Hands-On Training

WinActor®

NTT ADVANCED TECHNOLOGY CORPORATION

Introduction

WinActor®

1 Structure and learning objectives of this material

- Structure and learning objectives of this material are as follows.

Hands-On_Training
Hands-On_Training.pdf

Movies
01_Basics03.mp4 / 02_Basics05.mp4 / 03_Basics07.mp4 / 04_Basics09.mp4 / 05_Basics11.mp4 /
06_Practice02.mp4 / 07_Practice06.mp4 / 08_Advanced01.mp4

Files
01_Basics03_Login.html / 02_Basics03_Add_Purchase_Order.html / 03_Basics05_Search_Purchase_Order.html /
04_Basics05_Purchase_Order_Book.xlsx / 05_Basics07_Add_Item_to_Inventory.html / 06_Basics07_Inventory.xlsx /
07_Basics09_Payment_Book.xlsx / 08_Basics11_Address_Book.xlsx /
09_Practice06_Register_Payment.html / 10_Practice06_Payment_Registration_Book.xlsx /
11_Advanced02_Scenario_Creation_Rules.xlsx / 12_Advanced02_Settings.xlsx / 13_Advanced02_Loop.ums7 /
14_Advanced03_Exception_Handling_Normal_Flow.ums7 / 15_Advanced03_Exception_Handling_Exceptional_Flow.ums7 /
16_Advanced03_Add_Purchase_Order_Failure.ums7 / 17_Advanced03_Purchase_Order_Book_with_Error.xlsx /
18_Advanced03_Settings_with_Error.xlsx / 19_Advanced03_Add_Purchase_Order_Success.ums7 /
20_Advanced03_Purchase_Order_Book.xlsx / 21_Advanced03_Settings.xlsx

	Contents	Learning objectives
Chapter 1 Basic operations of WinActor	Basic operations of WinActor	Understand basic operations of WinActor 

1 Structure and learning objectives of this material

- Structure and learning objectives of this material are as follows.

Chapter 2 Scenario creation	Contents	Learning objectives
Basics	Automation for click and input on a webpage	Understand how to manipulate data on a webpage Understand how to use Image Matching
	Automation for data transfer from a webpage to Excel	Understand how to manipulate data on a webpage Understand how to transfer data with Excel
	Automation for data transfer from Excel to an in-house system	Understand how to transfer data with an in-house system Understand how to transfer data with Excel
	Automation for data transfer from Excel books to another Excel book	Understand how to transfer data with Excel
	Automation for sending emails	Understand how to send emails

1 Structure and learning objectives of this material

- Structure and learning objectives of this material are as follows.

Chapter 2 Scenario creation	Contents	Learning objectives
Practice	Loop processing for the same operation	Understand how to use loop processing
	Text editing of acquired characters and numbers	Understand editing methods
	Changing processes depending on conditions	Understand how to use conditional execution

1 Structure and learning objectives of this material

- Structure and learning objectives of this material are as follows.

Chapter 2 Scenario creation	Contents	Learning objectives
Advanced	Scenario creation using automatic recording	Create a scenario using automatic recording
	How to create a scenario that is easy to modify	Learn how to create a maintainable scenario
	Actions for troubleshooting	Learn about what to check and how to deal with it when trouble occurs

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  - *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.

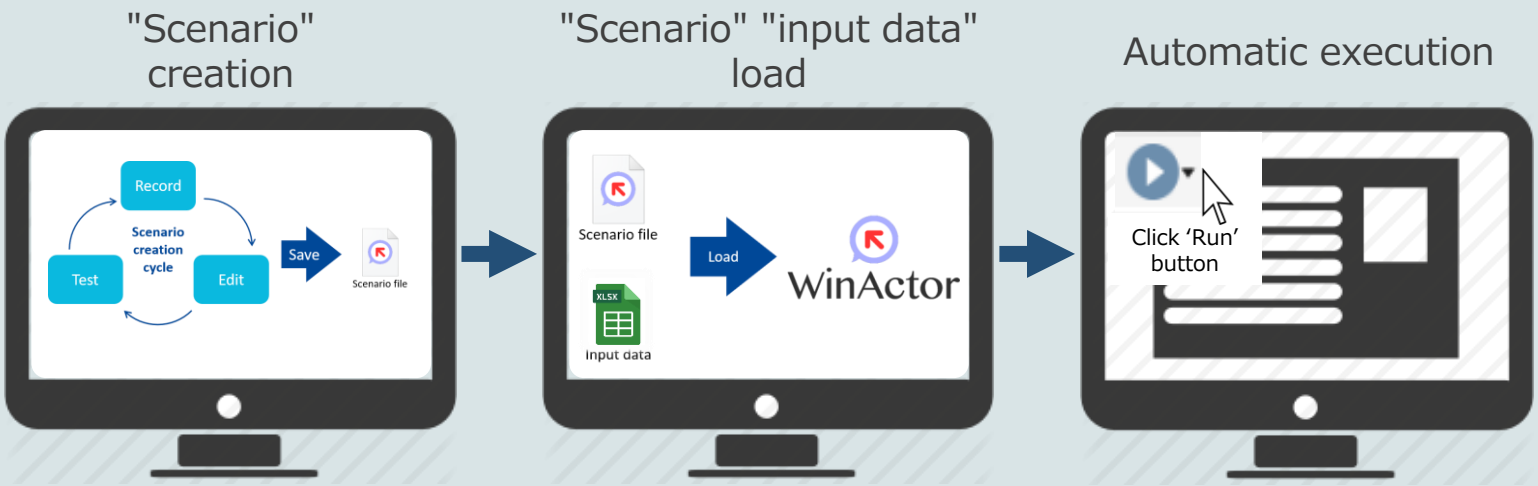
4 Notices for the use of WinActor

- To confirm notices on using WinActor prior to learning with this training manual, see "WinActor Operation Manual – Precautions for using WinActor."
- To install and register a license of WinActor, see "WinActor Installation Manual" and "WinActor Operation Manual – Preparations for Using WinActor."
- For more information on the license types, see "WinActor Operation Manual - License Types and Available Functions.“
- This material is for WinActor Ver.7.5.0 or newer.

Chapter 1
Basic operations of WinActor

1 Overview of WinActor operations

- In WinActor, you can create a **"scenario"** by repeating the cycle of recording, editing, and checking operations. You may need to load **"input data"** to run the created **"scenario."**



To create a **scenario**, you need to **define operations in the flowchart.**

You can create a **scenario** by **"defining operations manually"** or **"recording operations automatically."**

2 Basic operations of WinActor

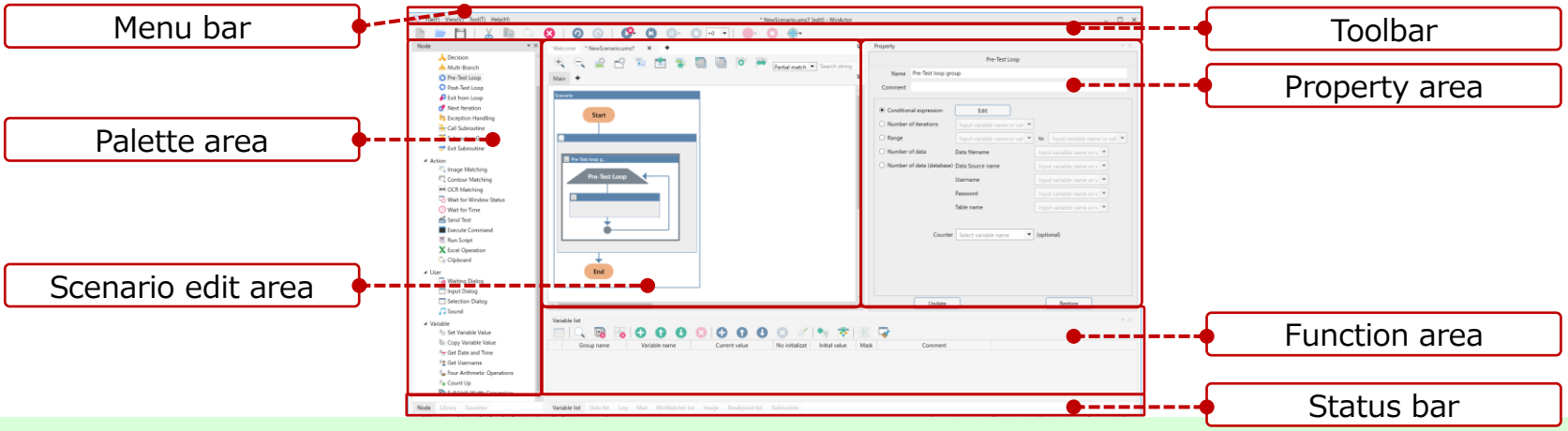
2-1 Launching WinActor

1 Double-click the startup icon on the desktop.

If the window does not appear after double-clicking the startup icon, check the following points.

1. WinActor takes some time to start. Wait until it starts.
2. WinActor cannot run more than one instance. The WinActor that has already started may be minimized and stored in the task tray. Check the task tray.

2-2 Window of WinActor



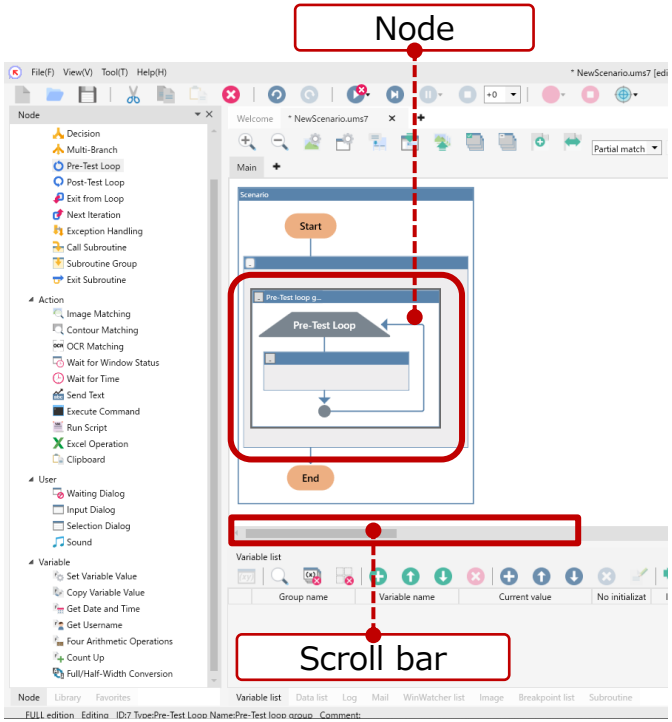
For details on the window of WinActor, see "3. WinActor's Window" in WinActor Operation Manual.

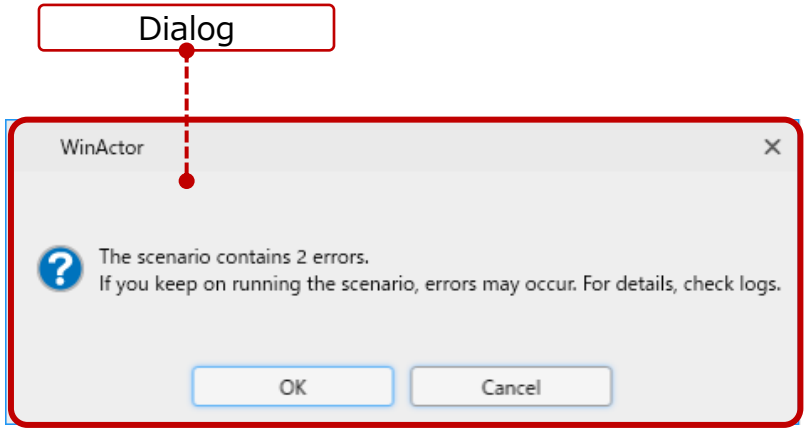
2 Basic operations of WinActor

2-3 Window elements of WinActor

"Node" is a component that makes up a scenario. It is displayed as a box on the flowchart.

"Dialog" is a window displayed for user interaction. It displays information and warnings, and prompts a user to input information.



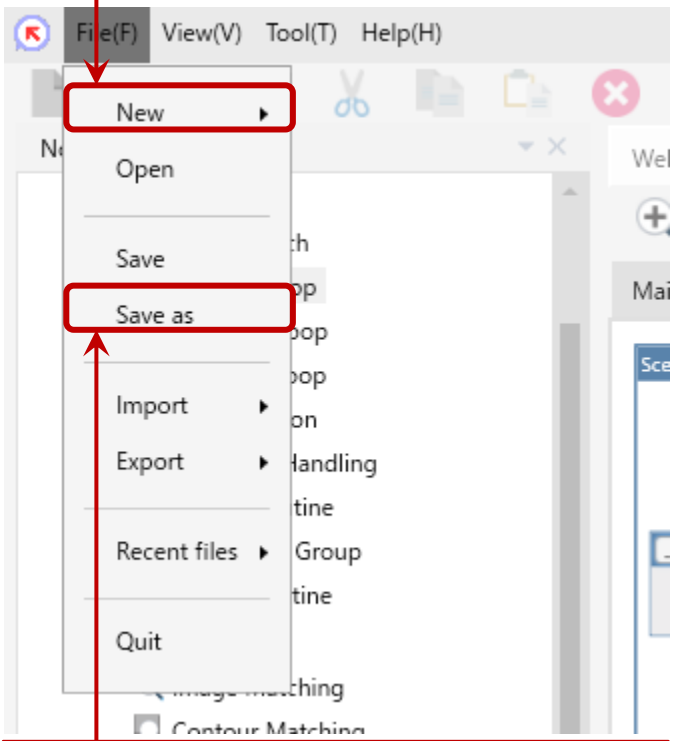


For details on the window elements of WinActor, see "7.2 Window Elements and Names" in WinActor Operation Manual.

2 Basic operations of WinActor

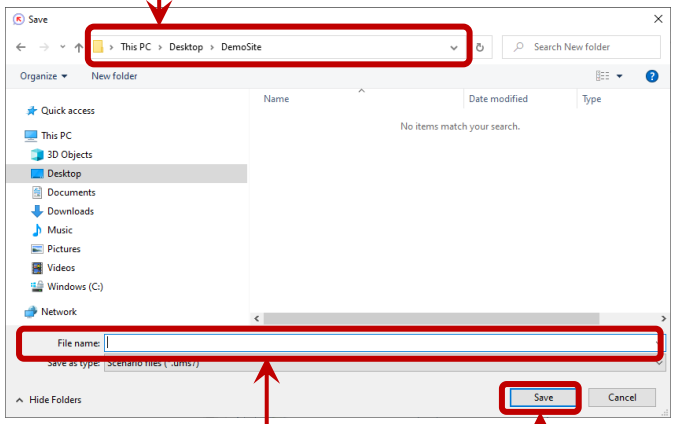
2-4 Creating a new scenario file

1 Select [File] > [New] > [New scenario] on the menu bar.



2 Select [File] > [Save as] after creating a scenario.

3 Select a folder to save a scenario file.



4 Enter a filename in the [File name] text box.

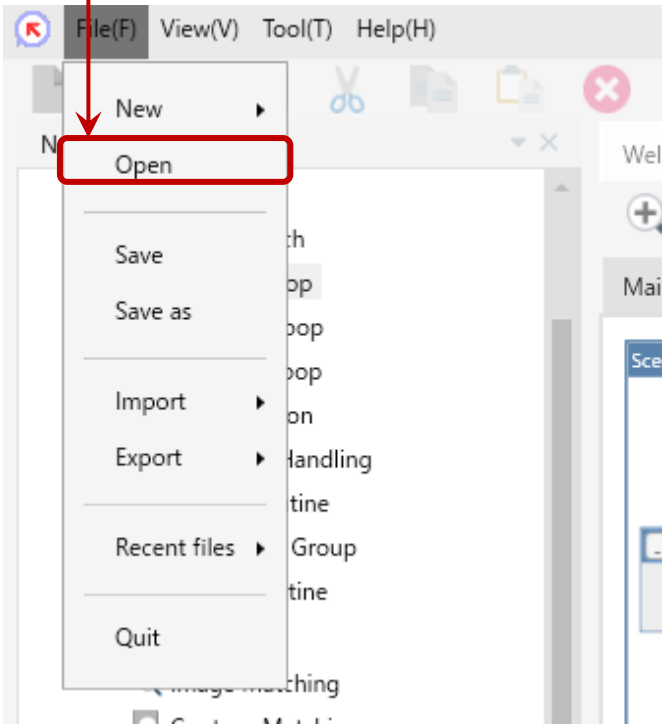
5 Click the [Save] button.

"Scenario" can be saved in a file format like Microsoft Office Word or Excel.

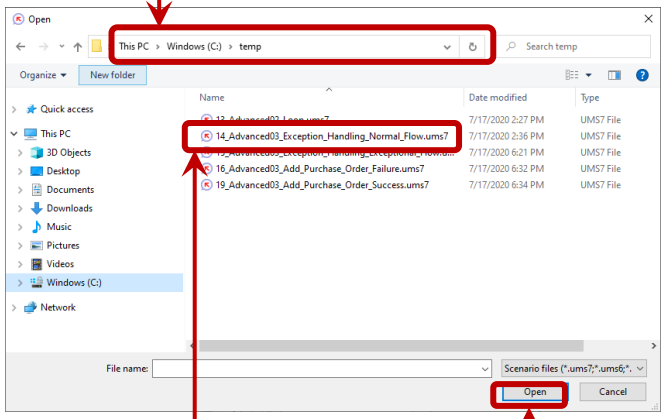
2 Basic operations of WinActor

2-5 Loading a scenario file

1 Select [File] > [Open] on the menu bar.



2 Select a folder where scenario files are saved.



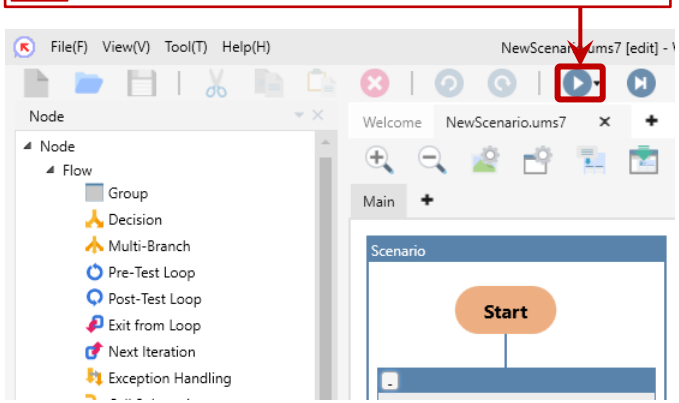
3 Select a scenario file you want to use.

4 Click the [Open] button.

2 Basic operations of WinActor

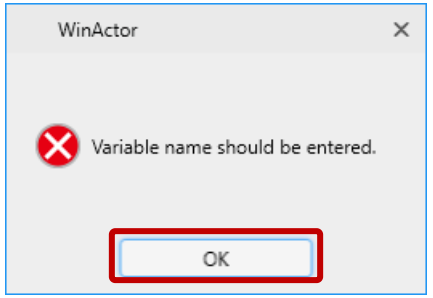
2-6-1 Running a scenario

1 Click the ‘Run scenario’ button.



2-6-2 Handling run-time errors

1 When an error occurs, check the error message shown in the dialog and click the [OK] button.



2 Click the ‘Stop scenario’ button.

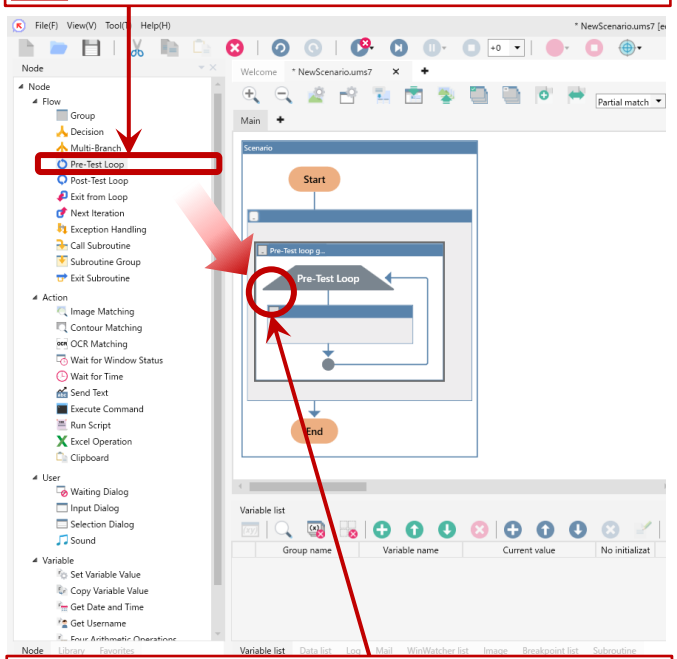
3 Check the error logs and fix property settings.

For displaying the Log pane, see 2-10 of this chapter.

2 Basic operations of WinActor

2-7-1 Creating a scenario manually

1 Drag a node you want to use from the Node palette.

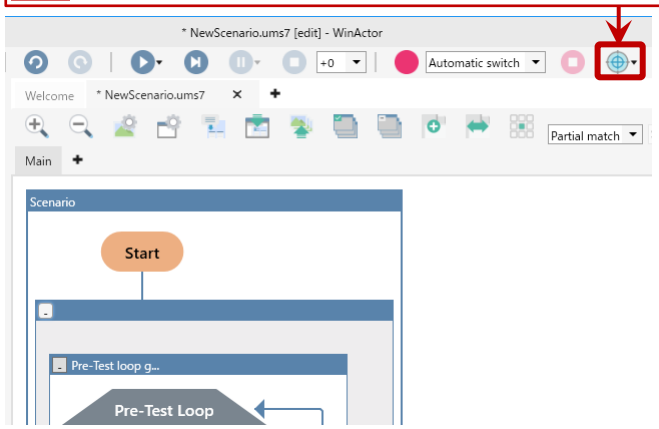


2 Drop it on the scenario edit area. If there is no input or any setting error, it will be displayed in a red frame.

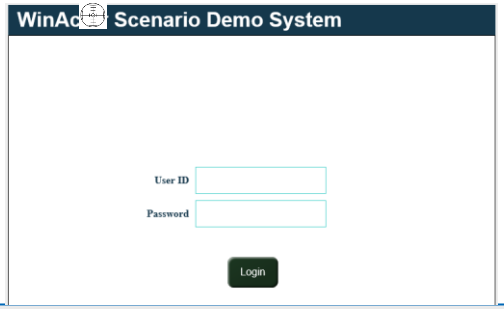
For details on nodes, see "4. Node" in WinActor Operation Manual.

2-7-2 Creating a scenario by recording operations automatically

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

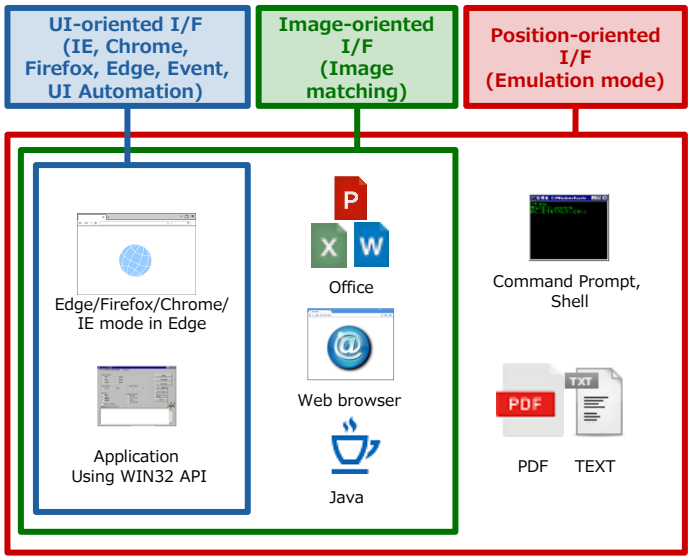


2 Click a target to record operations.



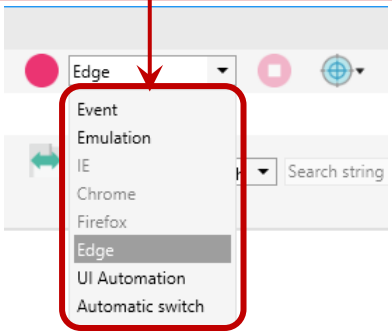
2-7-2 Creating a scenario by recording operations automatically (continued)

3 One of the following recording modes will be automatically selected according to the target for automatic operation recording.

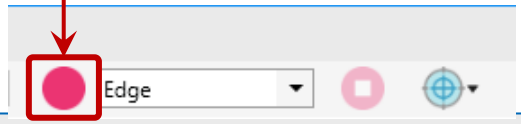


4 You can check the selected recording mode.

5 You can, if necessary, manually select the recording mode you want to use by clicking the '▼' button to the right of the recording mode window.



6 Click the 'Start recording' button.

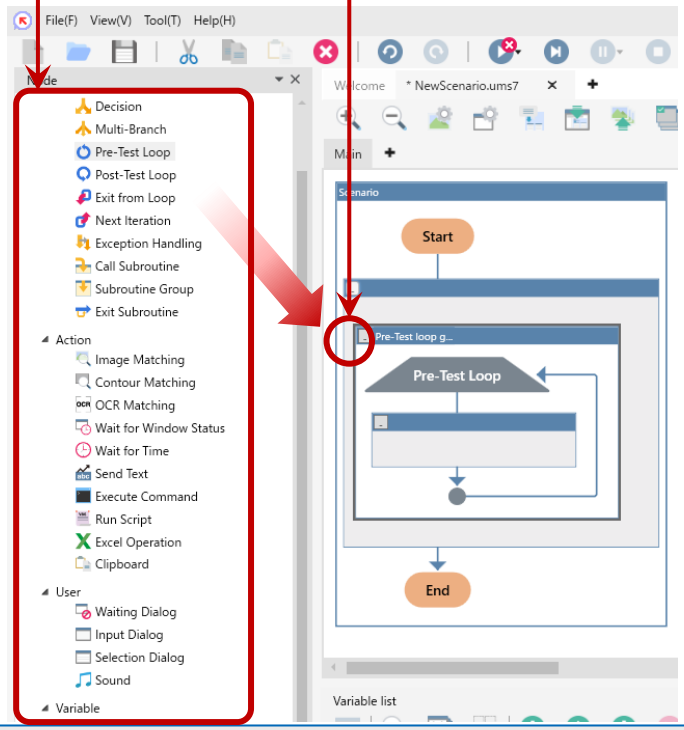


2 Basic operations of WinActor

2-8-1 Editing a scenario

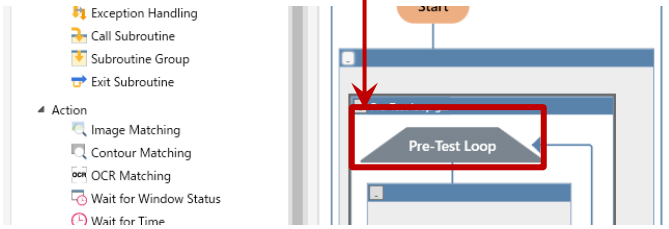
1 Drag a node you want to add from the Node palette.

2 Drop it at the appropriate position in the scenario edit area.

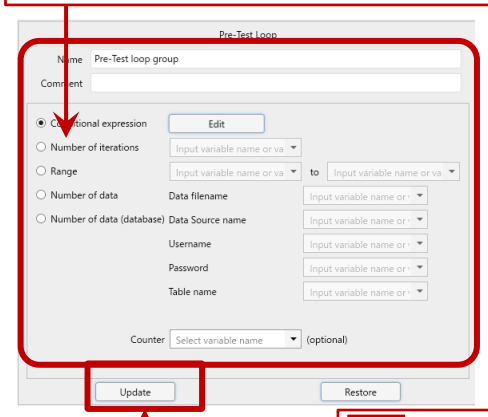


2-8-2 Editing a scenario (property pane)

1 Double-click the node on the scenario edit area.



2 Set the property items of each node.

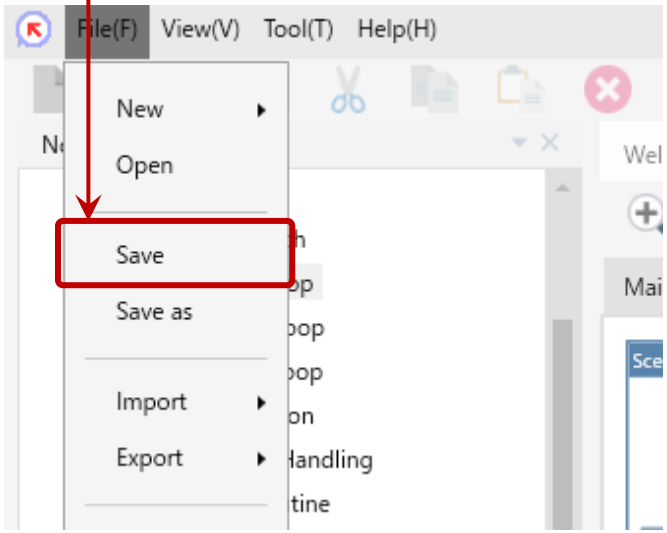


3 Click the [Update] button.

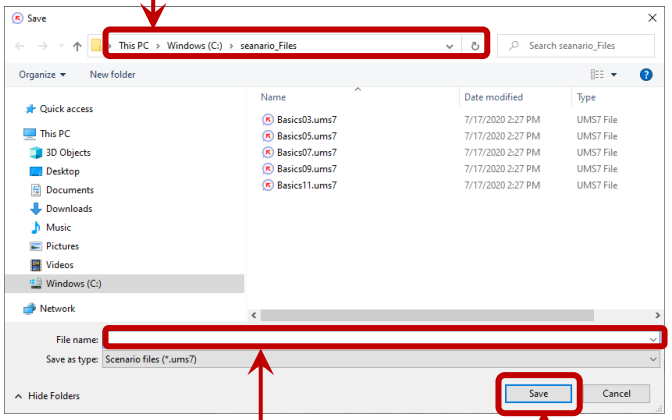
2 Basic operations of WinActor

2-9 Saving a scenario file

1 Select [File] > [Save as] or [Save] on the menu bar.



2 Select a folder to save a scenario file.



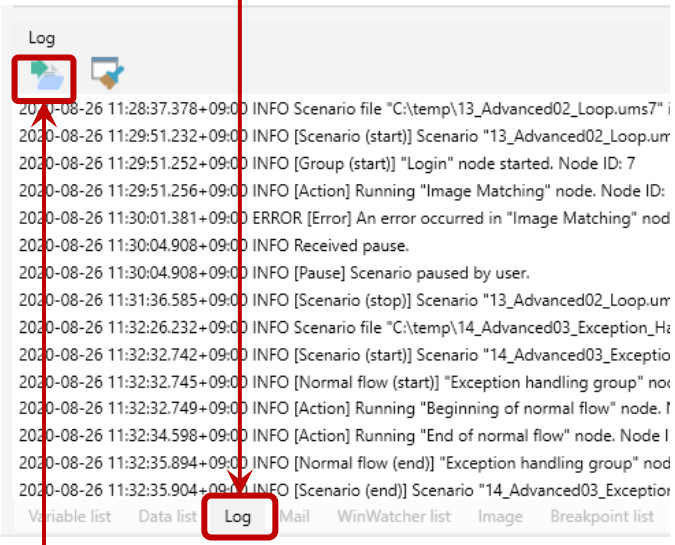
3 Enter a filename in the [File name] text box.

4 Click the [Save] button.

2 Basic operations of WinActor

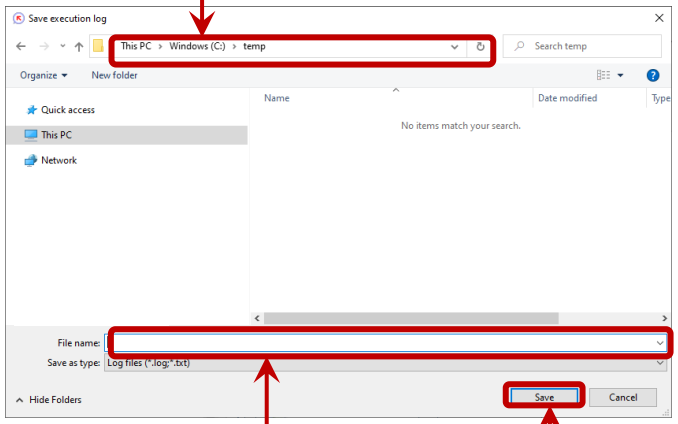
2-10 Saving a log file

1 Click the [Log] tab of the function area.



2 Click the ‘Save logs’ button.

3 Select a folder to save a log file.



4 Enter a log filename in the [File name] text box.

5 Click the [Save] button.

Displaying the Log pane is not mandatory. WinActor traces error logs for every scenario. However it is recommended to display it for checking error logs in your scenario.

Chapter 2
Scenario Creation

- Basics -

1 Scenario creation - Basics prologue -

Case

This is the story of the procurement department of a company.
As a second-year employee of the procurement department, William Lee has been assigned to a huge task in addition to the routine work that he has been doing. However, due to the increase in the amount of work, the number of mistakes in his work are also increasing.
To manage this situation, he consulted with Maria Rodriguez who uses WinActor to automate her work.
Let's take a step in the automation using WinActor together with William!

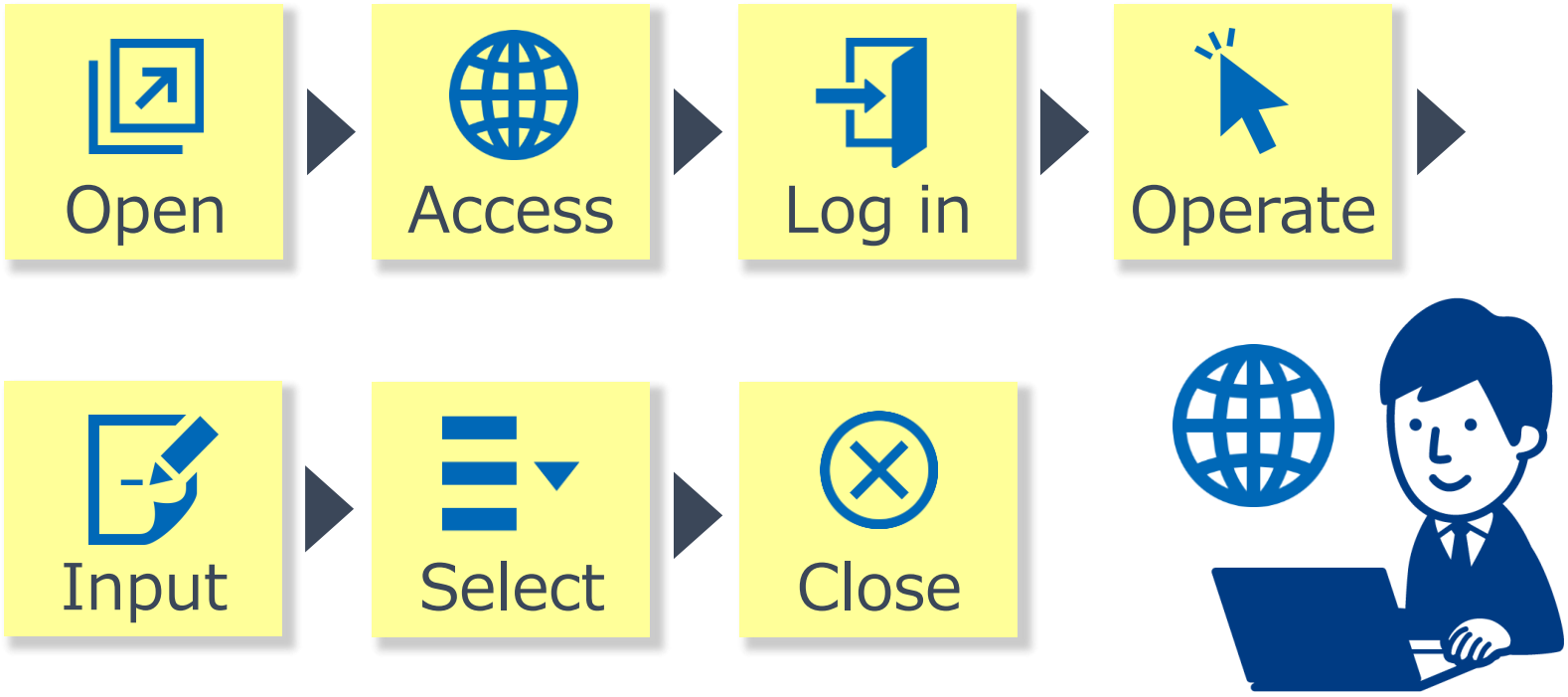
William Lee

A second-year employee of the procurement department.
He is motivated as he is gradually assigned to a larger task.

Maria Rodriguez

A senior employee in another department who is already using WinActor.
This time, she responds to a request from William and offers to help and teach him.

Basics



Automation for click and input on a webpage

2 Scenario creation - Basics 1 -

Case

William orders items listed in the purchase order book every week by inputting them into the web order system of the supplier.
However, due to the increase in the amount of work, mistakes in his work are also increasing.

"It takes time and effort to register unordered items listed in the purchase order book every week in the web system of the supplier. There are many items, and it will be a problem if I make a mistake in the number of orders. Is it possible to prevent it from happening?"

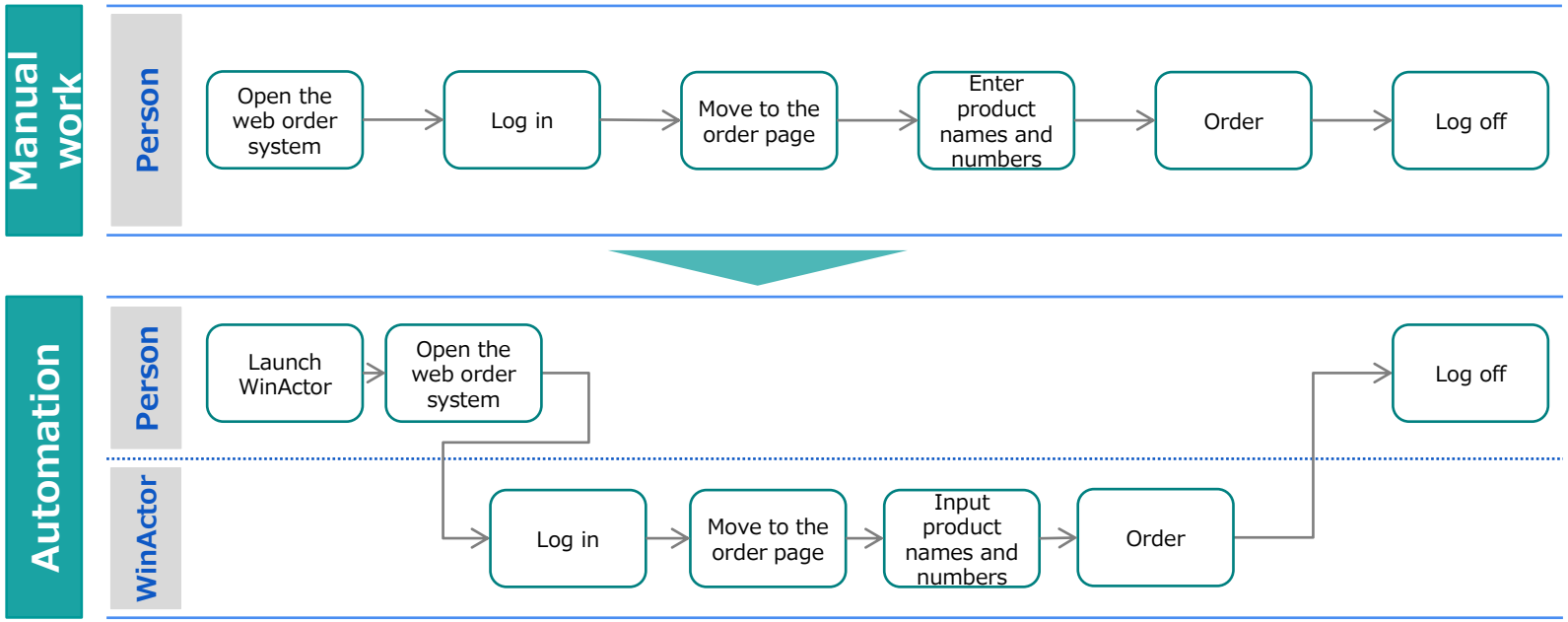
"Repetitive work such as inputting data to a work system is a work suitable for RPA. You can also automate click-and-input on websites as well. With WinActor, anyone can easily automate operations by simply combining the parts that perform various operations on the window."

"I think I can do that too! If automation is available, I can use the registration time for other tasks, and above all, I'm grateful that I can reduce mistakes in manual entry."

"First, let's take a look at how operations change between manual work and automation using WinActor."

2 Scenario creation - Basics 1 -

"In automation using WinActor, the operations change as follows."



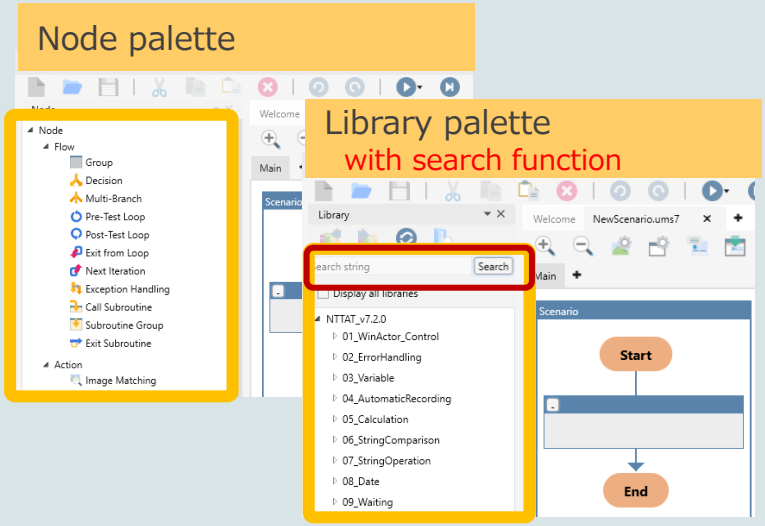
"It saves a lot of manual work. I just need to launch WinActor and log off at the end."

2 Scenario creation - Basics 1 -

"I mentioned the parts that perform various operations on the window. The parts automate the movement of the mouse and keyboard when you place them on the flowchart."

"On the window of WinActor, where should I look?"

"Available parts are displayed by category in the palette area on the left side of the window. They are divided into the Node palette and Library palette."



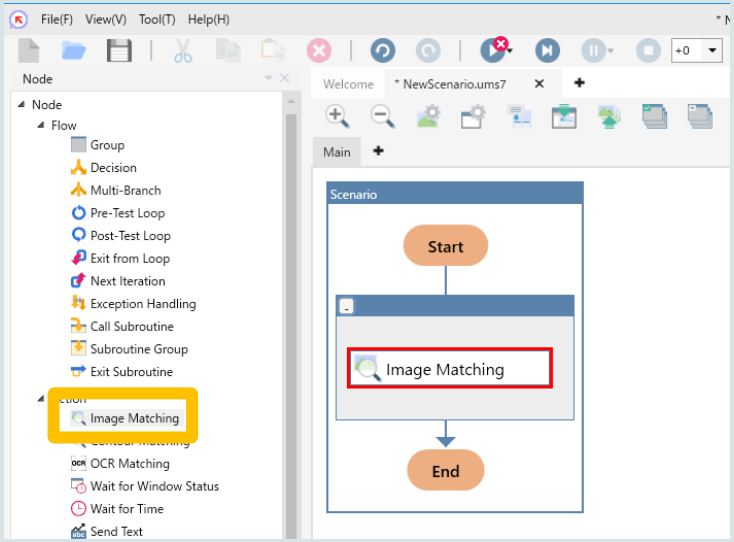
"There are some useful operations you can reuse to create various scenarios. Creating a scenario by hand takes some effort, so it will be convenient if you can find the part for the required operation in the Library palette! We will practice it in the following trainings, so keep that in mind!"

2 Scenario creation - Basics 1 -

"The key to the scenario creation this time is a node called Image Matching."

"Image Matching?"

"It is a node that recognizes a browser or mailer displayed on the screen as an image and operates things such as mouse click if there is the image set in advance."

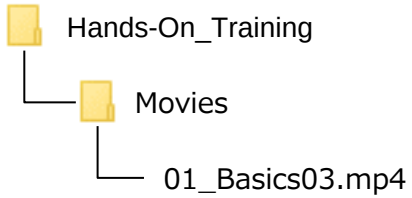


"To be specific, you will be able to do such things, for example, you are looking at the weather forecast page and there is a rain mark, so you click the link button to see the detailed weather forecast."

"Image Matching is an easy-to-use node and can be used in various situations. You should learn to be able to use it!"

2 Scenario creation - Basics 1 -

"Let’s watch the actual movement of WinActor about how Image Matching is used. Double-click the file named 01_Basics03.mp4 in the following folder to play it."



"Now, let's actually create a scenario together!"

“Microsoft Edge is used as a browser in this scenario creation. Google Chrome can be used because the procedure is the same. For Google Chrome users, read the word ‘Edge’ in the procedure as ‘Chrome’.”

"First, I will explain the operation using WinActor. At the end of the “3. Automation for click and input on a webpage” starting from the next page, there is an introduction of WinActor for beginners (WinActor Storyboard*). If you find it difficult to create scenarios with WinActor, this WinActor Storyboard might be a better choice for you."

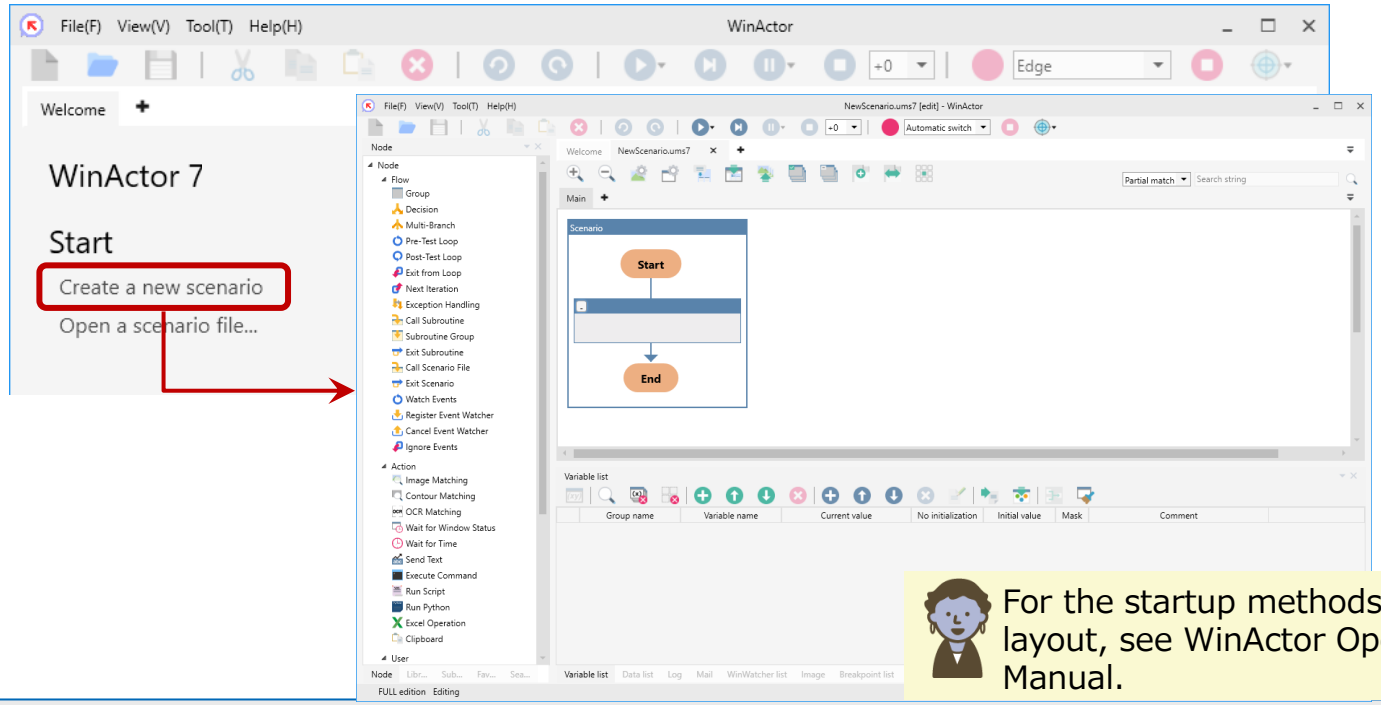
* WinActor Storyboard is available only in Japanese version.

3 Automation for click and input on a webpage

Prep Launching WinActor

1 Launch WinActor from the Start menu or with any other startup method.

2 Click [Create a new scenario]. The main window of WinActor appears.

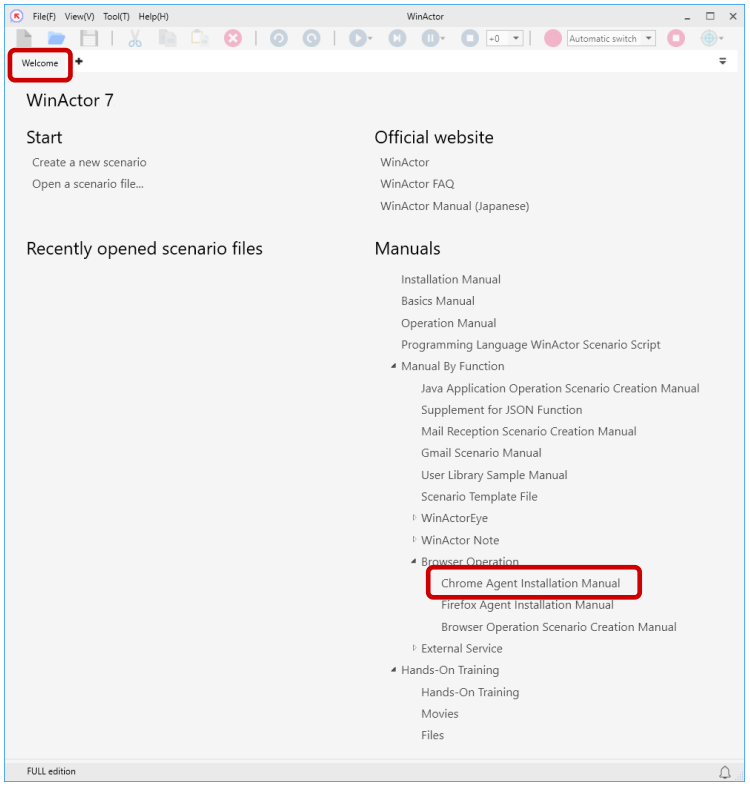


For the startup methods and window layout, see WinActor Operation Manual.

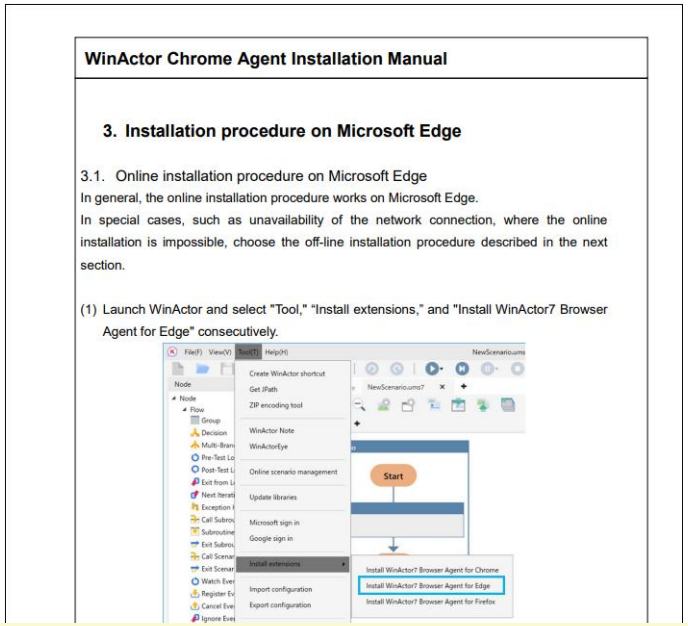
3 Automation for click and input on a webpage

Prep Installing an extension on Microsoft Edge (first time only)

1 From “Manuals” in “Welcome” window, click “Chrome Agent Installation Manual” under “Browser Operation” to open the manual.



2 Referring “3. Installation procedure on Microsoft Edge“ in “WinActor Chrome Agent Installation Manual,” install the extension. (first time only)



WinActor Chrome Agent Installation Manual

3. Installation procedure on Microsoft Edge

3.1. Online installation procedure on Microsoft Edge

In general, the online installation procedure works on Microsoft Edge.

In special cases, such as unavailability of the network connection, where the online installation is impossible, choose the off-line installation procedure described in the next section.

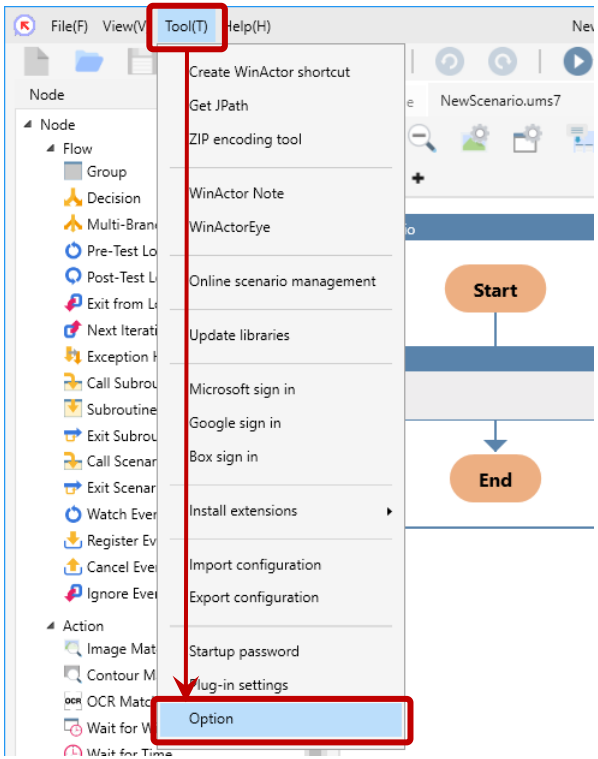
(1) Launch WinActor and select "Tool," "Install extensions," and "Install WinActor7 Browser Agent for Edge" consecutively.

For Chrome users, refer “2. Installation procedure on Google Chrome,” and install the extension.

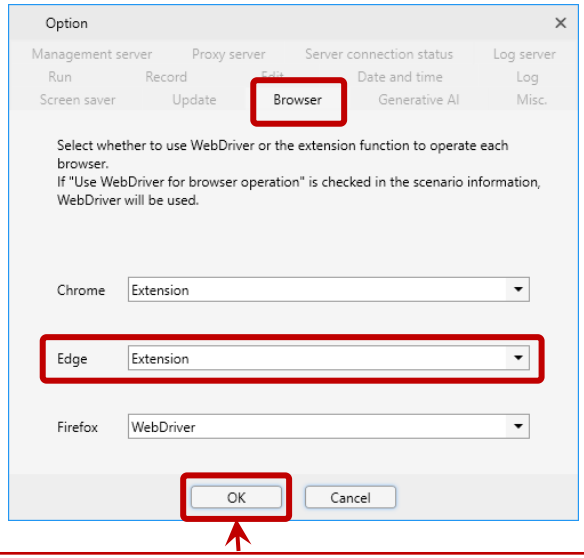
3 Automation for click and input on a webpage

Prep Installing an extension on Microsoft Edge (first time only)

3 From the menu bar, select ‘Tool,’ and ‘Option’ consecutively.



4 Click the ‘Browser’ tab in the “Option” dialog and select ‘Extension’ from the dropdown of ‘Edge.’ (first time only)

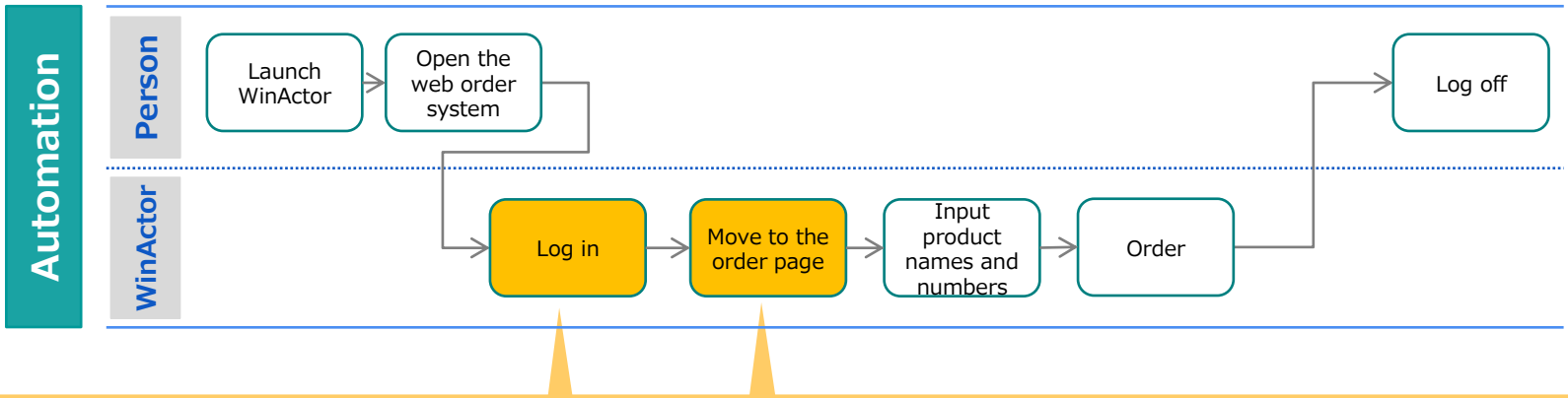


5 Click the [OK] button.

For Chrome users, select ‘Extension’ from the dropdown of ‘Chrome.’

3 Automation for click and input on a webpage

"From here, we will create a scenario for the following operations."

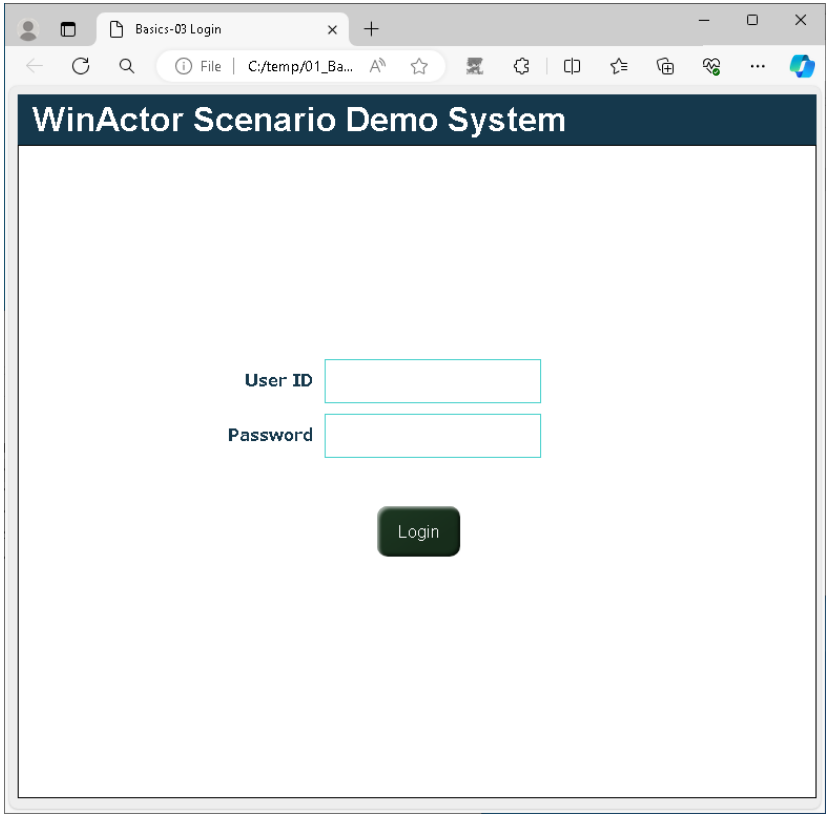


Prep	Displaying the login page
3-1	Moving the cursor to the User ID text box
3-2	Inputting data into the User ID text box
3-3	Inputting data into the Password text box
3-4	Clicking the Login button

3 Automation for click and input on a webpage

Prep Displaying the login page

1 Right-click "01_Basics03_Login.html" and select ‘Microsoft Edge’ from ‘Open with.’



File to be used

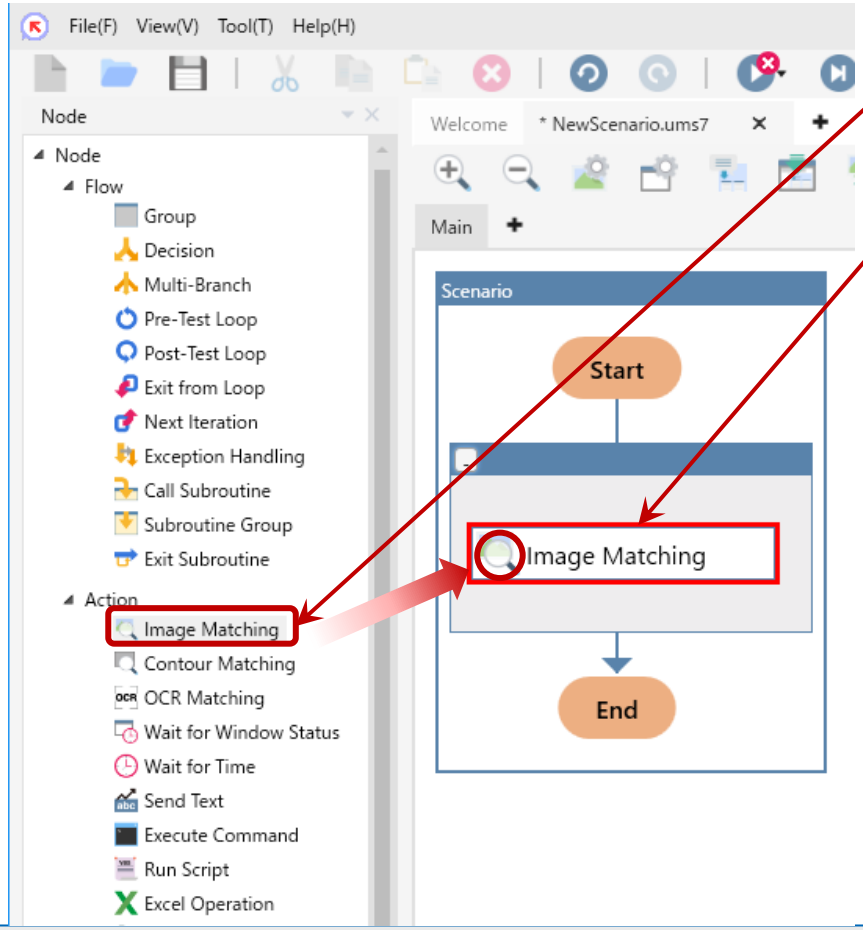
- Hands-On_Training
  - Files
    - 01_Basics03_Login.html

Be sure to use Edge or Chrome as the browser to start the demo system.

For Chrome users, select ‘Google Chrome’ from ‘Open with.’

3 Automation for click and input on a webpage

3-1 Moving the cursor to the User ID text box



1 Drag the ‘Image Matching’ node and drop it into the scenario edit area.

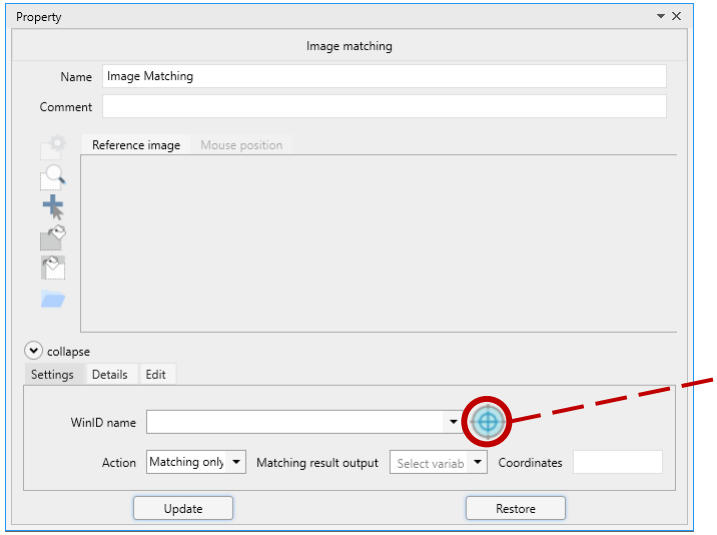
2 Double-click the placed node. (Displaying the property)

This time, we use the 'Image Matching' node to move the cursor. You can also use the ‘Click’ or ‘Emulation’ libraries to move the cursor.

3 Automation for click and input on a webpage

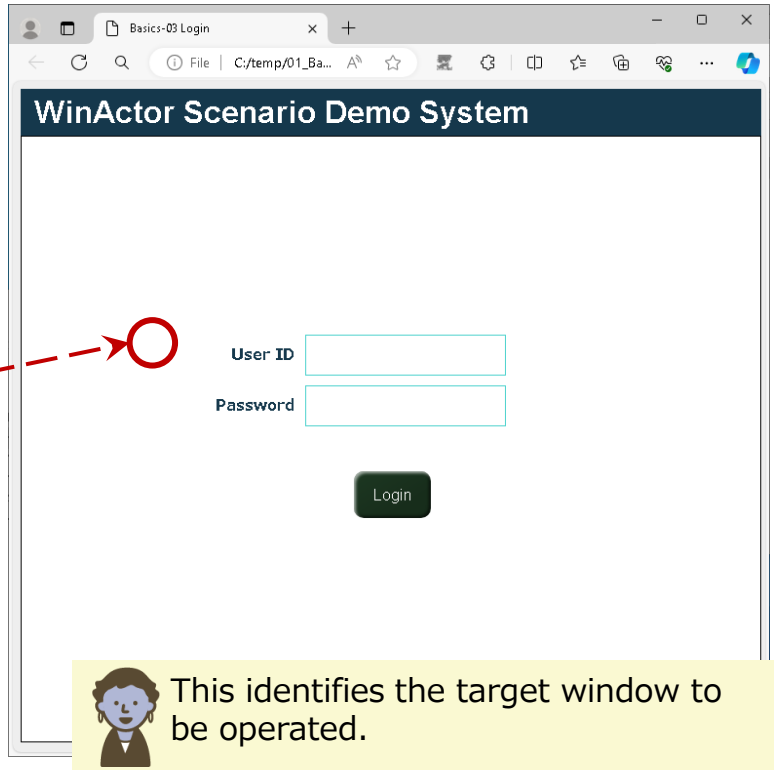
3-1 Moving the cursor to the User ID text box

3 Click the blue scope button for [WinID name].



Use the blue scope button to specify which window to be operated.

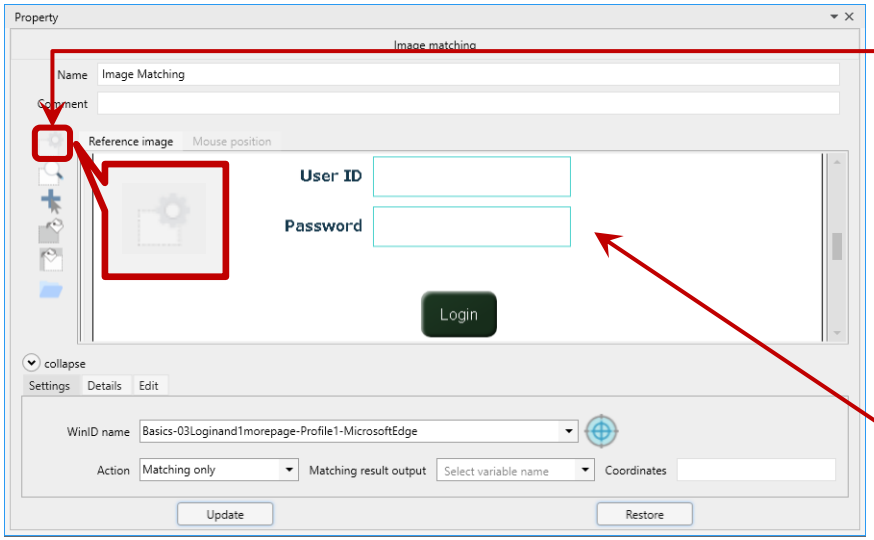
4 Move the mouse cursor on a page you want to input data, and click the page.



This identifies the target window to be operated.

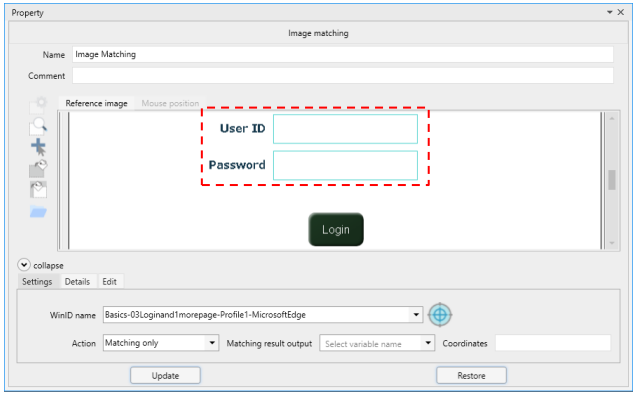
3 Automation for click and input on a webpage

3-1 Moving the cursor to the User ID text box



5 Click the ‘Match range’ button.

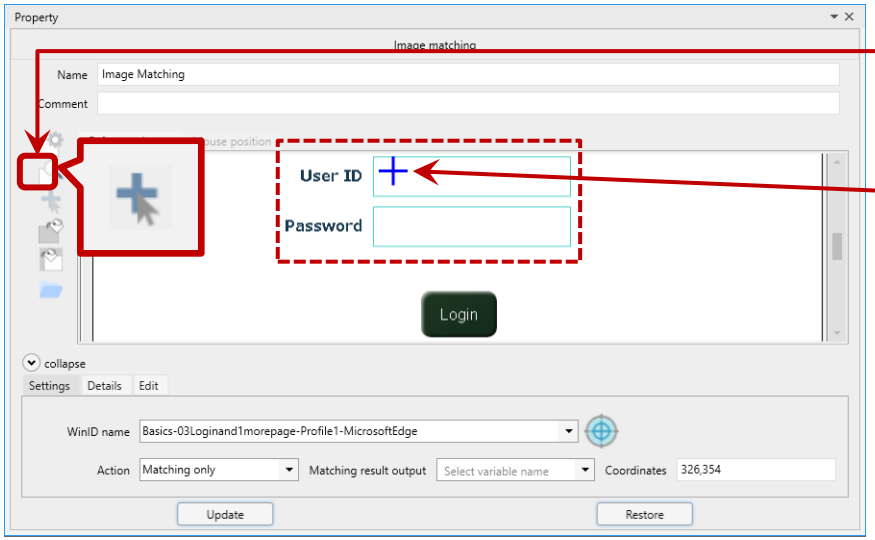
6 In the page captured earlier, specify a range where the text box exists by enclosing it in a red frame..



You do not need to click the ‘Match range’ button if the button has already been in the clicked state.

3 Automation for click and input on a webpage

3-1 Moving the cursor to the User ID text box



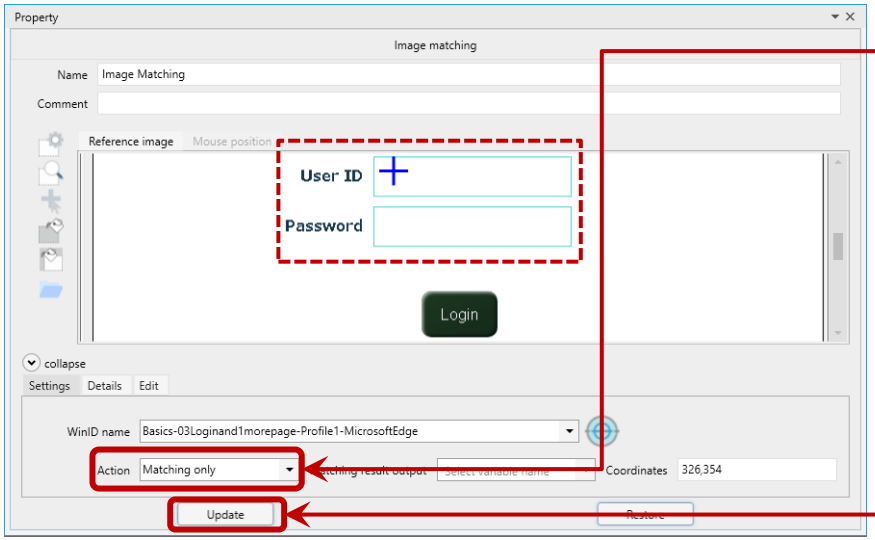
7 Click the ‘Mouse operation coordinates’ button.

8 In the page captured earlier, click at the position of the "User ID" text box.

"Match range" specifies a range of the target image in the captured page. "Mouse operation coordinates" specifies a position where a specific action will be taken.

