WinActor®

Basics Manual

NTT ADVANCED TECHNOLOGY CORPORATION
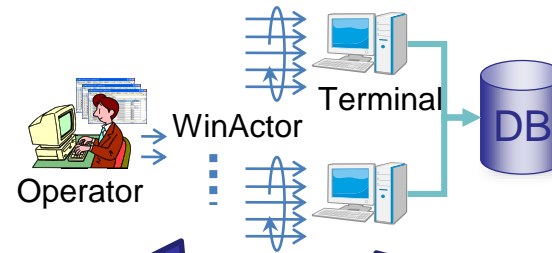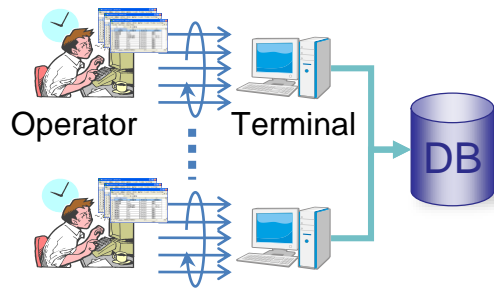
What is WinActor?

WinActor records terminal operations as scenarios.

WinActor becomes a virtual operator and automatically operates terminals according to scenarios.

By using WinActor, human errors can be prevented and operational efficiency can be improved.

[Before using WinActor]   [After using WinActor]

Operator   Terminal   DB   Operator   WinActor   Terminal   DB

Manual operations involving a huge amount of work

Work efficiency improvement by using WinActor

A number of operations are automated by WinActor

A wide variety of operations can be improved without changing existing systems.

Main functions

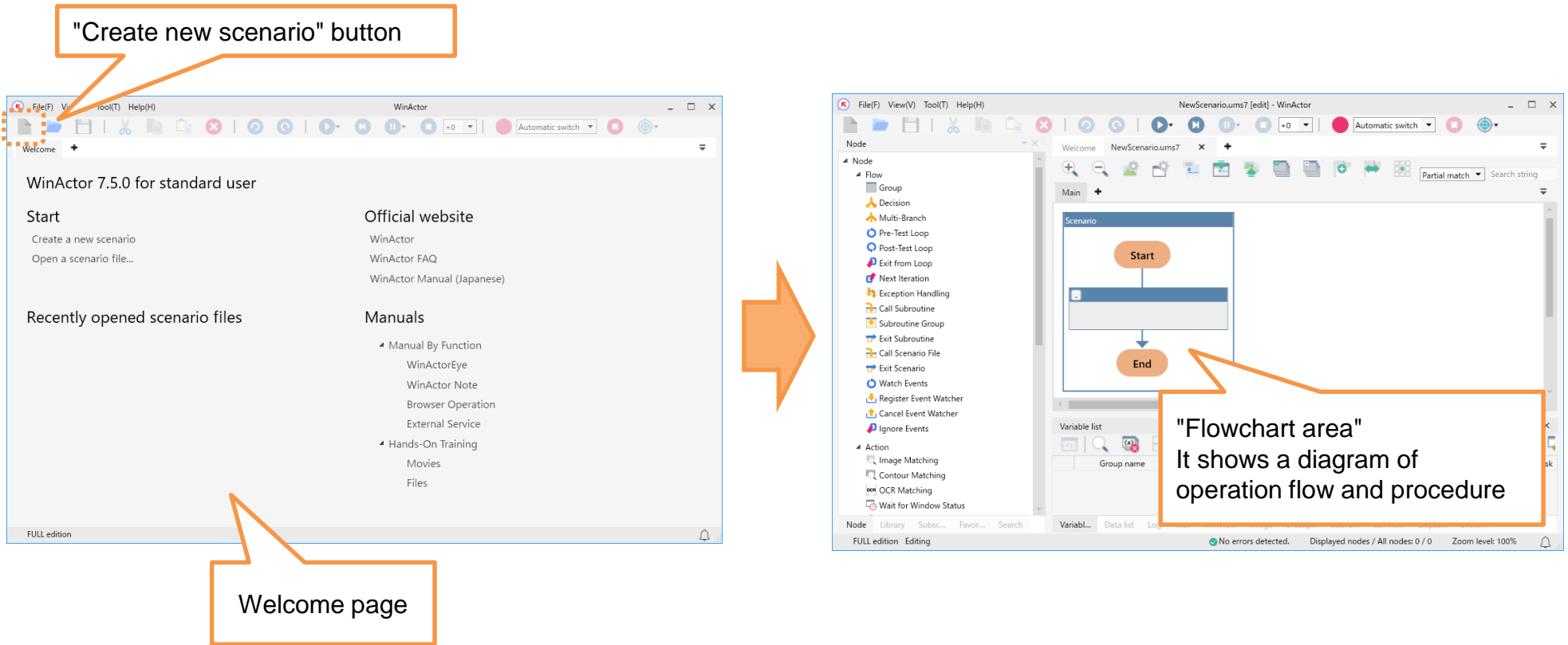WinActor has three main functions: Record, Edit, and Run.

There are seven recording modes: Event, Emulation, IE, Chrome, Firefox, Edge, and UI Automation.

