

How to Backup Files

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The goal with backing up data is to eliminate the risk of losing that data in the event that a hard drive or memory card fails, the machine gets a virus, the machine is stolen, or that a mistake is made.

It makes sense to store the first copy of the data (the “original”) on the hard drive in the computer we use for editing purposes – edits are much faster this way. The backup copy of the data is, by definition, another copy of the file, stored in a location that is different than the location of the original.

Reducing Risk before the Backup

Until the files have been transferred to your hard drive, they only exist in one location – the memory cards. If anything happens to the data on the memory cards, or to the cards themselves, it may not be possible to recover the data stored on the cards. Here are some tips to reduce your risks:

- **Be very, very careful when inserting CompactFlash cards.** It’s easy to misalign the card and bend pins in the camera or card reader. It costs several hundred dollars to repair a camera, and it’s also possible to destroy CF cards and all the data they contain this way.
- Work with multiple cards. It’s possible to get 8GB cards for \$4.99, so get several. Every time you switch scenes, swap cards. Then if one card fails, not all the images from that job are lost.
- **If a file is accidentally deleted from a memory card before it’s been backed up, stop using it immediately!** Deleted files can be recovered, but overwritten files cannot.
- Don’t reuse memory cards until you’re absolutely sure that the files have been stored in two additional locations!

Where to Backup

There are many possible locations to store backups. Here are several:

Optical Drives

These are cheap, but eventually they'll consume a significant amount of space, and writable optical media isn't reliable over a long period of time.

Hard Drives

Warning! Hard drives are only reliable if they're kept cool while running, and if they're unplugged and disconnected when they're not in use.

Warning! Rotational hard drives in laptops are particularly vulnerable to failure. Under no circumstances should your backup copy (or your only copy) be stored on a laptop hard drive! Solid State Drives are a much better choice for laptops.

If you have over 25GB of data to store, hard drives are cost-effective method. For this reasons, it makes sense to use external hard drives. It's easy to store them in a safety deposit box or fire safe, and quickly connect when they are needed. Hard drives depend on the user manually backing up files periodically.

Online Storage

There are hundreds of online storage services who offer free or cheap online data storage. Important features in online storage are the amount of storage space they offer, the technology they use to protect your data, and the ease of accessing your data. I recommend Google Drive. They offer 5GB of space for free, which can be upgraded to 25GB for \$2.49/month. The great thing about Google Drive is that it includes a client that syncs your data to and from your PC, Mac, iPhone, iPad, Android. This means you can quickly access the data for editing purposes, and the client syncs the changes in the background. It also means the data is available from any computer you use. The backups happen in the background without the user having to take action.

Setting Up Google Drive

- 1) If you're not already a Google customer, go to <http://gmail.com> and sign up.
- 2) Browse to <http://google.com/drive> . Download the client and install it on your computer.
- 3) Configure the software to sync files to a location on the hard drive.
- 4) Sign into the Google Drive software using your Gmail account.
- 5) Create a shortcut on your desktop to the Google Sync folder to make it easier to locate.
- 6) Repeat for other computers you wish to use to access this data.

Backing Up Your Data

Note: To prevent data loss, it's necessary to backup both negatives and edited versions of files.

- 1) Copy the files you wish to backup to the Google Drive folder on your local machine.
- 2) The Google Drive client software will begin backing up your files to your online storage space in the background. No other steps are needed.

Verify the Backup

Only after the backup has been verified is it safe to reuse the memory cards. Go to the location of the backup (the backup CD, second hard drive, or Google Drive) and view the files.

Accessing Your Data from Anywhere

It isn't necessary to install the client to access your data. Just use a web browser to browse to the location <http://www.google.com/drive> . You can view, download, upload, and edit from any computer connected to the Internet!