicking the node ID

If you double-click a line containing 'Node ID: (number)' in the 'Log' tab pane, the target node in the flowchart area will be selected.

Figure 3-71 Log pane (Selecting a node by clicking the node ID)



3.9.4 Mail tab pane

The 'Mail' tab pane is used when using libraries under '03_WinActor_Mail' in '20_Mailer,' when checking mail information received by the Receive Mail node run in a scenario, and so on.

 For details on a mail reception scenario, see "WinActor Mail Reception Scenario Creation Manual."

■ Configuration of the Mail tab pane

This section describes the basic configuration of the Mail tab pane.

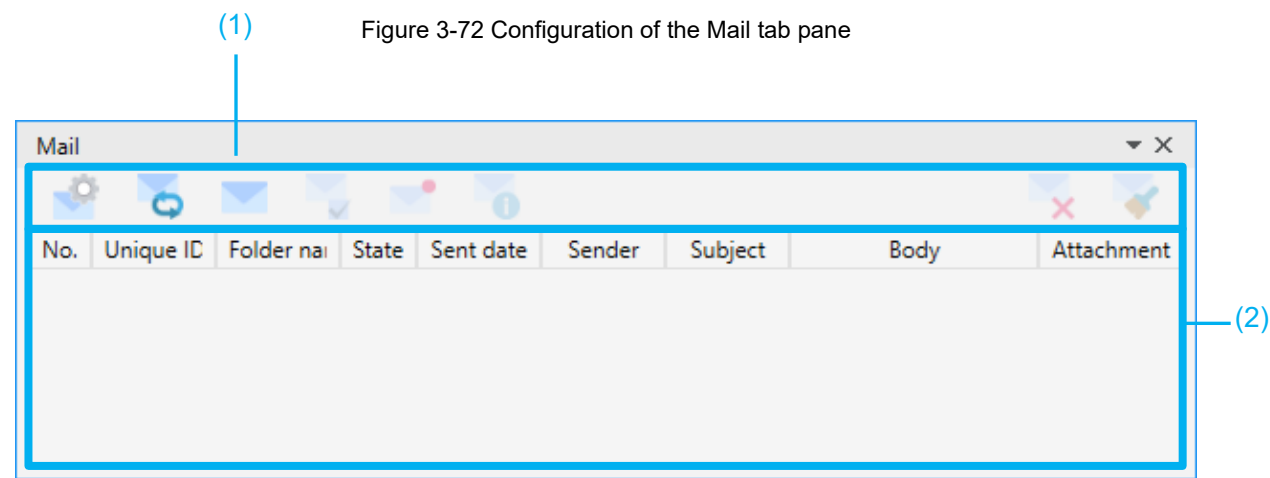


Table 3-77 Configuration of the Mail tab pane

No.	Element	Description
(1)	Mail toolbar	Contains icons for operating the Mail tab pane.
(2)	Mail area	Received mail information is displayed.

■ Mail toolbar

This section describes the functions of the icons on the Mail toolbar in order from the left.

Table 3-78 Mail toolbar

Icon	Name	Description
	Mail reception settings	Displays the Mail reception settings window when receiving mails in the Mail pane.  For details, see "Mail reception settings window." If there is no Mail Reception Settings node or Import Mail Reception Settings node when running a scenario, the mail reception settings set in the Mail pane become effective.
	Synchronize mail folder	Updates the display of the received mail list with the received mails saved in the mail folder specified in the mail reception settings. * It cannot be executed if the license type of edition is the RUN edition.
	Receive mails	Receives mails in the mail server specified in the mail reception settings. * It cannot be executed if the license type of edition is the RUN edition.
	Change to processed	Changes the state of the mail selected in the received mail list from unprocessed to processed. If multiple mails are selected, the state of all selected mails will be changed to processed. * It cannot be executed if the license type of edition is the RUN edition.
	Change to unprocessed	Changes the state of the mail selected in the received mail list from processed to unprocessed. If multiple mails are selected, the state of all selected mails will be changed to unprocessed. * It cannot be executed if the license type of edition is the RUN edition.
	Mail information	Displays a window for viewing the details of the mail selected in the received mail list.  For details, see "Mail information window." It cannot be displayed if multiple mails are selected.
	Delete mails	Deletes mails selected in the received mail list. If multiple mails are selected, all selected mails will be deleted. * It cannot be executed if the license type of edition is the RUN edition.
	Delete processed mails	Deletes all processed mails. * It cannot be executed if the license type of edition is the RUN edition.

■ Mail area

This section describes the items displayed in the mail area.

Table 3-79 Items in the mail area

No.	Item	Describe
(1)	No.	The number assigned to each mail is displayed from 1 in chronological order of the sent date and time of the mails in the mail server.
(2)	Unique ID	The unique identifier for each mail is displayed.
(3)	Folder name	The folder name of each received mail is displayed. The structure of the mail folder is as follows. (Folder specified in the mail server)\inbox\ (folder name)
(4)	State	Unprocessed/processed is displayed.
(5)	Sent date	The sent date and time of each mail is displayed. For mails without the sent date and time, the received date and time will be set.
(6)	Sender	The sender of each mail is displayed.
(7)	Subject	The subject of each mail is displayed.
(8)	Body	The body of each mail is displayed.
(9)	Attachment	The number of files attached to each mail is displayed.

■ Mail reception settings window

The 'Mail reception settings' window is used to receive mails or synchronize mail folder in the Mail pane, or to receive mails or synchronize mail folder when running a scenario.

Figure 3-73 Icons on the toolbar of the Mail reception settings window

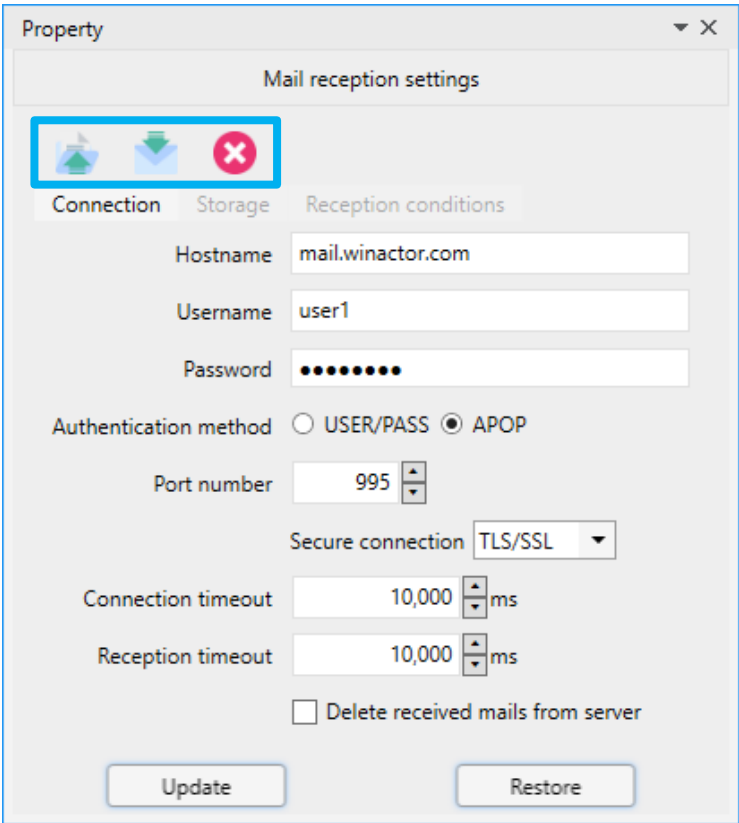


Table 3-80 Icons on the toolbar of the Mail reception settings window

Icon	Name	Description
	Export settings	Exports settings in the Mail reception settings window to a file.
	Import settings	Imports settings in a file to the Mail reception settings window.
	Delete settings	Deletes settings in the Mail reception settings window.

■ Mail reception settings window > Connection tab

Figure 3-74 Connection tab of the Mail reception settings window

Property

Mail reception settings

Connection Storage Reception conditions

(1) Hostname mail.winactor.com

(2) Username user1

(3) Password

(4) Authentication method ☐ USER/PASS ☒ APOP

(5) Port number 995

(6) Secure connection TLS/SSL

(7) Connection timeout 10,000 ms

(8) Reception timeout 10,000 ms

(9) ☐ Delete received mails from server

Update Restore

Table 3-81 Connection tab of the Mail reception settings window

No.	Element	Description
(1)	Hostname	Specify URL or IP address of a mail server.
(2)	Username	Specify a username to log in to the mail server.
(3)	Password	Specify a password to log in to the mail server.
(4)	Authentication method	Select USER/PASS or APOP.
(5)	Port number	Specify a port number of the mail server.
(6)	Secure connection	Select one of the following security modes when connecting to the mail server.
		None No security (POP3)
		TLS/SSL With security (POP3S)
		STARTTLS With security (STARTTLS)

No.	Element	Description
(7)	Connection timeout	Specify a timeout period for connection to the mail server.  Windows TCP connection times out in 21 seconds, so the mail reception of WinActor also times out in up to 21 seconds. Therefore, even if you set a value greater than 21 seconds to 'Connection timeout,' it will time out in 21 seconds.
(8)	Reception timeout	Specify a timeout period for receiving mails from the mail server.
(9)	Delete received mails from server	Check the box to delete the received mails from the mail server when receiving mails. If the already received mails remain on the mail server, those mails will also be deleted.



If TLS/SSL or STARTTLS is selected for 'Secure connection' and the SSL certificate is a self-signed certificate, it is required to install the certificate to WinActor in the following procedure.

- Use Microsoft Management Console (MMC) to install the certificate.

(Procedure for installing the certificate)

1. Press the 'Windows' key + 'R' (or click 'Start' > Run), enter 'mmc' and click 'OK.'
2. The 'Console1' window appears. Select 'File' > 'Add/Remove Snap-in.'
3. The 'Add or Remove Snap-ins' window appears. Select 'Certificates' from 'Available snap-ins' and click 'Add.'
4. The 'Certificates snap-in' window appears. Select 'My user account' and click 'Finish.'
5. In the 'Add or Remove Snap-ins' window, click 'OK.'
6. In the 'Console 1' window, select 'Certificates – Current User' > 'Trusted Root Certification Authorities' > 'Certificates.'
7. Right-click 'Certificates' and select 'All Tasks' > 'Import.'
8. The 'Certificate Import Wizard' window appears. Select a certificate you want to register.
9. For 'Place all certificates in the following store,' select 'Trusted Root Certification Authorities.'
10. Click 'Finish.' If 'The import was successful.' is displayed, the certificate installation is complete.

■ Mail reception settings window > Storage tab

Figure 3-75 Storage tab of the Mail reception settings window

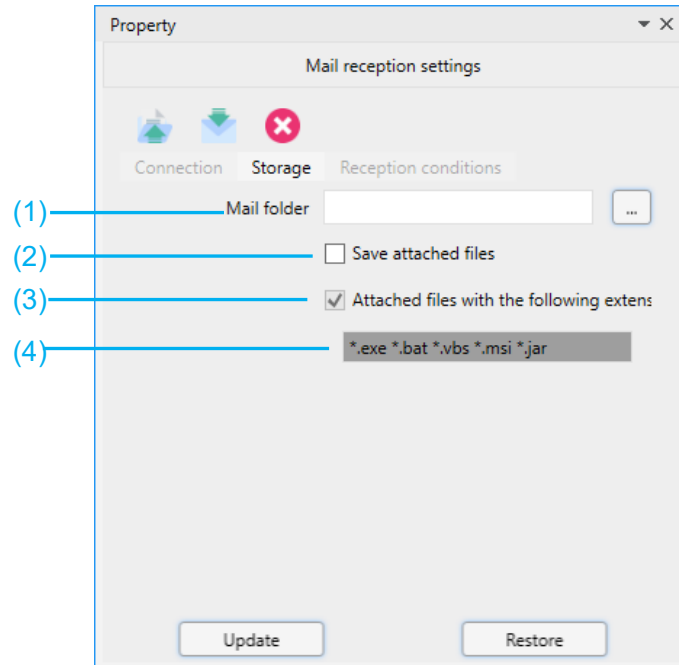


Table 3-82 Storage tab of the Mail reception settings window

No.	Element	Description
(1)	Mail folder	Specify a storage folder of the received mails with a file path. If you specify a relative path for the file path, use only the WinActor path and the installation path as the reference path. The scenario path is not used as the reference path.  For details of the file path, relative path, and reference path, see "5.6 File Path."
(2)	Save attached files	Check the box to save attached files when receiving mails.
(3)	Attached files with the following extension are not saved	Check the box not to save files with the specified filename extensions when saving attached files. The setting is enabled when 'Save attached file' is checked.
(4)	Extension input field	A field to enter filename extensions when 'Attached files with the following extension are not saved' is checked. Specify extensions with '*. (any extension).' A space is a delimiter, and multiple extensions can be specified with the delimiter.

■ Mail reception settings window > Reception conditions tab

 Up to 50 reception conditions can be added.

Figure 3-76 Reception conditions tab of the Mail reception settings window

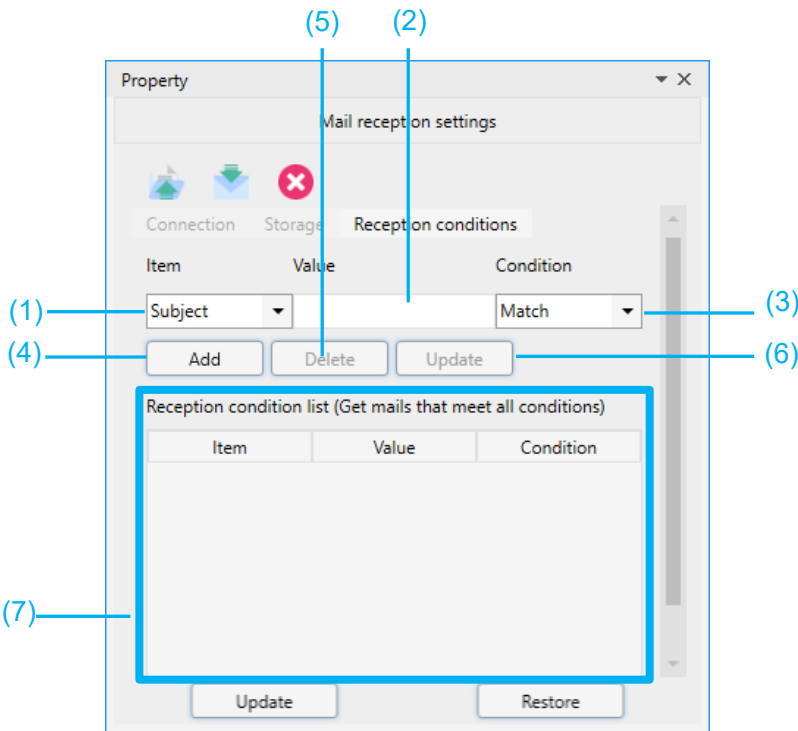


Table 3-83 Reception conditions tab of the Mail reception settings window

No.	Element	Description
(1)	Item	Select an item to which the reception conditions apply. Specify one from 'SUBJECT,' 'TO (recipient),' and 'FROM (sender).'
(2)	Value	Specify a string to be the reception conditions in 40 characters.
(3)	Condition	Specify a condition of the value specified in (2). Specify one from 'Match,' 'Include,' 'Start with,' 'End with,' and 'Regular expression.'
(4)	'Add' button	Adds the reception conditions.
(5)	'Delete' button	Deletes the reception conditions selected in the Reception condition list. If multiple reception conditions are selected, all the selected reception conditions will be deleted.
(6)	'Update' button	Updates the reception conditions selected in the Reception condition list.
(7)	Reception condition list	The reception conditions that have been set are displayed. Only mails that meet all the conditions will be received.

■ Mail information window

The 'Mail information' window is used to view the details of the mail selected in the received mail list.

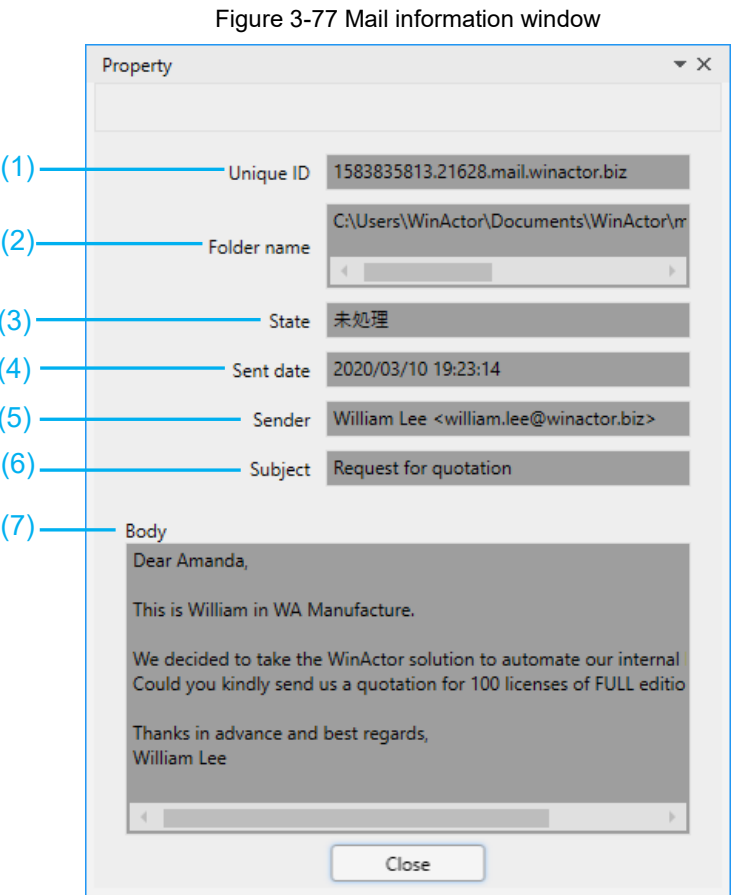


Table 3-84 Mail information window

No.	Element	Description
(1)	Unique ID	Shows the unique identifier for the mail
(2)	Folder name	Shows the folder name for the received mail. The mail folder is (Folder specified in the mail server)\inbox\(folder name)
(3)	State	Shows unprocessed or processed.
(4)	Sent date	Shows the sent date and time of the mail. For a mail without the sent date and time, the received date and time will be set.
(5)	Sender	Shows the sender of the mail.
(6)	Subject	Shows the subject of the mail.
(7)	Body	Shows the body of the mail.

3.9.5 WinWatcher list tab pane

FULL

In WinActor, you can set to take one of the actions of ‘Stop scenario,’ ‘Call subroutine,’ and ‘Raise exception’ when a specific window is displayed.

The ‘WinWatcher list’ tab pane is used to set a window to be watched and the action to be taken when the window is displayed. To display the ‘WinWatcher list’ tab pane, click the WinWatcher list tab in the function area or select ‘WinWatcher list’ in the View menu.

■ Configuration of the WinWatcher list tab pane

This section describes the basic configuration of the ‘WinWatcher list’ tab pane.

Figure 3-78 Configuration of the WinWatcher list tab pane

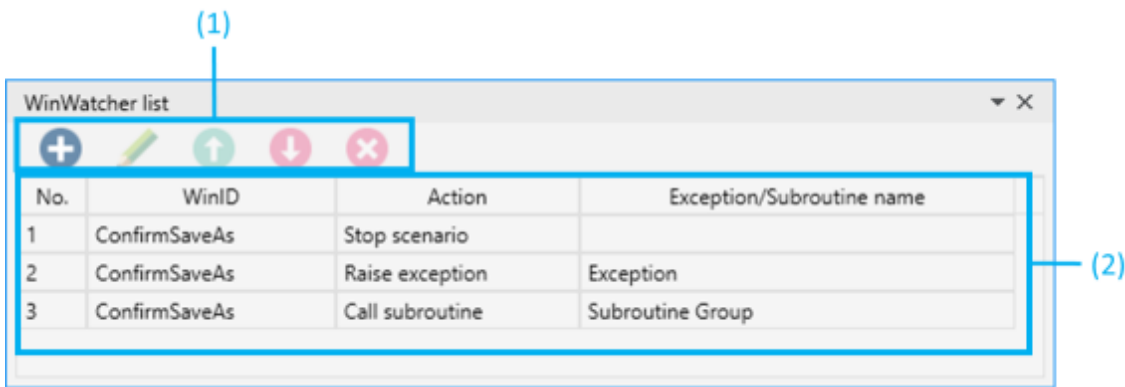


Table 3-85 Configuration of the WinWatcher list tab pane

No.	Element	Description
(1)	WinWatcher list toolbar	Contains icons for operating the ‘WinWatcher list’ tab pane.
(2)	List area	A list of registered WinWatchers is displayed.

- 
- If the number of registered WinWatchers is large, the running speed of the entire scenario will slow down.

■ WinWatcher list toolbar

This section describes the functions of the icons on the WinWatcher list toolbar in order from the left.

Table 3-86 WinWatcher list toolbar

Icon	Name	Description
	Add WinWatcher	Adds a WinWatcher. Displays the 'Add WinWatcher' window.  See "Add WinWatcher window."
	Edit WinWatcher	Displays the 'Edit WinWatcher' window to edit the selected WinWatcher.  See "Procedure for editing a WinWatcher."
	Upward	Raises the priority of the selected WinWatcher.  See "Changing the priority of WinWatchers."
	Downward	Lowers the priority of the selected WinWatcher.  See "Changing the priority of WinWatchers."
	Delete WinWatcher	Deletes the selected WinWatcher.  See "Deleting a WinWatcher."

■ List area

This section describes the items displayed in the list area.

Table 3-87 Items in the list area

No.	Item	Description
(1)	No	The serial number of each WinWatcher is displayed.
(2)	WinID	The WinID name of each WinWatcher is displayed.
(3)	Action	Lists the actions to be taken when each window being watched is displayed. One of 'Stop scenario,' 'Raise exception,' and 'Call subroutine' is displayed.
(4)	Exception/Subroutine name	If the action is 'Raise exception,' the given exception name is displayed. If the action is 'Call subroutine,' the name of the subroutine to be called is displayed.

■ Add WinWatcher window

The 'Add WinWatcher' window is used to add a WinWatcher to perform one of 'Stop scenario,' 'Call subroutine,' and 'Raise exception' when a specific window is displayed while running a scenario.

Figure 3-79 Add WinWatcher window

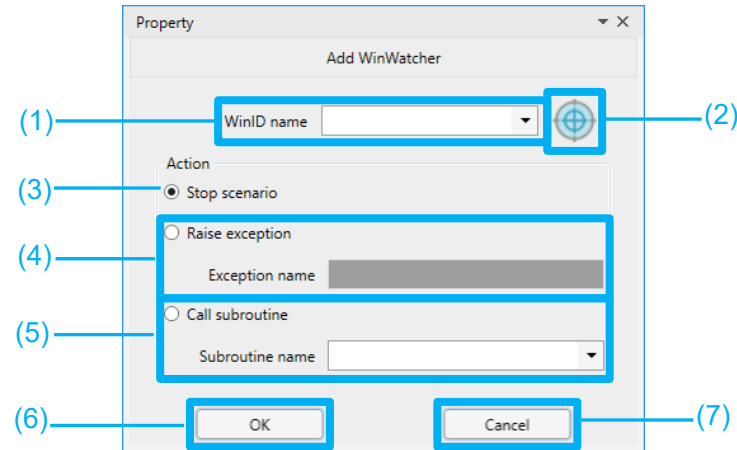


Table 3-88 Add WinWatcher window

No.	Element	Description
(1)	WinID name	Select a window to be watched from the dropdown list. Select a window using either (1) or (2).
(2)	Select target window icon	Use this icon to specify a window to be watched by clicking the mouse.
(3)	Stop scenario	Stops the scenario when the window to be watched is displayed.
(4)	Raise exception/ Exception name	Branches to an exception handling when the window to be watched is displayed. It is used to pause the current scenario and branch to the exception handling. Specify an exception name. It branches to the exception handling that corresponds to the specified exception name.
(5)	Call subroutine/ Subroutine name	Calls a subroutine when the window to be watched is displayed. It is used to pause the current scenario and resume from the paused position after the operation in the subroutine is completed. Specify a subroutine name.
(6)	'OK' button	Click the button to register the settings made in the 'Add WinWatcher' window.
(7)	'Cancel' button	Click the button to discard the settings made in the 'Add WinWatcher' window and cancel the registration.

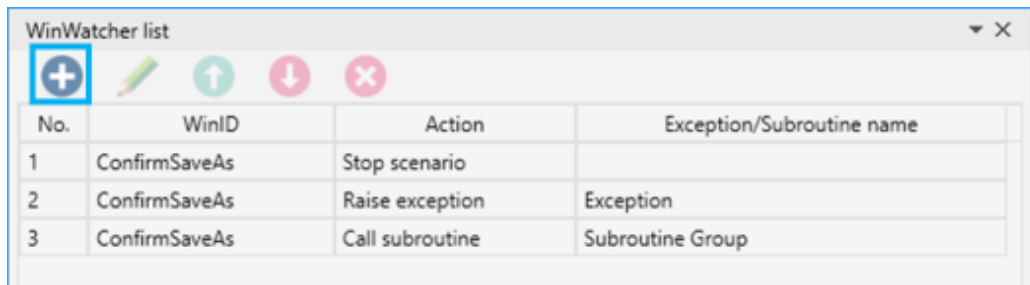
- 
- If the number of registered WinWatchers is large, the running speed of the entire scenario will slow down.

■ Procedure for adding a WinWatcher

The following is the procedure for adding a WinWatcher.

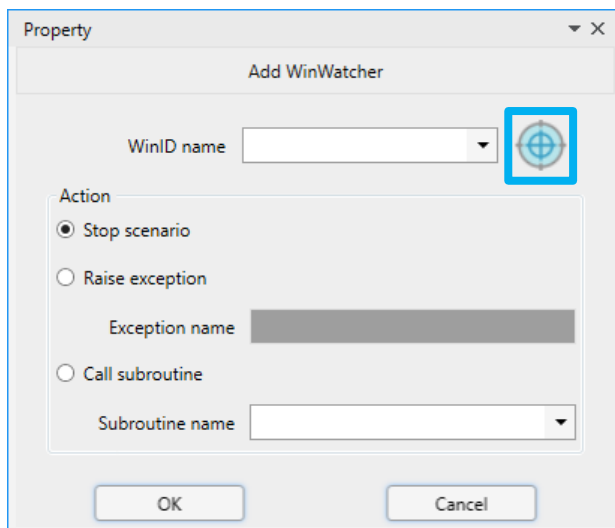
Steps

1. Click the 'Add WinWatcher' icon in the 'WinWatcher list' tab pane.



The 'Add WinWatcher' window is displayed.

2. Click the 'Select target window' icon of 'WinID name.'

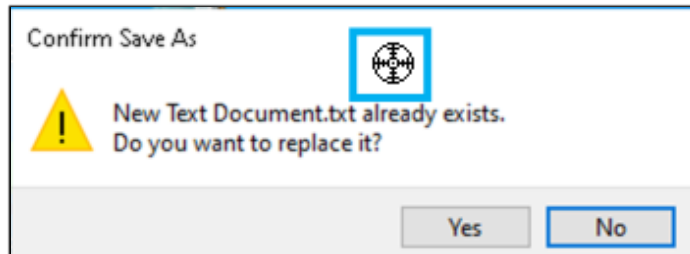


The mouse cursor changes into .

3. Click a window to be watched.



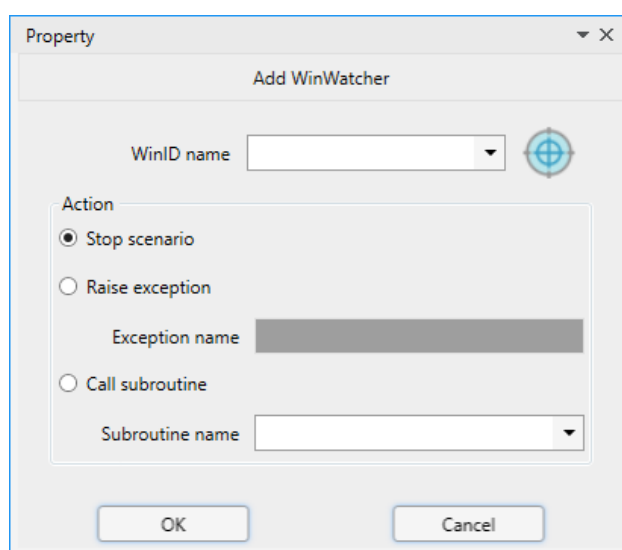
If you want to use the WinID name of the currently displayed window, select it from the dropdown list of 'WinID name.'



4. Select 'Action' and click the 'OK' button.



- Stop scenario
Stops the scenario when the window to be watched is displayed.
- Raise exception
Branches to an exception handling when the window to be watched is displayed.
It is used to pause the current scenario and branch to the exception handling.
Specify an exception name. It branches to the exception handling that corresponds to the specified exception name.
- Call subroutine
Calls a subroutine when the window to be watched is displayed.
It is used to pause the current scenario and resume from the paused position after the operation in the subroutine is completed.
Specify a subroutine name.



The added WinWatcher is displayed in the 'WinWatcher list' tab pane.

WinWatcher list			
+ ↑ ↓ ×			
No.	WinID	Action	Exception/Subroutine name
1	ConfirmSaveAs	Stop scenario	
2	ConfirmSaveAs	Raise exception	Exception
3	ConfirmSaveAs	Call subroutine	Subroutine Group
4	ConfirmSaveAs	Stop scenario	

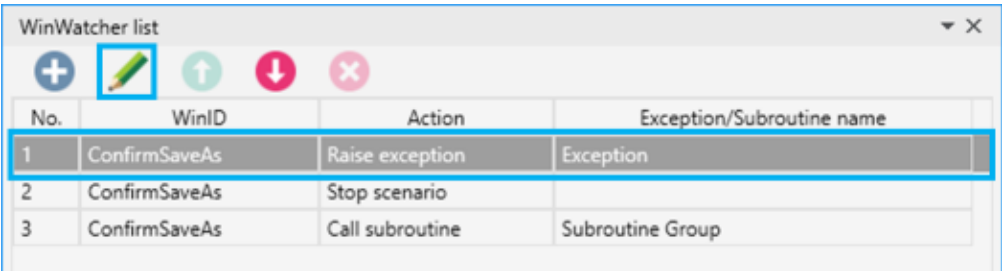
- 
- The exception handling will be created using the flowchart of the edit function. In this procedure, the exception name required when creating the exception handling is registered before editing.
 - The subroutine will be created using the flowchart of the edit function. In this procedure, the name of the subroutine to be called is selected.

■ Procedure for editing a WinWatcher

The following is the procedure for editing a WinWatcher.

Steps

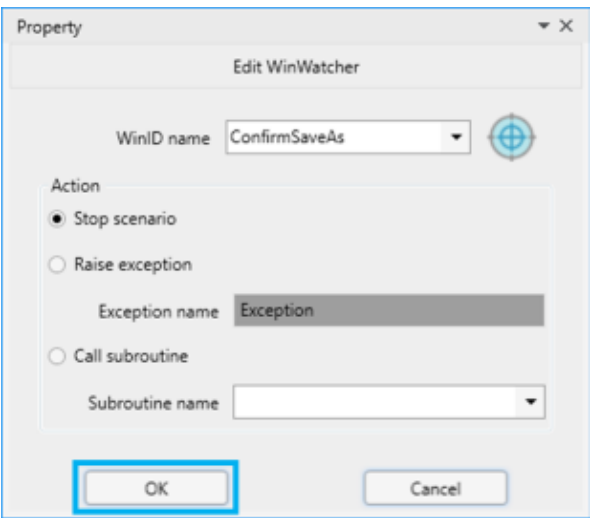
1. Select a WinWatcher you want to edit in the list area and click the 'Edit WinWatcher' icon.



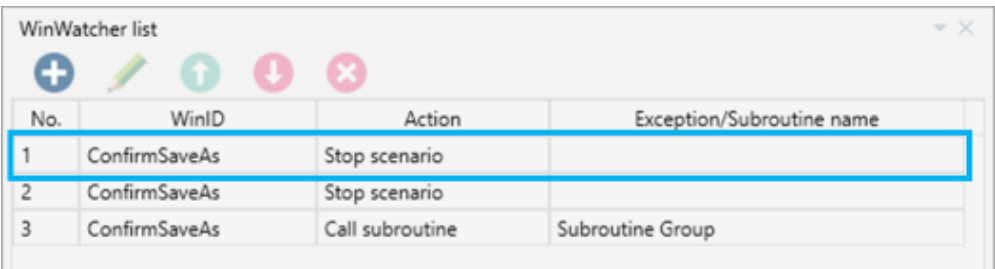
The 'Edit WinWatcher' window is displayed.

2. Edit the WinID name and/or the action and click the 'OK' button.

➤➤ For details of the settings, see "Add WinWatcher window."



3. Confirm that the edited settings are applied in the 'WinWatcher list' tab pane.



■ Changing the priority of WinWatchers

The order in which WinWatchers are displayed in 'WinWatcher list' is the priority of WinWatchers. Therefore, if multiple WinWatchers are created with the same WinID name, the order of WinWatchers displayed in the list is important.

The following describes the procedure for changing the priority of WinWatchers.

Steps

- 1. Select a WinWatcher of which you want to change the order in the list area and click the 'Upward' icon or 'Downward' icon.



- To lower the priority, click the 'Downward' icon.
- To raise the priority, click the 'Upward' icon.

WinWatcher list			
+ ✎ ↑ ↓ ✕			
No.	WinID	Action	Exception/Subroutine name
1	ConfirmSaveAs	Raise exception	Exception
2	ConfirmSaveAs	Stop scenario	
3	ConfirmSaveAs	Call subroutine	Subroutine Group

The order of the WinWatcher is changed.

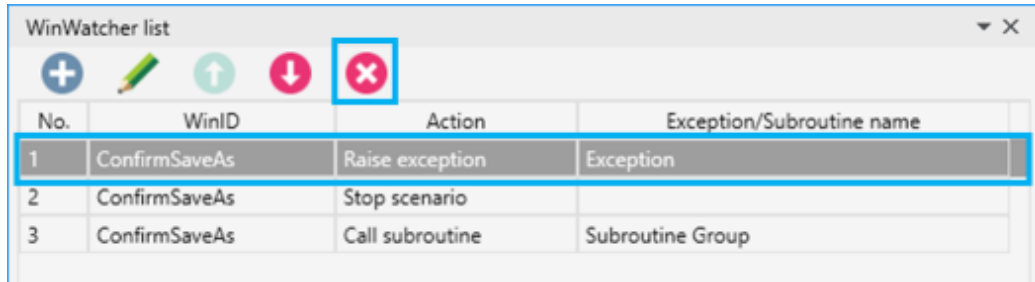
WinWatcher list			
+ ✎ ↑ ↓ ✕			
No.	WinID	Action	Exception/Subroutine name
2	ConfirmSaveAs	Raise exception	Exception
1	ConfirmSaveAs	Stop scenario	
3	ConfirmSaveAs	Call subroutine	Subroutine Group

■ Deleting a WinWatcher

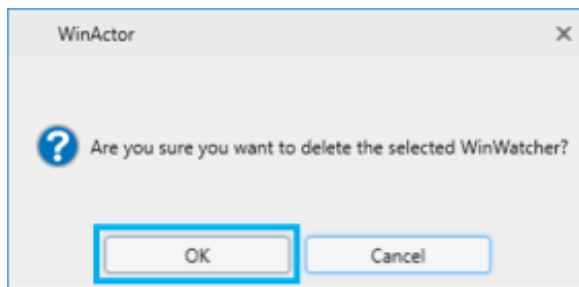
The following describes the procedure for deleting a WinWatcher.

Steps

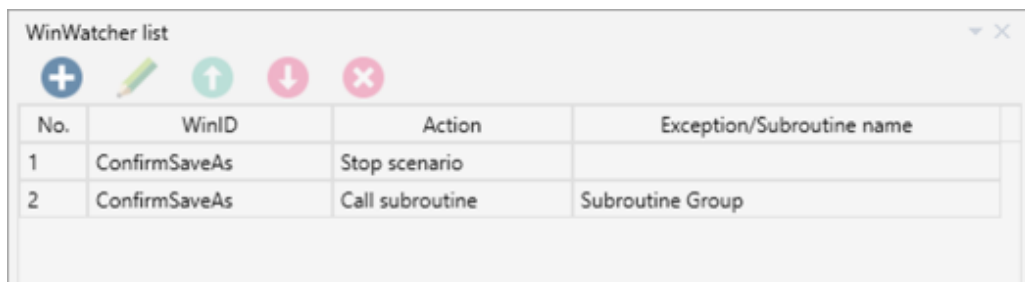
1. Select a WinWatcher you want to delete in the list area and click the 'Delete WinWatcher' icon.



2. Click the 'OK' button.



The selected WinWatcher is deleted.



When deleting a WinWatcher for which 'Raise exception' is set as the action, the WinWatcher can be deleted even if the exception name in use exists in the 'Exception Handling' node in the scenario.

In that case, however, the exceptional flow of the 'Exceptional Handling' node may not be run when running the scenario.



Checking the 'Omit confirmation dialog box when deleting selected items' box on the 'Edit' tab in the 'Option' dialog, selected items can be deleted without displaying the confirmation dialog.



For the settings, see "Edit tab" in the "Option Dialog."

3.9.6 Image tab pane

FULL

The 'Image' tab pane manages window images captured when recording nodes. Those reference images of windows can be edited in the Image tab pane. A reference image will be displayed in the Image pane when a node is selected in the flowchart area.

Since the reference images are saved in the scenario file, the size of the scenario file increases as the number of reference images increases. The scenario file size can be reduced by aggregating the reference images and deleting the ones that are no longer needed.



The 'Image' tab pane can also be displayed by pressing the 'Ctrl' + 'M' keys.

■ Configuration of the Image tab pane

This section describes the basic configuration of the Image tab pane.

Figure 3-80 Configuration of the Image tab pane

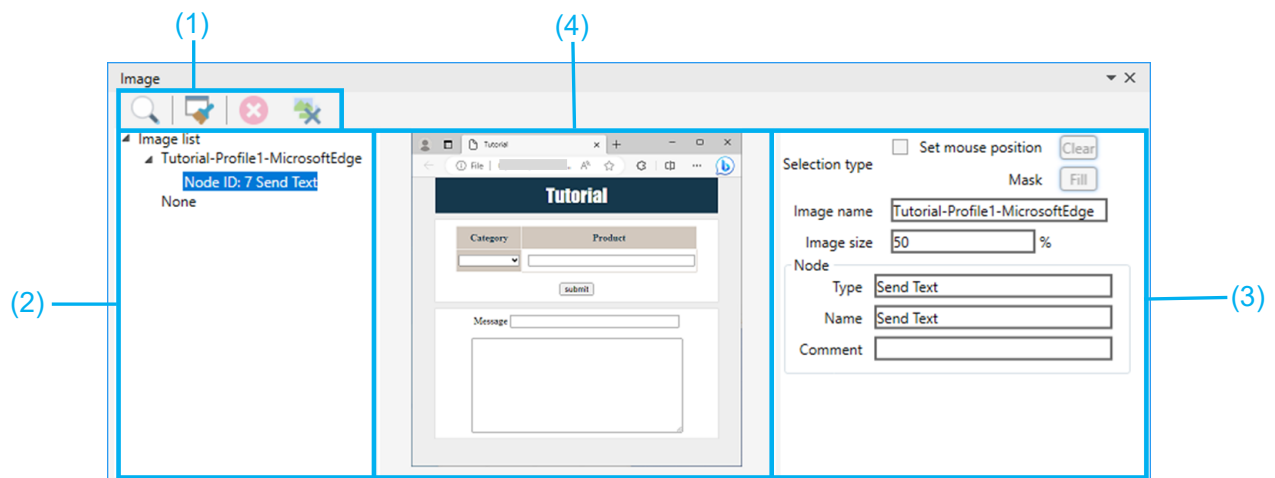


Table 3-89 Configuration of the Image tab pane

No.	Element	Description
(1)	Image toolbar	Contains icons for operating the 'Image' tab pane.
(2)	Tree area	WinID names and nodes are displayed in tree format.
(3)	Node information area	Node information is displayed.
(4)	Image edit area	Captured image is displayed.

■ Image toolbar

This section describes the functions of the icons on the Image toolbar.

Table 3-90 Image toolbar

Icon	Name	Description
	Show node	A node that refers to a selected image (or node ID) will be selected in the flowchart area.
	Delete unused images	Deletes unused images.
	Delete selected image	Deletes the selected image. The nodes in that image tree will be moved under the 'None' folder. * It can be used only when an image name is selected in the image list.
	Delete all images	Deletes all images. Also, among the image files in the scenario file, deletes all images other than the target image for Image Matching. All nodes in the image trees will be moved under the 'None' folder.



If the image used in Image Matching is deleted, it will not be shown in the 'Image list.' However, the performance of Image Matching is not affected.

■ Tree area

Figure 3-81 Tree area of the Image pane

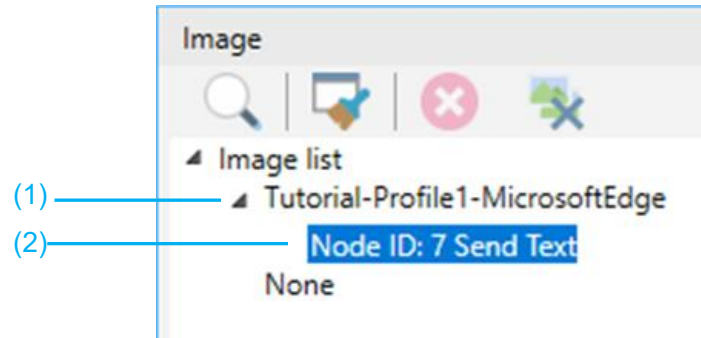


Table 3-91 Tree area of the Image pane

No.	Name	Description
(1)	Image name	The name of each image. Image name can be changed by pressing the 'F2' key with a single name selected. Up to 255 characters. Does not include white space (half/full width space, tab, line break). Does not start with a half-width number or symbol.
(2)	Node	The ID and name of each node is displayed.

■ Image edit area

Figure 3-82 Image edit area

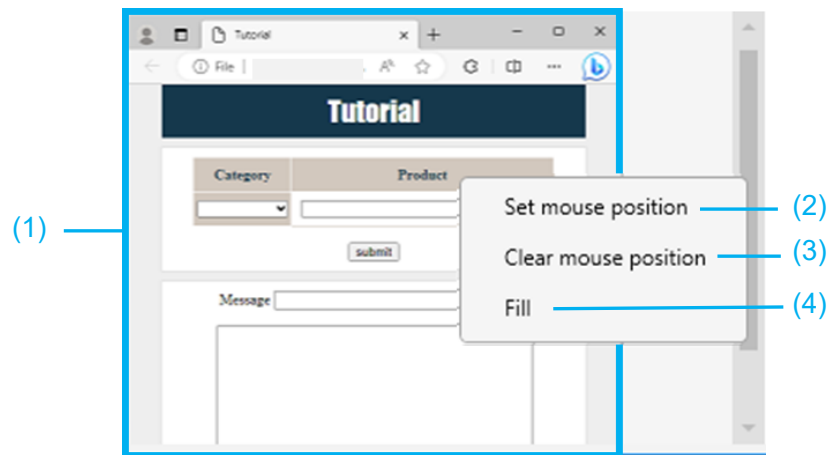


Table 3-92 Image edit area

No.	Name	Description
(1)	Image area	Shows the image with the mouse cursor image placed at a mouse click position set in (2). Right-click in the area to display the menu (2) – (4).
(2)	Set mouse position	Sets a mouse click position to place the mouse cursor image. Click the image displayed in the image area. * It can be used only when a node is selected in the image list. * The mouse position set here is used only for display in the Image pane.
(3)	Clear mouse position	Deletes the mouse image in the image area. * It can be used only when the mouse position is set.
(4)	Fill	Fills an area selected in the image area with a color specified in the system configuration file. Select the area by dragging the image displayed in the image area

■ Node information area

Figure 3-83 Node information area of the Image pane

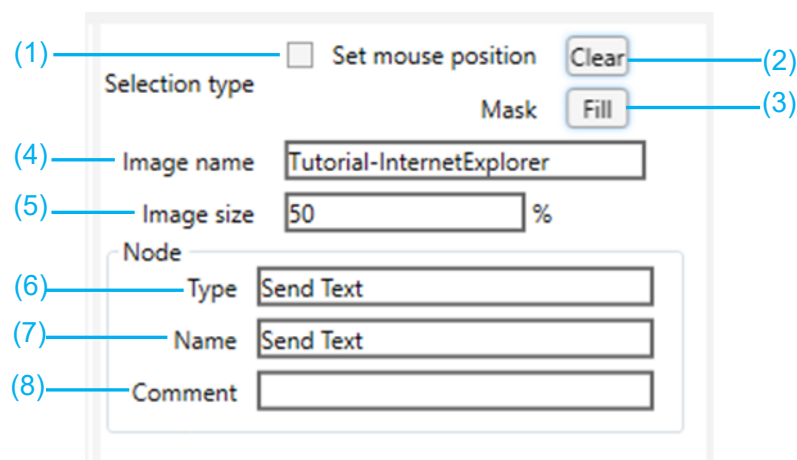


Table 3-93 Node information area of the Image pane

No.	Name	Description
(1)	Set mouse position	It is the same function as 'Set mouse position' in the image edit area.
(2)	'Clear' button	It is the same function as 'Clear mouse position' in the image edit area.
(3)	'Fill' button	It is the same function as 'Fill' in the image edit area.
(4)	Image name	Shows the name of the image selected in the tree.
(5)	Image size	Shows the reduction rate when the image selected in the tree was captured. The reduction rate can be changed in the 'Record' tab of the 'Option' dialog.
(6)	Type	Shows the type of the node selected in the tree. It is displayed only when the node in the image list is selected.
(7)	Name	Shows the name of the node selected in the tree. It is displayed only when the node in the image list is selected.
(8)	Comment	Shows the comment for the node selected in the tree. It is displayed only when the node in the image list is selected.



For details of the image edit area, see "Image edit area."

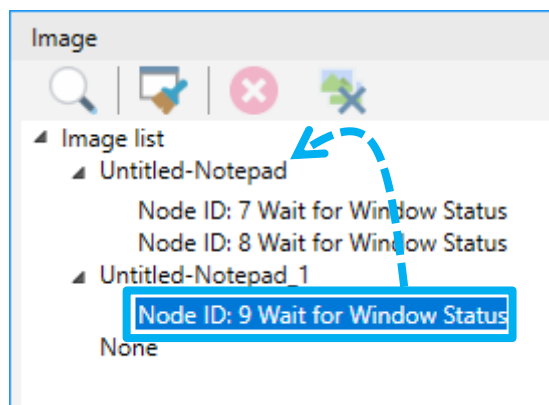
■ Collecting nodes into one image

A node can be moved to the other image by dragging and dropping.

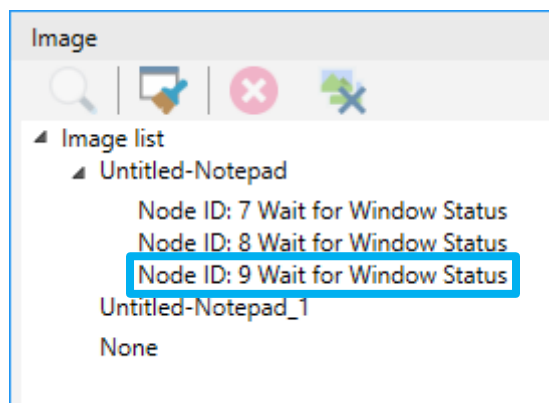
By using this function, the nodes that recorded operations for the same window can be collected into one image.

Steps

1. Drag a node in the tree area and drop it on the image you want to move it to.

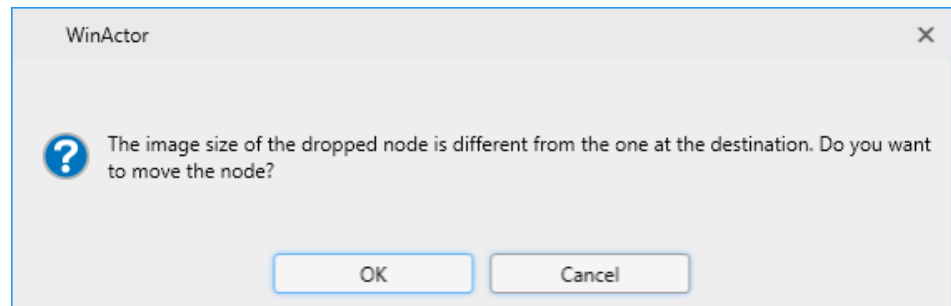


The node is moved to the other image.

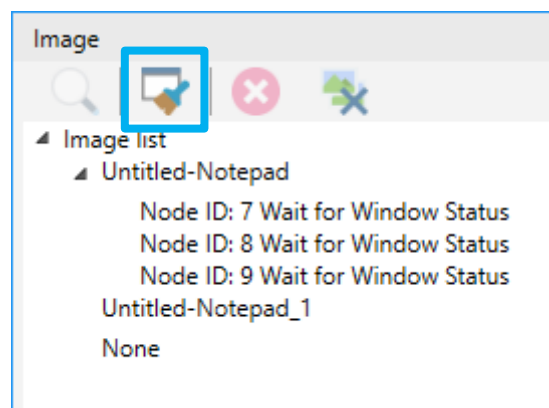




- If you move the node to an image with the image size different from that of the node you are moving, a confirmation dialog will be displayed.



- Images that are no longer needed can be deleted by using the 'Delete unused images' icon.



3.9.7 Breakpoint list tab pane

FULL

The 'Breakpoint list' tab pane is used to manage nodes with the breakpoint set.

■ Configuration of the Breakpoint list tab pane

This section describes the basic configuration of the Breakpoint list tab pane.

Figure 3-84 Configuration of the Breakpoint list tab pane

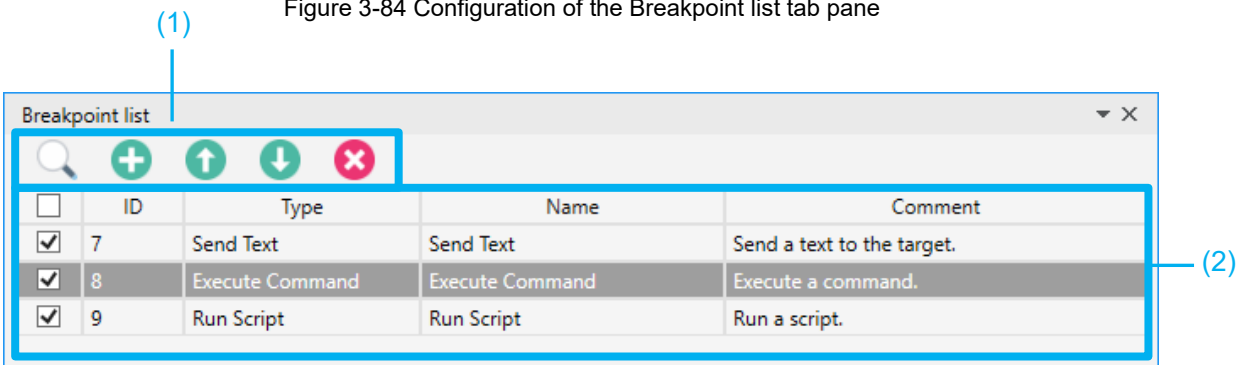


Table 3-94 Configuration of the Breakpoint tab pane

No.	Element	Description
(1)	Breakpoint list toolbar	Contains icons for operating the 'Breakpoint list' tab pane.
(2)	Breakpoint area	Status of each breakpoint and information of each node with the breakpoint set is displayed.

■ Breakpoint list toolbar

This section describes the functions of the icons on the Breakpoint list toolbar in order from the left.

Table 3-95 Breakpoint list toolbar

Icon	Element	Description
	Show node	Selects a node with a selected breakpoint set in the flowchart area. It can be used only when a single breakpoint is selected. See "Show node."

Icon	Element	Description
	Add	Adds a new breakpoint. It can be added only when a single node to which you want to add a breakpoint is selected. If one row of breakpoint is selected, it will be added right below the selected row. Otherwise, it will be added to the bottom row.
	Upward	Moves the display order of breakpoints upward. Click the icon when one or more breakpoints are selected. If multiple breakpoints are selected, they will be moved up together.
	Downward	Moves the display order of breakpoints downward. Click the icon when one or more breakpoints are selected. If multiple breakpoints are selected, they will be moved down together.
	Delete	Deletes selected breakpoints. If multiple breakpoints are selected, they will be deleted together.  See "Delete breakpoint."

■ Breakpoint area

Table 3-96 Items in the breakpoint area

No.	Item	Description
(1)	Checkbox	Check the box of the row for which you want to enable the breakpoint. The operation to the check box of the header part is the operation to the check boxes of all rows.
(2)	ID	The ID of each node with the breakpoint set is displayed.
(3)	Type	The type of each node with the breakpoint set is displayed.
(4)	Name	The name of each node with the breakpoint set is displayed.
(5)	Comment	The comment for each node with the breakpoint set is displayed.



The selected breakpoints can be deleted by pressing the 'Delete' key.

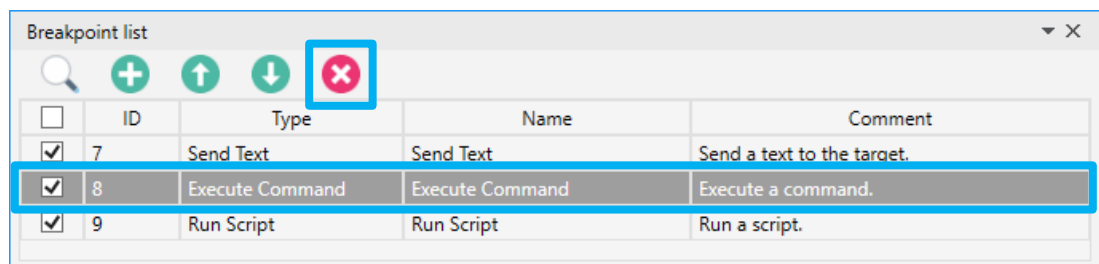
■ Delete breakpoint

A breakpoint in a row being selected can be deleted.

If multiple rows of breakpoints are selected, all the selected breakpoints will be deleted together.

Steps

1. Select a breakpoint you want to delete in the breakpoint area and click the 'Delete' icon on the Breakpoint list toolbar.



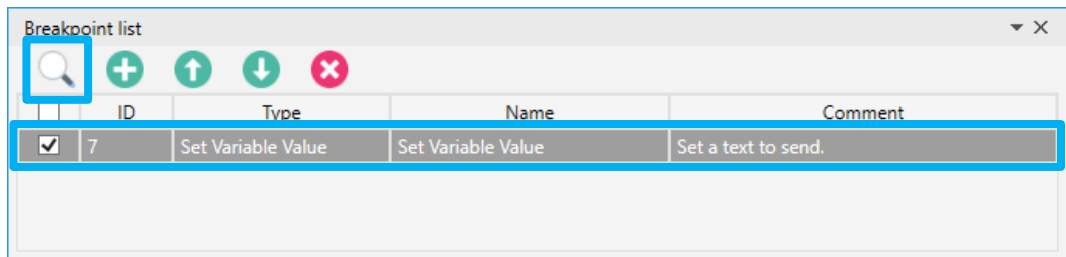
The selected breakpoint will be deleted.

■ Show node

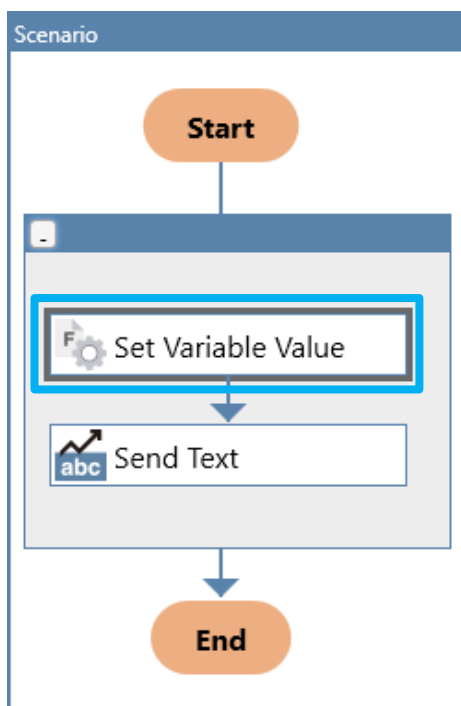
The 'Show node' icon is used to check a node with a selected breakpoint set in the flowchart area.

Steps

1. In the breakpoint area, select a breakpoint you want to search and click the 'Show node' icon on the Breakpoint list toolbar.



The flowchart area is scrolled and the node with the selected breakpoint set is selected.



3.9.8 Subroutine tab pane

In the ‘Subroutine’ tab pane, names of all subroutines in a scenario are displayed.

If a flowchart grows and does not fit in the flowchart area, use the ‘Subroutine’ tab pane to find a subroutine you are looking for.

■ Configuration of the Subroutine tab pane

This section describes the basic configuration of the ‘Subroutine’ tab pane.

Figure 3-85 Configuration of the Subroutine tab pane

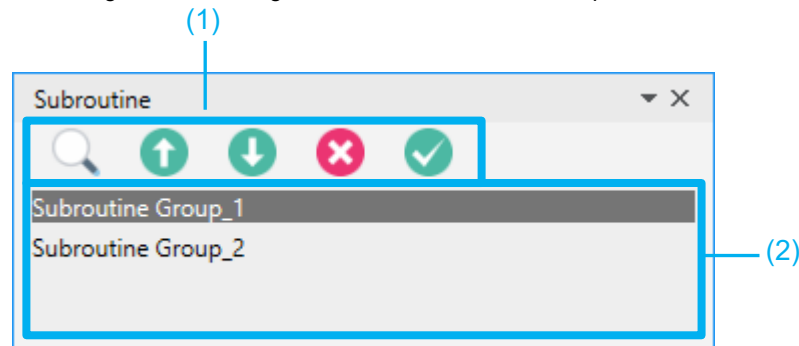


Table 3-97 Configuration of the Subroutine tab pane

No.	Element	Description
(1)	Subroutine toolbar	Contains icons for operating the ‘Subroutine’ tab pane.
(2)	Subroutine area	Subroutine names in a scenario are displayed.

■ Subroutine toolbar

This section describes the functions of the icons on the Subroutine toolbar.

Table 3-98 Subroutine toolbar

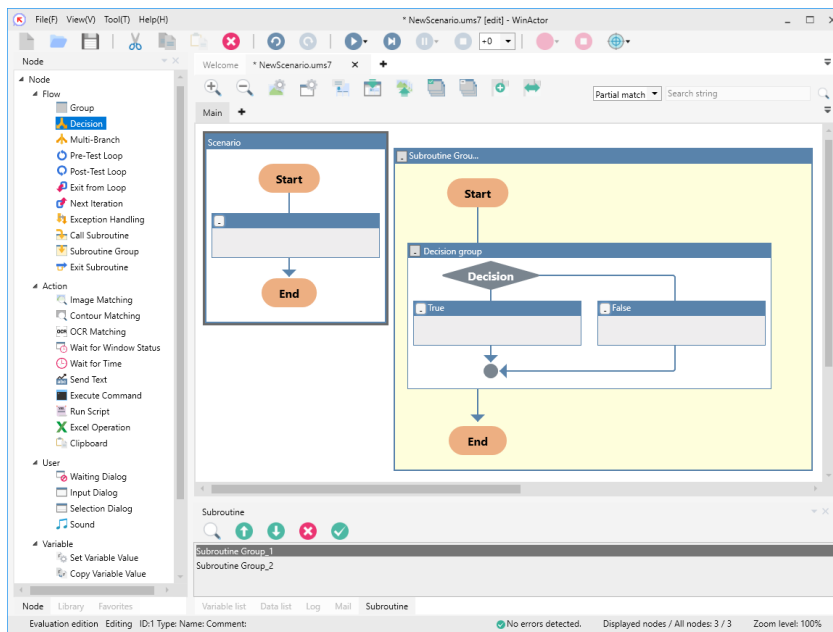
Icon	Name	Function
	Show subroutine	Adjusts the flowchart area display so that a selected subroutine is displayed.
	Upward	Moves the display order of a subroutine upward.
	Downward	Moves the display order of a subroutine downward.
	Delete subroutine	Deletes a selected subroutine.
	Check subroutine parameters	Checks if Call Subroutine and Subroutine Group have the same number of arguments. If not, the IDs will be displayed in the Log pane.

■ Show subroutine

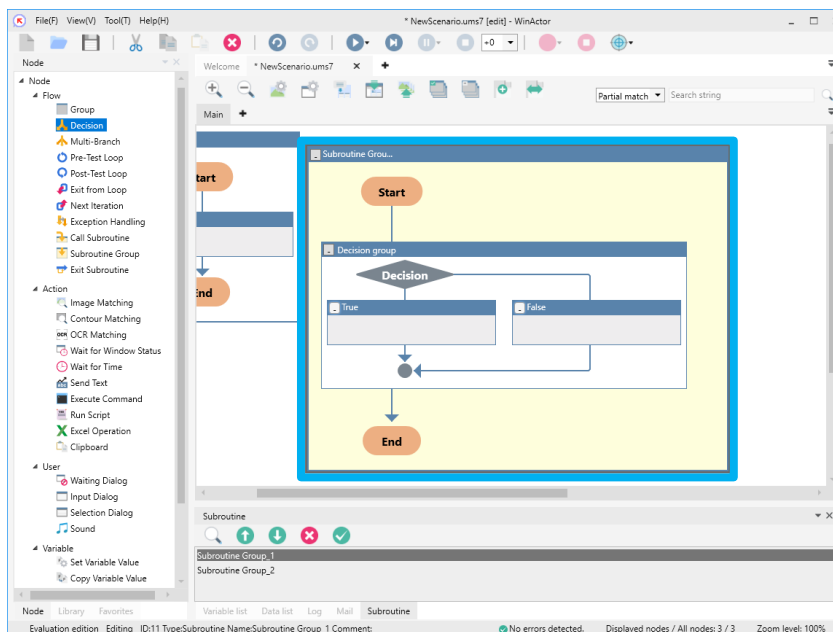
The 'Show subroutine' icon is used to check any subroutine in the flowchart area.

Steps

1. Select a target subroutine in the subroutine area and click the 'Show subroutine' icon on the toolbar of the Subroutine tab pane.



The flowchart area is scrolled, and the targeted subroutine group is selected.



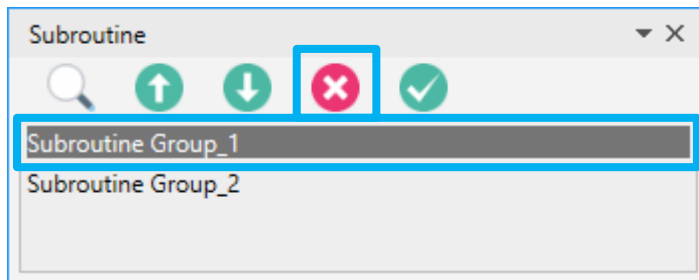
■ Deleting a subroutine

FULL

The following is the procedure for deleting a subroutine from the flowchart area.

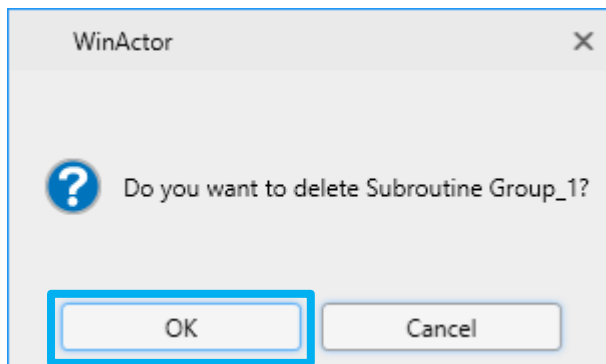
Steps

1. Select a subroutine you want to delete in the subroutine area and click the 'Delete subroutine' icon on the toolbar of the Subroutine tab pane.



The confirmation dialog to delete a subroutine appears.

2. Click the 'OK' button.



The selected subroutine will be deleted from the flowchart area.



Subroutines that are referred to by Call Subroutine, WinWatcher, or Event Watcher cannot be deleted.



- Checking the 'Omit confirmation dialog box when deleting selected items' box on the 'Edit' tab in the 'Option' dialog, selected items can be deleted without displaying the confirmation dialog.
 - For the settings, see "Edit tab" in the "Option Dialog."
- Whatever the above setting is, subroutines that are referred to by Call Subroutine, WinWatcher, or Event Watcher cannot be deleted.

■ Moving a subroutine

FULL

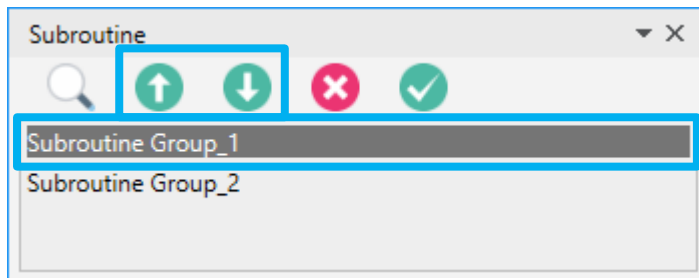
The following is the procedure for moving the display order of a subroutine.

Steps

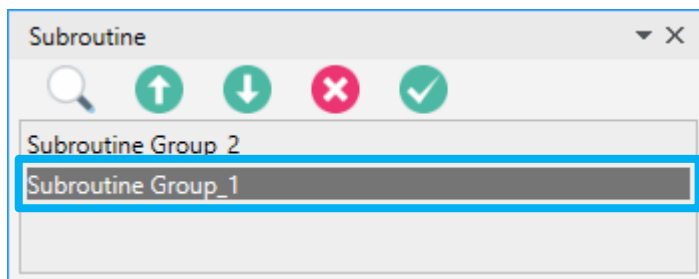
1. Select a subroutine you want to move in the subroutine area and click the 'Upward' icon or 'Downward' icon on the toolbar of the Subroutine pane.



- To move the display order downward, click the 'Downward' icon.
- To move the display order upward, click the 'Upward' icon.



The display order of the selected subroutine is changed.



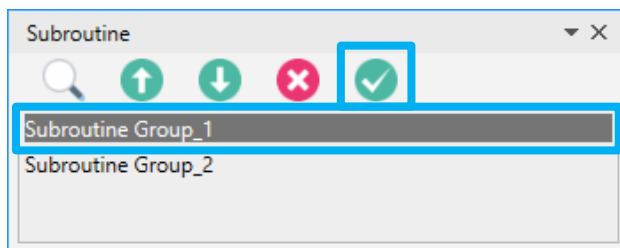
■ Check subroutine parameters

FULL

The following is the procedure for checking if Call Subroutine and Subroutine Group, or Event Watcher and Subroutine Group have the same number of arguments.

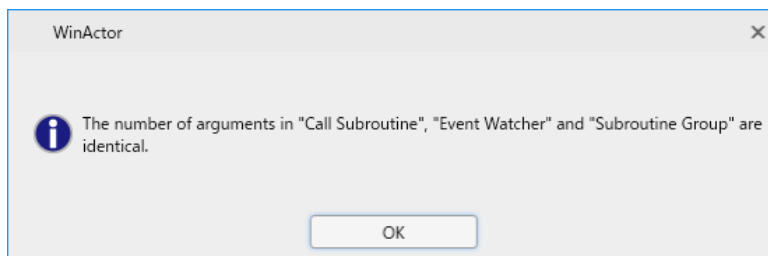
Steps

1. Select a target subroutine in the subroutine area and click the 'Check subroutine parameters' icon on the toolbar of the Subroutine pane.



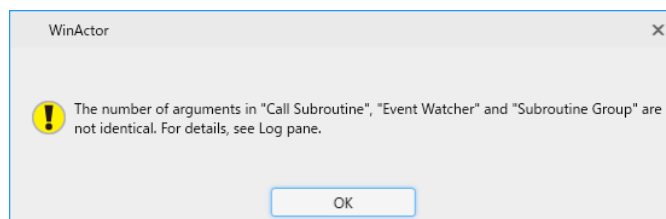
The number of arguments in Call Subroutine or Event Watcher, and Subroutine Group are checked. If they are the same, the dialog 'The number of arguments in "Call Subroutine" and "Subroutine Group" is identical.' will be displayed.

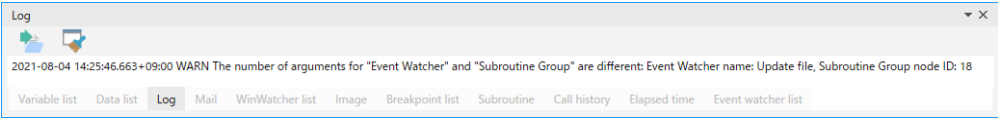
2. Click the 'OK' button.



If Call Subroutine and Subroutine Group, or Event Watcher and Subroutine Group do not have the same number of arguments, the dialog message 'The number of arguments in 'Call Subroutine,' 'Event Watcher' and 'Subroutine Group' are not identical. ' will be displayed.

For Call subroutine, the ID of Call Subroutine and that of Subroutine Group will be displayed in the Log pane. For Event Watcher, the Event watcher name and the ID of Subroutine Group will be displayed in the Log pane.





■ Write Call Subroutine nodes to log

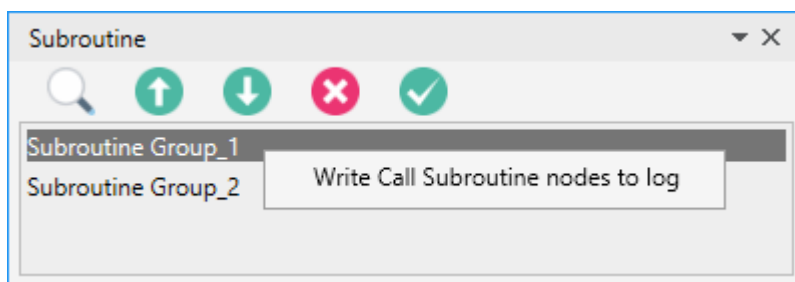
'Write Call Subroutine nodes to log' is used to write the node ID, WinWatcher No., and Event watcher name of Call Subroutine that uses a selected Subroutine Group into the 'Log' tab pane.

Click a node ID displayed in the 'Log' tab pane to jump to the target node.

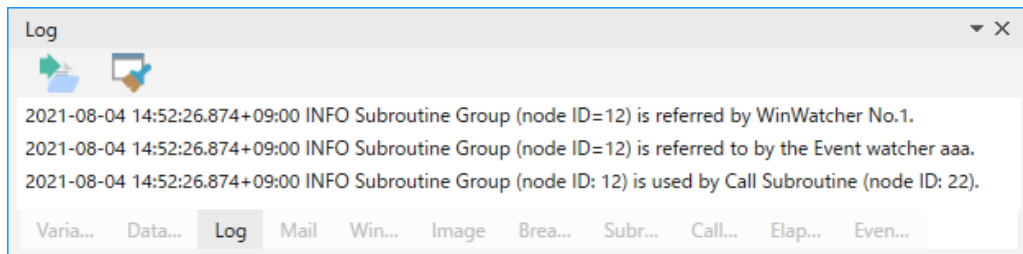
 For details, see "Selecting a node by clicking the node ID" in "3.9.3 Log tab pane."

Steps

1. Right-click a target subroutine in the subroutine area and click 'Write Call Subroutine nodes to log' in the displayed menu.



The Call Subroutine node that uses the selected Subroutine Group is displayed in the 'Log' tab pane.



If it is not used from anywhere, nothing will be displayed in the 'Log' tab pane.

3.9.9 Translation dictionary tab pane

The 'Translation dictionary' tab pane lists the user translation dictionary and the system translation dictionary for the translation function.

In the initial layout, the 'Translation dictionary' tab pane is not displayed.

Click the 'View' menu and select 'Translation dictionary' to display it.

 For details of the translation function, see "1.17 Translation Function."

■ Configuration of the Translation dictionary tab pane

This section describes the basic configuration of the 'Translation dictionary' tab pane.

Figure 3-86 Configuration of the Translation dictionary tab pane

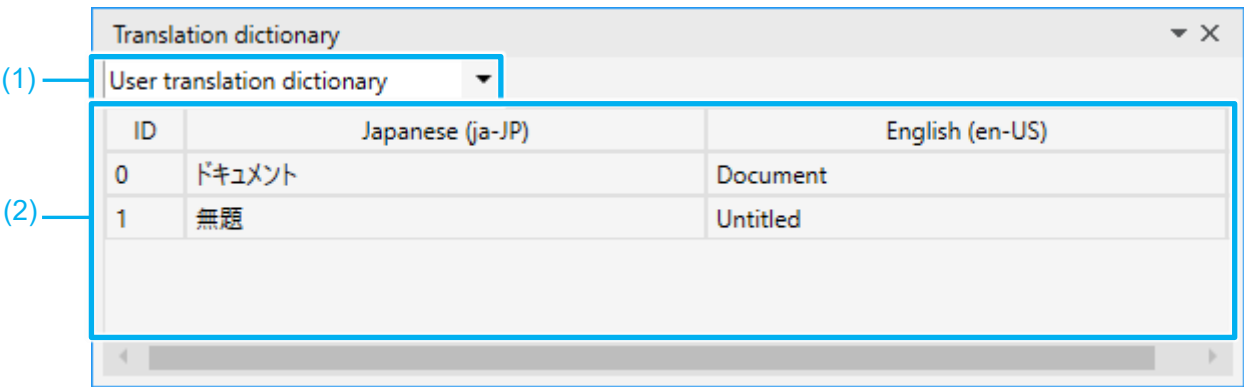


Table 3-99 Configuration of the Translation dictionary tab pane

No.	Element	Description
(1)	Switching dictionaries	Select a translation dictionary to be displayed from 'System translation dictionary' and 'User translation dictionary.' 'System translation dictionary' is the dictionary provided in WinActor. 'User translation dictionary' is the dictionary that users can define for each scenario.  For how to import a user translation dictionary, see "Import > Translation dictionary (CSV)."
(2)	Translation area	A list of translation rules for each translation dictionary selected in (1) is displayed.

3.9.10 Call history tab pane

FULL

The 'Call history' tab pane lists the call status of scenario files and subroutines.

When the user pauses a running scenario using functions such as Pause, Breakpoint, Run on step, the node currently calling and the node running at the called destination are displayed in each row of the Call history tab pane.

In two adjacent rows, the bottom row is the caller and the top row is the callee.

When double-clicking each row, the target scenario will be displayed in the flowchart area and the corresponding node will be selected. The display of panes such as the Variable list pane in the function area will be switched to those for the target scenario.

The call history is displayed and can be double-clicked only when the user pauses a running scenario.

Figure 3-87 Call history tab pane

Scenario file	Scenario/Subroutine	Node ID	Name
scenario1.ums7	Count Up	21	Wait for Time
scenario1.ums7	Scenario	20	Call Subroutine
NewScenario.ums7	Scenario	7	Call Scenario File

Variable list Data list Log Mail WinWatcher list Image Breakpoint list Subroutine **Call history** Elapsed time

The following describes the items displayed in the Call history tab pane.

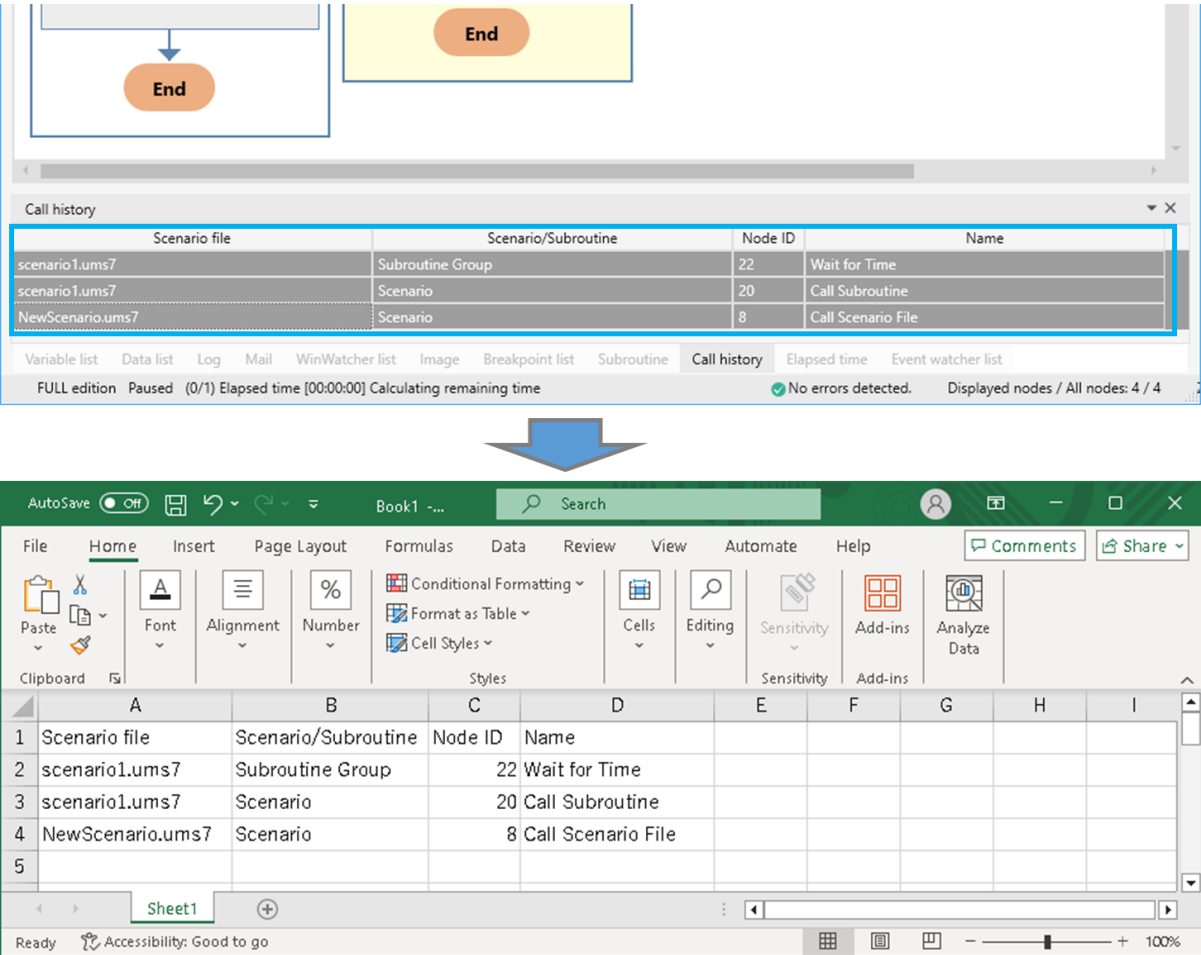
Table 3-100 Items in the Call history tab pane

No.	Item	Description
1	Scenario file	The scenario file name of each caller or callee is displayed.
2	Scenario/Subroutine	'Scenario' will be displayed if a caller node or a node running at the called destination belongs to the main scenario, and a subroutine name will be displayed if it belongs to a subroutine.
3	Node ID	The ID of each caller node or node running at the called destination is displayed.
4	Name	The name of each caller node or node running at the called destination is displayed.

The displayed information on the 'Call history' and the 'Elapsed time' tab panes can be copied to the clipboard.

Select the information, and press the 'Ctrl' + 'C' keys to copy it to the clipboard. The copied information can be pasted on Excel.

Figure 3-88 Copying the call history tab pane



3.9.11 Elapsed time tab pane

The 'Elapsed time' tab pane lists elapsed times of each node after completion of running a scenario.

Click an item in the title row to sort the list by the value of that item.

When double-clicking the row of each node, the corresponding node in the flowchart area will be selected.

Figure 3-89 Elapsed time tab pane

Elapsed time							
Node Id	Node type	Node name	Number of call	Self	Self average	Elapsed time	Average
1	Main		1	0.002	0.002	3.217	3.217
9	Waiting Dialog	Waiting Dialog	1	2.427	2.427	2.427	2.427
10	Send Text	Send Text	1	0.788	0.788	0.788	0.788

Variable list Data list Log Mail WinWatcher list Image Breakpoint list Subroutine Call history **Elapsed time**

The following describes the items displayed in the Elapsed time tab pane.

Table 3-101 Items in the Elapsed time tab pane

No.	Item	Description
1	Node ID	The ID of each node is displayed.
2	Node type	The type of each node is displayed.
3	Node name	The name of each node is displayed.
4	Number of calls	The number of times each node has been called is displayed.
5	Self	The total elapsed time of each node is displayed.
6	Self average	The average elapsed time of each node is displayed.
7	Elapsed time	The total elapsed time of each node including the elapsed time of child nodes is displayed.
8	Average	The average elapsed time of each node including the elapsed time of child nodes is displayed.

The displayed information on the 'Call history' and the 'Elapsed time' tab panes can be copied to the clipboard.

 See "3.9.10 Call history tab pane."

3.9.12 Event watcher list tab pane

Detecting satisfaction of a trigger condition of an Event Watcher, which is registered beforehand, the corresponding action, which is either a call subroutine or a call scenario file, can be called.

Set a trigger condition to watch and an action to be called when the trigger condition is detected on the 'Event watcher list' tab pane. Click the 'Event watcher list' in the "View" menu to display 'Event watcher list' tab pane.

■ Configuration of the Event watcher list tab pane

This section describes the basic configuration of the 'Event watcher list' tab pane.

Figure 3-90 Configuration of the Event watcher list tab pane

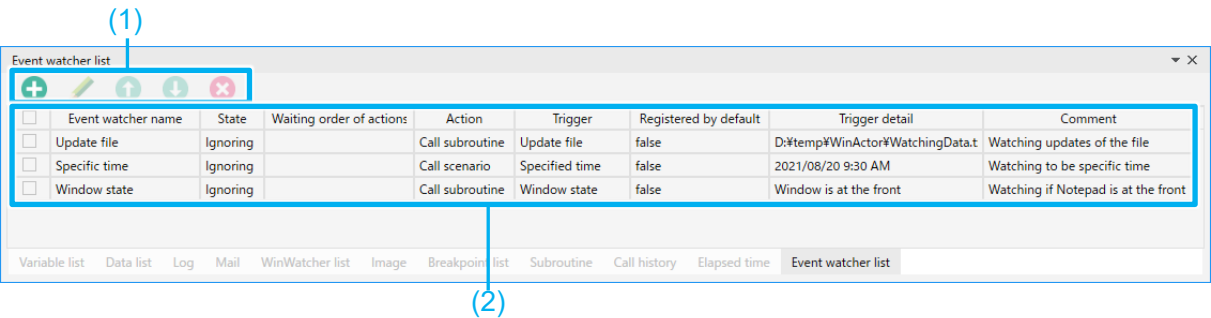


Table 3-102 Configuration of the Event watcher list tab pane

No.	Element	Description
(1)	Event watcher list toolbar	Contains icons for operating the 'Event watcher list' tab pane.
(2)	List area	A list of registered Event Watcher is displayed.

	If the number of registered Event Watcher is large, the running speed of the entire scenario will slow down.
---	--

■ Event watcher list toolbar

This section describes the functions of the icons on the Event watcher list toolbar.

Table 3-103 Event watcher list toolbar

Icon	Name	Function
	Add event watcher	Adds a new Event Watcher. Displays 'Add Event Watcher' window.  "Procedure for adding an Event Watcher"
	Edit event watcher	Edits a selected Event Watcher.  "Procedure for editing an Event Watcher"
	Upward	Moves the display order of the Event Watcher upward. Select an Event Watcher that has one or more other Event Watchers upward to enable this icon.
	Downward	Moves the display order of the Event Watcher downward. Select an Event Watcher that has one or more other Event Watchers downward to enable this icon.
	Delete event watcher	Deletes a selected Event Watcher.  "Procedure for deleting an Event Watcher"

■ List area

This section describes the items displayed in the list area.

Table 3-104 Items in the list area

No.	Item	Description
(1)	Checkbox	Whether each Event Watcher is watched.
(2)	Event watcher name	The unique name of each Event Watcher is displayed.
(3)	State	One of the following states is displayed for each Event Watcher. • 'Ignoring' : The Event Watcher is being ignored. • 'Watching' : The Event Watcher is being watched. • 'Before execution' : The Event Watcher is waiting for the action execution. • 'Executing' : The action is being executed.
(4)	Waiting order of actions	When the 'State' is 'Before execution,' the priority order of the next execution is displayed. When the 'State' is not 'Before execution,' nothing is displayed.
(5)	Action	Displays 'Call subroutine' or 'Call scenario file' to be executed when the 'Trigger' condition is met.
(6)	Trigger	Displays the target trigger condition to watch, and how to watch it.  "List of triggers"

No.	Item	Description
(7)	Registered by default	Displays whether the Event Watcher is being watched from the start of the scenario.
(8)	Trigger detail	Displays the detailed information on the trigger condition set in 'Trigger.'
(9)	Comment	Displays any comment entered.

■ List of triggers

This section describes the items to be selected for 'Trigger.'

Table 3-105 Selection items of Trigger

No.	Element	Description
(1)	Update file	Watches if the filename, folder path, or last modified date of the specified file is changed. Continues watching after executing the 'Action.'
(2)	Update folder	Watches if the folder or file name in the specified folder, folder path, or last modified date is changed. Continues watching after executing the 'Action.'
(3)	Specified time	Watches if the specified target time has passed. If the target date has gone, it is not watched. Discontinues watching after executing the 'Action.'
(4)	Monthly	Watches if the specified time of the date, of the beginning, or of the end of the month has passed. Continues watching after executing the 'Action.'
(5)	Weekly	Watches if the specified time of the day of the week has passed. Continues watching after executing the 'Action.'
(6)	Every day	Watches if the specified time of the day has passed. Continues watching after executing the 'Action.'
(7)	Every hour	Watches if the specified minutes of the hour have passed. Continues watching after executing the 'Action.'
(8)	Every minute	Watches if the specified minutes have passed. Continues watching after executing the 'Action.'
(9)	Window state	Watches if the specified window has become 'shown,' 'at the front,' 'operable,' 'hidden,' 'not at the front,' or 'inoperable.' Discontinues watching after executing the 'Action.'
(10)	Mail reception	Watches if one or more mails are received. Continues watching after executing the 'Action.'

■ Add Event Watcher window

The 'Add Event Watcher' window is used to add an Event Watcher to perform 'Call subroutine,' or 'Call scenario file' when a trigger condition is met.

Figure 3-91 Add Event Watcher window

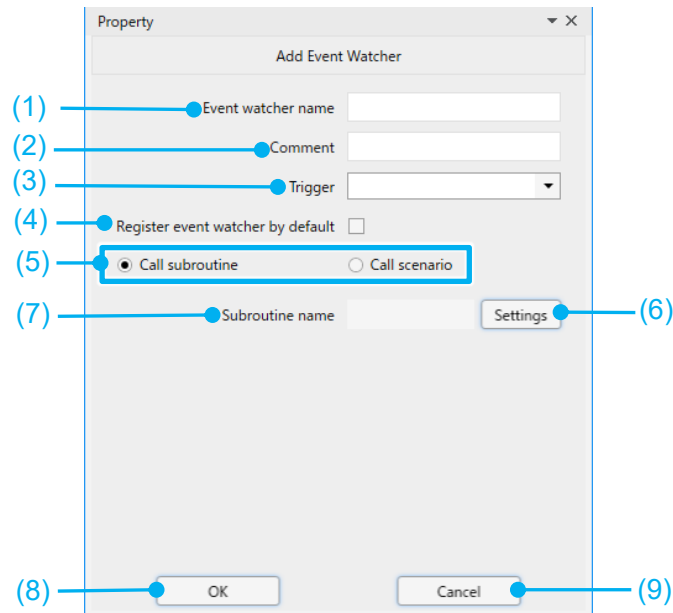


Table 3-106 Add Event Watcher window

No.	Element	Description
(1)	Event watcher name	Specify an Event watcher name unique in the scenario.
(2)	Comment	Specify a comment to be attached to the Event Watcher.
(3)	Trigger	Select what and how it is watched. Once a trigger is selected, the parameter settings area for the trigger is displayed.  "Necessary parameters for each trigger"
(4)	Register event watcher by default	Check the box for the Event Watcher to be watched from the beginning of the scenario. When executing the node 'Register event watcher' in the scenario to start watching, this check is not necessary.
(5)	Call action	Select an action to be taken when the trigger condition is detected to be met.
(6)	'Settings' button	Click the button to open the Call Subroutine pane when 'Call subroutine' is selected in (5), and the Call Scenario File pane when 'Call scenario' is selected.
(7)	Callee's detail	Displays the Subroutine Group name when 'Call subroutine' is selected in (5), and the Scenario file path when 'Call scenario' is selected.

No.	Element	Description
(8)	'OK' button	Click this button when registering the specified settings in 'Add Event Watcher' window.
(9)	'Cancel' button	Click this button when canceling the specified settings in 'Add Event Watcher' window.



- If the number of registered Event Watcher is large, the detecting speed of trigger conditions will slow down.

■ Necessary parameters for each trigger

The necessary parameters for each trigger are displayed on the 'Add Event Watcher' window when a trigger is selected on the window.

When 'Update file' is selected for 'Trigger,' the window shown below is displayed.

Figure 3-92 Parameters for 'Update file'

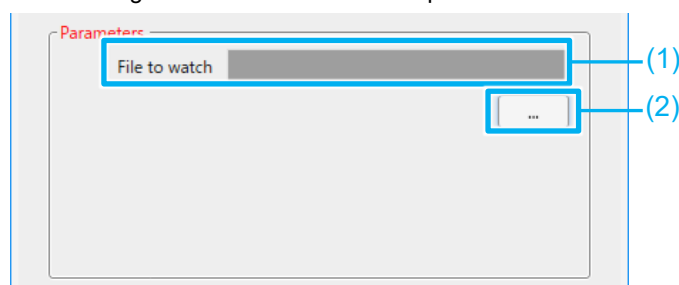


Table 3-107 Parameters for 'Update file'

No.	Element	Description
(1)	File to be watched	The file path selected in (2) is shown.
(2)	'File selection' button	Click to display the file selection dialog and select a file to be watched.

When 'Update folder' is selected for 'Trigger,' the window shown below is displayed.

Figure 3-93 Parameters for 'Update folder'

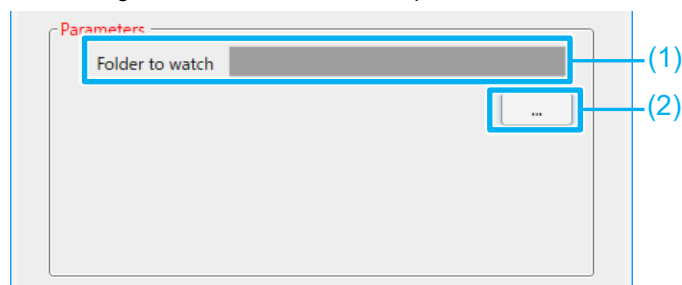


Table 3-108 Parameters for 'Update folder'

No.	Element	Description
(1)	Folder to be watched	The folder path selected in (2) is shown.
(2)	'Folder selection' button	Click to display the folder selection dialog and select a folder to be watched.

When 'Specified time' is selected for 'Trigger,' the window shown below is displayed.

Figure 3-94 Parameters for 'Specified time'

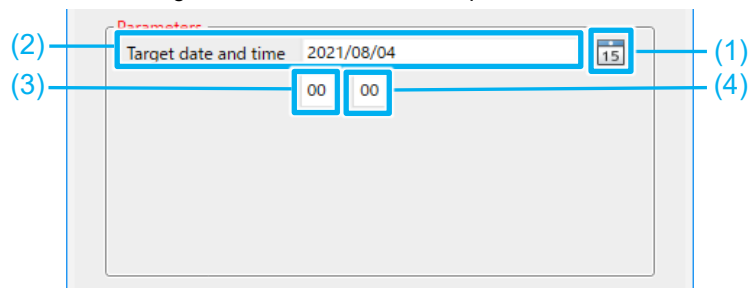


Table 3-109 Parameters for 'Specified time'

No.	Element	Description
(1)	'Calendar' button	Click to display the calendar and select a date.
(2)	Specified year, month, and day.	The year, the month, and the day to call action is shown. You can manually edit the date. Specify the date to call action via (1) or (2).
(3)	Specified hour	Specify the hour to call action.
(4)	Specified minutes	Specify the minutes to call action.

When 'Monthly' is selected for 'Trigger,' the window shown below is displayed.

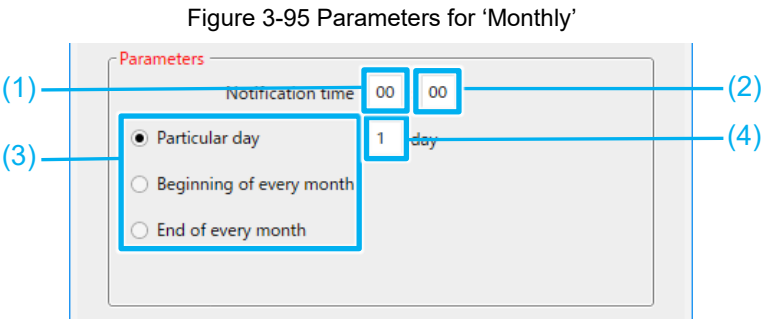


Table 3-110 Parameters for 'Monthly'

No.	Element	Description
(1)	Notification hour	Specify the hour to call action.
(2)	Notification minutes	Specify the minutes to call action.
(3)	Notification timing	Specify the month to call action. When 'Particular day' is selected, specify the day in (4). When 'Beginning of every month' is selected, the action is called on the 1 st of the month. When 'End of every month' is selected, the action is called on the last day of the month.
(4)	Notification day	Specify the day to call action when 'Particular day' is selected in (3), If other choice is selected, this cannot be specified.

When 'Weekly' is selected for 'Trigger,' the window shown below is displayed.

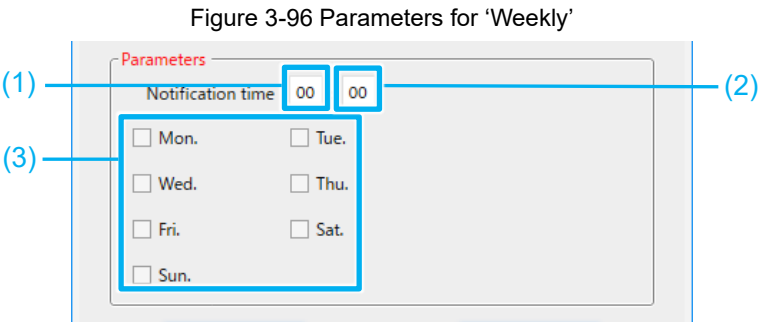


Table 3-111 Parameters for 'Weekly'

No.	Element	Description
(1)	Notification hour	Specify the hour to call action.
(2)	Notification minutes	Specify the minutes to call action.
(3)	Notification day of the week	Specify the day of the week to call action. Multiple days can be selected.

When 'Every day' is selected for 'Trigger,' the window shown below is displayed.

Figure 3-97 Parameters for 'Every day'

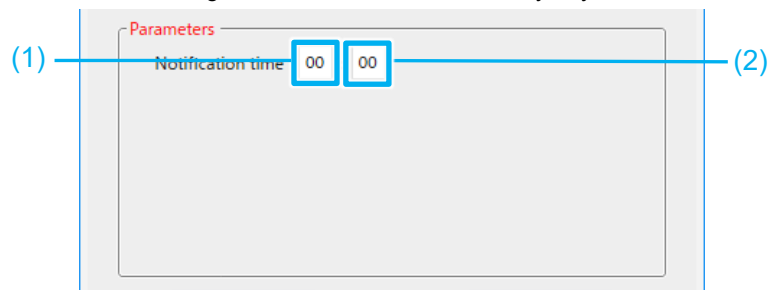


Table 3-112 Parameters for 'Every day'

No.	Element	Description
(1)	Notification hour	Specify the hour to call action.
(2)	Notification minutes	Specify the minutes to call action.

When 'Every hour' is selected for 'Trigger,' the window shown below is displayed.

Figure 3-98 Parameters for 'Every hour'

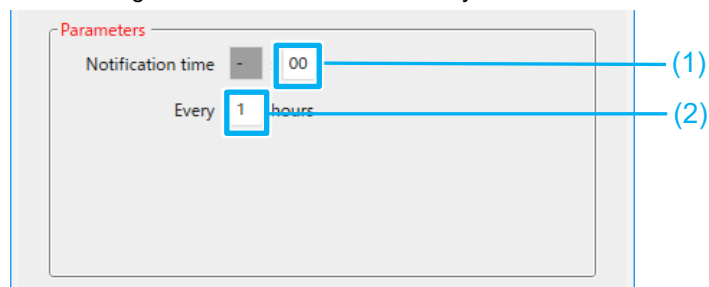
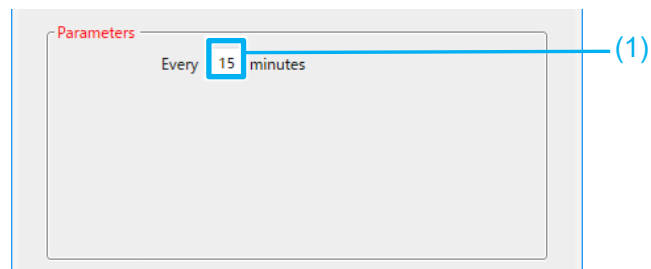


Table 3-113 Parameters for 'Every hour'

No.	Element	Description
(1)	Notification minutes	Specify the minutes to call action.
(2)	Interval hours	Specify an interval (hours) of calling action.

When 'Every minute' is selected for 'Trigger,' the window shown below is displayed.

Figure 3-99 Parameters for 'Every minute'



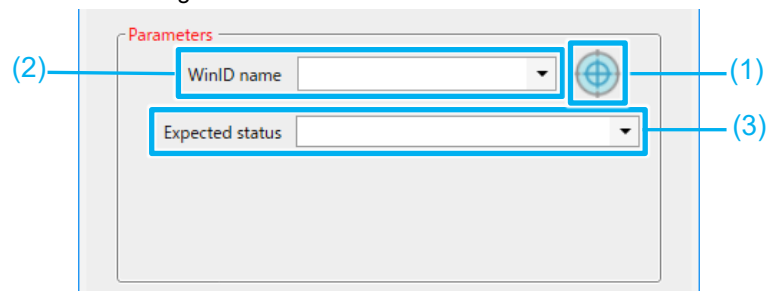
The screenshot shows a 'Parameters' window with a red title bar. Inside, the text 'Every 15 minutes' is displayed. A blue rectangular box highlights the number '15', and a blue line with a circle at the end, labeled with a blue '(1)', points to this box.

Table 3-114 Parameters for 'Every minute'

No.	Element	Description
(1)	Interval minutes	Specify an interval (minutes) of calling action.

When 'Window state' is selected for 'Trigger,' the window shown below is displayed.

Figure 3-100 Parameters for 'Window state'



The screenshot shows a 'Parameters' window with a red title bar. It contains two dropdown menus: 'WinID name' and 'Expected status'. A blue box labeled (2) is around the 'WinID name' dropdown. A blue box labeled (3) is around the 'Expected status' dropdown. A blue box labeled (1) is around a target icon (a circle with a crosshair) located to the right of the 'WinID name' dropdown. Blue lines connect these labels to their respective elements.

Table 3-115 Parameters for 'Window state'

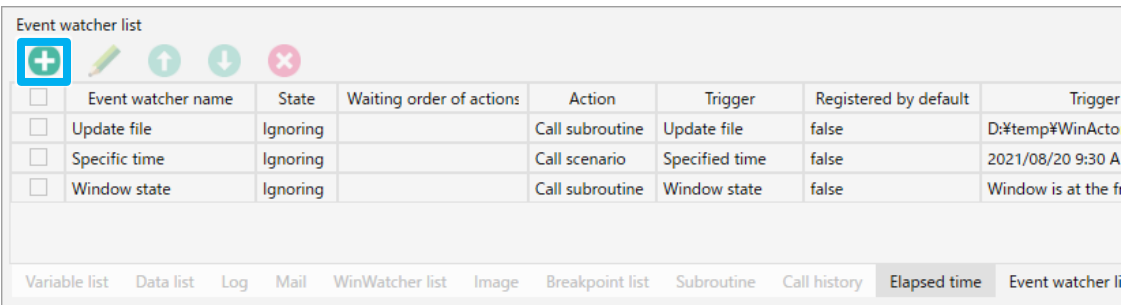
No.	Element	Description
(1)	Target icon	Use this icon to specify a window to be watched by clicking the mouse.
(2)	WinID name	Select a window to be watched from the dropdown list. Select a window using either (1) or (2).
(3)	Expected status	Select what kind of status change to be detected from the target window.

■ Procedure for adding an Event Watcher

The procedure for adding an Event Watcher is described below.

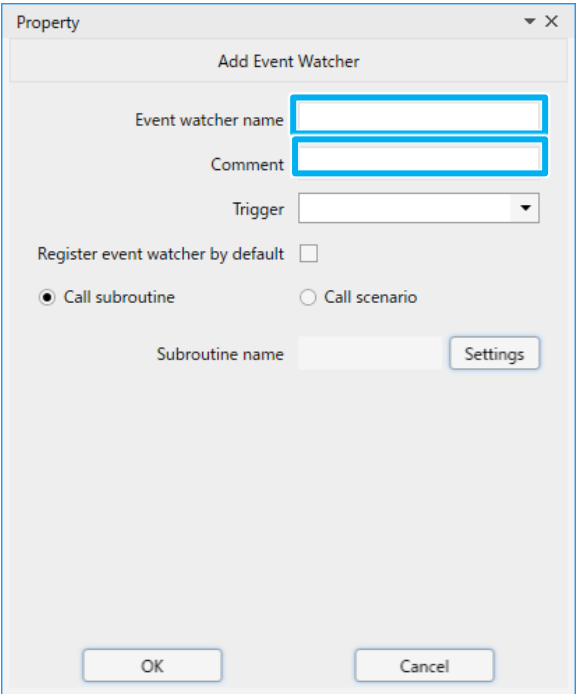
Steps

1. Click the 'Add event watcher' icon in the 'Event watcher list' tab pane.



The 'Add Event Watcher' window is displayed.

2. Specify the 'Event watcher name' and the 'Comment.' The 'Comment' may be blank.



3. Select an item for the 'Trigger.'

The screenshot shows the 'Add Event Watcher' dialog box. The 'Event watcher name' field contains 'Event wathcer for specific time'. The 'Comment' field contains 'Call acion on 2022/01/01'. The 'Trigger' dropdown menu is open, showing a list of options: 'Update file', 'Update folder', 'Specified time', 'Monthly', 'Weekly', 'Every day', 'Every hour', 'Every minute', 'Window state', and 'Mail reception'. The 'Register event watcher by default' section has the 'Call subroutine' radio button selected. The 'Subroutine name' field is empty. The 'OK' and 'Cancel' buttons are at the bottom.

4. Check the box 'Register event watcher by default' to make this event watcher watched by default.

The screenshot shows the 'Add Event Watcher' dialog box. The 'Event watcher name' field contains 'Event wathcer for specific time'. The 'Comment' field contains 'Call acion on 2022/01/01'. The 'Trigger' dropdown menu is set to 'Specified time'. The 'Register event watcher by default' checkbox is checked. The 'Call subroutine' radio button is selected. The 'Subroutine name' field is empty. The 'Parameters' section is expanded, showing 'Target date and time' set to '2021/12/24' and '00 : 00'. The 'OK' and 'Cancel' buttons are at the bottom.

5. Select an action to be taken and click the 'Settings' button.

Property

Add Event Watcher

Event watcher name: Event wathcer for specific time

Comment: Call acion on 2022/01/01

Trigger: Specified time

Register event watcher by default: ☒

☒ Call subroutine ☐ Call scenario

Subroutine name: [empty] **Settings**

Parameters

Target date and time: 2021/12/24 15:00:00

OK Cancel

6. Select a 'Subroutine Group' node placed in the scenario.

Property

Subroutine name: Subroutine Group **Synchronize**

Return value: Select variable name (optional)

OK Cancel

7. Click the calendar button and specify a date.

The screenshot shows the 'Add Event Watcher' dialog box. The 'Event watcher name' is 'Event wathcer for specific time', the 'Comment' is 'Call acion on 2022/01/01', and the 'Trigger' is 'Specified time'. The 'Register event watcher by default' checkbox is checked. The 'Call subroutine' radio button is selected. The 'Subroutine name' is 'Subroutine Group' and the 'Settings' button is visible. In the 'Parameters' section, the 'Target date and time' is '2021/12/24'. A calendar icon is next to the date field, and a calendar popup is displayed showing January 2022. The date '15' is highlighted in the calendar.

Property

Add Event Watcher

Event watcher name: Event wathcer for specific time

Comment: Call acion on 2022/01/01

Trigger: Specified time

Register event watcher by default: ☒

☒ Call subroutine ☐ Call scenario

Subroutine name: Subroutine Group Settings

Parameters

Target date and time: 2021/12/24

Calendar popup: January 2022

Calendar grid:

Su	Mo	Tu	We	Th	Fr	Sa
26	27	28	29	30	31	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	1	2	3	4	5

OK

8. Specify a time of the day.

The screenshot shows the 'Add Event Watcher' dialog box. The 'Event watcher name' is 'Event wathcer for specific time', the 'Comment' is 'Call acion on 2022/01/01', and the 'Trigger' is 'Specified time'. The 'Register event watcher by default' checkbox is checked. The 'Call subroutine' radio button is selected. The 'Subroutine name' is 'Subroutine Group' and the 'Settings' button is visible. In the 'Parameters' section, the 'Target date and time' is '2022/01/01'. A calendar icon is next to the date field. Below the date field, the time '00 : 00' is displayed and highlighted with a red box.

Property

Add Event Watcher

Event watcher name: Event wathcer for specific time

Comment: Call acion on 2022/01/01

Trigger: Specified time

Register event watcher by default: ☒

☒ Call subroutine ☐ Call scenario

Subroutine name: Subroutine Group Settings

Parameters

Target date and time: 2022/01/01

Time: 00 : 00

OK Cancel

9. Click the 'OK' button to register the Event Watcher.

Property

Add Event Watcher

Event watcher name: Event wathcer for specific time

Comment: Call acion on 2022/01/01

Trigger: Specified time

Register event watcher by default: ☒

☒ Call subroutine ☐ Call scenario

Subroutine name: Subroutine Group [Settings](#)

Parameters

Target date and time: 2022/01/01 09:30

OK Cancel



When the 'Cancel' button is clicked, the 'Add Event Watcher' window is closed without updating contents.

When the 'OK' button is clicked without specifying any mandatory parameter, an error dialog will be displayed.

10. The registered Event Watcher is displayed on the 'Event watcher list' tab pane.

Event watcher list

Event watcher name	State	Waiting order of actions	Action	Trigger	Registered by default	Trigger detail
Update file	Ignoring		Call subroutine	Update file	false	D:\temp\WinActor\Watchin
Specific time	Ignoring		Call scenario	Specified time	false	2021/08/20 9:30 AM
Window state	Ignoring		Call subroutine	Window state	false	Window is at the front
Event watcher for specific time	Ignoring		Call subroutine	Specified time	false	2022/01/01 9:30 AM

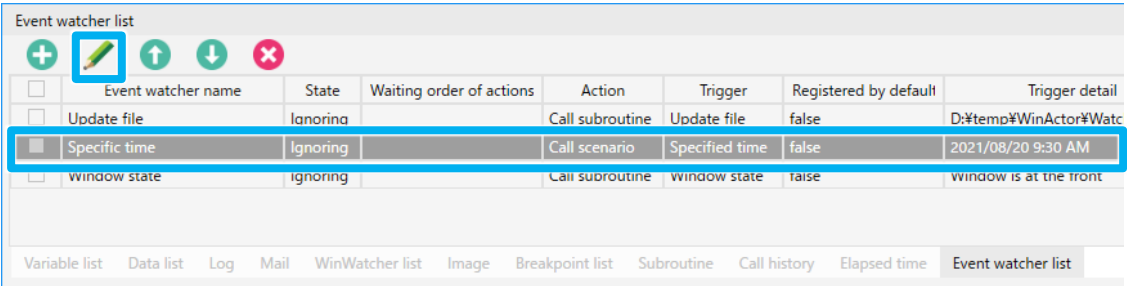
Variable list Data list Log Mail WinWatcher list Image Breakpoint list Subroutine Call history Elapsed time Event watcher list

■ Procedure for editing an Event Watcher

The procedure for editing an Event Watcher is described below.

Steps

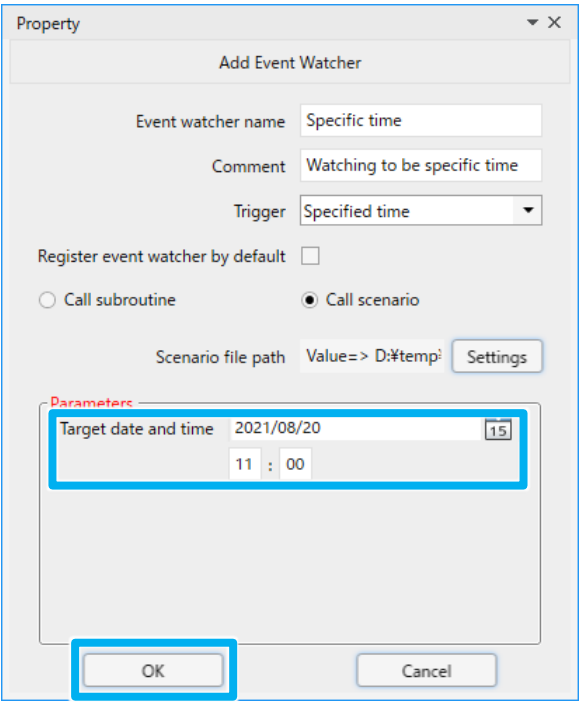
1. Select the row to edit, and click the 'Edit event watcher' icon.



The 'Edit Event Watcher' window is displayed.

2. Edit the parameters to change, and click the 'OK' button.

➤➤ For details of these settings, see "Procedure for adding an Event Watcher."





When the 'Cancel' button is clicked, the 'Edit Event Watcher' window is closed without updating edited contents.

When the 'OK' button is clicked without specifying any mandatory parameter, an error dialog will be displayed.

3. Check the edited Event Watcher on the 'Event watcher list' tab pane.

☐	Event watcher name	State	Waiting order of actions	Action	Trigger	Registered by default	Trigger detail
☐	Update file	Ignoring		Call subroutine	Update file	false	D:\temp\WinActor\Wat
☐	Specific time	Ignoring		Call scenario	Specified time	false	2021/08/20 11:00 AM
☐	Window state	Ignoring		Call subroutine	Window state	false	Window is at the front

Variable list Data list Log Mail WinWatcher list Image Breakpoint list Subroutine Call history Elapsed time **Event watcher list**

■ Procedure for deleting an Event Watcher

The procedure for deleting an Event Watcher is described below.

Steps

1. Select the row to delete and click the 'Delete event watcher' icon in the 'Event watcher list' tab pane.

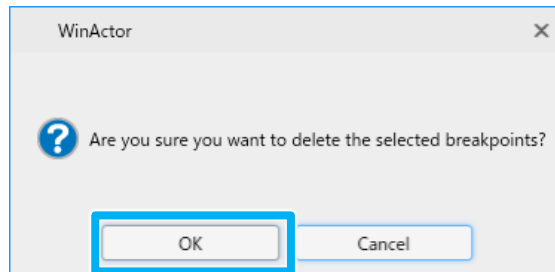
☐	Event watcher name	State	Waiting order of actions	Action	Trigger	Registered by default	Trigger detail
☐	Update file	Ignoring		Call subroutine	Update file	false	D:\temp\WinActor\Wat
☐	Specific time	Ignoring		Call scenario	Specified time	false	2021/08/20 11:00 AM
☐	Window state	Ignoring		Call subroutine	Window state	false	Window is at the front

Variable list Data list Log Mail WinWatcher list Image Breakpoint list Subroutine Call history Elapsed time **Event watcher list**



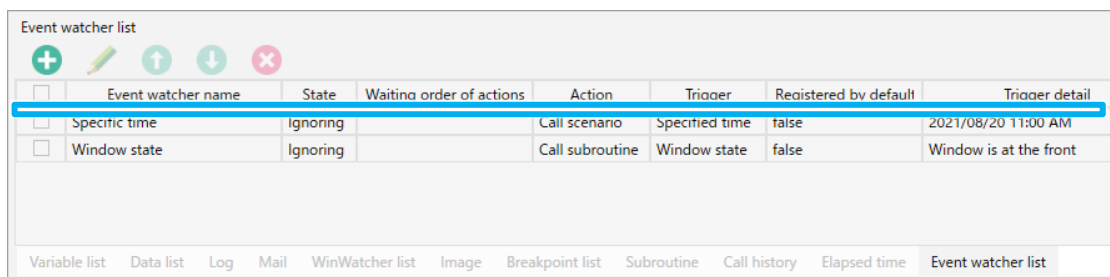
When the Event Watcher is used in a node such as 'Register Event Watcher' or 'Cancel Event Watcher,' it cannot be deleted and the error message "Unable to delete the event watcher because it is referred to" is displayed.

2. Click the 'OK' button.



The dialog is closed without deleting the Event Watcher when the 'Cancel' button is clicked.

3. Confirm the Event Watcher is deleted on the 'Event watcher list' tab pane.



- Checking the 'Omit confirmation dialog box when deleting selected items' box on the 'Edit' tab in the 'Option' dialog, selected items can be deleted without displaying the confirmation dialog.
 For the settings, see "Edit tab" in the "Option Dialog."
- Whatever the above setting is, Event Watchers that are used in the nodes, such as Register Event Watcher or Cancel Event watcher node, on the scenario cannot be deleted.

3.9.13 Scenario convention checker tab pane

The 'Scenario convention checker' tab pane is used to check convention of scenarios.

Here, the convention check of a scenario is to check some points on the way of composing the scenario that might affect the future occurrence of troubles in the scenario.

Details of each check item (aka checker) are described later.

■ Configuration of the Scenario convention checker tab pane

The basic configuration of the 'Scenario convention checker' tab pane is described here.

Figure 3-101 Configuration of the Scenario convention checker tab pane

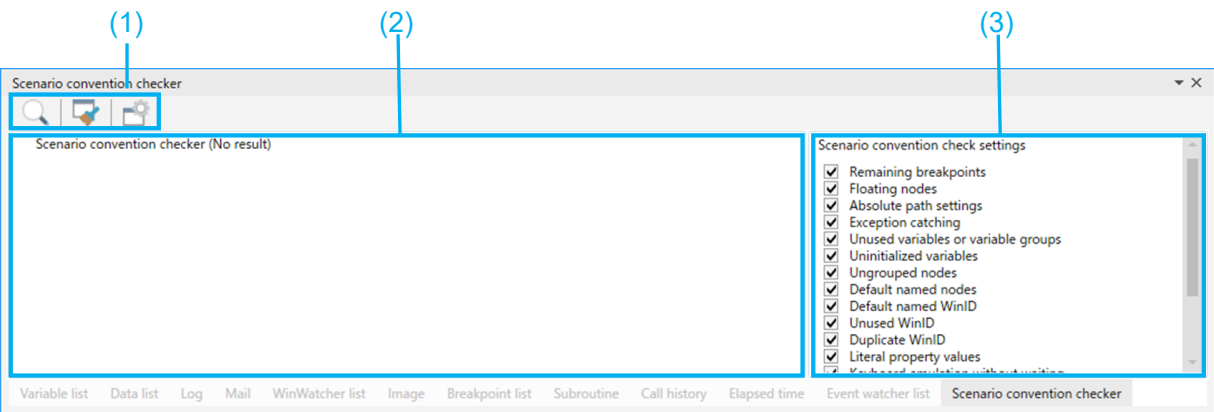


Table 3-116 Configuration of the Scenario convention checker tab pane

No.	Element	Description
(1)	Scenario convention checker toolbar	Contains icons for operating the 'Scenario convention checker' tab pane.
(2)	Scenario convention checker results area	This area displays the check results of the 'Scenario convention.'
(3)	Scenario convention checker settings area	This area displays the settings of the 'Scenario convention check' items.

■ Scenario convention checker toolbar

The functions of the icons on the Scenario convention checker toolbar is described here.

Table 3-117 Scenario convention checker toolbar

Icon	Name	Function
	Check scenario convention	Checks scenario convention of the current scenario, and displays the results in the 'Scenario convention checker results area.' If the current scenario has any error, the check is not executed and a warning message is displayed instead.
	Clear check results	Clears the check results displayed in the 'Scenario convention checker results area.'
	Scenario convention checker settings	This is a toggle to switch the open/close status of the 'Scenario convention checker settings area'

■ Scenario convention checker results area

The results of checking scenario convention can be viewed in the 'Scenario convention checker results area.'

Figure 3-102 Configuration of the Scenario convention checker results area

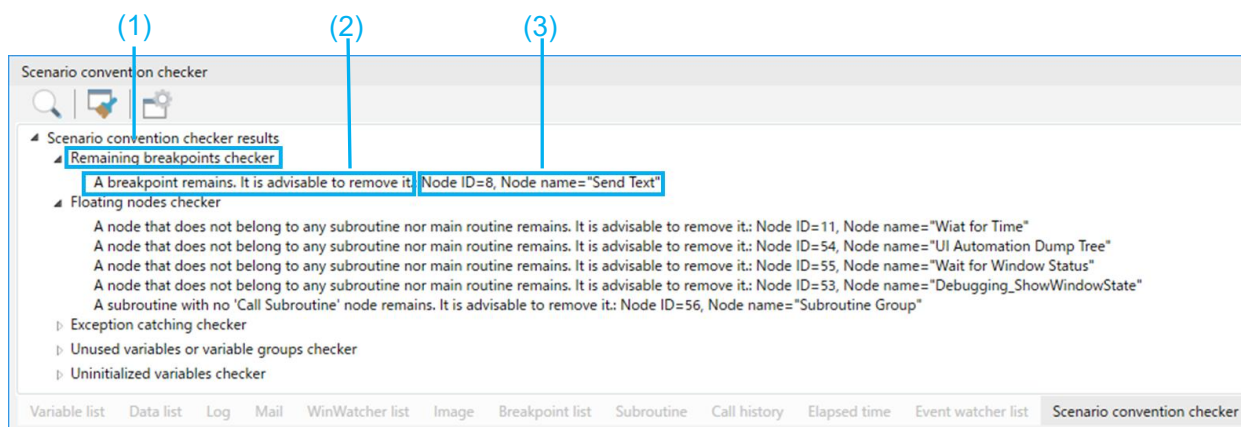


Table 3-118 Items in the Scenario convention checker results area

No.	Item	Description
(1)	Checker name	The name of the checker. Only the checkers that detected NGs are shown.  "Scenario convention checkers"
(2)	Message	The description of the NG is shown. Messages are collapsed at the time the scenario convention check has just finished. Click the small-white triangle on the left side of the checker name to expand the messages emitted by the checker and to view the messages.
(3)	Detected location	The location of the NG in the scenario is shown. Double-clicking the row, the node in which the NG is detected is selected in the 'Scenario edit area' aka flowchart. Regarding the NGs that can be solved in the dedicated window such as NGs about breakpoints, Event watchers, or WinIDs, double-clicking the row will open the dedicated window of each NG.



The detected location of the NG can be viewed and edited on the window or tab opened or focused by double-clicking the row describing the detected location in the 'Scenario convention checker results area.'

- Regarding the NGs about breakpoints, the 'Breakpoint list tab' is focused.
- Regarding the NGs about variables or variable groups, the 'Variable list tab' is focused.
- Regarding the NGs about property values of a Node, the 'Property pane' of the Node is opened.
- Regarding the NGs of a Node other than property values, the Node is selected on the flowchart,

■ Scenario convention checker settings area

This area displays and enables users to change the settings, which is the enable/disable status, of each checker. The checker the checkbox of which is checked is enabled. Only enabled checkers are effective when checking scenario convention.

The settings of each checker can be imported from or exported to an external file.

- >> See "Import > Scenario convention check settings (CSV)."
- >> See "Export > Scenario convention check settings (CSV)."

Figure 3-103 Configuration of the Scenario convention checker settings area

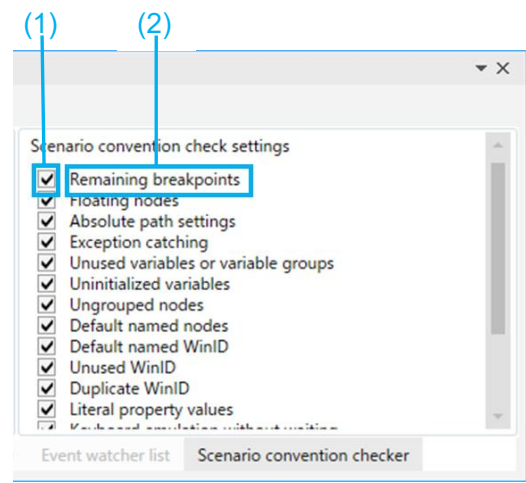


Table 3-119 Selection items of Trigger

No.	Element	Description
(1)	Checkbox	Set enable/disable status of the checker. The checked status means 'enable.'
(2)	Checker name	The name of the checker. >> "Scenario convention checkers"

■ Scenario convention checkers

Scenario convention checkers are described below.

Table 3-120 Scenario convention checkers

No.	Element	Description
(1)	Remaining breakpoints	Checks if any breakpoint, which is used to debug the scenario, remains. If any breakpoint remains, deleting it is desirable.
(2)	Floating nodes	Checks if any node out of the main and the subroutines, which will not be executed nor called, exists. If any such node remains, deleting it is desirable..
(3)	Absolute path settings	Checks if nodes with a property the value of which is an absolute path exists no matter whether the value is specified via a variable or literal value. It is desirable to specify a relative path to be independent of the folder structure of the PC. If any such node remains, deleting them is desirable. If the 'Filter time zone' button is clicked, only the filtered time zones will be displayed.  • This checker checks both the specified literal value and the initial value of the specified variable. However, the initial value is checked only when it is set on the 'Variable list tab pane.' If the value is set while the scenario is running, it is not checked. • This checker checks nodes except 'Run Script' and 'Run Python.' 'Run Script' and 'Run Python' nodes, and the libraries derived from them are not checked. When 'Run Script' or 'Run Python' is detected in the checked scenario, a message is shown in the check results to indicate the node is out of the check targets.
(4)	Exception catching	Checks if the nodes which can raise exceptions are embraced with 'Exception Handling' nodes. It is desirable to place such nodes in the 'Normal flow' of 'Exception Handling' nodes to catch exceptions because uncaught exceptions may cause suspensions of the scenario.  This checker also checks subroutines called from WinWatcher or Event watcher.
(5)	Unused variables or variable groups	Checks if any unused variable or variable group remains. If any unused variable or variable group remains, deleting it is desirable.

No.	Element	Description
(6)	Uninitialized variables	Checks if any variable without setting initial value exists. Setting initial value is desirable because uninitialized variable may cause some trouble while running the scenario.  This checker checks initial value settings on the 'Variable list' tab.
(7)	Ungrouped nodes	Checks if any node that is not grouped with the nodes, such as 'Group,' 'Subroutine Group,' that can hold a sequence of nodes and has a name. It is desirable to group nodes with 'Group,' 'Subroutine Group,' etc. and name the grouping node a name which represents the procedure composed of the grouped nodes.  - This checker does not check if 'Sticky note' nor 'Call Subroutine' is grouped. - Not only 'Group' and 'Subroutine Group,' but 'Decision,' 'Multi Branch,' 'Pre-Test Loop,' 'Post-Test Loop,' and 'Exception Handling' are also regarded to group nodes.
(8)	Default named nodes	Checks if any node that is named a default name of some node exists. This is detected even when the default name of other type of node is given to the node. It is desirable to give the name that represents what is intended to be done by the node.
(9)	Default named WinID	Checks if any WinID with its default name remains. It is desirable to give the name that represents what is intended to do.
(10)	Unused WinID	Checks if any unused WinID remains. If any unused WinID remains, deleting it is desirable.
(11)	Duplicate WinID	Checks if any two or more WinID shares the same matching conditions. It is desirable to use one of them and deleting the rest.
(12)	Literal property values	Checks if literal value is specified for any property value or condition. It is desirable to use variables instead of literal values.
(13)	Keyboard emulation without waiting	Checks if any 'Key' operation that is not followed by 'Wait' operation exists in any 'Emulation' node. Taking proper waiting time may stabilize the scenario run over various PC environments.  This checker checks if a sequence of 'Key' operations is not followed by a 'Wait' operation.
(14)	Image matching rate	Checks if the 'Match ratio' of any 'Image Matching' node is set 100%. Allowing adequate noise and fluctuation may stabilize the scenario run.

No.	Element	Description
(15)	Remaining UIAutomation dump	Checks if any 'UIAutomation dump' node remains. If any 'UIAutomation dump' node remains, deleting it is desirable..
(16)	Remaining WinActor_Control Debug nodes	Checks if any WinActor_Control Debug node remains. If any WinActor_Control Debug node remains, deleting it is desirable.
(17)	Remaining Waiting dialog	Checks if any 'Waiting Dialog' node remains. If any 'Waiting Dialog' node remains, deleting it is desirable.

■ Exclusion of parameters

For the checkers ‘Absolute path settings’ and ‘Literal property values,’ parameters to exclude the convention check can be specified.

Right clicking on the message in the scenario convention checker results area that states about the parameter to be excluded from the check, the menu item to exclude the parameter from the check is displayed. Selecting the menu item, the exclusion of the parameter from the check is set.

When the exclusion is set, the parameters of the same name and node type are excluded from the check.

Figure 3-104 Exclusion of a parameter on the Scenario convention checker results area

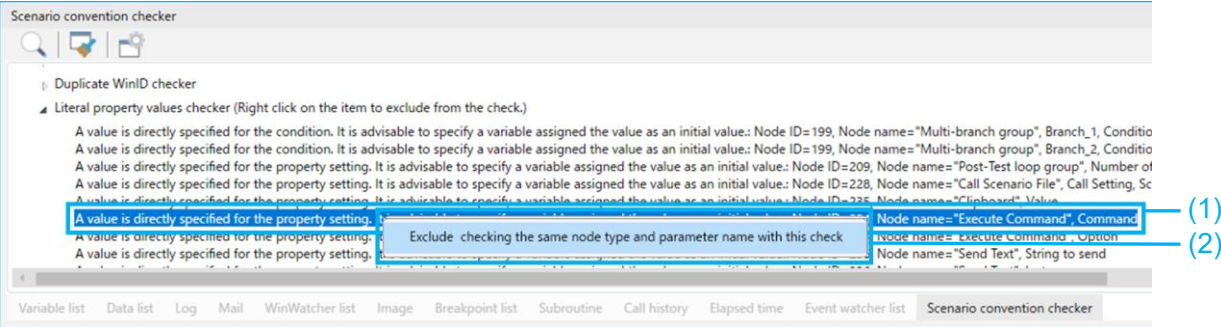


Table 3-121 Exclusion of a parameter on the Scenario convention checker results area

No.	Element	Description
(1)	Message	When the mouse is right clicked on the message about the parameter that is possible to exclude from the check, the menu item to exclude the parameter from the check is displayed.
(2)	Menu item	Selecting the menu item, the parameter is set to be excluded from the check. If the parameter is already excluded from the check, the menu item is disabled and cannot be selected.

The excluded parameters from the check are visible in the scenario convention checker settings area. Each excluded parameter is displayed as a row with its node type and parameter name in it beneath the checker it is excluded from.

When the mouse is right clicked on the excluded parameter, which is the parameter excluded from the check, in the scenario convention checker settings area, the menu item to cancel the exclusion of the parameter from the check is displayed. Selecting the displayed menu item, the exclusion of the parameter from the check is canceled.

Figure 3-105 Canceling exclusion of a parameter on the Scenario convention checker settings area

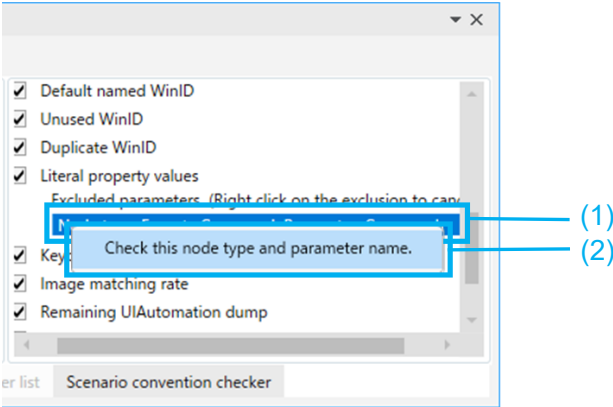


Table 3-122 Canceling exclusion of a parameter on the Scenario convention checker settings area

No.	Element	Description
(1)	Excluded parameter	Excluded parameters are displayed. The node type and the parameter name of the excluded parameter are displayed in a row.
(2)	Menu item	Selecting the menu item, the exclusion of the corresponding parameter is canceled.

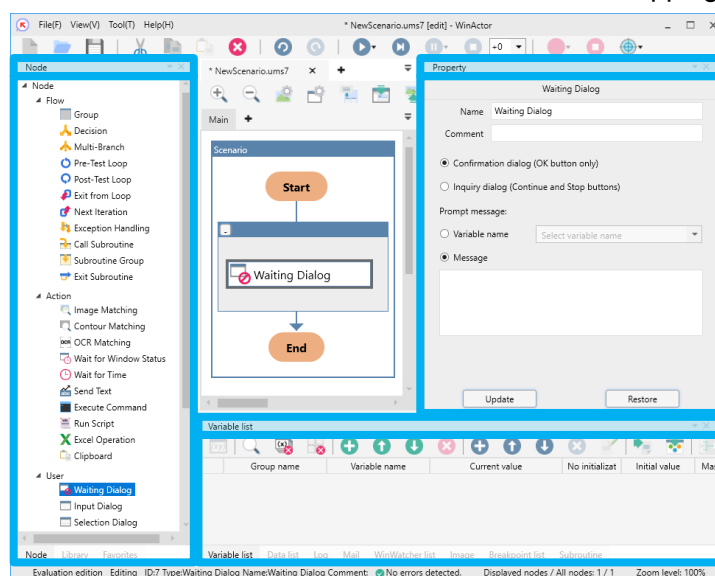
3.10 Docking Window

The docking window is a function that allows you to float the palette area, function area, and property area, and place them anywhere on the screen.

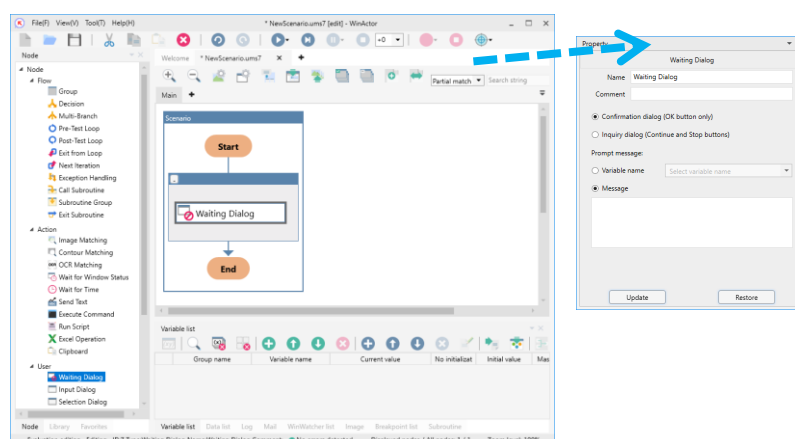
■ Dragging a title bar

Steps

1. You can change a position of the palette area, function area, or property area by dragging the title bar with the mouse to float the area and dropping it to your desired position.



For example, you can change the position of the property area by dragging and dropping the title bar.

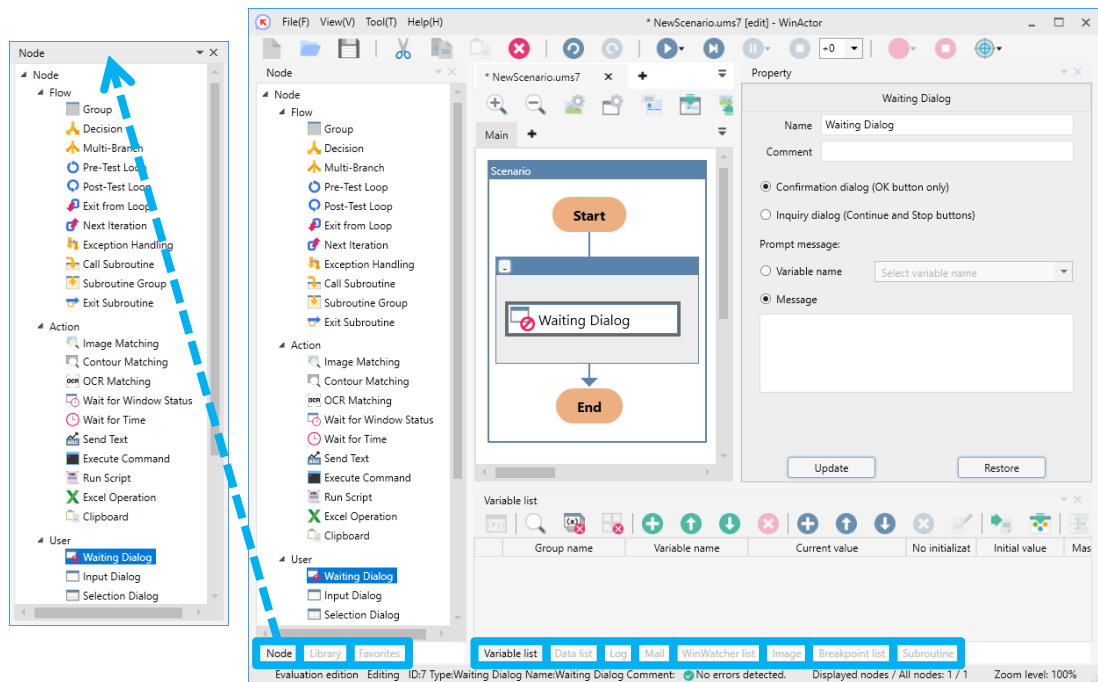


■ Dragging a tab

Steps

1. You can change a position of the palette area or the function area by dragging the tab with the mouse to float the tab pane and dropping it to your desired position.

For example, you can change the position of the Node tab in the palette area by dragging and dropping its tab.

