

## **Photographic Glossary**

### **Adapter**

Any accessory that permits a camera to accept additional or alternative equipment.

### **AE**

Automatic Exposure. Programmed auto exposure, aperture-priority auto exposure, shutter-priority auto exposure.

### **AE Lock**

Holds an automatically controlled shutter speed and/or lens aperture if you need to adjust the composition of your photograph, but wish to retain the previous exposure reading.

### **Ambient Light**

The natural light in a scene.

### **Angle of View**

The area of coverage that is viewed by the lens on a camera.

The angle of view is determined by the focal length of a lens.

### **Aperture**

The opening in a lens system through which light passes to the focal plane.

It is usually expressed as a fraction of the focal length, that is, f/stop.

### **Aperture Priority**

Auto-exposure system in which the photographer selects the aperture and the camera selects the appropriate shutter speed.

### **APO**

Apochromatic. A type of lens which focuses different wavelengths of light on the image-plane to improve the sharpness of the image. Especially useful with telephoto lenses.

### **Archival**

The ability of a material, which includes some printing papers, album papers, compact discs, and adhesives, to last for many years. Many archival quality materials are also acid-free to further protect your photographs.

### **ASA**

American Standards Association. Used with a number to designate the emulsion speed and light sensitivity of the film. Also known as ISO.

### **Automatic Camera**

A camera with a built-in exposure meter that automatically adjusts the lens opening, shutter speed, or both.

### **Available Light**

The term usually implies a low intensity light condition under which photographs are taken without flash or other supplementary lighting. Also called "existing light".

### **B (bulb)**

A marked setting on some cameras that permits the shutter to remain open as long as the shutter release button remains fully depressed.

### **Back Light**

Illumination from a source behind the subject as seen from the position of the camera.

**Bounce Light**

Diffuse illumination that is produced by directing a flash or flood lamp away from the subject towards a reflective surface such as a ceiling, wall or reflector.

**Bracketing**

To make a number of different exposures of the same subject in the same lighting conditions.

**Buffer**

Memory in the camera that stores digital photos before they are written to the memory card.

**Burning**

Selectively darkening a part of a photograph with an image editing program in digital photography. With film, burning in is performed in the darkroom during the printing process.

**Cable Release**

A electronic or mechanical device which attaches to a camera to trigger the shutter release, allowing the exposure to be made without movement of the camera.

**Camera**

The Latin meaning is "room". The instrument with which photos are taken.

**Camera Obscura**

The Latin meaning is "dark room". The camera obscura is the ancestor of the photographic camera. It was actually used by early artists as an aid for sketching.

**CCD**

Charge Coupled Device. One of the two main type of image sensors used in digital cameras. When a photograph is taken, the CCD is struck by light coming through the camera's lens. Each of the thousands or millions of tiny pixels that make up the CCD then converts this light to electrons. The number of electrons are measured and then converted to a digital value. This step occurs in a camera's processor component called the analog-to-digital converter.

**CD-R**

CD –Recordable. A compact disc that usually holds 650 or 700 MB of digital information. This can include digital photos. Creating one is commonly referred to as burning a CD. A CD-R disc can only be written to once. It is an ideal storage medium for original digital images.

**CD-RW**

CD-Rewritable. Very similar to a CD-R, except that a CD-RW disc can be written and erased many times. This type of CD is excellent for back-up tasks on your computer, but not well suited to storage of original digital photos.

**Circle of Confusion**

An optical term used the area of an out of focus image point formed by the lens. The more out of focus the image is, the larger the circle of confusion.

**Close Up**

A general term applied to photographs that are taken at a relatively close distance to the subject.

**CMOS**

Complementary Metal-Oxide Semiconductor. This is one of two main types of image sensors used in digital cameras. Its main function is the same as CCD.

