



Choosing Effective XPaths

[Home](#) [Selenium-Webdriver](#)

BASICS

Set Up
WebDriver
with
Eclipse

WebDriver
Commands

Locators
&
Xpath

Use
Of
Browser
Inspector

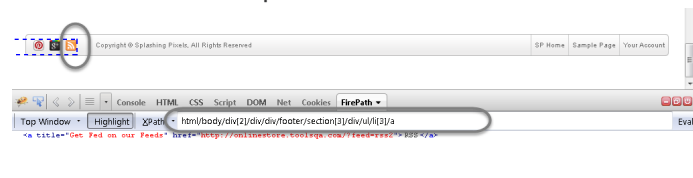
Firebug
&
Firepath

HTML
Locators

Earlier generating xpaths used to be a tedious task but now with the help of Firebug and other tools, it became hell easy. But choosing the right and effective xpath is equally important and you cannot always rely on tools for the best decisions.

In this tutorial I am explaining the different ways of choosing xpaths and choosing the most effective xpaths.

Example: Let's take an example of RSS button at the bottom of the page in the footer section of www.store.demoqa.com.



Technique 1 | Absolute XPath: The easiest way of finding the xpath is to use the Browser Inspector tool to locate an element and get the xpath of it:

XPath Generated by the tool is

: `//html/body/div[2]/div/div/footer/section[3]/div/ul/li`

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Effective XPath

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Advance
Tricks

Interview
Questions

Selenium
Problems

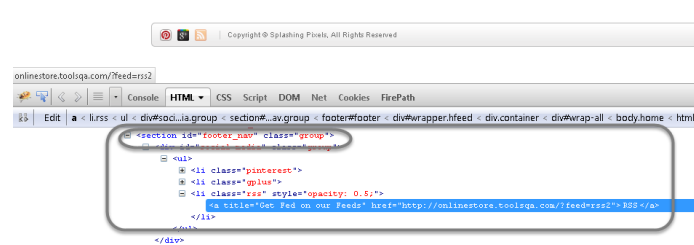
FRAMEWORKS & DESIGN

Hybrid
Automation
Framework

Keyword

Technique 2 | Relative XPath: At times XPath generated by Firebug are too lengthy and you see there is a possibility of getting a shorter XPath. Above xpath will technically work, but each of those nested relationships will need to be present 100% of the time, or the locator will not function. Above chosen xpath is known as **Absolute xpath**. There is a good chance that your xpath will vary in every release. It is always better to choose **Relative xpath**, as it helps us to reduce the chance of element not found exception.

To choose the relative xpath, it is advisable to look for the recent **Id** attribute. Look below at the HTML code of the above screen shot.



You can see the recent or last Id produced is **'footer_nav'**. This id would be appropriate in this case, so a quality xpath will look like this: **//*[@id='social-media']/ul/li[3]/a**

Did you notice the difference between the Absolute and Relative xpaths?

Absolute

xpath: /html/body/div[2]/div/div/footer/section[3]/div/ul/

Relative xpath: **//*[@id='social-media']/ul/li[3]/a**

Absolute xpath is using single slash at the start of the xpath and relative is using double slash.

Difference between single '/' or double '//'

A **single slash** at the start of XPath instructs XPath engine to look for element starting from **root node**.

A **double slash** at the start of XPath instructs

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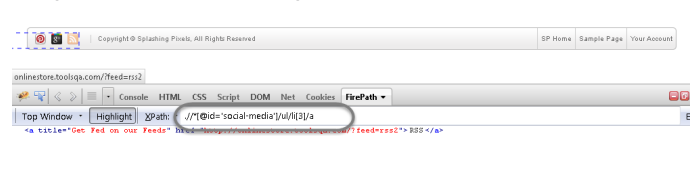
A **double slash** at the start of xpath instructs XPath engine to search look for matching element **anywhere** in the XML document.

Choosing Relative xpath using FirePath

There is an alternate way to get the relative xpath with help of the **FirePath** tool. Click on the drop down menu on the Firepath button and **Unselect** 'Generate absolute XPath'.



Now click on the same element with the Inspector, the new xpath will look like this:



If something gets changed above the id social-media, your xpath will still work.

Technique 3 | Relative XPath | Combination of Double Slash: Relative xpath can be choose in many ways and to understand that, it is required to understand the usage of single & double slashes in the xpaths.

Usage of Single '/' and double '/' in the xpath

A **single slash '/'** anywhere in Xpath signifies to look for the element **immediately inside** its parent element.

