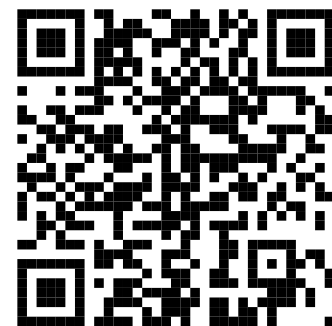


The FOSS contributor's mindset

Drew Devault

Sourcehut, Sway, etc; drewdevault.com

Scan QR code for slidedeck et al



My early approach to FOSS

Discovering Linux, and bliss

Followed later by rage
Thanks systemd

Changing the perspective

Case Study

Linux firmware

Linux Firmware

1. Linux firmware updates take forever on my laptop

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4. That's annoying. How can we fix it? Let's look at the firmware loader in Linux.

```
$ cd sources/linux
$ find . -name '*firmware*' | less
...
./drivers/base/firmware_loader
...
$ ls drivers/base/firmware_loader/
builtin/      fallback.h      firmware.h     main.c
fallback.c    fallback_table.c  Kconfig       Makefile

$
```

```
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$ ls drivers/base/firmware_loader/
builtin/      fallback.h      firmware.h     main.c
fallback.c    fallback_table.c  Kconfig       Makefile

$ vim drivers/base/firmware_loader/main.c
```

Linux Firmware

1. Linux firmware updates take forever on my laptop
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5. **Send the patch upstream.**

From: Greg Kroah-Hartman

Subject: Re: [PATCH] firmware loader: log path to loaded firmwares

And it's totally noisy :(

Also, if you have a 'struct device' you should always use the dev_*() calls instead, which will show you exactly what device is asking for what.

Please just make this a debug call, that way you can turn it on dynamically if you really want to see what firmware is attempting to be loaded.

thanks,

greg k-h

```
[6:04:40] homura ~/s/linux $ git show
commit 30ecd30d8f063f859e2eff82247247749fa03225 (HEAD -> master)
Author: Drew DeVault <sir@cmpwn.com>
Date: Sun Nov 3 10:25:40 2019 -0500

    firmware loader: log path to loaded firmwares

This is useful for users who are trying to identify the firmwares in use
on their system.

Signed-off-by: Drew DeVault <sir@cmpwn.com>

diff --git a/drivers/base/firmware_loader/main.c b/drivers/base/firmware_loader/main.c
index bf44c79beae9..2537da43a572 100644
--- a/drivers/base/firmware_loader/main.c
+++ b/drivers/base/firmware_loader/main.c
@@ -504,6 +504,7 @@ fw_get_filesystem_firmware(struct device *device, struct fw_priv *fw_priv,
                             path);
        continue;
    }
+   dev_dbg(device, "Loading firmware from %s\n", path);
    if (decompress) {
        dev_dbg(device, "f/w decompressing %s\n",
                fw_priv->fw_name);
[6:04:45] homura ~/s/linux $
```

How to gain confidence as a contributor

Tips for exploring unfamiliar code

- Use find to find files/directories whose names match a pattern
- Use git grep to search for error messages, log messages, or interesting words
- Use git blame to find people to ask questions of
- Find your distro's package of the software to find out how they compile it
- Build with symbols and look at the files & line numbers in stack traces
 - Build the dependencies with symbols, too

Don't read these now, download the slides

Thanks!



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