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1 Structure and learning objectives of this material

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



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	Chapter 2 cenario creation	Contents	Learning objectives	
		Automation for click and input on a webpage	Understand how to manipulate data on a webpage Understand how to use Image Matching	
	Basics	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	Strue	Structure and learning objectives of this material				
•	Structure a	and learning objectives of this n	naterial are as follows.			
	Chapter 2 enario 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	Strue	Structure and learning objectives of this material				
•	Structure a	re and learning objectives of this material are as follows.				
	Chapter 2 cenario 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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 - *1 The official name of Windows is Microsoft Windows Operating System.
 - *2 The official name of VBScript is Microsoft Visual Basic Scripting Edition.
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3 Notes on this document

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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.



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

2-3 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.



Dialog WinActor × The scenario contains 2 errors. ? If you keep on running the scenario, errors may occur. For details, check logs. OK Cancel

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





2 **Basic operations of WinActor** Loading a scenario file 2-5 Select a folder where scenario files Select [File] > [Open] on the menu 2 1 are saved. bar. 📧 Open R View(V) Tool(T) Help(H) File(F) This PC → Windows (C:) → temp v ē ← ~ ^ Search temp Organize 👻 New folder 8= - 🔳 🕐 Name Date modified Type 📌 Quick access New ۲ UMS7 File //17/2020 2:27 PM 💻 This PC R 14 Advanced03_Exception_Handling_Normal_Flow.ums1 UMS7 File > 🧊 3D Objects /17/2020 6:21 PM UMS7 File Wel 0 16_Advanced03_Add_Purchase_Order_Failure.ums7 7/17/2020 6:32 PM UMS7 File Open > 📃 Desktop 7/17/2020 6:34 PM 19_Advanced03_Add_Purchase_Order_Success.ums7 UMS7 File > 🗄 Documents > J Downloads > h Music > 📰 Pictures th. Save 📕 Videos > 🏰 Windows (C:) Mai pp 🌧 Network Save as þop Sce File name: Scenario files (*.ums7;*.ums6;*. bop Cancel Import bn Select a scenario file you Export landling 3 want to use. tine Recent files Group Click the [Open] button. tine 4 Quit thing

2	Basic operations of Wi	nAc	tor
2-6-1	Image: Click the 'Run scenario' button. Image: Click the	2-6-	
	Multi-Branch Pre-Test Loop Post-Test Loop Next Iteration Exception Handling	Ŷ	OK 2 Click the 'Stop scenario' button. * 新لاله ' المحمد



2 Basic operations of WinActor

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

F

TEXT

PDF



Web browser

- 55

Java

Application

Using WIN32 API

ワ





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2 Basic operations of WinActor

2-10 Saving a log file

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



able list Data list

2

U-08-26 11:28:37.378+09:0 INFO Scenario file "C:\temp\13_Advanced02_Loop.ums7" i
 2020-08-26 11:29:51.232+09:0 INFO [Scenario (start)] Scenario "13_Advanced02_Loop.um
 2020-08-26 11:29:51.252+09:0 INFO [Group (start)] "Login" node started. Node ID: 7
 2020-08-26 11:29:51.256+09:0 INFO [Action] Running "Image Matching" node. Node ID:
 2020-08-26 11:30:01.381+09:0 ERROR [Error] An error occurred in "Image Matching" nod
 2020-08-26 11:30:04.908+09:0 INFO Received pause.
 2020-08-26 11:30:04.908+09:0 INFO [Pause] Scenario paused by user.
 2020-08-26 11:30:04.908+09:0 INFO [Scenario (stop)] Scenario "13_Advanced02_Loop.um"
 2020-08-26 11:32:26.232+09:0 INFO [Scenario file "C:\temp\14_Advanced03_Exception_Hi
 2020-08-26 11:32:32.742+09:0 INFO [Scenario (start)] Scenario "14_Advanced03_Exception_Hi
 2020-08-26 11:32:32.745+09:0 INFO [Scenario (start)] Scenario "14_Advanced03_Exception_Hi
 2020-08-26 11:32:32.745+09:0 INFO [Scenario (start)] Scenario "14_Advanced03_Exception_O
 2020-08-26 11:32:32.745+09:0 INFO [Normal flow (start)] "Exception handling group" nov
 2020-08-26 11:32:32.749+09:0 INFO [Action] Running "Beginning of normal flow" node. Node I
 2020-08-26 11:32:34.598+09:0 INFO [Action] Running "End of normal flow" node. Node I
 2020-08-26 11:32:34.598+09:0 INFO [Action] Running "End of normal flow" node. Node I
 2020-08-26 11:32:35.894+09:0 INFO [Action] Running "End of normal flow" node. Node I

2020-08-26 11:32:35.904+09-01NEO [Scenario (end)] Scenario "14_Advanced03_Exception

Mail WinWatcher list Image Breakpoint list

Click the 'Save logs' button.

Log



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.





Scenario creation - Basics prologue -

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!



1

Case

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.







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.



Case

"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

"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

"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 easyto-use node and can be used in various situations. You should learn to be able to use it!"



2

"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.

Prep Launching WinActor

3

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

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



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

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

3

1

File(F) View(V) Tool(T) Help(H)	WinActor _ 🗆 🗙
	Q D + D -0 + Automatic switch + 0 -
Welcome +	Ţ
Welcome 1	
WinActor 7	
C	
Start	Official website
Create a new scenario	WinActor
Open a scenario file	WinActor FAQ
	WinActor Manual (Japanese)
Recently opened scenario files	Manuals
	Installation Manual
	Basics Manual
	Operation Manual
	Programming Language WinActor Scenario Script
	▲ Manual By Function
	Java Application Operation Scenario Creation Manual
	Supplement for JSON Function
	Mail Reception Scenario Creation Manual
	Gmail Scenario Manual
	User Library Sample Manual
	Scenario Template File
	WinActorEye
	^b WinActor Note
	 Browser Operation
	Chrome Agent Installation Manual
	Firefox Agent Installation Manual
	Browser Operation Scenario Creation Manual
	External Service
	 Hands-On Training
	Hands-On Training
	Movies
	Files
FULL edition	Д.
	9

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

3. Installation procedure on Microsoft Edge Ingeneral, 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.
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. Note: The the section of
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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 WinActor? Browser Agent for Edge" consecutively.
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section. (1) Launch WinActor and select "Tool," "Install extensions," and "Install WinActor7 Browser Agent for Edge" consecutively.
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Call Subrox Microsoft sign in
Subroutine Google sign in
The full Scenar
Total Scenar Install extensions * Install WinActor? Browser Agent for Chrome
Watch Ever Import configuration Import configuration
Cancel Eve Export configuration Install WinActor? Browser Agent for Firefox
A lange Even

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

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

3



Click the 'Browser' tab in the "Option" dialogand select 'Extension' from the dropdown of 'Edge.' (first time only)

Option			×	
Manageme	nt server Proxy server	Server connection status	Log server	
Run	Record	Date and time	Log	
Screen sa	ver Update	Browser Generative AI	Misc.	
browse If "Use	r.	the extension function to operate tion" is checked in the scenario ir		
Chrom	Extension		-	
Edge	Extension		-	
Firefox	WebDriver		•	
	ОК	Cancel		
5 Click the	e [OK] butto	on.		
E		e users, seleo ropdown of 'o		

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



3 Automation for click and input on a webpage Displaying the login page Prep Right-click "01_Basics03_Login.html" and select 'Microsoft Edge' from 'Open with.' × File to be used 🕒 Basics-03 Login × + (i) File | C:/temp/01_Ba... A ☆ 2 3 כוז Hands-On_Training WinActor Scenario Demo System Files 01 Basics03 Login.html User ID Password Be sure to use Edge or Chrome as the browser to start the demo system. For Chrome users, select 'Google Chrome' from 'Open with.'

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

3


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



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



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

Property	7 Click the 'Mouse operation coordinates' button.
Password	8 In the page captured earlier, click at the position of the "User ID" text box.
Collapse Settings Details Edit	
WinID name Basics-03Loginand1morepage-Profile1-MicrosoftEdge	
Action Matching only Matching result output Select variable name Coordinates 326,354	
Update Restore	

"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.

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

Property Name Comment	Image matching	For [Action], select 'Left button click' from the pull-down list.
	Reference image Mouse position User ID Password Login	10 Click the [Update] button.
	Details Edit	326,354

3-2 Inputting data into the User ID text box



3-2 Inputting data into the User ID text box

Property	★ ×	🌲 🗖 🗅 Basics-03 Login x +	- c
Send Text		← C Q ① File C:/temp/01_Ba A ☆ 🕱 🕱	
Name Send Text		WinActor Scenario Demo Syst	em
Comment			
Settings Details			
WinID name	•	→O	
Target control Unconfigured		User ID	
String to send Input variable name or value	-	Password	
Send return key			
Verify sent result (Pause in case of verification failure)		Login	

3-2 Inputting data into the User ID text box

Property × X Send Text Name Send Text	5 For [String to send], select "Value=>" from the pull-down list and enter "User01" after "Value=>."
Comment Settings Details WinID name Basics-03Login-InternetExplorer	6 Click the [Update] button.
Target control Configures String to send Input variable name or value Send return key Verify sent result	
└ (Pause in case of verification failure)	
Update Restore	
	The value entered in [String to send] will be input.

3-3 Inputting data into the Password text box



3-4 Clicking the Login button



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.
Property	Le Basics-03 Login x + - □ × ← C Q ① File C:/temp/01_Ba A ☆ 로 ③ □ ☆ @ ጭ … ✓ WinActor Scenario Demo System
Image: Settings Settings Details Edit Image: Setting only Action Matching result output Select varial Coordinates Update Restore	User ID Password Login
	Use the blue scope button to specify which window to be operated.

3-4 Clicking the Login button



3-4 Clicking the Login button



3-4 Clicking the Login button

Property × X Image matching Name Image Matching Comment	9 For [Action], select 'Left button click' from the pull-down list.
Reference image Mouse position User ID Password	10 Click the [Update] button.
✓ collapse	
Settings Details Edit WinID name Basics-03Loginand1morepage-Profile1-MicrosoftEdge Action Left button click Update Update Resource	11 Click the [Close] button of Edge.



3-5 Displaying the Add Purchase Order page

3

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

 □ □ Basics-03 Add Purchase Order × + - □ × ← ○ Q ○ □ File C/temp/02_B A^h ☆ 菜 ③ □ ☆ ● ጭ … グ 	File to be used
WinActor Scenario Demo System Menu Add P/O Search P/O Add to Inventory Register Payment Add P/O Search P/O Add to Inventory Register Payment Add P/O Search P/O Add to Inventory Register Payment Add P/O Search P/O Add to Inventory Register Payment Add to Inventory Register Payment Image: Control Payment Supplier Image: Control Payment Image: Control Payment Supplier Image: Control Payment Image: Control Payment Product code Product name Quantity Price Image: Control Payment Image: Control Payment Image: Control Payment	Hands-On_Training Files 02_Basics03_Add_Purchase_Order.html
Save Order Subtotal Tax (10%) Total	Be sure to use Edge or Chrome as the browser to start the demo system.For Chrome users, select 'Google Chrome' from 'Open with.'

