



# EFL QA Statistics

EFL Developer Day 2014

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# Agenda



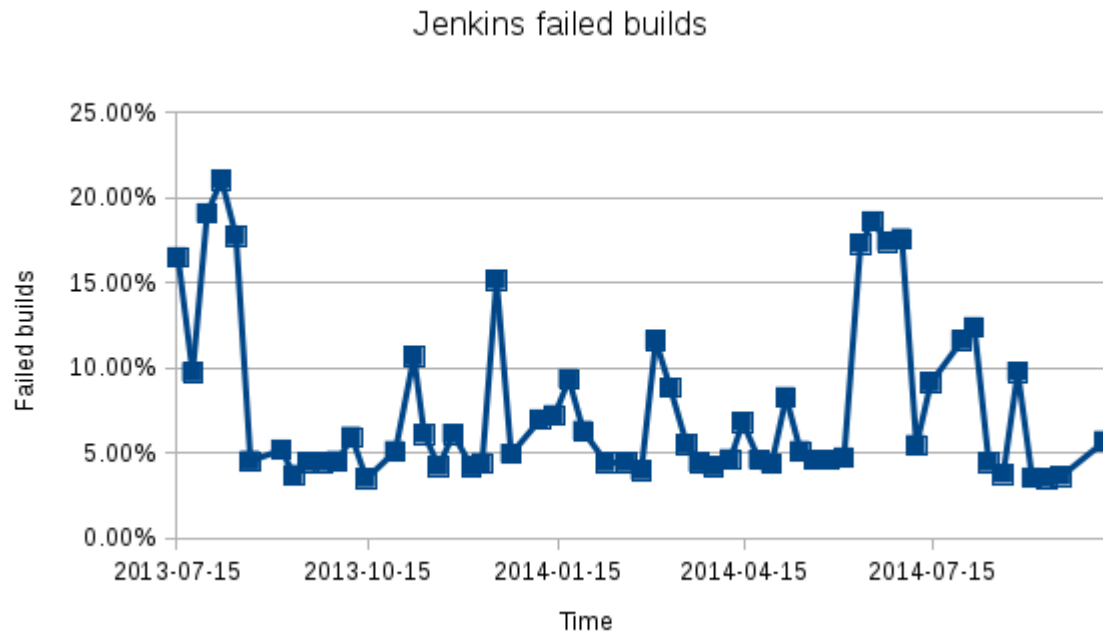
- Introduction
- Jenkins
- Coverity
- Clang Static Analyzer
- Unit Tests
- Phab Review
- Phab Bugs
- Miscellaneous
- Future

# Introduction



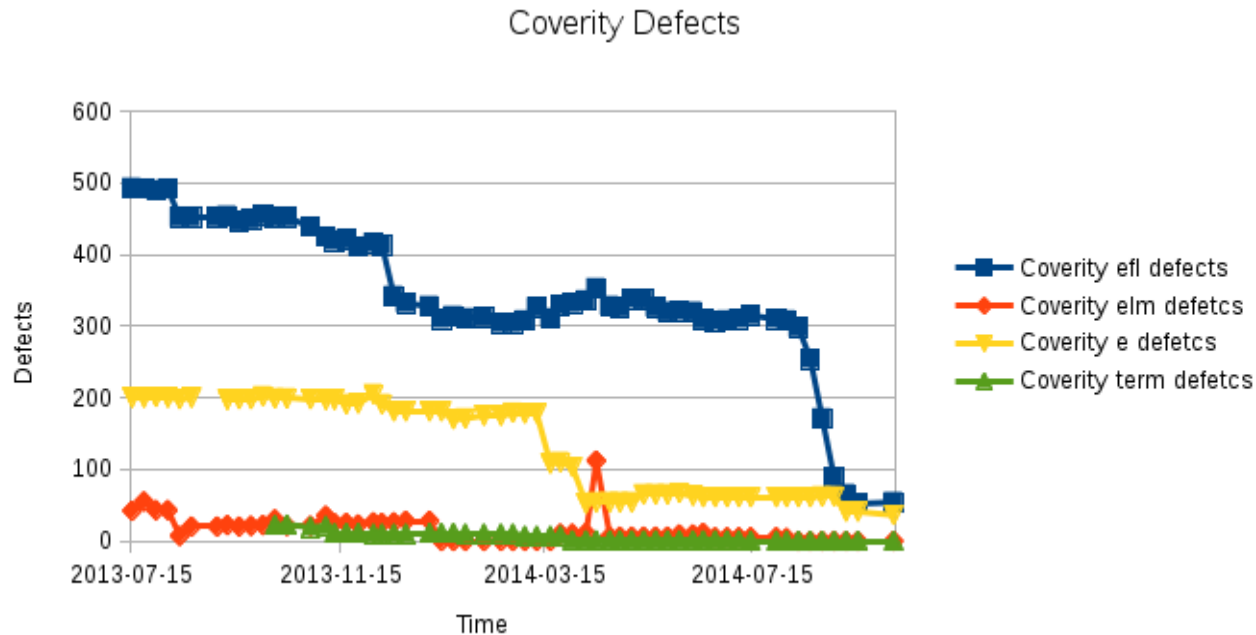
- Recording QA stats since 2013-07-15
- 15 months full of numbers might give some insights

