

The next generation of Mozilla

Firefox 3.1, TraceMonkey, Mozilla Labs

a presentation for COSCUP 2008

on Mozilla

- Global community and public benefit (non-profit) organization dedicated to improving the Internet experience for people everywhere
 - 180,000,000 users worldwide
 - Free and open source software

on Mozilla

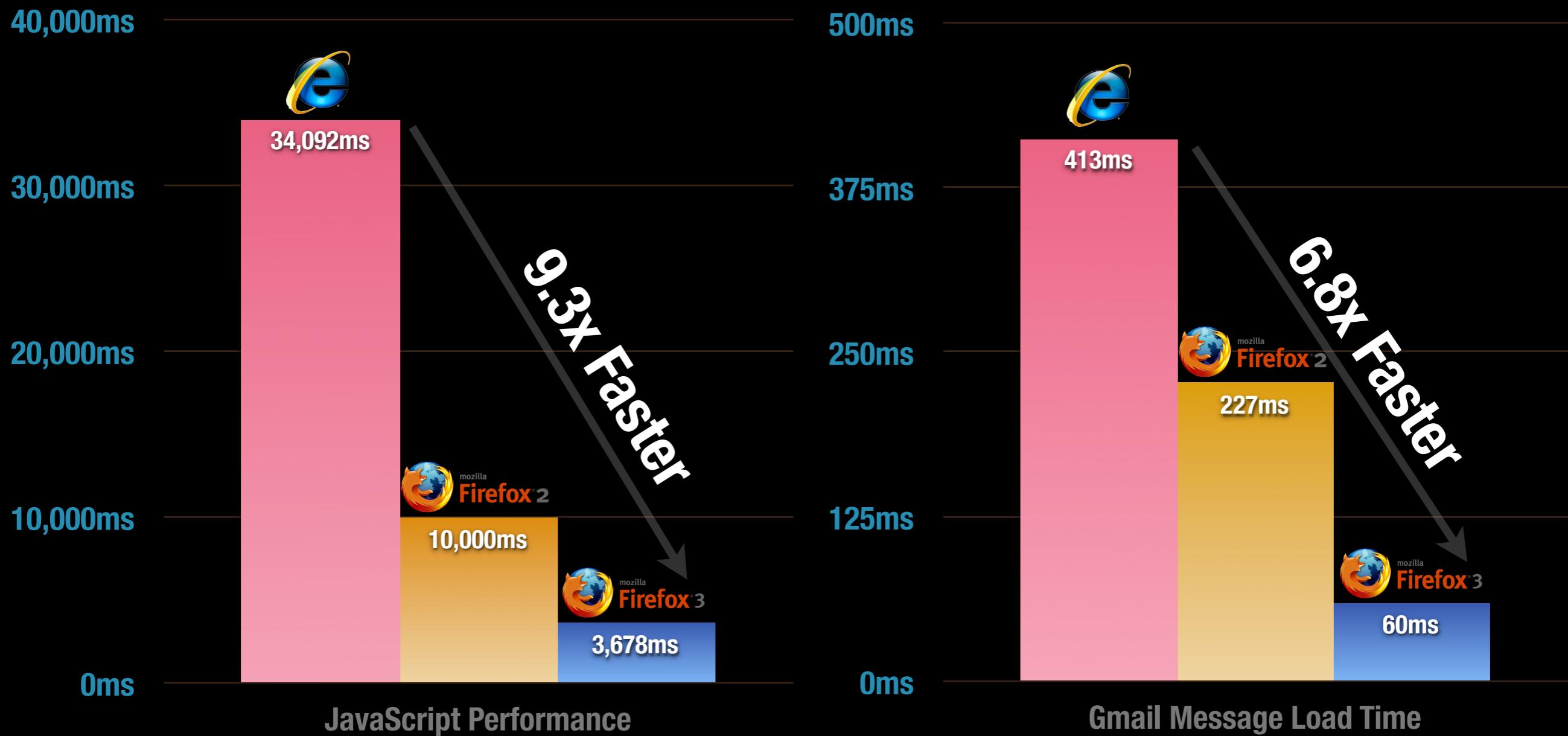
- Highly disciplined, transparent, and cooperative development process
 - 100's of active technical contributors
 - 10,000's of nightly testers
 - 100,000's of volunteer evangelists and marketers

on Firefox 3

- Firefox 3 shipped in 48+ languages simultaneously
- More than 500 million downloads
- Over 8,000,000 downloads in first 24 hours of Firefox 3

