

UI Vision RPA

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Overview

The UI Vision RPA software is the tool for visual process automation, codeless UI test automation, web scraping and screen scraping. Automate tasks on Windows, Mac and Linux. UI Vision RPA is just like Selenium IDE but better.

Installation

This application is a browser plugin.

- [Get RPA for Chrome](#)
- [Get RPA for Firefox](#)
- [Get RPA for Edge](#)

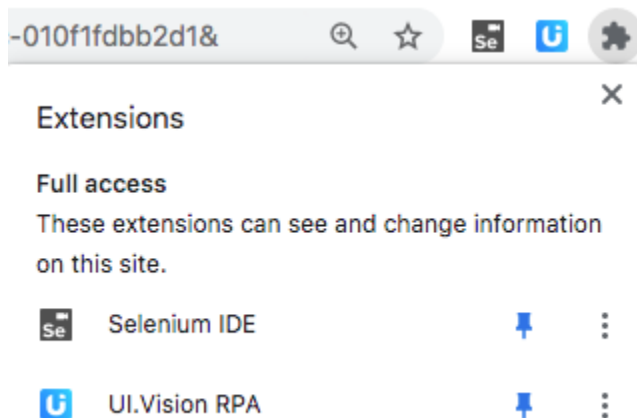
See product home page for additional details: <https://ui.vision/rpa>

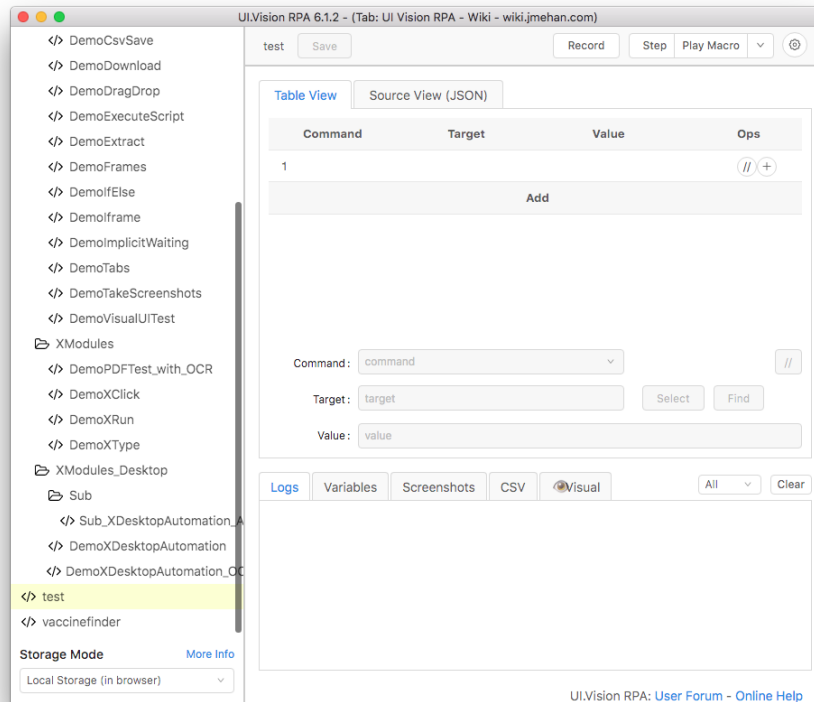
You will also want to install the extension modules. Install the extension modules:

