RPA Specialization

Course 3: UI Automation and Selectors

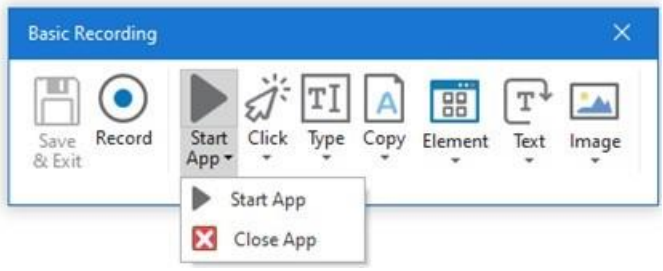
# Recordable Actions

# Recordable Actions

In Studio, several user actions can be recorded. These include:

## 1. Start App

It is available for Basic & Desktop Recording.

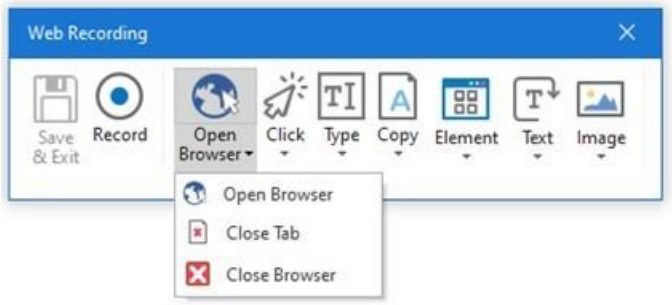



It contains two types of activities:

- **Start app** is used to open the application. It is similar to the 'Open Application' activity of Studio. To use this, select **"Start App"** and then click the desired application to open it
- **Close app** is used to close the already open application. It is similar to the 'Close Application' activity of Studio. To use this, select **"Close App"** and then click the desired application to close it

## 2. Open Browser

It is available for Web Recording.




It contains three types of activities:

- **Open Browser:** This is used to open a browser. It can be used in 3 ways:

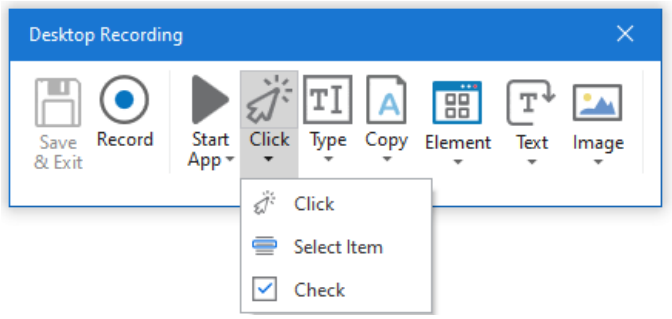
- The browser can be chosen (for example, Microsoft Edge, Firefox, or Chrome) or
- The URL can be specified inside the quotation marks "***", or
- The user can store the URL inside the string variable and pass that inside it

- **Close Tab:** Closes the Browser tab specified by the user
- **Close Browser:** Closes the already open browser window

## 3. Click

It enables the user to record clicks on the desktop or a running application, select an option from a drop-down list or combo box, and select a check box or a radio button.

It is available in Basic, Desktop, Web, and Native Citrix recorders. The automatic recorder supports this activity, and it doesn't recognize right clicks.

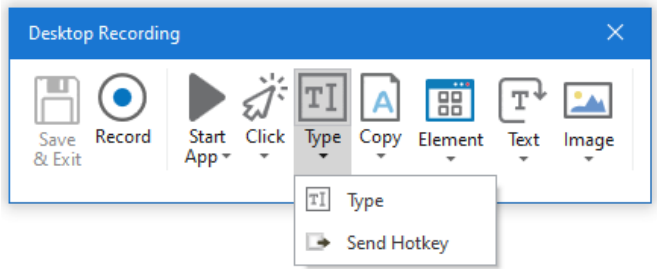



It contains three types of activities:

- **Click -** This activity is used to click the option or any button
- **Select Item -** This activity is used to select an item from a combo box or list box
- **Check -** It is used to check or uncheck options or toggle

## 4. Type

This includes those actions that require input from the keyboard, such as keyboard shortcuts and key presses. To achieve this, two pop-up windows are used to retrieve the keyboard input.

