

Does Cowgirl Dream of Red Swirl?

Debian8 “Jessie” preview
(June 2014 version)

注意/disclaimer

- 資料が嘘英語で書いてあります
This slide is written in Eng"r"ish ;-)
- バージョン/状況は2014/6現在のものです
Be sure current status will be changed
at release time

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- Debian Meetup Hokkaido 14.06
 - 6/15 @ Sapporo!

Linux distribution?

- Linux = only kernel
- Linux distribution = kernel + userland
(*BSD = kernel + userland)
 - “package” based
 - rpm/yum
 - rpm/zypper
 - dpkg/apt
 - emerge
 - Etc...



Distro list

- http://en.wikipedia.org/wiki/List_of_Linux_distributions
(<http://goo.gl/4sDZTS>)
- “various” distro
 - major: Slackware / Red Hat / Debian
 - & derivatives
 - Today: talk about “Debian”

"Debian? who uses?"

w3techs report (<http://w3techs.com/technologies/details/os-linux/all/all>)

"Debian is used by 29.9% of all the websites who use Linux."

- Evernote / Spotify / GREE / Pixiv
- Google Compute Engine /HP Helios
- Raspberry-Pi / BeagleBone Black / NETGEAR ReadyNAS (ReadyOS)
- スシロー / 名古屋駅新幹線改札
- ISS / etc...
- most popular derivative = Ubuntu

Development style

Distro	Company	Volunteers?
Red Hat Enterprise Linux	Red Hat	no
CentOS	- (sponsored by Red Hat)	Yes (core team members = Red Hat employee)
Oracle Linux	Oracle	no
Fedora	Red Hat	Yes
Debian	-	Yes
Ubuntu	Canonical	Yes
SUSE Enterprise Linux	SUSE	no
openSUSE	SUSE	Yes

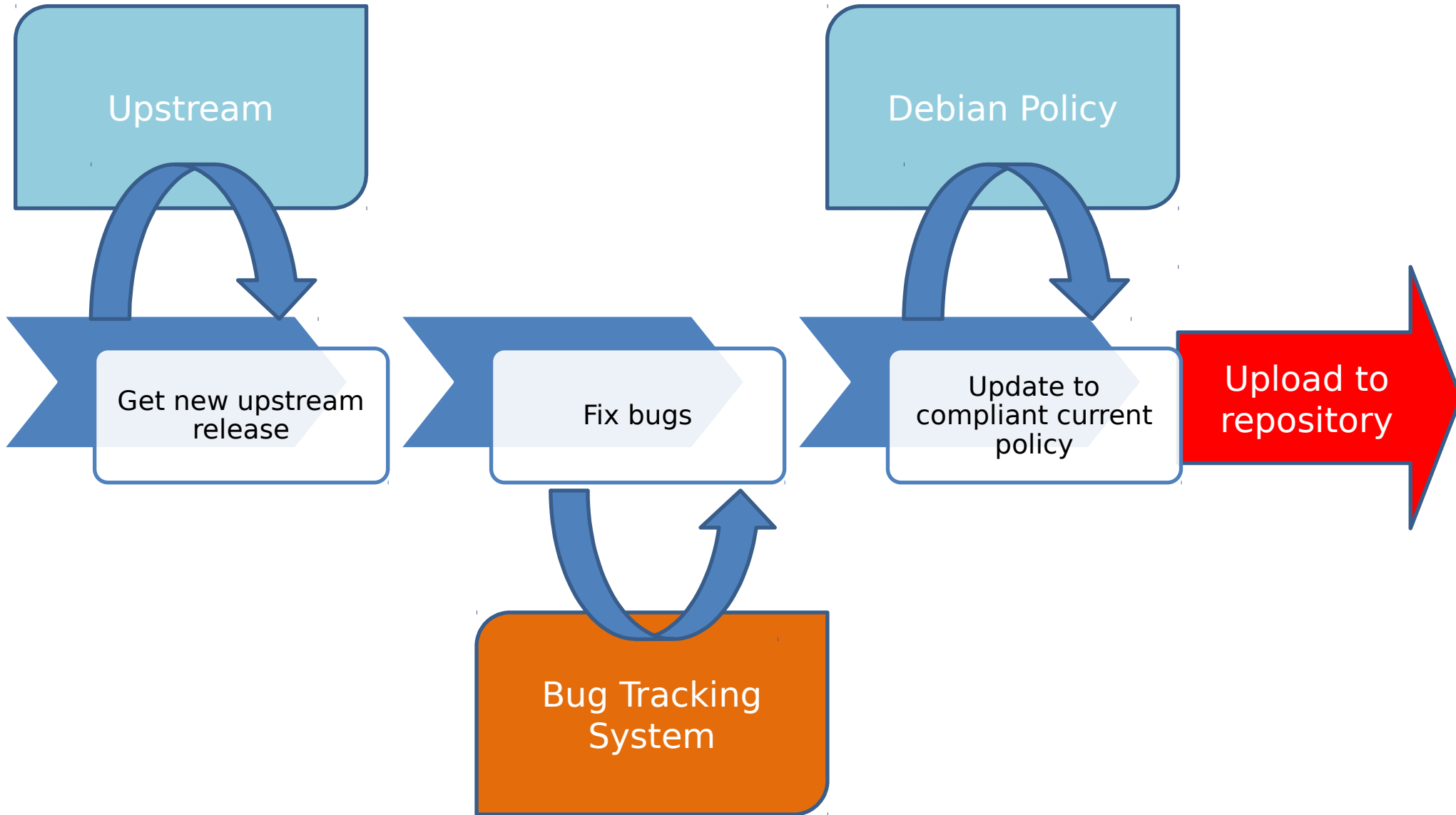
Development style (cont.)

