

Flash drives

Flash drives are handy solid state (no moving parts) personal devices that provide wide storage capacity. They are also known as thumb drives, key drives, jump drives, memory card drives (camera cards) and pen drives. These drives are connected to the USB (Universal Serial Bus) ports before use. Flash drives offer storage capacity ranging from 32 MB to 16 GB. **Here's how to use a flash drive to store data.**

Storing Files on a PC to a flash drive

1. Determine the exact amount of data storage needed. You can find this by hovering over the folder or files and viewing the box that appears. This will help you determine the size of flash drive you need
2. Note that a majority of flash drives are plug-n-play on the latest PC operating systems. Plug the flash drive in the USB port of your CPU. Wait until the system detects the drive
3. Go to My Computer. Locate the flash drive icon and click on it. Doing so will show the contents of the drive. Alternately, create a desktop shortcut to the flash drive by right clicking the flash drive icon in My Computer and selecting Create Shortcut.
4. Open the location of the files/folders you wish to transfer to the flash drive. Copy or drag the files you wish to store on the flash drive, its icon in My Computer or the desktop shortcut.
5. Look for the plus sign (+) on the flash drive icon if you are transferring files without opening the drive or its folders. Release the mouse as soon as the plus sign (+) appears. This signifies that the data is now copied to your flash drive.
6. Verify that the data/file is stored by double-clicking the file name in the flash drive explorer window.
7. Ensure that you do not immediately disconnect the drive from the machine after you have finished storing the files, as it may corrupt the data.
8. Go to the Safely Remove Hardware icon situated in the Windows notification tray. Click Remove the Hardware Safely option when finished.
9. Wait until the It is now safe to remove the hardware message appears. Alternately, wait until you have closed down the computer before removing the flash drive.
10. Unplug the flash drive from the USB port, as the files/folders have been properly stored.

Tips, Comments & Warnings

* Create a new folder in your flash drive and give it a name, such as "Stored Files" or "Backups." This will prevent the files from being edited without notice

* When in use, the flash drive shows a coloured light. Before unplugging, make sure the light is off

* Use a USB extension cable to plug in the flash drive if you are unable to easily access the USB port on the computer

* You may get comment when plugging in your flash drive that the drive will perform better if plugged in to a USB 2.0 port. This means you have a high speed USB 2.0 drive but only a USB 1.1 drive. Only relatively new computers have a USB 2.0 connection

* A 1 GB flash drive holds just over 700 floppies or 1.5 CDs

* Virus check your flash drive (if you have an anti-virus programme) by right clicking the flash drive and selecting the Scan icon related to your antivirus programme. You should do this on insertion of the flash drive and again before removing

* You can name your flash drive by right clicking on the drive icon and selecting Rename.

This is useful where you lose or leave your drive in someone else's machine

* Leave a text file with your contact details on the flash drive. Start the file name with ! e.g. !owner details.txt as this can allow return of a lost drive

* You can transfer a file to your flash drive by right clicking the file and selecting Send To: and selecting the flash drive as the destination

* A freeware security programme Cryptainer LE can be downloaded from cypherix.com/downloads.htm (the file is on this CD). It allows you to password protect file and folders on your flash drive

* Flash drives are compatible between a PC and a Mac computer

* If your USB connection is hard to reach purchase a USB extension cable.

* A brightly coloured neck strap connected to your flash drive helps you to recognise the drive and minimises the chance of leaving it behind. Some people have their flash drive on their key ring this helps you to remember where you left your drive when you find you have **left your car keys plugged into someone else's computer!**

* Caps on flash drives are easily lost. Paint a drop of e.g. bright coloured nail varnish on the cap. Also you can drill a small hole in the cap and connect to the drive with a fine cord. Better still but a swivel drive

* Flash drives prices are roughly \$10 per GB (four years ago they could be \$200 per 256 MB). Check prices at www.pricespys.co.nz for the best deal

· If you are a traveller which is the most vital and important toy to take with you. Your laptop? DVD cam? Digital Camera? Smart Phone? It is actually your flash drive. You can carry an inexpensive password encrypted flash drive with you at all times. When you travel, your flash drive can contain scanned images of your passport, drivers license, medical insurance card, travellers cheques, credit cards (both sides), and of course flight and lodging information. When you check in somewhere, your flash drive can be hidden in your

belongings or locked in a safe upon arrival. It is your ultimate backup for everything. The information that it contains is absolutely priceless when you most need it. You can also store some photos and video from home, just in case something happens when away. You then have a current inventory of belongings. You will appreciate this if you ever have to deal with an insurance company. Another handy feature is a current list of phone numbers. This may sound a bit too simple but if you own a cell phone as most people do, most people program numbers in and never actually dial them anymore. If your phone was lost or stolen, how many numbers do you remember? These are just a few things that you may want to think about for using your flash drive

· Your flash drive is useful for storing you wab (Windows Address Book) file

· **Many programmes are now described as 'portable applications.'** These are usually 'cut down' versions of standard programmes. Many of them do not load into your machines registry. They cover a wide range of applications that can be transferred from your flash drive to any PC on which you want to work. A large collection is at <http://www.portablefreeware.com/all.php> and includes user comments.

Repair flash drive

- Right click (My) Computer
- Click Manage
- Click Storage/Disk Management
- Select your flash drive (make sure you get the right drive!)
- Right click and select Format

Note on Camera Cards

Courtesy of makeuseof.com

Over the past ten years of the digital photography revolution, digital camera memory cards have become increasingly more affordable and larger. They are the film of digital photography, but thankfully a lot less expensive.