3-6 Inputting a P/O date



3-6 Inputting a P/O date

3

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.

	Run Script	
Name	Browser_SetValue	
Comment		
ettings S	cript Annotation Version	
Bro	wser_name Value=>	
v	VinID name	
	Path type XPath	
Ele	ement path Value=> Browse Select Candidates	
Frame selec	ction mode last_frame	
I	Frame path Value=>	
	Set_value Value=>	
Time	out setting Use "Scenario information"	
Timeout(ms	sec)(optional) Value=>	-
ĺ	Update Restore	

Image: Contemplot2.8 A triangle in the image: A triangle in th	Basics-03 Add Purc	hase Order × +		-	o ×
Menu Add P/O Search P/O Add to Inventory Register Payment Add Durchase Order P/O date 9 July 2020 Supplier 123456 Supplier code 123456 Registrant Registrant Registrant name Product code Product name Quantity Price · · · · Save Order Subtotal Tax (10%)	C Q 🛈 File	C:/temp/02_B A 🏠 🕱	3 Ф ⊄	÷ %	📀
Menu Add P/O Search P/O Add to Inventory Register Payment Add Durchase Order P/O date 9 July 2020 Supplier 123456 Supplier code 123456 Registrant Registrant Registrant name Product code Product name Quantity Price · · · · Save Order Subtotal Tax (10%)	WinActor Sce	enario Demo Svs	tem		
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Save Order Save Order	Product code	Product name	Quantity	Price	
Save Order Subtotal Tax (10%)	. v				1
Save Order Subtotal Tax (10%)	· •				
Tax (10%)	· •				
Tax (10%)					•
	Save Order		Subtotal		
Total			Tax (10%)		
			Total		

3-6 Inputting a P/O date

🙎 🗖 🕒 Basics-03 Add Purchase Order 🗙 🕂	
C Q File C:/temp/02_Ba /	🕅 🏠 🕱 ଓ 💷 🕼 🕲 🚥 🎸
Menu Add P/O Search P/O	
Add Purchase Orde	r 📗
P/O date 9540-2020	
code ¹²³⁴⁵⁶ na	plier me strant
code na	
Product code Produc	t name Quantity Price
· •	
	Ū
Save	Subtotal
	Tax (10%)
	Total
	Add Purchase Order

3-6 Inputting a P/O date

perty ▼ Run Script	For [Set_value], enter "Value=>20 December
Name Browser_SetValue	2019."
Comment	
ettings Script Annotation Version	10 Click the [Update] button.
Browser_name Value=>	
WinID name Basics-03AddPurchaseOrder-Profile1- 💌 💮	
Path type XPath 👻	
Element path Value=> //*[@ Browse Select Candidates	
Frame selection mode top_frame	
Frame path Value=>	
Set_value Value=> 20 December 2019	
Timeout setting Use "Scenario information"	
Timeout(msec)(optional)	
Update Restore	

3

Inputting a supplier code and registrant code 3-7 Scenario Follow the same steps as 3-6. Start -**1.1** For "Supplier code," enter "123456." 🔍 Image Matching **1.2** For "Registrant code," enter "WA011." 👬 Send Text Image Matching 💒 Send Text 🚶 Image Matching Browser SetValu... With the above settings, the operation of inputting the P/O Browser SetValu... date, supplier code, and registrant code is completed. Browser_SetValu...

3-8 Selecting a product code



3-8 Selecting a product code

3

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.

Run Script		- C Q (i) File C;/	temp/02_B A 🏠 🕱	(3 C) <≥ √	è 🗞 … 🄇
Name Browser_SelectItem		WinActor Scer	nario Demo Sys	stem	
Comment		Menu Add P/O	Search P/O Add to	Inventory Reg	ister Payment
Settings Script Annotation Version			- ·		
Browser_name Value=>	^	Add Purchas	e Order		
		P/O date 9 July 2020			
WinID name		Supplier code	Supplier name		
Path type XPath		Registrant code	Registrant		
Element path Value=> Browse Select Candidates		Product code	name Product name	Quantity	Price
Frame selection mode last_frame		· · · ·	Troduce name	Quantity	-
Frame path Value=>		· •			
Type_of_specified_values		· · · ·			
Value=>		Save Order		Subtotal	P
Timeout setting Use "Scenario information"				Tax (10%)	
Timeout(msec)(optional) Value=>	*			Total	
Update Restore					

Selecting a product code 3-8

3

Property	~ ×	Basics-	13 Add Purchase Order × +	-	0
Run Script		< C Q	〕 File C:/temp/02_Ba A ☆ 🛣	3 D ¢ @ %	
Name Browser_SelectItem Comment			Scenario Demo Sy Add P/O Search P/O Add t	o Inventory Register Pay	rment
Settings Script Annotation Version Browser_name Value=> WinID name Basics-03AddPurchaseOrder-Profi Path type XPath Element path Value=> Frame selection mode last_frame Frame path Value=> Type_of_specified_values		P/O date Supplier code Registrant code Product c	• • •	Quantity Price	
Value >	•	Save	Order	Subtotal Tax (10%)	
Timeout setting Use "Scenario information"	-			Total	

3-8 Selecting a product code

Property × X	9 For [Type_of_specified_values] and [Value], enter 'value' and "Value=>P001" respectively.
Name Browser_SelectItem	
Comment	
Settings Script Annotation Version	10 Click the [Update] button.
Browser_name Value=>	
WinID name Basics-03Add PurchaseOrder-Profile 💌 💮	
Path type XPath 👻	
Element path Value=> //* Browse Select Candidates	
Frame selection mode top_frame	
Frame path Value=>	
Type_of_specified_values value	
Value Value=> P001	
Timeout setting Use "Scenario information"	
Timeout(msec)(optional) Value=>	
Update Restore	



3-9 Clicking the Order button



3-9 Clicking the Order button

3

5

Property - × Run Script Name Browser Click Comment Settings Script Annotation Version Browser_name Value=> WinID name Path type XPath Element path Value=>
 Browse Select Candidates Frame selection mode last_frame • Frame path Value=> • Timeout setting Use "Scenario information" • Timeout(msec)(optional) Value=> • Update Restore

Click the blue scope button for [WinID name].

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

 Basics-03 Add Put C Q i File 		- - -	• ×
WinActor Sc Menu Add P/C	enario Demo Syste Search P/O Add to Inve		ment
P/O date 9 July 20 Supplier code 123456 Registrant code WAD11			
Product code	Product name	Quantity Price	
· •			
		Subtotal	• •
Save		Tax (10%) Total	

3-9 Clicking the Order button

3

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.

Run Script			emp/02_Ba A 🏠 🕱		@ % ···
Name Browser_Click		nActor Scen	Search P/O Add to		gister Payment
omment					<u>, , , , , , , , , , , , , , , , , , , </u>
tings Script Annotation Version		dd Purchas	e Order		
Browser_name Value=>		P/O date 9 July 2020			
WinID name Basics-03AddPurchaseOrder-Profi 💌		Supplier code	Supplier name		
Path type XPath	1	code WA011	Registrant name		
Element path Value=> Browse Select Candidates		Product code	Product name	Quantity	Price
ame selection mode last_frame		. v			î
Frame path Value=>	-	· · ·			
Timeout setting Use "Scenario information"					•
neout(msec)(optional) Value=>		Save		Subtotal	0
Update				Tax (10%)	0
opuate				Total	0

3-9 Clicking the Order button

9 Click the [Update] button.

Property			* >
		Run Script	
Nam	Name Browser_Click		
Commen	t		
Settings	Script Ann	otation Version	
В	rowser_name	Value=>	*
	WinID name	Basics-03AddPurchaseOrder-Profi	
	Path type	XPath 💌	
	Element path	Value=> / Browse Select Candidates	
Frame se	lection mode	top_frame 🔹	
	Frame path	Value=>	1
Timeout setting		Use "Scenario information"	
Timeout(r	nsec)(optiona) Value=>	-
	Update	Restore	

3-10 Checking the entire scenario

3

Confirm that the created scenario is as follows.



3-11 Running the scenario

	8 0 0 I D - 0	Click the 'Run scenario' button and check if the scenario runs without error.
Node Node Node Flow Group Coup Nulti-Branch Pre-Test Loop Post-Test Loop Exit from Loop Next Iteration Exception Handling	Welcome * NewScenario.ums7 × + Main + Scenario Start	If an error occurs, check the error message and review the settings of the property and the like.

3-11 Running the scenario

Error messages



3

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.

WinActor X	
The scenario contains 3 errors. If you keep on running the scenario, errors may occur. For details, check logs.	
OK Cancel	WinActor ×
Run scenario confirmation dialog	Unable to find a window that matches WinID name "Basics-03Login-InternetExplorer_1".
	ОК
	Error dialog

3 Automation for click and input on a webpage Saving the scenario 3-12 View(V) Tool(T) Help(H) ĸ File(F) Click the [File] menu. 1 C New Þ. Ν Welcome * NewScenario.um Open 4 Click the [Save as] menu. 2 Save Main Select a location to save a file for the Save as 3 scenario, enter a filename, and click the Scenario [Save] button. Import op þop Export Start bop on Recent files 🕨 Handling itine Quit Group Image Matching 🐨 Exit Subroutine . . . For a scenario that has already been saved, you can use the [Save] menu.



3

"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





Automation for data transfer from a webpage to Excel


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.



Case

"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

"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!"



"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!"



"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!"

Prep Launching WinActor

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

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



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



5-1 Opening and logging into the webpage



5-1 Opening and logging into the webpage

Property × X	5 Ente	er "Value=>edge01" for [Browser_name].
Rur Script		
Name Browser_Launch Comment	6 Sel	ect 'edge' for [Browser_type].
Settings Script Annotation Version for"Timeout setting." The dafault value is 10,000. Browser_name Value=> edge01	7 Clic	k the [Update] button.
Browser_type edge		
Update Restore		
		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



5-1 Opening and logging into the webpage

Property × X	11 Enter '01_Basics03_Login.html' for [URL].
Name Browser Browse	
Comment	
Settings Script Annotation Version	12 Click the [Update] button.
Open a web page with the specified browser.	
"Browser_name": Specify a browser name to use. This name should match the "Browser_name" field of the "Browser_Launch" library. "WinID name": Specify the window. If the WinID is specified while using WebEriver, an error occurs.	For the setting of a file path, you can drag and drop the file as described above instead of typing the file path manually.
"URL": Specify a URL to open in the browser.	When you want to set a path of a file in a folder displayed on the desktop to
Browser_name Value=> edge01	a node or library, the setting with
WinID name	drag and drop is convenient. It reduces typos when setting the file
URL Value=> C:/temp/01_Basics03_Logir	path and speeds up scenario creation.
Update Restore	Excel Operation File Home
	Comment Operation Set value Drag and drop Value Value/Variable Status Destination Filename Value=> Cttemp(Value/Sec05.5 fr.est)

5-1 Opening and logging into the webpage

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

■ □ Basics-03 Login x + - □ X	File to be used
C Q O File C/temp/01_Ba A ☆ Z G D ☆ G ⊗ ··· ✓ WinActor Scenario Demo System User ID Password	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.'

