A Top 10 List That Can Save Your Computer

Many who read this article may find these recommendations to be old news. However, think about the number family, friends, and associates that ask you for help fixing their PC and I believe you will understand why I chose to write this article..

This list of recommendations for a healthy & secure PC is by no means a complete list of everything you can and should do. It is however a great start if you want to keep your computer running properly for an acceptable period of time. It will also help prevent some of the most common issues related to PC security.

1. Hard Drive Fragmentation

Believe it or not, many people have never even heard of hard drive fragmentation, or the process of Defragmentation. In a nutshell, when you install software or create files and data, the Operating System stores this data on your hard disk drive. The most efficient way of storing this data would be in one continuous disk file. However, files are not always stored this way, or are initially stored this way and later become split up, or fragmented. Because of this, when the data or file is retrieved, the hard drive must be searched in multiple places just to combine data that makes up one file. This slows things down tremendously. If you are running Windows 2000 or Windows XP, you should perform a disk defrag at least once every two weeks, more if possible. All of my systems run this process automatically once every week in the evening hours.

2. Installing Games & Disk Intensive Software

If you're a gamer, or regularly use disk intensive software, the above Defragmentation process will help. However, you can also take another step to make things move a little faster. If you have two physically separate disk drives in your system, I suggest that you use one primarily for the Operating System and related software, and devote the other physical disk for installing games and other disk intensive applications. This cuts down on the competition for disk resources between your Operating System and other applications. There are other things you could do as well, such as configuring the appropriate type of RAID where multiple disks appear to the operating system as one big logical disk drive. This takes a little more planning to get the most out of your drives so I'll cover that in a future article.

3. Virus & Spyware Protection

The bottom line here is; make sure you have installed some sort of anti-virus and **spyware protection**. Furthermore, don't just assume that the default configuration of the program is best suited for your environment. For instance, I can't tell you how many people I know whose computer has contracted a serious virus because of just one minor but very important task. When the anti-virus software pops up a message and tells you that your subscription is about to expire, don't just hit the ignore button. Take a five minute break from what you are doing and renew your virus signature subscription. Not only will this keep you up to date on newer viruses, it will allow your software package to update to newer versions. The same thing goes for spyware protection. There are plenty of free spyware protection solutions out there, none are perfect, but most do the job. I suggest using Microsoft's AntiSpyware Beta package at the least.

4. Software & Hardware Firewall Protection

If you are not using a firewall, then you are just asking for trouble. Actually, there is a significant chance that your system is already compromised if you have no firewall protection at all. Many cable/DSL router combo devices have built in firewall protection, and this is at least a good start. However, if you have Windows XP SP2, go ahead and enable the built in firewall as it will provide you another level of protection. Oh, yes, and when the system pops up a message about whether or not to allow a certain application or communication to take place, don't just hit the ok button, read it thoroughly then make a decision.

5. Installing & Uninstalling Applications

Just about every time you install a new application or piece of software you increase the time it takes to boot your PC and in some cases decrease its performance. On thing that drives me crazy is printing software. For the life of me I cannot understand how or why printer support software could total 400MB in size, but they sometimes do. Not only that, they tend to load all kinds of unnecessary real-time running applets. HP printers are notorious for this. Be very aware of what it is you are loading and only load those components that you need. Even some off-the-shelf software packages load adware and other not so helpful applets. Also, when you uninstall software, not all the software gets uninstalled in many cases. One thing I suggest is to purchase a registry cleaner. This can dramatically decrease boot times and in many cases increase the overall performance of your PC.

6. Purchasing & Downloading Items On The Internet

When you download or purchase any software from the Internet, make sure you pay close attention to everything you are agreeing to or checking off on the various pages that lead up to the final purchase or download. As with everything else, make sure you read the fine print. You may be agreeing to download and install something you don't need or may impact the security and performance of you PC. Also, how many more mailing lists do you really need to be on? How many Internet Explorer tool bars do you need? Most of these tool bars should be renamed to "adware / spyware bars"

7. Installing Operating System & Application Patches

In a nutshell, if you are using Windows XP, make sure that automatic updates are turned on. This is very important. Microsoft releases security and bug fixes routinely and some of them are critical in nature. Something people tend to overlook is updating and patching their applications. For instance, Microsoft Office has critical security patches and performance enhancements available in the form of patches and service packs. It's not just Operating System bugs that can put you at risk, applications can too.

8. Updating Drivers

Similar to the above, hardware manufacturers routinely update their drivers. This includes video cards, sounds cards, capture cards, system boards, you name it. Some manufacturers have started to release automatic updates for their hardware, but many have not. Make sure you check these sites regularly and when a driver update is available, install it.

9. What Do Your Children Download

This is a really big one. I can' tell you how may times I have been told by people that they have no idea how something got installed on their computer. Usually their second sentence contains "one of my children must have downloaded it". The first thing that comes to mind is "why do parents let kids download what ever they like in the first place". Not only can this severely impact the security and performance of your computer, who knows what your kids are getting their hands on. Do you know what one of the most frequently installed application installs I see on a teenagers machine is? Kazaa, BearShare, eDonkey, all P2P file sharing programs. I don't care what anyone says regarding how convenient and safe these applications are now, they are wrong. Monitor what your children are doing / downloading on the Internet. Install a parental control software package if need be.

10. Rebuilding Your Operating System

If you are not familiar with system imaging software, I suggest you read up on them. One of the most popular packages is "ghost" and it's been around for quite some time. I rebuild my systems pretty much on an annual basis. When I first configured them, I used an imaging package to create a complete image of the basic OS and application install. This allows you to not only re-install the base operating system and applications by hitting just one button, but can save you big time in the event of a system disaster.

Conclusion

Many of my peers and other technical people will read this and say it's all common sense and very basic. Well, if this is what you do for a living then yes, it is. But many people don't know these things or did know about them and have forgotten. So many PC are in such bad shape and it's beyond me how the average person even deals with it. It has to be frustrating not knowing where to turn or what to do, especially if you don't have a tech friend or family member to call on. I hate to sound pessimistic, but things are not getting better for the average home or small business person. Technology should not be this difficult to maintain. The average person just wants something that will work, and stay working.