

DIGITAL JARGON BUSTING.

One of the most difficult features of DIGITAL PHOTOGRAPHY for BEGINNERS to come to terms with is the unfamiliar jargon. Even a knowledge of conventional FILM photography will not serve you very well when starting out with digital.

The following list explains some of the more commonly met with words and titles or procedures, they will be added to from time to time as experience suggests the need amongst our U3A Photography group.

COMPACT – v – SLR :- (Digital) Single Lens Reflex describes the type of CAMERA technology used in the MECHANICAL design of the system, just as DIGITAL describes the IMAGE CAPTURE system.

COMPACT describes the overall type of camera and is associated with the (generally) less sophisticated varieties, it could refer to film OR digital.

The most sophisticated (and expensive) cameras today, 2006, can be described as **Digital SLR's with interchangeable lenses.**

MEGAPIXEL :- A measure of the SIZE and RESOLUTION of the pictures that a digital camera is capable of producing. Compacts can have as much as 8 megapixel capacity where the accepted minimum for securing good, clear images, starts at 2 megapixels.

RESOLUTION :- The more PIXELS there are in a digital picture the sharper the image will appear.

MENU :- MENU'S are a feature of the camera's adjustments, they allow the user to select from a choice of options and are usually operated (navigated) via a "rocker" switch.

ISO Setting :- This is the one thing that relates directly to film cameras. It represents the "SPEED" of the film and its setting decides how much EXPOSURE a picture will need. Most digital cameras have a choice of several settings from "fast" to "slow" film equivalent.

EXPOSURE :- One of the most vital features of taking any picture by camera. It represents the amount of time the camera needs to capture a good picture. Most digital cameras have an AUTO EXPOSURE choice on the MENU, however a Japanese technician's idea of what is best for the picture you are about to take may be adequate but not produce the **best** result.

MANUAL EXPOSURE SETTING :- This procedure requires YOU to firstly make an ISO setting choice then to select an APERTURE setting and/or a SHUTTER SPEED setting.

In most digital cameras the choice is simplified by providing the choice of APERTURE or SHUTTER "PRIORITY" selection from the MENU however, in the

more sophisticated cameras you can make an aperture choice AND a shutter speed choice. The reason is to give the camera user the freedom to employ their photographic skill and artistic interpretation when taking the picture. A facility to aim for in the longer term.

APERTURE and SHUTTER SPEED :- Aperture simply describes the size of HOLE through which the lens allows light to pass onto the FILM or ELECTRONIC RECORDING MEDIA. A bigger hole means more light and smaller hole less light.

Shutter Speed describes the amount of TIME that the shutter stays open.

To correctly expose for a specific picture image, the aperture and shutter speed combination must allow the amount of light to pass which is needed to meet the chosen ISO setting.

This subject is something that is best explored by practical example and discussion, which will be done as a feature of the Group's meetings programme.

JPEG :- Simply described as a COMPRESSION FACTOR compares with TIFF and RAW.

When the camera operating button is pressed the picture image is captured on whatever MEDIA the camera employs i.e. film or digital card. In digital cameras a process takes place which either converts the image electronically to a RAW FILE where no "compression interpretation" takes place, or a JPEG where our friendly Japanese technician decides what is his idea of how much and what will actually be "compressed" of the image "data".

JPEG stands for Joint Photographic Expert Group.

TIFF :- Is another form of COMPRESSION FACTOR but a much lower amount than with JPEG and is used for storing picture images as a LOSSLESS file.

Before manipulating original images with digital computer software programmes convert your JPEG image to a TIFF image otherwise the manipulation process will lose some of the quality of your image and this will happen every time you make an adjustment to an image file stored as a JPEG.

TIFF stands for Tagged Image File Format.

MEDIA :- Is the name given to the REMOVABLE CARD on which the digital camera stores the images you take when pressing the camera button. It can be thought of as the "FILM" of a digital camera.

Media cards come in a number of different sizes and are NOT INTERCHANGEABLE between different media designated cameras.

The commonest is the COMPACT FLASH variety, also there are SD, XD, memory STICKS etc, ensure you know which your camera uses.

Each card has a SIZE designation measured in MEGAPIXELS, the commonest is between 64MB and 512MB but larger cards are now available up to 2GB the size decides how many pictures can be taken and stored on the card before downloading to a computer for storage or printing.

OPTICAL –v- DIGITAL ZOOM :- Zoom facility is common on most digital cameras, whether it is described as OPTICAL or DIGITAL is important.

OPTICAL zoom is achieved through the design and construction of the lens and in theory at least, no image quality is lost when the zoom setting is at maximum or minimum 'Focal Length'

DIGITAL zoom, on the other hand, is simply applying an electronic enlargement or reduction which equates to a 'Focal Length' variation. It is what you do when 'manipulating' images using digital software actually in the computer. In short, you can apply digital zoom after you have downloaded images from camera to computer BUT you will lose quality as a result of doing so.

