

WebKit-powered HTML overlays in your pipeline with GstWPE

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Lyon



HTML overlay use-cases (1)



HTML overlay use-cases (2)



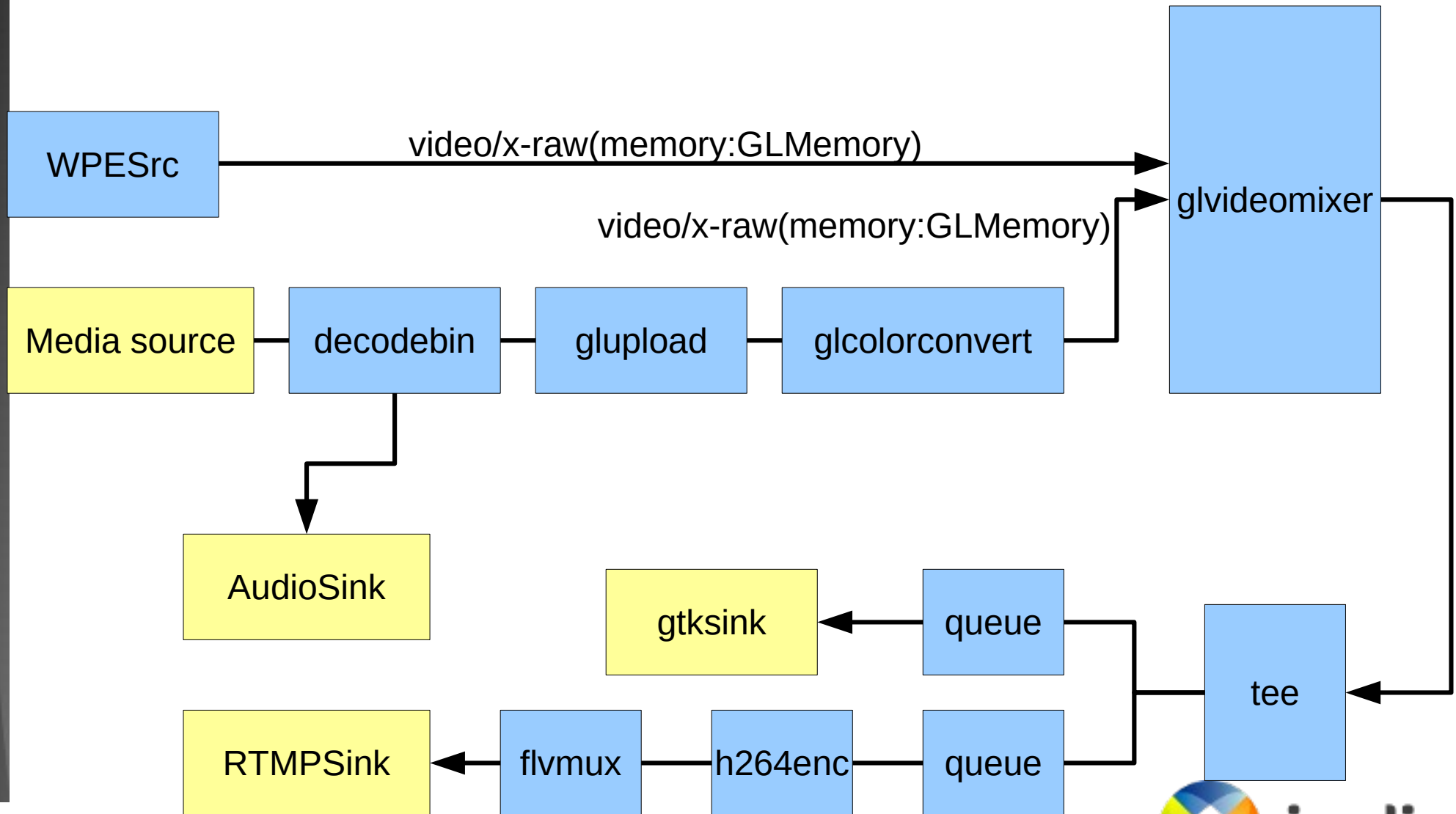
WPE, WebKit Embedded

- Web-engine based on WebKit, tailored for a wide range embedded devices
- 6 months release cycle synchronized with WebKitGTK, including security updates
- No dependency on any UI toolkit library
- Application in charge of rendering of composited WebPage representation

GstWPE

- EGLDisplay and EGLContext shared from downstream element(s)
- WPEBackend-FDO exportable object created for shared EGLDisplay
- **wpesrc** creates a WPE WebView
- EGLImages provided by WPEBackend-FDO wrapped into GstEGLImages for shared EGLContext
- GstEGLImages inserted into GstGLMemory and pushed to source pad towards downstream element
- First shipped in gst-plugins-bad 1.16 !

Video mixing with GstWPE



Ongoing work

- Improved input events support : In progress
- Gitlab CI integration tests
- Audio support
 - Unified audio renderer for WebKit
 - New Audio capture API for WPEBackend-fdo
 - Audio source pad for the wpesrc element

Come see our demo!

The image displays a desktop environment with three main windows:

- Terminal Window:** Shows the execution of a Rust project. The command `cargo run --release` is run in the directory `~/d/r/gst-wpe-broadcast-demo`. The output indicates a successful build and execution of the `gst-wpe-broadcast-demo` target.
- Video Player Window:** Displays a video titled "HTML Video overlay in GStreamer with WPEWebKit". The video content shows a man's face with a rolling news ticker at the bottom. The ticker text includes: "Igalia is 18 years old!", "Let us celebrate!", and "This demo will be shown at the GStreamer conference".
- Twitch Stream Window:** Shows a live stream of the same video content. The stream title is "HTML Video overlay in GStreamer with WPEWebKit". The chat area on the right shows a "Welcome to the chat room!" message.

The video player and Twitch stream both show a rolling news ticker at the bottom of the screen, which is styled and animated with CSS. The ticker text includes: "Igalia is 18 years old!", "Let us celebrate!", and "This demo will be shown at the GStreamer conference".



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