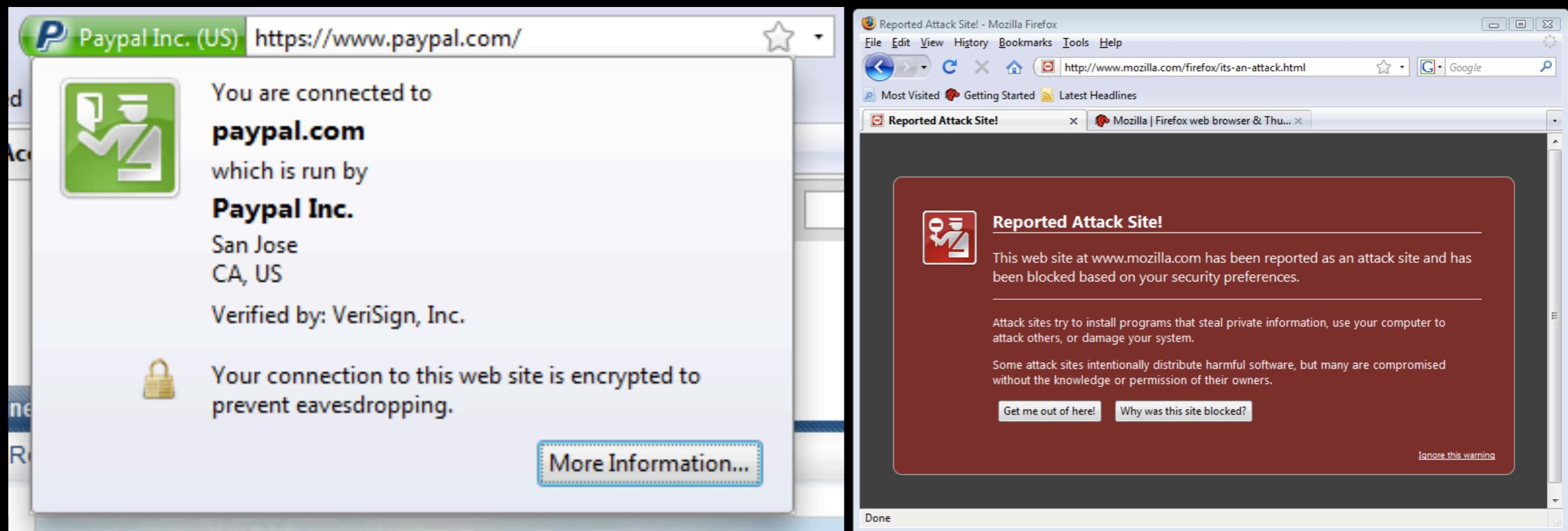
Fastest Firefox yet

(time, lower is better)



■ Internet Explorer 7 ■ Firefox 2
■ Firefox 3

Safest Firefox yet



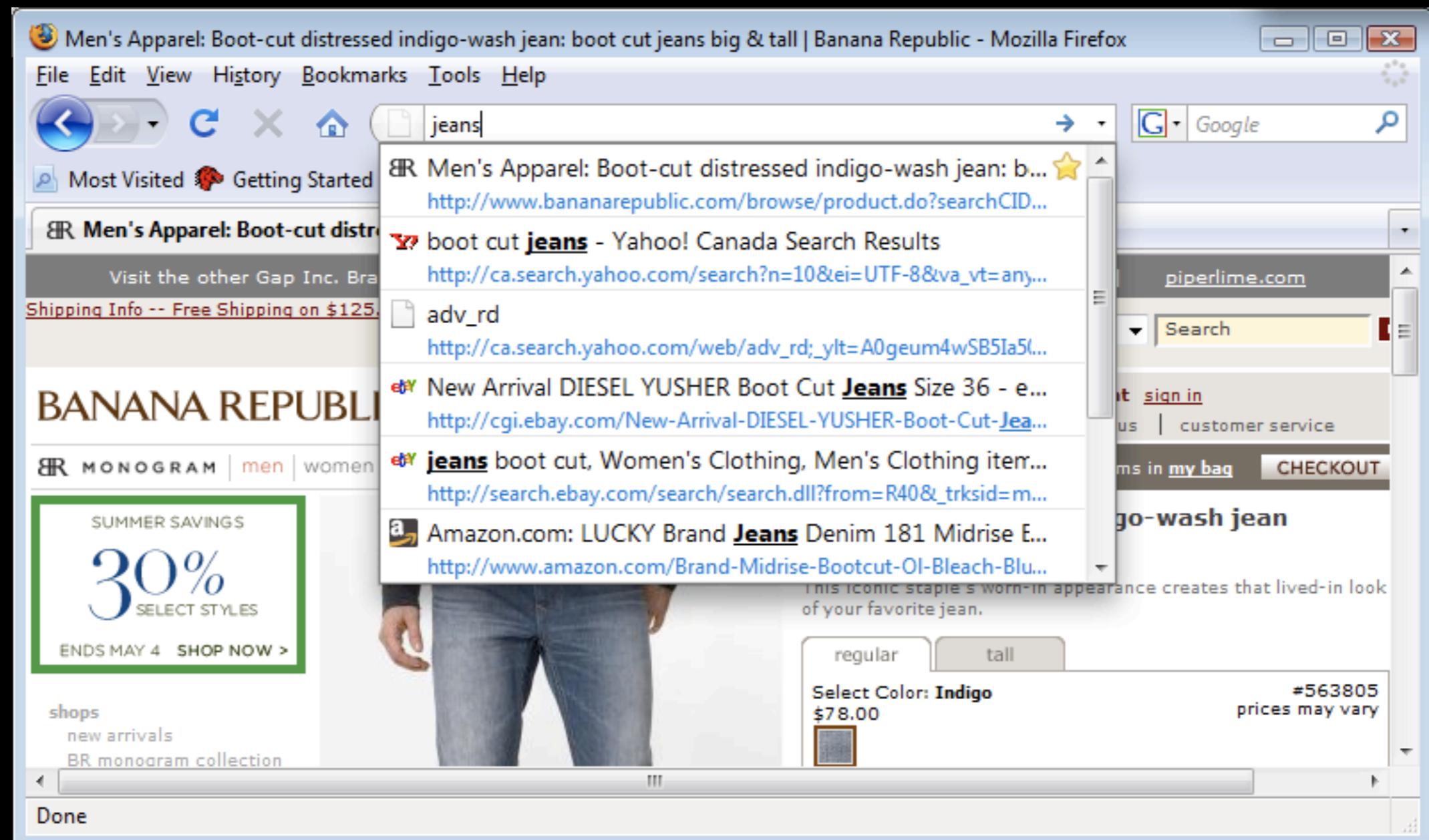
Instant Web Site ID

Lets you avoid Web forgeries and make sure a site is what it claims to be.

