

A Brave GNU World

Diary of my switch to GNU / Linux

Preface

I've been sent on a journey since the middle of 2023 that has entirely turned my Internet and software habits on its head. My perception of using large proprietary providers of any service went from complacent and unquestionably necessary, to incredibly hesitant and begging for serviceable alternatives. As I sought out more and more free and open source applications, replaced proprietary software I could, and began utilizing and financially supporting federated Activity-pub servers, there was one elephant in the room. The very operating system I used every single day for everything, is entirely proprietary. Windows is non-free software which is what my entire life's understanding of computing and compatible software is based upon. From when I first navigated through Windows ME at home as a small child, to 2000 and XP in schools for computer classes, Vista and 7 at home in my teens, and 10 for the last several years. This is all to say that I have absolutely zero experience with any GNU / Linux platform, and trying to make a switch that actually mattered seemed very daunting. I have no idea what I am doing, and I am not exactly adept at coding either. I'm just a man with the ability to web search, open to some change, and a desire to push through some friction. With that said, this will act as a diary for various days I work on my transition to a freer operating system. Observations, successes, failures, frustrations, all that sort of fun which comes from the voyage.

February 13th – The Plunge

My initial thoughts about switching was that it would be a bit over my head until I changed my hardware. I have some atypical hardware, but my biggest concern was my NVIDIA graphics card. I had heard that this was notorious as being a company unfriendly with GNU / Linux development, and that people have problems with using their components. I had my heart set on some hypothetical time in the future where I'd get a new PC with AMD components, and hop to GNU / Linux Mint Cinnamon Debian. I started looking into a distribution I was hearing about called Pop!OS however, because it seemed like it might be possible for me to install it easily on my current system without modification. It's based on Ubuntu, which I had heard rather mixed things about, but it seemed to deviate a bit in certain places, like utilizing flatpak containers and having its own shop. I heard snap was bad I guess, proprietary? To reiterate, I have no idea what I'm doing. Anyway the most important thing is that this OS has a compiled bundle of proprietary NVIDIA drivers directly in the ISO. I'm not exactly thrilled by the prospect of running to non-free software to get my free software running, but surely some binary blobs are way farther up the freedom ladder than sitting around twiddling my thumbs on Windows 10 forever. So I decide this is my calling, let's get it going...today.

Alright, instructions seem simple enough, just download the OS, some free software to create a live disk (balenaEtcher), and reboot to freedom. The first steps did work out that way, popped out my favorite 16gb stick and let Etcher do its thing, then went to reset the PC. After some silliness with my bios settings, I get to the install screen. Oh man is it slow, I chalk it up to the fact

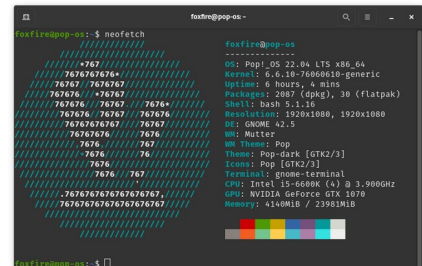
it's on a USB stick and just vibe for a bit chugging through the install wizard. Finally the time comes when it asks me if I want to do a normal or custom install, and of course I want to do a custom one because I am a very cool guy. The reality is I wasn't in the mood to format one of my storage drives to install a small operating system, figured I'd simply make a 250GB partition on a drive where Windows wasn't on and call it a day. I've heard trying to install on the same drive as an existing operating system can cause problems, and Windows could just mess with the boot table and well, that doesn't sound like a fun time. I'm told to make a `/home/` directory, which defaults to formatting as...EXT4? Can't say I've ever formatted as anything beyond FAT32 or NTFS before, and I don't really know if it will be cross compatible, but I suppose that doesn't matter much. The goal is really just to have a partition large enough to install applications and handle temporary files, my personal data will be on all the other areas anyway to prevent issues. Okay so great, I make the partition, I ask it to use it, I get the option to start the install, and then...it fails after some files try to copy over. I try again, it fails, and again, then reboot the thing, no dice. Okay well *maybe* if I look at the very scary typical clean install button (please don't format my personal files god there surely has to be multiple confirmations right) something will come up. It does give me a lead though, all my SSDs are over 2TBs and apparently that's a problem. If I try to work around it by mounting them, I get a `no object for D-Bus interface` error.

Okay well I at least have some text I can copy, and I figure something out! Apparently I need to utilize a mode called UEFI in my bios settings in order to install on drives over 2TB instead of legacy boot options. I hop into the settings, see a way to force UEFI only and think, yeah that's a great idea, let's close compatibility too so it has to go through UEFI, except now my USB stick isn't detected at all anymore. Well crap, okay maybe I should grab my more recent 64GB one which I know is USB 3 and surely should go into forced UEFI no problem right? Boot back into Windows, reopen Etcher, nuke the drive, and get it going, and it is going! Things load up, screen flashed once, oh back to the command line. Pop!OS Instance 5 initiated, instance 20, 45, 70, 100...okay I think the routine is busted here. `Ctrl+Alt+Del`, oh it fails far before there now despite being a live cd, and again, and power down the whole thing. Guess something failed with the Etching software? Regardless, I put my settings to on instead of forced, and re-enable some unrelated legacy things. Figure maybe if the other drive worked properly I could salvage something, maybe install somewhere else and move it later? I dunno. But now it decides there are *two* boot options for the drive, where one is actually UEFI! Okay great, it's running, oh god the command line is huge now, but I'm in and I can use the drives for clean! So anyway back to custom, and I realize something absurd must've happened. In tinkering with the on and off boxes for trying to install the OS, I think I must have managed to idiot savant my way through some fail safe. Apparently I need to at *minimum* have two partitions for my install, a `/home/`, and a `/boot/`. I make the second partition, I define them as the partitions to use, and timidly hit the install button expecting failure. Installation...successful! Well holy hell let's get this show on the road then!

I restart, I have my boot configured incorrectly so it immediately threw me into Windows, I restart again and use the boot menu, ah two Pop!Os choices! No I don't mean one from the stick, they are both on the drive, but one says UEFI so I wager it's just different compatibility for booting? Had enough trouble with not using UEFI, we're clicking the UEFI version. Holy hell that boots fast, very sleek! Now comes my next biggest fear, not having any ability to use my audio equipment. It's been suspiciously quiet through the entire install, but in actuality there really were just no sounds playing ever. Sure enough I head to the sounds and, well actually how the heck do I

even change audio devices? Apparently it's in a settings context menu, fair enough, and all my devices are just already there by my complete surprise. Main speakers, check, external DAC / amp, check. My XLR USB mic input I had to install drivers on Windows for? Yup, working out of the box. Huge weight off my chest there, that stuff was not cheap and I use it very often. Next hurdle, I need my VPN. Technically I could scrap my current VPN provider if I had to, but they have done very well by me with their old lifetime plan, so I'd vastly prefer to keep them. I figured considering it's a no logs VPN service that a GNU / Linux package would be far more likely than an average proprietary service. I was right, though it was on their website as opposed to in Pop's special store. Easy install, quick to connect and, actually wow that connection was way faster than I'm used to. Usually takes like several seconds, this gets it done in less than one. Double checked the IPs on web searches because it was so fast, but it's totally working as expected. Again, another good sized hurdle taken care of rather easily.

Okay so now I need to resolve the issue of password management. I know there are a number of free software projects based around KeePass, so I'm expecting such a project to exist for GNU / Linux. KeePass XC comes to my rescue on the shop, it works excellently, and now I can begin logging into all of my web services and extensions I need on Firefox. Services are going well, everything seems fine, watched some videos for good measure! Checked out my files, everything seems good, though I'm not the biggest fan of the prospect of having to mount my internal SSDs every time I boot my PC, and them being icons on my task bar. Speaking of that taskbar, it's kind of a big boy, guess I should fiddle with those settings. Turns out it's very configurable, I was going to do a full tiny bar, but then I realized I can hide the taskbar on hover and went back to the rounded floating one at a small size. Finally, screen real estate is mine again! I can also have it on both monitors, yes please, and it's very snappy. Now there's just one more thing to do before I call it a day, I gotta open the terminal and do that *thing*, all the cool kids show off the operating system with that built in program neofetch! Oh wait, it's not built in? I just thought because well...okay I guess it's not like I can't just `sudo apt get neofetch`. Oh hey there we go, it's worked! Alright, time to take a screenshot!



February 15th – A First World (Desktop) Background Problem

After taking a bit of a break to just watch some videos and get more comfy with the environment, I figured it was time to get back into it. First off, I still have absolutely no idea if my webcam will work. With no built in way to check, I figure some software off the Pop Shop wouldn't have much trouble. Grab some software literally just called Camera, which seemed simple enough, but couldn't recognize the device, no idea why. Maybe it's expecting a different type of equipment, but regardless there are other options. Figured maybe I needed a controller application first, like the proprietary Logitech software on Windows, but obviously something open. Quickly found Cameractris, which was exactly what I was looking for, and it absolutely recognized my camera! Other Camera app still couldn't, so I also found Webcamoid...but the package release was from 2016. Alright well clearly there's something else up here, head over to Github and find the project does prebuilt releases behind a tiny paywall. Could try my hand at compiling, but I still have no idea what I'm doing and neither that nor sending off credit card info for something for something I've never used feels particularly great right now. Figure I may as well try out the ancient package and see if it works at all, and if so, if it's at all useful first. I download it, and it does indeed

recognize the webcam and take pictures! Though in that moment I had a pretty obvious reminder that Open Broadcaster Software exists and I use it rather regularly. Download that, works like a charm instantly, and has many other uses too for local recordings! Also now seems like a good time to get dedicated audio editing software, and as I know Audacity had that buy out a while back I figure now's a great time to check out Tenacity! No sense in sticking around on my final 2.X version when I can grab that right this second after all! Boot it up, recording works great, another problem solved!

Perhaps now it's finally time for something simple, let's finally change my desktop background huh? Yeah I'm gonna throw my Foxfire art on one monitor, and some fan art a super kind person made of Foxfire recently on the other monitor! Oh wait, what? I can't have a unique background for each monitor, seriously? Of all the things to have a snag on, this is certainly not one of them I was expecting. It's really not that big of a deal, but at the same time it was driving me a bit crazy, like surely *I* was doing something wrong, *right*? Well actually no, after some digging I find that by default you legitimately cannot do this behavior. I checked the System76 FAQ and did find some info on theme customization through GNOME Tweaks, but it didn't seem like it covered unique monitor backgrounds. Thankfully, the years old Reddit comment search result history gods provided me with the sweet nectar of a solution, kind of. I install GNOME Tweaks, and while it has no multi image support, you can set a home and lock screen background with different fit options. For whatever reason, changing the image did nothing, altering the fit options of the lock screen changed the fit options of the *desktop*. Okay whatever, it was stated it wasn't exactly supported in System's documentation, I can still work with this! The image that comment had showed a spanned fit, which, okay wow my Foxfire is a **WIDE** boy now. Excellent, so all I have to do to have two images on my monitors is...create a single image. Straightforward, except the fan art one is not 1920x1080 like the other background, so time to open Krita and perfectly scale it down so it's *exactly* that for parity with the other image in a 3840x1080 frame. Quick math has that at 72%, so I transform it, save the thing, set it as a background, hit span and...it works! Ah, first world problems, but I solved it!

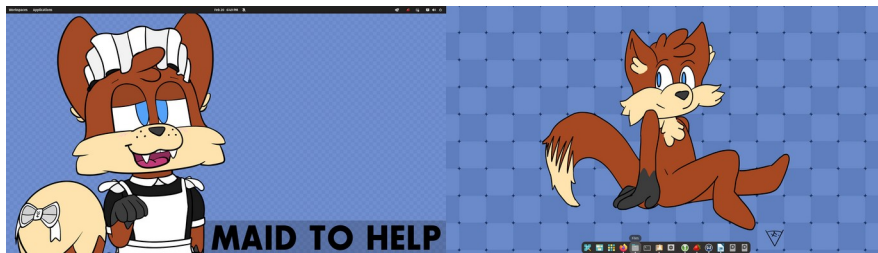


Figure 1: Dual monitor backgrounds in Pop!OS

Also as an aside I love the built in email app Geary, god it's so simple and sleek, literally exactly what I'd need and nothing more. I was rocking Thunderbird for Windows recently since well, Mozilla and open source, but I might honestly just stick with Geary on GNU/Linux. Not only that but wow the integration if you allow it, you could straight up integrate anything from Google you want, most notable is direct connection to Google drive from within the file explorer. I know I shouldn't be excited about proprietary connections really, and I didn't enable anything outside of drive mounting, but it's just really cool how responsive it is. I still (unfortunately) use drive a lot and this is legitimately a better way to access it than through Google itself. No extra non-free nonsense needed aside from the servers themselves, which I'll accept for now. Only issue seems to be that clicking links in emails takes a long time to open in Firefox. No clue why, it's not Firefox itself, I can literally copy the link and paste it in and load the page instantly, an odd little caveat.

February 16th – First Hardware Casualty

You know, it's been a few days since I've installed this system and I only just now realized something: hibernation actually works on my device perfectly. I always, and I mean *always* have issues with hibernation on my systems on Windows. Clearly it works for a lot of people, because I don't hear about this being an issue, but for me across multiple OSes and computers, hibernation breaks. I've always opted to either leave my stuff running or turn it off entirely because I generally just have to restart the device anyway if I try to use hibernation mode. On Pop!OS though? Oh god, it works flawlessly, boots back up in a few seconds, and everything is just excellent! I am honestly stunned. I figured I'd have to disable it, but it's happened a few times already and it's just everything I could ever dream of. Also, can I talk to you about my lord and savior integrated dark mode? Holy hell, everything is dark, it is amazing, I was waiting for literally over a decade for even partial integration of dark mode into native apps in Windows. I cannot stress enough how much I love this, everything integrated is dark, everything I download is dark, I am in heaven.

Alright so I downloaded OBS a couple days ago right, there's another bit of hardware I need to set up, my AVerMedia capture card. Let's plug that bad boy in and set up a scene. Ah wait, nothing is detected, I suppose I need some drivers or something. Let's do some digging! Several minutes of digging later, well shit. This hardware company gives no fucks about GNU/Linux systems and also has some proprietary nonsense going on I guess. Only lead I have is a GitHub project which is years out of production which modifies a specific no longer hosted driver that is related but not actually the 4k card I purchased. Okay let's check the repository, oh, no releases. I guess I could follow the compilation instructions, it says it should just work. Shocker to no one, the years out of date un-compiled code failed to build, seemingly citing several unaccounted for variables (not missing dependencies). It did say if it fails to try the Fedora branch, alright I'm on Ubuntu but what the heck, `./build.sh` go ahead and make my day, oh never mind it already broke. I am not in a position to resolve whatever issues these are, and a slightly less out of date fork which mentions kernel changes makes me even more wary I am in way over my head here. For completion sake I download the fork and see if it compiles, but alas it also fails. But hey, I tried dang it, that accounts for something right? Man, this card was like \$150, I guess I'll just have to look for something that actually respects my freedom in the future. Considering it was plug and play with Windows though, I am honestly surprised this was my first hardware casualty. More unconventional stuff I literally had to download drivers for works out of the box, but this was the bridge too far. Honestly much better this than my audio gear, I'm happy all things considered.

February 17th – DVDs and Music Bees

I got myself a request from a family member to create a DVD of several short videos of him playing on the guitar, I figure this shouldn't be a big deal. I was incorrect, apparently authoring DVDs is a giant pain in the ass, at least with the media I was given. All of these videos were in some wonky AVI formatted video, which was massive and didn't even want to play properly in some media players. I imagine the best course of action would just be to re-encode this mess into something like mp4 with ffmpeg and just be done with it, especially as I wasn't confident it'd fit on the DVD without modification. Okay so let's hop into terminal and install myself ffmpeg, what's even nicer about this is it's very easy to just open a terminal right in the directory and modify my existing scripts. Probably should just make my batch files bash ones instead sometime, but whatever, it's running! Nice and simple, or so I thought, as when I checked the converted output the

audio is just a wall of white noise. Okay great, something must be wrong with the GNU / Linux installation I guess? I try a few different encoding and re-encoding settings but they all fail the same way, decide this isn't my project anyway and just boot back to Windows. Run ffmpeg again, it still fails miserably, honestly that's a huge relief. The files are just awful, thank god it's not an OS related issue, this is where I find out some video players fail to play it, and also Audacity imports it as the same white noise too. Lovely, so how the heck will I be able to cut and convert this stuff into a proper format then? Strangely enough, it was Microsoft's proprietary video clip tool that actually managed to do it, after messing with it a bit to make it think the entire video was a "clip" to convert. I have no idea why that worked, but ah well, at least I can use some free DVD authoring software. This isn't really related to GNU / Linux any further, but let's just say this was an absolute nightmare and it took five burns to get a single usable configuration, which was like a balancing act of preserving re-encoding failures and successes, along with DVD commands which I guess weren't added by default?

Okay shows over, back to Pop!OS, that's the point of all this after all! Well actually wait, since I'm here, now would be a great time to export my Music Bee ratings into a simple playlist format like .m3u. Then I could look for a proper music app for my new system! Got my playlists ready, and now let's jump back in. Now I'm looking for something free and open source, something which has automatic playlists for ratings, the ability to rate music, and ideally has some customization features. Looking around online, it seems like the most popular one that fits this bill is Clementine. Oddly they seem to haven't had an official release for several years, despite very recent active work in the GitHub repository. Not really sure what's up with that, but I could grab some prerelease installation if necessary. I do see a flatpak from not too long ago on the Pop shop, figure that should be more than enough to evaluate if it will work for me. It can recognize my library no problem, though tag embedded ratings seem to differ from Music Bee, which is fine as I could simply import the playlists right? Well no, they just don't function properly at all. This is a problem, .m3u files are pretty basic, it's literally just directories isn't it? Well I took some random album and saved an .m3u playlist and well, it's a mess. There's so much extra baggage saved here which would make conversion unreasonable between what I have and this. This is a pretty big deal, and a deal breaker, but I did see a fork of Clementine with far more recent releases from this month! Strawberry it's called, and little did I know it would actually bridge the gap I needed to save the day.

Strawberry is similar as you might imagine, feels a little nicer and has some extra features but otherwise I figured this might be pointless. My thought was maybe the .m3u playlists would differ because the info preserved in Clementine was pretty needless, and to my actual shock the Hail Mary was dead on. The playlists here and from Music Bee are identical aside from a single line at the top for external directories `#EXTM3U`, which is trivial to append. Now we're getting to business, I alter the directories to match my new drives, import the playlist and...there are broken entries. Thankfully I pick up almost immediately what happened, but unfortunately there is no automated way to resolve the conflict. The problem is that Music Bee isn't case sensitive, while Strawberry is, so any song I updated capitalization for in the folder structure never updated the data within Music Bee. This seems like a Strawberry oversight more than anything, but whatever, I can deal with this type of problem. I pop open the native text editor and get to work replacing capitalization for a number of songs in literally every rating playlist. After deleting and importing a couple times, all errors are resolved and I can select all, and set every single song's rating to the correct value! Fantastic stuff, and then I can make auto playlists if I need to export the data for the

future. It took a number of hours, but thousands of entries are all imported, meaning my local favorites and rated tracks are all ready to go now! This is extremely important, because it means I can now ditch my Windows music collection and progress with GNU / Linux entirely utilizing free software. I do have some issues to resolve, mainly revolving around some other satellite tools and tagging, but at the very least the biggest hurdle has been crossed! Also, added bonus, my FiiO hardware works better than it did before. It has special modes for higher res audio playbacks (e.g. 24bit / 96khz) which never worked in Windows, but work plug and play here. Found this out by listening to a recent album I got, Jet Flight, and seeing the green color I should when such audio is passed to the DAC.

February 18th – Artistic Endeavors

I've been putting it off too long, perhaps because it concerns me a fair bit. I need to be able to use my tablet in order for this to be even remotely viable long term. Digital art is basically my only hobby at this point, without my tablet functioning this whole thing is going to come crashing down. The one thing I have going for me I believe is that it's an old Huion device, no screen, an incredibly basic device with a few buttons and a drawing area. While rummaging through the settings, I noticed that there is an entire segment dedicated to Wacom tablet configuration. I'm assuming this isn't literally only for Wacom, but maybe it's specific drivers which also have generic support as well? Fingers crossed right, let's plug my tablet in! Thank god, it's registered right out of the box, though with no keys assigned. No worries there, this is extremely configurable! I open Krita, get the shortcuts, assign the keys, and set the draw area to a single monitor of my choice! No extra proprietary software needed like I had on Windows for Huion and I am good to go! I didn't see soft button support (the areas at the top of the drawing area which could be tapped) but I always had those disabled as they were both finicky and a nuisance anyway.