SHUTTER LAG :- The curse of all digital cameras when taking ACTION shots. It describes the DELAY between you pressing the camera button to take a PICTURE and the electro/mechanical functions of the camera completing their automated tasks in order to secure your image. e.g. PRESS - WAIT – CLICK. This “annoying” difference between film cameras and digital is being addressed by the designers in Japan and the more expensive DSLR’s now have a minimal shutter lag. BUT, do not despair, by halfway depressing your shoot button you not only LOCK the focus but allow the camera to complete some of its tasks prior to you finally depressing the shoot button all the way AND thereby reducing the LAG. Try it, it works.

L ION :- Is the designation given to the best RE-CHARGEABLE BATTERIES. It translates to LITHIUM-ION and describes the design construction of the battery. Two important features set L ION batteries apart, MEMORY LOSS does not occur, CHARGE capacity is generally much greater than more conventional batteries, therefore it will last for more camera shots between re-charging.

FILL IN FLASH :- Flash setting is probably one of the most misunderstood settings by the general public on both film and digital cameras. Have you ever noticed the absolute barrage of camera flashes when you are watching events in large stadiums ? There is no possible way in which a camera flash can add to the illumination of a subject that is anything between 50 yards and 300 yards distant from the camera, SWITCH OFF THE FLASH it wastes battery power and means you will need to re-charge your battery more frequently.

FILL IN flash is most frequently useful in BRIGHT SUNSHINE.

WHY ? because bright sunlight creates HARSH SHADOWS i.e. they appear much darker on your picture. Set the camera menu to fill in flash and a short burst of flash lighting will reduce that harshness and make your picture more “acceptable” when you print or view it on screen.

RED EYE :- Is the strange RED EFFECT seen in many indoor pictures of people when their eyes appear as red spots. It is caused because the flash gun is TOO CLOSE to the camera lens and actually records the blood at the back of the eye as a result.

Set the flash menu to RED EYE REDUCTION and/or REMOVE IT LATER by setting your computer software to remove red eye.

N.B. If a subject has ONE red eye and ONE black (or uncoloured) eye, tactfully suggest to your subject that there MAY be a medical condition causing the difference and it MAY be a good idea to consult their GP for a simple check up.

DEPTH OF FIELD :- Refers to the items FROM FRONT TO BACK of your picture that will be IN FOCUS.

DEEPER or SHORTER Depth of Field is the 'product' of the APERTURE setting of your camera lens e.g.

SMALL aperture (hole) INCREASES depth of field (in focus)

LARGE aperture (hole) DECREASES depth of field.

WHEN do you choose small or large apertures ? (i) when ISO setting requires more or less light for exposure. (ii) to DIFFERENTIATE the focus on say just a small part of a PORTRAIT (iii) when taking an outdoor scenery shot, then, as much depth of field as possible is normally desirable to ensure the whole scene is in sharp focus.

SHUTTER SPEED :- FAST FREEZES, SLOW BLURRS the picture.

Sports, action shots are usually, better taken using a fast shutter speed with a HIGH number ISO setting.

Scenery, is best taken using a medium to slow shutter speed with a small lens aperture setting and LOW number ISO setting, this will record the sharpest detail of everything in the scene.

WHITE BALANCE.

Most digital cameras have a choice of several "white balance" settings in the Menu.

Usually described in words such as:- **outdoor, cloudy, tungsten, incandescent etc.**

You have the facility to CHOOSE a camera internal process which will recognize and "correct" (make more acceptable) the picture image you see when downloading your camera captured pictures, onto your computer screen.

Experiment to get to know how your camera settings affect the on screen image.

dpi = DOTS PER INCH.

Describes the structure of the picture image in terms of HOW MANY and HOW CLOSE together the INK DOTS will be when printing out a picture image onto paper.

This feature is adjustable, as is picture size, of which process **dpi** can be a 'product'

PIXELATION.

Describes the effect of over enlarging a digital picture where the image appears to be made up of many SQUARES. These are PIXELS, hence PIXELATION and are a product of over enlargement of the originally captured image.

It is very evident in cameras with a LOW PIXEL specification e.g. 2megapixel cameras are infinitely more prone to pixelated images than is a 12megapixel camera.

MAC –v- PC.

Apple MAC computers are different from PC's BUT are they better ?

The answer is YES in some respects which includes manipulating digital photographs. They are the "TRADE STANDARD" in printing illustrations and the Graphics trade.

Should I buy an APPLE rather than a PC if I am considering digital photography ?

Ask 10 "experts" and you will get a different answer from each one. Generally, good advice, is to stick with what you've got and are comfortable with using, you will be grateful that you know how to operate the computer and can then concentrate on the peculiarities of digital as you get deeper into the manipulation processes