Malware protection

Protects consumers from 25,000 new phishing sites and 3,000 new malware sites per month

Search inside the browser



Firefox 3.1 “Shiretoko”



- Flickr: Nemo's great uncle

Firefox 3.1

- Codename: “Shiretoko”
- Improved HTML 5 support
- Significantly JavaScript support
- Improved CSS support
- Native <audio> and <video>
- Improved <canvas> support
- (list subject to change)

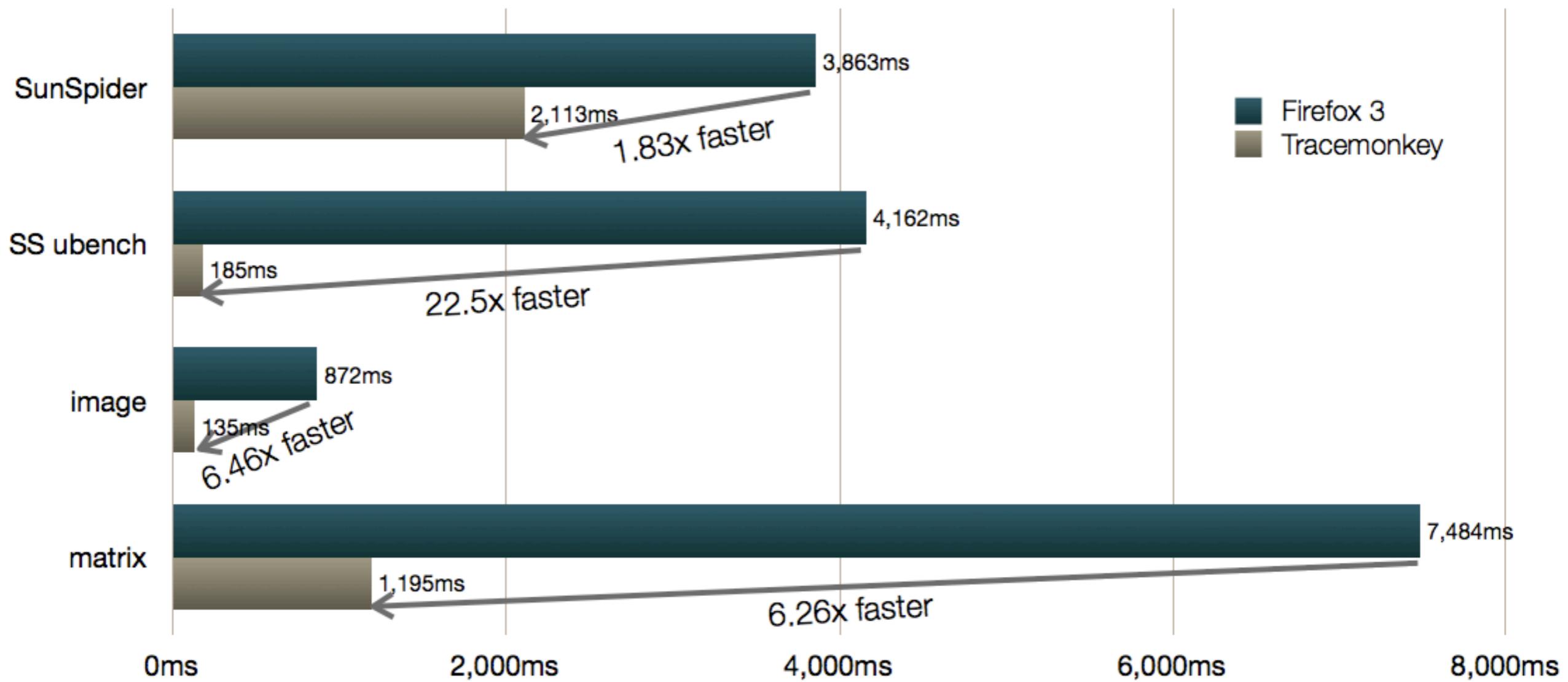
Firefox 3.1

- Gecko 1.9.1
- Downloadable fonts
- Support for cross-site XMLHttpRequests
- Improvements to the AwesomeBar
- Control-Tab new tab interface
- Much more...

