

Aperture Priority: A mode in which a desired lens opening (f-stop) is manually selected and locked in; the camera then chooses an appropriate shutter speed for proper exposure. Used primarily to control depth of field (the range of sharpness) in front of or behind a subject or object.

Artifacts: Unwanted effects in the image such as blotches (from over-compression), Christmas tree lights (multi-colored speckles from bright highlights), noise (granularity from underexposure) and other aberrations that sometimes afflict digicam images.

Aspherical Lens: A lens designed to reproduce images better by having its edges flattened so that it is not a perfect sphere, hence: "a" (not) "spherical".

Autofocus: The camera automatically focuses on a subject or object at which it is pointed.

Buffer: An temporary electronic storage area where several already-exposed digicam images can wait in line to be processed. This speeds the interval between shots since each photo does not have to be processed before the next one can be taken.

CCD: Charge-coupled device. The sensor array that makes up the imaging surface of the digicam. The more sensors a CCD has, the higher the image resolution will be.

CMOS: Complimentary Metal Oxide Semiconductor. Used in some digicams instead of CCDs because they have low power requirements and are less expensive.

CMYK: Cyan, Magenta, Yellow, and Black. The colors that are mixed to print pictures on paper. Most ink-jet and dye-sublimation printers use combinations of these colors to reproduce images.

Color Temperature: A method of describing the qualities of warm (yellowish) or cool (bluish) light and measuring it in Degrees Kelvin (K).

Compact Flash: A matchbook-sized memory card used in many digital cameras today and presently capable of storing over 200MB of information.

Compact Flash II: A new Compact Flash standard with increased capacity.

Compression: Reducing digicam picture file sizes in the camera after they're shot, usually according to Joint Photographic Experts Group (JPEG) specifications so more images can be stored on the memory card. The degree of compression can be user-specified on many models depending on the ultimate quality needed.

dpi: Dots-per-inch. Printers lay down multiple dots of ink when printing to reproduce each pixel of the image. The higher the dpi rating of the printer, the better it can define each pixel. Also a measurement of a scanner's resolution, although a more precise term would be spi (samples-per-inch).

Depth Of Field: The range of sharpness in front of and behind the subject or object focused on.

Digital Zoom: An electronic enlargement of part of the image making it appear to be closer and bigger, simulating an optical zoom lens at a telephoto setting. The image is actually cropped, resulting in loss of surrounding pixels and decreased resolution. In some digicams, interpolation is used to offset this loss. (see Interpolation).

Downsampling: See "Interpolation"

DPOF: Digital Print Order Feature. Allows pictures to be selected in the camera for future direct-from-memory-card printing on photo-finishing machines equipped with this feature.

Dye Sublimation: A type of printing process in which a dye ribbon is heated by the print head creating a gas that hardens onto special paper. This creates soft-edged spots of color that melt into each other and give the appearance of a continuous tone photograph.

EXIF: Exchangeable Image File. The JPEG compression mode used by most digicams.

Exposure Compensation: A feature on most digicams that allows manual override of the camera's light meter to achieve better exposure under difficult lighting conditions.

External Flash Sync: Allows connection to other flash units instead of (or in addition to) the digicam's built-in flash. Very useful for experimenting with off-camera lighting effects and for use with studio strobes.

Fixed Focus: The camera's focus is pre-set to a distance at which most subjects or objects will be in focus from near to far. Not as precise as autofocus.

Flashpath: A floppy disk-sized shell into which a SmartMedia memory card is inserted so that images may be transferred directly to the computer through its floppy drive. Despite its convenience, it requires batteries and is slower than a PC (memory) card reader.

Focal Length Equivalency: Since most users are familiar with 35mm camera lenses, digicam lens specs are frequently stated in those terms. For example, a digicam lens that zooms from 9.2mm to 28mm would be described as 36mm to 110mm (equiv).

IBM MicroDrive: A high capacity (up to one gigabyte) spinning storage device that can be used with most digicams accepting Compact Flash II memory cards.

InfoLithium: A Sony lithium-ion battery that indicates its remaining shooting time in minutes on the digicam's LCD Monitor screen.

Inkjet: A type of printing in which dots of ink are sprayed onto paper to create the image. Some inkjet printers can lay down 1440 dots of ink per inch,

resulting in photo-quality prints (provided that the image has adequate resolution in pixels to begin with).

Interpolation: The process of adding or subtracting pixels to an image (usually in an imaging program) to increase or reduce its size at a desired resolution. Also known as resampling or upsampling and downsampling. Interpolation changes the file size of the image. See also: "Resizing."

ISO Equivalency: A measure of the digicam's sensitivity to light using conventional film speeds as a yardstick. Most digicams have fixed ISO (International Standards Organization) equivalents but others can be set to sensitivities ranging from 80-640 to achieve adequate exposure under different lighting conditions.

