

Appian RPA - SAP GUI Scripting Library

Readme

The Appian RPA SAP GUI Scripting Library allows designers to create SAP Robotic Processes with easy to use no code actions.

The library uses the Sap Scripting Engine, therefore Scripting must be enabled in Sap in order for this library to work.

Prerequisites

- Appian RPA 8.6 or above
- [Prerequisites in Appian RPA SAP Module Documentation](#)
- SAP Logon For Windows
 - Release 760 Final Release or above
- Windows OS
- [Enable SAP GUI Scripting - DEMO](#)
- [Importing Library Documentation](#)

Tips

- [SAP Gui Scripting Tracker](#) helps get element Ids that can be used with the no-code library, but sometimes it can't find everything. For dynamically generated elements, like icons that appear on hover, try using Appian RPA's [Computer Vision Module](#) or [Keyboard](#) and [Mouse](#) modules to simulate user interaction.

Key Features & Functionality

Check SAP GUI Box

Selects the checkbox identified by ID. Use SAP GUI Scripting Tracker Tool to get field ID

Configuration

This action contains the following configurations:

- **Checkbox ID:** Lets you specify the id of the checkbox obtained by the SAP GUI Scripting Tracker Tool. This field lets you enter a text string, choose a variable, or use the expression editor.

After completion

- **Wait before executing next action:** Enter the number of seconds the robotic process waits before it continues to the next action in the workflow.
- **Take a screenshot:** If you select this option, the robotic process takes a screenshot of the resource immediately after the action completes successfully

Click GUI Button

Clicks an SAP Gui Button by ID. Most of the time clicks are simulated just as easy with the *Keyboard Module - Press Enter*.

Configuration

This action contains the following configurations:

- **Button ID:** Lets you specify the id of the button obtained by the SAP GUI Scripting Tracker Tool. This field lets you enter a text string, choose a variable, or use the expression editor.

After completion

- **Wait before executing next action:** Enter the number of seconds the robotic process waits before it continues to the next action in the workflow.

- **Take a screenshot:** If you select this option, the robotic process takes a screenshot of the resource immediately after the action completes successfully

Click Modal Toolbar Button

Clicks an SAP Gui Button by ID.

- Note for modal windows and toolbars, please use those specific click actions.

Configuration

This action contains the following configurations:

- **Button ID:** Lets you specify the id of the button inside the modal toolbar obtained by the SAP GUI Scripting Tracker Tool. This field lets you enter a text string, choose a variable, or use the expression editor.

After completion

- **Wait before executing next action:** Enter the number of seconds the robotic process waits before it continues to the next action in the workflow.
- **Take a screenshot:** If you select this option, the robotic process takes a screenshot of the resource immediately after the action completes successfully

Close SAP

This action closes SAP GUI Client, kills all SAP Processes, and optionally logs message to server.

- Usually called at the Clean up Section.

Configuration

This action contains the following configurations:

- **Optional Log Message:** Lets you specify an optional log message when SAP is closing. This field lets you enter a text string, choose a variable, or use the expression editor.

After completion

- **Wait before executing next action:** Enter the number of seconds the robotic process waits before it continues to the next action in the workflow.
- **Take a screenshot:** If you select this option, the robotic process takes a screenshot of the resource immediately after the action completes successfully

Get GUI Field

Gets an SAP Gui Field By ID.

Configuration

This action contains the following configurations:

- **Field ID:** Lets you specify the id of the field obtained by the SAP GUI Scripting Tracker Tool. This field lets you enter a text string, choose a variable, or use the expression editor.

Output

- **Operator:** Select an option to store the result as a single-value variable (`is stored as`) or add the result as a multiple-value variable (`is appended to`).
- **Target:** Return the value of the field to the robotic process **TEXT** variable where you want to store or append the result

After completion

- **Wait before executing next action:** Enter the number of seconds the robotic process waits before it continues to the next action in the workflow.
- **Take a screenshot:** If you select this option, the robotic process takes a screenshot of the resource immediately after the action completes successfully

Get Modal Field

Gets an SAP Modal field by ID.