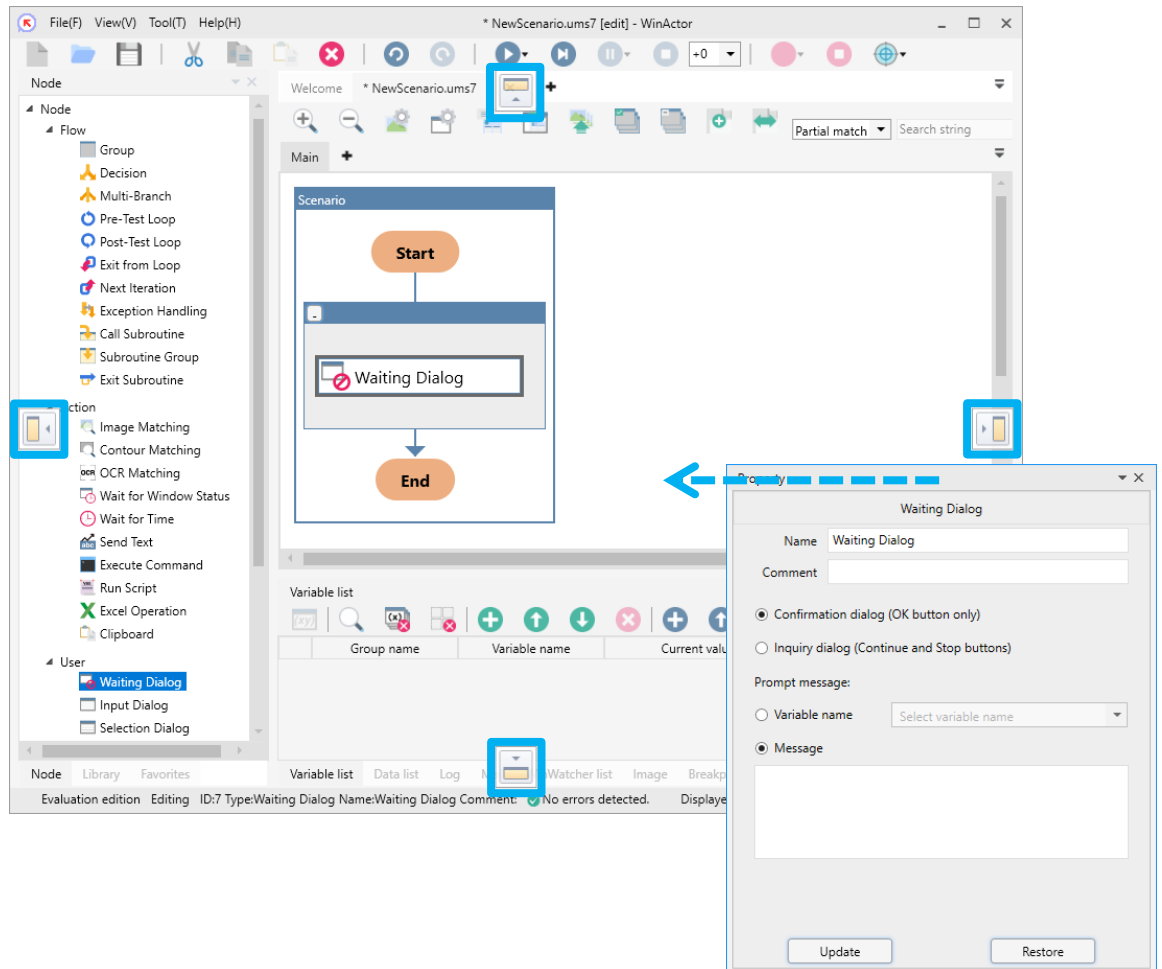


■ Docking (entire window area)

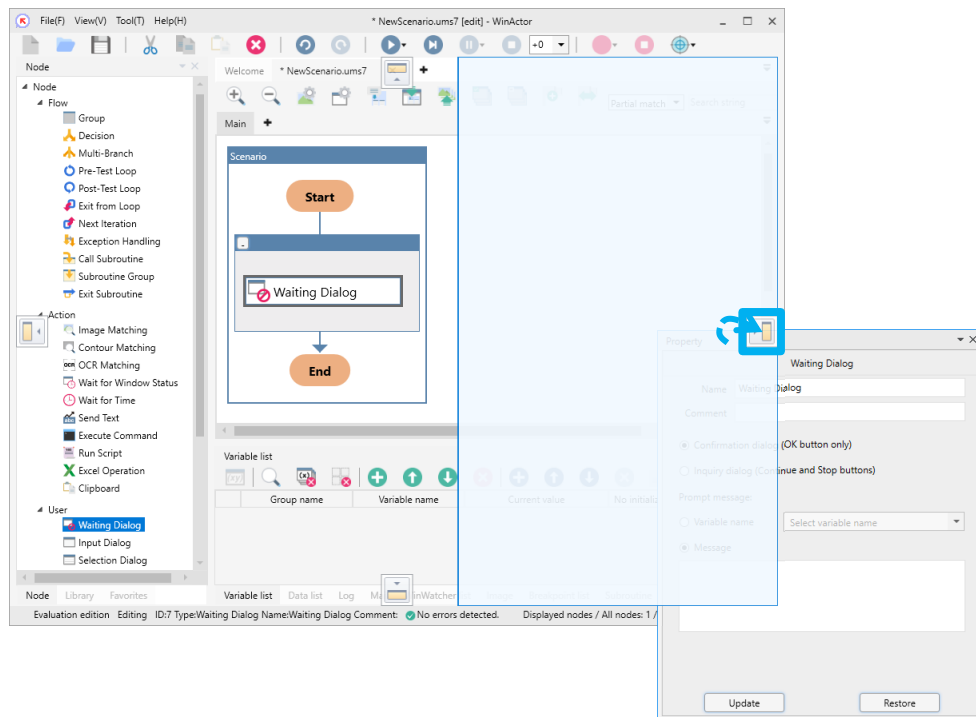
You can place (dock) a floating window inside WinActor by dragging and dropping it onto WinActor.

Steps

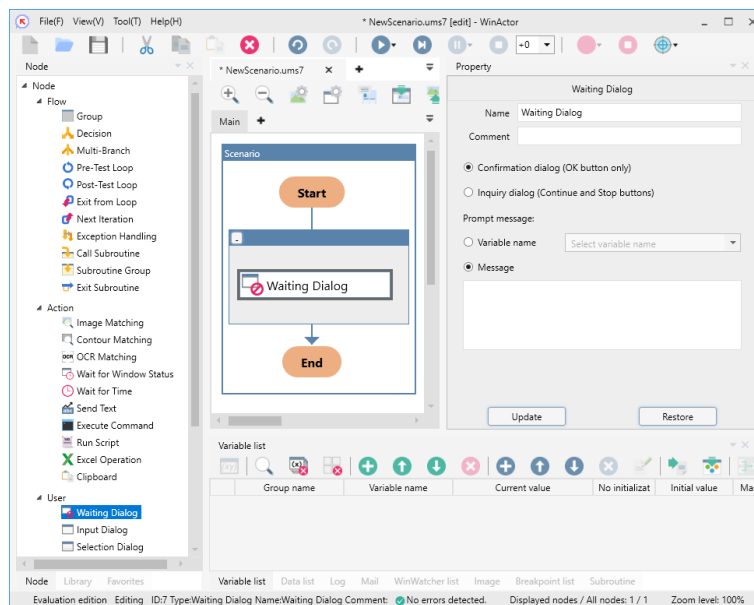
1. Drag a floating window onto WinActor. The control appears on the four sides of WinActor.



2. Overlay the floating window on the control. The docking position is displayed in a blue frame.



3. Drop the window to dock it at the position of the blue frame.

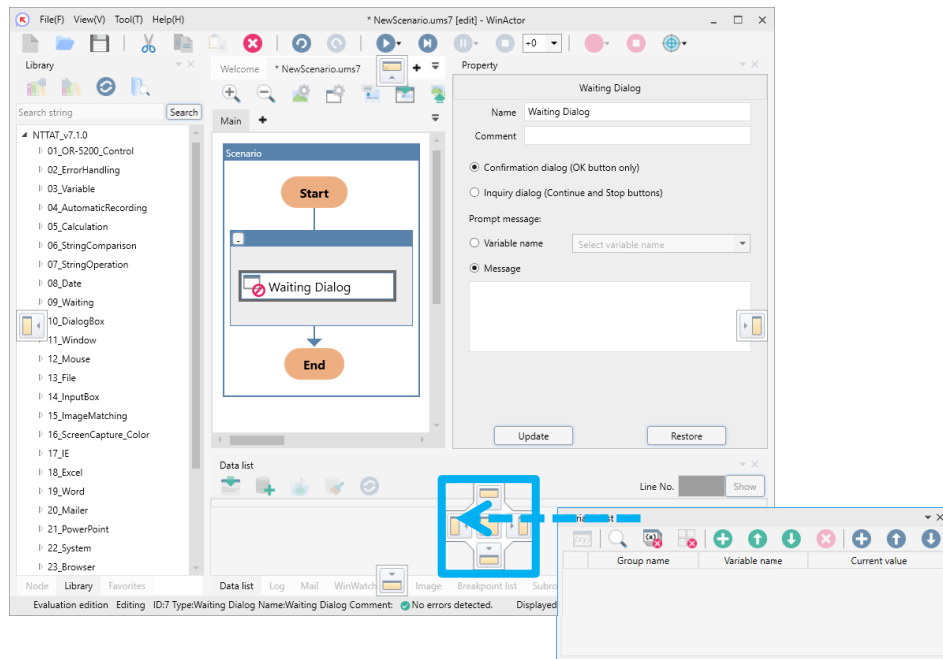


■ Docking (palette/function area)

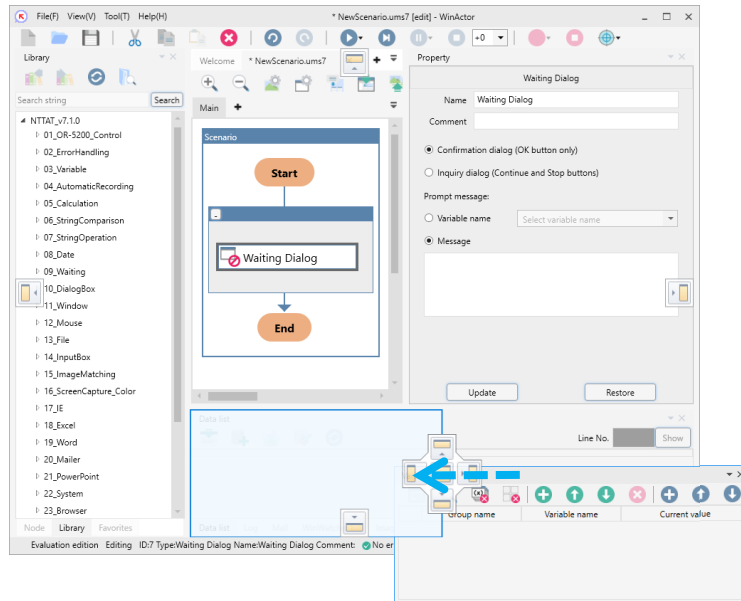
You can dock a floating window or place it as a tab by dragging and dropping it to the palette area or function area.

Steps

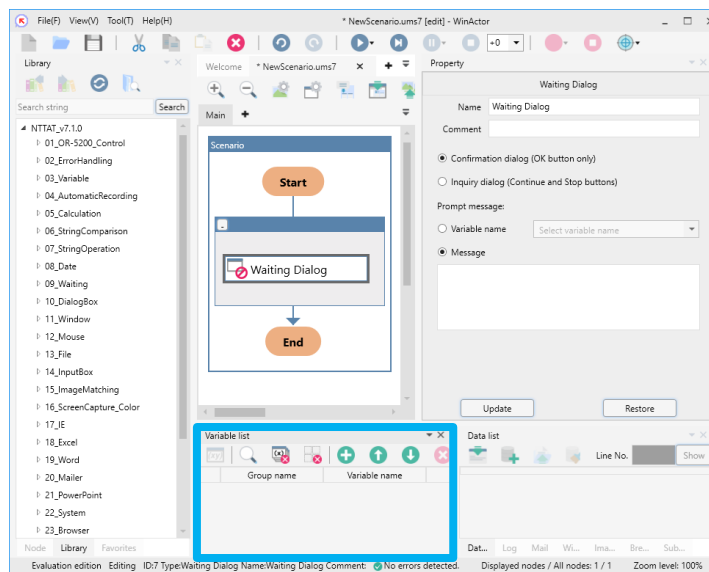
1. Drag a floating window to the palette area or function area. The control appears on the center of the area.



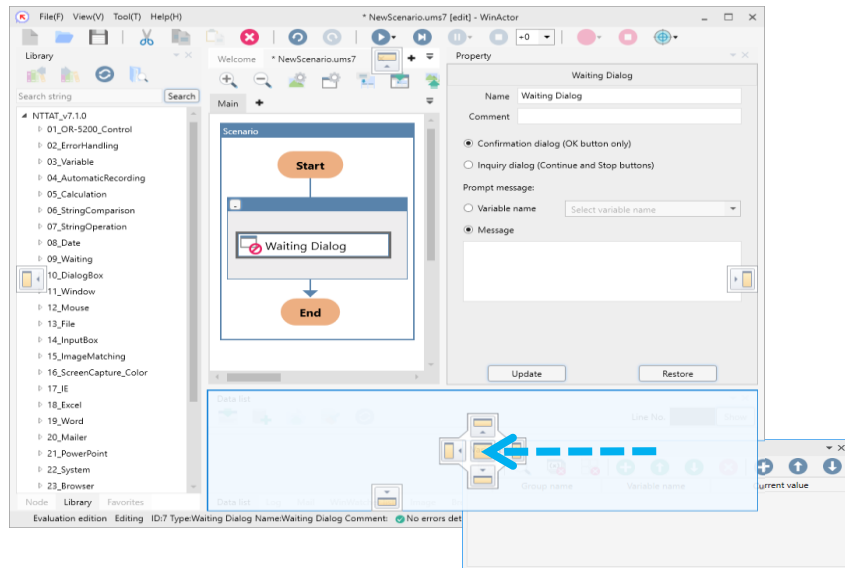
2. Drop the floating window to the right, left, top, or bottom of the control.



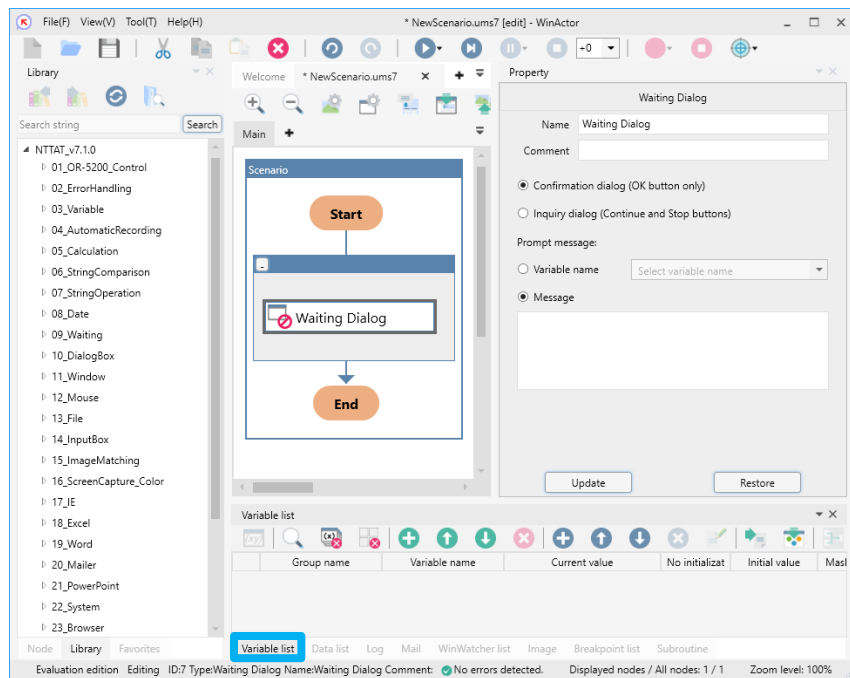
The window is docked in the corresponding position (right, left, top, or bottom) of the area.



3. Drop the floating window to the center of the control.



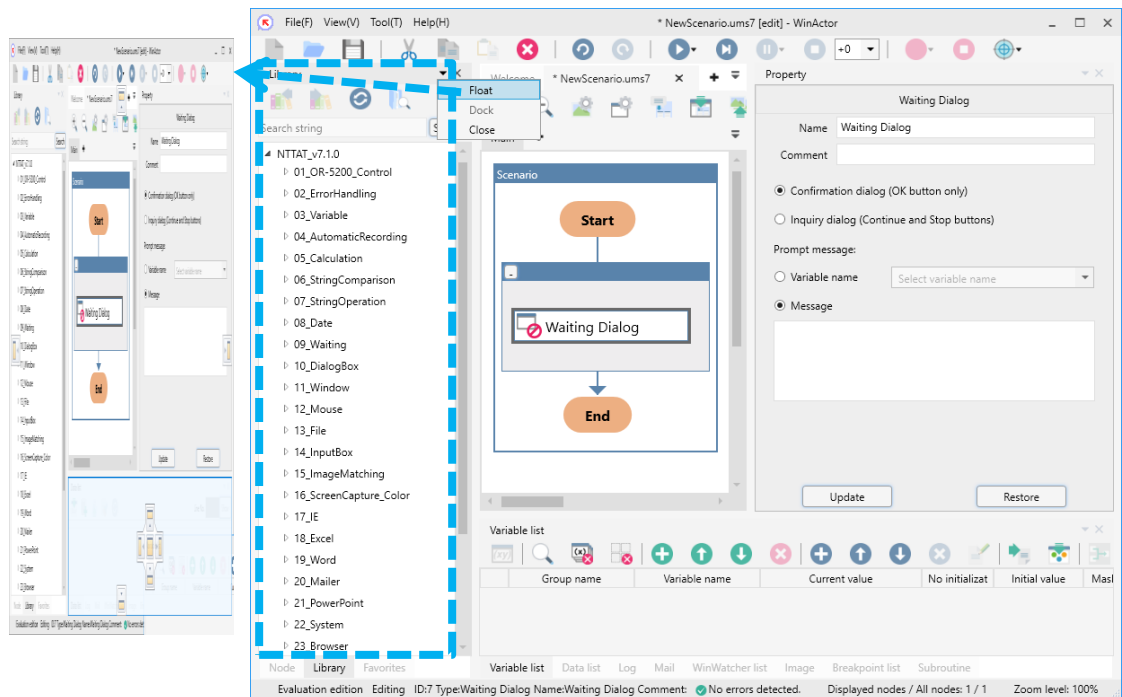
The window is docked as a tab.



■ Float/Dock menu

Steps

1. Click '▼' in the upper right of the palette area, function area, or property area to display the menu. Select 'Float' in the displayed menu to float the selected tab.



2. Select 'Dock' in ▼ in the upper right of the floating window to dock it in its original position.

Select 'Close' in ▼ or click '×' in the upper right of the window to close the selected tab.

■ Saving and restoring the layout

The layout is automatically saved and restored when quitting and launching WinActor.

- When quitting WinActor: The current layout will be saved.
- When launching WinActor: The saved layout will be restored. If the layout has never been saved, the default layout will be restored.

The layout can also be saved or restored from the "View" menu on the menu bar.

Figure 3-106 View menu for the layout

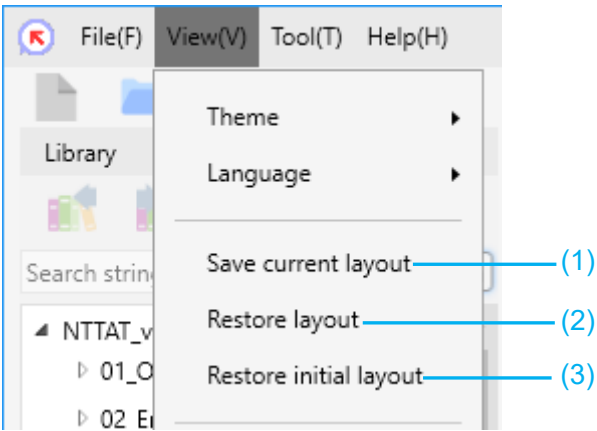


Table 3-123 View menu for the layout

No.	Element	Description
(1)	Save current layout	Saves the current layout.
(2)	Restore layout	Restores the saved layout.
(3)	Restore initial layout	Restores the default layout.

3.11 Create WinActor Shortcut Window

The 'Create WinActor shortcut' window is used to create a shortcut file for the WinActor scenario file. Select 'Create WinActor shortcut' in the "Tool" menu on the menu bar to display the 'Create WinActor shortcut' window.

Figure 3-107 Create WinActor shortcut window

The 'Create WinActor shortcut' dialog box contains the following elements, with callouts indicating their positions:

- (1) ☒ Scenario file
- (2) ☐ Scenario password
- (3) ☐ Run scenario after launch
- (4) ☐ Quit after running scenario
- (5) ☐ Return the exit status when quitting
- (6) ☐ Rerun if the same scenario is loaded
- (7) ☐ Import database after launch
- (8) ☒ CSV or Excel file
- (9) ☐ Save CSV/Excel file after running scenario
- (10) ☐ Database
- (11) ☐ Specify username and password
- (12) ☐ Reside in task tray
- (13) ☐ Suppress displaying dialogs at startup and while running a scenario
- (14) Select Icon
- (15) Create

Additional fields and options visible in the dialog include:

- Text input field for Scenario file
- Text input field for Scenario password
- Text input field for CSV/Excel file
- Text input field for Data Source name
- Text input field for Table name
- Text input field for Username
- Text input field for Password
- Radio button for Overwrite CSV/Excel file
- Radio button for Save CSV/Excel file as:
- Text input field for Save CSV/Excel file as:

Table 3-124 Create WinActor shortcut window

No.	Element	Description
(1)	Scenario file	Specify a scenario file to be loaded at startup. Select it from the file selection dialog.
(2)	Scenario password	Check the box to specify a scenario password set for the scenario file to be loaded at startup. WinActor will start in the security mode of the set scenario password without prompting to enter the scenario password at startup.
(3)	Run scenario after launch	Check the box to run a scenario after launching WinActor.
(4)	Quit after running scenario	Check the box to quit WinActor after completion of running a scenario.
(5)	Return the exit status when quitting	Check the box to quit WinActor after completion of running a scenario and to return the exit status. When an error occurred, '1' is returned. Otherwise, '0' is returned as the status.  To receive an exit status from the command prompt, enter the following line and wait for WinActor to quit. start / wait <i>created-shortcut-name</i>
(6)	Rerun if the same record is loaded	If a scenario is started from a shortcut and the scenario has already been loaded, the scenario will be restarted without showing a confirmation dialog.
(7)	Import database after launch	Check the box to import a database at startup. Select whether to load a data list file or link with a database.
(8)	CSV or Excel file	Select the radio button to specify a data list file to import data. Select a file from the file selection dialog. The file in Excel or CSV format can be opened.
(9)	Save CSV/Excel file after running scenario	Check the box to save the data list file. Select either 'Overwrite CSV/Excel file' or 'Save CSV/Excel file as:' as a method for saving the file. For 'Save CSV/Excel file as:', select a file path to save the file from the file selection dialog. The file can be saved in Excel or CSV format.
(10)	Database	Select the radio button to specify a data source name and table name of a database to be linked.
(11)	Specify username and password	Check the box to specify a username and password to connect to the database.
(12)	Reside in task tray	Check the box to launch WinActor with it stored in the task tray.
(13)	Suppress displaying dialogs at startup and while running a scenario	Check the box to suppress displaying dialogs at startup and when running a scenario.
(14)	'Select icon' button	The shortcut icon can be selected. Click to display a selection window.
(15)	'Create' button	Click the button to display the window for saving the shortcut.

Figure 3-108 Selecting an icon for execution

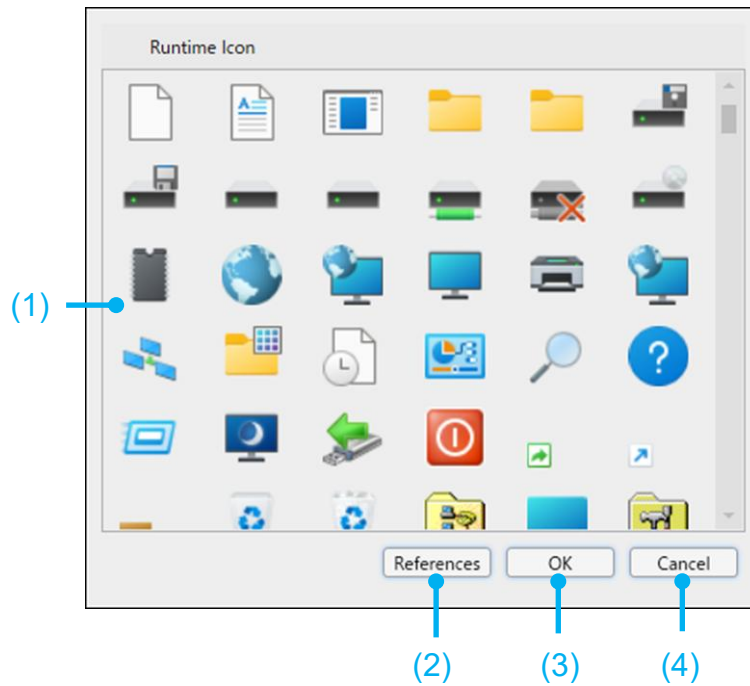


Table 3-125 Selecting an icon for execution

No.	Element	Description
(1)	Icon list	Displays icons available for shortcuts. When an icon is clicked, it is selected. When an icon is double-clicked, it is selected and adopted as a shortcut.
(2)	References	Refers icons in a file. When this button is clicked, a selection dialog to select EXE or DLL file is shown. Selecting an EXE or DLL file, icons in the file are displayed and one of them can be selected as the WinActor shortcut.
(3)	OK	Adopt the selected icon, and close the window.
(4)	Cancel	Cancel the icon selection, and close the window.

3.12 Set/Change/Remove Startup Password

FULL

You can set a startup password to limit the permissions for launching WinActor and editing scenarios to those who know the startup password.

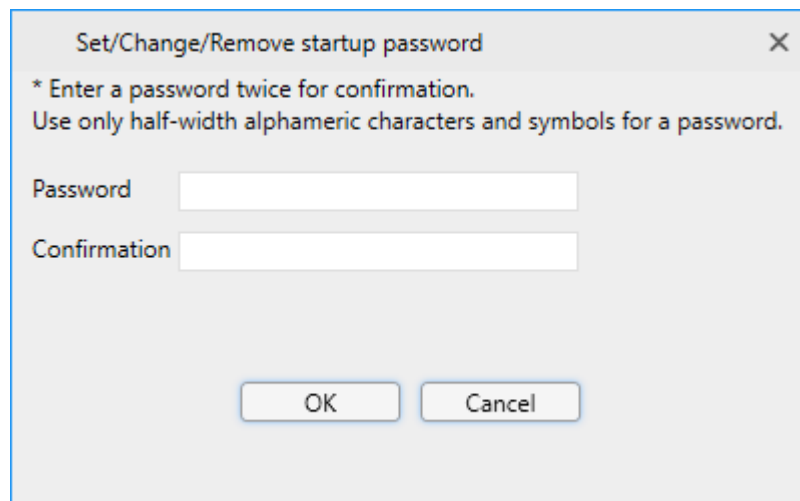
A startup password can be set in the 'Set/Change/Remove startup password' dialog.

Click 'Tool' > 'Startup password' on the menu bar to display the 'Set/Change/Remove startup password' dialog.

■ Setting a startup password

If a startup password has not been set, the following dialog will be displayed.

Figure 3-109 Startup password dialog (for setting a password)



Set/Change/Remove startup password

* Enter a password twice for confirmation.
Use only half-width alphanumeric characters and symbols for a password.

Password

Confirmation

OK Cancel

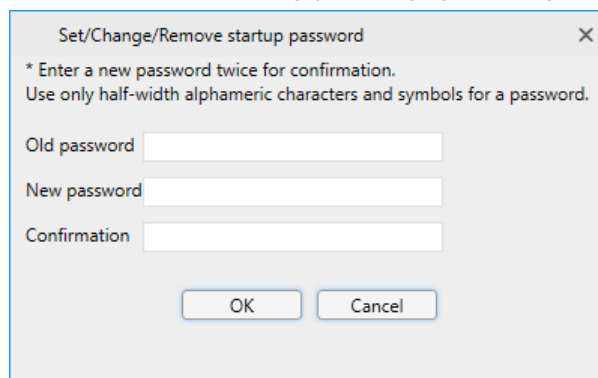
Enter a password you want to set with 8 to 64 characters in the text boxes of 'Password' and 'Confirmation' and click the 'OK' button.

>> For the characters that can be used for the password, see "7.5 Usable Characters for Password."

■ Changing/removing the startup password

If a startup password has already been set, the following dialog is will be displayed.

Figure 3-110 Startup password dialog (for changing/removing the password)

A dialog box titled "Set/Change/Remove startup password" with a close button (X) in the top right corner. It contains instructions: "* Enter a new password twice for confirmation. Use only half-width alphanumeric characters and symbols for a password." Below the instructions are three text input fields labeled "Old password", "New password", and "Confirmation". At the bottom are "OK" and "Cancel" buttons.

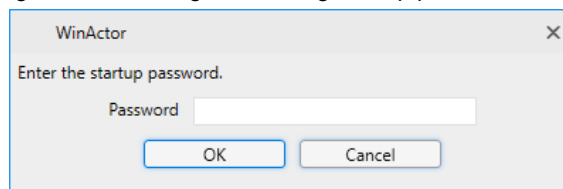
- Changing a startup password
Enter a password you are currently using in the text box of 'Old password,' enter a password you want to set in the text boxes of 'New password' and 'Confirmation' with 8 to 64 characters, and then click the 'OK' button.
- Removing a startup password
Enter a password you are currently using in the text box of 'Old password,' leave the boxes of 'New password' and 'Confirmation' blank, and click the 'OK' button.

➤➤ For the characters that can be used for the password, see "7.5 Usable Characters for Password."

■ Dialog for entering a startup password

If a startup password has been set, a dialog for entering the startup password dialog will be displayed when launching WinActor.

Figure 3-111 Dialog for entering startup password dialog

A dialog box titled "WinActor" with a close button (X) in the top right corner. It contains the instruction "Enter the startup password." Below this is a text input field labeled "Password". At the bottom are "OK" and "Cancel" buttons.

Enter the set startup password and click the 'OK' button to launch WinActor. If you click the 'Cancel' button, the startup will be interrupted and WinActor will be quit.



The password can also be set with the startup options.



See "2.1.3 Startup options for WinActor."

3.13 'About WinActor' Dialog

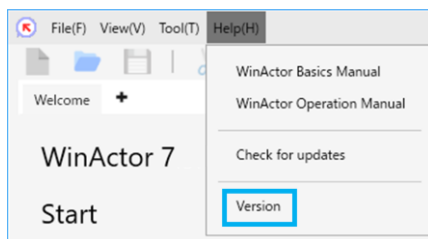
The 'About WinActor' dialog is used for checking the version information of WinActor including the application name, version, copyright, license status, and versions of web browsers and WebDrivers. The license can also be registered and the WinActor questionnaire site can be displayed with a browser from this dialog.

3.13.1 Checking the version information

The following is the procedure for checking the version information.

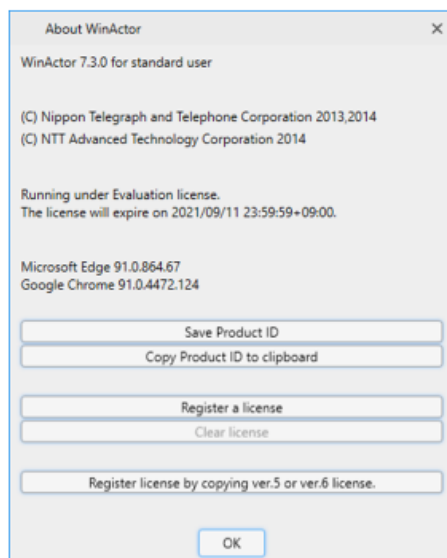
Steps

1. Select 'Help' > 'Version' on the menu bar.



The 'About WinActor' dialog appears.

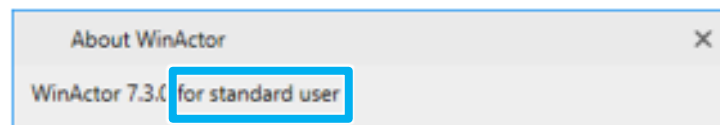
2. Check the version information and click the 'OK' button.



The 'About WinActor' dialog will close.



When WinActor for standard user is installed, “for standard user” is displayed on the ‘About WinActor’ dialog.

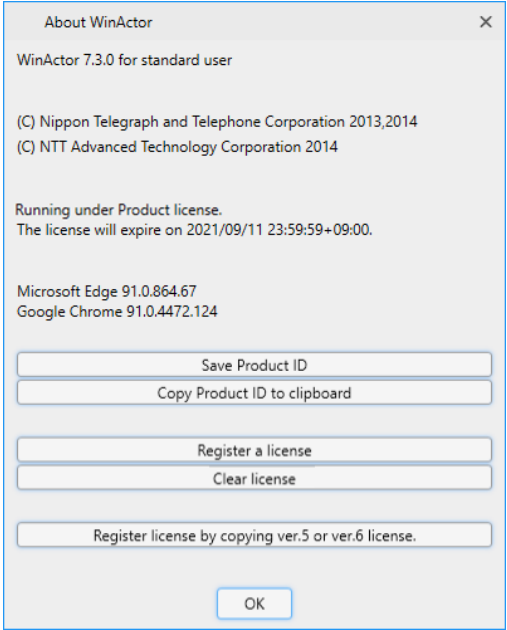


3.13.2 Node-locked license

The node-locked license can be activated by registering the license in the 'About WinActor' dialog.

Table 3-126 License status and 'About WinActor' dialog

No.	License status	'About WinActor' dialog
(1)	License expired	The screenshot shows the 'About WinActor' dialog box. It displays 'WinActor 7.3.0 for standard user' and copyright information. The message 'The Product license is invalid.' is shown. Below this, it lists 'Microsoft Edge 91.0.864.67' and 'Google Chrome 91.0.4472.124'. At the bottom, there are buttons for 'Save Product ID', 'Copy Product ID to clipboard', 'Register a license', 'Clear license', and 'Register license by copying ver.5 or ver.6 license.' An 'OK' button is at the very bottom.
(2)	When running under the Evaluation license	The screenshot shows the 'About WinActor' dialog box. It displays 'WinActor 7.3.0 for standard user' and copyright information. The message 'Running under Evaluation license. The license will expire on 2021/09/11 23:59:59+09:00.' is shown. Below this, it lists 'Microsoft Edge 91.0.864.67' and 'Google Chrome 91.0.4472.124'. At the bottom, there are buttons for 'Save Product ID', 'Copy Product ID to clipboard', 'Register a license', 'Clear license', and 'Register license by copying ver.5 or ver.6 license.' An 'OK' button is at the very bottom.

No.	License status	'About WinActor' dialog
(3)	When running under the Product license	

■ Procedure for registering a license

You can select a manual or an online license registration.

The following is the procedure from issuing a license via a WinActor agency or via the license issuance site to registering the license.

The 'Save Product ID' and the 'Register a license' buttons can be used in the 'About WinActor' dialog.

By the online-license registration, you can omit the steps from (5) to (7).

When you have node-locked license of WinActor Ver.5 or Ver.6, you can use the node-locked license version of WinActor Ver.7 as well.



For the detailed registration procedure, see "WinActor Installation Manual."

- (1) Purchasing a license
- (2) Obtaining a WinActor installer from the agency
- (3) Installing WinActor
- (4) Launching WinActor
- (5) Copying the product ID to the clipboard, or saving a product ID file
- (6) License issuance procedure on the site, or sending the product ID file to the agency
- (7) Downloading a license file from the site, or obtaining a license file from the agency.
- (8) Registering the license



WinActor cannot save files in some folders.



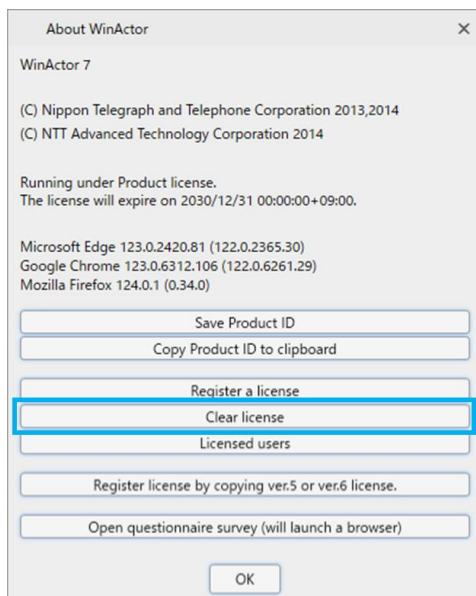
See "6.1 Limitations of File Location."

■ Clearing a license

Follow the steps below to clear the license that is no longer used from the computer. You can also save the product ID and the WinActor license clearance certificate files.

Steps

1. Click the 'Clear license' button.

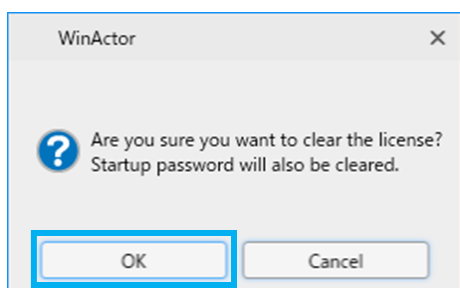


The confirmation dialog to clear the license appears.

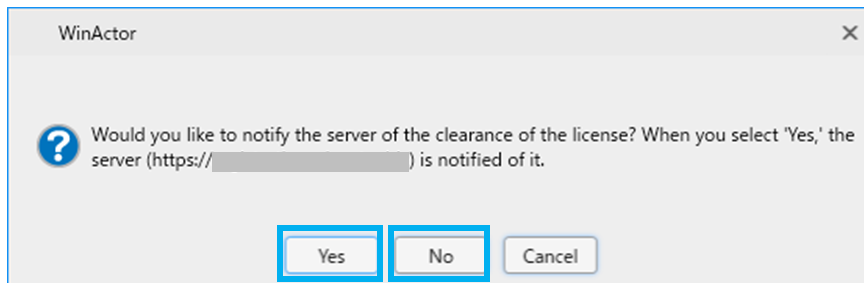
2. Click the 'OK' button.



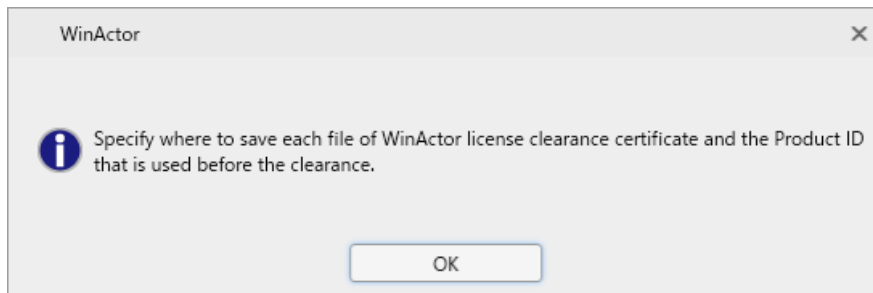
Click the 'Cancel' button to cancel the operation of the license clearance.



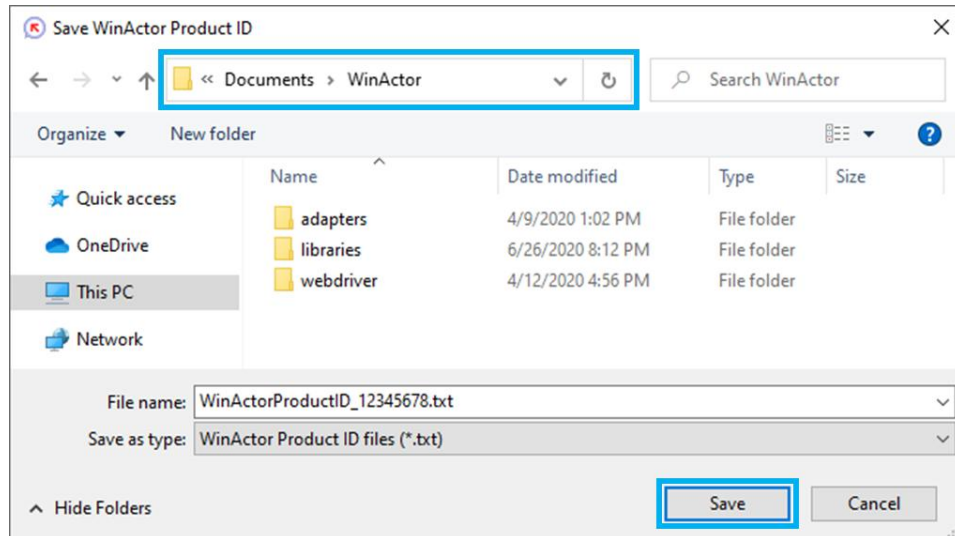
- 3.** Select whether to notify the server of the license clearance or not.
Click 'Yes' to transfer the license online.
Click 'No' to transfer the license via a WinActor agency.



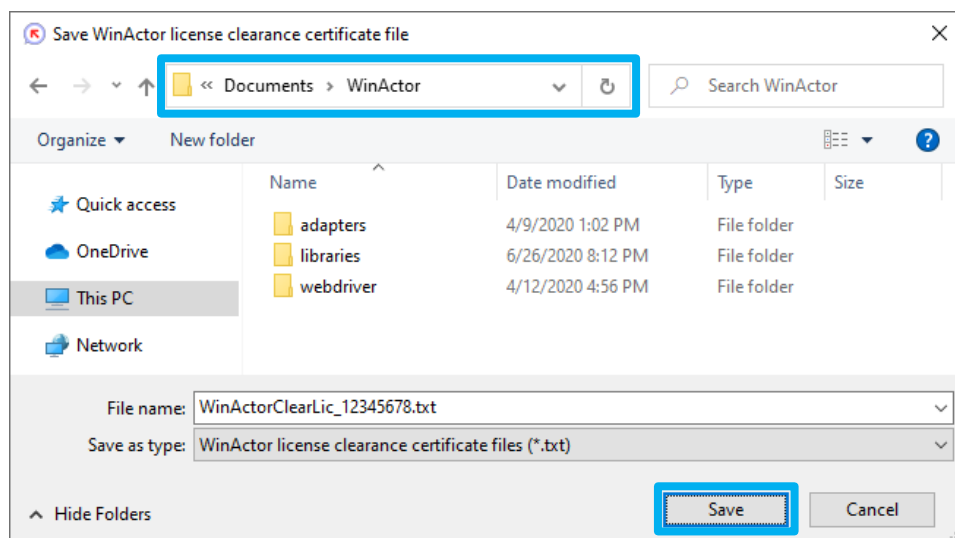
- 4.** The dialog to save the product ID file and the WinActor license clearance certificate file appears. Click the 'OK' button.



5. The 'Save WinActor Product ID' window appears. The initial filename is "WinActorProductID_XXXXXXX.txt," in which XXXXXXXX are alphanumeric characters. Specify a folder to save the file and click the 'Save' button. The product ID file will be saved.

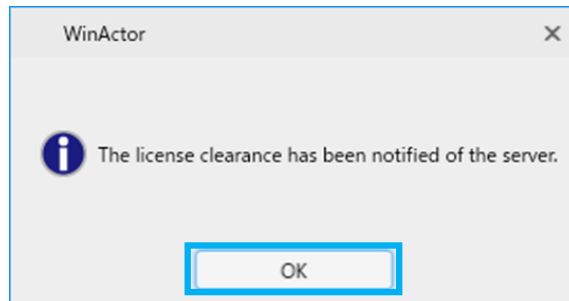


6. The 'Save WinActor license clearance certificate file' window appears. Specify a folder to save the file and click the 'Save' button. The license will be cleared, and the WinActor license clearance certificate will be saved.

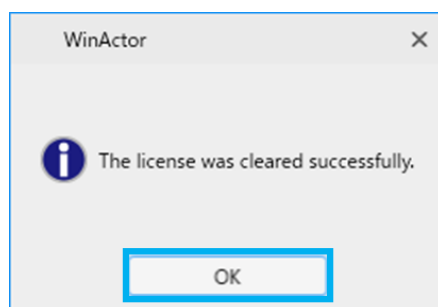


Click the 'Cancel' button on the 'Save WinActor Product ID' or the 'Save WinActor license clearance certificate file' window to cancel the operation of the license clearance.

- 7.** When 'Yes' is selected at step **3**, the server is notified of the license clearance. Click 'OK' button.



When 'No' is selected at step **3**, the dialog notifying the completion of the license clearance is displayed. Click 'OK' button.



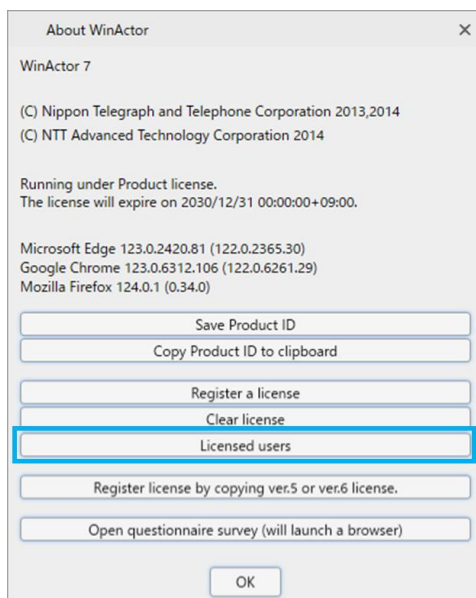
- 8.** Quit WinActor.

■ Licensed users

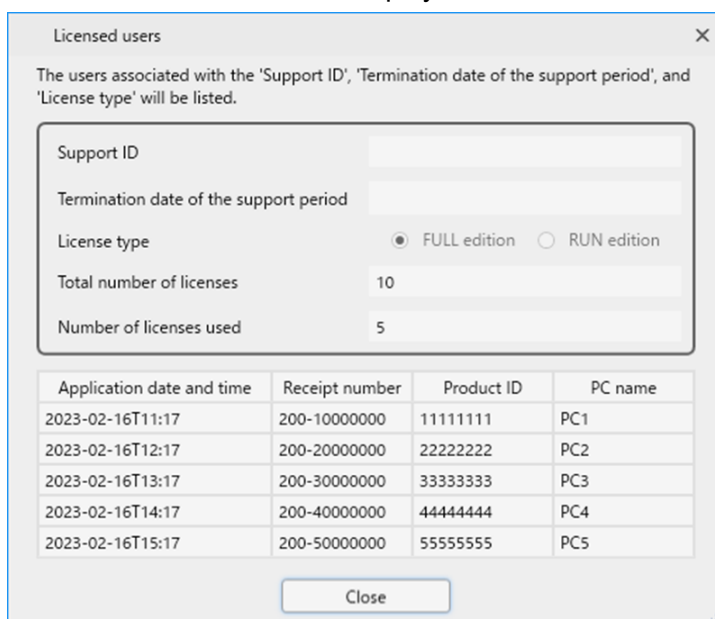
When licenses are registered online, the list of licensed users of node-locked license under the 'Support ID' can be displayed.

Steps

1. Click the 'Licensed users' button.



The list of licensed users is displayed.

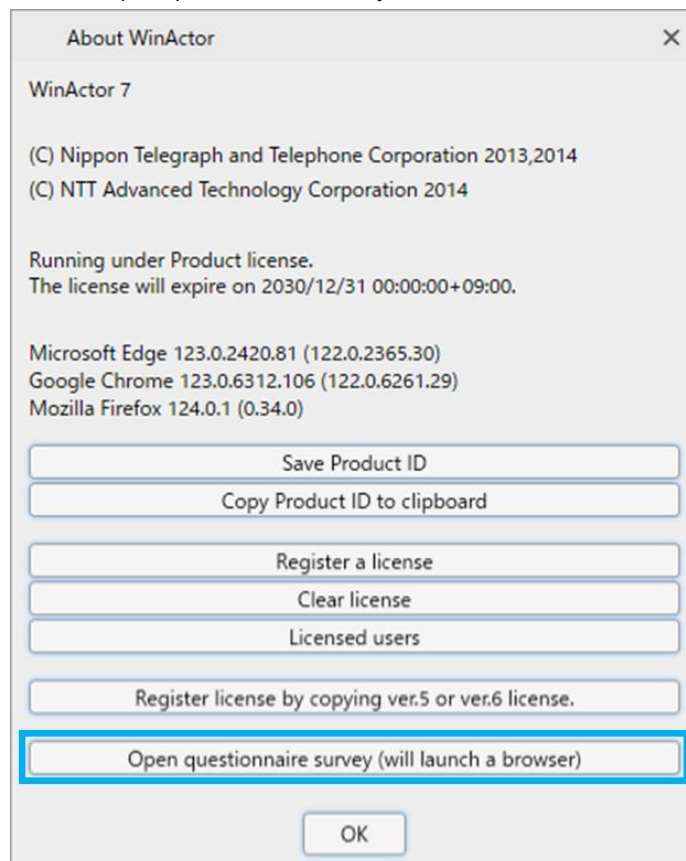


■ Open questionnaire survey

When 'Open questionnaire survey' button is clicked, a web browser is launched and the questionnaire survey on WinActor is displayed.

The 'Open questionnaire survey' button exists on 'About WinActor' dialog of all the license types: node-locked, floating and AI integration licenses.

Figure 3-112 'Open questionnaire survey' button on 'About WinActor' dialog



3.13.3 Floating license

The floating license can be activated by registering the license information in the 'Option' dialog.

For the floating license, the license server manages the licenses. Therefore, you will not be able to use the functions of WinActor if;

- The communication with the license server fails.
- The number of licenses held by the license server is insufficient.

■ Procedure for setting the license server

The following is the procedure for setting the license server.



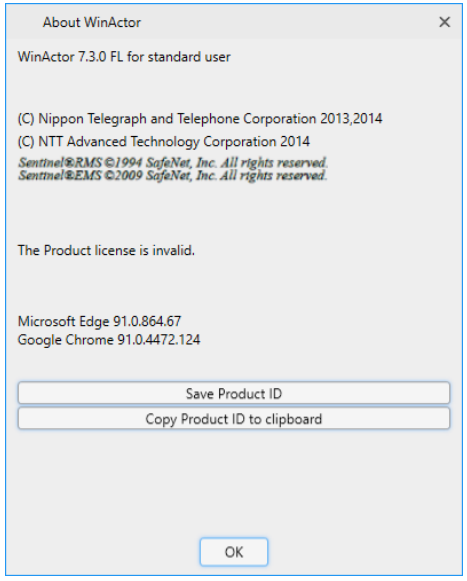
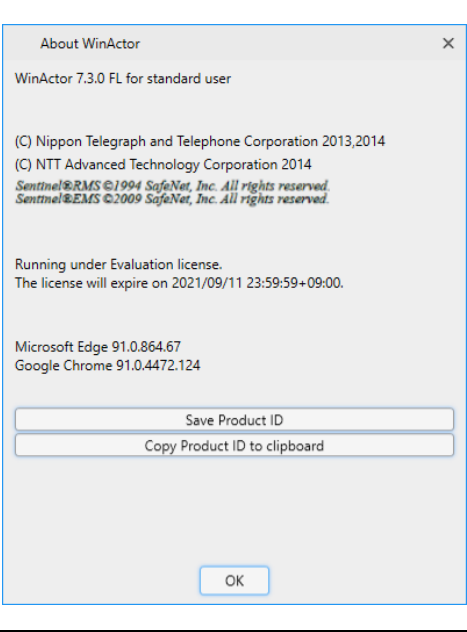
For the detailed procedure, see "WinActor Installation Manual."

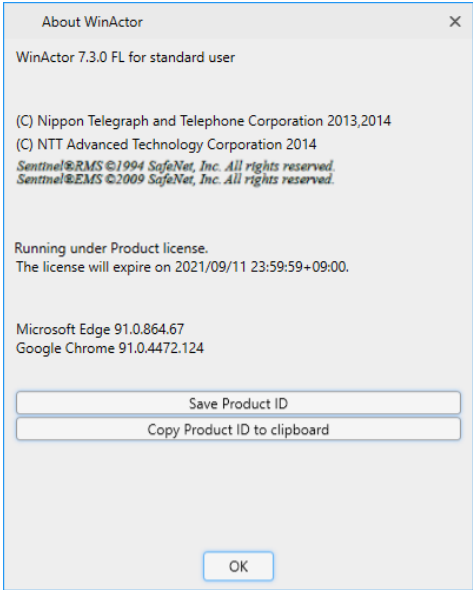
- (1) Registering a license on the license server.
- (2) Installing WinActor.
- (3) Setting the license server in WinActor.



(1) is performed by the administrator of the license server.

Table 3-127 License server setting status and 'About WinActor' dialog

No.	Setting status	About WinActor dialog
(1)	The license server is not set, or the license server is set but the license is not issued from the license server.	 The screenshot shows the 'About WinActor' dialog box. It displays the version 'WinActor 7.3.0 FL for standard user' and copyright information for Nippon Telegraph and Telephone Corporation (2013, 2014) and NTT Advanced Technology Corporation (2014). It also includes copyright for Sentinel@RMS (1994) and Sentinel@EMS (2009) for SafeNet, Inc. The main message states 'The Product license is invalid.' Below this, it lists the operating systems: 'Microsoft Edge 91.0.864.67' and 'Google Chrome 91.0.4472.124'. At the bottom, there are two buttons: 'Save Product ID' and 'Copy Product ID to clipboard', and an 'OK' button at the very bottom.
(2)	When running under the Evaluation license	 The screenshot shows the 'About WinActor' dialog box. It displays the version 'WinActor 7.3.0 FL for standard user' and the same copyright information as in the first screenshot. The main message states 'Running under Evaluation license. The license will expire on 2021/09/11 23:59:59+09:00.' Below this, it lists the operating systems: 'Microsoft Edge 91.0.864.67' and 'Google Chrome 91.0.4472.124'. At the bottom, there are two buttons: 'Save Product ID' and 'Copy Product ID to clipboard', and an 'OK' button at the very bottom.

No.	Setting status	About WinActor dialog
(3)	When running under the Product license	

■ Open questionnaire survey

When 'Open questionnaire survey' button is clicked, a web browser is launched and the questionnaire survey on WinActor is displayed.

The 'Open questionnaire survey' button exists on 'About WinActor' dialog of all the license types: node-locked, floating, and AI integration licenses.



'Open questionnaire survey' button on 'About WinActor' dialog of node-locked licensed WinActor

3.13.4 AI integration license

The AI integration license can be activated by registering the AI integration license information in the 'Option' dialog.

For the AI integration license, the AI integration license server manages the licenses. Therefore, the functions of WinActor cannot be used in the following cases.

- The communication with the AI integration license server fails.
- The number of licenses held by the AI integration license server is insufficient.

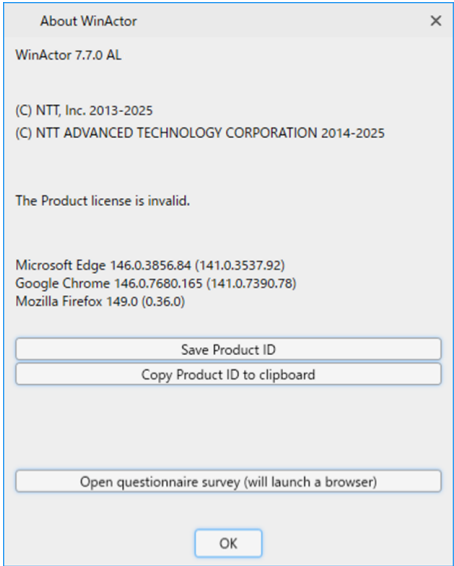
■ Procedure for setting the AI integration license server

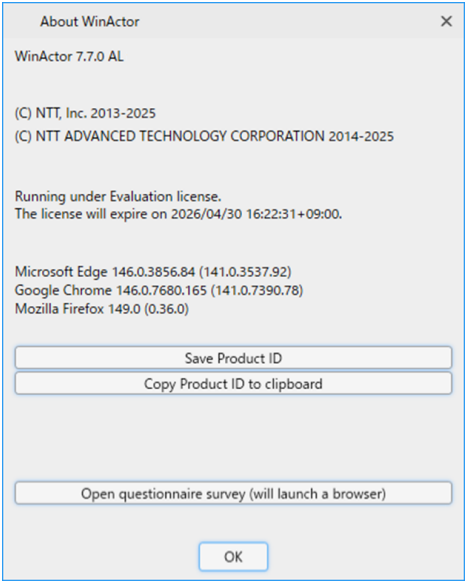
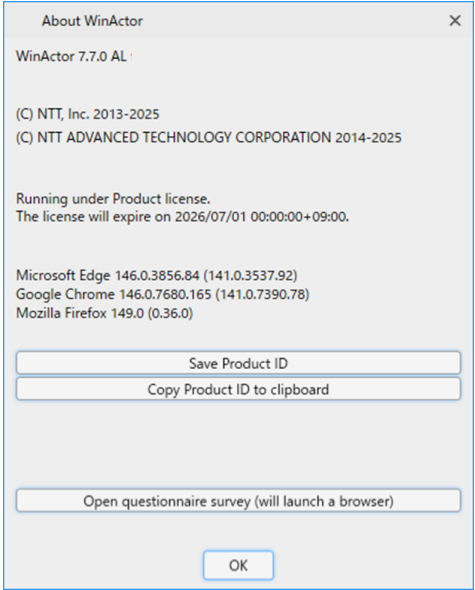
The procedure for setting the license server is shown below.

 For the detailed procedure, see "WinActor Installation Manual."

- (1) Purchase of the license.
- (2) Installing WinActor.
- (3) Setting the AI integration license server in WinActor.

Table 3-128 AI integration license server setting status and 'About WinActor' dialog

No.	Setting status	About WinActor dialog
(1)	The AI integration license server is not set, or the AI integration license server is set but the license is not issued from the AI integration license server.	

No.	Setting status	About WinActor dialog
(2)	When running under the Evaluation license	 The screenshot shows the 'About WinActor' dialog box. It displays 'WinActor 7.7.0 AL'. Copyright information for NTT, Inc. (2013-2025) and NTT Advanced Technology Corporation (2014-2025) is shown. The license status is 'Running under Evaluation license' with an expiration date of 2026/04/30 16:22:31+09:00. It lists browser versions: Microsoft Edge 146.0.3856.84 (141.0.3537.92), Google Chrome 146.0.7680.165 (141.0.7390.78), and Mozilla Firefox 149.0 (0.36.0). At the bottom, there are buttons for 'Save Product ID', 'Copy Product ID to clipboard', 'Open questionnaire survey (will launch a browser)', and an 'OK' button.
(3)	When running under the Product license	 The screenshot shows the 'About WinActor' dialog box. It displays 'WinActor 7.7.0 AL'. Copyright information for NTT, Inc. (2013-2025) and NTT Advanced Technology Corporation (2014-2025) is shown. The license status is 'Running under Product license' with an expiration date of 2026/07/01 00:00:00+09:00. It lists browser versions: Microsoft Edge 146.0.3856.84 (141.0.3537.92), Google Chrome 146.0.7680.165 (141.0.7390.78), and Mozilla Firefox 149.0 (0.36.0). At the bottom, there are buttons for 'Save Product ID', 'Copy Product ID to clipboard', 'Open questionnaire survey (will launch a browser)', and an 'OK' button.

■ Open questionnaire survey

When 'Open questionnaire survey' button is clicked, a web browser is launched and the questionnaire survey on WinActor is displayed.

The 'Open questionnaire survey' button exists on 'About WinActor' dialog of all the license types: node-locked, floating, and AI integration licenses.



'Open questionnaire survey' button on 'About WinActor' dialog of node-locked licensed WinActor

3.14 Option Dialog

The 'Option' dialog is used to make the operational settings for WinActor. Click 'Tool' > 'Option' on the menu bar to display the 'Option' dialog.

■ Configuration of the Option dialog

Figure 3-113 Configuration of the Option dialog (Floating license)

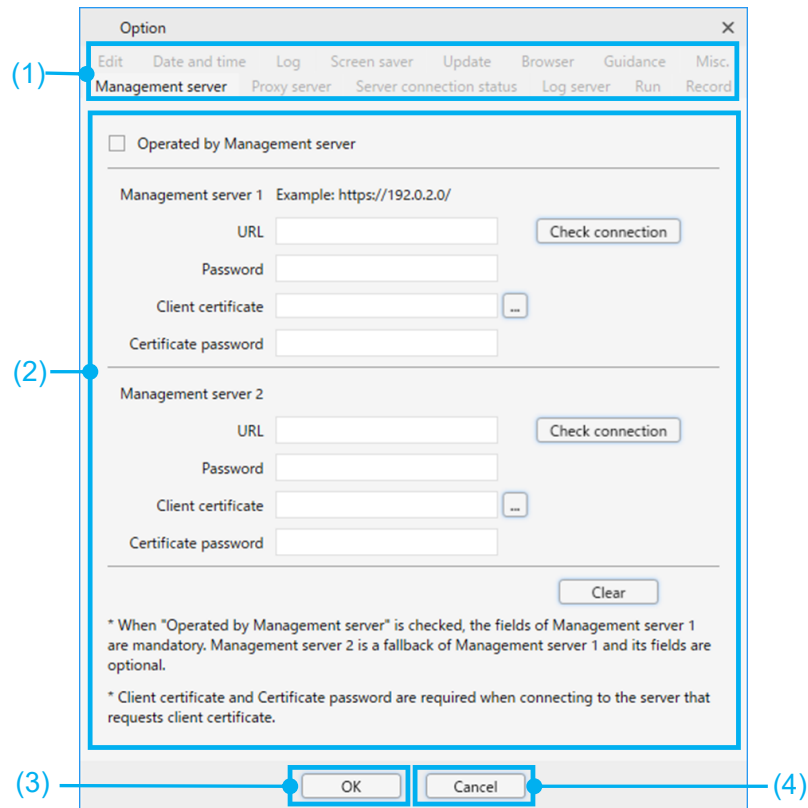


Figure 3-114 Configuration of the Option dialog (AI integration license)

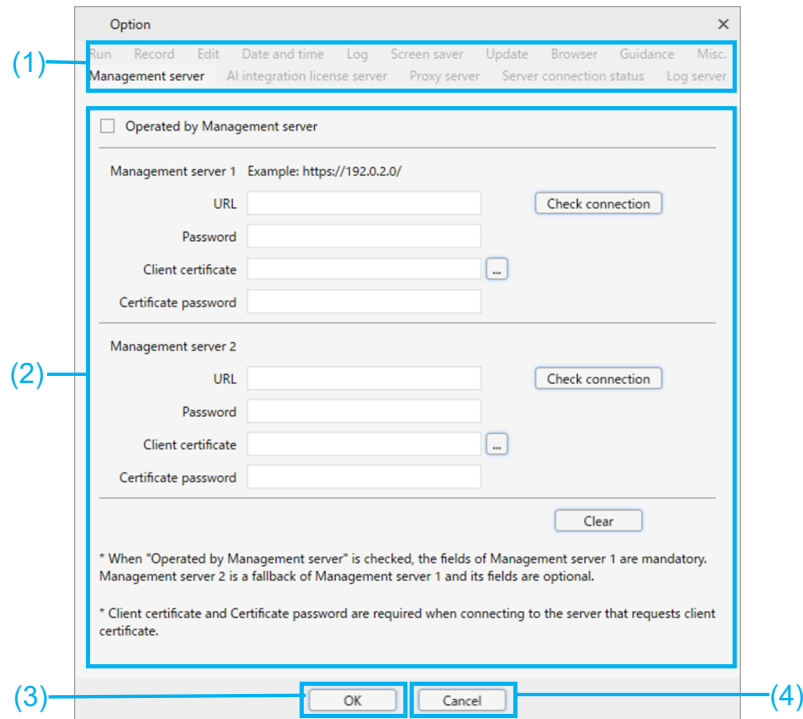


Table 3-129 Configuration of the Option dialog

No.	Element	Description
(1)	Tabs	Setting windows can be switched.
(2)	Settings area	Setting items of each tab selected in (1) are displayed.
(3)	'OK' button	Applies the settings and closes the 'Option' dialog.
(4)	'Cancel' button	Closes the 'Option' dialog without applying the settings.



- Some tabs are not displayed depending on the license type.
- If the license type is the node-locked license, the 'License server' and 'AI integration license server' tabs are not displayed.
- If the license type is the floating license, the 'AI integration license server' tab is not displayed.
- If the license type is the AI integration license, the 'License server' tab is not displayed.
- If the license type of edition is the RUN edition, the 'Record' tab and 'Edit' tab will not be displayed.
- The settings are saved on the computer, not in a scenario file.

■ Management server tab

Figure 3-115 Management server tab of the Option dialog

Table 3-130 Management server tab of the Option dialog

No.	Element	Description
(1)	Operated by Management server	Check the box if you want WinActor to be operated by the management server.
(2)	URL	Enter a URL for the management server.
(3)	Password	Enter a password for the management server.
(4)	Client certificate	Enter a client certificate when it is required to connect to the management server.
(5)	Certificate password	Enter a password for the client certificate if required.
(6)	'Check connection' button	Checks the connection status with the management server.
(7)	URL	If the management server has a redundant configuration, enter a URL for the second management server.

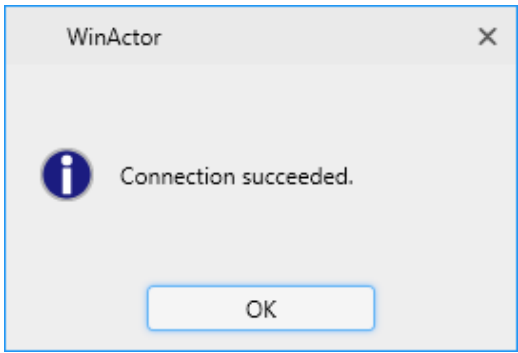
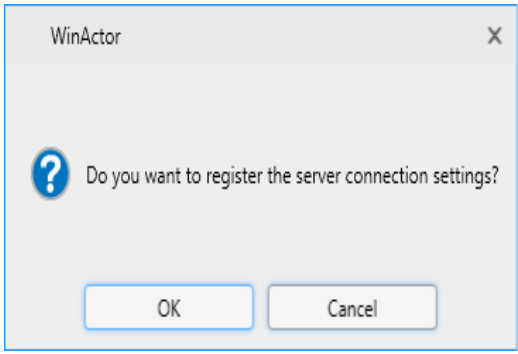
No.	Element	Description
(8)	Password	Enter a password for the second management server.
(9)	Client certificate	Enter a client certificate if it is required to connect to the second management server.
(10)	Certificate password	Enter a password for the client certificate if required.
(11)	'Check connection' button	Checks the connection status with the second management server.
(12)	'Clear' button	Clears the management server information.



- The information required to connect to the management server depends on the environment in which you use WinActor. Ask the administrator of the management server for the required information.
- If the box of 'Operated by Management server' is checked, the user cannot edit or run scenarios.
- If the time of the OS (Windows) and the time of the management server are different, a connection error will occur. Set the OS to the correct time when using WinActor.

Click the 'Check connection' button to check the connection status with the management server.

Table 3-131 Result dialog of checking the connection with the management server

No.	Connection status	Result dialog
(1)	Connected to the management server	
(2)	Not connected to the management server	

■ License server tab

Figure 3-116 License server tab of the Option dialog

Table 3-132 License server tab of the Option dialog

No.	Element	Description
(1)	Selecting an edition	Select a license type of edition by checking the radio button. The selected edition will be enabled on the next launch. * If switching of the license type of edition is restricted by the license server administrator, the buttons to select the edition cannot be checked.

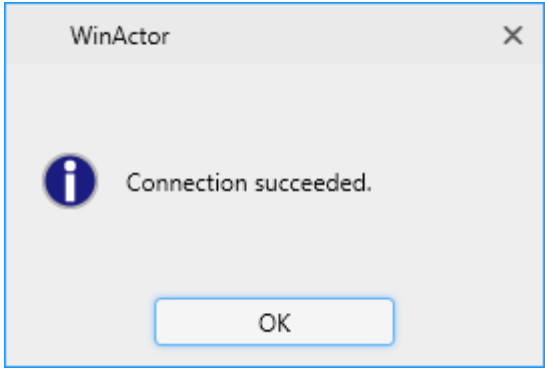
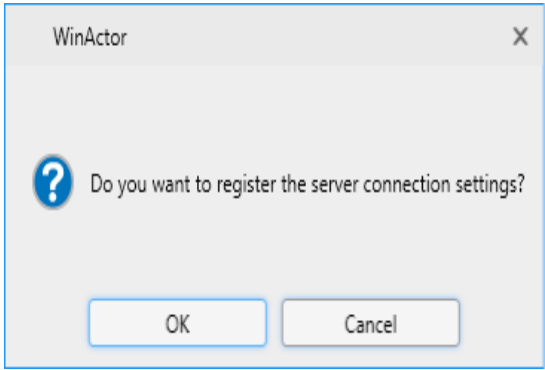
No.	Element	Description
(2)	Use the same URL as the one for Management server	Check the box if the license server has the same URL as the management server.
(3)	URL	Enter a URL for the license server.
(4)	Password	Enter a password for the license server.
(5)	Client certificate	Enter a client certificate if it is required to connect to the license server.
(6)	Certificate password	Enter a password for the client certificate if required.
(7)	'Check connection' button	Checks the connection status with the license server.
(8)	URL	If the license server has a redundant configuration, enter a URL for the second license server.
(9)	Password	Enter a password for the second license server.
(10)	Client certificate	Enter a client certificate if it is required to connect to the second license server.
(11)	Certificate password	Enter a password for the client certificate if required.
(12)	'Check connection' button	Checks the connection status with the second license server.
(13)	'Clear' button	Clears the license server information.



- The information required to connect to the license server depends on the environment in which you use WinActor. Ask the administrator of the license server for the required information.
- If the time of the OS (Windows) and the time of the management server are different, a connection error will occur. Set the OS to the correct time when using WinActor.

Click the 'Check connection' button to check the connection status with the license server.

Table 3-133 Result dialog of checking the connection with the license server

No.	Connection status	Result dialog
(1)	Connected to the license server	 A screenshot of a WinActor dialog box. The title bar says 'WinActor' with a close button (X). The main area contains an information icon (i) and the text 'Connection succeeded.' Below this is an 'OK' button.
(2)	Not connected to the license server	 A screenshot of a WinActor dialog box. The title bar says 'WinActor' with a close button (X). The main area contains a question mark icon (?) and the text 'Do you want to register the server connection settings?'. Below this are 'OK' and 'Cancel' buttons.

■ AI integration license server tab

Figure 3-117 License server tab of the Option dialog

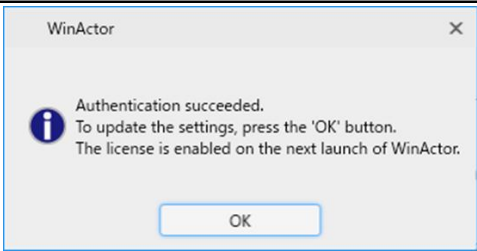
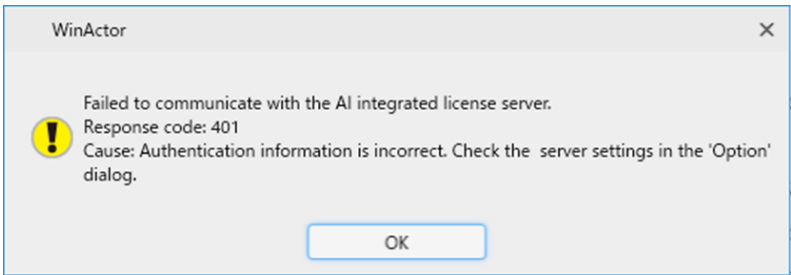
Table 3-134 License server tab of the Option dialog

No.	Element	Description
(1)	Support ID	Enter the support ID of the AI integration license.
(2)	Password	Enter the password of the AI integration license.
(3)	PC name	Enter a PC name to identify the client computer that uses the AI integration license.
(4)	Check authentication	Checks if the connection to the AI integration license server and the authentication of the AI integration license succeed..
(5)	Refresh	Refreshes usage status of the AI integration license
(6)	Generative AI usage	The upper limit of usage granted for the contract of the AI integration license, the accumulated usage, and the consumption rate calculated from the upper limit and the accumulated usage are displayed.
(7)	Support ID	Displays the support ID of the AI integration license authenticated on the server.

No.	Element	Description
(8)	License type	Displays the license type of edition of the authenticated AI integration license. This is either the FULL edition or the RUN edition.
(9)	Number of licenses	Displays the number of licenses of the authenticated AI integration license. The upper limit of licenses granted for the contract of the AI integration license, and the usage of the licenses are displayed.
(10)	Termination date and time of the support period	The termination date and time of the authenticated AI integration license is displayed.
(11)	List of licensed users	The list of users who are using the authenticated AI integration license is displayed.
(12)	Last updated	The last access date of the user of the authenticated AI integration license is displayed.
(13)	PC name	The PC name registered by the user of the authenticated AI integration license is displayed.
(14)	Last updated (Generative AI usage)	The obtained date and time of the '(6) Generative AI usage' information is displayed.
(15)	Last updated (License status)	The obtained date and time of the license status ((7) Support ID – (11) List of licensed users) information is displayed.

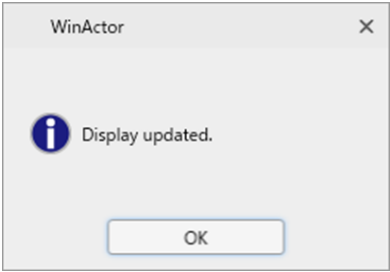
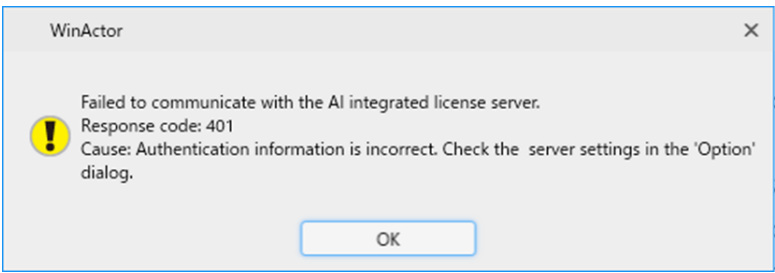
Click the 'Check authentication' button to check the connection to the AI integration license server and the authentication of the AI integration license.

Table 3-135 Result dialog of checking the authentication with the AI integration license server

No.	Connection status	Result dialog
(1)	The connection to the AI integration license server and the authentication of the AI integration license are successful, and the license can become effective.	 WinActor Authentication succeeded. To update the settings, press the 'OK' button. The license is enabled on the next launch of WinActor. OK
(2)	The AI integration license is not authenticated.	 WinActor Failed to communicate with the AI integrated license server. Response code: 401 Cause: Authentication information is incorrect. Check the server settings in the 'Option' dialog. OK

Click the 'Refresh' button to update the display of the AI integration license usage status.

Table 3-136 Result dialog of refreshing displays with the AI integration license server

No.	Connection status	Result dialog
(1)	The connection to the AI integration license sever and the authentication of the AI integration license are successful, and the license can become effective.	
(2)	The AI integration license is not authenticated.	

■ Proxy server tab

Figure 3-118 Proxy server tab of the Option dialog

Table 3-137 Proxy server tab of the Option dialog

No.	Element	Description
(1)	Use Proxy server	Check the box to use a proxy server.
(2)	Select how to configure Proxy server	Select how to configure the proxy server.
(3)	Script address	Enter the address of the setup script (pac). When 'Use setup script(pac)' is selected for (2) 'Select how to configure Proxy server,' Windows HTTP services are used to resolve the proxy server and thus the contents of the pac file is cached into the OS. The behavior of the cache depends on the OS.
(4)	Address	Enter a host name or IP address for the proxy server.
(5)	Port	Enter a port number for the proxy server.
(6)	Authentication required	Check the box if the proxy server requires authentication.
(7)	Authentication method	Select an authentication method used by the proxy server. Basic authentication, digest authentication, and NTLM authentication are supported.
(8)	Username	Enter a username used for the proxy server authentication.
(9)	Password	Enter a password used for the proxy server authentication.
(10)	Domain	Enter a domain used for the proxy server authentication.

■ Server connection status tab

Figure 3-119 Server connection status tab of the Option dialog (Floating license)

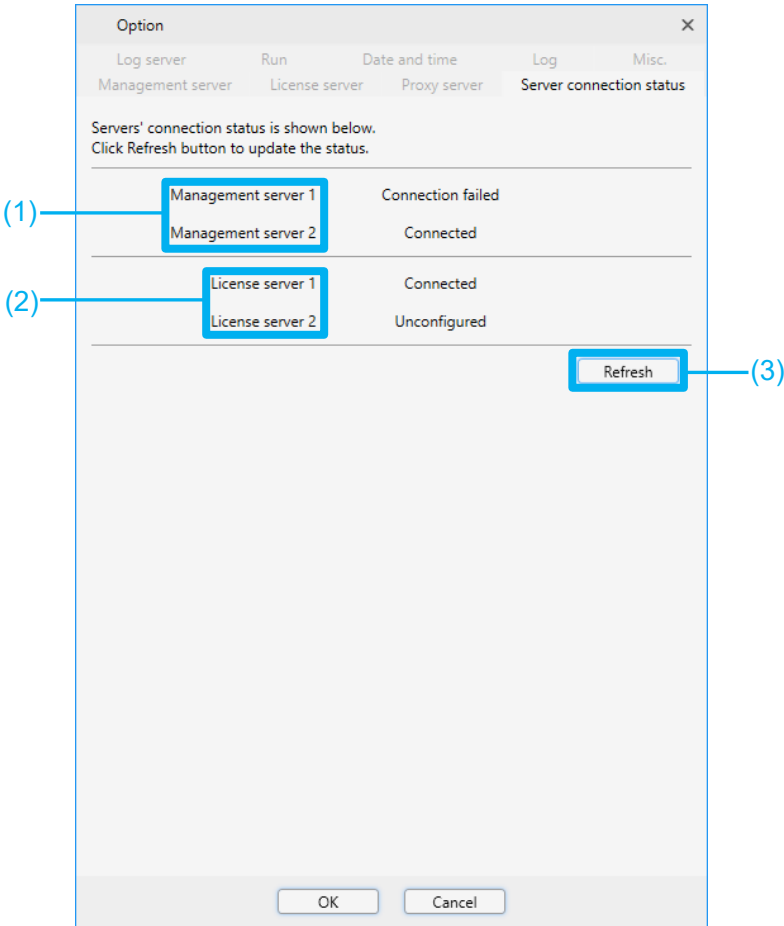


Table 3-138 Server connection status tab of the Option dialog

No.	Element	Description
(1)	Management server	Shows the connection status with the management server. For details, see "Table 3-139 Server connection status."
(2)	License server	Shows the connection status with the license server. For details, see "Table 3-139 Server connection status." * This item is not displayed for the node-locked license.
(3)	'Refresh' button	Updates the display of the connection status.

Table 3-139 Server connection status

No.	States	Description
(1)	Connected	Displayed when it is currently communicating with the server.
(2)	Connection failed	Displayed when the connection has failed.
(3)	Connecting	Displayed when trying to connect to the server.
(4)	Unconnected	• Displayed when the connection is in progress • Displayed on Server 2 when it is connected to Server 1 and not necessary to connect to Server 2 that has been configured.
(5)	Unconfigured	Displayed when the information required for connection is not configured.

Figure 3-120 Server connection status tab of the Option dialog (AI integration license)

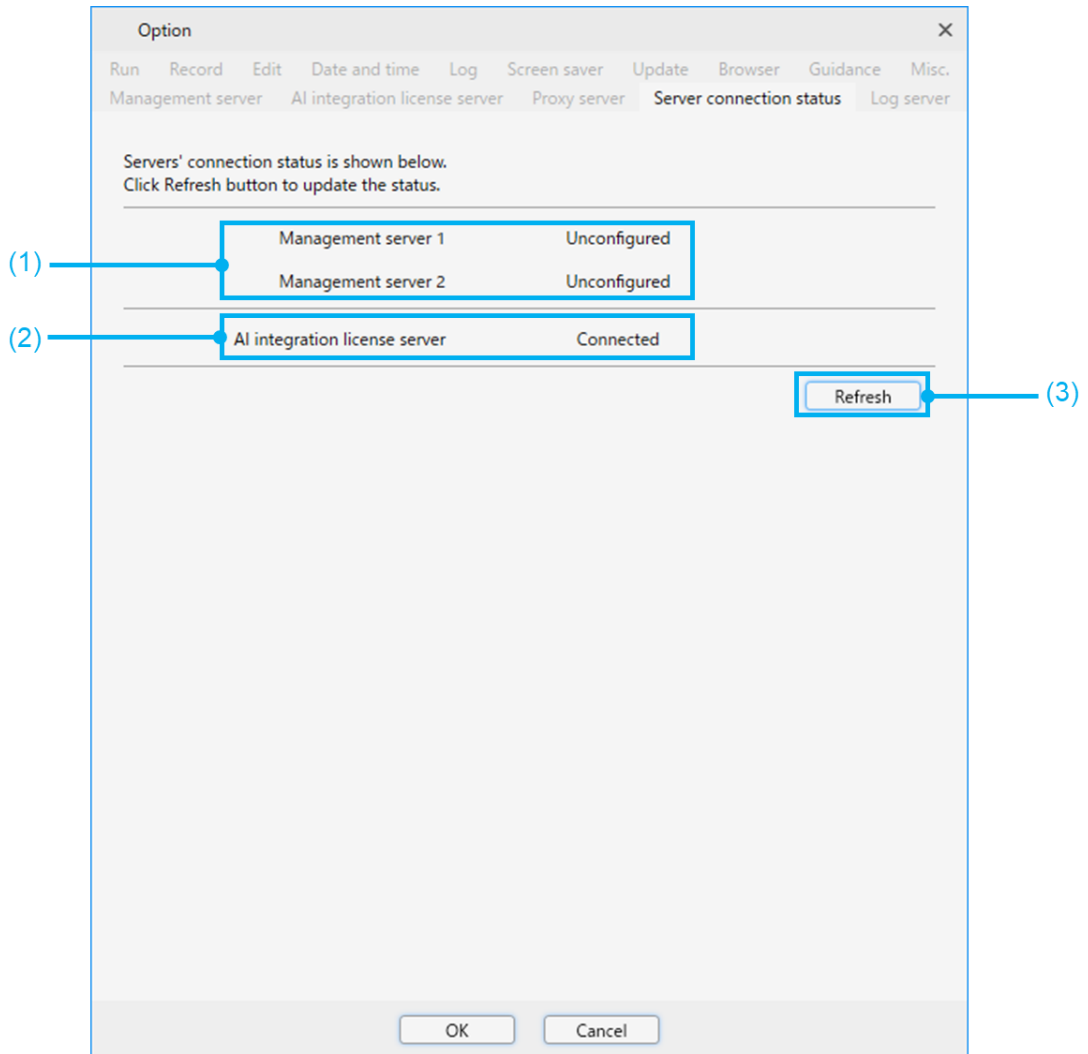


Table 3-140 Server connection status tab of the Option dialog (AI integration license)

No.	Element	Description
(1)	Management server	Shows the connection status with the management server. For details, see "Table 3-139 Server connection status."
(2)	AI integration license server	Shows the connection status with the AI integration license server. For details, see "Table 3-139 Server connection status." * This item is displayed only for the AI integration license.
(3)	'Refresh' button	Updates the display of the connection status.

■ Log server tab

Figure 3-121 Log server tab of the Option dialog

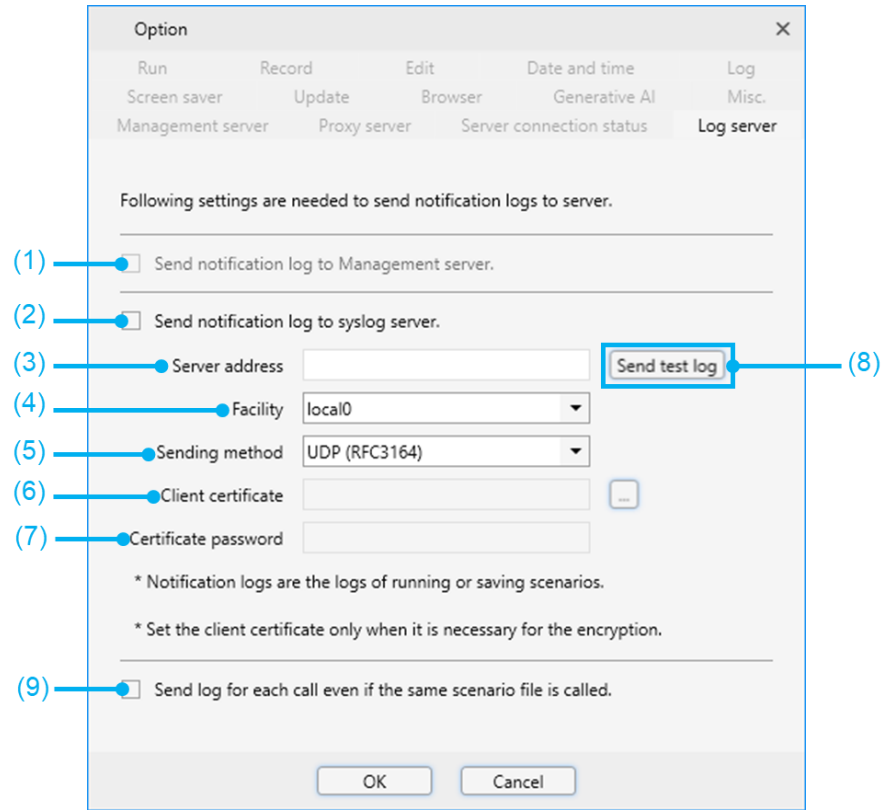


Table 3-141 Log server tab of the Option dialog

No.	Element	Description
(1)	Send notification log to Management server	Check the box to send notification logs to the management server. If the box is checked, a scenario cannot be run unless notification logs can be sent to the management server. If 'Operated by Management server' in the Management server tab is checked, this box cannot be checked. The logs will be sent to the management server without this setting.
(2)	Send notification log to syslog server	Check the box to send notification logs to the syslog server.
(3)	Server address	Enter a host name or IP address for the syslog server.
(4)	Facility	Select a facility for the syslog server.

No.	Element	Description
(5)	Sending method	Specify a method to send the operation logs to the syslog server. Select 'UDP (RFC3164),' 'UDP (RFC5424),' 'TCP-plain (RFC5424),' or 'TCP-encrypted (RFC5424).' Inquire of your syslog-server administrator about the appropriate method.
(6)	Client certificate	When the 'TCP-encrypted (RFC5424)' is selected for the 'Sending method' and the client certificate is necessary to connect to the syslog server, specify the client certificate.
(7)	Certificate password	Specify the password of the client certificate when necessary.
(8)	'Send test log' button	Send a test log to the syslog server. Confirm the reception on the syslog server side.
(9)	Send log for each call even if the same scenario file is called.	If checked, a log will be sent for each call even if the same scenario file is called multiple times while the scenario is running. If unchecked, a log for the first call will be sent but logs for the second and subsequent calls will not be sent for the same scenario file. The box is unchecked by default.

■ Run tab

Figure 3-122 Run tab of the Option dialog

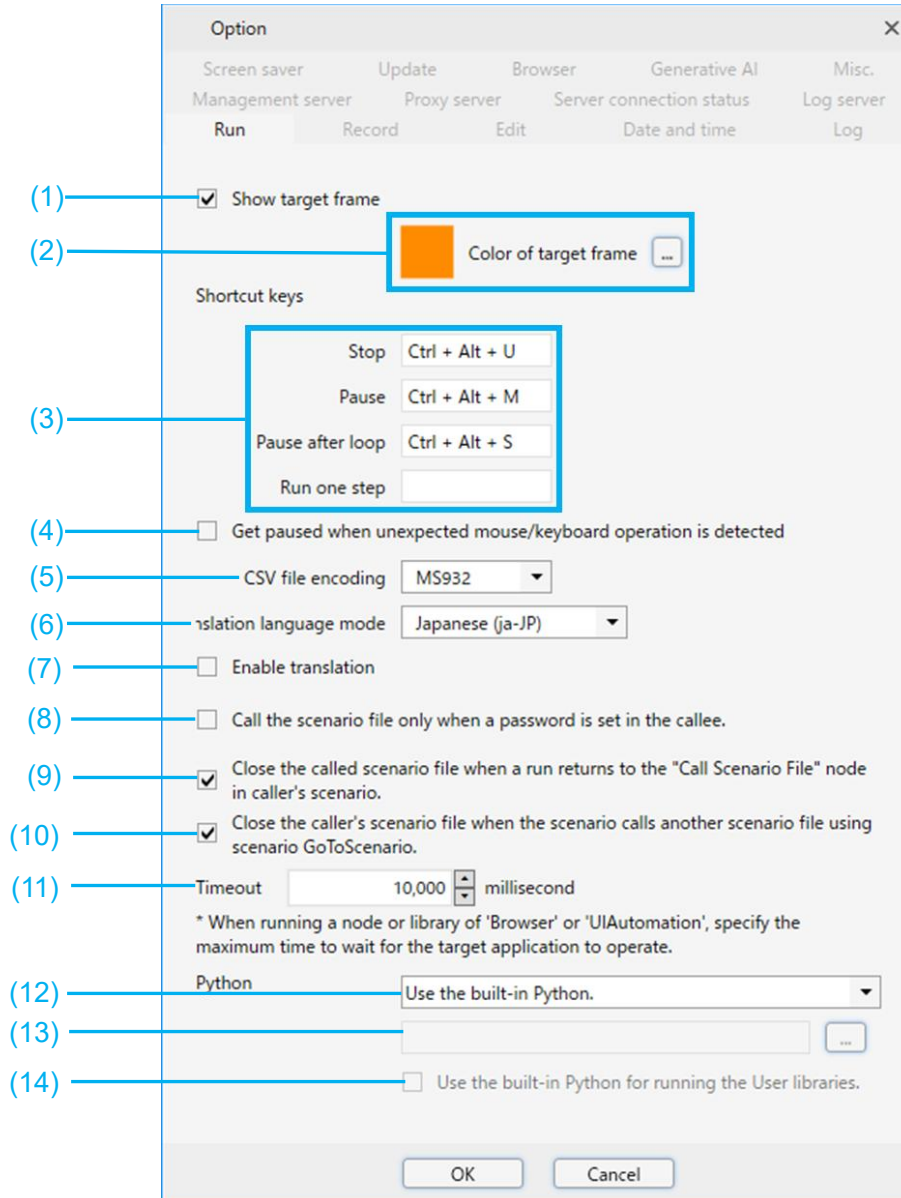


Table 3-142 Run tab of the Option dialog

No.	Element	Description
(1)	Show target frame	Use the check box to select whether to show or hide the frame for the active operation being performed. The box is checked by default.
(2)	Color of target frame	Select a display color for the target frame from the color dialog window.

No.	Element	Description
(3)	Shortcut keys	Register shortcut keys as emergency stop keys for WinActor. Stop, Pause, and Pause after loop can be set. The keys that can be used as shortcut keys are alphanumeric keys (A to Z and 0 to 9) and function keys (F1 to F12). 'Ctrl' and 'Alt' keys can be used as modifier keys.
(4)	Get paused when unexpected mouse/keyboard operation is detected	This function prevents an unintended running result due to an unexpected mouse/keyboard operation. If the box is checked and a scenario is run, the scenario run will be paused when an unexpected mouse/ keyboard operation is detected. The box is unchecked by default.
(5)	CSV file encoding	You can specify an encoding for reading and writing a CSV file. Select from 'MS932' and 'UTF-8.'
(6)	Translation language mode	You can specify a language of the window title after translation in the translation function. Select from 'Japanese (ja-JP)' and 'English (en-US).' The initial value depends on the language environment when WinActor is launched for the first time.  For how to determine the initial value, see "Table 1-21 Language determination rule."
(7)	Enable translation	Check the box to perform the window title translation processing of the translation function when running a scenario. If unchecked, the window title will not be translated. The box is unchecked by default.
(8)	Call the scenario file only when a password is set in the callee.	If checked, 'Call Scenario File' can be run only when a password is set in the called scenario file. If no edit password, view password, or run password is set in the called scenario file, 'Call Scenario File' will result in an error and the scenario run will be paused. The box is unchecked by default.
(9)	Close the called scenario file when a run returns to the Call Scenario File node in caller's scenario.	If checked, the called scenario file will be closed when returning to the caller's scenario file in the Call Scenario File node. However, if the called scenario file has already been opened manually before running the scenario, the called scenario file will not be closed even if this box is checked. The box is checked by default.

No.	Element	Description
(10)	Close the caller's scenario file when the scenario calls another scenario file using scenario GoToScenario.	If checked, the caller's scenario file will be closed when moving to the called scenario file in the GoToScenario library. However, if the caller's scenario file has already been opened manually before running the scenario, the caller's scenario file will not be closed even if this box is checked. The box is checked by default.
(11)	Timeout	Specify the time to wait for the target status to change. The value should be in the range of 100 to 3,600,000. The default value is 10,000 milliseconds.
(12)	Python usage policy	Select a usage policy for Python. Either 'Do not use Python (an error occurs when a 'Run Python' node is executed).', 'Use the built-in Python.', or 'Use the specified Python.' can be selected.
(13)	Path to Python	When 'Use the specified Python.' is selected for the Python usage policy, the path to the Python can be specified.
(14)	Use the built-in Python for running the User Libraries	Whether to use the built-in Python to execute User Libraries can be specified. When checked, the built-in Python is used even if 'Use the specified Python.' is selected for the Python usage policy.



- The shortcut key for 'Run one step' cannot be registered if the license type of edition is the RUN edition.

Figure 3-123 Record tab of the Option dialog

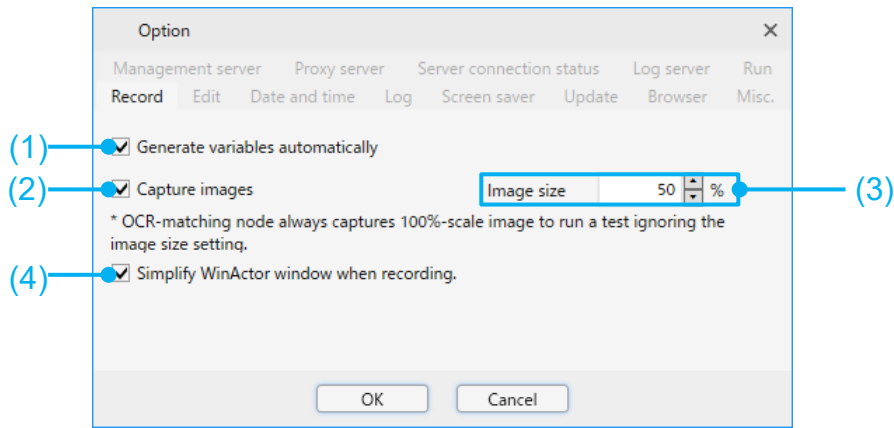


Table 3-143 Record tab of the Option dialog

No.	Element	Description
(1)	Generate variables automatically	If checked, variable names will be automatically determined, and nodes will be created when the user's operations are recorded. If unchecked, nodes will be created using the direct values with 'Value=>.' If a variable name needs to be specified with the check box unchecked, the window for entering a variable name will be displayed. This box is checked by default.
(2)	Capture images	Select whether to save window images as supplementary information when the user's operations are recorded. This box is checked by default.
(3)	Image size	Specify the size of the captured window image when recording in the range of 1 to 100%. The reference base image saved by the OCR Matching node is saved at 100% regardless of the value of this setting because it is used for a test run. This is set to 50% by default.
(4)	Simplify WinActor window when recording	If checked, WinActor window is simplified while recording operations. If unchecked, WinActor window keeps its normal display. This box is checked by default. ➤➤ See "3.3.4 Edit / Record" for simplified display.

Figure 3-124 Edit tab of the Option dialog

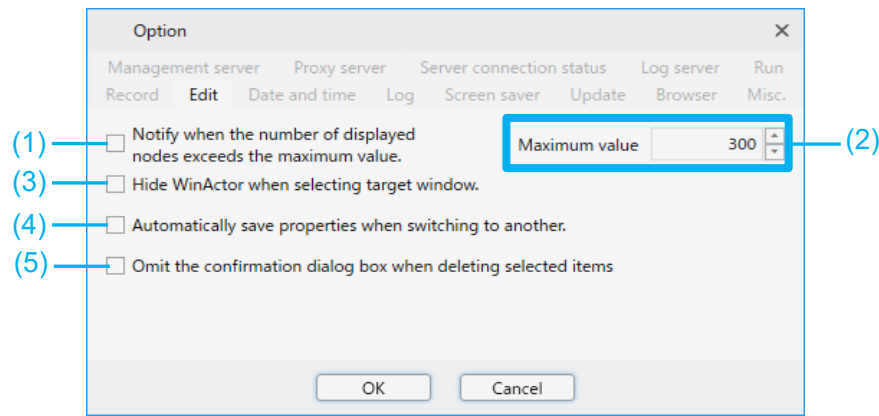


Table 3-144 Edit tab of the Option dialog

No.	Element	Description
(1)	Notify when the number of displayed nodes exceeds the maximum value.	If the number of displayed nodes in the flowchart area increases, it may cause window distortion. Select whether to display a warning when the number of displayed nodes exceeds the specified value. This box is unchecked by default. The number of displayed nodes that cause window distortion varies depending on the performance of the terminal.
(2)	Maximum value	A warning will be displayed when the number of displayed nodes exceeds the value specified here. This is set to 300 by default.
(3)	Hide WinActor when selecting target window	Check the box to hide the WinActor window when selecting a target window or control. This box is checked by default.
(4)	Automatically save properties when switching to another.	Check the box to save updated property settings automatically if the Property pane is switched without clicking the 'Update' button after changing the property settings. This box is unchecked by default. If unchecked, a confirmation dialog will be displayed asking if you want to save the updated contents when switching the Property pane.
(5)	Omit the confirmation dialog box when deleting selected items	Delete the selected items without displaying the confirmation dialog. This box is unchecked by default. If unchecked, a confirmation dialog will be displayed asking if you want to delete the selected items.

■ Date and time tab

Figure 3-125 Date and time tab of the Option dialog

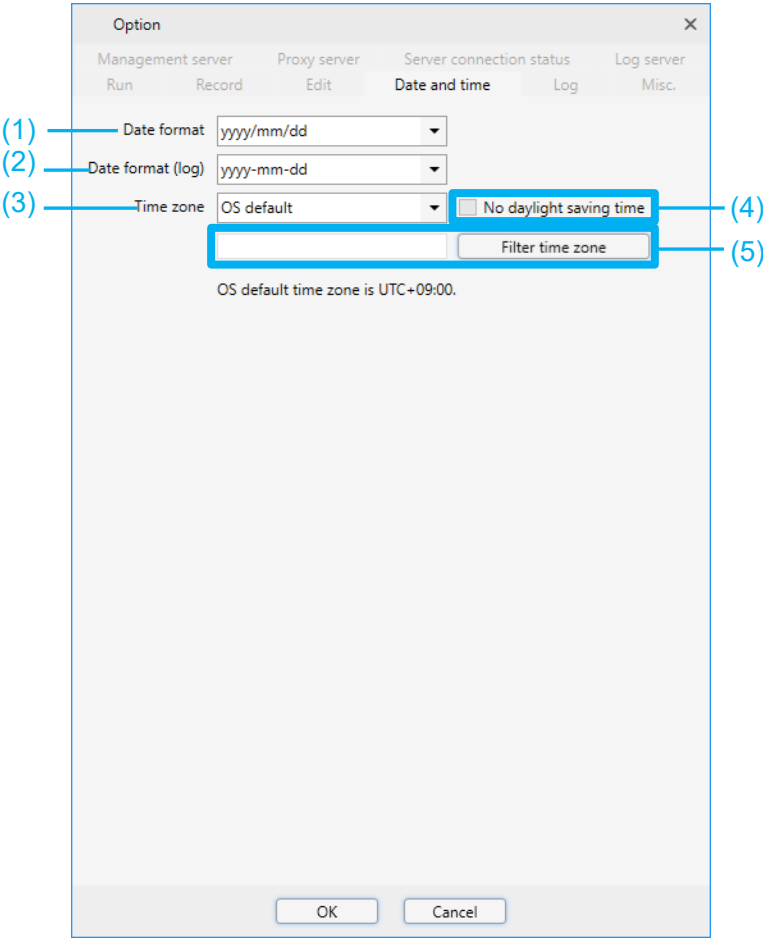


Table 3-145 Time tab of the Option dialog

No.	Element	Description
(1)	Date format	Specify a date format to be displayed. Select from 'yyyy-mm-dd,' 'yyyy/mm/dd,' 'dd.mm.yyyy,' 'dd/mm/yyyy,' 'dd-mm-yy,' 'dd/mm/yy,' and 'mm-dd-yy.'  'yyyy/mm/dd' is selected by default. - This setting is applied to the scenario expiration date and evaluation expiration date in the "Scenario information" window and the license expiration date in the 'About WinActor' dialog.

No.	Element	Description
(2)	Date format (log)	Specify a date format to be displayed in the Log pane. Select from 'yyyy-mm-dd,' 'yyyy/mm/dd,' 'dd.mm.yyyy,' 'dd/mm/yyyy,' 'dd-mm-yy,' 'dd/mm/yy,' and 'mm-dd-yy.'  'yyyy-mm-dd' is selected by default.
(3)	Time zone	Specify a time zone of the time to be displayed. If the 'Filter time zone' button is clicked, only the filtered time zones will be displayed.  • 'OS default' is set by default. • This setting is applied to the license authentication, logs, scenario expiration date, and evaluation expiration date.
(4)	No daylight saving time applied	Specify whether to apply daylight saving time. This setting is enabled when the time zone of the area where daylight saving time is used is specified in (3). Check the box if you do not want to apply daylight saving time.
(5)	Filter time zone	Time zones containing the entered characters will be displayed in (3). If it is clicked without entering characters, all selectable time zones will be displayed in (3).

■ Log tab

Figure 3-126 Log tab of the Option dialog

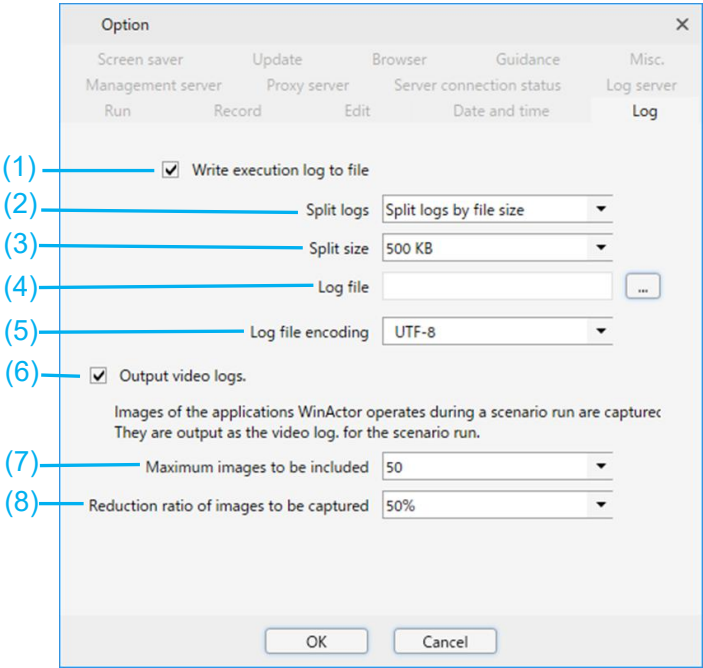


Table 3-146 Log tab of the Option dialog

No.	Element	Description
(1)	Write execution log to file	Select whether to output logs displayed in the Log pane while running a scenario to a file. If the box is checked, the execution log information will be added to the file path specified in (4) 'Log file.' You can also set the automatic split size for the file in the combo box of (3) 'Split size.' * The check box is unchecked by default.
(2)	Split logs	Specify how to split the log file. Select from 'Do not split logs,' 'Split logs by date 1,' 'Split logs by date 2,' 'Split logs by file size,' and 'Split logs by running scenario.' Hover the mouse cursor over the selected split method to see a supplementary explanation with a tooltip.  For details of the split methods, see "Table 3-147 How to split logs." * This can be set only when the box of (1) 'Write execution log to file' is checked.

No.	Element	Description
(3)	Split size	Specify a size to split the log file. Select from '500KByte,' '1MByte,' '10MByte,' '50MByte,' and '100Mbyte.' * This can be set only when 'Split logs by file size' in (2) 'Split logs' is selected.
(4)	Log file	Specify the log output destination from the file selection dialog ([...] button). * This can be set only when the box of (1) 'Write execution log to file' is checked. * Note that if you uncheck the box of (1) 'Write execution log to file' and click the 'OK' button, the set log file information will be deleted.
(5)	Log file encoding	You can specify an encoding for reading and writing the log file. Select from 'MS932' and 'UTF-8.' * This can be set only when the box of (1) 'Write execution log to file' is checked.
(6)	Output video logs	Select whether to output video logs, which are captured images of the applications operated by WinActor. If this box is checked, a video log is output every time a scenario runs.  For details of the video log, see "7.6 Video Log."
(7)	Maximum images to be included	Specify the maximum number of application images to be captured in a video log. Select from '50,' '100,' and '150.' *This can be set only when the box of (6) 'Output video logs' is checked.
(8)	Reduction ratio of images to be captured	Specify the reduction ratio of application images to be captured during the scenario run. Select from '100%,' '75%,' and '50%.' The smaller number you select, the smaller the video log image size will be. *This can be set only when the box of (6) 'Output video logs' is checked.

Table 3-147 How to split logs

No.	How to split	Description
(1)	Do not split logs	Logs are output to a file specified in 'Log file.' The logs will not be split and will always be output to the same file. * Since the file size is not monitored, it may increase depending on the output. Pay close attention to the file size as it may take up the disk space.

No.	How to split	Description
(2)	Split logs by date 1	Logs are output to a file with a filename specified in 'Log file' with a date attached to it. If it is carried over to the next date when the logs are output, a filename with a new date will be generated and the output destination will be switched to that file. * If the file to which logs are output already exists when WinActor is launched with the settings already made, when the option is set, or when the output file is switched, logs will be added to that file. * The reference time for switching depends on the 'Time zone' setting in the 'Date and time' tab of the 'Option' dialog. * The date format of the filename depends on the 'Date format (log)' setting in the 'Date and time' tab of the 'Option' dialog. However, if a format with '/' is selected, the format will have '/' removed. Example) Log file: log.txt Date format (log): yyyy-mm-dd With the above settings, a filename 'log_2019-09-01.txt' will be generated. * Since the file size is not monitored, it may increase depending on the output. Similarly, the number of split files is not monitored. Pay close attention to the file size and the number of files as they may take up the disk space.

No.	How to split	Description
(3)	Split logs by date 2	Logs are output to a file specified in 'Log file.' If it is carried over to the next date when the logs are output, the filename will be renamed to a filename with a date, and the file specified in 'Log file' will be newly generated and logs will be output to that file. * If the file to which logs are output already exists when WinActor is launched with the settings already made or when the option is set, the logs will be added to it if the file size is 0, and if the data exists, it will be operated under the following conditions. 1. Added – If the date of the log in the first line of the file is the same as the one of WinActor. 2. Split – If the date of the log in the first line of the file is different from the one of WinActor, the file will be renamed with the date of the log. 3. Split - If the date of the log in the first line of the file cannot be read, the file will be renamed with the date of the last update. * The filename with the date after splitting has the same naming convention as that of 'Split logs by date 1.' * If a filename with the same date already exists when renaming, it will be renamed as a different filename with a number added at the end. The maximum number that can be added to the end of a filename is 999. If files with all numbers from 1 to 999 already exist, renaming will fail and no further logs will be output to a file. In that case, it is possible to continue the log output by moving or deleting existing numbered files. The numbering method when renaming is the same as that of 'Split logs by file size.'

No.	How to split	Description
(4)	Split logs by file size	Logs are output to a file specified in 'Log file.' The file will be renamed with a number added at the end of the filename every 500 KByte to 100MByte specified in 'Split size,' and the file specified in 'Log file' will be newly generated and logs will be output to that file. * If the file to which logs are output already exists when WinActor is launched with the settings already made or when the option is set, the logs will be split and a new output file will be generated if the file size is larger than the size specified in 'Split size.' If the file size is smaller than the size specified in 'Split size,' the logs will be added to the existing file. * The filename with a number added after splitting has a three-digit number with zero padded to the left of the number at the end of the filename specified in 'Log file.' Example) If 'scenario.log' is set in 'Log file,' it will be renamed to the filename "scenario.log.001." * The numbering method when splitting is based on the following conditions, depending on the status of the files under the folder containing the file to be renamed. • Numbers are assigned consecutively from 001. • If there is no 001, the file will be renamed with 001. • The file is renamed with the number following the largest number that continues from 001. • Number that are not consecutive from 001 are not subject to the judgment for numbering. * The maximum number that can be added to the end of a filename when renaming is 999. This is the maximum number of files that can split logs, and no further logs will be output to a file. Pay close attention to the number of split files. It is possible to continue the log output by moving or deleting the numbered split files before the logs are split with the maximum number. In that case, consecutive numbers will be assigned from 001 again.

No.	How to split	Description
(5)	Split logs by running scenario	Logs are output to a file specified in 'Log file.' When the scenario run is completed, the file will be renamed with a number added at the end of the filename and the file specified in 'Log file' will be newly generated and logs will be output to that file. * If the file to which logs are output already exists when WinActor is launched with the settings already made or when the option is set, the logs will be added to it if the file size is 0, and if the data exists, the logs will be split and a new output file will be generated. * The operations before and after split are the same as those of 'Split logs by file size.' * The maximum number that can be added to the end of a filename when renaming is 999. The numbering method when renaming is the same as that of 'Split logs by file size.'



- If 'Do not split logs,' 'Split logs by date 1,' 'Split logs by date 2,' or 'Split logs by running scenario' is selected, the file size may become large because there is no limit on the file size of the output log.
- If 'Split logs by date 1' or 'Split logs by date 2' is selected, the number of files may increase because there is no limit on the number of files to be split.
- If the specified file is opened by another application and the file is locked, the log output and file split cannot be performed.
For 'Do not split logs,' the output cannot be performed while the file is locked, but the output will resume when it is unlocked.
For 'Split logs by date 1,' 'Split logs by date 2,' 'Split logs by file size,' and 'Split logs by running scenario,' subsequent log output and file split cannot be performed.
In that case, the details of the failure will be displayed in the 'Log' pane. Check the 'Log' pane and reset a log file in the Log tab of the 'Option' dialog to restart the log output and file split.
- For 'Split logs by date 2,' 'Split logs by file size,' and 'Split logs by running scenario,' a filename will be renamed when splitting.
At that time, the filename specified in 'Log file' will be renamed to a tmp filename once, and then renamed to the one with a number or date added in an instant.
If the renaming fails, or if the numbered file already exists up to 999, the numbering may fail and the file may be placed with the tmp filename. In that case, the details of the failure will be displayed in the 'Log' pane. Check the 'Log' pane and reset a log file in the Log tab of the 'Option' dialog to restart the file split.

* If the file name specified in 'Log file' is 'log.txt,' the tmp filename will be "log.txt.[16 half-width alphanumeric characters].tmp."
- If the existing file is selected in 'Log file,' the confirmation dialog for overwriting will be displayed. However, it will actually be added to the existing file instead of overwriting.

-
- There are some folders where files cannot be saved from WinActor.



See "6.1 Limitations of File Location."

■ Screen saver tab

Figure 3-127 Screen saver tab of the Option dialog

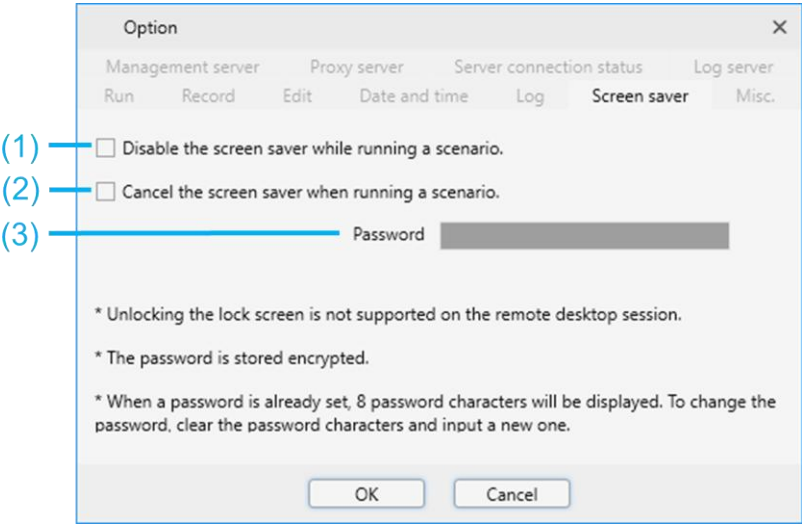


Table 3-148 Screen saver tab of the Option dialog

No.	Element	Description
(1)	Disable the screen saver while running a scenario	Check the box to suppress the activation of the screen saver while running a scenario.
(2)	Cancel the screen saver when running a scenario	Check the box to disable the screen saver that is already activated when you start running a scenario or is activated while running a scenario. The screen saver cannot be disabled in an environment where WinActor is running via a remote desktop.
(3)	Password	Enter a password to unlock the screen saver when you select (2) 'Cancel the screen saver when running a scenario.' The password is encrypted and stored. If the password is entered, it will be masked and displayed with fixed eight characters. If you want to change it, delete everything before entering it.

■ Update tab

Figure 3-128 Update tab of the Option dialog

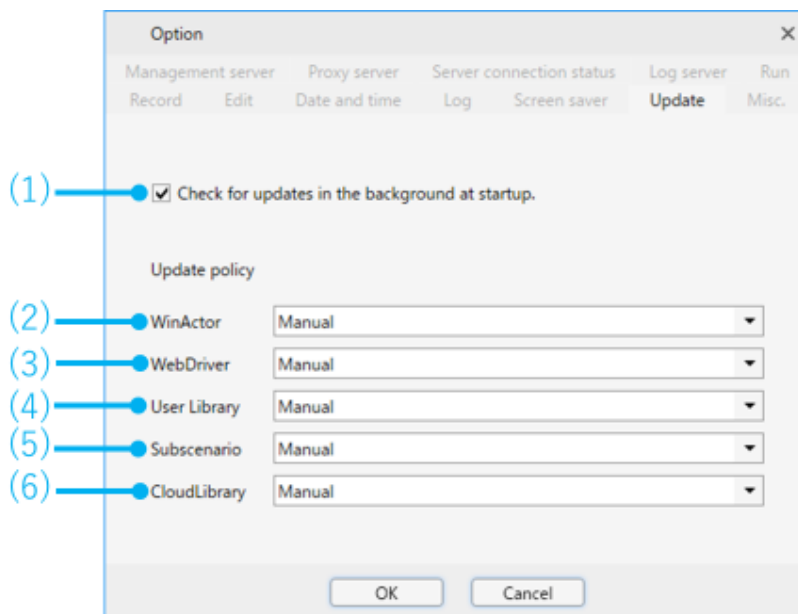


Table 3-149 Update tab of the Option dialog

No.	Element	Description
(1)	Check for updates in the background at startup	Specify whether to check for updates when launching WinActor. When this box is checked, launching WinActor checks for updates.
(2)	WinActor	Select the action to be taken when an update is found.
(3)	WebDriver	The action is 'No,' 'Manual,' or 'Auto.'
(4)	User library	When 'No' is selected, no action is taken.
(5)	Subscenario	When 'Manual' is selected, the update is notified with a bell-shaped icon in the status bar, and manual application of the update is prompted.
(6)	CloudLibrary	When 'Auto' is selected, the update is automatically applied.  For the update, see "Check for updates" in "Help" menu.



When using proxy server, you need to adjust settings in 'Proxy server' tab in the 'Option' dialog.



For the settings, see "Proxy server tab" in the "Option Dialog."

■ Browser tab

Figure 3-129 Browser tab of the Option dialog

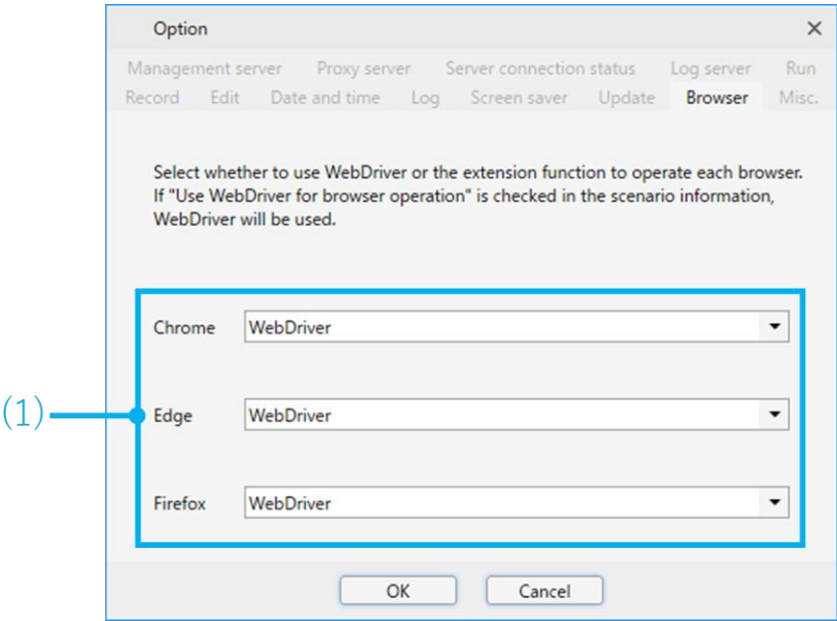


Table 3-150 Browser tab of the Option dialog

No.	Element	Description
(1)	Chrome Edge Firefox	Select a method to operate each type of browsers. The choices are 'WebDriver' and 'Extension.' The default selection is 'WebDriver.'

■ Guidance tab

Figure 3-130 Guidance tab of the Option dialog

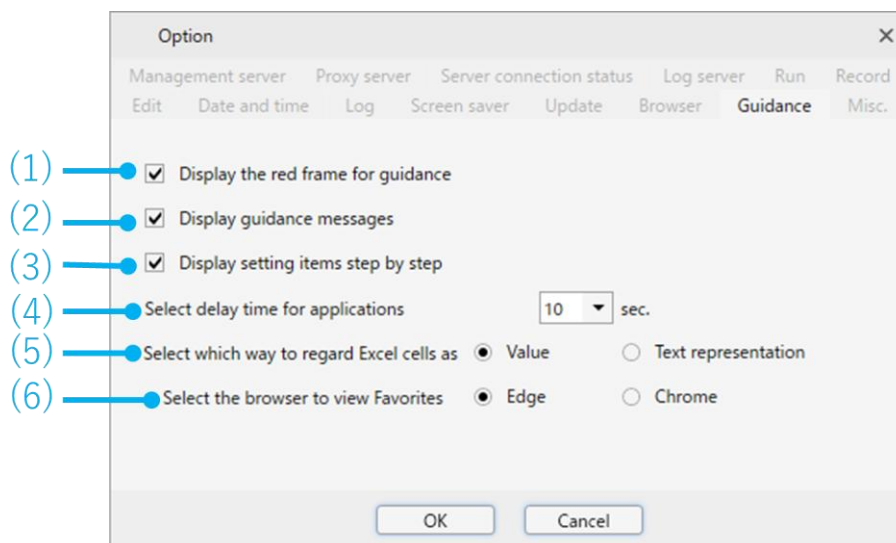


Table 3-151 Guidance tab of the Option dialog

No.	Element	Description
(1)	Display the red frame guidance	When this box is checked, the next item of the part to set is surrounded by a red frame. When unchecked, the red frame is not displayed. The default setting at the time of shipment is checked.
(2)	Display guidance messages	When this box is checked, the area to show guidance on settings and operations is displayed. The item of the part to set is surrounded by a red frame. When unchecked, the area is not displayed. The default setting at the time of shipment is checked.
(3)	Display setting items step by step	When this box is checked, the item of a part to set next is shown one by one. When unchecked, all the items are shown. The default setting at the time of shipment is checked.
(4)	Select delay time for applications	Select the delay time for specifying the 'Target control' in the part 'Application.' The choices are '3,' '10,' and '30' sec. The default setting at the time of shipment is '10' sec.

No.	Element	Description
(5)	Select which way to regard Excel cells as	Select the initial setting for 'Value or text representation' in the part 'Excel,' which is used in range selection. When 'Value' is selected, the value of the specified cell is obtained. When 'Text representation' is selected, the text representation, which is the text string displayed, of the cell is obtained. The default setting at the time of shipment is 'Value.'
(6)	Select the browser to view Favorites	Select the browser to obtain the Favorites data from, which is displayed when the 'Launch' button in the part 'Browser' is clicked. Edge – Microsoft Edge Chrome – Google Chrome The default setting at the time of shipment is 'Edge.'

■ Misc. tab

Figure 3-131 Misc. tab of the Option dialog

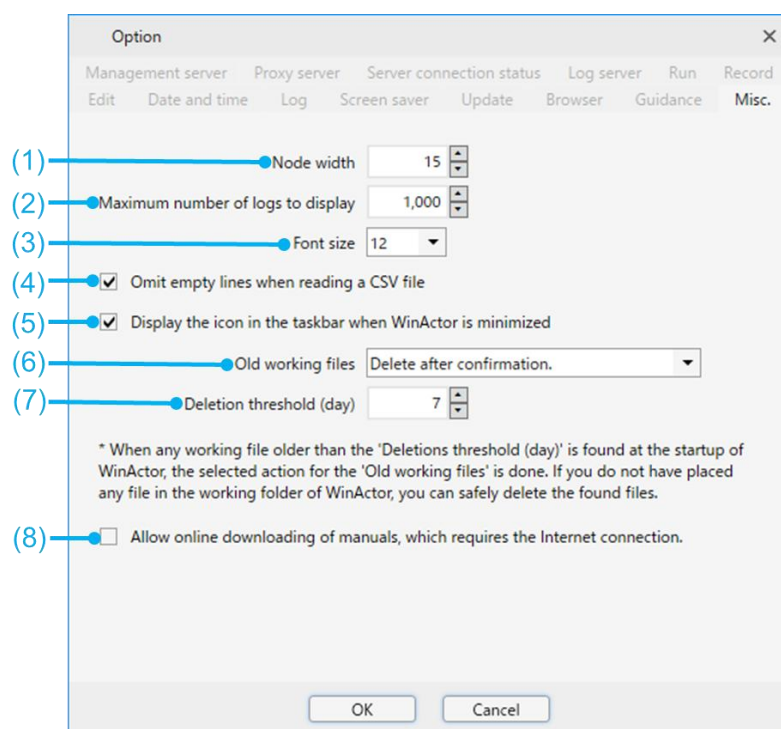


Table 3-152 Misc. tab of the Option dialog

No.	Element	Description
(1)	Node width	Specify the width (number of characters to be displayed) of the node in the range of 15 to 255. On the node placed in the flowchart area, the name of the node, which can be specified in the Property pane, is displayed. The default value is 15.
(2)	Maximum number of logs to display	Set the upper limit of the number of log lines displayed in the Log pane. If the limit is exceeded, old logs will be deleted in units of 100 lines. It is set to 1000 by default.
(3)	Font size	Specify a font size of WinActor. Select from 12, 15, 18, 21, 24, and 27 in the list. It is set to 12 by default.

No.	Element	Description
(4)	Omit empty lines when reading a CSV file	In the data part of a CSV file, the consecutive line feed characters enclosed in double quotes (") will be combined into one line feed character. If checked, consecutive line feed characters in double quotes will be read together as one line feed character when reading a CSV file during WinActor operations or while running a scenario. If unchecked, the line feed characters in a CSV file will be read as they are. It does not affect the line feed characters in the header part of a CSV file or the part not enclosed in double quotes. The box is checked by default.  In the data part of a CSV file, heading and trailing blank characters in the value enclosed with double quotes will be omitted. When this is checked, the blanks are omitted, When this is unchecked, the blanks are not omitted. The blank characters in the header part of the CSV nor those not enclosed in double quotes are not affected. Example) when checked: “ Tokyo area “ → “Tokyo area”
(5)	Display the icon in the taskbar when WinActor is minimized	The icon of WinActor is displayed in the taskbar when WinActor is minimized. If checked, the icon is displayed both in the taskbar and the task tray when WinActor is minimized. If unchecked, the icon is displayed only in the task tray when WinActor is minimized. The box is checked by default.
(6)	Old working files	Select how to deal with old working files left in the working folder at the startup of WinActor. The choices are 'Delete after confirmation,' 'Delete automatically without confirmation,' and 'Do not delete.' When 'Delete after confirmation.' is selected, and any working files older than the days specified for 'Deletion threshold (day)' exist, a confirmation dialog is displayed asking if they can be deleted. When 'Delete automatically without confirmation.' is selected, those old working files are automatically deleted. When 'Do not delete.' is selected, no working file is deleted. The default selection is 'Delete after confirmation.'
(7)	Deletion threshold (day)	Specify the age of working files to delete in days from 1 to 365. The default value is 7 (days).

No.	Element	Description
(8)	Allow online downloading of manuals, which requires the Internet connection.	If checked, manuals are downloaded via the Internet when necessary, and displayed. They are downloaded when the manual to open is not found on the PC or updated manuals for the WinActor currently in use are released. Manuals are downloaded under the 'Installation folder' of WinActor when the WinActor is for standard user, and under the 'User folder' when the WinActor is for administrator. As to WinActor for administrator, this notice is stated under this check box.

3.15 Task Tray

When WinActor is launched, the icon is displayed in the task tray.

When the WinActor window is displayed, the icon is displayed in both the taskbar and task tray.

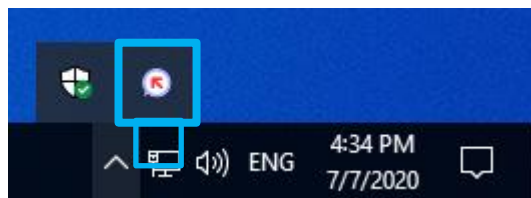
When the WinActor window is hidden (minimized), the icon is either displayed only in the task tray, or both in the taskbar and the task tray depending on a setting.

 For the setting, see "Misc. tab" of the Option dialog.

Figure 3-132 WinActor icon in the taskbar



Figure 3-133 WinActor icon in the task tray



■ Operations with the WinActor icon in the task tray

The following shows the operations with the WinActor icon in the task tray.

Table 3-153 Operations with the task tray icon

No.	Menu	Operation
(1)	Left click	Pauses a running scenario. It works the same as the 'Pause' icon on the toolbar.
(2)	Left double-click	Displays the WinActor window. When WinActor is recording operations and its window has been simplified, the window is changed to normal display.
(3)	Right click	Displays a popup menu.

Right-click the WinActor icon in the task tray to display a popup menu.

Figure 3-134 Popup menu of the task tray icon

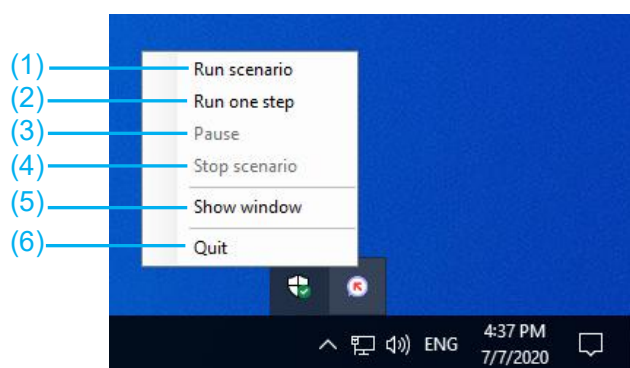


Table 3-154 Operations of the popup menu of the task tray icon

No.	Menu	Operation
(1)	Run/Resume scenario	The display menu changes depending on the running state of a scenario. 'Run scenario' is displayed when the scenario is in the state of waiting for running. Click it to start running the scenario. 'Resume scenario' is displayed when the scenario is in the paused state. Click it to resume running the scenario. It works the same as the 'Run scenario' icon on the toolbar.
(2)	Run one step	Runs a scenario one step. It works the same as the 'Run one step' icon on the toolbar.
(3)	Pause	Pauses a running scenario. It works the same as the 'Pause' icon on the toolbar.
(4)	Stop scenario	Stops a running scenario. It works the same as the 'Stop scenario' icon on the toolbar.
(5)	Show window	Displays the WinActor window. When WinActor is recording operations and its window has been simplified, the window is changed to normal display.
(6)	Quit	Quits WinActor.



If the license type of edition is the RUN edition, 'Run one step' in the popup menu is not selectable.

3.16 Recording Operations Window

FULL

When you start recording in the Emulation mode, the 'Recording operations' window will be displayed.

In the 'Mouse cursor event' area, set the recording method for mouse operations to be demonstrated.

The demonstrated operations will be accumulated in 'Operation list.'

Figure 3-135 Recording operations window

The 'Recording operations' window is a dialog box with a title bar and a close button. It contains three main sections: 'Mouse cursor event', 'Keyboard event', and 'Operation list'. The 'Mouse cursor event' section has a dropdown for 'Origin' set to 'Upper left', and two dropdowns for 'X-direction' and 'Y-direction', both set to 'Pixel'. There are two checkboxes: 'Record mouse positions during a drag' (unchecked) and 'Record waiting time during operations' (checked). The 'Keyboard event' section has one checkbox: 'Distinguish left and right keys' (unchecked). The 'Operation list' section is a text area containing a list of recorded operations: 'Mouse [left button] down at (152,77) from Upper left', 'Mouse [left button] up at (152,77) from Upper left', 'Wait: [1547] ms', 'Key [A] down', and 'Key [A] up'. At the bottom, there are three buttons: 'Make action of selected operations', 'Delete selected operations', and 'Make action and stop recording'.

Recording operations

Mouse cursor event

Origin: Upper left

X-direction: Pixel Y-direction: Pixel

☐ Record mouse positions during a drag

☒ Record waiting time during operations

Keyboard event

☐ Distinguish left and right keys

Operation list

Mouse [left button] down at (152,77) from Upper left

Mouse [left button] up at (152,77) from Upper left

Wait: [1547] ms

Key [A] down

Key [A] up

Make action of selected operations Delete selected operations

Make action and stop recording

■ Mouse cursor / Keyboard event

Figure 3-136 Recording operations window (recording settings)

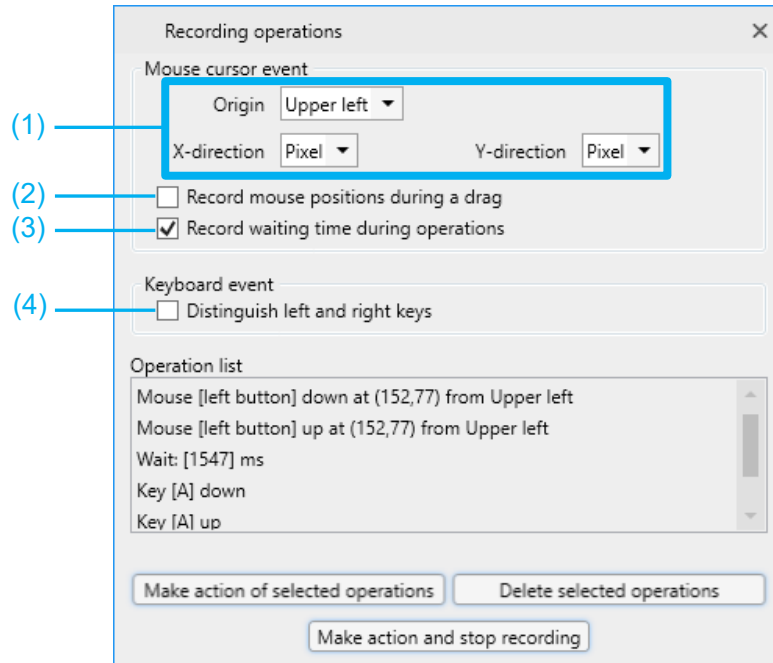


Table 3-155 Recording operations window (recording settings)

No.	Recording operations	Description
(1)	Origin, X-direction, Y-direction	Specify how to record coordinates of the mouse cursor. For Origin, specify a starting point of the coordinates. For each of X-direction and Y-direction, specify 'Pixel' or '%' as a recording unit.
(2)	Record mouse positions during a drag	Check the box to record positions of the mouse cursor movement.
(3)	Record waiting time during operations	Check the box to record times between operations.
(4)	Distinguish left and right keys	Check the box to distinguish left and right, Ctrl, Shift, and Alt keys on the keyboard.

■ Specifying the origin and recording example

The following is an example of recording when clicking at the position of 300 pixels from the upper left to the right and 600 pixels down on the window of 1000 pixels wide by 1000 pixels high.

Figure 3-137 Specifying the origin and example of recording

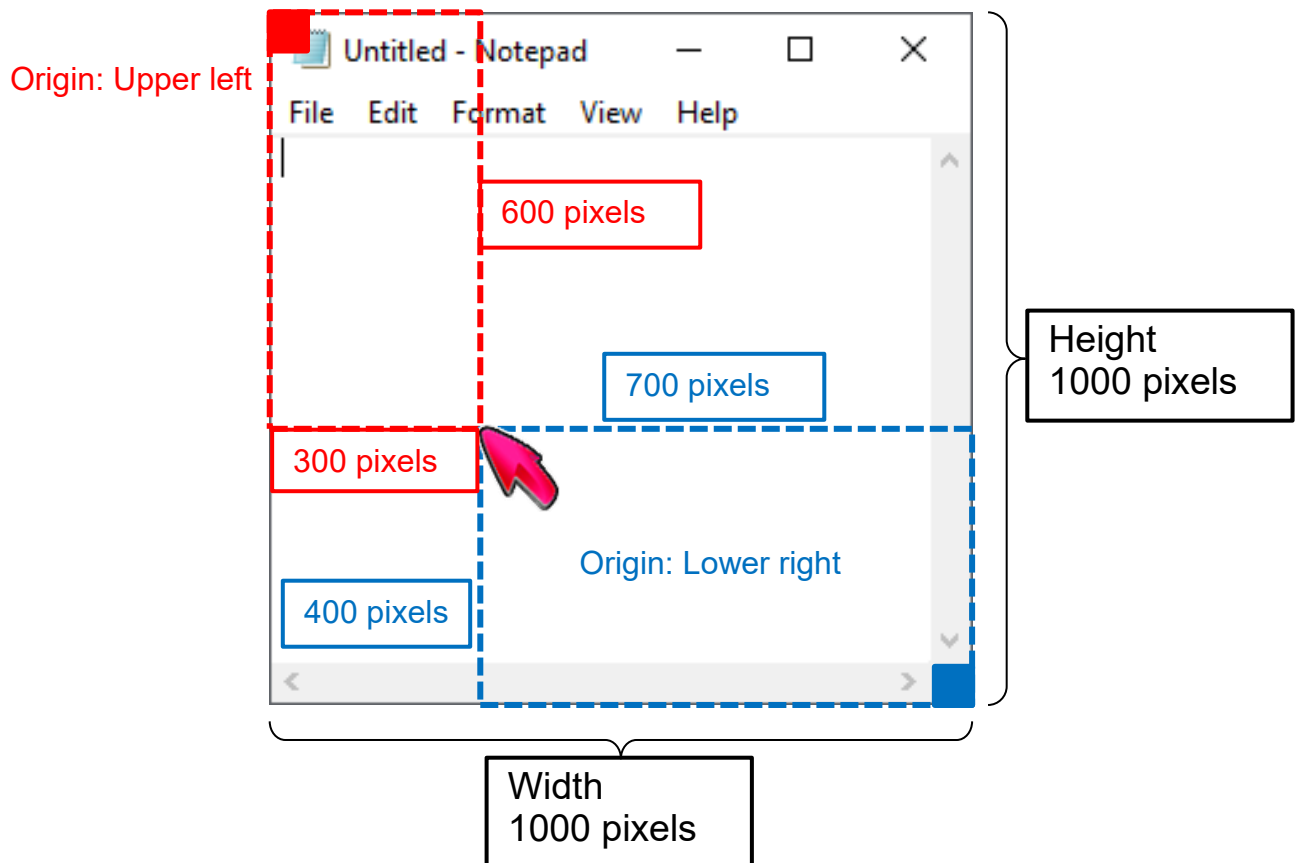


Table 3-156 Recorded click positions

Origin	When 'Pixel' is selected	When '%' is selected
Upper left	Upper left (300, 600)	Upper left (30%, 60%)
Lower left	Lower left (300, 400)	Lower left (30%, 40%)
Upper right	Upper right (700, 600)	Upper right (70%, 60%)
Lower right	Lower right (700, 400)	Lower right (70%, 40%)



In WinActor Ver.7, the method of acquiring the window coordinates has been changed. When running a scenario file of Ver.6 or earlier, the action with the specified window coordinates may not work properly.

■ Make action of selected operations

Operations demonstrated by a user are recorded in the operation list. When 'Make action of selected operations' is clicked, the recorded operations in the list will be placed in the flowchart as 'Emulation.'

Figure 3-138 Recording operations window (operation list)

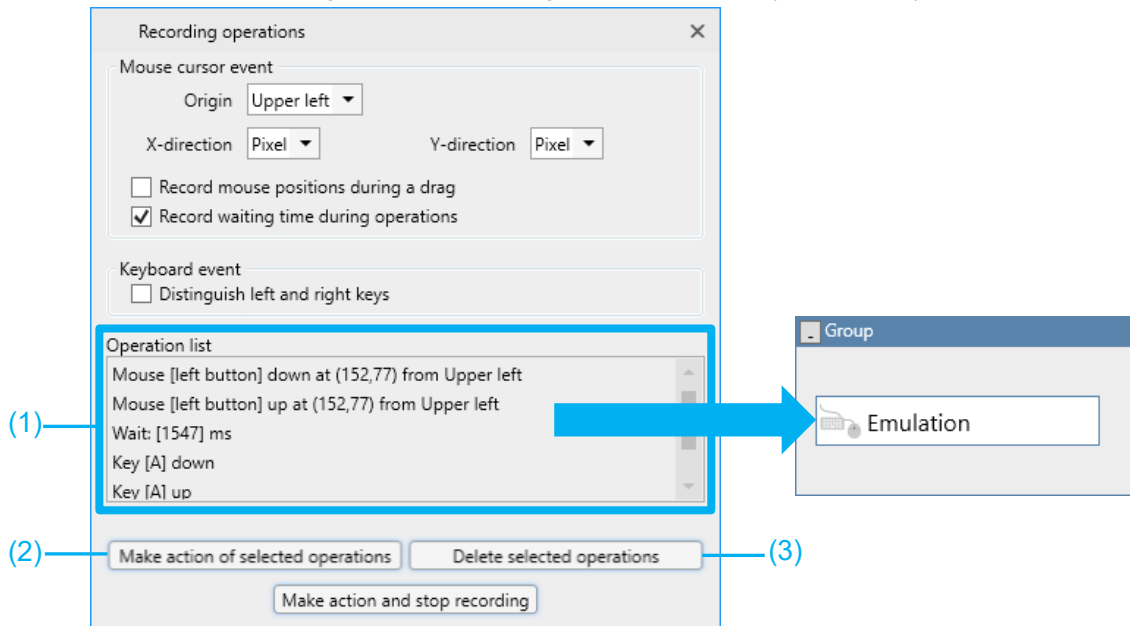


Table 3-157 Elements for the operation list

No.	Element	Description
(1)	Operation list	The mouse or keyboard, details of the operations performed, and the coordinates of the operations (only for the mouse) are recorded. Select operations you want to make actions or delete. If not selected, all recorded operations in the list will be targeted.
(2)	Make action of selected operations	The recorded operations in the operation list will be placed in the flowchart as 'Emulation.' If operations are selected in the operation list, only the selected operations will become 'Emulation.' The operations placed in the flowchart will disappear from the operation list.
(3)	Delete selected operations	Deletes operations selected in the operation list.

