



mozilla Firefox®

Speed Test Results

Definitions

Before Spinner:	the time from when the user clicks the application icon to when the spinner starts running.
Spinner Running:	the time while the spinner is actually running (may appear and disappear).
Before Window Draw:	the time from when the spinner stops running until the window begins drawing.
Window Drawing:	the time from when the window starts drawing until the title bar comes into view.
Drawing Title Bar:	the time it takes the title bar to come into view.
Window Done Drawing:	the time it takes for the window to draw after the title bar is seen.
Drawing Chrome:	the time it takes for the browser chrome to be drawn.
Website Drawn:	the time it takes for the entire website to be drawn (different websites used).
Close Window:	the time it takes from when a users presses the close button on the browser until when the browser is no longer shown.
Active Icon Disappears:	the time it takes from when the browser is no longer shown until the application is no longer running.

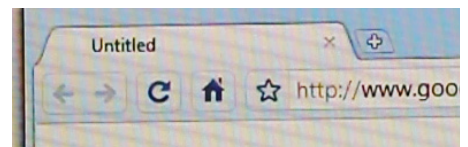
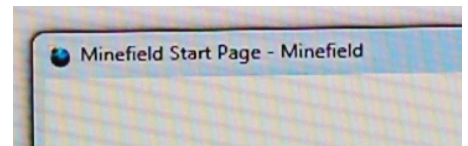
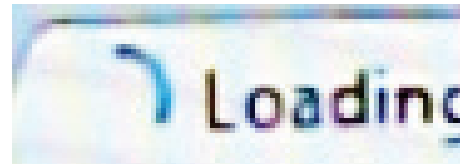
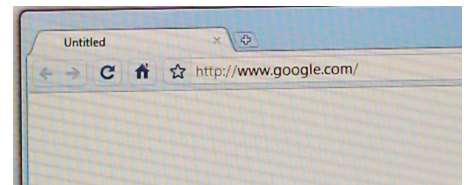
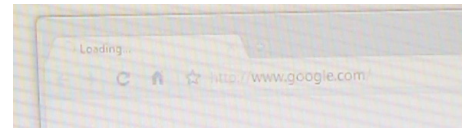
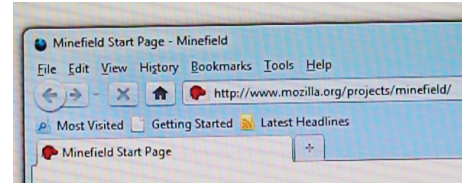
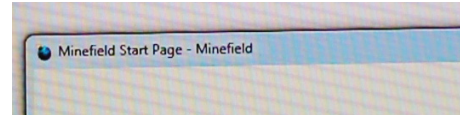
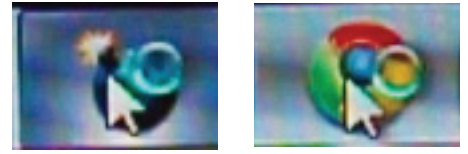
General Observations

Spinner Count: Upon starting Firefox, the spinner graphic is shown (and disappears) a total of three times, meanwhile in Chrome the graphic is only shown twice.

Window Drawing: In Firefox, the window is drawn (animated to size), then the browser chrome is drawn, then the website is drawn. In Chrome, the window and browser chrome is drawn all at once and then the website is drawn. This helps Chrome to feel faster because there is less visually going on at different times. Firefox feels very sequential in it's loading, while Chrome seems to do everything at once. This allows Chrome to feel fast because once the window is animated the size, everything is pretty much ready to go. This is especially true if google.com is set as your homepage on Chrome.