5-1 Opening and logging into the webpage

Scenario Place the 'Browser SetValue' library to set up the target window. 14 Set [Element path] by selecting the "User ID" text box so that the value is set into the "User ID." Start Property Basics-03 Login C Q (1) File | C/temp/01 Ba., A 🗘 🕱 🔇 🖽 🏩 🚱 Run Script WinActor Scenario Demo Svstem Name Browser_SetValue Comment Settings Script Annotation Version Browser Launch Browser_name Value=> edge01 WinID name Basics-03Login-Profile1-MicrosoftEdge -Path type XPath Browser Browse Element path Value=> //*[@ ▼ Browse Frame selection mode top_frame Browser SetValu... Frame path Value=> Set value Value=> User01 Timeout setting Use "Scenario information Browser SetValu... Timeout(msec)(optional) Value=> Update Restore VBS Browser Click **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 clickand input on a webpage."

5-1 Opening and logging into the webpage

Scenario Place the 'Browser SetValue' library to set up the target window. **16** Set [Element path] by selecting the "Password" text box so that the value is set into the "Password." Start Property Basics-03 Login C Q () File | C/temp/01_Ba... A^h ☆ 🕱 C | CD 🎓 🚱 Run Script WinActor Scenario Demo System Name Browser_SetValue Comment Settings Script Annotation Version Browser Launch Browser_name Value=> edge01 WinID name Basics-03Login-Profile1-MicrosoftEdge -User ID VBS Path type XPath Browser Browse Element path Value=> //*[@ - Browse Frame selection mode top_frame Browser SetValu... Frame path Value=> Set_value Value=> Password Timeout setting Use "Scenario information Browser_SetValu... Timeout(msec)(optional) Value=> Update Restore VBS Enter "Value=>Password" for [Set value], and click the [Update] Browser Click button. For the settings of 'Browser SetValue,' see 3-6 in the "3 Automation of clickand input on a webpage."

5-1 Opening and logging into the webpage

Scenario Place the 'Browser_click' library to set up the target window. 18 Set [Element path] by selecting the 'Login' button so as to log in. Start Property Basics-03 Login **-** × C Q 🕕 File | C/temp/01_Ba... \Lambda 🟠 🕱 🔇 | CD 🏂 🕲 🧐 🚥 Run Script WinActor Scenario Demo System Name Browser_Click Comment Settings Script Annotation Version VALUE IS USED WHEN USE UNIS FLODELLY IS SELECTED TO THINEOUL SELE Browser Launch The default value is 10,000. Browser_name Value=> edge01 User ID Passwor VBS WinID name Basics-03Login-Profile1-MicrosoftEdge Browser Browse Path type XPath Element path Value=> //but · Browse Select Browser SetValu... Frame selection mode top_frame Frame path Value=> Timeout setting Use "Scenario information" VBS Browser SetValu... Timeout(msec)(optional) Value=> Update Restore Browser Click **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."

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



5-2 Moving to the Search Purchase Order page



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.

operty		▼ ×
	Run Script	
Name	Browser_Click	
Comment		
Settings So	ript Annotation Version	
THIS VALUE IS I	seu wien ose uns rioperty is selected for filleour sett alue is 10,000.	mg.
Brov	vser_name Value=> edge01	
W	inID name	<u>ه</u>
	Path type XPath	•
Ele	ment path Value=> Browse Select Cancel	lidates
Frame selec	tion mode last_frame	•
F	rame path Value=>	•
Time	Use "Scenario information"	•
Timeout(ms	cc)(optional) Value=>	•
[Update Restor	e

Menu Add P/O	enario Demo Sys Search P/O Add to		ter Payment
 Add Purcha	ase Order		
P/O date 9 July 202	20		
Supplier code	Supplier name		
Registrant code	Registrant name		
Product code	Product name	Quantity	Price
. v			Î
. v			
- •			
		1	•
Save Order		Subtotal	
		Tax (10%)	
		Total	

5-2 Moving to the Search Purchase Order page

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

	Run Script	
Name	Browser_Click	
Comment		
	ript Annotation Version	
	alue is 10,000.	etung.
Brov	vser_name Value=> edge01	•
W	inID name	•
	Path type XPath	
Ele	ment path Value=> Browse Select Ca	andidates
Frame selec	tion mode last_frame	-
Frame path Value=>		•
Time	out setting Use "Scenario information"	•
Timeout(mse	ec)(optional) Value=>	•
ſ	Update Resi	

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

	cenario Demo S		
	P/O Search P/O Ac	Id to Inventory R	egister Payment
Add Purc	hase Order		
P/O date 9 July			
 Supplier code	56 Supplier name		
Registrant code	Registrant name		
Product code	Product name	Quantity	Price
- •	•		Î
	•		
	•		
4		1	•
Save Or	der	Subtotal	
		Tax (10%)	
		Total	

5-2 Moving to the Search Purchase Order page

9 Click the [Update] button.

roperty		•	
	Run Script		
Name	Browser_Click		
Comment			
2	Configured cript Annotation Version used when ose this property is selected for influence setting.		
	value is 10,000.	-	
Bro	wser_name Value=> edge01	·	
W	VinID name Basics-03AddPurchaseOrder-Profile1-1 💌 💮		
	Path type XPath	-	
Ele	ement path Value=> //*[@ ▼ Browse Select Candidate	:5	
Frame selec	ction mode top_frame	•	
I	Frame path Value=>	·	
Time	out setting Use "Scenario information"	•	
Timeout(msec)(optional) Value=>			
ſ	Update Restore	٦	

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



5-3 Searching products in the Search Purchase Order page

Scenario Set the webpage to be operated in the same way as for other properties. **1** Set [Element path] by selecting the "Product code" text box so that the value Start is set into the "Product code." Property Basics-05 Search Purchase Order × C Q (i) File | C:/temp/03_Bas... A 🗠 夏 3 0 G **6**2 Run Script WinActor Scenario Demo System Name Browser_SetValue Browser Launch Add P/O Search P/O Add to Inventor Register Payment Comment Settings Script Annotation Version Browser Browse Search Purchase Order Product Browser_name Value=> edge01 WinID name Basics-05SearchPurchaseOrder-Profile Deliver Status Product name Quantit Browser SetValu... Path type XPath Element path Value=> //inpi
Browse Select Candidates Browser SetValu... Frame selection mode top_frame Frame path Value=> Browser Click Set value Value=> P001 Timeout setting Use "Scenario information Timeout(msec)(optional) Value=> Browser Click Update Restore Browser_SetValu... 2 Enter "Value=>P001" for [Set value], and click the [Update] button. Browser Click For the settings of 'Browser SetValue,' see 3-6 in the "3 Automation of click-and input on a webpage."

5-3 Searching products in the Search Purchase Order page

Scenario Set the webpage to be operated in the same way as for other properties. 3 Start Set [Element path] by selecting the 'Search' button so as to log in. o x - × Basics-05 Search Purchase Order 🗴 Property C Q () File | C:/temp/03_Bas... A 🟠 🕱 () 🗇 🗇 👒 Run Script WinActor Scenario Demo System Browser Launch Name Browser_Click Menu | Add P/C Add to Inventor Register Payment Comment Settings Script Annotation Version earch Purchase Order Browser Browse This value is used when use this Property is selected for Threout setun The default value is 10,000. Product code Browser_name Value=> edge01 Delivery Product name Status Browser SetValu. WinID name Basics-05SearchPurchaseOrder-Profile Path type XPath Browser SetValu.. Element path Value=> //*[@ - Browse Select Frame selection mode top_frame Frame path Value=> Browser Click Timeout setting Use "Scenario information" Timeout(msec)(optional) Value=> Browser Click Update Restore Browser SetValu. Click the [Update] button. Browser Click For the settings of 'Browser_Click,' see 3-9 in the '3 Automation of click-and input on a webpage."

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



Automation for data transfer from a webpage to 5 Excel **Getting the status of Search Purchase Order** 5-4 File(F) View(V) Tool(T) Help(H) * NewScenario.ums7 [edit] - WinActor \odot \bigcirc A 1 +0 - Automatic switch -Click the [Library] tab. 1 * NewScenario.ums 🕑 🖪 2 - 19 Search Search string Main Display all libraries Browser Browse Double-click '05 Table' and expand the list ▲ 23_Browser 2 ▲ 01 Launch&Close of libraries. Browser CloseAllWindows Browser SetValu Browser CloseBrowser Browser_SetValu... Browser_CloseWindowByURL Browser Launch Drag the 'Browser GetValueInTable' library Browser_LaunchWithDriver Browser_Click 3 Browser_ and drop it into the scenario edit area. Browser_LaunchWithProxySetting Browser_Click Browser_Restart ▶ 02 Window&Ta Browser SetValu... 4 03 Click Double-click the placed library. (Displaying Browser Click 4 Browser Click Browser_ClickAndResult the property) Browser_ClckDialogBox Browser ClickText ser_GetValu.. Browser_ClckTextByTagName ✓ 05_Table End ReckCellExistence Browser_GetNumberOfTableC Browser GetNumberOf[™] leRowsAndColum Variable list Browser_GetValue____able Browser SaveAllCellsOnTable Group name Variable name Current valu Library Variable list Data list Log Mail WinWatcher list Image Breakpoint list FULL edition Editing ID:15 Type:Run Script Name:Browser_GetValueInTable Comment: 😢 1 error detected. Display

5-4 Getting the status of Search Purchase Order

Set the webpage to be operated in the same way as for other properties. Scenario 5 Set [Table path] by selecting the table on the webpage. Start Property 🙎 🗖 🗋 Basics-05 Search Purchase Order 🗙 🕂 ← C Q () File | C:/temp/03_Bas... A ☆ 🕱 🔇 | 🗘 🗲 (filt) କ୍ଷ ... Run Script WinActor Scenario Demo System Name Browser_GetValueInTable Browser Launch Menu Add P/O Search P/O Add to Inventory Register Payment Comment Settings Script Annotation Version Browser Browse Search Purchase Order Browser_name Value=> edge01 Product Search code Browser SetValu... WinID name Delivery Product name Status Quantity date Path type XPath VBS Browser SetValu... Table_path Value=> ▼ Browse Select Frame selection mode last_frame Browser_Click > Frame path Value=> Row_number Value=> Browser_Click Column number Value=> VBS Browser_SetValu... Variable to store the value Select variable name Save Update Restore VBS Browser_Click Browser_GetValu...

5-4 Getting the status of Search Purchase Order

Scenario		items of 'Browser_GetValueInTable' as follows.
Browser_Launch	Property Run Script Name Browser_GetValueInTable Comment	For both [Row_number] and 6.1 [Column_number], enter "Value=>1."
Browser_SetValu	Settings Script Annotation Version Browser_name Value=> edge01 WinID name Basics-05SearchPurchaseOrder-Profile •	For [Variable_to_store_the_value], enter "Status."
Browser_Click	Path type XPath Table_path Value=> //*[6] Browse Select Candida Frame selection mode top_frame	Click the [Update] button. If the variable confirmation dialog appears, click [Yes].
Browser_Click	Frame path Value=> Row_number Value=> 1 Column_number Value=> 1 Variable_to_store_the_value Status	WinActor X
Browser_Click	Update	Variable "Status" does not exist in Variable list. Do you want to add a new variable?