■ Make action and stop recording

When 'Make action and stop recording' is clicked, the recorded operations in the list will be placed in the flowchart as 'Emulation' and the recording will be stopped. If you want to quit without making actions, click the '✕' button on the upper right of the 'Recording operations' window or the 'Stop recording' icon on the toolbar of the WinActor window.

Figure 3-139 Element for Make action and stop recording

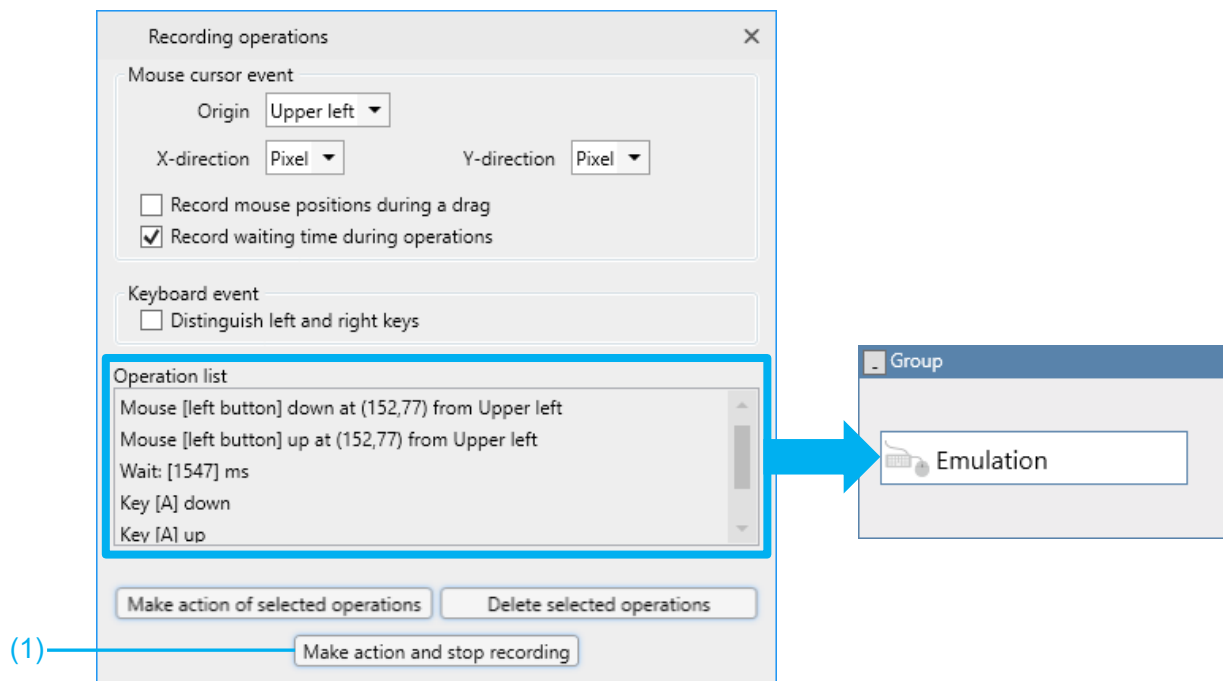


Table 3-158 Element for Make action and stop recording

No.	Element	Description
(1)	Make action and stop recording	Click the button to stop recording. The recorded operations in the list will be placed in the flowchart as 'Emulation.' If operations are selected in the operation list, only the selected operations will become 'Emulation.' After that, the 'Recording operations' window will be closed.

3.17 Get Value Window

FULL

The 'Get value' window is used to create a node to get information from a target application window.

Figure 3-140 Get value window

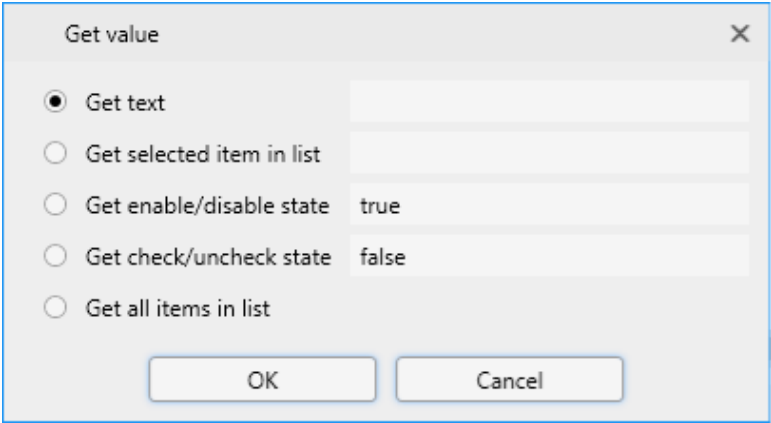


Table 3-159 Get value window

No.	Element	Description
(1)	Get text	Places a node (Get String), which gets text information from a target area and stores it in a variable, in the flowchart.
(2)	Get selected item in list	Places a node (Get Item in List), which gets a selected item in the list from a target area and stores it in a variable, in the flowchart.
(3)	Get enable/disable state	Places a node (Get Enable/Disable State), which gets the enable/disable state of a target area and stores 'true' if it is enabled or 'false' if it is disabled in a variable, in the flowchart.
(4)	Get check/uncheck state	Places a node (Get Check State), which gets check/uncheck state of a target area and stores 'true' if it is checked or 'false' if it is unchecked in a variable, in the flowchart.
(5)	Get all items in list	Places a node (Get All Items in List), which gets items in the list from a target area and saves them to a CSV file, in the flowchart.



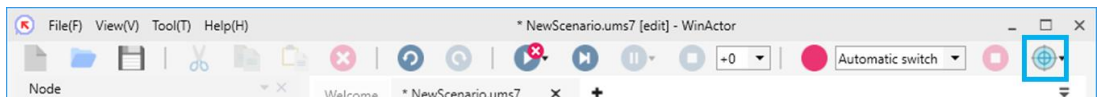
'Get value' and 'Set value' may not be operated properly depending on the creation method of the target application. Since it is a difference in the internal structure, it cannot be judged from its appearance.

■ Procedure for displaying the Get value window

The following describes the procedure for displaying the 'Get value' window.

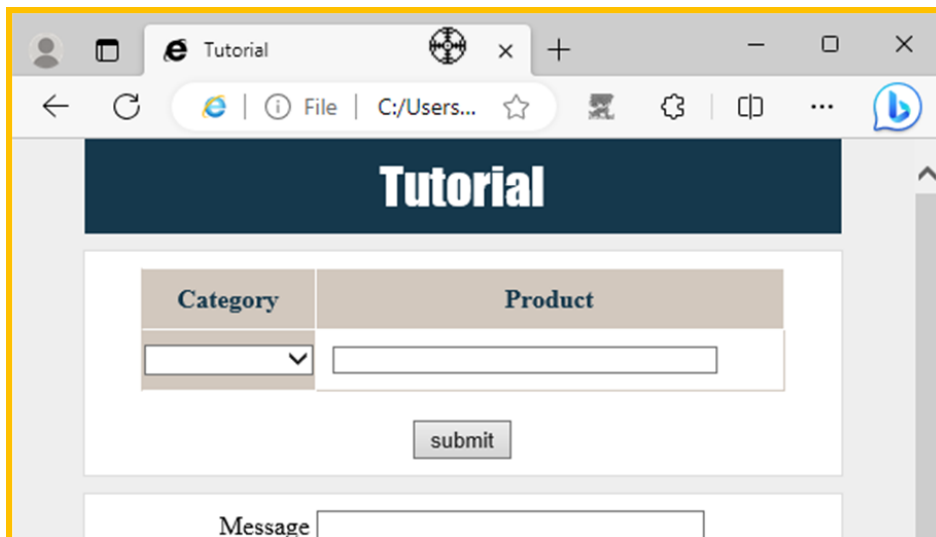
Steps

1. Click the 'Select window for recording' icon on the toolbar.

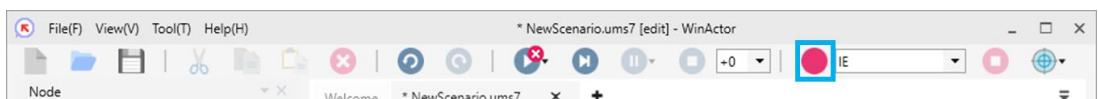


The mouse cursor changes into .

2. Click the title bar of the window for recording.

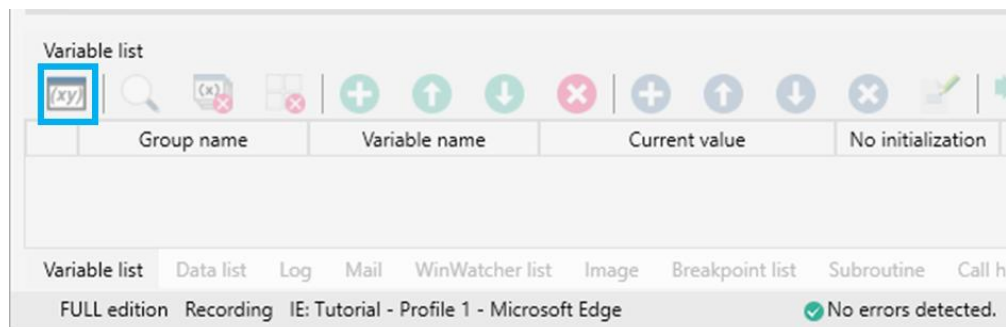


3. Click the 'Start recording' icon on the toolbar.



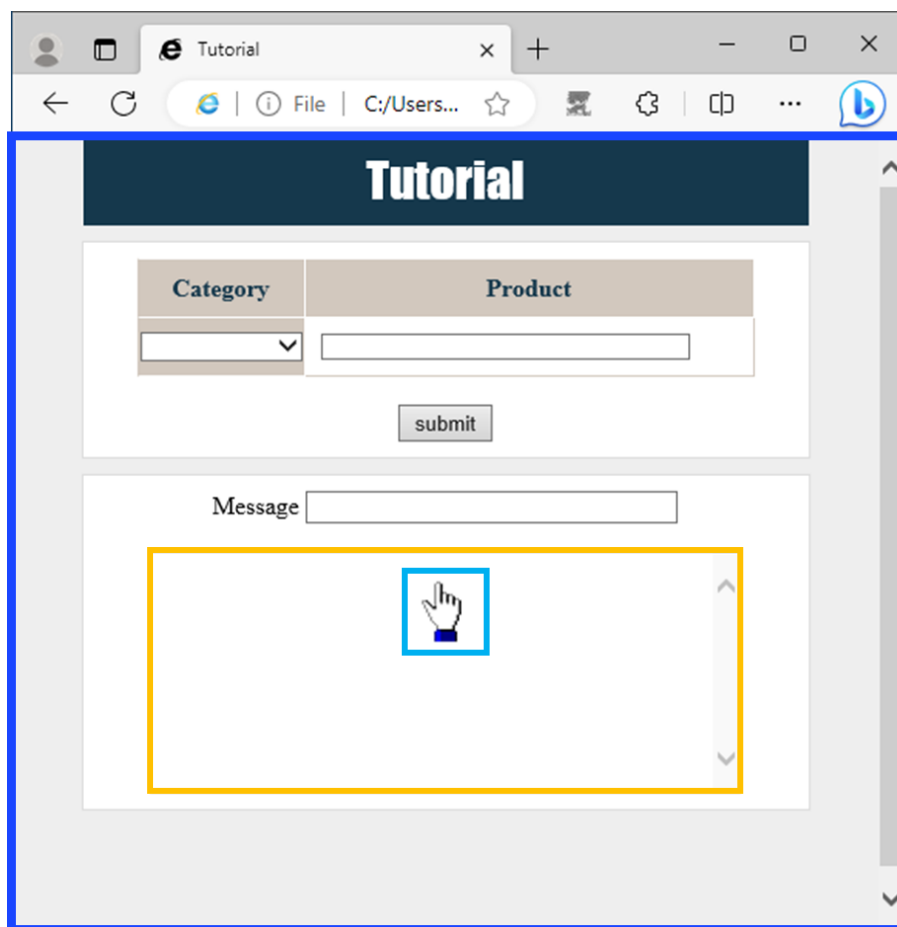
Recording starts.

4. Click the 'Get or set value' icon in the 'Variable list' tab pane.



The mouse cursor changes into .

5. Click a position where you want to get a value on the window for recording.



The 'Get value' window appears.

Get value ✕

☒ Get text

☐ Get selected item in list

☐ Get enable/disable state true

☐ Get check/uncheck state false

☐ Get all items in list

OK Cancel

3.18 Online Scenario Management Window

The 'Online scenario management' window is used to upload, download, or edit scenario files to and from WinActor Manager on Cloud (hereinafter referred to as WMC).

You can register, acquire, and edit scenario files on WinActor without logging in to WMC from a separate web browser. In addition, a scenario runs as if ordered by WMC and you can check results of the scenario run, without communication with WMC.

Click 'Tool' > 'Online scenario management' on the menu bar to open the 'Online scenario management' window.

Figure 3-141 Online scenario management window

Online scenario management

Management server: Management se ▼ Check connection

Username: Password: Save Clear

Search conditions

Name: Partial match ▼ ≤ 64 chars

Department: ▼ ▼

Scenario tag: Partial match ▼ ≤ 64 chars

Function tag: Partial match ▼ ≤ 64 chars

Last update: In range of ▼ yyyy-mm-dd 15 - yyyy-mm-dd 15 Clear

Search result Refresh

Upload scenario Download scenario

Test run Edit

Name	Department	Scenario tag	Function tag	Last update
------	------------	--------------	--------------	-------------

■ Connection settings

The settings for connecting to WMC are as follows.

Enter a username and a password used to log in to the WMC website.

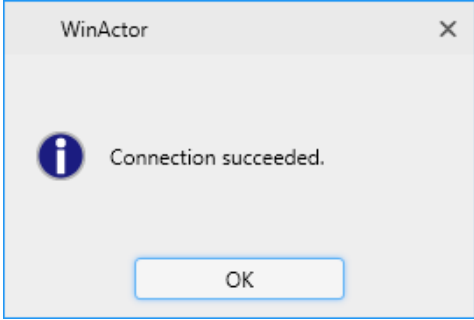
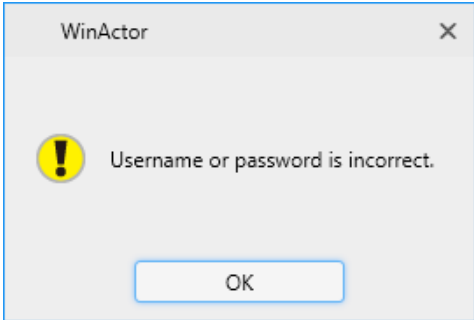
Note that 'Password' is different from the one set in the Management server tab of the 'Option' dialog.

Figure 3-142 Connection settings in the Online scenario management window

The screenshot shows a dialog box titled 'Connection settings'. It contains a 'Management server' dropdown menu (labeled 1) with 'Management server 1' selected. Below it are 'Username' (labeled 2) and 'Password' (labeled 3) text input fields. To the right of the input fields are three buttons: 'Check connection' (labeled 4), 'Save' (labeled 5), and 'Clear' (labeled 6).

Table 3-160 Connection settings in the Online scenario management window

No.	Element	Description
(1)	Management server	Select the connection destination. It corresponds to 'Management server 1' and 'Management server 2' set in the Management server tab of the 'Option' dialog.
(2)	Username	Enter a username used to connect to WMC.
(3)	Password	Enter a password used to connect to WMC.
(4)	'Save' button	Saves the username and password. The window will be displayed with the username and password already entered at the next startup.
(5)	'Clear' button	Deletes the username and password. If the 'Save' button is clicked with the username and password deleted, the window will be displayed with the username and password not entered at the next startup.

No.	Element	Description																		
(6)	'Check connection' button	You can check the connection with the server you are using. If the connection check is successful, the following dialog will be displayed.  If the connection fails because the URL, user name, or password you entered is incorrect, the following dialog will be displayed.  In addition, if the connection check fails, the following error message will be displayed. <table border="1"> <thead> <tr> <th>No.</th><th>Cause of error</th><th>Error message</th></tr> </thead> <tbody> <tr> <td>(1)</td><td>Management server URL not entered</td><td>Enter URL of Management server 1.</td></tr> <tr> <td>(2)</td><td>No username entered</td><td>Enter Username.</td></tr> <tr> <td>(3)</td><td>No password entered</td><td>Enter Password.</td></tr> <tr> <td>(4)</td><td>Account authentication failure</td><td>Username or password is incorrect.</td></tr> <tr> <td>(5)</td><td>Incorrect server response</td><td>Failed to communicate with server.</td></tr> </tbody> </table>	No.	Cause of error	Error message	(1)	Management server URL not entered	Enter URL of Management server 1.	(2)	No username entered	Enter Username.	(3)	No password entered	Enter Password.	(4)	Account authentication failure	Username or password is incorrect.	(5)	Incorrect server response	Failed to communicate with server.
No.	Cause of error	Error message																		
(1)	Management server URL not entered	Enter URL of Management server 1.																		
(2)	No username entered	Enter Username.																		
(3)	No password entered	Enter Password.																		
(4)	Account authentication failure	Username or password is incorrect.																		
(5)	Incorrect server response	Failed to communicate with server.																		

■ Scenario search

Steps

1. Click the 'Search' button  to display a list of scenarios registered in WMC.
If you click the 'Refresh' button  in 'Search result,' the search will be performed again, and the search result will be updated.

Search conditions

Name

Partial match

<= 64 chars

Department

Scenario tag

Partial match

<= 64 chars

Function tag

Partial match

<= 64 chars

Last update

In range of

yyyy-mm-dd

15

-

yyyy-mm-dd

15



Clear

Search result



1-40 out of 212

Upload scenario

Download scenario

Test run

Edit

Name	Department	Scenario tag	Function tag	Last update
Scenario_09_En				2024/05/21 10:47:2
Scenario_08_En				2024/05/21 10:46:4
Scenario_06_En				2024/05/21 10:46:C
Scenario_05_En				2024/05/21 10:45:2
Scenario_04_En				2024/05/21 10:44:4
Scenario_03_En				2024/05/21 10:43:5
Scenario_02_En				2024/05/21 10:43:1
Scenario_11_En				2024/05/21 10:42:3
Scenario 10 En				2024/05/21 10:41:3

Next page

2. Select a scenario displayed in 'Search result' to display the detailed information of the scenario.

Search result 1-40 out of 212 Upload scenario Download scenario

Test run Edit

Name	Department	Scenario tag	Function tag	Last update
Scenario_08_En				2024/05/21 10:46:4
Scenario_06_En				2024/05/21 10:46:0
Scenario_05_En				2024/05/21 10:45:2
Scenario_04_En				2024/05/21 10:44:4
Scenario_03_En				2024/05/21 10:43:5
Scenario_02_En				2024/05/21 10:43:1
Scenario_11_En				2024/05/21 10:42:3
Scenario_10_En				2024/05/21 10:41:3
Scenario 11 Ja				2024/05/21 10:18:0

Next page

Detailed information

Scenario ID yJQud-0ig20-16TGwFP8bg

Parent scenario ID

Name Scenario_08_En

Department

The contents that can be set in 'Search conditions' and the contents displayed in 'Search result' and 'Detailed information' are based on the scenario management window of WMC.

3. The first 20 searched results are displayed.

Click the 'Next page' button to add 20 searched results each. When all results are displayed, the 'Next page' button will not be displayed.

Search result 1-40 out of 212 Upload scenario Download scenario

Test run Edit

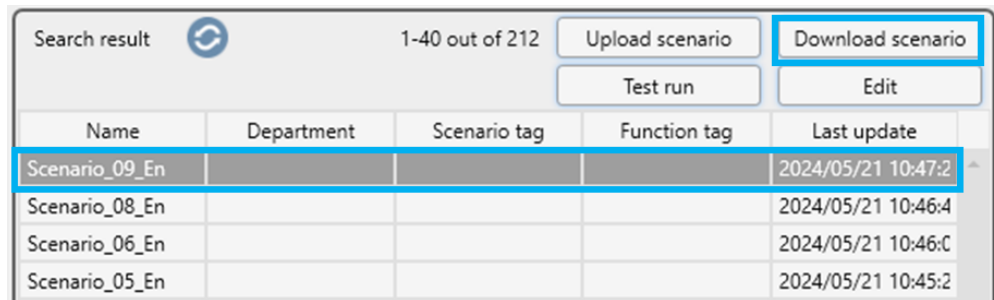
Name	Department	Scenario tag	Function tag	Last update
Scenario_09_En				2024/05/21 10:47:2
Scenario_08_En				2024/05/21 10:46:4
Scenario_06_En				2024/05/21 10:46:0
Scenario_05_En				2024/05/21 10:45:2
Scenario_04_En				2024/05/21 10:44:4
Scenario_03_En				2024/05/21 10:43:5
Scenario_02_En				2024/05/21 10:43:1
Scenario_11_En				2024/05/21 10:42:3
Scenario 10 En				2024/05/21 10:41:3

Next page

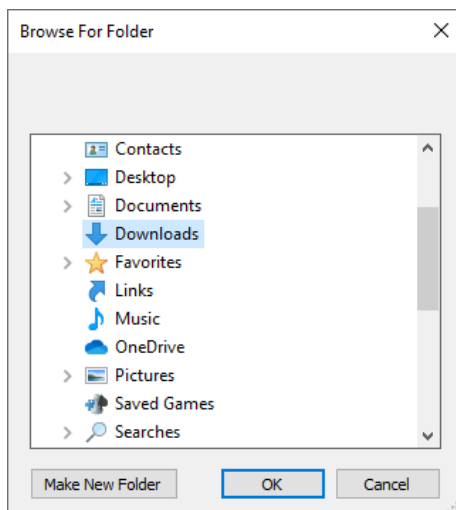
■ Download

Steps

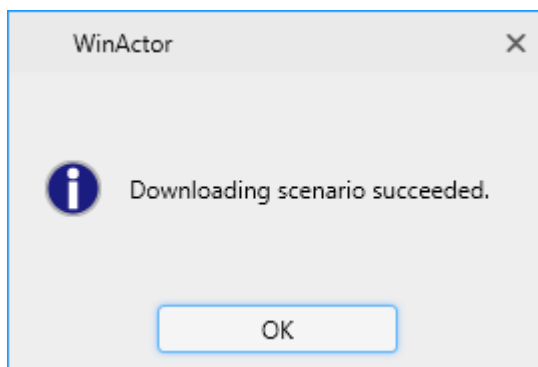
1. Selecting a scenario displayed in 'Search result' and click the 'Download scenario' button to download the target scenario file.



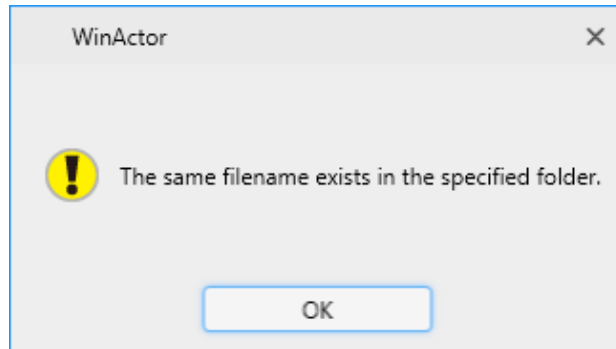
2. The 'Browse For Folder' dialog appears. Select a destination folder.



3. If the scenario file is successfully downloaded, the following dialog will be displayed, and the scenario file will be loaded automatically when the extension of the scenario file is '.ums7' or '.ums6.'



4. If a scenario file with the same name exists in the download destination folder, the download will fail.



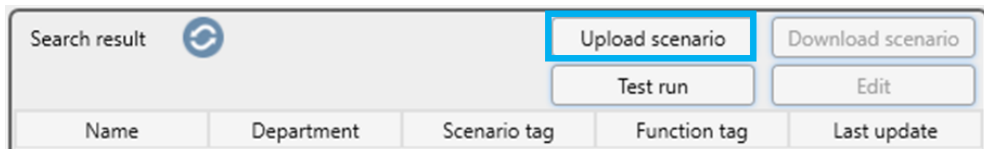
■ Uploading as a file

FULL

In WinActor with the FULL edition license, you can upload scenario files to WMC.

Steps

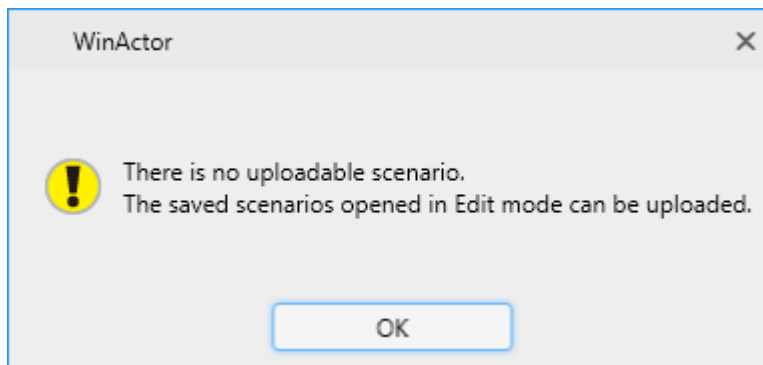
1. With a saved scenario file open in the Edit mode, click the 'Upload scenario' button.



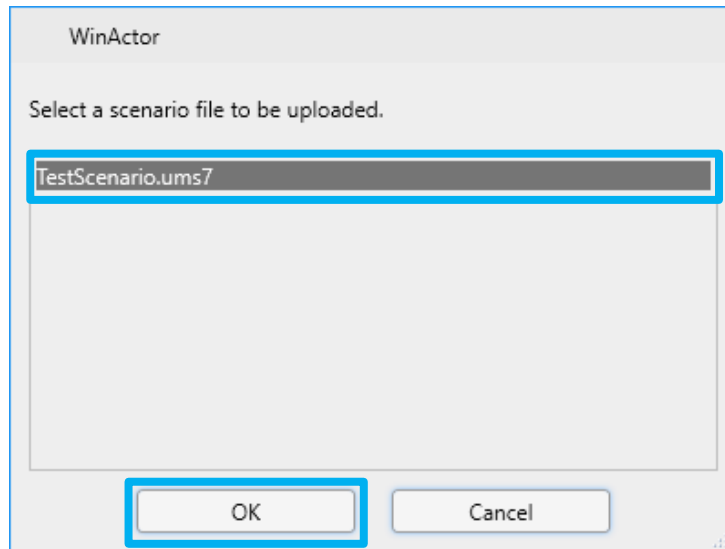
The dialog to select a scenario file to be uploaded appears.

A scenario file that has never been saved or opened in the View or Run mode cannot be uploaded.

If you click the 'Upload scenario' button without opening any uploadable scenario file, the following error message will be displayed.

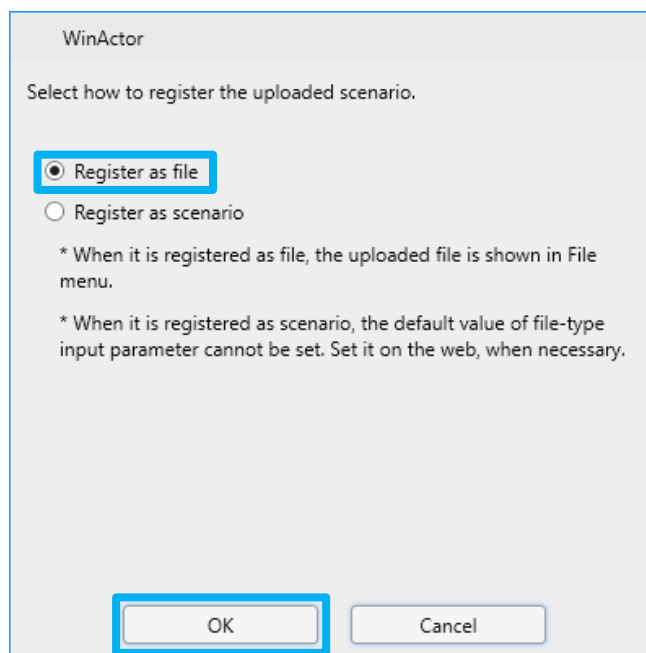


2. Select a scenario file you want to upload and click the 'OK' button.



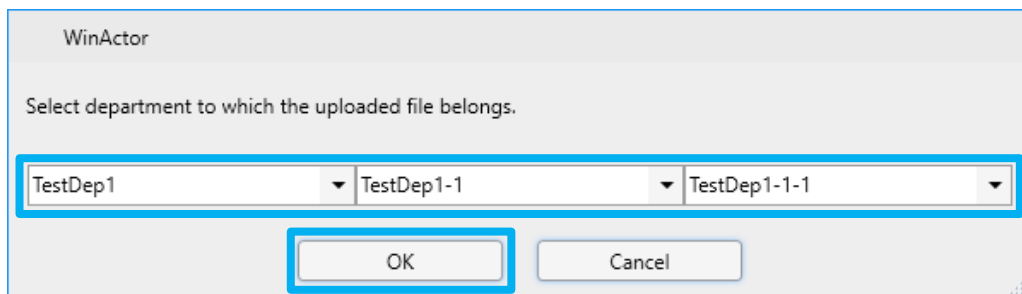
The dialog to select how to register the uploaded scenario appears.

3. You can register the uploaded scenario in either file or scenario format. Here, check 'Register as file' and click the 'OK' button.



The dialog to select the department information when registering the file appears.

4. Select the department information when registering the file and click the 'OK' button.



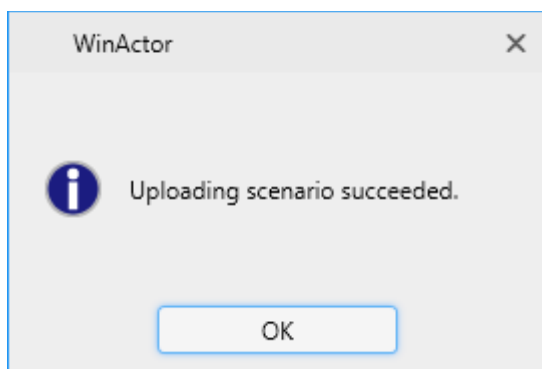
WinActor

Select department to which the uploaded file belongs.

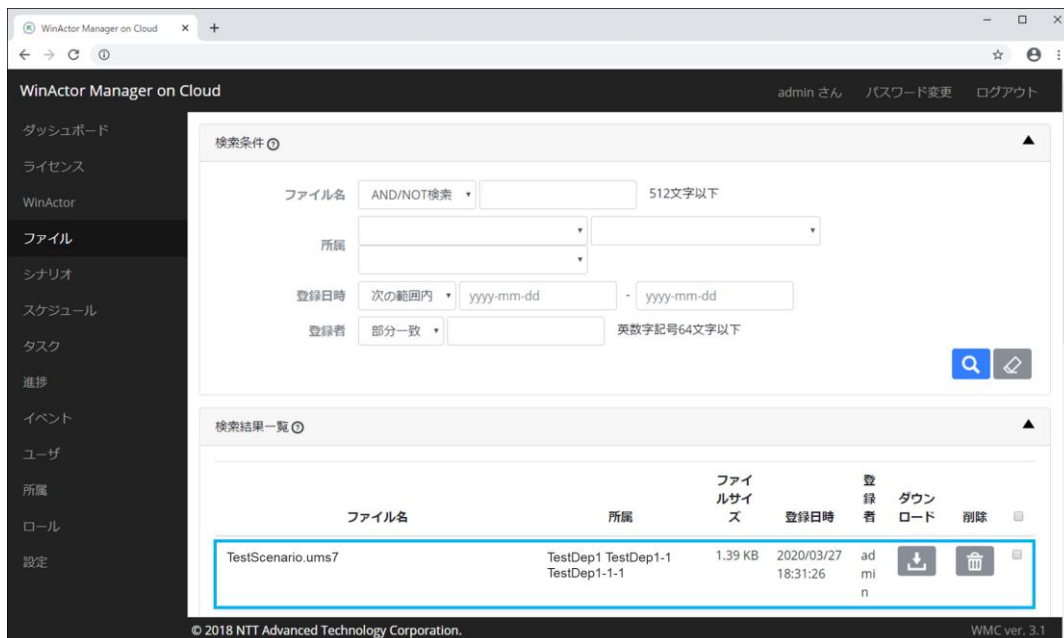
TestDep1 TestDep1-1 TestDep1-1-1

OK Cancel

The scenario is uploaded.



If the upload is successful, the uploaded scenario file will be displayed in the list in the File menu of WMC.



WinActor Manager on Cloud

admin さん パスワード変更 ログアウト

ダッシュボード
ライセンス
WinActor
ファイル
シナリオ
スケジュール
タスク
進捗
イベント
ユーザ
所属
ロール
設定

検索条件

ファイル名 AND/NOT検索 512文字以下

所属

登録日時 次の範囲内 yyyy-mm-dd - yyyy-mm-dd

登録者 部分一致 英数字記号64文字以下

検索結果一覧

ファイル名	所属	ファイルサイズ	登録日時	登録者	ダウンロード	削除
TestScenario.ums7	TestDep1 TestDep1-1 TestDep1-1-1	1.39 KB	2020/03/27 18:31:26	admin		

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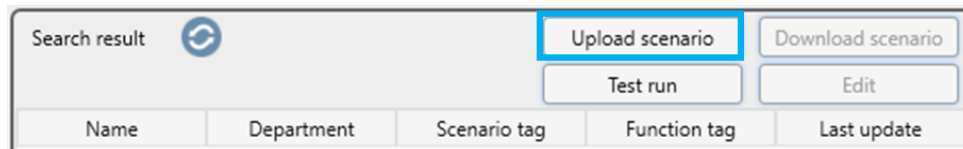
■ Uploading as a scenario

FULL

In WinActor with the FULL edition license, you can upload scenario files to WMC.

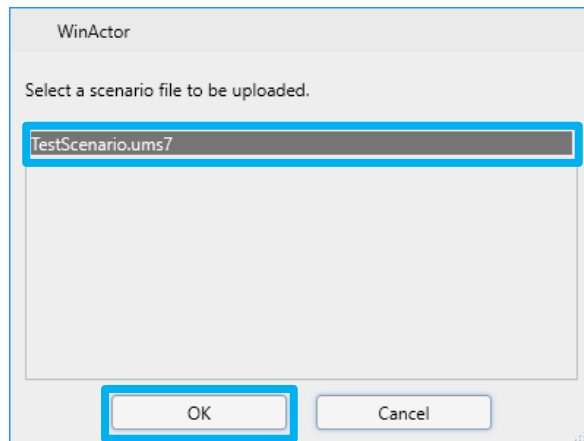
Steps

1. With a saved scenario file open in the Edit mode, click the 'Upload scenario' button.



The dialog to select a scenario file to be uploaded appears.

2. Select a scenario file you want to upload and click the 'OK' button.



The dialog to select how to register the uploaded scenario appears.

3. You can register the uploaded scenario in either file or scenario format. Here, check 'Register as scenario' and click the 'OK' button.

The dialog box is titled "WinActor" and contains the text "Select how to register the uploaded scenario." There are two radio buttons: "Register as file" and "Register as scenario". The "Register as scenario" option is selected and highlighted with a blue box. Below the radio buttons, there are two lines of explanatory text: "* When it is registered as file, the uploaded file is shown in File menu." and "* When it is registered as scenario, the default value of file-type input parameter cannot be set. Set it on the web, when necessary." At the bottom of the dialog, there are two buttons: "OK" and "Cancel". The "OK" button is highlighted with a blue box.

The dialog to enter the scenario information appears.

4. Enter the information of each item according to the scenario registration window of WMC.

The dialog box is titled "WinActor" and contains the text "Enter the scenario information to upload." It features several input fields and buttons. The "Name" field has a text input and a character limit of "<= 64 chars". The "Department" field has a dropdown menu with "TestDep1" selected, and a secondary dropdown with "TestDep1-1" selected. The "Filename" field has a text input with "TestScenario.ums7". The "Password" field has a text input and a character limit of "<= 64 chars, alphabets, digits and symbols (optional)". There are two "Edit" buttons: one for "Input parameter" and one for "Output parameter", both highlighted with blue boxes. Below these are fields for "Timeout" (with a value of "0" and a range of "60 (1 minute) - 86400 (1 day) or 0 (infinite)"), "Note" (with a character limit of "<= 200 chars"), "Function tag" (with a character limit of "<= 64 chars"), and "Scenario tag" (with a character limit of "<= 64 chars"). At the bottom, there are "OK" and "Cancel" buttons.

Click the 'Edit' button of 'Input parameter' to display the dialog to select variables to be used as the input parameters.

5. From the list of variables defined in the scenario to be uploaded, select ones to be used as the input parameters. You can also edit 'Type,' 'Required,' 'Default value,' and 'Description.'

WinActor

Select input parameters and enter their information.

Register	Name	Type	Required	Default value	Description
☒	Input1	String	Required		First half of concatenation
☒	Input2	String	Optional	default	Second half of concatenation
☐	Output	String	Required		

OK Cancel

6. Click the 'Edit' button of 'Output parameter' to display the dialog to select variables to be used as the output parameters

As with the input parameters, select ones to be used as the output parameters from the list of variables defined in the scenario to be uploaded. You can also edit 'Type,' and 'Description.'

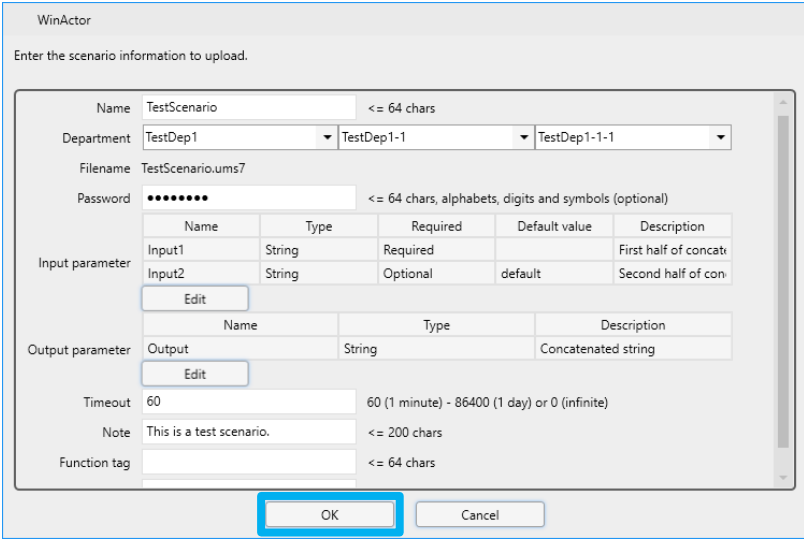
WinActor

Select output parameters and enter their information.

Register	Name	Type	Description
☐	Input1	String	
☐	Input2	String	
☒	Output	String	Concatenated string

OK Cancel

7. After entering each item, click the 'OK' button in the scenario information registration dialog.



WinActor

Enter the scenario information to upload.

Name: TestScenario (≤ 64 chars)

Department: TestDep1 (dropdown) | TestDep1-1 (dropdown) | TestDep1-1-1 (dropdown)

Filename: TestScenario.ums7

Password: (≤ 64 chars, alphabets, digits and symbols (optional))

Input parameter:

Name	Type	Required	Default value	Description
Input1	String	Required		First half of concat
Input2	String	Optional	default	Second half of con

Output parameter:

Name	Type	Description
Output	String	Concatenated string

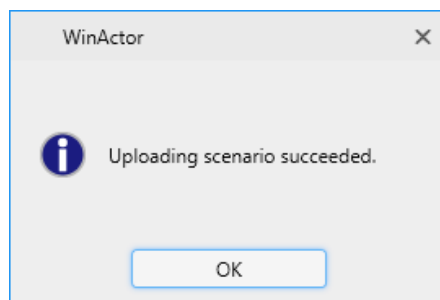
Timeout: 60 (60 (1 minute) - 86400 (1 day) or 0 (infinite))

Note: This is a test scenario. (≤ 200 chars)

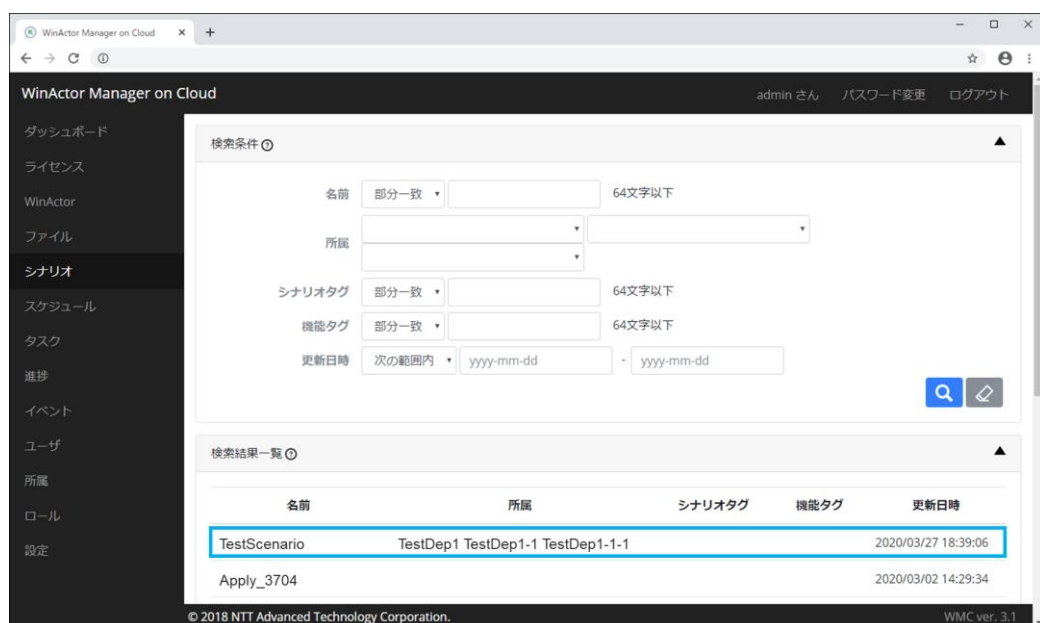
Function tag: (≤ 64 chars)

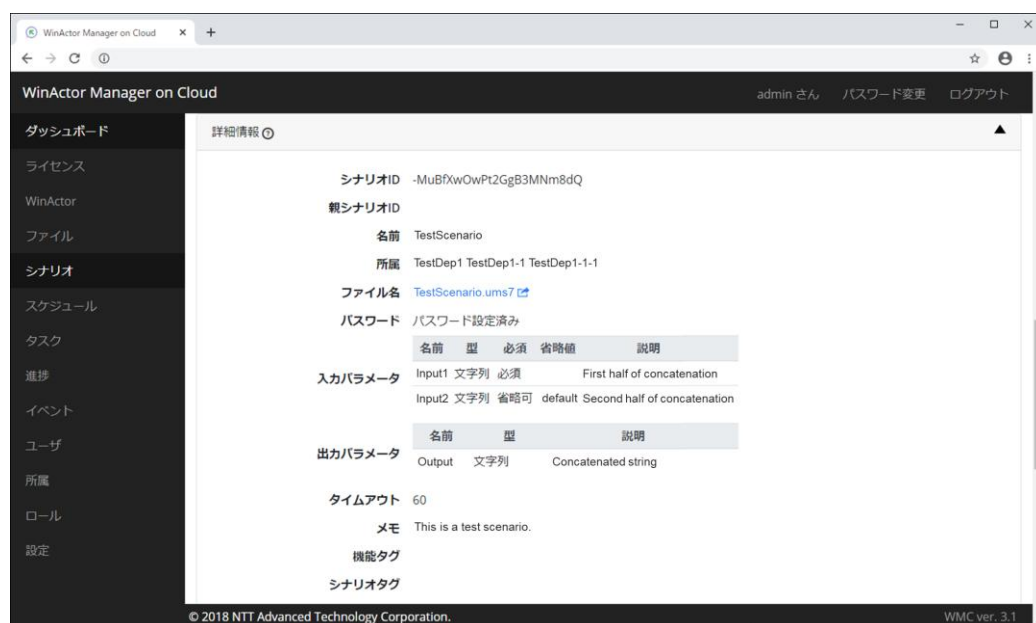
OK Cancel

The scenario is uploaded.



If the upload is successful, the uploaded scenario will be displayed in the list in the Scenario menu of WMC.





If there is an input error in the scenario information registration dialog, the following error message will be displayed.

No.	Causes of error	Error message
(1)	No scenario name entered	Enter scenario name.
(2)	No timeout entered or incorrect format	Timeout should be 0 (infinite) or in the range of 60 (1 minute) - 86400 (1 day).

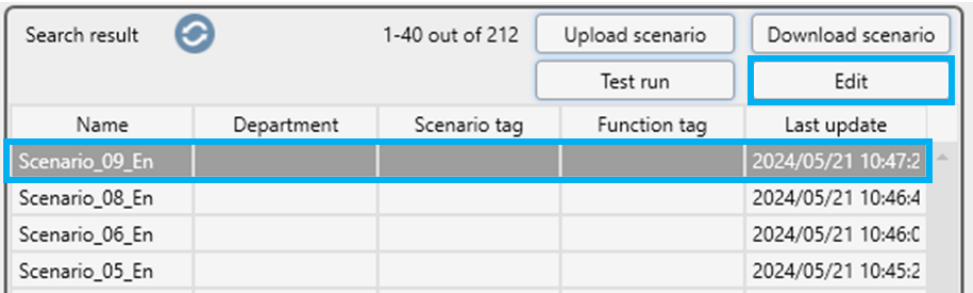
■ Editing a scenario

FULL

In WinActor with the FULL edition license, you can locally edit a scenario already uploaded to WMC, and save the edited scenario by uploading it to WMC.

Steps

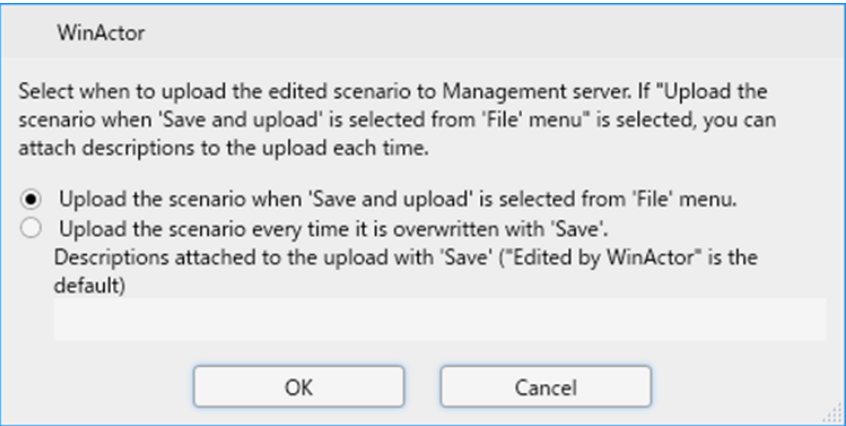
1. Select a scenario displayed in 'Search result' and click the 'Edit' button to download the target scenario file. And then, you can edit the downloaded scenario.



Name	Department	Scenario tag	Function tag	Last update
Scenario_09_En				2024/05/21 10:47:2
Scenario_08_En				2024/05/21 10:46:4
Scenario_06_En				2024/05/21 10:46:0
Scenario_05_En				2024/05/21 10:45:2

Dialog for selecting when to upload the edited scenario appears.

2. Select when to upload the edited scenario.
- If "Upload the scenario every time it is overwritten with 'Save'." is selected, each time a scenario is saved by 'Ctrl' + 'S' keys, the saved scenario is uploaded to WMC, while WMC handles the uploaded scenarios as only one renewal and only the last uploaded file is saved in WMC. If 'Save and upload' is selected from 'File' menu, each saved file is handled separately regardless of what is selected on this dialog.



WinActor

Select when to upload the edited scenario to Management server. If "Upload the scenario when 'Save and upload' is selected from 'File' menu" is selected, you can attach descriptions to the upload each time.

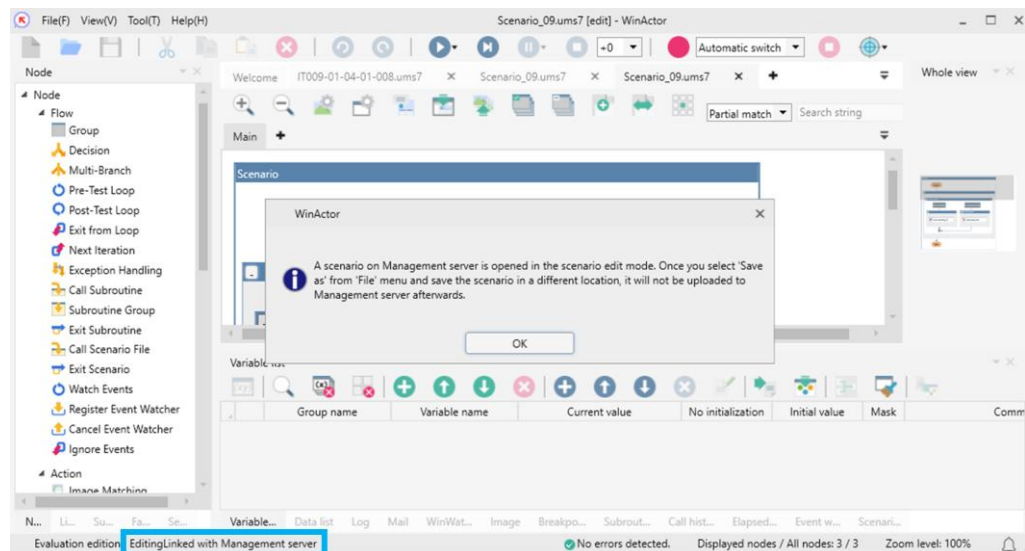
☒ Upload the scenario when 'Save and upload' is selected from 'File' menu.

☐ Upload the scenario every time it is overwritten with 'Save'.
Descriptions attached to the upload with 'Save' ("Edited by WinActor" is the default)

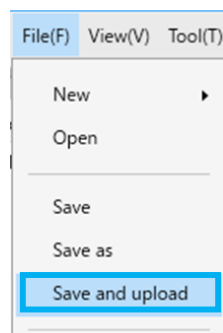
OK Cancel

3. The following dialog appears, after the scenario file is successfully downloaded, and the scenario file is automatically loaded.

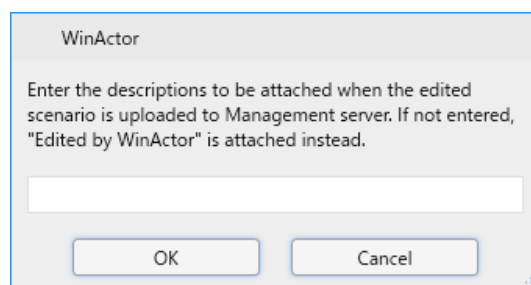
Sign of 'Linked with Management server' is shown in the bottom-left corner of the WinActor window, while a scenario file is possible to be uploaded to WMC. The 'Linked with Management server' state will be released when the scenario is closed, or when it is saved in a different file name by 'Save as' button. Afterwards, the file is not uploaded to WMC.



4. When a scenario file is in the 'Linked with Management server' state, and there are any changes that are not saved yet in WMC, it is possible to select 'Save and upload' from 'File' menu.



When 'Save and upload' is selected, the dialog for inputting notes to each upload to WMC is displayed. The scenario file is uploaded to WMC by clicking the 'OK' button.



When the 'Cancel' button is clicked with unsaved changes in the scenario file, the confirmation dialog for saving the scenario file is displayed. If the 'No' button is selected on the dialog, the confirmation dialog for uploading the scenario to WMC does not appear.

When it is clicked without unsaved changes, the scenario file is closed without saving the file and displaying the confirmation dialog for saving the scenario file.

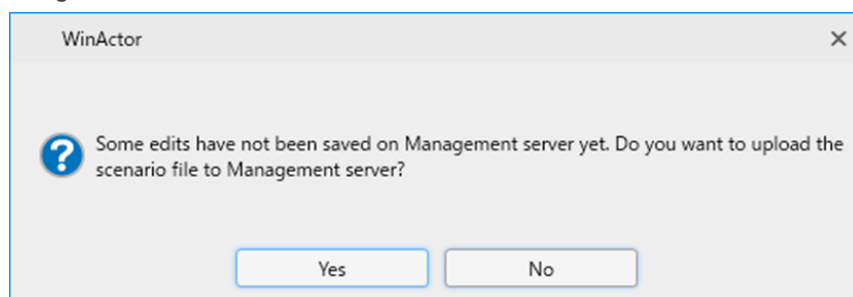
In both cases, the scenario file becomes out of the 'Linked with Management server' state.



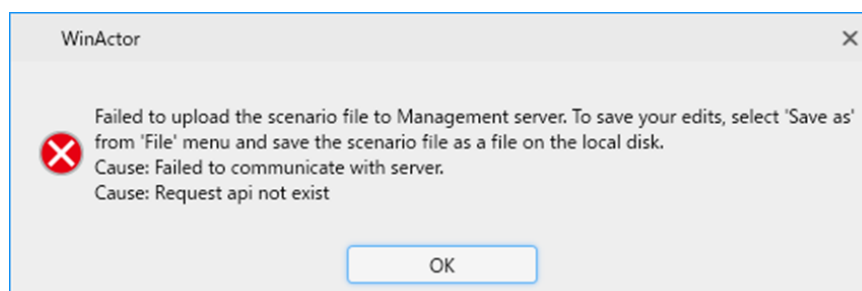
- In addition to the step 4, the confirmation dialog for uploading the scenario to WMC appears when a scenario file is edited in the 'Linked with Management server' state and closed without saving changes to WMC.

When the 'Yes' button is clicked, the dialog for inputting notes to each upload to WMC is shown, exactly the same as selecting 'Save and upload' from 'File' menu.

When the 'No' button is clicked, the scenario file is closed and is out of the 'Linked with Management server' state.



- If uploading a scenario file to WMC fails, the following error message is displayed. When this error message appears, upload the scenario file again after a while, or locally save the scenario file by 'Save as' from 'File' menu and upload it to WMC by using WMC's console.

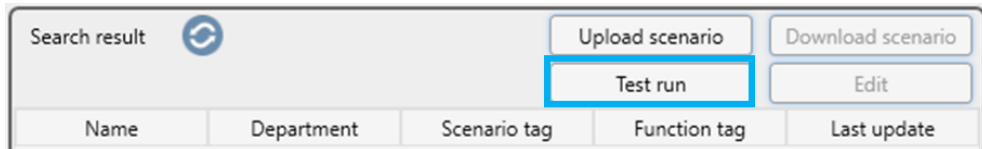


■ Scenario test run

You can test run an opened scenario, as if ordered by WMC, and check the test result.

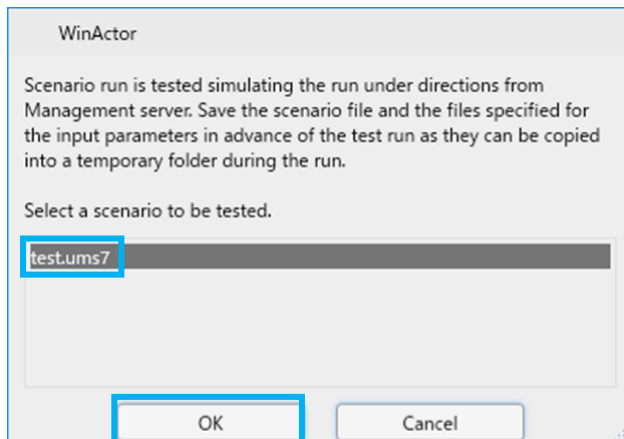
Steps

1. Click 'Test run' button with scenarios opened.



Dialog to select the test target scenario appears.

2. Select the test target scenario, and then click the 'OK' button.



Dialog to input parameters for the scenario run is displayed.

3. Input parameters. Each parameter must follow the specification of the same parameter in WMC's scenario registration window or schedule registration window.

WinActor

Set parameters for the test run of the scenario and click 'OK' button to start it.

Filename Testums7

Password 64 chars, alphabets, digits and symbols (optional)

Input parameter

Data list file None

Archive

☐ Create the archive of the working directory after the scenario execution.

☒ Do not create the archive of the working directory after the scenario execution.

Log

☐ Output the scenario-execution log to the working directory.

☒ Do not output the scenario-execution log to the working directory.

Dialog for selecting variables to be used as input parameters is displayed by clicking 'Edit' button of 'Input parameter.'

Dialog for selecting a file is displayed by clicking '...' button of 'Data list file' and you can select the data list file for the scenario run.

4. In the dialog for selecting variables to be used as input parameters, you can register variables, which are used as input parameters, by selecting from the list of variables defined in the scenario.

By clicking '...' button of the 'Reference' column, the dialog for selecting a file appears and the path of the selected file is set for 'Value.' When 'File' is selected for 'Type,' the selected file is referred during the scenario run after it is copied in the temporary folder, exactly the same as a file is set as an input parameter for the scenario information in WMC.

WinActor

Select an input parameter and fill columns. If 'File' is selected for the 'Type' column, the specified file is copied to the temporary folder when executing the test. If you want to directly specify a file on the local disk, select 'String' and set the file path for the 'Value' column.

Register	Name	Type	Value	Reference
☒	WaitingTime	String	5000	...
☒	ExcelFile	File	C:\winactor\WA76\Test\Test.xlsx	...
☐	Obtained_value	String		...

By clicking the 'OK' button, you will return to the dialog to input parameters for the scenario run, and the variables information with check marks in the 'Register' column is used as input parameters.

5. After inputting parameters for the scenario run, click the 'OK' button.

WinActor

Set parameters for the test run of the scenario and click 'OK' button to start it.

Filename Test.ums7

Password 64 chars, alphabets, digits and symbols (optional)

Name	Type	Value
WaitingTime	String	5000
ExcelFile	String	C:\winactor\WA76\Test\Test.xlsx

Input parameter

Edit

Data list file C:\winactor\WA76\Test\DataList.xlsx ...

Archive ☒ Create the archive of the working directory after the scenario execution.
☐ Do not create the archive of the working directory after the scenario execution.

Log ☒ Output the scenario-execution log to the working directory.
☐ Do not output the scenario-execution log to the working directory.

OK Cancel

The test run of the scenario starts, and the result of the test run is displayed in a dialog after the completion of the test run.

6. Check the result of the test run.

By clicking the 'OK' button, the dialog is closed and the temporary folder is deleted, which contains output archive files and log files. If you need these files, copy them in advance to another folder.

WinActor

The test run has been completed.
Pressing the 'OK' button to close the dialog will also delete the temporary folder containing the output archive and log files.
Please make file copies in advance if necessary.

(1) Open temporary folder

(2) Filename Test.ums7

(3) Result Success

(4) Elapsed time 00:00:16.1370000

Name	Value	Reference
WaitingTime	5000	...
ExcelFile	C:\ProgramData\WinActor\tsukada\20250	...
ObtainedValue	Test	...

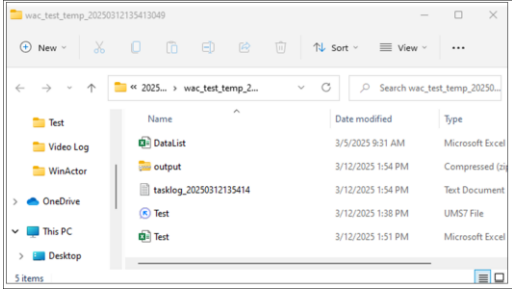
(5) Output parameter

(6) Data list file DataList.xlsx

(7) Archive output.zip

(8) Log tasklog_20250312135414.txt

(9) OK

No.	Element	Description
(1)	'Open temporary folder' button	Opens the temporary folder by Explorer that was created during the scenario test run. This temporary folder contains the test target scenario file, data list file, files defined as 'File' type as input parameters, output archive file, log file, and so on. 
(2)	Filename	Shows the name of the test target scenario file.
(3)	Result	Shows the test run result. The result must be one of the following three cases; 1. Success : Scenario run completes with no error. 2. Error : Errors occur that are not caught by exception handling nodes. 3. Cancel : Scenario run stops/pauses by clicking 'Stop' button, 'Pause' button, short cut keys, or by right clicking the icon in notification window.
(4)	Elapsed time	Shows the elapsed time of the scenario during the test run. When multiple scenario files are run by using scenario file calling nodes and/or Scenario GoTo Library, total elapsed time for all scenarios completed the test run is shown,.
(5)	Output parameter	Shows the list of variables information when the test run is completed. '...' button in the 'Reference' column is active when a file defined its file path as the 'Value' exists, and the file is opened by its related application when this button is clicked.
(6)	Data list file	Shows the data list file name that is referred during the test run. 'None' is shown when no data list file is used.
(7)	Archive	Shows the archive file name that is created during the test run. 'None' is shown when no archive file is made.

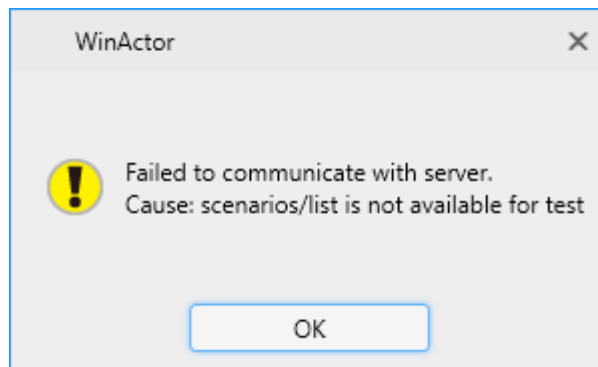
No.	Element	Description
(8)	Log	Shows the log file that is output during the test run. 'None' is shown when no log file is output.
(9)	'OK' button	Closes the dialog. The temporary folder containing output archive file and log file is deleted when the dialog is closed.

■ Notes

The following are notes on the 'Online scenario management' window.



- Use of 'Online scenario management' in the integrated WinDirector.
- The management server targeted by this function is WMC only. In the integrated WinDirector environment, you cannot search, upload, or download scenarios using this function.
- License type of edition and Managed RUN mode
 - The scenario search, scenario download, and scenario test run provided by this function can be used with the FULL or RUN edition WinActor.
 - The scenario upload and scenario edit are only available in the FULL edition WinActor.
- This function cannot be used when the Managed mode is ON (when 'Operated by Management server' in the Management server tab of the 'Option' dialog is checked), in addition to the Managed RUN edition license.
- Account role used in the connection settings
 - For the account information to be entered in the connection settings of this function, the following permissions should be enabled in the Role menu of WMC.
 - File > Upload, Download, and Renewal
 - Scenario > Get list, Get details, and Create
- If the permissions are not enabled, an error dialog indicating incorrect permissions will be displayed when using each function of the online scenario management.



- Input parameter type when registering as a scenario
 - When registering as a scenario, registration of default values for file type input parameters (selection from the list of files registered in WMC) is not supported. If necessary, register from the list in the Scenario menu of WMC.
-

4. Node

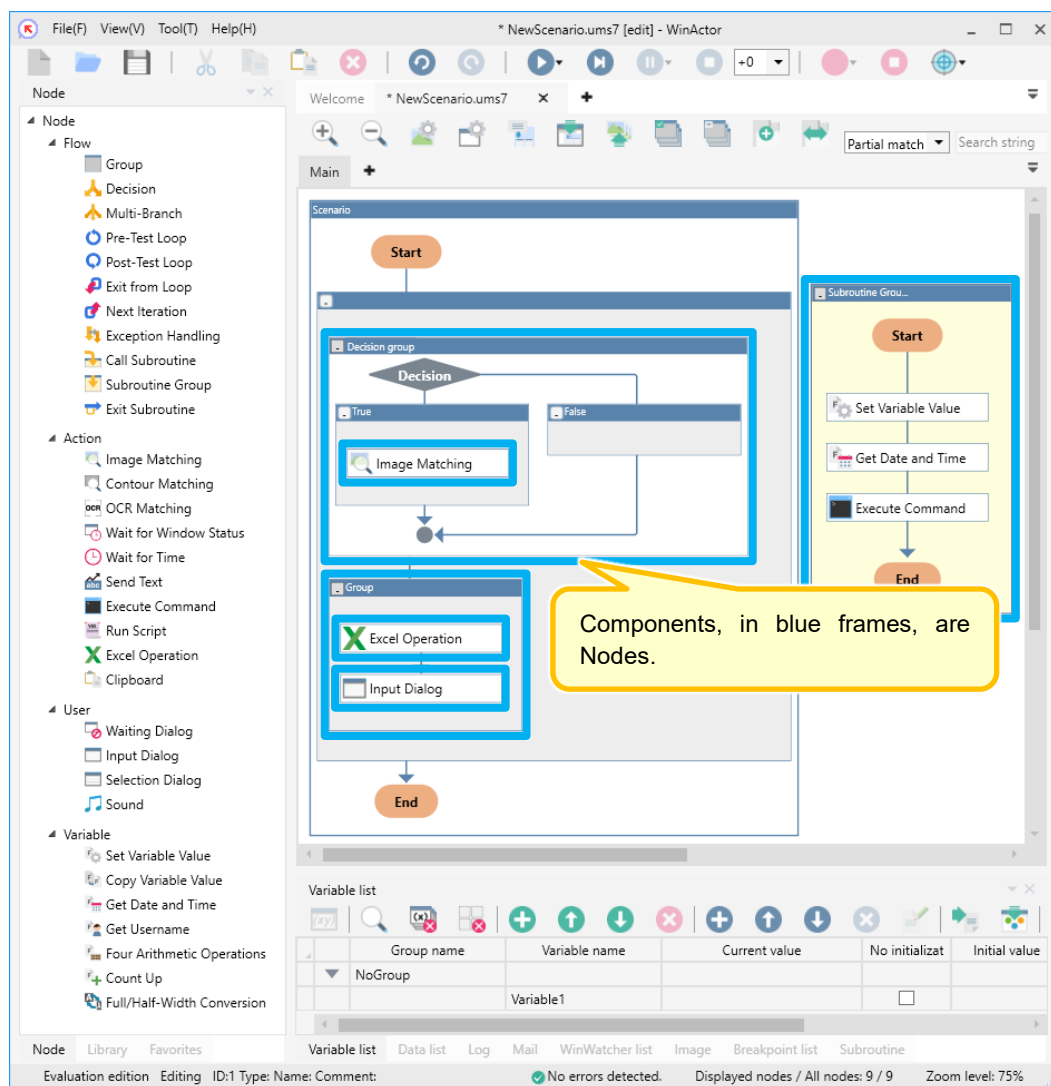
FULL

This chapter describes the types and roles of the nodes.

4.1 What is a node?

In WinActor, a node is a component that builds a scenario. The nodes are shown in the Flowchart as boxes.

Figure 4-1 Node



4.1.1 Node information

The following is information commonly held by each node.

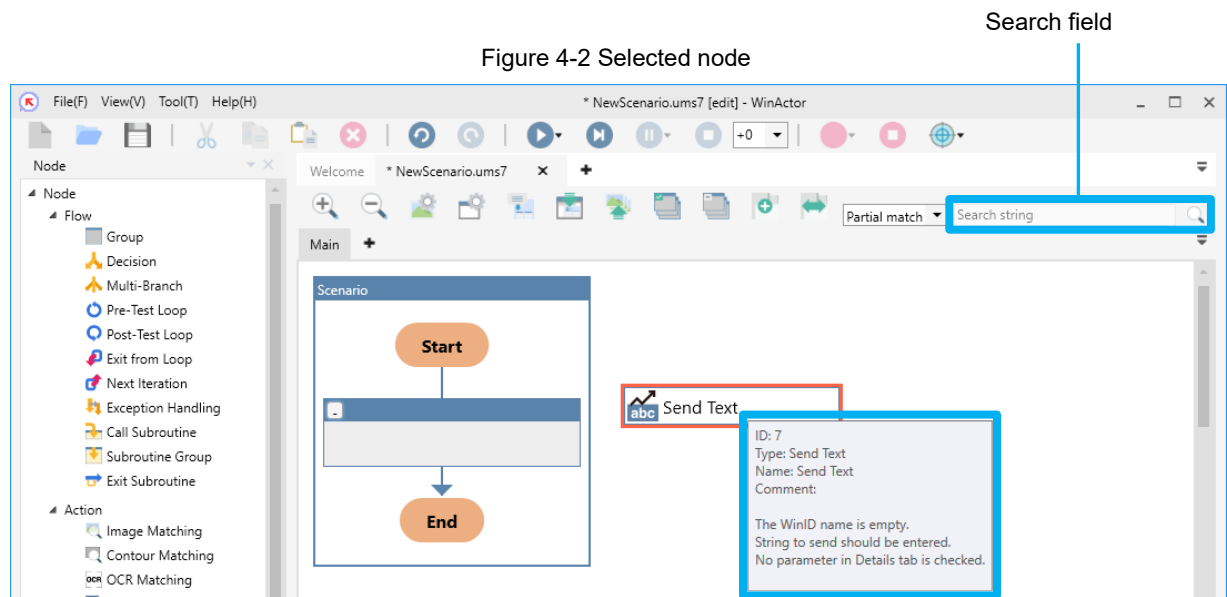
Table 4-1 Node information

No.	Node information	Description
(1)	Node ID (ID)	This is a number to uniquely identify a node in a scenario. This is automatically allocated when a node is placed in the flowchart, and is immutable. The Node IDs and management parameters are shown on the 'Image' tab, 'WinID management' and 'Variable reference tree' windows. The IDs of processed nodes are shown in the logs. IDs can be used when searching for nodes in the flowchart.
(2)	Node type (Type)	This is the type of the node and is Immutable. Each node type has its role and settings. The description of each node type is in the following sections.
(3)	Node name (Name)	This is the display name in the flowchart. By default, the node type is used but the name can be changed. It is recommended to use easily identifiable names when maintaining scenarios.  For procedures for changing a name, see "Settings tab" in "3.6.1 Configuration of the Property pane." Node names can be used when searching for nodes in the flowchart
(4)	Node comment	Use this as a memo pad when maintaining scenarios. No defaults are set, and comments can be changed.  For procedures for changing a node comment, see "Settings tab" in "3.6.1 Configuration of the Property pane."

4.1.2 Show node information

Tool tips for node information are shown when hovering the cursor over a node. Errors are also shown for nodes in framed in red. The IDs or names can be used when searching for nodes in the flowchart.

>> For details of Search area, see "3.5.4 Node search."

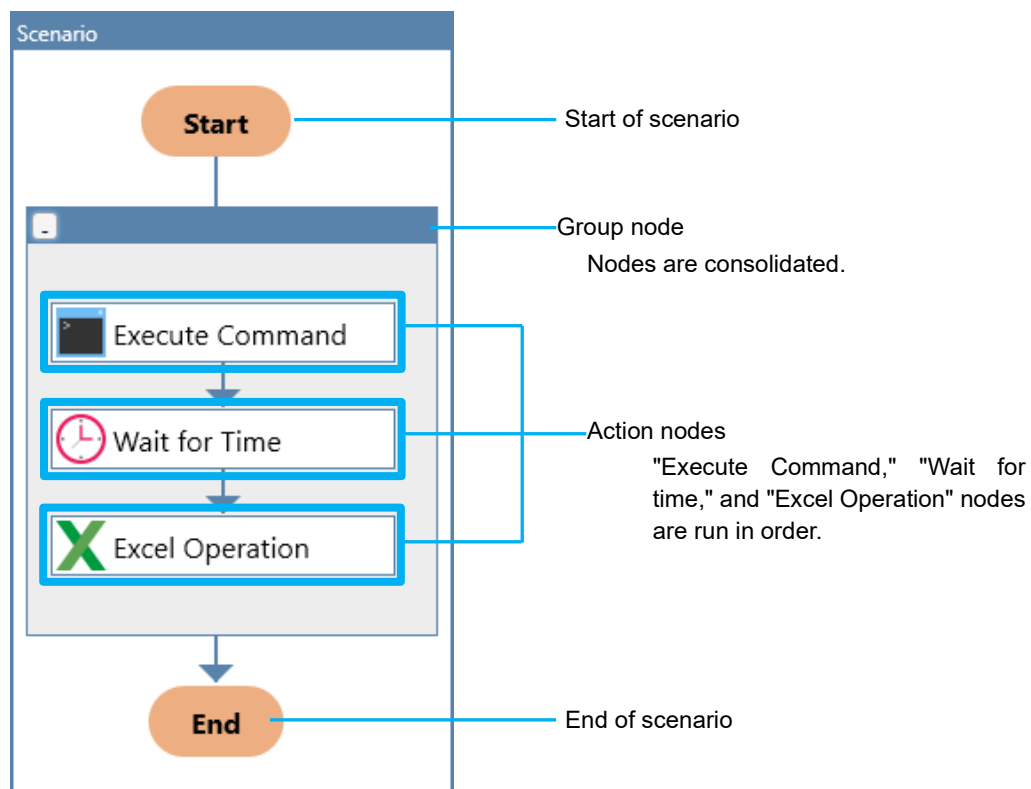


The tool tip for the node information is shown when hovering the cursor over a node.

4.2 Structure of Scenario

Create a scenario by placing action nodes in the Group box placed between 'Start' and 'End' in 'Scenario' in the flowchart. There are several types of nodes, and each have a role. The scenarios start running from 'Start' and finishes at 'End.' The following example shows the order the nodes are run—'Execute Command,' 'Wait for Time,' and 'Excel Operation.'

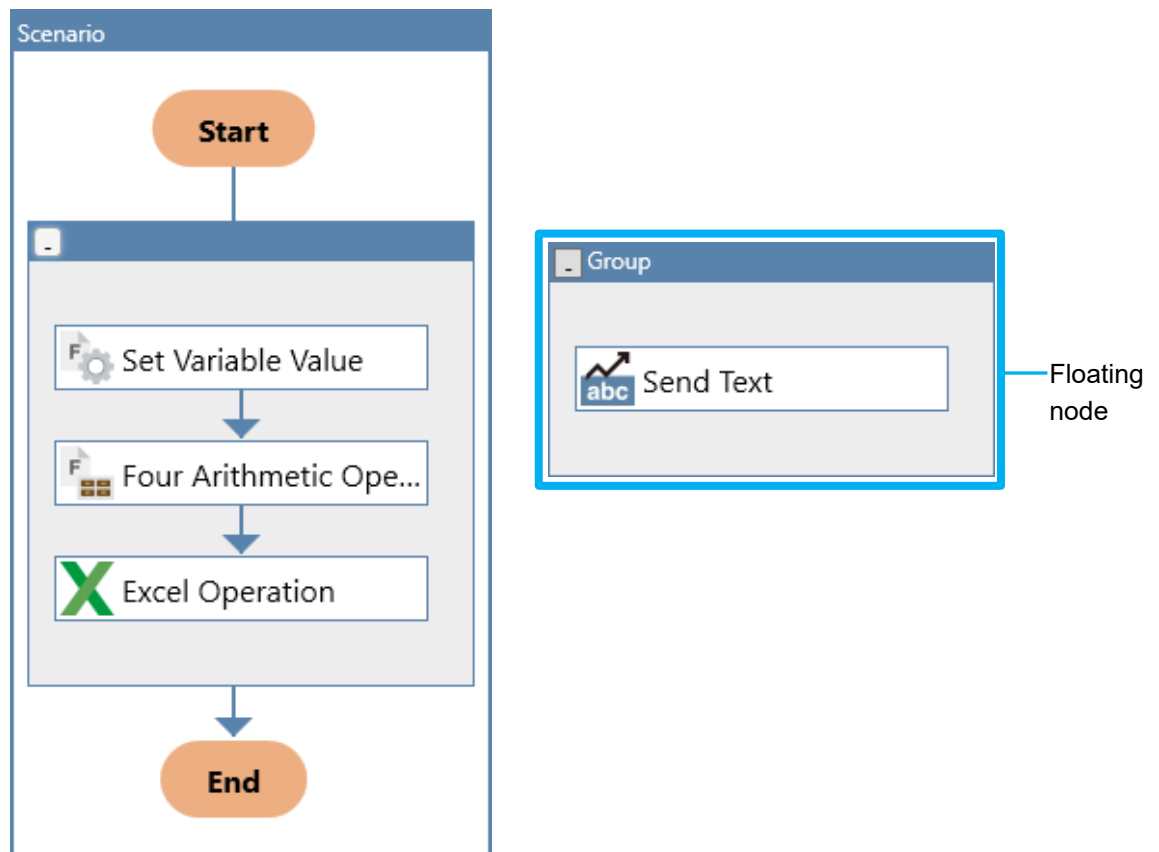
Figure 4-3 Structure of scenario



4.2.1 Floating nodes

Floating nodes are nodes that are not placed in main flow. These nodes are not executed when a scenario is run.

Figure 4-4 Floating node

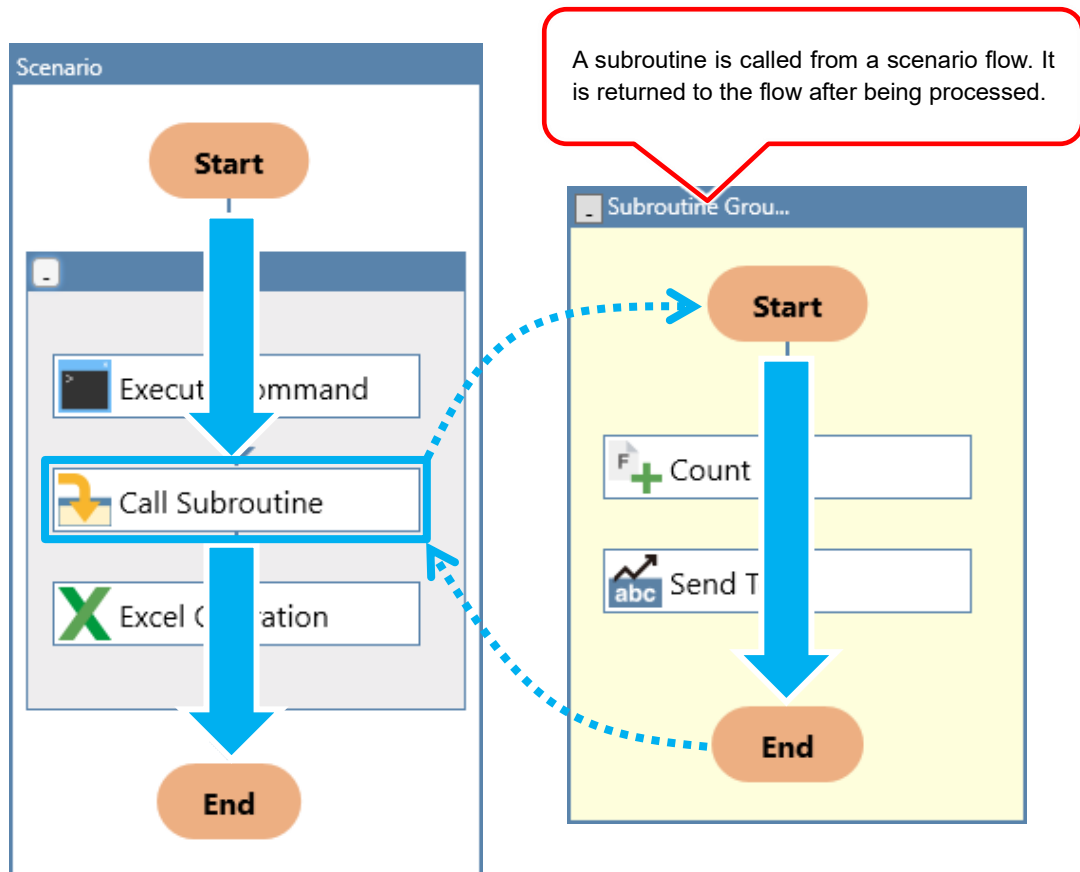


4.2.2 Subroutine

This node names a series of operations and can be called from anywhere in the scenario.

Use 'Call Subroutine' to use a subroutine.

Figure 4-5 Subroutine

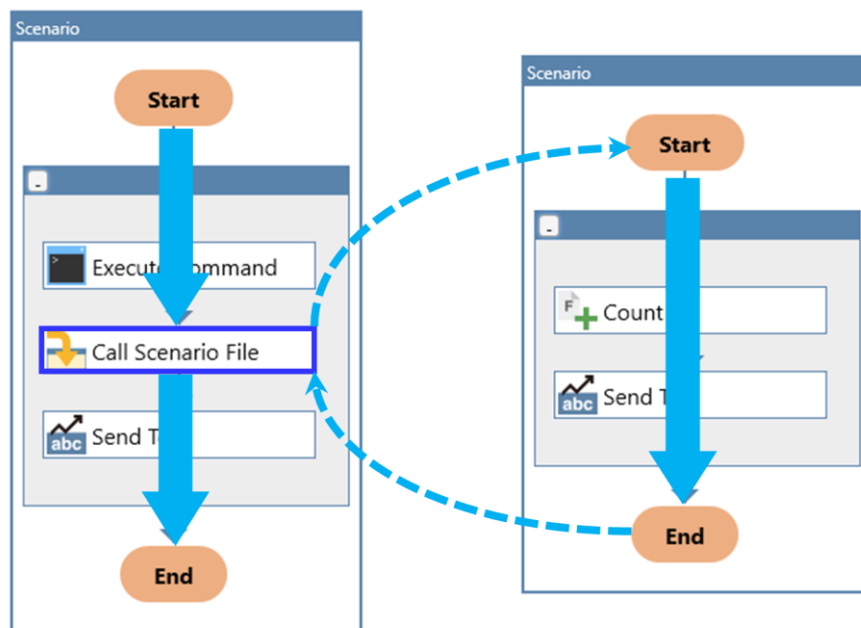


4.2.3 Call Scenario File

Other scenario files can be loaded and run while a scenario is running. 'Call Scenario File' loads and runs the specified scenario. After running the specified scenario, the flow is returned to the caller scenario and the next Call Scenario File will be processed.

The side that uses 'Call Scenario File' to call other scenario files is referred to as "caller scenario" and the side that has been called is referred to as "called scenario."

Figure 4-6 Call Scenario File



A new Variable list will be prepared each time a scenario is called. The Data list is not available in the called scenario.

The caller scenario can specify the initial values of the variables used in the called scenario.

If a variable with the same name is used in the caller and called scenario, the variable value at the end of running the called scenario can be inherited by the caller scenario.

The called scenario ends after 'Exit Scenario' is run, and the process returns to the caller scenario. At this time, the called scenario can set the return value that is passed to the caller scenario.

If a password has been set for the called scenario, the 'Scenario password' window will be displayed, and the user will be prompted to enter the password. The 'Scenario password' window will not be displayed if the password of the called scenario is the same as that of the last opened scenario.

» For 'Call Scenario File' and 'Exit Scenario,' see "4.3.12 Call Scenario File" and "4.3.13 Exit Scenario."

■ Call history tab

The call status of scenario files can be checked in the 'Call history' tab. The call history is displayed only when a user pauses a running scenario, and the status such as scenario files and variable lists of the caller and called scenarios can be checked.

 For the Call history tab, see "3.9.10 Call history tab pane."

■ Sending logs

Logs can be sent to the log server when 'Call Scenario File' is run. This follows the settings in the Log Server tab in the Option window.

If the called scenario repeatedly calls its own scenario file, such as a recursive call, sending logs for each call may result in a large number of logs being sent. Therefore, you can select the number of log transmissions when the same scenario file is called multiple times while running the scenario from the following:

- Send a log for each call
- Send a log on the first call and not on the second and subsequent calls

 For sending log, see the "Log server tab" of the "Option Dialog."

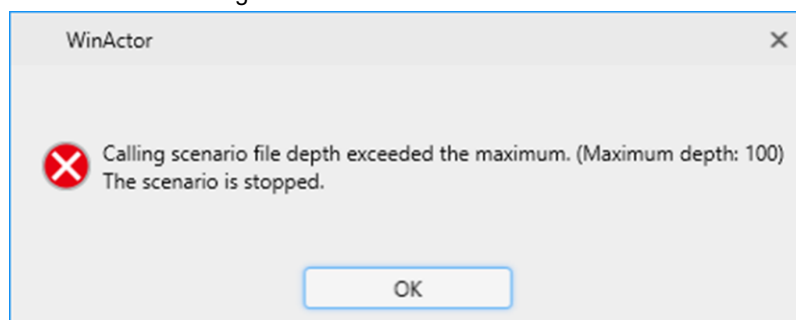
■ Exception handling

If an exception occurs while the called scenario is running, the exception can be handled in the called scenario. Otherwise, the exception is passed to the caller scenario.

■ Call Scenario File levels

As the called scenario repeatedly calls its own scenario file, as in a recursive call, the depth of calls increases. If the calling depth exceeds 100, an error will occur, and the run of the scenario will be paused.

Figure 4-7 Exceeds maximum levels



■ Scenario password

When using 'Call Scenario File,' there is a concern that the behavior will change if the called scenario file is replaced. To address this concern, 'Call Scenario File' run can be limited to only if the caller scenario file has a password. This can be set in the 'Run' tab in the 'Option' dialog. Once this is set, if no Edit, View, or Run password is set in the caller scenario file, 'Call Scenario File' will result in an error and the scenario will be paused.

 For the settings, see "Run tab" of the "Option Dialog."

■ Close the called scenario file

When returning the process to the caller scenario, the called scenario can be closed automatically after the scenario run. However, if the called scenario file has been opened manually before the scenario is run, the called scenario will not be closed automatically. This function can be set in the 'Run' tab in the 'Option' dialog.

 For the settings, see "Run tab" of the "Option Dialog."

4.2.4 Call actions in Watch Events

This subsection is about Watch Events.

When a 'Watch Events' node in a scenario is executed, WinActor stays at the 'Watch Events' node and keeps watching occurrences of the events that are set beforehand.

If an occurrence of the events is detected, WinActor calls and executes the action, which is either subroutine or scenario file, corresponding to the occurred event.

After executing the action, except for a few event triggers, WinActor returns to the 'Watch Events' node and resumes watching occurrences of the events.



For 'Subroutine' and 'Scenario file' used as actions, see "4.3.9 Call Subroutine" and "4.3.12 Call Scenario File."

■ Registering Event Watcher

First, register events to watch on the event watcher list tab pane.



For registering events to watch, see "3.9.12 Event watcher list tab pane."

■ Call actions in Watch Events (only once)

After registering events on the event watcher list tab pane, create and run the scenario like the following figures.

The scenario stays at the 'Watch Events' node. Once an occurrence of the events is detected, the scenario calls an action, which is either subroutine or scenario file.

When the watching event trigger is either 'Specified time' or 'Window state,' the scenario returns to the 'Watch Events' node after executing the action, and proceeds to the next node.

Figure 4-8 Call action (Subroutine)

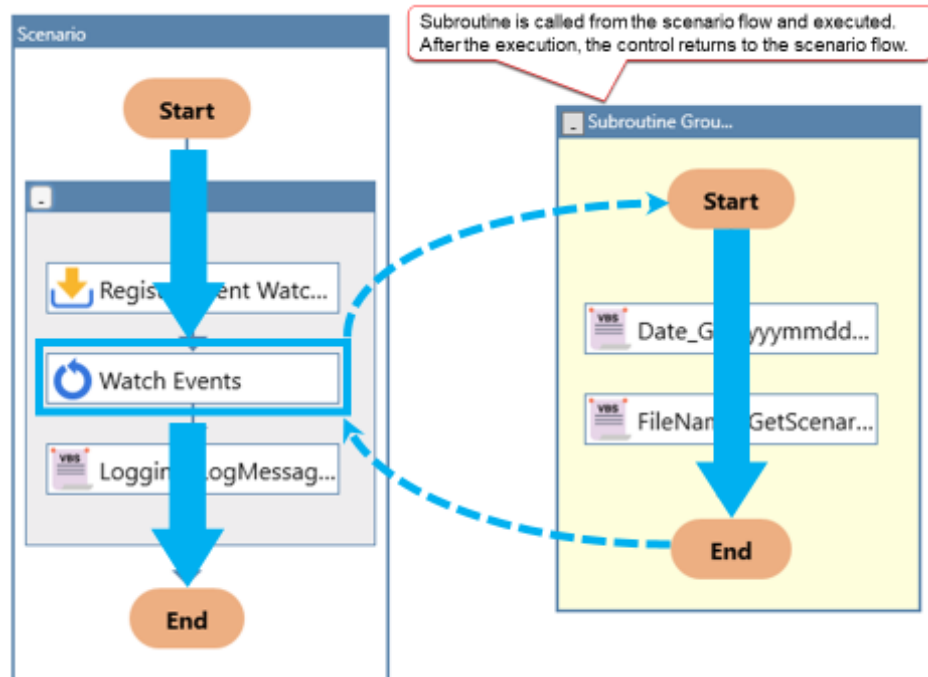
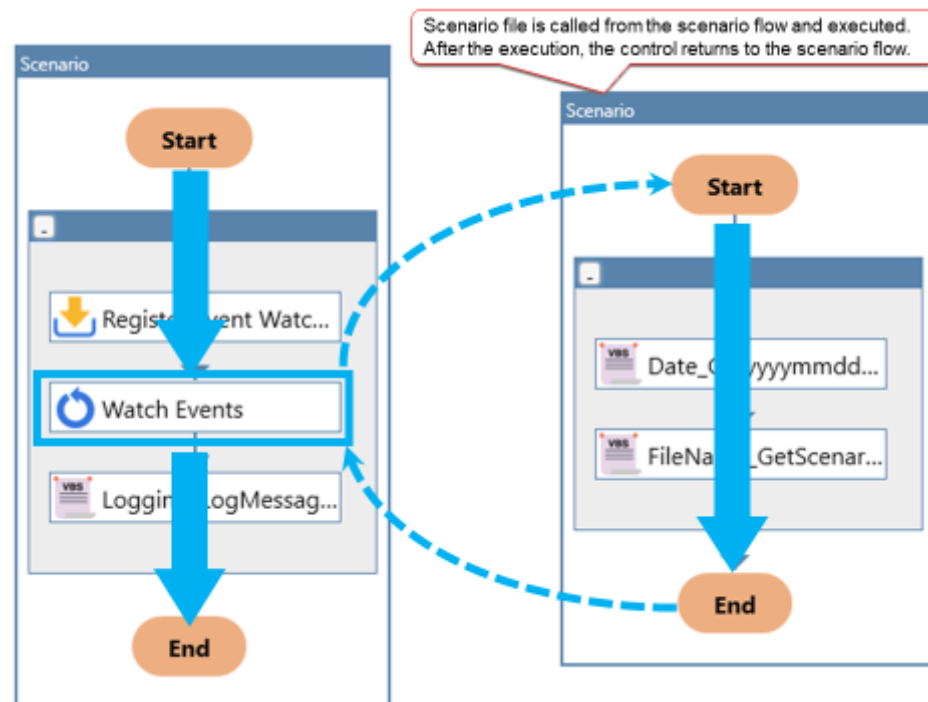


Figure 4-9 Call action (Scenario file)



» For the 'Watch Events' node, see "4.3.14 Watch Events."

■ Call actions in Watch Events (continuous watching)

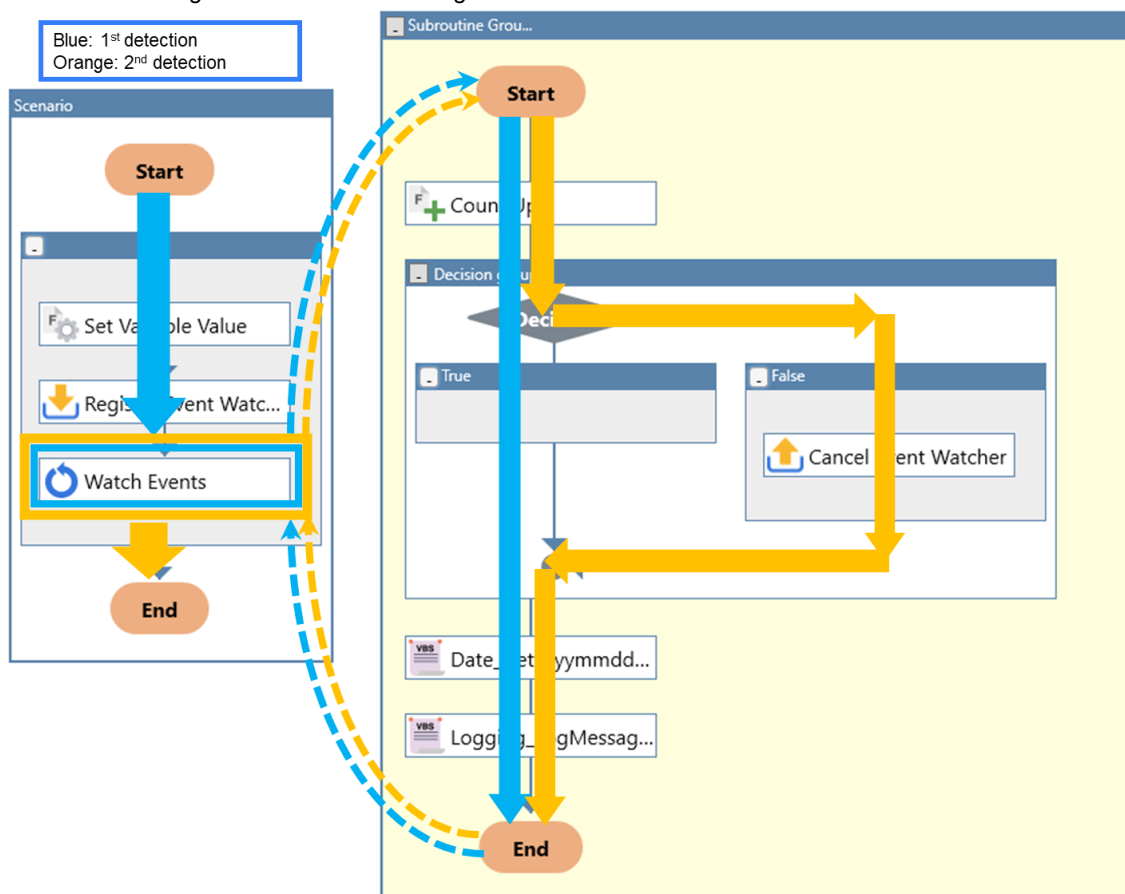
When the watching event trigger is neither 'Specified time' nor 'Window state,' the scenario returns to the 'Watch Events' node after the execution of the action, and continues watching events.

Because the scenario stays at the 'Watch Events' node and keeps watching, Watch Events must be terminated for the scenario to proceed to the next node.

To terminate watching events, execute 'Cancel Event Watcher' or 'Ignore Events' node in the called action, or pause the scenario and cancel watching all the Event Watchers.

When the event trigger is neither 'Specified time' nor 'Window state,' and only one Event watcher is in the scenario, create and run the scenario like the following figure. In the called action, execute the 'Cancel Event Watcher' node to terminate watching events after returning to the 'Watch Events' node. Then, WinActor scenario proceeds to the next node.

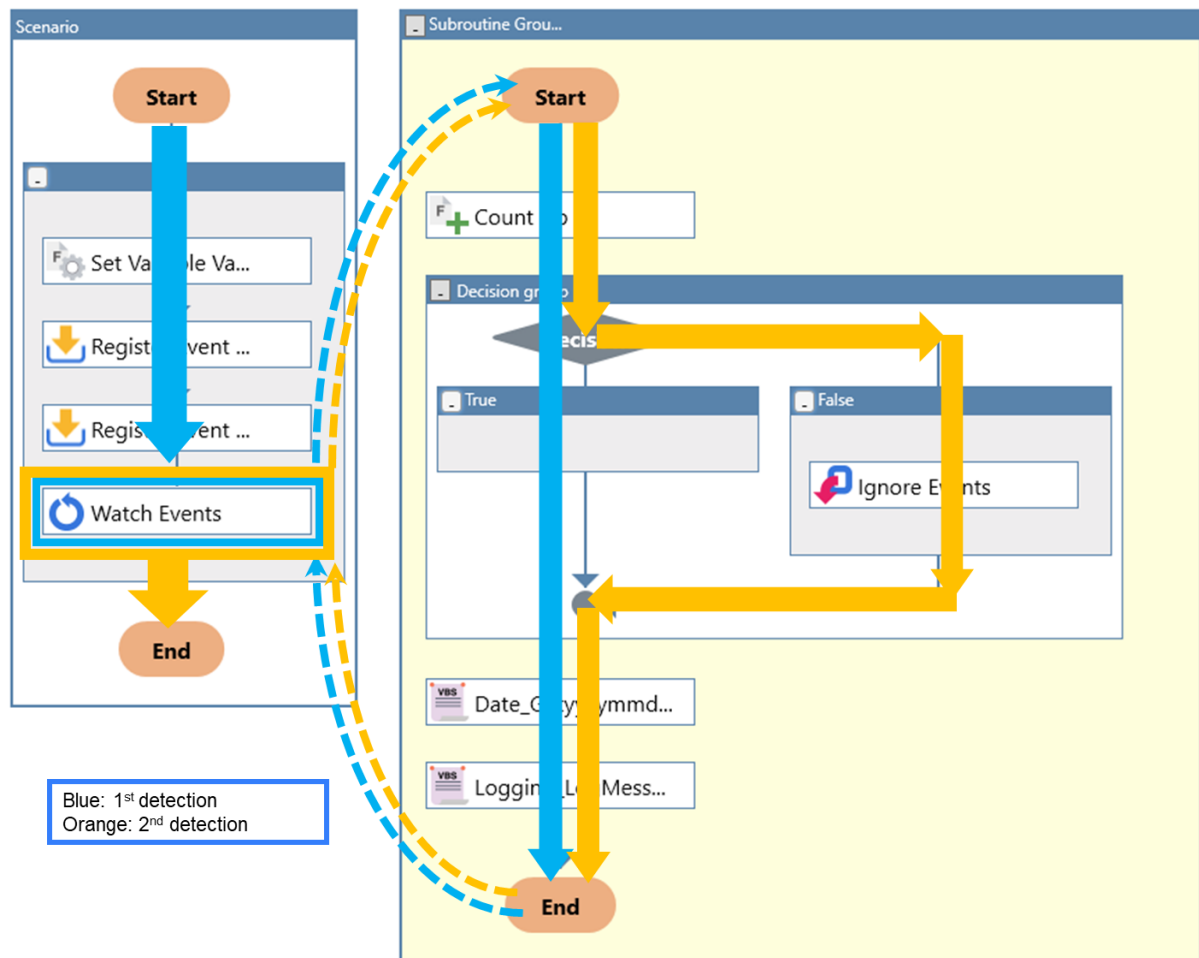
Figure 4-10 Terminates single 'Watch Events' with 'Cancel Event Watcher'



» For the 'Cancel Event Watcher' node, see "4.3.16 Cancel Event Watcher."

When the event trigger is neither 'Specified time' nor 'Window state,' and multiple Event watchers are in the scenario, create and run the scenario like the following figure. Execute the 'Ignore Events' node in any of the called actions to terminate watching events after returning to the 'Watch Events' node. Then, WinActor proceeds to the next node.

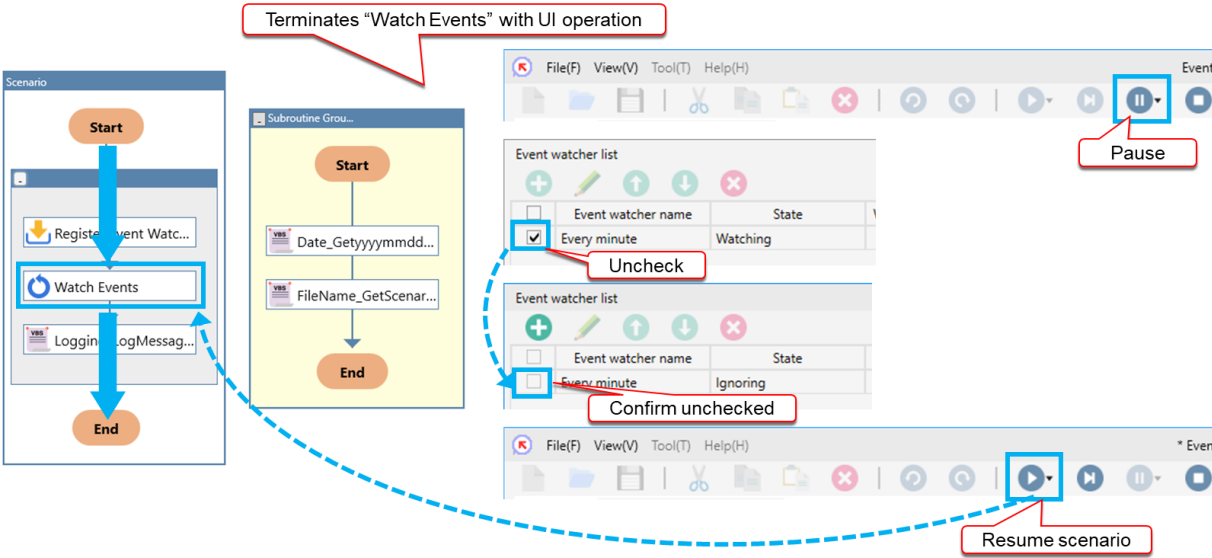
Figure 4-11 Terminates multiple 'Watch Events' with 'Ignore Events'



>> For the 'Ignore Events' node, see "4.3.17 Ignore Events."

To terminate 'Watch Events' node via UI operation, operate as the following: pause the scenario while staying at the 'Watch Events' node, uncheck all the boxes of Event watchers on the Event watcher list, and resume the WinActor scenario. Then, WinActor proceeds to the next node.

Figure 4-12 Terminates 'Watch Events' with UI operation



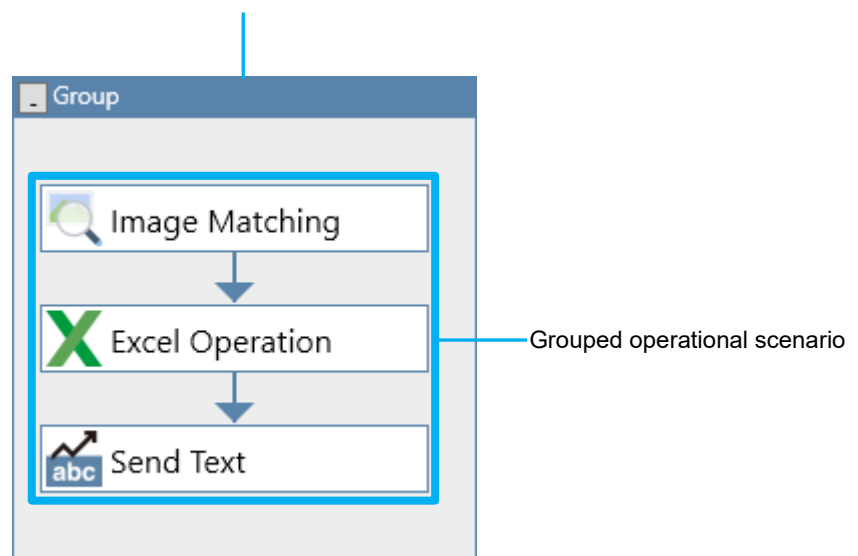
4.3 Nodes in Flow Category

4.3.1 Group

Scenario nodes can be grouped together. Grouping nodes makes it easier to copy, cut, paste, and drag and drop the nodes.

Figure 4-13 Group

A series of operational scenarios can be consolidated as a group.

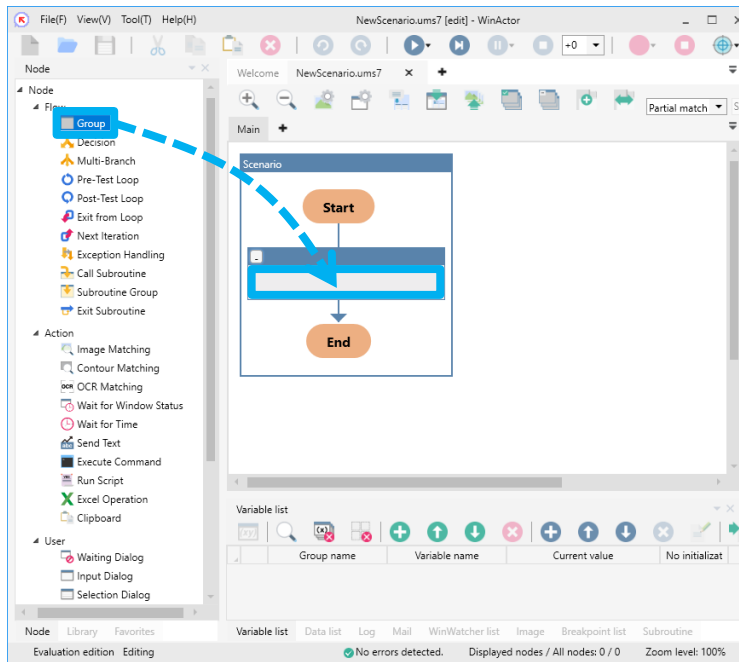


■ Place Group

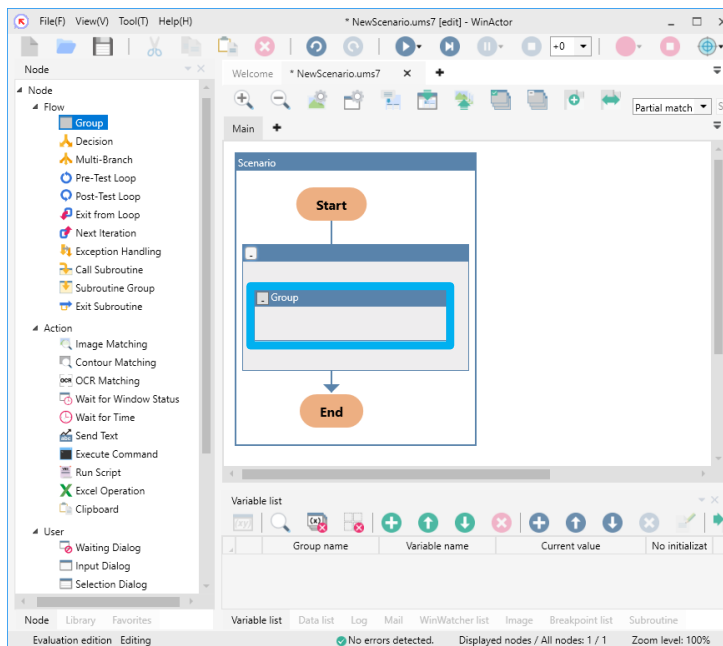
Follow the steps below to place the 'Group' node.

Steps

1. Drag 'Group' under 'Node' in the Palette area to the gray box in 'Scenario' in the Flowchart area.



'Group' is placed in 'Scenario.'



■ Group property

The following are settings in the 'Group' property pane.

Figure 4-14 Group property pane

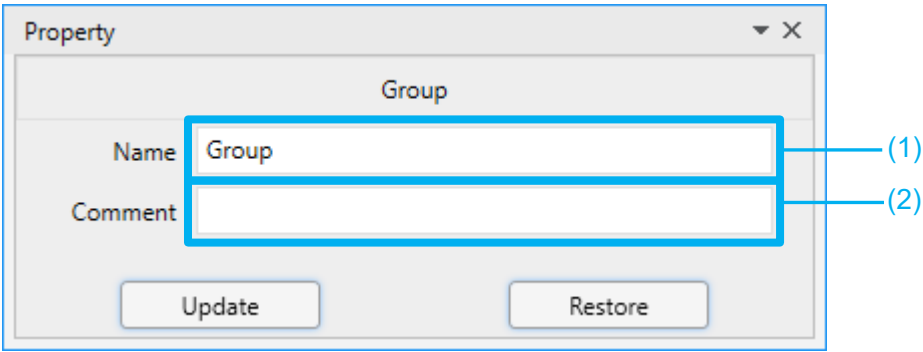


Table 4-2 Group property pane

No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Group comment can be used as a notepad when creating a scenario.

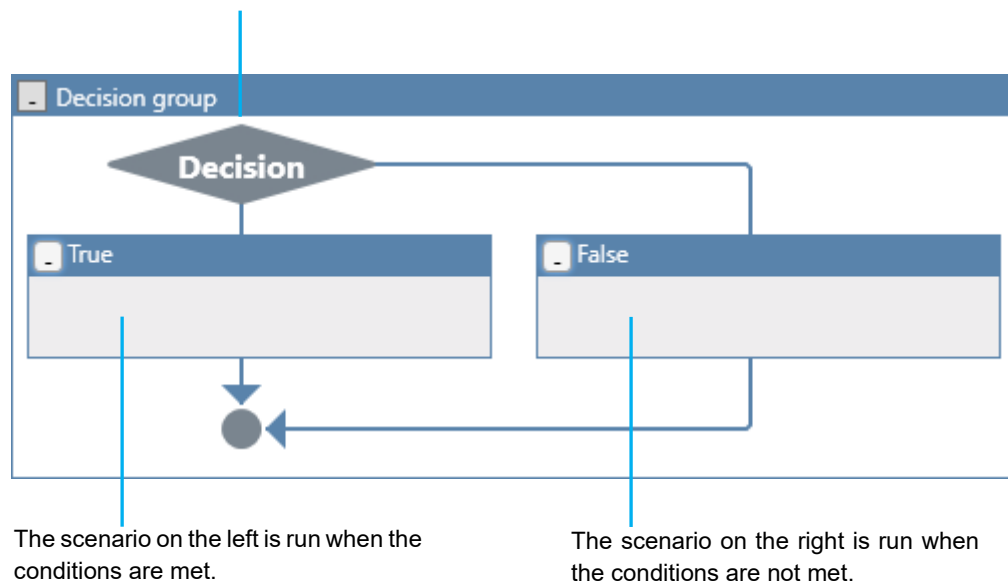
4.3.2 Decision

'Decision' branches scenarios and run one of the branched scenarios. Scenarios are decided by the determination conditions. Use 'Multi-Branch' to select one out of three or more branched scenarios.

 For Multi-branch group, see "4.3.3 Multi-Branch."

Figure 4-15 Decision

Branch scenarios by determination conditions

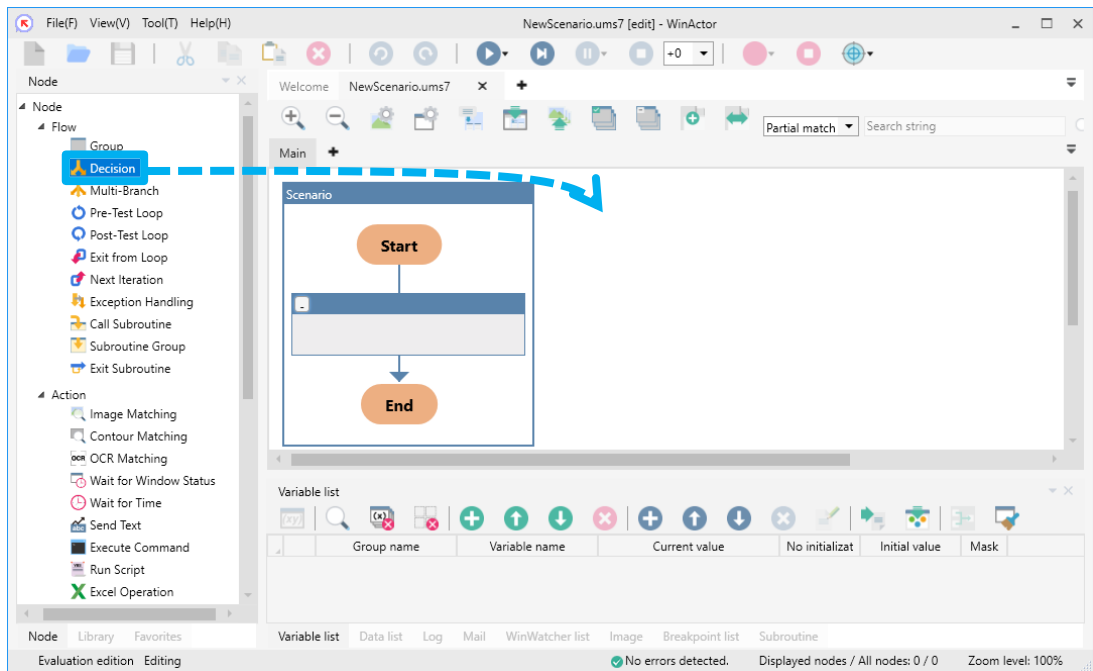


■ Place Decision

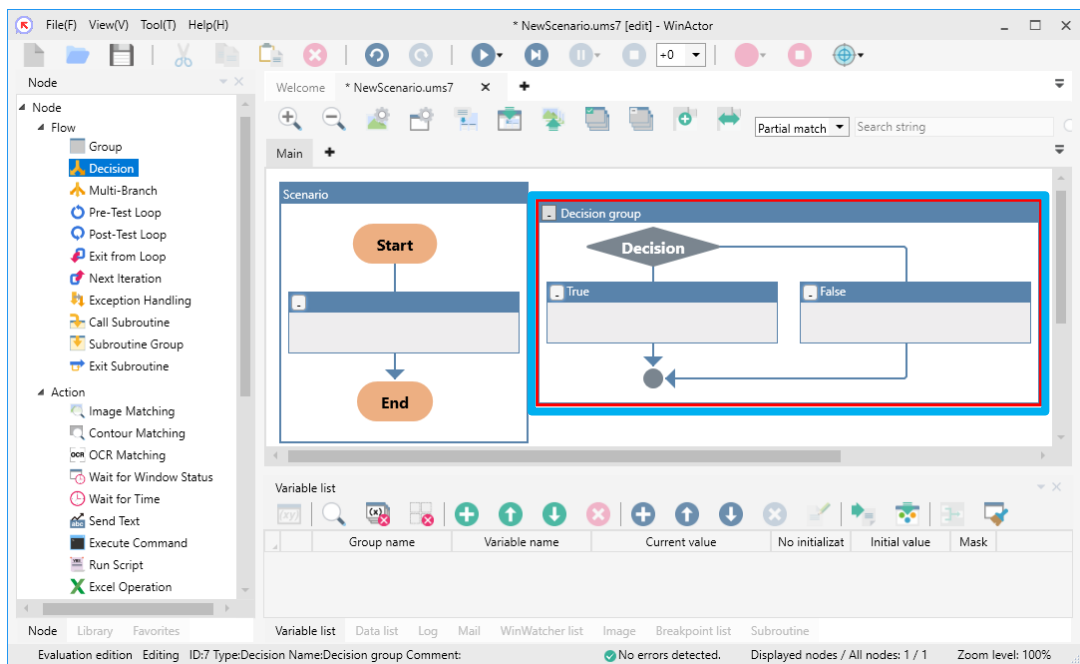
Follow the steps below to place the 'Decision' node.

Steps

1. Drag 'Decision' under 'Node' in the Palette area to the Flowchart area.



'Decision group' is placed in the Flowchart area.



■ Decision property

The following are settings in the 'Decision' property pane.

Figure 4-16 Decision property pane

Property

Decision

Name Decision group (1)

Comment (2)

Result	Branch name	Conditional expre:
True	True (3)	[] is equal to [] (4) Edit
False	False	

Update Restore

Table 4-3 Decision property pane

No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Decision comment can be used as a notepad when creating a scenario.
(3)	Branch name	Name processes by each true or false determination.
(4)	Conditional expression	Set the conditional expression to true in the determination results. No conditions are set for false as the scenario is selected when true conditions are not met.

■ Property pane in the Flowchart area

'Decision' window is shown in the flowchart depending on the properties set.

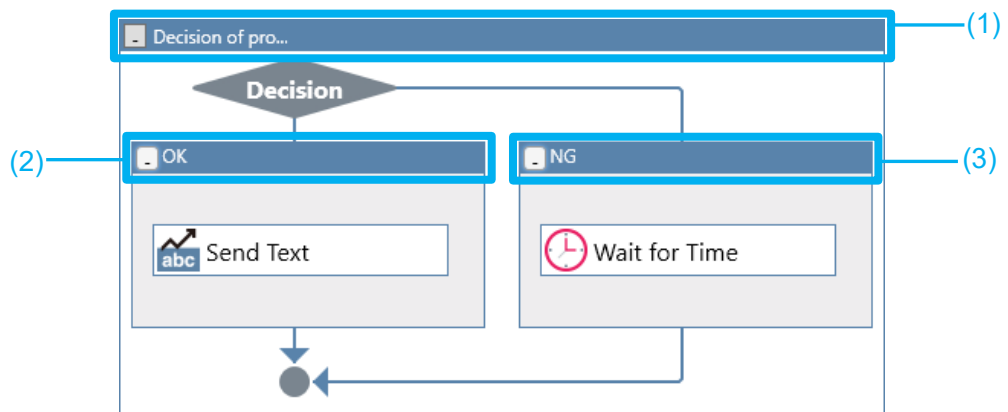
Figure 4-17 Decision property

Property settings

Result	Branch name	Conditional expression
True	OK	[Result] is true
False	NG	



Flowchart window

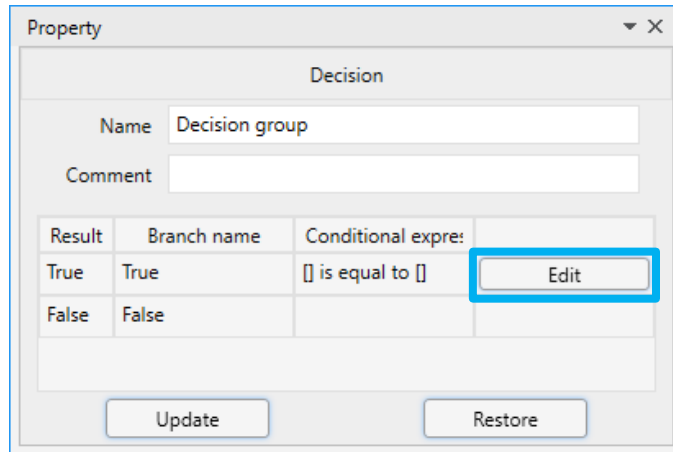


■ Set conditional expression

Set the conditional expression for the branches. Open the Conditional expression pane by clicking 'Edit' button in the 'Decision' property pane.

 For procedures for operating 'Decision' property pane, see "3.7 Conditional Expression Pane."

Figure 4-18 'Edit' button in the Decision pane



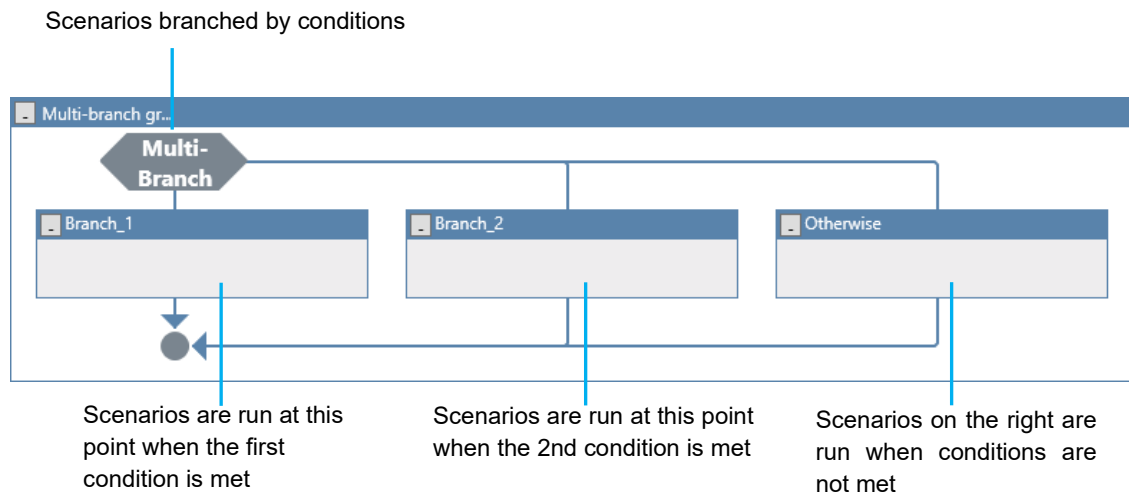
The screenshot shows a 'Property' dialog box with a 'Decision' tab. It contains fields for 'Name' (Decision group) and 'Comment'. Below these is a table with two rows: 'True' and 'False'. The 'True' row has a value in the 'Conditional expre:' column, and an 'Edit' button is highlighted with a red rectangle next to it. At the bottom are 'Update' and 'Restore' buttons.

Result	Branch name	Conditional expre:	
True	True	[] is equal to []	Edit
False	False		

4.3.3 Multi-Branch

Branch scenarios into three or more and run one of the branched scenarios. Scenarios are selected by the conditions.

Figure 4-19 Multi-branch

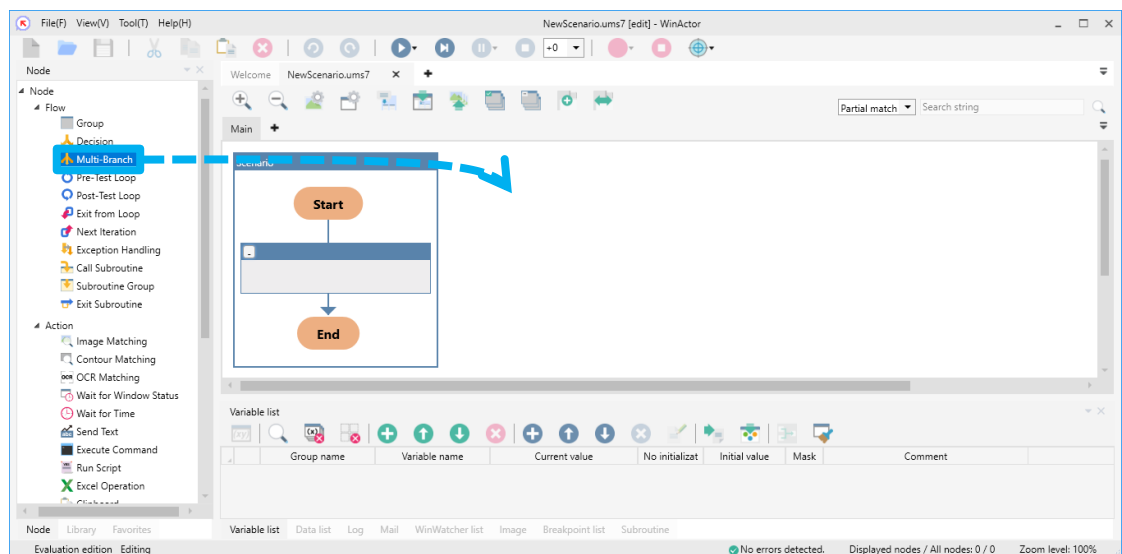


■ Place Multi-Branch

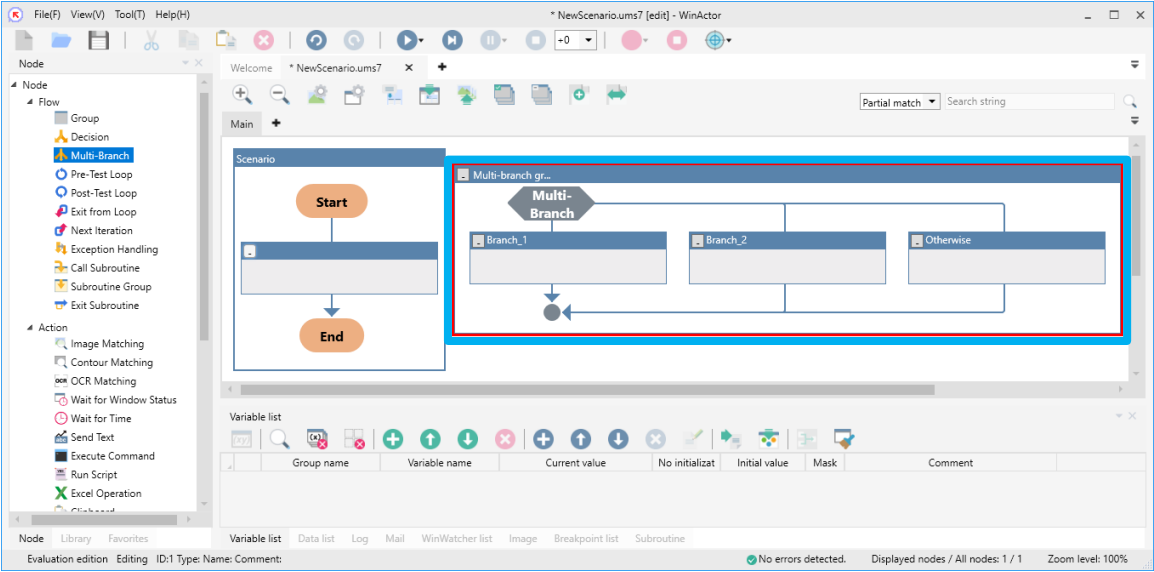
Follow the steps below to place the 'Multi-Branch' node.

Steps

1. Drag 'Multi-Branch' under 'Node' in the Palette area to the Flowchart area.



‘Multi-branch group’ is placed in the Flowchart area.



■ Multi-branch property

The following are settings in the ‘Multi-Branch’ property pane.

Figure 4-20 Multi-Branch property pane

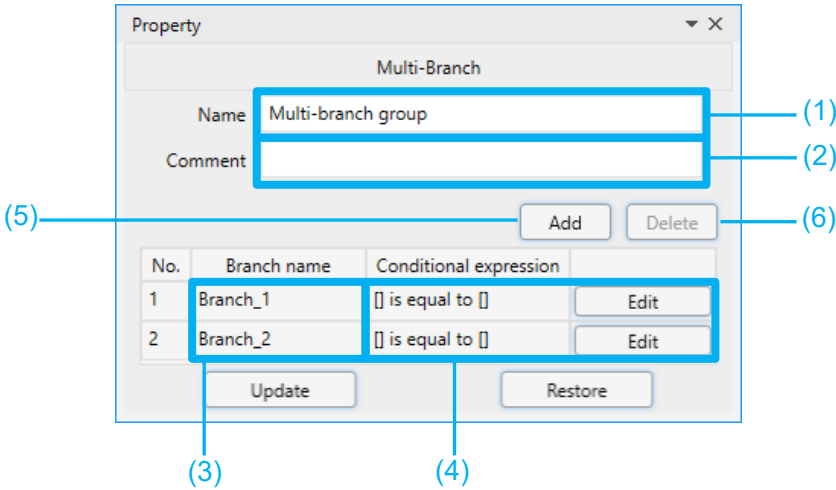


Table 4-4 Multi-Branch property settings

No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Multi-Branch comment can be used as a notepad when creating a scenario.
(3)	Branch name	Set the branch name for each branch process.

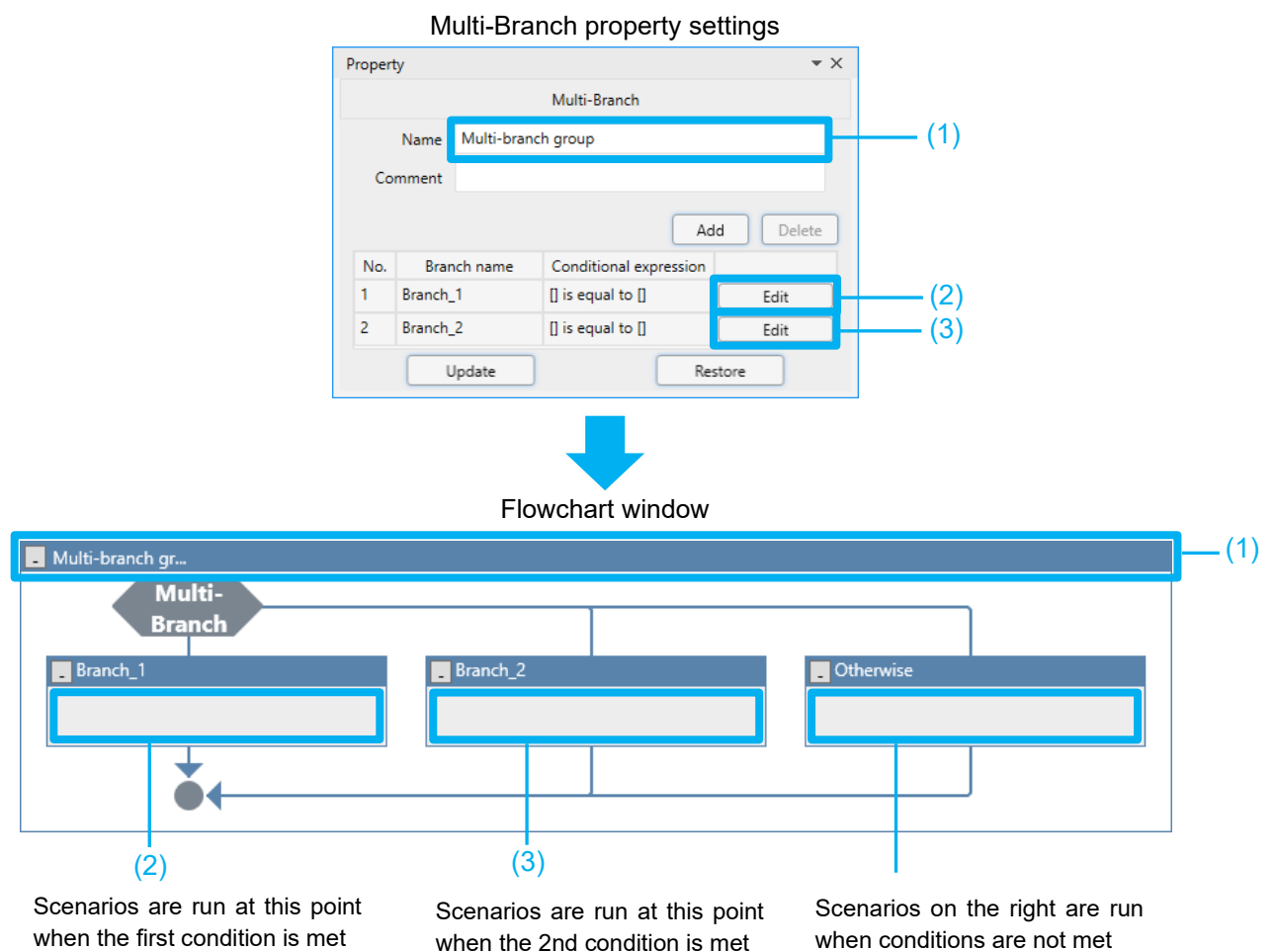
No.	Name	Description
(4)	Conditional expression	Set Multiple-branch iteration. Conditional expression can be increased by clicking 'Add' button in the 'Multi-Branch' property pane.
(5)	Add	Add branches. The added conditions will be used to determine the conditions in the numbered order.
(6)	Delete	Delete branches.

■ Set Multi-branch condition

Set the conditions in the 'Conditional expression' pane. Open the 'Conditional expression' pane by clicking 'Edit' button in the 'Multi-Branch' property pane.

 For details, see "3.7 Conditional Expression Pane."

Figure 4-21 Multi-Branch property and Flowchart window



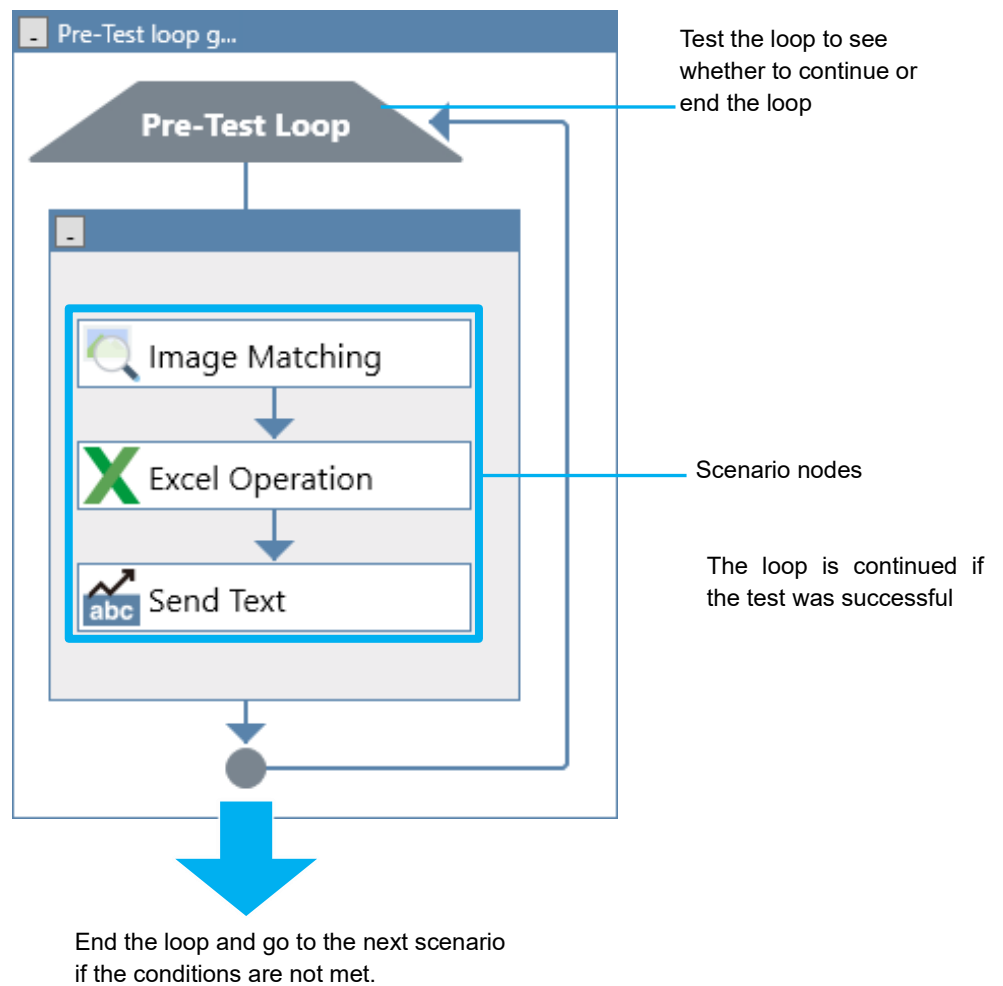
4.3.4 Pre-Test Loop

Repeat the scenario nodes. Test the loop to see whether to continue or end the loop. Processes are repeated when the specified conditions are met. The process will go to the next scenario if the conditions are not met.



As the conditions are for testing the loop, the series of operations may not run at all depending on the conditions.