- Developers
 - All non-commercial volunteers
 - No central company
 - No dedicated office, develop at each home :)
- Communication
 - Mailing list, IRC, BTS
 - Conference (once a year)

Conference!

- All over the world

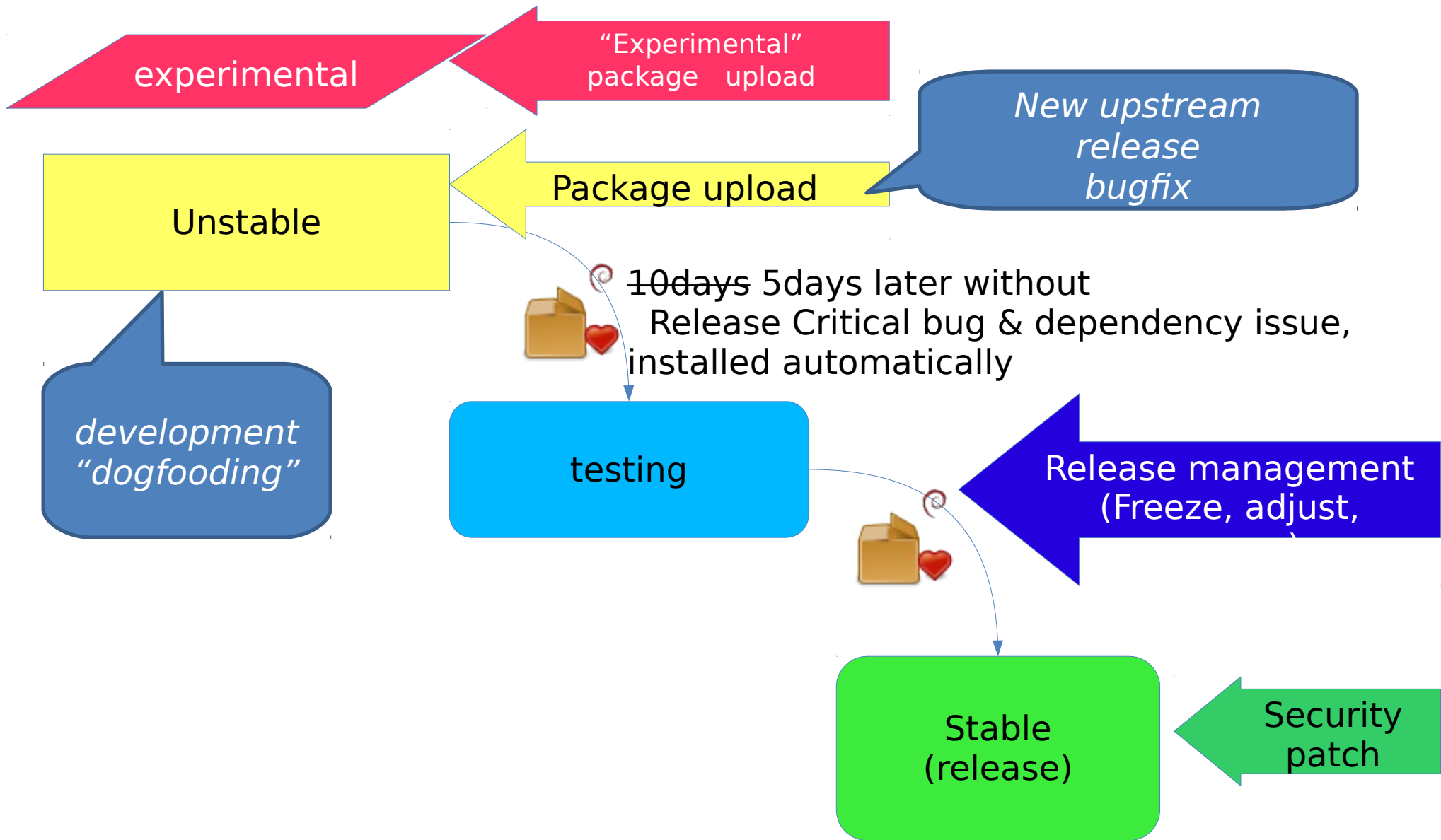
Development Flow: package update



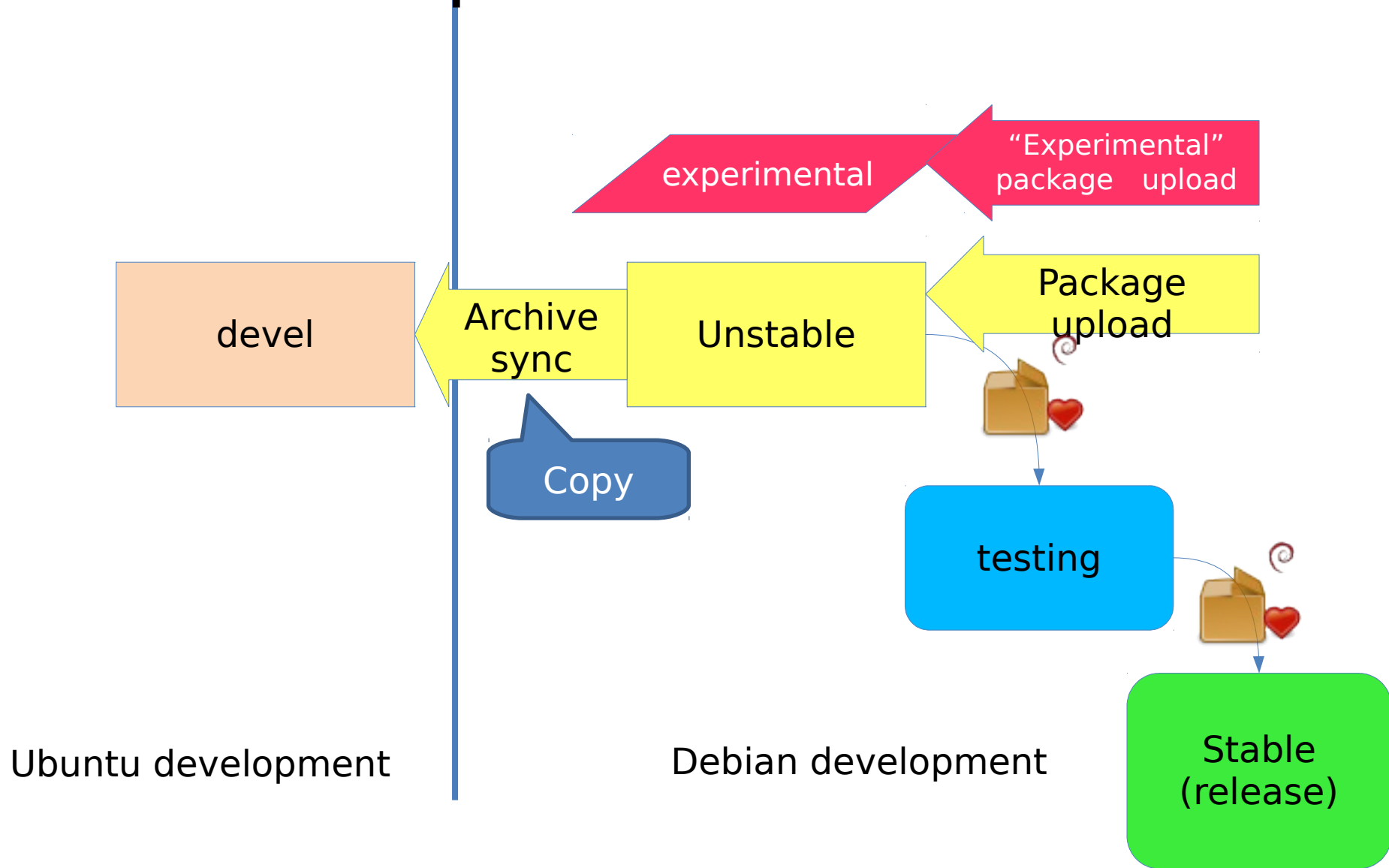
Code repository

- Rely on each package, no central repo
 - No VCS
 - Subversion
 - Git
 - Bzr
 - Mercurial
 - Darcs (Haskell)
- Use “debcheckout” tool / apt-get source

Development Flow: Release step



