# WinActor®

# User Library Sample Manual

**NTT ADVANCED TECHNOLOGY CORPORATION**

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# Ⅰ. Introduction

The user library samples components that can be used when creating a WinActor scenario. The samples are a service provided to licensed WinActor customers. The library samples may not operate as expected depending on the computer and/or application settings.

This document describes how to use each user library sample (v7.1.1) and the samples work on WinActor v7.1.1.

# Ⅱ. How to use user library samples – 1

Follow the steps below to add a sample library to the flowchart.

1. Select a sample library from the Library pane and click the "Add to flowchart" icon.
2. The selected sample library is added to the empty area of the flowchart area.

\* Groups or subroutine groups will be closed when added to the flowchart.
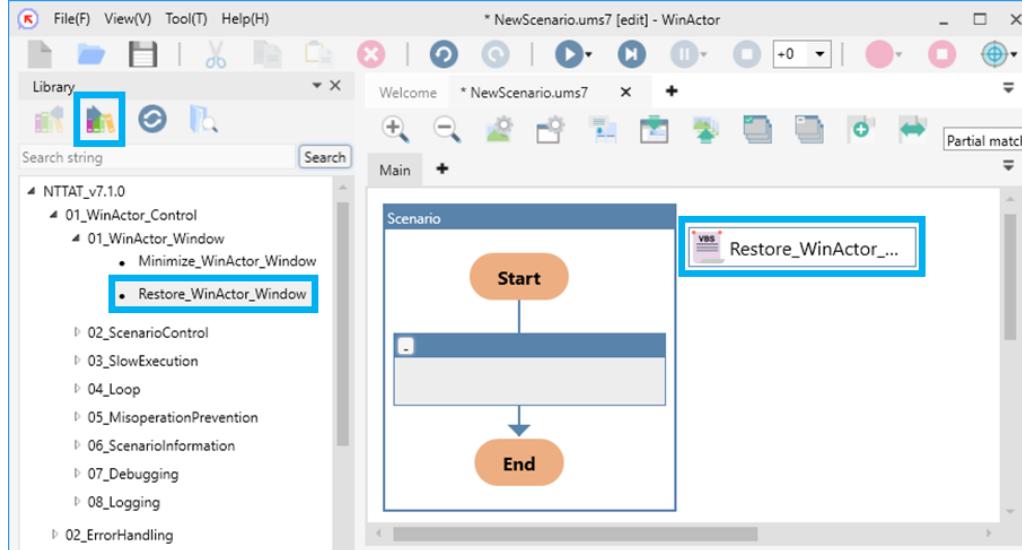


**Figure 1-1. Adding a sample library to the flowchart**

# Ⅲ. How to use user library samples – 2

Follow the steps below to add a sample library to the flowchart.

1. Select a sample library from the Library pane, and drag the library to the desired location in the flowchart area.
2. The selected sample library is added to the flowchart area.

\* Groups or subroutine groups will be closed when added to the flowchart.
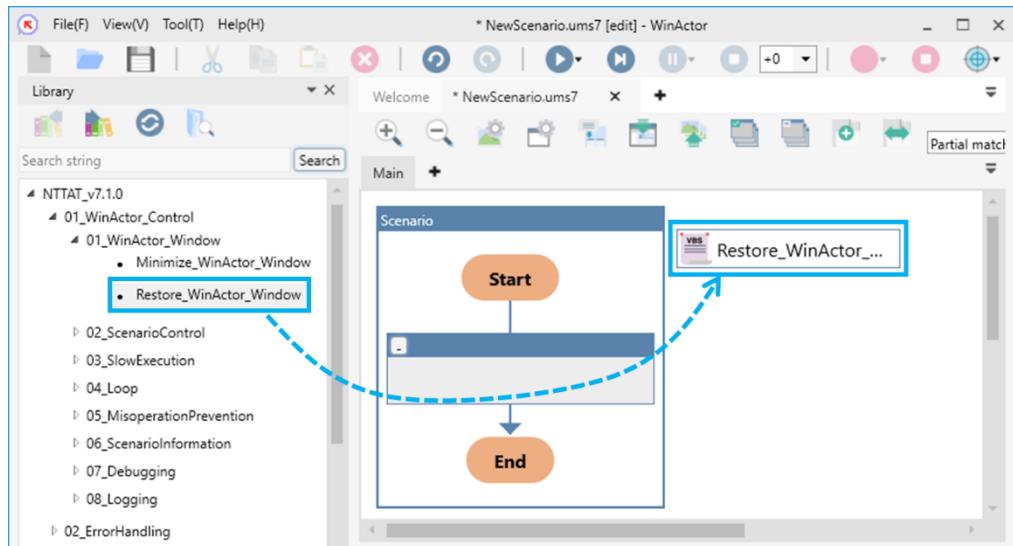


**Figure 1-2. Adding a sample library to the flowchart (drag and drop)**

# Ⅳ. User library sample version information

For the sample libraries that use the "Run Script" node, the "Version" tab is displayed in the properties, and the library information used in the scenario can be checked (Figure 1-3). The "Version" tab is displayed in libraries for WinActor (Japanese edition) Ver. 6.2.0 or later as well as WinActor Ver. 7.1.1 (Multi-lingual edition).
The content in the "Version" tab will be cleared when the 'Update' button is clicked after changing the settings in the "Script" tab. The "Version" tab will no longer be displayed.

**Table 1-1. Version tab items**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Library name | The library name. Changing the name of the node will not change the library name. |
| 2 | Library ID | The unique Library ID. Updating the library will not change the Library ID |
| 3 | Version | The version of the library. |
| 4 | Provider | The information of the library provider. |
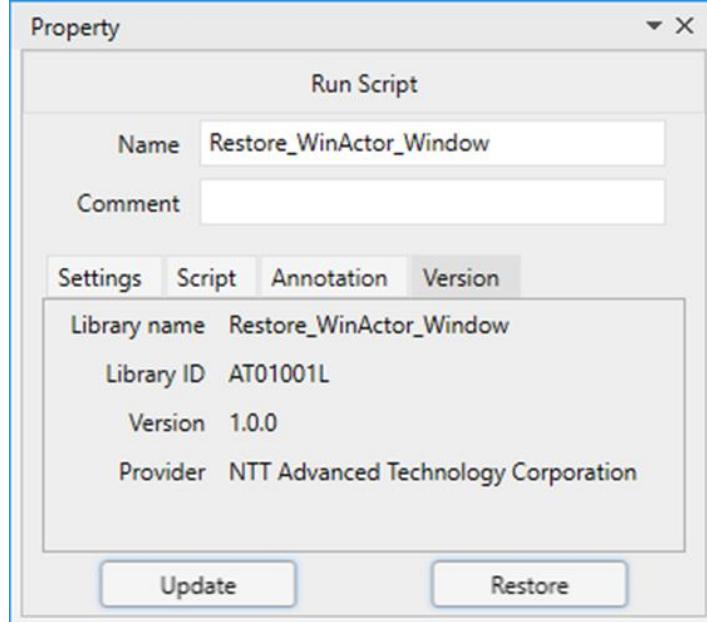
**Figure 1-3. Version tab**
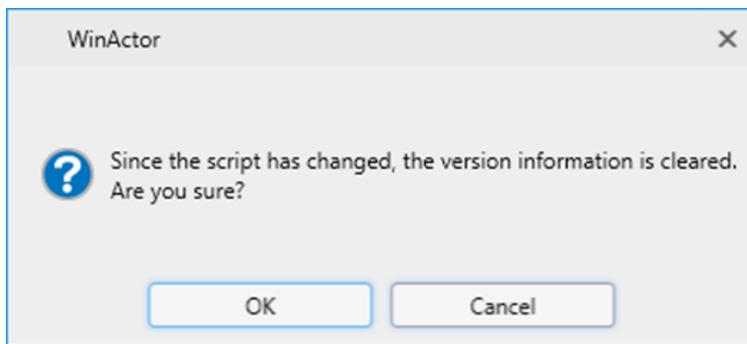
**Figure 1-4. Dialog to confirm the deletion of the contents of the Version tab**

# Ⅴ. Specify file or folder path

There are sample libraries that require paths to files and folders to operate. The characters allowed in file and folder paths are as below.

**Table 1-2. Specify file paths and folder paths**

| No. | Path | Description |
|---|---|---|
| 1 | Absolute path | Specifies the target file or folder paths with absolute paths. |
| 2 | Relative path | Specifies the target file or folder paths with a path relative to certain folders. WinActor prioritizes base folders as below, checks the relative path, and uses the first path found.<br>1. Folder where the current scenario file is saved<br>2. %USER_PROFILE%Documents\WinActor<br>3. WinActor7.exe startup folder |
| 3 | URL | Specifies the target file or folder path with a URL |

When the operation targets existing files and folders, such as "Open file," an error will occur if the specified file is not found after specifying the absolute or relative paths (for some libraries, the paths specifies will be absolute, relative or URL).

If the operation may target new files and folders, such as "Save file," it will not matter if the file or folder does not exist. However, an invalid path error will be exported if the upper level folder for the target file or folder does not exist.

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

# Ⅷ. Limitations

The limitations on using user library samples are as follows.

- Run script library samples created and used in different language environments may not be displayed correctly.

# 1. WinActor_Control

## 1.1. WinActor_Window

### 1.1.1. Restore_WinActor_Window

This library restores the WinActor window from the task tray and displays to the desktop.

### 1.1.2. Minimize_WinActor_Window

This library minimizes the WinActor window and stores the window to the task tray.

## 1.2. ScenarioControl

### 1.2.1. Quit_WinActor

This library exits from WinActor.

**Table 1-1. "Quit WinActor" library settings**

| No. | Item | Description |
| --- | --- | --- |
| 1 | Data_list_overwrite_availability | Select "true" to overwrite the Data List at the time of exiting from WinActor. Select "false" if not overwriting. The specified value will be ignored if exiting from WinActor without using the Data list |

### 1.2.2. GoToScenario

This library loads and runs the next scenario.

If a variable with the same name is used in the next scenario, the current value of the variable can be inherited by placing the GoToScenario_KeepVariable node at the beginning of the next scenario.

The password prompt will not be displayed if the password set for the next scenario is the same as the previously opened scenario.

If the setting in the "Option" window—"Close the caller's scenario file when the scenario calls another scenario file using scenario GoToScenario"—is enabled, the current scenario file will be closed when moving to the next scenario. Even if the option is enabled, a caller's scenario will not be closed if the scenario has already been opened manually before execution. The option is enabled by default.

**Table 1-2. "GoToScenario" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Scenario_file_name | Specify a file path for the next scenario to run. The file path may be either an absolute or a relative path. Filename with an extension ".ums7," ".uss7," ".wsb7," ".ums6," or ".ums5" can be specified. Filename extensions (.ums7, .uss7, .ums6, .ums5) can be omitted. If there are multiple scenario files in the specified folder with the same filename but with different extensions, execution will be determined by the following priorities. 1. Scenario filename.ums7 2. Scenario filename.uss7 3. Scenario filename .wsb7 4. Scenario filename.ums6 5. Scenario filename.ums5 |
| 2 | Data_list_overwrite_availability | Select "true" to overwrite the data list at the time of scenario transition. Select "false" if not overwriting. The specified value will be ignored if scenarios are transitioned without using the Data list. |

**Notes**

The status of the Data list will not be inherited to "GoToScenario."

The inherited password is not for the previously run scenario but for the previously opened scenario.

### 1.2.3. GoToScenario_ClearVariable

This library clears the variables inherited between scenarios using "GoToScenario."

### 1.2.4. GoToScenario_DumpVariable

This library exports the value of variables inherited between scenarios using "GoToScenario" to the specified file.

The variable value information is cached at the timing of executing "GoToScenario," and all cached variable value information is exported by "GoToScenario_DumpVariable."

**Table 1-3. "GoToScenario_DumpVariable" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Output_file_name | Specify the output filename with an absolute or relative path. |

### 1.2.5. GoToScenario_KeepVariable

When the next scenario is run with "GotoScenario," the variable values of the previous scenario can be inherited by placing this library at the beginning of the next scenario.

### 1.2.6. StopScenario

This library stops a scenario currently in progress.

**Table 1-4. " StopScenario" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Scenario stops | Specify whether to stop normally or abnormally when the scenario run on WinActor Manager on Cloud is stopped with this library. |

## 1.3.  SlowExecution

### 1.3.1.  SetSlowExecution

This library sets the speed of a scenario run.

Set "0" to run the scenario at the normal speed. Set "10" to insert a +1.0 second waiting period before running each node.

**Table 1-5. "SetSlowExecution" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Execution_speed | Set the waiting period value between 0-10 before running each node. The waiting period will increase in 0.1 second increments. |

**Note**

The run speed returns to the original speed when a scenario ends.

## 1.4. Loop

### 1.4.1. Loop_BranchAtTop

This library is used in conjunction with a loop execution using the Data list.

This library is comprised of a node.
Node "Name":

- Decision "Loop - Branch At Top"

This library branches at the execution of the first loop using the Data list.
The expanded library is displayed in the flowchart as in Figure 1-1. Place the first node to run in the "True" box and any other nodes to run in the "False" box.
See the "Execute loop" section in "WinActor Operation Manual" for details.
When $LOOP_NUM is 1 and $DATALIST-FILE is not vacant at the determination condition of the "decision" node, this library runs the left side "True" branch as the run is judged to be at the first loop. Otherwise, the right side "False" branch is run.

For the details of the "Decision" node, see the "Decision" subsection in "WinActor Operation Manual."
This library has no parameter.
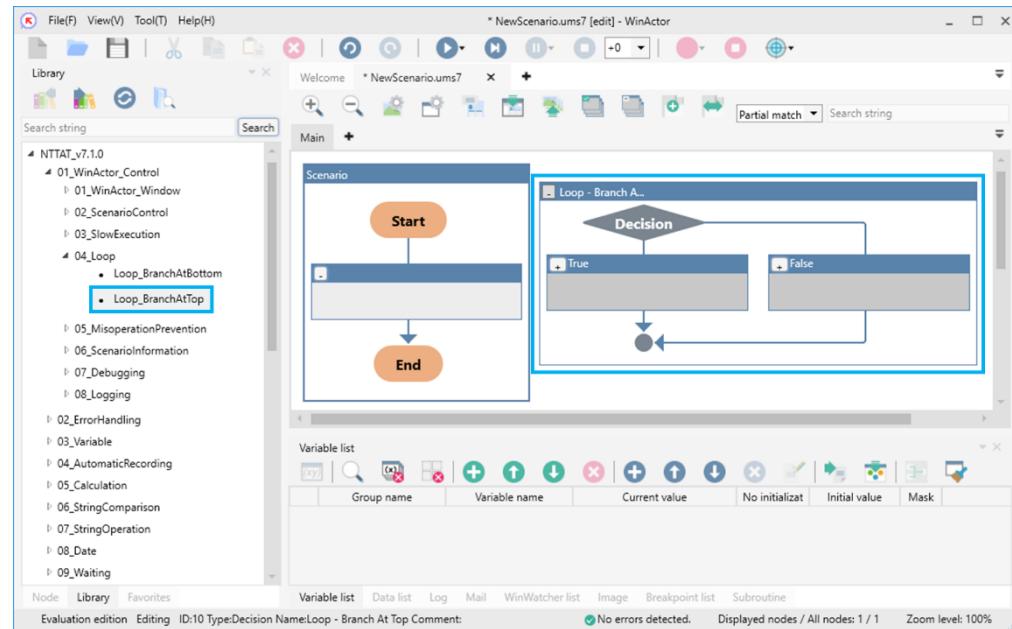
**Figure 1-1. "Loop_BranchAtTop" library**

**Notes**

The nodes in the "False" box will always be executed if not using the Data list.

This library will not be branched if using the "Pre-Test Loop" node or the "Post-Test Loop" node.

### 1.4.2. Loop_BranchAtBottom

This library is used in conjunction with a loop execution using the Data list.

This library is comprised of a node.

Node "Name:

- Decision "Loop - Branch At Bottom"

This library branches at the execution of the last loop using the Data list.

The expanded library is displayed in the flowchart as in Figure 1-2. Place the last node to run in the "True" box and any other nodes to run in the "False" box.

See "Execute loop" in "WinActor Operation Manual" for details.

When $LOOP_NUM equals to $LOOP_MAX and $DATALIST-FILE is not vacant at the determination condition of the "decision" node, this library runs the left side "True" branch as the run is judged to be at the last loop. Otherwise, the right side "False" branch is run.

For the details of the "Decision" node, see the "Decision" subsection in "WinActor Operation Manual."

This library has no parameter.
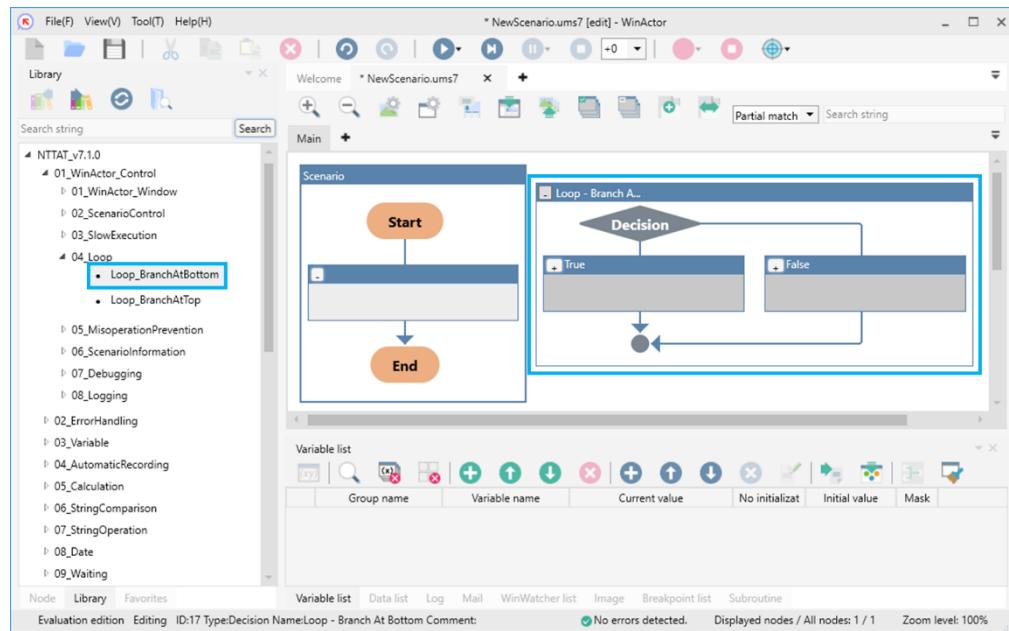
**Figure 1-2. "Loop_BranchAtBottom" library**

**Notes**

The nodes in the "False" box will always be executed if not using the Data list.

This library will not be branched if using the "Pre-Test Loop" node or the "Post-Test Loop" node.

## 1.5. MisoperationPrevention

### 1.5.1. DisableMisoperationPrevention

This library disables the pause inserted at unexpected mouse/keyboard operations.

There is no need to change the settings in the properties.

**Table 1-6. "DisableMisoperationPrevention" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Variable name | The special variable "$DETECT_USER_OPERATION" is set. No change is necessary. |
| 2 | Value | The 'false' is set. No change is necessary. |

### 1.5.2. EnableMisoperationPrevention

This library enables the pause inserted at unexpected mouse/keyboard operations.

There is no need to change the settings in the properties.

**Table 1-7. "EnableMisoperationPrevention " library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Variable name | The special variable "$DETECT_USER_OPERATION" is set. No change is necessary. |
| 2 | Value | The 'true' is set. No change is necessary. |

## 1.6. ScenarioInformation

### 1.6.1. GetScenarioFileName

This library gets the full path and folder names of scenario files and will be blank if
the scenario is not saved.

**Table 1-8. "GetScenarioFileName" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Scenario_full_path | Specify a variable to store the full path of the scenario file. This will be blank for newly created scenarios. |
| 2 | Scenario_folder_name | Specify a variable to store the name of a folder where scenario file is stored. This will be blank while a scenarios is newly created. |

### 1.6.2. GetDataListFileName

This library gets the full path and folder names of the files imported to the Data list
and will be blank if a Data list is not used.

**Table 1-9. "GetDataListFileName" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Full_path_of_data_list | Specify a variable to store the full path of the Data list file. It will be blank if the Data list is not loaded. |
| 2 | Data_list_folder_name | Specify a variable to store the name of the folder where the Data list file is stored. It will be blank if the Data list is not loaded. |

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## 1.7. Debugging

### 1.7.1. Debugging_CollectSPVErrorInformation

This library copies the error generated by the SPV to the clipboard and is a function for user library developers.

### 1.7.2. Debugging_ShowWindowState

This library displays the window to check the status of each window and is a function for scenario creators.

The list of windows (Hwnd), the window titles (Title), process names (Process), and window sizes (Size) will be displayed.
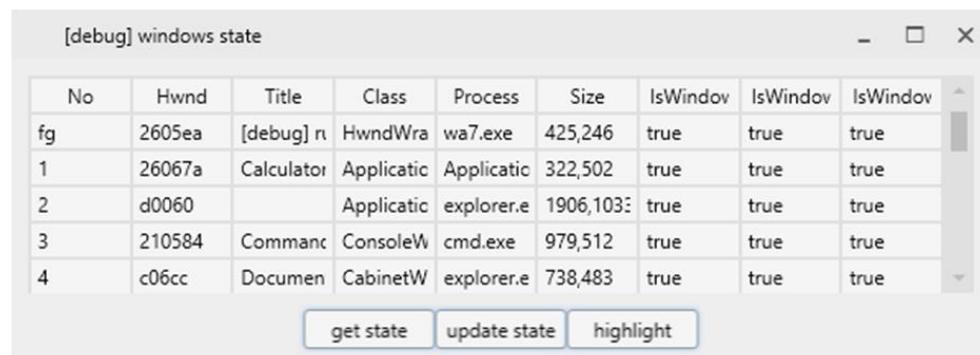


**Figure 1-3. Debug window for checking a state of each window**

**Table 1-10. Debug window operation for checking a state of each window**

| No. | Item | Description |
|---|---|---|
| 1 | "get state" button | Click to display a current memory status. |
| 2 | "update state" button | Click to update the status according to actual windows. |
| 3 | "highlight" button | When the button is clicked while a row is selected, a frame will be displayed in the corresponding window. |

\* Use "CTRL+C" to copy the selected range.

### 1.7.3. Debugging_SaveWindowState

This library saves the window status to the specified file in CSV format and is a function for scenario creators.

The list of windows (Hwnd), the window titles (Title), process names (Process), and window sizes (Size) will be saved.



**Figure 1-4. Result of saving a window status**

**Table 1-11. "Debugging_SaveWindowState" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Saved_file_path | Specify the absolute or relative path to save the files to. |

### 1.7.4. Debugging_ShowWindowName

This library displays the dialog to confirm WinID names and is a function for scenario creators.

A list of windows (Hwnd) matching the WinID name (Name) and the actual operation target windows ("Yes" is displayed in the Current column) will be displayed.
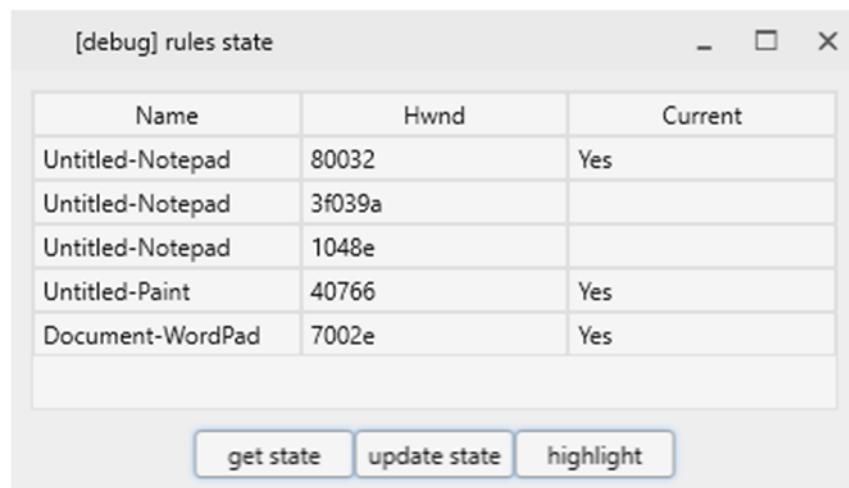


**Figure 1-5. Debug window for checking WinID**

**Table 1-12. Debug window operation for checking WinID**

| No. | Item | Description |
|---|---|---|
| 1 | "get state" button | Click to show the current memory status. |
| 2 | "update state" button | Click to update the status along with the actual window. |
| 3 | "highlight" button | A frame is displayed when a row as selected and the button is clicked |

* Use "CTRL+C" to copy the selected range.

1.7.5. Debugging_SaveWindowName

This library saves the WinIDs to the specified file and is a function for scenario creators.

The list of windows (Hwnd) matching the WinID name (Name) and the actual operation target windows ("Yes" is displayed in the Current column) will be saved.
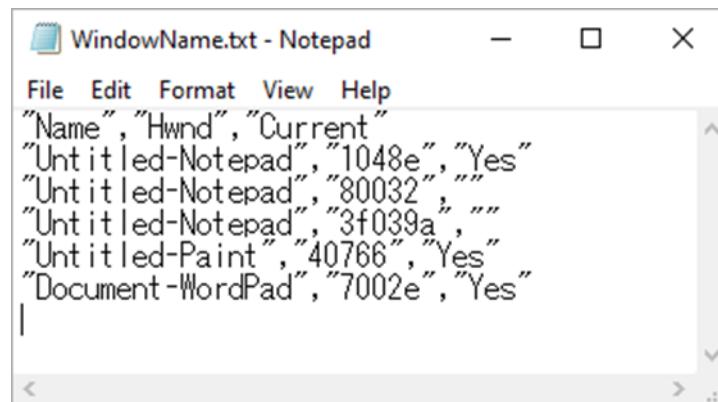


**Figure 1-6. Result of saving WinID information**

**Table 1-13. "Debugging_SaveWindowName" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Saved_file_path | Specify a file path to save information to. The file path may be either an absolute or a relative path. |

### 1.7.6. Debugging_SaveVariable

This library saves the current values of variables to the specified file and if the file already exists, the values will be added at the end of the file.
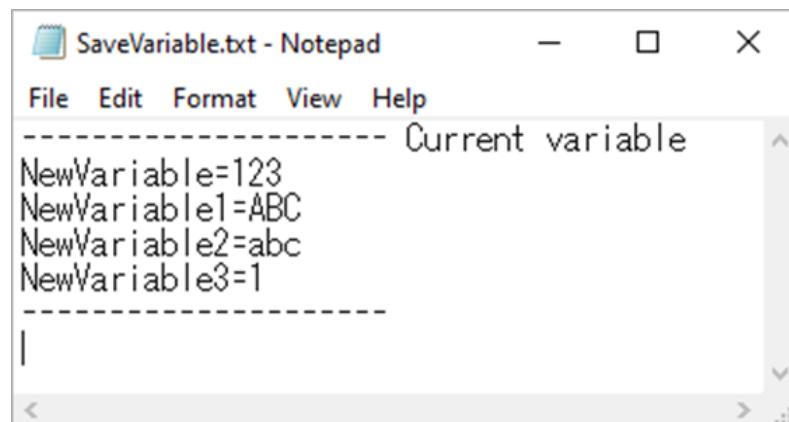


**Figure 1-7. Result of saving variable values**

**Table 1-14. "Debugging_SaveVariable" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Encoding | Select the character encoding—"Default," "Shift-JIS," or "UTF-8"—for the destination file. The files will be exported in the selected encoding. |
| 2 | Saved_file_path | Specify a file path to save information to. The file path may be either an absolute or a relative path |

## 1.8. Logging

### 1.8.1. Logging_LogMessage

This library exports messages to the logs. If "Write execution log to file" Log tab setting in the Option window from the Tool menu is enabled, the messages will be exported to a file as well.

**Table 1-15. "Logging_LogMessage" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Output_message | Specify a message to output. |

### 1.8.2. Logging_LogMessageToFile

This library exports execution logs to specified files. If "Write execution log to file" on the Log tab setting in the Option window from the Tool menu is enabled, the messages will be exported to the specified file as well.

**Table 1-16. "Logging_LogMessageToFile" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Log_file_name | Specify a file path to save the logs to. It may be either an absolute or a relative path |

**Note**

Logs will be added to the file if the specified file already exists.

# 2. ErrorHandling

## 2.1. ErrorHandling_RaiseError

This library issues errors and stops scenarios from progressing. If there is an exception handling, the handling control will be switched to "ActionException" in "Exception handling."
Error messages can be specified.

**Table 2-1. "ErrorHandling_RaiseError" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Error_message | Specify an error message. |

## 2.2. ErrorHandling_RaiseErrorExample(Beep)

This library sounds a warning beep when an error occurs. Place youor scenario in the "Normal flow."
The "Sound" node with the name "Action execution error" is placed in the "Exceptional flow." For the details of the settings, see the "Sound" subsection in "WinActor Operation Manual."

## 2.3. ErrorHandling_ClearErrorInformation

This library clears the error information (Node Name, Node ID, error message).

## 2.4. ErrorHandling_CollectErrorInformation

This library collects the Node Name, Node ID and error messages that incurred errors.

This library is comprised of two nodes and two libraries.

Node "Name":

- Exception Handling "Error Handling - Collect Error Information"
- Waiting Dialog "Error information display"

Library:

- Error sample
- Error Handling - Collect Error Information

Replace the "Error sample" library on the left side of the "Error Handling" with the nodes to collect error information from.

The variables 'Error_issuing_node_name,' 'Error_issuing_node_ID,' and 'Error_message' are automatically added to the scenario when this library is added into the flowchart.

The library "Error Handling - Collect Error Information" sets values to the variables 'Error_issuing_node_name,' 'Error_issuing_node_ID,' and 'Error_message' when an error occurred.

This library displays each of the variables in the "Waiting Dialog" named "Error information display."

For the details of the "Exception Handling" node, see the "Exception Handling" subsection in "WinActor Operation Manual."

For the details of the "Waiting Dialog" node, see the "Waiting Dialog" subsection in "WinActor Operation Manual."
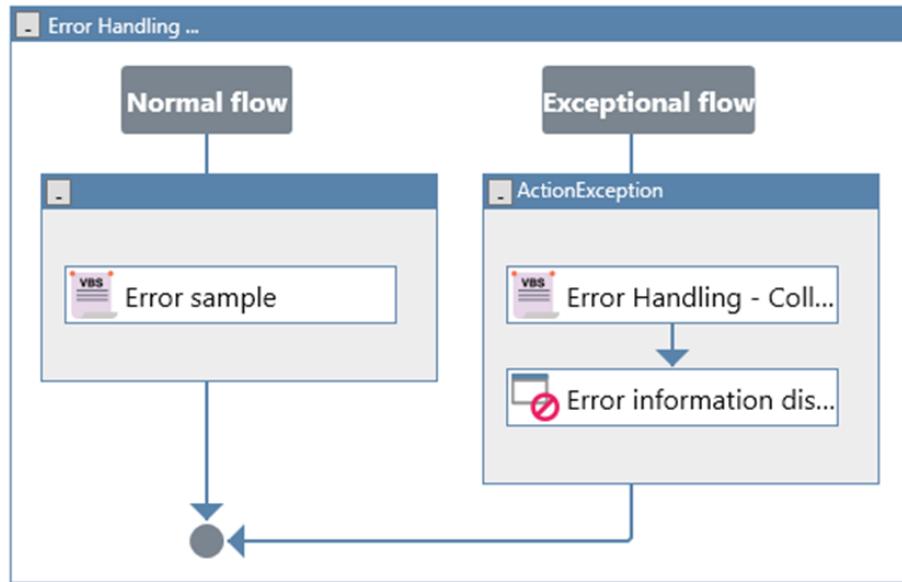
**Figure 2-1. "ErrorHandling_CollectErrorInformation" library**

**Table 2-2. "ErrorHandling_CollectErrorInformation" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Error_issuing_node_name | Specify a variable to store the name of the node that incurred the error.<br>The default setting is the variable 'Error_issuing_node_name.' |
| 2 | Error_issuing_node_ID | Specify a variable to store the ID of the node that incurred the error.<br>The default setting is the variable 'Error_issuing_node_ID.' |
| 3 | Error_message | Specify a variable to store the error message.<br>The default setting is the variable 'Error_message.' |

## 2.5.  ErrorHandling_RaiseNoDataListError

This library throws errors when a Data list is not in use. Adding this library to the scenario prevents scenarios that use a Data list from running with Variable List defaults.

・ An error occurs if the data list is not loaded.
・ An error occurs if there is nothing checked in the data list.
・ An error occurs in partial runs.



**Figure 2-2. Error displayed when the data list is not used**

## 2.6.  ErrorHandling_RaiseException

This library raises exceptions. If an exception is raised in the exception handling group, the control will go to the "Exception Handling" corresponding with the specified exception name. If the exception is raised outside the exception handling group, the scenario will pause.

**Table 2-3. "ErrorHandling_RaiseException" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Exception_name | Specify an exception name. |

# 3. Variable

## 3.1. CSVImport

### 3.1.1. ImportCSVFile

This library imports Data list files and sets to variables. Register the variables in advance in order to import the data to the scenarios.

* Errors will occur if specified files cannot be found or rows cannot be read.
* Variable values cannot be imported if the character encoding in the specified CSV file does not match encoding in the WinActor CSV file.

**Table 3-1. "ImportCSVFile" library settings**

| No. | Item | Description |
| --- | --- | --- |
| 1 | CSV_file_name | Specify a path to the CSV file to import. It may be either an absolute or a relative path |
| 2 | Line_number | Specify the line number to import. The headers are not included in counting the line number. |
| 3 | Duplicate_title | Set if allowing duplicate headers. If allowed, the variable value will be overwritten with the latest value if columns with the same header is detected. If not allowed, an error will occur if there are duplicate headers. |

## 3.2. Dictionary_Array

### 3.2.1. Dictionary_SaveDictionary

This library exports the dictionary content to the "Dictionary_name.txt" file in the My Document\WinActor folder. The content will be added to the file if the file already exists. The key and information will be exported, separated by a comma (,).

**Table 3-2. "Dictionary_SaveDictionary" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Dictionary_name | Specify the dictionary name. Output format: key, information |

**Note**

Use the "Dictionary_InitializeDictionary" library before using other Dictionary libraries.

### 3.2.2. Dictionary_InitializeDictionary

This library initializes a dictionary.

**Note**

All information will be cleared if a dictionary is initialized during while being operated.

### 3.2.3. Dictionary_DeleteInformation

This library deletes specified keys and information obtained by the key from the dictionary.

**Table 3-3. "Dictionary_DeleteInformation" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Dictionary_name | Specify the dictionary name for operation. |
| 2 | Key | Specify the key to delete. |
| 3 | Dictionary_existence | Specify the variable to store the result after checking if the dictionary exists. If the dictionary exists, "true." Otherwise "false." |
| 4 | Result | Specify the variable store the result. If the key is deleted, "true." If not deleted or the key does not exist, "false." |

**Note**

Use the "Dictionary_InitializeDictionary" library before using other Dictionary libraries.

### 3.2.4. Dictionary_LookUpDictionary

This library gets the specified key information from the dictionary.

**Table 3-4. "Dictionary_LookUpDictionary" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Dictionary_name | Specify the dictionary name. |
| 2 | Key | Specify the key string. |
| 3 | Acquisition_information | Specify the variable to store the result. |

**Notes**

Use the "Dictionary_InitializeDictionary" library before using other Dictionary libraries.

The "Acquisition_information" variable value will not be changed if the specified key does not exist.

### 3.2.5.  Dictionary_UpdateDictionary

This library updates a dictionary's keys and information.

**Table 3-5. "Dictionary_UpdateDictionary" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Dictionary_name | Specify the dictionary name. |
| 2 | Key | Specify the key string. |
| 3 | Information | Specify the dictionary information to update. |

**Note**

Use the "Dictionary_InitializeDictionary" library before using other Dictionary libraries.

### 3.2.6.  Array_Save1DArray

This library exports the one-dimensional array information to a file. An "ArrayName.txt" file will be created in My Documents\WinActor folder. The information will be overwritten if the file exists.

**Table 3-6. "Array_Save1DArray" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Array_name | Specify the array name. |
|  |  | Output format: Information in index 0, 1 |

**Note**

Use the "Array_Initialize1DArray" library before using "Array_UpdateValueIn1DArray," "Array_InsertValueIn1DArray," "Array_ClearValueIn1DArray," "Array_GetValueIn1DArray," or "Array_Save1DArray" libraries.

### 3.2.7. Array_Initialize1DArray

This library initializes one-dimensional arrays.

**Note**

All information will be cleared if initializing a one-dimensional array while being operated.

### 3.2.8. Array_GetValueIn1DArray

This library gets the specified one-dimensional array index information.

**Table 3-7. "Array_GetValueIn1DArray" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Array_name | Specify the array name. |
| 2 | Index | Specify the index. |
| 3 | Acquisition_information | Specify a variable to store the acquired value. |

**Notes**

Use the "Array_Initialize1DArray" library before using "Array_UpdateValueIn1DArray," "Array_InsertValueIn1DArray," "Array_ClearValueIn1DArray," "Array_GetValueIn1DArray," or "Array_Save1DArray" libraries.

The "Acquisition_information" variable will not be changed if the specified index does not exist.

### 3.2.9. Array_InsertValueIn1DArray

This library inserts information in the specified one-dimensional array index.

Information will set in the specified index if no information exists.

