

**MICHIGAN STATE**  

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**U N I V E R S I T Y**

# Beta Presentation

## Taking Firefox Screenshots Testing Suite to 11

### The Capstone Experience

Team Mozilla

Christopher Cho

Robin Miller

Rand Mustafa

Michael Williams

Department of Computer Science and Engineering

Michigan State University

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*From Students...  
...to Professionals*

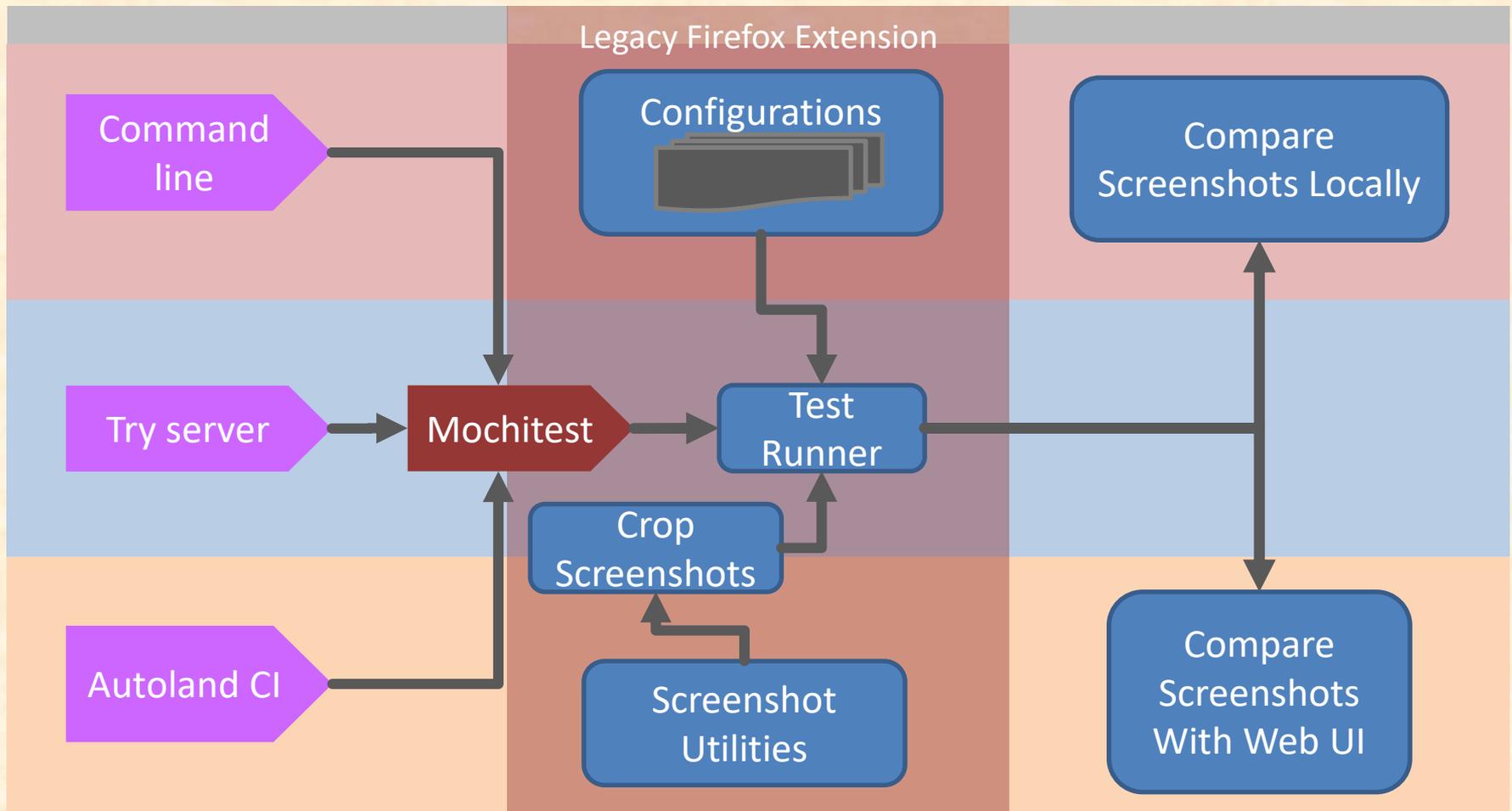
# Project Overview

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- Mozilla's Screenshot Testing Suite assists developers in catching visual bugs
- Our contributions will allow developers to only test parts of the UI that are pertinent to their work
- Developers will not be bombarded with irrelevant alerts
- The goal is to mature the tool