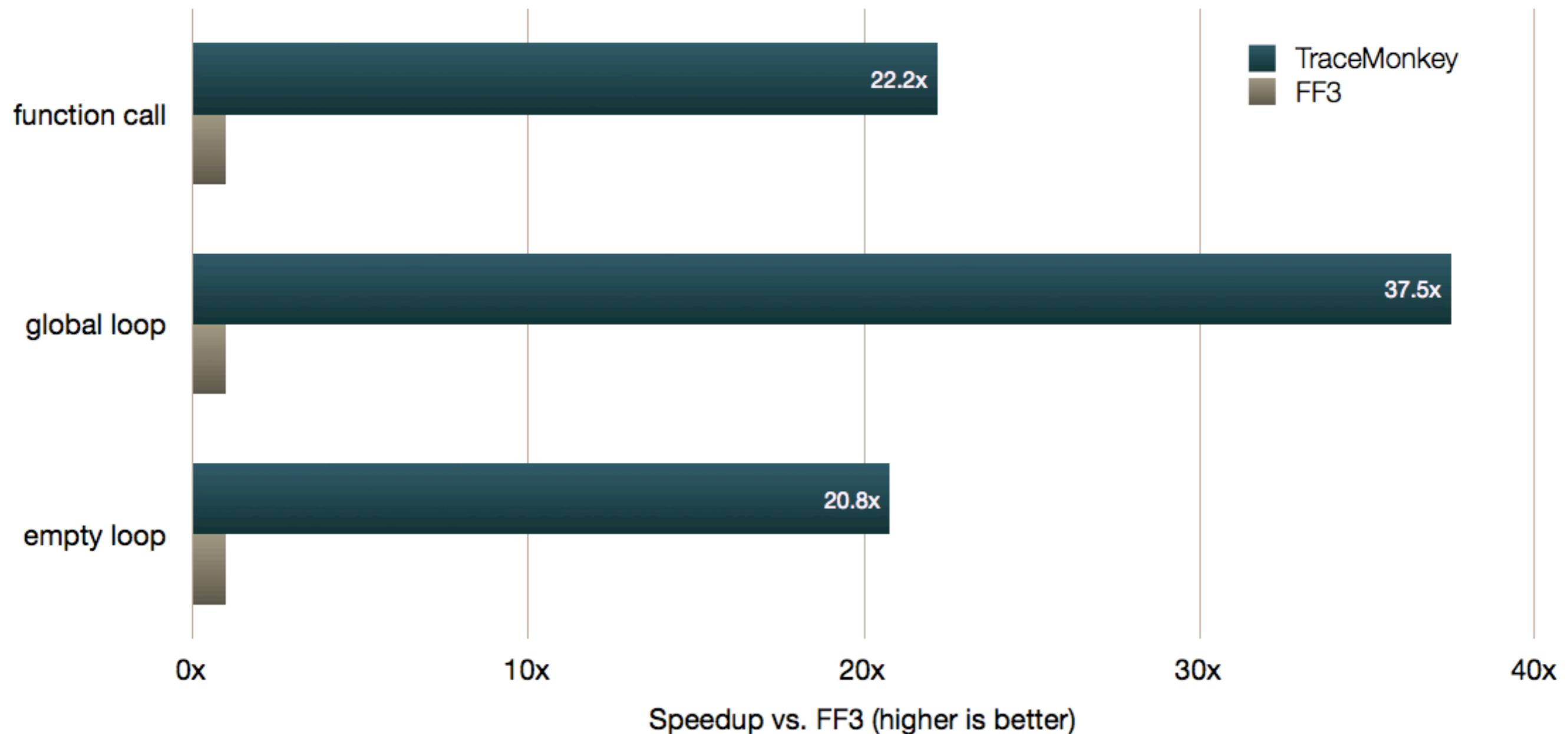
TraceMonkey

- NEW just-in-time JavaScript compiler
- SpiderMonkey + tracing = TraceMonkey
- Goal: make JS in Firefox as fast as native code
- On average 10X speed improvement
 - at times 20-40X speed improvements
- Many more improvements to come

