

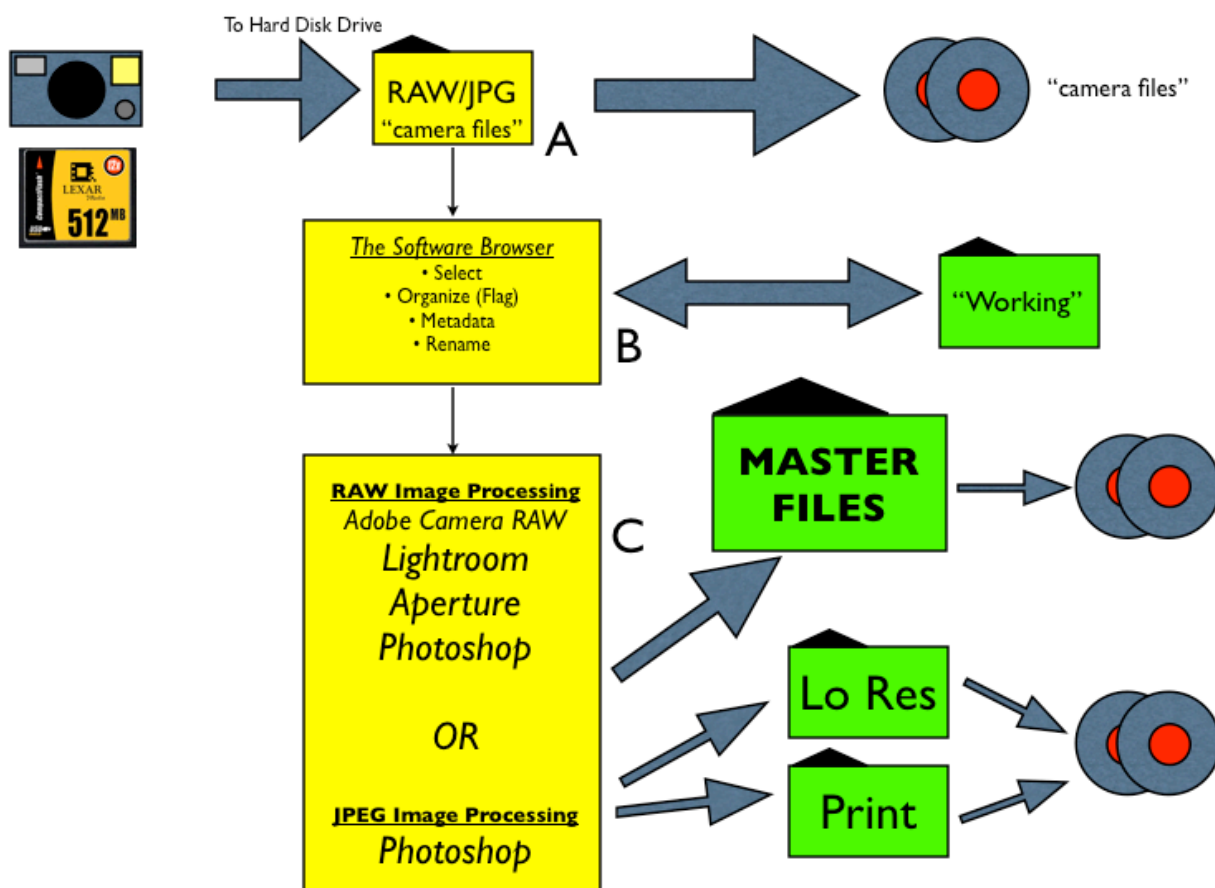
Your Digital Imaging Workflow

Keeping Some Order and Safety in Your Digital Photography

With so many things being computerized and “digital” these days, we may run across this word, “*workflow*,” quite often. *Workflow means process*. Think of a series of steps from points A to B to C, and so on. For our purposes as digital photographers, workflow relates to all the actions you take from the time you release your digital camera’s shutter to when you are ready to “process” your images in an editing program such as Photoshop. (There is also a “workflow” within *Photoshop*, but that’s for another article). Many important steps occur during this phase of a typical digital workflow, not the least of which are the safety and preservation of your valuable images. Remember, three things are certain in life:

- 1) Death, 2) Taxes, and 3) ***Your hard disk drive will fail sooner or later!***

The Big Picture of Your Digital Imaging Workflow



The Digital Imaging Workflow

The Details ...

The *Digital Imaging Workflow* diagram on the previous page illustrates clearly (hopefully!) the major components of your digital photography workflow.

