





State of the $\{\text{kit}\}$

(kit=WebKitGTK+)

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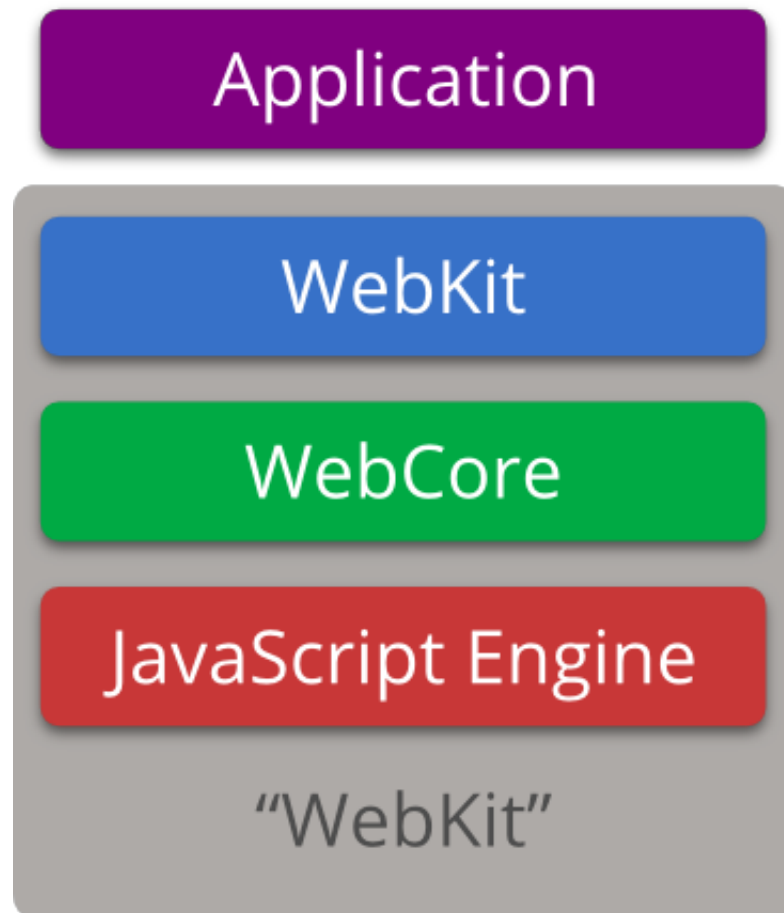