'Automatic switch' automatically switches 7 recording modes while recording.
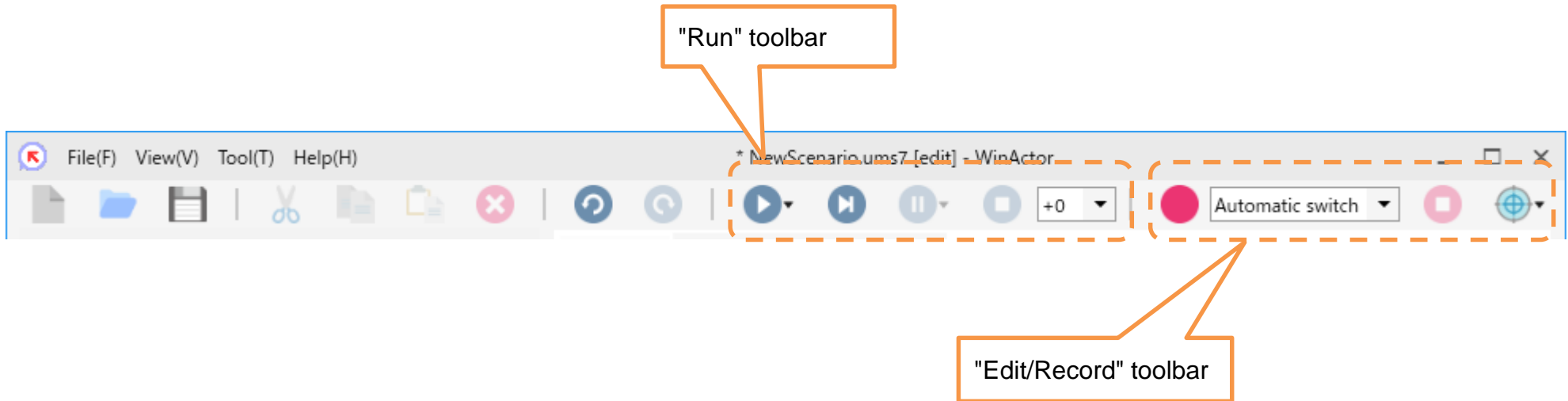
WinActor
- Record ・・・ Function to record user operations and automatically generate scenarios
  - Event ・・・ Recording mode for Windows applications
  - Emulation ・・・ Recording mode for mouse/keyboard operations (Used when other modes are not available)
  - IE ・・・ Recording mode for Internet Explorer
  - Chrome ・・・ Recording mode for Google Chrome
  - Firefox ・・・ Recording mode for Mozilla Firefox
  - Edge ・・・ Recording mode for Microsoft Edge(Chromium)
  - UI Automation ・・・ Recording mode for GUI elements in Windows applications
  - Automatic switch ・ Recording mode is switched automatically among 7 modes above.
- Edit ・・・ Function to edit scenarios, such as setting decision, loop conditions and changing operation procedures
- Run ・・・ Function to run scenarios created by recording/editing

WinActor window

"Create new scenario" button

Welcome page

"Flowchart area"
It shows a diagram of operation flow and procedure

- After launching WinActor, Welcome page appears.
- Click the "Create new scenario" button to display "Flowchart area."

Toolbar

"Run" toolbar

"Edit/Record" toolbar

- You can create a scenario using the "Edit/Record" toolbar.
  (Available only in the WinActor FULL edition.)
- You can run a scenario using the "Run" toolbar.
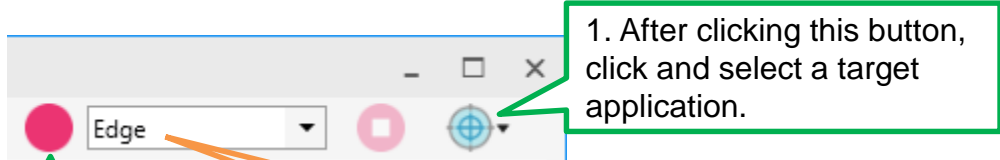
Operation recording (overview)

"Select window for recording" button
After clicking this button, click an application window for recording with the mouse.

File(F) View(V) Tool(T) Help(H)   NewScenario.ums7 [edit] - WinActor   +0   Automatic switch

"Start recording" button

"Stop recording" button

ファイル(F) 表示(V) ツール(T) ヘルプ(H)   新しいシナリオ.ums7 [編集] - WinActor   +0   Edge

- The function that automatically detects and records user operations is called "recording function."
- Before start recording, specify a window for which you want to record operations with a mouse click.
- There are 7 modes in the recording function: Event, Emulation, IE, Chrome, Firefox, Edge, and UI Automation. 'Automatic switch' automatically switches among 7 recording modes while recording.

  An appropriate mode for the specified window will be automatically selected.
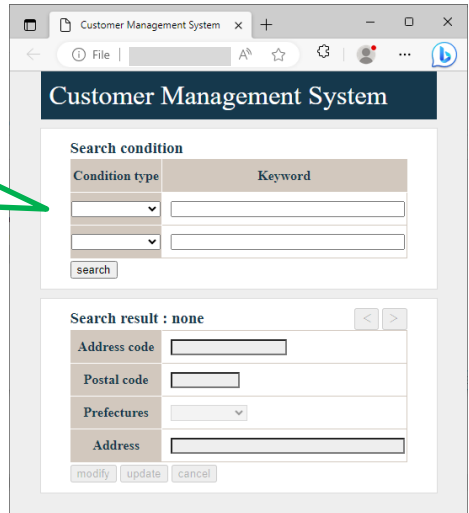
  "IE" mode supports IE mode in Edge.

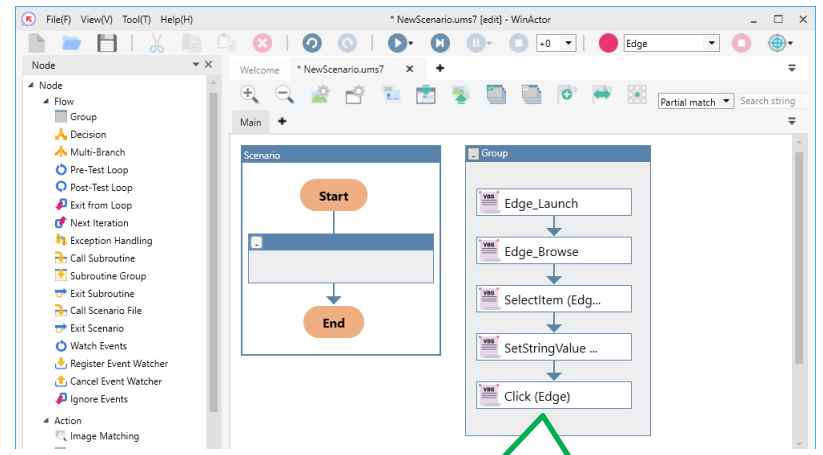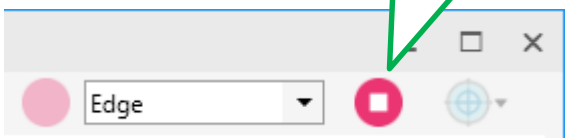# Operation recording (IE/Event/Chrome/Firefox/Edge/UI Automation)

