Making Your Computer New Again

This year, you could resolve to exercise more, quit biting your fingernails, or floss every day. But those resolutions are so mundane, so Dr. Phil. And even if you do quit biting your fingernails, when your hard drive crashes and you haven't backed up your data, I guarantee you'll be gnawing on a cuticle before you can say "Useless New Year's resolution." Flossing might mean that you save your teeth, but who needs teeth when you've lost your precious data. Because few of us can afford to replace our systems as often as we'd like to (or as often as we used to), we thought we'd show you creative ways to upgrade your PC with these helpful excerpts from *TechTV Leo Laporte's 2004 Technology Almanac*.

Backup Basics

Your hard disk will crash. Count on it. It happens to everyone eventually. And when it does, you will be glad you have a backup copy of all your data. You do have an up-to-date backup, don't you? Never fear. Here are a few tips for people who hate to back up.

Where Do I Store Backups and What Should I Use?
I strongly recommend using removable media. If you can't take it with you, it's not a backup. I know an author who lost an entire novel because her backups were stored next to the computer when her house burned to the ground.

Forms of Removable Media
You can back up to floppy disks, but floppies aren't reliable for long-term archival storage. And filling dozens of floppies is so time-consuming that most people put off backing up until it's too late. Many users want to emulate businesses and back up to tape drives. Tapes are cheap, and their huge capacities make it easy to back up an entire hard drive. But I don't like tape backups because you're never sure whether the data is really there.

I use a CD recorder. These devices cost as little as $75, with blank CDs costing pennies apiece when bought in bulk. Each CD stores 650–700MB, so I can back up all my data monthly for very little cost. CD storage is compact, compatible with nearly every PC on the market, and likely to last for several decades at least. Recordable CDs are as close as you can get to backup nirvana.

Ultimate Data Destruction

Hard drives grow in storage and shrink in price, so upgrading your hard drive is a no-brainer. But what do you do with that old drive? Chances are, you wipe out the data and donate or sell it. Your data isn't completely gone, however. With a little skill, it can be recovered. You can better protect yourself by using any of these software tools to wipe out your data. They do a much better job than a simple reformat. Here are a few:

- Analog X SuperShredder (**www.analogx.com**). Free download.
- LSoft Active@ KillDisk (**www.killdisk.com**). Free download.
- Eraser (**www.heidi.ie/eraser/**). Free download.
- AbsoluteShield Internet Eraser (**http://download.internet-track-eraser.com**). Free download.
- Mutilate File Wiper (**http://home.att.net/~craigchr/mutilate.html**). Shareware.
- Wipe for Linux (**http://wipe.sourceforge.net**). Free download.
- Shred (**www.pcmag.com/**). Free download.

Repair Your Scratched CDs

Cleaning Options
Baking Soda Toothpaste
Actually, any mild abrasive, such as furniture polish, Pledge, or plastic polish, works fine for removing scratches. Use any lint-free cloth, add some of the abrasive to the afflicted area, and wipe. Always wipe from the center of the disc to the rim in a straight line. Never wipe in a circular pattern.

Toothpaste works on only minor scratches, but the results are okay. While it does not fix heavily scratched CDs, it does help prevent those with light to moderate scratches from skipping.

Use baking soda toothpaste with as few additives as possible. Some gel-based baking soda toothpastes tend to leave a sticky film on the CD, which takes effort to remove.

Car Wax
Unlike polish, waxes fill in the cracks or scratches. Just pour or rub the wax on a scratched area and wipe off with a lint-free cloth from the center to the rim.

Prevent Scratches
Keep your CDs in a safe and scratch-free environment. Always keep CDs in sturdy jewel cases and off the floor, table, or backseat of your car. Clean your CDs with a soft, lint-free cloth and make single swiping motions from the center to its rim. Don't clean in circles as you would a vinyl LP.

Laporte Support

Making Sense of Hard-Drive Space
Ever bought a 40GB hard drive only to have Windows report that it's only 38GB? Well, this time it's probably not Windows' fault, but the hard drive manufacturer's way of describing the size. Because it's measured in binary, not decimal standards, 1GB is not exactly a billion bytes. It's actually 2^{30}, or 1,073,741,824 bytes. In addition, manufacturers often report the unformatted size of the drive instead of the formatted size, and, of course, you have to format a hard drive to be able to use it. After formatting a drive, you usually lose around 2GB for the table of contents and other elements.