<https://ui.vision/rpa/x/download>

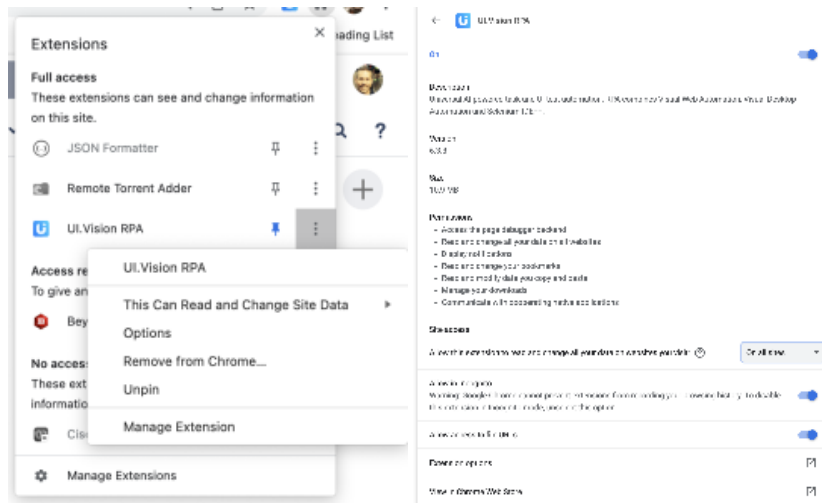
Getting Started

Open the macro creation window





Set Permissions



Click on Extensions in the top right hand corner and then click on the three dots and select manage extension.

Enable Site Access = On all sites

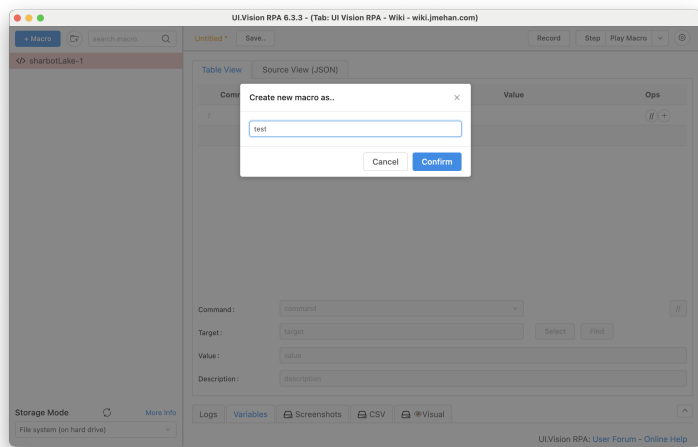
Allow in Incognito

Allow access to file URLs

Recording a Script

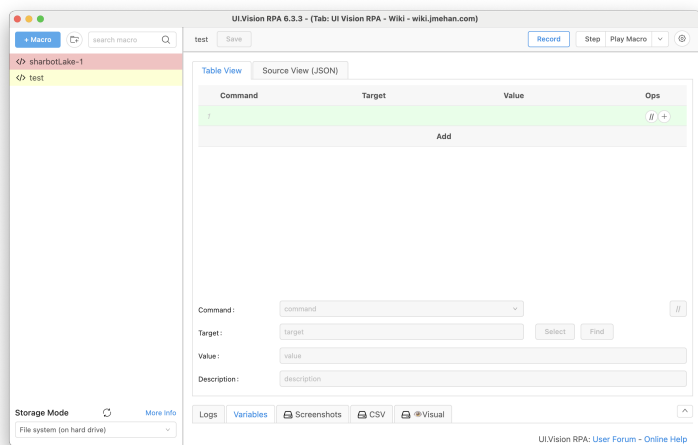
To get started, we can record a web session and then modify it as needed.

To start a recording, click the **+Macro** in the top left hand corner.

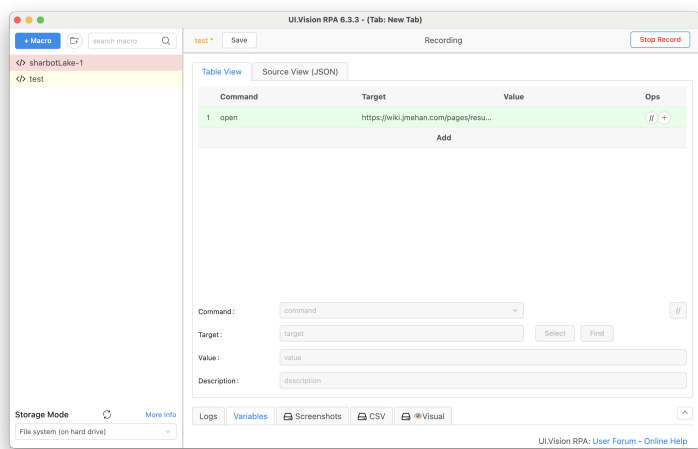


Give you macro a name and then click **Confirm**.

Click the **Record** button to start recording a web session.



When you are done, return to the UI Vision screen and click **Stop Recording**.