**CMYK**

Cyan, Magenta, Yellow, Black. The four colors in the ink-sets of many photo-quality printers. Some printers now use six or more ink colors, including lighter shades of cyan and magenta, to achieve smoother colors

**Coating**

A thin layer or multiple layers of anti-reflective materials that are applied to the surface of the lens elements to reduce the intensity of flare light within the lens, thus increasing the brightness and contrast of the image.

**CompactFlash**

A commonly used type of digital camera card. A CompactFlash memory card can contain either flash memory or a miniature hard drive.

**Composition**

The visual arrangement of all the elements in a photograph.

**Contrast**

The comparison of tonal values in a negative or print. A contrasty negative or print has more intense light and dark areas with few middle tones.

**Definition**

Refers to the power of a lens to produce sharply defined images and to the clarity of detail in the photograph it produces.

**Depth of Field**

The area in photograph between that appears in acceptable focus in front of and in back of the optically focused distance.

**Diaphragm**

The series of metal plates mounted behind or between the elements of a lens that can be adjusted to form larger or smaller openings through which light is admitted. These openings are usually calibrated in f-numbers.

**Distortion**

The imperfect or unnatural shape of an image caused by certain types of lenses, such as the curvature of lines with wide angle lenses.

**Dodging**

Selectively lightening a part of a photograph with an image editing program in digital photography. With film, dodging is performed in the darkroom during the printing process.

**Download**

The process of moving computer data from one location to another. For example, to receive data from the internet to a computer, or transferring photographs from a camera memory card to a computer. Quite simply, download means to receive data.

**DX-Coding**

The code that is printed on film cartridges that automatically provides most newer model film cameras with film speed information.

**EXIF**

Exchangeable Image File. The file format that is used by most digital cameras. For example, when a typical camera is set to record a JPEG, it's actually recording an EXIF file that uses JPEG compression to compress the data within the file.

**Exposure**

Denotes the combination of shutter time and lens aperture that permits a controlled amount of light to pass through the lens striking the film or paper. Also used to describe the actual act of taking the photograph.

**Exposure Compensation**

Modifying the shutter speed and/or lens aperture as recommended by the camera's light meter to be able to produce special creative effects.

**Exposure Meter**

An instrument used to measure light falling on a given subject and to equate that information into the correct shutter speed and aperture setting.

**External Flash**

A supplementary flash unit that connects to the camera with a cable, or is triggered by the light from the camera's internal flash.

**File**

A computer document.

**Fill Flash**

An exposure technique that is actually a pleasing combination of flash and available light in the proper balance. Some digital cameras include a fill flash mode that forces the flash to fire, even in bright light situations.

**Film**

The light sensitive material used for exposure.

**Film Speed**

The relative sensitivity of the film to light, usually measured in ISO numbers.

**Filter**

A piece of glass used over the lens to emphasize, eliminate, or change the density or color of the subject, or a portion of the subject.

**Fire**

Slang terminology for shooting a picture. Example: You press the shutter button to fire the shot.

**FireWire**

Cabling technology used to transfer data to and from digital devices at high speeds. Some professional digital cameras and memory card readers connect to the computer over FireWire. FireWire card readers are faster than those that connect via USB. Also known as IEEE 1394, FireWire was invented by Apple Computer, but is now commonly used with Windows-based PCs as well.

**Fisheye Lens**

An ultra-wide angle lens which has a barrel shaped distortion making the straight lines near the edges of the frame appear to curve outward.

**Flare**

Stray light that passes through the lens, but is not focused to form the primary image causes what is known as a flare.

**Flash**

A brief, instantaneous burst of light produced by a flash bulb or an electronic flash unit.

**F-Number or f/stop**

A system for determining and adjusting lens apertures. The larger the number, the smaller the lens opening. F-numbers are fractions of the focal lengths.

**Focal Length**

The distance from the optical center of the lens to a point at which the object can be sharply focused when the lens is set at infinity.

**Focus**

Refers to the point at which the light rays converge to form an image, and to the adjusting of the lens to produce a sharp image.

**Foreground**

The area between the camera and the main subject.