**Table 3-8. "Array_InsertValueIn1DArray" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Array_name | Specify the array name. |
| 2 | Index | Specify the index. |
| 3 | Information | Specify information to insert in the array. |

**Note**

Use the "Array_Initialize1DArray" library before using

"Array_UpdateValueIn1DArray," "Array_InsertValueIn1DArray,"

"Array_ClearValueIn1DArray," "Array_GetValueIn1DArray," or

"Array_Save1DArray" libraries.

### 3.2.10. Array_UpdateValueIn1DArray

This library updates the specified one-dimensional array index information.

Information will set in the specified index if no information exists.

**Table 3-9. "Array_UpdateValueIn1DArray" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Array_name | Specify the array name. |
| 2 | Index | Specify the index. |
| 3 | Information | Specify the array information to update. |

**Note**

Use the "Array_Initialize1DArray" library before using

"Array_UpdateValueIn1DArray," "Array_InsertValueIn1DArray,"

"Array_ClearValueIn1DArray," "Array_GetValueIn1DArray," or

"Array_Save1DArray" libraries.

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### 3.2.11. Array_ClearValueIn1DArray

This library initializes information of the specified one-dimensional array index. After initialization, an empty string will set in the information.

**Table 3-10. "Array_ClearValueIn1DArray" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Array_name | Specify the array name. |
| 2 | Index | Specify the index. |

**Notes**

Use the "Array_Initialize1DArray" library before using the "Array_UpdateValueIn1DArray," "Array_InsertValueIn1DArray," "Array_ClearValueIn1DArray," "Array_GetValueIn1DArray," and "Array_Save1DArray" libraries.

An error occurs if a specified index does not exist.

### 3.2.12. Array_Save2DArray

This library exports the two-dimensional array information to a file. A file with the specified "Array_name.txt" will be created in My Documents\WinActor folder.

The information will be overwritten if the file exists.

**Table 3-11. "Array_Save2DArray" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Array_name | Specify the array name. |
| | | Output format: Information in array (0,0), (0,1), (1,0), (1,1) |
| | | *Information in array (x, y) means information in index (row x, column y). |

**Note**

Use the "Array_Initialize2DArray" library before using "Array_UpdateValueIn2DArray," "Array_ClearValueIn2DArray," "Array_GetValueIn2DArray," or "Array_Save2DArray" libraries.

### 3.2.13. Array_Initialize2DArray

This library initializes two-dimensional arrays.

**Note**

All information will be cleared if initializing a two-dimensional array while being operated.

### 3.2.14. Array_GetValueIn2DArray

This library gets the specified two-dimensional array index information.

**Table 3-12. "Array_GetValueIn2DArray" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Array_name | Specify the array name. |
| 2 | Index(row) | Specify the row index. |
| 3 | Index(column) | Specify the column index. |
| 4 | Acquisition_information | Specify a variable to store the acquired value. |

**Notes**

Use the "Array_Initialize2DArray" library before using "Array_UpdateValueIn2DArray," "Array_ClearValueIn2DArray," "Array_GetValueIn2DArray," or "Array_Save2DArray" libraries.

The "Acquisition_information" variable will not be changed if the specified index does not exist.

### 3.2.15. Array_UpdateValueIn2DArray

This library updates the specified two-dimensional array index information.

Information will set in the specified index if no information exists.

**Table 3-13. "Array_UpdateValueIn2DArray" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Array_name | Specify the array name. |
| 2 | Index(row) | Specify the row index. |
| 3 | Index(column) | Specify the column index. |
| 4 | Information | Specify the information to update in the array. |

**Note**

Use the "Array_Initialize2DArray" library before using

"Array_UpdateValueIn2DArray," "Array_ClearValueIn2DArray,"

"Array_GetValueIn2DArray," or "Array_Save2DArray" libraries.

### 3.2.16. Array_ClearValueIn2DArray

This library initializes information of the specified two-dimensional array index. After initialization, an empty string will set in the information.

**Table 3-14. "Array_ClearValueIn2DArray" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Array_name | Specify the array name. |
| 2 | Index(row) | Specify the row index. |
| 3 | Index(column) | Specify the column index. |

**Notes**

Use the "Array_Initialize2DArray" library before using

"Array_UpdateValueIn2DArray," "Array_ClearValueIn2DArray,"

"Array_GetValueIn2DArray," or "Array_Save2DArray" libraries.

An error occurs if the specified index does not exist.

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## 3.3.  Encryption_Decryption

### 3.3.1.  Decrypt

This library decrypts the specified variable value.

**Table 3-15. "Decrypt" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | String_to_be_decrypted | Set the variable to decrypt. |
| 2 | Result | Specify a variable.to store the decrypted result. |

### 3.3.2.  Encrypt

This library encrypts the specified variable value.

**Table 3-16. "Encrypt" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | String_to_be_encrypted | Set the variable to encrypt. |
| 2 | Result | Specify a variable to store the encrypted result. The same variable as "String_to_be_encrypted" may be specified. |

**Note**

- Due to processing limitations, only values with up to 256 characters can be encrypted. The extra characters will be truncated for values with 257 or more characters and the encryption of 256 characters will be stored.

## 3.4. GetValue

This library gets the current value of a variable by specifying a variable name.

**Table 3-17. "GetValue" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Variable_name | Set the variable name of a variable to get the current value with a method below.<br>・Specify the variable name of a variable to get the current value in [Value ->]<br>・Specify the variable that stores the variable name of a variable to get the current value |
| 2 | Result | Specify a variable to store the acquired result. |

## 3.5. CountCharNum

This library counts the number of characters in the specified text.

**Table 3-18. "CountCharNum" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | String_to_count | Specify the text to count. |
| 2 | Result | Specify the variable to store the acquired result. |

# 4. AutomaticRecording

## 4.1. Debugging

### 4.1.1. UIAutomationDumpTree

This library dumps the UI Automation element information to the specified file.

**Table 4-1. "UIAutomationDumpTree" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Click the target mark button, and specify the window to operate. |
| 2 | Output filename | Specify the output filename with an absolute or relative path. Relative paths start from the where the scenario currently in progress is saved. If the specified file already exists, the content will be overwritten. |
| 3 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information"<br>　window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(ms)" is used. |
| 4 | Timeout (ms) | Specify the waiting time to find the window selected for "WinID name."<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

**Table 4-2. Tags in an output file**

| No. | Item | Description |
|---|---|---|
| 1 | tree | Top tag of elements associated with the window. |
| 2 | element | UI Automation element information with attributes described in the table below. Child elements will have that element's tag. |

**Table 4-3. Attributions of an element tag**

| No. | Item | Description |
|---|---|---|
| 1 | id | Unique element identifier, which is the same as used in the Control path of the UI Automation node. "id" will be an empty string if there is no identifier. |
| 2 | name | Element label, which is the same as the name in the Control path of the UI Automation node. "name" will be an empty string if there is no label. |
| 3 | pattern | Set of possible types of operations, which is the same as the operations displayed in the Control pattern of the UI Automation node. The patterns are separated by spaces. |

## 4.2. UIAutomation

### 4.2.1. UIAutomation

This library executes the designated operations in the specified window.

**Table 4-4. "UIAutomation" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | "Basic settings" tab | This tab displays the basic settings. |
| 2 | WinID name | Select a window from the dropdown or click the target mark button to select the window to operate. |
| 3 | Target control | Click the target mark button to select the target control. |
| 4 | Designation timing | Select "Immediately," "After 3 seconds," "After 10 seconds," or "After 30 seconds" for the time until the designation of the target control. |
| 5 | Control pattern | Select "Common," "Collapsible Menu," "Button," "Scroll," "Select," "Select Item," "Toggle," or "Set/Get Value" for the category of an operation to be designated. |
| 6 | Action | Select an action from the dropdown that corresponds to the "Control pattern." |
| 7 | Action parameters | If the Settings of the selected Action are displayed. Nothing is displayed if there are no parameters in the selected Action. "Action" has no parameter, nothing is displayed. |
| 8 | Target control path | Target control's control path is displayed. |

**Notes**

- This action may not be available, depending on the target window.
- For details of the property of UIAutomation, see "Property of UIAutomation" in "WinActor Operation Manual."

### 4.2.2. Click(UIA)

This library clicks an element.

It operates the same as the 'UI Automation' library in which 'Button" is selected for "Control pattern" and 'Click' is selected for "Action."

The property items are the same as the 'UI Automation' library. See "4.2.1. UIAutomation."

The "Control pattern" and "Action" are not displayed on the property pane and cannot be changed.

### 4.2.3. SelectTab(UIA)

This library selects an specified element and unselects other selectable elements.

It operates the same as the 'UI Automation' library in which 'Select Item" is selected for "Control pattern" and 'Select this item' is selected for "Action."

The property items are the same as the 'UI Automation' library. See "4.2.1. UIAutomation."

The "Control pattern" and "Action" are not displayed on the property pane and cannot be changed.

### 4.2.4. SetToggleState(UIA)

This library sets a specified state, which is independent of the current state, as the toggle state.

Although this operation corresponds to the 'UI automation' library in which 'Toggle' is selected for "Control pattern," corresponding 'Action' does not exist.

**Table 4-5. "SetToggleState(UIA)" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Action parameters | Specify a state for "Value." Specify 'true' to turn it on and 'false' to turn it off. Either a variable or a value can be specified. |

The property items are the same as the 'UI Automation' library. See "4.2.1. UIAutomation."

The "Control pattern" and "Action" are not displayed on the property pane and cannot be changed.

### 4.2.5. SelectRadioButton(UIA)

This library selects an specified element and unselects other selectable elements.

It operates the same as the 'UI Automation' library in which 'Select Item' is selected for "Control pattern" and 'Select this item' is selected for "Action."

The property items are the same as the 'UI Automation' library. See "4.2.1. UIAutomation."

The "Control pattern" and "Action" are not displayed on the property pane and cannot be changed.

### 4.2.6. GetAllItemTextsInList(UIA)

This library acquires all the elements in texts separated by commas.

It operates the same as the 'UI Automation' library in which 'Select' is selected for "Control pattern" and 'Get the selectable items by text' is selected for "Action."

The property items are the same as the 'UI Automation' library. See "4.2.1. UIAutomation."

The "Control pattern" and "Action" are not displayed on the property pane and cannot be changed.

### 4.2.7. GetItemIndexInList(UIA)

This library acquires a selected element in indexes separated by commas.

It operates the same as the 'UI Automation' library in which 'Select' is selected for "Control pattern" and 'Get the selected item by index' is selected for "Action."

The property items are the same as the 'UI Automation' library. See "4.2.1. UIAutomation."

The "Control pattern" and "Action" are not displayed on the property pane and cannot be changed.

### 4.2.8. SelectItemIndexInList(UIA)

This library selects an element specified by index.

It operates the same as the 'UI Automation' library in which 'Select' is selected for "Control pattern" and 'Select the item by index' is selected for "Action."

The property items are the same as the 'UI Automation' library. See "4.2.1. UIAutomation."

The "Control pattern" and "Action" are not displayed on the property pane and cannot be changed.

### 4.2.9. GetItemTextInList(UIA)

This library acquires a selected item in texts separated by commas.

It operates the same as the 'UI Automation' library in which 'Select" is selected for "Control pattern" and 'Get the selected item by text' is selected for "Action."

The property items are the same as the 'UI Automation' library. See "4.2.1. UIAutomation."

The "Control pattern" and "Action" are not displayed on the property pane and cannot be changed.

### 4.2.10. SelectItemTextInList(UIA)

This library selects an element that has the specified text.

It operates the same as the 'UI Automation' library in which 'Select" is selected for "Control pattern" and 'Select the item by text' is selected for "Action."

The property items are the same as the 'UI Automation' library. See "4.2.1. UIAutomation."

The "Control pattern" and "Action" are not displayed on the property pane and cannot be changed.

### 4.2.11. ExpandMenu(UIA)

This library expands a collapsed element.

It operates the same as the 'UI Automation' library in which 'Collapsible Menu' is selected for "Control pattern" and 'Expand' is selected for "Action."

The property items are the same as the 'UI Automation' library. See "4.2.1. UIAutomation."

The "Control pattern" and "Action" are not displayed on the property pane and cannot be changed.

### 4.2.12. CollapseMenu(UIA)

This library collapses an expanded element.

It operates the same as the 'UI Automation' library in which 'Collapsible Menu' is selected for "Control pattern" and 'Collapse' is selected for "Action."

The property items are the same as the 'UI Automation' library. See "4.2.1. UIAutomation."

The "Control pattern" and "Action" are not displayed on the property pane and cannot be changed.

### 4.2.13. GetText(UIA)

This library acquires the text of an element.

It operates the same as the 'UI Automation' library in which 'Set/Get Value" is selected for "Control pattern" and 'Get the value' is selected for "Action."

The property items are the same as the 'UI Automation' library. See "4.2.1. UIAutomation."

The "Control pattern" and "Action" are not displayed on the property pane and cannot be changed.

### 4.2.14. SetText(UIA)

This library sets a text in an element.

It operates the same as the 'UI Automation' library in which 'Set/Get Value" is selected for "Control pattern" and 'Set the value' is selected for "Action."

The property items are the same as the 'UI Automation' library. See "4.2.1. UIAutomation."

The "Control pattern" and "Action" are not displayed on the property pane and cannot be changed.

## 4.3. Emulate

This library executes the designated operations in the specified window.

**Table 4-6. "Emulate" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Click the target mark button to select the window to operate. |
| 2 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(ms)" is used. |
| 3 | Timeout (ms) | Specify the waiting time to find the window selected for "WinID name."<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |
| 4 | Operation | Select "Mouse," "Key," "Wait," or "Move." |
| 5 | Operation details | • If the target is "Mouse," set operations and coordinates. Operations are set by combining "left button," "right button," "middle button," and the "Down" or "Up" button.<br>　For coordinates, set then origin, and set then operation position with "Pixel" or "%." Directly set the value or use the (+) button. If the position is "%," the value relative to the window (0 to 100%) is set.<br>• Set with the target key and "Down" or "Up" buttons.<br>• If the target is "Wait," specify the waiting time (ms).<br>• If the target is "Move," there are no settings. |
| 6 | Upward | Moves the selected operation(s) up one level |
| 7 | Downward | Moves the selected operation(s) down one level |
| 8 | Add | Adds the selected operation. |

| | | *Not applicable for "Move" |
|----|--------|-----------------------------|
| 9 | Update | Updates the selected operation(s). |
| 10 | Delete | Deletes the selected operation(s). |

**Notes**

This action may not be available, depending on the target window.For details on the property of Emulate, see "Property of Emulate" in "WinActor Operation Manual."

## 4.4. Click(IE)

This library clicks the specified control of IE.

**Table 4-7. "Click(IE)" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Click the "Select Target" button to select the target window. |
| 2 | Target control | Click the "Select Target" button to select the target control. |
| 3 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(ms)" is used. |
| 4 | Timeout (ms) | Specify the time to wait for the status change.<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

**Note**

This action may not be available, depending on the target window.

For "Details" tab in the property of "Click(IE)," see "Details tab (Node recorded in the IE mode)" in "WinActor Operation Manual."

## 4.5. Click(WIN32)

This library clicks the specified control in an application.

**Table 4-8. "Click(WIN32)" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Click the "Select Target" button to select the target window. |
| 2 | Target control | Click the "Select Target" button to select the target control. |
| 3 | Timeout setting | Select which timeout setting to use from among following selections.<br><br>・Use "Scenario information"<br><br>　The timeout value set in the "Scenario information" window is used.<br><br>・Use "Option"<br><br>　The timeout value set in the "Option" window is used.<br><br>・Use this "Property"<br><br>　The value set for "Timeout(ms)" is used. |
| 4 | Timeout (ms) | Specify the waiting time to find the control selected for "Target control."<br><br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br><br>The default value is 10,000 milliseconds. |

**Note**

It may not be available depending on a window to be operated.

For "Details" tab in the property of "Click(WIN32)," see "Details tab (Node recorded in the Event mode)" in "WinActor Operation Manual."

## 4.6.  SelectTab(WIN32)

This library selects the specified tab in an application.

**Table 4-9. "SelectTab(WIN32)" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | WinID name | Click the target mark button to select the window of the tab. |
| 2 | Target control | Click the target mark button to select the tab. |
| 3 | Item to select | Select "Value" or "Index" and specify the value. |
| 4 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(ms)" is used. |
| 5 | Timeout (ms) | Specify the waiting time to find the target tab selected for "Target control."<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

**Note**

This action may not be available, depending on the target window.

For "Details" tab in the property of "SelectTab(WIN32)," see "Details tab (Node recorded in the Event mode)" in "WinActor Operation Manual."

## 4.7. GetCheckState(IE)

This library gets the ON/OFF status of the specified control in IE.

**Table 4-10. "GetCheckState(IE)" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Click the target mark button to select the window to get the ON/OFF status. |
| 2 | Target control | Click the target mark button to select the control to get the ON/OFF status. |
| 3 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(ms)" is used. |
| 4 | Timeout (ms) | Specify the time to wait for the status change.<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |
| 5 | Output variable | Specify the variable to store the acquired ON/OFF status. |

**Note**

This action may not be available, depending on the target window.

For "Details" tab in the property of "GetCheckState(IE)," see "Details tab (Node recorded in the IE mode)" in "WinActor Operation Manual."

## 4.8. GetCheckState(WIN32)

This library gets the ON/OFF status of the specified control in an application.

**Table 4-11. "GetCheckState(WIN32)" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Click the target mark button to select the window to get the ON/OFF status. |
| 2 | Target control | Click the target mark button to select the control to get the ON/OFF status. |
| 3 | Output variable | Specify the variable to store the acquired ON/OFF status. |
| 4 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information"<br>　window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(ms)" is used. |
| 5 | Timeout (ms) | Specify the waiting time to find the control selected for "Target control."<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

**Note**

This action may not be available, depending on the target window.

For "Details" tab in the property of "GetCheckState(WIN32)," see "Details tab (Node recorded in the Event mode)" in "WinActor Operation Manual."

## 4.9. SaveAllItemsInList(IE)

This library saves the text from the specified list or combo box in IE in a CSV file.


**Table 4-12. "SaveAllItemsInList(IE)" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | WinID name | Click the target mark button to select the window to get items in a list or combo box. |
| 2 | Target control | Click the target mark button to select the control to get items. |
| 3 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>The value set for "Timeout(ms)" is used. |
| 4 | Timeout (ms) | Specify the time to wait for the status change.<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |
| 5 | Output filename | Specify the filename to save acquired information.<br>The filename may be specified as either an absolute or a relative path. |

**Note**

This action may not be available, depending on the target window.

For "Details" tab in the property of "SaveAllItemsInList (IE)," see "Details tab (Node recorded in the IE mode)" in "WinActor Operation Manual."

## 4.10.  SaveAllItemsInList(WIN32)

This library saves the text from the specified list or combo box in an application to a CSV file.

**Table 4-13. "SaveAllItemsInList(WIN32)" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Click the target mark button to select the window to get items in a list or combo box. |
| 2 | Target control | Click the target mark button to select the control to get items. |
| 3 | Output filename | Specify the filename to save acquired information.<br>The filename may be specified as either an absolute or a relative path. |
| 4 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information"<br>　window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(ms)" is used. |
| 5 | Timeout (ms) | Specify the waiting time to find the control selected for "Target control."<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

**Note**

This action may not be available, depending on the target window.

For "Details" tab in the property of "SaveAllItemsInList(WIN32)," see "Details tab (Node recorded in the Event mode)" in "WinActor Operation Manual."

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## 4.11. GetItemInList(IE)

This library gets the text or index in the specified list or combo box in IE.

**Table 4-14. "GetItemInList(IE)" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Click the target mark button to select the window to get the list or combo box. |
| 2 | Target control | Click the target mark button and select the list or combo box to get the string or index. |
| 3 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(ms)" is used. |
| 4 | Timeout (ms) | Specify the time to wait for the status change.<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |
| 5 | Output variable | Select "Value" or "Index," and specify a variable to store the value or the index value. |

**Note**

This action may not be available, depending on the target window.

For "Details" tab in the property of "GetItemInList(IE)," see "Details tab (Node recorded in the IE mode)" in "WinActor Operation Manual."

## 4.12. GetItemInList(WIN32)

This library gets the text in the specified list or combo box in an application.

**Table 4-15. "GetItemInList(WIN32)" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Click the target mark button to select the window to get the list or combo box. |
| 2 | Target control | Click the target mark button to select the list or combo box. |
| 3 | Output variable | Select "Value" or "Index," and specify a variable to store the value or the index value. |
| 4 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>    The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>    The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>    The value set for "Timeout(ms)" is used. |
| 5 | Timeout (ms) | Specify the waiting time to find the target-list or target-combo box selected for "Target control."<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

**Note**

This action may not be available, depending on the target window.

For "Details" tab in the property of "GetItemInList(WIN32)," see "Details tab (Node recorded in the Event mode)" in "WinActor Operation Manual."

## 4.13. SelectItemInList(IE)

This library selects the specified IE item.

**Table 4-16. "SelectItemInList(IE)" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Click the target mark button to select the window of the list. |
| 2 | Target control | Click the target mark button to select the list. |
| 3 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(ms)" is used. |
| 4 | Timeout (ms) | Specify the time to wait for the status change.<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |
| 5 | Item to select | Select "Value" or "Index" and specify the value. |

**Note**

This action may not be available, depending on the target window.

For "Details" tab in the property of "SelectItemInList(IE)," see "Details tab (Node recorded in the IE mode)" in "WinActor Operation Manual."

## 4.14. SelectItemInList(WIN32)

This library selects the specified item in an application.

**Table 4-17. "SelectItemInList(WIN32)" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Click the target mark button to select the window of the list. |
| 2 | Target control | Click the target mark button to select the list to operate. |
| 3 | Item to select | For a list item to select, select "Value" or "Index" and specify the value. |
| 4 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(ms)" is used. |
| 5 | Timeout (ms) | Specify the waiting time to find the target item selected for "Target control."<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

**Note**

This action may not be available, depending on the target window.

For "Details" tab in the property of "SelectItemInList(WIN32)," see "Details tab (Node recorded in the Event mode)" in "WinActor Operation Manual."

## 4.15.  GetText(IE)

This library gets the specified text from a field in IE.

**Table 4-18. "GetText(IE)" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Click the target mark button to select the window to get the text. |
| 2 | Target control | Click the target mark button to select the field. |
| 3 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(ms)" is used. |
| 4 | Timeout (ms) | Specify the time to wait for the status change.<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |
| 5 | Output variable | Specify the variable to store the result. |

**Note**

This action may not be available, depending on the target window.

For "Details" tab in the property of "GetText(IE)," see "Details tab (Node recorded in the IE mode)" in "WinActor Operation Manual."

## 4.16. GetText(WIN32)

This library gets the specified text from an application field.

**Table 4-19. "GetText(WIN32)" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Click the target mark button to select the window to get the text. |
| 2 | Target control | Click the target mark button to select the field. |
| 3 | Output variable | Specify the variable to store the result. |
| 4 | Timeout setting | Select which timeout setting to use from among following selections. <br><br> ・Use "Scenario information" <br> The timeout value set in the "Scenario information" window is used. <br> ・Use "Option" <br> The timeout value set in the "Option" window is used. <br> ・Use this "Property" <br> The value set for "Timeout(ms)" is used. |
| 5 | Timeout (ms) | Specify the waiting time to find the target-text box selected for "Target control." <br> This value is used when 'Use this "Property"' is selected for "Timeout setting." <br> The default value is 10,000 milliseconds. |

**Note**

This action may not be available, depending on the target window.

For "Details" tab in the property of "GetText(WIN32)," see "Details tab (Node recorded in the Event mode)" in "WinActor Operation Manual."

## 4.17.  SetText(IE)

This library sets the specified text in a field in IE.

**Table 4-20. "SetText(IE)" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Click the target mark button to select the window to set the text. |
| 2 | Target control | Click the target mark button to select the field to set the text. |
| 3 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(ms)" is used. |
| 4 | Timeout (ms) | Specify the time to wait for the status change.<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |
| 5 | Text to set | Specify the text to set in the field. |

**Note**

This action may not be available, depending on the target window.

For "Details" tab in the property of "SetText(IE)," see "Details tab (Node recorded in the IE mode)" in "WinActor Operation Manual."

## 4.18. SetText(WIN32)

This library sets the specified text in an application field.

**Table 4-21. "SetText(WIN32)" library settings**

| No. | Item | Description |
| --- | --- | --- |
| 1 | WinID name | Click the target mark button to select the window to set the text |
| 2 | Target control | Click the target mark button to select the field to set the text |
| 3 | Text to set | Specify the text to set in the field |
| 4 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(ms)" is used. |
| 5 | Timeout (ms) | Specify the waiting time to find the target-text box selected for "Target control."<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

**Note**

This action may not be available, depending on the target window.

For "Details" tab in the property of "SetText(WIN32)," see "Details tab (Node recorded in the Event mode)" in "WinActor Operation Manual."

## 4.19. IsEnabled(IE)

This library gets the enable/disable status of the specified control of IE.

**Table 4-22. "IsEnabled(IE)" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Click the target mark button to select the window to get the enable/disable status. |
| 2 | Target control | Click the target mark button to select the control to get the enable/disable status. |
| 3 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(ms)" is used. |
| 4 | Timeout (ms) | Specify the time to wait for the status change.<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |
| 5 | Output variable | Specify the variable to store the acquired enable/disable status. |

**Note**

This action may not be available, depending on the target window.

For "Details" tab in the property of "IsEnabled(IE)," see "Details tab (Node recorded in the IE mode)" in "WinActor Operation Manual."

## 4.20. IsEnabled(WIN32)

This library gets the enable/disable status of the specified control in an application.

**Table 4-23. "IsEnabled(WIN32)" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Click the target mark button to select the window to get the enable/disable state. |
| 2 | Target control | Click the target mark button to select a control to get the enable/disable state. |
| 3 | Output variable | Specify the variable to store the acquired enable/disable status. |
| 4 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(ms)" is used. |
| 5 | Timeout (ms) | Specify the waiting time to find the control selected for "Target control."<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

**Note**

This action may not be available, depending on the target window.

For "Details" tab in the property of "IsEnabled(WIN32)," see "Details tab (Node recorded in the Event mode)" in "WinActor Operation Manual."

## 4.21. GetValueInTable(IE)

This library gets the information from the specified table in IE.

**Table 4-24. "GetValueInTable(IE)" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Click the target mark button to select the window to get the information. |
| 2 | Target control | Click the target mark button to select the control to get the information. |
| 3 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(ms)" is used. |
| 4 | Timeout (ms) | Specify the time to wait for the status change.<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |
| 5 | Operation | Select an operation for the target control. |
| 6 | Row number | Specify the row number.<br>(For "Get value in cell" and "Check cell existence (true/false)" only) |
| 7 | Column number | Specify the column number.<br>(For "Get value in cell" and "Check cell existence (true/false)" only) |
| 8 | Output variable | Specify the variable to store the result of "Get value in cell," "Check cell existence (true/false)," "Get the number of rows," or "Get the number of columns." |
| 9 | Output filename | Specify the CSV filename to store the result of "Get all the values in table." The filename may be either an absolute or a relative path. |

**Note**

This action may not be available, depending on the target window.

For "Details" tab in the property of "GetValueInTable(IE)," see "Details tab (Node recorded in the IE mode)" in "WinActor Operation Manual."

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## 4.22. About IE mode on Microsoft Edge (Chromium)

IE mode on Microsoft Edge (Chromium) (hereinafter Edge) enables the browser to display the Web contents specialized for Internet Explorer (hereinafter IE) seamlessly among other Web contents.

IE icon is showed on the left side of URL window when the page is displayed in IE mode on Edge.

**Figure 4-1. IE mode on Edge**
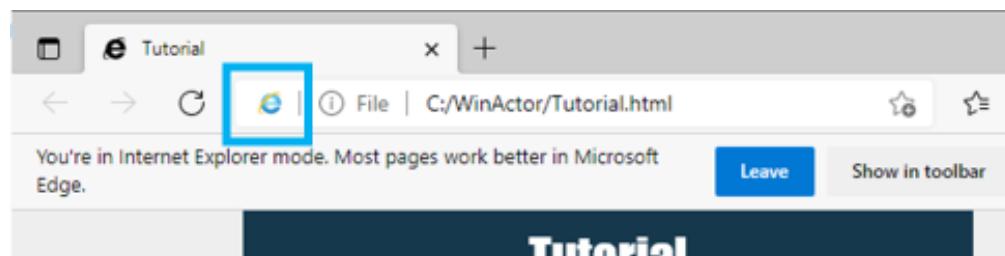


See official documents from Microsoft for details and settings of IE mode on Edge.

### 4.22.1. Operations of WinActor for IE mode on Edge

WinActor runs IE libraries and recorded operations in IE mode, and operates the environment of IE mode on Edge as well as that of IE.

**Notes**

(1) Recording mode

When clicking "Select window for recording" icon on the toolbar of WinActor and selecting Edge window, the adopted recording mode changes according to the status of the browser's active tab.

- When the tab is in Edge mode, the recording mode will be Edge mode.
- When the tab is in IE mode on Edge, the recording mode will be IE mode.

If the recording mode is inconsistent with the active tab, as when the tab is changed after the recording mode is decided, an error occurs with the message "The target application is not running or cannot be recorded."

(2) Searching for the target window or control

WinActor finds the window that has the specified WinID name, and operates it.

When the "Target control" is set on the property pane of the node, WinActor also confirms the existence of the specified control in the window. If the target control and the window, which is specified in the node to operate on IE, are not found, WinActor works as follows.

- Searches for the target control and its window switching all the windows and tabs of IE
- Searches for the target control and its window that is in IE mode on Edge switching all the windows and tabs of Edge

(3) WinID name of IE and IE mode on Edge

WinID name in WinActor does not differ for IE and IE mode on Edge. WinActor scenarios that include recorded operations on IE window in IE mode of WinActor, and manually created scenarios with IE libraries can also run against IE mode on Edge and vice versa.

# 5. Calculation

## 5.1. Calculation_Countdown

This library counts down the value of a specified variable.

**Table 5-1. "Calculation_Countdown" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Counter | Specify the variable name to count down. |

## 5.2. Calculation_CalculateRemainder

This library calculates the balance.

**Table 5-2. "Calculation_CalculateRemainder" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Value | Specify the value to divide. |
| 2 | Divisor | Specify the divisor. |
| 3 | Answer | Specify the variable. The calculation result will be stored. |

**Note**

Only whole numbers can be divided. An error will occur if a scenario is run with values other than whole numbers are set for "Value" or "Divisor."

## 5.3. Calculation_CalculateTax

This library calculates the amount with tax from an amount without tax.

**Table 5-3. "Calculation_CalculateTax" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Amount(excluding_tax) | Specify the amount without tax. |
| 2 | Tax_rate(%) | Specify the tax rate.<br>(Example) If the rate of tax to add is 8%, specify [Value⇒8]. |
| 3 | Tax-included_amount | Specify the variable to store the amount calculated with tax. |

## 5.4. Calculation_CalculateMoney

This library obtains the results from the basic arithmetic operator calculations.

Convert the currency type before calculating to prevent errors due to rounding off the results. This calculation is effective in calculating currency in financial institutions as the accuracy is ensured for up to 15 whole numbers and 4 decimals.

Example:

Normal basic arithmetic operations…(1/3) * 3 = 0

Currency type basic arithmetic operations…(1/3) * 3 = 0.9999

**Table 5-4. "Calculation_CalculateMoney" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Result | Specify the variable to store the calculation result. |
| 2 | Input_1 | Specify the value to calculate. |
| 3 | Operator | Select from "+," "-," "*," "/," or "%." "+" adds, "-" subtracts, "*" multiplies, and "/" divides. "%" is a modus operator (e.g. 10 % 3 = 1). *The result will be rounded off. |
| 4 | Input_2 | Specify the value to be calculated. |

**Notes**

"Input_1" and "Input_2" only support currency type integers and decimals. An error will occur if a scenario is run with values other than currency type numbers and decimals.

"Operator" supports specific symbols. An error will occur if a scenario is run with symbols other than supported.

# 6. StringComparison

## 6.1. StringComparison_ComparePrefix

This library splits the groups with prefix text matches.


This library is comprised of a node and a library.

    Node:

- Decision

    Library:

- Comparison execution (begins-with match)


The variable 'Comparison_result(begins-with_match)' is automatically added to the scenario when this library is added into the flowchart.

The strings set in the library "Comparison execution (begins-with match)" are compared to find a prefix match, and the result is stored in the variable.

When the value of the variable "Comparison_result(begins-with_match)" in the "Decision" node is 'True,' the left side group "True" is run. When it is 'False,' the right side group "False" is run.

Place the nodes to run when there is any match in the "True" group, and when there is no match in the "False" group.


For details of the "Decision" node, see the "Decision" subsection in "WinActor Operation Manual."
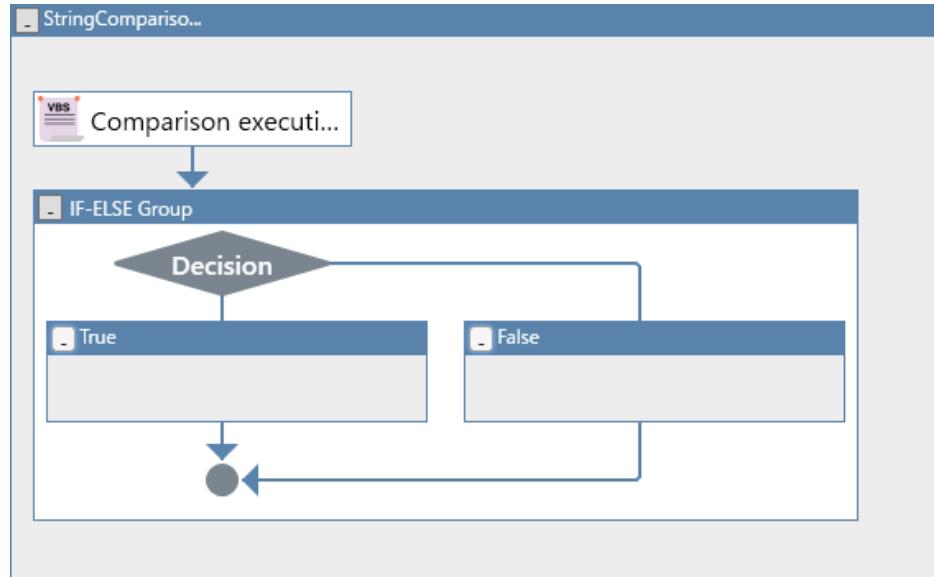
**Figure 6-1. "StringComparison_ComparePrefix" library**

**Table 6-1. "StringComparison_ComparePrefix" library / "Comparison
execution (begins-with match)" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Comparison_string | Specify the text to compare. |
| 2 | Begins-with_match_string | Specify the text at the beginning to compare. |
| 3 | Result | Specify a variable to store the comparison result. |

## 6.2. StringComparison_CompareSuffix

This library branch depending on whether characters at the end of string match.

This library is comprised of a node and a library.

Node:

- Decision

Library:

- Comparison execution (ends-with match)

The variable 'Comparison_result(ends-with_match)' is automatically added to the scenario when this library is added into the flowchart.

The strings set in the library "Comparison execution (ends-with match)" are compared to find a suffix match, and the result is stored in the variable.

When the value of the variable "Comparison_result(ends-with_match)" in the "Decision" node is 'True,' the left side group "True" is run. When it is 'False,' the right side group "False" is run.

Place the nodes to run when there is any match in the "True" group, and when there is no match in the "False" group.

For details of the "Decision" node, see the "Decision" subsection in "WinActor Operation Manual."
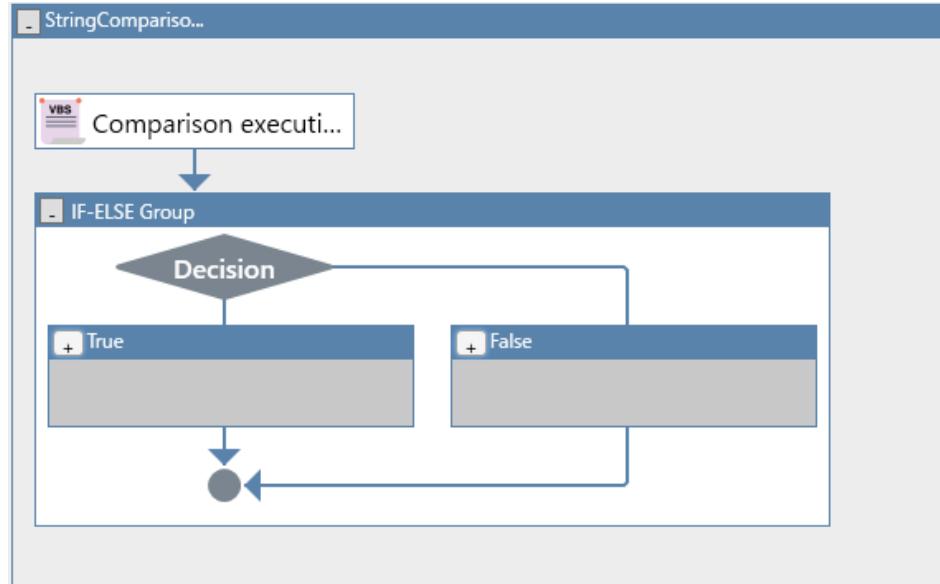
**Figure 6-2. "StringComparison_CompareSuffix" library**

**Table 6-2. "StringComparison_CompareSuffix" library / "Comparison execution (ends-with match)" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Comparison_string | Specify the text to compare. |
| 2 | Ends-with_match_string | Specify the text at the end to compare. |
| 3 | Result | Specify a variable to store the comparison result. |

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## 6.3.  StringComparison_CompareNumber(DoublePrecision)

This library compares numbers with double precision.

Example:

String 1 → 100, String 2 → 100  ... The comparison result is 0.

String 1 → 200, String 2 → 100  ... The comparison result is 1.

