

How 2 contribute to Mozilla code base

- 2017/09/16

Simon Peng

Outline

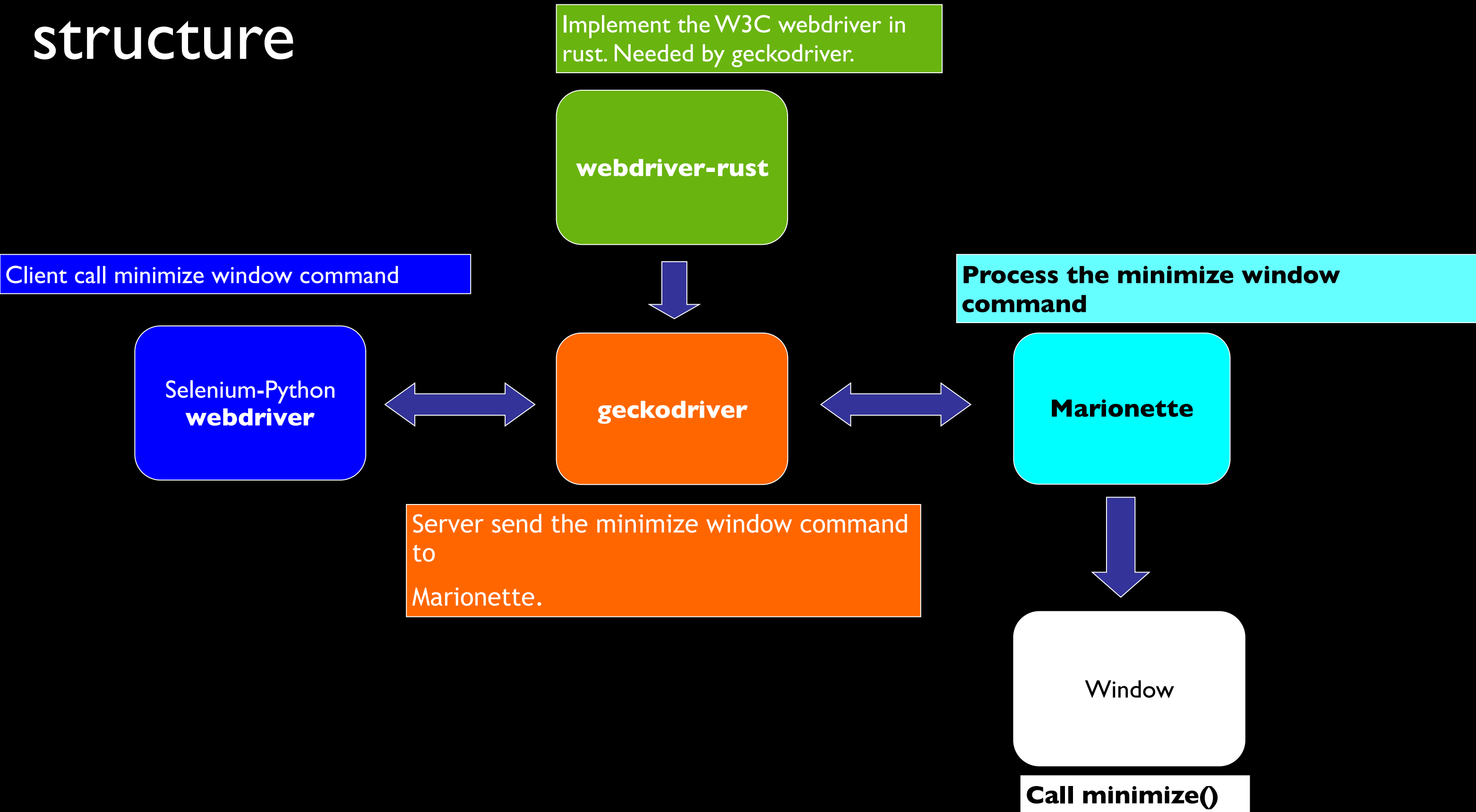
- Preface
- Add feature to Firefox
- Contribute to Mozilla flow
- Lesson Learned

Preface

Why add a new feature for
Firefox?



structure



Add feature to Firefox

1. Add minimize command in webdriver-rust

<https://github.com/mozilla/webdriver-rust>

2. Add minimize command support in geckodriver

<https://github.com/mozilla/geckodriver>

3. Add code in Marionette

Should clone mozilla-central code base.

