

Package Tracking System

Hacking's guide



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Debian-QA mini-conference

Plan



- Introduction
- Where to get the sources
- Directory overview
- The mail part
- The web part
- What's left ? What you can do ...

Introduction



- The Package Tracking System lets you follow everything related to the life of a package. It's of interest for co-maintainers, advanced users, QA members, ...
- With the mail interface you can subscribe to “packages” and receive in real-time the same information than the maintainer (bugs, upload notification, cvs/svn commits, ...).
- The web interface displays the actual status of the package and some historical information.
Example: <http://packages.qa.debian.org/dpkg>



Some figures

- Almost 4 years old
- 3300 source packages with subscribers
- 6300 subscriptions (with 3000 unique emails)
- Several hundreds of megabytes of HTML pages

The sources

- The sources are hosted on `cvs.debian.org`

```
export
```

```
CVSROOT=:pserver:anonymous@cvs.debian.org/cvs/qa
```

```
cvs login
```

```
cvs co pts
```

- Web interface:

<http://cvs.debian.org/pts/?cvsroot=qa>

- Live on

`master.debian.org:/org/packages.qa.debian.org/`

Directory overview

- /bin: Perl scripts for the mail interface
 - /control.pl: 360 lines to handle pts@qa.debian.org
 - /dispatch.pl: 200 lines to handle *@packages.qa.debian.org
- /etc: Configuration (a template for the confirmation mail)
- /perl: Common code (350 more lines)
- /mail: Exim configuration for p.q.d.o
- /www: Web interface

Mail interface

- Two berkeley databases are used to store the subscriptions (/db/subscriptions.db and /db/tags.db)
- Script dispatch.pl
 - Receives mails from several sources (BTS, katie, users, ...), identifies them (“keyword/tag”), associates them to a source package and forwards them to the subscribers
- Script control.pl
 - Identify commands within the mail and execute them
 - Handle separate confirmation mails (stores “secret” hashes in /spool)
- Script dump.pl, dump-tags.pl, count.pl.
 - Display a textual version of the database and some statistics



Nice features of the mail interface

- Mails sent to the PTS are classified so that one can subscribe only to the information that is of interest for him
- The user can filter everything with the help of the X-PTS-Package and X-PTS-Keyword header.
- We can always send more info to the PTS by introducing new “keywords/tags”

What's lacking ?

- VERP Bounce handling
 - owner@p.q.d.o (me) is receiving all the bounces and they are either not treated, or treated manually (which is time consuming)
- An automatic (monthly or quarterly) mail giving a summary of the state of the package
 - Number of bugs opened/closed since last summary
 - List of actual problems
 - ...

Web interface



Overview of libdbd-pg-perl source package

Jump to package ([home page](#)):

General Information	
Last version	1.42-2
Maintainer	Raphael Hertzog [mail]
Co-Maintainers	Ivan Kohler [mail]
Standards-Version	3.6.2
Priority & Section	optional - perl

Bugs Count	
All bugs	1
Release Critical	0
Important and Normal	1
Minor and Wishlist	0
Fixed and Pending	0

Subscription - Package Tracking System	
Subscribers count	1
<input type="text" value="Subscribe"/> your email	<input type="button" value="Send"/>

Binary Package(s)	
• libdbd-pg-perl (1 bugs: 0, 1, 0, 0)	

Available versions	
Oldstable	1.01-3
Stable	1.41-3
Stable Proposed Updates	1.42-0sarge1
Testing	1.42-1
Unstable	1.42-2

Other links	
• Changelog	
• Build logs	
• Lintian report	
• Popcon stats	

Testing Status	
• Too young, only 3 of 10 days old	
• out of date on hppa: libdbd-pg-perl (from 1.42-1)	
• Not considered	
• Depends: libdbd-pg-perl postgresql-8.0 (not considered)	

