



Browser Operation Scenario Creation Manual

NTT ADVANCED TECHNOLOGY CORPORATION

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1. Introduction

This manual describes the procedure to create a scenario to operate Google Chrome, Microsoft Edge (Chromium), and Mozilla Firefox using WinActor.

For the procedure to create a scenario for Internet Explorer, see the description about IE mode in "WinActor Operation Manual."

1.1. WebDriver and the extension function of WinActor

WinActor operates on a browser via WebDriver, and may not operate properly when the WebDriver version does not correspond to the browser version.

Using the "Check for updates" function in WinActor, the version of the WebDriver is checked for updates, and the newer version of WebDriver becomes downloadable when updates are available.

For the "Check for updates" function, see "Check for updates" of the "Help Menu" subsection in the "WinActor Operation Manual."

If the "Check for updates" function does not work for some reason such as the unavailability of the network connection, see "4. Procedure to install WebDriver" and manually install the WebDriver that corresponds to your browser's version.

WinActor Ver.7.4.0 or later can also operate on a browser via the extension function of WinActor. For selecting a method, WebDriver or Extension, to operate on a browser, see "Browser tab" of the "Option dialog" section in "WinActor Operation Manual."

Versions of browsers the extension function supports are shown in the table below.

Table 1-1. Versions of browsers the extension function supports

No.	Web browser	Version
1	Google Chrome	100 or later (Official Build)
2	Microsoft Edge	100 or later (Official Build)
3	Mozilla Firefox	96 or later

For the installation procedure of the extension function, see "WinActor Chrome Agent Installation Manual," and "WinActor Firefox Agent Installation Manual."

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1.2. Trademarks

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- WinActor is a registered trademark of NTT ADVANCED TECHNOLOGY CORPORATION.
- Microsoft, Windows*¹, Microsoft Edge, Excel, and VBScript*² are trademarks or registered trademarks of Microsoft Corporation in the United States and other countries.

*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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1.3. Notes on this manual

- The copyright notice "Copyright © 2013-2026 NTT, Inc. & NTT ADVANCED TECHNOLOGY CORPORATION" attached to this manual and the provided software cannot be changed or deleted.
The copyright of this manual belongs to NTT, Inc. and NTT ADVANCED TECHNOLOGY CORPORATION.
- 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.

1.4. Limitations

The following is a limitation on operating Google Chrome, Microsoft Edge (Chromium), and Mozilla Firefox.

- The screenshots of Google Chrome used in this manual are from Google Chrome version 83.0. Note that the windows may differ depending on your Google Chrome version or settings.

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2. Procedure to create a scenario

Browser-related libraries are used to automatically operate Google Chrome, Microsoft Edge (Chromium), and Mozilla Firefox. As an example of creating a scenario for those browsers, this chapter describes the procedure to create a scenario for steps (1) to (3) below.

- (1) Launching a browser
- (2) Displaying a page by specifying a URL
- (3) Clicking an element in a browser

2.1. Displaying libraries

Select the Library tab and click "23_Browser" to expand libraries.

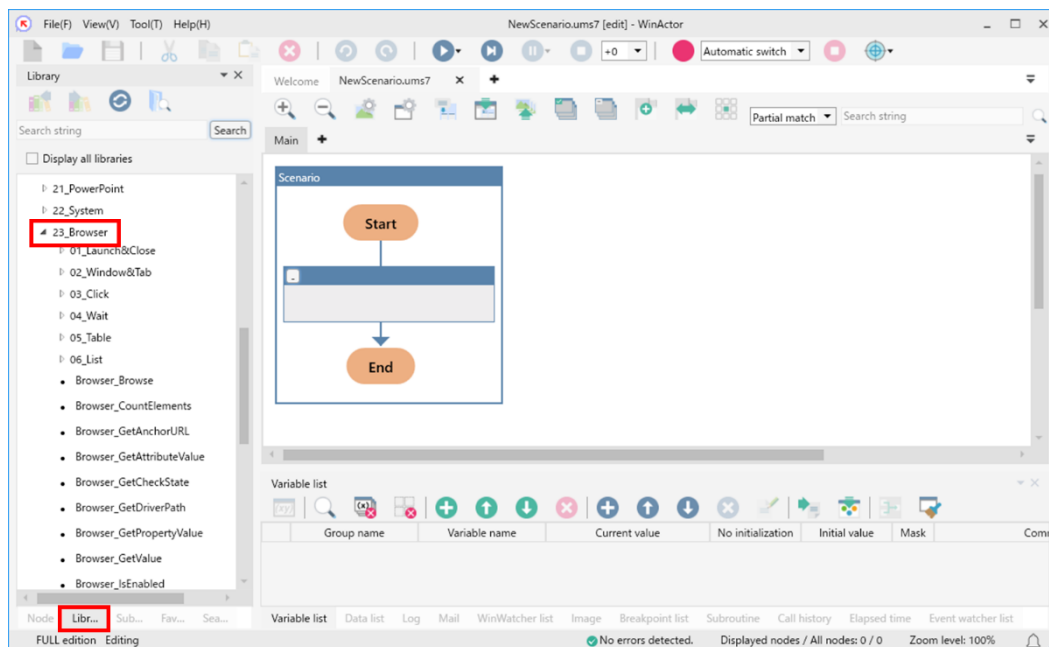


Figure 2-1. Expanding "23_Browser"

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2.2. Launching a browser

Click "01_Launch&Close" under "23_Browser" to expand libraries even more, select the "Browser_Launch" library under "23_Browser/01_Launch&Close," and place it in the Scenario box. A browser to be operated will be launched by running this node.

* For details of the library, see "5.1.1 Browser_Launch."

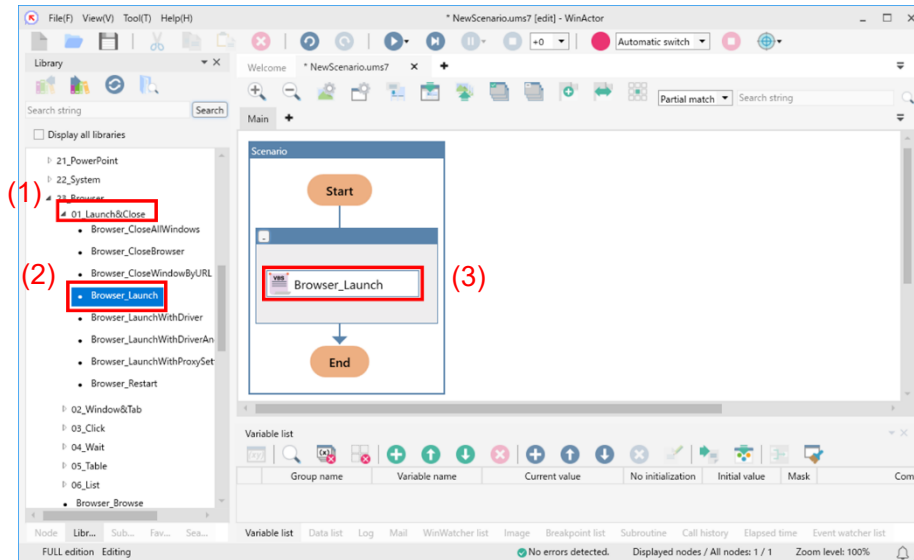


Figure 2-2. Placing "Browser_Launch" in the scenario

Double-click "Browser_Launch" placed in the scenario to display the Property window.

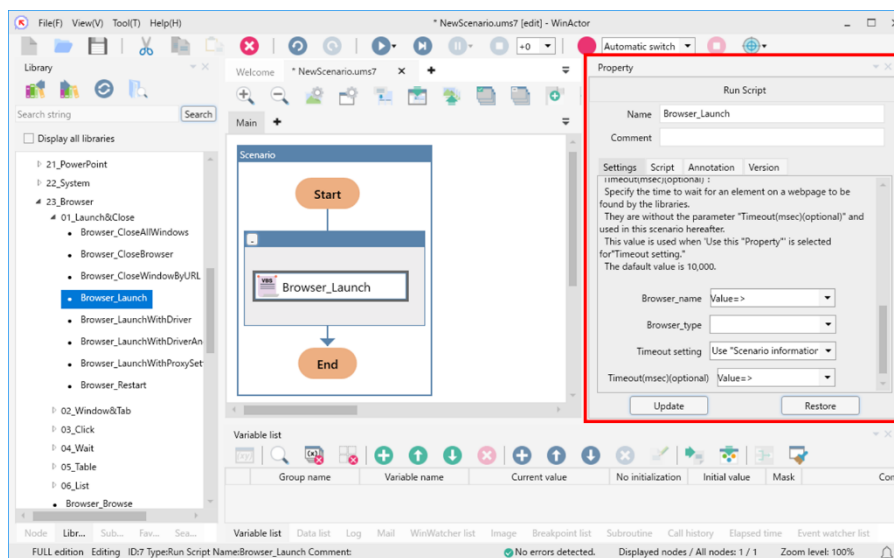


Figure 2-3. "Browser_Launch" property

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Set the property items and click the 'Update' button. The description of each property item is shown in the table below.

Table 2-1. "Browser_Launch" property items

No.	Property item	Description
1	Browser_name	This is to name a browser to be launched. This name will be used for specifying a browser to be operated in a scenario afterward.
2	Browser_type	Select one of "chrome," "edge," and "firefox." For "chrome," Google Chrome launches. For "edge," Microsoft Edge (Chromium) launches. For "firefox," Mozilla Firefox launches.
3	Timeout setting	Select which timeout setting to use from among following selections. - Use "Scenario information" The value set in the "Scenario information" window is used. - Use "Option" The value set in the "Option" window used. - Use this "Property" The value set for "Timeout(msec)(optional)" is used.
4	Timeout(msec)(optional)	This value is used when "Use this "Property"" is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.

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2.3. Displaying a page

Select the "Browser_Browse" library under "23_Browser," and place it in the Scenario box. The webpage of the specified URL will be displayed in the browser by running this node.

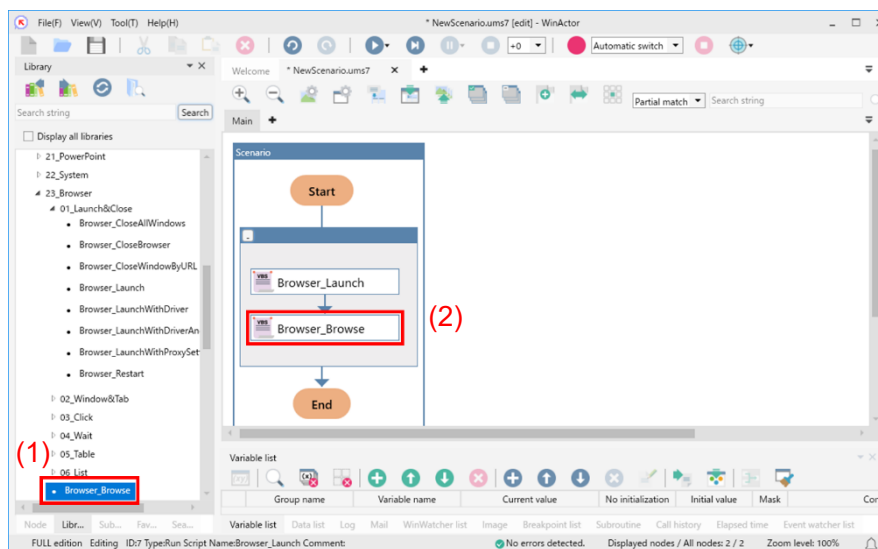


Figure 2-4. Placing "Browser_Browse" in the scenario

Double-click "Browser_Browse" placed in the scenario to display the Property window.

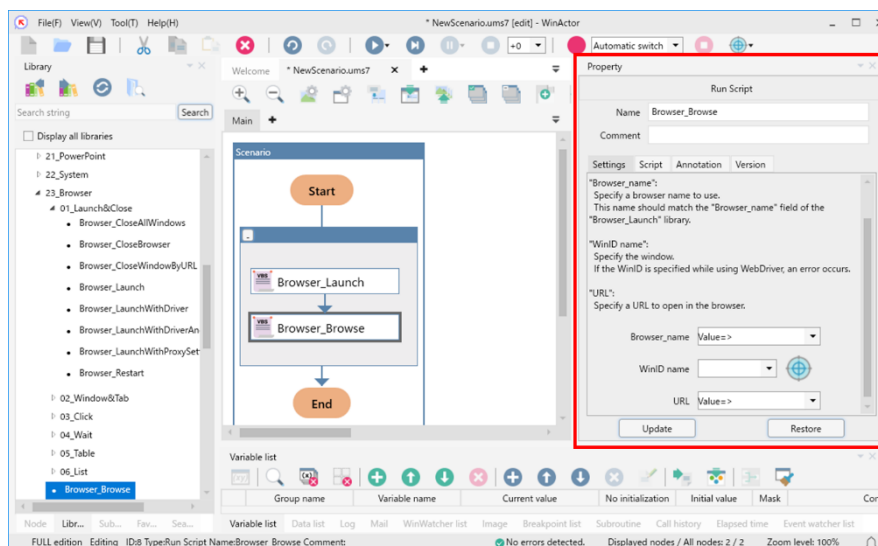


Figure 2-5. "Browser_Browse" property

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Set the property items and click the 'Update' button. The description of each property item is shown in the table below.

Table 2-2. "Browser_Browse" property items

No.	Property item	Description
1	Browser_name	Set the same name as the one specified in "Browser_Launch" described above.
2	WinID name	Specify a window to operate. If this is specified while using WebDriver, an error occurs.
3	URL	Set a URL to be displayed in the browser.

After this step, place the libraries from under "23_Browser" in the scenario depending on what you want to do.

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2.4. Clicking an element in a browser

The following describes how to click a button on a webpage.

Click "03_Click" under "23_Browser" to expand libraries under "03_Click," select the "Browser_Click" library under "23_Browser/03_Click," and place it in the Scenario box.

The specified element such as a button on a webpage will be clicked by running this node.

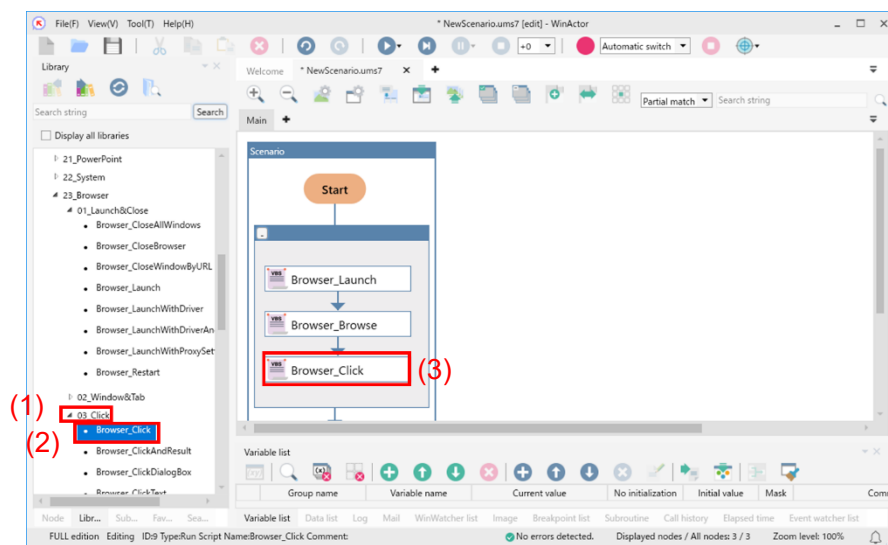


Figure 2-6. Placing "Browser_Click" in the scenario

Double-click "Browser_Click" placed in the scenario to display the Property window.

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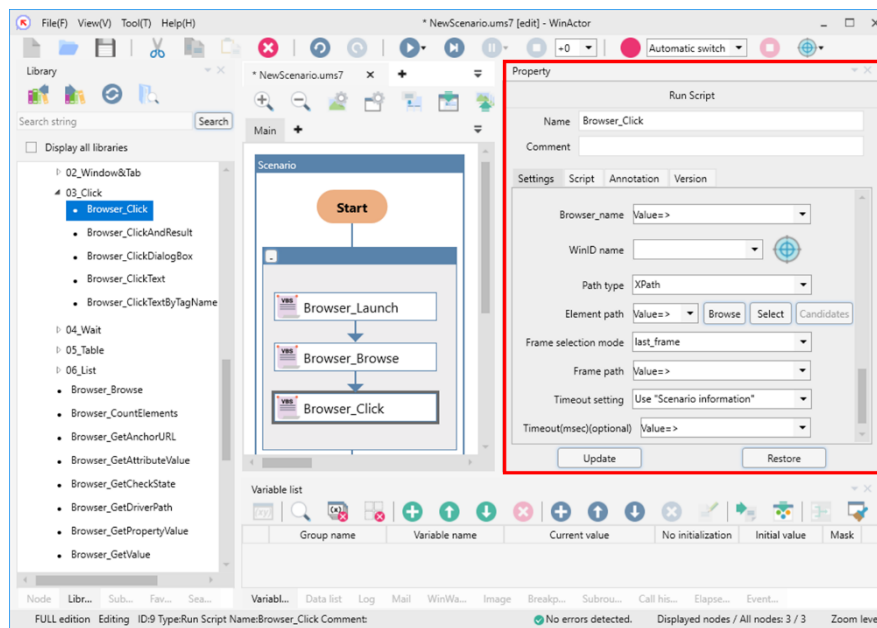


Figure 2-7. "Browser_Click" property

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Set the property items and click the 'Update' button. The description of each property item is shown in the table below.

Table 2-3. "Browser_Click" property items

No.	Property item	Description
1	Browser_name	Set the same name as the one specified in "Browser_Launch" described above.
2	WinID name	Specify a window to operate. If this is specified while using WebDriver, an error occurs.
3	Path type	Select the type of path to specify for "Element path" and "Frame path." The choices are "XPath" and "Selector."
4	Element path	Specify variable or value. Set the XPath or the Selector of the element to click. Use the format specified for the "Path type." For details of the Path, see "3. Procedure to get Path."
5	Frame selection mode	Select a way to specify the frame in which the element specified for the "Element path" is located. The choices are "last_frame," "top_frame," and "specified_frame." When "last_frame" is selected, the last selected frame during the run of the scenario is used, and the top frame is used at the beginning of the scenario. When "top_frame" is selected, the top frame is used. When "specified_frame" is used, the frame specified for "Frame path" is used.
6	Frame path	Set the XPath or the Selector of the frame in which the element specified for the "Element path" is located. This is effective only when "specified_frame" is selected for "Frame selection mode." If the element is located in the nested frames, concatenate XPaths or Selectors of the frames with the character `;` and set the result string.

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7	Timeout setting	Select which timeout setting to use from among following selections. - Use "Scenario information" The value set in the "Scenario information" window is used. - Use "Option" The value set in the "Option" window used. - Use this "Property" The value set for "Timeout(msec)(optional)" is used.
8	Timeout(msec)(optional)	This value is used when 'Use this "Property"' is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.

3. Procedure to get Path

When operating Google Chrome, Microsoft Edge (Chromium), or Mozilla Firefox, a target element such as a button and an input can be located with XPath or CSS selector. The location string is called Path.

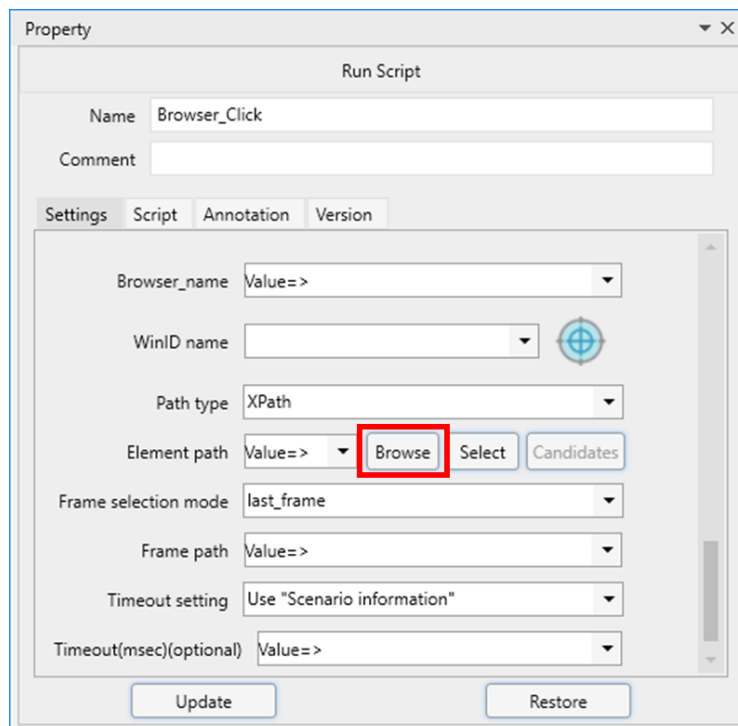
The following sections describe the procedures to get Path by using the Path 'Select' button and by using the developer tool of the browser.

3.1. Path 'Select' button

The Path 'Select' button can be used on Google Chrome, Microsoft Edge (Chromium), and Mozilla Firefox.

Steps

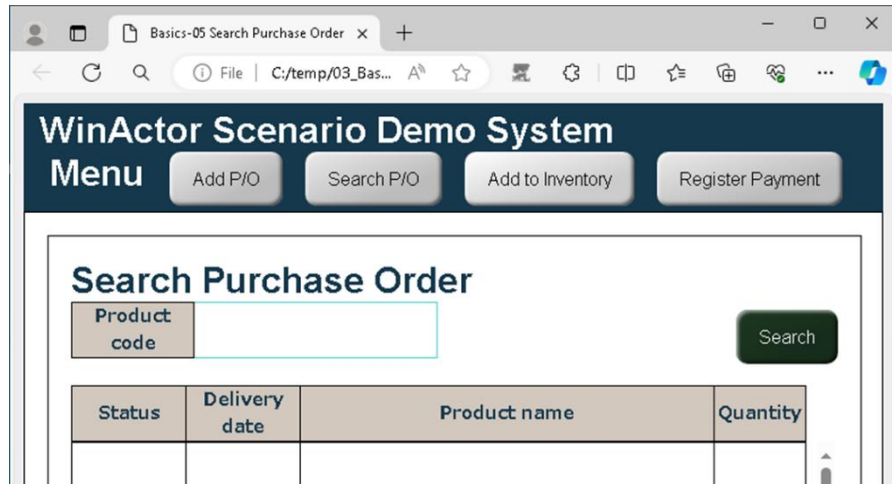
1. Click the 'Browse' button on the right side of the property item 'Element path' in the property window of a library in "23_Browser."