**Front Lighting**

Light falling on the subject from in front of the camera.

**Glossy**

A word used to describe paper with a smooth surface that has a mirror-like finish.

**Grain**

The mottled appearance of a print that is attributed to noticeable enlargement.

**Gray Card**

A card with a known reflectance, usually 18%, used to determine the exposure.

**Grayscale**

A photo made up of varying tones of black and white. In digital photography, the word grayscale is synonymous with black and white.

**Guide Numbers**

The power of the flash in relation to the ASA or ISO film speed. Guide numbers are listed in either meters or feet and are used to calculate the f/stop for correct exposure with this formula:  $f/stop = \text{guide number} / \text{distance}$ .

**Highlights**

The brightest area on a photograph and the darkest area on a negative.

**Histogram**

A graphic representation of the range of tones from dark to light in a photograph. If your digital camera includes a histogram feature, you will be able to check the precise exposure of a photo.

**Hot Shoe**

A mounting device, usually located on top of the camera, that will enable a flash unit or speedlight to be mounted on and triggered by the camera.

**Hyperfocal Distance**

The nearest distance at which a given lens can be focused to produce satisfactory sharpness from half that distance to infinity.

**Image**

The visual result of the exposure and development on a photographic emulsion.

**Image Browser**

An application that enables you to view digital images. Some browsers allow you to make changes such as renaming files, converting files from one format to another, or adding text.

**Image Editor**

A computer program that enables you to adjust a photograph and improve its appearance by darkening or lightening the photo, rotating it, adjusting the contrast, cropping, removing red-eye, and much more.

**Image Resolution**

The term for the number of pixels per inch in a digital produced photograph.

**Incident Light**

The light reaching the subject from all sources.

**Infinity**

In photography, the distance from the camera beyond which no further focusing adjustment is required to maintain a sharp image.

**Infrared**

Light rays beyond the red end of the spectrum.

**Inkjet**

A printer that prints by placing ink on the paper which is sprayed in droplets through tiny nozzles.

**Interchangeable Lenses**

A lens which can be removed from a camera body.

**ISO**

International Standards Organization. The number represents the film's sensitivity to light. A higher ISO number indicates that the film is more sensitive and will require less light for proper exposure. Even though digital cameras do not use film, the manufacturers have adopted the same rating system for describing the sensitivity of the camera's imaging sensor. Digital cameras often include a control for adjusting the ISO speed. Some cameras will make these adjustments automatically depending upon the lighting conditions. As the ISO speed increases, the quality of the image decreases.

**JPEG**

Joint Photographic Experts Group. A standard for compressing image data that is used within a file format. The EXIF-JPEG is commonly used in digital cameras.

**Kelvin**

The unit of measurement (degrees) used to describe the color content of visible continuous spectrum light. Example: 5000K refers to normal daylight.

**Key Light**

Also called the main light in studio photography. Refers to the principal light source, usually the brightest, that lights the subject, or the one that will have the greatest overall effect on the image.

**Laser Printer**

A common type of printer that quickly produces high quality text and images on plain paper. The laser printer implements a xerographic printing process in which the image is produced by the direct scanning of a laser beam across the printer's photoreceptor.

**LCD**

Liquid Crystal Display. A low power monitor often used on the rear of a digital camera to display settings or the photograph itself.

**Lens**

One or more pieces of optical glass or other material designed to collect and focus light rays to form a sharp image.

**Lens Barrel**

The tube in which the lens is mounted.

**Lens Hood**

A detachable accessory used to shield the lens from extraneous light. Also called a lens shade.

**Lens Mount**

A portion of the camera which holds the lens to the body.

**Lens Tissue**

A soft, lintless tissue used specifically for cleaning lenses.

**Light Meter**

See exposure meter.

**Macro Lens**

A special type of lens used for photographing subjects at an extremely close range.

**Matrix**

Autoexposure metering where the camera sets both the aperture and shutter speed according to data stored in the camera's built-in memory, comparing the scene to be photographed to reference scenes.

