

The State of mentors.debian.net

GSOC and Beyond

Nicolas Dandrimont

2012-11-25

1 Introduction

- whoami
- What is this talk about

2 mentors.debian.net

- Sponsoring packages into Debian
- How did we get there?
- Technical stack

3 Summer of Code work

- Clément Schreiner
- Baptiste Mouterde

4 The road ahead

- Further integration with the BTS-based workflow
- Catering to packaging teams
- mentors.debian.*org*?

5 Wrapping up

Plan

- 1 Introduction
 - whoami
 - What is this talk about

- 2 mentors.debian.net

- 3 Summer of Code work

- 4 The road ahead

- 5 Wrapping up

Nicolas Dandrimont in Debian

- Package maintainer since 2010
- Debian Maintainer since 2011
- Debexpo victi^Wmaintainer since early 2012

Nicolas Dandrimont in “Real life”

- Linux sysadmin/“IT guy” in a French “Grande École”
- web-based tools maintenance (drupal, django)
- 320+ client machines running fedora 8 (I know, I’ve only been here three months)

What this talk is not about

- sponsoring is hard
- workflow debate
- salvaging packages

- Platform for Debian Package Maintenance newcomers to upload and share their packages
- Automated QA analysis of uploaded packages
- sponsor - sponsoree connection

Plan

1 Introduction

2 mentors.debian.net

- Sponsoring packages into Debian
- How did we get there?
- Technical stack

3 Summer of Code work

4 The road ahead

5 Wrapping up

Who here knows how contributing a package to Debian works?

Debian Package Maintainers

There are three “classes” of package maintainers:

- Debian Developers: can upload any package at any time
- Debian Maintainers: can upload the packages they have been allowed to by DDs
- Sponsored Maintainers: cannot upload by themselves: need to be sponsored by a DD

“newcomer” workflow

Quite a lengthy process:

- 1 Prepare a package (either NEW or update)
- 2 Upload it somewhere
- 3 Find a sponsor
 - ▶ File a sponsorship-requests bug / write the debian-mentors list
 - ▶ Find a team
 - ▶ Prod your previous sponsor
- 4 Update according to the sponsor's review, rinse, repeat
- 5 ??????????
- 6 Upload!

Why mentors.debian.net?

- A central place for sponsored maintainers to *upload* and *share* their packages for *review*

Why mentors.debian.net?

- A central place for sponsored maintainers to *upload* and *share* their packages for *review*
- A companion to the debian-mentors mailing-list
- A place for developers of Debian derivatives too (Ubuntu's "Debian-first" policy comes to mind)

A brief history of mentors.debian.net

- Initiated by Christoph Haas and others long ago
- Replaced by more recent software (debexpo) in 2011

A brief history of debexpo

- A 2008 GSoC project by Jonny Lamb, mentored by Christoph Haas (initial commit 2008/06/01)

A brief history of debexpo

- A 2008 GSoC project by Jonny Lamb, mentored by Christoph Haas (initial commit 2008/06/01)
 - ▶ Goal: “personal package archive” for Debian

A brief history of debexpo

- A 2008 GSoC project by Jonny Lamb, mentored by Christoph Haas (initial commit 2008/06/01)
 - ▶ Goal: “personal package archive” for Debian
- Languishing project until 2010, when Asheesh Laroia and Jan Dittberner took over (2010/06/22)

A brief history of debexpo

- A 2008 GSoC project by Jonny Lamb, mentored by Christoph Haas (initial commit 2008/06/01)
 - ▶ Goal: “personal package archive” for Debian
- Languishing project until 2010, when Asheesh Laroia and Jan Dittberner took over (2010/06/22)
 - ▶ Goal: mentors.debian.net replacement

A brief history of debexpo

- A 2008 GSoC project by Jonny Lamb, mentored by Christoph Haas (initial commit 2008/06/01)
 - ▶ Goal: “personal package archive” for Debian
- Languishing project until 2010, when Asheesh Laroia and Jan Dittberner took over (2010/06/22)
 - ▶ Goal: mentors.debian.net replacement
- Asheesh and Arno Töll make debexpo replace the old mentors.d.n site (2011/08/11)

A brief history of debexpo

- A 2008 GSoC project by Jonny Lamb, mentored by Christoph Haas (initial commit 2008/06/01)
 - ▶ Goal: “personal package archive” for Debian
- Languishing project until 2010, when Asheesh Laroia and Jan Dittberner took over (2010/06/22)
 - ▶ Goal: mentors.debian.net replacement
- Asheesh and Arno Töll make debexpo replace the old mentors.d.n site (2011/08/11)
- UI improvements (debexpo v2, 2012/02/26)

A brief history of debexpo

- A 2008 GSoC project by Jonny Lamb, mentored by Christoph Haas (initial commit 2008/06/01)
 - ▶ Goal: “personal package archive” for Debian
- Languishing project until 2010, when Asheesh Laroia and Jan Dittberner took over (2010/06/22)
 - ▶ Goal: mentors.debian.net replacement
- Asheesh and Arno Töll make debexpo replace the old mentors.d.n site (2011/08/11)
- UI improvements (debexpo v2, 2012/02/26)
- GSoC 2012 (debexpo v3, 2012/11/25 ?)

