What you should know about hard drive maintenance

I've had a lot of calls about hard drives this summer, which makes me think it's time for another lecture on hard drive care and back ups.

This is a subject I'm very passionate about. Some of the worst calls I've ever received involve people who have lost their entire hard drive – and don't have a back up.

I hear what you're thinking. "There's no budget for extra equipment this month, Wilma, what with the price of gas and electricity." Point well taken so before I talk about solutions that cost money, let's look at some of the things you can do to protect yourself that don't cost anything.

Good hard drive maintenance habits can save you money by extending the life of your drive. If you own Norton Disk Doctor and are running OS9 or older machines, every few months run both Disk Doctor and Speed Disk to defrag the drive.

For Windows machines, use Disk Clean Up and Disk Defragmenter programs to keep your hard drive clean. These utilities can be found under **all programs> accessories> system tools**.

For Mac machines running OSX, use the Disk Utility every few months to repair disk permissions. Disk Utility is located under the **hard drive> applications> utilities> disk utility**. Since OSX defrags the computer as it works, you don't need to run a defrag program. You can use Disk Warrior or Tech Tool Pro on the newer OSX machines, but if you don't have anything else, Apple's disk utilities seem to work well.

You also need to keep at least 10 percent of your hard drive space free at all times. Your computer uses the hard drive in the background the entire time you're running your software. When it gets too full it can't work at its best, and may stop working entirely.

It's easy to tell if your drive is getting too full. If you're running OS9 or earlier, just open the hard drive icon on your desktop and the top of the window will tell you the amount of available space. You can also click once on the hard drive icon and go to **file> get info**.

On OSX machines, double click the drive icon. The amount of hard drive space appears at the bottom of the window. For Windows machines, double click the "My Computer" button, then right click on the C Drive and go to Properties to view the available disk space.

If you're running out of space and your machine has a CD burner, back up non-essential items. No CD burner? Transfer some of those files to another computer in your network. Those full, too? It's time to throw some of that junk away. By the way, that junk won't be erased from the drive until you empty your trash. After you free up some space, run your disk utilities on the hard drive.

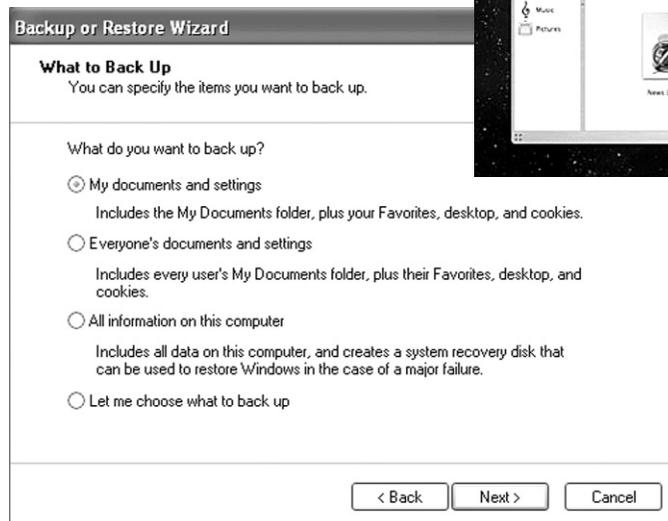I realize that this takes time, but if it saves your hard drive from crashing on deadline, it's

computernotes
from the road

by WILMA MELOT

worth every second, minute or hour you've spent on maintenance.

All this hard drive maintenance talk makes me think of another sermon I should be preaching – backing up your paper as you work on deadline.

Lately I've seen some clever way to make back ups of your paper while it's in progress. The people who figured this out learned the hard way.

One method is to use a jump drive plugged into your computer's USB port. About every hour do a "save as"

to the jump drive and then do a "save as" back to your hard drive. You do not want to work off the jump drive but it's a great little backup tool.

If "save as" isn't your style, save the file you're working on, then close it and drag it from your desktop to the jump drive, replacing the earlier version. Then, restart the file from your desktop.