Now that I've got my tablet configured, I suppose the best way to test it would be to work on an artistic project in Krita. Nothing wild, but just a sketch to get my bearings and ensure things feel right. I settle on drawing my sona doing something silly and evil, which ended up being them in running away with an over-sized bag of money. I find a pretty convincing looking pencil brush and get to it, and things are feeling pretty great! I can absolutely see myself being able to use this for artistic projects in the future, this is right on point with what I was expecting. Not really sure what else to add, but things just worked well, and I listened to some tunes while doing it too. Ended up adding that cute phrase next to the sketch that says "be gay, do crime". I think that summarizes my idea perfectly.



Figure 2: Absconding with funds

February 19th – Steam Rises

Be me, hear about how Steam is revolutionizing the availability of playable games on the GNU / Linux platform, install Steam. I figure getting the proper .deb over the flatpak makes more sense given all of my stuff is on an external drive, and maybe it will need to break sand-boxing in other ways to do emulation? I'm not sure, but may as well go for it. Installs easy enough, check off some setting to try and utilize proton experimental, but here, literally just enabling this, was a huge problem. You might think it'd just download and install, but actually no, it kept stalling in a manner

which was literally unable to progress. Couldn't uninstall it, couldn't reset, couldn't do anything at all. Tried killing Steam several times, it just hung instantly on the install process at 56%. Tried clearing cache and killing, it retries and then fails to install hanging at 56% again. Okay great, isn't installation pretty much just moving these files around anyway? It's not as if it's registry entries on Windows after all, maybe I can just move whatever it's frozen on? I figure out the Steam download directory and the correct ID (hardly difficult as it's the only folder there), move everything, clear cache, kill Steam, restart Steam. At this point I'm begging for this thing to work, Steam starts up, it restarts everything, my face sinks, but then it fully installs. Thank the heavens, it got itself working! Alright maybe let's try some random games, all of them fail for different reasons. Maybe I need to fully re-download them or something, these are directly off of my Windows install after all. But whatever, let's try some obvious stuff, like Steam games made by Steam. Portal runs fine, Half Life too. Gary's Mod? Yup, works. I'll probably have to comb through it more and figure out what works and what doesn't at some point, but at least the program is installed and ready to be tinkered with I guess.

Okay how about a second Hail Mary since the first one worked, what about Steam VR? I've heard VR is an absolute nightmare to get working, and I'm not exactly super big on VR anyway, but I have some systems to try so let's see if anything works. I install it, run it, plug in my Vive Cosmos, and it's sort of in limbo with missing drivers. Okay great let's get those drivers! Oh wait, just kidding, there are no drivers for GNU / Linux! Only thing that even came close was something called OpenHMD, which is an open source project with extremely limited functionality from several years ago according to GitHub. Official Ubuntu site linked says...2016 release? I'll probably have to come back to this. Oh I've got a fun new error here. Steam VR leaving some remnant window with an unknown process I cannot terminate. Guess I'll have to restart if I want that black window box gone, thankfully it takes literal seconds to reboot Pop!OS. Figure I may as well try my old headset too, first gen Oculus before it got bought out by Meta. That doesn't even get detected as missing drivers, it's just nothing. Ah well, VR is not a deal breaker.

Maybe I should take a break and look at some art, maybe save some stuff to...wait. I can't *drag and drop* in my operating system? I haven't made any sort of modifications to my browser or file browsing environment, so I find it extremely unlikely this is on me. Apparently I am not the only one with this issue, but it seems to come down to the current environment, which I'd have to modify in order to resolve. Kind of annoying, and I don't really want to modify the system much as I am still very new to it in general. I can still save images just fine, so I suppose I can spare the several extra seconds of detour for now. Hopefully an update will resolve this in the future, maybe I could reach out on proper channels about it if it persists.

February 20th – Observation and Documentation

Hey, did you know this environment has a recent files folder, and that it's cross compatible with literally all apps on the system? Super cool, except I guess anything amorous will also appear there too. Whatever, this is free software after all. I'm not exactly beaming this info to John Microsoft anymore. I suppose I don't mind catching a glimpse of a picture or two while opening a different file if I choose to go to the recent tab, it's my machine and only I use it. Speaking of using my machine, I haven't exactly been using LibreOffice like I had intended to. Let's get caught up with my mood calendar in Calc, and then maybe start a new project in Writer. I figure it's been about a week now, let's start writing down some of the stuff I've been doing in my new GNU /

Linux system, with all the ups and downs of my adventure. I imagine that will be fun, and also give me some added reason to be active in using the system, as opposed to purely watching videos and visiting other websites. I have to say, LibreOffice is a little off within Windows, not in the sense that it's unusable, but just that some GUI elements don't work as you'd expect, or don't look quite right. No problem if you leave it on light mode and don't try to scroll the default text format, but...yeah. On GNU / Linux, presumably its real home, it's more responsive, everything works exactly as expected, and dark mode looks lovely! This is an excellent collection of tools which I have been, and will continue to use frequently for all of my needs. I wrote my first entry today, but it is likely going to be the biggest one, so I'd consider that a good success!

February 22nd – KeePass XC Is Quite Nice

As I mentioned before, I needed a way to open my KeePass file, and grabbed this program as my GNU substitute. Aside from doing some logins, I hadn't really gave much time to exploring it until now, but it's very well designed! Far more polished than my Windows counterpart was, with a lot of quality of life features built right in. Not only can it download full resolution favicons where possible, but apparently I can import whatever images I want and it will automatically convert them into icon formats! It was kind of funny because I was already impressed I could convert images to an icon format directly through my default image viewer, but then quickly realized it was entirely unnecessary. It even has filters for weak passwords, among other things, and it looks great too. I don't really have too much to add here, but I spent this day and the 23rd making manual edits to a lot of icons and cleaning up some stuff since it's so much easier than before. The ultimate goal will be having everything nice and clean for both desktop and mobile applications, which seems very doable now!

February 24th – Some WINE With My Cheese

Far before I ever got into all of this, I had heard of WINE and it's capacity to allow for Windows programs to run within the GNU / Linux workspace. "It's not an emulator, it's a compatibility layer" is a quote that always stuck in my head for whatever reason. Anyway, I figured it'd be a good idea to try and get something set up, not necessarily to fill my computer with non-free software, but just in case of complications or limitations for my migration. This comes in handy sooner than I'd expect later on, funnily enough. From what I was reading, I expected WINE to be a bit of a tedious process, so when I saw applications like WINE Tricks and WINE Z GUI, I jumped on the opportunity to get started. As it turns out, this was a bad idea, which ended me on a wild goose chase for hours trying to figure out why applications were being copied over and trying to form their own containers. Obviously this was going to fail, all of these applications have dependencies within their folders for configuration files and packaged .dlls. Anyway, the solution as it turns out is to simply uninstall everything, and follow the WINE install process through the actual website. This also helps me figure out the Ubuntu version I'm based on, because apparently there are several and I have been confused about this in other free software releases before. Throw in a `cat /etc/os-release` and suddenly things make sense. So for the future, I've got Jammy Jellyfish, Ubuntu 22.04, good to know! I follow the rest of the steps on the [installation page](#) and all is well! Now all I do is just open with WINE from the context menu, and it (sometimes) just works! The most impressive thing I've tried so far was Super Lesbian Animal RPG, which just worked right away, no questions asked. Incredible stuff.

Now here comes my main reason for doing this, checking to see if some simple tools I had for Windows actually will work on GNU/Linux, ones which I used extremely often and are free software from GitHub. The first is a music spectral analysis program called Spek, a very simple drag and drop application which can quickly show me any sheer lines and ensure my high res audio is legitimate. I use this software constantly for new downloads and purchases. On first impression it works flawlessly! I do think to myself if there is a similar lightweight alternative (I don't want to open something like Tenacity and import stuff every time) but Spek really seems to be the best option. In fact, there does even seem to be a per-release for Debian systems (and I can install .deb files). I end up going on a wild ride for hours trying to compile this stuff after downloading relevant dependencies, editing the code's minimum version requirements, and downloading an earlier version to hopefully compile that instead, but everything failed. I've yet to successfully compile anything thus far, I'm starting to acquire learned helplessness about it. Anyway, it seems like the best way to run this free software for the moment is somehow through WINE, honestly quite incredible.

The second program is a DRM circumvention tool which ran through Windows command prompt, which I also used very extensively because I do not trust streaming services to actually keep their media. I stay subscribed at the highest tier and they give me high quality stuff I can keep locally and decrypt. A win-win as long as they keep it that way. I try to run it, it fails, I forgot to change my auth key, so I do that. Run it again, it fails the same way. Damn, head over to GitHub and realize this entire time there is a proper built GNU / Linux build which can be run straight through the terminal. Load it up, works exactly as expected, I am thrilled! That means one fewer thing I have to concern myself about with this migration, we are all set on this front!

Feeling good about making all this progress, I figure perhaps it's time to take another stab at DaVinci Resolve. I run the file, note the missing dependencies, realize that isn't quite good enough, and search online for install troubleshooting. Find a thread with listed terminal outputs for what needs to be installed so I can name and retrieve them properly. Do so, run it again, and it actually opens! Big progress! I go through the motions, finish installation, run it from the super window...and the computer hangs. Lovely, maybe it doesn't quite like the tiled windows? I know the application has a launcher window, and that might not play nice to resizing. Whatever, reboot the computer, get ready to run again, realize my drives can't mount. I about shit my pants, but open GParted and see things still appear as expected. Mounting continues to fail however, so I do a quick boot into Windows to make sure something crazy didn't happen. Thankfully not, so I restart again, then realize at that moment in my haste to reboot I must've ran the legacy boot for Pop instead of UEFI (both are able to be selected). Thank god, that was the issue, we're fine. Load up DaVinci, it works as expected...or so I thought. I figured maybe something might be broken in the pipeline, so I make a new project and do some basic things, with the plan to see if the process works in full. I don't get very far though, as videos fail to work correctly. Images and audio work just fine, but videos of any format just give an empty audio track and nothing else. Well shit, this is nearly unusable then, and maybe there is something to be done here...but I am exhausted. This is what I get for installing non-free software I guess, I kinda deserved this. I'll look into it another time, at least I figured out some things along the way and made some progress.

February 25th – Krita Critter Creation

I mentioned it briefly in the previous day, but I started exploring tiling windows, a largely promoted feature for Pop!OS. It's highly customization friendly, so you can set and modify keybinds for almost any action you can imagine. There is a bit of a learning curve, but not one that is going to take years to master or anything, though it seems to be missing some important features by default. Thankfully I am able to add all program minimizing and single program minimizing into the mix easily from within the context settings. I quite liked the idea of managing my windows with the keyboard, but I wasn't too fond of floating windows (that is to say, windows with a boundary exposing the desktop background on all sides). However, being able to freely maximize windows with **Super + M** means that this isn't an issue whenever I want to focus on a single program. I'm getting somewhat used to using the keyboard to shuffle windows around, minimize them, **Alt + Tab** them back open, and just generally enjoying the experience! I'm hoping that in a couple weeks or so I feel fully confident with basic window tiling, and can appreciate its efficiency in full.

I think it's about time I try to actually craft something more substantial in Krita on my operating system, so I go and do just that. I made a pencil sketch before, which was nice of course, but I want to get a lined and colored piece out there! Anyway I spent the next few hours drawing my sona lying on a bed, initially seductively but ultimately humorously. Not in the sense I made him do anything silly, but more that I had an idea to turn this into a punchline instead with this image as a base. I'll just have to see if I can get myself to do it another time, as completing the main image already took a fair few hours. This also led me down a path to getting a plugin for Krita which makes speech bubbles for me! [Rogudator's speech bubble generator](#) is pretty simple and effective for my needs, at least for now. I might look into something a little more dynamic if I do more comics, but for short blurbs, these simple pointed circle bubbles are perfect. I wish there was a simple shapes library by default in Krita, but maybe that's something I can explore at some point too for the realm of plugins. After all, plugins have a massive potential and I've entirely overlooked them until now.

Also figured I'd toss on Steam again just to see if I could get anything not made by Valve running. After a few clicks I got to Goat Escape 2, which opened right up and seemed to work like a charm. I never actually did play the game, one of many that have been rotting in my library for years and years. I think it was a part of those very old Humble Bundle deals in the early 2010s, where you see one or two games you're after and 10 other ones you weren't really pining for but redeem anyway. It's a cute puzzle platformer which I had some fun with for a few hours, wrapping up my weekend before work starts again. Haven't beat it yet, but I feel like I might be around the half way point of the game.

February 26th – Minecraft And More Critters

Speaking of games, a game I quite love playing every so often is Minecraft. Typically I'll go without for several months or so, then suddenly get addicted for weeks at a time. Thankfully, though it wasn't a deal breaker, I was able to immediately locate a suitable package for my system and run the launcher! I booted it up, it worked, I generated a world, that also worked! I think everything is in order here, but figure before I call things complete I should move my main single player world over here. So I go about doing that, only takes a couple minutes, downloaded 1.18.2 since it's the last official version before the strange chat report telemetry nonsense, and get into it. Loads in,

works wonderfully, I'm satisfied for when I want to play next. Another small thing off the list of many I can cross off of my list. Boy do I love when things just kind of work out like that.

Aside from that I take to Krita again to work on a new project, just a sketch, but to imitate the style of a mutual on Mastodon because of a project they invited people to participate in. Technically it was only for *them* to imitate *our* styles, but I wanted to do it anyway. They pretty much only draw My Little Pony characters, and I basically have never drawn them, so I spent some time studying their sketches and final works to see what I could learn. After a bit of warm up I was able to get something cute going, and made myself a special character just for the process. I think I emulated the scanned paper on pencil digitally fairly well, with similar paper coloring to theirs and a similar type of pony design shape wise anyway. I was happy to show them off later that night, and feel that much more confident with Krita.

February 27th – Resolve Is Out, Comics Are In

After going down a bit of a rabbit hole for DaVinci Resolve on multiple occasions, and also figuring out that my end result may simply be down to the fact I am stuck with an NVIDIA graphics card which is not fully supported through their rendering methods, I had a bit of a brain fart. I'm hardly a DaVinci expert anyway, do they really have me locked in this hard? Why do I have to do all this legwork just to get this proprietary software running anyway? Surely there are alternatives I could leverage which would actually work and will fit my needs just fine right? What do I need after all, I'm hardly a cinematographer. Support for a number of different audio, image, and video formats, which should come standard with free software considering the powerful free libraries available like ffmpeg. Maybe a couple dozen video and audio track layers, the ability to key frame effects, especially transformation ones, and the ability to export in 1080p 60fps. I head on over to look at the Arch wiki since it has good documentation, and see several alternatives listed, and I am obviously looking for free software. The first which catches my eye is Pitivi, which is a GNOME focused no-frills editor which looks pretty easy to use. I grab it, it loads videos, images, and audio just fine. I can make cuts, and wow they are butter smooth, unlike DaVinci ever was for me. This is already serviceable, but it's transformation controls feel rather strange, only deal in absolute pixels, and there are a number of things which cannot be key framed. I can't even key frame text so that it can change what it says at different points in time, and it might only have linear key frames from what I'm seeing. I can use this, but I'd prefer something a little more robust. For now I uninstall DaVinci and put a pin in Pitivi, and download Kdenlive. As I spent a while on this already, I'm just going to put exploration of Kdenlive for another time, but at least I've got everything ready to go for the future.

Also today I make good on my idea from Sunday, the comic is completed! I spend a little bit of time cropping things, making a nice little text based first panel, and changing the speech bubble for the punchline. Though now that I've finished it I want more, the punchline being computer based is okay, but I think subverting expectations twice would be even better. On the 28th I decide to actually go and do this, by drawing a flustered protagon who awaits my password to continue. This has some interest to mention because it introduces me to the animation tooling for Krita, which I have never seen or used until this point. I wanted to make the protagon's fingers touch, along with having a cursor blink for the text on the bottom of the extra panel. This actually turned out to be a giant pain, but not because of Krita. I am very used to Adobe CS6, and have used it for nearly 15 years now as a hobbyist, and it has an entirely different way to animate images for both GIF and

video formats. In that proprietary program, you'd generate a new frame, enable or disable all of the frames you weren't using, and then set how long you wanted that frame to last for. Pretty simple, but also pretty stilted. It also broke if you decided to add new layers or other things to your project. Point being, I spent a while trying to generate key frames in the editor by enabling and disabling layers, or making a key frame and then changing layers while being on said frame. This is fundamentally not how the Krita's animation works, what you need to do is have everything enabled, and then use left and right key frames to determine start and end times. If you are looping your animation, like if you're me and exporting a GIF, then you don't even want right key frame, since the layer won't show until the left key frame begins, and will simply hold as visible until the end of the loop. If you do make the mistake of adding one, you'll have one frame of disappearing layer that you don't want in the loop, and reducing the frame start and end time won't change it. Anyway, I learned a bit of useful stuff today in Krita! I'm happy with my extra panel, and am excited to show my stuff off on leap day this year!

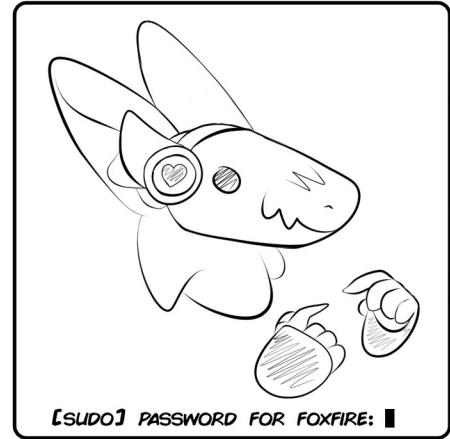


Figure 3: Bonus panel

March 2nd – Streaming Strawberries

I've got to say, perhaps the single most irritating thing thus far with my GNU / Linux system is that there is no way to deal with a system hang. I have a system monitor application which I could use to terminate processes, but seemingly no way to send any sort of system interrupt to actually utilize it when I need it. The system is butter smooth, then a problem arises, and that's very likely it. You're stuck indefinitely, and you're force shutting down your PC with the power button. Over the past couple weeks, I've had to do this a handful of times, which is honestly probably less than my Windows installation, however I rarely if ever have to force a shutdown there because interrupting a hanging process, or sending an interrupt to launch task manager is very doable. Thankfully it takes very little time to reboot and get back to things, but still, it's certainly a pain when it happens.

Today I discovered something pretty neat, apparently you can have streaming endpoints as playlists! I had no idea this was a thing until I discovered an interesting website by happenstance, [Radio Free Fedi](#), which is a free service hosted by people who wish to promote independent artists utilizing open federated services such as Mastodon. Apparently you can just download their file, import it as a playlist, and tune in whenever you'd like and discover something new from people who gave permission to broadcast their music. I think this will be a great way to discover some new music, and also get into some smaller artist's spheres instead of super popular stuff. So I download the file, and it does work through Strawberry exactly as I expected, in fact, better than expected. It actually has no problem grabbing song titles, authors, album art, and even lyrics for some songs. I'm pretty impressed! Although it's only a 128kbps stream, that is more than enough to toss on a speaker and give songs a chance to be discovered. If I like them a lot, and I found a couple I did, I can hop on over to a place like Bandcamp and buy them, as that is another part of the reason the website exists. I think I will use this service from time to time to discover new artists when I'm unsure of what to listen to, and apparently there are different stations, some even geared towards poetry and short stories if I understand correctly. Certainly quite an interesting idea, there are some

good people out in the world. I suppose now it's my time to buy some of those albums, and pay it forward to the artists I liked a lot!