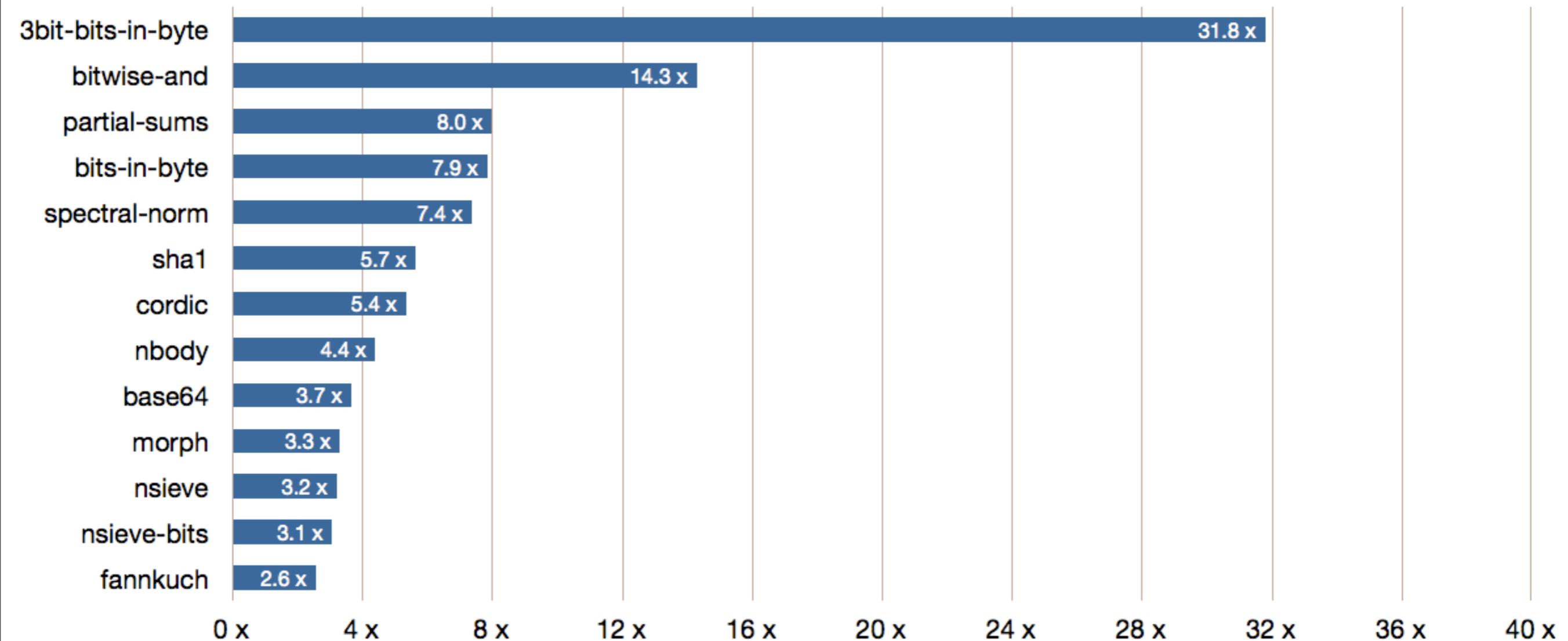
Assorted benchmarks



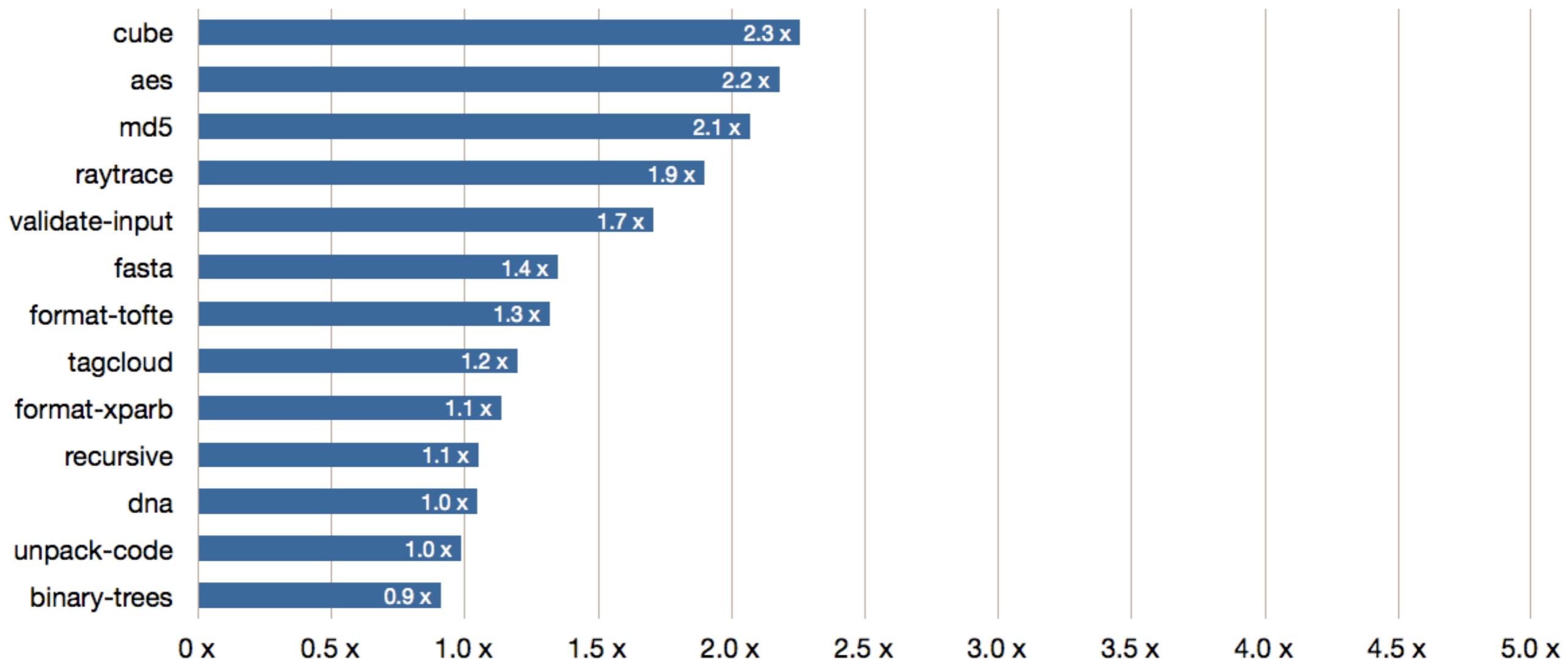
Core JavaScript Primitives



Firefox 3.1 with Tracing v.s. Firefox 3



Firefox 3.1 with Tracing v.s. Firefox 3



TraceMonkey

- Support: x86, x86-64, ARM (mobile)
- Will also benefit native video support, HTML5 Canvas, etc.
- Developed by Andreas Gal (UC Irvine)

TraceMonkey

- <http://hg.mozilla.org/tracemonkey/>

Mozilla Labs

- Is it possible to innovate in the open?
- Open source R&D
- Many new projects & open participation



Labs:Weave

- Optional Mozilla-hosted online services
- Full control and customization of data
- Respect privacy
 - full data encryption on client, transport, server
- Extensible architecture
- Standards-based services any user can run



Labs:Weave

- Fully open source platform (unlike others)
 - Can run Weave on your own server
- Backup & sync:
 - Bookmarks
 - History
 - Cookies
 - Passwords
 - Tabs, form content, and more tbd



Labs:Weave

- Future functionality: backup/sync extensions, themes, search plugins
- Future: API for 3rd party extensions to use Weave data sync & storage
- Key functionality for Mobile Firefox



mozilla labs
weave

Labs:Weave

The screenshot shows the 'Weave Setup' window titled 'Weave Setup'. The main heading is 'Welcome to Weave'. Below it, a large blue watermark-like graphic displays the word 'weave' and the 'mozilla labs' logo. The text explains that Weave is an experiment from Mozilla Labs providing a framework for deep integration of online services with the browser. It highlights new features like data synchronization, encryption, and messaging. A warning message at the bottom urges users to back up Firefox data before installation. At the bottom right are 'Cancel' and 'Next' buttons.

Weave is an experiment from Mozilla Labs that provides a framework for the deep integration of online services with the browser to enable exciting new user experiences.

This development milestone adds additional data synchronization, encryption, and messaging capabilities to the platform.

When you install this version of Weave, it will encrypt and back up most of your browser settings and metadata to a server (e.g. bookmarks, browsing history, cookies, etc.) and synchronize them between multiple computers. It will also enable read-only sharing of bookmark folders with another Weave user.

Warning: Use at your own risk! Back up Firefox data before continuing with installation.

Cancel **Next**



mozilla labs
weave

Labs:Weave

Firefox Preferences

Main Tabs Content Applications Privacy Security Advanced Weave

Account Data Add-ons Advanced

Back up and synchronize my data to a Weave server Sync Now

Encrypt my data on the server

Synchronize these items:

Bookmarks

Browsing History

Cookies

Saved Passwords

Tabs

Saved Form Data

Extensions

Themes

Search Plugins

Microformats

Help Close

Labs:Aurora

- Mozilla Labs collaboration with Adaptive Path
- Vision of future web usage

Labs:Aurora

AURORA

The **spatial view** contains every object on the Web that the user has ever interacted with. Older objects are farther away.

Objects are visual representations of resources on the web. They can be people (circles), places (rounded rectangles), or things (hexagons).

The **history stack** fills in from top to bottom with objects the user has recently put away.

The **corners** provide quick ways to filter the spatial view by people, places, and things, or to search for something specific.

The **shelf** is a collection of objects put there by the user, and serves as a longer-term mechanism for quick access to objects.

