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RustNL 2023



Servo

- New browser engine created at Mozilla Research in 2012
- Now part of the Linux Foundation
- Written from the ground-up in Rust
- Components of Servo are core pieces of Firefox

commit ce30d4520d67f2c6ef960571a9b3e450c5dcbebe

Author: Dave Herman <dherman@mozilla.com>

Date: Wed Feb 8 11:29:12 2012 -0800

initial add

• Firefox: 1997

• Firefox: 1997

• Chrome: 2008

• Firefox: 1997

• Chrome: 2008

• WebKit: 2005

Firefox: 1997

Chrome: 2008

WebKit: 2005

• KHTML: 1998

The software we use to access the web is 25 years old.

- Process separation
- GPU rendering
- Layout parallelism
- Memory safety



Process separation

• GPU rendering

Layout parallelism

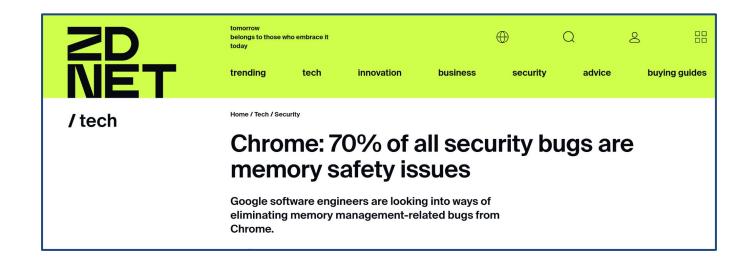
Memory safety

How do these compare

to modern web

engines?

- Process separation (widely available)
- GPU rendering (widely available)
- Layout parallelism (\(\sqrt{} \) planned)
- Memory safety (a fantasy)



- Layout parallelism
- Memory safety
- Focus on lightweight embeddable web engine
- Accessible testbed for new techniques

Building Web Engines in 2023

- Web platform is bigger and more complex
- Fewer browser engines
- Standards more complete
- Massive amount of tests (Web Platform Tests, etc)

Goals

- Reduce friction for new contributors
 - Better documentation
 - Work on code health and simplicity
- Adapt layout for fragmentation (lines, columns, pages)
- Back to the basics: <iframe>, navigation, DOM, embedding

Get Involved

- <u>Try</u> Servo
- Join the **Zulip**
- File a bug and work on features
- Submit a pull request on <u>GitHub</u>

Thank you!