**Media**

Material that digital information is written to and stored on.

**Megabyte**

MB. A measurement of data storage equal to 1024 kilobytes (KB).

**Megapixel**

Equal to one million pixels.

**Memory Stick**

A memory card that is used specifically with Sony digital cameras. It is flash-based storage for your photos.

**Monopod**

A monopod is a piece of equipment shaped like a pole that is used to help support a camera. It allows the camera to be held steadier, which enables the photographer to take sharp pictures under varying conditions such as a slow shutter speed or with a long focal length lens. Monopods quickly fold or "telescope" when not in use so they can be transported and stored more easily.

**Negative**

A photographic image in which the subject tones have been reversed. Usually it refers to film.

**NIMH**

Nickel Metal-Hydride. A type of rechargeable battery that provide sufficient power to run digital cameras and flashes. These batteries can be recharged many times.

**Online Photo Printer**

A company or business that can receive digital photos uploaded to its website, prints them, then has them ready for the customer to pick up or returns them by mail.

**Optical Image Stabilization**

A mechanism used in digital photography and video that stabilizes the recorded image by varying the optical path to the sensor. The implementation of this technique actually occurs in the lens. Different manufacturers have different names for the OIS technology: Canon - Image Stabilization or IS (Canon was the first to produce an OIS lens); Nikon - Vibration Reduction or VR; Panasonic and Leica - Mega OIS; Sony - Super Steady Shot or SSS; Sigma - Optical Stabilization or OS; Tamron - Vibration Compensation or VC; and Pentax - Shake Reduction or SR.

**Overexposure**

In traditional photography, a condition in which too much light was allowed to reach the film.

**Panning**

A photography technique in which the camera follows a moving subject. If panning is done correctly, the subject remains sharp and clear while the background is blurred. This gives a sense of motion to the photograph.

**Photoflood**

A photographic light source.

**Photography**

Derived from the Greek word meaning "painting or writing with light".

**Pinhole Camera**

A camera that has a pinhole aperture in place of a lens.

**Pixel**

Picture Element. Digital photographs are comprised of thousands or millions of pixels. The actual building blocks of a digital picture.

**Point & Shoot Camera**

A point & shoot camera is also commonly called a compact camera. Most have automatic systems for focus and exposure. They also often have a built-in flash. They operate differently than an SLR camera in that the image that is seen in the viewfinder by the user of a compact camera is not the same image that passes through the primary lens of the camera.

**Polarizer**

A filter or screen which transmits polarized light, which is waves of light that vibrate uniformly in, or parallel to, a particular plane. Due to these properties, a polarizing filter will reduce glare from non-metallic surfaces and increase the general intensity of a photograph.

**Quartz Iodine Lamp**

A compact tungsten lamp that is specifically designed to maintain its color temperature and light intensity throughout its working life. However, the term quartz lights simply a generic term for various types of lights that use tungsten-halogen lamps.

**Rangefinder Camera**

A camera with a built-in rangefinder. The rangefinder itself is an optical-mechanical device that consists of a system of lenses or prisms. When it is installed in the viewfinder of a camera, it will visually show the out of focus image.

**RAW**

The RAW file format is the data that comes directly off the CCD, with no in-camera processing performed.

**Red-Eye**

The red glow from a subject's eyes caused by light from a flash reflecting off the blood vessels behind the retina of the eye. The effect is most common when light levels are low such as outdoors at night or inside a dimly lit room.

**Reflector**

Any surface used to reflect light.

**Reflex Camera**

A type of camera in which the viewfinder image is formed by the lens and reflected by an inclined mirror onto a ground glass.

**Refraction**

The bending of light rays as they pass obliquely from one medium to another medium of different density.

**Resolution**

In digital imaging, the resolution often refers to the number of pixels per inch. It can also refer to printer resolution or digital camera CCD resolution. In traditional photography, resolution refers to the ability of a lens or photographic material to reproduce small details and is measured in lines per millimeter.