Libraries that can operate on all the elements or some set of elements on a webpage, such as 'Browser_CountElements,' 'Browser_WaitForValue,' and 'Browser_WaitForElement,' and a library that operates on frames, such as 'Browser_SelectFrame,' do not have the Path 'Select' button. Get Path with the procedure using developer tool for those libraries.

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- 2.** A browser comes up. When a URL is specified in the last “Browser_Browse” library in the editing scenario, the URL is opened.
Operate the browser, and open the webpage which contains the element to get Path.



When the 'Browser_Launch' library is placed before the library of which you clicked the 'Browse' button, and is set the 'Browser_type' property, the type of browser specified for the property comes up.

The same applies to the 'Browser_LaunchWithDriverAndProxySetting,' the 'Browser_LaunchWithDriver,' and the 'Browser_LaunchWithProxySetting' libraries.

If the type of browser is not specified for the property, Microsoft Edge comes up.

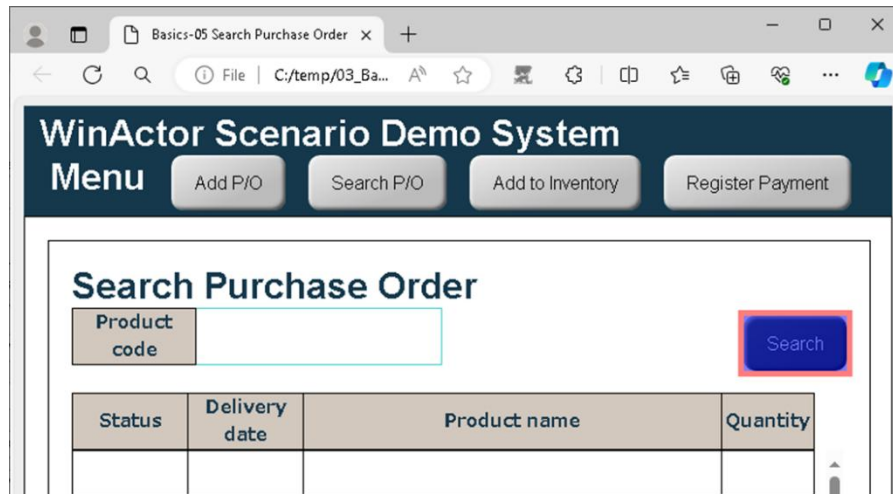
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- 3.** Click the 'Select' button on the right side of the property item 'Element path.'

The screenshot shows the 'Property' dialog box for a 'Run Script' action. The 'Name' field is 'Browser_Click' and the 'Comment' field is empty. The 'Settings' tab is selected, showing various configuration options. The 'Element path' field is set to 'Value=>' and has three buttons: 'Browse', 'Select', and 'Candidates'. The 'Select' button is highlighted with a red box. Other fields include 'Browser_name' (Value=>), 'WinID name' (empty), 'Path type' (XPath), 'Frame selection mode' (last_frame), 'Frame path' (Value=>), 'Timeout setting' (Use "Scenario information"), and 'Timeout(msec)(optional)' (Value=>). 'Update' and 'Restore' buttons are at the bottom.

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4. On the browser, when the mouse cursor is over the element which can be operated by the library, the color of the element changes. Click the element to get Path.



An element in a frame is selectable only when the browser extension for WinActor is used. When WebDriver is used, just the elements directly belong to the top frame are selectable.

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- 5.** The Path of the clicked element is set for the property item 'Element path.' Values for the items "Path type," "Frame selection mode," and "Frame path" are also set automatically.

The screenshot shows the 'Property' dialog box for a 'Run Script' action. The 'Settings' tab is selected. The following fields are visible:

- Name: Browser_Click
- Comment: (empty)
- Settings tab: Active
- Browser_name: Value=>
- WinID name: (empty)
- Path type: XPath
- Element path: Value=> /html/body/div
- Frame selection mode: top_frame
- Frame path: Value=>
- Timeout setting: Use "Scenario information"
- Timeout(msec)(optional): Value=>

A red rectangle highlights the 'Path type', 'Element path', 'Frame selection mode', and 'Frame path' fields, indicating they are automatically set.

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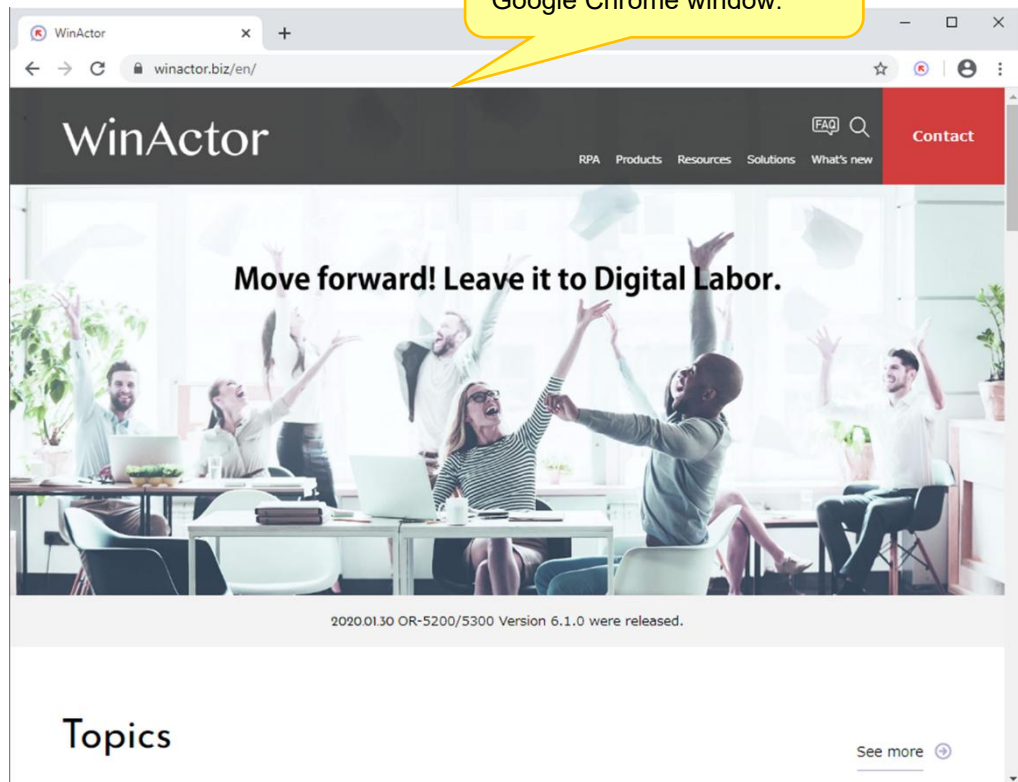
3.2. Developer tool

This procedure can be used on Google Chrome, Microsoft Edge (Chromium), and Mozilla Firefox. The following describes the procedure to get XPath by using the developer tool of Google Chrome.

Steps

1. Display a webpage in Google Chrome. Next, press the F12 key to display the developer tools window.

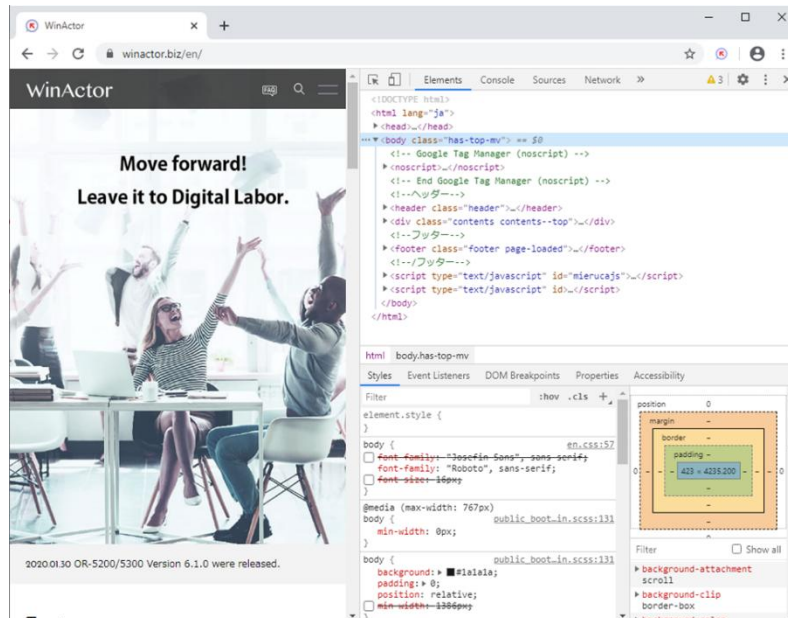
Press the F12 key on the Google Chrome window.



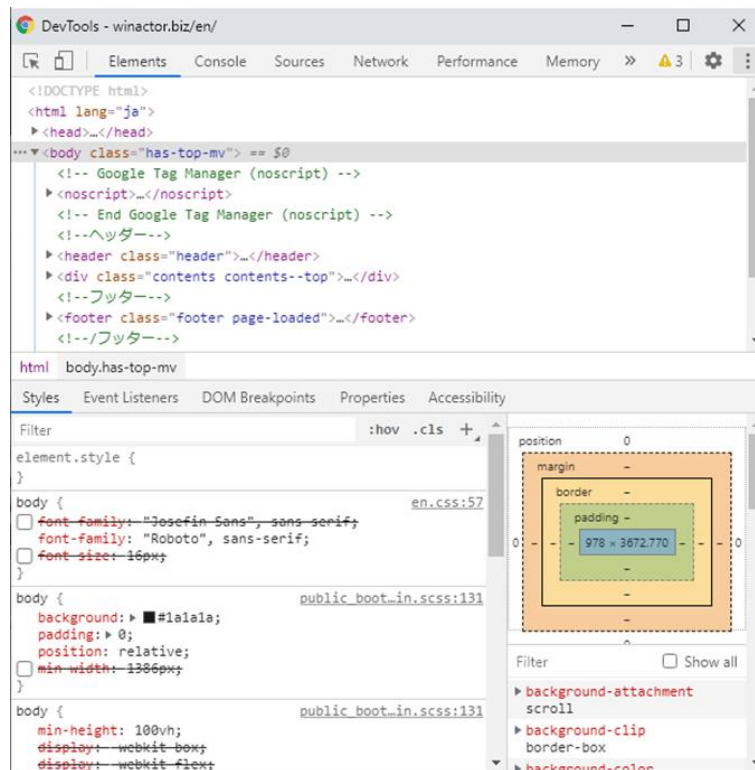
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2. The developer tools window will be displayed in a docking style or a stand-alone style depending on the setting.

Docking style

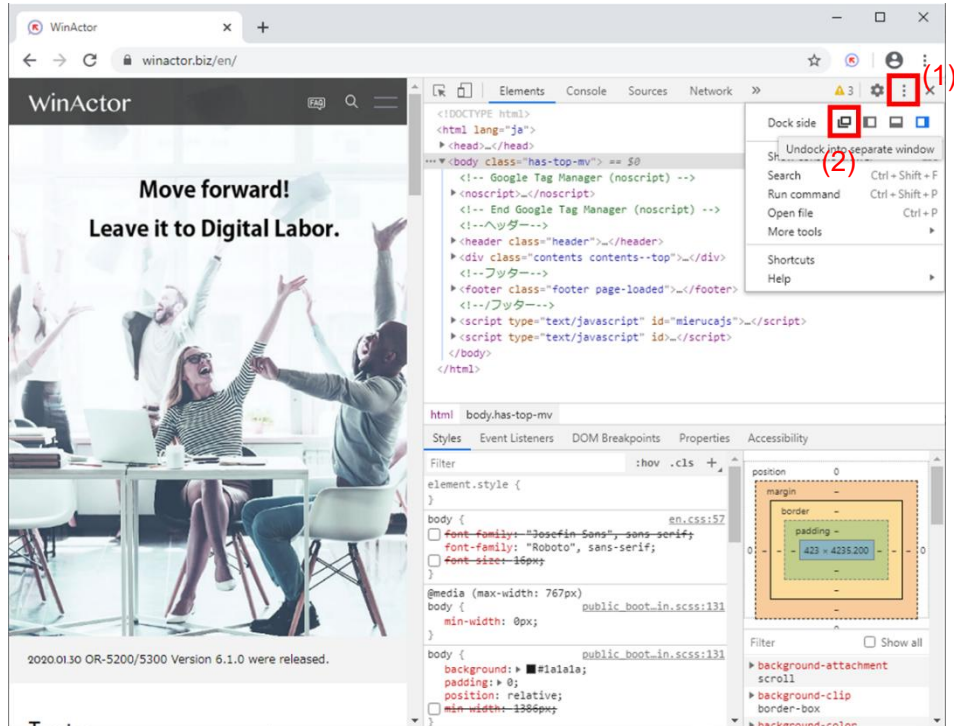


Stand-alone style



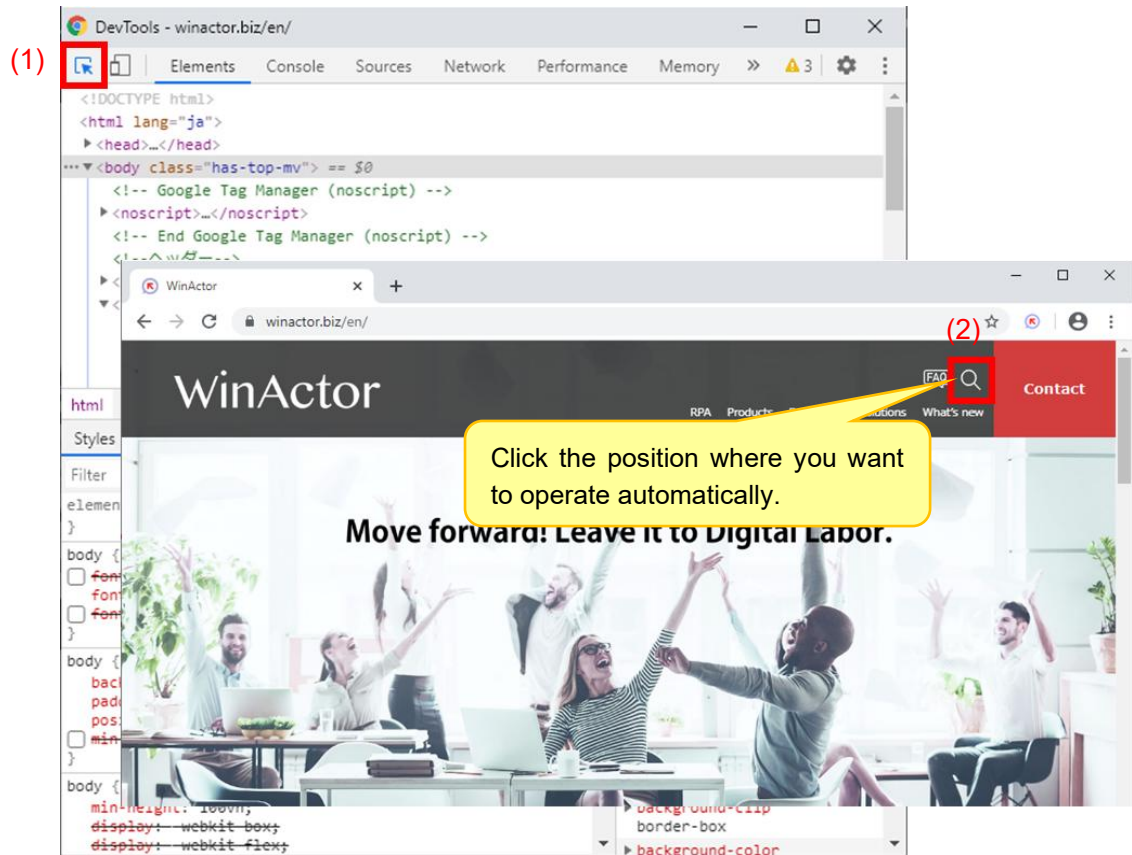
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- 3.** The developer tools window in a stand-alone style is used in the following description. If it is displayed in a docking style, change the display setting to a stand-alone style.



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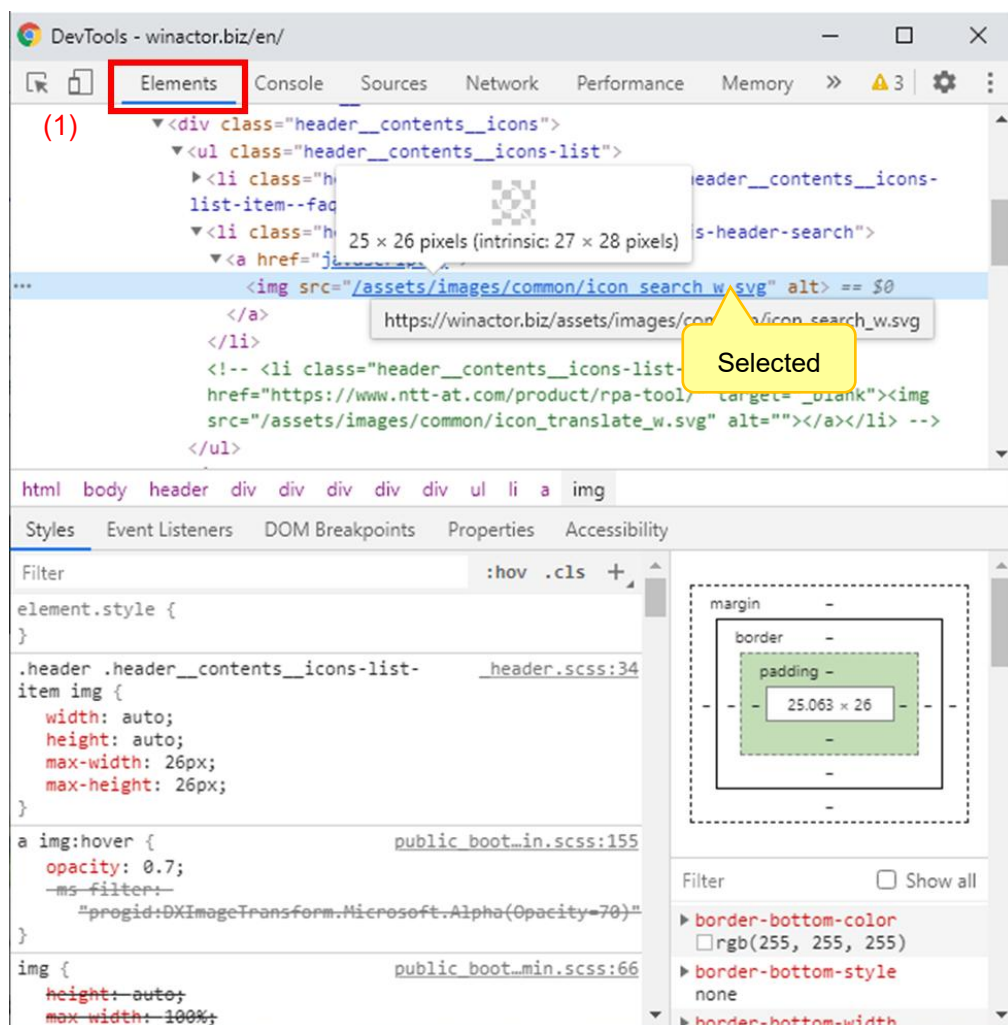
4. Click the  button in the upper left of the developer tools window. Next, move the mouse pointer over an element you want to operate and click it.



In the Elements tab of the developer tools window, the corresponding element in the

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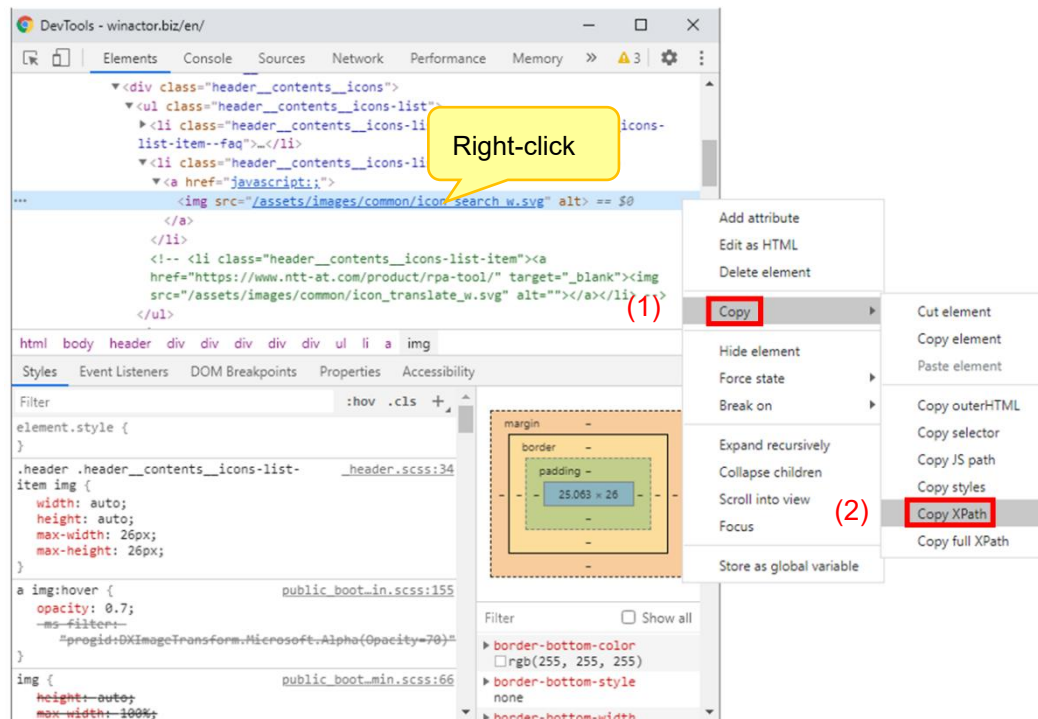
HTML source will be selected.



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5. Right-click on the selected position to display the pop-up menu.

Select Copy => Copy XPath.

