

Computer Backups – Where to Start?

What to back up on your computer and how to do it

We store lots on our computers - priceless family photos, music, emails, work files, financial documents. A hard drive failure could be catastrophic.

Hard drives fail – they are fragile mechanical devices. Think of it not as a question of if, but when yours will fail. Solid state drives are more robust but are also vulnerable to damage.

Regular computer backups protect against

- Accidental deletion of part of the text of a document file
- Accidental deletion of the entire file
- Corruption of a file
- Can't remember password to access file or folder
- Hard drive failure
- Dropping the computer
- Theft of the computer
- Power surge damage
- Fire or flooding
- Tree falls on house
- Asteroid hits your town

A backup is a second copy of your digital file in another place. It can be another place on the same hard drive or another place in the world. Further away is better. Having a backup means that there are at least two copies of your files – one on your computer and one on the backup device.

If you are protecting against file deletion and/or corruption you need to plan ahead (and this is the weak part of this plan). Copy the file (drag and drop) to another folder, a thumbdrive, a hard drive, a CD; you can send to yourself as an email attachment if your mail stays on the email server; you can even print it out.

The best plan is not replace the copy stored on the backup location; if you save ongoing versions you can “backup” the changes you have made.

You can backup entire directories (folders) of files this way but it gets cumbersome really fast.

You can make a clone of your entire drive to back it up. Ghost is a Windows cloning tool and Carbon Copy Cloner and SuperDuper are Mac cloners. This usually makes an exact copy of the drive. You may be able to use this drive to boot a computer.

Automated backups are better than having to remember every time to run a backup. If your backups are automatic you'll have a backup when you need it.

Automatic backups to hard drive are available in both Windows and Mac operating systems. You specify the location for the backup, what needs to be backed up, and in some cases, how often it should be backed up.

In Windows 7 this is "Backup and Restore". On a Mac this is TimeMachine. You still need to remember to have your external hard drive connected, but otherwise the computer remembers to do the backups for you. The pro versions of Windows 7 allow you to back up to a network drive; you can even get a device called a Time Capsule for Mac that will back up your computer (or laptop) wirelessly.

Online backup services connect over the internet and keep a backup of your computer "in the cloud". Your files stay on their servers, and in the case of a problem you can download your files from their servers. Mozey, Carbonite, and BackBlaze are well-known online backup services, and they are all slightly different.

To successfully use an online backup services you need to have a fast internet connection. Almost all internet connections are much slower in the upload direction, so it can take weeks to get the first backup of your computer completed. One service states that their backup speeds will be about 3 gB per day; a 300gB drive will take 3 months to be fully backed up. Some services will send you a hard drive of your files if you need to restore them; some only let you download them again.

DropBox is a service that gives you 2 gB of free storage space on their servers, that you can access easily from your desktop. This is a good option for backing up a few files, and also allows you to access those files from other computers and from the web.

Remember:

- No backup system works if you don't use it
- Consider an automatic backup configuration
- Consider backing up offsite
- The best systems do incremental backups rather than a full backup every time
- If backup system can save multiple versions, all the better

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