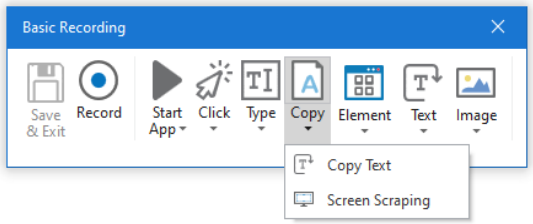


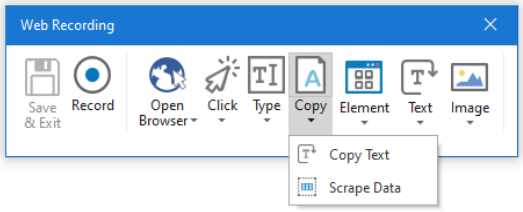

It contains two types of activities:

- **Type:** generates the 'Type Into' activity prompting the user for their desired value, whether it is text or special keys
- **Send Hotkey** generates the 'Send Hotkey' activity prompting to define an Alt-, Ctrl-, Shift-, or Win + Key to send it to an application

## 5. Copy

It enables the user to copy a selected text from an opened application or web browser to be used later in the project. Screen scraping is also available under the Copy menu, as it enables the user to extract images and text from an app or browser.



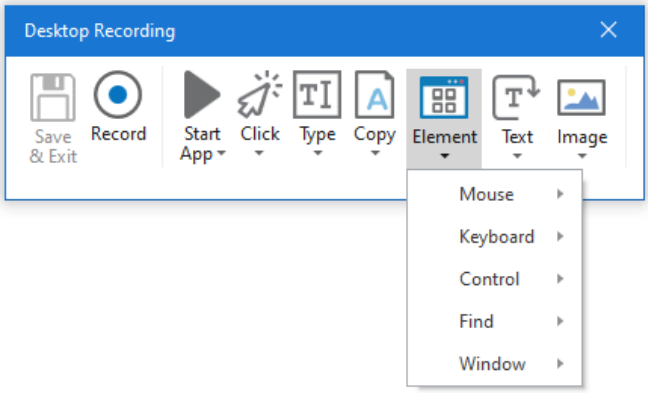




It contains the following types of activities:

- **Copy text** (same in all three recorders): Generate Get Text activity & recognize the text and copy it for further use as it is stored in a variable.
- **Screen Scraping** (in Basic, Desktop, and Native Citrix Recorder). It is used to read the data from the screen. It is capable of scraping both visible and non-visible UI elements from the screen.
- **Scrape Data** (in Web Recorder): It allows us to extract any structured data from the web, any application, document, spreadsheet, etc.

## 6. Element

It enables the user to perform actions on elements like looking for elements or waiting for them to vanish. It is available in all recorders (except the Computer Vision recorder).

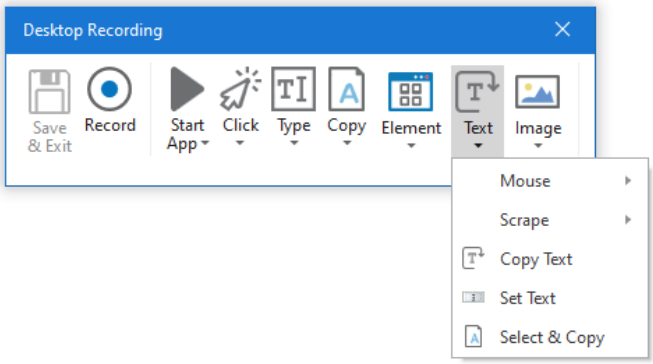



It contains five types of activities:

- **Mouse Element**: Enables the user to simulate mouse movements for an element that cannot be recorded but give access to more functionalities, such as right-clicking, hovering, or double-clicking.
- **Keyboard Element**: Enables the user to perform keyboard actions for an element. It consists of Type (generates the 'Type Into' activity) and Send Hotkey (generates the 'Send Hotkey' activity) options.
- **Control Element**: Enables the user to control a particular UI element. It consists of Select Item and Check options.
- **Find Element**: Enables the user to identify specific UI elements or pause the automation until a particular window closes or a UI element is no longer displayed.
- **Window Element**: Enables the user to close windows. Studio does this by hooking in the operating system to make sure the application is closed.

