

A Glossary of Digital Photography Terms



A

AE Lock

A technique that allows the exposure settings for a scene to be set and then locked while the camera is moved to a new position. This allows multiple shots to be taken with the same exposure settings or the scene to be re-composed without new readings being taken. The settings are locked by pressing the shutter button until it is half way down and then holding it down until the camera beeps and the indicator light stops flashing. The AE Lock is enabled until the shutter is released or the picture taken. Some cameras have a specific AE lock button

Ambient light

The natural light in a scene

Angle of View

The extent of a scene that can be captured by a camera's imaging system. This is determined by the focal length of the lens

Aliasing

Aliasing refers to the jagged appearance of diagonal lines and edges of circles, etc. due to the square geometry of pixels (see Pixels below)

Anti-aliasing

Anti-aliasing makes aliased edges appear much smoother by averaging out the pixels around the edge. Most image editing software packages have "anti-aliasing" options for fonts, drawing lines and shapes, making selections, etc. Anti-aliasing is implemented in software on most digital cameras. These routines help to smooth out the "jaggies" in digital images

Aperture

A small, circular opening inside the lens that can change in diameter to control the amount of light reaching the camera's sensor as a picture is taken. The aperture diameter is expressed in f-stops; the lower the number, the larger the aperture. For instance, an aperture of f/2.8 is larger than an aperture of f/8. The aperture and shutter speed together control the total amount of light reaching the sensor. A larger aperture passes more light through to the sensor. Many cameras have an aperture priority mode that allows you to adjust the aperture while allowing the camera to set shutter speed and sensitivity of the sensor (ISO). See also shutter speed and ISO

Artifacts

Artifacts are undesirable changes to a digital image caused by the sensor, optics or internal image processing algorithms of the camera. Examples of image artefacts are: Blooming, Chromatic Aberrations, Noise, Jaggies and Compression Artefacts

Aspect Ratio

The ratio between the width and height of an image, the ratio is expressed as the width divided by the height. Most DSLR's have an aspect ratio of 3:2 while Compact Cameras are usually 4:3

Attachment

A file sent along with an e-mail message so that it can be viewed or saved by the recipient

Automatic Exposure (AE)

AE is a camera function where the camera automatically adjusts the aperture, shutter speed and ISO to ensure the correct exposure for the existing lighting conditions.

There are 3 AE modes:

Programmed Mode where the camera picks the best aperture and shutter speed automatically.

Aperture Priority Mode, where the photographer chooses an aperture value and the camera then sets the shutter speed and ISO depending on the lighting conditions. This effectively lets the photographer set the required Depth of Field (DoF). A large aperture setting means a shallow DoF, while a small aperture setting means a wide DoF. Aperture priority is useful in landscape photography, where a narrow aperture is necessary if objects in foreground, middle distance, and background are all to be rendered crisply, while shutter speed is often immaterial. It also finds a use in portrait photography, where a wide aperture is needed to throw the background out of focus and make it less distracting.

Shutter Priority Mode, where the photographer chooses the shutter speed and the camera sets the aperture depending on the lighting conditions. This mode is used to capture motion shots. A fast shutter, resulting in a short exposure, is used to capture fast moving objects. A slow shutter, resulting in longer exposures, will result in a fast moving object being blurred.

Automatic Flash

A flash unit with a light-sensitive cell that determines the length of the flash for proper exposure by measuring the light reflected back from the subject.

Auto-focus

All digital cameras come with auto-focus (AF). In auto-focus mode the camera automatically focuses on the subject in the focus area in the centre of the LCD/viewfinder. Many domestic and all professional digital cameras allow you to select which area of the scene the auto-focus sensors read by selecting an appropriate Metering Mode (see Metering). This area is indicated on the LCD/viewfinder

AVI (Audio Video Interleaved)

A video format used by Microsoft Windows®

B

B&W

Black and white

Back Lighting

Back Light is the light falling on the background in a scene. Too much backlight can cause the foreground to become under exposed when the camera is in Auto Mode

Banding

An artifact of color gradation where graduated colors are reduced to larger blocks of a single color due to a lack of resolution

Barreling (Barrel Distortion)

A distortion that occurs with wide-angle lenses, in which straight lines at the edges curve outwards from the center, giving the image a barrel-like appearance. It occurs because the magnification provided by the lens decreases with distance from the optic axis

Bit (Binary digit)

The smallest unit of computer memory, 8 bits make a Byte and 1024 bytes make a kilo Byte