March 3rd – Drag And Drop, Dash And Hop

I'm not exactly sure if an update fixed this, or if I am incredibly unobservant, but I am able to drag and drop images from Firefox into my home folder now. In the past it hit me with an unsupported drag type error, but now I can hover the image over a home folder tab in the window manager and I get a little highlight and everything. I wouldn't exactly say this is ideal still, since I can only do it within my home folders, but I suppose my use case of trying to keep literally everything of value off of my system drive is probably rather abnormal. Either way, I'm thankful I don't have to do the save file dialogue every time now.

Aside from that, went through my Steam library and tried random games with experimental to see what might run. Went through a couple big name games that failed to launch and then hit Escape Goat 2, which I never actually played before in my library. Loaded up perfectly, and gave me an excuse to sit down for a bit and try it out. A combination of puzzle and platformer, and a fairly enjoyable experience so far! I think I'll make a point to beat this game, not just because it's nice, but also because I really should beat something from start to finish on my new system after all! It's a world of firsts, and this can be my first full game experience. Also made a small animated GIF in Krita to update my Fur Affinity profile, which after the practice from the last piece, was pretty easy!

March 4th – Straw-buggy

Finally took some time to replace my Dog Songs for Song Dogs 2 album from Pepper to the final release with all of the bonus tracks, but it was actually a bit of hell to get it done. So first of all, the only track options were the .WAV and .MP3, so of course I grab the lossless iteration. Problem is, the .WAV set doesn't have any tags at all despite the fact it's Bandcamp formatted (not that I even like their formatting). In this specific case though, I was able to get somewhere because of their bloated names, since Ear Tag was able to populate the basic tag fields with the data! Rip out the MP3 embedded album art, add some extra tag data myself, and now I'm good to go for conversion! Well, so I thought. Pop open Strawberry, start up a transcoding run, get my .FLAC files, except actually they aren't there. My songs should be duplicated, and in the folder they are absolutely duplicated, so what gives? Well apparently after some scrolling I realize the tags are entirely stripped, absolutely useless conversions to me. I try something patently ridiculous converting one of the .MP3 tracks to .FLAC just to see if it's a universal thing, but no the tags are preserved there. Wonderful, there's a bug here. Figured maybe there could be something wrong with the flatpak? Tried the .deb install but no, same issue.

Also grabbed myself a more powerful tool for tagging and renaming called KID3, which looks quite comprehensive, but also like pointing an orbital laser cannon at a problem that can usually be solved with a hammer. Either way, I'm sure it will come in handy for Discogs data importing, or renaming when Ear Tag fails with it's odd inability to place apostrophes. For now I just took the defeat and installed Foobar2000 through Wine, which is indie freeware but **not** free software. I don't want to have to use non-free software for the future, but this has been hours of headache for such a simple operation. I'm sure I'll find something in the future to fix my woes that is fully free.

March 6th – Therapy Works

A very small entry, just wanted to note that I had my first therapy session through my GNU / Linux system. I didn't really expect it to fail, but still taking whatever marginal risk there may have been and just going for it felt good. Happy to just have full confirmation that one fewer thing is going to give me friction through this transition.

March 9th – Collaboration And Escape (Goat)

Didn't want to make a number of smaller entries that basically just said "played the game again" or "listened to more Radio Free Fedi", but I have been doing those things throughout the week. I'm pretty far into Escape Goat 2 now, the level progression is showcased on a stain glass window, and I'm fairly close to the top now! I imagine another hour or two of playing will carry me through the end of the main story, but we will see! Today won't be about that though, I want to take on the collaboration project I promised someone else close to two weeks ago now. I hopped on Krita and spent several hours making a fairly involved image which would give the newer artist a good jumping point to add and modify stuff, without just doing all the important stuff for them. I'm hopeful that the tools I gave, along with the polishing up of the Krita file, will give a good understanding of what to do.

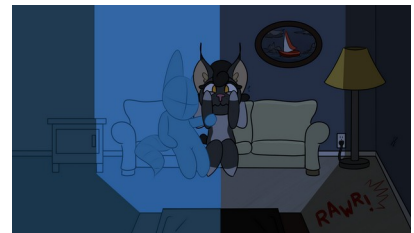


Figure 4: Sent template

Beyond that, I found a nifty GUI for flatpak permissions called Flatseal. This will be great to add specific external drive access (mainly my general storage SSD) to certain flatpaks I want to. Super simple and very useful program, much easier than adding and revoking to packages one at a time through the terminal. Really glad I found this while doing some searching for the terminal sandbox exception commands online.

March 10th – Game Over

Didn't do too much today, but did spend more time with Escape Goat 2. Made it to the end screen and officially bear my first game on GNU / Linux! Feels good to be able to say that, had a reason to try something new and enjoyed myself! Also I figured I'd see if I could get Eterna to run on my system, and it loaded pretty much without issue. Just had to grab a single dependency and I was good to go, not that I am capable of playing rhythm games anymore. Regardless, it's good to know that I can for the future, since I will need to do it for pack ranking purposes in later versions. Anyway back to Escape Goat, I realized they have a level editor and you can make small puzzles! The level size has a relatively cap unfortunately, but it's more than enough to try a whole bunch of things, which effectively every single object, mechanism, and background detail available to tinker with. I used it to create a deceptively simple level which combines two mechanics which are never seen together in the game, the tiny hammer and the sand dragon. I'm pretty happy with how the puzzle turned out, since I don't really design them, this is the first puzzle driven course I've made for anything for a very long time! I should check out other people's puzzle levels some time, but it seems like no one has uploaded anything in several years, so I don't think there's an active community.

March 12th – Scan The Waves And The Paper

Spent yesterday and today gearing up to submit stuff for Radio Free Fedi! Only have a couple tracks to give, but went out of my way to design a little banner in Krita and get a Bandcamp artist page set up, along with converting my stuff as they request and packaging it over for a submission! This is somewhat a big deal for me because I'm always quite anxious about sending my art to places like this, but it's a federated community service which has lots of volunteer services and submissions, this is the exact type of place I should be helping and sending stuff too. I also want to make a station ID, but we'll see how that goes in the future.

Beyond that, the first physical albums I purchased from an artist who I heard on Radio Free Fedi have arrived! I've been holding off listening to the digital versions until I got the physicals and hold them, along with scanning everything and getting it sorted. Speaking of, this means I need to use my scanner, and I am a bit concerned about how this will go. I am absolutely confident my system supports scanning and printing, but the issue is I have some awful HP printer / scanner combo I nabbed at a thrift store. HP is an awful company and I am unsure if my free software will communicate with the device properly. As it turns out, it works perfectly fine, and I can continue using this old hardware I spent \$5 on! Okay. maybe not *perfectly*. My scanner has some issues stalling, but that is it's fault, not my computer's.

March 13th – TOTP And KDE

Once again singing the praises of KeePass XC, where today I am tackling another project I wanted to do with duplicating TOTP codes within my 2FA entries. Thanks to free software Aegis, I am able to directly copy over secret keys as I please to other software, such as KeePass XC. Of course, I didn't just want to put the plain-text in some file and ship it over some non-free service given the sensitivity of the nature. I finally grab myself KDE connect, and then remember that my VPN will block LAN traffic by default. Initially I was going to try and whitelist the applications, but it turns out I can just allow LAN to bypass with the flick of a switch. Fantastic, my phone and my pc can now talk to each other, and I can send my clipboard from my free software, through free software, and paste it into free software. Legitimately the entire pipeline is free, I am feeling great about that. Get all the TOTP commands in and now I can just copy them from KeePass when I'm on desktop! In a way I suppose that obsoletes Aegis, but most companies don't give plain-text secret keys anyway. Having multiple points of storage and an interpreter is still quite important. Not to mention now any time I want to send a new version of my desktop database to my phone, KDE has my back! It's obviously encrypted to begin with, but even still, better to be safe when you can!

March 15th – Existential FTP

Just got word this morning that a certain webmaster accidentally deleted the entire website archive of StepMania / Eterna packages from their site. My word, well I suppose today will be a great time to get myself an FTP client sorted huh? Thankfully this one is easy by happenstance, as by chance I was using the free software solution FileZilla throughout the entirety of my Windows lifetime. Nothing new to learn, no hurdles to overcome, just install the flatpak and I am already fully familiar and ready to go. Connect to Eterna Online and begin the fun task of uploading around 1.8TB of stuff to the site, very fun! Honestly not bad at all, since I just set it and forget it, and thus far no issues whatsoever. Hopefully it holds up throughout the entire exchange, I know on Windows I had some odd issues with server timeout on uploads that are especially large.

While that is running I decided to pop open Krita and try some experimental stuff, do some art and listen some tunes. Threw on the two albums I got from a few days ago and finally had a listen through. Instrumental, a fair bit of jazz inspiration, fair bit of energy shifting in the first one. Quite enjoyed myself through both, but while I was listening I made an oddly melancholy piece of art. Not really sure where the energy came from, but it was existential, very much a why do I exist sort of prompt. I quite like how it turned out, fully gray-scale and a mix between cartoony, painted, and perhaps a little gritty on the top half. The top section especially just doesn't look like something I've ever made before, it's stylistically quite different from usual. Lots of brush usage to coax out detail on the moon and the text, I suppose in a way showing not only the impact of the stated question, but also feeling as if things are more real or heavy thinking about it. Experimenting without an end goal has always been the way I enjoy doing things most once I get started, and I think this ended up being a good example of the process.

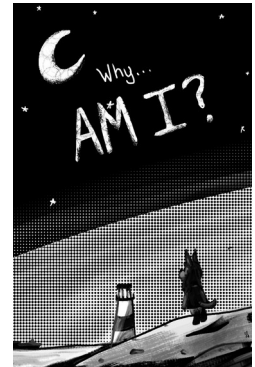


Figure 5: An existential night

March 16th – More Scans, More Downloads

Realized that I have absolutely no way to liberate videos from the monolithic corporation YouTube if there are no fair alternatives to access something I need. Figure this is an easy enough thing to solve, and found [OnionMedia X](#), a simple free software GUI package for downloading and conversion of media on my device. Tested it, works perfectly, and this might actually solve that pesky issue I had before. Turns out I can use a custom conversion profile and convert whole swaths of music from .WAV to .FLAC, or realistically anything else while preserving basic tags. Considering this is intended as a video conversion software, I do appreciate keeping that open for me! Seems not to pass on album art, but that is trivial to add compared to all the other data. Anyway this is great stuff, tossed them a 10 Euro donation and now should be ready to tackle conversions in the future!

Also got two more albums in the mail today from Pepper, which I got to get scanning, ripping, and tagging! Speaking of ripping, I don't really have a good ripper yet, ideally I'd nab something like exact audio copy, but that isn't free software. After a little searching I found [fre:ac](#), which is compatible with the Accurip database and should allow me to ensure my stuff is ripped properly if it's not brand new albums or very unknown indie artists. So anyway I get to ripping my brand new albums and unknown indie artist albums, got to submit first data for them all after configuring my offset with well known stuff. Come to think of it, I could probably use this instead of OnionMedia to convert audio, that'd probably make more sense now that I have this tool. It can run jobs from folders or CDs, and I imagine it'd preserve album art too considering it's actually for music. Time to give them a donation too! Always support free software!

Also had the pleasure of scanning the albums and running into all sorts of hanging with my scanner. After spamming the keys on start up fast enough I got to the proper main menu and was able to see the scan progress menu, so when my scanner stalls I can cancel the job and communicate it to the PC properly. Was a bit of a pain, but after figuring that out I think I'll have much less issues scanning stuff in the future. Stalling won't be nearly as big of a deal now.

March 17th – Playing Catch Up

Nothing new so far, but spending a lot of my time in LibreOffice and Calc updating my mood calendar and my GNU / Linux diary. I waited too long since my last update and I'm sure I've forgotten some stuff in the past weeks, but there isn't much I can do about that now. The best time was back then, but the second best time is now, so I've spent a number of hours getting things as accurate as I can recall and up to the current day, which is today! I'll update this if I get anything else done today, but for now it's just been a lot of writing, and a lot of listening to music while I do.

Ended up also pulling through with making my first audio project through Tenacity today! Spent a few hours getting familiarized with the software, though it's not too much different from Audacity 2.X versions on the surface. Certainly some extra features and extra polish, I love the way audio clips are dragged now right from the top of the sound instead of needing a special tool. Anyway, did some recording takes for voice acting, grabbed some CC0 audio from [Freesound](#), and made a little station ID for [Radio Free Fedi](#). I've become quite enamored with the platform due to its indie community focus, and wholesome ethos for artistic discovery through entirely volunteer means. Anyway, the audio project was a corny short skit, where I take someone on a ride to "hit the waves of discovery" on the website, with the car related sound effects you might expect. Got it to a point I think is alright, exported it, gave it some love with tag metadata, and even whipped up a very basic album cover with an open font licensed type (Liberation Sans). Wanted to ensure every aspect was fully free, such that I can dictate my recording in full as entirely free too, which I did in my message to them. If it is of use to them in any way, I wanted to make sure there was absolutely no boundaries to worry about. Use, distribute, modify, derive, do whatever you want to suit your needs.

March 19th – Pixel Art Reprieve

Thinking about it now, it's been quite a long time since I've done any pixel art. The last time I worked on any project on my PC related to it was all the way back in December! It's also been a while since I last did anything line-less, so I figured perhaps it's time to kill two birds with one stone and make both at once. Managed to draw out Foxfire with some shading from a sort of animated side view stance I haven't really done before, while also listening to Pepper's new version of Waiting, Still Waiting in Strawberry. Never heard the original, and apparently that's because it's 15 years old and not in his catalog. Anyway, this new version is great, really enjoyed my time with a number of the tracks on it, helped me create that's for sure! Not done yet, but the goal is to have him pointing at a framed image, something I can do pixel art in for various FOSS projects or maybe artists for Ko-Fi donation posts that are off of the platform. The first one I want to talk about is Radio Free Fedi, as this diary probably makes fairly evident I am rather fixated on at the moment.

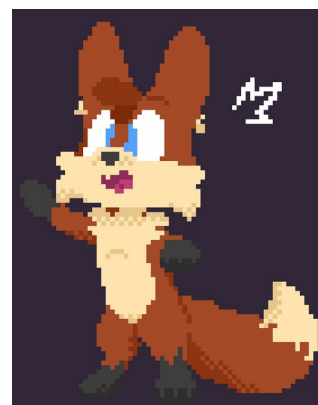


Figure 6: A happy 'lil creature (me)

March 20th – Accidentally Nuclear

I'm writing this in the future, as one might expect given what I am about to write. My frustration definitely impacted what I ended up having to do here, but it also did help to show I am a lot more comfortable setting myself up in the environment I created over the last month and change. Anyway, as has been alluded to in earlier entries, when a non responsive program causes a system-

wide hang, it's basically unrecoverable. I've just learned to force shut down as soon as I see the signs because it takes like 10 seconds to boot back in again, but today I finally get my just deserts for living dangerously. Rereading the support docs on the 23rd writing this, there do appear to be some (potentially) higher level breaks I could attempt for the future. Those namely being `xkill` with `Alt + F2` or `Ctrl + Alt + F5` for something called `TTY` mode where I can send a system-wide terminate (`sudo kill -9 -1`). Alright well basically I was doing some OS updates through Pop Shop and ran into one of those system freezes. Hardly bothered waiting, just let my hardware have a little power cycling, as a treat. Well it turns out that it wasn't doing the more general updates I was expecting, maybe some broken packages or whatever I could fix through terminal. Nah EFI files were outright missing, UEFI boot was rendered impossible. Really just booting in general was utterly destroyed, UEFI or legacy, probably the worst case scenario of a force shut down really.

So yeah, part of me is annoyed, but also yeah I did deserve this. Recovery options through Systemd are also vaporized, all I have is an option to return to the firmware screen. So time to get into the live USB again, which is finicky on my hardware for whatever reason. Plug in, unplug, after a couple tries I get in, in my stress I try and search specifically for missing EFI file errors and come up with nothing useful really. I look for OS repair and recovery stuff on System76, and I look through a couple guides which unfortunately weren't what I needed. First off, the recovery option was nonexistent when in the live USB, which I found interesting because the drive was both mountable and not encrypted. I imagine it has something to do with the entirely busted data on the boot partition. Then I get a red herring for the package troubleshooting, using `chroot` to pass into the system while still in the live USB. Feigned hope maybe updating and resolving any package issues would somehow include boot stuff, but yeah that is a fat negative. Writing this now, I do see a [separate page](#) dedicated to boot-loader troubleshooting related to EFI which might've actually helped me here, but at the time I guess I was too blinded by stress or something. So I do what I do best and just destroy everything! Well actually I just move the very few files I had on the partition (this is why I like having everything off the drive, so this is super easy) and just go for the reinstall. Reinstall failed, woo-hoo! Okay how about we do a full format and *then* reinstall? Reinstall complete, excellent!

Now comes the fun part, since I have a pop quiz on my lap. So how exactly did I configure my system over the last month? Every app, every modified setting, customization? Better remember how you configured everything buddy, because you're in the thick of it now. Surprisingly my memory was pretty on point, and my desire to not mess with default system components certainly worked in my favor too. I'd say around two hours after I installed the system, a month's worth of my exploration was entirely configured back the way I had it prior, and it's doubtful you'd be able to tell it was entirely deleted earlier in the afternoon! So yeah, that sucked, and I did it wrong, but it also proved to myself that I am learning a lot about the system and am getting a lot more confident in getting stuff configured again as needed!

March 21st – Ports And Symlinks

While doing all of that installing, I just realized Nautilus has an FTP segment appended to other locations now. At least, I think this is new to my system? Either way, I checked it out and it's very cool, direct FTP / SFTP connections in my browser window! I am honestly stoked about this since I do frequently do transfers for Eterna Online. I wouldn't say it's a complete replacement for

my use case as compared to FileZilla due to its lack of things like directory comparison, but for 95% of the time I could very likely just use this and not worry about anything. Speaking of browsing, it's certainly about time I set up my symbolic links. I kept putting it off because doing it to the home directory just seems like an awful idea, however, I could just put the folder *within* the home directory. It'll look a little silly, but it will give me so much less hassle within flatpaks since I won't have to break their sand-boxing further to access relevant content (such as general pictures or music) through the explorer window. Searched up a [tutorial](#), and it seems pretty similar to what I am used to, just with a different command name. Popped open a terminal, wrote in a little `ln -s "/media/foxfire/General storage/Music" ~/Music`, and the same for Videos, Pictures, Downloads, you get the idea. Simple, effective, and now I can ever star the folders. For whatever reason starring the folders is only allowed on the home drive, but symlinks allow you to circumvent that!

March 31st – Video Editing Endeavors

Been a while since I've made a new entry, and that's mostly due to doing a lot more of the same. I think it'll get wildly repetitive to keep making entries for every new Krita art piece I do or continued use of free software I've already mentioned. Today has been a bit different though, because it's finally time for me to work on a project in Kdenlive! I had an idea to make a very short April Fools video, a pixel art themed thing with some basic animated effects. I was initially going to do it through Krita, but it's actually quite annoying to use their non-linear editor when you have like 80 different layers that all need to be enabled and then partially disabled several times a second. Opted instead to export everything as an up-scaled PNG and import that into Kdenlive.

Making a new project the way I wanted (1080p 60fps) was incredibly easy. It was in fact a preset right from the start, for whatever reason it always seems to be tedious to do that specific configuration in other applications I've used in the past. Aside from a little issue importing stuff which drag and drop resolved, I'm having a good time with this! Moving along the timeline and cutting stuff is very intuitive, and I was able to complete the video in pretty short order. Exporting is also a breeze, though I did have trouble because of a mistake I made. Accidentally didn't upscale the final image, so the last half second was blurry and I thought something was wrong. Would've caught it in the editor *except* the editor window does nearest neighbor and this is a pixel art video. Goodness me, but I fixed it and then it was fine. Very painless exporting so far, which is very promising! Still haven't really tested key framing yet, which is a big deal for me, so we will see about that in the future. Anyway, here is the video on [PeerTube](#).

