

A large, hand-drawn style pink spiral graphic that starts from the center and expands outwards, framing the main title text.

# **Personalized front-end of bugs.debian.org**

Experiment mechanism what I want

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DebConf20 online August 24, 2020





# NOTE

- This slide will be available via [slide.rabbit-shocker.org](https://slide.rabbit-shocker.org)
  - <https://slide.rabbit-shocker.org/authors/kenhys/-debconf20-online/>



# Not talk about

- Improving bugs.debian.org (debbugs) itself
- bugs.debian.org (debbugs) internal in details



# Agenda

- Personal profile
- Why so curious about bugs.d.o?
- The troublesome case about bugs.d.o
- What is Fabre and why is it needed?
- Demonstrate a front-end
- Conclusion



# Personal profile



- Debian Maintainer (@kenhys)
- **Trackpoint fan** - soft dome user
- Working for ClearCode Inc.



# Ad: ClearCode Inc.



ClearCode

■ <https://www.clear-code.com/>

- Free software is important in ClearCode Inc.
- We develop/support software with our free software development experiences.
- We feedback our business experiences to free software.



# As a Maintainer

- Maintain some packages
  - <https://qa.debian.org/developer.php?login=kenhys>
    - groonga (Upstream releases monthly updates)
    - fcitx-imlist
    - libhinawa
    - ...



# Why so curious about bugs.d.o?

<https://bugs.debian.org/cgi-bin/pkgreport.cgi?pkg=release.debian.org;dist=unstable>

## Debian Bug report logs: Bugs in package release.debian.org in unstable

Maintainers for release.debian.org are [Debian Release Team <debian-release@lists.debian.org>](mailto:debian-release@lists.debian.org).

You might like to refer to the [list of other pseudo-packages](#).

If you find a bug not listed here, please [report it](#).

- [Outstanding bugs -- Stable Proposed Updates; Normal bugs](#) (11 bugs)
- [Outstanding bugs -- Stable Proposed Updates \(awaiting upload\); Normal bugs](#) (8 bugs)
- [Outstanding bugs -- Stable Proposed Updates \(needs info\); Normal bugs](#) (14 bugs)
- [Outstanding bugs -- Unblock Requests; Normal bugs](#) (1 bug)
- [Outstanding bugs -- BinNMU Requests \(stable\); Normal bugs](#) (2 bugs)
- [Outstanding bugs -- BinNMU Requests; Normal bugs](#) (1 bug)
- [Outstanding bugs -- Transition Tracking Bugs; Normal bugs](#) (10 bugs)
- [Outstanding bugs -- Britney \(testing migration scripts\); Important bugs](#) (1 bug)
- [Outstanding bugs -- Britney \(testing migration scripts\); Normal bugs](#) (14 bugs)
- [Outstanding bugs -- Britney \(testing migration scripts\); Minor bugs](#) (1 bug)
- [Outstanding bugs -- Britney \(testing migration scripts\); Wishlist items](#) (8 bugs)
- [Outstanding bugs -- Release Policy; Normal bugs](#) (1 bug)
- [Outstanding bugs -- Release Policy; Wishlist items](#) (2 bugs)
- [Outstanding bugs -- Tools \(release team tools\); Normal bugs](#) (6 bugs)
- [Outstanding bugs -- Tools \(release team tools\); Minor bugs](#) (1 bug)
- [Outstanding bugs -- Tools \(release team tools\); Wishlist items](#) (22 bugs)
- [Outstanding bugs -- Uncategorized; Grave functionality bugs](#) (1 bug)





# Why so curious about bugs.d.o?

- I've received deprecated notification bugs
  - Bug# 956770 growl-for-linux: Depends on deprecated libappindicator
  - Bug# 955899 growl-for-linux: Depends on deprecated dbus-glib



# How did you fixed?

- Bug# 956770 growl-for-linux: Depends on deprecated libappindicator
  - <https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=956770>
  - Migrated to libayatana-indicator
    - It is easy because there are enough compatibility
    - Fixed pkg-config target and include path



