

The missing articles: how to optimize your website for Firefox?

There are a lot of [Web performance](#) tips online, and a lot of “how to speed up your Firefox install” tips, but one aspect I cannot find is “how to build a website such that it is fast in Firefox”. Even though there actually are huge differences in speed depending on the feature used — as [arewefastyet.com: the Firefox Performance Dashboard](#) shows. I cannot give you a complete guide yet, except for the things I see in arewefastyet, but maybe this is already a start:

- [Assorted DOM](#) takes 16ms in FF yet 900ms in Chromium and 600ms in Chrome¹. But its wiki entry [is a TODO](#). Why would they not document a test very visibly where they totally blow Chrome out of the water? It is available in [perf-automation/benchmarks/assorted-dom](#) and includes `getElementById` which is almost instantaneous on Firefox. See [test-contents.js](#).
- [MotionMark Animometer](#) has a 10% higher score, especially Canvas Arcs and Paths have 3x the score than Chrome. Images however are slower. So on Canvas avoid images, use arcs and paths.
- [MotionMark HtmlSuite](#) has 30% higher score, because most CSS transitions are faster, especially [CSS bouncing SVG images](#) (factor 2) and [DOM particles, SVG masks](#) (factor 4!)
- [StyleBench](#) has a 3x higher score. Many of those tests show Firefox **factor 5** faster than Chromium and Firefox finishes most in a 60 FPS frame budget (about 16ms), while Chromium often takes 80-150ms.
- [WebAudio](#) is factor 2 faster.

These are partially documented in [perfdocs/raptor.html](#).

So you get vastly different performance depending on the features you use to implement your site.

And this is the most important takeaway: never test only on Chrome and then expect your site to work well in other browsers. You have to test widely — including performance of CSS.

¹note how the unfree Chrome is faster than Chromium? This should worry every Free Software advocate!

Rules of thumb are hard to come by, but I'd start with: build on **CSS** (including transitions), SVGs, and accessing the DOM directly via `getElementById` instead of `querySelector`. But most of all, profile your website in Firefox and Chromium, and when you find something that takes much more time in Firefox, check whether you can implement it in a way that's faster in FF.

And if you do anything with audio, make sure it works in FF.