## 7. Text

It enables the user to select or hover over text to make tooltips visible for scraping, right-click to make the context menu visible, copy and paste text, and many others. It is available in all recorders and is known as Get Text in Computer Vision recording.

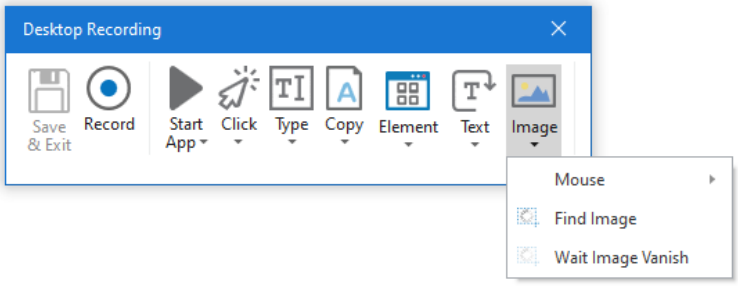



It contains five types of activities:

- **Mouse:** It includes 4 categories for different methods of using the mouse in relation to a text:
    1. Click
    2. Double-click
    3. Right-click
    4. Hover
- **Scrape**: Used for data scraping. It consists of three categories:
    1. Screen Scraping
    2. Data Scrape
    3. Scrape Relative
- **Copy Text:** This is the same activity as the one created under the Copy category.
- **Set Text:** This activity is used to identify a UI element and send a text to it. It is very similar to Type Into, the main difference between both is that you can assign keystrokes in Type Into, but in Set Text, you cannot do that.
- **Select & Copy:** This is used to generate two activities with a single step:
    - Select a text in UI element
    - Copy the text and store it in another variable

## 8. Image

It enables the user to wait for a specified image to disappear, to find a specific image in an app or website, right-click or hover over an image, and others (Useful with UI elements that are saved as graphics)

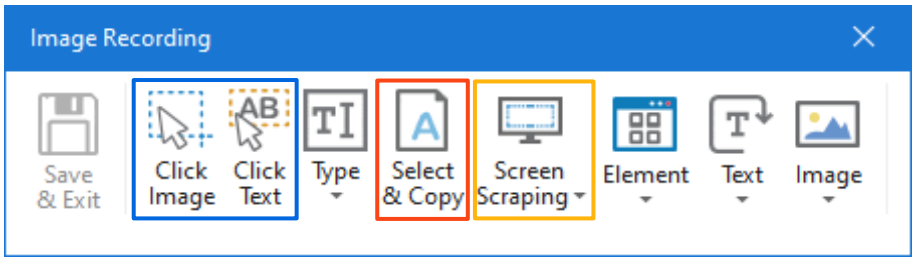



It brings together several events to recognize images and treat them as triggers:

- **Mouse:** The Mouse sub-category contains different methods of using the mouse in relation to images, click, double-click, right-click and hover. By using these properties, these activities can be customized to use modifier keys.
- **Find Image:** It is used to find the image on the screen and returns a Boolean value in the output.
- **Wait Image Vanish:** It waits for the image to disappear from the screen; another activity starts when the image is inactive or invisible from the screen. This activity also has a 30 seconds timeout.

## Recordable Actions Specific to Image Recorder

Some actions are available only in the Image Recorder.



These are:

- **Click Image/Click Text**: Click an image or text
- **Select & Copy**: Select and copy text from a window
- **Screen Scraping**: Scrape UI elements

## Keyboard Shortcuts

The following **Keyboard shortcuts** are available for use while recording:

- **F2** – pauses the recording for 3 seconds. A countdown timer is displayed in the bottom left corner of the screen. Can be useful with menus that automatically hide.
- **F3 -** Lets you specify a custom recording region.
- **F4 -** Lets you choose the UI Framework to record, which can be **Default, AA,** and **UIA**.
- **Esc** – exits the automatic or manual recording. If the Escape key is pressed again, the recording is saved as a sequence, and you return to the main view.