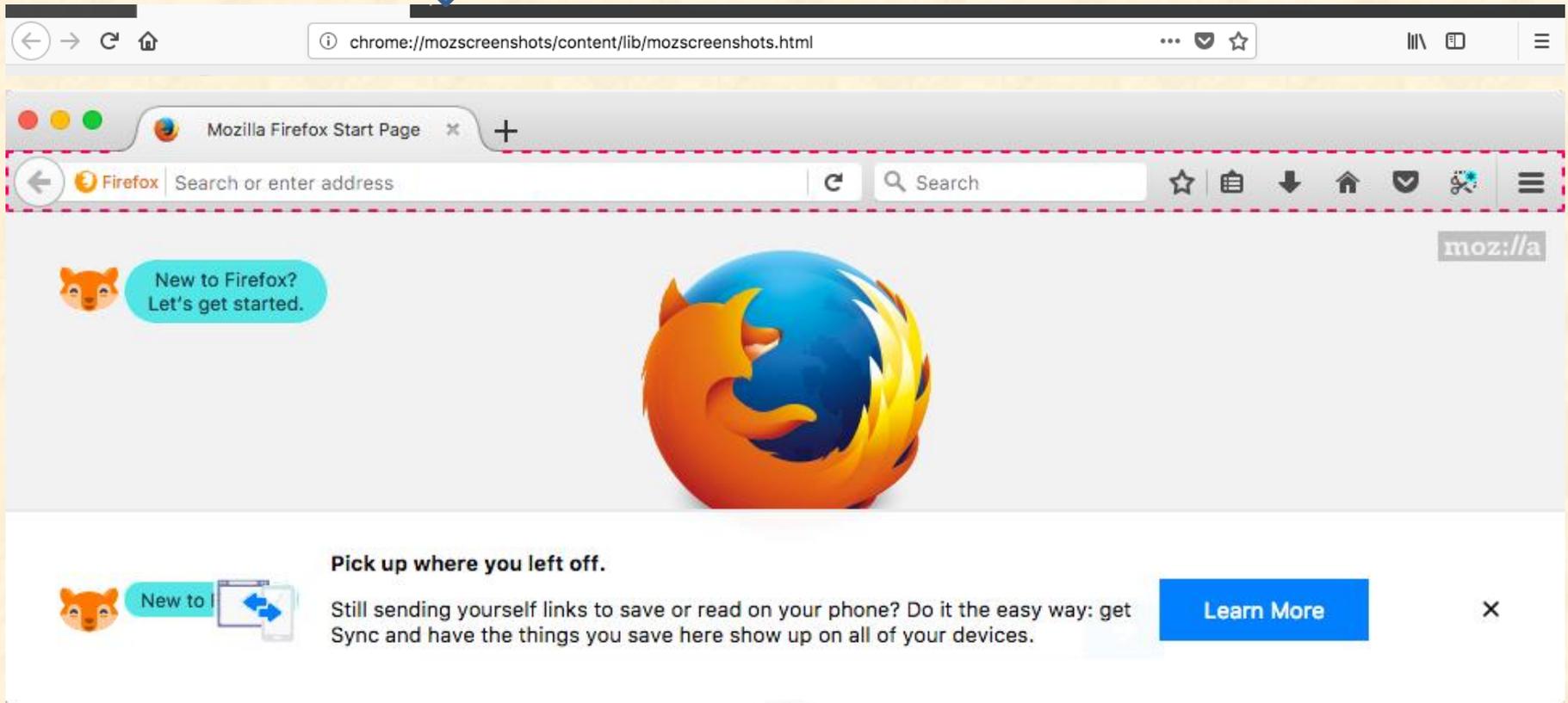


# System Architecture

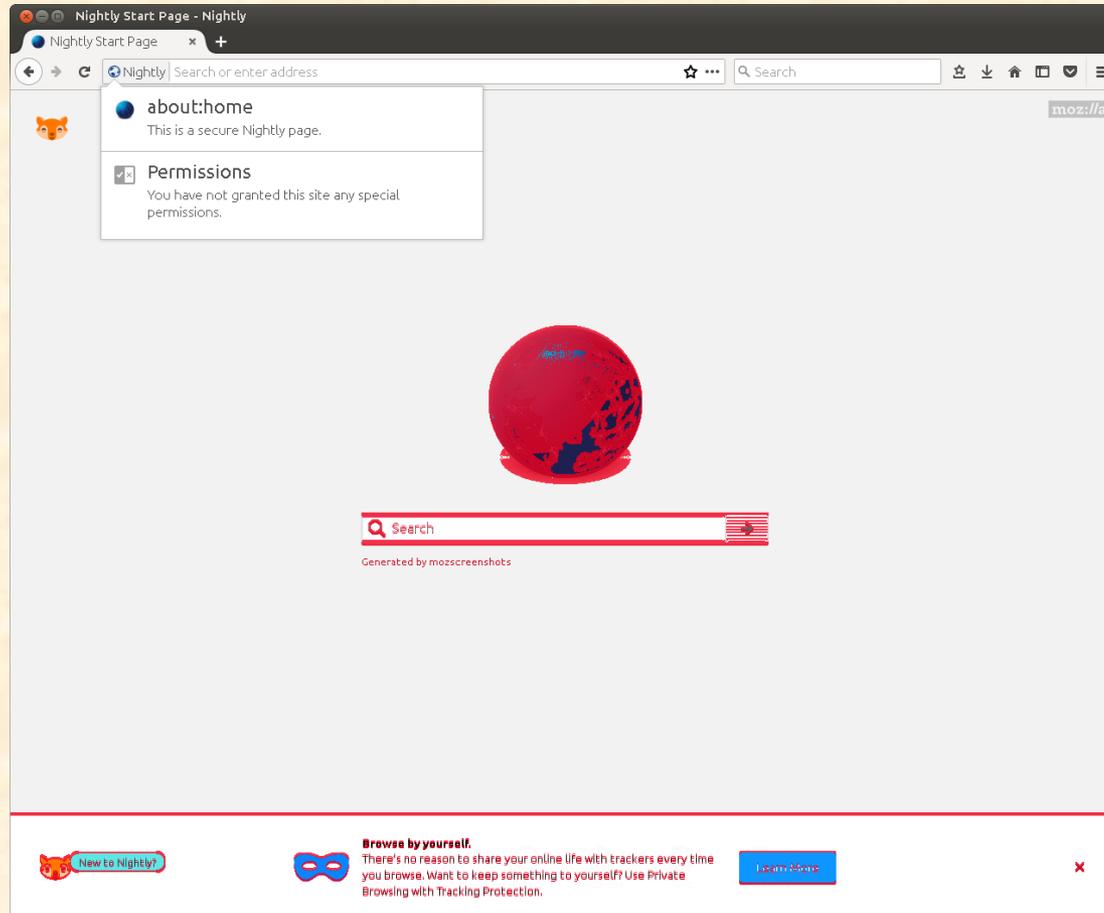


# Automated Cropping Region

Cropped Region



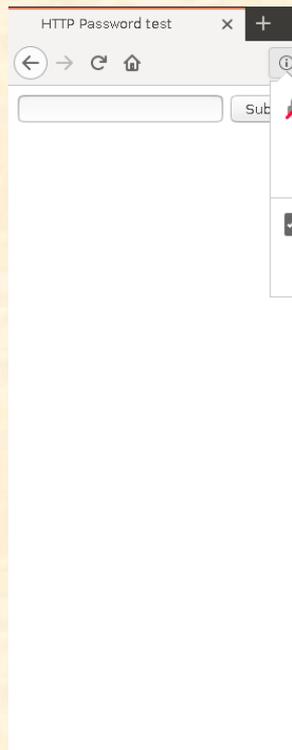
# Major Difference Detected



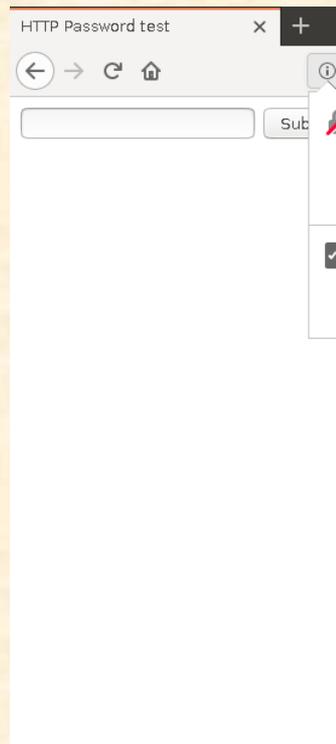
<https://screenshots.mattfn.ca/compare/?oldProject=mozilla-central&oldRev=6f8f10f48ace5692256efd91f011bd23054ee2ec&newProject=mozilla-central&newRev=5342d9e5011c53328468733704368e743affa817>

