Debian Community

Lumin
Debian Maintainer
Xdlinux Member

Mar 2018 @ Gnome 3.28 Release Party

Debian: A Free Operating System

Debian 0.1:   September 1993

Current Stable: 9.4 (Stretch)

Release Branches: Stable, Testing, Unstable (aka. Sid)

Number of Source Packages: > 15000 (Bin: 59311)

Distrowatch: ~ Top 3

Variants: Mint, Ubuntu, Kali, etc...

Behind The Curtain

Self-disciplined Volunteer Community.

Under the name of SPI, a non-profit organization.

+ **Roles:** Leader, DD, DM, Contributor, ……

+ **Teams:** d-Science, d-Chinese, ftp-master, ……

+ **Number of Volunteers:** ~ 1000

People @ Debian

Matthias Klose (uid=doko,ou=users,dc=debian,dc=org)   The man behind the tool chain.

Bash, binutils, gcc-*, mpfr4, python2, python3, pillow, readline

Eric S. Raymond (uid=esr,ou=users,dc=debian,dc=org)   Theodore Y. Ts'o (uid=tytso,ou=users,dc=debian,dc=org)

Ben Hutchings (uid=benh,ou=users,dc=debian,dc=org)   Mark Shuttleworth (uid=marks,ou=users,dc=debian,dc=org)

Andreas Tille (uid=tille,ou=users,dc=debian,dc=org)   Gianfranco Costamagna (uid=locutusofborg,ou=users,dc=debian,dc=org)

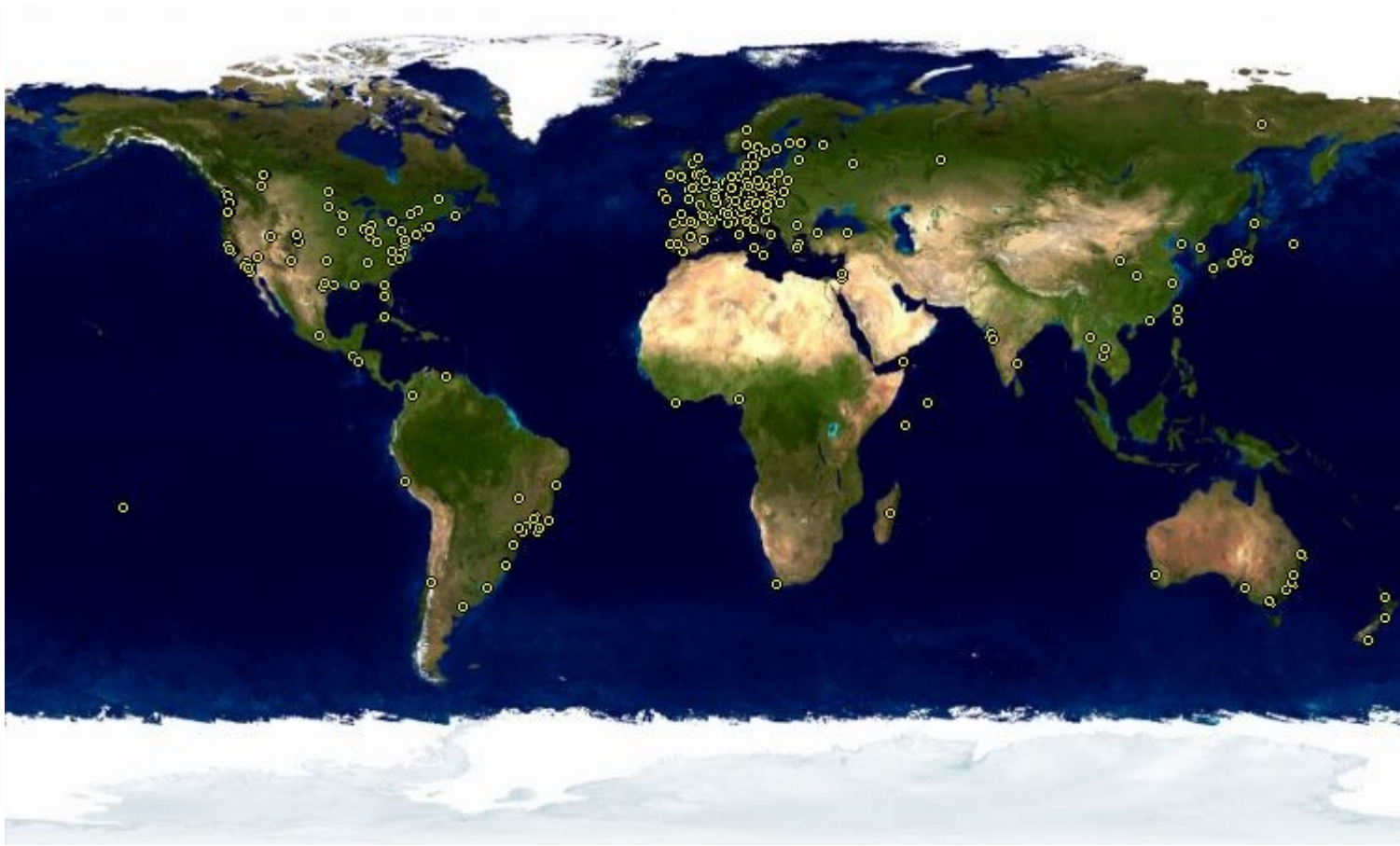Osamu Aoki (uid=osamu,ou=users,dc=debian,dc=org)   Daniel Stender (uid=stender,ou=users,dc=debian,dc=org)