Bit Depth

The number of bits used to represent the colour of a pixel in a digital image

Bitmap

A method of storing information that maps each small area of an image to a single pixel in a cell of the storage medium

Blooming

A pixel on a digital camera sensor collects light that is then converted into an electrical charge. Blooming occurs when this charge flows over to surrounding pixels, brightening or overexposing them in the process

BMP

An uncompressed bitmapped file format (BMP) used with Microsoft Windows

Buffer

After the image sensor is exposed, the image data is processed in the camera and then written to the storage card. An area of Random Access Memory (RAM) called a buffer, inside the digital camera, temporarily holds the image information before it is written out to the storage card. This speeds up the time between shots and allows what's called the burst or continuous shooting mode. The very first digital cameras didn't have a buffer, so after you took the shot you had to wait for the image to be written to the storage card before you could take the next shot. Currently, most digital cameras have relatively large buffers that allow them to operate as quickly as a film camera. It is now possible to continue taking pictures while writing data to the storage card in the background.

The location of the buffer within the camera system is normally not specified, but affects the number of images that can be shot in burst mode. The buffer memory is located either before or after the image processor.

Burst Mode

Burst Mode is the ability to rapidly capture images as long as the shutter button is held down. The number of shots captured in burst mode is limited by the capacity of the memory card with the delay between successive shots determined by shutter lag (see later).

Byte

A group of 8 bits, the basic unit of information for the computer

C**Card**

A sealed package containing memory devices and used as storage for photographs in a digital camera

Card Reader

A device which connects to a computer using the USB interface (see later) allowing the computer to read a range of different Memory Cards

CD-R (Compact Disc Recordable)

A recordable CD that can be written once and can hold 650-700 MB of digital data

CD-RW (Compact Disc Re-Writeable)

A recordable CD holding 650-700 MB that can be erased and re-used many times

Chromatic Aberration

Chromatic aberration or "colour fringing" is caused by the camera lens not focusing different wavelengths of light onto the exact same focal plane (the focal length for different wavelengths is different) and/or by the lens magnifying different wavelengths differently. These types of chromatic aberration are referred to as "Longitudinal Chromatic Aberration" and "Lateral Chromatic Aberration" respectively and can occur concurrently. The amount of chromatic aberration depends on the dispersion of the glass, which in turn depends on the size and optical quality of the lens

Color Balance

In image processing, colour balance refers to the modification of the colour values of an image so that the colours are rendered correctly on a particular image display or printing device. In a camera, colour balance can be adjusted for a given lighting condition. Tungsten, Fluorescent and Daylight are amongst the settings that are available and these are used to ensure that colours are correctly represented in the image. For example, shooting a picture under Tungsten lighting with a Daylight setting can result in an image with an overall colour cast that shifts the colours away from their natural values

Color Correction

The process of correcting or enhancing the color of an image that has been captured with an incorrect colour balance setting

Color Depth

The number of bits assigned to each pixel in the image and the number of colours that can be created from those bits. True Color uses 24 bits per pixel to render 16 million colours

Compression

Compression is a process in which information is removed from an image so that the image does not occupy as much space on a storage device. Various levels of compression can be applied to an image to suit different requirements. Higher levels introduce image artifacts, which in turn reduce image quality. All digital cameras use jpeg (see later) compression on images

Contrast

The difference in tone between light and dark areas of the image

D

Dark Current / Dark Noise

The charge accumulated by the pixels in a camera image sensor while not exposed to light. Normally, this charge is reduced or eliminated prior to capturing a picture

Decompression

A previously compressed image is restored to as near as possible its original state by the process known as de-compression. The compression process involves the loss of some of the image data and this is not recovered when the image is de-compressed

Depth of Field

Depth of field (DOF) is a term that refers to the areas of the photograph both in front and behind the main focus point that remains "sharp" (in focus). Depth of field is affected by the aperture, subject distance, focal length, and film or sensor format.

