



Selenium Open Source Test Automation Framework Keyword Naming Conventions for Developers (Web)

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1. Purpose of the Document

This document provides the naming conventions followed in Open Source Test Automation Framework for the Web technology.

2. Keyword Naming Conventions

2.1. Naming Conventions Used for Keywords

1. LaunchApp

'LaunchApp' is used to launch the application under test (AUT). This keyword triggers the driver script to launch the application, either from a specified folder (the location of which is specified in the third column). Or if the application is already synchronized with main.rb, then this automatically launches the application from the URL mentioned.

2. Context

'Context' is used only on a Web page or a dialog object. This keyword brings a particular Web page or dialog to the current context, so that any operation or checking can be performed on that particular Web page or dialog.

3. Perform

'Perform' is used to perform an operation on a particular object, such as clicking on a button, closing an open Web page, or typing text in a textbox. This keyword should be entered in the corresponding row in the second column if any such operations are to be performed.

4. Check

'Check' is used to check if the required property of a particular object is attained at runtime. This is a type of validation step (expected result).

5. Condition

'Condition' is used to compare two variables, checking properties, existence of windows, etc.

6. CallFunction

'Call Function' is used to call any declared function, which is used in a particular script. These functions should be declared in a different file.

7. Storevalue

'Storevalue' is used to store the property values of different objects in different environment variables. These environment variables can later be used as input parameters in various functions as well as in scripts.

8. PressKey

'PressKey' is used to pass the hot keys such as Enter, F3, F10, Ctrl-S, etc.

9. Report

'Report' is used for customized reporter events. It is displayed in the result sheet. The report can be of four types: i) Pass, ii) Fail, iii) Done, iv) Warning.

10. Strsearch

'Strsearch' is used to search for a 'sub string' inside a 'main string'.

11. Strreplace

'Strreplace' is used for replacing a 'sub string' inside a 'main string' with a new 'sub string'.

12. Strconcat

'Strconcat' is used to concatenate any number of strings with each other.

13. Wait

'Wait' is used to place static waits in the keyword script.

14. Arith

'Arith' is used to perform the arithmetic operations on the variables.

15. Assignvalue

'Assignvalue' is used to assign dynamically generated values from the application to environment variables.

16. Callaction

'Callaction' is used to call reusable actions that are declared in the script.

17. Loop

'Loop' is used to loop a set of actions given in the Excel sheet.

18. convert

'Convert' is used for typecasting from one data type to another.

2.2. Naming Conventions Used for Objects

The table below provides the naming conventions followed for different Web objects in the Open Source Test Automation Framework.

| | Web Object Class | Naming Conventions |
|----|------------------|--------------------|
| 1. | Browser | Browser |
| 2. | Page | Page |
| 3. | Frame | Frame |

| | | |
|-----|---------------------------------|------------------|
| 4. | Window | Window |
| 5. | WebButton | Button |
| 6. | WebCheckBox | Checkbox |
| 7. | WebList | Combobox |
| 8. | WebEdit | Textbox |
| 9. | WebRadioGroup | Radiobutton |
| 10. | Link | Link |
| 11. | WebFile | WebFile |
| 12. | WebArea | Webarea |
| 13. | Image | Image |
| 14. | WebTable | Table |
| 15. | WebElement | Element |
| 16. | Viewlink | Viewlink |
| 17. | WebTable inside a WebTable | ChildTable |
| 18. | WebButton inside a WebTable | Tablebutton |
| 19. | WebCheckBox inside a WebTable | Tablecheckbox |
| 20. | WebList inside a WebTable | Tablecombobox |
| 21. | WebEdit inside a WebTable | Tabletextbox |
| 22. | Image inside a WebTable | TableImage |
| 23. | WebElement inside a WebTable | TableElement |
| 24. | Link inside a WebTable | TableLink |
| 25. | WebRadioGroup inside a WebTable | Tableradiobutton |
| 26. | Dialog | Dialog |

Table 1: Naming Conventions Used for Objects

2.3. Naming Conventions Used for Actions

1. Click

'Click' is used to perform the click operation on objects.
(Ex: Clicking a WebButton, Link WebElement, etc.)

2. Close

'Close' is used to perform the close operation on any open objects.
(Ex: Closing a Browser, Window, Dialog, etc).

3. Select:<name>

'Select' is used to select an item from Combobox or Radiobutton.

