Embedding Servo

Combination of:

- Architectures
- GPU
- Languages
- Distribution (Toolkits/Frameworks/Packaging)

Abstraction layer:

- **servo crate**: limited to pure Rust, (Rust structs and channels). *components/servo*

- **simpleservo**: wrapper around servo crate. C API, simple callbacks mechanism. *ports/libsimpleservo*

- **servoview**: wrapper around simpleservo. Includes platforms specific initialization code, events translation and hooks. *supports/*

Targets

- CPUs: x64 (Windows, Linux, Mac), ARM, Windows/UWP
- GPU: OpenGL 3.2, GLES 3.0, D3D via mozangle/MSAngle
- Languages: Rust, C/C++, Java, C#
- Distribution:
  - C library (.so + .h). ARM + x64
  - Rust crate (not on crates.io yet)
  - Android package (.aar via Maven)
  - WIP: NuGet package

How to embed Servo

- Provide an OpenGL/EGL buffer and associated functions (swap_buffers and make_present)
- "Execute in GL Thread" callback
- Provide dependencies (gstreamer and openssl)
- Platform eventloop integration
- Translate platform events to servo events
- Optional: Provide a rust-webvr backend

Challenges

- As API gets more complex, the C API gets less "flat and simple"
- Single compositor assumption
- startup needs to happen in the GL thread
- Interaction with content
- Immersive Mode
- Drop Glutin port: use libsimpleservo on Desktop, build native apps, introduce tabs (that we actually support) and multi windows

https://duckduckgo.com/html/?q=rust%20lang

Servo Blog | Example Domain | rust lang at DuckDuckGo

rust lang

Rust (programming language)

Rust is a systems programming language sponsored by Mozilla Research. It is designed to be a "safe, concurrent, practical language", supporting functional and imperative-procedural paradigms. Rust is syntactically similar to C++, but is designed for better memory safety while maintaining performance. More at Wikipedia

Including results for rust **language**.

Search only for rust "lang"?

https://servo.org/ **Rust** Programming Language

- Or, introduce chrome/content WR documents for a full HTML UI

Servo, the parallel browser engine - Servo

about:blank | Servo, the paralle…

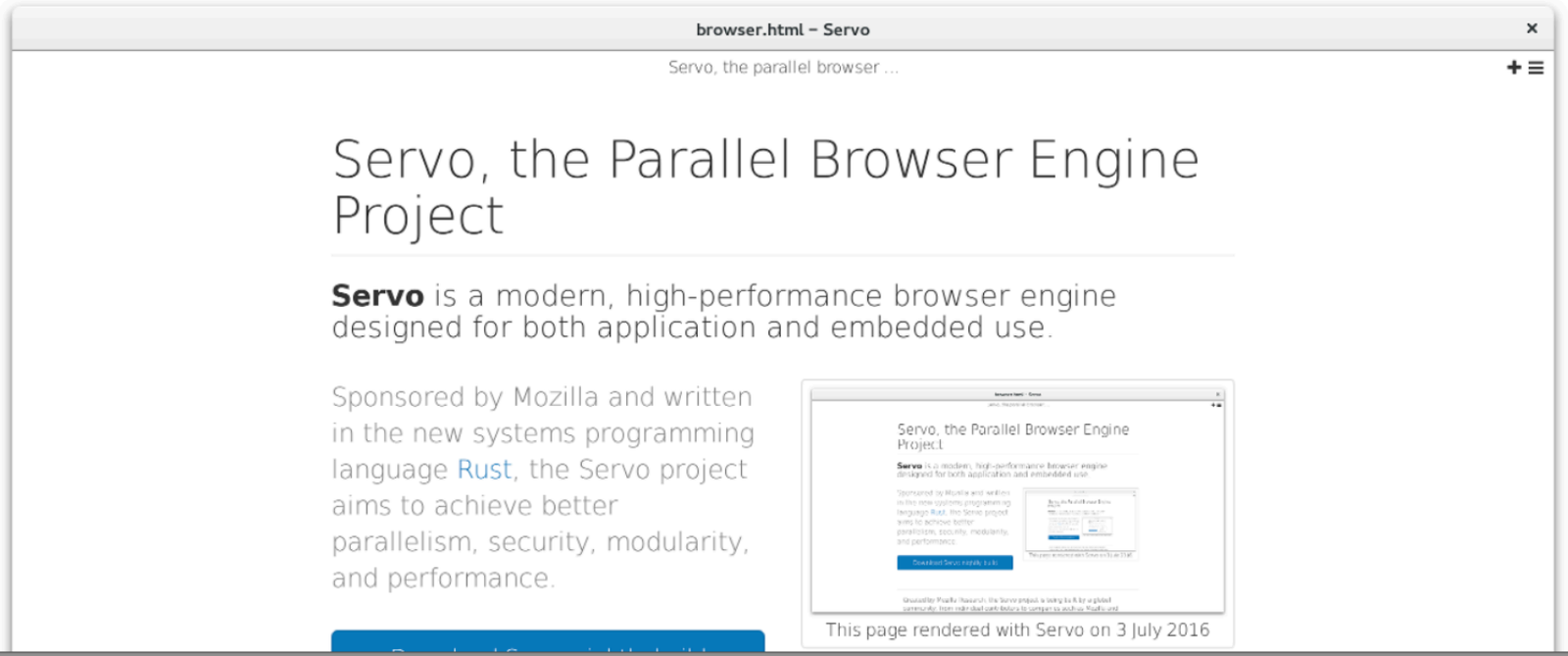
← → ↻ https://servo.org

Servo, the Parallel Browser Engine Project

Servo is a modern, high-performance browser engine designed for both application and embedded use.

Sponsored by Mozilla and written in the new systems programming language Rust, the Servo project aims to achieve better parallelism, security, modularity, and performance.

Download Servo nightly build



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