Figure 4-22 Pre-Test Loop group

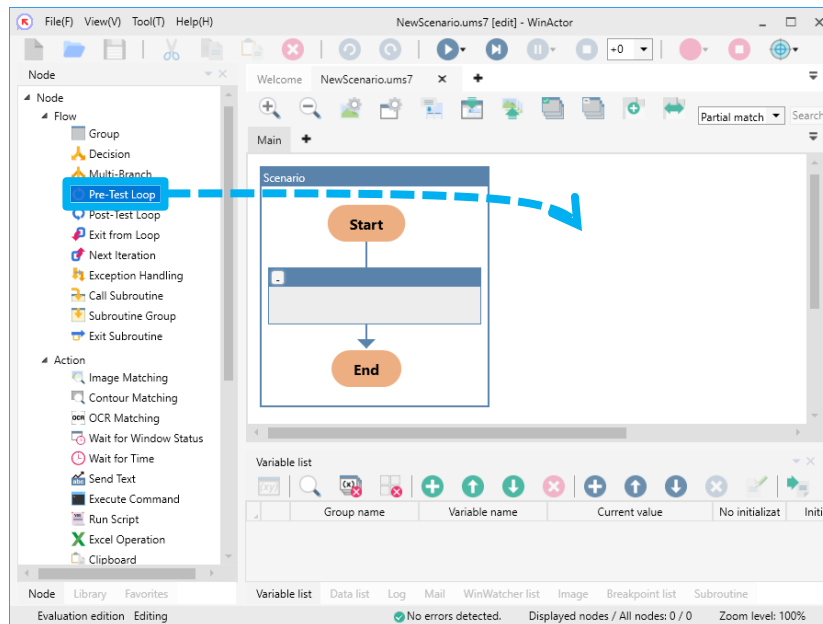


■ Place Pre-Test Loop

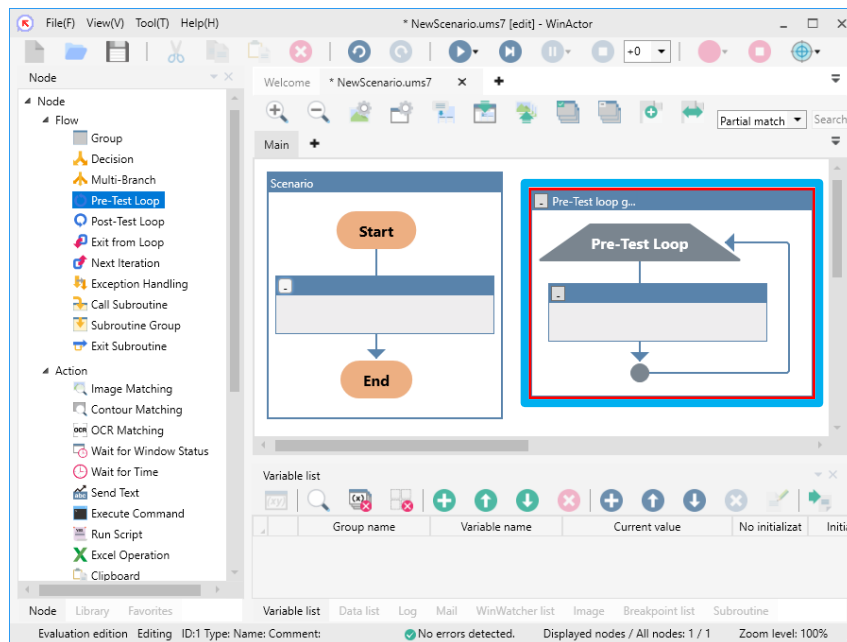
Follow the steps below to place the 'Pre-Test Loop' node.

Steps

1. Drag 'Pre-Test Loop' under 'Node' in the Palette area to the Flowchart area.



'Pre-Test Loop group' is placed in the Flowchart area.



■ Pre-Test Loop property

The following are settings in the 'Pre-Test Loop' property pane.

Figure 4-23 Pre-Test Loop property pane

The screenshot shows the 'Pre-Test Loop' property pane with the following fields and options:

- (1) Name: Pre-Test loop group
- (2) Comment: (empty text box)
- (3) Conditional expression: (selected radio button) Edit: (button)
- (4) Number of iterations: (radio button) Input variable name or value: (dropdown)
- (5) Range: (radio button) Input variable name or value: (dropdown) to: (dropdown) Input variable name or value: (dropdown)
- (6) Number of data: (radio button) Data filename: (dropdown) Input variable name or value: (dropdown)
- (7) Number of data (database): (radio button) Data Source name: (dropdown) Username: (dropdown) Password: (dropdown) Table name: (dropdown)
- (8) Template and data: (radio button) Template and data: (dropdown) Input data in the single-sheet or ledger-sheet format: (selected radio button) Iterate over the data in the tabular format: (radio button) Name of the tabular format that is the iteration target: (dropdown) Update the template and data after every iteration using the calculated values: (checkbox) Variable to store the updated template and data: (dropdown)
- (9) JSON object or JSON array: (radio button) JSON: (dropdown) JSONPath expression of the element to iterate over: (dropdown) (optional) Variable to store the working key name: (dropdown) (optional) Variable to store the working value: (dropdown)
- (10) Counter: (dropdown) (optional)

Buttons: Update, Restore

Table 4-5 Pre-Test Loop property pane

No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Pre-Test Loop comment can be used as a notepad when creating a scenario.
(3)	Conditional expression	Set when using conditional expressions to determine the conditions. Click the 'Edit' button to set the Conditional Expressions.
(4)	Number of iterations	Set when setting the number of repetitions.

No.	Name	Description
(5)	Range	Set when looping within a specified range. For instance, if 4 to 7 is specified, the counter will vary between 4, 5, 6, and 7 and will loop a total of 4 times.
(6)	Number of data	Set when using Excel or CSV files to loop as many times as there is data. The imported data will be allocated to a variable.  For format of imported data, see "Data for run loop."
(7)	Number of data (database)	Set when using the database to loop as many times as there is data. The imported data will be allocated to a variable.
(8)	Template and data	Set when using template and data to loop as many times as there is data. The imported data will be allocated to a variable.  For template and data, see "Template and data extraction (using Generative AI)."
(9)	JSON object or JSON array	Set when repeating to import key name and/or value from JSON object or JSON array. The imported key name and/or value will be allocated to the designated variables.
(10)	Counter	Set a variable to keep the loop counter. '1' is set for the first process and +1 is added for each loop and set in the variable. This can be used to determine the number of times the loop was processed (for instance, end after looping three times)

■ Set Pre-Test Loop (Conditional expression)

Conditional expression is set in the 'Conditional expression' property pane. Open the 'Conditional expression' property pane by clicking the Conditional expression's 'Edit' button in the 'Pre-Test Loop' pane.

 For 'Conditional expression' property, see "3.7 Conditional Expression Pane."

The variable set in 'Counter' starts with 1 and 1 is added for each loop.

■ Set Pre-Test Loop (Number of iterations)

Set the number of repetitions by entering a value or a variable. The variable set in 'Counter' starts with 1 and 1 is added for each loop.

■ Set Pre-Test Loop (Range)

Enter the range of repetitions by entering a value or variable for 'Start' and 'End.'

- If the value in the End box is bigger than the Start box, the variable set in the counter will begin from Start and 1 will be added for each loop.
- If the value in the End box is smaller than the Start box, the variable set in the counter will begin from Start and 1 will be deducted for each loop.

■ Set Pre-Test Loop (Number of data)

Enter the path of an Excel or CSV file that can be imported to the **Data list** or set a variable.

 For details of file paths, see "5.6 File Path."

 For format of imported data, see "Data for run loop."

- The loop is repeated for the number of data rows in the set file.
- The values imported from each row are allocated to the current values in the 'Variable list' tab pane.
- The variable set in the counter begins with 1 and 1 is added for each loop.

■ Set Pre-Test Loop (Number of data (database))

Set every item shown on the table below following the description of the item.

- The loop is repeated for the number of data rows in the set file.
- The values imported from each row are allocated to the current values in the 'Variable list' tab pane.
- The variable set in the counter begins with 1 and 1 is added for each loop.

Table 4-6 Number of data (database)

Item name	Description
Data Source name	Enter the data source registered in the ODBC.
Username	Enter the user to access that database.
Password	Enter the password set for that database.
Table name	Enter the table name in the connected database.



- When connecting to a database, register the database in the ODBC in advance.



For limitations of database, see "6.10 Limitations in the Database."

■ Set Pre-Test Loop (Template and data)

Set every item shown on the table below following the description of the item.

- When 'Input data in the single-sheet or ledger-sheet format' is selected, the loop is repeated only once.
In the first and only one loop, all the data of the single-sheet/ledger-sheet format data in the template and data are allocated to the current values of variables, those are related to the data name in the 'Variable list' tab pane.
- When 'Iterate over the data in the tabular format' is selected, the loop is repeated as many times as the number of data held by the tabular format in the selected template and data.
The imported data are allocated one by one to the current values of variables, those are related to the data name in the 'Variable list' tab pane.
- When 'Update the template and the data after every iteration using the calculated values' is selected, the current values of variables are collected after each iteration, and each data in the template and data is updated. The updated template and data will be allocated to the current value of the variable, selected in the 'Variable to store the updated template and data.'
- The variable set in the counter begins with 1 and 1 is added for each loop.

Table 4-7 Number of data (Template and data)

Item name	Description
Template and data	Select the template and data as the variable.  For template and data, see "Template and data extraction (using Generative AI)."
Input data in the single-sheet or ledger-sheet format	Select when importing data from a single-sheet/ledger-sheet format in the template and data.
Iterate over the data in the tabular format	Select when repeating the import of data from a tabular format in the template and data, as many times as the number of the data.
Name of the tabular format that is the iteration target	Enter the name of the tabular format that is the iteration target.
Update the template and the data after every iteration using the calculated values	Select when collecting the current values of variables after each iteration and updating the template and data.
Variable to store the updated template and data	Select the variable to store the updated template and data after each iteration.

■ Set Pre-Test Loop (JSON object or JSON array)

Set every item shown on the table below following the description of the item.

- When the element specified by JSONPath expression is JSON object, the loop is repeated as many times as the number of keys and values contained in the JSON object.
In each loop, key name and its value are allocated to the current values of the variables.
- When the element specified by JSONPath expression is JSON array, the loop is repeated as many times as the number of elements in the array.
In each loop, the value of the current item in the array is allocated to the current value of the variable.
- The variable set in the counter begins with 1 and 1 is added for each loop.

Table 4-8 Number of data (JSON object or JSON array)

Item name	Description
JSON	Enter JSON strings.
JSONPath expression of the element to iterate over	Enter JSONPath expression of the element to be iterated.
Variable to store the working key name	Select the variable, to which the key name will be allocated in the iteration.
Variable to store the working value	Select the variable, to which the value will be allocated in the iteration.

4.3.5 Post-Test Loop

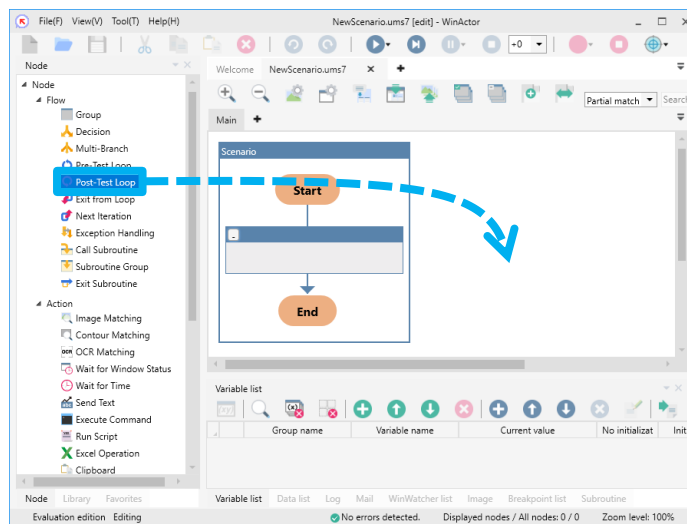
This repeats processes while the specified conditions are met. Due to this, the processes are repeated at least once regardless of the specified conditions.

■ Place Post-Test Loop.

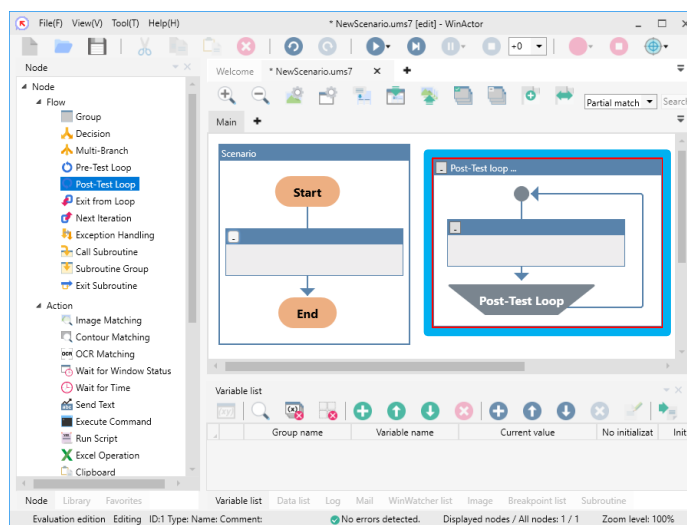
Follow the step below to place the 'Post-Test Loop' node.

Steps

1. Drag 'Post-Test Loop' under 'Node' in the Palette area to the Flowchart area.



'Post-Test Loop' is placed in the Flowchart area.



■ Post-Test Loop property

The following are settings in the 'Post-Test Loop' property pane.

Figure 4-24 Post-Test Loop property pane

The screenshot shows the 'Post-Test Loop' property pane with the following fields and options highlighted by numbered callouts:

- (1) Name: Post-Test loop group
- (2) Comment
- (3) Conditional expression (selected) and Edit button
- (4) Number of iterations (radio button) and Input variable name or value dropdown
- (5) Range (radio button) and Input variable name or value dropdown to Input variable name or value dropdown
- (6) Number of data (radio button) and Data filename dropdown
- (7) Number of data (database) (radio button) and Data Source name dropdown, Username dropdown, Password dropdown, and Table name dropdown
- (8) Template and data (radio button) and Template and data dropdown, Input data in the single-sheet or ledger-sheet format (selected), Iterate over the data in the tabular format (radio button), Name of the tabular format that is the iteration target dropdown, Update the template and data after every iteration using the calculated values checkbox, and Variable to store the updated template and data dropdown
- (9) JSON object or JSON array (radio button) and JSON dropdown, JSONPath expression of the element to iterate over dropdown (optional), Variable to store the working key name dropdown (optional), and Variable to store the working value dropdown
- (10) Counter dropdown (optional)

Buttons at the bottom: Update, Restore

Table 4-9 Post-Test Loop property

No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Post-Test Loop comment can be used as a notepad when creating a scenario.
(3)	Conditional expression	Set when using 'Conditional expressions' to determine the conditions. Then click 'Edit' button when setting a conditional expression.
(4)	Number of iterations	Set the number of times to loop.

No.	Name	Description
(5)	Range	Set when looping within the specified range. For instance, if 4 to 7 is specified, the counter will vary between 4, 5, 6, 7 and will loop a total of 4 times.
(6)	Number of data	Set when using Excel or CSV files to loop as many times as there is data. The imported data will be allocated to a variable.  For format of imported data, see "Data for run loop."
(7)	Number of data (database)	Set when using the database to loop as many times as there is data. The imported data will be allocated to a variable.
(8)	Template and data	Set when using template and data to loop as many times as there is data. The imported data will be allocated to a variable.  For template and data, see "Template and data extraction (using Generative AI)."
(9)	JSON object or JSON array	Set when repeating to import key name and/or value from JSON object or JSON array. The imported key name and/or value will be allocated to the designated variables.
(10)	Counter	Set a variable to keep the loop counter. '1' is set for the first process and +1 is added for each loop and set in the variable. This can be used to determine the number of times the loop was processed (for instance, end after looping three times)

■ Set Post-Test Loop (Conditional expression)

Conditional expression is set in the 'Conditional expression' property pane. Open the 'Conditional expression' property pane by clicking the Conditional expression's 'Edit' button of in the 'Post-Test Loop' pane.

 For procedures for operating in the 'Conditional expression' property, see "3.7 Conditional Expression Pane."

The variable set in 'Counter' starts with 1 and 1 is added for each loop.

■ Set Post-Test Loop (Number of iterations)

Set the number of repetitions by entering a value or a variable.

The variable set in 'Counter' starts with 1 and 1 is added for each loop.

■ Set Post-Test Loop (Range)

Enter the range by entering a value or variable for 'Start' and 'End.'

- If the value in the End box is bigger than the Start box, the variable set in the counter will begin from Start and 1 will be added for each loop.
- If the value in the End box is smaller than the Start box, the variable set in the counter will begin from Start and 1 will be deducted for each loop.

■ Set Post-Test Loop (Number of data)

Enter the path of an Excel or CSV file that can be imported to the Data list or set a variable.



For details of file paths, see "5.6 File Path."



For format of imported data, see "Data for run loop."

- The loop is repeated for the number of data rows in the set file.
- The values imported from each row are allocated to the current values in the 'Variable list' tab pane.
- The variable set in the counter begins with 1 and 1 is added for each loop.

■ Set Post-Test Loop (Number of data (database))

Set every item following the description of the item.



For text boxes of items in 'Number of data (database),' see "Table 4-6 Number of data (database)."

- The loop is repeated for the number of data rows in the set tile.
- The values imported from each row are allocated to the current values in the 'Variable list' tab pane.
- The variable set in the counter begins with 1 and 1 is added for each loop.



- When connecting to a database, register the database in the Windows ODBC in advance.



For limitations of database, see "6.10 Limitations in the Database."

■ Set Post-Test Loop (Template and data)

Set every item following the description of the item.

 For details of the items, see "Table 4-7 Number of data (Template and data)."

- When 'Input data in the single-sheet or ledger-sheet format' is selected, the loop is repeated only once.
In the first and only one loop, all the data of the single-sheet/ledger-sheet format data in the template and data are allocated to the current values of variables, those are related to the data name in the 'Variable list' tab pane.
- When 'Iterate over the data in the tabular format' is selected, the loop is repeated as many times as the number of data held by the tabular format in the selected template and data. The imported data are allocated one by one to the current values of variables, those are related to the data name in the 'Variable list' tab pane.
- When 'Update the template and the data after every iteration using the calculated values' is selected, the current values of variables are collected after each iteration, and each data in the template and data is updated. The updated template and data will be allocated to the current value of the variable, selected in the 'Variable to store the updated template and data.'
- The variable set in the counter begins with 1 and 1 is added for each loop.

■ Set Post-Test Loop (JSON object or JSON array)

Set every item following the description of the item.

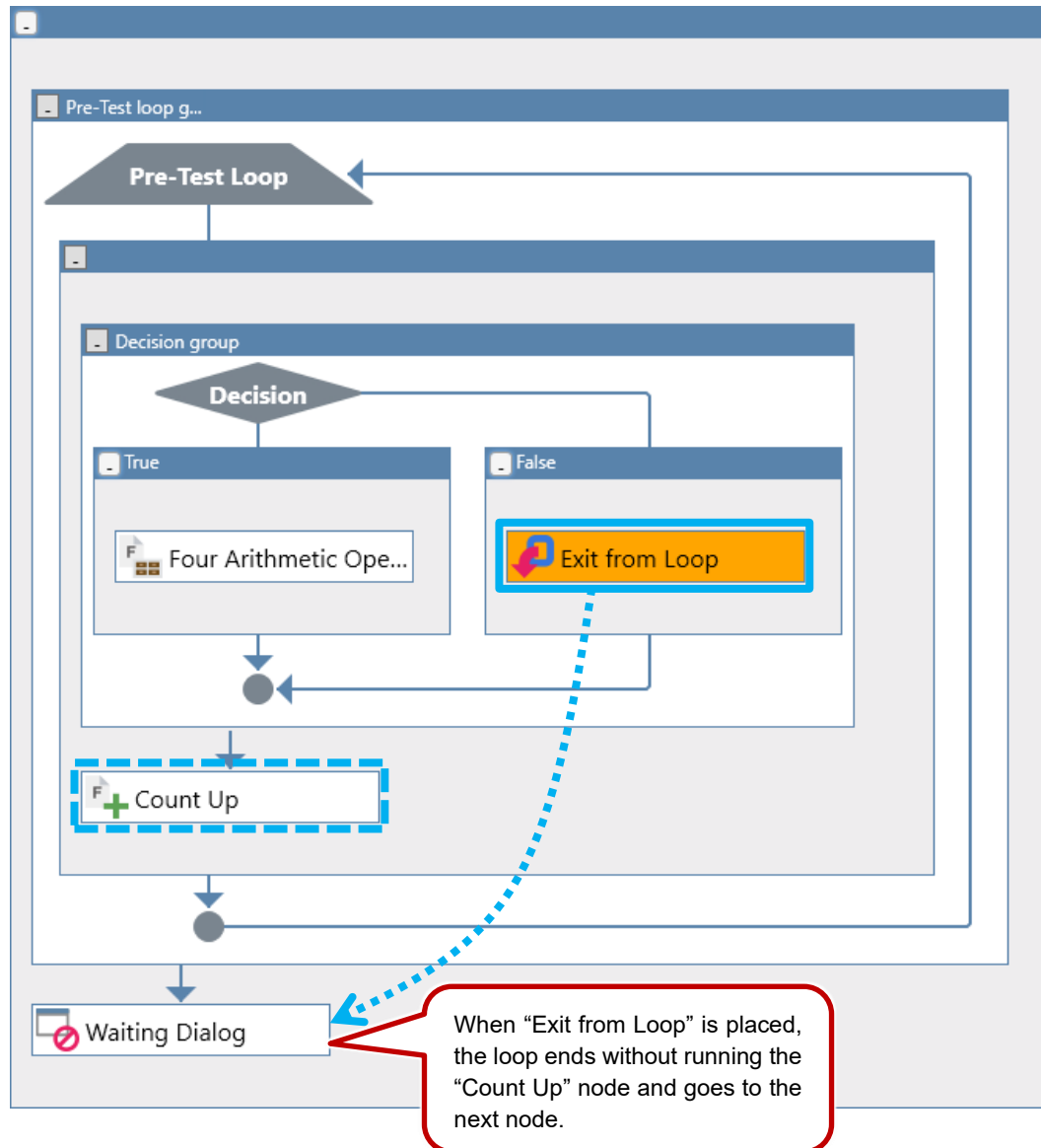
 For details of the items, see "Table 4-8 Number of data (JSON object or JSON array) ."

- When the element specified by JSONPath expression is JSON object, the loop is repeated as many times as the number of keys and values contained in the JSON object.
In each loop, key name and its value are allocated to the current values of the variables.
- When the element specified by JSONPath expression is JSON array, the loop is repeated as many times as the number of elements in the array.
In each loop, the value of the current item in the array is allocated to the current value of the variables.
- The variable set in the counter begins with 1 and 1 is added for each loop.

4.3.6 Exit from loop

Placing this node exits from the 'Pre/Post-Test Loop' and goes to the next node.

Figure 4-25 Exit from Loop

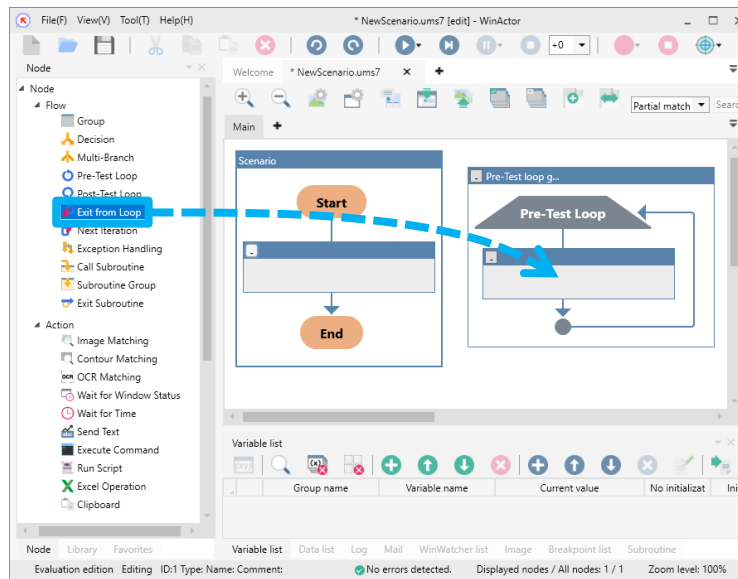


■ Place Exit from Loop

Follow the step below to place the 'Exit from Loop' node.

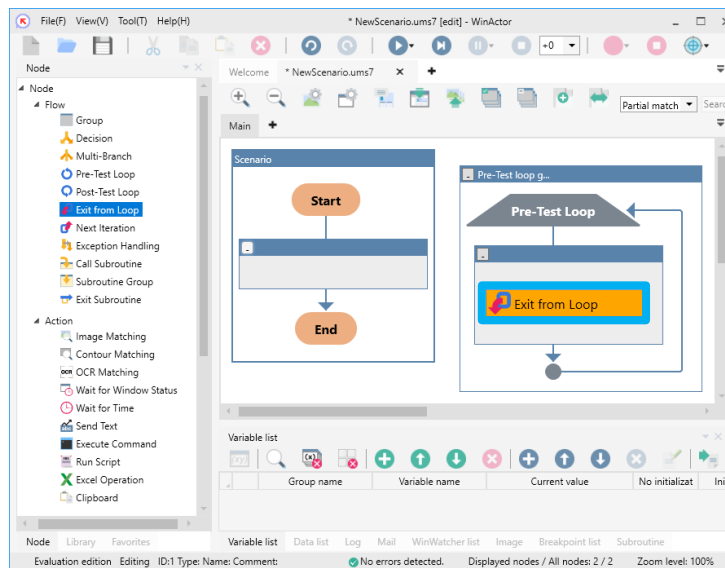
Steps

1. Drag 'Exit from Loop' under 'Node' in the Palette area to the Flowchart area.



Place 'Exit from Loop' in the 'Pre-Test Loop' / 'Post-Test Loop' group.

'Exit from Loop' is placed in 'Pre-Test Loop' group or 'Post-Test Loop' group in the Flowchart area.





- An action exception will be triggered if Exit from Loop is placed outside 'Pre/Post-Test' group and run.
- Nodes placed after 'Exit from Loop' will not be executed.

■ Exit from Loop property

The following are settings in the Exit from Loop property pane.

Figure 4-26 Exit from Loop property pane

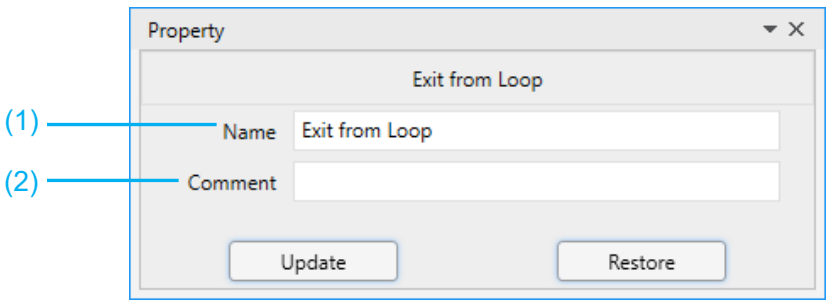


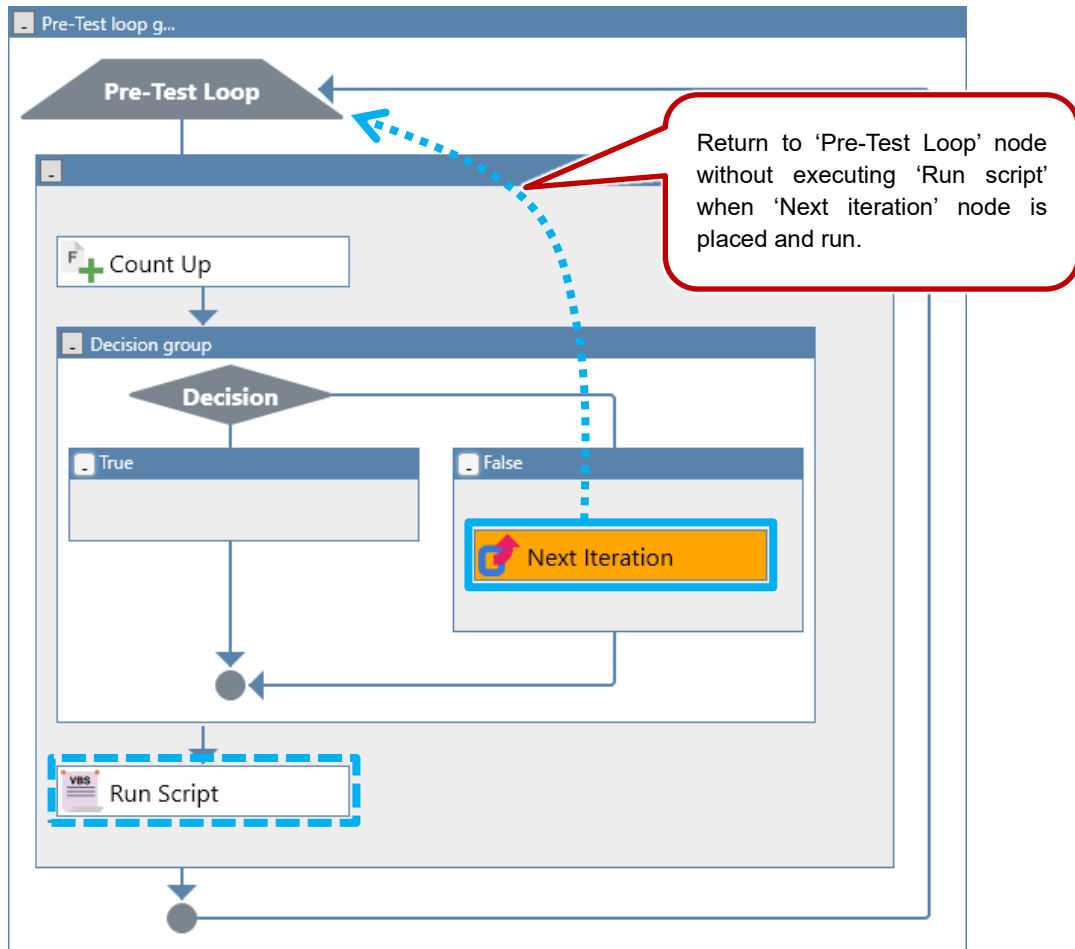
Table 4-10 Exit from Loop property

No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Exit from Loop comment can be used as a notepad when creating a scenario.

4.3.7 Next iteration

Moves to the next 'Pre/Post-Test Loop' condition without running the nodes after the placed node.

Figure 4-27 Next iteration

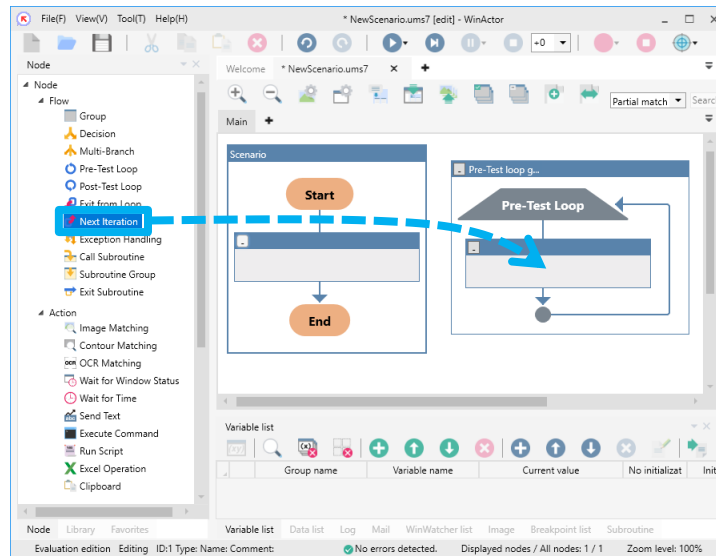


■ Place Next Iteration

Follow the step below to place the 'Next Iteration' node.

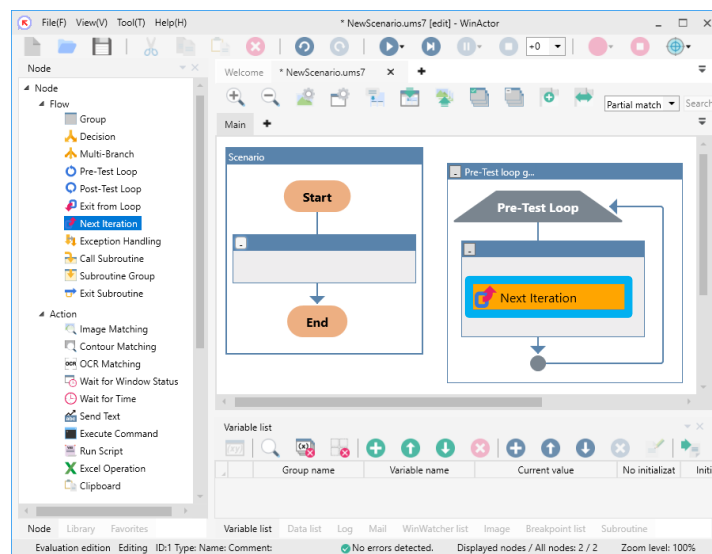
Steps

1. Drag 'Next Iteration' under 'Node' in the Palette area to the Flowchart area.



Place 'Next Iteration' in 'Pre-Test Loop'/'Post-Test Loop' group.

'Next Iteration' is shown in the Flowchart area.





- An action exception will be triggered if the 'Next iteration' node is placed outside 'Pre/Post-Test' group and run.
- Nodes placed after the 'Next iteration' node will not be executed.

■ Next Iteration property pane

The following are settings in the 'Next Iteration' property pane.

Figure 4-28 Next Iteration property pane

Table 4-11 Next Iteration property

No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Next Iteration comment can be used as a notepad when creating a scenario.

4.3.8 Exception Handling

The behavior for when an error occurs or a certain window is displayed is decided. When running in a normal flow, the exception handling will jump to the error.

Figure 4-29 Normal flow

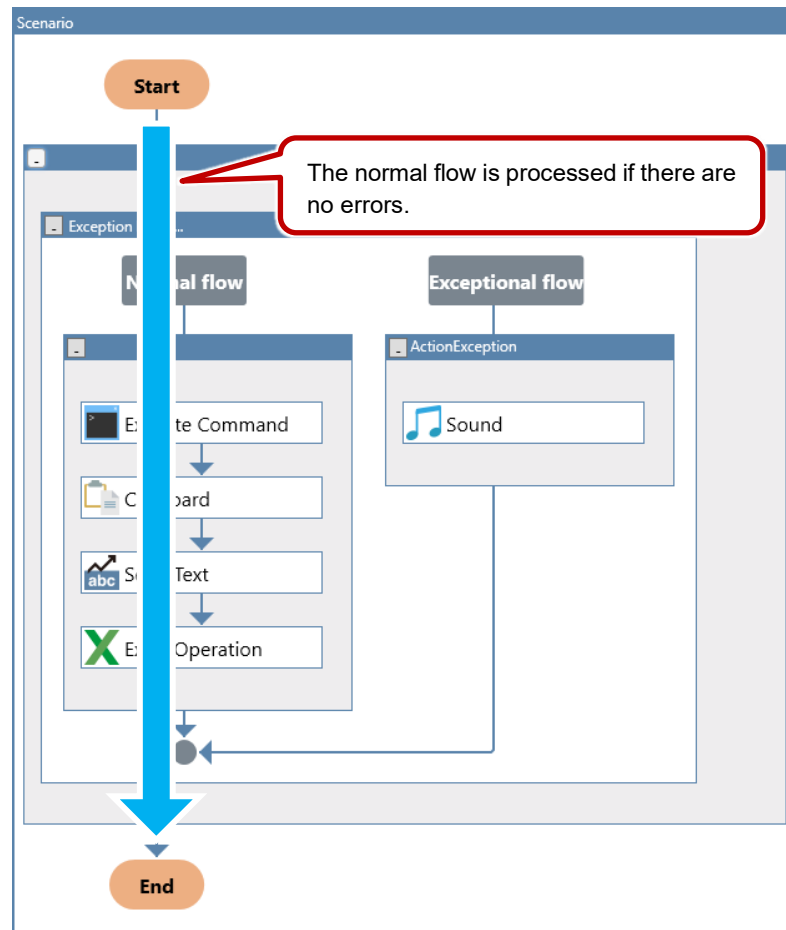
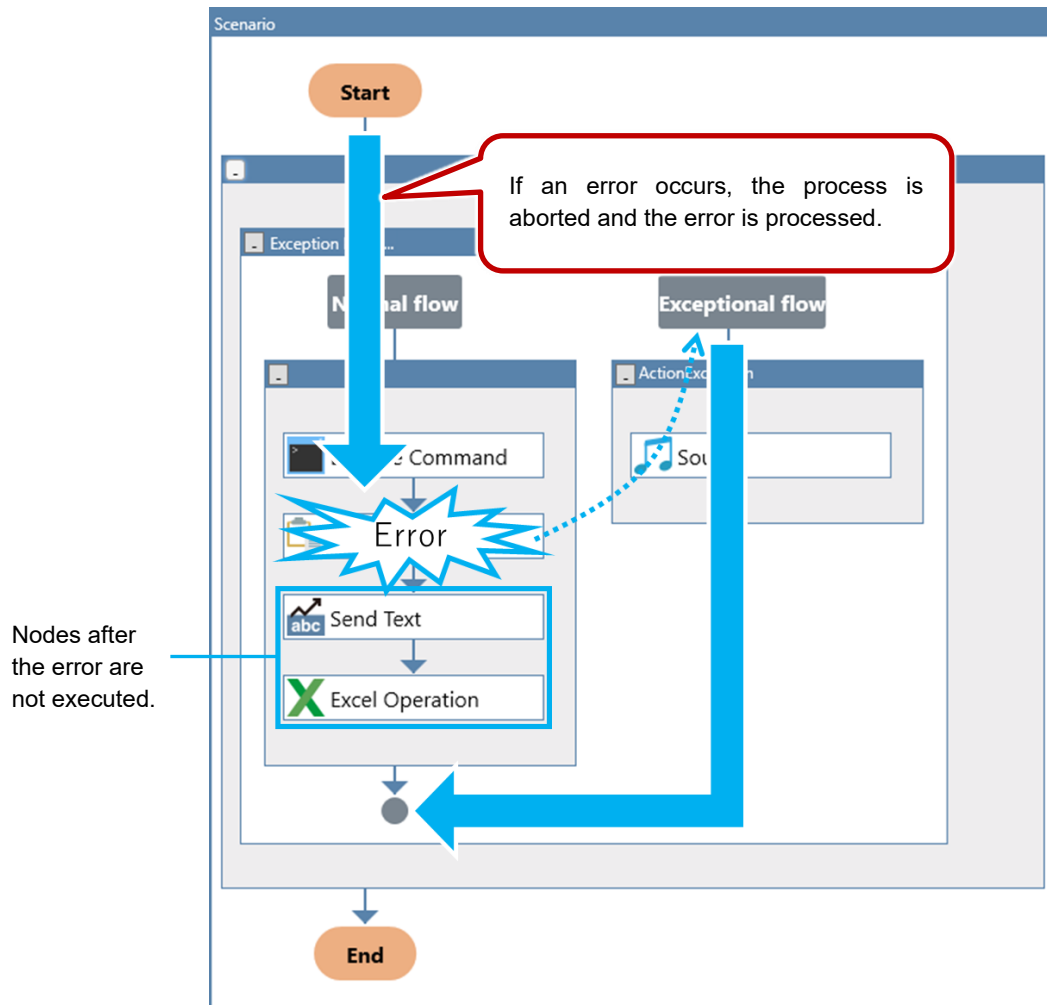


Figure 4-30 Flow in case of an error

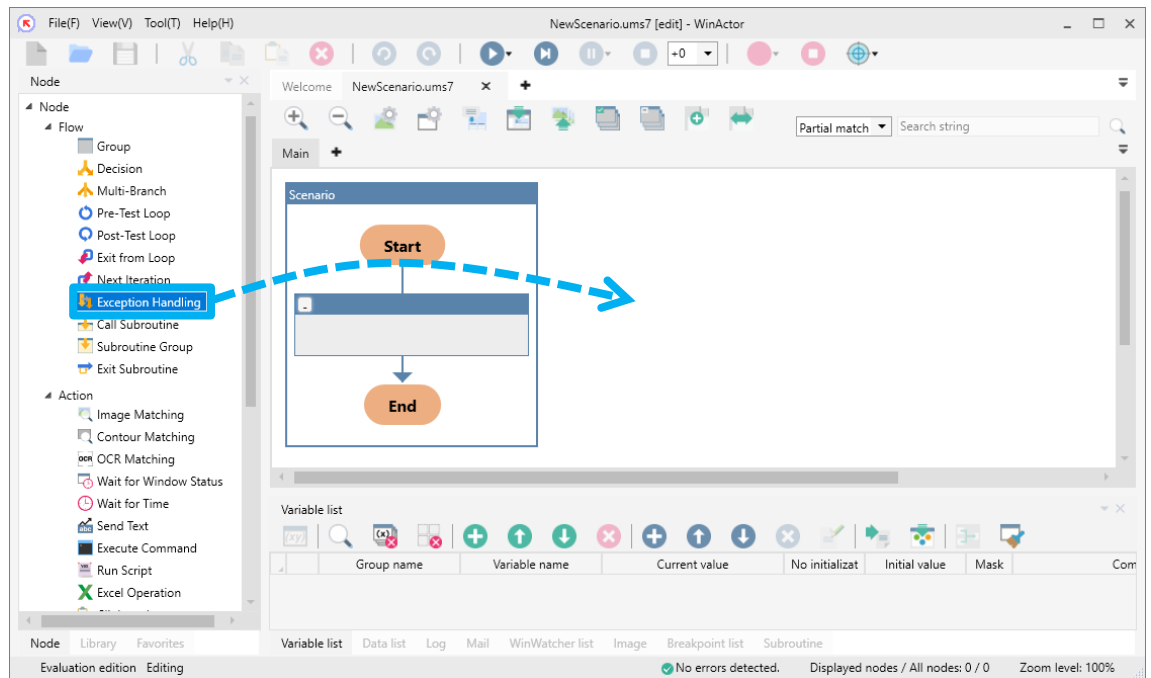


■ Place Exception Handling

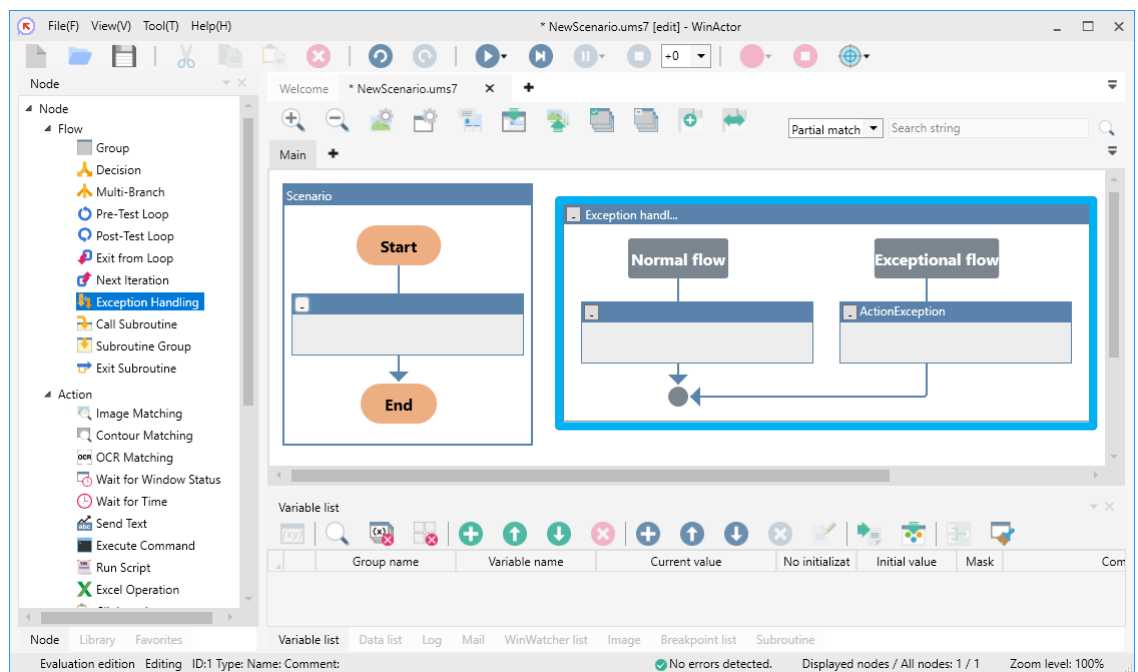
Follow the step below to place the 'Exception Handling' node.

Steps

1. Drag 'Exception Handling' under 'Node' in the Palette area to the Flowchart area.



'Exception Handling' is placed in the Flowchart area.



■ Exception Handling property

The following are settings in the 'Exception Handling' property pane.

Figure 4-31 Exception Handling property pane

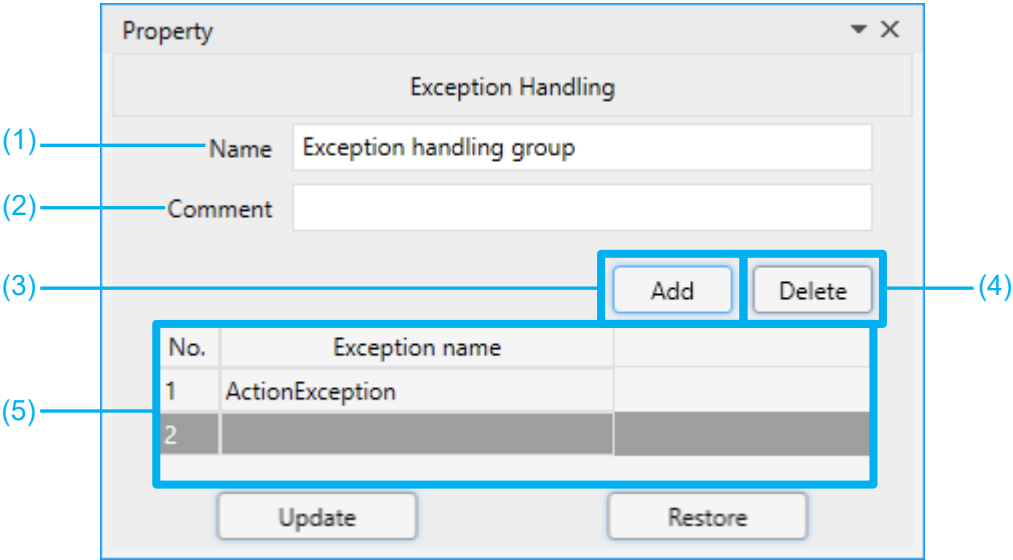


Table 4-12 Exception Handling property

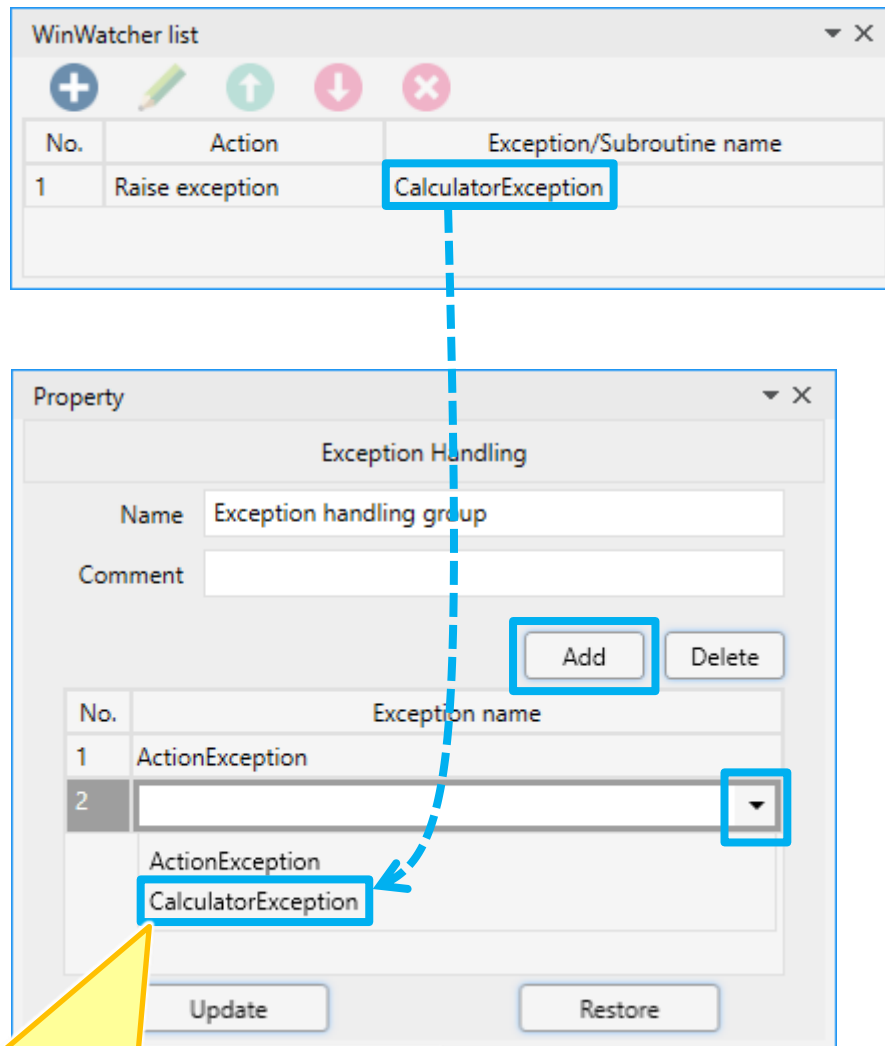
No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Exception Handling comment can be used as a notepad when creating a scenario.
(3)	Add	Add to Exceptional flow.
(4)	Delete	Delete an exception.
(5)	Exception name	Select an exception name.

■ WinWatcher

WinWatchers are monitoring rules used by Exception Handling to decide the behavior when a certain window is displayed. Register the monitoring rules in advance.

>> For steps to add a WinWatcher, see "Add WinWatcher window."

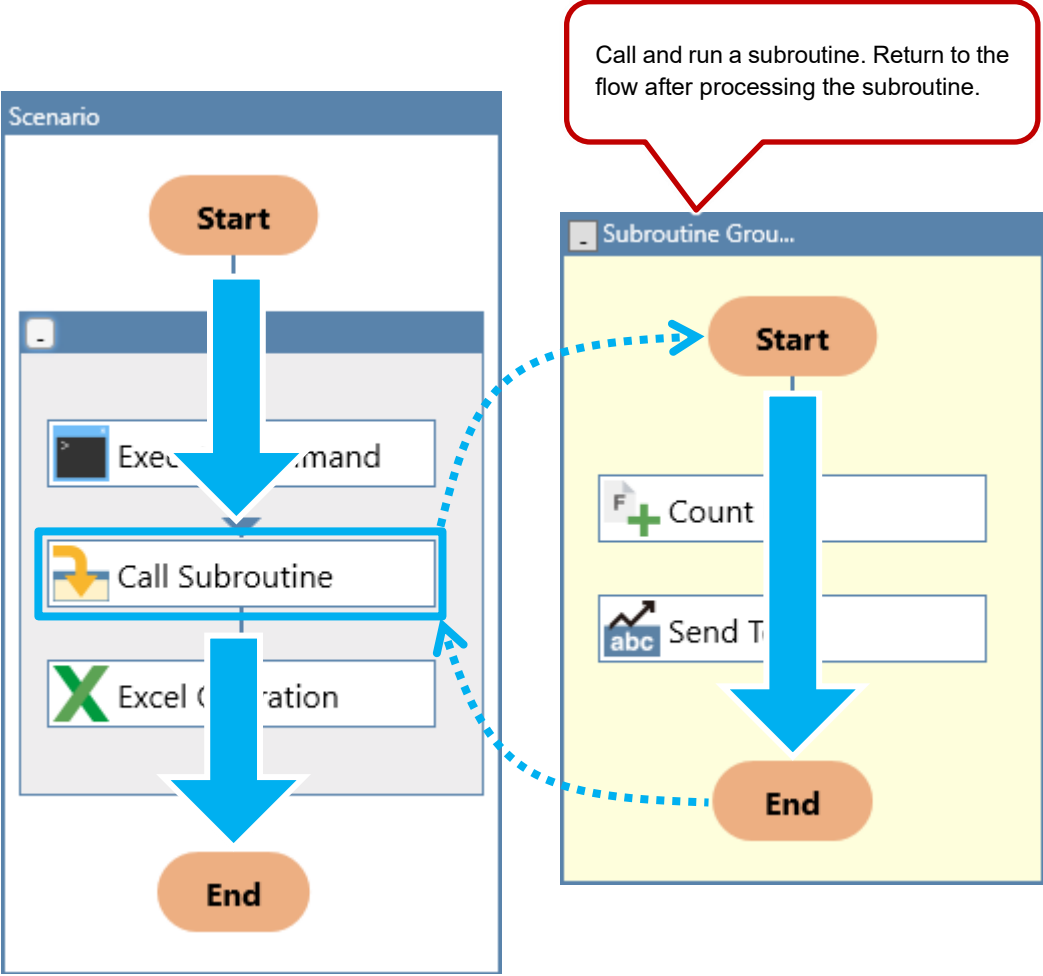
Figure 4-32 WinWatcher



4.3.9 Call Subroutine

The specified subroutines are processed and returns to the flow to execute the next process.

Figure 4-33 Flow of Call Subroutine

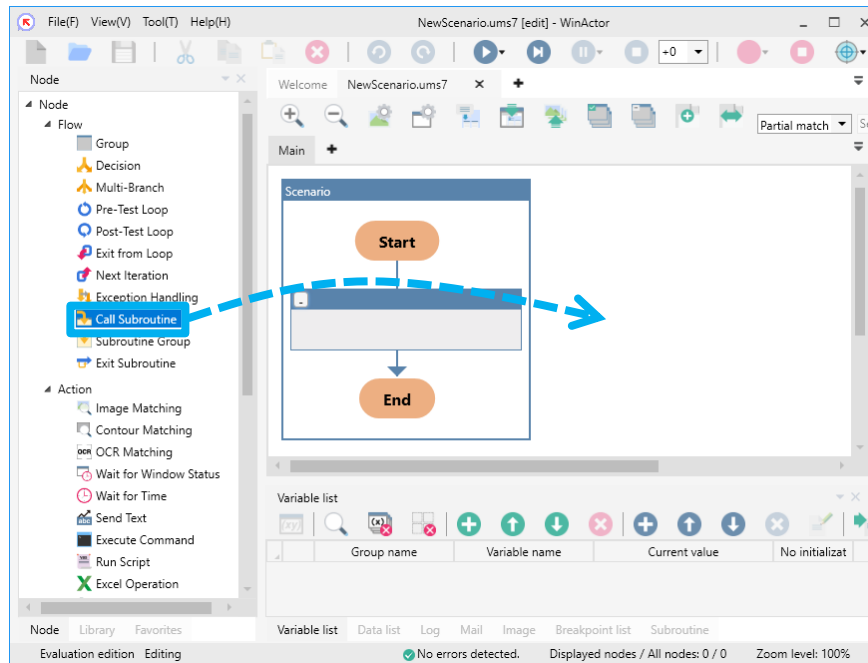


■ Place Call Subroutine

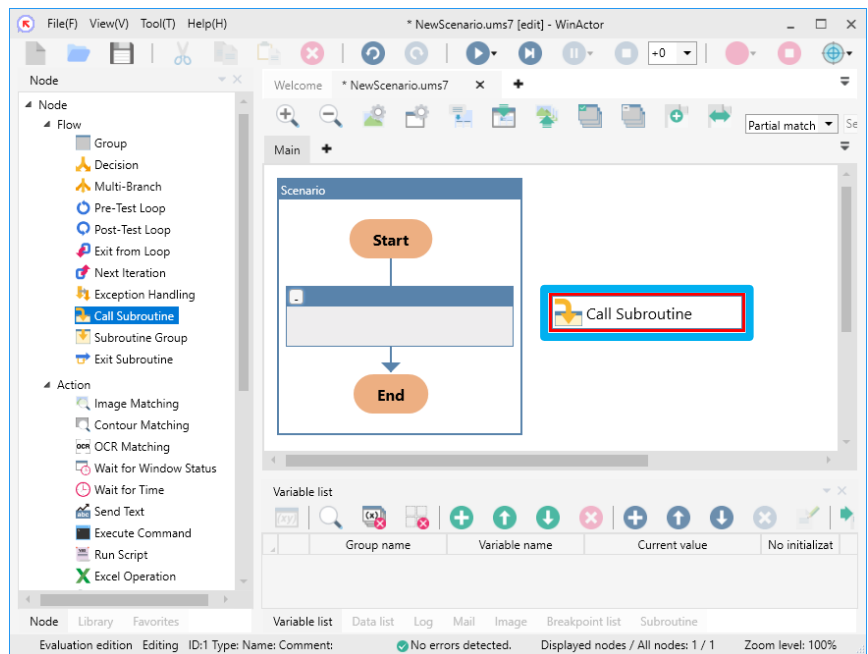
Follow the step below to place the 'Call Subroutine' node.

Steps

1. Drag 'Call Subroutine' under 'Node' in the Palette area to the Flowchart area.



'Call Subroutine' is placed in the Flowchart area.



■ Call Subroutine property

The following are settings in the 'Call Subroutine' property pane.

Figure 4-34 Call Subroutine property pane

The screenshot shows a 'Property' window titled 'Call Subroutine'. It contains several input fields and buttons. Callout (1) points to the 'Name' field containing 'Call Subroutine'. Callout (2) points to the 'Comment' field. Callout (3) points to the 'Subroutine name' dropdown menu, which is currently set to 'Subroutine Group'. Callout (4) points to the 'Return value' dropdown menu, which is set to 'Select variable name' and has '(optional)' next to it. Callout (5) points to a group of three input fields labeled 'Parameter1', 'Parameter2', and 'LocalVariable', each followed by an 'Input variable name' dropdown and '(optional)'. Callout (6) points to a 'Synchronize' button located to the right of the 'Subroutine name' dropdown.

Table 4-13 Call Subroutine property

No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Call Subroutine comment can be used as a notepad when creating a scenario.
(3)	Subroutine name	Specify a subroutine group you want to call.
(4)	Return value	Specify a variable to set a return value specified from 'Exit Subroutine.' The variable value is not changed if a return value is not set in 'Exit Subroutine.'
(5)	Argument/ Local variable	Variable name for local variable set in 'Subroutine Group' is shown. It is handled as an argument if setting a variable name or a value and as a local variable if not setting (if omitting) them.
(6)	Synchronize	Synchronize a local variable set in 'Subroutine Group' property with a variable name in (5). 'Synchronize' button is enabled when the local variable of the subroutine group is changed (added/deleted).

 An action exception is triggered if a subroutine is called without setting a subroutine name.

■ Jump to subroutine

Jump to and selects a called 'Subroutine Group' node when 'Jump to Subroutine' is selected from the right-click menu or using shortcut keys (Ctrl+J) while the 'Call Subroutine' node is selected



For jump to subroutine, see "Jump to subroutine."

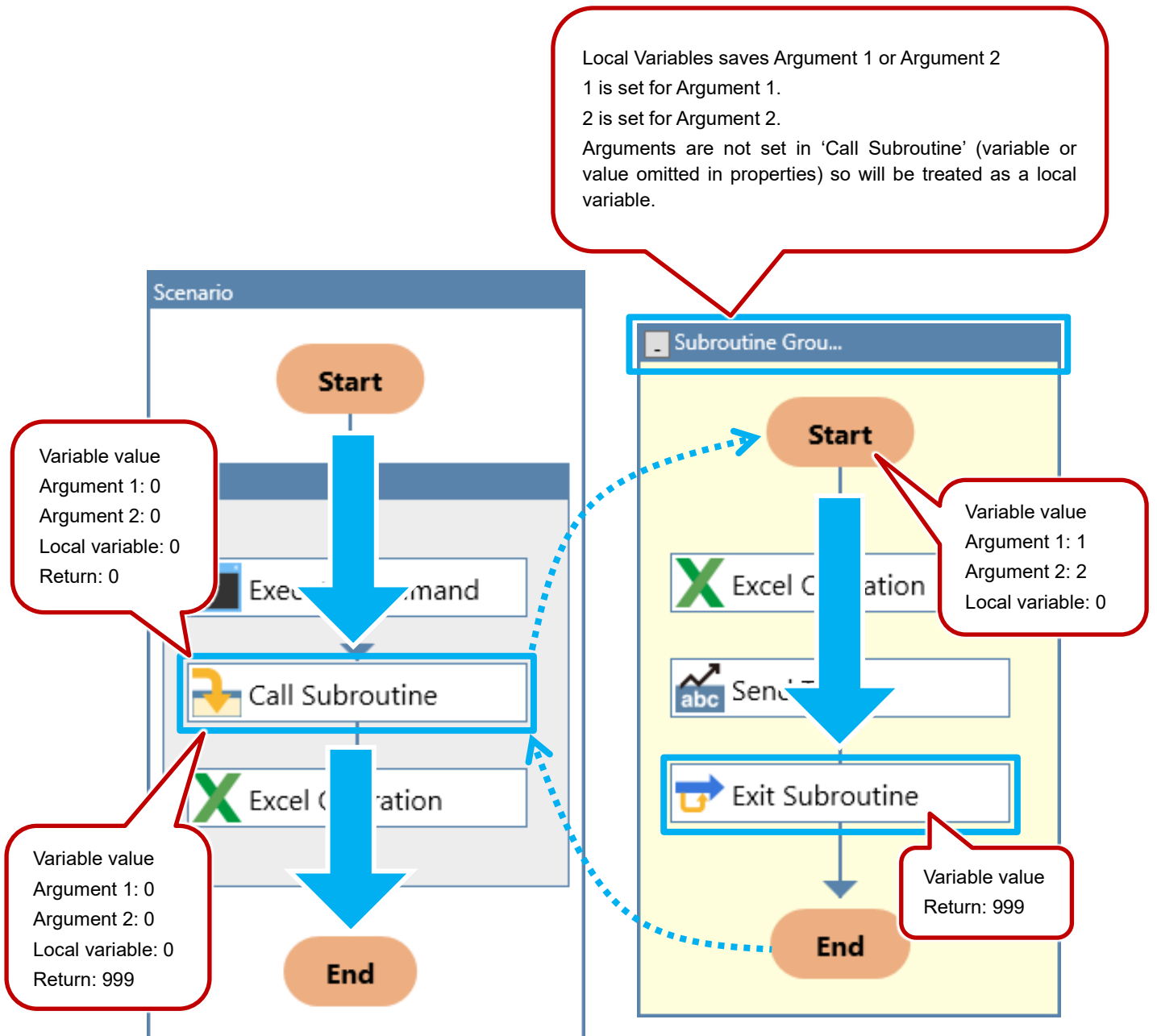
4.3.10 Subroutine Group

- A 'Subroutine Group' is a collection of one or multiple nodes. There may be different nodes (excluding Subroutine group) mixed in a 'Subroutine Group.'
- Subroutine Groups are processed by Call Subroutine or WinWatcher. Readability and sustainability will be enhanced by grouping looped processes into one 'Subroutine Group.'
- 'Subroutine Group' has a function called local variables. The variable values set in the local variables are saved when the subroutine starts and returned when the subroutine ends.
- In a scene where local variables are used, the assumption is that, for instance, a subroutine calls its own subroutine (recursive call), or the same variable is used somewhere other than in the subroutine. By setting variables as local variables, unintended overwriting of variable values in the subroutine can be prevented.
- Out of the local variables, if an argument is set in Call Subroutine, the variable will be treated as an argument and the variable value specified by the argument will be saved after the value is saved at the beginning of the subroutine.

■ Behavior when setting argument in the Call Subroutine

The behavior when setting an argument in 'Call Subroutine' is as follows.

Figure 4-35 Behavior when setting argument in the Call Subroutine



Property

Call Subroutine

Name
Call Subroutine

Comment

Subroutine name
Subroutine Group
Synchronize

Return value
ReturnValue
(optional)

Parameter1
Value=> 1
(optional)

Parameter2
Value=> 2
(optional)

LocalVariable
Input variable name
(optional)

Update
Restore

Property

Subroutine

Name
Subroutine Group

Comment

Local variable list (variables to restore the initial value at the end)

Parameter1
Parameter2
LocalVariable

Variable
Select variable name

Add
Delete

☒ Allow empty string

Update
Restore

Property

Exit Subroutine

Name
Exit Subroutine

Comment

Return value
Value=> 999
(optional)

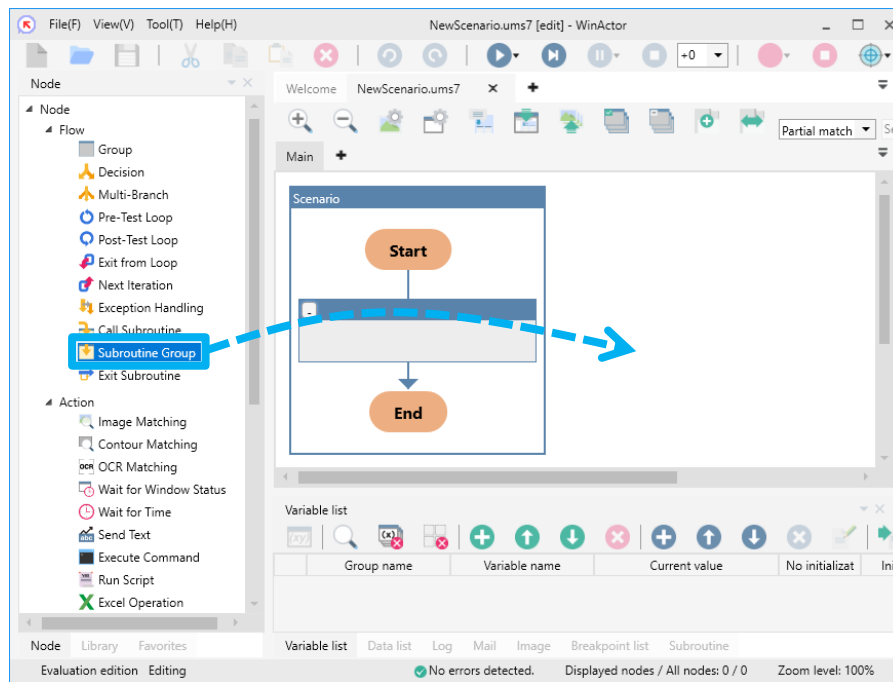
Update
Restore

■ Place Subroutine Group

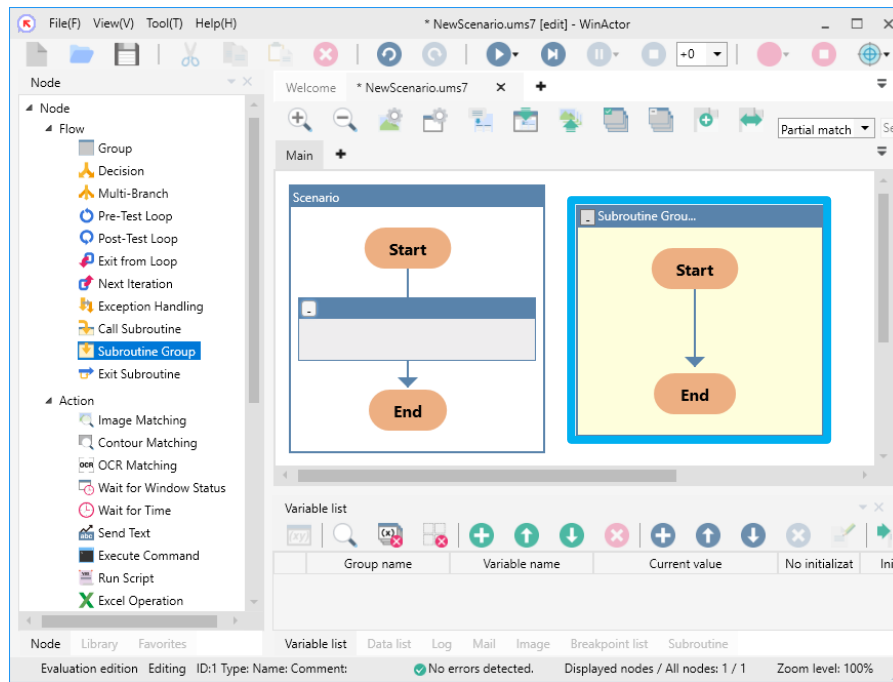
Follow the step below to place the 'Subroutine Group' node.

Steps

1. Drag 'Subroutine Group' under 'Node' in the Palette area to the Flowchart area.



‘Subroutine Group’ is placed in the Flowchart area.



■ Subroutine Group property

The following are settings in the ‘Subroutine Group’ property pane.

Figure 4-36 Subroutine Group property

The screenshot shows a 'Property' window titled 'Subroutine'. It contains the following elements with callouts: (1) points to the 'Name' text box containing 'Subroutine Group'; (2) points to the 'Comment' text box; (3) points to the 'Local variable list (variables to restore the initial value at the end)' label; (4) points to the 'Variable' dropdown menu with 'Select variable name' selected; (5) points to the 'Delete' button; (6) points to the 'Allow empty string' checkbox, which is checked. At the bottom are 'Update' and 'Restore' buttons.

Table 4-14 Subroutine Group property

No.	Name	Description
(1)	Name	Set the name to display in the flowchart. Group name can be set and is shown in the Flowchart area.
(2)	Comment	Subroutine Group comment can be used as a notepad when creating a scenario.
(3)	Local variable list	List of local variables.
(4)	Variable	Enter the variable name to add a local variable. In addition, select or enter the variable to delete the local variable.
(5)	Delete	Delete the selected local variable from the list.
(6)	Allow empty string	Set to allow empty arguments and return values

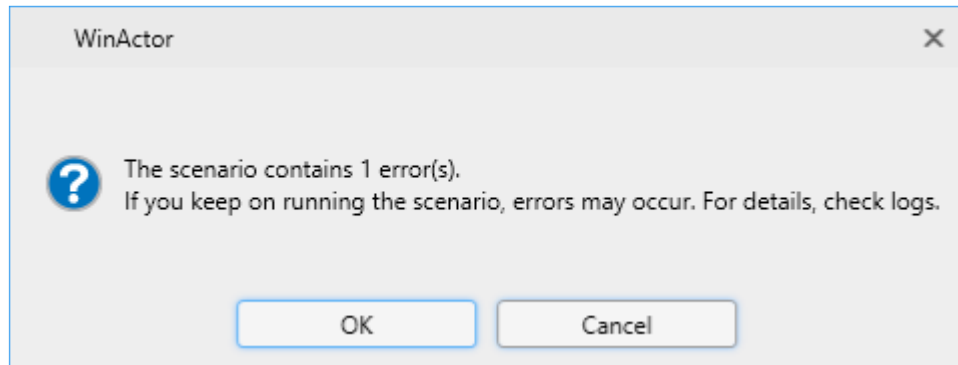
 Changing the ‘Name’ changes the display name in the flowchart. In addition, the settings for Call Subroutine and monitoring rules will be changed automatically.

 Up to 255 characters can be used for the Subroutine Group names and the names must be unique. Spaces are not allowed.



- When the property of Subroutine Group is changed, the property settings of Call Subroutine that is affected by the mismatch of local variables and the like are treated as not set, and the node is displayed in a red frame. In addition, if the local variables do not match, the 'Synchronize' button will be enabled.

If the scenario is run in this state, the following confirmation dialog will be displayed.



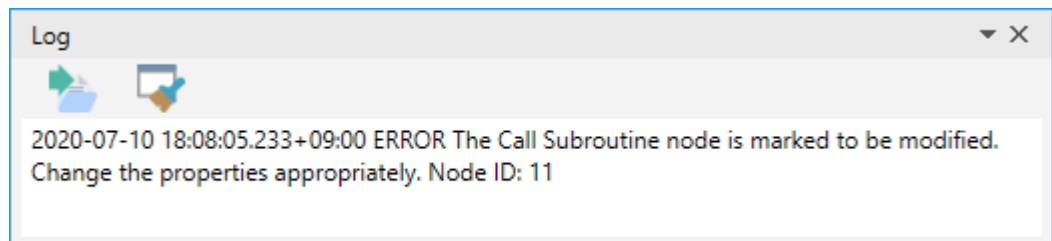
By resetting the property settings of the affected Call Subroutine, the Call Subroutine will be set, and the above confirmation dialog will no longer be displayed.



For the 'Synchronize' button, see "Call Subroutine property."

- When the property of the subroutine group is changed, the information of the affected Call Subroutine will be exported to Logs.

Double-click the line containing the Node ID to select the corresponding Call Subroutine in the flowchart.



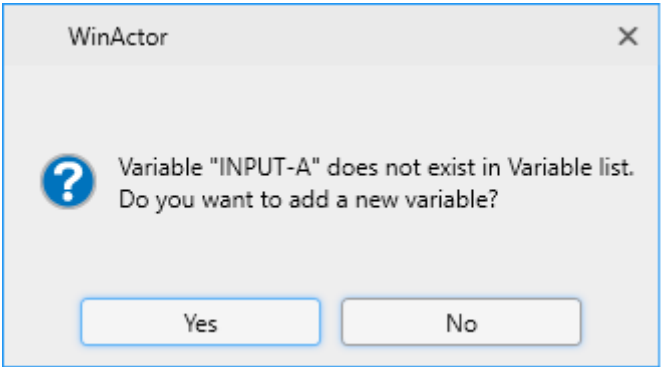
■ Local variable

Set the local variables by selecting a variable from the Variable list registered in the properties or entering a variable name.

Enter a new variable name and click the 'Update' button to display the dialog to confirm the changes to the Variable list. Click the 'Yes' button to register a variable with an empty string as the initial value.

 For the dialog to confirm whether a new variable name is reflected to 'Variable list,' see "Table 4-15 Confirmation dialog for reflecting to Variable list and operations."

Table 4-15 Confirmation dialog for reflecting to Variable list and operations

No.	In case of clicking 'OK' button	Confirmation dialog and operations
(1)	Variable specified as a variable name does not exist in the Variable list	 The variable will be registered in the 'Variable list' and the changes to the properties will be applied when the 'Yes' button is clicked. The changes to the properties will not be applied when the 'No' button is clicked.

4.3.11 Exit Subroutine

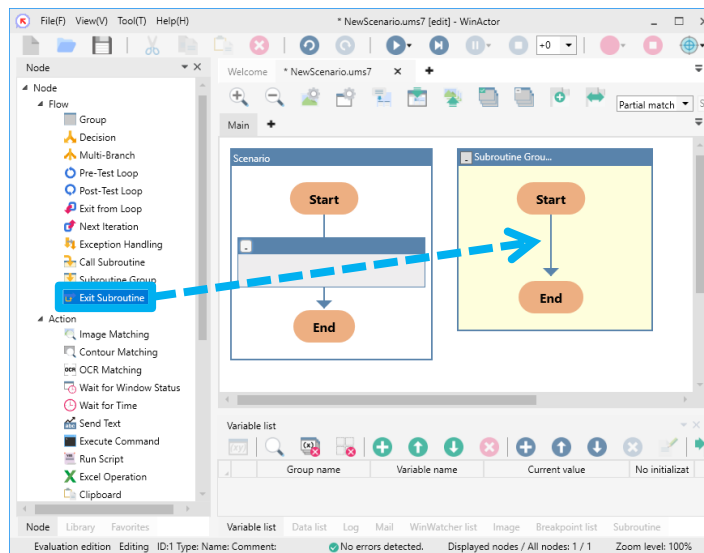
Go to the next node without running the nodes past the point where the subroutine was called. Return values can also be set in this node.

■ Place Exit Subroutine

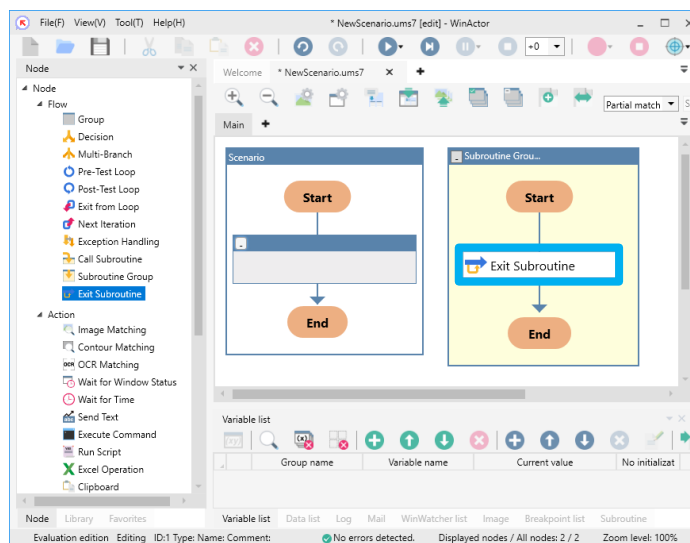
Follow the step below to place the 'Exit Subroutine' node.

Steps

1. Drag 'Exit Subroutine' under 'Node' in the Palette area to the Flowchart area.



'Exit Subroutine' is placed in the Flowchart area.





- An action exception is triggered if the node is placed outside the 'Subroutine Group.'
- Note that nodes places after the Exit Subroutine node will not be executed.

■ Exit Subroutine property

The following are settings in the 'Exit Subroutine' property pane.

Figure 4-37 Exit Subroutine property pane

Property

Exit Subroutine

(1) Name Exit Subroutine

(2) Comment

(3) Return value Input variable name or (optional)

Update Restore

Table 4-16 Exit Subroutine property

No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Exit Subroutine comment can be used as a notepad when creating a scenario.
(3)	Return value	Set the variable name or value to return to the caller subroutine.

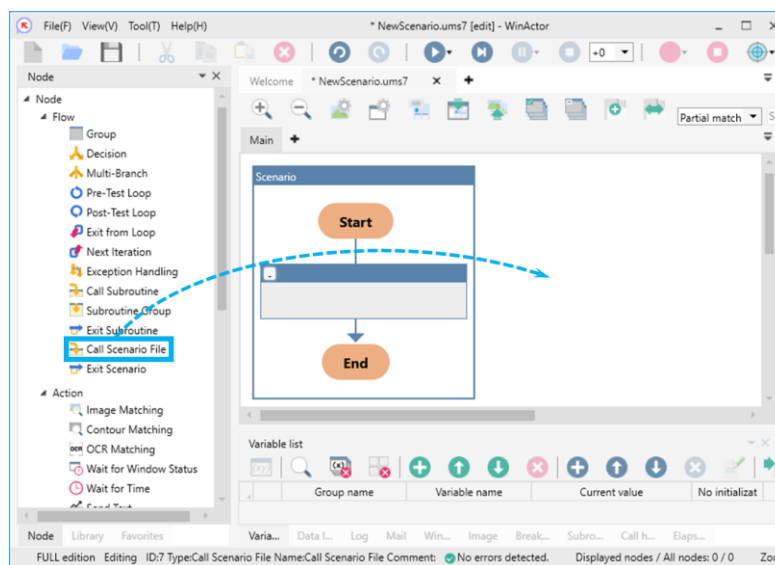
4.3.12 Call Scenario File

Load and run the specified scenario. After running the specified scenario, the flow returns to the caller scenario and the next 'Call Scenario File' process will run.

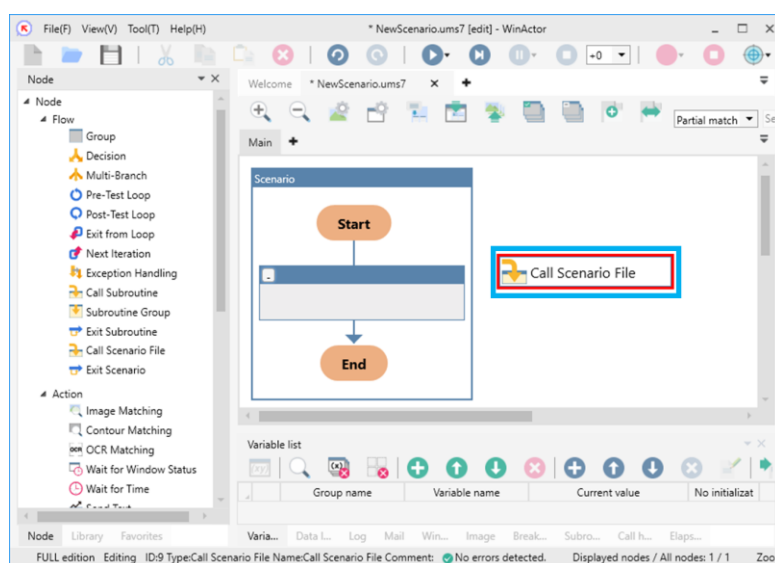
■ Place Call Scenario File

Steps

1. Drag 'Call Scenario File' under 'Node' in the Palette area to the Scenario box in the Flowchart area.



'Call Scenario File' is placed in the flowchart area.



■ Call Scenario File property

The following describes the setting items in the Call Scenario File property pane.

Figure 4-38 Call Scenario File property (Call Setting tab)

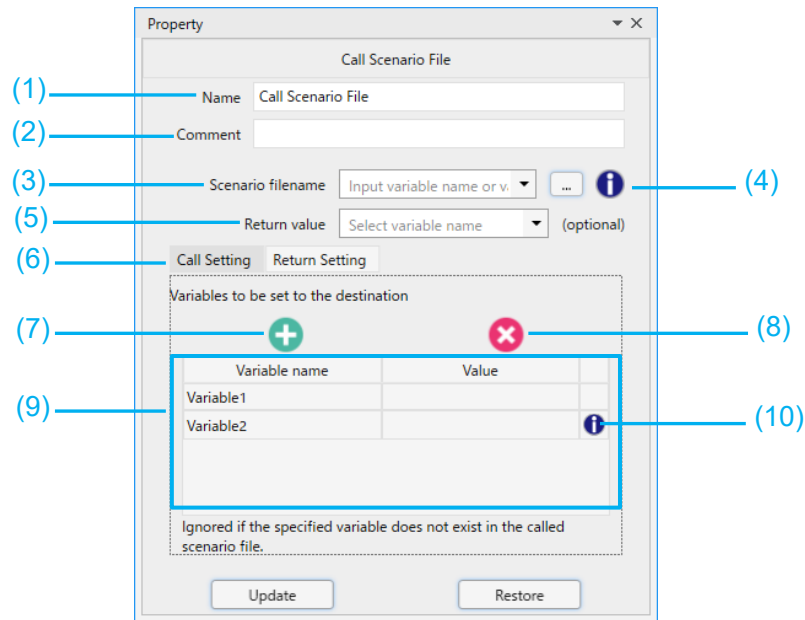
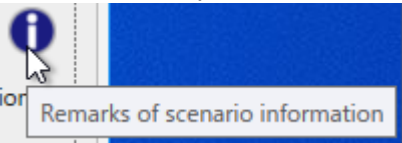
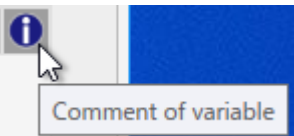


Table 4-17 Call Scenario File property (Call Setting tab)

No.	Name	Description
(1)	Name	Set the name to display in the Flowchart.
(2)	Comment	Set a comment. This is a field to be used as a memo when creating a scenario.
(3)	Scenario file name	Specify the path for the called scenario.  For details of file paths, see "5.6 File Path." If a password has been set for the called scenario, 'Scenario Password' will be displayed, and the user will be prompted to enter the password. If the password is the same as that of the last opened scenario, 'Scenario Password' will not be displayed.
(4)	Scenario information icon	This icon will be displayed if there are any information regarding the called scenario noted. Hover the mouse cursor over the icon to view the tool tip.  The icon will not be displayed if there are no notes.

No.	Name	Description
(5)	Return value	Specify the variable that is set a return value from the called scenario. If this variable setting is omitted, the return value from the called scenario will be ignored. If the called scenario does not set a return value, an empty string will be set in the specified variable.
(6)	Call Setting tab	Displays call settings.
(7)		Adds a row in [Variable to be set to the destination].
(8)		Deletes a row selected in [Variable to be set to the destination].
(9)	Variable to be set to the destination	Specify the variable name used in the called scenario and set the initial value. If the called scenario file has already been saved, the variable name can be selected from the list. The variable name can also be entered directly. The initial value can be a variable name or a value.
(10)	Comment icon	This icon will be displayed if there are any comments for a variable in the called scenario's variable list. Hover the mouse cursor over the icon to view the tool tip.  The icon will not be displayed if there are no comments



The scenario file can be specified with a version number in 'Scenario file name' when a version number is added to a scenario filename and saved

The version number is three numbers (major, minor, revision), separated by periods.

Example

Scenario file name.1.2.3.ums7

Scenario files can be specified while omitting a part or all of the version number.

Example

Scenario file name.1.2.3.ums7

Scenario file name.1.2.ums7

Scenario file name.1.ums7

Scenario file name.ums7

If there are multiple scenario files that match the scenario filename and the specified version numbers, the scenario file to be called is determined in the following order:

1. If major, minor, and revision are all specified, the scenario file with all three matched

will be called.

2. If revision is omitted, the scenario file with the specified major and minor matched and with the latest revision will be called.

3. If minor and revision are omitted, the scenario file with the specified major matched and with the latest minor will be called.

4. If major, minor, and revision are all omitted, the scenario file with the latest version number will be called.



Scenario files with extensions [.ums7], [.uss7], [.wsb7], [.ums6], and [.ums5] can be selected for 'Scenario file name.'

Scenario file extensions (.ums7, .uss7, .wsb7, .ums6, .ums5) specified with Scenario file name can be omitted.

If there are multiple scenario files with different extensions in a specified folder, the scenario file to be called will be determined by the following priority:

1. Scenario file name.ums7
2. Scenario file name.uss7
3. Scenario file name.wsb7
4. Scenario file name.ums6
5. Scenario file name.ums5

Figure 4-39 Call Scenario File property (Return Setting tab)

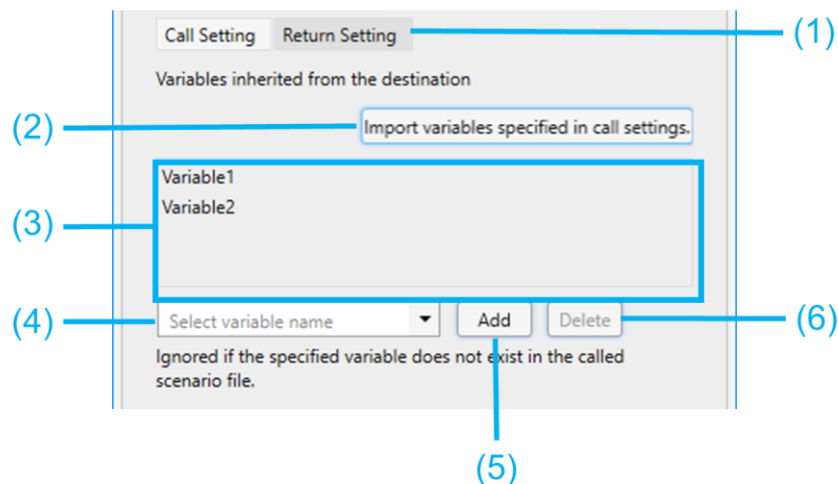


Table 4-18 Call Scenario File property (Return Setting tab)

No.	Name	Description
(1)	Return Setting tab	Displays the return settings.

No.	Name	Description
(2)	Import variable specified in call settings	Adds a variable name specified in [Variable to be set to the destination] in the Call Setting tab to [Variables inherited from the destination].
(3)	Variables inherited from the destination	When the caller and called scenarios use variables with the same name, specify variables that inherit the variable values from the called scenario.
(4)	Select variable name	Specify a variable to be added to [Variables inherited from the destination].
(5)	Add	Adds the variable specified in [Select variable name] to [Variables inherited from the destination].
(6)	Delete	Deletes the variable selected in [Variables inherited from the destination].

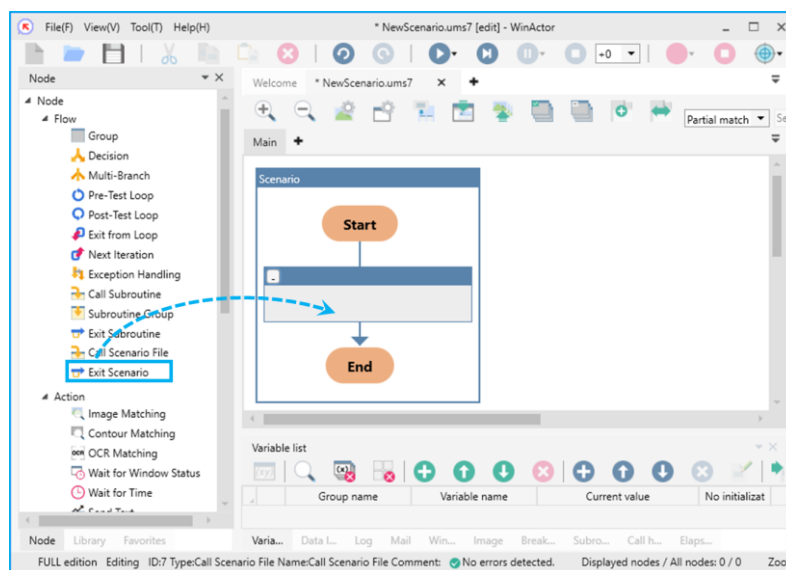
4.3.13 Exit Scenario

Ends a called scenario and returns a processing to a caller scenario without running subsequent nodes. You can also set a return value.

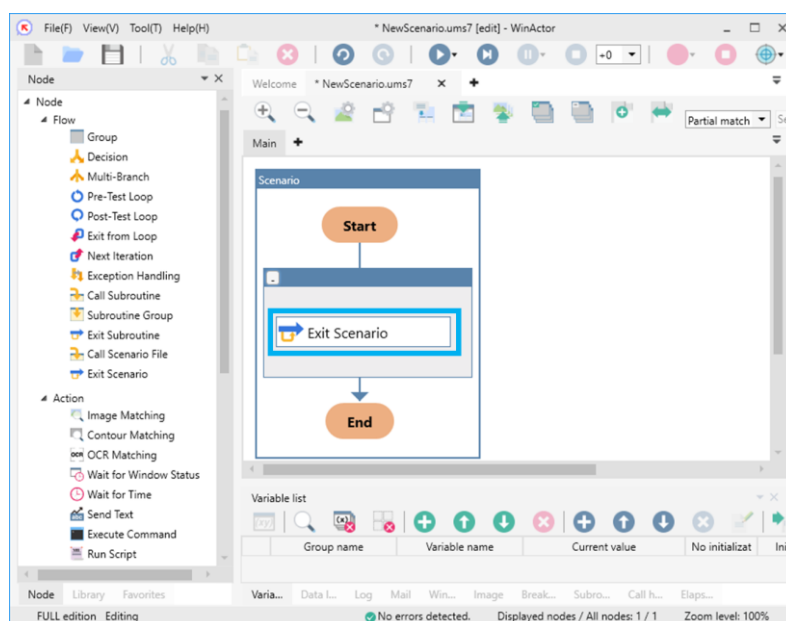
■ Place Exit Scenario

Steps

1. Drag 'Exit Scenario' under the 'Node' tab in the Palette area to the Scenario box in the Flowchart area.



'Exit Scenario' is placed in the flowchart area.



■ Exit Scenario property

The following are the settings in the 'Exit Scenario' property pane.

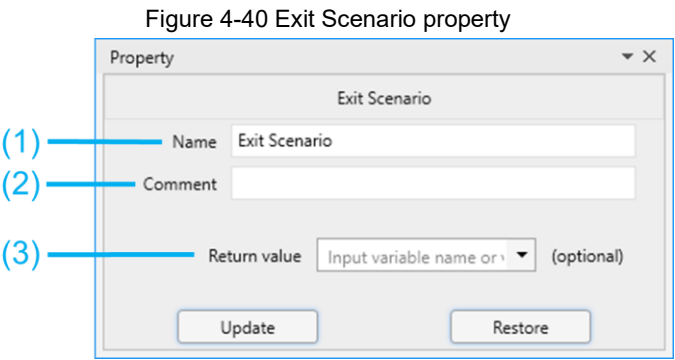


Table 4-19 Exit Scenario property

No.	Name	Description
(1)	Name	Set the name to be displayed in the Flowchart.
(2)	Comment	Set a comment. This is a field to be used as a memo when creating a scenario.
(3)	Return value	Sets a value to be returned to the caller scenario. Specify a variable name or a value.

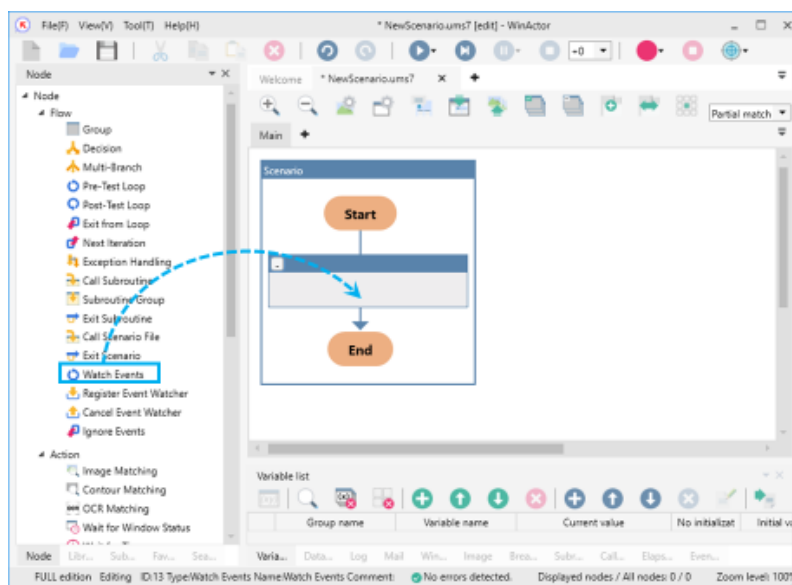
4.3.14 Watch Events

Watch Events watches triggers registered on 'Event watcher list.' Once a trigger condition is detected, it calls the corresponding action registered on 'Event watcher list.'

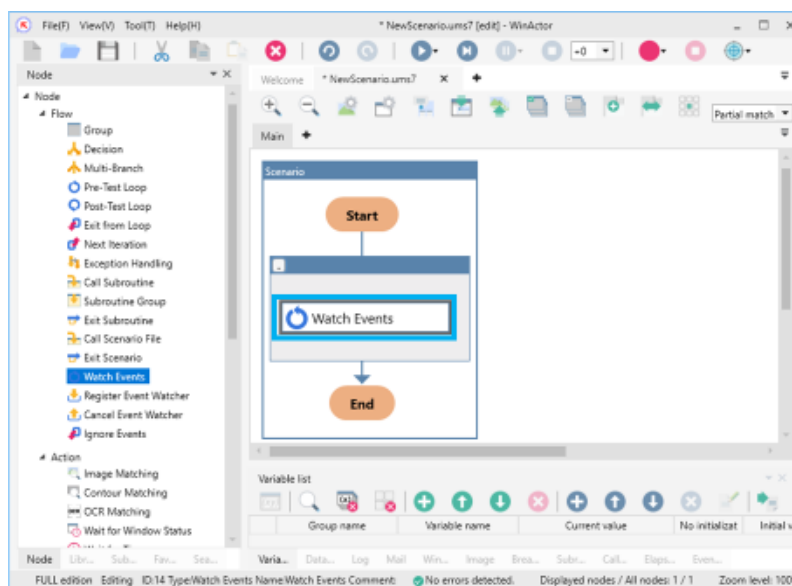
■ Place Watch Events

Steps

1. Drag 'Watch Events' under the 'Node' tab in the Palette area to the Scenario box in the Flowchart area.



'Watch Events' is placed in the flowchart area.



■ Watch Events property

The following are the settings in the 'Watch Events' property pane.

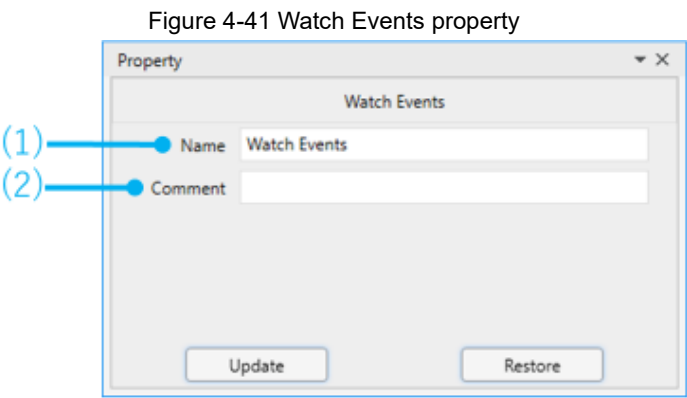


Table 4-20 Watch Events property

No.	Name	Description
(1)	Name	Set the name to be displayed in the Flowchart.
(2)	Comment	Set a comment. This is a field to be used as a memo when creating a scenario.

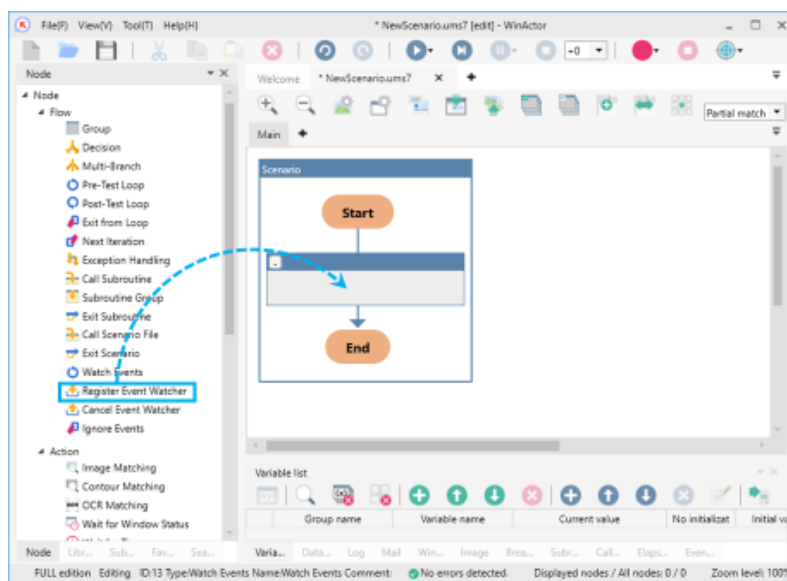
4.3.15 Register Event Watcher

Register Event Watcher registers an Event Watcher on 'Event watcher list' tab pane as a watching target.

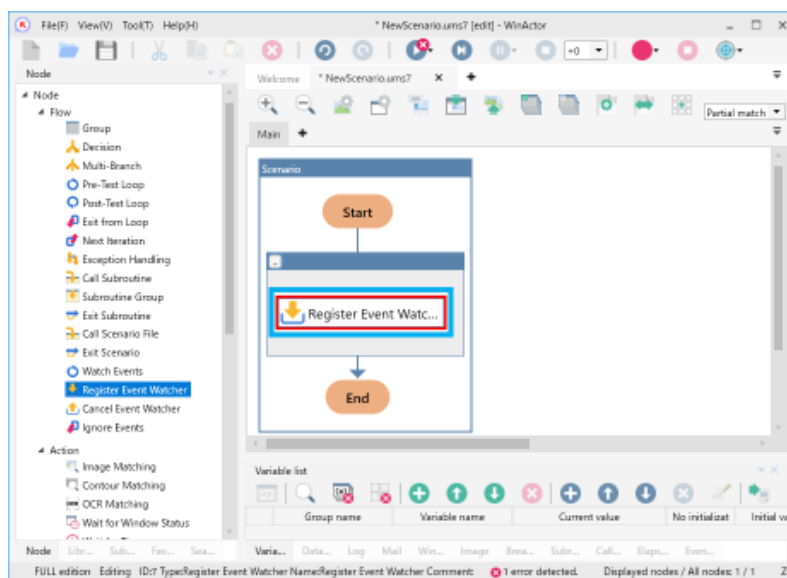
■ Place Register Event Watcher

Steps

1. Drag 'Register Event Watcher' under the 'Node' tab in the Palette area to the Scenario box in the Flowchart area.



'Register Event Watcher' is placed in the flowchart area.



■ Register Event Watcher property

The following are the settings in the 'Register Event Watcher' property pane.

Figure 4-42 Register Event Watcher property

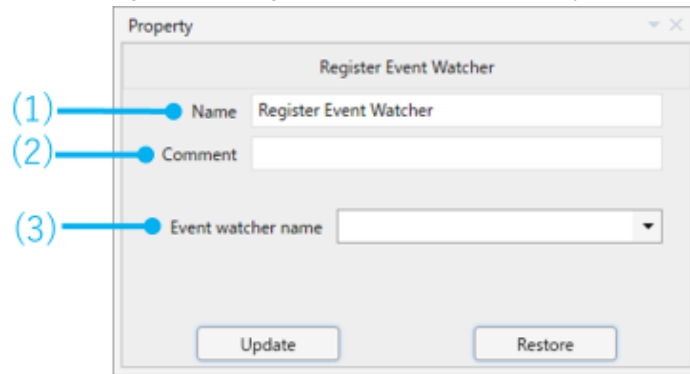


Table 4-21 Register Event Watcher property

No.	Name	Description
(1)	Name	Set the name to be displayed in the Flowchart.
(2)	Comment	Set a comment. This is a field to be used as a memo when creating a scenario.
(3)	Event watcher name	Select an Event watcher name to watch from 'Event watcher list' tab pane.

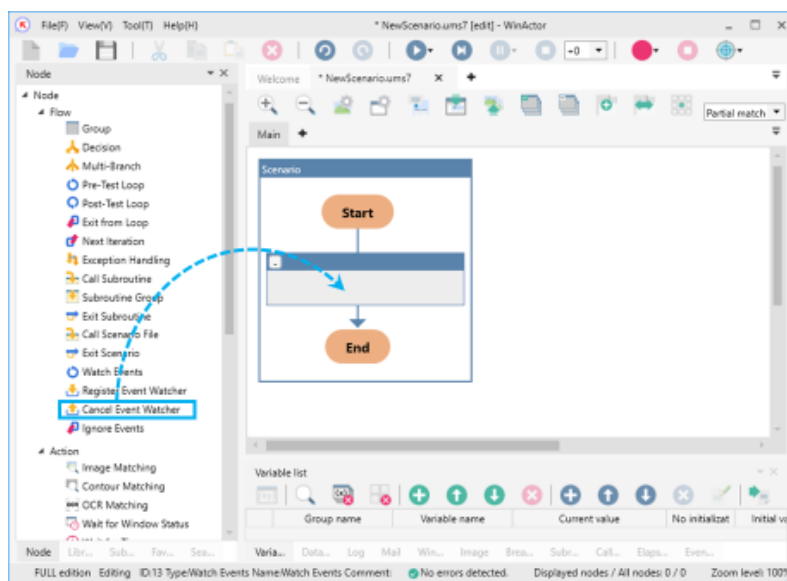
4.3.16 Cancel Event Watcher

Cancel Event Watcher cancels an Event Watcher on 'Event watcher list' tab pane from a watching target.

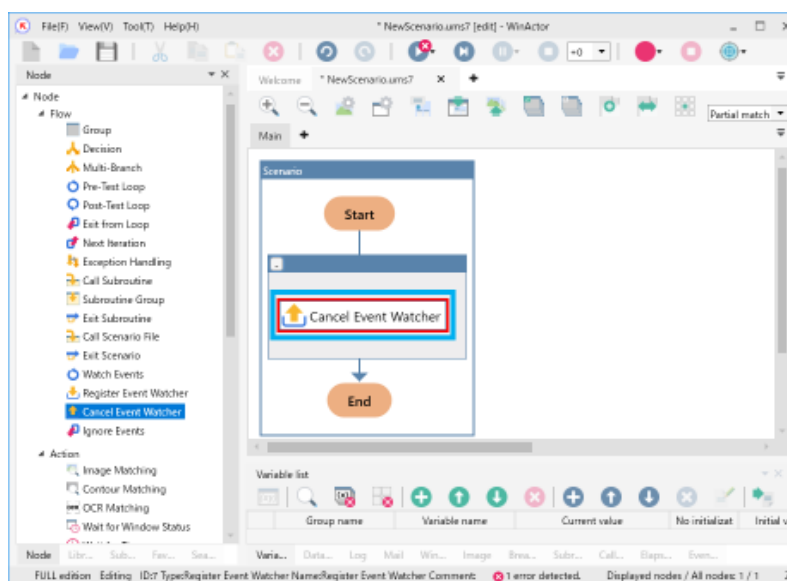
■ Place Cancel Event Watcher

Steps

1. Drag 'Cancel Event Watcher' under the 'Node' tab in the Palette area to the Scenario box in the Flowchart area.



'Cancel Event Watcher' is placed in the flowchart area.



■ Cancel Event Watcher property

The following are the settings in the 'Cancel Event Watcher' property pane.

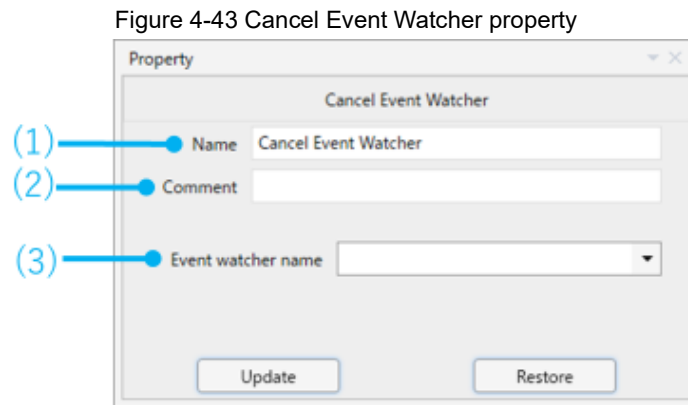


Table 4-22 Cancel Event Watcher property

No.	Name	Description
(1)	Name	Set the name to be displayed in the Flowchart.
(2)	Comment	Set a comment. This is a field to be used as a memo when creating a scenario.
(3)	Event watcher name	Select an Event watcher name to cancel from 'Event watcher list' tab pane.

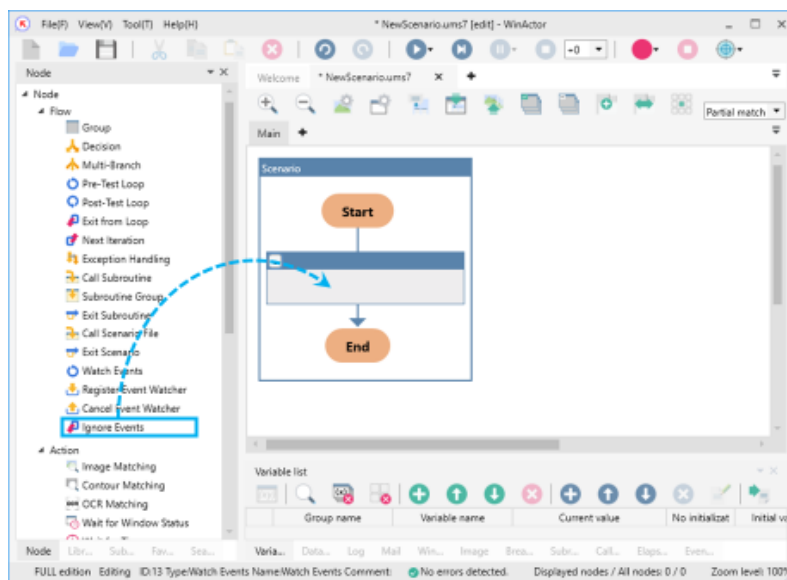
4.3.17 Ignore Events

Ignore Events terminates watching events started by Watch Events.

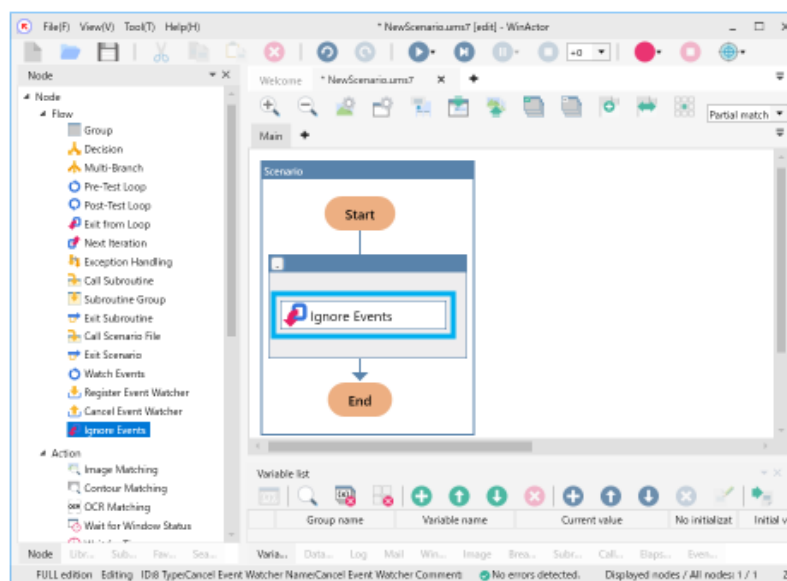
■ Place Ignore Events

Steps

1. Drag 'Ignore Events' under the 'Node' tab in the Palette area to the Scenario box in the Flowchart area.



'Ignore Events' is placed in the flowchart area.



■ Ignore Events property

The following are the settings in the 'Ignore Events' property pane.

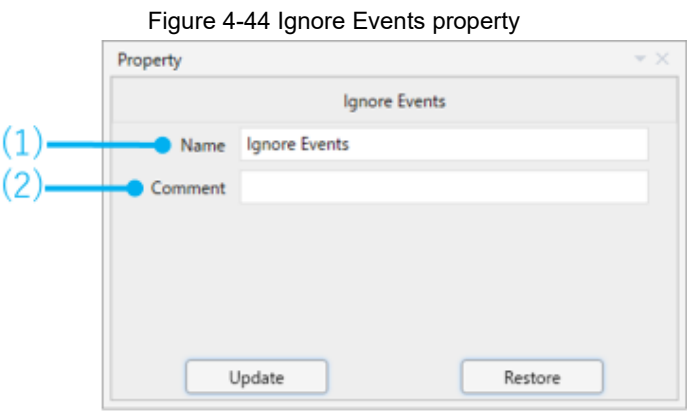


Table 4-23 Ignore Events property

No.	Name	Description
(1)	Name	Set the name to be displayed in the Flowchart.
(2)	Comment	Set a comment. This is a field to be used as a memo when creating a scenario.

4.4 Nodes in Action Category

4.4.1 Image Matching

Match specified windows and images and get the results.

If the images match, mouse clicks will become available. 'Image Matching' is used for elements that cannot be recognized as GUI elements in order to do mouse clicks and detect changes to images in the window.

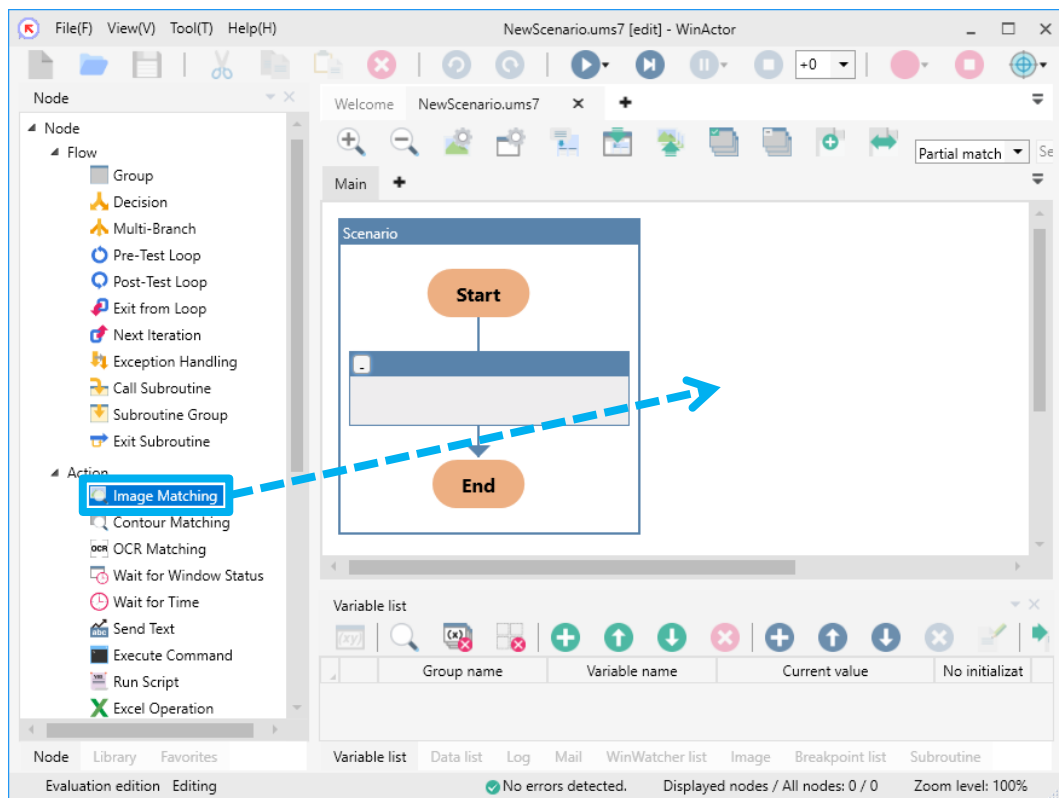
For instance, in the following steps, the string "Product" in the Edge window is selected as the matching target. Image matching is used here to determine the operation target out of the icons and textboxes.

■ Place Image Matching

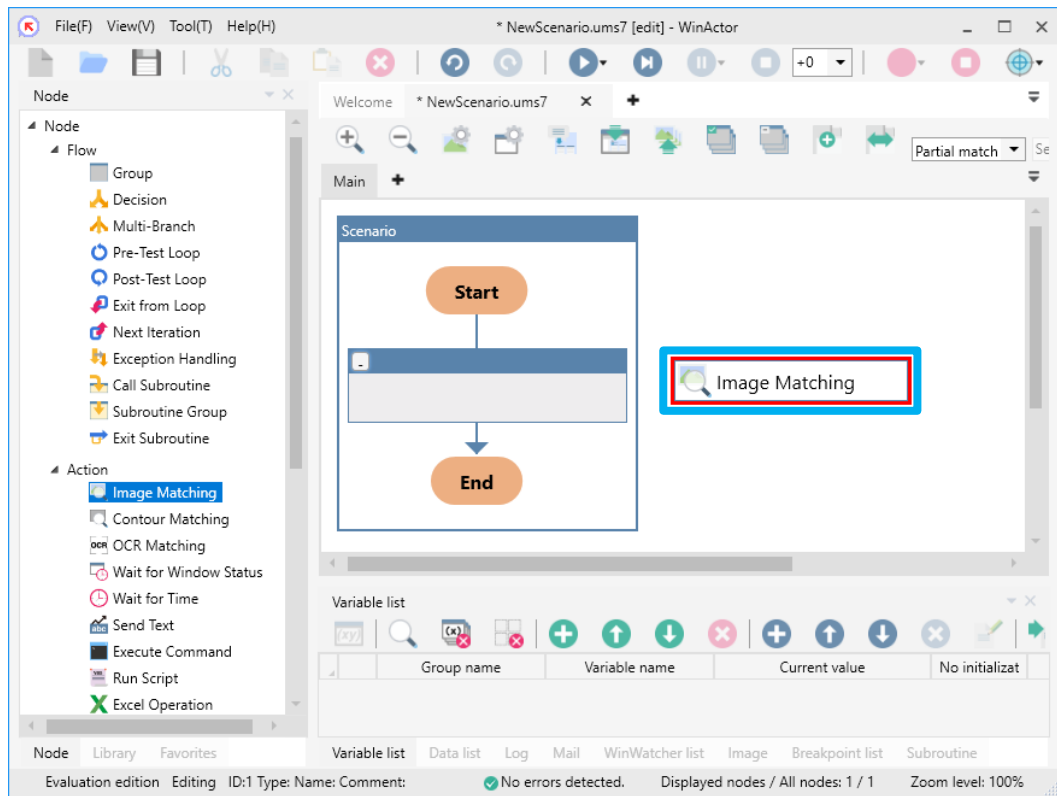
Follow the step below to place the 'Image Matching' node.

Steps

1. Drag 'Image Matching' under 'Node' in the Palette area to the Flowchart area.



'Image Matching' is placed in the Flowchart area.



■ Image Matching property

The followings are the settings in the 'Image Matching' property pane.

Figure 4-45 Areas in the Image Matching property pane

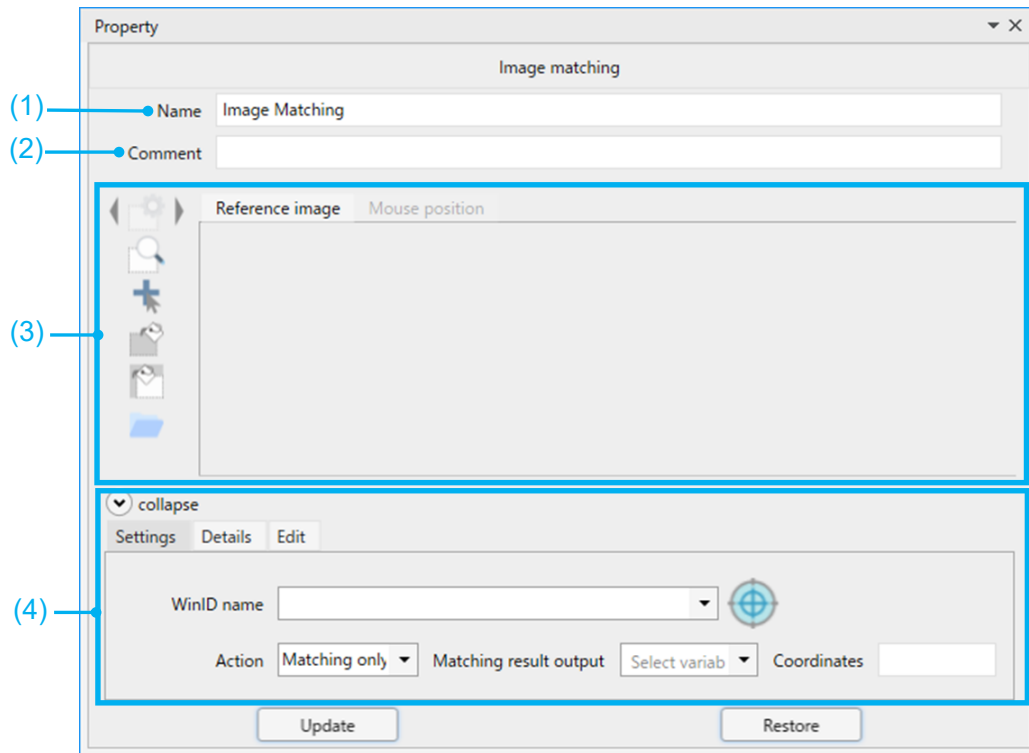


Table 4-24 Areas in the Image Matching property

No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Image Matching comment can be used as a notepad when creating a scenario.
(3)	Specify image area	Set images to match
(4)	Specify condition area	Set conditions for matching

Figure 4-46 Reference Image tab in the Image Matching property

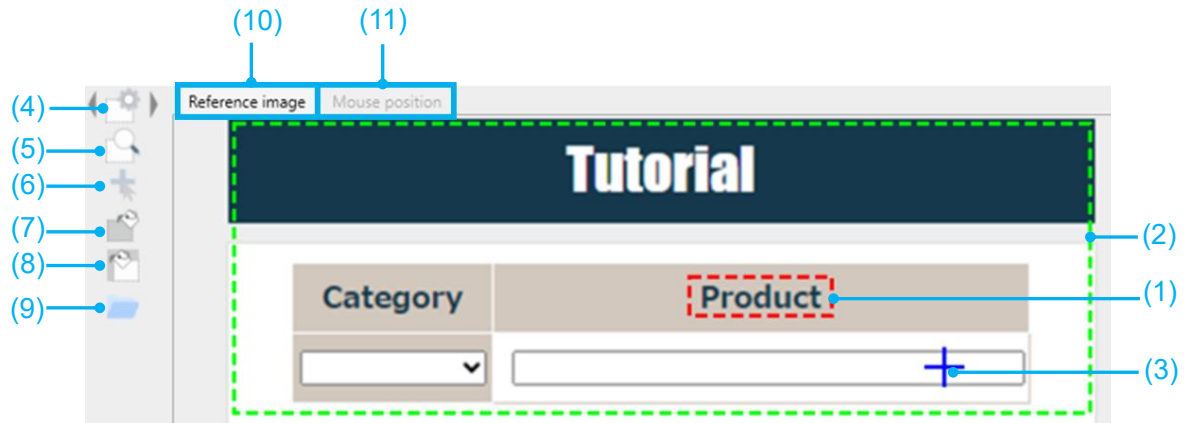


Table 4-25 Reference Image tab in the Image Matching property

No.	Name	Description
(1)	Red frame	Set the reference image range. The images similar to the specified image are searched for and operated like click and so on. No need to set this if matching images are obtained during execution.
(2)	Green frame	Set the search range. Search is done only within the specified range when matching images. This is optional, and if the range is not specified, the entire image will be searched.
(3)	Cross	Set the relative position of the mouse click point from the reference image. This is optional, and. if the position is not set, the center of the red frame is the mouse operation point.
(4)	Match range	Set the red frame by dragging the mouse over the captured image after clicking the icon. Form of the red frame can be selected by using arrows placed in the right/left of the icon. Choices are circular (elliptic) mode and rectangular mode.  Matching result might be different dependent on the selected mode. If the matching is not able to spot on the intended part, try again after switching the mode.
(5)	Search range	Set the green frame by dragging the mouse over the captured image after clicking the icon. Click the captured image to cancel the green border.
(6)	Mouse operation coordinates	Set the position of the cross by clicking the mouse over the captured image after clicking the icon. Click the cross to cancel the settings.

No.	Name	Description
(7)	Set mask area (internal)	Click the icon and drag the mouse over the captured image to fill the inside of the specified area. Click the 'Restore' button in the properties to discard the change.
(8)	Set mask area (external)	Click the icon and drag the mouse over the captured image to fill the outside of the specified area. Click the 'Restore' button in the properties to discard the change.
(9)	Select reference image from file	Select the captured image from the file.  For selecting reference image, see "Select reference image from file."
(10)	Reference image tab	Shows the images to match.
(11)	Mouse position tab	Shows the mouse click points.

Figure 4-47 Mouse position tab in the Image Matching property

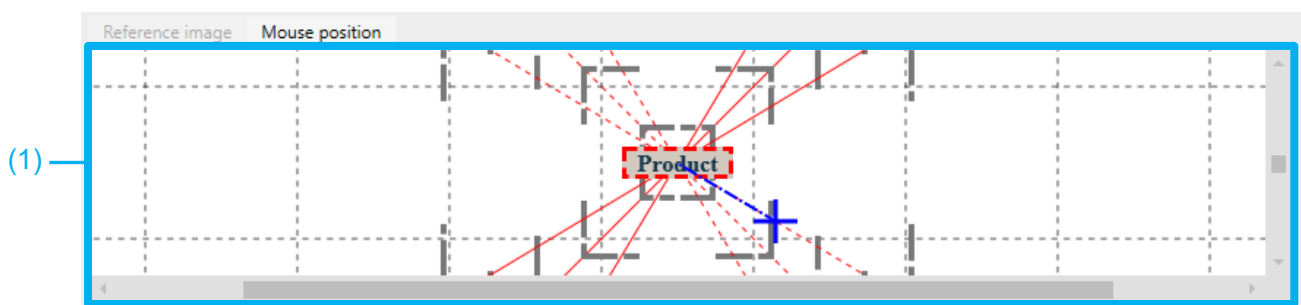


Table 4-26 Mouse position tab in the Image Matching property

No.	Name	Description
(1)	Mouse position area	Shows the reference images and mouse click points within the range specified with a red frame in the Reference Image tab.

Figure 4-48 Collapse button in the Image Matching property

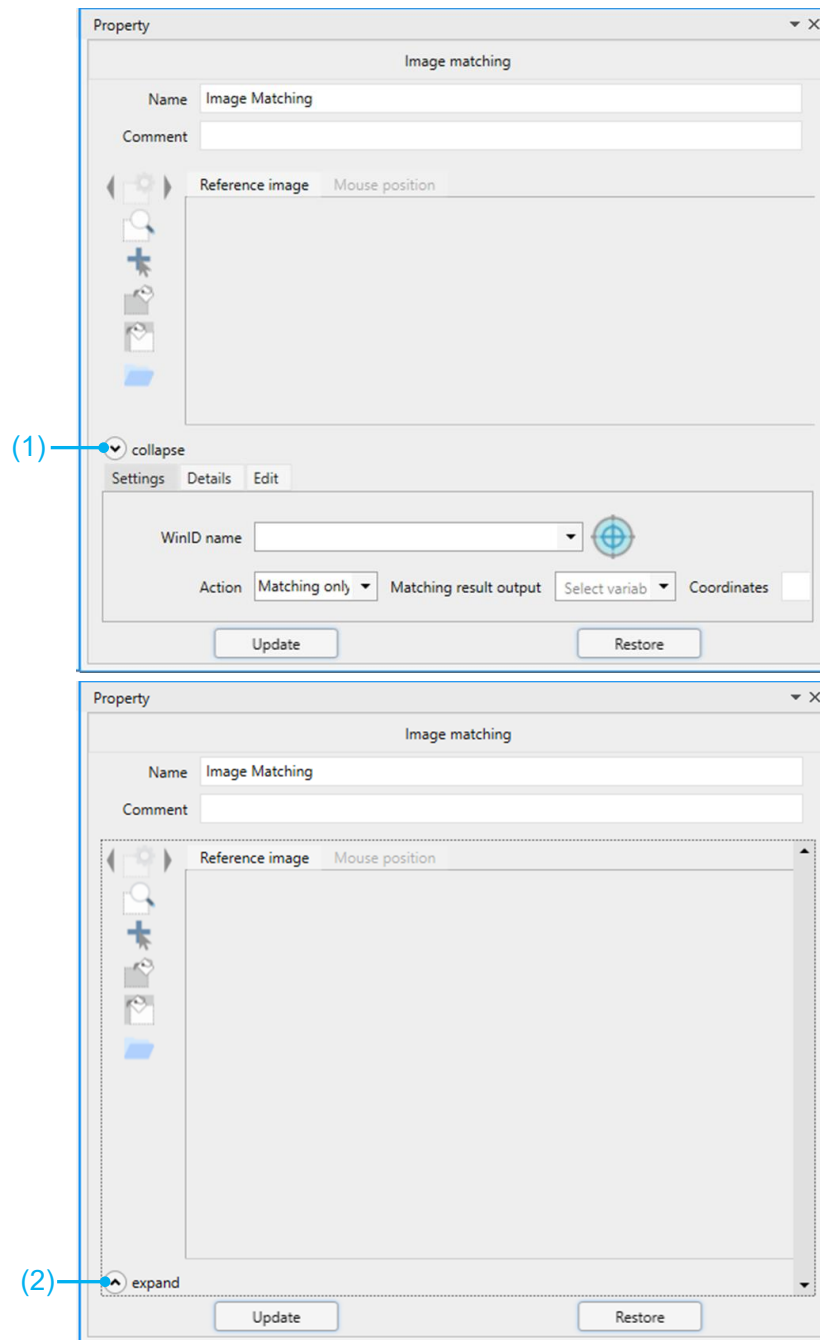


Table 4-27 Collapse button in the Image Matching property

No.	Name	Description
(1)	Collapse button	Makes the specify condition area invisible.
(2)	Expand button	Makes the specify condition area visible.

Figure 4-49 Settings tab in the Image Matching property

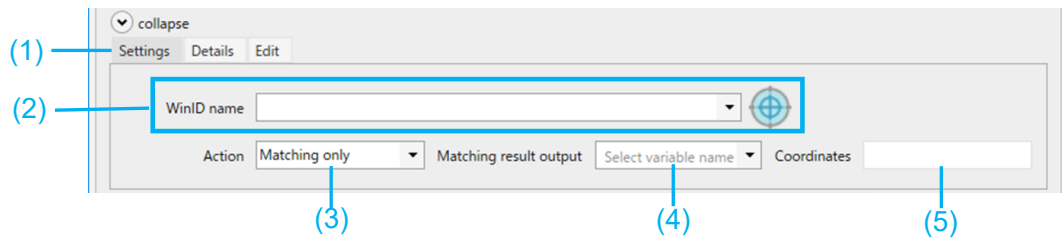


Table 4-28 Settings tab in the Image Matching property

No.	Name	Description
(1)	Settings tab	Displays the 'Settings' tab.
(2)	WinID name	Select an application window from the 'WinID name' dropdown or specify an application window after clicking 'Select target' icon (⊕).
(3)	Action	Specify an operation to do after the image matching. Select it from the 10 operations 'Matching only,' 'Left button click,' 'Right button click,' 'Left button double-click,' 'Right button double-click,' 'Left button triple-click,' 'Right button triple-click,' 'Mouse cursor move,' 'Hold left button and drag to the matched position,' and 'Hold right button and drag to the matched position.'
(4)	Matching result output	Stores the matching result into the specified variable. When matched, 'true' is stored. When failed to match, 'false' is stored.  Variable specification can be omitted on the version 5.1 or later. However, executing such node on the version 5.0 results in an error.
(5)	Coordinates	Specifies the '+' mark position, which is called the mouse position, with X and Y coordinates. If no mouse position is specified, this field is regarded as unspecified state, and the center of the matched image, which is the reference image or one of the matching images, is regarded as the mouse position. When a reference image or matching images are specified, specify relative coordinates from the center of the image. When no reference nor matching images are specified, specify coordinates from the top left corner, which is 0,0.

Figure 4-50 Details tab in the Image Matching property

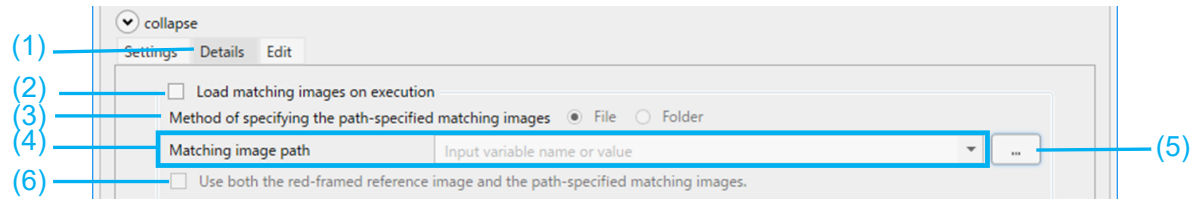


Table 4-29 Details tab in the Image Matching property

No.	Name	Description
(1)	Details tab	Displays the 'Details' tab.
(2)	Load matching images on execution	Check this to load the matching images from files on execution. When executing the image matching node, an image similar to any of the specified matching images is found out and an operation such as click is done.  This setting precedes the red frame (1) of the "Table 4-25 Reference Image tab in the Image Matching property."
(3)	Method of specifying the path-specified matching images	Select a way to specify matching images from 'File' and 'Folder.'
(4)	Matching image path	Specify the file path to the matching images to be used during execution. When 'File' is selected for 'Method of specifying the path-specified matching images,' specify a file. When 'Folder' is selected for 'Method of specifying the path-specified matching images,' specify a folder. Multiple files in the folder are treated as matching images. The files are used in the order of the extensions 'PNG,' 'JPEG,' and 'BMP,' and in the lexicographical order of the filenames if extensions are the same.  For file paths, see "5.6 File Path."
(5)	...	Clicking this button opens the selection dialog of the matching image path. When 'File' is selected for 'Method of specifying the path-specified matching images,' a file selection dialog is displayed. When 'Folder' is selected for 'Method of specifying the path-specified matching images,' a folder selection dialog is displayed.
(6)	Use both the red-framed reference image and the path-specified matching images.	Check this to use both the red-framed reference image and the path-specified matching images. The red-framed reference image is used at first and the path-specified matching images next.

Figure 4-51 Select subdivision matching area in the Image Matching property

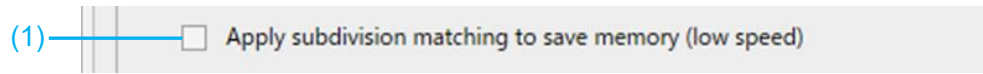


Table 4-30 Select subdivision matching area in the Image Matching property

No.	Name	Description
(1)	Apply subdivision matching to save memory (low speed)	Split the captured images when the images are equal to or bigger than HD (1027x768) to save memory. When the images are smaller than HD image size, the captured images are not split.  Image Matching with split captured images is slower than usual. During Image Matching, do not operate the mouse, etc.

Figure 4-52 Search range in the Image Matching property

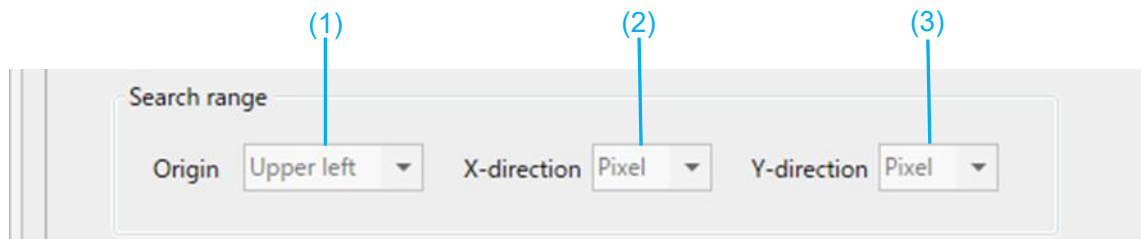


Table 4-31 Search range in the Image Matching property

No.	Name	Description
(1)	Origin	Select the origin of the search range from 'Upper left,' 'Lower left,' 'Upper right,' or 'Lower right' in dropdown menu.
(2)	X-direction	Select the X position in pixels or percentage (%)
(3)	Y-direction	Select the Y position in pixels or percentage (%)

Figure 4-53 Specify running operations in the Image Matching property

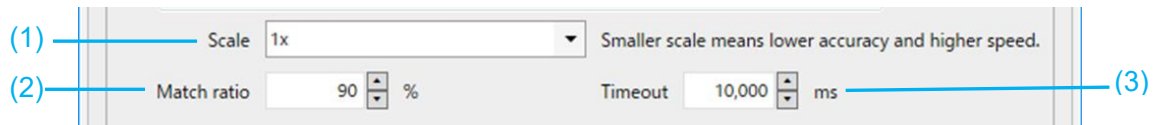


Table 4-32 Specify running operations in the Image Matching property

No.	Name	Description
(1)	Scale	Specify the image scale—1x, 1/2, or 1/4. Smaller images speed up the image matching but may be less accurate. Adjust by lowering the Match rate as needed.
(2)	Match rate	Specify in whole numbers between 1-100. The higher the number, the more precise the matching will be. Lower numbers may result in unintended matches. Note that specifying the number 100 means all the matches are more precise than the match rate 99.  When circular mode is selected, the match rate is calculated only within the circle (elliptical).
(3)	Timeout	Set a timeout period to wait for the target window to display. When the timeout period has expired, a timeout action depending on the action setting is taken. If the action Check State is selected, false will be stored in the matching results and the scenario will continue. Otherwise, an action exception will be raised. Timeout periods can be set in milliseconds between 0-3.600.000.

Figure 4-54 Edit tab in the Image Matching property

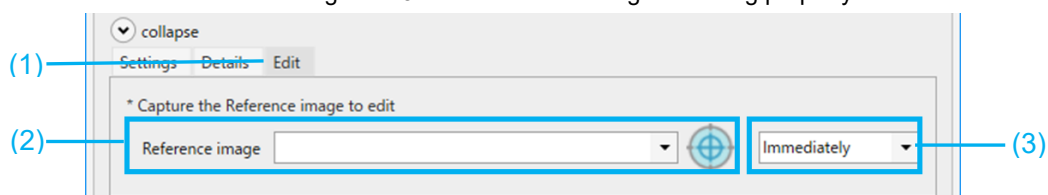


Table 4-33 Edit tab in the Image Matching property

No.	Name	Description
(1)	Edit	Displays the 'Edit' tab.
(2)	Reference image	Select a reference image from the 'Reference Image' dropdown or specify the target application window after clicking 'Select target' icon ().

No.	Name	Description
(3)	Load timing	After specifying the target application window, specify the timing to capture the image—'Immediately,' 'After 3 seconds,' 'After 10 seconds,' and 'After 30 seconds' in dropdown menu. Select one of them when capturing an image. 'After 3 seconds,' 'After 10 seconds,' and 'After 30 seconds' are used to capture the image that needs mouse operation to display such as pop-up menus.  This setting is about the behavior of setting the target, and not associated with the execution of 'Image Matching.' This setting is not saved in the scenario file.



- Ranges in single colors may not be properly recognized by Image Matching.
- Masked reference images cannot be recognized properly. Set the mask so not overlap with the reference image.
- Click the 'Restore' button in the properties when selecting the wrong area to mask. (Settings not saved will disappear)
- Variable name input can be omitted for Matching Results from v5.1, but an error will occur if a scenario is run in v5.0.
- If an image with Matching Results omitted is edited in v5.0, Properties can be opened but an error "Variable name not entered" will be displayed when Update is clicked. Set a variable name and click the 'Update' button.
- Splitting image matching may result differently from normal image matching.
- If no matching image exists when 'Load matching images on execution' is selected and the cross is set, the position relative to the top left will be where the cross is displayed.
- If 'Screen' is specified as the 'WinID name' in a multiple monitor setup, Image Matching will run in the order of the OS display recognition. Target images placed between neighboring monitors cannot be recognized as matched images. If a search range is specified, search will be done in the monitor the search range belongs to.