Paul Wise (uid=pabs,ou=users,dc=debian,dc=org)   Aron Xu (uid=aron,ou=users,dc=debian,dc=org)

System Admins, Software Engineers, Scientists, Students, Freelancers, and **???**

Cannonical.

`https://db.debian.org`

Developer Locations

Agreement among the Community

Common Agreement:

1. Debian Social Contract

2. Debian Free Software Guideline (DFSG)

3. Debian Policy (Policy)

4. Debian Constitution (Power / Vote …)

In Case of Disagreement:

* Technical Committee (TC)

* General Resolution (GR)

* ~~Endless argument in the mailing list~~

What Makes Debian Different from Other Distros?

Common Agreement:

1. Debian Social Contract

2. Debian Free Software Guideline (DFSG)

3. Debian Policy (Policy)

In Case of Disagreement:

* Technical Committee (TC)

* General Resolution (GR)

* Endless argument in the mailing list

Debian Free Software Guideline (DFSG)

– Software Freedom

– Influenced: OpenSource Definition

– Whether a package can go into the main section. [Mandatory]

    `(main contrib non-free)`

– Tradeoff: Freedom but Troublesome

  – Official Installation ISO contains no non-free blobs.

    e.g. firmware-iwlwifi

  – Das Mädchen

  – non-free ISOs (Unofficial)

Being Free is not the Only Requirment

Debian Policy: Requirements of the Debian distribution

* The structure and contents of the Debian archive
* Several design issues of the operating system
* Technical requirements that each package must satisfy

e.g.

* Archive Areas, DFSG and Copyright Considerations
* Filesystem Hierarchy Standard (FHS)
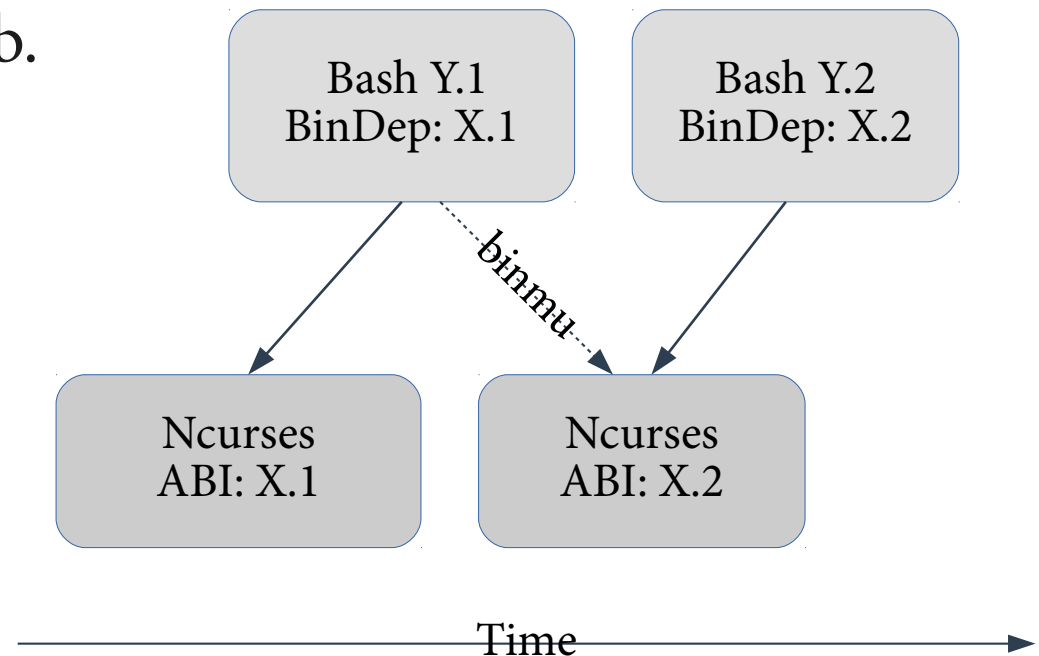* Testsuites and reproducibility.

