



How to download a file with Selenide

Selenide Advent Calendar

Day 10

Good evening!

Today is December - and in this Selenide Advent calendar article we will take a look at the file download options in Selenide.

How can I download some file in my test?

At some point of our career all of us will face the problem of downloading the file in the test.

As we remember, in Selenium it wasn't that easy, because different browsers required different configurations like creating new user profile in Firefox and setting preferences:

```
profile.setPreference("browser.download.dir", downloadPath);
profile.setPreference("browser.download.folderList", 2);
profile.setPreference("browser.download.manager.showWhenStarting", false);
profile.setPreference("browser.helperApps.alwaysAsk.force", false);
profile.setPreference("browser.helperApps.neverAsk.saveToDisk", mimeType);
profile.setPreference("browser.download.manager.focusWhenStarting", false);
profile.setPreference("browser.download.manager.useWindow", false);
profile.setPreference("browser.download.manager.showAlertOnComplete", false);
profile.setPreference("pdfjs.disabled", true);
```

In Selenide,

this problem has been solved by adding `$.download()` method.

When we want to download some file, we just have to perform:

```
File report = element.download();
```

and Selenide will handle with all downloads window popup and just close them when process is finished.

Selenide will create new folder containing our file in `build/reports/tests`. This is the folder where Gradle generate its rest reports, so that it's convenient to have them all together.

We can edit our download directory by changing default settings:

```
Configuration.reportsFolder = <desired location for downloaded files>;
```

BUT:

This way we will be able to download some file only when its element has "href" attribute.

What if my element does not have "href" attribute? For example, if file is generated as a result of form submission.

In this case case we have to organize downloading of our files in a bit different way. First of all we have to change settings:

```
Configuration.proxyEnabled = true;
Configuration.fileDownload = PROXY;
```

After changing these settings, we are able to download files from all kinds of elements, we don't need a "href" attribute anymore and we just have to use:

```
File report = element.download();
```

Tip:

Remember to set the appropriate timeout if you want to download files that have a big size - it will take more time to download them.

File will be downloaded to the default folder (something like C:\downloads and settings\downloads). We have to remember that in case of some browsers, files are also downloaded to system downloads folder so our file will be present in two locations.

In the next steps we can for example delete folder with downloaded file using:

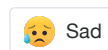
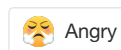
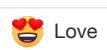
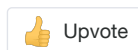
```
FileUtils.deleteDirectory(new File(<folder we want to delete>));
```

For more detailed info about file downloading mechanism read [this post](#).

Maciej Grymuza (figrym@gmail.com)

What do you think?

5 Responses



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agesh chowdary · a year ago

```
Configuration.proxyEnabled = true;
Configuration.fileDownload = PROXY;
```

what PROXY mean here?

1 ^ | v · Reply · Share



Andrei Solntsev Mod → aagesh chowdary · a year ago

It means "download files via PROXY, not GET request (which is default behaviour)".

If you miss import, this is the full variant: "Configuration.fileDownload = com.codeborne.selenide.FileDownloadMode.PROXY;"

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Felipe Gabriel Caparelli → Andrei Solntsev · a year ago

Hi Andrei, I'm trying to use this approach but for some reason it throws the following error:

```
Cannot download file: proxy server is not started
```

How could I fix it?

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Andrei Solntsev Mod → Felipe Gabriel Caparelli · a year ago

I think you set "Configuration.fileDownload = PROXY" too late (when the webdriver has already started).

You should call this line BEFORE opening a browser.

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Felipe Gabriel Caparelli → Andrei Solntsev · a year ago

I dont think so, because when I debug it, the option has been changed to proxy, but the problem maybe is some additional info like setting the proxy name. Follow the exception:

```
The element does not have href attribute:
java.lang.IllegalArgumentException: The element does not have href attribute:
at
com.codeborne.selenide.impl.DownloadFileWithHttpRequest.download(DownloadFileWith
at com.codeborne.selenide.commands.DownloadFile.execute(DownloadFile.java:45)
at com.codeborne.selenide.commands.DownloadFile.execute(DownloadFile.java:20)
at com.codeborne.selenide.commands.Commands.execute(Commands.java:148)
at
com.codeborne.selenide.impl.SelenideElementProxy.dispatchAndRetry(SelenideElemer
at
com.codeborne.selenide.impl.SelenideElementProxy.invoke(SelenideElementProxy.ja
```

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**Andrei Solntsev** Mod → Felipe Gabriel Caparelli · a year ago

This error clearly says that at that moment `Configuration.fileDownload` was `HTTPGET`, not `PROXY`.