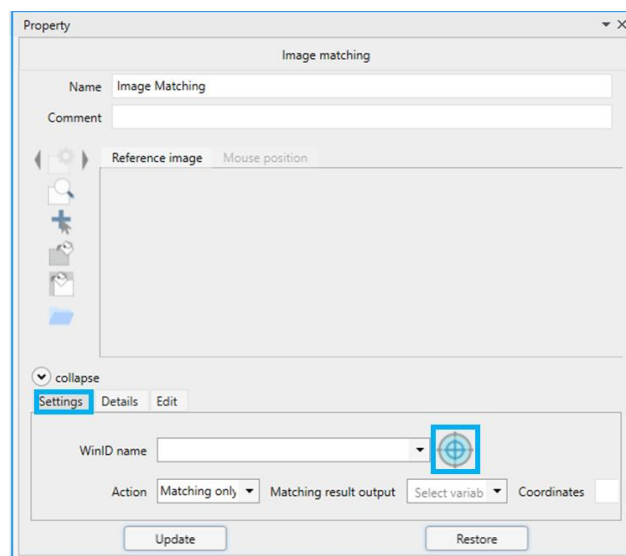
■ Select reference image from file

Captured images can be set with 'Select target window,' 'Drag and drop image file,' or 'Select image file.'

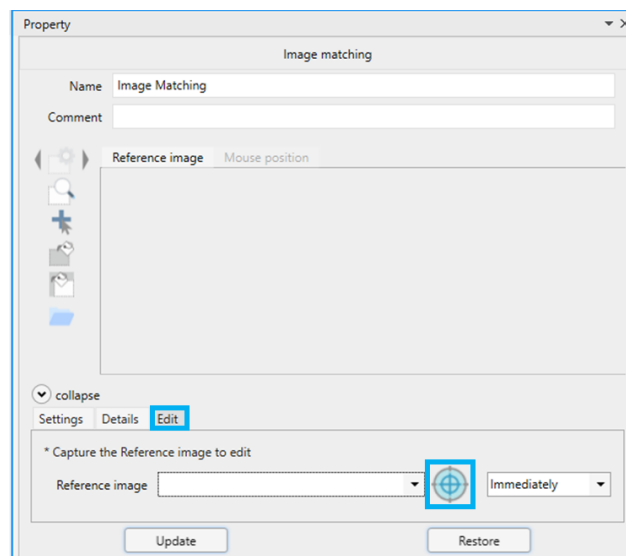
Method 1: Select target window

Steps

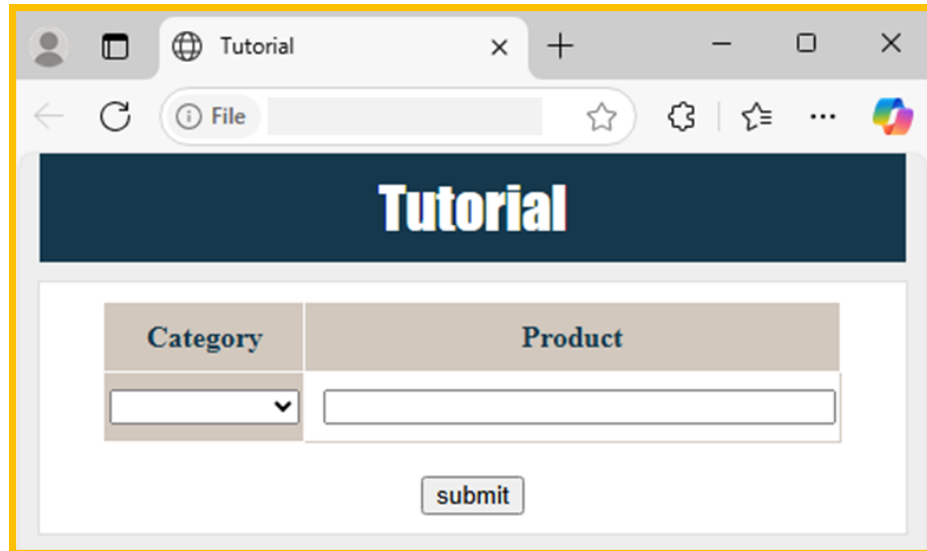
1. Click the 'Select target' icon  in 'WinID name' on the Settings tab.



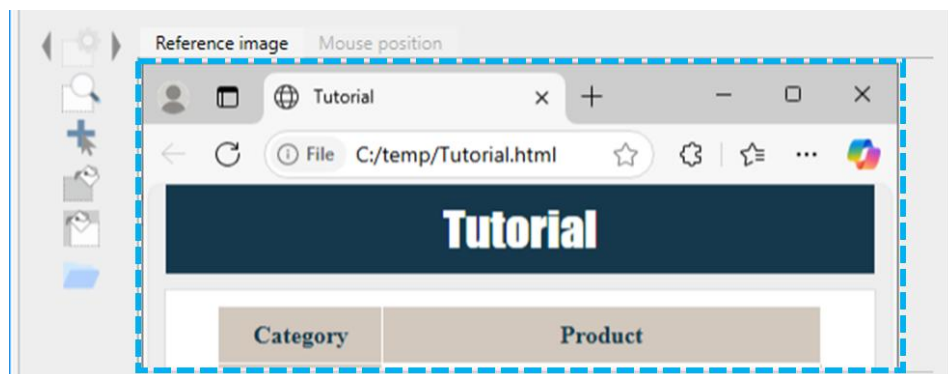
Otherwise, click the 'Select target' icon  in 'Reference image' on the Edit tab.



2. Select the window to operate.



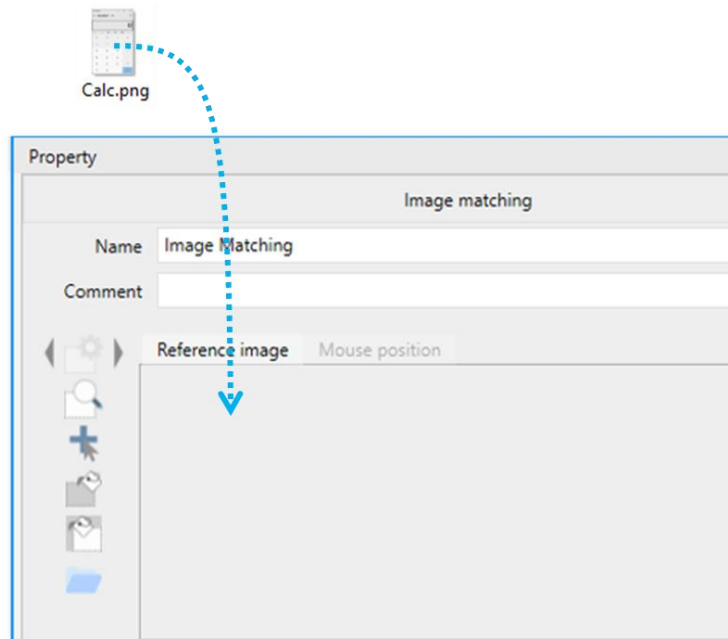
The captured image is displayed in the Specify image area.



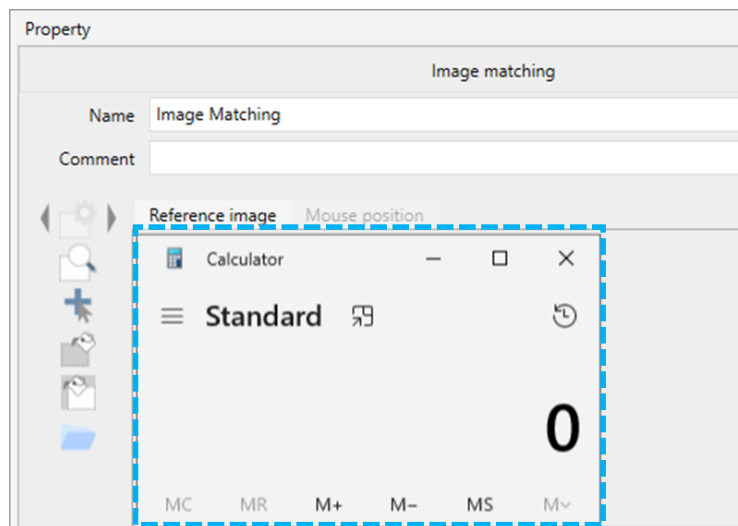
Method 2: Drag and drop image file

Steps

1. Drag and drop an image file in the Specify image area in the Image Matching property.



The image is displayed in the Specify image area.

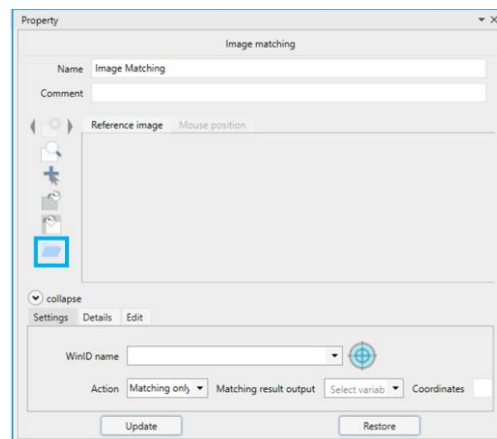


BMP, PNG, and JPEG image files are supported.

Method 3: Select image file

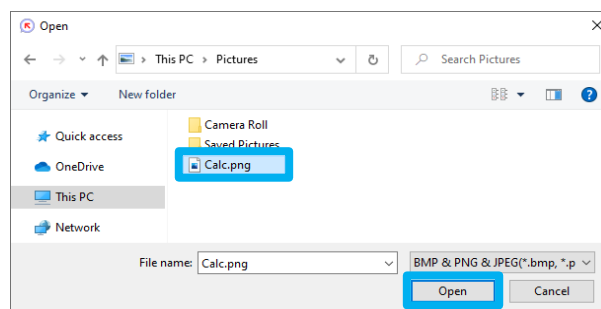
Steps

1. Click the 'Select reference image from file' icon.

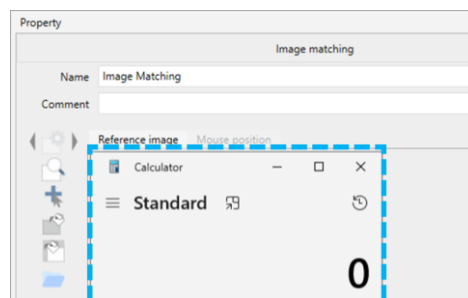


The dialog to select a file is shown.

2. Select an image file and click the 'Open' button.



The selected image file is displayed in the Specify image area.



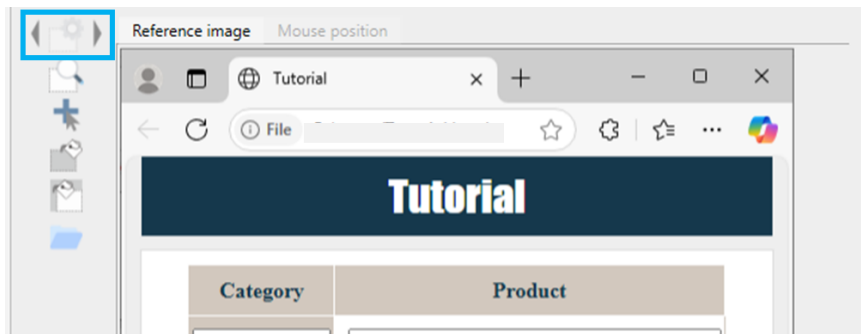
BMP, PNG, and JPEG image files are supported.

■ Select reference image

Follow the steps below to specify a reference image.

Steps

1. Click the 'Match range' icon.



2. Select the range to match by dragging the mouse over the image. The specified range is framed in red.

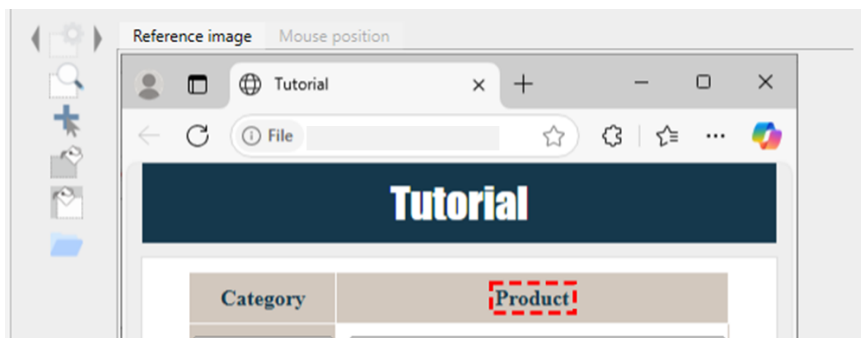


Image matching may not correctly recognize ranges in single colors.



Form of the match range is selected either from a rectangle or a circle (elliptical).



For details, see "Image Matching property."

■ Specify Matching result output

The following are steps to set 'Matching result output.'

Steps

1. Specify the variable name to store in the 'Matching result output' combo box.

A screenshot of a software interface showing a label 'Matching result output' followed by a dropdown menu. The dropdown menu is open, displaying the text 'Select variable name' and a small downward arrow icon on the right side. The dropdown menu is highlighted with a blue border.

2. Click the 'Update' button to reflect the setting.

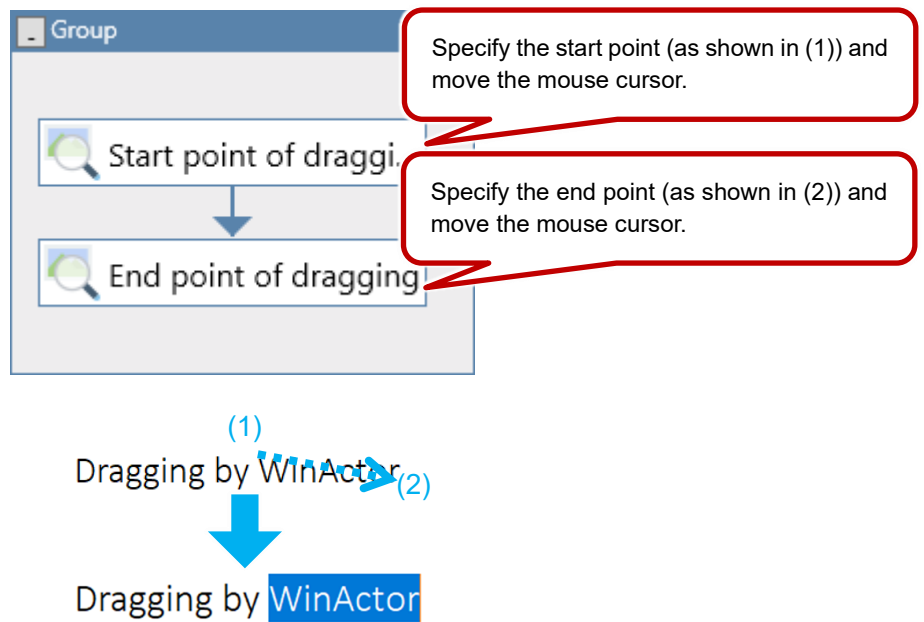


- The variable name input can be omitted after WinActor v5.1, but an error occurs when running a scenario (image matching) in v5.0.
 - If an image with Matching Results omitted is edited in v5.0, the properties can be opened but an error "Variable name not entered" will be displayed when Update is clicked. Set a variable name and click the 'Update' button.
-

■ Automate drag-and-drop operation

Match two images to automate drag & drop. The first image is the starting point. Select the action 'Mouse cursor move' from the 'Image Matching' properties. The second image is the end point. Select the action 'Hold left button and drag to the matched position' from the 'Image Matching' properties.

Figure 4-55 Example of mouse operation



■ Load matching images on execution

Specify the matching images by filename or by folder name.

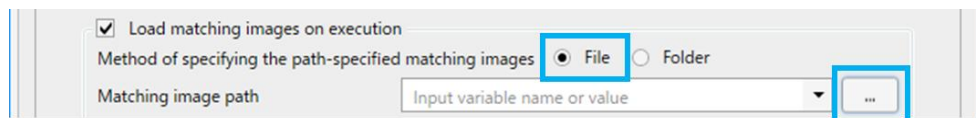
Check the box 'Load matching images on execution' in the 'Image Matching' properties, select 'File' or 'Folder' for 'Method of specifying the path-specified matching images,' and specify 'Matching image path.'

'Matching image path' can be specified in the combo box by one of three ways 'Select file,' 'Select folder,' or 'Direct input.'

Method 1: Select file

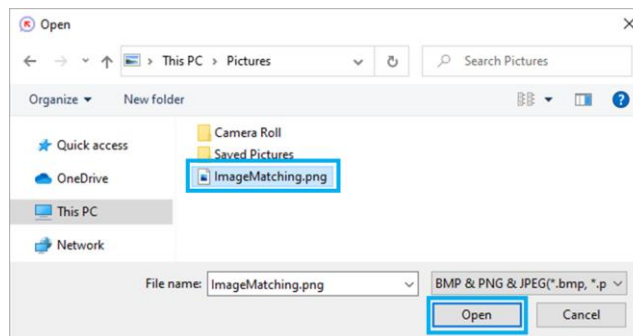
Steps

1. Select 'File' for 'Method of specifying the path-specified matching images,' and click the dialog button '...' next to the 'Matching image path' combo box.

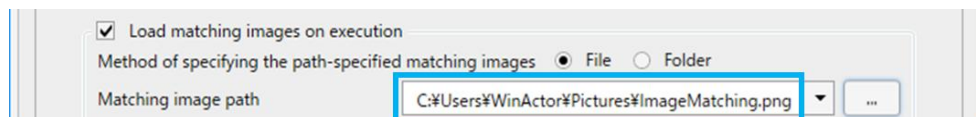


The file explorer to select files is displayed.

2. Select an image file and click the 'Open' button.



An absolute path for selected file is set in the combo box of 'Matching image path.'

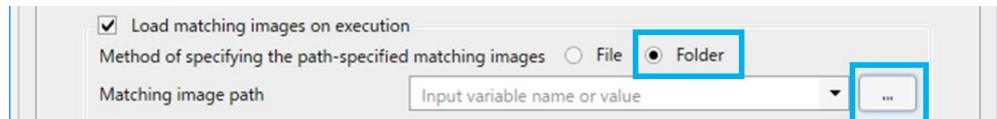


BMP, PNG, and JPEG image files are supported.

Method 2: Select folder

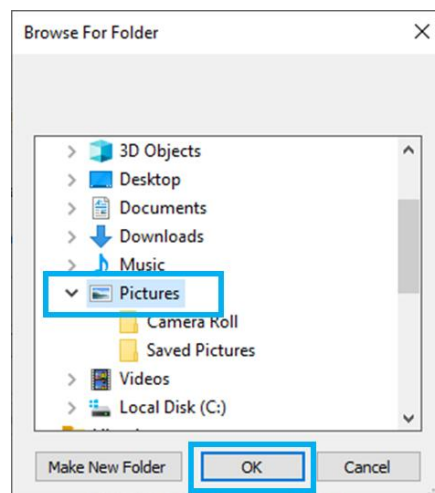
Steps

1. Select 'Folder' for 'Method of specifying the path-specified matching images,' and click the dialog button '...' next to the 'Matching image path' combo box.

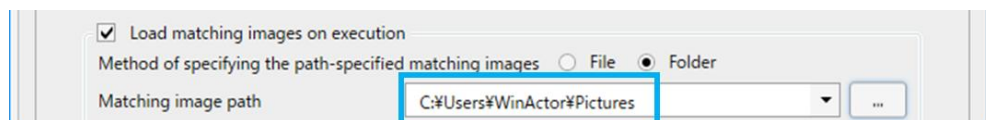


The file explorer to select folders is displayed.

2. Select a folder and click the 'Open' button.



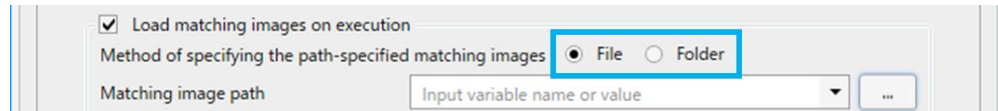
An absolute path for selected folder is set in the combo box of 'Matching image path.'



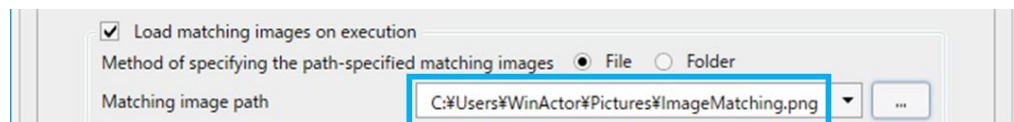
Method 3: Direct input

Steps

1. Select 'File' or 'Folder' for 'Method of specifying the path-specified matching images,'



2. Input a path name for 'Matching image path.' When 'File' is selected for 'Method of specifying the path-specified matching images,' specify a file or a variable storing a file name. When 'Folder' is selected for 'Method of specifying the path-specified matching images,' specify a folder or a variable storing a folder name.



4.4.2 Contour Matching

The specified window and images are matched to obtain the result. The outlines of the captured, reference, and matching images are extracted, scaled, and matched. Mouse clicks can be operated in the matched areas.

'Contour matching' is used for elements that cannot be recognized as GUI elements in order to do mouse clicks and detect changes to images in the window.

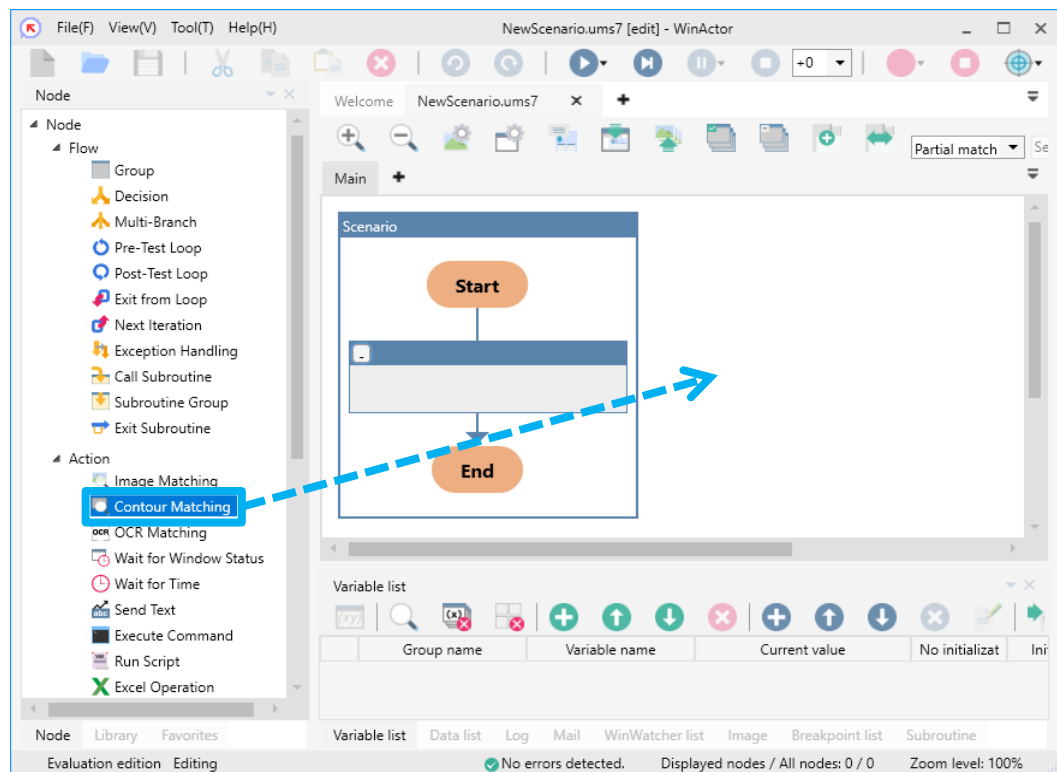
For instance, in the following steps, the string "Product" in the Edge window is selected as the matching target. Contour matching is used here to determine the operation target out of the icons and textboxes.

■ Place Contour Matching

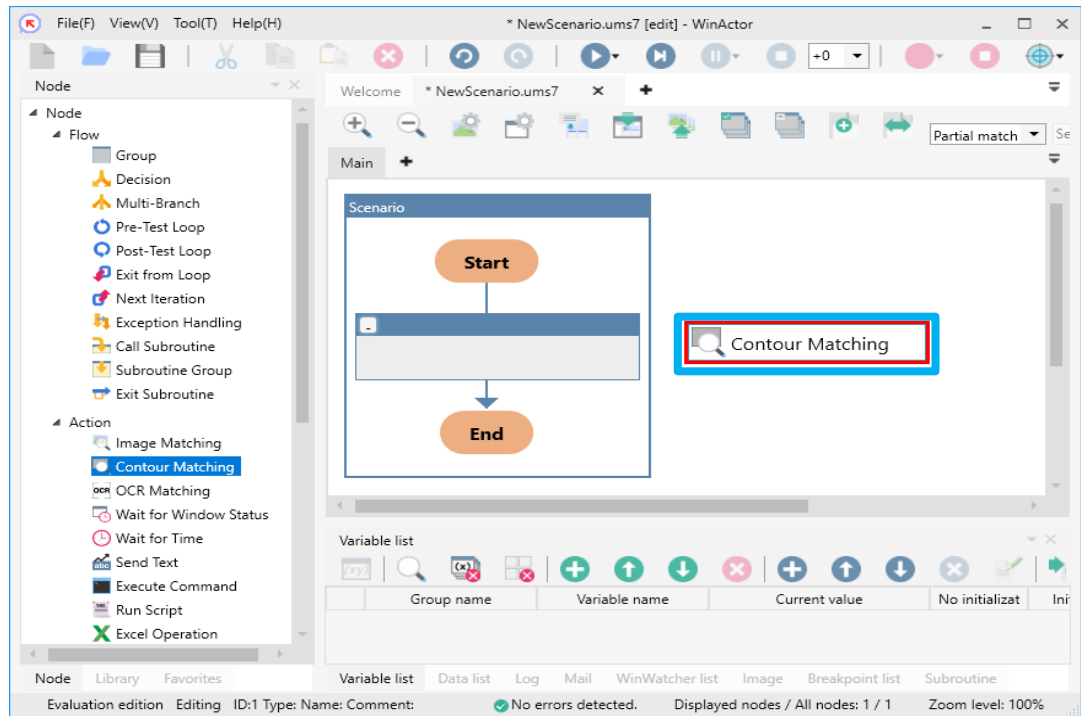
Follow the step below to place the 'Contour Matching' node.

Steps

1. Drag 'Contour Matching' under 'Node' in the Palette area to the Flowchart area.



'Contour Matching' is placed in the Flowchart area.



■ Contour Matching property

The followings are the settings in the 'Contour Matching' property pane.

Figure 4-56 Areas in the Contour Matching property

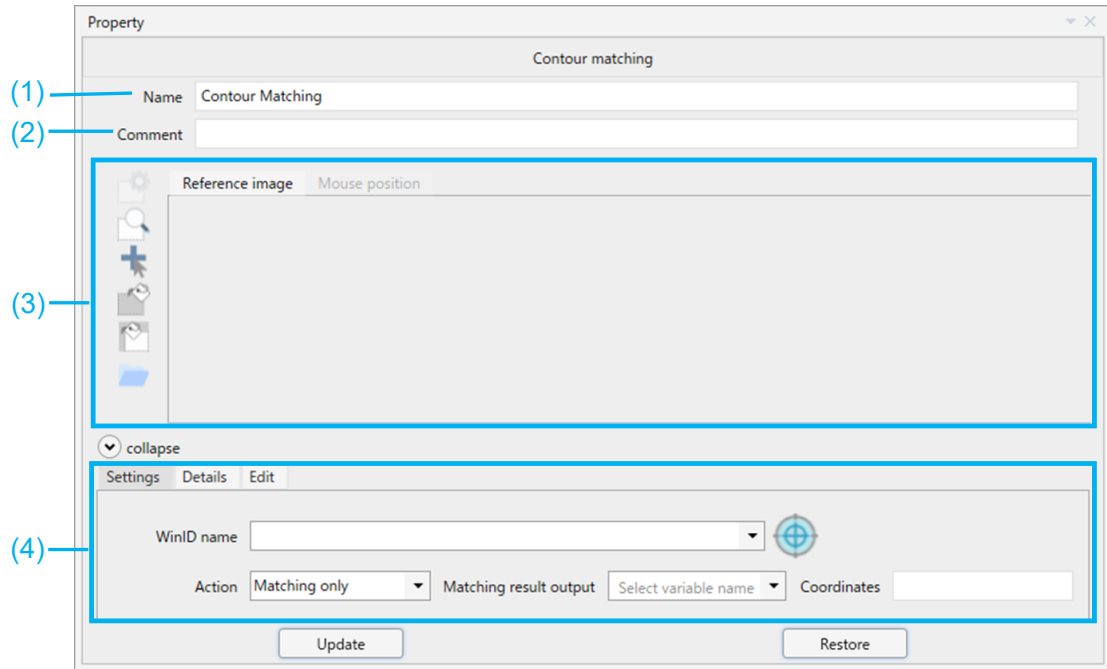


Table 4-34 Areas in the Contour Matching property

No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Contour Matching comment can be used as a notepad when creating a scenario.
(3)	Specify image area	Specify images to match
(4)	Specify condition area	Set matching conditions

Figure 4-57 Reference image tab in the Contour Matching property

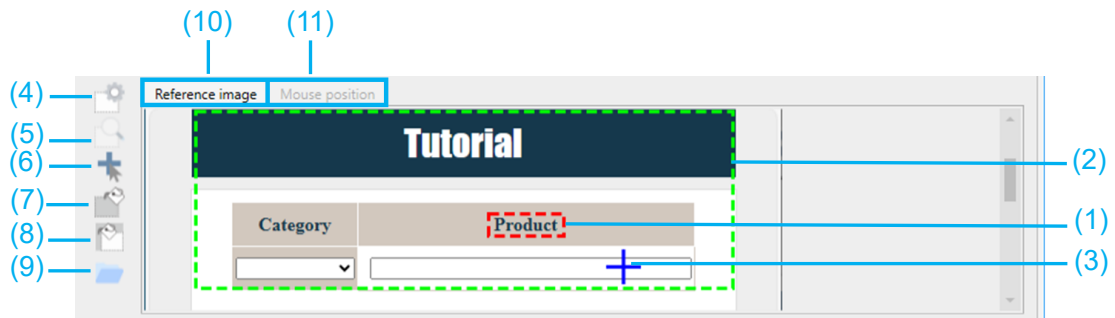


Table 4-35 Reference image tab in the Contour Matching property

No.	Name	Description
(1)	Red frame	Set the reference image range. The images similar to the specified image are searched for and operated like click and so on. No need to set this if matching images are obtained during execution.
(2)	Green frame	Set the search range. Search is done only within the specified range when matching images. This is optional, and if the range is not specified, the entire image will be searched.
(3)	Cross	Set the relative position of the mouse operation point from the reference image. This is optional, and if the position is not set, the center of the red frame will be the mouse operation point.
(4)	Match range	Set the red frame by dragging the mouse over the captured image after clicking the icon.
(5)	Search range	Set the green frame by dragging the mouse over the captured image after clicking the icon. Click the captured image to cancel the green border.
(6)	Mouse operation coordinates	Set the position of the cross by clicking the mouse over the captured image after clicking the icon. Click the cross to cancel the settings.
(7)	Set mask area (internal)	Click the icon and drag the mouse over the captured image to fill the inside of the specified area. Click the 'Restore' button in the properties to discard the change.
(8)	Set mask area (external)	Click the icon and drag the mouse over the captured image to fill the inside of the specified area. Click the 'Restore' button in the properties to discard the change.
(9)	Select reference image from file	Select the captured image from the file.  For how to select a reference image, see Method 3 in "Select reference image from file."
(10)	Reference image tab	Shows the images to match.
(11)	Mouse position tab	Shows the mouse click points.

Figure 4-58 Mouse position tab in the Contour Matching property

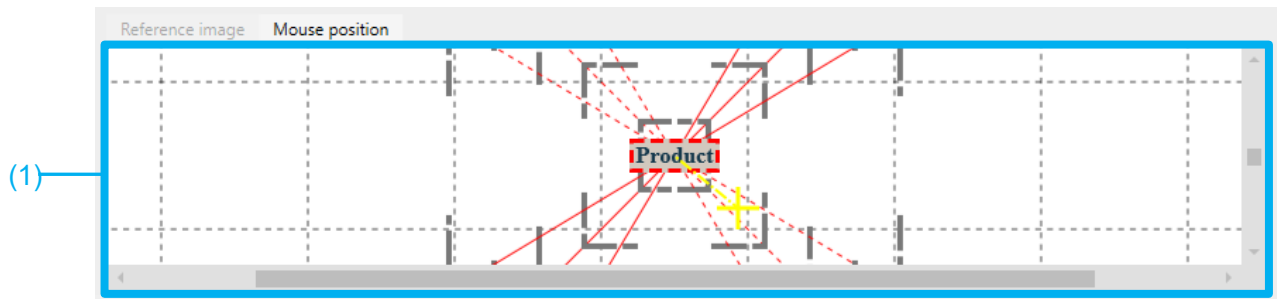


Table 4-36 Mouse position tab in the Contour Matching property

No.	Name	Description
(1)	Mouse position area	Shows the reference images and mouse click points within the range specified with the red frame in Reference Image

Figure 4-59 Collapse button in the Contour Matching property

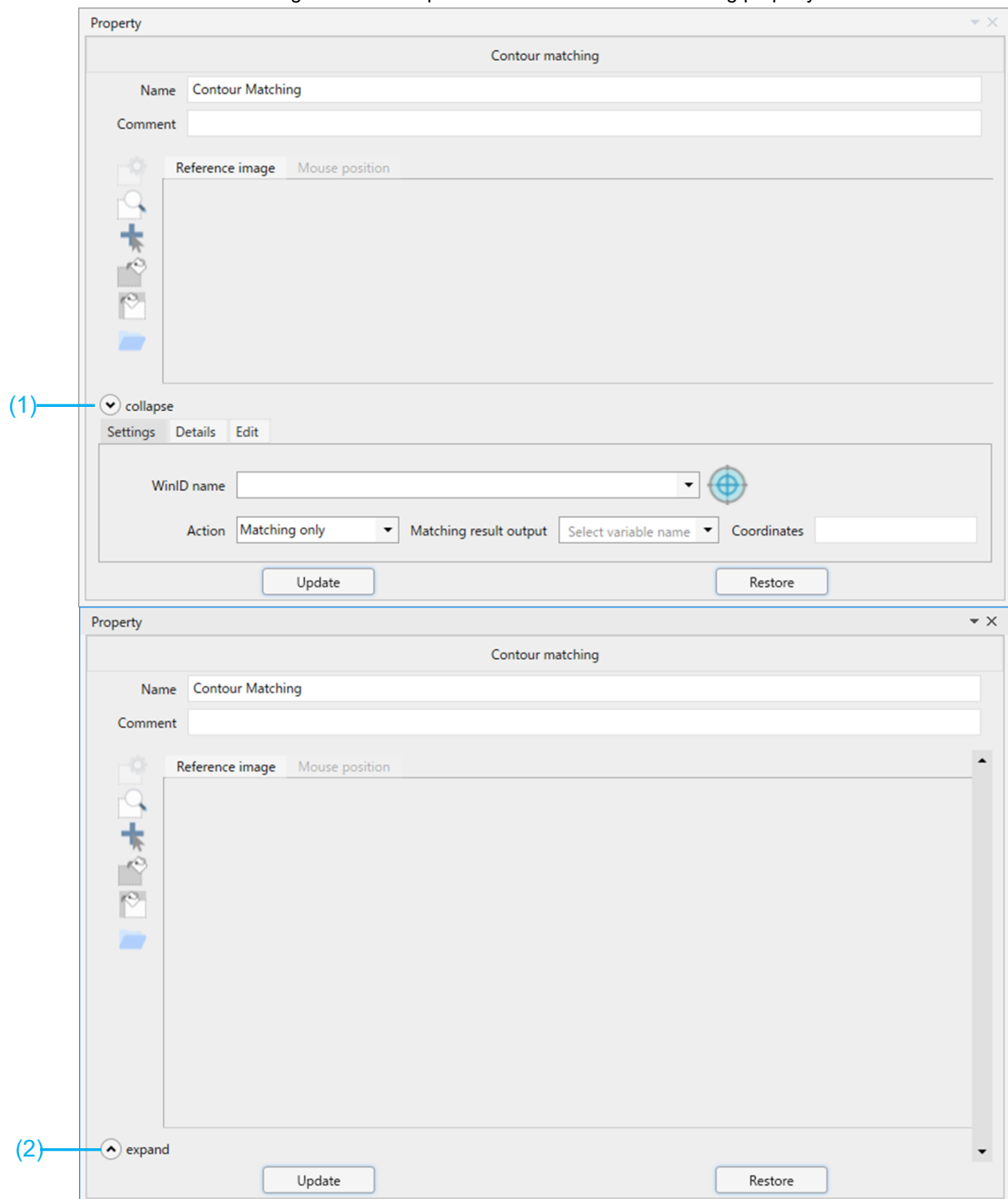


Table 4-37 Collapse button in the Contour Matching property

No.	Name	Description
(1)	Collapse button	Makes the specify condition area invisible.
(2)	Expand button	Makes the specify condition area visible.

Figure 4-60 Settings tab in the Contour Matching property

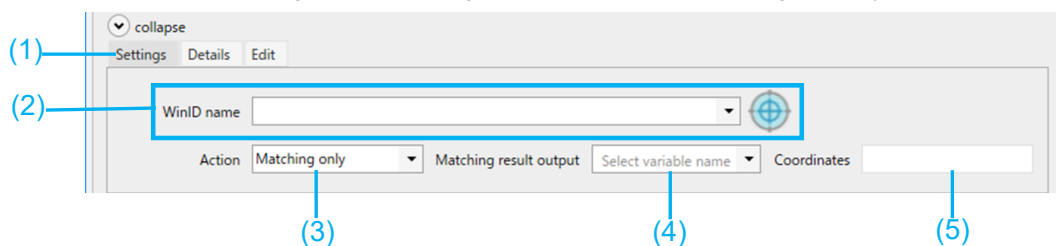


Table 4-38 Settings tab in the Contour Matching property

No.	Name	Description
(1)	Settings tab	Displays the 'Settings' tab.
(2)	WinID name	Select an application window from the 'WinID name' dropdown or specify an application window after clicking 'Select target' icon (⊕).
(3)	Action	Specify an operation to do after the contour matching. Select it from the 10 operations 'Matching only,' 'Left button click,' 'Right button click,' 'Left button double-click,' 'Right button double-click,' 'Mouse cursor move,' 'Left button triple-click,' 'Right button triple-click,' 'Hold left button and drag to the matched position,' and 'Hold right button and drag to the matched position.'
(4)	Matching result output	Stores the matching result into the specified variable. When matched, 'true' is stored. When failed to match, 'false' is stored.
(5)	Coordinates	Specifies the '+' mark position, which is called the mouse position, with X and Y coordinates. If no mouse position is specified, this field is regarded as unspecified state, and the center of the matched image, which is the reference image or one of the matching images, is regarded as the mouse position. When a reference image or matching images are specified, specify relative coordinates from the center of the image. When no reference image nor matching images are specified, specify coordinates from the top left corner, the coordinates of which is 0,0.

Figure 4-61 Details tab in the Contour Matching property

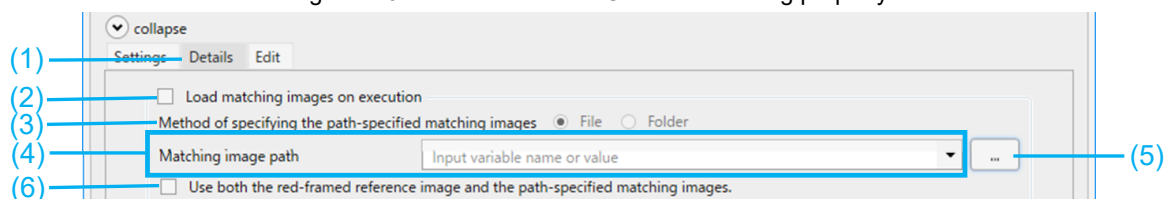


Table 4-39 Details tab in the Contour Matching property

No.	Name	Description
(1)	Details tab	Displays the 'Details' tab.
(2)	Load matching images on execution	Check this to load the matching images from files on execution. When executing the contour matching node, an image similar to any of the specified images is found out and an operation such as click is done.
(3)	Method of specifying the path-specified matching images	Select a way to specify matching images from 'File' and 'Folder.'
(4)	Matching image path	Specify the file path to the matching images to be used during execution. When 'File' is selected for 'Method of specifying the path-specified matching images,' specify a file. When 'Folder' is selected for 'Method of specifying the path-specified matching images,' specify a folder. Multiple files in the folder are treated as matching images. The files are used in the order of the extensions 'PNG,' 'JPEG,' and 'BMP,' and in the lexicographical order of the filenames if extensions are the same.  For file paths, see "5.6 File Path."
(5)	...	Clicking this button opens the selection dialog of the matching image path. When 'File' is selected for 'Method of specifying the path-specified matching images,' a file selection dialog is displayed. When 'Folder' is selected for 'Method of specifying the path-specified matching images,' a folder selection dialog is displayed.
(6)	Use both the red-framed reference image and the path-specified matching images.	Check this to use both the red-framed reference image and the path-specified matching images. The red-framed reference image is used at first and the path-specified matching images next.

Figure 4-62 Select subdivision matching area in the Contour Matching property

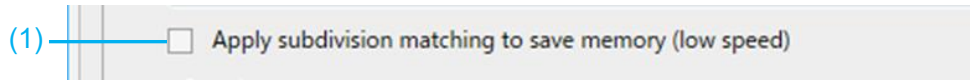


Table 4-40 Select subdivision matching area in the Contour Matching property

No.	Name	Description
(1)	Apply subdivision matching to save memory (low speed)	Split the captured images when the images are bigger than HD (1027x768) to save memory. When the images are smaller than HD image size, the captured images are not split.  • Set if the match range is 1920 x 1080 and higher. • Contour matching with split captured images is slower than usual. During the matching, do not operate the mouse, etc.

Figure 4-63 Search range in the Contour Matching property

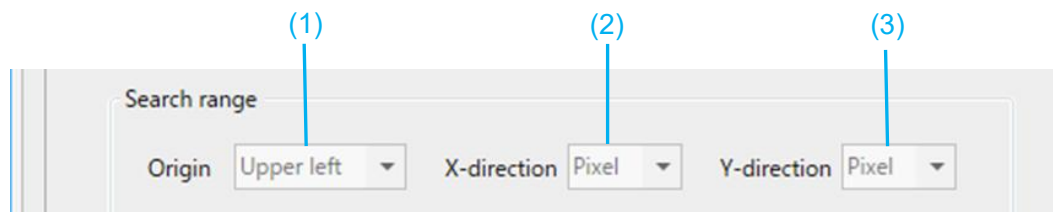


Table 4-41 Search range in the Contour Matching property

No.	Name	Description
(1)	Origin	Select the origin of the search range from 'Upper left,' 'Lower left,' 'Upper right,' and 'Lower right' in dropdown menu.
(2)	X-direction	Select the X position in pixels or percentage (%)
(3)	Y-direction	Select the Y position in pixels or percentage (%)

Figure 4-64 Specify running operations in the Contour Matching property

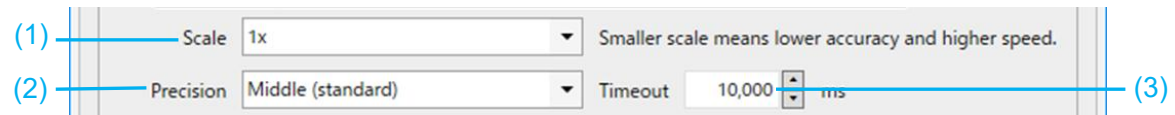


Table 4-42 Specify running operations in the Contour Matching property

No.	Name	Description
(1)	Scale	Specify the image scale—1x, 1/2, or 1/4. Smaller images speed up the image matching but may be less accurate. Adjust by lowering the Match ratio as needed.
(2)	Precision	Select a precision from 'Low (speed),' 'Middle (standard),' or 'High (precision)' from the dropdown. The matching rate may be low if decreasing the precision, but the speed of the running scenario is high. In contrast, it may be high if increasing the precision, but the speed of the running scenario is low.
(3)	Timeout	Set a timeout period to wait for the target window to display. When the timeout period has expired, a timeout action depending on the action setting is taken. If the action 'Check State' is selected, 'false' will be stored in the matching results and the scenario will continue. Otherwise, an action exception will be raised. Timeout periods can be set in milliseconds between 0-3.600.000.

Figure 4-65 Edit tab in the Contour Matching property

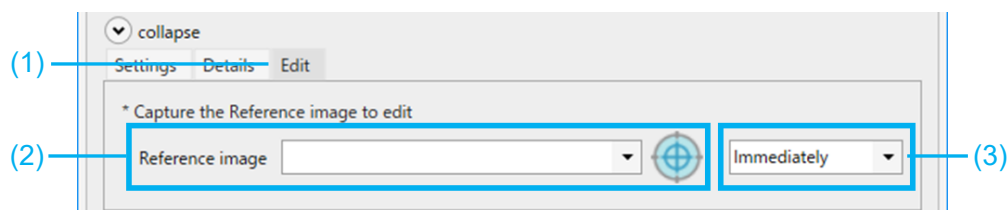


Table 4-43 Edit tab in the Contour Matching property

No.	Name	Description
(1)	Edit	Displays the 'Edit' tab.
(2)	Reference image	Select a reference image from the 'Reference Image' dropdown or specify the target application window after clicking 'Select target' icon (⊕).

No.	Name	Description
(3)	Load timing	After specifying the target application window, specify the timing to capture the image—'Immediately,' 'After 3 seconds,' 'After 10 seconds,' and 'After 30 seconds' in dropdown menu. Select one of them when capturing an image. 'After 3 seconds,' 'After 10 seconds,' and 'After 30 seconds' are used to capture the image that needs mouse operation to display such as pop-up menus.  This setting is about the behavior of setting the target, and not associated with the execution of 'Contour Matching.' This setting is not saved in the scenario file.



- Contour Matching may not correctly recognize ranges in single colors.
- Masked reference images cannot be recognized properly. Set the mask so not overlap with the reference image.
- Click the 'Restore' restore in the properties when selecting the wrong area to mask. (Settings not saved will disappear)
- Variable name input can be omitted for Matching Results from v5.1, but an error will occur if a scenario is run in v5.0.
- If an image with Matching Results omitted is edited in v5.0, Properties can be opened but an error "Variable name not entered" will be displayed when Update is clicked. Set a variable name and click Update.
- Split image matching may result differently from normal image matching.
- If no matching image exists when 'Load matching images on execution' is selected and the cross is set, the position relative to the top left will be where the cross is displayed.
- If 'Screen' is specified as the 'WinID name' in a multiple monitor setup, Image Matching will run in the order of the OS display recognition. Target images placed between neighboring monitors cannot be recognized as matching images. If a search range is specified, search will be done in the monitor the search range belongs to.

■ Other operations

The steps for the following are the same as for 'Image Matching.'

- Select reference image from file

 See "Select reference image from file."

- Select reference image

 See "Select reference image."

- Specify Matching result output

 See "Specify Matching result output."

- Automate drag-and-drop operation

 See "Automate drag-and-drop operation."

- Load matching images in the execution

 See "Load matching images on execution."

4.4.3 OCR Matching

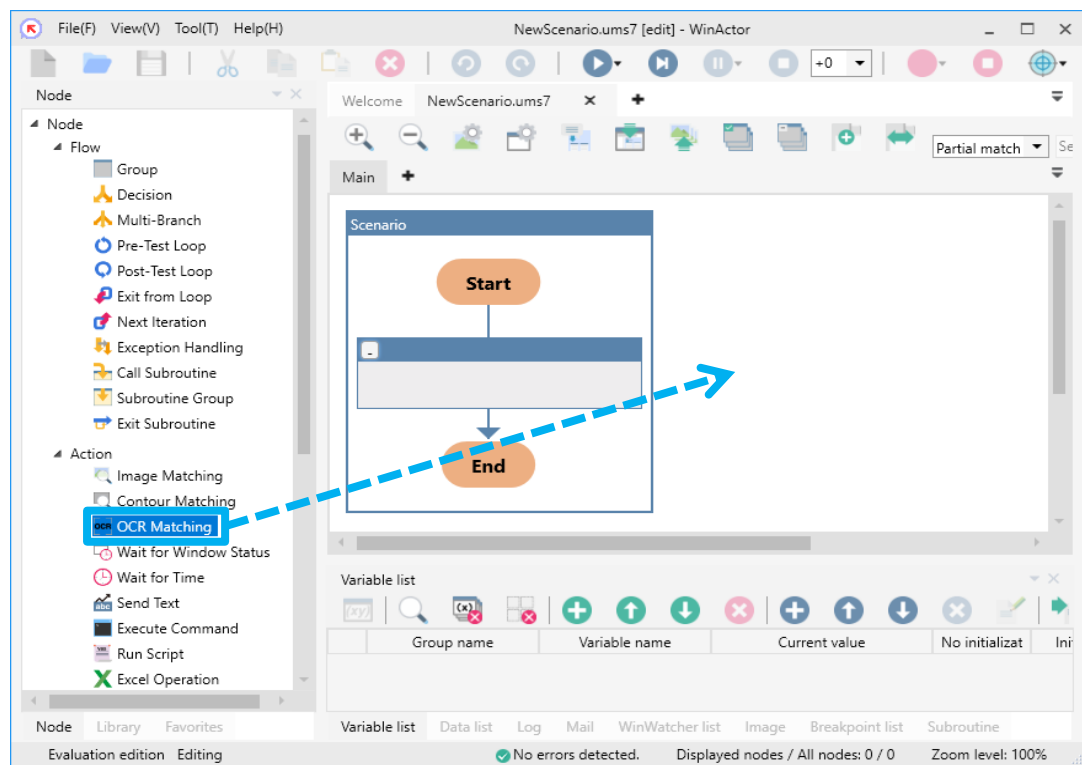
The specified string is searched for in the selected window and obtains the result. An action can be executed in that area if the matching is successful. 'OCR matching' is used for elements that cannot be recognized for mouse clicks or detect changes to the text in the window at certain timings.

■ Place OCR Matching

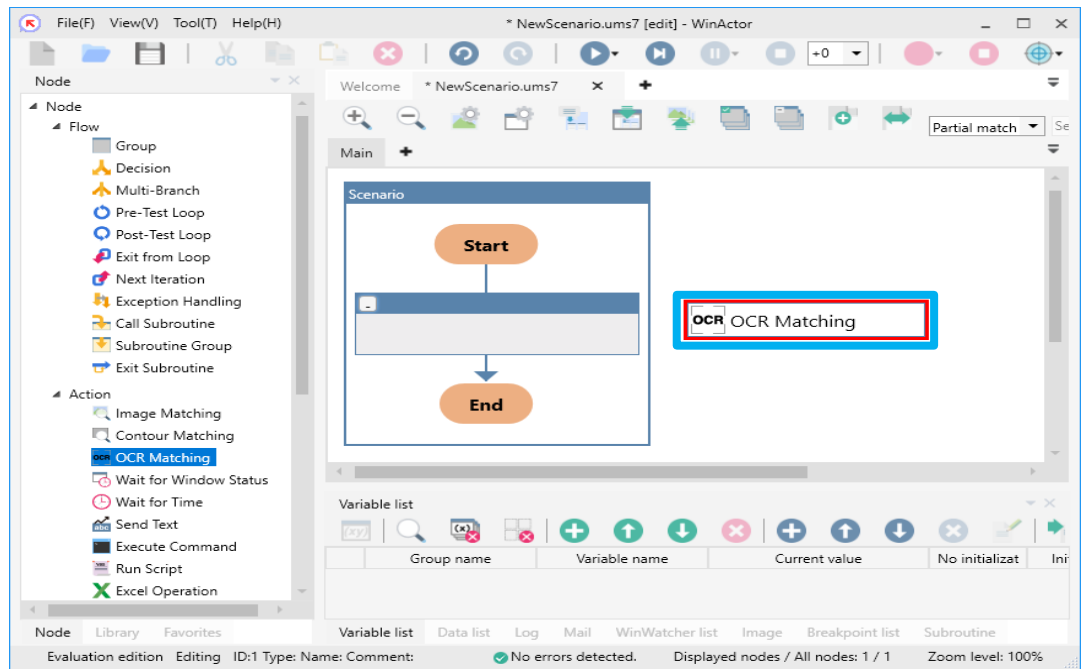
Follow the step below to place the 'OCR Matching' node

Steps

1. Drag 'OCR Matching' under 'Node' in the Palette area to the Flowchart area.



'OCR Matching' is placed in the Flowchart area.



■ OCR Matching property

The followings are the settings in the 'OCR Matching' property pane.

Figure 4-66 Areas in the OCR Matching property

The screenshot shows the 'Property' window for 'OCR matching'. It contains the following elements:

- (1) Name:** A text field containing 'OCR Matching'.
- (2) Comment:** A text area for additional notes.
- (3) Reference image:** A large area for selecting and viewing reference images, including a 'Reference image' tab and a 'Mouse position' indicator.
- (4) Settings:** A collapsed section containing:
 - WinID name:** A dropdown menu.
 - Target string:** A dropdown menu with 'Input variable name or value' selected, accompanied by 'Test', 'Show result', and 'Clear' buttons.
 - Overlay:** A checkbox labeled 'Overlay "Test" result on the reference image'.
 - Instructions:** Two lines of text explaining the 'Test' button and mouse coordinates.
 - Action:** A dropdown menu set to 'Matching only'.
 - Matching result output:** A dropdown menu set to 'Select variable'.
 - Coordinates:** A text field.

At the bottom of the pane are 'Update' and 'Restore' buttons.

Table 4-44 Areas in the OCR Matching property

No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	OCR Matching comment can be used as a notepad when creating a scenario.
(3)	Specify image area	Specify images to match.
(4)	Specify condition area	Set the OCR matching conditions.

Figure 4-67 Reference image tab in the OCR Matching property

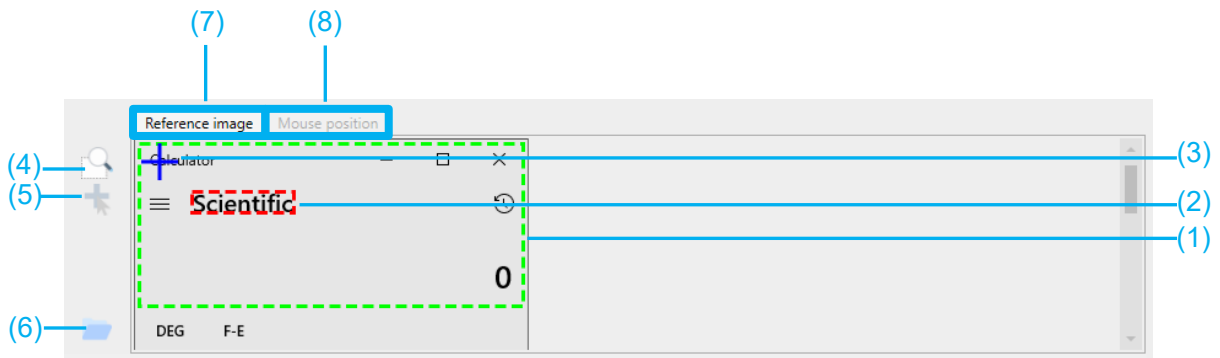


Table 4-45 Reference image tab in the OCR Matching property

No.	Name	Description
(1)	Green frame	Set the OCR matching range. The text is searched for only in the specified range. This is optional, and if the range is not specified, the entire image will be searched.  Specify a range 4x the size of the text to be search. Text cannot be recognized if the range is too small.
(2)	Red frame	The text matched with the 'Target string' in 'Run Test' will be framed in red.  For 'Run test,' See "Table 4-49 Enter target string in the OCR Matching property."
(3)	Cross	Set the relative position of the mouse click point from the center of the red frame. This is optional, and if the position is not set, the center of the matched text will be the mouse operation point.
(4)	Search range	Set the green frame by dragging the mouse over the captured image after clicking the icon. Click the captured image to cancel the green border.
(5)	Mouse operation coordinates	Set the position of the cross by clicking the mouse over the captured image after clicking the icon. Click the cross to cancel the settings.
(6)	Select reference image from file	Select the captured image from the file.  For how to select a reference image, see Method 3 in "Select reference image from file."
(7)	Reference image tab	Shows the images to match.
(8)	Mouse position	Shows the mouse click points.

Figure 4-68 Mouse position tab in the OCR Matching

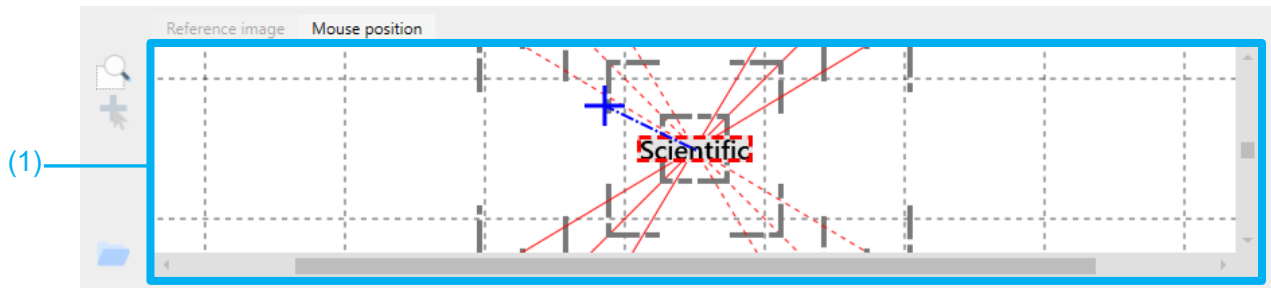


Table 4-46 Mouse position tab in the OCR Matching property

No.	Name	Description
(1)	Mouse position area	Shows the text and a mouse click points specified in 'Target string.'

Figure 4-69 Collapse button in the OCR Matching property

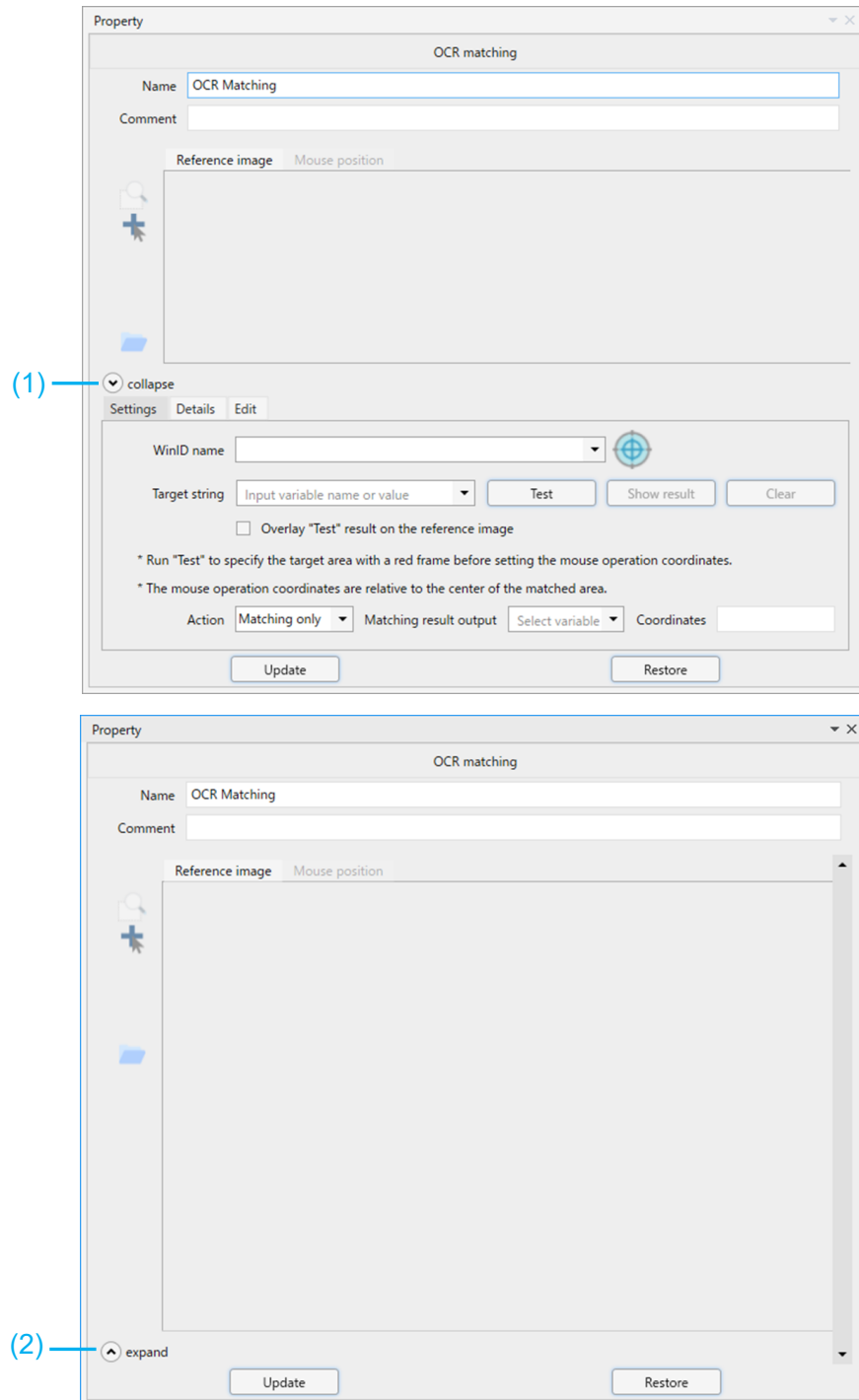


Table 4-47 Collapse button in the OCR Matching property

No.	Name	Description
(1)	Collapse button	Makes the specify condition area invisible.
(2)	Expand button	Makes the specify condition area visible.

Figure 4-70 Select target area in the OCR Matching property

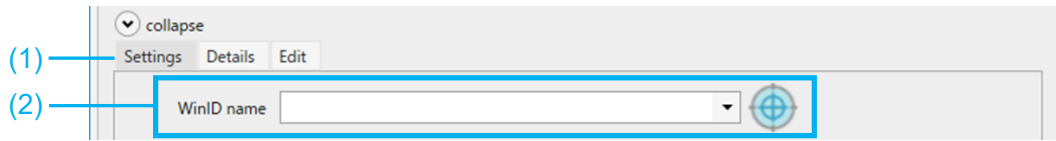


Table 4-48 Select target area in the OCR Matching property

No.	Name	Description
(1)	Settings tab	Displays the 'Settings' tab.
(2)	WinID name	Select an application window from the 'WinID name' dropdown or specify an application window after clicking the 'Select target' icon  .

Figure 4-71 Enter target string in the OCR Matching property

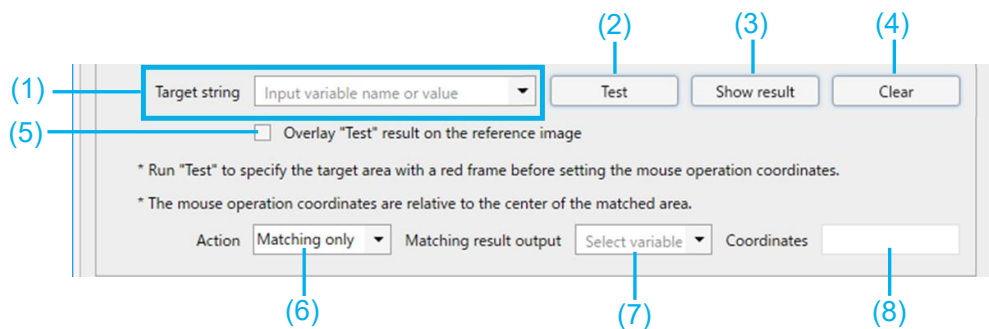


Table 4-49 Enter target string in the OCR Matching property

No.	Name	Description
(1)	Target string	Specify the text to search. Select a variable where the text is stored if a variable is specified. For direct inputs, select Value=> and enter up to 1024 characters. Remove the check on 'Restrict the number of characters for variable values' in the 'Scenario information' property to lift the limit to the number of characters allowed.
(2)	Test	Search for the target text in Reference image tab. Matching text is framed in red. An error is displayed if no matches.
(3)	Show result	The characters extracted from the image search during the test run are displayed in a dialog.
(4)	Clear	Clear the red frame displayed for matches. Also clears the mouse cross and mouse click points.
(5)	Overlay 'Test' result in the reference image	When enabled, the text extracted from the image search during the test run is overlaid with the reference image.

No.	Name	Description
(6)	Action	Specify the operation after OCR Matching—'Matching only,' 'Left button click,' 'Right button click,' 'Left button double-click,' 'Right button double-click,' 'Mouse cursor move,' 'Left button triple-click,' 'Right button triple-click,' 'Hold left button and drag to the matched position,' or 'Hold right button and drag to the matched position.'
(7)	Matching result output	Stores the matching result into the specified variable. When matched, 'true' is stored. When failed to match, 'false' is stored.
(8)	Coordinates	Specifies the '+' mark position, which is called the mouse position, with X and Y coordinates. If no mouse position is specified, this field is regarded as unspecified state, and the center of the rectangle matched with the target string is regarded as the mouse position. Specify relative coordinates from the center of the rectangle matched with the target string ignoring the red frame.



Reference images used in the test run is saved without downsizing. Image Size in Options will be ignored.



For 'Image size,' see "Record tab."

Figure 4-72 Specify search range in the OCR Matching property

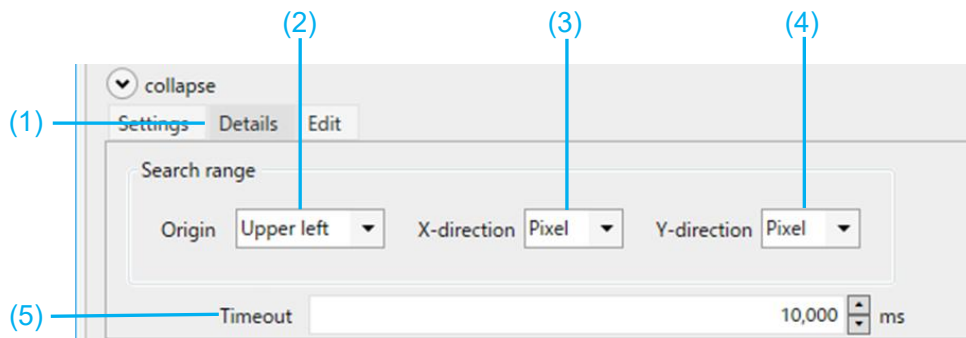


Table 4-50 Details tab in the OCR Matching property

No.	Name	Description
(1)	Details tab	Displays the 'Details' tab.
(2)	Origin	Select the origin in the search range from 'Upper left,' 'Lower left,' 'Upper right,' and 'Lower right' in dropdown menu.
(3)	X-direction	Select the X position in pixels or percentage (%)
(4)	Y-direction	Select the Y position in pixels or percentage (%)
(5)	Timeout	Set a timeout period to wait for the target window to display. When the timeout period has expired, a timeout action depending on the action setting is taken. If the action 'Matching only' is selected, false will be stored in the matching results and the scenario will continue. Otherwise, an action exception will be raised. Timeout periods can be set in milliseconds between 0-3.600.000.

Figure 4-73 Edit tab in the OCR Matching property

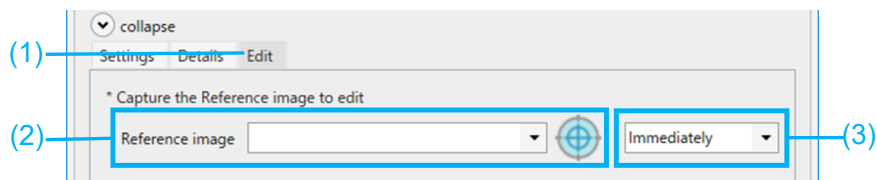


Table 4-51 Edit tab in the OCR Matching property

No.	Name	Description
(1)	Edit	Displays the 'Edit' tab.

No.	Name	Description
(2)	Reference image	Select a reference image from the 'Reference Image' dropdown or specify the target application window after clicking 'Select target' icon (📌).
(3)	Load timing	After specifying the target application window, specify the timing to capture the image—'Immediately,' 'After 3 seconds,' 'After 10 seconds,' and 'After 30 seconds' in dropdown menu. Select one of them when capturing an image. 'After 3 seconds,' 'After 10 seconds,' and 'After 30 seconds' are used to capture the image that needs mouse operation to display such as pop-up menus.  This setting is about the behavior of setting the target, and not associated with the execution of 'OCR Matching.' This setting is not saved in the scenario file.



- Depending on the size of the target window and fonts, the same text may not reproduce the same result even when running the same scenario.

Some characters may be recognized as different symbols or text depending on the font type and size.

e.g.)

EM dash (—) and hyphen (-)

Text that can be detected by OCR Matching relies on the Windows language environment.

■ Other operations

The steps for the following are the same as for 'Image Matching.'

- Select reference image from file



See "Select reference image from file."

- Specify Matching result output



See "Specify Matching result output."

- Automate drag-and-drop operation



See "Automate drag-and-drop operation."

4.4.4 Wait for Window Status

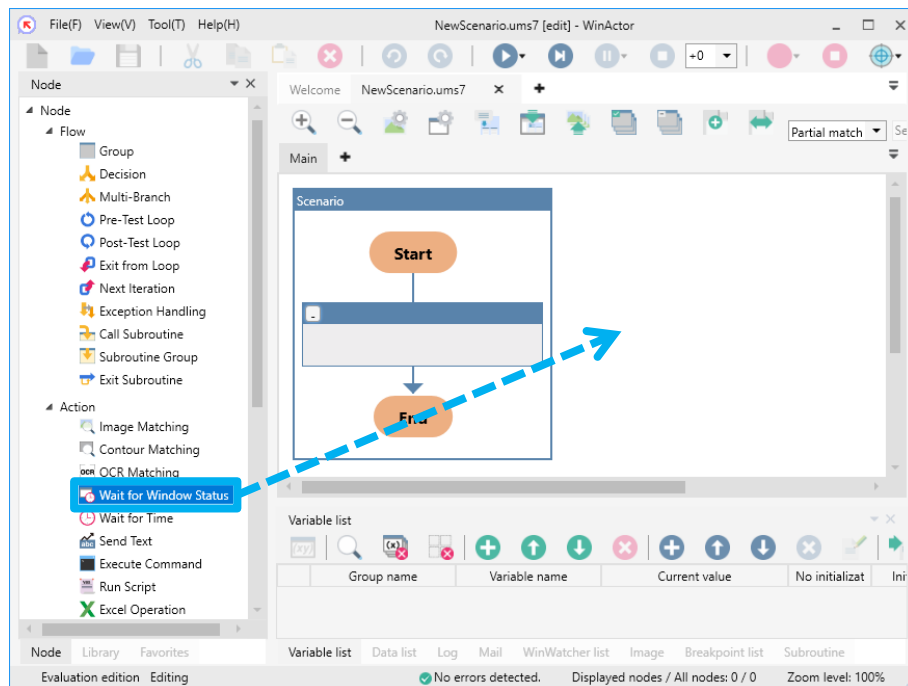
The current and future window displays are monitored and scenarios are paused until the window is in the specified status. Also, the status of the monitored window can be checked. Examples of usage are 'Wait for Window Status' node contain 'Wait until the specified window can be operated,' 'Wait until it is shown,' or 'Wait until it is exited.'

■ Place 'Wait for Window Status'

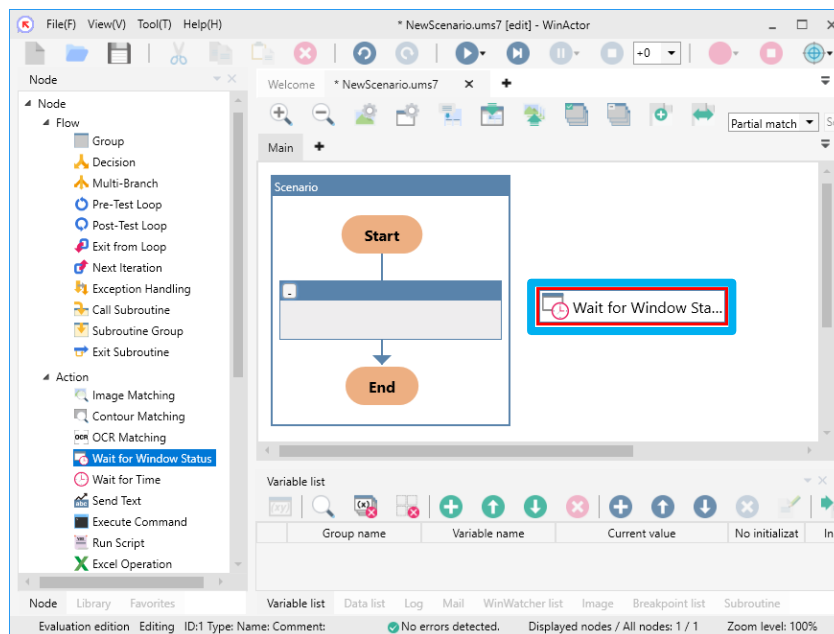
Follow the step below to place the 'Wait for Window Status' node

Steps

1. Drag 'Wait for Window Status' under 'Node' in the Palette area to the Flowchart area.



'Wait for Window Status' is placed in the Flowchart area.



■ Wait for Window Status property

The following are settings in the 'Wait for Window Status' property pane.

Figure 4-74 Wait for Window Status property pane

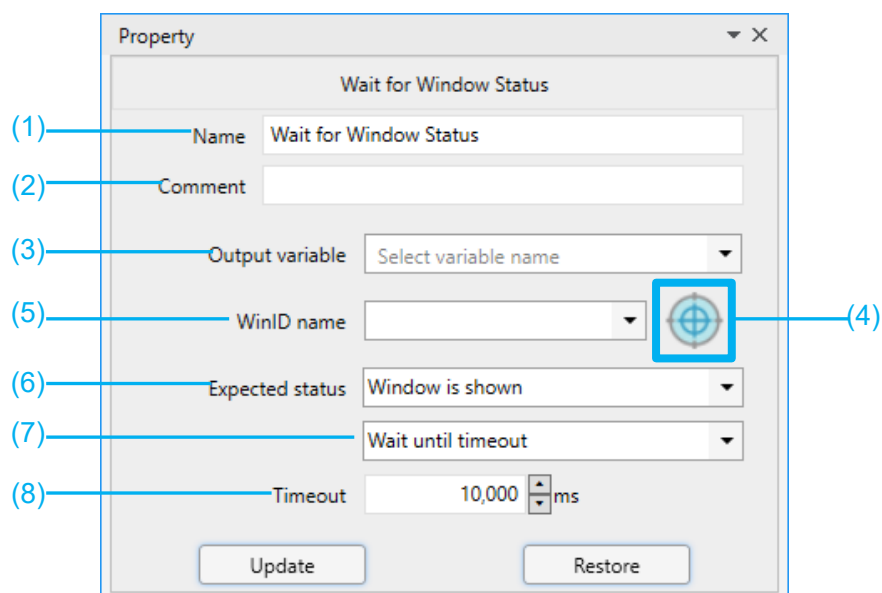


Table 4-52 Wait for Window Status property

No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Wait for Window Status comment can be used as a notepad when creating a scenario.
(3)	Output variable	Store output variable for Wait for Window Status. Store 'true' if specified 'Expected status' is detected and 'false' if it is not.
(4)	Select target window	Click Select target window icon () to specify the application window.
(5)	WinID name	Select the application window from the dropdown. Windows can be selected with (4) or (5).
(6)	Expected status	Set how the monitored window changes status.
(7)	Status type	Select 'Get status only' or 'Wait until timeout' from the dropdown menu.
(8)	Timeout	Set timeout time if selecting 'Wait until timeout' from the 'Status type' dropdown menu. The timeout can be set in milliseconds between 0-3.600.000.

■ Expected status and status type

The value obtained for 'Wait for Window Status' depends on the 'Expected Status' settings and the status type.

- There are six settings for 'Expected Status' and two for 'Status Type.'
- If the 'Status Type' is 'Get status only,' the true or false result of the status set in 'Expected Status' is obtained immediately and stored in the value.
- If the 'Expected Status' will wait for the status change until the set timeout if 'Wait until Specified' is specified. True will be stored in the specified variable if the status changes before the timeout and false will be set if the status change times out.

The expected status can be checked or monitored as below.

Table 4-53 Expected status and status type

No.	Expected status	Status type	
		Get status only	Wait until timeout
(1)	Window is shown	'true' if the specified window is shown, otherwise 'false'	'true' if the window specified before the timeout is shown and 'false' if it times out.

No.	Expected status	Status type	
		Get status only	Wait until timeout
(2)	Window is at the front	'true' if the specified window is at the front, otherwise 'false.'	'true' if the window specified before the timeout is at the front, otherwise 'false.'
(3)	Window is operable	'true' if the specified window is operable, otherwise 'false'	'true' if the window specified before the timeout is operable , otherwise 'false.'
(4)	Window is hidden	'true' if the specified window is hidden, otherwise 'false'	'true' if the window specified before the timeout is hidden, otherwise 'false.'
(5)	Window is not at the front	'true' if the specified window is not at the front, otherwise 'false'	'true' if the window specified before the timeout is at the front, otherwise 'false.'
(6)	Window is inoperable	'true' if the specified window is inoperable, otherwise 'false'	'true' if the window specified before the timeout is inoperable, otherwise 'false'

4.4.5 Wait for Time

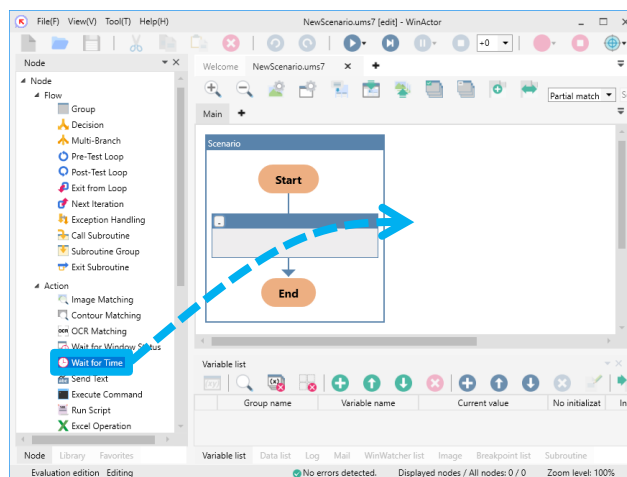
The scenario waits to run until the specified time or hours pass. The current and specified times are compared and the result is stored in the variable. This is used to start or end the scenario at a certain time or pause the scenario while a process is waiting to finish.

■ Place Wait for Time

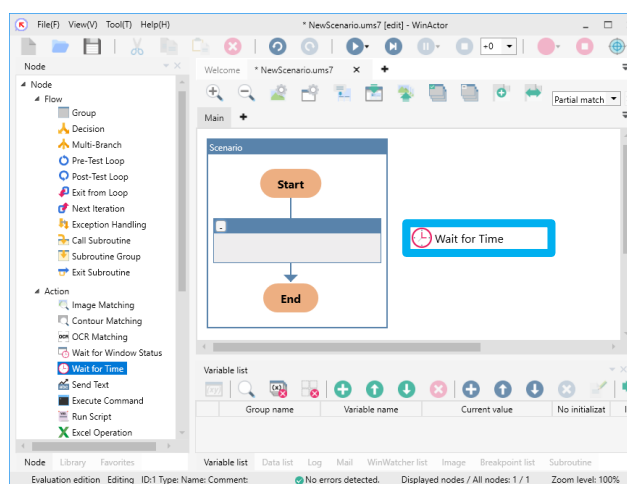
Follow the step below to place the 'Wait for Time' node.

Steps

1. Drag 'Wait for Time' under 'Node' in the Palette area to the Flowchart area.



'Wait for Time' is placed in the Flowchart area.



■ Wait for Time property

The following are settings in the 'Wait for Time' property pane.

Figure 4-75 Wait for Time property

The screenshot shows the 'Wait for Time' property pane. It includes fields for Name, Comment, Wait time (ms), and two Time fields. There are also checkboxes for 'Wait for the specified time', 'Wait until the specified time', and 'Check the specified time'. A 'Check result' field is present. Examples are listed at the bottom, along with 'Date format' and 'Time zone' dropdowns. Callouts (1) through (7) point to the following elements:

- (1) Name field
- (2) Comment field
- (3) Wait time (ms) field
- (4) Time field (highlighted with a red box)
- (5) Check result field
- (6) Date format dropdown
- (7) Time zone dropdown

Table 4-54 Wait for Time property

No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Wait for time comment can be used as a notepad when creating a scenario.
(3)	Wait time	Specify the time or a variable that store the time to wait when 'Wait for specified time' is selected. The time can be set in milliseconds between 0-3.600.000.
(4)	Time	Specify the time by entering a value or specifying a variable.
(5)	Check result	If 'Check specified time is selected,' store the true/false result to the specified variable.
(6)	Date format	Specify the date format. If the date format has been set in 'Specify in the Scenario information property' or 'Specify in the Option dialog,' that format will be used.

No.	Name	Description
(7)	Time zone	Specify the time zone. If the time zone has been set in 'Specify in the Scenario information property' or 'Specify in the Option dialog,' that time zone will be used.



The properties will differ depending on if 'Wait for specified time,' 'Wait until specified time,' and 'Check specified time' is selected.

■ Time format

The following are conditions to set the time and the result for 'Wait for the specified time' or 'Check the specified time.'

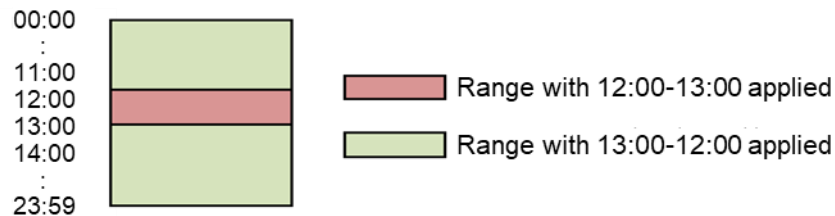
Table 4-55 Time format and the result of each setting

No.	Format and example of input	Applied time	Result	
			Wait for specified time	Check specified time
(1)	HH:mm (Start time)	—	The current time is out of the range of the applied time.	The current time is out of the range of the applied time.
	00:00* ¹	00:00:00.000 -23:59:59.999	• Wait	• Check result 'false'
	13:30	13:30:00.000 -23:59:59.999	Within the range of the applied time • Not wait	Within the range of the applied time • Check result 'true'
(2)	yyyy/MM/dd HH:mm (Start date and time)	—	The current time is after the applied time.	The current time is after the applied time.
	April 1, 2014 at 13:10	April 1, 2014 at 13:10.00.000-	• Wait Before the applied time • Not wait	• Check result 'false' Before the applied time • Check result 'true'
(3)	HH:mm-HH:mm (Start time) - (End time)	—	The current time is out of the range of the applied time.	The current time is out of the range of the applied time.
	00:00-00:00* ¹	00:00:00.000 -23:59:59.999	• Wait	• Check result 'false'
	12:00-13:00* ²	12:00:00.000 -12:59:59.999	Within the range of the applied time • Not wait	Within the range of the applied time • Check result 'true'
	13:00-12:00* ²	13:00:00.000 -11:59:59.999		

No.	Format and example of input	Applied time	Result	
			Wait for specified time	Check specified time
(4)	yyyy/MM/dd HH:mm -yyyy/MM/dd HH:mm (Start date and time) – (End date and time)	–	The current time is out of the range of the applied time. • Wait	The current time is out of the range of the applied time. • Check result 'false'
	April 1, 2014 at 13:10 - April 3, 2014 at 00:00 ^{*3}	April 1, 2014 at 13:10.00.000- April 2, 2014 at 23:59.59.999	Within the range of the applied time • Not wait	Within the range of the applied time • Check result 'true'

*1 All times have been specified.

*2 The range depends on 'Start time < End time' or 'Start time > End time,' as below.



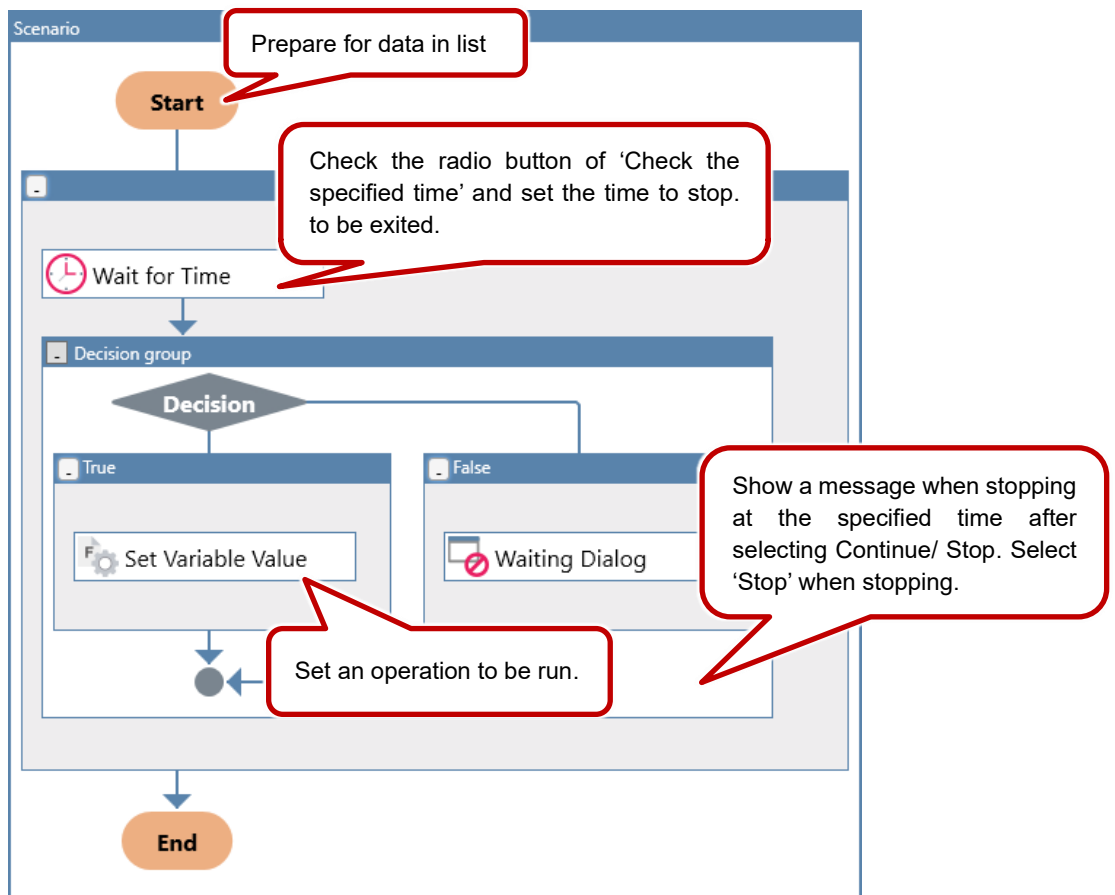
*3 If a time in the past is set as the end time for Wait until specified time, an error message—time in the past has been set—will be displayed when running a scenario. The same will happen if the end time becomes in the past when starting to run a scenario.

*4 Date format is an example if yyyy/mm/dd is specified. Enter the time in format specified in Date Format.

■ Example of Wait for Time scenario

The following is an example of a scenario using 'Wait until Specified' to determine whether to run a process from the result of checking the specified time.

Figure 4-76 Example of Wait for Time scenario



4.4.6 Send Text

Send text for the specified window (or control). When a window is specified, the text is sent to the focused GUI element. When a control is specified, text is sent to the control.



'Send Text' is used when entering texts in the window that can be operated only in Emulation mode. Use 'Set Text' as much as possible.



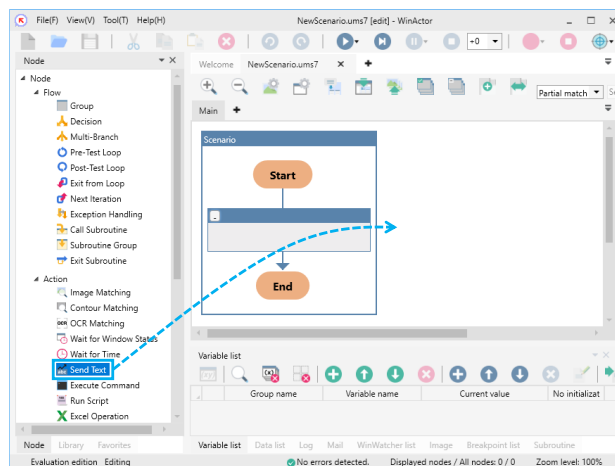
For 'Set Text,' see "4.7.2 Set Text."

■ Place Send Text

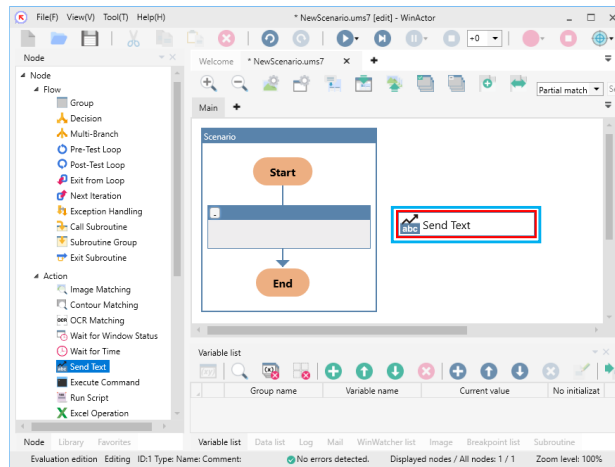
Follow the step below to place the 'Send Text' node.

Steps

1. Drag 'Send Text' under 'Node' in the Palette area to the Flowchart area.



'Send Text' is placed in the Flowchart area.



■ Send Text property

The following are settings in the 'Send Text' property pane.

'Send Text' property consists of 'Settings' tab and 'Details' tab.

Figure 4-77 Settings tab in the Send Text property

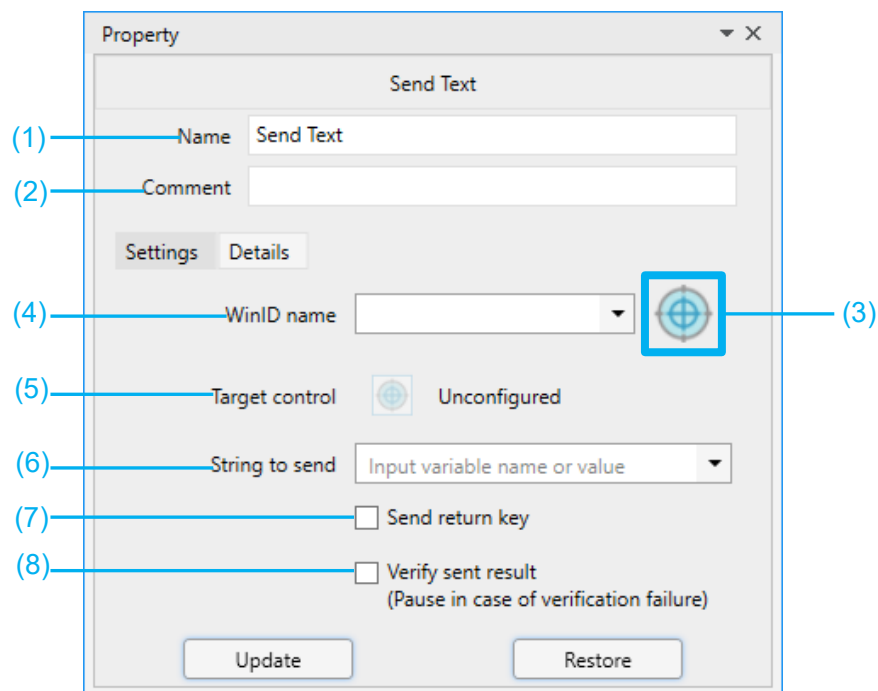


Table 4-56 Settings tab in the Send Text property

No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Send Text comment can be used as a notepad when creating a scenario.
(3)	Select target window	Click the 'Select target window' icon () to select a target application window.
(4)	WinID name	Select the target application window with a 'WinID.'
(5)	Target control	Click the icon () to select the target application or control.
(6)	String to send	Select the variable or value that stores the text to send. Up to 1024 characters can be entered when directly entering the value. Disable 'Restrict the number of characters for variable values' in the 'Scenario information' window to lift the character limit.  For Scenario information, see "3.8 Scenario Information Window."
(7)	Send return key	Depending on the IME version used by the OS, the sent text may remain as pending (underlined). Enable this setting to send the return key periodically to finalize sending the text
(8)	Verify sent result	The sent and entered text are compared to verify if the text was entered correctly. An action exception will occur if there are any mistakes.



- If 'Send return key' is checked unnecessarily, the return key may be sent at the wrong position.
- Verify sent result gets the entered text from the clipboard and the content of the clipboard will be different before and after sending text. This setting will not be available if the clipboard is disabled by the OS or applications.
- If both 'Send return key' and 'Verify sent result' are enabled, the settings may not behave correctly depending on the IME used by the application and OS

Figure 4-78 Details tab in the Send Text property

Table 4-57 Details tab in the Send Text property

No.	Name	Description
(1)	Select/ Cancel all parameter names	Check to select all, remove the check to unselect all
(2)	Instance	Enter the serial number assigned to the control or specify a variable. The values are in numbers. Variable names may be used in the value as '%VariableName%.'  0 is set when specifying a basic setting 'WinID name.' 1 or higher will be set when controls are specified.
(3)	Text	Shows the text displayed in the control. The value is a string. Variable names may be used in the value as '%VariableName%.' Default: Not checked.  If a target window is specified with the 'WinID name,' the window title is displayed. If a control is specified, the label is displayed (e.g., text in buttons).
(4)	Position	Reference point of the control and shows the relative points from the target window. The value is X, Y. Variable names may be used in the value as '%VariableName%.' Default: Not checked.  The If a window is specified with a 'WinID name,' the reference is 0.0. If a control is specified, the control's position reference is displayed.

 The If a window is specified with a 'WinID name,' the reference is 0.0. If a control is specified, the control's position reference is displayed.

4.4.7 Execute Command

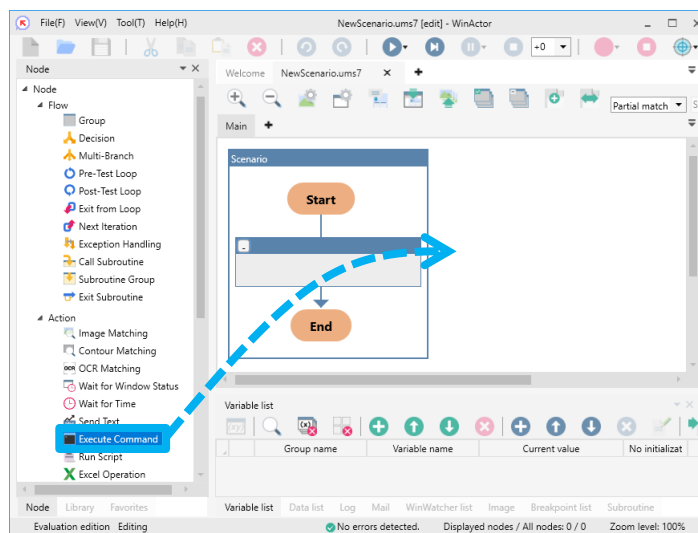
The specified command is executed. The command output can also be obtained for the variable. This is used to obtain the result of executing a command and to launch a target application while running a scenario.

■ Place Execute Command

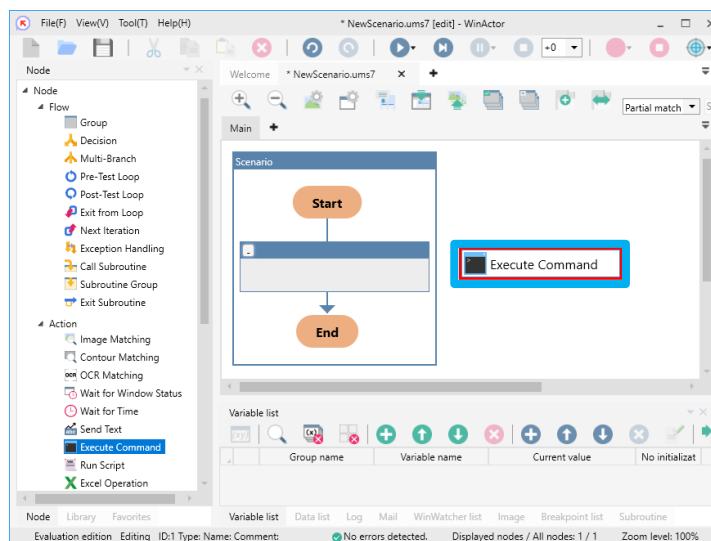
Follow the step below to place the 'Execute Command' node.

Steps

1. Drag 'Execute Command' under 'Node' in the Palette area to the Flowchart area.



'Execute Command' is placed in the Flowchart area.



■ Execute Command property

The following are settings in the 'Execute Command' property pane.

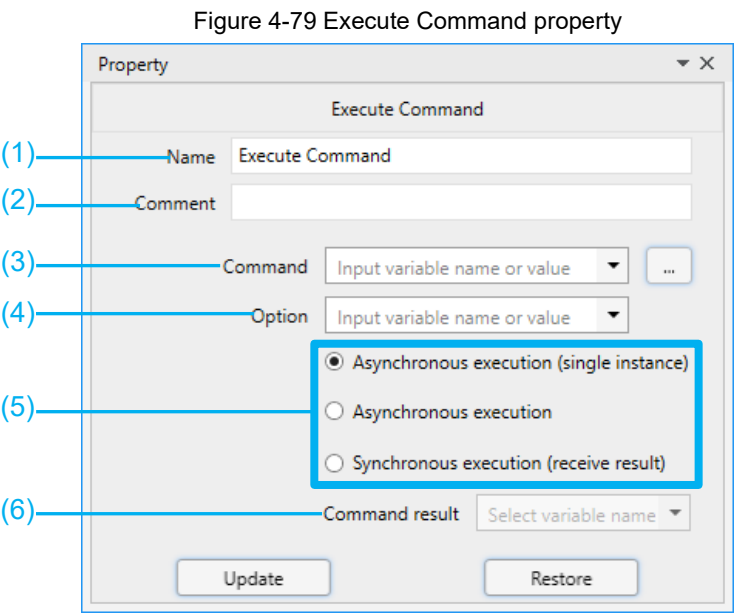


Table 4-58 Execute Command property

No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Execute Command comment can be used as a notepad when creating a scenario.
(3)	Command	Enter the path of the command to execute, a variable, or specify a file. Specify commands within 255 characters. >> For details of file paths, see "5.6 File Path."
(4)	Option	Specify an option to execute a command by entering a value or a variable. Options must be within 1024 characters. Disable 'Restrict the number of characters for variable values' in the 'Scenario information' property to lift the restrictions. >> For Scenario information, see "3.8 Scenario Information Window."

No.	Name	Description
(5)	Radio button	Select 'Asynchronous execution (single instance),' 'Asynchronous execution,' or 'Synchronous execution (receive result).' • If 'Asynchronous execution (single instance),' the command will not be executed if the application is open. • If 'Asynchronous execution,' the command will be executed although the application is open. • 'Synchronous execution (receive result)' will wait until the command is finished
(6)	Command result	The command output will be stored in the specified variable when 'Synchronous execution (receive result)' is selected. The stored string will be the first row in the standard output.



- The following is an example of executing a command from the command prompt.
e.g.) If executing the dir command,
Command: cmd.exe
Option /c dir
- Variable is not expanded if setting a variable that does not exist in 'Option.'



- The window may not be displayed depending on how an option is specified in the Command Prompt (cmd.exe).
- Commands interpreted by the command prompt, such as 'move,' need to use 'cmd' as the command and '/c' as the option.
- Enclose options with spaces in double quotes to pass on as options.
- Confirm operations by using Partial run when creating a scenario.

4.4.8 Run Script

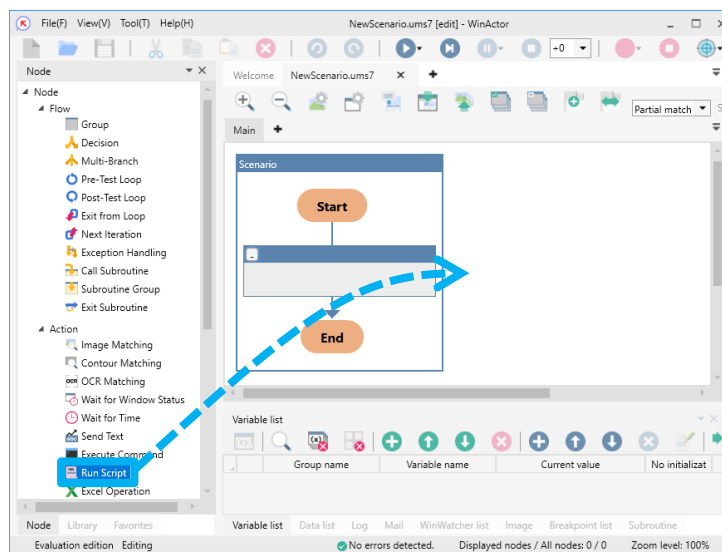
This node runs the VBScript in WinActor to expand operations.

■ Place Run Script

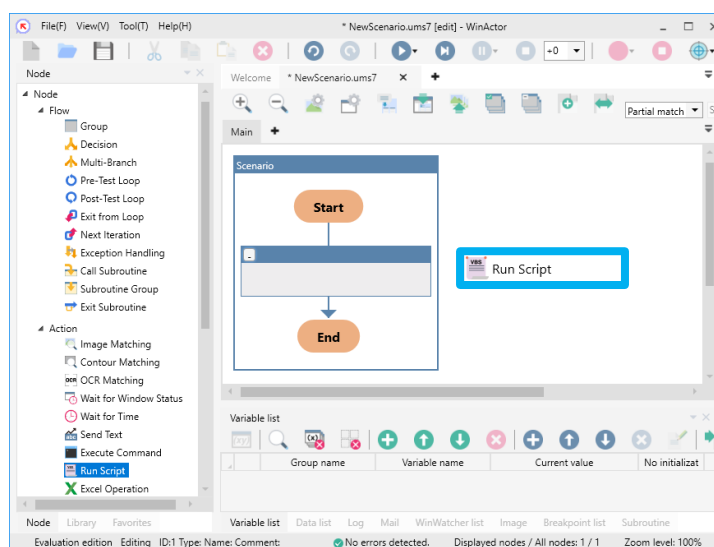
Follow the step below to place the 'Run Script' node.

Steps

1. Drag 'Run Script' under 'Node' in the Palette area to the Flowchart area.



'Run Script' is placed in the Flowchart area.



■ Run Script property

The followings are the settings in the 'Run Script' property pane.

'Run Script' property consists of 'Settings' tab, 'Script' tab, and 'Annotation' tab.

Figure 4-80 Run Script property pane

The screenshot shows a 'Property' window titled 'Run Script'. It contains two input fields: 'Name' with the value 'Run Script' and 'Comment' which is empty. Callout (1) points to the 'Name' field and callout (2) points to the 'Comment' field.

Table 4-59 Run Script property

No.	Name	Description
(1)	Name	Set the Action name.
(2)	Comment	Set the Action comment.

Figure 4-81 Settings tab in the Run Script property

The screenshot shows the 'Settings' tab of the 'Run Script' property pane. It includes fields for 'Date' (set to 'Value=>'), 'Username' (set to 'Select variable name'), and 'WinID name'. A blue box highlights these three fields, with callout (1) pointing to the 'Settings' tab. At the bottom are 'Update' and 'Restore' buttons.

Table 4-60 Settings tab in the Run Script property

No.	Name	Description
(1)	'Settings' tab	Comments entered in the 'Annotation' tab are shown at the top. Set the parameters entered in the 'Script' tab.

Figure 4-82 Script tab in the Run Script property

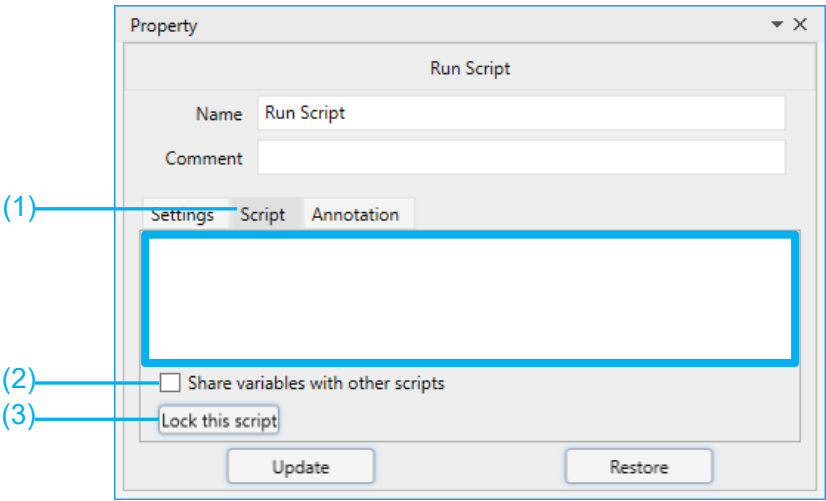
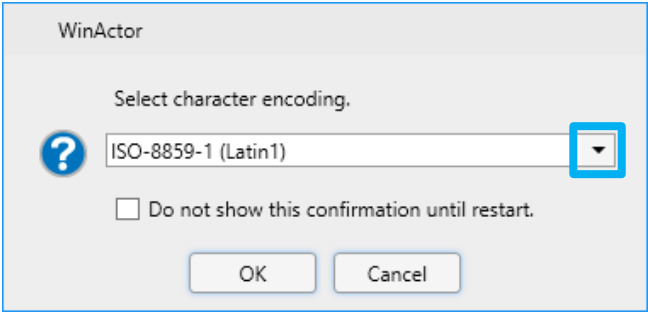


Table 4-61 Script tab in the Run Script

No.	Name	Description
(1)	'Script' tab	Enter the script to run. The script code follows the Windows VBScript language standards. There are parameters (see "Table 4-63 Script parameter") and functions (see "Table 4-64 WinActor own function") that can be used to interact with WinActor in the 'Script' tab. Scripts can be loaded by dragging files to the editor. A dialog to select the encoding will be displayed. Select the encoding from the dropdown and click the 'OK' button in the dialog. 
(2)	Share variables with other scripts	This allows scripts to share and inherit values.
(3)	Lock this script	'Script' tab and 'Annotation' tab will be hidden, and scripts cannot be edited or checked.



Locked script can never be edited again.

Figure 4-83 Annotation tab in the Run Script property

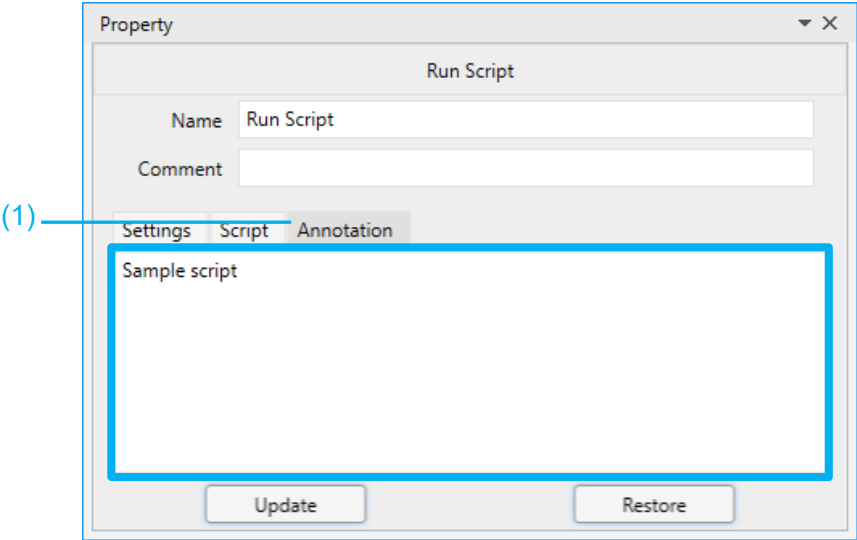


Table 4-62 Annotation tab in the Run Script property

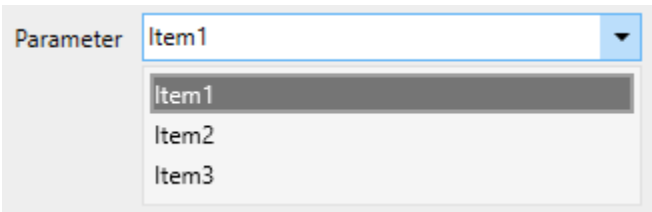
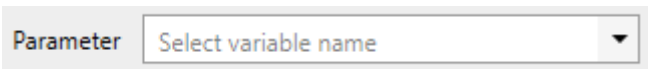
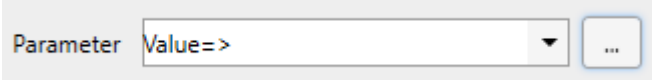
No.	Name	Description
(1)	Annotation tab	Enter comments on how scripts are used. Annotations do not affect execution.

■ Script parameter

Parameters can be defined with scripts. The parameter field is shown in the ‘Settings’ tab.

Table 4-63 Script parameters

No.	Parameter	Description
(1)	!Parameter name!	Parameter Input variable name or value Shown in the ‘Settings’ tab. Used to directly specify a value in the script code or to reference values kept in variables. Multiple instances of this parameter can be used in the script code. Parameters with the same name will be treated as same parameters.

No.	Parameter	Description
(2)	!Parameter Item 1,Item 2,Item 3!	 Shown in the 'Settings' tab. The items specified by the parameter is shown in the dropdown and the selected item will be treated as a value in the script. Parameters with the same name will be treated as same parameters.
(3)	\$Parameter name\$	 Shown in the 'Settings' tab. Parameter to set variable names and used to handle variable names in scripts. Multiple instances of this parameter can be used in the script code. Parameters with the same name will be treated as same parameters.
(4)	@Parameter name@	 Shown in 'Settings' tab. Parameter to set WinIDs and used to handle WinIDs in script codes. Only one parameter can be used in a script code.
(5)	! Parameter name FILE !	 Shown in 'Settings' tab. Parameter to set files from the file explorer (not specifying extensions) and is used to handle file paths in the script code. Multiple instances of this parameter can be used. Parameters with the same name will be treated as same parameters.
(6)	! Parameter name FILE:EXCEL !	Parameter to display the file explorer (specify extension: Excel)
(7)	! Parameter name FILE:ZIP !	Parameter to display the file explorer (specify extension: ZIP)
(8)	! Parameter name FILE:CSV !	Parameter to display the file explorer (specify extension: CSV)
(9)	! Parameter name FILE:IMG !	Parameter to display the file explorer (specify extension: Image)

■ Dedicated WinActor function

The followings are the functions used by scripts embedded in WinActor to access variable.

Table 4-64 WinActor own function

No.	Function (argument)	Return value	Details
(1)	GetUMSVariable (Variable name)	String(variable value)	Function to load variables
(2)	SetUMSVariable (Variable name, value)	String(set value)	Function to write to variables
(3)	GetUMSWindowTitle (WinID name)	String(window title)	Function to get window titles
(4)	GetUMSWindowHandle (WinID name)	String (window handle)	Function to get window handles
(5)	ShowUMSHighlight (Window handle)	Boolean(Succeeded: true, Failed: false)	Function to highlight specified window frames

■ Errors in script

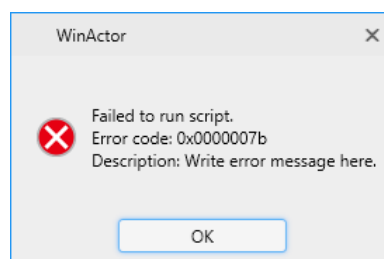
Script execution will fail if there are errors in the scripts.

Use the Err.Raise function to force an error. The error number can be specified for the first argument and the error message for the third argument.

Table 4-65 Err.Raise function in which errors occur

Err.Raise 123, "", "Enter an error message."

Figure 4-84 Error dialog in Err.Raise



■ Script limitations

Scripts cannot use standard input nor output. Also, in the 'On Error Resume Next' statement, to continue the process when an error occurs, always use the 'On Error GoTo 0' statement and 'Error.Clear' method to clear the errors.

4.4.9 Run Python

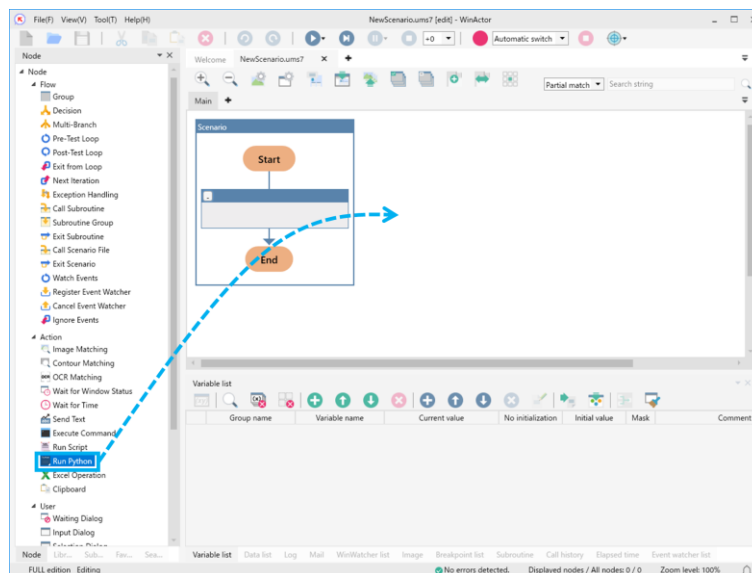
This node runs a script written in Python in WinActor. WinActor operations can be expanded with executing Python scripts.

■ Place Run Python

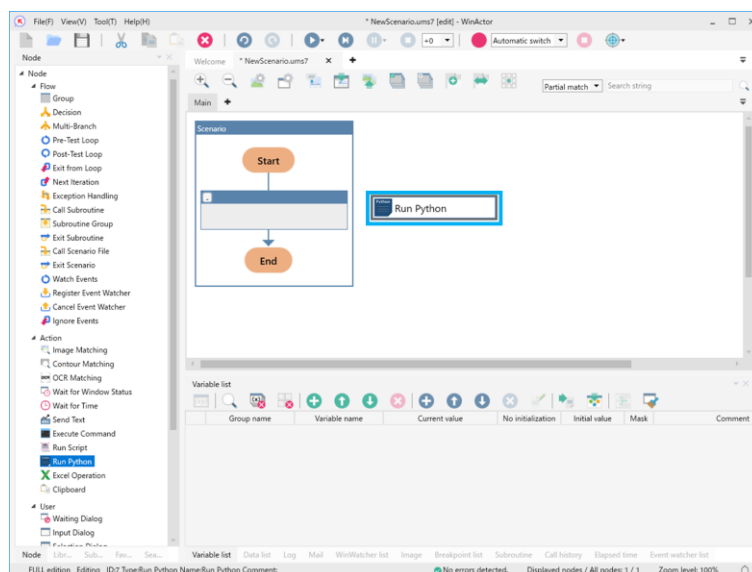
Follow the step below to place the 'Run Python' node.

Steps

1. Drag 'Run Python' under 'Node' in the Palette area to the Flowchart area.



'Run Python' is placed in the Flowchart area.



■ Run Python property

The followings are the settings in the 'Run Python' property pane.

'Run Python' property consists of 'Settings' tab, 'Script' tab, and 'Annotation' tab.

Figure 4-85 Run Python property pane

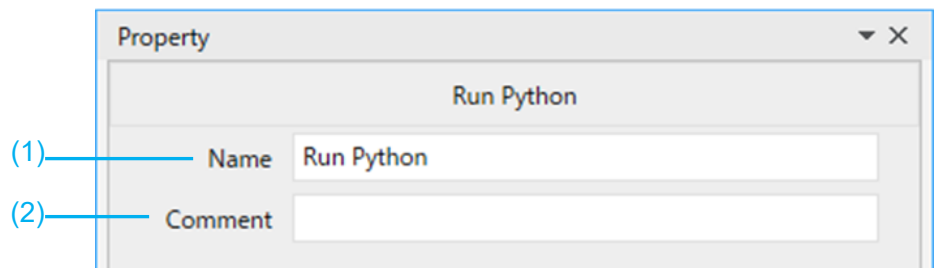


Table 4-66 Run Python property

No.	Name	Description
(1)	Name	Set the Action name.
(2)	Comment	Set the Action comment.

Figure 4-86 Settings tab in the Run Python property

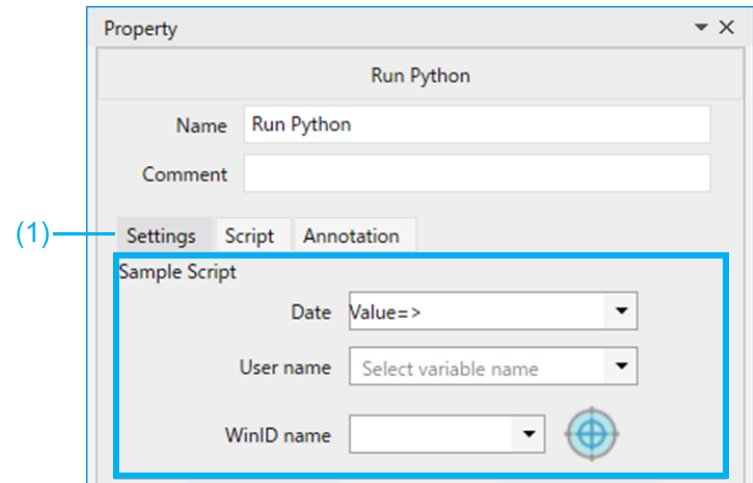


Table 4-67 Settings tab in the Run Python property

No.	Name	Description
(1)	'Settings' tab	Comments entered in the 'Annotation' tab are shown at the top. Set the parameters entered in the 'Script' tab.

Figure 4-87 Script tab in the Run Python property

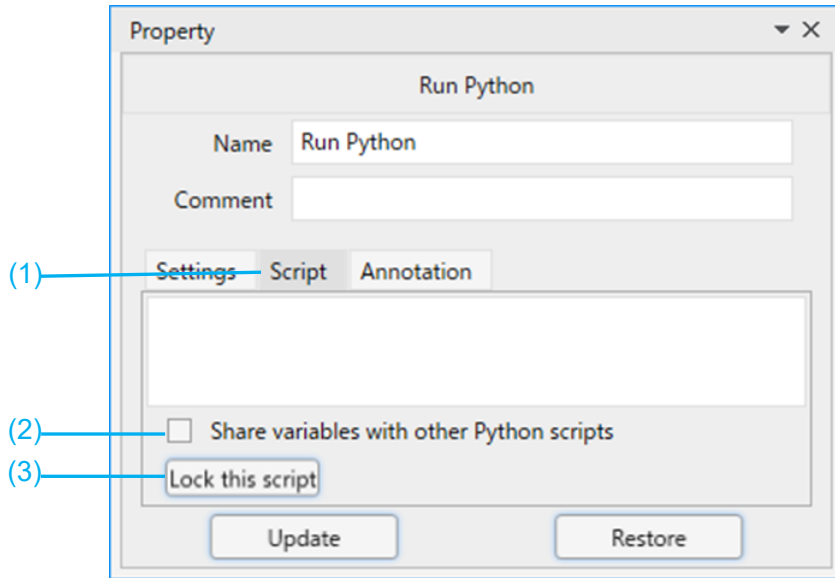
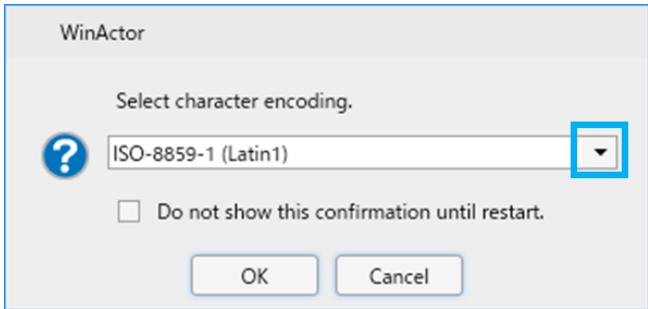


Table 4-68 Script tab in the Run Python property

No.	Name	Description
(1)	'Script' tab	Enter the script to run. The script code follows the Python language standards. There are parameters (see "Table 4-63 Script parameter") and functions (see "Table 4-70 WinActor own function") that can be used to interact with WinActor in the 'Script' tab. Scripts can be loaded by dragging files to the editor. A dialog to select the encoding will be displayed when the file is dropped. Select the encoding from the dropdown and click the 'OK' button in the dialog. 
(2)	Share variables with other Python scripts	This allows Run Python actions to share and inherit values. When 'Use the specified Python.' is selected and 'Use the built-in Python for running the User libraries.' is checked, the User libraries cannot share variables with other libraries and vice versa.  For these settings, see "Run tab."
(3)	Lock this script	'Script' tab and 'Annotation' tab will be hidden, and scripts cannot be edited nor checked.



Locked script can never be edited again.

Figure 4-88 Annotation tab in the Run Python property

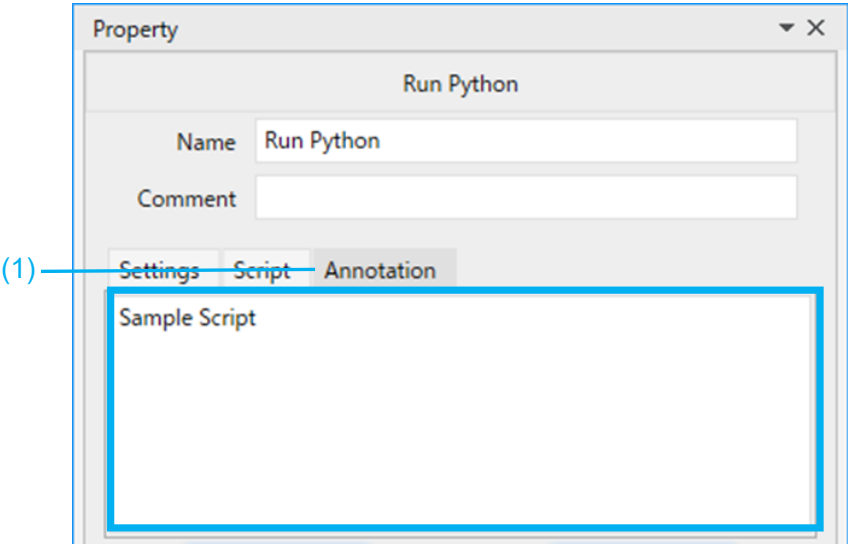


Table 4-69 Annotation tab in the Run Python property

No.	Name	Description
(1)	Annotation tab	Enter comments on how scripts are used. Annotations do not affect execution.

■ Script parameter

Parameters can be defined with scripts. The parameter field is shown in the 'Settings' tab.

Run Python nodes use the same parameters as Run Script nodes (see "Table 4-63 Script parameter").

■ Dedicated WinActor function

The following are the functions used by scripts embedded in WinActor to access variables.

Table 4-70 WinActor own function

No.	Function (argument)	Return value	Details
(1)	winactor.get_variable (Variable name)	String(variable value)	Function to load variables
(2)	winactor.set_variable (Variable name, value)	String(set value)	Function to write to variables
(3)	winactor.get_window_title (WinID name)	String(window title)	Function to get window titles
(4)	winactor.get_window_handle (WinID name)	String (window handle)	Function to get window handles
(5)	winactor.show_highlight (Window handle)	Boolean(Succeeded: true, Failed: false)	Function to highlight specified window frames

■ Errors in script

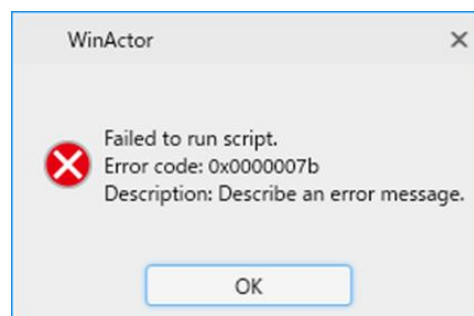
Script execution will fail if Python exceptions are raised in the scripts.

Use the winactor.WinActorError class to force an error. The error number can be specified for the first argument and the error message for the second argument.

Table 4-71 Raise an error

```
raise winactor.WinActorError(123, 'Describe an error message.')
```

Figure 4-89 Error dialog with 'raise'



■ Script limitations

Scripts cannot use standard input nor output.

4.4.10 Excel Operation

Data can be exported to Excel or CSV and macros saved in Excel can be executed.



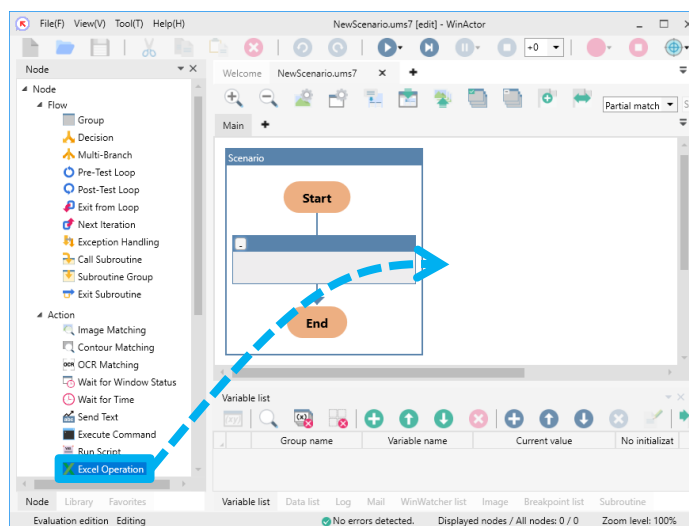
'Excel operation' supports *.csv, *.xls, *.xlsx, and *.xlsm files.

■ Place Excel Operation

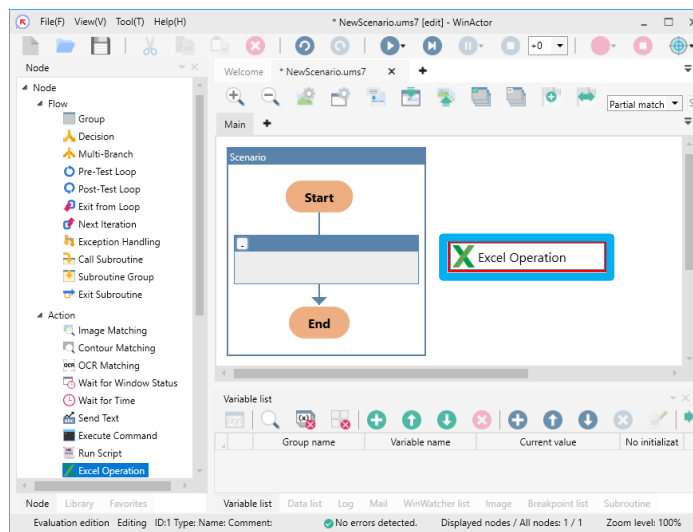
Follow the step below to place the 'Excel Operation' node.

Steps

1. Drag 'Excel Operation' under 'Node' in the Palette area to the Flowchart area.



'Excel Operation' is placed in the Flowchart area.



■ Excel Operation property

The following are settings in the 'Excel Operation' property pane.

Figure 4-90 Excel Operation property pane

Table 4-72 Excel Operation property

No.	Name	Description
(1)	Name	Set the name to display in the flowchart.

No.	Name	Description
(2)	Comment	Excel Operation comment can be used as a notepad when creating a scenario.

The parameters that can be selected from the 'Operation' dropdown are 'Get Value,' 'Set Value,' and 'Run Macro.' The settings in the Excel Operation properties will change depending on the selected parameter.

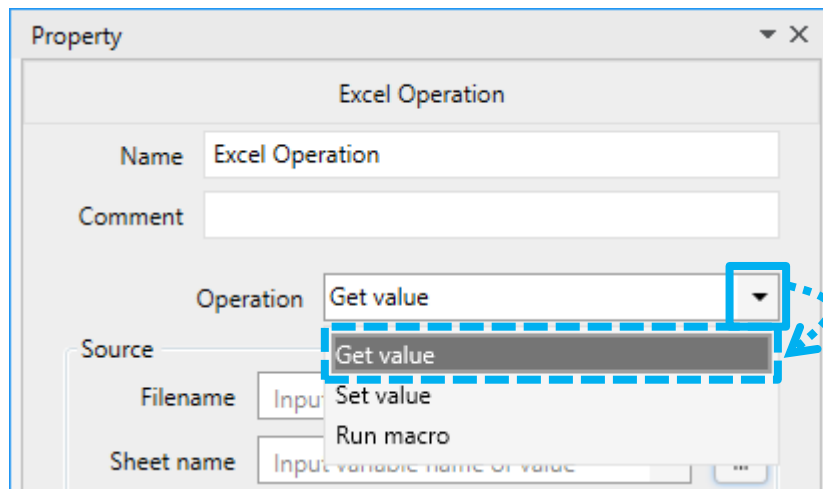
■ Get value

Get data from Excel file.

The following is the step to get values.

Steps

1. Select 'Get value' from the 'Operation' dropdown menu.



2. Set values or variables in 'Source' and 'Destination.'
3. Click the 'Update' button to reflect settings.

Figure 4-91 Get value in the Excel Operation property pane

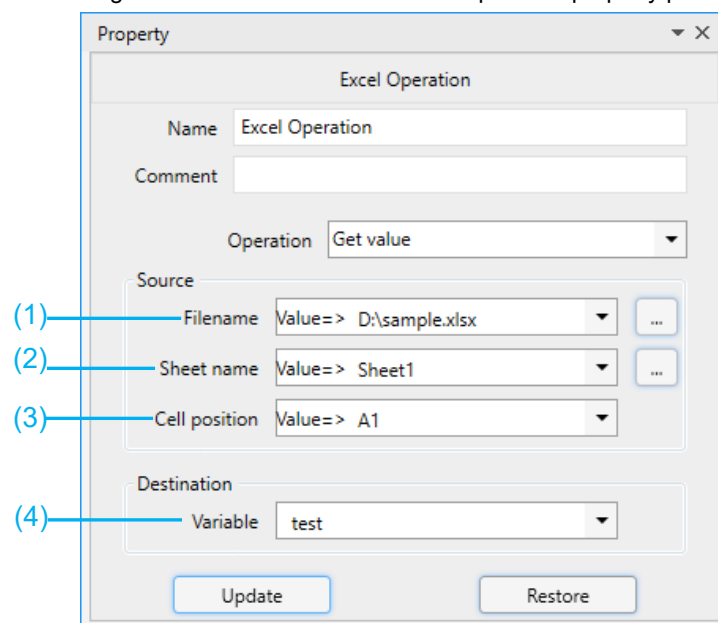
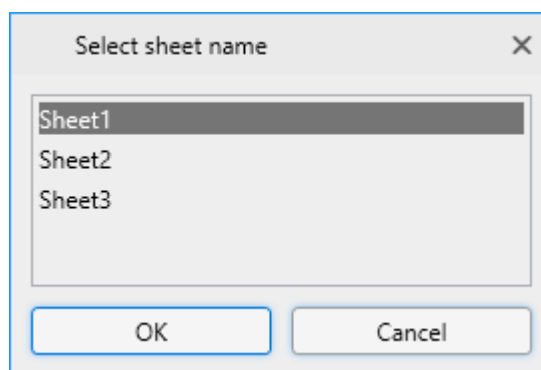


Table 4-73 Get value in the Excel Operation property

No.	Name		Description
(1)	Source	Filename	Select the Excel file as the operation target from the file explorer, enter the path as a value or a variable. Variable names may be used in the value as '%VariableName%'. Three types of URI are used for the local and UNC paths, and http/https schemes.  For details of file paths, see "5.6 File Path."
(2)		Sheet name	Specify the sheet in the Excel file from the dialog, or enter the sheet name or a variable. Variable names may be used in the value as '%VariableName%'.  For selecting a sheet name, see "Figure 4-92 Select sheet name dialog."
(3)		Cell position	Enter the position of the cell to obtain the value in the Excel file or specify a variable. Variable names may be used in the value as '%VariableName%'.
(4)	Destination	Variable	Specify the variable to store the obtained results.

Figure 4-92 Select sheet name dialog



Sheet names in the specified Excel file are displayed in the 'Select sheet name dialog.'



'Select sheet name dialog' is not displayed if a variable is specified.

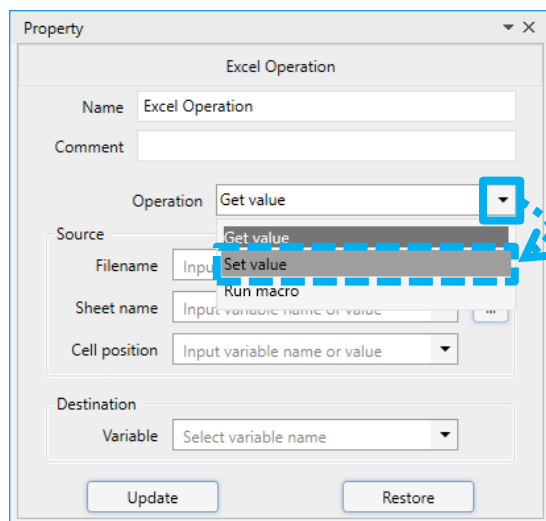
■ Set value

Write data to the Excel file.

The following is the procedure to set values.

Steps

1. Select 'Set value' from the 'Operation' dropdown menu.



The properties are changed.

2. Set values or variables in 'Value' and 'Destination.'
3. Click the 'Update' button to reflect settings.

Figure 4-93 Set value in the Excel Operation property pane

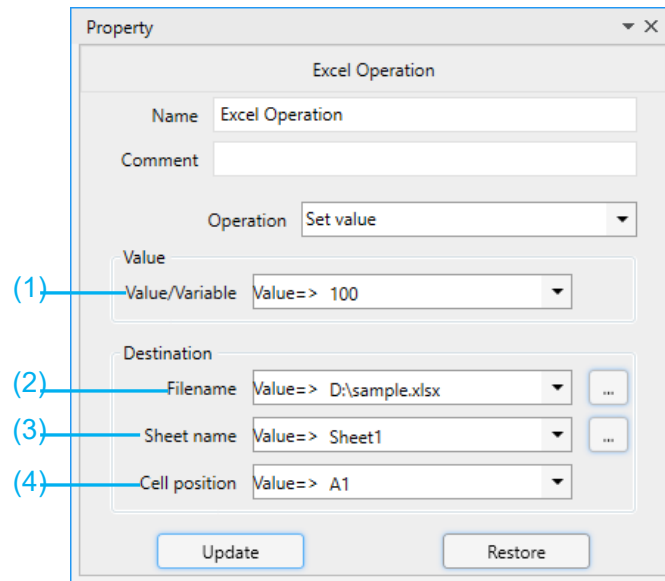


Table 4-74 Set value in the Excel Operation property

No.	Name		Description
(1)	Value	Value or variable	Specify the value to set in the Excel file or variable storing the value. Variable names may be used in the value as '%VariableName%'.
(2)	Destination	Filename	Select the Excel file as the operation target from the file explorer, enter the path as a value or a variable. Variable names may be used in the value as '%VariableName%'. Three types of URI are used for the local and UNC paths, and http/https schemes.  For details of file paths, see "5.6 File Path."
(3)		Sheet name	Specify the sheet in the Excel file from the dialog, or enter the sheet name or a variable. Variable names may be used in the value as '%VariableName%'.  For selecting a sheet name, see "Figure 4-92 Select sheet name dialog."
(4)		Cell position	Enter the position of the cell to set the value in the Excel file or specify a variable. Variable names may be used in the value as '%VariableName%'.

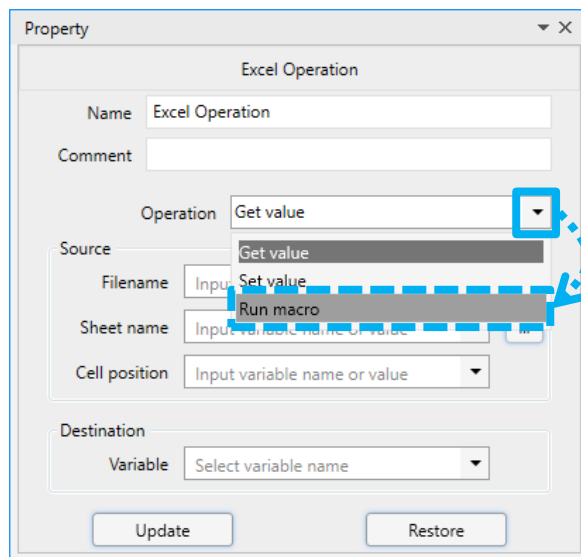
■ Run macro

Run macro from the Excel file.

The following is the procedure to set 'Run macro.'