Commands

Command	Description	Example		
		Command	Target	Value
store	The Selenium functions store , storeValue , and storeText store some data for later access. Selenium uses a map called storedVars to store the data. You can use previously stored variables. <code>\${variable_name}</code> gives us access to the storedVars map. To display the value of a stored variable use <code>"echo"</code> .	store	John	firstName
store	We can store the runtime in a variable to get performance values. How long it took to get to this point in the script.	store	<code>\${!RUNTIME}</code>	endTime
comment	Adds a comment	comment	My comment here	
open	The "Open" command opens the URL in the current selected browser tab. The open command takes a full URL as input (recommended) or a path relative to the baseurl (outdated).	open	<code>http://www.google.com/</code>	
type	TYPE sets the value of an input field, as though you typed it in.	type	<code>id=sq_101i</code>	<code>\${firstName}</code>
click	<code>clickAndWait</code> and <code>click</code> send a Javascript click event to the DOM element defined by the locator. The difference between <code>clickAndWait</code> and <code>click</code> is that <code>clickAndWait</code> waits for a page load event after the click. So <code>clickAndWait</code> = <code>click</code> + <code>waitForPageToLoad</code> .	click	<code>xpath=//div[2]/div/div/a</code>	
select	The purpose of <code>select</code> and <code>selectAndWait</code> is to select a value from drop down/combo box or list box.	select	<code>xpath=//*[@id="sq_102"]/div[2]/div[2]/div/div[2]/select</code>	<code>label=\${birthMonth}</code>
executeScript	The <code>executeScript</code> command executes a snippet of JavaScript in the context of the currently selected frame or window. The script fragment will be executed as the body of an anonymous function. To store the return value, use the 'return' keyword and provide a variable name in the value input field.	executeScript	<code>return Number (\${i}) + 1;</code>	i
	Play an audio file.	executeScript	<code>var audio = new Audio("https://www.myinstants.com/media/sounds/jeopardy.mp3"); audio.play();</code>	
executeScript_Sandbox	The <code>executeScript_Sandbox</code> works exactly as <code>executeScript</code> but runs the Javascript in a sandbox. In other words, the code runs not in the website. The advantage of using the sandbox is that the website can not influence or block the Javascript execution. So unless you want to access elements of the website, better use the sandbox. The flow control commands (<code>if_v2</code> , <code>while_v2</code> , <code>Gotof_v2</code>) use <code>executeScript_Sandbox</code> internally to evaluate the expression.	executeScript_Sandbox	<code>return Number (\${i}) + 1;</code>	i
do ... repeatIf	The part between Do and Repeat If (expression) is executed as long as the expression is true. RepeatIf uses <code>executeScript_Sandbox</code> to evaluate the expression. If the expression is false, the IDE executes the immediate next command Repeat If.	do		
		executeScript	<code>return document.body.innerHTML.search("At this time there are no appointment slots available");</code>	textLocation
		repeatIf	<code>\${textLocation} != -1</code>	
if_v2	if statement	if_v2	<code>\${i} == 0</code>	
...		click	...	
elseif		elseif	<code>\${i}==1</code>	
...		click	...	
else		else		
...		click	...	
end		end		
while_v2		while_v2	<code>\${i} < 4</code>	
...				
end				

		executeScript_Sandbox	return Number (\${i}) + 1;	i
		click	...	
		end		
break	The break statement breaks the loop and continues executing the code after the loop (if any). Usually it is used after a conditional "if" (or similar) statement.	while_v2	\${i} < 4	
		...		
		if_v2	\${i} == 3	
		break		
		end		
		end		

