(from : <https://github.com/watir/watirbook/blob/master/installation/windows.md> )

**Windows 8.1**

I> You will need internet access if you want to follow examples. All examples are tested with Microsoft Windows 8.1 Pro. All browsers are English (US) version.

**Ruby**

You probably do not have Ruby installed. To make sure, open Command Prompt application and type ruby -v. If you are not familiar with Command Prompt, see *Command-line interface* chapter.

>ruby -v

'ruby' is not recognized as an internal or

external command, operable program or batch file.

If you get the same thing as I did, you do not have Ruby installed.

Download the latest Ruby 2.0 from [*rubyinstaller.org/downloads*](http://rubyinstaller.org/downloads). At the moment it is *Ruby 2.0.0-p353*. Execute the file.

You can leave all settings at default values, except at the *Installation Destination and Optional Tasks* screen check *Add Ruby executables to your PATH* checkbox. Installation should take you just a few seconds.

Let's check if Ruby is installed. You will have to open another command prompt, because the one you have opened does not see Ruby.

>ruby -v

ruby 2.0.0p353 (2013-11-22) [i386-mingw32]

Congratulations! You now have the latest and greatest Ruby!

**RubyGems**

Software written in Ruby is usually distributed as RubyGems (colloquial name is *gem*), Ruby package manager. Sometimes Ruby installations do not have the latest versions of RubyGems, so we will first update it. RubyGems is also a gem, (a bit recursive, right?) and we get it's version with gem -v.

>gem -v

2.0.14

You should update it with gem update --system:

>gem update --system

(...)

RubyGems system software updated

**selenium-webdriver**

Let's try selenium-webdriver gem.

>gem install selenium-webdriver --no-ri --no-rdoc

(...)

Successfully installed selenium-webdriver-2.38.0

(...)

**Internet Explorer**

Since Internet Explorer (tested with version 11) is already installed, we will start with it. We will be using IRB (Interactive Ruby Shell). If you are not familiar with it, see *IRB* chapter.

>irb

> require "selenium-webdriver"

=> true

> browser = Selenium::WebDriver.for

:internet\_explorer

Selenium::WebDriver::Error::WebDriverError: Unable

to find standalone executable. Please download the

IEDriverServer from

http://code.google.com/p/selenium/downloads/list

and place the executable on your PATH.

(...)

Windows Firewall popup appeared letting me know that it has blocked Ruby.

For now just close the popup, let's see how to fix the error message. Follow the instructions from the error message. Go to[code.google.com/p/selenium/downloads/list](http://code.google.com/p/selenium/downloads/list) and download 32-bit or 64-bit IEDriverServer. Extract the downloaded zip file (with mouse right click and then *Extract All..*, for example). Let's find out what is on the PATH.

(<http://selenium-release.storage.googleapis.com/index.html?path=2.42/>

1. [IEDriverServer\_Win32\_2.42.0.zip](http://selenium-release.storage.googleapis.com/2.42/IEDriverServer_Win32_2.42.0.zip)
2. [IEDriverServer\_x64\_2.42.0.zip](http://selenium-release.storage.googleapis.com/2.42/IEDriverServer_x64_2.42.0.zip))

>PATH

PATH=C:\Windows\system32;C:\Windows;

C:\Windows\System32\Wbem;

C:\Windows\System32\WindowsPowerShell\v1.0\;

C:\Ruby200\bin

C:\Ruby200\bin (or where ever you have installed Ruby) looks like a good place to me. Move the IEDriverServer file there.

Let' try again:

>irb

> require "selenium-webdriver"

=> true

> browser = Selenium::WebDriver.for

:internet\_explorer

Started InternetExplorerDriver server (32-bit)

2.38.0.0

Listening on port 5555

=> #<Selenium::WebDriver::Driver:0x5469141e

browser=:internet\_explorer>

> browser.get "http://watir.com"

=> nil

**Firefox**

If it is not installed (tested with version 25.0.1), download it from [mozilla.com/firefox](http://www.mozilla.com/firefox/).

>irb

> require "selenium-webdriver"

=> true

> browser = Selenium::WebDriver.for :firefox

=> #<Selenium::WebDriver::Driver:0xdc8ad4a

browser=:firefox>

> browser.get "http://watir.com"

=> ""

**Chrome**

If it is not installed (tested with version 31), download it from [google.com/chrome](http://www.google.com/chrome).

(<http://chromedriver.storage.googleapis.com/index.html?path=2.10/>

1. [chromedriver\_win32.zip](http://chromedriver.storage.googleapis.com/2.10/chromedriver_win32.zip))

>irb

> require "selenium-webdriver"

=> true

> browser = Selenium::WebDriver.for :chrome

Selenium::WebDriver::Error::WebDriverError: Unable

to find the chromedriver executable. Please

download the server from

http://chromedriver.storage.googleapis.com/

index.html and place it somewhere on your PATH.

More info at

http://code.google.com/p/selenium/wiki/

ChromeDriver.

(...)

You have to download [ChromeDriver](http://chromedriver.storage.googleapis.com/index.html). Unzip the file and put it in any folder that is in your PATH. If you do not know what is PATH, see*Internet Explorer* chapter. In short, move the file to Ruby folder, probably C:\Ruby200\bin.

