### **Solid State Hard Drive**

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# Solid State Hard Drive | Tech Tips Podcast by PcCG

Subscribe via Itunes [1] | Subscribe via RSS [1] Your computer is only as fast as its weakest link. The primary components that determine the speed of your computer are simply your RAM, Processor and Hard Drive. With modern day computers, most have plenty of RAM and Processing power. In fact many systems use about half the RAM and if you ever watch your processor, it's usually sitting around twittling it's thumbs waiting for something to do. The biggest "weak-link" in a more modern system is going to be the Hard Drive, the thing where everything sits when not in use. When you hit the power button to start your computer, and you see that red light flashing away -- that's your hard drive loading things into the RAM, booting your system. When you click on a program or file and you wait for it to launch - you are often waiting for the hard drive to load the desired files and programs. Naturally this isn't always the case, but if your system has 4GB of ram or more, and has a processor from about 2011 on - your hard drive is likely to be the weak link. Solid State Hard Drives are a newer type of hard drive that are not quite included with your typical computer you'd buy at the store, but they are creeping in little by little. A Sold State Hard Drive is a hard drive without any moving parts. There are no magnetic plates that store the information. Instead the information is stored in a flash-like memory very similar to your flash/jump/thumb drives or the SD chips in your digital cameras. The primary benefits of a SSD (Solid state drive) are:

- **Speed:** Solid State Drives are WICKED fast. Spit-balling some numbers, your traditional hard drive can do about 50MB/s, whereas an SSD operates at close to 500MB/s.
- Power savings: SSD's require much less power to operate giving you greater battery life in your laptops.
- Shock Resistance: Jolts or shocks to laptops can cause the heads to scratch the precious information right off the drive with traditional HD's. This isn't true with SSDs.

I don't have exact numbers, but I'd guesstimate my Photoshop program would take about 1 minute to load with my traditional Hard Drive's, whereas on a SSD it takes about 9 seconds. There are drawbacks though.. the main drawback being space. SSD's cost far more than a traditional HD per gigabyte. Right now you can buy a 1,000GB traditional drive for about ~\$75, whereas for \$100 you would get a 240GB SSD, 1/4 the space. So the question becomes, what is more important, space or speed? Frankly, the typical causal computer user doesn't use 240GB of space making SSD's the way to go. For a heavy user such as myself with tons of music, movies and pictures - my storage needs far surpass what an SSD can provide. However there's a solution for that as well, the Hybrid system. In my computer, I have a 256GB SSD used for programs and windows. For data storage, I use traditional magnetic hard drives. This way I can store all my information and benefit from the speed of SSD's. If you are wanting to give a nice boost to your system, consider a SSD. If you are out purchasing a new computer and want an awesome boost in speed, try and find computers that have SSD's in them. My 2 year old SSD still amazes me how fast it runs. It's like I have a brand new supercharged wicked fast computer that opens most things nearly instantly.

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