String 1 → 100, String 2 → 200  ... The comparison result is -1.

**Table 6-3. "StringComparison_CompareNumber(DoublePrecision)" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Number_1 | Specify the number to compare. |
| 2 | Number_2 | Specify the number to compare. |
| 3 | Comparison_result | Specify the variable to store comparison results. |
| | | Number_1 = Number_2 ... 0 is stored as the comparison result. |
| | | Number_1 > Number_2 ... 1 is stored as the comparison result. |
| | | Number_1 < Number_2 ... -1 is stored as the comparison result. |

## 6.4. StringComparison_CompareString

This library compares strings. (Binary mode)


Example:

String 1 → ABCD , String 2 → ABCD … The comparison result is 0.

String 1 → abcd , String 2 → ABCD … The comparison result is 1.

String 1 → ABCD , String 2 → abcd … The comparison result is -1.


**Table 6-4. "StringComparison_CompareString" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | String_1 | Specify the text to compare. |
| 2 | String_2 | Specify the text to compare. |
| 3 | Comparison_result | Specify the variable to store comparison results.<br>String_1 = String_2 …0 is stored as the comparison result.<br>String_1 > String_2 …1 is stored as the comparison result.<br>String_1 < String_2 …-1 is stored as the comparison result. |

## 6.5.　StringComparison_MatchRegularExpression

This library matches a string against a regular expression and acquires the number of matches.

The regular expression processing of this library uses the "VBScript.RexExp."

**Table 6-5. "StringComparison_MatchRegularExpression" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | String | Specify a target string. |
| 2 | RegExp_pattern | Specify a regular expression pattern. |
| | | The regular expression should be specified in the format conforming to the specification of the "VBScript.RegExp." |
| | | (Example) |
| | | To match the characters other than "abcdefg." |
| | | String:abcidefg |
| | | RegExp_pattern:[^a-g] |
| | | Result_string:True |
| 3 | CaseSensitive | Specify whether the matching is case sensitive or not. |
| 4 | Match | Specify whether to search all the matches or only the first match. |
| 5 | Lines | Specify whether to regard the string as multi-lines or as a single line. |
| 6 | Result | Specify a variable to store the result. |
| | | When any match is found, 'True' is stored. When no match is found, 'False' is stored. |
| 7 | Matched_number | Specify a variable to store the number of portions the regular expression pattern has matched. |

## 6.6. StringComparison_CompareSubstring

This library splits the groups with partial text matches.


This library is comprised of a node and a library.

    Node:

- Decision

    Library:

- Comparison execution (ends-with match)


The variable 'Comparison_result(partial_match)' is automatically added to the scenario when this library is added into the flowchart.

The strings set in the library "Comparison execution (partial match)" are compared to find a partial match, and the result is stored in the variable.

When the value of the variable "Comparison_result(partial_match)" in the "Decision" node is 'True,' the left side group "True" is run. When it is 'False,' the right side group "False" is run.

Place the nodes to run when there is any match in the "True" group, and when there is no match in the "False" group.


For details of the "Decision" node, see the "Decision" subsection in "WinActor Operation Manual."
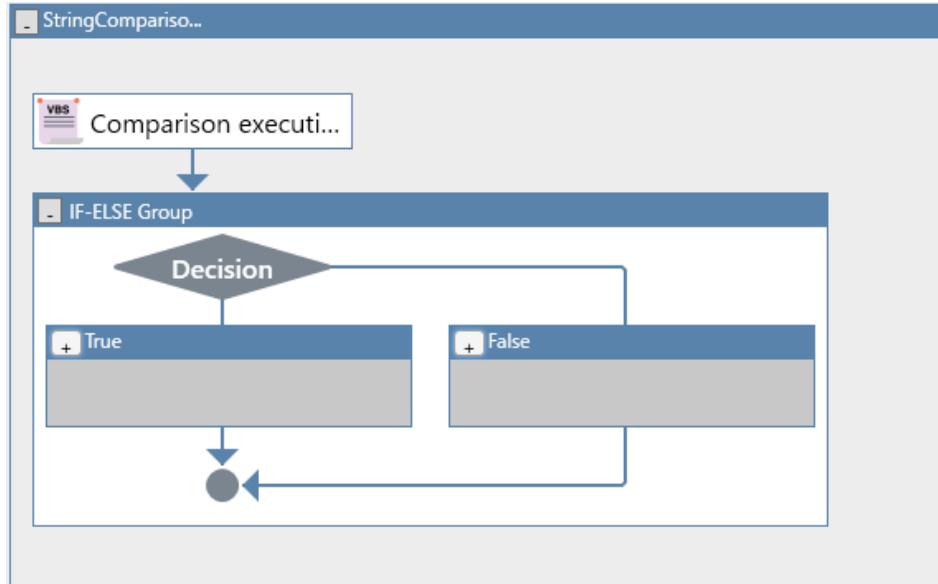
**Figure 6-3. "StringComparison_CompareSubstring" library**

**Table 6-6. "StringComparison_CompareSubstring" library / "Comparison execution (partial match)" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Comparison_string | Specify the text to compare. |
| 2 | Partial_match_string | Specify the text to compare for partial matches |
| 3 | Result | Specify a variable to store the comparison result. |

# 7. StringOperation

## 7.1. Conversion_Formatting

### 7.1.1. Formatting_TrimSpace

This library removes spaces at the beginning and end of the specified string.

**Table 7-1. "Formatting_TrimSpace" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | String | Specify the string. |
| 2 | String_after_deletion | Specify a variable to store the trimmed string. |
| 3 | Option | Select process after trimming.<br>Nothing is processed if "Only_trimming" is selected<br>The line break is deleted if "Delete_line_break" is selected |

### 7.1.2. Formatting_SuppressZero

This library removes unnecessary zeros in numbers and is only for whole numbers.

**Table 7-2. "Formatting_SuppressZero" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Numeric_before_conversion | Specify the value before conversion. |
| 2 | Converted_number | Specify the variable to store the result after conversion.<br>Example: 00100 → 100 |

### 7.1.3. Conversion_Uppercase_Lowercase

This library converts letters to uppercase or lowercase characters.

**Table 7-3. "Conversion_Uppercase_Lowercase" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Before_conversion | Specify the uppercase/lowercase text. |
| 2 | Conversion_Uppercase_Lowercas | Select "Uppercase" or "Lowercase." |
| 3 | After_conversion | Specify the variable to store the converted uppercase/lowercase characters.<br>If "Uppercase" is selected in 2,<br>Example: aaaa → AAAA<br>If "Lowercase" is selected in 2,<br>Example: AAAA → aaaa |

### 7.1.4. Conversion_GetTextInParentheses

This library extracts characters between the parentheses in a string.

The characters between the first left parenthesis and the first right parenthesis after that are extracted.

**Table 7-4. "Conversion_GetTextInParentheses" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Target_string | Specify the string to extract. |
| 2 | Open_parenthesis | Specify the opening parenthesis. |
| 3 | Close_parenthesis | Specify the closing parenthesis. |
| 4 | Result | Specify a variable to store the characters inside parentheses.<br>Example: "Ahaaa (inside)" → "inside" |

### 7.1.5. Conversion_AddLineBreak

This library adds a newline code CRLF (\r\n) at the end of the specified text.

**Table 7-5. "Conversion_AddLineBreak" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Result | Specify the variable to store a character string after adding a newline code. |
| 2 | Input_string | Specify the character string to which a newline code is added. |

### 7.1.6. Formatting_PadNumberWithZeros

This library adds zeros to the left of the target integer number until the specified digit.

**Table 7-6. "Formatting_PadNumberWithZeros" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Number | Specify the integer number. |
| 2 | Number_of_digits | Specify the number of digits the result should be. The number of digits should be bigger than the original "Number." |
| 3 | Result | Specify the variable to store the result. |

### 7.1.7. Conversion_ReplaceString

This library replaces strings.

The specified string in "Converting_string" searches the string "Before_replacement" and replaces the string in "After_replacement."

**Table 7-7. "Conversion_ReplaceString" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Converting_string | Specify the string to do the replacing. |
| 2 | Before_replacement | Specify the string to search. |
| 3 | After_replacement | Specify the string to replace. |

**Notes**

- If the string "Before_replacement" is not found, the string will remain as is.
- To delete certain characters from the string "Converting_string," specify the character to delete in "Before_replacement" and keep "After_replacement" blank.

7.1.8. Conversion_ReplaceUsingRegularExpression

This library matches a character string against a regular expression and replace the matched portions of the string with replacements.

The Regular Expression processing of this library uses the "VBScript.RexExp."

**Table 7-8. "Conversion_ReplaceUsingRegularExpression" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | String | Specify a target string. |
| 2 | RegExp_pattern | Specify a regular expression pattern.<br>The regular expression should be specified in the format conforming to the specification of the "VBScript.RegExp."<br>(Example)<br>To replace numeric characters with ','<br>String:ab1cd2ef3g<br>RegExp_pattern:[0-9]<br>Replacement:,<br>Result_string:ab,cd,ef,g |
| 3 | Replacement | Specify a replacement. |
| 4 | CaseSensitive | Specify whether the matching is case sensitive or not. |
| 5 | Replace | Specify whether to replace all the matches or only the first match. |
| 6 | Lines | Specify whether to regard the string as multi-lines or as a single line. |
| 7 | Result_string | Specify a variable to store the replaced result string.<br>If no match has found, the original string without replacement is stored. |

## 7.2.  Split_Extraction_Deletion

### 7.2.1.  Split_SplitStringIntoTwo

This library splits a string into three parts at the specified delimiter.

**Table 7-9. "Split_SplitStringIntoTwo" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Split_source_string | Specify the string to split. |
| 2 | Delimiter_character | Specify the string to indicate where to split. |
| 3 | Before | Specify the variable to store the string before the delimiter. |
| 4 | After | Specify the variable to store the string after the delimiter. |

**Note**

If more than one delimiter is specified in the "Split_source_string," the string will be split with the delimiter found first.

### 7.2.2.  Split_SplitStringIntoThree

This library splits a string into three parts at the specified delimiter.

**Table 7-10. "Split_SplitStringIntoThree" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Split_source_string | Specify the string to split. |
| 2 | Delimiter_character | Specify the delimiter to indicate where to split. |
| 3 | Split_string_1 | Specify the variable to store the string before the first delimiter. |
| 4 | Split_string_2 | Specify the variable to store the string between the first and second delimiter. |
| 5 | Split_string_3 | Specify the variable to store the string after the second delimiter. If there is the third delimiter, a string between the second and third delimiter is stored. |

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### 7.2.3.  Split_SplitString

This library splits "Split_source_string" with a "Delimiter_character." specify which information to read with "Index." The results are stored in "Split_String." "Segmentation_size" stores the number of split elements.

Example:

Input value

Split source string: a,b,c,d,e,f,g

Delimiter character: ,

Index: 2   *Specify the numerical value starting from 0.

Acquired result

Split string: c

Split size : 7

**Table 7-11. "Split_SplitString" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Split_source_string | Specify the string to split. |
| 2 | Delimiter_character | Specify the delimiter character string to indicate where to split. |
| 3 | Index | Specify the index where in the split result is read. |
| 4 | Split_string | Specify the variable to store the result. |
| 5 | Segmentation_size | Specify the variable to set the size of the array in the split result. |

### 7.2.4.  Extraction_GetPrefix

This library extracts the specified number of characters from the beginning of a string.

**Table 7-12. "Extraction_GetPrefix" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Extraction_source_string | Specify the string to extract. |
| 2 | Number_of_characters | Specify the number of characters to extract |
| 3 | Extracted_characters | Specify the variable to store the extracted string. |

### 7.2.5.  Extraction_GetSuffix

This library extracts the specified number of characters from the end of a string.

**Table 7-13. "Extraction_GetSuffix" library settings**

| No. | Item | Description |
| --- | --- | --- |
| 1 | Extraction_source_string | Specify the string to extract. |
| 2 | Number_of_characters | Specify the number of characters to extract |
| 3 | Extracted_characters | Specify the variable to store the extracted string. |

### 7.2.6.  Extraction_GetSubstring

This library This library extracts the specified number of characters from the specified position in a string.

**Table 7-14. "Extraction_GetSubstring" library settings**

| No. | Item | Description |
| --- | --- | --- |
| 1 | Extraction_source_string | Specify the string to extract. |
| 2 | Extraction_start_position | Specify the starting position to extract characters. (1 ~) |
| 3 | Number_of_characters | Specify the number of characters to extract. |
| 4 | Extracted_characters | Specify the variable to store the extracted string. |

7.2.7. Deletion_Trim

This library deletes the specified number of characters from the beginning or the end of the "Original_string."

**Table 7-15. "Deletion_Trim" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Original_string | Specify the string. |
| 2 | Delete_position | Select "Before" or "After." <br> "Before" deletes characters from the beginning of a string. <br> "After" deletes characters from the end of a string. |
| 3 | Delete_number_of_chars | Specify the number of characters. (1 ~) |
| 4 | Deletion_result | Specify the variable to store the string after deletion. |

### 7.2.8.  Extraction_RegularExpression

This library searches the specified text using regular expressions and extracts the found substring.

Example:

   If extracting the third character excluding "a":

   Text: abadefahi

   Regular expression pattern: [^a]

   Index: 3

   →Extraction position: 5, extraction result: e

**Table 7-16. "Extraction_RegularExpression" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Extraction_source_string | Specify the substring to extract. |
| 2 | Regular_expression_pattern | Specify the regular expression pattern, following the "VBScript.RegExp" specifications. |
| 3 | Case_sensitive | If case sensitive, select "True", otherwise "False." |
| 4 | Multiple_lines | If treating the text as multiple rows, select "True", otherwise "False." |
| 5 | Index | Specify a whole number 1 or higher for the position of the character(s) found by the regular expression. |
| 6 | Extracted_position | Specify the variable to store the position of the extracted substring. Control codes will be counted as one letter. For instance, a tab code will be counted as one character and a line break will be counted as two characters. |
| 7 | Extracted_characters | Set the variable to store the extracted substring. Empty text will be stored if nothing is extracted. |

## 7.3. Concatenation

### 7.3.1. Concatenation_Concatenate2Strings

This library concatenates two strings.

**Table 7-17. "Concatenation_Concatenate2Strings" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | String_1 | Specify the first string to concatenate from the beginning. |
| 2 | String_2 | Specify the second string to concatenate from the beginning. |
| 3 | Concatenated_results | Specify the variable to store the concatenated string. |

### 7.3.2. Concatenation_Concatenate3Strings

This library concatenates three strings.

**Table 7-18. "Concatenation_Concatenate3Strings" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | String_1 | Specify the first string to concatenate from the beginning. |
| 2 | String_2 | Specify the second string to concatenate from the beginning. |
| 3 | String_3 | Specify the third string to concatenate from the beginning. |
| 4 | Concatenated_results | Specify the variable to store the concatenated string. |

### 7.3.3. Concatenation_Concatenate4Strings

This library concatenates four strings.

**Table 7-19. "Concatenation_Concatenate4Strings" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | String_1 | Specify the first string to concatenate from the beginning. |
| 2 | String_2 | Specify the second string to concatenate from the beginning. |
| 3 | String_3 | Specify the third string to concatenate from the beginning. |
| 4 | String_4 | Specify the fourth string to concatenate from the beginning. |
| 5 | Concatenated_results | Specify the variable to store the concatenated string. |

### 7.3.4. Concatenation_Concatenate5Strings

This library concatenates five strings.

**Table 7-20. "Concatenation_Concatenate5Strings" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | String_1 | Specify the first string to concatenate from the beginning. |
| 2 | String_2 | Specify the second string to concatenate from the beginning. |
| 3 | String_3 | Specify the third string to concatenate from the beginning. |
| 4 | String_4 | Specify the fourth string to concatenate from the beginning. |
| 5 | String_5 | Specify the fifth string to concatenate from the beginning. |
| 6 | Concatenated_results | Specify the variable to store the concatenated string. |

## 7.4.  NumericConversion

### 7.4.1.  NumericConversion_ConvertDecimalToBaseN

This library converts a decimal number to a binary, octal, or hexadecimal number.

**Table 7-21. "NumericConversion_ConvertDecimalToBaseN" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Number_before_conversion | Specify the decimal number to convert. |
| 2 | Converted_decimal_number | Select "2," "8," or "16." <br> "2" converts to a binary number, "8" converts to an octal and "16" converts to a hexadecimal number. |
| 3 | Converted_number | Specify the variable to store the value after conversion. |

### 7.4.2.  NumericConversion_ConvertHexadecimalToDecimal

This library converts a hexadecimal number to a decimal number.

**Table 7-22. "NumericConversion_ConvertHexadecimalToDecimal" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Before_conversion | Specify the numerical value (hexadecimal number) to convert. |
| 2 | Converted_number | Specify the variable to store the value after conversion. |

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### 7.4.3. NumericConversion_ConvertNumberFormat

This library converts a numerical value to the specified format.

**Table 7-23. "NumericConversion_ConvertNumberFormat" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Number_before_conversion | Specify the numerical value to convert. |
| 2 | Number_of_decimal_places | Specify the number of decimal places. |
| 3 | Zero_display_availability | Select "yes" or "no." <br> "yes" displays a zero to the left of the decimal point <br> "no" does not display the zero. |
| 4 | Delimiter_character_existence | Select "yes" or "no." <br> "yes" displays the delimiters for the numerical value <br> "no" does not display the delimiters. |
| 5 | Converted_number | Specify the variable to store the value after conversion |

# 8. Date

## 8.1. Date_GetTimeAfterNHours

This library calculates the time after n hours based on the specified time.

The result will be acquired in the long time format shown in Windows "Region and Language" properties.

**Table 8-1. "Date_GetTimeAfterNHours" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Baseline_time | Specify the base time to base the calculation. (h:mm:ss) |
| 2 | Time_difference | Specify the difference in hours between the base time and calculated time. The decimal part of the difference are ignored. |
| 3 | Results_storage_dest | Specify the variable to store the result. |

## 8.2. Date_Getyyyymmddhhmmss

This library gets the year, month, date, hour, minute, and second in the yyyymmddhhmmss format. To only get the year, month, date, hour, minute, or second, specify the prefix and suffix with a blank.

[Example]

    Run date and time: 20191126095520

    Prefix: not specified

    Suffix: _sample.txt

    Storage_dest_variable: 20191126095520_sample.txt

**Table 8-2. "Date_Getyyyymmddhhmmss" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Prefix | Specify the prefix. |
| 2 | Suffix | Specify the suffix. |
| 3 | Storage_dest_variable | Specify the variable to store the acquired value. |

## 8.3. Date_ParseDate

This library splits the date in yyyy/mm/dd format into year, month, and day respectively.

**Table 8-3. "Date – Split date" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Date(yyyy/mm/dd) | Specify the date to split. |
| 2 | Year | Specify the variable to store the year (yyyy part). |
| 3 | Month | Specify the variable to store the month (mm part). |
| 4 | Day | Specify the variable to store the day (dd part). |

## 8.4. Date_GetLastDateOfMonth

This library gets the last date of the specified year/month in an yyyy/mm/dd format.

 * Enter in the range from January, 100 to November, 9999.

**Table 8-4. "Date_GetLastDateOfMonth" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Year | Specify the year to get the last day. |
| 2 | Month | Specify the month to get the last day. |
| 3 | Storage_dest_variable | Specify the variable to store the acquired value. |

## 8.5. Date_GetDate

This library sets the current date to the specified variable in yyyymmdd format.

**Table 8-5. "Date_GetDate" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Date_get_result | Specify the variable to store the acquired date. |

## 8.6.  Date_GetFormattedDate

This library gets the current date in the specified format.

For the "Format," use characters to specify date or characters specified for "Delimiter_character" only.

**Table 8-6. "Date_GetFormattedDate" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Format | Specify the date format. |
| | | yyyy: Four-digit year format |
| | | yy: Last two-digit year format |
| | | mm: Two-digit month format |
| | | m: One to two-digit month format (without leading 0) |
| | | dd: Two-digit day format |
| | | d: One to two-digit day format (without leading 0) |
| 2 | Delimiter_character | Specify the delimiter character for the year, month, and day. |
| 3 | Results_storage_dest | Specify the variable to store the formatted date. |

## 8.7.  Date_GetDate(Year_Month_Day)

This library gets the date by specifying the year (yyyy or yy), month, or day.

**Table 8-7. "Date_GetDate(Year_Month_Day)" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Format | Specify the date format. |
| | | "Year(yyyy)" acquires the year in four digits |
| | | "Year(yy)" acquires the year in two digits |
| | | "Only_month" acquires the month |
| | | "Only_day" acquires the day. |
| 2 | Padding | Specify the padding format. |
| | | If "Padding" is blank, the format is 1 2 3 ... 10 11 12. |
| | | If "Padding" is set to "0," the format is 01 02 03 ... 10 11 12. |
| | | If "Padding" is set to "-," the format is -1 -2 -3 … 10 11 12. |
| 3 | Date_get_result | Specify the variable to store the acquired value of the year (yyyy or |

| | | yy), month, or day. |
|---|---|---|

## 8.8. Date_CountDaysBetweenDates

This library is to count the number of days between two specified dates.

**Table 8-8. "Date_CountDaysBetweenDates" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Baseline_date | Specify the base date to base the comparison. <br> Example: "2014/1/1", "14/01/01", "1/1", "January 1, 2014", "January 1" |
| 2 | Comparison_date | Specify the date for comparison. <br> Example: "2014/1/1", "14/01/01", "1/1", "January 1, 2014", "January 1" <br> * If the base date is later than the comparison date, the result will be a negative value. |
| 3 | Results_storage_dest | Specify the variable to store the result. |

## 8.9. Date_FormatDate

This library converts the specified date to a formatted string.

**Table 8-9. "Date_FormatDate" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Specified_date | Specify the date to convert.<br>Example: "2014/1/1", "14/01/01", "1/1", "January 1, 2014", "January 1" |
| 2 | Format | Specify the format.<br>　yyyy: Four-digit year format<br>　yy: Last two-digit year format<br>　mm: Two-digit month format<br>　m: One to two-digit month format (without leading 0)<br>　dd: Two-digit day format<br>　d: One to two-digit day format (without leading 0)<br>*For example, if the specified date is "2014/01/20" and the format is "d.m.yyyy," "20.1.2014" will be acquired. |
| 3 | Results_storage_dest | Specify the variable to store the formatted date. |

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## 8.10. Date_CalculateDate(After-nYears_After-nMonths_After-nDays)

This library calculates the date after n years, months, or days based on the specified.

**Table 8-10. "Date_CalculateDate(After-nYears_After-nMonths_After-nDays)" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Baseline_date | Specify the base date to base the calculation.<br>Example: "2014/1/1", "14/01/01", "1/1", "January 1, 2014", "January 1" |
| 2 | Difference_n | Specify the base date and a date to calculate. |
| 3 | Unit | Specify the unit to calculate the difference.<br>"After_n_years": the date after the specified n years from the base date is calculated.<br>"After_n_months": the date after the specified n months from the base date is calculated.<br>"After_n_days": the date after the specified n days from the base date is calculated. |
| 4 | Results_storage_dest | Specify the variable to store the calculated date.<br>Output format: yyyy/mm/dd    Example: 2014/01/01 |

**Note**

In a leap year, for example, two years after "2016/2/29" is "2018/02/28" and two days after "2016/2/28" is "2016/03/01." However, two days after "2018/2/28" (non-leap year) is "2018/03/02."

## 8.11.  Date_GetTimeDifference

This library calculate the difference between two specified times. If the base time is later than the comparison time, the result will be a negative value. specify the time in "hh:mm:ss" format. An error occurs if more than 23:59:59 is specified.

**Table 8-11. "Date_GetTimeDifference" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Unit | Select the unit of comparison. (hours, minutes, seconds) |
| 2 | Base_time | Specify the time to base the comparison. |
| 3 | Target_time | Specify the time for comparison. |
| 4 | Storage_dest_variable | Specify the variable to store the acquired value. |

## 8.12.  Date_GetDayOfWeek

This library determines the day of the week for the specified date.

**Table 8-12. "Date_GetDayOfWeek" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Date | Specify the date to determine the day of the week. Example: "2014/1/1", "14/01/01", "1/1", "January 1, 2014", "January 1" |
| 2 | Determination_result | Specify the variable to store the determined day of the week. For Monday, it is stored as "Mon." |

# 9. Waiting

## 9.1. Sleep

This specifies the standby time with a variable.

**Table 9-1. "Sleep" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Standby_time(msec) | Specify the time to wait. |

# 10.  DialogBox

## 10.1.  DialogBox_ShowYesNoBox(Java)

This library displays the Yes/No dialog box.

**Table 10-1. "DialogBox_ShowYesNoBox(Java)" library settings**

| No. | Item | Description |
| --- | --- | --- |
| 1 | Message | Specify the message. |
| 2 | Result | Specify the variable to store the selected button (Yes/No). The string "OK" is stored when 'Yes' is selected, and the string "No" is stored when 'No' is selected. If closed with the 'X' button, the result will be blank. |

## 10.2.  DialogBox_ShowDetailedYesNoBox(Java)

This library displays the Yes/No dialog box.

**Table 10-2. "DialogBox_ShowDetailedYesNoBox(Java)" library settings**

| No. | Item | Description |
| --- | --- | --- |
| 1 | Width | Specify the width of the dialog box. |
| 2 | Height | Specify the height of the dialog box. |
| 3 | Message | Specify the message. |
| 4 | Font_size | Specify the font size. |
| 5 | Font_color | Specify the font color of the message in the dialog box. Specify the same value as the HTML color name. |
| 6 | Background_color | Specify the background color of the dialog box. Specify the same value as the HTML color name. |
| 7 | Result | Specify the variable to store the selected button (Yes/No). The string "OK" is stored when 'Yes' is selected, and the string "No" is stored when 'No' is selected. If closed with the 'X' button, the result will be blank. |

## 10.3.  DialogBox_ShowYesNoBox(VB)

This library displays the Yes/No dialog box.

**Table 10-3. "DialogBox_ShowYesNoBox(VB)" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Message_displayed | Specify the display message. |
| 2 | Title | Specify the title. |
| 3 | Result | Specify the variable to store the selected button (Yes/No). |

## 10.4.  DialogBox_ShowDetailedInputBox

This library displays a dialog in the specified font size, background color, and box size, and gets the textbox value specified by a user as a variable value.

**Table 10-4. "DialogBox_ShowDetailedInputBox" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Width | Specify the width of the dialog with a numerical value. |
| 2 | Height | Specify the height of the dialog with a numerical value. |
| 3 | Message | Specify the message to display in the dialog. |
| 4 | Font_size | Specify the message font size to display in the dialog. (1~) |
| 5 | Font_color | Specify the message font color to display in the dialog. Specify the same value as an HTML color name. |
| 6 | Background_color | Specify the background color of the dialog. Specify the same value as an HTML color name. |
| 7 | Result | Specify the variable to store the specified value in the text box. |
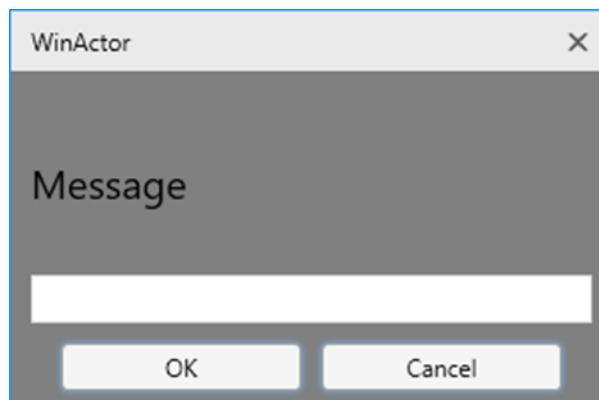


Dialog width: 300, Dialog height: 200, Message: Message

Font size: 20, Font color: black, Background color: gray

**Figure 10-1. Original input box**

**Note**

The value stored in the variable specified for the "Result" will be cleared if the 'Cancel' button or the close 'X' buttons is clicked.

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## 10.5. DialogBox_ShowInputBox

This library displays the dialog and gets the textbox value specified by a user as a variable value.

**Table 10-5. "DialogBox_ShowInputBox" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Message | Specify the message to display in the dialog box. |
| 2 | Result | Specify the variable to store the specified value in the text box. |

**Note**

The value stored in the variable specified for the "Result" will be cleared if the 'Cancel' button or the close 'X' buttons is clicked.

## 10.6. DialogBox_ShowWaitBox

This library displays a dialog in the specified font size, background color, and box size.

**Table 10-6. "DialogBox_ShowWaitBox" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Width | Specify the width of the dialog with a numerical value. |
| 2 | Height | Specify the height of the dialog with a numerical value. |
| 3 | Message | Specify the message to display in the dialog. |
| 4 | Font_size | Specify the message font size to display in the dialog. |
| 5 | Font_color | Specify the message font color to display in the dialog. Specify the same value as an HTML color name. |
| 6 | Background_color | Specify the background color of the dialog. Specify the same value as an HTML color name. |
| 7 | Result | Specify the variable to store the result. Clicking OK sets "OK". |
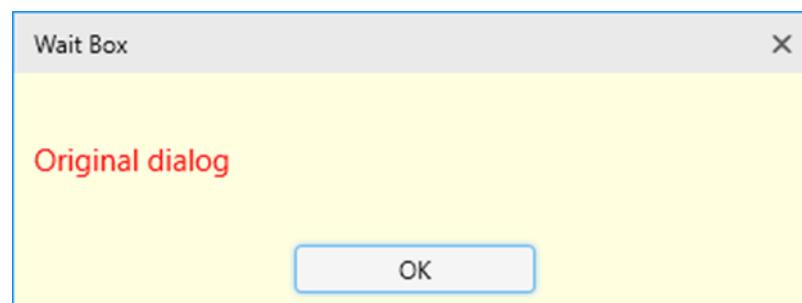


Dialog width: 400, Dialog height: 150

Message: Original dialog, Font size: 15

Font color: red, Background color: light yellow

**Figure 10-2. Original Wait Box**

## 10.7. DialogBox_ShowPasswordBox

This library displays the input box that masks user keystrokes.

**Table 10-7. "DialogBox_ShowPasswordBox" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Title | Specify the title of the input box. |
| 2 | Message | Specify the message to display in the input box. |
| 3 | Result | Specify the variable to store the value specified in the input box. |

**Notes**

The value stored in the variable specified for the "Result" will be cleared if the 'Cancel' button or the close 'X' buttons is clicked.

The value specified in the input box will be displayed in the Variable list and be visible to the other users. To hide the value, see "3.3. Encryption_Decryption" to encrypt the specified value.

## 10.8. DialogBox_ShowFileSelectionBox(Java)

This library displays the dialog for users to specify files.

**Table 10-8. "DialogBox_ShowFileSelectionBox(Java)" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_extension(s) | Specify the extension of the file to select. |
| 2 | File_selection_result | Specify the variable to store the file path. |

## 10.9. DialogBox_ShowFolderSelectionBox(Java)

This library displays the dialog for users to specify folders.

**Table 10-9. "DialogBox_ShowFolderSelectionBox(Java)" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Folder_selection_result | Specify the variable to store the path of the folder. |

## 10.10. DialogBox_ShowFolderSelectionBox(Win)

This library displays the dialog for users to specify folders.

**Table 10-10. "DialogBox_ShowFolderSelectionBox(Win)" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Folder_path_storage_dest | Specify the variable to store the path of the folder. |

## 10.11. DialogBox_ShowWaitBoxWithTimeout

This library closes the Wait Box automatically after the specified time has passed.

When the 'OK' button is clicked, the Wait Box will be closed even before the timeout.

**Table 10-11. "DialogBox_ShowWaitBoxWithTimeout" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Message_displayed | Specify the message to display in the Wait Box. |
| 2 | Timeout(sec) | Specify the length of time to display in the Wait Box. |

**Note**

The Wait Box remains open if the scenario is stopped while the box is displayed.

## 10.12. DialogBox_ShowWaitBox(Positioning)

This library displays the Wait Box in the specified position.

**Table 10-12. "DialogBox_ShowWaitBox(Positioning)" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | X_coordinate | Specify the x-position to display the Wait Box. |
| 2 | Y_coordinate | Specify the y-position to display the Wait Box. |
| 3 | Message | Specify the message to display in the Wait Box. |
| 4 | Result | Specify the variable to store the result. Clicking OK sets "OK". |

# 11. Window

## 11.1. Window_ChangeWindowAppearance

This library changes the display state of the window specified with the WinID.

**Table 11-1. "Window_ChangeWindowAppearance" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Display_state | Select the window display state— "Normal_display," "Maximize_window," "Minimize_window" |
| 2 | WinID name | Click the target mark button to select the window to change. |
| 3 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(msec)(optional)" is used. |
| 4 | Timeout (msec)(optional) | Specify the waiting time to find the window selected for "WinID name."<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

## 11.2. Window_CloseWindow

This library closes the window specified with the WinID.

**Table 11-2. "Window_CloseWindow" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Click the target mark button to select the window to close. |
| 2 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option" |

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| | | |
|---|---|---|
| | | The timeout value set in the "Option" window is used. |
| | | ・Use this "Property" |
| | | The value set for "Timeout(msec)(optional)" is used. |
| 3 | Timeout (msec)(optional) | Specify the waiting time to find the window selected for "WinID name." This value is used when 'Use this "Property"' is selected for "Timeout setting." The default value is 10,000 milliseconds. |

## 11.3. Window_GetWindowHandle

This library gets window handle specified with the WinID.

**Table 11-3. "Window_GetWindowHandle" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Click the target mark button to select the handle to get |
| 2 | Window_handle | Specify the variable to store the acquired window handle. |
| 3 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(msec)(optional)" is used. |
| 4 | Timeout (msec)(optional) | Specify the waiting time to find the window selected for "WinID name." This value is used when 'Use this "Property"' is selected for "Timeout setting." The default value is 10,000 milliseconds. |

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## 11.4.  Window_BringWindowToTop

This library brings the window specified with the WinID to the front.

**Table 11-4. "Window_BringWindowToTop" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | WinID name | Click the target mark button to select the window to bring to the front. |
| 2 | Timeout setting | Select the which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(msec)(optional)" is used. |
| 3 | Timeout (msec)(optional) | Specify the waiting time to find the window selected for "WinID name."<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

## 11.5. Window_ClearWindowNameCache

This library clears the WinID cache and is used to change the operation target to the child window in cases where a window is displayed as the child window with the same title as the parent.

If multiple windows with the same title are displayed, WinActor will continue to operate the window that was operated first. The association will be lost when the cache is cleared and the window at the front will become the next operation target.
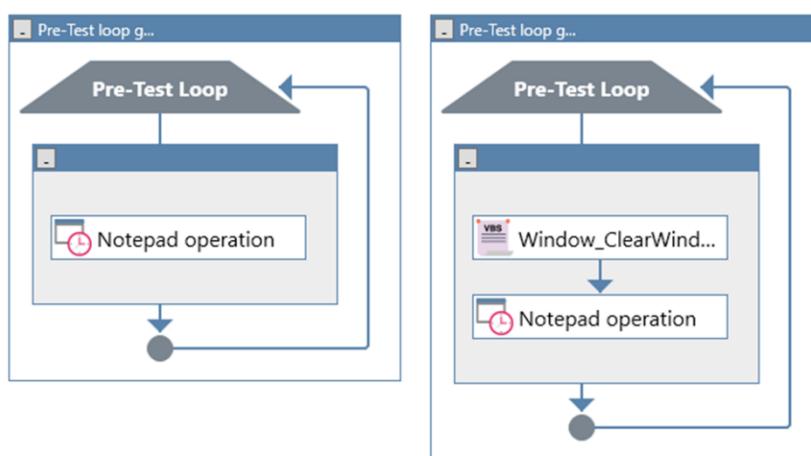


If two Notepads are displayed in the screen, the operation differs depending on the left and right scenarios. In the scenario on the left, the Notepad that was first in front becomes the operation target and operation will continue in that window. In the scenario on the right, the Notepad at the front becomes the operation target.

**Figure 11-1. Example of using "Window_ClearWindowNameCache" library**

## 11.6. Window_SaveAndQuit

This library saves the process and closes the window specified with a WinID name.

**Table 11-5. "Window_SaveAndQuit" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | WinID name | Click the target mark button to select the window to save and close. |
| 2 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(msec)(optional)" is used. |
| 3 | Timeout (msec)(optional) | Specify the waiting time to find the window selected for "WinID name."<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

## 11.7. Window_GetWindowRectangleWithoutDropShadow

This library gets the size and position of the window without drop shadow specified by the WinID.

**Table 11-6. "Window_GetWindowRectangleWithoutDropShadow" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | WinID name | Click the target mark button to select the window to get the position. |
| 2 | Upper_left(x) | Specify the variable to store the acquired upper left (x) position. |
| 3 | Upper_left(y) | Specify the variable to store the acquired upper left (y) position. |
| 4 | Horizontal_width | Specify the variable to store the acquired width. |
| 5 | Vertical_height | Specify the variable to store the acquired height. |
| 6 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(msec)(optional)" is used. |
| 7 | Timeout (msec)(optional) | Specify the waiting time to find the window selected for "WinID name."<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

## 11.8.  Window_GetWindowRectangle

This library gets the size and position of a window specified with the WinID.

**Table 11-7. "Window_GetWindowRectangle" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Click the target mark button to select the window to get the position. |
| 2 | Upper_left(x) | Specify the variable to store the acquired upper left (x) position. |
| 3 | Upper_left(y) | Specify the variable to store the acquired upper left (y) position. |
| 4 | Horizontal_width | Specify the variable to store the acquired width. |
| 5 | Vertical_height | Specify the variable to store the acquired height. |
| 6 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(msec)(optional)" is used. |
| 7 | Timeout (msec)(optional) | Specify the waiting time to find the window selected for "WinID name."<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

**Note**

If the specified window is minimized, these settings are not reflected.

