The Debian Project

Sam Hocevar (sam@zoy.org)
Debian Project Leader 2007-2008

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overview

- ◆ 1000+ developers
  - ◆ volunteers
  - ◆ worldwide
- ◆ an operating system
  - ◆ free (beer), free (speech), cross-platform
  - ◆ comprehensive (18 000 packages)
- ◆ an infrastructure
  - ◆ communication, updates...

plan

- a bit of history
  - Unix, GNU and Linux
  - Debian derivatives
- organisation and management
  - the social contract, the DFSGs
  - the packages, the infrastructure
  - the developers
- Debian and Ubuntu
- Debian and you

history

(1) - Unix

- 50s-60s: MULTICS, C, Unix
- 70s: the Unix philosophy
  - small tools, everything is a file
  - the first BSDs
- 80s: Unix declinations
  - Xenix, SunOS, HP-UX, AIX, Minix...
- 1984: the GNU project
- 1991: Linux
- 1992: the first distributions

(2) - Debian

- **1993: Ian Murdock starts the project**
  - a few hackers release Debian 0.01
  - GNU sponsors Debian
- **1995: the dpkg and dselect tools**
- **1996: Debian 1.1**
- **1998: Debian 2.0 (1 500 packages)**
- **2002: Debian 3.0 (9 000 packages)**
- **2007: Debian 4.0 (18 000 packages)**

(3) - derivatives

- 2001: LindowsOS
  - Windows emulation, Click'N'Run
- 2003: Knoppix
  - live CD
  - hardware autodetection
- 2004: Ubuntu
  - "Linux for human beings"
- 2007: more than 50 active derivatives
  - education, games, health, multimedia...

(4) Debian today

- the distribution
  - 18,000 packages
  - 11 architectures (more to come: SH4)
  - 2 kernels: Linux and Hurd (more to come: kFreeBSD, hopefully OpenSolaris)
- the #1 embedded Linux distribution

  (2007 linuxdevices.com survey)
- more and more vendor support
  - HP now officially supports Debian
  - Asus Eee PC, Nokia Internet tablets...

organisation and workings

(1) - the social contract

- Debian will remain 100% free
  - the "Debian Free Software Guidelines" (DFSG)
- we will give back to the community
- we will not hide problems
- our priorities:
  - our users
  - free software

(2) - structure

- ◆ SPI
  - ◆ legal and financial structure
  - ◆ OpenOffice.org, PostgreSQL...
- ◆ the Debian constitution
  - ◆ decision-making amongst developers
  - ◆ leader, secretary, technical committee...
- ◆ in practice
  - ◆ team rules are much looser (QA, security, release)
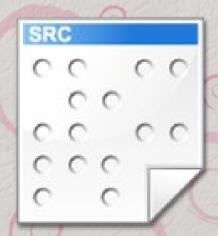 - ◆ non-official contributors

(3) - packages

a package (`.deb`) is:

- an element of software
  - program, library, documentation, typographic font, dictionary word list...
  - easy to install
  - integrates perfectly with the rest of the system
- free software
  - can be modified
  - can be redistributed

(4) - source packages

a source package contains:
- ◆ the original source code
  - ◆ from the Internet or directly from Debian
- ◆ control information
  - ◆ description, licence, menu...
  - ◆ build instructions
- ◆ patches
  - ◆ system integration
  - ◆ bugfixes, improvements

SRC

(5) – the FTP archive, the buildds, the BTS

- ◆ the FTP archive
  - ◆ every package and source package
  - ◆ hundreds of mirrors worldwide
- ◆ the "buildds"
  - ◆ automated package builds
  - ◆ for all architectures
- ◆ the Bug Tracking Sytem (BTS)
  - ◆ links users, DDs and sometimes upstream developers
  - ◆ reportbug and reportbug-ng tools

(6) - the developers' work

- **maintain their packages**
  - test, fix, update
  - communicate with users and upstream
- **work for the project**
  - infrastructure
  - tools (**dpkg**, **apt-get**, **debian-installer**)
- **comunicate**
  - about Debian
  - other themes (standards, legislation...)