4. **Selectindex:<index>**
'Selectindex' is used to select an item from a Listbox or Combobox.
5. **Set:<Text>**
'Set' is used to assign a value to an edit field.
6. **Set:d_currenttime**
This sets the current system time to the edit field.
7. **Set:d_currentdate**
This sets the current system date to the edit field.
8. **Set:d_d; <value to be added/subtracted>**
This adds or subtracts the value specified to the current system date and sets the edit field to a given value.
9. **Set:d_m; <value to be added/subtracted>**
This adds or subtracts the value specified to the current system month and sets the edit field to a given value.
10. **Set:d_y; <value to be added/subtracted>**
This adds or subtracts the value specified to the current system year and sets the edit field to a given value.
11. **Set:<On/Off>**
This is used to select or deselect a Radiobutton.
12. **Deselect:<name>**
This is used to deselect a selected item in a list.
13. **Extendselect:<name>**
This is used to select more than one item from a list.
14. **Selection:<item name>**
This is a check operation that is used to verify whether the desired item is selected or not from the combobox.
15. **Checked:<On/Off>**
This is a check operation that is used to verify whether a checkbox is checked or not.
16. **Enabled:<True/False>**
This is a check operation that is used to verify whether the given Web object is enabled or not.
17. **Exist:<True/False>**
This is a check operation that is used to verify whether the Web object whose name is specified exists or not.

18. Focused:<True/False>

This is a check operation that is used to verify whether the object is focused or not.

19. Visible:<True/False>

This is a check operation that is used to verify whether the specified object is visible or not.

20. ItemsCount:<Item>

This is a check operation that is used to verify the number of items in a Combobox.

21. Text:<text/#Variable_Name>

This is a check operation that is used to verify whether the required text is present or not in the object.

22. prop_name:<variable_name>

This is used to store the property value in the specified variable. It is used with the storevalue keyword.

23. set:dt<variable>

This is used to assign the value, which is stored in the external data sheet to the edit field.

24. set:dtl<variable>

This is used to assign the value, which is stored in the local script sheet to the edit field.

25. set:#<variable>

This is used to assign the value, which is stored in the variable to the edit field.

26. set:p_<parameter>

This is used to assign the value, which is stored in the input parameter to the edit field.

27. text:<text to search>

This is a check operation that is used to verify whether a string is present or not in the table.

28. search:<text>

This is a check operation that is used to verify whether the value of the string is in the current row of the object or not.

29. search:#<variable name>

This is a check operation that is used to verify a value stored in the environment variable is in the current row of the combo box.

2.4. Naming Conventions Used for Variables

- To store the property value of an object, an environment variable is used.

Example:

| | | |
|------------|-------------------------|----------------------|
| Storevalue | Textbox; <textbox name> | Prop_name: <varName> |
|------------|-------------------------|----------------------|

Here, the value in the text box is stored to a variable 'varName'.

- To assign a value to a field from a variable, the variable should be preceded by '#'.

| | | |
|---------|------------------------|--------------|
| Perform | Textbox;<textbox name> | Set:#varName |
|---------|------------------------|--------------|

Here, the value stored in varName is assigned to the textbox.

Note: Variable Naming Standards to be followed as below

StrVarName -

Ex: To store a username, which is a string value in a variable.

| | | |
|------------|-------------------|-------------------|
| Storevalue | Textbox; Username | Text: StrUserName |
|------------|-------------------|-------------------|

intVarName -

Ex: To store an order number, which is an integer value in a variable.

| | | |
|------------|-------------------|------------------|
| Storevalue | Textbox; OrderNo. | Text: intOrderNo |
|------------|-------------------|------------------|

blnVarName -

Ex: To store an exit property value, which is a Boolean value in a variable.

| | | |
|------------|-------------------|----------------------------|
| Storevalue | Textbox; OrderNo. | Exist: blnOrderProValue |
|------------|-------------------|----------------------------|

2.5. Naming Convention Used for Datatable

To input a value to a field from a datatable, the naming convention used is **dt**.

Example:

| | | |
|---------|------------------------|---------------------|
| Perform | Textbox;<textbox name> | Set: dt_<Parameter> |
|---------|------------------------|---------------------|

Here, the 'dt' signifies that it takes the value from the datatable from the column "Parameter". This data should be in the external sheet, and this keyword should be used only after the importsheet keyword.

To use the local sheet data table, the keyword is given below.

Example:

| | | |
|---------|------------------------|----------------------|
| Perform | Textbox;<textbox name> | Set: dtl_<Parameter> |
|---------|------------------------|----------------------|

2.6. Naming Convention Used for Parameter

To input a value to a field from a parameter, the naming convention used is **P**.

Example:

| | | |
|---------|------------------------|--------------------|
| Perform | Textbox;<textbox name> | Set: P_<Parameter> |
|---------|------------------------|--------------------|

Here the 'P' signifies that it takes the value from the parameter.

2.7. Naming Convention Used for Environment

To input a value to a field from an environment variable, the naming convention used is **#**.

Example:

| | | |
|---------|------------------------|-----------------|
| Perform | Textbox;<textbox name> | Set: #<VarName> |
|---------|------------------------|-----------------|

Here the 'env' signifies that it takes the value from the environment variable 'VarName'.

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