## 11.9. Window_SetWindowRectangle

This library sets the size and position of a window specified with a WinID name.

**Table 11-8. "Window_SetWindowRectangle" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Click the target mark button to select the window to set the position. |
| 2 | Upper_left(x) | Specify the upper left (x) position to set. |
| 3 | Upper_left(y) | Specify the upper left (y) position to set. |
| 4 | Horizontal_width | Specify the width to set. |
| 5 | Vertical_height | Specify the height to set. |
| 6 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(msec)(optional)" is used. |
| 7 | Timeout (msec)(optional) | Specify the waiting time to find the window selected for "WinID name." This value is used when 'Use this "Property"' is selected for "Timeout setting." The default value is 10,000 milliseconds. |

**Note**

If the specified window is minimized, these settings are not reflected.

# 12.  Mouse

## 12.1.  Mouse_DragToMatchedImage

This library drags the mouse from a current coordinate position to a previous image matching point. The pointer will not move if the matching of the previous image fails. When the coordinates of the mouse action are specified in the previous image matching, the mouse is dragged to that point. Otherwise, the mouse is dragged to the point corresponding to the center of the red rectangle in the reference image.

## 12.2.  Mouse_Drag

This library drags the mouse from the current position to the specified position.

**Table 12-1. "Mouse_Drag" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Coordinate_specification | Select a method to specify coordinates. "Absolute_coordinate" moves the pointer to the specified position. "Relative_coordinate" moves the pointer to the position relative to the current. |
| 2 | X_coordinate | Specify the x-coordinate to move the mouse to. |
| 3 | Y_coordinate | Specify the y-coordinate to move the mouse to. |

## 12.3.  Mouse_Drag2

This library drags the mouse from the current position to the specified position.

**Table 12-2. "Mouse_Drag2" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Coordinate_specification | Select a method to specify coordinates. "Absolute_coordinate" moves the pointer to the specified position. "Relative_coordinate" moves the pointer to the position relative to the current. |
| 2 | X-Y_coordinates | Specify the X, Y position to move the mouse pointer to. |

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## 12.4. Mouse_OperateWheel

This library rotates the mouse wheel forward or backward.

 * Scroll down or up

**Table 12-3. "Mouse_OperateWheel" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Number_of_rotations | Specify the number of rotations in the range 1 to 10.<br>The higher the value, the wider the scroll width. |
| 2 | Rotation_direction | Specify the direction of rotation.<br>"Front_direction" scrolls down, "Back_direction" scrolls up. |

## 12.5. Mouse_ClickMiddleButton

This library middle-clicks* the current mouse position.

 * Same meaning as "mouse middle button clicks," "mouse wheel clicks," and "mouse center clicks."

**Table 12-4. "Mouse_ClickMiddleButton" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Mouse_operation | Select the number of clicks— "Middle_click," "Middle_double_click," "Middle_triple_click" |
| 2 | Click_interval(ms) | Set the waiting period between clicks. If not set, or value is set with other than numbers or outside the range (0 to 2147483647), there will be no waiting period between clicks. |

## 12.6. Mouse_GetPointerPosition

This library gets the current mouse pointer coordinates.

**Table 12-5. "Mouse_GetPointerPosition" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | X_coordinate | Specify the variable to store the acquired x-coordinate. |
| 2 | Y_coordinate | Specify the variable to store the acquired y-coordinate. |

## 12.7. Mouse_GetPointerPosition2

This library gets the current mouse pointer coordinates in x,y format.

**Table 12-6. "Mouse_GetPointerPosition2" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | X-Y_coordinates | Specify the variable to store the acquired x,y coordinate. |

## 12.8. Mouse_ClickRightButton

This library right-clicks the current mouse position.

**Table 12-7. "Mouse_ClickRightButton" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Mouse_operation | Select the number of clicks— "Right_click," "Right_double_click," "Right_triple_click" |
| 2 | Click_interval(ms) | Set the waiting period between clicks. If not set, or value is set with other than numbers or outside the range (0 to 2147483647), there will be no waiting period between clicks. |

## 12.9. Mouse_ClickLeftButton

This library left-clicks the current mouse position.

**Table 12-8. "Mouse_ClickLeftButton" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Mouse_operation | Select the number of clicks— "Left_click," "Left_double_click," "Left_triple_click" |
| 2 | Click_interval(ms) | Set the waiting period between clicks. If not set, or value is set with other than numbers or outside the range (0 to 2147483647), there will be no waiting period between clicks. |

## 12.10. Mouse_MovePointerToMatchedImage

This library moves the mouse pointer to the previous image matching point. The mouse pointer will not move if the matching of the previous image failed.

When the coordinates of the mouse action are specified in the previous image matching, the mouse is dragged to that point. Otherwise, the mouse is dragged to the point corresponding to the center of the red rectangle in the reference image.

## 12.11. Mouse_MovePointer

This library moves the mouse pointer from the current position to the specified position.

**Table 12-9. "Mouse_MovePointer" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Coordinate_specification | Select a method to specify coordinates.<br>"Absolute_coordinate" moves the pointer to the specified position. "Relative_coordinate" moves the pointer to the position relative to the current. |
| 2 | X_coordinate | Specify the x-coordinate to move the mouse pointer to. |
| 3 | Y_coordinate | Specify the y-coordinate to move the mouse pointer to. |

## 12.12. Mouse_MovePointer2

This library moves the mouse pointer from the current position to the specified position.

**Table 12-10. "Mouse_MovePointer2" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Coordinate_specification | Select a method to specify coordinates.<br>"Absolute_coordinate" moves the pointer to the specified position. "Relative_coordinate" moves the pointer to the position relative to the current. |
| 2 | X-Y_coordinates | Specify the X, Y position to move the mouse pointer to.<br>Example: 100,200 |

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# 13. File

## 13.1. TextFile

### 13.1.1. TextFile_CopyTextInFile

This library copies the content of the specified text file to the clipboard.

This library is comprised of two libraries.

- Opens the text file
- Copies entire text file

The library "Opens the text file" opens the target text file with the default application for the file type, and the library "Copies entire text file" selects all via "Emulation" node specifying the application window and copies the selected objects to the clipboard.
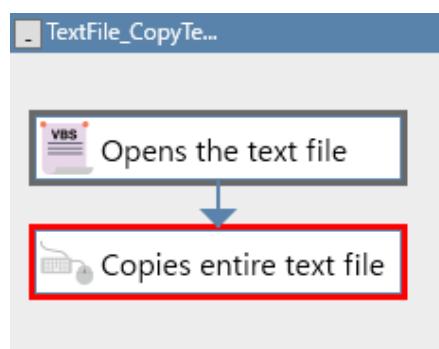


**Figure 13-1. "Open the text file" library**

**Table 13-1. "TextFile_CopyTextInFile" library / " Opens the text file" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Path | Specify the file to open with an application and to copy. The file may be specified in either an absolute or relative path. |

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**Table 13-2. "TextFile_CopyTextInFile" library / "Copies entire text file" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | WinID name | Click the target mark button to select the text file to copy. |

### 13.1.2. TextFile_WriteTextToFile

This library writes (overwrites) a text file.

**Table 13-3. "TextFile_WriteTextToFile" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Write_file_path | Specify the text file to be written with an absolute or relative path. |
| 2 | Write_data | Specify the variable or a value to write to the file. |
| 3 | File_format | Select the character encoding to use. |

**Note**

If the file is open, writing will fail and an error will occur.

If the writing is successful, the file will be overwritten and the content will be the written data only.

### 13.1.3. TextFile_CountLinesInFile

This library gets the number of lines in the specified text file.

**Table 13-4. "TextFile_CountLinesInFile" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | File_path | Specify the filename with an absolute or relative path. |
| 2 | Number_of_lines | Specify the variable to store the acquired result. |

### 13.1.4. TextFile_ReadLineFromFile

This library reads the target line from a text file.

**Table 13-5. "TextFile_ReadLineFromFile" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Read_file_path | Specify the file to read with an absolute or relative path. |
| 2 | File_format | Specify an encoding of the file. |
| 3 | Line_number | Specify the line to read with a number greater than 1. If a number equal or less than 0 is specified, the first line will be read. If a number greater than the number of lines of the file is specified, the last line of the file will be read. |
| 4 | Read_line | Specify the variable to store the acquired value. |

### 13.1.5.  TextFile_ReadTextFromFile

This library reads a text file.

**Table 13-6. "TextFile_ReadTextFromFile" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Read_file_path | Specify the text file to read with an absolute or relative path. |
| 2 | File_format | Select the character encoding to use. |
| 3 | Read_data | Specify the variable to store a value read from the text file. |

**Note**

If the option to limit the number of characters in a variable value is enabled and the value read from a file is more than 1025 characters, the excess will be truncated.

### 13.1.6.  TextFile_AppendTextToFile

This library writes (adds) data to a text file.

**Table 13-7. "TextFile_AppendTextToFile" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Write_file_path | Specify the text file with an absolute or relative path. |
| 2 | Write_data | Specify the variable or a value to write to the file. |
| 3 | File_format | Select the character encoding to use. |

**Note**

If the file is open, writing will fail and an error will occur.

### 13.1.7. TextFile_AppendLogToFile

This library writes (adds) data to a specified file.

The date and time of writing and the specified label are also recorded.

**Table 13-8. "TextFile_AppendLogToFile" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Write_file_path | Specify the file with an absolute or relative path. |
| 2 | Write_label | Specify the text to add. If not specified, no label will be recorded. (Example: [Input process], [Excel]) |
| 3 | Write_data | Specify the text to add. |
| 4 | File_format | Select the character encoding to use. |

**Note**

An error occurs if a scenario is executed with the file to write is open.

## 13.2. FileOperation

### 13.2.1. Zip

#### 13.2.1.1. FileOperation_ZipFile

This library compresses the specified folder to a Zip file.

Example: When to compress "C:\user\desktop\Testfodler"

Zip file → C:\user\desktop\Testfolder.zip

Target folder → C:\user\desktop\Testfolder

**Table 13-9. "FileOperation_ZipFile" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Zip_file | Specify the location with an absolute or relative path. |
| 2 | Target_folder | Specify the folder with an absolute or relative path. |

#### 13.2.1.2. FileOperation_ZipFileWithPassword

This library compresses the specified folder to a Zip file with password.

**Table 13-10. "FileOperation_ZipFileWithPassword" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Zip_file | Specify the location with an absolute or relative path. |
| 2 | Target_folder | Specify the folder with an absolute or relative path. |
| 3 | Password | Specify the password to set. |

13.2.1.3. FileOperation_UnzipFile

This library extracts the specified Zip file.


Example: When to extract "C:\user\desktop\Testfolder.zip"

Zip file → C:\user\desktop\Testfolder.zip

Target folder → C:\user\desktop\Testfolder


**Table 13-11. "FileOperation_UnzipFile" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Zip_file | Specify the Zip file with an absolute or relative path. |
| 2 | Target_folder | Specify the location with an absolute or relative path. |



13.2.1.4. FileOperation_UnzipFileWithPassword

This library decompresses the specified password-protected Zip file.


**Table 13-12. "FileOperation_UnzipFileWithPassword" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Zip_file | Specify the Zip file with an absolute or relative path. |
| 2 | Target_folder | Specify the location with an absolute or relative path. |
| 3 | Password | Specify the password set in the Zip file. |

13.2.1.5. FileOperation_SetZipFileEncoding

This library specifies the file encoding.

Specify the encoding when using Zip-related libraries in an OS in another language.

**Table 13-13. "FileOperation_SetZipFileEncoding" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Encoding | Specify the file encoding. |

**Note**

If the following encoding is specified in a scenario created in an older version, the behavior may be different in WinActor v7 or later.

**Table 13-14. Notes on specifying a file encoding**

| Encoding before WinActor Ver.7 | Scenario operation with WinActor Ver.7 or later |
|---|---|
| UTF-16 | Reading may fail due to the change of byte order (endianness). (Before Ver.7: big endian, Ver.7 or later: little endian) |
| Cp1257, Big5_HKSCS, Cp868, Cp918, ISO2022CN, JIS_X0201, JIS_X0212-1990, TIS620, Big5_Solaris, EUC_JP_LINUX, EUC_TW, EUC_JP_Solaris, Cp1006, Cp1046, Cp1097, Cp1098, Cp1112, Cp1122, Cp1123, Cp1124, Cp1166, Cp1364, Cp1381, Cp1383, Cp300, Cp33722, Cp833, Cp834, Cp856, Cp921, Cp922, Cp930, Cp933, Cp935, Cp937, Cp939, Cp942, Cp942C, Cp943, Cp943C, Cp948, Cp949, Cp950, Cp964, Cp970, ISCII91, x-ISO-2022-CN-CNS, x-iso-8859-11, x-JIS0208, JISAutoDetect, MacDingbat, MacRoman, MacSymbol, x-MS950-HKSCS, MS950_HKSCS, x-mswin-936, MS936, PCK, x-SJIS_0213, Cp50220, Cp50221, MS949, MS950, x-windows-iso2022jp | Reads as UTF-8 |

### 13.2.2. FileOperation_OpenFileWithExplorer

This library opens the specified file with Explorer.

**Table 13-15. "FileOperation_OpenFileWithExplorer" library settings**

| No. | Item | Description |
| --- | --- | --- |
| 1 | File_name | Specify the filename of a file with an absolute or relative path. |

### 13.2.3. FileOperation_RunCommand

This library executes the specified CUI command. The command will be executed using the folder where the scenario in progress is saved as the current directory.

Example: When listing folders under "C:\Program Files"
Command: cmd /c "dir /S /B /ad "C:\Program Files""

**Table 13-16. "FileOperation_RunCommand" library settings**

| No. | Item | Description |
| --- | --- | --- |
| 1 | Command | Specify the command to execute. |

### 13.2.4. FileOperation_SaveCommandResult

This library executes the specified CUI command and saves the result to a file.

The command will be executed using the folder where the current scenario is saved as the current directory.

Example: When listing folders under "C:\Program Files"

Command: dir /S /B /ad "C:\Program Files"

Save file name: c:\folder_list.txt

**Table 13-17. "FileOperation_SaveCommandResult" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Command | Specify the command to execute. |
| 2 | Save_file_name | Specify the execution result save filename with an absolute or relative path. If a relative path is specified, it will be relative to the folder where the scenario file currently running is placed. |

### 13.2.5. FileOperation_OpenFileOnDesktop

This library opens the specified file on the desktop.

**Table 13-18. "FileOperation_OpenFileOnDesktop" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the desktop filename to open. |

### 13.2.6. FileOperation_RunApplicationAssociatedWithFile

This library opens a file in the default application.

**Table 13-19. "FileOperation_RunApplicationAssociatedWithFile" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Path | Specify the file to open with an absolute or relative path. |

### 13.2.7. FileOperation_CopyFile

This library is to copy the specified file.

**Table 13-20. "FileOperation_CopyFile" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Copy_src_file_name | Specify the filename with an absolute or relative path. |
| 2 | Copy_dest_file_name | Specify the filename with an absolute or relative path. |

**Note**

If the destination file exists, it will be overwritten.

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### 13.2.8. FileOperation_DeleteFileUsingWildcards

This library deletes files matching filenames with wildcards. Using [*] and [?] as wildcards is allowed. Include one or more wildcard characters in the name of the file to delete.

The folder of the opened scenario will be the starting point when using relative paths to specify the file to delete. If the scenario is run before saving for the first time, the folder used at that time will be the starting point.

To prevent the deletion of all files due to errors in specifying filenames, an error will occur if only one wildcard character is specified as the name of the file to delete (e.g. only [*] is specified for the filename).

**Table 13-21. "FileOperation_DeleteFileUsingWildcards" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Delete_file_name | Specify the file to delete with an absolute or relative path. |

### 13.2.9. FileOperation_DeleteFile

This library deletes the specified file.

Use "13.2.8. FileOperation_DeleteFileUsingWildcards" to delete multiple files using wildcards.

**Table 13-22. "FileOperation_DeleteFile" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Delete_file_name | Specify the file to delete with an absolute or relative path. |

### 13.2.10. FileOperation_CheckFileExistence

This library is to check if the specified file exists.

**Table 13-23. "FileOperation_CheckFileExistence" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_path | Specify the absolute or relative path of the file to check if it exists |
| 2 | Check_results | Specify the variable name to store the result of the check. "True" if it exists, "False" if it does not exist. |

**Note**

It is not possible to check if a folder exists.

### 13.2.11. FileOperation_GetLastModifiedDateTime

This library gets the modified date of a file.

**Table 13-24. "FileOperation_GetLastModifiedDateTime" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_or_folder_path | Specify the file path for with an absolute or relative path. |
| 2 | Last_modified_date_time | Specify the variable name to store the result value. |

### 13.2.12.　FileOperation_MoveFile

This library moves the specified file.

**Table 13-25. "FileOperation_MoveFile" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Move_from | Specify the name of a file to move with an absolute or relative path. |
| 2 | Move_to | Specify the destination folder name or filename with an absolute or relative path. If a folder name is specified, the file will be moved to the specified folder without changing the filename. Change the filename in the destination by including the filename in the path. |

**Note**

If the destination file exists, an error occurs.

### 13.2.13.　FileOperation_IsReadOnly

This library returns "True" if the specified file is read-only.

It can check whether "Attributes : Read-only" is checked in the file properties.

It cannot be used to check whether a file is opened as read-only.

**Table 13-26. "FileOperation_IsReadOnly" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Target_file_path | Specify the file path to check with an absolute or relative path. |
| 2 | Result | Specify the variable to store the result.<br>"True" for read-only, otherwise "False" will be stored. |

## 13.3. FolderOperation

### 13.3.1. FolderOperation_CopyFolder

This library is to copy a folder.

**Table 13-27. "FolderOperation_CopyFolder" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Copy_from | Specify the source folder name with an absolute or relative path. |
| 2 | Copy_to | Specify the destination folder name with an absolute or relative path. When copying into an existing folder, append '\' at the end of the folder name. |

A folder cannot be copied to a subfolder of the origin folder.

### 13.3.2. FolderOperation_CreateFolder

This library creates a folder.

**Table 13-28. "FolderOperation_CreateFolder" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Create_folder_name | Specify the folder with an absolute or relative path. |

## 13.4. FileList

### 13.4.1. FileList_SaveFileList

This library creates a file list (absolute path notation) under a folder in the specified destination.

**Table 13-29. "FileList_SaveFileList" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Folder_name | Specify the folder name with an absolute or relative path. |
| 2 | File_list_output_dest | Specify the output destination with an absolute or relative path |

### 13.4.2. FileList_SaveFileListWithExtension

This library creates a file list (absolute path notation) by specifying an extension from files under a specified folder.

**Table 13-30. "FileList_SaveFileListWithExtension" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Folder_name | Specify the folder with an absolute or relative path. |
| 2 | File_extension(s) | Specify the file extension to search. Example: *.txt |
| 3 | File_list_output_dest | Specify the output destination with an absolute or relative path. |

### 13.4.3. FileList_GetSortedFileList

This library creates a list of full paths of files and folders. Hidden files are not included in the list.

**Table 13-31. "FileList_GetSortedFileList" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Folder_name | Specify the folder name with an absolute or relative path. |
| 2 | Sort_type | Specify the sort order of the list. |
| 3 | Counter | Specify the position of a file or folder with a number 1 or higher. |
| 4 | File_path | Specify the variable name to store the file path. |
| 5 | Type | Specify the variable name to store the type. The type is "True" if the result is a file, and "False" if the result is a folder. |

### 13.4.4. FileList_GetFileList

This library gets the filename (absolute path notation) in a folder.

**Table 13-32. "FileList_GetFileList" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Folder_name | Specify the folder with an absolute or relative path. |
| 2 | Counter | Specify the number for the filename to get. Specify a number of 0 or higher. |
| 3 | File_name | Specify the variable to store the counter result (absolute path). |
| 4 | Type | Specify the variable to store the result of type determination. "True" is stored if the acquired name is a file, and "False" is stored if the name is a folder (other than a file). |

### 13.4.5. FileList_CountFiles

This library gets the number of files (including the number of folders) in a folder.

**Table 13-33. "FileList_CountFiles" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Folder_name | Specify the folder with an absolute or relative path. |
| 2 | Number_of_files | Specify the variable to store the acquired number of files (including the number of folders). |

### 13.4.6. FileList_FindFile

This library gets the path (absolute path) of a file that exists in the specified folder and matches the search condition.

**Table 13-34. "FileList_FindFile" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Target_folder | Specify the folder name with an absolute or relative path. |
| 2 | File_name_filter | Specify the pattern of filenames.<br>Example: File with the extension xls ⇒ "*.xls"<br>　　　All files ⇒ "*" |
| 3 | Index_number | Specify the index number of the file.<br>Example: Selecting the third file ⇒ "3" |
| 4 | File_path_storage_dest | Specify the variable to store the file path (absolute path notation). |

### 13.4.7.  FileList_SaveFolderList

This library creates a folder list (absolute path notation) under a folder in the specified output destination.

**Table 13-35. "FileList_SaveFolderList" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Folder_name | Specify the folder name with an absolute or relative path. |
| 2 | Folder_list_output_dest | Specify the output destination of the created folder list with an absolute or relative path. |

### 13.4.8.  FileList_GetFirstFile

This library gets the filename of the first file in a folder.

**Table 13-36. "FileList_GetFirstFile" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Folder_name | Specify the folder name with an absolute or relative path. |
| 2 | File_name | Specify the variable to store the first filename. |

## 13.5. FileName

### 13.5.1. FileName_GetScenarioFilePath

This library creates the file path starting from the folder of the current scenario. If the scenario has not been saved, the information will be blank.

Example: Scenario save destination → C:\temp

    If "a.txt" is specified for the filename

    File path generation result → C:\temp\a.txt

**Table 13-37. "FileName_GetScenarioFilePath" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the filename. |
| 2 | File_path_gen_result | Specify the variable to store the path. |

### 13.5.2. FileName_GetDesktopFilePath

This library creates a file path starting from the Desktop folder.

Example: Desktop → C:\user\desktop

    If "a.txt" is specified for the filename

    File path generation result → C:\user\desktop\a.txt

**Table 13-38. "FileName_GetDesktopFilePath" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the filename. |
| 2 | File_path_gen_result | Specify the variable to store the path. |

### 13.5.3. FileName_GetDesktopFolder

This library gets the path to the Desktop folder.

Example: Desktop folder → C:\user\desktop

**Table 13-39. "FileName_GetDesktopFolder" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Desktop_folder | Specify the variable to store the retrieved desktop folder path. |

### 13.5.4. FileName_SplitPath

This library gets the folder path and filename.

**Table 13-40. "FileName_SplitPath" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Target_file_path | Specify the file path. |
| 2 | Folder_path | Specify the variable to store the acquired folder path. |
| 3 | Filename | Specify the variable to store the acquired filename. |

If a folder path is specified for "Target_file_path", acquired results are as follows.

"Foldet_path_result": The folder path with the folder name removed from the end

"Filename": The folder name is at the end

### 13.5.5. FileName_GetExtension

This library acquires the extension from a filename or a file path.

**Table 13-41. "FileName_GetExtension" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Filename | Specify a filename with an extension using an absolute path, a relative path, or a URL. The extension is acquired from the filename even when the file is not existing. |
| 2 | Extension | Specify a variable to store the acquired extension. |

### 13.5.6. FileName_RenameFile

This library modifies the file name of a target file.

**Table 13-42. "FileName_RenameFile" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Old_file_path | Specify the file path to modify with an absolute or relative path. |
| 2 | New_filename | Specify the modified filename with an absolute path, including the extension. An error will occur if the same filename as an existing file is specified. |

### 13.5.7. FileName_MakePathName

This library creates path the path information by combining the folder and file names.

**Table 13-43. "FileName_MakePathName" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Concatenated_results | Specify the variable to store the concatenated path. |
| 2 | Folder_name | Specify the folder name. |
| 3 | File_name | Specify the filename. |

### 13.5.8. FileName_GetMyDocumentFilePath

This library creates a file path starting from the My Documents folder.

Example: My Documents → C:\Users\Documents

    If "a.txt" is specified for the filename

    File path generation result → C:\Users\Documents\a.txt

**Table 13-44. "FileName_GetMyDocumentFilePath" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the filename. |
| 2 | File_path_gen_result | Specify the variable to store the path. |

### 13.5.9. FileName_GetMyDocumentFolder

This library gets the path to the My Documents folder.

Example: My Documents → C:\Users\Documents

    My Documents folder → C:\user\Documents

**Table 13-45. "FileName_GetMyDocumentFolder" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | MyDocuments_folder | Specify the variable to store a path to the MyDocuments folder. |

# 14. InputBox

## 14.1. InputBox_EmulateInputText

This library sends a string using the emulation method. The window at the front is the target to send the string. Place "11.4. Window_BringWindowToTop" immediately before this library, if necessary. Only alphanumeric characters are allowed (a-z, A-Z, 0-9). Turn off the Caps Lock before sending letters.

**Table 14-1. "InputBox_EmulateInputText" library settings**

| No. | Item | Description |
| --- | --- | --- |
| 1 | Send_string | Specify the text to send. Only alphanumeric characters are allowed. |

## 14.2. InputBox_Group_InputText

This is a sequence of operations that writes the text in a field.

This library is comprised of two nodes and a library.
Nodes "Name":

- Image Matching "Move cursor (image match)"
- Clipboard "Copies to clipboard"

Library:

- Input Box - Paste Text To Input Box (replace)

The Image Matching "Move cursor (image match)" node left-clicks on the text input in the target window, and moves the mouse cursor. After that, the Clipboard node "Copies to clipboard" copies the specified value into the clipboard. Then, the library "Input Box - Paste Text To Input Box (replace)" pastes the value in the clipboard to the text input with the Emulation node.

For the details of the "Image Matching" node, see the "Image Matching" subsection in "WinActor Operation Manual."
For the details of the "Clipboard" node, see the "Clipboard" subsection in "WinActor Operation Manual."

|  | 1. Move cursor (image match)<br><br>Set image matching to move the cursor to an input field.<br>2. Copies to clipboard<br><br>Configure setting to specify the input value.<br>3. Input Box - Paste Text To Input Box (replace)<br><br>Set the WinID to specify the window to operate. |
|---|---|
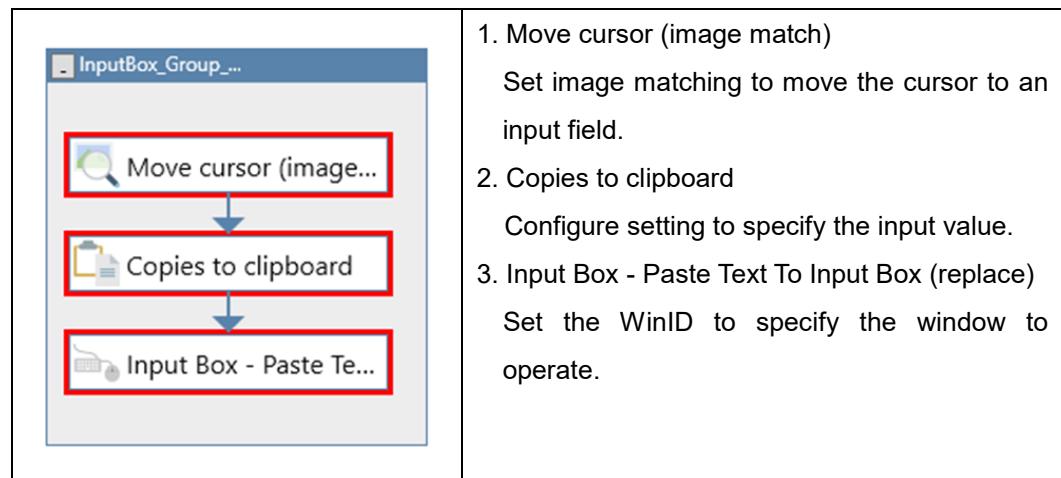
**Figure 14-1. "InputBox_Group_InputText" library**

**Table 14-2. "InputBox_Group_InputText" library / "Move cursor (image match)" node settings**

| No. | Item | Description |
|---|---|---|
| 1 | Reference image | Click the target mark button to select the image to move the mouse cursor to. |
| 2 | WinID name | Click the target mark button to select the window to move the mouse cursor to. |

**Table 14-3. "InputBox_Group_InputText" library / "Copies to clipboard" node settings**

| No. | Item | Description |
|---|---|---|
| 1 | Value | The "Set value to clipboard" operation is preset. Specify a value to set into the clipboard here. |

**Table 14-4. "InputBox_Group_InputText" library / "Input Box - Paste Text To Input Box (replace)" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Click the target mark button to select the window to paste the text. The value in the clipboard is pasted into the text input according to the emulation operations specified in this library. |
| 2 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>  The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>  The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>  The value set for "Timeout(ms)" is used. |
| 3 | Timeout (ms) | Specify the waiting time to find the window selected for "WinID name."<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

## 14.3. InputBox_PasteTextToInputBox(replace)

CTRL+A, Delete, CTRL+V pastes the value in the clipboard to the field where the cursor is located.

**Table 14-5. "InputBox_PasteTextToInputBox(replace)" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | WinID name | Click the target mark button to select the window to paste the text. |
| 2 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(ms)" is used. |
| 3 | Timeout (ms) | Specify the waiting time to find the window selected for "WinID name."<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

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## 14.4. InputBox_PasteTextToInputBox(add)

CTRL+V adds the value in the clipboard to the field where the cursor is located.

**Table 14-6. "InputBox_PasteTextToInputBox(add)" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | WinID name | Click the target mark button to select the window to paste the text. |
| 2 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　　The value set for "Timeout(ms)" is used. |
| 3 | Timeout (ms) | Specify the waiting time to find the window selected for "WinID name."<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

## 14.5. InputBox_CopyTextInInputBox

CTRL+A, CTRL+C, and END copies the value in a field where the cursor is located.

**Table 14-7. "InputBox_CopyTextInInputBox" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | WinID name | Click the target mark button to select the window to copy the field. |
| 2 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(ms)" is used. |
| 3 | Timeout (ms) | Specify the waiting time to find the window selected for "WinID name."<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

## 14.6. InputBox_ClearInputBox

CTRL+A + Delete clears the field where the cursor is located.

**Table 14-8. "InputBox_ClearInputBox" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Click the target mark button to select the window to clear the field. |
| 2 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(ms)" is used. |
| 3 | Timeout (ms) | Specify the waiting time to find the window selected for "WinID name."<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

## 14.7. InputBox_Group_ReadText

This is a sequence of operations that reads the text in a field and imports the text to a variable value.

This library is comprised of two nodes and a library.

Nodes "Name":
- Image Matching "Move cursor (image match)"
- Clipboard "Reads clipboard"

Library:
- Input Box - Copy Text In Input Box

The Image Matching node "Move cursor (image match)" left-clicks on the text input in the target window, and moves the mouse cursor. After that, the library "Input Box - Copy Text In Input Box" copies the value in the text input into the clipboard. Then, the Clipboard node "Reads clipboard" stores the value in the clipboard into the variable.

For the details of the "Image Matching" node, see the "Image Matching" subsection in "WinActor Operation Manual."
For the details of the "Clipboard" node, see the "Clipboard" subsection in "WinActor Operation Manual."

| | |
|---|---|
| InputBox_Group_...<br><br>Move cursor (image...<br><br>Input Box - Copy Tex...<br><br>Reads clipboard | 1. Move cursor (image match)<br>Set image matching to move the cursor to a field.<br>2. Input Box - Copy Text In Input Box<br>Copy the content of a field.<br>Set the WinID to specify the window to operate.<br>3. Reads clipboard<br>Set a variable name to import the read information. |
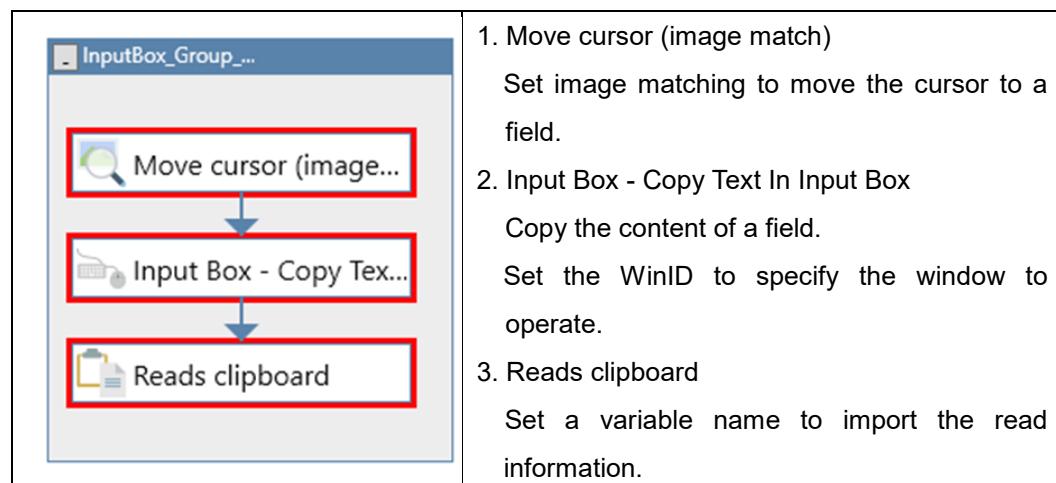
**Figure 14-2. "InputBox_Group_ReadText" library**

**Table 14-9. "InputBox_Group_ReadText" library / "Move cursor (image match)" node settings**

| No. | Item | Description |
|---|---|---|
| 1 | Reference image | Click the target mark button to select the image to move the mouse cursor to. |
| 2 | WinID name | Click the target mark button to select the window to move the mouse cursor to. |

**Table 14-10. "InputBox_Group_ReadText" library / "Input Box - Copy Text In Input Box" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Click the target mark button to select the window to read the text. The value in the text input is copied into the clipboard according to the emulation operations specified in this library. |
| 2 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(ms)" is used. |
| 3 | Timeout (ms) | Specify the waiting time to find the window selected for "WinID name."<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

**Table 14-11. "InputBox_Group_ReadText" library / "Copies to clipboard" node settings**

| No. | Item | Description |
|---|---|---|
| 1 | Output variable | The "Get value from clipboard" operation is preset. Specify a variable to store the value in the clipboard. |

## 14.8.  InputBox_Group_TransferText

This is a sequence of operations that transfers the text in field A to field B.

This library is comprised of two nodes and two libraries.
Nodes "Name":

- Image Matching "Move cursor (image match)"

Libraries:

- Input Box - Copy Text In Input Box
- Input Box - Paste Text To Input Box (replace)

Two Image Matching nodes named "Move cursor (image match)" are placed.
The 1$^{st}$ Image Matching node "Move cursor (image match)" left-clicks the text input in the source window, and moves the mouse cursor. The library "Input Box - Copy Text In Input Box" copies the value in the text input into the clipboard with the Emulation node. After that, the 2$^{nd}$ Image Matching node "Move cursor (image match)" left-clicks the text input in the destination window, and moves the mouse cursor. Then, the library "Input Box - Paste Text To Input Box (replace)" pastes the value in the clipboard into the text input in the destination window with the Emulation node.

For the details of the "Image Matching" node, see the "Image Matching" subsection in "WinActor Operation Manual."
For the details of the "Clipboard" node, see the "Clipboard" subsection in "WinActor Operation Manual."

| | |
|---|---|
|  | 1. Move cursor (image match)<br>    Set image matching to move the cursor to field A.<br>2. Input Box - Copy Text In Input Box<br>    Copy the contents of input field A.<br>    Set the WinID to specify the window to operate<br>3. Move cursor (image match)<br>    Set image matching to move the cursor to field B.<br>4. Input Box - Paste Text To Input Box (replace).<br>    Paste the content of field A to field B.<br>    Set the WinID to specify the window to operate |
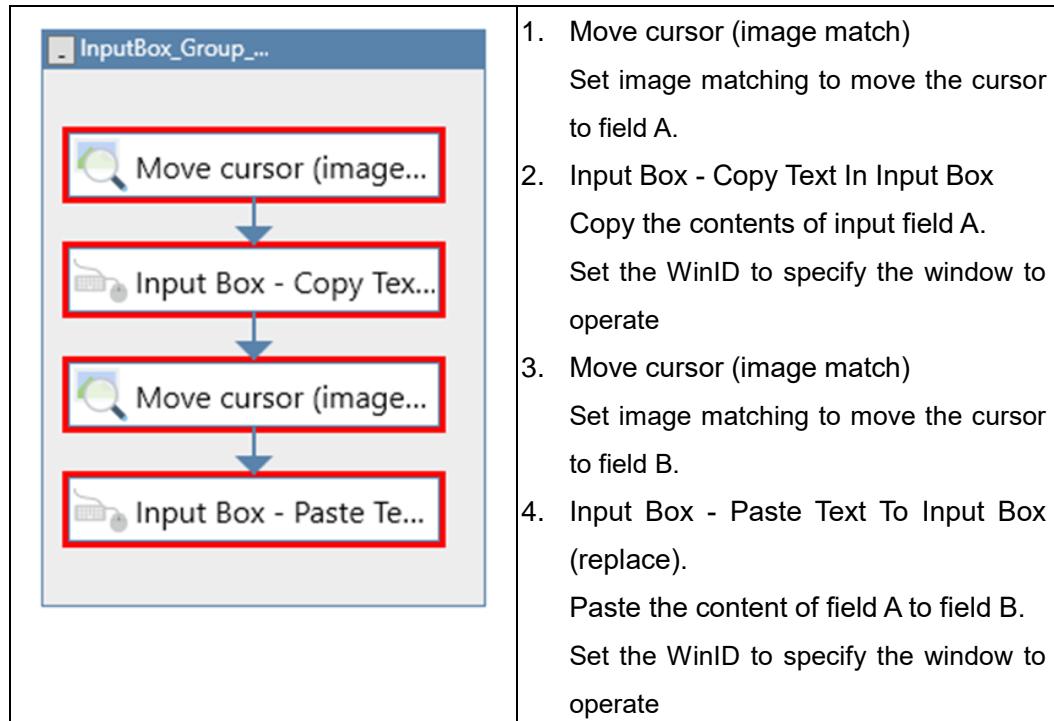
**Figure 14-3. "InputBox_Group_TransferText" library**

**Table 14-12. "InputBox_Group_TransferText" library / "Move cursor (image match)" 1st node settings**

| No. | Item | Description |
|---|---|---|
| 1 | Reference image | Click the target mark button to select the image to move the mouse cursor to. |
| 2 | WinID name | Click the target mark button to select the window to move the mouse cursor to. |

**Table 14-13. "InputBox_Group_TransferText" library / "Input Box - Copy Text In Input Box" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Click the target mark button to select the window to read the text. The value in the text input is copied into the clipboard according to the emulation operations specified in this library. |
| 2 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information" |

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| | | The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>The value set for "Timeout(ms)" is used. |
|---|---|---|
| 3 | Timeout (ms) | Specify the waiting time to find the window selected for "WinID name."<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

**Table 14-14. "InputBox_Group_TransferText" library / "Move cursor (image match)" 2nd node settings**

| No. | Item | Description |
|---|---|---|
| 1 | Reference image | Click the target mark button to select the image to move the mouse cursor to. |
| 2 | WinID name | Click the target mark button to select the window to move the mouse cursor to. |

**Table 14-15. "InputBox_Group_TransferText" library / "Input Box - Paste Text To Input Box (replace)" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Click the target mark button to select the window to input the text. The value in the clipboard is pasted into the text input according to the emulation operations specified in this library. |
| 2 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>The value set for "Timeout(ms)" is used. |
| 3 | Timeout (ms) | Specify the waiting time to find the window selected for "WinID name."<br>This value is used when 'Use this "Property"' is selected for "Timeout |

| | | setting." |
| --- | --- | --- |
| | | The default value is 10,000 milliseconds. |

## 14.9. InputBox_Group_InputFileNameToSave

This library saves the file with a specific filename.