April 7th – Tags In, Tags Out

More of not much to report, which in a way is a good thing. The longer between entries, the more that means I am completely settled into my routine within GNU / Linux and am just existing. Anyway a couple days ago I bought a metric ton of things off of Bandcamp from Fedi artists, and from a couple other sources too. Finally had some hours I wanted to set aside to go through and ensure everything is properly tagged, named, sorted, and all of that stuff. One thing I've learned is it's never right, so I knew I'd be sitting around for a while fixing it for my local collection. One of the services was kind enough to give me literally 0 tags at all, how thoughtful. Anyway, Kid3 came in clutch and helped me get the job done pretty easily, now

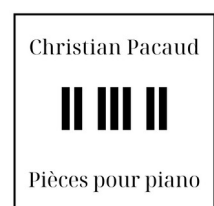


Figure 7: Album artwork

that I know how to operate the orbital laser cannon a bit better now. I also created some simple album artwork for a very old set of tunes I got from Christian Pacaud, because naked albums don't fly in my local collection. I got an email from them funnily enough thanking me and apparently getting some tunes from artists on my fan page, so I sent one back along with the cover too. They were appreciative and intend to use it, which is really cool! The benefits of free software and free typefaces in action, allowing artists to freely distribute stuff for others to use as they please!

April 14th – Display Dismay

I've been frayed by my display disarray, a desktop span disbanded. No plan in hand to roll out, it's all doubt. For a few days I had this little issue, or I thought it was little anyway since only the desktop seemed to really be impacted under that specific setting. Normal desktop backgrounds worked just fine, just not ones which spanned multiple monitors. Seemed minor enough to just ignore until a later update, but things got pretty annoying when I opened Krita and realized my tablet was now entirely off-sync from my brush in the software. At first I thought these were two separate problems, and spent a lot of time trying to troubleshoot through both Krita and my tablet configuration settings, not that I changed them at all prior. I tried a whole manner of different settings, reboots, looking to see if any of the software updated since before the problem began (it hadn't). Anyway I had a bit of an eureka moment when I compared the tablet offset to the spanned desktop background and noticed the offsets were similar!

Okay so great, the problems are likely related, but how? First place to check would be display settings, and...nothing is noticeably different. However I do notice a disabled display, **Unknown Display**, something that wasn't there before. It's strange, but it's disabled right, what does it matter? Well I notice the resolution is 640x480, which is quite close visually to the offset I'm having in multiple places. So okay, a display that shouldn't be there, with a resolution that is similar to an offset that shouldn't be there...maybe other people are having this problem? I'm thinking this might have something to do with display drivers, and as it turns out I'm close to the mark. This [GitHub](#) thread hits the nail on the head, apparently this is an issue with a bad NVIDIA upstream change. Stupid proprietary software nonsense because I have an NVIDIA card, when I ever get a new PC, it will only have hardware that can rely on fully free offerings (AMD is where I'd be looking at the moment, who knows years down the line). Anyway I see two fixes, one more extreme than the last, so I try the display configuration one first. One `sudo xrandr --output None-1-1 -off` later and it appears to be fixed! Span works, Krita works, everything is good, but the caveat is apparently every reboot I need to do it again. I don't really care, toss it into a bash and grab some updates, heck maybe they will fix the issue anyway. Reboot just to test it out and well, actually no. the display command actually fails now, everything is broken again, and the display is actually larger than last time 1024x768. Some people mentioned this failed, so I guess I was slightly behind them on the update roll-outs. Alright fine, let's do the potentially more destructive option, an NVIDIA kernel addition. I figure worst case I boot through live environment and chroot to revert the change. So once more, a `sudo kernelstub -a "nvidia_drm.fbdev=1"` later, and I do a little brace for my reboot. No issues, offset is gone, we are good! NVIDIA is stinky, thank you blessed GitHub users.

April 21st – DAW Dilemma

Something I haven't really examined yet is digital audio workstations within GNU / Linux. As it turns out, there isn't exactly a strong, fully formed DAW which is fully free to my knowledge. To be fair though, my knowledge is Sear searching a couple articles and searching Flathub, so I'm not exactly an expert here. Don't get me wrong, there are some FOSS options, just nothing anyone seems to think is a reasonable alternative to existing proprietary software, which is rather unfortunate. This didn't stop me from trying some stuff, the one that looked most promising to me was [LMMS](#), which after first opening it didn't exactly have my hopes held up high. However, first impressions are pretty useless and I went through basic evaluation just seeing what comes stock with the app. First off, the app comes in an app image, which certainly was unusual compared to what I've seen thus far, but it runs easily enough. Secondly, everything seems to make a clicking noise using it, it actually reminds me of something I heard in audio production not long ago about sounds starting at 0, and as it turns out I eventually figure out how to remedy this problem with a very tiny delay on the attack.

The instruments all share the same overlay for the plugins and settings, which is fairly intuitive! A couple of the plugins honestly sound rather nice, and I spent a few hours just going through presets, turning knobs, messing with settings, all that good stuff. Still don't have any real idea how to compose anything just yet, but it does have piano roll so I'm imagining I'll get that under wraps fairly quickly. One big hole in the instruments is there is no piano at all, not even some sort of faux midi one, I'm honestly rather amazed. That's a problem I hope I can resolve, as that's one of my favorite things to jam on. When I get more time I think I'm going to also explore [Muse](#), another FOSS DAW. Honestly I just saw a piano instrument in one of their website screenshots and I am already interested, gotta see if it's any good! I'm also hoping there will be other FOSS plugins for these programs I can use, I am excited by the idea! I really want to create some music with fully free software, even if it's harder than with the giant pile of cash I gave to a bunch of proprietary companies nearly two years ago now for non-free products. Of course, I'll have to toss some cash to free developers if they take it if I end up using their tools, long live software freedom!

April 26th – Capture Card Chronicles

After a fair bit of waffling, I finally purchase, and have received my new capture card! My requirements were pretty simple, that it can record in 1080p 60 fps, and also work with free software. Ended up looking at the small number of cards which were OBS certified, because if it's guaranteed to work with OBS, then I should have absolutely no issues. The list was unfortunately small, but I had a few price points to choose from, and after some sleuthing I opted for the EVGA XR1 Lite. Seemed like a decent budget low profile card, and so far it's been working well. It's entirely plug and play with my GNU / Linux system through OBS, and it records 1080p 60 fps game play excellently. This also gives me a reason to fire up FFmpeg again, which feels very nice to do. Anyway, one more thing down that I can cross off of the "Windows only" pile for hardware and software freedom!

May 4th – The Force Of Good

After all this time I've just realized I can have tabs within my file manager window! I think I've done it a couple time before without realizing there was a proper key combination for it, but yeah `Ctrl + T` opens a new tab in the same window, meaning I don't need several windows open

to move things around. This is such a useful tool and I'm going to get a lot of mileage out of this! I've also been editing some capture card recordings within Kdenlive, and for that purpose it's been extremely smooth sailing. I also love how rendering works so effortlessly because of FFMPEG, finally a software renderer that doesn't suck terribly, I hate having to re-render due to problems after the fact.

Also another bit of positive news, one of the things I thought I was making an exception for with free software, Windscribe, is actually FOSS. I have a lifetime VPN subscription with them in the brief period several years ago when they needed startup funds, and as they actually turned out successful, I've been reaping the rewards of a nice no logs VPN ever since. As it turns out though, this entire time they've had their software entirely open on Github for both desktop and mobile this entire time. I was literally able to download an apk from Windscribe directly off of F-Droid, which I was super thrilled by. Technically their upstream servers aren't libre, but I don't expect people to provide hundreds of pass-through servers across the world for free. I just care that the software is free and open so that it can be vetted, modified, distributed, and not subjugate me.

May 14th – Eterna Eternally

As another test version came out, I figured it'd be time to actually run, re-upload, and try to play a couple things to see how it goes. On the surface, it runs fine, which is good news! There is a caveat though, which is that it's synced to my monitor's refresh rate, as all native apps are by default. This can be bypassed, and indeed I did with a single terminal command, but this also has a problem. Eterna when given the chance will steal every last frame it possibly can, and for whatever reason frame limits aren't working when I boot it. This is a problem, because it means one of my CPU cores is 100% maxed out at all times rendering about 6000 FPS, which is abjectly absurd. Apparently on non-Windows systems, Eterna is forced to be frame timed instead of raw input handling, so I'd prefer this be resolved if at all possible. Regardless, I can't really play anymore, so it's hardly a big deal for me anyway to play at 144 fps I suppose.

An update, as of today the 16th, I did some additional troubleshooting and located the root cause! Something about my preferences file broke the frame limits, and a fresh install and moving that file resolved the issue. I don't exactly know which line it was that messed with it, but now I have the correct values I need and I am all good now! I have 300 FPS in all menus and 1000 FPS in game play, and everything holds steady without maxing out my CPU or being tied to refresh rate! Thank goodness, and I did some playing today just to gauge usability too. It seems just fine, I'm satisfied.

May 22nd – Poignant Pointer Problems

In the midst of a new scramble to manually review and download hundreds of packs from a spreadsheet, I stumbled upon a very worrisome issue. After I downloaded an entry and renamed it, it disappeared from the list in the downloads folder. I wasn't giving it my full attention since this is an entirely novel issue I would've never expected to occur, so when I check back later and notice a few entries are gone, I get quite confused. Then I notice other things I've downloaded but haven't renamed can open through the download dialog of Firefox, but don't show up in the file manager at all. I think maybe something is off with temporary storage, but this is incorrect. Then I re-download some entries and try viewing things from within terminal. A directory listing shows nothing, and what's worse is a folder within my downloads area is also missing! Using direct commands to open

a file which is, I'll reiterate, literally absent from the directory listing, does open it though. This says to me something is extremely wrong, and I have no idea exactly how to fix it or what caused it. My current hunch is that because I was doing updates, particularly on Firefox while it was still open, that somehow this broke Firefox in temporary memory somehow. These downloads seem to have either no file pointer, or some sort of corrupted pointer which has hidden everything past it (including the other folder in the directory).

My game plan initially was to try and move these files somewhere else within the directory, but the terminal wasn't having it. Then I tried to `touch` some of the files and see what happened, but this too broke pretty badly. Things would either fail entirely, or partially detect the existing object and create a new one e.g. Queue (2). It seemed like the entire folder and sub-folders were contaminated by this issue, and I figured maybe something different might happen if I entered Windows briefly to get another set of eyes. Well something did happen, in fact, Windows obliterated the directory and said it was entirely corrupted. Command prompt gives the same dialog, amazing, boot back into Pop!OS, and it seems this is confirmed. Windows did indeed kill it entirely (note to self, NEVER do that again if this problem arises in an important directory). Ultimately though this is likely what I'd need to do anyway, just entirely destroy that portion of data on the disk and overwrite it. So with the area thoroughly killed, I delete the useless parent folder and replace it with a backup, as I do indeed have backups of my folders. It's a little out of date, but I only lost a program I can download again, and the zips I'd need to obtain again anyway. After that debacle I went and *immediately* obtained an automatic backup program for my frequently used personal folders, because I'd prefer that to not occur and me lose my data forever.

This is easily one of the scariest issues I've ever come across, as I am a very big archive enthusiast and data hoarder. I'm really hoping it was just as simple as "close Firefox next time" because if not, and I have some other issue on my hands, this won't be a fun time. After getting everything squared away and running through the downloads again, I ran into no other issues, so I think I am okay, but man if I'll be awake at night thinking about this for a while.

May 31st – Compiler Compilation

Someone who I know through Eterna was kind enough to start work on a program to help tackle a big problem for archival, which was getting file data from a website called Zenius – I – Vanisher, which I will continue to refer to as [ZiV](#) from now on. ZiV has become rather notorious for me and others who try and archive from it, as it makes doing so extremely tedious in a number of ways. I don't think it's trying to keep people out either, it's just not at all designed for the task, and sports massive amounts of sub-links, manual downloads, and absurdly huge drop down menus with less than intuitive searching. Anyway, after acquiring a distaste of his own for ZiV, he sends me a message showcasing a functional program! I'm thrilled by the prospect, I head home, and get ready to install and run it. It's a couple of bash scripts and the guts of the program are in Python, so I need to get Python 3.12 on my system. I figure I could just grab a package, but apparently when going to the official website, no. For GNU / Linux systems I am instructed to download a tarball and compile the program. I've yet to ever successfully compile anything, so I'm not exactly expecting this to go well, but heck, let's try to learn something!

I extract it, follow the directions, and I am amazed to see the build job actually follow through without jumping at me with a million errors. I'm missing a number of optional dependencies, but I figure what's the harm in skipping them for this simple program right? Well this

comes to bite me later, but for now I run the tests, I build everything, and it all passes minus the skipped modules. I install it, and it is done, I actually compiled and installed something, I can't believe it! Now for the main event, let's run that install script for the ZiV program and...oh. It can't even download the dependencies it needs through pip because Open SSL is a required module to do that. Lovely, well I suppose that means I need to figure out the exact name of the dependency to install so it will be included in my Python 3.12 installation, which will require me to recompile it again. I do some searching since the installation doesn't actually give me the names needed, and find an old thread on [Stack Overflow](#) which mentions this issue. I figure the packages are likely out of date, but perhaps the names stayed the same and I'll be fine. Worst case I can always uninstall useless packages later right? The initial command doesn't even run because of missing packages, amazing, so I pick the SSL one alone and that works thankfully. Figure maybe SSL will be all that I need anyway (wrong), and recompile everything again. This time the dependencies for the downloader do install, but the program itself breaks because there is no SQL module for it's crawling. At this point I just install several of the Python dependencies listed one at a time and hope that the third time is the charm, and indeed after going through the song and dance again, it was!

Program runs, program downloads, program behaves exactly as expected! He makes some changes, those work just fine, and now I have a great starting point for working through this site once the review list another person is creating is completed. Despite all the hassle, I am feeling pretty good about finally compiling something and having it work, and then using it to run a different program! This is the first time I've ever been able to actually build something at all, and it likely won't be the last time I'll need to.

June 6th – Nuke The File System

Ah yes, NTFS, the glorious proprietary file system of Microsoft Windows! It's been around for so long, that I figured the architecture was fully understood and could be utilized independent of a Windows machine. The *why* for this is simple, I have somewhere in the order of 30TB of NTFS formatted drives, with most of the data being full. On top of that, even if I were to repartition the drives under GNU / Linux formatted structures (e.g. ext4) they are entirely unrecognized by Windows. Basically it's a lot of work and would kill my dual boot file access, for something I thought didn't matter much anyway, so I didn't think about it. Today I have thought about it though, because for a brief moment I thought I nuked an entire drive due to a system hang.

Imagine if you will, booting up a FOSS game you've already opened several times before, and letting it upload score data as it does, when suddenly the entire system hangs without warning. I have no idea why it hung, it was near instant so I didn't even get the opportunity to xkill it. TTY mode is locked, keyboard locks are frozen, which is a tell tale sign you are screwed. I wait a couple minutes anyway, then just accept I will have to force shut down. I figure not much should've happened, given I was doing no updates and using no other software in the middle of doing any work, so whatever. What I *actually* find is that my 4TB SSD specifically for this game now absolutely refuses to mount due to an unspecified error, and I am annoyed. At first I figure maybe I somehow booted without UEFI, but then I mount my 8TB SSD and realize that is not true, so now I am getting anxious. After my last data debacle I am really freaked about booting back to Windows to investigate, so instead I look to open GParted, since the default disk manager wasn't providing me with any info either. After realizing I didn't install it, and doing so, I am greeted with perhaps the most helpful error dialog I have ever seen in history. No unspecified error nonsense, it actually

tells me exactly what's wrong, a mismatch of the NTFS data structure, which apparently means the system has no idea what files are where now. This sounds extremely scary, but my hero GParted tells me this can be resolved by going into Windows, running the command `chkdsk /f` on the drive, and **rebooting twice!** Apparently this part is super important. I paste the error into a web search just to see if forum answers decidedly reject the info or are pessimistic about data recovery. Apparently not, so I say goodbye temporarily to my system and enter proprietary land to address my proprietary formatted drive.

Something that surprises me when booting is that Windows has absolutely no trouble reading the drive which is apparently not mountable in Pop!OS. I figured it was going to throw errors and require me to do this command to even enter the drive, but it's as if there is no error at all. Instead of running the command, I instead decide to take this chance to move some backups of my game data to multiple other drives in the event that for some reason the whole thing doesn't work. Data transfer works fine, everything seems nominal, I guess there's just stuff about NTFS which a GNU / Linux system can't deal with if a de-sync occurs? Anyway I run the command, dismount the drive, and let it do its thing. It takes a couple minutes, no errors are reported, and I take a deep breath. From here I do my first reboot, hit the login screen, second reboot, and finally log in. I hold my breath as I click my Eterna drive to mount it, and it mounts just fine! Thank God, it's over now, and I know what to do if this happens again. The game was packaging small amounts of data to the disk when the system hung, so my guess is that the sudden shutdown forced a mismatch for the NTFS data structure when I rebooted, and the system couldn't make heads or tails of where anything was and didn't want to screw anything up. I respect that, data loss is not okay! I am just relieved that my entire drive wasn't actually nuked, goodness gracious.

I think as I upgrade my 4TB drives to 8TB ones in the future, that perhaps I could start making more of them ext4 formatted and slowly push the proprietary NTFS format out of my life. However, this will be a lower priority goal for now, since barring crazy system hangs while disk writing like this, it is perfectly compatible with free software. The goal is to never use Windows and non-free software again after all, so in theory this shouldn't be an issue, but in practice...it's sort of an emergency fallback and also houses some purchased non-free software I have no current comparison for (e.g. VR and FL Studio all plugins edition) which I may need to access. That isn't to say I run to them frequently, because I don't want to, but I don't want to drop over a thousand dollars worth of software into the trash when I have no realistic or functional free-as-in-freedom alternatives yet.

June 9th – Risque Repairs

A while back now I found an image which I felt had some amorous potential, but which needed a *lot* of work to get there. I think most who are in this situation would write this sort of stuff off, but when you're an artist, it can be an exciting experiment with a nice reward to make your own changes. You get to further study someone's approach, figure out how to emulate it, and try to make improvements which are seamless with the original in your variant. This one was a big challenge though, because not only was it more of a splotched speed painting, but the edits necessary would involve changing entire parts of the body significantly. I've been just storing it for a rainy day, but after a lovely morning walk and taking care of some chores, I felt energized and decided up jump on this project with Krita!

For the sake of decency, I will spare the explicit details and visual results, but I spent several hours making a whole manner of modifications, changing out the legs entirely, repainting and blending across the whole body, removing redundant sketch lines and large out spills beyond the outlines. I put my stylus across almost every last pixel of the original image. I fixed the facial perspective, I entirely redid the tail to better match the character, I redrew much of the outlines with my brush I designed to mimic the original noisy sketching. I redid the whole visible arm, the back, the ear angles, even gave her a proper floating surface to kneel on. The only thing that really remained was the original bits of promise I saw, just cleaned up a lot. In the end, I managed to blend everything together very well, and am so proud of the result! This was an incredibly complex edit which I was unsure I'd be able to achieve within Krita, but I was wrong. I am so happy to have been wrong, for both my feeling of ability, and also for my further appreciation of free software projects like this. Also, this isn't the only artistic project I've worked on recently within Krita, I've learned new things about the software while making another comic, like that the multi-brush tool is incredibly useful! Did you know you can use it to mirror your brush strokes at an exact angle of offset? That was such an awesome thing to find out for me a few days back.

July 3rd – OBS Success

While I've had a large gap writing, it's been mostly more of a good thing. Not too much new to really focus on over the weeks I've tackled. Made more art projects through Krita, converted more recordings with ffmpeg, bug tested an update to the ZiV grabber, wrote a short libre office doc for Eterna Online, and just was generally living in my OS without much to really report. I suppose I could expand upon my recent usage of Eterna, a FOSS rhythm game which I love dearly, and had to retire from well over a year ago because of an unrelated injury healing oddly. While doing some very basic testing I've realized I can mostly play again, which I am thrilled about! Taking this with a lot of caution in case I push something bad, but I've had a couple short sessions over the past month and things are great for now. So good in fact that when I saw an Eterna pal of mine mention wanting others to play some charts, I reached out to nab them for a future session! He actually opted to send me his whole pack to look through, which I probably can't do all of, but he mentioned several to check out and play, and asked if I could record something like I used to.