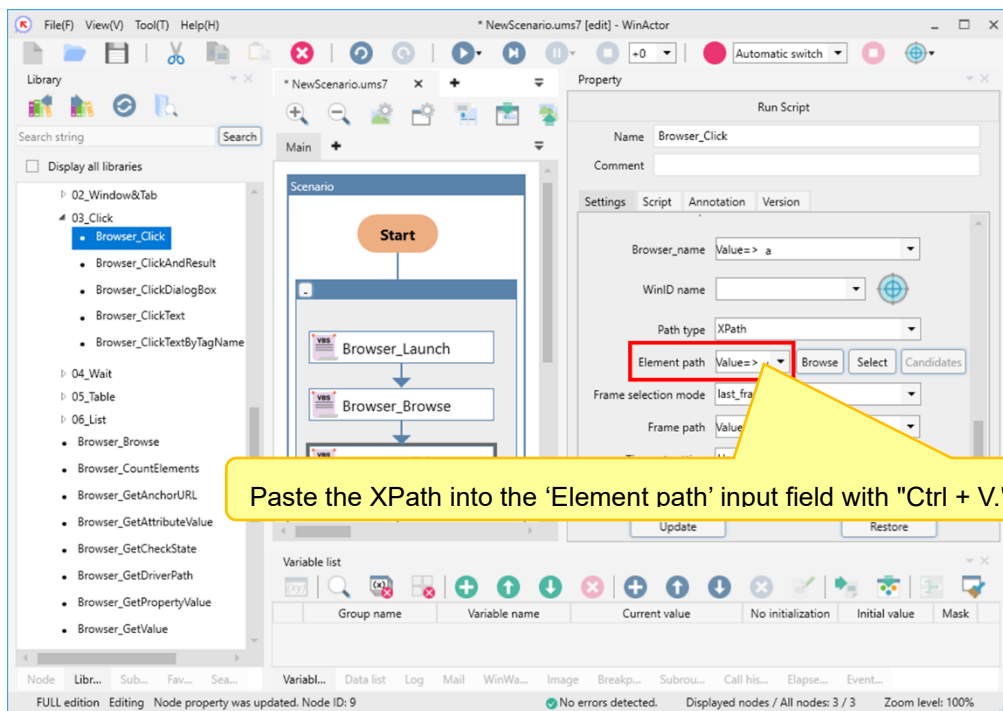


XPath for the selected element is copied to the clipboard.

XPath is a string like `//*[@id="nav_search"]/div/input[4].` You can paste it into Notepad and the like to see it.

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6. Paste the XPath into the "Element path" input field on the Property window of the node with "Ctrl + V."



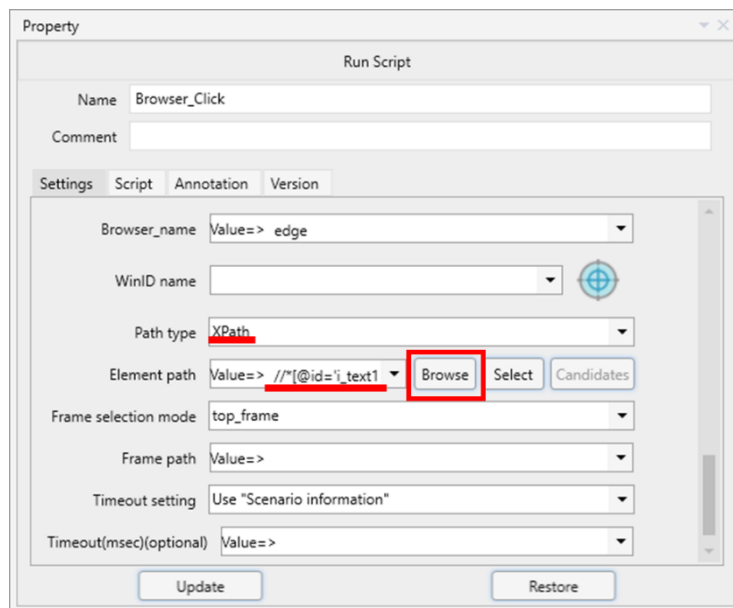
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3.3. XPath 'Candidate' button

The XPath 'Candidate' button shows the candidates for changing the current XPath setting. This function can be used on Google Chrome, Microsoft Edge (Chromium), and Mozilla Firefox.

Steps

1. Click the 'Browse' button on the right side of the property item 'Element path' in the property window of a library in "23_Browser." This procedure assumes that a XPath has already been set for "Element path."



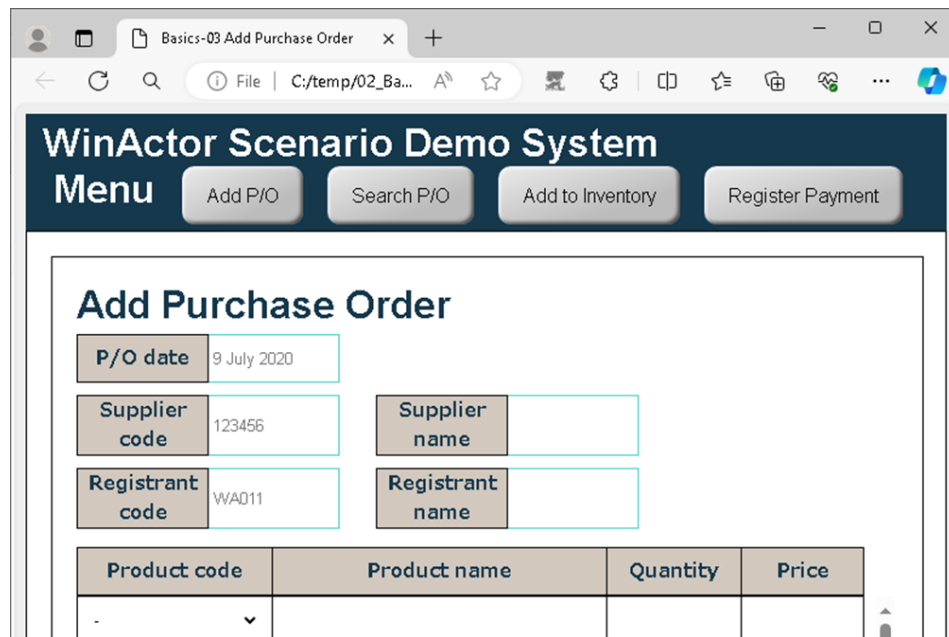
Libraries that can operate on all the elements or some set of elements on a webpage, such as 'Browser_CountElements,' 'Browser_WaitForValue,' and 'Browser_WaitForElement,' and a library that operates on frames, such as 'Browser_SelectFrame,' do not have the XPath 'Candidate' button. Get XPath with the procedure using developer tool for those libraries.

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- 2.** When the browser specified with “Browser_name” has already been opened, the browser window is focused.

When the browser is not opened, a new browser window comes up. When a URL is specified in the last “Browser_Browse” library in the editing scenario, the URL is opened.

Operate the browser, and open the webpage which contains the element to get XPath.



When the ‘Browser_Launch’ library is placed before the library of which you clicked the ‘Browse’ button, and is set the ‘Browser_type’ property, the type of browser specified for the property comes up. The same applies to the ‘Browser_LaunchWithDriverAndProxySetting,’ the ‘Browser_LaunchWithDriver,’ and the ‘Browser_LaunchWithProxySetting’ libraries.

If the type of browser is not specified for the property, Microsoft Edge comes up.

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3. Click the 'Candidate' button on the right side of the property item 'Element path.'

The screenshot shows the 'Property' dialog box with the 'Run Script' tab selected. The 'Name' field is 'Browser_Click' and the 'Comment' field is empty. The 'Settings' tab is active, showing various configuration options. The 'Element path' field is set to 'Value=> //*[id="i_text1"]' and is highlighted with a red box. To the right of this field are three buttons: 'Browse', 'Select', and 'Candidates'. The 'Candidates' button is also highlighted with a red box. Other fields include 'Browser_name' (Value=> edge), 'WinID name' (empty), 'Path type' (XPath), 'Frame selection mode' (top_frame), 'Frame path' (Value=>), 'Timeout setting' (Use "Scenario information"), and 'Timeout(msec)(optional)' (Value=>). At the bottom are 'Update' and 'Restore' buttons.



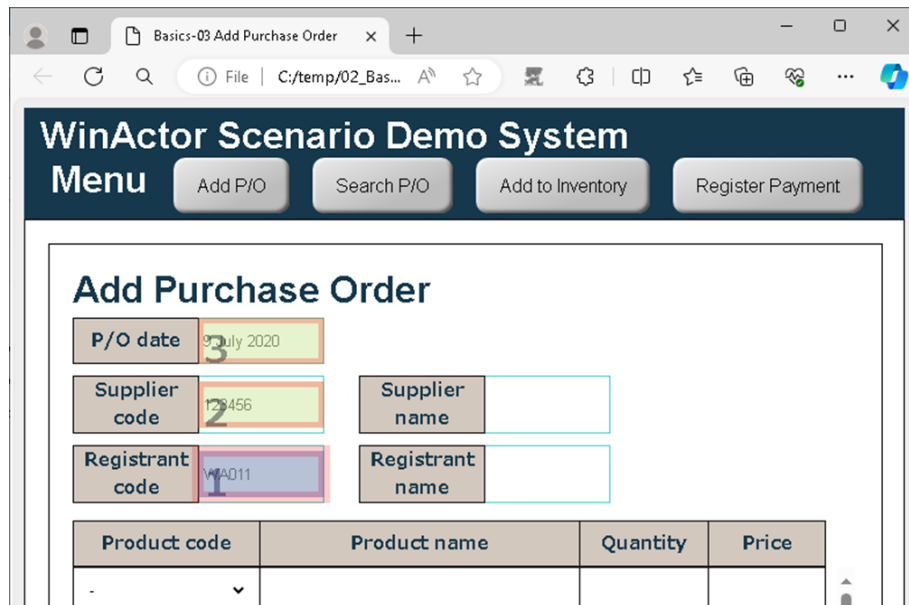
The 'Candidate' button is enabled when XPath candidates can be shown. When the browser does not open the URL the XPath is extracted, or surrounding information does not exist because the XPath is captured with WinActor earlier than version 7.5, the 'candidate' button is disabled as XPath candidates cannot be shown,

For adding surrounding information for the XPath captured with WinActor earlier than version 7.5, refer the "Misc. tab" of "Scenario Information Window" section in the "WinActor Operation Manual."

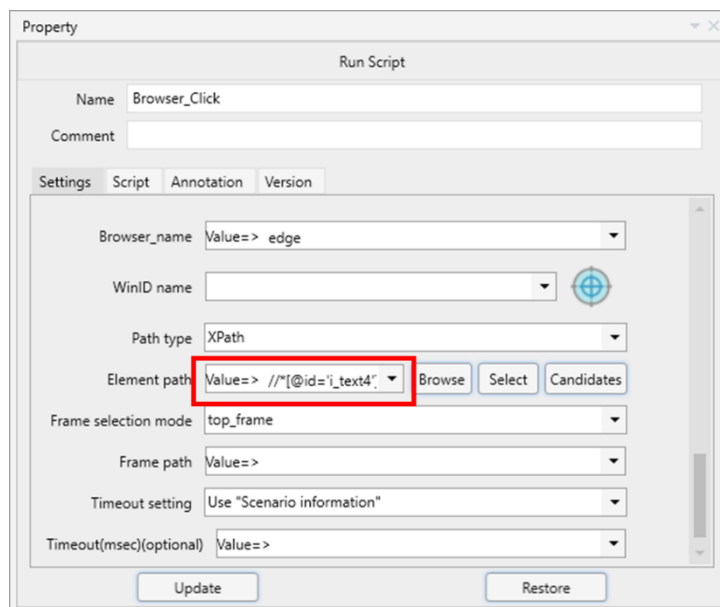
For adding surrounding information for the XPath in the newly created scenario, just capture the XPath following the procedure described in "3.1 Path 'Select' button," and click the 'Update' button to update the property.

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4. On the browser, the candidate elements for the current XPath setting are shown with dimmed and blinking light orange frames. When the mouse cursor is over the element which can be operated by the library, the color of the element changes and framed with bright orange. Click the element to get the XPath of it.



5. The XPath of the clicked element is set for the property item 'Element path.'



4. Procedure to install WebDriver

WebDriver is a mechanism to operate a web browser used in WinActor when operating Google Chrome, Microsoft Edge (Chromium), or Mozilla Firefox.

The versions of WebDrivers depend on the versions of Google Chrome, Microsoft Edge (Chromium), and Mozilla Firefox to be operated. WebDrivers are included in the WinActor installation folder, but they may not work properly depending on the version of the browser you are using. In that case, you can place another WebDriver that matches your web browser in a specified location.

Using the “Check for updates” function in WinActor, the version of the WebDriver is checked for updates, and the newer version of WebDriver becomes downloadable when updates are available.

For the “Check for updates,” see “Check for updates” of the “Help Menu” subsection in the “WinActor Operation Manual.”

For the case where the “Check for updates” function does not work for some reason such as the unavailability of the network connection, the procedure to install WebDriver is described below.

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4.1. Procedure to install WebDriver (for Google Chrome)

The version of WebDriver for Google Chrome depends on the version of Google Chrome to be operated.

After launching Google Chrome, enter the following URL to open the "About Chrome" page.

chrome://settings/help

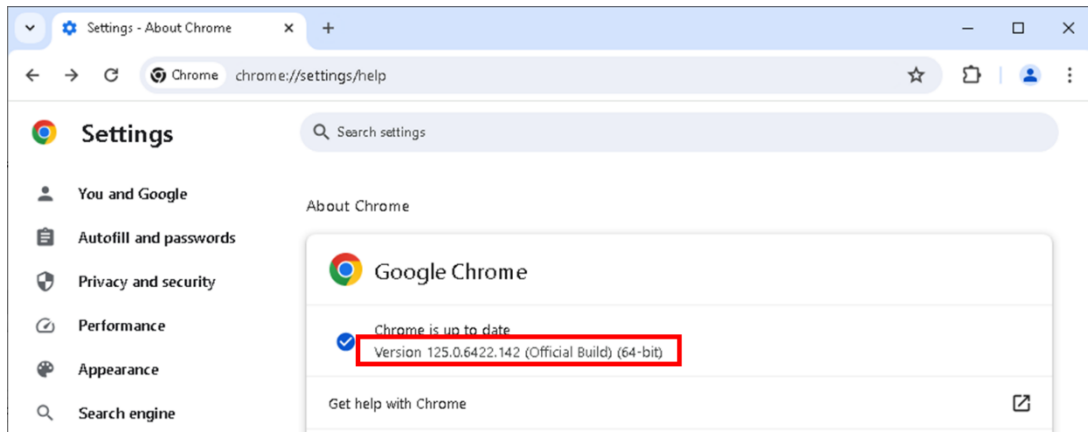


Figure 4-1. "About Chrome" page

Check the version of Google Chrome on the About Chrome page.

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Next, open the following URL to download WebDriver from the internet.

<https://sites.google.com/chromium.org/driver/downloads>

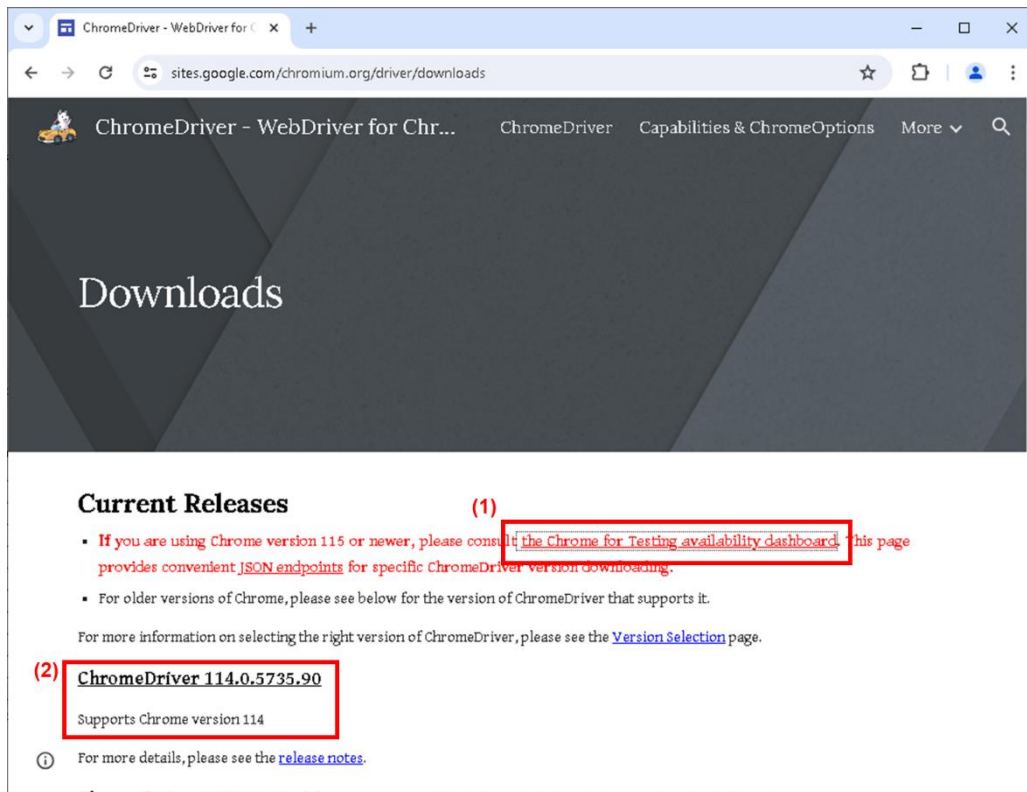


Figure 4-2. Google Chrome Driver download page

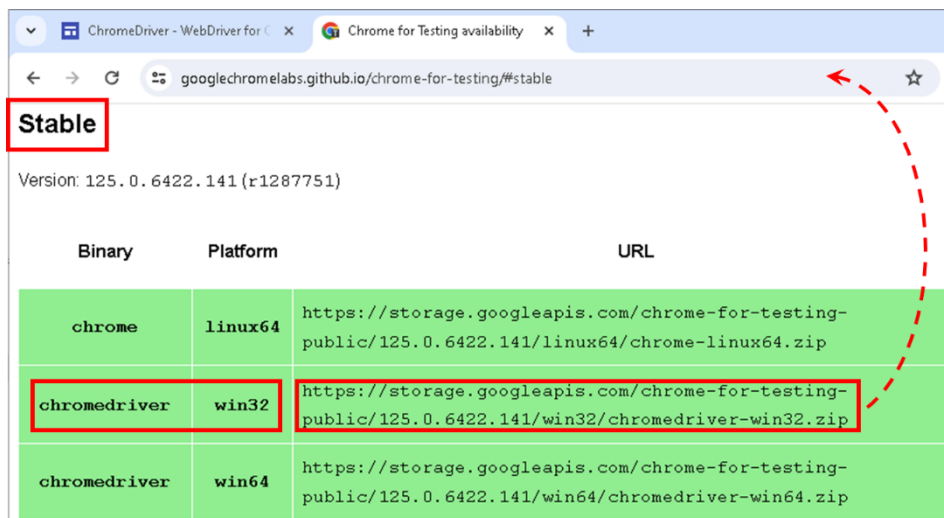
When the Chrome version is 115 or newer, click the link “the Chrome for Testing availability dashboard” (1).

When the Chrome version is 114 or older, check the supported Chrome version, and click the version link (2).

(1) The version is 115 or newer:

In the ‘Stable’ list, copy the URL of the driver “chromedriver win32,” paste it into the address bar of the browser, and go to the page to download it.

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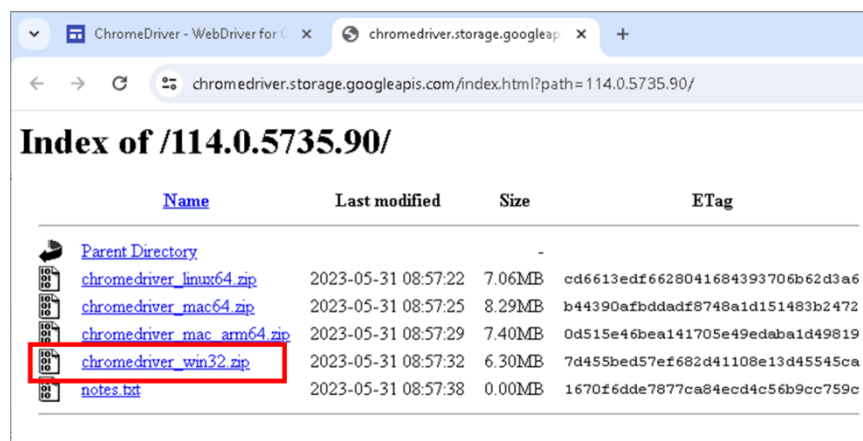
Binary	Platform	URL
chrome	linux64	https://storage.googleapis.com/chrome-for-testing-public/125.0.6422.141/linux64/chrome-linux64.zip
chromedriver	win32	https://storage.googleapis.com/chrome-for-testing-public/125.0.6422.141/win32/chromedriver-win32.zip
chromedriver	win64	https://storage.googleapis.com/chrome-for-testing-public/125.0.6422.141/win64/chromedriver-win64.zip

Figure 4-3. Google Chrome Driver download page 2

Extract the downloaded zip file, and make sure that “chromedriver.exe” is included in the folder “Documents\WinActor\webdriver.”

Then the WebDriver installation is completed.

(2) The version is 114 or older:



Name	Last modified	Size	ETag
Parent Directory	-	-	-
chromedriver_linux64.zip	2023-05-31 08:57:22	7.06MB	cd6613edf6628041684393706b62d3a6
chromedriver_mac64.zip	2023-05-31 08:57:25	8.29MB	b44390afbddadf8748aid151483b2472
chromedriver_mac_arm64.zip	2023-05-31 08:57:29	7.40MB	0d515e46bea141705e49edaba1d49819
chromedriver_win32.zip	2023-05-31 08:57:32	6.30MB	7d455bed57ef682d41108e13d45545ca
notes.txt	2023-05-31 08:57:38	0.00MB	1670f6dde7877ca84ecd4c56b9cc759c

Figure 4-4. Google Chrome Driver download page 3

Wait for the download page to be loaded, and click the "chromedriver_win32.zip" link to download it.

Extract the downloaded zip file and make sure that "chromedriver.exe" is included in the folder “Documents\WinActor\webdriver.”

Then the WebDriver installation is completed.

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4.2. Procedure to install WebDriver (for Microsoft Edge (Chromium))

The version of WebDriver for Microsoft Edge is determined by the version number of the Microsoft Edge (Chromium) you want to drive.