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**Nikod** · 4 months ago · edited

how to get pdf file opened in a new tab after click instead of downloading in chrome?

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**Andrei Solntsev** Mod → Nikod · 4 months ago

Hi.

First of all, why do you want it?

Usually we want the opposite: download the file, so that we can verify its name and content. What are you going to do with the pdf viewer? Afaik you cannot test it with Selenium/Selenide.

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**Nikod** → Andrei Solntsev · 4 months ago

I inherited tests that check the opening of a PDF file in a new tab, that's all (= And the manual team insists on the existence of such tests)=

^ | v · Reply · Share ›

**Andrei Solntsev** Mod → Nikod · 4 months ago

How exactly are you going to check "the opening of a PDF file in a new tab"?

You can say the manual team that automated tests and manual tests should not be same. They have different characteristics and goals.

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**Nikod** → Andrei Solntsev · 4 months ago

It's verifying that the tab is opening and the link ends with a PDF extension. I realized that this is not a very valid verification, I just need to know if it is possible to enable this PDF viewer.

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**Andrei Solntsev** Mod → Nikod · 4 months ago

I recommend to avoid such test because it's checking the browser functionality, not your application's functionality.

Instead, I recommend to check that PDF has a valid name and content (at least contains some required text).

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**Nikod** → Andrei Solntsev · 4 months ago

I got it, thanks!

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**Nikod** → Nikod · 4 months ago**@Andrei Solntsev**

Can you help me, with how to enable pdf viewer with selenide?

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**George** · 5 months ago · edited**@Andrei Solntsev**

Привет.

можешь подсказать.

есть элемент

```
<iframe src="blob:http://xx.xxx.xxx.xxx/110ec374-5e82-4815-ac23-4fe80e9fa733" class="test-viewer-pdf" alt="0043928e08344f55a480bc7440e73bbd-4ce22efbe7a54f3c868db8b251195826.pdf" allowtransparency="yes" frameborder="no"></iframe>
```

Задача - скачать файл который отображается в этом фрейме.

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**Andrei Solntsev** Mod → George · 5 months ago

Интересный случай.

Прямо такой встроенной функции нет. Я бы на вашем месте взял атрибут `src="blob:http://..."` и скачал файл прямо по этому урлу. А вот для этого есть готовый метод:

```
File file = Selenide.download(url);
```

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**George** → Andrei Solntsev · 5 months ago



Андрей, так пробовал. Получаю ошибку.

```
org.apache.http.client5.http.ClientProtocolException: Target host is not specified
at
org.apache.http.client5.http.impl.classic.InternalHttpClient.doExecute(InternalHttpClie
at
org.apache.http.client5.http.impl.classic.CloseableHttpClient.execute(CloseableHttpClie
at
com.codeborne.selenide.impl.DownloadFileWithHttpRequest.executeHttpRequest(DownloadFil
at
com.codeborne.selenide.impl.DownloadFileWithHttpRequest.download(DownloadFileWithHttpR
at
com.codeborne.selenide.impl.DownloadFileWithHttpRequest.download(DownloadFileWithHttpR
at com.codeborne.selenide.SelenideDriver.download(SelenideDriver.java:423)
at com.codeborne.selenide.SelenideDriver.download(SelenideDriver.java:408)
at com.codeborne.selenide.Selenide.download(Selenide.java:942)
```

Как вариант срабатывает

`open(url)`

при настройках запуска

```
prefs.put("plugins.always_open_pdf_externally", true);
```

В итоге PDF попадет в папку Downloads.

При этом изменить папку в которую попадает документ не представляется возможным.

```
Configuration.downloadsFolder = "folder";
```

Данная настройка никак не изменяет папку сохранения.

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Andrei Solntsev Mod → George · 5 months ago

1. Очевидно, "Target host is not specified" означает, что URL неверный. Какой он?
2. `Configuration.downloadsFolder` не меняет папку, только если вы сами создаёте вебдрайвер, а не селенид.

