

Debian, Ubuntu e le altre 120 distribuzioni derivate

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Outline

- 1 Debian
 - What's so special about it?
- 2 Ubuntu
 - Relationship with Debian
 - Debian ↔ Ubuntu collaboration
- 3 Free Software
 - The distro ecosystem

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Debian: 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**. [...]*

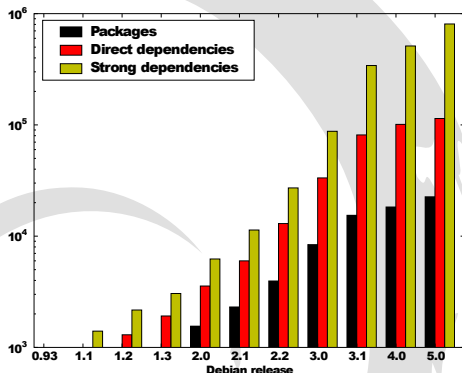
*Ian A Murdock, 16/08/1993
comp.os.linux.development
<http://deb.li/bigbang>*

not many other distros back then

- make GNU/Linux **competitive** with commercial OS
- inspired by SLS, but better (**quality**)
- **easy** to install
- built **collaboratively** by experts, in the **open**
- free as in **freedom**; GNU-supported for a while

Debian: the OS

- completely **Free Software**
 - ▶ contrib & non-free ain't Debian
 - ▶ **DFSG**: Debian Free Software Guidelines
- support for a dozen architectures (Lenny)
alpha, amd64, arm(el), hppa, i386, ia64, mips(el), powerpc, s390, sparc
- 2 **non-Linux ports** upcoming
kFreeBSD 32/64
- 120 **derivatives** (distrowatch)



The largest GNU/Linux distro
FOSS porting platform

- 23'000 packages in Lenny

Debian: the Project

Common goal:

Create the best, Free operating system.

Debian Social Contract w/ the Free Software community (1997)

- 100% Free Software
- don't hide problems
- give back
- priorities: users & Free Software

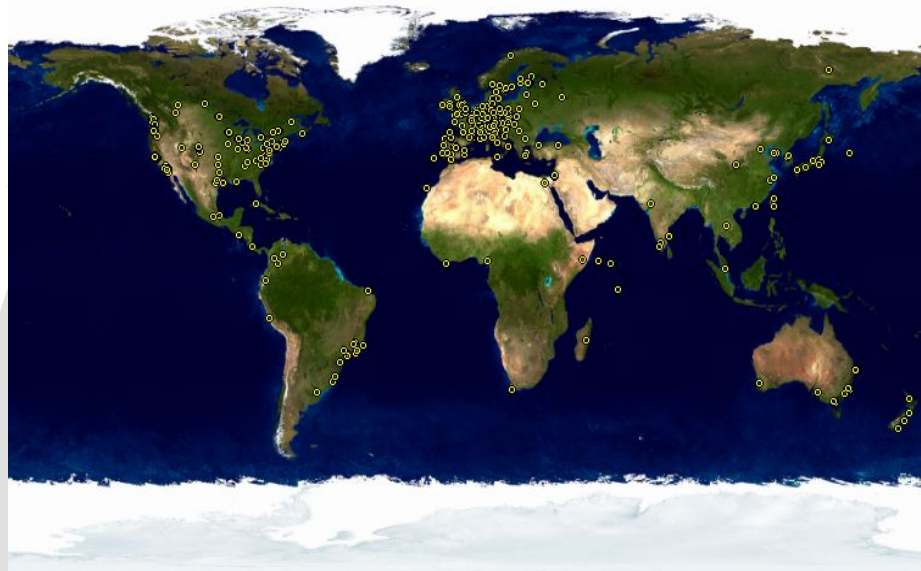
Debian Constitution (1998)

Structures and rules of a Free Software compatible democracy.

Strong motive to join: \approx 1'000 **volunteers world-wide**

- \approx 900 DDs + 120 DMs
- North America & Europe > Australia & Japan > Latin American

Debian: the Project (cont.)