# Subtle Difference Detected

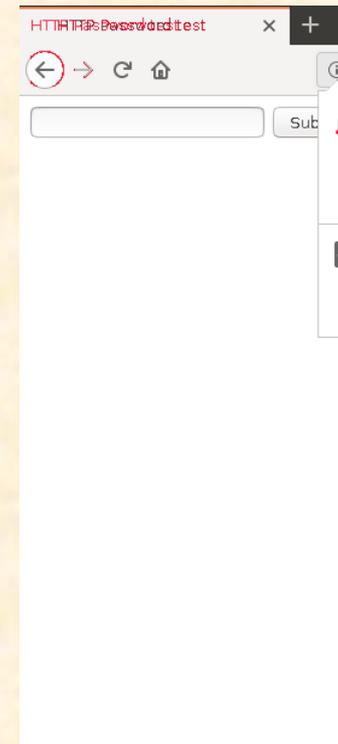
Before  
Change



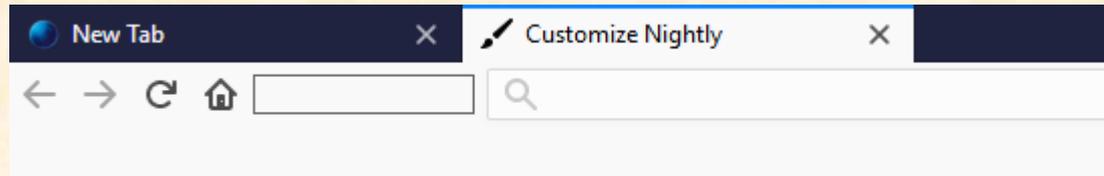
After  
Change



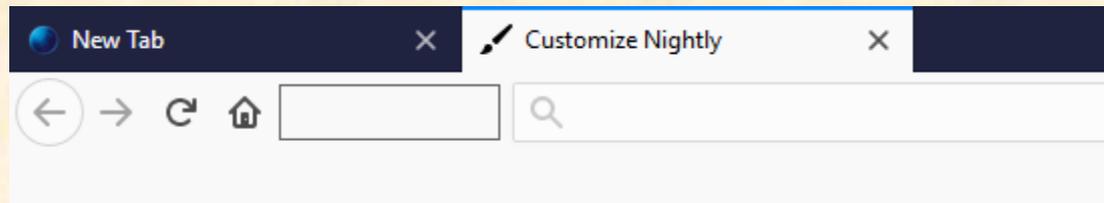
Difference



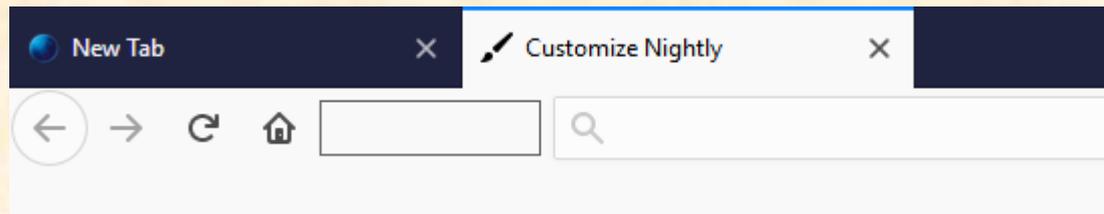
# New Configuration – UI Density



Compact



Normal



Touch



# Improved Tool Output

```
0 INFO *** Start BrowserChrome Test Results ***
1 INFO checking window state
2 INFO TEST-START | browser/tools/mozscreenshots/browser_screenshots.js
3 INFO Entering test bound setup
4 INFO installing extension temporarily
5 INFO Checking for mozscreenshots extension
6 INFO TEST-PASS | browser/tools/mozscreenshots/browser_screenshots.js | The mozscreenshots extension should be installed -
7 INFO Leaving test bound setup
8 INFO Entering test bound capture
9 INFO Saving screenshots to:
10 INFO 2 sets:
11 INFO 20 combinations
12 INFO Console message: [JavaScript Warning: "Use of nsIFile in content process is deprecated." {file: "resource://gre/modules/FileUtils.jsm" line: 174}]
13 INFO Combination 01/20: noLWT_navBarButtons
14 INFO promising noLWT
15 INFO calling noLWT
16 INFO called noLWT
17 INFO Console message: 1510528257210 addons.xpi WARN Attempting to activate an already active default theme
18 INFO promising navBarButtons
19 INFO calling navBarButtons
20 INFO called navBarButtons
21 INFO fulfilled all applyConfig so setting lastCombo.
