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## Bugs and Eyeballs

Bug handling and how to use ilaunchpad



**Ubuntu 8.10 Release Party Zurich, Switzerland** 2008-11-15

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#### Contents

- Many users, many bugs, few developers
- Launchpad bug handling
- Reporting bugs
- Where to start

## Fixing bugs – the community way

- "Given enough eyeballs, all bugs are shallow"
  - "Linus's Law" from "The Cathedral and the Bazaar" by Eric Steven Raymond
- 48492 reported, open bugs in Ubuntu
  - versus 225 000 ever reported (outflux.net/ubuntu/stats/)
- 8 million Ubuntu users (www.internetnews.com)
  - versus 30? fulltime developers
  - thousands of community contributors



# Fixing bugs – the community way

Developers

Contributors: patches, debugging, testing

Bug triagers: handling bug reports

Bug reporters: Users, good citizens, community heros

Lurkers, lusers, pawns, criminals, windows users...



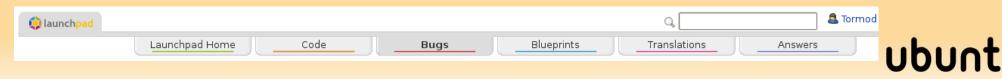


### launchpad.net

- Launchpad is a hosting service for open source projects that's big on collaboration
  - Similar to e.g. code.google.com, sourceforge.net...
- Open for any open-source project
- Bug tracker 🏗 🕩 https://bugs.launchpad.net/
- Code repository (Bazaar)



- Specification and planning (blueprints)
- Question and answers
- Translations (Rosetta)



## Launchpad bug tracker

- Similar to e.g. bugzilla
- Bug database is shared between all launchpad projects
- A bug report can have several "tasks" in different projects
  - the bug often appears in different distributions and in the "upstream" project
  - fix can be "released" in one, but not in another
  - some bugs need fixes in multiple packages



## Ubuntu on launchpad

- Ubuntu is "just another" project in launchpad
- Subdivided in source packages



- Bugs in Ubuntu should be filed on the source package
- "Upstream" projects can also be on launchpad, at least as a pseudo-project





### Example of bug tasks



- "Invalid" = this is not a bug in this package
- Life cycle of a bug: new, incomplete, confirmed, triaged, in progress, fix committed, fix released





#### Reporting bugs

- Look for already reported bugs
  - Google often works better than the bug trackers' own search interfaces
- Report bugs in the right place
  - Is it my hardware, my configuration, my Ubuntu?
- Provide necessary information
  - Log files, configuration and hardware details
- <https://help.ubuntu.com/community/ReportingBugs>





### Duplicate or not?

- Different bugs needs different bug fixes
- Many bugs have the same symptom
  - "my computer doesn't work"
  - "screen goes black after logging in"
- Some bug reports turn into "me-too" mess
  - Original issue drowns in irrelevant information
- It's better to file separate bugs, then later merge them if needed (mark as duplicate)





#### Regressions

- Highest priority to get fixed
  - Special tag: regression-release
- Sometimes difficult to avoid if they come from upstream - or discovered too late
- Best cure: test early and often
  - eg. alpha releases and upstream releases
  - Important to cover many types of hardware and configurations
  - New tag: regression-potential



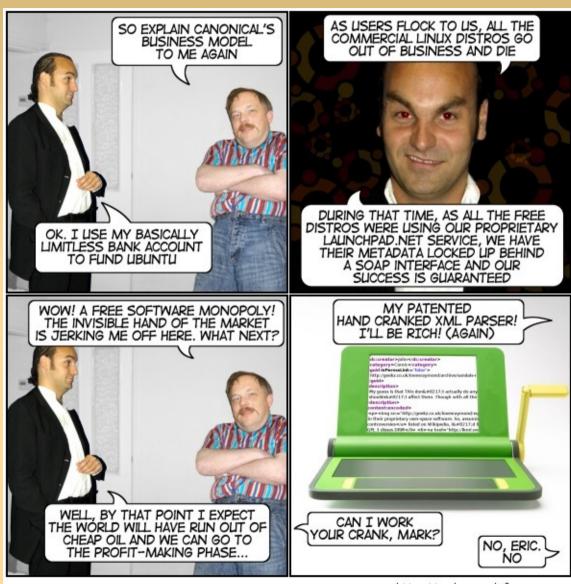


#### Where to start

- https://wiki.ubuntu.com/Bugs
- The Ubuntu Bug Squad
  - Ubuntu-bugsquad mailing list
  - #ubuntu-bugs on IRC
- Hug days and bug squashing parties
- Testing: ubuntu-qa team
- https://wiki.ubuntu.com/UbuntuOpenWeek
- Some ways to go:
   Report bugs provide answers to developers subscribe to related bugs subscribe to packages follow up on bug reports ask reporters for information

## The truth behind launchpad

OSCON July 2008: Ubuntu founder and Canonical CEO Mark Shuttleworth affirmed that the Launchpad project hosting platform developed by his company will likely be released under an open source license within the next year.



http://geekz.co.uk/lovesraymond



## Launchpad demonstration

- Test-bed server: https://bugs.staging.launchpad.net/ubuntu
  - Copy of real database
  - Rewritten every day