# Jenkins



- Almost all our QA tools are triggered from Jenkins
- Jobs are running on every repository change and nightly
- Failure rates vary a lot

# Coverity

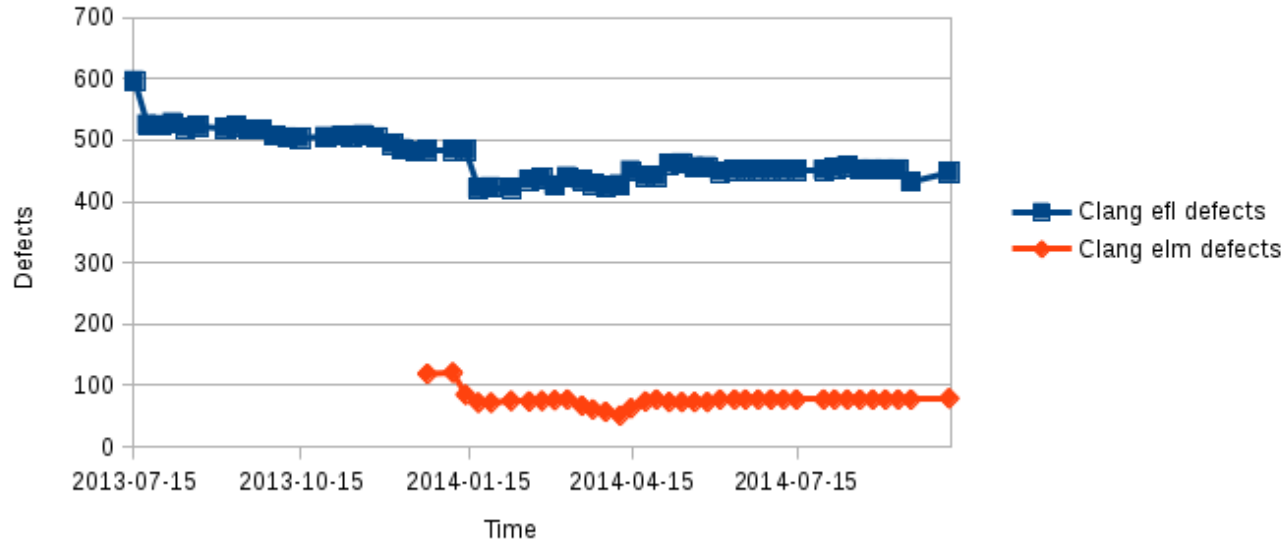


- Issue count got down lately due to Raster's Coverity addiction
- Elementary, Emotion generic players and Terminology already at 0
- Enlightenment, EFL and Evas generic loaders are not far away
- We should be able to bring them down to 0 for 1.12 or 1.13
- This will allow us to react only on newly created issues