Create

1. After clicking this button, click and select a target application.

'Edge' is selected as a recording mode

2. Start recording.

3. Operate Edge. Example: Enter an address code and click the search button.

5. Stop recording.

4. The operations are recorded and a scenario is automatically generated.
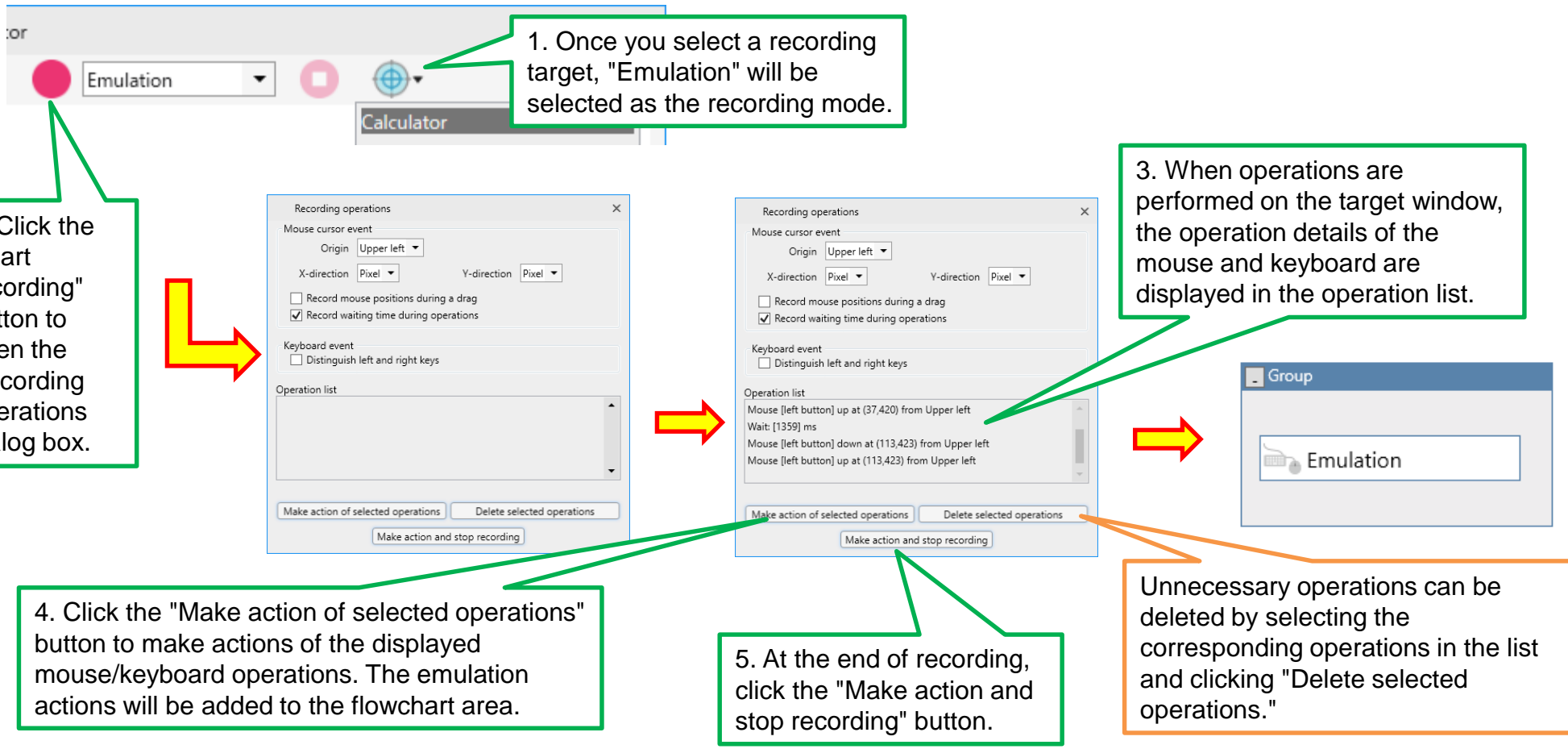
- When you select a window you want to record (Customer Management System in the above example), an appropriate recording mode for the window is automatically selected, and then you can start recording.

Operation recording (Emulation mode)

Create

1. Once you select a recording target, "Emulation" will be selected as the recording mode.

2. Click the "Start recording" button to open the Recording operations dialog box.

3. When operations are performed on the target window, the operation details of the mouse and keyboard are displayed in the operation list.

4. Click the "Make action of selected operations" button to make actions of the displayed mouse/keyboard operations. The emulation actions will be added to the flowchart area.

5. At the end of recording, click the "Make action and stop recording" button.

Unnecessary operations can be deleted by selecting the corresponding operations in the list and clicking "Delete selected operations."

- "Emulation" mode is a mode that records and reproduces mouse and keyboard operations as they are.
- In "Emulation" mode, you can also specify "Screen (Desktop)" as an operation target in addition to windows.

Image matching (1/2)

1. You can add the node by dragging and dropping from the Node pane.

3. Set a match range with a red frame.

2. Click the button and then click a target window. The window capture of the target window will be displayed.

*Place a target window so that it fits in the display area.

4. Specify a location for a mouse click.
It is the relative position to the match range.

5. The click operation can be made at a location where the match range is found.

6. Specify a variable name to store whether the image was found or not. If you do not use a result, leave it blank.

7. Click the 'Update' button.

- This function is used when a window you want to operate can be recognized only as an image, such as a remote desktop.

- It can also be used to determine whether or not specific information is displayed on a window, or to wait for the automatic operations of WinActor if it takes time to display the contents of a window.

- When the image matching of a specified window and a specified image is performed and the matching is established, mouse operations such as clicking become possible.

Image matching (2/2)

Reference image can be specified.

You can narrow down a search range.