A larger aperture (smaller f-number, e.g. f/2) has a shallow depth of field. Anything behind or in front of the main focus point will appear blurred. A smaller aperture (larger f-number, e.g.

f/11) has a greater depth of field. Objects within a certain range behind or in front of the main focus point will also appear sharp

Digital Zoom

The digital magnification of the center 50% of an image performed by the camera's electronics. Digital zooms increase the apparent image size by interpolation, that is extra pixels are created by the camera electronics to increase the apparent zoom level

Digitization

The process of converting analogue information into digital format

Distortion

A defect in an image caused by the lens

Download

Downloading is the transfer of data from an external device like a camera, to a computer using a cable connection. The two most common interface standards are Firewire and USB

DPI (Dots Per Inch)

A measurement value used to describe either the resolution of a display screen or the output resolution of a printer. It is defined as the number of picture elements, pixels or dots in an inch

Dynamic Range

The tonal range from white through to black of an image or image sensor. Compressed images like JPEG's have a reduced dynamic range

E

E-TTL (Evaluative-Through The Lens)

An exposure system that uses a brief pre-flash before the main flash to calculate the exposure index (used by Canon cameras)

EXIF Data

Cameras not only store image data, most also store additional information such as the date and time the image was taken, aperture, shutter speed, ISO, and most other camera settings. These data, also known as "metadata" are stored in a "header" area in the picture file. A common type of header is the EXIF (Exchangeable Image File) header. EXIF is a standard for storing information created by JEIDA (Japan Electronic Industry Development Association) to encourage interoperability between imaging devices. EXIF data are very useful because you do not need to worry about remembering the settings you used when taking the image. Most imaging software can display and manipulate EXIF data.

Exposure

The exposure is the amount of light received by the image sensor and is determined by the aperture and shutter speed settings. The effect an exposure has depends on the sensitivity or ISO of the sensor.

The exposure generated by an aperture, shutter, and ISO combination can be represented by its exposure value "EV". Zero EV is defined by the combination of an aperture of f/1 and a shutter of 1 second at ISO 100. Each time the amount of light collected by the sensor is halved (e.g. by doubling shutter speed or by halving the aperture), the EV will increase by 1. For instance, 6 EV represents half the amount of light as 5 EV. High EVs will be used in bright conditions that require a low amount of light to be collected by the sensor to avoid overexposure. Conversely, low EV's will be used in low light conditions to prevent underexposure.

F

f numbers / f-stops

A numerical designation (f/2, f 2.8, f3 etc.) indicating the size of the aperture

Firewire

A high-speed serial interface technology developed by Apple Computer to provide interconnection of computer peripherals. It is also referred to as IEEE 1394 or iLink. Some professional cameras use Firewire to allow images to be downloaded to the computer

Fixed Focus

A lens that is preset to a given focal distance in order to provide the maximum depth of field.

Fill Flash

Fill Flash is a flash mode where the flash is set to trigger automatically regardless of the camera sensor readings. Fill flash would be used where the foreground of a scene was in shadow while the background was brightly illuminated. The flash would then 'fill in' the missing foreground illumination

Flash

A high intensity light source built into most cameras to provide image illumination in low light conditions. The flash can be used in a range of modes to suit the requirements of the scene. The camera, based on its sensor readings can trigger the flash automatically, it can be turned off or it can be forced to fire regardless of the sensor readings

Focal Length

The focal length of a lens is defined as the distance in mm from the optical centre of the lens to the focal point of the scene. If the focal length is set to infinity, the focal point is located at the image sensor.

Focus

The process of bringing one plane of the scene into sharp focus on the image sensor

FOV (Field of View)

The field of view (FOV) is determined by the angle of view from the optical centre of the lens out to the edges of the scene. Can be measured horizontally or vertically. Larger sensors have wider FOVs and can capture more of the scene.

Frame

A single digital image from a series of images that together make up a moving image sequence

Frame Rate

The number of frames in a moving image sequence that are displayed each second.

Fringing

A type of image distortion where a white fringe appears on the edges of objects in the image

G

GIF (Graphics Interchange Format)

A graphic file format limited to 256 colors, which used mainly for web graphics

Gradation

A smooth transition in shade between two colours

Gray Level

Gray Level is a term used to indicate the brightness of a pixel. It is a value associated with a pixel representing its lightness from black to white. Usually defined as a value from 0 to 255, with 0 being black and 255 being white

Gray Scale

An image containing all the shades of gray from black to white

H**Hot Shoe**

A connector generally found on the top of the camera that provides a powered attachment point for external flash units

Hunting

In an auto-focus system hunting is a term used to refer to a camera's behavior when it is having trouble finding the focus in an image so that the system moves in and out of focus continuously. It is said to be "hunting" for the correct focus point. Low light levels and moving subjects can cause this common problem

I**Image Formats**

There are a great many different ways of representing the data in an image on a computer or in a memory card device. An image format is a combination of image header, compression scheme and metadata in a single packaged format. TIFF, GIF and JPEG are examples of image formats

Image Processing Time

Image processing time is the time delay between the shutter being pressed and the camera being ready to take another picture (see Shutter Lag). The delay occurs because the camera has to process the data and transfer it from its buffer into the memory card

Image Sensor

The Image Sensor is a solid-state device containing an array of photocells or photosites that are charged depending on the light falling on them through the camera lens. Each cell represents a pixel in the final image

Image Stabilization

A system on some cameras designed to minimize artifacts resulting from camera shake during image capture

Inkjet

An Inkjet printer is a type of printer mechanism that sprays dots of ink onto paper to create the image. Modern inkjet printers can have resolutions of up to 2880 dpi (dots per inch) and create true photo-quality prints.