This is where OBS comes in, which while I've already had installed, has really only served as a way to record my capture card. It absolutely works for that, but obviously OBS is far more versatile, and now I have an actual reason to utilize some of those capabilities again! I never actually tried recording Eterna, let alone a more complex setup, through my GNU / Linux system, so I went to work carving out a design directly taken from the GNOME desktop environment and tiling windows. I figured this would be the easiest way to create something that would both be functional and aesthetically pleasing. After precisely guiding everything up in Krita, making the different layers, and making some edits to the windows to fit my needs, I had a framework to test with. Popped it into OBS, made a new profile and scene, got my game window activated, and see everything works just fine, well except for sound. I forgot making a new scene requires you to add audio sources again, but that was a non-issue of course and I added my devices in seconds. Fired up my webcam and of course that works, as does my second webcam, so I can have hand cams at two different angles! This was

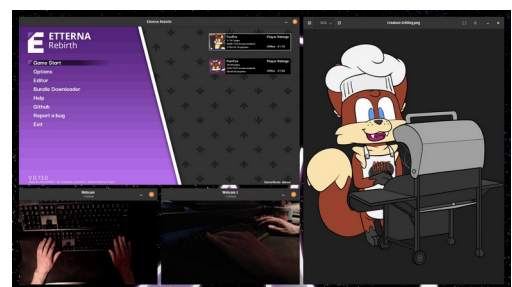


Figure 8: My Eterna setup in OBS

something I never ended up doing for my old streams because of size constraints, but I went with a very roomy 1080p screen this time! The biggest issue I figured I'd have is audio de-sync, which even on proprietary Windows was a nuisance issue for me. Recording works as expected, and after a little test I do get an audio delay, but it seems very manageable. Zero into a 40ms delay for my microphone, and then play a full song, everything works excellently! I'll need to keep my eye on it in future boot-ups, but I am very optimistic this is going to work great! It looks nice, the recording is nice (a little stutter, but only from the game, which was indeed stuttering) and I set a tight score. If I hide the preview and keep everything else closed, it should run cleaner, and certainly well enough for my eventual perusal through my pal's pack.

Oh and one more thing, the phantom display issue has been properly resolved officially on Pop!OS. While I already had my fix in place thanks to community members, it's nice to see the display entirely gone now. Very thankful for a great group of individuals who make all of this possible. I know I have more steps to climb on the freedom ladder, but I've come so far due to the hard work of so many who help others live a more free life.

July 12th – Compression Conundrum

Every so often during my rummaging through tons of old packages for StepMania (and by extension, Eterna) I'll run into some strange formatting. For whatever reason, the native archive manager runs into problems from time to time, particularly with the proprietary Rar format. Sequences which are either a series of parts, or maybe just large, seem to fail to extract properly. It's come up a few times for me now, though I imagine for the average user this is not particularly a big issue. Anyway I had a thought that well, why not install [7zip](#)? It's free software, and it was great on Windows, and I had it for probably a decade before I had any awareness of the importance of FOSS. Well that's a funny thing, because *apparently* the team at 7-zip don't do a native GUI for non Windows installations. There is a command line, and I know other GUI applications do make use of some 7zip source code, but for whatever reason when I've tried a couple on Flathub, header errors persisted on problem packages. So what to do, well let's once again utilize WINE to install free software and see what the heck happens! Frankly I figure trying to do those sorts of decompression algorithms might be a bit funky going through a compatibility layer, but I don't have anything to lose, so I grab the installer and get it on my system. As it turns out, the program opens, and it has no issue extracting my several part Rar package from 12 years ago. I'm honestly impressed it managed to just *work*, given the circumstances. Much appreciation for both 7zip, and WINE for allowing me to utilize it for my pack archival!

July 13th – Production Construction

Recently there's been an idea nagging in the back of my mind to make videos related to some of the Mario Maker 2 art I've been creating. One was a smaller thing related to compiling all of my art comments, and another is a far larger and more comprehensive research project based on my experiences. The big thing though was that I wanted every other element beyond the game to utilize free software, and for that I need to explore further bounds on both music and video production with new stuff! The first thing I tried doing was firing up [LMMS](#) once again, and wanted to mess around with making my own short loop of the results music. After looking through some of the included free software plugins, I found a really nice sounding preset within the ZynSubFX synthesizer. Spent some time piecing the few chords I wanted and recorded it into the piano roll, quantized, reviewed, was surprisingly intuitive! Then I looked into something more like

a hi-hat, which for default stuff wasn't particularly present. I went and improvised some higher end sounds from distorting some wood-like strikes in another instrument, and then learned about how automation channels worked a bit. Managed to automate panning so the higher pitch noise rocked back and forth on the speaker channels, which was a cool idea I learned a while back in FL and I'm glad I could take it into this free software! Only hiccup I really had was that the controller took my midi keyboard as master even during replay (meaning I always had to hold my foot pedal to have proper releases instead of overlap). Also I couldn't export as FLAC for whatever reason, which is strange given it's literally the Free Lossless Audio Codec and all, but apparently this is coming in a later version. Could export lossless as WAV at least, and then could manage my tags as I pleased through KID3, where I also added the cover art I created for the loop in Krita!

As for the video editing, I once again enlisted the help of Kdenlive, which I've mentioned before. However, this is definitely the first time I've actually played with the program more significantly than cutting video, or placing images at a specific order and time. This video actually delves into key frame transitions and other minor movement stuff syncing to the included audio. I didn't really know how usable it'd be, or if the key frame procedure would be hair raising. As it turns out, it's not bad at all! You drag the effect onto the video, and then are free to place and move key frames at your leisure, including copy pasting some or all transitions into other videos or images. This is absolutely something I can work with for future projects and get results I want, so that has me excited! All in all I spent a couple hours formatting everything and making all the effects, which while were simple, did need to be synced across 90 seconds of audio in a specific way. After doing a test render, making some small corrections, and rendering it again, I was ready to get stuff written and uploaded to various places!

I also tried out [MusE](#) today, which is another free software digital audio workstation, like LMMS. I had an absolute hell of a time trying to get anything happening on that software. My expectations were significantly different from reality with how things were expected to work, and had I not combed over the [tutorial](#) after scratching my head for an hour I don't think I would've ever got anything running. First thing, placing an instrument does absolutely nothing. You could place a synth all day long and you will never be able to place a pattern, the piano roll will error and tell you there is nothing to edit, and of course, there will be no sound! You need this instrument, and then need to add *another track* entirely (a midi track) with which you can then add an empty pattern on the song bar, and then you can launch the piano roll and hear audio. Well, that is if your devices are routed properly, which mine were not, so I had to figure out how to properly route my V125 keyboard as the input, and output this to the expected channel to send this to the instruments.

I should probably also mention this routing system is an absolutely massive web with cross routed devices of everything connected to the system, along with in app ports and instruments, which was massively confusing to scroll through. So yeah, by the time I did that, configured the midi setting after, set the correct input/output, and finally *heard something*, I was practically jumping for joy. The MusE documentation says you can save a working configuration as a template, and god you better believe I saved that baby so fast your head would spin. Hoo boy, I can only imagine how getting farther in this (like say, recording a looping series of bars and doing automation in LMMS) would end up being. Now that I have something functional for jamming though I'm going to poke around with both more in the future, really happy to have free software I can mess around on with my keyboard. Anyway I spent around 12 hours in total doing creative work today, so I am done for now. That was impressive effort for me, and I succeeded!

July 25th – Better Backups

Hello world, today I realized that my backups were failing to complete effectively, which is quite scary! Thankfully for me I realized that a lovely FOSS tool I was using for Windows also has GNU / Linux binaries! By far my favorite local syncing tool thus far, [Free File Sync](#). After getting things configured again and reviewing all the changes, I once again have myself a proper backup which doesn't iterate destination folders (and actually moves over all the files). Made sure to double check everything this time around, though I have a lot of trust in Free File Sync from it keeping multiple computers backed up over the past several months or so. It really does just work. Glad to have donated to them a while back when I discovered the project!

July 27th – Two Steps Back

On Friday while working on a sketch, my tablet of several years finally gave up the ghost. I've had it since I started doing digital art again, but I suppose it can't last forever. Made sure to do the expected things, restarting programs, the system, swapping out the cable, checking different USB ports all that sort of stuff. Ultimately though the drawing area was just entirely unusable with how spotty the input became. Anyway, I was quick to grab a new tablet, though the selection for stuff compatible with GNU / Linux appeared to be very small, but I did find one explicitly Ubuntu compatible (as Pop is Ubuntu based). Placed the order, figured it'd be plug and play given the model I had from the same company was, but it wasn't. Hey, no big deal, I can grab the drivers. *However*, looking at the documentation I see no mention of source code availability. Not particularly great, so it seems like the drivers are proprietary and I'm making a deal with the devil here. But I guess I have to look at it like this, the fact I am aware of this and care is an important piece of climbing the freedom ladder. It's a small offline module with no extra restrictions which works, so I think for now I'll use it until I can locate proper FOSS drivers which can unlock this simple device for the sake of freedom. One step forward, two steps back, but knowing is half the battle.

August 7th – Cleaning House

This is less about my operating system in general and more about once again remembering that I need to cut ties with having personal files stored in the cloud of large businesses, especially without encryption. I got one of those "memories" emails from One Drive again, which particularly soured me despite it only being random video game screenshots. I never asked for Microsoft to vacuum up this data, nor did I appreciate the initial hurdles to purge the process from their proprietary operating system. It also reminded me about the Amazon photos app which also decided to take many of my phone images and dump them on their platform. These things were all from years ago before I was super invested in this sort of privacy and freedom conscious focus. At the time I realistically just thought, what harm can an extra backup have? No concern for what a massive tech giant could do with facial recognition, AI training, data brokering, EXIF data parsing, just free storage! A couple years too late, but better late than never to take a stand here.

Went onto One Drive and nuked my storage, and subsequently the recycle bin. Went onto Amazon and did the exact same thing. Two of three pillars down, with the only one remaining being Google. Though in Google's case that was very intentional to use their data services, for high public traffic on literally terabytes of data I have archived. I'm not sure what I can really do there. I'm not equipped to do self hosting, let alone to that degree with free software and entirely on my own.

Bandwidth is expensive, let alone server grade hardware to handle such traffic and up time. I think for now this is a good place to leave it though, the stuff that was siphoned pretty much without my input has been curtailed entirely. I've given myself more privacy and less data available for the future exploits of multiple mega corporations. Perhaps down the line I can review what I have on Google Drive and trim it purely to what I want to be 100% public only, such that data scraping is agnostic and could've happened regardless with open access.

August 9th – EXT Escapades

A few months ago I mentioned how I should move away from NTFS due to it's proprietary nature, and as of now I've finally taken my first steps to moving a large chunk of personal data off of that space! After reading up on file systems, and the history of EXT and other newer options, I ended up deciding to use **EXT4** as my format of choice for this project. I was interested in ZFS also, and it is free software, but apparently incompatible with the GNU GPL from my understanding. This means it's not going to come standard with a GNU / Linux installation or boot drive. I want to ensure that even if my operating system is destroyed, that I can quickly and easily access my files with no internet connection and a USB stick if necessary. So after figuring all that out, it was time to get to work!

I set my eye on formatting my largely empty 8TB SSD for EXT4, but I had to move a few things around (namely Steam games, sound banks, and some ISOs). This is easy enough, but I wanted to put all this proprietary stuff onto my Windows SSD, which is extremely small (480GB). After deleting some larger unused or completed games, I managed to cram everything onto there with about 50GB remaining, which means that now that proprietary mess is all stuck on that single drive! Obviously this left me with an empty drive, which after septuple checking and booting back into Pop!OS I formatted into EXT4! On top of that, now that I have my favorite backup software installed, it should be an absolute breeze to get stuff moved over. I duplicated my configuration file for my plate drive backup, replaced the drive directory, and now I am ready to go. Well actually no, it's case sensitive. An easy enough fix, and 2 seconds later I am actually ready to go! I start the sync, and it happens on the order of a day due to the fact it's literally terabytes of info across lots of files. I should add that the drive I chose to mirror to this FOSS format is mainly my personal archives of hobby art, videos, live streams, gaming captures, and that sort of stuff. This was the same drive I symlinked everything too instead of using the internal OS storage, which I now intend to have this be the main iteration of! I'm far too scared to format the original 4TB NTFS despite having a backup, so I'll just have this be in triplicate now, which frankly sounds like good news to me anyway. The plate drive will be the main mirror, and the NTFS will always be unmounted unless explicitly being synced for a secondary one.

Now after getting everything moved over and confirming it was completed, the final step is to unmount the original NTFS drive and start recreating the symlinks and editing my program configurations. On my GNU / Linux distribution, symbolic links are literally right in the context menu, so it takes about one second per folder. I love this so much, oh my goodness is it ever useful. I found my recent files for Krita and changed the directories to point to the new drive, reopened some files in LibreOffice, and reset my Strawberry configuration. Because I have ratings embedded into the songs, I don't have to do anything else, everything is preserved no matter where my collection goes. I did double check though...just in case something went astray, but I had several thousand files rated as expected. Now my PC has a native FOSS file format to utilize for virtually

all tasks! Goodbye Microsoft, and hello software freedom! I've got another drive I can't yet do, but this is a big win in my eyes, and more wins will come in the future.

August 30th – Photo Editing Endeavors

No news is good news, and I've got lots of that as of late. EXT4 has been working great, and I've largely just been doing the things I've already talked about before. Today though I had an idea, as I recently joined a server dedicated to a silly possum image. Members of the group were making makeshift album cover edits with possums on it, and I wanted to try my hand at it. I had my eyes set on making an edit of the Nevermind album by Nirvana, but with an underwater possum grabbing a drumstick on a hook, but this is an actual photo. For well over a decade now, all my photo manipulation was done through Photoshop, and Krita is explicitly designed for drawing and painting. I decided that I would entertain the idea, just to see how far I could get with the tools and my experience, and I am glad that I did!

The first thing really was just to get some source images for the items I needed, which was harder than I expected. I couldn't find a clear single image of a possum underwater anywhere. Already figured that would be the nail in the coffin, but considered grabbing an image of a baby possum I saw a full body of, along with a clean stock photo of a drumstick. Porting the images in wasn't too bad, and cleaning them up to be transparent wasn't either. I am very used to manual selections and tweaking instead of effortless one click subject selection (my version of Photoshop was CS6, which is very old). After pulling that off I lined everything up the way I wanted, and began fitting the drumstick into the scene. Ended up painting in the hook over the front of the chicken, and it turned out pretty on point! But now the elephant in the room, how to get rid of the baby, the dollar bill, and do so without it looking disgustingly bad? The water is very dynamic and it will be easy to tell near the surface if you mess with stuff. Well, first I should give a shout out to a very interesting tool called the heal brush. It basically is content aware and attempts to take the surrounding pixels of the outside of the area you paint, to predict what the inside should be. While this was certainly imperfect for large selections, it was quite helpful in smaller areas with some minor tweaks and painting (or sometimes nothing at all). Beyond that, I let it poorly heal the remainder, and then did some mirroring with other patchwork painting and pasting to get things in a working order. I quite miss the clone stamp tool, but I got by pretty well without it today! The final piece of the puzzle was the act of color correction, which at first seemed like a pain, but I had a clever idea that worked serviceably for my needs. I ended up using an overlay filter, *however* I also duplicated the original layer and had it be translucent overtop, which really helped bring out the correct colors without wacky value shifts I was seeing using the other settings. Beyond that it was just some typography stuff, getting a half decent serif analogue and adding some noise to the color, nice and easy. Now with that, I made a half decent digital photo edit in a program not designed for it at all, and I am pretty proud of that!



Figure 9: First Krita digital photo edit!

September 15th – Sharing The Love

A while back, my mother's boyfriend purchased perhaps one of the cheapest laptops on the planet. The thing was advertised as a "streaming laptop", effectively meaning it's designed to do

nothing at all aside from watch videos online. Well he was having trouble getting it to recognize our Wi-Fi network, and something I figured would take about 30 seconds to fix ended up taking hours and hours. So of course this thing, like basically every computer on earth you buy, comes with Windows, specifically Windows 10 in this case. It'll make sense why it's going in this journal soon, but initially I did expect just to restart the PC, maybe reset the network adapter and be on my way. I did those basic steps, nothing worked, but strangely it could detect Wi-Fi networks just fine, simply not the one for our own house. Didn't matter where I put the device, didn't matter what I did at all, it refused to even acknowledge it existed. This is despite the fact it already had credentials for this network prior, and yes I did remove them and attempt to see if this would change anything, but it didn't. I should also mention this entire time I'm dealing with a track pad that is so terrible I can barely navigate the system without keyboard shortcuts. Also the system is so slow, even basic navigation is a nightmare. Anyway, after much fiddling about I just decide to do a full system restore, which after a long time waiting, accomplished absolutely nothing. After *that* I specifically looked up the network drivers (bearing in mind this is an all-in-one which should have them anyway) and tried to see if anything would help. I had to do usb stick transfers and every version failed to run for different reasons (mainly related to windows updates which I couldn't download).

So what's a man to do after all this nonsense? Well I figured I'd just take my stick with Pop! OS on it and see what happens, and the live CD detected the network instantly and without fuss. Well, that is *after* I figured out the special combo to get to the BIOS and change the boot priorities, because this laptop was not designed to be messed with. Anyway I figured this thing is such garbage I'll just nuke the drive and put Pop on there, and indeed I did just that. It still runs slow, realistically I could've looked for a lighter distribution, but it's what I had on hand and it's being used literally just to watch YouTube videos anyway. It works for that, I tested it. So now yet another device in this house has a version of GNU/Linux on it, if only because Windows was so uncompromisingly bad at network detection for some reason. Kind of funny, but a good way to further spread the love of free software unintentionally!

Anyway as for myself, I've worked on a few art projects in Krita over vacation in varying styles. Made a four panel comic, some line-less art for my little sister's birthday, and some 1-bit pixel art! It was a great week, though just doing things I already know, so not much to really write on and report to my diary. Krita absolutely has to be the most fundamental piece of software in my tool kit, I love Krita so much.

October 4th – Video Editing Voyage

Over the last weeks, not much has come up for me artistically, outside of quickly charting a very simplistic thing for the upcoming Goober Eterna package. Interestingly though, that very group project is becoming solely responsible for the last few, and likely next few days of creativity. I've taken the liberty of doing graphical work for a mega collaboration we decided to do, charted a portion of it myself, and now that it's done a few of us are sort of getting stir crazy waiting for the release. All it really took was a single post as a joke and some of us were off for the races, now there's going to be a trailer video, and apparently the Nintendo Direct Chris Pratt as Mario sequence has enticed us to create! After seeing a static image, my first thought was how I'd take this and make my own silly version of the original scene. First thing I opted to do was try to locate the music used in the Nintendo Direct, but apparently no one seems to know what it's called or if a clean version exists to use as a base given some basic searching.

Alright fine, we'll do this the dirty way and remove the vocals through Tenacity's plugins, which unsurprisingly have the end result of it sounding like there are giant holes in the audio. If that's as good as it's going to get, and to be fair I'm not trying to make anything crazy here, now I need to fill in these holes with vocals of my own. After getting some translations to have an English and Japanese layer, I record both and get them somewhat palatable, and then export the project and bring it into Kdenlive. Something neat I learn is just how intuitive the key-framing is, as it allows me to just frame advance as I please and move the image right there on the preview window. Between key-framing and some text effects I was basically good to go! Thanks to the great free software out there, I was able to make a fun thing for our group, which subsequently ended up with someone else making a very impressive Blender render mimicking the Nintendo Direct cube effects. While it technically happens on the the 5th, I may as well include utilizing both Krita and Kdenlive to create a very clean green screen wipe effect for an existing transition from the Nintendo Direct, so it could be planted in the parody for our trailer. Unlike my first video, this second one looks very nice and I am very happy with how clean the effect turned out! I feel like I learned a lot about the key-framing in Kdenlive over the weekend!

October 8th – Vector Victory

I've used Krita as a drawing tool for a while now, but something I've yet to do is actually check out its *vector* capabilities. This is just one of those things I never really thought about, and honestly I've probably been worse off for it. First and foremost, apparently there are two types of layers, and I've been limiting myself heavily by not understanding the application of both. The layers I always use, *paint layers*, are simple enough and work as you'd expect. Drawings, paintings, just direct pixels on a screen, but *vector layers* are paths. When you create a vector layer, instead of saving pixels, you instead are just drawing those pixels out with math, and this math is infinitely scalable. I've routinely placed shapes and text within paint layers, without really thinking of the implications of what that actually entails. For literally no effort at all, I can do these same things on a vector layer and ensure I can resize and rotate in an entirely lossless manner, infinitely!

