



# Advanced Web Technology

*2014/11/09*

**mozilla**

# WebGL

WebGL is a JavaScript API for rendering interactive 3D graphics and 2D graphics within any compatible web browser without the use of plug-ins.

<https://developer.mozilla.org/en-US/docs/Web/WebGL>

# asm.js

An extraordinarily optimizable, low-level subset of  
JavaScript

<http://asmjs.org/>



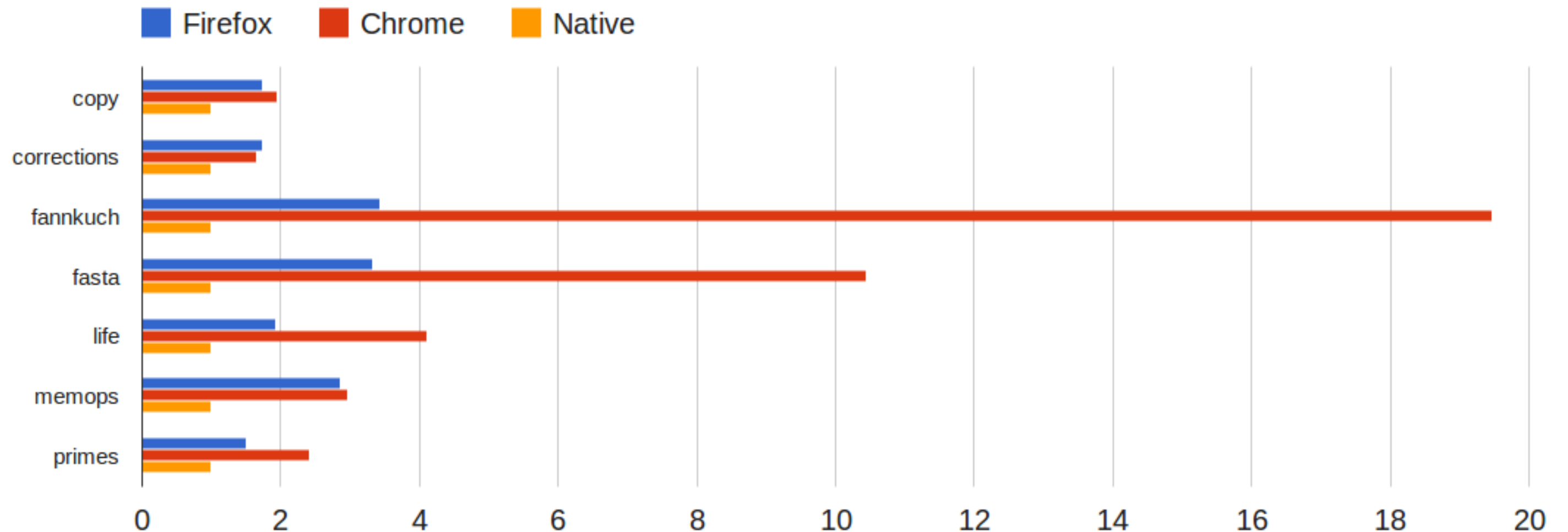
# Why define asm.js?

Performance of Javascript engine is optimized greatly.

Can “big” application run in browser?

