



Selenium - Open Source Test Automation Framework Quick Start Guide

Version 1.0

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1 Keyword-Driven Scripting

This document drives the settings and describes how to get started with keyword-driven scripting in the Selenium tool.

2 Creating New Test

- a. The test suite, test script, object repository, and report folder location should be mentioned in Selenium_Utility excel.

File\Folder Name	Location
Test Suite	C:/Innovez/Selenium_Automation/Test_Suite.xls
Test Script	C:/Innovez/Selenium_Automation/Test_Scripts/
Object Repository	C:/Innovez/Selenium_Automation/Test_Data/Object_Repository.xls
Environment File	C:/Innovez/Selenium_Automation/Test_Data/Environment_Variable.xls
Summary Report	C:/Innovez/Selenium_Automation/Test_Reports/
Screen Shot Report	C:/Innovez/Selenium_Automation/Test_Reports/ScreenShot_Report/
Detailed Report	C:/Innovez/Selenium_Automation/Test_Reports/Detailed_Report/

Note: The selenium utility Excel file should be placed in

C:\Documents and Settings\Mantis\Demo-Selenium\Selenium_Utility.xls

- b. Collect the properties of objects and define them in Object_Repository.xls like below

ObjectName	ObjectIdentification	ObjectType
Username	username	TextBox
Password	password	TextBox
Login	//input[@value='Login']	Button
Manage	link=Manage	link
Manage Projects	link=Manage Projects	link

- c. Define the test scripts in the test suite excel like below

Run	Test Driver
r	Mantis_Create Project
r	Mantis_Report Issue
r	Mantis_View Issue and Delete Project
r	Mantis_Fail
r	Call Tariff Addition and Amendment

- d. Write the keywords for the test script like below

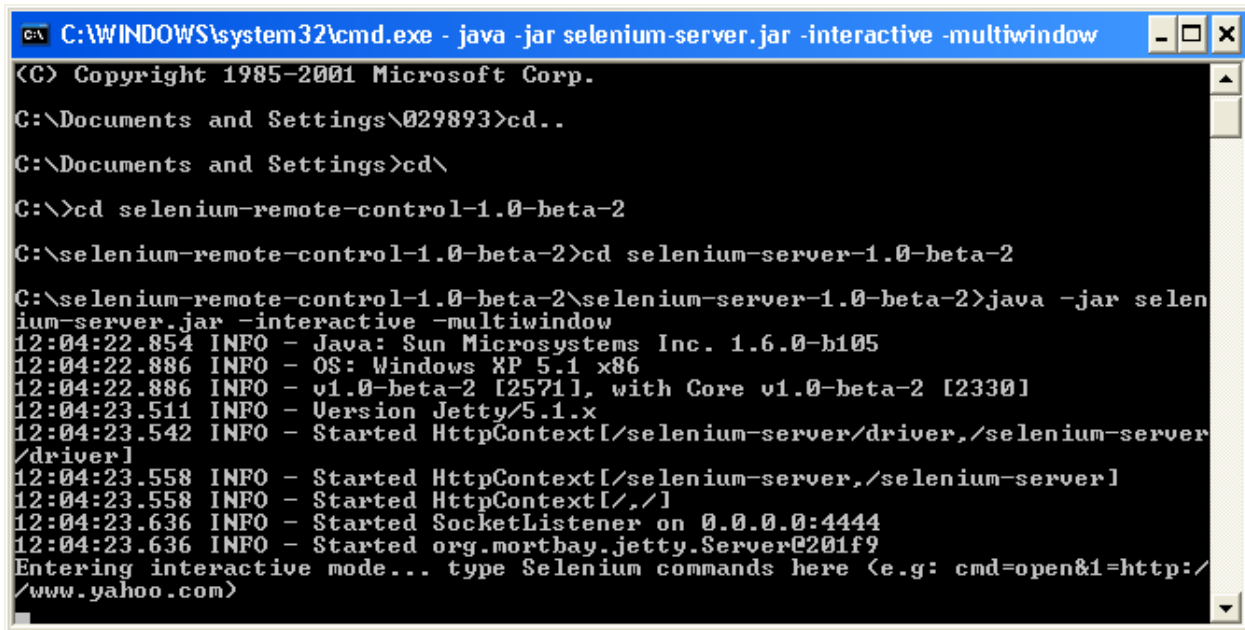
Step	Operation	Object	Action
r	callaction	C:\Documents and Settings\Mantis\Demo-Selenium\Innovez\Selenium_Automation\Test_Scripts>Login Action.xls	
r	perform	link;Manage Projects	click
r	wait	3	
r	perform	Button;Create New Project	click
r	perform	Textbox;Project Name	set:Selenium

