From the TechnoManor

Ok, it's time for me to nag. Do you backup your computer files?

Ahhh, I see that sheepish look on your face! Nope, I don't want to hear the stories. Like I said, I'm here to nag.

> **Side Note:** Only my wife can answer this question with, "Dave takes care of that."

So, let's talk about backups today. I use the word *backup* to mean the act of copying your computer files onto something outside of your computer.

I'll talk about backups by answering some hypothetical questions. Let's get going!

Why should you do backups?

The reason for doing this is to protect your valuable work in the event you accidentally delete it from your computer, lose your computer, or the computer fails (taking your files with it).

Oh, you say those files aren't so valuable? You may be right. Let's conduct a little test.

Turn off your computer.

Now, leave it off for a day. (UhUh, don't touch it.) Leave it off for two days. (I said, don't touch it.) Leave it off for a week. (Go about your life.)

Were you able to leave it turned off for the week? Did you need that certain email address only on your computer? That certain recipe? How about a photo of your kids on vacation last summer?

If you were able to leave the computer turned off for a week (or longer), then maybe you really don't have to worry about backups…and you can skip to the next article! But if you're like most people, there was something you really needed that is only stored on your computer.

That is a valuable file. And once it's gone…

What should you backup?

I used to think I should backup every file on my computer. Given the complexity of today's computers, though, that's no longer practical. So, here's my advice:

- Backup all the data files that you have created on your computer. These are your photos, music, documents, financial records, contact information, email, and so on. Basically, make a copy of a file if it exists nowhere else.

- Don't worry about the operating system or program files. You should have CDs or DVDs with the original versions on them.

- Backup installation or setup files for software you downloaded from the Internet. While you may have CDs or DVDs for software you purchased at a store or with your computer, the programs you downloaded from the Internet tend to be forgotten. That can be painful if you must recover a defective hard drive.

  You say you've forgotten where all those installation files are? Well, start a new habit, today, by saving those files in a special folder like **My Downloads** under the **My Documents** folder (or something like it).

How often?
The answer to this question is, "daily."

Why? It's good to get in the habit of backing up your data often. If you do it daily, then you don't have to guess "when was the last time I backed up my data," if you have to retrieve a lost file.

What if you turn on your computer only once a week to check your email? Well, "daily" for you means "whenever you turn on your computer."

What tools can you use?
This is where people's eyes tend to glaze over.

You need two kinds of tools: the external media to receive the computer files, and a program to copy files to that media.

I suggest one of the following media to receive the computer files:

- A USB flash drive (see my 4/9/2009 article): If you're copying a small number of files (or small files), a USB flash drive should suffice. Make sure it's large enough: like 1 to 4 GB in size. You may want to use a few of them, like one for each day of the week.

- An external USB hard drive: These range in physical size from a pack of playing cards to a hard-bound book. They plug into a USB port on your computer and can easily be toted between computers (and safe deposit boxes). They hold hundreds of Gigabytes (GB). I recently purchased a 160 GB portable external USB hard drive for $70.00. Use one of these if you have a lot of photos and music and a simple USB flash drive ("a stick") is too small.

- DVDs: These can be used in desperation. A DVD can hold only about 4 GB, and cannot be erased (or not easily). You can buy a 4 GB USB flash drive for about $15, and use it repeatedly.

Don't even think of using a floppy! They're too small, you need too many, they become flakey over time, and most computers don't have floppy drives. They don't even make good coasters, either.

Following are my suggestions about programs to copy files to the external media:

- For computers running Windows Vista or Windows 7, you can use the built-in Backup and Restore program. For the MacOS, you can use the built-in Time Machine.

- If you're using Windows XP (or don't like your computer's built-in software), your choices vary. Most CD/DVD burner software include backup programs. For example, I have the Nero Ultra Edition software suite, which includes a program called Nero BackItUp. If you have CD/DVD burner software on your computer, explore it to see if there is some backup software squirreled away in a corner.

- Many computer security suites include backup programs. Norton 360 is one example. Start that security software and explore the menu choices or online help to learn if yours includes a backup program.

- Visit Wikipedia (**en.wikipedia.org/wiki/Main_Page**) and type **list of backup software** into the Search box. A page is displayed listing many choices for backup programs.

Following are some useful characteristics about backup programs:

- It should run automatically, when you are away from the computer. Manually backing up files becomes painful very quickly.

- It should tell you what files it copied, what files it could not copy (this is important), and the overall results of the backup process. You want to check this information periodically to make sure the backup program is doing what you asked it to. For the files it could not copy, you must discover why (typically, you left a program running…like Outlook) and remedy the situation.

- It should be able to show you what files are contained on the external media, or you should be able to examine that external media to assure the copied files are there.

- It should be able to (relatively easily) restore files from the external media to your computer. You want to test this from time to time, making sure the process works before a critical moment occurs.

And if all else fails, you could always insert a sufficiently large USB flash drive into your computer and use Windows Explorer (PC) or Finder (Mac) to manually copy your files to the USB drive. While this is simple, it is slow and not automatic.

What does Dave use? ...and other exotic stuff.

Ok, I'm a stickler about backups. I'm also somewhat of an experimenter. Here is what I use and my backup policies.

We have six computers on our home network. Five of them run Microsoft's Windows Live OneCare software. OneCare is a combination security, firewall, and backup software. It's a respectable product. Unfortunately, Microsoft will discontinue it this summer.

Every day, OneCare wakes up in the early morning hours on each computer and copies all files that changed in the last day. It copies these files to something called a *Network Attached Storage* (or *NAS*).

A NAS is a special, dedicated computer, about the size of a toaster (in fact it is named TOASTER1 on our network). It's sole purpose is to provide disk storage to all computers on our network. Our NAS has two 320 GB hard drives inside (they kinda look like slices of toast). Both drives contain the exact same files (they are *redundant*). If one of the hard drives should fail, the other one has a copy of our files. The idea is to lose nothing. If you're wondering, our NAS cost about $500.00 in 2007. This is not for everybody, but might be the next step if you fill up a portable external USB hard drive!

So, OneCare performs a backup every night on five of our computers to the NAS. If I need to restore a file, I run OneCare to copy from the NAS back to the computer. If we had to evacuate our house, I would grab the NAS (after the greyhounds, of course) on the way out the door.

Last summer, the hard drive in my wife's desktop computer failed. I replaced the hard drive, reinstalled Windows and all her programs, then used OneCare to copy all her personal data files from the NAS back to her computer. She was able to immediately read her old email and use Quicken to check her finances.

On my netbook, our sixth computer, I manually run a program called Drive Snapshot once a week. This makes a copy of the entire hard drive to our NAS. If my netbook should fail or be lost, I can use Drive Snapshot to recover the entire hard drive or any replacement. This is also somewhat experimental.

In addition, I use a program on both my netbook and my desktop computer called Windows Live Sync. This program keeps folders on one computer synchronized on the other computer by copying changed files back and forth as the files change. It's like a backup in real time. I keep all my client files and technical files synchronized between

the two computers. So, if my netbook should be stolen or I sit on it, a copy of the important data was already saved to my desktop.

I hope my nagging helps save you some mental anguish should your computer crash. Consider this article a compliment to my 07/18/2008 article on hard drive crashes. Protect yourself now before you hear that sickening clicking noise emanating from your computer.

Every time I peek into my Inbox, there's nothing inside. I'm starting to get depressed. So, spare me from email withdrawal by sending your technical questions to:

frenchygrey@gmail.com

I'll answer one each week in *The Link*.

Dave Gillen