https://developer.mozilla.org/en-US/docs/Mozilla/Developer_guide/Build_Instructions/Simple_Firefox_build

Contribute to Mozilla flow

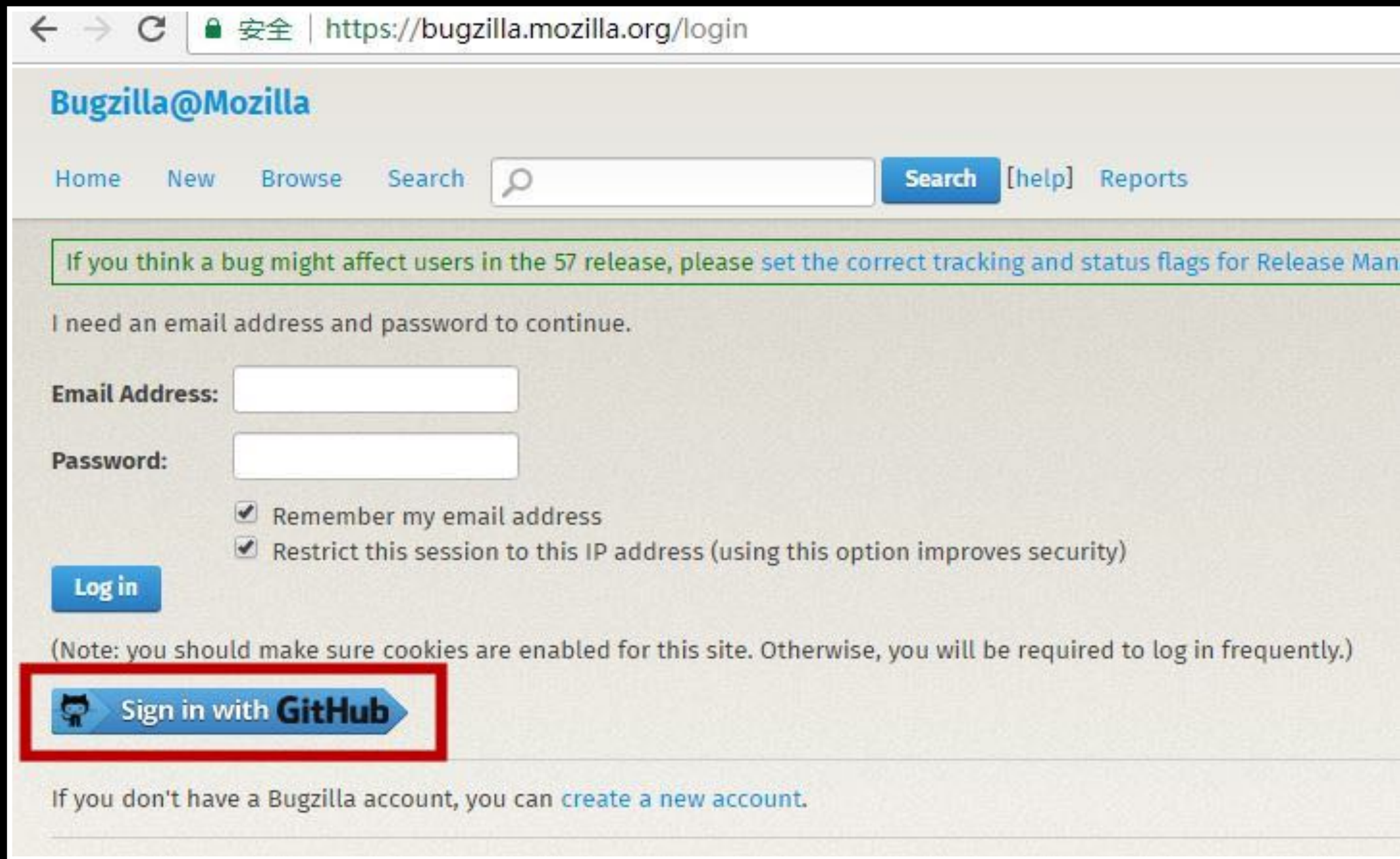
A. We should download the code base:

1. webdriver-rust
git clone <https://github.com/mozilla/webdriver-rust.git>
2. geckodriver
git clone <https://github.com/mozilla/geckodriver.git>
3. mozilla-central
 - a. download bootstrap.py: <https://hg.mozilla.org/mozilla-central/raw-file/default/python/mozboot/bin/bootstrap.py>
 - b. python bootstrap.py
 - c. sudo apt-get install mercurial
 - d. hg clone <https://hg.mozilla.org/mozilla-central>
 - e. hg clone mozilla-central mozilla-clean

Contribute to Mozilla flow

B. Sign in the Bugzilla to create bug for above components.

You can sign in with your github account.