Interpolation

An image processing technique also called re-sampling that is used to increase (or decrease) the number of pixels in a digital image. Some digital cameras use interpolation to produce a larger image than the sensor captured or to create digital zoom. Virtually all image editing software supports one or more methods of interpolation. How smoothly images are enlarged

without introducing jaggies (see later) depends on the sophistication of the algorithm.

IR (InfraRed)

IR is light with a wavelength of 750 nm. It has a longer wavelength than visible light and is therefore invisible to the naked eye. It is often used for communication systems and sensors

IrDA

A data interface standard using Infrared light that allows data to be transferred between devices with no physical connection

ISO

Conventional film comes in different sensitivities (ASA rating) for different purposes. Low sensitivity film has a finer grain but needs more light to form the image. This is excellent for outdoor photography, but for low-light conditions or action photography (where fast shutter speeds are needed), a more sensitive or "fast" film is used. Faster films are 'noisier', that is the image is 'grainy'.

Likewise, digital cameras have an ISO rating indicating their level of sensitivity to light. ISO 100 is the "normal" setting for most cameras, although some go as low as ISO 50. The sensitivities can be increased to 200, 400, 800, or even 3,200 on high-end digital SLRs. When the sensitivity of an image sensor is increased, the output of the sensor is amplified, so less light is needed. Unfortunately that also amplifies the undesired noise. This creates more grainy pictures, just like in conventional photography. It is similar to turning up the volume of a radio with poor reception. Doing so will not only amplify the (desired) music but also the (undesired) hiss and crackle or "noise". Improvements in sensor technology are steadily reducing the noise levels at higher ISO's, especially on higher-end cameras. And unlike conventional film cameras that require a change of film roll or the use of multiple bodies, digital cameras allow you to instantly and conveniently change the sensitivity depending on the circumstances.

J

Jaggies

Popular term for the jagged appearance of curved or angled lines in digital imaging. Also known as pixilation or aliasing.

JPEG, JPG (Joint Photographic Experts Group)

A 'lossy' image compression format, this is the most common type of image file format used in digital cameras. JPEG images have a .jpg file extension. Some cameras allow a range of compression settings.

K

KB (Kilobyte)

1024 bytes.

L

Landscape

An image format where the normal 3:4 image ratio is changed to 4:3 by rotating the camera body. The image is oriented horizontally

LCD (Liquid Crystal Display)

A display technology using the properties of tiny crystals arranged in a matrix and held between layers of glass and electrodes

Lossless

Describes a compression technology which does not result in the loss of image information

Lossy

Describes a compression technology which results in the loss of image information

M

Macro

The ability of a lens to focus on a subject even when the lens is close to the object itself

MB (Megabyte)

1024 kilobytes.

Megapixel (MP)

A term used to indicate the size of the image sensor and consequently the maximum resolution of the final image. A 1 Megapixel digital camera is capable of a maximum image resolution of 1280 x 960 pixels. The most common digital cameras are rated at 1.3 Megapixel, 2.11 Megapixel and 3.34 Megapixel, but cameras are now available up to about 14 Megapixels

Memory Stick

A flash memory storage device developed by Sony that comes in sizes from 8 MB up to 2 GB

Metering

The process of calculating and then setting the exposure required to form an image under the existing environmental conditions. Metering sets the aperture, shutter, ISO and flash. There are three flavours.

