

Basic System Upgrade

Well, I guess it's about time I went ahead and wrote up my latest experience with the wide world of computers. I've been involved in the world of hardware (as an end-user) for a little over 4 years now, and have come to think of myself as somewhat knowledgeable.

Recently, the wife gave me the okay to order some upgrade components for my computer. I'd had my eye on the Asus A7N8X Deluxe for a while now, coupled with two sticks of Corsair XMS DDR 2700 CAS 2 RAM (I figure I only need 512 Meg right now), and an AMD Athlon XP 2600+. I'd also looked at a couple different cases and power supplies, but ultimately decided on these three components. I ran on over to Pricewatch.com to get an idea of how much it would cost me with shipping, and then headed over to the local Italian Geek Shop. The numbers I found, including shipping, averaged around \$675. The guy at the computer store wanted 900 Euro! That'd come out to somewhere in the neighborhood of \$1000. So we decided to order the parts and wait. Final total cost was \$656 including shipping and handling.

The parts that would be moving from my old setup were an eVGA GF4 Ti-4200, two Western Digital IDE 100 7200 RPM hard drives, a floppy drive, and an HP 9900ci CD-RW/DVD combo drive. A little less than 2 weeks later, the package arrived. I rushed to the Post Office to pick it up after work and went straight home.

The box was filled with shipping peanuts and contained shipping documents from Monarch Computer along with the motherboard box and a few other miscellaneous papers. I began by pulling everything out and reading it (something I never do, but I was trying to show the wife my patience skills).





After playing around with everything, I had to pull everything out of its pretty wrapping and take a good hard look at it all.



As you can see, Monarch put everything together for me there in the warehouse. That was all fine and dandy, I just wanted to make sure everything was secure and what was ordered. I also wanted to make sure the RAM was put in the correct slots for the Dual Channel DDR function. The only thing I didn't check was the thermal transfer material between the heatsink and CPU, as I didn't have any thermal paste on hand at the time.

Once everything was checked out and visually approved, I went into the computer room to get my box. Into the kitchen we went (yes, the kitchen was my workshop), where I proceeded to take it all apart. This is when I realized just how dirty things had gotten since I last looked it over, and that even though I'd rounded the cables myself, it was still a rat's nest of wires and poor airflow.

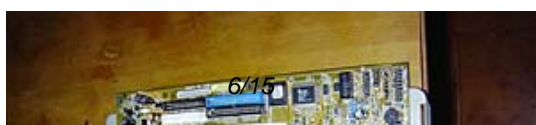


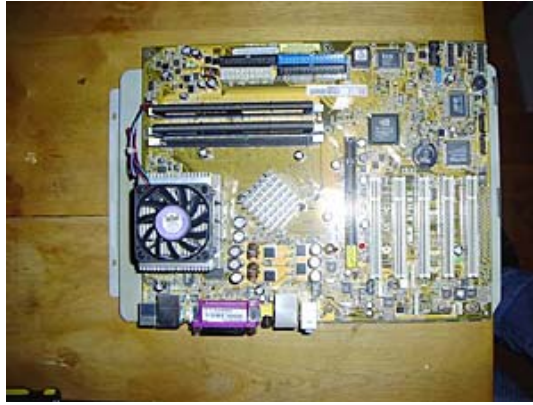


I had to get everything out and cleaned up, as all the old components were going into the wife's computer.



Once everything had been pulled out and cleaned, I took the old motherboard off the tray and put the new one on. This being an older case, the mobo tray, a perfect fit for the old motherboard, was on the small side for the A7N8X.





This just meant that I'd have to be extra careful when attaching the IDE and floppy cables, as the board hung over the right side as you look down on it. I also had a small problem with stand-offs, as the stand-off holes on the far right had nothing to go into them. Note to self: Be careful! I put the camera down at this point and began the install of the mobo tray and add on cards. This is where I began the better placement of IDE and floppy cables and weeded out the PCI cards that would no longer be necessary. Because this board came with two LAN connections onboard and 5.1 sound onboard, I decided to leave out the Realtek LAN and SoundBlaster Live! Value cards. The Realtek would go in the wife's computer to replace her old 10 Mbps NIC. The SoundBlaster would go into storage, as she's quite happy with the soundcard she has now.