The screenshot shows the Bugzilla login page at <https://bugzilla.mozilla.org/login>. The page features a navigation bar with links for Home, New, Browse, Search, and Reports. A search bar is also present. Below the navigation bar, there is a message: "If you think a bug might affect users in the 57 release, please set the correct tracking and status flags for Release Man". The main content area contains a login form with fields for Email Address and Password. There are two checked checkboxes: "Remember my email address" and "Restrict this session to this IP address (using this option improves security)". A "Log in" button is located below the checkboxes. A note states: "(Note: you should make sure cookies are enabled for this site. Otherwise, you will be required to log in frequently.)". A red box highlights the "Sign in with GitHub" button, which includes the GitHub logo. At the bottom, there is a link to "create a new account" for users who do not have a Bugzilla account.

← → ↻ 安全 | <https://bugzilla.mozilla.org/login>

Bugzilla@Mozilla

Home New Browse Search Search [help] Reports

If you think a bug might affect users in the 57 release, please [set the correct tracking and status flags for Release Man](#)

I need an email address and password to continue.

Email Address:

Password:

Remember my email address

Restrict this session to this IP address (using this option improves security)

[Log in](#)

(Note: you should make sure cookies are enabled for this site. Otherwise, you will be required to log in frequently.)

[Sign in with GitHub](#)

If you don't have a Bugzilla account, you can [create a new account](#).

Contribute to Mozilla flow

C. Build each component and verify them in our local side.

1. **webdriver-rust**

No need to build, just add this part patch in the source code.

2. **geckodriver**

Need to use the local webdriver-rust, use Cargo tool to build the geckodriver binary.
Copy the built out geckodriver to the PATH like /usr/bin or /usr/local/bin.

3. **mozilla-central**

Need to run `python bootstrap.py`, then `./mach build`

Contribute to Mozilla flow

D. Create the official patches in the clean code base

Should notice the sequence of the patches:

a. webdriver-rust

<https://github.com/mozilla/webdriver-rust/pull/105>

b. geckodriver

<https://reviewboard.mozilla.org/r/158136/>

c. marionette

https://reviewboard.mozilla.org/r/162018/diff/2#index_header

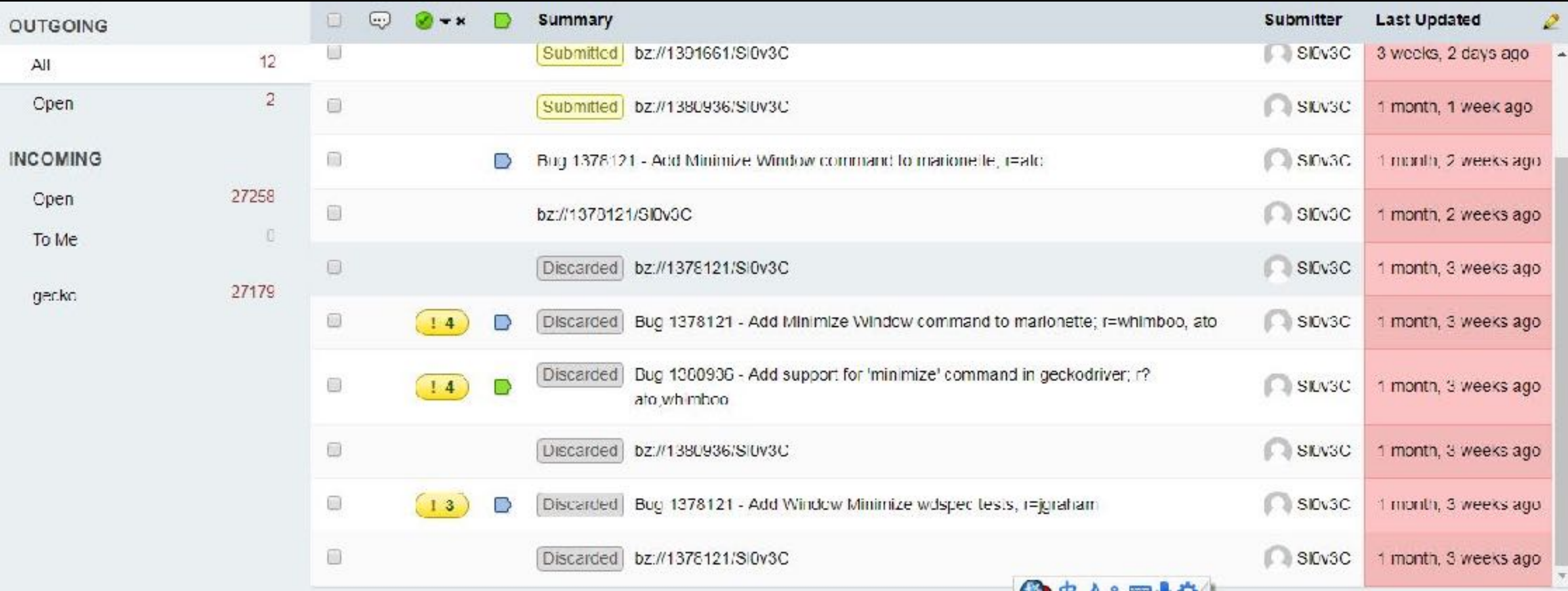
d. test cases

https://reviewboard.mozilla.org/r/170192/diff/1#index_header

Contribute to Mozilla flow

E. Wait maintainer to review and merge

May be need modify patch many times, need be proficient with the Mercurial tool.
Or you can configure the git tool for mozilla: <https://sny.no/2016/03/geckogit>



The screenshot shows a Mozilla Bugzilla interface with a list of bugs. The interface is divided into 'OUTGOING' and 'INCOMING' sections. The 'OUTGOING' section has a sub-section 'All' with 12 bugs and 'Open' with 2 bugs. The 'INCOMING' section has sub-sections 'Open' (27258), 'To Me' (0), and 'gecko' (27179). The main table lists bugs with columns for status, summary, submitter, and last updated. The submitter for all bugs is 'SIQv3C'. The last updated times range from '3 weeks, 2 days ago' to '1 month, 3 weeks ago'. Some bugs have yellow warning icons with numbers (e.g., '4', '3').

Section	Sub-section	Count	Status	Summary	Submitter	Last Updated		
OUTGOING	All	12	Submitted	bz://1301661/SIQv3C	SIQv3C	3 weeks, 2 days ago		
	Open	2	Submitted	bz://1380936/SIQv3C	SIQv3C	1 month, 1 week ago		
INCOMING	Open	27258		Bug 1378121 - Add Minimize Window command to marionette; r=ato	SIQv3C	1 month, 2 weeks ago		
	To Me	0		bz://1373121/SIQv3C	SIQv3C	1 month, 2 weeks ago		
	gecko		27179	Discarded	bz://1378121/SIQv3C	SIQv3C	1 month, 3 weeks ago	
				! 4	Discarded	Bug 1378121 - Add Minimize Window command to marionette; r=whimboo, ato	SIQv3C	1 month, 3 weeks ago
				! 4	Discarded	Bug 1300936 - Add support for 'minimize' command in geckodriver; r? ato,whimboo	SIQv3C	1 month, 3 weeks ago
					Discarded	bz://1380936/SIQv3C	SIQv3C	1 month, 3 weeks ago
				! 3	Discarded	Bug 1378121 - Add Window Minimize wdspec tests; r=jgraham	SIQv3C	1 month, 3 weeks ago
					Discarded	bz://1378121/SIQv3C	SIQv3C	1 month, 3 weeks ago

Lesson Learned

A. Test cases driven coding

The screenshot shows a GitHub pull request for the Selenium project. The URL is <https://github.com/SeleniumHQ/selenium/pull/4310>. The pull request has 8 conversations, 1 commit, and 3 files changed. The main comment from user SI0v3C, dated July 14th and edited, describes a symptom (no minimize window command), root cause (no command), solution (add command), project (selenium python webdriver), and a note (verified locally). It includes a checked checkbox for the Contributor License Agreement. The pull request title is "Add minimize window command in selenium python webdriver" with commit hash 5815c29. It has labels "C-py" and "R-awaiting review". User Imtierney requested changes on July 14th, with a comment: "Please add a test for this and make sure you sign the CLA." The right side of the image shows a code diff with a "for this feature, and as best supply the patch" comment.