3 Automation for click and input on a webpage

3-1 Moving the cursor to the User ID text box

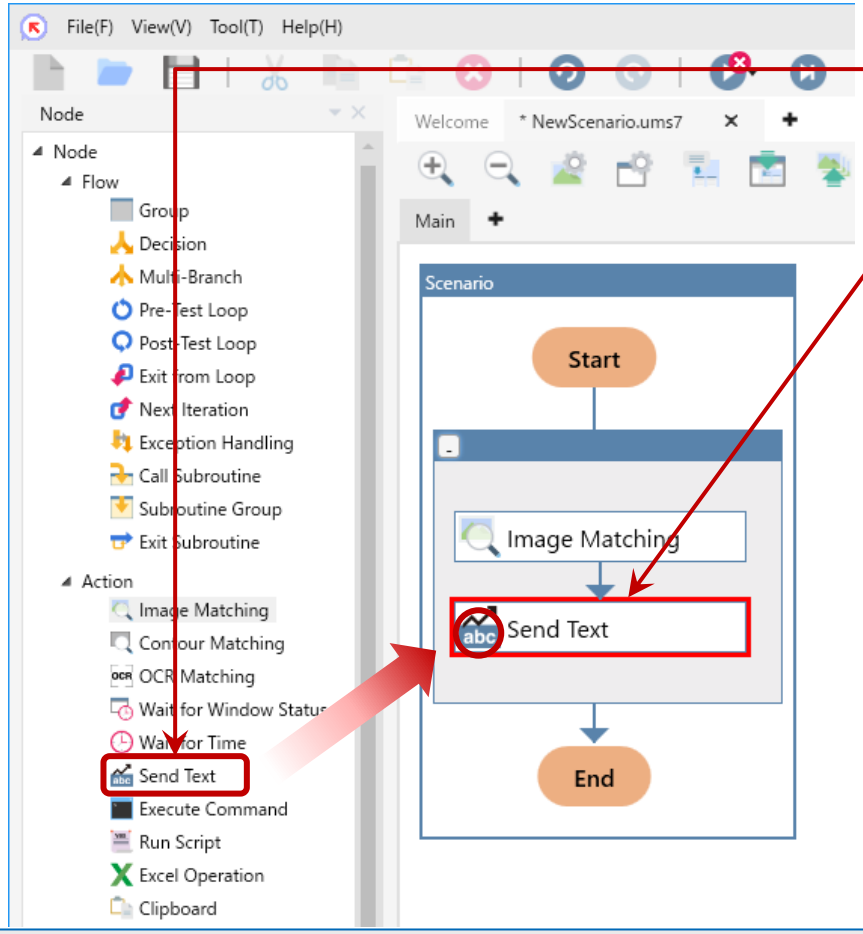


9 For [Action], select ‘Left button click’ from the pull-down list.

10 Click the [Update] button.

3 Automation for click and input on a webpage

3-2 Inputting data into the User ID text box



1 Drag the ‘Send Text’ node and drop it into the scenario edit area.

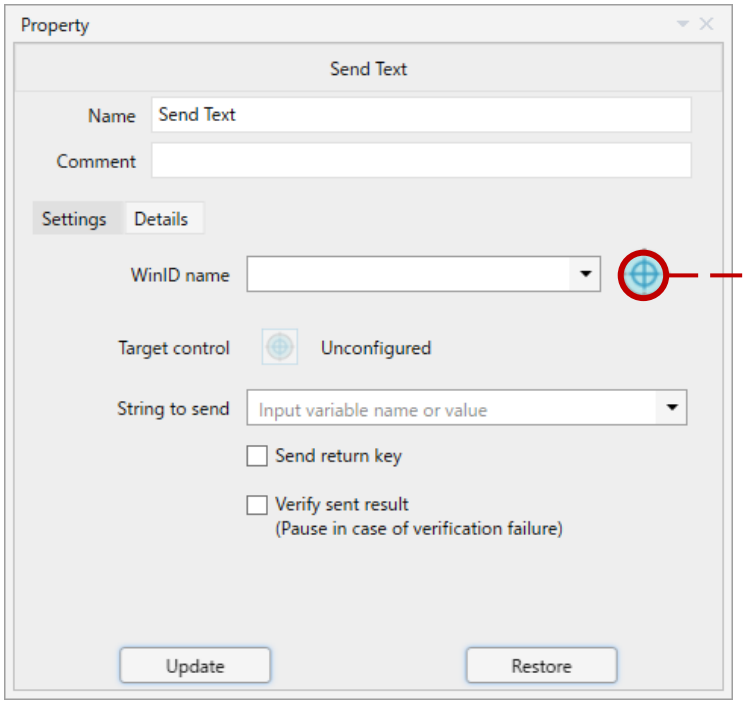
2 Double-click the placed node. (Displaying the property)

There are several methods to set a text within a scenario. We use ‘Send Text’ this time.

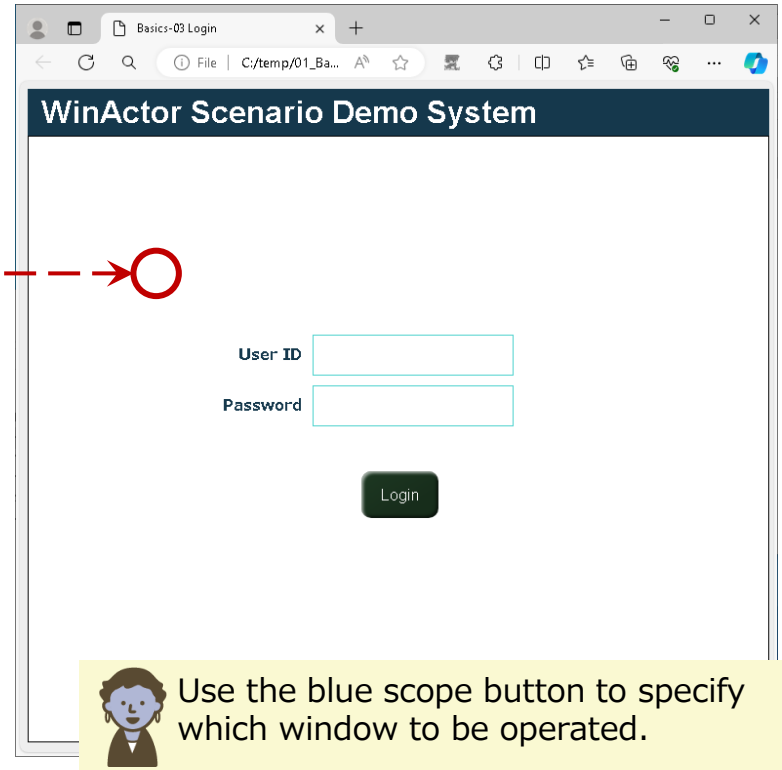
3 Automation for click and input on a webpage

3-2 Inputting data into the User ID text box

3 Click the blue scope button for [WinID name].



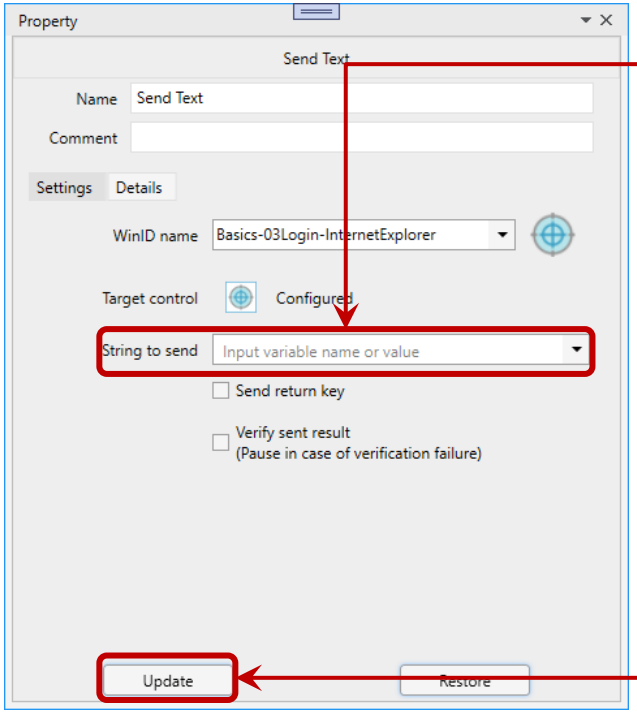
4 Move the mouse cursor on a page you want to input data, and click the page.



Use the blue scope button to specify which window to be operated.

3 Automation for click and input on a webpage

3-2 Inputting data into the User ID text box



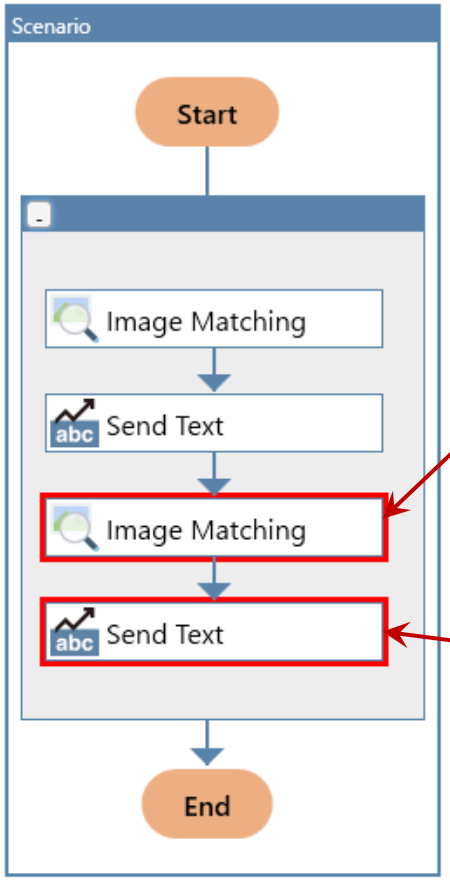
5 For [String to send], select “Value=>” from the pull-down list and enter "User01" after "Value=>."

6 Click the [Update] button.

The value entered in [String to send] will be input.

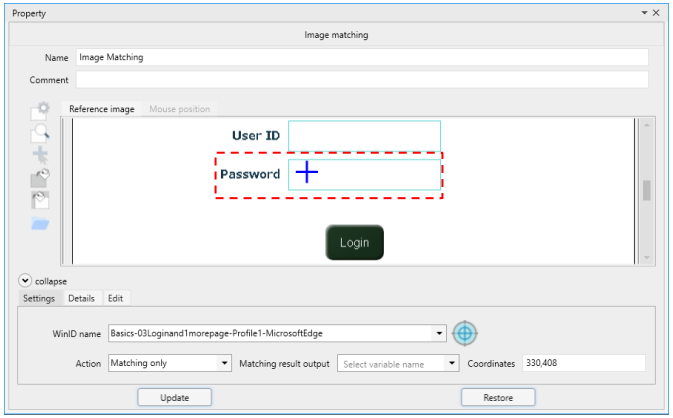
3 Automation for click and input on a webpage

3-3 Inputting data into the Password text box



1 Follow the same steps as 3-1 for Image Matching and 3-2 for Send Text.

1.1 For Image Matching, specify the "Password" text box.



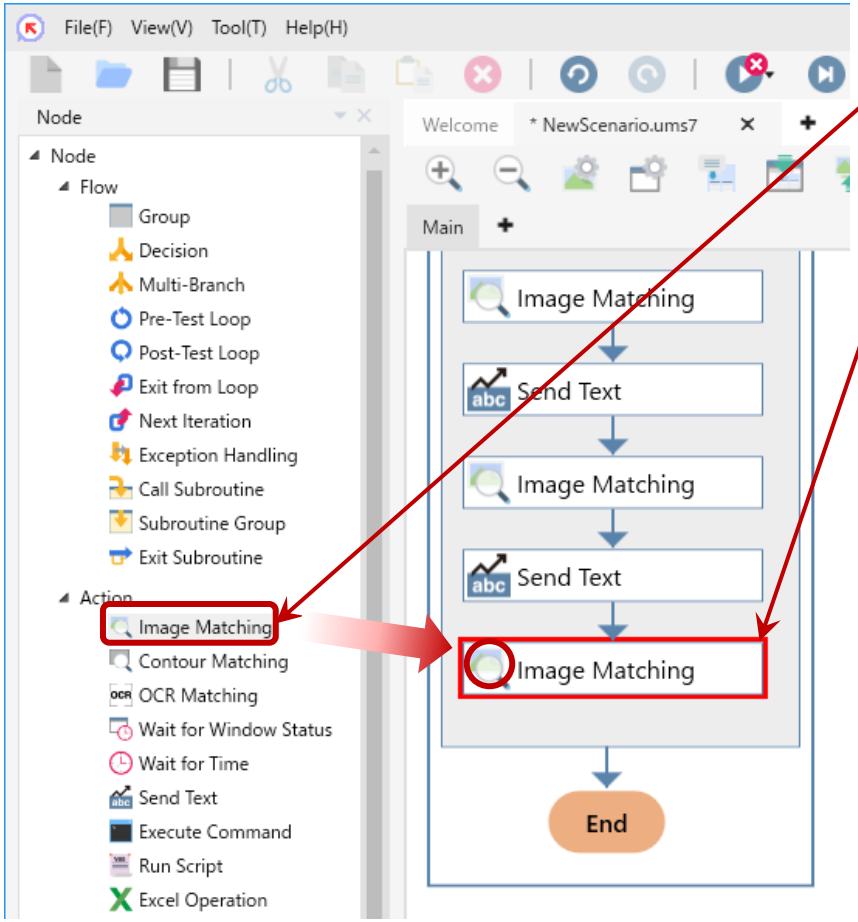
1.2 For Send Text, enter "Password."

With the above settings, the operation of inputting the following information is completed.

User ID: User01
Password: Password

3 Automation for click and input on a webpage

3-4 Clicking the Login button



1 Drag the 'Image Matching' node and drop it into the scenario edit area.

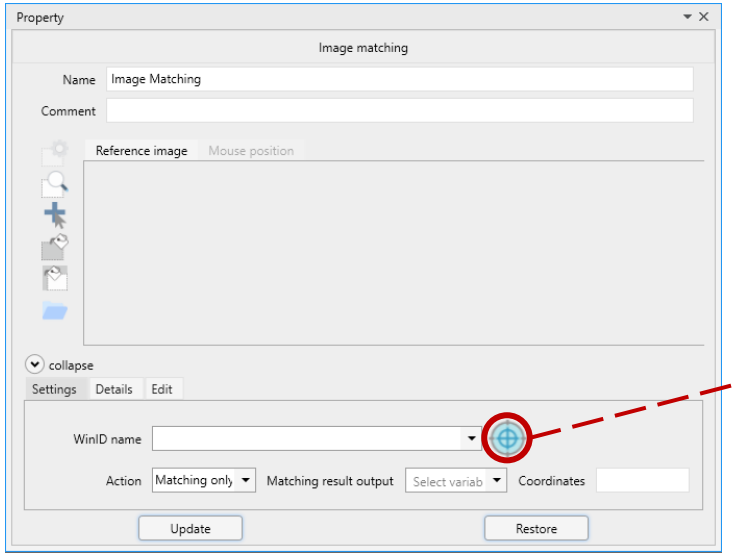
2 Double-click the placed node. (Displaying the property)

'Image Matching' can be used not only for clicking the text box, but also for clicking buttons such as the login button.

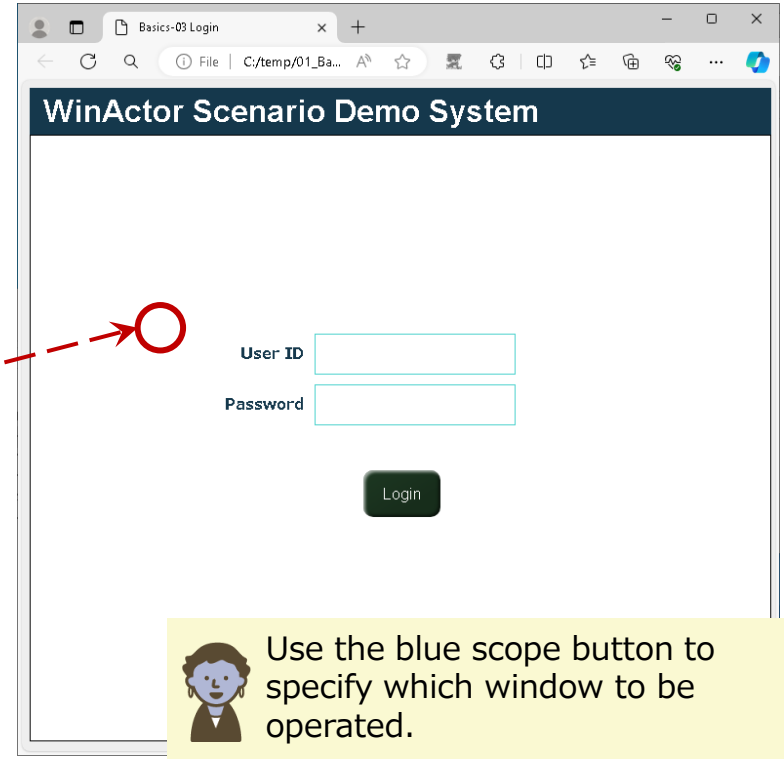
3 Automation for click and input on a webpage

3-4 Clicking the Login button

3 Click the blue scope button for [WinID name].



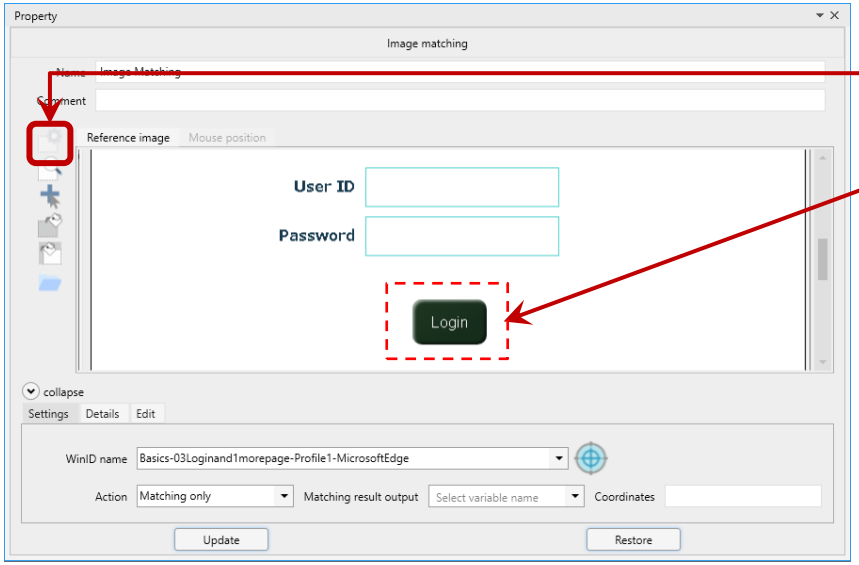
4 Move the mouse cursor on a page you want to capture, and click the page.



Use the blue scope button to specify which window to be operated.

3 Automation for click and input on a webpage

3-4 Clicking the Login button

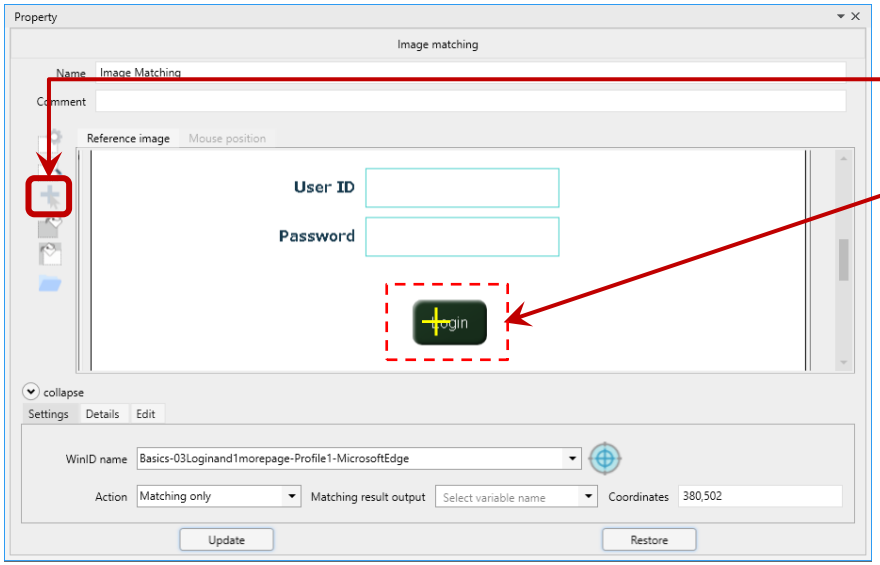


5 Click the ‘Match range’ button.

6 In the page captured earlier, specify a range where the ‘Login’ button exists.

3 Automation for click and input on a webpage

3-4 Clicking the Login button



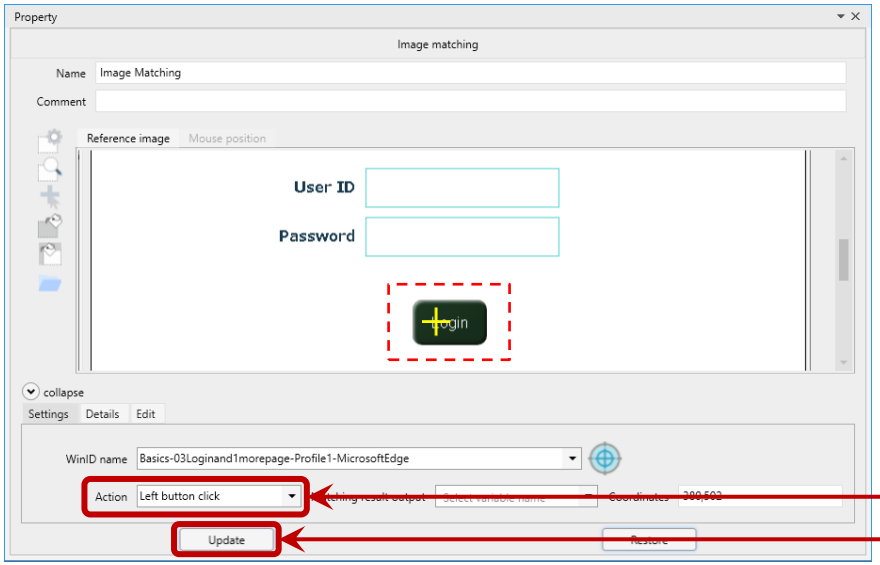
7 Click the ‘Mouse operation coordinates’ button.

8 In the page captured earlier, click at the position of the ‘Login’ button.

This time, the purpose is to click the ‘Login’ button, so "Mouse operation coordinates" should point at the ‘Login’ button.

3 Automation for click and input on a webpage

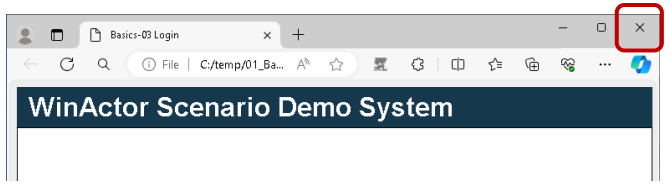
3-4 Clicking the Login button



9 For [Action], select ‘Left button click’ from the pull-down list.

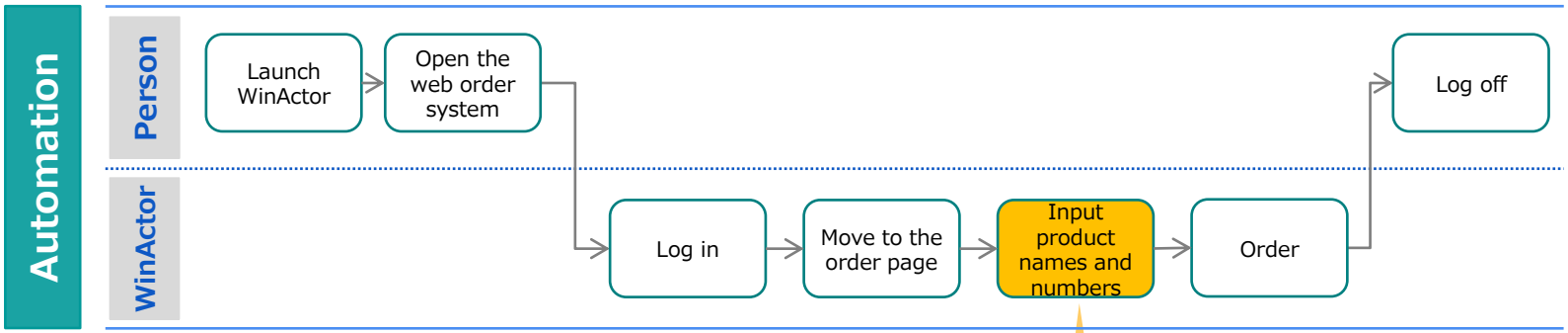
10 Click the [Update] button.

11 Click the [Close] button of Edge.



3 Automation for click and input on a webpage

"From here, we will create a scenario for the following operation."

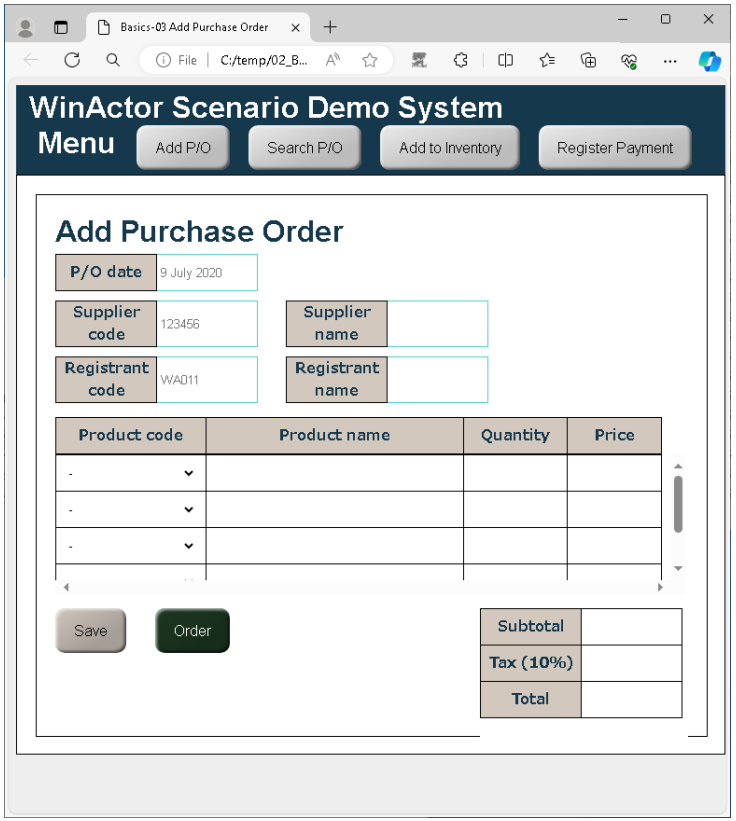


3-5	Displaying the Add Purchase Order page
3-6	Inputting a P/O date
3-7	Inputting a supplier code and registrant code
3-8	Selecting a product code

3 Automation for click and input on a webpage

3-5 Displaying the Add Purchase Order page

1 Right-click "02_Basics03_Add_Purchase_Order.html" and select ‘Microsoft Edge’ from ‘Open with.’



File to be used

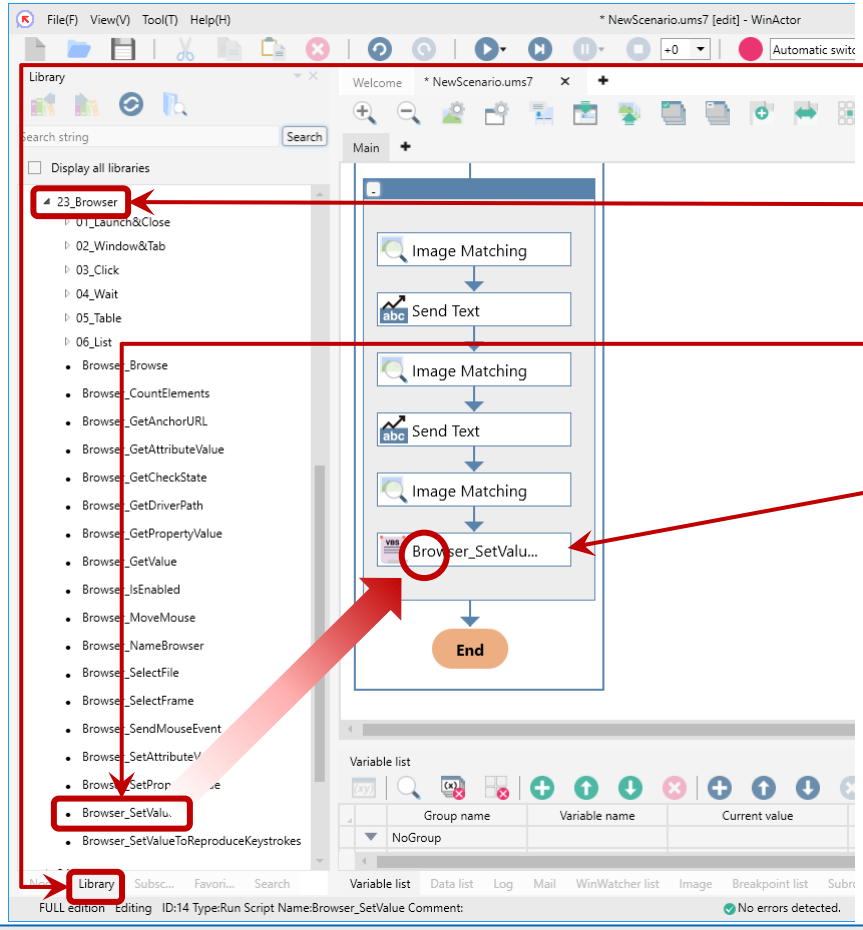
- Hands-On_Training
  - Files
    - 02_Basics03_Add_Purchase_Order.html

Be sure to use Edge or Chrome as the browser to start the demo system.

For Chrome users, select ‘Google Chrome’ from ‘Open with.’

3 Automation for click and input on a webpage

3-6 Inputting a P/O date



1 Click the [Library] tab.

2 Double-click ‘23_Browser’ and expand the list of libraries.

3 Drag the ‘Browser_SetValue’ library and drop it into the scenario edit area.

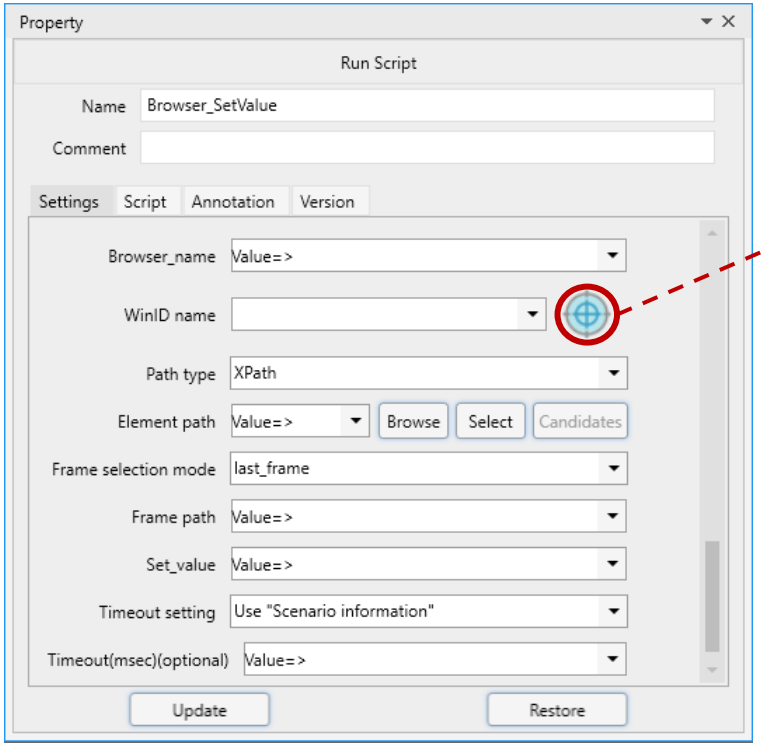
4 Double-click the placed library. (Displaying the property)

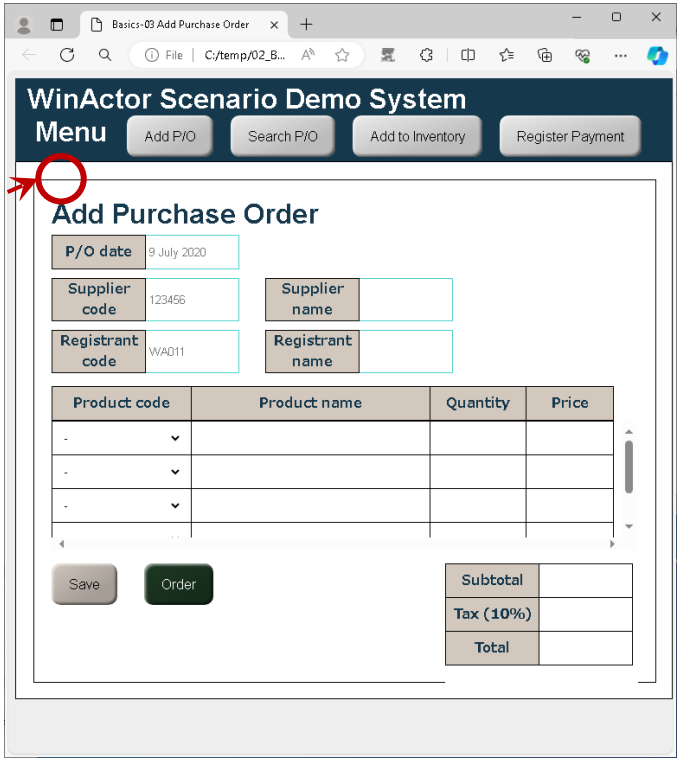
3 Automation for click and input on a webpage

3-6 Inputting a P/O date

5 Click the blue scope button for [WinID name].

6 Move the mouse cursor on a page you want to input data, and click the page.



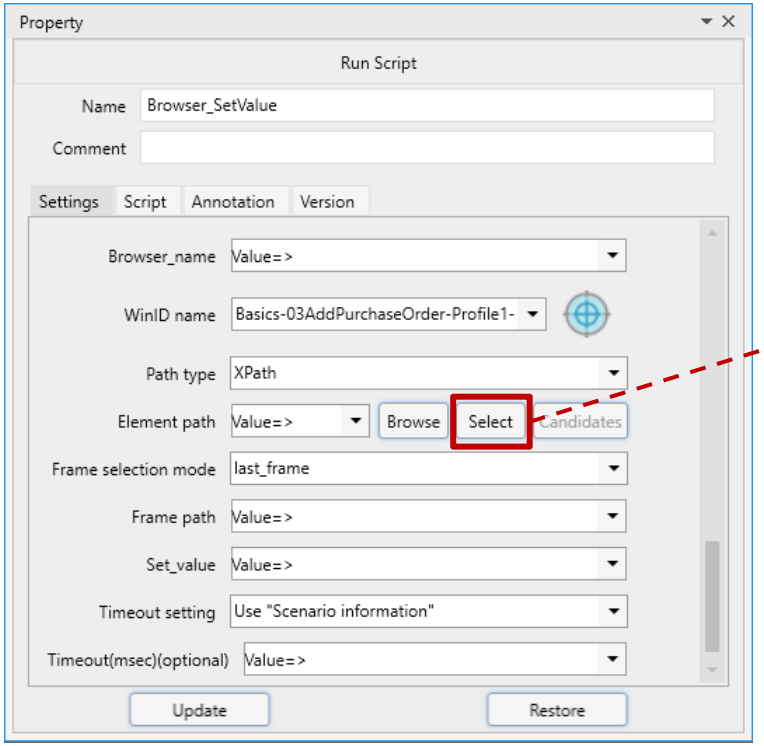


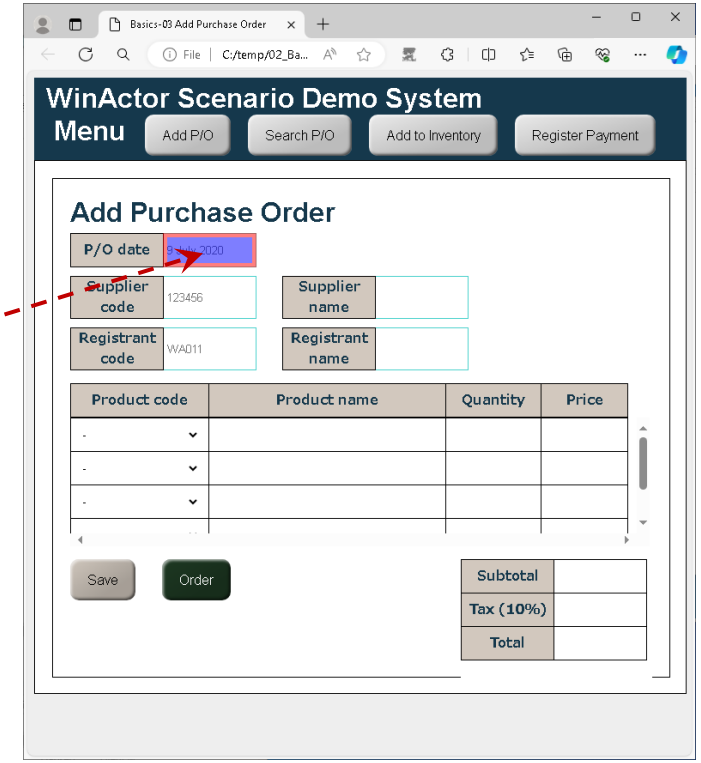
3 Automation for click and input on a webpage

3-6 Inputting a P/O date

7 Click the [Select] button in [Element path].

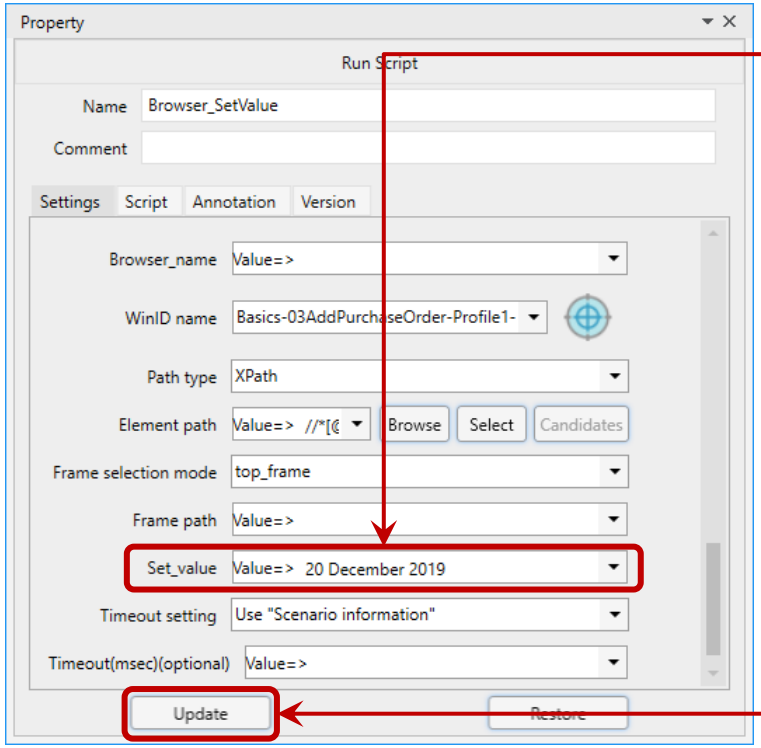
8 Move mouse cursor over the "P/O date" text box, wait for the color to change, and click it.





3 Automation for click and input on a webpage

3-6 Inputting a P/O date

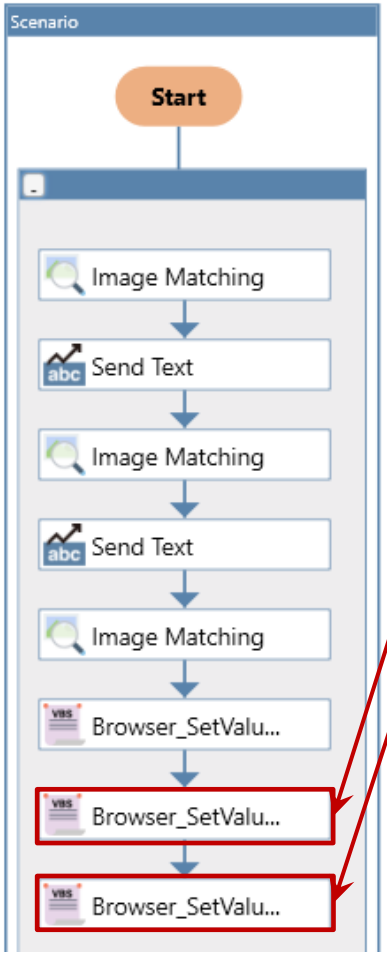


9 For [Set_value], enter "Value=>20 December 2019."

10 Click the [Update] button.

3 Automation for click and input on a webpage

3-7 Inputting a supplier code and registrant code



1 Follow the same steps as 3-6.

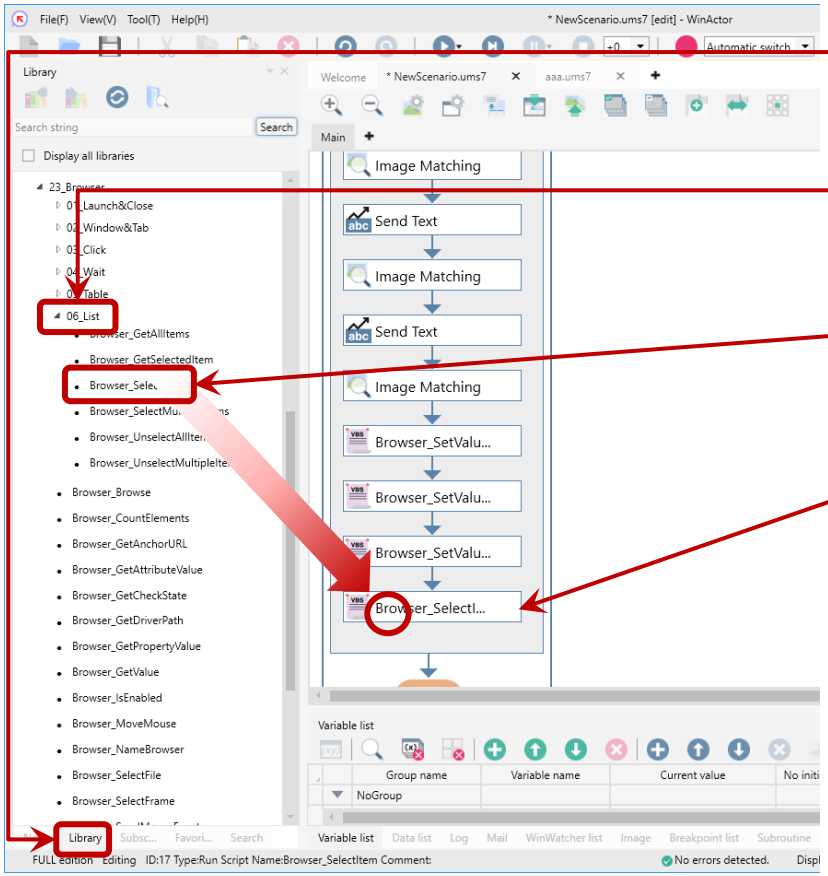
1.1 For “Supplier code,” enter "123456."

1.2 For “Registrant code,” enter "WA011."

With the above settings, the operation of inputting the P/O date, supplier code, and registrant code is completed.

3 Automation for click and input on a webpage

3-8 Selecting a product code



1 Click the [Library] tab.

2 Double-click ‘06_List’ and expand the list of libraries.

3 Drag the ‘Browser_SelectItem’ library and drop it into the scenario edit area.

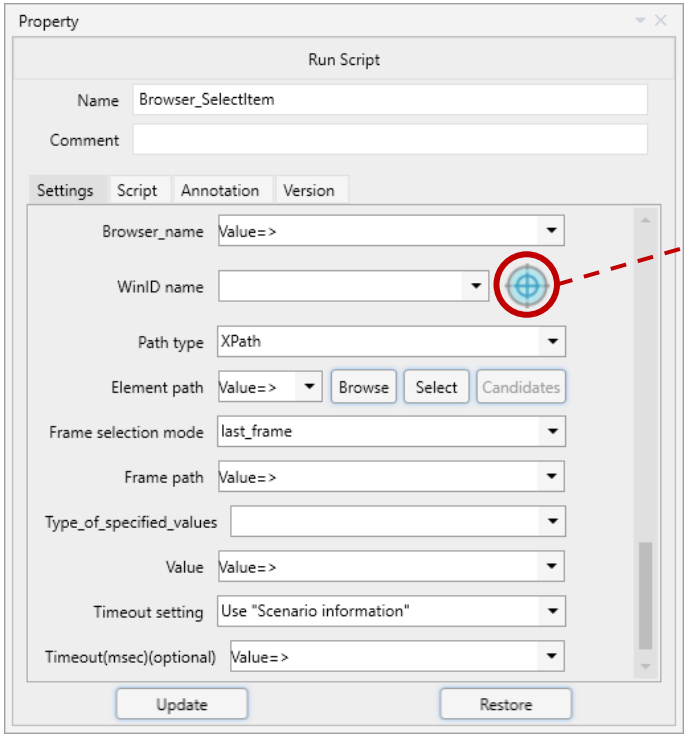
4 Double-click the placed library. (Displaying the property)

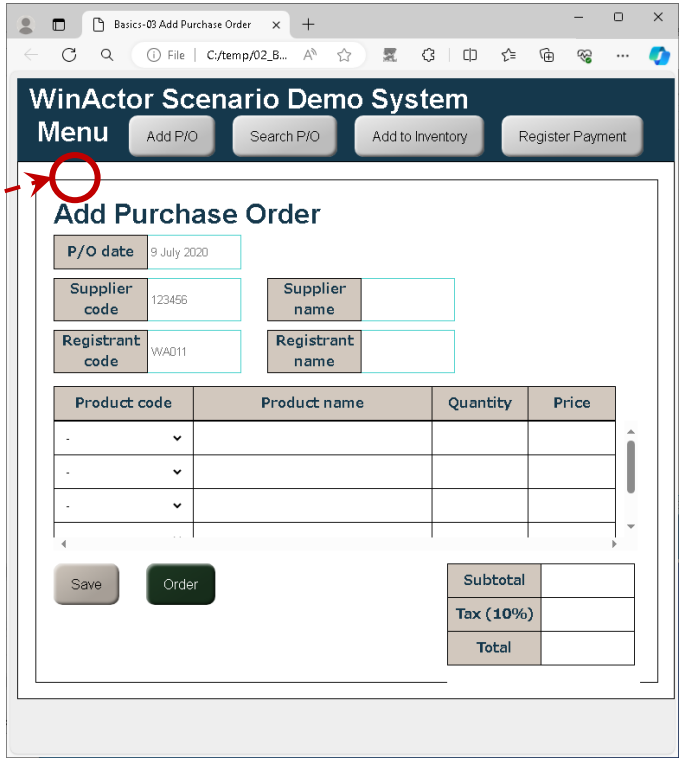
3 Automation for click and input on a webpage

3-8 Selecting a product code

5 Click the blue scope button for [WinID name].

6 Move the mouse cursor on a page you want to input data, and click the page.



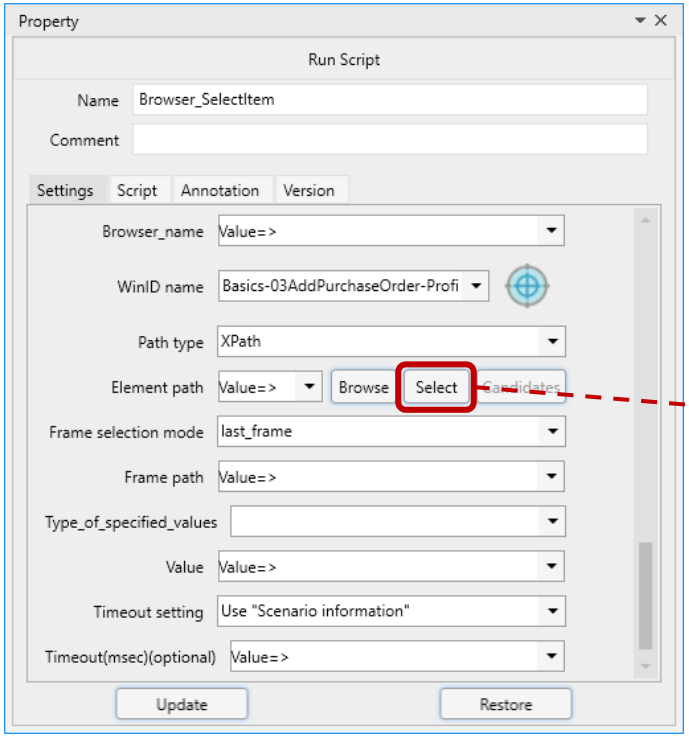


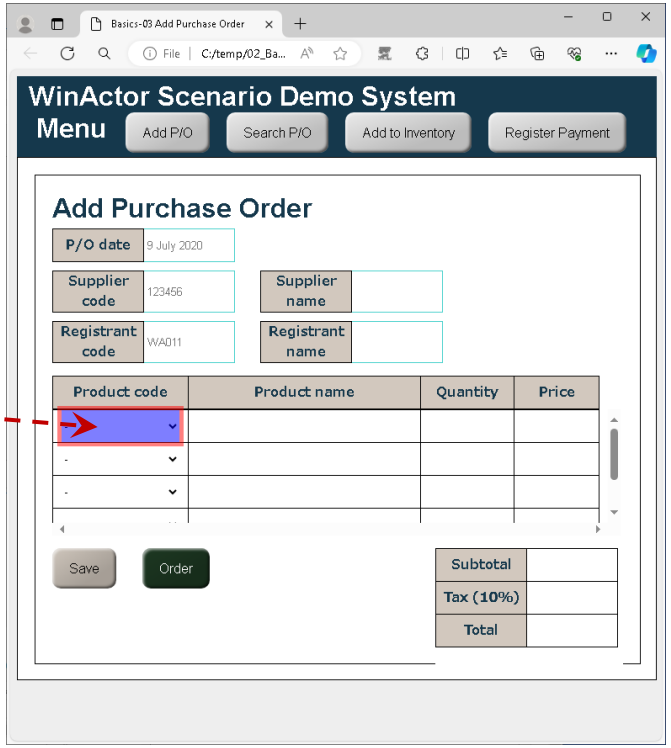
3 Automation for click and input on a webpage

3-8 Selecting a product code

7 Click the [Select] button in [Element path].

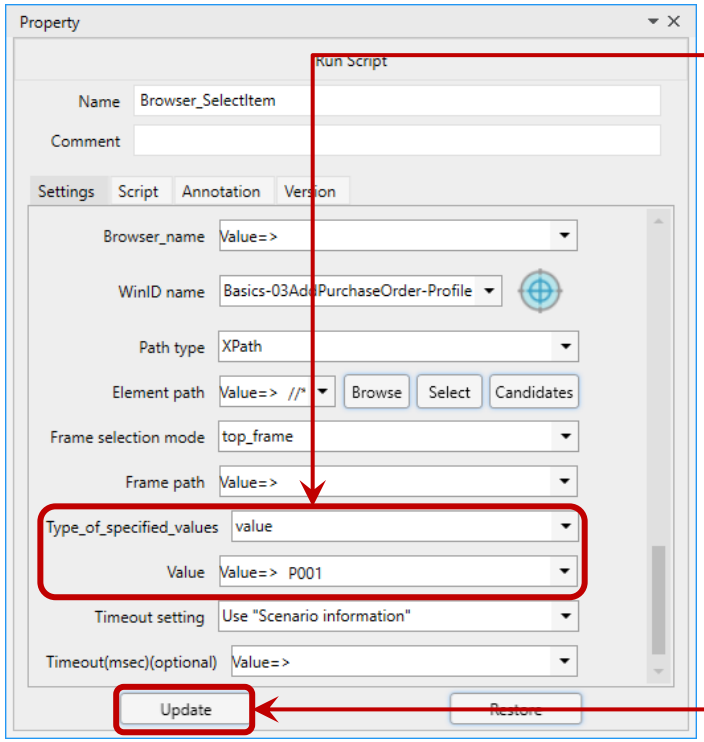
8 Move mouse cursor over the "Product code" list, wait for the color to change, and click it.





3 Automation for click and input on a webpage

3-8 Selecting a product code

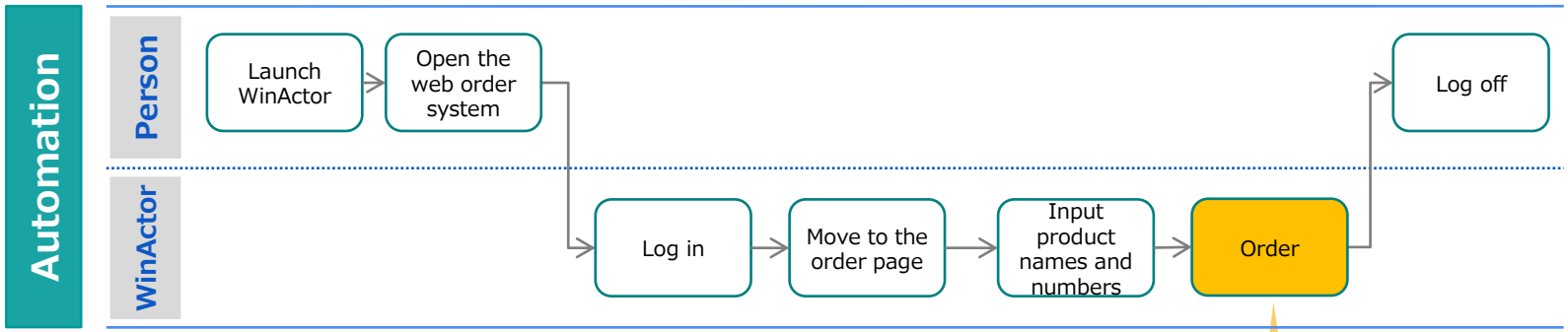


9 For [Type_of_specified_values] and [Value], enter ‘value’ and "Value=>P001“ respectively.

10 Click the [Update] button.

3 Automation for click and input on a webpage

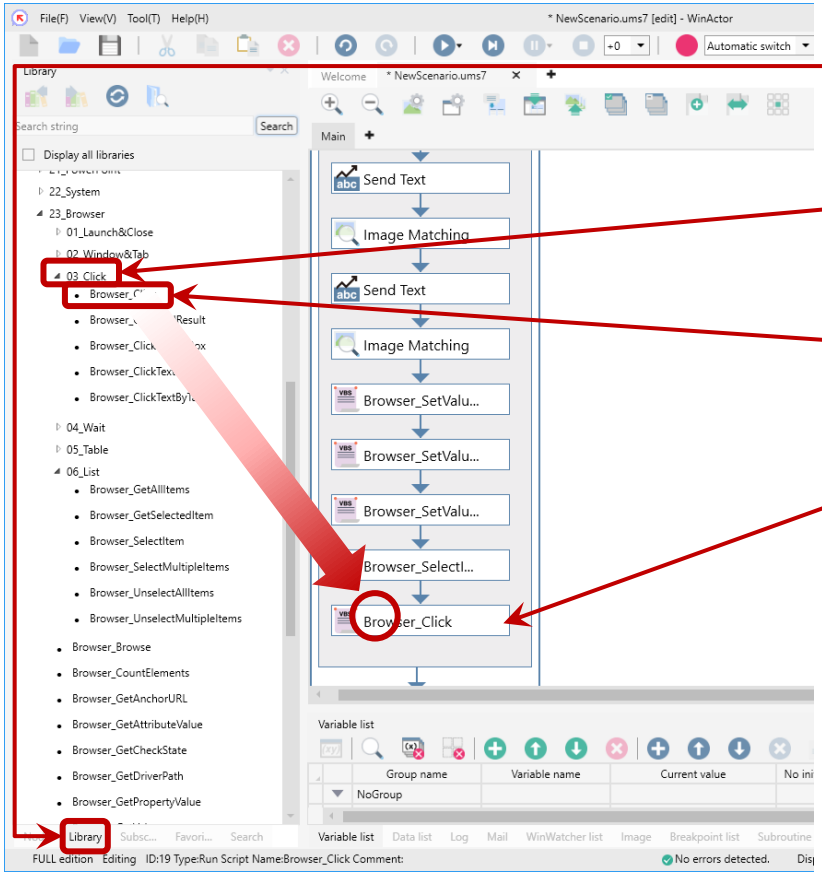
"From here, we will create a scenario for the following operation."



3-9 Clicking the Order button

3 Automation for click and input on a webpage

3-9 Clicking the Order button



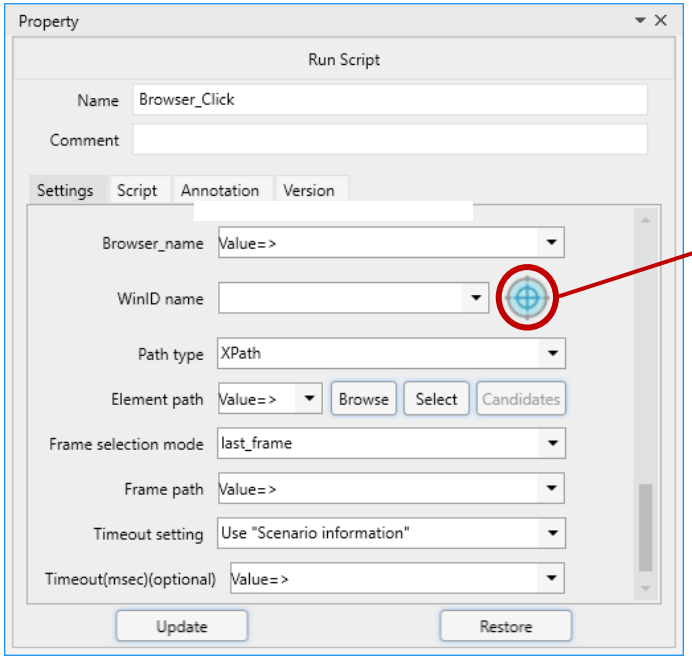
1. Click the [Library] tab.
2. Double-click ‘03_Click’ and expand the list of libraries.
3. Drag the ‘Browser_Click’ library and drop it into the scenario edit area.
4. Double-click the placed library. (Displaying the property)

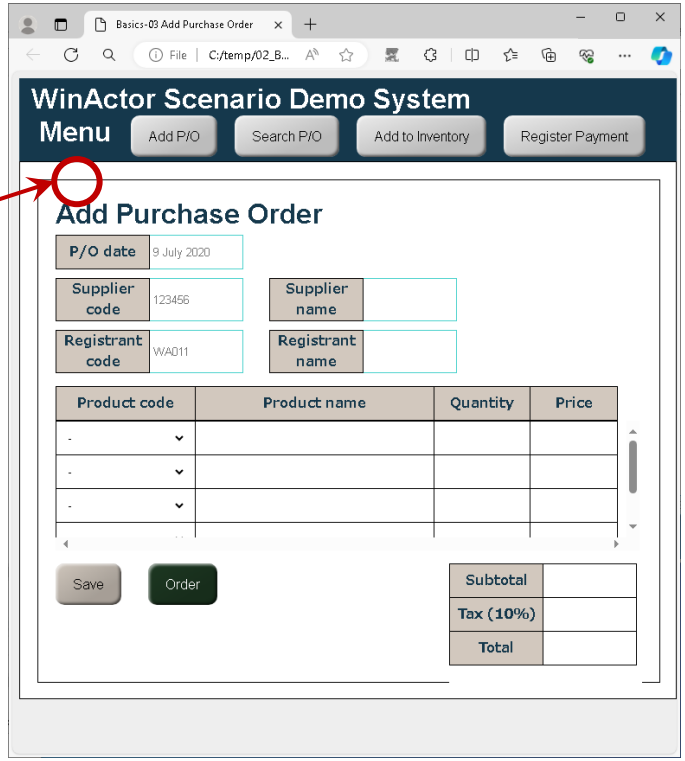
3 Automation for click and input on a webpage

3-9 Clicking the Order button

5 Click the blue scope button for [WinID name].

6 Move the mouse cursor on a page you want to capture, and click the page.



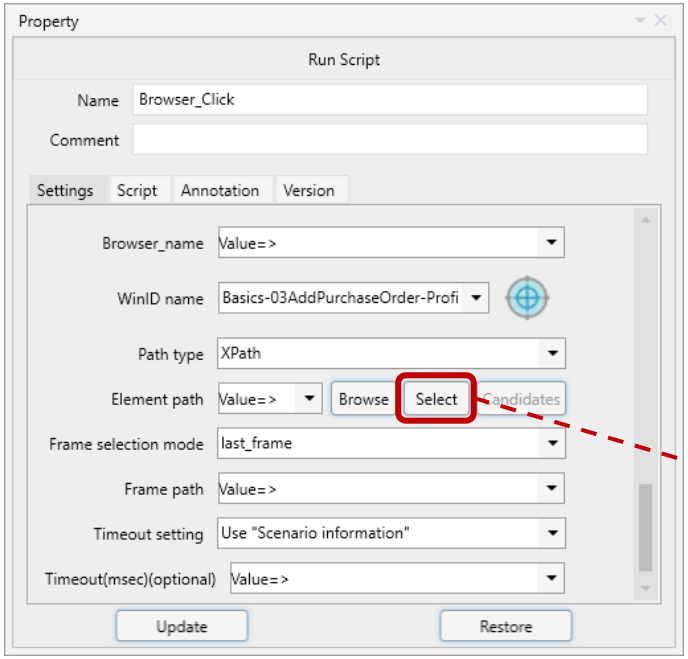


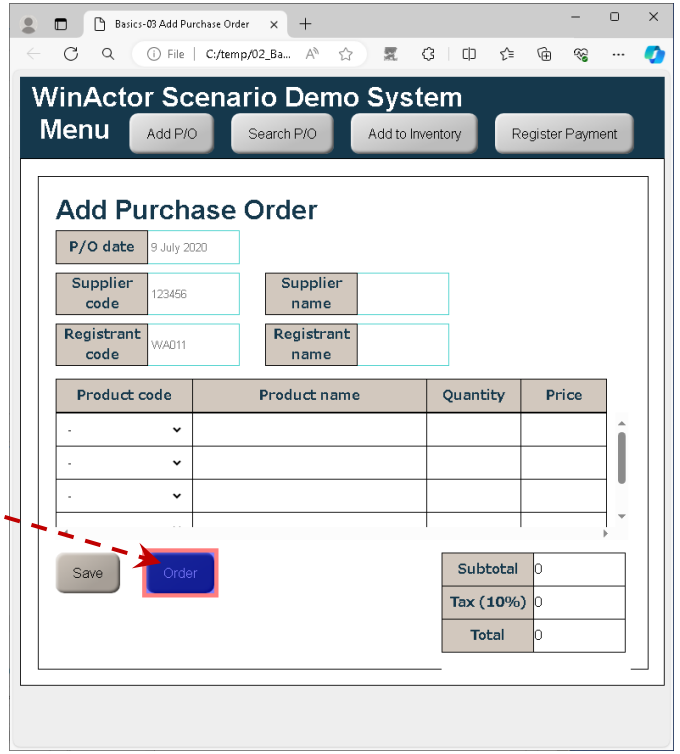
3 Automation for click and input on a webpage

3-9 Clicking the Order button

7 Click the [Select] button in [Element path].

8 Move mouse cursor over the ‘Order’ button, wait for the color to change, and click it.

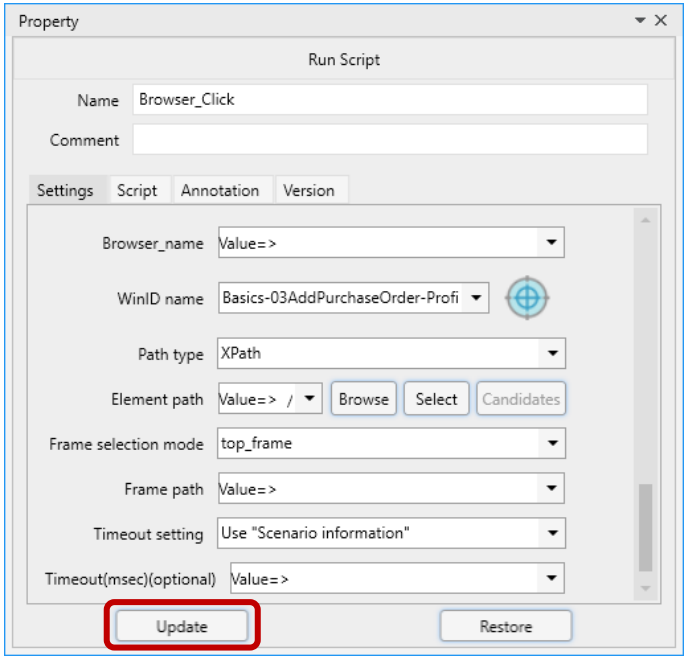




3 Automation for click and input on a webpage

3-9 Clicking the Order button

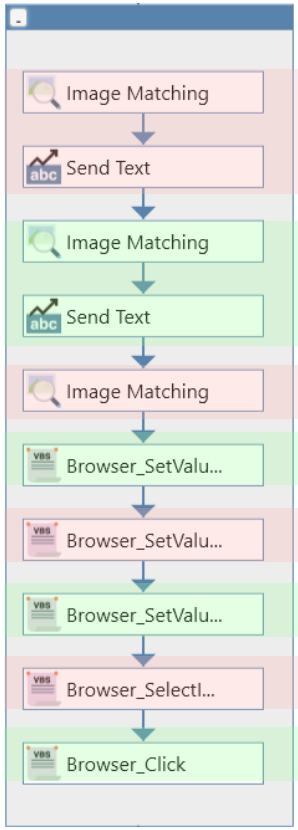
9 Click the [Update] button.



3 Automation for click and input on a webpage

3-10 Checking the entire scenario

1 Confirm that the created scenario is as follows.



Inputting a user ID (3-1、3-2)

Inputting a password (3-3)

Clicking the Login button (3-4、3-5)

Inputting a P/O date (3-6)

Inputting a supplier code (3-7)

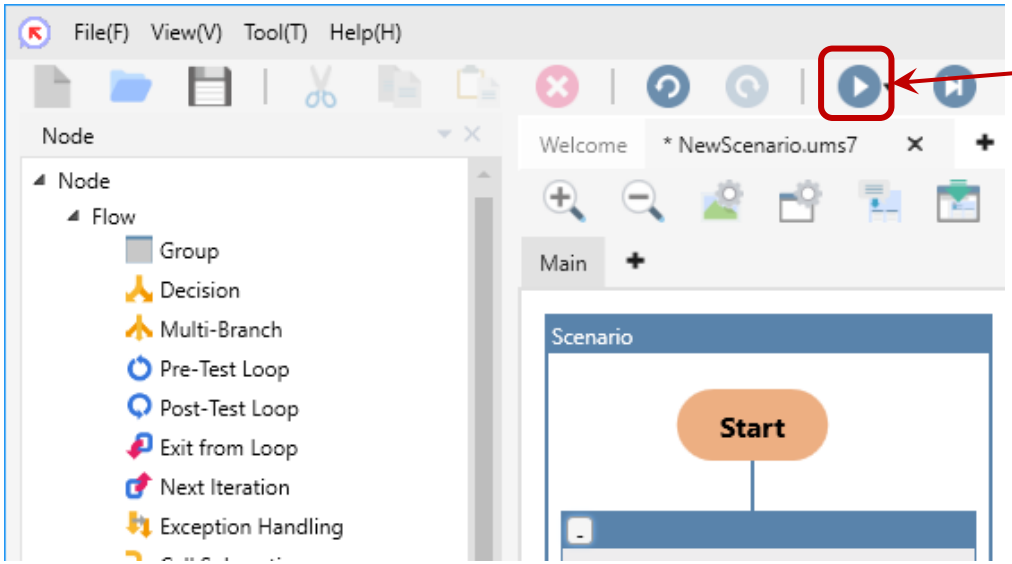
Inputting a registrant code (3-7)

Selecting a product code (3-8)

Clicking the Order button (3-9)

3 Automation for click and input on a webpage

3-11 Running the scenario



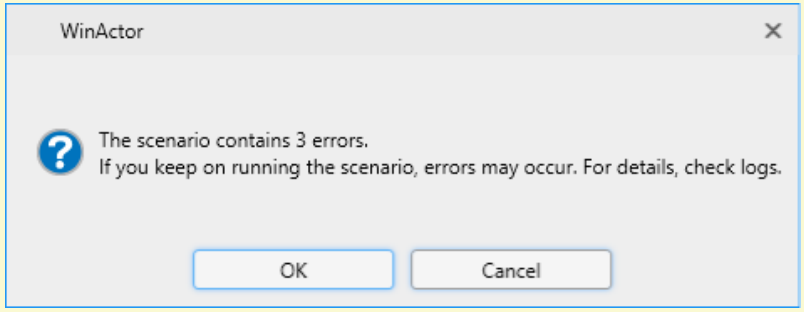
1. Click the 'Run scenario' button and check if the scenario runs without error.
2. If an error occurs, check the error message and review the settings of the property and the like.

3 Automation for click and input on a webpage

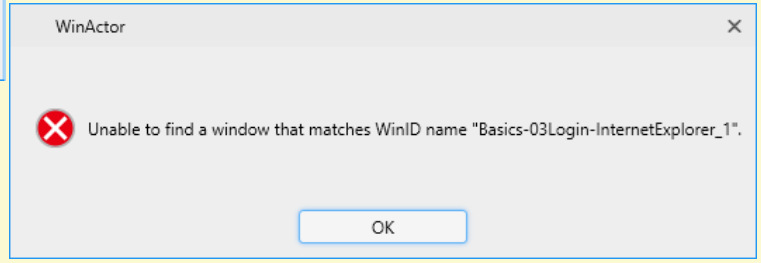
3-11 Running the scenario

Error messages

A run scenario confirmation dialog as shown below will be displayed if there are any errors in the scenario when you click the ‘Run scenario’ button. As the created scenario will not be broken, you can click [OK] if you want to check the scenario operations. When the scenario progresses to the location with an error, an error dialog as shown below will be displayed again. Check the message and use it as a clue to find the cause of the error.



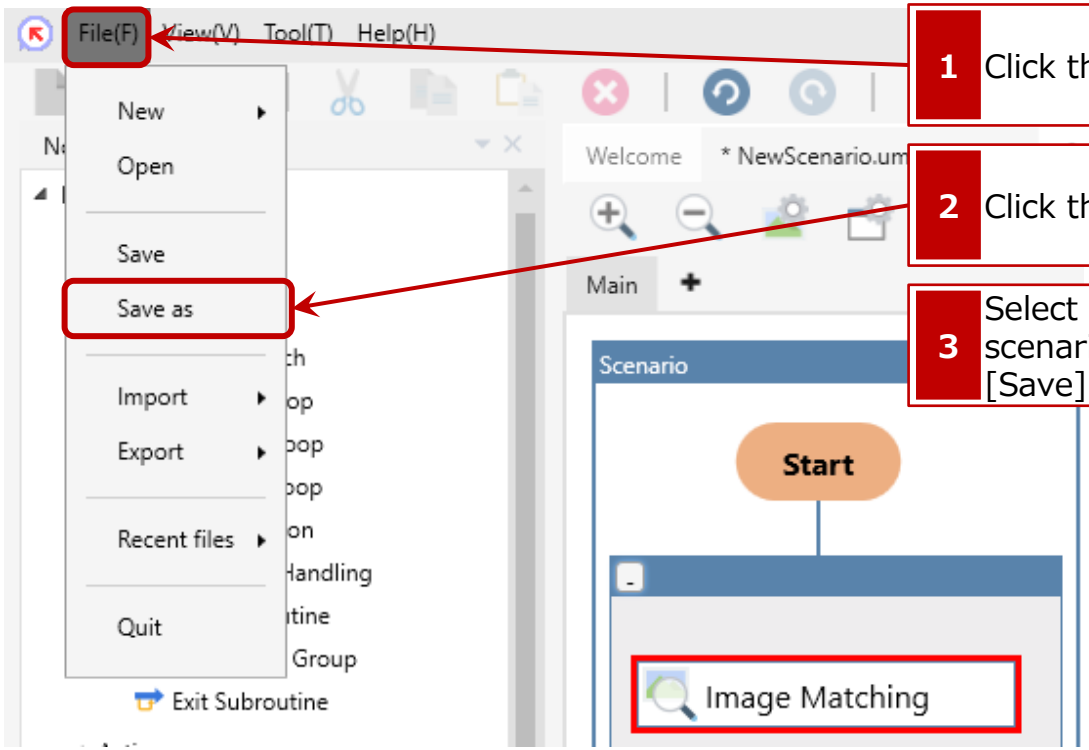
Run scenario confirmation dialog



Error dialog

3 Automation for click and input on a webpage

3-12 Saving the scenario



1 Click the [File] menu.

2 Click the [Save as] menu.

3 Select a location to save a file for the scenario, enter a filename, and click the [Save] button.

For a scenario that has already been saved, you can use the [Save] menu.

3 Automation for click and input on a webpage

"How do you think of using WinActor? Do you feel like you can use it as a solution to your problems?"

"Yes, my manual work is automated as it is, and I really think that manual work and typo will be reduced!"

"Okay, let's proceed with the scenario creation."

3 Introducing scenario creation ‘with guidance’

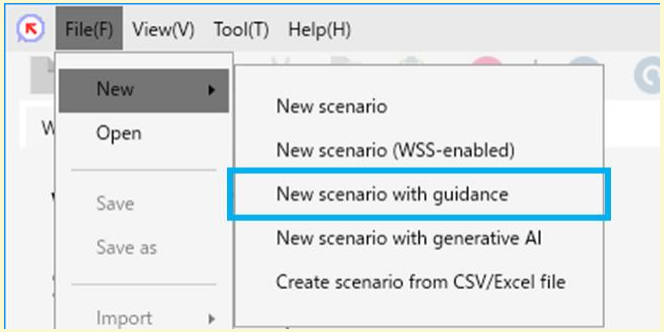
Tips If you find it difficult to create scenarios …

Guidance might be a better choice for beginners .

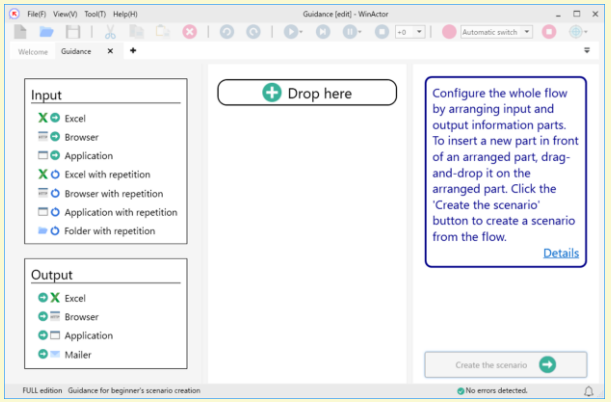
WinActor scenarios may be created easier ‘with guidance.’ If you find it difficult to directly create scenarios of WinActor, try creating scenario ‘with guidance.’

To create ‘with guidance,’ Click ‘File(F),’ and select ‘New’ > ‘New scenario with guidance’ consecutively on the menu bar of WinActor.

For detailed usage, see “Scenario creation with guidance” in "WinActor Operation Manual."

