

Infrastructure & Tooling

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Agenda

- Infrastructure
- CI & Testing
- Merged .so file
- Compiler plugin

Infrastructure

Infrastructure

- Raster is reworking our e5 server
- Moving things back from the backup e6 server from Beber
- Status: website, download, git & phab moved back
- The goal is a stable server we can control ourself
- More details by Raster

Infrastructure Future

- A move to Gitlab was praised
- We could run this on our revamped infrastructure
- We have to figure out many details first, though
- We need a clear view on what improvements we want / expect
- We need a clear migration plan
- We need to make sure that our history with phab prevails (e.g. old phab links map to imported tickets in Gitlab)

CI & Testing

CI Changes in 2019

- Quality assurance & continuous integration
 - Added windows cross building to our Travis CI
 - Added Coverity Scan builds to our Travis CI
 - Switched to meson-only builds
 - Improved build speeds significantly with caching
 - Work on exactness integration is still in progress
 - EFL spec test suite added
 - Reached 6800 builds on Travis

CI on Git push

- What happens when you push a change to e.org/efl.git?
 - A git hook on the server will push out the new changes to our GitHub mirror
 - GitHub notifies Travis CI on repo changes
 - Travis takes the latest change (all commits in one push, not individual commits) and starts a build with various jobs on it
 - 6 different jobs are running on each push
 - Native OSX build
 - Windows cross build with MinGW
 - Linux build with all options enabled
 - Linux build with all options disabled
 - Linux build with wayland options enabled (+ninja test, ninja install & external app header test)
 - Linux build with default options (+ninja test, ninja install & external app header test)
 - Depending on the available Travis resources such a build takes 20-30 minutes (OSX is the bottleneck)
 - Every developer can push to their devs/\$ID/ branches and check the results before putting things into phab
 - <https://travis-ci.org/Enlightenment/efl/>

CI as Daily Cron

- What else happens at our Travis CI?
 - We have a daily cron job running (~ 17:30 CEST, but Travis is not strict on this time)
 - The cron job runs only for master and takes the current HEAD of master at the time the job starts
 - In addition to the 6 jobs we have for every build the cron jobs add 5 more jobs
 - A release ready job which runs a full ninja dist
 - 3 Linux distro builds (Ubuntu latest, Ubuntu LTS, Debian)
 - Coverity Scan run and upload for analysis (long running job, > 40 minutes)
 - The full cron build can take up to 90 minutes to finish

Testing

- EFL testsuite (unit tests + spec validation tests)
- C# testsuite in progress to get enabled
- Build job with enabled address sanitizer in review
- Daily Coverity Scan run with mail out of new static analysis report
- Lgtm.com running on github mirror daily now

Outlook

- Exactness integration into CI
- 32bit docker images for testing
- Hookup Travis builds for phab differentials in progress (flups)
- Native Windows compilation on Travis?

Discussions

- Is there trouble people having with TravisCI?
- Should we disable IRC notifications? (we can only have it on for all branches or none)
- Coverity and build break mails to e-devel?
- Integrate own run of ABI tracker? (the service works on tarball releases)

Merged .so Files

Merged .so Files

- Merge .so files you want into one big .so
- Marcel has done a proof of concept
- How to handle the complexity and maintenance?
- Do we have performance improvements?
(Linker and compiler optimizations, on disk space savings, reduced pages in memory, etc)

Compiler Plugin to speed up EO