3. Selenium RC - Server up

After creating all the necessary files, then start up the Selenium server by the below command

Starting the server:

```
java -jar selenium-server.jar -interactive
```



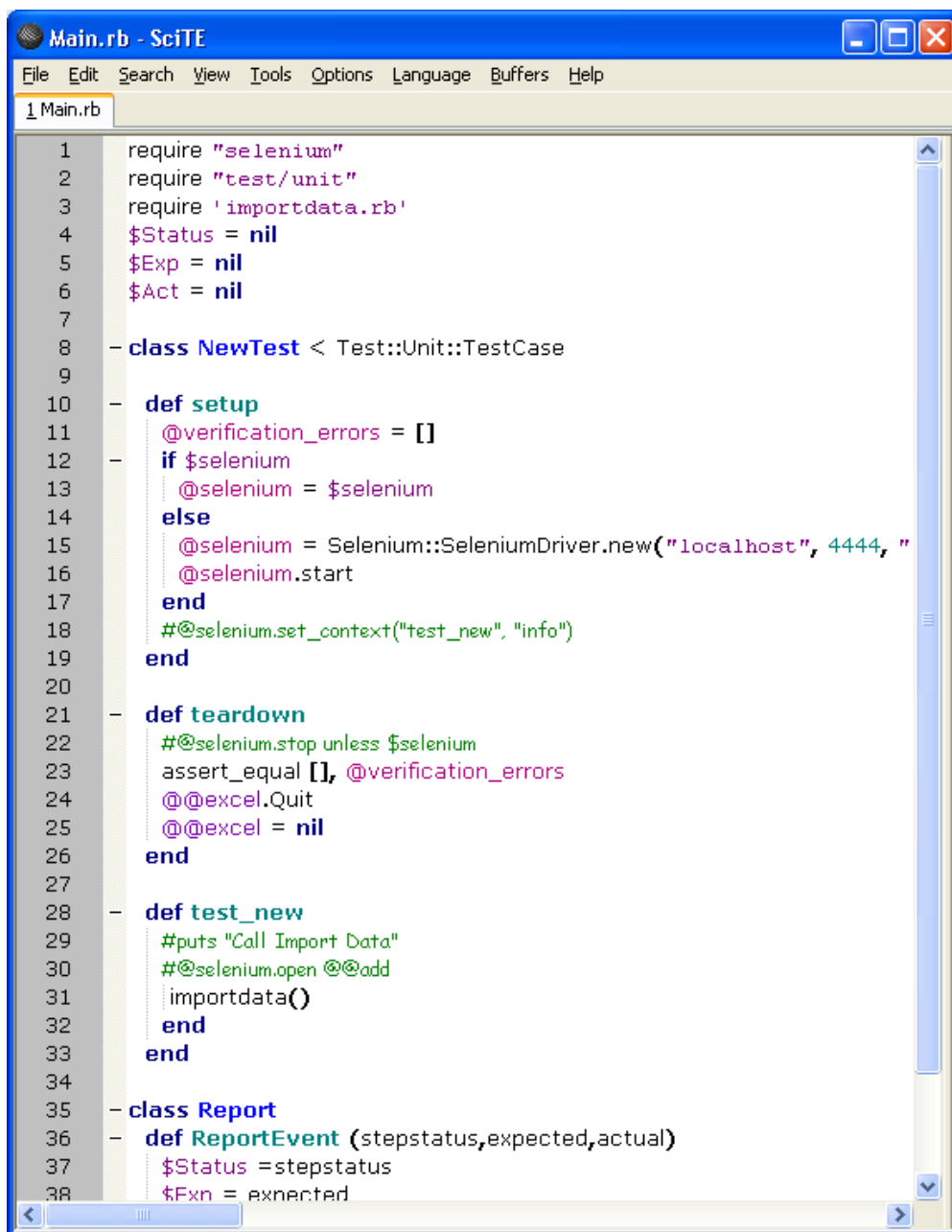
```
C:\WINDOWS\system32\cmd.exe - java -jar selenium-server.jar -interactive -multiwindow
(C) Copyright 1985-2001 Microsoft Corp.
C:\Documents and Settings\029893>cd..
C:\Documents and Settings>cd\
C:\>cd selenium-remote-control-1.0-beta-2
C:\selenium-remote-control-1.0-beta-2>cd selenium-server-1.0-beta-2
C:\selenium-remote-control-1.0-beta-2\selenium-server-1.0-beta-2>java -jar selenium-server.jar -interactive -multiwindow
12:04:22.854 INFO - Java: Sun Microsystems Inc. 1.6.0-b105
12:04:22.886 INFO - OS: Windows XP 5.1 x86
12:04:22.886 INFO - v1.0-beta-2 [2571], with Core v1.0-beta-2 [2330]
12:04:23.511 INFO - Version Jetty/5.1.x
12:04:23.542 INFO - Started HttpContext[/selenium-server/driver,/selenium-server/driver]
12:04:23.558 INFO - Started HttpContext[/selenium-server,/selenium-server]
12:04:23.558 INFO - Started HttpContext[/,/]
12:04:23.636 INFO - Started SocketListener on 0.0.0.0:4444
12:04:23.636 INFO - Started org.morthay.jetty.Server@201f9
Entering interactive mode... type Selenium commands here (e.g: cmd=open&1=http://www.yahoo.com)
```