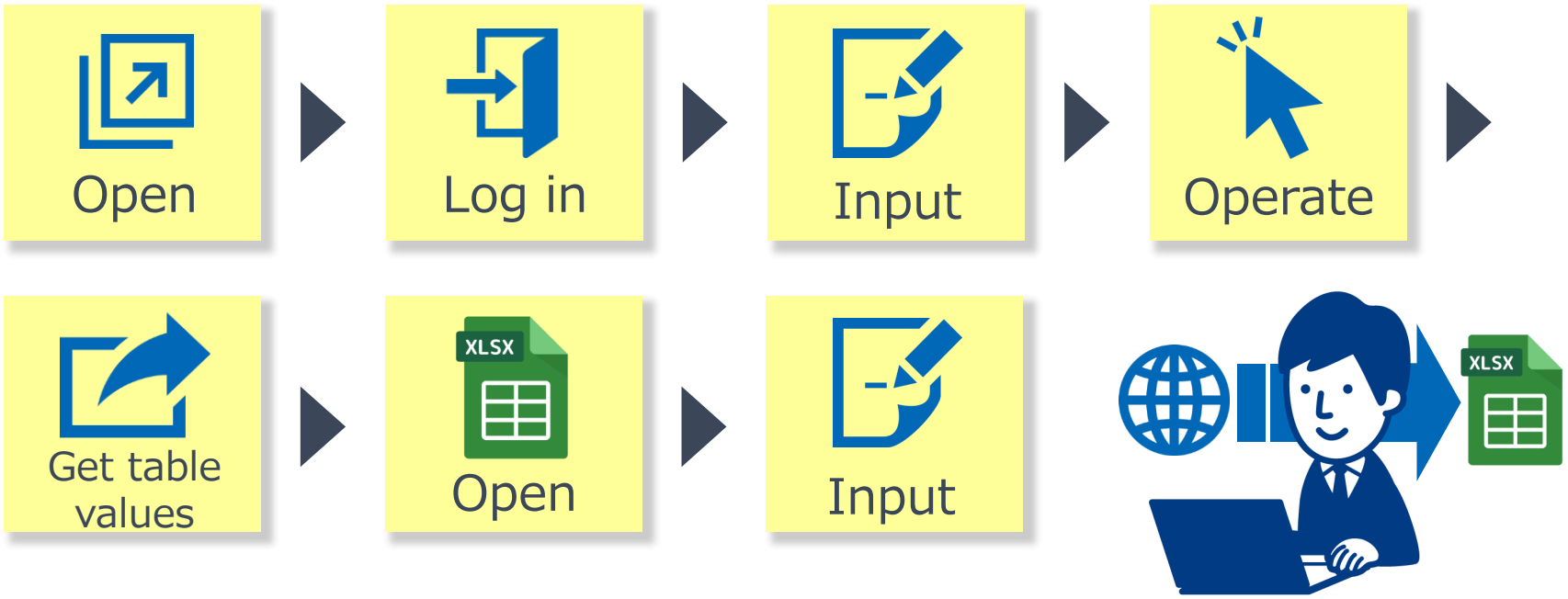


Opening scenario creation ‘with guidance’



Scenario creation ‘with guidance’ tab

Basics



Automation for data transfer from a webpage to Excel

4 Scenario creation - Basics 2 -

Case

William was relieved to be able to automate the registration to the web order system successfully.
However, this time, it has become a hassle to post the order status of the ordered items to the inventories of his company.

"Although I was able to automate the ordering successfully, now I feel that it is a hassle to display and check the status after each order..."

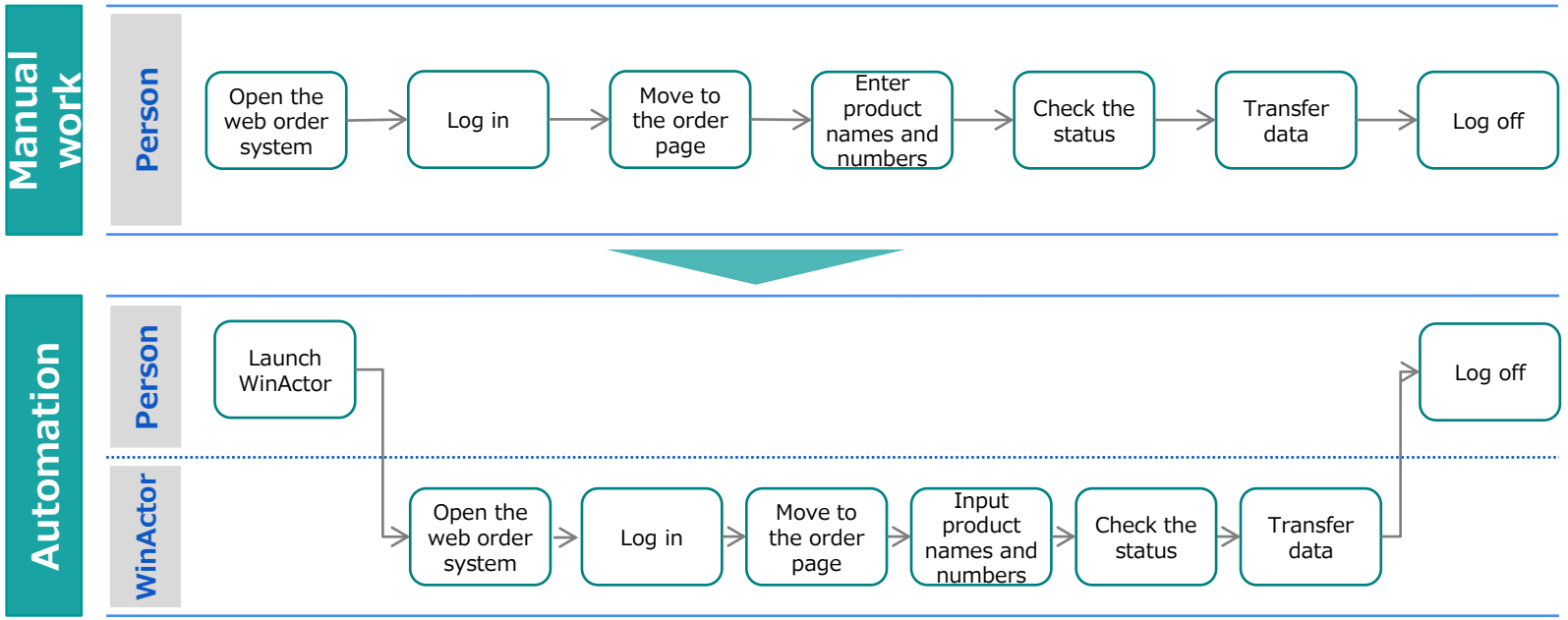
"WinActor is also good at automating the data transfer work from a webpage to Excel. You can easily automate the operations by simply combining the existing parts this time as well."

"It's nice that I can use WinActor with Excel as well. It's really helpful if it can write the status directly to the Excel book!"

"Again, let's take a look at how operations change between manual work and automation using WinActor."

4 Scenario creation - Basics 2 -

"In automation using WinActor, the operations change as follows."



"It saves a lot of manual work in this case, too."

4 Scenario creation - Basics 2 -

"This time, we will use a node called Browser_GetValueInTable."

"I guess that it loads a table."

"That's right. As you read, it is a node that gets a table displayed in a browser."

No.	Order date	Approval date	Department	Requester
1	25 December 2019	25 December 2019	Accounting Department	Michael Brown
2	25 December 2019	25 December 2019	Accounting Department	Catherine Landis
3				
4				
5				
6				

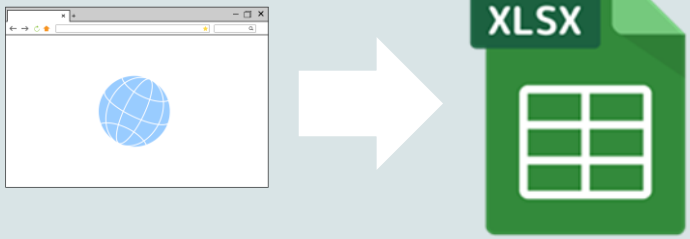
"Once you become able to use Browser_GetValueInTable, you can get web contents such as stock price listings, product listings, weather information, etc. that are expressed in tables. You can expand the range of applications of WinActor, so let's use it!"

4 Scenario creation - Basics 2 -

"In addition, we will use a node called Excel Operation this time."

"I think that it makes Excel to be used with WinActor."

"That's right. Just like the previous one, as you read, it is a node that operates Excel. With this node, you can write data to an Excel file, load an Excel file, and run an Excel macro."

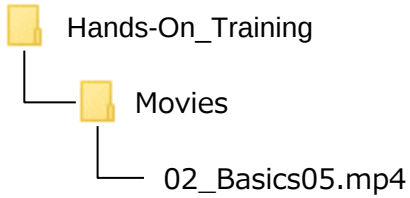


"There are other ways to operate Excel with WinActor. This time, let's write data to an Excel file using the Excel Operation node!"

"If you can use Excel with WinActor, you can further expand the range of applications of WinActor!"

4 Scenario creation - Basics 2 -

"Let's watch the actual movement of WinActor. Double-click the file named 02_Basics05.mp4 in the following folder to play it."



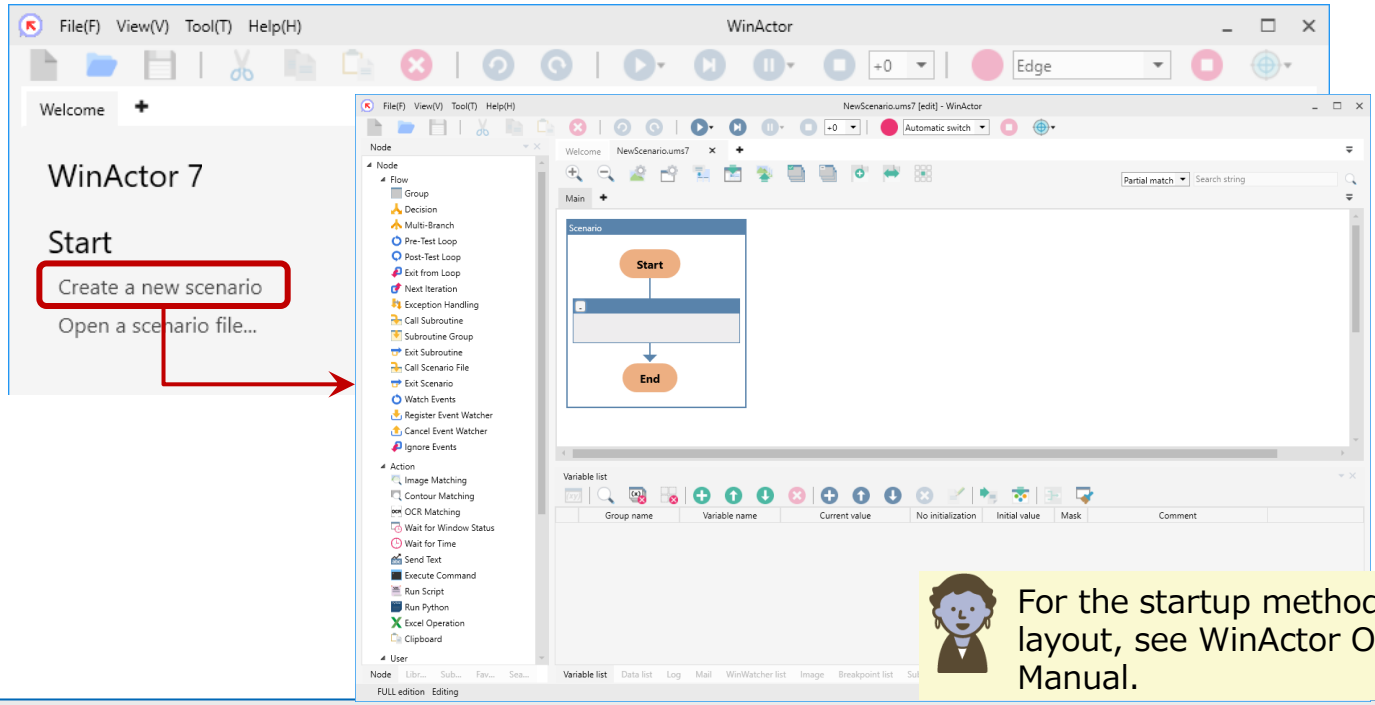
"Now, let's actually create a scenario together!"

5 Automation for data transfer from a webpage to Excel

Prep Launching WinActor

1 Launch WinActor from the Start menu or with any other startup method.

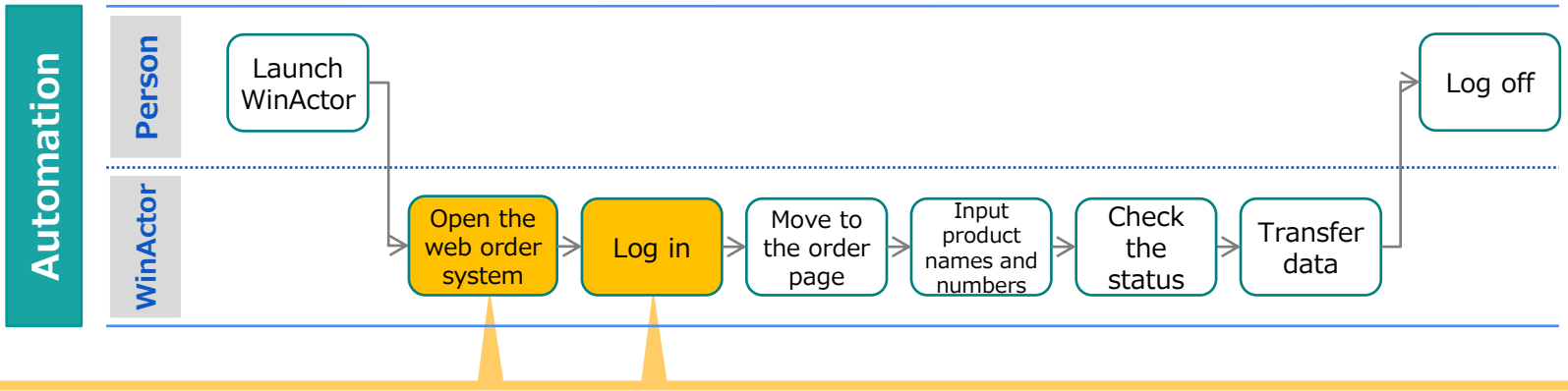
2 Click [Create a new scenario]. The main window of WinActor appears.



For the startup methods and window layout, see WinActor Operation Manual.

5 Automation for data transfer from a webpage to Excel

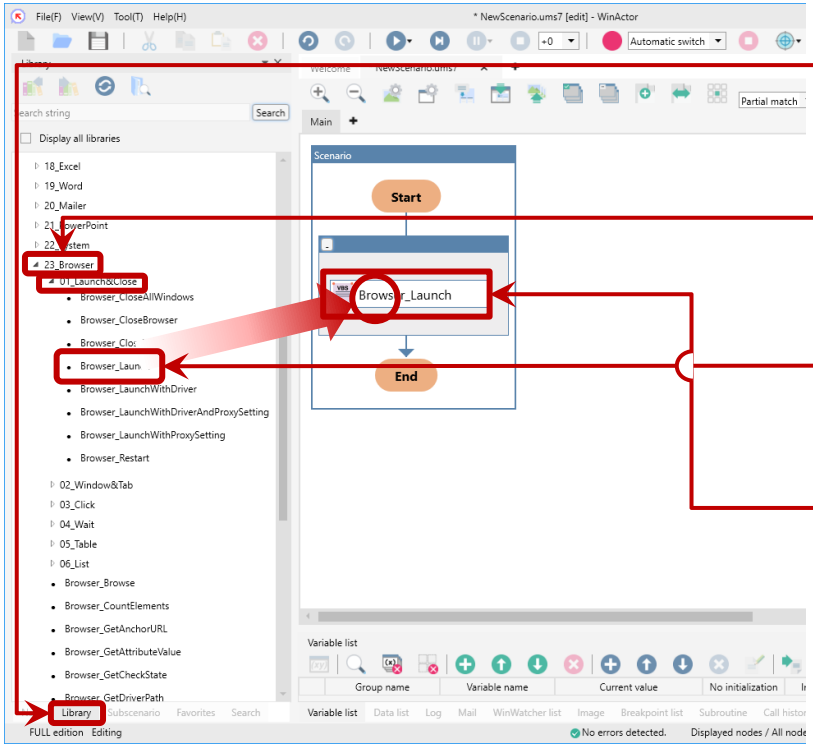
"From here, we will create a scenario for the following operation."



5-1 Opening and logging into the webpage

5 Automation for data transfer from a webpage to Excel

5-1 Opening and logging into the webpage



1 Click the [Library] tab.

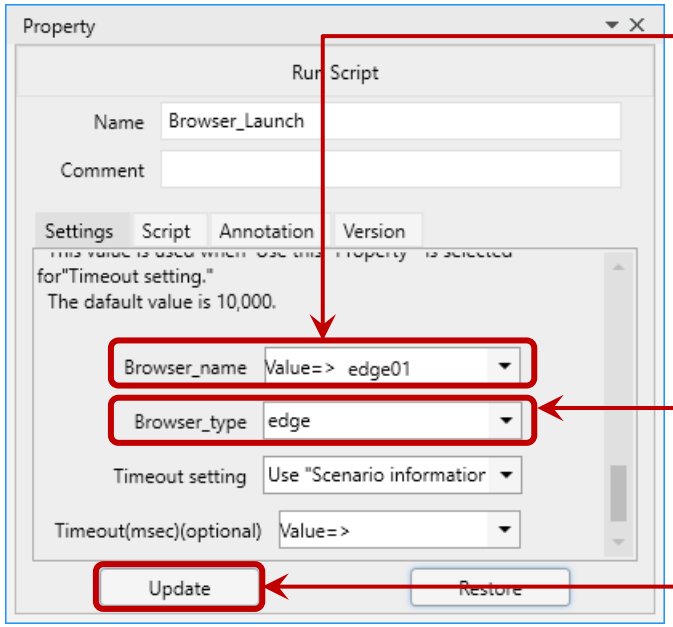
2 Double-click ‘23_Browser,’ expand the list of libraries, and double-click ‘01_Launch&Close.’

3 Drag the ‘Browser_Launch’ library and drop it into the scenario edit area.

4 Double-click the placed library. (Displaying the property)

5 Automation for data transfer from a webpage to Excel

5-1 Opening and logging into the webpage



5 Enter "Value=>edge01" for [Browser_name].

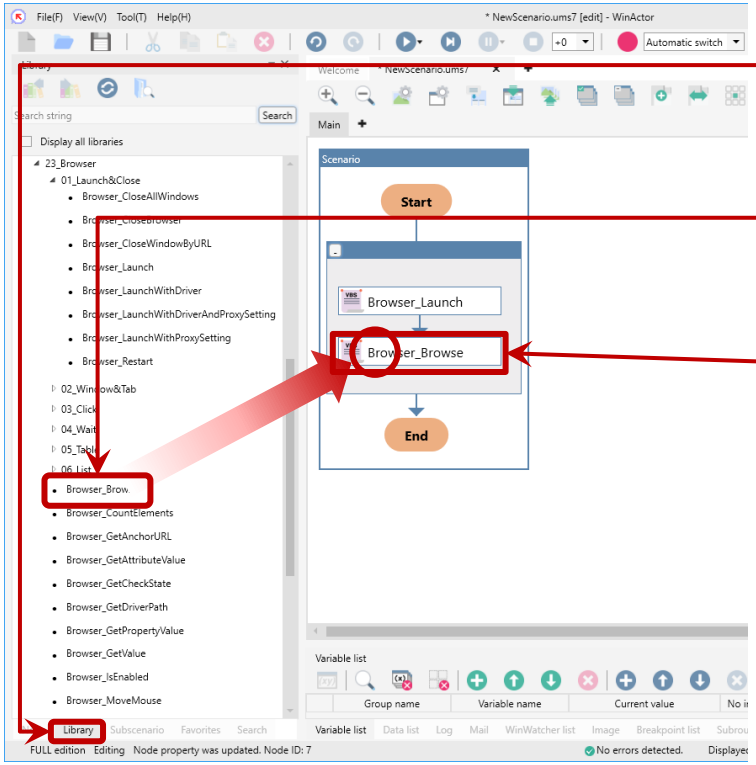
6 Select ‘edge’ for [Browser_type].

7 Click the [Update] button.

For Chrome users, select ‘Chrome’ from the dropdown of ‘Browser_type.’

5 Automation for data transfer from a webpage to Excel

5-1 Opening and logging into the webpage



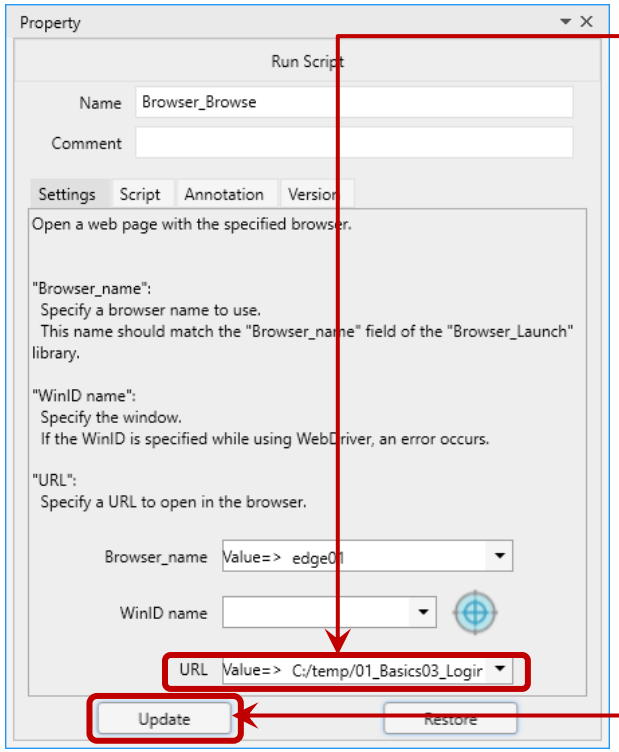
8 Click the [Library] tab.

9 Drag the ‘Browser_Browse’ library and drop it into the scenario edit area.

10 Double-click the placed library. (Displaying the property)

5 Automation for data transfer from a webpage to Excel

5-1 Opening and logging into the webpage

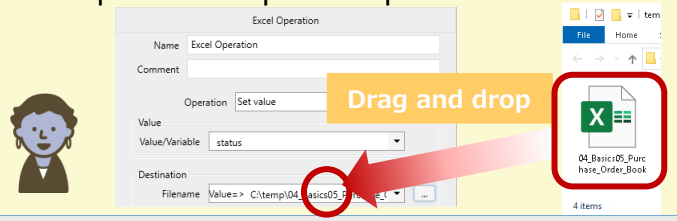


11 Enter '01_Basics03_Login.html' for [URL].

12 Click the [Update] button.

For the setting of a file path, you can drag and drop the file as described above instead of typing the file path manually.

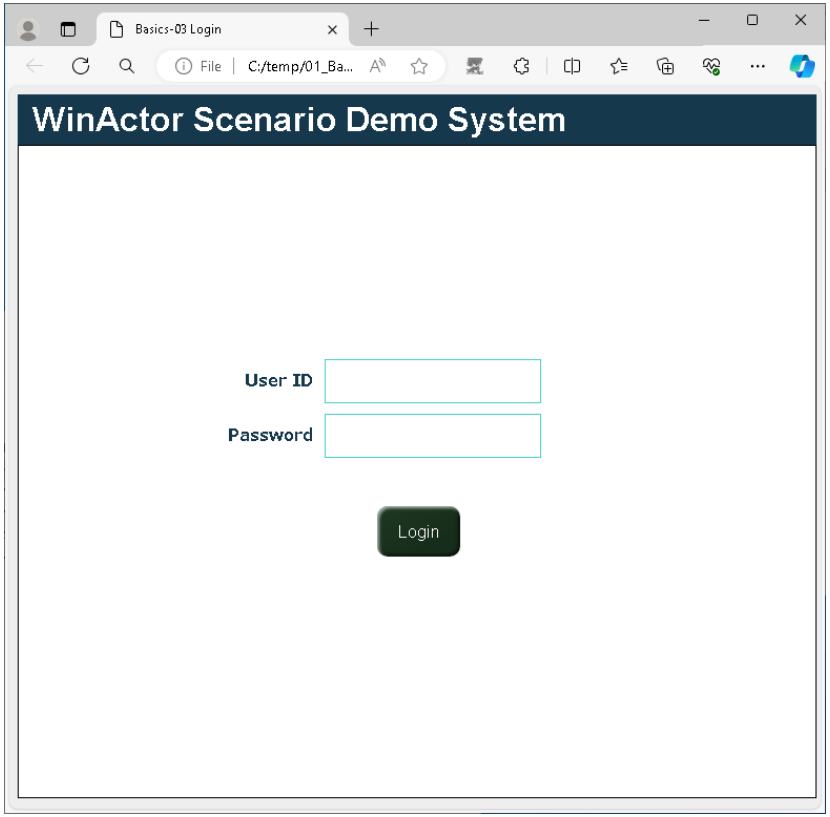
When you want to set a path of a file in a folder displayed on the desktop to a node or library, the setting with drag and drop is convenient. It reduces typos when setting the file path and speeds up scenario creation.



5 Automation for data transfer from a webpage to Excel

5-1 Opening and logging into the webpage

13 Right-click "01_Basics03_Login.html" and select ‘Microsoft Edge’ from ‘Open with.’



File to be used

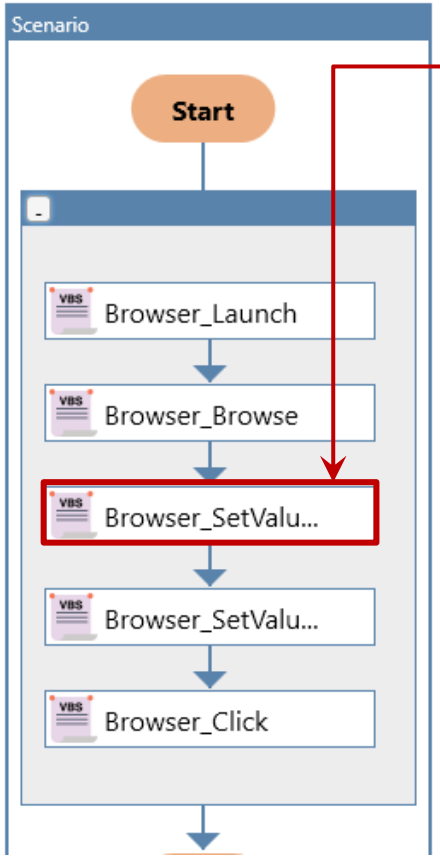
- Hands-On_Training
  - Files
    - 01_Basics03_Login.html

Be sure to use Edge or Chrome as the browser to start the demo system.

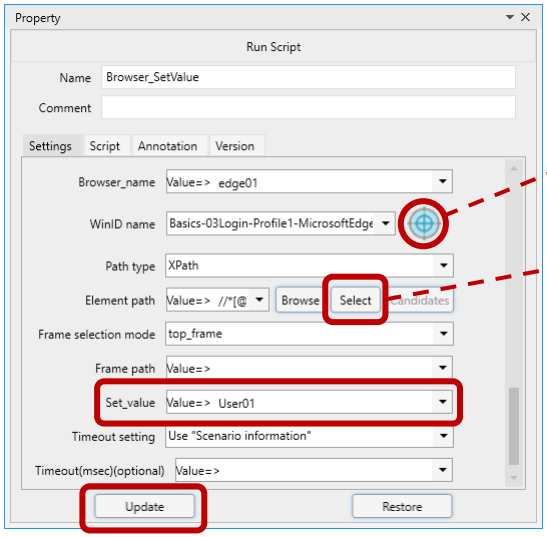
For Chrome users, select ‘Google Chrome’ from ‘Open with.’

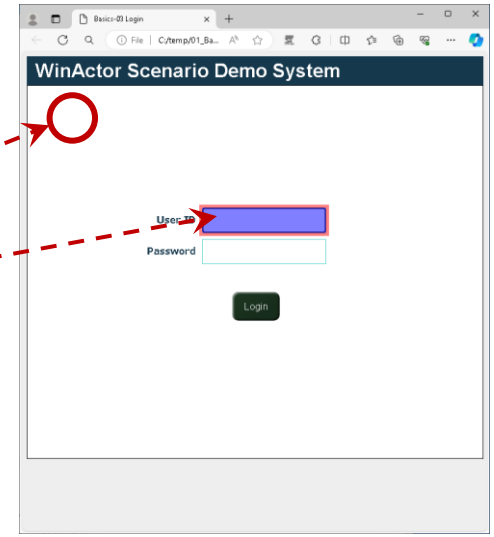
5 Automation for data transfer from a webpage to Excel

5-1 Opening and logging into the webpage



14 Place the ‘Browser_SetValue’ library to set up the target window. Set [Element path] by selecting the “User ID” text box so that the value is set into the “User ID.”



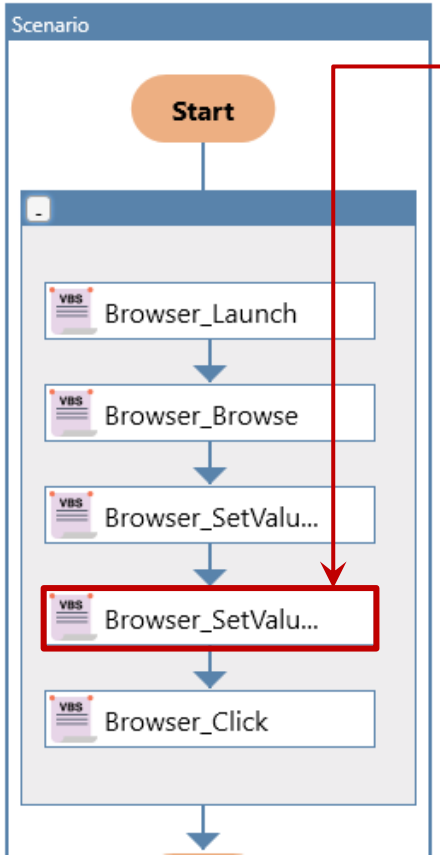


15 Enter "Value=>User01" for [Set_value], and click the [Update] button.

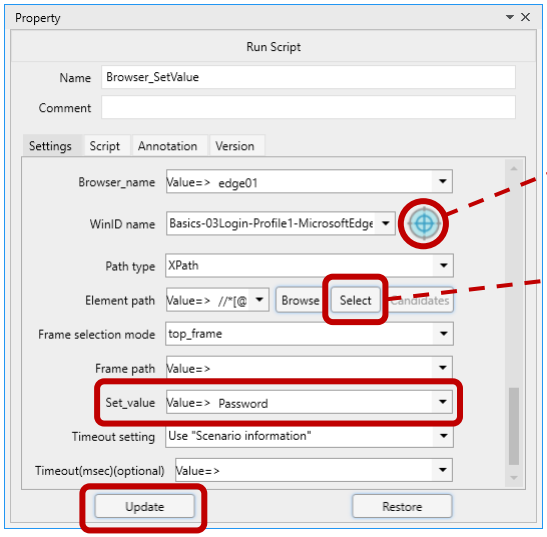
For the settings of ‘Browser_SetValue,’ see 3-6 in the “3 Automation of click- and input on a webpage.”

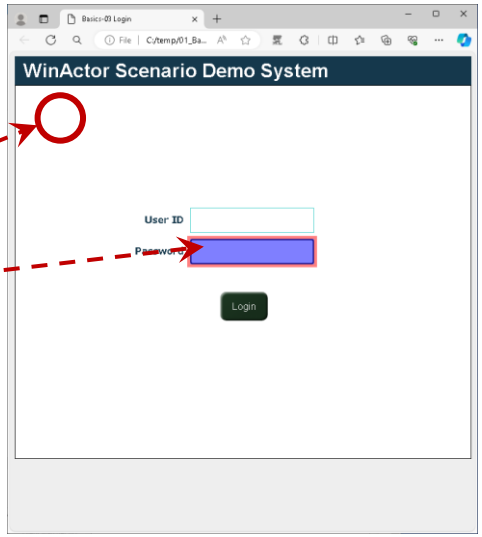
5 Automation for data transfer from a webpage to Excel

5-1 Opening and logging into the webpage



16 Place the ‘Browser_SetValue’ library to set up the target window. Set [Element path] by selecting the “Password” text box so that the value is set into the “Password.”



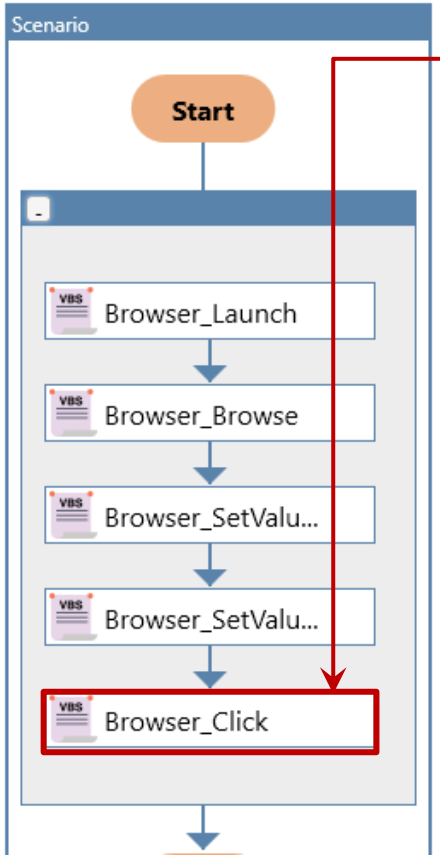


17 Enter "Value=>Password" for [Set_value], and click the [Update] button.

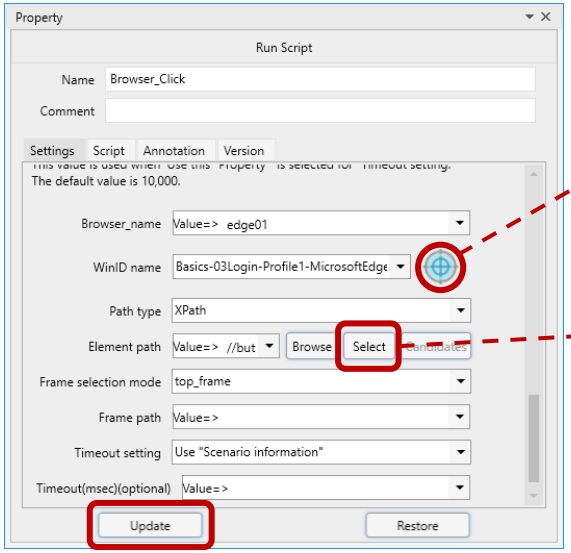
For the settings of ‘Browser_SetValue,’ see 3-6 in the “3 Automation of click- and input on a webpage.”

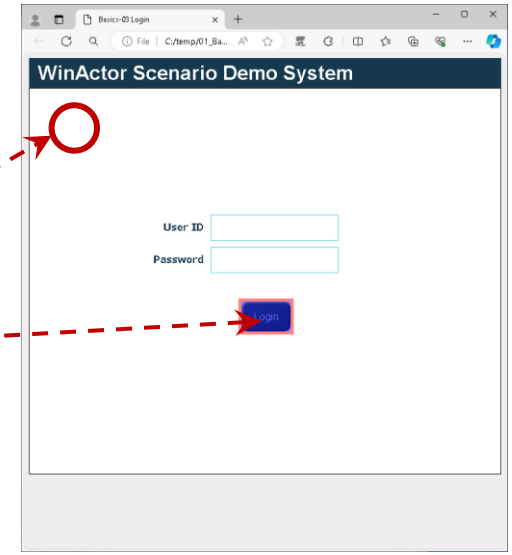
5 Automation for data transfer from a webpage to Excel

5-1 Opening and logging into the webpage



18 Place the 'Browser_click' library to set up the target window.
Set [Element path] by selecting the 'Login' button so as to log in.



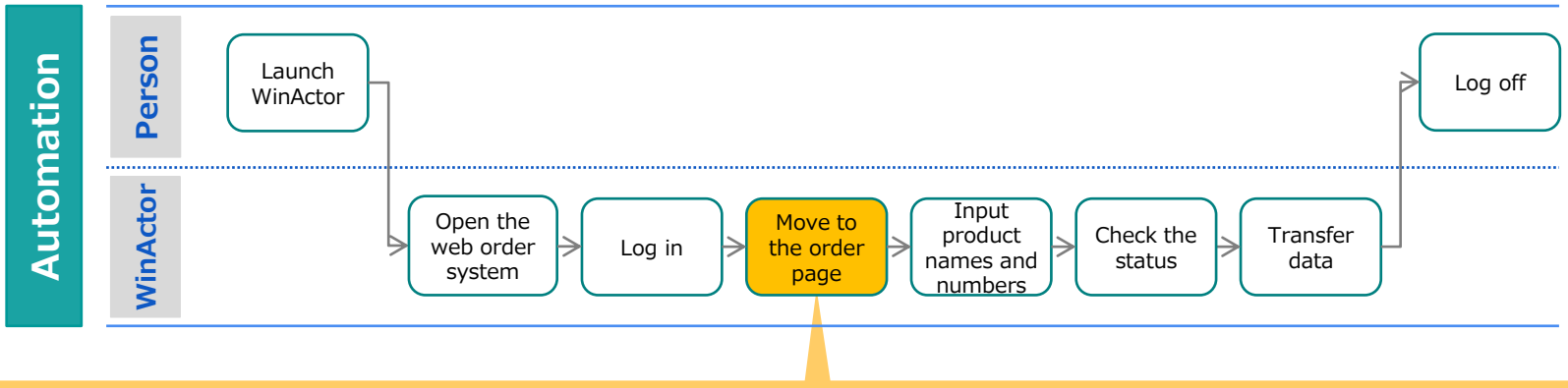


19 Click the [Update] button.

For the settings of 'Browser_Click,' see 3-9 in the "3 Automation of click-and input on a webpage."

5 Automation for data transfer from a webpage to Excel

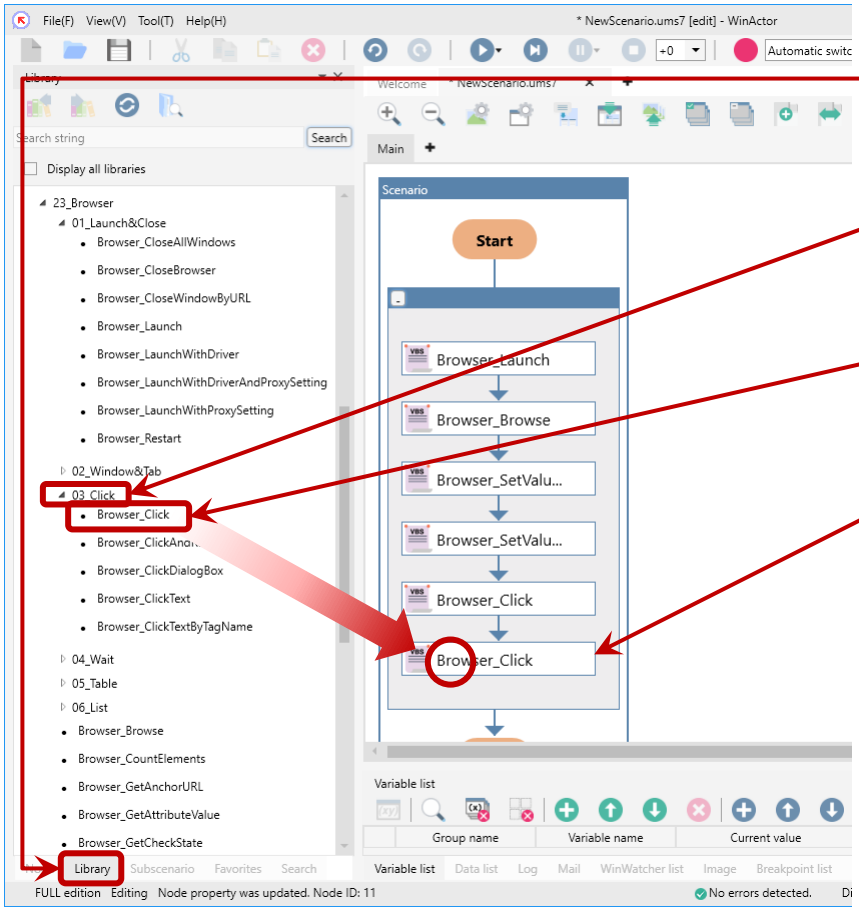
"From here, we will create a scenario for the following operation."



5-2 Moving to the Search Purchase Order page

5 Automation for data transfer from a webpage to Excel

5-2 Moving to the Search Purchase Order page



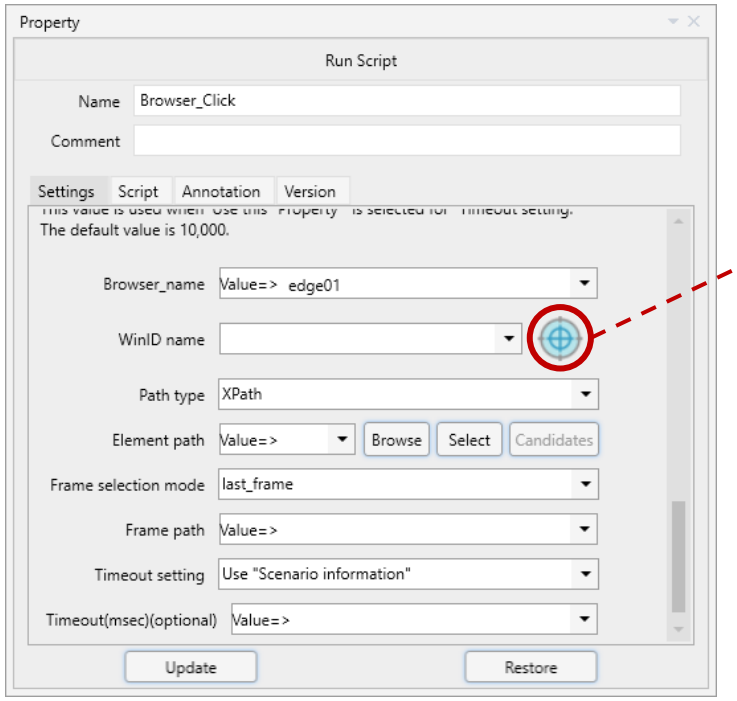
1. Click the [Library] tab.
2. Double-click ‘03_Click’ and expand the list of libraries.
3. Drag the ‘Browser_Click’ library and drop it into the scenario edit area.
4. Double-click the placed library. (Displaying the property)

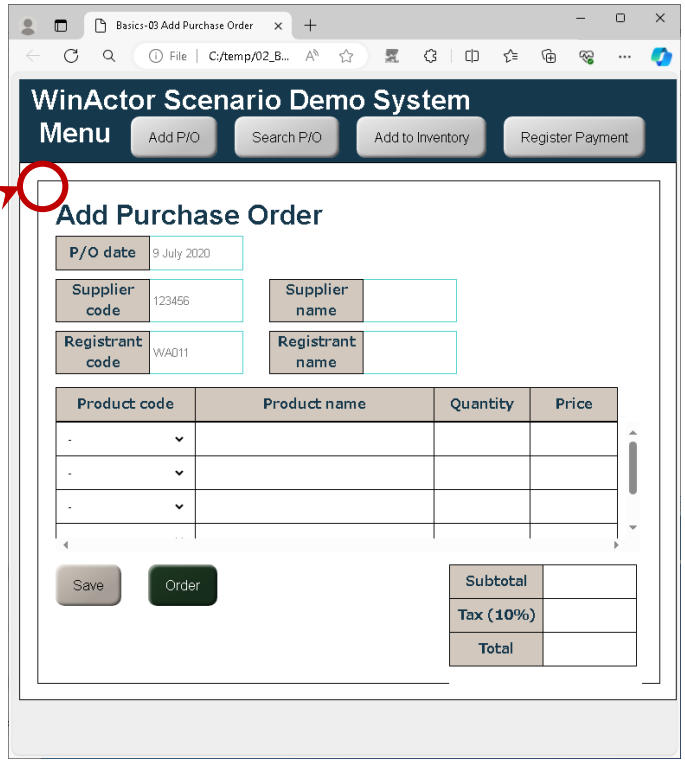
5 Automation for data transfer from a webpage to Excel

5-2 Moving to the Search Purchase Order page

5 Click the blue scope button for [WinID name].

6 Move the mouse cursor on a page you want to capture, and click the page.



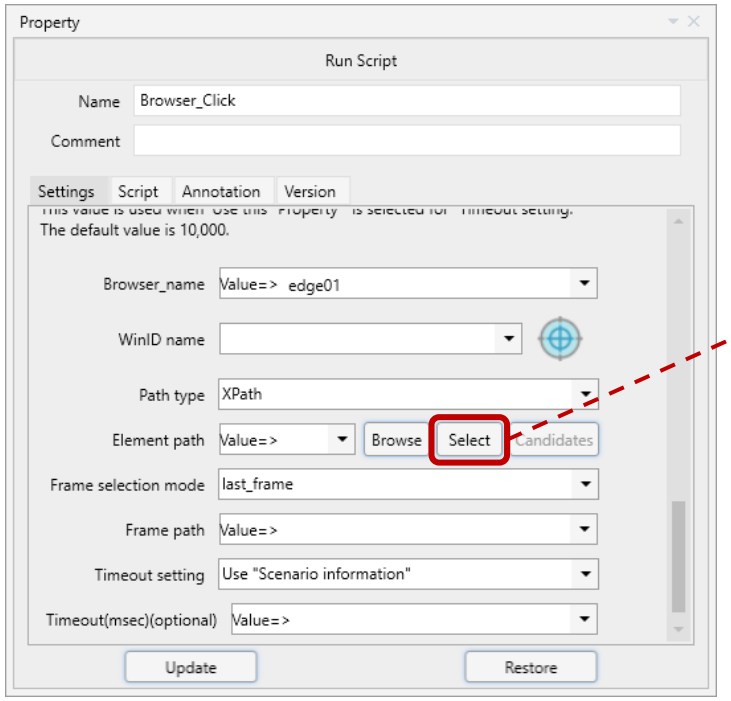


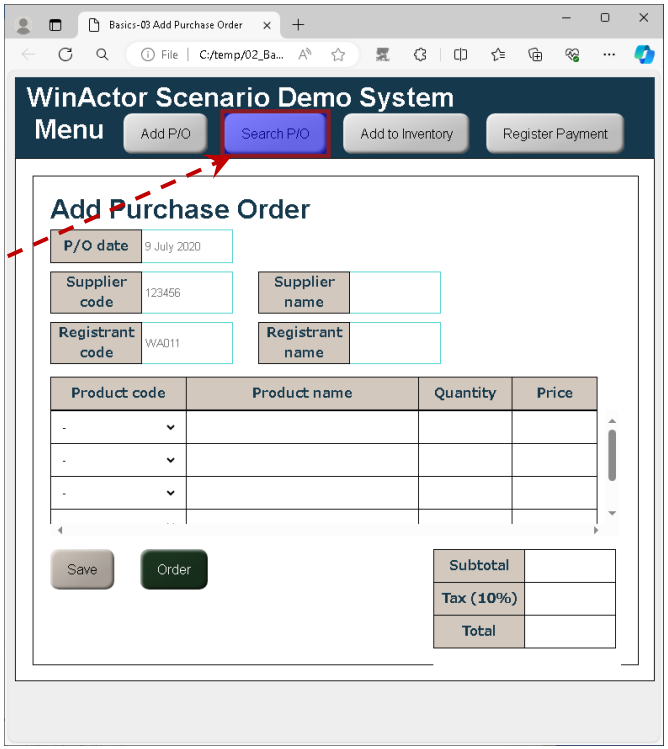
5 Automation for data transfer from a webpage to Excel

5-2 Moving to the Search Purchase Order page

7 Click the [Select] button in [Element path].

8 Move mouse cursor over the 'Search P/O' button, wait for the color to change, and click it.

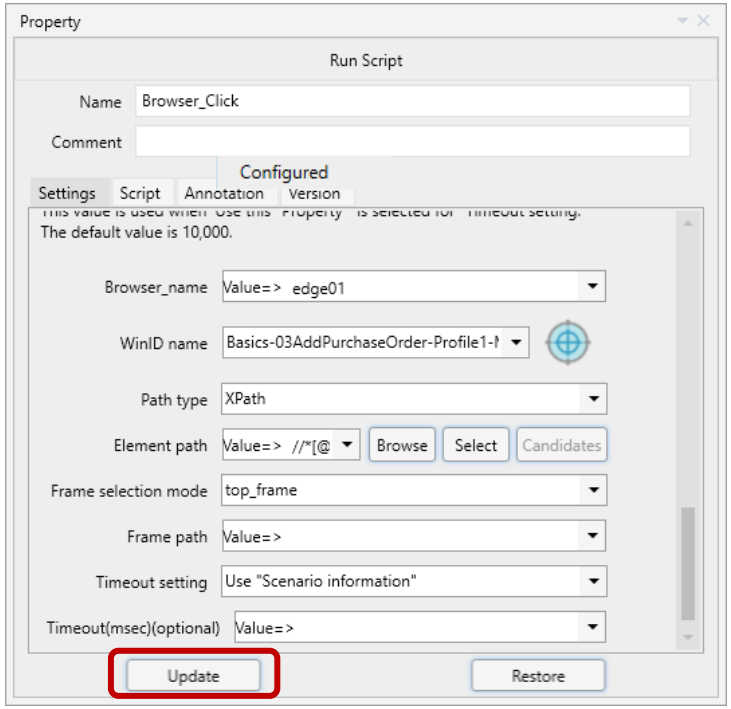




5 Automation for data transfer from a webpage to Excel

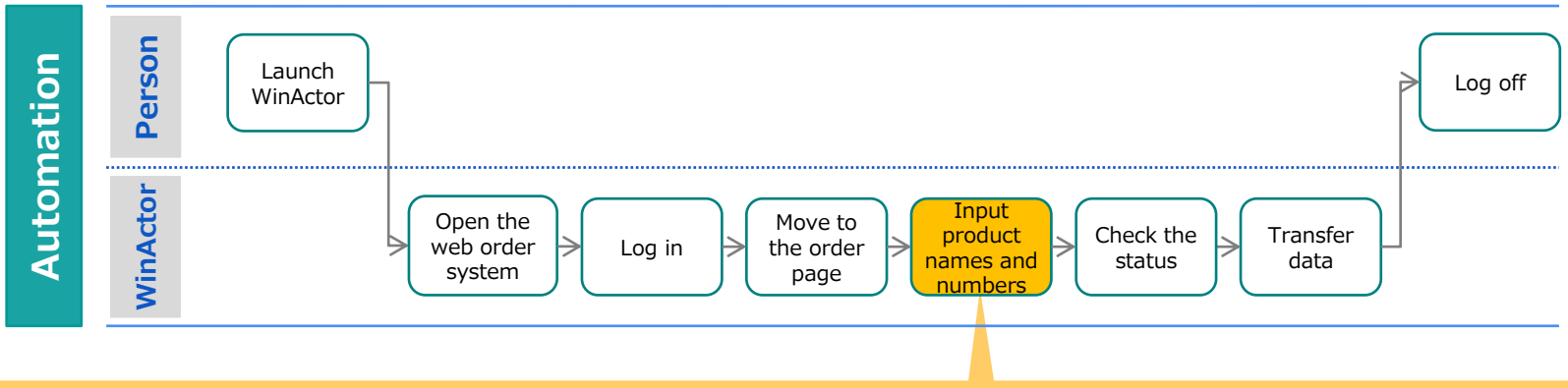
5-2 Moving to the Search Purchase Order page

9 Click the [Update] button.



5 Automation for data transfer from a webpage to Excel

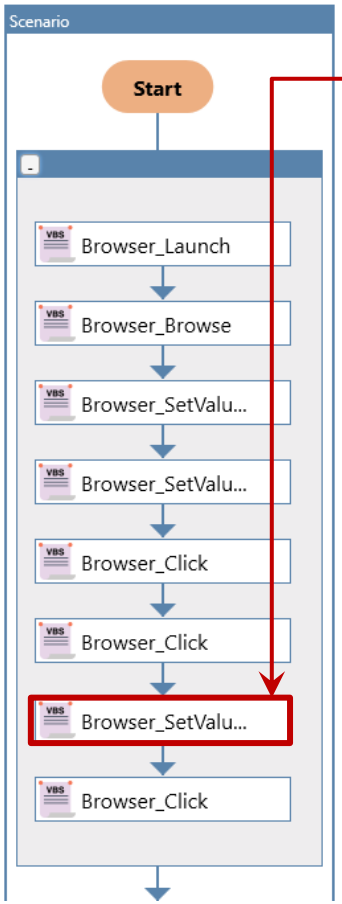
"From here, we will create a scenario for the following operation."



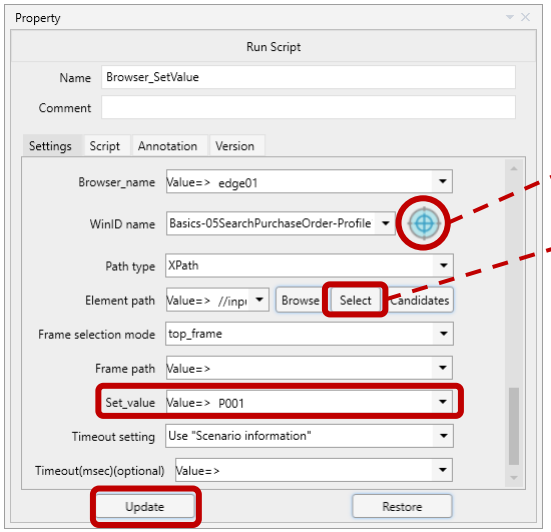
5-3 Searching products in the Search Purchase Order page

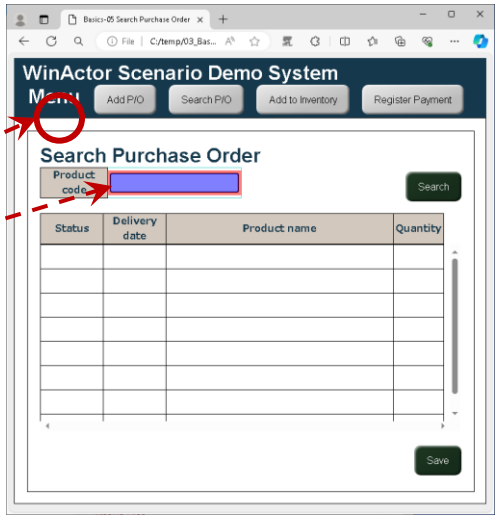
5 Automation for data transfer from a webpage to Excel

5-3 Searching products in the Search Purchase Order page



1 Set the webpage to be operated in the same way as for other properties. Set [Element path] by selecting the “Product code” text box so that the value is set into the “Product code.”



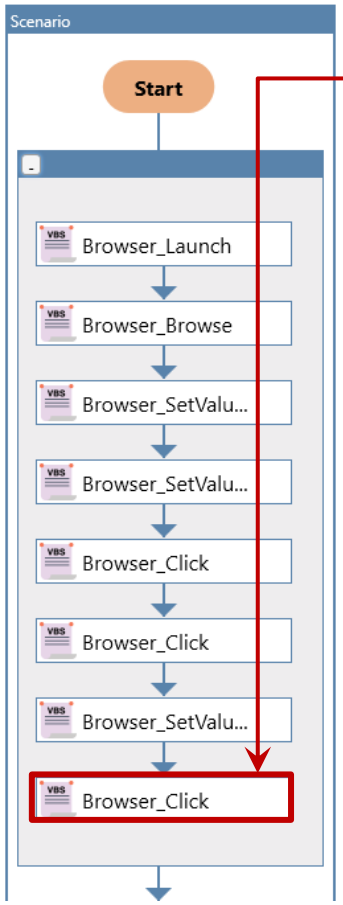


2 Enter "Value=>P001" for [Set_value], and click the [Update] button.

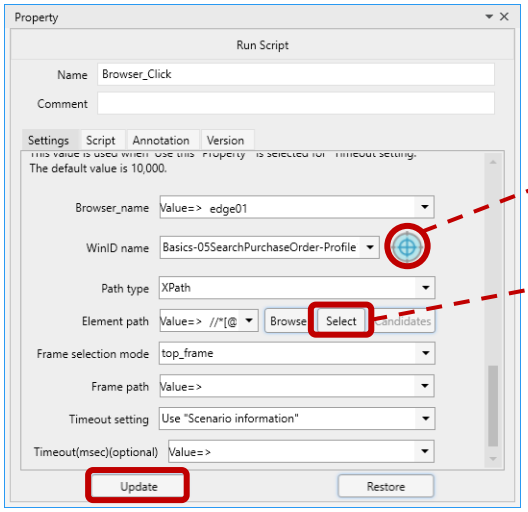
For the settings of ‘Browser_SetValue,’ see 3-6 in the “3 Automation of click-and input on a webpage.”

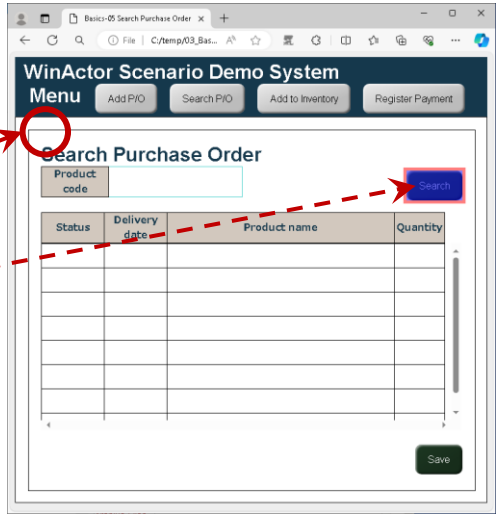
5 Automation for data transfer from a webpage to Excel

5-3 Searching products in the Search Purchase Order page



3 Set the webpage to be operated in the same way as for other properties. Set [Element path] by selecting the 'Search' button so as to log in.



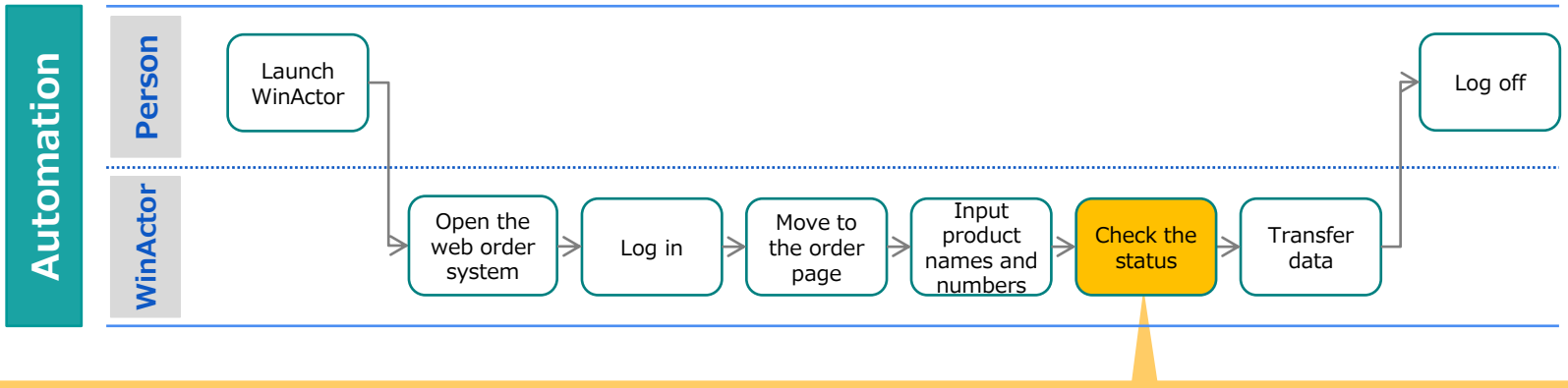


4 Click the [Update] button.

For the settings of 'Browser_Click,' see 3-9 in the "3 Automation of click-and input on a webpage."

5 Automation for data transfer from a webpage to Excel

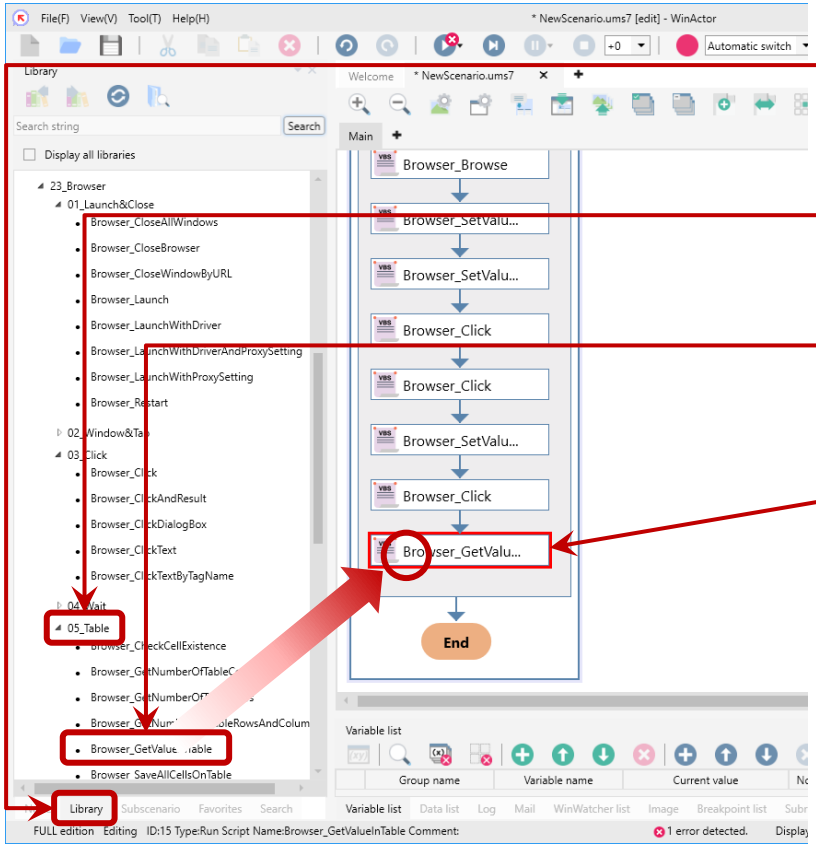
"From here, we will create a scenario for the following operation."



5-4 Getting the status of Search Purchase Order

5 Automation for data transfer from a webpage to Excel

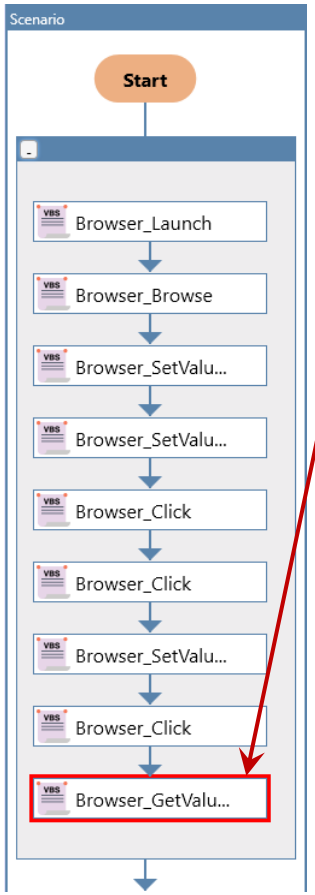
5-4 Getting the status of Search Purchase Order



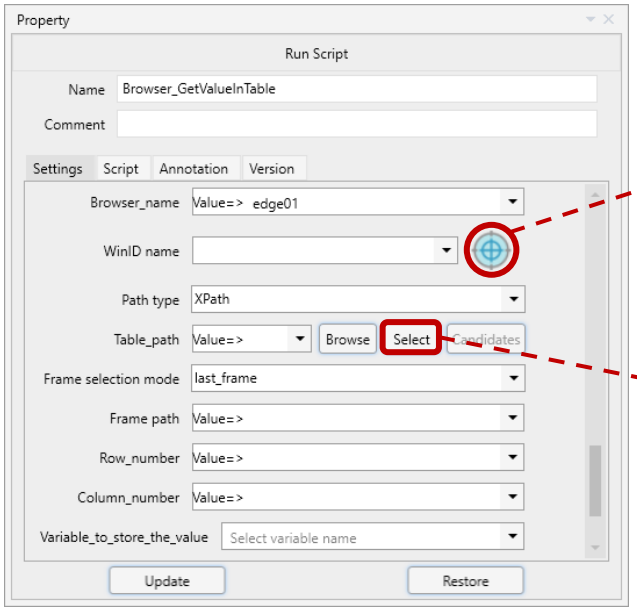
1. Click the [Library] tab.
2. Double-click ‘05_Table’ and expand the list of libraries.
3. Drag the ‘Browser_GetValueInTable’ library and drop it into the scenario edit area.
4. Double-click the placed library. (Displaying the property)

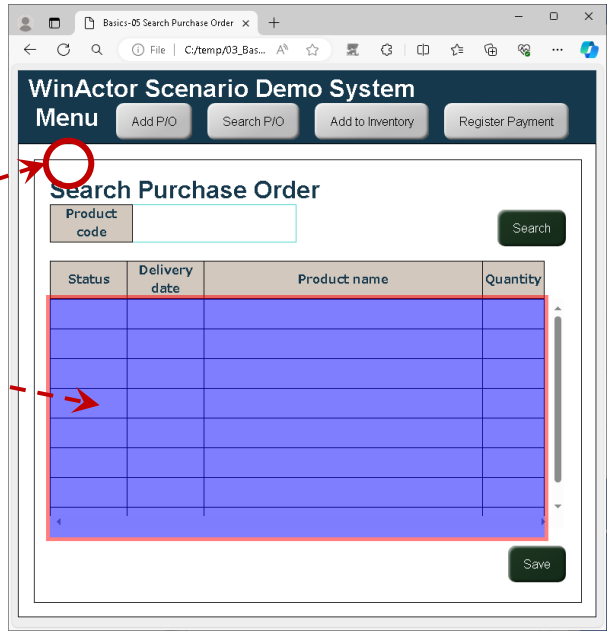
5 Automation for data transfer from a webpage to Excel

5-4 Getting the status of Search Purchase Order



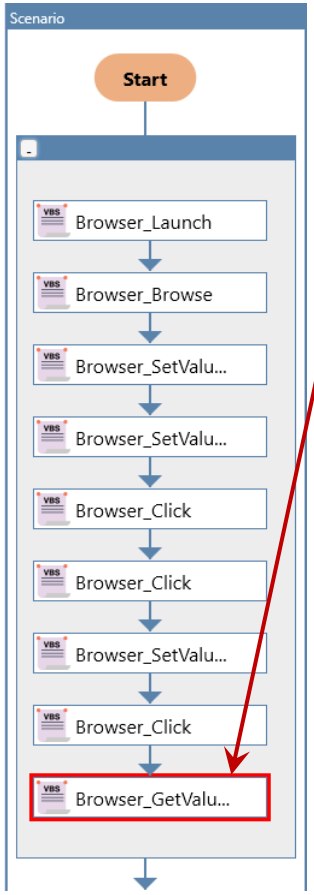
5 Set the webpage to be operated in the same way as for other properties.
Set [Table_path] by selecting the table on the webpage.



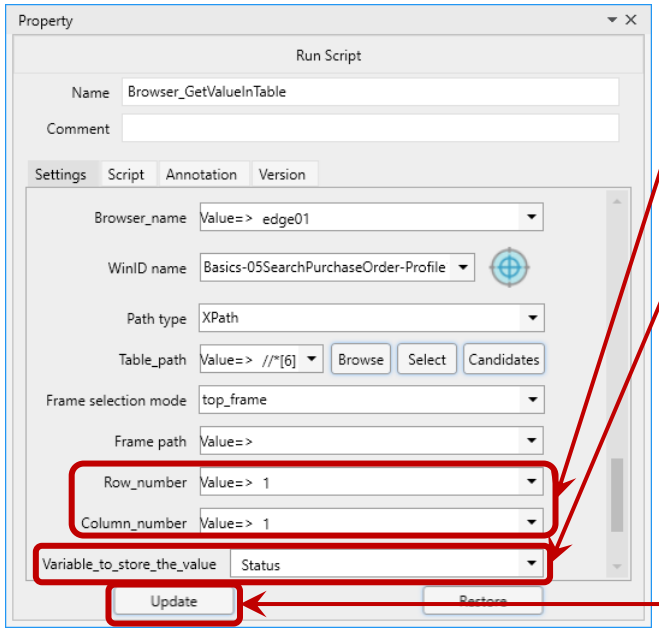


5 Automation for data transfer from a webpage to Excel

5-4 Getting the status of Search Purchase Order



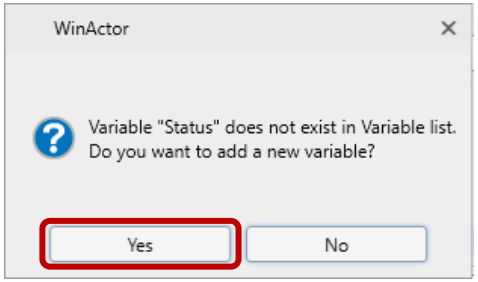
6 Set the remaining property items of 'Browser_GetValueInTable' as follows.



6.1 For both [Row_number] and [Column_number], enter "Value=>1."

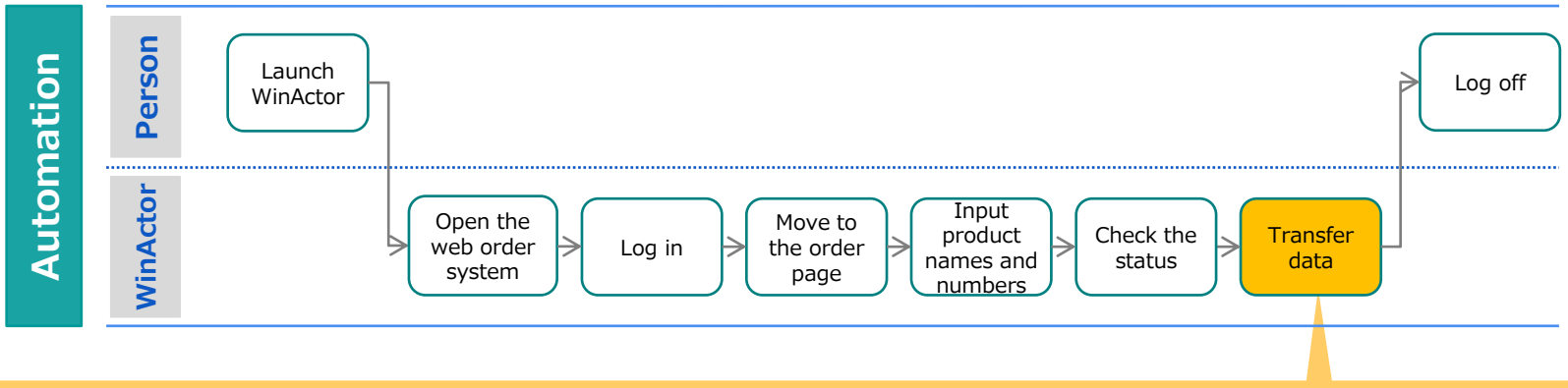
6.2 For [Variable_to_store_the_value], enter "Status."

6.3 Click the [Update] button. If the variable confirmation dialog appears, click [Yes].



5 Automation for data transfer from a webpage to Excel

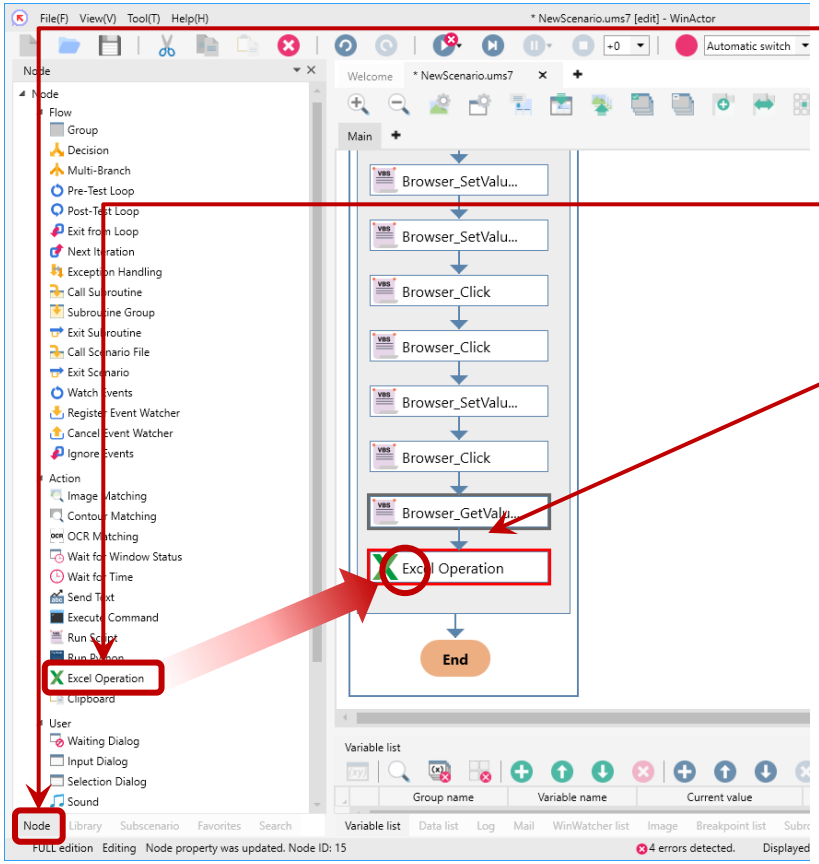
"From here, we will create a scenario for the following operation."



5-5 Inputting the status into Excel

5 Automation for data transfer from a webpage to Excel

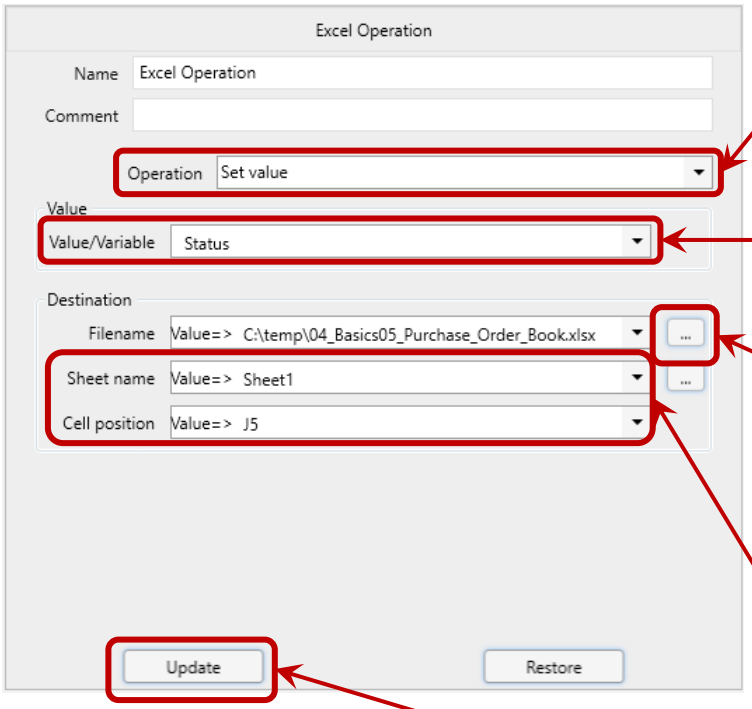
5-5 Inputting the status into Excel



1. Click the [Node] tab.
2. Drag the ‘Excel Operation’ node and drop it into the scenario edit area.
3. Double-click the placed node. (Displaying the property)

5 Automation for data transfer from a webpage to Excel

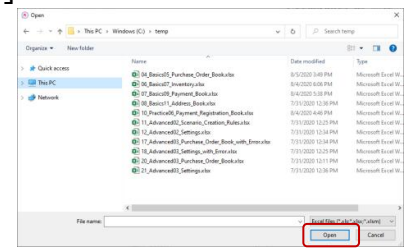
5-5 Inputting the status into Excel



4 For [Operation], select ‘Set value.’

5 For [Value/Variable], select ‘Status.’

6 Click the [...] button for [Filename], and Explorer opens. Specify the file named "04_Basics05_Purchase_Order_Book.xlsx" and click [Open].