Debian: one of a kind (?)

loads of other distros today

- **differences:** technical choices, release management & schedule, target user, support, packaging system, user base, look & feel, community, etc.

How is Debian different?

Debian's special #1: package quality

“ Culture of technical excellence ”

- package **design**: Policy
i.e. “how a package should look like”
- package **testing**: lintian, piuparts,
archive rebuilds (FTBFS), ...
- package maintainers are **experts**
- **no 2nd class packages**, all are equal

*release mantra:
we release
when it's ready*

recent feedback:

- “we choose Debian because packages don't FTBFS”
- “we choose X [derivative], because we trust Debian packages”

Debian's special #2: freedom

Firm principles: devs and users bound by the *Social Contract*

- promoting the “culture of Free Software” since 1993
community awareness: users know
- **free the bottom up**
 - ▶ in its software
firmware included!
 - ▶ in its infrastructure
no non-free web services (for users)
no non-free services (for developers)

Debian's special #3: independence

Debian is an **independent** distro (i.e. non-corporate)

- no (single) company babysitting us
- living up on:
 - 1 donations (money & hardware)
 - 2 gift-economy

... quite remarkable in today “big” distro world

people trust Debian choices not to be “money-driven”

Debian's special #4: decision making

1 do-ocracy

An individual Developer may make any technical or nontechnical decision with regard to their own work;
[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 [...]*
[Constitution, §2]

that means:

- reputation follows work
- no benevolent dictator, no oligarchy
- **no imposed decisions**
by who has money, infrastructure, people, ...

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Ubuntu: generalities

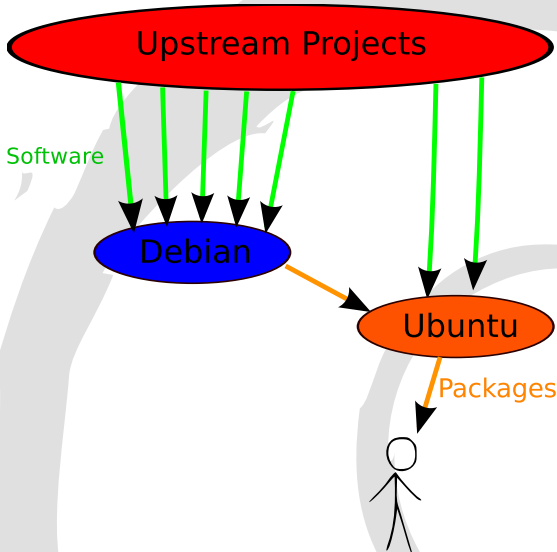
Disclaimer

Patches welcome!

Ubuntu

- started in 2004 by Canonical
- original (technical) staff: mostly “hi-profile” DDs
- historical archive correlations
 - main ↔ corporate
 - universe ↔ community
- **Debian-based**, periodic fork-merge release model