Your digital camera captures images and saves them as computer data files. I call these “camera files” (see A in diagram). These camera files are typically saved in either RAW or JPEG file formats. After transferring the files to your computer via a card reader – the preferred method – these camera files should be backed up (copied) to CD or DVD discs as soon as practical. These days, however, it has become more convenient and cost-effective to backup to external hard disk drives (HDD). Think about this, too: strongly consider a *second* separate backup of at least your most precious images! (See the special section on *Storage Media* on page 3).

In the next step (B), you open the “camera files” into an image browser (*Photoshop Elements Browser* or *Adobe Bridge*, *iPhoto*, *Lightroom* and others) to allow you to select, organize, add metadata and rename your images. Recall that metadata – “data about data” – is not only information the camera records about your images, such as shutter speed, aperture, ISO, etc, but also information that YOU can add to the image files, such as description, copyright information and keywords (tags). In this step, once your “camera files” have been safely backed-up, your images can now be considered your “working files.” Your image housekeeping is complete and you are ready to do some image editing.

From this point on, (C in the diagram) you begin “processing” your digital images (if necessary!) in an image editing program like *Adobe Camera RAW*, *Photoshop*, *Lightroom*, *Apple iPhoto* or *Aperture*. This image editing typically consists of rotating, cropping, adjusting exposure, contrast, white balance, fixing irregularities, retouching, applying enhancements with filters, and more!

If you complete your editing in *Photoshop*, be sure to save your files to hard disk in the *Photoshop*-native “.psd” format. This preserve all layers, annotations, alpha channels, layer comps, etc. These are saved in what I call the “*Master Folder*.” For obvious reasons, this is a critical directory and must also be backed up (copied) to CD/DVD/HDD disc without delay.

If you then make changes (ie; *versions*) from the master files for specific output purposes such as low-resolution/resized JPEG files for email or web, or high-resolution files for printing, then you should consider backing these to external media as well. Keeping these versions will prevent you from having to re-purpose your master files again in the future.

Finally, if you’ve read this far, it goes without saying that I can’t stress enough the data backup aspects of the your digital imaging workflow. This redundancy is vital to the security of your images. Also, don’t forget to **SAVE frequently** while you are working on your images within your editing application. Should there be a system freeze or power outage you’ll thank yourself – and, you’ll me! You’re welcome!!

A Word (or Two) About Digital Storage Media

Hard Disk Drives

As long as you purchase reputable name brands (Seagate, Western Digital, LaCie, Maxtor, and others), you will also be getting high quality, reliable, fast drives. You should look for drives with a minimum of 3-year warranties – 5-year preferable. As of this writing (September 2009), you can get great 1 Terabyte (1000 Gigabytes) drives a bit less than \$100. That equates to about \$0.10 per gigabyte. In comparison, a 25-disc spindle of Memorex DVD-R discs comes out to \$0.15 per gigabyte. Doesn't seem like a big difference, but when you also consider the convenience and speed of one large disk drive, you can't go wrong. Let me get you in on a secret that lots of tech geeks know -- you can do even better when purchasing the "bare" drives like the ones that go *into* computers, but instead mount them into inexpensive drive enclosures or adapters. Check out sources I endorse, like www.OtherWorldComputing.com, www.NewEgg.com.

Of course, you still need to face the fact that ***all hard disk drives will fail!*** So, you should make sure that your computer is set up to warn you of impending problems with your drives (through such technologies as *S.M.A.R.T.*). Once you hit the warranty expiration date (typically 3- or 5-year), you need to start considering migrating your files to a brand-new drive. The consolation prize, by the time you upgrade your drive, data storage technology will have evolved; made better and less expensive per gigabyte.

Optical Media (CD/DVD discs)

Unfortunately, even high-quality CD and DVD discs are not immune to failure over time. Now that this media has been thoroughly tested and in continuous use for over a decade, the likelihood of failure has become more evident. If you want to use CD or DVD discs for long-time storage, use the best quality media you can. Stay away from store-brand discs. Go with the name brands, like *Memorex*, *Sony*, *Maxell*, etc. Some brands sell as "archival" gold discs. These indeed are more reliable and do seem to last longer, but I would not trust the 100-year claim!! Keep your discs in individual sleeves and stored in sturdy containers at cool temperatures and low humidity.

As with hard disk drives, resign yourself to the fact that you will be migrating your files from these storage discs to new discs every five years or so. By then, we will likely enjoy better quality, more dense and less expensive data storage solutions.