

The Federal Lawyer In Cyberia

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Does Your PC Need an Afterburner? If So, Consider ReadyBoost™

I often have several applications open on my laptop or desktop computers at the same time. These two computers have eight gigabytes and four gigabytes of Random Access Memory (RAM), respectively. (My laptop has more RAM, because I use it in court to drive presentations and I want to be sure it does not gag in front of a judge and jury.) When a computer gets “tapped out” by the applications it is running, it begins to slow down—sometimes quite noticeably. Adding more RAM is unquestionably the best solution, especially in light of the fact that RAM is so inexpensive these days. However, sometimes a

computer will not have the necessary “slots” to handle more RAM. What can be done?

One possible solution is a feature available on computers running either Vista™ or Windows 7™, called ReadyBoost. Note: If you are still using Windows XP™, it is time to seriously consider an upgrade. However, an upgrade could also tax your RAM if your computer has only a minimal amount. Actually, ReadyBoost doesn't operate like RAM; it only seems to. What it actually does is provide

disk space to “page to” that ostensibly reads and writes more quickly than your hard drive does. What that means in plain English is this: When your computer runs out of RAM-type memory (that is, operational memory, not storage-type memory), it routinely writes pages of unused instructions to the hard

drive in order to free up the operational memory the computer needs for other purposes. However, hard drives have always had a reputation for being really bad at reading and writing tiny amounts of nonsequential data. On the other hand,

flash drives are known for being very good for this type of work, and they do it many times faster than the classic hard drive does. That is what ReadyBoost taps into. It enables a user to read and write “memory pages” more quickly than could be done to a classic internal or external hard drive. Translated, that means that ReadyBoost can potentially speed up an operating system (such as Windows 7); however, it unfortunately cannot increase the intrinsic capabilities of that system. Think of the feature as a small afterburner to your jet engine—an afterburner that only kicks in when it is “paged, and is only paged when the jet engine itself is maxed out in a steep climb. Even a small boost can

be helpful when you're in a dogfight.

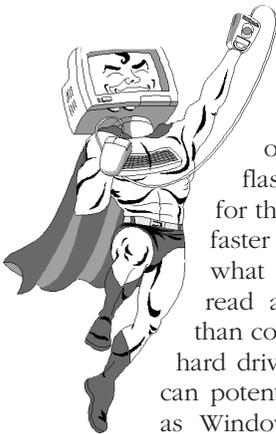
So, you are interested. You have a computer running Vista or Windows 7. What do you do?

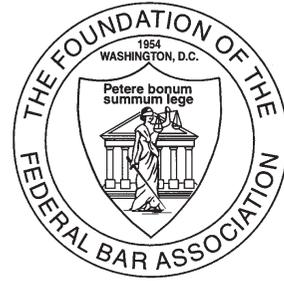
Even though you can use the unfilled portion of a USB flash drive you already have, consider buying a fresh flash drive that you will dedicate to the particular use of being the ReadyBoost resource for your Vista or Windows 7 computer. (If you decide to use a flash drive that you already have and it has some data on it, don't worry. The ReadyBoost feature will not erase your data; it will just use the remaining space—whatever that might be.) You can also use a secure digital card of the sort typically employed in cameras. That might be worth considering. It might read and write faster and it also would not tie up a potentially precious USB port.)

It would be prudent to buy a jump drive that has a package that specifically says it is “enhanced for Windows ReadyBoost” and to plug it into a port on the computer itself rather than plugging it into a USB hub. Also, if your flash drive includes a diode that lights up when the drive is in use, all the better. If the flash drive is visible while you are taxing your sluggish computer, better still. Seeing the diode light up will let you know that ReadyBoost is lending a hand—that is, the afterburner has kicked in.

In any event, when you plug in the flash drive, your computer should recognize it and an AutoPlay menu should pop up. (If it does not, click on “My Computer,” then right click on your flash drive and click on “Properties,” then click on the “ReadyBoost” tab. This process will give you the same options you would have had if AutoPlay had started.) Then, click on “Speed up My System.” In the “Properties” box, click on “Dedicate this Device to ReadyBoost” and then click “OK.” (When you do this, Windows knows that it should leave any existing files already on your USB flash drive intact, as noted above.) Obviously, once you have done this, the USB flash drive will not accept any more data for storage and will only use free space for the ReadyBoost function. In the event that you do not want to dedicate the entire available flash drive space to ReadyBoost, do not click on “Dedicate this Device to ReadyBoost.” Instead, click on “Use this Device” and use the slider to tell Windows how much of the flash drive's memory space you want to dedicate to ReadyBoost.

That's it. ReadyBoost is on. It is waiting for a situation in which your existing RAM is taxed to the maxi-





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mum and is ready to kick in. If you observe the diode flashing and feel you are still not achieving the results you would like, be aware that Windows 7 allows for you to use up to eight flash memory devices simultaneously, allowing you to have up to 256 gigabytes of “afterburner RAM memory.”

You can turn off ReadyBoost if you decide you don’t need it or if you decide that it needs to be repurposed. Just click on “My Computer,” then right-click on your flash device, then click on “Properties,” then click on “ReadyBoost,” then click on “Do not Use this Device,” and ReadyBoost will stop functioning. On the other hand, if you decide to soup up your afterburner by adding more dedicated flash drives, you can do so by going through the same procedure described above, adding the drives one at a time, up to a limit of 256 gigabytes. If you do this, you can uninstall the flash drives one at a time as well, again following the uninstall instructions, above.

ReadyBoost is designed to harness additional memory, via a kind of “work around,” to give your laptop or desktop computer what seems like a RAM boost, and, as a consequence, to speed up your PC when it begins to labor. Your PC looks first to speedier ReadyBoost-dedicated devices rather than immediately trying to latch onto slower space in your hard drive.

The premise, of course, is that a flash drive provides for faster reads and faster writes than a hard drive does.

However, some computer geeks dispute this logic. There are those souls in Cyberia (mostly bloggers, but some authors of articles for computer publications as well) who claim that ReadyBoost is merely a gimmick, that it does absolutely nothing, and that any perceived increase in the operating speed of a sluggish computer is merely a manifestation of wishful thinking—a kind of placebo effect for computer users. I am currently testing ReadyBoost’s ability to enhance my use of speech recognition software, software that tends to tax my RAM to the max. I figure I have nothing to lose and potentially something to gain. (I have no real alternative. I am already maxed out on RAM. If you are not maxed out on RAM, I suggest buying more rather than turning to ReadyBoost.) If you are maxed out on RAM, as I am, and still feel that an afterburner might help, give ReadyBoost a try.

A ReadyBoost afterburner could make a difference in a dogfight, and lawyers sometimes need every edge they can get. I hope ReadyBoost gives your computer a real boost. See you next month in Cyberia. **TFL**

Michael J. Tonsing practices law in San Francisco. He is a member of the FBA editorial board and has served on the Executive Committee of Law Practice Management and Technology Section of the State Bar of California. He also mentors less-experienced litigators by serving as a “second chair” to their trials (www.Your-Second-Chair.com). He can be reached at mtonsing@lawyer.com.

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