Figure 1: Selenium RC server up and running

4 Call to Framework

The Main.rb should be opened in the SciTE. Press F5 and this will call the framework file associated with the test and perform the actions by interpreting the keywords specified in the data table.

User can the run the main.rb by command `ruby main.rb`



```

Main.rb - SciTE
File Edit Search View Tools Options Language Buffers Help
1 Main.rb
1 require "selenium"
2 require "test/unit"
3 require 'importdata.rb'
4 $Status = nil
5 $Exp = nil
6 $Act = nil
7
8 - class NewTest < Test::Unit::TestCase
9
10 - def setup
11     @verification_errors = []
12 - if $selenium
13     @selenium = $selenium
14     else
15     @selenium = Selenium::SeleniumDriver.new("localhost", 4444, "
16     @selenium.start
17     end
18     #@selenium.set_context("test_new", "info")
19 end
20
21 - def teardown
22     #@selenium.stop unless $selenium
23     assert_equal [], @verification_errors
24     @@excel.Quit
25     @@excel = nil
26 end
27
28 - def test_new
29     #puts "Call Import Data"
30     #@selenium.open @@add
31     importdata()
32     end
33 end
34
35 - class Report
36 - def ReportEvent (stepstatus,expected,actual)
37     $Status = stepstatus
38     $Fxn = expected

```


Figure 4: Call to Framework

5 Usage of Keywords

The keywords should be entered in Sheet1 of Microsoft Excel placed in the Test Scripts folder. The syntax for the keywords can be found in the Selenium Keywords Reference Dictionary Document. Below is an example of a simple keyword-driven scripting.

KEYWORD SYNTAX FOR SAMPLE AUT			
Run option	Operation	ObjectDetails	Input / Properties
r	check	textbox;UserName	editable
r	perform	textbox;UserName	set;Data_UserName
r	perform	textbox;password	set;Data_Password
r	check	button;login	textpresent;Log In
r	perform	button;login	button;click
r	perform	button;verify	button;click
r	perform	link;Account_Link	link;click
r	perform	link;Options_link	Link;click
r	perform	button;Reset	button;click

Figure 5: Using the Keyword

6 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 another 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.