Examples

walmart-customizable

```
{
  "Name": "walmart-customizable",
  "CreationDate": "2021-5-4",
  "Commands": [
    {
      "Command": "store",
      "Target": "first",
      "Value": "firstName",
      "Description": ""
    },
    {
      "Command": "store",
      "Target": "last",
      "Value": "lastName",
      "Description": ""
    },
    {
      "Command": "store",
      "Target": "1970",
      "Value": "birthYear",
      "Description": ""
    },
    {
      "Command": "store",
      "Target": "Dec",
      "Value": "birthMonth",
      "Description": ""
    },
    {
      "Command": "store",
      "Target": "1",
      "Value": "birthDay",
      "Description": ""
    },
    {
      "Command": "store",
      "Target": "demo@jmehan.com",
      "Value": "email",
      "Description": ""
    },
    {
      "Command": "store",
      "Target": "6135555555",
      "Value": "phone",
      "Description": ""
    },
    {
      "Command": "comment",
```

```
"Target": "store // kls2t8",
"Value": "city",
"Description": "home"
},
{
  "Command": "comment",
  "Target": "store // Kemptville",
  "Value": "city",
  "Description": ""
},
{
  "Command": "comment",
  "Target": "store // renfrew",
  "Value": "city",
  "Description": ""
},
{
  "Command": "comment",
  "Target": "store // kanata",
  "Value": "city",
  "Description": ""
},
{
  "Command": "store",
  "Target": "ottawa",
  "Value": "city",
  "Description": ""
},
{
  "Command": "comment",
  "Target": "Gloucester",
  "Value": "",
  "Description": ""
},
{
  "Command": "comment",
  "Target": "store // K1J 9L3",
  "Value": "city",
  "Description": ""
},
{
  "Command": "comment",
  "Target": "Rockland",
  "Value": "",
  "Description": ""
},
{
  "Command": "comment",
  "Target": "store // K4K 0B5",
  "Value": "city",
  "Description": ""
},
{
  "Command": "comment",
  "Target": "Pembroke",
  "Value": "",
  "Description": ""
},
{
  "Command": "comment",
  "Target": "store // K8A 8P7",
  "Value": "city",
  "Description": ""
},
{
  "Command": "comment",
  "Target": "Ottawa S",
  "Value": "",
  "Description": ""
},
{
```

```

    "Command": "comment",
    "Target": "store // K1V1J5",
    "Value": "city",
    "Description": ""
  },
  {
    "Command": "comment",
    "Target": "store // Brampton",
    "Value": "city",
    "Description": ""
  },
  {
    "Command": "comment",
    "Target": "store // Vaughan",
    "Value": "city",
    "Description": ""
  },
  {
    "Command": "comment",
    "Target": "store // 1",
    "Value": "numOfSites",
    "Description": ""
  },
  {
    "Command": "store",
    "Target": "4",
    "Value": "numOfSites",
    "Description": ""
  },
  {
    "Command": "open",
    "Target": "https://portal.healthmyself.net/walmarton/forms/Dpd",
    "Value": "",
    "Description": ""
  },
  {
    "Command": "type",
    "Target": "xpath=//*[@id=\"sq_101\"] /div[2]/div[2]/label/input",
    "Value": "false",
    "Description": ""
  },
  {
    "Command": "click",
    "Target": "xpath=//*[@id=\"sq_101\"] /div[2]/div[2]/label/input",
    "Value": "",
    "Description": ""
  },
  {
    "Command": "type",
    "Target": "xpath=//*[@id=\"sq_102\"] /div[2]/div[2]/label/input",
    "Value": "false",
    "Description": ""
  },
  {
    "Command": "click",
    "Target": "xpath=//*[@id=\"sq_102\"] /div[2]/div[2]/label/span",
    "Value": "",
    "Description": ""
  },
  {
    "Command": "click",
    "Target": "xpath=//*[@id=\"app\"] /div[4]/div[2]/div/div/div[2]/div/div/div/div/form/div[2]/div/div[2]/input[3]",
    "Value": "",
    "Description": ""
  },
  {
    "Command": "clickAndWait",
    "Target": "xpath=//*[@id=\"app\"] /div[4]/div[2]/div/div/div[2]/div/div/div[2]/h2/div/a/strong",
    "Value": "",
    "Description": ""
  }