This library is comprised of a node and a library
Node "Name":

- Clipboard "Specifies file name"

Library:

- Enters the file name

The Clipboard node "Specifies file name" copies the specified filename into the clipboard. After that, the library "Enters the file name" pastes the filename in the clipboard into the "File name" input box in the "Save As" dialog, and performs the save operation with the Emulation node.

For the details of the "Clipboard" node, see the "Clipboard" subsection in "WinActor Operation Manual."



| | |
|---|---|
| InputBox_Group_... Specifies file name → Enters the file name | 1. Specifies file name Specify the filename. 2. Enters the file name Enter the specific filename. Set the WinID to specify the window to operate. |
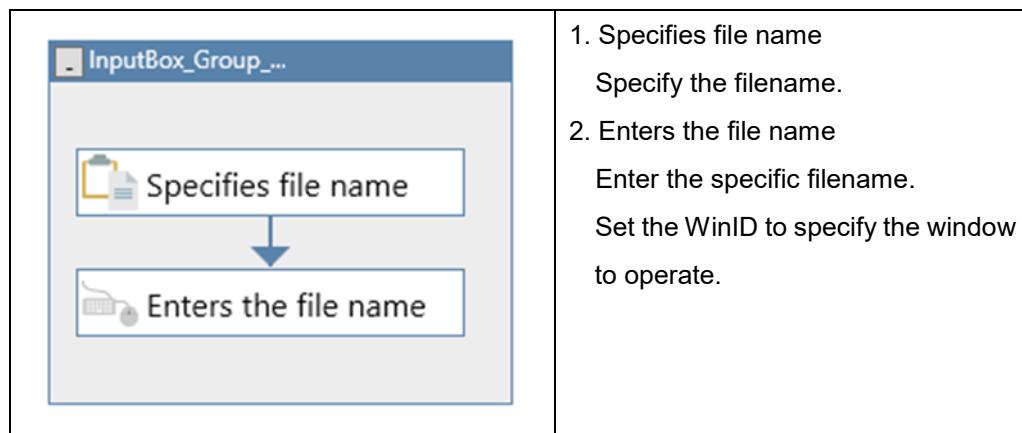
**Figure 14-4. "InputBox_Group_InputFileNameToSave" library settings**

**Table 14-16. "InputBox_Group_InputFileNameToSave" library / "Specifies file name" node settings**

| No. | Item | Description |
|---|---|---|
| 1 | Value | The "Set value to clipboard" operation is preset. Specify a filename to save as. |

**Table 14-17. "InputBox_Group_InputFileNameToSave" library / "Enters the file name" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Click the target mark button to select the window of "Save As." The file is saved as the filename in the clipboard according to the emulation operations specified in this library. |
| 2 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(ms)" is used. |
| 3 | Timeout (ms) | Specify the waiting time to find the window selected for "WinID name."<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

**Note**

　The "Save As" window for Windows applications (Notepad or Office, etc.) must be displayed.

## 14.10. InputBox_MoveToNextInputBox

The Tab key moves the cursor to the next field.

**Table 14-18. "InputBox_MoveToNextInputBox" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Click the target mark button to select the window to move the cursor. |
| 2 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(ms)" is used. |
| 3 | Timeout (ms) | Specify the waiting time to find the window selected for "WinID name."<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

# 15. ImageMatching

## 15.1. ImageMatching_SpecifyFile

This library compares the image in the specified window with the image in the specified file. Specify the offset from the position where the images match with a combination of mouse and keyboard operations.

**Table 15-1. "ImageMatching_SpecifyFile" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Select the window to compare |
| 2 | Match_ratio | Specify the match ratio [%] for image comparison. |
| 3 | Amount_to_move(x) | Specify how much the mouse cursor moves from the matched position (x). |
| 4 | Amount_to_move(y) | Specify how much the mouse cursor moves from the matched position (y). |
| 5 | Mouse_operation | Select mouse operations.<br>No mouse operation for "Only_Check_State".<br>"Move_cursor" only moves the cursor.<br>"Click," "Double_click," "Right_click," or "Right_double_click" clicks the mouse after the cursor is moved |
| 6 | Keyboard_operation | Select keyboard operations.<br>No keyboard operation for "Do_nothing".<br>"Shift" operates the mouse with the Shift key held down.<br>"Ctrl" operates the mouse with the Ctrl key held down. |
| 7 | Image | Specify the image filename for comparison.<br>Click the '...' button to open the file explorer. |
| 8 | Result | Specify the variable to store the result (True/False). |
| 9 | Target_frame | Display or don't display the target frame for the matched area.<br>"Disable" will not highlight the matched area.<br>"Enable" highlights the matched area. The target frame will not be displayed if set to be hidden in "Option." |
| 10 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is |

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| | | 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. |
| 11 | Timeout (msec)(optional) | Specify the waiting time to find the specified element. This value is used when 'Use this "Property"' is selected for "Timeout setting." The default value is 10,000 milliseconds. |

## 15.2. ImageMatching_GetMatchedPosition

This library gets the coordinates (operation position) of the last matched image.

Coordinates (operation position) of images that do not match cannot be acquired.

**Table 15-2. "ImageMatching_GetMatchedPosition" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Matched_position | Specify the variable to store the coordinates (operation position) matched in the last image matching. |

# 16.  ScreenCapture_Color

## 16.1.  ScreenCapture_SaveActiveWindowImage

This library saves the image captured from an active window to a file.

**Table 16-1. "ScreenCapture_SaveActiveWindowImage" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the destination with an absolute or relative path.<br>Example: C:\Users\XXX\Desktop\Capture.JPG |
| 2 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>   The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>   The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>   The value set for "Timeout(msec)(optional)" is used. |
| 3 | Timeout (msec)(optional) | Specify the waiting time to find the active window.<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

## 16.2.  ScreenCapture_SaveDesktopImage

This library captures the desktop and saves the screenshot to a file.

**Table 16-2. "ScreenCapture_SaveDesktopImage" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the file to save the captured image with an absolute or relative path. |

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## 16.3. ScreenCapture_SaveWindowImage

This library captures the specified window and saves the screenshot to a file.

**Table 16-3. "ScreenCapture_SaveWindowImage" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Click the target mark button to select the window to capture. |
| 2 | File_name | Specify the file to save the captured image with an absolute or relative path. |
| 3 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(msec)(optional)" is used. |
| 4 | Timeout (msec)(optional) | Specify the waiting time to find the window selected for "WinID name.".<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

## 16.4.  Color_GetColorAtMatchedPosition

This library gets the color of the + mark position in the last image matching.

**Table 16-4. "Color_GetColorAtMatchedPosition" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Color | Specify the variable to store the RGB value |

## 16.5.  Color_GetColor

This library gets the color of the specified position in the specified window.

**Table 16-5. "Color_GetColor" library settings**

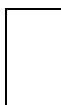| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Click the target mark button to select the window to get the color. |
| 2 | Location | Specify the position (coordinates) to get the color. |
| 3 | Color | Specify the variable to store the RGB values. |
| 4 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(msec)(optional)" is used. |
| 5 | Timeout (msec)(optional) | Specify the waiting time to find the window selected for "WinID name.". This value is used when 'Use this "Property"' is selected for "Timeout setting." The default value is 10,000 milliseconds. |

# 17. IE

## 17.1. Debugging

### 17.1.1. IE_Debug_DumpElementsWithSpecifiedClass

This library exports the tag information of the specified class name to an Excel file.

**Table 17-1. "IE_Debug_DumpElementsWithSpecifiedClass" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | WinID name | Specify the window to operate by clicking the target mark button. |
| 2 | Class_name | Specify the class name. |
| 3 | Write_file_path | Specify the Excel file path. Relative paths and URLs are available. As this library is not associated with MS Office, URLs can be used. |
| 4 | Timeout setting | Select which timeout setting to use from among following selections. <br>・Use "Scenario information" <br>　The timeout value set in the "Scenario information" window is used. <br>・Use "Option" <br>　The timeout value set in the "Option" window is used. <br>・Use this "Property" <br>　The value set for "Timeout(msec)(optional)" is used. |
| 5 | Timeout (msec)(optional) | Specify the waiting time to find the specified element. <br>This value is used when 'Use this "Property"' is selected for "Timeout setting." <br>The default value is 10,000 milliseconds. |

## 17.1.2. IE_Debug_DumpElementsWithClass

This library exports the tag information of all class names in the target IE to an Excel file.

**Table 17-2. "IE_Debug_DumpElementsWithClass" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Specify the window to operate by clicking the target mark button. |
| 2 | Write_file_path | Specify the Excel file path. Relative paths and URLs are available. |
| 3 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(msec)(optional)" is used. |
| 4 | Timeout (msec)(optional) | Specify the waiting time to find the window selected for "WinID name.".<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

### 17.1.3. IE_Debug_DumpElementsWithHref

This library exports the information of all tags with Href in the target IE to an Excel file.

**Table 17-3. "IE_Debug_DumpElementsWithHref" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Specify the window to operate by clicking the target mark button. |
| 2 | Write_file_path | Specify the Excel file path. Relative paths and URLs are available. As this library is not associated with MS Office, URLs can be used. |
| 3 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(msec)(optional)" is used. |
| 4 | Timeout (msec)(optional) | Specify the waiting time to find the window selected for "WinID name.".<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

### 17.1.4. IE_Debug_DumpElementsWithID

This library exports the information of all tags with IDs in the target IE to an Excel file.

**Table 17-4. "IE_Debug_DumpElementsWithID" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Specify the window to operate by clicking the target mark button. |
| 2 | Write_file_path | Specify the Excel file path. Relative paths and URLs are available. As this library is not associated with MS Office, URLs can be used. |
| 3 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(msec)(optional)" is used. |
| 4 | Timeout (msec)(optional) | Specify the waiting time to find the window selected for "WinID name." This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

### 17.1.5. IE_Debug_DumpElementsWithSpecifiedID

This library exports the tag information of the specified ID to an Excel file.

**Table 17-5. "IE_Debug_DumpElementsWithSpecifiedID" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Specify the window to operate by clicking the target mark button. |
| 2 | id | Specify the id. |
| 3 | Write_file_path | Specify the Excel file path. Relative paths and URLs are available. As this library is not associated with MS Office, URLs can be used. |
| 4 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(msec)(optional)" is used. |
| 5 | Timeout (msec)(optional) | Specify the waiting time to find the specified element.<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

### 17.1.6. IE_Debug_DumpElementsWithName

This library exports the information of all tags with names in the target IE to an Excel file.

**Table 17-6. "IE_Debug_DumpElementsWithName" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Specify the window to operate by clicking the target mark button. |
| 2 | Write_file_path | Specify the Excel file path. Relative paths and URLs are available. As this library is not associated with MS Office, URLs can be used. |
| 3 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(msec)(optional)" is used. |
| 4 | Timeout (msec)(optional) | Specify the waiting time to find the window selected for "WinID name." This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

### 17.1.7. IE_Debug_DumpElementsWithSpecifiedName

This library exports the tag information of the specified name to an Excel file.

**Table 17-7. "IE_Debug_DumpElementsWithSpecifiedName" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Specify the window to operate by clicking the target mark button. |
| 2 | name | Specify the name. |
| 3 | Write_file_path | Specify the Excel file path. Relative paths and URLs are available. As this library is not associated with MS Office, URLs can be used. |
| 4 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(msec)(optional)" is used. |
| 5 | Timeout (msec)(optional) | Specify the waiting time to find the specified element.<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

### 17.1.8.  IE_Debug_DumpElementsWithValue

This library exports the information of all tags with Value of an operation target IE to an Excel file.

**Table 17-8. "IE_Debug_DumpElementsWithValue" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Specify the window to operate by clicking the target mark button. |
| 2 | Write_file_path | Specify the Excel file path. Relative paths and URLs are available. As this library is not associated with MS Office, URLs can be used. |
| 3 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(msec)(optional)" is used. |
| 4 | Timeout (msec)(optional) | Specify the waiting time to find the window selected for "WinID name."<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

### 17.1.9. IE_Debug_DumpElementsWithSpecifiedTagName

This library exports the tag information of the specified tag name to an Excel file.

**Table 17-9. "IE_Debug_DumpElementsWithSpecifiedTagName" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Specify the window to operate by clicking the target mark button. |
| 2 | Tag name | Specify the tag. |
| 3 | Write_file_path | Specify the Excel file path. Relative paths and URLs are available. As this library is not associated with MS Office, URLs can be used. |
| 4 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(msec)(optional)" is used. |
| 5 | Timeout (msec)(optional) | Specify the waiting time to find the specified element.<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

### 17.1.10. IE_Debug_DumpElementsWithSpecifiedText

This library exports the tag information displaying specified search keys to an Excel file.

**Table 17-10. "IE_Debug_DumpElementsWithSpecifiedText" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Specify the window to operate by clicking the target mark button. |
| 2 | Search_character | Specify characters to search. |
| 3 | Write_file_path | Specify the Excel file path. Relative paths and URLs are available. As this library is not associated with MS Office, URLs can be used. |
| 4 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(msec)(optional)" is used. |
| 5 | Timeout (msec)(optional) | Specify the waiting time to find the specified element.<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

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### 17.1.11. IE_Debug_DumpAllElements(simple)

This library exports the information of all tags to an Excel file. This library exports the information of the following ten items—No / FrameNum / Tag / TagNum / Name / Id / Class / Value / Href / InnerText.

**Table 17-11. "IE_Debug_DumpAllElements(simple)" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Specify the window to operate by clicking the target mark button. |
| 2 | Write_file_path | Specify the Excel file path. Relative paths and URLs are available. As this library is not associated with MS Office, URLs can be used. |
| 3 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(msec)(optional)" is used. |
| 4 | Timeout (msec)(optional) | Specify the waiting time to find the window selected for "WinID name." This value is used when 'Use this "Property"' is selected for "Timeout setting." <br>The default value is 10,000 milliseconds. |

### 17.1.12.  IE_Debug_DumpAllElements(detailed)

This library exports the information of all tags to an Excel file. This library exports the information of the following seventeen items—No / FrameNum / Tag / TagNum / Name / Type / Id / Class / Area / Value / Shape / Coords / Alt / Title / Src / Href / InnerText.

**Table 17-12. "IE_Debug_DumpAllElements(detailed)" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Specify the window to operate by clicking the target mark button. |
| 2 | Write_file_path | Specify the Excel file path. Relative paths and URLs are available. As this library is not associated with MS Office, URLs can be used. |
| 3 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(msec)(optional)" is used. |
| 4 | Timeout (msec)(optional) | Specify the waiting time to find the window selected for "WinID name." This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

## 17.2. Click

### 17.2.1. IE_ClickImageMap

This library clicks the specified area in an IE image map window.

**Table 17-13. "IE_ClickImageMap" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | WinID name | Specify the window to operate by clicking the target mark button. |
| 2 | Frame_number (0~) | Specify the frame number of the operation target. |
| 3 | Alternative_text | Specify the alternative text set for the area to click. The alternative text will be displayed when you hover the mouse cursor over the area. |
| 4 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>  The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>  The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>  The value set for "Timeout(msec)(optional)" is used. |
| 5 | Timeout (msec)(optional) | Specify the waiting time to find the specified element. This value is used when 'Use this "Property"' is selected for "Timeout setting." The default value is 10,000 milliseconds. |

Example:

A link is set to each circle mark and WinActor strings.

The circle will be clicked in this example. "0" is set for the frame, "link1" for the area alternate text. When the scenario is run, the circle will be clicked and the link destination will be displayed.

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**Figure 17-1. Image map window and alternative text**



**Figure 17-2. Link destination window**

### 17.2.2. IE_ClickCLASS

This library clicks the class specified in the document.

**Table 17-14. "IE_ClickCLASS" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | WinID name | Specify the window to operate by clicking the target mark button. |
| 2 | Frame_number(0〜) | Specify the index of the target frame. The frame index will be allocated as follows regardless the parent/child relationship in the structure: <frame> Frame index 1    <frame></frame> Frame index 2    <frame></frame> Frame index 3 </frame> <frame> Frame index 4 etc. Set [0] to get an element other than a frame or if frames are not used. |
| 3 | CLASS_name | Specify the target class to click. |
| 4 | Index(0~) | Specify the target index. |
| 5 | 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. |
| 6 | Timeout (msec)(optional) | Specify the waiting time to find the specified element. This value is used when 'Use this "Property"' is selected for "Timeout setting." The default value is 10,000 milliseconds. |

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### 17.2.3. IE_ClickTextByTagName

This library clicks the string containing a specific text in an IE tag.

**Table 17-15. "IE_ClickTextByTagName" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Specify the window to operate by clicking the target mark button. |
| 2 | Frame_number (0~) | Specify the frame number of the operation target. |
| 3 | Click_target_tag | Specify the tag to click. |
| 4 | Click_target_text | Specify the text to click. |
| 5 | Clicked_character | Specify the variable to get the clicked text. |
| 6 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(msec)(optional)" is used. |
| 7 | Timeout (msec)(optional) | Specify the waiting time to find the specified element.<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

**Note**

If there are multiple strings in a specified frame, the first string will be clicked.

### 17.2.4. IE_ClickText

This library clicks the text containing a specific string in IE.

**Table 17-16. "IE_ClickText" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Specify the window to operate by clicking the target mark button. |
| 2 | Frame_number (0~) | Specify the frame number of the operation target. |
| 3 | Click_target_text | Specify the text to click. |
| 4 | Clicked_tag | Specify the variable to get the clicked tag. |
| 5 | Clicked_character | Specify the variable to get the clicked text. |
| 6 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(msec)(optional)" is used. |
| 7 | Timeout (msec)(optional) | Specify the waiting time to find the specified element.<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

**Note**

If there is more than one string in the specified frame, the first string will be clicked.

### 17.2.5. IE_ClickLink

This library clicks the specified link in IE.

**Table 17-17. "IE_ClickLink" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | WinID name | Specify the window to operate by clicking the target mark button. |
| 2 | Frame_number (0~) | Specify the frame number of the operation target. |
| 3 | Link_text | Specify the text included in a link to click. |
| 4 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(msec)(optional)" is used. |
| 5 | Timeout (msec)(optional) | Specify the waiting time to find the specified element.<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

**Note**

If there are multiple links in the specified frame, the first link will be clicked.

### 17.2.6. IE_ClickElementInTable1

This library clicks the control in the specified table cell in IE.

**Table 17-18. "IE_ClickElementInTable1" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | WinID name | Specify the window to operate by clicking the target mark button. |
| 2 | Frame index | Specify the frame index where the control exists. (*1) |
| 3 | Tag index | Specify the tag index of the control to be clicked. (*1) |
| 4 | Row_number | Specify the row number in the table where the control exists. (*1) |
| 5 | Column_number | Specify the column number in the table where the control exists. (*1) |
| 6 | Processing_result | Specify the variable to store the result. If the click is successful, the string "Clicked successfully" will be stored. |
| 7 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(msec)(optional)" is used. |
| 8 | Timeout (msec)(optional) | Specify the waiting time to find the specified element.<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

*1 ・・・ For "frame Index" and "tag index," see the "Details tab (Node recorded in the IE mode)" of the "Configuration of the Property pane" subsection in "WinActor Operation Manual." For "Row_number" and "Column_number," see the "Get value in the table" subsection in "WinActor Operation Manual."

**Note**

If there are multiple controls in the specified frame, the first control will be clicked.

### 17.2.7. IE_ClickElementInTable2

This library clicks the control in the specified table cell in IE and can be specified when there are multiple controls in a cell.

**Table 17-19. "IE_ClickElementInTable2" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Specify the window to operate by clicking the target mark button. |
| 2 | Frame_index(0~) | Specify the frame index where the table exists. |
| 3 | Tag_index(0~) | Specify the tag index of the table. |
| 4 | Row_number (1~) | Specify the row number of a target cell. |
| 5 | Column_number (1~) | Specify the column number of a target cell. |
| 6 | Target_number_in_cell (1~) | If there are multiple click targets in the target cell, specify the target number. (Optional) |
| 7 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(msec)(optional)" is used. |
| 8 | Timeout (msec)(optional) | Specify the waiting time to find the specified element.<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

*1 ・・・ For "frame Index" and "tag index," see the "Details tab (Node recorded in the IE mode)" of the "Configuration of the Property pane" subsection in "WinActor Operation Manual." For "Row_number" and "Column_number," see the "Get value in the table" subsection in "WinActor Operation Manual."

## 17.3. Text

### 17.3.1. IE_GetTextByClass

This library reads the text in the specified class in IE to operate.

**Table 17-20. "IE_GetTextByClass" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Specify the window to operate by clicking the target mark button. |
| 2 | Frame_number (0~) | Specify the frame number of the operation target. |
| 3 | Target_class_name | Specify the class of a text to read. |
| 4 | Index (0~) | Specify the number for the class to read. |
| 5 | Acquisition_character | Specify the variable to store the acquired text. |
| 6 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(msec)(optional)" is used. |
| 7 | Timeout (msec)(optional) | Specify the waiting time to find the specified element.<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

### 17.3.2. IE_GetTextByID

This library reads the text in the specified ID in IE to operate.

**Table 17-21. "IE_GetTextByID" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Specify the window to operate by clicking the target mark button. |
| 2 | Frame_number (0~) | Specify the frame number of the operation target. |
| 3 | Target_ID | Specify the ID of a text to read. |
| 4 | Acquisition_character | Specify the variable to store the acquired text. |
| 5 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(msec)(optional)" is used. |
| 6 | Timeout (msec)(optional) | Specify the waiting time to find the specified element.<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

### 17.3.3. IE_GetTextByTagNameAndID

This library reads the text in the specified tag and ID in IE to operate.

**Table 17-22. "IE_GetTextByTagNameAndID" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Specify the window to operate by clicking the target mark button. |
| 2 | Frame_number (0~) | Specify the frame number of the operation target. |
| 3 | Target_tag | Specify the tag for a text to read. |
| 4 | Target_ID | Specify the ID of a text to read. |
| 5 | Acquisition_character | Specify the variable to store the acquired text. |
| 6 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(msec)(optional)" is used. |
| 7 | Timeout (msec)(optional) | Specify the waiting time to find the specified element.<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

## 17.4. Edge

### 17.4.1. IE_LaunchMSEdge

This library starts Edge with the specified URL.

**Table 17-23. "IE_LaunchMSEdge" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | URL | Specify the URL to open after starting Edge. To wait for the Edge window to appear, set the URL to open in IE mode in Edge in advance. If the URL is not set to open in IE mode in Edge and select 'wait' at "Wait for the window," a timeout error always occurs. |
| 2 | Wait for the window | To wait for the Edge window to appear, select 'wait.' If an Edge window with the same URL as the specified URL already exists, it does not wait. |
| 3 | Timeout(sec) | Specify the time in seconds to wait for the Edge window to appear. |

## 17.5. IE_DownloadFile

This library downloads the file specified by a URL and saves the file with a specific filename.

**Table 17-24. "IE_DownloadFile" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | URL | Specify the URL of HTTP file. Example: http://127.0.0.1/hoge/sample.pdf |
| 2 | Save_file_name | Specify the filename to save with an absolute or relative path. Example: c:\temp\sample.pdf |

## 17.6. IE_OpenURLAfterClose

This library starts IE and opens the specified URL. If IE is already open, IE will be restarted and only the specified URL will be opened.

**Table 17-25. "IE_OpenURLAfterClose" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | URL | Specify the URL to connect to after starting IE. |
| 2 | Browser | Select a browser to open the specified URL. |

## 17.7. IE_MoveToURL

This library moves to the specified URL.

**Table 17-26. "IE_MoveToURL" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | WinID name | Specify the window to operate by clicking the target mark button. |
| 2 | URL | Specify the destination URL. |
| 3 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(msec)(optional)" is used. |
| 4 | Timeout (msec)(optional) | Specify the waiting time to find the window selected for "WinID name." This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

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## 17.8.　IE_MoveWindow

This library changes the IE window position and size.

**Table 17-27. "IE_MoveWindow" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Specify the window to operate by clicking the target mark button. |
| 2 | Upper_left(x) | Specify the x- position of the window from the top left corner. |
| 3 | Upper_left(y) | Specify the y- position of the window from the top left corner. |
| 4 | Window_width | Specify the width of the window. |
| 5 | Window_height | Specify the height of the window. |
| 6 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(msec)(optional)" is used. |
| 7 | Timeout (msec)(optional) | Specify the waiting time to find the window selected for "WinID name." This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

## 17.9. IE_CloseAll

This library closes all IE windows.

## 17.10. IE_GetLinkByClass

This library gets the link in the specified class in IE to operate.

**Table 17-28. "IE_GetLinkByClass" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Specify the window to operate by clicking the target mark button. |
| 2 | Frame_number (0~) | Specify the frame number of the operation target. |
| 3 | Target_class_name | Specify the class of a link to get. |
| 4 | Index (0~) | Specify the number for the class to read. |
| 5 | Acquisition_character | Specify the variable to store the acquired link. |
| 6 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(msec)(optional)" is used. |
| 7 | Timeout (msec)(optional) | Specify the waiting time to find the specified element.<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

## 17.11. IE_CloseWindowByURL

This library closes the window opened by a specified URL.

**Table 17-29. "IE_CloseWindowByURL" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | URL | Specify the URL of the window to close. This closes the IE window that cannot be distinguished by the window title and may depend on the private settings in IE. |

## 17.12.   IE_GetValueInTable

This library gets the text in a table cell in IE to operate.

**Table 17-30. "IE_GetValueInTable" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | WinID name | Specify the window to operate by clicking the target mark button. |
| 2 | Frame_number (0~) | Specify the frame number of the operation target. |
| 3 | Tag_number (0~) | Specify the table number of the operation target. |
| 4 | Row_number (1~) | Specify the row number of the cell to operate. |
| 5 | Column_number (1~) | Specify the column number of the cell to operate. |
| 6 | Acquisition_character | Specify the variable to store the acquired result. |
| 7 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>　The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>　The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>　The value set for "Timeout(msec)(optional)" is used. |
| 8 | Timeout (msec)(optional) | Specify the waiting time to find the specified element.<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

## 17.13.   IE_WaitForCompletion

This library waits until all IE windows in the desktop have finished loading.

## 17.14. IE_WaitForCompletionWithTimeout

This library waits until all IE windows in the desktop are have finished loading before the set timeout and an error will occur if loading times out. If the timeout is blank, no timeout has been set.

**Table 17-31. "IE_WaitForCompletionWithTimeout" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Timeout_time | Set the timeout time (second) for processing.<br>Example: 60<br>*If blank, no timeout has been set. |

## 17.15. IE_OpenURL

This library opens IE with a specific URL, and wait for the IE window to appear.
It doesn't wait, if an IE window with the specific URL already exists.

**Table 17-32. "IE_OpenURL" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | URL | Specify the URL to open IE. |
| 2 | Timeout(sec) | Specify the time in seconds to wait for the IE window to appear. |

## 17.16. IE_GetAnchorText

This library gets the string with a link set in IE.

**Table 17-33. "IE_GetAnchorText" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | WinID name | Specify the window to operate by clicking the target mark button. |
| 2 | Frame_number (0~) | Specify the frame number of the operation target. |
| 3 | The_nth_element(tag) | Specify the target link number. |
| 4 | Obtained_string | Specify the variable to store the obtained string. |
| 5 | Timeout setting | Select which timeout setting to use from among following selections.<br>・Use "Scenario information"<br>    The timeout value set in the "Scenario information" window is used.<br>・Use "Option"<br>    The timeout value set in the "Option" window is used.<br>・Use this "Property"<br>    The value set for "Timeout(msec)(optional)" is used. |
| 6 | Timeout (msec)(optional) | Specify the waiting time to find the specified element.<br>This value is used when 'Use this "Property"' is selected for "Timeout setting."<br>The default value is 10,000 milliseconds. |

# 18. Excel

## 18.1. Book

### 18.1.1. Excel_GetFileNameInFolder

This library gets one Excel filename (absolute path) in the specified folder.

The first Excel files in the folder is acquired.

**Table 18-1. "Excel_GetFileNameInFolder" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Folder_name | Specify the file path with an absolute or relative path. Although this library is associated with Microsoft Office products, URLs cannot be used. |
| 2 | File_name | Specify the variable to store the result. |

### 18.1.2. Excel_IsOpen

This library checks if the specified Excel file is 'in use' or not.

When the Excel file is not in use, it will be opened.

When the Excel file is read-only, it is regarded as 'in use.'

When the Excel file is specified as a URL, it is regarded as 'not in use' even if it is read-only.

**Table 18-2. "Excel_IsOpen" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the filename with an absolute/relative path or URL. |
| 2 | In-use_flag | Specify the variable to store the result. "True" is stored when it is in use. Otherwise, "False" is stored. |

### 18.1.3. Excel_SaveFileAsXLS

This library opens a CSV file and saves the file in an XLS format.

**Table 18-3. "Excel_SaveFileAsXLS" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | CSV_filename | Specify the CSV file with an absolute /relative path or URL. |
| 2 | XLS_filename | Specify an output XLS file with an absolute/relative path or URL. .xls will be added if the filename extension is omitted. The file will be overwritten if the file already exists. |
| 3 | Result | Specify the variable to store the result. If successful, "true," if error, "false." |

### 18.1.4. Excel_ExportToCSV

This library saves the specified Excel file in a CSV format. The target Excel file must be opened in advance.

**Table 18-4. "Excel_ExportToCSV" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the absolute/relative path or URL to the file, including the extension. |
| 2 | Execution_result | Specify the variable to store the execution result. |
| 3 | Save_file_name | Specify the filename with an absolute/relative path or URL, without the extension. |

### 18.1.5. Excel_SaveFile

This library overwrites the specified Excel file. The target Excel file must opened in advance.

**Table 18-5. "Excel_SaveFile" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the file path with an absolute/relative path or URL. |
| 2 | Close_after_saving | Select "Close" or "Keep_open." <br> "Close" closes the workbook after saving the target file, but will not be closed if save fails. "Keep_open" keeps the workbook open after saving. |
| 3 | Execution_result | Specify the variable to store the result. Successfully saved: "true" save fails: "false." |

### 18.1.6. Excel_CloseWithoutSaving

This library closes the specified Excel file without saving. The target Excel file must opened in advance.

**Table 18-6. "Excel_CloseWithoutSaving" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the file path with an absolute/relative path or URL. |
| 2 | Execution_result | Specify the variable to store the result. Successfully closed: "true" close fails: "false." |

### 18.1.7. Excel_CloseAllFiles

This library closes all currently open Excel files.

**Note**

Excel files that have not been saved will be closed without saving changes.

Save the modified Excel files before using this library.

### 18.1.8. Excel_SaveFileAs

This library saves the specified Excel file with new name. The target Excel file must opened in advance.

**Table 18-7. "Excel_SaveFileAs" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the file path with an absolute/relative path or URL. |
| 2 | Save_file_name | Specify the filename for saving. Absolute/relative paths and URLs are available. If the specified file already exists, the content will be overwritten. |
| 3 | Close_after_saving | Select "Close" or "Keep_open." <br> "Close" closes the workbook after saving the target file, but will not be closed if save fails. "Keep_open" keeps the workbook open after saving. |
| 4 | Execution_result | Specify the variable to store the result. Successfully saved: "true," save fails: "false." |

### 18.1.9. Excel_CreateNewFile

This library creates the specified Excel file.

If an existing file is specified, either a warning or an error dialog is displayed, and the execution may fail.

**Table 18-8. "Excel_CreateNewFile" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the file path with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the variable to store the active sheet name. |

### 18.1.10. Excel_OpenFile

This library opens the specified Excel file and displays the in the foreground.

**Table 18-9. "Excel_OpenFile" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the file path with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet to operate. If blank, the current sheet will be operated. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.

The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.

The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

### 18.1.11. Excel_OpenFileWithWritePassword

This library opens the specified password-protected Excel file with write access.

**Table 18-10. "Excel_OpenFileWithWritePassword" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | File_name | Specify the file path with an absolute/relative path or URL. |
| 2 | Write_PW | Specify the password for write access. |
| 3 | Sheet_name | Specify the sheet to operate. If blank, the active sheet will be selected. |

### 18.1.12. Excel_OpenFileWithReadPassword

This library opens the specified -only password-protected Excel file.

**Table 18-11. "Excel_OpenFileWithReadPassword" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | File_name | Specify the file path with an absolute/relative path or URL. |
| 2 | Read_PW | Specify the password for read access. |
| 3 | Sheet_name | Specify the sheet to operate. If blank, the active sheet will be selected. |

### 18.1.13. Excel_OpenFileWithReadAndWritePassword

This library opens the specified password-protected Excel file with read and write access.

**Table 18-12. "Excel_OpenFileWithReadAndWritePassword" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | File_name | Specify the file path with an absolute/relative path or URL. |
| 2 | Read_PW | Specify the password for read access. |
| 3 | Write_PW | Specify the password for write access. |
| 4 | Sheet_name | Specify the sheet to operate. If blank, the active sheet will be selected. |

## 18.2. Sheet

### 18.2.1. Excel_CountDatedSheets

This library gets the number of sheets in the specified Excel file with the sheet name in yyyy.mm.dd format.

**Table 18-13. "Excel_CountDatedSheets" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Number_of_sheets | Specify the variable to store the result. |

**Notes**

Hidden sheets are also counted.

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.
The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.
The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

### 18.2.2. Excel_DuplicateSheet

This library copies the specified Excel file sheet and adds the copied sheet to the top

**Table 18-14. "Excel_DuplicateSheet" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Copy_src_sheet_name | Specify the source sheet. If not specified, the active sheet will be selected. |
| 3 | Copy_dest_sheet_name | Specify the destination sheet. If not specified, the sheet automatically generated by Excel will be selected. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.

The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.

The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

### 18.2.3. Excel_DeleteSheet

This library deletes a sheet in an Excel file. No alert is displayed if the sheet has data.

**Table 18-15. "Excel_DeleteSheet" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Filename | Specify the Excel file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet to be deleted. When omitted, the active sheet is deleted. |

### 18.2.4. Excel_GetSheetName

This library gets the name of the currently active sheet.

**Table 18-16. "Excel_GetSheetName" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the variable to store the sheet name. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.

The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.

The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

### 18.2.5. Excel_RenameSheet

This library renames a sheet in Excel.

**Table 18-17. "Excel_RenameSheet" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Filename | Specify the Excel file with an absolute/relative path or URL. |
| 2 | Old_sheet_name | Specify the existing sheet name.<br>When omitted, the active sheet is used. |
| 3 | New_sheet_name | Specify the sheet name.<br>When omitted, the sheet name is not changed. |

### 18.2.6. Excel_CountSheets

This library gets the number of sheets in the specified Excel file.

**Table 18-18. "Excel_CountSheets" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Number_of_sheets | Specify the variable to store the number of sheets. |

**Notes**

Hidden sheets are also counted.

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.
The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.
The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

### 18.2.7. Excel_AddSheet

This library adds a new sheet to the specified Excel file.

**Table 18-19. "Excel_AddSheet" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the name of a new sheet to be added. If it is not specified, the name will be automatically set by Excel. |
| 3 | Additional_position | Select "Before" or "After." "Before" adds a sheet to the left of the active sheet, "After" adds a sheet to the right |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.

The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.

The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

18.2.8. Excel_SelectSheet

This library selects the sheet of a specified Excel file. The sheet is specified by the sheet name or the sheet index number.

**Table 18-20. "Excel_SelectSheet" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_specifying_method | Select "Sheet_name" or "Sheet_index." |
| 3 | Select_sheet | Specify the sheet name when selecting "Sheet_name". |
|   |   | Specify a number 1 or higher when selecting "Sheet_index". |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.
The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.
The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

18.2.9. Excel_DuplicateSheetInAnotherBook

This library copies the sheet from another book and adds a copied sheet at the bottom.

