Shut Up!

Does your PC sound like it's about to take off? Here are some tips to keep it quiet

BY STEVE BAUMAN

The fastest PC parts run hot. A hot PC needs a lot of fans to keep those parts from melting. And a lot of fans generate a lot of noise.

So keeping your PC cool and quiet is tough. While most PC makers do a good job keeping their machines quiet, most homebrew systems are extremely loud. They tend to have four to eight fans humming along in not-so-pleasant harmony. You have intake and exhaust fans that bring in cool air from the front of your machine and extract the hot air through the back. You have a fan that draws hot air from the heatsink and/or heatpipes that absorb and dissipate the heat from your processor. There's the fan, or fans, that do the same for your videocard. And don't forget the one—or two, or three—in your power supply. Some motherboards have a fan on the chipset, and that tiny thing can make a terrible racket.

Replacing some of the stock fans that come with the various components in your system can both silence the noise and make your system run cooler.

Intake and Exhaust Fans

These should be as big as possible, in order to cut down on the noise, but you're usually limited by whatever fits in your case. Antec's cases are designed with quiet computing in mind, and most models have 120mm multispeed exhaust fans and empty spots for similarly sized intake fans. You can even purchase adapters that allow you to attach 120mm fans to 92mm mounting points. (These take up a lot of space, however.)

There are many manufacturers of high-quality quiet fans. Some of the names to look for are Antec, Arctic Cooling, Panaflow, Zalman, and Scythe. Watch for low maximum rotational speeds, and try to get ones that can be controlled by your motherboard. They're cheap, too—typically $10 or less—so it's worth experimenting with different models to find what works best.

Processor Fans

Normally, you don't buy fans for your processor. You purchase a heatsink/fan combination. There are hundreds of these on the market, and most sound like rockets. Some even look like them.

In building our own test systems here, we use Zalman heatsink/fans. The current top model is the CNPS9500, which both looks cool and does a killer job. They're pricey, at anywhere from $50-$60, but worth every penny.

Another recommended unit is the XP-120 from Thermalright. It doesn't come with a fan but has a mounting spot for a 120mm one. If you go this route, make sure you get a fan with a temperature sensor and a maximum speed of 2500RPM, like the Tri Cool and SmartCool lines from Antec.

When buying a new heatsink/fan, you have to be careful, because some won't fit on your motherboard due to the placement of various diodes, heatsinks, and other unidentifiable crap. For example, an Arctic Cooling Freezer 64 won't fit on two of our ASUS SLI motherboards, because it hits the heatpipes and heatsinks that help cool the various on-board components.

Videocard Fans

If your videocard is noisy, replace the stock heatsink and fan. Arctic Cooling makes a number of models for various videocards, and they do a terrific job of keeping the videocard cooler and quieter. In testing with the Accelero X1 and a 7800GTX, idle temperatures dropped by over 10 degrees; under load, the differences were even greater. The only downside is that these things are enormous, and they block the slot next to the videocard.

Another option is the Zalman VF900. It has a similar impact on temperatures and noise, but it's smaller and more stylish than the Accelero.

Both are easy to install and will set you back about $30–$50.

Power Supplies

Newer PCs need a lot of electricity, and that translates to a lot of heat. There are a lot of power supplies out there, and many are crap. Your best bet is to go with name brands you've heard of. Few are engineered as well as Antec's Neo NE (which can be problematic in some configurations) and TruePower models. They deliver plenty of juice with little noise.

Other silent PS makers include Seasonic and OCZ with its new GameXStream line.

Resource

The best resource for ways to silence your PC is silentpcreview.com. It features a number of articles—and links to other sites' articles—about how to build silent PCs. But its most useful feature is its forum, which is full of people reporting their experiences with various PC parts and how they contribute to the overall noise level of your PC. Some of these guys are absurdly hardcore, but their recommendations are always solid.

Happy silencing. ■