

Tech Talk

Navigating the world of technology one gadget at a time
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Computer Upgrades

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Why should I consider upgrading my home computer?

In general, if your current computer does everything you ask of it without slowing down, there's no compelling reason to upgrade. But if you want to run your current programs faster, run more programs at the same time or run more demanding programs or operating systems, you may want to consider some of the upgrades outlined here.



Computers are really cheap. Why shouldn't I just buy a new one?

In some cases, skipping upgrades in favor of a new computer makes more sense, as you can exceed the cost of a new machine if you're not careful. In addition, buying a new computer may be less of a hassle than trying to update your current machine. It's wise to price new computers before buying upgraded components.



On the other hand, you may be able to increase your memory, replace your video card and add a large hard drive for \$275, giving your current machine new life for a modest outlay of cash. If you increase your budget to \$400, you may be able to upgrade your computer's processor too.

Can I upgrade it myself?

Maybe. If you have some experience working with electronic or computer components, you might find these upgrades relatively simple. If you are apprehensive about working inside your computer's case, it's probably safer and less stressful to pay a computer technician to perform the procedures.

If you decide to try it yourself, avoid static electricity at all costs. An errant static zap can render your computer inoperable. To be safe, buy an anti-static bracelet (see Figure 1) for a few dollars. This device keeps your body from discharging static electricity into your computer's sensitive components.



Figure 1: An anti-static strap keeps you from damaging your computer.

Upgrade Guide: Random Access Memory (RAM)

Introduction

RAM is the temporary holding area in which your computer programs run. If there is too little RAM, the computer may slow to a crawl when running complex programs. Under Windows XP, aim for one gigabyte (1GB) of RAM. With Windows Vista, two gigabytes (2GB) will offer optimal performance.

How much will it cost?

Memory is inexpensive, often costing less than \$100 for 1GB of RAM.

What should I know before I upgrade?

Use a commercial website like *www.crucial.com* to determine the exact kind of memory you need for your computer model. Also, read your owners manual to find the number and location of open memory slots.

The Bottom Line

RAM is probably the easiest upgrade to perform at home (see Figure 2). You just open the case, and snap it into place. The only tricky part is making sure that the RAM you buy is compatible with your computer.

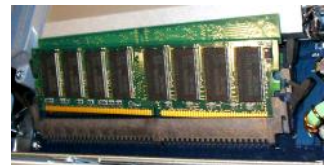


Figure 2: RAM will make a satisfying click when you install it properly into an open memory slot.

Upgrade Guide: Video Card

Introduction

A good video card (sometimes called a graphics card) can make games look more lifelike and can improve the speed of scrolling within a document. In addition, some visual effects in Microsoft's Windows Vista operating system require a powerful graphics card.

How much will it cost?

Unless your computer was well-equipped to begin with, you should be able to upgrade to your video card for \$200 or less.

What should I know before I upgrade?

Check your owner's manual to see the type of graphics card slot you have in your computer. New machines have a PCI-Express (PCIe) slot, while older machines have an AGP slot. You should also determine whether your computer's screen requires an analog (VGA) or digital (DVI-D) connection. If you're lucky, your graphics cards will have both types of inputs, giving you flexibility to work with either analog or digital signals (see Figure 3).

If you have two connections on your video card and sufficient desk space, try attaching two monitors at once. You can keep an email program and a stock ticker always visible on the secondary monitor, while you perform your daily work on the primary monitor.



Figure 3: This graphics card has both analog (blue connection on left) and digital (white connection on right) outputs.

The Bottom Line

While typical home users will notice some improvements with a new graphics card, computer gamers will gain the most from an upgrade.

Upgrade Guide: Hard Drive

Introduction

A computer's hard drive can be improved in two ways – speed and capacity – each of which will benefit a typical home user.

How much will it cost?

A large, fast internal hard drive can be purchased for \$75 to \$150.

What should I know before I upgrade?

Determine whether your computer's current hard drive uses the older IDE (sometimes called parallel ATA) interface, or the newer serial ATA (SATA) interface. If your computer has both interfaces, it's probably better to buy an SATA drive, as it will be easier to install. If you plan to replace your current drive with an upgraded one, use hard drive cloning software (e.g., Norton Ghost) to make sure all of your current programs and documents are transferred to the new drive.

The Bottom Line

The extra storage space and speed of a new hard drive can make it a

worthwhile investment. In many cases, you can even keep the old drive in your computer as a storage area for your documents, photos, music and videos.

Upgrade Guide: Processor

Introduction

The processor, or central processing unit (CPU), acts as the brain of your computer and determines your machine's speed more than any other component. Unfortunately, not all computers have upgradeable processors, but for the ones that do, it's an option worth investigating.

How much will it cost?

Processor upgrades vary in cost from \$75 to over \$500. The cost of a particular processor often drops precipitously after being on the market for a couple of years, making an upgrade a relative bargain.

What should I know before I upgrade?

Check your owner's manual to determine whether your computer can be upgraded with a new processor. Unless you're very good with computers, you'll probably want to leave this one to a professional.

Bottom Line

A processor upgrade can give your old computer a significant boost in speed, but make sure not to overspend, as this can be a costly upgrade.

If you have questions, comments or suggestions, you can visit me at the Reference Desk, contact me via email (moetting@hinsdalelibrary.info), or call me at 630-986-1976.

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