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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1. **Debian**
   - **What's so special about it?**

2. Ubuntu
   - Relationship with Debian
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3. Free Software
   - The distro ecosystem

Debian: once upon a time

> *Fellow Linuxers,*
> *This is just to announce the <u>imminent completion</u> 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 <u>experts</u>, 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)
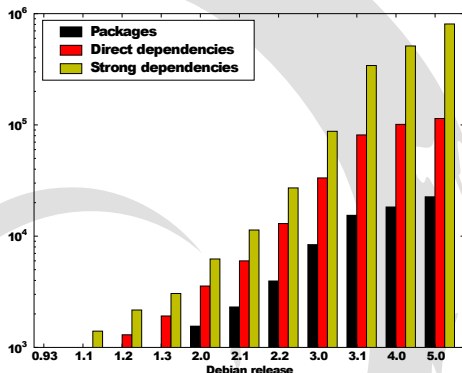
The largest ~~GNU/Linux distro~~ FOSS porting platform

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

Debian Constitution   (1998)

Structures and rules of a Free Software compatible democracy.

Strong motive to join: ≈ 1'000 volunteers world-wide

- ≈ 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 <u>software</u>
    firmware included!
  - in its <u>infrastructure</u>
    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, . . .
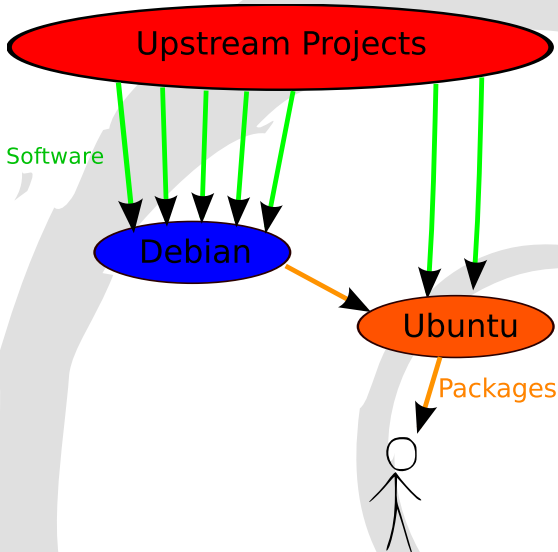
Outline

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

Picture is courtesy of Lucas Nussbaum

- Ubuntu has several upstreams

- Ubuntu has one "special" upstream: Debian

Picture is courtesy of Lucas Nussbaum
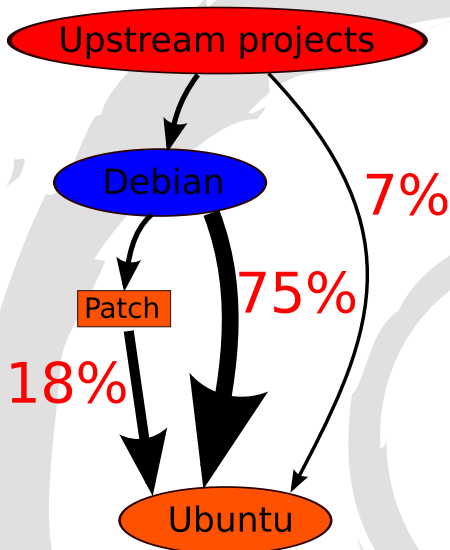
data for Lucid Lynx (@ UDS-M)
data for main + universe

- 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
- pkg-java   ML for LP bugs
- DPMT / PAPT   Python mod/apps
- d-i   win-win generalization
- dpkg(-vendor)   idem
- X strike force

- security   via vendor-sec
- pkg-freevo, pkg-mono, pkg-perl
- APT stack   porcelain
- live-helper, nginx, . . .
- PAM
- . . .

