

Workflow for Digital Photography

Episode 2: Backup and Archiving

Alrighty... your photos are now safely in your computer. You can now either remove the memory card from the reader or unplug your USB cable from the camera. However, DO NOT even think about deleting those files from your memory card yet! You must first do the next step in workflow management... backing up your photos to an external media. So, here we go...

2. Backup and Archiving

It is quite important to ensure that your memories (or others memories!) are preserved in multiple backups off your main hard drive. In the past, we relied on CD -R media as our primary backup since a) it was all that was available and b) it was relatively cheap. In recent years, the CD-R has been replaced by DVD-RW media, with prices steadily coming down. In addition, Hard Drive prices continue to plummet allowing us to have multiple backup sources in the form of External Hard Drives (EHD) and off -site storage (online backup services). Now, I'll cover each option in detail.

A. CD-R

CD's typically hold between 700 & 800 MB of data per CD. As such, it was seen as a perfect way to preserve your photos as they were transferred off your camera. With older 2 and 3 MP cameras creating RAW files in the range of 3MB per file, a CD was typically a great way to backup your data.

CD-R's are still a great way to preserve your data and should definitely be used for those times when you can fit your files on the disc. If you shoot mainly JPG or perhaps only transfer 30-50 files, using a CDR is a very cost effective way to backup your data.

B. DVD-RW

Fast forward to a few years ago and enter 6, 8 and 10MP cameras with RAW files in the range of 6-10MB per file and we start to see that a single CD -R may not hold all our backup files from a particular transfer. Although it was a pricier option, we began turning to DVD media to backup our digital files.

DVD-RW (+/-) can hold around 4.8GB of data... or around 7 CD-R discs. That enables photographers to store all their photos on a single DVD for typical shoots. Even with files in the 10MB range, you can store over 400 photos onto a single DVD – typically enough to hold a great day of shooting! This is the option I turn to most often.

C. External Hard Drives

Always a staple in your computer system, the Hard Drive is still one of the most reliable methods of storage available to us. In the past, Hard Drive prices hovered around \$1 per MB, a price point that hindered it's use as a viable backup option for most people.

With prices for Hard Drives now around \$0.25 per MB and sizes ranging from 80 to 500 and larger, Hard Drives are now a perfect backup option. You could just put another HD into your PC very easily (especially modern SATA drives) or you could buy an EHD that hooks up to your PC by either USB, Firewire or ESATA connections. The nice benefit of EHD's is their portability... stick mine in my fire safe after each weekly backup.

D. Online Backup

In the past few months, I've received quite a few emails from companies touting online backups. I've even heard some ads on XM radio...! Basically, you sign up for a yearly fee and a company provides you with space and software to backup files onto their servers. There are a few good reasons to use these types of systems including:

1. backups are off-site
2. company will backup their machines – backup of a backup

But – there are a number of bad things too.. primarily:

1. upload speeds are really slow!
2. yearly fees
3. not in control of the data.. what if the data center burns down?

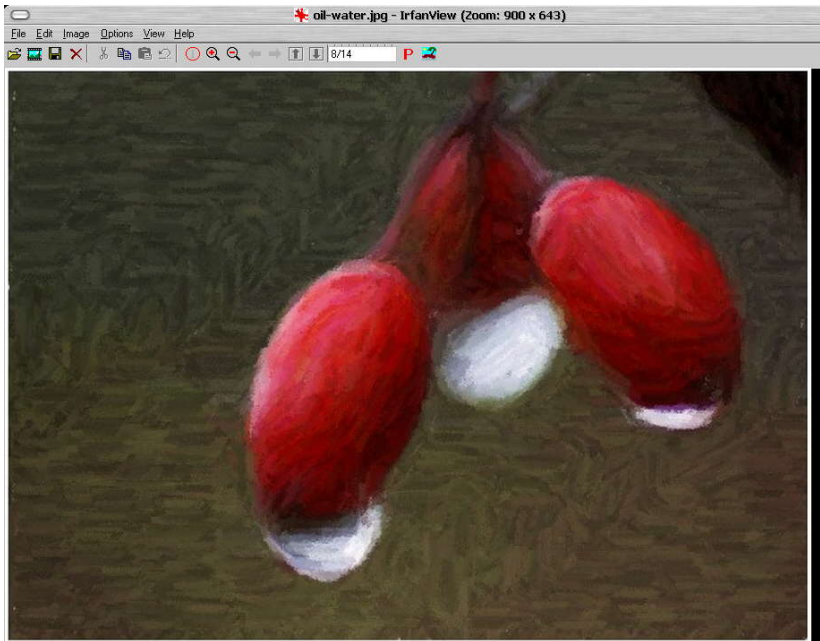
I wouldn't use one of these services except if you have limited items you'd like backed up... then perhaps these services could be employed in addition to one of the other backup methods. I personally have my own external web server for my website with 170GB of space... I do store some items on there but really just use it for limited backup. Just keep in mind that upload speeds are typically very slow – uploading ten 6 GB files could take you 30 minutes or so!

