

Ubuntu
Development
Processes

Mackenzie
Morgan

Developer
Groups

The Release
Cycle

Making
Changes

Bugs

Ubuntu Development Processes

Mackenzie Morgan

CALUG

12 May 2010

Outline

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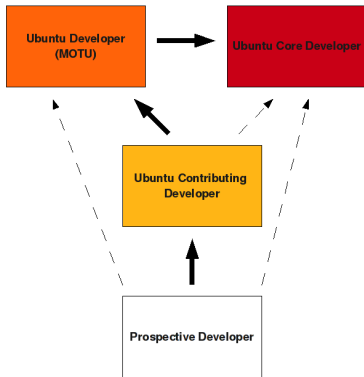
1 Developer Groups

2 The Release Cycle

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Who are the developers?



But that's outdated

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What changed?

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Archive reorganisation (hereafter: archive reorg)

What's archive reorg?

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A switch away from components to a unified archive with finer-grained RBAC for uploading

Pre-Archive Reorganisation

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4 components:

- Main
- Restricted
- Universe
- Multiverse

Core-devs upload to all of the above.

Masters of the Universe (MOTU) upload to Universe & Multiverse

Post-Archive Reorganisation

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Packagesets:

- Ubuntu Desktop
- Ubuntu Server
- Kubuntu
- Xubuntu
- Mythbuntu
- Ubuntu Studio
- Ubuntu Education Edition
- Ubuntu Mobile
- Kernel

Correspond to packages on install discs

And those access controls...?

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- Each packageset has a set of developers
- Core devs still upload anything
- MOTU upload anything not in a package set
- New: Generalist devs upload anything not in a *restricted* packageset
- New: Per-package uploaders

Where are we now?

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Done:

- Ubuntu Desktop
- Ubuntu Server
- Kubuntu
- Mythbuntu
- Kernel
- Per-package uploaders

How many developers are there?

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- 147 in ubuntu-dev
- Unknown number of “prospective developers”

How do I find a package's maintainer?

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You don't. We're not Debian.

What if you lack upload rights?

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Other developers can sign off on and upload your package
(sponsoring)

How do you get upload rights?

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- 1 Do good work & get it sponsored
- 2 Create a wiki page to apply
- 3 Get sponsors to vouch for you on your wiki page
- 4 Go to a Developer Membership Board (or one of the delegated boards) meeting and get voted in

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First things first

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- Binary-copy packages from previous release
- Automatically sync from Debian Sid
- Merge remaining packages

Stages

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Bugs

- Ubuntu Developer Summit
- 4 Alphas
- 1 Beta
- 2 Release Candidates
- Ship it!

Also, *lots* of freezes (Toolchain, Debian Import, String, UI, Feature. . .)

What happens during freezes?

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Uploads are queued pending Archive Admin approval
<http://launchpad.net/ubuntu/maverick/+queue>

Stable Release Upgrades (SRU)

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- Bugfixes only (preferably minimal patch)
- Must document regression potential
- Package is uploaded to -proposed for 2 weeks

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Packages are kept in VCS, like every other distro, right?

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Er... yes and no...

Yes, all but ~500 packages are in bzr now

No, it hasn't always been this way

Ubuntu Distributed Development (UDD) is the attempt at change

Why?

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We followed Debian on the `debuild -S && dput`
`../*.changes` thing

Why change?

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Debian has only a few maintainers per package
We have team maintainership, >70 developers responsible

How's the change going?

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Slowly.

Why slowly?

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We have (thanks mostly to James Westby):

- tools (mostly)
- docs (mostly)
- branches (mostly)

Have you ever tried to convince 150 people to stop doing what seems to work and learn something new?

Old workflow

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- `apt-get source foo`
- `cd foo`
- Make changes & add changelog entry
- `debuild -S`
- Use pbuilder to test-build `../*.dsc`
- `dput foo*.changes`

New workflow

(See if I get this right)

- `bzr branch lp:ubuntu/foo` or `bzr branch lp:ubuntu/hardy/foo`
- `cd foo`
- Make changes & add changelog entry
- `bzr-buildpackage -S`
- Use pbuilder to test-build `../*.dsc`
- `debcommit`

Then it diverges...

If the team merges many changes then releases: `bzr push`

If not: `dput ubuntu ../*.changes && bzr mark-uploaded && bzr push`

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How are patches handled in Ubuntu?

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Badly.

Why?

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“Not enough monkeys”

– Daniel T. Chen

~2000 patches bitrotting in Launchpad

What's being done about it?

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Ubuntu Reviews team formed to:

- review patches
- upstream patches if needed
- run Patch Days

How can I submit a patch?

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- Attach it to the bug report
- Mark it as a patch on upload
- Add the “patch” tag to the bug

Can I use the bzd branches from before?

Yes!

If making a new candidate revision:

- In debian/changelog: LP: #12345
- `debcommit`
- `bzd push lp:me/foo/fixfor12345`

If not:

- `bzd commit --fixes 12345`
- `bzd push lp:me/foo/fixfor12345`

Branch is automatically linked to bug report
`bzd lp-open` to submit merge proposal

Can I submit a debdiff like in Debian?

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Yes!

Subscribe ubuntu-sponsors to the bug report (and still include LP: #12345 in debian/changelog)

What's that LP: #12345 stuff?

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Bug #12345 will be automatically marked Fix Released when the package is uploaded

Why so many bugs in stable?

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- Testing happens too late (Beta)
- Rushing to fix bugs late introduces *more* bugs
- Need more developers

Questions?

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