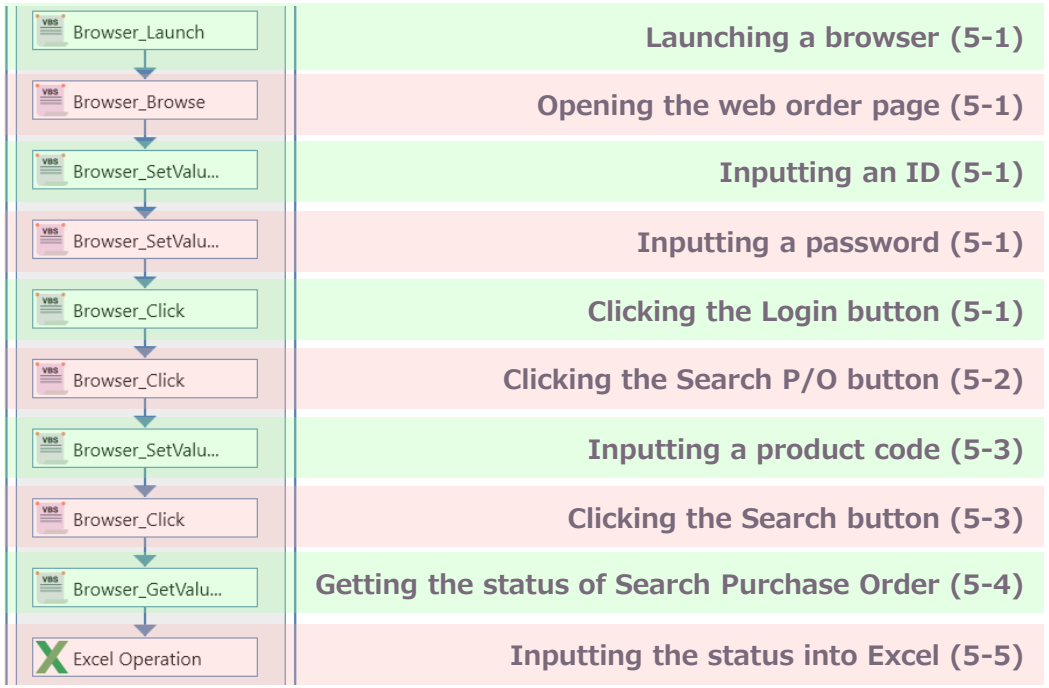
7 For [Sheet name], enter "Value=>Sheet1." (You can also use the [...] button.)
For [Cell position], specify "Value=>J5."

8 Click the [Update] button.

5 Automation for data transfer from a webpage to Excel

5-6 Checking the entire scenario

1 Confirm that the created scenario is as follows.



You can run and save the scenario in the same way as in 3-11 and 3-12 in the “3 Automation for click and input on a webpage.”

5-7 Running the scenario

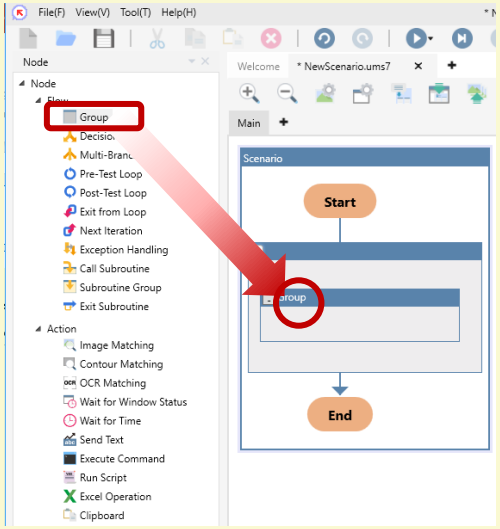
5-8 Saving the scenario

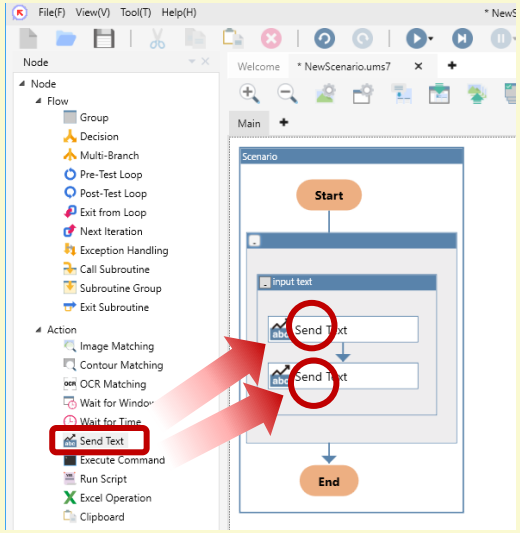
5 Automation for data transfer from a webpage to Excel

Tips Using ‘Group’ (node)

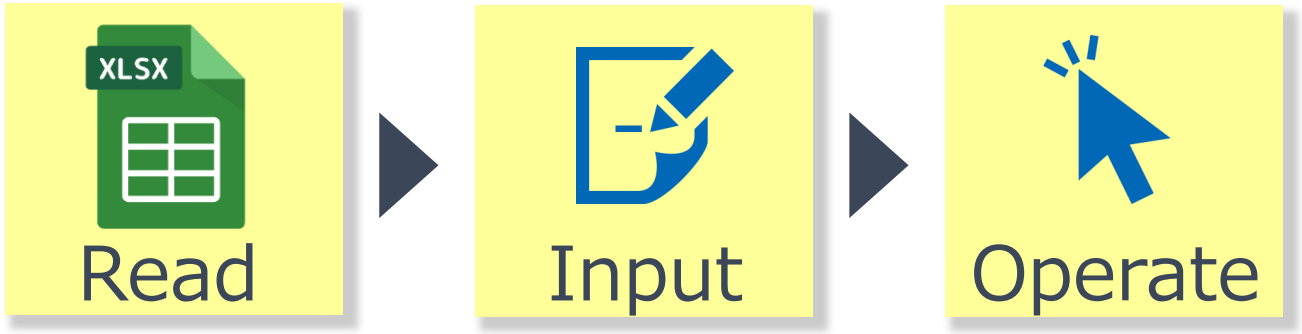
Using ‘Group’ (node) makes the scenario easier to understand.

If similar nodes and libraries are lined up in a scenario, you can use the ‘Group’ node to make the scenario composition easier to understand.
You can place nodes and libraries in ‘Group’ to make them grouped by a meaningful unit. With the ‘Group’ node, you can make a scenario easier for other co-developers to understand.





Basics



Automation for data transfer from Excel to an in-house system

6 Scenario creation - Basics 3 -

Case

William was relieved to be able to automate the operations to transfer the order status data to the Excel book as well.
Now, he is trying to automate the operations to transfer the inventory information to the in-house system.

"I have automated the work using the web system and Excel, and it seems that the same can be done for transferring data to the company's in-house system."

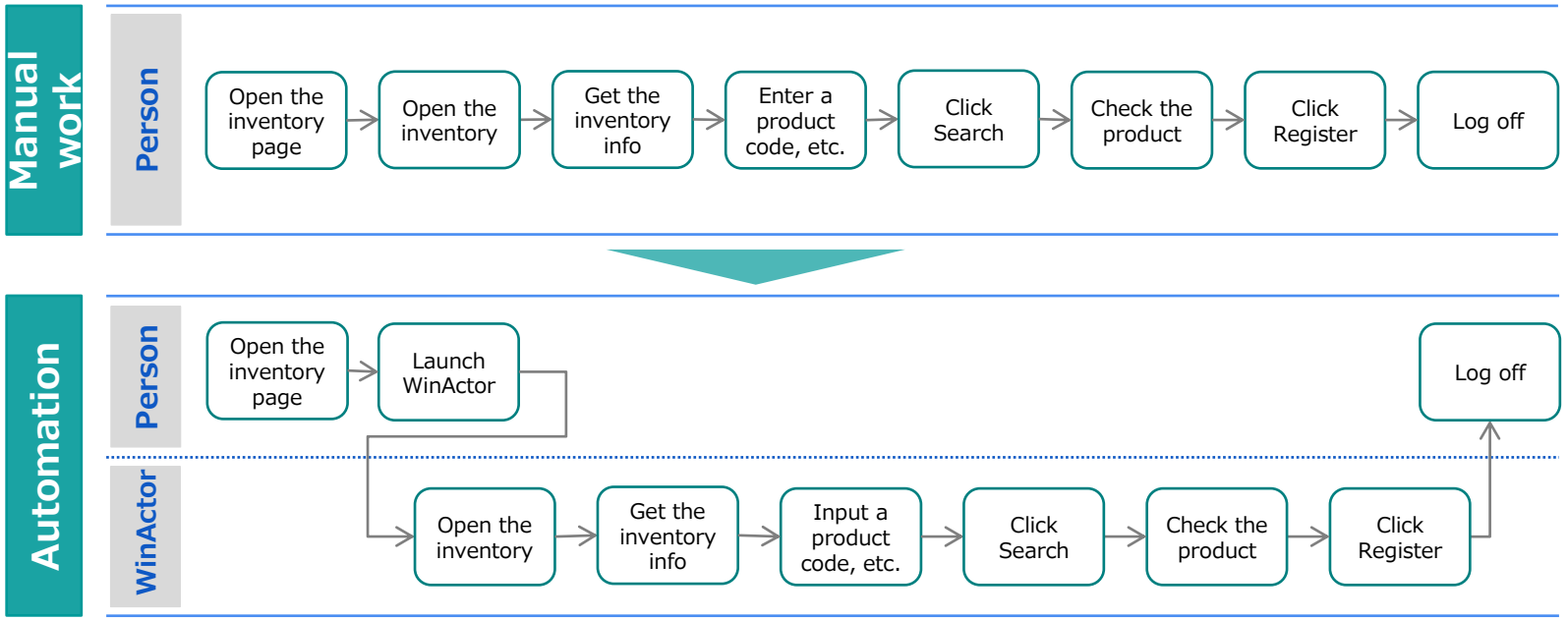
"Of course, WinActor can be used not only for applications such as browsers and Excel but also for in-house systems. You can automate the operations by combining the existing parts this time as well."

"It's hard to use our in-house system, so it would be very helpful if it could be automated!"

"Again, let's take a look at how operations change between manual work and automation using WinActor."

6 Scenario creation - Basics 3 -

"In automation using WinActor, the operations change as follows."



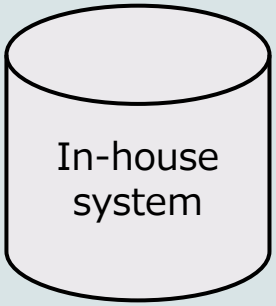
"Basically, the flow is the same as the last time."

6 Scenario creation - Basics 3 -

"We will again use a node called Excel Operation this time."

"How do we use it this time?"

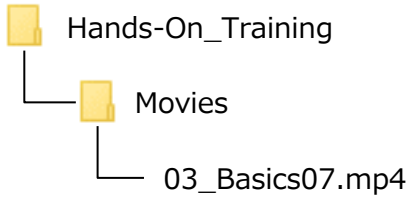
"This time, we will use it to open the Excel file, get the values, and transfer them to the in-house system!"



"Last time, I mentioned that the Excel Operation node can be used for reading as well as writing. In actual work, it often happens that information is transferred from the book shared in the department to the in-house system. Here, let's learn how to set and use the acquired value!"

6 Scenario creation - Basics 3 -

"Let's watch the actual movement of WinActor. Double-click the file named 03_Basics07.mp4 in the following folder to play it."

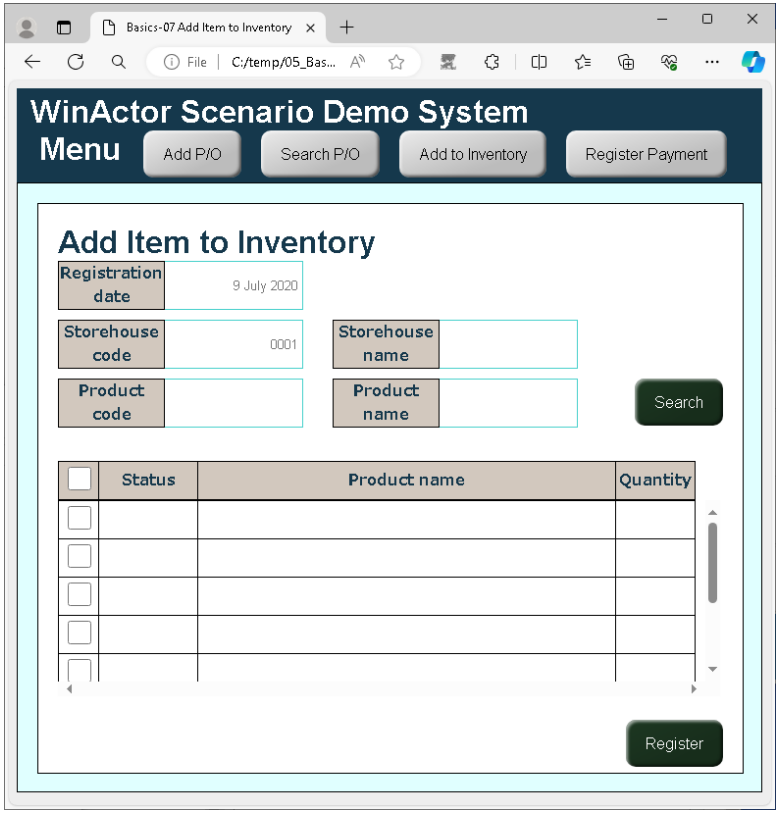


"Now, let's actually create a scenario together!"

7 Automation for data transfer from Excel to an in-house system

Prep Displaying the in-house system page

1 Right-click "05_Basics07_Add_Item_to_Inventory.html" and select ‘Microsoft Edge’ from ‘Open with.’



File to be used

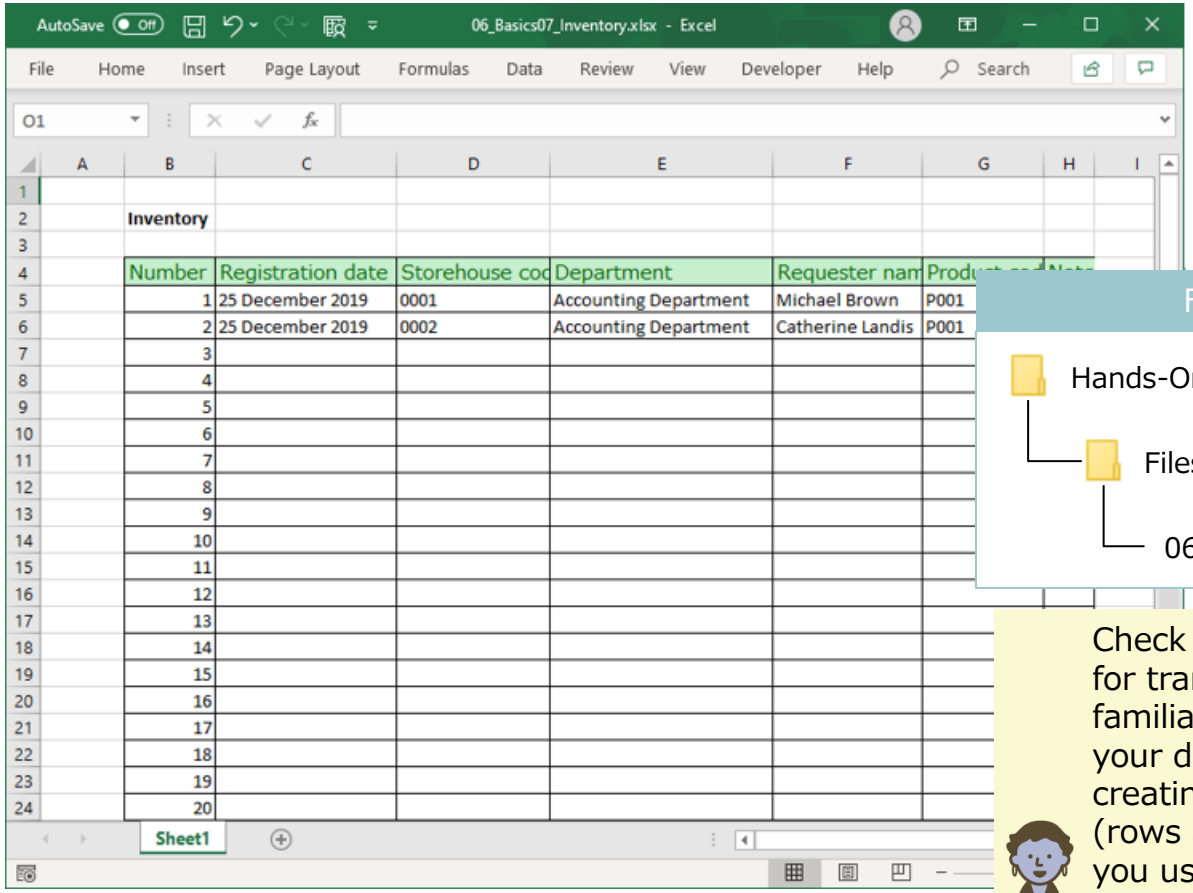
- Hands-On_Training
  - Files
    - 05_Basics07_Add_Item_to_Inventory.html

Be sure to use Edge or Chrome as the browser to start the demo system.

For Chrome users, select ‘Google Chrome’ from ‘Open with.’

7 Automation for data transfer from Excel to an in-house system

Prep Checking the inventory



File to be checked

Hands-On_Training

Files

06_Basics07_Inventory.xlsx

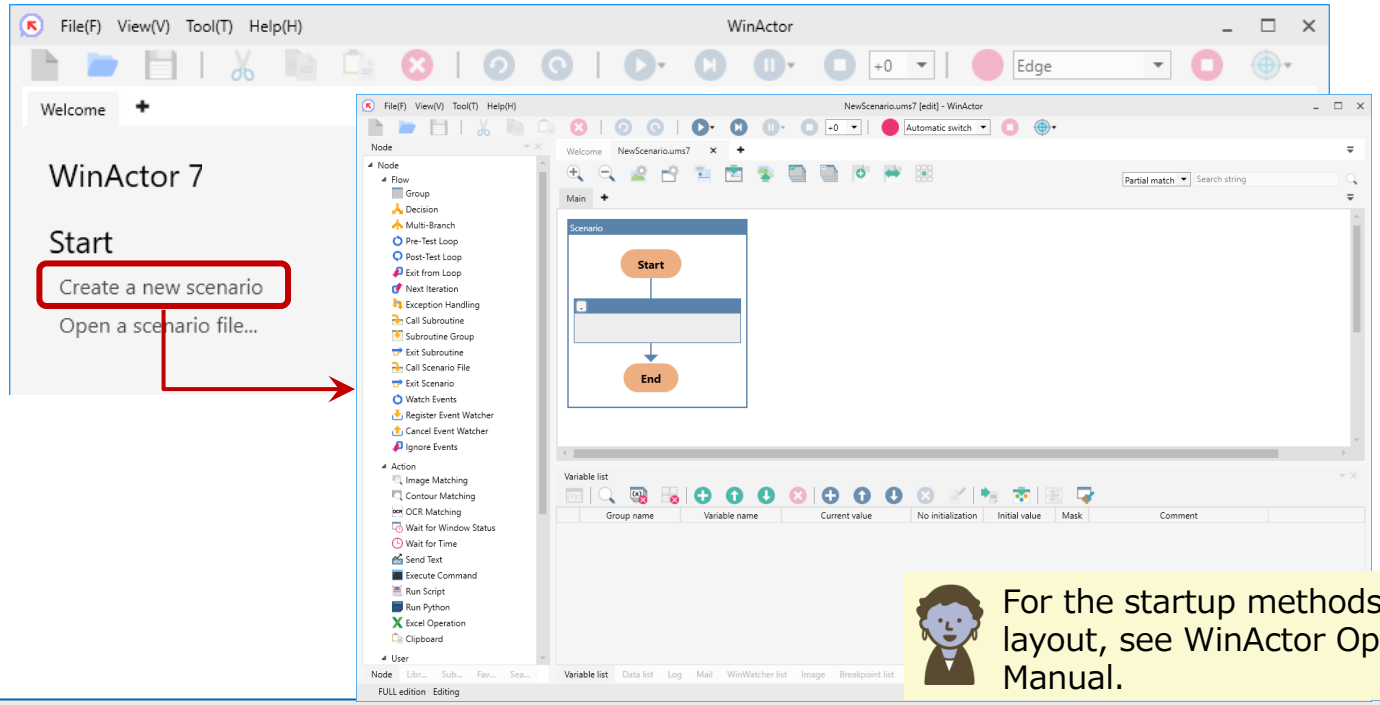
Check the inventory that is the source for transferring data. You may be familiar with it as you are using it for your daily work. However, when creating a scenario, the positions (rows and columns) of sheet cells that you usually do not pay much attention to become important.

7 Automation for data transfer from Excel to an in-house system

Prep Launching WinActor

1 Launch WinActor from the Start menu or with any other startup method.

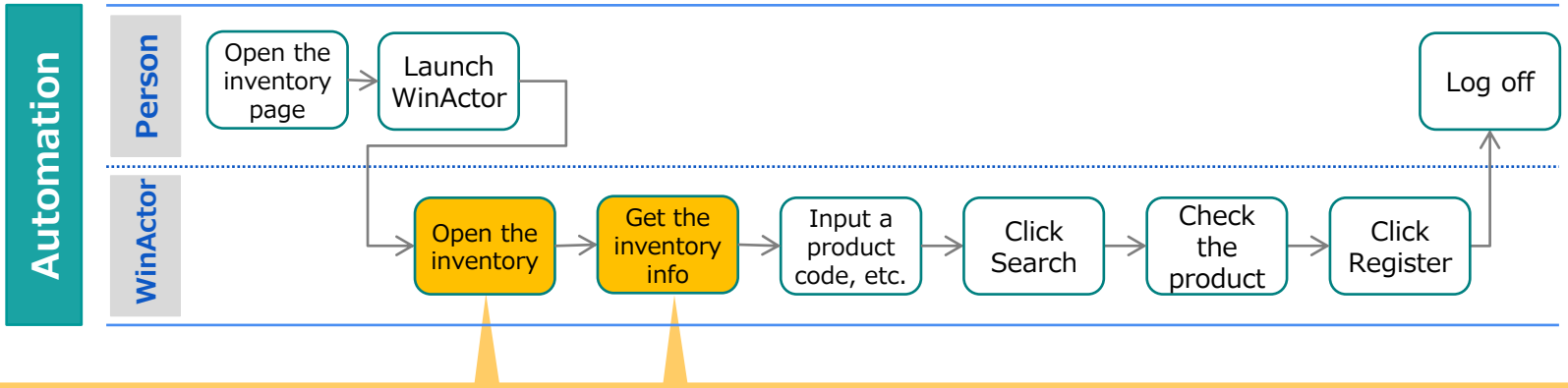
2 Click [Create a new scenario]. The main window of WinActor appears.



For the startup methods and window layout, see WinActor Operation Manual.

7 Automation for data transfer from Excel to an in-house system

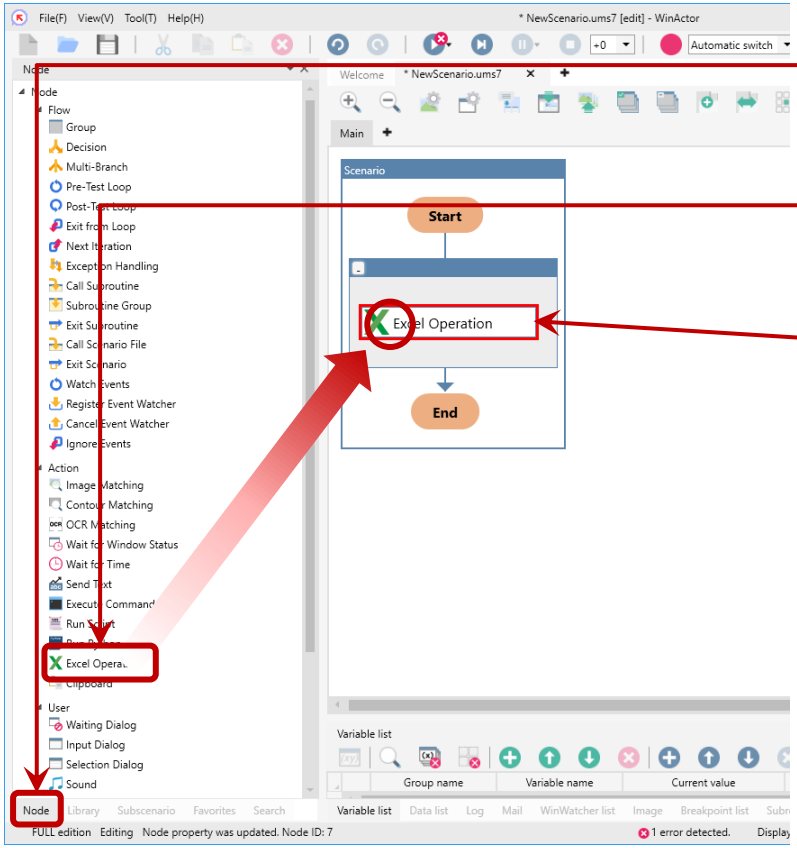
"From here, we will create a scenario for the following operations."



7-1 Reading values from Excel (using the Excel Operation node)

7 Automation for data transfer from Excel to an in-house system

7-1 Reading values from Excel (using the Excel Operation node)



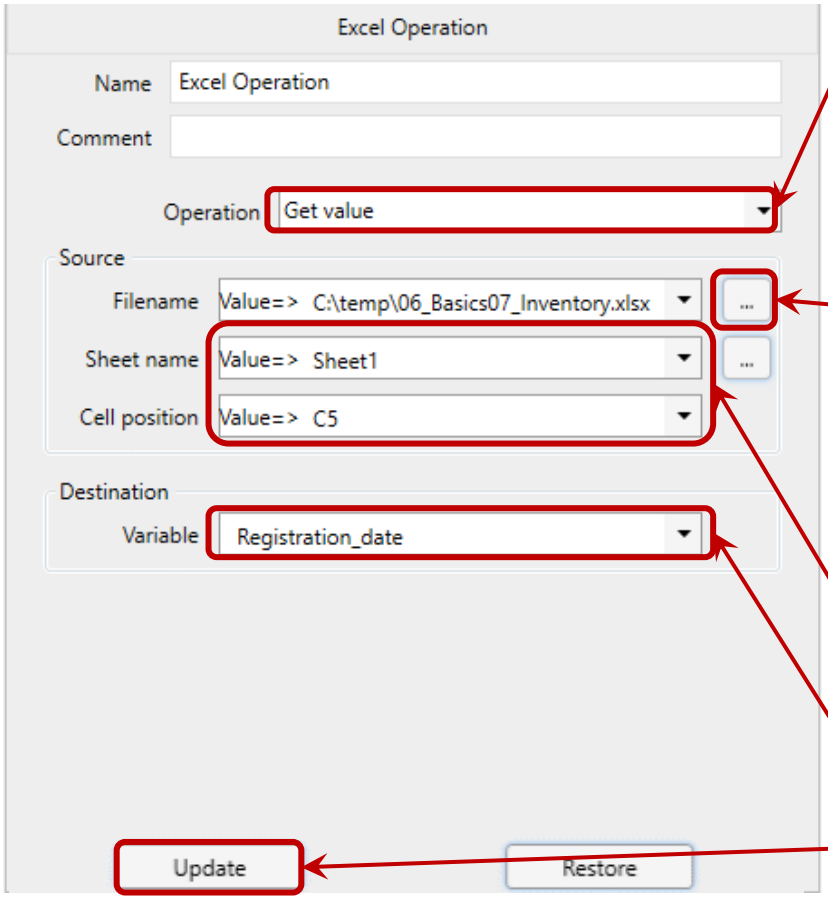
1 Click the [Node] tab.

2 Drag the 'Excel Operation' node and drop it into the scenario edit area.

3 Double-click the placed node. (Displaying the property)

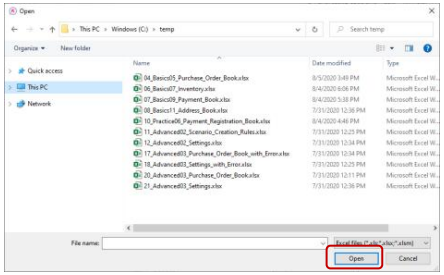
7 Automation for data transfer from Excel to an in-house system

7-1 Reading values from Excel (using the Excel Operation node)



4 From the pull-down list of [Operation], select 'Get value.'

5 Click the [...] button for [Filename], and Explorer opens. Specify the file named "06_Basics07_Inventory.xlsx" and click [Open].



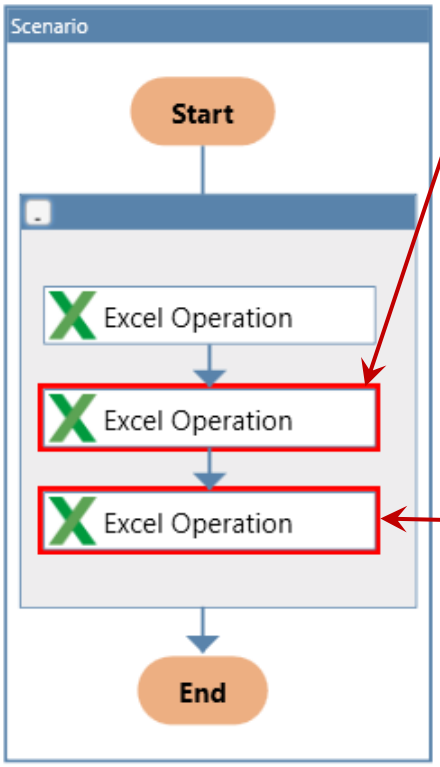
6 For [Sheet name], enter "Value=>Sheet1." (You can also use the [...] button.)
For [Cell position], specify "Value=>C5."

7 For [Variable], enter "Registration_date."

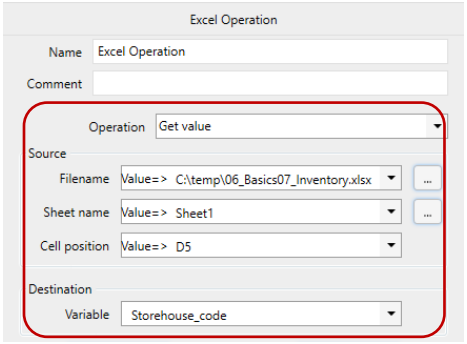
8 Click the [Update]. If the variable confirmation dialog appears, click [Yes].

7 Automation for data transfer from Excel to an in-house system

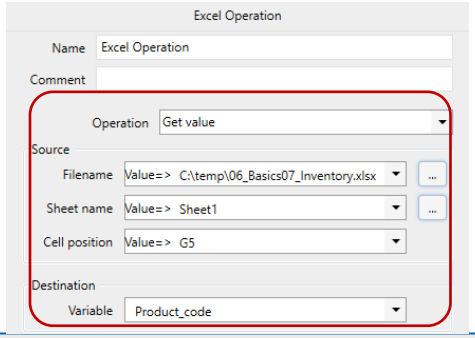
7-1 Reading values from Excel (using the Excel Operation node)



9 To read a value of the storehouse code from the inventory, place the ‘Excel Operation’ node and set the property items as follows. (Enter "Value=>D5" for [Cell position] and "Storehouse_code" for [Variable].)

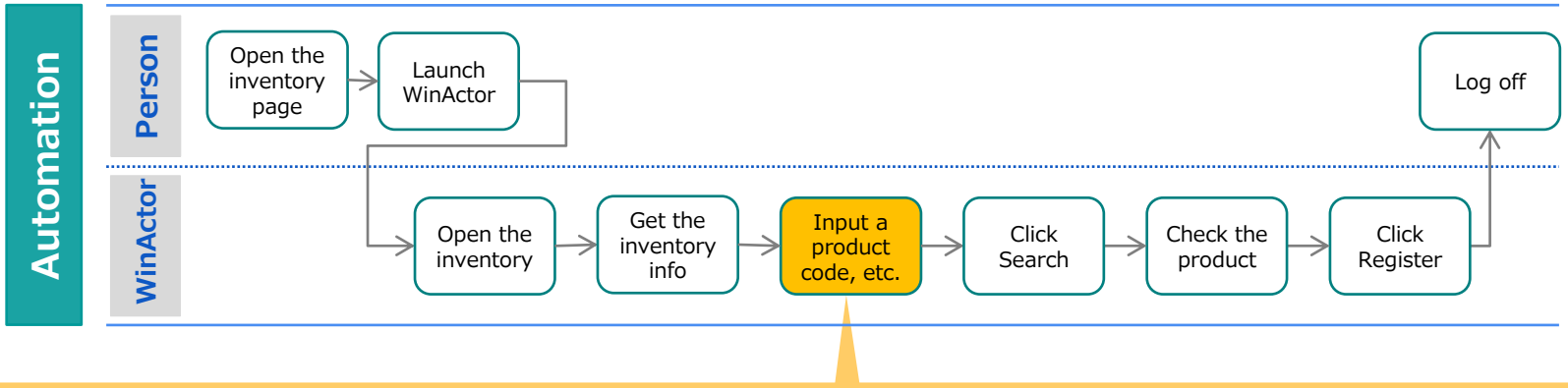


10 To read a value of the product code from the inventory, place the ‘Excel Operation’ node and set the property items as follows. (Enter "Value=>G5" for [Cell position] and "Product_code" for [Variable].)



7 Automation for data transfer from Excel to an in-house system

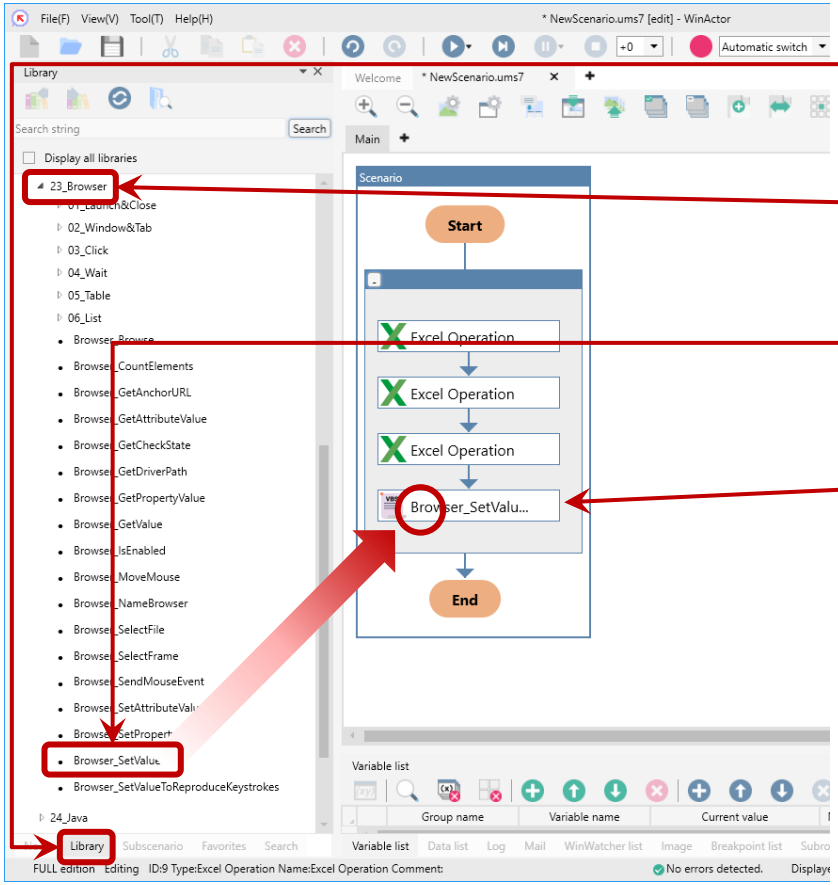
"From here, we will create a scenario for the following operation."



7-2 Inputting data into the Add Item to Inventory page

7 Automation for data transfer from Excel to an in-house system

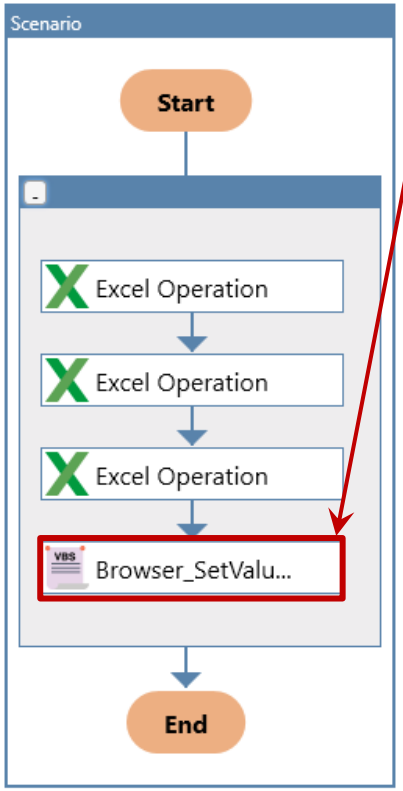
7-2 Inputting data into the Add Item to Inventory page



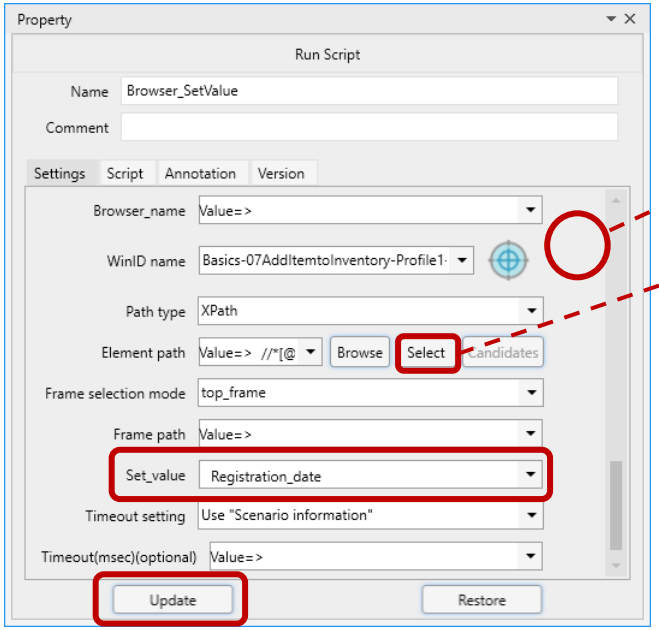
1. Click the [Library] tab.
2. Double-click the '23_Browser' and expand the list of libraries.
3. Drag the 'Browser_SetValue' library and drop it into the scenario edit area.
4. Double-click the placed library. (Displaying the property)

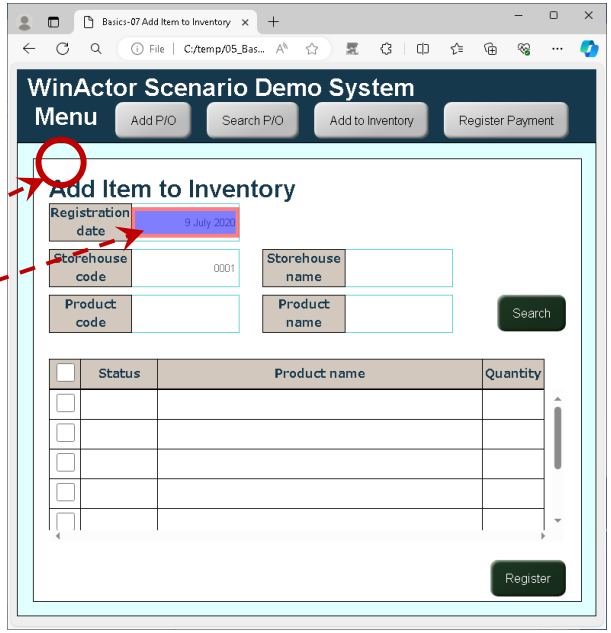
7 Automation for data transfer from Excel to an in-house system

7-2 Inputting data into the Add Item to Inventory page



5 Set the webpage to be operated.
Set [Element path] by selecting the “Registration date” text box.

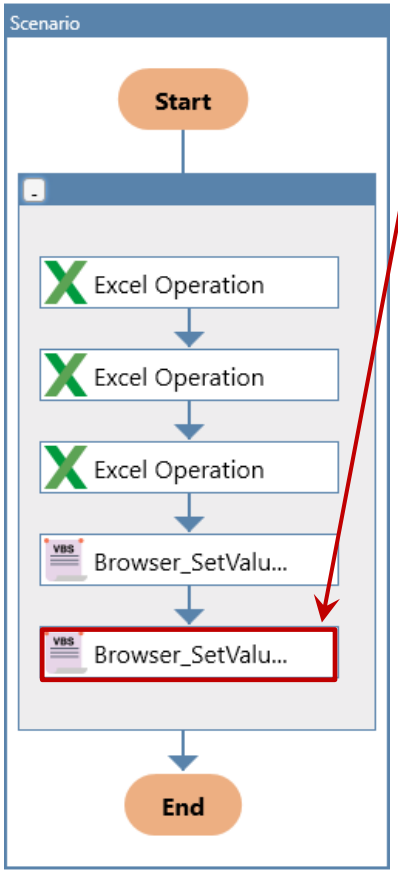




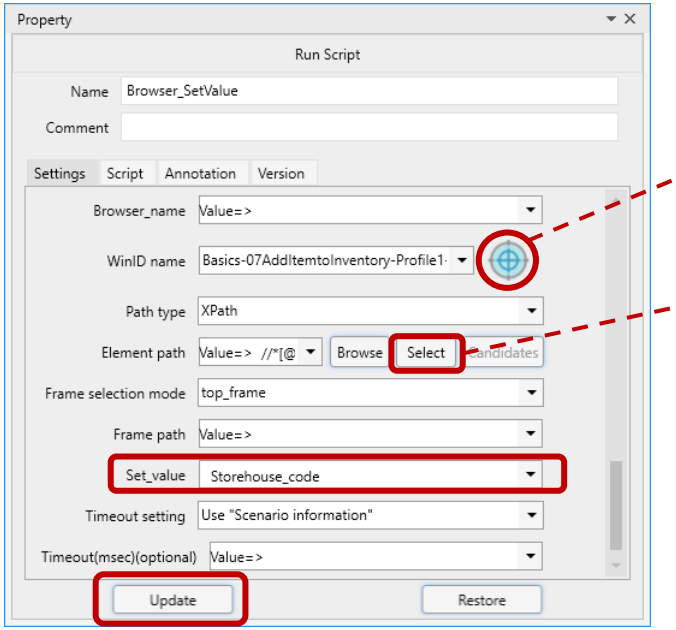
6 Select ‘Registration_date’ from the pull-down list of [Set_value], and click the [Update] button.

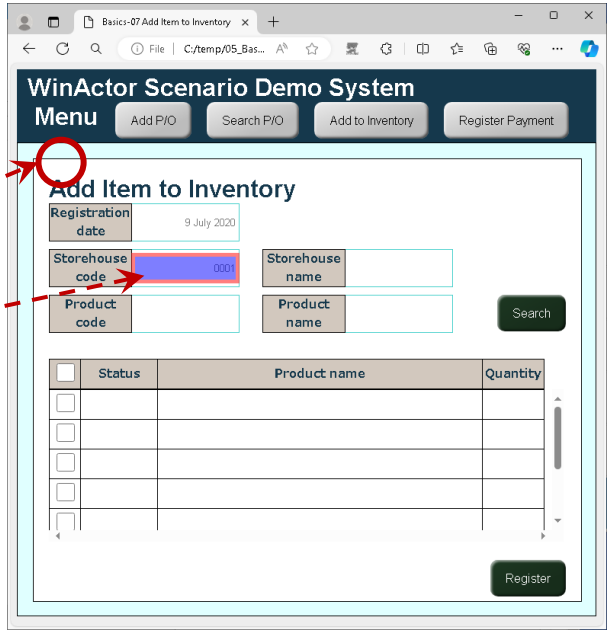
7 Automation for data transfer from Excel to an in-house system

7-2 Inputting data into the Add Item to Inventory page



7 Set the webpage to be operated.
Set [Element path] by selecting the "Storehouse code" text box.

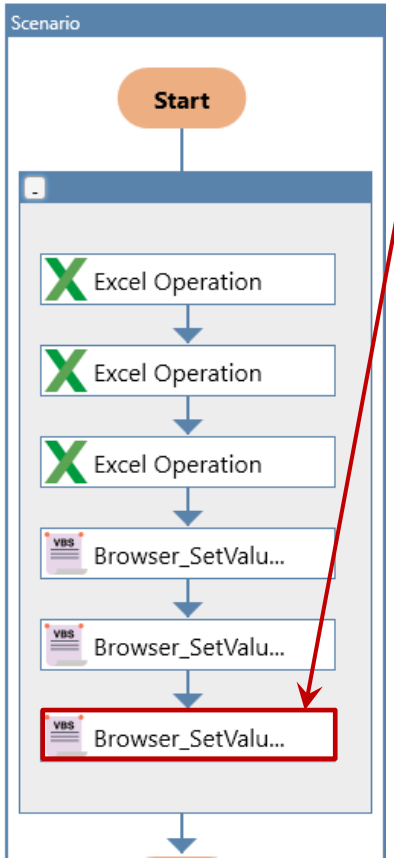




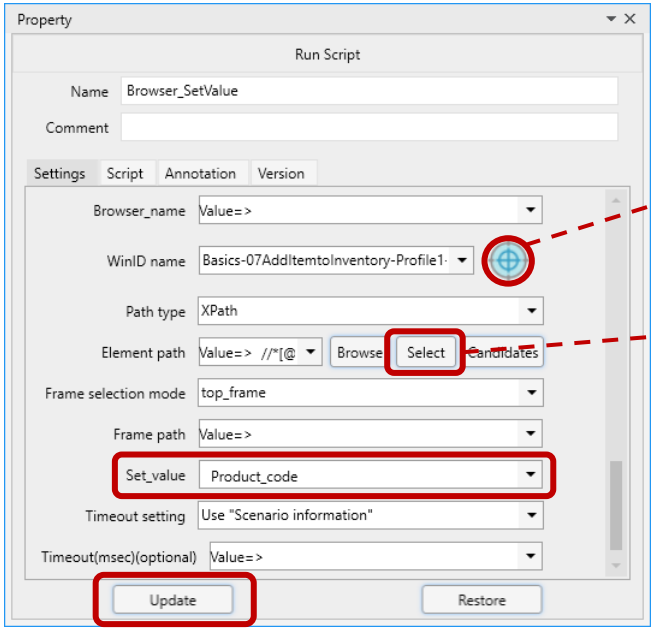
8 Select ‘Storehouse_code’ from the pull-down list of [Set_value], and click the [Update] button.

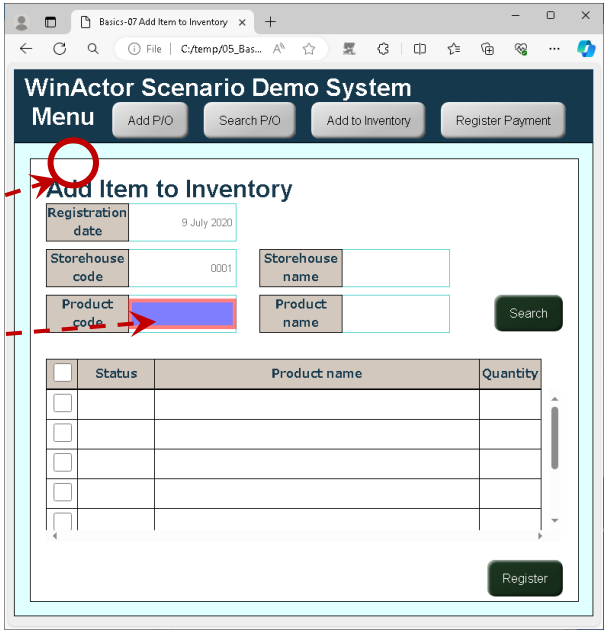
7 Automation for data transfer from Excel to an in-house system

7-2 Inputting data into the Add Item to Inventory page



9 Set the webpage to be operated.
Set [Element path] by selecting the "Product code" text box.

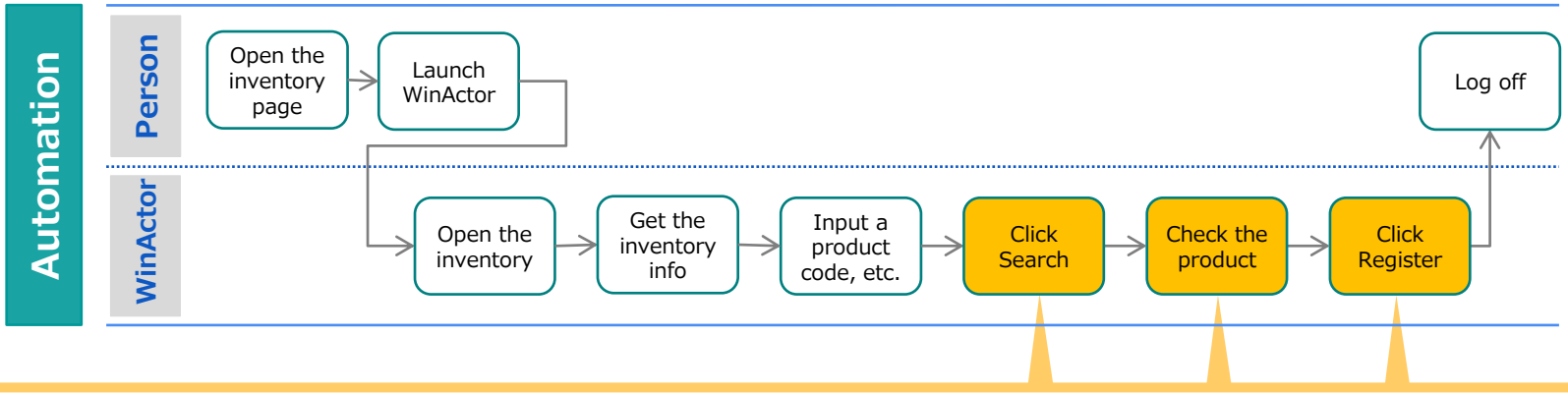




10 Select ‘Product_code’ from the pull-down list of [Set_value], and click the [Update] button.

7 Automation for data transfer from Excel to an in-house system

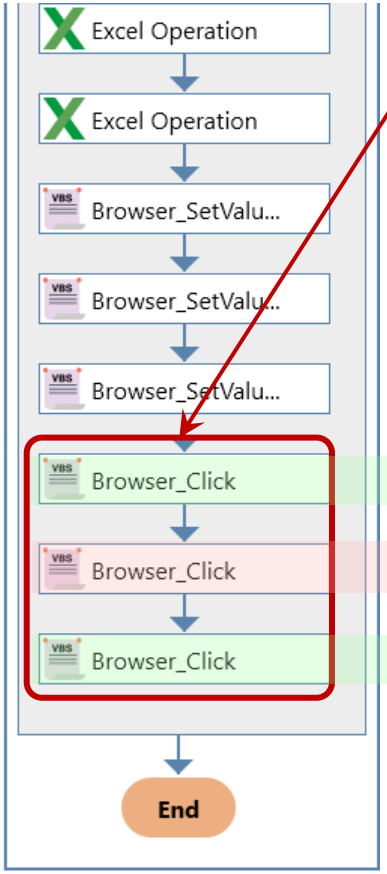
"From here, we will create a scenario for the following operations."



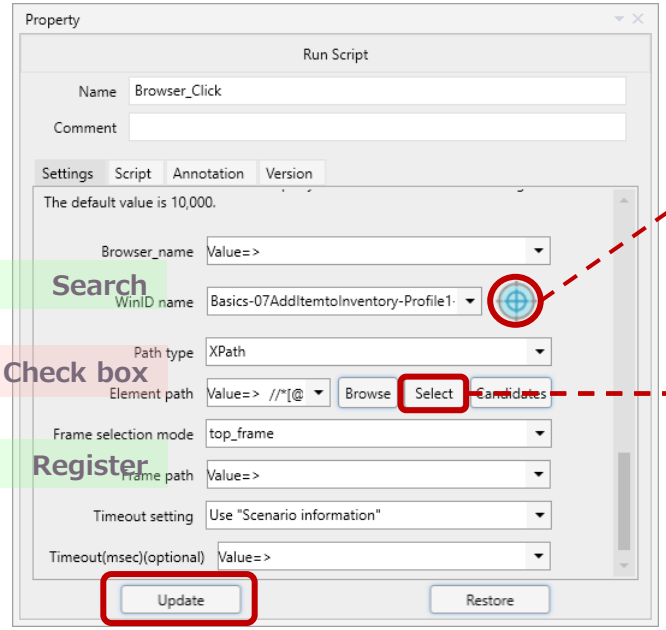
7-3 Searching and registering products in the Add Item to Inventory page

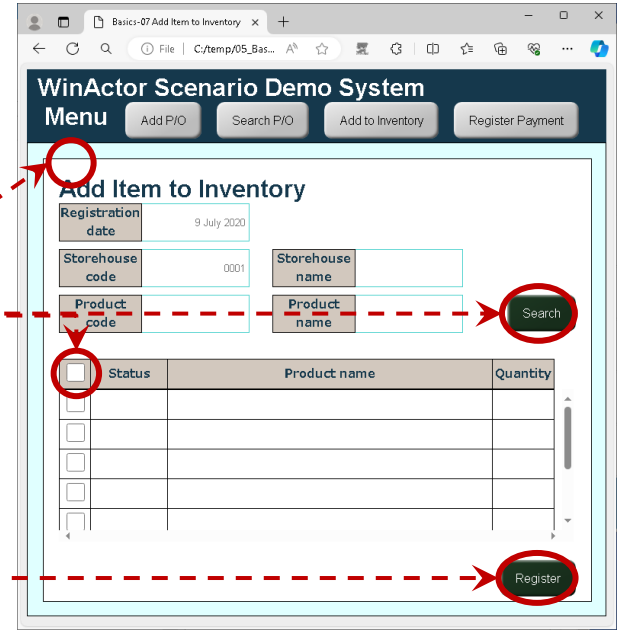
7 Automation for data transfer from Excel to an in-house system

7-3 Searching and registering products in the Add Item to Inventory page



1 Place three ‘Browser_Click’ libraries to perform search, item check, and registration. Specify the window of "Basics-07 Add Item to Inventory" for [WinID name] for all three libraries, specify "Search button," "check box," and "Register button" respectively for [Element path] for those libraries.



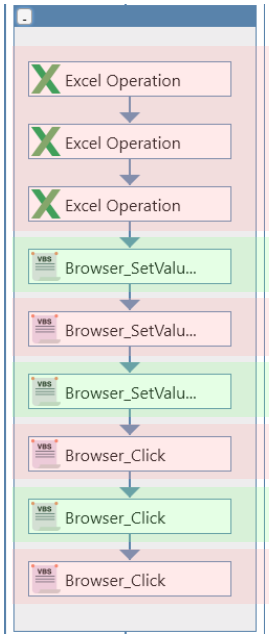


2 Click the [Update] button.

7 Automation for data transfer from Excel to an in-house system

7-4 Checking the entire scenario

1 Confirm that the created scenario is as follows.



Reading values from Excel (7-1)

Transferring a registration date (7-2)

Transferring a storehouse code (7-2)

Transferring a product code (7-2)

Clicking the Search button (7-3)

Clicking the check box (7-3)

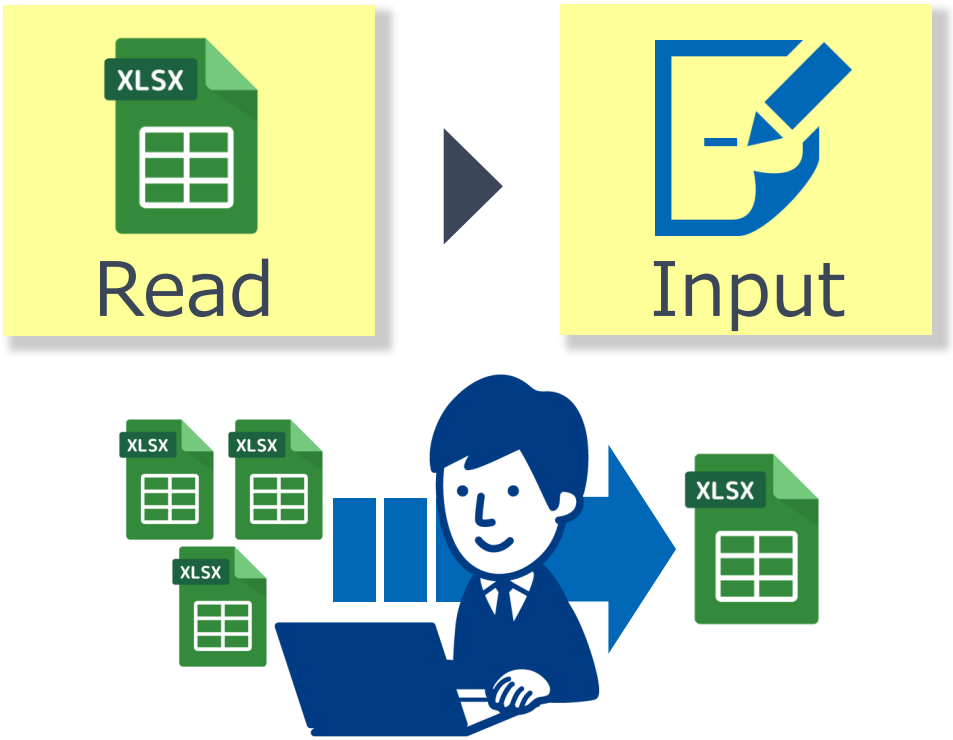
Clicking the Register button (7-3)

You can run and save the scenario in the same way as in 3-11 and 3-12 in the “3 Automation for click and input on a webpage.”

7-5 Running the scenario

7-6 Saving the scenario

Basics



Automation for data transfer from Excel books to another Excel book

8 Scenario creation - Basics 4 -

Case

William is getting familiar with using WinActor.
A person in the accounting department who heard about William asked him for help.

"I have been asked to create a payment book by bringing only the necessary numbers from multiple books. I feel like I can do that because I have transferred data from or to Excel so far."

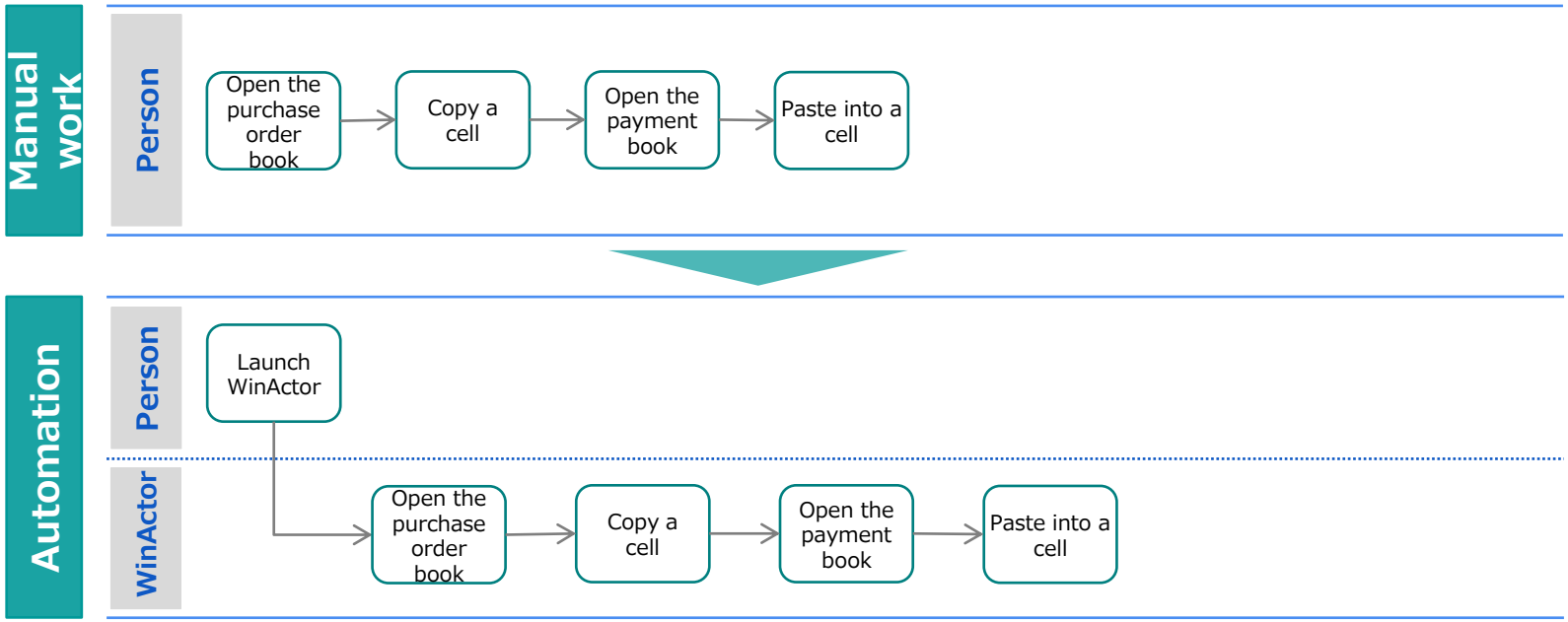
"Yes! It is important to accumulate the experience of being able to do it. WinActor is also good at automating operations of Office applications such as Excel and Outlook. You can automate the operations by combining the existing parts this time as well."

"It's great and very helpful because I use Excel, Word, and Outlook in my work."

"Again, let's take a look at how operations change between manual work and automation using WinActor."

8 Scenario creation - Basics 4 -

"In automation using WinActor, the operations change as follows."



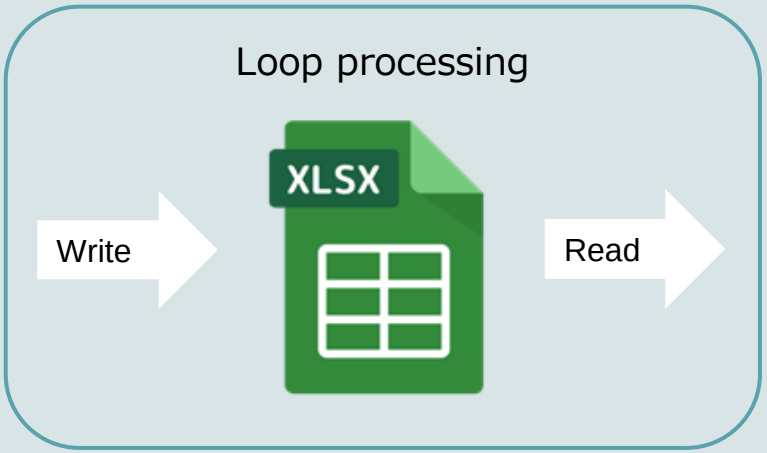
"Well, with this flow, I think I can create a scenario with my experience!"

8 Scenario creation - Basics 4 -

"This time, we will use libraries called Excel_SetValue2 and Excel_GetValue2."

"I have already learned how to use the Excel Operation node."

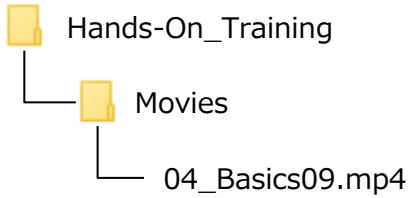
"In the Excel Operation node learned earlier, you could only specify a column and row together to specify a cell. In Excel_SetValue2 and Excel_GetValue2, you can specify a column and row separately!



"It is a great advantage to be able to specify a column and row separately when you learn the loop processing in the practice section. We will not perform loop processing this time, but let's get used to it!"

8 Scenario creation - Basics 4 -

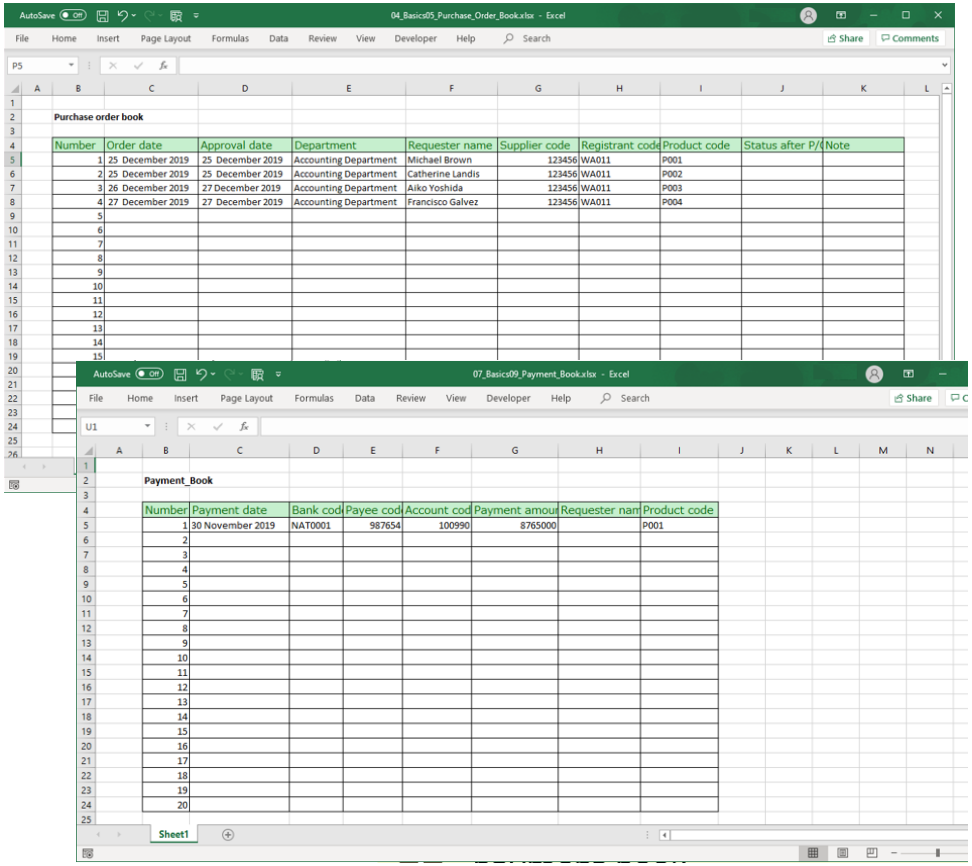
"Let's watch the actual movement of WinActor. Double-click the file named 04_Basics09.mp4 in the following folder to play it."



"Now, let's actually create a scenario together!"

9 Automation for data transfer from Excel books to another Excel book

Prep Checking the purchase order book and the payment book



Files to be checked

- Hands-On_Training
  - Files
    - 04_Basics05_Purchase_Order_Book.xlsx
    - 07_Basics09_Payment_Book.xlsx

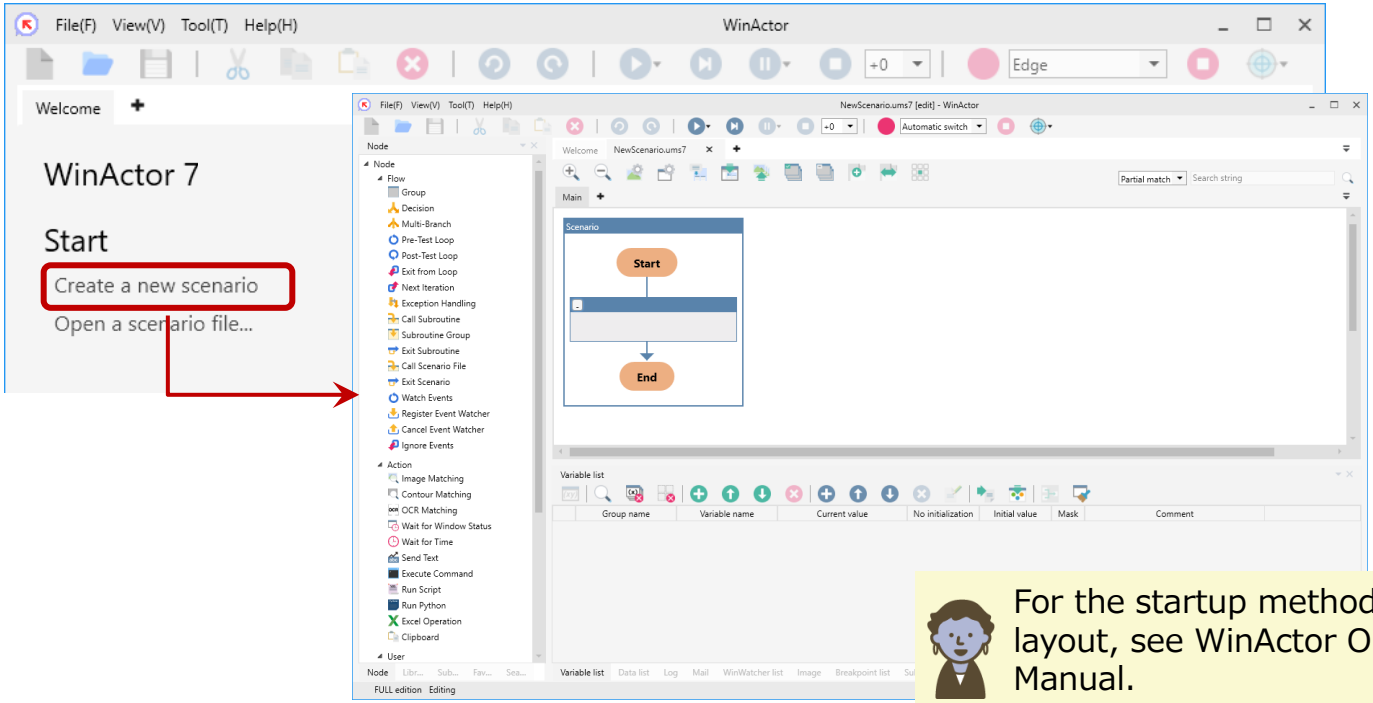
This time, we will transfer data from the purchase order book to the payment book.

9 Automation for data transfer from Excel books to another Excel book

Prep Launching WinActor

1 Launch WinActor from the Start menu or with any other startup method.

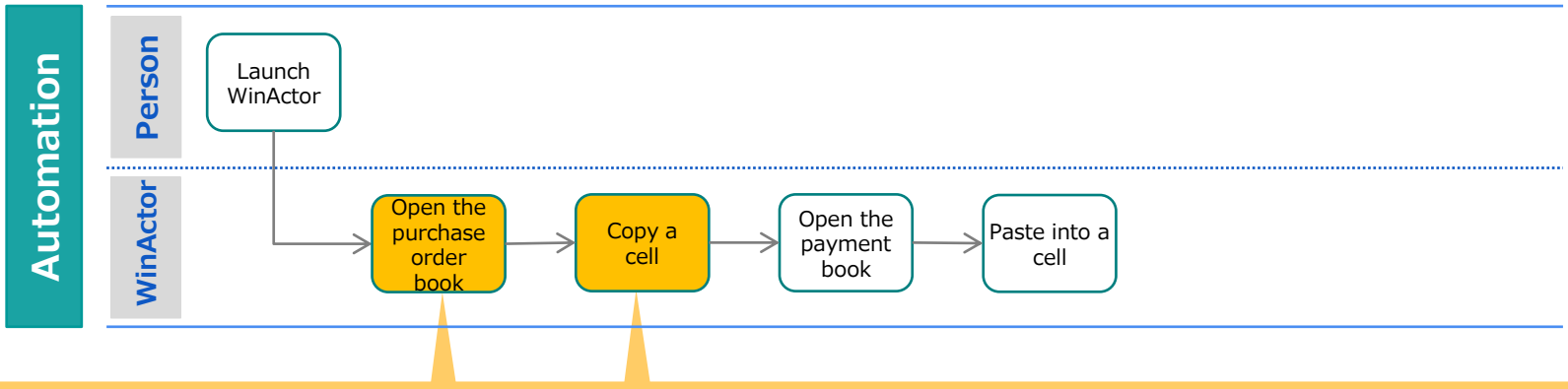
2 Click [Create a new scenario]. The main window of WinActor appears.



For the startup methods and window layout, see WinActor Operation Manual.

9 Automation for data transfer from Excel books to another Excel book

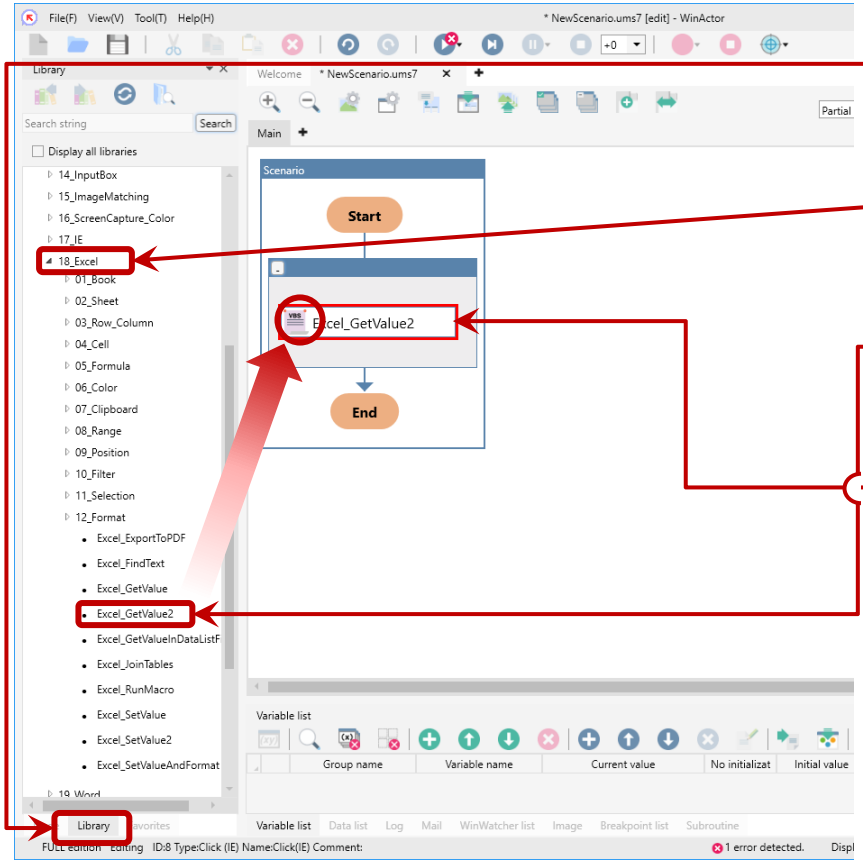
"From here, we will create a scenario for the following operations."