Of course, as like all entries recently, it's that Goober pack that has my creative juices going. This time however it's another theme—the titular Brawndo beverage from Idiocracy. I never actually saw the movie, yet for whatever reason someone's post about “Polyloop, it's got what acc players crave” has very much got the hamster wheel in my mind whirring. I see a number of image results showcasing the logo in a lovely pinwheel of golden light, comprised with a number of simple shapes. I got extremely into crafting the entire thing from scratch out of nothing but vector shapes, gradients, freedom respecting typefaces, and some filter layers to add some wear to the final product. Honestly I put enough effort into the creation of this that I am quite proud of it, despite the intention just to be a silly visual rendition of a quote. It served no purpose other than to be silly, and yet I bled passion into learning and staying true to the spirit of the brand and its presentation with my variant. It's another time where I feel as if what I am looking at isn't even my doing, as if someone else possessed my body and created instead. Krita just feels like the rock in all of my creative endeavors, and I cannot thank the KDE team enough for creating and maintaining this wonderful software for everyone to enjoy.



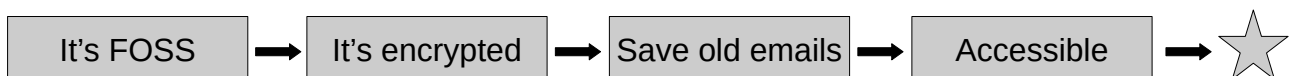
Figure 10: My first vector project in Krita!

November 29th – Goodbye, Google Mail

Almost two months without an entry is quite a while, and I assure you it's not because I gave up or anything. On the contrary, I've just done a lot of the same type of projects. Worked on another chart, made a few different art pieces in Krita (pixel art and vector), and just have been otherwise enjoying music and videos without any particular incident to report. I *have* found some interesting FOSS projects in the time, but haven't really explored them much. [SMEditor](#), a web and offline based StepMania chart editor looks pretty promising! It's clean, runs native with a GNU / Linux build, and seems to work as far as I can tell doing some preliminary testing! Unfortunately my charting motivation is effectively zero now, but I will be trying to use this for anything I try in the future. I hope to create something from start to finish within this someday and make something entirely free instead of from indie abandon-ware from decades ago. It's really sad how our free software game is seemingly held up entirely by non-free chart editing, though thankfully it's free abandoned projects from indie developers and not big suited corporations. I also found two others I want to eventually spend some time in, [Blockbench](#) and [Zrhythm](#). The former is a low poly 3D editing tool, which feels like it'd be much more up my alley to get my toes wet in this sort of venture. It always feels extremely daunting to even get started exploring in something as complex as Blender, and a more pixel art sort of approach with low poly editing sounds like a nice idea. Zrhythm feels like it could potentially be my answer to not having a proper DAW on my GNU / Linux system, and I need to check it out! Perhaps in a year I'll write back about spending a few sessions in it.

Anyway, back to the title of this entry! I've been aware for a while now that continuing to use Google as my email provider is one of the worst options that I have in regards to privacy and freedom. I initially made my Google mail account all the way back in 2009, and as such it's had an extremely long history of use across a countless number of websites and contains nearly 50,000 messages. All the way back late last year, I spent a large number of hours scouring through nearly two decades of Internet history and changing my email address to privacy oriented relays. While this is generally a good idea for avoiding spam and privacy violations from website breaches, it also served the purpose of making my email address *portable*. That is to say, with the flick of a switch or two, I could change my email to about anything and everything I ever used in my life will switch right on over without so much as a hiccup. My question for months now was simply which service I would utilize. Ultimately, I felt I was entering a bad cycle of perfect being the enemy of good, feeling as if not entirely self hosting email along with encryption entirely with free software was a stain, unworthy of my time.

Back in reality, where it's extremely hard for me to get *anything* done—let alone something even the Free Software Foundation considers difficult to do effectively, I figured compromise was a good idea. It only took me several months to finally accept the conclusion, but now I can finally get something done! My checklist for success has now lowered to the following criteria:



As you might expect, every email provider is going to provide their own email server, meaning you have to trust them and the assumption that any code run from their end is what they say it is. This is why encryption is a must, and more importantly, that I can download a FOSS application to

interface with the server, ensuring that at least the code I run locally is not compromised in some way. Ultimately after looking over some candidates, all had their failings, but the only one which did everything I wanted was [Proton Mail](#). Honorable mentions to [Disroot](#) and [Tuta](#) for also being promising and useful email services as well, but I decided against. Proton offers FOSS applications for all of their services, and are downloadable from free services such as F-Droid. Encryption and their location of business are strong selling points of their services, and they allow you to import all of your emails from services such as Google mail! Beyond that, the black Friday offering was very nice, and the migration process seemed to be very accessible to me. So finally I jump the gun and get started. Getting everything set up is quite easy, and I officially move everything from Google mail over to Proton without any issues whatsoever! Switch over my relay and now Google is getting effectively nothing. Now I just need to monitor my forwards and if anything comes through to my old email, pounce on it so it can stop touching Google's invasive services. So yeah, it's not perfect, but I am much better off now than I was yesterday—and that's what matters!

December 2nd – Debian, Debi-out

We start our journey in an early December email from the Free Software Foundation: give the gift of freedom this holiday season. I was reminded about just how old my mother's PC is, running a long past end of life Windows 8 installation which she largely just uses to view images, videos, and browse the web. I figured this old desktop would be a great thing I could revitalize with a modern, actually maintained, and faster operating system on a new solid state drive (the current one is an old plate drive). What I didn't realize was this was about to begin my foray into how *hard* it can be to overcome the status quo. This old desktop is ready to put up a fight in the worst way, and I appear to be woefully ill-prepared. Before I get too far ahead of myself though, my first thought was to open it up and clean the internals, which by god was *very* necessary. I can't imagine that poor computer was ever opened in its entire life. Those dust bunnies were surely full grown rabbits, very well fed ones at that! After nearly an hour of spraying and wiping the internals along with the surrounding table, I went and disconnected the original drive and inserted one of my SSDs I had laying around. So, what to try first? Well as I figured it was so old, surely Debian would be a fun first start. I was curious if it would run without non-free drivers, and also curious if it'd install at all to be quite honest. My assumption was that it would fail trying to detect the wireless networking and likely fail in other areas too, but to my surprise the install went surprisingly well *at first glance*.

It was interesting going through the very plain Debian installer after being so used to fully functional live CDs, and admittedly one of my favorite things was being able to choose one of many desktop environments instead of just being hand fed only one. I honestly just jumped at the opportunity to try KDE Plasma 6, I really wanted to see what it was all about (and also figured it'd have reasonable similarity with Windows muscle memory too). So after all is said and done I load into Debian and well, it appears to work! Everything appears to be detected, apps I open seem to work fine, and I can even recognize the printer! Admittedly I needed to web search an error and run a restart command for the cusps in terminal which I doubt a tech illiterate person would've considered to do, but I only need to do it once, and now I'm out here printing in Debian with no changes! Beyond that, I am absolutely smitten with KDE Plasma, to the point where I am genuinely shocked that this is the first time I've used it. It's just so lovingly crafted and modifiable with varying degrees of flare and even absurdity that all just look awesome. The visuals are sleek, and the window drag stretch setting is just swooning me I love it so much. The environment feels *alive*, and it has fun! I can set my windows to literally explode and shatter to pieces every time I close

them, just as a default setting. “If it’s worth doing, it’s worth overdoing” clearly is the motto of the options you’re given, I need this type of joy in my life.

Okay so I have a working Debian installation, admittedly with non-free drivers automatically applied but I fully expected that honestly, but where’s the problems? Well first comes first, I need to shut down and start up the computer just to test that functionality, something I didn’t give a second thought about, and it hangs. A GNU / Linux system not shutting off in like 1 second is kind of astonishing to me, I swear it likes to kill power faster than I could pull the power plug! I assume it’s some odd bug with a fresh installation and just reboot, and it’s here where I notice my serious issue, the audio on this system is entirely fucked. Up until actually loading a video in the browser I thought everything was fine, as I really hadn’t heard any sound yet, nor did I expect any reason to. Once I did however, it became extremely apparent that I would never be able to pass this off to my mother, or anyone for that matter. The audio wasn’t static or corrupted, but it constantly pattered and stuttered like some sort of awful series of endless micro-buffers that just instantly ruin audio playback and make you not want to hear another second of it. I figure this is pretty bad, but there’s probably a good way to resolve this right? I know I’m not the first being on Earth to have audio issues on this type of system. First thing I do is go kill two birds with one stone, and test restart functionality along with just seeing what happens to the audio if I do this, a restart never hurt for the start of a troubleshoot after all!

Actually, just kidding! The restart hung, I had to force off Debian, and the entire boot sector apparently became corrupt. I didn’t even get to test my hunch! The PC just told me to insert media to boot up with and restart. Rest in peace Debian, you were the best operating system I ever had for 30 minutes. So from what I gather, Debian is perhaps not the best choice with this set of hardware, but I already sort of anticipated that. My intent was to start there and to progressively add more layers as necessary until something worked, and my next site was on Mint. After all, Ubuntu is more supported with other hardware (likely due to more non-free driver availability) and Mint seems like a good avenue for ease and support. So tomorrow I regroup, re-flash, and reinstall a GNU / Linux system on this drive. If Debian almost worked, surely Mint will be a piece of cake right?

December 3rd – My Stint With Mint

Now that my workday is up, I’m once again in the ring with this old PC. I’ve got my Mint flashed stick and hop to it, and I must say the live CD and install process is quite lovely aesthetically. You can really tell it’s designed as an entry point too, for better or worse. It seems rather keen to remind you at every turn that proprietary software can be acquired and used on the system, which certainly gives me a bad aftertaste. Let’s just frame it as taking a big step up the freedom ladder without straying too far from the unfamiliar I guess. At least it isn’t packaged by default. While I’m in the process of clearing out the ghost of Debian, I figure it’d be prudent to check the audio in the live CD, and indeed it sucks! Not a great start, but I don’t know, maybe it’s just poor performance from being booted from an old USB stick. Not like I have much of a choice anyway, so I let it wrap up and boot into Mint. Everything else goes swimmingly, no problem setting up software, stuff is responsive and punchy. Of course, the audio is still broken, basically the exact same way it was in Debian. Just seemingly randomly breaking, constantly stretching and choppy in that awful micro stutter way you’d never want to listen to. At least this time when I test

shutting down and restarting the system it works perfectly fine. Guess this means it's time to start troubleshooting.

Searching for audio problems in both Ubuntu and Mint I certainly do get some results, and while it seems like some of the issues presented aren't directly related (e.g. a specific piece of software causing it) I'm hopeful that some of the solutions suggested might be general purpose enough to get me on the right track. I know my system detects my audio devices, and I do try each of my line out devices as well as my HDMI output. All of them fail the exact same way. After reading up on the thread I see a pretty recently updated mega post about some other poor soul who ended up just routing audio through Pipe-wire instead of Pulse Audio after much trial and error through Pulse initially. As I recall my system I use on Pop runs Pipe-wire by default, and that works great. I figure maybe we just skip all of this prior failed steps and just jump right in to that. Unfortunately after jumping through all the hoops, installing, restarting the services, and masking Pulse Audio, I am at the exact same place I was before. Frankly with things being as much the same as they are, I figure something more fundamental must be at play here, but I'm not exactly sure what. Out of curiosity, now that I know the live CD is in fact a good indication, I go and grab an image of Pop!OS and just see if the audio issues persist there. After having an annoying fight with the BIOS to even get my USB stick to boot again (some strange conflict with UEFI and jumping to the stick I think, it gave a critical mismatch error and refused to do anything) I confirm that the audio still fails! Wonderful. Ending the day in a sort of low note here, I really wanted this to work and now I have to toss it back to the junk Windows 8 drive before I head off.

December 4th – Treacherous Troubleshooting

After a nice night of feeling unable to get anything good done in relation to climbing the freedom ladder, I head back and try out some additional hunches now that I have an otherwise working system immediately to play with. This really wasn't supposed to be hard in my mind, this is a very old system I figured would just function, yet here I am days later mentally scrapping together leads like Charlie in *Always Sunny*. First things first, maybe my generic Linux kernel isn't up to snuff on this older desktop. After some searching I configure a side-grade to the low latency kernel and see what happens. Much to my chagrin I find nothing has changed, which I suppose is better than a system failure, but not exactly what I'm looking for. From this point I figure maybe I can configure Pipe-wire to have a higher priority, and I do read that at least *someone* out there apparently had some success setting the minimum sample threshold to be much higher than 48000hz. After some obnoxious tinkering, since Mint doesn't seem to want me to modify stuff in `/etc/` by default, I set a low buffer and a high sample rate (192000hz), along with max priority. I go for the reboot and, much to my expectations at this point, everything sounds the exact same.

Okay, maybe something is fundamentally wrong with my audio outputs? Perhaps I can skirt around my motherboard's audio processing somehow, and I certainly have some other audio devices and to test. Both my line outs and HDMI fail, but I have a USB DAC amp, which I bring down and also immediately fails. I have a set of Bluetooth headphones, which surprisingly do connect without issue, and also immediately fail! There is a specific configuration which seems to fail the *least*, but having something that might work several seconds at a time before becoming a gross micro-stutter mess isn't exactly an acceptable outcome. I've also got another external audio card in the form of Scarlet Solo, which I thought maybe could work, but indeed immediately failed too! Every digital and analog setting, across every audio output method I can give this computer has the exact same

problem, and I cannot seem to get anywhere at all. At this point it's so global I assume my motherboard or BIOS is just incompatible with the Linux kernel for audio output, which is very depressing. First things first I suppose, let's see if there are any BIOS updates for this super old machine. I was referred to a nice utility which allows you to install BIOS updates through the terminal, and after checking, it appears my 2013 version is apparently the latest available.

Well that's wonderful, if there was any potential for company support of things, it's certainly gone now. Beyond that, the only thing I can think to do is list out my hardware specs and search up my motherboard. Outside from a single listing on Amazon I see basically no results at all, and any combination of 'my board' and 'Linux' is providing me with precisely nothing at all. I might just be the first person on earth to have ever tried to install GNU / Linux on this thing for God sakes, how depressing. Now I feel about the only thing that would resolve this is if the almighty Linus Torvalds gets access to this long obsoleted hardware no one seems to have, and fixes the issue in the kernel itself. Low level audio handling is about a world away from my expertise level, so I may need to just throw in the towel with this old and crotchety desktop. I'm out of ideas, and nothing has even come close to resembling progress in resolving the issue. What this shows me is a lesson that while freedom has come a long way, it is certainly not yet accessible to everyone who isn't staunch in trying to reach for it. For people willing to grind out long hours of troubleshooting well out of their technical literacy, which the vast majority of have absolutely zero of to begin with, only those proud few will be the ones to come out alright in the end. Not only that, but for those who might not have the money to throw away a non compatible system in light of something properly supported, if they even knew where to look to begin with. Even with all the ease for some things, there is still massive friction on the track to freedom which needs to be overcome, which is woefully unfortunate in a world where it's already difficult to persuade people to part from proprietary software at all. Not only that, but when I do invariably throw this thing away, now it is e-waste instead of something I could save.

December 8th – No Explanation, But Thanks

Not content with the sheer amount of time I've wasted in this fruitless labor, I once again return to that dastardly old desktop computer with one more set of ideas. While I was sitting around over the weekend, I remembered that System76 has a help page, and [audio troubleshooting](#) was certainly one of the articles they posted. While some of the stuff I tried, and some still seems irrelevant, some other stuff I hadn't, and I am a bit obsessed with being smacked by this damn computer to be honest. I want more freedom on this machine, freedom is worth fighting for! First thing first, I finally dug out an extra SATA cable and just keep both drives installed and powered within the machine. I'm sick of opening this case just for this swapping, and of course powering everything down and putting my static shock band back on over and over. So I boot into Mint, things are as expected, and I run down the article and try the first thing I haven't yet, installing an application called Pulse Audio Volume Control. One `sudo apt install pavucontrol` later and I get the panel up and running. From here I check out the audio list, click about a bit, and set my audio from duplex to stereo audio output. I do the audio test and things sound good, but the audio sometimes holds for a few seconds anyway. Next test is my tried and true thematic tune for this exercise, Help by The Beatles, which somehow manages to play *all the way through* without fucking up even a single time. Please understand for the better part of a week I've heard nothing but absolutely awful stretching and micro-stuttering near constantly, this was absolutely eye-popping to me. Did that simple thing actually fix the issue? Did I not do this before? What happened?

So of course you better believe the first thing I did was set the audio back to duplex, but that didn't seem to return the stream back to it's former awful self. At this point I put it back to stereo (just in case) and run the gambit of videos and music, local and online, skipping around and leaving it run just to see what happens. It's not entirely error free admittedly, sometimes I get a tiny blip there here and there, but on the order of infrequent and hard to notice instead of literally nonstop. At this point I reboot the computer just to make sure it isn't going to immediately fail again, and to my shock it doesn't! I am absolutely flabbergasted, the only realistic thing I've done is install a single app, which I'm pretty sure made a change I've already tried before, and boot the system from a different SATA port. I really have no explanation as to how this works, but *thank you*, seriously. Now I can get this system fully configured for my mother, have this PC far higher on the freedom ladder, and not have to throw it out given the latent security risks of keeping this well past end of life Windows 8 device connected to a network constantly. I format a new partition of EXT4 on an external SSD for her to have backups of her personal media, pump the original NTFS stuff onto the new drive, sort it for the new home folder configuration, and export that right into the new external partition! Everything looks great, works great, and for the first time in this whole debacle...leave GNU / Linux plugged in and give it the green light for her to try it out.

As an aside, several days later things are still going well. She asked about writing a document, and I messaged her to type 'writer' into the bottom left bar like you would in Windows to open LibreOffice Writer. She was very impressed with the program, apparently the one she had on the old Windows machine was extremely plain and doesn't hold a candle to it. Honestly wondering if she meant Notepad or Wordpad, I can't imagine writing proper documents with Notepad. I also don't think she could tell me without seeing it open again, so I'm not exactly pushing the issue. She's not particularly tech savvy at all, but she can do basic things on a system as instructed (e.g. web browsing, file exploring, writing). The end goal was so set up a simple system where she doesn't have to think about anything, and with all the fighting seemingly at bay for now, the mission appears complete. I'm really hopeful this works out, even if I have to play tech support every now and then for potential new experiences. The little quality of life improvements have been worth it honestly, seeing her light up after showing her password auto complete or mention how nice things look on the system makes me feel good. The dragon has been slain, and freedom is abound...for now. Worst case, that awful plate drive (and NTFS partitioned backups) are still hidden in there to break open case of emergency. Let's hope it doesn't get there.

December 10th – High Quality, Low End

Have you ever wanted your high resolution, lossless image or video to look like it came fresh out of a faulty VCR? I imagine for most the answer to this would be a resounding no, but there may be a few artistic types in the back of the room with their hands raised! I would be one of them, and indeed on this fateful Tuesday I had a strong desire to relive the glory days of visually distorted imagery. In truth, I was doing something well out of my comfort zone with design, specifically I was trying to emulate a still from the Super Mario Brothers Super Show. You might not remember that TV series by name alone, but you might know a couple of memes which sparked from it back in the day. I wanted to create my own version of perhaps the most well known one, the Mama Luigi scene. The reason why this was so far out of my comfort zone was because not only was I drawing a human character, but my modification included a gun, a foreshortened one at that. I am glad to say after several hours of fiddling, I did get something I think worked out rather well, though I still had one more issue to contend with—it looked *too good*.

