### [Why should I use the Gecko Driver in Selenium 3.0?](https://www.quora.com/Why-should-I-use-the-Gecko-Driver-in-Selenium-3-0)

Selenium released Selenium 2.0 in 2011, along with new WebDriver APIs that provided native browser automation support. Recently it launched Selenium 3.0, with quite a few changes in its API.

When the 3.0 changes were being shipped by Selenium, Mozilla also made changes to its Firefox browser to make it more secure and stable. Consequently, the community-offered driver became obsolete.

Now in order to launch Firefox with Selenium 3, you will need GeckoDriver.

Selenium 3 enabled geckodriver as the default WebDriver implementation for Firefox. With the release of Firefox 47, FirefoxDriver had to be discontinued for its lack of support for the [new multi-processing architecture in Gecko](https://developer.mozilla.org/en-US/Firefox/Multiprocess_Firefox).

**System.setProperty("webdriver.gecko.driver", "/home/user/bin");**

**WebDriver driver = new FirefoxDriver();**

Note:

So, If you want to use <= Firefox 47 version, use Firefox driver but not geckodriver.

1. In case of selenium 2.53, you don't need to do any additional things (no need to setup geckodriver as selenium 2.53 uses Firefox driver by default).
2. In Selenium 3.0, we must set geckodriver path (as geckodriver is the default driver for Firefox in Selenium 3.0) using System.setProperty and set marionette to false, so geckodriver capabilities will be disabled and default Firefox driver is used.
3. From Firefox 47 on-wards (Excluding it), Selenium uses geckodriver capabilities by default. For 47 and previous versions on-wards, you may need to turn off this capability so that Selenium can use Firefox built-in support like we used to work with these versions.

**DesiredCapabilities d = new DesiredCapabilities();**

**d.setCapability("marionette", false); // to disable marionette.**

**WebDriver driver = new FirefoxDriver(d);**

What is GeckoDriver?

A Proxy for using W3C WebDriver-compatible clients to interact with Gecko-based browsers. Geckodriver provides HTTP API described by the WebDriver protocol to communicate with Gecko browsers, such as Firefox (Version after 47).

Marionette (the next generation of FirefoxDriver) is turned on by default from Selenium 3. Even if you are working with older versions of Firefox browser, Selenium 3 expects you to set path to the driver executable by the webdriver.gecko.driver.

Note: If you are using Selenium version below 2.53, you don't need gecko additional driver.

If you are not doing so, it will throw exception

***"java.lang.IllegalStateException: The path to the driver executable must be set by the webdriver.gecko.driver system property;"***

Ref:

**<https://www.quora.com/Why-should-I-use-the-Gecko-Driver-in-Selenium-3-0>**

**<https://www.linkedin.com/pulse/seleniums-web-driver-become-w3c-standard-tom-weekes>**

**<https://www.w3.org/TR/webdriver/>**

**<http://stackoverflow.com/questions/42393205/use-of-selenium-3-0-with-firefox-v47>**

**<http://stackoverflow.com/questions/40657443/how-to-set-up-selenium-3-0-getting-error-the-geckodriver-exe-file-does-not-exi/40658421#40658421>**

**<https://developer.mozilla.org/en-US/docs/Mozilla/QA/Marionette/WebDriver>**

**<https://github.com/mozilla/geckodriver#supported-firefoxen>**

**<https://www.built.io/blog/using-geckodriver-to-launch-firefox-in-selenium-3>**

**<https://www.w3.org/TR/webdriver/>**

**<http://learn-automation.com/use-firefox-selenium-using-geckodriver-selenium-3/>**

**<http://toolsqa.com/selenium-webdriver/how-to-use-geckodriver/>**

**<http://www.seleniumeasy.com/selenium-tutorials/launching-firefox-browser-with-geckodriver-selenium-3>**

### Chrome Issues

**I) “Do you want to Google Chrome to save your password for this site?”** - is resolved in ChromeDriver 2.29 version that is released

The fix (from #c29) is released with Chrome v59. From v59 onwards, the password manager dialog will no longer appear when a Chrome session is launched by ChromeDriver.

Note: Ensure to upgrade your chrome to v59 and your chromedriver.exe to v2.29

**II)** “**Cannot get automation extension**” error on chrome57+ is resolved in v2.28