Latest News	
• [2005-06-22] Accepted 1.42-0sarge1 in stable (low) (Raphael Hertzog)	
• [2005-06-22] Accepted 1.42-2 in unstable (low) (Raphael Hertzog)	
• [2005-05-25] Accepted 1.42-1 in unstable (low) (Raphael Hertzog)	
• [2005-05-04] Accepted 1.41-3 in unstable (medium) (Raphael Hertzog)	
• [2005-05-04] Accepted 1.41-2 in unstable (medium) (Raphael Hertzog)	
• [2005-04-15] Accepted 1.41-1 in unstable (low) (Raphael Hertzog)	
• [2004-06-27] Accepted 1.32-2 in unstable (low) (Raphael Hertzog)	
• [2004-03-10] Accepted 1.32-1 in unstable (low) (Ivan Kohler)	
• [2003-12-09] Accepted 1.31-2 in unstable (low) (Raphael Hertzog)	
• [2003-12-08] Accepted 1.31-1 in unstable (low) (Raphael Hertzog)	
• [2003-09-06] Accepted 1.22-3 in unstable (low) (Raphael Hertzog)	
• [2003-07-12] Accepted 1.22-2 in unstable (low) (Raphael Hertzog)	
• [2003-04-08] Accepted 1.22-1 in unstable (low) (Raphael Hertzog)	
• [2003-01-01] Accepted 1.20-2 in unstable (low) (Raphael Hertzog)	
• [2002-12-12] Accepted 1.20-1 in unstable (low) (Raphael Hertzog)	
• [2002-08-26] Accepted 1.13-4 in unstable (low) (Raphael Hertzog)	
• [2002-08-24] Accepted 1.13-3 in unstable (low) (Raphael Hertzog)	
• [2002-05-16] Accepted 1.13-1 in unstable (low) (Raphael Hertzog)	
• [2002-04-11] Accepted 1.01-3 in unstable (medium) (Raphael Hertzog)	
• [2002-03-02] Accepted 1.01-2 in unstable (low) (Raphael Hertzog)	
• [2001-07-08] Accepted 1.01-1 in unstable (medium) (Raphael Hertzog)	
• [2001-05-20] Accepted 0.98-2 in unstable (medium) (Raphael Hertzog)	
• [2001-05-06] Accepted 0.98-1 in unstable (medium) (Raphael Hertzog)	
• [2001-04-22] Accepted 0.97-1 in unstable (medium) (Raphael Hertzog)	
• [2001-04-21] Accepted 0.95-5 in unstable (medium) (Raphael Hertzog)	
• [2001-03-06] Accepted 0.95-4 in unstable (medium) (Raphael Hertzog)	
• [2001-02-22] Accepted 0.95-3 in unstable (medium) (Raphael Hertzog)	
• [2000-11-16] Accepted 0.95-2 in unstable (low) (Raphael Hertzog)	
• [2000-10-12] Accepted 0.95-1 in unstable (low) (Raphael Hertzog)	
• [2000-05-15] Accepted 0.92-2 in unstable (low) (Raphael Hertzog)	