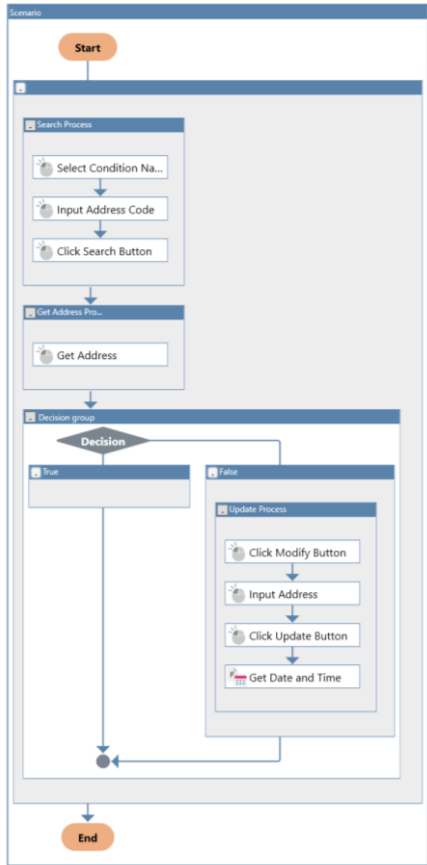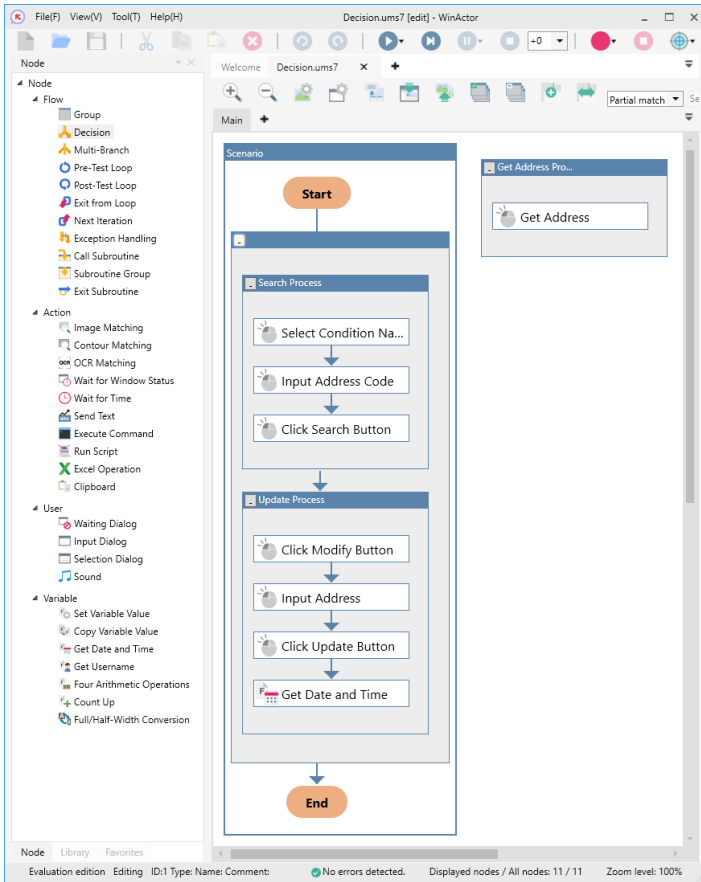You can set a position of mouse operation anywhere.

A part that has a security issue can be masked. The inside of the selected part will be blacked out.

A part that has a security issue can be masked. The outside of the selected part will be blacked out.

You can set images for matching from files.

- You can narrow down a search range for a reference image as well as fill an image using the mask function.
- A position of mouse operations such as clicking is not limited in the reference image. The user can specify any position.
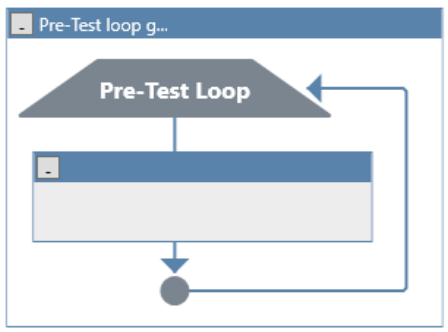
Decision and loop

Decision group property

・The flow branches depending on whether "Conditional expression" is satisfied or not.
(See the next page for "Conditional expression" settings.)

- "Decision" is a control node that branches into two flows according to a condition.

- You can make a repetition action according to a condition using "Pre-Test Loop" or "Post-Test Loop."

- You can add these nodes by dragging and dropping from the Node tab.

Conditional expression

2. Set the contents of the conditional expression to be added.

1. Click "Edit."

"is equal to" and "is not equal to" are used for string comparison, and equal/inequality signs are used for numerical comparison.

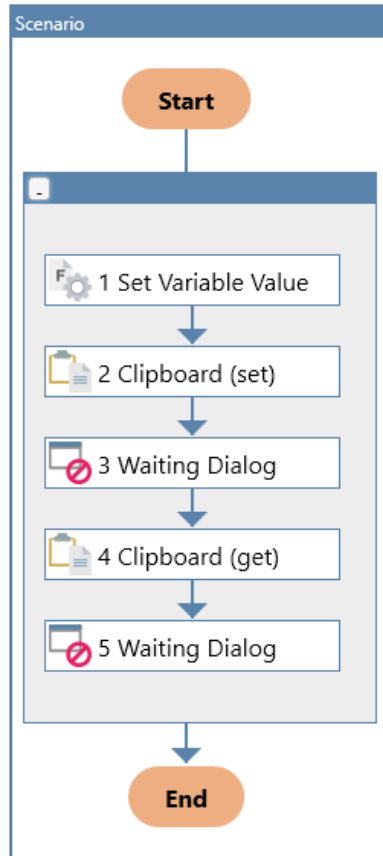- For nodes such as Decision, Pre-Test Loop, and Post-Test Loop, you need to set a conditional expression.
- You can set a conditional expression from the property of those nodes.
- If you try to run those nodes without setting a conditional expression, a warning will be displayed.
- Comparison operators support regular expressions and fuzzy matches (not sensitive to half/full-width, upper/lower-case).
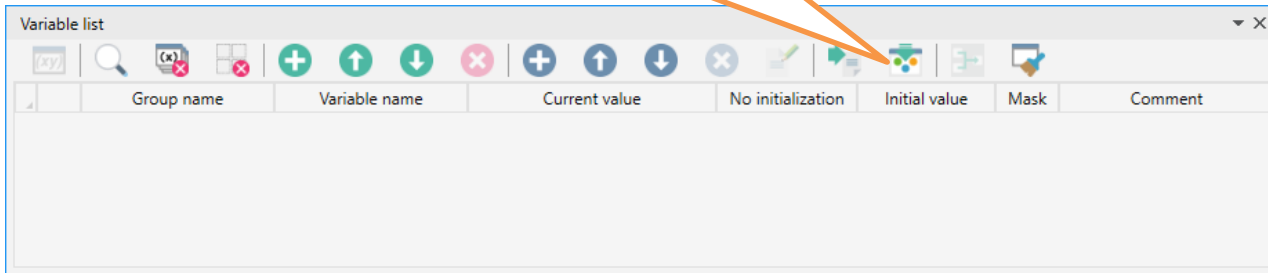
Clipboard

The value specified here will be set to the clipboard.