Development Flow: relationship between Ubuntu



Release Cycle

1996/6	1.1 "buzz" released
1996/12	1.2 "rex"
1997/6	1.3 "bo"
1998/7	2.0 "hamm"
1999/3	2.1 "slink"
2000/8	2.2 "potato"
...	

Release Cycle (cont.)

2002/7	3.0 "woody"
2005/6	3.1 "sarge" (Delayed → Myth)
2007/4	4.0 "etch"
2009/2	5.0 "lenny"
2011/2	6.0 "squeeze"
2013/5	7.0 "wheezy"
2015/?	8.0 "jessie" (under development, 2014/11 freeze)

Almost 2 years release cycle

(expected) Release Roadmap

201
1

201
2

201
3

201
4

201
5

201
6

201
7

201
8



Release Schedule

- Ancient times
start → release (not scheduled)
- Past
start → freeze (not scheduled) → release (not scheduled)
- Now
start → **soft** freeze (scheduled) → **hard** freeze (scheduled)
→ release (not scheduled)
 - Soft freeze = stop accepting new transitions
 - Hard freeze = stop accepting new versions

Release Schedule (cont.)

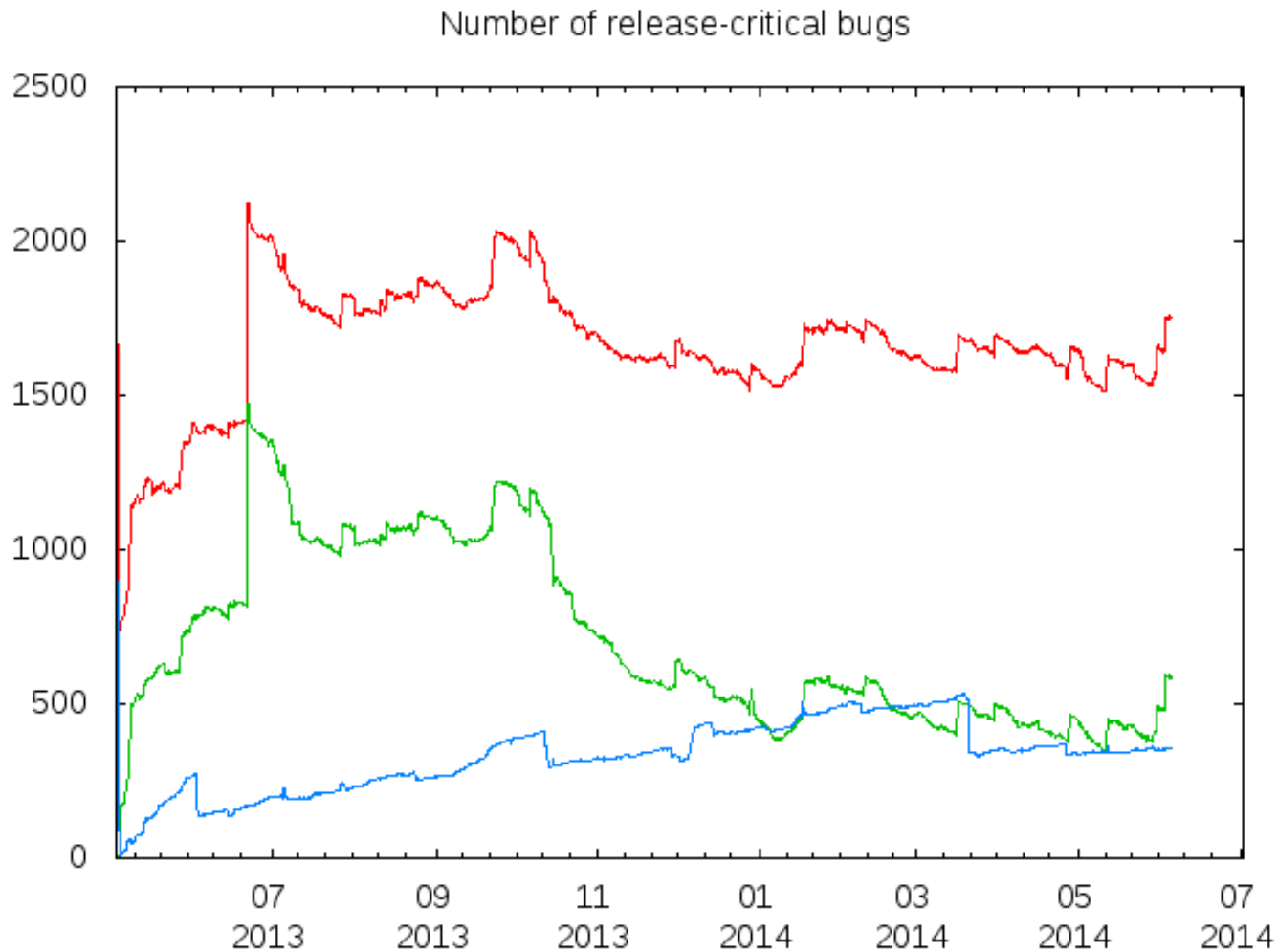
- time-based release
 - Ubuntu, Fedora, openSUSE
- time-based **freeze**
 - **Debian**
 - no full-time worker
 - Fix **ALL** RC bugs