```

```

},
{
  "Command": "click",
  "Target": "linkText=First dose of COVID-19 vaccination »",
  "Value": "",
  "Description": ""
},
{
  "Command": "type",
  "Target": "id=ajax",
  "Value": "${city}",
  "Description": ""
},
{
  "Command": "click",
  "Target": "xpath=//*[@id=\"content\"]/div/div[4]/div/div/div/div[2]/div/div/div[3]/div/div/div/div/div/div/div/div/div[2]/div/div/div[3]/ul/li/span/span",
  "Value": "",
  "Description": ""
},
{
  "Command": "do",
  "Target": "",
  "Value": "",
  "Description": ""
},
{
  "Command": "store",
  "Target": "0",
  "Value": "i",
  "Description": ""
},
{
  "Command": "while_v2",
  "Target": "${i} < ${numOfSites}",
  "Value": "",
  "Description": ""
},
{
  "Command": "comment",
  "Target": "executeScript // return \"start\" + (Number(${i}) + Number(1)) + \"end\"",
  "Value": "test",
  "Description": ""
},
{
  "Command": "comment",
  "Target": "store // ${i++}",
  "Value": "test",
  "Description": ""
},
{
  "Command": "comment",
  "Target": "prompt // ${test}",
  "Value": "",
  "Description": ""
},
{
  "Command": "comment",
  "Target": "First",
  "Value": "",
  "Description": ""
},
{
  "Command": "if_v2",
  "Target": "${i} == 0",
  "Value": "",
  "Description": ""
},
{
  "Command": "click",
  "Target": "xpath=//*[@id=\"bookingLocationListContainer\"]/div/div/div/div",

```



```

    "Value": "",
    "Description": ""
  },
  {
    "Command": "elseif",
    "Target": "${i}==1",
    "Value": "",
    "Description": ""
  },
  {
    "Command": "comment",
    "Target": "Second",
    "Value": "",
    "Description": ""
  },
  {
    "Command": "click",
    "Target": "xpath=//*[@id=\"bookingLocationListContainer\"]/div[2]/div/div/div",
    "Value": "",
    "Description": ""
  },
  {
    "Command": "elseif",
    "Target": "${i}==2",
    "Value": "",
    "Description": ""
  },
  {
    "Command": "comment",
    "Target": "Third",
    "Value": "",
    "Description": ""
  },
  {
    "Command": "click",
    "Target": "xpath=//*[@id=\"bookingLocationListContainer\"]/div[3]/div/div/div",
    "Value": "",
    "Description": ""
  },
  {
    "Command": "elseif",
    "Target": "${i}==3",
    "Value": "",
    "Description": ""
  },
  {
    "Command": "comment",
    "Target": "Fourth",
    "Value": "",
    "Description": ""
  },
  {
    "Command": "click",
    "Target": "xpath=//*[@id=\"bookingLocationListContainer\"]/div[4]/div/div/div/div/div/div/div/div",
    "Value": "",
    "Description": ""
  },
  {
    "Command": "end",
    "Target": "",
    "Value": "",
    "Description": ""
  },
  {
    "Command": "pause",
    "Target": "1000",
    "Value": "",
    "Description": ""
  },
  {
    "Command": "executeScript",

```

```

        "Target": "return document.body.innerHTML.search(\"At this time there are no appointment slots
available\")";",
        "Value": "NoSlots",
        "Description": ""
    },
    {
        "Command": "if_v2",
        "Target": "${NoSlots}==1",
        "Value": "",
        "Description": ""
    },
    {
        "Command": "break",
        "Target": "",
        "Value": "",
        "Description": ""
    },
    {
        "Command": "end",
        "Target": "",
        "Value": "",
        "Description": ""
    },
    {
        "Command": "comment",
        "Target": "Click Back",
        "Value": "",
        "Description": ""
    },
    {
        "Command": "click",
        "Target": "xpath=//*[@id=\"content\"] /div/div[4] /div/div/div/div[2] /div/div/div[3] /div/div[2] /div/button",
        "Value": "",
        "Description": ""
    },
    {
        "Command": "executeScript_Sandbox",
        "Target": "return Number (${i}) + 1;",
        "Value": "i",
        "Description": ""
    },
    {
        "Command": "end",
        "Target": "",
        "Value": "",
        "Description": ""
    },
    {
        "Command": "repeatIf",
        "Target": "${NoSlots}!=1",
        "Value": "",
        "Description": ""
    },
    {
        "Command": "executeScript",
        "Target": "var audio = new Audio(\"https://www.myinstants.com/media/sounds/jeopardy.mp3\"); audio.
play();",
        "Value": "",
        "Description": ""
    },
    {
        "Command": "click",
        "Target": "xpath=//div[2] /div/div/a",
        "Value": "",
        "Targets": [
            "linkText=Book now: May 3, 2021 @ 8:00 AM EDT »",
            "xpath=//*[@id=\"content\"] /div/div[4] /div/div/div/div[2] /div/div/div[3] /div/div[2] /div/div/div/div/div[2] /div[2] /div/div/a",
            "xpath=//div[2] /div/div/a",
            "css=#content > div > div:nth-child(4) > div > div > div > div.panel-body > div:nth-child(1) > div:nth-child(1) > div:nth-child(3) > div > div:nth-child(2) > div > div > div > div > div > div > div:nth-child(2) >

