
How to Run Selenium WebDriver Script in Internet Explorer browser

We will see how to run Selenium WebDriver Script in Internet Explorer Browser. Moving forward, we need to have **IEDriverServer.exe**.

Each and every browser has its own **Driver** to execute Selenium WebDriver Scripts. Selenium WebDriver supports browsers such as Mozilla Firefox, Google Chrome, Internet Explorer, Opera, Safari etc.,

Here we are going to see how to run Selenium WebDriver Script in Internet Explorer Browser.

What is IEDriver and What it does?

The InternetExplorerDriver is a standalone server which implements WebDriver's wire protocol. It is a separate executable that WebDriver uses to control Internet Explorer. This executable starts a server on local system to run the Selenium WebDriver Test Scripts.

Steps to run Selenium WebDriver Script in Internet Explorer Browser

Step 1: Download IEDriverServer.exe

Navigate to "<https://selenium.dev/downloads/>"

Scroll down to "Third party drivers, bindings, and plugins" section

Third Party Drivers, Bindings, and Plugins

Selenium can be extended through the use of plugins.

Here are a number of plugins created and maintained by third parties. For more information on how to create your own plugin or have it listed, learn more [here](#).

Platforms Supported by Selenium

+ Browsers

Step 2: Click on '+' icon before the browsers.

Step 3: Click on the 'Configuration' link under internet explorer window section.

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- Browsers

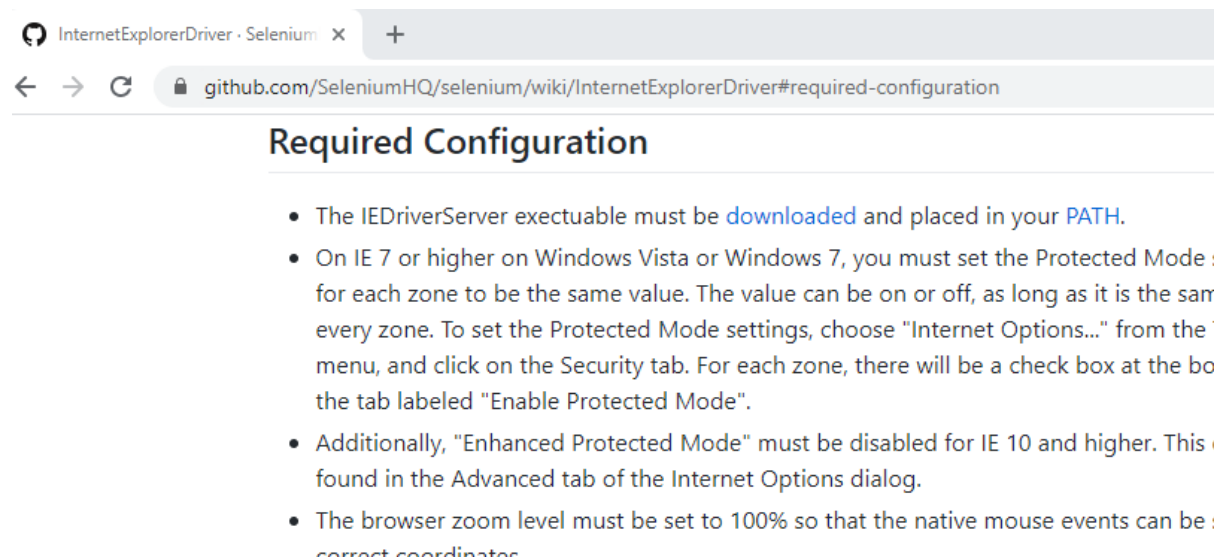
Firefox

GeckoDriver is implemented and supported by Mozilla, refer to their [documentation](#) for supported versions.

Internet Explorer

Only version 11 is supported, and it requires additional [configuration](#).

Step 4: You will navigate to following page.



InternetExplorerDriver · Selenium x +

← → ↻ github.com/SeleniumHQ/selenium/wiki/InternetExplorerDriver#required-configuration

Required Configuration

- The IEDriverServer executable must be [downloaded](#) and placed in your [PATH](#).
- On IE 7 or higher on Windows Vista or Windows 7, you must set the Protected Mode settings for each zone to be the same value. The value can be on or off, as long as it is the same for every zone. To set the Protected Mode settings, choose "Internet Options..." from the Start menu, and click on the Security tab. For each zone, there will be a check box at the bottom of the tab labeled "Enable Protected Mode".
- Additionally, "Enhanced Protected Mode" must be disabled for IE 10 and higher. This can be found in the Advanced tab of the Internet Options dialog.
- The browser zoom level must be set to 100% so that the native mouse events can be sent with correct coordinates.