# How did you fixed? (again)

- Bug# 955899 growl-for-linux: Depends on deprecated dbus-glib
  - <https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=955899>
  - Migrated to GDBus
    - Use d-feet to detect interface change (Rhythmbox plugin)
    - Fixed a interface to follow GDBus API
  - Send PR to upstream
    - Fixed a potential Rhythmbox related bug, too



# growl-for-linux was fixed

- But...What about other packages? 🤔



# What about other packages?

- libappindicator: deprecated in Debian; AppIndicator based applications, please switch to Ayatana (App)Indicator(s)
  - <https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=895037>
- libdbus-glib-1-dev: is deprecated
  - <https://bugs.debian.org/cgi-bin/bugreport.cgi?bug=895291>



# libappindicator: deprecated in Debian;

Debian Bug report logs - [#895037](#)

libappindicator: deprecated in Debian;

AppIndicator based applications, please switch to  
Ayatana (App)Indicator(s)

Package: [src:libappindicator](#); Maintainer for [src:libappindicator](#) is  
[Debian QA Group <packages@qa.debian.org>](#);

Reported by: [Mike Gabriel <sunweaver@debian.org>](#)

Date: Fri, 6 Apr 2018 13:09:02 UTC

Severity: *serious*

Tags: bullseye, sid

Fix blocked by [956779](#): redshift: Depends on deprecated  
libappindicator, [956767](#): autokey-gtk: Depends on deprecated  
libappindicator, [986826](#): lightdm-gtk-greeter: Switch to Ayatana  
Indicators, [956767](#): fusion-icon: Depends on deprecated  
libappindicator, [956765](#): ckb-next: Build-Depends (unnecessarily?) on  
deprecated libappindicator, [956777](#): package-update-indicator: Depends  
on deprecated libappindicator, [956769](#): gromit-mpx: Depends on  
deprecated libappindicator, [956772](#): hime: Depends on deprecated  
libappindicator, [956774](#): kytlin-burner: Depends on deprecated  
libappindicator, [956761](#): bluelman: Depends on deprecated  
libappindicator, [956766](#): gcin: Build-Depends (unnecessarily?) on  
deprecated libappindicator, [921339](#): Please switch to Ayatana  
AppIndicator, [956778](#): parcellite: Depends on deprecated  
libappindicator, [956776](#): osdlyrics: Depends on deprecated  
libappindicator, [956773](#): indicator-sensors: Depends on deprecated  
libappindicator, [956771](#): gkbd: Depends on deprecated libappindicator,  
[956782](#): zeal: Build-Depends (unnecessarily?) on deprecated  
libappindicator, [956768](#): gmpc: Depends on deprecated libappindicator  
Blocking fix for [895038](#): libindicator: deprecated in Debian, switch  
to libayatana-indicator instead

■ Many blocked bugs



debian





# How to track many blocked?

- Use UserTags?
  - <https://wiki.debian.org/bugs.debian.org/usertags>
  - <https://udd.debian.org/cgi-bin/bts-usertags.cgi>

# Does it work with libappindicator?

<https://udd.debian.org/cgi-bin/bts-usertags.cgi?user=pkg-ayatana-devel%40lists.aliases.debian.org&tag=ayatana-appindicator>