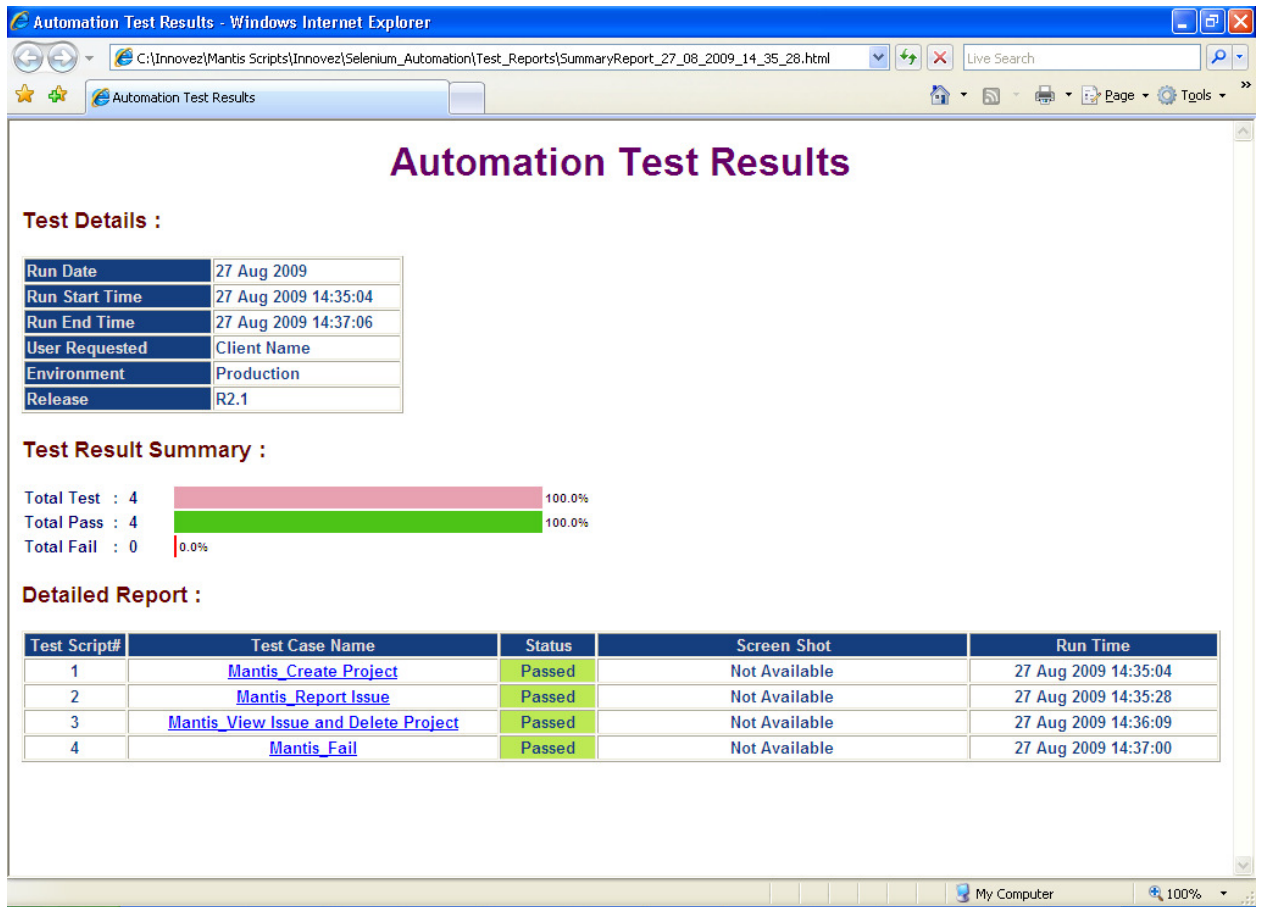


Figure 6: Test results summary for a test suite

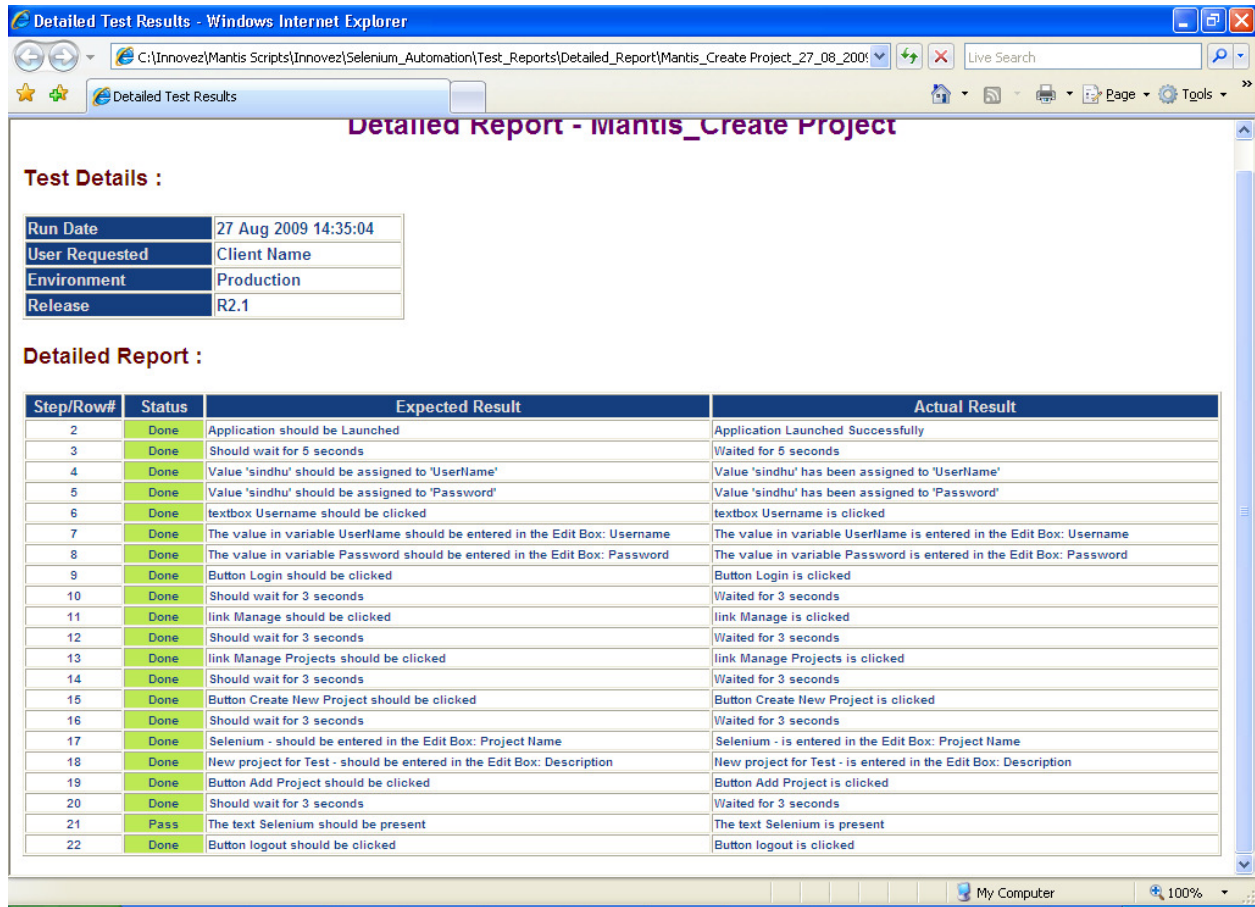


Figure 7: Detailed test results for a test script

7 Resource Files

The resource files such as Framework Files, Shared Object Repositories, and Environment Variables that are associated with the test can be stored in the user's machine and obtained during test execution.

Function libraries of the file type `.rb`, environment variables of file type `.excel`, and object repositories of file type `.excel` can be placed in the folder specified in the Utility Excel.

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