Step 5: Scroll up until you find "Installing" section.

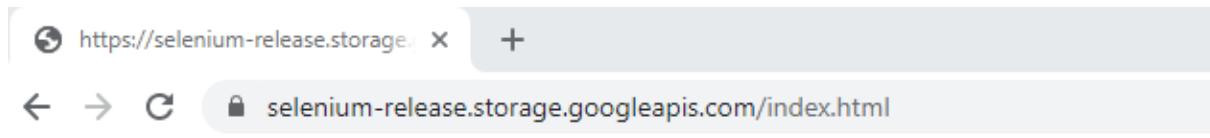
Installing

You do not need to run an installer before using the InternetExplorerDriver, though some configuration is required. The standalone server executable must be downloaded from the [Downloads](#) page and placed in your [PATH](#).













Step 6: Click on the "Download" links under installing.

Step 7: You will navigate to following page.

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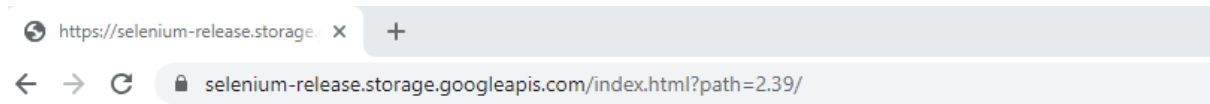


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Name	Last modified	Size	ETag
 2.39	-	-	-
 2.40	-	-	-
 2.41	-	-	-
 2.42	-	-	-
 2.43	-	-	-
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 2.45	-	-	-
 2.46	-	-	-
 2.47	-	-	-
 2.48	-	-	-
 2.49	-	-	-
 2.50	-	-	-

Step 8: Click on the version link, first check your internet explorer browser version.

Step 9: Once after clicking on the version, you will be navigated to downloading page.



Index of /2.39/

Name	Last modified	Size	ETag
 Parent Directory	-	-	-
 IEDriverServer_Win32_2.39.0.zip	2014-01-13 22:17:40	0.80MB	bd4bc2b77a04999148e7fab974336e99
 IEDriverServer_x64_2.39.0.zip	2014-01-13 22:14:33	0.90MB	7d19f3d7ffb9cb40fc26cc38885b9160
 selenium-dotnet-2.39.0.zip	2014-01-13 22:14:47	9.79MB	e5d82bd497eff0bf3a3990cb746a2680
 selenium-dotnet-strongnamed-2.39.0.zip	2014-01-13 22:15:00	7.60MB	2b8e3938ada2d1b4d9bbf76a7430bbe6
 selenium-java-2.39.0.zip	2014-01-13 22:13:42	23.37MB	0fc6c9fd784fdcfce482878dfa1002e6
 selenium-server-2.39.0.zip	2014-01-13 22:17:30	62.52MB	4adf11c3c5b9310a94ce41ee76fe331d
 selenium-server-standalone-2.39.0.jar	2014-01-13 22:14:31	33.00MB	7c2d1e12c1a9e445193967314fa72d85

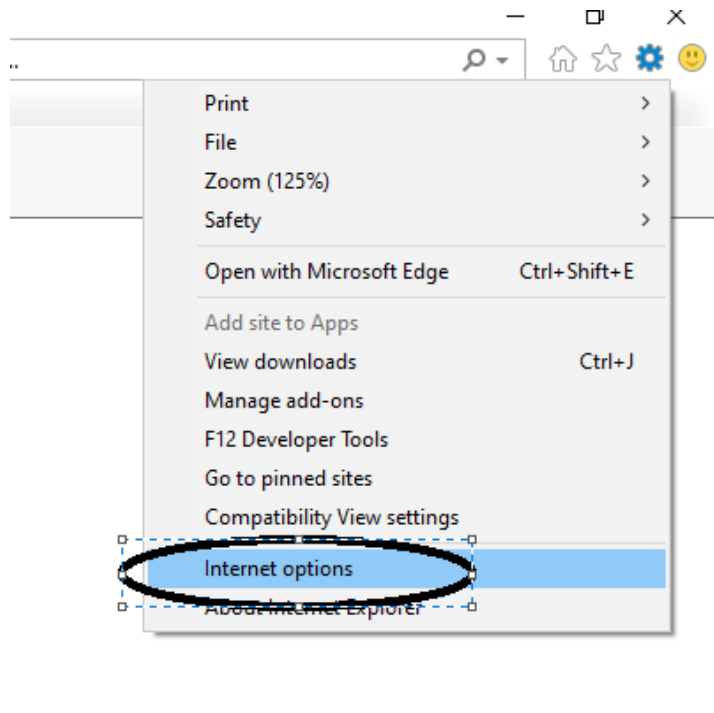
Step 10: Download both the driver executables for windows (32-bit & 64-bit).