There! I don't have any shrink-wrap or wire wrapping, so the PSU wires were routed as best as possible and the unused wires tucked up at the top. I used the IDE and floppy cables that came with the motherboard so I could do "ribbon cable origami" instead of my old "cut up and electrical taped" cables. I was quite proud of myself in this, and it added an hour or so to the total install time. But I was done!

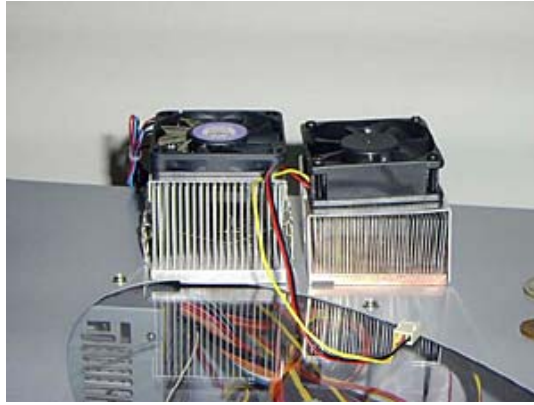
I put it all back together and hooked everything back into the computer. This would be the hard part, as I was coming from an IDE RAID array to a standard IDE setup. I knew I would have to format the drives to rid them of the data stripes, and this did present something of a headache. Once Windows XP Pro was installed, then came the re installation of various backups and needed programs...

TERROR! One of my backup CD's was corrupt. This wouldn't have been too bad, except for the fact that it was disk one of two, and as such, had the majority of my backups! After spending untold hours and various methods of retrieving the data off the disk, I finally gave up and decided to begin anew (again). Thankfully, my wife had all the digital pictures saved onto her computer just in case something like this happened. The only thing I wasn't able to get back was the zip file containing all the benchmarks I had done on the old computer before the upgrade.

A week or so later (Valentine's weekend, to be exact) the wife and I were out shopping. I had wanted to stop at the computer store to check out the heatsinks, as the one I got with the mobo wasn't doing as well as I'd wanted. I had tried lapping the heatsink, and did receive better results afterwards. I also found that the thermal compound used was the "gum" instead of paste. So when I put the heatsink back on, I used some paste, which added to the improved performance. It went from 64° C to 54° C under full load (I use SETI@home). I didn't take any before and after pictures of the heatsink, so I don't have anything to show for that.







Well...Back to the Valentine's part of the story. We stopped at the computer shop and looked at the heatsinks he had to offer. We compared the various ones and decided on a heatsink with aluminum fins crimped into a full copper base. I knew pretty much right away that I would need to lap this one as well, so I planned accordingly. As we were looking around a little more, I noticed a case that had a small window with a clear fan. My wife asked if I liked it, which I did, and told me to go ahead and get it. Her Valentine's gifts to me were the heatsink and the new case.





With the new heatsink, I noticed a 2-4° C drop in temps. I think the HSF would perform better had we not lost the original clip (I had to use an old clip and bend it to get good tension). We put the other heatsink in my wife's computer, which has resulted in much more improved temps over her old one.

Since I lost the benchmarks from the old, I don't really have any comparisons performance-wise between the old and new setups. SETI@Home has been running at around 2.5 hours per woo, while the old setup did each woo in 5-6 hours. I just ran the Unreal Tournament 2003 Demo, 3D Mark 2001, and a couple of SiSoft Sandra benchmarks for those who care:





Well, this turned out much longer than I thought it would. I hadn't intended this as a review, per se, but more as a statement of what my experience was like. Overall, I am very happy with how everything worked out, and as yet, I haven't done much, if any, tweaking or overclocking. Plus, the wife is much happier with her "new" system, as she can play The Sims without the computer lagging on her. So everyone is happy now, which is GOOD!

[Jeremy Flint](#)

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