

MAY 2021 WPE ROADMAP

May 2021 - Web Engines Hackfest



INTRODUCTION

GRAPHICS (1/2)

- Initial prototype of the new graphics pipeline, we have a new 2D rendering library based on OpenGL ES 2 and we plan to try to apply it to the WPE port
- ANGLE support for WebGL (WebGL 2)
- GPU Process implementation

GRAPHICS (2/2)

- Continue improving the scrolling code:
 - review the correctness of the animations
 - general gardening and test fixing
 - animation architecture review...
- OpenGL ES 3 support

COG

- Optional basic user interface:
 - URL entry
 - Back/forward/stop/reload buttons
 - Load indicator
- Multiple web views
- Support EGLStream exports
- DRM: Support proprietary Vivante driver
- X11/GTK4: Support SHM exports
- Documentation

STANDARDS

- OffscreenCanvas
- Accelerated SVG rendering, unify SVG rendering pipeline with HTML
- WebXR prototype
- HTML interactive form validation
- WebSpeech

NETWORKING

- Release a version using libsoup3
- Finish HTTP/2 support
- Implement TLS client authentication, and smart card support
- Certificate revocation support

JSC

- Improved hardware for ARMv7 and MIPS (upcoming)
- Improved testing software
- Performance improvements: PIC support in LLInt
- WebAssembly 32-bit support
 - Refactored codebase to enable different tiers at compile time
 - LLInt support in progress
 - Next: B3/Air tier, with FTL for JS as a long-term option

MULTIMEDIA

- MediaRecorder support
- `libwebrtc` backend
 - Support High & Main H.264 profiles
 - Enable VP9 and H.265 encoders
- New MSE `playbin3`-powered backend
- Multi-track support in MSE
- GStreamer backend for WebRTC

QA (1/2)

- Deploy an EWS non-unified build bot
- Deploy a WPE security bot (address- and thread sanitizer)
- Add fuzzers to our testing infrastructure
- Deploy EWS bot that runs layout tests
- Deploys a EWS GTK WebDriver bot
- Improve <https://browserperfdash.igalia.com> and the procedure around it
- Deploy WPE build & test bots for ARM64 arch

QA (2/2)





WPE ON ANDROID

- Release a prototype
- Work in missing pieces: multimedia support



Q&A

THANKS!