

Bits from the DPL

discourse on the state of the Debian Project

Stefano Zacchiroli

Debian Project Leader

8 July 2012
DebConf12
Managua, Nicaragua

Outline

- 1 My Debian mantras
- 2 Challenges ahead

Once upon a time

Fellow Linuxers,

This is just to announce the imminent completion of a brand-new Linux release, which I'm calling the Debian Linux Release. [...]

*— Ian Murdock, 16/08/1993
comp.os.linux.development*

[...] we were the first intentional community development project.

*— Ian Murdock, 05/07/2011
interview on www.linux.com*

19 years later

- \approx 38'000 binary packages (amd64/sid/main)
- 12 releases
 - ▶ 13th before the end of the year?
- 950 **project members** + 180 **DMs** + thousands **contributors**
- largest n. of **ports** among “major” distros
- non-Linux ports — kFreeBSD, Hurd (?), ...
- ...

19 years later

- \approx 38'000 binary packages (amd64/sid/main)
- 12 releases
 - ▶ 13th before the end of the year?
- 950 **project members** + 180 **DMs** + thousands **contributors**
- largest n. of **ports** among “major” distros
- non-Linux ports — kFreeBSD, Hurd (?), ...
- ...

Well done everybody!

One of a kind?

1993 — not many distros back then

19 years later — *lots* of other distros

openSUSE, Linux Mint, PCLinuxOS, Slackware, Gentoo Linux, CentOS, FreeBSD, Arch, Sabayon, Puppy, Lubuntu, MEPIS, Ultimate, NetBSD, Tiny Core, Zenwalk, CrunchBang, Dreamlinux, Vector, Kubuntu, Maemo, Red Hat, aptosid, Peppermint, PC-BSD, Chakra, Salix, ClearOS, KNOPPIX, Xubuntu, Super OS, BackTrack, gOS, TinyMe, Zentyal, EasyPeasy, Frugalware, Clonezilla, Pardus, Meego, OpenBSD, Quirky, PC/OS, Zorin, **Debian**, SystemRescue, Element, Unity, SliTaz, Macpup, wattOS, Scientific, Mythbuntu, Slax, DragonFLY, Elive, linux-gamers, 64 Studio, Ubuntu, mageia, Nexenta, Parisx, NuTyX, GhostBSD, Kongoni, moonOS, LFS, Lunar, Imagineos, Untangle, Fedora, Yellow Dog, aLinux, Yoper, IPFire, BlankOn, Mandriva, PureOS, FreeNAS, Moblin, Linpus, TurboLinux, blackPanther, ...

with many **differences**:

- technical choices
- release management
- release schedule
- target user
- community
- support
- packaging system
- user base
- look & feel
- ...

How is Debian different?

Outline

1 My Debian mantras

2 Challenges ahead

Debian's specials — freedom

firm principles from the *Social Contract*

- 1 promoting the “culture of Free Software” since 1993
- 2 **free the bottom up**
 - ▶ in its software
 - ▶ in its infrastructure
 - ▶ open in its processes — *there is no cabal !*

community awareness

- users trust Debian not to betray software freedom
- **high bar for software freedom** advocates

Debian's specials — quality

“culture of technical excellence”

- **policy**, lintian, piuparts, archive rebuilds (FTBFS), etc.
- maintainers are **software experts**
- **no 2nd class packages**
- *“we release when it's ready”*

Debian's specials — independence

- volunteers
- no corporate/hierarchical structure
- no single company babysitting us
- living up on:
 - ▶ donations (money & hardware)
 - ▶ gift-economy

truly **remarkable** in today FOSS ecosystem

community awareness

people trust our choices not to be profit-driven

Debian's specials — decision making

1 do-ocracy

An individual Developer may make any technical or nontechnical decision with regard to their own work;

— Debian Constitution, §3.3.1.1

2 democracy

Each decision in the Project is made by one or more of the following:

1. The Developers, by way of General Resolution [...]

— Debian Constitution, §2

that means:

- easy to have an impact: JFDI
- reputation follows work
- **no imposed decisions**

by who has money, infrastructure, people, ...

