

# Note 2\_10\_22

## 2/10/22 -- Return from Holiday

(19:24)

Today I wrote out sheet A for the formal feedback and management meeting tomorrow with Paul. I have minutes ready for the meeting tomorrow. Tonight, I need to;

- Read up on emails between myself and Paul and remind myself of anything I need to do. [X]
- Read up on finalised project plan, research questions so this can be used for the project spec form [X]
- Read and take notes on any relevant articles that I haven't already [X]

For myself, I should place any important notes in this diary.

## Emails

In my last update before the holiday, I did the following

- Reached out to Stephen Devine to act as moderator.
- Obtained a Rasp Pi 400 and tested the char driver on it.
- Spent time finalising research questions/the project - my title at this stage is "How can Rust be used to improve reliability in Linux Device Drivers"

Tasks for coming back should be

- Finalising project details
- Completing project spec sheet
- Continue the project w/ a focus on the new layout

Paul's thoughts

- Research questions are good but consider breaking them down further - "Can Rust improve reliability of Linux Device Drivers?", to make research questions more challenging.

He also provided 2 articles and presentation slides.

Paul also sent out another email while I was away containing article, I'll need to gather all these articles up and work through them.

## Article List

- <https://www.zdnet.com/article/linus-torvalds-rust-will-go-into-linux-6-1/> [X]
- <https://www.phoronix.com/news/LPC-2022-Rust-Linux> [X]
- <https://www.phoronix.com/news/Rust-Apple-DRM-Cube-Milestone> [X]
- [https://www.theregister.com/2022/09/28/is\\_it\\_time\\_to\\_retire\\_c/](https://www.theregister.com/2022/09/28/is_it_time_to_retire_c/) [X]
- <https://www.zdnet.com/article/programming-languages-why-these-developers-like-rust-in-their-cars/> [X]

## Finalised project plan

I'll need to ask Paul tomorrow if he is happy with the layout as is, he didn't specify in any emails to me.

I'm happy with the first section, Driver issues. It makes for a good to the point opener.

The second section, Stuff tried, I think needs a bit of work/research poured in, in hindsight this was literally copy and pasted from its original note so I might pull it unless those improvements make a difference.

(20:54)

The third section, tools that might help, needs a bit of cleaning up (which i'm in the middle of doing) but should be fine when I'm done. I've re-ordered this section so that the strongest points come first which will make up most of the word count for that section (hopefully).

Section 4, Rust Linux Proposition, is being cleaned up too but should be fine also. After cleaning up, I'm pretty much happy. It is effectively decided that the end product of this project should be a Rust driver for a generic computer mouse on my RPi. Failing that, the backup could be a driver the simulates a device in memory? I should brainstorm this.

I don't really think Section 5, driver results, needs any changes.

I'm going to slightly redo the final section as its just another copy-paste. I've wound up totally re-doing it. This is much better and it means I can keep tabs on whats going on in driver and Rust world and make things as up-to-date as is feasible.

## **Closing out (21:09)**

Tomorrow, I'll have a feedback/management meeting with Paul at 2pm. This note will be useful for that and, I guess, for continuing work on the project. Post project specification, I think the main task will be updating research where needed and getting the interim report out the way.

To completely finish the day, I'm going to write a draft of the project outline for the project spec sheet.

(21:38)

Finished - can work on improvements tomorrow.