What is Interlace?
Interlace is the method that a monitor uses to display an image. Your display is sectioned into thin lines. An interlaced monitor displays every other line first. When it reaches the bottom, it starts at the top and fills in the rest of the lines. To display the screen resolution you want, you need to adjust the refresh rate. This will cut down the flicker you see onscreen.

Games and Entertainment

Today you can use the same machine to organize your finances, create a presentation for your boss, and defend the Earth from flesh-eating aliens. But let's be honest: Even with the crazy advances in software, organizing your finances and creating a presentation for your boss are still not half as much fun as defending the Earth from flesh-eating aliens. Check out these games and gaming tips from your favorite on-air personalities of TechTV's hit show, *The Screen Savers***.**

Games for the Graphically Challenged

You might have the impression that we at *The Screen Savers* are obsessed with finding the latest and greatest in graphical gaming. But that's not entirely true. Granted, we drool over those breathtaking visuals as much as the next geek, but there are plenty of games out there for those who haven't invested in the latest 3D graphics card.

Here are a few of our favorite old-school games. They're all free and fiendishly addictive, and they can all be enjoyed on any computer, no matter how small the screen or how slow the system:

- **Super Collapse (http://games.yahoo.com).**
  This innocuous little game from Yahoo! comes in the form of a 1.2MB download. The goal is to eliminate the blocks entirely, or to prevent them from stacking to the top before your time runs out. Try it, and you'll discover what every member of *The Screen Savers* team has learned the hard way. We're starting a 12-step group in an attempt to break this horrible addiction, but no one can make it to the meetings: They're too busy playing.
- **The Land of ZZT (www.autofish.net).**
  Published in 1991, ZZT is a freeware computer game designed by Tim Sweeney with a built-in editor, allowing any user to create new games. Don't let the grainy graphics fool you! You can spend many, many hours in these custom worlds, and you don't need a souped-up system to enjoy them.
- **The Hitchhiker's Guide to the Galaxy (www.the-underdogs.org).**
  For my money, text-based games don't get any better than this classic by Infocom. It's based on the infamous five-book "trilogy" by Douglas Adams. I grew up playing this game, and the Solid Gold edition released in 1987 manages to improve the experience without interfering with the original. (Another Infocom favorite is the popular Zork, also at Home of the Underdogs.)
- **Doom (www.idsoftware.com).**
  This obscenely popular action game offers a fast, simple 3D graphics experience on virtually any system. So load up your shotgun and get ready to shoot some demons! It's free to try.
- **Bejeweled (www.popcap.com).**
  Last, but certainly not least, Bejeweled is easily one of the most popular free games on the Internet. The 1.6MB download packs quite a punch and earned the title of "Most Popular Game of 2001" from the MS Gaming Zone. If you aren't already hooked on this one, you will be.

Site of the Day

Map of Middle-Earth
As this *Lord of the Rings* fansite so eloquently puts it, "There is no limit to what a bored nerd can do!" Enjoy the product of one man's freakish obsession (**www.taylorcustom.com/localinks/mearth/mearthmap.html**).

Laporte Support

Speed Up a Celeron-Based System for Gaming
Download the Belarc Advisor (**www.belarc.com**) to find out what CPU and video card you have. You need this information to determine what you can upgrade. With a Celeron-based system, you don't want to get the latest and fastest video cards. Your CPU can't keep up with the processing of GeForce4-type cards. You can probably upgrade to a GeForce2-level card.

You have to open the case to see if you have an AGP slot. If not, you need to get a PCI video card. To get AGP and to be able to use GeForce4-level cards, you'll have to upgrade your motherboard and processor. You'll also need to have at least a 1GHz CPU to take advantage of the GeForce4.

Download of the Day

Alley Cat
Ah, the good old days, when the best sounds you could muster from your PC were blips and bleeps from your internal speaker and 256 colors seemed a dreamlike impossibility.

Now you can relive those simpler, halcyon days with Alley Cat (**www.dosgamesarchive.com**), a classic (and free!) DOS game written by Bill Williams in 1984.

The object of the game is to leap around the alley of an apartment building, collecting mice and other feline delicacies while avoiding dogs and other perils of street life.