

Cat-Herding Development Boards in Debian

Vagrant Cascadian

Teardown 2019-06-23

Who am I

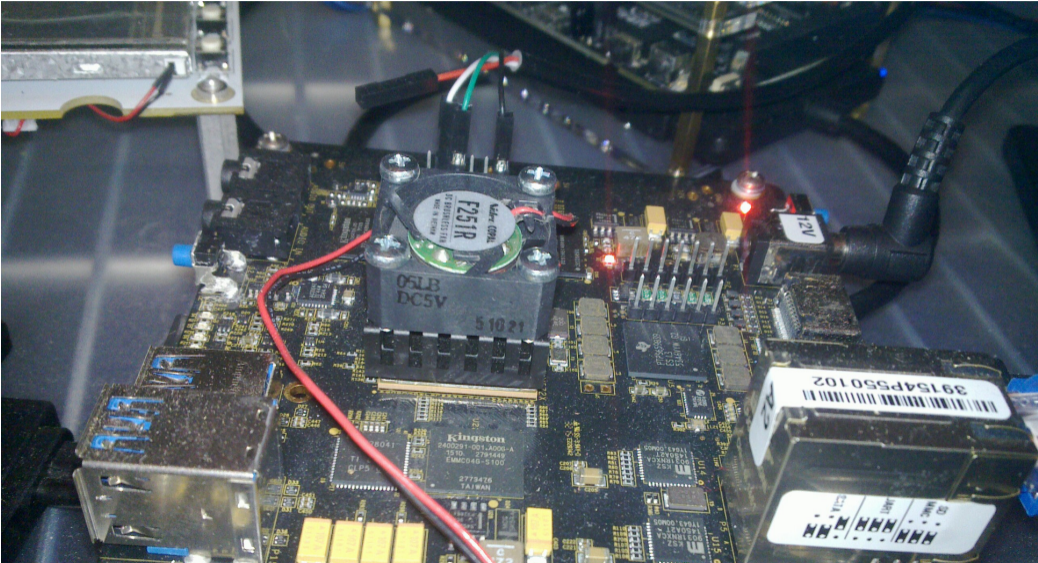
	Debian
user	2001
contributor	2004
maintainer	2008
developer	2010



What is Debian

- Debian GNU/Linux is the result of a volunteer effort to create a free, high-quality Unix-compatible operating system . . .
- From the Debian FAQ

What is a Development Board



Case study: U-boot in debian

In october 2013

Almost 9 months since the Debian upload.

18 supported platforms

<https://bugs.debian.org/726699>

I've done some work towards updating to the new version and could help with an upload or two if needed... but probably not long-term maintenance.

u-boot: your new job!

<https://bugs.debian.org/726699>

```
> I've done some work towards updating to the new version and could help with  
> an upload or two if needed... but probably not long-term maintenance.
```

There's basically no one willing to do long-term maintenance, so
have a blast!

Today, 2019:

<blink>89 supported platforms!!!one!!</blink>

<https://salsa.debian.org/debian/u-boot/blob/master/debian/targets>

Get people involved

How many people does it take to maintain 89 boards?

<https://salsa.debian.org/debian/u-boot/blob/master/debian/targets>

About half as many!

Get people involved, really

`https://wiki.debian.org/U-boot/Status`

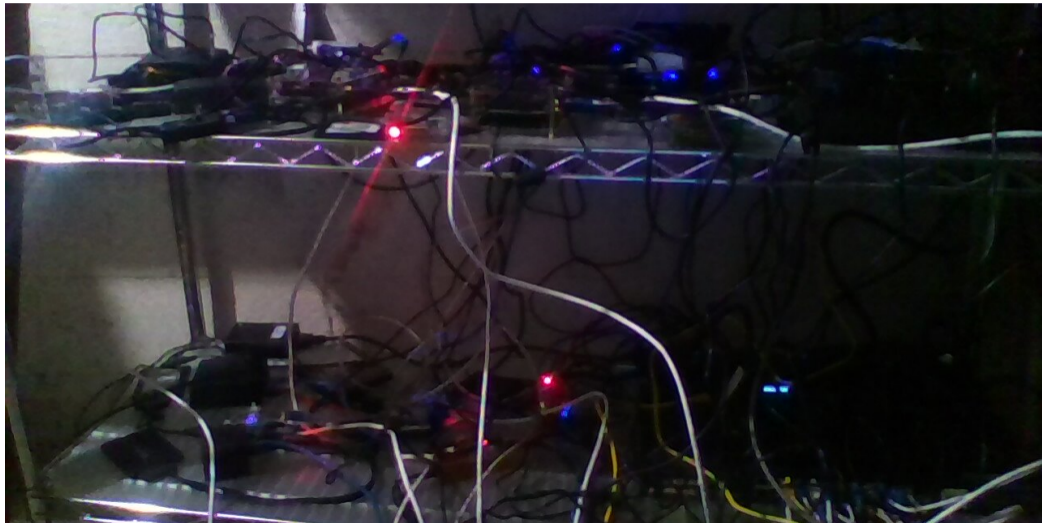
irc.freenode.net: #u-boot

<https://lists.denx.de/pipermail/u-boot/>

`https://patchwork.ozlabs.org/project/uboot/list/?q=SOMEBOARD`

The Zoo

The Reproducible Builds Zoo



Linux kernel packages:

- multiplatform kernels only
- modular

flash-kernel:

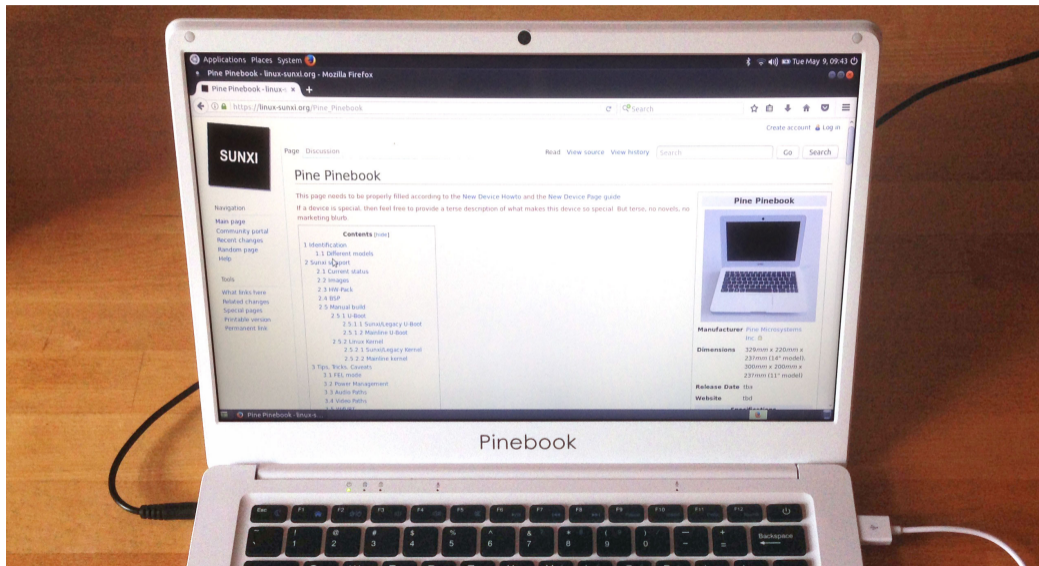
- Generates boot scripts
- Copies around .dtb (device-tree-blob)

debian-installer: the easy bit

```
diff --git a/build/boot/arm/u-boot-image-config b/build/boot/arm/u-boot-image-c
index 271fdf270..44bca5b33 100644
--- a/build/boot/arm/u-boot-image-config
+++ b/build/boot/arm/u-boot-image-config
@@ -21,6 +21,7 @@ A20-0LinuXino-Lime /usr/lib/u-boot/A20-0LinuXino-Lime/u-boot-
  A20-0LinuXino-Lime2 /usr/lib/u-boot/A20-0LinuXino-Lime2/u-boot-sunxi-with-spl.
  A20-0LinuXino-MICRO /usr/lib/u-boot/A20-0LinuXino_MICRO/u-boot-sunxi-with-spl.
  BananaPi /usr/lib/u-boot/Bananapi/u-boot-sunxi-with-spl.bin 16
+BananaPiM2Berry /usr/lib/u-boot/bananapi_m2_berry/u-boot-sunxi-with-spl.bin 16
  BananaPro /usr/lib/u-boot/Bananapro/u-boot-sunxi-with-spl.bin 16
  Cubieboard /usr/lib/u-boot/Cubieboard/u-boot-sunxi-with-spl.bin 16
  Cubieboard2 /usr/lib/u-boot/Cubieboard2/u-boot-sunxi-with-spl.bin 16
```

Kernel modules in .udeb

Working on a pinebook



arm-trusted-firmware:

- Nearly all 64-bit ARM platforms need it
- Recently migrated to trustedfirmware.org

RISC-V:

opensbi

moar IRC:

freenode: #riscv

oftc #debian-riscv

Getting people involved: IRC

irc.freenode.net

#u-boot #linux-sunxi #linux-rockchip #linux-amlogic

irc.oftc.net

#debian-arm

Thanks

- Debian
- #debian-arm
- #u-boot
- #debian-kernel
- #linux-sunxi
- And so many individuals others. . .

Copyright 2019 Vagrant Cascadian <vagrant@debian.org>

This work is licensed under the Creative Commons Attribution-ShareAlike 4.0 International License.

To view a copy of this license, visit <https://creativecommons.org/licenses/by-sa/4.0/>