Launch the Microsoft Edge (Chromium), open the following URL, and display the “About” screen to see the version of your Microsoft Edge.

edge://settings/help

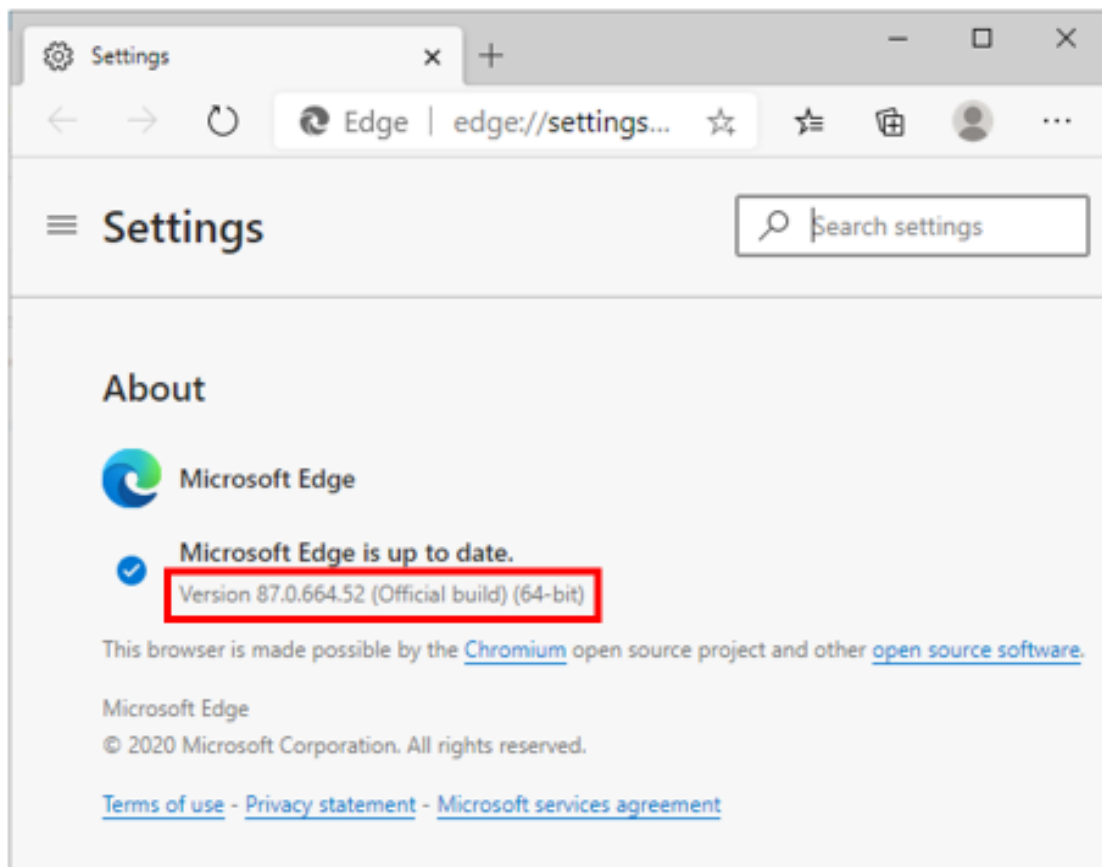


Figure 4-5 Version of Microsoft Edge

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Next, open the following URL to download a WebDriver.

<https://developer.microsoft.com/microsoft-edge/tools/webdriver/#downloads>

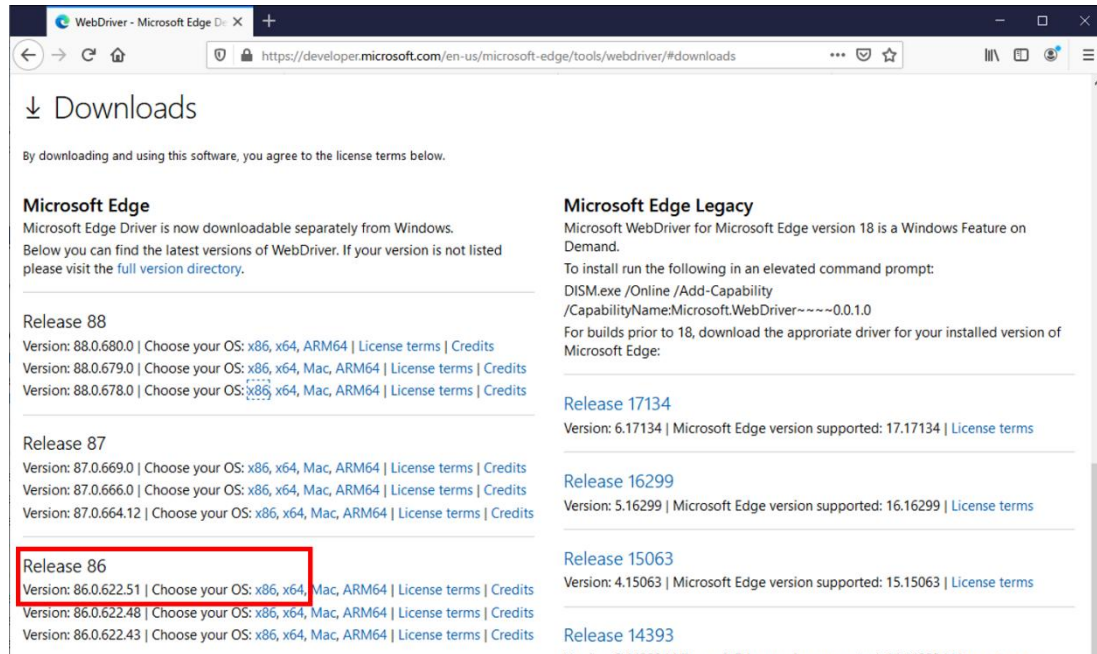


Figure 4-6 Downloading Microsoft Edge Driver

Look up the version number of your Microsoft Edge (chromium) to find the supported webdriver.

For 32bit Windows, click the “x86” link in the same row as the version number to download “edgedriver_win32.zip”.

For 64bit Windows, click the “x64” link in the same row as the version number to download “edgedriver_win64.zip”.

Unzip the downloaded file and confirm that “msedgedriver.exe” is successfully unzipped in the folder Documents\WinActor\webdriver.

4.3. Procedure to install WebDriver (for Mozilla Firefox)

The version of WebDriver for Mozilla Firefox depends on the version of Mozilla Firefox to be operated.

After launching Mozilla Firefox, click the [Menu bar icon] > [Help] > [About Firefox] to display the Mozilla Firefox version information window.

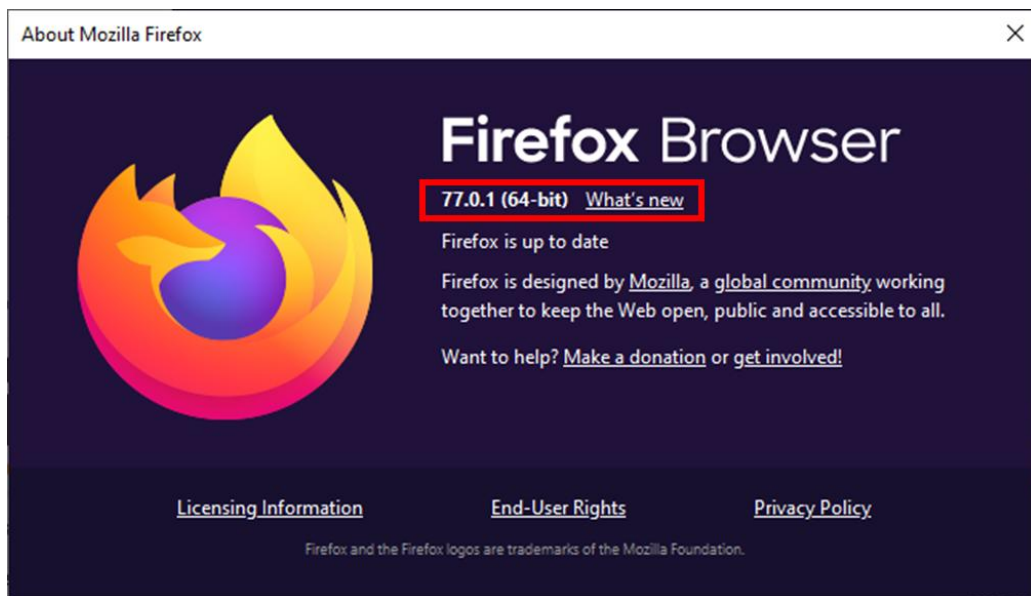
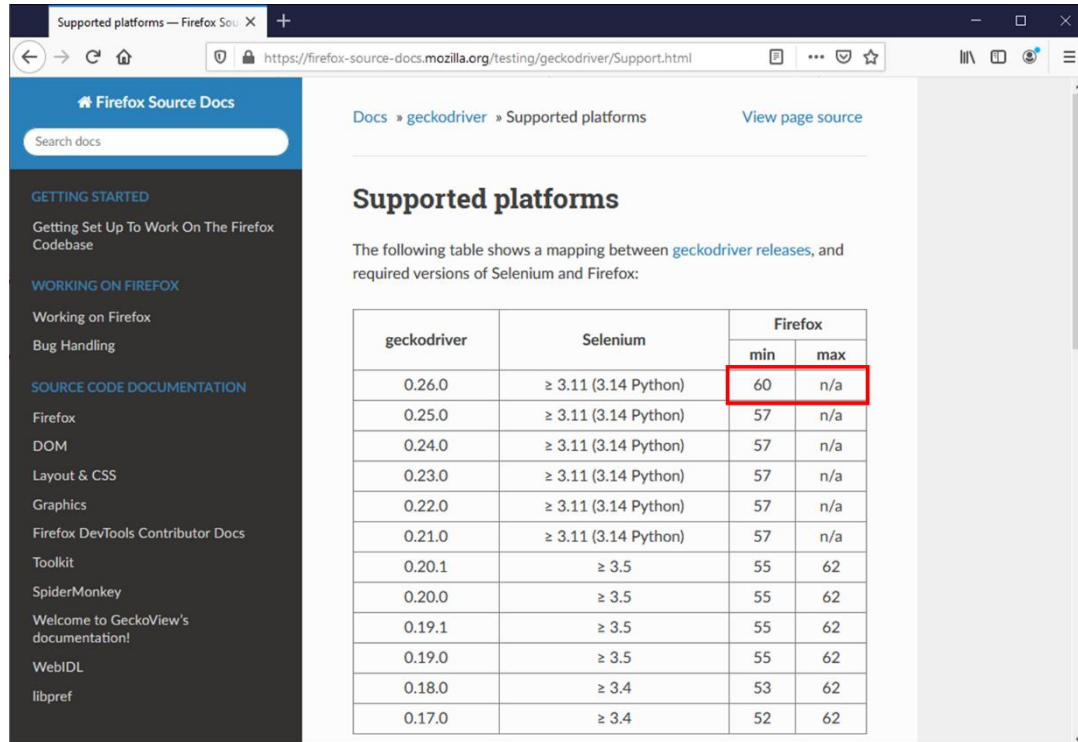


Figure 4-7. Mozilla Firefox version information window

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Next, open the following URL to check the supported WebDriver.

<https://firefox-source-docs.mozilla.org/testing/geckodriver/geckodriver/Support.html>



Supported platforms — Firefox Source Docs

Docs » geckodriver » Supported platforms

Supported platforms

The following table shows a mapping between [geckodriver releases](#), and required versions of Selenium and Firefox:

geckodriver	Selenium	Firefox	
		min	max
0.26.0	≥ 3.11 (3.14 Python)	60	n/a
0.25.0	≥ 3.11 (3.14 Python)	57	n/a
0.24.0	≥ 3.11 (3.14 Python)	57	n/a
0.23.0	≥ 3.11 (3.14 Python)	57	n/a
0.22.0	≥ 3.11 (3.14 Python)	57	n/a
0.21.0	≥ 3.11 (3.14 Python)	57	n/a
0.20.1	≥ 3.5	55	62
0.20.0	≥ 3.5	55	62
0.19.1	≥ 3.5	55	62
0.19.0	≥ 3.5	55	62
0.18.0	≥ 3.4	53	62
0.17.0	≥ 3.4	52	62

Figure 4-8. Mozilla Firefox WebDriver supported platforms

Check the supported Mozilla Firefox version.

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Then, open the following URL to download the WebDriver from the internet.

<https://github.com/mozilla/geckodriver/releases>

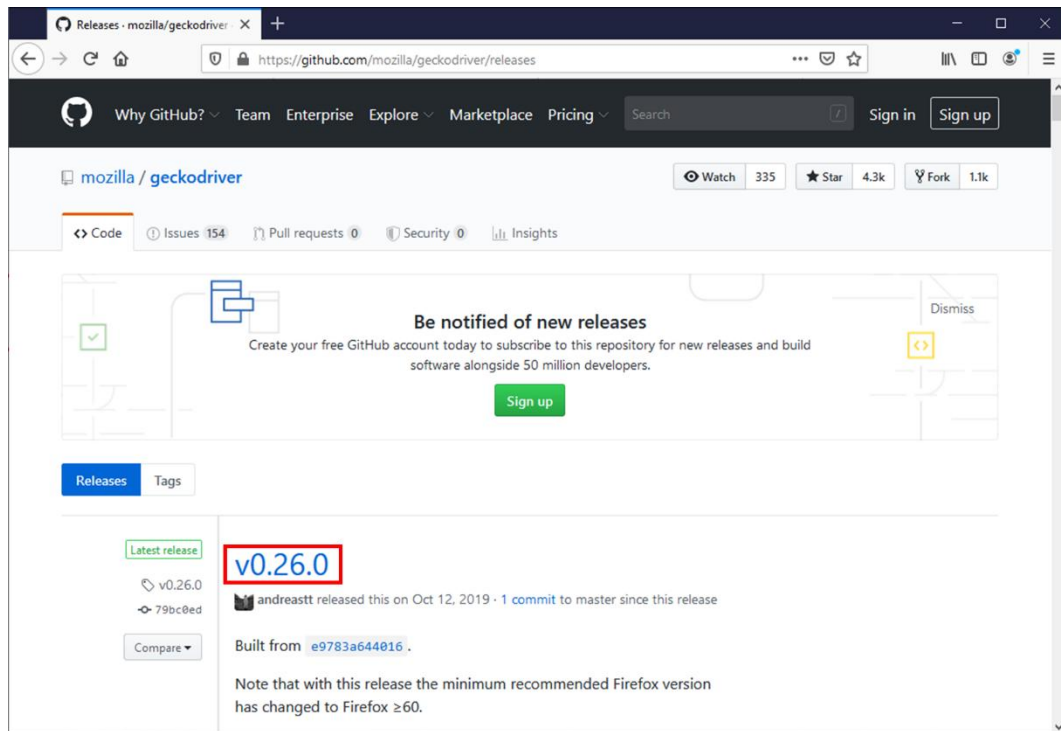


Figure 4-9. Mozilla Firefox Driver download page

Click the version link to go to the download page.

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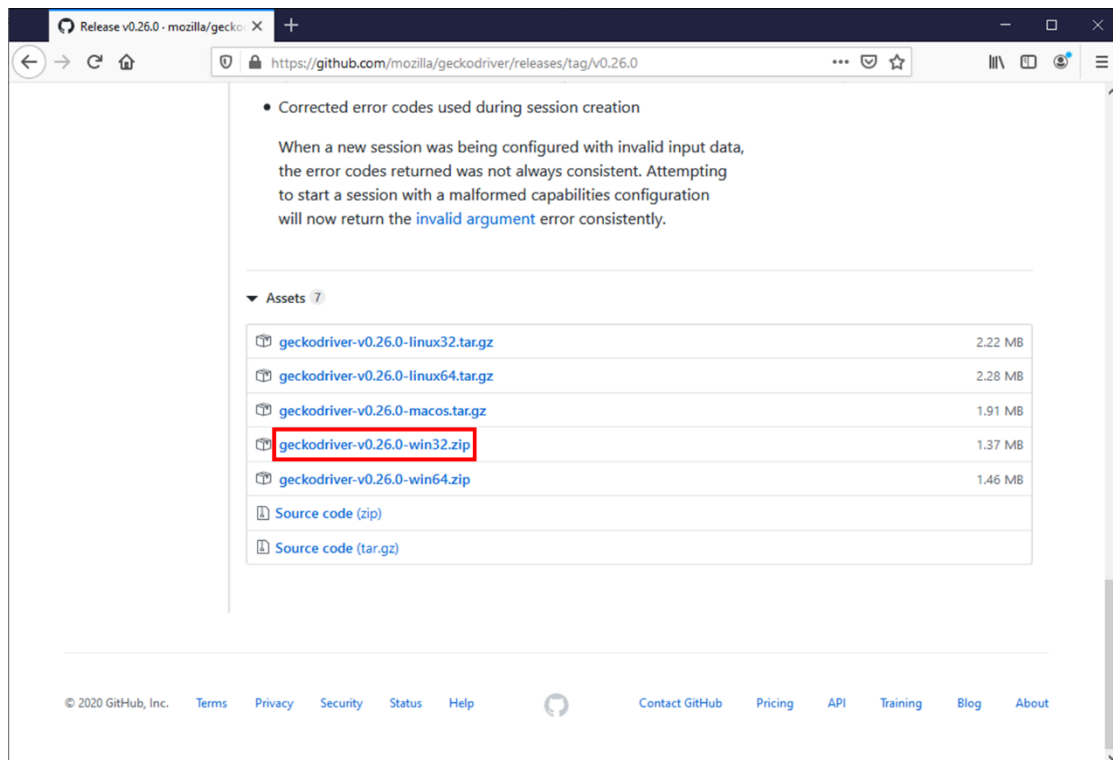


Figure 4-10. Mozilla Firefox Driver download page

Click the "geckodriver-vX.XX.X-win32.zip" link to download.

Extract the downloaded zip file and make sure that "geckodriver.exe" is included in the folder Documents\WinActor\webdriver. This completes the installation procedure of WebDriver.

5. Library and property list

This chapter describes the libraries provided under "23_Browser" and property items of each library.

5.1. Launch&Close

This section describes the libraries provided under "23_Browser/01_Launch&Close" and property items of each library.

5.1.1. Browser_Launch

This library is used to launch a browser. Set "Browser_name" to name a browser to be operated. This name is used to specify the target browser in other libraries.

The launched browser remains on the screen even after the completion of a scenario. The browser name is valid until WinActor is terminated, and the browser can be operated in a partial run or in another scenario.

Table 5-1. Library and property items

Library name	Property item	Description
Browser_Launch	Browser_name	This is to name a browser to be launched. This name will be used for specifying a browser to be operated in a scenario afterward.
	Browser_type	Select one of "chrome," "edge," and "firefox." For "chrome," Google Chrome launches. For "edge," Microsoft Edge (Chromium) launches. For "firefox," Mozilla Firefox launches.
	Timeout setting	Select which timeout setting to use from among following selections. - Use "Scenario information" The value set in the "Scenario information" window is used. - Use "Option"

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		The value set in the "Option" window used. - Use this "Property" The value set for "Timeout(msec)(optional)" is used.
	Timeout(msec)(optional)	This value is used when 'Use this "Property"' is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.

- If Mozilla Firefox is launched in an environment using a proxy server, a dialog for entering proxy authentication information will appear. The authentication information can be entered automatically by using the nodes such as "Emulation" or "Send Text."

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5.1.1.1. Browser_LaunchWithDriver

This library is used to launch a browser with a specified driver. Set "Browser_name" to name a browser to be operated. This name is used to specify the target browser in other libraries.

Use this library when you want to specify the WebDriver file.

The launched browser remains on the screen even after the completion of a scenario. The browser name is valid until WinActor is terminated, and the browser can be operated in a partial run or in another scenario.

If the driver file is specified with a relative path, the search order will be as follows:

- (1) [My Documents]\WinActor\webdriver folder
- (2) [WinActor installation folder]
- (3) [WinActor installation folder]\webdriver folder

Table 5-2. Library and property items

Library name	Property item	Description
Browser_Launch WithDriver	Browser_name	This is to name a browser to be launched. This name will be used for specifying a browser to be operated in a scenario afterward.
	Browser_type	Select one of "chrome," "edge," and "firefox." For "chrome," Google Chrome launches. For "edge," Microsoft Edge (Chromium) launches. For "firefox," Mozilla Firefox launches.
	Driver_file_name	Specify a filename of the WebDriver. * For installation and version regarding WebDriver, see "4. Procedure to install WebDriver."
	Timeout setting	Select which timeout setting to use from among following selections. - Use "Scenario information"

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		The value set in the "Scenario information" window is used. - Use "Option" The value set in the "Option" window used. - Use this "Property" The value set for "Timeout(msec)(optional)" is used.
	Timeout(msec)(optional)	This value is used when 'Use this "Property"' is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.

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5.1.1.2. Browser_LaunchWithProxySetting

This library is used to launch the chrome browser in an environment where a proxy server is required. Set "Browser_name" to name a browser to be operated. This name is used to specify the target browser in other libraries.

The launched browser remains on the screen even after the completion of a scenario. The browser name is valid until WinActor is terminated, and the browser can be operated in a partial run or in another scenario.

Table 5-3. Library and property items

Library name	Property item	Description
Browser_Launch WithProxySetting	Browser_name	This is to name a browser to be launched. This name will be used for specifying a browser to be operated in a scenario afterward.
	Browser_type	Select "chrome." * Only "chrome" can be selected. Google Chrome launches.
	Timeout setting	Select which timeout setting to use from among following selections. - Use "Scenario information" The value set in the "Scenario information" window is used. - Use "Option" The value set in the "Option" window used. - Use this "Property" The value set for "Timeout(msec)(optional)" is used.
	Timeout(msec)(optional)	This value is used when "Use this "Property"" is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.

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	Proxy_ID (optional)	Set a username for the proxy server.
	Proxy_PassWord (optional)	Set a password for the proxy server.
	Proxy_NumberOfTries (optional)	This is the maximum number of retries when an error occurs in the proxy server. If no set, the default value of five tries will be applied.

5.1.1.3. Browser_LaunchWithDriverAndProxySetting

This library is used to launch a chrome browser with a specified driver in an environment where a proxy server is required. Set "Browser_name" to name a browser to be operated. This name is used to specify the target browser in other libraries.
Use this library when you want to specify the WebDriver file.