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



5-5 Inputting the status into Excel



5-5 Inputting the status into Excel

Excel Operation	4 For [Operation], select 'Set value.'
Comment	5 For [Value/Variable], select 'Status.'
Operation Set value Value/Variable Status Destination Image: Status Filename Value=> C:\temp\04_Basics05_Purchase_Order_Book.xlsx Sheet name Value=> Sheet1 Cell position Value=> J5	Gick the [] button for [Filename], and Explorer opens. Specify the file named "04_Basics05_Purchase_Order_Book.xlsx" and cick [Open].
Update Restore	 For [Sheet name], enter "Value=>Sheet1." (You can also use the [] button.) For [Cell position], specify "Value=>J5."
	8 Click the [Update] button.

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

Tips Using 'Group' (node)



5

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.







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



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."





"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!"

Point!





"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!"

Prep Displaying the in-house system page

Right-click "05_Basics07_Add_Item_to_Inventory.html" and select 'Microsoft Edge' from 'Open with.'



Prep Checking the inventory

7

14 10 06_Basics07_Inventory.xlsx 15 11 06_Basics07_Inventory.xlsx 16 12 06_Basics07_Inventory.xlsx 17 13 0 18 14 0 19 15 0 20 16 0 21 17 0 22 18 0 23 19 0 24 20 0 Sheet1 • •	AutoSave 💽 🗗 🏷 < 🖓											
A B C D E F G H I 2 Inventory 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 <td< td=""><td>File Ho</td><td>me Inse</td><td>rt Page Layout</td><td>Formulas Data</td><td>Review View De</td><td>veloper Help</td><td><u>ب</u></td><td>Search</td><td>ß</td><td>5</td><td>3</td><td></td></td<>	File Ho	me Inse	rt Page Layout	Formulas Data	Review View De	veloper Help	<u>ب</u>	Search	ß	5	3	
1 inventory 2 inventory 4 Number 125 December 2019 0001 6 225 December 2019 7 3 8 4 9 5 10 6 11 7 12 8 13 9 14 10 15 11 16 12 17 13 18 14 19 15 16 12 17 13 18 14 19 15 16 12 17 13 18 14 19 15 18 14 19 15 12 16 13 17 14 10 15 10 16 12 17 13 18 14 19 15 <td< td=""><td>01</td><td>+ : D</td><td>< \[f_x \]</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>×</td><td></td></td<>	01	+ : D	< \[f_x \]								×	
3 125 December 2019 0001 Accounting Department Michael Brown P001 File to be checked 6 225 December 2019 0002 Accounting Department Catherine Landis P001 File to be checked 7 3 4	A	в	с	D	E	F		G	н	1		
3 125 December 2019 0001 Accounting Department Michael Brown P001 File to be checked 6 225 December 2019 0002 Accounting Department Catherine Landis P001 File to be checked 7 3 4	1											
4 Number Registration date Storehouse coc Department Requester nam Product so allute 5 125 December 2019 0001 Accounting Department Michael Brown P001 6 225 December 2019 0002 Accounting Department Catherine Landis P001 8 4 Accounting Department Catherine Landis P001 Hands-On_Training 9 5 Accounting Department Catherine Landis P001 Hands-On_Training 10 6 Accounting Department Accounting Department Accounting Department Accounting Department 11 7 Accounting Department Accounting Department Accounting Department Accounting Department 11 7 Accounting Department Accounting Department Accounting Department Accounting Department Accounting Department 13 9 Accounting Department Accounting Department Accounting Department Accounting Department Accounting Department Accounting Department Files 13 9 Accounting Department Accounting Department Accounting Department Accounting Depart		Inventory									-	
s 1 25 December 2019 0001 Accounting Department Michael Brown P001 6 2 25 December 2019 0002 Accounting Department Catherine Landis P001 7 3 4		Number	Registration date	Storehouse coo	Department	Requester nam	Produ		NI-+-			
6 2 25 December 2019 0002 Accounting Department Catherine Landis P001 7 3 4 6 6 6 6 9 5 6 6 6 6 6 10 6 6 6 6 6 6 11 7 6 6 6 6 6 13 9 6 6 6 6 6 13 9 6 6 6 6 6 14 10 6 6 6 6 6 15 11 6 6 6 6 6 16 12 6 6 6 6 6 19 15 6 6 6 6 6 21 17 7 6 6 6 6 23 19 6 6 6 6 6 24 20 7 7 6 6 6 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>File to be checked</td></t<>												File to be checked
8 4 9 5 10 6 11 7 12 8 13 9 14 10 15 11 16 12 17 13 18 14 19 15 20 16 21 17 22 18 23 19 24 20 Sheet • Sheet • • • • • • • • • • • • • • • • • • •	6	2	25 December 2019	0002	Accounting Department	Catherine Landis	P001					
9 5 10 6 11 7 12 8 13 9 14 10 15 11 16 12 17 13 18 14 19 15 20 16 21 17 22 18 23 19 24 20 Sheet (rows and columns) of sheet cells the set of t		3										
10 6 11 7 12 8 3 9 14 10 15 11 16 12 17 13 18 14 19 15 20 16 21 17 22 18 23 19 24 20 Files Files Ge_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 the source of the source o		4							Ha	ands	s-C	n_Training
11 7 12 8 13 9 14 10 15 11 16 12 17 13 18 14 19 15 20 16 21 17 22 18 23 19 24 20 Files Files 66_Basics07_Inventory.xlsx Check the inventory that is the source of the inventory the invento		5										
12 8 13 9 14 10 14 10 15 11 16 12 17 13 18 14 19 15 20 16 21 17 22 18 23 19 24 20 Sheet The state of the state		7					<u> </u>				File	ac a
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17 13 Image: Constraint of the second s											•	
18 14 14 14 16 19 15 16 17 17 17 22 18 19 16 10 17 17 23 19 19 19 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10 10												
19 15 Image: state of the state of								-	(Che	ck	the inventory that is the source
20 16 familiar with it as you are using it for your daily work. However, when creating a scenario, the positions 22 18 creating a scenario, the positions 23 19 creating a scenario, the positions 24 20 familiar with it as you are using it for your daily work. However, when creating a scenario, the positions Sheet1 Image: state								-				
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23 19 24 20 Sheet1 ⊕ Image: Sheet1 ⊕	21	<u> </u>										,
23 19 24 20 Sheet1 ⊕ Image: Sheet1 ⊕	22	<u> </u>)	/ou	r c	aily work. However, when
Sheet1	23	<u> </u>						_				•
	24											
🕫 🛛 🔠 🖩 🖷 – 🔤 🕎 you usually do not pay much	< >	Sheet1	(+)		÷ •					•		
	E 0											
attention to become important.								V	a	atte	ent	ion to become important.

Prep Launching WinActor

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

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



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



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



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

Excel Operation	From the pull-down list of [Operation], select 'Get value.'
Name Excel Operation Comment Operation Get value Source Filename Value=> C:\temp\06_Basics07_Inventory.xlsx	Socievance: Click the [] button for [Filename], and Explorer opens. Specify the file named "06_Basics07_Inventory.xlsx" and click [Open]. V V V V V V V V V V V V V V V V V V V
Variable Registration_date	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."
Update Restore	8 Click the [Update]. If the variable confirmation dialog appears, click [Yes].

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

Scenario	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].)
Start Excel Operation Excel Operation	Excel Operation Comment Operation Get value Source Filename Value=> C:\temp\06_Basics07_Inventory.xlsx • Sheet name Value=> Sheet1 Destination Variable Storehouse_code
Excel Operation	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].)
End	Excel Operation Name Excel Operation Comment Operation Get value Source Filename Value=> CAttemp\06_Basics07_Inventory.xlsx Sheet name Value=> State Get value=> G5 Operation Variable Product_code

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



Automation for data transfer from Excel to an inhouse system 7-2 Inputting data into the Add Item to Inventory page 📧 File(F) View(V) Tool(T) Help(H) * NewScenario.ums7 [edit] - WinActor - Ш. 0 **D** 🕕 🔹 🛑 🛨 🛑 Automatic switch 💌 Click the [Library] tab. 1 * NewScenario.ums7 Welcome Θ <u>i</u> Ð Ə Te 📩 Search Main + Display all libraries Double-click the '23 Browser' and expand ▲ 23_Browser 2 the list of libraries. Start ▷ 02_Window&Tab ▷ 03_Click ▷ 04_Wait ▷ 05_Table Drag the 'Browser SetValue' library and ▷ 06_List Y Excel Operation 3 Brows drop it into the scenario edit area. CountElements Browset X Excel Operation Browset GetAnchorURL Browser GetAttributeValue Browse GetCheckState Ҟ Excel Operation Double-click the placed library. (Displaying Browset GetDriverPath 4 Browse GetPropertyValue the property) ser_SetValu.. Brov Browse GetValue IsEnabled Browset MoveMouse Browset End NameBrowser Browse Browset SelectFile Browset SelectFrame Browset SendMouseEvent Browse Set∆ttributeValu SetProper+ Browse Browser_SetValue Variable lis Browser_SetValueToReproduceKeystrokes (î) ≥ 24 Java Variable name Current value Group name Library Variable list Data list Log Mail WinWatcher list Image Breakpoint list FULL edition Editing ID:9 Type:Excel Operation Name:Excel Operation Comment: No errors detected. Display

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

	Property	▼ X Basici-07 Add Item to Inventory X + -
	Run Script	← C Q () File C;/temp/05_Bas A ¹ ☆ Z G D ½ @ @
	Name Browser_SetValue	WinActor Scenario Demo System
Excel Operation	Comment	Menu Add P/O Search P/O Add to Inventory Register Payr
	Settings Script Annotation Version	
	Browser_name Value=>	Add Item to Inventory Registration Add Altrace
Excel Operation	WinID name Basics-07AddItemtoInventory-Profile1 💌 🍈	date Storehouse code 0001
Excel Operation	Path type XPath	Product Product See
	Element path Value=> //*[@ Browse Select Candidate	
*	Frame selection mode top_frame	Status Product name Quantit
Browser_SetValu	Frame path Value=>	
	Set_value Registration_date	
L	Timeout setting Use "Scenario information"	
	Timeout(msec)(optional) Value=>	
End	Update	Regi

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

Scenario	7 Set the webpage to be operate	ed.
Start	Set [Element path] by selecting	g the "Storehouse code" text box.
Excel Operation Excel Operation Excel Operation Browser_SetValu Browser_SetValu	Property Run Script Name Browser_SetValue Comment Image: Script Annotation Version Settings Script Annotation Version Browser_name Value=> WinID name Basics-07AddItemtoInventory-Profile1 Path type XPath Path type XPath Element path Value=> Frame path Value=> Set_value Storehouse_code Timeout (msec)(optional) Value=> Update Restore	Image: wide wide wide wide wide wide wide wide

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

Scenario	9 Set the webpage to be operate Set [Element path] by selectin	ed. g the "Product code" text box.
Excel Operation Excel Operation Excel Operation Excel Operation Browser_SetValu	Property Run Script Name Browser_SetValue Comment Settings Script Annotation Version Browser_name Value=> WinID name Basics-07AddItemtoInventory-Profile1. Image: Colspan="2">Image: Colspan="2" Image: Colspan="2">Image: Colspan="2" Image: Colspan=	Note of the internet inter
	10 Select 'Product_code' from the [Update] button.	e pull-down list of [Set_value], and click the

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



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



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.