```

```

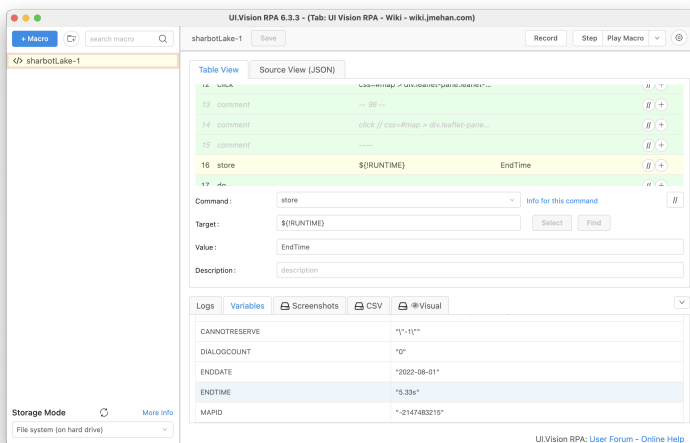
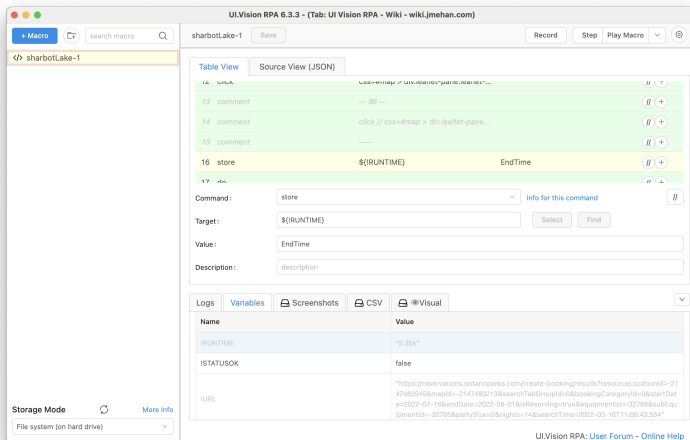
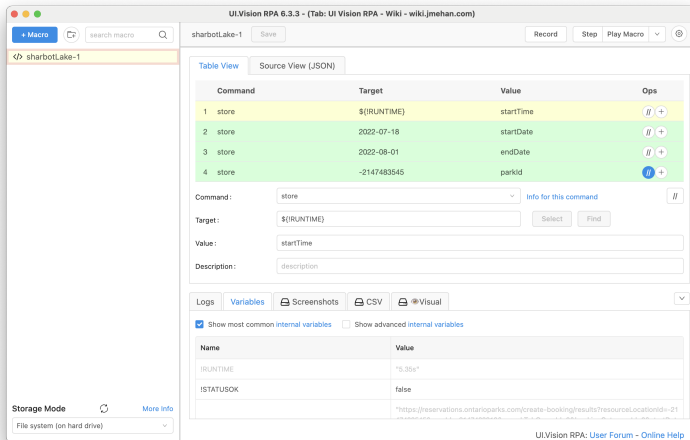
div.col-sm-9 > div > div > a.btn.btn-default.wrap"
    ],
    "Description": ""
  },
  {
    "Command": "type",
    "Target": "id=sq_100i",
    "Value": "${firstName}",
    "Description": ""
  },
  {
    "Command": "type",
    "Target": "id=sq_101i",
    "Value": "${lastName}",
    "Description": ""
  },
  {
    "Command": "type",
    "Target": "xpath=//*[@id=\"sq_102\"]/div[2]/div[2]/div/div/input",
    "Value": "${birthYear}",
    "Description": ""
  },
  {
    "Command": "select",
    "Target": "xpath=//*[@id=\"sq_102\"]/div[2]/div[2]/div/div[2]/select",
    "Value": "label=${birthMonth}",
    "Description": ""
  },
  {
    "Command": "type",
    "Target": "xpath=//*[@id=\"sq_102\"]/div[2]/div[2]/div/div[3]/input",
    "Value": "${birthDay}",
    "Description": ""
  },
  {
    "Command": "type",
    "Target": "id=sq_103i",
    "Value": "${email}",
    "Description": ""
  },
  {
    "Command": "type",
    "Target": "xpath=//*[@id=\"sq_104\"]/div[2]/div[2]/input",
    "Value": "${phone}",
    "Description": ""
  },
  {
    "Command": "click",
    "Target": "xpath=//*[@id=\"sq_106\"]/div[2]/div[2]/label/span",
    "Value": "",
    "Description": ""
  },
  {
    "Command": "click",
    "Target": "xpath=//*[@id=\"sq_107\"]/div[2]/div[2]/label/span",
    "Value": "",
    "Description": ""
  },
  {
    "Command": "click",
    "Target": "xpath=//*[@id=\"content\"]/div/div[4]/div/div/div/div[2]/div/div/div[3]/div/div/div[2]/div[2]/div[2]/div/div/div/form/div[2]/div/div[2]/input[3]",
    "Value": "",
    "Description": ""
  }
]
}