- Note the SAP Modal window must already be loaded before running this action

Configuration

This action contains the following configurations:

- **Field ID:** Lets you specify the id of the field obtained by the SAP GUI Scripting Tracker Tool. This field lets you enter a text string, choose a variable, or use the expression editor.

Output

- **Operator:** Select an option to store the result as a single-value variable (is stored as) or add the result as a multiple-value variable (is appended to).
- **Target:** Return the value of the field to the robotic process **TEXT** variable where you want to store or append the result

After completion

- **Wait before executing next action:** Enter the number of seconds the robotic process waits before it continues to the next action in the workflow.
- **Take a screenshot:** If you select this option, the robotic process takes a screenshot of the resource immediately after the action completes successfully

Get Status Pane

Get Status value from the GUI Status Bar.

Output

- **Operator:** Select an option to store the result as a single-value variable (is stored as) or add the result as a multiple-value variable (is appended to).
- **Target:** Return the value of the toolbar to the robotic process **TEXT** variable where you want to store or append the result

After completion

- **Wait before executing next action:** Enter the number of seconds the robotic process waits before it continues to the next action in the workflow.
- **Take a screenshot:** If you select this option, the robotic process takes a screenshot of the resource immediately after the action completes successfully

Get Table Cell

Gets an SAP Table Cell value by ID. This is useful for loops, for instance looping over line items and using the current index as the row.

Configuration

This action contains the following configurations:

- **Cell ID:** Lets you specify the id of the table cell obtained by the SAP GUI Scripting Tracker Tool. This field lets you enter a text string, choose a variable, or use the expression editor.
- **Cell Index:** Lets you specify the index of the cell or the column index. Can be passed in as a Text or Number(Integer) variable. This field lets you enter a text string, choose a variable, or use the expression editor.
- **Row Index:** Lets you specify the index of the row. Can be passed in as a Text or Number(Integer) variable. This field lets you enter a text string, choose a variable, or use the expression editor.

Output

- **Operator:** Select an option to store the result as a single-value variable (`is stored as`) or add the result as a multiple-value variable (`is appended to`).
- **Target:** Return the value of the cell to the robotic process **TEXT** variable where you want to store or append the result

After completion

- **Wait before executing next action:** Enter the number of seconds the robotic process waits before it continues to the next action in the workflow.
- **Take a screenshot:** If you select this option, the robotic process takes a screenshot of the resource immediately after the action completes successfully

Open SAP

Opens a connection to the given connection name. After this action runs, the Login Screen should be loaded.

- Should be called first in any SAP Workflow

Configuration

This action contains the following configurations:

- **SAP Connection Name:** Lets you specify the connection name of the server you are connecting to. This field lets you enter a text string, choose a variable, or use the expression editor.
- **Wait Time:** Choose whether you want the robotic process to **Use default max wait time** or **Enter max wait** . If you select **Enter max wait**, this field lets you enter a text string, choose a variable, or use the expression editor

After completion

- **Wait before executing next action:** Enter the number of seconds the robotic process waits before it continues to the next action in the workflow.
- **Take a screenshot:** If you select this option, the robotic process takes a screenshot of the resource immediately after the action completes successfully

Open SAP Transaccion

Opens an SAP Transaction. Takes a transaction code and will automatically wait for the expected window title to load ex. VA01, Create Sales Order: Initial Screen

Configuration

This action contains the following configurations:

- **The transaction code:** Lets you specify the name of the transaction you wish to open, ex: VA01. This field lets you enter a text string, choose a variable, or use the expression editor.
- **The expected title of the window:** Lets you specify the title of the transaction landing page. The robot continues until it detects this title bar. This field lets you enter a text string, choose a variable, or use the expression editor.
- **Wait Time:** Choose whether you want the robotic process to **Use default max wait time** or **Enter max wait** . If you select **Enter max wait**, this field lets you enter a text string, choose a variable, or use the expression editor

After completion

- **Wait before executing next action:** Enter the number of seconds the robotic process waits before it continues to the next action in the workflow.
- **Take a screenshot:** If you select this option, the robotic process takes a screenshot of the resource immediately after the action completes successfully

SAP Login

Logs into SAP GUI. This action takes the Application Name for your SAP Credentials and the SAP Client ID. The robot will enter this information into the login form and click login. After this The actions run and the main dashboard should be loaded.