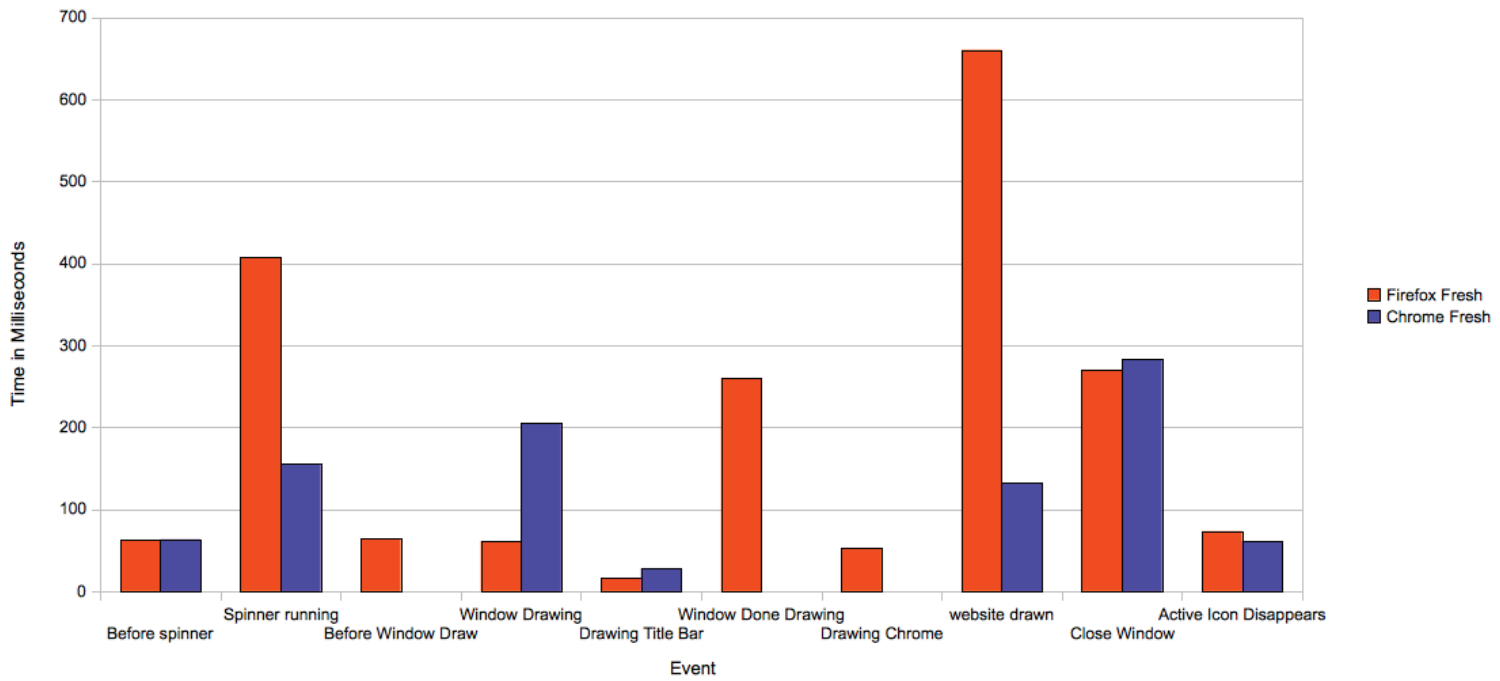
Webpage Drawing: In Chrome the webpage loading icon is fairly small and is never 'fully' seen. While in Firefox the loading icon is large, grey, and can always be seen in it's entirety. This is visually 'bloated' and makes Firefox seems slower. Furthermore, because Chrome's loading icon animation goes 'around' faster, Firefox's loading icon takes more time (seemingly) to get 'around'.

Page Title: In Firefox, a page's title is shown on the tab right away, while in Chrome the title is not shown until the website has completed loading. This is a simple trick that allows Chrome to feel faster in that once the title is shown, the page is ready. While in Firefox, a page's title makes it seem like a page has loaded but in fact the page isn't ready to be interacted with quite yet and the user has to 'wait longer'.

