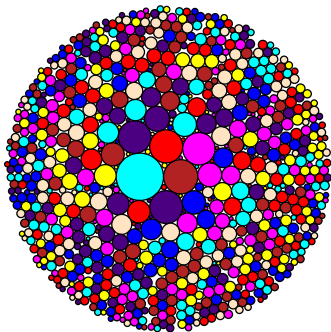# The Debian Haskell Group

Joachim Breitner

DebConf 2014, August 28, 2014

Welcome (including people on IRC)!

- Overview of what we do
- Live packaging demo
- Challenges and discussion

Who relays from IRC?
Who wants to take notes and send summary to d-haskell?

We maintain

- the Haskell compiler (GHC),
- the Haskell library packages and
- a few haskell programs as well.

Let's see how are are doing. . .

We maintain a lot...

Maintainer	Packages
pkg-haskell-maintainers@l.a.d.o	48208
debian-qt-kde@lists.debian.org	36177
debian-science-maintainers@l.a.d.o	35432
pkg-multimedia-maintainers@l.a.d.o	28993
pkg-perl-maintainers@l.a.d.o	25015
pkg-games-devel@l.a.d.o	21775
packages@qa.debian.org	18373
pkg-gnome-maintainers@l.a.d.o	17106
debian-med-packaging@l.a.d.o	16899
debian-ocaml-maint@lists.debian.org	16707

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Oops, counted all versions. . .

We maintain a lot...

Maintainer	Packages
debian-kernel@lists.debian.org	5990
pkg-perl-maintainers@l.a.d.o	3012
pkg-haskell-maintainers@l.a.d.o	2868
debian-science-maintainers@l.a.d.o	1725
pkg-java-maintainers@l.a.d.o	1676
debian-qt-kde@lists.debian.org	1490
pkg-ruby-extras-maintainers@l.a.d.o	1215
packages@qa.debian.org	1198
debian-boot@lists.debian.org	1135
pkg-multimedia-maintainers@l.a.d.o	1019

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Oops, counted binary packages. . .

We maintain a lot. . .

Maintainer	Packages
pkg-perl-maintainers@l.a.d.o	2975
pkg-java-maintainers@l.a.d.o	872
pkg-haskell-maintainers@l.a.d.o	790
packages@qa.debian.org	661
pkg-ruby-extras-maintainers@l.a.d.o	642
debian-med-packaging@l.a.d.o	481
python-modules-team@l.a.d.o	468
debian-science-maintainers@l.a.d.o	424
pkg-multimedia-maintainers@l.a.d.o	424
pkg-games-devel@l.a.d.o	413

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debian-science-maintainers@l.a.d.o	424
pkg-multimedia-maintainers@l.a.d.o	424
pkg-games-devel@l.a.d.o	413

That's about right...

We are few

Who	Uploads
Joachim Breitner	354
Clint Adams	245
Colin Watson	24
Raúl Benencia	23
Sven Bartscher	16
Jonas Smedegaard	3
Joey Hess	3
Kiwamu Okabe	2
Iain Lane	1
David Bremner	1
Iustin Pop	1
Louis Bettens	1

(last 6 months)

We appear to be efficient

Group	Uploads	per person
pkg-perl-maintainers@l.a.d.o	1662	42.6
pkg-haskell-maintainers@l.a.d.o	674	56.2
pkg-ruby-extras-maintainers@l.a.d.o	521	12.7
debian-med-packaging@l.a.d.o	415	11.5
debian-science-maintainers@l.a.d.o	471	6.5
debian-qt-kde@lists.debian.org	618	47.5
pkg-java-maintainers@l.a.d.o	276	11.0
python-modules-team@l.a.d.o	342	5.8
pkg-multimedia-maintainers@l.a.d.o	290	9.1
packages@qa.debian.org	205	3.2

(last 6 months)

- Very homogenous, due to Cabal and Hackage +
- If it compiles, it works +

- Very homogenous, due to Cabal and Hackage $+$
- If it compiles, it works $+$
- Too strict or too weak dependencies $-$
- No ABI stability $-$

Packaging a new package

1. Update the package-plan with the new package.
2. Copy the template `debian/` directory, and adjust
   - Name and version
   - Dependencies
   - Description
   - Copyright file
   - (`debian/rules` may stay unmodified)
3. Put `debian/` in a darcs repo
4. Build & upload as usual
5. Tag and push the tag

