

The 10 Most Frequently-Asked Questions About Digital Photography

Welcome to the world of digital photography. Now that you've got a camera, these answers will give you all the basic information you need to know before you click. This article covers the following topics:

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1. I saw an advertisement that said a 16MB memory card (like a Secure Digital or CompactFlash card) can store up to 110 images. So why doesn't mine store that many? And exactly how many images can be stored on a 16MB memory card anyway?

That advertising statement is misleading. You may be able to store up to 110 images if you use the camera in its lowest resolution mode. In high resolution, you might get only two dozen. We wish we could tell you for sure, but it depends on the exact size of the file created by a given camera, as well as the resolution that you select.

Keep in mind that CompactFlash and SmartMedia memory cards are competing products and are not interchangeable. You'll find a few cameras that can take both, but generally when you buy a digital camera today, you'll be making a commitment to working with one type of memory card.

2. In what format should I save my digital photos in order to store them?

The building blocks of your image warehouse are the actual file formats in which you save your images. There are two major formats: compressed and uncompressed.

- The advantage of uncompressed storage is that you can save a maximal amount of image-forming information.

Compressed file formats get rid of some information to shrink the file size (thereby increasing a disk's storage capacity).

We recommend saving all your work in progress images (equivalent to the negatives in film cameras) as TIF files. This way they will remain at maximal quality so you can create other versions for printing or e-mailing, and can save them in smaller, compressed files like JPGs. The advantage is that you'll always be able to recreate an effect or enhancement by starting with the original TIF file without losing image integrity.

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3. In what format should I save my digital photos in order to e-mail them or post them to the Web?

JPG storage is ideal for posting your photos to the Internet, for e-mailing them to friends, or for archiving when you're finished working on them and need to save storage space. The compressed images still look good onscreen and contain a relatively large amount of information in the shrunken file.

JPG storage is great for maximizing space but not for maintaining image quality. If you want to get smaller files for archiving, use minimal JPG compression (high quality/low compression). The ideal compression is lossless, which means there's no discernible drop in image quality even though the file size has decreased.

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4. What's the difference between optical and digital zoom?

It's important to understand this difference, as you could be disappointed with the results if you get one rather than the other. Optical zoom works like the zoom on a traditional film camera. When you push the button to zoom in or out, physical lens elements move inside the camera, reducing the field of view and making the object you're shooting appear closer. Digital zoom, on the other hand, has no moving parts. The camera interpolates a small portion of an image to artificially restore the file to its original size. Using its electronic brain, the digital camera analyzes what it sees and digitally zooms in, usually two or three times closer.

Unfortunately, digital zoom also reduces the resolution of an image, so your picture will tend to be more pixilated than the same image taken with an optical zoom camera. If you're just snapping an image to e-mail to a friend, this loss of resolution won't be so noticeable. But in situations where the highest quality counts, skip the digital zoom and use your PC's cropping tools to zero in on your subject.

5. My camera didn't come with an AC adapter. Do I need to buy one?

You will definitely want an AC adapter for your camera. You won't want to be tethered to an electrical cord while taking pictures, but when it comes time to edit the pictures stored on your memory cards or to download your photos onto a computer, you'll find the job much easier if you're running the camera via an AC adapter. Without the continuous power of an adapter, you'll burn through your batteries.

6. What precautions should I take to care for and protect my camera?

Use these camera care tips:

- Store everything together in a case for easy transport. Use a good padded case and strap. Not only do cases protect the camera, they often have built-in pockets for batteries and memory cards.
- Use lens caps to protect lenses when you're not using your camera. No exceptions.
- Clean your camera and lenses often with a soft cloth. The autofocus, exposure, and viewfinder windows need to be clean for correct operation.

Your camera likes the weather to be not too hot and not too cold. Weatherproof your camera with these ideas:

- Let your camera kick back under a light-colored towel when you're under the hot sun.
 - Keep your camera warm under your coat when it's chilly outside.
 - Bad weather and stormy seas can make for inspiring photographs.
 - But if you don't take precautions, you'll have a wet digital camera with sand in every crevice. To protect your camera from water, cover it with a plastic bag. Just make a hole for the lens to poke out from, and secure it with a rubber band. Voila: a little rain jacket!
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7. What's the best battery to use in my digital camera? Is it OK to use

regular alkaline batteries?

Popular alkaline batteries are inexpensive and can be found anywhere, but their power is consumed at a rapid rate. If you're using all of your camera's features, you can deplete a set of alkaline batteries in about 30 minutes! So you should consider spending a little more up front for a battery charger and some rechargeable batteries. Many cameras work with popular, rechargeable NiMH batteries. NiMH batteries are inexpensive and environmentally friendly, and they give you more pictures per charge than any other battery type, except for lithium ion batteries. Pretty impressive.

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8. My PC currently has 128MB of RAM. When working with large photo files in Photoshop and other applications, it's still slow. Will adding another 128MB of RAM help me handle larger picture files?

If you're working with photo files, there's probably no piece of hardware that will speed up the process like lots of RAM. Anything beyond 128MB will dramatically streamline your workflow. Image-processing programs like Photoshop in particular need much RAM to work efficiently with large files. But the slow speed may be due to another culprit: fragmented hard drive files. If you have problems with speed when opening or closing a file, perhaps your image data is scattered all over your drive. The result? Your hard drive is spending all its time and energy gathering the data to feed to Photoshop. Defragmenting the drive is the simple solution, making all your files nice and tidy. If the files aren't fragmented and more RAM doesn't do the trick, your hard drive may just be slow. Consider replacing it, or adding a second, faster one to your system.

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9. What exactly is a software driver, and how often do I need to upgrade my Windows® driver for my digital camera?

A driver is a piece of software used by your computer to communicate with a particular peripheral. If your driver isn't updated or properly connected, it may stop your camera from communicating with your PC. This could lead to an abundance of error messages.

Drivers are regularly updated, and new versions can help fix problems and bring significant improvement in performance. There are two main reasons to upgrade drivers: Incompatibility is the most frequent problem solved by a new driver release. And new drivers optimize the communication speed and task sharing between a processor and a peripheral. A new driver can increase performance as much as 50 percent. You can sign up for driver updates from HP.

10. What is the best way to archive my digital photo files?

Archiving your images on a DVD is just about the best, most cost-effective way to organize and care for your pictures. Getting started making your own DVDs is easy and doesn't require much investment.

Saving your photos to a rewriteable DVD is quick and easy. And a DVD can hold up to seven times more than a CD: That adds up to about 15,000 photo-quality pictures per DVD! The best part? DVDs make storing and sharing photos a snap.