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George → Andrei Solntsev · 5 months ago

Веб драйвер запускаю не сам.

```
//set up browser settings
Configuration.timeout = 30000;
Configuration.screenshots = true;
Configuration.browser = "chrome";
Configuration.downloadsFolder = "folder";
```

```
ChromeOptions options = new ChromeOptions();
options.addArguments("--no-sandbox");
options.addArguments("--window-size=1200,768");
options.addArguments("--lang=ru-RU");
Map<string, object> prefs = new HashMap<string, object>();
prefs.put("plugins.always_open_pdf_externally", true);
options.setExperimentalOption("prefs", prefs);
```

```
Configuration.browserCapabilities = new MutableCapabilities(options);
SelenideLogger.addListener("allure", new SelenideListener());
```

После при выполнении команды

```
url = blob:http://xx.xxx.xxx.xxx/110ec374-5e82-4815-ac23-4fe80e9fa733
open(url)
```

Получаю скаченный PDF в папке Downloads пользователя.

метод скачивания предложенный выше выдает ошибку - так как ссылка некорректная.

Но при этом метод `open()` - ее корректно открывает и инициализирует скачивание файла.

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Andrei Solntsev Mod → George · 5 months ago

Ну конечно некорректная. Надо же сначала "blob:" из неё удалить.

^ | v · Reply · Share



George → Andrei Solntsev · 5 months ago

в том то и дело что это blob ссылка. она не ведет к реальному файлу. удаление blob из url не приведет к получению ссылки на файл - будет 404 ошибка. это фиктивная ссылка

[Blob url](#)

скачивать pdf файл спрятанный под такой ссылкой сейчас представляется возможным только используя метод `open("blob:http://xx.xxx.xxx.xxx/110ec374-5e82-4815-ac23-4fe80e9fa733")`

на удивление он корректно обрабатывает если запретить браузеру отображать pdf. Файл pdf корректно скачивается но не в папку указанную при конфигурации драйвера.

Вот собственно моя боль.

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Andrei Solntsev Mod → George · 5 months ago

1. Какая версия Selenide используется?
2. Есть где-нибудь публичный сайт с такой ссылкой вида "blob:", чтобы мы могли сами попробовать?

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George → Andrei Solntsev · 5 months ago

1. версия 5.14.2
2. поиграть с ссылкой blob. можно попробовать тут <https://www.npmjs.com/package...> но и как вариант сделать свою на localhost

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Meera Vyas · 8 months ago



@Andrei Solntsev I am getting the below issue when in use Proxy

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Andrei Solntsev Mod → Meera Vyas · 8 months ago

It probably means that "tests" machine is not accessible from "browser" machine.

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Meera Vyas → Andrei Solntsev · 8 months ago

I want to download an xls file from browser and store it in my project. How could i do this without using this proxy? I do not have href for my download element.

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Andrei Solntsev Mod → Meera Vyas · 8 months ago

First of all, is it true that you run test and browser on different machines?
Then, is it true that the "tests" machine is not accessible from "browser" machine?

If so, you cannot download files without "href".

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Mahaveer U → Andrei Solntsev · 8 months ago

@Andrei Solntsev Thanks in advance and I need to automate download the file of the non href button. and i am trying to set the proxy using the below code. The browser opens but the url is not opening.

```
Configuration.proxyEnabled = true;
Configuration.fileDownload = PROXY;
Configuration.browser = "firefox";
open("https://www.google.com/");
```

Received below error:"

```
org.openqa.selenium.WebDriverException: Reached error page: about:neterror?
e=netTimeout&u=https%3A//www.google.com/&c=UTF-8&d=T...
Build info: version: '3.141.59', revision: 'e82be7d358', time: '2018-11-14T08:17:03'
System info: host: 'C02714K01VCG', ip: '10.0.2.15'
```

How to download a file with Selenide

```
systemInfo().host().getHostAddress(), ip:
'2409:4071:240e:cf49:698a:2a62:fc2b:c34e%en0', os.name: 'Mac OS X', os.arch:
'x86_64', os.version: '10.15.6', java.version: '1.8.0_221'
Driver info: org.openqa.selenium.firefox.FirefoxDriver
selenide.url: https://www.google.com/
```

see more

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Andrei Soltsev Mod → Mahaveer U • 8 months ago
@Mahaveer U Hi. Did you see my questions above?

- 1. is it true that you run test and browser on different machines?
- 2. is it true that the "tests" machine is not accessible from "browser" machine?

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Jennifer Maccherone • a year ago
I am working with links that look like
[text.txt](#)
and I am getting this error
java.lang.IllegalArgumentException: Illegal character in opaque part at index 11: javascript: void(0);
Is there any way around this?

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