Upgrading a new package

1. Update the package-plan with the new version.
2. Fix any breakage this causes, by more upgrades, new versions and possibly patches.
3. Update the packaging (version, dependencies!)
4. Build & upload as usual
5. Tag and push the tag
6. Later: Check for uninstallable packages and binNMU them

The package plan in detail

```
http://anonscm.debian.org/cgit/pkg-haskell/
              package-plan.git/
```

Contains meta-data of all our packages:

- Package name (Hackage name!)
- Package version (again, Hackage version)
- Attributes like "Run test suite", "package is obsolete" etc.
- For programs: Corresponding binary package
- Patches
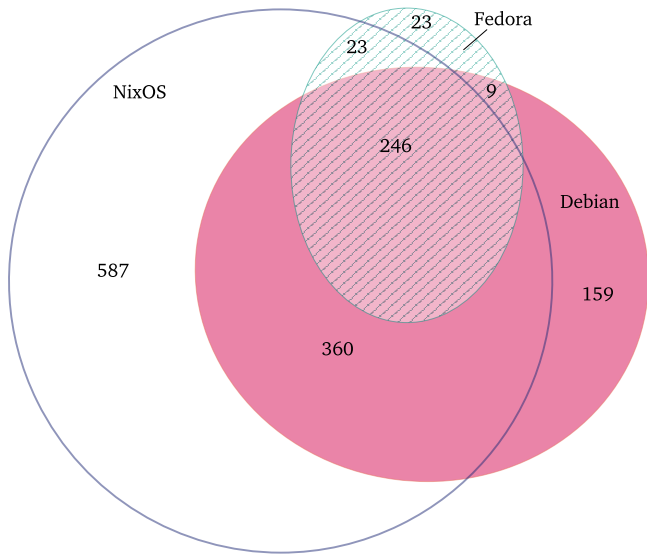- Additional cabal files (when not on Hackage, or modified there)

The script `test-packages.pl` tests this using `cabal install`.
Also ran by jenkins.debian.net, where statistics are collected.

Invariant: This script should always succeed!

Other resources

- Package Entropy Tracker
  This needs love!
- binNMU scheduling
- Jobs on `jenkins.debian.net`
- Jobs on `ci.debian.net`
- Reporting of Debian package coverage to Hackage

- What should we package?
- What should we upgrade?
- Do we scale?
- Darcs vs. git?
- Uncommon architectures?

What should we package?

What should we package?

- Dependencies of programs in Debian (!)
- Very common packages (?)
- Hard to install packages (bindings complex packages) (?)
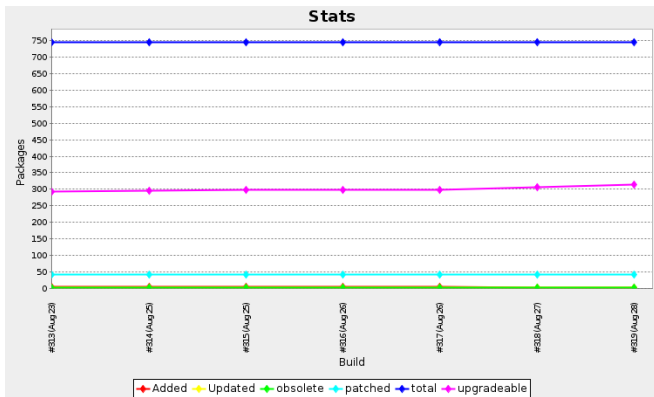- Your favorite library (?)
- What else?

Question: Who are our users (if any)?

What should we package?

- Dependencies of programs in Debian (!)
- Very common packages (?)
- Hard to install packages (bindings complex packages) (?)
- Your favorite library (?)
- What else?

Question: Who are our users (if any)?

What should we upgrade?

- 38% of our packages have newer versions on Hackage
- Some packages are uploaded once and then never ever again.
- Do we need a policy here? Tool support?

Do we scale?

- Most load (89% of the recent uploads) done by two persons!
- Do we have to change that?
- Who has to change that?
- How can we change that?

Darcs vs. git

- git has won, but...
- We have a smoothly running system
- There are (minor) things that darcs still does better
    - `darcs put`!
    - `darcs pull` with a modified tree
- How would be benefit from git?
    - Easier entry barrier.
    - Better branch support.
    - Anything else?

Orthogonal issue: `debian/` only or not?

- GHC often causes issues on architectures
  (7.8 does not build on armel at the moment)
- Sometimes packages build, but do not run properly
  (noticed only by test suite failures)
- Who cares sufficiently?