9-1 Reading a value from Excel (using the Excel_GetValue2 library)

9 Automation for data transfer from Excel books to another Excel book

9-1 Reading a value from Excel (using the Excel_GetValue2 library)



1 Click the [Library] tab.

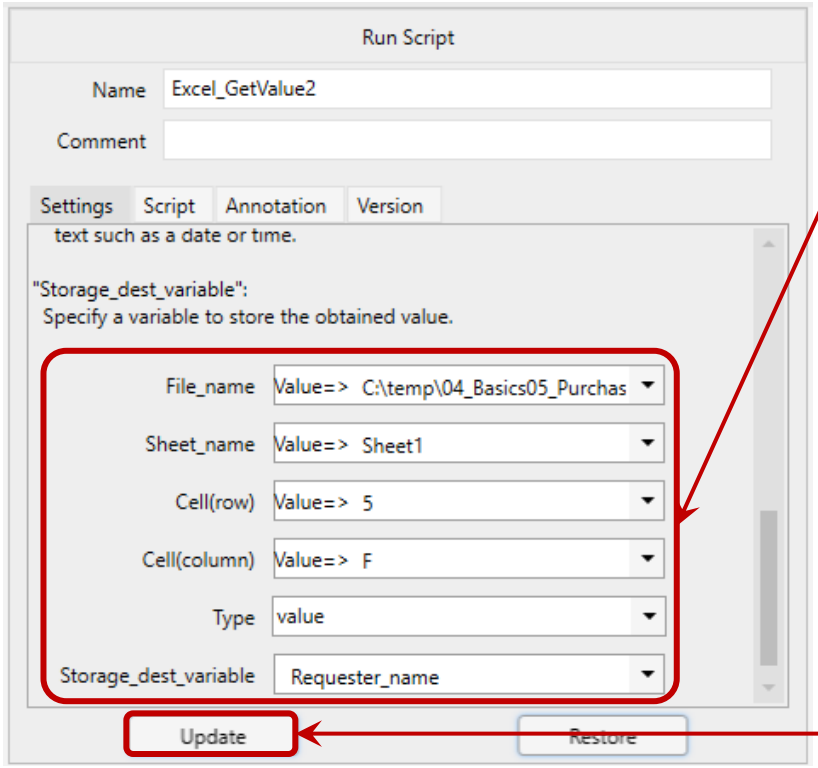
2 Double-click ‘18_Excel’ and expand the list of libraries.

3 Drag the ‘Excel_GetValue2’ library and drop it into the scenario edit area.

4 Double-click the placed library. (Displaying the property)

9 Automation for data transfer from Excel books to another Excel book

9-1 Reading a value from Excel (using the Excel_GetValue2 library)

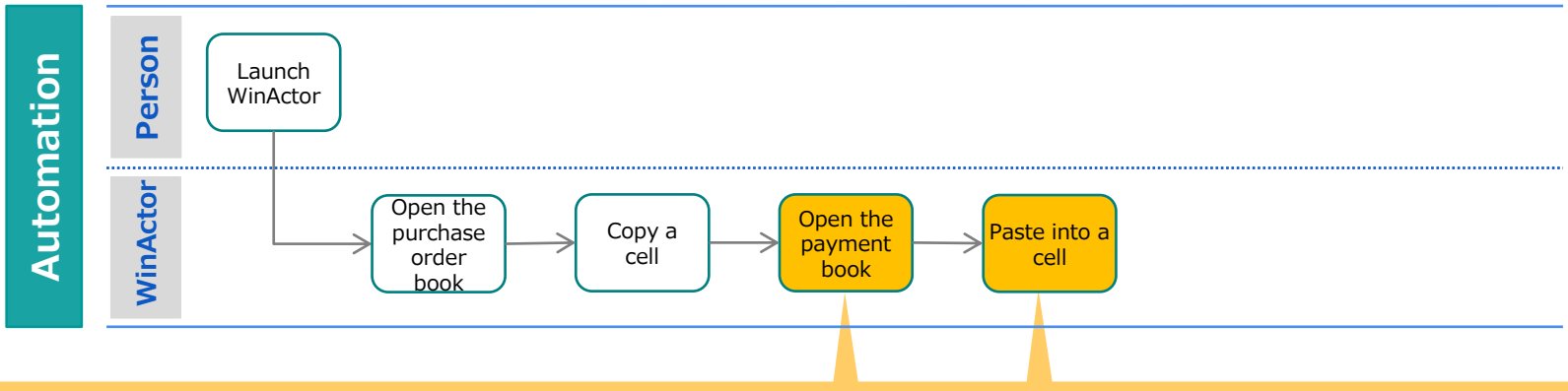


5 Drag and drop "04_Basics05_Purchase_Order_Book.xlsx" into [File_name], and enter "Value=>Sheet1" for [Sheet_name], "Value=>5" for [Cell(row)], "Value=>F" for [Cell(column)], 'value' for [Type], and "Requester_name" for [Storage_dest_variable].

6 Click the [Update] button. If the variable confirmation dialog appears, click [Yes].

9 Automation for data transfer from Excel books to another Excel book

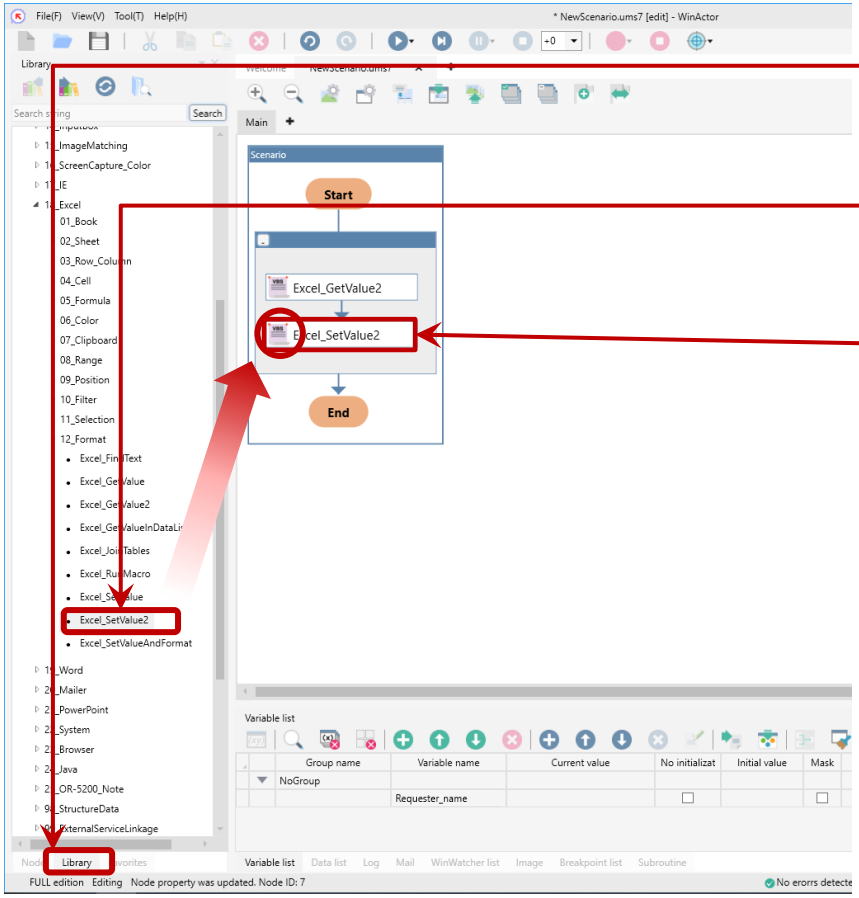
"From here, we will create a scenario for the following operations."



9-2 Inputting a value into Excel (using the Excel_SetValue2 library)

9 Automation for data transfer from Excel books to another Excel book

9-2 Inputting a value into Excel (using the Excel_SetValue2 library)



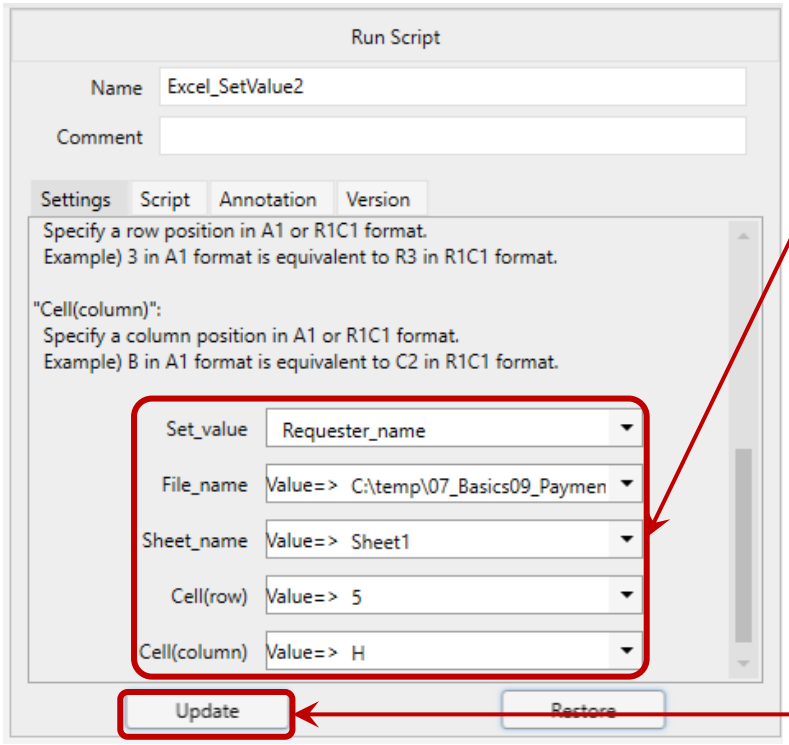
1 Click the [Library] tab.

2 Drag the ‘Excel_SetValue2’ library and drop it into the scenario edit area.

3 Double-click the placed library. (Displaying the property)

9 Automation for data transfer from Excel books to another Excel book

9-2 Inputting a value into Excel (using the Excel_SetValue2 library)



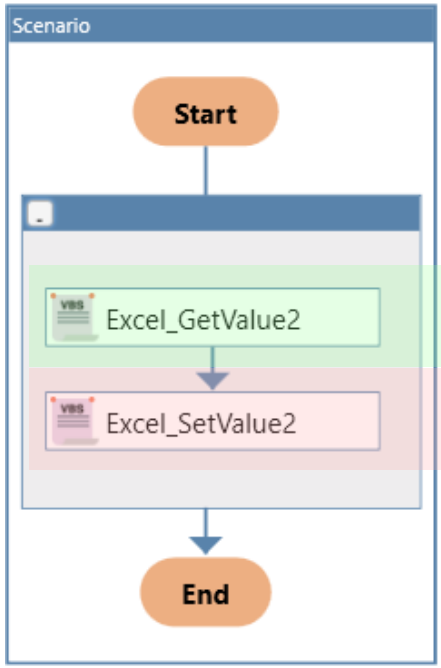
4 Enter "Requester_name" for [Set_value], drag and drop "07_Basics09_Payment_Book.xlsx" into [File_name], and enter "Value=>Sheet1" for [Sheet_name], "Value=>5" for [Cell(row)], and "Value=>H" for [Cell(column)].

5 Click the [Update] button.

9 Automation for data transfer from Excel books to another Excel book

9-3 Checking the entire scenario

1 Confirm that the created scenario is as follows.



Getting a requester name from the purchase order book (9-1)

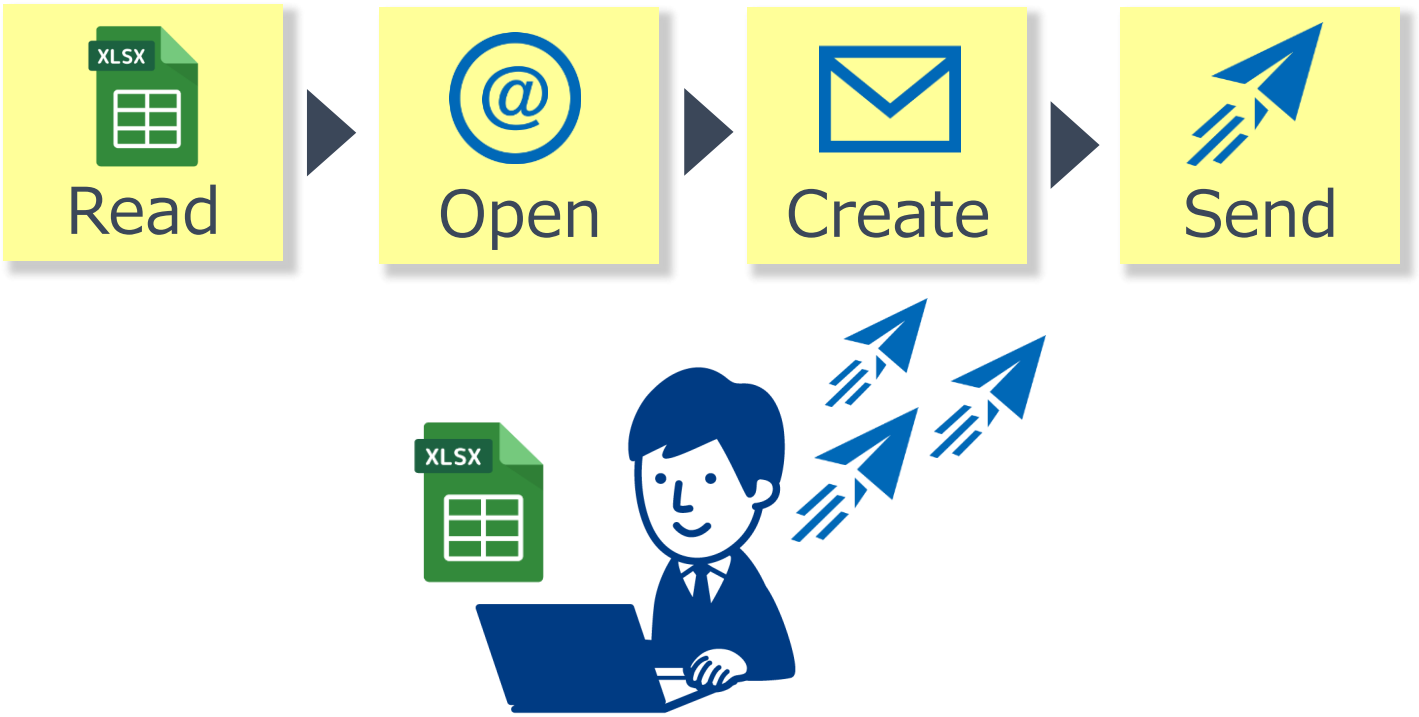
Transferring the acquired information to the payment book (9-2)

You can run and save the scenario in the same way as in 3-11 and 3-12 “Automation for click and input on a webpage.”

9-4 Running the scenario

9-5 Saving the scenario

Basics



Automation for sending emails

10 Scenario creation - Basics 5 -

Case

William has succeeded in creating the payment book and started to be recognized as a WinActor user in the company.
Meanwhile, a different request came this time.

"The accounting department asked me to send an email to the person in charge in the payment book. Should I use SendMail in the library to send an email?"

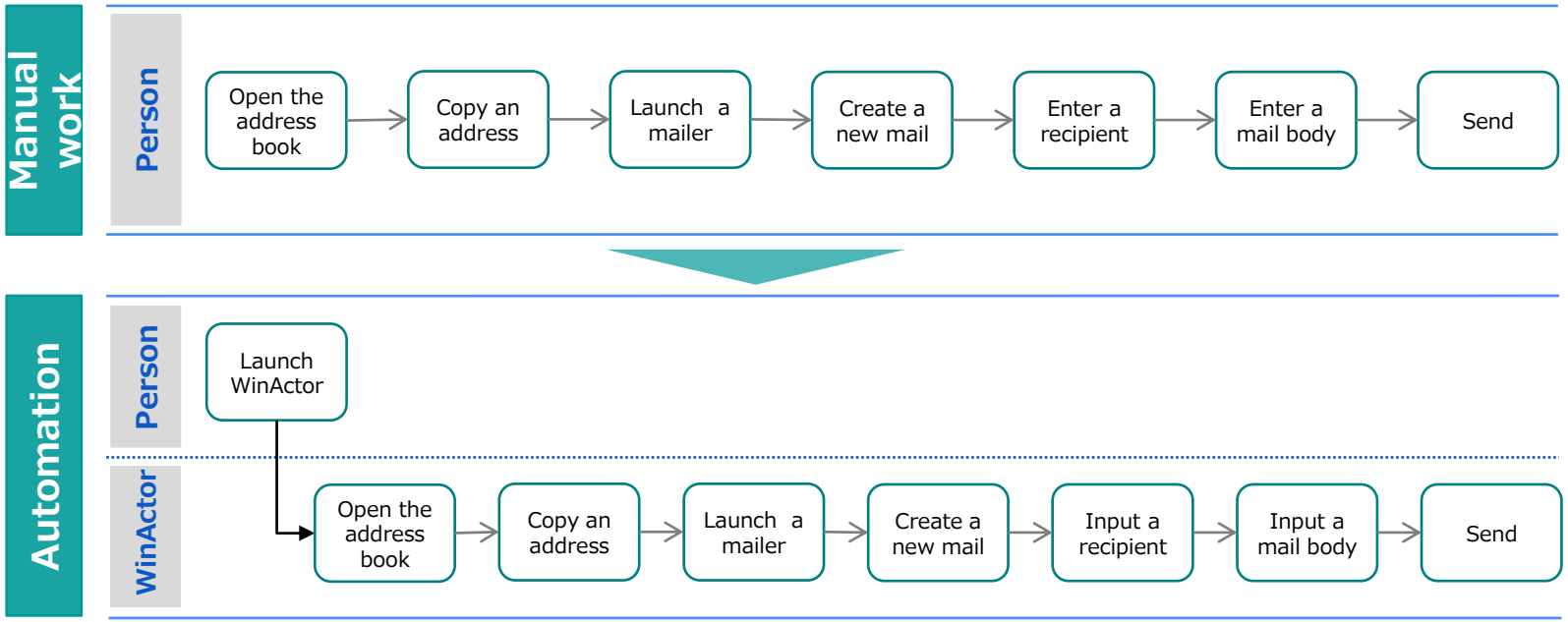
"You are getting familiar with using WinActor. Of course, WinActor is also good at automating operations of sending emails. You can automate the operations by combining the existing parts this time as well."

"Emails can cause problems when sent incorrectly, so it would be safe in terms of security if I can automate the operation of sending emails."

"Again, let's take a look at how operations change between manual work and automation using WinActor."

10 Scenario creation - Basics 5 -

"In automation using WinActor, the operations change as follows."



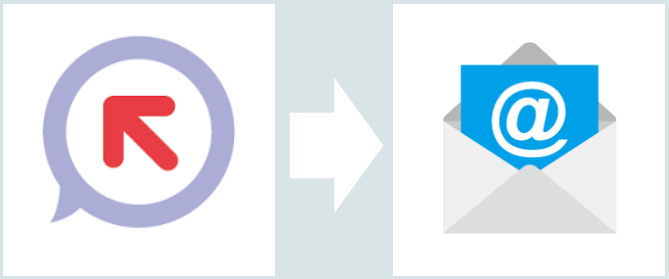
"It seems that I can use my previous experience to open the address book and copy the address!"

10 Scenario creation - Basics 5 -

"This time, we will use a library called Outlook_SendMail."

"We can use WinActor with mailers, that’s nice!"

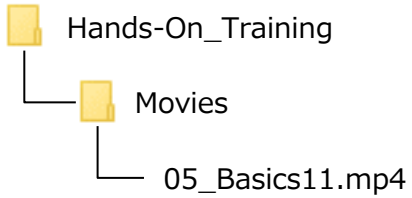
"Yes, Outlook_SendMail is a library that allows you to send emails in Outlook. You can freely set a recipient, subject, and body!"



"SendMail can also be used for sending a notification of a result of running a scenario or an error when a scenario has stopped. Let's learn how to use it!"

10 Scenario creation - Basics 5 -

"Let's watch the actual movement of WinActor. Double-click the file named 05_Basics11.mp4 in the following folder to play it."

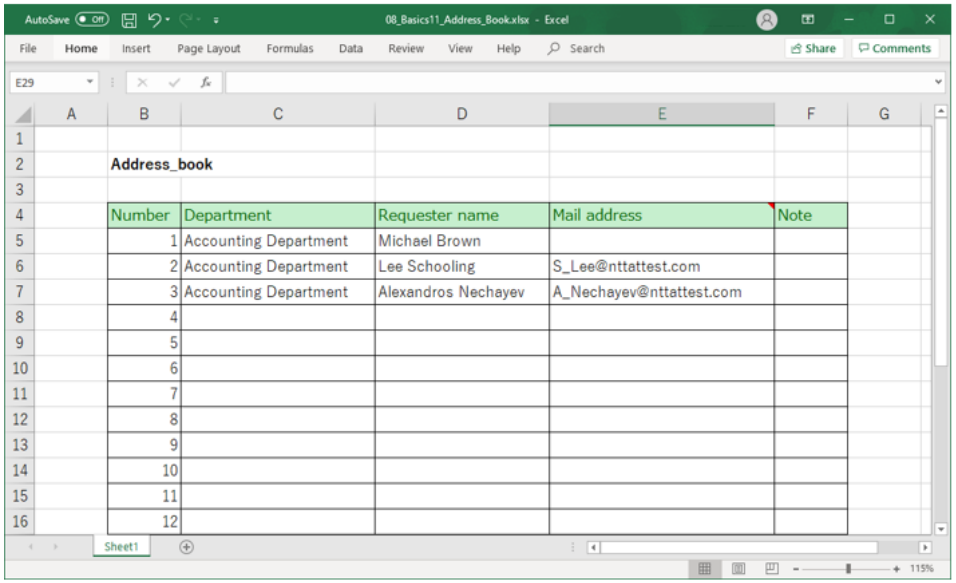


"You don't see a new mail window as you see it when manually sending an email, but the operation of sending emails is being processed in Outlook."

"Now, let's actually create a scenario together!"

11 Automation for sending emails

Prep Checking the address book



File to be checked

- Hands-On_Training
  - Files
    - 08_Basics11_Address_Book.xlsx

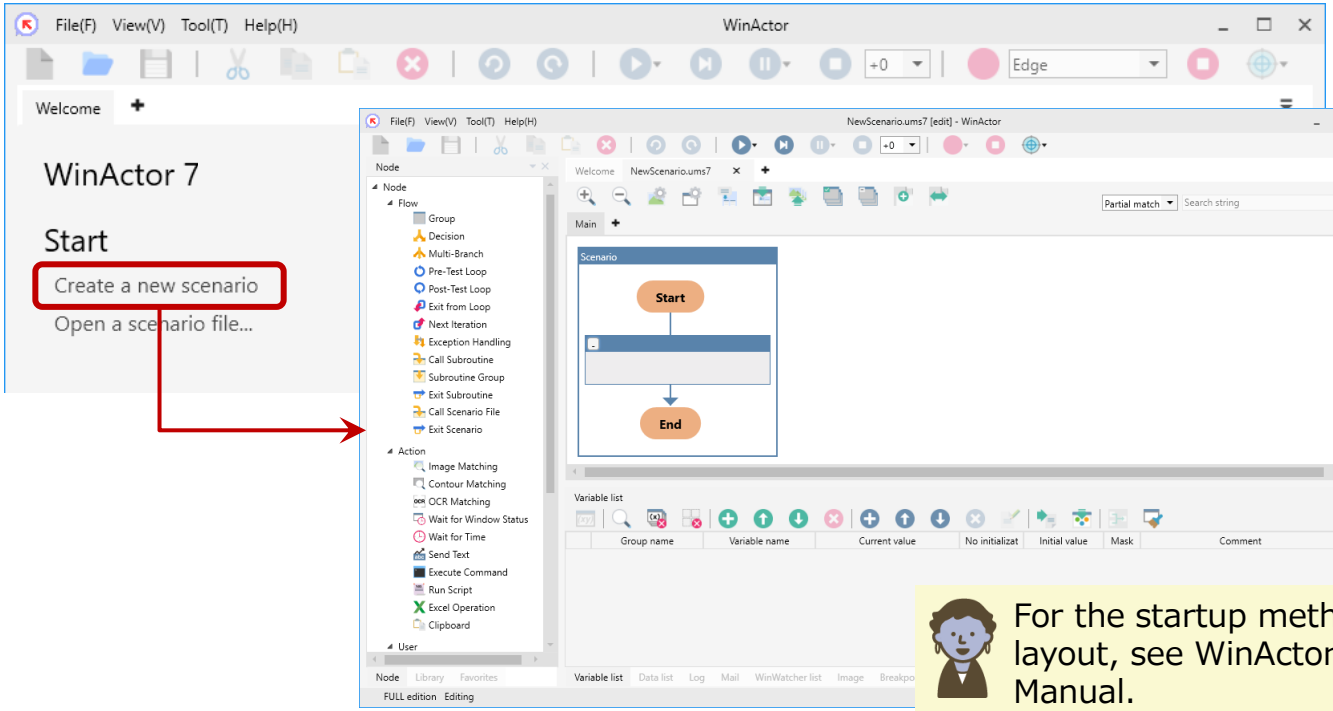
This time, we will get an email address from this address book. Correct the dummy email address to a valid one so that an email can be sent.

11 Automation for sending emails

Prep Launching WinActor

1 Launch WinActor from the Start menu or with any other startup method.

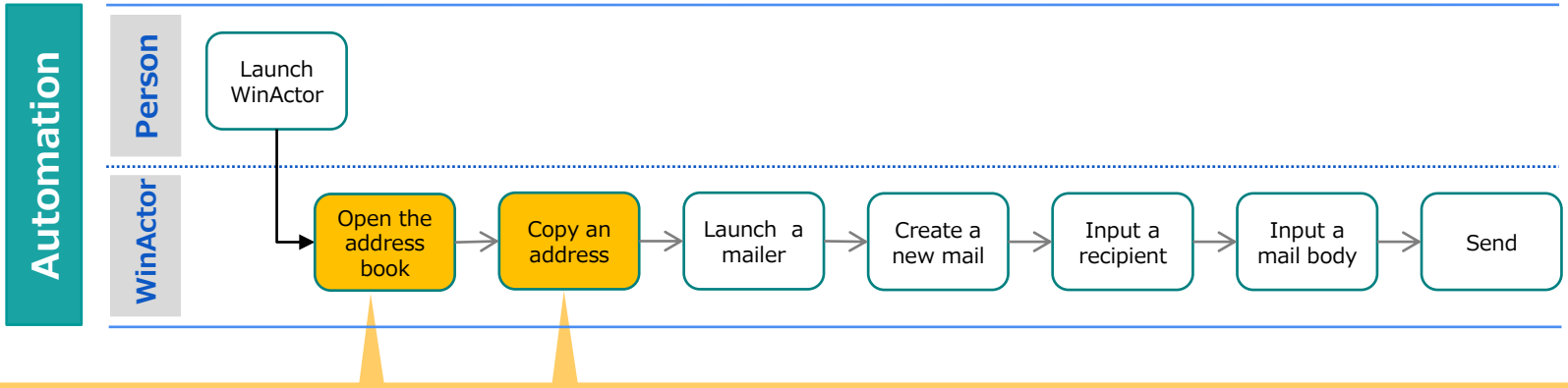
2 Click [Create a new scenario]. The main window of WinActor appears.



For the startup methods and window layout, see WinActor Operation Manual.

11 Automation for sending emails

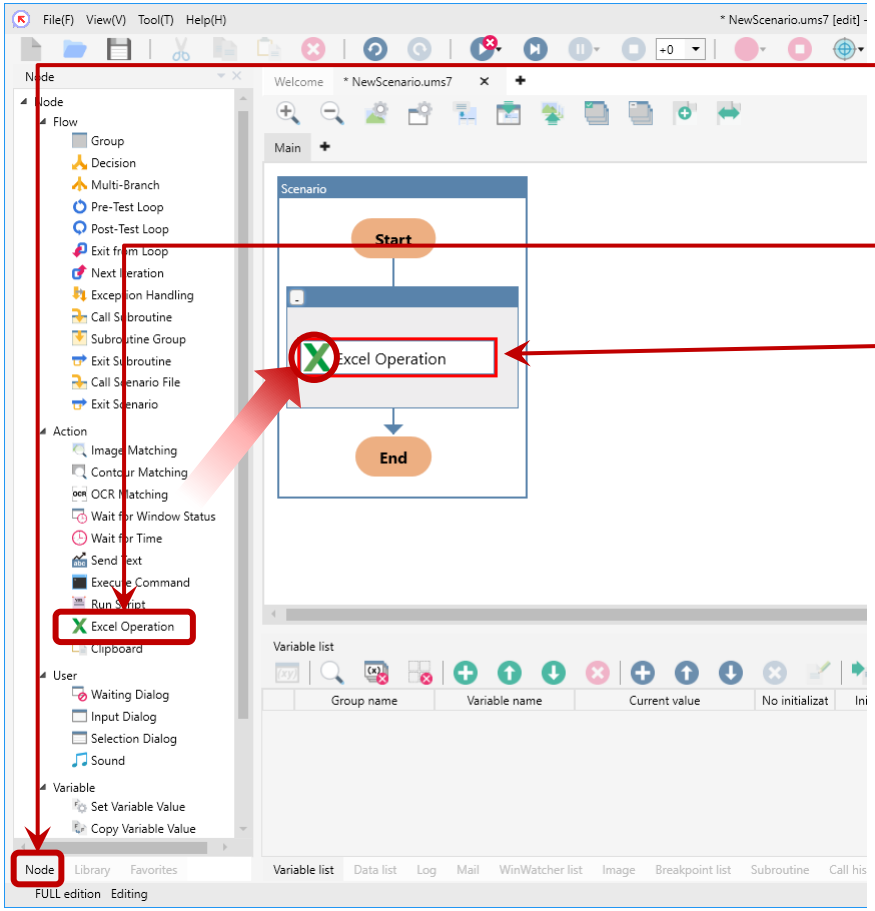
"From here, we will create a scenario for the following operations."



11-1 Reading a value from Excel (using the Excel Operation node)

11 Automation for sending emails

11-1 Reading a value from Excel (using the Excel Operation node)



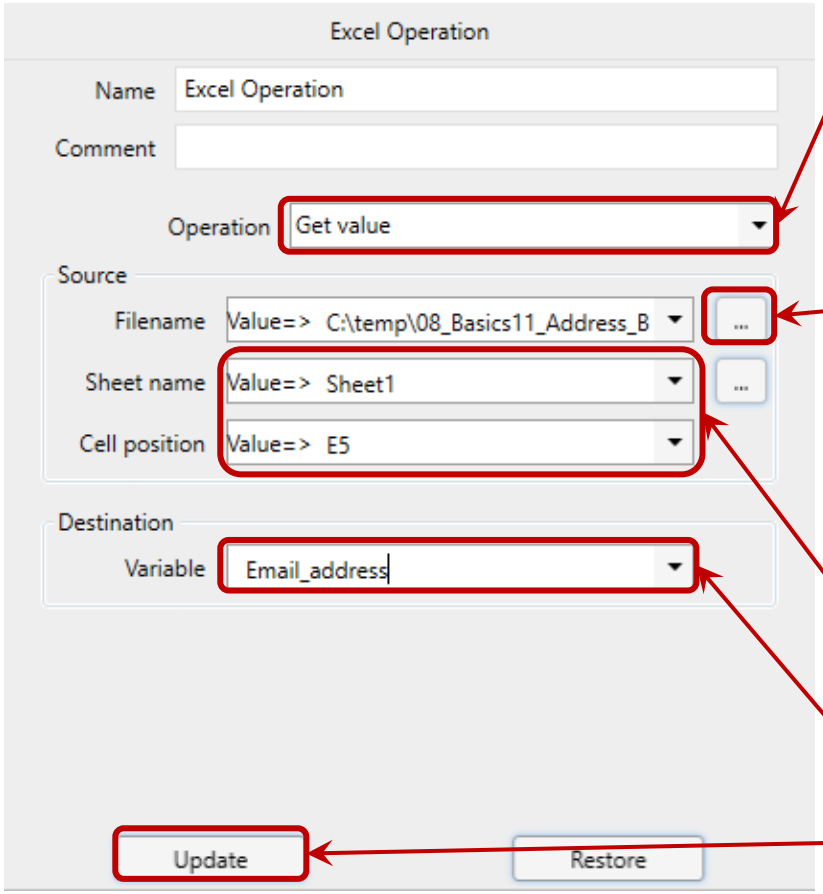
1 Click the [Node] tab.

2 Drag the 'Excel Operation' node and drop it into the scenario edit area.

3 Double-click the placed node. (Displaying the property)

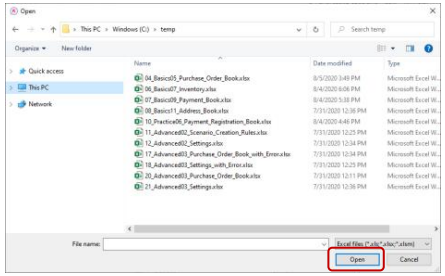
11 Automation for sending emails

11-1 Reading a value from Excel (using the Excel Operation node)



4 From the pull-down list of [Operation], select 'Get value.'

5 Click the [...] button for [Filename], and Explorer opens. Specify the file named "08_Basics11_Address_Book.xlsx" and click [Open].



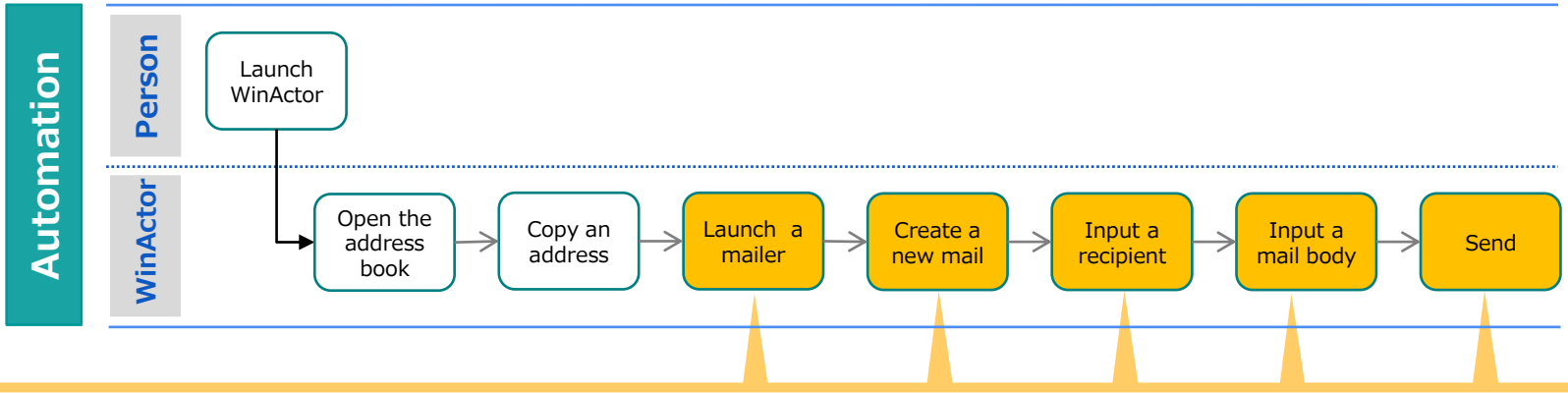
6 For [Sheet name], enter "Value=>Sheet1." (You can also use the [...] button.)
For [Cell position], specify "Value=>E5."

7 For [Variable], enter "Email_address."

8 Click the [Update] button. If the variable confirmation dialog appears, click [Yes].

11 Automation for sending emails

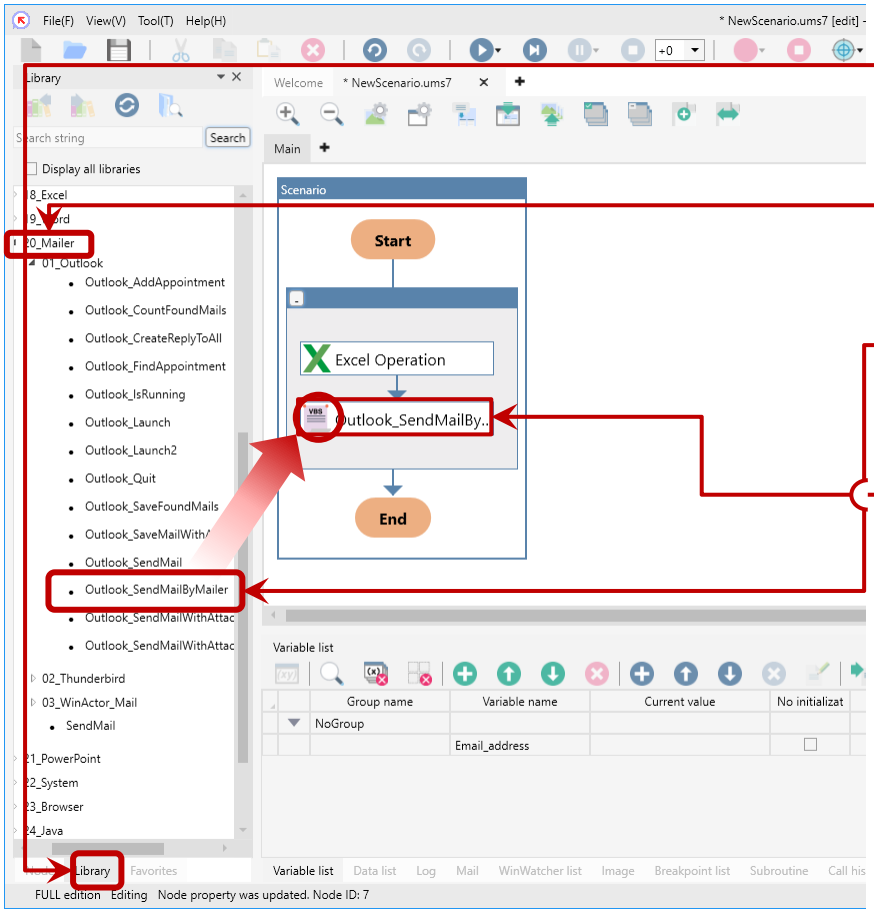
"From here, we will create a scenario for the following operations."



11-2 Sending an email (using the Outlook_SendMailByMailer library)

11 Automation for sending emails

11-2 Sending an email (using the Outlook_SendMailByMailer library)



1 Click the [Library] tab.

2 Double-click ‘20_Mailer’ and expand the list of libraries.

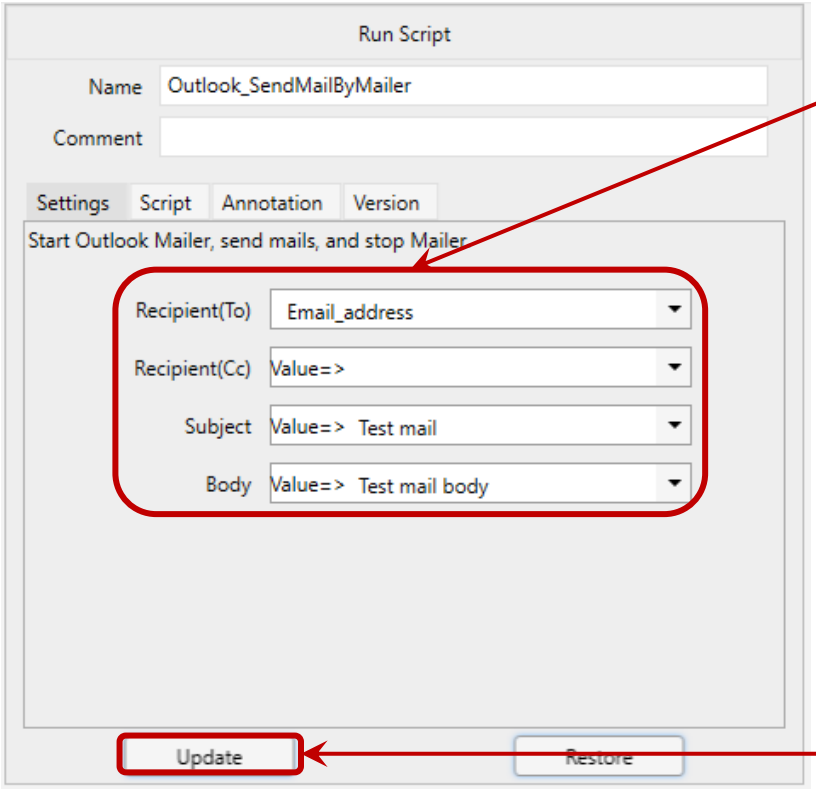
3 Drag the ‘Outlook_SendMailByMailer’ library and drop it into the scenario edit area.

4 Double-click the placed library. (Displaying the property)

There are several ways to send an email in Outlook. This time, we use the ‘Outlook_SendMailByMailer’ library, which not only sends an email but also opens and closes Outlook.
Depending on a scenario, you can use Outlook_SendMailWithAttachmentByMailer to send an email with attached files.

11 Automation for sending emails

11-2 Sending an email (using the Outlook_SendMailByMailer library)



5 Enter Email_address for [Recepient(To)], nothing for [Recipient(Cc)], "Value=>Test mail" for [Subject], and "Value=>Test mail body" for [Body].

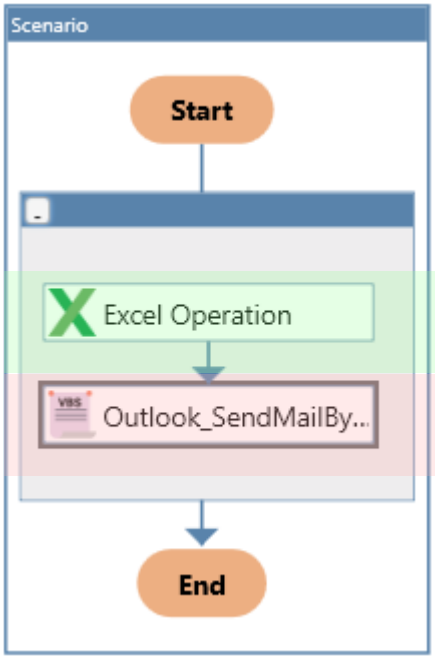
6 Click the [Update] button.

The 'Outlook_SendMailByMailer' library is a convenient library that includes the operations to open and close Outlook in addition to send an email. However, if Outlook is configured not to send an email immediately, a confirmation dialog will be displayed when Outlook is stopped, and it cannot be stopped normally.

11 Automation for sending emails

11-3 Checking the entire scenario

1 Confirm that the created scenario is as follows.



Getting an address from the address book (11-1)

Sending an email referring to the acquired address (11-2)

You can create a scenario simply by using the libraries. WinActor has a number of libraries to help you quickly automate common tasks. Don't always create a scenario with just the nodes, but also consider using the libraries.

You can run and save the scenario in the same way as in 3-11 and 3-12 “Automation for click and input on a webpage.”

11-4 Running the scenario

11-5 Saving the scenario

12 Scenario creation - Basics epilogue -

"The basics are all over. How have you been so far, William?"

"I'm not trying to brag after basics are over, but I could automate operations easier than I thought! There are various nodes and libraries, and I can create scenarios by almost dragging and dropping them. Also, I can run the created scenario immediately, quickly fix the part that does not run, and try it again. That's the point, and I could do it without giving up!"

"That's good! Next is a practical part where you learn the functions such as loop processing and branch processing that you should master when using WinActor in actual work. Don't be satisfied here and move on to the next step!"

- Practice -

1 Scenario creation - Practice prologue -

Case

William has made some scenarios using WinActor and has been promoting automation, and it seems that now he wants to do a little more complicated processing.

Let's create a little more complicated automation with William this time, too!

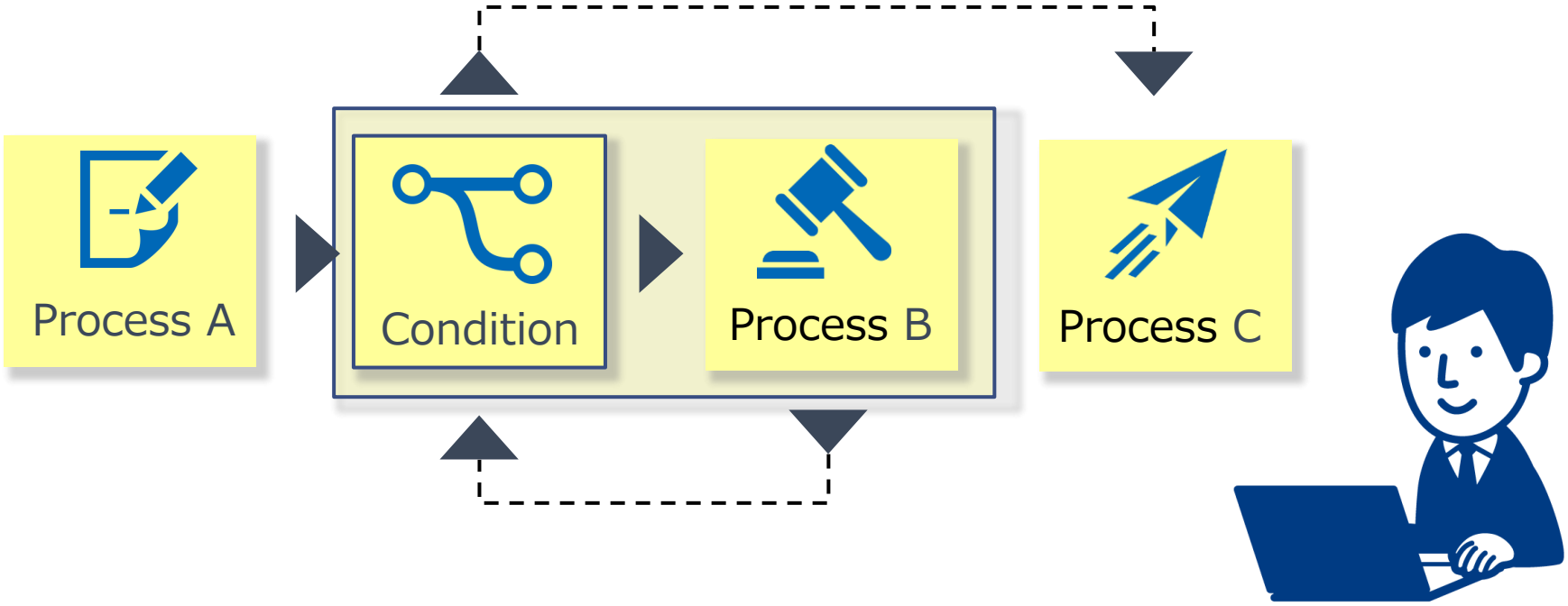
William Lee

A second-year employee of the procurement department.
He knows how to use WinActor and wants to use it for other tasks.

Maria Rodriguez

A senior employee in another department who is already using WinActor.
This time, she responds to a consultation by William and offers to help and teach him.

Practice



Loop processing for the same operation

2 Scenario creation - Practice 1 -

Case **William received a request from the finance department that they want to collect information of several payments and put them together in the in-house system. Will William be able to create a scenario that the finance department will be happy with?**

"No... in my experience so far, I can't repeat the same operation... I think I can use the ‘Loop’ node, but it has a different shape from other nodes and I have no idea how to use it..."

"The scenarios you have created so far are scenarios that run from the start to the end and finish. Let's learn how to create a scenario for loop processing of a large amount of data, which WinActor is good at."

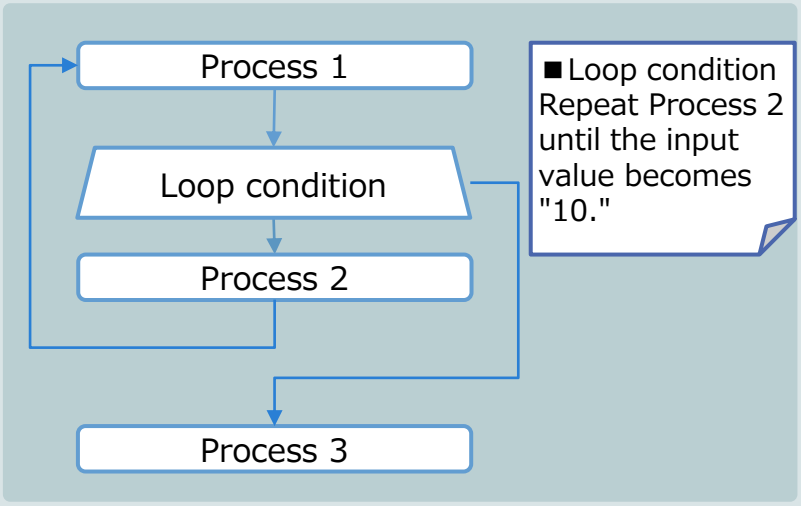
"However, I don't even know how to make it in the first place... If the number of payment slips is constant, the same process can be repeated for the number of payment slips, but the number of payment slips is different each time."

"No problem! To do that, first let's learn the concept of loop processing."

2 Scenario creation - Practice 1 -

"So, what is loop processing exactly?"

"Loop processing means repeating the same process until the preset end condition is met. For order processing, you repeat the same process for numbers of users until their order has bee completed, right? For this type of work, you can do it with WinActor in a minute. It's a time-saving process indeed."



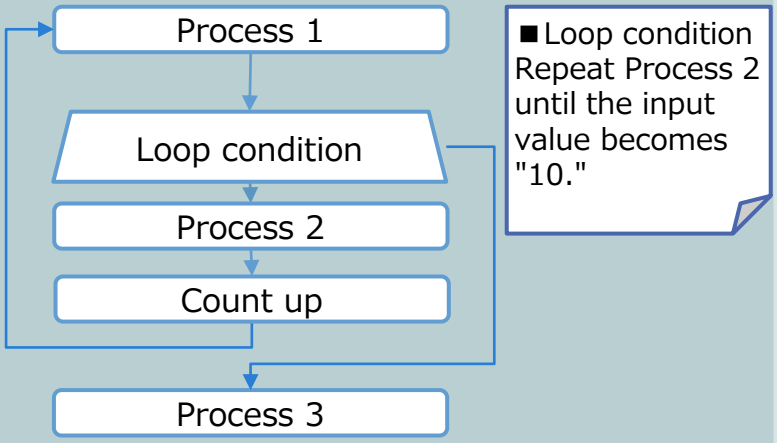
"The figure on the left is an image of loop processing. If the condition is not satisfied, Process 2 will be executed and then the condition will be checked again. If the condition is met, it will proceed to Process 3."

"How to set the condition here is the point for loop processing."

2 Scenario creation - Practice 1 -

"I think I'm beginning to understand. But if the same process is repeated, I'm wondering if the same content will be processed over and over. I want to register the values written in the book by moving down one row at a time..."

"You are right. So I will explain the concept of count up, another point for loop processing."
"Count up means it will increment the numerical variable value by a fixed number each time the process is repeated. This allows you to set the number of times to repeat and to shift and get the number of rows in Excel one by one!"

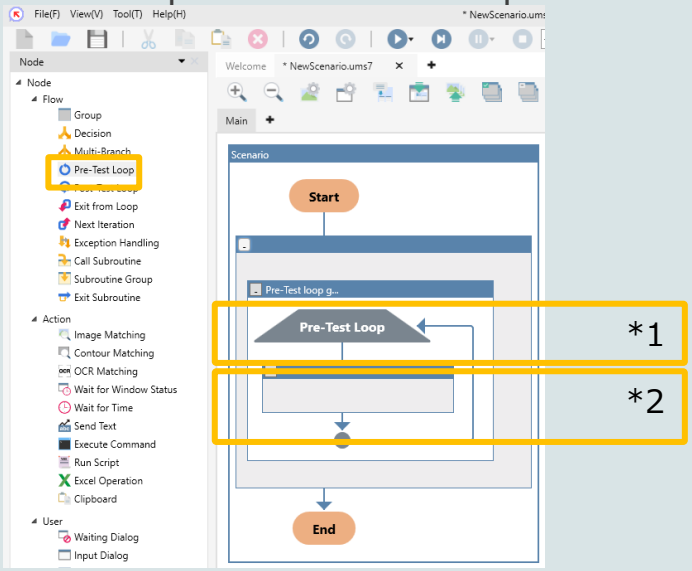


"The figure on the left is an image of loop processing with 'count up.' By counting up, it is possible to use a different value depending on the number of iterations, not just the fixed value for Process 2."
"You can master the loop processing by learning how to set the condition and count up!"

2 Scenario creation - Practice 1 -

"We are using the idea of counting up, which increments a number by one to move down one row in the book! How can I actually set this in WinActor?"

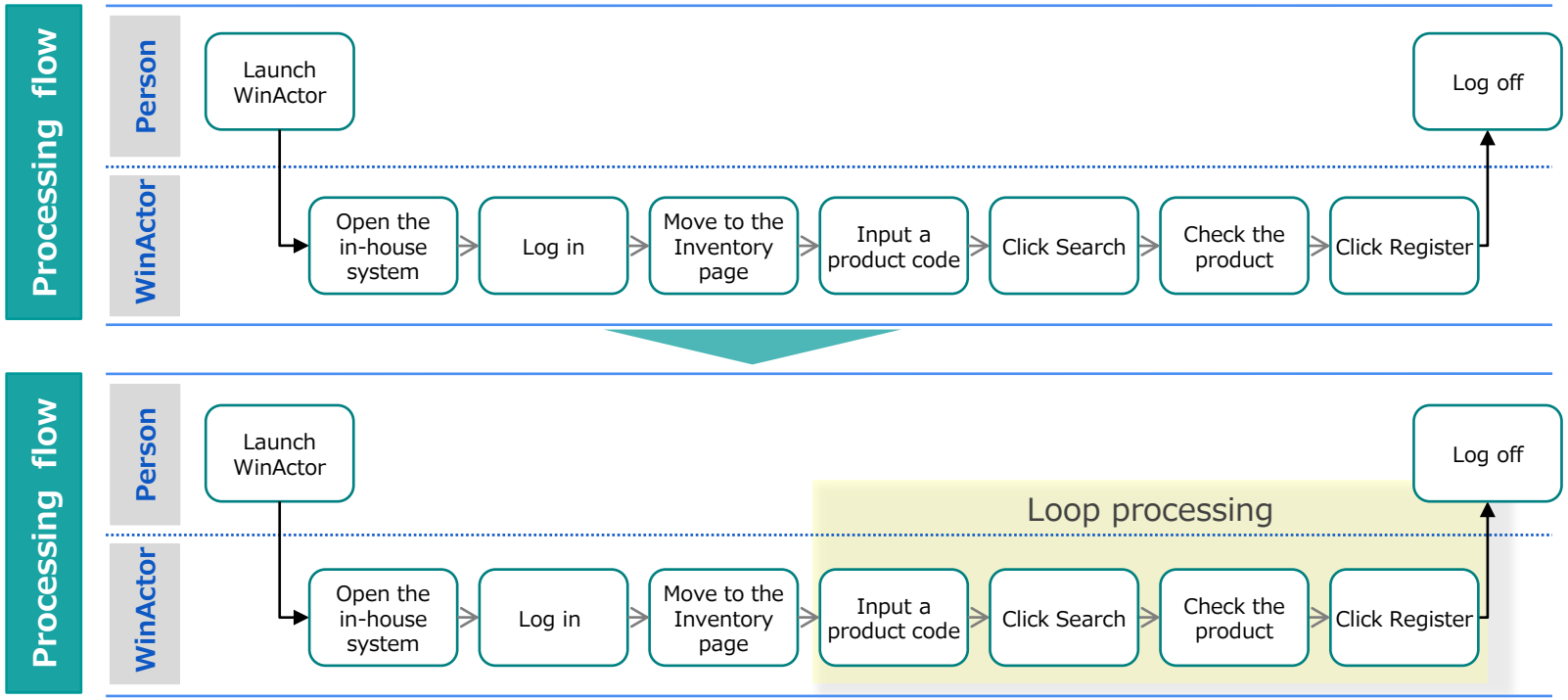
"We will use the Pre-Test Loop node displayed at the upper part of the Node tab on the left side of the WinActor window."
"The Pre-Test Loop node consists of a trapezoidal loop condition (*1) that determines the condition to end iterations and a square area (*2) where you set the processes to be repeated."



"You can perform loop processing by executing the same process repeated until the setting condition is satisfied.
You can set a condition from the property displayed by double-clicking the trapezoid, and you can set processes by dragging and dropping the nodes and libraries into the square area, just like other scenarios."

2 Scenario creation - Practice 1 -

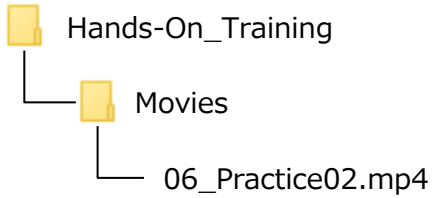
"Now, let's add the loop processing to the purchase order system created in the basics section."



"It seems that I can correct a scenario smoothly if I decide where to perform the loop processing in advance!"

2 Scenario creation - Practice 1 -

"Let's watch the actual movement of WinActor. Double-click the file named 06_Practice02.mp4 in the following folder to play it."



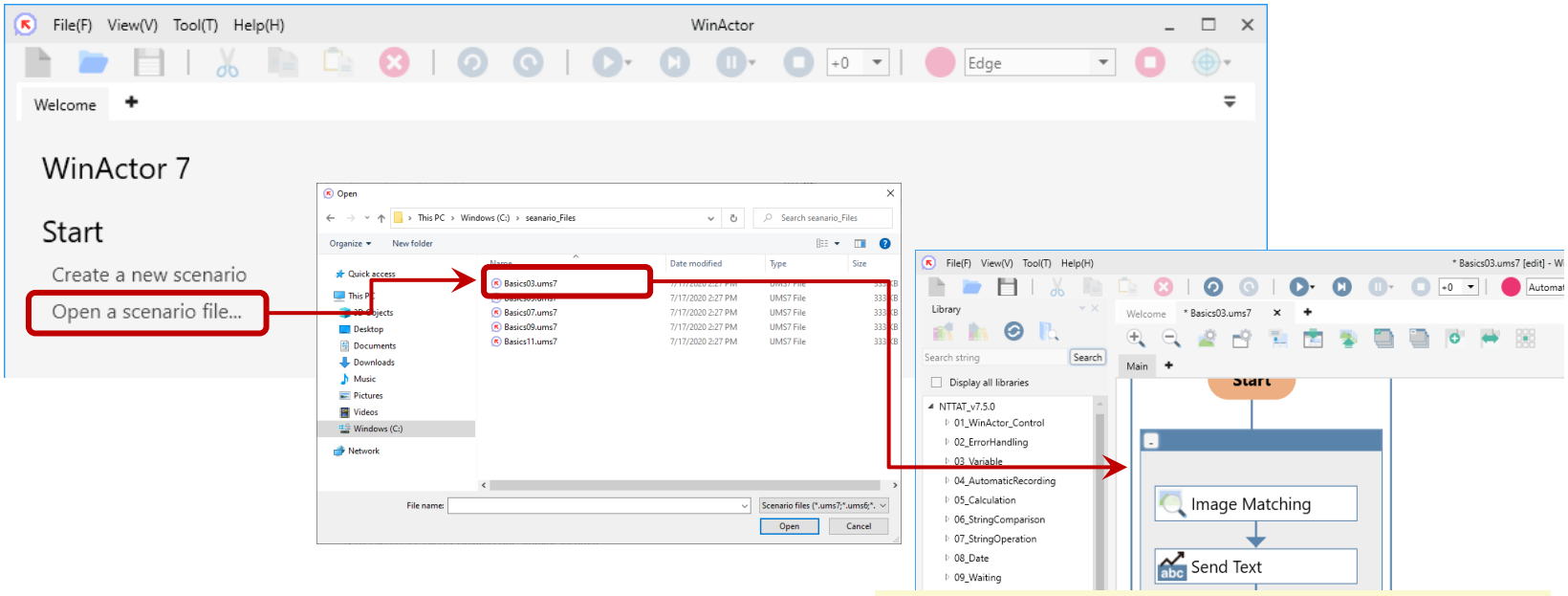
"Now, let's actually create a scenario together!"

3 Loop processing for the same operation

Prep Launching WinActor and opening an existing scenario

1 Launch WinActor from the Start menu or with any other startup method.

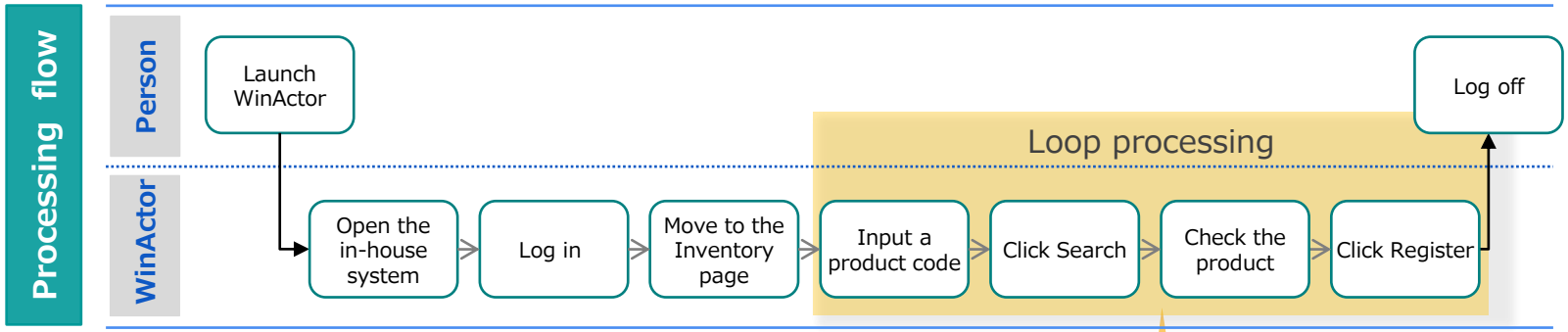
2 Click [Open a scenario file...] and select the scenario saved in the Basics section of "Automation for click and input on a webpage." The created scenario will be displayed in the scenario edit area.



For the startup methods and window layout, see WinActor Operation Manual.

3 Loop processing for the same operation

"From here, we will create a scenario for the following operations."

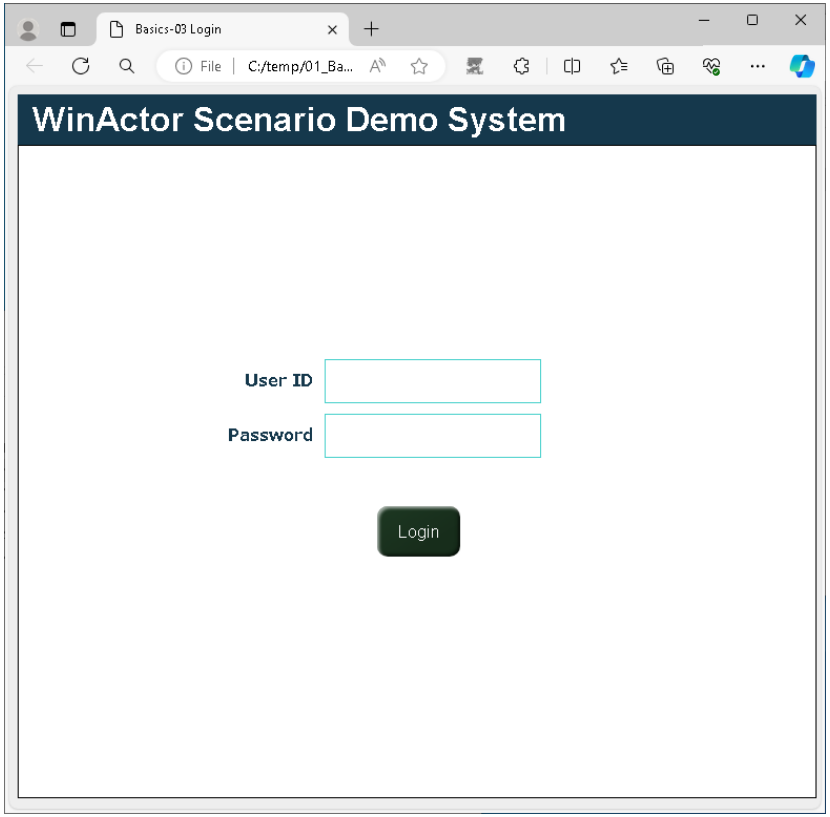


Prep	Displaying the login page
Prep	Checking the additional processes
3-1	Setting the number of iterations
3-2	Setting the start row of the purchase order book
3-3	Loop processing
3-4	Getting values
3-5	Inputting values

3 Loop processing for the same operation

Prep Displaying the login page

1 Right-click "01_Basics03_Login.html" and select ‘Microsoft Edge’ from ‘Open with.’



File to be used

- Hands-On_Training
  - Files
    - 01_Basics03_Login.html

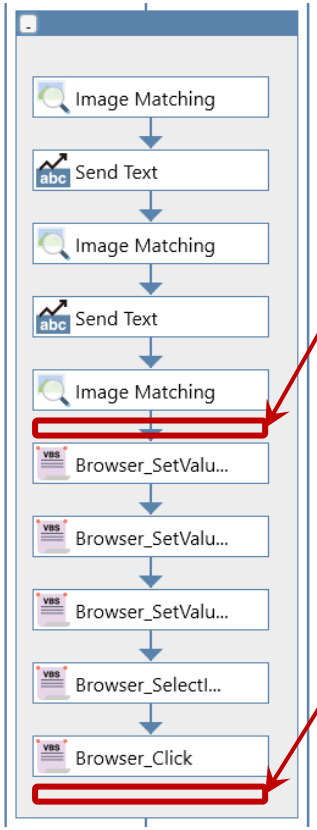
Be sure to use Edge or Chrome as the browser to start the demo system.

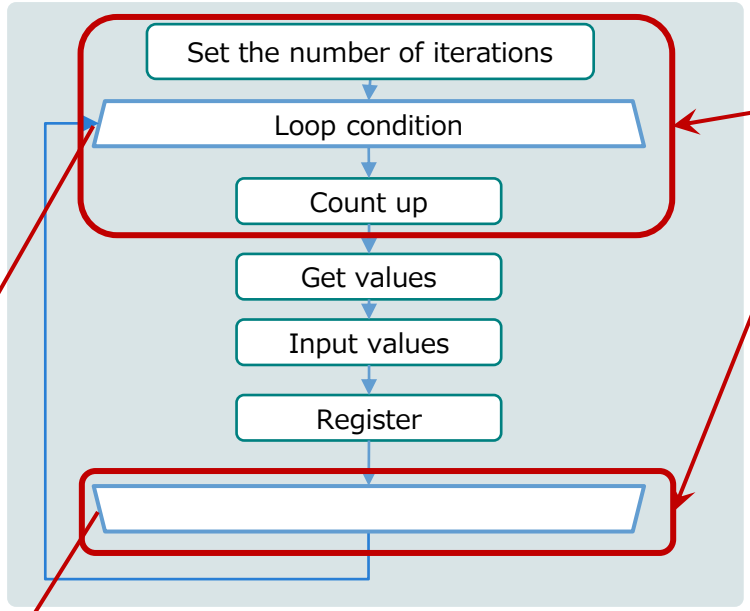
For Chrome users, select ‘Google Chrome’ from ‘Open with.’

3 Loop processing for the same operation

Prep Checking the additional processes

1 This time, the following processes will be added.

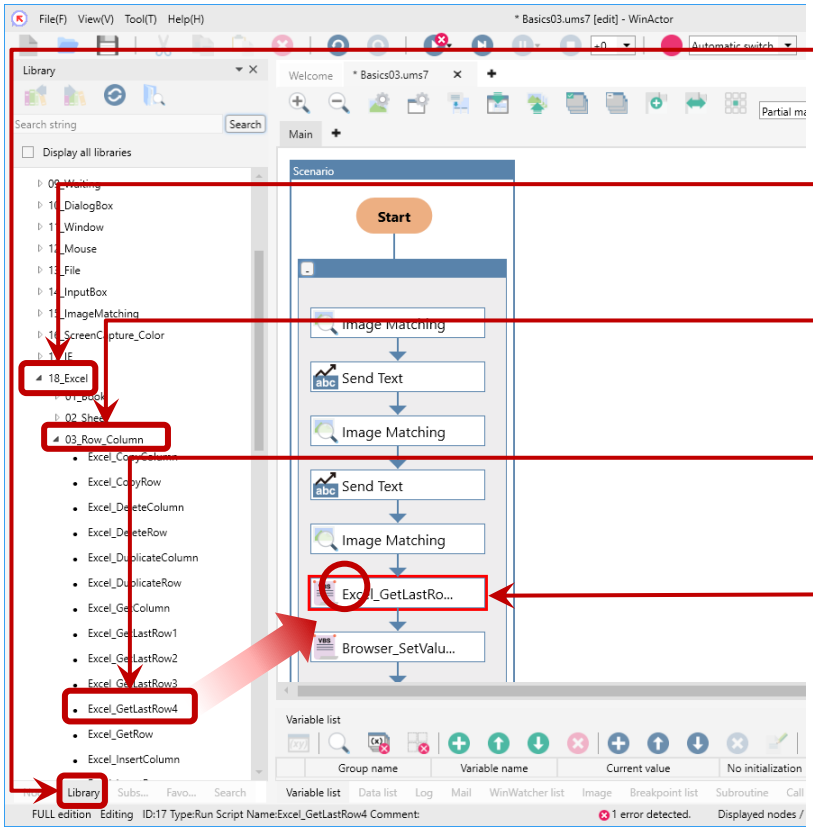




2
- Set the number of iterations
- Set the loop processing

3 Loop processing for the same operation

3-1 Setting the number of iterations



1 Click the [Library] tab.

2 Double-click the ‘18_Excel’ and expand the list of libraries.

3 Double-click the ‘03_Row_Column’ and expand the list of libraries.

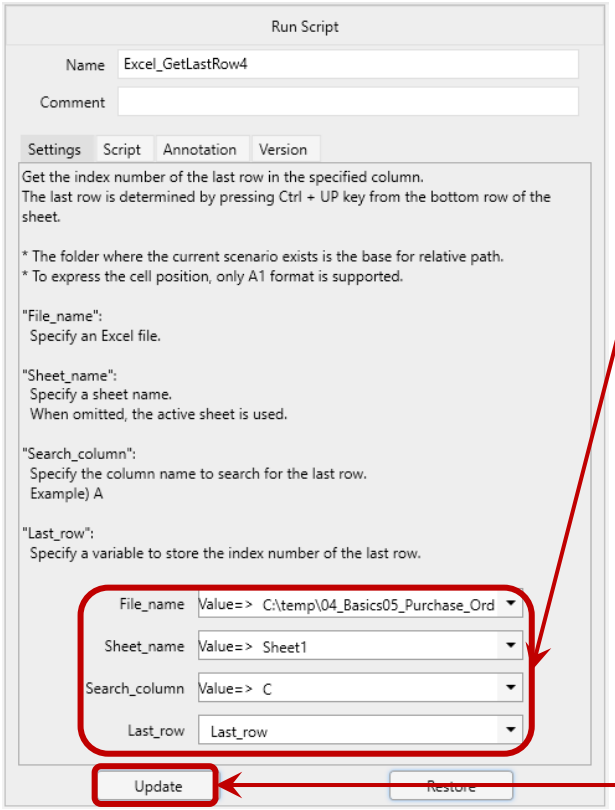
4 Drag the ‘Excel_GetLastRow4’ library and drop it into the scenario edit area.

5 Double-click the placed library. (Displaying the property)

After getting the number of the last row, subtract the number of unnecessary rows to make the number of iterations. First, we want to get all the information of the purchase order book, so we will use a library called ‘Excel_GetLastRow4’ that gets all rows to the last.

3 Loop processing for the same operation

3-1 Setting the number of iterations

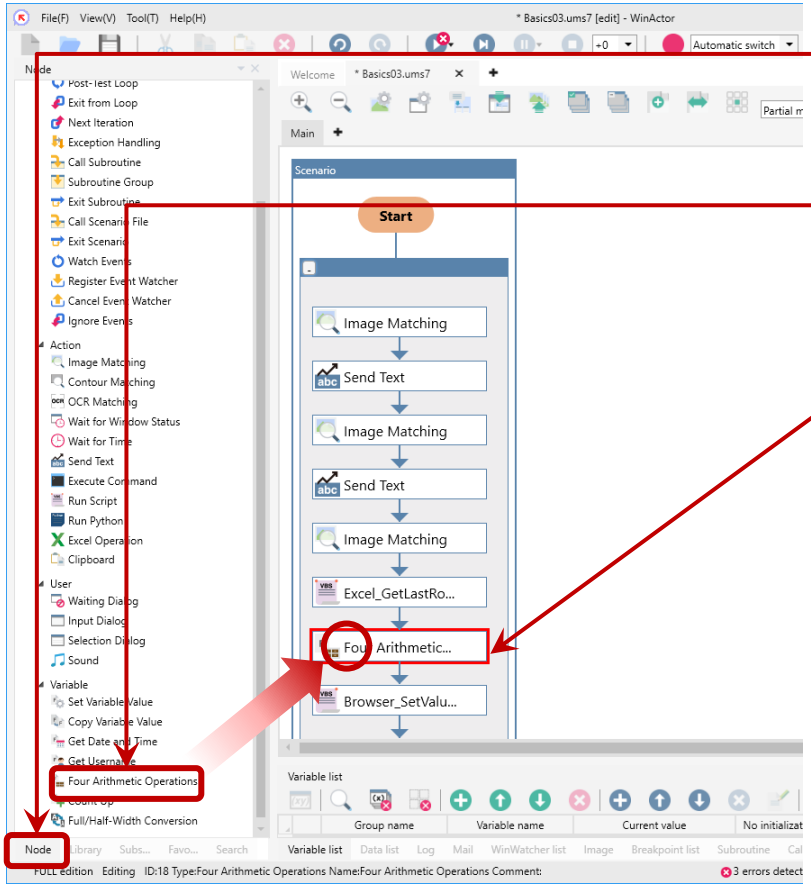


6 Drag and drop "04_Basics05_Purchase_Order_Book.xlsx" into [File_name], and enter "Value=>Sheet1" for [Sheet_name], "Value=>C" for [Search_column], and "Last_row" for [Last_row].