The variable specified here will receive the value from the clipboard when this node runs. (Text format only)
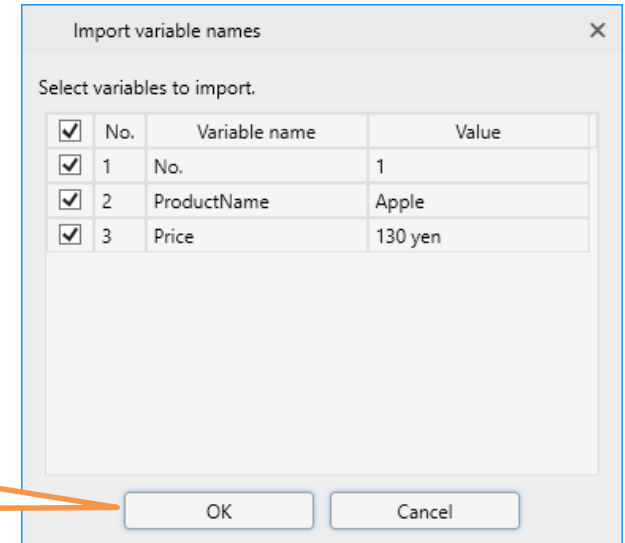
- You can set a value to the clipboard (temporary storage area to keep cut or copied data), or you can get a value from the clipboard and store it to a variable.
- A value you can get from the clipboard is up to 1,024 characters in text format only. Empty string will be stored for non-text format values.

Variables

Select an Excel or a CSV file by clicking the "Import variable names" button.

Variable list

	Group name	Variable name	Current value	No initialization	Initial value	Mask	Comment

Import variable names

Select variables to import.

✓	No.	Variable name	Value
✓	1	No.	1
✓	2	ProductName	Apple
✓	3	Price	130 yen

After values in the first row of the Excel or CSV file are imported as "Variable name," click the 'OK' button.
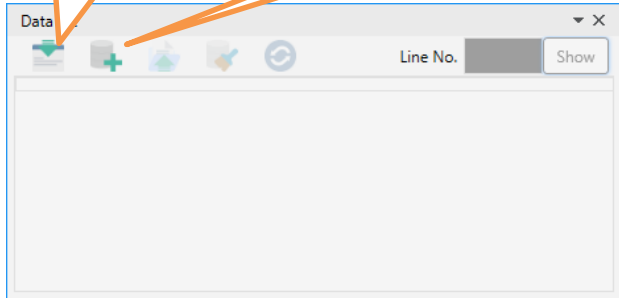
[OK] [Cancel]

- You can use "variables" in a scenario. Data used for running a scenario is usually different every time, and you can create a scenario by treating such data as "variables."

- It can be used for various purposes such as to "get a date," "get a string," or to "get values in a table."

- When you want to link with an Excel or a CSV file, click the "Import variable names" button in the Variable list pane to import the first row of the Excel or CSV file (assuming that data item names are written in the first row) as the "variable names." The above figure is an example of use in that case.

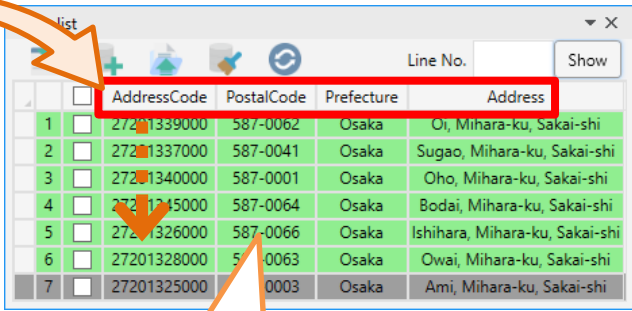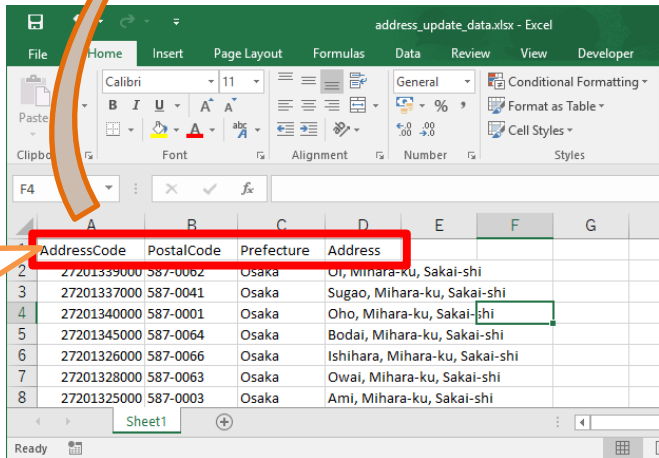# Variables (linkage with Excel, CSV, database）

Create

Data can be imported from an Excel file or CSV file.

Data can be imported from a database.

The item name in the first row becomes the variable name, and the second and subsequent rows will be imported as data.

The scenario will be repeated for each checked row. Rows that have already been run become unchecked.

- When Excel or CSV is loaded in the Data list pane, the item name in the first row of the Excel/CSV file will be associated with the variable name.

  When linking with a database, the column name will be associated with the variable name.

- A scenario will run repeatedly for the number of rows of data.

- If the variable value is updated or a new value is set to the variable as a result of running a scenario, the result will be applied as it is in the original Excel/CSV file or database.