Browser_SetValu	Property	Basics-07 Add Item to Inventory x + ×
	Run Script	- C Q 🛈 File C/temp/05_Bas A 🏠 🕱 🕄 🖨 🚱 … 🔮
Browser_SetValu	Name Browser_Click	WinActor Scenario Demo System Menu Add P/o Search P/o Add to Inventory Register Payment
	Settings Script Annotation Version	Add Item to Inventory
Browser_SetValu	The default value is 10,000.	Registration date 9 July 2020
Browser_Click	Search WinD name Basics-07AddItemtoInventory-Profile1 -	Storehouse 0001 Storehouse name
Browser_Click	Check box Element path Value=> //*[@ Browse Select Cardidates	Status Product name Quantity
Browser_Click	Frame selection mode top_frame Register path Value=>	
	Timeout setting Use "Scenario information"	
+	Timeout(msec)(optional) Value=>	
End		
	2 Click the [Update] button.	

7-4 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."

7-5 Running the scenario

7-6 Saving the scenario





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 -



"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!

Р	oir	nt!	
Ę	·		
	Y		

	L	_oop proc	essing		
		XLSX			
Write		E		Read	

"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!"

Automation for data transfer from Excel books to another Excel book

Prep Checking the purchase order book and the payment book

9

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Home	Insert Page Lay	ut Formulas Dati	a Review View D	Developer Help	,∕⊃ Search				남 Share 🖓	Comments	FIIES LU DE CHECKEU
в		D	E	F	G	н	1	J	к	LA	
Purchas	e order book										Hands-On_Training
	er Order date	Approval date	Department	Requester nam	e Supplier code	Registrant cor	la Product code	Status after	P/(Note		
Numbe			Accounting Department			5 WA011	P001	Status arter i	F/NOLE		
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	14										07_Basics09_Payment_Book.xlsx
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4 5 6 7 8 9 9 9 10 11 12 13 14 15 16 17 18 19 9 21		rr Payment date 1 90 November 2019 2 4 5 6 7 9 0 0 1 2 3 4 5 5 6 7 7 8 9 9 0 0 1 2 3 4 5 5 6 7 7 8 8 9 9 7 7 8 8 9 9 7 8 8 8 8 8 8 8 8 8 8 8 8 8	Bank cod/Payee cod NAT0001 987654		ayment amour Re		oduct code 01				
22	2	8									
24	4 3	0									🔄 👝 This time, we will transfer data from
25		t1 (+)					4				
R								5	H		the purchase order book to the
											the purchase order book to the payment book.

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

Prep Launching WinActor

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

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



Automation for data transfer from Excel books to another Excel book

9

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



9 Automation for data transfer from Excel books to another Excel book 9-1 Reading a value from Excel (using the Excel_GetValue2 library)



Automation for data transfer from Excel books to another Excel book

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

9

Name Excel_GetValue2 Comment	Run Script		Drag and drop "04_Basics05_Purchase_Order_Book.xlsx" into [File_name], and enter "Value=>Sheet1" for [Sheet_name], "Value=>5" for [Cell(row)],
Settings Script Annotation text such as a date or time. "Storage_dest_variable": Specify a variable to store the ob	Version		"Value=>F" for [Cell(column)], 'value' for [Type], and "Requester_name" for [Storage_dest_variable].
File_name Value= Sheet_name Value=	> C:\temp\04_Basics05_Purchas Sheet1		6 Click the [Update] button. If the variable confirmation dialog appears, click [Yes].
Cell(row) Value= Cell(column) Value=			
Type value	× F · ·		
Storage_dest_variable Requ	ester_name 🔹	-	
Update	Restore		

Automation for data transfer from Excel books to another Excel book

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

9



9 Automation for data transfer from Excel books to another Excel book 9-2 Inputting a value into Excel (using the Excel_SetValue2 library)



Automation for data transfer from Excel books to another Excel book

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

9

Name Excel_SetValue2 Comment	Run Script	Enter "Requester_name" for [Set_value], drag and drop "07_Basics09_Payment_Book.xlsx" into [File_name], and enter "Value=>Sheet1" for [Sheet_name],
Settings Script Annotation Specify a row position in A1 or Example) 3 in A1 format is equilated	r R1C1 format.	"Value=>5" for [Cell(row)], and "Value=>H" for [Cell(column)].
"Cell(column)": Specify a column position in A Example) B in A1 format is eq		5 Click the [Update] button.
Set_value Re	equester_name	
File_name Valu	e=> C:\temp\07_Basics09_Paymen ▼	
Sheet_name Valu	e=> Sheet1 🔹	
Cell(row) Valu	e=> 5 🔹	
Cell(column) Valu	e=> H 🔹	
Update	Rectore	

Automation for data transfer from Excel books to another Excel book

9-3 Checking the entire scenario

9

Confirm that the created scenario is as follows.







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 -



"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!"

Point!





"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

Auto	Save 💽 Off) 🖫 '9' (°' =	08_Basics11_Address_Book.xlsx -	Excel	8 📼 🧧	- 0 ×		File to be checked
File Home Insert Page Layout Formulas Data		Review View Help 🔎 Search		d Share 모 Comments				
E29	٣	: × ✓ fr				٣		
	А	B C	D	E	F	G		Hands-On_Training
1								
2		Address_book						
3			-					- Files
4		Number Department	Requester name	Mail address	Note			
5		1 Accounting Department	Michael Brown		_			
6		2 Accounting Department	Lee Schooling	S_Lee@nttattest.com				└── 08_Basics11_Address_Book.xlsx
7		3 Accounting Department	Alexandros Nechayev	A_Nechayev@nttattest.com				· · _ · · · · · · · · · · · · · · · · ·
8		4						
9		5			_			
10 11		0			_			
11		1						
12		9						
13		10						
					_			
	•			÷ •				
	III III							
								This times we will get an ensail
								address from this address book.
								a valid one so that an email can be
								Sent.
15 16	>	11 12 Sheet1 ①				* 115%		This time, we will get an email address from this address book. Correct the dummy email address t a valid one so that an email can be sent.


Automation for sending emails 11 "From here, we will create a scenario for the following operations." Person Automation Launch WinActor WinActor Open the Launch a Copy an Create a Input a Input a Send address address mailer new mail mail body recipient book Reading a value from Excel (using the Excel Operation node) 11-1

11 Automation for sending emails

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) From the pull-down list of [Operation], select Excel Operation 'Get value.' Excel Operation Name Click the [...] button for [Filename], and Comment Explorer opens. Specify the file named "08 Basics11 Address Book.xlsx" and click Operation Get value [Open]. Source 5 · Quick acces Value=> C:\temp\08_Basics11_Address_B Filename This PC 07_Basics09_Payment_Book.xta National I Sheet name Value=> Sheet1 403 Ruschase Order Book ab Cell position Value=> E5 Open Destination Email_address Variable For [Sheet name], enter "Value=>Sheet1." (You can also use the [...] button.) 6 For [Cell position], specify "Value=>E5." For [Variable], enter "Email_address." Click the [Update] button. If the variable 8 Update Restore confirmation dialog appears, click [Yes].

Automation for sending emails 11 "From here, we will create a scenario for the following operations." Person Automation Launch WinActor WinActor Open the Copy an Launch a Create a Input a Input a address Send address mail body mailer new mail recipient book 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) 📧 File(F) View(V) Tool(T) Help(H) * NewScenario.ums7 [edit] н. 0 O+ O+ O+ III+0 ▼ 1 Click the [Library] tab. ibrary Welcome * NewScenario.ums7 Θ <u>e</u> Search Main 🕇 Display all libraries Double-click '20 Mailer' and expand the list 8 Exce)_____ord of libraries. Start I 20_Mailer Outlook_AddAppointment Outlook_CountFoundMails Drag the 'Outlook SendMailByMailer' library Outlook_CreateReplyToAll 3 X Excel Operation and drop it into the scenario edit area. Outlook FindAppointment Outlook_IsRunning utlook SendMailBv Outlook Launch Outlook_Launch2 Double-click the placed library. (Displaying Outlook_Quit 4 Outlook_SaveFoundMails the property) End Outlook_SaveMailWith/ Outlook SendMail Outlook_SendMailByMailer There are several ways to send an Outlook SendMailWithAttac email in Outlook. This time, we use the Outlook SendMailWithAttac Variable list 'Outlook SendMailByMailer' library, 02_Thunderbird Variable name No initializat 03 WinActor Mail Group name Current value which not only sends an email but also NoGroup SendMail Email address opens and closes Outlook. 1_PowerPoint 2_System Depending on a scenario, you can use 23 Browser Outlook SendMailWithAttachmentByMa 4 Java iler to send an email with attached files. library Variable list Data list Log Mail WinWatcher list Image Breakpoint list Subroutine FULL edition Editing Node property was updated. Node ID: 7

11 Automation for sending emails Sending an email (using the Outlook_SendMailByMailer library) 11-2 Enter Email address for [Recepient(To)], Run Script nothing for [Recipient(Cc)], Outlook_SendMailByMailer Name 5 "Value=>Test mail" for [Subject], and Comment "Value=>Test mail body" for [Body]. Settings Script Annotation Version Start Outlook Mailer, send mails, and stop Mailer Click the [Update] button. 6 Recipient(To) Email_address Recipient(Cc) Value=> Subject Value=> Test mail -Body Value=> Test mail body 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 Update 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

Confirm that the created scenario is as follows.



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!"



1 Scenario creation – Practice prologue –

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!



Case

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



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



Case

William received a request from the finance department that they want to collect information of several payments and put them together in the inhouse 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

"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."





"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!"





2

"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 doubleclicking the trapezoid, and you can set processes by dragging and dropping the nodes and libraries into the square area, just like other scenarios."

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





"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 Loo	p processing for the same operation
Prep Launc	hing WinActor and opening an existing scenario
	tor from the Start menu or with any other startup method.
	scenario file] and select the scenario saved in the Basics section of "Automation for on a webpage." The created scenario will be displayed in the scenario edit area.
File(F) View(V) Tool(T) Welcome	Help(H) WinActor × Mine Mine Mine Lage Mine Mine Mine Mine Mine Mine Mine Mine Mine M
WinActor 7 Start	
Create a new scen Open a scenario fi	Image: Note of the second s
	Pictures Videos Vide
	For the startup methods and window layout, see WinActor Operation Manual.

3

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



Prep Displaying the login page

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

	File to be used
WinActor Scenario Demo System User ID Password	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.'

Prep Checking the additional processes

3

This time, the following processes will be added.



