

The  GNOME™ Conference
GUATEC

GLib: What's new and what's next?

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Endless Mobile

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Overview of the last year

- 🐾 Covering releases 2.55.0 to 2.57.x
- 🐾 2017-11-05 to today

Overview of the last year

Meson migration: feature parity

Overview of the last year

Move to GitLab brings easier contributions
(since May 2018)

Overview of the last year

GitLab CI means much better cross-platform support
(since 2.56.0)

Overview of the last year

CI code coverage means incrementally better testing
(since 2.57.1)

Overview of the last year

75 documentation fixes

Overview of the last year

Oldest bug fixed: Bug 111848 — function to canonicalize file names
(JFDled by Georges Basile Stavrakas Neto!)

Overview of the last year

Current code review delay: about 2 hours

Overview of the last year

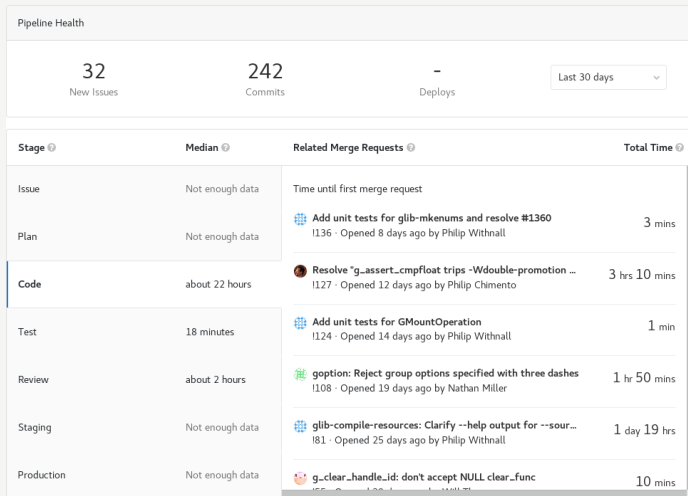


Figure: GitLab cycle analytics (via GitLab, as of 2018-07-03)

Overview of the last year

We dropped Perl!
(Thanks Emmanuele and Christoph!)

Various new APIs

- 🐾 `g_clear_handle_id()` (Cosimo Cecchi)
- 🐾 `g_file_load_bytes()` (Christian Hergert)
- 🐾 `g_date_time_new_from_iso8601()` (Robert Ancell)
- 🐾 `g_file_new_build_filename()` (Cosimo Cecchi)
- 🐾 `g_file_peek_path()` (Colin Walters)
- 🐾 `g_time_zone_get_identifier()`, `g_date_time_get_timezone()` (Philip Withnall)
- 🐾 `g_hash_table_steal_extended()` (Philip Withnall)
- 🐾 `g_ptr_array_steal_index*()` (Philip Withnall)
- 🐾 `G_APPROX_VALUE`, `g_assert_cmpfloat_with_epsilon()` (Emmanuele Bassi)
- 🐾 `g_ref_count_*()`, `g_atomic_ref_count_*()` (Emmanuele Bassi)

Bigger changes

- 🐾 Numerous OS X content type fixes (Ryan Schmidt, Friedrich Beckmann, Patrick Griffis)
- 🐾 Static linking support for GIO modules (Xavier Claessens)
- 🐾 Various typeof() fixes (Christian Hergert)
- 🐾 Windows network monitor (Jan-Michael Brummer)
- 🐾 GBytes performance improvements when slicing (Christian Hergert)
- 🐾 Nominative case month names (Rafal Luzynski)
- 🐾 Splice performance improvements (Andrés Souto)
- 🐾 kqueue file monitor fixes (Martin Pieuchot, Ting-Wei Lan)

Bigger changes

- 🐾 `get_type()` performance improvements (Christian Hergert)
- 🐾 Drop Visual Studio projects — we use Meson for building on Windows now (Chun-wei Fan)
- 🐾 Add interface generation mode to `gdbus-codegen` (Philip Withnall)
- 🐾 Bash completion for `gio` tool (Ondrej Holy)
- 🐾 `posix_spawn()` support (Daniel Drake)
- 🐾 Per-desktop overrides for GSettings schemas (Alberts Muktupāvels, Allison Lortie)
- 🐾 Android API level 28 support (Xavier Claessens)

Who's contributed?