Debian and Ubuntu

(1) the development cycles

- ◆ Debian: a development cycle
  - ◆ packages sent to "unstable"
  - ◆ transitions to "testing"
- ◆ Debian: a release cycle
  - ◆ release goals
  - ◆ development done in "unstable"
  - ◆ "testing" becomes the new "stable"
- ◆ Ubuntu: a main release cycle
  - ◆ synchronisation with Debian unstable
  - ◆ development, tests... and release

(2) which one should you use?

- beginners and power users
  - Ubuntu is "sexier" (for now)
  - Debian is more complete
  - watch the communities
- developers
  - use both!
  - virtualisation (Xen, KVM)
  - emulation (`qemu`)
  - confined area (`chroot`)

(3) Ubuntu's influence on Debian

- the positive
  - huge visibility
  - quality increases and various contributions in many areas
- the, er, not so positive
  - focus switch
  - fewer competent developers
  - fewer users

Best Friends Forever!

(4) what can Debian do?

- observe Ubuntu better
- find more developers
- encourage direct contributions to Debian instead of waiting for backports
- encourage creation of communities
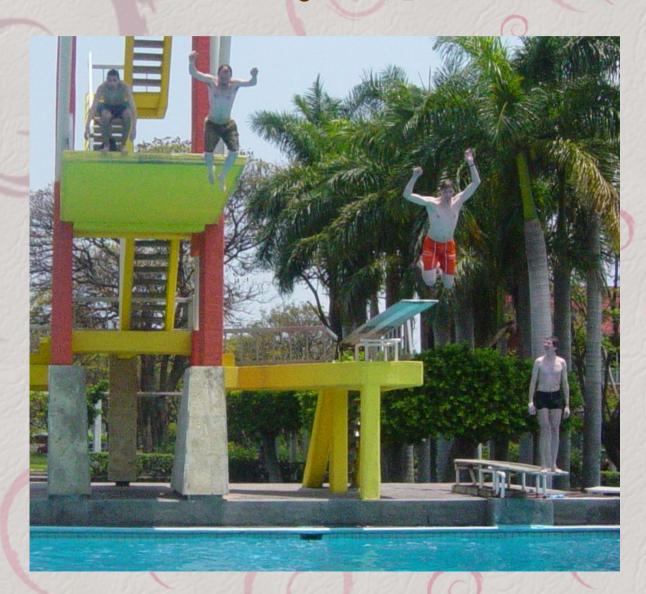
- that means we need <u>you</u>

Debian and you

(1) contribute

- help or join a Debian packaging team
  - `http://alioth.debian.org/`
  - contribute patches
  - gain access rights
  - choose a friendly team (Games Team, Perl maintainers, Python maintainers...)
- bring back Ubuntu improvements
  - not only code patches
  - bug reports are important, too
  - icons, `.desktop` files, configuration files...

(2) don't be afraid! jump in!

◆ Debian is mostly about having fun

(3) the NM process

- **`http://nm.debian.org/`**
- **NM = New Maintainer**
  - many questions and tasks to become a Debian developer, takes some time
  - not a requirement to maintain packages (sponsoring works, too)
  - but gives voting rights, direct access to Debian machines...
  - apply _now_!

(4) too scary? try the DM process

- **DM = Debian Maintainer**
  - lighter procedure
  - ask your sponsor about it
  - join the **debian-mentors** mailing-list

(5) a few tips

- Debian is not a company
  - if people make you feel otherwise, they're wrong
  - you don't get kicked out when you make a mistake
- Debian is not a rock star band
  - no need to send a resume, only your contributions matter
- Debian _does_ have old, grumpy people
  - but we are 1,000: just talk to someone else!

(6) now you are ready to join

REAL LIVE DEVELOPERS!

NOT ACTORS!

(7) my plans for the future

- ◆ seduce more people
  - ◆ an official status for artists, translators and the like
  - ◆ attract Ubuntu contributors, too
- ◆ a Debian marketing structure
  - ◆ generalise the Debian desktop initiative
- ◆ better cooperation with the outside
  - ◆ collaboration tools
  - ◆ do not forget other distributions

Summary

- Debian is well-established and successful
- but the competition is intense
- Debian cannot just sit back and watch

- we need you! there is plenty of work and fun for you!

Thank you very much!

- Any questions?

- You can find the slides here:
  `http://sam.zoy.org/lectures/`