This same method works on external hard drives or servers. The jump drive is a good option since you can take it home with you. This gives you some insurance if, God forbid, your office burns down, which could happen with the state as dry as it is. If something did happen, you would have your jump drive with the most current version of your paper. Donald Cooper at the Carnegie Herald and Leon Hobbs at the Mountain View News were the first people I saw using this idea.

Most of you have heard me say this by now but since I'm preaching, let's say it again. Do not build your entire newspaper in one document, unless you're willing to back up as

described above. The reason for this is that smaller documents are less likely to corrupt.

Another tip is to use "save as" often to keep your file size down. Even InDesign with its amazing "auto save" can't recover some corrupt documents.

Apple is building a new feature into its next system software release called Time Machine.

With Mac OSX Leopard and Time Machine, not only can you back up everything on your Mac, you can even go back in time to recover anything you've ever backed up.

You simply attach an external drive to any Mac running OSX Leopard, set up the drive and Time Machine takes care of the rest.

Right from the start, Time Machine makes a complete backup of all files on your system. As you make changes, Time Machine only backs up what changes, all the while maintaining a comprehensive layout of your

system. That way, Time Machine minimizes the space required on your backup device. Since backups are stored on your device by date, you can browse through your entire system as it appeared on any date. And that's what makes Time Machine different from any backup application you've ever tried.

Windows has a feature similar to this, but, like other backup utilities, it has to be told what and when to back up. The Windows utility is located at all **programs> accessories> system tools> backup**. For your back up to be effective, you're going to need an external hard drive.

Hopefully, all of you are running some type of daily back up on your servers. A program like Retrospect will pay for itself when it saves you from just one hard drive crash.

Lacie makes an external hard drive capable of backing up most systems for under $200. You also might consider the Mac mini stackable drives for backup Minis provide extra USB and firewire ports for almost the same money.

There are even mini USB drives small enough to fit in your pocket with up to 40GB of storage space available. That's bigger than some the hard drive of some older computers.

Kanguru makes one for $229.95. Although you're paying for convenience, it's a great way to take your work home.

plugged IN

The smallest disk drives

The first time I saw someone use a compact flash card to move files from one machine to another, I knew that these little disk drives were the next floppy drives.

Then came the USB flash drives. It's now the geek kids' necklace of choice and everyone seems to have one.

The coolest one is Apple's iPod 512MB Shuffle, which retails for $69. Not only will it play songs in your car, you can also use it to back up your newspaper.

If you're buying a flash drive as a back up device, take a look at better known brands, since they seem to last longer. SanDisk, the maker of compact flash cards, also makes a 1GB flash drive in a titanium case that retails for $69.95.

Another model to consider is the Petito Flash Drive, which is only 1.65 inches long – just twice the size of the USB port. The 512MB model retails for $60 and is rated as one of the fastest of the flash drives.

Since the USB port must be protected when you're carrying it around, look for models that come with a lid or some other clever way of covering the port.

When using a flash drive, always eject the drive from the desktop before pulling it out of the port. Some finders may fail to recognize the drive the next time you plug it in if you just pull it out. To eject the drive on a Windows machine, right click and select eject. On Macs, pull the drive to the trash or control click and select eject. This is also good advice for ejecting camera cards.

Security updates

Computer viruses continue to become more virulent so it's a good idea to keep your software updated. Macs running OSX as well as Windows users should be downloading all security updates.

Mac users have always felt more secure but they should still be downloading updates. To check for updates, look under the **Apple> Software Update**.

Although you don't have to download every update, keep an eye out for any security updates, which are geared to stop hackers from getting into your computer.

You may see a security update titled "combined update," which means exactly what it says. It will also have a version number. A combined update may take some time to download and you will need to restart your machine when it finishes, although you can continue working while it's downloading.

I've yet to see an OSX Mac with a virus and I don't want to, but it could happen. Never say never.