Debian Installer: Jessie & Stretch

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Jessie
Initial release

Wheezy:
  ▶ first release: May 2012
  ▶ freeze time: June 2012

Jessie:
  ▶ first release: March 2014
  ▶ freeze time: November 2014

→ 8 months in advance this time
Wheezy:

- 7.0 Alpha 1: May 2012
- 7.0 Beta 1: August 2012
- 7.0 Beta 2: September 2012
- 7.0 Beta 3: October 2012
- 7.0 Beta 4: November 2012
- 7.0 RC 1: February 2013
- 7.0 RC 2: April 2013
- 7.0 RC 3: May 2013
Further releases 2/2

Jessie:

- Jessie Alpha 1: March 2014
- Jessie Beta 1: August 2014
- Jessie Beta 2: October 2014
- Jessie RC 1: January 2015
- Jessie RC 2: March 2015
- Jessie RC 3: April 2015

→ room for earlier/more releases
End results:

- additions: arm64 ppc64el
- removals: kfreebsd-* ia64 sparc s390

Thanks to:

- porters in general
- Steven Chamberlain in particular
Default desktop

Context:
- early switch to Xfce
- bugs in debian-cd & friends: #756774
- accessibility issues

Solution:
- prompt during regular installation process, not before
- now possible to select several of them
- “Desktop qualification”, back to GNOME in Jessie Beta 2
- now limited to amd64/i386

Thanks to:
- Joey Hess
Problem:
  ▶ silent installation on /dev/sda: #706112
  ▶ already in Squeeze and Wheezy

Solution:
  ▶ prompt!
  ▶ slightly annoying, but...  

Thanks to:
  ▶ Vincent McIntyre
Firmware support

Problem:
- udev & linux kernel dropped support: #725714

Solution:
- patch hw-detect to look at kernel logs

Thanks to:
- Ben Hutchings for the proposal & kernel patches
- Petter Reinholdtsen for the implementation in hw-detect
Problem:
  ▶ regression in apt: #765458
  ▶ no kernel package to install

Solution:
  ▶ perform tests and report a bug
  ▶ answer questions from apt people
  ▶ enjoy the fix for cdrom: entries in sources.list

Thanks to:
  ▶ Julian Andres Klode
  ▶ David Kalnischkies
parted

Problem:
- new upstream release
- behavioral changes

Solution:
- poke Colin Watson
- test patches
- iterate

Side effect:
- “incoming.debian.org opens its doors to the public”

Thanks to:
- Colin Watson
- FTP team
Problem:
▶ priority overrides updated by ftpmasters right before Jessie Beta 1

Solution:
▶ actually not a problem!
▶ hang for 30 seconds: disappeared!

Thanks to:
▶ systemd maintainers, transparent switch
Wireless support

Problem:
- WPA2 support broken for some cards
- only in d-i

Solution:
- wpa package patched to support more debugging: #761922
- linux kernel modules (ccm, ctr) added to the crypto-modules udeb: #761902

Many thanks to:
- Stefan Lippers-Hollmann
Rendering for Punjabi

Problem:
- rendering with default font: not satisfactory

Solution:
- new udeb: fonts-lohit-guru-udeb
- new mapping in gtk-set-font

Thanks to:
- Aman Alam
- Vasudev Kamath and Christian Perrier
fontconfig vs. Monospace

Problem:
▶ broken font in graphical shell

Solution:
▶ prod maintainers
▶ get fontconfig-udeb fixed

Thanks to:
▶ Josselin Mouette
User parameters

Problem:
- linux kernel change in v3.16-rc1
- -- behaves differently now

Solution:
- support --- to work around the kernel change
- patch debian-installer, debian-installer-utils (user-params), debian-cd, installation guide

Thanks to:
- Ian Campbell
Problem:
  ▶ 486 no longer supported

Solution:
  ▶ change flavour in linux, including udebs: from 486 to 586
  ▶ also patch: base-installer, debian-installer, debian-cd, installation guide

Thanks to:
  ▶ Ben Hutchings
Macintosh: mac flavour

Problems:
▶ i386 vs. mixed amd64/i386 systems and EFI
▶ broken firmware, confused with several boot methods (BIOS, EFI)

Plan:
▶ enable EFI in i386 builds
▶ special “mac” flavour for old i386 Macintosh

Thanks to:
▶ Steve McIntyre
Stretch
Early Stretch releases

Let’s compare release cycles:

- already 2 releases out in less than 4 months!
- first release 16 months before the freeze?
- better than Jessie, way better than Wheezy!

