Workstation Upgrade

📝 Project Overview

This one was a long time coming and actually kickstarted a lot of these other projects and gave me a lot of ideas. Not because it was an especially unique or special build, it had just been a few years since I'd really got my hands onto hardware components.

My original PC prior to the new work station was the first PC I ever had (excluding family computers, shared laptops etc), I had it built in ~2015 from MSY one of my local computer stores. Not knowing anything at the time, a friend (who in hindsight didn't know much either) gave me a bare bones outline for the build and MSY helped cut costs and fill in some gaps, honestly when I looked back over the build a few years later when I had a better idea of what I was looking at I was quite impressed from a cost/quality POV in the context of a commercial business, so good job to them.

I rebuilt slowly throughout mid-late 2024, buying parts individually and on sale, I wasn't in any huge rush. Like any other project on here, planning was a big part of it. It wasn't easy at the time to find the balance between practical performance and future proofing considering I was stuck in dead-end retail at the time and didn't have a lot of practical application for a bunch of computational power (spoiler alert I went overkill anyway).

The old PC was a pretty stock standard reliable "gaming" computer. 256GB M2 SSD (later upgraded to a 512GB), motherboard with no wireless interface, 16GB RAM, 1TB HDD (later upgraded to 4TB) but with one hidden gem. The GTX 1080 (forget the Ti for a second and appreciate the base 1080 for how great it is/was).

With that in mind, I knew I was keeping the 1080 around a little longer (also the GPU market was hell with scalpers, miners and AI enthusiasts ruining everyone's fun) I also didn't plan to play any particularly intensive games or a lot of games in general really, I wanted a workhorse that was able to play games, not a "gaming" PC that has the 365 suite installed.

First step was working out what needed upgrades first. This wasn't hard, CPU, RAM and SSD were about to get some big upgrades. Truthfully, if my motherboard had WIFI capabilities I would've reused that too but after years of using an external adapter for certain situations, it was time to upgrade (but only slightly). GPU, PSU and HDD were definitely going straight into the new build.

I will say, I fell for the little marketing tricks and may (did) have fallen into the trap of overkill. However, I'm sticking to "future proofing", that makes it feel better. RAM jumps from 16GB to

64GB (no I don't plan on editing videos) I was going to go with 32GB like any reasonable person upgrading but the price difference at the time between 32GB and 64GB was not enough, so 64GB of DDR4 RAM it is. Similarly with the SSD, I was content with 1TB as I planned to be pretty efficient with file storage and happened to find a well priced, reliable 2TB M2 drive, so 2TB M2 SSD it was. Lastly was the CPU, previously I had problems with my Intel chip, had somewhat kept up with the issues with the more recent Intel CPU chips so was pretty set on going for AMD for this build. Easy choice from a value perspective too, AMD seems to be in the lead at the moment. Long story short I went with the AMD Ryzen 9 5900X 12 Core 24 Thread Processor. I'm no hardware expert, I just know what I know and for the price at the time, I was more than happy going with this.

Generally I love to read reviews and watch review videos on YouTube before I buy something, you're crazy if you don't but with the motherboard this time, I ignored it all. It technically checked all my boxes, had all the ports I needed, Wi-Fi, it was cheap, no unnecessary features or aesthetics. Reviews claimed there were driver issues, lack of support and overall difficult to use. In the manufacturers defence, it was a discontinued product with no active support when I bought it but so far so good, so?

✅ Steps

Very standard PC assembly, not writing up how to assemble a computer here. Check out YouTube, you'll find infinitely better explanations than I could give.

🛠 Tools

- Screwdriver Set
- Thermal Paste
- Zip Ties/Velcro Straps
- Peripherals (keyboard, mouse, monitor)

New Parts List

- AMD Ryzen 9 5900X 12-Core 24 Thread Processor - CPU
- Intel B580 Graphics Card - GPU
- 4TB 3.5" SATA Hard Drive - HDD
- 256GB M.2 Solid State - SSD
- 2TB M.2 Solid State - SSD

- Thermaltake 750w Gold + Power Supply - PSU
- 2 x 32GB DDR4 RAM
- Noctua CPU Cooler

Old Parts List

- Nvidia GTX 1080 8GB
- Intel i5 8600k
- 2 x 8GB DDR4 RAM
- Noctua CPU Cooler
- 512GB M2 SSD
- 4TB HDD
- 750w Gold+ PSU