https://github.com/SeleniumHQ/selenium/pull/4310

Conversation 8 Commits 1 Files changed 3

SI0v3C commented on 14 Jul - edited

Symptom: There is no minimize window command
Root Cause: No this command
Solution: Add the command
Project: selenium python webdriver
Note: Already verified in local side with webdriver-rust & geckodriver & firefox(marionette) patches

By placing an X in the preceding checkbox, I verify that I have signed the Contributor License Agreement

Add minimize window command in selenium python webdriver 5815c29

p0deje added C-py R-awaiting review labels on 14 Jul

Intierney requested changes on 14 Jul

Please add a test for this and make sure you sign the CLA


for this feature, and as best supply the patch

ould be welcome. We will need to bump and

river for this behaviour, since that's more

Lesson Learned

B. Distribution tool must be skilled

 **yangyi_peng (:S10v3C)** (Assignee)
Comment 48 • 2 months ago

(In reply to Andreas Tolfsen <:ato> from [comment #45](#))

```
> S10v3C: I have uploaded a slightly amended version of your patch
> which fixes a few minor issues I discovered in the last pass.
>
> As I amended your commit, I noticed that you do not have your full
> name and email set. The next time you upload a patch, it would be
> good if you set that correctly. I hope I got your name right.
>
> This patch is now pending on a successful try run
> (https://treeherder.mozilla.org/#/jobs?repo=try&revision=d68335105470).
> The next step after that is integration.
>
> Thanks for your patch, and sorry about the somewhat length review process!
```

ato: THX for your great help! I will add the full name and email later.

OUTGOING		Summary	Submitter	Last Updated
All	12	Submitted bz://1301661/S10v3C	S10v3C	3 weeks, 2 days ago
Open	2	Submitted bz://1380936/S10v3C	S10v3C	1 month, 1 week ago
INCOMING				
Open	27258	Bug 1378121 - Add Minimize Window command to marionette, r=ato	S10v3C	1 month, 2 weeks ago
To Me	0	bz://1373121/S10v3C	S10v3C	1 month, 2 weeks ago
gecko	27179	Discarded bz://1378121/S10v3C	S10v3C	1 month, 3 weeks ago
		! 4 Discarded Bug 1378121 - Add Minimize Window command to marionette; r=whimboo, ato	S10v3C	1 month, 3 weeks ago
		! 4 Discarded Bug 1300936 - Add support for 'minimize' command in geckodriver; r? ato,whimboo	S10v3C	1 month, 3 weeks ago
		Discarded bz://1380936/S10v3C	S10v3C	1 month, 3 weeks ago
		! 3 Discarded Bug 1378121 - Add Window Minimize wdspec tests, r=jgraham	S10v3C	1 month, 3 weeks ago
		Discarded bz://1378121/S10v3C	S10v3C	1 month, 3 weeks ago

Lesson Learned

hg compared with git

hg clone

hg pull & hg update -C

hg update -C -r

hg add

hg remove

hg diff

hg commit

hg status

hg log

git clone

git pull

git reset --hard

git add

git rm

git diff

git commit

git status

git log

Lesson Learned

C. Know how to use local check command

`./mach lint testing/marionette/driver.js`

help to check the Javascript grammar error.

`./mach vendor rust`

help to download all 3rd party dependencies to the source code.

`./mach wpt-manifest-update`

help to update the new configuration of the manifest

`./mach marionette test`

help to run marionette-test [file]

...

