

Goals

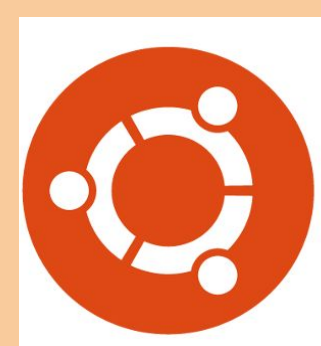
Our goal for this semester was to familiarize ourselves with CO-FOSS projects and the methods of contributing. We applied what we have learned during our time at the College of Charleston to work as a team of people with different strengths to act in the varying roles of a typical software development team.

About Firefox

Mozilla's Firefox browser is the only browser made by a non-profit organization. Following a pattern of universal design, Firefox has been translated into about 90 different languages by volunteer contributors and the Access Firefox team ensures that Firefox is accessible to all users, including those with visual and motor impairments.

Firefox is also dedicated to protecting the online privacy of its users by proving Private Browsing, Guest Browsing, and Do Not Track features.

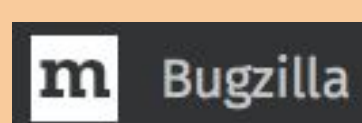
Tools



Linux Virtual Machine: All group members worked on an Ubuntu 18.04 VM for standardization across work



Phabricator: The Mercurial-based tool by which Mozilla accepts and tests all bug fixes to the code base



Bugzilla: The online system Mozilla uses for reporting, tracking, and triaging bugs across all products



Firefox Developer Kit: The developer version of Mozilla Firefox



GitHub: Version control system used to share details of project with team and class

Bug Fixes

1. **1476639 Remove scrollToIndex:** Remove a single use method (scrollToIndex) from the test files
2. **1609821 Make about:about an HTML file:** Convert an XHTML file into an HTML file and update dependencies
3. **1609822 Make about:checkboxboard an HTML file:** Convert an XHTML file into an HTML file and update dependencies
4. **1609823 Make about:crashes an HTML file:** Convert an XHTML file into an HTML file and update dependencies
5. **1587496 Update nsIBrowserHandler:** Replace nsIBrowserHandler with a more efficient method, and update function calls
6. **1622743 BrowserTestUtils.waitForCondition:** Change BrowserTestUtils.waitForCondition to use a more efficient method
7. **1624236 Do Not Use Else:** Update the function logic to be more effective by utilizing break statements
8. **1624232 Do Not Use Else:** Update the function logic to be more effective via return statements

Submitting a Patch

1. Run `$ hg update` to update to the current working version of the directory
2. Create or update file with desired changes
3. Run `$./mach build` to build browser with desired changes
4. Run `$ hg commit --message "Bug <ID> - <ID>: <change description> r=<reviewer>"` to commit the changes with information about the fix and alerts the designated reviewer
5. Create a Mozilla Phabricator account using an existing Bugzilla account
6. Run `$ moz-phab install-certificate`, then paste in the generated API key
7. Run `$ moz-phab submit` to submit the patch to phabricator
8. Wait for the reviewer to respond

```
sydney@sydney-VirtualBox:~/src/mozilla-central$ moz-phab submit
Submitting 1 commit for review:
(New) 518892:0d7b23bb2469 Bug 1624232 - 1624232: Replaced 'else if' with 'if' after 'return' in dom/html/TextTrackManager.cpp r=Sylvestre
Warning: found 5 untracked files (will not be submitted):
everything.diff
gfx/layers/apz/src/APZCStateManager.cpp.orig
hg
network/dns/nsHostResolver.cpp.orig
toolkit/components/telemetry/core/Telemetry.cpp.orig
Submit to https://phabricator.services.mozilla.com (YES/No/Always)? yes
Creating new revision:
518892:0d7b23bb2469 Bug 1624232 - 1624232: Replaced 'else if' with 'if' after 'return' in dom/html/TextTrackManager.cpp r=Sylvestre
0 files updated, 0 files merged, 0 files removed, 0 files unresolved
(activating bookmark moz-phab_0d7b23bb2469)
Completed.
(068114) 518893:0a7bbc6a8a04 Bug 1624232 - 1624232: Replaced 'else if' with 'if' after 'return' in dom/html/TextTrackManager.cpp r=Sylvestre
-> https://phabricator.services.mozilla.com/D68114
```