88% ... ☆

## Tagged ayatana-appindicator by pkg-ayatana-devel@lists.aliases.debian.org

Bug	Package	Title	Other tags
<a href="#">#921339</a>	<a href="#">src:gsensor</a>	Please switch to Ayatana AppIndicator	<a href="#">list usertags</a>
<a href="#">#956761</a>	<a href="#">src:blueman</a>	blueman: Depends on deprecated libappindicator	<a href="#">list usertags</a>
<a href="#">#956762</a>	<a href="#">src:autokey-gtk</a>	autokey-gtk: Depends on deprecated libappindicator	<a href="#">list usertags</a>
<a href="#">#956765</a>	<a href="#">src:ckb-next</a>	ckb-next: Build-Depends (unnecessarily?) on deprecated libappindicator	<a href="#">list usertags</a>
<a href="#">#956766</a>	<a href="#">src:gcin</a>	gcin: Build-Depends (unnecessarily?) on deprecated libappindicator	<a href="#">list usertags</a>
<a href="#">#956767</a>	<a href="#">src:fusion-icon</a>	fusion-icon: Depends on deprecated libappindicator	<a href="#">list usertags</a>
<a href="#">#956768</a>	<a href="#">src:gmpc</a>	gmpc: Depends on deprecated libappindicator	<a href="#">list usertags</a>
<a href="#">#956769</a>	<a href="#">src:gromit-mpx</a>	gromit-mpx: Depends on deprecated libappindicator	<a href="#">list usertags</a>
<a href="#">#956771</a>	<a href="#">src:gxkb</a>	gxkb: Depends on deprecated libappindicator	<a href="#">list usertags</a>
<a href="#">#956772</a>	<a href="#">src:hime</a>	hime: Depends on deprecated libappindicator	<a href="#">list usertags</a>
<a href="#">#956773</a>	<a href="#">src:indicator-sensors</a>	<del>indicator-sensors: Depends on deprecated libappindicator</del>	<a href="#">list usertags</a>
<a href="#">#956774</a>	<a href="#">src:kylin-burner</a>	kylin-burner: Depends on deprecated libappindicator	<a href="#">list usertags</a>
<a href="#">#956776</a>	<a href="#">src:osdlyrics</a>	osdlyrics: Depends on deprecated libappindicator	<a href="#">list usertags</a>
<a href="#">#956777</a>	<a href="#">src:package-update-indicator</a>	package-update-indicator: Depends on deprecated libappindicator	<a href="#">list usertags</a>
<a href="#">#956778</a>	<a href="#">src:parcellite</a>	parcellite: Depends on deprecated libappindicator	<a href="#">list usertags</a>
<a href="#">#956779</a>	<a href="#">src:redshift</a>	redshift: Depends on deprecated libappindicator	<a href="#">list usertags</a>
<a href="#">#956782</a>	<a href="#">src:zeal</a>	zeal: Build-Depends (unnecessarily?) on deprecated libappindicator	<a href="#">list usertags</a>

[Home](#)

■ UserTag is: **ayatana-appindicator**



# Does it work with libdbus-glib1-dev?

- It is a case that UserTag is **not available**
- It should be tagged...



# The troublesome case about bugs.d.o

- UserTag is not always used
- Many blocked bugs may be difficult to see
- **How to solve this situation?**



# Use [udd.debian.org](https://udd.debian.org)!

☒ ☐ ☐ modified in the last  days

☒ ☐ ☐ blocking bug

☐ ☒ ☐ usertag  for user

- Can track usertags
- Can track blocking bugs



# In my experience, I need

- Easy to:
  - Track a specified bug (tagged/not tagged)
  - Find a bug that no one working on
  - Send control/submitter E-mail



# What I need for?

- Easy to:

- ~~Track a specified bug (tagged/not tagged)~~ **Use UDD!**
- Find a bug that no one working on 😞
- Send control/submitter E-mail 😞



# Starting personal project

- Concept

- Easy to find a bug that no one working on  
**Count comment in bug#NNNNNN**
- Easy to send control E-mail  
**Add mailto: link explicitly**





# What should I do?

- Name the project 😊
- Integrate with salsa.d.o account (optional)
- Sync bug information
- Import additional metadata
- Make it accessible!



# What should I do?

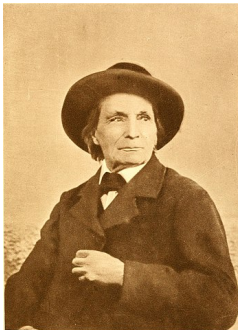
- **Name the project** 😊

Naming is important!

- Integrate with salsa.d.o account (optional)
- Sync bug information
- Import additional metadata
- Make it accessible!