**Table 18-21. "Excel_DuplicateSheetInAnotherBook" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Copy_src_file_path | Specify the source file with an absolute/relative path or URL. |
| 2 | Copy_dest_file_path | Specify the destination file with an absolute/relative path or URL. |
| 3 | Copy_src_sheet_name | Specify the source sheet. If not specified, the active sheet will be selected. |
| 4 | Copy_dest_sheet_name | Specify the destination sheet. If not specified, or the same name already exists, Excel will name the sheet. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.

The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.

The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

## 18.3. Row_Column

### 18.3.1. Excel_GetColumn

This library reads the values in a column. The number of variables (initially named Row_1 – Row_5) can be changed in the "Script" tab.

**Table 18-22. "Excel_GetColumn" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Column(automatic_count_up) | Specify a variable to store the starting column index number. (1 for column A, 2 for column B, 3 for column C, …) After reading the column, the value is incremented by 1 even if an error, such as a file open error, occurred during the process. |
| 2 | Filename | Specify the Excel file with an absolute/relative path or URL. |
| 3 | Sheet_name | Specify the sheet name. When omitted, the active sheet is used. |
| 4 | Row_1 | Specify the variable to store the read value of row 1. |
| 5 | Row_2 | Specify the variable to store the read value of row 2. |
| 6 | Row_3 | Specify the variable to store the read value of row 3. |
| 7 | Row_4 | Specify the variable to store the read value of row 4. |
| 8 | Row_5 | Specify the variable to store the read value of row 5. |

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### 18.3.2. Excel_CopyColumn

This library copies the specified column.

**Table 18-23. "Excel_CopyColumn" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the active sheet will be selected. |
| 3 | Column_name | Specify the column to copy. Example: A |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.

The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.

The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

### 18.3.3. Excel_PasteColumn

This library pastes data to the clipboard and overwrites the data in the specified column.

**Table 18-24. "Excel_PasteColumn" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the active sheet will be selected. |
| 3 | Column_name | Specify the column position to paste and overwrite. Example: A |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.
The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.
The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

### 18.3.4. Excel_DeleteColumn

This library deletes the specified column.

**Table 18-25. "Excel_DeleteColumn" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the active sheet will be selected. |
| 3 | Delete_column | Specify the column to be deleted. Example: A |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.
The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.
The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

### 18.3.5.  Excel_InsertColumn

This library inserts a column at the specified column position.

**Table 18-26. "Excel_InsertColumn" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the active sheet will be selected. |
| 3 | Insert_column | Specify the position to insert a blank column. Example: A |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.

The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.

The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

### 18.3.6. Excel_MoveColumn

This library moves the specified column.

**Table 18-27. "Excel_MoveColumn" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the active sheet will be selected. |
| 3 | Cut_column | Specify the column to move.<br>(Example: Column A → 1, Column E → 5) |
| 4 | Insert_column | Specify the destination to move column to.<br>(Example: Column A → 1, Column E → 5)<br>If the insert_column is to the right of the cut_column, specify the insert_column as the value of the destination column index number plus 1.<br>(Example: If the cut_column is column A and the insert_column is column E, cut_column → 1, insert_column → 6) |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.
The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.
The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

### 18.3.7. Excel_DuplicateColumn

This library inserts a copied column.

**Table 18-28. "Excel_DuplicateColumn" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the active sheet will be selected. |
| 3 | Replicated_column | Specify the position of the column to copy. Example: A |
| 4 | Insert_column | Specify the insertion position of the copied column. Example: B |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.

The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.

The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

### 18.3.8. Excel_GetLastRow1

This library gets the last row of the specified sheet. A range of cells will be automatically selected with UsedRange.

**Table 18-29. "Excel_GetLastRow1" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the active sheet will be selected. |
| 3 | Last_row | Specify the variable to store the result. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.
The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.
The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

### 18.3.9. Excel_GetLastRow2

This library gets the last row of the specified cell (first blank row -1 (the row previous the first blank row)). Only A1 style is available for specifying the range.

**Table 18-30. "Excel_GetLastRow2" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the active sheet will be selected. |
| 3 | Start_row | Specify the start row to operate. |
| 4 | Search_column | Specify the column to search. |
| 5 | Last_row | Specify the variable to store the result. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.
The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.
The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

18.3.10. Excel_GetLastRow3

This library gets the last row of a specified column (first blank cell after the second row of the search column -1 (previous cell) will be acquired as the last row). Only A1 style is available for specifying the range.

**Table 18-31. "Excel_GetLastRow3" library settings**

| No. | Item | Description |
| --- | --- | --- |
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the active sheet will be selected. |
| 3 | Search_column | Specify the column to search. |
| 4 | Last_row | Specify the variable to store the acquired last row. |

Limitation 1: If "Look in" in the "Find and Replace" dialog was changed to "Comment" and this library is executed, the result will always be 1.

Limitation 2: Running this library will change the "Find and Replace" dialog as follows (Find parameter of the Range object in parentheses).

・ Within: Changes to [Sheet]

・ Search (SearchOrder): The previous settings are inherited.

・ Look in (LookIn): The previous settings are inherited.

・ Match case (MatchCase): Changes to [unchecked]

・ Match entire cell contents (LookAt): The previous settings are inherited.

・ Match byte (MatchByte): Changes to [checked]

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.

The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.

The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

18.3.11.  Excel_GetLastRow4

This library gets the last row of the specified column (gets the position of the cell from the last row after pressing Ctrl+Up). Only A1 style is available for specifying the range.

**Table 18-32. "Excel_GetLastRow4" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the active sheet will be selected. |
| 3 | Search_column | Specify the column to search. |
| 4 | Last_row | Specify the variable to store the acquired row. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.

The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.

The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

18.3.12. Excel_GetRow

This library reads the row. Change the storage destination variables (initial setting: Column A to E) from the "Script" tab.

**Table 18-33. "Excel_GetRow" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Row(Automatic_count_up) | Specify the row number with a variable. When the row is read, the count will go up by 1. Count up will continue when an error occurs, such as when the file could not be open. |
| 2 | File_name | Specify the file with an absolute/relative path or URL. |
| 3 | Sheet_name | Specify the sheet. If blank, the active sheet will be selected. |
| 4 | Type | Select how to get a value of the cell.<br> 'value': obtains a value of the cell.<br> 'text': obtains a displayed text of the cell. |
| 5 | Column_A | Specify the variable to store the result of reading column A. |
| 6 | Column_B | Specify the variable to store the result of reading column B. |
| 7 | Column_C | Specify the variable to store the result of reading column C. |
| 8 | Column_D | Specify the variable to store the result of reading column D. |
| 9 | Column_E | Specify the variable to store the result of reading column E. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.

The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.

The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

18.3.13. Excel_CopyRow

This library copies the specified row.

**Table 18-34. "Excel_CopyRow" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the active sheet will be selected. |
| 3 | Row_number | Specify the row to copy. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.

The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.

The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

### 18.3.14. Excel_PasteRow

This library pastes data to the clipboard and overwrites the data in the specified row.

**Table 18-35. "Excel_PasteRow" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the active sheet will be selected. |
| 3 | Row_number | Specify the row position to paste and overwrite. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.

The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.

The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

### 18.3.15.  Excel_PasteTransposedMatrix

This library pastes data in the clipboard into the specified cells. Rows and columns will be transposed when pasting. Copy the range of cells in advance. Cells are specified in A1 or R1C1 style.

**Table 18-36. "Excel_PasteTransposedMatrix" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the active sheet will be selected. |
| 3 | Cell | Specify the position of cells to paste. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.
The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.
The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

18.3.16.  Excel_DeleteRow

This library deletes the specified row.

**Table 18-37. "Excel_DeleteRow" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the active sheet will be selected. |
| 3 | Delete_row | Specify the row to delete. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.

The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.

The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

### 18.3.17.  Excel_InsertRow

This library inserts a row at the specified position.

**Table 18-38. "Excel_InsertRow" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the active sheet will be selected. |
| 3 | Insert_row | Specify the position to insert a blank row. A blank row will be inserted at the specified row position. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.

The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.

The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

### 18.3.18. Excel_MoveRow

This library moves the specified row.

**Table 18-39. "Excel_MoveRow" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the active sheet will be selected. |
| 3 | Cut_row | Specify the row to move. |
| 4 | Insert_row | Specify the destination to move the row to. If the insert_row is below of the cut_row, specify the insert_row as the value of the destination row index number plus 1. (Example: If the cut_row is row 1 and the insert_row is row 5, cut_row → 1, insert_row → 6) |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.
The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.
The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

### 18.3.19. Excel_DuplicateRow

This library inserts a copied row.

**Table 18-40. "Excel_DuplicateRow" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the active sheet will be selected. |
| 3 | Replicated_row | Specify the position of the row to copy. |
| 4 | Insert_row | Specify the insertion position of the copied row. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.

The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.

The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

## 18.4. Cell

### 18.4.1. Excel_ClickHyperlink

This library clicks the hyperlink in the specified cell. Only A1 style is available for specifying the range.

**Table 18-41. "Excel_ClickHhyperlink" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the active sheet will be selected. |
| 3 | Cell | Specify the position of the A1 style cell to operate. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.

The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.

The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

### 18.4.2. Excel_GetValueAtRelativePosition

This library moves the specified number of cells from an active cell in Excel and gets the value of the destination cell. Only the value will be referenced. The cursor will not be moved.

Example: Active cell → A1

　　Value of x → 2,　Value of y → 3

　　Gets a value of C4. (The active cell remains at A1.)

**Table 18-42. "Excel_GetValueAtRelativePosition" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the active sheet will be selected. |
| 3 | x | Specify the number of cells to move from the active cell (horizontally). Example: To move one cell horizontally from the active cell　　Move to the right → 1, Move to the left → -1 |
| 4 | y | Specify the number of cells to move from the active cell (vertically). Example: To move one cell vertically from the active cell　　Move Down → 1, Move Up → -1 |
| 5 | Storage_dest_variable | Specify the variable to store the acquired value. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.

The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.

The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

### 18.4.3. Excel_GetPosition

This library gets the position of the active cell in the specified Excel file.

Example:

The following values will be stored if the active cell is B5.

- Row(number): 5
- Column(number): 2
- A1_format: B5
- R1C1_format: R5C2

**Table 18-43. "Excel_GetPosition" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the active sheet will be selected. |
| 3 | Row(number) | Specify the variables to store the obtained Row(number). |
| 4 | Column(number) | Specify the variables to store the obtained Column(number). |
| 5 | A1_format | Specify the variables to store the obtained A1_format. |
| 6 | R1C1_format | Specify the variables to store the obtained R1C1_format. |

## 18.5. Formula

### 18.5.1. Excel_GetFormula

This library gets the formula in the specified cell in A1 or R1C1 style.

**Table 18-44. "Excel_GetFormula" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the active sheet will be selected. |
| 3 | Cell_position | Specify the position of the cell to operate. If A1 style is B3 ($B$3), the R1C1 style will be R3C2. |
| 4 | Storage_dest_variable | Specify the variable to store the formula of the specified cell. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.

The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.

The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

### 18.5.2. Excel_SetFormula

This library sets the formula in the specified cell. A cell can be specified in A1 or R1C1 style.

**Table 18-45. "Excel_SetFormula" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Set_value | Specify the formula to set for a cell to operate. |
| 2 | File_name | Specify the file with an absolute/relative path or URL. |
| 3 | Sheet_name | Specify the sheet. If blank, the active sheet will be selected. |
| 4 | Cell_position | Specify the position of the cell to operate. If A1 style is B3 ($B$3), the R1C1 style will be R3C2. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.
The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.
The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

## 18.6. Color

### 18.6.1. Excel_SetTextColor(cell)

This library sets the text color in the specified cell. A cell can be specified in A1 or R1C1 style.

**Table 18-46. "Excel_SetTextColor(cell)" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the current sheet will be operated. |
| 3 | Cell_position | Specify the position of the cell to operate. If A1 style is B3 ($B$3), the R1C1 style will be R3C2. |
| 4 | Red | Specify the RGB red value between 0 and 255. |
| 5 | Green | Specify the RGB green value between 0 and 255. |
| 6 | Blue | Specify the RGB blue value between 0 and 255. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.

The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.

The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

### 18.6.2. Excel_SetTextColor(range)

This library sets the text color for the specified range of cells. Only A1 style is available for specifying the range.

**Table 18-47. "Excel_SetTextColor(range)" library settings**

| No. | Item | Description |
| --- | --- | --- |
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the current sheet will be operated. |
| 3 | Start_cell | Specify the start cell to operate. |
| 4 | End_cell | Specify the end cell to operate. |
| 5 | Red | Specify the RGB red value between 0 and 255. |
| 6 | Green | Specify the RGB green value between 0 and 255. |
| 7 | Blue | Specify the RGB blue value between 0 and 255. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.
The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.
The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

### 18.6.3. Excel_SetBackgroundColor(cell)

This library set a background color for a specified cell. A cell is specified in A1 or R1C1 style.

**Table 18-48. "Excel_SetBackgroundColor(cell)" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the current sheet will be operated. |
| 3 | Cell_position | Specify the position of the cell to operate. If A1 style is B3 ($B$3), the R1C1 style will be R3C2. |
| 4 | Red | Specify the RGB red value between 0 and 255. |
| 5 | Green | Specify the RGB green value between 0 and 255. |
| 6 | Blue | Specify the RGB blue value between 0 and 255. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.

The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.

The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

### 18.6.4. Excel_SetBackgroundColor(range)

This library sets the background color of the specified range of cells. Only A1 style is available for specifying the range.

**Table 18-49. "Excel_SetBackgroundColor(range)" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the current sheet will be operated. |
| 3 | Start_cell | Specify the start cell to operate. |
| 4 | End_cell | Specify the end cell to operate. |
| 5 | Red | Specify the RGB red value between 0 and 255. |
| 6 | Green | Specify the RGB green value between 0 and 255. |
| 7 | Blue | Specify the RGB blue value between 0 and 255. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.
The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.
The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

### 18.6.5. Excel_ClearBackgroundColor(cell)

This library clears the background color in the specified cell. A cell can be specified in A1 or R1C1 style.

**Table 18-50. "Excel_ClearBackgroundColor(cell)" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the current sheet will be operated. |
| 3 | Cell_position | Specify the position of the cell to operate. If A1 style is B3 ($B$3), the R1C1 style will be R3C2. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.
The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.
The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

### 18.6.6. Excel_ClearBackgroundColor(range)

This library clears the background color in the specified range of cells. Only A1 style is available for specifying the range.

**Table 18-51. "Excel_ClearBackgroundColor(range)" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the current sheet will be operated. |
| 3 | Start_cell | Specify the start cell to operate. |
| 4 | End_cell | Specify the end cell to operate. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.
The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.
The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

## 18.7. Clipboard

### 18.7.1. Excel_Clipboard_Paste

This library pastes data in the clipboard, including the format information, to the cursor position in the Excel file.

**Table 18-52. "Excel_Clipboard_Paste" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.

The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.

The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

## 18.7.2. Excel_Clipboard_PasteValue

This library pastes the data in the clipboard to the cursor position in the Excel file. (Paste option: Paste Values). This library supports Excel cells only and will not paste text (an error will occur). To paste text, see "18.7.1. Excel_Clipboard_Paste."

**Table 18-53. "Excel_Clipboard_PasteValue" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.
The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.
The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

### 18.7.3. Excel_Clipboard_PasteAtPosition

This library pastes data in the clipboard to the specified cell. Only A1 style is available for specifying a cell.

**Table 18-54. "Excel_Clipboard_PasteAtPosition" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the current sheet will be operated. |
| 3 | Cell | Specify the cell position to paste the clipboard data. Example: A1 |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.
The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.
The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

### 18.7.4. Excel_Clipboard_PasteValueAtPosition

This library pastes data in the clipboard to the specified cell (Paste option: Paste Values).

The Excel file to operate should be opened in advance. An error will occur if the data is pasted from an application other than Excel. The cell can be specified in A1 or R1C1 style. This library supports Excel cells only and will not paste text (an error will occur). To paste text, see "18.7.3. Excel_Clipboard_PasteAtPosition."

**Table 18-55. "Excel_Clipboard_PasteValueAtPosition" library settings**

| No. | Item | Description |
| --- | --- | --- |
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the current sheet will be operated. |
| 3 | Cell | Specify the position of the cell to operate. If A1 style is B3 ($B$3), the R1C1 style will be R3C2. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.

The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.

The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

18.7.5. Excel_Clipboard_DuplicateRange

This library selects and copies the range of cells between the start and end cells and pastes the cells to the specified location.

Only A1 style is available for specifying the range.

This library is comprised of two libraries.

- Excel_CopyRange
- Excel_Clipboard_PasteAtPosition

The library "Excel_CopyRange" copies the cells in the specified range. After that, the library "Excel_Clipboard_PasteAtPosition" pastes the range of cells at the specified cell.
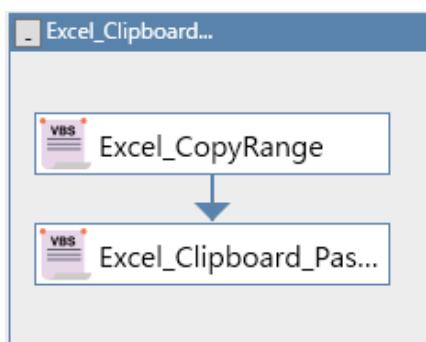


**Figure 18-1. "Excel_Clipboard_DuplicateRange" library**

**Table 18-56. "Excel_Clipboard_CopyRange" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the current sheet will be operated. |
| 3 | Start_cell | Specify the start A1 style cell to operate. |
| 4 | End_cell | Specify the end A1 style cell to operate. |

**Table 18-57. "Excel_Clipboard_PasteAtPosition" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the current sheet will be operated. |
| 3 | Cell | Specify the cell position in A1 style to paste the clipboard data. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.

The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.

The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

### 18.7.6.　Excel_Clipboard_ClearCutCopyMode

This library clears the copy or the cut mode of an Excel file, and removes the blinking frame of the copied or cut range.

Open the Excel file beforehand.

**Table 18-58. "Excel_Clipboard_ClearCutCopyMode" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | File_name | Specify the filename with an absolute or a relative path, or a URL. |

## 18.8. Range

### 18.8.1. Excel_AutoFill

This library automatically fills the cells in the specified range.

**Table 18-59. "Excel_AutoFill" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the current sheet will be operated. |
| 3 | Start_cell | Specify the start of the autofill range. |
| 4 | End_cell | Specify the end of the autofill range. |

### 18.8.2. Excel_Sort

This library sorts the range specified in the Excel file.

**Table 18-60. "Excel_Sort" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the current sheet will be operated. |
| 3 | Start_cell | Specify the start of the sort range in A1 style. |
| 4 | End_cell | Specify the end of the sort range in A1 style. |
| 5 | Key_cell | Specify the key cell to sort in A1 or R1C1 style. |
| 6 | Order | Specify the ascending or descending sort order. |
| 7 | Header | Specify if the first row is a header row. The header row will not be part of the cells to sort. The entire range will be sorted if there is no header row. |

18.8.3. Excel_ReplaceRange

This library replaces the cells in the specified range. The find and replace method used in this library uses the Excel's find and replace dialog's settings. Therefore, the behavior may differ depending on the options set before running this library.

The options in the find and replace dialog will change as follows after running this library:

- Search: changed to [Sheet]
- SearchOrder: inherit settings
- LookIn: changed to formula
- MatchCase: change to [unchecked]
- LookAt: inherit settings
- MatchByte: changed to [checked]

**Table 18-61. "Excel_ReplaceRange" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the active sheet will be set. |
| 3 | Start_cell | Specify the start of the range to replace in A1 style. |
| 4 | End_cell | Specify the end of the range to replace in A1 style. |
| 5 | Search_string | Specify the text to search. |
| 6 | Replaced_string | Specify the replacement text. If not specified, text will be replaced with empty text. |

18.8.4. Excel_CopyRange

This library copies the specified range of cells to the clipboard. Only A1 style is available for specifying the range.

**Table 18-62. "Excel_CopyRange" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the current sheet will be operated. |
| 3 | Start_cell | Specify the start of the range to copy. Example: A1 |
| 4 | End_cell | Specify the end of the range to copy. Example: B1 |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.

The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.

The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

### 18.8.5. Excel_DeleteRange

This library deletes the values in the specified range of cells. Only A1 style is available for specifying the range.

**Table 18-63. "Excel_DeleteRange" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the current sheet will be operated. |
| 3 | Start_cell | Specify the start of the range to delete values. Example: A1 |
| 4 | End_cell | Specify the end of the range to delete values. Example: C3 |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.

The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.

The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

### 18.8.6. Excel_PasteRange

This library copies the specified range of cells and pastes the cells accordingly.

Books with the same filename but different folders cannot be specified as the "filename" and "paste destination." The start/end/destination cell must be specified in A1 or R1C1 style.

Example:

| | | | |
|---|---|---|---|
| A1 style: | Start cell: A1 | End cell: F15 | Paste destination: G1 |
| R1C1 style: | Start cell: R1C1 | End cell: R15C65 | Paste destination: R1C66 |
| Row: | Start cell: 1 | End cell: 155 | Paste destination: 156 |
| Column: | Start cell: A | End cell: F | Paste destination: G |

**Table 18-64. "Excel_PasteRange" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the active sheet will be set. |
| | Paste_options | Specify the paste method. The process is the same as Excel. If the start/end/pasted cell is row/column, "Transpose row/column (T)" cannot be selected. |
| 4 | Start_cell | Specify the start of the range to copy. |
| 5 | End_cell | Specify the end of the range to copy. |
| 6 | Destination_file_name | Specify the path of the file to operate with an absolute/relative or URL. Keep blank if the destination is the same as the filename. |
| 7 | Destination_sheet_name | Specify the sheet to operate. If blank, the active sheet will be set. |
| 8 | Destination_cell | Specify the first cell at the paste destination. |

### 18.8.7. Excel_SearchRange

This library searches for the specified text in a range of cells. Only A1 style is available for specifying the range.

By executing this library, the options in the Find and Replace dialog will be changed as follows. (In parentheses is the Find method parameter name of the Range object)

- ・ Within: Changes to [Sheet]
- ・ Search (SearchOrder): The previous settings are inherited.
- ・ Look in (LookIn): The previous settings are inherited.
- ・ Match case (MatchCase): Changes to [unchecked]
- ・ Match entire cell contents (LookAt): The previous settings are inherited.
- ・ Match byte (MatchByte): Changes to [checked]

**Table 18-65. "Excel_SearchRange" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the current sheet will be operated. |
| 3 | Search_word | Specify the string to search. |
| 4 | Start_cell | Specify the start of the range to search. Example: A1 |
| 5 | End_cell | Specify the end of the range to search. Example: B1 |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.
The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.
The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

### 18.8.8. Excel_SelectRange

This library selects the specified range of cells. Only A1 style is available for specifying the range.

**Table 18-66. "Excel_SelectRange" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the current sheet will be operated. |
| 3 | Start_cell | Specify the start of the range to select. Example: A1 |
| 4 | End_cell | Specify the end of the range to select. Example: B1 |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.
The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.
The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

## 18.9.  Position

These libraries store the cell position moved from the specified cell position in a variable, without using the actual Excel file.

### 18.9.1.  Excel_ConvertA1StyleToR1C1Style1

This library converts the cell location in Excel from A1 to R1C1 style.

**Table 18-67. "Excel_ConvertA1StyleToR1C1Style1" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | A1_format_column | Specify the A1 style column. Example: B3 → B or b |
| 2 | A1_format_row | Specify the A1 style row. Example: B3 → 3 |
| 3 | Result(R1C1_format) | Specify the variable to store the converted result. |

### 18.9.2.  Excel_ConvertA1StyleToR1C1Style2

This library converts the cell location in Excel from A1 to R1C1 style.

**Table 18-68. "Excel_ConvertA1StyleToR1C1Style2" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | A1_format_cell | Specify the A1 style cell. Example: B3 → B3 or b3 |
| 2 | Result(R1C1_format) | Specify the variable to store the converted result. |

### 18.9.3. Excel_MoveToNextRow(A1Style)

This library moves the cell position to the next row in Excel. If "A1" is stored in a variable, the style will be changed to "A2."

Change the variables (default: cell position 1-5) from the Script tab

**Table 18-69. "Excel_MoveToNextRow(A1Style)" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Cell_position_1 | Specify the variable to store the cell position. |
| 2 | Cell_position_2 | Specify the variable to store the cell position. |
| 3 | Cell_position_3 | Specify the variable to store the cell position. |
| 4 | Cell_position_4 | Specify the variable to store the cell position. |
| 5 | Cell_position_5 | Specify the variable to store the cell position. |

### 18.9.4. Excel_MoveToNextColumn(A1Style)

This library moves the specified cell positions to the next row in Excel.

You can change the number of the variables (default: cell position 1-5) from the Script tab.

(Example)

If the value "C3" is stored in the specified variable, the value will be changed to "D3."

**Table 18-70. "Excel_ MoveToNextColumn(A1Style)" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Cell_position_1 | Specify a variable that store a cell position in A1 format. The next row position will be overwritten to the variable. |
| 2 | Cell_position_2 | The same as above. |
| 3 | Cell_position_3 | The same as above. |
| 4 | Cell_position_4 | The same as above. |
| 5 | Cell_position_5 | The same as above. |

### 18.9.5. Excel_ConvertR1C1StyleToA1Style1

This library converts the cell location in Excel from R1C1 to A1 style.

**Table 18-71. "Excel_ConvertR1C1StyleToA1Style1" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | R1C1_format_row | Specify the R1C1 style row. Example: R3C2 → 3 |
| 2 | R1C1_format_column | Specify the R1C1 style column. Example: R3C2 → 2 |
| 3 | Result(A1_format) | Specify the variable to store the converted result. |

### 18.9.6. Excel_ConvertR1C1StyleToA1Style2

This library converts the cell location in Excel from R1C1 to A1 style.

**Table 18-72. "Excel_ConvertR1C1StyleToA1Style2" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | R1C1_format_cell | Specify the R1C1 style cell. Example: R3C2 or r3c2 |
| 2 | Result(A1_format) | Specify the variable to store the converted result. |

### 18.9.7. Excel_UpdateColumn(R1C1Style)

This library moves the cell position by the specified number of columns.

**Table 18-73. "Excel_UpdateColumn(R1C1Style)" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Cell_position | Specify the cell position.<br>The cell position after the movement will be overwritten. |
| 2 | Number_of_columns_to_move | Specify the number of columns to move. |

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### 18.9.8. Excel_OffsetColumn(R1C1Style)

This library moves the cell position by the specified number of columns in Excel.

**Table 18-74. "Excel_OffsetColumn(R1C1Style)" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Cell_position_at_base_point | Specify the cell position. |
| 2 | Number_of columns_to_move | Specify the number of columns to move. |
| 3 | Result_of_move | Specify the variable to store the result. |

### 18.9.9. Excel_MoveToNextColumn(R1C1Style)

This library moves the cell position to the next column in Excel. If "R1C1" is stored in a variable, the style will be changed to "R2C1."

**Table 18-75. "Excel_MoveToNextColumn(R1C1Style)" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Cell_position | Specify the cell position. |

### 18.9.10. Excel_MoveToNextRow(R1C1Style)

This library moves the cell position in to the next row. If "R1C1" is stored in a variable, the style will be changed to "R2C1."

**Table 18-76. "Excel_MoveToNextRow(R1C1Style)" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Cell_position | Specify the cell position. |

### 18.9.11. Excel_UpdateRowAndColumn(R1C1Style)

This library moves the cell position by the specified number of rows and columns.

**Table 18-77. "Excel_UpdateRowAndColumn(R1C1Style)" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Cell_position | Specify the cell position.<br>The cell position after the movement will be overwritten. |
| 2 | Number_of_rows_to_move | Specify the number of rows to move. |
| 3 | Number_of_columns_to_move | Specify the number of columns to move. |

### 18.9.12. Excel_OffsetRowAndColumn(R1C1Style)

This library moves the cell position by the specified number of rows and columns.

**Table 18-78. "Excel_OffsetRowAndColumn(R1C1Style)" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Cell_position_at_base_point | Specify the cell position. |
| 2 | Number_of_rows_to_move | Specify the number of rows to move. |
| 3 | Number_of columns_to_move | Specify the number of columns to move. |
| 4 | Result_of_move | Specify the variable to store the result. |

### 18.9.13. Excel_UpdateRow(R1C1Style)

This library moves the cell position by the specified number of rows.

**Table 18-79. "Excel_UpdateRow(R1C1Style)" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Cell_position | Specify the cell position. |
| | | The cell position after the movement will be overwritten. |
| 2 | Number_of_rows_to_move | Specify the number of rows to move. |

### 18.9.14. Excel_OffsetRow(R1C1Style)

This library moves the cell position by the number of specified rows in Excel.

**Table 18-80. "Excel_OffsetRow(R1C1Style)" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Cell_position_at_base_point | Specify the cell position. |
| 2 | Number_of_rows_to_move | Specify the number of rows to move. |
| 3 | Result_of_move | Specify the variable to store the result. |

## 18.10. Filter

### 18.10.1. Excel_SetFilterCondition

This library sets a filter for the specified Excel cells. After setting the filter, set the conditions to hide the cells. Cells can be specified in A1 or R1C1 style.

**Table 18-81. "Excel_SetFilterCondition" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the name of a sheet to operate.<br>If not specified, the active sheet will be the target. |
| 3 | Cell_position | Specify the cell or a range of cells to set the filter. If specifying a single cell, the first row containing that cell will be treated as the header row. Single cell can be specified in A1 or R1C1 style. If If A1 style is B3 ($B$3), the R1C1 style will be R3C2.<br>If specifying a range of cells, the specified range will be treated as the header. Only A1 style is available for specifying the range. For example, specify "A2:C2" for the range to be the header. |
| 4 | Column_number | Specify the column to set the filtering condition. Column numbers are assigned as 1, 2, 3, ... counted from the left of the filter range.<br>Example: In the case of B4:F10 = filter range (B3:F3 = header part)<br>Specify 1 to set a filtering condition in column B.<br>Specify 3 to set a filtering condition in column D. |
| 5 | Refining_key | Specify the condition to narrow down the cells to display.<br>Only those that are equal to the specified value will be displayed. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.
The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.
The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

### 18.10.2. Excel_SetFilterConditionAndGetResultsNumber

This library sets the filter to the cells in the specified Excel file. The filtered result count will also be obtained.

**Table 18-82. "Excel_SetFilterConditionAndGetResultsNumber" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the name of a sheet to operate.<br>If not specified, the active sheet will be used. |
| 3 | Cell_position | Specify a cell or range of cells to set the filter. Single cells can be specified in A1 or R1C1 styles. If A1 style is B3 ($B$3), the R1C1 style will be R3C2.<br>The specified range of cells will be treated as headers an only A1 style can be specified.<br>Example: Specify A2:C2 if A2~C2 are headers. |
| 4 | Column_number | Specify the number of the column to apply the filter. The field where the filter is applied will be 1, 2, … from the left. |
| 5 | Refining_key | Set the filter keyword. If not specified, a blank filter will be applied but the count will not be obtained. |
| 6 | Column_to_count | Specify the column to search or the data count. The specified column must be included in the filtered range.<br>Example: Specify C to check the data count in column C |
| 7 | Results_number | Specify the variable to store the displayed data count if the filter is applied. |

### 18.10.3. Excel_SetMultipleFilterConditionWithLogicalOperation

This library sets filters to the cells in the specified Excel file. "AND" or "OR" will be applied to two filter conditions.

Example:

If "AND" is set as the logical operator and filter key 1 is >1, filter key 2 is <5, the filter condition will be greater than 1 and less than 5.

**Table 18-83. "Excel_SetMultipleFilterConditionWithLogicalOperation" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the name of a sheet to operate. If not specified, the active sheet will be used. |
| 3 | Cell_position | Specify a cell or range of cells to set the filter. Single cells can be specified in A1 or R1C1 styles. If A1 style is B3 ($B$3), the R1C1 style will be R3C2. The specified range of cells will be treated as headers an only A1 style can be specified. Example: Specify A2:C2 if A2~C2 are headers. |
| 4 | Column_number | Specify the number of the column to apply the filter. The field where the filter is applied will be 1, 2, … from the left. |
| 5 | Refining_key1 | Set the first filter condition. |
| 6 | Logical_operation | Specify "and" or "or" as the logical operator |
| 7 | Refining_key2 | Set the second filter condition. |

### 18.10.4. Excel_SetMultipleFilterConditions

This library sets a filter for the specified Excel cells. After setting the filter, set the conditions to hide the cells. Modify the Script tab to increase refining keys. Cells can be specified in A1 or R1C1 style. <> (Non-empty cells) cannot be specified as a refining key.

**Table 18-84. "Excel_SetMultipleFilterConditions" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the name of a sheet to operate. If not specified, the active sheet will be the target. |
| 3 | Cell_position | Specify the cell or a range of cells to set a filter. If specified by a single cell, the first row of a table containing the cell will be treated as a header row. Single cell can be specified in A1 or R1C1 style. If A1 style is B3 ($B$3), the R1C1 style will be R3C2. If specified by a range of cells, the specified range of cells will be treated as a header. Only A1 style is available for specifying the range. For example, to handle A2 to C2 as a header, specify "A2:C2." |
| 4 | Column_number | Specify the column to set a filtering condition by number. Column numbers are assigned as 1, 2, 3, ... counted from the left of the filter range. Example: In the case of B4:F10 = filter range (B3:F3 = header part) Specify 1 to set a filtering condition in column B. Specify 3 to set a filtering condition in column D. |
| 5 | Refining_key_1 | Specify the condition to narrow down the cells to display. Only those that are equal to the specified value will be displayed |
| 6 | Refining_key_2 | Specify the condition to narrow down the cells to display. Only those that are equal to the specified value will be displayed |
| 7 | Refining_key_3 | Specify the condition to narrow down the cells to display. Only those that are equal to the specified value will be displayed |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.

The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.

The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

### 18.10.5. Excel_ClearFilter

This library clears the filter in the cells in the specified Excel file.

**Table 18-85. "Excel_ClearFilter" library settings**

| No. | Item | Description |
| --- | --- | --- |
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the name of a sheet to operate. If not specified, the active sheet will be the target. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.

The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.

The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

18.10.6. Excel_ApplyFilter

This library sets a filter for the specified Excel cells. Cells can be specified in A1 or R1C1 style.

**Table 18-86. "Excel_ApplyFilter" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the name of a sheet to operate. If not specified, the active sheet will be the target. |
| 3 | Cell_position | Specify the cell or a range of cells to set the filter. If specifying a single cell, the first row containing that cell will be treated as the header row. Single cell can be specified in A1 or R1C1 style. If If A1 style is B3 ($B$3), the R1C1 style will be R3C2. If specifying a range of cells, the specified range will be treated as the header. Only A1 style is available for specifying the range. For example, specify "A2:C2" for the range to be the header |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.
The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.
The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

## 18.11. Selection

### 18.11.1. Excel_GetSelectedPosition

This library gets the cursor position of the specified A1 style Excel file.

**Table 18-87. "Excel_GetSelectedPosition" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Cursor_position | Specify the variable to store a position of the cursor. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.

The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.

The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

18.11.2. Excel_MoveSelection

This library moves the cursor the cursor to the specified Excel cell. The cell can be specified in A1 or R1C1 style.

**Table 18-88. "Excel_MoveSelection" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the name of a sheet to operate.<br>If not specified, the active sheet will be the target. |
| 3 | Cell_position | Specify the cell where to move the cursor.<br>If A1 style is B3 ($B$3), the R1C1 style will be R3C2. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.

The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.

The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

## 18.12. Format

### 18.12.1. Excel_SetCellFormat

This library sets the format in specified Excel cells.

**Table 18-89. "Excel_SetCellFormat" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the name of a sheet to operate.<br>If not specified, the active sheet will be the target. |
| 3 | Target_cell_range | Specify the range of cells to operate.<br>Only A1 style is supported. |
| 4 | Set_format | Select the format to set for the target cell range.<br> - "Standard" sets the standard format.<br> - "Time(Display_with_hh:mm:ss)" sets the hh:mm:ss format.<br> - "Date(Display_with_yyyymmdd)" sets the yyyymmdd format.<br> -"Date_and_time(Display_with_yyyy/mm/dd_hh:mm:ss)" sets the yyyy/mm/dd hh:mm:ss format.<br> - "Numerical_value" sets the 0_ format.<br> - "Eight-digit_numerial_value(0_fill)" sets the 00000000 format.<br> - "String" sets the text format.<br> - "Currency" sets the \#,##0;\-#,##0 format.<br> - "Percentage (%)"sets the 0% format. |
| 5 | User_definition | Specify if the format to set is not shown in the list in "4. Formatting."<br>It will be given priority over the format selected in "4. Formatting."<br>Invalid formatting will result in an error. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.

The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.

The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

## 18.13. Excel_ExportToPDF

This library exports Excel files as PDFs.

**Table 18-90. "Excel_ExportToPDF" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Excel_filename | Specify an existing Excel file with an absolute/relative path or URL. |
| 2 | PDF_filename | Specify the output PDF file with an absolute/relative path or URL. The file will be overwritten if the file already exists. An error will occur if the file is opened by another application. |

## 18.14.  Excel_GetValueInDataListFile

This library gets the value from an Excel file opened in the Data list pane.


**Table 18-91. "Excel_GetValueInDataListFile" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Operation | [Get value] is specified by default. <br> No need to set. |
| 2 | Filename | [$DATABASE LIST-FILE] is specified by default. <br> No need to set. |
| 3 | Sheet name | No need to set. |
| 4 | Cell position | Specify the A1 style cell position to get the value in the Data list file. |
| 5 | Variable | Specify the variable to store the result. |

**Note**

If the library is executed without using the Data list, the error—"The following file does not exist. Filename: [xxxxx]"—will be displayed.