22 INFO TEST-PASS | browser/tools/mozscreenshots/browser_screenshots.js | A valid bounding box was found -
23 INFO _onConfigurationReady
24 INFO Combination 02/20: noLWT_tabsToolBarButtons
25 INFO promising tabsToolBarButtons
26 INFO calling tabsToolBarButtons
27 INFO called tabsToolBarButtons
28 INFO fulfilled all applyConfig so setting lastCombo.
29 INFO TEST-PASS | browser/tools/mozscreenshots/browser_screenshots.js | A valid bounding box was found -
30 INFO _onConfigurationReady
31 INFO Combination 03/20: noLWT_menuPanelButtons
32 INFO promising menuPanelButtons
33 INFO calling menuPanelButtons
34 INFO called menuPanelButtons
35 INFO fulfilled all applyConfig so setting lastCombo.
36 INFO checking if the combo is valid with menuPanelButtons
37 INFO skipped configuration [ noLWT, menuPanelButtons ]
38 INFO reason: The button isn't shown when the panel isn't open.
39 INFO Combination 04/20: noLWT_custPaletteButtons
40 INFO promising custPaletteButtons
41 INFO calling custPaletteButtons
42 INFO called custPaletteButtons
43 INFO fulfilled all applyConfig so setting lastCombo.
44 INFO checking if the combo is valid with custPaletteButtons
```



# What's left to do?

- Land all code
  - New configurations
  - Integration (cropping)
  - Integrated output
- More configurations (ongoing)
- Intermittent failure bugs (ongoing)
- Community announcements
- Hg hook (stretch)



# Questions?

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