# Named as Fabre



cite: [https://en.wikipedia.org/wiki/Jean-Henri\\_Fabre](https://en.wikipedia.org/wiki/Jean-Henri_Fabre)



# Why Fabre?

- <http://fabre.debian.net>
  - Around 2005, fulltext search service had been hosted
  - Undocumented Debian “debbugs internal” written in Japanese
    - <https://tokyodebian-team.pages.debian.net/pdf2005/-debianmeetingresume2005-fuyu.pdf>
- Reuse previous (maybe) similar project



# What should I do?

- Name the project 😊

Naming is important!

- **Integrate with salsa.d.o account (optional)**

- Sync bug information
- Import additional metadata
- Make it accessible!



# Integrate with salsa.d.o account (optional)

- Use GitLab(salsa.d.o) as an OAuth2 provider
  - <https://docs.gitlab.com/ee/api/oauth2.html>
- No need to store sensitive password



# What should I do?

- Name the project 😊  
Naming is important!
- Integrate with salsa.d.o account (optional)
- **Sync bug information**
- Import additional metadata
- Make it accessible!



# Sync bug information

- Get E-mail archive with rsync
  - <https://salsa.debian.org/debbugs-team/debbugs>
  - `rsync -av rsync://bugs-mirror.debian.org/bts-spool-db/`  
It requires 15GiB!
- Use \*.log and \*.summary





# Extract .log and .summary

- Use perl module which is used for bugs.d.o (Debbugs)
  - Debbugs::Log, Debbugs::Status, Debbugs::MIME and so on
  - \*.log contains multiple raw E-mail content with control sequence
  - \*.summary contains metadata of each bug



# How to parse .log

```
my $log = Debbugs::Log->new(log_name => $path);
my @records = $log->read_all_records();
for my $record (@records) {
    ...
    my $entity = Debbugs::MIME::parse_to_mime_entity($record);
    print "From: " . $entity->head->get("From");
    print "To: " . $entity->head->get("To");
    print "Subject: " . $entity->get_field($entity, "Subject");
    print "Date: " . $entity->head->get("Date");
}
```



# How to parse .summary

Format-Version: 3  
Submitter: Nis Martensen <nis.martensen@web.de>  
Subject: libexo-helpers: starting thunderbird fails for some mailto URIs  
Found-In: exo/0.12.4-1  
Tags: patch  
Package: libexo-helpers  
Message-Id: <159439678897.3833.10774950364480956704.reportbug@siamos.nes.net>  
Severity: normal  
Date: 1594396982

```
my $summary = Debbugs::Status::read_bug(summary => $path);  
print $summary->{"tags"}
```



# What should I do?

- Name the project 😊  
Naming is important!
- Integrate with salsa.d.o account (optional)
- Sync bug information
- **Import additional metadata**
- Make it accessible!



# Import additional metadata

- UDD: UltimateDebianDatabase
  - <https://wiki.debian.org/UltimateDebianDatabase>
  - You can access with:  
`psql -host=udd-mirror.debian.net -user=udd-mirror udd -password`
  - Schema is available: <https://udd.debian.org/schema/-udd.html>
    - Import popcon and package data



# What should I do?

- Name the project 😊  
Naming is important!
- Integrate with salsa.d.o account (optional)
- Sync bug information
- Import additional metadata from UDD
- **Make it accessible!**

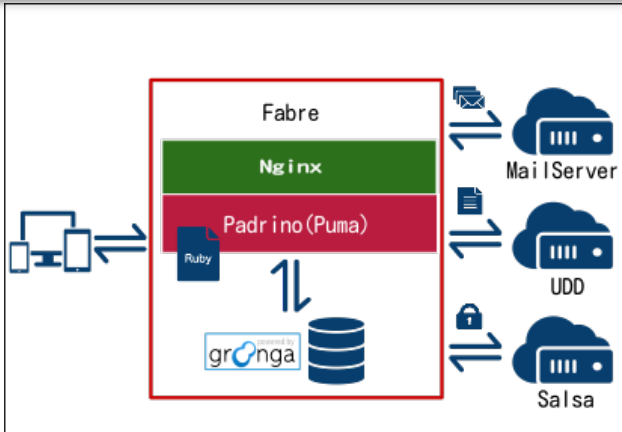


# Prepared server specs for experiment

- Start with small VPS instance (about 3.26 USD/mo)
  - 1vCPU
  - 1GiB memory
  - 20GiB disk space
  - Max 100Mbps bandwidth