Matrix Metering Mode

This is probably the most complex metering mode, offering the best exposure in most circumstances. Essentially, the scene is split up into a matrix of metering zones covering the entire image area, which are then evaluated individually. The overall exposure is based on an algorithm specific to that camera, the details of which are closely guarded by the manufacturer but usually involve some complex average value based on all the values

Center Weighted Average Metering Mode

Probably the most common metering method implemented in nearly every digital camera and the default for those digital cameras which don't offer metering mode selection. This method averages the sensor readings from the entire image frame but gives extra weight to the centre readings and is ideal for portraits and shots with a defined subject

Spot Metering Mode

With spot metering, the camera will only measure a very small area of the scene (between 2-5% of the viewfinder area). This will typically be the very centre of the scene, but some cameras allow the user to select a different off-center spot, or to recompose by moving the camera after metering. Spot metering is very accurate and is not influenced by other areas in the frame. It is commonly used to shoot very high contrast scenes. For example, if the subject's back is being hit by the rising sun and the face is a lot darker than the bright halo around their back and hairline (the subject is

"backlit"), spot metering allows the photographer to measure the light bouncing off the subject's face and expose properly for that, instead of the much brighter light around the hairline. This area will then become over-exposed

MMC (Multimedia Card)

A flash memory card used in some digital cameras and MP3 players.

Moire

Another type of image distortion typically observed when a scene with fine detail like vertical or horizontal lines cannot be resolved by the camera's image sensor.

MOV (.mov)

A computer file extension used to indicate a Quicktime movie file. Quicktime is an industry standard movie file container format developed by Apple Computer to deliver time-based media on computers and over the Internet.

MPEG (Motion Pictures Expert Group)

An industry standard moving image delivery format similar to the JPEG image format. All DVD, Satellite and Cable broadcasts use MPEG to encode the moving images. File extensions include .mpg, .m2v

N

Noise

Noise in digital images is most visible in uniform surfaces (such as blue skies and shadows) as monochromatic grain, similar to film grain (luminance noise) and/or as coloured waves (colour noise). Noise increases with temperature. It also increases with sensitivity, especially the colour noise in digital compact cameras. Noise also increases as pixel size decreases, which is why digital compact cameras generate much noisier images than digital SLRs. Professional grade cameras with higher quality components and more powerful processors that allow for more advanced noise removal algorithms display virtually no noise, especially at lower sensitivities. Noise is typically more visible in the red and blue channels than in the green channel.

O

Optical Zoom

A camera with Optical Zoom has a motor controlled real multi-focal length lens. As the zoom is operated, the lens moves out or in towards the camera body changing the relationship between the lens and the image sensor. This maintains the quality of the image.

Orientation Sensor

The orientation sensor is a sensor that detects when you turn the camera to take a vertical shot and rotates the picture before it is saved to the memory device so it won't be displayed on its side when you view it.

Overexposure

An image that appears too bright because of too much light reaching the sensor

Optic Axis

The Optic Axis of a camera system is an imaginary line running from the centre of the image sensor, through the centre of the lens and out into the scene. It is the line along which the light from the scene propagates through the system

P

Palette

A Palette is collection of the colours available for use within a computer system or display. The greater the number of colors, the larger the data file becomes and more processing time is required to display the images. If the system uses 24-bit color, then over 16.7 million colors are included in the palette.

Panorama

A panorama shot is an extremely wide-view image created by capturing a series of images

PCX

A compressed, lossy file format which supports RGB, indexed-color, grayscale, and bitmap color modes. Available as an option in some cameras

Photosite

A small area on the surface of an image sensor that captures the brightness for a single pixel in the image. There is one photosite for every pixel in the image

PICT

A graphics file format used primarily on Macintosh® computers

Pin-cushioning

An effect, which occurs with telephoto lens, in which straight lines at the edges curve in toward the centre. This is caused by the magnification the image increasing with distance from the optic axis

Pixel (Picture Element)

An individual element of either a CCD sensor or a digital image

Pixelization

A distortion effect seen when an image is enlarged too much and the individual pixels become visible. See also Jaggies

PNG (Portable Network Graphics)

A compressed image file format similar to JPG

Point and Shoot

A simple, easy to use camera with a minimum of user controls and automatic control of most functions

Port

A connection point on the computer that accepts a cable, allowing communication between the computer and another device

Portrait mode

Turning the camera body physically to take vertically oriented images. The image ratio is 3:4

PPI (Pixels Per Inch)

A measurement used to describe the size of a printed image in terms of the number of individual pixels in an inch. The higher the number, the more detailed the print will be

Preview Screen

A small LCD display screen on the back of the camera used to compose a new image or review images on a memory card. Also called Electronic Viewfinder

Q**QuickTime**

Quicktime is a motion video standard created by Apple. QuickTime video sequences are stored as .mov files and can contain multiple video and audio tracks. Some cameras store videos as Quicktime movies.

