

# Open2Test Test Automation Framework for Selenium Web Driver - Quick Start Guide

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### **1 PURPOSE**

This document explains the support settings and how to get started with keyword-driven scripting for Web apps using Open2Test framework for Selenium.



### 2 Environment Setup

- 1. Windows OS
- 2. IE/Firefox Browser/ Google Chrome
- 3. IEDriver Exe (If IE is used)
   http://docs.seleniumhq.org/download/)
- 4. ChromeDriver exe (if chrome is used)
  http://docs.seleniumhq.org/download/)
- 5. A Java IDE with Java 1.7 or above JDK and JRE required
- 6. The following Jar files are required to run the Open2Test Framework for Selenium WebDriver Framework
  - Apache POI api\_3.9 or higher

(<u>https://poi.apache.org/download.html</u>)

- Junit-4.9 or higher
- Selenium-java-2.53. Libraries (http://docs.seleniumhq.org/download/)
- Yandex QATools AShot WebDriver Utility to take screenshot in google chrome

Libraries (<u>http://mvnrepository.com/artifact/ru.yandex.qatools.ashot/ashot/1.4.10</u>)

Note:

If you use internet explorer browser, make sure the zoom level is 100%.and "Enable protected mode" for all four zone from Security tab of Internet options should be either checked or unchecked



### 3 Framework at Glance

#### Input Files:

#### a. Selenium Utility Excel:

The TestSuite, TestScript, Object Repository and Report Folder location should be mentioned in Selenium\_Utility excel.

File\Folder Name	Location		
Test Suite	D:/path/Test_Suite1.xlsx		
Test Script	D:/path/		
Object Repository	D:/path/TestData/ObjectRepository.xlsx		
Environment File			
Summary Report	D:/path/Test Reports/		
Screen Shot Report	D:/path/Test		
Browser Type	Ie/ff/gc		
DriverPath	D:/IEDriverServer/IEDriver.Exe or D:/gcDriverServer /chromedriver.exe		
TempTestReportPath	C:/		
FileManager EXE	D:/path/FileManager.EXE		
database	MSSQL / MYSQL [optional]		
host_name	Host name of the Data base localhost or IP address 172.26.56.53 [optional]		
portnumber	Port number if required [optional]		
schemaname/Databasename	Schema Name from which data is going to fetched. e.g. "SchemaEmployee" [optional]		
username	User name provided to connect to schema [optional]		
Password	Password provided to connect to schema [optional]		
Update	Yes/ No if set as Yes - date formula used in any excel file will get execute and latest value will be taken else old value will be utilized		

Note: The selenium utility excel file should be placed in the path defined in Setting.Java class file. If you wish to place



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the utility file in some other location, you must update the path in the Setting.Java class file.

If your test case needs file upload or file download operation, you must download(You will be able to download the exe from the link which you receive for downloading the framework) and place the FileManager.exe in the required path and should specify the path in the SeleniumUtility.Xls file.

There are no additional environment prerequisites for executing the EXE.

#### b. Object Repository Excel:

		Object		
	Object Name	Туре	Pare	ObjectPath
1	Welcome to	Page	0	name=
	Open2Test.org			
2	Name	Textbox	1	id=name
3	emailID	Textbox	1	id=emailID
4	selectframewo	ComboBox	1	<pre>xpath=//select</pre>
5	Agreement	Textbox	1	id=Agreement
6	Input	Textbox	1	id=submit

Collect the properties of objects and define it in Object Repository.xls like below

#### c. Test suite Excel:

Mention the test scripts in the 'Test suite' excel in the order you wish to execute them.

Run	Test Scripts
r	Test_Create Project.xlsx
r Test_Report Issue.xlsx	

#### d. Test Script Excel

Write the keywords for the test script like below. Note: Open2Test Framework Keywords & actions are not case sensitive.

Run	Keyword	ObjectDetails	Action	Action2	Comments
r	LaunchApp	www.open2test.org			Opening page
r	Importdat a	D:\001_D_Files\path\TestData\TestDat a.xlsx			Data File
r	Loop	<u>3</u>			Loop Start
r	Perform	Textbox;name	set:dt_usern ame		Set user name



r	Perform	Textbox;emailID	set:dt_email	Comments one
r	Check	Textbox;emailID	enabled:true	Comments Two
r	Perform	ComboBox;selectframework	select:Web Framework (V2) for	Comments Three
r	Perform	Textbox;Agreement	click	Comments Four
r	Perform	Button; input	click	
r	Screencap			
r	Endloop			Loop end

#### e. Test Data

Keep all your Test data in TestData.xlsx

username	email
User1	User1@gmail.com
User2	User2@gmail.com
User3	User3@gmail.com



## 3. Project Setup in Eclipse

- 1. Launch Eclipse.
- 2. Click File -> New -> Java Project.