Lesson Learned

D. Do not fear to create Bugs & Patches

Bug 1380936 - Add Minimize Window com	Bug 1378121 - Add WebDriver.MinimizeWindow commar	Bug 1391661 - Add Minimize Window tests to wdspec; r=ato
<p>author Yangyi Peng <yangyi_pe Tue, 01 Aug 2017 11:42</p> <p>changeset 372345 1255a559d400</p> <p>parent 372344 7865bd32d235</p> <p>child 372346 b0ff9d96588a</p> <p>push id 32273</p> <p>push user kwierso@gmail.com</p> <p>push date 2017-08-02 22:48 +000</p> <p>treeherder mozilla-central@4c7317</p> <p>perfherder [talos] [build metrics] [p</p> <p>reviewers ato</p> <p>bugs 1380936</p> <p>milestone 56.0a1</p> <p>first release with nightly linux32 nightly linux64 nightly mac nightly win32 nightly win64</p> <p>last release without nightly linux32 nightly linux64 nightly mac nightly win32 nightly win64</p>	<p>author Yangyi Peng <yangyi_peng@htc.com> Fri, 21 Jul 2017 17:00:41 +0800 (7 week</p> <p>changeset 371430 475783c8: d0c</p> <p>parent 371429 "2e087e9c9:6</p> <p>child 371431 "398: f51UcdB</p> <p>push id 32246</p> <p>push user kwierso@gmail.com</p> <p>push date 2017-07-27 23:10 +0000</p> <p>treeherder mozilla-central@a4afa09bfdd1 [default</p> <p>perfherder [talos] [build metrics] [platform microbe</p> <p>reviewers ato</p> <p>bugs 1378121</p> <p>milestone 56.0a1</p> <p>first release with nightly linux32 5845151f1a2c nightly linux64 5845151f1a2c nightly mac 5845151f1a2c nightly win32 5845151f1a2c nightly win64 5845151f1a2c</p> <p>last release without nightly linux32 e5693ce1ec9 nightly linux64 e5693ce1ec9 nightly mac e8400551e2e3 nightly win32 e5693ce1ec9 nightly win64 e5693ce1ec9</p>	<p>author Yangyi Peng <yangyi_peng@htc.com> Fri, 18 Aug 2017 23:07:00 +0800 (3 weeks ago)</p> <p>changeset 375806 d3f53bf010ea</p> <p>parent 375805 0cc6be22d7e0</p> <p>child 375807 10b109b2b0af</p> <p>push id 32362</p> <p>push user philringnalda@gmail.com</p> <p>push date 2017-08-19 22:29 +0000</p> <p>treeherder mozilla-central@5ca5691372cb [default view] [failures only]</p> <p>perfherder [talos] [build metrics] [platform microbench] (compared to previous push)</p> <p>reviewers ato</p> <p>bugs 1391661</p> <p>milestone 57.0a1</p> <p>first release with nightly linux32 5ca5691372cb / 57.0a1 / 20170820100343 / files nightly linux64 5ca5691372cb / 57.0a1 / 20170820100343 / files nightly mac 5ca5691372cb / 57.0a1 / 20170820100343 / files nightly win32 5ca5691372cb / 57.0a1 / 20170820100343 / files nightly win64 5ca5691372cb / 57.0a1 / 20170820100343 / files</p> <p>last release without nightly linux32 4f4487cc2d30 / 57.0a1 / 20170819100442 / files nightly linux64 4f4487cc2d30 / 57.0a1 / 20170819100442 / files nightly mac 4f4487cc2d30 / 57.0a1 / 20170819100442 / files nightly win32 4f4487cc2d30 / 57.0a1 / 20170819100442 / files nightly win64 4f4487cc2d30 / 57.0a1 / 20170819100442 / files</p>
<p>Bug 1380936 - Add Minimize Window command t</p> <p>MozReview-Commit-ID: Lc6rAUMDjwc</p>	<p>Bug 1378121 - Add WebDriver.MinimizeWindow command to Mari</p> <p>Implements the backend for the WebDriver standard's Minimize command.</p> <p>Signed-off-by: Andreas Tolfsen <ato@sny.ro></p> <p>MozReview-Commit-ID: F5Z38Lxb0Jm</p>	<p>Bug 1391661 - Add Minimize Window tests to wdspec; r=ato</p> <p>MozReview-Commit-ID: LLJ6EXd2aKR</p>

Question:

- Why this code will cause build break?

```
resp.body = {  
  x: win.screenX,  
  y: win.screenY,  
  width: win.outerWidth,  
  height: win.outerHeight,  
  state:state,  
};
```

Here are a few common examples using the ES5 syntax:

```
// properties  
var foo = {  
  x: x,  
  y: y,  
  z: z,  
};  
  
// methods  
var foo = {  
  a: function() {},  
  b: function() {}  
};
```

Now here are ES6 equivalents:

```
/*eslint-env es6*/  
  
// properties  
var foo = {x, y, z};
```


- *Any Question?*



Thank You