R**RAM (Random Access Memory)**

The most common type of computer memory and used by the computer to store temporary data, such as that from software, programs, and data currently being used. RAM is usually volatile memory, meaning that when the computer is turned off, crashes, or loses power, the contents are lost. A large amount of RAM usually offers faster manipulation or faster background processing

Rangefinder

The viewfinder on most cameras is a separate viewing device that is independent of the lens. Often mounted above and to the right or left of the lens. It exhibits a problem known as parallax when trying to frame subjects closer than five feet from the camera so it is advisable to use the color LCD when shooting close-ups

RAW (CCD raw format)

The un-compressed and un-processed data collected directly from the image sensor and sent to the memory device as an image. Image quality is superior to that of jpeg images. Most high-end Digital SLR's supports this format

Recycle time

The time it takes to process and store a captured image.

Red-eye and Red-eye Reduction

Red-eye is an effect caused by an electronic flash reflecting off of the human eye, giving the eyes a red tint. Red-eye reduction mode fires a preliminary flash to close the iris before firing the main flash to take the picture.

Refresh rate

The time it takes the camera to capture the image after you press the shutter release.

Resolution

Resolution is expressed as either the number of pixels counted horizontally by the number of pixels counted vertically or by the number of megapixels. It can be expressed as one of the following standard formats: QVGA (320 x 240), VGA (640 x 480), SVGA (800 x 600), XGA (1024 x 768) UXGA (1600 x 1200), or as a simple ratio of pixel dimensions

S

Saturation

Saturation is the degree to which a color is undiluted by white light. If a color is 100 percent saturated, it contains no white light. If a color has no saturation, it is a shade of gray.

Scanner

A peripheral device that uses light to read printed documents and converts the image into a digital format that can be stored and manipulated on a computer

SD Card (Secure Digital card)

A flash memory card identical in size and shape to the MultiMedia Card (MMC) flash cards

Sensor

An electronic device that converts the light passing through the camera optical system into an electrical signal

Sepia

Describing the shades of brown found in the pictures from very early in photography, the term is also used as a special effect on some digital cameras, which converts the existing image into shades of brown

Shutter

The device in the camera that opens and closes to let light from the scene strike the image sensor and expose the image. The three primary types used in digital photography are digital shutters, iris shutters and focal plane shutters

Shutter Lag

Shutter Lag is the time delay between the shutter being pressed and the image being captured by the sensor. This lag is due to the camera having to calculate the exposure, set the white balance and focus the lens

Shutter Speed

The length of time the shutter stays open to let light pass through the lens to the focal plane

SmartMedia (SSFDC, Solid State Floppy Disc Card)

A popular form of flash memory card

Smoothing

An editing technique that averages pixels with their surrounding pixels to reduce contrast and simulate an out-of-focus image

T

TIFF (Tagged Image File Format)

A lossless uncompressed image file format that is available as an alternative to the lossy jpeg format in some cameras. The image files are bigger than those using a compressed format

Telephoto

A lens with a focal length that gives you the narrowest angle of coverage, good for bringing distant objects closer

Thumbnail

A small, low-resolution version of a larger image file that is used for quick identification

Time-Lapse

The process of capturing a series of images at preset intervals

TTL (Through The Lens)

An autofocus or autoexposure system that works through the camera's lens

TWAIN

A protocol for exchanging information between applications and devices such as scanners and digital cameras

U**Underexposure**

A picture that appears too dark because not enough light was available to the imaging system either because of the camera settings or because there was not enough light in the scene

Unsharp Masking

A process by which the apparent detail of an image is increased by manipulation during capture or after capture on a computer running suitable software

Upload

The process of sending a file from a computer to another device or from a device to a computer

URL (Uniform Resource Locator)

The unique address or location of a Web page or other document on the World Wide Web

USB (Universal Serial Bus)

A high-speed interface on computers and computer peripherals such as cameras, printers and scanners, which allows much faster transfer of computer data

V**Video Card**

A card that fits into a computer's expansion slot so you can edit digital video.

Video Out

An output connector, usually a 3.5 mm mini jack, which connects a video capable device to a television, monitor, or video recorder using either the PAL or NTSC or video format. Some cameras have video out to enable images to be viewed on a television.

W**Wide-angle Lens**

A lens using the focal length that gives you the widest angle of coverage, also called a short-focal-length lens.

Z

ZLR (Zoom Lens Reflex)

A term used by Olympus® to describe their fixed mount lens SLR type cameras. An SLR camera has interchangeable lenses; a ZLR has a non-removable lens.

Zoom Lens

A Zoom Lens is a lens that has a motor controlled or manual variable focal length. The most common zoom lens on digital cameras has a 3:1 ratio.