Getting a value

4. As with "Operation recording," click this button and select a browser window.

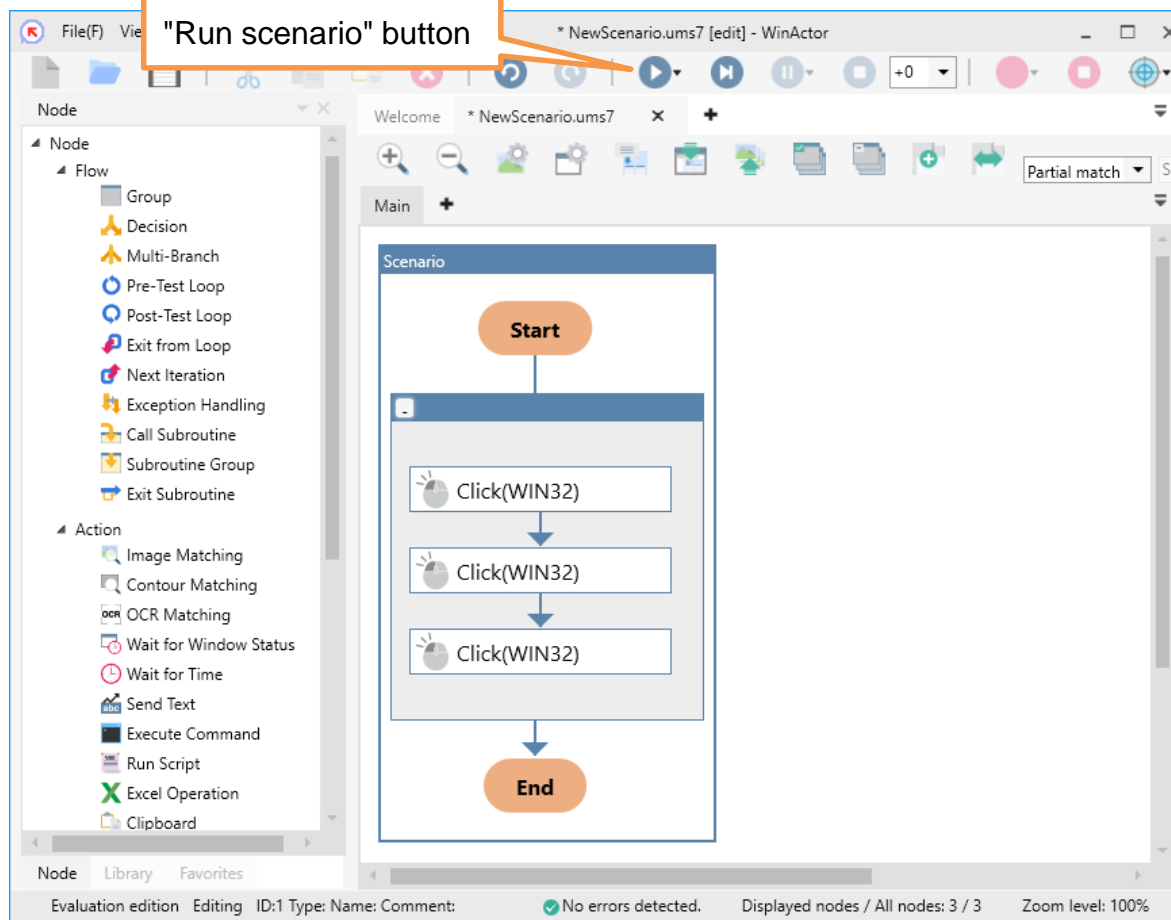2. Drag and drop "Browser_GetValue" into the Flowchart area.

5. When clicking the "Select" button and moving a mouse cursor over the text box for which you want to get the value, the color of the box changes. Then, click the box.

3. Double-click this to display the Property window.

6. Specify a variable name to store the acquired string. If not listed, write a new variable name.

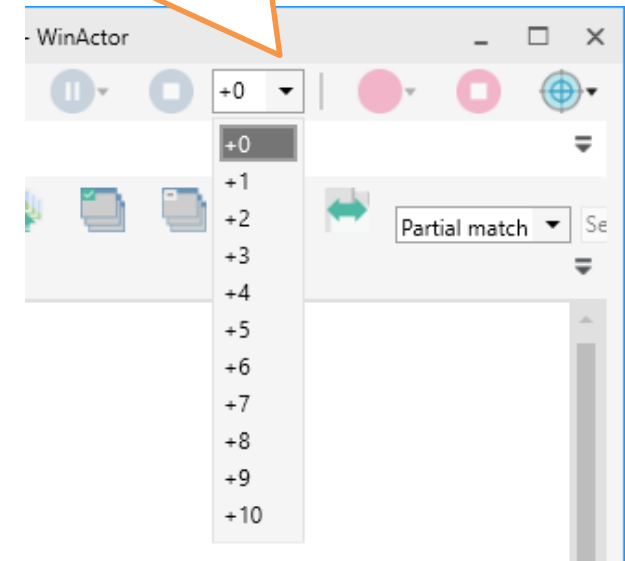1. Choose the Library tab and expand "23_Browser."