🚯 Java - Selenium/src/Seleniumwd.ja	va - ADT		
File Edit Run Source Refactor	Navigate Sear	ch Project Window Help	
New Open File	Alt+Shift+N →	🚰 Java Project 😂 Android Application Project	ا الا 🕫 🎤 🕶 🖉 کې
Close Close All	Ctrl+W Ctrl+Shift+W	AspectJ Project ↑ Project	
Bave Bave As	Ctrl+S		ase()) {
Revert	Ctrl+Shift+S	Interface  Enum  Annotation	rseInt(cCellData); 1;
Move Rename <b>% Refresh</b> Convert Line Delimiters To	F5	Source Folder  Java Working Set  Folder  Folder  Folder  Folder  Folder	= j; = dtcownum;*/
🗎 Print	Ctrl+P	Untitled Text File	
Switch Workspace Restart	•	<ul> <li>♂ Android XML File</li> <li>③ Aspect</li> <li>⇒ JUnit Test Case</li> </ul>	<pre>trownum); f loop : " + loopsize); """</pre>
import ™ Export		Task	<b>;</b>
Properties	Alt+Enter		
1 Seleniumwd.java [Selenium/src] Exit			popsize) == loopcount) {
		+ " : Loop	n("Reached End of Loop : " + loopsize o count : " + loopcntlist.get(loopsize)) d of Loop : " + loopsize



### 3. Enter **project name** and click 'Finish'. Note that J2SE 1.7 is used

🕖 New Java Project	
Create a Java Project	
Create a Java project in the workspace or in	n an external location.
Project name: Sample	
✓ Use default location	
Location: C:\Users\084601\workspace\S	Sample Browse
- JRE	
C Use an execution environment JRE:	JavaSE-1.7
<ul> <li>Use a project specific JRE:</li> </ul>	ire7
Use default JRE (currently 'jre7')	Configure JREs
So use default the (currently jier j	<u>Configure Acts</u>
Project layout	
C Use project folder as root for source	
Create separate folders for sources a	and class files <u>Configure default</u>
Working sets	
Add project to working sets	
Working sets:	Select
< Back	Next > Finish Cancel

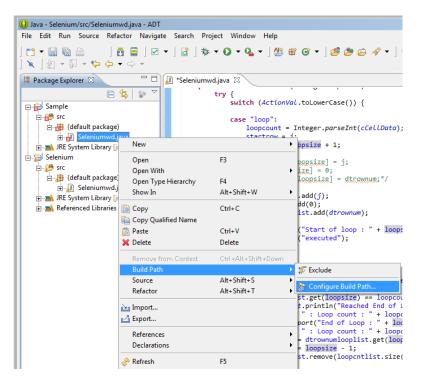


4. Copy the Framework code that is downloaded from www.open2test.org5. Right-click on 'src' under the new project created and click 'Paste'.

🚯 Java - Sel	enium/src/Seleniumwd.java - Al	т
<u> </u>	Run Source Refactor Navi	
	· · · · · · · · · ·	2 ▼ ] 🔐 ] 券 ▼ 🔾 ▼
/ Package	Explorer 🛛 🗖 🗖	🛛 🕖 *Seleniumwd.java 🕅
⊡, E Sam	ple	try {
<b>⊡</b> <i>i</i> #	New	
tt Lt	Open in New Window	
🖃 💕 Sele	Open Type Hierarchy	F4
≙ <b>#</b>	Show In	Alt+Shift+W
	Сору	Ctrl+C
	🗎 Copy Qualified Name	
÷ <b>≥</b> ∖ F	👕 Paste	Ctrl+V
	💢 Delete	Delete
	Remove from Context	Ctrl+Alt+Shift+Down
	Build Path	•
	Source	Alt+Shift+S
	Refactor	Alt+Shift+T
	🚵 Import	
	🛃 Export	
	🔗 Refresh	F5
	Assign Working Sets	
	Run As	+
	Debug As	•
	Profile As	•