3-1 Setting the number of iterations

File(F) View(V) Tool(T) Help(H) * Basics03.ums7 [edit] - WinActor Library * Welcome * Basics03.ums7 x * O * Basics03.ums7 x	1 Click the [Library] tab.	
Search string Search Main + Display all libraries P Operating P 1 Dialog8ox P 1 Window Start D 1 Window	2 Double-click the '18_Excel' and expand the list of libraries.	
1 I File 1 JungelMatching	3 Double-click the '03_Row_Column' and expand the list of libraries.	
Excel_CopyRow Excel_CopyRow Excel_CopyRow Excel_CopyRow Excel_CopyRow Excel_CopyRow Excel_CopyRow Excel_CopyRow Excel_CopyRow Excel_CopyRow Excel_CopyRow Excel_CopyRow Excel_CopyRow Excel_CopyRow Excel_CopyRow Excel_CopyRow Excel_CopyRow Excel_CopyRow Excel_CopyRow Excel_CopyRow Excel_CopyRow Excel_CopyRow Excel_CopyRow Excel_CopyRow Excel_CopyRow Excel_CopyRow Excel_CopyRow Excel_CopyRow Excel_CopyRow Excel_	4 Drag the 'Excel_GetLastRow4' library and drop it into the scenario edit area.	
Excel_DeteRow Excel_DublicateColumn Excel_DublicateRow Excel_GetColumn Excel_GetColumn Excel_GetLastRow1 Browser_SetValu	5 Double-click the placed library. (Displaying the property)	
 Excel_GetLastRow2 Excel_GetLastRow4 Excel_GetLastRow4 Excel_GetLastRow4 Excel_GetLastRow4 Excel_setLastRow4 Group name Variable list Group name Variable list Data list Library Subs. Favo Search Variable list Data list Log Mail WinWatcher list Image Breakpoint list Subroutine Call FULL edition Editing ID:17 Type:Run Script NameExcel_GetLastRow4 Comment I error detected. Displayed nodes f 	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

Run Script						
Name Excel_GetLastRow4						
Comment						
Settings Script Annotation Version						
Settings Script Annotation Version Get the index number of the last row in the specified column. The last row is determined by pressing Ctrl + UP key from the bottom row of the sheet. * The folder where the current scenario exists is the base for relative path. * To express the cell position, only A1 format is supported. "File_name": Specify an Excel file. "Sheet name":						
Specify a sheet name. When omitted, the active sheet is used. "Search_column": Specify the column name to search for the last row. Example) A "Last row":						
Specify a variable to store the index number of the last row.						
File_name Value=> C:\temp\04_Basics05_Purchase_Ord						
Sheet_name Value=> Sheet1						
Search_column Value=> C						
Last_row						
Update Restore						

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].

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

3-1 Setting the number of iterations

3



3-1 Setting the number of iterations



11 Enter "Loop_count" for [Calculation result].

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.

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

AutoSave 💽 🗒 🏷 🖓 🛱 🔻						
File	5	Home	Insert Page Layout	Formulas Data	Review View	Develope
D9		•	× √ fx			
	A	В	С	D	E	
1						
2	ſ	Purchase o	rder book			
3	I					
4	l	Number	Order date	Approval date	Department	
5		1	25 December 2019	25 December 2019	Accounting Depart	ment
6		2	25 December 2019	25 December 2019	Accounting Depart	ment
7		3	26 December 2019	27 December 2019	Accounting Depart	ment
8		4	27 December 2019	27 December 2019	Accounting Depart	ment

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.

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

3



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





3 Loop processing for the same operation 3-3 Loop processing Pre-Test Loop Click the radio button of 'Number of 4 Name Pre-Test loop group iterations' and select 'Loop count.' Comment Conditional expression Number of iterations Loop count 5 Click the [Update] button. Range Input variable name or value $\overline{\mathbf{v}}$ to Input variable name or value Number of data Data filename Number of data (database) Data Source name Username e or value Password ole name or value 💌 Table name nput variable name or value 🔻 (optional) Counter Select variabl Update Restore

Loop processing for the same operation 3 3-3 Loop processing File(F) View(V) Tool(T) Help(H) * Basics03.ums7 [edit] - WinActor 0 **6** - +0 -Click the [Node] tab. 6 * Basics03.ums7 × + Welcome V Post-lest Loop 🔎 Exit from Loop 2 - FŶ 1 O Partial ma 📌 Next Iteration Main + Exception Handling ት Call Subroutine Drag the 'Count Up' node and drop it into Subroutine Group Send Text 7 🕁 Exit the scenario edit area. 금 Call Scenario File Image Matching 🕁 Exit cenario 🔿 Watch Events 📩 Register Event Watcher Excel GetLastRo.. 1 Canel Event Watcher 🔑 Ignare Events Double-click the placed node. (Displaying the 8 F Four Arithmetic.. Action property) Image Matching Con our Matching Fos Set Variable Va.. OCR Matching 🐻 Wait for Window Status 🕒 Wait for Time Pre-Test loop q. 🖌 Sena Text Execute Command Pre-Test Loop 🗮 Run Script Run Python X Exce Operation 🗅 Clip oard User L Count Up 🧓 Waiting Dialog 🔲 Input Dialog Selection Dialog 🎵 Sou Variable Set Variable Value Copy Variable Value Browser_SetValu.. Get Date and Tir Isernz 👘 Get Variable list Arithmer . Operations + Count Up (×) θ • • Ο Θ 0 8 Conversion Group name Variable name Current value No initializatio Data list Log Mail Win Node Variable list OLL edition Editing ID:24 Type:Count Up Name:Count Up Comment: 8 1 error detected. Displayed nodes / A

Loop processing for the same operation 3 Loop processing 3-3 Count Up Select 'Row' from the pull-down list of 9 Name Count Up [Result]. Comment Result Row 1 **10** Set the value "1" for [Additional value]. Additional value **11** Click the [Update] button. Update Restore

Loop processing for the same operation 3 **Getting values** 3-4 File(F) View(V) Tool(T) Help(H) * Basics03.ums7 [edit] - WinActor **B** 0 ₿, □ +0 ▼ Automatic switch 🔻 Click the [Library] tab. 1 Basics03 ums7 🕑 📘 2 -PP Partial m \pm \bigcirc Ο Search Main + Display all libraries Send Text 09_Waiting Drag the 'Excel_GetValue2' library and drop ▷ 10_DialogBo 2 it into the scenario edit area. ▶ 11_Windo 🔍 Image Matching ▷ 12_Mouse ▷ 13_File Excel_GetLastRo.. ▷ 14_InputBo ▷ 15_ImageM tching Double-click the placed library. (Displaying ▷ 16_ScreenC pture_Color F Four Arithmetic. 3 ▷ 17_IE the property) ▲ 18_Excel Fo Set Variable Va... ▷ 01 Boc ▷ 02_She ▷ 03_Row_Column Pre-Test loop g ▷ 04_Cell ▶ 05_Formula Pre-Test Loop ▶ 06_Cold ▷ 07_Clipt ▷ 08_Ran ▷ 09 Posit 🔔 Count Up ▷ 10_Filte ▶ 11_Selec ▷ 12_Fo el_GetValue2 Excel E portToPDI Excel F ndText Evcel t\/alue Excel_GetValue2 Excel_GetValueInDataListFile Excel JoinTables Variable list Excel_Print (x) **A A A** Last row Excel_RemoveDuplicates No initializa Group name Current value Loop count Library Variable list Log Mail WinWat FULL edition Editing ID:25 Type:Run Script Name:Excel_GetValue2 Comment: 8 1 error detected. Displayed nodes /

3-4 Getting values

3

Run Script Name Excel_GetValue2 Comment Settings Script Annotation Version Settings Script Annotation Version Text such as a date or time. "Storage_dest_variable": Specify a variable to store the obtained value. File_name Value=> C:\temp\04_Basics05 Sheet_name Gell(row) Row Cell(column) Value=> C Type value value Storage_dest_variable Order_date		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]. Click the [Update] button. If the variable confirmation dialog appears, click [Yes].	
Update	_	The point here is to set "Row" variable for [Cell(row)]. "Row" is incremented by one for e	ach

3-4 Getting values

3



3-5 Inputting values

3



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 Inputting values 3-5 Change the settings for each existing library of inputting a value of order date, supplier code, registrant code, 🖺 Count Up 2 and product code. For [Set_value] or [Value] of each library, open the Excel GetValue2 property and make changes referring to the table below. Excel GetValue2 [Set_value] or Excel_GetValue2 [Value] Excel GetValue2 Order_date Browser SetValu ... Supplier code Browser SetValu ... Registrant code Product code Browser_SetValu... Browser_SelectI... Browser Click

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



3-6 Checking the entire scenario

3

Confirm that the created scenario is as follows.



3-7 Running the scenario

		Click the 'Run scenario' button and check if the scenario runs without error.
Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node Node	Welcome * NewScenario.ums7 × + • • Main +	2 If an error occurs, check the error message and review the settings of the property and the like.
	Scenario Start	

3-8 Saving the scenario



Practice



Text editing of acquired characters and numbers



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

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

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

Туре	Node/Library name	Description	Example
Number	Four Arithmetic Operations	Operates one of four arithmetic operations with values.	$5 + 3 \rightarrow 8$
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.	$5 + 1 \rightarrow 6$
String	Conversion_Uppercase_Lowercase	Converts characters to uppercase or lowercase.	$ABC \Leftrightarrow abc$
String	Formatting_TrimSpace	Removes leading and trailing white spaces from a specified string.	(space)123(space) \rightarrow 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 \downarrow 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 \rightarrow ABCDEF

Point!



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

Four Arithmetic Operations Name Four Arithmetic Operations Comment Calculation result Select variable name Calculation result Select variable name Input variable name or va Input variable name or va + Input variable name or va Calculate as an integer and truncate the result numbers beyond the decimal point.	Enter a value you want to calculate in the left pulldown and the right pulldown, and select one of $+-\times \div$ for the operator.
Update Restore	2 Click the [Update] button.
"It's easy!"	

Practice



Changing processes depending on conditions



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.



Case

"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."



Point

5

"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

"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."



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





"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!"

Prep The flow of the scenario

6

The scenario to be created this time is as follows.



Prep Displaying the login page

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



6 Changing processes depending on conditions Launching WinActor Prep Launch WinActor from the Start menu or with any other startup method. Click [Create a new scenario]. The main window of WinActor appears. 2 📧 File(F) View(V) Tool(T) Help(H) WinActor **D**-+0 🔻 Edge + Welcome File(F) View(V) Tool(T) Help(H) NewScenario.ums7 [edit] - WinActor lh. · 😢 | Ø 🔇 | Ø • 🚺 🕕 • □ • • • | ● • WinActor 7 Node NewScenario.ums7 × + Welcome .⊿ Node ÷. 😤 🖻 Ta 🔁 **1** 🛅 🛅 👌 👄 (=).⊿ Flow Partial match Group Main + Start 🙏 Decision A Multi-Branch O Pre-Test Loop Create a new scenario O Post-Test Loop Start Exit from Loop Open a scenario file... 1 Next Iteration k Exception Handling - Call Subroutine Subroutine Group 🐨 Exit Subroutine - Call Scenario File End 🕁 Exit Scenario ▲ Action Image Matching Contour Matching Variable list oon OCR Matching 👿 🔍 强 🖸 🗘 🛈 🖸 😂 🗹 🦌 👼 🔳 🗟 Wait for Window Status - 🖓 (A) Wait for Time No initializat Initial value Mask Group name Variable name Current value Comment 🙆 Send Text Execute Command 🛎 Run Scrint For the startup methods and window X Excel Operation 🗅 Clipboard layout, see WinActor Operation ⊿ Use Node Library Favorited Variable list Manual. FULL edition Editing



6-1 Setting the number of iterations



6-1 Setting the number of iterations

Run Script Name Excel_GetLastRow4 Comment	6 Enter "Value=>10_Practice06_Payment_Registrati on_Book.xlsx" for [File_name], "Value=>Sheet1" for [Sheet_name], "Value=>C" for [Search_column], and "Last_row" for [Last_row].
"Search_column": Specify the column name to search for the last row. Example) A "Last_row": Specify a variable to store the index number of the last row. File_name Value=> C:\temp\10_Practice06_Paymt Sheet_name Value=> Sheet1 Search_column Value=> C Last_row Last_row Update Restore	Click the [Update] button. If the variable confirmation dialog appears, click [Yes].

