Packaging GNOME in Debian

A desktop that just works

Josselin Mouette

Debian GNOME team

2–3 April 2011 GNOME.Asia Summit 2011, Bangalore



Outline

The Debian GNOME team

2) The Debian distribution workflow

3 How to help

A long time ago, in a very different situation. . .

As the GNOME desktop version 2 lacks large parts of GNOME 1.4's functionality, and suffers from incompatibilities, i'm willing to make it possible to install Gnome 1 on a Debian system without confliciting with Gnome 2.

01 November 2002

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- At that time, cluttered packaging
- Low collaboration between involved people
- Personality issues
- Bad communication with the GNOME project
- disastrous result for only 20 packages

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- Synchronization between all desktop modules
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Now the norm for any large subsystem in Debian: KDE, X, kernel, installer, Perl, Python...

http://wiki.debian.org/Teams

Some figures

- 218 source packages, amounting for 663 binary packages
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- 28 registered contributors, ~5 major contributors/
- ~ 1 month to package a full GNOME version

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 - Stable releases that can last 3 years for enterprise users
 - ► A rolling release, CUT (Constantly Usable Testing)
 - The latest stable platform for developers in unstable
 - Technology previews in experimental
- 2 No really, we mean everyone
 - Support for all 14 Debian architect
 - Includes support for kfreebse and (sometimes) for Hurd
- Close to upstream
 - ▶ 100% of blessed modules are packaged
 - No large-scale changes
 - ► All patches are (*should*) be forwarded upstream
- Completeness
 - Installation tasks & papackages
 - ▶ 4 layers: session, core (1 CD), desktop, full
 - Consistency: limited choices



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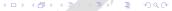
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How to help

- oldstable
 - Previous stable version
 - Only security support, rare bug fixes
- 2 stable
 - \sim One every \sim 2 years, lasts \sim 3 years
 - Only important bug fixes
- 3 testing
 - The next stable release, constantly releasable
 - New goal: constantly usable
 - Packages flow in from unstable
 - * after 10 days (simple changes)
 - ★ batches of self-contained transitions (e.g. one library SONAME change
- 🖭 unstable
 - Developers usually upload here
 - Packages must be release quality
- experimental
 - Testbed where you can break anything
 - ▶ Not a suite per se, but an overlay on unstable

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Debian GNOME packages workflow

In GNOME development cycles

- Packaging of eare libraries in experimental
 - Mostly glib, pango, gtk, GStreamer
 - Work shared with Ubuntu
- Later, core desktop in experimental

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- Packages go in unstable in order
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 - → Tricks to avoid entangled transitions
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Choice of a GNOME version with the release team

• squeeze. GNOME 2.30 with bits of 2.32

Conservative technology choices

- No PulseAudio by default
- No GSettings
- In Jenny (GNOME 2.20/2.22): no gvfs

During the freeze, long polishing phase

- Lots of bug fixes stolen upstream
- Patches for targeted UI sques
- No large-scale changes (most of the time)

- A few more targeted fixes, mostly crashers
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Integrating with Debian packages

- dh_gconf for registering schemas and defaults
- da girepository + GI policy & naming scheme
- Classes to ease packaging
 Small packages are trivial
- Triggers for registering desktop files and icons

Keeping close to upstream

- Automated download scripts
- Information flowing from Bugzilla: BTS link
- New upstream releases: DEHS
- The GNOME status sur ary

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ME					
		Upstream	Debian	Team Archs	
		core			
atk	PTS	1.91.92	1.32.0-2	-	all
atkmm	PTS	2.22.3	2.22.2-1	-	all
brasero	PTS	2.91.91	2.30.3-2	-	13/0
cantarell-fonts		0.0.5			
clutter	PTS	1.6.10	1.6.10-3	-	6/13
clutter-gtk	PTS	0.91.8	0.91.8-2	-	7/9
dconf	PTS	0.7.3	0.7.3-1	-	2/13
empathy	PTS	2.91.92	2.91.92-1	-	3/13
eog	PTS	2.91.92	2.91.91-4	-	all
epiphany	PTS	2.91.92	2.91.91-2	-	all
evince	PTS	2.91.92	2.30.3-3	-	14/0
evolution-data-server	PTS	2.91.92	2.91.91-1	-	all
gcalctool	PTS	5.91.92	5.91.91-1	-	11/1
GConf	PTS	2.32.1	2.32.1-2	-	all
gdk-pixbuf	PTS	2.23.1	2.23.0-2	-	all
gjs	PTS	0.7.13	0.7.13-2	-	7/12
glib	PTS	2.28.4	2.28.2-1	-	11/0
glib-networking	PTS	2.28.4	2.28.4-1	-	9/0
glibmm	PTS	2.27.98	2.24.2-1	-	1/0
gnome-backgrounds	PTS	2.91.92	2.32.0-1	-	all
gnome-bluetooth	PTS	2.91.92	2.91.5-1	-	all
gnome-control-center	PTS	2.91.92	1:2.91.92-1	-	2/12
gnome-desktop	PTS	2.91.92	2.91.93-1	-	9/13
gnome-disk-utility	PTS	2.91.7	2.30.1-2	-	11/0
anome-doc-utils	PTS	0.20.5	0 20 4-1		all

Up-to-date in testing
Up-to-date in unstable
Up-to-date in
experimental
Not up-to-date, lagging
by a minor version
Not up-to-date, lagging

by a major version

Not in Debian

Display arch details

Ν

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Why we need help

Simple... for everything we're bad at.

- Packaging when GNOME is in RC or released is late
 - We discover important issues too late
 - Prches don't make it before the next GNOME release
 - Packaging development releases is rough
 - → Targeted to specific package
- Polishing of specific issues
 - ▶ We have to arbiter between all problems
 - Example in squeeze: package management inconsistencies
- Long-term maintenance of given GNOME releases (
 - Decisions constrained by release plannings
 - Sharing the load with other distributions
 - Currently, mostly BZ as an exchange media for patches

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Still the shortest path to being helpful

- Anyone can help, you only need a machine running unstable.
- Getting useful reports
 - Is the description accurate?
 - Can the bug be reproduced?
 - or crashers, does it have a usable backtrace?
 - Unfortunately, still no debugging packages
- Fyrwarding bugs upstream
 - Does it already have a fix in git?
 - ▶ Does it have a duplicate in Bugzilla?
 - Plea: we want the plicate finder back
 - Getting it closed
 - Unreproducible/old reports
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- → Get your Subversion access in no time!

Communication with upstream

Interested by the state of a module?

- Subscribe to the development mailing list
- Subscribe to the PTS for your module:

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The example of totem

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