# Clang Static Analyzer

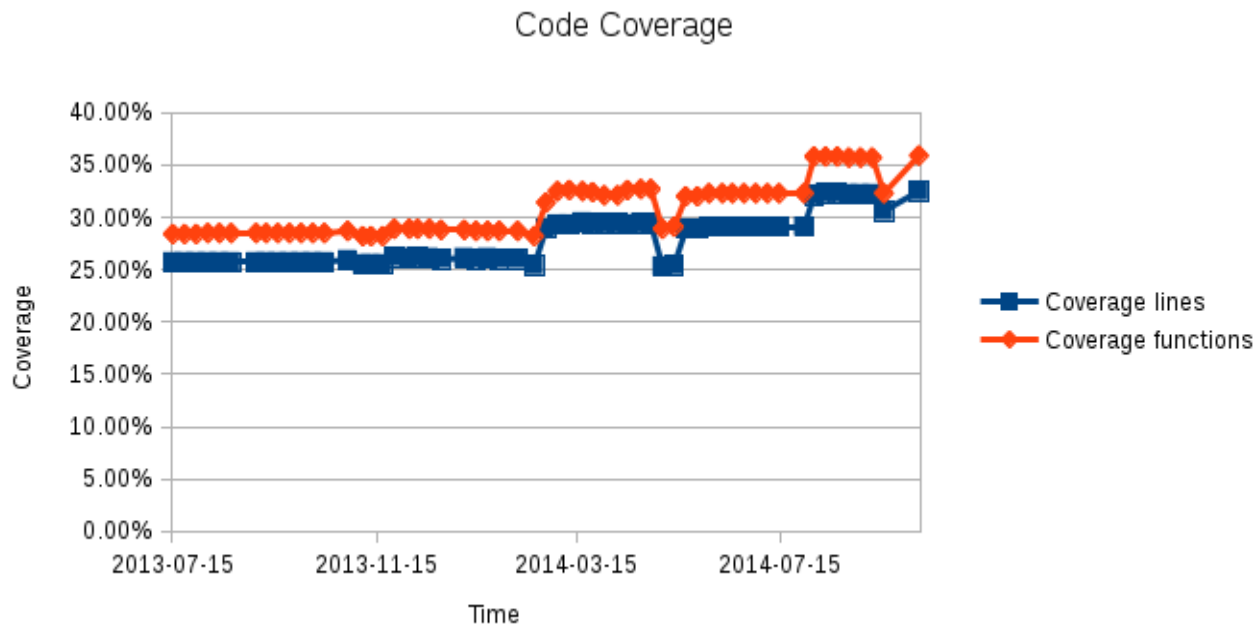


Clang Static Analyser Defects



- Nobody really takes a look at these
- Reported issues are harder to understand compared to Coverity
- No way to mark something as false positive in a web UI.
- I expected way more clang issues to vanish when Coverity issues got down
  - Maybe that means clang reports still have some value for us
- Problems with understanding our `hash_add`, `list_add` function (leak reports)