- Should be called SECOND in any SAP Workflow.

Configuration

This action contains the following configurations:

- **Application Name for Credentials:** Lets you specify the name of the Appian Credential you have created for SAP Gui Client. It will take the username and password from the credential store. This field lets you enter a text string, choose a variable, or use the expression editor.
- **SAP Client ID:** Lets you specify the Client ID for the server you are connecting to. This field lets you enter a text string, choose a variable, or use the expression editor.
- **Wait Time:** Choose whether you want the robotic process to **Use default max wait time** or **Enter max wait** . If you select **Enter max wait**, this field lets you enter a text string, choose a variable, or use the expression editor

After completion

- **Wait before executing next action:** Enter the number of seconds the robotic process waits before it continues to the next action in the workflow.
- **Take a screenshot:** If you select this option, the robotic process takes a screenshot of the resource immediately after the action completes successfully

SAP Wait Idle

Set SAP idle session timeout.

Configuration

This action contains the following configurations:

- **LOG Message:** Lets you specify an optional log message when timeout is complete. This field lets you enter a text string, choose a variable, or use the expression editor.
- **Wait Time:** Choose whether you want the robotic process to **Use default max wait time** or **Enter max wait for the timeout** . If you select **Enter max wait**, this field lets you enter a text string, choose a variable, or use the expression editor

After completion

- **Wait before executing next action:** Enter the number of seconds the robotic process waits before it continues to the next action in the workflow.
- **Take a screenshot:** If you select this option, the robotic process takes a screenshot of the resource immediately after the action completes successfully

Set GUI Field

Sets an SAP Gui Field By ID.

- Use SAP GUI Scripting Tracker Tool to get field ID

Configuration

This action contains the following configurations:

- **Field ID:** Lets you specify the id of the field obtained by the SAP GUI Scripting Tracker Tool. This field lets you enter a text string, choose a variable, or use the expression editor.
- **Value:** Lets you specify the value of the cell. This field lets you enter a text string, choose a variable, or use the expression editor.

After completion

- **Wait before executing next action:** Enter the number of seconds the robotic process waits before it continues to the next action in the workflow.
- **Take a screenshot:** If you select this option, the robotic process takes a screenshot of the resource immediately after the action completes successfully

Set Modal Field

Sets an SAP Modal field by ID.

- Note the SAP Modal window must already be loaded before running this action.

Configuration

This action contains the following configurations:

- **Field ID:** Lets you specify the id of the field obtained by the SAP GUI Scripting Tracker Tool. This field lets you enter a text string, choose a variable, or use the expression editor.
- **Value:** Lets you specify the value of the cell. This field lets you enter a text string, choose a variable, or use the expression editor.

After completion

- **Wait before executing next action:** Enter the number of seconds the robotic process waits before it continues to the next action in the workflow.
- **Take a screenshot:** If you select this option, the robotic process takes a screenshot of the resource immediately after the action completes successfully

Set Table Cell

Sets an SAP Table Cell by ID. This is useful for loops, for instance looping over line items and using the current index as the row.

- Use SAP GUI Scripting Tracker Tool to get field ID

Configuration

This action contains the following configurations:

- **Cell ID:** Lets you specify the id of the table cell obtained by the SAP GUI Scripting Tracker Tool. This field lets you enter a text string, choose a variable, or use the expression editor.
- **Cell Index:** Lets you specify the index of the cell or the column index. Can be passed in as a Text or Number(Integer) variable. This field lets you enter a text string, choose a variable, or use the expression editor.
- **Row Index:** Lets you specify the index of the row. Can be passed in as a Text or Number(Integer) variable. This field lets you enter a text string, choose a variable, or use the expression editor.
- **Cell Value:** Lets you specify the value to set in the table cell. Can be passed in as a Text or Number(Integer) variable. This field lets you enter a text string, choose a variable, or use the expression editor.