It sounds ridiculous, but a clean cut PNG without the noise and artifacts of the old VHS and cable rips of the show stood out to me as decidedly unnatural. It needed artifacts, more specifically the ones you'd expect to be on your low end television back in the 90s. After doing some digging, I stumbled upon a Github page for [ntscqt](#), which failed for my endeavors as it's a Windows focused project. However if you went to this page, you may have already noticed the read me notates several alternatives, including a Rust ported version aptly named [NTSC-RS](#). Not only is it apparently significantly faster to work with the effects, but it supports GNU / Linux directly, *and* has a standalone application! This is exactly what I was hoping for, so I go and download it, and then remember that you can't just execute certain files for some reason. This is one thing I am annoyed by, and I wish there was some DE level detection and ability to just write an executable tag to something on the spot. Regardless, one `chmod +x ./ntsc-rs-standalone` later and I am now on my way to enjoying this really cool application! As far as I can tell, you can drop in any sort of image or video format (presumably ones supported with GStreamer) and mess with a myriad of sliders and drop down settings. It's honestly a bit overwhelming, but certainly nothing a little exploration can't fix, where I just spent the better part of an hour just sliding things all the way back and forth to see what effects would crop up. There were a ton of incredibly useful settings to emulate that VCR feel, and by the end of my perusing I had a finished image which looked so much more authentic to me! Not only that, but apparently you can 'play' the effect even on images, so in theory I could likely export a still as a video if I wanted, but exporting the frame was more than fine. Well I say that, but since my input was a PNG, my output file was also one, which is absolutely absurd for this sort of lossy noise. It clocked in at nearly **50MB**, and unsurprisingly this is not something I wanted to remain that size! Thankfully this is exactly what JPGs are for, and one export in Krita later I had a much more reasonable 1MB image to share around. I wish I could properly showcase the whole image here, but making it so small would make all the noise invisible sadly.



Figure 11: Just look at that color bleed and ringing!

December 16th – Dusk ‘Til DAW

A few entries back I mentioned that a new FOSS DAW by the name [Zrhythm](#) released, and that I might test it in the far future. Apparently that distant date is about three weeks from when I found out, amazing. The reason for this is because I wanted to make my own small effect for a video I plan on creating, but wanted to do it entirely with free (as in freedom) software. I do still have the other DAWs I've tried previously, but this was a great excuse to see a shiny new one in action. So now, with my new found determination to get things configured, I set out to see what this program has to offer! It's a good thing I was prepared too, because while I was expecting hiccups, I wasn't exactly anticipating the wrestling match I ended up getting to produce even this tiny jingle. Believe me when I say there was resistance at virtually every single step, and this dog walk ended up being more of a drag across the ground than anything.

First and foremost I go and download the 'free tier' binary, which is fine as I mostly just wanted to ensure it works before I go and purchase anything. Technically speaking I could compile it myself, as the creator follows the spirit of allowing free access by giving proper compiling

instructions along with the source code. However, that is the exact thing that makes me willing to use and donate in the first place, so I'm not bothered at trying to get commercial funding. The install was, well let's just say slow, and appeared like something was going wrong the entire time. Basically after sitting around for a while, a new error would show up in the terminal about not being able to locate some resource directory. I ended up reviewing the script while it was going and it was...literally every directory inside of it. Not particularly a great start, so I assume it won't open at all, but Zrhythm assures me that installation has completed and I'm good to go! So I hop into my menu and sure enough, it's there, and the menu launches pretty quickly! Fairly excited about that, so I go and tell it to make a new project and...crickets. The window just instantly hangs and I'm just sort of sitting around. I give it a bit of time before I open the system monitor, but shortly after I am greeted with a fun message about needing real time JACK audio permissions to use the program. This sort of confuses me as the other two DAWs I've used had acceptable latency and didn't require this, but at least thankfully there is a [tutorial](#) I can follow to try and set this up. One of the last sudo steps of me moving this crap around mentions a passwords file in use, which seems rather ominous but I figure, why not have a little spice in my life right? I need to restart the computer to get the changes in effect, and I have a typo in my password that makes me skip a beat in my chest, but it was only a typo, and everything is *just fine*.

Now that I got that set up, to see if it even worked I've got to load up Zrhythm again, and it still takes quite a long time to load, but it does indeed let me into an empty project! Now I have to get through typically the most annoying aspect of any DAW, getting audio to come out of it in the right ways. I load in the one and only instrument—Triple Synth—and fumble my way into the piano roll. As expected, my MIDI is not working, but more worryingly everything is insanely sluggish. Literally the simple act of placing or moving a note along the piano roll takes seconds of waiting to get an update, though the audio itself is instant if I click the keys. It honestly seems like a lot of the menus are sluggish, and this feels pretty unusable to be quite honest. This is why we do tests, always test things! Clearly though something is wrong, and while mulling through the settings I am made aware of different options for input processing. What I was currently on was the ALSA stuff, but there was a secondary setting to move things to JACK input. First I try just setting one thing to JACK, I restart, the app instantly tells me I can't do that (why it let me is beyond me) and then tried again with everything set to JACK. While some stuff is still sluggish, it seems like the app is a fair bit more responsive in the areas that matter now (especially the piano roll), which means I don't have to give up just yet! Now we are onto trying to get my MIDI device recognized, which frankly was a massive pain. I'm going to be honest and say that I genuinely do not know what I did to eventually get my MIDI device to get recognized. I tried swapping settings to enable and disable certain inputs, I tried using the all devices setting, I tried checking every single option one by one, absolutely nothing seemed to work. Then eventually after several restarts and constant clicking, it appears like I *finally managed* to get Zrhythm to find the correct throughput, because I can press keys on my keyboard and the synth does things!

With that sorted, now I need some actual ways to make music, because at the moment I basically have a single instrument and barely anything else. Thankfully Zrhythm has a really nice [segment](#) on *free software* plugins, which is exactly what my goal is (a jingle with only FOSS) which allowed me to locate several projects and instruments I wanted to try. After installing a whole bunch of stuff and restarting, I start giving some of this a go, and while loading the plugins is quite slow, once they are out it's nice! I got a couple synth plugins and a drum kit which were interesting, and I get to work sort of jamming and seeing what I could use for a short sound. Well, until my MIDI gets

lost again, but thankfully this was a simple skill issue, because you're supposed to toggle the instrument you want to focus in order to get the sounds to swap. I end up going with a nice Rhodes synth from ADLplug, a couple sounds from a preset in Geonkick, and a Glockenspiel from OPNplug for the very end for flare. It takes me a bit, but I do get a simple groove on the piano roll with recording, though quantizing didn't seem to work properly. I end up just utilizing the snap tool and manually moving things to the quantized positions, hoping this aspect is also a skill issue on my part. I saw the quantize settings, but they just didn't appear to do anything when I tried them with notes selected. I also set up an automation channel to make the drum sounds slightly dance back and forth in the mix. This went okay if a little wonky, though finding the correct setting was a little unintuitive. It wasn't pan or anything like that, but specifically *fader balance*, which was not what I was expecting.

Okay so, great! I have my little jingle, and it...sounds okay I suppose. All that's left should surely be just to hit the export or render button and get things moving right? Well, not exactly. I can do this, and am greeted with the inability to neither name my exported file nor change the directory it will be exported in. Exciting, so this will be named `mixdown.flac` and I will like it! I go and make my song selection and choose loop as my export option, then run it. It seems like it worked, so of course I go and play it and well, it didn't do it right. Somehow it managed to cut the audio too late **and** too early. I run it back again, but this time choose the song option for export and just let it go, and boy did it ever go. My 'song' is about 9 seconds long, and the export was something like 3 minutes long. Not sure what I was expecting it to do, but I figured it would truncate after a certain number of unused rows surely. I play it and well, it still cuts it too late, and the ending also sounds off, like chords aren't being played right. I decide to just go duct tape mode and move the whole thing a measure forward, so there's a measure of nothing at the beginning to cushion this strange export issue. That works, but I still have my chord problem, and I am getting stumped. Thankfully though I had an idea, that idea being the exporter might consider no spaces between replaying the same note as the note always being held. I assumed this wouldn't be an issue because first off, the software makes this happen if you use grid mode, and second off, the audio plays back just fine before exporting. Of course, never assume and start testing, because a brand new release is bound to have some funny business going on. After disabling grid mode and adding a tiny cushion of air between the same notes, and then exporting yet again, I finally got the audio I needed! I had to prune all the silence in Tenacity, but I got it and that's what counts.

Also my favorite plugin ZynSubFX constantly crashed and I never got to use it, which provided me with an error log bug report window. I put this info in said window and hit send message, which resulted in another error window which told me my two sentence report couldn't be over 6000 characters, and that one presumably didn't send either. I sort of feel like I made it to the finish line while holding a black steering wheel, and being covered in ash while the rest of my car fell apart in various directions. It's a start though, and hey, I've got some new plugins to jam with if nothing else, since my other DAWs don't look for plugins at all sadly. I think maybe I should come back to this project when it's a bit more mature, but despite all the headache I went through, I am thankful some people are trying to help make this happen! Despite everything, Zrhythm absolutely has potential, and I am excited for the future.

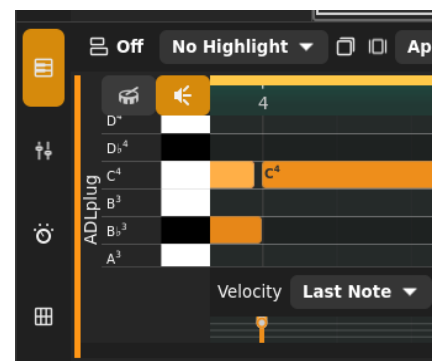


Figure 12: Ignore spacing at your own peril

December 28th – Networking Freedom Has Arrived

Before I delve into the main storyline here, I want to mention a couple things which I don't believe are worth giving their own date entries. First of all, a good update in regards to Mint! Nothing new to add, but my mother has been having no issues whatsoever with the system. She's been watching her videos, making documents, browsing the internet, shopping, and had a conference call just fine! Seemingly no need to do any sort of investigations back at the house again for now, but I certainly don't want to jinx it. Having fully expected to have to do more, I went and got a fair ram upgrade for the device since it was extremely cheap (8GB of DDR3 was like, \$13 or something) which nearly doubled the capacity to an amount I'd consider acceptable in the current decade. I think with that, most of the basic tasks the machine will run will be smooth sailing, with no real chance to step on each other's toes.

Beyond that, one of my friends started up a Minecraft server which I've started playing on. Long ago I mentioned installing and checking that Minecraft worked, but I never actually did anything beyond that until now. I'm happy to report that it works absolutely perfectly, and I've had a great time thus far when I've gotten the chance to hop on. My current stance on games is still similar to that of the FSF for *other* creative works which aren't software. That is to say, if it's DRM free and accessible, then that is enough. Time may very likely push me further against this notion, and I already have massively reduced playing games in general. Most of my collection was from Steam, which as you may know does largely utilize DRM. While not required, game authors can choose to enable this freedom restricting service directly from them—and they very often do. In regards to Minecraft specifically though, it's an isolated jar, which you can just run with many programs. While setting up, I was also made aware of a freedom respecting website called [Modrinth](#), which is a FOSS project related to Minecraft mods, plugins, and more. It also clearly shows the licensing information for all the appended code you'd be adding to the game, so you can choose to utilize only tools which are indeed freedom respecting, which by and large they are. It surely is hypocritical to hold mod developers to a higher freedom standard than the game itself, but the mods I am installing are basically just tools for game optimization or disabling features, as opposed to a *creative and artistic* experience.

Moving on, almost a month ago now I was made aware of a lovely project called the Banana Pi [OpenWRT One](#), which is a router entirely designed by the OpenWRT community! In case that doesn't ring any sort of bells, the OpenWRT standard is a FOSS networking specification which is most often something technically savvy users have to manually flash the firmware of onto an existing router. This process can be difficult, and it can even entirely brick your hardware. Realistically, it's something that I feel is a bit difficult for an average Joe to utilize to climb further up the freedom ladder. While it's been possible to get some routers with some forms of the OpenWRT spec, this is the first time that they themselves have been able to create and release something of their own, entirely open, both software and hardware. It's just like any other router you'd buy online, and you just...plug it in at home. I jumped at the chance to give this a shot, and of course just to support the developers of OpenWRT (they get a portion of all the sales when one is [purchased](#)). The router itself cost me a total of around \$100, which given the one I was going to replace—that I was effectively strong-armed into buying from Verizon—was closer to \$300, is perfectly fine by me. I did also have to buy a switch (basically a box that splits your LAN into several channels) as the router only has one output, but that was only \$10 or so, and it means I can have even more ports than I did with my current router.

When it finally got here, I told myself I wanted to evaluate this product from an unusual viewpoint, one from someone who has no idea what they are doing. I know next to nothing about networking, and I feel like this would be an amazing litmus test to see if a fully freedom respecting router was ready to be set up at say, your grandmother's house or something. After configuring everything and looking at the details, yeah, it's quite easy! If grandma has a single wired connection in her home, I think even she could plug a cable in and stick her network cable into the hole. You don't have to do more than any other router in that regard! If you need several connections, you do need the switch, which admittedly I didn't even know what that was until I made this purchase. Routers these days tend to have a few ports on them by default, sort of becoming a switch of their own innately, but a switch is also extremely easy to use. You just plug the LAN cable into the first hole (probably any hole honestly) and then plug the rest of your devices into literally any other hole, and it *just works*. Where I'll say it might get slightly confusing is if you want to configure the WiFi, which is reasonably disabled when you first plug it in.

OpenWRT has its own admin panel obviously (it also runs a very stripped back GNU / Linux system) which is easy enough to get into. You can hop onto `192.168.1.1` and login with the listed credentials of `root` and no password. It gives you a nice window to tell you to change it, and that is very easy, but when you go to your WiFi, you'll see a list of hardware and software which you need to configure to get it going. This process is by no means *hard*, it's quite easy if you know what to look for, but there are a myriad of settings and I could see it being very easy for someone not technically inclined to become overwhelmed. You basically need to configure the same WiFi for multiple pieces of hardware (the 2.4 GHz and 5.1 GHz bands respectively) by hitting the nice big **edit** button. Out of the hundreds of amazing presumably enthusiast grade settings for configuration, for your average Joe you're just looking for your **ESSID** (WiFi name), **Encryption** (WPA2-PSK recommended), **Key** (WiFi password), and **Country Code** (in advanced settings, choose your country). The last one is important, because different countries have different legal standards for signal strengths, Not configuring this may mean your signal will be worse, as the default is a 'world' option which is intended to be a fail-safe that doesn't get you in trouble anywhere the device should be configured. Once you save your settings for the first piece of hardware, you can hit the nice big **enable** button and it gets right to work.

As a reminder though, you need to (or at least, it's in your best interest to) do this twice. If you configure both bands to be the exact same, both will appear as one network and the best one will be used for your device. This aspect of configuration, especially given that you have to read articles on the web (no instruction manuals are provided in box for this product), likely fails the grandma test. I think it does however pass the test of someone who isn't technically illiterate from setting this up very smoothly, and once it *is configured*, you're set. Anyone can use it just like any other router at that point, and it's completely painless without any additional hurdles to cross. I love the way this device looks and feels, and I love the fact I have a fully freedom respecting piece of network hardware now! Until today, my router was so locked down that I had to log in to Verizon's own web servers to make changes to my router in my *own home*, which is abjectly ridiculous. Not only that, but I can rest easy now knowing that all of the code has been vetted by a free community of network enthusiasts, and no proprietary nonsense is sitting in my router



Figure 13: OpenWRT my beloved

invading my privacy and sending who knows what to Verizon, or anyone else. This router is truly mine, and I am free to do as I please. Part of me was afraid I wouldn't be able to just *use* the device, that some hurdle would end the journey. I am so glad this wasn't the case. Thank you to everyone who helped make this possible. This is the type of thing which allows for freedom to be adopted throughout the world by people who aren't on the enthusiast end of the spectrum. For people who want to have devices which simply respect their freedom, without needing to try so hard to combat the follies of monolithic corporations that want nothing more than to lock us down. We as a society *need* more devices which fully respect their customers. There is absolutely a market, but people just need to have that choice in the first place. Give me the choice, and I will take it at every opportunity.

December 31st – Renewal And Reflection

In the few days since my last entry, I got into a couple short art projects. While one was a Krita piece I feel like fits within my wheelhouse enough to gloss over, the other project was a recording for the FOSS rhythm game Eterna! I mentioned this project a while back, and it recently had a new release which I went to check out (mainly just to ensure it was still functional without any new obvious bugs to report on my GNU / Linux system). More importantly though, after some labored effort, I was able to move all of the data for it onto a drive formatted to EXT4. This is just lovely, one fewer drive to deal with proprietary specifications on! Things worked well, and I ended up using OBS to record a several hour play through of a recent Christmas pack release. I then took this into Kdenlive and cut some stuff out, added a few text effects, and offset the video so it was synced better. All in all, the video to render was well over *four hours*, which is pretty daunting if you know anything about making videos. I am very used to issues during rendering for even short projects, and because the whole thing is offset and cut up, this will be a re-render of everything. However, I am amazed to say that after about that same period of time, I received a perfectly crafted render! Thank you loads to Kdenlive and Ffmpeg for making this very long free recording of free software possible!

Beyond that, I really just want to reflect on this year in regards to climbing the freedom ladder. On the last day of the year I went and finally signed up as an FSF associate member. Last year I just donated one time without making an account, and I suppose I did that in case I felt obligated to keep recurring payments going by guilt. I am well past that now though, I am heavily indebted to the countless people who work to create a more free future every day. Without the Free Software Foundation, it is very likely nothing like this would exist at all, a twinkle in the eye of a dream. A dream come true solely due to the tenacity of hackers and enthusiasts 40 years ago, passionate about a world where anyone could create, study, modify, and distribute any code that runs on machines they own. While the world around us has largely enveloped in the throes of monolithic corporations that want to lock us down, countless good people have shown that we can sustain ourselves by championing the will and freedom of people instead of controlling them. A world exists out there where everyone helps each other, and so many great things are only glossed by because of the deep pockets of advertisers promoting their proprietary poisons. It's so ubiquitous that many people feel defeated, assuming the only options to choose are between the current lesser evil in privacy invasion and anti-features from the big barons of tech. It's amazing what even a little education and a willingness to try new things would give to countless individuals in need of wrangling back some autonomy.

So where was I a year ago? In December of 2023 I was slowly moving myself away from non-free programs, while still using largely proprietary software. My journey only just began in June, when the Reddit exodus happened to introduce me to Lemmy, and the decentralized world of the Fediverse as a whole. Without that, I would've never been made aware of the significant ethics of free software, nor would I know of the pragmatic benefits of so many amazing programs which don't try to take control away from you, which respect your privacy by design, and which can't ever truly disappear as long as someone wants to keep them around! Programs which aren't just useful, but that you are free to do anything you wish, so long as you let others do the same. By December I had discovered F-Droid, and was replacing a number of my proprietary applications for freedom respecting ones on my phone. I stopped using YouTube, and I also replaced some apps on my Windows device for more free alternatives. My resolution for the year was to get myself onto a GNU / Linux system. I was intrigued, and optimistic, but certainly afraid to make such a large change, since I literally never used it before my entire life. I assumed it would be a lot of hurdles to get on my feet, and that I would miss a lot of things from my closed ecosystem of proprietary software.

These days I've been on my GNU / Linux system for 10 months now, and in that time this diary has shown how things have changed. It quickly went from what *can* I run to *why am I running this?* The thought of running new proprietary applications at all infuriates me, everything I look for now is free software. I have Wine, but funnily enough it's used almost solely to run free software that either releases only as a Windows binary, or when a GNU / Linux build doesn't work or errors compiling. I've locked down my phone as much as I can, though it's still a Google Android device with no real avenue to alter it. I've disabled as many services as possible, disabled all non-free apps I reasonably can, and replaced them with freedom respecting alternatives from F-Droid. I no longer use Google Mail as my email provider after 15 years, and have instead chose a better step up the ladder with Proton Mail. I understand that all free software with a server I'm not in control of isn't perfect—even if it's all encrypted—but I am not technically equipped to do much else right now. I financially supported free software projects, and independent people who hosted them for others' benefit. I spent a fair bit of money purely through DRM free channels to support independent artists and musicians who were a part of the Fediverse. I took many opportunities when the conversation allowed to promote free software instead of proprietary options. I installed GNU / Linux distributions multiple times, for multiple people (admittedly not FSF vetted *fully* free versions, but my hardware never allowed this, creating lots of E-waste isn't ideal either). I also very recently installed a fully FOSS router for my home network, ditching the proprietary nonsense I purchased from Verizon years ago now.

