

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



Further releases 1/2

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



Architecture changes

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



apt vs. cd/dvd

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



Default init system: systemd

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



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



Fonts

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



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/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



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



Priority adjustments

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!



Pending feature requests 1/2

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



Pending feature requests 2/2

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 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!