Steps

1. Select 'Run macro' from the 'Operation' dropdown menu.



The screenshot shows a 'Property' dialog box titled 'Excel Operation'. It contains several input fields: 'Name' (Excel Operation), 'Comment', 'Operation' (Get value), 'Source' (Get value), 'Filename' (Input), 'Sheet name' (Input variable name or value), 'Cell position' (Input variable name or value), and 'Destination' (Variable: Select variable name). The 'Operation' dropdown menu is open, showing a list of options: 'Get value', 'Set value', and 'Run macro'. The 'Run macro' option is highlighted with a blue dashed box and a blue arrow pointing to it. The 'Update' and 'Restore' buttons are at the bottom.

The properties are changed.

2. Set values or variables in the 'Macro' fields.
3. Click the 'Update' button to reflect the settings.

Figure 4-94 Run macro in the Excel Operation property pane

The screenshot shows a 'Property' window titled 'Excel Operation'. It contains the following fields:

- Name:** Excel Operation
- Comment:** (empty text box)
- Operation:** Run macro (dropdown menu)
- Macro:**
 - Filename:** Value=> D:\sample.xlsx (dropdown menu, labeled (1) with a blue line pointing to it)
 - Macro name:** Value=> check (dropdown menu, labeled (2) with a blue line pointing to it)

At the bottom of the window are two buttons: 'Update' and 'Restore'.

Table 4-75 Run macro in the Excel Operation property pane

No.	Name		Description
(1)	Macro	Filename	Select the Excel file as the operation target from the file explorer, enter the path or a value. Variable names may be used in the value as '%VariableName%'. Three types of URI are used for the local and UNC paths, and http/https schemes.  For details of file paths, see "5.6 File Path."
(2)		Macro name	Enter the target macro name or variable. Variable names may be used in the value as '%VariableName%'.

4.4.11 Data operation

The 'Data operation' node is for registering, updating, and deleting information in a set of single or multiple elements of a data source such as Excel.

Called from a 'Call subroutine' or an 'Event watcher,' a sequence of operations related to a 'Data operation' are executed. Enclosing the sequence of operations to be executed repeatedly in a subroutine, the readability and maintainability of the scenario improves.

The 'Local business application' appears when a scenario containing a 'Data operation' node runs.

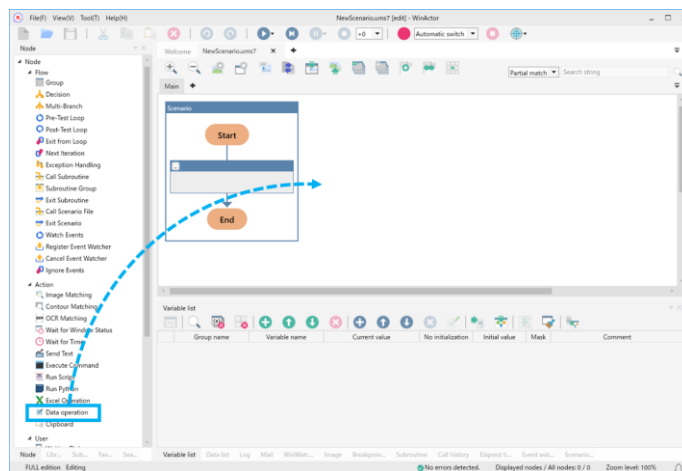
 For the 'Local business application,' See "1.24 Local business application."

■ Place 'Data operation'

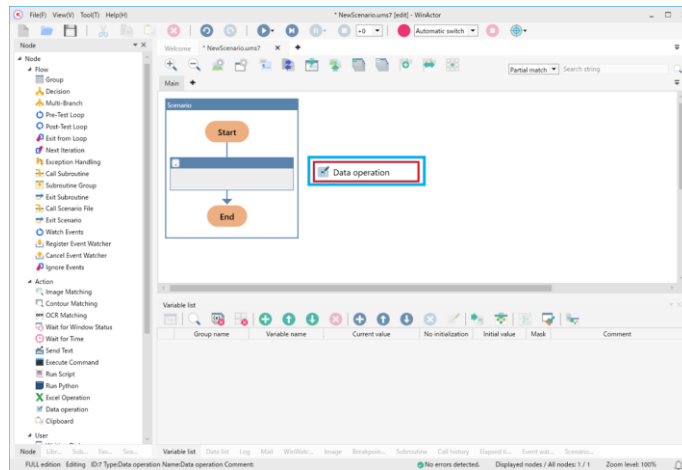
Follow the step below to place the 'Data operation' node.

Steps

1. Drag 'Data operation' on the Node palette to the Flowchart area.



'Data operation' is placed in the Flowchart area.



■ Data operation property

The followings are settings in the ‘Data operation’ property pane.

The ‘Data operation’ property consists of the ‘Input data,’ ‘UI design,’ and ‘Event management’ tabs.

Figure 4-95 Data operation property pane

(1) Name Data operation

(2) Comment

Input data UI design Event management

File format Excel

Filename Input variable name or value

Direction ☒ Vertical ☐ Horizontal

Display	Item name	Label	Data type	Initial value	Optional	Start position	Category
☐					☐		

Update Restore

Table 4-76 Data operation property

No.	Name	Description
(1)	Name	An action name can be set.
(2)	Comment	A comment on the action can be set.

■ Input data

The followings are settings for the file format and data structure of the target file.

Figure 4-96 Data operation property pane (Input data) 1

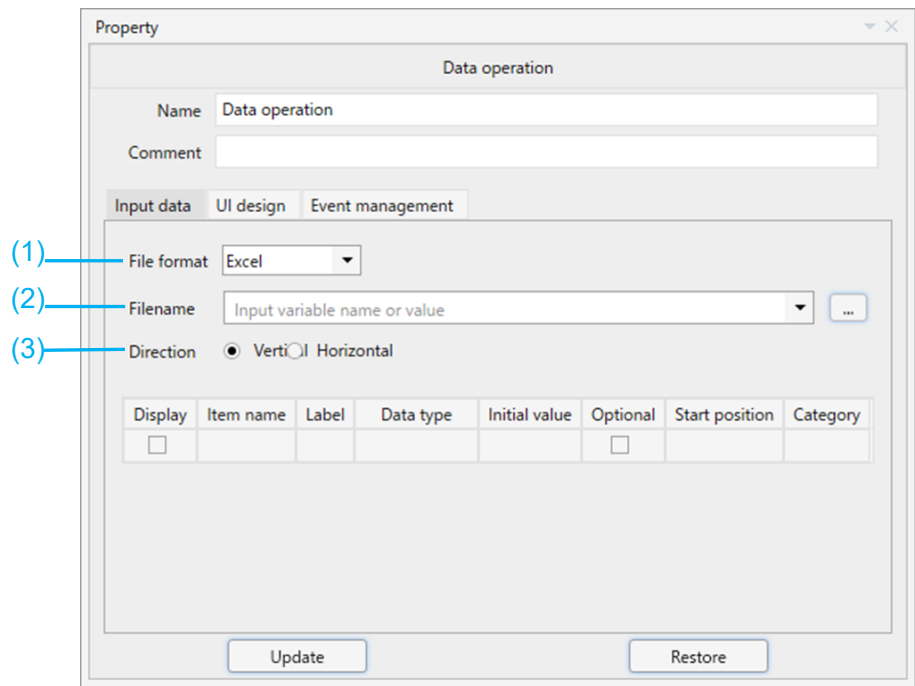


Figure 4-97 Data operation property pane (Input data) 2

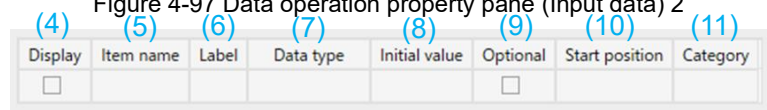


Table 4-77 Data operation property (Input data)

No.	Name	Description
(1)	File format	Select a file format (Excel, CSV, etc.) to be operate.
(2)	Filename	Select the file to operate from the file selection dialog, or specify a file path as a string or a variable. The %<variable name>% format can also be used. The file path accepts both the local path and the UNC path.  For file path, see "5.6 File Path."
(3)	Direction	Select the direction of inputting or outputting data records.
(4)	Display	Select whether to display the item in the record list. When unchecked, the item is not displayed in the record list but still listed as an input item.

No.	Name	Description
(5)	Item name	Specify an item name for the input item. The specified name is displayed at the header of each item in the record list. * This property is required. If this is not specified, data is not saved.
(6)	Label	Specify a label for the input item. The specified label is displayed on the data input window while the local business application is executing. When the (5) item name is input, the same name is copied to this property.
(7)	Data type	Specify a data type corresponding to the part, which is the type of the part. Available data types are listed below.  • String: arranges a part for string input • Number: arranges a part for number input (other than numbers can be input, but results in an error) • Date: arranges a part for date input (a date can be selected on a calendar) • Combo box: arranges the part that has a dropdown list (Click the (8) 'Initial value' to input the dropdown) • Radio buttons: arranges the part that has radio buttons (Click the (8) 'Initial value' to input the choices) • Check box: arranges a check box part
(8)	Initial value	Specify initial values when the (7) 'Data type' is either 'Combo box' or 'Radio buttons.' This cannot be vacant in those cases.
(9)	Optional	Specify whether to make this item optional or required while inputting data on execution. This item is optional if this box is checked.
(10)	Start position	Specify a start position when the 'File format' is set Excel or CSV. Available formats are listed below.  • A1 format: available for Excel • R1C1 format: available for Excel and CSV • Number: available for CSV (the value means the column position, and the row position is always the top)
(11)	Category	Whether to treat the cell information as value or as displayed text, which is a formatted string data, when the 'File format' is set Excel.

Figure 4-98 Data operation property pane (Input data choices)

The dialog box is titled 'Data operation property pane (Input data choices)'. It contains a 'Type' section with two radio buttons: 'String' (selected) and 'Number'. Below this is an 'Options' section containing a table with a single header 'Value' and several empty rows for input. At the bottom of the dialog are two buttons: 'OK' and 'Cancel'. Numbered callouts (1) through (4) are used to identify key elements: (1) points to the 'String' radio button, (2) points to the 'Options' table, (3) points to the 'OK' button, and (4) points to the 'Cancel' button.

Table 4-78 Data operation property (Input data choices)

No.	Name	Description
(1)	Type	Select either 'String' or 'Number.'
(2)	Options	Input choices to display. Each time a choice is input, the choice is added to 'Options.'
(3)	'OK' button	Click to confirm the inputs.
(4)	'Cancel' button	Click to cancel the inputs.



When non-numerical value is input while the 'Type' is set 'Number,' a warning dialog will be displayed.

■ UI design

The UI and layout for input and output data are designed here

Figure 4-99 Data operation property pane (UI design)

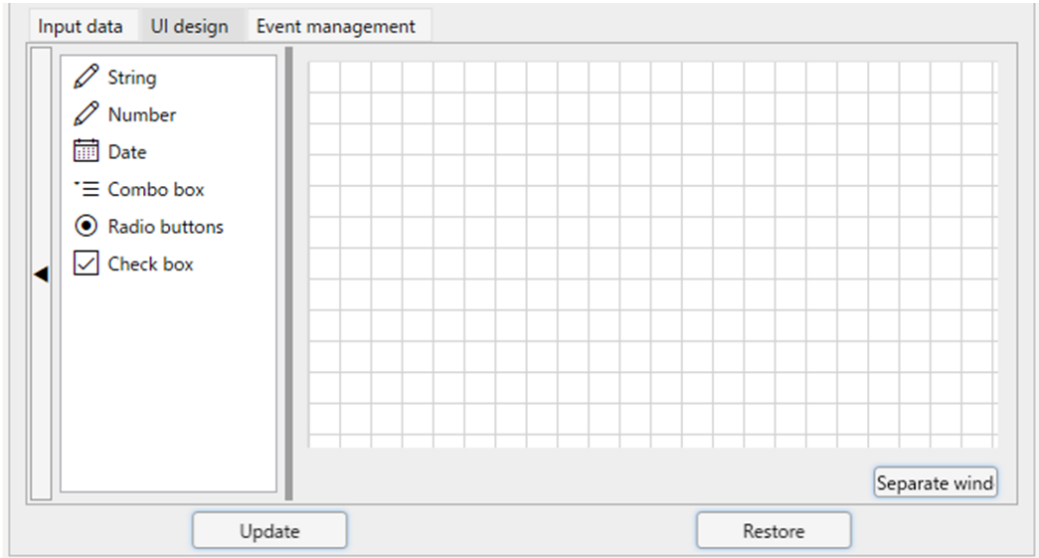
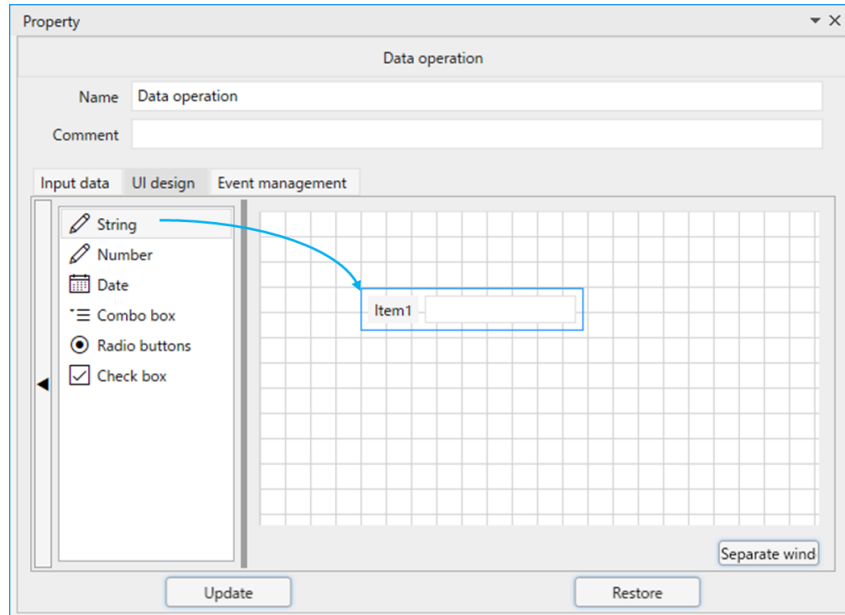


Table 4-79 Data operation property (UI design)

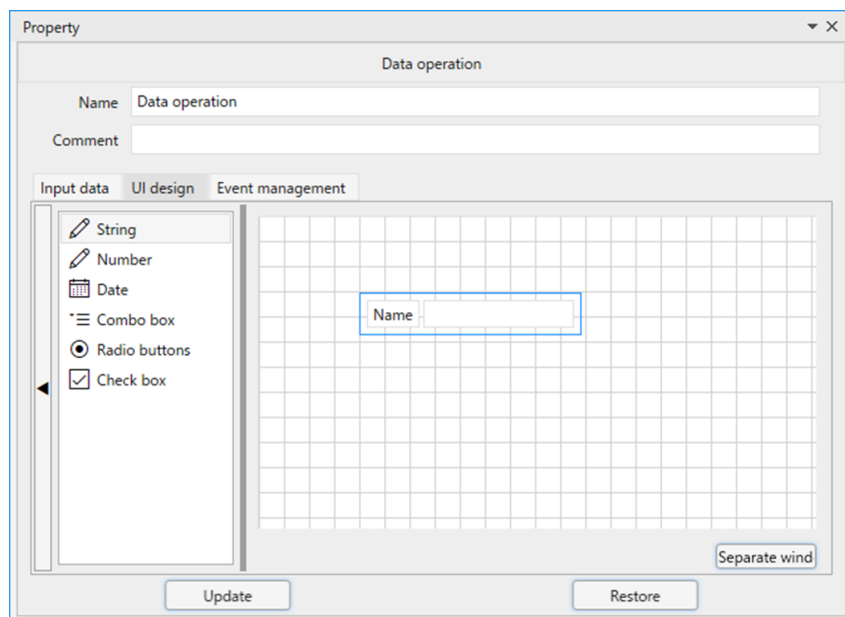
No.	Name	Description
(1)	Part palette area	Select a part to arrange, then, drag and drop the part into the 'Parts arrange area.' Each arranged part is associated with a label, which shows the content of the input. Available parts are listed below.  • String: arranges a part for string input • Number: arranges a part for number input (other than numbers can be input, but an error occurs) • Date: arranges a part for date input (a date can be selected on a calendar) • Combo box: arranges the part that has a dropdown list (Click the (8) 'Initial value' to input the dropdown) • Radio buttons: arranges the part that has radio buttons (Click the (8) 'Initial value' to input the choices) • Check box: arranges a check box part
(2)	Parts arrange area	Edit the layout of input UI parts and their labels.

Steps

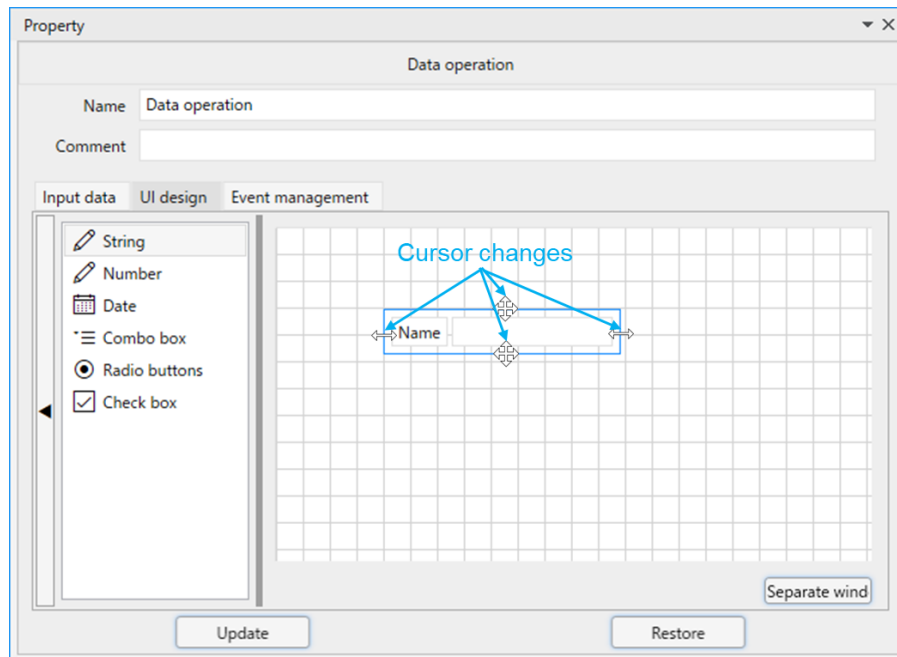
1. Drag a part in the 'Part palette area' and drop it in the 'Parts arrange area.' A label like 'Item1,' 'Item2,' etc. is automatically associated with the part.



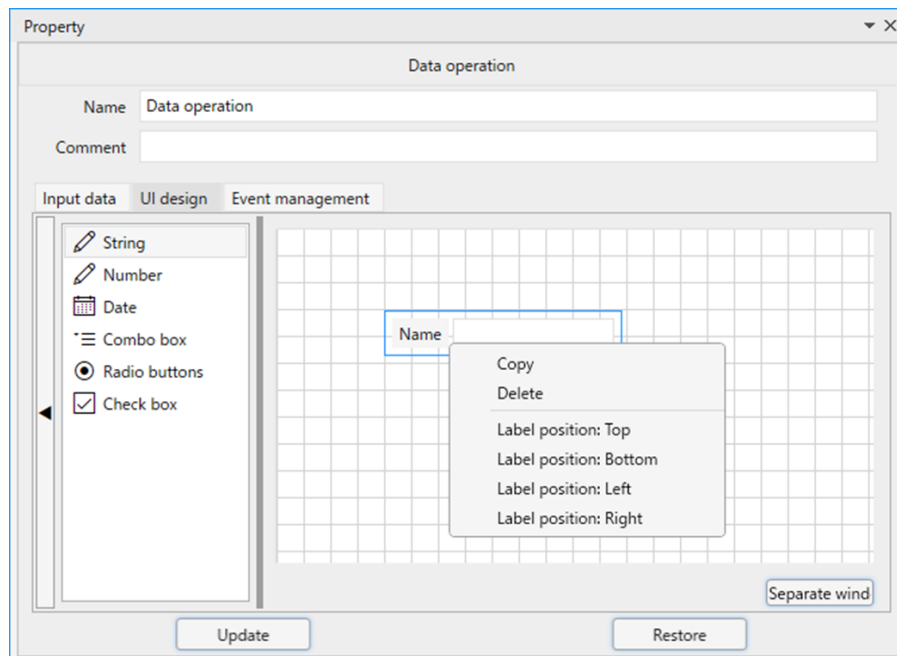
2. Clicking the label twice, the label is changed to the edit mode and the name of the label can be changed to any name.



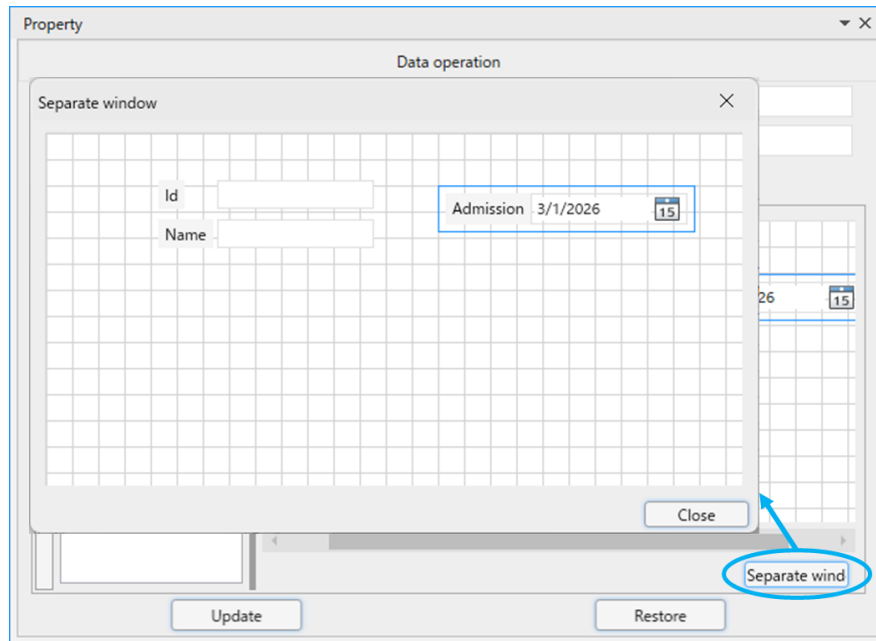
3. The mouse cursor changes its shape by hovering it over the (blue) selection frame, the part can be moved or changed its size by dragging the shape-changed cursor.



A menu is displayed when the part is right-clicked, then the label position (upper, lower, left, right) can be changed and the label can be copied or deleted.



4. When all the parts are not glanced in the 'Part arrange area,' a scroll bar automatically appears. Alternatively, you can click the 'Separate window' button to display a new window showing all the parts without scroll bars, and the parts on the window are also editable as the 'Part arrange area' except for the parts arrangements.



When the font size of WinActor is changed, open this window, rearrange the parts' positions, and save the modified settings. (As the font size of arranged parts are also changed when the font size of WinActor is changed, the layout of the parts may corrupt.)

■ Event management

Subroutines to be called on the occurrence of predefined operations are being set.

Figure 4-100 Data operation property pane (Event management)

(1) Event	(2) Subroutine name	(3) Arguments (Variable names)	(4) Return value (Variable name)	(5) Timing
Register				Post-processing
Update				Post-processing
Delete				Post-processing
Error				Triggered

Update Restore

Table 4-80 Data operation property (Event management)

No.	Name	Description
(1)	Event	Types of operation (register, update, delete, error) which can trigger an action
(2)	Subroutine name	Specify a subroutine group to call.
(3)	Arguments (Variable name)	Specify a variable to be an argument to the subroutine, which stores a value before the subroutine is called.
(4)	Return value (Variable name)	Specify a variable to receive a return value of the subroutine. For details, see "Return value form subroutine."
(5)	Timing	Select the timing to call the subroutine from either 'Pre-processing' or 'Post-processing.' For the error event, only 'Triggered' is selectable.



The subroutine names are automatically synchronized when the name of the corresponding subroutine definition is changed. Therefore, manual synchronization of subroutine names is not necessary.



When an undefined variable name is specified for 'Arguments' or 'Return value' and the 'Update' button is clicked, the dialog to confirm the creation of the variable in the variable list is displayed.



For details of the confirmation dialog of creating a variable in the variable list, see "Table 4-15 Confirmation dialog for reflecting to Variable list and operations."

4.4.12 Clipboard

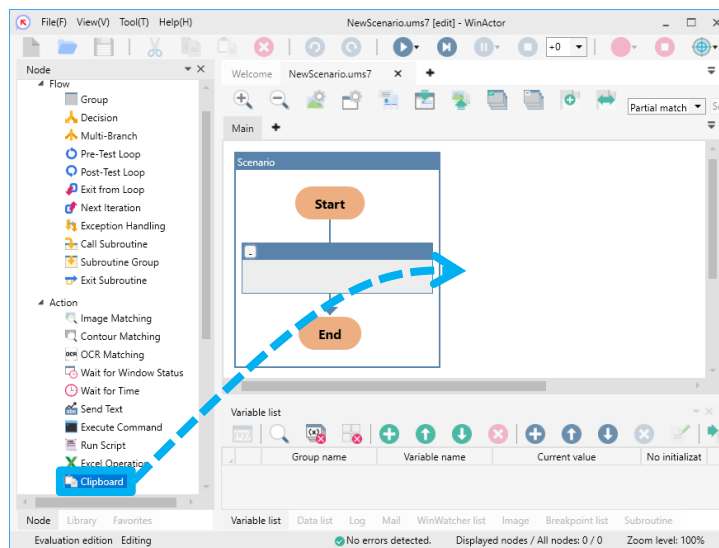
Send/receive values via the clipboard. Values in the clipboard can be obtained for variables.

■ Place 'Clipboard'

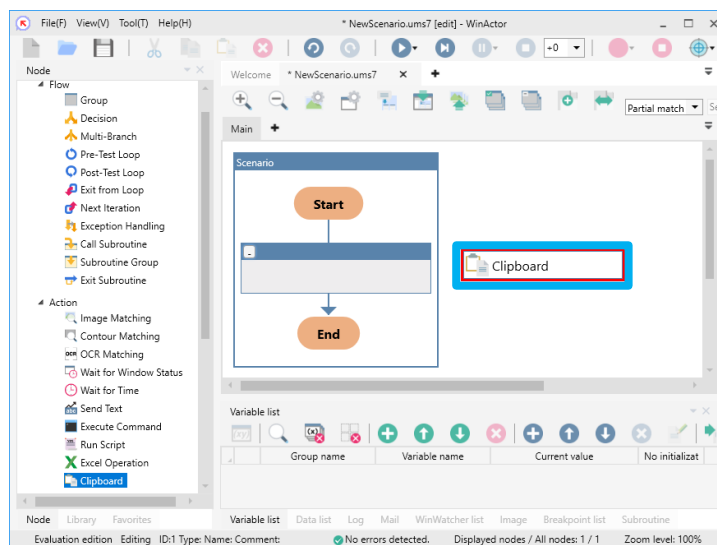
Follow the step below to place the 'Clipboard' node.

Steps

1. Drag 'Clipboard' under 'Node' in the Palette area to the Flowchart area.



'Clipboard' is placed in the Flowchart area.



■ Clipboard property

The following are settings in the 'Clipboard' property pane.

Figure 4-101 Clipboard property pane

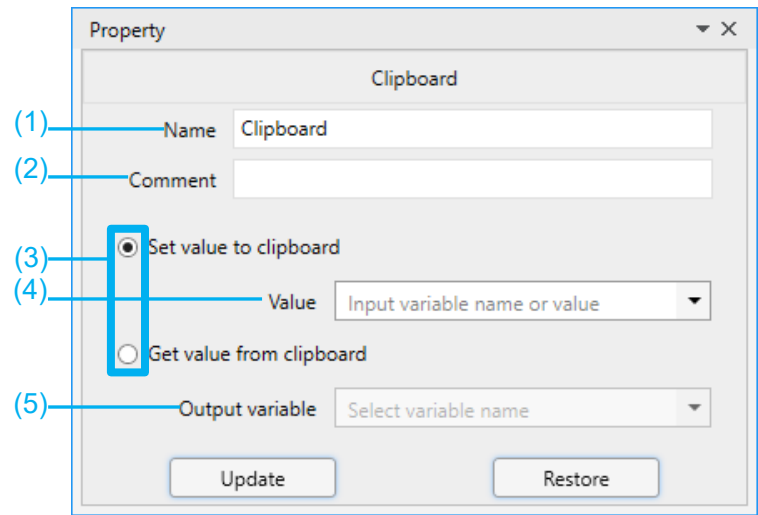


Table 4-81 Clipboard property

No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Clipboard comment can be used as a notepad when creating a scenario.
(3)	Radio button	Select 'Set value to clipboard' or 'Get value from clipboard.'
(4)	Value	For 'Set to Clipboard,' select the 'Variable' or 'Value' to set to the clipboard. To directly enter the value, select 'Value' and enter up to 1024 characters for the text. To lift the character limitations, disable 'Restrict the number of characters for variable values' in the 'Scenario information' property.  For Scenario information, see "3.8 Scenario Information Window."
(5)	Output variable	For 'Get from Clipboard,' the value in the clipboard is stored in the specified variable. Only text can be stored. Empty text will be stored for other formats (images, etc.).

4.5 Nodes in User Category

4.5.1 Waiting Dialog

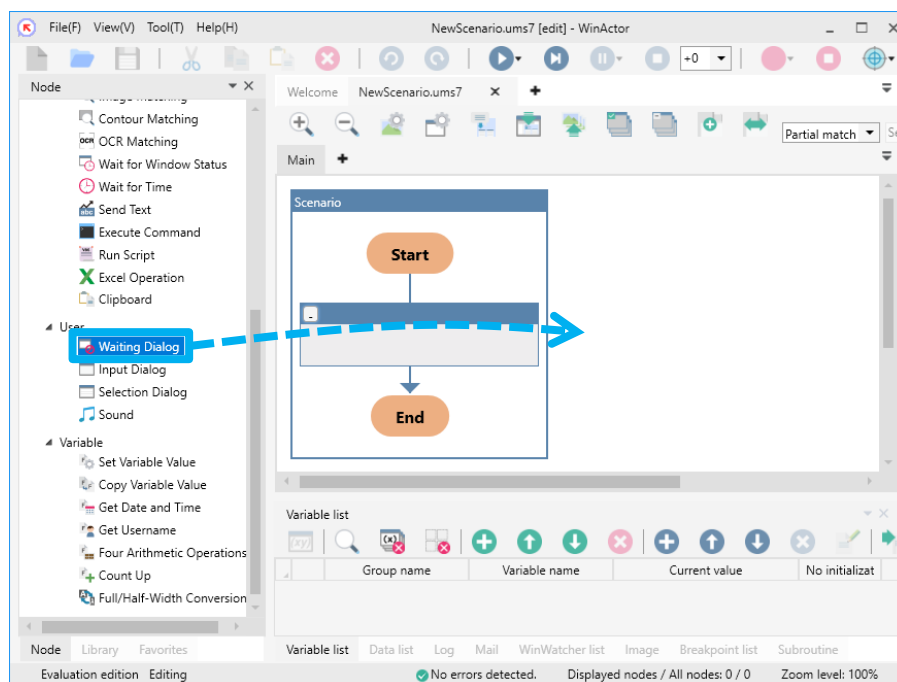
Temporarily pause the scenario to show the user a warning message. In addition, the user can select to continue or stop the process after the warning is displayed.

■ Place Waiting Dialog

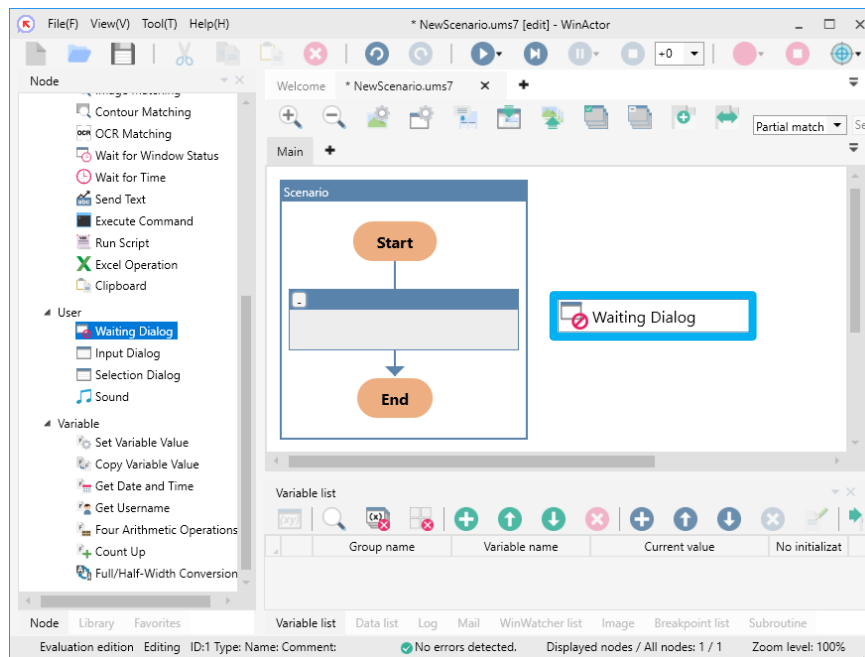
Follow the step below to place the 'Waiting Dialog' node.

Steps

1. Drag 'Waiting Dialog' under 'Node' in the Palette area to the Flowchart area.



'Waiting Dialog' is placed in the Flowchart area.



■ Waiting Dialog property

The following are settings in the 'Waiting Dialog' property pane.

Figure 4-102 Waiting Dialog property pane

The screenshot shows the 'Waiting Dialog' property pane. It has a title bar with 'Property' and a close button. The main area is titled 'Waiting Dialog'. It contains the following elements:

- (1) Name: A text field containing 'Waiting Dialog'.
- (2) Comment: A text area for additional notes.
- (3) Confirmation dialog (OK button only): A radio button that is currently selected.
- (4) Inquiry dialog (Continue and Stop buttons): A radio button that is currently unselected.
- Prompt message: A label above the next two options.
- (5) Variable name: A radio button that is currently unselected, next to a dropdown menu showing 'Select variable name'.
- (6) Message: A radio button that is currently selected, next to a large text area for entering the message.
- Update: A button at the bottom left.
- Restore: A button at the bottom right.

Table 4-82 Waiting Dialog property

No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Waiting Dialog comment can be used as a notepad when creating a scenario.
(3)	Confirmation dialog (OK button only)	The message box and OK button will be displayed in the dialog.
(4)	Inquiry dialog (Continue and Stop buttons)	The message box, Continue and Stop buttons will be displayed the dialog.
(5)	Prompt message (Variable name)	Specify the message and variable to display in the dialog.
(6)	Prompt message (Message)	Enter the message within 1024 characters to display in the dialog. Variables can be specified. Using '%VariableName%' will replace the variable with the variable value data.

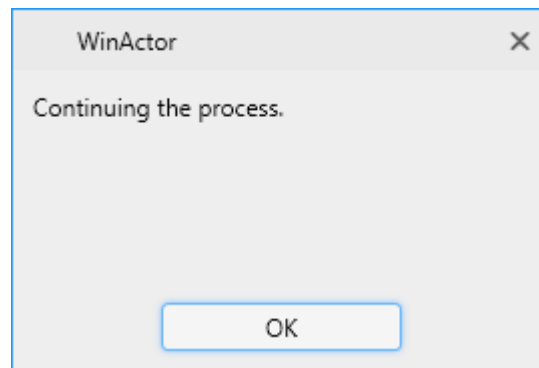


'Waiting Dialog' does not function the same as the pause from "Get paused when unexpected mouse/keyboard operation."

■ Dialog shown when running

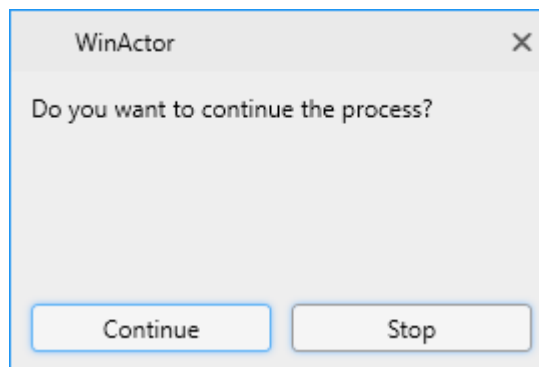
The following dialog is displayed when 'Confirmation dialog (OK button only)' is selected from the Property pane.

Figure 4-103 Confirmation dialog shown when running



The following dialog is displayed when 'Inquiry dialog (Continue and Stop buttons)' is selected from the Property pane.

Figure 4-104 Inquiry dialog (Continue and Stop buttons) shown when running



4.5.2 Input Dialog

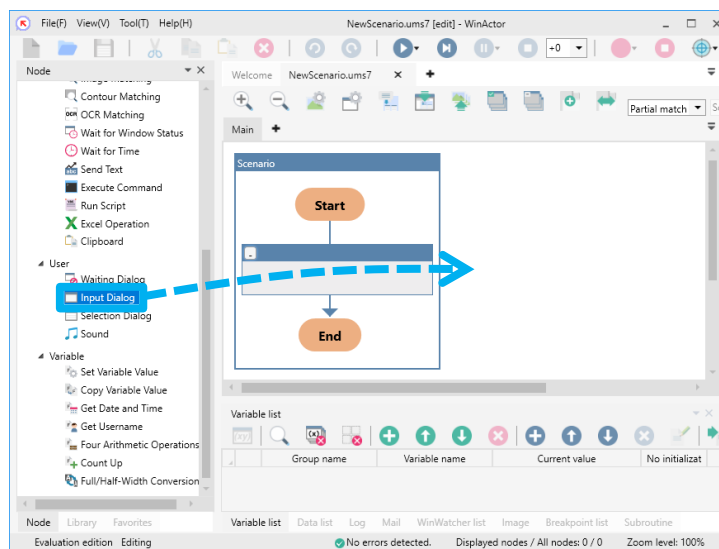
Temporarily pause the scenario to query the user what to save in the variable—loop count, parameters when running a scenario.

■ Place Input Dialog

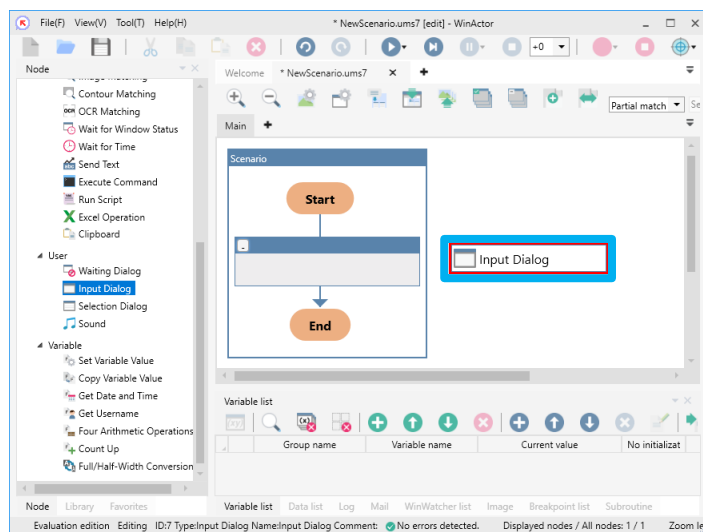
Follow the step below to place the 'Input Dialog' node.

Steps

1. Drag 'Input Dialog' under 'Node' in the Palette area to the Flowchart area.



'Input Dialog' is placed in the Flowchart area.



■ Input Dialog property

The following are settings in the 'Input Dialog' property pane.

Figure 4-105 Input Dialog property pane

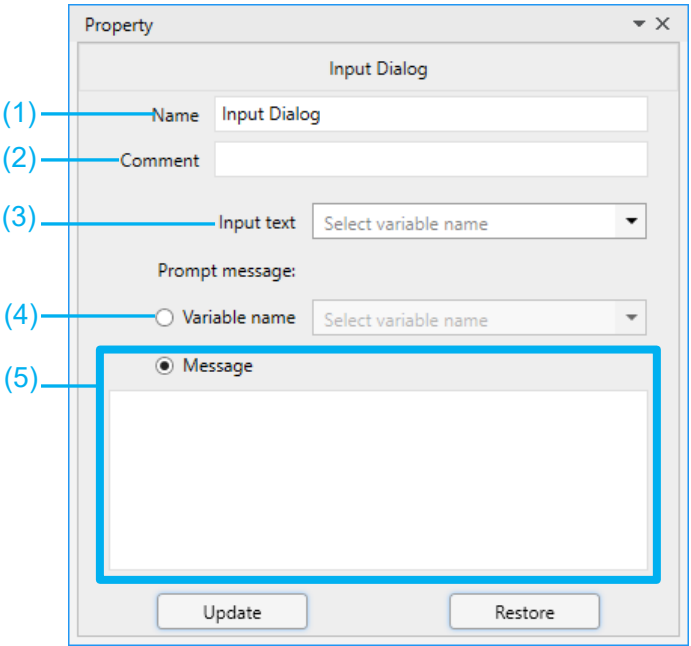


Table 4-83 Input Dialog property

No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Input Dialog comment can be used as a notepad when creating a scenario.
(3)	Input text	Set the variable to store the entered value.
(4)	Prompt message (Variable name)	Set the variable of the message to display.
(5)	Prompt message (Message)	Enter the message within 1024 characters to prompt input. Variables can be specified. Using '%VariableName%' will replace the variable with the variable value data.

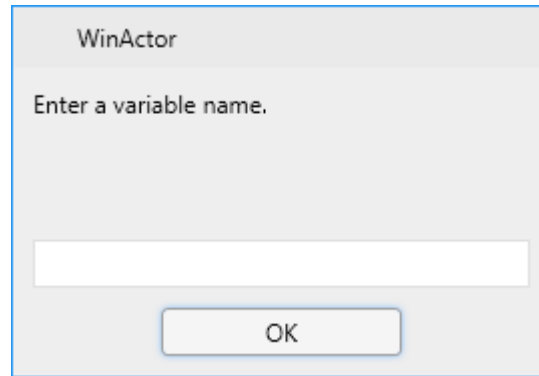


'Input Dialog' does not function the same as the pause from "Get paused when unexpected mouse/keyboard operation".

- Dialog shown when running

The following is a dialog when running 'Input Dialog.'

Figure 4-106 Dialog shown when running



4.5.3 Selection Dialog

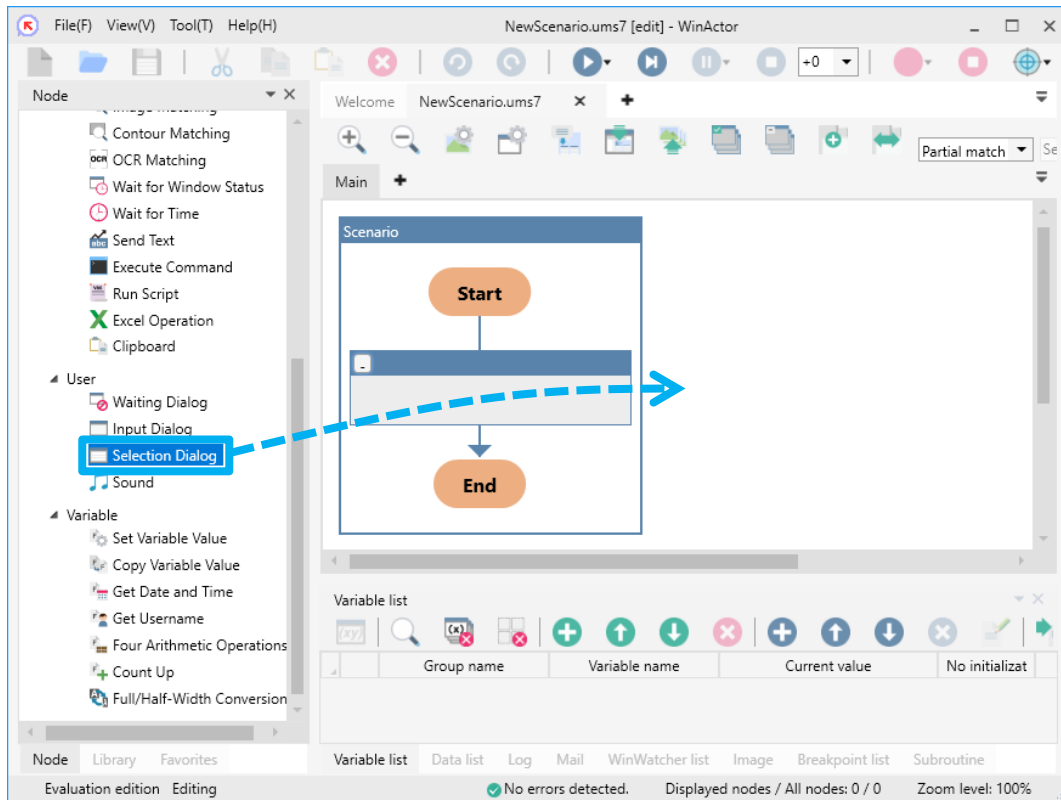
Temporarily pause the scenario to prompt the user to select an item from a list. The selected text is stored in the specified variable.

■ Place Selection Dialog

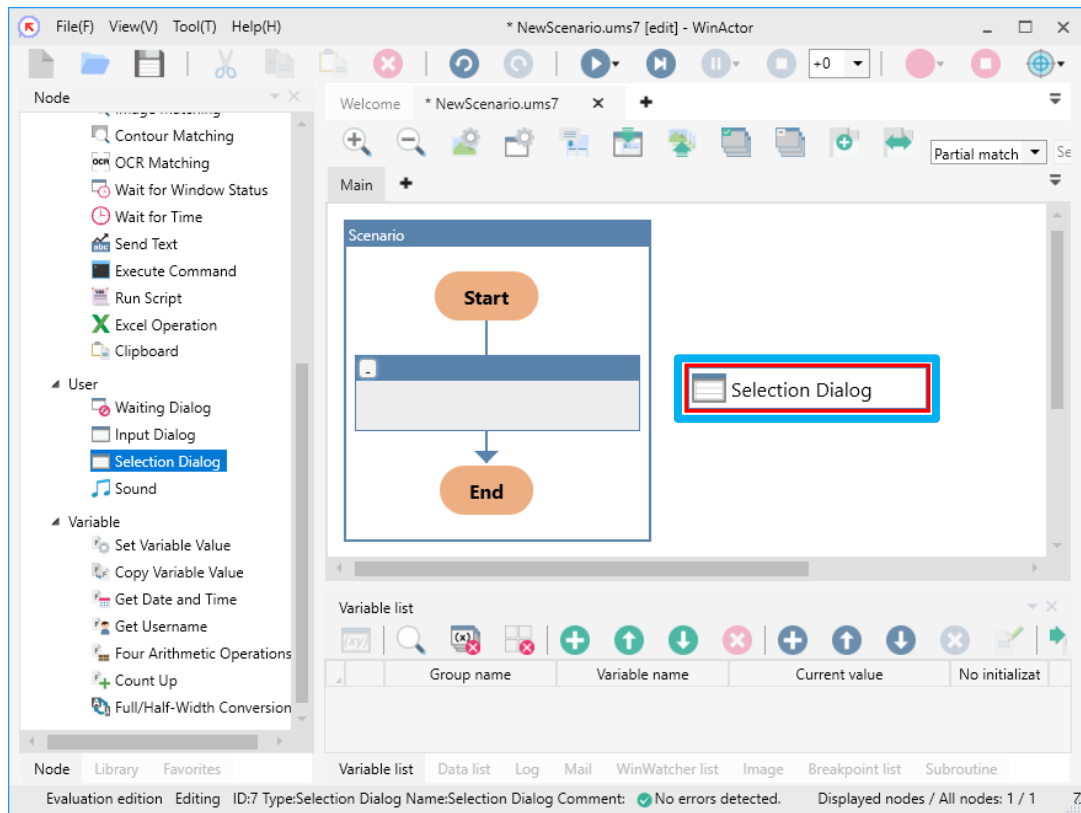
Follow the step below to place the 'Selection Dialog' node.

Steps

1. Drag 'Selection Dialog' under 'Node' in the Palette area to the Flowchart area.



‘Selection Dialog’ is placed in the Flowchart area.



■ Selection Dialog property

The following are settings in the 'Selection Dialog' property pane.

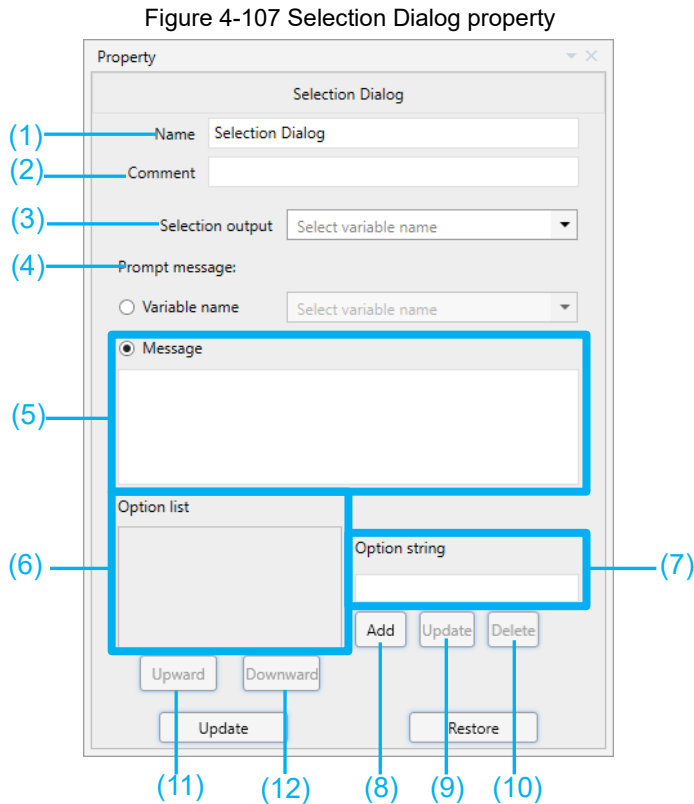


Table 4-84 Selection Dialog property

No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Selection Dialog comment can be used as a notepad when creating a scenario.
(3)	Selection output	Specify the variable name to store the selected value.
(4)	Prompt message (Variable name)	Specify the variable of the message to display.
(5)	Prompt message (Message)	Enter the message within 1024 characters to prompt input. Variables can be specified. Using '%VariableName%' will replace the variable with the variable value data.
(6)	Option list	Register in advance the text within 255 characters for the user to select. The registered candidates will be shown in a list.
(7)	Option string	Enter the text to add to the candidates list
(8)	Add	Add candidates to select.
(9)	Update	Update the candidates list.

No.	Name	Description
(10)	Delete	Delete candidates
(11)	Upward	Sort the list in ascending order.
(12)	Downward	Sort the list in descending order.

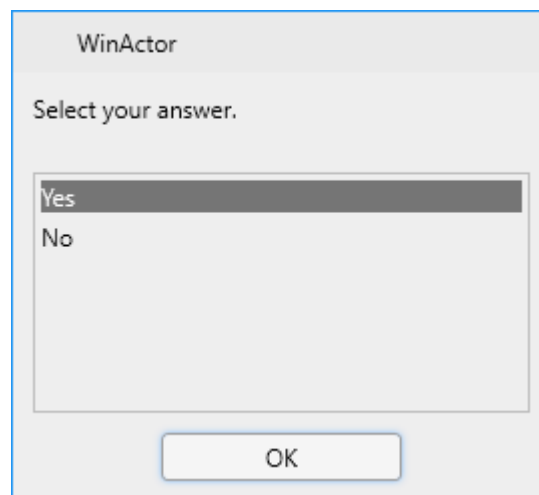


'Selection Dialog' does not function the same as the pause from "Get paused when unexpected mouse/keyboard operation."

■ Dialog shown when running selection dialog

The following is a dialog shown when running the selection dialog.

Figure 4-108 Dialog when running selection dialog



4.5.4 Sound

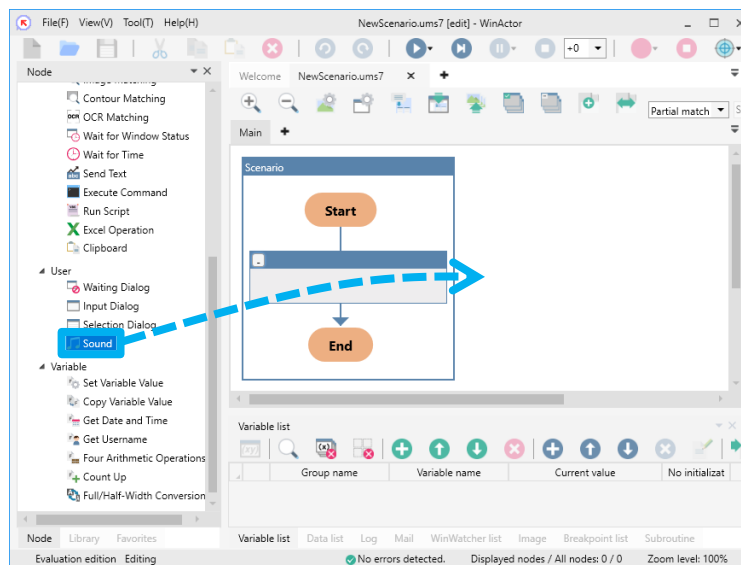
An alarm is sounded a warning while running a scenario and is used to let the user know that a process is waiting for user input when placed before the 'Input Dialog' or 'Selection Dialog.'

■ Place Sound

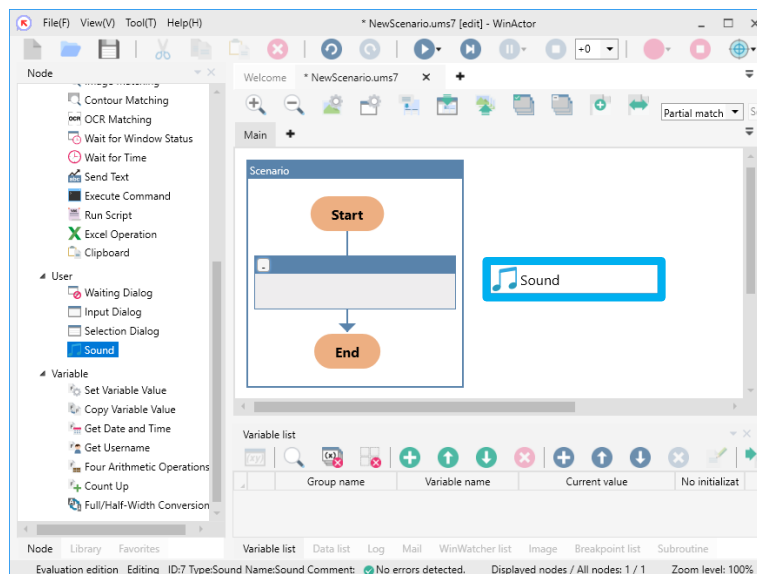
Follow the step below to place the 'Sound' node.

Steps

1. Drag 'Sound' under 'Node' in the Palette area to the Flowchart area.



'Sound' is placed in the Flowchart area.



■ Sound property

The following are settings in the ‘Sound’ property pane.

Figure 4-109 Sound property pane

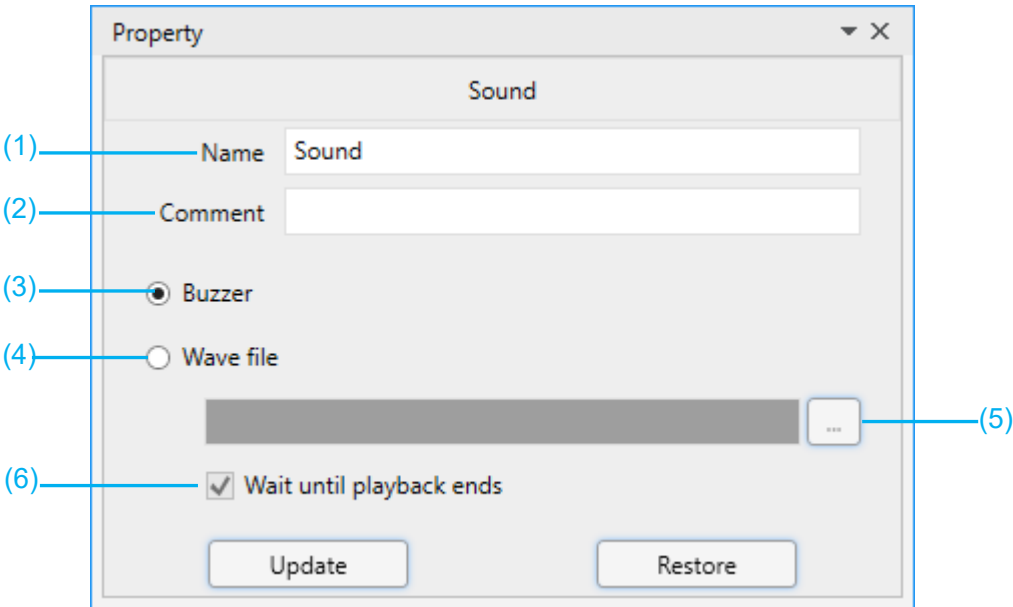


Table 4-85 Sound property

No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Sound comment can be used as a notepad when creating a scenario.
(3)	Buzzer	Enable to sound a buzzer
(4)	WAVE file	Specify a WAVE file for the sound
(5)	[...] button	Click to select the WAVE file
(6)	Wait until playback ends	Enable to wait until playback of the WAVE file ends before moving to the next process



Files other than WAVE file saved in Linear PCM format cannot be played.

4.6 Nodes in Variable Category

4.6.1 Set Variable Value

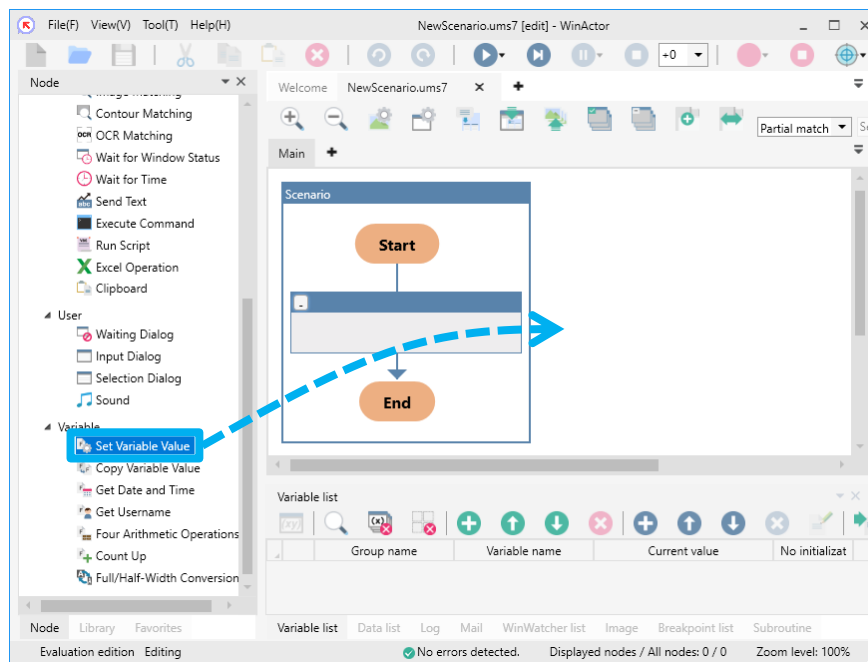
Set a value to a variable and is used, for example, to initialize (=0) the loop count-up variable.

■ Place Set Variable Value

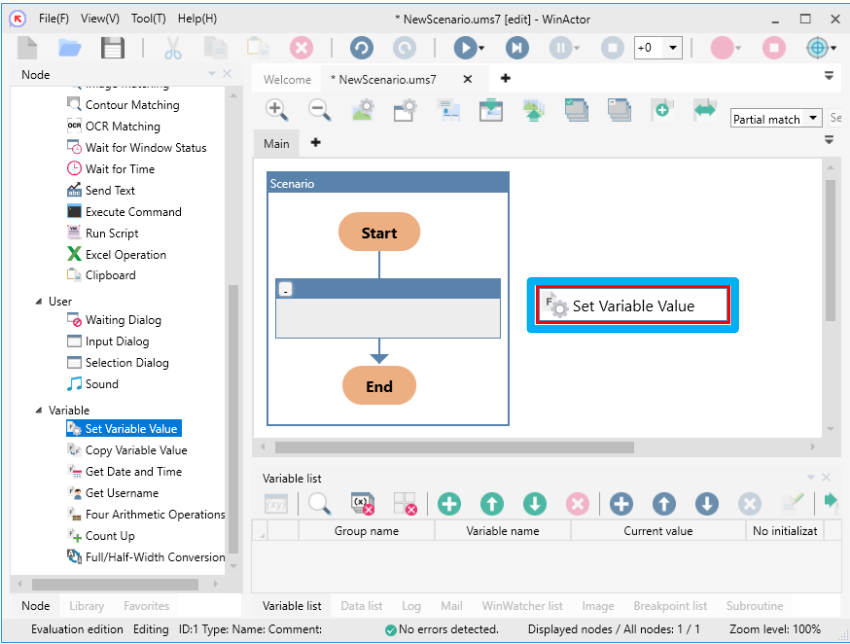
Follow the step below to place the 'Set Variable Value' node.

Steps

1. Drag 'Set Variable Value' under 'Node' in the Palette area to the Flowchart area.



‘Set Variable Value’ is placed in the Flowchart area.



■ Set Variable Value property

The following are settings in the ‘Set Variable Value’ property pane.

Figure 4-110 Set Variable Value property pane

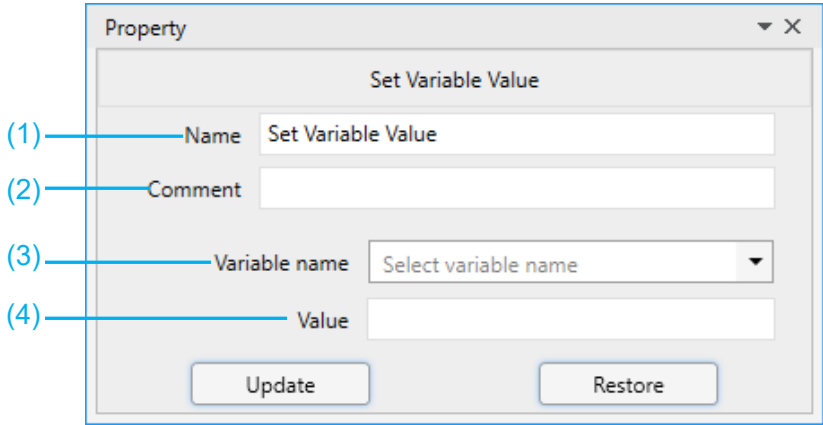


Table 4-86 Set Variable Value property

No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Set Variable Value comment can be used as a notepad when creating a scenario.

No.	Name	Description
(3)	Variable name	Specify the variable to store the value.
(4)	Value	Enter the message within 1024 characters to prompt input. Variables can be specified. Using ‘%<i>VariableName</i>%’ will replace the variable with the variable value data. Disable ‘Restrict the number of characters for variable values’ in the "Scenario information" window to lift the character limit.  For canceling the restriction of the number of characters, see "3.8 Scenario Information Window."

4.6.2 Copy Variable Value

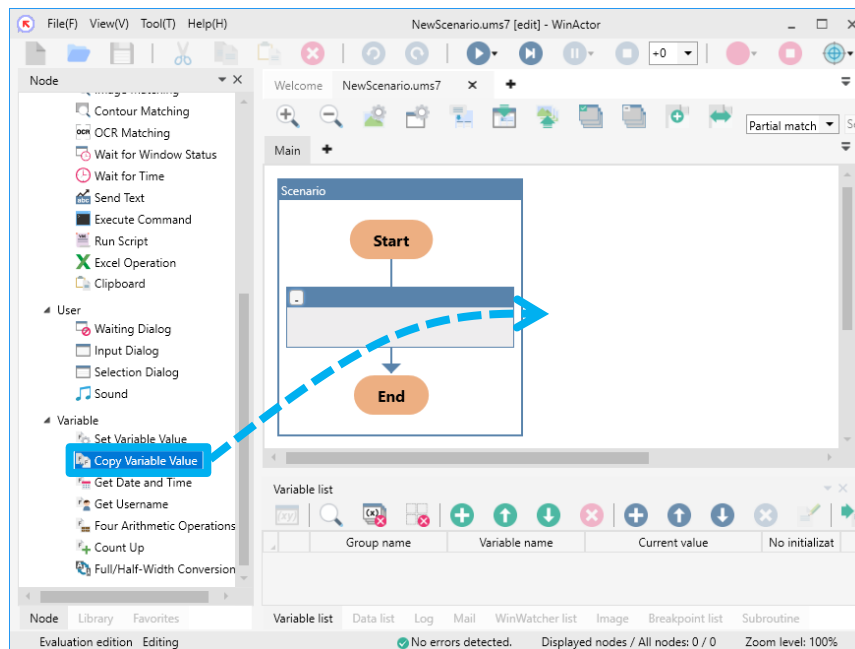
Copy the content of a variable to another variable. This is used, for example, to save the content of a variable used for calculation (overwriting).

■ Place Copy Variable Value

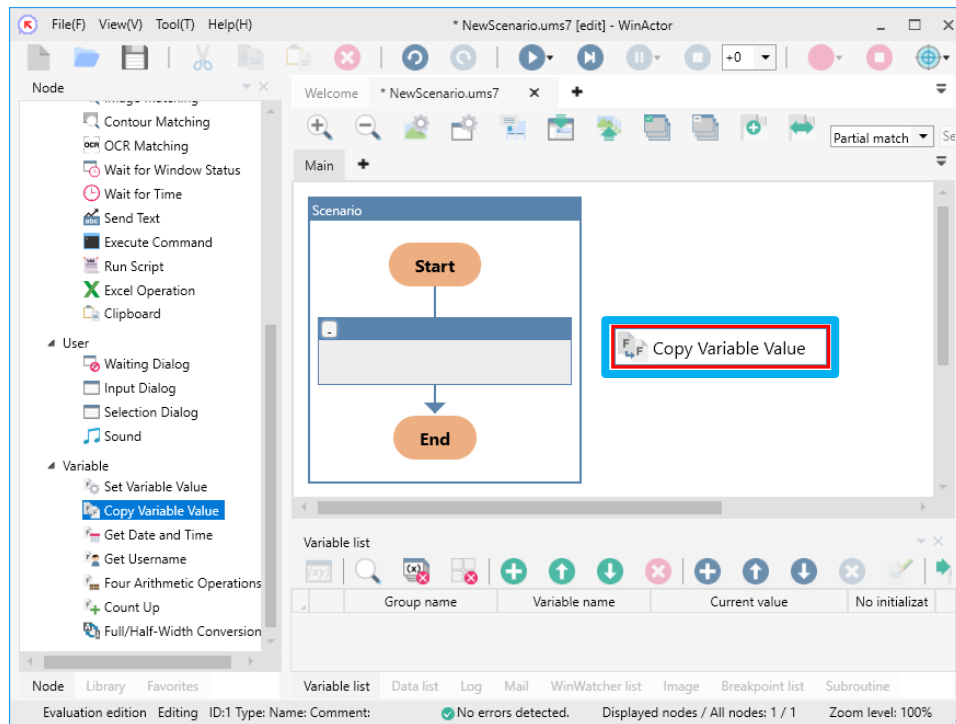
Follow the step below to place the 'Copy Variable Value' node.

Steps

1. Drag 'Copy Variable Value' under 'Node' in the Palette area to the Flowchart area.



‘Copy Variable Value’ is placed in the Flowchart area.



■ Copy Variable Value property

The following are settings in the ‘Copy Variable Value’ property pane.

Figure 4-111 Copy Variable Value property pane

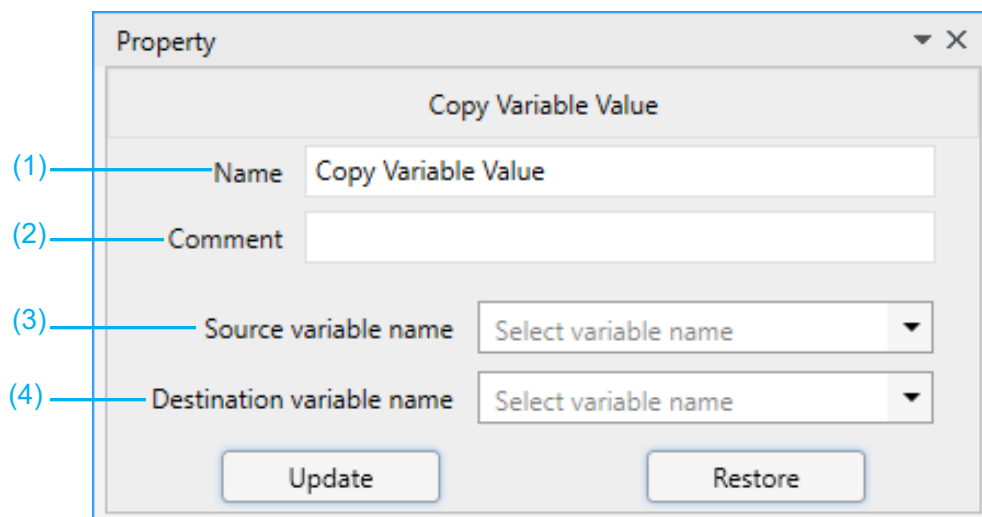


Table 4-87 Copy Variable Value property

No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Copy Variable Value comment can be used as a notepad when creating a scenario.
(3)	Source variable name	Specify the source variable name to copy.
(4)	Destination variable name	Specify the destination variable name to copy.

4.6.3 Get Date and Time

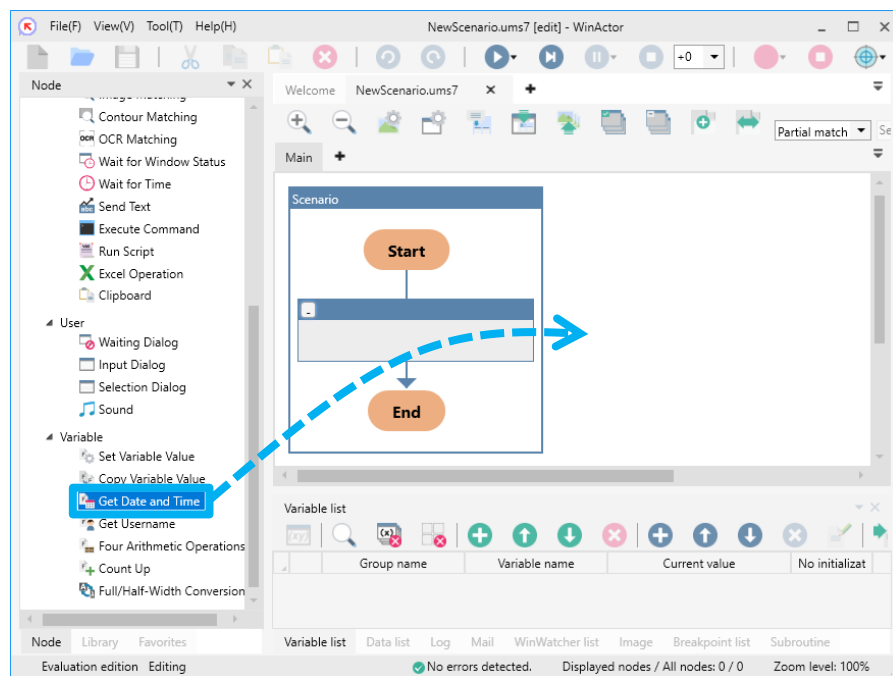
Obtain the current time in the OS (Windows) and use the date and time, for example, in the logs. In scenarios using the Data list, when running a scenario using the data obtained from the list, the date and time of execution will be stored in the list.

■ Place Get Date and Time

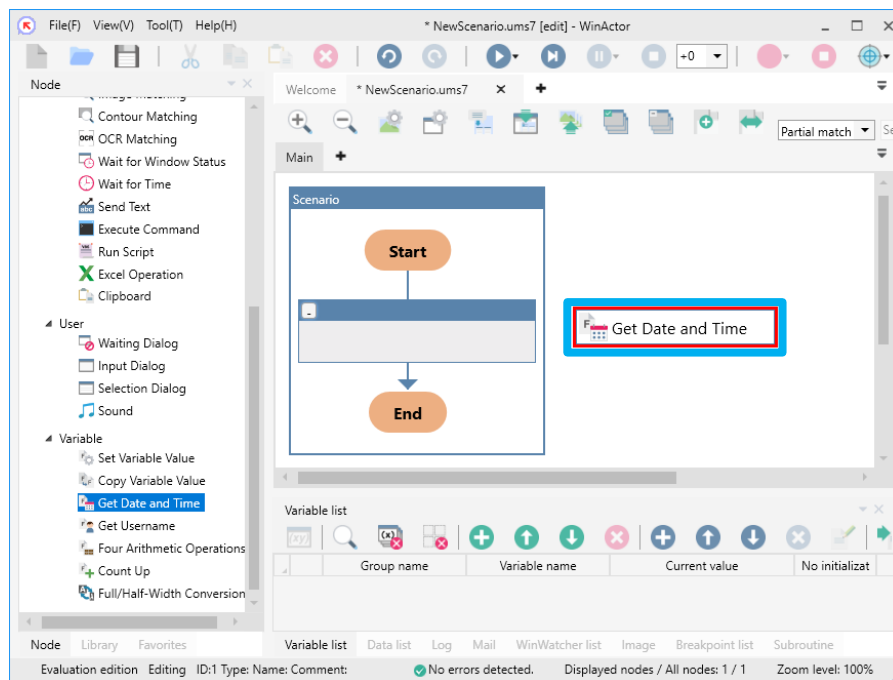
Follow the step below to place the 'Get Date and Time' node.

Steps

1. Drag 'Get Date and Time' under 'Node' in the Palette area to the Flowchart area.



'Get Date and Time' is placed in the Flowchart area.



■ Get Date and Time property

The following are settings in the 'Get Date and Time' property pane.

Figure 4-112 Get Date and Time property pane

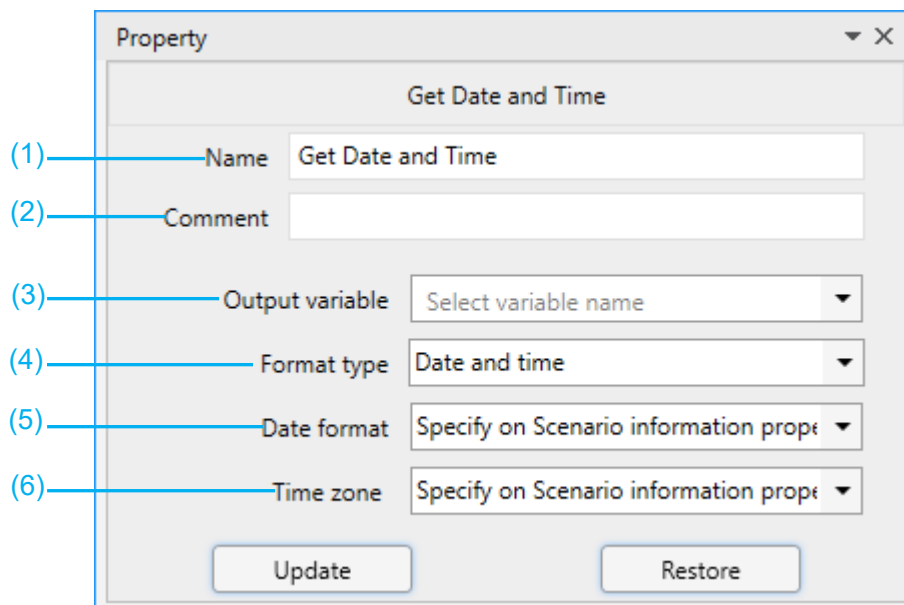


Table 4-88 Get Date and Time property

No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Get Date and Time comment can be used as a notepad when creating a scenario.
(3)	Output variable	Specify the variable name to store the obtained date and time.
(4)	Format type	Select 'Date and time,' 'Only date,' or 'Only time' from the dropdown menu.
(5)	Date format	Set the format for the date to obtain. The format will be as specified when 'Specify in the Scenario information property' or 'Specify in the Option dialog' is selected.
(6)	Time zone	Set the time zone for the time to obtain. The time zone will be as specified when 'Specify in the Scenario information property' or 'Specify in the Option dialog' is selected.

4.6.4 Get Username

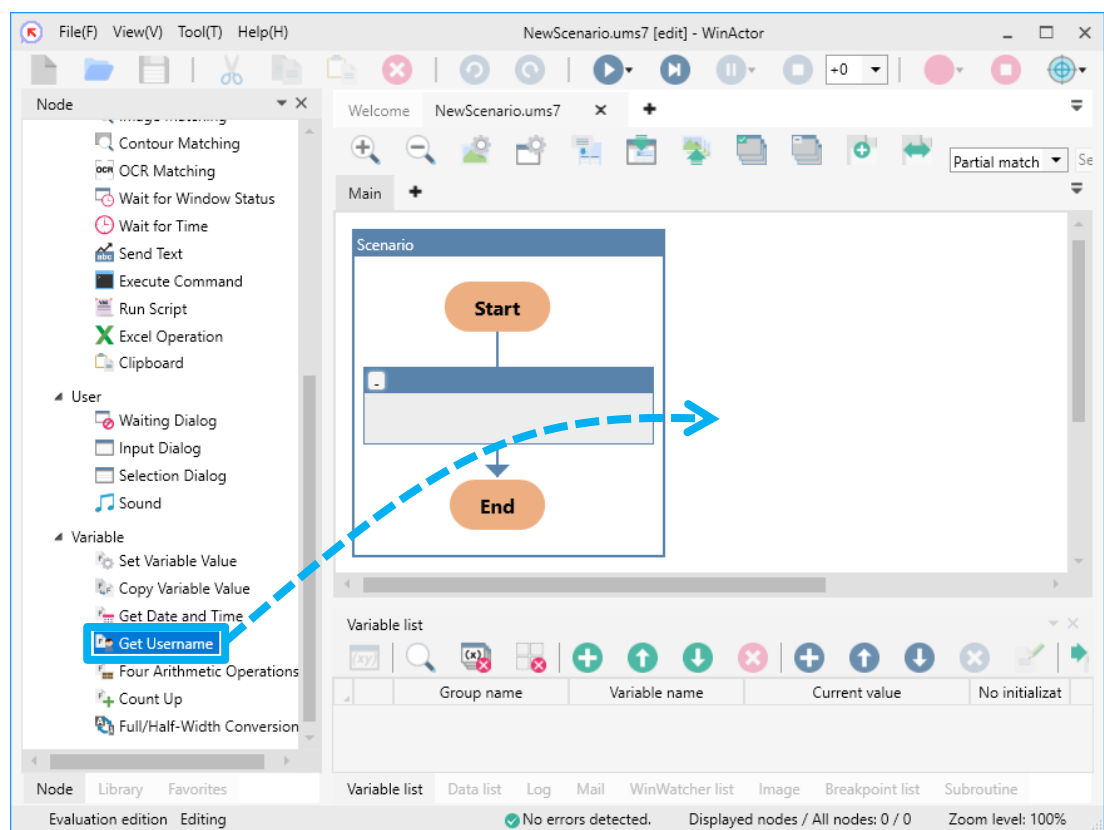
Obtain the name of the user currently logged into the OS (Windows) and the username is used, for example, in the logs. In scenarios using the Data list, when running a scenario using the data obtained from the list, the username is stored in a variable and can be used in the logs.

■ Place Get Username

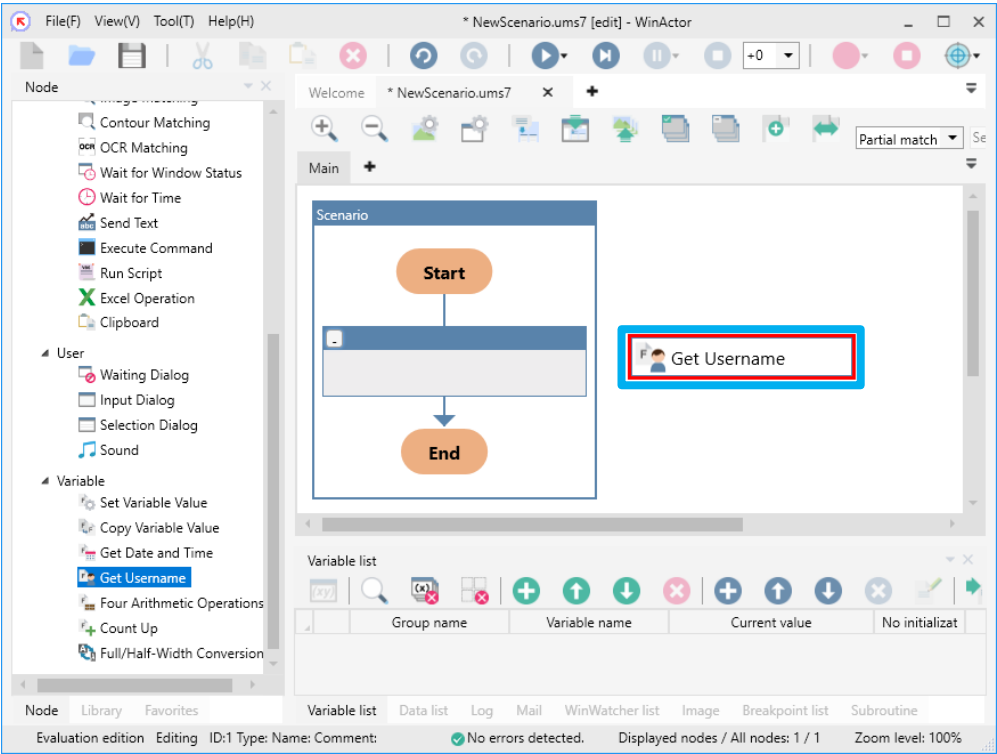
The following are steps to place 'Get Username.'

Steps

1. Drag 'Get Username' under 'Node' in the Palette area to the Flowchart area.



‘Get Username’ is placed in the Flowchart area.



■ Get Username property

The following are settings in the ‘Get Username’ property pane.

Figure 4-113 Get Username property

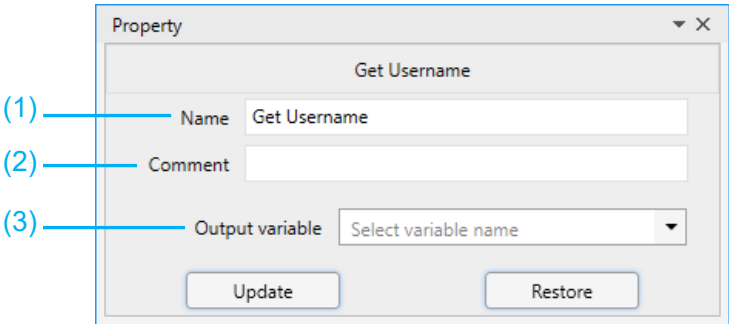


Table 4-89 Get Username property

No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Get Username comment can be used as a notepad when creating a scenario.
(3)	Output variable	Specify the variable name to store the obtained username.

4.6.5 Four Arithmetic Operations

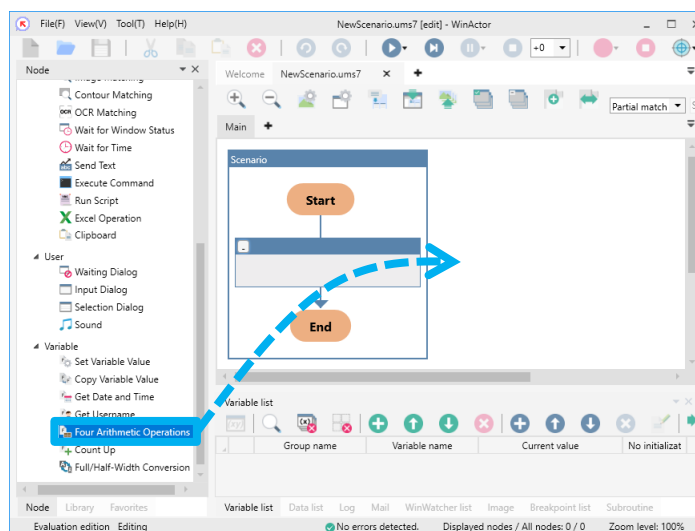
This is used to calculate numerical values and store the results in variables.

■ Place Four Arithmetic Operations

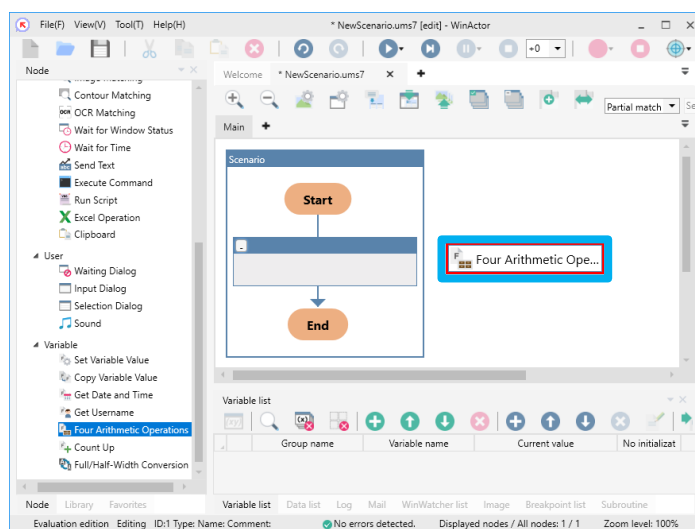
Follow the step below to place the 'Four Arithmetic Operations' node.

Steps

1. Drag 'Four Arithmetic Operations' under 'Node' in the Palette area to the Flowchart area.



'Four Arithmetic Operations' is placed in the Flowchart area.



■ Four Arithmetic Operations property

The following are settings in the 'Four Arithmetic Operations' property pane.

Figure 4-114 Four Arithmetic Operations property pane

Table 4-90 Four Arithmetic Operations property

No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Four Arithmetic Operations comment can be used as a notepad when creating a scenario.
(3)	Calculation result	Specify the variable name to store the calculation result.
(4)	Left value	Specify the first numerical value.
(5)	Operator	Select a type of four arithmetic operations from '+', '-', 'x', and '÷' from the dropdown menu.
(6)	Right value	Specify the second numerical value.
(7)	Calculate as an integer and truncate the result numbers beyond the decimal point.	When enabled, the calculation result will be rounded to the next whole number. An error will occur if the left and right value is not a whole number.



- Numerical values are numbers or decimals.
- Results for number+number, number - number, and number x number will be whole numbers.
- For the result for number÷number will be a whole number if divided evenly, or in decimals if otherwise.
- The result of the calculation between a whole number and a decimal will be in decimals.
- Calculating decimals will incur differences and may be displayed as a whole

number.



(7) will be enabled for compatibility if scenarios created in Ver.5 or Ver.6 is loaded.

4.6.6 Count Up

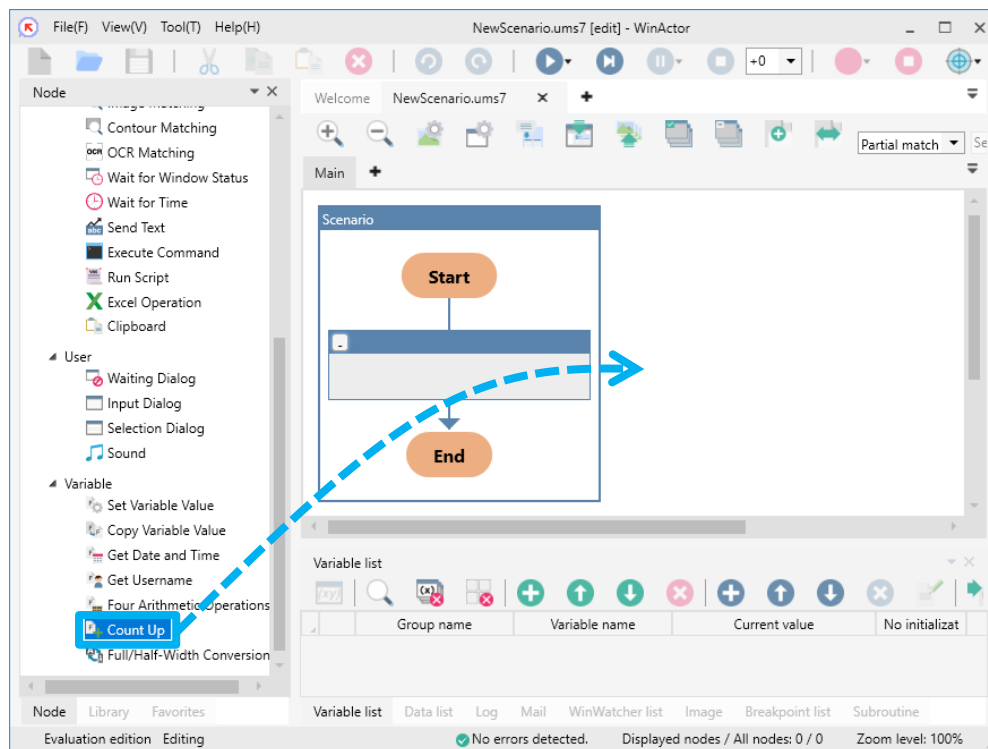
The 'Additional Value' set in properties is added to the variable set in advance and is used, for example, to determine the number of repetitions with the set variable or repeat processes between certain conditions and count how many times the process was done.

■ Place Count Up

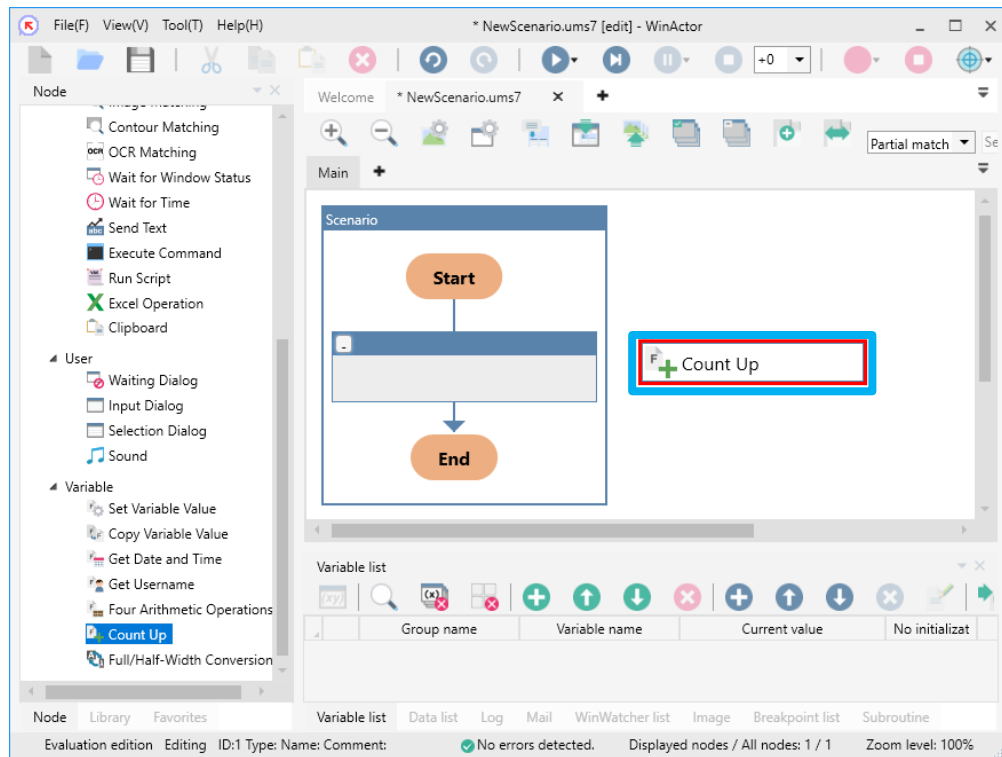
Follow the step below to place the 'Count Up' node.

Steps

1. Drag 'Count Up' under 'Node' in the Palette area to the Flowchart area.



'Count Up' is placed in the Flowchart area.



■ Count Up property

The following are settings in the 'Count Up' property pane.

Figure 4-115 Count Up property pane

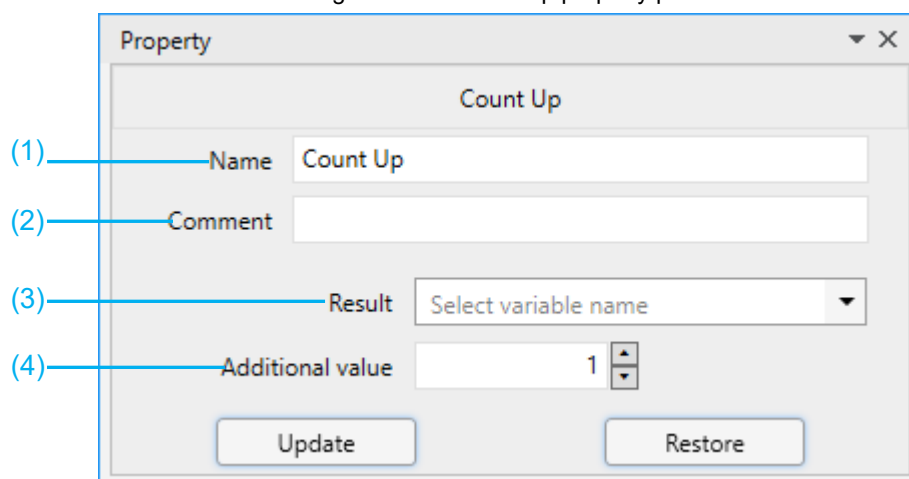


Table 4-91 Count Up property

No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Count Up comment can be used as a notepad when creating a scenario.
(3)	Result	Specify the variable name to count up.
(4)	Additional value	Enter numbers from 1 to 999,999.

4.6.7 Full/Half-Width Conversion

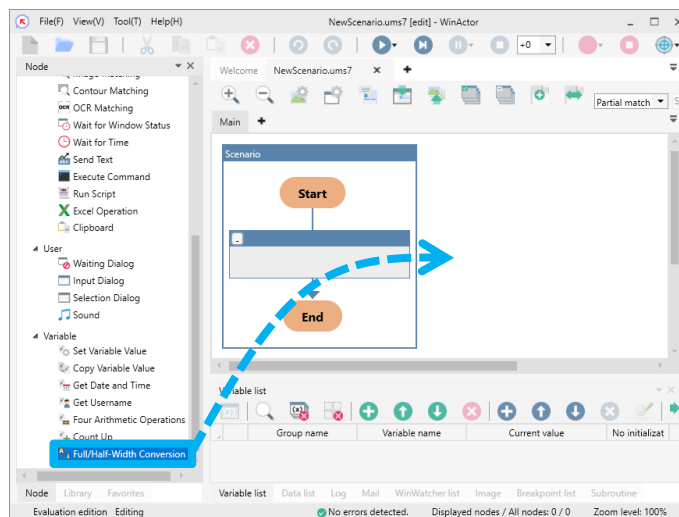
Converts the text stored in variables to full or half-width characters (used when the language is set to Japanese).

■ Place Full/Half-Width Conversion

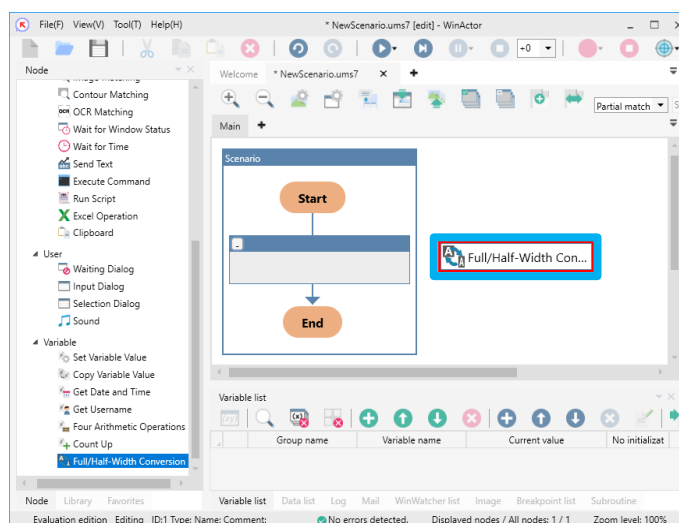
Follow the step below to place the 'Full/Half-Width Conversion' node.

Steps

1. Drag 'Full/Half-Width Conversion' under 'Node' in the Palette area to the Flowchart area.



'Full/Half-Width Conversion' is placed in the Flowchart area.



■ Full/Half-Width Conversion property

The following are settings in the ‘Full/Half-Width Conversion’ property pane.

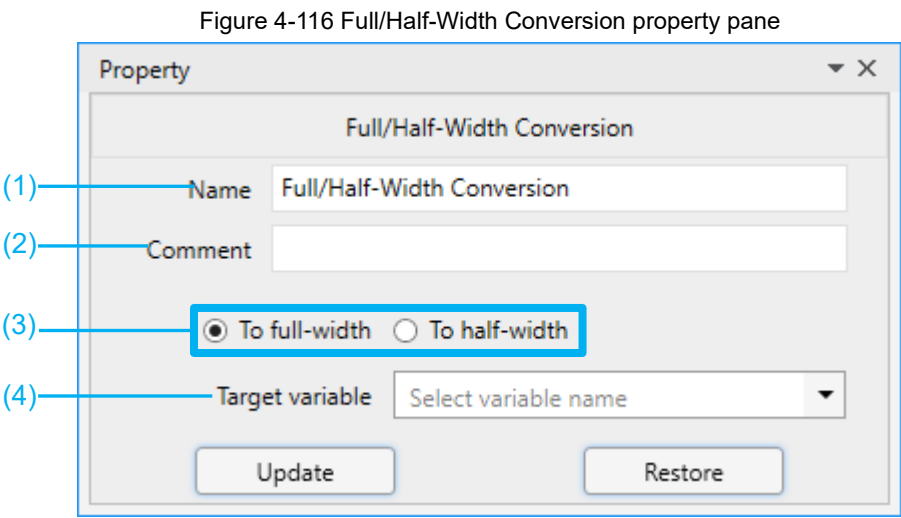


Table 4-92 Full/Half-Width Conversion property

No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Full/Half-Width Conversion comment can be used as a notepad when creating a scenario.
(3)	To full/half-width	Select to convert all text to full-width or half-width
(4)	Target variable	Specify the variable to store the text for conversion.



Note that running the conversion will overwrite the variable.

4.7 Nodes automatically generated in Event/IE Mode

Operations recorded in Event/IE mode are recorded as nodes. Operational information for windows and controls such as buttons, textboxes, and list boxes to be recorded is recorded in the nodes.

Table 4-93 Automatically generated nodes

No.	Node type	Description
(1)	Click	Clicks buttons, checkboxes, and radio buttons.
(2)	Set Text	Sets the text in the textbox.
(3)	Select Item in List	Selects the items in a list or from a combo box.
(4)	Select Tab	Use to toggle tabs, supported only by Event Mode.
(5)	Get String	Gets the text from the textbox and stores to a variable
(6)	Get Item in List	Gets the value or index from the currently selected list in the list or combo box and stores to the variable.
(7)	Get All Items in List	Gets the entire list that can be selected from the list or combo box and saves to a file.
(8)	Get Value in Table	Loads the values in cells, number of columns and rows in a table in IE mode in Edge and stores them into variables. Supported only by the IE mode.
(9)	Get Enable/Disable State	Loads the status of the controls and stores to a variable.
(10)	Get Check State	Loads the checked status of a checkbox or radio button and stores to a variable.

4.7.1 Click

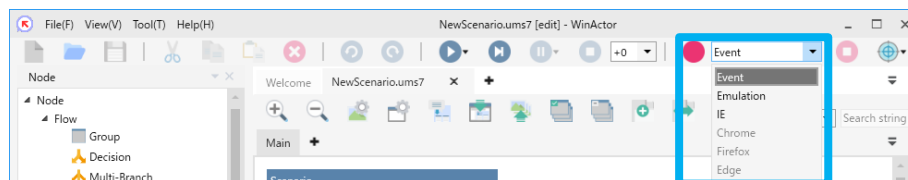
This is a node used to click buttons.

■ Place Click

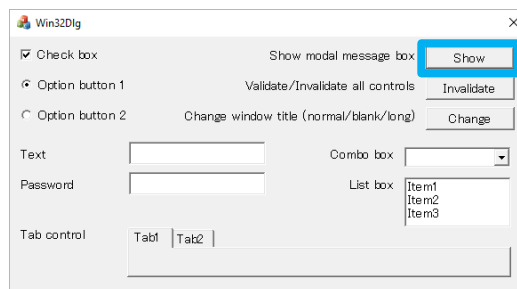
Follow the steps below to place the 'Click' node.

Steps

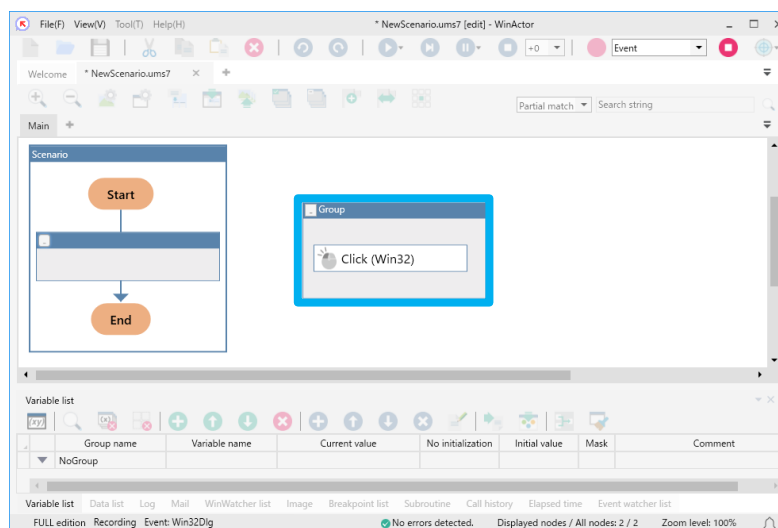
1. Click 'Event' or 'IE' mode from the 'Start recording' icon dropdown menu to start the recording operations.



2. Click the control you want to record.



'Click' is placed in the Flowchart area.



■ Click property

The following are settings in the 'Click' property pane.

 For details, see "3.6.1 Configuration of the Property pane."

Figure 4-117 Settings tab in the Click property pane

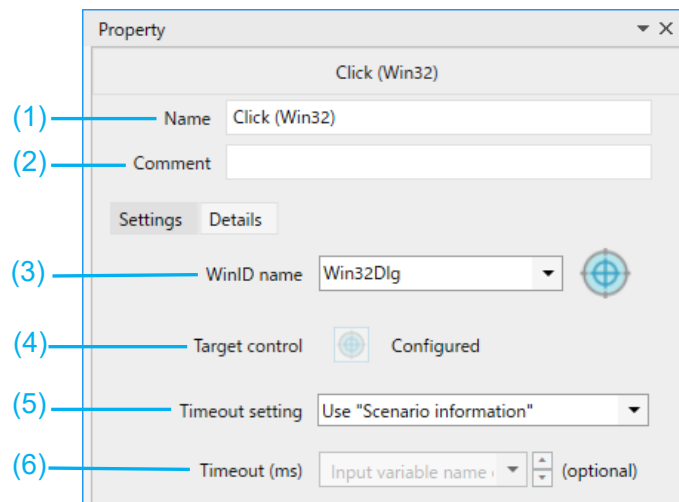


Table 4-94 Settings tab in the Click property

No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Click node comment can be used as a notepad when creating a scenario.
(3)	WinID name	Select from the dropdown or click the 'Select target window' icon (🎯) to specify an application window.
(4)	Target control	Click the 'Target control' icon (🎯) to specify the control to run.
(5)	Timeout setting	Select which timeout setting to use from 'Use "Scenario information", 'Use "Option", and 'Use this "Property".' When 'Use "Scenario information"' is selected, the timeout value set in the "Scenario information" window is effective. When 'Use "Option"' is selected, the timeout value set in the 'Option' dialog is effective. When 'Use this "Property"' is selected, the value set for 'Timeout (ms)' is effective.
(6)	Timeout (ms)	Specify the time to wait for the status change. This value is effective only when 'Use this "Property"' is selected for 'Timeout setting.' The value should be in the range of 100 to 3,600,000. The default value is 10,000 milliseconds.

4.7.2 Set Text

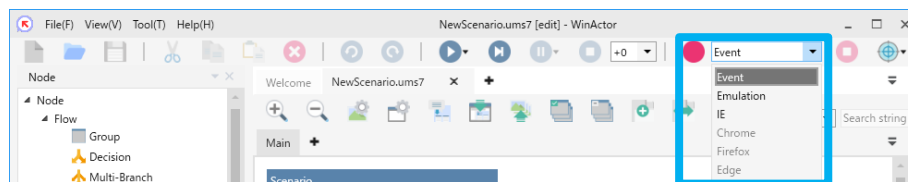
This is a node to record the text input operations.

■ Place Set Text

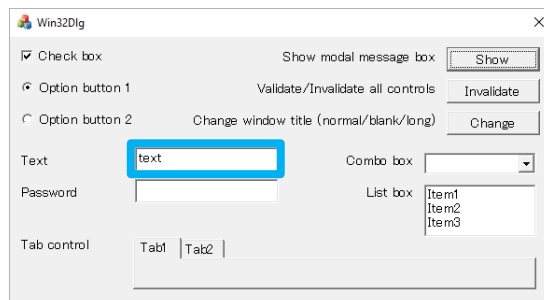
Follow the steps below to place the 'Set Text' node.

Steps

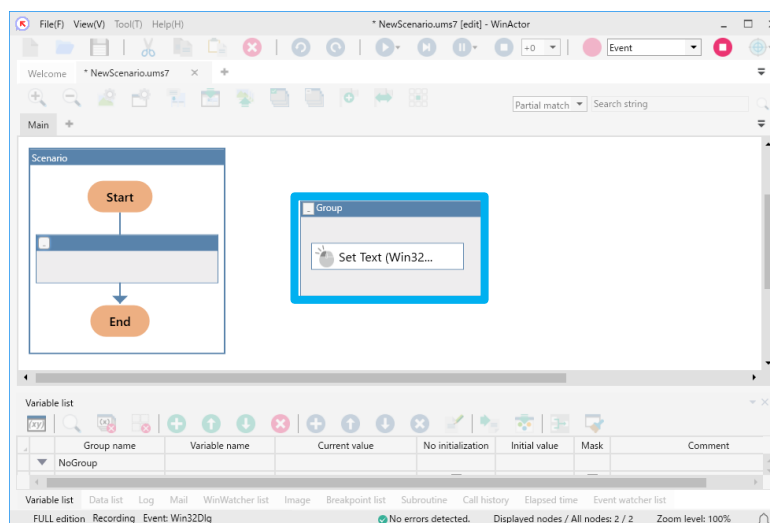
1. Click 'Event' or 'IE' mode from the 'Start recording' icon dropdown menu to start the recording operations.



2. Enter a string in text box to be recorded.



'Send Text' is placed in the Flowchart area.



■ Set Text property

The following are settings in the ‘Set Text’ property pane.

 For details, see "3.6.1 Configuration of the Property pane."

Figure 4-118 Settings tab in the Set Text property pane

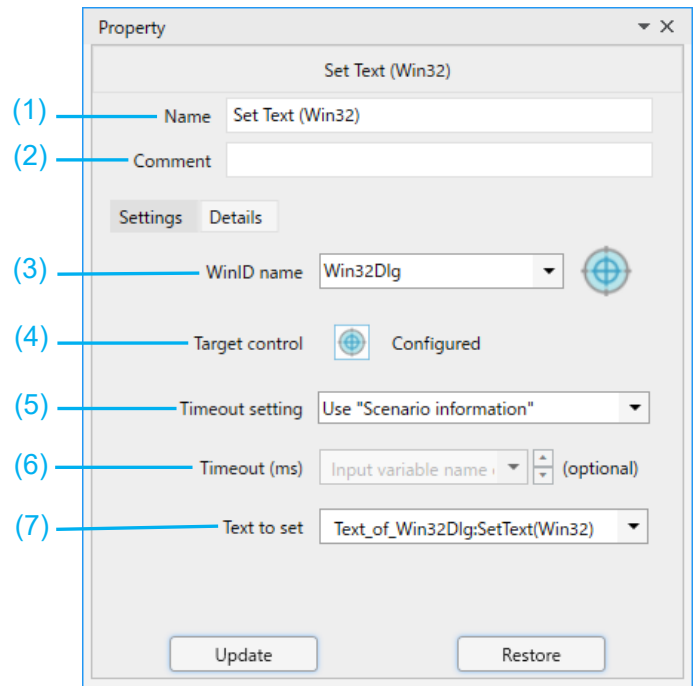


Table 4-95 Settings tab in the Set Text property

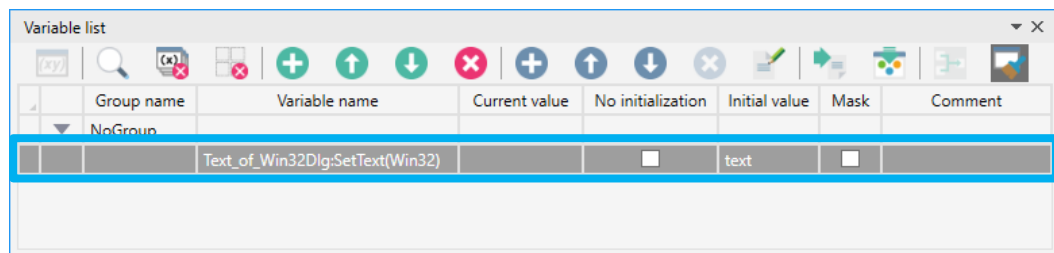
No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Set Text node comment can be used as a notepad when creating a scenario.
(3)	WinID name	Select from the dropdown or click the ‘Select target window’ icon () to specify the application window.
(4)	Target control	Click the ‘Target control’ icon () to specify the control to run.
(5)	Timeout setting	Select which timeout setting to use from among ‘Use “Scenario information”,’ ‘Use “Option”,’ and ‘Use this “Property”.’ When ‘Use “Scenario information”’ is selected, the timeout value set in the “Scenario information” window is effective. When ‘Use “Option”’ is selected, the timeout value set in the ‘Option’ dialog is effective. When ‘Use this “Property”’ is selected, the value set for ‘Timeout (ms)’ is effective.

No.	Name	Description
(6)	Timeout (ms)	Specify the time to wait for the status change. This value is effective only when 'Use this "Property"' is selected for 'Timeout setting.' The value should be in the range of 100 to 3,600,000. The default value is 10,000 milliseconds.
(7)	Text to set	Set the value or the variable where the value is set. The variable is named automatically when generated. The recorded text will be recorded with the specified value or stored in the variable.

■ Generate variables automatically

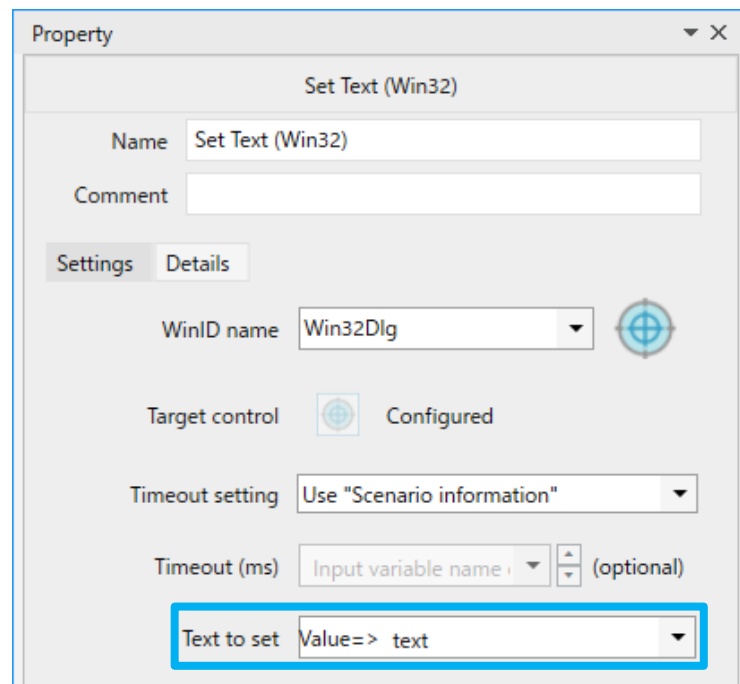
If the 'Option' dialog's 'Record' tab setting, 'Generate variables automatically,' is enabled, variables are generated simultaneously with nodes and registered in the variables list. The automatically generated variable names will correspond with the variable names in the 'Set Text' properties. The default variable will be the text set at the time of recording.

Figure 4-119 Variable added when generating 'Set Text'



If the 'Option' dialog's 'Record' tab setting, 'Generate variables automatically,' is disabled, the text set at the time of recording will be the value set in the properties.

Figure 4-120 Set Text property pane



4.7.3 Select Item in List

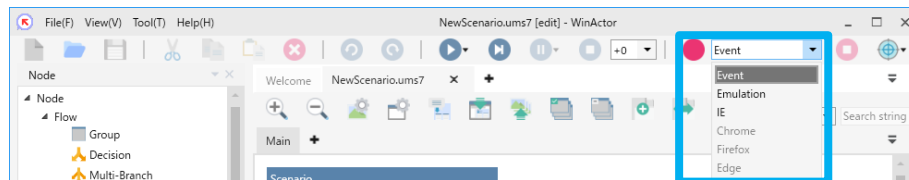
This is a node to record the operations selecting items from the dropdown and combo box.

■ Place Select Item in List

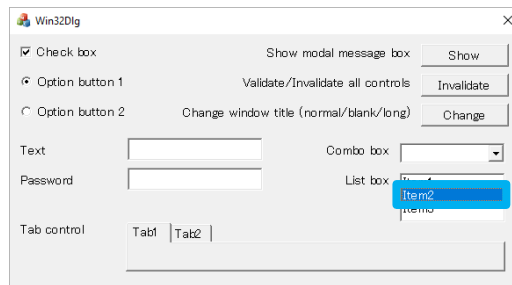
Follow the steps below to place the 'Select Item in List' node.

Steps

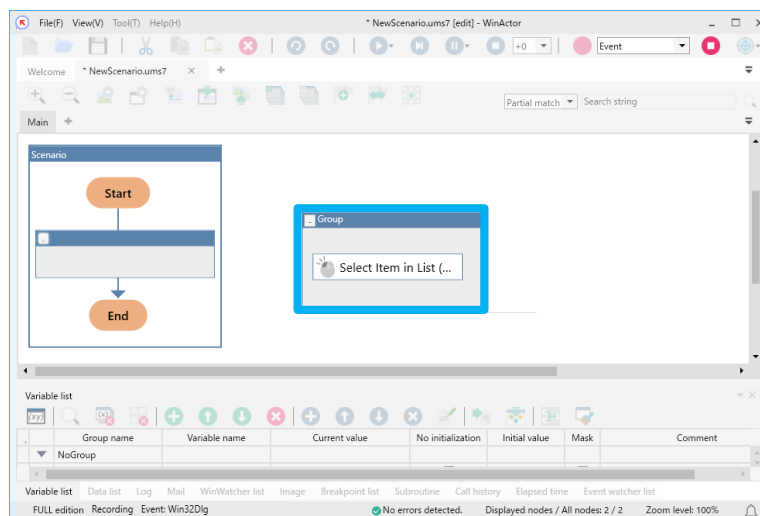
1. Click 'Event' or 'IE' mode from the 'Start recording' icon dropdown menu to start the recording operations.



2. Select an item in List box or Combo box to be recorded.



'Select Item in List' node is placed in the Flowchart area.



■ Select Item in List property

The following are settings in the 'Select Item in List' property pane.

 For details, see "3.6.1 Configuration of the Property pane."

Figure 4-121 Settings tab in the Select Item in List property

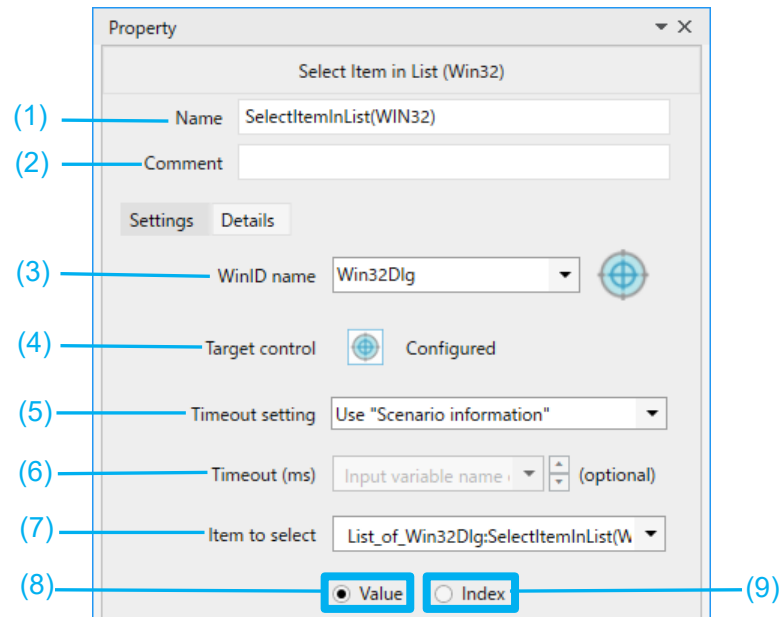


Table 4-96 Settings tab in the Select Item in List property

No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Select Item in List comment can be used as a notepad when creating a scenario.
(3)	WinID name	Select from the dropdown or click the 'Select target window' icon () to specify the application window.
(4)	Target control	Click the 'Target control' icon () to specify the control to run.
(5)	Timeout setting	Select which timeout setting to use from among 'Use "Scenario information",' 'Use "Option",' and 'Use this "Property".' When 'Use "Scenario information"' is selected, the timeout value set in the "Scenario information" window is effective. When 'Use "Option"' is selected, the timeout value set in the 'Option' dialog is effective. When 'Use this "Property"' is selected, the value set for 'Timeout (ms)' is effective.

No.	Name	Description
(6)	Timeout (ms)	Specify the time to wait for the status change. This value is effective only when 'Use this "Property"' is selected for 'Timeout setting.' The value should be in the range of 100 to 3,600,000. The default value is 10,000 milliseconds.
(7)	Item to select	Set the variable storing the value or a value to select the list
(8)	Value	Text displayed in the list and selects the list
(9)	Index	Set the index (starts at zero) to specify the list

■ Generate variables automatically

If the 'Option' dialog's 'Record' tab setting, 'Generate variables automatically,' is disabled, the text selected from the list at the time of recording will be the value set in the properties.

Figure 4-122 Select Item in List property pane

The screenshot shows the 'Property' dialog box for the 'Select Item in List (Win32)' action. The 'Settings' tab is active. The 'Name' field contains 'SelectedItemInList(WIN32)'. The 'Comment' field is empty. The 'WinID name' is set to 'Win32Dlg'. The 'Target control' is set to 'Configured'. The 'Timeout setting' is set to 'Use "Scenario information"'. The 'Timeout (ms)' is set to 'Input variable name'. The 'Item to select' is set to 'Value=> Item2', which is highlighted with a red box. At the bottom, the 'Value' radio button is selected, and the 'Index' radio button is unselected.

4.7.4 Select Tab

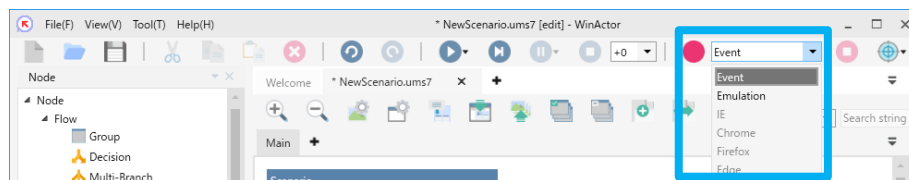
This is a node to record operations to toggle tabs.

■ Place Select Tab

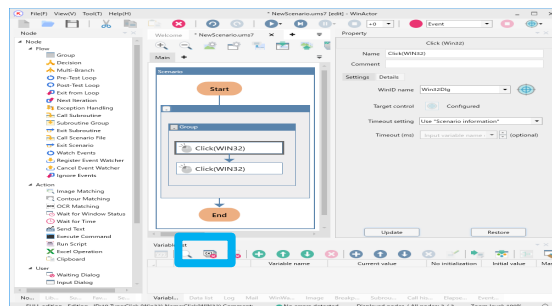
Follow the steps below to place the 'Select Tab' node.

Steps

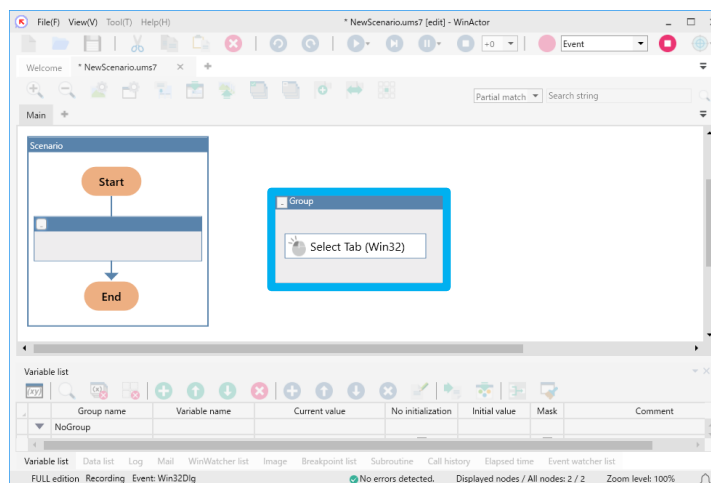
1. Click the 'Event' mode from the 'Start recording' icon dropdown menu to start the recording operations.



2. Select a tab to be recorded.



'Select Tab' node is placed in the Flowchart area.



■ Select Tab property

The following are settings in the 'Select Tab' property pane.

 For details, see "3.6.1 Configuration of the Property pane."

Figure 4-123 Settings tab in the Select Tab property pane

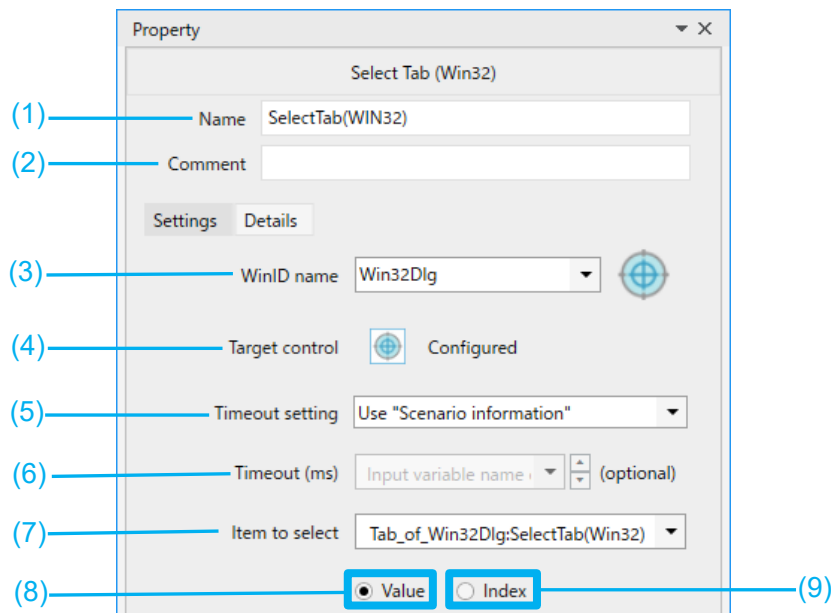


Table 4-97 Settings tab in the Select Tab property

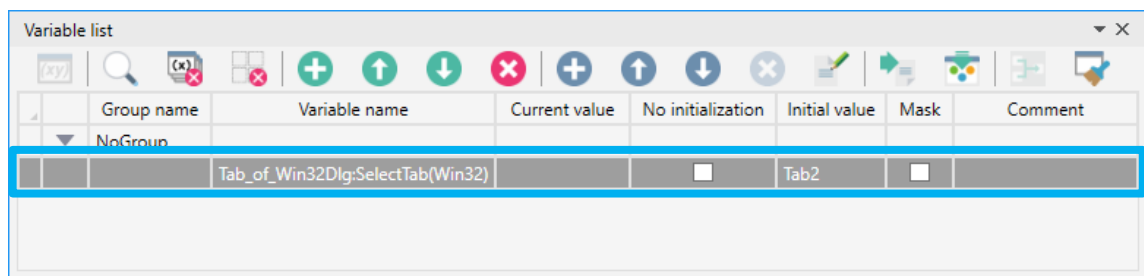
No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Select Tab node comment can be used as a notepad when creating a scenario.
(3)	WinID name	Select from the dropdown or click the 'Select target window' icon () to specify the application window.
(4)	Target control	Click the 'Target control' icon () to specify the control to run.
(5)	Timeout setting	Select which timeout setting to use from among 'Use "Scenario information",' 'Use "Option",' and 'Use this "Property".' When 'Use "Scenario information"' is selected, the timeout value set in the "Scenario information" window is effective. When 'Use "Option"' is selected, the timeout value set in the 'Option' dialog is effective. When 'Use this "Property"' is selected, the value set for 'Timeout (ms)' is effective.

No.	Name	Description
(6)	Timeout (ms)	Specify the time to wait for the status change. This value is effective only when 'Use this "Property"' is selected for 'Timeout setting.' The value should be in the range of 100 to 3,600,000. The default value is 10,000 milliseconds.
(7)	Item to select	Select the tab specified here
(8)	Value	Specify the tab with the tab name
(9)	Index	Set the index (starts at zero) to specify the tab

■ Generate variables automatically

If the 'Option' dialog's 'Record' tab setting, 'Generate variables automatically,' is enabled, variables are generated simultaneously with nodes and registered in the variables list. The automatically generated variable names will correspond with the variable names in the 'Select Tab' properties. The default variable will be the tab name set at the time of recording.

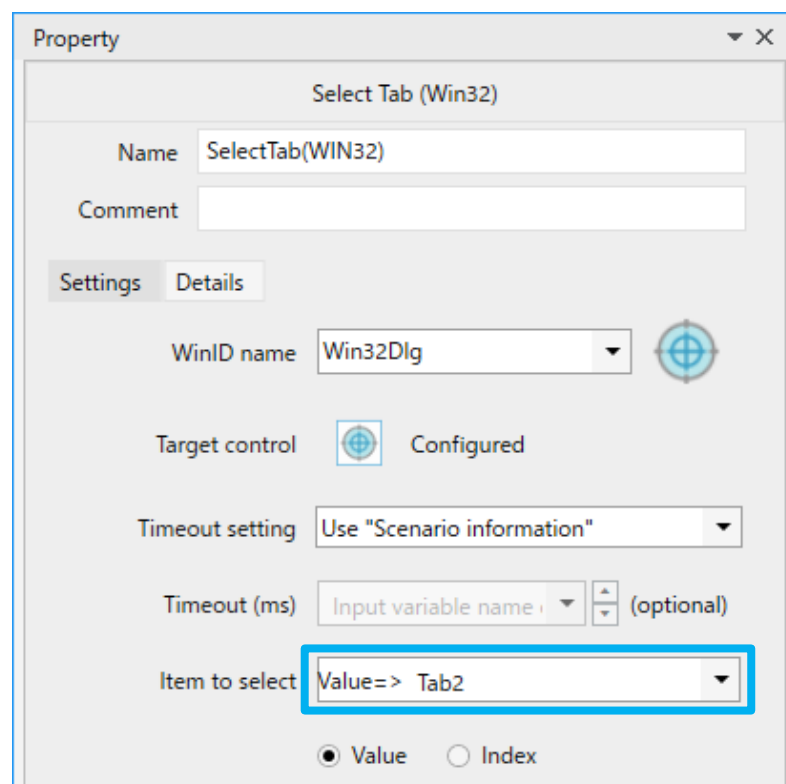
Figure 4-124 Variable added when generating Select Tab node



Group name	Variable name	Current value	No initialization	Initial value	Mask	Comment
NoGroup	Tab_of_Win32Dlg:SelectTab(Win32)		☐	Tab2	☐	

If the 'Option' dialog's 'Record' tab setting, 'Generate variables automatically,' is disabled, the text set at the time of recording will be the value set in the properties.

Figure 4-125 Select Tab property pane



Property

Select Tab (Win32)

Name: SelectTab(WIN32)

Comment:

Settings Details

WinID name: Win32Dlg

Target control: Configured

Timeout setting: Use "Scenario information"

Timeout (ms): Input variable name (optional)

Item to select: Value=> Tab2

☒ Value ☐ Index

4.7.5 Get String

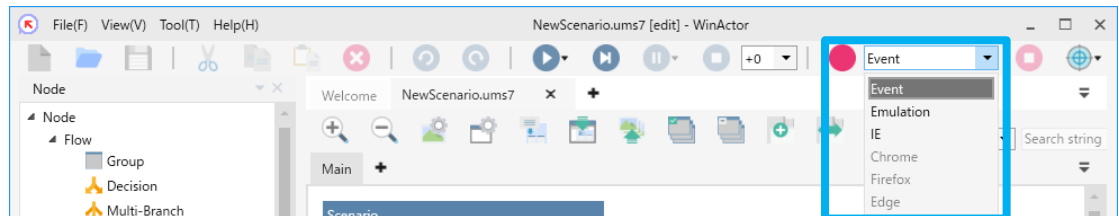
This is a node to get the text in the window and stores the text to a variable.

■ Place Get String

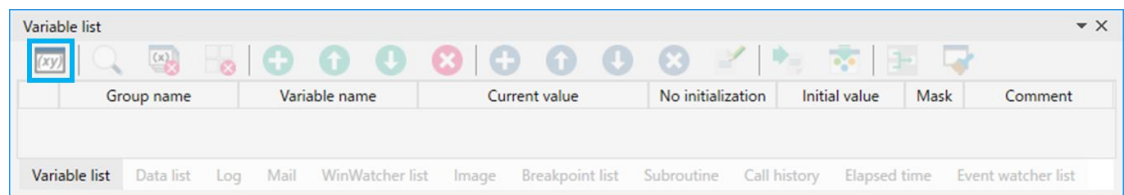
Follow the steps below to place the 'Get String' node.

Steps

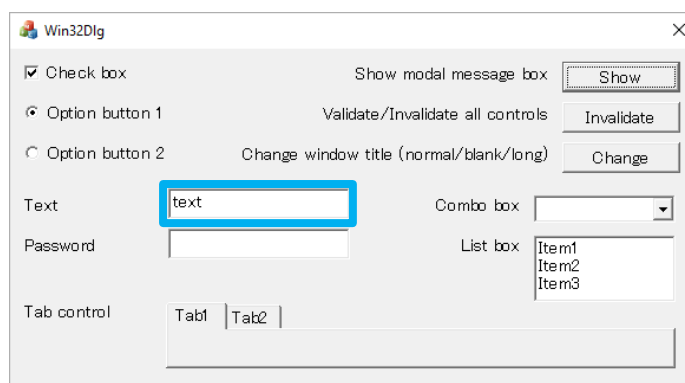
1. Select 'Event' or 'IE' mode from the 'Start recording' icon dropdown menu, and start the recording operations.



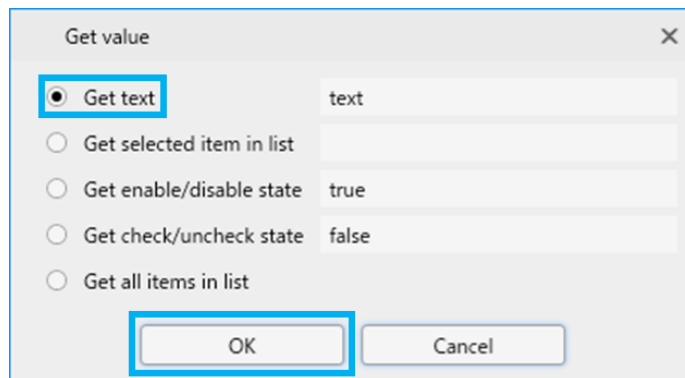
2. Click the 'Get or set value' icon  in the 'Variable list' tab pane.



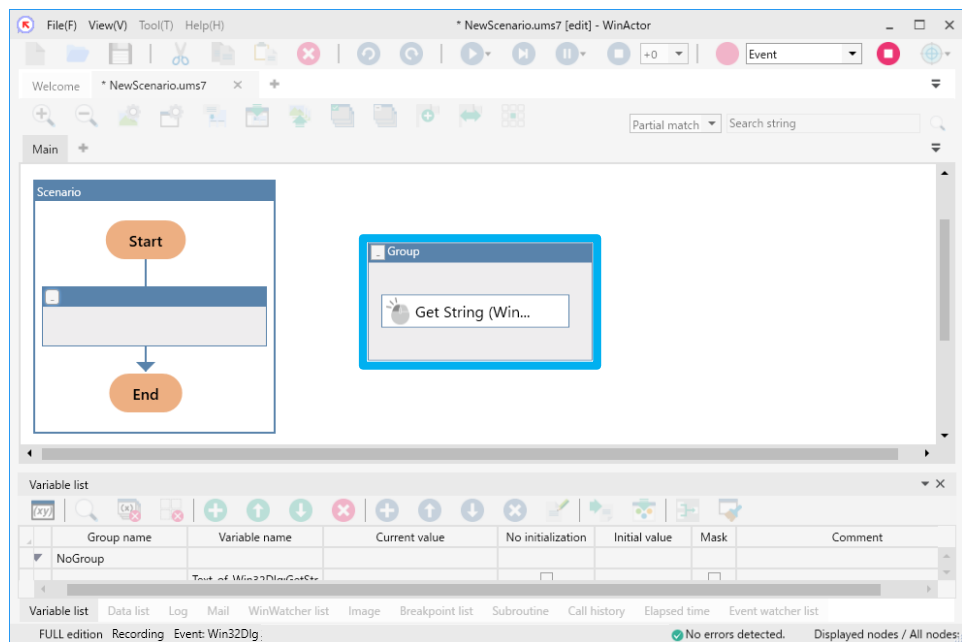
3. Select a text box to be recorded from 'Text.'



4. Select the 'Get text' radio button and click the 'OK' button in the 'Get value' window.



'Get String' node is placed in the Flowchart area.



■ Get String property

The following are settings in the ‘Get String’ property pane.

 For details, see "3.6.1 Configuration of the Property pane."

Figure 4-126 Settings tab in the Get String property pane

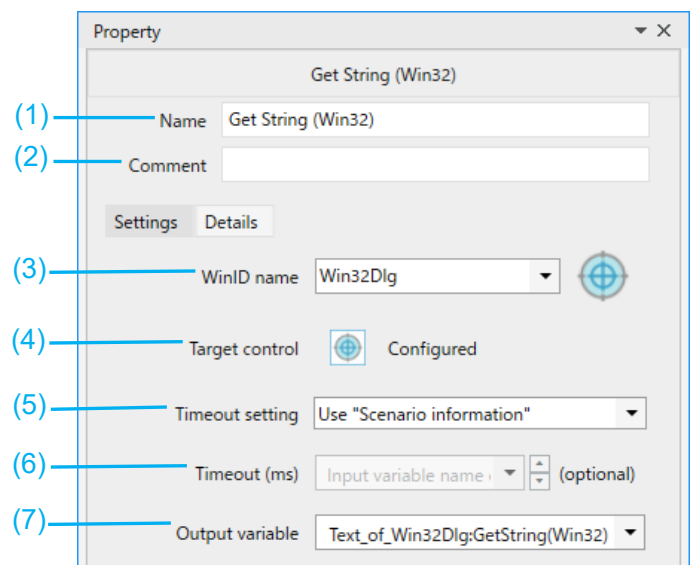


Table 4-98 Settings tab in the Get String property

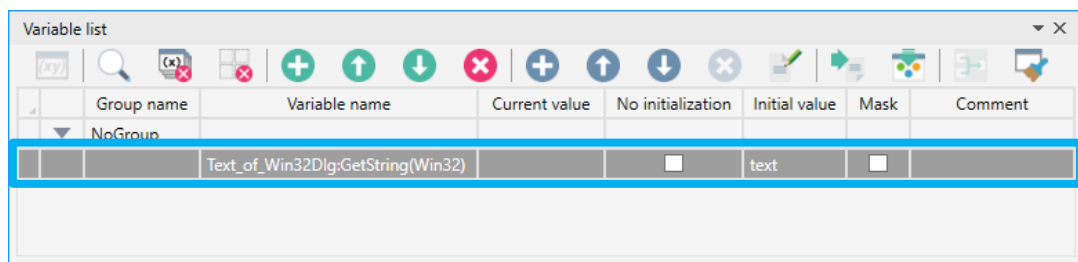
No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Get String comment can be used as a notepad when creating a scenario.
(3)	WinID name	Select from the dropdown or click the ‘Select target window’ icon () to specify the application window.
(4)	Target control	Click the ‘Target control’ icon () to specify the control to run.
(5)	Timeout setting	Select which timeout setting to use from among ‘Use “Scenario information”,’ ‘Use “Option”,’ and ‘Use this “Property”.’ When ‘Use “Scenario information”’ is selected, the timeout value set in the “Scenario information” window is effective. When ‘Use “Option”’ is selected, the timeout value set in the ‘Option’ dialog is effective. When ‘Use this “Property”’ is selected, the value set for ‘Timeout (ms)’ is effective.