6-1 Setting the number of iterations



6-1 Setting the number of iterations





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



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

Property	✓ × Set Variable Value		4 Selec	t 'Row' fron	n the	pull-down list of [Variable name].
Comment Variable r		5 For [Value], enter "4."				
		6 Click the [Update] button. If the variable confirmation dialog appears, click [Yes].				
Updat	te Restore					
Updat	te Kestore				()	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.

6-3 Loop processing



Changing processes depending on conditions 6 6-3 Loop processing Pre-Test Loop Click the radio button of [Number of Δ Name Pre-Test loop group iterations] and select the 'Loop_count.' Comment Conditional expression Click the [Update] button. 5 Number of iterations Loop_count Range Input variable name or value to Number of data Data filename Number of data (database) Data Source name Username Password able name or value Table name nput variable name or value 💌 Counter Select variab (optional) Update Restore

Changing processes depending on conditions 6 6-3 Loop processing File(F) View(V) Tool(T) Help(H) * NewScenario.ums7 [edit] - WinA 😢 | 🧿 🔇 | 🤔 🕽 🕕 🗖 🖓 👘 Click the [Node] tab. 6 Welcome * NewScenario.ums7 × + те тезскоор O Post-Test Loop t q 🖉 💣 📜 📩 🕸 0 Exit from Loop Main + 📝 Next Iteration k Exception Handling Drag the 'Count Up' node and drop it into 🕂 Call Subroutine 7 👎 S Start the scenario edit area. 🕁 Exi Subroutine 🕂 Cal Scenario File 🕁 Exit Scenario Excel_GetLastRow4 🔍 Image Matching Double-click the placed node. (Displaying the Contour Matching 8 Four Arithmetic Ope.. oca OC Matching property) For Set Variable Value 🕒 Wat for Time 🖆 Serd Text Pre-Execute Command 🗮 Rur Script re-Test Lo X Excel Operation Chi Clin board 😼 Wating Dialog unt Up 🔲 Inp<mark>u</mark>t Dialog Selection Dialog 🎵 Sound /ariable Set Variable Value Cory Variable Value 🔚 Get Date and Tr End Ref Usernar For Arith. . Operations Variable list F+ Count Up (x) θ 0 0 •= θ O 0 http://www.commercianter.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/www.com/w Group name Variable name Current value No initializat Initia NoGroup Node Variable list Data list Log Mail WinWatcher list Image Breakpoint list Subroutine Call history FULL edition Editing ID:25 Type:Count Up Name:Count Up Comment: Loop_count

6-3 Loop processing





6-4 Getting values



6-4 Getting values



6-4 Getting values





Changing processes depending on conditions 6 **Decision processing** 6-5 File(F) View(V) Tool(T) Help(H) * NewScenario.ums7 [edit] - WinAc **19**. 0 ы Click the [Node] tab. 1 No Welcome * NewScenario.ums7 × + ⊿ N Ð, Ə, 2 F? . Ο Group Main + Decision Multi-Bra Drag the 'Decision' node and drop it into the 2 O Pre-Test Loc re-Test Lo scenario edit area. O Post-Test Loo, 🔑 Exit from Loop 💣 Next Iteration Exception Handling F+ Count Up ት Call Subroutine Double-click the placed node. (Displaying the Subroutine Group 🞬 Excel GetValue2 3 🐨 Exit Subroutine property) 🕂 Call Scenario File Excel_GetValue2 📅 Exit Scenario Action Excel_GetValue2 🔍 Image Matching Contour Matching Excel_GetValue2 oce OCR Matching 🕒 Wait for Time Excel_GetValue2 🚮 Send Text Execute Command 🗮 Run Script X Excel Operation 🗅 Clipboard 🧓 Waiting Dialog 64 🔲 Input Dialog Selection Dialog 🎵 Sound Variable list Variable . (x) Θ 0 🎭 Set Variable Value Copy Variable Value Group name Variable name Current value No initializat Initial NoGroup Node Variable list Data list Log Mail WinWatcher list Image Breakpoint list FULL edition Editing Node property was updated. Node ID: 31 Loop_count
Changing processes depending on conditions 6 **Decision processing** 6-5 Decision Click [Edit]. 4 Decision group Name Comment Conditional expression Branch name Result Edit False False Conditional expression 5 Select 'AND' from [Condition]. Condition nput variable name Conditional expression Click [+]. 6 AND •

Changing processes depending on conditions 6 **Decision processing** 6-5 Conditional expression For the conditional expression, set 'Condition,' "Bank_code," 'is equal to,' and 7 AND • + × "Value=>NAT0001." Condition is equal to Value=> NAT0001 Bank code • 8 Click the [Update] button. Update Decision Click the [Update] button. 9 Name Decision group Comment Result Branch name Conditional expression Edit False False Rector Update



6 Changing processes depending on conditions 6-6 **Inputting values** File(F) View(V) Tool(T) Help(H) * NewScenario.ums7 [edit] - WinActor $\mathbf{\Theta}$ 00 □ +0 ▼ Automatic switch ▼ 0-C Click the [Library] tab. 1 Θ 🖪 0 Partial ma Search + Main Display all libraries 🛀 Count Up 22 System Double-click '23_Browser' and expand the ▲ 23_Browser 2 Excel_GetValue2 list of libraries. ▷ 02_Window&Tab 03 Click Excel_GetValue2 ▷ 04_Wait ▷ 05_Table Excel_GetValue2 ▷ 06_List Drag the 'Browser SetValue' library and Browser Browse 3 Excel_GetValue2 drop it into the scenario edit area. Browse CountElements Browse GetAnchorURL Excel GetValue2 Browse GetAttributeValue Browse GetCheckState Browse GetDriverPath Double-click the placed library. (Displaying 4 Browse_GetPropertyValue the property) GetValue Browse Browse IsEnabled Browse MoveMouse wser SetValu.. NameBrowser Browse Browse SelectFile Browse SelectFrame **.** SendMouseEvent Browse Browse SetAttributeValue Browse SetPropertyV Browser_SetValue Browser_SetValueToReproduceKeystro ▷ 24_Java Variable list ▷ 25_WinActorNote (xy) (x) ▷ 26_WinActorEye Group name Loop_ Current value No initializatio Library Variable list FULL edition Editing ID:27 Type:Run Script Name:Browser_SetValue Comment: No errors detected. Displayed nodes

6-6 Inputting values

6

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.

	Run Script	
Name	Browser_SetValue	
Comment		
Settings S	cript Annotation Version	
Bro	wser_name Value=>	•
W	finID name	
	Path type XPath	-
Ele	ement path Value=> Browse Select Candid	ates
Frame selec	tion mode last_frame	•
F	rame path Value=>	•
	Set_value Value=>	-
Time	out setting Use "Scenario information"	•
Timeout(ms	ec)(optional) Value=>	• •
	Update Restore	-

Practice-0	6 Register Payment 🛛 🗙	+					-	0	×
C Q O	File C:/temp/09_P	ractice0 A [®]		З I Ф	£≡	(Ē	~		•
/inActor	Scenario	Demo	Svs	em					
• • • • • •		ch P/O	Add to In		R	eqiste	r Pavn	nent	
						- 3	,		ļ
Deviates	. D								
Register	Payment	L							
Registration date	29 June 2020	Processe	d	29 June 2	020				
uate		uate							
Due date	30 June 2020								
Bank code	NAT0001	Bank nan	10						
Dunit Court	1010001	Denneritan							
Payee code	987654	Payee nar	me						
Account		Account	E						
code	100990	name							
Payment							8765		
amount							0.00		
				Save	Verif		Regis	ster	
									_

6-6 Inputting values

6

operty		~ X		Practice-06 Register Payment	
	Run Script		<i> </i>	C Q (i) File C:/temp/09_1	Practice0 A 🏠 🕄 🗇 🖆 🖓 😘
Name Browser_Se	tValue			VinActor Scenaric Menu Add P/O Sea	Demo System rch P/O Add to Inventory Register Payment
Settings Script Anno	tation Version			Register Paymen	t
Browser_name	Value=>	<u> </u>		Registration	Processed
WinID name	Practice-06RegisterPayment-Profil 💌 💮			date 29 June 2020	date 29 June 2020
Path type	XPath 👻			Due date 30 June 2020	
Element path	Value=> Browse Select Candidates			Bank code NAT0001	Bank name
Frame selection mode	last_frame			Payee code 987654	Payee name
Frame path	Value=>			Account 100990	Account
Set_value	Value=>				name
Timeout setting	Use "Scenario information"			Payment amount	8765000
Timeout setting				amount	

6-6 Inputting values

6

operty	Run Script	<pre>For [Set_value], set "Value=> 20 Decembe 2019."</pre>
Name Br	rowser_SetValue	2019.
Comment Settings Script	t Annotation Version	10 Click the [Update] button.
	r_name Value=>	
Pa	th type XPath	
	n mode top_frame	
	ne path Value=>	
Timeout	setting Use "Scenario information"	
	Update Restore	

6-6 Inputting values

6



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



6-7 Registration

6



Registration 6-7

6

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

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

>e 🌒

Property	▼ ×		Practice-06 Register Payment			- 0
	Run Script	← C	Q (i) File C:/temp/09			<i>°</i> €
Name Browser_0	Click	Win/ Men	Actor Scenario		d to Inventory Register	Payment
Settings Script Ann	notation Version	Re	gister Paymer	nt		
Browser_name WinID name		Regi	istration date	Processed date	29 June 2020	
Path type			ie date 30 June 2020			
Element path	Value=> Browse Select Candidates	Ban	nk code NATODO1	Bank name		
Frame selection mode		Paye	987654	Payee name		
Frame path Timeout setting			count 100990	Account name		
Timeout(msec)(optiona	al) Value=>		yment mount			8765000
Updat	te Restore				Save Verify	Register

6-7 Registration

6

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.