Step 11: After downloading the files, extracts it. You will get the internet explorer driver executables.

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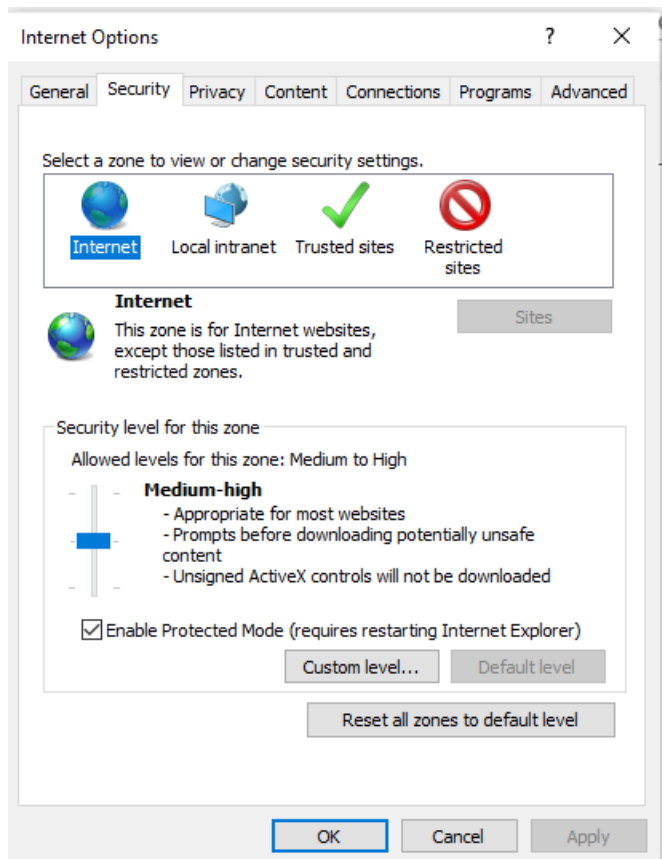
Step 12: Open the internet explorer.

Go to Tools -> Internet Options



Go to security Tab -> for all the following zones,

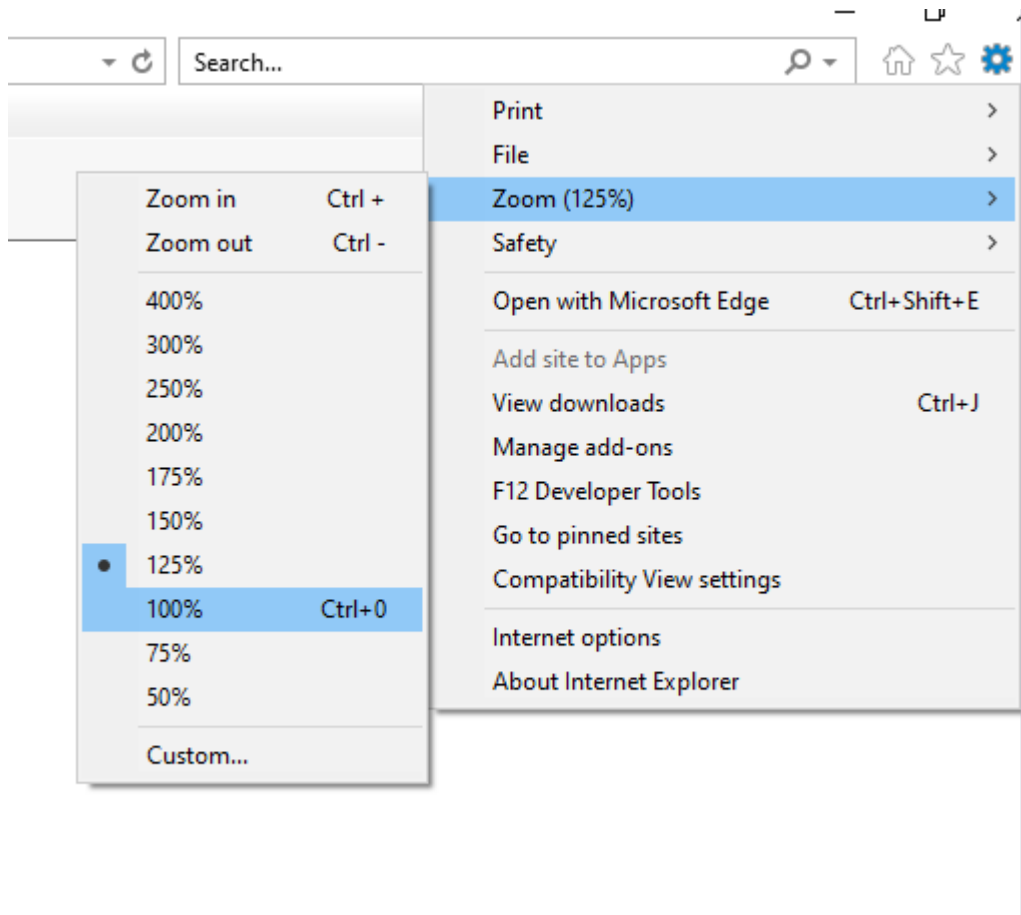
1. Internet
2. Local Internet
3. Trusted Sites
4. Restricted Sites