## 18.15. Excel_RunMacro

This library runs a macro in the specified Excel file.

**Table 18-92. "Excel_RunMacro" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Macro_name | Specify the name of the macro to run. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.
The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.
The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

## 18.16. Excel_JoinTables

This library matches specified cells and combines data related to the matched cells.

Example:

| File 1 | A | B |
|---|---|---|
| 1 | 0001 | Apple |
| 2 | 0002 | Orange |

| File 2 | E | F |
|---|---|---|
| 5 | 0001 | 150 yen |
| 6 | 0002 | 100 yen |

| Output file | A | B | C |
|---|---|---|---|
| 2 | 0001 | Apple | 150 yen |
| 3 | 0002 | Orange | 100 yen |

Only A1 style is supported.

**Table 18-93. "Excel_JoinTables" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Matching_file_name_1 | Specify the file (the first file) to match with an absolute/relative path or URL. |
| 2 | Sheet_name_1 | Specify the name of a sheet to operate. |
| 3 | Specified_cell_1 | Specify the cell position of the item to match. The number of items will be calculated descending from the specified position. Example: A1 |
| 4 | Matching_file_name_2 | Specify the file (the second file) to match with an absolute/relative path or URL. |
| 5 | Sheet_name_2 | Specify the name of a sheet to operate. |
| 6 | Specified_cell_2 | Specify the cell position of the item to match. The number of items will be calculated descending from the specified position. Example: E5 |
| 7 | Output_file_name | Specify the file to export the result with an absolute/relative path or URL. |
| 8 | Output_sheet_name | Specify the name of a sheet in to export the result. |
| 9 | Output_cell | Specify the position of the cell to export the result. Example: A2 |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.
The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.
The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

## 18.17. Excel_SetValueAndFormat

This library sets the value and format in the specified Excel file cell. The cell can be specified in A1 style or R1C1 style.

**Table 18-94. "Excel_SetValueAndFormat" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Set_value | Specify the value to set. |
| 2 | Format | Specify the same value format as the formatting in Excel. Example: yyyy/mm/dd, Month dd, 0.00, #,### |
| 3 | File_name | Specify the file with an absolute/relative path or URL. |
| 4 | Sheet_name | Specify the sheet. If blank, the current sheet will be operated. |
| 5 | Cell_position | Specify the position of the cell to operate. If A1 style is B3, the R1C1 style will be R3C2. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.

The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.

The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

## 18.18.  Excel_GetValue

This library gets the value of a cell in the specified Excel file. The cell can be specified in A1 style or R1C1 style.

**Table 18-95. "Excel_GetValue" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the current sheet will be operated. |
| 3 | Cell_position | Specify the position of the cell to operate. If A1 style is B3 ($B$3), the R1C1 style will be R3C2. |
| 4 | Type | Select the type of cell value to get. "value" gets the value of the specified cell. Select this when to get a value from a hidden cell or a cell with small width. "text" gets the displayed string of the specified cell. Select this when to get the displayed string from a cell with date or time format setting. |
| 5 | Storage_dest_variable | Specify the variable to store the acquired value of the cell. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.

The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.

The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

## 18.19. Excel_GetValue2

This library gets the value of a cell in the specified Excel file. The cell can be specified in A1 or R1C1 style.

**Table 18-96. "Excel_GetValue2" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the current sheet will be operated. |
| 3 | Cell(row) | Specify the row of the cell to operate. If A1 style is 3, will be R3 in R1C1 style. |
| 4 | Cell(column) | Specify the column of the cell to operate. If A1 style is B, will be C2 in R1C1 style. |
| 5 | Type | Select the type of cell value to get. "value" gets the value of the specified cell. Select this when to get a value from a hidden cell or a cell with small width. "text" gets the displayed string of the specified cell. Select this when to get the displayed string from a cell with date or time format setting. |
| 6 | Storage_dest_variable | Specify the variable to store the acquired value of the cell. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.

The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.

The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

## 18.20. Excel_SetValue

This library sets the value in the specified Excel file cell. The cell can be specified in A1 style or R1C1 style.

**Table 18-97. "Excel_SetValue" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Set_value | Specify the value to set. |
| 2 | File_name | Specify the file with an absolute/relative path or URL. |
| 3 | Sheet_name | Specify the sheet. If blank, the current sheet will be operated. |
| 4 | Cell_position | Specify the position of the cell to operate. If A1 style is B3, the R1C1 style will be R3C2. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.

The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.

The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

## 18.21.  Excel_SetValue2

This library sets the value in the specified Excel file cell. The cell can be specified in A1 style or R1C1 style.

**Table 18-98. "Excel_SetValue2" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Set_value | Specify the value to set. |
| 2 | File_name | Specify the file with an absolute/relative path or URL. |
| 3 | Sheet_name | Specify the sheet. If blank, the current sheet will be operated. |
| 4 | Cell(row) | Specify the row of the cell to operate. If A1 style is 3, will be R3 in R1C1 style. |
| 5 | Cell(column) | Specify the column of the cell to operate. If A1 style is B, the R1C1 style will be C2. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.
The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.
The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

## 18.22.　Excel_Print

This library prints the specified Excel file. Set the printer settings in Excel in advance.

**Table 18-99. "Excel_Print" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Input_file_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet to print. If blank, the active sheet will be used. |
| 3 | Printer_name | Specify the name of the printer. If not set or the printer does not exist, the printer selected in Excel will be used. Shared printers are to be specified with "\\{computer name}\{shared printer name}"<br>Example: \\MyComputer\MyPrinter |
| 4 | Copies | Set the number of copies to print. 1 will be set if not specified. |
| 5 | Collation | Set if collating when printing multiple copies. |
| 6 | From_page | Set the page number of the start page. The top page will be set if not specified. |
| 7 | To_page | Set the page number of the end page. The last page will be set if not specified. |

## 18.23.  Excel_RunMacroWithArguments

This library runs the macro in Excel. This library will be paused until the macro is finished running.

**Table 18-100. "Excel_RunMacroWithArguments" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Macro_name | Specify the macro to run. If there are macros with multiple modules with the same name, specify the module name and macro name.<br>Example: Module3.InsertAddress |
| 3 | Arguments | Specify the argument in the macro to run. Separate multiple arguments with commas (,) with no spaces in between. Enclose arguments with double-quotes (") if commas are included in the arguments or there are spaces at the front or at the end of the argument.<br>Example: Argument is {order, address, phone number, name} and address is included in the address and space is in the name.<br>1,"Yokohama,Kanagawa",045-320-0000," John Doe " |

## 18.24. Excel_FindText

This library gets row and column information of matched cell searched in a specified range. If no search word exists in the specified range, the start cell will become active.

Scanning horizontally from the top left cell in the specified range, the value of the first matched cell is obtained

Only A1 style is available for specifying the range.

By executing this library, the options in the Find and Replace dialog will change as follows. (In parentheses is the Find method parameter name of the Range object)

・ Within: Changes to [Sheet]
・ Search (SearchOrder): The previous settings are inherited.
・ Look in (LookIn): Changes to [Values] when "String" is specified in the search type, and changes to [Formulas] when "Date" is specified in the search type
・ Match case (MatchCase): Changes to [unchecked]
・ Match entire cell contents (LookAt): The previous settings are inherited.
・ Match byte (MatchByte): Changes to [checked]

**Table 18-101. "Excel_FindText" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Search_type | Specify the format of cell to search for. Search with text: "String" Search with date: "Date" |
| 2 | File_name | Specify the file with an absolute/relative path or URL. |
| 3 | Sheet_name | Specify the name of a sheet to operate. |
| 4 | Search_word | Specify the word to search for. *Specify date searches in the yyyy/m/d format. Example: 2018/1/1. Dates cannot be searched in any other formats. |
| 5 | Start_cell | Specify the start of the cell range to search. |
| 6 | End_cell | Specify the end of the cell range to search. |
| 7 | Result(row) | Specify the variable to store the row number resulted from the search. |
| 8 | Result(column) | Specify the variable to store the column number resulted from the search. |

**Notes**

When the Excel file opened by another user is specified, WinActor Ver.7.1.1 or its predecessor works differently from WinActor Ver.7.2.0 or its successor.

The user library of WinActor Ver.7.1.1 or its predecessor displays the "File in Use" confirmation dialog, and pauses until the user selects whether to open the file read-only.

The user library of WinActor Ver.7.2.0 or its successor opens the file read-only without displaying the confirmation dialog.

## 18.25.  Excel_RemoveDuplicates

This library deletes duplicate data in the range specified in the Excel file.

**Table 18-102. "Excel_RemoveDuplicates" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_name | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet to print. If blank, the active sheet will be used. |
| 3 | Start_cell | Specify the start of the range in A1 style. |
| 4 | End_cell | Specify the end of the range in A1 style. |
| 5 | Column_number | Specify the column number as the key to determine duplicate data. (1~)<br>When specifying multiple keys, separate them with commas. (Example: 1,2) |
| 6 | Header | Set if the first row is the header row.<br>Set "Yes" to treat the first row as the header row. Set "No" to process the entire range. |

# 19. Word

## 19.1. Word_InsertTextBeforeBookmark

This library inserts text before the specified bookmark in the specified Word file.

**Table 19-1. "Word_InsertTextBeforeBookmark" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_path | Specify the Word file with an absolute/relative path or URL. |
| 2 | Bookmark_name | Specify the bookmark name. |
| 3 | String | Specify the text to insert. |

### Note

If the bookmark specifies an image, the specified image may be deleted when inserting text.

## 19.2. Word_InsertTextAfterBookmark

This library inserts text after the specified bookmark in the specified Word file.

**Table 19-2. "Word_InsertTextAfterBookmark" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_path | Specify the Word with an absolute/relative path or URL. |
| 2 | Bookmark_name | Specify the bookmark name. |
| 3 | String | Specify the text to insert. |

### Note

If the bookmark specifies an image, the specified image may be deleted when inserting text.

## 19.3. Word_SaveFile

This library saves and overwrites the specified Word file.

**Table 19-3. "Word_SaveFile" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_path | Specify the Word file with an absolute/relative path or URL. |

## 19.4. Word_SaveFileAs

This library saves the specified Word file with a new filename.

**Table 19-4. "Word_SaveFileAs" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Save_source_file_path | Specify the Word file with an absolute/relative path or URL. |
| 2 | Save_file_name | Specify the filename to save with an absolute/relative path or URL. |

## 19.5. Word_FindText

This library searches for specific text in the specified Word file.

Executing this library changes the search options in the Find and Replace dialog as follows.

・ Sounds like: Changes to [unchecked]

・ Find whole words only: Changes to [checked]

**Table 19-5. "Word_FindText" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | File_path | Specify the Word file with an absolute/relative path or URL. |
| 2 | Search_string | Specify the text to search for. |
| 3 | Result | Specify the variable to store the search result. |

## 19.6. Word_UpdateTable

This library modifies the content of a table in the specified Word file.

### Table 19-6. "Word_UpdateTable" library settings

| No. | Item | Description |
|-----|------|-------------|
| 1 | File_path | Specify the Word file with an absolute/relative path or URL. |
| 2 | Table_number | Specify the table number to modify. |
| 3 | Row_number | Specify the row number of the cell to modify. |
| 4 | Column_number | Specify the column number of the cell to modify. |
| 5 | Corrected_string | Specify the text to set. |

## 19.7. Word_UpdateTable2

This library modifies the content of a table in the currently active Word file.

### Table 19-7. "Word_UpdateTable" library settings

| No. | Item | Description |
|-----|------|-------------|
| 1 | Table_number (1 ~) | Specify the table number for modification. |
| 2 | Row_number (1 ~) | Specify the row number of the cell to modify. |
| 3 | Column_number (1 ~) | Specify the column number of the cell to modify. |
| 4 | Corrected_string | Specify the text to set. |

**Note**

Be sure to activate the target file (Active) before executing this library.

# 20. Mailer

## 20.1. Outlook

Use Outlook libraries in normal operations after installing Outlook and setting up an account. Libraries may not be operated depending on the environment used.

### 20.1.1. Outlook_SaveMailWithAttachment

This library saves the selected mail and attachment to the specified folder.

**Table 20-1. "Outlook_SaveMailWithAttachment" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Save_file_destination | Specify the folder to save the email and attachment with an absolute or relative path. |
| 2 | E-mail_serial_number | Specify the serial number (up to eight digits) of the folder to create in the save destination. |

**Note**

・ This library can be operated only on computers that can send emails with Microsoft Outlook.

### 20.1.2. Outlook_SendMail

This library sends an email automatically with Outlook.

**Table 20-2. "Outlook_SendMail" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Recipient(To) | Specify the recipient. |
| 2 | Recipient(Cc) | Specify the recipient (Cc). Leave blank when omitting. |
| 3 | Subject | Specify the subject. |
| 4 | Body | Specify the body. |

**Notes**

・ This library can be operated only on computers that can send emails with Microsoft Outlook. If the warning, "A program is trying to send an e-mail message on your behalf", is displayed and the email cannot be sent, change the settings in Programmatic Access Security in Outlook, or change the environment security settings. Use this library when Outlook is running.

### 20.1.3. Outlook_SendMailByMailer

This library opens Outlook, sends an email, and closes Outlook.

**Table 20-3. "Outlook_SendMailByMailer" library settings**

| No. | Item | Description |
| --- | --- | --- |
| 1 | Recipient(To) | Specify the recipient. |
| 2 | Recipient(Cc) | Specify the recipient (Cc). Leave blank when omitting. |
| 3 | Subject | Specify the subject. |
| 4 | Body | Specify the body. |

**Notes**

・ This library can be operated only on computers that can send emails with
Microsoft Outlook. If the warning, "A program is trying to send an e-mail
message on your behalf", is displayed and the email cannot be sent, change
the settings in Programmatic Access Security in Outlook, or change the
environment security settings. Use this library when Outlook is running.

### 20.1.4. Outlook_SendMailWithAttachment

This library sends emails (with attachment) automatically using Outlook.

**Table 20-4. "Outlook_SendMailWithAttachment" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Recipient(To) | Specify the recipient. |
| 2 | Recipient(Cc) | Specify the recipient (Cc). Leave blank when omitting. |
| 3 | Attached_file | Specify the attachment with an absolute or relative path. |
| 4 | Attached_title | Specify the attachment title. |
| 5 | Subject | Specify the subject. |
| 6 | Body | Specify the body. |

**Notes**

・ This library can be operated only on computers that can send emails with Microsoft Outlook. If the warning, "A program is trying to send an e-mail message on your behalf", is displayed and the email cannot be sent, change the settings in Programmatic Access Security in Outlook, or change the environment security settings. Use this library when Outlook is running.

### 20.1.5. Outlook_SendMailWithAttachmentByMailer

This library opens Outlook, sends an email (with an attachment), and closes Outlook.

**Table 20-5. "Outlook_SendMailWithAttachmentByMailer" library settings**

| No. | Item | Description |
| --- | --- | --- |
| 1 | Recipient(To) | Specify the recipient). |
| 2 | Recipient(Cc) | Specify the recipient (Cc). Leave blank when omitting. |
| 3 | Attached_file | Specify the attachment with an absolute or relative path. |
| 4 | Attached_title | Specify the attachment title. |
| 5 | Subject | Specify the subject. |
| 6 | Body | Specify the body. |

**Notes**

・ This library can be operated only on computers that can send emails with Microsoft Outlook. If the warning, "A program is trying to send an e-mail message on your behalf", is displayed and the email cannot be sent, change the settings in Programmatic Access Security in Outlook, or change the environment security settings. Use this library when Outlook is running.

### 20.1.6. Outlook_FindAppointment

This library searches for appointments within the specified period.

**Table 20-6. "Outlook_FindAppointment" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Start_date_and_time | Specify the start date and time in YYYY/MM/DD HH:MM:SS format. |
| 2 | End_date_and_time | Specify the end date and time in YYYY/MM/DD HH:MM:SS format. <br> If not specified, the same as "Start_date_and_time" will be specified. |
| 3 | Scheduled_type | Specify whether include all-day appointments. <br> "All appointments" if 0 or not specified, <br> "Except for all-day appointments" if 1 is specified. |
| 4 | Schedule_confirmation_result | Specify the variable to store the schedule search result. <br> "1" if there is a corresponding result, otherwise "0" will be stored. |

**Note**

・ This library can be operated only on computers that can send emails with Microsoft Outlook.

### 20.1.7. Outlook_CreateReplyToAll

This library creates a mail with "Reply to all" from the selected mail.

**Table 20-7. "Outlook_CreateReplyToAll" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Subject | Specify the subject of the reply email. If not specified, the default subject will be set. |
| 2 | Mail_content | Specify the content of the reply. |

**Notes**

・　This library can be operated only on computers that can send emails with Microsoft Outlook. The created mail will not be sent.

### 20.1.8. Outlook_AddAppointment

This library creates a new appointment.

**Table 20-8. "Outlook_AddAppointment" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Start_date_and_time | Specify the start date and time in YYYY/MM/DD HH:MM:SS format. |
| 2 | End_date_and_time | Specify the end date and time in YYYY/MM/DD HH:MM:SS format. |
| 3 | Subject | Specify the subject. |
| 4 | Location | Specify the location. |
| 5 | Scheduled_type | Specify the appointment type (date and time, all-day). "Date and time" if 0 or not specified, "All-day" if 1 is specified. |
| 6 | Contents | Specify details. |

**Note**

・ This library can be operated only on computers that can send emails with Microsoft Outlook.

20.1.9. Outlook_CountFoundMails

This library search emails from a search target inbox folder by specifying conditions
and get the number of emails that match the search conditions.

The search results can be narrowed down by specifying more search conditions.

Set the inbox folder to search in "Mailbox\Folder\Folder\..." format. (Example:
aaaa@bbb.cc\Inbox)

The subject, body, sender, and recipient will be searched based on a partial match.

**Table 20-9. "Outlook_CountFoundMails" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Search_target_folder | Set then inbox folder for search. |
| 2 | Delimiter_character | Specify the character that indicates the inbox folder level. |
| 3 | Subject | Specify the subject. |
| 4 | Body | Specify the body. |
| 5 | Sender | Specify the mail address of a sender. |
| 6 | Recipient | Specify the mail address of a recipient. |
| 7 | Received_date | Select the received date: yesterday, today, with_in_the_past_seven_days, last_week, this_week, last_month, this_month |
| 8 | Date_to_be_sent | Select the sent date: yesterday, today, with_in_the_past_seven_days, last_week, this_week, last_month, this_month |
| 9 | Attached_file | Specify whether there is an attachment file or not. |
| 10 | Number_of_searches | Specify the variable to store the number of mails that match the search conditions. |

**Notes**

・ The library may not work properly if the following characters are used in the
mail folder: \, /, #, $, % Change the mail folder name before using this library.

・ Searching many emails may take time to process.

・ Use this library when Outlook is running.

### 20.1.10. Outlook_SaveFoundMails

This library search emails from a search target inbox folder by specifying conditions and save emails that match the search conditions.

At this time, if the number of emails that match the search conditions exceeds the limited number to be saved, the emails will not be saved and the number of emails that match the search conditions will be stored in a value specified for the number of searches.

If the number of emails that match the search conditions is less than the limited number to be saved, the emails will be saved in the specified folder and the number of saved emails will be stored in a value specified for the number of saved mails.

The search results can be narrowed down by specifying more search conditions.

Set the inbox folder to search in "Mailbox\Folder\Folder\..." format. (Example: aaaa@bbb.cc\Inbox)

The subject, body, sender, and recipient will be searched based on a partial match.

The folder name to save emails is "Received date_Received time_eight-digit serial number." Set and update the eight-digit serial number so that a folder with the same name cannot be created in the save file destination.

**Table 20-10. "Outlook_SaveFoundMails" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Save_file_destination | Set the folder to save mails that match search conditions. |
| 2 | Search_target_folder | Set then inbox folder for search. |
| 3 | Delimiter_character | Specify the character that indicates the inbox folder level. |
| 4 | Subject | Specify the subject. |
| 5 | Body | Specify the body. |
| 6 | Sender | Specify the mail address of a sender. |
| 7 | Recipient | Specify the mail address of a recipient. |
| 8 | Received_date | Select the received date: yesterday, today, with_in_the_past_seven_days, last_week, this_week, last_month, this_month |
| 9 | Date_to_be_sent | Select the sent date: yesterday, today, with_in_the_past_seven_days, last_week, this_week, |

|    |                            | last_month, this_month |
|----|----------------------------|------------------------|
| 10 | Attached_file              | Specify if there is an attachment file. |
| 11 | Limited_number_to_be_saved | Specify the limited number to save |
| 12 | Number_of_searches         | Specify the variable to store the result. (The result will be stored only when the number of emails that match the search conditions exceeds the limited number to be saved.) |
| 13 | Number_of_saved_mails      | Specify the variable to store the result. (The result will be stored only when the number of emails that match the search conditions is less than the limited number to be saved.) |

**Notes**

・ The library may not work properly if the following characters are used in the mail folder: \, /, #, $, % Change the mail folder name before using this library.

・ Searching many emails may take time to process.

・ Use this library when Outlook is running.

### 20.1.11. Outlook_Quit

This library closes Outlook mailer. If multiple mailers are running, all mailers will be closed. Email files opened without starting the mailer is out of the scope of this library.

### 20.1.12. Outlook_Launch

This library launches Outlook and opens the inbox.
If the mailer is already running, a new mailer will not be launched.

This library is comprised of two libraries.

- Outlook_Launch
- Brings Outlook to the front screen

The library "Outlook_Launch" launches the Outlook, and the library "Brings Outlook to the front screen" brings the launched Outlook to the front.
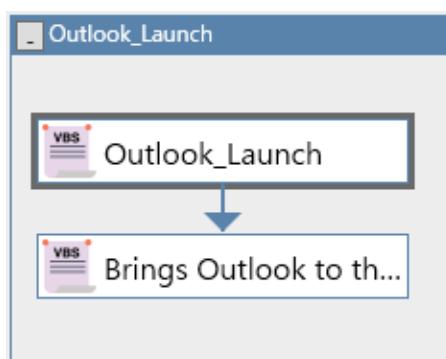


**Figure 20-1. "Outlook_Launch" library**

**Table 20-11. "Outlook_Launch" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | WinID name | Specify the window to operate. The inbox is specified by default. There is no need to change the setting. |
| 2 | 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. |
| 3 | Timeout (msec)(optional) | Specify the waiting time to find the window selected for "WinID name." This value is used when 'Use this "Property"' is selected for "Timeout setting." The default value is 10,000 milliseconds. |

20.1.13. Outlook_Launch2

This library launches Outlook and opens the inbox. Alt+Tab switches the process
focus. If the mailer is already running, a new mailer will not be launched.

**Table 20-12. "Outlook_Launch2" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Wait_time | Specify the time in milliseconds before and after processing to switch focus. |

**Notes**

・Running this library may not bring Outlook to the front

・If creating a scenario that assumes that Outlook is in the front, run
　"Window_BringWindow toTop" after this library to bring Outlook to the front
　and then run the subsequent processes.

### 20.1.14. Outlook_IsRunning

This library confirms if Outlook is running. The following values will be stored in the Confirmation result depending on a running state of the mailer.

**Table 20-13. "Outlook_IsRunning" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Confirmation_result | Specify the variable to store the result. The result will be"true" if the mailer is running, "false" if not running or if only the mail file is open. |

**Notes**

- Due to Office specifications, launched Office objects are not immediately registered in the object table (ROT). Therefore, the obtained confirmation result may not be correct immediately after the first "Outlook_Launch" in the same scenario.
- Use this library as a pre-process for "Outlook_Launch" to confirm if Outlook is already running. To confirm that Outlook has launched in the same scenario, use "Wait for Window Status" instead of "Outlook_IsRunning."

### 20.1.15. Outlook_SaveDraft

This library saves a draft mail created with Outlook.

**Table 20-14. "Outlook_SaveDraft" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Recipient(To) | Specify the address of a recipient. |
| 2 | Recipient(Cc) | Specify the address of a recipient(Cc). |
| 3 | Recipient(Bcc) | Specify the address of a recipient(Bcc). |
| 4 | Subject | Specify the subject of the mail. |
| 5 | Body | Specify the body of the mail. |
| 6 | AfterSave | Select whether to close the mail-creation window or not after saving the draft. |

## 20.2.  Thunderbird

### 20.2.1.  Thunderbird – Send Mail

This library sends emails automatically using Thunderbird.

This library is comprised of seven nodes and five libraries.
Nodes "Name":

- Wait for Window Status
- Wait for Time
- Clipboard "Recipient"
- Clipboard "Subject"
- Clipboard "Body"

Libraries:

- Creates new mail
- Paste
- Sends

Three Wait for Time nodes and three libraries named "Paste" are placed.

Since this library is a subroutine group, call the library with the "Call Subroutine" node.
The variables 'Recipient,' 'Subject,' 'Body,' and 'Result' are automatically added to the scenario when this library is added into the flowchart.
For the way to specify the variables 'Recipient,' 'Subject,' and 'Body,' see the table below.
The result of the Wait for Window Status, which waits for the mail creation window of ThunderBird to be shown, is stored in the variable 'Result.'
The library "Creates new mail" opens a new message window of ThunderBird, and the "Wait for Window Status" node waits until the opened window is shown. In the "Recipient" group, the Wait for Time node "Waits for specified time" waits for specified time, and the Clipboard node "Recipient" copies the value of the specified recipient into the clipboard. The value of the subject is copied into the clipboard in the "Subject" group, and the value of the body is copied into the clipboard in the "Body" group as well. After that, the library "Sends" sends the mail with the Emulation node.

For the details of the "Wait for Window Status," see the "Wait for Window Status" subsection in "WinActor Operation Manual."

For the details of the "Wait for Time," see the "Wait for Time" subsection in "WinActor Operation Manual."

For the details of the "Clipboard," see the "Clipboard" subsection in "WinActor Operation Manual."
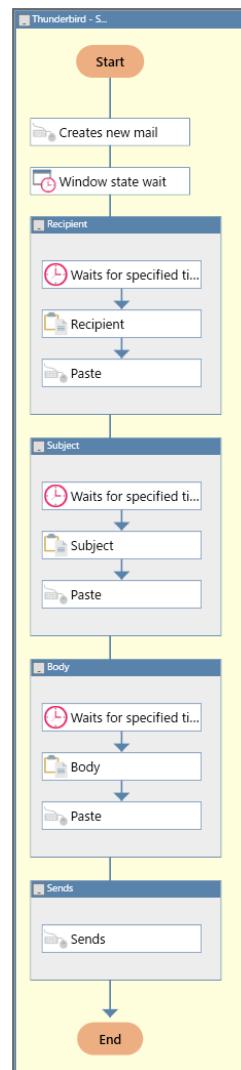


**Figure 20-2. "Thunderbird – Send Mail" library**

**Table 20-15. "Thunderbird – Send Mail" library / "Recipient" node settings**

| No. | Item | Description |
|---|---|---|
| 1 | Recipient | Specify the recipient. |

**Table 20-16. "Thunderbird – Send Mail" library / "Subject" node settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Subject | Specify the subject. |

**Table 20-17. "Thunderbird – Send Mail" library / "Body" node settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Body | Specify the body. |

**Note**

・ This library can be operated only on computers that can send emails with Thunderbird.

## 20.3. WinActor_Mail

For details of libraries for receiving email, see "WinActor Mail Reception Scenario Creation Manual."

## 20.4. SendMail

This library sends emails automatically.

**Table 20-18. "SendMail" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Sender | Specify the sender. |
| 2 | Recipient | Specify the recipient. |
| 3 | Subject | Specify the subject. |
| 4 | Body | Specify the body. |
| 5 | SMTP_server | Specify the SMTP server. |
| 6 | SMTP_Port | Specify the SMTP port. |

# 21. PowerPoint

## 21.1. PowerPoint_AddText

This library adds text to the specified slide in the currently active PowerPoint file.

**Table 21-1. "PowerPoint_AddTextt" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Text | Specify the text to insert. |
| 2 | Slide_number: | Specify the slide number to insert the text. |
| 3 | Insertion_position | Specify the position to insert the text in x, y, w, h format. Example: 10,10,200,100 |

# 22. System

## 22.1. System_SaveHDDInformation

This library collects HDD information and writes the information to an Excel file.

Collected information: Drive name, capacity (GB), free space (GB), file system

**Table 22-1. "System_SaveHDDInformation" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Write_file_path | Specify the Excel file to write the collected HDD information with an absolute/relative path or URL. As this library is not associated with MS Office, URLs can be specified. |

## 22.2. System_WriteErrorLog

This library registers error information to the OS event log.

Error source: WSH

**Table 22-2. "System_WriteErrorLog" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Information | Specify error information to register. |

## 22.3. System_GetComputerName

This library gets the computer name.

**Table 22-3. "System_GetComputerName" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Computer_name | Specify the variable to store the acquired computer name. |

## 22.4. System_SaveNetworkInformation

This library collects network information and writes the information to an Excel file.

Collected information:

    IP, NIC name

**Table 22-4. "System_SaveNetworkInformation" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Write_file_path | Specify the Excel file to write the collected network information with an absolute/relative path or URL. As this library is not associated with MS Office, URLs can be specified. |

## 22.5. System_SavePCInformation

This library collects machine information and write it out to an Excel file.

Collected information:

    BIOS_type, BIOS_manufacturer, BIOS_serial number, BIOS_version,

    Processor_type, Processor_name, Processor_manufacturer,

    BaseBoard_type, BaseBoard_manufacturer, BaseBoard_product,

    OperatingSystem_type, OperatingSystem_BOOT,

    OperatingSystem_CAPTION

**Table 22-5. "System_SavePCInformation" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Write_file_path | Specify the Excel file to write the collected machine information with an absolute/relative path or URL. As this library is not associated with MS Office, URLs can be specified. |

# 23. Browser

## 23.1. Browser

For details of browser-related libraries, see "WinActor Browser Operation Scenario Creation Manual."

# 24. Java

## 24.1. Java application operations

For details of Java-related libraries, see "WinActor Java Application Operation Scenario Creation Manual."

# 25. WinActor Note

## 25.1. WinActor Note

For details of libraries related to the text processing functions using WinActor Note, see "WinActor Note Text Processing Scenario Creation Manual." For details on operations and functions in WinActor Note, see "WinActor Note Operation Manual."

# 26. WinActor Eye

## 26.1. WinActor Eye

For details of libraries using WinActor Eye, see "WinActor Eye Scenario Creation Manual." For details on operations and functions in WinActor Eye, see "WinActor Eye Operation Manual."

# 27. MicrosoftGraph

## 27.1. Excel

### 27.1.1. GetValue

Use Microsoft Graph to get the value in the cell of the Excel file stored in OneDrive. Get a token by signing in the Microsoft Sign-in dialog, opened from the Tool menu before using this function. If the token has expired, get the token again from the Microsoft Sign-in dialog.

**Table 27-1. "MicrosoftGraph_Excel_GetValue" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Filename | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the active sheet will be used. |
| 3 | Cell_location(A1-notation) | Specify the position of the target cell in A1 style. Only single cells can be specified. Specifying a range of cells (A1:B2) is not allowed. A cell in columns A-XFD, rows 1-1048576 can be specified. |
| 4 | Variable_name | Specify the variable to store the obtained cell value. An error will occur if a variable that does not exist is specified. |
| 5 | Timeout(sec) | Set the timeout in seconds. No timeout will be set if 0 is specified and will wait indefinitely. |

### 27.1.2. SetValue

Use Microsoft Graph to set a value in the cell of the Excel file stored in OneDrive.

Get a token by signing in the Microsoft Sign-in dialog, opened from the Tool menu before using this function. If the token has expired, get the token again from the Microsoft Sign-in dialog.

**Table 27-2. "MicrosoftGraph_Excel_SetValue" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Filename | Specify the file with an absolute/relative path or URL. |
| 2 | Sheet_name | Specify the sheet. If blank, the active sheet will be used. |
| 3 | Cell_location(A1-notation) | Specify the position of the target cell in A1 style. Only single cells can be specified. Specifying a range of cells (A1:B2) is not allowed. A cell in columns A-XFD, rows 1-1048576 can be specified. |
| 4 | Variable_name | Specify the variable to store the obtained cell value. An error will occur if a variable that does not exist is specified. |
| 5 | Timeout(sec) | Set the timeout in seconds. No timeout will be set if 0 is specified and will wait indefinitely. |

# 98. Structure data

## 98.1. JSON

### 98.1.1. StructureData_JSONFileArraySize

This library gets the number of elements in an array element in a JSON string.

This is used to get the number of elements in an array from a JSON string stored in a file.

**Table 98-1. "StructureData_JSONFileArraySize" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | JSON_file | Specify the JSON file path to get the number of elements in an array. <br> Click the '…' button to open the file selection dialog. |
| 2 | Key | Specify the key name of the array element. |
| 3 | Number_of_array | Specify the variable name to store the number of elements in an array. |

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## 98.1.2. StructureData_JSONFileReadArray

This library gets the value from an array element in a JSON string.

This is used to get then array element from a JSON string stored in a file.

**Table 98-2. "StructureData_JSONFileReadArray" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | JSON_file | Specify the JSON file path to get an array element.<br>Click the '…' button to open the file selection dialog. |
| 2 | Key | Specify the key name of the array element. |
| 3 | Index | Specify the index value of the array to be acquired. |
| 4 | Read_intent | Select the purpose for reading the element.<br>"Transfer" is used to transfer the acquired value to another JSON string.<br>"Refer_to_value" is used to get then element of JSON string directly.<br>The difference between "Transfer" and "Refer_to_value" is the following two points.<br>・For STRING type element<br>　"Transfer" stores [String] to a variable.<br>　"Refer_to_value" stores ["String"] to a variable.<br>・For NULL type element<br>　"Transfer" stores [ ] (null value) to a variable.<br>　"Refer_to_value" stores [null] to a variable.<br>"Determine_type" is used when using the type of an element.<br>There are seven types: INTEGER, FLOAT, STRING, OBJECT, ARRAY, BOOLEAN, and NULL. |
| 5 | Value | Specify the variable name to store the acquired value. |

### 98.1.3. StructureData_JSONSaveVariableToFile

This library saves the JSON string to a JSON file.

**Table 98-3. "StructureData_JSONSaveVariableToFile" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | JSON_variable | Specify the variable name that stores the JSON string. |
| 2 | JSON_file | Specify the JSON file path to save. <br> Click the '…' button to open the file selection dialog. |

### 98.1.4. StructureData_JSONVariableNewObject

This library stores the JSON string to a variable. Call this library first when creating a new object.

**Table 98-4. "StructureData_JSONVariableNewObject" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | JSON_variable | Specify the variable name to store the JSON string. |

### 98.1.5. StructureData_JSONVariableNewArray

This library stores the JSON string to a variable. Call the variable first when creating a new array element.

**Table 98-5. "StructureData_JSONVariableNewArray" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | JSON_variable | Specify the variable name to store the JSON string. |

98.1.6. StructureData_JSONVariableAppendElement

This library stores the JSON string to a variable.

This is used to add an element to a JSON string.

**Table 98-6. "StructureData_JSONVariableAppendElement" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | JSON_variable | Specify the variable name that stores the JSON string to add the element. |
| 2 | Key | Specify the element name to add. |
| 3 | Type | Specify the element type to add.<br>"Object" is used when adding a JSON string to a child element.<br>Specify the JSON string created by "StructureData_JSONVariableNewObject" etc. to Value.<br>"Array" is used when adding an array to a child element.<br>Specify the JSON string created by "StructureData_JSONVariableNewArray" etc. to Value.<br>"Null_value" is used when adding a null value.<br>A null value will be added only when a null value is specified, otherwise the operation will be the same as a string value. |
| 4 | Value | Specify the element value to add. An execution error will occur if a value that does not match the type is set.<br>Example: If a string is specified for the integer type |

98.1.7. StructureData_JSONVariableRead

This library reads an element in a JSON string and store to in a variable.

This is used to get elements other than the array from a JSON string stored in a variable.

**Table 98-7. "StructureData_JSONVariableRead" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | JSON_variable | Specify the variable name that stores a JSON string to get an element. |
| 2 | Key | Specify the key name of the array element. |
| 3 | Read_intent | Select the purpose for reading the element. "Transfer" is used to transfer the acquired value to another JSON string. "Refer_to_value" is used to get then element of JSON string directly. The difference between "Transfer" and "Refer_to_value" is the following two points. ・For STRING type element "Transfer" stores [String] to a variable. "Refer_to_value" stores ["String"] to a variable. ・For NULL type element "Transfer" stores [ ] (null value) to a variable. "Refer_to_value" stores [null] to a variable. "Determine_type" is used when using the type of an element. There are seven types: INTEGER, FLOAT, STRING, OBJECT, ARRAY, BOOLEAN, and NULL. |
| 4 | Value | Specify the variable name to store the acquired value. |

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## 98.1.8. StructureData_JSONVariableArraySize

This library gets the number of elements in an array element in a JSON string.

This is used to get the number of elements in an array from a JSON string stored in a variable.

**Table 98-8. "StructureData_JSONVariableArraySize" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | JSON_variable | Specify the variable name that stores a JSON string to get the number of elements in an array. |
| 2 | Key | Specify the key name of the array element. |
| 3 | Number_of_arrays | Specify the variable name to store the number of elements in an array. |

98.1.9. StructureData_JSONVariableAppendArrayElement

This library stores the JSON string to a variable.

This is used to add an element to an array.