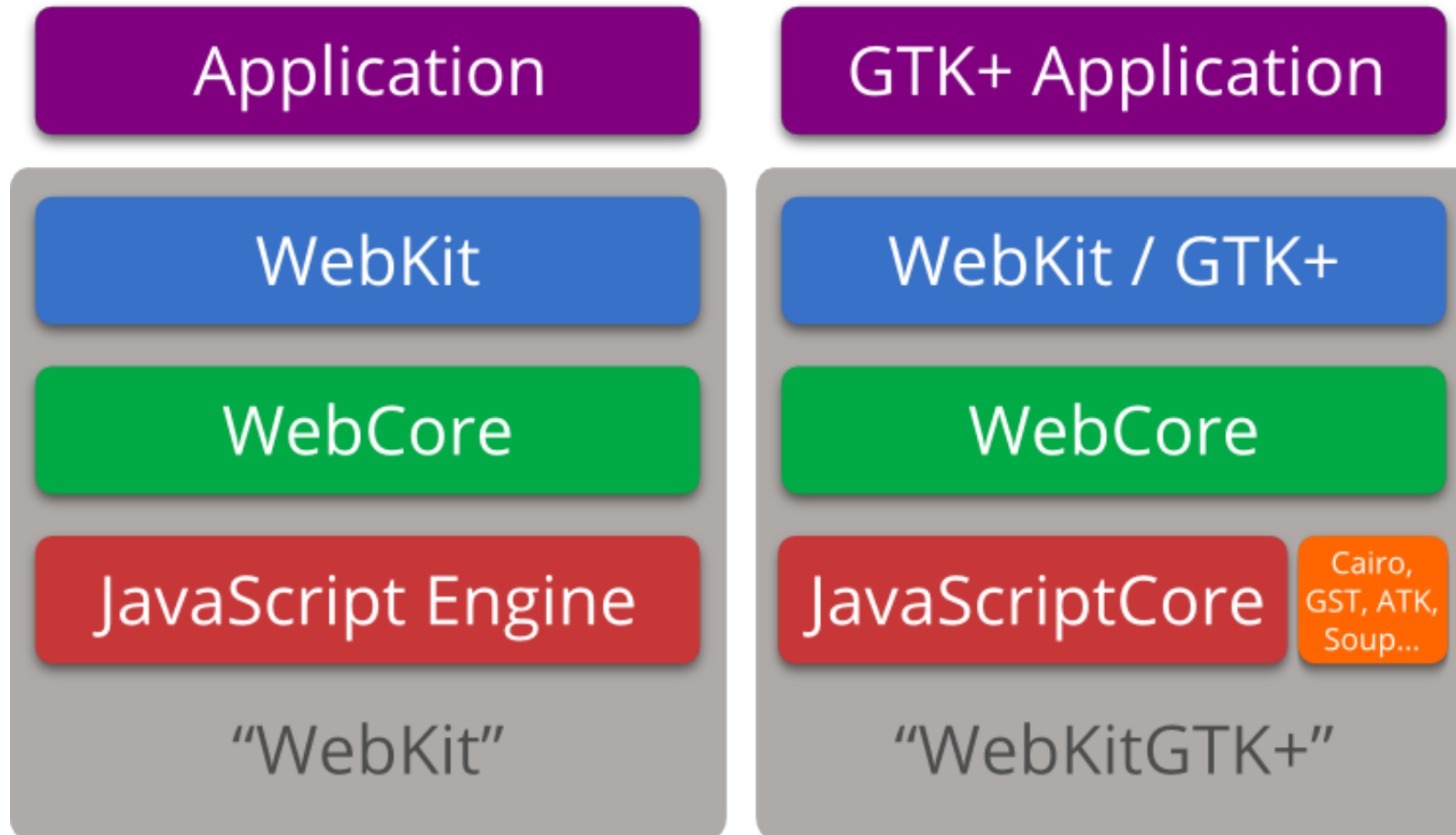
WebKit Basics

Includes WebKitGTK+

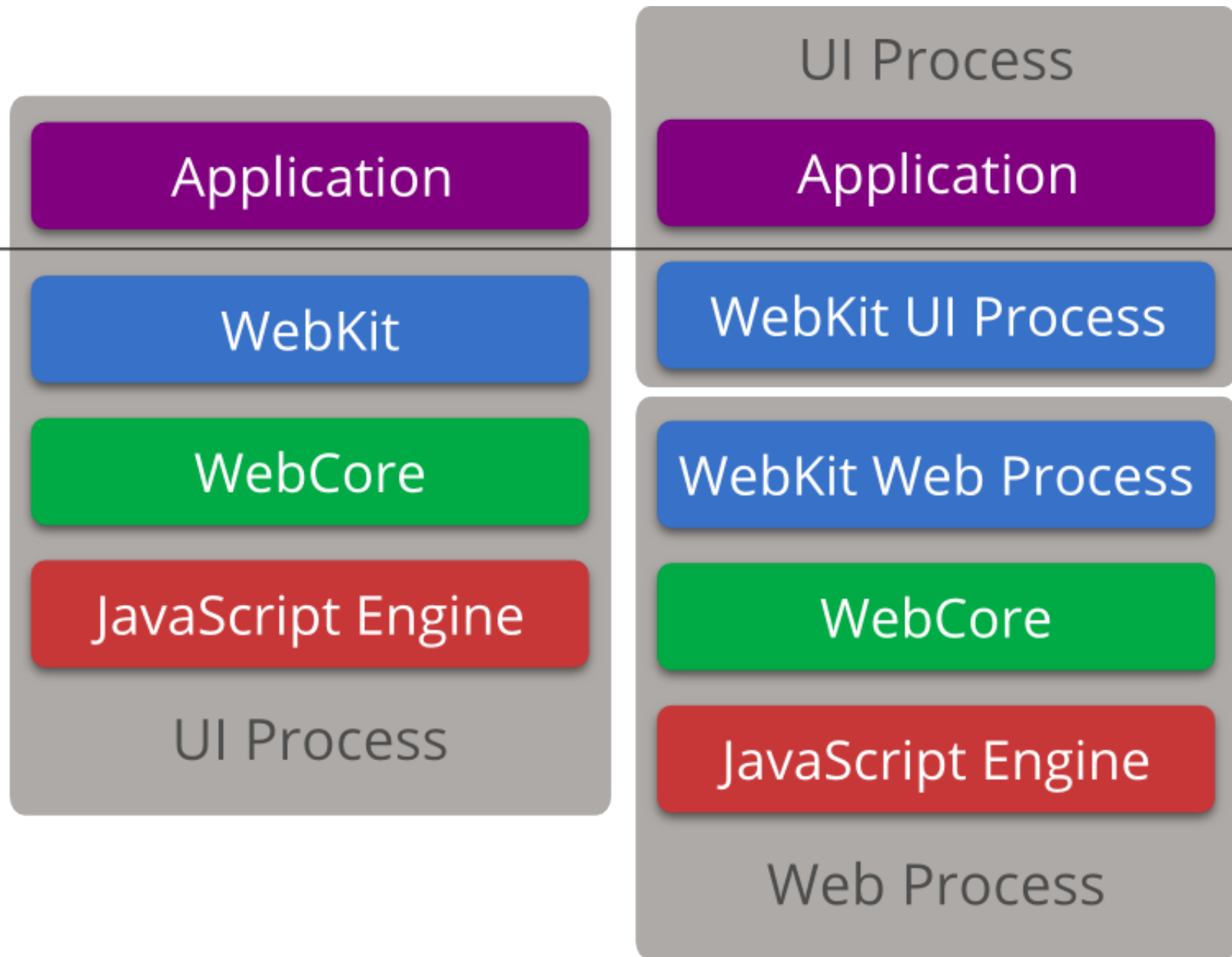
What is WebKit?