So what is the least you should know about digital camera memory cards? Here are my recommendations.

1. Types of Cards

There are three broad and popular types of memory cards for digital cameras: CompactFlash (CS), Secure Digital (SD), and SmartMedia (SM). There are other variations of these cards, but the important thing to know, of course, is which type of card your digital camera uses.

For consumer cameras, only one type of card can be used, while a few of the top of the line professional DSLR cameras might allow for using both Compact and SM cards at the same

time. It's probably best to stick to reputable memory card makers, which include Sandisk, Fuji, Lexa, Delkin, Viking, and Kingston.



2. Memory Capacity

Since most digital cameras on the market today start at 8 megapixels and higher, I recommend that your memory cards be at least 2 gigabytes or larger. A 2 gig SD card, for example, on my 12 megapixel Canon Powershot G9 can hold about 380 large JPEG size photos, but if I choose to shoot RAW format photos, that 2 gig card can only hold about 117 photos. If you on plan on shooting RAW photos with a 8+ megapixel camera, definitely use 4-8GB memory cards. The 256MB card that might have come with your new camera will not be large enough for most typical shoots.

| How many JPEG photos can you store? | | | | | |
|-------------------------------------|-------|--------|--------|--------|--------|
| Megapixel Camera | | 5 MP | 8 MP | 10 MP | 12 MP |
| JPEG File Size** | | 1.4 MB | 2 MB | 2.5 MB | 3 MB |
| Card Capacity | 2GB† | 1,200 | 800 | 600 | 500 |
| | 4GB† | 2,400 | 1,600 | 1,200 | 1,000 |
| | 8GB† | 4,800 | 3,200 | 2,400 | 2,000 |
| | 16GB† | 9,600 | 6,400 | 4,800 | 4,000 |
| | 32GB† | 19,200 | 12,800 | 9,600 | 8,000 |
| | 64GB† | 38,400 | 25,600 | 19,200 | 16,000 |

After you insert your memory card into your camera, take a photo and then check the data on the camera's LCD screen to see how many images your card can hold based on the shooting mode (JPEG, RAW, TIFF, or Movie) that you're shooting. Also check the file size of the photo to how large each file might be on average.

| HIGH DEFINITION RECORDING TIME* | | | | | | |
|--|-------|-------------|---------|-------------|-------------|-------------|
| MPEG-4 AVCHD/H.264, 1920 (1440) x 1080 | | | | | | |
| Recording Speed | | HD High | | | HD Standard | HD Extended |
| | | 24 Mbps | 17 Mbps | 13 Mbps | 9 Mbps | 6 Mbps |
| Card Capacity | 4GB† | 20 min | 30 min | 40 min | 1 hr | 1 hr 30 min |
| | 8GB† | 40 min | 1 hr | 1 hr 20 min | 2 hr | 3 hr |
| | 16GB† | 1 hr 20 min | 2 hr | 2 hr 40 min | 4 hr | 6 hr |
| | 32GB† | 2 hr 40 min | 4 hr | 5 hr 20 min | 8 hr | 12 hr |

3. Number of Shots

The type of shooting you do can impact how many images your memory card can hold. Your camera may tell you that the card can hold 380 images, but depending on the exposure settings and resolution sizes for each image taken, the file sizes can vary, though not significantly.

4. Keep a Backup

Always keep a spare backup digital camera memory card. If your camera included a rudimentary small size memory card, tuck that card away in your camera bag and keep it **solely as a backup**. **If you're using a 35mm camera with a nice size shoulder strap**, you can purchase a small card holder attachment for your backup card. Thus if for any reason you fill up your main card(s) or forget to put your memory card back into your camera, you have the backup card with at all times. When you use that backup card, immediately put it back where you carry it for future use.



5. Format Your Cards

You should always format your memory cards on your camera. Never erase them on your computer. Erasing a few photos at a time on your memory card is okay, but you frequently to reformat your card, especially after you have shot and exported a large number of photos to your computer.

6. Card Capacity

Avoid filling your card up to its capacity. If your card can hold 380 JPEG photos, you might want only shoot up to 350 images. Feeling a card to its capacity might cause the card to get corrupted.

7. Card Speed

If you're concerned about the speed of your digital card, you will want to check out its transfer rate. Cards can record images at rates of 4x, 10x, 40x, etc. Professional DSLR cameras need faster capture rates than compact cards. See [here for some information](#) about memory card speeds.

8. Single Card vs. Many

If you're shooting a wedding or important travel photos where you only have one opportunity to capture images, avoid using large 8-16GB cards to hold all your photos. Memory cards can and do fail. If you put all your eggs into one basket, so to speak, you might end up losing all your photos.

If you're in the field, it's a good idea to have a portable memory card reader and capture device that you can use to copy your cards to. Personally, I don't like deleting images from my memory cards until I have them backed up at least twice. And even then, I might not reformat/erase images on the cards until my next photo shoot.



9. Removing Cards

Of course you should never remove a card from a camera while it's writing images to it. It's best to turn off your camera and then pull out the card from its slot. With smaller SD cards, you also notice if there is outside damage being done to the card when it is inserted and removed from the camera.

10. Card Holder

If you have several cards for high level shooting, you should not only keep them secure in a memory card holder, but you should also label them with your name and phone number, **and even number them for when you're shooting important events in which you might need to frequently change cards.**

Though in the last eight or so years that I have been shooting with digital cameras, I have never personally had a card fail on me, but cards do get corrupted. But when that happens, try not to panic. MUO has run several articles on [image recovery software](#) that you should bookmark and be aware of.