**Table 98-9. "StructureData_JSONVariableAppendArrayElement" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | JSON variable | Specify the variable name that stores the JSON string. |
| 2 | Type | Specify the element type to add.<br>"Object" is used when adding a JSON string to a child element.<br>Specify the JSON string created by "StructureData_JSONVariableNewObject" etc. to Value.<br>"Array" is used when adding an array to a child element.<br>Specify the JSON string created by "StructureData_JSONVariableNewArray" etc. to Value.<br>"Null_value" is used when adding a null value.<br>A null value will be added only when a null value is specified, otherwise the operation will be the same as a string value. |
| 3 | Value | Specify the element value to add. An execution error will occur if a value that does not match the type is set.<br>Example: If a string is specified for the integer type |

98.1.10. StructureData_JSONVariableReadArray

This library gets the value from an array element in a JSON string.

This is used to get an array element from a JSON string stored in a variable.

**Table 98-10. "StructureData_JSONVariableReadArray" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | JSON_variable | Specify the variable name that stores the JSON string to get the array element. |
| 2 | Key | Specify the key name of the array element. |
| 3 | Index | Specify the index value of the array to acquire. |
| 4 | Read_intent | Select the purpose for reading the element. <br> "Transfer" is used to transfer the acquired value to another JSON string. <br> "Refer_to_value" is used to get then element of JSON string directly. <br> The difference between "Transfer" and "Refer_to_value" is the following two points. <br> ・For STRING type element <br>　"Transfer" stores [String] to a variable. <br>　"Refer_to_value" stores ["String"] to a variable. <br> ・For NULL type element <br>　"Transfer" stores [ ] (null value) to a variable. <br>　"Refer_to_value" stores [null] to a variable. <br> "Determine_type" is used when using the type of an element. <br> There are seven types: INTEGER, FLOAT, STRING, OBJECT, ARRAY, BOOLEAN, and NULL. |
| 5 | Value | Specify the variable name to store the acquired value. |

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98.1.11.  StructureData_JSONFormatWrite

This library writes a JSON file or a JSON string.

Key, Type, and Value will be converted and formatted in the JSON format and stored in a JSON file or variable.

**Table 98-11. "StructureData_JSONFormatWrite" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Save to JSON file | Specify the filename.<br>Either an absolute or a relative path may be used. |
| 2 | Store to variable | Specify the variable. |
| 3 | Key, Type, and Value | Specify the key, type, and value. |

98.1.12.  StructureData_JSONFormatRead

This library reads the JSON file or a JSON string and stores the file or string in a variable. The string, which is converted from a JSON file or a JSON string stored in a variable, will be stored in a variable specified in Value of the Key and Value table in the Details tab.

**Table 98-12. "StructureData_JSONFormatRead" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Read from JSON file | Specify the filename.<br>Either an absolute or a relative path may be used. |
| 2 | Read from variable | Specify the variable. The string set in a variable will be handled as the JSON format. |
| 3 | Key and Value | Specify the key and value.<br>*WinActor handles everything as the string type internally. Specify the type for writing. |

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## 98.2. JSON

### 98.2.1. Debug

#### 98.2.1.1. StructuredData_JSONObjectPrettyPrint

This library pretty prints the specified JSON object.

**Table 98-13. "StructuredData_JSONObjectPrettyPrint" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | JSON_object | Specify a target JSON object. |
| 2 | Result_object | Specify a variable to store the pretty-printed JSON object. |

### 98.2.2. StructuredData_JSONObjectGetKeyList

This library deletes a key in a JSON object.

**Table 98-14. "StructuredData_JSONObjectGetKeyList" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | JSON_object | Specify a target JSON object. |
| 2 | Target_key | Specify a key of a JSON object to list the top-level keys in it. To specify the root element, leave this item vacant. To specify a descendant key, prepend ancestral keys with dots. To specify an element in an array, use a zero-based index. (Example) A.B[0].C |
| 3 | Separator(optional) | Specify a character as a separator to store the keys on the acquired list into a variable. A comma ',' is the default. |
| 4 | Key_list | Specify a variable to store the keys on the acquired list. The acquired keys connected with specified separators are stored as a string. |

### 98.2.3. StructuredData_JSONObjectDeleteKey

This library deletes a key in a JSON object.

**Table 98-15. "StructuredData_JSONObjectDeleteKey" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | JSON_object | Specify a target JSON object. |
| 2 | Target_key | Specify a key to delete. |
| | | To specify a descendant key, prepend ancestral keys with dots. |
| | | To specify an element in an array, use a zero-based index. |
| | | (Example) A.B[0].C |
| 3 | Result_object | Specify a variable to store the result JSON object from which the specified key has been deleted. |
| 4 | Result_status(optional) | Specify a variable to store the result status. |
| | | If the key is successfully deleted, '0' is stored. |
| | | Otherwise, '1' is stored, which means the key does not exist. |

### 98.2.4. StructuredData_JSONObjectGetNumberOfKeys

This library acquires the number of keys in a JSON object.

**Table 98-16. "StructuredData_JSONObjectGetNumberOfKeys" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | JSON_object | Specify a target JSON object. |
| 2 | Target_key | Specify a key of a JSON object to count the top-level keys in it. |
| | | To specify the root element, leave this item vacant. |
| | | To specify a descendant key, prepend ancestral keys with dots. |
| | | To specify an element in an array, use a zero-based index. |
| | | (Example) A.B[0].C |
| 3 | Number_of_keys | Specify a variable to store the result number of keys. |

### 98.2.5. StructuredData_JSONObjectGetValue

This library acquires the value of the specified key in a JSON object.

**Table 98-17. "StructuredData_JSONObjectGetValue" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | JSON_object | Specify a target JSON object. |
| 2 | Target_key | Specify a target key. |
|   |   | To specify a descendant key, prepend ancestral keys with dots. |
|   |   | To specify an element in an array, use a zero-based index. |
|   |   | (Example) A.B[0].C |
| 3 | Separator(optional) | Specify a character as a separator to store multiple values. |
|   |   | A comma ',' is the default. |
| 4 | Action_for_string | Select an action to be taken when a string value is acquired. |
|   |   | When 'No_action' is selected, the result string is not enclosed in double quotes. |
|   |   | When 'Enclose_in_double_quotes' is selected, the result string is enclosed in double quotes. |
| 5 | Value | Specify a variable to store the result value. |

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### 98.2.6.  StructuredData_JSONObjectSetValue

This library sets a value to the specified key in a JSON object.

**Table 98-18. "StructuredData_JSONObjectSetValue" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | JSON_object | Specify a target JSON object. |
| 2 | Target_key | Specify a key to set a value. |
| | | To specify a descendant key, prepend ancestral keys with dots. |
| | | To specify an element in an array, use a zero-based index. |
| | | (Example) A.B[0].C |
| 3 | Value | Specify a value to set. |
| | | A string is automatically double quoted in accordance with the selection for "Type_of_value." |
| | | Characters are automatically escaped as needed. |
| 4 | Type_of_value | Select a type of the value. |
| | | The value is enclosed in double quotes when the 'String' is selected. |
| | | The value is not enclosed when the 'Others' is selected. |
| 5 | Action_for_existing_key | Select an action to be taken when the target key exists. |
| | | When the 'Overwrite' is selected, the existing value is overwritten with the specified value. |
| | | When the 'Error' is selected, the scenario execution will be paused. |
| 6 | Result_object | Specify a variable to store the result JSON object into which the value has been set. |

### 98.2.7. StructuredData_JSONObjectGetValueInArray

This library acquires a value in an array from a JSON object.

**Table 98-19. "StructuredData_JSONObjectGetValueInArray" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | JSON_object | Specify a target JSON object. |
| 2 | Target_array_key | Specify the key of the array to acquire a value in it. |
| | | To specify a descendant key, prepend ancestral keys with dots. |
| | | To specify an element in an array, use a zero-based index. |
| | | (Example) A.B[0].C |
| 3 | Index | Specify the index of the target value to acquire. |
| | | Use a zero-based index. |
| 4 | Separator(optional) | Specify a character as a separator to store multiple keys. |
| | | A comma ',' is the default. |
| 5 | Action_for_string | Select an action to be taken when a string value is acquired. |
| | | When 'No_action' is selected, the result string is not enclosed in double quotes. |
| | | When 'Enclose_in_double_quotes' is selected, the result string is enclosed in double quotes. |
| 6 | Value | Specify a variable to store the result value. |

### 98.2.8. StructuredData_JSONObjectSetValueInArray

This library acquires a value in an array from a JSON object.

**Table 98-20. "StructuredData_JSONObjectSetValueInArray" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | JSON_object | Specify a target JSON object. |
| 2 | Target_array_key | Specify the key of the array to set a value in it.<br>To specify a descendant key, prepend ancestral keys with dots.<br>To specify an element in an array, use a zero-based index.<br>(Example) A.B[0].C |
| 3 | Index | Specify the index of the value to set in the array.<br>Use a zero-based index.<br>If the specified index is out of range, the specified value is appended at the end of the array. |
| 4 | Value | Specify a value to set.<br>A string is automatically double quoted in accordance with the selection for "Type_of_value."<br>Characters are automatically escaped as needed. |
| 5 | Type_of_value | Select a type of the value.<br>The value is enclosed in double quotes when the 'String' is selected.<br>The value is not enclosed when the 'Others' is selected. |
| 6 | Action_for_existing_key | Select an action to be taken when the target key exists.<br>When the 'Overwrite' is selected, the existing value is overwritten with the specified value.<br>When the 'Error' is selected, the scenario execution will be paused. |
| 7 | Result_object | Specify a variable to store the result JSON object into which the value has been set. |

## 98.2.9. StructuredData_JSONObjectInsertValueInArray

This library acquires a value in an array from a JSON object.

**Table 98-21. "StructuredData_JSONObjectInsertValueInArray" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | JSON_object | Specify a target JSON object. |
| 2 | Target_array_key | Specify the key of the array to insert a value in it. |
| | | To specify a descendant key, prepend ancestral keys with dots. |
| | | To specify an element in an array, use a zero-based index. |
| | | (Example) A.B[0].C |
| 3 | Index | Specify the index of the value to insert into the array. |
| | | Use a zero-based index. |
| | | When the index '-1' is specified, the value is appended at the end of the array. |
| 4 | Value | Specify a value to insert. |
| | | A string is automatically double quoted in accordance with the selection for "Type_of_value." |
| | | Characters are automatically escaped as needed. |
| 5 | Type_of_value | Select a type of the value. |
| | | The value is enclosed in double quotes when the 'String' is selected. |
| | | The value is not enclosed when the 'Others' is selected. |
| 6 | Result_object | Specify a variable to store the result JSON object into which the value has been inserted. |

### 98.2.10. StructuredData_JSONObjectDeleteAllElementsInArray

This library deletes all the elements in the specified array in a JSON object.

**Table 98-22. "StructuredData_JSONObjectDeleteAllElementsInArray" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | JSON_object | Specify a target JSON object. |
| 2 | Target_array_key | Specify the key of an array to delete all the elements in it. To specify a descendant key, prepend ancestral keys with dots. To specify an element in an array, use a zero-based index. (Example) A.B[0].C |
| 3 | Result_object | Specify a variable to store the result JSON object from which all the elements in the specified array has been deleted. |

### 98.2.11. StructuredData_JSONObjectGetNumberOfElementsInArray

This library acquires the number of elements in the specified array in a JSON object.

**Table 98-23. "StructuredData_JSONObjectGetNumberOfElementsInArray" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | JSON_object | Specify a target JSON object. |
| 2 | Target_array_key | Specify the key of the array to acquire the number of elements in it. To specify a descendant key, prepend ancestral keys with dots. To specify an element in an array, use a zero-based index. (Example) A.B[0].C |
| 3 | Number_of_elements | Specify a variable to store the number of elements. |

# 99. ExternalServiceLinkage

## 99.1. OAuth

For details of OAuth-related libraries, see "WinActor OAuth-Related Library Scenario Creation Manual."

## 99.2. HTTP

### 99.2.1. HTTP (advanced)

The "HTTP (advanced)" node communicates with the specified URL by HTTP.

It has following functions.

- Using the protocols http and https, it can send a HTTP request with its body filled with text, json, parameter format, or any other format of data,

- It can upload and download multipart files.

- It can set and get cookies.

- It can handle basic authentications.

- It allows using the proxy server set for WinActor.

**Table 99-1. "HTTP (advanced)" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Request - Method | Select a method.<br>'Body' and 'Upload files' cannot be specified when 'GET' or 'HEAD' is selected.<br>'Upload files' cannot be specified when 'DELETE' is selected. |
| 2 | Request - URL | Specify a URL. |
| 3 | Request details – Header | Specify the request header or the file that stores the request header.<br>The request header should be in a JSON format. See Table 99-2. |
| 4 | Request details – Parameters | Specify parameter settings or the file stores parameter settings.<br>Parameters should be in a JSON format. See Table 99-4.<br>When "Use multipart" is checked, Parameters are embedded in the request with the multipart format.<br>Either 'Request details – Parameter' or 'Request details – Body' can be specified when 'POST,' 'PUT,' or 'PATCH' is selected for "Request - Method.' |
| 5 | Request details – Body | Specify the request body or the file that stores the request body.<br>Either 'Request details – Parameter' or 'Request details – Body' can be specified when 'POST,' 'PUT,' or 'PATCH' is |

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| | | selected for "Request - Method.' |
|---|---|---|
| 6 | Request details – Upload files | Specify the filename, the name, and the Content-Type of the file, or the file that stores the list of files to upload. The list file should be in a JSON format. See Table 99-5. |
| 7 | Request details – Authentication | When 'Basic authentication' is checked, this node handles basic authentications. Specify 'Username' and 'Password' for the authentication. |
| 8 | Request details – Cookie | Specify cookies or the file that stores cookies. The cookies should be in a JSON format. See Table 99-6. |
| 9 | Request details – Misc. - Use the proxy server set in the "Option" window | Specify whether to use the proxy server set in the "Option" window. |
| 10 | Request details – Misc. - Response timeout | Specify a timeout in milliseconds. If the response is not returned in the timeout, an error occurs. |
| 11 | Response – Header | Specify a variable or a filename to store the response headers. When "Get them in JSON format" is checked, headers are stored in a JSON format. See Table 99-3. |
| 12 | Response – Body | Specify a variable or a filename to store the response body. About the "Separate the multipart/form-data body into multiple files automatically" check box is described below.<br>● Checked<br>  ➢ When Content-Type is **not** multipart/form-data, the body is stored in the file specified at "Response – Header."<br>  ➢ When Content-Type is multipart/form-data, each part of the response is stored as a file in the folder where the file specified at "Response – Header" exists. Each file is named XXXXYYY.ZZZ where XXXX is the "Response – Header" filename without extension, YYY is a sequence number, and ZZZ is the extension of the "Response – Header" filename.<br>● Not checked<br>  ➢ Regardless of the Content-Type, the body is stored |

| | | in the file specified at "Response – Header."<br><br>An example of using "Separate the multipart/form-data body into multiple files automatically" is shown in Table 99-8. |
|---|---|---|
| 13 | Response – Cookie | Specify a variable or a filename to store cookies.<br><br>When "Get them in JSON format" is checked, the cookies are stored in a JSON format. See Table 99-7 for details. |
| 14 | Response – Status – HTTP version | Specify a variable to store the HTTP version. |
| 15 | Response – Status – Status code | Specify a variable to store the status code.<br><br>The value indicates whether the HTTP request has completed successfully.<br><br>Example: 200 Successful |
| 16 | Response – Status – Auxiliary message | Specify a variable to store the auxiliary message.<br><br>The message corresponding to the status code is acquired.<br><br>Example: "OK" is acquired when the status code is 200. |

This library uses JSON format in the header settings and so on. See followings for the JSON format for each setting.

**Table 99-2. JSON format of "Request - Header"**

| Format |
|---|
| {<br>   "(*header name*)": "(*value*)",<br>   "(*header name*)": "(*value*)",<br>      …<br>} |
| Description |
| Specify each header to be included in the http request header in JSON format. Each header name becomes a JSON key and each header field value becomes a JSON value. When the http header has multiple field values, specify them as below.<br>"(header name)" : ["(value1)","(value2)",…] |
| Example |
| {<br>   "Content-Type":"text/html; charset=utf-8",<br>   "Transfer-Encoding":"gzip" |

```
}
```

**Table 99-3. JSON format of "Response - Header"**

| Format |
|---|
| {<br>   "(*header name*)": "(*value*)",<br>   "(*header name*)": "(*value*)",<br>      …<br>} |
| Description |
| The received http response header is stored as JSON data. Each header name becomes a JSON key and each header field value becomes a JSON value.<br>When the http header has multiple field values, they are specified as below.<br>"(*header name*)" : ["(*value1*)","(*value2*)",…] |
| Example |
| {<br>   "Content-Type":"text/html; charset=utf-8",<br>   "Transfer-Encoding":"gzip"<br>   "Set-Cookie": ["value=100", "value2=200"]<br>} |

**Table 99-4. JSON format of "Request details – Parameters"**

| Format |
|---|
| {<br>   "(*parameter name*)": "(*value*)",<br>   "(*parameter name*)": "(*value*)",<br>      …<br>} |
| Description |
| Specify parameters. Each parameter name becomes a JSON key and each parameter value becomes a JSON value. |
| Example |
| {<br>   "data1":"100",<br>   "data2":"200"<br>} |

**Table 99-5. JSON format of "Request details – Upload files"**

| Format |
| --- |
| [<br>   {"FileName": "(filename)", "name": "(name)", "ContentType": "(content type)"},<br>   {"FileName": "(filename)", "name": "(name)", "ContentType": "(content type)"},<br>           …<br>] |
| Description |
| The filename to upload becomes the values of the key 'FileName' and the key 'name,' and the content type becomes the value of the key 'ContentType.' |
| Example |
| [<br>   {"FileName": "c:\\Upload\\file.txt", "name": "file.txt", " ContentType ": "text/plain"},<br>   {"FileName": "c:\\Upload\\file.json", "name": "file.txt", " ContentType ": "application/json"}<br>] |

**Table 99-6. JSON format of "Request details – Cookie"**

| Format |
| --- |
| {<br>   "(*cookie name*)": "(*value*)",<br>   "(*cookie name*)": "(*value*)",<br>      …<br>} |
| Description |
| The cookie name to set in the request cookie becomes the JSON key and the cookie value becomes the JSON value of the key. |
| Example |
| {<br>   "data1":"100",<br>   "data2":"200"<br>} |

**Table 99-7. JSON format of "Response – Cookie"**

| Format |
| --- |

```
[
  {
    "values": {"(cookie name)": "(value)"},
    "attributes": {"(cookie name)": "(value)", "(attribute name)": "(value)", …}
  },
  {
    "values": {"(attribute name)": "(value)"},
    "attributes": {"(attribute name)": "(value)", "(attribute name)": "(value)", …}
  }
        ...
]
```

| Description |
| --- |

The Received cookie is stored as JSON data. The values and attributes of the cookie become JSON key-value pairs.

| Example |
| --- |

```
[
    {
        "values": {
            "date1":"100"
        },
        "attributes": {
            "Domain":"10.10.10.10",
            "Expires":"Wed, 23 Mar 2021 07:28:00 GMT"
        }
    },
    {
        "values": {
            "date1":"100"
        },
        "attributes": {
            "Domain":"10.10.10.10"
        }
    }
]
```

**Table 99-8. An example of "Separate the multipart/form-data body into multiple files automatically"**

| Response |
|---|
| ```
HTTP/1.1 200 OK
Date: Thu, 11 Mar 2021 05:18:29 GMT
Content-Type:multipart/form-data; boundary="12345"
Content-Length: 158

--12345
Content-Disposition: form-data; filename=test.txt

hello                ──①

--12345                                          ──③
Content-Disposition: form-data; filename=test1.txt

hello        ──②

--12345--
``` |
| Saved file |
| Suppose the filename of the body is "file.txt."

The case "Separate the multipart/form-data body into multiple files automatically" is checked:

  ① is saved as "file0.txt," and ② is saved as "file1.txt."

The case "Separate the multipart/form-data body into multiple files automatically" is unchecked:

  ③ is saved as"file.txt." |

99.2.1.1. Header items set automatically by the library

This library sets some header items automatically. Such items are listed in Table 99-9 and Table 99-10. You can overwrite them by setting the request header.

**Table 99-9. Header items set automatically**

| No. | Item | Value |
|---|---|---|
| 1 | Connection | "keep-alive" is set. |
| 2 | Host | The IP address or the host name of the HTTP requester is set. |
| 3 | Content-Type | The initial value is one of the followings depending on the content. For parameters: application/x-www-form-urlencoded For body: text/plain For upload files: multipart/form-data; charset：utf-8 |
| 4 | Content-Length | Body size (byte) This is set only for 'PUT,' 'POST,' or 'PATCH' method. |
| 5 | Authorization | Specified username and password are set when using the basic authentication. |
| 6 | Cookie | Specified cookie values and attributes are set. |

When multipart message is handled, items in Table 99-10 are set in each part,. (In this library, the case is only when "Upload files" is set.).

**Table 99-10. Items set automatically for multipart message**

| No. | Item | Value |
|---|---|---|
| 1 | Content-Disposition | form-data; name="*value*"; filename="*value*" *value*: The filename specified in "Upload files" |
| 2 | Content-Type | The Content-Type specified in "Upload files" are set. |

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### 99.2.1.2. Complements on parameters

Depending on the HTTP method, the way to set parameters changes. Table 99-11 shows how to set parameters.

**Table 99-11. Parameters for each method**

| No. | HTTP method | Parameters |
|---|---|---|
| 1 | GET<br>HEAD<br>DELETE | · Set in a URL query as "*key=value*" format parameters concatenated with the letter '&.'<br>· The encoding is UTF-8. When multibyte characters are included, they are URL encoded. |
| 2 | POST<br>PUT<br>PATCH | · Set in the body part of a HTTP request as "*key=value*" format parameters concatenated with the letter '&.'<br>· The encoding is UTF-8. When multibyte characters are included, they are URL encoded. |

**Notes**

When using the proxy server, confirm that the proxy server is set in the "Option" window of WinActor. See "WinActor Installation Manual" or "WinActor Operation Manual" for how to specify a proxy server in WinActor.

### 99.2.2. HTTP

This library sends a simple HTTP communication to the specified URL.

This is a library for users who have knowledge of RESTful API.

**Table 99-12. "HTTP" library settings**

| No. | Item | Description |
|---|---|---|
| 1 | Request - Method | Specify the method to execute. |
| 2 | Request - URL | Specify the URL. |
| 3 | Request details - Header | Specify the request header by Key and Value. |
| 4 | Request details - Body | Specify the request body with a set of Key, Type and Value or Filename. A set of Key, Type and Value converts and sends the request to a JSON format. |
| 5 | Response – Header | Specify the response header with Key and Value. |
| 6 | Response – Body | Specify the response body by Key/Value or Filename. Key/Value handles the response data as a JSON format. |
| 7 | Response – Status code | Specify the variable to store the result. The value indicates if the HTTP request was completed successfully. Example: 200 OK |
| 8 | Misc. – Timeout for receiving response | Set the timeout period. [msec] An error will occur if loading is not completed within the set timeout period. |

**Notes**

・ Note that a URL-encoded string including multi-byte characters may be garbled due to an encoding mismatch.

・ Some request headers are set automatically. Headers can be overwritten. Example: Content-Length, Content-Type, Host, etc.

・ If using a proxy to access and external service, make sure that the proxy settings in WinActor are specified. See the "WinActor Installation Manual" or "WinActor Operation Manual" on how to set the proxy.

## 99.3. Syslog

### 99.3.1. Send syslog

This library sends a syslog message. The message will be sent by UDP as a INFO level log. Outgoing log messages are encoded in UTF-8.

**Table 99-13. "Send syslog" library settings**

| No. | Item | Description |
|-----|------|-------------|
| 1 | Syslog_server | Specify the IP address or host name of the destination. |
| | | Add ":" (colon) to specify the port number. |
| | | *The port will be 514 if the port number is omitted. |
| | | Example 1: 192.168.0.1 |
| | | Example 2: 192.168.0.1:514 |
| 2 | Facility | Select from local0 to local7. |
| 3 | Message | Enter the log message to send. |

## 99.4. Socket

### 99.4.1. Socket communication

This library is used for basic TCP communication using socket interface, and has following functions.

- This library provides the client-side interface of the client-server model. The sever-side interface is not provided.
- This library provides the 'Connect,' 'Send,' 'Receive,' and 'Disconnect' functions.
- The 'Connect' function creates sockets, and establishes connections.
- One socket can have one connection.
- To establish multiple connections, place multiple nodes of this library in your scenario.
- A connection can be specified with a connection identifier.
- When sending and receiving text data, encodings of and newline characters in the data can be converted.
- When sending and receiving binary data, the data can be Base64 encoded or decoded.

Select whether to use each function, which is 'Connect,' 'Send,' 'Receive,' or 'Disconnect,' or not in the Settings tab. When multiple functions are selected to use, they are executed in the order of 'Connect,' 'Send,' 'Receive,' and 'Disconnect.'

**Table 99-14. "Socket" library settings (Settings tab)**

| No. | Item | Description |
|-----|------|-------------|
| 1. | Connection identifier | Specify a variable to store or the variable that stores a connection identifier. |
| | | The connection identifier is assigned by system on connection, and stored in the variable. |
| | | To execute connection function, the variable to store the connection identifier should not be assigned a value. |
| | | When the sending, the receiving, or the disconnection function is executed, the connection identifier stored in the variable is used to identify the connection. |
| 2. | Connect | Check this to enable the 'Connect' tab, and set up and use the connection function. |

| 3. | Send | Check this to enable the 'Send' tab, and set up and use the sending function. |
|----|------|------|
| 4. | Receive | Check this to enable the 'Receive' tab, and set up and use the receiving function. |
| 5. | Disconnect | Check this to enable the 'Disconnect' tab, and set up and use the disconnection function. |

In the Connect tab, set up socket creation and connection establishment.

**Table 99-15. "Socket" library settings (Connect tab)**

| No. | Item | Description |
|-----|------|-------------|
| 1. | IP Address / Hostname | Specify the destination IP address, which is either IPv4 or IPv6 address, or hostname.<br>The hostname should be resolvable on the client system that runs WinActor. |
| 2. | Port number | Specify the TCP port number for the socket communication. |
| 3. | Connection timeout | Specify the connection timeout in milliseconds.<br>Specifying -1 disables timeout. |
| 4. | Exception name of retry | Specify an exception name to be raised when an error that can be recovered by retries occurred.<br>The default value is 'ActionException.'<br>If this is vacant, no exception is raised and scenario continues to run.<br>For retry exception, refer "99.4.1.1. Retry exception." |

In the Send tab, set up data sending.

**Table 99-16. "Socket" library settings (Send tab)**

| No. | Item | Description |
|-----|------|-------------|
| 1. | Send timeout | Specify the send timeout in milliseconds. |
| 2. | Data source | Check either 'File,' or 'Variable or value' as the source of data to send.<br>When 'File' is checked, specify a file path. This is optional.<br>When 'Variable or value' is checked, specify a variable or a value. This is optional. |

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| 3. | Text conversion | When checked, data to send are assumed to be text data, and the character encoding of and newline characters in them are converted before sending. 'Binary conversion' cannot be checked simultaneously. |
|----|----|----|
| | | For the 'Input' row, select the character encoding and the newline character code before conversion. When 'Variable or value' is selected for 'Data source,' the 'Encoding' of the 'Input' row is inactive and cannot be selected. |
| | | For the 'Output' row, select a character encoding and a newline character code after conversion. A selection from IANA character set names or code page numbers can also be specified for 'Encoding' instead of selecting from the dropdown. |
| | | When 'No newline characters' is selected in the 'Input' row, the newline character selected in the 'Output' row is appended to the converted data before sending. |
| | | When 'No newline characters' is selected in the 'Output' row, newline characters selected in the 'Input' row are removed from the data before sending. |
| | | However, the outside library that converts the text assigned to a variable supports only 'CR+LF,' and only 'CR+LF' is used in the sending data. Thus, when a variable is specified for 'Data source,' only 'CR+LF' is usable, in effect, as newline characters among the 'Input' row selections. |
| 4. | Binary conversion | When 'Base64 decoding' is checked, the Base64 encoded text data is decoded and sent out as binary data. 'Text conversion' cannot be checked simultaneously. |
| | | When 'Data source' is a 'File,' the file can store text data or binary data. However, when 'Data source' is a 'Variable or value,' the variable or value can store text data only. Thus, to send binary data with 'Variable or value,' store the Base64 encoded text data in the variable and check 'Base64 decoding.' |
| 5. | Send buffer size | Specify the send buffer size in bytes. |
| | | The default value is 8,192 byte. |
| | | Depending on the running environment, the size at runtime may be different from this value. |

| 6. | Sent data size | Specify a variable to store the sent data size when sending completes. |
|---|---|---|
| 7. | Shutdown (Send) | When checked, the socket is shutdown after the sending completes. <br> Once the socket is shutdown, data cannot be sent using the connection identifier of the socket. |
| 8. | Exception name of retry | Specify an exception name to be raised when an error that can be recovered by retries occurred. <br> The default value is 'ActionException.' <br> If this is vacant, no exception is raised and scenario continues to run. <br> For retry exception, refer "99.4.1.1. Retry exception." |

In the receive tab, set up data reception.

**Table 99-17. "Socket" library settings (Receive tab)**

| No. | Item | Description |
|---|---|---|
| 1. | Receive timeout | Specify the receive timeout in milliseconds. |
| 2. | Data destination | Check either 'File,' or 'Variable' as the destination of received data. When 'File' is checked, specify a file path. If the specified file does not exist when running the scenario, a new file is created. If it exists, the file is over written. This file path setting is optional. When 'Variable' is checked, specify a variable. This is optional. |
| 3. | Text conversion | When checked, received data are assumed to be text data, and the character encoding of and newline characters in them are converted. 'Binary conversion' cannot be checked simultaneously. For the 'Input' row, select the character encoding and the newline character code before conversion. For the 'Output' row, select a character encoding and a newline character code after conversion. When 'Variable' is selected for 'Data destination,' the 'Encoding' of the 'Output' row is inactive and cannot be selected. A selection from IANA character set names or code page numbers can also be specified for 'Encoding' instead of selecting from the dropdown. When 'No newline characters' is selected in the 'Input' row, the newline character selected in the 'Output' row is appended to the received data after conversion. When 'No newline characters' is selected in the 'Output' row, newline characters selected in the 'Input' row are removed from the received data before conversion. However, the outside library that converts the text assigned to a variable supports only 'CR+LF,' and only 'CR+LF' is usable in the received data assigned to a variable. Thus, when a variable is specified for 'Data destination,' only 'CR+LF' is usable, in effect, as newline characters among the 'Output' row selections. |

| 4. | Binary conversion | When 'Base64 encoding' is checked, the received binary data is Base64 encoded and stored as text data. 'Text conversion' cannot be checked simultaneously. |
|---|---|---|
| 5. | Receive buffer size | Specify the receive buffer size in bytes. The default value is 8,192 byte. Depending on the running environment, the size at runtime may be different from this value. |
| 6. | Condition to end reception | Select a condition to end the data reception. When the selected condition is met, or the 'Receive timeout' is expired, the data reception ends. 'when FIN flag is received': FIN packet is received. 'when the specified receive data size is reached': The data size specified for the 'Receive data size' is reached while storing the data. Set a size for the 'Receive data size' as the input box is shown when this condition is selected. 'when no more data are available': The remaining data in the receive buffer is 0 byte just after reading out some data form the buffer. |
| 7. | Received data size | Specify a variable to store the received data size when reception completes. |
| 8. | Shutdown (Receive) | When checked, the socket is shutdown after the reception completes. Once the socket is shutdown, data cannot be received using the connection identifier of the socket. |
| 9. | Exception name of retry | Specify an exception name to be raised when an error that can be recovered by retries occurred. The default value is 'ActionException.' If this is vacant, no exception is raised and scenario continues to run. For retry exception, refer "99.4.1.1. Retry exception." |

In the Disconnect tab, set up disconnection and releasing resources.

**Table 99-18. "Socket" library settings (Disconnect tab)**

| No. | Item | Description |
|---|---|---|
| 1. | Disconnect timeout | Specify the disconnection timeout in milliseconds. Specifying -1 disables timeout. |

| 2. | Exception name of retry | Specify an exception name to be raised when an error that can be recovered by retries occurred. The default value is 'ActionException.' If this is vacant, no exception is raised and scenario continues to run. For retry exception, refer "99.4.1.1. Retry exception." |
|---|---|---|

**Setup example**

This library can be used as one node with 4 functions 'Connect,' 'Send,' 'Receive,' and 'Disconnect,' or as multiple nodes with 1 function each.

A setup example of a node with 4 functions that obtains contents from a Web server on the localhost is shown here. HTTP1.0 is used as the communication protocol

The data to send is shown below. '↵' is a newline code CR+LF. Three newlines are necessary.

C:\temp\GetHTTP10.txt

```
GET / HTTP/1.0↵
↵
↵
```

**Table 99-19. "Socket" library settings example (Settings tab)**

| No. | Item | Setting |
|---|---|---|
| 1. | Connection identifier | **connectionId** (unassigned variable) |
| 2. | Connect | checked |
| 3. | Send | checked |
| 4. | Receive | checked |
| 5. | Disconnect | checked |

**Table 99-20. "Socket" library settings example (Connect tab)**

| No. | Item | Setting |
|---|---|---|
| 1. | IP Address / Hostname | Value=> **localhost** |
| 2. | Port number | Value=> **80** |
| 3. | Connection timeout | Value=> 10,000 (default) |
| 4. | Exception name of retry | Value=> ActionException (default) |

**Table 99-21. "Socket" library settings example (Send tab)**

| No. | Item | Setting |
|---|---|---|
| 1. | Send timeout | Value=> 10,000 (default) |

| 2. | Data source | check 'File'<br>Value=> **C:\temp\GetHTTP10.txt** |
|----|-------------|--------------------------------------------------|
| 3. | Text conversion | unchecked |
| 4. | Binary conversion | unchecked |
| 5. | Send buffer size | Value=> 8,192 (default) |
| 6. | Sent data size | **sentSize** |
| 7. | Shutdown (Send) | unchecked |
| 8. | Exception name of retry | Value=> ActionException (default) |

**Table 99-22. "Socket" library settings example (Receive tab)**

| No. | Item | Setting |
|-----|------|---------|
| 1. | Receive timeout | Value=> 10,000 (default) |
| 2. | Data destination | check 'File'<br>Value=> **C:\temp\output.txt** |
| 3. | Text conversion | unchecked |
| 4. | Binary conversion | unchecked |
| 5. | Receive buffer size | Value=> 8,192 (default) |
| 6. | Condition to end reception | **when FIN flag is received** |
| 7. | Received data size | **receivedSize** |
| 8. | Shutdown (Receive) | unchecked |
| 9. | Exception name of retry | Value=> ActionException (default) |

**Table 99-23. "Socket" library settings example (Disconnect tab)**

| No. | Item | Setting |
|-----|------|---------|
| 1. | Disconnect timeout | Value=> 10,000 (default) |
| 2. | Exception name of retry | Value=> ActionException (default) |

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### 99.4.1.1. Retry exception

Socket communications may fail and errors may occur for various reasons. However, some of those errors can be recovered by retrying.

In this library, the kind of errors that can be recovered by retrying is called 'Retry exception.' It is distinguished from the normal exception 'Action exception,' and can be processed differently.

Each of error messages this library may raise, and whether it is a 'Retry exception' or an 'Action exception' are shown on the table below.

**Table 99-24. Retry and Action exceptions of the Socket library**

| Error message | Condition to raise | Exception |
|---|---|---|
| The host name or IP address is incorrect. | Unable to resolve the specified destination | Retry exception |
| Failed to read the file | Failed to read the specified file | Action exception |
| Failed to write to the file | Failed to write into the specified file | Action exception |
| Failed to communicate due to remote host condition | Failed to operate the remote host because of its denial, reset, or down | Retry exception |
| Failed to communicate due to network conditions | Failed to operate because the network is unavailable or unreachable | Retry exception |
| The connection timed out. | Connection timed out. | Retry exception |
| The sending timed out. | Sending timed out. | Retry exception |
| The reception timed out. | Receiving timed out. | Retry exception |
| The disconnection timed out. | Disconnection timed out. | Retry exception |
| The connection failed. | Connection error other than the retry exception occurred. | Action exception |
| The sending failed. | Sending error other than the retry exception occurred. | Action exception |

| The reception failed. | Reception error other than the retry exception occurred. | Action exception |
|---|---|---|
| The disconnection failed. | Disconnection error other than the retry exception occurred. | Action exception |
| Input value is not valid Base64 encoded string. | Input is not valid Base64 string. | Action exception |
| The character code conversion failed. | Text encoding is not the specified one. | Action exception |
| The socket to use is unavailable. | The socket is unusable. | Action exception |
| Do not set a value to the variable specified as the connection identifier. | A value is set to the variable specified as the connection identifier. | Action exception |
| An operation was performed on the socket that is not connected. Be sure to connect before sending, receiving, or disconnecting. | An operation other than the connection operation is performed on the unconnected socket. | Action exception |

Each of 'Connect,' 'Send,' 'Receive,' and 'Disconnect' tabs of this library has a 'Exception name of retry' setting. The default value of it is 'ActionException.' Add a new exception, and change the value to the exception as needed.

An example of a scenario using 'Exception name of retry' is shown below.
Place a node of this library in the 'Normal flow' of the 'Exception handling group,' and a retrying node in a 'Exceptional flow.'
Set up each of the 'Exception name of retry' in the 'Connect,' 'Send,' 'Receive,' and 'Disconnect' tabs to use the 'RetryException' exception.
Making use of the loop nodes, the scenario can be made to retry when an error occurred.

**Figure 99-1. Example scenario using RetryException exception in the Socket library**

# WinActor® User library sample manual