Linux updates in testing:

- why are they so important?
- 3.16 → 4.0: 3 months after Jessie release
- 4.0 → 4.1: trigger for Stretch Alpha 2
Networking

Proposal on debian-devel:
- use ifnames instead of mac for network interface names

Problem:
- installer system behaving the old way (e.g. eth0)
- installed system behaving the new way (e.g. ens3)

Results:
- fixed in time for Stretch Alpha 1
- thanks to Martin Pitt and Michael Biebl
Almost transparent:

▶ moving from ttf-* to fonts-*
▶ forgotten transitional packages

Big change in CJK world:

▶ ttf-cjk-compact → fonts-android-udeb
▶ initrd.gz for graphical install: 36 MB now (+1 MB)
▶ uncompressed: 108 MB now (+3 MB)

Advantages:

▶ no (fragile) updates needed
▶ no missing glyphs
Updated defaults

Missed the boat for Jessie but:

▶ graphical install by default
▶ multi-arch: amd64 instead of i386

Coming next:

▶ use ifcpu64.c32

Thanks to:

▶ Didier Raboud
GTK+

Currently:
- using version 2 (libgtk2.0-0-udeb)
- early patches for cdebconf-gtk, not yet polished
- regular dependency issues for libgtk-3-0-udeb
  - earlier: cairo-object, at-spi
  - now: libepoxy

Later:
- clean up patch series
- port or rework theme
- timeframe: months
Currently (xserver-xorg-*):
  ▶ input-evdev for both keyboard and mouse on Linux
  ▶ input-keyboard and input-mouse on FreeBSD and Hurd

Later:
  ▶ input-libinput
  ▶ needs testing outside d-i first
  ▶ timeframe: months
Artwork

Artwork/theme contest:
- organized by Paul Tagliamonte
- selected: “Lines” by Juliette Belin

Side effect:
- Juliette at mini DebConf Lyon 2015
- feedback about her first steps as a contributor

Next:
- Paul (was) volunteered again
Secure Boot

Problem:
▶ lacking support for Secure Boot
▶ users need to fiddle with EFI settings

Solution:
▶ obtain Secure Boot signing keys
▶ update infrastructure to use them
▶ package shim
▶ merge support into d-i

Thanks to:
▶ Tollef Fog Heen
▶ Matthew Garrett
GCC5

Context:
- GCC5/libstdc++6 is a **huge** transition
- being entangled with it: multi-months delay

But:
- C++ was kept out of d-i
- Stretch Alpha 2 released (mostly) without any issues

Here’s the catch:
- building in unstable
- syslinux built against gcc-5: unbootable mini.iso
- X-Debbugs-Cc: debian-boot@lists.debian.org
Proposal:

- “Packages to install by default for Stretch”
- driven by Ansgar Burchardt

Consequences:

- reduce default install size: bare metal, chroots, etc.
- init system: might be fun!
ISO loopback support:
- boot ISO from grub 2
- need initramfs cooperation
- not merged yet, but volunteer: Adrian Gibanel Lopez

multipath support:
- multipath block devices
- broken for a while
- patches provided by Mathieu Trudel-Lapierre
- needed a rework for 0.4.9 → 0.5.0
DNSSEC support:
- Robert Edmonds: “an option for the installer?”
- implementation: easy
- decision: not so much

HTTPS support:
- suggested by Margarita Manterola
- implemented in Ubuntu
- let’s do the same?
New maintainers

debian-installer-launcher:
- desktop launcher for d-i in live images
- a bit under-maintained
- new maintainer: Iain R. Learmonth

di-netboot-assistant:
- download/extract files for PXE, menu for image selection
- new maintainer: Andreas B. Mundt
GnuPG

GnuPG in d-i:
- using gpgv-udeb for archive verification
- built from src:gnupg
- move to src:gnupg2

Nice coordination example:
- question before implementation
- discussion about dependencies (libksba8 = X.509 + CMS)
- discussion about timing
- possible timeframe: weeks
Timing, process

Freeze for source building udebs:
- first mentioned in August 2014
- explained again in August 2015
  - “Bits from the d-i release manager”

Executive summary:
- all udeb-producing packages frozen
- a few days only (hopefully)
- exceptions are still possible (talk to me)
Tips & tricks

Your package ships an udeb:

▶ it can get a block-udeb for a few days
▶ please contact kibi@debian.org if needed

Implementing changes affecting d-i or the installed system:

▶ please contact debian-boot@lists.debian.org

Reporting a bug affecting the installer:

▶ please use X-Debbugs-Cc: debian-boot@lists.debian.org

Many thanks!

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