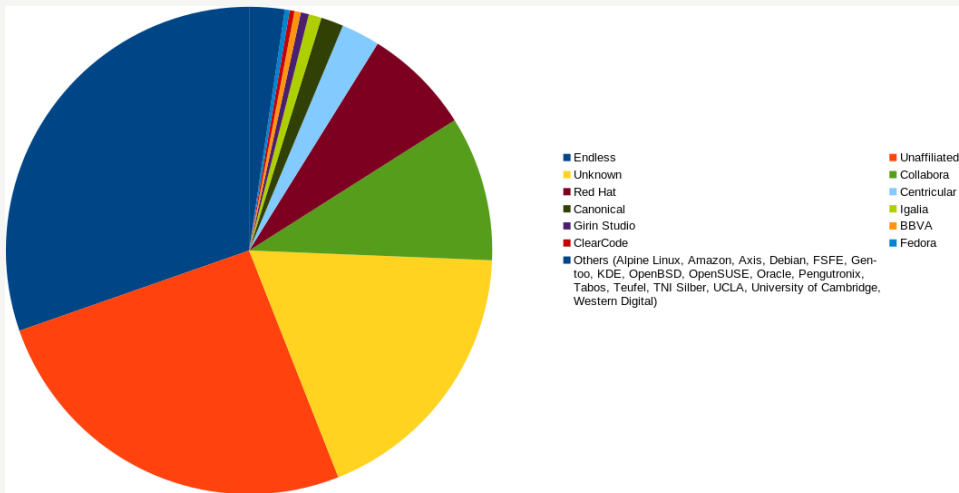


Figure: GLib contribution affiliation since 2.55.0 (29 affiliands, 936 commits, via git shortlog, as of 2018-07-03)

Development activity

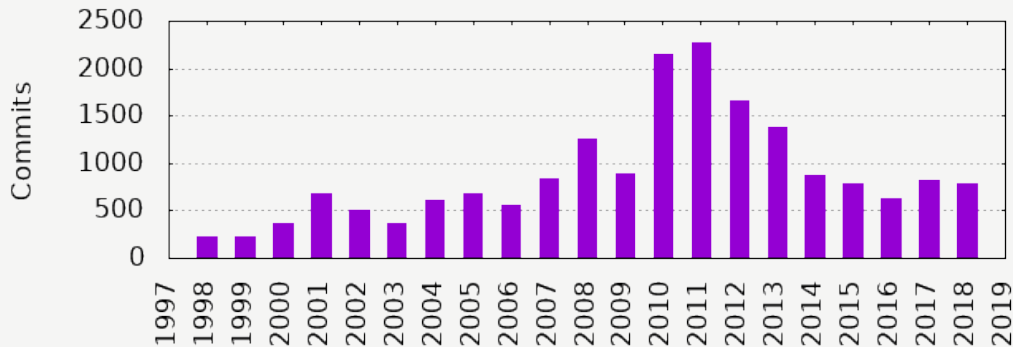


Figure: Commit count per year since 1998 (via gitstats, as of 2018-07-03)

Development activity

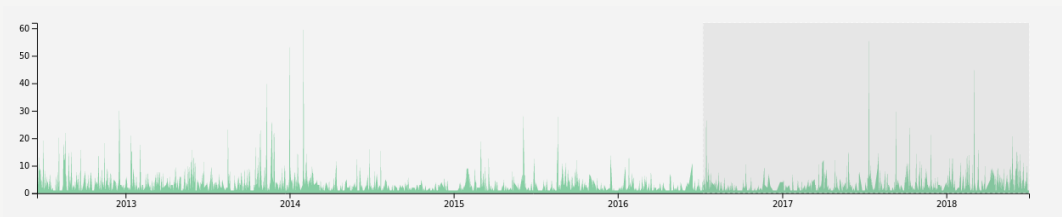


Figure: Commit count since 2013 (via GitLab, as of 2018-07-05)