- Using browser extension of WinActor, actions such as "Browser_GetValue" and the like are available.
- For example, you can use such actions to import a search result in Edge.
- For the installation procedure of browser extension of WinActor, refer to "WinActor Chrome Agent Installation Manual" or "WinActor Firefox Agent Installation manual."
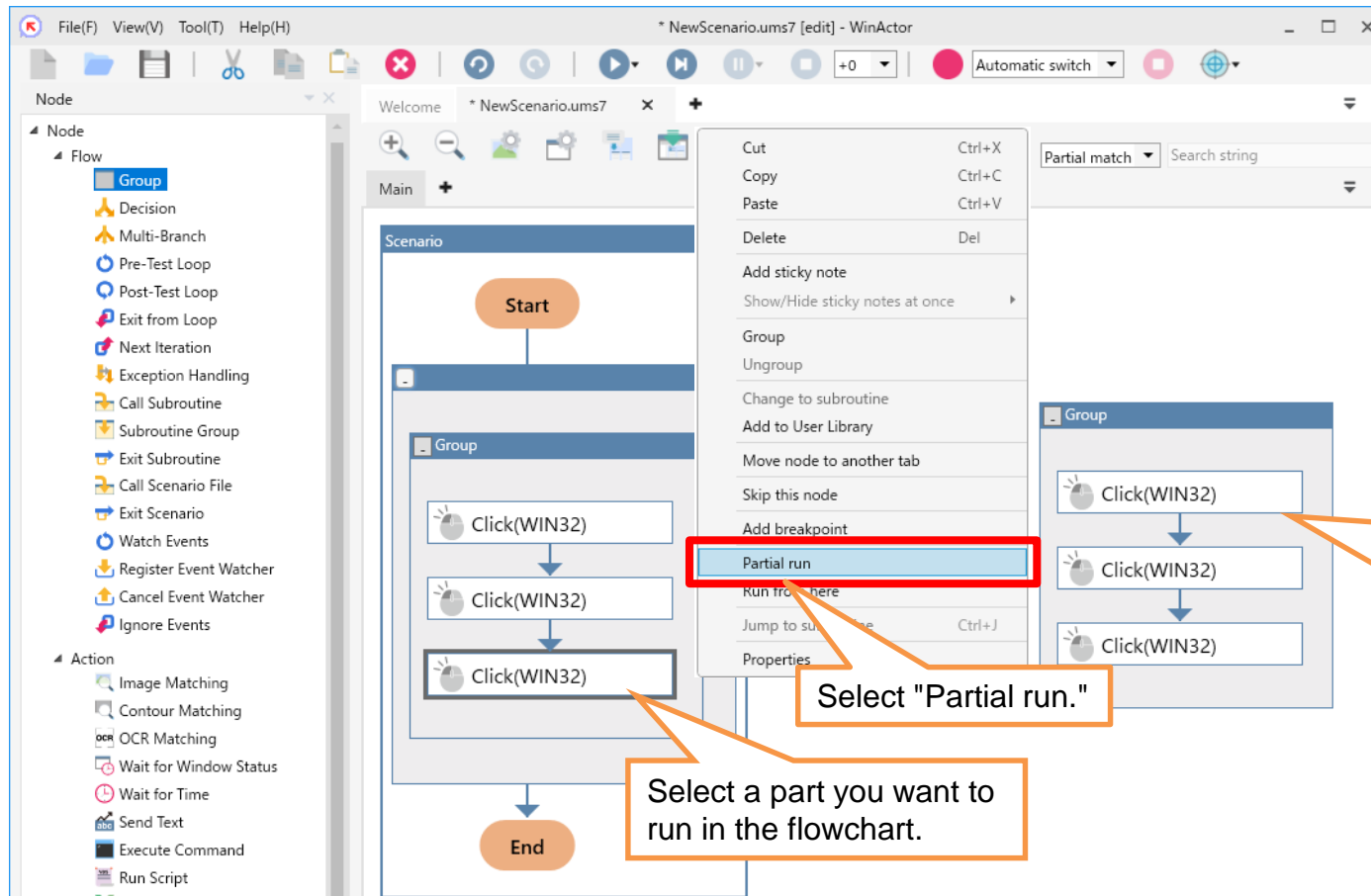
Running a scenario

"Run scenario" button

The combo box on the Run toolbar allows a scenario to run slowly (the larger the value, the slower the running speed)
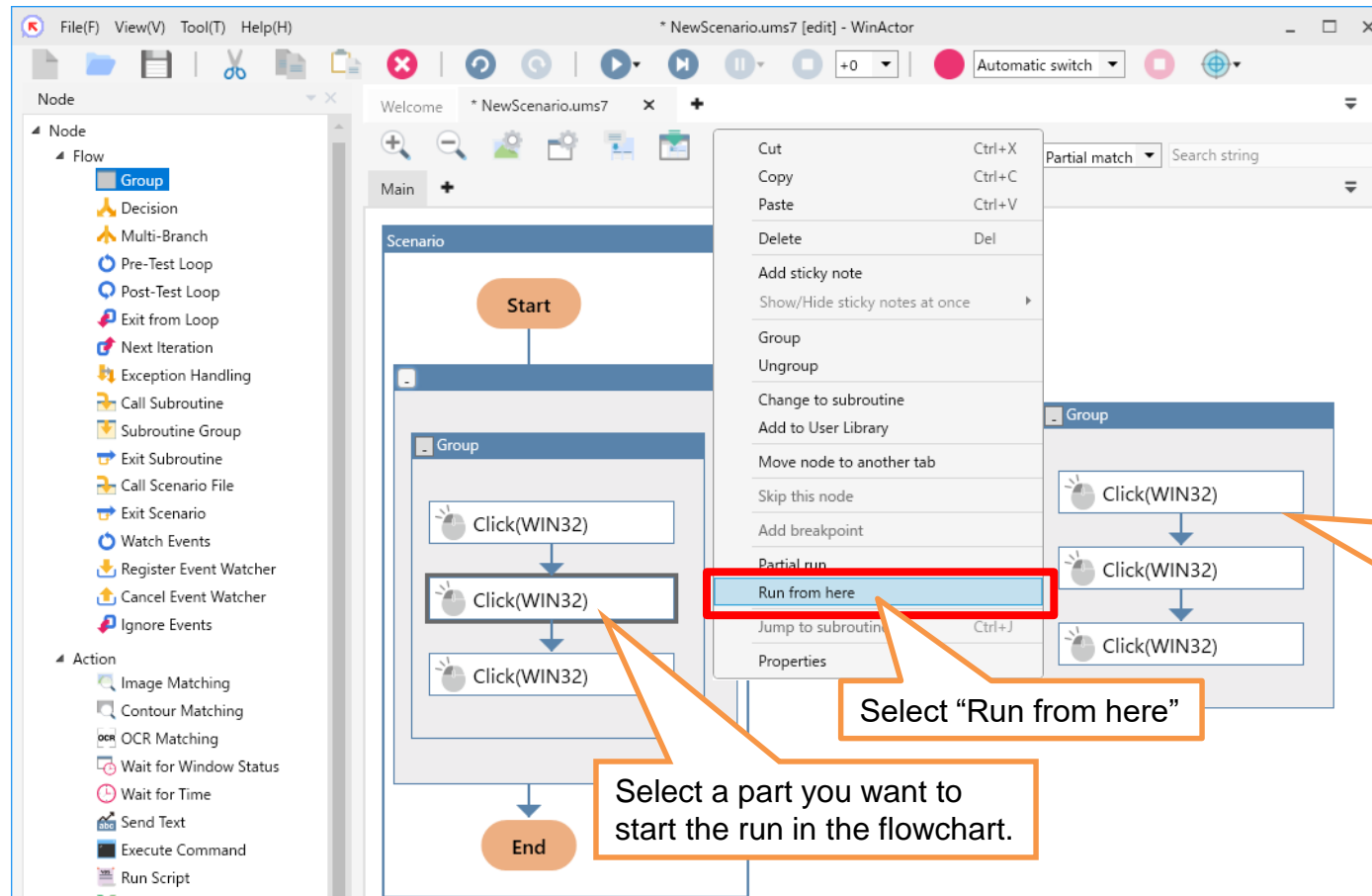
- You can open a WinActor file (a scenario file) from "File -> Open" on the menu bar.
- Click the "Run scenario" button to run the scenario. You can also click this button to resume the stopped or paused scenario.