**RGB**

Red, Green, Blue. The three colors to which the human eye, digital cameras, and many other devices are sensitive.

**Safelight**

Illumination in a darkroom that will not normally expose photo sensitive material.

**Saturation**

Refers to the richness of the colors in a photograph.

**Self-Timer**

A device that is either attached or built in to a camera to allow a time delay before the shutter is released.

**Sensitivity**

See ISO.

**Sepia Toning**

A chemical process which converts the blackened silver image to a brownish image.

**Serial**

A method for connecting an external device such as a printer, scanner, or camera to a computer. It has been all but replaced by USB or FireWire in computers today.

**Sharpness**

The clarity of detail in a photograph.

**Shutter**

A camera's mechanical device for controlling the length of time light is admitted to the sensor or film.

**Shutter Priority**

When a photographer selects the shutter speed and the camera automatically sets the corresponding aperture. Shutter Release

**Shutter Speed**

The camera's shutter speed is a measurement of how long the shutter remains open as the picture is taken. The slower the shutter speed, the longer the exposure time. The shutter speed and aperture together control the total amount of light reaching the sensor or film. If the shutter speed is set at 1/125 or simply 25, that means that the shutter will remain open 1/125th of one second.

**SLR**

Single Lens Reflex. A camera with one lens (as opposed to the Twin Lens Reflex camera) that involves a mirror and prism that the viewer looks through (as opposed to a point and shoot or rangefinder camera where the viewer looks through a separate viewfinder).

**Spectrum**

The colored bands of light formed by dispersion of white light as it passes through a prism.

**Spotting**

A kind of retouching using a fine brush and special dyes to correct spots or defects on a negative or print.

**Stop Down**

To reduce the size of the lens opening.

**Thumbnail**

A small version of a photograph. Image browsers commonly display thumbnails of multiple photos.

**Time Exposure**

Refers exposures with long shutter speeds Typically, longer than one second.

**Transparency**

A photographic image which is viewed by transparent light such as a color slide.

**Tripod**

A three-legged stand or support on which a camera can be attached. Used for stability, long exposures, and getting the photographer in the photo. Tripods are usually adjustable in height and have a means of tilting the camera.

**TTL**

Through The Lens. Commonly used when referring to metering through the lens as opposed to using a separate meter. Effective for fill flash and other challenging lighting situations.

**Upload**

The opposite operation of a download. To upload means to send data from a local system to a remote system, FTP server, or website. For example, if you upload your digital images to Arlington Camera we can then print them in our lab for you. Simply put, to upload means to send.

**Ultraviolet**

Rays which comprise the invisible portion of the spectrum just beyond the visible violet.

**USB**

Universal Serial Bus. A protocol for transferring data to and from digital devices. Many digital cameras and memory card readers connect to the USB port on a computer. Card readers are typically faster than using the camera.

**White Balance**

A function on a camera to compensate for different colors of light being emitted by different light sources.

**Wide Angle Lens**

A lens whose focal length is substantially shorter than the focal length of a normal lens for the image size produced by the camera. This may be dictated by the dimension of the image frame at the film plane for film cameras or the dimension of the sensor for digital cameras.

**X Setting or X Sync**

A shutter speed setting at which flash synchronization occurs. On manual film cameras, the x setting designates the maximum shutter speed at which the camera synchronizes with the flash.

**X-Ray Film Pouch**

A protective lead lined device used for storing film when passing through security check points that use x-rays, such as at an airport. Since x-rays can fog photographic film, the x-ray pouch is designed to prevent or decrease the absorption of electromagnetic radiation

**Yellow Filter**

The most commonly used filter with black and white film. A yellow filter absorbs UV and blue light. It is particularly useful in producing high contrast images and reducing haze such as in aerial and mountain photography.

**Zoom Lens**

A type of lens with a wide range of various focal lengths.