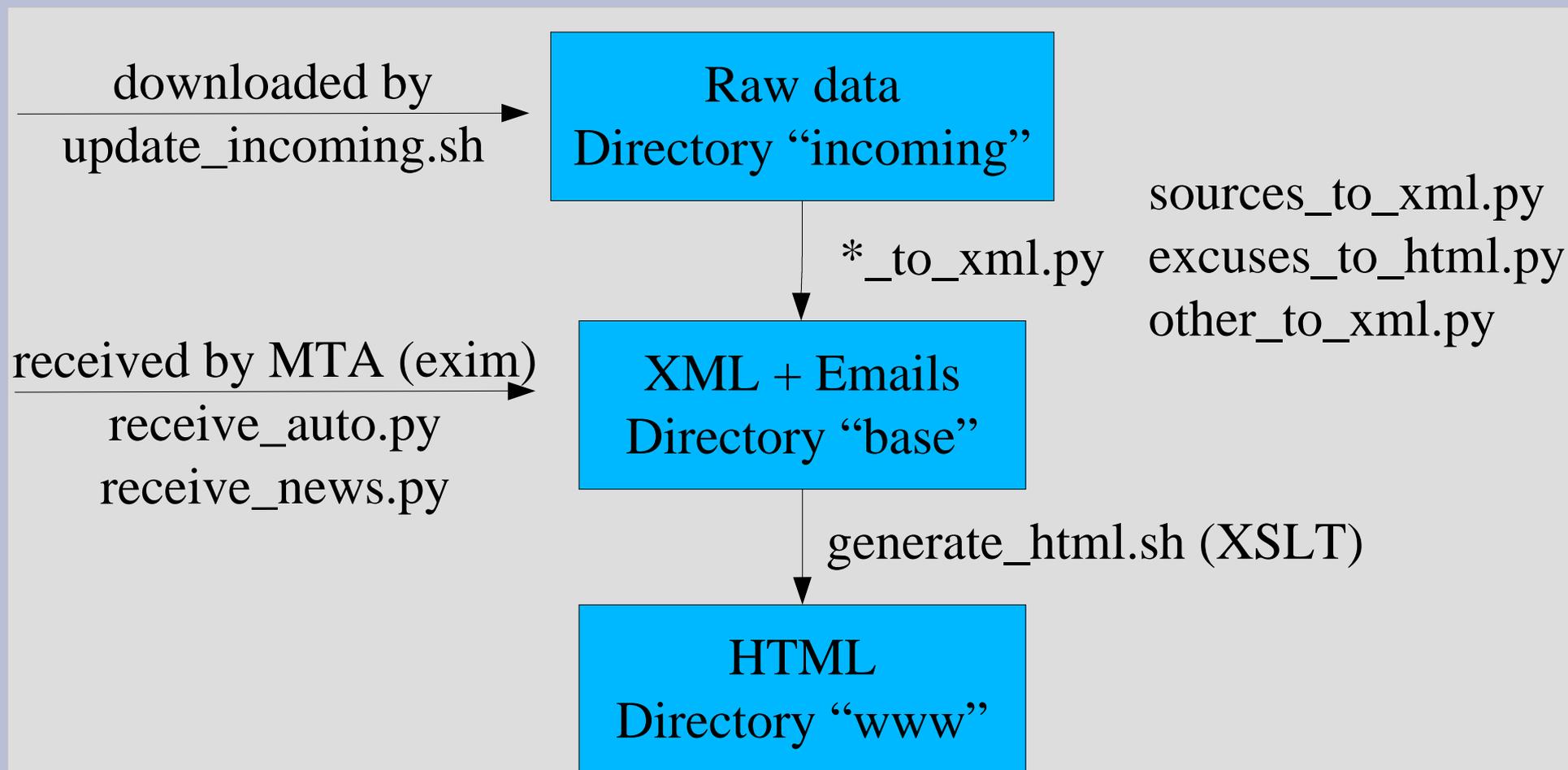
Directory overview (/www)

- /bin: Python scripts (1400 lines in a dozen files)
- /incoming: Raw data after download
- /base: Reference data generated by the scripts (mostly XML and emails)
- /xsl/pts.xsl: XSLT stylesheet
- /web: Generated HTML files
- /cgi-bin: 404 handling for redirection, online subscription form
- /etc: mhonarc config file (for html conversion of emails)



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Architecture



Everything launched 3 times/day by bin/do_all.sh

Nice features of the web interface

- You can put your own content on the web page in the “Latest news” section or in a “Static news” section.
 - Put a link to the upstream web site
 - Indicate where the CVS/SVN is
- This is done by sending a mail to pts-news@qa.debian.org or pts-static-news@qa.debian.org
- Check the developers reference for details !

Ideas for the future

- The PTS is meant to be a real TODO list for the packages maintainers
- Any “know problem” or any “possible amelioration” should be listed :
 - lack of debtags information
 - other examples, recently added:
 - availability of Ubuntu patches
 - availability of patches in the BTS

Conclusion - Questions



- The PTS has become in 4 years an important part of Debian's infrastructure
- It's not a very complex software but very few people looked at it.
- We need to have more people who are able to maintain it.
 - spread the knowledge
 - add some (human) redundancy
 - share the workload
 - implement new ideas