The launched browser remains on the screen even after the completion of a scenario. The browser name is valid until WinActor is terminated, and the browser can be operated in a partial run or in another scenario.

If the driver file is specified with a relative path, the search order will be as follows:

- (1) [My Documents]\WinActor\webdriver folder
- (2) [WinActor installation folder]
- (3) [WinActor installation folder]\webdriver folder

Table 5-4. Library and property items

Library name	Property item	Description
Browser_LaunchWithDriverAndProxySetting	Browser_name	This is to name a browser to be launched. This name will be used for specifying a browser to be operated in a scenario afterward.
	Browser_type	Select "chrome." * Only "chrome" can be selected. Google Chrome launches.

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	Driver_file_name	Specify a filename of the WebDriver. *For installation and version regarding WebDriver, see "4. Procedure to install WebDriver."
	Timeout setting	Select which timeout setting to use from among following selections. - Use "Scenario information" The value set in the "Scenario information" window is used. - Use "Option" The value set in the "Option" window used. - Use this "Property" The value set for "Timeout(msec)(optional)" is used.
	Timeout(msec)(optional)	This value is used when 'Use this "Property"' is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.
	Proxy_ID (optional)	Set a username for the proxy server.
	Proxy_PassWord (optional)	Set a password for the proxy server.
	Proxy_NumberOfTries (optional)	This is the maximum number of retries when an error occurs in the proxy server. If no set, the default value of five tries will be applied.

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5.1.2. Browser_Restart

This library is used to restart a browser.

Table 5-5. Library and property items

Library name	Property item	Description
Browser_Restart	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	URL	Set a URL to be displayed in the browser.

Note: When the browser is configured to use a proxy server and displays a dialog to authenticate a user for the proxy server, this library, which does not support authentication, may not work properly.

5.1.3. Browser_CloseBrowser

This library is used to close and quit a browser.

After the browser is closed, operations for the browser name will no longer be available.

Table 5-6. Library and property item

Library name	Property item	Description
Browser_CloseBrowser	Browser_name	Specify a browser to be closed. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.

5.1.4. Browser_CloseAllWindows

This library is used to close all browsers that are launched with "Browser_Launch" while WinActor is running.

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5.1.5. Browser_CloseWindowByURL

This library is to close the browser window that opens the specified URL and which is found first.

You can select whether to close or not for each type of browsers.

The target browser window to close is the one operated with either 'Extension' or 'WebDriver,' which is set in the "Option" or the "Scenario information" window.

When closing 'Extension' operated browser window, all the windows installed the extension are checked sequentially.

When closing 'WebDriver' operated browser window, all the windows launched by WinActor are checked sequentially.

Table 5-7. Library and property items

Library name	Property item	Description
Browser_CloseWindowByURL	URL	Specify an URL where the window to close is open. Only the window of perfect matching URL is closed.
	Timeout setting	Select which timeout setting to use from among following selections. • Use "Scenario information" The timeout value set in the "Scenario information" window is used. • Use "Option" The timeout value set in the "Option" window is used. • Use this "Property" The value set for "Timeout(msec)(optional)" is used.
	Timeout(msec)(optional)	Set the waiting time to find the specified element. This value is used when 'Use this "Property"' is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.

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	Close_Chrome	'Yes' or 'No' Select if a Chrome window that matches URL can be closed.
	Close_Edge	'Yes' or 'No' Select if an Edge window that matches URL can be closed.
	Close_Firefox	'Yes' or 'No' Select if a Firefox window that matches URL can be closed.

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5.2. Window&Tab

This section describes the libraries provided under “23_Browser/02_Window&Tab” and property items of each library.

5.2.1. Browser_GetWindowHandle

This library is used to get a window handle of a browser window.

Table 5-8. Library and property items

Library name	Property item	Description
Browser_GetWindowHandle	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Variable_to_store_the_value	Specify a variable to store the acquired value.

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5.2.2. Browser_GetWindowTitle

This library is used to get a title of a browser window.

Table 5-9. Library and property items

Library name	Property item	Description
Browser_GetWindow Title	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Variable_to_store_ the_value	Specify a variable to store the acquired value.

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5.2.3. Browser_CountWindows

This library is used to get the number of windows of a browser.

Table 5-10. Library and property items

Library name	Property item	Description
Browser_Count Windows	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Variable_to_store_ the_value	Specify a variable to store the acquired value.

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5.2.4. Browser_MoveToNextWindow

This library is used to move the target window to the next in the internal window order. The operation result (success or failure) will be stored to a variable.

- If the target window can be moved, the string "true" will be stored.
- If the target window cannot be moved, the string "false" will be stored.

Table 5-11. Library and property items

Library name	Property item	Description
Browser_MoveToNextWindow	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Result_of_move	Specify a variable to store the result of move.
	Destination_on_error	Specify a window to move to if the target window is not in the managed window list. Beginning: Move to the first window End: Move to the last window

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5.2.5. Browser_SelectWindow

This library is to select a target window to be operated in a browser.

Table 5-12. Library and property items

Library name	Property item	Description
Browser_Select Window	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Window_handle	Set a window handle of the window you want to select. For details of getting a window handle, see "5.2.1 Browser_GetWindowHandle."

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5.2.6. Browser_CloseWindow

This library is to close the currently selected window in a browser.

Table 5-13. Library and property items

Library name	Property item	Description
Browser_CloseWindow	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.

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5.2.7. Browser_SwitchTab

This library is to switch current tab to the tab that has the specified title.

Table 5-14. Library and property items

Library name	Property item	Description
Browser_SwitchTab	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Tab_title	Specify the title of the tab to switch to.

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5.3. Click

This section describes the libraries provided under “23_Browser/03_Click” and property items of each library.

5.3.1. Browser_Click

This library is used to click an element (such as a button and link) in a webpage.

Table 5-15. Library and property items

Library name	Property item	Description
Browser_Click	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Path type	Select the type of path to specify for “Element path” and “Frame path.” The choices are “XPath” and “Selector.”
	Element path	Specify variable or value. Set the XPath or the Selector of the element to click. Use the format specified for the “Path type.” For details of the Path, see "3. Procedure to get Path."
	Frame selection mode	Select a way to specify the frame in which the element specified for the “Element path” is located. The choices are “last_frame,” “top_frame,” and “specified_frame.” When “last_frame” is selected, the last selected frame during the run of the scenario is used, and the top frame is used at the beginning of the scenario.

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		When “top_frame” is selected, the top frame is used. When “specified_frame” is used, the frame specified for “Frame path” is used.
	Frame path	Set the XPath or the Selector of the frame in which the element specified for the “Element path” is located. This is effective only when “specified_frame” is selected for “Frame selection mode.” If the element is located in the nested frames, concatenate XPaths or Selectors of the frames with the character `;` and set the result string.
	Timeout setting	Select which timeout setting to use from among following selections. - Use "Scenario information" The value set in the "Scenario information" window is used. - Use "Option" The value set in the "Option" window used. - Use this "Property" The value set for "Timeout(msec)(optional)" is used.
	Timeout(msec)(optional)	This value is used when "Use this "Property"" is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.

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5.3.2. Browser_ClickDialogBox

This library is used to click a button on an alert dialog box or a confirmation dialog box displayed in a webpage.

The alert dialog has only one 'OK' button, as shown in the figure below.

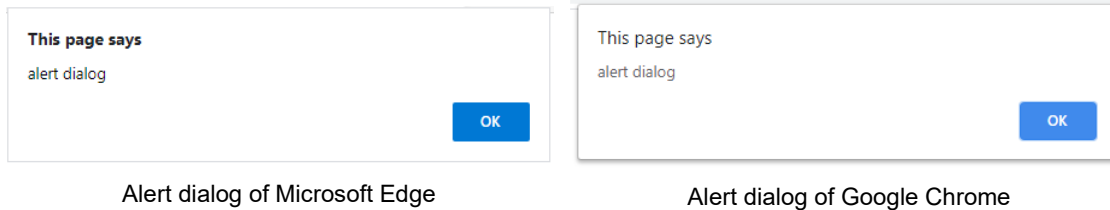


Figure 5-1. Examples of alert dialog boxes

The confirmation dialog has 'OK' and 'Cancel' buttons, as shown in the figure below.

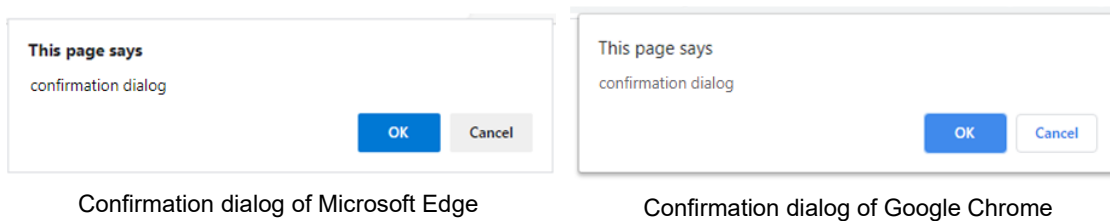


Figure 5-2. Examples of confirmation dialog boxes

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Table 5-16. Library and property items

Library name	Property item	Description
Browser_Click DialogBox	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	String	Specify an expected message to be shown in the dialog. Only when this string matches the message in the dialog partially, the selected button will be clicked.
	Select_button	Select "ok" or "cancel." If "ok" is selected, the 'OK' button will be clicked. If "cancel" is selected, the 'Cancel' button will be clicked.
	Timeout setting	Select which timeout setting to use from among following selections. - Use "Scenario information" The value set in the "Scenario information" window is used. - Use "Option" The value set in the "Option" window used. - Use this "Property" The value set for "Timeout(msec)(optional)" is used.
	Timeout(msec) (optional)	This value is used when 'Use this "Property"' is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.

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5.3.3. Browser_ClickAndResult

This library is to click the specified element and return the result.

Table 5-17. Library and property items

Library name	Property item	Description
Browser_ClickAndResult	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Path type	Select the type of path to specify for "Element path" and "Frame path." The choices are "XPath" and "Selector."
	Element path	Specify variable or value. Set the XPath or the Selector of the element to click. Use the format specified for the "Path type." For details of the Path, see "3. Procedure to get Path."
	Frame selection mode	Select a way to specify the frame in which the element specified for the "Element path" is located. The choices are "last_frame," "top_frame," and "specified_frame." When "last_frame" is selected, the last selected frame during the run of the scenario is used, and the top frame is used at the beginning of the scenario. When "top_frame" is selected, the top frame is used. When "specified_frame" is used, the frame specified for "Frame path" is used.

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	Frame path	Set the XPath or the Selector of the frame in which the element specified for the “Element path” is located. This is effective only when “specified_frame” is selected for “Frame selection mode.” If the element is located in the nested frames, concatenate XPaths or Selectors of the frames with the character `;` and set the result string.
	Timeout setting	Select which timeout setting to use from among following selections. • Use "Scenario information" The timeout value set in the "Scenario information" window is used. • Use "Option" The timeout value set in the "Option" window is used. • Use this "Property" The value set for "Timeout(msec)(optional)" is used.
	Timeout(msec)(optional)	Set the waiting time to find the specified element. This value is used when 'Use this "Property"' is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.
	Result	Specify a variable to store the result, message, of clicking. When clicking is successful, “Succeeded to click” is stored.

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5.3.4. Browser_ClickText

This library is to click elements containing the specified text in the document.

Table 5-18. Library and property items

Library name	Property item	Description
Browser_ClickText	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Click_target_text	Specify the text to click.
	Timeout setting	Select which timeout setting to use from among following selections. • Use "Scenario information" The timeout value set in the "Scenario information" window is used. • Use "Option" The timeout value set in the "Option" window is used. • Use this "Property" The value set for "Timeout(msec)(optional)" is used.
	Timeout(msec)(optional)	Set the waiting time to find the specified element. This value is used when 'Use this "Property"' is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.
	Clicked_character	Specify a variable to store the clicked characters.
	Clicked_tag	Specify a variable to store the clicked tag.

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5.3.5. Browser_ClickTextByTagName

This library is to click on the element containing the specified text and tag in the document.

Table 5-19. Library and property items

Library name	Property item	Description
Browser_ClickTextByTagName	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Click_target_tag	Specify the tag to be operated.
	Click_target_text	Specify the text to click.
	Timeout setting	Select which timeout setting to use from among following selections. • Use "Scenario information" The timeout value set in the "Scenario information" window is used. • Use "Option" The timeout value set in the "Option" window is used. • Use this "Property" The value set for "Timeout(msec)(optional)" is used.
	Timeout(msec)(optional)	Set the waiting time to find the specified element. This value is used when "Use this "Property"" is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.
	Clicked_character	Specify a variable to store the clicked characters.

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5.4. Wait

This section describes the libraries provided under “23_Browser/04_Wait” and property items of each library.

5.4.1. Browser_WaitForElement

This library waits until the specified web-page element meets the specified condition.

Table 5-20. Library and property items

Library name	Property item	Description
Browser_WaitForElement	Browser_name	Specify a target browser name. The browser name is a string specified for the "Browser_name" in the library "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Path type	Select the type of path to specify for "Element path" and "Frame path." The choices are "XPath" and "Selector."
	Element path	Specify variable or value. Set the XPath or the Selector of the element to wait for. Use the format specified for the "Path type." For details of the Path, see "3. Procedure to get Path."
	Frame selection mode	Select a way to specify the frame in which the element specified for the "Element path" is located. The choices are "last_frame," "top_frame," and "specified_frame." When "last_frame" is selected, the last selected frame during the run of the scenario is used, and the top frame is used at the beginning of the scenario.

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		When “top_frame” is selected, the top frame is used. When “specified_frame” is used, the frame specified for “Frame path” is used.
	Frame path	Set the XPath or the Selector of the frame in which the element specified for the “Element path” is located. This is effective only when “specified_frame” is selected for “Frame selection mode.” If the element is located in the nested frames, concatenate XPaths or Selectors of the frames with the character `;` and set the result string.
	Standby_until	Select a condition to wait. - 'Path_selected_element_found' Wait until the element selected by the "Element path" is found. - 'Path_selected_element_not_found' Wait until the element selected by the "Element path" is not found. - 'Selected_element_displayed' Wait until the element selected by the "Element path" is displayed. - 'Selected_element_not_displayed' Wait until the element selected by the "Element path" is not displayed. - 'Selected_element_enabled' Wait until the element selected by the "Element path" is enabled. - 'Selected_element_disabled' Wait until the element selected by the "Element path" is disabled.
	Timeout_setting	Select which timeout setting to use from among following selections. - 'Use_scenario_information'

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		The timeout setting specified in "Scenario information" window is used. - 'Use_option' The timeout setting specified in "Option" window is used. - 'Use_this_property' The timeout setting specified in this property pane is used.
	Timeout(ms)(optional)	This value is used when 'Use_this_property' is selected for 'Timeout_setting.' The default value is 10,000.

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5.4.2. Browser_WaitForValue

This library waits until the text of the specified element meets the specified condition.

Table 5-21. Library and property items

Library name	Property item	Description
Browser_WaitForValue	Browser_name	Specify a target browser name. The browser name is a string specified for the "Browser_name" in the library "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Path type	Select the type of path to specify for "Element path" and "Frame path." The choices are "XPath" and "Selector."
	Element path	Specify variable or value. Set the XPath or the Selector of the element to wait for. Use the format specified for the "Path type." For details of the Path, see "3. Procedure to get Path."
	Frame selection mode	Select a way to specify the frame in which the element specified for the "Element path" is located. The choices are "last_frame," "top_frame," and "specified_frame." When "last_frame" is selected, the last selected frame during the run of the scenario is used, and the top frame is used at the beginning of the scenario. When "top_frame" is selected, the top frame is used. When "specified_frame" is used, the frame specified for "Frame path" is used.

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	Frame path	Set the XPath or the Selector of the frame in which the element specified for the “Element path” is located. This is effective only when “specified_frame” is selected for “Frame selection mode.” If the element is located in the nested frames, concatenate XPaths or Selectors of the frames with the character `;` and set the result string.
	Standby_until	Select a condition either 'Text_equal_specified_value' or 'Text_not_equal_specified_value.'
	Value	Specify a value to compare with the text of the element selected with the "Element path."
	Timeout_setting	Select which timeout setting to use from among following selections. - 'Use_scenario_information' The timeout setting specified in "Scenario information" window is used. - 'Use_option' The timeout setting specified in "Option" window is used. - 'Use_this_property' The timeout setting specified in this property pane is used.
	Timeout(ms)(optional)	This value is used when 'Use_this_property' is selected for 'Timeout_setting' The default value is 10,000.

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5.4.3. Browser_WaitForCompletion

This library is to wait until all the selected browsers on the desktop are read complete status.

The selected browsers are watched to wait for the completion, and other browsers are ignored.

When `Extension` is set for the browser in the `Browser` tab on the Option dialog, the completion is waited for. If `WebDriver` is set for the browser, it is always regarded to be read completed.

When `Use WebDriver to operate the browser` is checked in the `Misc.` tab on the Scenario Information window, all the browsers are regarded to be read completed.

Table 5-22. Library and property items

Library name	Property item	Description
Browser_WaitForCompletion	Watch_Chrome	‘Yes’ or ‘No’ Select whether to watch the read complete status of Chrome.
	Watch_Edge	‘Yes’ or ‘No’ Select whether to watch the read complete status of Edge.
	Watch_Firefox	‘Yes’ or ‘No’ Select whether to watch the read complete status of Firefox.

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5.4.4. Browser_WaitForCompletionWithTimeout

This library is to wait until all the selected browsers on the desktop are read complete status, or time out after the specified timeout.

If a reading does not complete within the specified timeout, an error occurs. If the timeout value is empty, the waiting never times out.

The selected browsers are watched to wait for the completion, and other browsers are ignored.

When `Extension` is set for the browser in the `Browser` tab on the Option dialog, the completion is waited for. If `WebDriver` is set for the browser, it is always regarded to be read completed.

When `Use WebDriver to operate the browser` is checked in the `Misc.` tab on the Scenario Information window, all the browsers are regarded to be read completed.

Table 5-23. Library and property items

Library name	Property item	Description
Browser_WaitForCompletionWithTimeout	Timeout(sec)	Specify a timeout in seconds. Example: 60 * If this is empty, the waiting does not time out.
	Watch_Chrome	‘Yes’ or ‘No’ Select whether to watch the read complete status of Chrome.
	Watch_Edge	‘Yes’ or ‘No’ Select whether to watch the read complete status of Edge.
	Watch_Firefox	‘Yes’ or ‘No’ Select whether to watch the read complete status of Firefox.

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5.5. Table

This section describes the libraries provided under “23_Browser/05_Table” and property items of each library.

5.5.1. Browser_GetValueInTable

This library is used to get a value of a cell in a table (<table> element) in a webpage.

A value of a cell refers to a string displayed in a browser.

Table 5-24. Library and property items

Library name	Property item	Description
Browser_GetValueInTable	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Path type	Select the type of path to specify for "Table_path" and "Frame path." The choices are "XPath" and "Selector."
	Table_path	Specify variable or value. Set the XPath or the Selector of the target elements. Use the format specified for the "Path type." For details of the Path, see "3. Procedure to get Path."
	Frame selection mode	Select a way to specify the frame in which the element specified for the "Element path" is located. The choices are "last_frame," "top_frame," and "specified_frame." When "last_frame" is selected, the last selected frame during the run of the scenario is used, and the top frame is used at the beginning of the scenario.

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		When “top_frame” is selected, the top frame is used. When “specified_frame” is used, the frame specified for “Frame path” is used.
	Frame path	Set the XPath or the Selector of the frame in which the element specified for the “Element path” is located. This is effective only when “specified_frame” is selected for “Frame selection mode.” If the element is located in the nested frames, concatenate XPaths or Selectors of the frames with the character `;` and set the result string.
	Row_number	Set the row number of a cell you want to get a value from. The row number starts from 1.
	Column_number	Set the column number of a cell you want to get a value from. The column number starts from 1.
	Variable_to_store_the_value	Specify a variable to store the acquired value.
	Timeout setting	Select which timeout setting to use from among following selections. - Use "Scenario information" The value set in the "Scenario information" window is used. - Use "Option" The value set in the "Option" window used. - Use this "Property" The value set for "Timeout(msec)(optional)" is used.
	Timeout(msec) (optional)	This value is used when "Use this "Property"" is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.

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5.5.2. Browser_TableScraping

This library is to scrape a table (extract values in a table) displayed on a webpage and save the values in the table as a CSV file.



Figure 5-3. Table scraping

If the table continues to multiple pages with pagination like the "Next" link, it is also possible to automatically scrape the continuous pages repeatedly and save the values as one CSV file.

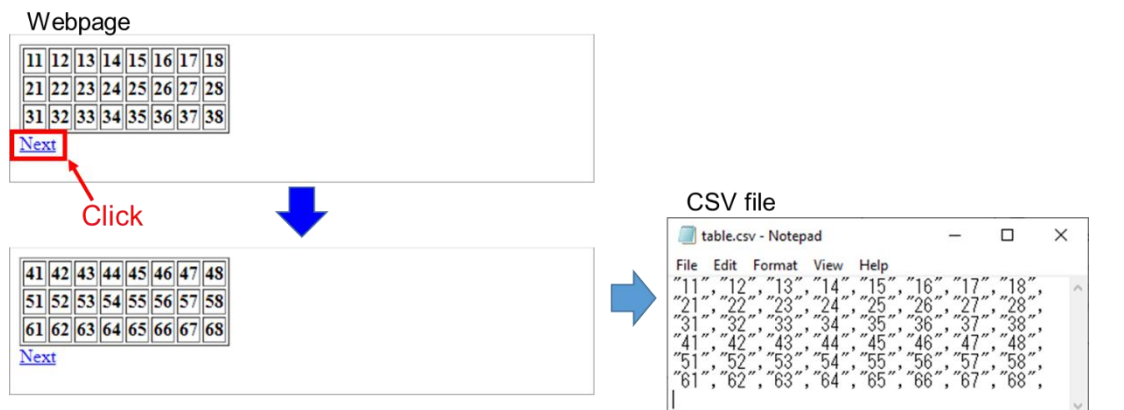


Figure 5-4. Multi-page table scraping

Note: This library works only in Google Chrome and Microsoft Edge(Chromium).