Debian's specials — derivatives

Derivatives have changed the way distros are made:

- they focus on **customization** and need workforce “only” for that

Debian: **upstream for ≈ 140 active derivatives** — distrowatch.com

Linspire, Liurex, Mint, LiMux, Sidux, gnuLinEx, Grml, MEPIS, Xandros, Ubuntu, Univen-
tion, Damn Small Linux, Collax, Euronode, Floppix, Gibraltar, Kanotix, Knoppix, PureOS,
gNewSense, LMDE, 64 Studio, Elive, Freespire, Jolicloud, Kurumin, Maemo, Neopwn, Open-
Zaurus, Parsix, Xebian, Hackable:1, aptosid, Ubuntu Studio, Mythbuntu, ArtistiX, Asturix,
Goobuntu, LinuxMCE, nUbuntu, Peppermint, TurnKey Linux, Zenix, ...

anyone running a (transitive) derivative **depends on Debian** and on
our well-being

even if their distro hasn't told them

Debian's role

- 1 freedom
- 2 quality
- 3 independence
- 4 decision making
- 5 derivatives' root

we play a **fundamental role** in Free Software

it is our responsibility to be up to the task
are we?

Outline

1 My Debian mantras

2 Challenges ahead

Staying healthy

last 2 years

“we lack manpower” as a major theme

we always will

but **recruitment is doing well!**, in 2010-2012:

- ▶ +30 DDs/year (net)
- ▶ +50 DMs/year (gross)

- this is no excuse
- reduce **barriers for contributions** *within* Debian
 - ▶ bridge the gap: “leaf package” maint. ↔ “core/team”
 - ▶ *“how could I make it easier for others to hack on ...?”*

Staying healthy

last 2 years

“we lack manpower” as a major theme

we always will

but **recruitment is doing well!**, in 2010-2012:

- ▶ +30 DDs/year (net)
- ▶ +50 DMs/year (gross)

- this is no excuse
- reduce **barriers for contributions** *within* Debian
 - ▶ bridge the gap: “leaf package” maint. ↔ “core team”
 - ▶ *“how could I make it easier for others to hack on . . . ?”*

Becoming more diverse

Diversity is good.

— me, now

- we need a **range of different skills** to make Debian package maintenance, software development, translations, infrastructure and website maintenance, porting, bug triaging and fixing, management activities, communication, artwork, testing, legal advice, quality assurance, ...
 - ▶ packagers cannot possibly be good at *all* of them
 - **discussion culture** benefits from diversity
- 1 fix the membership process
 - ▶ project members GR + nm.debian.org
 - 2 **attract diverse skills**
 - ▶ only 5 “non-uploading” DDs :- (

Becoming more diverse

Diversity is good.

— me, now

- we need a **range of different skills** to make Debian package maintenance, software development, translations, infrastructure and website maintenance, porting, bug triaging and fixing, management activities, communication, artwork, testing, legal advice, quality assurance, ...
 - ▶ packagers cannot possibly be good at *all* of them
- **discussion culture** benefits from diversity
- 1 fix the membership process
 - ▶ project members GR + nm.debian.org ✓
- 2 **attract diverse skills**
 - ▶ only 5 “non-uploading” DDs :- (✗

Being on time

People still believe Debian release cycles are unpredictable.
They are not.

Sarge historical FAIL (circa 2005, 7 years ago)
then we learned

Etch 22 months

Lenny 22 months

Squeeze 24 months

with Wheezy: **time-based freeze**

- **huge step forward**
for both DDs and upstreams
- **do not forget**
aim at reliably freezing every \$x months (24?)

Being on time

People still believe Debian release cycles are unpredictable.
They are not.

Sarge historical FAIL (circa 2005, 7 years ago)
then we learned

Etch 22 months

Lenny 22 months

Squeeze 24 months

with Wheezy: **time-based freeze** ✓

- **huge step forward**
for both DDs and upstreams
- **do not forget**
aim at reliably freezing every \$x months (24?)

Short freezing

In case you didn't notice: Wheezy is frozen!

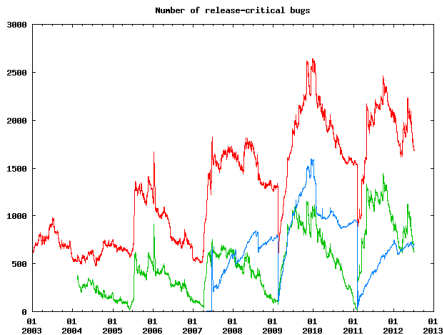
but still...

lots of work TODO!

135 RC bugs more than last freeze

aim for a **short freeze**:

- sustainable freeze model
- reduce no-go period for intrusive changes
- keep testing rolling
 - ▶ both for us and derivatives



<http://bugs.debian.org/release-critical/>

Short freezing — how?

- it is not *normal* to have this many RC bugs
- but it happens

to release at this point,

a **collaborative release process** is the (only) way to go

- releasing is a shared responsibility, not only release team's
- do NMUs, welcome NMUs, love NMUs

NMUs that fix RC bugs are free for all,
really

Collective code ownership

Collective Ownership encourages everyone to contribute new ideas to all segments of the project. Any developer can change any line of code to add functionality, fix bugs [...]. No one person becomes a bottle neck for changes.