7 Click the [Update] button. If the variable confirmation dialog appears, click [Yes].

3 Loop processing for the same operation

3-1 Setting the number of iterations



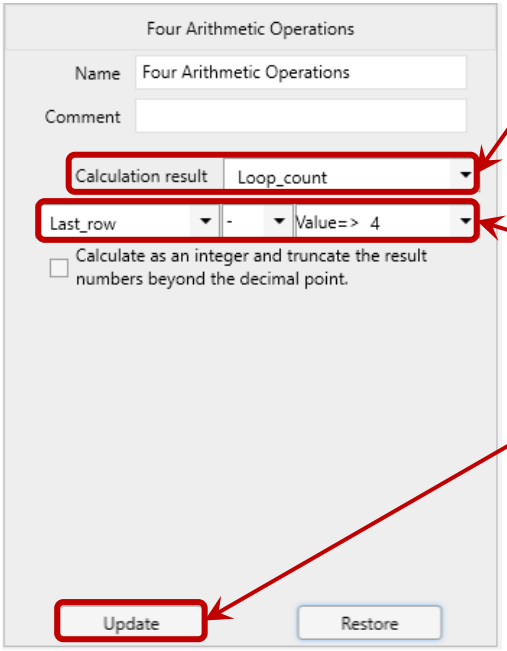
8 Click the [Node] tab.

9 Drag the ‘Four Arithmetic Operations’ node and drop it into the scenario edit area.

10 Double-click the placed node. (Displaying the property)

3 Loop processing for the same operation

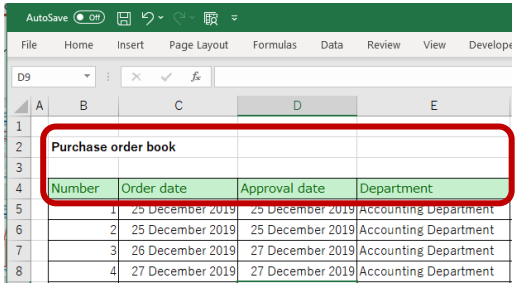
3-1 Setting the number of iterations



11 Enter "Loop_count" for [Calculation result].

12 Select 'Last_row' from the pull-down list of [Input variable name or value] on the left, '- (minus)' from the pull-down list of the operator in the middle, and enter "Value=>4" for the pull-down list of [Input variable name or value] on the right.

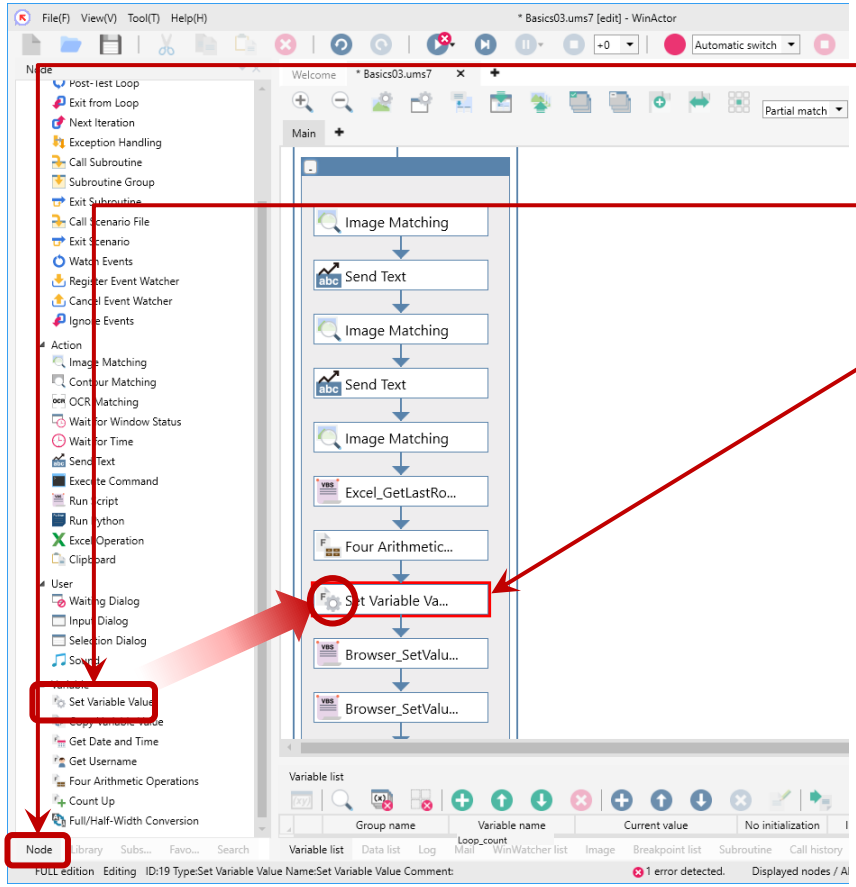
13 Click the [Update] button. If the variable confirmation dialog appears, click [Yes].



4 is subtracted because there are rows containing values other than the value that we actually input, such as the book name, on the purchase order book. The actual input value is set from the 5th row this time, so it is adjusted to the correct number of iterations.

3 Loop processing for the same operation

3-2 Setting the start row of the purchase order book



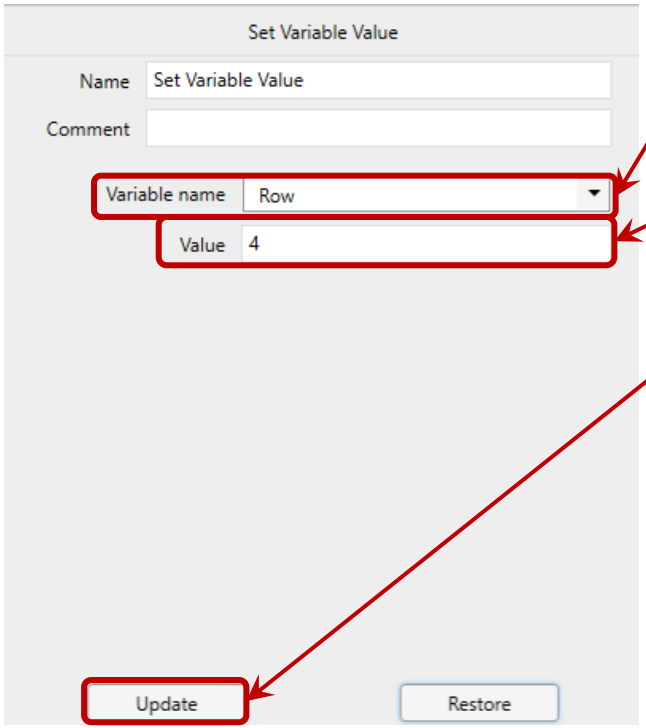
1 Click the [Node] tab.

2 Drag the ‘Set Variable Value’ node and drop it into the scenario edit area.

3 Double-click the placed node. (Displaying the property)

3 Loop processing for the same operation

3-2 Setting the start row of the purchase order book



4 For [Variable name], enter "Row."

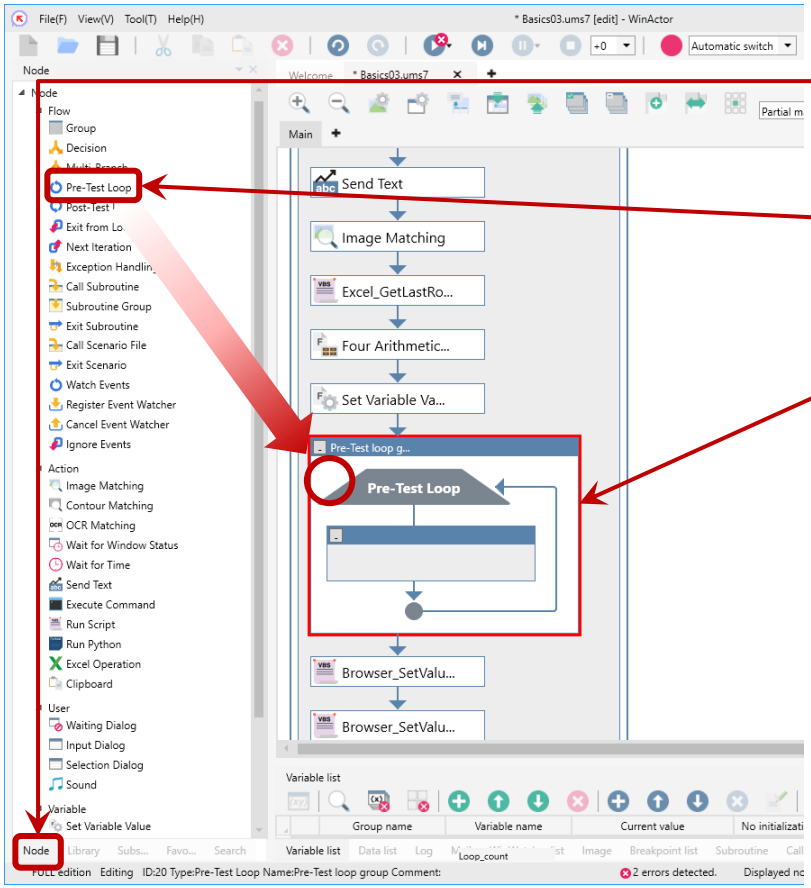
5 For [Value], enter "4."

6 Click the [Update] button. If the variable confirmation dialog appears, click [Yes].

The reason for setting the Row variable to 4 in advance is that we want to input from the 5th row of the book.
The counter is incremented by 1 at the beginning of loop processing, so it is set to 4.

3 Loop processing for the same operation

3-3 Loop processing



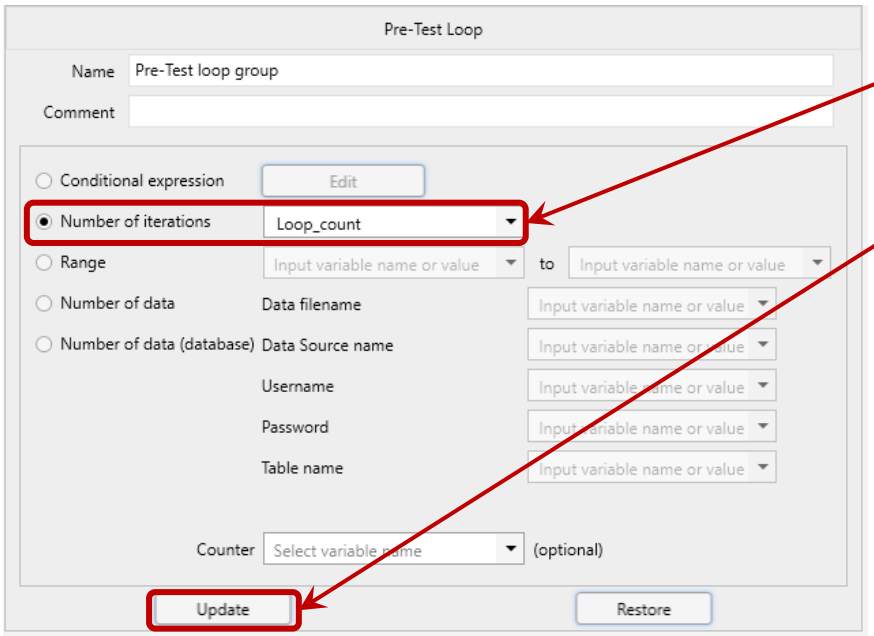
1 Click the [Node] tab.

2 Drag the ‘Pre-Test Loop’ node and drop it into the scenario edit area.

3 Double-click the placed node. (Displaying the property)

3 Loop processing for the same operation

3-3 Loop processing

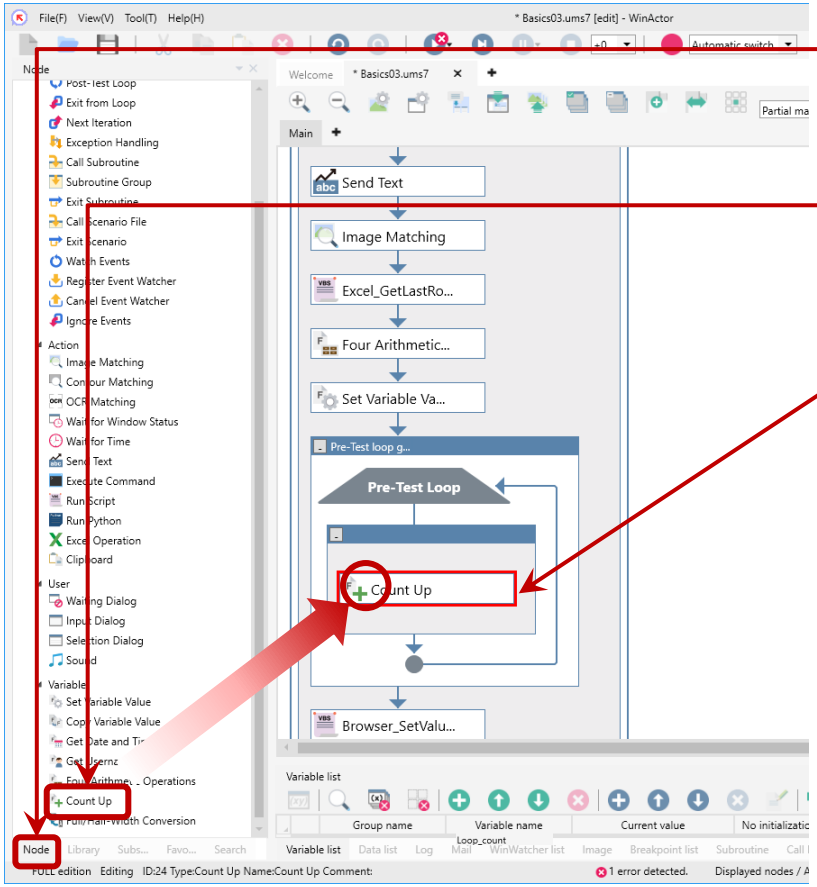


4 Click the radio button of ‘Number of iterations’ and select ‘Loop_count.’

5 Click the [Update] button.

3 Loop processing for the same operation

3-3 Loop processing



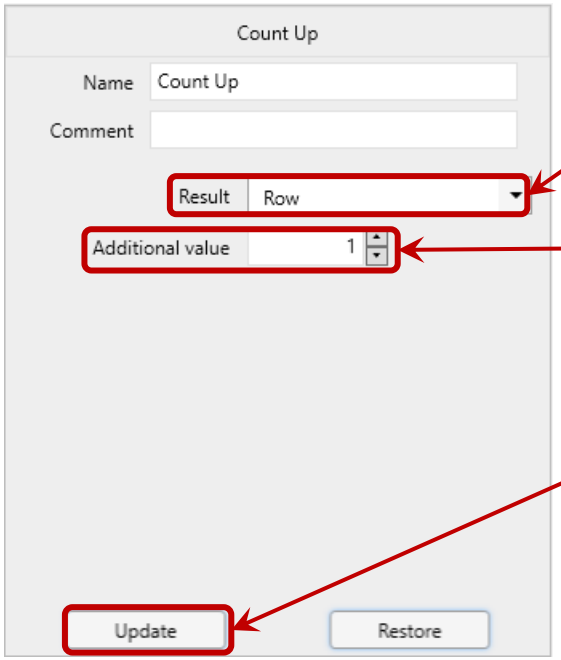
6 Click the [Node] tab.

7 Drag the ‘Count Up’ node and drop it into the scenario edit area.

8 Double-click the placed node. (Displaying the property)

3 Loop processing for the same operation

3-3 Loop processing



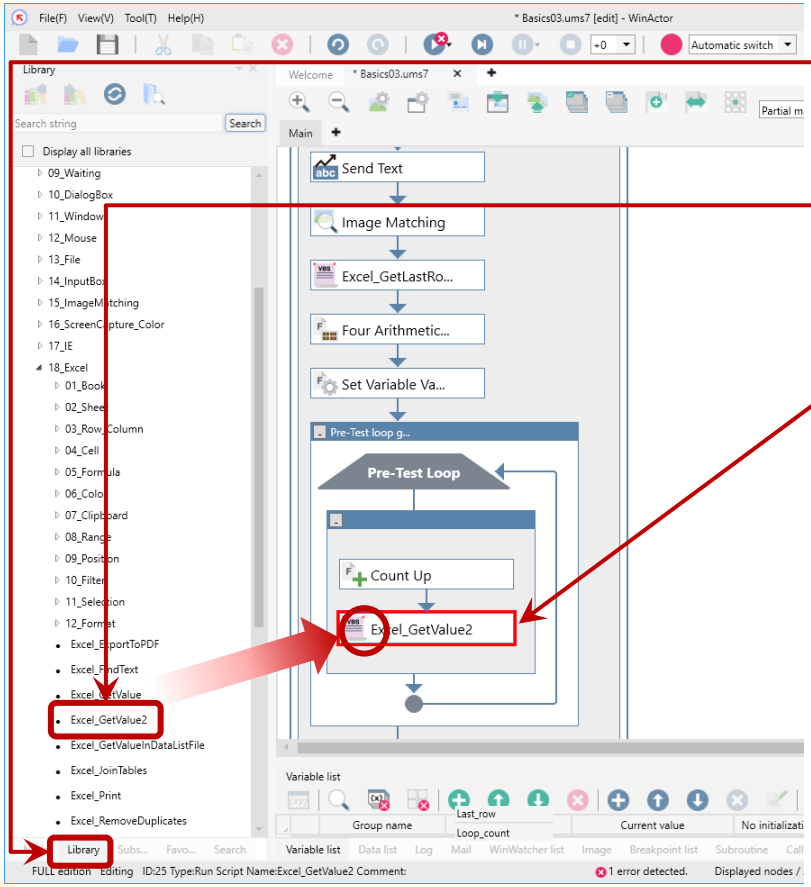
9 Select ‘Row’ from the pull-down list of [Result].

10 Set the value “1” for [Additional value].

11 Click the [Update] button.

3 Loop processing for the same operation

3-4 Getting values



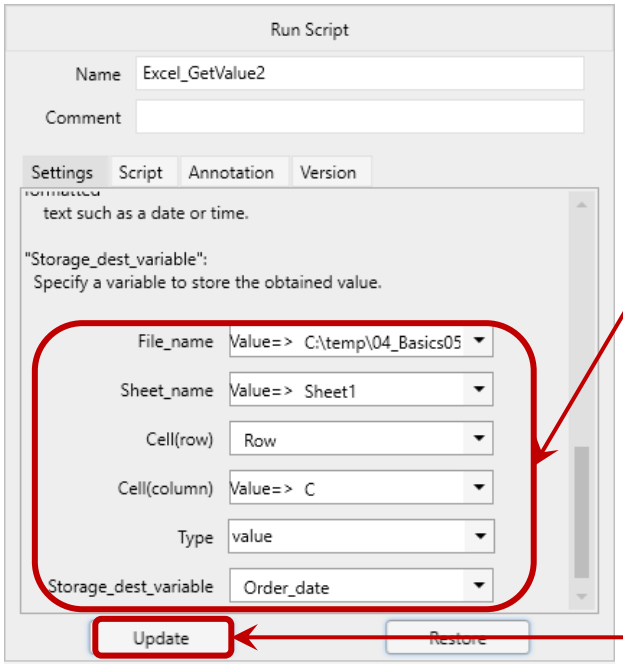
1 Click the [Library] tab.

2 Drag the ‘Excel_GetValue2’ library and drop it into the scenario edit area.

3 Double-click the placed library. (Displaying the property)

3 Loop processing for the same operation

3-4 Getting values



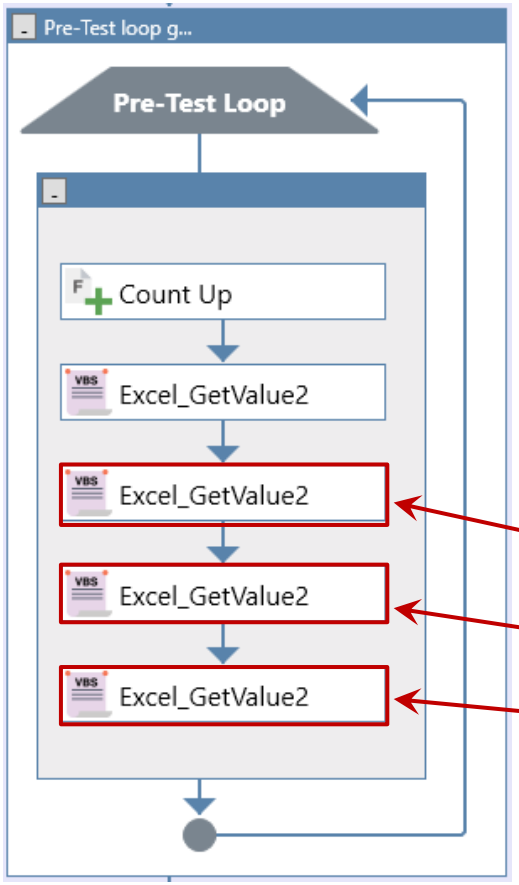
4 Drag and drop "04_Basics05_Purchase_Order_Book.xlsx" into [File_name], and enter "Value=>Sheet1" for [Sheet_name], "Row" for [Cell(row)], "Value=>C" for [Cell(column)], 'value' for [Type], and "Order_date" for [Storage_dest_variable].

5 Click the [Update] button. If the variable confirmation dialog appears, click [Yes].

The point here is to set "Row" variable for [Cell(row)]. "Row" is incremented by one for each iteration, so the row number increases by one for each iteration.

3 Loop processing for the same operation

3-4 Getting values



6

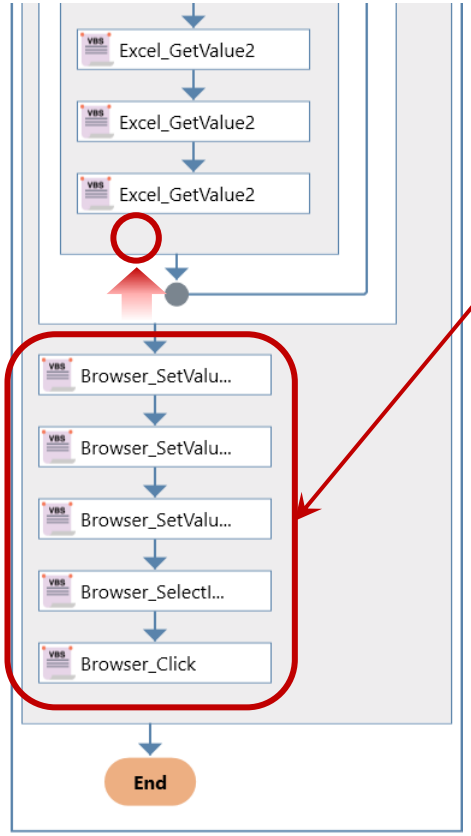
Similar to the settings to get the order date described in the previous slide, set the libraries to get a supplier code, registrant code, and product code.
For [Cell(column)] and [Storage_dest_variable], set them as shown in the table below.

For [File_name], [Sheet_name], [Cell(row)], and [Type], drag and drop "04_Basics05_Purchase_Order_Book.xlsx" into [File_name], and enter
"Value=>Sheet1" for [Sheet_name],
"Row" for [Cell(row)], and 'value' for [Type], the same as described in the previous slide.

Cell (column)	Storage_dest_variable
G	Supplier_code
H	Registrant_code
I	Product_code

3 Loop processing for the same operation

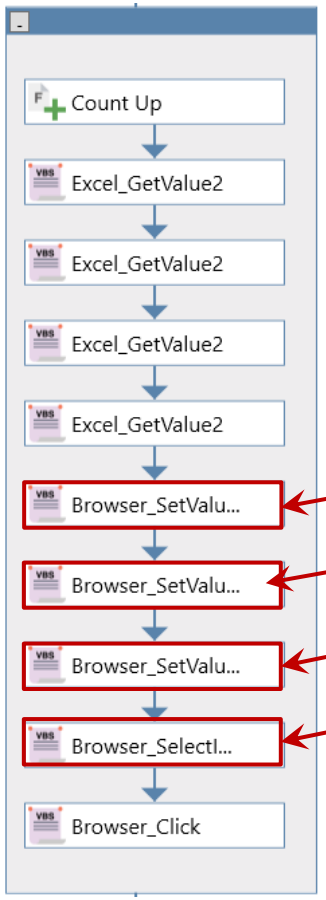
3-5 Inputting values



1 Move three "Browser_SetValue," one "Browser_SelectItem," and one "Browser_Click" that are placed in the existing scenario into the Pre-Test loop group.

3 Loop processing for the same operation

3-5 Inputting values



2 Change the settings for each existing library of inputting a value of order date, supplier code, registrant code, and product code.
For [Set_value] or [Value] of each library, open the property and make changes referring to the table below.

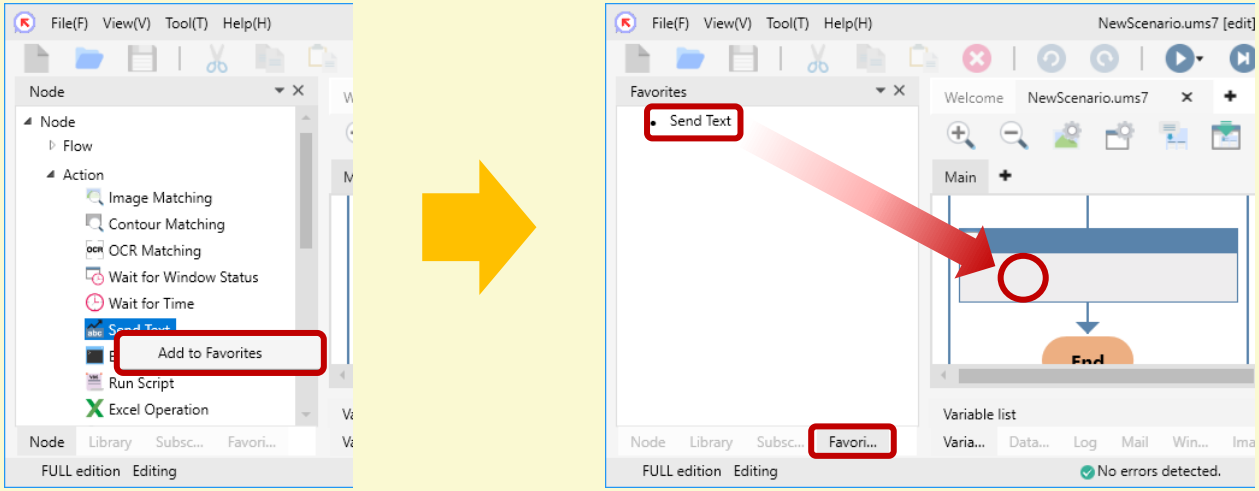
[Set_value] or [Value]
Order_date
Supplier_code
Registrant_code
Product_code

3 Loop processing for the same operation

Tips Favorites function for nodes and libraries

Frequently used nodes and libraries can be registered in the Favorites palette, and selected quickly.

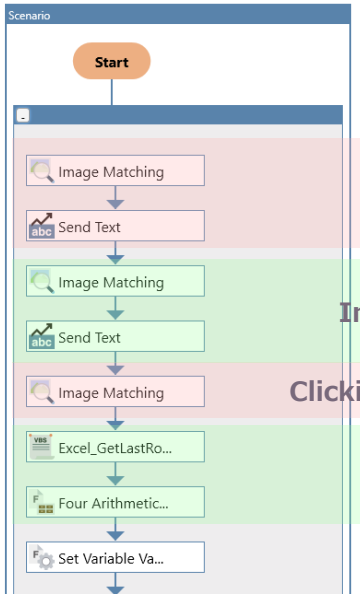
Right-click a frequently used node or library, and select ‘Add to favorites’ to register it to the Favorites palette. The registered nodes and libraries can be used by dragging & dropping as they are in the usual palettes. Accelerate scenario creation by registering frequently used nodes and libraries, and reducing the time to looking for them



3 Loop processing for the same operation

3-6 Checking the entire scenario

1 Confirm that the created scenario is as follows.

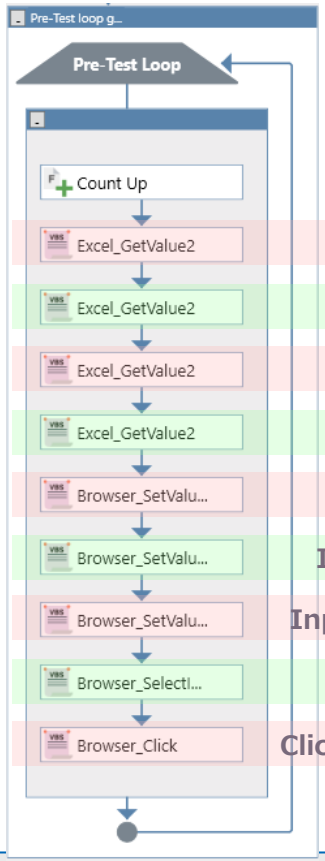


Inputting a user ID (preexist)

Inputting a password (preexist)

Clicking the Login button (preexist)

Setting the number of Iterations (3-1)



Getting an order date (3-3)

Getting a supplier code (3-3)

Getting a registrant code (3-3)

Getting a product code (3-3)

Inputting the order date (3-4)

Inputting the supplier code (3-4)

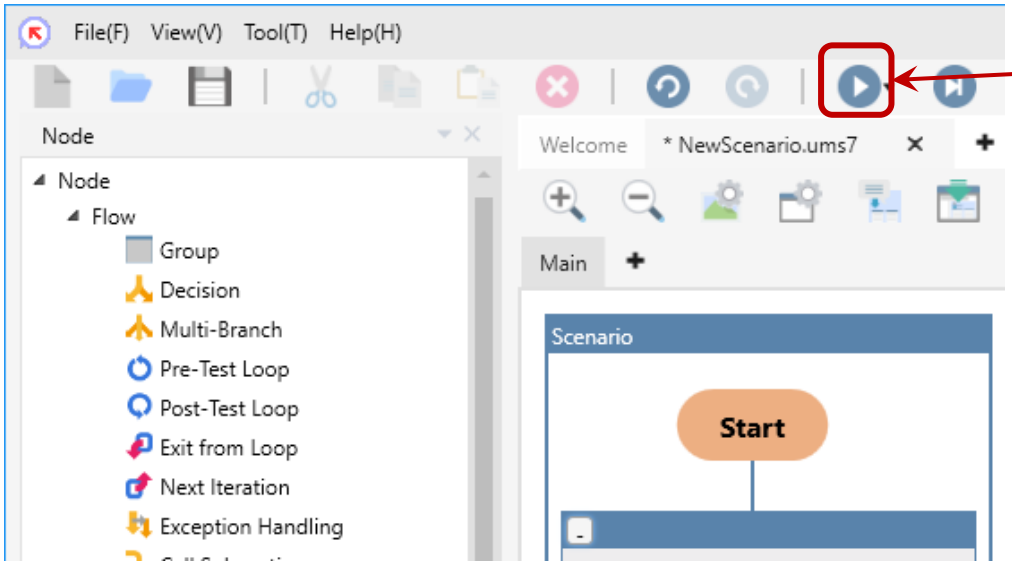
Inputting the registrant code (3-4)

Selecting the product code (3-4)

Clicking the Order button (preexist)

3 Loop processing for the same operation

3-7 Running the scenario

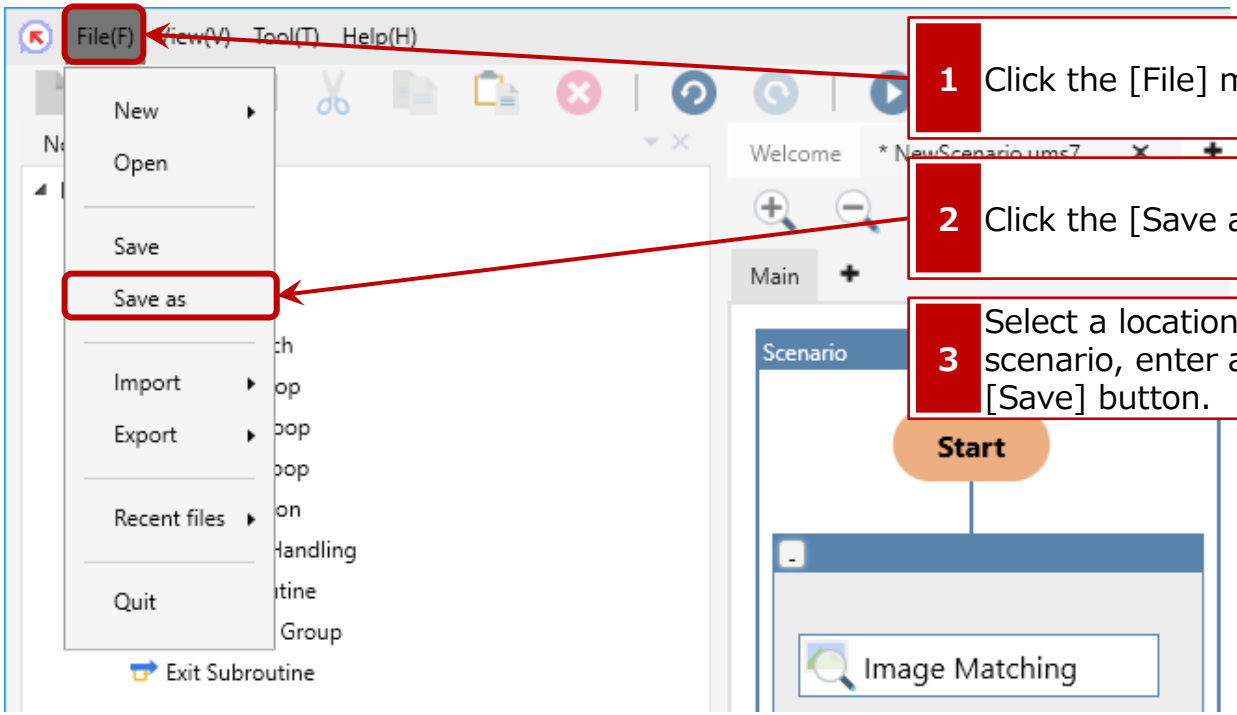


1 Click the 'Run scenario' button and check if the scenario runs without error.

2 If an error occurs, check the error message and review the settings of the property and the like.

3 Loop processing for the same operation

3-8 Saving the scenario



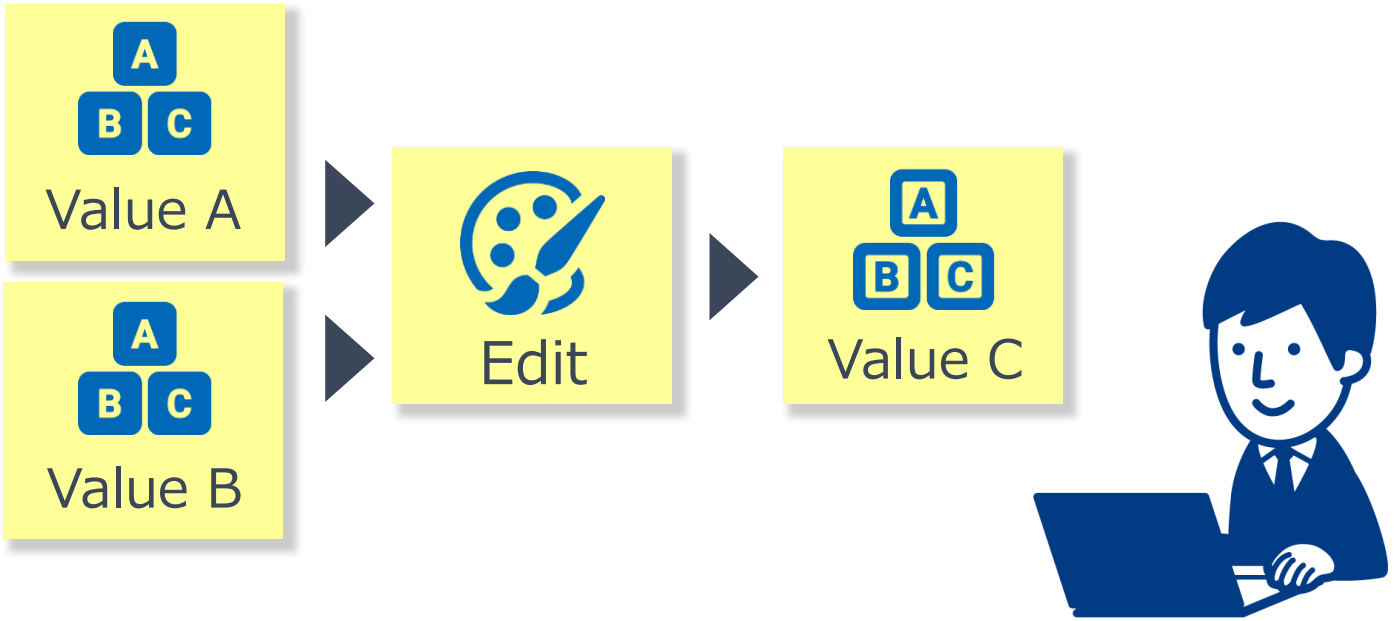
1 Click the [File] menu.

2 Click the [Save as] menu.

3 Select a location to save a file for the scenario, enter a filename, and click the [Save] button.

For a scenario that has already been saved, you can use the [Save] menu.

Practice



Text editing of acquired characters and numbers

4 Scenario creation - Practice 2 -

Case **William seems to have mastered loop processing and is now able to use WinActor on his own. However, he has found that it took longer than he expected to prepare materials in advance to be processed by WinActor.**

"When I think over my work, it seems that I spend a lot of time preparing data, such as trimming the space of the name from the original material and filling it with 0s to match the number of digits..."

"Such detailed operation can be done with WinActor as well. WinActor has functions to edit characters and numbers, and you can use them for such operations like modifying, deleting, adding strings."

"It's convenient. I would like to incorporate them in the scenario if the operations that were previously done with Notepad and now this can be done with WinActor."

"Ok, now let's actually use those functions."

4 Scenario creation - Practice 2 -

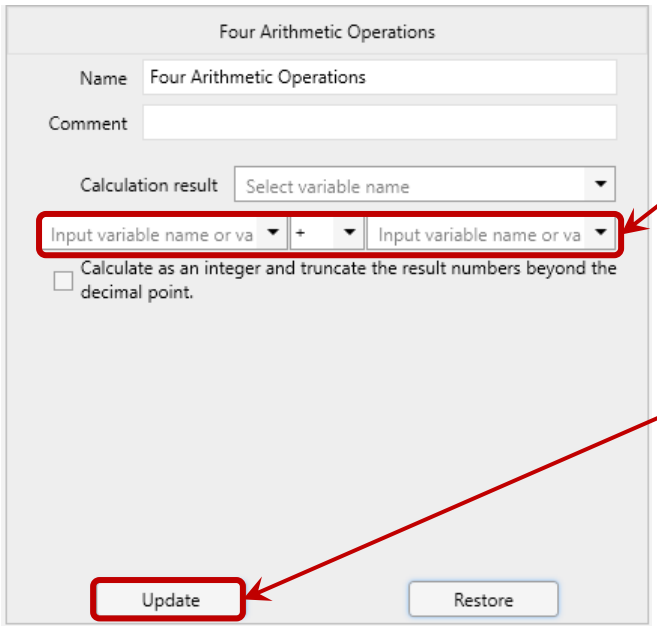
"Specifically, what kind of things can I do?"

"You can calculate numbers and convert, concatenate, and divide characters. Below are some examples."

Type	Node/Library name	Description	Example
Number	Four Arithmetic Operations	Operates one of four arithmetic operations with values.	5 + 3 → 8
Number	Formatting_SuppressZero	Removes leading zeros for an integer that has leading zeros due to digit alignment.	000123 → 123
Number	Count Up	Often used in loop processing. Adds a specified integer to the target value.	5 + 1 → 6
String	Conversion_Uppercase_Lowercase	Converts characters to uppercase or lowercase.	ABC ⇔ abc
String	Formatting_TrimSpace	Removes leading and trailing white spaces from a specified string.	(space)123(space) → 123
String	Split_SplitStringIntoTwo	Splits a string specified in [Split_source_string] by [Delimiter_character] into [Before] and [After].	Delimiter_character ：~ 2014/1/1～2014/3/31 ↓ 2014/1/1 and 2014/3/31
String	Concatenation_Concatenate2Strings	Concatenates [String_1] and [String_2] and stores the result to [Concatenated_results].	ABC + DEF → ABCDEF

4 Scenario creation - Practice 2 -

"Below is an example of the settings of the Four Arithmetic Operations node."

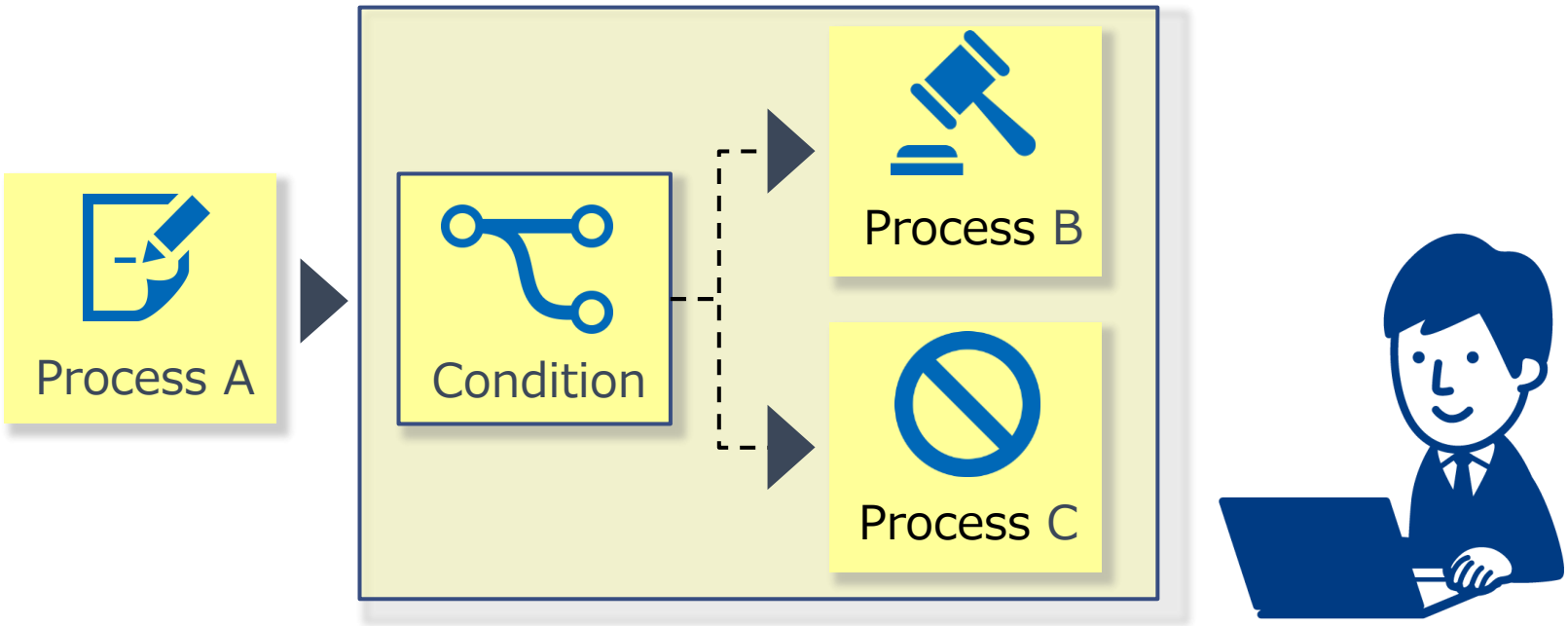


1 Enter a value you want to calculate in the left pulldown and the right pulldown, and select one of +-×÷ for the operator.

2 Click the [Update] button.

"It's easy!"

Practice



Changing processes depending on conditions

5 Scenario creation - Practice 3 -

Case

William is now able to create a scenario with loop processing and text editing.
This time, he received a request to change processes depending on the value entered in the in-house system.

"The loop processing and text editing that I learned from you last time are amazing. 100 or 1000 cases can be executed at once including preprocessing. This can be applied to various tasks!"

"That's good. However, is it possible to repeat the process of 'Registering for a specific bank' that was requested this time with loop processing?"

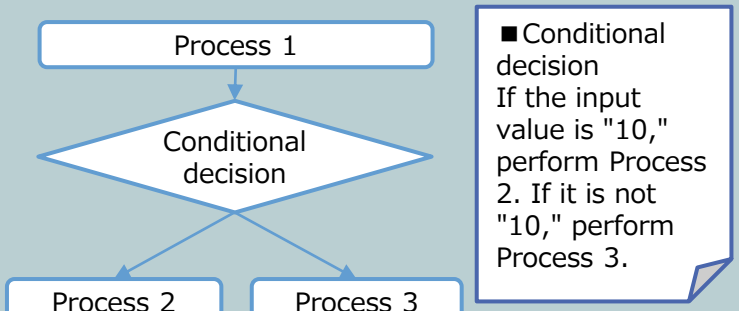
"Hmm... No, it's not just the same work repeated, so it's difficult with my current knowledge..."

"Well, such processing is called conditional decision processing. It is as important as loop processing, so let's learn it this time."

5 Scenario creation - Practice 3 -

"I would like to ask what is conditional decision processing, but I think that it is to branch processing to be executed with some kind of condition."

"Exactly! Conditional decision processing means that if it is Yes, A is performed, and if it is No, B is performed. The process to be executed will be different according to the condition."



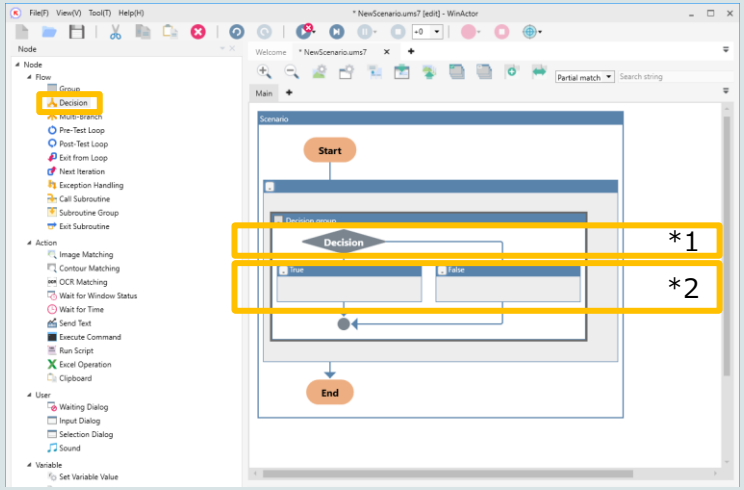
"The figure on the left is an image of conditional decision processing. If the condition is met, Process 2 will be executed, and if the condition is not met, Process 3 will be executed."

"Like loop processing, how to set the condition here is the point for conditional decision processing."

5 Scenario creation - Practice 3 -

"What should I actually do when creating a scenario?"

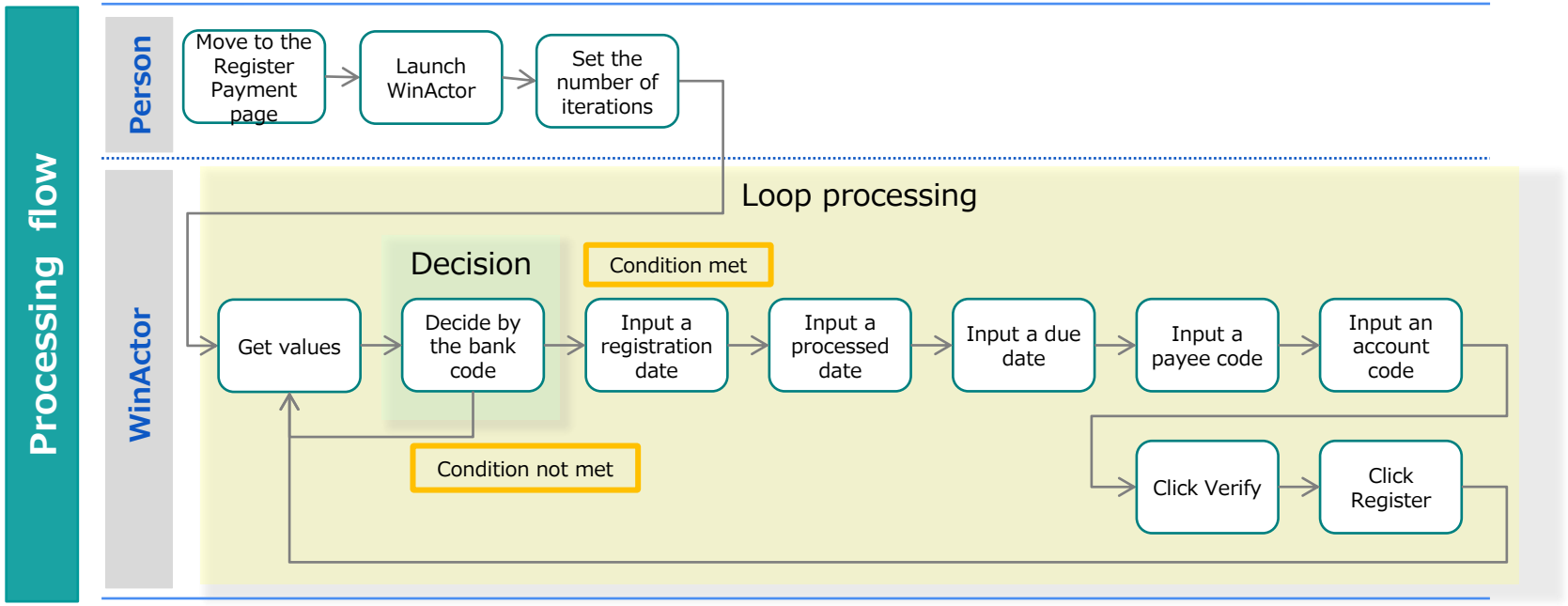
"We will use the Decision node displayed at the upper part of the Node tab on the left side of the WinActor window."
"The conditional decision processing consists of a diamond-shaped branch condition (*1) and square areas (*2) where you set each process of if the condition is met (True) and if the condition is not met (False)."



"You can perform conditional decision processing by setting a condition and processes. Double-click the diamond to open the properties to set the conditions, and drag the nodes and libraries to the boxes to set the processes, just like in other scenarios."

5 Scenario creation - Practice 3 -

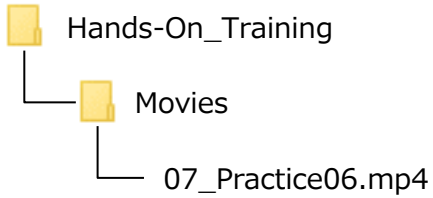
"Let's create a scenario for payment registration by applying what we have learned so far."



"It is the sum of the basics and practice!"

5 Scenario creation - Practice 3 -

"Let's watch the actual movement of WinActor. Double-click the file named 07_Practice06.mp4 in the following folder to play it."

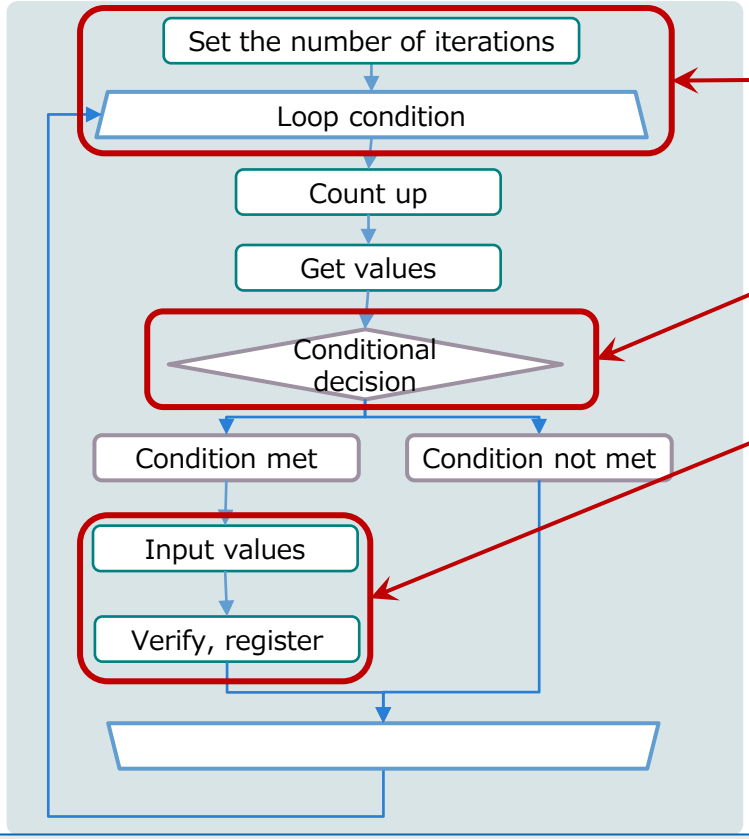


"Now, let's actually create a scenario together!"

6 Changing processes depending on conditions

Prep The flow of the scenario

1 The scenario to be created this time is as follows.



2 Similar to the previous time, count the number of rows in the book and set the number of iterations.

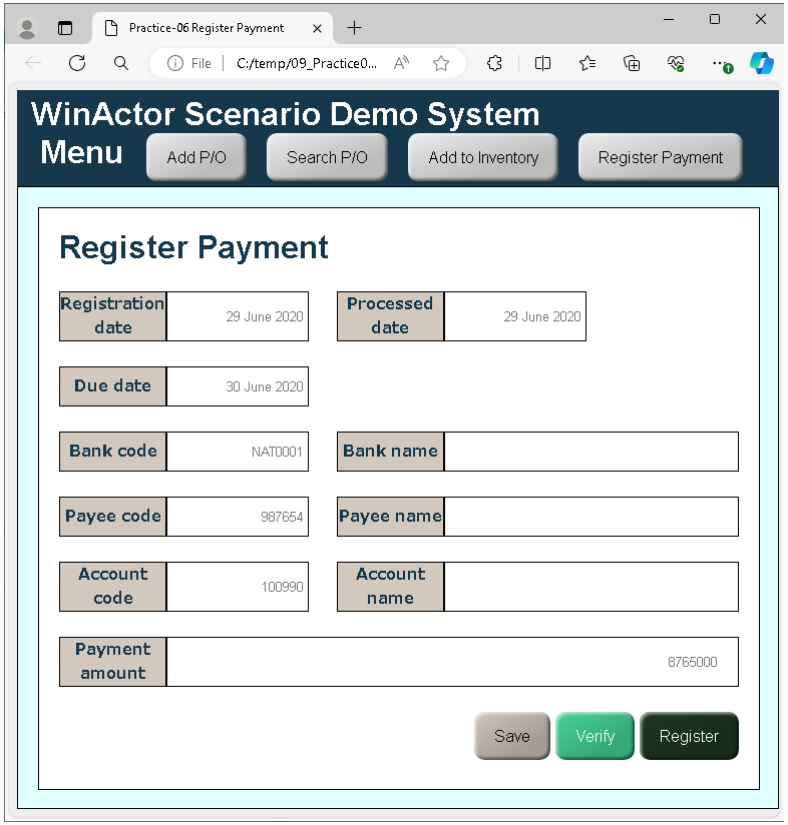
3 Set "If the bank code is NAT0001" as a condition for the conditional decision.

4 Registration will be done only if the condition is met.

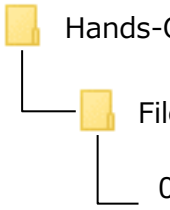
6 Changing processes depending on conditions

Prep Displaying the login page

1 Right-click "09_Practice06_Register_Payment.html" and select ‘Microsoft Edge’ from ‘Open with.’



File to be used



Be sure to use Edge or Chrome as the browser to start the demo system.

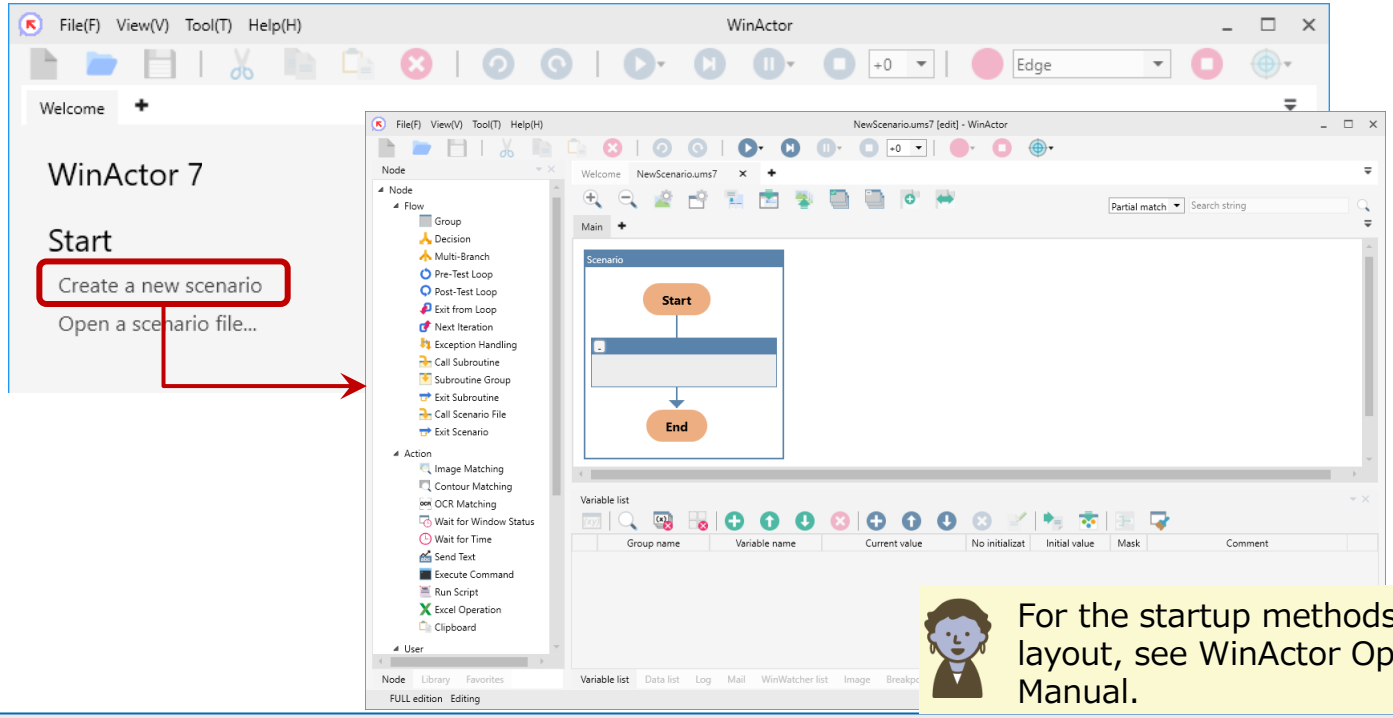
For Chrome users, select ‘Google Chrome’ from ‘Open with.’

6 Changing processes depending on conditions

Prep Launching WinActor

1 Launch WinActor from the Start menu or with any other startup method.

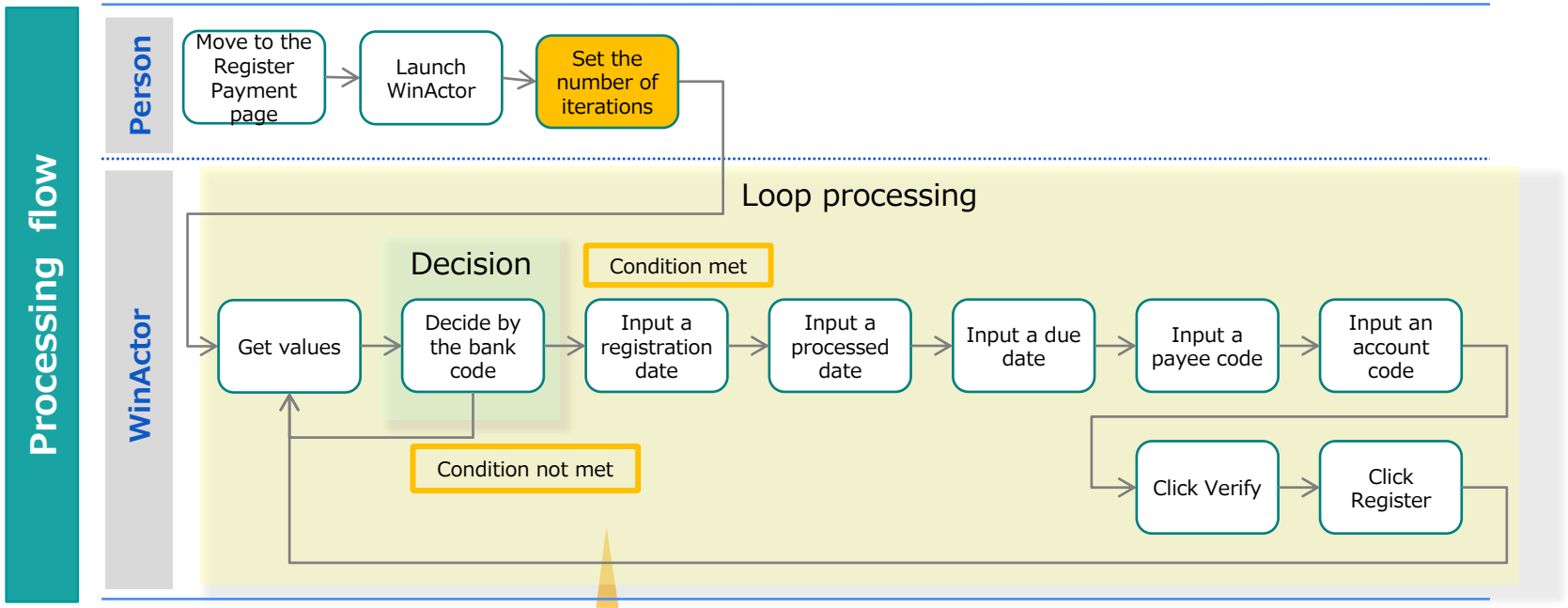
2 Click [Create a new scenario]. The main window of WinActor appears.



For the startup methods and window layout, see WinActor Operation Manual.

6 Changing processes depending on conditions

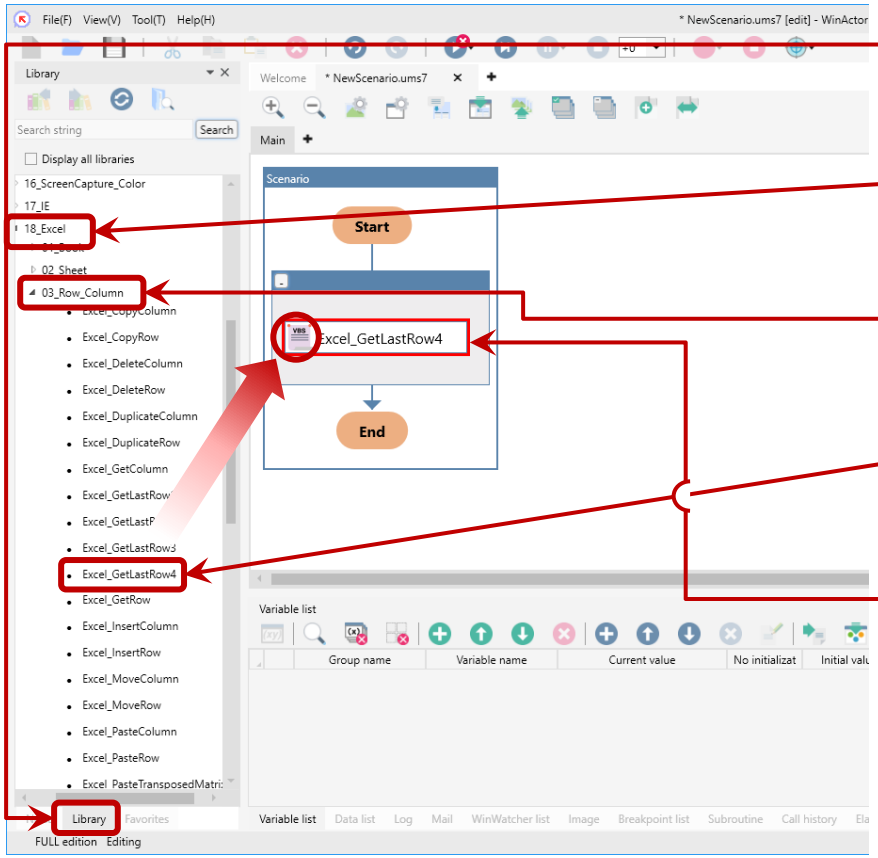
"From here, we will create a scenario for the following operation."



6-1 Setting the number of iterations

6 Changing processes depending on conditions

6-1 Setting the number of iterations

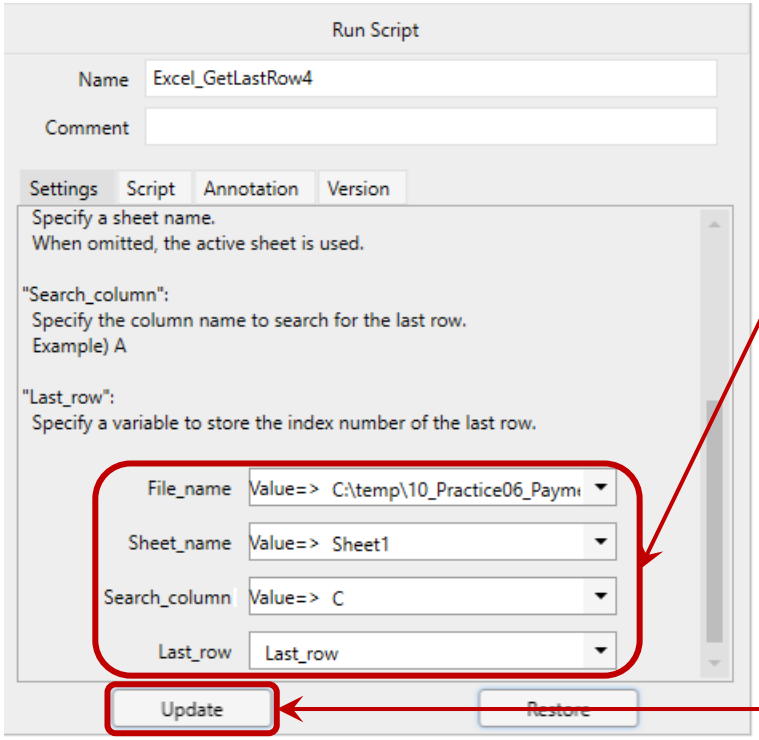


1. Click the [Library] tab.
2. Double-click ‘18_Excel’ and expand the list of libraries.
3. Double-click ‘03_Row_Column’ and expand the list of libraries.
4. Drag the ‘Excel_GetLastRow4’ library and drop it into the scenario edit area.
5. Double-click the placed library. (Displaying the property)

After getting the number of the last row, subtract the number of unnecessary rows to make the number of iterations. First, we want to get all the information of the payment registration book, so we will use a library called ‘Excel_GetLastRow4’ that gets all rows to the last.

6 Changing processes depending on conditions

6-1 Setting the number of iterations

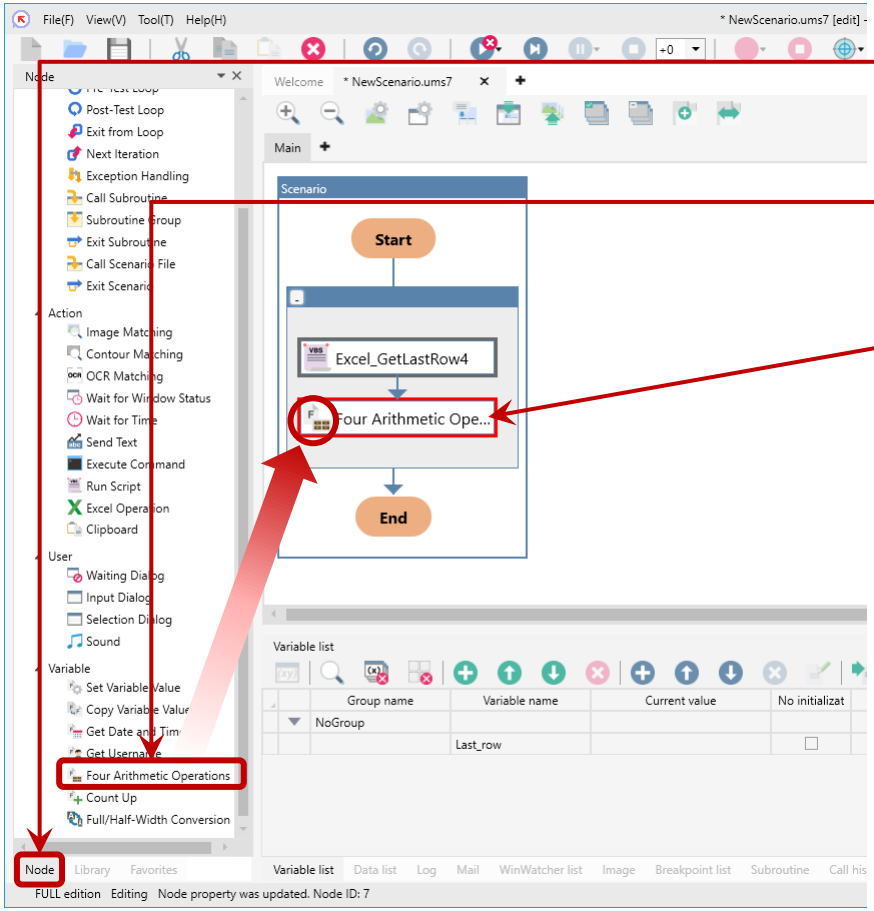


6 Enter "Value=>10_Practice06_Payment_Registration_Book.xlsx" for [File_name], "Value=>Sheet1" for [Sheet_name], "Value=>C" for [Search_column], and "Last_row" for [Last_row].

7 Click the [Update] button. If the variable confirmation dialog appears, click [Yes].

6 Changing processes depending on conditions

6-1 Setting the number of iterations



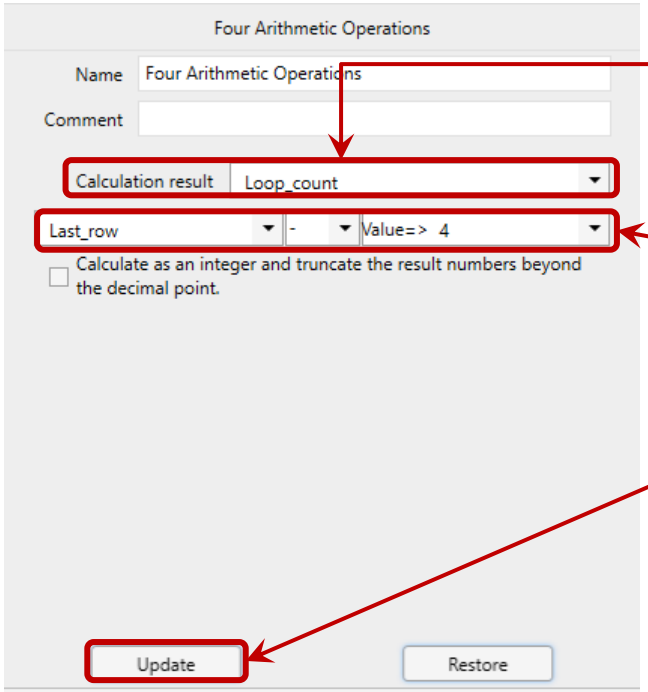
8 Click the [Node] tab.

9 Drag the ‘Four Arithmetic Operations’ node and drop it into the scenario edit area.

10 Double-click the placed node. (Displaying the property)

6 Changing processes depending on conditions

6-1 Setting the number of iterations



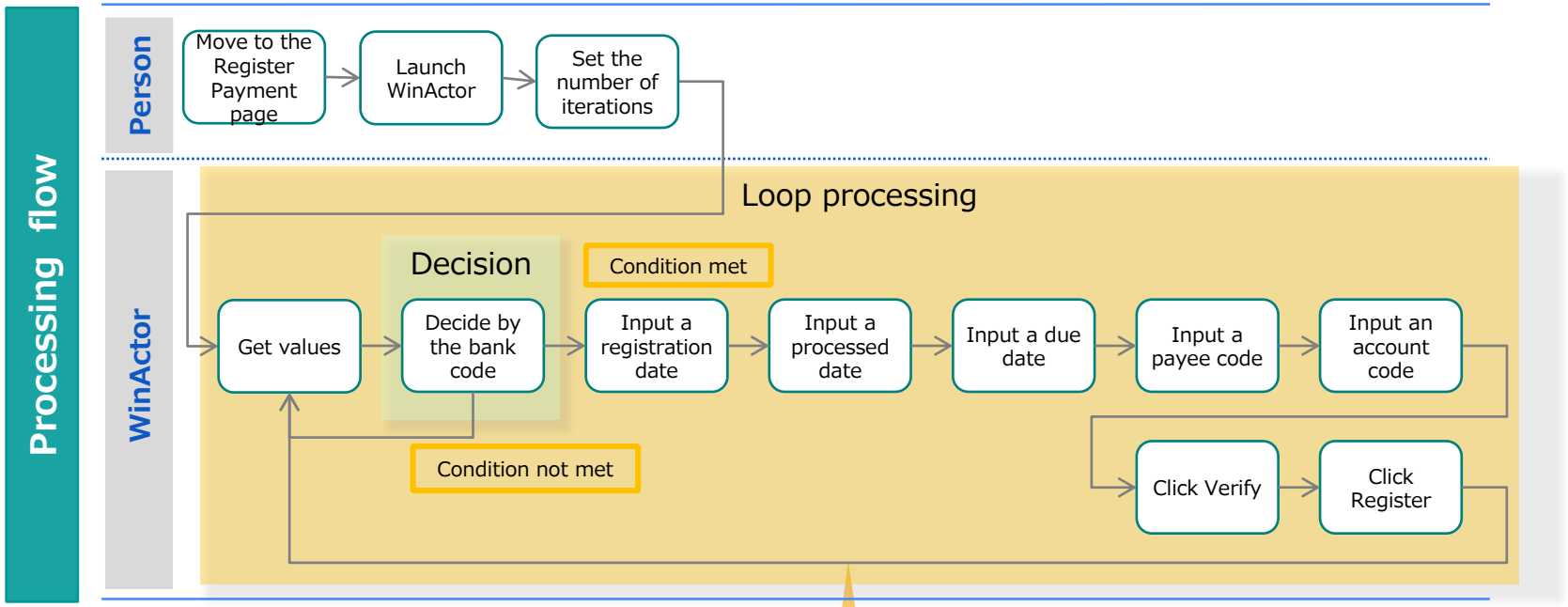
11 Enter "Loop_count" for [Calculation result].

12 Select 'Last_row' from the pull-down list of [Input variable name or value] on the left, '- (minus)' from the pull-down list of the operator in the middle, and enter "Value=>4" for the pull-down list of [Input variable name or value] on the right.

13 Click the [Update] button. If the variable confirmation dialog appears, click [Yes].

6 Changing processes depending on conditions

"From here, we will create a scenario for the following operations."

