Sound Dampening Part I

Drip, drip drip... Much like the Chinese Water torture, the sound emitted from the seven case fans in my overclocked gaming rig is slowly driving me crazy. The sound level is really hard to describe to someone who hasn't heard a similar machine. I have read on other websites where other authors complain that they can hear their computer across the room. Well, you can actually hear mine outside the apartment with the door closed. That's enough preamble. I think all of us here understand the problem. The issue lies in finding an acceptable solution. From where I sit, that leaves three possible solutions:

The first one is to exit the high performance market entirely and build a PC featuring low performance parts designed to run with little or no active cooling. Components such as a Via processor, GeForce 2-MX, video, 5400 RPM, hard drives. Umm, nope. Now that we have all had a good laugh, let's move on to the next option.

The second option is water cooling. It is quiet, it almost always out-performs even the most radical air cooling, and if something isn't done about thermal management, it may some day become a necessity in a high performance system. Most of the technological problems with water cooling have been solved by the latest turnkey water cooling systems, such as the ones by Koolance. If water cooling has a downfall, though, it is the high cost of these turnkey solutions. It is also hard to escape man's natural prejudice against the mixture of water and electricity. This may be a source for a future how-to. At this point, however, I will take one last try at air cooling before making the jump to water.

I guess by now it's fairly obvious that I have settled on option three, case sound dampening. Having made my decision on how to quiet my noisy PC, I started looking around for something specifically manufactured to dampen sound in a computer case. The first came in sheets with a cork backing and an aluminum foil front. You then would cut the sheet to fit where you wanted it and then apply by peeling the covering off the self-adhesive backing. The second kind was a spray-on type similar to that used in truck bed liners, and it was rubberized. It came in a can, and was applied in a manner similar to spray paint.

In the end, I chose the spray-on sound dampening material--henceforth referred to as SOSDM--because I didn't think it would raise the temperature in my case like having a layer of cork covering the inside of my case would. It also didn't hurt that the sheet sound dampening material--henceforth referred to as SSDM --was much more expensive. I would guess 30 to 50 dollars for enough to do the inside of your case --depending on the size--while the SOSDM variety cost 3 dollars a can and was available at Wal-Mart. Ironically, it seems I buy a lot of my modding supplies at Wally-World.

I decided to use the SOSDM on both side panels--as well as the top panel--to cover up as much noise as possible from the screaming 8K Delta fan on my HSF. Take your panels, and go outside. (Yes, I know most of our kind are as fond of going outdoors as vampires. Do it anyway, though. You will thank me later.) Once there, wipe them down with some turpentine or something similar.

Once clean they should look like this.

Partial warning from label: *Contains mineral spirits, toluene, and asphalt. Vapor harmful. May affect the brain or nervous system causing dizziness, headache or nausea. Causes eye, skin nose and throat irritation.*

Sit your panels upright, and after shaking the can VERY well, start applying thin coats of spray to your panels. Make sure you don't lay your panels flat and spray downwards, or your panel will have bubbles and blotches.

This is what the can of SOSDM that I chose looked like.

Applied properly, it should look like this.

After allowing it to dry, I reassembled my case. When I turned my machine back on, it was much quieter. By no stretch of the imagination would you describe it as silent, but it WAS tolerable, which it wasn't before. After monitoring the temperatures for a few hours, I was happy to see that they didn't rise at all, inside the case, or on the CPU itself. Much different than what I would have expected had I gone with the SSDM.

Some of you reading might want to stop right here and call it a day. After all, I had fulfilled the prime directive to quiet my PC, but I still wasn't entirely happy with the results. You see, while it was a lot quieter and the temperature hadn't gone up any, the rest of the case that was unpainted looked incredibly stupid. Sigh. I guess the next how-to will be about spray-painting the inside of your case, so it matches your side and top panels.

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