

Strategies for Backing Up your Computer so Documents and Photos Don't Get Lost in a Disaster

Prepared by Rich McCue - rmccue@law.uvic.ca - <http://law.uvic.ca/rmccue>

Here are some reasons (or potential disasters) for backing up your data:

- Accidental file deletion
- Hard-drive crashing
- Computer Theft
- Viruses / Worms
- House Fire
- Natural Disaster (earthquake, tsunami, etc.)

Before we look at different ways to back up your data, there are three important principles to always keep in mind:

1. Having more than one backup strategy is always better than having only one.
2. At least one of your backups should be kept "off site". No good to have a backup sitting beside your computer when your house burns down, or if your computer gets stolen (off site could be at your work, a relatives home or a safety deposit box).
3. There is no "best" backup strategy. The best solution for one person will not necessarily be the best solution for another person.
4. Determine how much space you need for your backup. To see how much data is in your "My Documents" folder, right mouse click on "My Documents" and then click on "Properties". The dialog box will then tell you how much data is in the directory.

DVD or CD Burner

Burning your data to a CD or DVD is one of the easier ways to make a quick backup of your data. A DVD can hold up to 4.7GB of data. To put this into perspective, 4.7GB roughly equals 2,100 high resolution digital images, or 5,000 copies of the King James Bible. A DVD burner with backup software (like "Ahead Nero") costs about \$70. Make sure you ask the sales person if some form of backup software comes with the DVD burner. If you have a newer computer it probably came with a DVD burner. The blank DVD's you'll use to backup your data, cost about 50 cents each. To backup your data, you will need to remember to put a blank DVD in the drive, and start the backup software. Lastly, you need to store the most recent copy of your backup DVD at a different location to protect your data against fire or natural disaster. It would be no good to have all your backups in your home when a fire destroys your home, as the fire will destroy your backups along with your computer. I store my backup DVD's at my office at work.

Cost:	Off Site Capable:	Capacity:	Ease of Use:	Reliability:
Low	Fair	Fair (4.7gb)	Poor	Fair

Flash Drives (or iPod Devices)

Storage capacities for flash drives (and iPods) continue to increase all the time. While they may not have enough capacity to store a lot of digital pictures, they are big enough to store word documents, spread sheets and other files. On the down side, no flash drives that I've purchased has come with automatic backup software. On the positive side, these devices are

fairly inexpensive for small ones (\$30 for 0.3GB), and a reasonably priced for larger devices (\$120 for 2gb). Because of their small form factor, they are easy to move to your off site storage location. Like the External Hard Drive, to be a truly reliable backup system you would want to have at least two devices, so that one could be off site at all times. If that is not possible, you would want to use this backup strategy in conjunction with another strategy.

Cost:	Off Site Capable:	Capacity:	Ease of Use:	Reliability:
Med	Fair	Poor (2gb)	Poor	Excellent

External Hard Drive

The software that comes with external hard drives for backing up your computer make this an extremely easy way to backup your data. The amount of data you can backup is truly massive, limited only by the size of your external hard drive, which are as large as 500GB now (or 600,000 King James Bibles). The backups can be scheduled in the software to happen on a regular basis, so that you don't have to even think about it. An example of an external backup device is "Maxtor One Touch Backup 200GB" that can be purchased for about \$170. No need to buy DVD's for your backing up. Ideally you would have two backup hard drives, and one would be kept off site at all times. If you do not buy two backup hard drives, I would recommend that you use this backup strategy in conjunction with another strategy that will put some of your backups physically distant from your computer.

Cost:	Off Site Capable:	Capacity:	Ease of Use:	Reliability:
High	Poor	Excellent (500gb)	Excellent	Excellent

On-line

High speed Internet has made on-line storage of your files possible. As you will be using the services of another company to store your data, you need to think about the reliability of the company that you will be using. The cost of on-line backup services varies widely. For example, Xdrive.com (an AOL company) offers a free 5GB service, and you can pay \$10 per month for 50GB of backup space. As an on-line service, it is inherently off site. If you're whole city is destroyed, your data is safe. Google is close to offering an on-line backup service (code named "platypus"), which will either be a free service, or very competitively priced one. Backups can be scheduled to take place automatically, so that users do not need to even think about it. If you have high speed internet, on-line backup should be seriously considered as part of your backup strategy!

Iron Mountain - <http://onlinebackup.connected.com>

Xdrive - <http://www.xdrive.com>

Ibackup - <http://www.ibackup.com>

Cost:	Off Site Capable:	Capacity:	Ease of Use:	Reliability:
Med	Excellent	Excellent (5gb+)	Excellent	Excellent