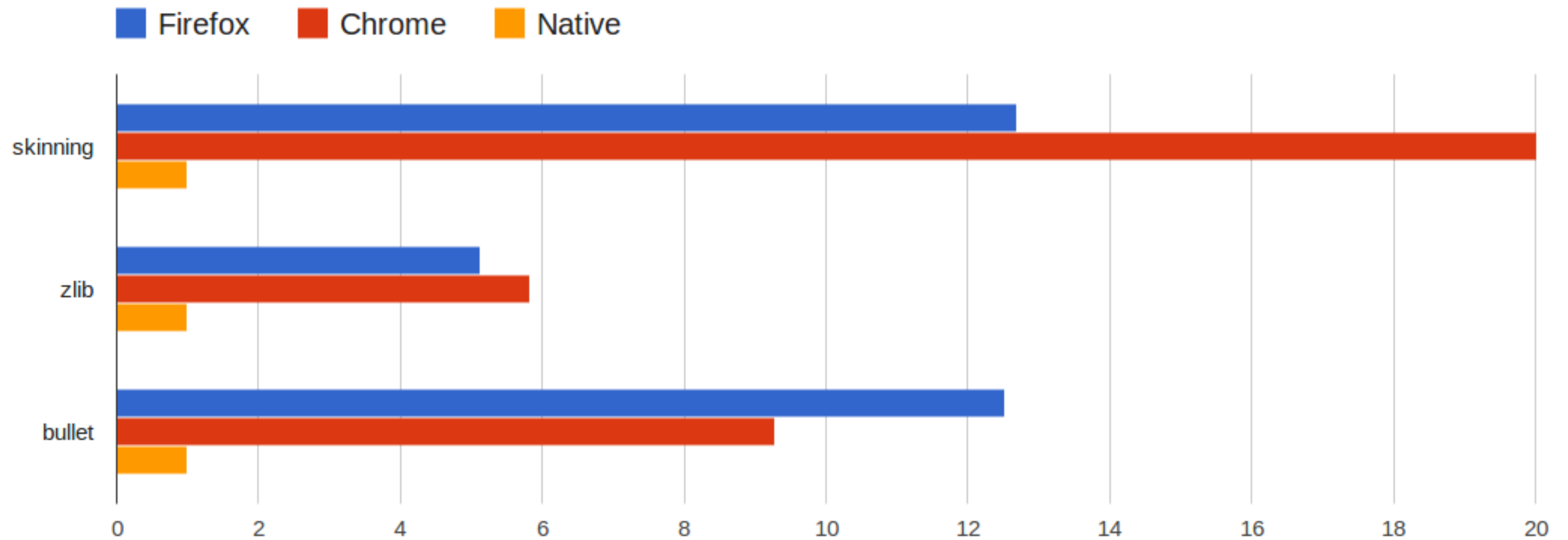
Many tools convert application developed by all programming languages to Javascript applications.

# Performance



*Run time normalized to Native (clang -O2), lower values are better*

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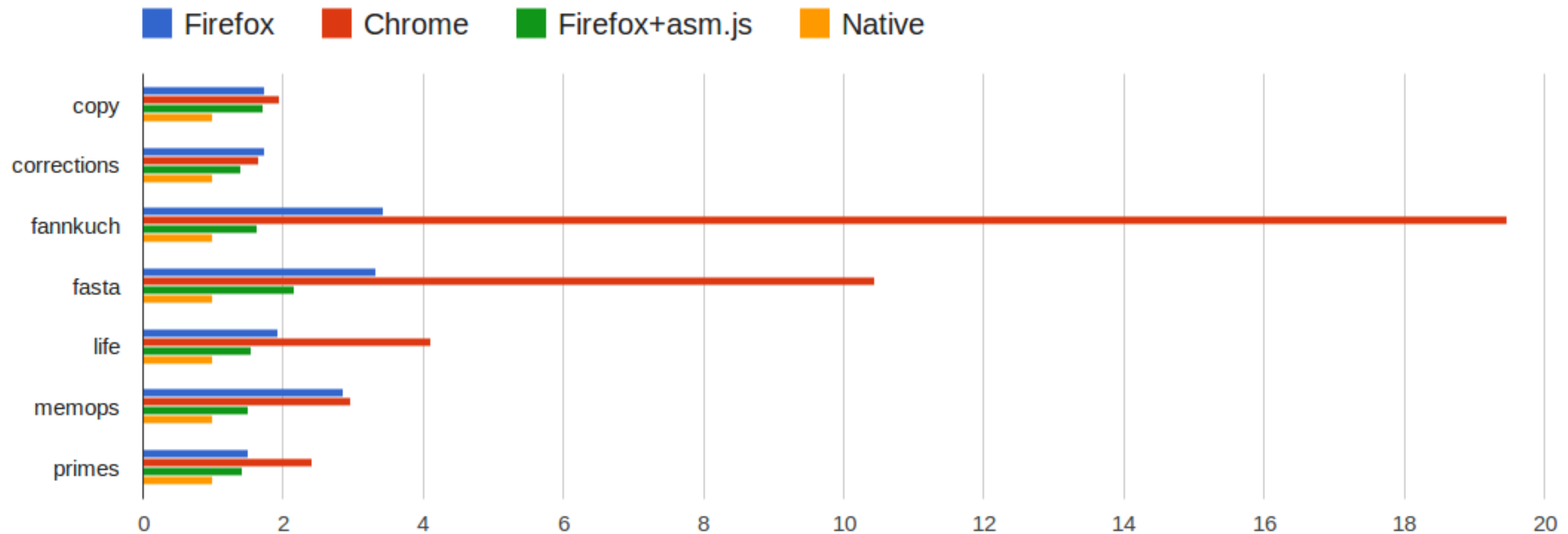
# How to optimize?