Release Schedule (cont.)

- time-based release
 - Ubuntu, Fedora, openSUSE
- time-based **freeze**
 - **Debian**
 - no full-time worker
 - Fix **ALL** RC bugs
 - severity = critical/grave/serious

Release Schedule (cont.)

- RC bugs!



(expected) Release Roadmap

201
1

201
2

201
3

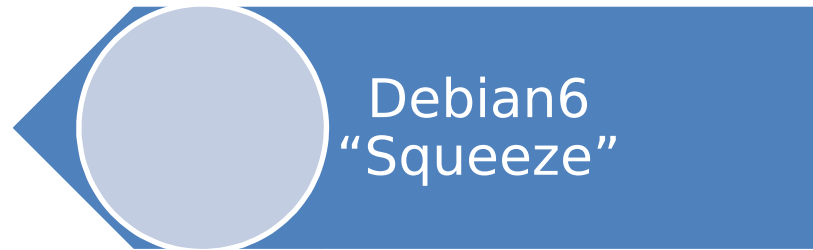
201
4

201
5

201
6

201
7

201
8



2015 Spring?!

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- Software Design
“Debian Hot Topics”



Jessie's spec

Architecture

- x86(i386/**amd64**)
- ARM(armel/**armhf**/arm64?)
- MIPS(mips/mipsel/mipsel64?)
- PowerPC(powerpc/ppc64?/ppc64el?)
- SPARC(sparc)
- s390x
- ~~IA64(ia64)~~
- Kfreebsd-i386/-amd64/hurd-386

Still support 32bit arch!

Desktop Environment

- Xfce (4.10/ default install)
- GNOME3 (3.8+3.10?)
- KDE4 (4.11.9)
- MATE (1.8)
- Enlightenment
- etc...

Software Version

	Debian8	RHEL7 (※)
Apache httpd	2.4.9	2.4.6
Tomcat	7.0.54/8.0.8	7.0.42
Squid	3.3.8	3.3.8
bind	9.9.5	9.9.4
MariaDB	5.5.37	5.5.35
PostgreSQL	9.3.4	9.2.7
SQLite	3.8.4	3.7.17
memcached	1.4.13	1.4.15
postfix	2.11.0	2.10.1
sendmail	8.14.4	8.14.7
dovecot	2.2.13	2.2.10

※ <http://www.slideshare.net/moriwaka/red-hat-enterprise-linux-7>

Software Version (cont.)