<http://www.extremeprogramming.org/rules/collective.html>

- good for agile developers
- good for Free Software projects
- ... but not for Debian?

our best approximation: **liberal NMUs** (and teams)

Low company involvement

Compared to similar projects:

- little paid work opportunities
- few companies contributing

Volunteering is great.

But:

- 1 we compete with companies & full-time employees watch out for our **morale!**
- 2 useful tasks that **volunteers won't bother** doing OEM, "certification" lobbying, support network, etc.
- 3 what if **only one company** employs DDs?

Work in progress: debian-companies

Low company involvement

Compared to similar projects:

- little paid work opportunities
- few companies contributing

Volunteering is great.

But:

- 1 we compete with companies & full-time employees watch out for our **morale!**
- 2 useful tasks that **volunteers won't bother** doing OEM, "certification" lobbying, support network, etc.
- 3 what if **only one company** employs DDs?

Work in progress: debian-companies

The DPL ...

What does the DPL do for you?

Fancy stuff !

... and all sort of **needed “boring” stuff:**

- money
 - reimbursements, hardware, debconf, donations, avoid bankruptcy (!)
- lawyers
 - patents, trademark, copyright, legal responsibility, lawsuit (?)
- mediations
- reports

The DPL ...

What does the DPL do for you?

Fancy stuff !

... and all sort of **needed “boring” stuff**:

- **money**
reimbursements, hardware, debconf, donations, avoid bankruptcy (!)
- **lawyers**
patents, trademark, copyright, legal responsibility, lawsuit (?)
- **mediations**
- **reports**

The DPL is a problem!

1 It. Just. Doesn't. Scale.

- ▶ we rely on luck
that victims candidates will be up to the task

2 Transparency is hard

- ▶ I've worked quite a bit on it
- ▶ intrinsic limits when you basically talk to yourself

3 Low institutional memory

- ▶ DPL-ing is unlike any other task in Debian
- ▶ trial & error, basically
- ▶ re-learn the job at each DPL change

The DPL is a problem!

1 It. Just. Doesn't. Scale.

- ▶ we rely on luck
- ▶ that victims candidates will be up to the task

2 Transparency is hard

- ▶ I've worked quite a bit on it
- ▶ **intrinsic limits** when you basically talk to yourself

3 Low institutional memory

- ▶ DPL-ing is unlike any other task in Debian
- ▶ trial & error, basically
- ▶ re-learn the job at each DPL change

The DPL is a problem!

1 It. Just. Doesn't. Scale.

- ▶ we rely on luck
- ▶ that victims candidates will be up to the task

2 Transparency is hard

- ▶ I've worked quite a bit on it
- ▶ intrinsic limits when you basically talk to yourself

3 Low institutional memory

- ▶ DPL-ing is unlike any other task in Debian
- ▶ trial & error, basically
- ▶ re-learn the job at each DPL change

The DPL is a problem! (cont.)

DPL \approx relic of the benevolent dictator era
While the world around us has evolved

(Note: a board bound to DPL terms is no solution)

- **goal:** independent **board of directors** to help DPLs
 - ▶ with turnover (for institutional memory)
 - ▶ periodic public meetings (for transparency)
 - ▶ bonus point: wannabe DPL *can* test themselves
- **interim:** informal DPL helpers team

and yet the DPL will remain...
so you better start thinking at the next one :-)

- greater role to play than being yet another distro
- if we FAIL, Free Software will suffer
- be bold in implementing your changes
- be humble in learning from other projects

Your thoughts?

Stefano Zacchiroli

Teader@debian.org

<http://upsilon.cc/zack>

<http://identi.ca/zack>

about the slides:

available at

copyright © 2010–2012

license

<https://git.crius.org/zacchiro/talks/trees/master/2012/20120708-dc12-dp1>

Stefano Zacchiroli

CC BY-SA 3.0 — Creative Commons Attribution-ShareAlike 3.0

- greater role to play than being yet another distro
- if we FAIL, Free Software will suffer
- be bold in implementing your changes
- be humble in learning from other projects

Your thoughts?

Stefano Zacchioli

Teader@debian.org

<http://upsilon.cc/zack>

<http://identi.ca/zack>

about the slides:

available at

copyright © 2010–2012

license

<https://gitorious.org/zacchiro/talks/trees/master/2012/20120708-dc12-dp1>

Stefano Zacchioli

CC BY-SA 3.0 — Creative Commons Attribution-ShareAlike 3.0