Figure 1: Running moz-phab submit in the command line and the URL to view the patch on Phabricator (Bug #1624232)

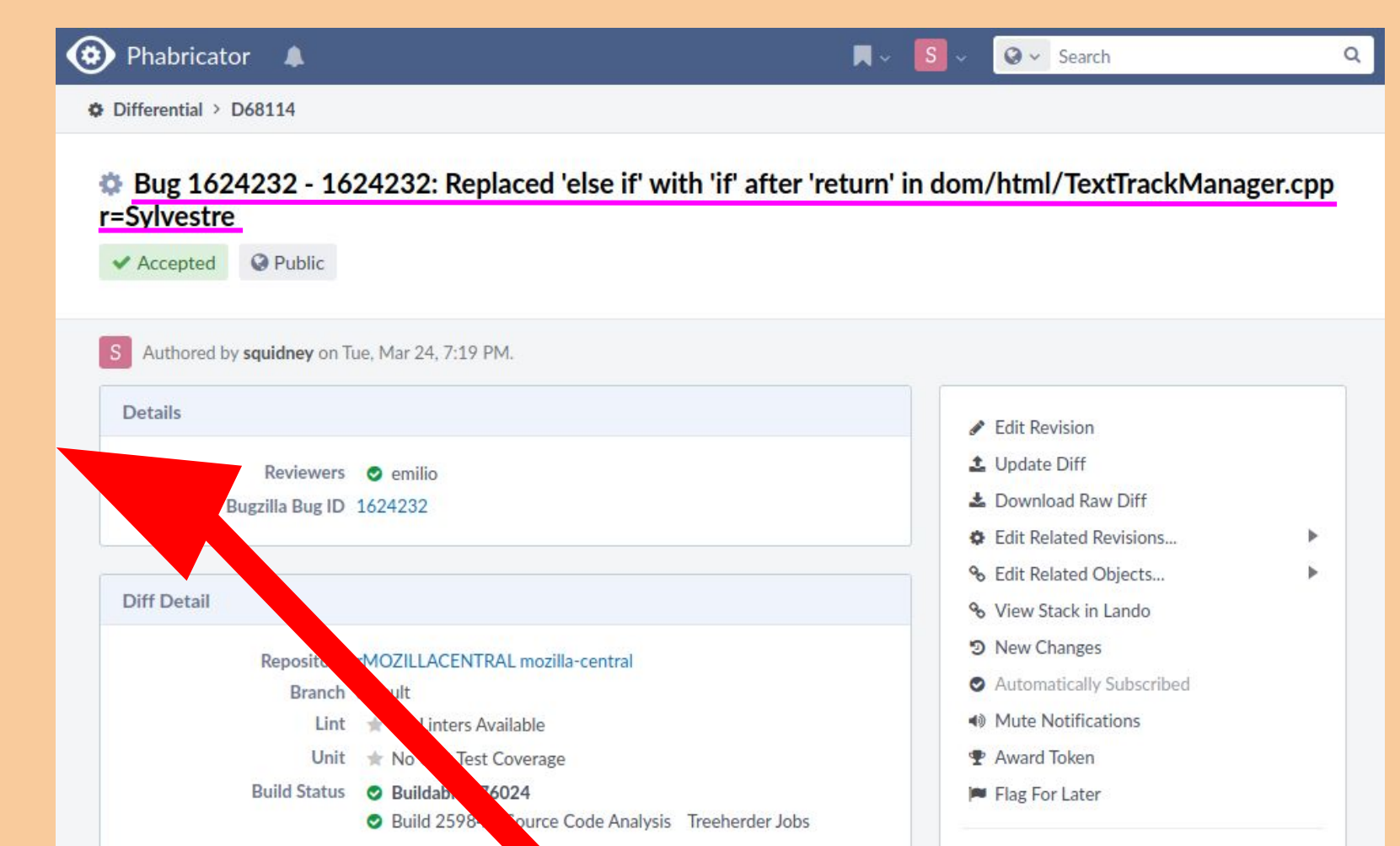


Figure 2: Navigating to the given URL to view the patch on Phabricator

Acknowledgements

Our team would like to thank the College of Charleston's Computer Science department for providing us with the skills to contribute to Mozilla, and Mozilla's community of users and volunteer developers for providing us with the resources needed to fulfill our own contributions.