- 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
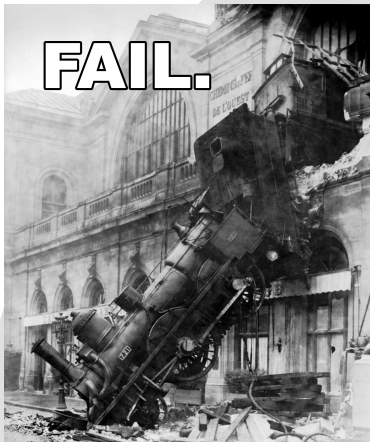- Debian maintainers are experts; can improve (universe) quality

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
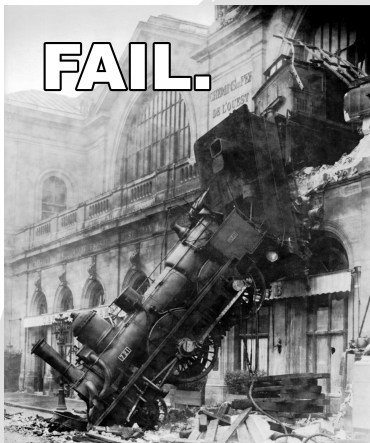
when Ubuntu acts as a bad downstream

- perceived reluctancy 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

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?

Outline

Drowning in derivatives

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

- Debian derivatives ($\approx$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
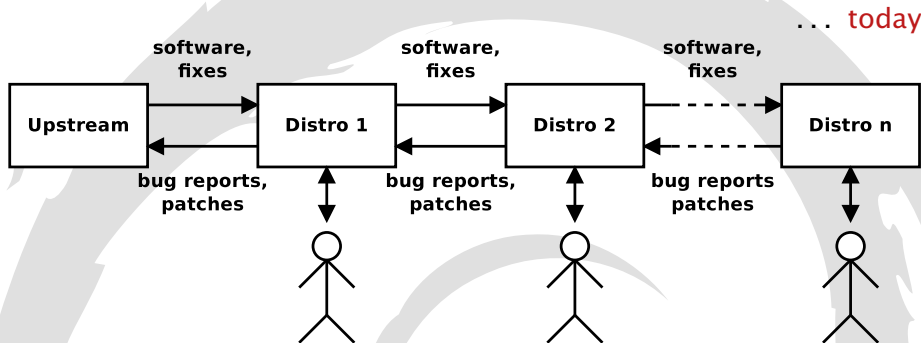 Xubuntu, Ubuntu Studio, Mythbuntu, Kubuntu, Edubuntu
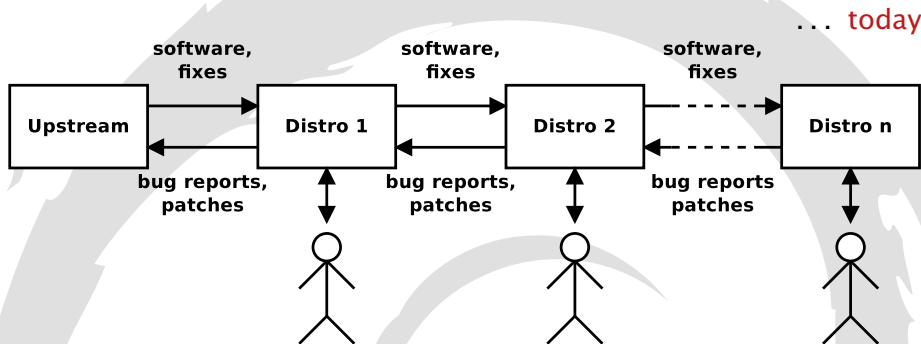
The distribution pipeline

yesterday . . .

The *new* distribution pipeline

... today

The *new* distribution pipeline

... today
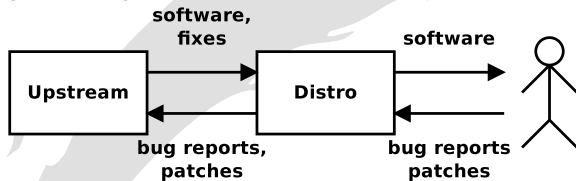
That's wonderful!

- 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

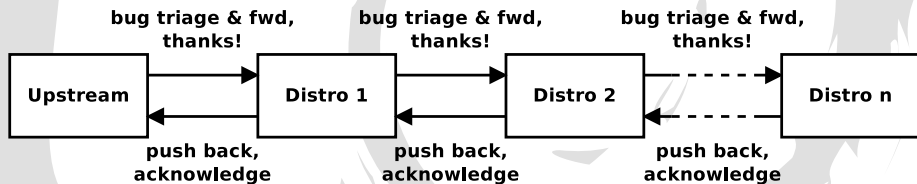1. **give back**, i.e. reduce patch flow viscosity
   - triage and forward bug report   upstream
   - push changes   upstream
2. **give credit** where credit is due
   - attribute & advertise   upstream
   - recognize & thank   downstream

Thanks!
for DUCC-IT 2010

Questions?

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