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Table 5-25. Library and property items

Library name	Property item	Description
Browser_TableScraping	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Scraped_table_path_type	Select the type of path to specify for "Scraped_table_path" and "Scraped_table_frame_path." The choices are "XPath" and "Selector."
	Scraped_table_path	Set the XPath or the Selector of the table element to be scraped. Use the format specified for the "Scraped_table_path_type." The table should consist of TABLE, UL/OL/DL, and DIV tags.
	Scraped_table_frame_selection_mode	Select a way to specify the frame in which the element specified for the "Scraped_table_path" is located. The choices are "last_frame," "top_frame," and "specified_frame." When "last_frame" is selected, the last selected frame during the run of the scenario is used, and the top frame is used at the beginning of the scenario. When "top_frame" is selected, the top frame is used. When "specified_frame" is used, the frame specified for "Scraped_table_frame_path" is used.

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	Scraped_table_frame_path	Set the XPath or the Selector of the frame in which the element specified for the “Scraped_table_path” is located. This is effective only when “specified_frame” is selected for “Scraped_table_frame_selection_mode.” If the element is located in the nested frames, concatenate XPaths or Selectors of the frames with the character `;` and set the result string.
	Next_page_path_type	Select the type of path to specify for “Next_page_path” and “Next_page_frame_path.” The choices are “XPath” and “Selector.”
	Next_page_path	Set the XPath or the Selector of the anchor element (<a> element) to the next page. Use the format specified for the “Next_page_path_type.” The element will be clicked to move to the next page repeatedly.
	Next_page_frame_selection_mode	Select a way to specify the frame in which the element specified for the “Next_page_path” is located. The choices are “last_frame,” “top_frame,” and “specified_frame.” When “last_frame” is selected, the last selected frame during the run of the scenario is used, and the top frame is used at the beginning of the scenario. When “top_frame” is selected, the top frame is used. When “specified_frame” is used, the frame specified for “Next_page_frame_path” is used.

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	Next_page_frame_path	Set the XPath or the Selector of the frame in which the element specified for the "Next_page_path" is located. This is effective only when "specified_frame" is selected for "Next_page_frame_selection_mode." If the element is located in the nested frames, concatenate XPaths or Selectors of the frames with the character `;` and set the result string.
	Maximum_page_count	Specify the maximum number of clicks on the next page link. If nothing or 0 is specified, the link to the next page will not be clicked.
	Timeout setting	The timeout value is adopted according to the selection from the followings. - Use "Scenario information" The value set in the "Scenario information" window is used. - Use "Option" The value set in the "Option" window used. - Use this "Property" The value set for "Timeout(msec)(optional)" is used.
	Timeout(msec)(optional)	This value is used when "Use this "Property"" is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.
	Page_interval(sec)(optional)	Specify the wait time before the pagination link is clicked. If not set, 0 second will be applied.

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	Title_row	Specify a row ("First" or "Second") of a title row. The title row will be output to the first row of the CSV file. If not set, the title row will not be output. This is valid only for a TABLE element.												
	Starting_row	Specify the starting row ("First" or "Second") to be scraped. This is valid only for a TABLE element.												
	Finishing_row	Specify the finishing row ("Last" or "Second_from_last") to be scraped. This is valid only for a TABLE element.												
	Starting_column	Specify the starting column ("First" or "Second") to be scraped. This is valid only for a TABLE element.												
	Finishing_column	Specify the finishing column ("Last" or "Second_from_last") to be scraped. This is valid only for a TABLE element.												
	Filename	Specify a path for the CSV file to output the scraped values.												
	Variable_for_status	Specify a variable name to store the scraping result status. One of the following numbers will be stored in the variable. <table><tr><td>Status</td><td>Description</td></tr><tr><td>0</td><td>Succeeded</td></tr><tr><td>-1</td><td>Next_page_XPath is not found</td></tr><tr><td>-2</td><td>Failed to scrape values</td></tr><tr><td>-3</td><td>Failed to move to the next page</td></tr><tr><td>-4</td><td>Failed to write the scraped result to CSV file</td></tr></table> If the status is -2, -3, or -4, an exception will be raised.	Status	Description	0	Succeeded	-1	Next_page_XPath is not found	-2	Failed to scrape values	-3	Failed to move to the next page	-4	Failed to write the scraped result to CSV file
Status	Description													
0	Succeeded													
-1	Next_page_XPath is not found													
-2	Failed to scrape values													
-3	Failed to move to the next page													
-4	Failed to write the scraped result to CSV file													

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	Variable_for_page_ count	Specify a variable name to store the number of scraped pages.
	Variable_for_last_ URL	Specify a variable name to store a URL of the last scraped page.

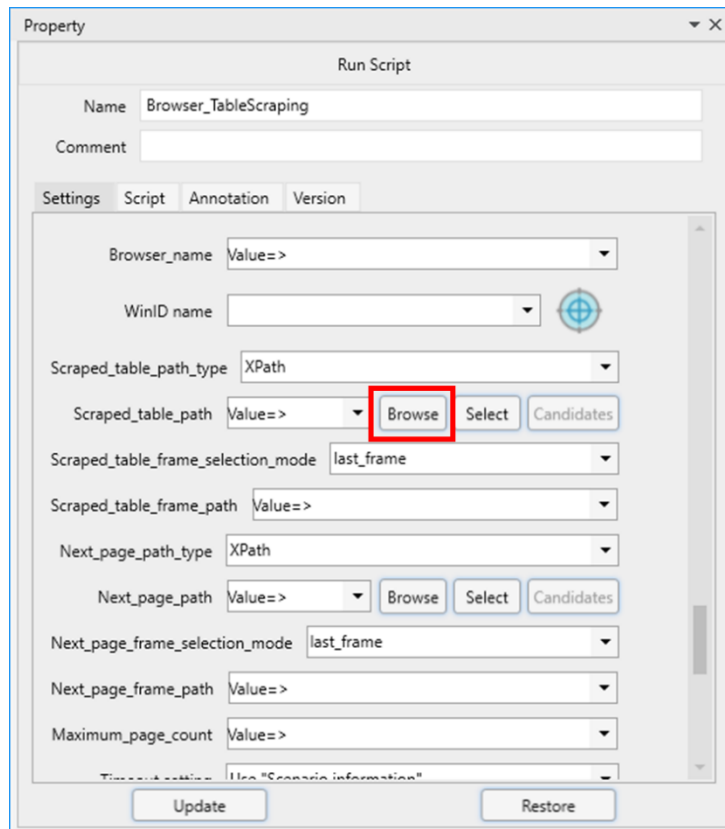
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5.5.2.1. How to get Path for a scraping target

The following describes the procedure to get Path for a scraping target.

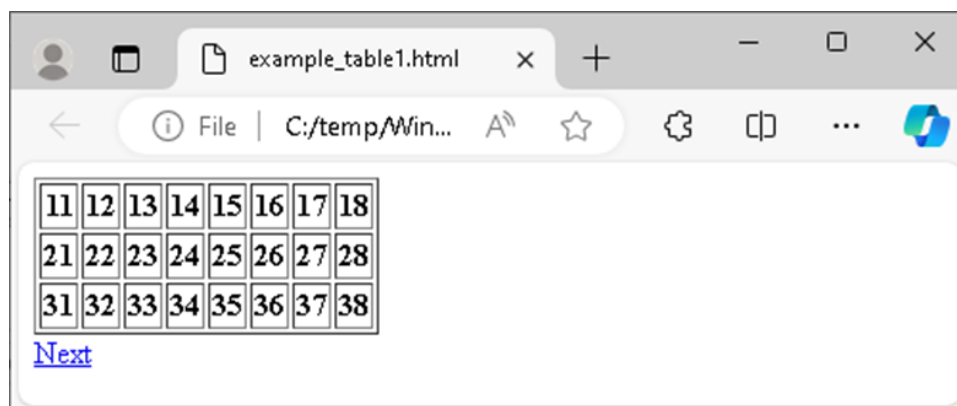
Steps

1. Click the 'Browse' button on the right of the property item "Scraped_table_path."



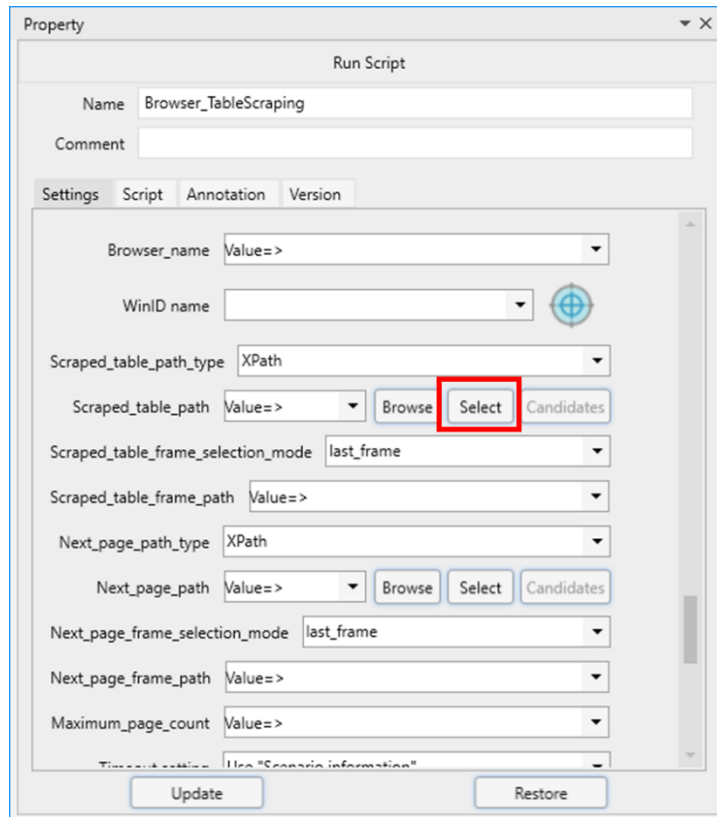
The browser comes up and opens the URL specified in the last 'Browser_Browse.'

2. Operate the browser to display the page containing the table to be scraped.



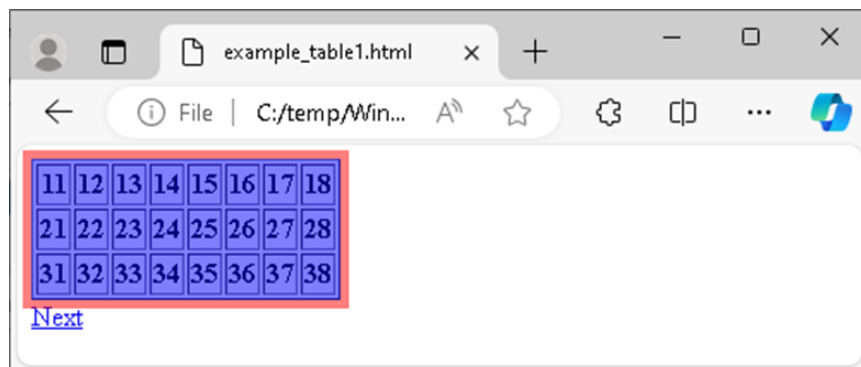
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3. Click the 'Select' button on the right of the property item "Scraped_table_path."



4. Move the mouse cursor on the browser. The selectable table is focused and the color changes.

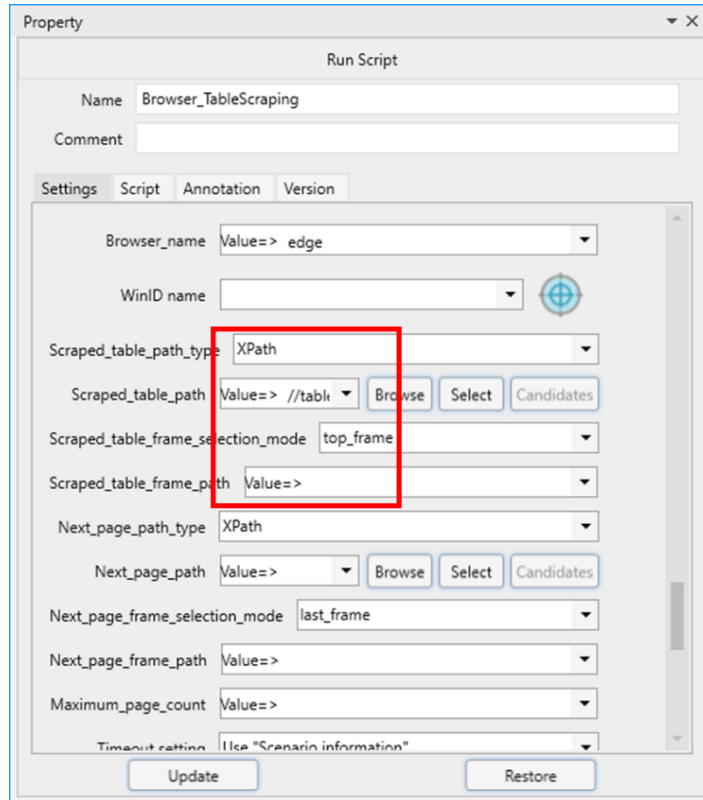
Click the table you want to scrape.



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5. The Path for the selected table is set in the “Scraped_table_path.”

Values for “Scraped_table_path_type,” “Scraped_table_frame_selection_mode,” and “Scraped_table_frame_path” are also set automatically.



* Instead of this method, it is also possible to directly enter Path acquired by the method described in "3. Procedure to get Path" in the property item.

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5.5.2.2. Path for a link to the next page

If the table spreads over multiple pages with pagination like the "Next" link, it is possible to automatically scrape the successive pages repeatedly and save the values as one CSV file.

In this case, set the property item "Next_page_path" in addition to "Scraped_table_path."

"Next_page_path" points to an anchor element to go to the next page such as [Next] link. Similar to the method to get "Scraped_table_path," you can get "Next_page_path" with the 'Browse' button and the 'Select' button.

Next, set the number of times to click the next page link in "Maximum_page_count."

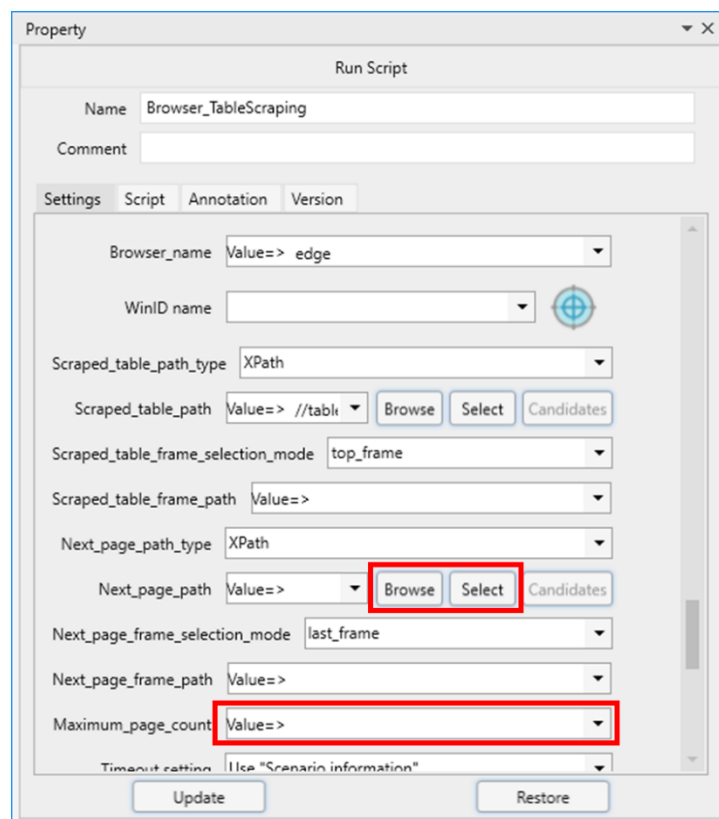


Figure 5-5. Next_page_Path

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5.5.3. Browser_GetNumbersOfTableRowsAndColumns

This library is to get the numbers of rows and columns of the table in a webpage.

Table 5-26. Library and property items

Library name	Property item	Description
Browser_GetNumbersOfTableRowsAndColumns	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Path type	Select the type of path to specify for "Table_path" and "Frame path." The choices are "XPath" and "Selector."
	Table_path	Specify the XPath or the Selector of the target elements. Use the format specified for the "Path type." For details of the Path, see "3. Procedure to get Path."
	Frame selection mode	Select a way to specify the frame in which the element specified for the "Table_path" is located. The choices are "last_frame," "top_frame," and "specified_frame." When "last_frame" is selected, the last selected frame during the run of the scenario is used, and the top frame is used at the beginning of the scenario. When "top_frame" is selected, the top frame is used.

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		When “specified_frame” is used, the frame specified for “Frame path” is used.
	Frame path	Set the XPath or the Selector of the frame in which the element specified for the “Table_path” is located. This is effective only when “specified_frame” is selected for “Frame selection mode.” If the element is located in the nested frames, concatenate XPaths or Selectors of the frames with the character `;` and set the result string.
	Number_of_rows	Specify a variable to store the acquired number of rows.
	Number_of_columns	Specify a variable to store the acquired number of columns.
	Timeout setting	Select which timeout setting to use from among following selections. • Use "Scenario information" The timeout value set in the "Scenario information" window is used. • Use "Option" The timeout value set in the "Option" window is used. • Use this "Property" The value set for "Timeout(msec)(optional)" is used.
	Timeout (msec)(optional)	Set the waiting time to find the specified element. This value is used when "Use this "Property"" is selected for "Timeout setting." Specify a value or a variable name.

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		The default value is 10,000 milliseconds.
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5.5.4. Browser_GetNumberOfTableRows

This library is to get the number of rows of the table in a webpage.

Table 5-27. Library and property items

Library name	Property item	Description
Browser_GetNumber OfTableRows	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Path type	Select the type of path to specify for "Table_path" and "Frame path." The choices are "XPath" and "Selector."
	Table_path	Specify the XPath or the Selector of the target elements. Use the format specified for the "Path type."
	Frame selection mode	Select a way to specify the frame in which the element specified for the "Table_path" is located. The choices are "last_frame," "top_frame," and "specified_frame." When "last_frame" is selected, the last selected frame during the run of the scenario is used, and the top frame is used at the beginning of the scenario. When "top_frame" is selected, the top frame is used. When "specified_frame" is used, the frame specified for "Frame path" is used.

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	Frame path	Set the XPath or the Selector of the frame in which the element specified for the "Table_path" is located. This is effective only when "specified_frame" is selected for "Frame selection mode." If the element is located in the nested frames, concatenate XPaths or Selectors of the frames with the character `;` and set the result string.
	Number_of_rows	Specify a variable to store the acquired number of rows.
	Timeout setting	Select which timeout setting to use from among following selections. • Use "Scenario information" The timeout value set in the "Scenario information" window is used. • Use "Option" The timeout value set in the "Option" window is used. • Use this "Property" The value set for "Timeout(msec)(optional)" is used.
	Timeout (msec)(optional)	Set the waiting time to find the specified element. This value is used when "Use this "Property"" is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.

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5.5.5. Browser_GetNumberOfTableColumns

This library is to get the number of columns of the table in a webpage.

Table 5-28. Library and property items

Library name	Property item	Description
Browser_GetNumber OfTableColumns	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Path type	Select the type of path to specify for "Table_path" and "Frame path." The choices are "XPath" and "Selector."
	Table_path	Specify the XPath or the Selector of the target elements. Use the format specified for the "Path type."
	Frame selection mode	Select a way to specify the frame in which the element specified for the "Table_path" is located. The choices are "last_frame," "top_frame," and "specified_frame." When "last_frame" is selected, the last selected frame during the run of the scenario is used, and the top frame is used at the beginning of the scenario. When "top_frame" is selected, the top frame is used. When "specified_frame" is used, the frame specified for "Frame path" is used.

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	Frame path	Set the XPath or the Selector of the frame in which the element specified for the "Table_path" is located. This is effective only when "specified_frame" is selected for "Frame selection mode." If the element is located in the nested frames, concatenate XPaths or Selectors of the frames with the character `;` and set the result string.
	Row_number	Specify a row number to acquire the number of columns in the row. An integer of 1 or more should be specified. The default is 1.
	Number_of_columns	Specify a variable to store the acquired number of columns.
	Timeout setting	Select which timeout setting to use from among following selections. • Use "Scenario information" The timeout value set in the "Scenario information" window is used. • Use "Option" The timeout value set in the "Option" window is used. • Use this "Property" The value set for "Timeout(msec)(optional)" is used.
	Timeout (msec)(optional)	Set the waiting time to find the specified element. This value is used when 'Use this "Property"' is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.

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5.5.6. Browser_CheckCellExistence

This library is to obtain whether the cell specified with a row number, a column number, and a table element exists or not.

Table 5-29. Library and property items

Library name	Property item	Description
Browser_Check CellExistence	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Path type	Select the type of path to specify for "Table_path" and "Frame path." The choices are "XPath" and "Selector."
	Table_path	Specify the XPath or the Selector of the target elements. Use the format specified for the "Path type." "For details of the Path, see "3. Procedure to get Path."
	Frame selection mode	Select a way to specify the frame in which the element specified for the "Table_path" is located. The choices are "last_frame," "top_frame," and "specified_frame." When "last_frame" is selected, the last selected frame during the run of the scenario is used, and the top frame is used at the beginning of the scenario. When "top_frame" is selected, the top frame is used. When "specified_frame" is used, the frame specified for "Frame path" is used.

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	Frame path	Set the XPath or the Selector of the frame in which the element specified for the "Table_path" is located. This is effective only when "specified_frame" is selected for "Frame selection mode." If the element is located in the nested frames, concatenate XPaths or Selectors of the frames with the character `;` and set the result string.
	Row_number	Specify the row number of the target cell. (1 or more)
	Column_number	Specify the column number of the target cell. (1 or more)
	Timeout setting	Select which timeout setting to use from among following selections. • Use "Scenario information" The timeout value set in the "Scenario information" window is used. • Use "Option" The timeout value set in the "Option" window is used. • Use this "Property" The value set for "Timeout(msec)(optional)" is used.
	Timeout(msec)(optional)	Set the waiting time to find the specified element. This value is used when 'Use this "Property"' is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.
	Result	When the target cell exists, 'true' is returned. Otherwise, 'false' is returned.

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5.5.7. Browser_SaveAllCellsOnTable

This library is to obtain a table displayed on a web browser and save it to a CSV file.