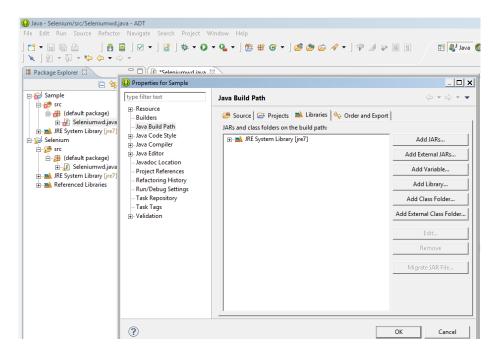


6. Right-click on the framework code which is pasted under src folder, select Build path -> Configure Build Path.

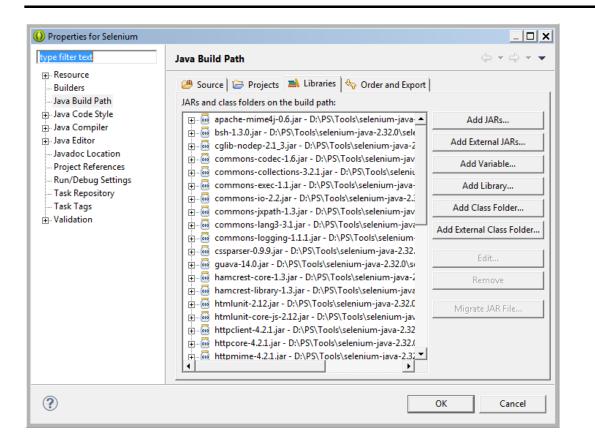




7. Click on Libraries. Click on 'Add External JARs' and add all the jar files under the selenium folder (selenium-java-2.xx.0) as per the version you use. Also add JXL.jar file as well.







```
In the same package add a new class with name Setting.java as follows:
public class Setting
{
      public String
utilityFilePath="D:\\Phase6\\Open2Test\\Selenium Utility1.xlsx";
      String[] envprevMonth1={"Prev", "prev"};
// Specify a class name through which the framework can identify the image
representing the previous month
      String[] envnextMonth1={"Next", "next"};
// Specify a class name through which the framework can identify the image
representing the next month
      String[] envtitleMonth={"month"};
// Specify a class name through which we can identify the title month element
in calendar control element
      String[] envtitleYear={"year"};
// Specify a class name through which we can identify the title month element
in calendar control element
}
```

Important Note for the Users automating Date Picker control (If you want to directly pick a date from the calendar control):



Two kinds of date picker controls are supported:

1. JQuery

DatesInOthermonth=true/false, DisplayMonthandYear Menus, Display multiple months, icontrigger, restricted Date range are supported. Inline type is **not** supported currently.

2. BootStrap (Except Inline type)

For String array envprevMonth1, specify a class name through which the framework can identify the image representing the previous month

For String array envnextMonth1 Specify a class name through which the framework can identify the image representing the next month

For String array envtitleMonth Specify a class name through which we can identify the title month element in calendar control element

For String array envtitleYear Specify a class name through which we can identify the title month element in calendar control element

#### Limitations in using the Date picker controls:

- Only the specified (JQuery & BootStrap) date picker types are supported
- 2. In your Test script, use the date in mm-dd-yyyy format only
- 3. It may take few minutes to select the date because the key element locators are identified dynamically.
- The Date Picker Object should be of 'calendar' object type and prefixed by (cal\_)
- For Bootstrap Date picker currently there is no support for 'Inline' type.
- 6. Only Calendars with English and Japanese text are supported.
- 7. Right-click on the project or source-code files and choose: Run as -> JUnit Test



	lefault package) Seleniumwel iawa New		<pre>loopcnt[loopsize] = 0; dtrownumloop[loopsize] = dtrownum;*/ &gt; loopstartlist.add(j);</pre>	
⊞ <b>≣</b> Refer		F3	<pre>opcntlist.add(0); rownumlooplist.add(dtrownum);</pre>	
	Open Type Hierarchy Show In	F4 Alt+Shift+W	<pre>date_Report("Start of loop : " + loopsiz date_Report("executed"); eak;</pre>	
	Copy	Ctrl+C	endloop": ;rownum++;	
	<ul> <li>Paste</li> <li>X Delete</li> </ul>	Ctrl+V Delete	<pre>opcntlist.set(loopsize, loopcntlist.get(     opnum = loopnum + 1;     (loopcntlist.get(loopsize) == loopcount</pre>	
	Remove from Context Build Path Source Refactor	Ctrl+Alt+Shift+Down Alt+Shift+S Alt+Shift+T	<pre>System.out.println("Reached End of Loc + ": Loop count : " + loopcnt Update_Report("End of Loop : " + loops + ": Loop count : " + loops dtrownum = dtrownumlooplist.get(loopsi</pre>	
	import ™ Import		<pre>loopsize = loopsize - 1; loopcntlist.remove(loopcntlist.size()- else { j = loopstartlist.get(loopsize);</pre>	
	References Declarations		<pre>Update_Report("End of Loop : " + (loop</pre>	
	Refresh Assign Working Sets	F5	<pre>loopcnt[loopsize] = loopcnt[loopsize] opnum = loopnum + 1;</pre>	
	Run As Debug As		Image: Aspect/Java Application         Alt+Shift+X, C           Jar 2 JUnit Test         Alt+Shift+X, T	
	Profile As Validate Team		Run Configurations	
	Compare With Replace With Restore from Local History		* *	
	Properties	Alt+Enter	-	



### 4 Usage of Keywords

The keywords for the test scenario should be entered in the Sheet1 of the Microsoft Excel placed in the Test Scripts folder. The syntax for the keywords can be referred from Selenium Keywords Reference Dictionary Document.



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### 5 Test Results for a Keyword-Driven Script

Test execution results can be viewed and analyzed as soon as the run session ends. To access the test results, go to the Test\_Reports folder customized using the test automation framework. Two folders will be available: one showing the summary report for test suite execution, and anoter folder called Detailed\_Report that displays the detailed step- wise test results for each test script. A screenshot will be available for the failure scripts under ScreenShot Report

C O P Y R I G H T

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