Bug count before GitLab

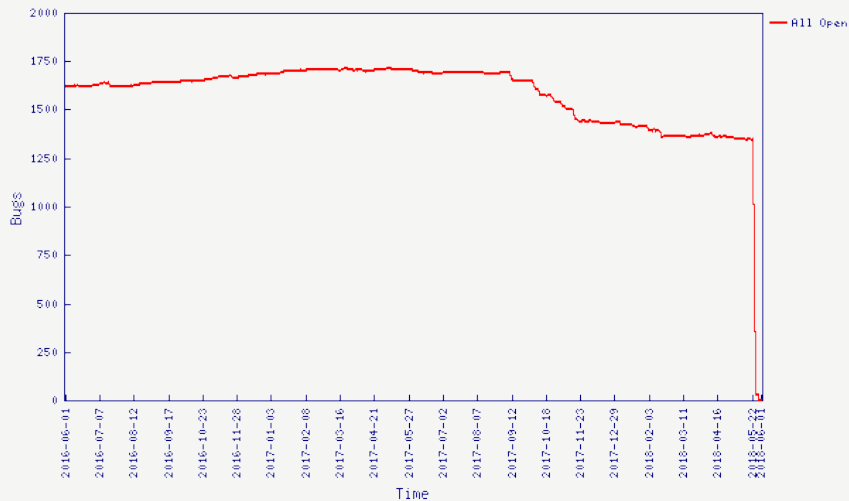


Figure: Open bug count on Bugzilla, as of 2018-07-05

CI charts

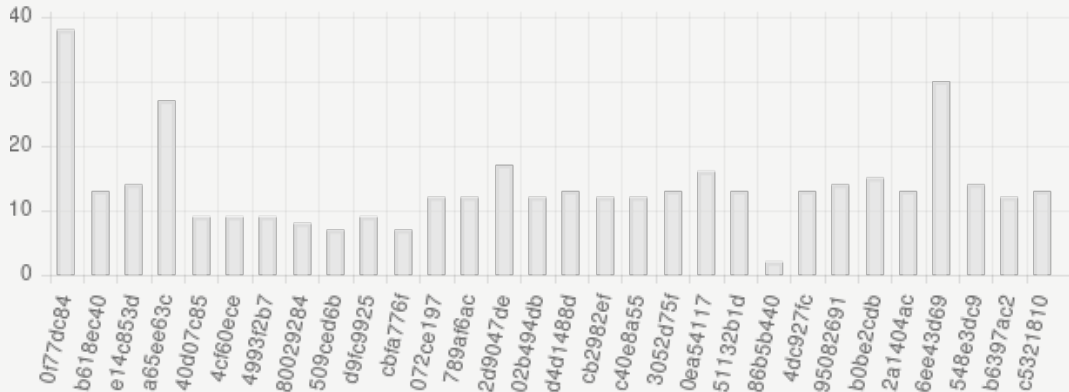


Figure: CI testing duration for the most recent 30 commits (via GitLab, as of 2018-07-05)

CI charts

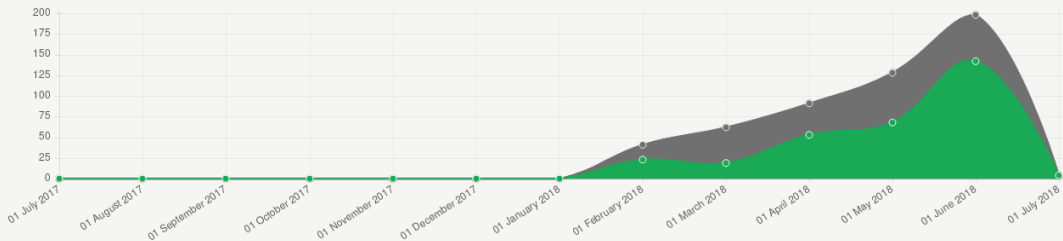


Figure: Successful (green) vs total CI pipelines in the last year (via GitLab, as of 2018-07-05)

What's next?

- 🐾 Planning will happen properly in the BoF, all day tomorrow, room 2
- 🐾 GError improvements? (Issue #14)
- 🐾 Improved I/O streams API? (Issue #1431)
- 🐾 Improved platform support; *BSD CI? (various issues)
- 🐾 Complete port to Meson ('Meson' label)
- 🐾 Dropping our Unicode tables? (Issue #1333)
- 🐾 Work out what to do with GSlice? (Issue #1079)
- 🐾 libglib-testing: Separate library with utilities for testing code which uses GLib

Meson timeline

- 🐾 2.57.2 release will be made with `ninja dist`
- 🐾 Distributions should still build with autotools (unless you want to dogfood early)
- 🐾 2.57.3+: we will recommend to build with Meson by default
 - 🐾 (i.e. autotools and Meson will be available in parallel for all 2.57.x and 2.58.x releases)
- 🐾 2.59.0+: autotools will be dropped upstream
- 🐾 Some platforms default to Meson already (Windows)

How do I get involved?

- 🐾 #gtk+ on irc.gnome.org
- 🐾 Pick up an issue on GitLab and play around with it — post comments with your progress or questions
- 🐾 Suggest new convenience API to us, after prototyping it in your project

Miscellany

Our home on GitLab <3 <https://gitlab.gnome.org/GNOME/glib/>

Come to the BoF Tomorrow (9th), all day in room 2

[libglib-testing](https://gitlab.gnome.org/pwithnall/libglib-testing) <https://gitlab.gnome.org/pwithnall/libglib-testing>



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Beamer theme: <https://gitlab.gnome.org/GNOME/presentation-templates/tree/master/GUADEC/2018>