

Seminar — Organize your photos

Photographic files

The photos are image files, an array of numbers that computer programs can understand. If you have a five megapixel (five million pixels) camera then the picture is represented by five million 3-byte numbers or 15 million bytes (15 Mbytes) total.

Fifteen megabytes is a large file. If the chip in your camera has a capacity of 256 Mbytes then the chip can hold 17 pictures. (Divide the number 256 by 15.) So camera manufacturers compress the files by a factor of 10 (or more) into the JPEG format before writing the information to the chip. Now the chip can hold 170 pictures.

When the picture is compressed into the JPEG file format the picture quality is reduced. If you are a professional photographer or a serious amateur with an expensive camera then you want all the original pixels at the highest quality. So camera manufacturers offer two other formats that do not compress the image; namely TIFF and RAW.

There are many other graphics file formats but for photo graphics JPEG, TIFF and RAW are the only ones to consider. Since I mostly shoot snapshots, JPEG is more than adequate for me.

Make the extensions visible.

For some reason Microsoft hides the 3 character file extensions, such as .doc, .jpg, .tif, etc. Make them visible as follows:

- On the menu bar in Windows Explorer click **Tools > Folder Options...**
- Select the **View** tab.
- Remove the check mark next to “Hide extensions for known file types”.
- Click **OK**.

Work flow

Create a folder in the My Pictures folder and name it **Seminar_2007-01-24**. Open this folder and create four folders named: **Original**, **Edited**, **Printing** and **Email-Web**.

The workflow will be:

- Using Windows Explorer transfer photos from the camera or chip reader to the **Original** folder.
- Open an original picture in your editor. Brighten, Contrast, Red-eye, etc. Save at the highest quality (TIFF or the editor’s native format) in the **Edited** folder.
- Open an edited picture in your editor. Crop, reduce the pixel count and save as a lower quality JPEG file in the **Email-Web** folder.
- Open an edited picture in your editor. Crop (to 6 X 4 inches?), sharpen, etc. Save at a high quality Pixels-Per-Inch (PPI) in the **Printing** folder.

Rename Files

The camera file names can be obscure: IMG_0123, DSC-4567, etc. These can be renamed as follows:

- Select all the files in the **Original** folder (**Ctrl + A**).
- Right-click the first file and in the context menu select **Rename**.
- Type a new name “SeminarPic.jpg”. Be sure to include the .jpg extension.
- Hit the **Enter** key.

If your camera’s file names are meaningful, as they are with Olympus cameras, better file renaming tools are available in the software to be discussed below.

Archive the original pictures

Still in the **Original** folder click **View > Filmstrip** in the Windows Explorer **Menu Bar**. Step through all the pictures, right-click and select **Delete** for the obvious losers.

Burn the folder to a CD-R or DVD-R blank disc. Label the disc.

The original picture files are now in three places: The camera’s chip, in a folder on the hard drive and on a safely stored CD or DVD disc. You are now free to place the chip back in the camera and erase the pictures.

Metadata

The picture is represented by an array of 3-byte pixels. In addition each JPEG and TIFF file has extra information about the picture. These Metadata are **Exif** and **IPTC**.

Right-click a JPEG file select **Properties > Summary** and click **Advanced/Simple** to see what JPEG metadata looks like. Close the properties window. See the Appendix.

Software

Photoshop Elements (version 3 or above) is a complete solution to the problem of editing, organizing and finding pictures.

How do you find the pictures you want? With viewers you can inspect many thumbnails and copy the pictures to a folder.

Photoshop Elements, and many other graphics software programs, have popularized an alternate way; namely add tags (also termed keywords or labels) to pictures and search for particular tags or combinations of tags.

We will briefly review some free software that helps organize, edit and find your pictures

IrfanView

A picture viewer with so many extra features that it is an almost complete editor including the ability to view and edit the metadata.

Open IrfanView and open the first picture in the Seminar **Original** folder. Click the red-circled **I** icon in the toolbar to view the metadata. Close the information windows.

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Reduce the size of the screen by clicking the **Restore Down** icon on the right of the **Title Bar**. Type the letter **T** to see the thumbnails in the folder. Adjust the size and position of both windows.

FastStone

Almost as complete as IrfanView with a somewhat more elegant user interface. It does not show the IPTC metadata.

Picasa2

Is a free editor/organizer from Google. It has a friendly user interface and is easy to learn. Keywords can be added to each picture and a fast search displays the pictures you may want for further editing. We teach Picasa here at the Learning Center.

Photoshop Album 3

Adobe Photoshop Elements includes an elegant and powerful organizer. Photoshop Album3 is a free subset of the organizer and includes a limited editor.

Download and install the program from the Adobe site.

In my opinion tagging and searching in Photoshop Album is simpler and somewhat more elegant than in Picasa.

But you may decide that organizing the photos as outlined above is sufficient.

Associations

Windows associates extensions with specific programs The installation of Photoshop Album has changed the associations for JPEG files. If you double-click a file with the extension .jpg the file will open in Photoshop Album, which may not be what you want.

Click **Tools > Folder Options > File Types** on the **Menu Bar**. Scroll down to find the three JPEG files that the Photoshop Album program has grabbed. Select each one in turn, click **Change** and select "Windows Picture and Fax Viewer".

Verify that double-clicking will open the Windows viewer program.

Searching

For a program to search rapidly with extra logical (termed boolean) capabilities it is necessary to create a database. These extra search capabilities would, for example, allow the combination of more than one keyword in one search.

The database may also include thumbnails and organizational tools that reside in the database itself leaving the original graphics files untouched. If the database and the graphics files somehow get out of sync then you may find that clicking on a thumbnail may bring up an entirely different photo. Bummer!

Picasa recognizes the problem and in its [help files](#) describes a technique for deleting the database and starting all over again scanning your hard drive to create a new correct database.

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I haven't tried this so I can't report what happens. Are the keywords lost? What about the Albums that Picasa features?

The location of the Picasa and Photoshop Album databases are shown in the Appendix.

If I used either program I would try to back up the databases to guard against synchronizing disasters. These considerations are what lead me to PixVue.

PixVue

Pixvue extends the capabilities of Windows Explorer. It appears in the context menu (the right-click menu) of a JPEG or TIFF graphics file. Keywords are added to the IPTC metafile, which means that keywords are a part of the file itself eliminating many synchronizing problems.

A simple Windows search on one keyword can be started by clicking **Start > Search** from the Windows Start menu.

For elegant searches (more than one criteria) use Windows Desktop Search or Google Desktop Search. Some setup is required for these tools to create a search database.

PixVue Galleries

PixVue offers to create a search database of its own called My Galleries, a virtual folder in My Computer. Useful for elegant, boolean searches. Many sub-galleries can be defined. The database can track files archived on CDRs/DVD-Rs.

Appendix

Exif – Exchangeable image file format

- Japanese camera manufacturers add information to each JPEG or TIFF image.
- Exif comments may be added by the user.

IPTC – International Press Telecommunications Council

- 1994 Adobe defines IPTC headers for JPEG and TIFF
- 2001 Adobe adds Extensible Metadata Platform (XMP) so we now have Metalogging which is Metadata + Cataloging. The cataloging adds images to a database.

Picasa database:

C:\Documents and Settings\username\Local Settings\Application Data\Google\Picasa2\db2

Photoshop Album database:

C:\Documents and Settings\All Users\Application Data\Adobe\Photoshop Album\Catalog Folders\My Catalog\tn.4.cache

C:\Documents and Set... ..\Catalogs\My Catalog.ldb

C:\Documents and Set... ..\Catalogs\My Catalog.psa