# Fabre internals







# What is the trigger of syncing

- Subscribe `debian-bugs-dist@lists.debian.org`
- Poll subscribed E-mail account
- Fetch latest E-mail archives on `bugs-mirror.debian.org`
- Convert & import E-mail archive data



# Concept of Fabre

- Easy to find a bug that no one working on
  - Count comment in bug#NNNNNN
- Easy to send control E-mail
  - Add mailto: link explicitly
- Easy to view blocking bugs
  - List blocking appropriately



# Easy to find a bug that no one working on

Bug#	Severity	Details
# 967764	normal	src:sylpheed sylpheed: d 4 71
# 947713	important	libgtk2.0-0 libgtk2.0-0: is 1 13371
# 964500	critical	src:linux 5.7.0-1: Kernel p 2 17935
# 963358	serious	src:node-formidable nod 1 3

- Show each number of comments (yellow means no one working on yet)



# Easy to send control E-mail

Severity

normal

Tags

bullseye

sid

✉ Patch

✉ Need moreinfo

✉ Fixed in upstream

✉ Pending(waiting upload)

✉ Close

- Show each mailto: button to control



# Easy to view blocking bugs

Blocked by	955891 <a href="#">firefox-esr</a> : Depends on deprecated dbus-gl		
	1	28760	Forwarded
	955939 <a href="#">pyatspi</a> : Depends on deprecated dbus-glib		
	2	15707	Forwarded  Patch
	955834 <a href="#">enchant</a> : unnecessarily Build-Depends on d		
	4	15592	Patch
	955911 <a href="#">libayatana-appindicator</a> : Depends on depre		
	1	11693	
	955823 <a href="#">bluez</a> : Build-Depends on dbus-glib but does		
	2	10227	Patch

- List blocking appropriately



# What comes to next?

- It looks useful, isn't it?



# Personalize Fabre!

- Add bookmark
- Show affected bugs
- Followup newer comments



# Personalize Fabre!

- Add bookmark
  - **Link account and bug**
- Show affected bugs
  - **Link account and installed packages list**
- Followup newer comments
  - **Link account and search comment information**





# How to collect installed packages list?

```
POPULARITY-CONTEST-0 TIME:1596711793 ID:XXX ARCH:amd64 POPCONVER:1.70 VENDOR:Debian
1596672000 1570622400 libgail-common /usr/lib/x86_64-linux-gnu/gtk-2.0/modules/libgail.so
1596672000 1596585600 libavcodec58 /usr/lib/x86_64-linux-gnu/libavcodec.so.58.91.100 <RECENT-CTIME>
1596672000 1586736000 libgoa-1.0-0b /usr/lib/x86_64-linux-gnu/libgoa-1.0.so.0.0.0
...
1596672000 1586217600 libzvbi0 /usr/lib/x86_64-linux-gnu/libzvbi.so.0.13.2
1596672000 1590624000 udisks2 /usr/share/locale/ja/LC_MESSAGES/udisks2.mo
END-POPULARITY-CONTEST-0 TIME:1596711817
```

- Just upload popcon file
  - /usr/sbin/popularity-contest --su-nobody



# Personalized Fabre on dashboard

Affected Bugs

3

Bookmarked Bugs

8

Installed packages

1595

Followup comments since 30 days ago

Bug#

Details

# 967764



71

**src:sylpheed** sylpheed: depends on deprecated GTK 2

# 964770



5168

**lintian** lintian: lintian will get stuck on arm64



# How Fabre is good enough to work?

- Now ready to DEMO if there is a time to do



# Conclusion

- In my experiment, mashup some data sources may improve UX
  - bug report
  - UDD metadata
  - installed packages list
- There are plenty room of improvements to develop



# Any questions?

Could you speak slowly if you ask, please?