A **double slash '/'** signifies to look for **any child** or **any grand-child** element inside the parent element.

Finding it confusing, just look at the xpath of the same RSS button with using double slashes in the

RECENT POST

Automation
(Importance
of
Feasibility
Study &
Returns on
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How To Add
Extensions
(Firebug &
Firepath) To
FirefoxDriver

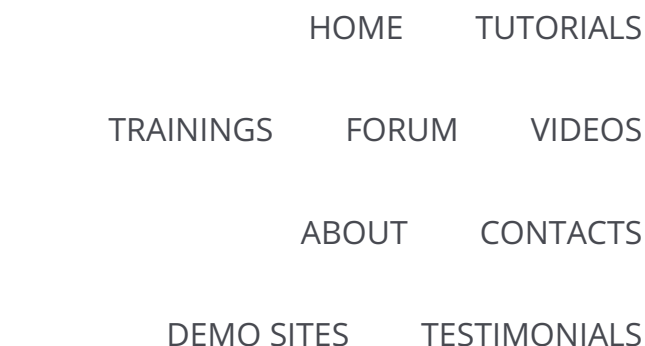
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of Android
Versions
and API
Levels

Creating
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Definition
Using AVD
Manager

How to
Create an
Android
Virtual
Device
using
Android
Emulator

middle of the xpath:



Transfer
APK from
Phone to
PC And PC
to Phone

How to find
appPackage
and
appActivity
for APK file

FindElement
and
FindElements
Commands

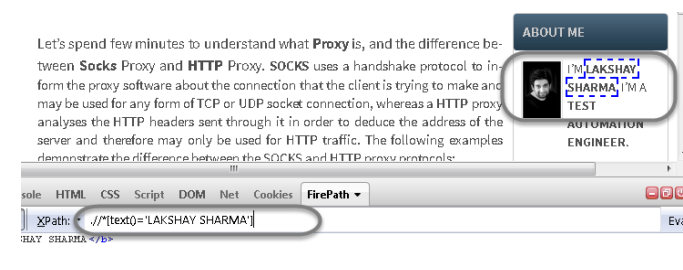
Locate
Element
using
UIAutomatorView

I would suggest you to try it yourself, so that you can understand it more efficiently.

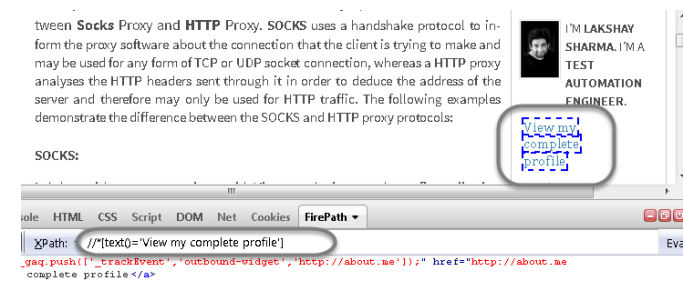
Technique 4 | Partial XPath | Contains

Keyword : Most of the times tester face issues when the locator's properties are dynamically generating. Let's take the example of my profile image on this same page at the right side of the screen and assume that the 'src' of the image is dynamically generating. The html code of the div looks like this:

```
1 <div class="profile_cont" itemType="http://sch
2
3 LAKSHAY SHARMA</b>
6 |
7 | . I'M A
8 |
9 | <b>TEST AUTOMATION ENGINEER</b>
10 |
11 | </span>
12 |
13 | .
```



Few more examples on the run:



tween **Socks** Proxy and **HTTP** Proxy. **SOCKS** uses a handshake protocol to inform the proxy software about the connection that the client is trying to make and may be used for any form of TCP or UDP socket connection, whereas a **HTTP** proxy analyses the **HTTP** headers sent through it in order to deduce the address of the server and therefore may only be used for **HTTP** traffic. The following examples demonstrate the difference between the **SOCKS** and **HTTP** proxy protocols:

SOCKS:



April 13, 2014 By Lakshay Sharma



XPath

About the author



I'M LAKSHAY SHARMA AND I'M A TEST AUTOMATION ENGINEER.

Have passed 8 years playing with automation in mammoth projects like O2 (UK), Sprint (US), TD Bank (CA), Canadian Tire (CA) & NHS (UK). I am passionate about designing Automation Frameworks that are effective and easy to maintain. For automating websites my weapons are QTP and Selenium (Webdriver). I live in Newcastle (UK), with my wife and a lovely daughter.



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