```

Recording Runtime/Performance Metrics

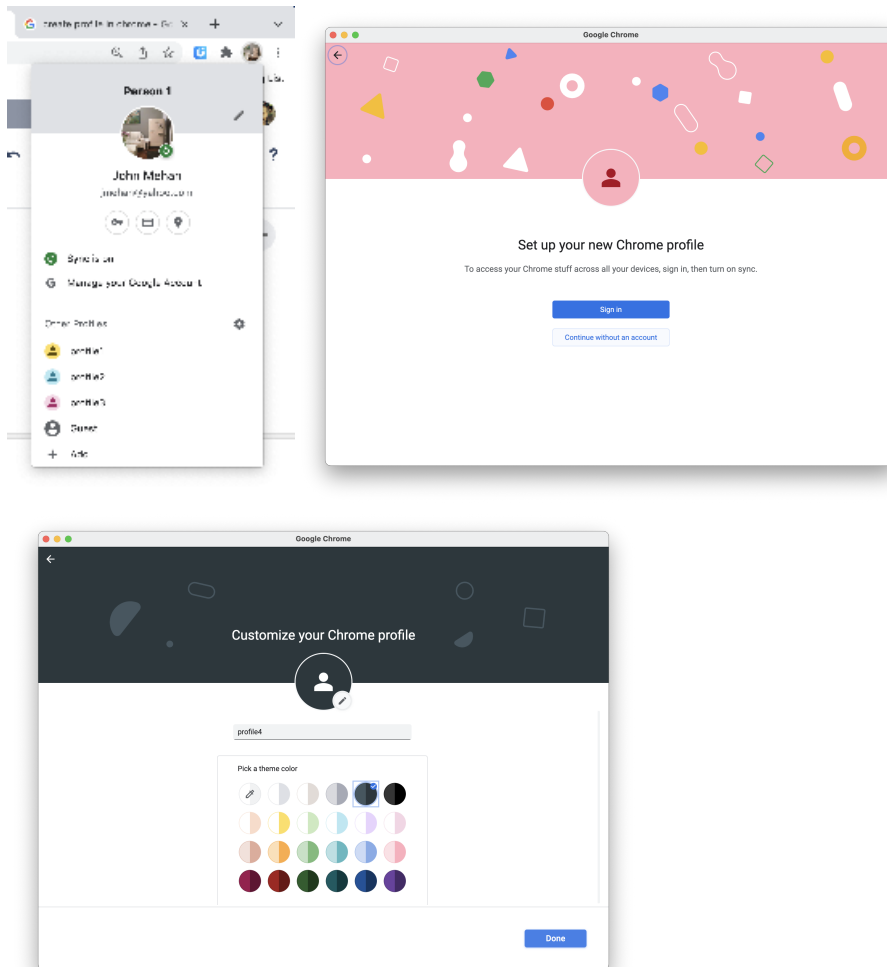
By using the **store** command with a target of **\$(!RUNTIME)**, we can get some performance metrics.