What is WebKitGTK+?



What is WebKit2?



Who is using it?



Previously on WebKitGTK+...

Stable release 1.10.x

- Now enabled by default:
 - Geolocation
 - WebGL
 - Web Timing
- New features:
 - Accelerated compositing
 - Smooth scrolling
 - Full-screen mode
 - HTML5 History API
 - WebAudio
 - JSC LLint
- Boatloads of bugfixes.
- WebKit2GTK+ API augmented, nearing stabilization:
 - To happen with GNOME 3.8, including Epiphany.
 - WebKit1GTK+ API will still be maintained for a while.

WebKit2 now

State of the art

- WebKit2 announced in April 2010
- Apple has released Safari using it
- Cross-platform internal C API exists
- ~~One~~ Two Qt browsers out there in the wild
 - N9 browser: uses the C API
 - Snowshoe: uses Qt5
- WebKitGTK+ is the next to have support 😊

So... How's WebKit2GTK+ doing?

The evil is in the details

Doing nicely:

- The basics have been working for quite a while
- Most of the small details are already in place as of 1.10:
 - Context menus
 - Web inspector
 - Favicons
 - On-disk cache
 - Spell checking
 - Printing support
 - Documentation, GI annotations...



WebKit2 changes

(For developers)

WebKit1GTK+

Goal: same API for WebKit1GTK+ and WebKit2GTK+

```
GtkWidget *wkt = webkit_web_view_new ();
WebKitWebSettings *settings = webkit_web_view_get_settings (WEBKIT_WEB_VIEW (wkt))
/* Configure using the the "settings" object */
GtkWidget *win = gtk_window_new (GTK_WINDOW_TOPLEVEL);
gtk_container_add (GTK_CONTAINER (win), wkt);
webkit_web_view_load_uri (WEBKIT_WEB_VIEW (wkt), "http://fosdem.org");
gtk_widget_show_all (win);
gtk_main ();
```

C

WebKit2GTK+

Goal: same API for WebKit1GTK+ and WebKit2GTK+

```
GtkWidget *wkt = webkit_web_view_new ();
WebKitSettings *settings = webkit_web_view_get_settings (WEBKIT_WEB_VIEW (wkt))
/* Configure using the the "settings" object */
GtkWidget *win = gtk_window_new (GTK_WINDOW_TOPLEVEL);
gtk_container_add (GTK_CONTAINER (win), wkt);
webkit_web_view_load_uri (WEBKIT_WEB_VIEW (wkt), "http://fosdem.org");
gtk_widget_show_all (win);
gtk_main ();
```

C

- There are some changes, though!
- For simple uses changes are none or minimal
- Start porting your application now!