Name Browser_Click	WinActor Scenario Demo System Menu Add P/O Search P/O Add to Inventory Register Payment
ttings Script Annotation Version	Register Payment
Browser_name Value=>	Registration date 29 June 2020 date 29 June 2020
WinID name Practice-06RegisterPayment-Profile1-1	Due date 30 June 2020
Path type XPath	
Element path Value=> Browse Select Candidates	Bank code NATUO01 Bank name
rame selection mode	Payee code 967664 Payee name
Frame path Value=>	Account 100990 Account name
Timeout setting Use "Scenario information"	Payment
imeout(msec)(optional) Value=>	amount
Update Restore	Save Verify Register

6-7 Registration

6

9 Click the [Update] button.

roperty									
				Run	Script				
Name	Browser_C	ick							
Comment									
Settings Set	cript Anno	tation	Versi	on					
Bro	wser_name	Value=	>					•	
W	/inID name	Practic	e-06Re	gister	rPayment-	Profile1-I	- (
	Path type	XPath						•	
Ele	ement path	Value=	>	•	Browse	Select	Candi	dates	
Frame selec	ction mode	last_fra	ame					•	
ſ	Frame path	Value=	>					•	
Time	out setting	Use "S	cenario	infor	mation"			•	
Timeout(ms	ec)(optional)	Value	:=>					•	
	Update						Restore	:	

6-7 Registration



6-7 Registration

6

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.

		Run Script	
Name	Browser_Cl	ick	
Comment			
Settings S	cript Anno	otation Version	
Bro	wser_name	Value=>	*
W	/inID name	1	[
	Path type	XPath 🔹	
Ele	ement path	Value=> Browse Select Candidates	
Frame selec	ction mode	last_frame 💌	
ſ	Frame path	Value=>	
Time	out setting	Use "Scenario information"	
Timeout(ms	ec)(optional)	Value=>	-
(Update	Restore	

inActor			Sys	tem					
	d P/O Sear	rch P/O	Add to	Inventory	R	egiste	r Payn	nent	
Begister	Paymon	+							
	- aymen								
Registration date	29 June 2020	Processe date	ed	29 June 2	020				
Due date	30 June 2020								
Bank code	NATO001	Bank nan	ne						
Payee code	987654	Payee na	me						
Account code	100990	Account	t						
		Harro							
Payment amount							8765	000	
				Save	Verify		Regis	ster	

6-7 Registration

6

Move mouse cursor over the 'Register' button, 16 **15** Click the [Select] button in [Element path]. wait for the color to change, and click it. * × 0 X Property 🎦 Practice-06 Register Payment 🛛 🗙 🕂 Q (] File | C:/temp/09_Practice0... A ☆ (3 | [] ☆ C Ē ~~ Run Script WinActor Scenario Demo System Name Browser, Click Menu Add P/O Search P/O Add to Inventory Register Payment Comment Settings Script Annotation Version **Register Payment** Browser_name Value=> • Registration Processed 29 June 2020 29 June 2020 date date WinID name Practice-06RegisterPayment-Profile1-1 -Due date 30 June 202l Path type XPath Bank code NAT0001 Bank name Select Element path Value=> Browse ndidates Frame selection mode last_frame Payee code 987654 Payee name Frame path Value=> Account Account 100990 eede name Timeout setting Use "Scenario information" Payment Timeout(msec)(optional) Value=> amount • -Update Restore Save

6-7 Registration

6

17	Click the [Update] button.
----	----------------------------

Property			* ×	
		Run Script		
Name	Name Browser_Click			
Comment				
Settings S	cript Anno	tation Version		
Bro	wser_name	Value=>	<u></u>	
w	VinID name	Practice-06RegisterPayment-Profile1-I 🔻 🍈		
	Path type	XPath 👻		
Ele	ement path	Value=> //*[@ ▼ Browse Select Candidates		
Frame selec	ction mode	top_frame 👻		
1	Frame path	Value=>	11	
Time	out setting	Use "Scenario information" 🔹		
Timeout(ms	ec)(optional)	Value=>	-	
	Update	Restore		

6-8 Checking the entire scenario

6

Confirm that the created scenario is as follows.





6-9 Running the scenario

6

	8 0 0 D · D	Click the 'Run scenario' button and check if the scenario runs without error.
Node Node Flow Group Decision	Welcome * NewScenario.ums7 × +	If an error occurs, check the error message and review the settings of the property and the like.
Multi-Branch Pre-Test Loop Post-Test Loop Exit from Loop Next Iteration Exception Handling	Scenario Start	

6-10 Saving the scenario



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!"

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_certific ation.html (Available only for Japanese version)
Q&A	WinActor FAQ	http://www.matchcontact.net/winact or_en/



7



Scenario creation - Advanced prologue -

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

Case

1

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.



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



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



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



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."



"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."





"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."

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



How to create a scenario that is easy to modify





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."

	Scenario	
	Start lode names are not set	
<u>`</u> {		
	X Excel Operation	
	Excel Operation	
	Browser_SetValu	
	↓ ↓	
	Browser_SetValu	
L	It is unclear what operations are done with	2
	nodes with the same name.	
	End	

3



"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

"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

"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."





- 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

"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

"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

"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."

operty	Excel Operation	• ×	Start
Name Get	Login_ID		
Comment			
Opera	tion Get value		Get Login_ID
Source	·		
Filename	Input variable name or value	•	End
Sheet name	Input variable name or value	•	Lild
Cell position	Input variable name or value	•	
Destination			
Variable	\$elect variable name	-	
Upda	te Resto	re l	
0,00			

"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

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

Point!

"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."



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.

- Broup		(Class all groups' button
Send Text	File(F) View(V) Tool(T) Help(H)	'Close all groups' button
	Group Main	Q 🖉 🖻 🐃 📩 🖉 🛄 🛄
Group	Decision	'Open all groups' button



3

"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!"





"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?"

Source		
Filename	Value=> C:\temp\04_Basics05_Purchase_(
Sheet name	Value=> Sheet1	
Cell position	Input variable name or value	
	Values are entered directly	

"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!"



"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	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_Bo ok.xlsx	Purchase_Order_ Book_Folder
		write	e settings fi a value to l in the scena	pe

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



"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."

Point!

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

Scenario	Property • X	
Start	Excel Operation Name Excel Operation Comment Operation Operation Get value Source Filenam Value=> C:\temp\12_Advanced02_Se Sheet nam Value=> Cell position Value=>	Enter the path of the settings file and the sheet name and cell position where the value to be read is written.
End	Destination Variabl Login_ID Update Restore	The value will be loaded in the variable "Login_ID."



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

Point!

"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."

enario	Property	• X
	Run Script	
Start	Name Browser_SetValue	
Start	Comment	
	Settings Script Annotation Version	
	Browser_name Value=>	
	WinID name Basics-03Loginand1morepage-Profile	
X Excel Operation	Path type XPath 👻	
↓	Element path Value=> //*[@ Browse Select Candidates	Set the variable "Login_ID"
Browser_SetValu	Frame selection mode top_frame	in which the value was read
	Frame path Value=>	
	Set_value Login_ID 🔻	
+	Timeout setting Use "Scenario information"	
End	Timeout(msec)(optional) Value=>	
	Update	



"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."





"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."





"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



Actions for troubleshooting





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

"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)



"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

"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."



"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."



R File(F) View(V) Tool(T) Help(H

	Welcome *NewScenario.ums7 🗙 🕈	÷
Group	•• •• •• •• Partial match ▼ Search string Main •	ې پ
A Decision		A.
A Multi-Branch	Scenario	
O Pre-Test Loop		
O Post-Test Loop	Start	
Exit from Loop		
Thext Iteration		
L Exception Handling		
- Call Subroutine		
Subroutine Group		
💎 Exit Subroutine		
on	End	
🔍 Image Matching	End	
Contour Matching		
en OCR Matching		
- Wait for Window Status		
Wait for Time		
🖆 Send Text	log	* ×
Execute Command	🐮 🕞	
🗏 Run Script	2020-07-21 12:07:01.042+09:00 INFO WinActor started.	
K Excel Operation	2020-07-21 12:08:02.132+09:00 INFO Scenario file "C\temp\14 Advanced03 Exception Handling Normal Flow ums7" is loaded successfully.	
Clipboard	2020-07-21 12:08:42.763+09:00 INFO Scenario file "C:\temp\15 Advanced03_Exception Handling_Exceptional Flow.ums?" is loaded successfully.	
	2020-07-21 12:09:19:570+09:00 INFO Scenario file "C\temp\16_Advanced03_Add_Purchase_Order_Failure.ums7" is loaded successfully.	
Waiting Dialog	2020-07-21 12:09:52:363+09:00 INFO Scenario file "C:\temp\19_Advanced03_Add_Purchase_Order_Success.ums?" is loaded successfully.	
Input Dialog	2020-07-21 12:12:08.937+09:00 INFO Scenario file "C\temp\13_Advanced02_Loop.ums7" is loaded successfully.	
input bielog		

"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."



Point

4

"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."



"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"



"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."



"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: 0x00000001 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: 0x00000001 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: 0x00000001 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.

- 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.



"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."



Point

4

"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."



"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."



The second secon		
	a 😢 🥥 🕓 💽 💭 💭 🕕 🔍 🖳 💷 🛑 - 💭 🛞 -	
Node ~ ×	Welcome * NewScenario.ums7 × +	
4 Node	🗨 🔍 🔗 📸 📩 🎽 🖉 🦳 💭 💌 Rudalanda 💌 Search string	
4 Flow	🔍 🔍 😰 🖆 📜 🔝 😵 🥘 🍓 🖉 Partial match 🕶 Search string	
Group	Main +	
🙏 Decision	Scenario	
📥 Multi-Branch		
Pre-Test Loop		
Post-Test Loop	Start	
🔑 Exit from Loop		
14 Exception Handling		
- Call Subsection		
💽 Subroutine Group	Exception handl	
😴 Exit Subroutine		
4 Action		
C Image Matching	Normal flow Exceptional flow	
Contour Matching		
MR OCR Matching	. ActionException	
Co Wait for Window Status		
() Wait for Time		
🖆 Send Text		
Execute Command		
Carl Run Script		
X Excel Operation		
Cipboard		
4 User		
Waiting Dialog		
Input Dialog		
Node Library Favorites	Variable list Data list Log Mail WinWatcher list Image Breakpoint list Subroutine	
FULL edition Editing ID:1 Type: Name: Com		oom level:

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



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



Files

14_Advanced03_Exception_Handling_Normal_Flow.ums7 15_Advanced03_Exception_Handling_Exceptional_Flow.ums7



"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."



"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."

Туре	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

Loop processing



"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

"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

"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."



"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!"



"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 WinActor **Brain Cloud** Library 0 0° Sample Scenario

Expanding the knowledge of WinActor



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

"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

"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."

エイージには、WinActohのレアリオの書き方や、チイブキリの使い方をと言わせるためのアンブルシナリオを提供しています。 WinActohでなく自動化の対象となるエクセル強化、ブラウザ強化、ファイル操作等を中心に、歴年な事例をベースとしたサンブルシナリオを採取虚認しています。 ます。 毎様かシナリオ作成に言思している点を少しでもフォローできていれば争いです。		"For details on WinActor Brain Cloud Library and sample scenarios, visit the
サンプルンナリオ 厄口) 厚単 2020年01月39日	サンプルシナリオ 2020年0月0月	following URL."
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WinActorのノード等のWinActorモジュールを使用して、OBC等行 クラウドシリーズの周奈行クラウドを操作するシナリオとなりま す。	ウェブイージ品はの運営・サブキャモファイルに保存するため に、WAALMの互属トップキャミ語スクロールが行えるライブ ラリを使用して、ウェブページ品体の運営キャップ	https://winactor.biz/ (Japanes
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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

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

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