Piuparts:
Testing that .deb packages behave

Holger Levsen, DebConf13, Vaumarcus, Suisse

16th of August 2013
Outline

- Introduction
- What piuparts(.d.o) is about
- Development status
- Future developments
Who am I

- a Debian user since 1995
- a Debian volunteer since 2001
- root@piuparts.d.o since end of 2006
- a DD since 2007 :-)

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Who are you?

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- How many of you have filed bugs against piuparts?
Abstract
This manual describes the policy requirements for the Debian distribution. This includes the structure and contents of the Debian archive and several design issues of the operating system, as well as technical requirements that each package must satisfy to be included in the distribution.
Piuparts, explained in two seconds

- Debian Policy
  - ‘piuparts‘ makes sure packages behave in respect to **Debian Policy**
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  - ‘lintian‘ also makes sure packages behave in respect to Debian Policy (but it "just" looks at the sources)
Piuparts, explained in a minute

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  ▶ packages which behave badly on upgrades
  ▶ packages which don’t clean up after removal
  ▶ new: in-adequate behaviour is also reported now!
More news

- http://packages.qa.debian.org/adequate run by default, results visible on piuparts.d.o
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- [http://packages.qa.debian.org/adequate](http://packages.qa.debian.org/adequate) run by default, results visible on piuparts.d.o
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- support for multiple slaves
- Running on new virtual hardware on the Bytemark cluster
  - pejacevic.debian.org
  - piu-slave-bm-a.debian.org, 12 GB RAM, 4 cores
    - runs four piuparts slaves

▶ up in its current form since 4.5 years
tests all packages in ‘main‘ for ‘sid‘, ‘testing2sid‘, ‘wheezy‘, ‘squeeze2wheezy‘ and ‘squeeze‘.

- those were the suites tested two years ago
- up in its current form since 4.5 years

up in its current form since 4.5 years
piuparts.debian.org

  - ‘wheezy-proposed‘ we currently don’t test since we do test ‘wheezy2proposed‘.
  - up in its current form since 4.5 years
"piuparts.debian.org now keeps just over a million logfiles: 275211 current logfiles and 729433 archived ones, which resulted in 1777 bugs being filed of which 281 are still open."
http://lists.debian.org/<201305231117.43328.holger@layer-acht.org>
RC stats

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- 153 open "serious" bugs
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- in total: 1411 RC bugs since 2009-02-28, that’s 0.86 per day
  - *this* average *is* about RC bugs, in the end I wasn’t that lazy after all :-)
Jessie stats

▶ see http://piuparts.debian.org/jessie/
Two very short HOWTOs

- sudo piuparts *some.deb*
Two very short HOWTOs

- sudo piuparts some.deb
- sudo piuparts some.changes
How to use piuparts the even lazier way

- upload your package
- wait for piuparts.debian.org to test it!
How to use piuparts the even lazier way

- upload your package
- wait for piuparts.debian.org to test it!
- (this is really **not** the recommended way, but hey, I’ve been there, done that...)

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Team

- originally written by Lars Wirzenius
- now: Andreas, h01ger and Dave Steel
- since 2010: 8 committers in total
- tomorrow: you!
- send your ideas to <piuparts@lists.alioth.debian.org> or #debian-qa on irc.debian.org.
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Two-minutes guide for new contributors

- git clone git://anonscm.debian.org/piuparts/piuparts.git
- git checkout -b feature/unicorn origin/develop
- make your changes
- submit your feature branch or Git patchset on bugs.debian.org
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Git branches

- ‘master‘ for releases
- ‘develop‘ for daily development
- ‘bikeshed‘: in production on p.d.o, generally same as ‘develop‘
"Roadmap"

- See ./TODO in Git.
- *important* or higher bugs
Wishlist bugs someone really should fix someday maybe

- `unittests.py` was last really edited before 2007
Wishlist bugs someone really should fix someday maybe

- ‘unittests.py‘ was last really edited before 2007
- test an archive with known good and known wrong packages, see how piuparts behaves
Random improvements you care about (and I don’t)

Patches you need to write if you want it (and sometimes, first convince us it’s a good idea):

- extra tests for initscripts (#558819)
- cowbuilder support (#664727)
- LVM support (#559449)
- make piuparts run without root privs (#708663)
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- LVM support (#559449 has been fixed in 2009)
- make piuparts run without root privs (#708663)
What are the needs of the Debian Community?

- piuparts testing before accepting into the archive, piuparts on the buildds?
- Or just prevention of testing migration...?
- Run piuparts on the whole archive, not only amd64
- Raise some errors priority (broken symlinks, to start with)
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- Add your needs here
- The long road to fully automated bug filing
  - ... to keep this QA effort alive and kicking
  - ... to make it possible to add more and more tests without increasing workload too much

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Questions / Thank you

- Thank you for your time and for being (or becoming) a good citizen of the free software world!
- Any questions?
- Send your ideas to <piuparts@lists.alioth.debian.org> or #debian-qa on irc.debian.org.
- (Or just ask me directly anytime!)
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Thanks to intrigeri!
Obey!

Policy is your friend.
Trust the Policy.
Love the Policy.
Obey the Policy.