The Process

Ok. Now that we've seen the options, here is how I backup my photos.

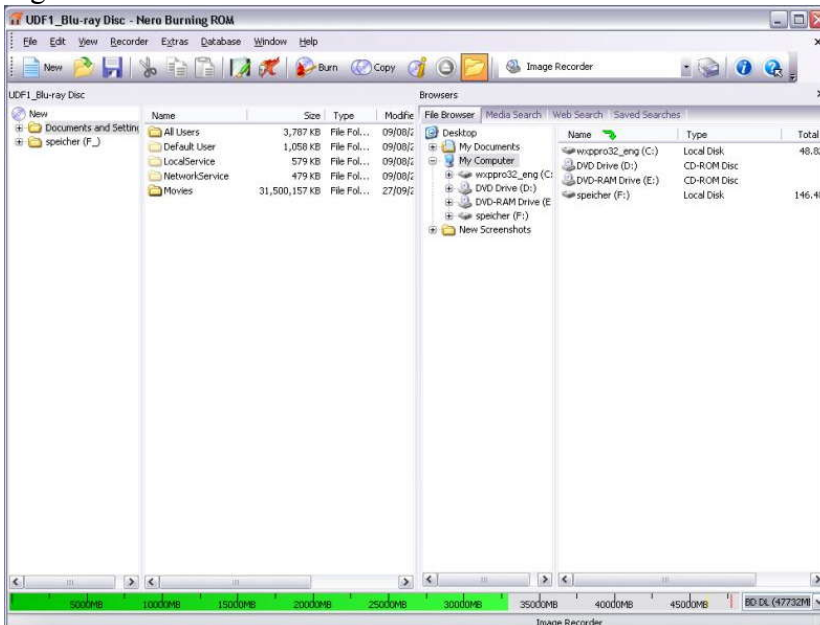
1. Your photos are now on your Hard Drive... I verify they transferred ok by opening a few of them randomly in my default viewer – Irfanview (www.irfanview.com). (Figure 1). This is an amazing freeware viewer that I highly recommend you use to replace XP's default viewer. It also allows you to view AVI files, RAW and plays MP3's... a wonderful free jack of all trades that I have installed on all my machines.

Figure 1



2. Now that I've verified the photos transferred ok to the PC, I back them up to DVD-RW using my burner software. I use Nero (www.nero.com) (Figure 2) and have always had great luck (no coasters to date!). However, any DVD burner software should work just fine.

Figure 2



Note: I do not use multi-session DVD's and always turn this option off. There are cases where the multi-session DVD may not run on another PC even after you have finalized the session. This defeats the purpose of using it as a backup and with the prices of DVD's so low now, I only use the DVD in one session. If I don't have

enough files to warrant a DVD, I'll use a CD-R and again not use multi-session options.

3. Once I have the DVD/CD-R burned, I'll use irfanview to again view a few files on the media, label it with a sharpie (no labels – they could hurt the disc) and then put it away in my fire safe. These are my digital negatives and now I know that my original files are backed up and safely stored.

At this point, I format my memory card in the camera, erasing the files and preparing it for use again. Just a note: that I do not just *delete* the files, but use the cameras *format* option. This option not only deletes the files, but also deletes all the default camera folders and also prepares the card for use in that camera. Since I use my SD and CF cards in numerous cameras, I always format them to ensure they are prepared and ready for using in that particular camera.

Ok... that's it for Backup and Archiving... well, almost! We'll come back to this again after we catalog and touchup our photos and create another backup but this time with our metadata attached. I hope you enjoyed this installment... see you next time for episode 3: Cataloging with IdImager!