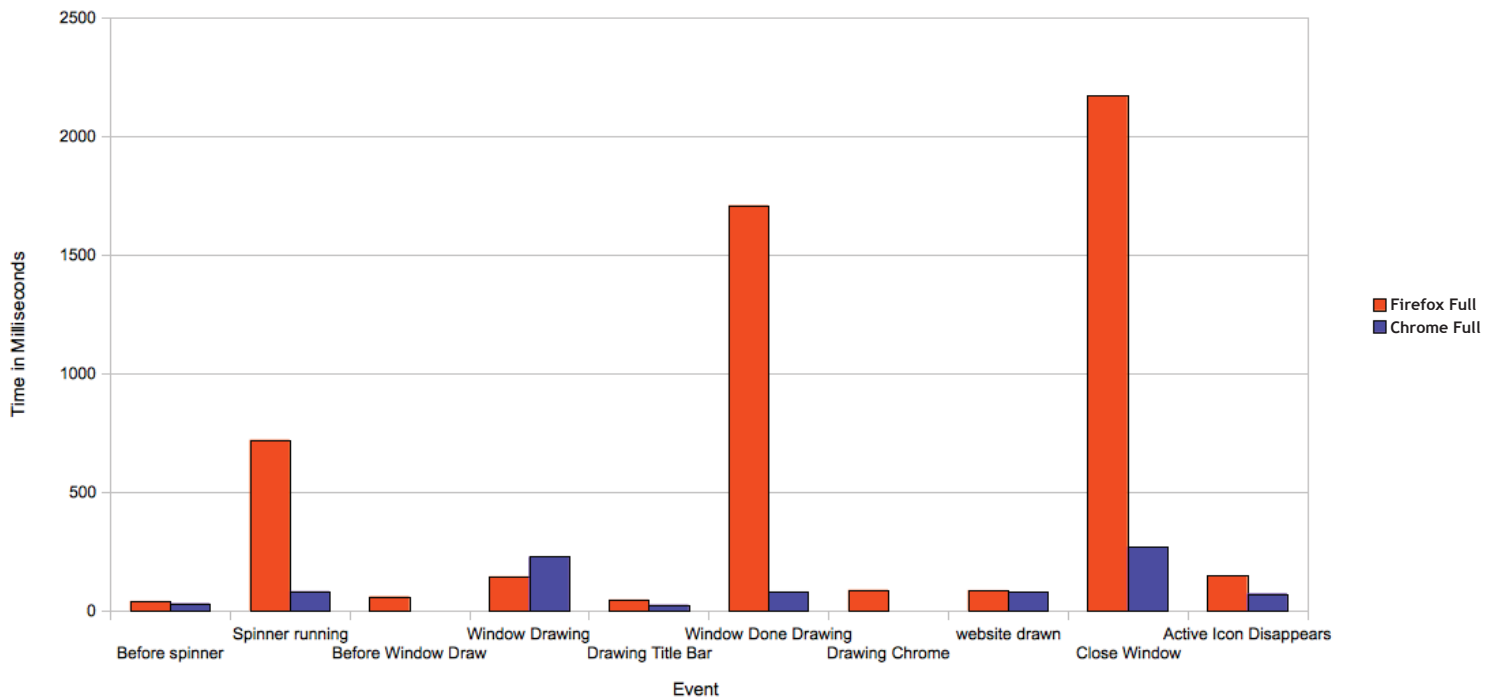


Speed Test Graphs

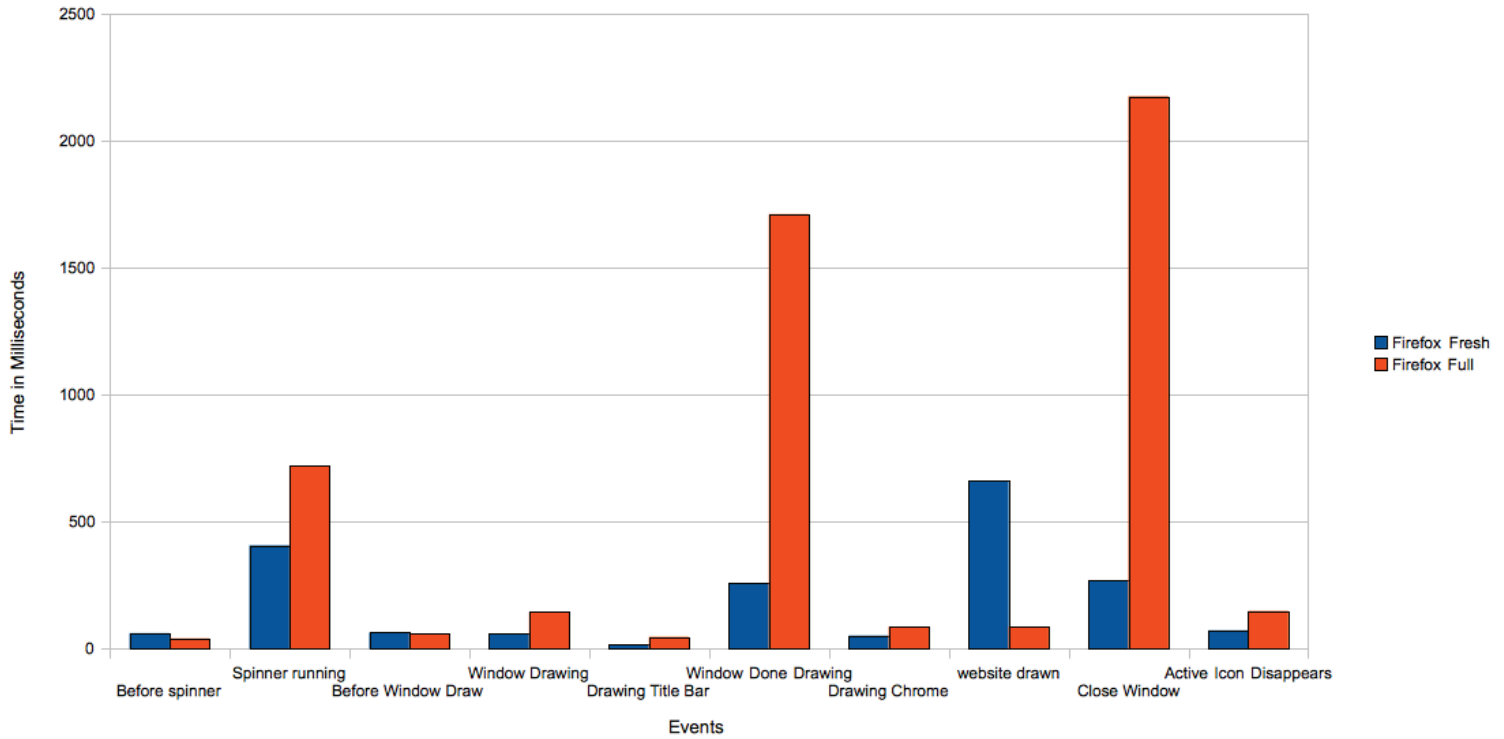
Firefox vs Chrome
Fresh Installs



Firefox vs Chrome
Full



Firefox Fresh vs Full



Explanation of Deltas

In the Firefox vs Chrome Fresh Installs graph, Firefox was loaded up with the default minefield page. This page is significantly heavier (both in text and images) than the Chrome Fresh Installs default page (google.com).

It should also be noted that Chrome draws the window and browser chrome at the same time.

In the Firefox vs Chrome Full graph, Firefox was loaded with at least four tabs (Faaborg might have actual tab number and sites) while Chrome was only loaded with one tab (google.com). This has a significant affect on the Window Drawing time and the Close Window time (diaglog box that informs of closing multiple tabs opens and needs to be closed first).

Recommended Actions

Draw the OS spinner icon as little as possible, but one solid break isn't bad and might be better than one really long spinner.

Draw the browser chrome while the window is being animated (drawn) to size. So that most of the drawing happens simultaneously rather than sequentially.

Make a new 'website loading' icon with less visual weight that animates faster but is slightly larger (would allow a user to 'see' the faster animation).

'Lazy' load tabs that are being restored (already being talked about).

Load upgrades and add-on updates upon browser close, not browser start (no data here, just personal experience).

Delay loading the website's title until the website is ready for interaction.

Raw Data

Raw data is available on Google Docs at:

<http://spreadsheets.google.com/ccc?key=0AmqAyg8g3AFndGZZSVRVX3FhcS1vMWVNcV91dWJzVnc&hl=en>



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