# Unit Tests

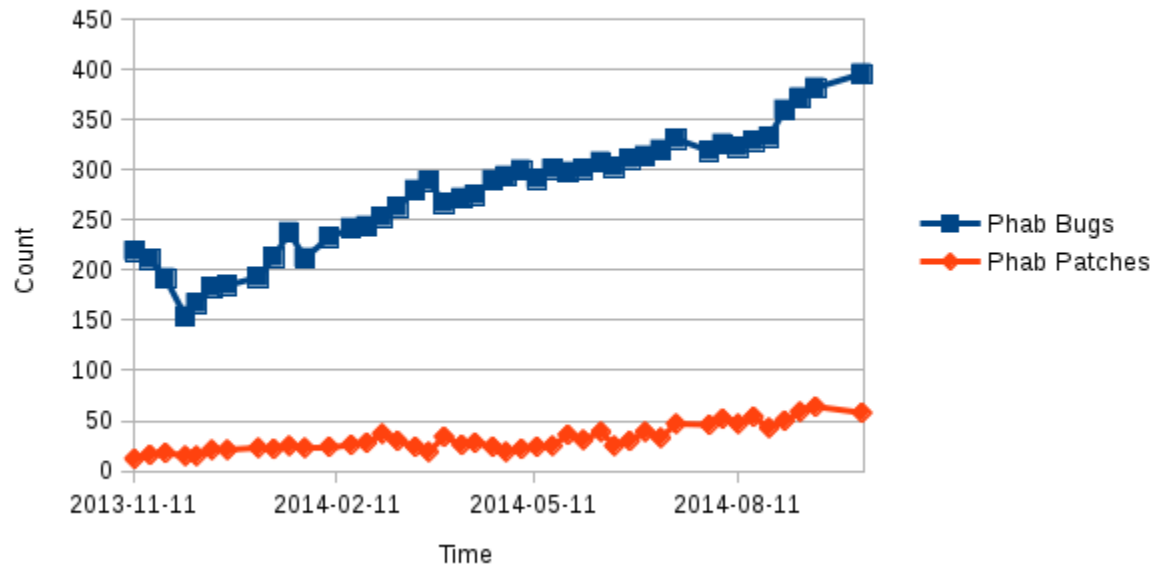


- Less than 40% of the code base covered (with 400 tests)
- Biggest problem from a QA perspective
- What should we do to improve this situation?
  - Man power to write tests covering the existing code
  - Make test cases for new API's mandatory
  - Usage of Exactness for UI testing
  - Regression tests for fixed bugs?

# Phab Review



Open bugs and outstanding patches



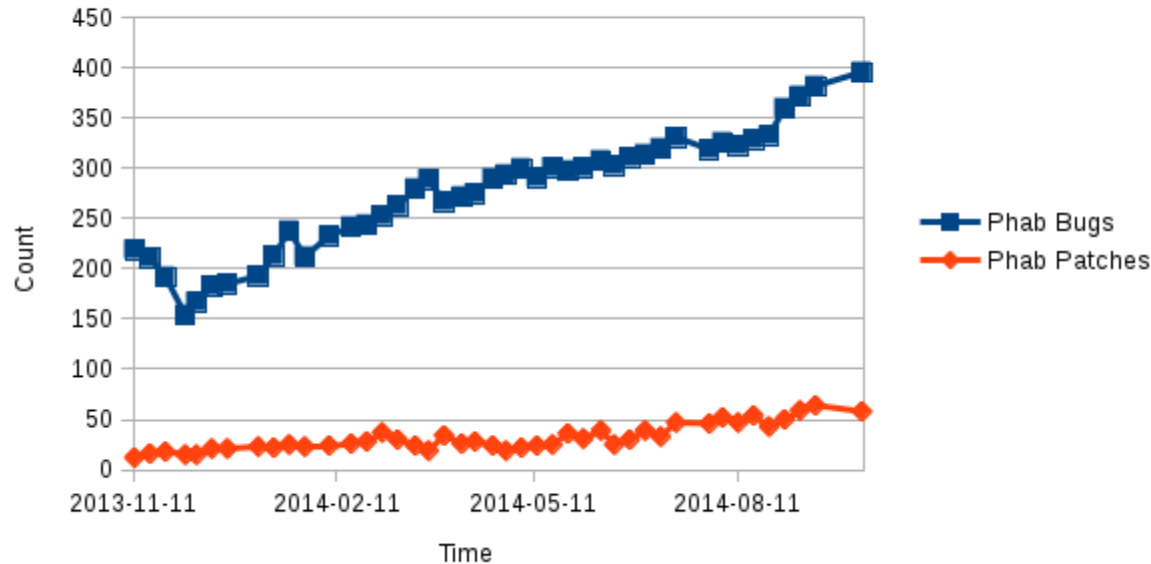
- Only 60 open from 1527 review requests
- Do not rely on the web UI only for review
  - Always have a look at the output of git show before pushing
  - Author not setup but phab ID shows instead
  - White space changes not shown depending on UI setting (default should be fine now)
- Someone motivated to hook Phab up with jenkins?
  - We could run new patches through jenkins and add feedback



# Phab Bugs



Open bugs and outstanding patches



- 396 open bugs from 1722 reports
- 179 of them are wishlist items

# Miscellaneous



- Is the weekly report mail still interesting?
- Change something?
- More statistics?
  - Would need a volunteer to write a script fetching data from the web services

# Future



## Potential improvements:

- Integrate ABI checker with jenkins to find problems earlier
- Try out more -fsanitize options from gcc and clang
- Volunteer for setting up qemu ARM builds?
- Volunteer for setting up expedite benchmarking on E3?
- Volunteer to finish exactness setup on jenkins?
- More testing on platforms not used by main devs (\*BSD, Windows, Mac OSX)

QA work seems not to attract many people in the community. Companies could help on this to reduce their internal QA costs.



**Thank you.**





We are hiring.

Contact me if you want to hear details.

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