	Debian8	RHEL7(※)
cyrus-imapd	2.4.17	2.4.17
vsftpd	3.0.2	3.0.2
samba	4.1.7	4.1.1
cups	1.7.2	1.6.3
OpenLDAP	2.4.39	2.4.39
FreeRADIUS	2.1.12	3.0.1
krb5	1.12.1	1.11.3

※ <http://www.slideshare.net/moriwaka/red-hat-enterprise-linux-7>

Software Version (cont.)

	Debian8	RHEL7
LibreOffice	4.2.4	?
TeXLive	2014	?
Firefox (Iceweasel)	29.0.1	?
Chromium	35	?
Thunderbird (Icedove)	24.5	?
Sylpheed	3.4.1	?
Emacs	24.3	?
Vim	7.4.273	?
Eclipse	3.8.1	?
...		

Development Environment

	Debian8	RHEL7(※)
OpenJDK	1.7.0.55	1.7.0.51
Perl	5.18.2	5.16.3
PHP	5.6.0-beta3	5.4.16
Python	2.7.7	2.7.5
Ruby	2.1.2	2.0.0.353
Haskell (ghc)	7.6.3	?
OCaml	4.01	?
GCC	4.9.0	4.8.2
Clang (llvm)	3.3	?
glibc	2.19	2.17

※ <http://www.slideshare.net/moriwaka/red-hat-enterprise-linux-7>

Development Environment (cont.)

	Debian8	RHEL7(※)
git	2.0	?
mercurial	3.0	?
subversion	1.8.9	?
...		

※ <http://www.slideshare.net/moriwaka/red-hat-enterprise-linux-7>

Installer / boot loader

- Installer
 - d-i (debian-installer) : Not much changed...
- Bootloader
 - GRUB2
 - UEFI Secure Boot?

Kernel

- 3.1[5-6]?

File system

- EXT4 (default)
 - Size ?
- EXT3 / XFS / btrfs

Init System

- **systemd ! (default)**
 - Event-based
 - Not only init...
 - “All your base are belong to us”
 - journald / firewalld / etc...
 - Check RHEL7 ;-)
- **Option**
 - insserv
 - sysvinit (hurd :-)

Virtualization/Container

- KVM (qemu)
- Xen
- Docker
- VirtualBox/Vagrant

Debian quality

Quality?

software
package

Usefulness, feature
Reliable, stable
Secure
Fine user interface

Policy compliant
Buildable
Installable
No license issue

QA tools

- Policy Compliant?
 - Run lintian (lintian.debian.org)
- Buildable?
 - No FTBFS
 - Build with pbuilder/cowbuilder/sbuild
 - Ensure “clean room” build
 - “Archive rebuild” (on AWS)
- Installable?
 - run piuparts (piuparts.debian.org)
- No license issue
 - No silver bullet ;-)
 - Lintian/licencecheck may help
 - Accept Machine readable copyright format

problem to be solved

More automation

- more human resource - Can't expect much
- Add automated test
 - Package (unit) → autopkgtest + debci
(Ubuntu Weekly Recipe
「第311回 autopkgtestでパッケージのテストを自動化する」
<http://gihyo.jp/admin/serial/01/ubuntu-recipe/0311>)
 - Integration test (scenarios?)
 - System installation (AutoQA by openSUSE)
- More CI
 - Package build
 - Package installation

Software Quality

software
package

Usefulness, feature
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<ad>

- Software Design
“Debian Hot Topics”



<ad>

- Debian Meetup Hokkaido 14.06
 - 6/15 @ Sapporo!

The screenshot shows a web browser window with the following details:

- Browser Tabs:** Jessie WP - Jessie..., Debian meetup Hok...
- Address Bar:** debianjp.connpass.com/event/6611/
- Search:** jessie toystory
- Event Title:** Debian meetup Hokkaido 14.06 (June 15)
- Organizing:** Debian JP Project
- Image:** A dark image with a white spiral and splatters.
- Hashtag:** #debian14do
- Registration Info:** Free/Pay at the door, 5/15 participants.
- Group:** Debian JP (1 event, 6 members)
- Event Details:** Public, 2014/06/15 (Sun), 12:00 ~ 18:00.
- Registration Period:** 2014/05/25 (Sun) 15:00 ~ 2014/06/15 (Sun) 09:00.
- Location:** 株式会社インフィニットループ, 札幌市中央区北1条東1丁目6-5 (札幌イーストスクエア 6階).