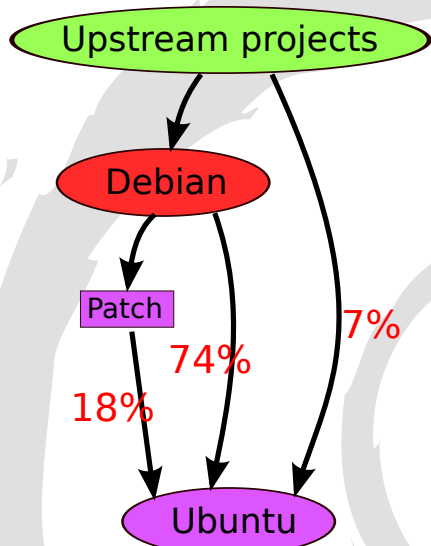
Ubuntu Upstreams



- Ubuntu has several upstreams
- Ubuntu has **one** “special” upstream: Debian

Picture is courtesy of Lucas Nussbaum

Ubuntu: Workflow & Relationship with Debian



Picture is courtesy of Lucas Nussbaum

data for Lucid Lynx (@ UDS-M)
data for main + universe

- rationale: universe is a selling point

Debian → Ubuntu

- not just “pull”
- some “push” too: give back to Debian

Debian ↔ Ubuntu collaboration today

- some **bug reports** fed back to Debian
- some Ubuntu **changes** fed back to Debian
- some **early testing** of big changes (e.g. gcc, hardening)
- **mixed teams**: tons!
 - ▶ pkg-games ≈ 500 src pkgs ▶ security via vendor-sec
 - ▶ pkg-java ML for LP bugs ▶ pkg-freevo, pkg-mono, pkg-perl
 - ▶ DPMT / PAPT Python mod/apps ▶ APT stack porcelain
 - ▶ d-i win-win generalization ▶ live-helper, nginx, ...
 - ▶ dpkg(-vendor) ▶ PAM
 - ▶ X strike force ▶ ...
- nice trend: **Ubuntu devs become DM/DD**

lesson learned / to learn: **Debian welcomes Ubuntu contributions**

... but we can collaborate *more!*

Why should we?

Ubuntu interests

- pushing back changes **eases merges**
- Debian maintainers are experts; can improve (universe) **quality**

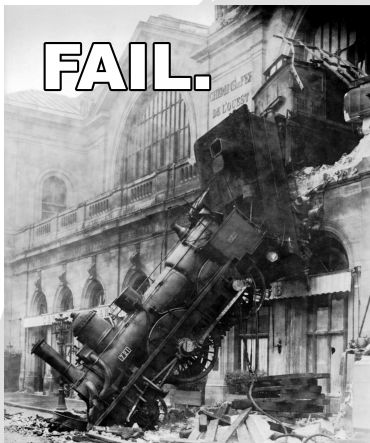
Debian interests

- Ubuntu has more users, i.e. **more feedback**
 - ▶ Ubuntu reaches out (future) contributors we don't
- cooperate with derivatives

Mutual interests

- discuss **big changes** together
- improving **Free Software** is what matter most, right?

FAIL. i.e. stuff the Debian community does not appreciate

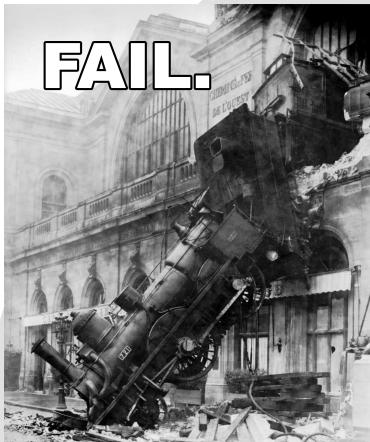


when Ubuntu acts as a **bad downstream**

- perceived reluctance in giving credit
- LP bugs are not triaged/forwarded
- DDs don't like to special case Ubuntu: they *wait for* bugs
- still, DDs do care about “their” Ubuntu packages

no special casing: same complaints for others

FAIL . i.e. stuff the Debian community does not appreciate (cont.)



when Canonical acts as a **bad upstream**

- hard to de-brand sw
- low interest in packaging Canonical sw in Debian
- unresponsiveness
e.g. close to Ubuntu releases

no special casing: same complaints for others

Interacting with Debian: pitfalls

It's not only Ubuntu fault, we know.

“Sometimes” it is difficult to **interact with Debian**

- unresponsiveness → abandoned package
- unresponsiveness → no time (we're volunteers...)
- “go to hell” answers → bad heritage, not representative
 - ▶ 1'000 DDs, no one true “Debian-Ubuntu” perspective

What else?

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Drowning in derivatives

The ability to **improve & redistribute** is one of the beauty of Free Software.