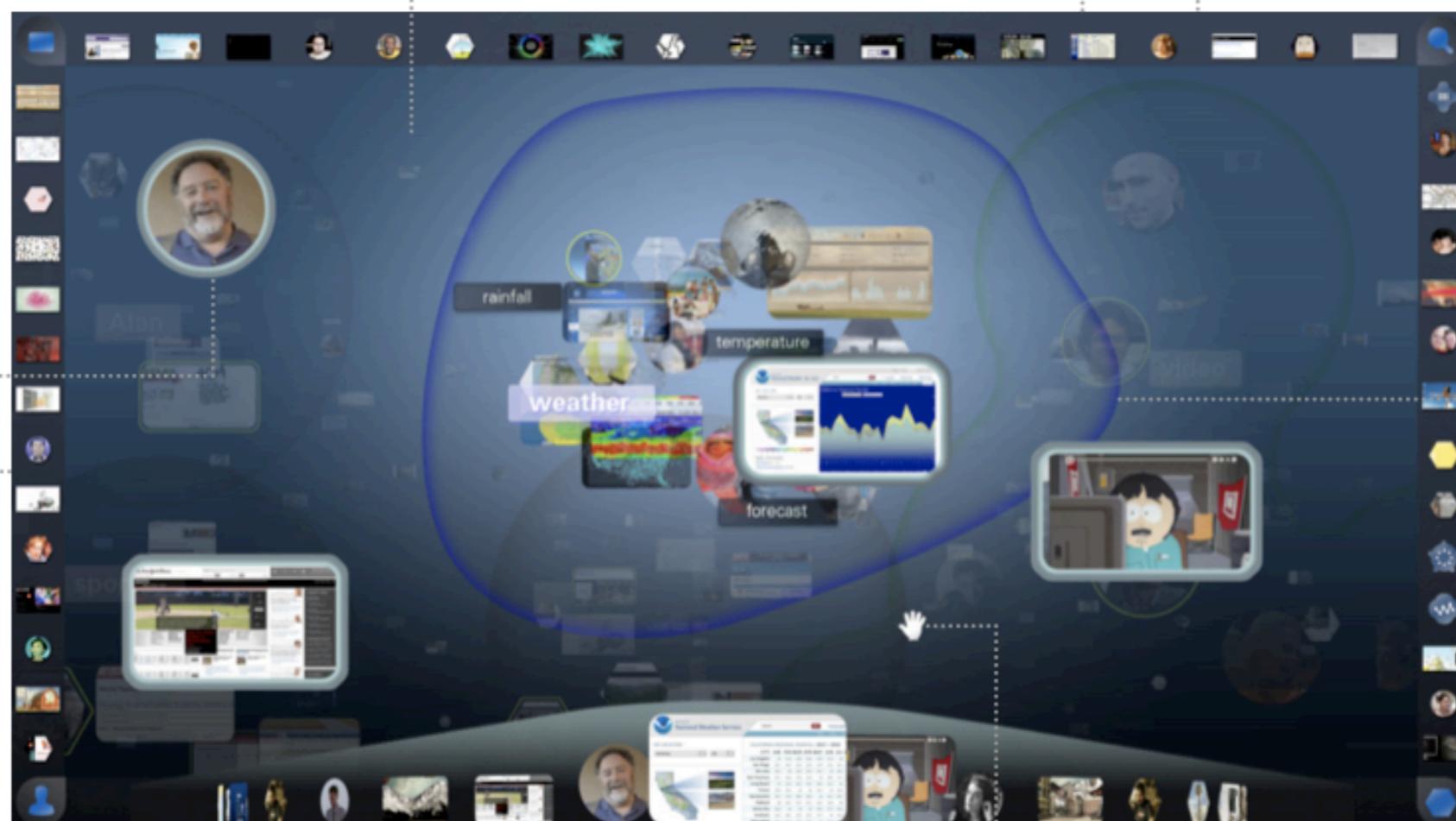
The **frame** runs along the edges of the screen, but only when the user asks for it.

The **user stack** fills in from bottom to top with objects placed there by the user, and serves as a temporary storage area for objects the user may want to return to.

Clusters are usually created by the browser, which groups objects according to their semantic similarity or the user's patterns of use.

Everything in Aurora can be **grabbed**, manipulated, pushed, pulled, picked up, and put down.

The **wheel** curves away from the user along the bottom edge of the screen, and contains all the objects the user has active.



Except where otherwise noted, this work is licensed under
<http://creativecommons.org/licenses/by-nc-sa/3.0/>
© 2008 Adaptive Path. Some rights reserved.