- Pylons 1.0
 - ▶ mako templating engine
 - ▶ “routes” for the routing
 - ▶ not supported anymore, superseded by Pyramid
- SQLAlchemy
- webhelpers
- the usual debian-related modules (python-debian, python-apt, ...)

Low-level infrastructure

- hosted on a Wavecon virtual machine (Arno's workplace)
- Debian Squeeze with a few backports
- Apache and mod_wsgi
- A patched ftp server (allow anonymous uploads without file overwrites)

Plan

- 1 Introduction
- 2 mentors.debian.net
- 3 Summer of Code work**
 - Clément Schreiner
 - Baptiste Mouterde
- 4 The road ahead
- 5 Wrapping up

Automatic package—sponsor matching

- For a maintainer : finding a sponsor = lengthy process
- For a sponsor : flow of packages to be sponsored = overwhelming

Automatic package—sponsor matching

- For a maintainer : finding a sponsor = lengthy process
- For a sponsor : flow of packages to be sponsored = overwhelming

The goal of the project is two-fold

- giving sponsored maintainers a “list” of potential sponsors to prod
- giving potential sponsors a list of packages to look out for

All this automatically

In the background

- Semantic package analysis : find out “traits” for a package
- Upload history analysis : what did a given DD upload, what are his interests?
- Fuzzy clustering (hopefully with feedback)

Problems encountered

- No proper metadata storage API for packages in debexpo
- Package analysis is heavy: when to do it?

Outcomes

- Rewrite of the metadata storage API to make it easier to query
- Integration of debtags' package analysis heuristics
- Matching stub

Outcomes

- Rewrite of the metadata storage API to make it easier to query
- Integration of debtags' package analysis heuristics
- Matching stub

TODO:

- proper matching
- team integration

Improved package review interface

The issue: Several “competing” platforms for package reviews

- mentors.debian.net “comments”
- debian-mentors mailing-list
- sponsorship-requests bugs
- team mailing-lists

Improved package review interface

The issue: Several “competing” platforms for package reviews

- mentors.debian.net “comments”
- debian-mentors mailing-list
- sponsorship-requests bugs
- team mailing-lists

The goal:

- getting all the information in one place: mentors.d.n
- while still allowing the use of the other platforms
- catering for our friends from derivative distributions

A tricky task

- source browser : need to extend our package storage pool to get the flat source
- review interface : need to rework completely the (broken, useless) comment engine
- need to connect to the mailing-list and the BTS properly for three-way integration

Outcomes

- a git-based package storage backend
- a source-code browser with in-line review capabilities
- the basis for a “karma” system
- a connector for mailing-lists, not yet deployed

Plan

1 Introduction

2 mentors.debian.net

3 Summer of Code work

4 **The road ahead**

- Further integration with the BTS-based workflow
- Catering to packaging teams
- mentors.debian.*org*?

5 Wrapping up

The new sponsorship-requests workflow

Tracking sponsorship-requests as bugs is an improvement over just having the history in the debian-mentors archive.

The new sponsorship-requests workflow

Tracking sponsorship-requests as bugs is an improvement over just having the history in the debian-mentors archive.

But mentors.debian.net lacks integration with it.

A nice interface: <http://mentors.pault.ag/> (and yes, the queue is loooong). Having such a view in mentors.d.n would be (very) good.

Package maintainance is shifting towards teams

There are more and more packaging teams, each with their own workflow (tracking packages via their SCM on alioth, via their mailing-list, via a PET, ...)

Package maintainance is shifting towards teams

There are more and more packaging teams, each with their own workflow (tracking packages via their SCM on alioth, via their mailing-list, via a PET, ...)

mentors.debian.net needs to take that into account and give teams tools to help with their workflow.

Goal: reducing the number of entry points for newcomers, streamlining the sponsorship process.

A critical piece of infrastructure, not official yet

Half of Debian's packages are maintained by sponsored maintainers. A lot of the newcomers come through mentors.debian.net, but that service is run off of "personal" resources in an unofficial fashion.

The (main) issue: people are allowed to upload random crap and mentors.d.n distributes it (no NEW queue).

A critical piece of infrastructure, not official yet

Half of Debian's packages are maintained by sponsored maintainers. A lot of the newcomers come through mentors.debian.net, but that service is run off of "personal" resources in an unofficial fashion.

The (main) issue: people are allowed to upload random crap and mentors.d.n distributes it (no NEW queue).

Solution (thanks to zack and SPI lawyers): disclaim responsibility on user-contributed content by having the users (GPG-)sign an agreement before uploads are allowed.

Plan

- 1 Introduction
- 2 mentors.debian.net
- 3 Summer of Code work
- 4 The road ahead
- 5 Wrapping up**

A small team with big ideas

Even with the GSoC, we are a small team of very busy people (Arno is working on his Masters Thesis, I just changed jobs, ...), and there are lots to do.

As usual, help is welcome!

How to help?

We don't really have/use a mailing-list, so your best bet is coming to see us on IRC: #debexpo on irc.debian.org.

You can take a look at our wiki pages :
<http://wiki.debian.org/Debexpo/Development>

Thanks for listening!