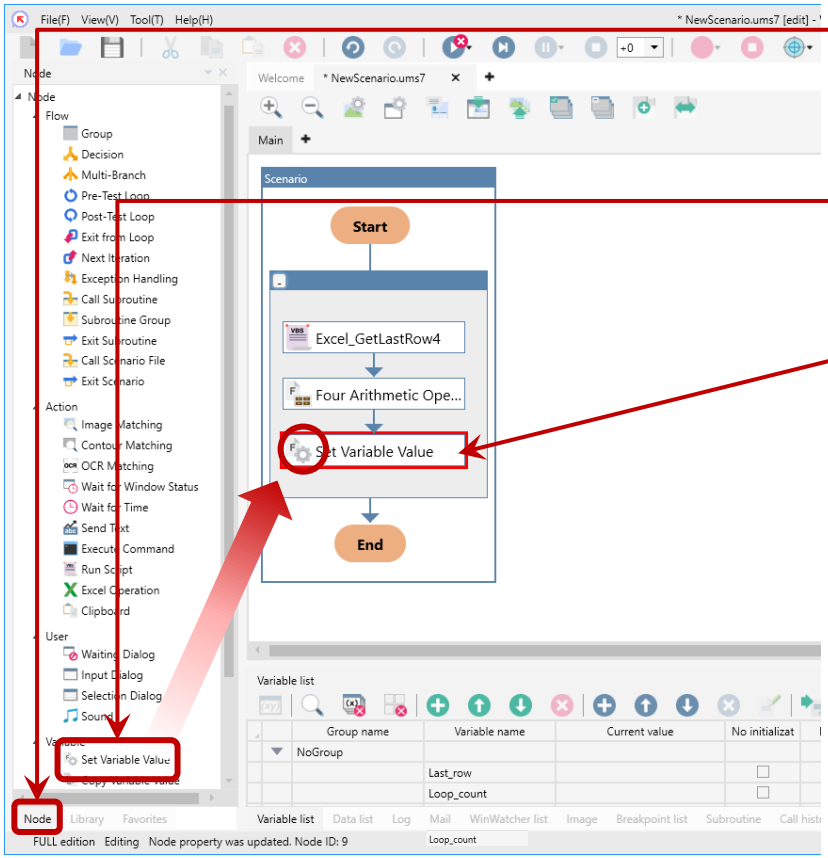


6-2 Setting the starting row of the payment registration book

6-3 Loop processing

6 Changing processes depending on conditions

6-2 Setting the starting row of the payment registration book



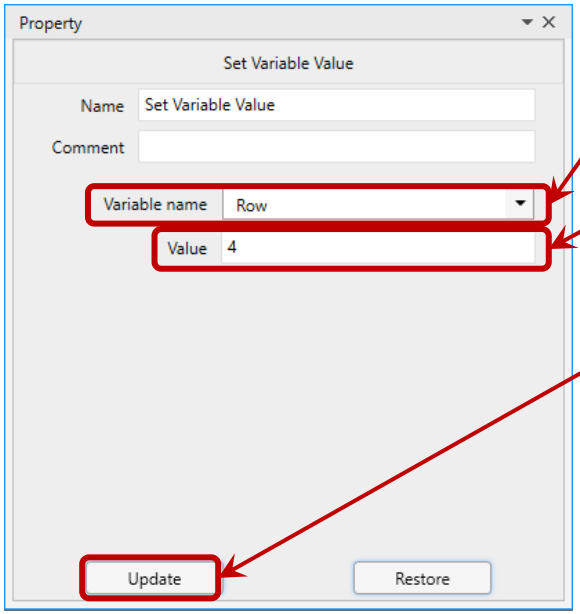
1 Click the [Node] tab.

2 Drag the ‘Set Variable Value’ node and drop it into the scenario edit area.

3 Double-click the placed node. (Displaying the property)

6 Changing processes depending on conditions

6-2 Setting the starting row of the payment registration book



4 Select ‘Row’ from the pull-down list of [Variable name].

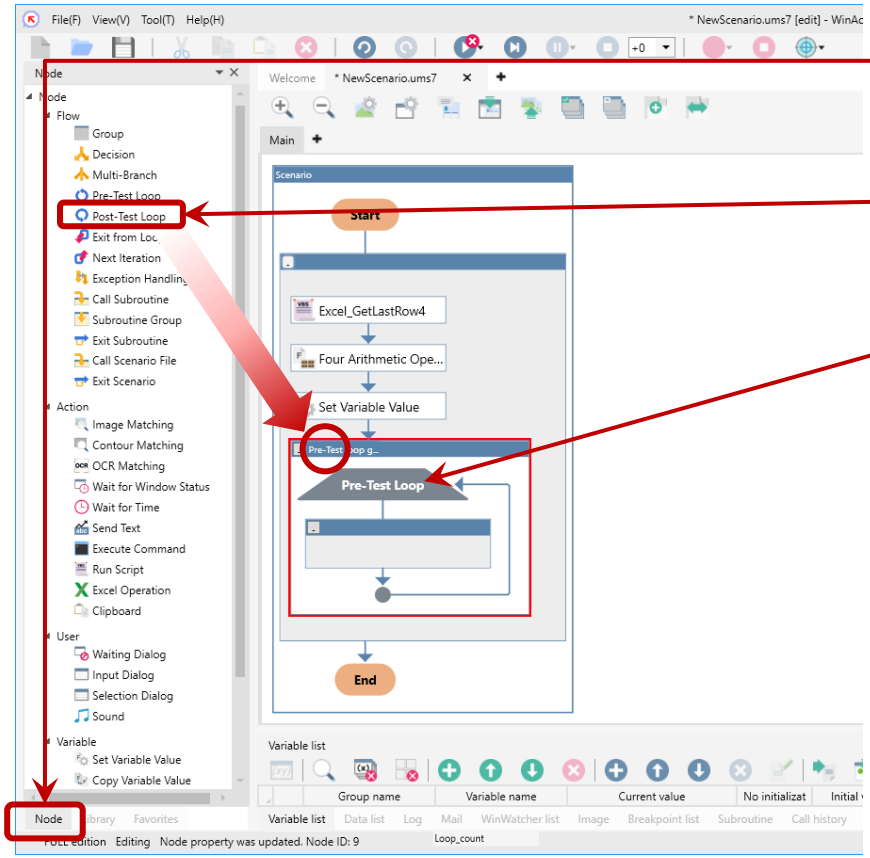
5 For [Value], enter "4."

6 Click the [Update] button. If the variable confirmation dialog appears, click [Yes].

The reason for setting the Row variable to 4 in advance is that we want to input from the 5th row of the book.
The counter is incremented by 1 at the beginning of loop processing, so it is set to 4.

6 Changing processes depending on conditions

6-3 Loop processing



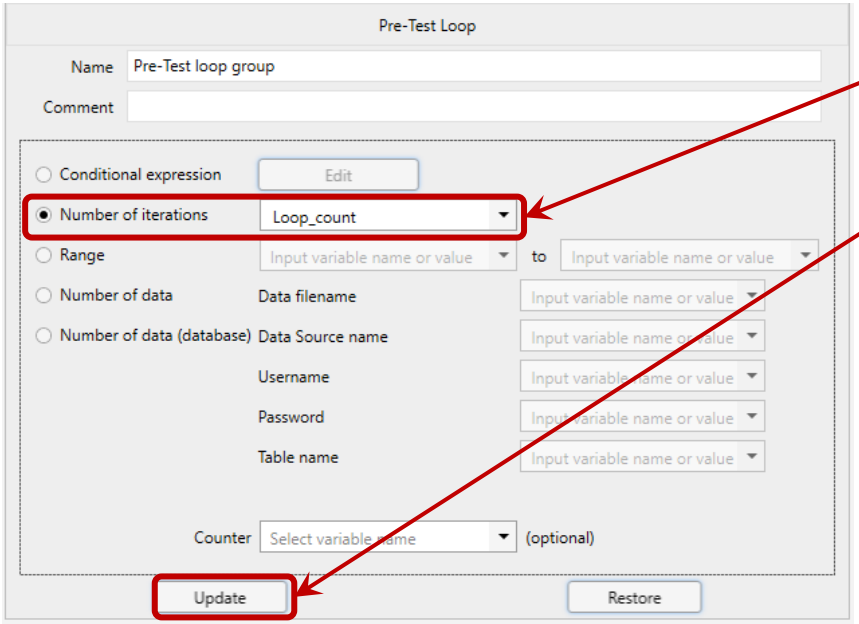
1 Click the [Node] tab.

2 Drag the ‘Pre-Test Loop’ node and drop it into the scenario edit area.

3 Double-click the placed node. (Displaying the property)

6 Changing processes depending on conditions

6-3 Loop processing

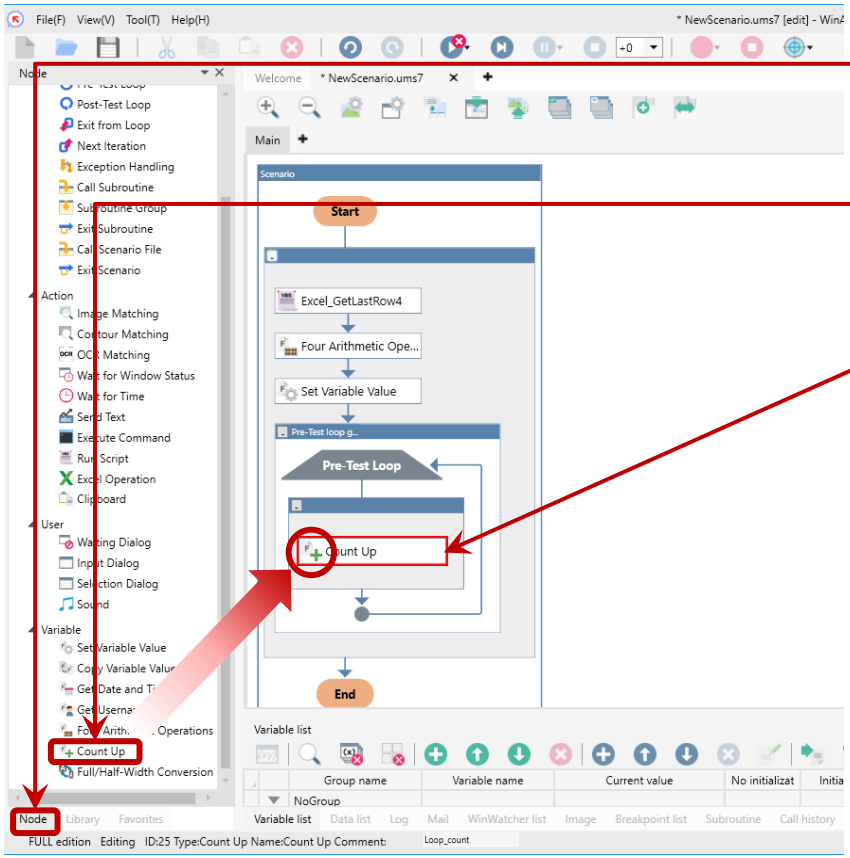


4 Click the radio button of [Number of iterations] and select the 'Loop_count.'

5 Click the [Update] button.

6 Changing processes depending on conditions

6-3 Loop processing



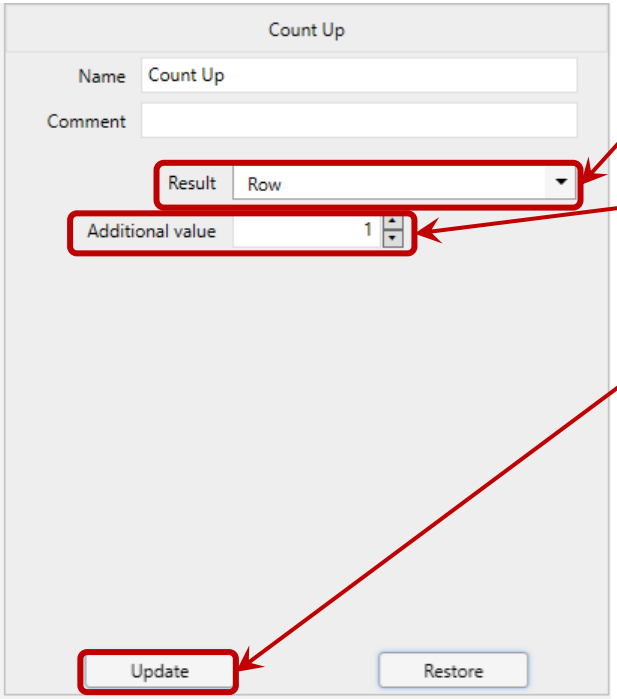
6 Click the [Node] tab.

7 Drag the 'Count Up' node and drop it into the scenario edit area.

8 Double-click the placed node. (Displaying the property)

6 Changing processes depending on conditions

6-3 Loop processing



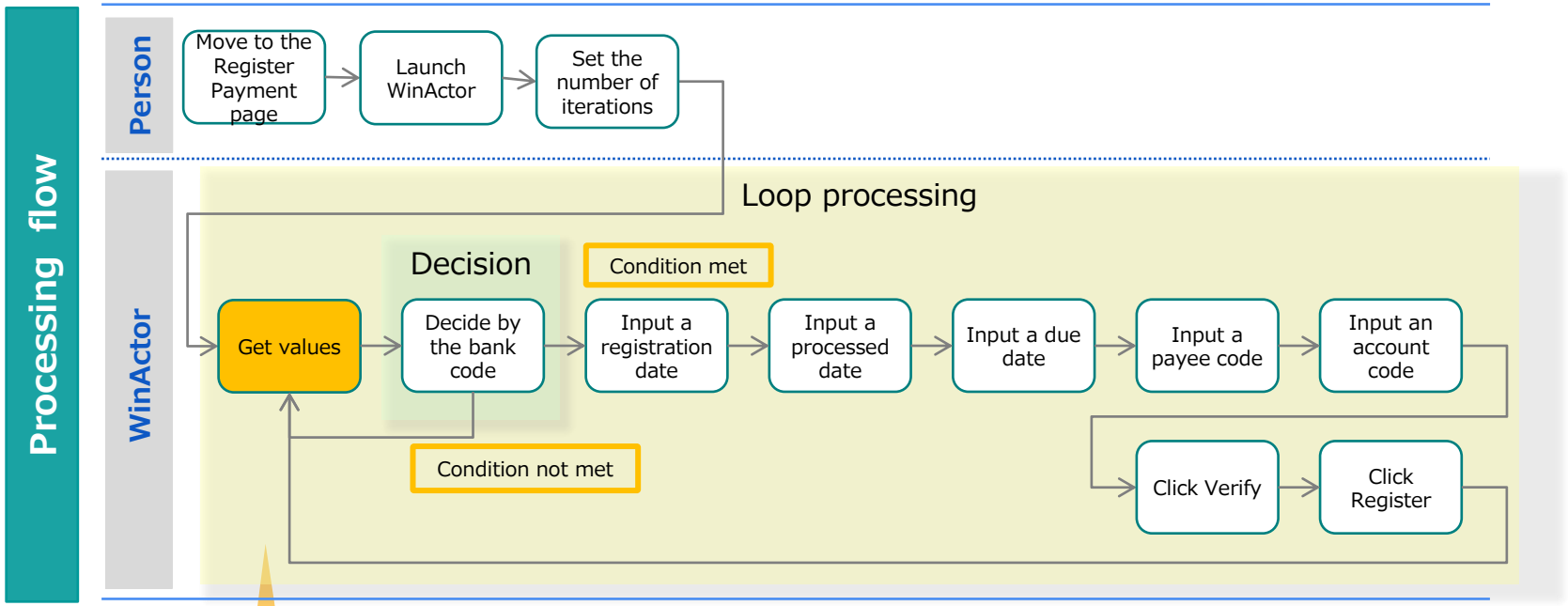
9 For [Result], select ‘Row.’

10 For [Additional value], set “1."

11 Click the [Update] button.

6 Changing processes depending on conditions

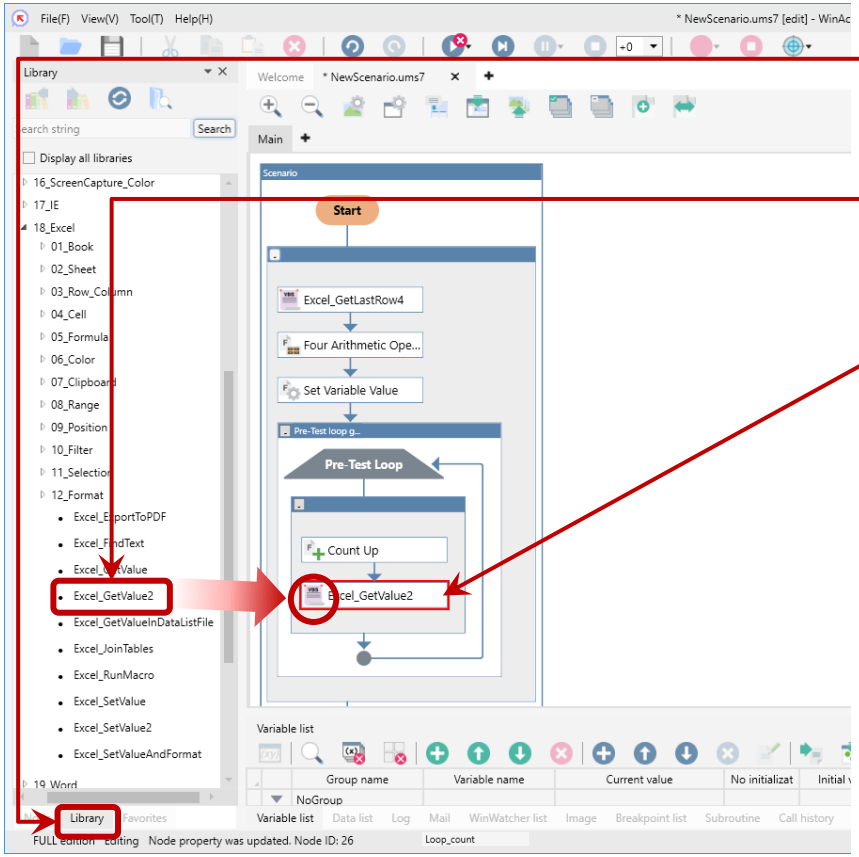
"From here, we will create a scenario for the following operation."



6-4 Getting values

6 Changing processes depending on conditions

6-4 Getting values



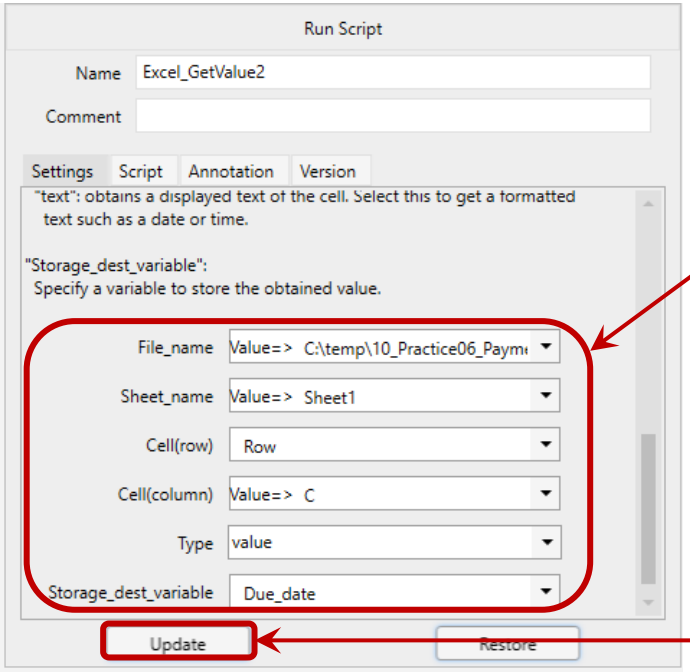
1 Click the [Library] tab.

2 Drag the ‘Excel_GetValue2’ library and drop it into the scenario edit area.

3 Double-click the placed library. (Displaying the property)

6 Changing processes depending on conditions

6-4 Getting values



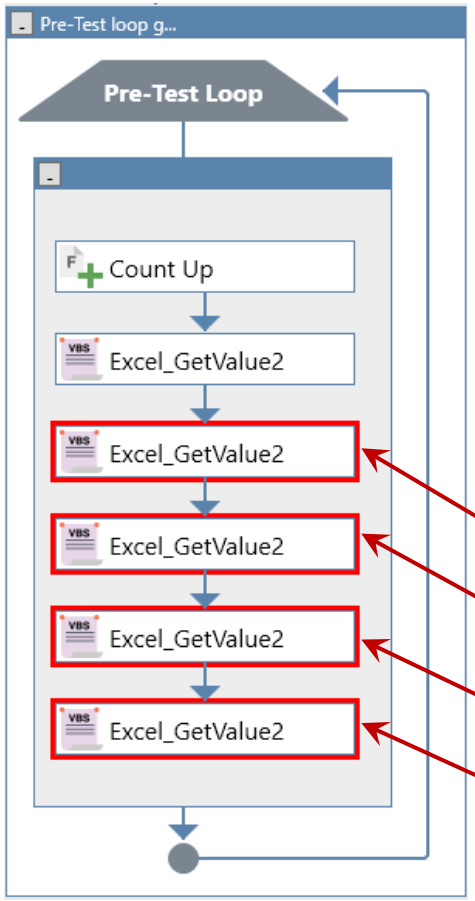
4 Drag and drop "10_Practice06_Payment_Registration_Book.xlsx" into [File_name], and enter "Value=>Sheet1" for [Sheet_name], "Row" for [Cell(row)], "Value=>C" for [Cell(column)], 'value' for [Type], and "Due_date" for [Storage_dest_variable].

5 Click the [Update] button. If the variable confirmation dialog appears, click [Yes].

The point here is to set "Row" variable for [Cell(row)]. "Row" is incremented by 1 each time it is repeated, so the row number increases by 1 each time it is repeated.

6 Changing processes depending on conditions

6-4 Getting values



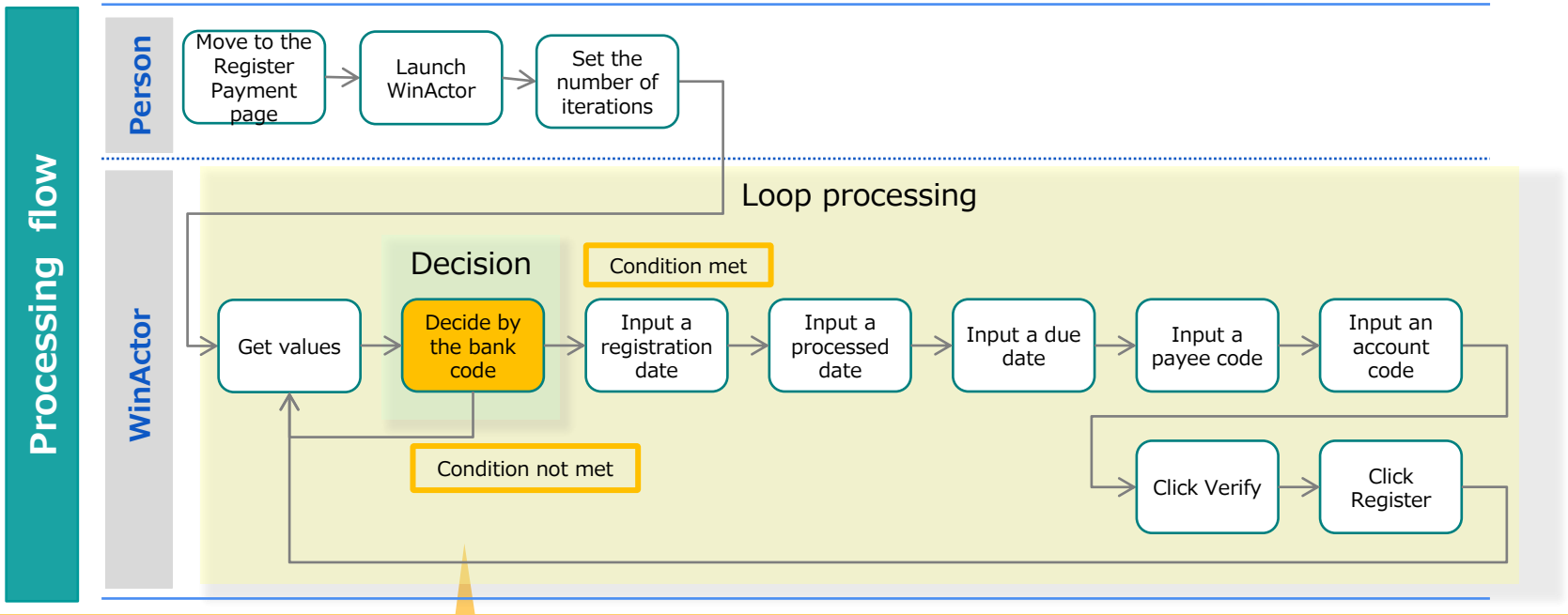
6 Similar to the settings to get the due date described in the previous two slides, set the libraries to get a bank code, payee code, account code, and payment amount.
For [Cell(column)] and [Storage_dest_variable], set them as shown in the table below.

6 Drag and drop "10_Practice06_Payment_Registration_Book.xlsx" into [File_name], and enter "Value=>Sheet1" for [Sheet_name], "Row" for [Cell(row)], 'value' for [Type] in the same way as described in the previous slide.

Cell (column)	Storage_dest_variable
D	Bank_code
E	Payee_code
F	Account_code
G	Payment_amount

6 Changing processes depending on conditions

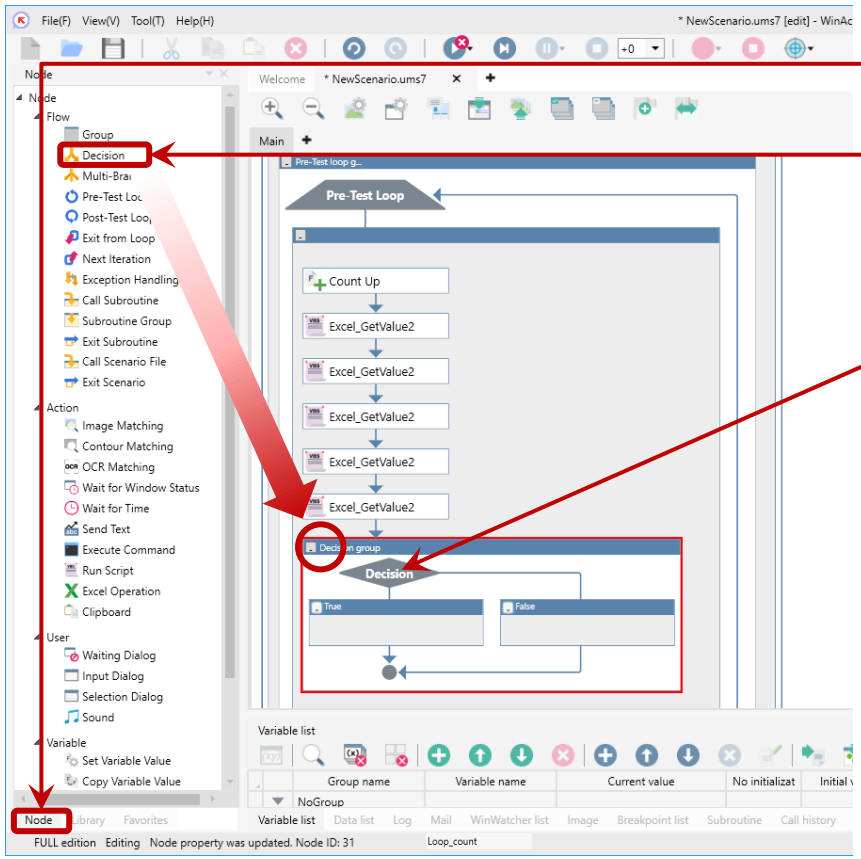
"From here, we will create a scenario for the following operation."



6-5 Decision processing

6 Changing processes depending on conditions

6-5 Decision processing



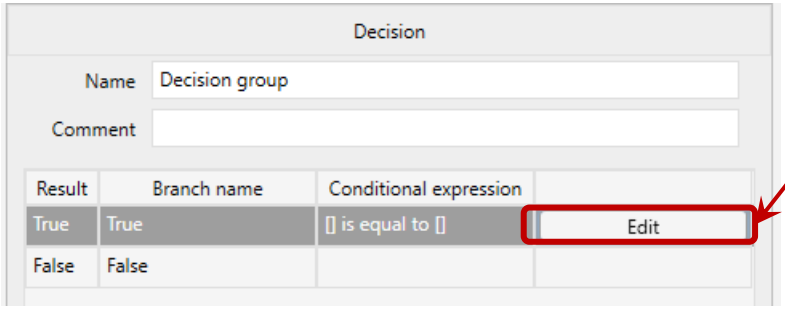
1 Click the [Node] tab.

2 Drag the ‘Decision’ node and drop it into the scenario edit area.

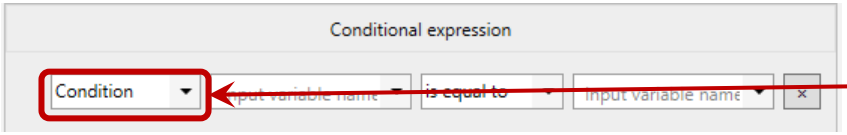
3 Double-click the placed node. (Displaying the property)

6 Changing processes depending on conditions

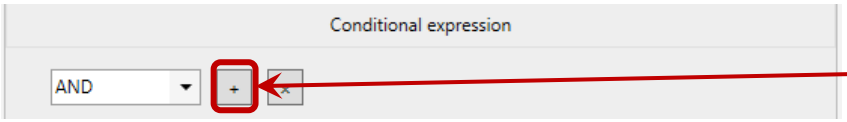
6-5 Decision processing



4 Click [Edit].



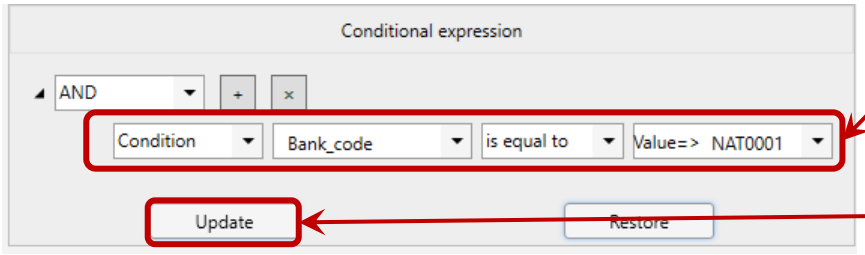
5 Select ‘AND’ from [Condition].



6 Click [+].

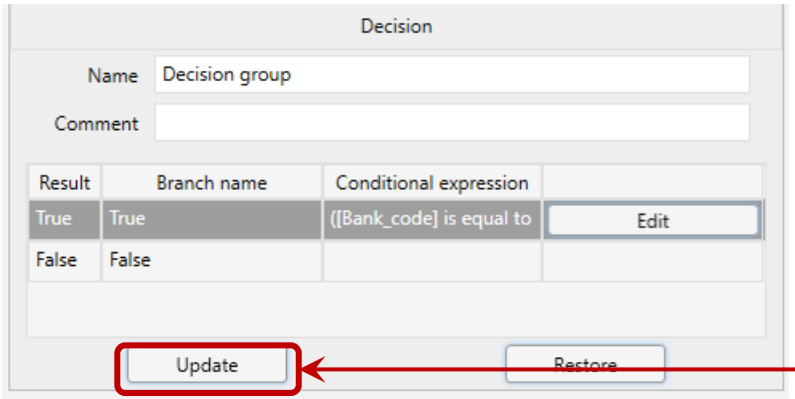
6 Changing processes depending on conditions

6-5 Decision processing



7 For the conditional expression, set ‘Condition,’ "Bank_code," ‘is equal to,’ and "Value=>NAT0001."

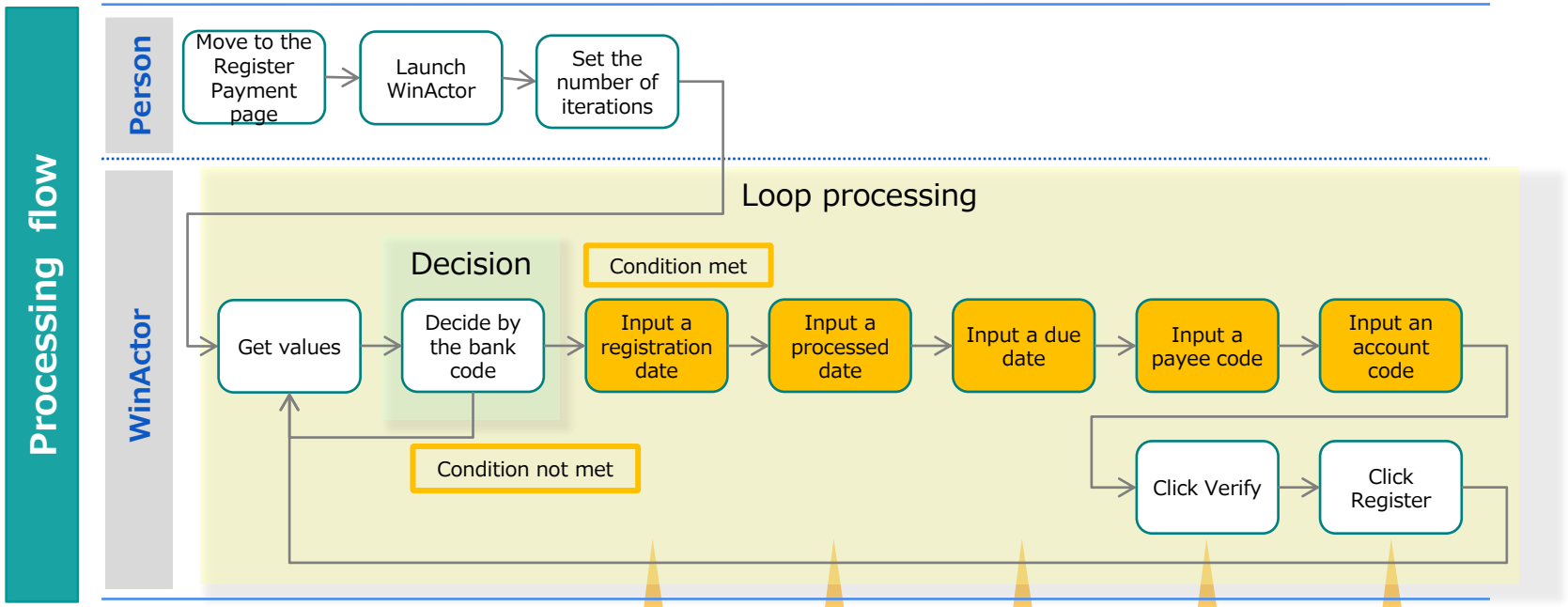
8 Click the [Update] button.



9 Click the [Update] button.

6 Changing processes depending on conditions

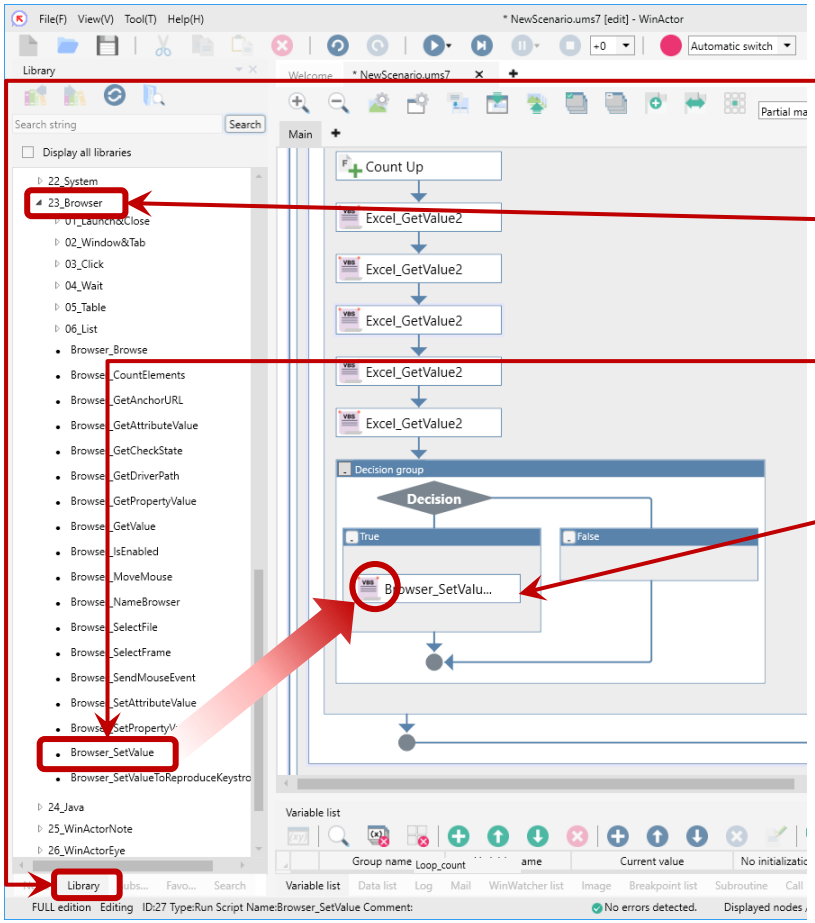
"From here, we will create a scenario for the following operations."



6-6 Inputting values

6 Changing processes depending on conditions

6-6 Inputting values



1 Click the [Library] tab.

2 Double-click ‘23_Browser’ and expand the list of libraries.

3 Drag the ‘Browser_SetValue’ library and drop it into the scenario edit area.

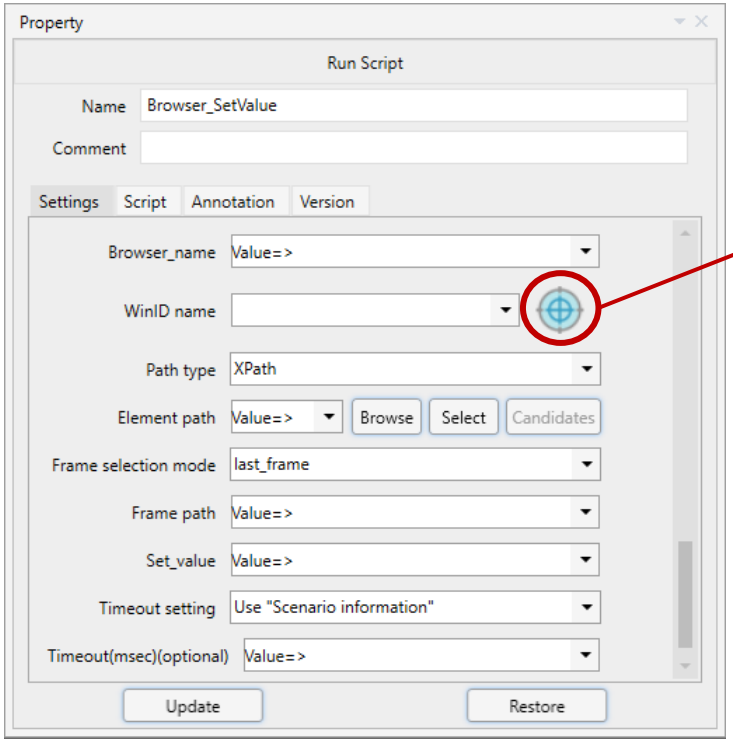
4 Double-click the placed library. (Displaying the property)

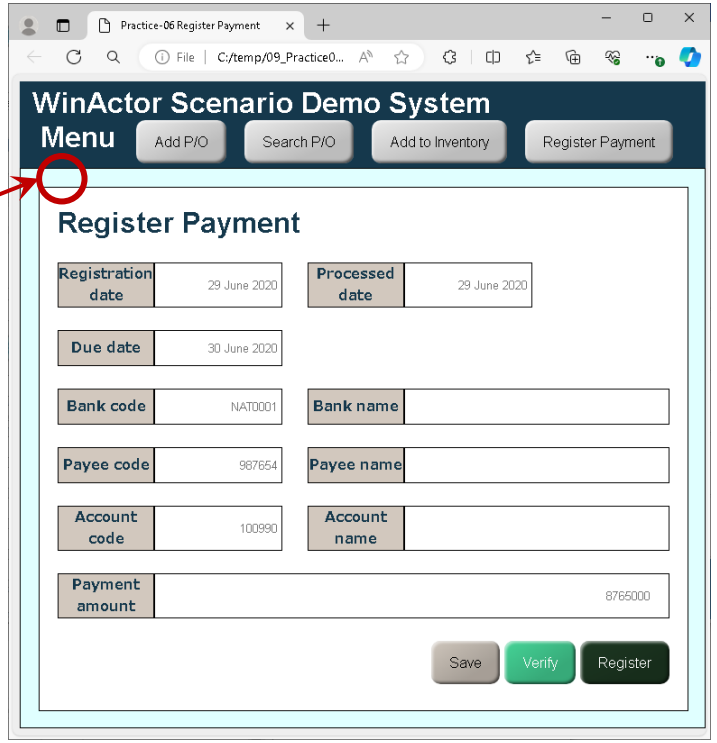
6 Changing processes depending on conditions

6-6 Inputting values

5 Click the blue scope button for [WinID name].

6 Move the mouse cursor on a page you want to input data, and click the page.



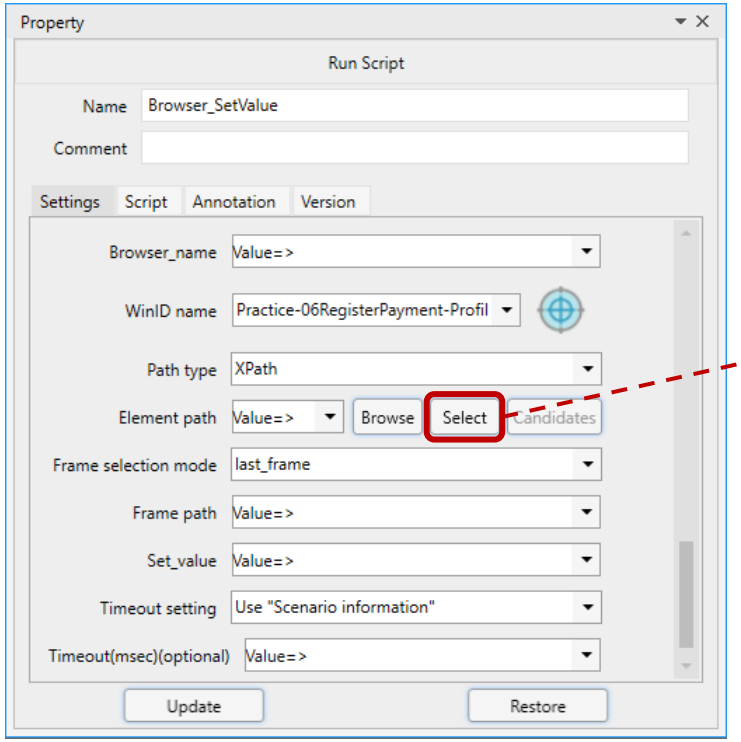


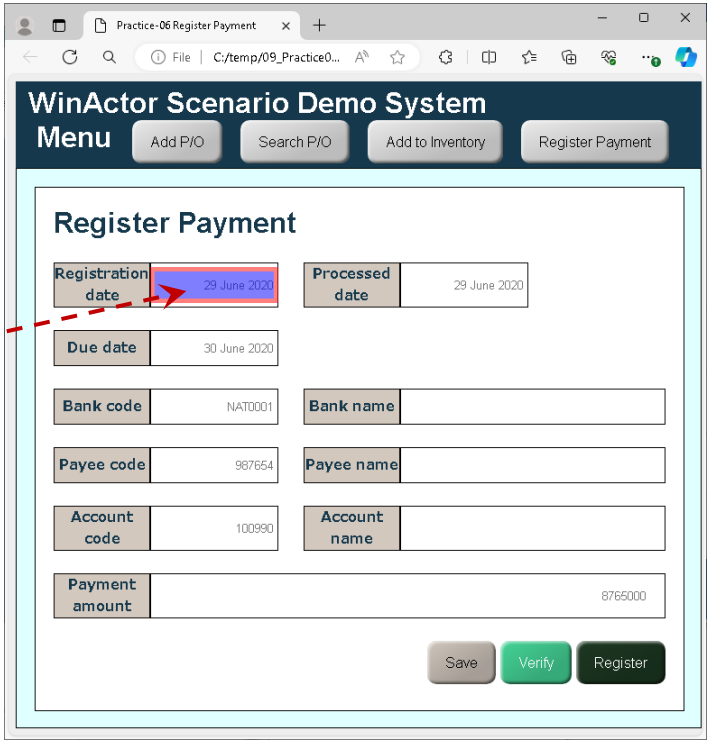
6 Changing processes depending on conditions

6-6 Inputting values

7 Click the [Select] button in [Element path].

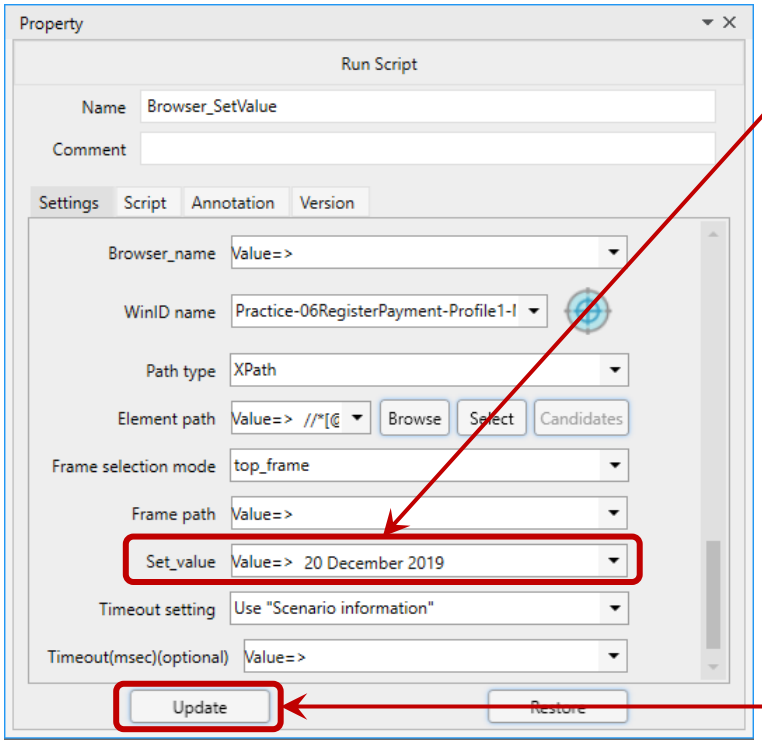
8 Move mouse cursor over the "Registration date" text box, wait for the color to change, and click it.





6 Changing processes depending on conditions

6-6 Inputting values

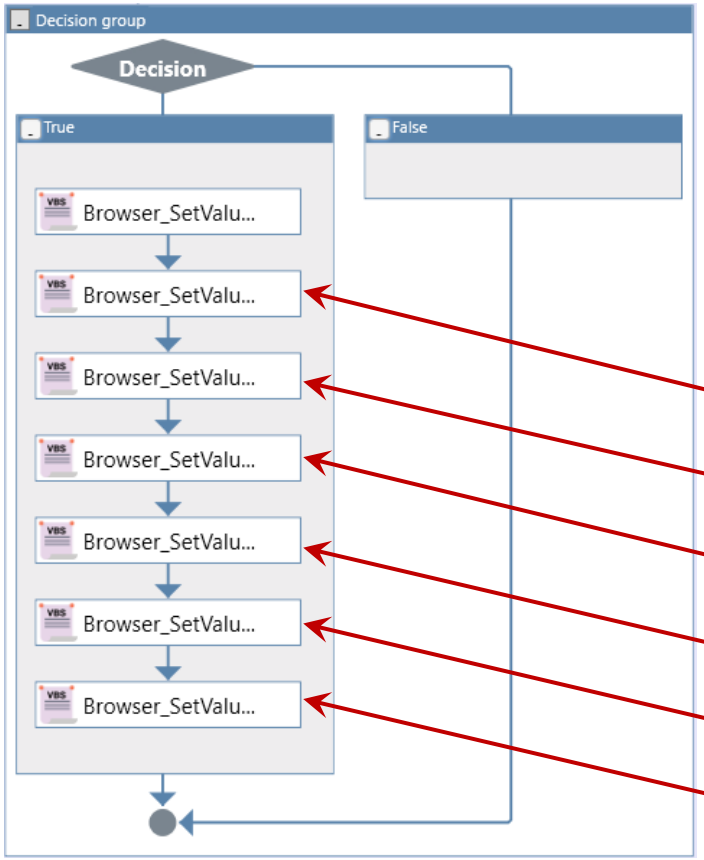


9 For [Set_value], set "Value=> 20 December 2019."

10 Click the [Update] button.

6 Changing processes depending on conditions

6-6 Inputting values

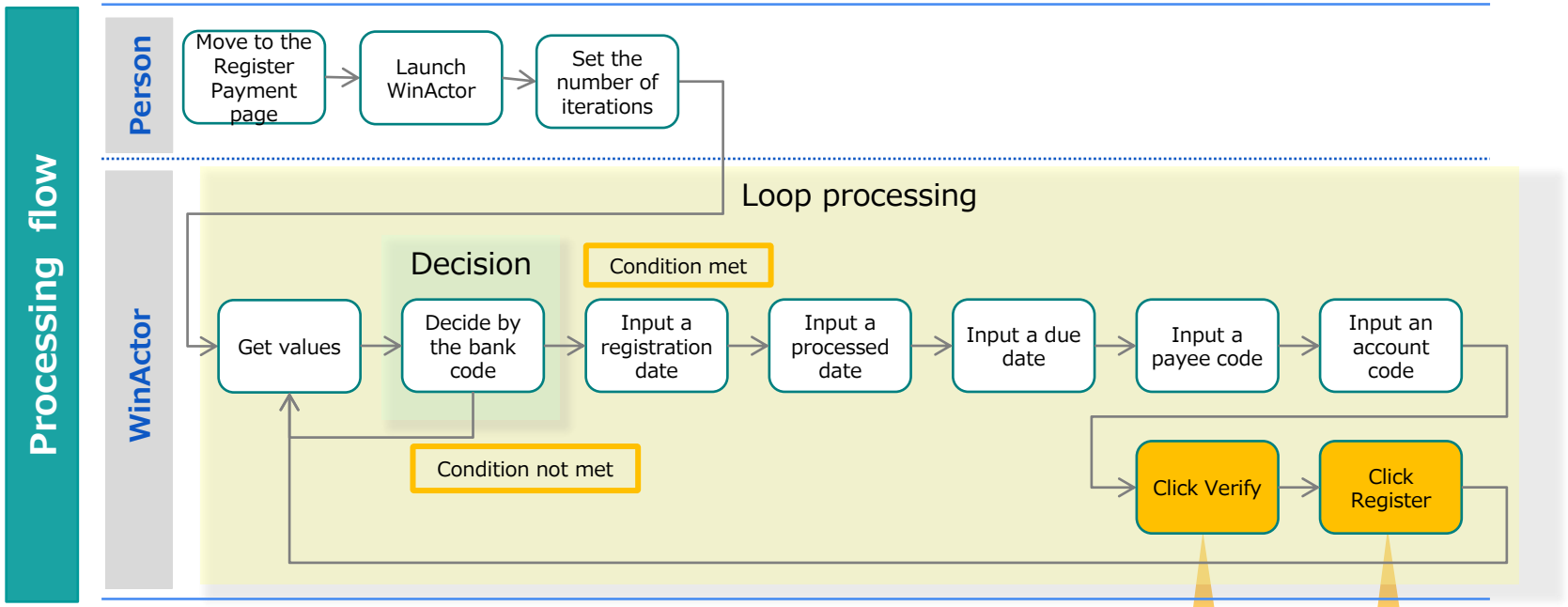


11 Similar to the settings to input the registration date described in the previous four slides, set the libraries to input a processed date, due date, bank code, payee code, account code, and payment amount.
For [Element path] and [Set_value], set them by referring to the table below.

Element path	Set_value
Processed date text box	Value⇒26 December 2019
Due date text box	Due_date
Bank code text box	Bank_code
Payee code text box	Payee_code
Account code text box	Account_code
Payment amount text box	Payment_amount

6 Changing processes depending on conditions

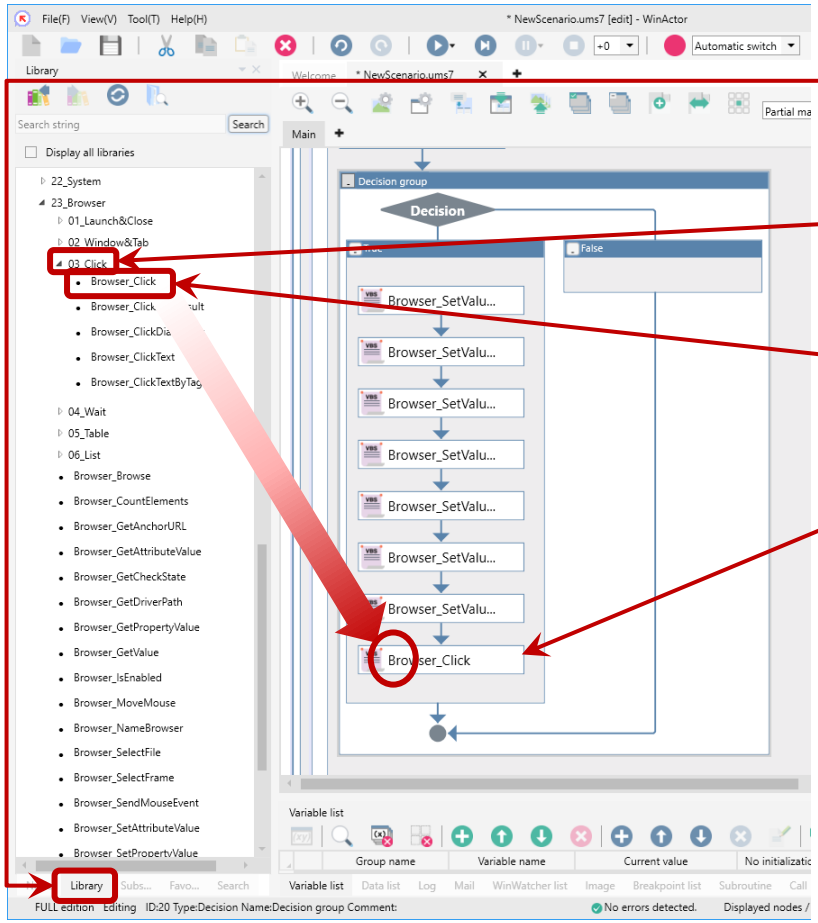
"From here, we will create a scenario for the following operations."



6-7 Registration

6 Changing processes depending on conditions

6-7 Registration



1 Click the [Library] tab.

2 Double-click ‘03_Click’ and expand the list of libraries.

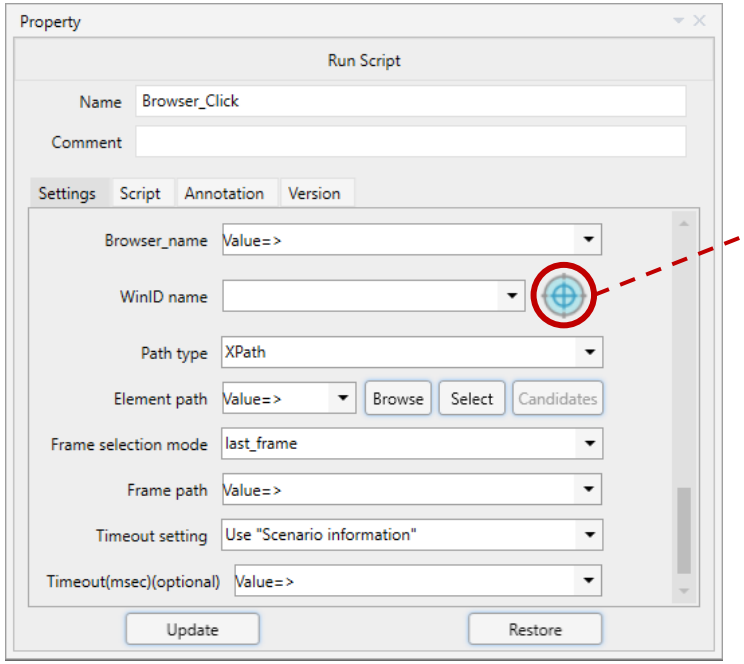
3 Drag the ‘Browser_Click’ library and drop it into the scenario edit area.

4 Double-click the placed library. (Displaying the property)

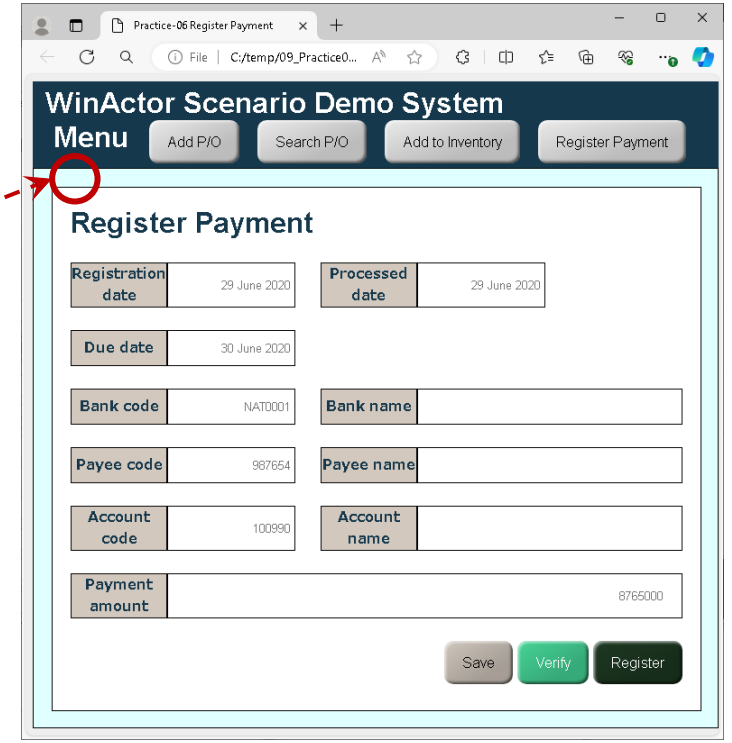
6 Changing processes depending on conditions

6-7 Registration

5 Click the blue scope button for [WinID name].



6 Move the mouse cursor on a page you want to capture, and click the page.

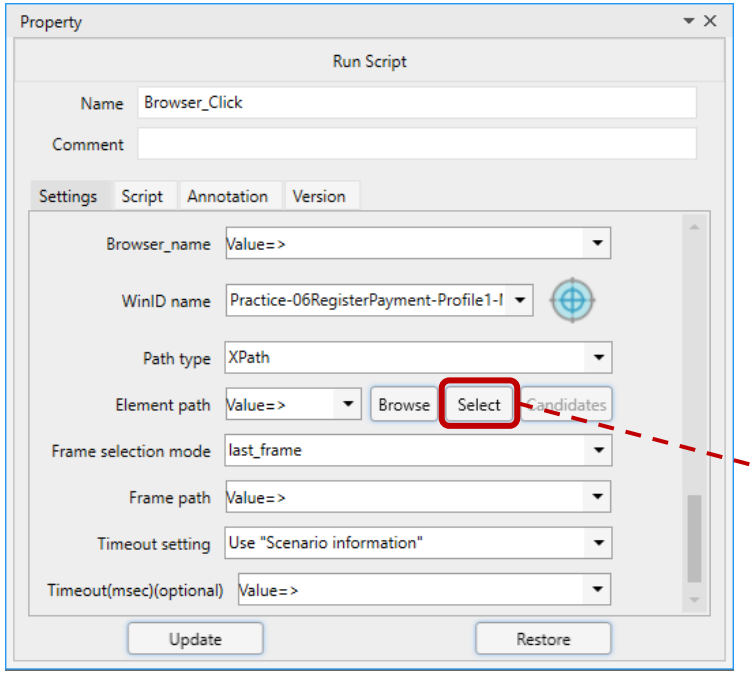


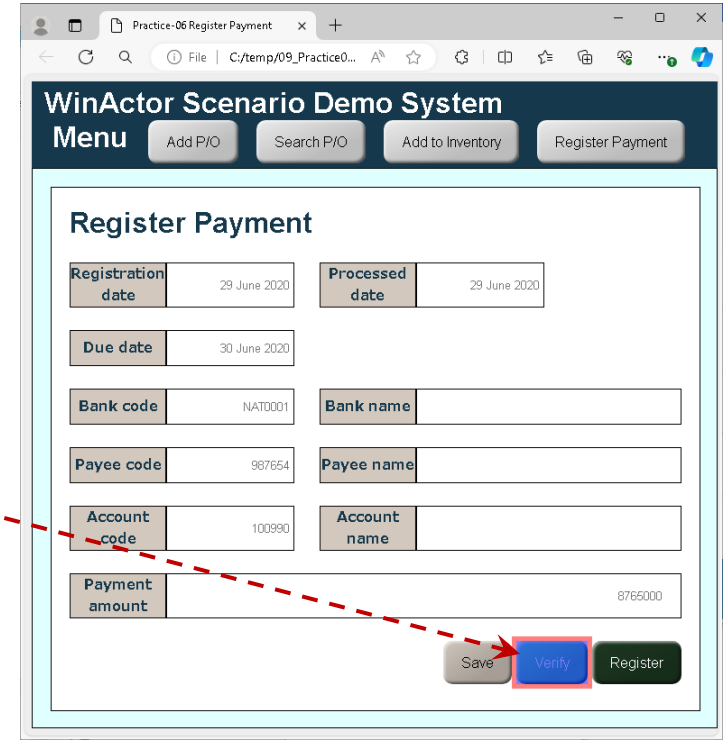
6 Changing processes depending on conditions

6-7 Registration

7 Click the [Select] button in [Element path].

8 Move mouse cursor over the 'Verify' button, wait for the color to change, and click it.

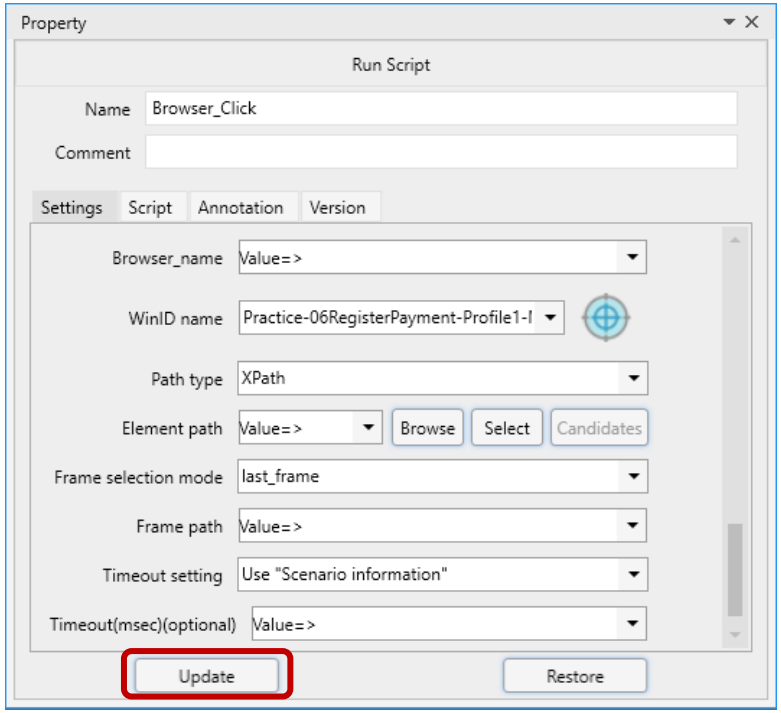




6 Changing processes depending on conditions

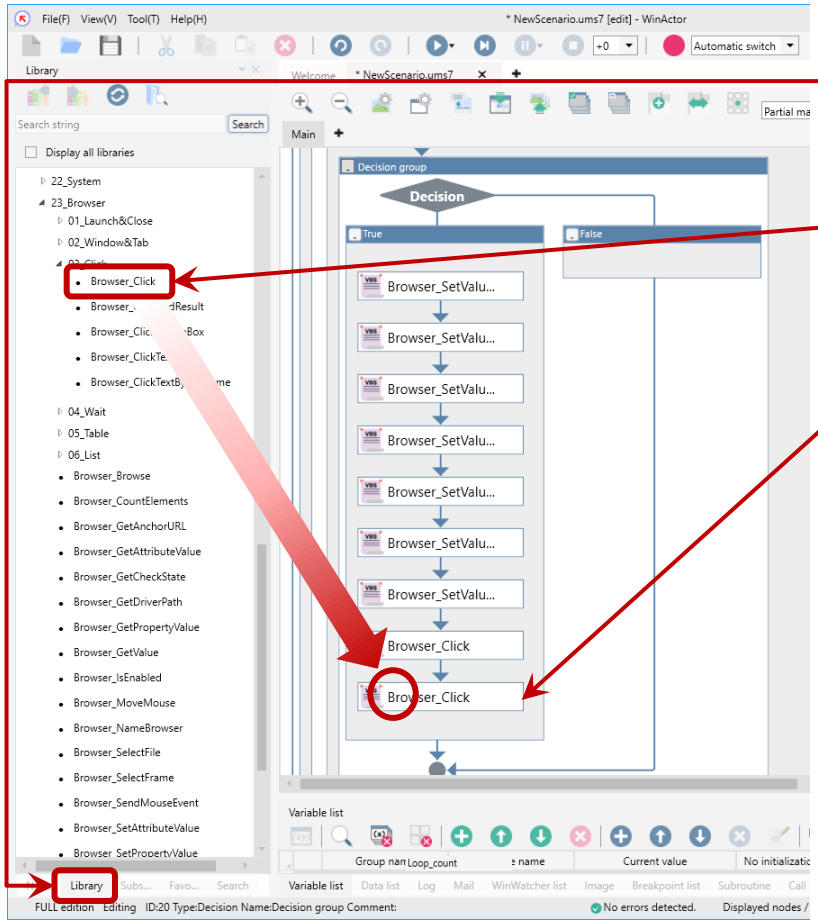
6-7 Registration

9 Click the [Update] button.



6 Changing processes depending on conditions

6-7 Registration



10 Click the [Library] tab.

11 Drag the ‘Browser_Click’ library and drop it into the scenario edit area.

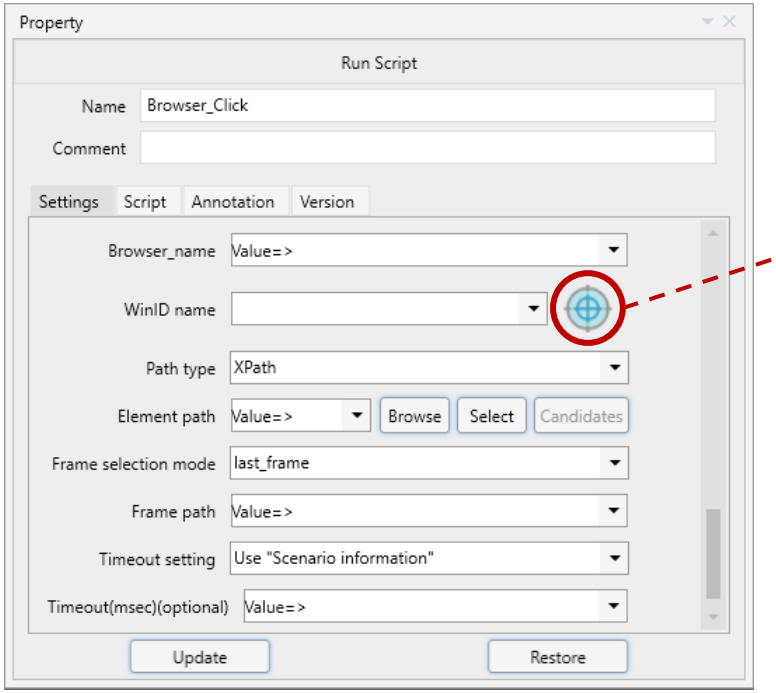
12 Double-click the placed library. (Displaying the property)

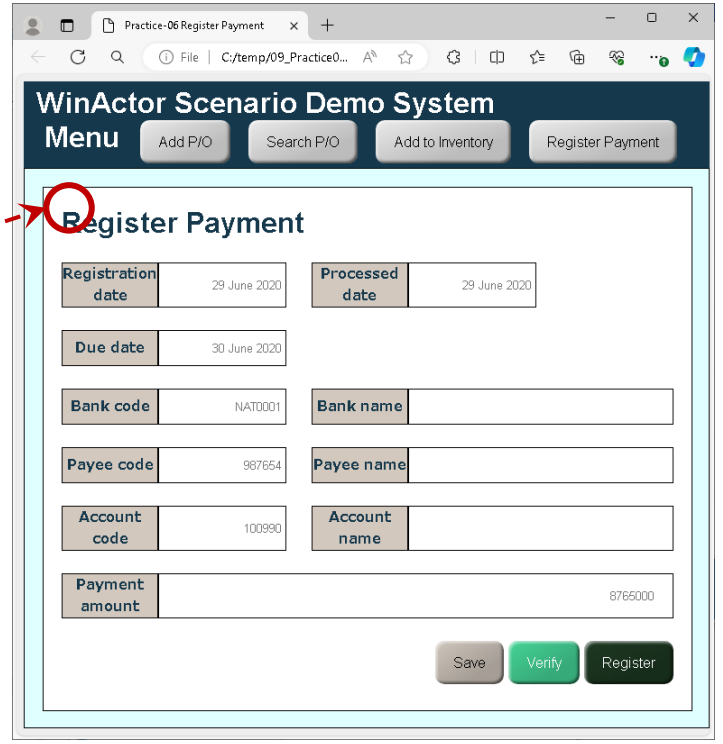
6 Changing processes depending on conditions

6-7 Registration

13 Click the blue scope button for [WinID name].

14 Move the mouse cursor on a page you want to capture, and click the page.

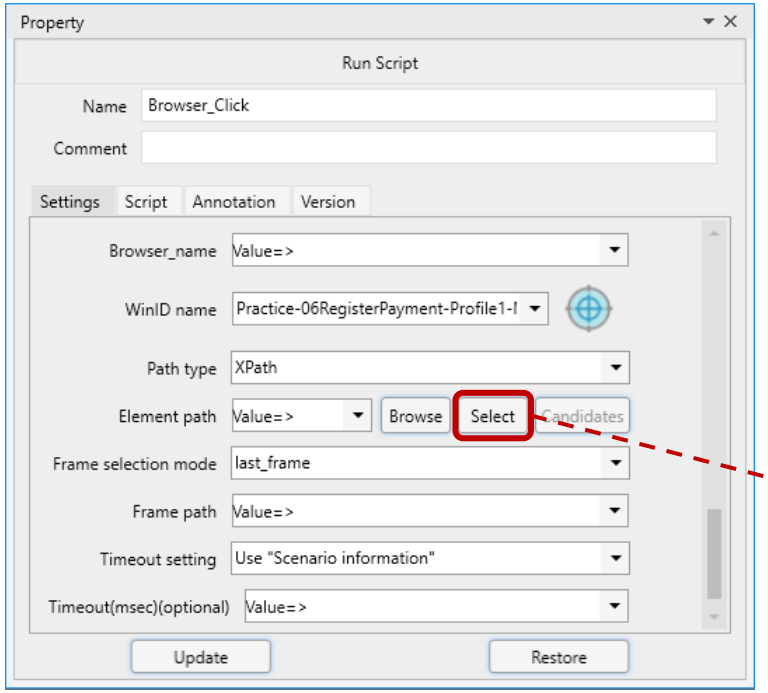




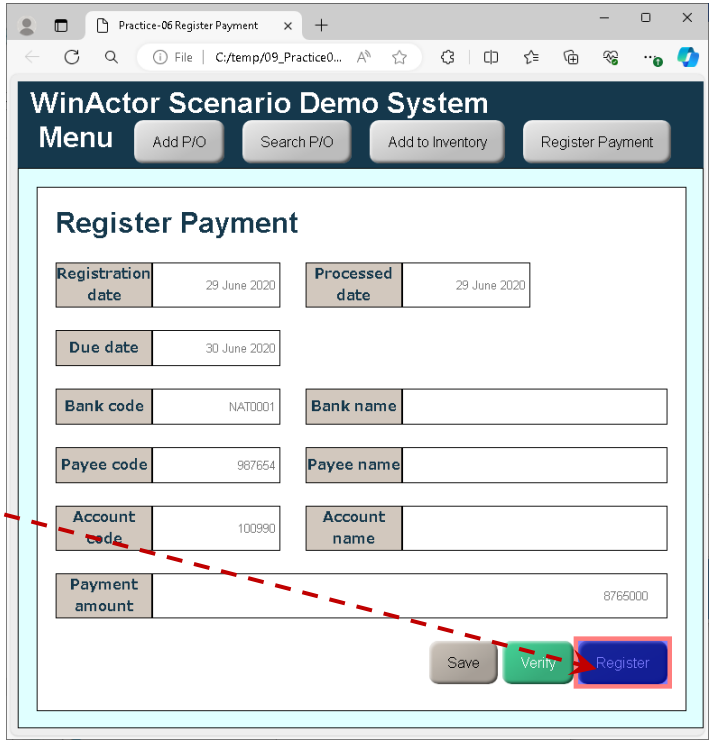
6 Changing processes depending on conditions

6-7 Registration

15 Click the [Select] button in [Element path].



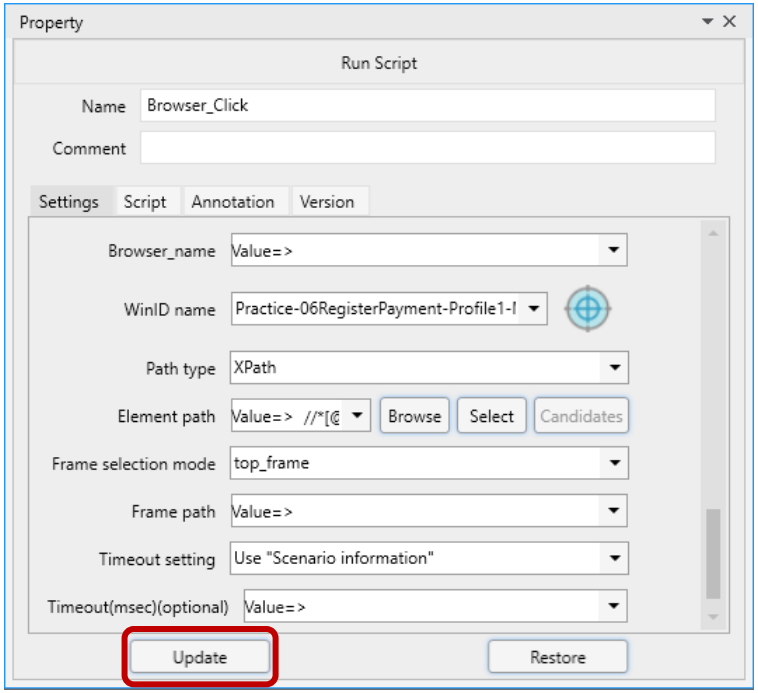
16 Move mouse cursor over the 'Register' button, wait for the color to change, and click it.