After completion

- **Wait before executing next action:** Enter the number of seconds the robotic process waits before it continues to the next action in the workflow.
- **Take a screenshot:** If you select this option, the robotic process takes a screenshot of the resource immediately after the action completes successfully

Wait For SAP Modal

Waits for an SAP Modal Window to load. This is useful when:

- opening a modal dialog, and
- You want to wait until the modal loads before you begin getting and setting fields. This will ensure the targeted field is loaded correctly.

Configuration

This action contains the following configurations:

- **Modal Window Title:** Lets you specify the title of the expected window. This field lets you enter a text string, choose a variable, or use the expression editor.
- **Wait Time:** Choose whether you want the robotic process to **Use default max wait time** or **Enter max wait** . If you select **Enter max wait**, this field lets you enter a text string, choose a variable, or use the expression editor

After completion

- **Wait before executing next action:** Enter the number of seconds the robotic process waits before it continues to the next action in the workflow.
- **Take a screenshot:** If you select this option, the robotic process takes a screenshot of the resource immediately after the action completes successfully

Wait for SAP Modal By ID

Waits for an SAP Modal Window by id. This is useful when:

- Opening a modal dialog, and
- You want to wait until the modal loads before you begin getting and setting fields. This will ensure the targeted field is loaded correctly.

Configuration

This action contains the following configurations:

- **Modal Window ID:** Lets you specify the id of the modal window, obtained from the tracker tool. This field lets you enter a text string, choose a variable, or use the expression editor.
- **Wait Time:** Choose whether you want the robotic process to **Use default max wait time** or **Enter max wait** . If you select **Enter max wait**, this field lets you enter a text string, choose a variable, or use the expression editor

After completion

- **Wait before executing next action:** Enter the number of seconds the robotic process waits before it continues to the next action in the workflow.
- **Take a screenshot:** If you select this option, the robotic process takes a screenshot of the resource immediately after the action completes successfully

Wait for SAP Window

Waits for an SAP Window to load. This is useful when

- changing screens, and you want to wait until the next screen/window loads before you begin getting and setting fields.
- Ensure the targeted field is loaded correctly.

Use the title of the expected window as the input parameter. Pass ‘.*’ at the end of the string in order to perform regex matching.

Good practice to call this when a new screen is loading, before get and setting fields.

Configuration

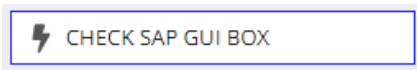
This action contains the following configurations:

- **Window Title:** Lets you specify the title of the expected window. This field lets you enter a text string, choose a variable, or use the expression editor.
- **Wait Time:** Choose whether you want the robotic process to **Use default max wait time** or **Enter max wait** . If you select **Enter max wait**, this field lets you enter a text string, choose a variable, or use the expression editor

After completion

- **Wait before executing next action:** Enter the number of seconds the robotic process waits before it continues to the next action in the workflow.
- **Take a screenshot:** If you select this option, the robotic process takes a screenshot of the resource immediately after the action completes successfully

SAP GUI Screenshot Actions



Check SAP Gui Box

Display Name

CONFIGURATION

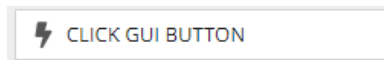
Checkbox ID Ex.
/app/con[0]/ses[0]/wnd[0]/tbar[1]/btn[8]

abc

AFTER COMPLETION

☐ Wait before executing next action (seconds)

☐ Take a screenshot



Click Gui Button

Display Name

CONFIGURATION

Button ID Ex.
/app/con[0]/ses[0]/wnd[0]/tbar[1]/btn[6]

abc

AFTER COMPLETION

☐ Wait before executing next action (seconds)

☐ Take a screenshot