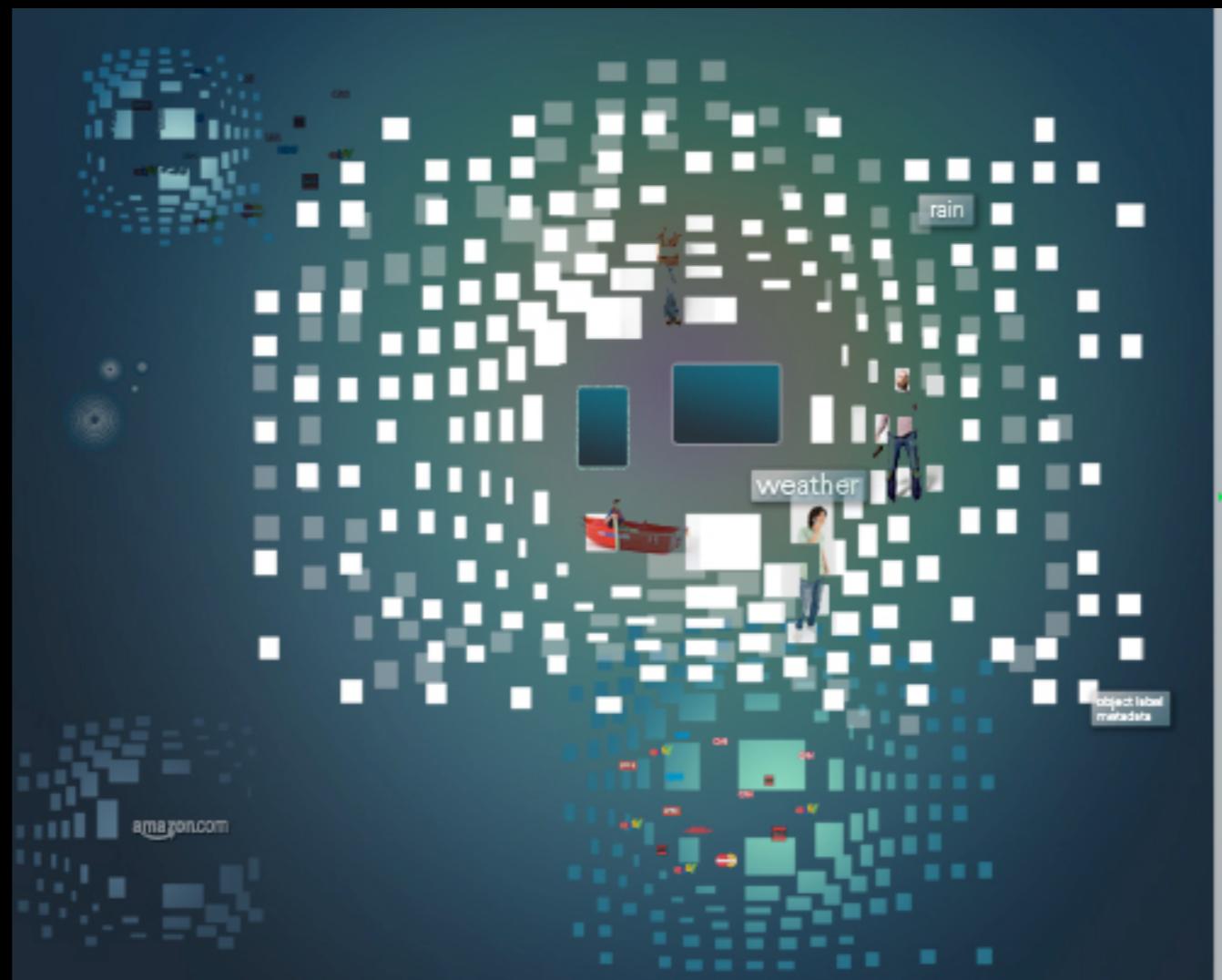
Labs:Aurora



Labs:Aurora



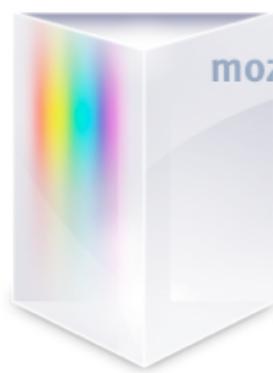
Labs:Aurora





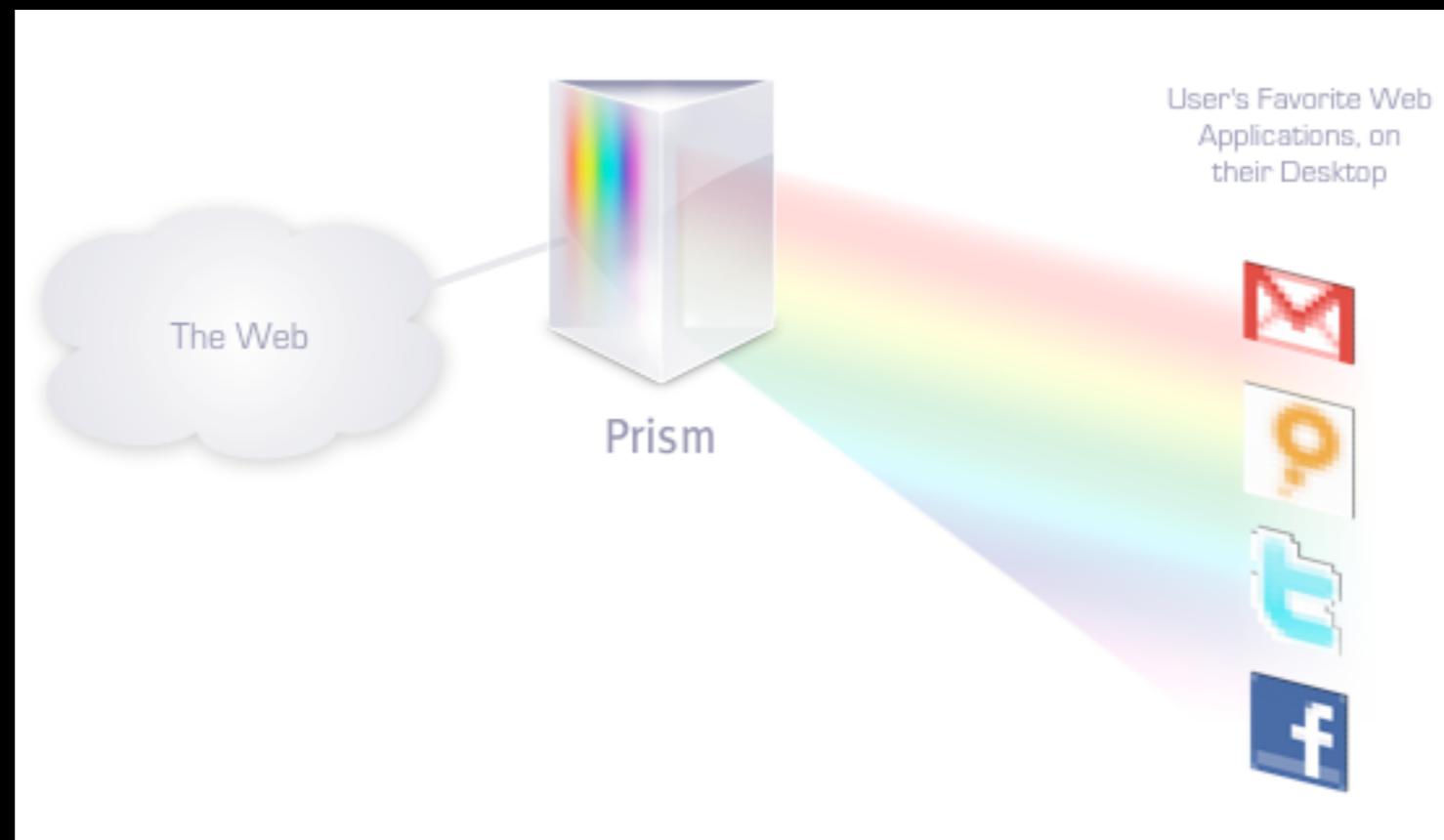
Labs: Prism

- Turn web applications into desktop apps
- Same Gecko 1.9 as Firefox 3
- Separate runtime
- Offline support
- Best for frequently used web apps