Table 5-30. Library and property items

Library name	Property item	Description
Browser_SaveAllCellsOnTable	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Path type	Select the type of path to specify for "Table_path" and "Frame path." The choices are "XPath" and "Selector."
	Table_path	Specify the XPath or the Selector of the target elements. Use the format specified for the "Path type." For details of the Path, see "3. Procedure to get Path."
	Frame selection mode	Select a way to specify the frame in which the element specified for the "Table_path" is located. The choices are "last_frame," "top_frame," and "specified_frame." When "last_frame" is selected, the last selected frame during the run of the scenario is used, and the top frame is used at the beginning of the scenario. When "top_frame" is selected, the top frame is used. When "specified_frame" is used, the frame specified for "Frame path" is used.

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	Frame path	Set the XPath or the Selector of the frame in which the element specified for the "Table_path" is located. This is effective only when "specified_frame" is selected for "Frame selection mode." If the element is located in the nested frames, concatenate XPaths or Selectors of the frames with the character `;` and set the result string.
	Timeout setting	Select which timeout setting to use from among following selections. • Use "Scenario information" The timeout value set in the "Scenario information" window is used. • Use "Option" The timeout value set in the "Option" window is used. • Use this "Property" The value set for "Timeout(msec)(optional)" is used.
	Timeout(msec)(optional)	Set the waiting time to find the specified element. This value is used when "Use this Property" is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.
	File_name	Specify a file path to save the obtained table in CSV format.
	Commma_at_line_end	Select whether to output a comma at the end of each line in the CSV file. ·True Outputs commas at line ends. ·False

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		Outputs no comma at line ends.
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5.6. List

This section describes the libraries provided under “23_Browser/06_List” and property items of each library.

5.6.1. Browser_SelectItem

This library is used to select an item in a list (<select> element) in a webpage.

Table 5-31. Library and property items

Library name	Property item	Description
Browser_SelectItem	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Path type	Select the type of path to specify for "Element path" and "Frame path." The choices are "XPath" and "Selector."
	Element path	Specify the XPath or the Selector of the target element. Use the format specified for the "Path type." For details of the Path, see "3. Procedure to get Path."
	Frame selection mode	Select a way to specify the frame in which the element specified for the "Element path" is located. The choices are "last_frame," "top_frame," and "specified_frame." When "last_frame" is selected, the last selected frame during the run of the scenario is used, and the top frame is used at the beginning of the scenario.

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		When “top_frame” is selected, the top frame is used. When “specified_frame” is used, the frame specified for “Frame path” is used.
	Frame path	Set the XPath or the Selector of the frame in which the element specified for the “Element path” is located. This is effective only when “specified_frame” is selected for “Frame selection mode.” If the element is located in the nested frames, concatenate XPaths or Selectors of the frames with the character `;` and set the result string.
	Type_of_specified_values	Select one of "index," "value," or "visibleText." When selecting "index," specify an index of a list item in "Value." When selecting "value," specify a value of a list item in "Value." When selecting "visibleText," specify a displayed string of a list item in "Value."
	Value	What to set depends on "Type_of_specified_values."
	Timeout setting	Select which timeout setting to use from among following selections. - Use "Scenario information" The value set in the "Scenario information" window is used. - Use "Option" The value set in the "Option" window used. - Use this "Property" The value set for "Timeout(msec)(optional)" is used.

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	Timeout(msec)(optional)	This value is used when 'Use this "Property"' is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.
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5.6.2. Browser_GetSelectedItem

This library is used to get a selected item in a list (<select> element) in a webpage.

Table 5-32. Library and property items

Library name	Property item	Description
Browser_Get SelectedItem	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Path type	Select the type of path to specify for "Element path" and "Frame path." The choices are "XPath" and "Selector."
	Element path	Specify the XPath or the Selector of the target element. Use the format specified for the "Path type." For details of the Path, see "3. Procedure to get Path."
	Frame selection mode	Select a way to specify the frame in which the element specified for the "Element path" is located. The choices are "last_frame," "top_frame," and "specified_frame." When "last_frame" is selected, the last selected frame during the run of the scenario is used, and the top frame is used at the beginning of the scenario. When "top_frame" is selected, the top frame is used. When "specified_frame" is used, the frame specified for "Frame path" is used.

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	Frame path	Set the XPath or the Selector of the frame in which the element specified for the “Element path” is located. This is effective only when “specified_frame” is selected for “Frame selection mode.” If the element is located in the nested frames, concatenate XPaths or Selectors of the frames with the character `;` and set the result string.
	Type_of_specified_value	Select one of "index," "value," or "visibleText."
	Variable_to_store_the_value	Specify a variable to store the acquired value.
	Timeout setting	Select which timeout setting to use from among following selections. - Use "Scenario information" The value set in the "Scenario information" window is used. - Use "Option" The value set in the "Option" window used. - Use this "Property" The value set for "Timeout(msec)(optional)" is used.
	Timeout(msec)(optional)	This value is used when 'Use this "Property"' is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.

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5.6.3. Browser_GetAllItems

This library is used to output values of all items in a list (<select> element) in a webpage to a text file.

Table 5-33. Library and property items

Library name	Property item	Description
Browser_GetAllItems	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Path type	Select the type of path to specify for "Element path" and "Frame path." The choices are "XPath" and "Selector."
	Element path	Specify the XPath or the Selector of the target element. Use the format specified for the "Path type." For details of the Path, see "3. Procedure to get Path."
	Frame selection mode	Select a way to specify the frame in which the element specified for the "Element path" is located. The choices are "last_frame," "top_frame," and "specified_frame." When "last_frame" is selected, the last selected frame during the run of the scenario is used, and the top frame is used at the beginning of the scenario. When "top_frame" is selected, the top frame is used. When "specified_frame" is used, the frame specified for "Frame path" is used.

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	Frame path	Set the XPath or the Selector of the frame in which the element specified for the “Element path” is located. This is effective only when “specified_frame” is selected for “Frame selection mode.” If the element is located in the nested frames, concatenate XPaths or Selectors of the frames with the character `;` and set the result string.
	File_name	Specify a file to save the values of the list items with an absolute path or a relative path.
	Timeout setting	Select which timeout setting to use from among following selections. - Use "Scenario information" The value set in the "Scenario information" window is used. - Use "Option" The value set in the "Option" window used. - Use this "Property" The value set for "Timeout(msec)(optional)" is used.
	Timeout(msec)(optional)	This value is used when 'Use this "Property"' is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.
	Output_mode	Specify the value to output via a selection. Select either 'All' or 'Menutext_only.' With 'All' selected, all the index, value, and texts displayed in the menu are output. With 'Menutext_only' selected, texts displayed in the menu are output.

5.6.4. Operations for a multiple selection list

"Browser_SelectMultipleItems" is used to select multiple items in a list as shown in the figure below.



Figure 5-6. Example of a multiple selection list

When changing the selection from "Before the operation" to "After the operation" shown in the figure below, first use "Browser_UnselectAllItems" to clear the selection of "German" and "French." Next, use "Browser_SelectMultipleItems" to select "English" and then select "Japanese."

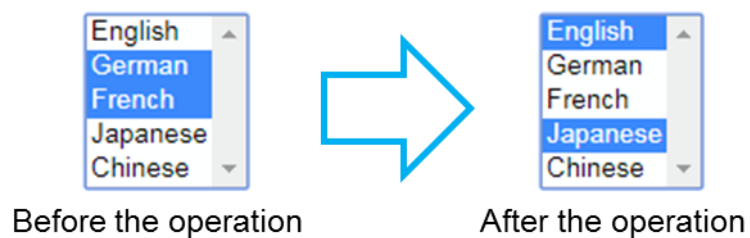


Figure 5-7. Example of selecting multiple items in the list

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5.6.4.1. Browser_SelectMultipleItems

This library is to select an item in a multiple selection list (<select multiple> element) in a webpage.

Table 5-34. Library and property items

Library name	Property item	Description
Browser_SelectMultipleItems	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Path type	Select the type of path to specify for "Element path" and "Frame path." The choices are "XPath" and "Selector."
	Element path	Specify the XPath or the Selector of the target element. Use the format specified for the "Path type." For details of the Path, see "3. Procedure to get Path."
	Frame selection mode	Select a way to specify the frame in which the element specified for the "Element path" is located. The choices are "last_frame," "top_frame," and "specified_frame." When "last_frame" is selected, the last selected frame during the run of the scenario is used, and the top frame is used at the beginning of the scenario. When "top_frame" is selected, the top frame is used. When "specified_frame" is used, the frame specified for "Frame path" is used.

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	Frame path	Set the XPath or the Selector of the frame in which the element specified for the "Element path" is located. This is effective only when "specified_frame" is selected for "Frame selection mode." If the element is located in the nested frames, concatenate XPaths or Selectors of the frames with the character `;` and set the result string.
	Type_of_specified_values	Select one of "index," "value," or "visibleText." When selecting "index," specify an index of a list item in "Value." When selecting "value," specify a value of a list item in "Value." When selecting "visibleText," specify a displayed string of a list item in "Value."
	Value	What to set depends on "Type_of_specified_values."
	Timeout setting	Select which timeout setting to use from among following selections. - Use "Scenario information" The value set in the "Scenario information" window is used. - Use "Option" The value set in the "Option" window used. - Use this "Property" The value set for "Timeout(msec)(optional)" is used.
	Timeout(msec)(optional)	This value is used when "Use this "Property" is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.

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5.6.4.2. Browser_UnselectMultipleItems

This library is to unselect an item in a multiple selection list (<select multiple> element) in a webpage.

Table 5-35. Library and property items

Library name	Property item	Description
Browser_Unselect MultipleItems	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Path type	Select the type of path to specify for "Element path" and "Frame path." The choices are "XPath" and "Selector."
	Element path	Specify the XPath or the Selector of the target element. Use the format specified for the "Path type." For details of the Path, see "3. Procedure to get Path."
	Frame selection mode	Select a way to specify the frame in which the element specified for the "Element path" is located. The choices are "last_frame," "top_frame," and "specified_frame." When "last_frame" is selected, the last selected frame during the run of the scenario is used, and the top frame is used at the beginning of the scenario. When "top_frame" is selected, the top frame is used. When "specified_frame" is used, the frame specified for "Frame path" is used.

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	Frame path	Set the XPath or the Selector of the frame in which the element specified for the “Element path” is located. This is effective only when “specified_frame” is selected for “Frame selection mode.” If the element is located in the nested frames, concatenate XPaths or Selectors of the frames with the character `;` and set the result string.
	Type_of_specified_values	Select one of "index," "value," or "visibleText." When selecting "index," specify an index of a list item in "Value." When selecting "value," specify a value of a list item in "Value." When selecting "visibleText," specify a displayed string of a list item in "Value."
	Value	What to set depends on "Type_of_specified_values."
	Timeout setting	Select which timeout setting to use from among following selections. - Use "Scenario information" The value set in the "Scenario information" window is used. - Use "Option" The value set in the "Option" window used. - Use this "Property" The value set for "Timeout(msec)(optional)" is used.
	Timeout(msec)(optional)	This value is used when "Use this "Property"" is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.

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5.6.4.3. Browser_UnselectAllItems

This library is to unselect all items in a multiple selection list (<select multiple> element) in a webpage.

Table 5-36. Library and property items

Library name	Property item	Description
Browser_UnselectAllItems	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Path type	Select the type of path to specify for "Element path" and "Frame path." The choices are "XPath" and "Selector."
	Element path	Specify the XPath or the Selector of the target element. Use the format specified for the "Path type." For details of the Path, see "3. Procedure to get Path."
	Frame selection mode	Select a way to specify the frame in which the element specified for the "Element path" is located. The choices are "last_frame," "top_frame," and "specified_frame." When "last_frame" is selected, the last selected frame during the run of the scenario is used, and the top frame is used at the beginning of the scenario. When "top_frame" is selected, the top frame is used. When "specified_frame" is used, the frame specified for "Frame path" is used.

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	Frame path	Set the XPath or the Selector of the frame in which the element specified for the “Element path” is located. This is effective only when “specified_frame” is selected for “Frame selection mode.” If the element is located in the nested frames, concatenate XPaths or Selectors of the frames with the character `;` and set the result string.
	Timeout setting	Select which timeout setting to use from among following selections. - Use "Scenario information" The value set in the "Scenario information" window is used. - Use "Option" The value set in the "Option" window used. - Use this "Property" The value set for "Timeout(msec)(optional)" is used.
	Timeout(msec)(optional)	This value is used when 'Use this "Property"' is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.

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5.7. Others

This section describes the other libraries provided under “23_Browser” and property items of each of the libraries.

5.7.1. Browser_Browse

This library is used to display a webpage of a specified URL on a browser.

Table 5-37. Library and property items

Library name	Property item	Description
Browser_Browse	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	URL	Set a URL to be displayed in the browser.

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5.7.2. Browser_SelectFile

This library is used to select a file with a file selection (<input type="file"> element) in a webpage.

Table 5-38. Library and property items

Library name	Property item	Description
Browser_SelectFile	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	Path type	Select the type of path to specify for "Element path" and "Frame path." The choices are "XPath" and "Selector."
	Element path	Specify the XPath or the Selector of the target element. Use the format specified for the "Path type." For details of the Path, see "3. Procedure to get Path."
	Frame selection mode	Select a way to specify the frame in which the element specified for the "Element path" is located. The choices are "last_frame," "top_frame," and "specified_frame." When "last_frame" is selected, the last selected frame during the run of the scenario is used, and the top frame is used at the beginning of the scenario. When "top_frame" is selected, the top frame is used. When "specified_frame" is used, the frame specified for "Frame path" is used.
	Frame path	Set the XPath or the Selector of the frame in which the element specified for the "Element path" is located.

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		This is effective only when "specified_frame" is selected for "Frame selection mode." If the element is located in the nested frames, concatenate XPaths or Selectors of the frames with the character `;` and set the result string.
	File_name (absolute path)	Specify a path of the file to be selected.
	Timeout setting	Select which timeout setting to use from among following selections. - Use "Scenario information" The value set in the "Scenario information" window is used. - Use "Option" The value set in the "Option" window used. - Use this "Property" The value set for "Timeout(msec)(optional)" is used.
	Timeout(msec)(optional)	This value is used when "Use this "Property"" is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.

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5.7.3. Browser_SetValue

This library is used to set a value directly to an element in a webpage.

Table 5-39. Library and property items

Library name	Property item	Description
Browser_SetValue	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Path type	Select the type of path to specify for "Element path" and "Frame path." The choices are "XPath" and "Selector."
	Element path	Specify the XPath or the Selector of the target element. Use the format specified for the "Path type." For details of the Path, see "3. Procedure to get Path."
	Frame selection mode	Select a way to specify the frame in which the element specified for the "Element path" is located. The choices are "last_frame," "top_frame," and "specified_frame." When "last_frame" is selected, the last selected frame during the run of the scenario is used, and the top frame is used at the beginning of the scenario. When "top_frame" is selected, the top frame is used. When "specified_frame" is used, the frame specified for "Frame path" is used.

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	Frame path	Set the XPath or the Selector of the frame in which the element specified for the “Element path” is located. This is effective only when “specified_frame” is selected for “Frame selection mode.” If the element is located in the nested frames, concatenate XPaths or Selectors of the frames with the character `;` and set the result string.
	Set_value	Set the value to be set.
	Timeout setting	Select which timeout setting to use from among following selections. - Use "Scenario information" The value set in the "Scenario information" window is used. - Use "Option" The value set in the "Option" window used. - Use this "Property" The value set for "Timeout(msec)(optional)" is used.
	Timeout(msec)(optional)	This value is used when 'Use this "Property"' is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.

Limitation: "Browser_SetValue" sets a value directly to an element. Therefore, depending on webpages, it may not work correctly. For example, if the webpage validates the input value for every key stroke, the validation may be skipped. In such a case, you can use "Browser_SetValueToReproduceKeystrokes" described later instead.

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5.7.4. Browser_SetValueToReproduceKeystrokes

This library is used to set a value to an element in a webpage as keystrokes.

The library "5.7.3 Browser_SetValue" sets a value directly to an element. This library sets a value by reproducing keystrokes.

Table 5-40. Library and property items

Library name	Property item	Description
Browser_SetValueToReproduceKeystrokes	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Path type	Select the type of path to specify for "Element path" and "Frame path." The choices are "XPath" and "Selector."
	Element path	Specify the XPath or the Selector of the target element. Use the format specified for the "Path type." For details of the Path, see "3. Procedure to get Path."
	Frame selection mode	Select a way to specify the frame in which the element specified for the "Element path" is located. The choices are "last_frame," "top_frame," and "specified_frame." When "last_frame" is selected, the last selected frame during the run of the scenario is used, and the top frame is used at the beginning of the scenario. When "top_frame" is selected, the top frame is used.

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		When "specified_frame" is used, the frame specified for "Frame path" is used.
	Frame path	Set the XPath or the Selector of the frame in which the element specified for the "Element path" is located. This is effective only when "specified_frame" is selected for "Frame selection mode." If the element is located in the nested frames, concatenate XPaths or Selectors of the frames with the character `;` and set the result string.
	Value	Set the value to be set.
	Timeout setting	Select which timeout setting to use from among following selections. - Use "Scenario information" The value set in the "Scenario information" window is used. - Use "Option" The value set in the "Option" window used. - Use this "Property" The value set for "Timeout(msec)(optional)" is used.
	Timeout(msec)(optional)	This value is used when "Use this "Property"" is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.

Limitation: "Browser_SetValueToReproduceKeystrokes" may not work correctly depending on the target browser. For example, in Google Chrome, Japanese key input of a half-width kana character may be taken as another character assigned on the same key. Also, if the value contains a tab character, a tab key stroke will be issued, and may result in unintended behavior such as defocusing the input.

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5.7.5. Browser_GetValue

This library is used to get a value of an element in a webpage.

The behavior depends on the target element.

- If the target is <input> element, the value attribute will be acquired.
- Otherwise, the html source inside of the target element will be acquired.

Table 5-41. Library and property items

Library name	Property item	Description
Browser_GetValue	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Path type	Select the type of path to specify for "Element path" and "Frame path." The choices are "XPath" and "Selector."
	Element path	Specify the XPath or the Selector of the target element. Use the format specified for the "Path type." For details of the Path, see "3. Procedure to get Path."
	Frame selection mode	Select a way to specify the frame in which the element specified for the "Element path" is located. The choices are "last_frame," "top_frame," and "specified_frame." When "last_frame" is selected, the last selected frame during the run of the scenario is used, and the top frame is used at the beginning of the scenario. When "top_frame" is selected, the top frame is used.

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		When “specified_frame” is used, the frame specified for “Frame path” is used.
	Frame path	Set the XPath or the Selector of the frame in which the element specified for the “Element path” is located. This is effective only when “specified_frame” is selected for “Frame selection mode.” If the element is located in the nested frames, concatenate XPaths or Selectors of the frames with the character `;` and set the result string.
	Variable_to_store_the_value	Specify a variable to store the acquired value.
	Timeout setting	Select which timeout setting to use from among following selections. - Use "Scenario information" The value set in the "Scenario information" window is used. - Use "Option" The value set in the "Option" window used. - Use this "Property" The value set for "Timeout(msec)(optional)" is used.
	Timeout(msec)(optional)	This value is used when 'Use this "Property"' is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.
	Output_mode	Select an output mode of the text, 'With tags' or 'Without tags.' 'With tags,' texts with tags of descendant elements are output. 'Without tags,' texts without tags are output.

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5.7.6. Browser_GetCheckState

This library is used to get the check state of a check box (<input type="checkbox"> element) or radio box (<input type="radio"> element) in a webpage.

- If it is in the checked state, the string "true" will be acquired.
- If it is in the unchecked state, the string "false" will be acquired.

Table 5-42. Library and property items

Library name	Property item	Description
Browser_Get CheckState	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Path type	Select the type of path to specify for "Element path" and "Frame path." The choices are "XPath" and "Selector."
	Element path	Specify the XPath or the Selector of the target element. Use the format specified for the "Path type." For details of the Path, see "3. Procedure to get Path."
	Frame selection mode	Select a way to specify the frame in which the element specified for the "Element path" is located. The choices are "last_frame," "top_frame," and "specified_frame." When "last_frame" is selected, the last selected frame during the run of the scenario is used, and the top frame is used at the beginning of the scenario. When "top_frame" is selected, the top frame is used.

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		When “specified_frame” is used, the frame specified for “Frame path” is used.
	Frame path	Set the XPath or the Selector of the frame in which the element specified for the “Element path” is located. This is effective only when “specified_frame” is selected for “Frame selection mode.” If the element is located in the nested frames, concatenate XPaths or Selectors of the frames with the character `;` and set the result string.
	Variable_to_store_the_value	Specify a variable to store the acquired value.
	Timeout setting	Select which timeout setting to use from among following selections. - Use "Scenario information" The value set in the "Scenario information" window is used. - Use "Option" The value set in the "Option" window used. - Use this "Property" The value set for "Timeout(msec)(optional)" is used.
	Timeout(msec) (optional)	This value is used when "Use this "Property"" is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.

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5.7.7. Browser_IsEnabled

This library is used to get the enabled state (disabled attribute) of an element in a webpage.

- If it is enabled, the string "true" will be acquired.
- If it is disabled, the string "false" will be acquired.

Table 5-43. Library and property items

Library name	Property item	Description
Browser_IsEnabled	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Path type	Select the type of path to specify for "Element path" and "Frame path." The choices are "XPath" and "Selector."
	Element path	Specify the XPath or the Selector of the target element. Use the format specified for the "Path type." For details of the Path, see "3. Procedure to get Path."
	Frame selection mode	Select a way to specify the frame in which the element specified for the "Element path" is located. The choices are "last_frame," "top_frame," and "specified_frame." When "last_frame" is selected, the last selected frame during the run of the scenario is used, and the top frame is used at the beginning of the scenario. When "top_frame" is selected, the top frame is used.

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		When “specified_frame” is used, the frame specified for “Frame path” is used.
	Frame path	Set the XPath or the Selector of the frame in which the element specified for the “Element path” is located. This is effective only when “specified_frame” is selected for “Frame selection mode.” If the element is located in the nested frames, concatenate XPaths or Selectors of the frames with the character `;` and set the result string.
	Variable_to_store_the_value	Specify a variable to store the acquired value.
	Timeout setting	Select which timeout setting to use from among following selections. - Use "Scenario information" The value set in the "Scenario information" window is used. - Use "Option" The value set in the "Option" window used. - Use this "Property" The value set for "Timeout(msec)(optional)" is used.
	Timeout(msec)(optional)	This value is used when "Use this "Property"" is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.