Running a scenario (Partial run)

Run

"Partial run" is also available outside the flow between "Start" and "End."

Select "Partial run."

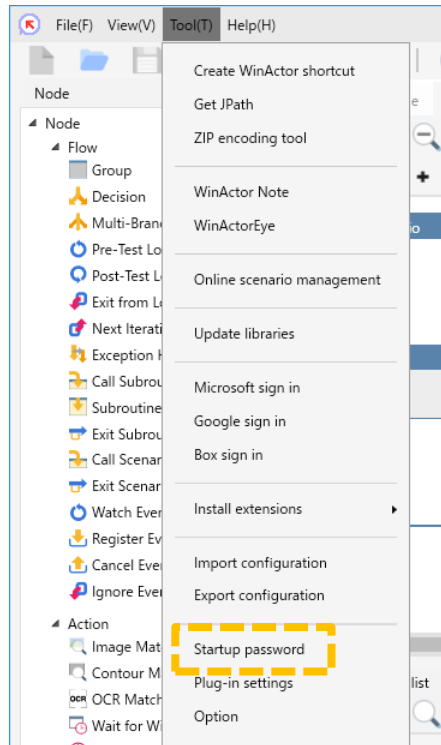Select a part you want to run in the flowchart.

- Select a part you want to run in the flowchart, right-click the selected node, and select "Partial run" from the pop-up menu.
- With "Partial run," you can check the behavior of each part of the created scenario.
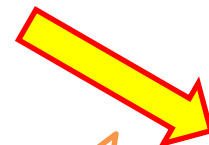
Running a scenario (Run from here)

"Run from here" is also available outside the flow between "Start" and "End."

Select "Run from here"

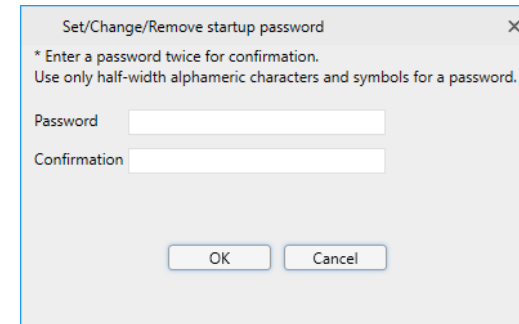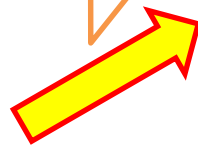Select a part you want to start the run in the flowchart.

- Select a part you want to start the run in the flowchart, right-click the selected node, and select "Run from here" from the pop-up menu.
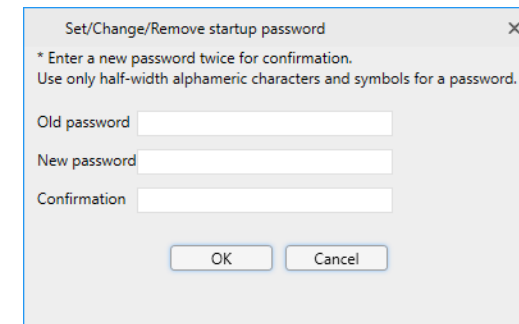- With "Run from here," you can check the behavior of parts in the created scenario.
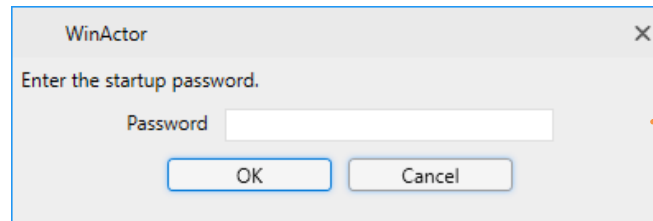
Startup password

Set a password

Change/Remove a password

- You can set, change, or remove the password to launch WinActor.

Dialog box to enter a startup password

- If you set a password, you will be prompted to enter a password when you launch WinActor.

Startup options

#	Option	Command	Description
①	-f	-f *filename.ums7*	Opens a specified scenario file at startup.
②	-s	-s *scenariopassword*	Opens a scenario file with a scenario password. The security mode is decided by the password.
③	-r	-r	Runs a scenario after startup.
④	-d	-d *datafilepath*	Opens a specified data list file at startup.
⑤	-w	-w *delay*	Waits for a specified time (in milliseconds).
⑥	-x	-x *exportfilepath* -x	Saves a data list file to *exportfilepath* 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 file will not be saved.
⑦	-e	-e	Closes WinActor after a scenario is completed. *If an uncaught exception occurs while running a scenario, WinActor will not be closed.
⑧	-ec	-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. *When receiving the status from the command prompt, Input "start /wait WinActor7.exe –ec …" and wait for WinActor to quit.
⑨	-t	-t	Launches WinActor in the task tray (minimized state) without displaying its main window.
⑩	-p	-p *password*	Specifies a startup password. *Available for WinActor FULL edition only. *Valid only when a startup password is set. *If you use this option for a scenario with no startup password, WinActor will start after a warning dialog is displayed.
⑪	-od	-od *datasource*	Specifies a data source name of a database in the Data list pane.
⑫	-ou	-ou *user*	Specifies a username of a database in the Data list pane.
⑬	-op	-op *password*	Specifies a password for a database in the Data list pane.
⑭	-ot	-ot *table*	Specifies a table name of a database in the Data list pane.
⑮	-sl	-sl	Suppresses displaying dialogs when launching WinActor or running a scenario. *Dialogs included in a scenario (such as 'Waiting Dialog,' 'Input Dialog,' and 'Selection Dialog') are displayed even if this option is set.
⑯	-sa	-sa *filename.ums7*	Closes WinActor saving the scenario into the file specified as *filename.ums7*.

- You can launch WinActor from the command line.
- When launching from the command line, you can use the options shown in the table above.

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  - *1   The official name of Windows is Microsoft Windows Operating System.
  - *2   The official name of VBScript is Microsoft Visual Basic Scripting Edition.
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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.

Precautions for use

Note the following points when using WinActor.

- 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 it 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.

WinActor® Basics Manual