Prism

Labs: Prism



Labs: Snowl



- Support for messaging in the browser
- To “help you participate in online discussions”
- First prototype supports RSS/Atom & Twitter
- 3-pane view or “river of news”
- Support for searching of your messages
-



Labs: Snowl

4 Good Things About \$4 Per Gallon Gas - Gran Paradiso

File Edit View History Bookmarks Tools Help

← → ⌛ ⌄ ⌅ chrome://snowl/content/message/message.xul?id=... Google

Most Visited Smart Bookmarks Getting Started Latest Headlines River View

Snowl

All
Bernie Zimmermann
Browsersphere
Calendar Swamp
Comments on: Ex...
Competitive Brows...
Cops and Courts
Labs Forum
Mozilla Developer ...
Myk's Hacking Blog
National Motorists ...
Planet Mozilla
Planet WebKit
zine's notblog*
chatzilla.rdmsoft.c...
dmose
millennium | ten
Al
Aleksander
Alp Toker
Anant
Ben
Benjamin Meyer
Bernie Zimmermann
Brandon LeBlanc

Author	Subject	Date
Aleksander	File I/O, Video, 3D Canvas - all in one ...	07/18/2008 03:09 ...
John Gruber	★ WebKit Performance on iPhone OS ...	07/20/2008 06:27 ...
Myk	snowl: progress on new collection ar...	07/20/2008 07:14 ...
NMA	Opera Mini brings the Web to Meridi...	07/21/2008 03:00 ...
NMA	4 Good Things About \$4 Per Gallon Gas	07/21/2008 10:45 AM

Author: NMA
Subject: 4 Good Things About \$4 Per Gallon Gas
Date: 07/21/2008 10:45 AM
Link: <http://feeds.feedburner.com/~r/motoristsblog/~3/341739530/>



By Eric Peters, Automotive Columnist

There's a bright side to almost everything, right? Even \$4 per gallon fuel.

Labs: Snowl



Snowl: River of Messages - Gran Paradiso

File Edit View History Bookmarks Tools Help

chrome://snowl/content/river.xul?body&collection=1

Most Visited Smart Bookmarks Getting Started Latest Headlines River View

landed jemalloc as the applications memory allocator

As always, please file any issues, bugs, or crashes you find in [Bugzilla](#) so that we can address them before 0.7 final!

Deb Richardson: Escaping Whistler
dria - Fri 05:52 PM

Posted some shots of our post-[Summit](#) fun-but-not-wholly-successful adventure over on Flickr: [Escaping Whistler](#). We all had to move our flights. We all *almost* had to move our flights twice. I'm stuck

in Vancouver 'til tomorrow, but that's ok. More (and properly processed) pics to come after I get home.

Update! [Rob has posted some pictures, too.](#)



Shawn Wilsher: More on fsync
Shawn Wilsher - Fri 09:40 PM

You know that "fun" [fsync](#)

[bug](#) we had with Firefox 3 that primarily hurt Linux? Well, turns out that it also hurts us with applications on solid state drives (like, [Portable Firefox](#)), which makes it even more "fun". For Firefox 3, we checked in a patch that allows for people to change the default [synchronous setting that SQLite uses](#) when a database connection is opened. This was really just a stopgap measure. I've spent the last month coming up with real solutions to the problem, and I think I've finally got one that will greatly help the issue, and not regress our current

Done

Snowl: Rive

Labs: Ubiquity

- Combine power of command line with GUI
- Text-based commands to interact with web
- Completely customizable

Labs: Ubiquity

we| You can now see a preview of the weather report page on Wunderground.com.

weather Mountain View, California
weather (*location*)

 Doing Commands on Se 73° Often the thing you're interested in looking at. Why go to the trouble? Clear Wind: N at 5 mph Mountain View Humidity: 61%

wikipedia babel fish

W wikipedia babel fish

Wikipedia articles found matching **babel fish**:

Babel fish
The Babel fish is a fictional species in *The Hitchhiker's Guide to the Galaxy* series by Douglas Adams.

Babel Fish (website)
 Babel Fish is a web-based application on Yahoo! that machine translates text or web pages from one of several languages into another. Developed by AltaVista, the application is named after the fictional animal used for instantaneous language translation in Douglas Adams's series *The Hitchhiker's Guide to the Galaxy*. In turn the fish is a reference to the biblical account of the city of Babel and the various languages said to have arisen there.

Babel Fish (band)
Babel Fish are a Norwegian pop rock band from Oslo formed in the late 1980s. The band's members are Tarjei van Ravens (vocals, guitar), Halvor Holter (keyboards, vocals), Odd Jensen (drums), and Simon Malm (bass), the first three as co-founders.

Babel (disambiguation)
Babel is the name used in the Hebrew Bible for the city of Babylon. The Babil Governorate in Iraq (named after Babylon) is sometimes transliterated as "Babel".

a multilingual free encyclopedia
Wiktionary [wɪkʃənərɪ] n.,
a wiki-based Open Content dictionary
Wiktionary logo

Tower of Babel
 The Tower of Babel (Hebrew: מִדְבָּר בָּבֶל Midbar Bavel Arabic: برج بابل Burj Babil) is a structure featured in chapter 11 of the Book of Genesis, an enormous tower intended as the crowning achievement of the city of Babilu, the Akkadian name for Babylon. According to the biblical account, Babel was a city that united humanity, all speaking a single language and migrating from the east; it was the home city of the great king Nimrod, and the first city to be built after the Great Flood. The people decided their city should have a tower so immense that it would have "its top in the heavens." (לֹא תַּעֲשֵׂה כַּאֲשֶׁר עָשָׂה נָמָרֶד). However, the Tower of Babel was not built for the worship and praise of God, but was dedicated to the glory of man, with a motive of making a 'name' for the builders - Genesis 11:4. God seeing what the people were doing, confused their languages and scattered the people throughout the earth.

<http://labs.mozilla.com/>

Much more to come

- Use Mozilla; spread the word
- Participate locally (MozTW.org)
- Participate globally (Mozilla)
- Contribute, file bugs, test

Thank you very much!

gen@mozilla.com