We need to set a start and end time. From the Variables tab, we can see the runtime values.



Running Multiple Tests in Parallel

Create Multiple Profiles



Click on your current profile in the top right corner of your browser and then click **Add**.

Click **Continue without an account**.

Assign the profile a name and click Done.

Using Different Profiles Launch Test

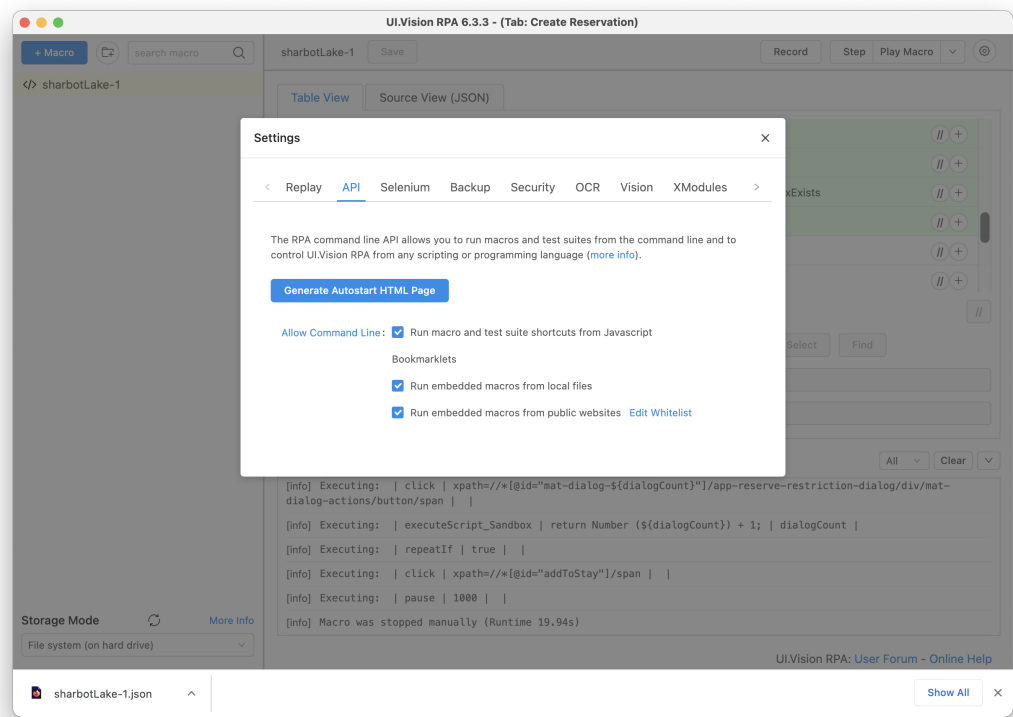
To run multiple tests in parallel from Chrome:

1. launch Chrome
2. Select Profile
3. Install UI Vision and give all access required
4. Startup UI Vision and run macro
5. Open a new browser window and change profile and repeat steps 3-4

Launch Tests From Command Line (Advanced)

Generate Autostart HTML Page

From the UI Vision plugin, click on the gear icon in the top right corner and select the API tab on the Settings page.



Click the Generate Autostart HTML Page button. Save or move this file **ui.vision.html** to a working folder.

Run Command

On Mac:

```
open -a "Google Chrome" --args --profile-directory="Default" "file:///Users/john/Desktop/ui.vision.html?macro=myMacro&direct=1&close=1&savelog=log1.txt"

open -a "Google Chrome" --args --profile-directory="Profile 1" "file:///Users/john/Desktop/ui.vision.html?macro=myMacro&direct=1&close=1&savelog=log1.txt"

open -a "Google Chrome" --args --profile-directory="Profile 2" "file:///Users/john/Desktop/ui.vision.html?macro=myMacro&direct=1&close=1&savelog=log1.txt"
```

References

Reference	URL
Home Page	https://ui.vision/rpa
Running multiple tests at the same Time	https://forum.ui.vision/t/running-multiple-tests-at-the-same-time/379/3