No.	Name	Description
(6)	Timeout (ms)	Specify the time to wait for the status change. This value is effective only when 'Use this "Property"' is selected for 'Timeout setting.' The value should be in the range of 100 to 3,600,000. The default value is 10,000 milliseconds.
(7)	Output variable	Variable to store the results. The default is the variable automatically generated from obtaining the value (or created by the user).

■ Generate variables automatically

If the 'Option' dialog's 'Record' tab setting, 'Generate variables automatically,' is enabled, variables are generated simultaneously with nodes and registered in the variables list. The automatically generated variable names will correspond with the variable names in the 'Get Text' properties. The default variable will be the text set at the time of recording.

Figure 4-127 Variable added when generating Get String



The screenshot shows a 'Variable list' dialog box with a table containing one variable entry. The table has columns for Group name, Variable name, Current value, No initialization, Initial value, Mask, and Comment. The entry has a group name of 'NoGroup', a variable name of 'Text_of_Win32Dlg-GetString(Win32)', and an initial value of 'text'.

	Group name	Variable name	Current value	No initialization	Initial value	Mask	Comment
	NoGroup	Text_of_Win32Dlg-GetString(Win32)		☐	text	☐	

If the 'Option' dialog's 'Record' tab setting, 'Generate variables automatically,' is disabled, the text set at the time of recording will be the value set in the properties.

4.7.6 Get Item in List

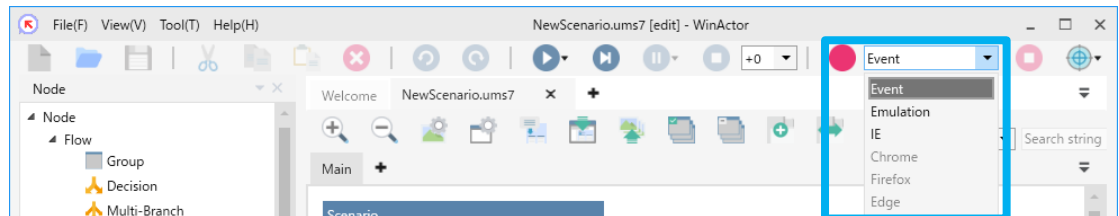
This is a node to get the state of the item selected in a list and stores the state to a variable.

■ Place Get Item in List

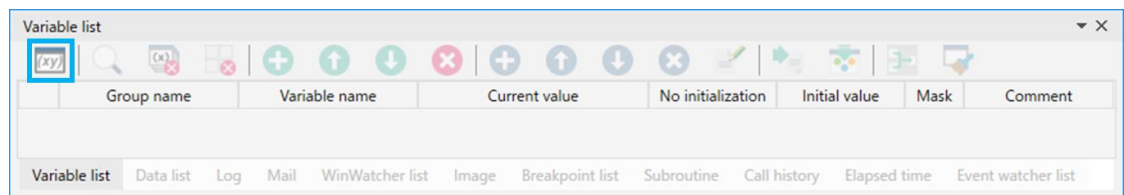
Follow the steps below to place the 'Get Item in List' node.

Steps

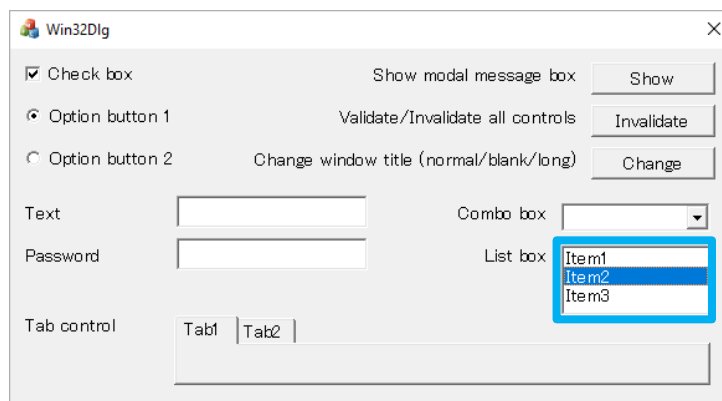
1. Click the 'Event' or 'IE' mode from the 'Start recording' icon dropdown menu, and start the recording operations.



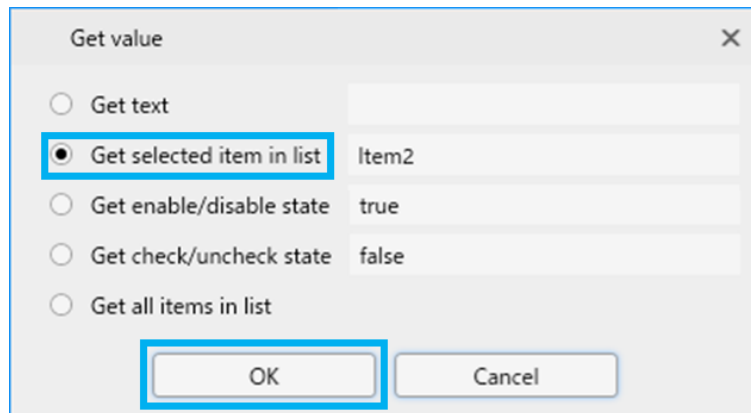
2. Click the 'Get or set value' icon  in the 'Variable list' pane.



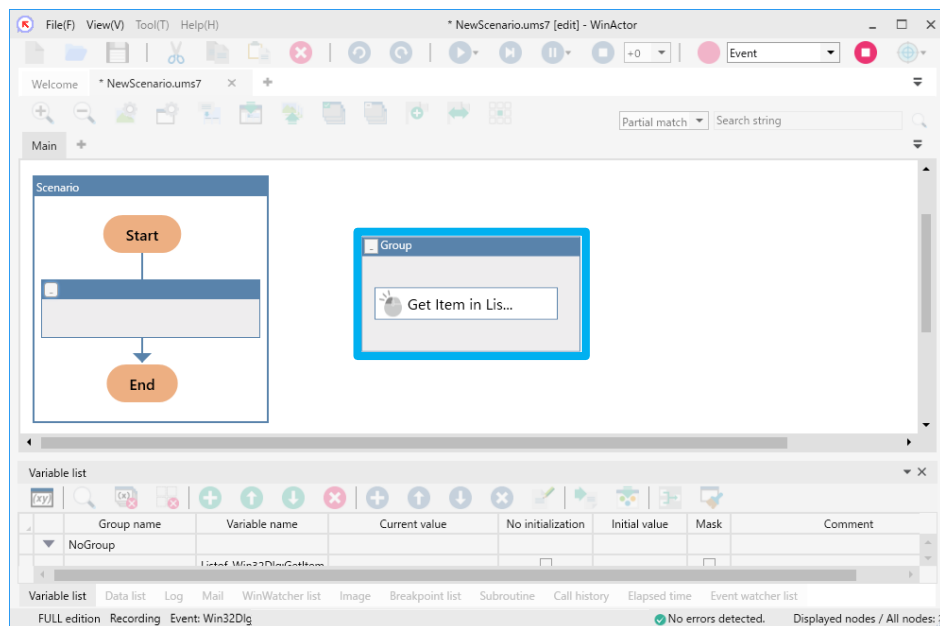
3. Select a list box or combo box to be recorded from the dropdown menu of List box or Combo box.



4. Select the 'Get selected item in list' radio button and click the 'OK' button in the 'Get value' window.



'Get Selected Item in List' node is placed in the Flowchart area.



■ Get Item in List property

The following are settings in the 'Get Item in List' property pane.

 For details, see "Details tab (Node recorded in the Event mode)" and "Details tab (Node recorded in the IE mode)."

Figure 4-128 Settings tab in the Get Item in List property pane

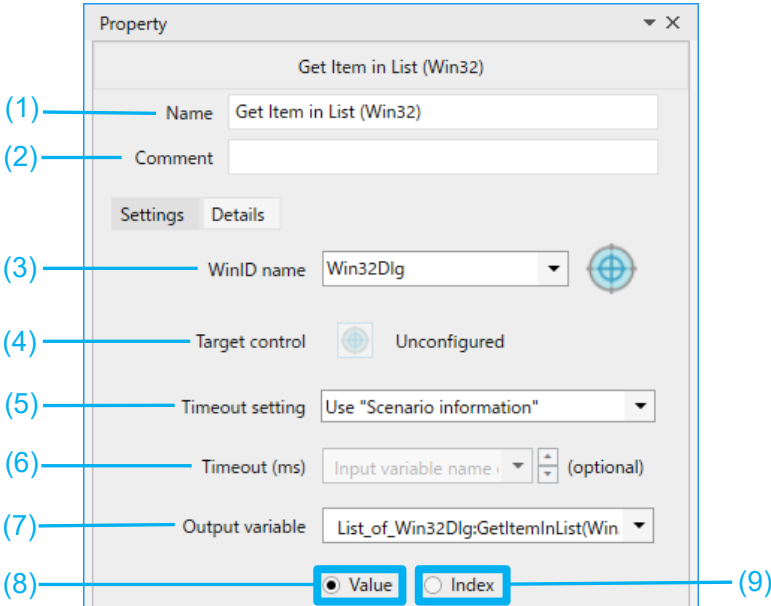


Table 4-99 Settings tab in the Get Item in List property

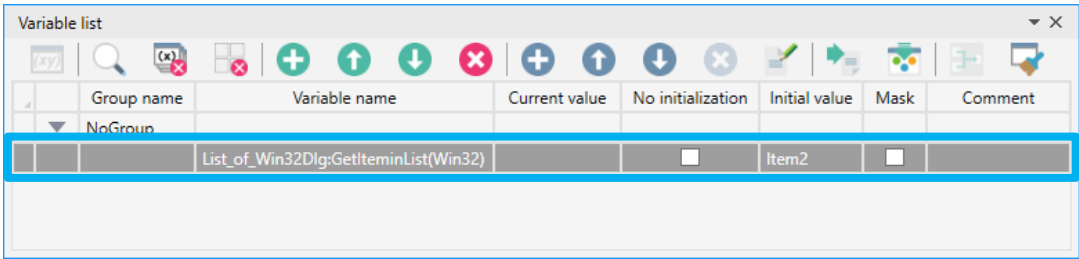
No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Get Item in List comment can be used as a notepad when creating a scenario.
(3)	WinID name	Select from the dropdown or click the 'Select target window' icon (⊕) to specify the application window.
(4)	Target control	Click the 'Target control' icon (⊕) to specify the control to run.
(5)	Timeout setting	Select which timeout setting to use from among 'Use "Scenario information",' 'Use "Option",' and 'Use this "Property".' When 'Use "Scenario information"' is selected, the timeout value set in the "Scenario information" window is effective. When 'Use "Option"' is selected, the timeout value set in the 'Option' dialog is effective. When 'Use this "Property"' is selected, the value set for 'Timeout (ms)' is effective.

No.	Name	Description
(6)	Timeout (ms)	Specify the time to wait for the status change. This value is effective only when 'Use this "Property"' is selected for 'Timeout setting.' The value should be in the range of 100 to 3,600,000. The default value is 10,000 milliseconds.
(7)	Output variable	Variable to store the results. The default is the variable automatically generated from obtaining the value (or created by the user).
(8)	Value	Store the element selected from the list.
(9)	Index	Store the index of the element selected from the list.

■ Generate variables automatically

If the 'Option' dialog's 'Record' tab setting, 'Generate variables automatically,' is enabled, variables are generated simultaneously with nodes and registered in the variables list. The automatically generated variable names will correspond with the variable names in the 'Set List' properties. The default variable will be the text set at the time of recording.

Figure 4-129 Variable added when generating Get Item in List



If the 'Option' dialog's 'Record' tab setting, 'Generate variables automatically,' is disabled, the 'Get Item in List' node is used to select or set the variable in the window displayed at the time of recording.

4.7.7 Get All Items in List

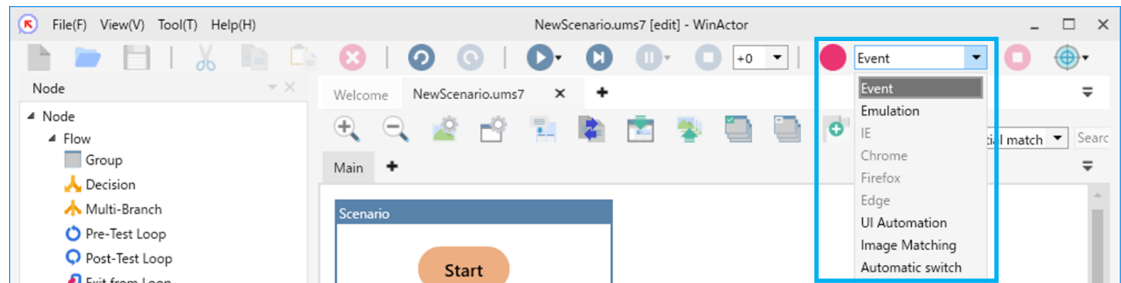
This is a node to get the items selected in a list and save them to a file.

■ Place Get All Items in List

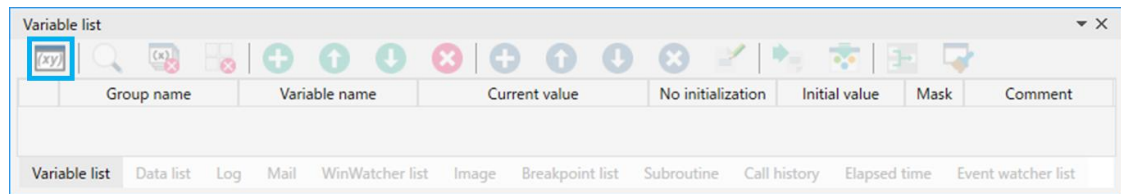
Follow the steps below to place the 'Get All Items in List' node.

Steps

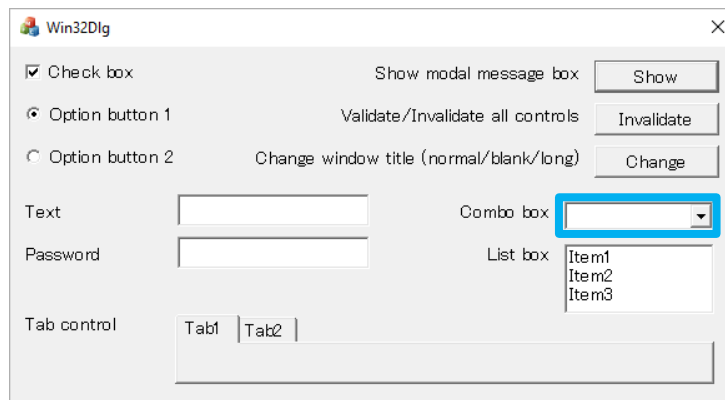
1. Click the 'Event' or 'IE' mode from the 'Start recording' icon dropdown menu, and start the recording operations.



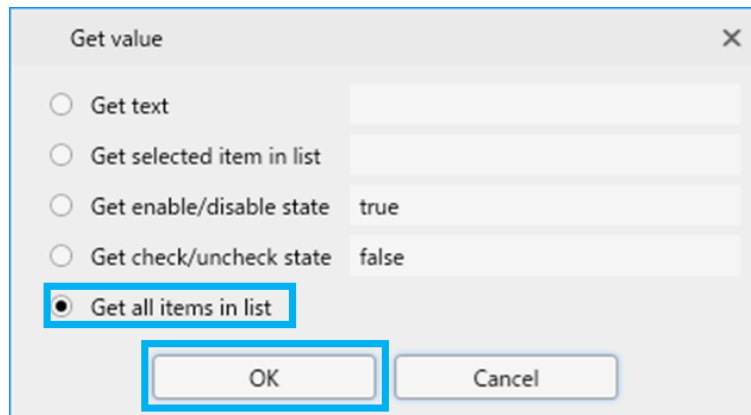
2. Click the 'Get or set value' icon  in the 'Variable list' tab pane.



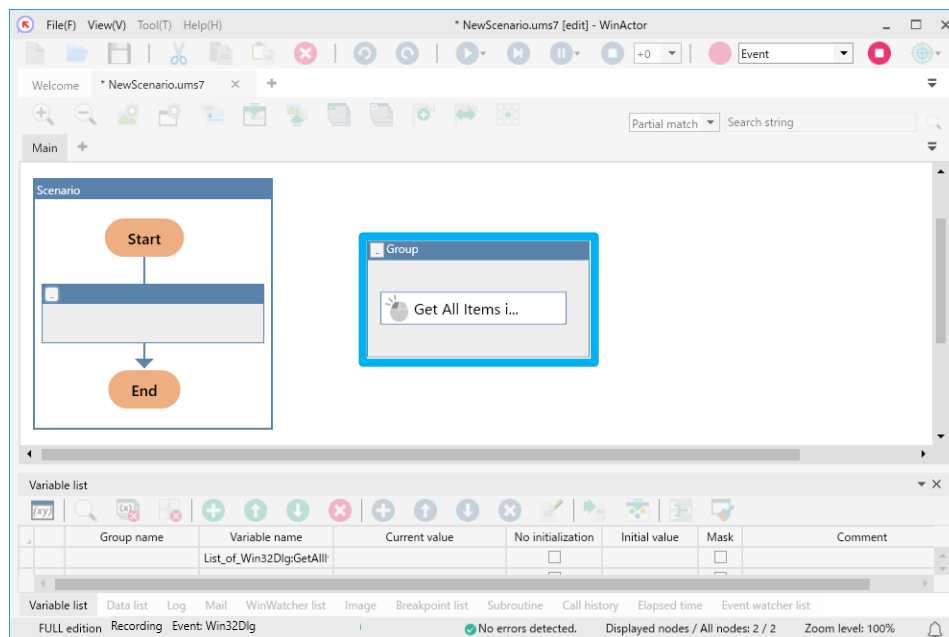
3. Select a list box or combo box to be recorded from the dropdown menu of List box or Combo box.



4. Select the 'Get All Items in List' radio button and click the 'OK' button in the 'Get value' window.



'Get All Items in List' node is placed in the Flowchart area.



■ Get All Items in List property

The following are settings in the 'Get All Items in List' property pane.

 For 'Details' tab, see "3.6.1 Configuration of the Property pane."

Figure 4-130 Settings tab in the Get All Items in List property pane

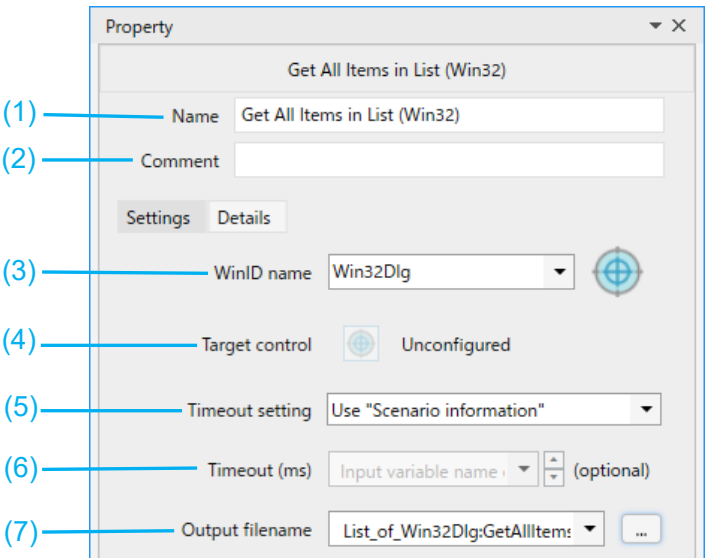


Table 4-100 Settings tab in the Get All Items in List property

No.	Name	Description
(1)	Name	Get All Items in List name can be set and is shown in the Flowchart area.
(2)	Comment	Get All items in List comment can be used as a notepad when creating a scenario.
(3)	WinID name	Select from the dropdown or click the 'Select target window' icon () to specify the application window.
(4)	Target control	Click the 'Target control' icon () to specify the control to run.
(5)	Timeout setting	Select which timeout setting to use from among 'Use "Scenario information",' 'Use "Option",' and 'Use this "Property".' When 'Use "Scenario information"' is selected, the timeout value set in the "Scenario information" window is effective. When 'Use "Option"' is selected, the timeout value set in the 'Option' dialog is effective. When 'Use this "Property"' is selected, the value set for 'Timeout (ms)' is effective.

No.	Name	Description
(6)	Timeout (ms)	Specify the time to wait for the status change. This value is effective only when 'Use this "Property"' is selected for 'Timeout setting.' The value should be in the range of 100 to 3,600,000. The default value is 10,000 milliseconds.
(7)	Output filename	Specify a filename to output variable. For an initial value, see " Generate variable automatically" in the next page.



Some folders cannot be used as save destinations in WinActor.



For a folder that cannot be saved, see "6.1 Limitations of File Location."

■ Generate variable automatically

If the 'Option' dialog's 'Record' tab setting, 'Generate variables automatically,' is enabled, variables are generated simultaneously with nodes and registered in the variables list. The default filename will be the automatically generated variable and the default variable will be a space.

If the 'Option' dialog's 'Record' tab setting, 'Generate variables automatically,' is disabled, the default filename will be an empty value.

4.7.8 Get Value in Table

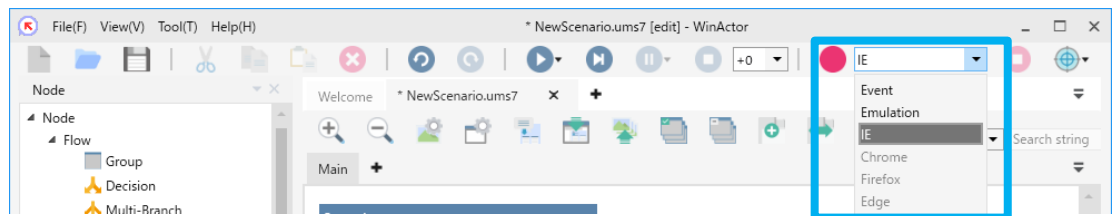
This is a node to get the status of the table and stores the state to a variable.

■ Place Get Value in Table

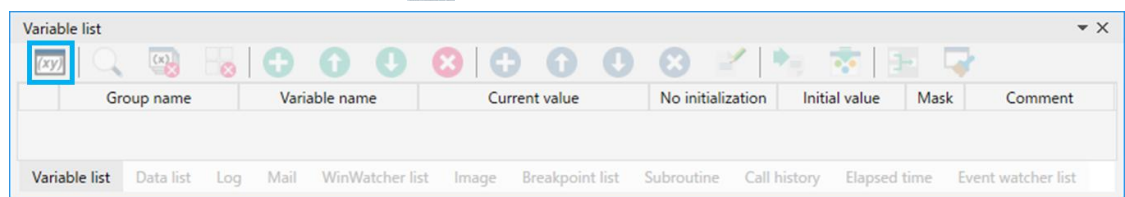
Follow the step below to place the 'Get Value in Table' node.

Steps

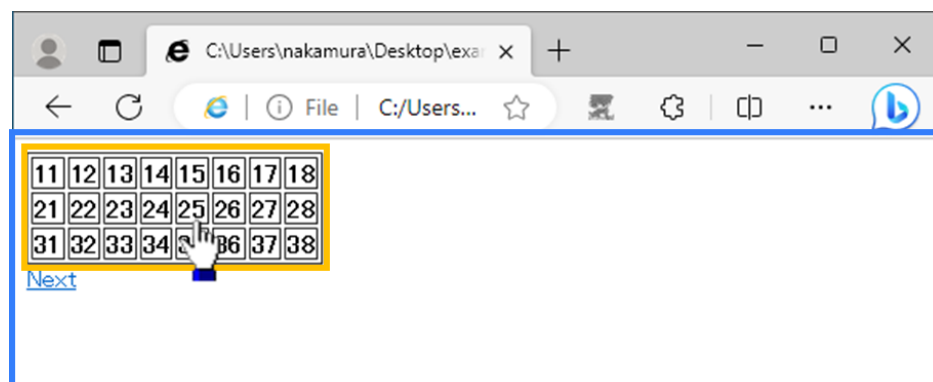
1. Click the 'IE' mode from the 'Start recording' icon dropdown menu to start the recording operations.



2. Click the 'Get or set value' icon  in the 'Variable list' tab pane.



3. Select a table to be recorded.



4. Select the radio button-'Get value in cell' and click the 'OK' button in the 'Get value in table' window.

Get values in table

Operation

☒ Get value in cell
 ☐ Get the number of rows
 ☐ Get all values in table
 ☐ Get the number of columns
 ☐ Check cell existence (true/false)

Cell location

Row number

Value=>

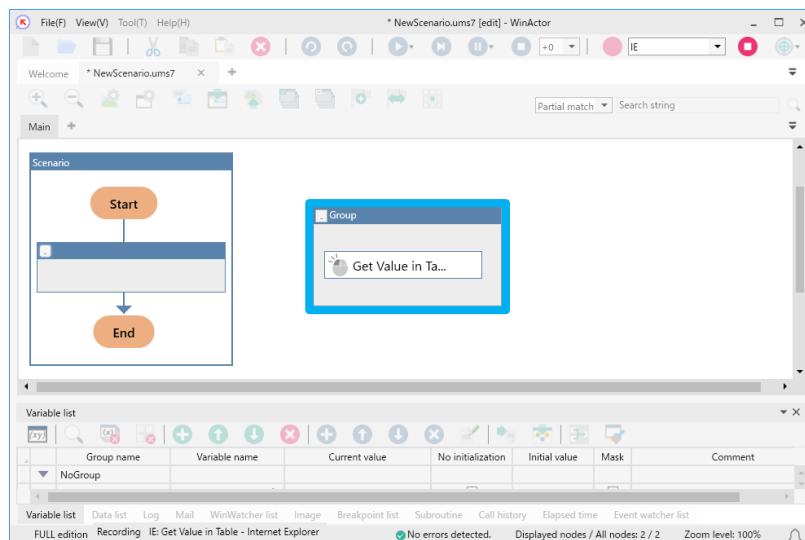
Column number

Value=>

OK

Cancel

'Get Value in Table' node is placed in the Flowchart area.



■ Get Value in Table property

The following are settings in the 'Get Value in Table' property pane.

>> For 'Details' tab, see "Details tab (Node recorded in the Event mode)" and "Details tab (Node recorded in the IE mode)."

Figure 4-131 Settings tab in the Get Value in Table (IE) property pane

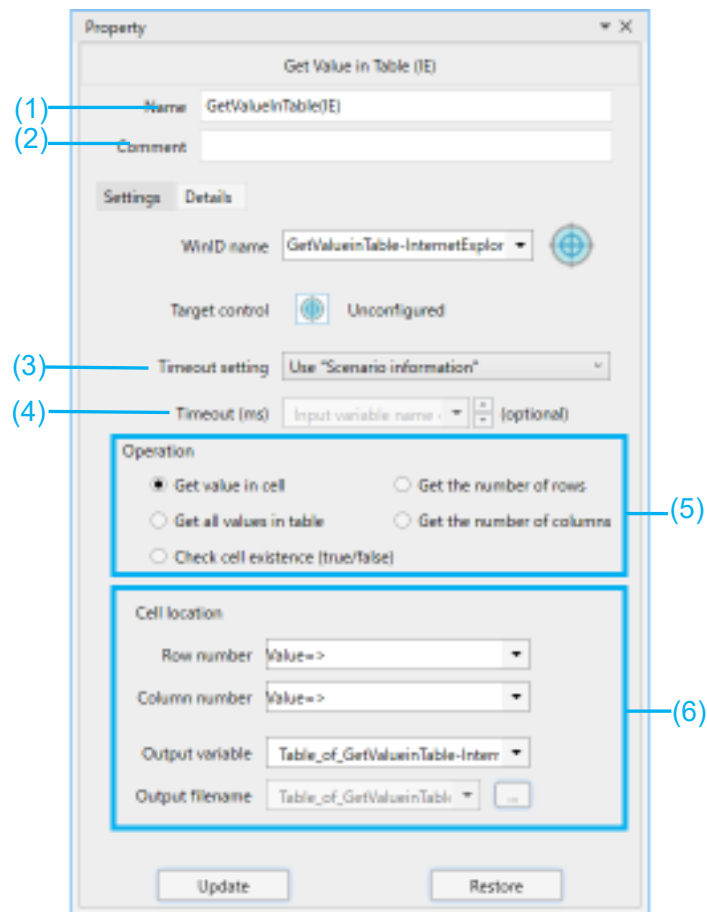


Table 4-101 Settings tab in the Get Value in Table (IE) property

No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Get Value in Table comment can be used as a notepad when creating a scenario.

No.	Name	Description
(3)	Timeout setting (IE mode only)	Select which timeout setting to use from 'Use "Scenario information",' 'Use "Option",' and 'Use this "Property".' When 'Use "Scenario information"' is selected, the timeout value set in the "Scenario information" window is effective. When 'Use "Option"' is selected, the timeout value set in the 'Option' dialog is effective. When 'Use this "Property"' is selected, the value set for 'Timeout (ms)' is effective.
(4)	Timeout (ms) (IE mode only)	Specify the time to wait for the status change. This value is effective only when 'Use this "Property"' is selected for 'Timeout setting.' The value should be in the range of 100 to 3,600,000. The default value is 10,000 milliseconds.
(5)	Operation	Select an operation.  For items in Operation, see "Table 4-102 Operation in the Get Value in Table property."
(6)	Cell location	Specify a cell, file, or variable to operate.  For items in Cell location, see "Table 4-103 Cell location in the Get Value in Table property."

Figure 4-132 Operations in the Get Value in Table property

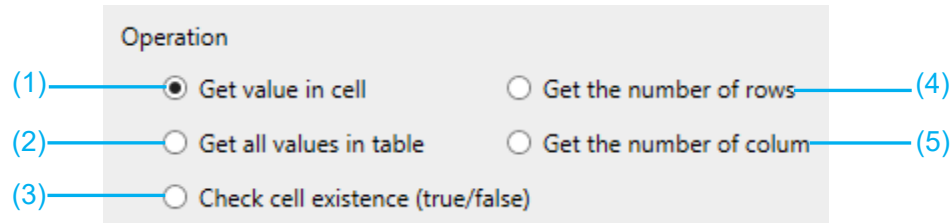


Table 4-102 Operation in the Get Value in Table property

No.	Name	Description
(1)	Get value in cell	Gets the text in the specified cell
(2)	Get all values in table	Gets the content of the table and exports to a CSV file
(3)	Check cell existence	'true' if the specified cell in a table exists and 'false' if otherwise
(4)	Get the number of rows	Gets the number of rows. Cannot specify cells.
(5)	Get the number of columns	Gets the number of columns. Cannot specify cells.

Figure 4-133 Cell location in the Get Value in Table (IE) property

Table 4-103 Cell location in the Get Value in Table property

No.	Name	Description
(1)	Row number	If obtaining the value in the second row, first column, enter 2 for the row, 1 for the column. Variables can be selected from the combo box as well.
(2)	Column number	If obtaining the value in the second row, first column, enter 2 for the row, 1 for the column. Variables can be selected from the combo box as well.
(3)	Output variable	Variable to store the result from 'Get value in cell,' 'Check cell existence (true/false),' 'Get the number of rows,' and 'Get the number of columns.' For an initial value, see "Generate variables automatically" in the next page.
(4)	Filename	Set the CSV file to export the results to. For an initial value, see "Generate variables automatically" in the next page.



- Some folders cannot be used as save destinations in WinActor.



For a folder that cannot be saved, see "6.1 Limitations of File Location."

- A maximum of 1000 rows x 1000 columns can be obtained for Get cell values and Get all values in table.

■ Generate variables automatically

If the 'Option' dialog's 'Record' tab setting, 'Generate variables automatically,' is enabled, variables are generated simultaneously with nodes and registered in the variables list. The default result and filename will be the automatically generated variable. The variable default will be a space.

If the 'Option' dialog's 'Record' tab setting, 'Generate variables automatically,' is disabled, the default will be the variable set by users at the time of generating the node. The default filename will be a space.

4.7.9 Get Enable/Disable State

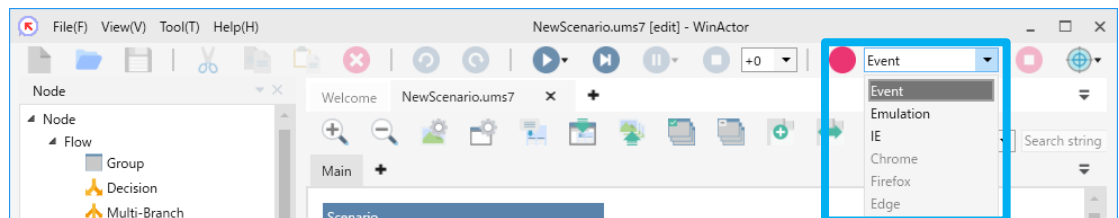
This is a node to get the state of the checkboxes and radio buttons and stores the state to a variable.

■ Place Get Enable/Disable State

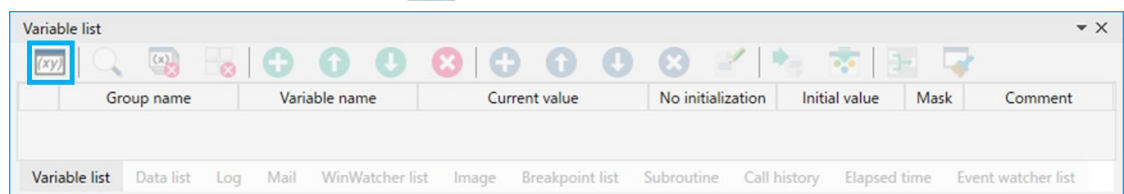
Follow the steps below to place the 'Get Enable/Disable State' node.

Steps

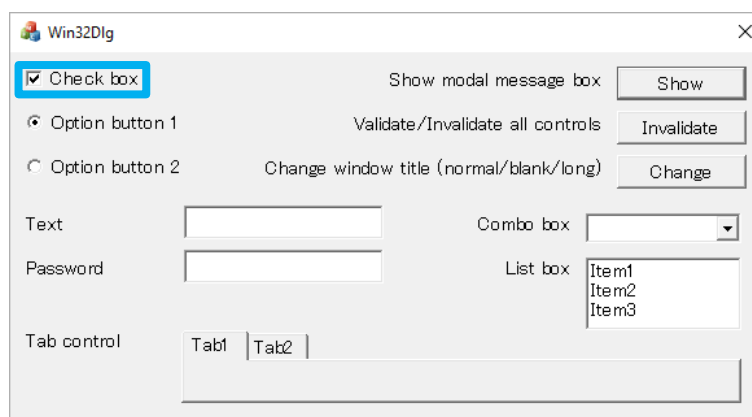
1. Click the 'Event' or 'IE' mode from the 'Start recording' icon dropdown menu, and start the recording operations.



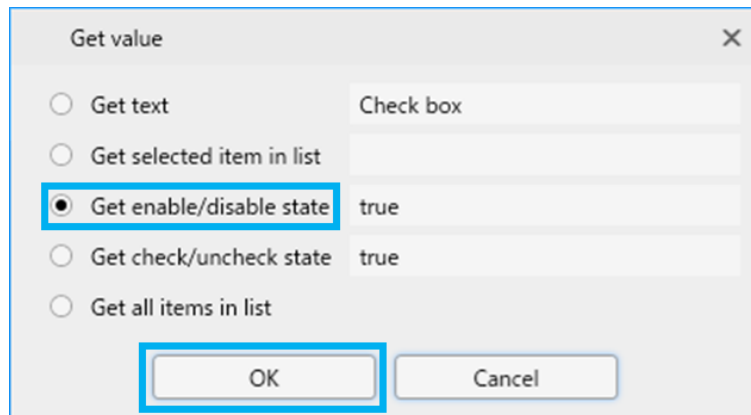
2. Click the 'Get or set value' icon  in the 'Variable list' tab pane.



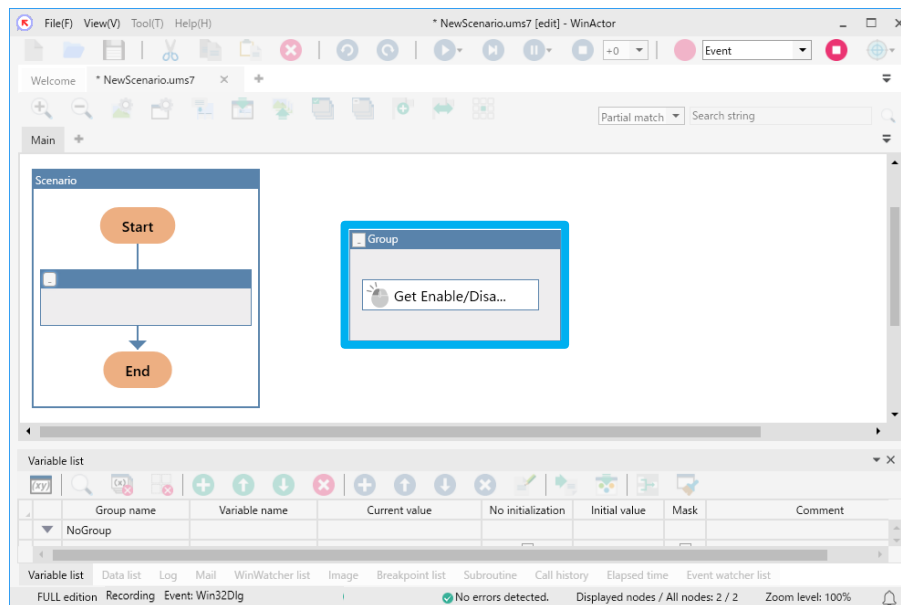
3. Select a control to be recorded.



4. Select the radio button-‘Get enable/disable state’ and click the ‘OK’ button in the ‘Get value’ window.



‘Get Enable/Disable State’ node is placed in the Flowchart area.



■ Get Enable/Disable State property

The following are settings in the 'Get Enable/Disable State' property pane.

 For 'Details' tab, see "3.6.1 Configuration of the Property pane."

Figure 4-134 Settings tab in the Get Enable/Disable State property

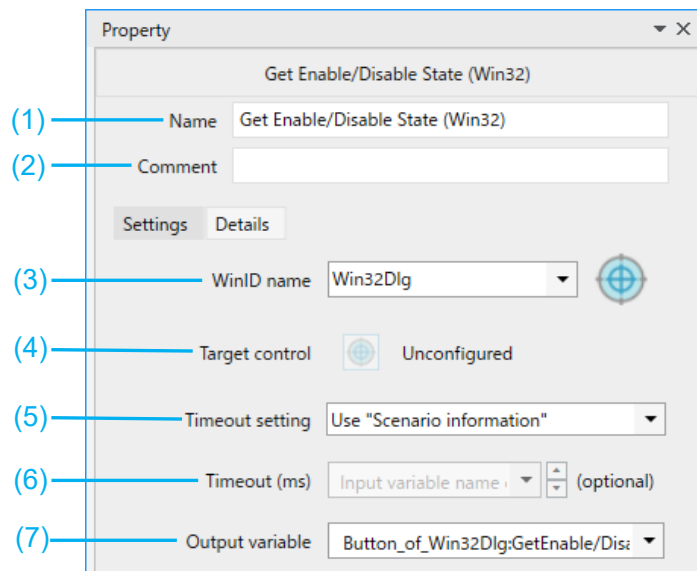


Table 4-104 Settings tab in the Get Enable/Disable State property

No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Get Enable/Disable State comment can be used as a notepad when creating a scenario.
(3)	WinID name	Select from the dropdown or click the 'Select target window' icon () to select the application window.
(4)	Target control	Click the 'Target control' icon () to specify the control to run.
(5)	Timeout setting	Select which timeout setting to use from among 'Use "Scenario information",' 'Use "Option",' and 'Use this "Property".' When 'Use "Scenario information"' is selected, the timeout value set in the "Scenario information" window is effective. When 'Use "Option"' is selected, the timeout value set in the 'Option' dialog is effective. When 'Use this "Property"' is selected, the value set for 'Timeout (ms)' is effective.

No.	Name	Description
(6)	Timeout (ms)	Specify the time to wait for the status change. This value is effective only when 'Use this "Property"' is selected for 'Timeout setting.' The value should be in the range of 100 to 3,600,000. The default value is 10,000 milliseconds.
(7)	Output variable	Variable to store the results. The default is the variable automatically generated from obtaining the value (or created by the user).

■ Generate variables automatically

If the 'Option' dialog's 'Record' tab setting, 'Generate variables automatically,' is disabled, the 'Get Enable/Disable State' node is used to select or set the variable in the window displayed at the time of recording.

4.7.10 Get Check State

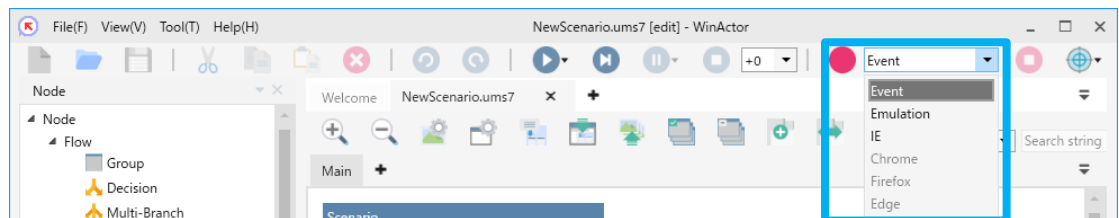
This is a node to get the state of the checkboxes and radio buttons and stores the state to a variable.

■ Place Get Check State

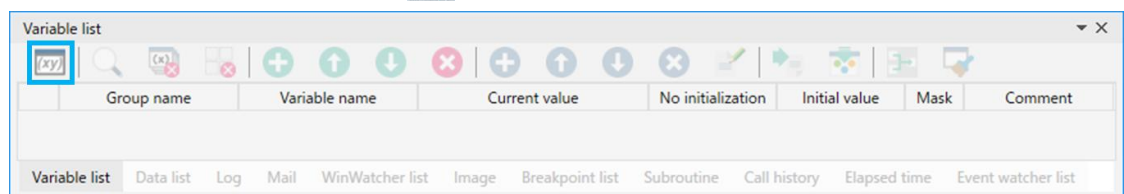
Follow the steps below to place the 'Get Check State' node.

Steps

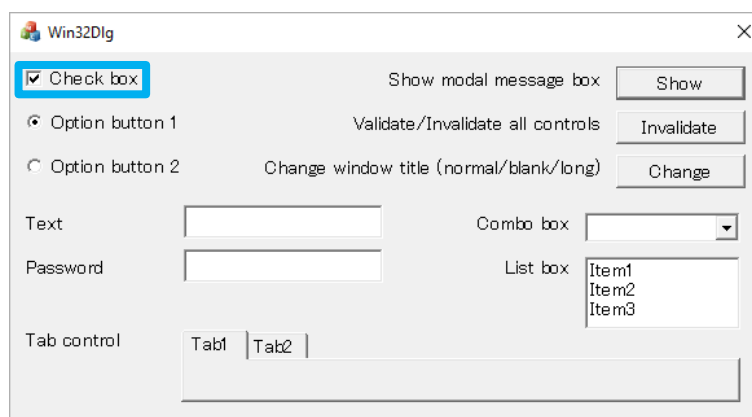
1. Click the 'Event' or 'IE' mode from the 'Start recording' icon dropdown menu to start the recording operations.



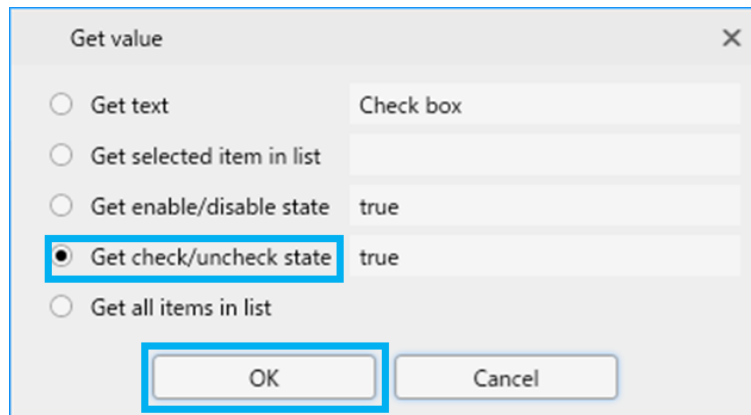
2. Click the 'Get or set value' icon  in the 'Variable list' pane.



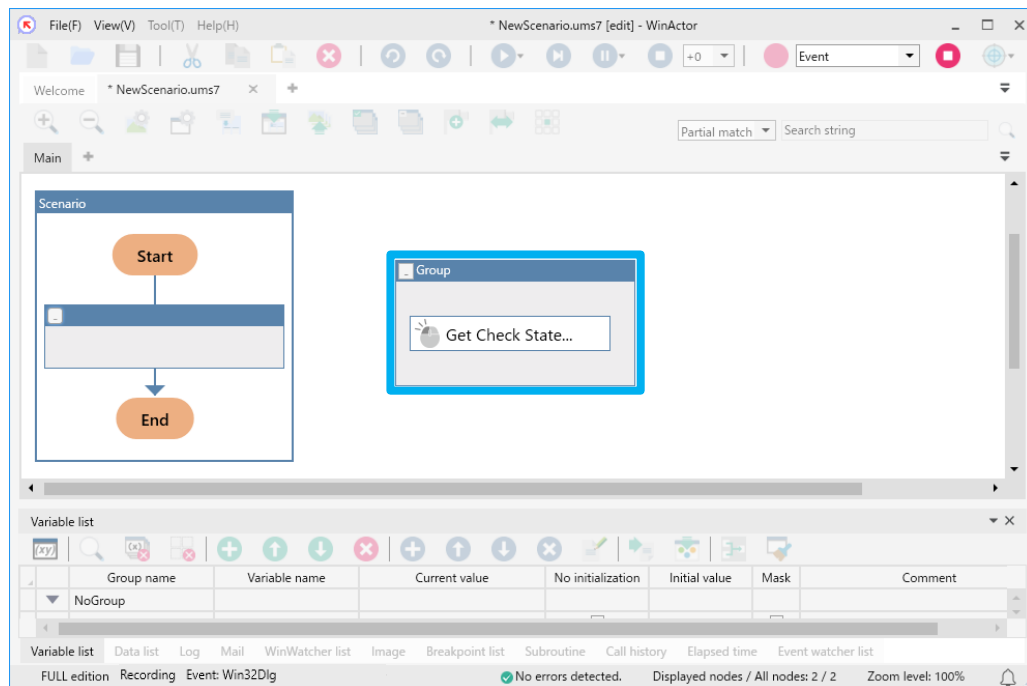
3. Select a control to be recorded.



4. Select the radio button-‘Get check/uncheck state’ and click the ‘OK’ button in the ‘Get value’ window.



‘Get Check/Uncheck State’ node is placed in the Flowchart area.



■ Get Check/Uncheck State property

The following are settings in the 'Get Check/Uncheck State' property pane.

 For 'Details' tab, see "3.6.1 Configuration of the Property pane."

Figure 4-135 Settings tab in the Get Check/Uncheck State property pane

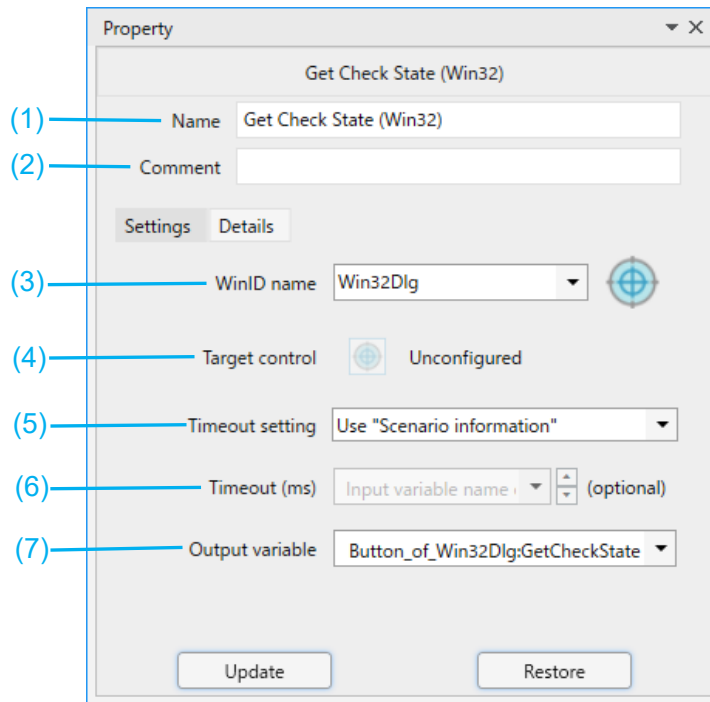


Table 4-105 Settings tab in the Get Check/Uncheck State property

No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Get check/uncheck status comment can be used as a notepad when creating a scenario.
(3)	WinID name	Select from the dropdown or click the 'Select target window' icon () to select the application window.
(4)	Target control	Click the 'Target control' icon () to specify the control to run.
(5)	Timeout setting	Select which timeout setting to use from among 'Use "Scenario information",' 'Use "Option",' and 'Use this "Property".' When 'Use "Scenario information"' is selected, the timeout value set in the "Scenario information" window is effective. When 'Use "Option"' is selected, the timeout value set in the 'Option' dialog is effective. When 'Use this "Property"' is selected, the value set for 'Timeout (ms)' is effective.

No.	Name	Description
(6)	Timeout (ms)	Specify the time to wait for the status change. This value is effective only when 'Use this "Property"' is selected for 'Timeout setting.' The value should be in the range of 100 to 3,600,000. The default value is 10,000 milliseconds.
(7)	Output variable	Variable to store the results. The default is the variable automatically generated from obtaining the value (or created by the user).

■ Generate variables automatically

If the 'Option' dialog's 'Record' tab setting, 'Generate variables automatically,' is disabled, the 'Get check/uncheck status' node is used to select or set the variable in the window displayed at the time of recording.

4.8 Emulation Node

4.8.1 Emulation

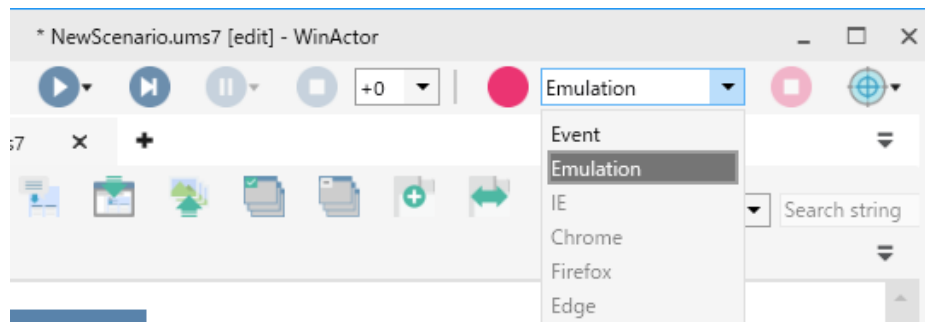
This is a node to record the timing when keys are pressed, and timing and position of mouse clicks.

■ Place Emulation

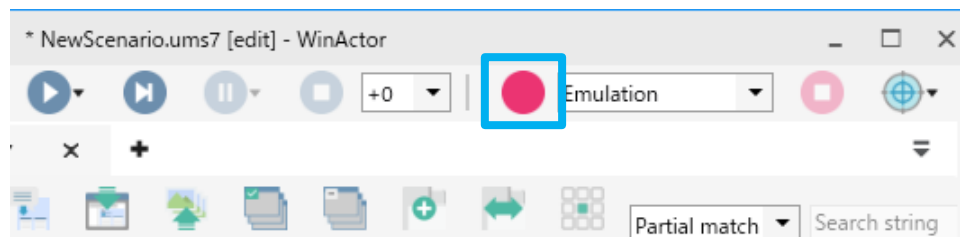
Follow the steps below to place the 'Emulation' node.

Steps

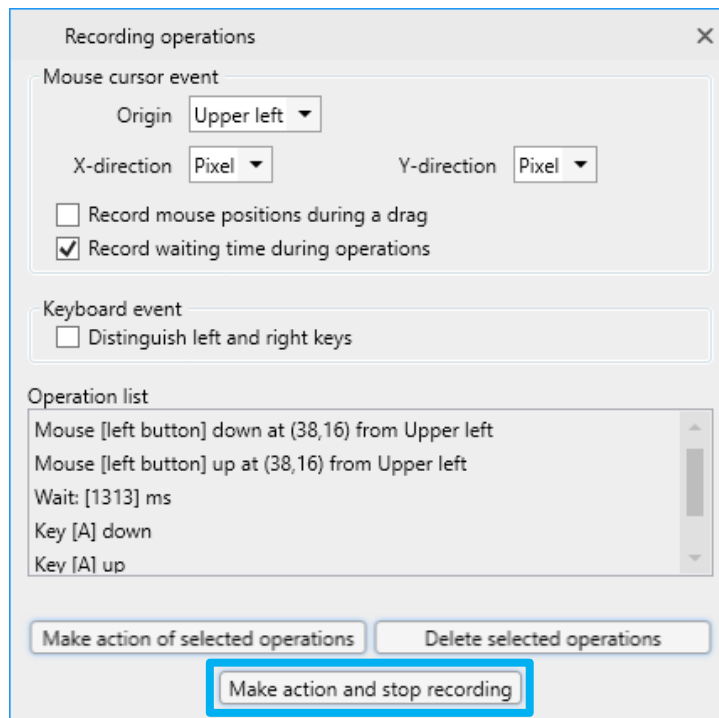
1. Change the recording mode to 'Emulation' in the 'Start recording' icon dropdown menu.



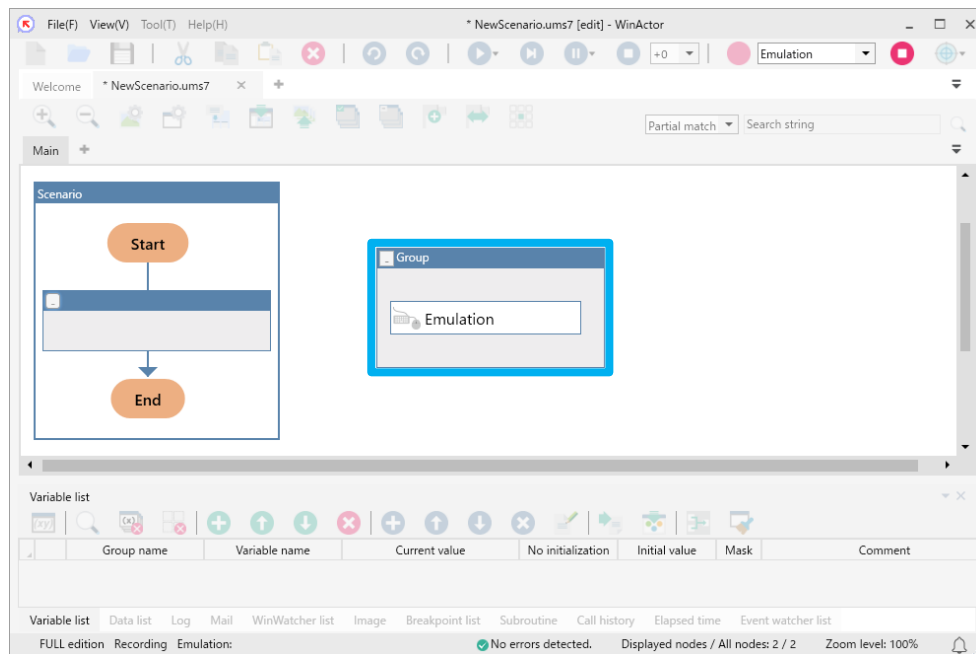
2. Start recording.



3. Click the 'Make action and stop recording' button in the 'Recording operations' window after the sample operation.



'Emulation' node is placed in the Flowchart area.



■ Emulation property

The following are settings in the 'Emulation' property pane.

Figure 4-136 Emulation property pane 1

The screenshot shows the 'Emulation' property pane with the following fields and labels:

- (1) Name: Emulation
- (2) Comment:
- (3) WinID name: Calculator (with a target icon)
- (4) Timeout setting: Use "Scenario information"
- (5) Timeout (ms): Input variable name (with increment/decrement buttons and "(optional)")

Table 4-106 Emulation property 1

No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Emulation comment can be used as a notepad when creating a scenario.
(3)	WinID name	Select from the dropdown or click the 'Select target window' icon (🎯) to select the application window. 'Screen' is shown when selecting the desktop.  If Windows Aero is enabled when the desktop is selected, the window title may be displayed as 'Untitled' and may not work in environments with Aero disabled. It is recommended to disable Aero at the time of recording.
(4)	Timeout setting	Select which timeout setting to use from among 'Use "Scenario information",' 'Use "Option",' and 'Use this "Property".' When 'Use "Scenario information"' is selected, the timeout value set in the "Scenario information" window is effective. When 'Use "Option"' is selected, the timeout value set in the 'Option' dialog is effective. When 'Use this "Property"' is selected, the value set for 'Timeout (ms)' is effective.
(5)	Timeout (ms)	Specify the time to wait for the status change. This value is effective only when 'Use this "Property"' is selected for 'Timeout setting.' The value should be in the range of 100 to 3,600,000. The default value is 10,000 milliseconds.

Figure 4-137 Emulation property 2

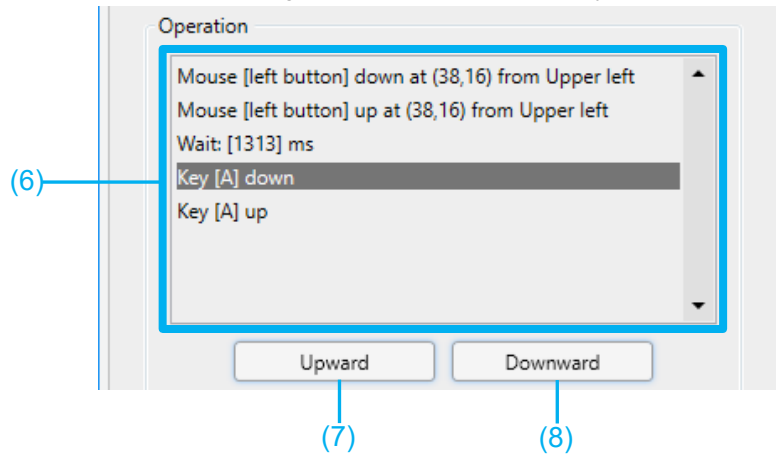


Table 4-107 Emulation property 2

No.	Name	Description
(6)	Operation	Shows the recorded operations.
(7)	Upward	Moves the selected operation up one level.
(8)	Downward	Moves the selected operation down one level.

Figure 4-138 Emulation property 3

The image shows a configuration window for 'Emulation property 3'. It contains the following elements:

- (9) A dropdown menu currently set to 'Mouse'.
- (10) A dropdown menu currently set to 'left button'.
- (11) A dropdown menu currently set to 'Up'.
- An 'Origin' dropdown set to 'Upper left' next to a mouse cursor icon.
- An 'X' coordinate field set to 'Pixel' with a value of '38'.
- A 'Y' coordinate field set to 'Pixel' with a value of '16'.
- Three action buttons at the bottom: (12) 'Add', (13) 'Update', and (14) 'Delete'.

Table 4-108 Emulation property 3

No.	Name	Description
(9)	Operation type	Select a type—'Mouse,' 'Keyboard,' and 'Wait,' and 'Move' from the dropdown menu.
(10)	How to operate	For 'Mouse,' select from 'Left button,' 'Right button,' and 'Middle button' in the dropdown. For 'Keyboard,' the operable keys are displayed. For 'Wait,' specify the waiting period. No settings for 'Move.'
(11)	Move operation	For 'Mouse,' select 'Down' or 'Up' buttons. For Keyboard, select 'Down' or 'Up' key. No settings for 'Move' or 'Wait.'
(12)	Add	Add the 'Keyboard,' 'Mouse,' 'Wait' operations.
(13)	Update	Click to apply the updated properties to the selected operations.
(14)	Delete	Delete the selected operations.

Figure 4-139 Emulation property 4

Mouse

left button

Up

(15) Origin Upper left

(16) X Pixel 38

(17) Y Pixel 16

Add Update Delete

Table 4-109 Emulation property 4

No.	Name	Description
(15)	Origin	For 'Mouse,' select the reference origin—'Upper left,' 'Lower left,' 'Upper right,' and 'Lower right' from the dropdown menu No settings for 'Keyboard,' 'Wait,' or 'Move.'
(16)	X	For 'Mouse,' select the X position in pixels or percent (%).No settings for 'Keyboard,' 'Wait,' or 'Move.'
(17)	Y	For 'Mouse,' select the Y position in pixels or percent (%).No settings for 'Keyboard,' 'Wait,' or 'Move.'

Figure 4-140 Emulation property 5

Mouse

left button

Up

Origin Upper lef

X Pixel 38

Y Pixel 16

Add Update Delete

(18)

(19)

(20)

Table 4-110 Emulation property 5

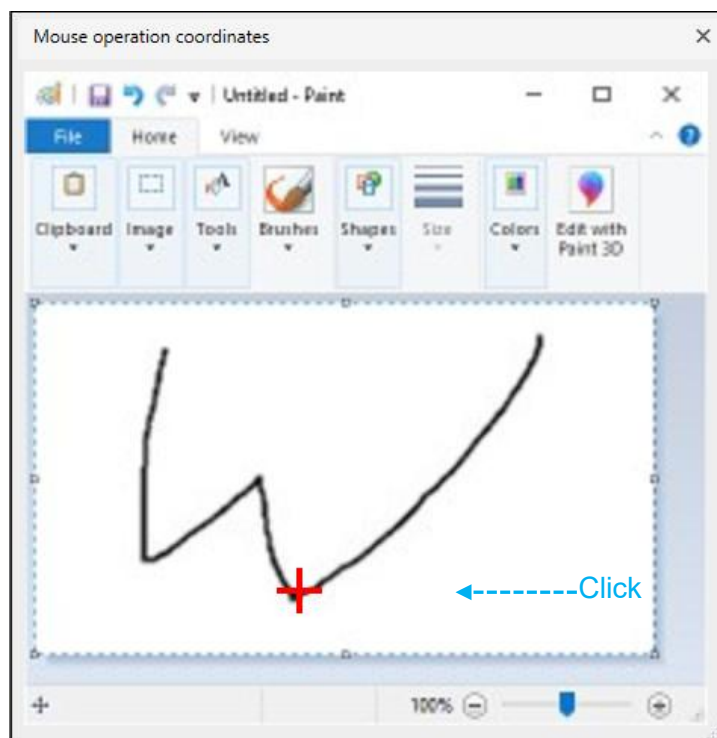
No.	Name	Description
(18)	'Select coordinates' icon	Displays the 'Select coordinates' window. Icon displayed only when 'Mouse' is selected.
(19)	X	X position is populated in the field.
(20)	Y	Y position is populated in the field.

■ Select coordinates window

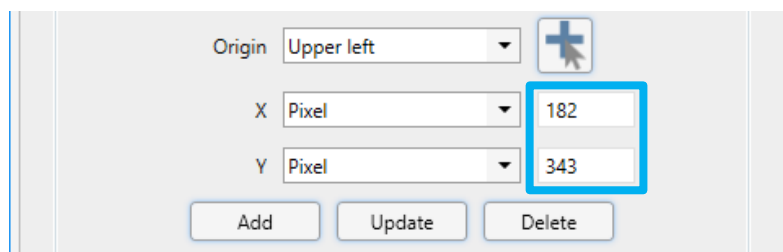
Correct the mouse click points in the dialog displayed when the 'Select coordinates' icon is clicked in the 'Emulation properties.' Correct the click points with the following steps.

Steps

1. Click the 'Select coordinates' icon in the 'Emulation' Property pane to view the mouse position.
2. Click the point to change.



The cross moves to the clicked point and the X/Y positions are populated in properties.



3. Close 'Select coordinates' window and click the 'Update' button.

Origin 

X

Y

4.9 UI Automation Node

4.9.1 UI Automation

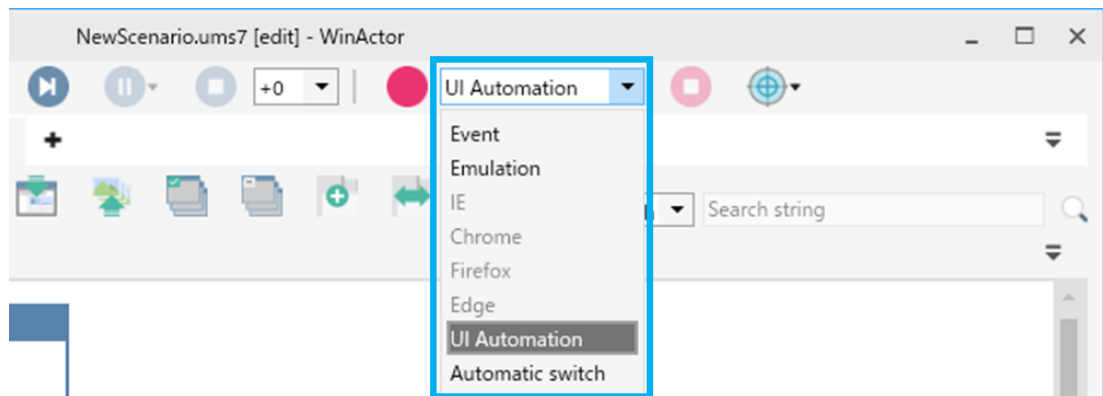
UI Automation node is used to operate an application at the GUI element level.

■ Place UI Automation

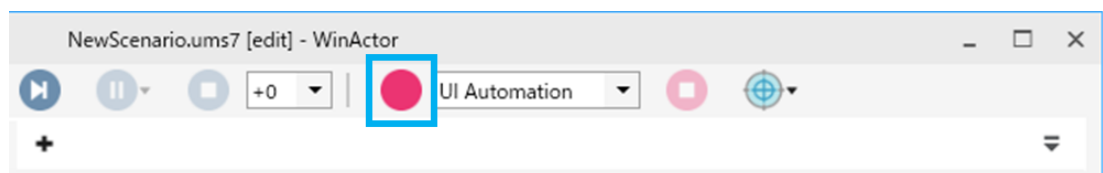
Follow the steps below to place the 'UI Automation' node.

Steps

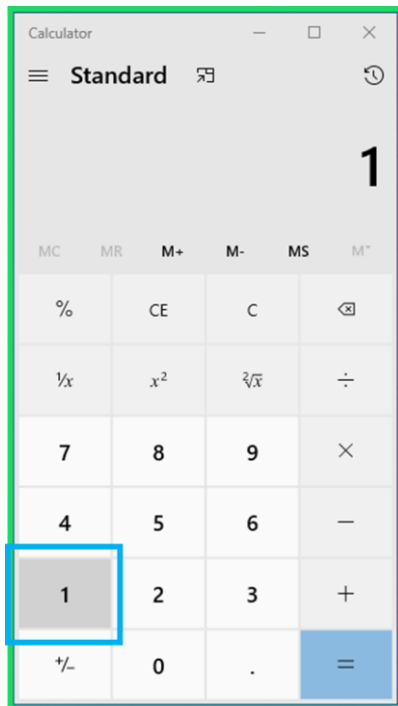
1. Switch the recording mode to 'UI Automation.'



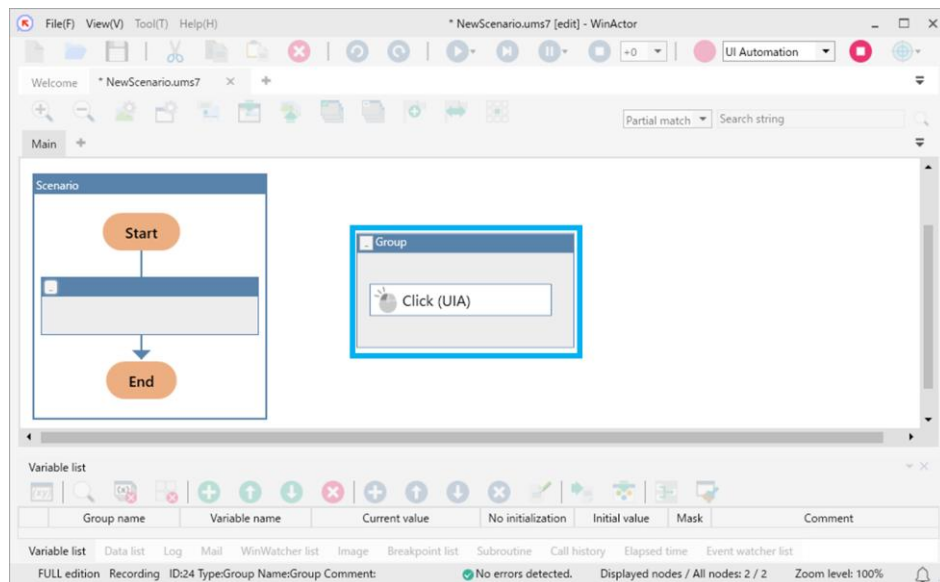
2. Start recording.



3. Click the control for recording.



'Click (UIA)' is added to the flow chart area.



UI Automation can also be placed by dragging 'UI Automation' from the user library to the Flowchart.

■ UI Automation property

The following describes the setting items in the property pane of UI Automation.

Figure 4-141 UI Automation property (Basic settings tab)

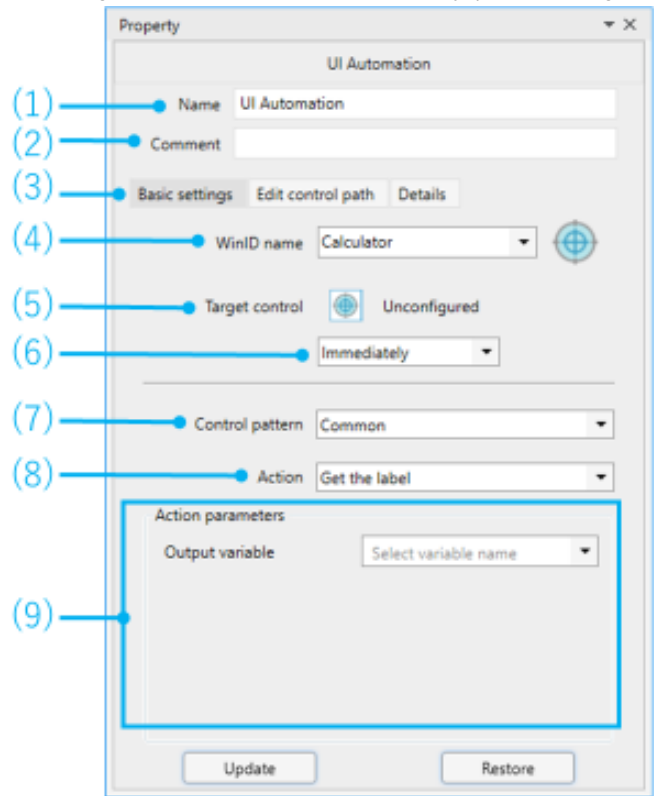


Table 4-111 UI Automation property (Basic settings tab)

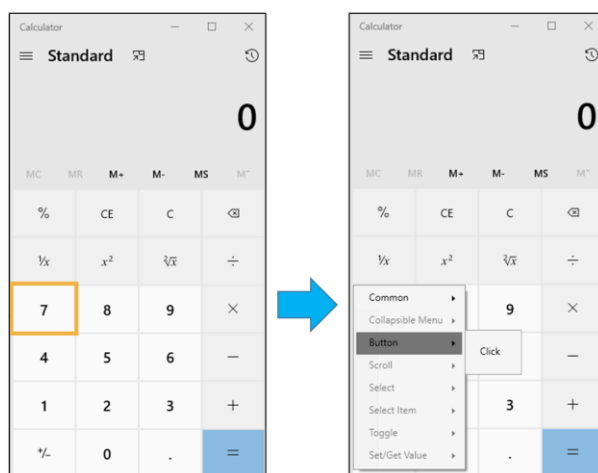
No.	Name	Description
(1)	Name	Set the name to display in the flowchart.
(2)	Comment	Use as a notepad when creating a scenario.
(3)	Basic settings tab	Displays the basic settings.
(4)	WinID name	Select from the list or click the Select target window button () to specify the target application window. If the 'Control path form' is changed in the 'Details' tab, WinID name is reset to the unconfigured state.  For the 'Control path form,' see "UI Automation property (Details tab)."

No.	Name	Description
(5)	Target control	Click the Target control button (📍) to specify the target control. If the 'Control path form' is changed in the 'Details' tab, the 'Target control' is reset to the unconfigured state.  For the 'Control path form,' see "UI Automation property (Details tab)."
(6)	Wait time	Select the waiting time before starting to specify the target control from 'Immediately,' 'After 3 seconds,' 'After 10 seconds,' or 'After 30 seconds' to start specifying the target control. Use this to specify a target control with a target element displayed, such as a pop-up menu.
(7)	Control pattern	Select the operation type for the target control from 'Common,' 'Collapsible Menu,' 'Button,' 'Scroll,' 'Select,' 'Select Item,' 'Toggle,' 'Set/Get Value,' or 'Extended Mouse Operation.'
(8)	Action	Select an operation specified for each control pattern.
(9)	Action parameters	The parameters specified for each action are displayed. If there is no setting, nothing will be displayed.



After clicking the target control button (5) without specifying the control pattern (7), hover the mouse cursor over the target window. Then, an orange frame surrounding the currently selected element will be displayed.

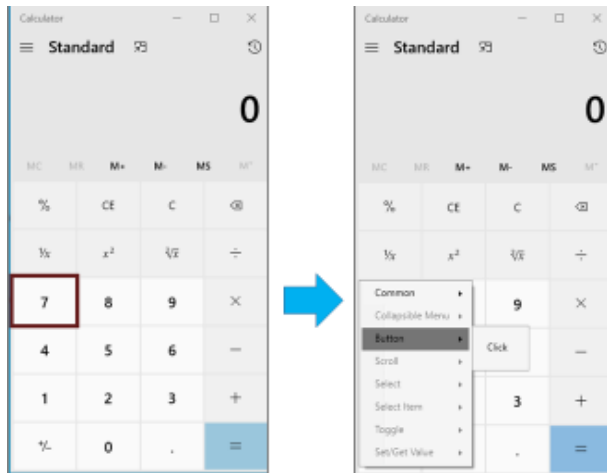
When the element is left clicked, a menu is displayed, and selections for the control pattern (7) and action (8) can be chosen on the menu.



When a valid selection for the element is specified for the control pattern, an orange frame surrounding the element is displayed. If an invalid selection for the element is specified, a dark red frame surrounding the element is displayed.

Whether the color of the frame is orange or dark red, the menu is displayed by a left

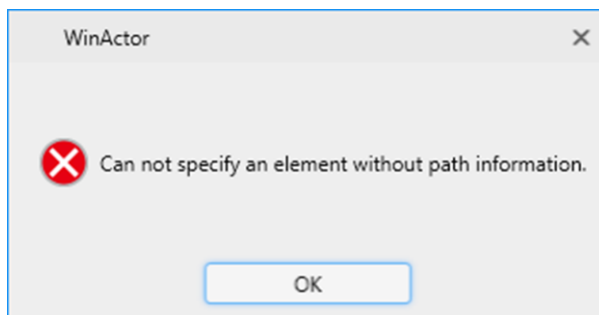
click on the element.



- The following error message may be displayed when specifying the target control or during automatic recording.
- This element cannot be the target for operation as it does not have the information needed to locate the element and cannot generate a control path.



For the control path, see "UI Automation property (Edit control path tab)."



The control pattern 'Common' is used to operate common elements.

Table 4-112 Action of the control pattern 'Common'

No.	Action	Function	
(1)	Get the label	Gets a label (Name attribute) of the element.	
		Action parameters	Setting item
		Output variable	Specifies the variable name to store the obtained label.

The control pattern 'Collapsible Menu' is used to operate a collapsible element such as a menu and dropdown list.

Table 4-113 Actions of the control pattern 'Collapsible Menu'

No.	Action	Function
(1)	Expand	Expands the collapsed element. Left as is if already expanded.
(2)	Collapse	Collapses the expanded element. Left as is if already collapsed.

The control pattern 'Button' is used to operate a clickable element such as a button.

Table 4-114 Action of the control pattern 'Button'

No.	Action	Function
(1)	Click	Clicks the element. This is the same as clicking the left mouse button.

The control pattern 'Scroll' is used to operate the entire scrollable area as a single element.

Table 4-115 Actions of the control pattern 'Scroll'

No.	Action	Function	
(1)	Get the horizontal-scroll ability	Gets 'true' if horizontal scroll is available and 'false' if not available.	
		Action parameters	Setting item
		Output variable	Specifies the variable name to store the obtained result.
(2)	Get the horizontal-scroll position	Gets the horizontal scroll position relative to the content size in percentage (0-100). The left edge is 0, the right edge is 100, and the center is 50.	
		Action parameters	Setting item
		Output variable	Specifies the variable name to store the obtained result.

No.	Action	Function	
(3)	Get the horizontal-view size	Gets the ratio of the horizontal display area size to the content size (what percentage of the total is visible) in percentage (0-100).	
		Action parameters	Setting item
		Output variable	Specifies the variable name to store the obtained result.
(4)	Scroll horizontally	Scrolls horizontally.	
		Action parameters	Setting item
		Horizontal scroll amount	Select the scroll amount from 'Rightward large,' 'Rightward small,' 'Leftward large,' and 'Leftward small.'
(5)	Get the vertical-scroll ability	Gets 'true' if vertical scroll is available, 'false' if not available.	
		Action parameters	Setting item
		Output variable	Specifies the variable name to store the obtained result.
(6)	Get the vertical-scroll position	Gets the vertical scroll position relative to the content size in percentage (0-100). The top is 0, the bottom is 100, and the center is 50.	
		Action parameters	Setting item
		Output variable	Specifies the variable name to store the obtained result.
(7)	Get the vertical-view size	Gets the ratio of the vertical display area size to the content size (what percentage of the total is visible) in percentage (0-100).	
		Action parameters	Setting item
		Output variable	Specifies the variable name to store the obtained result.
(8)	Scroll vertically	Scrolls vertically.	
		Action parameters	Setting item
		Vertical scroll amount	Select the scroll amount from 'Downward large,' 'Downward small,' 'Upward large,' and 'Upward small.'
(9)	Scroll both horizontally and vertically	Scrolls both horizontally and vertically.	
		Action parameters	Setting item
		Horizontal scroll amount	Select the scroll amount from 'Rightward large,' 'Rightward small,' 'Leftward large,' and 'Leftward small.'

No.	Action	Function	
		Vertical scroll amount	Select the scroll amount from 'Downward large,' 'Downward small,' 'Upward large,' and 'Upward small.'

The control pattern 'Select' is used to operate elements to be selected from multiple items, such as menus.

Table 4-116 Actions of the control pattern 'Select'

No.	Action	Function	
(1)	Get the multiple-select ability	Gets 'true' if multiple selections are available and 'false' if it is a single selection.	
		Action parameters	Setting item
		Output variable	Specifies the variable name to store the obtained result.
(2)	Get whether this is required	Gets 'true' if the selection is required and 'false' if the selection is optional.	
		Action parameters	Setting item
		Output variable	Specifies the variable name to store the obtained result.
(3)	Get the selected item by text	Gets the selected elements as a comma-separated text.	
		Action parameters	Setting item
		Output variable	Specifies the variable name to store the obtained result.
(4)	Get the selected item by index	Gets the selected elements as a comma separated index.	
		Action parameters	Setting item
		Output variable	Specifies the variable name to store the obtained result.
(5)	Select the item by text	Selects the element with the specified value. The first element is selected if there are more than one. Nothing is selected if there is no applicable element.	
		Action parameters	Setting item
		Value of the selected item	Specify a value to select. You can specify a variable name or a value.
(6)	Select the item by index	Selects the element with the specified index. Nothing is selected if there is no applicable element, or if a negative index is specified	

No.	Action	Function	
		Action parameters	Setting item
		Index	Specifies the index to select. Specify a variable name or a value.
(7)	Get the number of selectable items	Gets the number of elements that can be selected.	
		Action parameters	Setting item
		Output variable	Specifies the variable name to store the obtained result
(8)	Get the selectable items by text	Gets the elements that can be selected with the specified value.	
		Action parameters	Setting item
		Output variable	Specifies the variable name to store the obtained result

The control pattern 'Select Item' is used to operate one element within multiple selections.

Table 4-117 Actions of the control pattern 'Select Item'

No.	Action	Function	
		Action parameters	Setting item
(1)	Get whether this is selected	Gets 'true' if it is selected and 'false' if it is not selected.	
		Action parameters	Setting item
		Output variable	Specifies the variable name to store the obtained result.
(2)	Select this item additionally	Additionally selects this element. Left as is if already selected.	
(3)	Unselect this item	Deselects this element.	
(4)	Select this item	Selects this element and deselects the other selected elements.	

The control pattern 'Toggle' is used to operate an element such as a check box where the status changes with each operation.

Table 4-118 Actions of the control pattern 'Toggle'

No.	Action	Function	
(1)	Switch the toggle status	Changes the toggle status.	
(2)	Get the toggle status	Gets 'true' if the toggle status is in the and 'false' if it is off.	
		Action parameters	Setting item
		Output variable	Specifies the variable name to store the obtained result.

The control pattern 'Set/Get Value' is used to operate an element that holds a value, such as a text box.

Table 4-119 Actions of the control pattern 'Set/Get Value'

No.	Action	Function	
(1)	Get whether this is read-only	Gets 'true' if read-only and 'false' if read-write.	
		Action parameters	Setting item
		Output variable	Specifies the variable name to store the obtained result.
(2)	Get the value	Gets the value. An error will occur and the scenario will pause if the value is a Password attribute.	
		Action parameters	Setting item
		Output variable	Specifies the variable name to store the obtained result.
(3)	Set the value	Sets the specified value. An error will occur and scenario paused if the value is read-only.	
		Action parameters	Setting item
		Value	Specifies the value to set. Specify a variable name or value.
		Normal input mode	This mode sets the value using the common UI Automation interface. The default setting is this mode.
		Sending key event mode	This mode recognizes the target element as text and populates by sending a key event
		Cell input mode for Excel	This mode is specialized for Excel cell input and inputs by sending a key event.

The control pattern 'Extended Mouse Operation' is used to operate Windows mouse using element information obtained from UI Automation.

Table 4-120 Actions of the control pattern 'Extended Mouse Operation'

No.	Action	Function	
(1)	Get coordinates of the element center	Gets coordinates of the center of the specified element.	
		Action parameters	Setting item
		X coordinate of the center	Specifies the variable name to store the obtained result the X coordinate of the center in desktop coordinates.
		Y coordinate of the center	Specifies the variable name to store the obtained result the Y coordinate of the center in desktop coordinates.
(2)	Get top-left/bottom-right coordinates of the element	Gets rectangular coordinates, which are the top-left and bottom-right coordinates, of the specified element.	
		Action parameters	Setting item
		X coordinate of the top left	Specifies the variable name to store the obtained result the X coordinate of the top left of the element in desktop coordinates.
		Y coordinate of the top left	Specifies the variable name to store the obtained result the Y coordinate of the top left of the element in desktop coordinates.
		X coordinate of the bottom right	Specifies the variable name to store the obtained result the X coordinate of the bottom right of the element in desktop coordinates.
		Y coordinate of the bottom right	Specifies the variable name to store the obtained result of the Y coordinate of the bottom right of the element in desktop coordinates.
(3)	Move the mouse cursor to the element center	Moves the mouse cursor to the center of the specified element.	
(4)	Left click the element center	Left clicks the center of the specified element.	
(5)	Right click the element center	Right clicks the center of the specified element.	



While the control pattern 'Extended Mouse Operation' obtains the coordinates of the element with UI Automation, the 'Click' of the control pattern 'Button' obtains the coordinates of the element with Windows API. Thus, the results of both operations may differ.



If any of the following conditions is met while running a scenario, Windows mouse operations may not be completed.

- When failed to obtain the coordinates of the target element
- While operating '(3) Move the mouse cursor to the element center,' '(4) Left click the element center,' or '(5) Right click the center of the element,' and when the coordinates position of the mouse operation is:
 - out of the window
 - on the taskbar
 - out of the desktop

When any of the conditions above is met, thus the operation of Windows mouse is impossible, an error dialog is displayed.

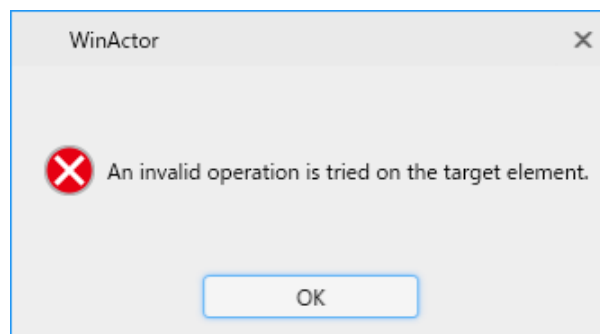


Figure 4-142 UI Automation property (Edit control path tab)

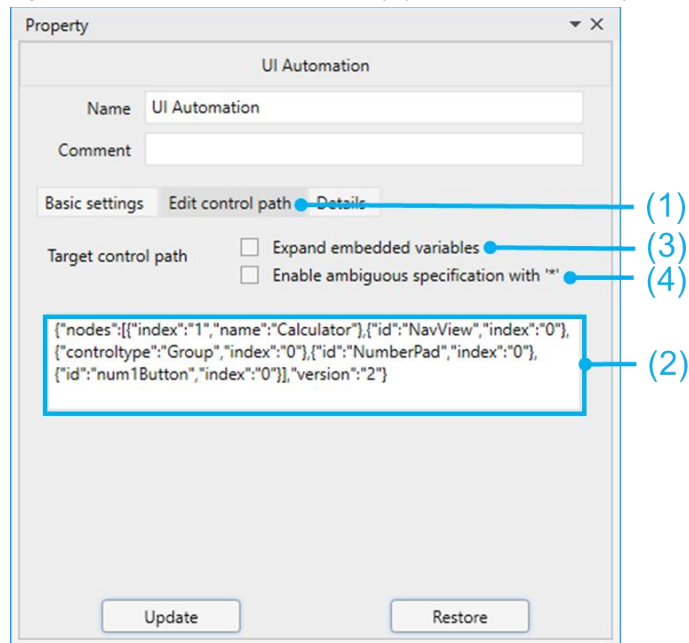


Table 4-121 UI Automation property (Edit control path tab)

No.	Name	Description
(1)	Edit control path tab	Displays the control path editor.
(2)	Target control path	Displays the target control path. The control path is automatically generated when the 'Target Control' is set in the 'Basic settings' tab. The control path can be edited directly in this window. The description '%VariableName%' in the control path can be replaced to the value of the variable upon execution. If the 'Control path form' is changed in the 'Details' tab, the 'Target control path' is reset to the unconfigured state.  For the 'Control path form,' see "UI Automation property (Details tab)."
(3)	Expand embedded variables	When enabled, the '%VariableName%' portion in the control path is replaced upon execution. Nothing is replaced when disabled.

No.	Name	Description
(4)	Enable ambiguous specification with '*'	When enabled, ambiguous specification with the character '*' can be used in the values for some parameters.' The character '*' stands for any characters more than or equal to 1 character. For example, "abc*" matches any of "abcd," "abcdef," and "abc123." The "abc" does not match because the "*" does not match 0 character. Ambiguous specification can be used in the following values. • The value for the 'id' key when specifying the element with AutomationId. • The value for the 'name' key when specifying the element with Name. When multiple controls are matched by the ambiguous specification at runtime, the control decided with the 'index' key is used. When 'WinID name' or 'Target control' is changed, this box returns to the disabled state.



Control paths are text data representing the location of the target element. Because elements are hierarchically placed in the window, a control path representing an element location describes the hierarchy of elements starting from the target window itself.

The 'Control path form' can be either 'Version 1' or 'Version 2,' and selected in the 'Details' tab.



For the 'Control path form,' see "UI Automation property (Details tab)."

Figure 4-143 UI Automation property (Details tab)

Property

UI Automation

Name UI Automation

Comment

Basic settings Edit control path Details (1)

(2) Control path form Version 2

Control path forms differ with versions. Generally, the newer the version is, the faster the control path works.

(3) Timeout setting Use this "Property"

(4) Timeout (ms) Value => 30,000 (optional)

(5) Wait until the target control is found

(6) Search method for target control Reuse element information as much as possible. ()

Retry the execution when the "unauthorized operation" error occurred.

(7) Maximum retries Value => 5 times

When the specified number of retries is negative, the 'Maximum retries' is regarded as the infinite.

(8) ☒ Activate the target window

Update Restore

Table 4-122 UI Automation property (Details tab)

No.	Name	Description
(1)	Details tab	Displays the details.
(2)	Control path form	Select the version of the control path form. Either 'Version 1' or 'Version 2' can be selected. 'Version 1' is the form that is compatible with WinActor7.4.4 or earlier. 'Version 2' is the form that can be used with WinActor7.5.0 or later. With the 'Version 2' form, the element selection begun with choosing the 'Target control' in the 'Basic settings' tab and the execution of a scenario can be faster. If the 'Control path form' is changed, the 'WinID name' and the 'Target control' in the 'Basic settings' tab, and the 'Target control path' in the 'Edit control path' are all reset to the unconfigured state. The default value is 'Version2.' And 'Version2' is automatically selected in the 'UI Automation' node generated by recording.

No.	Name	Description
(3)	Timeout setting	Select which timeout setting to use from 'Use "Scenario information",' 'Use "Option",' and 'Use this "Property".' When 'Use "Scenario information"' is selected, the timeout value set in the "Scenario information" window is effective. When 'Use "Option"' is selected, the timeout value set in the 'Option' dialog is effective. When 'Use this "Property"' is selected, the value set for 'Timeout (ms)' is effective.
(4)	Timeout (ms)	Specify the time to wait for the status change. This value is effective only when 'Use this "Property"' is selected for 'Timeout setting.' The value should be in the range of 100 to 3,600,000. The default value is 10,000 milliseconds.
(5)	Wait until	Decide the duration to keep watching timeouts. from the start of the node. Select either (Wait for) 'the window is found,' or (Wait for) 'the target control is found.' When 'the window is found' is selected and timeout has reached while waiting the window to be found, an error occurs. When 'the target control is found' is selected and timeout has reached during the sequence of finding the window, getting the element information to find the target control, and finding and executing the target control, an error occurs.
(6)	Search method for target control	Select the way to get the element information to search the target control from the window after the window is found. Select either 'Renew element information every time before the search. (Slow),' or 'Reuse element information as much as possible. (Fast).' When 'Renew element information every time before the search. (Slow)' is selected, the target control is searched after the element information is found. When 'Reuse element information as much as possible. (Fast)' is selected, UI automation node works faster because element information already acquired is reused. However, the element information is newly acquired when the UI automation node is operating the window for the first time, when the target control is not found reusing the element information, or when 'unauthorized operation' error has occurred reusing the element information. When 'Version 2' is selected in the 'Control path form,' this cannot be specified and the element information is acquired every time before searching the target control.

No.	Name	Description
(7)	Maximum retries	Specify the maximum number of retries to be done when 'unauthorized operation' error occurred during the execution of the target control operation. Finishing the target control operation successfully, the execution completes. This setting is the maximum number of retries. If 0 is specified, no retry is done. When a negative value is specified, no limit is set on the number of retries. However, a negative value cannot be specified when 'Wait for' is 'the window is found,' and timeout can be reached when 'Wait for' is 'the target control is found.'
(8)	Activate the target window	When checked, the target control is operated after the target window is activated. When unchecked, the target control is operated without activating the target window.



Settings of the property for the scenario created before WinActor Ver.7.2.x are as follows.

'Wait until': 'the window is found'

'Search method for target control': "Renew element information every time before the search. (Slow)"

'Maximum retries when "unauthorized operation" error occurs: 0

4.10 Nodes in the User Library

4.10.1 User Library

The User Library is a component to utilize when creating a scenario (a series of operation steps). A library is placed upon installation, but users can customize libraries.

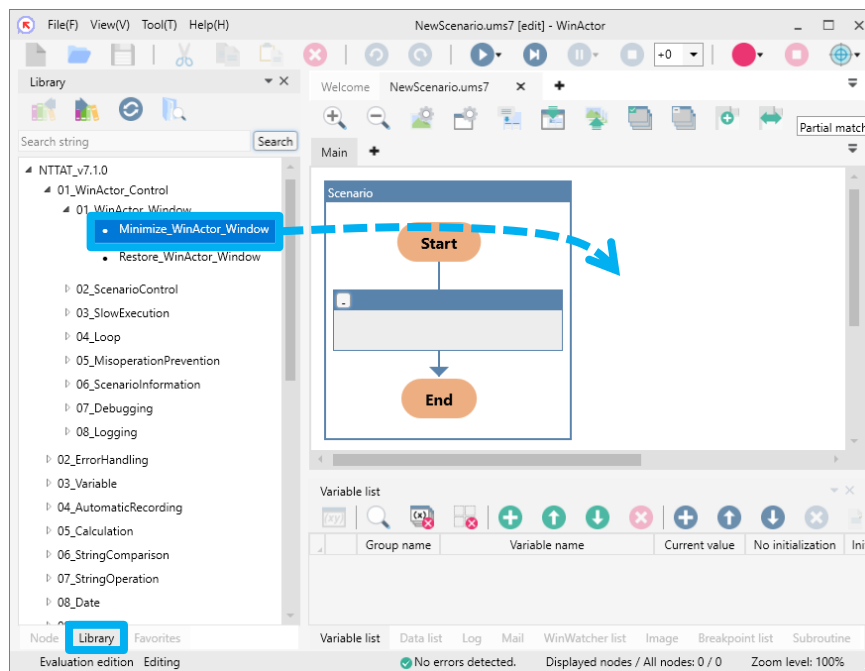
 For details, see "3.4.2 Library palette."

■ Place User Library

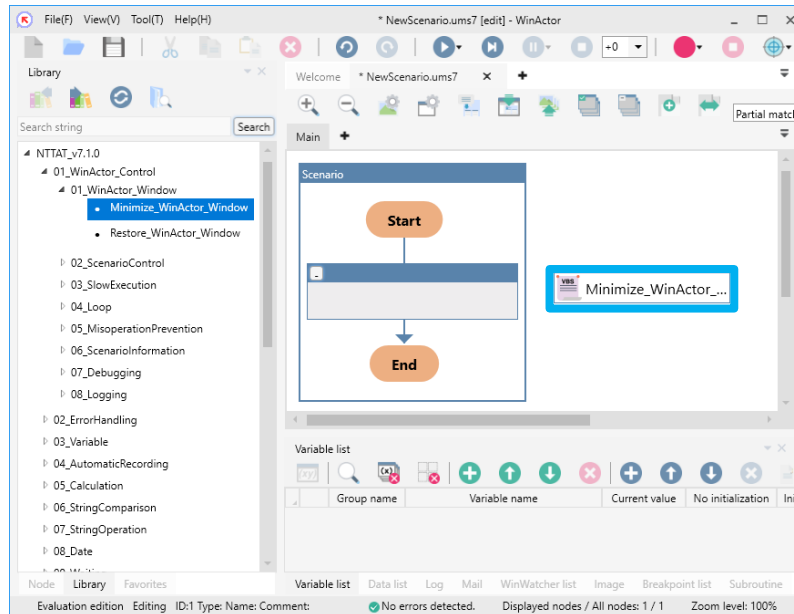
Follow the step below to place a User Library.

Steps

1. Drag a User Library under the “Library” tab in the Palette area to the Flowchart area.



The User Library is placed in the Flowchart area.



■ User Library properties

The usage of user libraries depends on the components.

- For User Libraries placed when installing WinActor, see "WinActor User Library Sample Manual" stored under WinActor_Documents.
- For folder configuration, see "1.2.2 Folder structure"

4.11 Sticky Note node

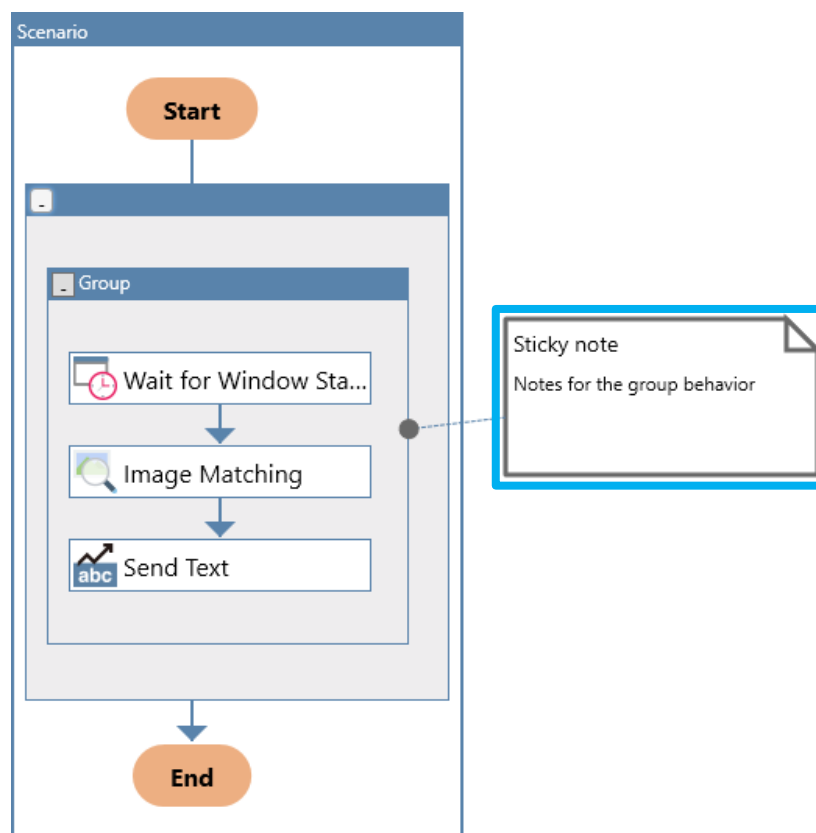
'Sticky note' is a memo function to describe and attach to group and action nodes in the flowchart.

■ Sticky note placement procedure

Sticky Notes can be added to the flowchart from the right-click menu.

 For details, see "3.5.5 Right-click menu."

Figure 4-144 Sticky note



■ Sticky note property

The following describes the setting items of the sticky note property pane.

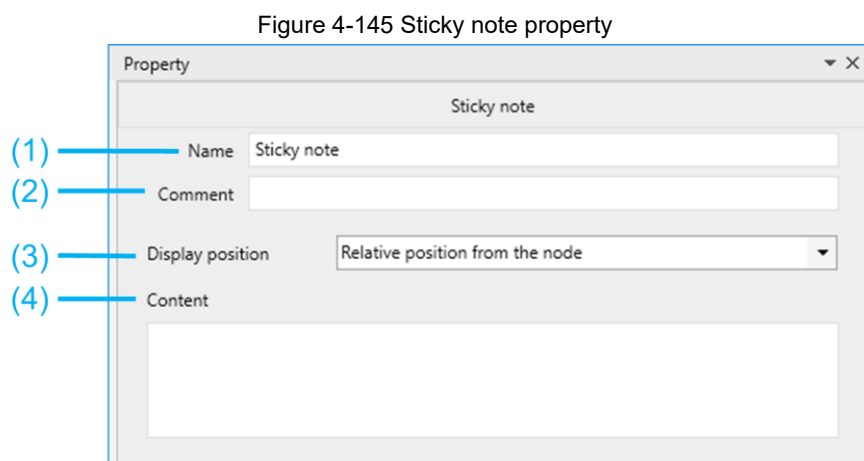


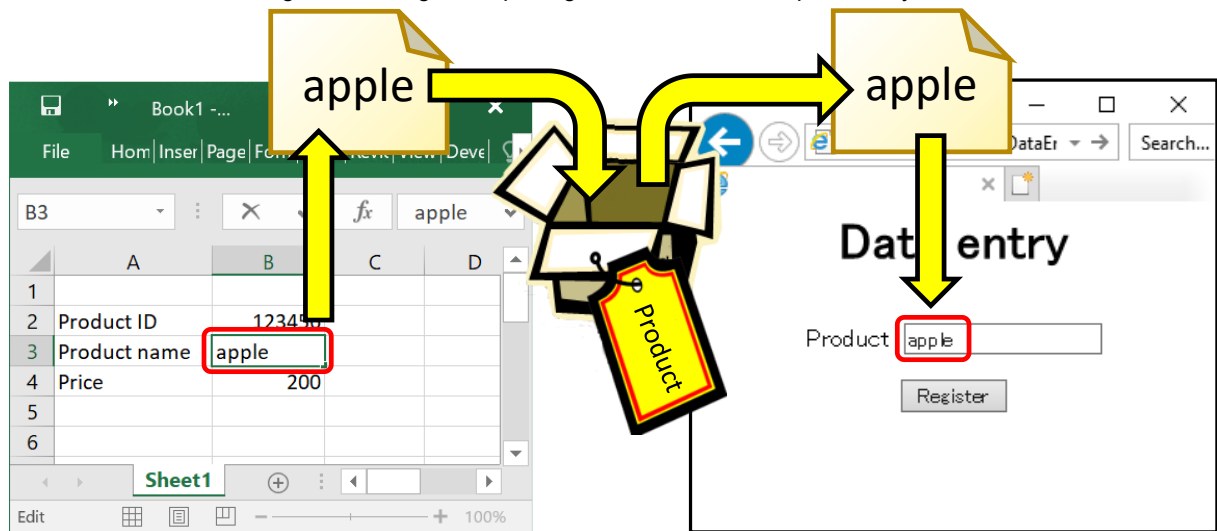
Table 4-123 Sticky note property

No.	Name	Description
(1)	Name	Set the display name to show in the Flowchart.
(2)	Comment	Set a comment. This is a memo field when creating a scenario.
(3)	Display position	Select the position to display the sticky note. Relative position from the node: The attached sticky note moves with the node. Absolute position in the flowchart: The attached sticky note does not move with the node.
(4)	Content	Content of the sticky note. If it contains a URL, it is displayed with a hyperlink, and the webpage will be displayed on a web browser by clicking the hyperlink.

In scenarios to populate data from the working system to Excel, follow the steps below.

- (1) Store the data imported from Excel in a variable.
- (2) Populate the variable data in the working system.

Figure 5-2 Image of importing data from Excel to operation system



- (1) Store the data imported from Excel in a variable called 'Product name.'
- (2) Populate the variable data in the working system.

5.1.2 Variable name

Names, comments, and default values can be added to the box (variable) storing the data. Names for variables are called ‘Variable Name.’

 For details, see "3.9.1 Variable list tab pane."

5.1.3 Initialize variables

■ Initialize with default values

Variables are initialized with default values right after a scenario has started.



The default is stored in the variable’s current value.

Figure 5-3 Initialize variables as initial value

Variable list							
	Group name	Variable name	Current value	No initialization	Initial value	Mask	Comment
	NoGroup						
		ApplePrice	128	☐	128	☐	

■ Initialize with the Set Variable Value node

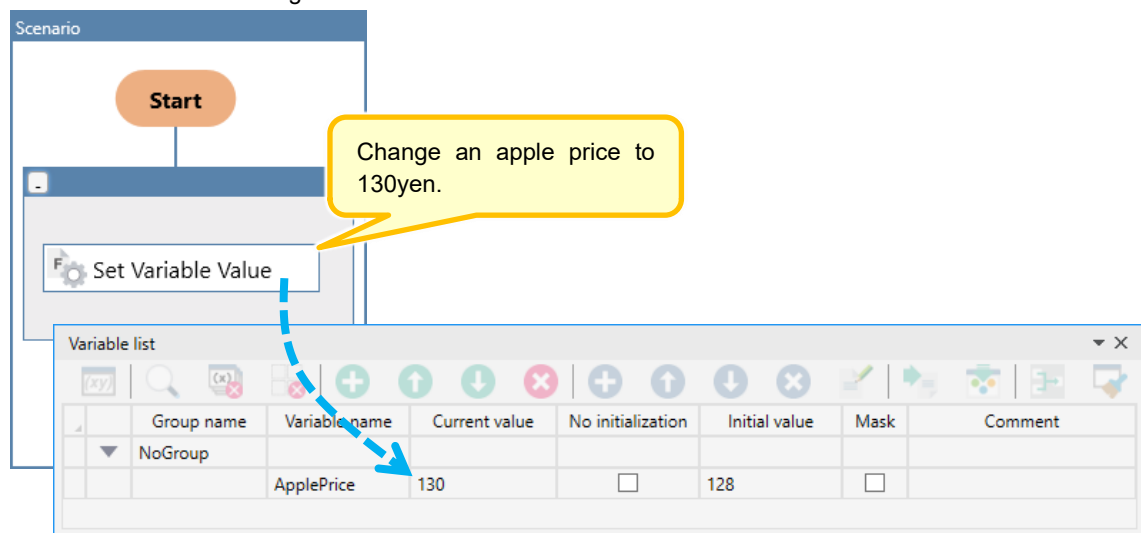
Scenario values stored in variables set by the variable values can be changed as well as the current values.

 For 'Set Variable Value' node, see "4.6.1 Set Variable Value."



The current value of a variable can be changed.

Figure 5-4 Initialize variable in the Set Variable Value node



Change an apple price to 130yen.

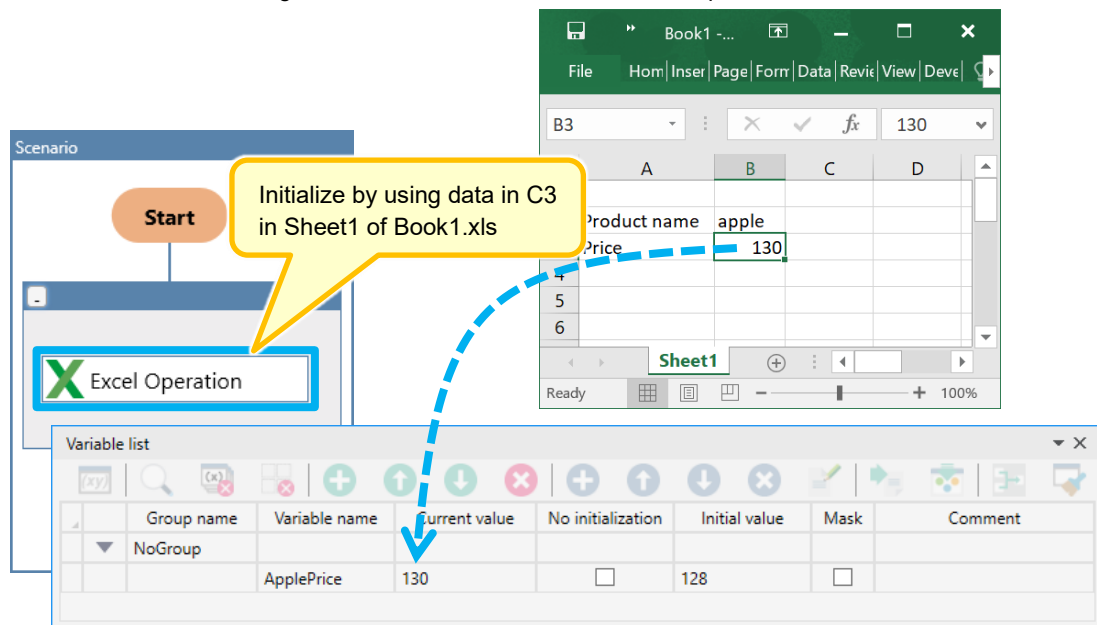
	Group name	Variable name	Current value	No initialization	Initial value	Mask	Comment
▼	NoGroup			☐	128	☐	
		ApplePrice	130	☐	128	☐	

- Initialize with Excel file in cut/ledger format

Variables can be initialized using data in Excel files.

 For 'Excel Operation' node, see "4.4.10 Excel Operation."

Figure 5-5 Initialize variable in the Excel Operation node



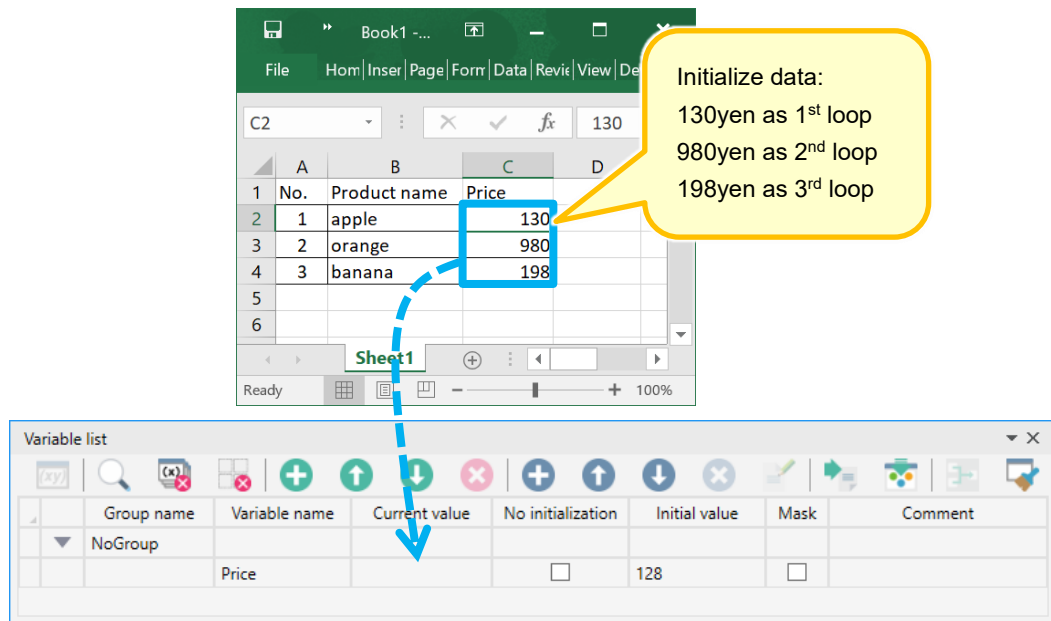
■ Initialize with Excel file in table format

Variables can be initialized by using data in Excel tables by importing data with the Data list. 'Run loop' is used to import the data.

➤➤ For "Data list" pane, see "3.9.2 Data list tab pane."

➤➤ For Run loop, see "5.4.8 Run loop."

Figure 5-6 Initialize variables in the Data list pane



Initialize data:
130yen as 1st loop
980yen as 2nd loop
198yen as 3rd loop

Group name	Variable name	Current value	No initialization	Initial value	Mask	Comment
NoGroup	Price		☐	128	☐	

5.1.4 Limitations of variables

The following is limitations of variables.

- Variable Names must be set within 255 characters.
- Variable Names must not contain spaces (spaces, tabs, line breaks) and cannot start with the dollar symbol (\$).
- Variable data must be within 1024 characters. Disable 'Restrict the number of characters for variable values' in 'Misc.' tab in the "Scenario information" window to lift the limitation.



For details, see "3.8.5 Misc. tab."

- Comments must be within 255 characters.

5.1.5 Special variables

There are special variables that have been prepared in advance and can be used in scenarios. However, other variables cannot be created with the same name.

Table 5-1 Special variables

No.	Type	Variable name	Value type	R/W	Description
(1)	Elapsed time	\$ELAPSED_TIME	Integer	R	Elapsed run time in seconds
(2)	Execution mode	\$IS_PARTIAL_EXEC	Boolean	R	For determining the run mode. Full run: false Partial run: true Run from here: true
(3)	Use Data list	\$DATA LIST-USING	Boolean	R	For determining use of the Data list. If the data in the list has been checked and is a full run, true. If otherwise, false (variable defaults will be used).
(4)	Number of Run loop	\$LOOP_NUM	Integer	R	Current loop count (1 -)
(5)	Number of all Run loop	\$LOOP_MAX	Integer	R	Full count of scheduled loops
(6)	First Run loop	\$IS_FIRST_LOOP	Boolean	R	Boolean for the first loop run
(7)	Last Run loop	\$IS_LAST_LOOP	Boolean	R	Boolean for the last loop run
(8)	Prevent malfunction mode	\$DETECT_USER_OPERATION	Boolean	R/W	Boolean for "Get paused when unexpected mouse/ keyboard operation is detected" This setting can be changed when running a scenario
(9)	Row number in Data list	\$DATA LIST-CURRENT_LINE	Integer	R	Data list row number currently running
(10)	First number in Data list	\$DATA LIST-FIRST_LINE	Integer	R	Number of the first row in the Data list
(11)	Last number in Data list	\$DATA LIST-LAST_LINE	Integer	R	Number of the last row in the Data list
(12)	File path in Data list	\$DATA LIST-FILE	String	R	File path of the Excel or CSV file opened with the Data list
(13)	Folder in Data list	\$DATA LIST-FOLDER	String	R	Storage folder for the Excel or CSV file opened with the Data list
(14)	Data source in Data list	\$DATA LIST-DBNAME	String	R	Name of the connected data source

No.	Type	Variable name	Value type	R/W	Description
(15)	Scenario file path	\$SCENARIO-FILE	String	R	Path to the scenario file
(16)	Scenario folder	\$SCENARIO-FOLDER	String	R	Folder to store the scenario files
(17)	Run speed	\$SLOWEXECUTION-VALUE	Integer	R/W	Adjust the speed to run the scenario. Add a waiting period before the node to run. The time can be increased in 0.1 second increments.
(18)	Call subroutine information	\$SUBROUTINE-INVOKE_ACTION_ID	Integer	R	ID of the node calling the subroutine. - 1 for other than subroutines.
(19)	Error Node name	\$ERROR_NODE_NAME	String	R/W	Name of the node where the error occurred. Set the variable vacant to clear the error.
(20)	Error Node ID	\$ERROR_NODE_ID	String	R/W	ID of the node where the error occurred. Set the variable vacant to clear the error.
(21)	Error message	\$ERROR_MESSAGE	String	R/W	Error message. Set the variable vacant to clear the error.
(22)	Error scenario file	\$ERROR_SCENARIO	String	R/W	File path of the scenario file where the error occurred. Set the variable vacant to clear the error.
(23)	Matching position	\$IMAGE_MATCH-MOUSE_POS	String	R/W	X, Y positions of mouse operations. Space if image matching fails
(24)	OS information	\$OS_BIT	String	R	64 is set for 64-bit, 32 is set for 32-bit machines
(25)	Version number	\$WINACTOR_VERSION	String	R	WinActor version number (e.g., 7.1.0)
(26)	License type	\$WINACTOR_EDITION	String	R	License types of editions such as FULL edition or RUN edition
(27)	File path resolution	\$PARSE_FILE_PATH	String	R/W	When a path name is set, the name is loaded after parsed
(28)	File path resolution method	\$FILE_PATH_TYPE	Integer	R/W	Specifies the parsing method for \$PARSE_FILE_PATH See the table below.
(29)	Common timeout	\$WINACTOR_TIMEOUT	Integer	R	The timeout value specified in the 'Option' dialog.
(30)	Scenario dependent timeout	\$SCENARIO_TIMEOUT	Integer	R	The timeout value specified in "Scenario information" window

No.	Type	Variable name	Value type	R/W	Description
(31)	Current Generative AI usage	\$AL_AI_USAGE_CURR	Integer	R	This is evaluated to the current Generative AI usage consumed under the AI integration license. This is evaluated to 0 when the AI integration license is not authenticated.
(32)	Generative AI usage limit	\$AL_AI_USAGE_LIMIT	Integer	R	This is evaluated to the maximum allowable Generative AI usage under the AI integration license. This is evaluated to 0 when the AI integration license is not authenticated.

"R" is readable, and "W" is writable.

Table 5-2 Setting values for \$FILE_PATH_TYPE

Value	Description
0, 10	Does not complete drive names or paths
1, 11	Completes, checks if specified file exists
2, 12	Completes, checks if the folder containing the specified file exists
3, 13	Completes, checks if the specified folder exists
4, 14	Completes, does not check if the specified file or folder exists

0-4 allows local paths, UNC paths and http/https

10-14 allows only local paths and UNC paths

Default: 0.

5.1.6 Use %VariableName%

The current value of a variable can be replaced with '%VariableName%'.

 An example of checking a variable with 'Message' in the 'Waiting dialog' property is shown in "5.1.7 How to check the current value"

The expansion of the string '%VariableName%' can be limited to the places where WinActor Ver.6 expands it by the checkbox "Whether to expand '%VariableName%' when getting the value of the variable name is the same as that of V6." on the 'Misc.' tab of the "Scenario information" window.

 For the setting, see "Misc. tab" in the Scenario information window.

When the box is checked, each of the '%VariableName%' strings is expanded only where it is expanded on Ver.6.

Table 5-3 Places where '%VariableName%' is usable when the box is checked

No.	Type	Place
(1)	Nodes	'Value' fields on the 'Details' tab in the 'Send Text' property pane
(2)		'Option' in the 'Execute Command' property pane
(3)		Input fields noted 'Input variable name or value' in the 'Excel Operation' property pane
(4)		'Message' in the 'Waiting Dialog' property pane
(5)		'Message' in the 'Input Dialog' property pane
(6)		'Message' in the 'Selection Dialog' property pane
(7)		'Value' field in the 'Set Variable Value' property pane
(8)	User Library	'Details' tab fields in the 'Automatic Generation Node' property pane

When the box is unchecked, the '%VariableName%' strings are expanded in more places than added to the table above.

Table 5-4 Places where '%VariableName%' is usable when the box is unchecked

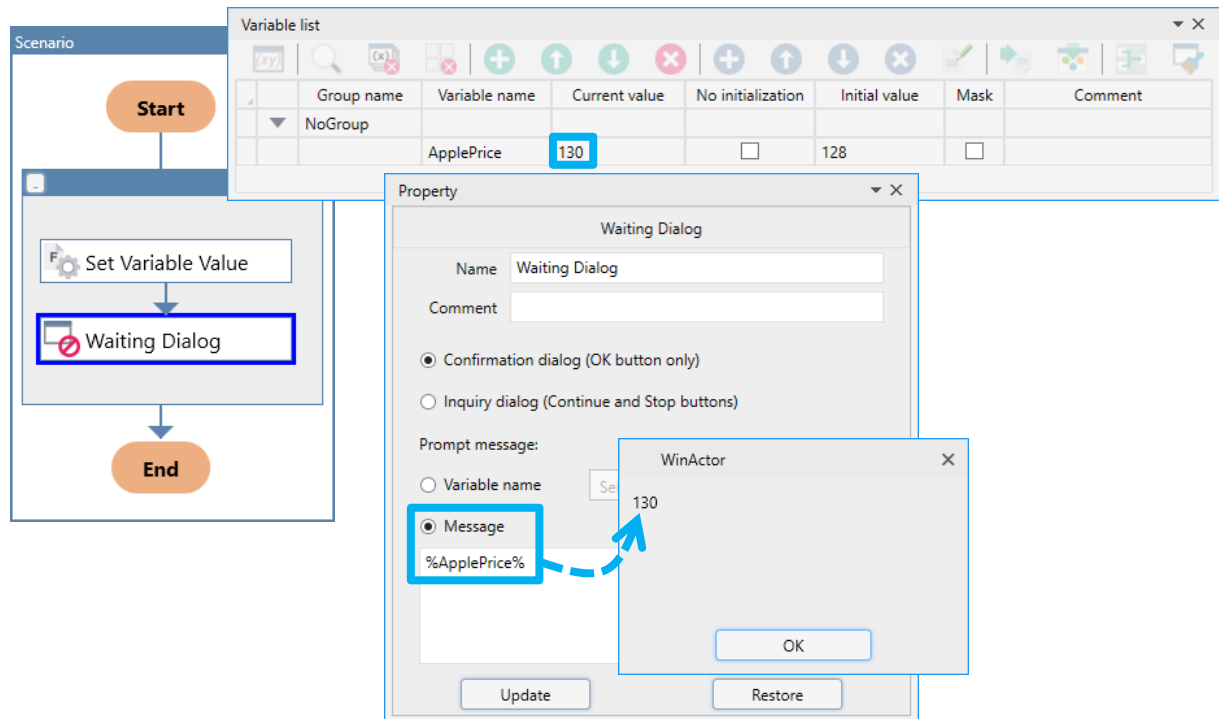
No.	Type	Place
(1)	Nodes User Library	Input fields noted 'Input variable name or value' in the property pane of every node
(2)	Nodes	'Exception name' field in the 'Exception Handling' property pane
(3)		'option string' field in the 'Selection Dialog' property pane
(4)	User Library	'Target control path' field in the 'Edit control path' tab of the 'UI Automation' property pane
(5)		The field of the file extensions in the 'Storage' tab of the 'WinActor_Gmail_SetGmailReception' property pane
(6)		The field of the file extensions in the 'Storage' tab of the 'WinActor_Mail_SetMailReception' property pane
(7)		'Key' fields in the 'Details' tab of the 'StructureData_JSONFormatWrite' property pane
(8)		'Key' fields in the 'Details' tab of the 'StructureData_JSONFormatRead' property pane
(9)		'Key' fields in the 'Header' tab in the 'Request details' tab of the 'HTTP' property pane
(10)		'Key' fields in the 'Body' tab in the 'Request details' tab of the 'HTTP' property pane
(11)		'Key' fields in the 'Header' tab in the 'Response' tab of the 'HTTP' property pane
(12)		'Key' fields in the 'Body' tab in the 'Response' tab of the 'HTTP' property pane
(13)		'Body' field in the 'Body' tab in the 'Request details' tab of the 'HTTP (detailed)' pane

5.1.7 How to check the current value

Place the 'Waiting Dialog' in the scenario to check the current value in the Variables List while the box is open.

Set '%VariableName%' in the message box to display a message in the 'Waiting Dialog.'

Figure 5-7 Check the current value of variable



5.2 WinID Management

5.2.1 About WinID management

These rules are conditions to search for windows for the automated WinActor operations. The rules are named with the WinID and are managed in the WinID Management (WinID Rules) window. The 'Window title,' 'Window class name,' 'Process name,' and 'Window size' can be used as search conditions.

Figure 5-8 Check WinID management 1

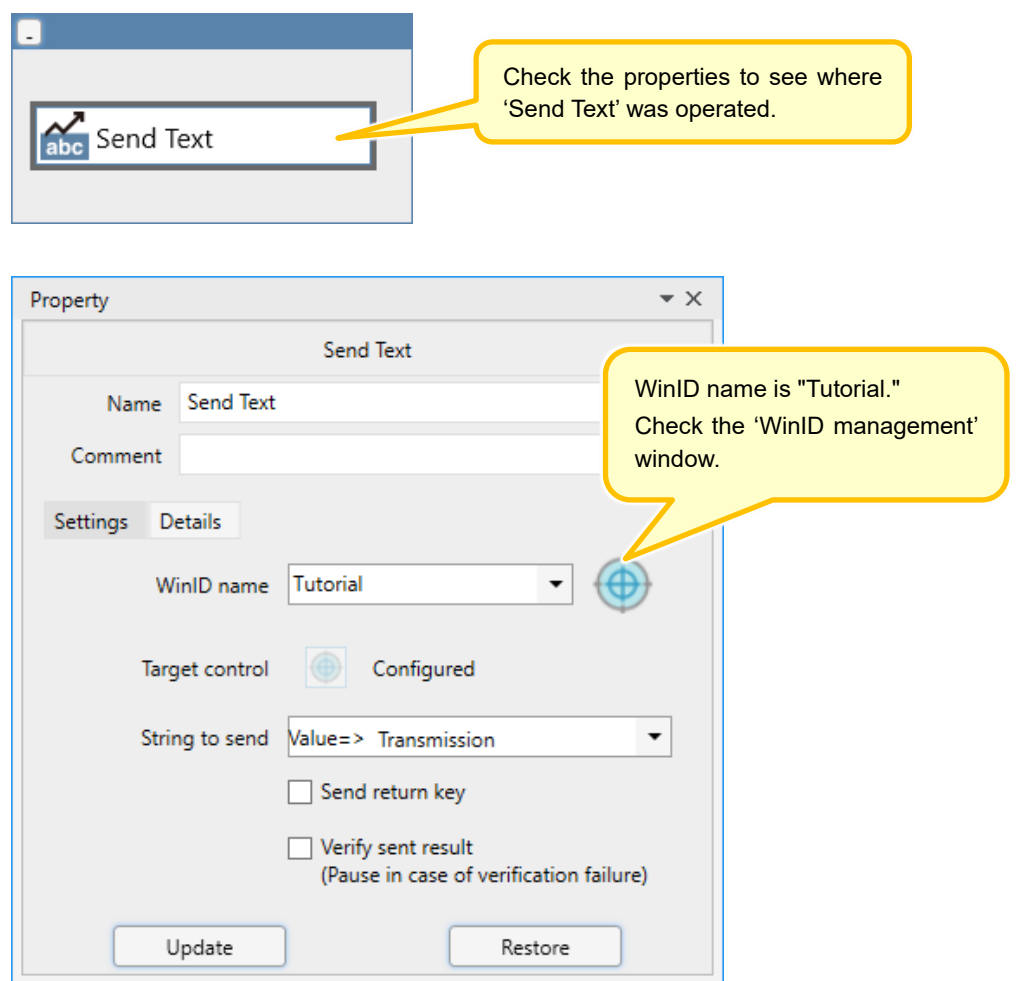
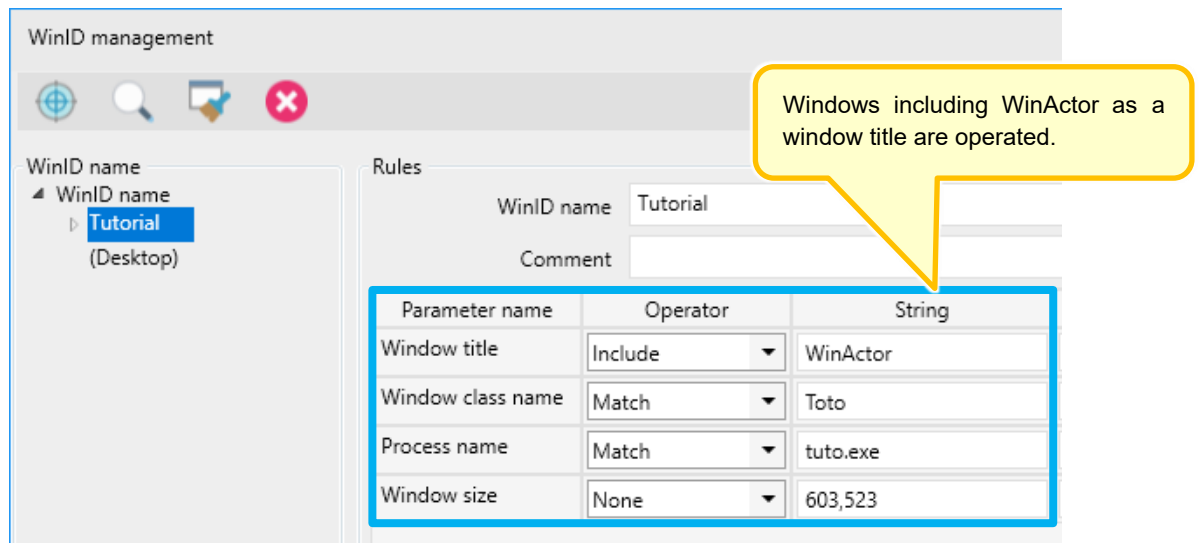


Figure 5-9 Check WinID management 2



» For operating "WinID management" window, see "3.5.6 WinID management window."

5.3 WinWatcher

5.3.1 What is a WinWatcher?

These are monitoring rules to decide the behavior when a certain window is displayed while a scenario is running.



For steps to add WinWatcher, see "3.9.5 WinWatcher list tab pane."



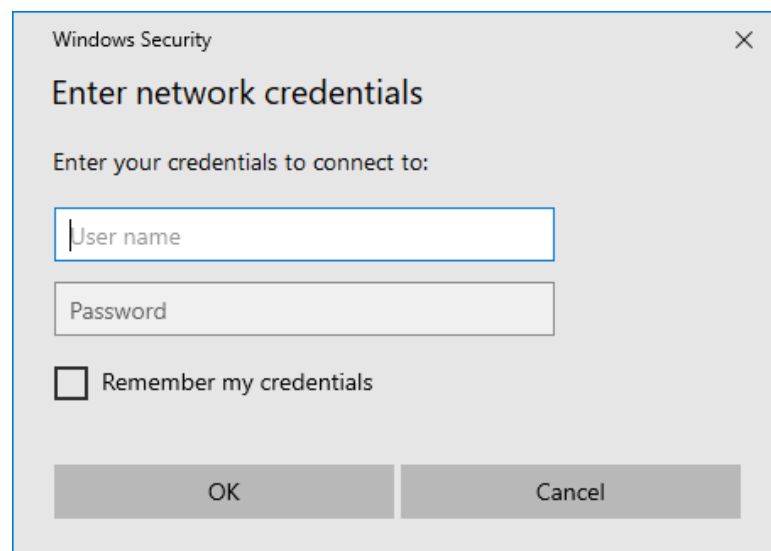
Adding many monitoring rules will slow down the scenario run.

5.3.2 Example of using WinWatcher

■ Call subroutine

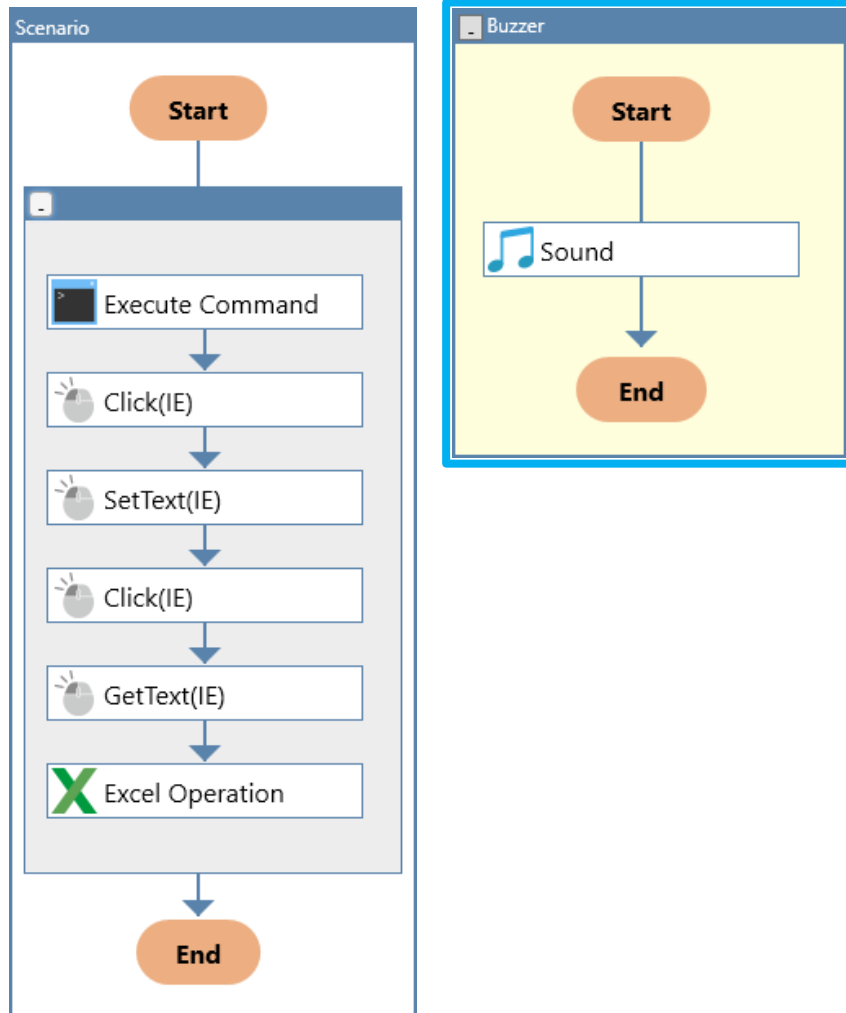
This section describes how to register a monitoring rule to sound a buzzer when the "Windows Security" window is displayed during a scenario run.

Figure 5-10 Example of using WinWatcher 1

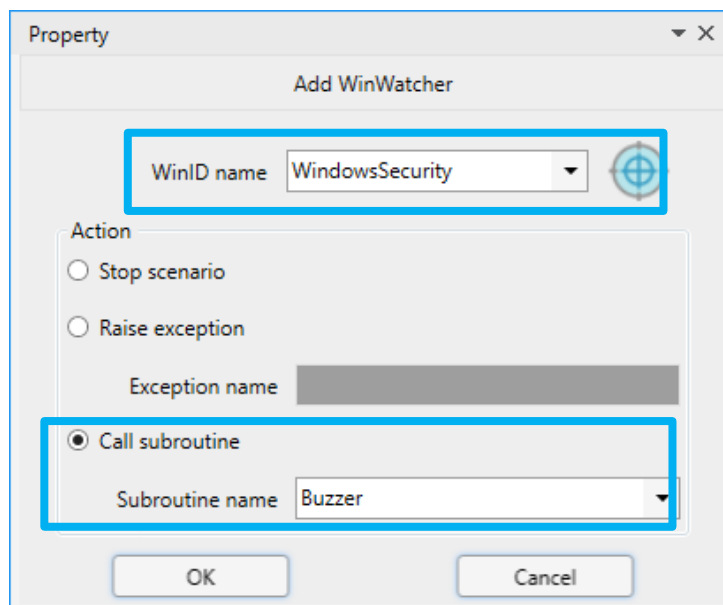
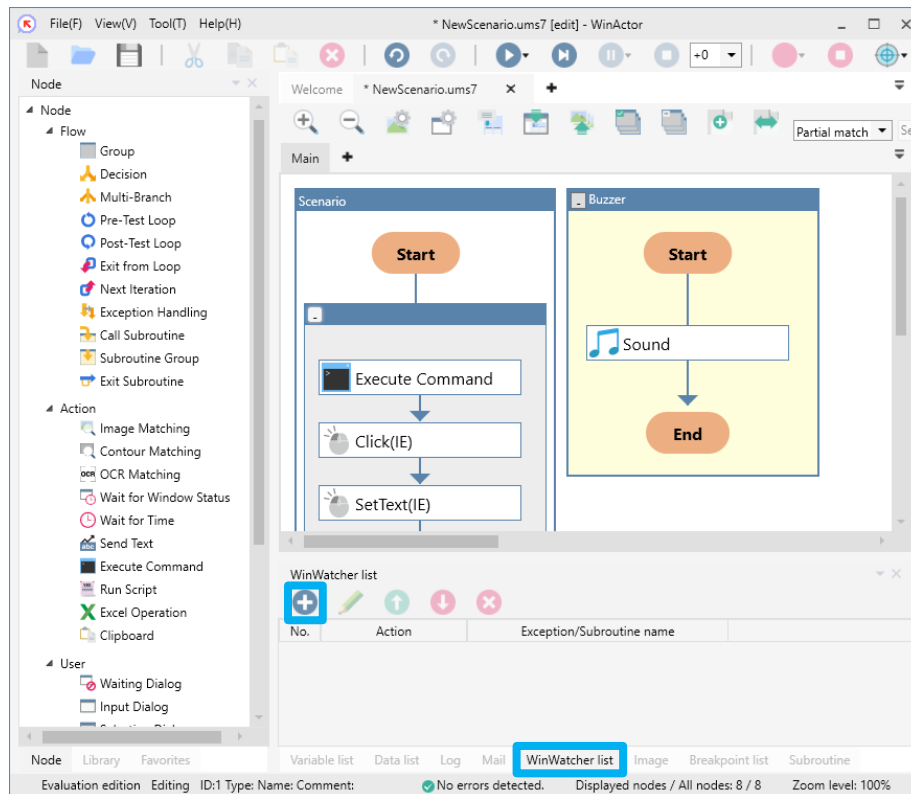


Steps

1. Create a scenario and a subroutine to sound a buzzer.

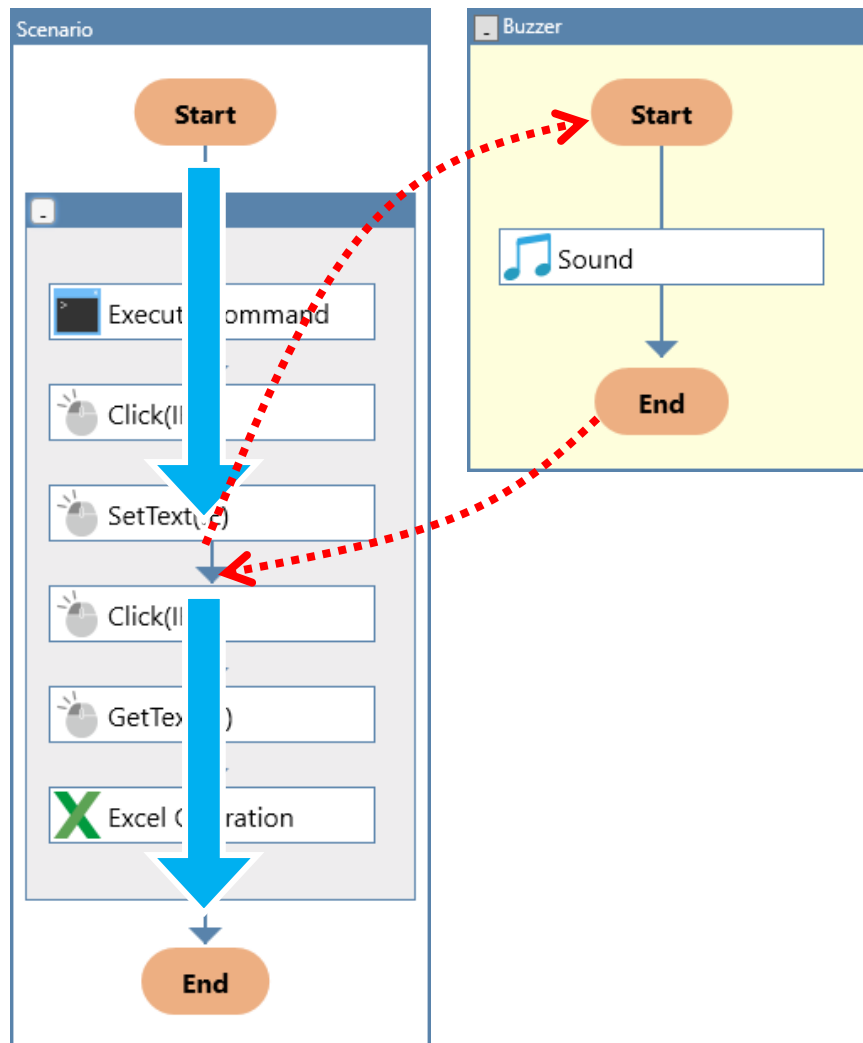


2. Add a WinWatcher to sound the buzzer when the Windows Security window is displayed.



3. Run the scenario. The subroutine to sound a buzzer when the Windows Security window is displayed during the scenario run is processed. The scenario will continue when the subroutine has been processed.