Define specification

Make converted Javascript code compliant to it

Javascript engine handle these codes specially

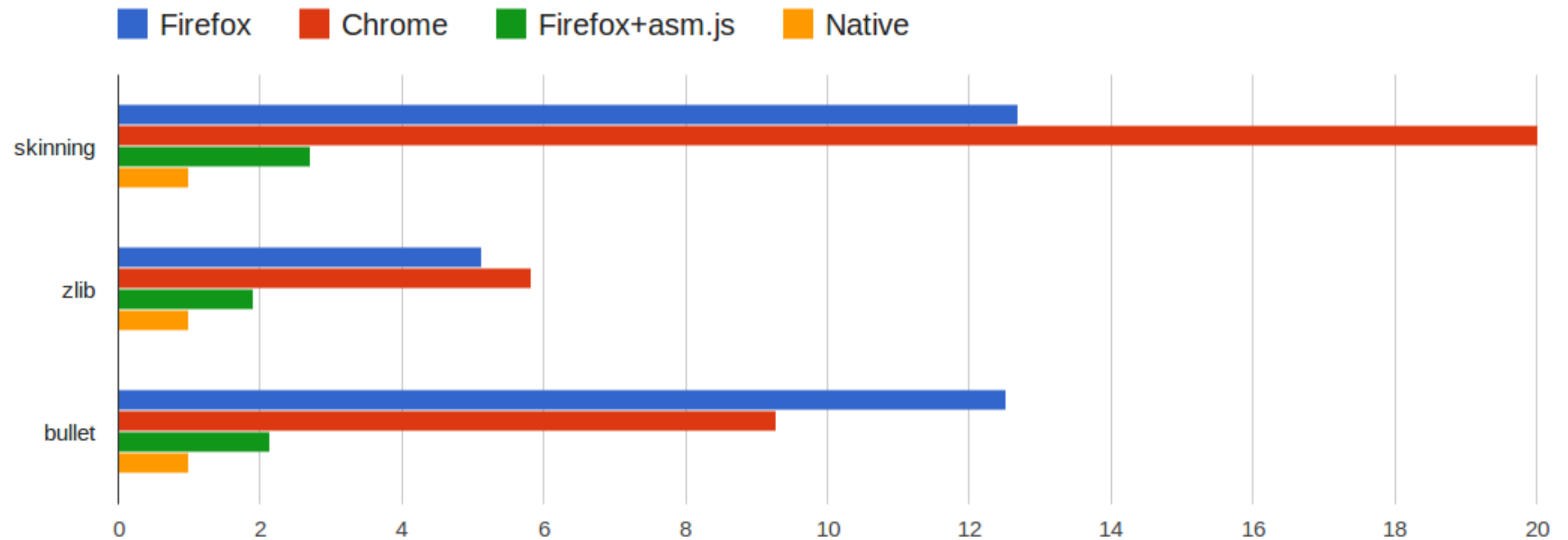
# Performance with asm.js



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# WebIDE

Web integrated development environment

<https://developer.mozilla.org/en-US/docs/Tools/WebIDE>

# WebRTC

Web Real Time Communication Between Browsers

<https://developer.mozilla.org/en-US/docs/Web/Guide/API/WebRTC>