6 Changing processes depending on conditions

6-7 Registration

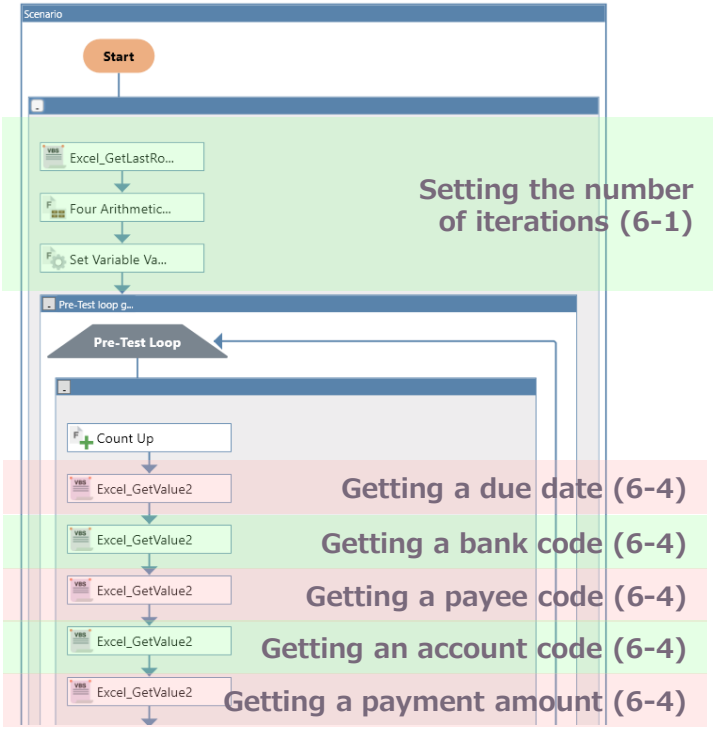
17 Click the [Update] button.

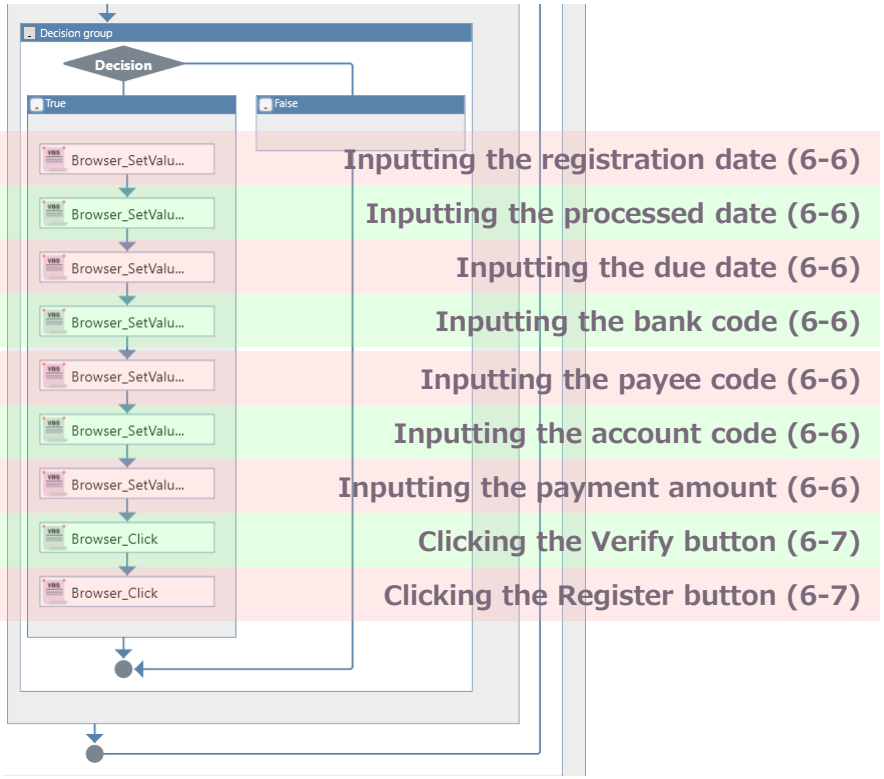


6 Changing processes depending on conditions

6-8 Checking the entire scenario

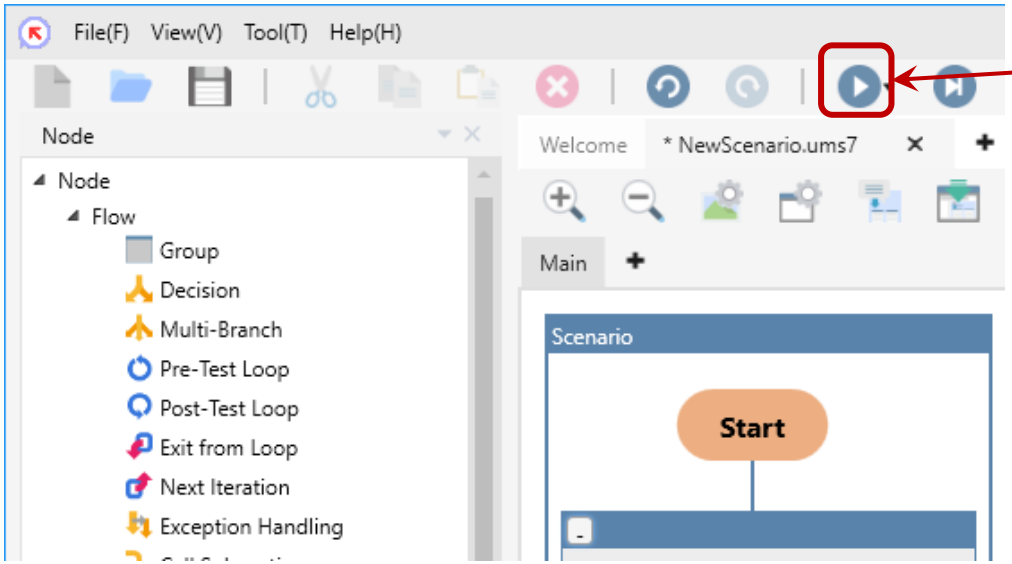
1 Confirm that the created scenario is as follows.





6 Changing processes depending on conditions

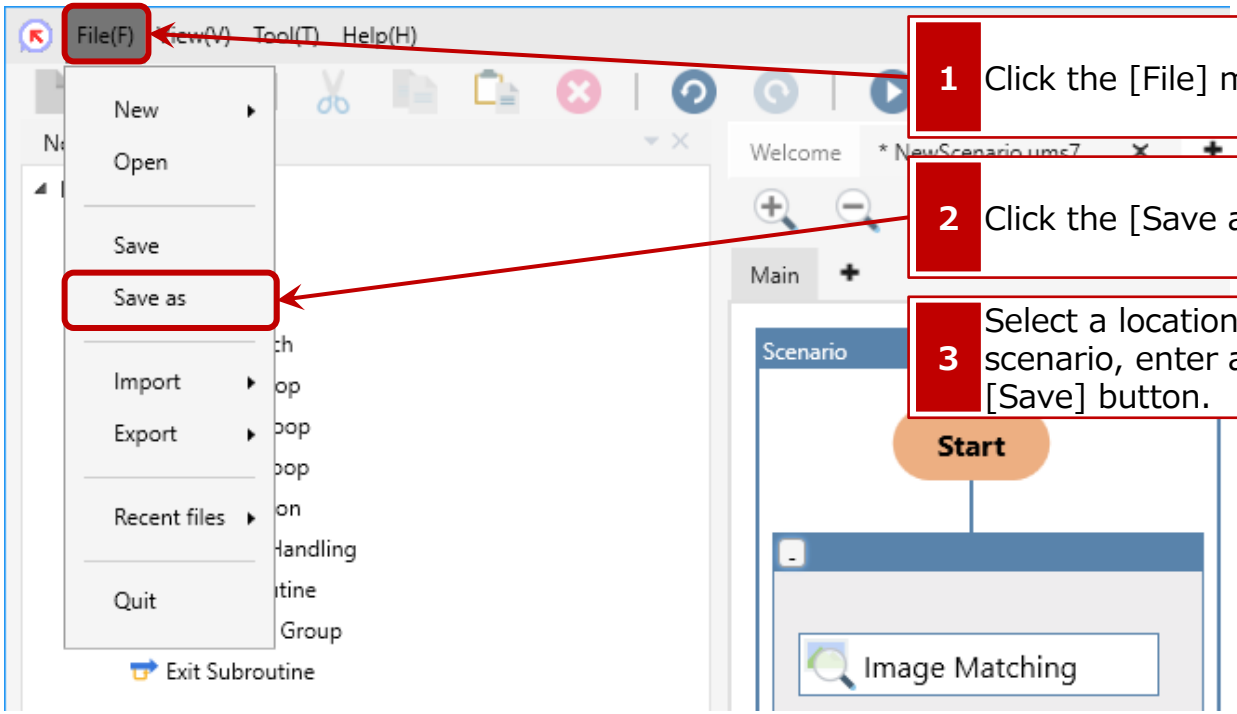
6-9 Running the scenario



1. Click the 'Run scenario' button and check if the scenario runs without error.
2. If an error occurs, check the error message and review the settings of the property and the like.

6 Changing processes depending on conditions

6-10 Saving the scenario



1 Click the [File] menu.

2 Click the [Save as] menu.

3 Select a location to save a file for the scenario, enter a filename, and click the [Save] button.

For a scenario that has already been saved, you can use the [Save] menu.

7 Scenario creation - Practice epilogue -

"William, how was your learning in the basics and practice?"

"Thanks to the practice section, I think I can create scenarios that can be used in actual work! Loop processing was easy to understand, and decision processing was very easy to set up."

"That's great! The contents you have learned in the basics and practice sections cover the foundation of WinActor, so be sure to understand them clearly! From now on, use them in actual work and also try to use other functions!"

7 Scenario creation - Practice epilogue -

"The following are URLs of webpages that will be helpful for scenario creation. Take full advantage of them."

Description	Title	URL
WinActor official website	WinActor	https://winactor.biz/en/
Providing free sample scenarios	Sample Scenarios	https://winactor.biz/en/ (Preparing for delivery in English version)
Providing libraries that can be incorporated into a scenario	Petit Libraries	https://winactor.biz/library/ (Available only for Japanese version)
Certification training	Certification training for RPA tool "WinActor®"	https://winactor.biz/winactor_certification.html (Available only for Japanese version)
Q&A	WinActor FAQ	http://www.matchcontact.net/winactor_en/

- Advanced -

1 Scenario creation - Advanced prologue -

Case

Recently, it seems that employees other than William are also using WinActor to automate their work.

In such circumstances, it has become necessary to fix the scenarios created by other employees and to deal with problems.

This time, let's learn how to create a scenario that is easy to modify and how to deal with problems, which is a little advanced from scenario creation.

William Lee

A second-year employee of the procurement department.
Now he is quite good at using WinActor and can teach others.

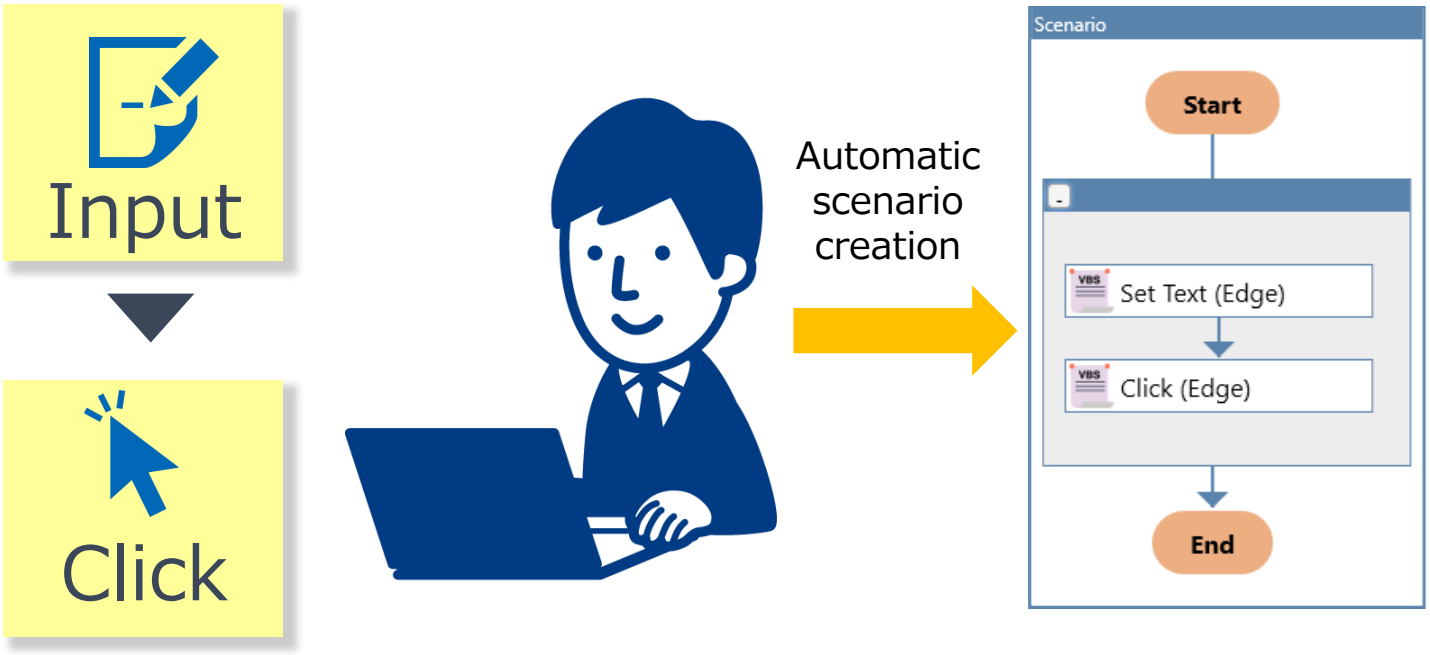
Amanda Nessa

A first-year employee of the procurement department. Following William, she started using WinActor.

Maria Rodriguez

A senior employee in another department who is already using WinActor.
She has been supporting William since the basics and practice.

Advanced



Scenario creation using automatic recording

2 Scenario creation - Advanced 1 -

Case

Amanda recently started using WinActor, and it seems that she is having a hard time creating a scenario.
William came over to see her situation.

"Hi, Amanda. How is your scenario creation going?"

"Well, it's quite difficult... I know what I want to do, but there are many nodes and libraries, and I don't know which one I should use."

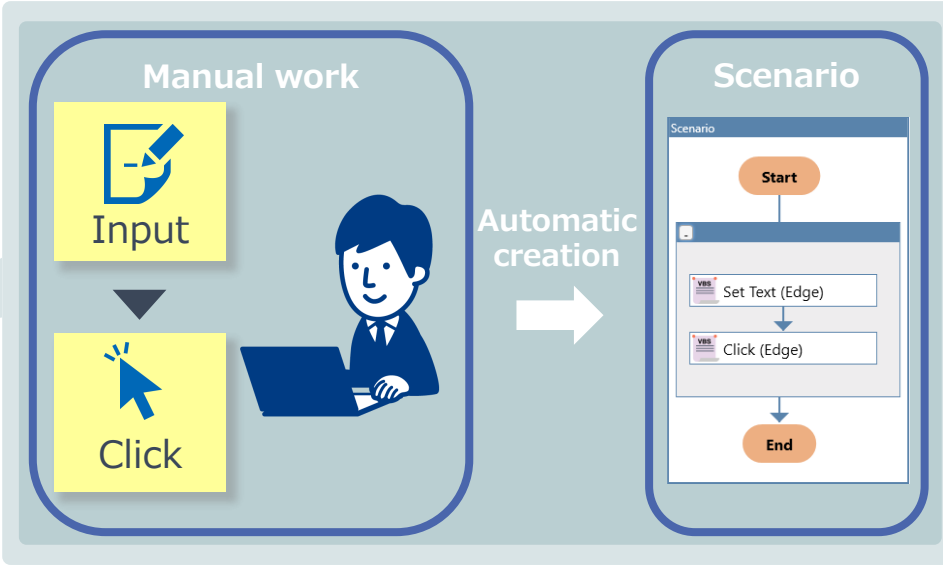
"Then, let's try to use a function called automatic recording that automatically creates a scenario. I've never used it before, so let's learn together!"

"Yes, William. You used to create a scenario using nodes and libraries from the beginning. This time, let's use a function called automatic recording that automatically creates a scenario from human operations."

2 Scenario creation - Advanced 1 -

"So, what is automatic recording exactly?"

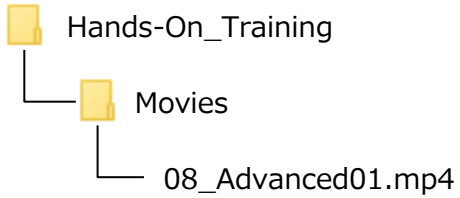
"Automatic recording is a function that automatically records user operations and creates its scenario. You can create a scenario just by operating the mouse and keyboard as you do every day."



"The created scenario will be placed in the scenario edit area, and you can edit the settings of nodes and libraries individually."

2 Scenario creation - Advanced 1 -

"Let's watch the actual movement of automatic recording.
Double-click the file named 08_Advanced01.mp4 in the following folder to play it."



"Automatic recording is a function that can improve the efficiency of scenario creation. However, it is not possible to create loop processing or branch processing, so it's a good idea to use a scenario created by automatic recording as an aid in scenario creation, such as using it as a base of or a part of a scenario."

2 Scenario creation - Advanced 1 -

Tips Automatic recording errors

Conditions where automatic recording fails

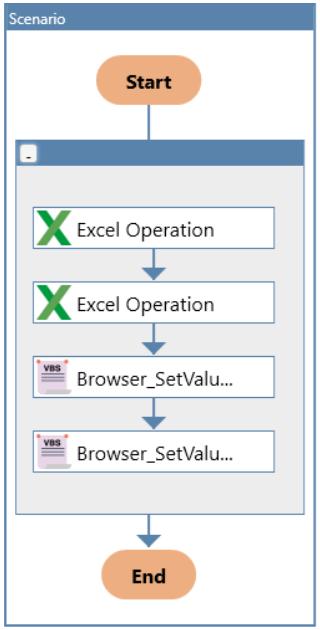
Automatic recording could fail, where a vacant ‘Group’ node is created, in some conditions.
Although such conditions and countermeasures are listed up below, you may need to consult a professional person who might be in charge of managing your computer because these conditions may be too difficult to solve.

Cond. 1 : The recording application is launched with the administrator permissions.
Countermeasure : Launch the application with a nonadministrator permissions if possible, or launch WinActor with the administrator permissions.

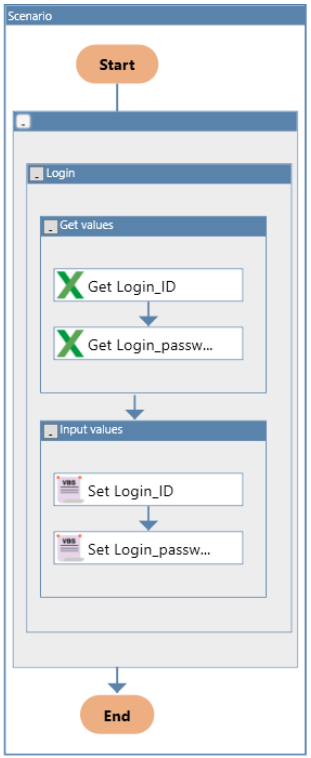
Cond. 2 : The recording application is in the protected mode.
Countermeasure : The IE mode in Edge or the Acrobat Reader can be in this mode. Disable the protected mode on the settings.

Cond. 3 : The recording application is launched on a remote desktop.
Countermeasure : The scenario cannot be created with automatic recording. Use the ‘Emulate’ and ‘Image Matching’ nodes.

Advanced



Modify



How to create a scenario that is easy to modify

3 Scenario creation - Advanced 2 -

Case **The scenario made by Amanda doesn't work for some reason. William decided to help her.**

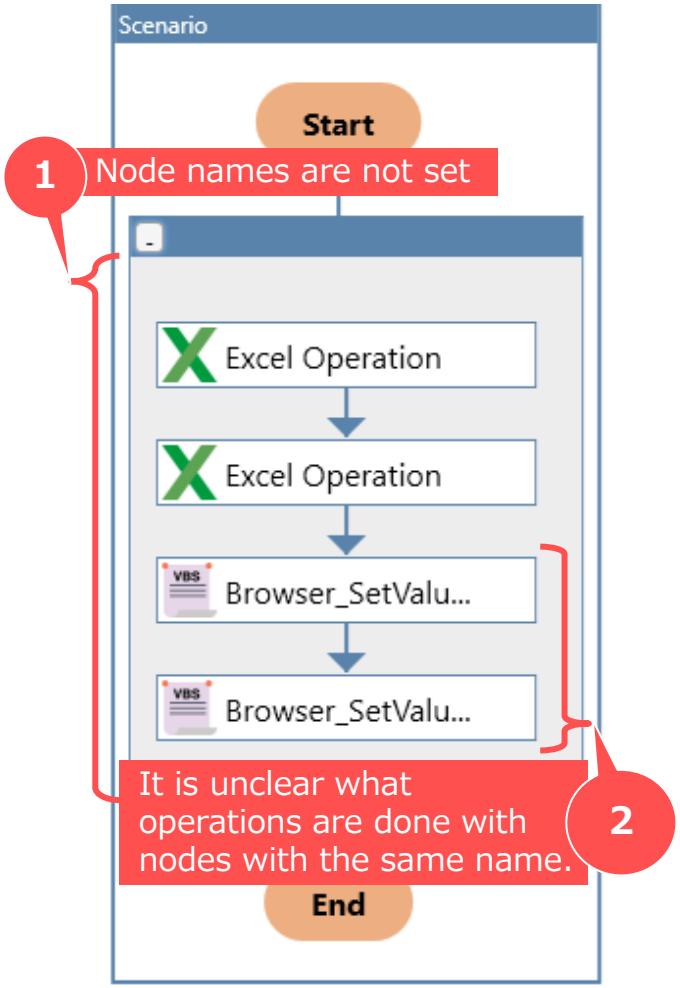
"Let me see your scenario... well, it's quite a mess and hard to understand..."

"I can understand... but do you think it's hard to understand?"

"I want to help you, but for that, the scenario needs to be a little easier to understand. This 'easy to understand' is something you should keep in mind when creating a scenario, which is something I say to myself."

"To create a scenario, it is important to make full use of nodes and libraries, but there are many points to be aware of, such as making it easier for others to understand and making it easy to modify later. Let's learn how to do that."

3 Scenario creation - Advanced 2 -

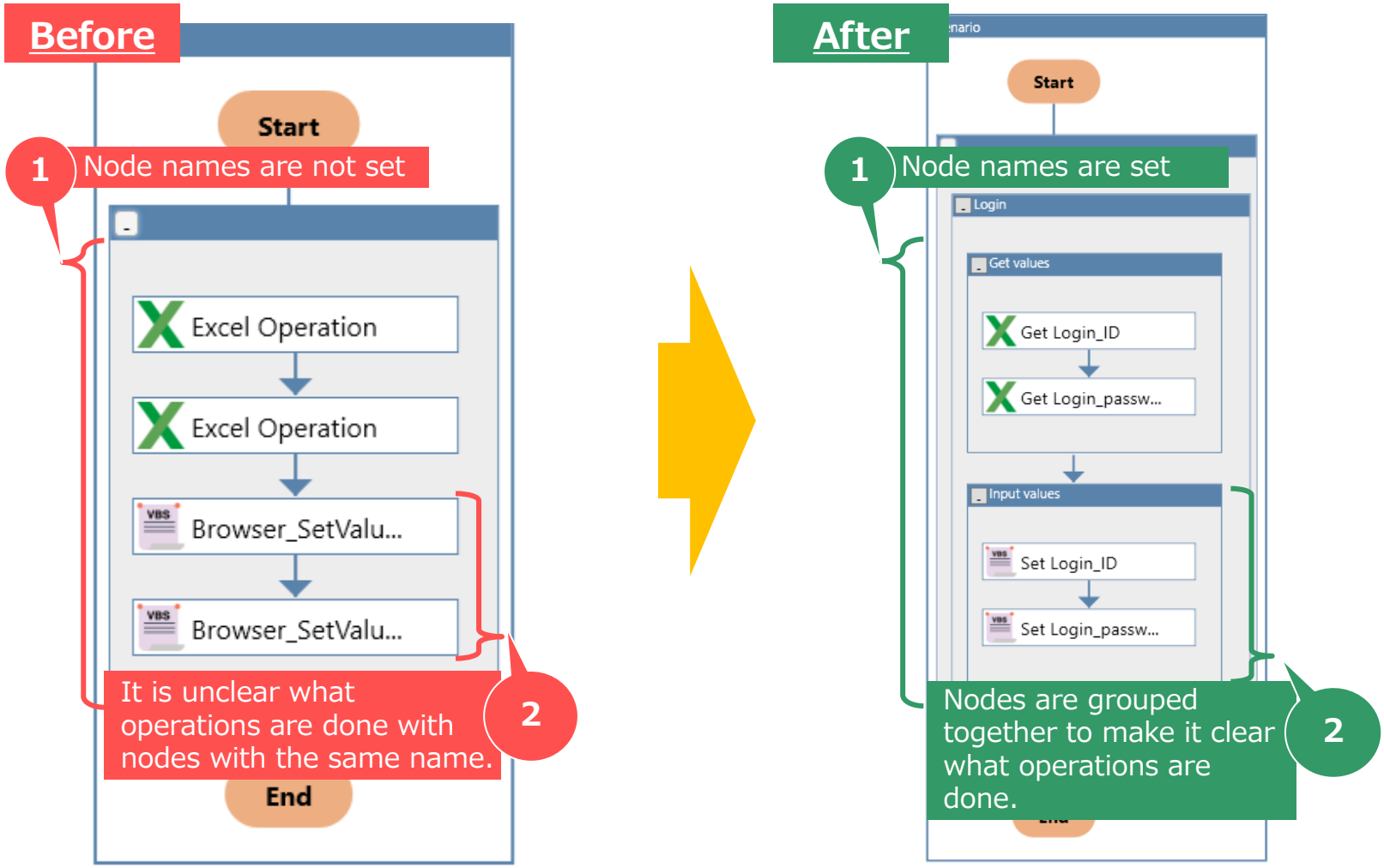


"This is a bit hard to understand. If you don't open each property, you don't know what it is for..."

"Yeah, I think you are right..."

"① It's hard to understand which node is doing what. ② It's also hard to understand that the nodes with the same name continue. The person who created it may not notice, but this can be a little more user-friendly scenario. Let's modify it to the following form!"

3 Scenario creation - Advanced 2 -

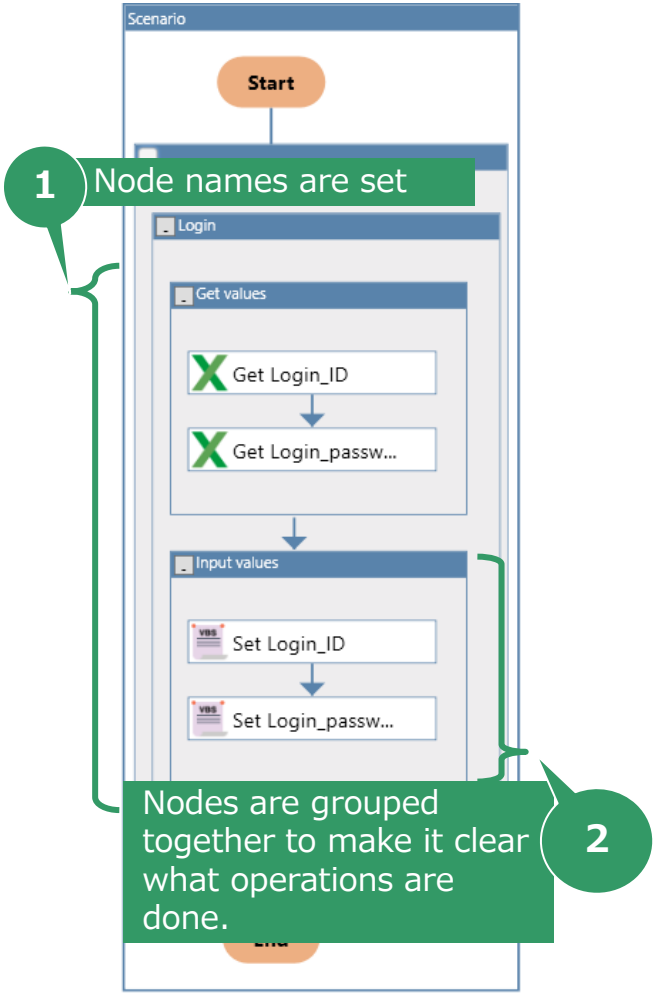


3 Scenario creation - Advanced 2 -

"Ah! It's easier to understand!"

"Compared to the previous scenario, it's much clearer. It's easy to understand even for me who hasn't created this scenario!"

"It became much easier to understand! That's because ① the node names are changed to represent the operations, and ② the nodes are grouped by what they do. I will explain how to create such a scenario from the next slide, so let's learn it together!"

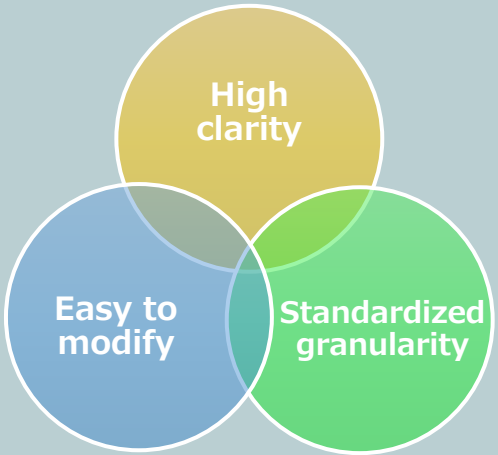


3 Scenario creation - Advanced 2 -

"What are the points for an easy-to-understand scenario?"

"There are several, and examples are including high clarity, easy to modify, and standardized granularity (fineness/roughness of description).
This is generally called high maintainability."

Example of points for an easy-to-understand scenario



"A scenario with high maintainability has the following advantages."

- It will be easier to explain to others and possible to be shared.
- It can be modified quickly in case of trouble.
- The existing scenario nodes and libraries can be reused when automating a new task.

3 Scenario creation - Advanced 2 -

- Column -

What is maintainability?

Maintainability refers to the following:

- Ease of finding and correcting errors
- Ease of adding and modifying functionalities
- Ease of keeping things work correctly

Originally, it came from the meaning of "maintenance," that is to maintain a normal state. In the case of WinActor, the ease of finding and correcting errors in a scenario, ease of adding functions, and ease of understanding a scenario are the main focus. In other words, it is easy to maintain.

Various problems may occur when you start running a scenario. By improving maintainability, it is possible to solve problems efficiently without stress.

3 Scenario creation - Advanced 2 -

"What exactly should I do to create a highly maintainable scenario?"

"First, it is important to decide rules when creating a scenario. By deciding rules, you can have the following merits."

1. By determining rules (common understanding),
2. The granularity of words used in scenarios and documents will be standardized, and
3. Maintainability will be improved.

"This time, I will explain the following basic rules."

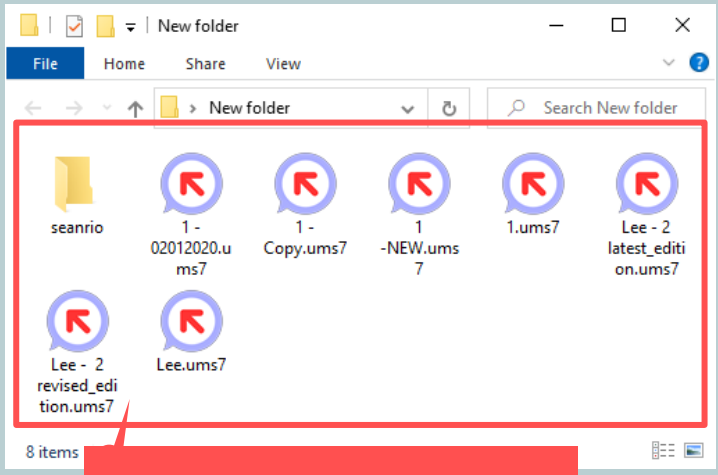
1. Decide the naming rules for the scenario storage location and scenario name
2. Change the name of the node/library to a name that represents its operation
3. Group nodes/libraries
4. Use variables and external files to set values in node properties (Don’t enter values directly)

"I will provide the rule template at the end of the explanation, so let's make your own rules based on the template! "

3 Scenario creation - Advanced 2 -

"*1. Decide the naming rules for the scenario storage location and scenario name* is the basics of improving maintainability."

"Not only in scenarios, when working with multiple people, it is inefficient if the filename, folder name, and file storage locations are not standardized. As for WinActor, you can create a scenario more efficiently by setting the naming rules for the scenario storage location and scenario name."

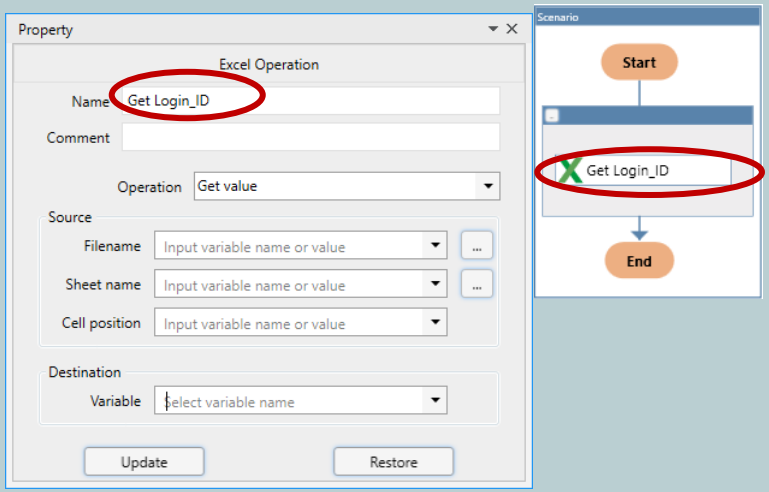


"In addition to efficiency, it is easier to prevent mistakes such as accidentally modifying other scenarios or creating scenarios with the same operation."

3 Scenario creation - Advanced 2 -

"For *2. Change the name of the node/library to a name that represents its operation*, follow the procedure below."

"Double-click the target node and change [Name] property to a name that represents the operation. It updates the node name in the scenario edit area."

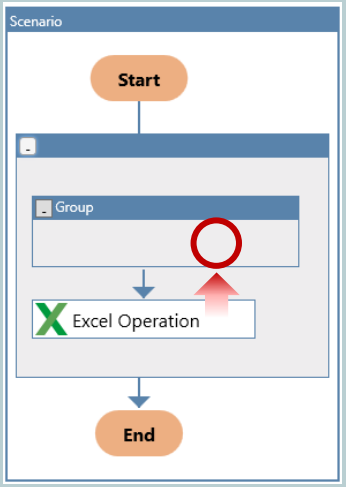


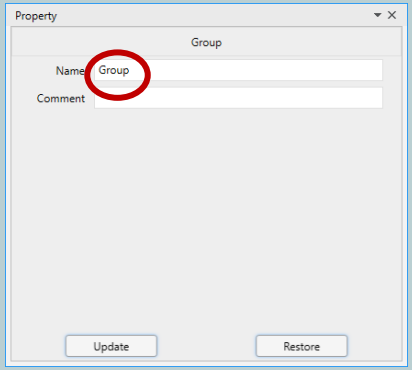
"You may use multiple same nodes such as Excel Operation in one scenario. In such a case, you can change the node name to improve the readability in the scenario edit area."

3 Scenario creation - Advanced 2 -

"For *3. Group nodes/libraries*, follow the procedure below."

"After dragging the Group node into the scenario, collect the nodes of the same operation into the Group node. By doing this, you can group nodes for each process such as login, and the readability will be improved."





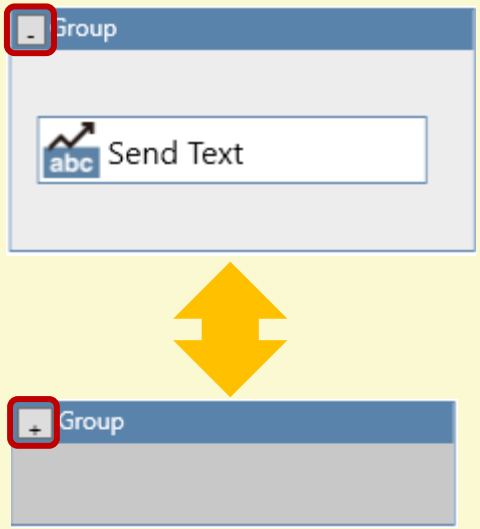
"As with nodes and libraries, you can change the Group name in the scenario edit area by changing the [Name] in the property."

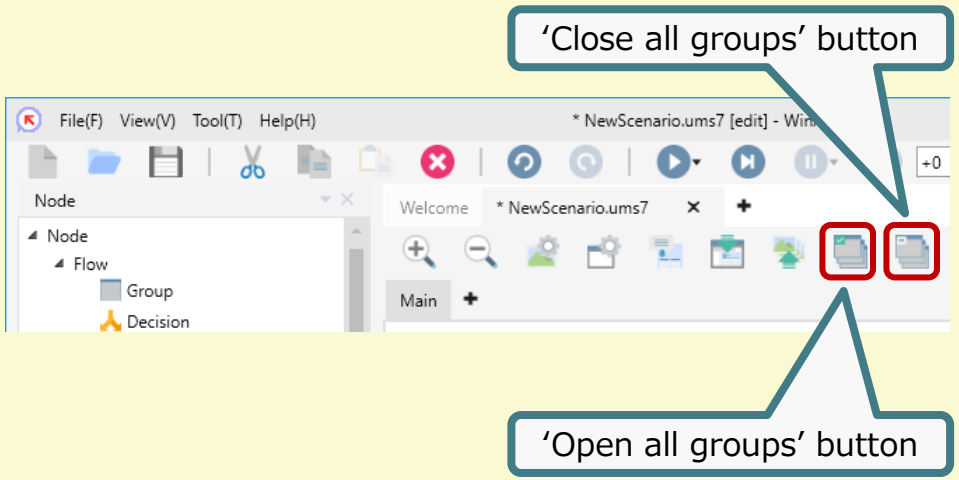
3 Scenario creation - Advanced 2 -

Tips Close and open groups

Multiple nodes and libraries can be displayed compactly by closing groups.

A group, which holds nodes and libraries, can be closed or opened with the left-upper button to be displayed compactly or to be displayed in original size respectively. Use the ‘Close all groups’ and the ‘Open all groups’ buttons to display a scenario in the readable state when a lot of groups have been created in it.



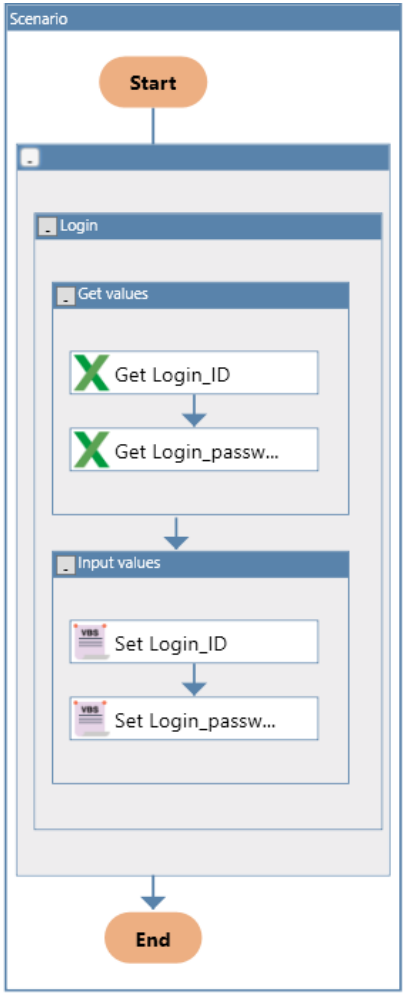


3 Scenario creation - Advanced 2 -

"Applying the rules so far to the previous scenario, it became an easy-to-understand scenario."

"If we can see the operations at a glance, we don't need to open each property to check the settings."

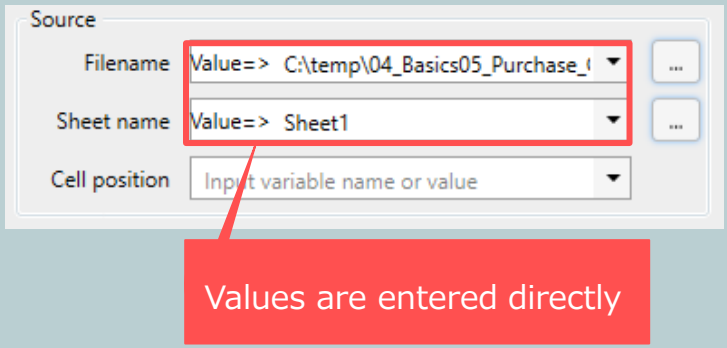
"The readability of the scenario has been improved by renaming and grouping nodes! Next, let's improve the ease of modification!"



3 Scenario creation - Advanced 2 -

"I will explain in detail about *4. Use variables and external files to set values in node properties*."

"In the scenarios created so far, you have set the login ID and the location of the input file directly in the node and library properties. With this method, if the login ID or the location of the file is changed, you need to open the scenario and correct it one by one manually. It's not a very maintainable scenario, is it?"



"Try to create a scenario so that you only need to modify the settings file without modifying the scenario itself even if the value is changed!"

3 Scenario creation - Advanced 2 -

"Specifically, create a settings file as shown in the figure below. Here, we use the operation to input a login ID as an example. First, write the information whose values are likely to be modified in the Excel file as a settings file. The important thing here is to write the actual value to be used in the scenario and its meaning."

"By creating it as a separate file from the scenario in this way, you can prevent the mistake of accidentally modifying other settings when modifying the scenario."

Setting

Number	Item	Meaning	Value to be read in scenario	Variable
1	Login ID	ID for login to system	User01	Login_ID
2	Login password	Password for login to system	Password	Login_password
3	Folder for Purchase Order Book	Folder for Purchase Order Book used in registration	C:\temp\04_Basics05_Purchase_Order_Book.xlsx	Purchase_Order_Book_Folder

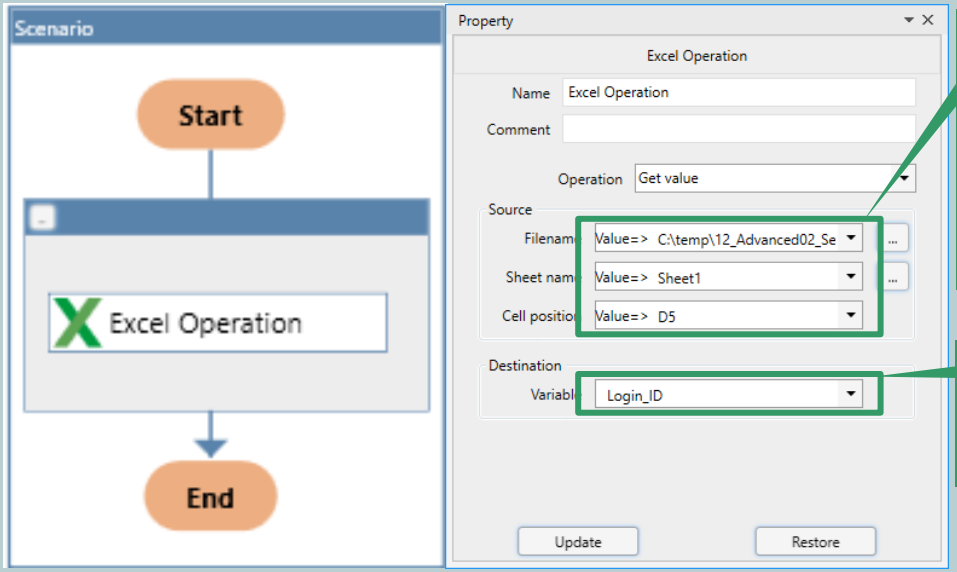
In the settings file, write a value to be read in the scenario.

"As mentioned in the previous slide, you only need to modify this settings file when modifying the value."

3 Scenario creation - Advanced 2 -

"Next, let's load the created settings file into WinActor! Use the Excel Operation node to read the login ID written in the settings file."

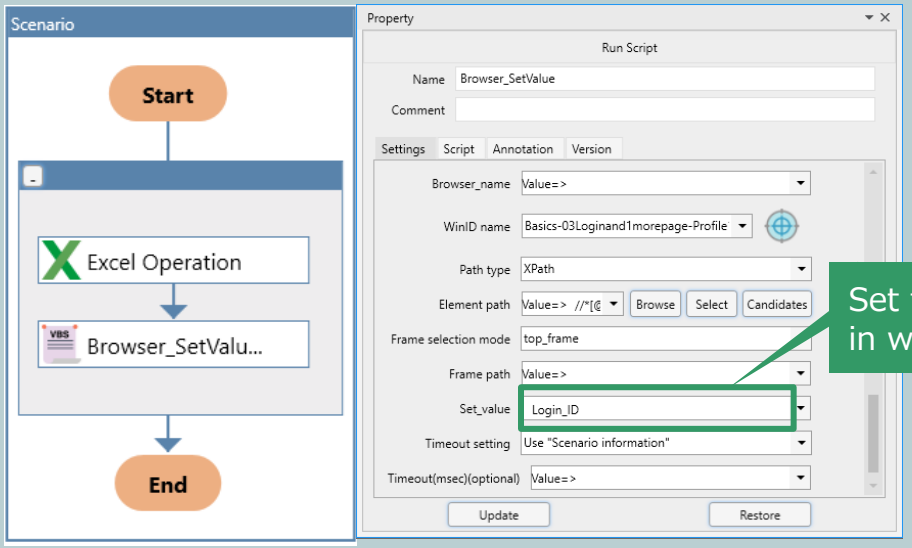
"Set the property items in the same way as the procedure to load Excel."



3 Scenario creation - Advanced 2 -

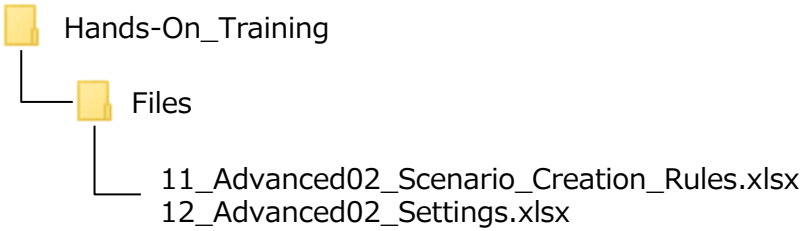
"Next, let's use the value just read! Use the Browser_SetValue library to set the variable read earlier."

"With this method, you can create a highly maintainable scenario in which you only need to modify the settings file without modifying the scenario even if the login ID is changed."



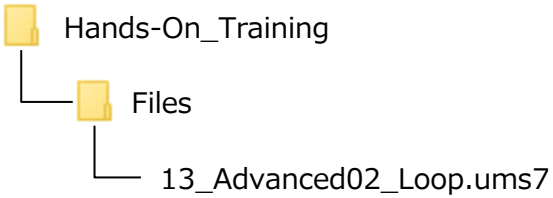
3 Scenario creation - Advanced 2 -

"Now, let's create the rules based on the templates provided in the following folder! Consider what to write in the orange part based on the rule template. You can use the templates as they are."



3 Scenario creation - Advanced 2 -

"Have you made the rules? Next, let's apply the created rules to the scenario created in *Practice 1. Loop processing for the same operation*. For your reference, the scenario file with rules applied has been provided in the following folder."



3 Scenario creation - Advanced 2 -

"What do you think? At first glance, don't you think there is a big difference in maintainability before applying the rules and after?"

"Well, I have never thought that it would be so easy to understand just by setting the rules and applying them!"

"This will help me fix Amanda's scenario too!"

"Maintainability becomes essential when multiple people create a scenario. Setting the rules you learned this time is one way, but there are other ways to improve maintainability. Understand the points and create a highly maintainable scenario!"

Advanced

- Scenario does not run
- Data is not input
- File is not output

Actions for troubleshooting

4 Scenario creation - Advanced 3 -

Case **The scenario created by Amanda has suddenly stopped running. William came to help Amanda, but...**

"The scenario that has been running suddenly stopped running!"

"Let's just open the scenario... It's stopped halfway through the scenario, what's the cause...?"

"I have heard from another department that the file used for work has not been output... what should I do..."

"Anyone can panic in dealing with trouble. This time, let's learn what to do when trouble occurs and measures to prevent the same trouble."

4 Scenario creation - Advanced 3 -

"What should I do when trouble occurs?"

"Broadly divided, the following three steps are required."

1. Realize what happened in the scenario (Realizing problem)
2. Find out the reason why the scenario does not run properly (Cause analysis)
3. Take actions such as correcting the scenario (Taking actions)

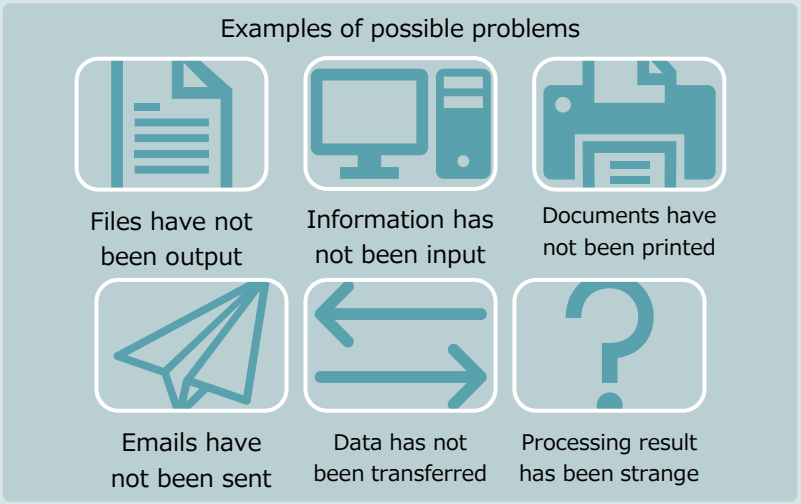
Flow of actions when trouble occurs

"If you work on these three steps in order, you can proceed smoothly with troubleshooting. Let's take a closer look at the next few slides."

4 Scenario creation - Advanced 3 -

"For *1. Realizing problem*, first see what is happening."

"Examples of possible problems are; Files that should be output have not been output, Information that should be input to the in-house system has not been input, Necessary documents have not been printed, Emails have not been sent, etc."

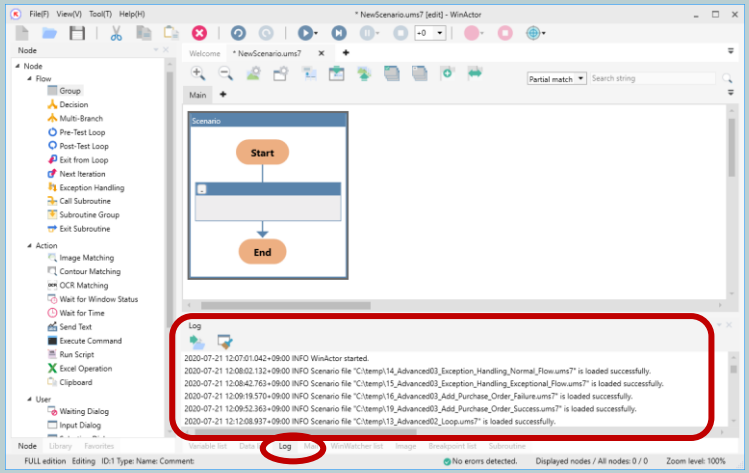


"The actual problem is often not just one but multiple. If you cannot see the problem, you will not be able to analyze the cause properly. Take your time to determine the problems."

4 Scenario creation - Advanced 3 -

"Next, for *2. Cause analysis*, check the scenario execution log."

"A log is a record of WinActor operations such as execution date and time of each node and related information."



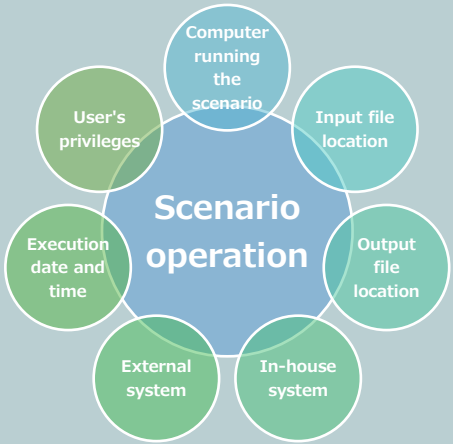
"A log is also recorded in the case of trouble, including the node ID that did not run properly and the reason why it did not run."

4 Scenario creation - Advanced 3 -

"After identifying the node causing the trouble from the log, check the property items of that node."

"Is the file path or the reference image described in the property correct? Have you changed it before you know it? If the scenario does not run even though you have not modified it, first suspect a cause other than the scenario as shown below."

Examples of external factors that affect scenario operation



"The causes other than the scenario are not the problem of the scenario itself, but the problem of the external environment changes including;

- The computer that runs the scenario has changed
- The input file path (folder) has changed
- The image of the in-house system used for image matching has changed"

4 Scenario creation - Advanced 3 -

"Once the cause is found, as *3. Taking actions*, we will modify the scenario so that it runs properly. There are provisional and permanent measures, so first, as a provisional measure, modify the scenario so that it runs. The provisional measure is a 'urgent' response to run the scenario in the sense of first aid."

"What do we specifically need to do?"

"Since there are various troubles and problems, it is difficult to explain all the countermeasures here. Basically, check the log, understand the cause, and take actions. See the next slide for a list of frequently occurring troubles and their solutions."

4 Scenario creation - Advanced 3 -

"The following are some examples. For derails, see WinActor Operation Manual."

Error log	Cause	Action to take
Failed to load a file. The file path is invalid.	The file specified in the property of Excel Operation node does not exist.	Check whether the file exists in the specified location, and if it does not exist, correct the location where the file exists.
Unable to find a window that matches WinID name ****.	The target application set in the node/library is not running.	Launch the application and rerun.
Failed to run script. Error code: 0x000000001 Description: The specified file can not be opened.	An attempt was made to open a password-protected Excel file using Excel-related nodes/libraries such as Excel Operation.	Remove the password of the Excel file.
Failed to run script. Error code: 0x000000001 Description: The specified sheet can not be found.	The specified Excel file sheet name is incorrect.	Correct the sheet name of the Excel file.
Failed to run script. Error code: 0x000000001 Description: This name is already in use. Enter another name.	The copy source sheet name and the copy destination sheet name of the Excel file are the same.	Change the copy destination sheet name.
Failed to run script. Error code:0x000003ec Description: SaveAs method of Workbook class failed.	The destination for saving the Excel file is not specified correctly.	Check if there is a file with the same name in the destination for saving the Excel file, and if it exists, delete it.
Failed to run script. Error code:0x0000000d Description: Type mismatch.	The value entered in the node/library is incorrect. (Example: Date format is broken)	Correct the entered value.

4 Scenario creation - Advanced 3 -

- Column -

Relationship between scenario maintainability and troubleshooting

The higher the maintainability of the scenario, the easier for troubleshooting. This is because the readability of the scenario is directly linked to the ease of the following three steps to be taken when a trouble occurs.

1. Realizing problem
2. Cause analysis
3. Taking actions

In particular, the maintainability is a very important factor when implementing provisional measures that require quick response.

The best way is to create a scenario in which troubles are unlikely to occur as much as possible. It is however not that easy, so it is important to create a scenario so that you can take actions immediately if something happens.

4 Scenario creation - Advanced 3 -

"Next, as a permanent measure, modify the scenario so that the same trouble does not occur! It is also called a recurrence prevention measure. In addition to modifying the property items of nodes and libraries, applying WinWatcher or adding Exception Handling may be effective."

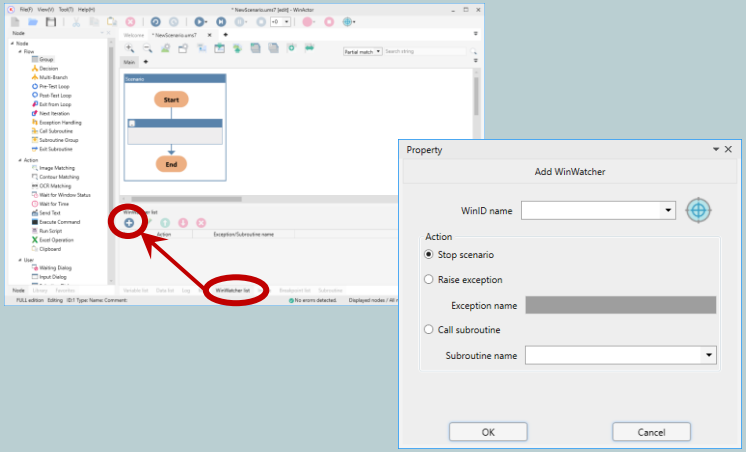
"Exception Handling? WinWatcher? I haven't used either before..."

"Both are powerful features that make the scenario run properly. See the following slides for WinWatcher and Exception Handling features."

4 Scenario creation - Advanced 3 -

"WinWatcher is a function that can stop a running scenario or execute another process when the window with the preset name is displayed while the scenario is running."

"By setting WinWatcher, when another application or a notification dialog is displayed, the scenario can be stopped normally or the scenario can be continued by another process."

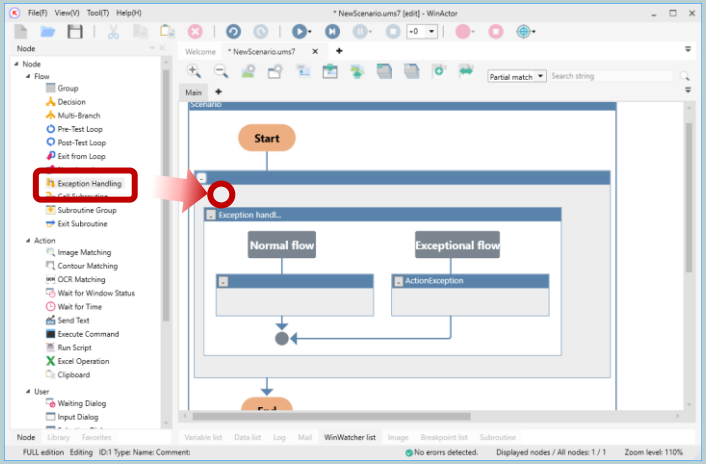


"It is better to set WinWatcher on a computer that has applications that are constantly running in addition to WinActor, such as Outlook and chat apps, or in an environment where dialogs may be displayed due to external factors."

4 Scenario creation - Advanced 3 -

"In addition to WinWatcher, there is a node called Exception Handling for processing unexpected errors. Unlike WinWatcher, which affects the entire scenario, Exception Handling targets nodes/libraries set in the Exception Handling node."

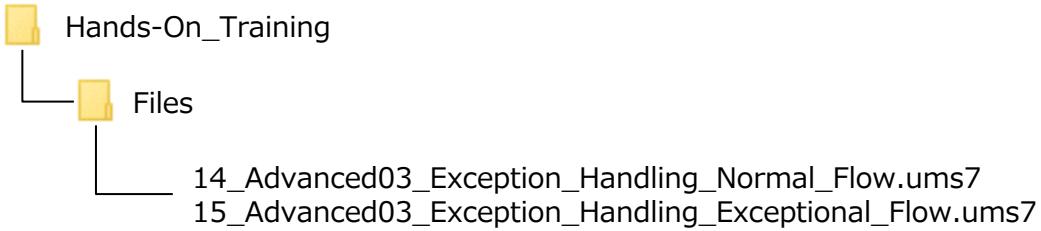
"It has two flows, normal flow and exceptional flow. If an error occurs during the process of the nodes/libraries in the normal flow, the normal flow will be stopped and exceptional flow will be executed."



"It is recommended to put the normal processes in the normal flow and the processes when the error occurs in the exceptional flow."

4 Scenario creation - Advanced 3 -

"For Exception Handling, let's run the sample scenarios and check the operations."

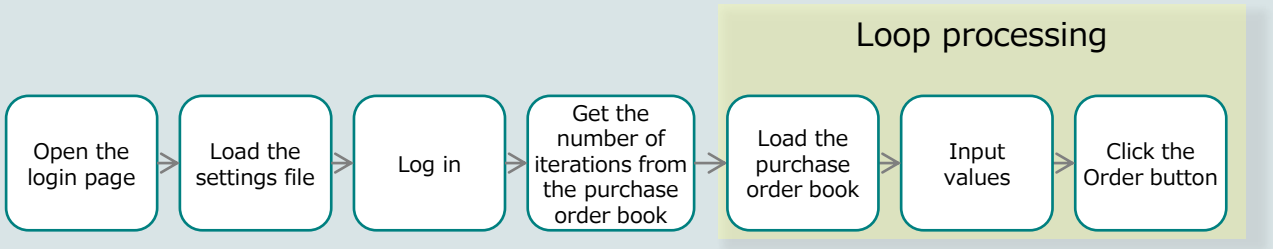


"If you compare the operations of the normal flow scenario and the exceptional flow scenario, you can see that the running flow is switched to the exceptional flow when an error occurs in the exceptional flow scenario. It is a good idea to copy the scenario created so far into the normal flow of this sample scenario and try to operate it."

4 Scenario creation - Advanced 3 -

"Based on what we have learned so far, let's modify a scenario that does not run due to trouble! Let me first explain the scenario that was working properly. "

"When it was running normally, it was operated as follows."

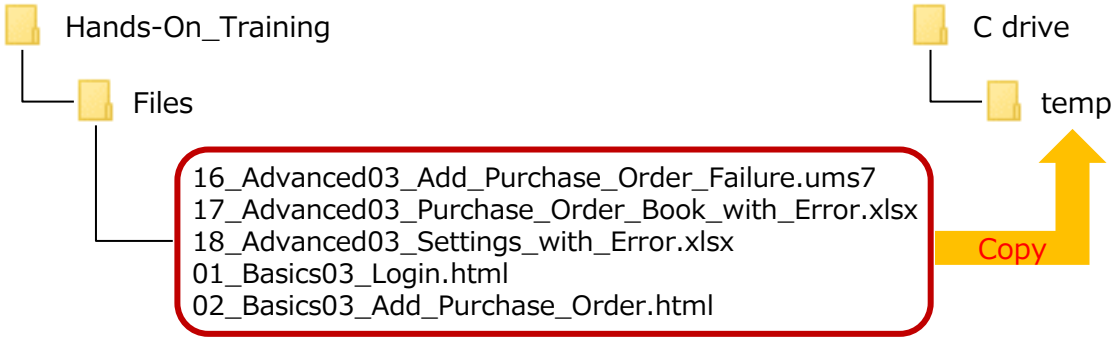


"The files used are as follows."

Type	Filename
Scenario file	16_Advanced03_Add_Purchase_Order_Failure.ums7
Settings file	18_Advanced03_Settings_with_Error.xlsx
Purchase order book	17_Advanced03_Purchase_Order_Book_with_Error.xlsx

4 Scenario creation - Advanced 3 -

"Now, copy the 'scenario that does not run and settings file' saved in the folder below to C:/temp and run the scenario."



"Some errors occur and it does not run properly. Let's modify the scenario remembering what we have learned so far!"

4 Scenario creation - Advanced 3 -

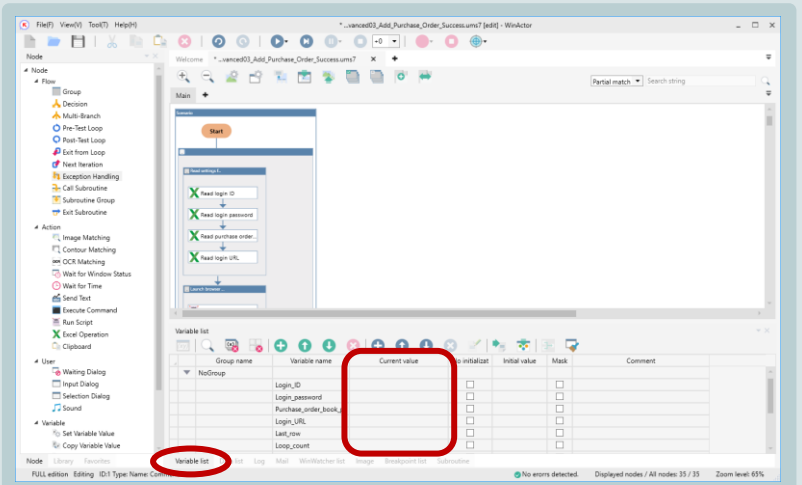
"How is it? If you are in trouble, check the following."

Error log	Actual trouble	Points to check
Failed to run script. Error code: 0x00000001 Description: The specified sheet can not be found.	An error message “The specified sheet can not be found.” is displayed when reading the number of rows in the Purchase Order book.	Is the sheet name in the Purchase Order book file correct? Some other user may change the sheet name. Check it!
Failed to run script. Error code: 0x00000001 Description: Library execution (spv_Web) failed. The Browser of WinID ‘Baiscs-03Login-Profile1-MicrosoftEdge’ is not found.	Login ID is not input.	Is the displayed page changed to the Add Purchase Order page? First, let's modify it so that you can log in! The login ID can be found in the settings file. Review the settings file!
	Cannot log in.	Are the image matching settings correct? Check the mouse operation coordinates settings in the property!

4 Scenario creation - Advanced 3 -

"You may want to check the current contents of variables when troubleshooting. In such a case, check [Current value] in the Variable list pane."

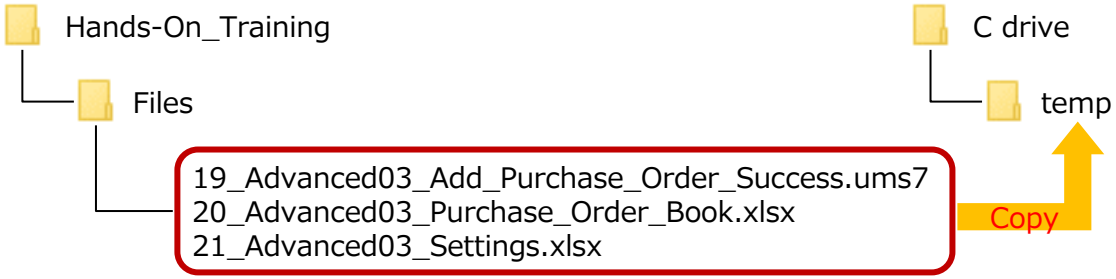
"[Current value] is linked with the operation of the scenario and is updated in real time. This is a convenient feature to check how variables have changed after running a node that changes variable values, such as the Excel Operation node."



"In cases where the value is automatically input but the value is not as expected, the cause may not be found by checking the flowchart area or the Main window.
If the scenario doesn't run properly, check the Variable list pane as well."

4 Scenario creation - Advanced 3 -

"Have you finished modifying the scenario? The scenario that runs normally is saved in the folder below. Compare it with the scenario you have modified."



"How was it? If you could not modify it properly, refer to the scenario that runs normally and modify it with your own hands!"

4 Scenario creation - Advanced 3 -

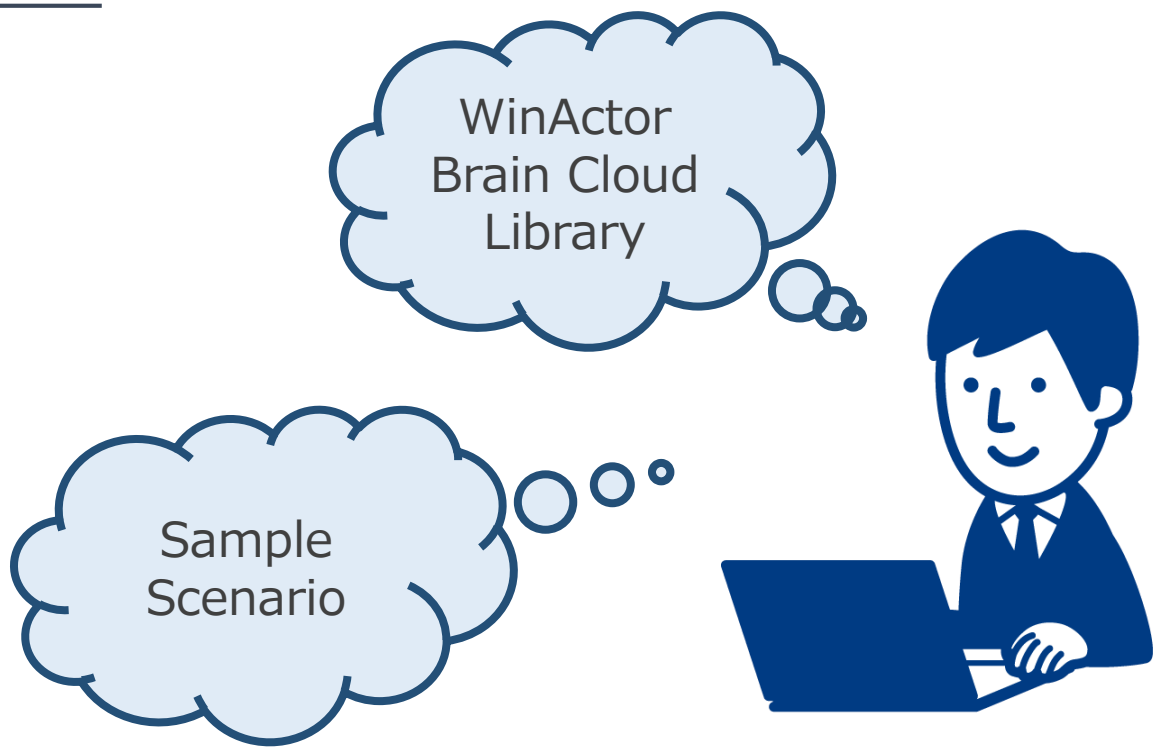
"We have learned about troubleshooting. I know that you needed a technique different from the one for scenario creation. How was it? "

"It's difficult... I'm a little panicked and confused..."

"I think I can do it if I know the tips! If we think about it carefully, the measures we learned last time to improve maintainability will be effective when dealing with problems!"

"That's right, William! In many cases, quick response is required when trouble occurs. After learning the knowledge in the training like this time, you can make the knowledge more useful in the field by actually modifying the scenario by yourself. Don't hesitate and take action to deal with it!"

Advanced



Expanding the knowledge of WinActor

5 Scenario creation - Advanced 4 -

Case **William, who has relied on Maria so far, has begun to want to learn more about WinActor. What kind of learning method is available?**

"I've always relied on you, Maria, but I'm now in your position. I want to learn more about WinActor by myself. Is there anything available?"

"You are now a mentor to other employees. Yes, WinActor has various contents and tools for more convenient use."

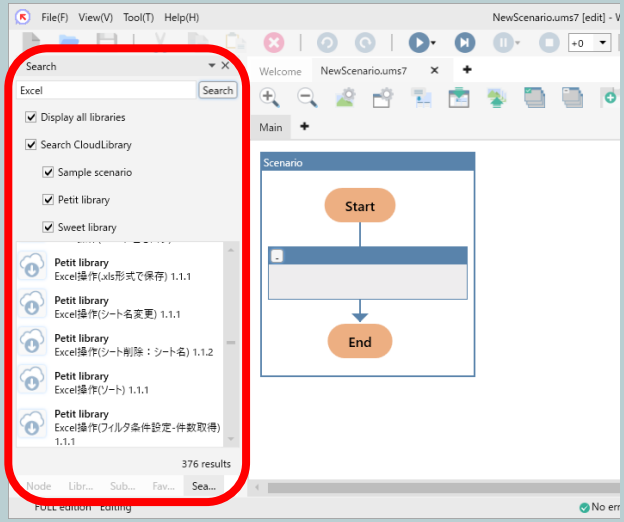
"Is there anything other than the documentation that comes with the installer?"

"Of course! WinActor has more various functions available. You don't need to use all of them, but they all can be used for business. I will show you in the next slide."

5 Scenario creation - Advanced 4 -

"The first one is WinActor Brain Cloud Library."

"WinActor Brain Cloud Library is a scenario creation support tool that runs on the cloud to create WinActor scenarios more easily and efficiently. As one of the provided functions, you can search and download the libraries included in WinActor and petit libraries* released on the WinActor official website."



"In the Petit Libraries page, there are many libraries that can be used in actual work are registered, such as a library to determine whether the specified date is a weekday or a holiday, a library to print an Excel file and more."

*The Petit Libraries are available only in Japanese.

5 Scenario creation - Advanced 4 -

"Petit libraries are libraries for creating scenarios. Scenarios are also available in the form of sample scenarios."

"On the WinActor official website, there is the Sample Scenarios page* that lists the ready-to-use scenario files. For example, there is a sample scenario that extracts and aggregates data from multiple Excel files, and a sample scenario that performs image matching while scrolling the web page. You can use those sample scenarios, too."

"For details on WinActor Brain Cloud Library and sample scenarios, visit the following URL."

WinActor official website

https://winactor.biz/en/ (English)
https://winactor.biz/ (Japanese)

*The Sample Scenarios page is available only in Japanese website.

6 Scenario creation - Advanced epilogue -

"Well, William and Amanda, how was your learning in the advanced section?"

"I became a little big-headed after being able to create scenarios, but... besides creating scenarios, there are many things to learn such as improving maintainability and troubleshooting."

"I feel lucky that I was able to learn the advanced contents before learning more about scenario creation!"

"That's good. What we have learned this time is very important when using WinActor with multiple people. You may feel it is hard to improve maintainability at first. However, considering that the scenario you've created leaves your hands and is modified by others, it is a good idea to make it a little easier to understand. Such compassion leads to quick response when trouble occurs. From now on, make a scenario with this perspective in mind!"

6 Scenario creation - Conclusion -



We have learned a lot with William, Amanda, and Maria through the basics, practice, and advanced sections. In addition to those described in this training, WinActor has more functions and easy-to-use tools.
As mentioned earlier, you can also use WinActor Brain Cloud Library and the sample scenarios* posted on the official website to improve the efficiency of your work with WinActor!

WinActor's motto is "a partner who makes user-friendly business improvement." Although it is important to learn deeply about the function, it is more important to first try to operate it with your own hands just like William and Amanda did in this training. Start with a small idea that "Can I do this work with WinActor?" and then create a scenario. WinActor is there to support you!

Enjoy working with WinActor!

* The sample scenarios are available only in Japanese.

Update history

1 Update history

Version	Last update	Details
1.0	August 28, 2020	Initial version
1.1	March 4, 2021	Supports WinActor7.2.1, revised descriptions
1.2	July 28, 2021	Supports WinActor7.3.0
1.3	November 12, 2021	Demo scenarios use IE mode on Microsoft Edge
2.0	June 12, 2024	Demo scenarios use Microsoft Edge and Google Chrome
2.1	May 1, 2025	Supports WinActor7.6.0, revised descriptions

WA7-T-20250605