- Debian derivatives (≈ 120)

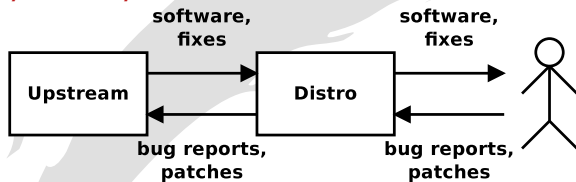
Linspire, Skolelinux, Liurex, Mint, Limux, Sidux, Linex, grml, MEPIS, Xandros, Ubuntu, Univention, Damn Small Linux, Collax, Euronode, Floppix, Gibraltar, Kanotix, Knoppix, Pure OS, gNewSense, ...

- Ubuntu derivatives

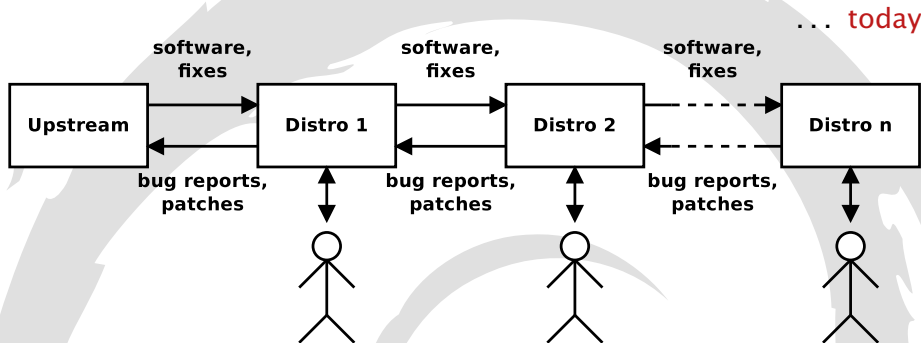
Xubuntu, Ubuntu Studio, Mythbuntu, Kubuntu, Edubuntu

The distribution pipeline

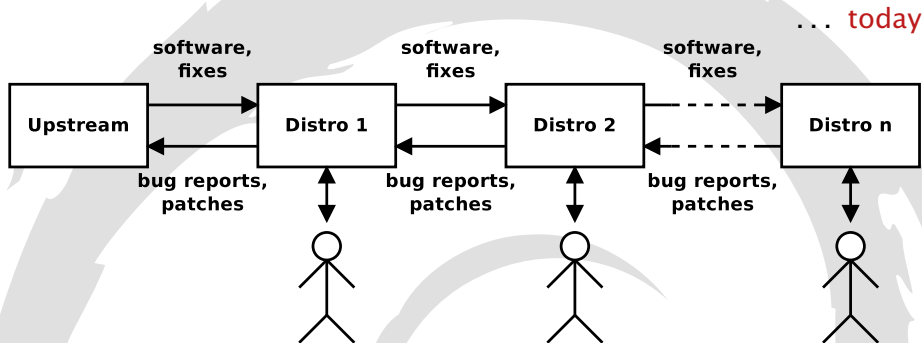
yesterday ...



The *new* distribution pipeline



The *new* distribution pipeline



That's wonderful!

- **freedom** spreads
- more **eyeballs** swallow more bugs
- more potential **contributors**

But.

Free Software 101—redux

Free Software is **bigger** and more important than Debian, Ubuntu, and any other distro or project

Free Software golden rules and the distro pipeline

1 give back, i.e. reduce patch flow viscosity

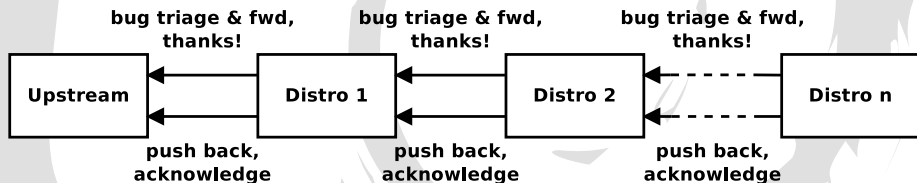
- ▶ triage and forward bug report
- ▶ push changes

upstream
upstream

2 give credit where credit is due

- ▶ attribute & advertise
- ▶ recognize & thank

upstream
downstream



Thanks!
for DUCC-IT 2010

Questions?

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