Figure 5-11 Flow of when Windows security window is shown

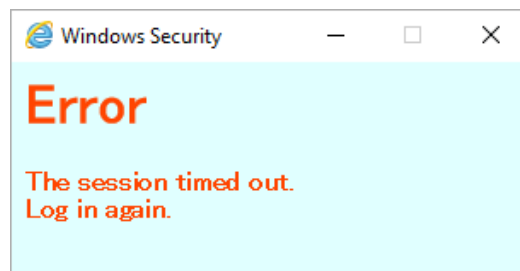


If the Windows Security window is not displayed during the scenario run, the nodes between Start and End will run but the subroutine sounding the buzzer will not be called.

■ Stop scenario

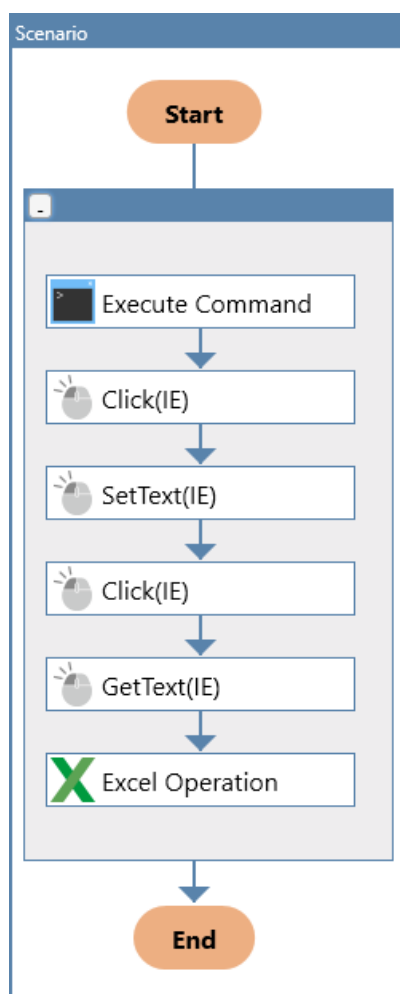
This section describes how registering a timeout window as a monitoring rule to stop a scenario when the timeout window is displayed.

Figure 5-12 Example of using WinWatcher 2

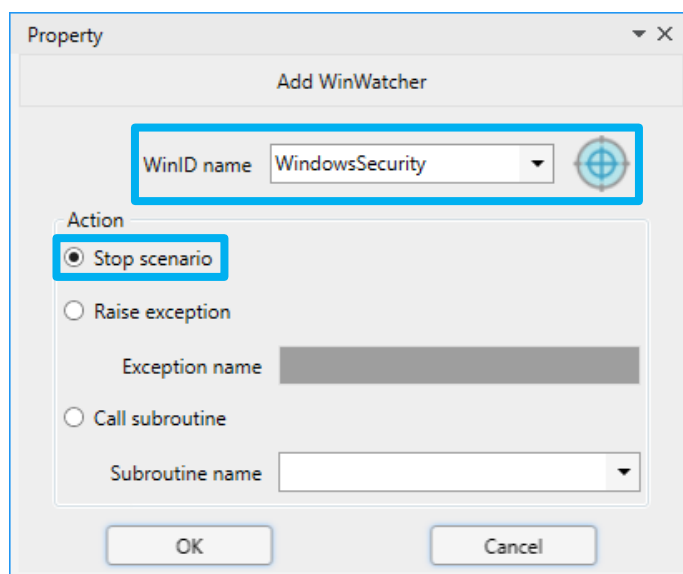
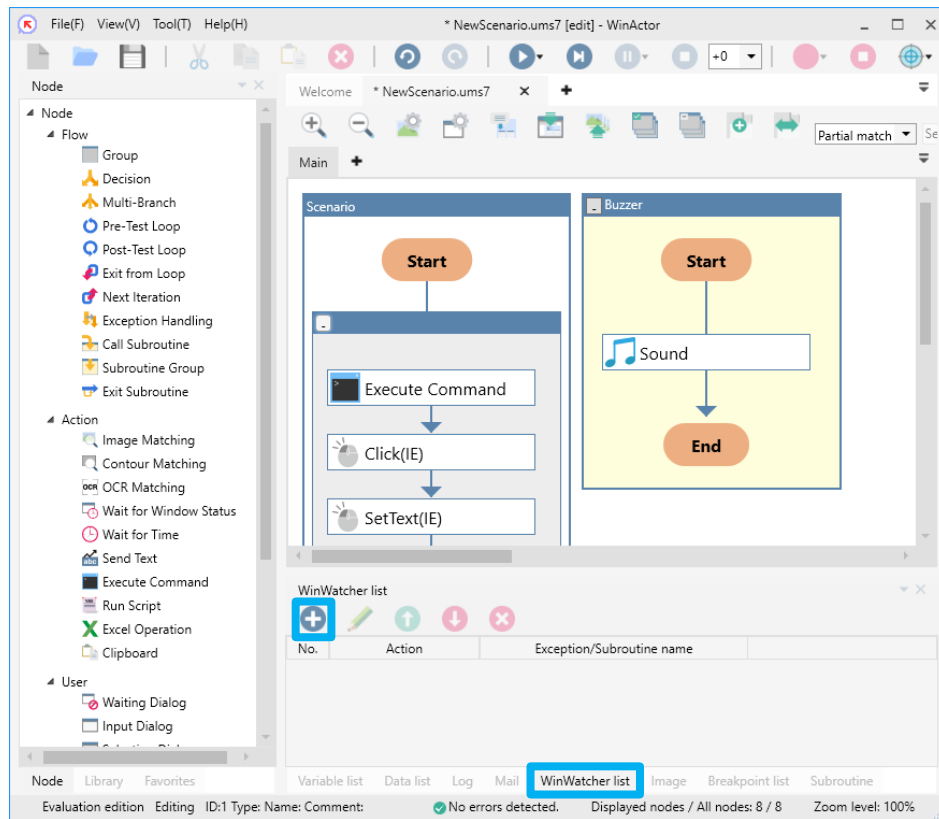


Steps

1. Create a scenario.

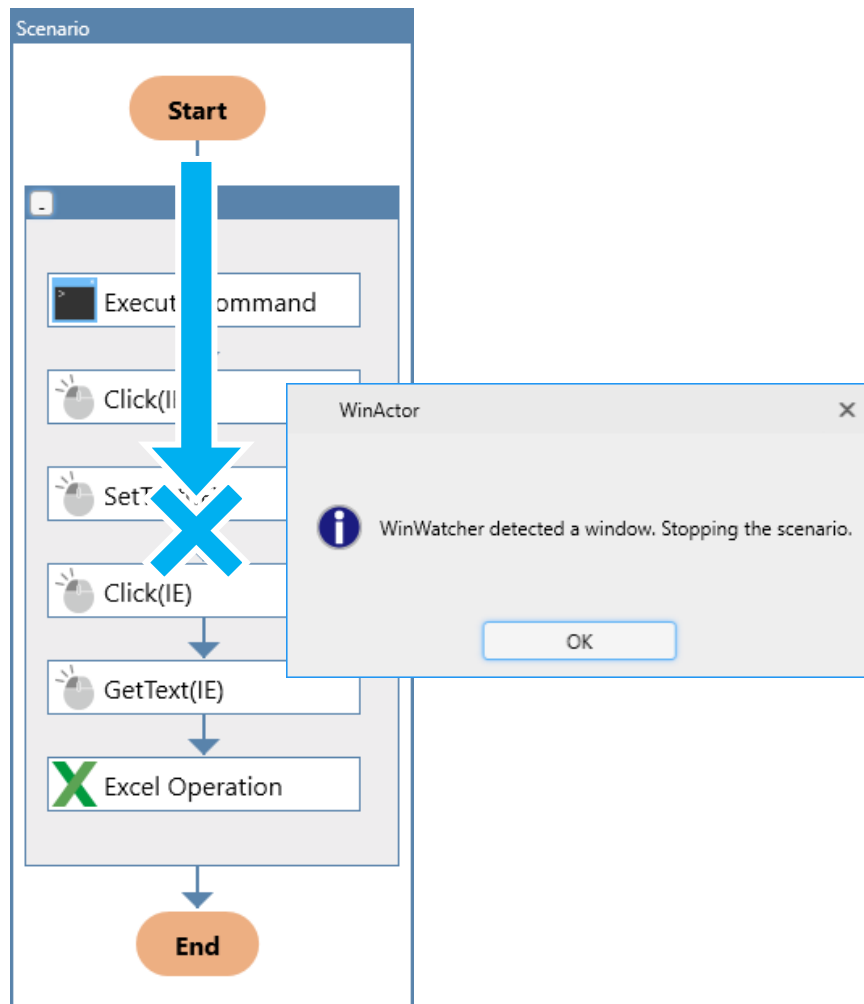


2. Add a WinWatcher to stop the scenario when a timeout window is displayed.



3. Run a scenario. If the timeout window has been displayed during the scenario run, a message saying that the scenario will be stopped will be displayed. Click the 'OK' button to stop the scenario.

Figure 5-13 Dialog to stop scenario due to timeout



If the timeout window is not displayed during the scenario run, the nodes between Start and End will run to completion.

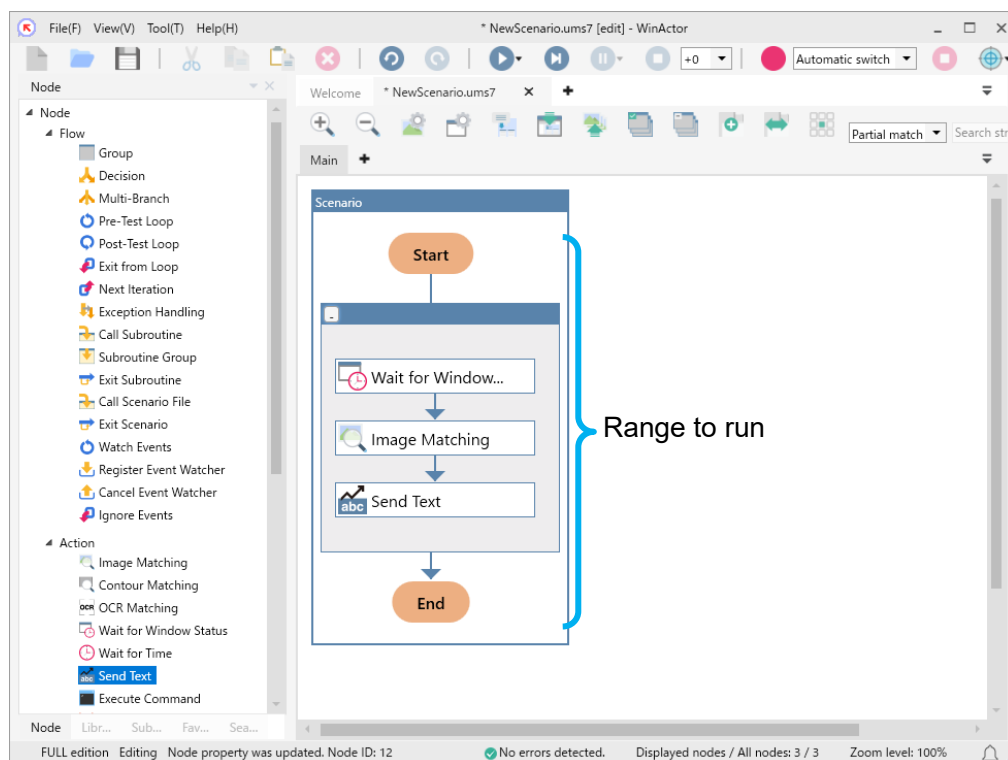
5.4 Run

Automated operations according to the scenario is called a run. Full or Partial Runs, or Run from Here can be selected.

5.4.1 Full run

Full run includes all operations between 'Start' and 'End' in Scenario.

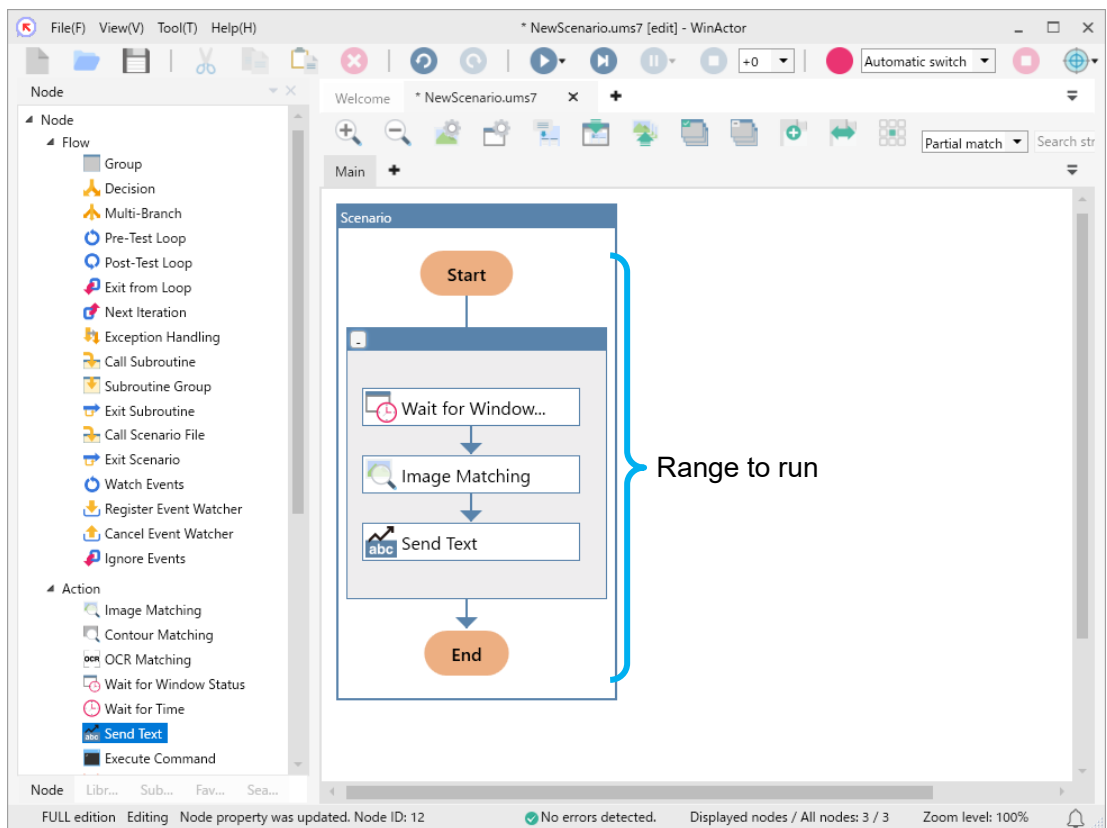
Figure 5-14 Range of Full run



■ Procedures for operating Full run

Steps

1. Click the 'Run scenario' icon to fully run a scenario.

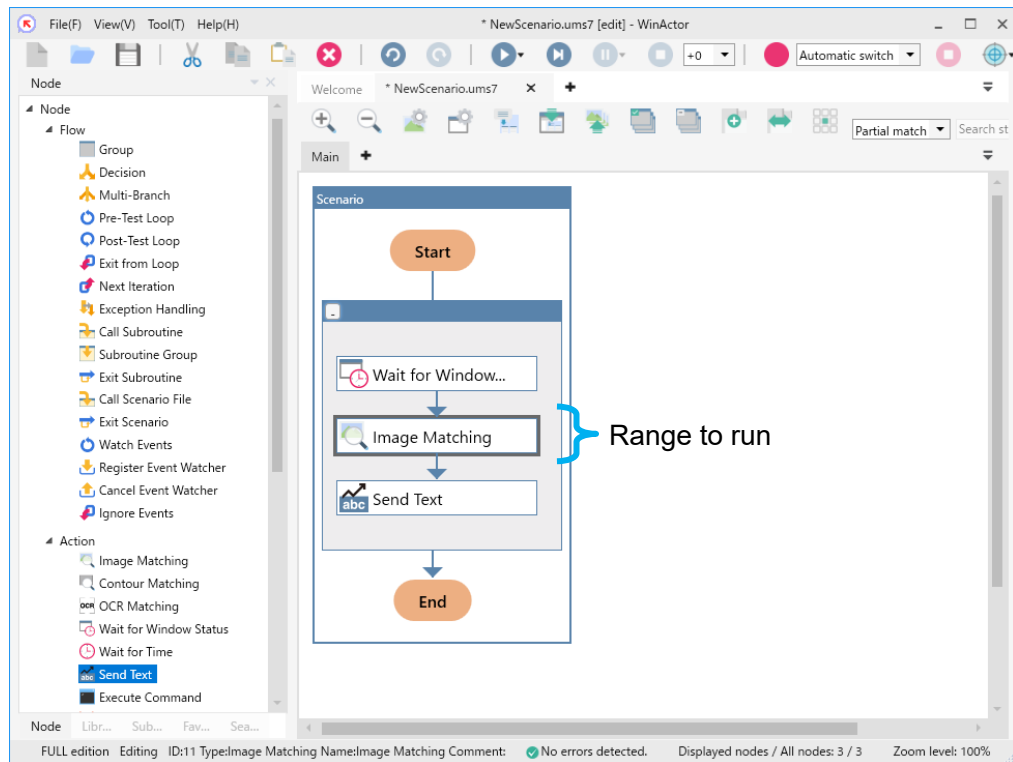


Full run shortcut key: F5.

5.4.2 Partial run

Use 'Partial Run' to run a portion of the scenario.

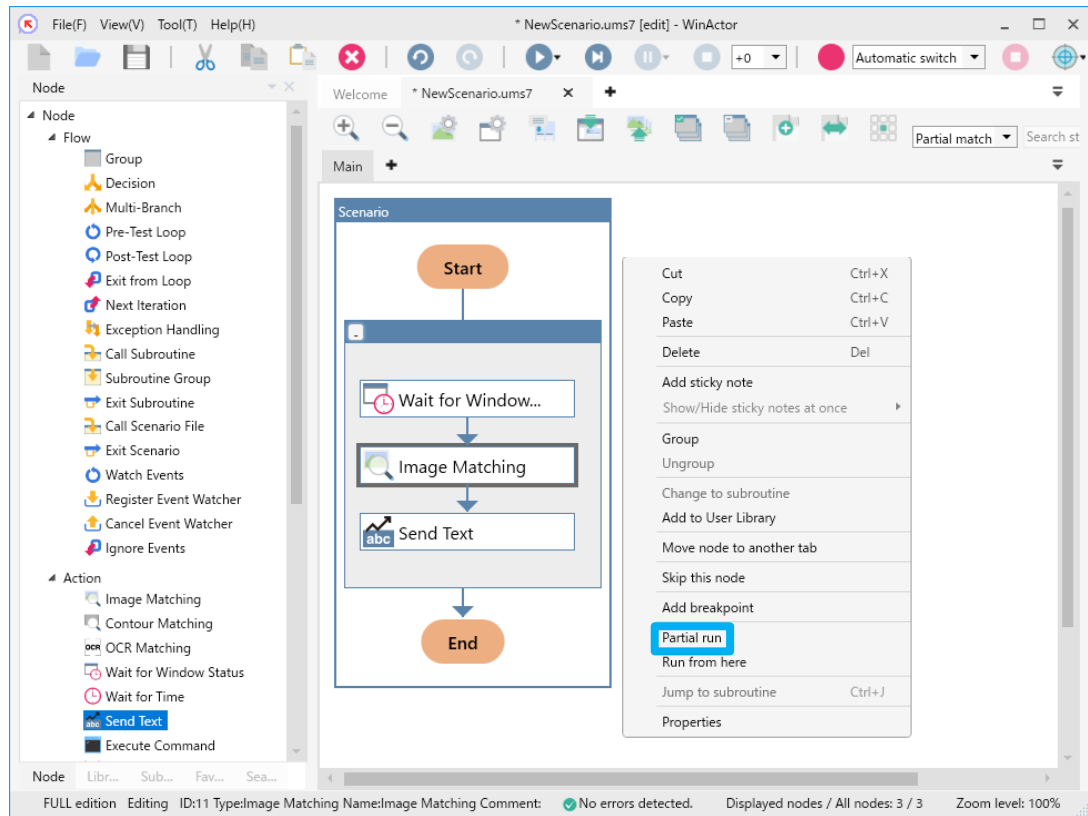
Figure 5-15 Range of Partial run



■ Procedures for operating Partial run

Steps

1. Select the node to run and select 'Partial Run' from the right-click menu.



The selected node is run.



For Partial runs, the values imported from the external files will not be used but will be run using the variable defaults.



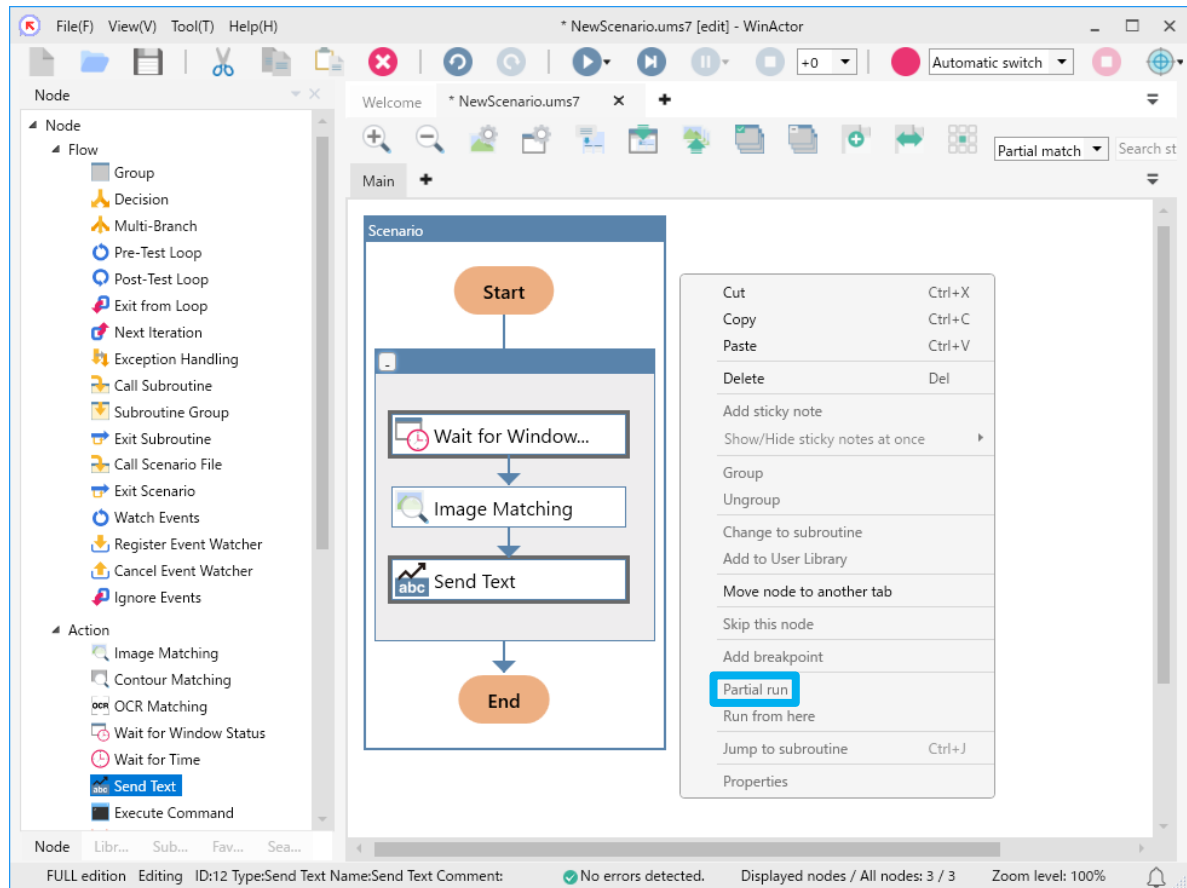
For 'Import data,' see "Import data" in "3.9.2 Data list tab pane."

■ Partial Run cannot be selected

Partial Run cannot be selected in the following cases:

- Multiple nodes are not selected consecutively.
- No nodes are selected.

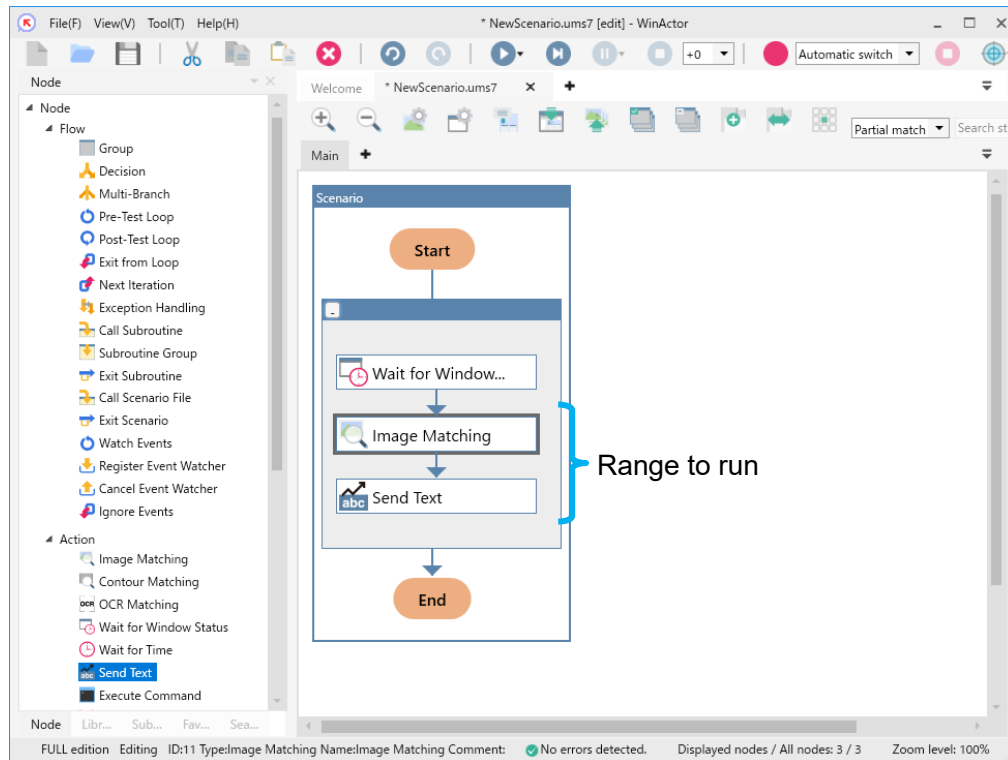
Figure 5-16 Nodes selected at intervals



5.4.3 Run from here

Use 'Run from here' to start a run from a portion of the scenario.

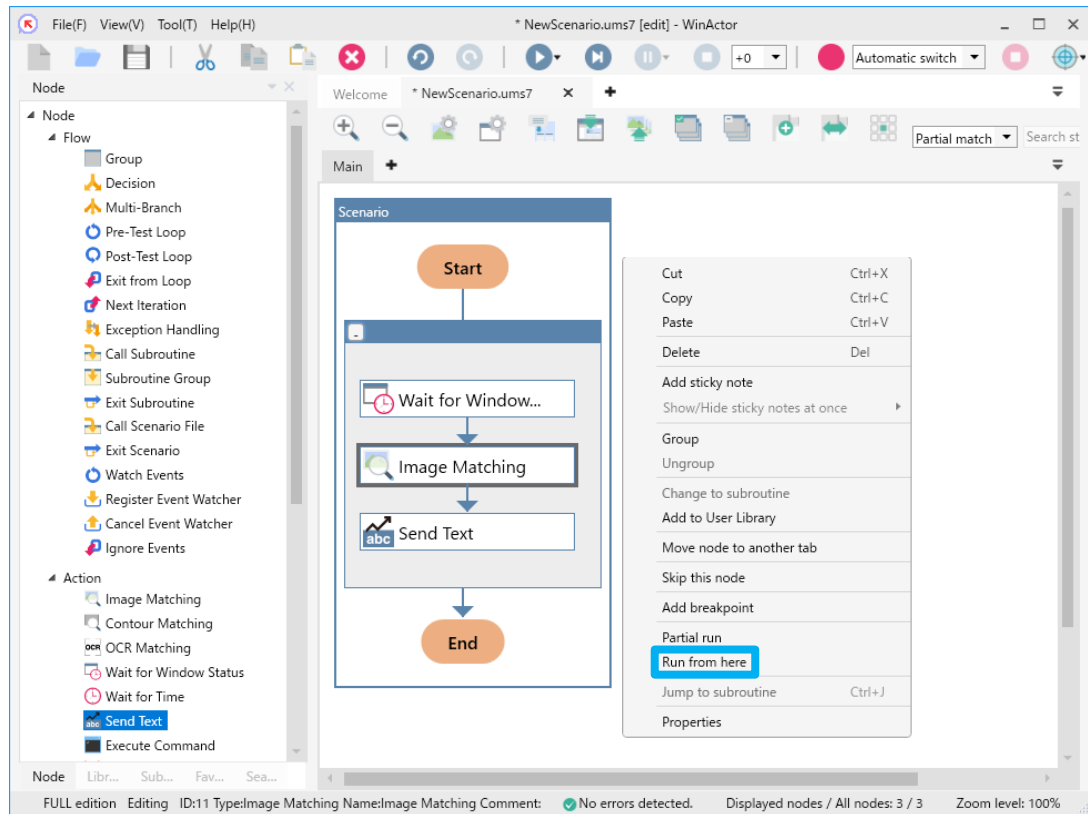
Figure 5-17 Range of Run from here



■ Procedures for operating Run from Here

Steps

1. Select the node to start a run and select 'Run from here' from the right-click menu.



A run starts from the selected node.



For a run with 'Run from here,' the values imported from the external files will not be used but will be run using the variable defaults.

A run with 'Run from here' selecting a node in the 'Pre-Test Loop' or 'Post-Test Loop' group will not run the second or later iteration of the loop, nor the nodes after the loop.

A run with 'Run from here' selecting a 'Subroutine Group' or a node in it will run nodes in the 'Subroutine Group' only. The run never returns to the caller of the 'Subroutine Group.'



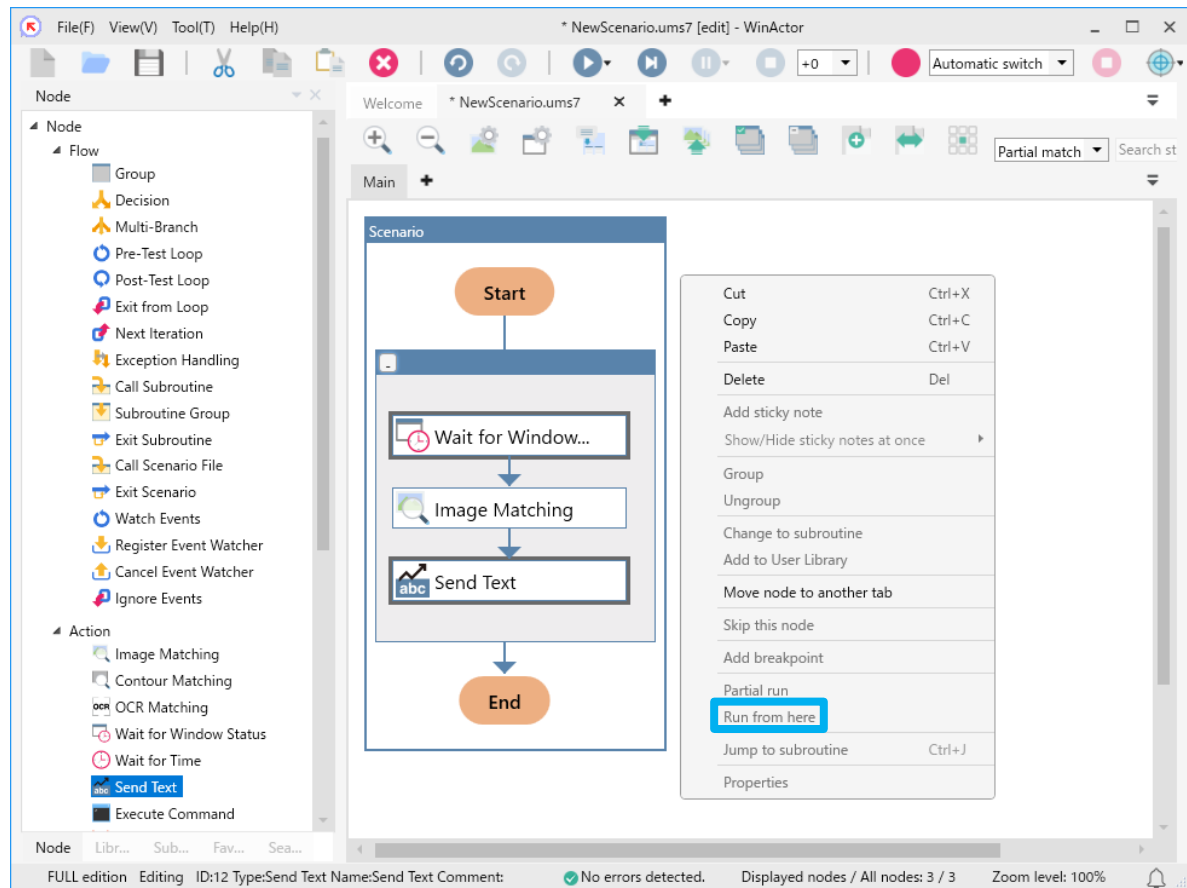
For 'Import data,' see "Import data" in "3.9.2 Data list tab pane."

■ Run from Here cannot be selected

'Run from here' cannot be selected in the following cases:

- Multiple nodes are selected.
- No nodes are selected.

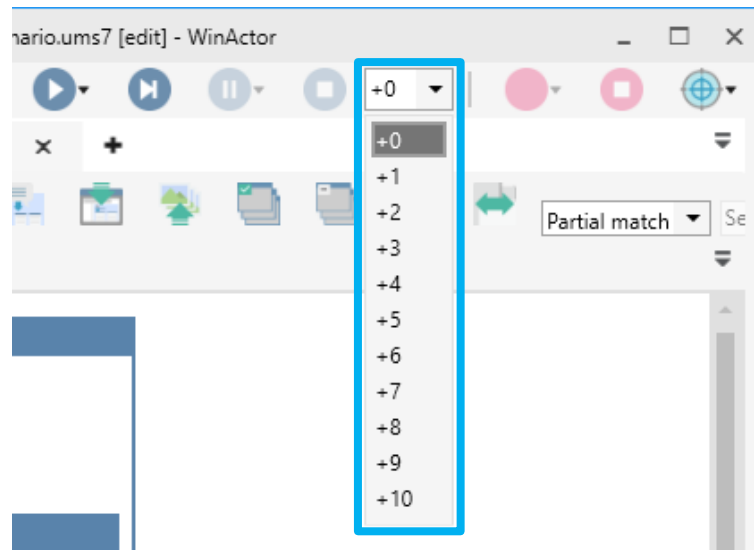
Figure 5-18 Multiple nodes are selected



5.4.4 Adjust Run speed

Adjust the scenario run speed from the dropdown in the main window. Set the waiting period before running a node. The run speed can be increased in 0.1 second increments. If +10 is selected without inserting a waiting period, +1.0 second will be added as the waiting period.

Figure 5-19 Adjust Run speed



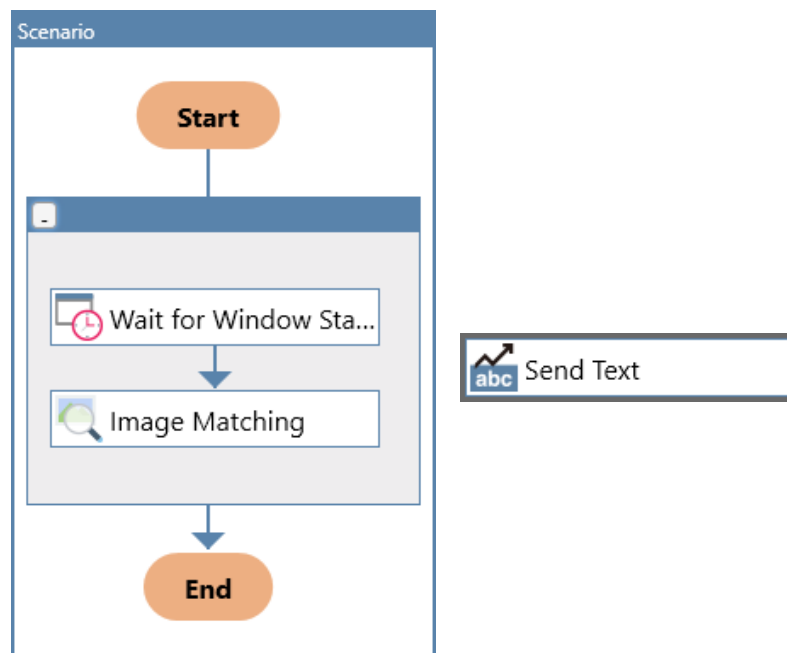
5.4.5 Skip this node

Skip nodes with this node.

 For a procedure to set "Skip this node," see "Skip this node."

Nodes can also be skipped by removing the node from the scenario.

Figure 5-20 Node removed from Scenario

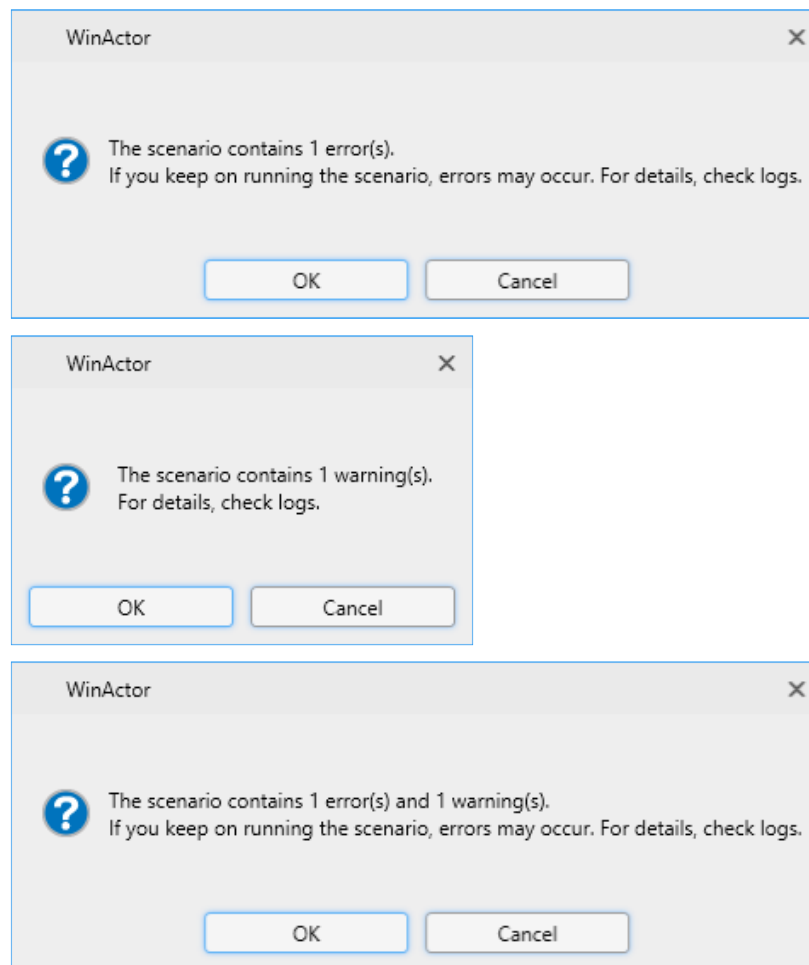


5.4.6 Warning dialogs shown before running

A warning is displayed when trying to run a node that does not exist. The time, Node ID, and results are exported to the logs. If there are any errors or warnings, use the Node ID to pinpoint where the error or warning occurred.

 For a procedure for searching errors or warnings, see "Selecting a node by clicking the node ID."

Figure 5-21 Examples of warning dialogs



5.4.7 Errors when running

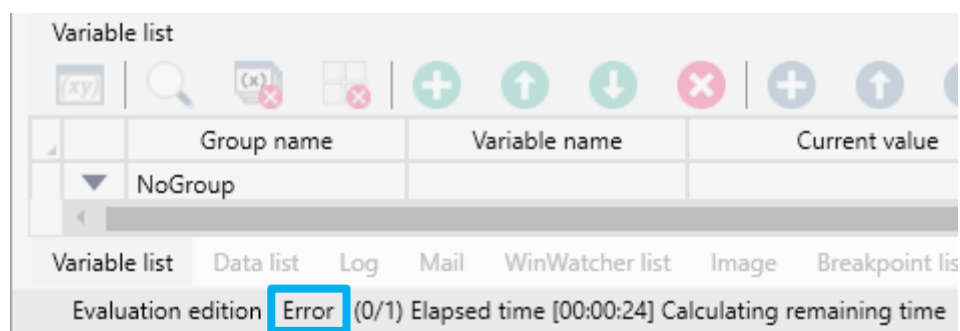
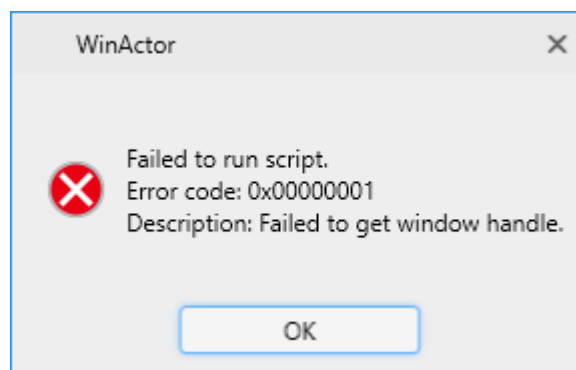
Scenarios will be paused when an error occurs during the run. Scenarios can be resumed after resolving the error. Use 'Exception Handling' if the scenario is not to be paused when an error occurs.

 For 'Exception Handling,' see "4.3.8 Exception Handling."

The time, Node ID, and results are exported to the logs. If there are any errors or warnings, use the Node ID to pinpoint where the error or warning occurred.

 For a procedure for searching errors or warnings, see "Selecting a node by clicking the node ID."

Figure 5-22 Example of error dialog



■ Typical errors and how to resolve the errors

Table 5-5 Typical errors and how to handle

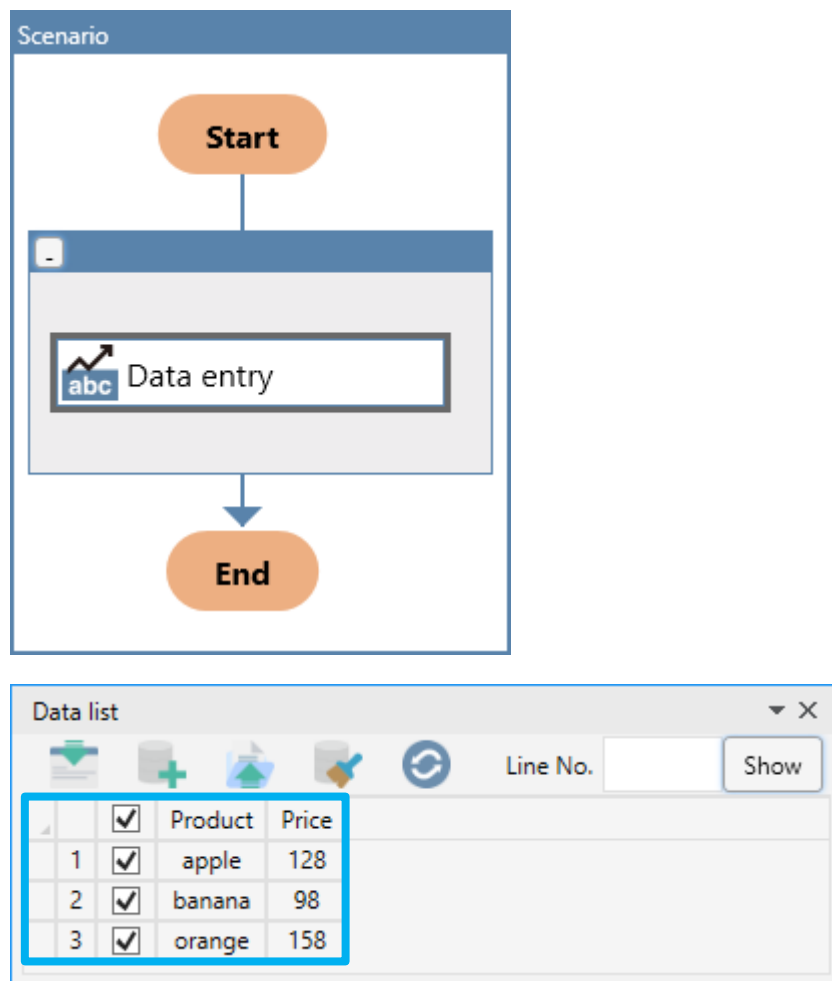
No.	Error messages	How to handle
(1)	Failed to run actions due to one of the following reasons. • No window matches {0}. • No control matches the parameters specified in 'Details' tab. • The control is not ready.	If the window to operate is not displayed, there is a possibility that the previous operation failed and the window did not migrate properly. ➤ Place a waiting period so previous operations will run correctly.
		If the scenario resumes correctly, there is the possibility that the window to operate is taking time to display and timed out. ➤ Add a waiting period to wait for the window to be displayed
		The title of the window to operate has been changed after recording. ➤ Change the WinWatcher from matches ... to includes * Be aware of applications where the window titles change at every launch or save.
		The buttons existing at the time of recording may not be displayed in windows where the buttons and textbox count changes. ➤ Review the condition to select controls.
(2)	No reference images.	If the window to operate is not displayed, there is a possibility that the previous operation failed and the window did not migrate properly. ➤ Place a waiting period so previous operations will run correctly.
		If the window to operate is displayed, there is a possibility that the image of the area to click is different from the reference image. Some differences may not be detected visually. ➤ Reduce the matching rate.

5.4.8 Run loop

Scenarios are run by integrating table data imported to the 'Data list' pane and large data is repeatedly populated.

When a scenario is run, the scenario is run once for each row in the table data. For instance, as in the figure below, if a scenario is run after three rows of data is imported, the scenario run is repeated three times from 'Start' to 'End.'

Figure 5-23 Data list pane after importing data



■ Initialize variables in the Data list pane

Variables can be linked with the table data after importing the table to the Data list. The names of the data in the Data list are associated with the names of the variables in the Variable list. The data from the Data list is passed on to the variable at the start of each scenario loop.

Figure 5-24 Initialize variables in the Data list pane

The figure consists of three panels, each showing a 'Data list' table on the left and a 'Variable list' table on the right. A dashed blue arrow indicates the mapping from a row in the Data list to a variable in the Variable list.

Panel 1: The 'Data list' has three rows. Row 1 (apple, 128) is selected. The 'Variable list' shows 'Product' mapped to 'apple' and 'Price' mapped to '128'.

	☒	Product	Price
1	☒	apple	128
2	☒	banana	98
3	☒	orange	158

	Group name	Variable name	Current value
	NoGroup		
		Product	apple
		Price	128

Panel 2: The 'Data list' has three rows. Row 2 (banana, 98) is selected. The 'Variable list' shows 'Product' mapped to 'banana' and 'Price' mapped to '98'.

	☐	Product	Price
1	☐	apple	128
2	☒	banana	98
3	☒	orange	158

	Group name	Variable name	Current value
	NoGroup		
		Product	banana
		Price	98

Panel 3: The 'Data list' has three rows. Row 3 (orange, 158) is selected. The 'Variable list' shows 'Product' mapped to 'orange' and 'Price' mapped to '158'.

	☐	Product	Price
1	☐	apple	128
2	☐	banana	98
3	☒	orange	158

	Group name	Variable name	Current value
	NoGroup		
		Product	orange
		Price	158

■ Update table data in the Data list pane

The data in the Data list can be updated when the variable associated with the 'Data list' is changed. The data in the variable at the end of the scenario will be returned to the 'Data list' pane.

Figure 5-25 Example of Scenario to update table data

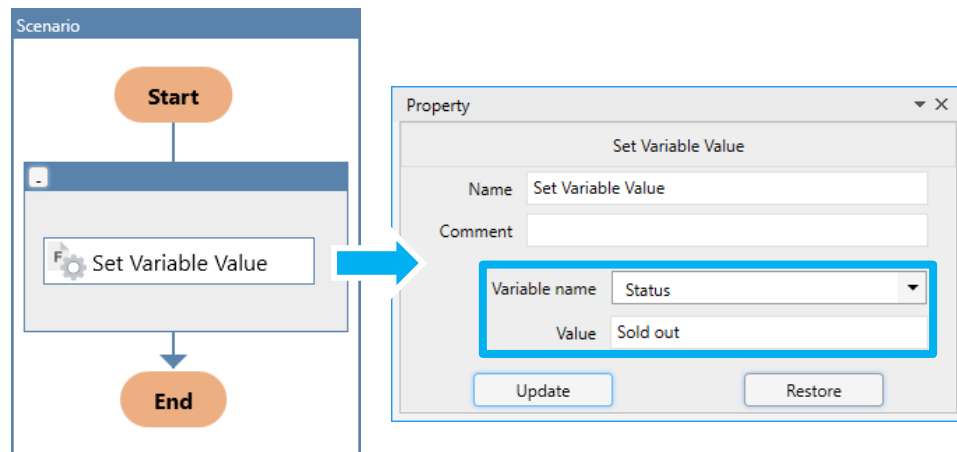


Figure 5-26 Image of the result of running scenario to update table data

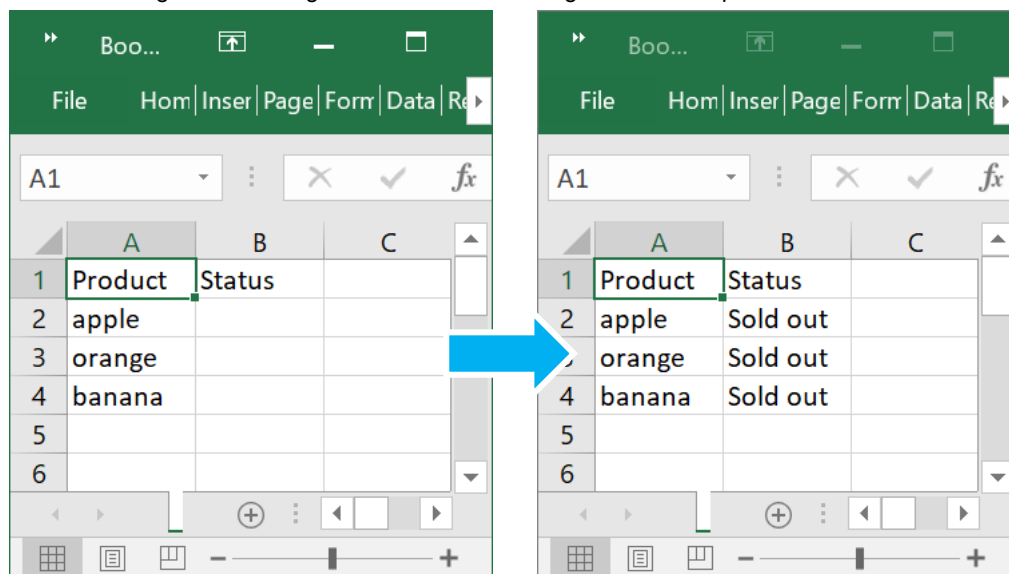
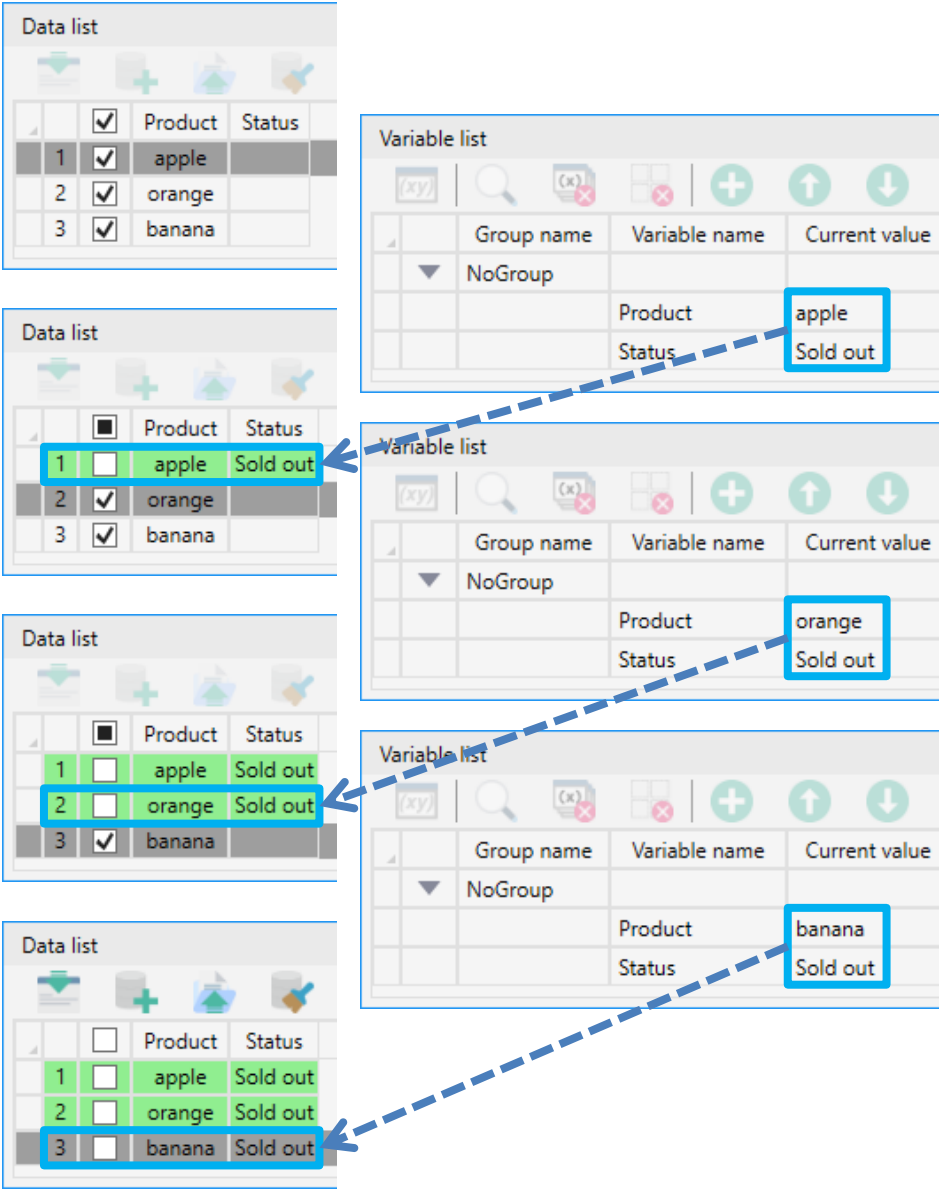


Figure 5-27 Images of running scenario to update table data



■ Data for run loop

Enter the data header in the first row and the actual data in the second and subsequent rows for the data to be handled by the loops. The name of the variable associated to the data name should be matching. If creating a new file for the Data list to handle where a scenario has already been created, it would be easier to create a tree.

➤➤ For details, see "Create template file."

➤➤ For details, see "Import variable names."

Figure 5-28 Data for run loop

	A	B	C	D
1	AddressCode	PostalCode	Prefecture	Address
2	27201339000	587-0062	Osaka	Tai, Mihara-ku, Sakai-shi
3	27201337000	587-0041	Osaka	Sugou, Mihara-ku, Sakai-shi
4	27201340000	587-0001	Osaka	Daiho, Mihara-ku, Sakai-shi
5	27201345000	587-0064	Osaka	Bodai, Mihara-ku, Sakai-shi
6	27201326000	587-0066	Osaka	Ishihara, Mihara-ku, Sakai-shi

Figure 5-29 Imported data in the Data list pane

	Line No.	AddressCode	PostalCode	Prefecture	Address
☒	1	27201339000	587-0062	Osaka	Tai, Mihara-ku, Sakai-shi
☒	2	27201337000	587-0041	Osaka	Sugou, Mihara-ku, Sakai-shi
☒	3	27201340000	587-0001	Osaka	Daiho, Mihara-ku, Sakai-shi
☒	4	27201345000	587-0064	Osaka	Bodai, Mihara-ku, Sakai-shi
☒	5	27201326000	587-0066	Osaka	Ishihara, Mihara-ku, Sakai-shi

■ Notes

Excel will be launched when an Excel file is specified for the table data. WinActor will run concurrently with Excel. Keep Excel open.

WinActor will incur an error if Excel is closed before the loop run is finished. However, an error will not occur if at the end of the loop. At the end of the loop, the scenario using the last row of data in the Data list is run.

For scenarios that update the data in the Data list, if Excel is closed before the loop run is finished, WinActor will incur an error. In this case an error will occur at the end of the loop.

Data will be handled in the WinActor memory if a CSV file is specified for the table data and may use up the memory if the file size is too big. Reduce the number of rows to import in that case.

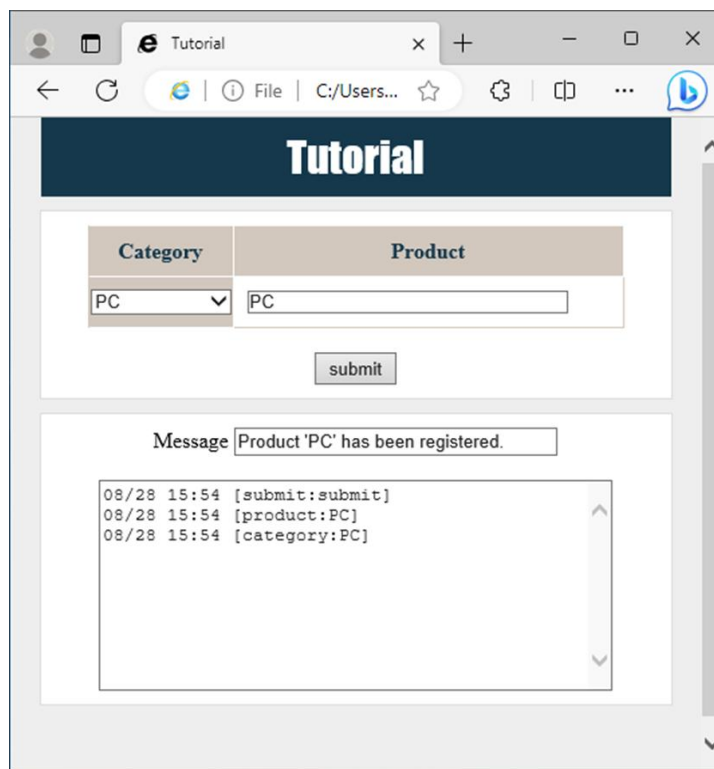
5.5 Operations for Creating Scenario

5.5.1 Get value

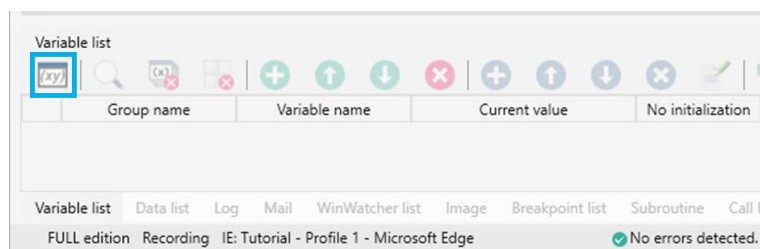
Follow the steps below to create a scenario to get values. The example below uses IE mode in Edge for the target application.

Steps

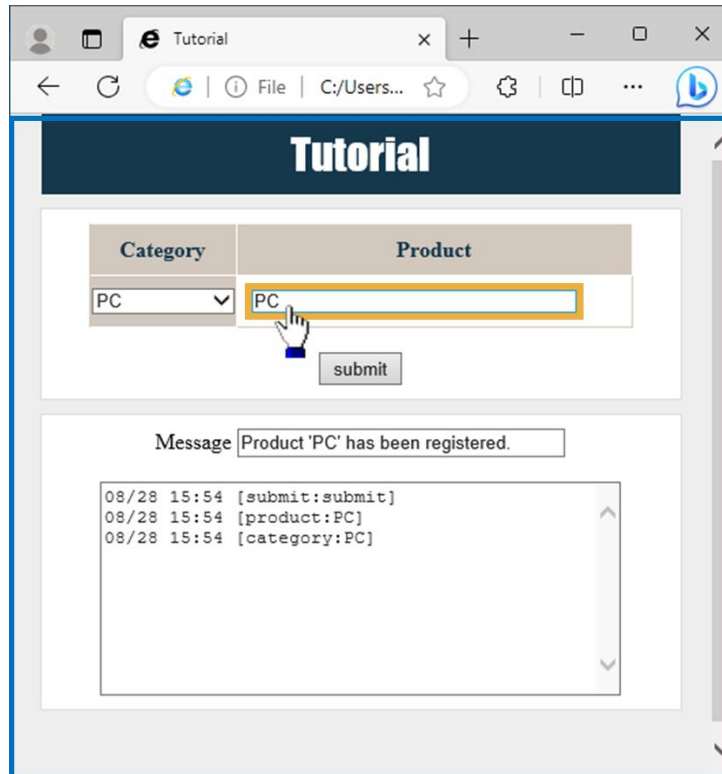
1. Open the page that has a table to get values in IE mode in Edge. Select the Edge tab as the target application of WinActor, and start recording a scenario using the IE mode of WinActor.



2. Change the mouse pointer to () by clicking 'Get or set value' icon in the 'Variable list' tab pane.

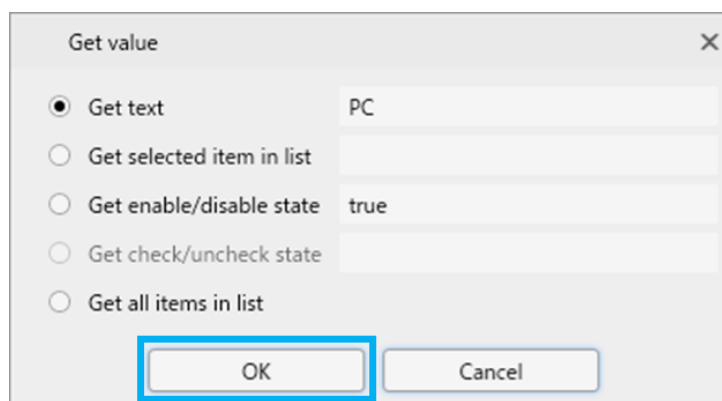


3. While the pointer is (🖱️), hold and the release the left mouse button.

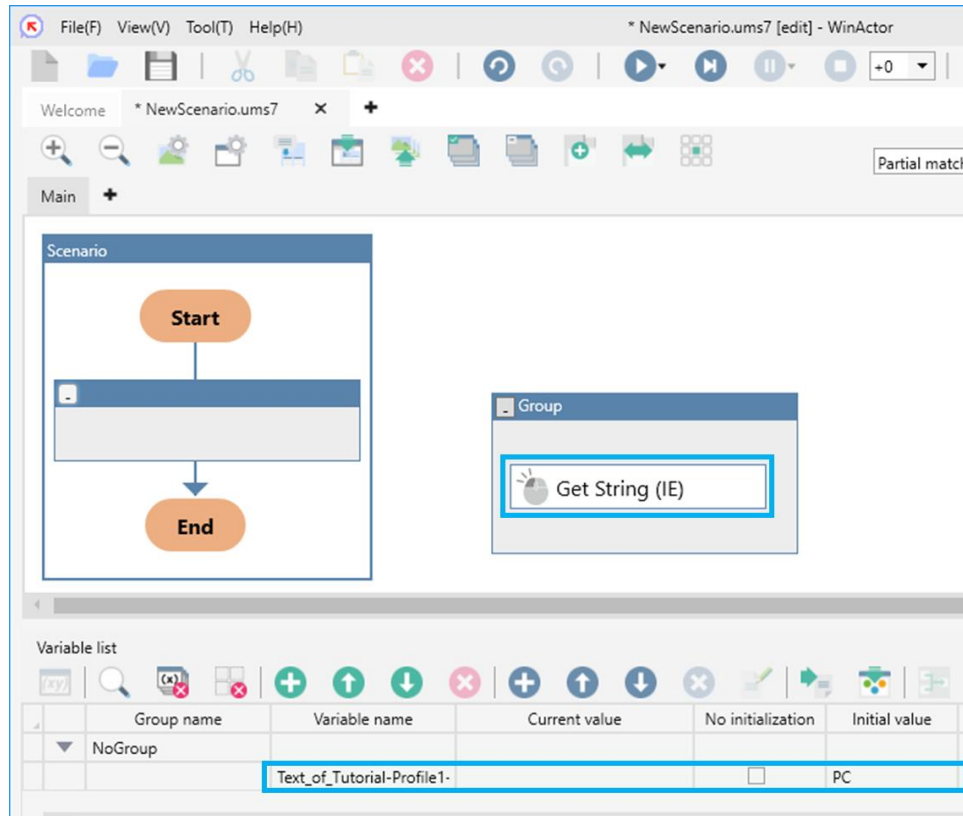


4. Click the 'OK' button in the 'Get value' window.

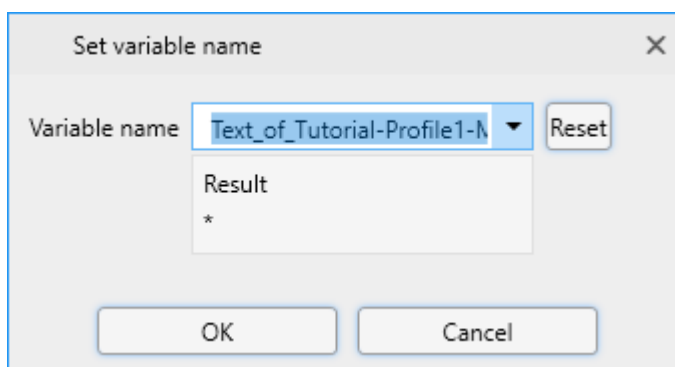
»» For details, see "3.17 Get Value Window."



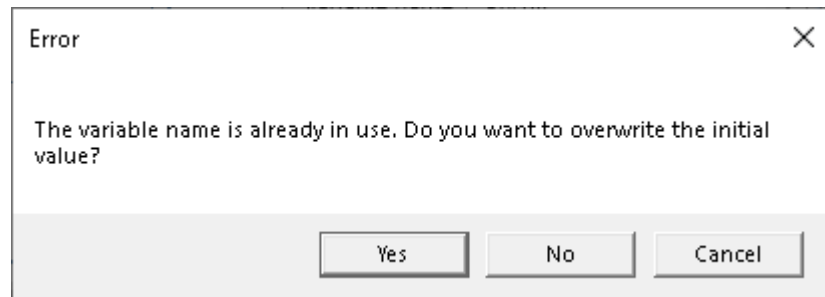
5. If the 'Option' dialog's 'Record' tab setting, 'Generate variables automatically,' is enabled, click the 'OK' button in the 'Get value' window to add a variable in the 'Variables List' (Text_of_Tutorial-Profile1-MicrosoftEdge:GetString(IE)) and 'Get String (IE)' to the flowchart.



6. If the 'Option' dialog's 'Record' tab setting, 'Generate variables automatically,' is disabled, click 'OK' button in the 'Get value' window, to display the 'Set Variable Name' dialog. Select or set the variable name.



- If the 'OK' button is clicked and the variable name already exists in the Variables List, a confirmation dialog will be displayed. Clicking 'OK' will overwrite the variable. Clicking 'No' will not change the initial value.



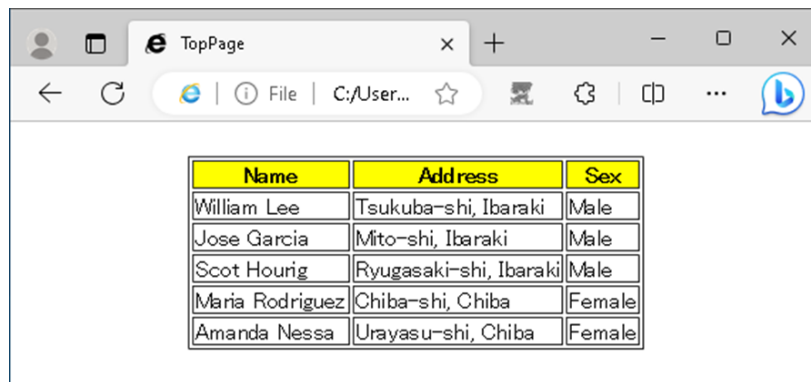
- If 'Yes' or 'No' is selected in the confirmation dialog, or if a new variable name has been set in 'Set Variable Name,' the variable set will be displayed in the 'Variable list' and 'Get String' will be added to the flowchart.
-

5.5.2 Get value in table

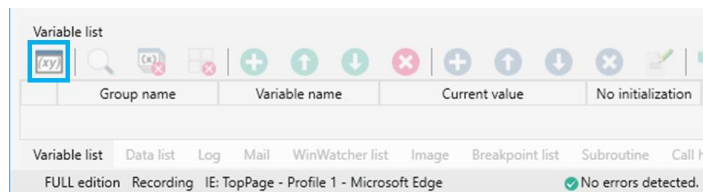
Follow the steps below to create a scenario to get values in a table displayed in a web browser. The example below uses IE mode in Edge for the target application.

Steps

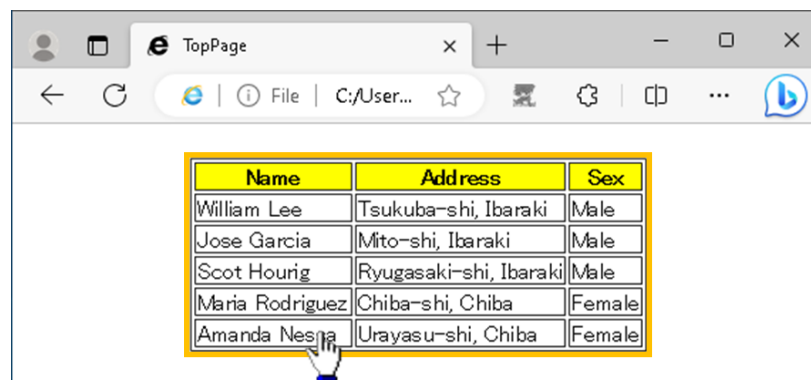
1. Open the page that has a table to get values in IE mode in Edge. Select the Edge tab as the target application of WinActor, and start recording a scenario using the IE mode of WinActor.



2. Change the mouse pointer to () by clicking 'Get or set value' icon in the 'Variable list' tab pane.



3. While the mouse pointer is (), hold and then release the left mouse button in the table to get the value.



4. Set items in the 'Get values in table' window.

Get values in table

Operation

(1) ☒ Get value in cell

(2) ☐ Get all values in table

(3) ☐ Check cell existence (true/false)

(4) ☐ Get the number of rows

(5) ☐ Get the number of columns

(6) Cell location

Row number Value=>

Column number Value=>

OK Cancel

No.	Item name	Description
(1)	Get value in cell	Gets the text from the specified cell in the table
(2)	Get all values in table	Gets the all-table values and save to a CSV file
(3)	Check cell existence (true/false)	Get 'true' if the specified cell in the table exists, otherwise 'false.'
(4)	Get the number of rows	Gets the number of rows in the table
(5)	Get the number of columns	Gets the number of columns in the table
(6)	Cell location	Enabled when 'Get value in cell' or 'Check cell existence' is selected. Specify the cell to get the value from with numbers. For instance, set 2 as the row number and 1 as the column number to get Jose Garcia as the value. Rows and columns can be specified from the combo box as well.

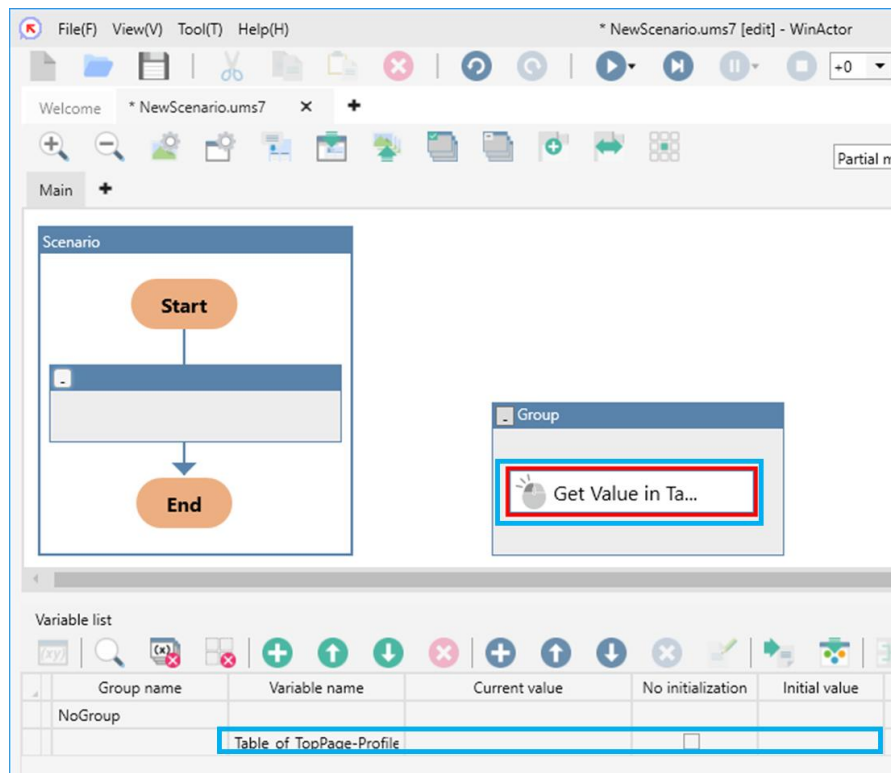


Up to 1024 numerical characters can be entered to specify a cell. However, disabling 'Restrict the number of characters for variable values' in the "Scenario information" window will lift the character limit.



For details, see "Scenario information."

5. If the 'Option' dialog's 'Record' tab setting 'Generate variables automatically' is enabled, click 'OK' button in the 'Get values in table' window to add a variable in the 'Variables List' (Table_of_TopPage-Profile1-MicrosoftEdge:GetValueinTable(IE)) and 'Get Value in Table (IE)' to the flowchart.



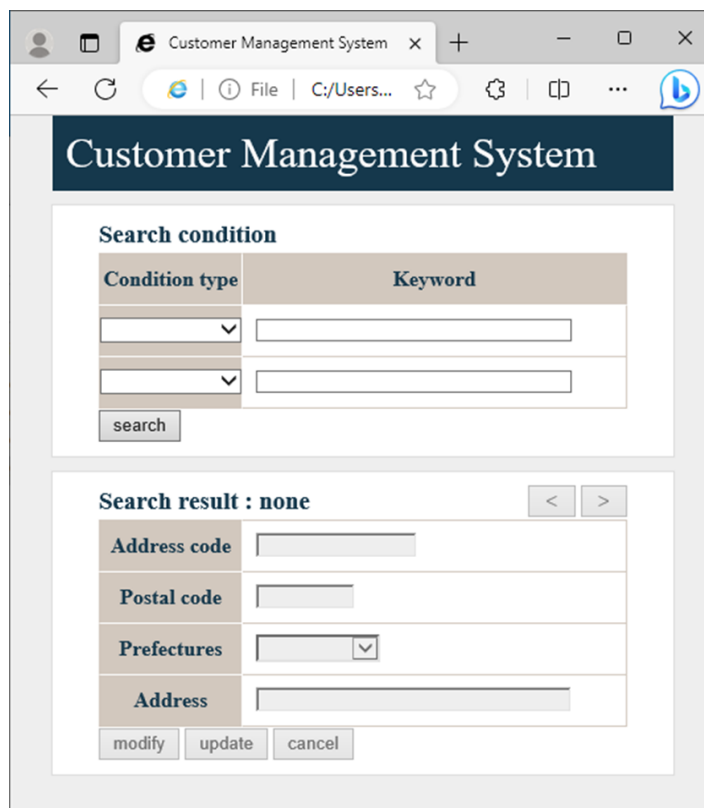
6. If the 'Option' dialog's 'Record' tab setting 'Generate variables automatically' is disabled, click the 'OK' button in the 'Get Value in Table (IE)' window to display the 'Set Variable Name' window. Select or set the variable name.

5.5.3 Set value

Follow the steps below to create a scenario to set values. The example below uses IE mode in Edge for the target application.

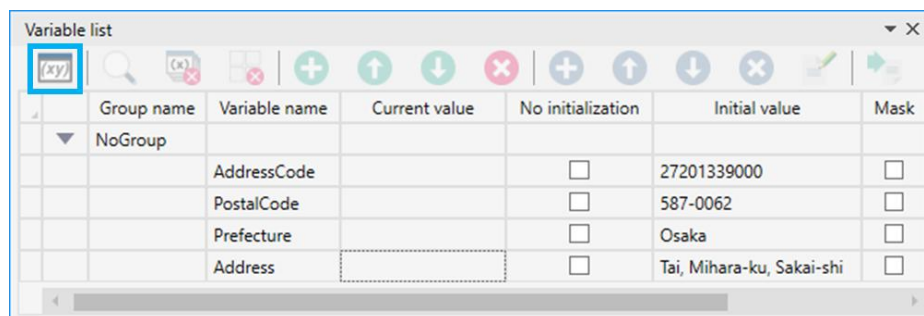
Steps

1. Open the page that has a table to set values in IE mode in Edge. Select the Edge tab as the target application of WinActor, and start recording a scenario in the IE mode of WinActor.



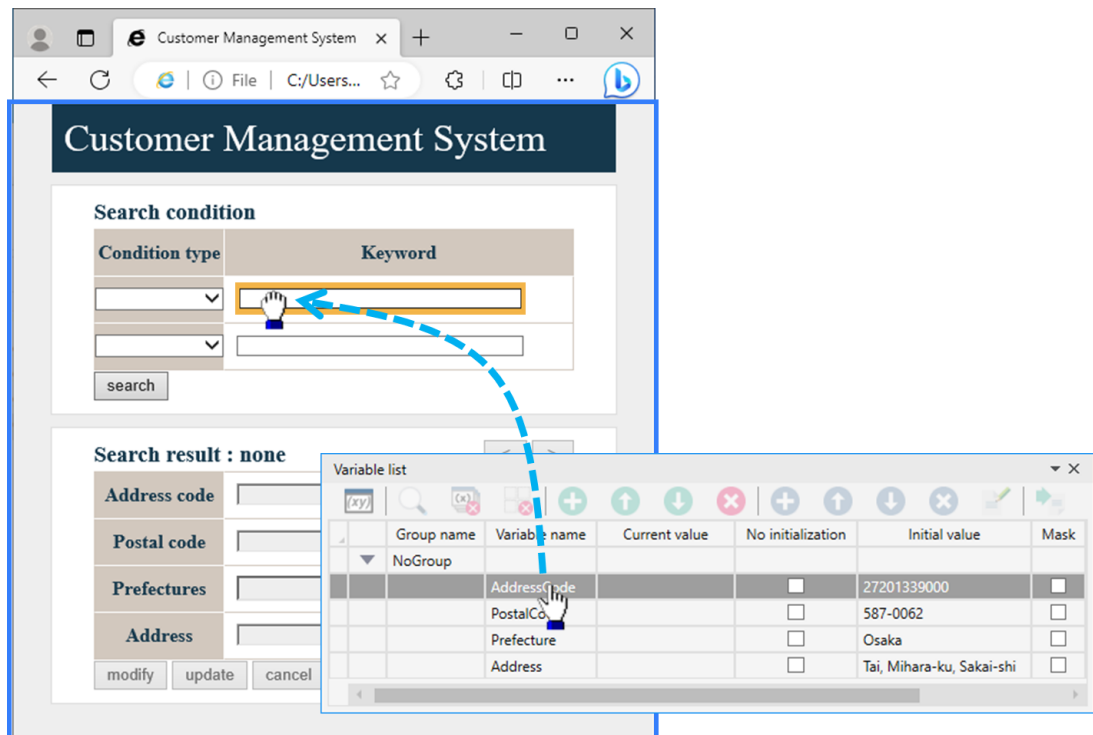
The screenshot shows a web browser window titled 'Customer Management System'. The page has a dark blue header with the title. Below the header, there is a 'Search condition' section with two rows of 'Condition type' (dropdown) and 'Keyword' (text input) fields, followed by a 'search' button. Below this is a 'Search result : none' section with a '<' and '>' navigation. It contains four input fields: 'Address code', 'Postal code', 'Prefectures' (a dropdown), and 'Address'. At the bottom of this section are 'modify', 'update', and 'cancel' buttons.

2. Change the mouse pointer to () by clicking 'Get or set value' icon in the 'Variable list' tab pane.



	Group name	Variable name	Current value	No initialization	Initial value	Mask
▼	NoGroup					
		AddressCode		☐	27201339000	☐
		PostalCode		☐	587-0062	☐
		Prefecture		☐	Osaka	☐
		Address		☐	Tai, Mihara-ku, Sakai-shi	☐

3. While the mouse pointer is (), press the left mouse button down on the row of the variable in the 'Variable list' tab pane.
4. Hold down the left mouse button to changes the pointer to (), drag the pointer to the area in the Edge tab to set the variable, and release the button.



5. 'Set Text (IE)' node is shown in the Flowchart area.

The screenshot displays the WinActor software interface. The main window shows a flowchart titled 'Scenario' with a 'Start' node, a process box, and an 'End' node. A 'Group' box is also visible, containing a 'Set Text (IE)' node. The 'Variable list' panel at the bottom shows a table with columns: Group name, Variable name, Current value, No initialization, Initial value, and Mask. The table lists variables for 'NoGroup' including AddressCode, PostalCode, Prefecture, and Address.

Group name	Variable name	Current value	No initialization	Initial value	Mask
NoGroup	AddressCode		☒	27201339000	☒
	PostalCode		☐	587-0062	☐
	Prefecture		☐	Osaka	☐
	Address		☐	Tai, Mihara-ku, S	☐

Variable list | Data list | Log | Mail | WinWatcher list | Image | Breakpoint list | Subroutine | Call history | Elapsed time

FULL edition | Editing | IE: Customer Management System - Profile 1 - Microsoft Edge | No errors detected. | Displayed node

5.6 File Path

This section describes how file paths are handled in WinActor. File paths represent where the files and folders are located.

5.6.1 Types of file paths

There are three types of file paths that can be used with WinActor.

1. Local path
2. UNC path
3. http/https scheme URI

■ Local path

Local paths represent the location of the files and folders in the PC using the drive, file or folder names. The following paths are allowed:

1. drive name:\folder name\file name
2. file:///drive name:/folder name/file name

Drive names are separated with colons (:).

File and folder names are separated with a slash (/) or back slash (\).

■ UNC path

UNC paths represent the location of the files and folders in the network, such as file servers, using the computer, shared, file or folder names. The following paths are allowed:

1. \\host name\share name\folder name\file name
2. file://host name/share name/folder name/file name

File and folder names are separated with a slash (/) or back slash (\). Two back slashes (\\) are appended in front of the computer name.

■ http/https scheme URI

HTTP/HTTPS scheme URIs represent the location of files and folders on the internet using HTTP or HTTPS protocols. Microsoft Office specifies file paths to access files in One Drive.

Example: `https://example.com/personal/account_name/Documents/sample.docx`

Only a portion of nodes and libraries can be used to specify files using HTTP/HTTPS schemes in WinActor. Nodes and libraries that can use these URIs are indicated in the manual.

5.6.2 Absolute path

Absolute paths describe the full path to the files from the top level. Local paths, UNC paths and HTTP/HTTPS schema URIs are allowed for absolute paths.

Local paths describe the full path from the drive name to the filename. UNC paths describe the full path from the computer name to the filename. HTTP/HTTPS schema URIs describe the full path from the domain to the filename.

If an absolute path is specified for the file or folder, WinActor will be directed to the file or folder during the scenario run.

5.6.3 Relative paths

Relative paths describe the path to the file from the base path. WinActor only uses the local path for relative paths. UNC paths or HTTP/HTTPS schema URIs are not allowed for relative paths.

■ Reference paths

Base paths are paths that will be the base of the relative path. There are three types of base paths in WinActor, as in the table below. Base paths can be described with local paths or UNC paths.

Table 5-6 Type of reference paths

No.	Reference path	Description
(1)	Scenario path	This path goes to the folder where the currently opened scenario file is saved. Scenario paths exist if a saved scenario file is opened or a new scenario is saved. The scenario path does not exist yet when a new scenario is created but not saved.
(2)	WinActor path	This path goes to the WinActor folder under the login user's document folder.
(3)	Installation path	This path goes to the folder where WinActor7.exe is installed.

■ Complete a drive name or path name

When files or folders are specified with relative paths, WinActor will complete the path using the base path and drive or path names. The base path prioritized as scenario path ☐ WinActor path ☐

installation path. First, WinActor will try to complete the path using the scenario path as the base. If the path does not exist, then WinActor will move on to use the WinActor path and if that path does not exist, then will try the installation path.

The following are examples of completing relative paths:

Example 1: Complete the relative path with the drive and path names (C:\Dir-A\Dir-B)

(Reference path) C:\Dir-A\Dir-B

(Relative path) Dir-C\File.txt

(Completion result) C:\Dir-A\Dir-B\Dir-C\File.txt

Example 2: Complete the relative path with the full base path (\\Computer\Share\Dir)

(Reference path) \\Computer\Share\Dir

(Relative path) File.txt

(Completion result) \\Computer\Share\Dir\File.txt

■ Complete only the path

If the relative path contains a drive name, only the path name will be completed using the base path containing the same drive name. Paths containing different drive names will not be used and will move on to the next base path in the priority list. In addition, as UNC paths do not contain drive names, UNC base paths will not be used and will move on to the next path in the priority list.

The following are examples of completing path names only:

Example 1: As the drive is C:, complete the relative path's path name (\Dir-A\Dir-B):

(Reference path) C:\Dir-A\Dir-B

(Relative path) C:\File.txt

(Completion result) C:\Dir-A\Dir-B\File.txt

Example 2: As the drive name does not match, the path will not be completed

(Reference path) C:\Dir-A\Dir-B

(Relative path) D:\File.txt

(Completion result) No completion

Example 3: As the base path is a UNC path, the path will not be completed.

(Reference path) \\Computer\Share\Dir

(Relative path) D:\File.txt

(Completion result) Not completed

■ Completion of a drive name only

If the drive name is omitted from the relative path and the path name is from the root, only the drive name will be completed. Path names for local paths from the root start with a back slash (\).

If the relative path names that start from the root contain the base path (matches the base path or under the base path folder), the drive name for the base path will be completed.

If the base path is not included, then it will be changed to the next path in the priority list. If none of the base paths are included, the path name will be ignored and will complete only the drive name.

For instance, WinActor tried all base paths twice to complete only the drive name. At the first pass, the path names are compared while checking the scenario □ WinActor □ installation paths. At the second pass, the path name is ignored while checking the scenario □ WinActor □ installation paths. In addition, as UNC paths do not contain drive names, UNC base paths will not be used and will move on to the next path in the priority list.

Example 1: As the relative path name starting from the root contains the base path, the drive name will be completed (C:)

(Reference path) C:\Dir-A\Dir-B
(Relative path) \Dir-A\Dir-B\File.txt
(Completion result) C:\Dir-A\Dir-B\File.txt

Example 2: As the relative path name starting from the root contains the base path, the drive name will be completed (C:)

(Reference path) C:\Dir-A\Dir-B
(Relative path) \Dir-A\Dir-B\Dir-C\File.txt
(Completion result) C:\Dir-A\Dir-B\Dir-C\File.txt

Example 3: As the relative path name starting from the root does not include the base path, the drive name (C:) is not completed at the first pass but is completed at the second pass.

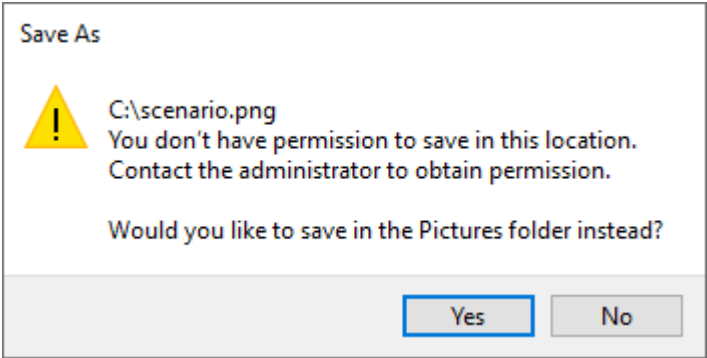
(Reference path) C:\Dir-A\Dir-B
(Relative path) \Dir-A\File.txt
(Completion result) C:\Dir-A\File.txt

6. Limitations

6.1 Limitations of File Location

There are folders that require administrator privileges when saving a file. If a folder requiring administrator privileges is specified when saving scenarios, exporting the Data list, obtaining tables and exporting logs, the following dialog will be displayed.

Figure 6-1 Dialog when specifying a folder requiring administrator privileges



The following are examples folders requiring administrator privileges.

Table 6-1 Examples of folders in which administrator privileges are required

No.	Folder name	Description
(1)	c:\	Under C drive
(2)	c:\Program Files	Application installation folder
(3)	c:\Windows	OS installation folder

6.2 Protected Mode in Acrobat Reader

The following may occur if the Protected Mode is enabled in Acrobat Reader. Disable the Protected Mode before using Acrobat Reader.

- Applications cannot be selected as targets (can select when clicking the title bar).
- Get or set value (including tables) cannot be recorded.
- Emulation cannot be recorded.
- Shortcut keys for 'Stop' and 'Pause after loop' are not accepted.
- Scenario fails to run.

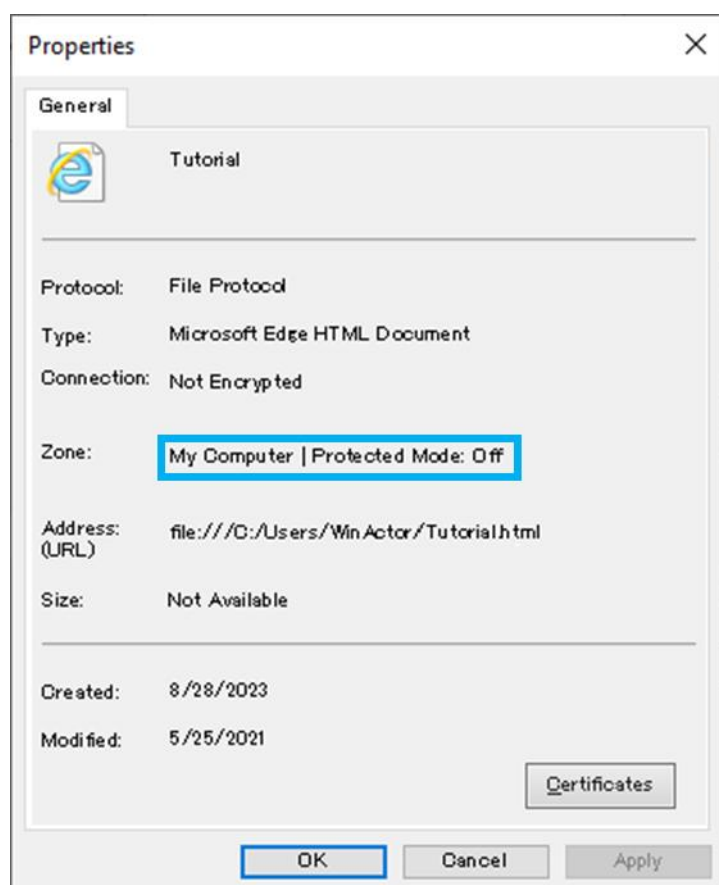
6.3 Protected Modes in IE mode in Edge

The following may occur if Protected Mode or Enhanced Protection Mode is enabled in IE mode in Edge. Disable the Protected Mode before use.

- Applications cannot be selected as targets (can select when clicking the title bar).
- Get or set value (including tables) cannot be recorded.
- Emulation cannot be recorded.
- Shortcut keys for Stop and Pause after loop are not received.
- Scenario fails to run.

The Protected Mode can be checked in the properties of IE mode in Edge. If the Protected Mode is enabled, register the webpage in the trusted sites in the internet option security settings. WinActor may not be able to record sites registered in Restricted Sites.

Figure 6-2 How to check Protected Mode



6.4 Limitations in the Misregistrations of Target Frame in IE mode in Edge

If the zoom in IE mode in Edge is set to other than 100%, the target frames may shift when running WinActor.

6.5 Limitations in the Applications Launched with Administrator Privilege

The following may occur if the application to operate is opened with administrator privileges. Start WinActor as an administrator or open the application with standard user privileges.

- Applications cannot be selected as targets (can select when clicking the title bar).
- Get or set value (including tables) cannot be recorded.
- Emulation cannot be recorded.
- Shortcut keys for Stop and Pause after loop are not received.
- Scenario fails to run.

6.6 Scenario with Evaluation Expiration

Scenarios created with the Evaluation license will have an expiration date. Save the scenario in a WinActor running on a FULL or Product License to remove the expiration date.

6.7 Limitations in the Loading Excel Data



- If the width of the cell is too small, the imported data may be replaced with #.
- If numbers are entered in the cell too small to show the entire data, ##### will be shown in the cell instead. If a cell with ##### is copied, the copied data will be shown as #####.
- If there is an error in the cell, the data may be imported as #NULL or #VALUE.
- When opening Excel files in WinActor, do not open the file in Excel in advance.
- If a file not supported by Excel is specified, a warning dialog may be displayed. Do not operate WinActor after closing the warning dialog.
- To not leave the cell in an editing state in the Excel opened by WinActor.
- Up to 1024 characters can be imported/exported to an Excel file. Up to 8221 characters can be imported if the character limit is lifted in the Option settings.
- Memory errors may occur if a large CSV file is imported. Reduce the number of rows

and columns in the CSV file and import again.

6.8 Environments to Record and Run

It is recommended for the stable run of scenarios to adjust versions, themes, and screen resolutions of the OS, web browsers, and various software products in the running environment to those in the recording environment.

6.9 Touch-Panel Operation

Record and Run do not support operations in touch-screen panels.

6.10 Limitations in the Database



- Microsoft Office Access is the recommended database to use with DB Connection.
- When connecting to a database, register the database used by the Windows Management Tool ODBC data source (32-bit) or data source (ODBC) in advance.
- If there is no driver for the database to connect to the ODBC data source (32-bit) or data source (ODBC), obtain and install the driver.
- An error will occur if trying to export values different from the data type in the database. Reconnect to the database if an error still occurs after fixing the values.
- WinActor cannot import or export the Access Replication ID.
- WinActor cannot overwrite the data if the data type in the database is automatic numbering or is aggregated data. An error will occur if you try to overwrite.
- If the data type in the database is date/time and trying to export values only in hh:mm:ss, export will fail. Values must be in yy:mm:dd:hh:mm:ss or yy/mm/dd.
- Up to 1026 characters can be imported/exported with database connection. Disable the setting in Option to lift the character limit.

6.10.1 How to install Access ODBC Driver (Access Database Engine) 32-bit to the environment to install Microsoft Office 64-bit

Steps

1. Go to Start menu→Search programs and files→enter "cmd"→select Command Prompt.
2. Enter the file path and name for Access ODBC Driver 32-bit (Microsoft Access database engine 2016), a space and "/quiet".
e.g.) C:\Users\winactor\Downloads\AccessDatabaseEngine.exe /quiet

- 3.** Install "Access ODBC Driver 32-bit (Microsoft Access Database Engine 2016)" as instructed.

6.10.2 Characters not allowed in table names

The following characters are not allowed in table names.

Table 6-2 Characters not allowed in table names

Symbols			
(space)	! (exclamation mark)	" (quotation mark)	# (number sign)
\$ (dollar sign)	% (percent sign)	& (ampersand)	' (apostrophe)
, (comma)	- (hyphen, minus)	. (period)	/ (slash)
; (semicolon)	< (less-than sign)	= (Equal sign)	> (greater-than sign)
? (question mark)	@ (at sign)	[(left square bracket)	] (right square bracket)
^ (circumflex accent)	` (grave accent)	{ (left curly bracket)	(vertical bar)
} (right curly bracket)	~ (tilde)		

6.11 Input Limitations in the Control Characters

Recordable control characters used when recording operations include tabs (TAB), carriage returns (CL), and line feeds (LF). Any other control characters cannot be recorded.

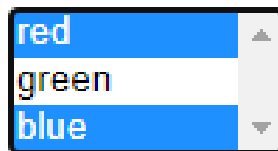
6.12 Limitations in the Recording Operations in Chrome/Firefox/Edge Mode

6.12.1 Record Select multiple items

The Chrome, Firefox and Edge Modes have similar limitations as Multi-list Selection and the workaround is the same as well. The following describes the Chrome Mode but the same applies for the Firefox and Edge Mode.

Operations in the multi-list as below will be recorded as 'Select List (Chrome).'

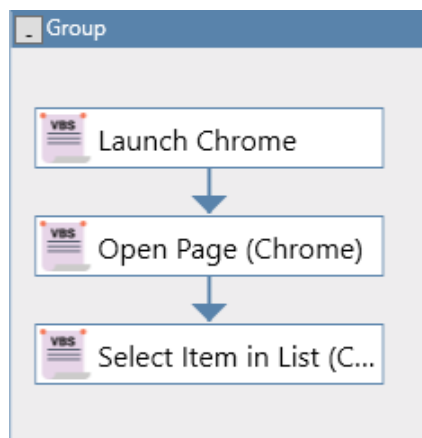
Figure 6-3 Example of multiple items in Google Chrome



As a result, when running the scenario, multiple items cannot be selected and behaves as a single item selection. To create a scenario selecting multiple items in a multi-list, replace 'Select List (Chrome)' with 'Select Multi-list' from the User Library.

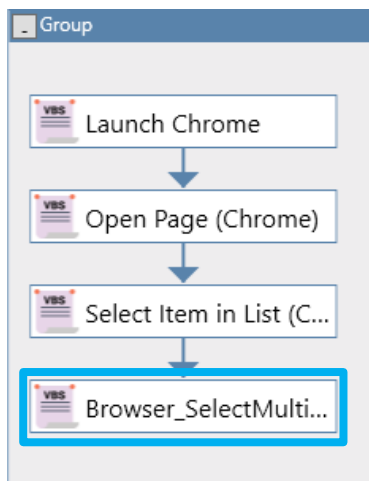
Steps

1. Open the webpage to record and record multiple items in Chrome Mode.

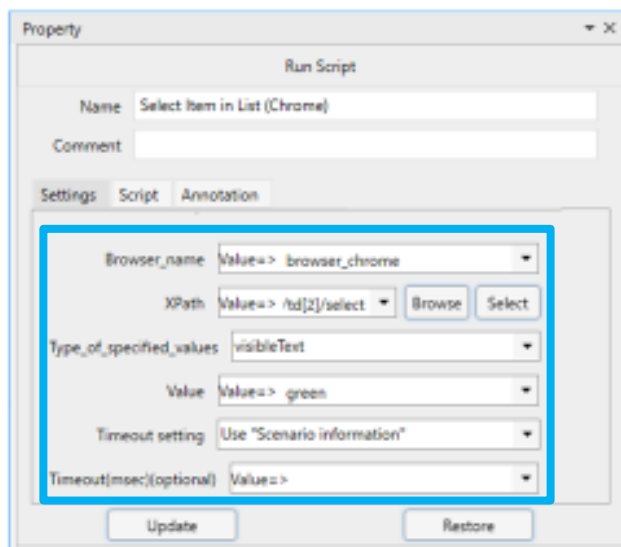


Actions are created in the Flowchart area.

2. Select 'Browser_SelectMultipleItems' under '23_Browser' in the Palette area.
3. Drag 'Browser_SelectMultipleItems' to the group under 'Select Item in List (Chrome).'

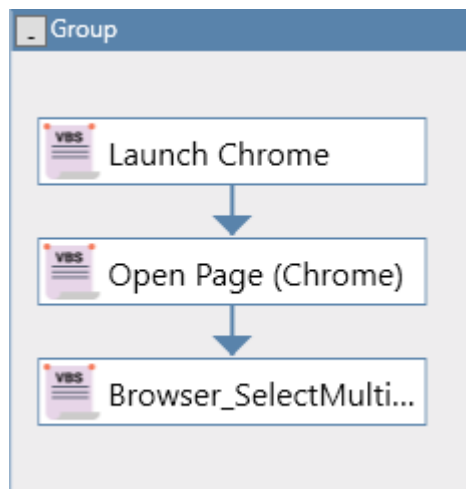


4. Double-click 'Select Item in List (Chrome)' to open the properties. Check the settings in the following 6 properties and set the same values in 'Browser_SelectMultipleItems' properties.

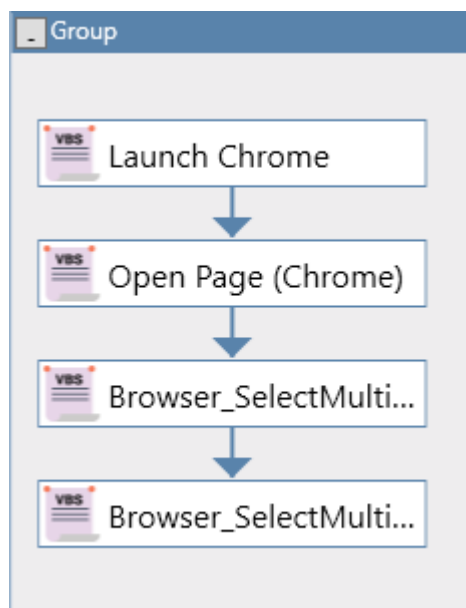


The properties in 'Browser_SelectMultipleItems' properties and 'Select Item in List (Chrome)' are the same.

5. Delete 'Select Item in List (Chrome).'



6. Copy and paste 'Browser_SelectMultipleItems' action and change the values in the properties to values to select next and include in the flowchart.



7. Repeat the above if selecting three or more items.

6.13 Limitations in the Date and Time

Dates in BC (Before Christ) are not supported.

7. Appendix

7.1 Glossary

The following is WinActor terms or words used in this manual.

Table 7-1 WinActor glossary

No.	Term	Description
(1)	AP	An abbreviation for application
(2)	Cloud Library	The platform for WinActor users to search and download latest User libraries and Sample scenarios on the cloud site.
(3)	IE mode	Recording mode for IE mode in Edge.
(4)	JRE	Java Runtime Environment, a software suite required to run software developed in Java.
(5)	SBC client (Thin client)	Server Based Computing client, a client that sends keyboard and mouse input information to the server. The server runs the OS and applications and sends image data to the client.
(6)	Webpage dialog	Modal dialog shown in a web browser.
(7)	Space area	Flowchart area outside the nodes
(8)	Action	Minimum unit operations are described. One of the smallest editing unit in the flowchart.
(9)	Action node	Node in the flowchart representing an action
(10)	Action Exception	Exception that occurs when the action does not finish normally. Use this to create scenarios that run when an error in the exception handling group occurs.
(11)	Enabled sheet	Currently selected Excel sheet
(12)	Exceptional flow	Node representing the exception group in the flowchart
(13)	Event mode	Recording mode that record the operation events (click, changes in text) in the window (button, textbox)
(14)	Reference image	Image captured when recording operations in the target
(15)	Switch image window	Switch details in the image window.
(16)	Import	Load other scenarios, CSV or Excel files. CVS and Excels can be imported to be used as data or Variable list. Scenarios can be imported to other scenario files as well.

No.	Term	Description
(17)	WinID management	Information WinActor uses to identify operated windows, made up of the window titles a process names.
(18)	Floating flow	Control or action node not placed in the main flow. Grouped control nodes are counted as one floating flow
(19)	Export	Save data created in WinActor in CSV or Excel.
(20)	Emulation mode	Recording mode to emulate the user operations (mouse reference points, button clicks, keyboard entry)
(21)	Start node	Node representing the start of the process in the flowchart
(22)	WinWatcher	Monitoring rules connecting the dialogs to the exceptions and subroutines in the scenario
(23)	Startup password	Password required at startup. Enabled only when set
(24)	Record function	Function and information used by WinActor when recording
(25)	Record mode	Recording method used by WinActor
(26)	Group	Consolidates multiple nodes
(27)	Control	Parts of the window such as buttons and fields
(28)	Subroutine	Consolidates actions, flow controls, groups for reuse
(29)	Run function	Function and information used by WinActor when executing
(30)	Combo box of Run speed	Combo box used by WinActor to adjust the speed when executing
(31)	Scenario	Defines the steps to automate operations in WinActor. Contains the flowchart, monitoring rules, Scenario Information, WinID rules and images.
(32)	Scenario file (*.ums7)	File where the steps to automate operations in WinActor is saved. The scenario, variables and rules are saved. WinActor loads this file to run or edit a scenario.
(33)	Scenario flowchart area	Represents the scenario flow
(34)	End node	Node representing the end of the process in the flowchart
(35)	Conditional expression	Conditions set in the 'Decision,' 'Multi-branch,' 'Pre-Test loop,' and 'Post-Test loop'
(36)	Control node	Node that controls the flow in the flowchart. Collective name for 'Decision,' 'Multi-Branch,' 'Pre-Test Loop,' 'Pro-Test Loop,' 'Exit from Loop,' 'Next Iteration,' 'Exception Handling,' 'Call Subroutine,' 'Subroutine Group,' and 'Exit Subroutine.'

No.	Term	Description
(37)	Normal flow	Node that represents the normal flow in the Exception Handling Group
(38)	Absolute path	Refers to the complete details needed to locate a file or folder
(39)	Relative path	Refers to a location that is relative to a current directory
(40)	Target	An application to be recorded in WinActor as well as specifying recorded values.
(41)	Node	Box-type component for building scenarios.
(42)	Node ID	Unique ID for nodes in the flowchart
(43)	Breakpoint	Information that can be set in the nodes. The set node is paused before running the scenario.
(44)	Edit function	Functions and information used by WinActor when editing
(45)	Variable	Identifiers that can be overwritten and stores the string used in the scenario. Similar to variables used in programming.
(46)	Variable list	List of variable information that is part of the scenario file
(47)	Main flow	All nodes placed between 'Start' and 'End.'
(48)	Main flow group	Grouped nodes in the main flow
(49)	Modal dialog	Dialog that does not allow other operations until closed
(50)	Number of characters	Number of alphanumeric and special characters allowed
(51)	Undo	Cancels the edits (add, delete, move, import nodes, change properties, etc.)
(52)	Redo	Restores cancelled operations
(53)	User	WinActor users.
(54)	User Library	Allows easy reuse of scenarios created by users
(55)	User Library file	File where the user library is saved. One file for one library.
(56)	Root	Top level or core of the hierarchy
(57)	Exception	Error that occurs when running a scenario. Occurs when properties are not set, operating a non-existing window, wrong operator, etc.
(58)	Log	File recording the WinActor behaviors and operations
(59)	Logical operator	AND, OR, NOT set in the control nodes
(60)	User-original libraries	The libraries created by users themselves using the 'Run Script' or 'Run Python' node

7.2 Window Elements and Names

This section describes the names and functions of elements in a window.

Figure 7-1 Window elements (1/8)

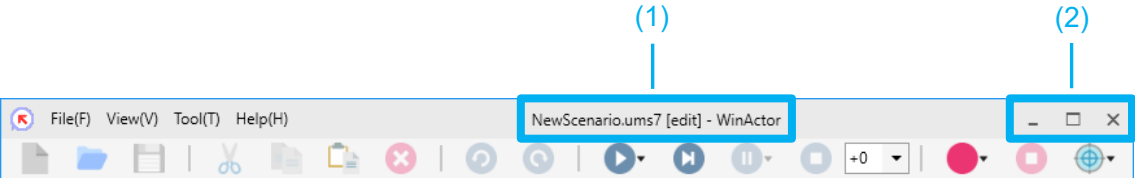


Table 7-2 Window elements (1/8)

No.	Element names	Functions
(1)	Title bar	The title of the window is displayed.
(2)	Window control buttons	Buttons to Minimize, Maximize, and Close the window

Figure 7-2 Window elements (2/8)

The screenshot shows a 'Property' window with the following elements:

- Name:** Emulation
- Comment:** (empty text field)
- WinID name:** Calculator
- Operation:** A list box containing two items: 'Mouse [left button] down at (122,14) from Upper left' and 'Mouse [left button] up at (122,14) from Upper left'. This is labeled (3).
- Buttons:** Upward, Downward, Add, Update, Delete, and a large Update button at the bottom.
- Dropdown menu:** A menu is open showing options: Mouse, Mouse, Key, Wait, and Move. This is labeled (4).
- Coordinates:** X and Y fields are set to 122 and 14 respectively, with units set to Pixel. This is labeled (5).

Table 7-3 Window elements (2/8)

No.	Element names	Functions
(3)	List box	Select an item from a list. One or multiple may be selected.
(4)	Dropdown list	Select an item from the displayed list.
(5)	Text field	Enter text or numbers. Scrolling to the end may not be available if the tab key is used.

Figure 7-3 Window elements (3/8)

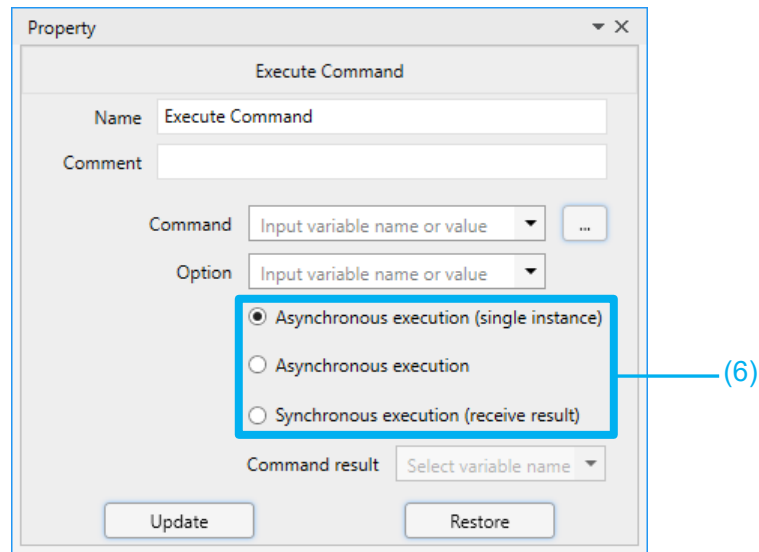


Table 7-4 Window elements (3/8)

No.	Element name	Function
(6)	Radio button	Click to enable the setting

Figure 7-4 Window elements (4/8)

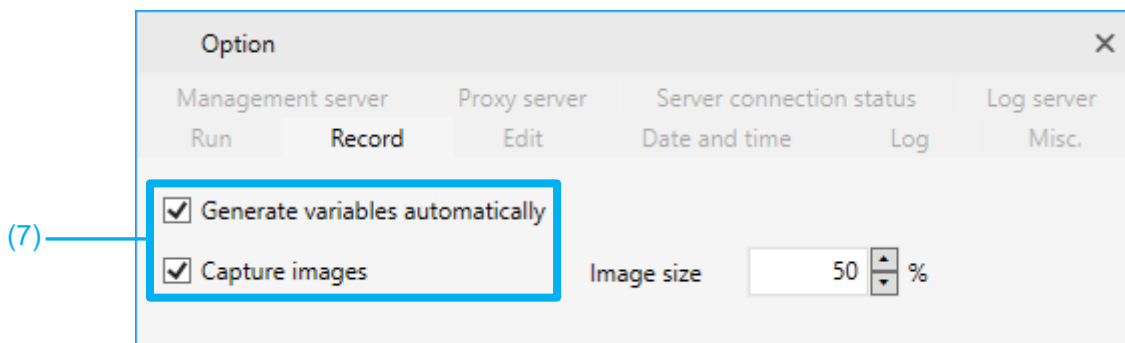


Table 7-5 Window elements (4/8)

No.	Element name	Function
(7)	Check box	Enable or disable a setting by adding or removing a check.

Figure 7-5 Window elements (5/8)

The screenshot shows a 'Property' window titled 'Wait for Window Status'. It contains several fields: 'Name' (Wait for Window Status), 'Comment' (empty), 'Output variable' (UserInput), 'WinID name' (empty), 'Expected status' (empty), and 'Timeout' (10,000 ms). A dropdown menu is open for the 'Output variable' field, showing a list of variables: NewVariable, CalculationResult, Subtotal, Tax, and *. Callout (8) points to the 'Output variable' dropdown. Callout (9) points to the 'Timeout' field. Callout (10) points to the 'Update' and 'Restore' buttons at the bottom.

Table 7-6 Window elements (5/8)

No.	Element names	Functions
(8)	Combo box	Includes the text field and dropdown.
(9)	Text field	Enter values or click the dropdown arrow.
(10)	Button	Click buttons to activate the assigned functions.

Figure 7-6 Window elements (6/8)

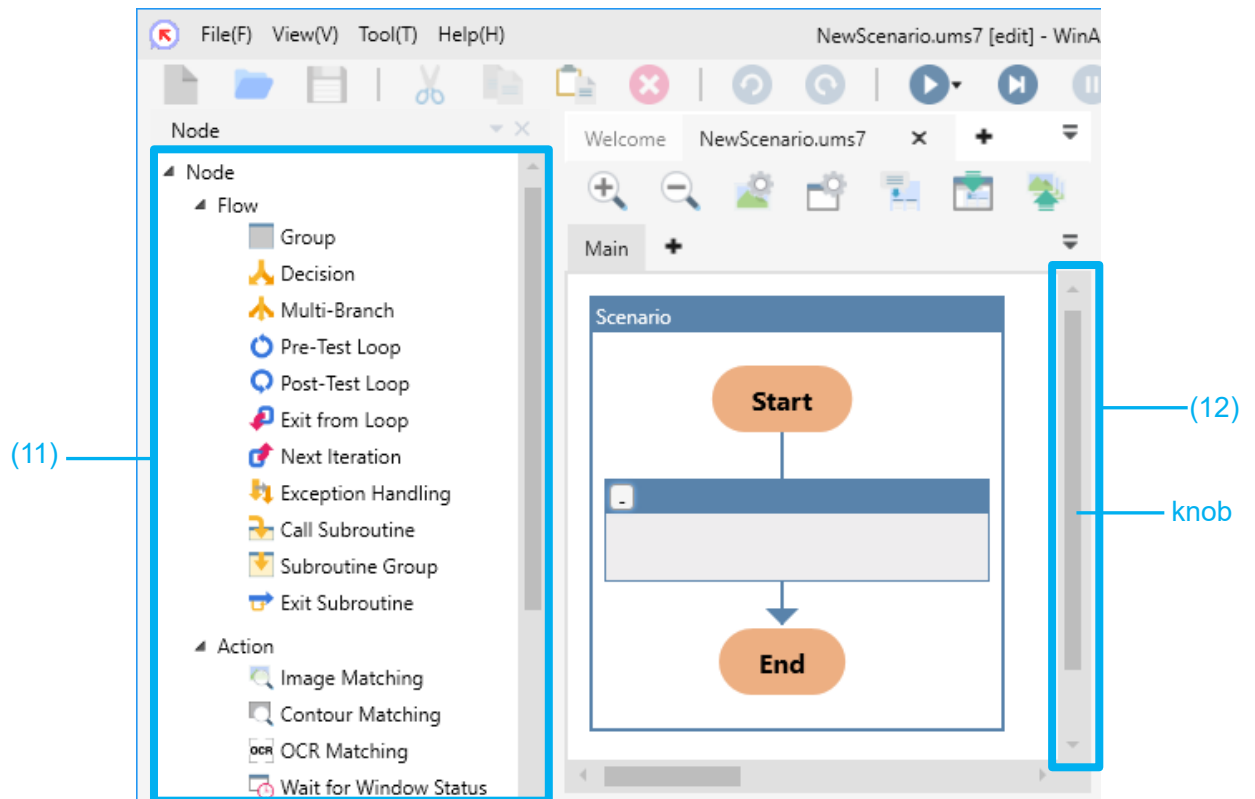


Table 7-7 Window elements (6/8)

No.	Element names	Functions
(11)	Tree	Shows the item hierarchy levels.
(12)	Scroll bar	Displayed so the entire flowchart can be viewed.

Figure 7-7 Window elements (7/8)

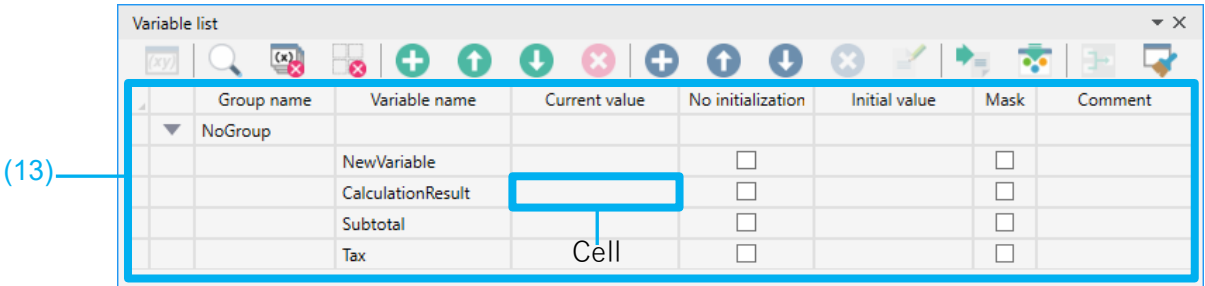


Table 7-8 Window elements (7/8)

No.	Element name	Function
(13)	Table	Window element that displays information in tables. The data is placed in cells.

Figure 7-8 Window elements (8/8)

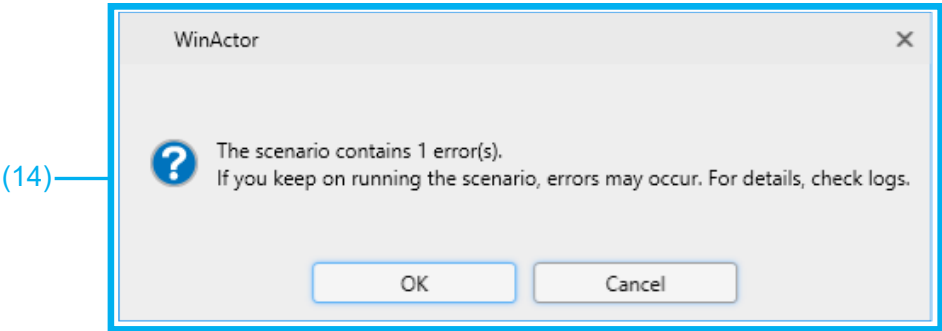


Table 7-9 Window elements (8/8)

No.	Element name	Function
(14)	Dialog	Modal dialogs are dialogs that do not allow other operations until the dialog closes. The dialogs display information, warnings, user interaction and prompt entering information.

7.3 Format Examples of Regular Expressions

The following are examples of entering regular expressions.

Table 7-10 Format examples of regular expressions

No.	Regular expressions	Description
(1)	^(ABC).*\$	Determines if the string starts with "ABC."
(2)	.*(ABC)\$	Determines if the string ends with "ABC."
(3)	.*(ABC).*\$	Determines if the string contains "ABC."
(4)	^[0-9]+\$	Determines if the string has only numbers.
(5)	^[^0-9]*\$	Determines if the string has other than numbers.
(6)	^[A-Za-z]+\$	Determines if the string has only alphabets.



Format examples of the regular expressions the above table are based on `System.Text.RegularExpressions.Regex` class. The regular expressions in the examples are different from the regular expressions used in WinActor ver6 or earlier.

See the following site for details.

<https://docs.microsoft.com/en-us/dotnet/api/system.text.regularexpressions.regex?view=netcore-3.1>

7.4 Example of Log

The following are examples of exported logs. The date format in the logs is the date format set in the 'Option' dialog.

 For details of specifying date format, see "3.8.3 Time tab."

7.4.1 Log in case of errors

Figure 7-9 Examples of log in case of errors

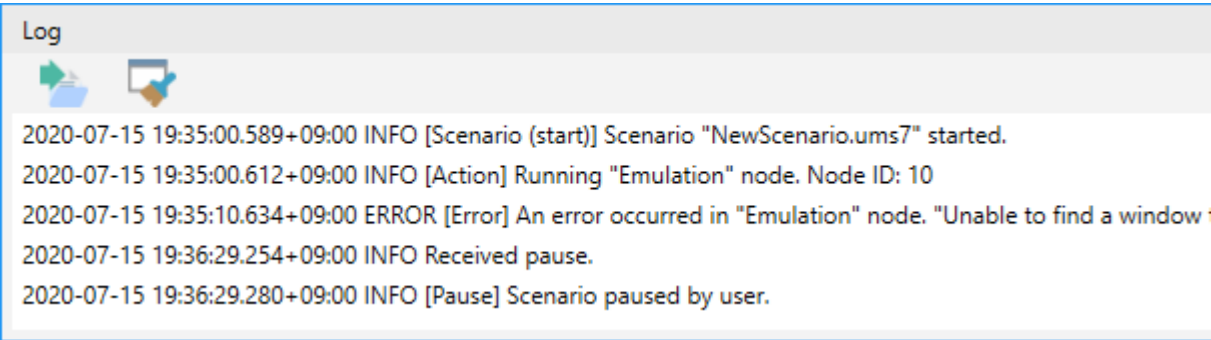
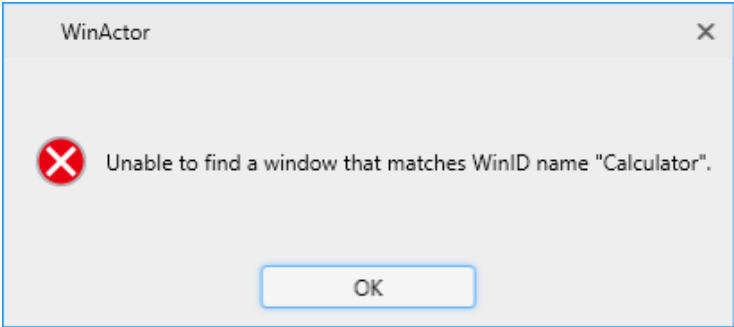
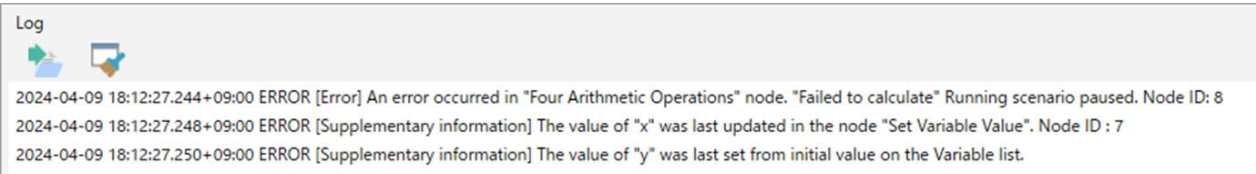
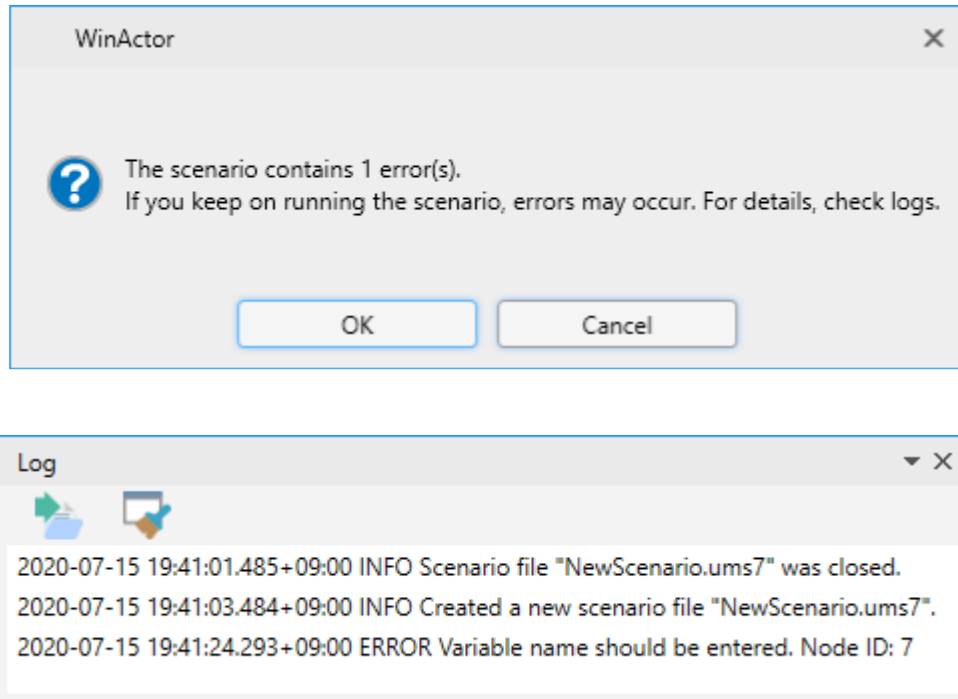


Figure 7-10 Examples of supplementary information in case of an error in the node using variables



7.4.2 Example of warning dialog before running

Figure 7-11 Examples of the warning dialog in case of errors



7.4.3 Logs when running control nodes

The results of the condition determination results when running control nodes are exported to the logs. The Node names, logical expressions, and Node IDs are shown in blue (actually written in black) in the following tables.

Table 7-11 Examples of logs when running control nodes

Control nodes	Examples of logs
Group	When "Group" starts: yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Group (start)] "Node name" started. Node ID: Node ID
	When "Group" ends: yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Group (end)] "Node name" ended. Node ID: Node ID
Decision	When "Decision" evaluates: yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Decision (evaluation)] Conditional expression of "Node name" is evaluated: Boolean of logical expression Node ID: Node ID
	When "Decision" starts: yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Decision (start)] "Node name" started. Node ID: Node ID
	When "Decision" ends: yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Decision (end)] "Node name" ended. Node ID: Node ID
Multi-Branch	When "Multi-Branch" evaluates: yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Multi-Branch (evaluation)] Conditional expression of "Node name" is evaluated: Boolean of logical expression Node ID: Node ID
	When "Multi-Branch" starts: yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Multi-Branch (start)] "Node name" started. Node ID: Node ID
	When "Multi-Branch" ends: yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Multi-Branch (end)] "Node name" ended. Node ID: Node ID
Pre-Test Loop	When "Pre-Test Loop" evaluates: yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Pre-Test Loop (evaluation)] Conditional expression of "Node name" is evaluated: Boolean of logical expression Node ID: Node ID
	When "Pre-Test Loop" starts: yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Pre-Test Loop (start)] "Node name" started. Node ID: Node ID

Control nodes	Examples of logs
	When "Pre-Test Loop" ends: yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Pre-Test Loop (end)] "Node name" ended. Node ID: Node ID
Post-Test Loop	When "Post-Test Loop" evaluates: yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Post-Test Loop (evaluation)] Conditional expression of "Node name" is evaluated: Boolean of logical expression Node ID: Node ID When "Post-Test Loop" starts: yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Post-Test Loop (start)] "Node name" started. Node ID: Node ID When "Post-Test Loop" ends: yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Post-Test Loop (end)] "Node name" ended. Node ID: Node ID
Exit from Loop	When "Exit from Loop" starts: yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Exit from Loop (start)] "Node name" started. Node ID: Node ID When "Exit from Loop" ends: yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Exit from Loop (end)] "Node name" ended. Node ID: Node ID
Next Iteration	When "Next Iteration" starts: yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Next Iteration (start)] "Node name" started. Node ID: Node ID When "Next Iteration" ends: yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Next Iteration (end)] "Node name" ended. Node ID: Node ID
Exception Handling	When "Exceptional flow" starts: yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Exceptional flow (start)] "{Exceptional name}" exception of "Node name" node started. Node ID: Node ID When "Exceptional flow" ends: yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Exceptional flow (end)] "{Exceptional name}" exception of "Node name" node ended. Node ID: Node ID When "Normal flow" starts: yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Normal flow (start)] "Node name" node started. Node ID: Node ID When "Normal flow" ends: yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Normal flow (end)] "Node name" node ended. Node ID: Node ID
Call Subroutine	When "Call Subroutine" starts: yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Call Subroutine (call)] "Node name" started. Call "Subroutine name." Call Subroutine Node ID: Node ID

Control nodes	Examples of logs
	When "Called Subroutine" ends: yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Call Subroutine (return)] "Node name" ended. Return from "Subroutine name." Call Subroutine Node ID: Node ID
Subroutine Group	When "Subroutine Group" starts: yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Subroutine Group (start)] "Node name" started. Node ID: Node ID
	When "Subroutine Group" ends: yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Subroutine Group (end)] "Node name" ended. Node ID: Node ID
Exit Subroutine	When "Exit Subroutine" starts: yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Exit Subroutine (start)] "Node name" started. Node ID: Node ID
	When "Exit Subroutine" ends: yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Exit Subroutine (end)] "Node name" ended. Node ID: Node ID
Watch Events	When "Watch Events" starts: yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Watch Events (start)] event loop of the node "Node name" started. Node ID: Node ID
	yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Watch Events (event detection)] before executing the event watcher "Event watcher name".
	yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Watch Events (event execution)] event watcher "Event watcher name" started.
	yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Watch Events (event execution)] event watcher "Event watcher name" ended.
	When "Watch Events" ends: yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Watch Events (end)] event loop of the node "Node name" ended. Node ID: Node ID
Register Event Watcher	When "Register Event Watcher" starts: yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Register Event Watcher (start)] 'Register Event Watcher' of the node "Node name" started. Node ID: Node ID, Event Watcher name: Event watcher name
	When "Register Event Watcher" ends: yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Register Event Watcher (end)] 'Register Event Watcher' of the node "Node name" ended. Node ID: Node ID

Control nodes	Examples of logs
Cancel Event Watcher	When "Cancel Event Watcher" starts: yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Cancel Event Watcher (start)] 'Cancel event watcher' of the node "Node name" started. Node ID: Node ID, Event Watcher name: Event watcher name When "Cancel Event Watcher" ends: yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Cancel Event Watcher (end)] 'Cancel event watcher' of the node "Node name" ended. Node ID: Node ID
Ignore Events	When "Ignore Events" starts: yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Ignore Events (start)] 'Ignore events' of the node "Node name" started. Node ID: Node ID When "Ignore Events" ends: yyyy-mm-dd hh:mm:ss.sss+9:00 INFO [Ignore Events (end)] 'Ignore events' of the node "Node name" ended. Node ID: Node ID

7.4.4 Log when checking subroutine parameters

Logs are exported when the number of arguments in 'Call Subroutine' does not match the number in 'Subroutine Group.'

Table 7-12 Example of log when checking subroutine parameters

Example of log
yyyy-mm-dd hh:mm:ss.sss+9:00 INFO The number of arguments in "Call Subroutine" and "Subroutine Group" is not identical. Subroutine Group Node ID: Node ID Call Subroutine Node ID: Node ID
yyyy-mm-dd hh:mm:ss.sss+9:00 INFO The number of arguments for "Event Watcher" and "Subroutine Group" are different. Event Watcher name: Event watcher name, Subroutine Group node ID: Node ID

7.4.5 Write Subroutine Group nodes to log

When the 'Subroutine Group' node usage is exported to the logs or if a 'Subroutine Group' with nodes used is deleted, the actions will be displayed in the logs.

Table 7-13 Logs for written subroutine in the Subroutine Group

Examples of logs
yyyy-mm-dd hh:mm:ss.sss+9:00 INFO Subroutine Group Node ID: Node ID is the same as one in the Call Subroutine Node ID: Node ID .
yyyy-mm-dd hh:mm:ss.sss+9:00 INFO Subroutine Group Node ID: Node ID is the same as one in the WinWatcher No: WinWatcher No .
yyyy-mm-dd hh:mm:ss.sss+9:00 INFO Subroutine Group Node ID: Node ID is referred to by the Event watcher Event watcher name .

7.5 Usable Characters for Password

The following are characters allowed for use in a password.

Table 7-14 Usable characters for password

Alphabetical characters	abcdefghijklmnopqrstuvwxyzABCDEFGHIJKLMNOPQRSTUVWXYZ * Passwords are case-sensitive.			
Numbers	0123456789			
Symbols	! (exclamation mark)	" (quotation mark)	# (number sign)	\$ (dollar sign)
	% (percent sign)	& (ampersand)	' (apostrophe)	((left parenthesis)
	) (right parenthesis)	* (asterisk)	+ (plus sign)	, (comma)
	- (hyphen, minus)	. (period)	/ (slash)	: (colon)
	; (semicolon)	< (less-than sign)	= (equal sign)	> (greater-than sign)
	? (question mark)	@ (at sign)	[(left square bracket)	\ (back slash)
	] (right square bracket)	^ (circumflex accent)	_ (underscore)	` (grave accent)
	{ (left curly bracket)	(vertical bar)	} (right curly bracket)	~ (tilde)

7.6 Video Log

When the box of the 'Output video logs' is checked on the 'Log' tab in the 'Option' window, images of the applications operated by WinActor during the scenario run are captured and the video log is output as Gif format.

If the same scenario runs again after the output of the video log, the previous video log will be deleted.



- The targets of video logging are nodes with WinID in their properties. Browser-operation libraries are also included in the targets when WebDriver is selected for browser operations in the "Scenario information" window or on the 'Browser' tab in the 'Option' dialog.

Images of the applications operated by the targets are captured during the scenario run.

7.7 Procedure to convert user-original libraries in VBScript in a scenario to Python libraries

This section describes the procedure to convert user-original VB script libraries in a scenario to Python libraries combining the 'Register user-original library,' 'Update libraries,' and 'Convert VBScript library to Python.'

Steps

- 1.** Save the user-original VB script library to convert to Python as a user library file in advance. Right-click the library to convert in the scenario, and select the menu item 'Add to User Library' in the displayed dropdown.
 For details, see "Add to User Libraries."
- 2.** Verify that the VB script library saved as a user library file at step 1 is stored in the folder "WinActor\libraries" under the 'Document' folder.
- 3.** Using the 'Register user-original library' function, register the UMS file of the VB script library as 'Version 1.'
 For details, see "Register user-original library."
- 4.** Using the 'Convert VBScript library to Python' function, convert the VB script library saved as a user library file to Python, and save it.
 For details, see "Convert VBScript library to Python."
- 5.** Using the 'Register user-original library' function, register the user-original library in Python generated at step 4 as 'Version 2.' Repeat step 1 to 5 for each user-original library necessary to convert.
 For details, see "Register user-original library."
- 6.** Load and update the scenario that includes user-original libraries in VB script using the 'Update libraries' function.
 For details, see "Update libraries."



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