Select, "Enable Protected Mode" for all the four zones,

After selecting the check boxes for all the four zones, click apply & ok.

Step 13: Set the Zoom level of the Internet Explorer to "100 %".



Step 12 & Step 13 are very important, if you don't do the above two settings, you will be getting the following the exceptions.

```
<terminated> launching_programmetically.py [C:\Users\Jayapriyapramod\AppData\Local\Programs\Python\Python37-32\python.exe]
Traceback (most recent call last):
  File "D:\Training\PythonSelenium\Selenium\internet_explorer\launching_programmetically.py", line 3, in <module>
    driver = webdriver.Ie(executable_path="D:/Training/PythonSelenium/Selenium/internet_explorer/IEDriverServer
  File "C:\Users\Jayapriyapramod\AppData\Local\Programs\Python\Python37-32\lib\site-packages\selenium\webdriver
    keep_alive=keep_alive)
  File "C:\Users\Jayapriyapramod\AppData\Local\Programs\Python\Python37-32\lib\site-packages\selenium\webdriver
    self.start_session(capabilities, browser_profile)
  File "C:\Users\Jayapriyapramod\AppData\Local\Programs\Python\Python37-32\lib\site-packages\selenium\webdriver
    response = self.execute(Command.NEW_SESSION, parameters)
  File "C:\Users\Jayapriyapramod\AppData\Local\Programs\Python\Python37-32\lib\site-packages\selenium\webdriver
    self.error_handler.check_response(response)
  File "C:\Users\Jayapriyapramod\AppData\Local\Programs\Python\Python37-32\lib\site-packages\selenium\webdriver
    raise exception_class(message, screen, stacktrace)
selenium.common.exceptions.SessionNotCreatedException: Message: Unexpected error launching Internet Explorer.
```

Protected Mode settings are not the same for all zones. Enable Protected Mode must be set to the same value (enabled or disabled) for all zones.

Enable Protected Mode must be set to the same value (enabled or disabled) for all zones.

Message: Unexpected error launching Internet Explorer. Browser zoom level was set to 125%. It should be set to 100%

Step 13: Once the all the above settings is done, write the following code for running the scripts on the IE browsers.

```

from selenium import webdriver

driver = webdriver.Ie(executable_path="D:/Training/PythonSelenium/Selenium/internet_explorer/IEDriverServer_32_bit")
driver.maximize_window()
driver.get('https://demo.actitime.com')
driver.implicitly_wait(30)
driver.find_element_by_css_selector("input[id='username']").send_keys("admin")
driver.find_element_by_name("pwd").send_keys("manager")
driver.find_element_by_xpath("//div[text()='Login ']").click()

driver.quit()

```

We can ignore the above two protected mode setting & zoom level programmatically.

Program to ignore the protected mode setting and browser zooming level.

```

1 from selenium import webdriver
2 from time import sleep
3
4 ie_options = webdriver.IeOptions()
5 ie_options.ignore_protected_mode_settings = True
6 ie_options.ignore_zoom_level = True
7
8 driver = webdriver.Ie(executable_path="D:/Training/PythonSelenium/Selenium/internet_explorer/IEDriverServer_32_bit",
9                       options=ie_options)
10 driver.maximize_window()
11 driver.get('https://demo.actitime.com')
12 driver.implicitly_wait(30)
13 driver.find_element_by_css_selector("input[id='username']").send_keys("admin")
14 driver.find_element_by_name("pwd").send_keys("manager")
15 driver.find_element_by_xpath("//div[text()='Login ']").click()
16
17 sleep(5)
18 driver.quit()
19

```

Note: Very Important:

1. Setting the protected mode settings and setting the zoom level to 100 % manually is recommended.
Ignoring the above will result in hanging of IE browser while running as well, browser may get close during executions.
2. If the scripts are running slow, when used 64-bit driver executables, try using the 32-bit driver executables.