

## Ask the Techie

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### What computer should I buy for my voice-over recording studio?

I was wracking my brain for a good topic to cover in this month's edition of Voice-over Insider, until a past client of mine called and needed advice. After spending a good hour on the phone with him explaining why the Sony Vaio he just bought was a poor match for his audio interface and should return it for something else, it struck me that I found my topic. It's never been harder to find the right computer, especially if you are a Windows user, and I hope to shed some light on how to find that perfect recording computer.

First, let me just get the Mac vs. PC debate out of the way. I use Macs exclusively for all of my various needs. I was a Windows (and DOS) computer user from way back since Windows 3, and it was all I knew and felt comfortable with: Until about four years ago. Sure, we had Macs in the computer lab of the music department at Virginia Tech, and I used them when I had to, but the old Mac OS System 8 and 9 just never clicked for me. It wasn't until Mac OS X came along that I found myself in a useable environment. Still, it took a while to make the transition, and it took things like meeting my now wife (an avid Mac user) and working with more and more Mac users to motivate me to take the plunge.

Why did I switch completely? I love the consistency from Mac to Mac, the tight integration between the Mac OS and the hardware, the excellent support from Apple, the incredible user community, the complete lack of malware and viruses (so far), the flexibility to run Windows applications when necessary, the amazing resale value, the software developed for Mac OS in the shareware developing community (like Twisted Wave), access to face-to-face support at the Apple stores, beautifully made computers, and the support by the pro audio hardware developers. When I spec out a studio with a Mac, I can guarantee it will work with the other equipment with a bare minimum of research because there are *far fewer* variables involved in the Mac hardware/OS realm.

So, if all of that appeals to you, get a Mac and be happy. My favorite is the Mac Mini. It's the cheapest in the Apple family, extremely compact, nearly silent, and with a little effort is upgradeable.



OK, but what if you find Macs overpriced (the Apple tax), you only use software that is Windows compatible, you find Apple fans obnoxious, don't want to learn new operating system, or Steve Jobs ran over your cat? Sounds like you are shopping with the majority of the world for a Windows computer. That's why you are reading this article, right? I better get on topic, quickly!

If you are buying this computer for the primary reason to record voice-over sessions at home along with daily internet and office needs, the things that really count when trying to choose a Windows PC, besides what will fit your budget, are the following:

1. Customer support from the manufacturer
2. Compatibility with your audio software and hardware
3. Noise level from the fans and hard drives
4. Minimum of 1 GB RAM for Windows XP, 3 GB for Windows Vista and 7

Seems like I left a lot of things off the list, doesn't it?

Honestly, the computers on the market today are vastly more powerful than those made ten years ago. In the year 2000 I was browsing the internet, recording multitrack audio projects, using voice chatting applications, emailing, writing documents, and playing games on my computer. Bottom line is that practically *any new computer* on the market today can do all of those things. The question always boils down to how well your software runs on the hardware you choose.

Here's the rub: PC manufacturers want you to buy the latest thing, and often make it hard to buy the *right* thing. Before hitting the big box store or Amazon to find the computer, check the websites of the audio hardware you use or plan to use and read the fine print about what compatibility issues you must be aware of. Some audio hardware manufacturers are still reeling from the horror of Windows Vista and encouraging users to stick with Windows XP (still not a bad idea), or just don't have the R&D budget to keep up with the pace of the latest WinTel (Windows & Intel) developments. Some of my favorite manufacturers of recording interfaces still don't have official support for Windows 7.

What is the 64 bit thing all about? Right now PC makers are releasing their newest wave of computers which are designed to run at 64 bit bandwidth under Windows 7. It's the latest thing, and soon we'll all be using computers with 64 bit hardware and software. 64 bit architecture allows a computer to perform faster because all of the data has a "fatter pipe" to flow through. Problem is that some audio hardware manufacturers are not ready to support Windows 7 64 bit because the drivers that allow the hardware



to function harmoniously with the OS are very difficult to code and are costly to support.

If you are shopping for a computer and an audio interface together, do yourself a big favor and check out this helpful guide from the guys at Rain Recording:

<http://www.rainrecording.com/windows-watch/>

You'll be able to get an overview of which audio hardware and software will be compatible with your PC OS of choice. Very handy, but it's not entirely up to date, so a visit to the manufacturer's website is still recommended. If you have the budget, Rain builds PC's specifically for pro audio/video users. There's nothing wrong with them, just

completely overkill for the needs of the typical voice-over user. Unless you are producing demos with many tracks of audio and virtual instruments, you just don't need the extra power.

If you are already "married" to a particular audio interface that doesn't provide 64 bit drivers, the tricky part is finding a computer with the 32 bit version of Windows installed at any major retail chain. Costco? Not a single 32 bit Windows 7 computer on the website (as of the time I wrote this article). The easiest way I found computers with Windows 7 32 bit was by searching Amazon and Ebay. I simply plugged "Windows 7 32 bit" into the search string and that helped narrow things down a lot. I was looking for laptops in this particular case, and found many great deals on Ebay for brand new, full warranty machines for under \$600. If Ebay isn't your cup of tea, you can go to the manufacturer's retail websites and custom configure the computer with the exact specs you need. I highly recommend this route because you'll get exactly what you want, and the option to buy extended warranty and service contracts, which are a good idea if you plan to keep it more than one year. Dell, Lenovo, and Toshiba, to name a few, all do this.

Many of you may not be lucky enough to have a separate voice recording booth from your computer, or a "machine room" for your noisy equipment, and this is where a quiet PC becomes very important. Likewise for those who travel and record with a laptop, quiet computers are a must. Finding a computer that meets this criteria may be the most challenging of all the factors. There are many variables that determine the noise level your PC emits: CPU type, case design, fan size, fan count, hard drive type and count, and load on the CPU are some. PC's designed for home theater or "media center" use are typically designed to be quiet as possible, as they're often placed next to the TV. Low wattage CPU's like the Intel Atom and Core 2 Duo are great choices. Dell's answer to the Mac Mini, the Zino HD is extremely quiet and compact, while still plenty powerful for recording, and even HD video needs. If you are into DIY PC's, a quick search will review an ever growing list of websites dedicated to quiet PC building, as home theater PC use thrives.



As a general rule, the lower the temperature your computer runs, the quieter it gets. Computer fans vary their speed with the temperature of the various internal components, so the less work it's doing, the slower the fans, and the lower the noise. You can make any PC quieter simply through careful monitoring of its activity. If it seems your fans are always running, take a look in the "Task Manager" by right-clicking the task bar and look for applications using the most CPU. You'd be surprised how often your web browser is clogging up the works, and an active virus scan can really tie up the CPU. While recording quit as many non-essential applications as possible to keep the load to a minimum. Amazingly, the recording task should require very little effort, with the CPU barely breaking a sweat. You can even buy hard drives specifically designed for quiet operation, such as the Western Digital Caviar Green Quiet SATA drive or the Seagate Baracuda ES Series ULTRA Quiet hard drive. Still have concerns you're buying the right computer? Drop as a note a [vostudiotech.com](http://vostudiotech.com).