I am acutely aware I am not done on my journey to software freedom, and it will likely be a long time still before I could ever say that I am. My focus for 2025 will be to continue chipping away at the pieces of non-free software that are kicking around. I can likely uninstall some phone apps which still have functioning websites (such as banking), though there are others for work which might be more difficult to address. I also believe I need to replace my drawing tablet, as no free software drivers I can find appear to support it sadly, despite the older model of the same brand being plug and play with my system. I have some long term goals, some of which aren't even technically possible at the moment. Something I really want to do is get myself a new phone with a free operating system onto it, instead of the typical Google version of Android. The next phone I've been eyeing is likely the Fairphone 5 from [Murena](#), which comes with a fully de-Googled FOSS operating system called [/e/OS](#). I understand that this still doesn't make this or any phone *fully free*,

as in FSF respects your freedom certified, due to some low level stuff apparently all cell phones use which is currently proprietary. It is however, perhaps the highest I could reasonably climb the freedom ladder with for a smartphone. It's a free OS with repairable and well documented hardware components, and I could exclusively utilize FOSS apps from the defaults and of course through F-Droid. The hold up is a few things, first being that my current phone still works fine, I don't want to make e-waste for fun. Secondly, the Fairphone 5 is not yet available in the United States, seemingly with no release date yet. I'm hoping by the time I actually need a new phone, I'll be able to get one without issue. Finally, none of their phones (not just Fairphone 5) support my current Verizon network. I can't say I really want to cancel it outright, since I am paying for family and myself across multiple residences now. I suppose technically I could close just my own number, and move to another carrier for my new phone, though that sounds annoying if I can't bring my old number.

Another thing I really want someday is a **modern** FSF Respects Your Freedom computer, likely just a laptop given how tough this ask is already. There's a problem though, there is no such thing! The most recent certified computers are quite old IBM Thinkpads, and they are not cheap to get your hands on for what they are. There is something apparently with a lot of potential being made by a group called MNT called the [MNT Reform Next](#). Effectively every last bit is as open as the community can get it, software and hardware. The components support a fully free GNU / Linux system, apparently there is literally no BIOS at all according to the forums, no proprietary



Figure 14: Onward to freedom!

low level stuff to worry about in initialization—**except for RAM**. DDR4c is apparently closed source for the firmware on the modules in their current Reform system. It's honestly so close to being there I am eager to see when it will (hopefully) get the green light from the FSF and be deemed entirely free, inside and out! Now technically I could just buy one of these current models now, but the way I see it, I am not in dire need of a laptop, and the price for this thing is *very steep*. I entirely understand why I'd have to pay nearly 1800 Euros for a souped-up variant of a hand made and very low fab count custom computer, but if I am going to make such a massive investment in freedom, I want it to be fully there. If the Reform Next ends up getting the certification from the FSF someday, I'll make the purchase and install [Trisquel](#) on it. Then I can truly see how fully free computing goes! For now though, I'm happy with the progress I've been making, and I need to remember that perfect is the enemy of good. My journey is not over, but neither is my resolve! I can control my computing, so every step I walk back of my computing controlling *me* is a step in the right direction. Let's keep moving towards freedom in the new year!

January 11th – DRM Dumping

Ushering in the new year has given me more of a push to shed some dead weight on this PC. Two services that I have, and have used very sparingly, are proprietary—and typically use freedom restricting DRM to lock down their products. The first of these services, Deezer, is for streaming music across various platforms. It comes at a steep monthly cost, given that you don't actually get to keep anything you pay for under normal conditions. As mentioned in a much older entry, I only used it at all because FOSS DRM circumvention tools existed, meaning I could grow my collection of offline media as I saw fit (assuming the website had it available, which was not a guarantee). Last year brought me into a pivotal change with music though, where I was significantly less

interested in extremely popular songs held by record label barons, instead opting to focus on discovering small indie artists on the Fediverse. Not only would streaming sites tend not to have this media, but it's also the type of stuff you want to buy directly anyway. Not caring about billionaire record labels squatting the rights of immeasurable artists for decades is one thing, but I'll be damned if I ever didn't buy or donate directly to an independent artist to show support. I ended up spending quite a few hundred dollars on purchases from places like Bandcamp and Faircamp, and I honestly want to spend much more time discovering music I'd never otherwise know existed, than continue to fester with the same overblown cycle of supergiants. I'm going to take that \$200 or so a year I was spending to hardly listen to music on Deezer, and instead distribute it to passion projects, small releases from those who might genuinely appreciate that I'm listening along.

The next piece of software on my hit-list was Steam, as it is both proprietary and mainly hosts titles with DRM enabled, some even going as far as kernel level injections for 'anti-cheat' purposes. Honestly I just wasn't using Steam much at all because of how my perceptions changed throughout 2024, so removing it from my PC was not any particular loss. Hypothetically if Steam is the only way to acquire a game, and I really wanted to play it, I suppose I could purchase it and just move the install files. This is assuming it's one of the uncommon games that don't have any sort of DRM, though I think more practically I should just utilize an entirely separate device for that sort of gaming in the future. There is virtually zero ethical way to game in the modern era (especially by FSF standards) so I think the best thing I can do is work towards a separate device with the "most freedom" a console could have. I'm thinking a specifically tailored GNU / Linux system on a handheld device, like a Steam Deck. In fact, I was given a device by a friend which I have some longer term goals for to accomplish just that!

Around Christmas, I was offered an old ROG Ally my friend no longer wanted. If you aren't familiar, it's a device similar to the Steam Deck, except for some reason it comes with stock Windows 11 on it. The device also has terrible battery life, seemingly unable to last more than even a single hour while doing low performance gaming. The latter point is fine for my purposes, as I honestly never intend for it to leave my room, but the former point is unacceptable. It's honestly amazing how *annoying* the Windows 11 out of box experience is while setting the device up. The sheer number of annoying screens and things you have to disable before you can even get to the desktop was mind blowing. It also just feels rather gross to have this entirely proprietary device in my possession, but the plan is effectively to write Steam OS onto the drive once Steam makes more strides in supporting secondary hardware, making it more platform agnostic. Once I have Steam OS, I could largely just try to play DRM free titles and purchase stuff through GOG, and maybe do emulation. Basically just things which would meet my personal criteria for "acceptable distribution of art", and also keep it separate from my main computing. In this way, maybe I could someday do all non-free gaming on a largely liberated handheld device, and potentially free gaming on a fully free computer sometime in the far future. As for now though, the device was basically just a glorified paperweight, so while I wait for the eventual install, I bought Balatro. Balatro is a rouge-like poker deck builder, and a very small indie game that absolutely blew up last year. Every other game I had on hand to test felt awful to play with a controller, and seeing that this extraordinarily lightweight title still can't even run for an hour without hitting low battery, is about all I trust it to do anyway. So here's hoping I can properly liberate this handheld. If not, I'll buy some other device coming out that has Steam OS preinstalled with better capabilities, but I'd prefer not to have this thing just become trash.

January 12th – Spreadsheets And Support

In 2024 I had a goal to support a new hobby artist each month for the whole year, in the form of a \$50 donation. I knew that I completed that goal, but I also supported a lot of other projects too. I was interested in figuring out exactly how much I gave throughout the year for indie artists, musicians, indie web hosts, and maintainers of free (as in freedom) software. I figured the best way to do that would be to create a spreadsheet, so I got to opening LibreOffice Calc and tallying things up. Honestly I wasn't expecting it to take very long, but it turns out sifting through probably over a hundred emails across a dozen sites to find receipts was quite time consuming! On top of that, I was trying to categorize everything, get a direct link to every page, and of course just make sure I didn't skip over (or double count) anything either. I'm not entirely certain, but I am fairly confident that this is the first time that I've explicitly used formulas in Calc, since I added everything up and put the sums in different cells, and then added *those* sums for the final total at the end. Formulas are pretty intuitive if you're familiar with other spreadsheet software, so that worked out great, though a snag I ran into elsewhere was being totally unable to change the formatting of hyperlinks. Ultimately this sheet was just for myself, I wasn't making it public, but I wanted to change the color from light blue and couldn't do it. I know there is a style tab, and that it says you can modify what hyperlink formatting does, but changing it did absolutely nothing. I'd assume it would change instantly, but I did also try removing and recreating links, also to no avail after the format editing.

Minor annoyance aside, I did have a very clear tally, grouping, and total by the end of it, and apparently my contributions for the year were way higher than I expected them to be. I had no idea it was going to be well over \$2,000, but I am glad I was able to find and support so many different indie and freedom respecting projects and artists. As awful as the world is in so many ways, these wonderful people I've discovered give me hope for humanity. This coming year I hope to focus more on software freedom contributions, and I'm excited to see what new projects I might discover throughout the year. Goodness will I ever need the hope and discovery more than ever during 2025. Beyond the spreadsheet I also made a graphic in Krita detailing the contributions, which I did intend to make pretty and publicly share. At first I was concerned about it sounding like ego, but ultimately I decided that giving appreciation, and encouraging others to contribute to projects they care about, is a decent message to share. I don't view charity as *good* anyway, merely an unfortunate necessity in a capitalistic society. Mutual aid and direct funding is simply the bare minimum in a world where governments do not provide grants and basic living necessities for all people.

Political sidetracking out of the way, I quite like how the backdrop came out! I made it look like a starry night sky thanks to a couple Krita brushes that helped populate lots of little dots. A lot of the other design was just text alignment and boxing, which I think worked out alright in the end. I also tried to make a sort of shooting star, and had quite a bit of trouble with the text in the tail. I got it legible at least, so that's something I suppose. I'm glad I spent the time to put it all together, it was a good experience!

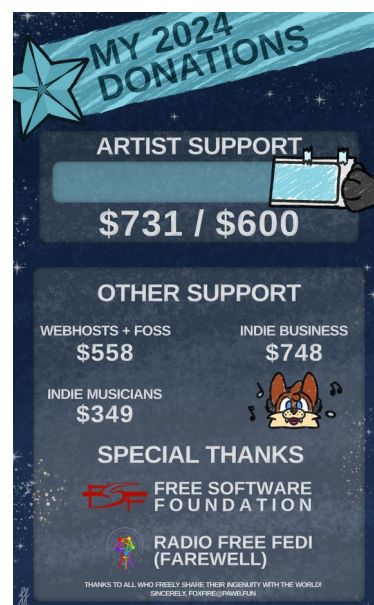


Figure 15: A starry tally

January 18th – Five Or More, What's In Store?

In direct continuation to last entry about gaming, I came across an unrelated game when I was searching for free software on my system in the store. It was a GNOME project port called Five or More, which caught my attention for whatever reason, so I decided to download it and check it out. I was also curious what a free software game from a more well known organization would be like, since finding more of such games seems like a good idea. I am unfamiliar with the original game the software says it's based on, Color Lines, but it seems to be very bare-bones if this is a faithful port! Before I delve too far into that though, I should talk about the rules of the game. As you might expect with such a title, the player is supposed to match five (or more) objects together, the default of which being colored balls. Each turn, you can select a ball and move it anywhere on the board, but only if there is a clear empty path to that destination. If you don't make a match that turn, three more balls spawn (unless you choose the largest board, then seven spawn). If you do make a match, you get an additional move before the spawns occur, but the amount you score increases if you wait longer and match more than five. When the entire board is full, the game ends, and you lose.



Figure 16: Like rainbow collar bells really.

The first thing that you'll notice when opening this game is the lack of any sort of aesthetic flair. There is no title screen, there is no music, there are no animations beyond the circles literally dragging across the screen, there are no sound effects of any kind. My expectations on aesthetics of course were tapered, this is a simple game after all, but I was certainly a bit surprised to see effectively nothing beyond the bare minimum to show the game's functionality. You'd be surprised how much a simple click sound or brief collision effect adds to the immersion and satisfaction of playing a game, you really don't notice it until it's gone. More importantly though, after playing the game several times, reading the accompanying help guide, and employing different strategies, it just doesn't seem like anything makes a significant difference. There is no way to win this game by design, your only goal is to increase your score as high as possible. You'd think you'd want to do this by matching large stacks, but the reality is that since every turn spawns three new balls, this isn't particularly advisable. Not only that, but the score you receive is actually rather low for bonuses, to the point where the extra balls stopping your run, versus the lower score from additional five matches, effectively cancel each other out. It really seems like most of the time, regardless of your strategy, you're very likely to die somewhere between the 250-400 point range. Where on that range you fall seems to be mostly determined by favorable random number generation (RNG) in ball spawns, as opposed to anything specifically I am doing.

Of all the games I've played in recent memory, this is definitely the most I've felt like wanting to expand upon an existing idea. I feel like there must be ways to improve the strategy aspect of Five or More, even if it diverges from the original game in some ways. At the moment, this feels like a semi-deterministic 5 minute game, but I think some minor tweaks to what happens when you match could easily expand its length significantly in interesting ways. For example, matching more than five has absolutely no benefit other than a slight score boost, at the significant expense of several extra turns of spawns. Imagine if higher match counts gave multiple turns of benefits, and that those benefits could vary dependent on RNG or potentially by choice. These are not exhaustive, nor obviously have they been tested, but imagine options to say, swap two balls that

are next to each other, or multiple turns of free moves, or being able to choose the spots the next spawns will appear, or maybe change the next spawn to be balls of a certain color type. If you give the user more opportunities to have agency over the board, especially as they match *more than five*, there will be far more chances for strategy to form. Maybe a large match can propel a user closer to a second one, and perhaps that means they can actually reduce the board for a certain period of time. With the right combination, you could have great feeling strategy that could hold a board for a long time, as the player figures out how best to work with what they generate. Of course, having some simple animations and SFX on top of that would also make it that much more enjoyable to spend a long time in the game. My thought is it really wouldn't take a lot of mechanical changes to pull that off with this base, but at the same time I am not a developer who has the know how to pull that off. I have contributed to FOSS projects before (mostly just Etterna), but almost purely from a feature mock-up and aesthetic aspect. It's hard enough for me to be an artist sadly, I don't think game development is exactly in the cards for my future.

January 19th – Minecraft Server Shutdown

About a month ago a friend of mine wanted to get people together to do a Minecraft server, but was having some trouble. At the time I thought maybe it was because of extra steps, like installing mods, and a non dedicated server which could be off at any time. With some encouragement, and even an offer to pay, she ended up getting a small server plan and went with a more vanilla approach. We had what I thought was about 10 people interested, and the plan really was just for a short stint (a couple months, servers never do last long) to hang out with a person or two at a time. Apparently those meager expectations were far too high though, as ultimately I was the only other person playing for the entire month. I was especially motivated to do projects and show her something was going on, after her prior idea was ignored by her other friends. Unfortunately it just wasn't meant to be, so understandably she called it quits when the next bill came around. Apparently the other 'interested' parties never logged in even a single time, goodness.

Sad story and non-free gaming aside, this event does allow me to talk about two free software projects that helped me for the time playing, and also after the server closed. First and foremost, I have to give thanks to a project called [JD Minecraft Launcher](#), which gives you a simple way to launch the game instead of Mojang's proprietary version. Reminiscent of the old launcher from Mojang, it gives you what you need to select versions, load mod profiles, all the stuff you'd expect really. The second piece of free software I got to discover was when I was given the backup of the server files. After some annoying troubleshooting I realized that my player data would never load, because the info was not stored inside of the `level.dat` NBT tags. It was actually stored in a separate file specifically for other players within a server context, and would need to be manually ported into the other file in order to work. Initially I figured I'd use NBT Explorer, which is a very old FOSS project I used to use on Windows. There are no GNU / Linux binaries, but I figured WINE would run it fine enough. This was an *incorrect* assumption though, and it basically crashed trying to do just about any single action, which was unusable. Thankfully I ran into a different successor project called [NBT Studio](#), which is far more recent and entirely rewritten, meaning there was a chance it might actually work. Again, no GNU / Linux binary, however it ran flawlessly in WINE! Yet another FOSS project I run in WINE, I swear it's all I use it for at this point. It actually let me copy and paste entire groups of tags instead of one at a time, which helped speed things up significantly. After a fair bit of double checking (the files are not similar enough to just transplant) I loaded in and everything worked as expected! Now I have a single player version of the world.

February 13th – I Love Free Software Day + Anniversary

A few weeks have passed, but I have been working on various things since my last entry! I finished up the last batch of camera images for the OpenWRT video, which amounted to over a couple dozen in total. I learned some tricks for color correction, including a great tip for white colored objects I think is a good share if they are polluted with other ambient colors. Assuming you're looking for neutral lighting, a white object and its shading should always be effectively in gray-scale. This means that once you've isolated any white object in your image, you can simply set that selection to gray-scale and instantly make the lighting effectively perfect with minimal effort. Once again I continue to push Krita in ways it's not particularly tailored for, just because I know it can be done. I made easily my most intricate single page comic yet, a sad state of affairs political cartoon about the new administration. I'm very happy with some of the panel transitions in it, and beyond that I also spent a long time with text formatting for a faux newspaper and little brush effects too. Finally, I made a pixel art rendition of a custom joker card from Balatro, one I made from scratch for fun. With so many jokers, it made me imagine my own, and what it might do if it actually existed in the game. I ended up making a homage to all the people who severely overload their pickup trucks at hardware stores or when moving. I call it "Ain't Goin Nowhere", and it's likely one of the first art projects I've made which is full of exclusively inanimate objects.

Now that we're caught up, the current project I've been working on is all because of a little email I got from the FSF on the 11th of this month. Apparently February 14th is I Love Free Software Day, which is a new concept to me (the day that is, not loving free software of course)! Apparently it's a whole little event, certain places around the world have meetups, people say their thanks and also spur up donations too. I assume I've never really heard of it because it was only this time last year I even took my plunge into a GNU / Linux system, let alone becoming so much more entrenched into the ethos of how important software freedom actually is as the year went on. I only had a couple days of notice, but I was determined to work on some project to celebrate! I ended up deciding to make fan art of [Konqi](#), the mascot for KDE. The [KDE](#) community is responsible for the creation and maintaining of so many awesome free (as in freedom) software projects, several of which I use quite a bit in my daily computing. The single most used program by far for me is Krita, I love it so much as an artist, but I also use things like Kdenlive for video editing, KDE Connect for device crosstalk, Kid3 for music tagging, and I also love the KDE Plasma desktop environment too. All that and it's honestly only a fraction of the software they work on, so having to choose any one group, KDE was an easy pick. I ended up reading through the art specification from Tyson Tan and tried my best to tick all the boxes, though with my own design flare of a more limited color, line-less style. It took me until almost last minute on Thursday night to complete the project, but I think I managed to preserve the cute factor of Konqi rather well! I also believe others thought so too, because my free software appreciation shout out reached a fair few people on the 14th. KDE liked it as well, which was my ultimate goal, and I am thrilled to have been able to provide some positivity to anyone who's involved with their myriad of wonderful projects. My art is just one small return of favor for the mountain of work their community has accomplished in freedom, but of course like them I am not alone. I saw a number of other positive posts about KDE



Figure 17: Konqi the Kutie

projects, and I'm sure that these positive communal forces both emotionally and financially help them continue their work!

Today also marks my 1st anniversary since I began this journey escaping my proprietary operating system! Prior to then I was gearing up with changing out programs to FOSS ones, but this day really marks the beginning of major changes and beginning to really learn about what I've been missing this entire time. There was a whole world out there that I was blind to, a world I didn't explore due to a lifetime of proprietary indoctrination, and an honest ignorance of its existence. It's funny how a bad decision by Reddit a year and a half ago ended up inadvertently exposing me to so many important things I would've never heard about otherwise. Exposure to the Fediverse showed me the power of decentralization, the importance of data privacy, and the critical ethos of the free (as in freedom) software movement. There were so many incredible things happening under my nose because billionaire corporate shareholder interests blotted out the sun with their endless advertising campaigns, entrenching themselves in all walks of daily life. The truth is that we never needed them, and they were never our friends in any capacity. These leeches only see suckers to siphon dollars from, and have never had any interest in benefiting society at all. It only feels like this way of life is normal because the abuses of monolithic corporations permeate nearly every space on earth, and every inch of space they can colonize, they will happily pollute with their garbage. A year has passed, and thanks to so many contributors, I've been able to have a more and more digitally free life. The journey is not over, it might never be over, but every inch of ground I can clear away the weeds of proprietary products from, is a space for lovely new plants to bloom. Plants cared for by wonderful and talented people that want the world to truly be a better place.

February 15th – SRB2 Is Quite Cool