Dep Tree: Policy (Symbol, Pkg Relation) + APT/dpkg

* One shared object per library package.

   – Symbol Tracking.

   – Multiple Versions of Same Lib.

* Debian is universal.

   – Split dev and doc package.

   – Instruction sets (e.g. SIMD).

Result: High Quality Standard

* Architectures: amd64 i386 arm* ppc64el s390x mips* …

* Debian unstable is quite "stable". Updates are safe.

* Cost:
  – Time of work.
  – Long pipeline for new comers.

How Does a **NEW** Package Enter Debian?

While obeying the guidelines, and meeting the quality requirement.

– From a contributor's view.

How Does a **NEW** Package Enter Debian?

1. File "Intent To Package" (ITP) Bug.

2. Packaging (dpkg-buildpackage), checking (lintian) and testing.

3. Upload to mentors.d.n and File "Request for Sponsor" (RFS) Bug.

4. Wait for a DD to review.

5. Polish the package until your sponsor is happy.

6. Sponsor signs the package and upload to ftp-master.

7. Ftp-master checks copyright again.

8. Package Enters unstable.

9. If the package is not problematic, it will migrate to testing.

10. DM Access, Maintaining and Bugfixes.

DM/DD's Daily Work

Update Existing Package

1. Update Package. Fix bugs.

2. Check and Upload.

New Package

1. ITP.

2. RFS, or directly upload to ftp-master.

Accidents

* 2008 OpenSSL vulnerability.

* Embarrassing Non-Maintainer-Upload.

  - e.g. libxml2

[2015-09-22] Accepted libxml2 2.9.2+zdfsg1-4 (source amd64 all) into unstable (Aron Xu)

[2015-09-13] Accepted libxml2 2.9.2+really2.9.1+dfsg1-0.2 (all source) into unstable (Guido Günther)

[2015-08-25] Accepted libxml2 2.9.2+really2.9.1+dfsg1-0.1 (source amd64 all) into unstable (Raphaël Hertzog)

* Developer's mistake

Dear DST,

Could someone upload the following update fixing the two RCs currently
affecting the Debian and Ubuntu packages for spyder [1].

I should have tested the previous update more thoroughly, I have not
made the same mistake this time.

[1] https://salsa.debian.org/science-team/spyder.git

Cheers,

Debian & Its Comminity

* Mean and Lean. Definite guidelines.
* Reliable due to high quality standard.
* Slow update the more problem due to high quality standard.

* Volunteers are always wanted. Help is always appreciated.
    – Debian Games: … old packages.
    – Debian Science: … a bunch of RC bugs.
* People getting old (cite?)
* Number of female developer.

female	2/22	^ ˅ ✕

How to Help Debian?

Bug Tracking System (BTS)

```
Subject: <your-email-subject>
To: submit@bugs.debian.org
Package: problematic-package
Version: specify-a-version

Dear maintainer,

…

Best regards,
Your-name.
```

```
~ ❯❯❯ apt show apt
Package: apt
Version: 1.6~beta1
```

How to Help Debian?

* [l10n/i18n] Programs / manpages translation.

* Test package and report bugs.

* Feature requests. Or provide patches for enhancement.

* Fix bugs in existing packages.

    – Bugs tagged with "newcomer".

    – Bugs with RC severity.

    – Submit patches.

* Create NEW packages to Debian and maintain it.

    – Join Teams.

Example: Myself

* zh-cn translation for apt, dpkg and maint-guide.
* Use Debian testing/unstable and report bugs to existing packages.
* Adopt fortunes-zh package. (d-Chinese team)
* Introduce Caffe and Torch into Debian. (d-Science team).
* Co-maint CUDA toolkit (d-Nvidia team).
* Team upload pandas fixing RC. (d-Science team).
* Co-maint numba. (d-Science team) (10 RC).
* … …

Thanks