5.7.8. Browser_SelectFrame

This library is used to select a frame (<frame> element) in a webpage as shown in the figure below.

By using "Browser_SelectFrame," a currently selected frame will be switched. The contents inside a selected frame will be the target for operation.

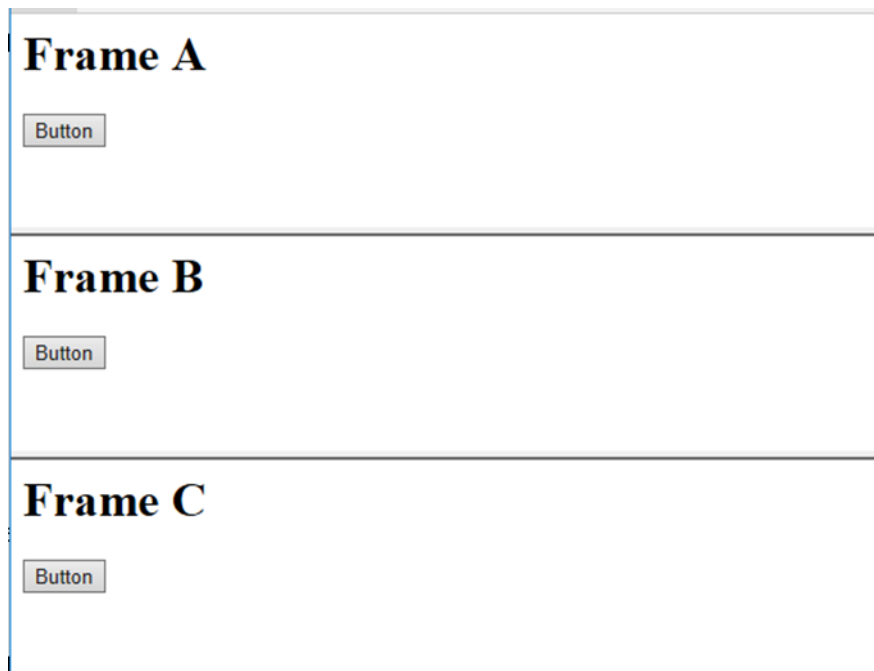


Figure 5-8. Example of a framed webpage

The selected frame depends on the "Select_mode" property item.

- If Select_mode is "child," a specified child frame will be selected.
- If Select_mode is "parent," a parent frame of a currently selected frame will be selected.

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For example, suppose you want to create a scenario for clicking the button in Frame A and then click the button in Frame B, as shown in the figure below.

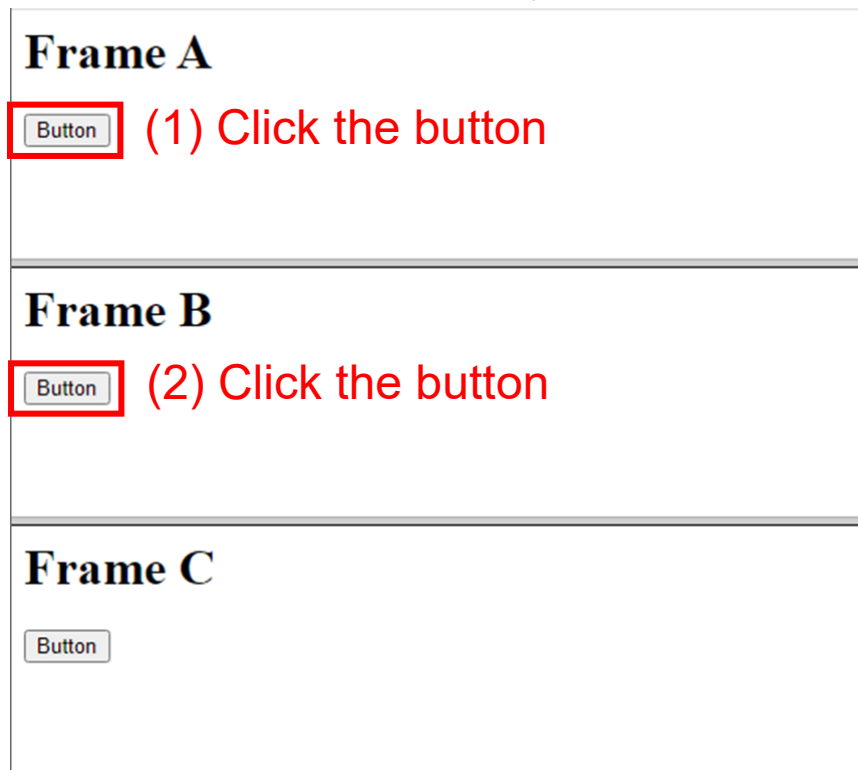


Figure 5-9. Example of operating a framed webpage

The scenario should have the following steps.

1. "Browser_SelectFrame" (Select the child frame "Frame A")
2. "Browser_Click" (Click the button (1))
3. "Browser_SelectFrame" (Select the parent frame)
4. "Browser_SelectFrame" (Select the child frame "Frame B")
5. "Browser_Click" (Click the button (2))

* "Frame B" cannot be selected while "Frame A" has been selected. It is necessary to go up to the parent frame once.

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Table 5-44. Library and property items

Library name	Property item	Description
Browser_Select Frame	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Select_mode	Select "child" or "parent."
	XPath_for_child	If "child" is selected in "Select_mode," specify XPath for a child frame. For details, see "5.7.8.1 How to get XPath for a frame." If "parent" is selected in "Select_mode," leave this field blank.
	Timeout setting	Select which timeout setting to use from among following selections. - Use "Scenario information" The value set in the "Scenario information" window is used. - Use "Option" The value set in the "Option" window used. - Use this "Property" The value set for "Timeout(msec)(optional)" is used.
	Timeout(msec) (optional)	This value is used when "Use this "Property" is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.

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5.7.8.1. How to get XPath for a frame

The following describes the procedure to get XPath for a frame.

For details of XPath, see "3. Procedure to get Path."

- (1) Right-click any place (such as the background) in a frame you want to select.
- (2) Select "Inspect" in the pop-up menu.

Confirm that the developer tools window is displayed and the HTML hierarchy information is displayed at the bottom of the window.



Figure 5-10. How to get XPath for a frame 1

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(3) Follow the HTML hierarchy information to the left and click frameXX.

In the example below, it shows "frame." The "XX" part varies depending on a webpage.

The frame element is selected.

(4) Right-click on the frame element.

(5) Select "Copy" => "Copy XPath" in the pop-up menu.

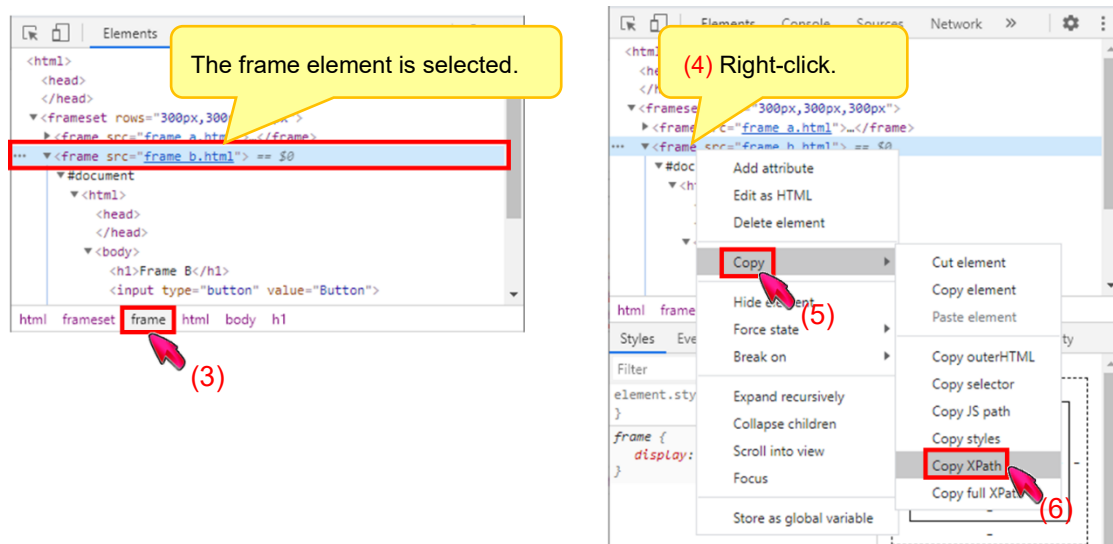


Figure 5-11. How to get XPath for a frame 2

XPath for the selected frame element is copied to the clipboard.

XPath is a string like `"/html/frameset/frame[2]."` You can paste it into Notepad and the like to see it.

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5.7.9. Browser_GetDriverPath

This library is used to get an absolute path of the WebDriver file that is used to operate a browser.

Even if a relative path is specified in "5.1.1.1 Browser_LaunchWithDriver," an absolute path will be acquired in this Library.

Table 5-45. Library and property items

Library name	Property item	Description
Browser_Get DriverPath	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	Variable_to_store_the _value	Specify a variable to store the acquired value.

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5.7.10. Browser_CountElements

This library is to get the number of elements in a webpage.

Table 5-46. Library and property items

Library name	Property item	Description
Browser_Count Elements	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Path type	Select the type of path to specify for "Element path" and "Frame path." The choices are "XPath" and "Selector."
	Element path	Specify the XPath or the Selector of the target element. Use the format specified for the "Path type." For details of the Path, see "3. Procedure to get Path."
	Frame selection mode	Select a way to specify the frame in which the element specified for the "Element path" is located. The choices are "last_frame," "top_frame," and "specified_frame." When "last_frame" is selected, the last selected frame during the run of the scenario is used, and the top frame is used at the beginning of the scenario. When "top_frame" is selected, the top frame is used. When "specified_frame" is used, the frame specified for "Frame path" is used.

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	Frame path	Set the XPath or the Selector of the frame in which the element specified for the “Element path” is located. This is effective only when “specified_frame” is selected for “Frame selection mode.” If the element is located in the nested frames, concatenate XPaths or Selectors of the frames with the character `;` and set the result string.
	Variable_to_store_the_value	Specify a variable to store the acquired value.
	Timeout setting	Select which timeout setting to use from among following selections. - Use "Scenario information" The value set in the "Scenario information" window is used. - Use "Option" The value set in the "Option" window used. - Use this "Property" The value set for "Timeout(msec)(optional)" is used.
	Timeout(msec)(optional)	This value is used when 'Use this "Property"' is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.

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5.7.11. Browser_NameBrowser

This library is to name a browser which is not launched by WinActor.

Table 5-47. Library and property items

Library name	Property item	Description
Browser_NameBrowser	WinID name	Specify a browser to name. The browser should not be launched by WinActor. Specify it by selecting from the list, or clicking the target mark and selecting the window of it.
	Browser_name	Specify a browser name.

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5.7.12. Browser_GetAnchorURL

This library is to get the URL assigned to the 'href' attribute of the 'A' element specified with Path.

Table 5-48. Library and property items

Library name	Property item	Description
Browser_GetAnchorURL	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Path type	Select the type of path to specify for "Element path" and "Frame path." The choices are "XPath" and "Selector."
	Element path	Specify the XPath or the Selector of the target element. Use the format specified for the "Path type." For details of the Path, see "3 Procedure to get Path."
	Frame selection mode	Select a way to specify the frame in which the element specified for the "Element path" is located. The choices are "last_frame," "top_frame," and "specified_frame." When "last_frame" is selected, the last selected frame during the run of the scenario is used, and the top frame is used at the beginning of the scenario. When "top_frame" is selected, the top frame is used. When "specified_frame" is used, the frame specified for "Frame path" is used.

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	Frame path	Set the XPath or the Selector of the frame in which the element specified for the “Element path” is located. This is effective only when “specified_frame” is selected for “Frame selection mode.” If the element is located in the nested frames, concatenate XPaths or Selectors of the frames with the character `;` and set the result string.
	Timeout setting	Select which timeout setting to use from among following selections. • Use "Scenario information" The timeout value set in the "Scenario information" window is used. • Use "Option" The timeout value set in the "Option" window is used. • Use this "Property" The value set for "Timeout(msec)(optional)" is used.
	Timeout(msec)(optional)	Set the waiting time to find the specified element. This value is used when 'Use this "Property"' is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.
	Obtained_URL	Specify a variable to store the obtained URL.

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5.7.13. Browser_GetAttributeValue

This library is to get the attribute value of the element in the webpage.

Table 5-49. Library and property items

Library name	Property item	Description
Browser_GetAttribute Value	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Path type	Select the type of path to specify for "Element path" and "Frame path." The choices are "XPath" and "Selector."
	Element path	Specify the XPath or the Selector of the target element. Use the format specified for the "Path type." For details of the Path, see "3. Procedure to get Path."
	Frame selection mode	Select a way to specify the frame in which the element specified for the "Element path" is located. The choices are "last_frame," "top_frame," and "specified_frame." When "last_frame" is selected, the last selected frame during the run of the scenario is used, and the top frame is used at the beginning of the scenario. When "top_frame" is selected, the top frame is used. When "specified_frame" is used, the frame specified for "Frame path" is used.

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	Frame path	Set the XPath or the Selector of the frame in which the element specified for the "Element path" is located. This is effective only when "specified_frame" is selected for "Frame selection mode." If the element is located in the nested frames, concatenate XPaths or Selectors of the frames with the character `;` and set the result string.
	Attribute_name	Specify the name of the attribute to get value.
	Variable_to_store_the_value	Specify a variable to store the obtained value. When the attribute does not exist, a vacant value is set.
	Timeout setting	Select which timeout setting to use from among following selections. • Use "Scenario information" The timeout value set in the "Scenario information" window is used. • Use "Option" The timeout value set in the "Option" window is used. • Use this "Property" The value set for "Timeout(msec)(optional)" is used.
	Timeout(msec)(optional)	Set the waiting time to find the specified element. This value is used when "Use this "Property"" is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.

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5.7.14. Browser_SetAttributeValue

This library is to set an attribute value of the element in the webpage.

Table 5-50. Library and property items

Library name	Property item	Description
Browser_SetAttribute Value	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Path type	Select the type of path to specify for "Element path" and "Frame path." The choices are "XPath" and "Selector."
	Element path	Specify the XPath or the Selector of the target element. Use the format specified for the "Path type." For details of the Path, see "3. Procedure to get Path."
	Frame selection mode	Select a way to specify the frame in which the element specified for the "Element path" is located. The choices are "last_frame," "top_frame," and "specified_frame." When "last_frame" is selected, the last selected frame during the run of the scenario is used, and the top frame is used at the beginning of the scenario. When "top_frame" is selected, the top frame is used. When "specified_frame" is used, the frame specified for "Frame path" is used.

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	Frame path	Set the XPath or the Selector of the frame in which the element specified for the "Element path" is located. This is effective only when "specified_frame" is selected for "Frame selection mode." If the element is located in the nested frames, concatenate XPaths or Selectors of the frames with the character `;` and set the result string.
	Attribute_name	Specify the name of the attribute to set value.
	Value_to_set	Specify a value to set to the attribute.
	Timeout setting	Select which timeout setting to use from among following selections. • Use "Scenario information" The timeout value set in the "Scenario information" window is used. • Use "Option" The timeout value set in the "Option" window is used. • Use this "Property" The value set for "Timeout(msec)(optional)" is used.
	Timeout(msec)(optional)	Set the waiting time to find the specified element. This value is used when "Use this "Property"" is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.

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5.7.15. Browser_GetPropertyValue

This library is to get the property value of the element in the webpage.

Table 5-51. Library and property items

Library name	Property item	Description
Browser_GetProperty Value	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Path type	Select the type of path to specify for "Element path" and "Frame path." The choices are "XPath" and "Selector."
	Element path	Specify the XPath or the Selector of the target element. Use the format specified for the "Path type." For details of the Path, see "3. Procedure to get Path."
	Frame selection mode	Select a way to specify the frame in which the element specified for the "Element path" is located. The choices are "last_frame," "top_frame," and "specified_frame." When "last_frame" is selected, the last selected frame during the run of the scenario is used, and the top frame is used at the beginning of the scenario. When "top_frame" is selected, the top frame is used. When "specified_frame" is used, the frame specified for "Frame path" is used.

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	Frame path	Set the XPath or the Selector of the frame in which the element specified for the "Element path" is located. This is effective only when "specified_frame" is selected for "Frame selection mode." If the element is located in the nested frames, concatenate XPaths or Selectors of the frames with the character `;` and set the result string.
	Property_name	Specify the name of the property to get value.
	Variable_to_store_the_value	Specify a variable to store the obtained value. When the property does not exist, a vacant value is set.
	Timeout setting	Select which timeout setting to use from among following selections. • Use "Scenario information" The timeout value set in the "Scenario information" window is used. • Use "Option" The timeout value set in the "Option" window is used. • Use this "Property" The value set for "Timeout(msec)(optional)" is used.
	Timeout(msec)(optional)	Set the waiting time to find the specified element. This value is used when "Use this "Property"" is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.

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5.7.16. Browser_SetPropertyValue

This library is to set a property value of the element of the webpage.

Table 5-52. Library and property items

Library name	Property item	Description
Browser_SetProperty Value	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Path type	Select the type of path to specify for "Element path" and "Frame path." The choices are "XPath" and "Selector."
	Element path	Specify the XPath or the Selector of the target element. Use the format specified for the "Path type." For details of the Path, see "3. Procedure to get Path."
	Frame selection mode	Select a way to specify the frame in which the element specified for the "Element path" is located. The choices are "last_frame," "top_frame," and "specified_frame." When "last_frame" is selected, the last selected frame during the run of the scenario is used, and the top frame is used at the beginning of the scenario. When "top_frame" is selected, the top frame is used. When "specified_frame" is used, the frame specified for "Frame path" is used.

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	Frame path	Set the XPath or the Selector of the frame in which the element specified for the "Element path" is located. This is effective only when "specified_frame" is selected for "Frame selection mode." If the element is located in the nested frames, concatenate XPaths or Selectors of the frames with the character `;` and set the result string.
	Property_name	Specify the name of the property to set value.
	Value_to_set	Specify a value to set to the property.
	Timeout setting	Select which timeout setting to use from among following selections. • Use "Scenario information" The timeout value set in the "Scenario information" window is used. • Use "Option" The timeout value set in the "Option" window is used. • Use this "Property" The value set for "Timeout(msec)(optional)" is used.
	Timeout(msec)(optional)	Set the waiting time to find the specified element. This value is used when "Use this "Property"" is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.

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5.7.17. Browser_MoveMouse

This library emulates the mouse movement that hovers the mouse cursor over an element in a webpage. The displayed mouse cursor does not move because the mouse movement is just emulated by issuing an event with JavaScript.

Table 5-53. Library and property items

Library name	Property item	Description
Browser_MoveMouse	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Path type	Select the type of path to specify for "Element path" and "Frame path." The choices are "XPath" and "Selector."
	Element path	Specify the XPath or the Selector of the target element. Use the format specified for the "Path type." For details of the Path, see "3. Procedure to get Path."
	Frame selection mode	Select a way to specify the frame in which the element specified for the "Element path" is located. The choices are "last_frame," "top_frame," and "specified_frame." When "last_frame" is selected, the last selected frame during the run of the scenario is used, and the top frame is used at the beginning of the scenario. When "top_frame" is selected, the top frame is used.

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		When “specified_frame” is used, the frame specified for “Frame path” is used.
	Frame path	Set the XPath or the Selector of the frame in which the element specified for the “Element path” is located. This is effective only when “specified_frame” is selected for “Frame selection mode.” If the element is located in the nested frames, concatenate XPaths or Selectors of the frames with the character `;` and set the result string.
	Timeout setting	Select which timeout setting to use from among following selections. • Use "Scenario information" The timeout value set in the "Scenario information" window is used. • Use "Option" The timeout value set in the "Option" window is used. • Use this "Property" The value set for "Timeout(msec)(optional)" is used.
	Timeout(msec)(optional)	Set the waiting time to find the specified element. This value is used when "Use this "Property"" is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.

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5.7.18. Browser_SendMouseEvent

This library sends a mouse event with JavaScript to an element in a webpage.

The displayed mouse cursor does not move.

Table 5-54. Library and property items

Library name	Property item	Description
Browser_SendMouseEvent	Browser_name	Specify a browser to be operated. It corresponds to the browser name set in "Browser_Launch."
	WinID name	Specify a window to operate by selecting from the list, or clicking the target mark and selecting the window. If this is specified while using WebDriver, an error occurs.
	Path type	Select the type of path to specify for "Element path" and "Frame path." The choices are "XPath" and "Selector."
	Element path	Specify the XPath or the Selector of the target element. Use the format specified for the "Path type." For details of the Path, see "3. Procedure to get Path."
	Frame selection mode	Select a way to specify the frame in which the element specified for the "Element path" is located. The choices are "last_frame," "top_frame," and "specified_frame." When "last_frame" is selected, the last selected frame during the run of the scenario is used, and the top frame is used at the beginning of the scenario. When "top_frame" is selected, the top frame is used. When "specified_frame" is used, the frame specified for "Frame path" is used.

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	Frame path	Set the XPath or the Selector of the frame in which the element specified for the “Element path” is located. This is effective only when “specified_frame” is selected for “Frame selection mode.” If the element is located in the nested frames, concatenate XPaths or Selectors of the frames with the character `;` and set the result string.
	Event type	Select a JavaScript event to send out. The choices are “mousedown,” “mouseenter,” “mouseleave,” “mousemove,” “mouseout,” “mouseover,” “mouseup,” “click,” and “dblclick.”
	Bubble up	Set whether to bubble up the JavaScript event. Select either “yes” or “no.” When “yes” is selected, events bubble up from the element specified by “Path.” When “no” is selected, events are just send to the element specified by “Path,” and do not bubble up.
	Timeout setting	Select which timeout setting to use from among following selections. • Use "Scenario information" The timeout value set in the "Scenario information" window is used. • Use "Option" The timeout value set in the "Option" window is used. • Use this "Property" The value set for "Timeout(msec)(optional)" is used.

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	Timeout(msec)(optional)	Set the waiting time to find the specified element. This value is used when 'Use this "Property"' is selected for "Timeout setting." Specify a value or a variable name. The default value is 10,000 milliseconds.
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