Let's try again:

>irb

> require "selenium-webdriver"

=> true

> browser = Selenium::WebDriver.for :chrome

Starting ChromeDriver (v2.7.236900) on port 9515

=> #<Selenium::WebDriver::Driver:0x..fc23f2ebe

browser=:chrome>

> browser.get "http://watir.com"

=> nil

I got Windows Firewall popup again letting me know that it has blocked ChromeDriver. Just close it for now, I have no idea what to do with it.

**Chromium**

First make sure that you can drive Chrome. (See *Chrome* chapter.) Then download [Chromium](https://download-chromium.appspot.com/). (Tested with version 33.) ReplaceC:\chrome\chrome.exe with path to Chromium executable.

>irb

> require "selenium-webdriver"

=> true

> Selenium::WebDriver::Chrome.path =

'C:\chrome\chrome.exe'

=> "C:\\chrome\\chrome.exe"

> browser = Selenium::WebDriver.for :chrome

Starting ChromeDriver (v2.7.236900) on port 9515

=> #<Selenium::WebDriver::Driver:0x..f9d38b82e

browser=:chrome>

> browser.get "http://watir.com"

=> nil

**PhantomJS**

To drive [PhantomJS](http://phantomjs.org/) (tested with version 1.9.2) download it, unzip the file and put it in any folder that is in your PATH. If you do not know what is PATH, see *Internet Explorer* chapter. In short, move phantomjs.exe file to Ruby folder, probably C:\Ruby200\bin.

Let's try driving it:

>irb

> browser = Selenium::WebDriver.for :phantomjs

(...)

=> #<Selenium::WebDriver::Driver:0x442ed372

browser=:phantomjs>

> browser.get "http://watir.com"

=> {}

> browser.save\_screenshot "phantomjs.png"

=> #<File:phantomjs.png (closed)>

The last command saves screenshot of the page. A screenshot from a headless browser. Nice, right?

**Safari**

To drive [Safari](http://support.apple.com/downloads/#safari) (tested with version 5.1.7), make sure you have it installed.

$ irb

> require "selenium-webdriver"

=> true

> browser = Selenium::WebDriver.for :safari

Selenium::WebDriver::Error::TimeOutError: timed out waiting for Safari to respond

...

Looks like driving Safari on Windows does not work. Safari does open, with this text is displayed on the screen:

SafariDriver Client

[ 0.114s] [safaridriver.client] Requesting connection at ws://127.0.0.1:49349/wd...

[ 2.488s] [safaridriver.client] Request acknowledged; connecting...

But, nothing else happens, except the timeout. Well, it is not a big surprise. The current version of [Safari](https://en.wikipedia.org/wiki/Safari_(web_browser)) for Mac OS is 7.0.2 and the latest supported version for Windows is 5.1.7, so it is not surprise that Selenium has trouble driving it.

**Java**

To drive Opera, you will have to install Java first. Let's check if Java is already installed with java -version:

>java -version

'java' is not recognized as an internal or

external command, operable program or batch file.

Looks like we will have to install Java. There is big *Free Java Download* button at [java.com](http://www.java.com/). Execute downloaded file and install Java. Let's check if Java is really installed with java -version:

>java -version

java version "1.7.0\_45"

Java(TM) SE Runtime Environment

(build 1.7.0\_45-b18)

Java HotSpot(TM) Client VM (build 24.45-b08,

mixed mode, sharing)

Looks good to me!

**Opera**

And finally, let's drive Opera. If you do not have it installed, you can get it at [opera.com](http://www.opera.com/) (tested with version 18.0).

>irb

> require "selenium-webdriver"

=> true

> browser = Selenium::WebDriver.for :opera

Selenium::WebDriver::Error::WebDriverError: Unable

to find the Selenium server jar. Please download

the standalone server from

http://code.google.com/p/selenium/downloads/list

and set the SELENIUM\_SERVER\_JAR environmental

variable to its location. More info at

http://code.google.com/p/selenium/wiki/OperaDriver.

(...)

Download selenium-server-standalone-2.39.0.jar (or newer version) from [Google Code](http://code.google.com/p/selenium/downloads/list) and put it in C:\Ruby200\bin. Then makeSELENIUM\_SERVER\_JAR environmental variable and set it to C:\Ruby200\bin\selenium-server-standalone-2.39.0.jar. (If you have a newer version of selenium-server-standalone file, replace 2.39.0 appropriately.)

If you just want to try driving Opera, typing this into Command Prompt will do the trick:

>set SELENIUM\_SERVER\_JAR=C:\Ruby200\bin\

selenium-server-standalone-2.39.0.jar

Let's try driving Opera again.

>irb

> require "selenium-webdriver"

=> true

> browser = Selenium::WebDriver.for :opera

Selenium::WebDriver::Error::UnknownError: Could

not find a platform that supports bundled

launchers, please set it manually

Build info: version: '2.39.0', revision: 'ff23eac',

time: '2013-12-16 16:11:15'

System info: host: 'IE11WIN8\_1', ip: '10.0.2.15',

os.name: 'Windows 8',

os.arch: 'x86', os.version: '6.2', java.version:

'1.7.0\_45'

Driver info: driver.version: OperaDriver

(org.openqa.selenium.WebDriverException)

Looks like Selenium can not drive Opera on Windows 8.1.

If I ever manage to drive Opera on Windows, to create a permanent environmental variable, use setx:

>setx SELENIUM\_SERVER\_JAR C:\Ruby200\bin\

selenium-server-standalone-2.39.0.jar

SUCCESS: Specified value was saved.

Open new command prompt, the old one will not see SELENIUM\_SERVER\_JAR variable.