Differences are small(-ish)

- Some classes renamed (mostly removing “Web”):
 - `WebKitWebSettings` → `WebKitSettings`
 - `WebKitWebPlugin` → `WebKitPlugin`
 - `WebKitWebHistoryItem` → `WebKitBackForwardListItem`
 - ...
- Some new classes (mostly new features):
 - `WebKitContextMenu`
 - `WebKitSecurityManager`
 - ...
- Some classes gone away (no longer needed, or missing):
 - `WebKitWebPluginDatabase`
 - `WebKitWebFrame`
 - ...



What next?

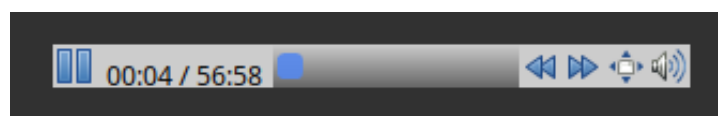
A sneak peek

To the future... and beyond

Slicker media controls



New media controls



Old media controls

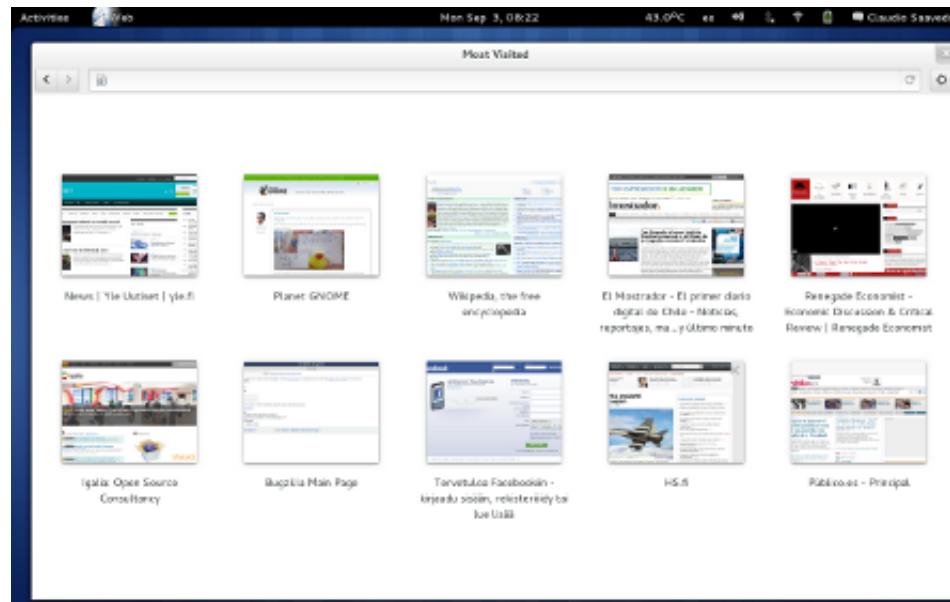
To the future... and beyond

WebKitGTK+ on Wayland with WebGL



To the future... and beyond

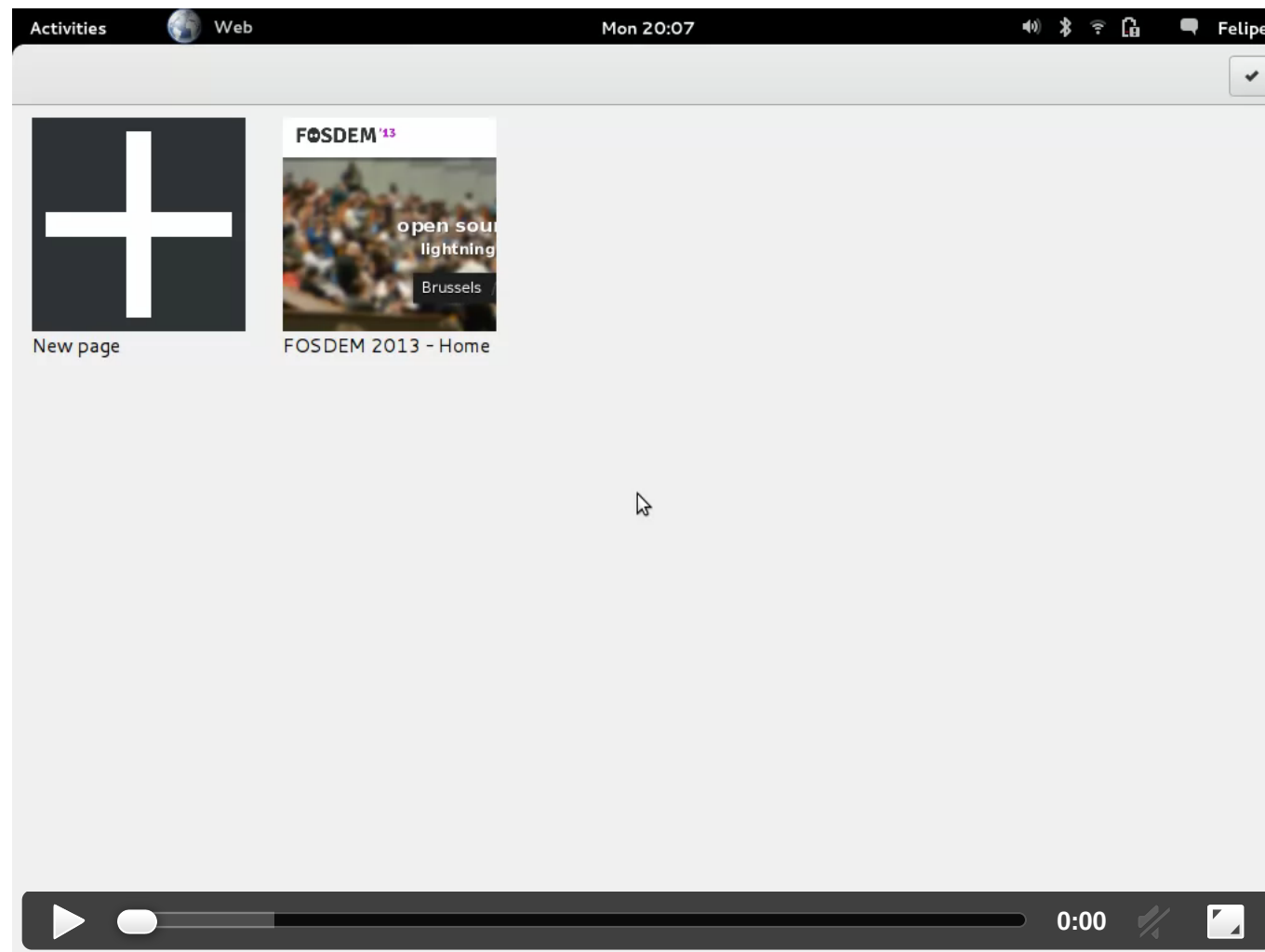
Epiphany overview



Epiphany overview

To the future... and beyond

Epiphany “UXperiments”



To the future... and beyond

And more!

- Text rendering with Harfbuzz
- GObject Introspection for WebKit2GTK+
- GStreamer 1.0 for multimedia
- HW accelerated video rendering
- WebP and Opus support
- Native notifications
- Web applications
- Print preview
- Win32 (printing, IPC, etc.)
- ...
- `#{FEATURE}`



Wrapping up

Conclusions, everybody ♥ these

Conclusions

tl;dr

- Mature port, widely used
- Released regularly, every ~6 months
- Well maintained
- Useable for developing serious browsers
- Scales from desktop to embedded
- WebKit2GTK+ API nearing completion, stabilization approaching
 - Beta since 3.6
 - Epiphany adopting it for 3.8
- WebKit1GTK+ API still being maintained
 - New features and improvements for WebKit2GTK+ first

Contributing

Every single bit matters

- bugs.webkit.org
- webkitgtk.org
- webkit.org
- Mailing lists:
 - `webkit-gtk@lists.webkit.org`
 - `webkit-dev@lists.webkit.org`
- IRC channels on `irc.freenode.net`:
 - `#webkitgtk+`
 - `#webkit`



Thank You!

...and enjoy the rest of FOSDEM

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