Jaggies: The stair-stepping effect that can be seen in curves and diagonal lines when a picture's resolution is too low and individual pixels begin to show in the image.

JPEG: Joint Photographic Experts Group (see "Compression").

LCD Monitor: The Liquid Crystal Display color screen on most digicams, usually 1.8 to 2.5 inches measured diagonally and used to check images after they are shot. The LCD monitor can also be used to frame pictures before they are taken and is usually more accurate than the optical viewfinder, though not as convenient to use.

Lens Distortion: An abnormal rendering of lines in an image; most commonly they may appear to be bending inward (pincushion distortion) or outward (barrel distortion). Correctable by using a plug-in in an imaging program.

Lithium-ion (Li-ion): A long-lasting rechargeable battery used in some digicams.

Macro: The ability of a lens to focus just inches away from an object or subject so as to produce big close-ups, sometimes even larger-than-life size.

Manual Focus: The digicam's focus can be set by the user at any point from near to far or in steps such as 3 feet, 15 feet, Infinity. A useful override feature on some autofocus cameras which sometimes refuse to fire when they cannot focus accurately in very low light or on fast-moving subjects or objects.

Maximum Aperture: A measure of how much light can pass through a lens when its diaphragm is opened fully. Lenses with maximum apertures of f2 or f2.8 are categorized as "fast" and can produce correct exposures under lower light than "slow" lenses with maximum apertures of f3.5 or smaller.

Megapixel (also MP): One million pixels. When the length times width of a digicam's pixel array reaches one million, its resolution is then described in megapixels. 1,300,000 pixels equals 1.3 megapixels.

Memory Card Reader: Allows rapid transfer of images recorded on digicam memory cards to a computer. The memory card—containing

a folder of images— shows up as an external drive on the computer's desktop and the entire folder can be copied over to the hard drive in seconds.

Memory Stick: Sony's proprietary miniature flash memory card.

NiMH: Nickel Metal Hydride: A type of digicam rechargeable battery that provides very consistent voltage and is environmentally safe.

Noise: The electronic equivalent of excessive grain in a film image. Usually found in images shot at high ISO settings.

Optical Viewfinder: An optical glass device on the digicam which, when looked through, shows the intended image to be photographed. The best digicams have optical viewfinders in addition to LCD monitors because the LCD can "wash out" in bright sunlight, making it virtually impossible to see the image.

Optical Zoom: A zoom lens which uses movement of lens elements to achieve various fields of view. Regardless of whether the zoom is set for taking pictures at wide-angle or telephoto settings, the resolution of the image remains the same.

Photo CD: A CD-ROM holding about 100 images, each scanned from slides or negatives at five different resolutions. The photographer can then choose the best resolution to achieve the size of a desired photo.

Picture CD: Similar to Photo CD but with only one medium resolution scan for each image.

Pixel: From a contraction of the words Picture Element. The basic element of resolution. Digicam resolution is expressed in pixels (not pixels-per-inch).

Pixelation: See "Jaggies."

Plug-in: A small application that can be added (plugged-in) to a program to give it more functionality. For example, a distortion-removal plug-in.

ppi: Pixels-per-inch. A measurement used to describe the size of the final printed image. An image that has a higher number of pixels-per-inch

will show more detail than one which has fewer pixels-per-inch.

Pre-Flash: Some digicams fire two flashes, the first adjusts the white balance (see below) and the second exposes the picture. This is different from a red-eye reduction mode in which multiple weak flashes are fired to close down the subject's iris prior to the actual exposure.

Red-Eye: A phenomenon which occurs when the flash is fired directly into the subject's eyes in a dimly lit or dark environment. Blood vessels in the back of the eye reflect their color back through the iris of the eye which is usually opened wide in dim light. Most digicams have a flash mode to reduce or eliminate this condition.

Reflex Viewing: The intended image is viewed directly by your eye through the taking lens giving you as close to what you see as you're apt to find. Also called TTL (through the lens) and SLR (single lens reflex) viewing.

Resizing: In which the size of the image is changed by squeezing pixels together (to make them smaller) or spreading them apart (to make them bigger) without adding or subtracting any. Thus, the image's file size remains the same. See also: "Interpolation."

Resolution (Res): A measure of how much information a digital camera can record, usually expressed in pixels or megapixels and arrived at by multiplying the length (in pixels) times the width (in pixels) of the CCD sensor array.

RGB: Red, Green, and Blue: The primary colors of light which, when mixed in varying proportions can produce all colors. Digital cameras and PC monitors use RGB to record and display colors.

Shutter Priority: A mode in which a desired shutter speed is manually selected and locked in; the camera then chooses an appropriate lens opening (f-stop) for proper exposure. Used primarily to prevent motion-blur in fast-

moving subjects or objects.

Slow Synch: A flash mode in which the image is given some exposure before or after the flash is fired so as to bring out details in the background that would normally be underexposed or not recorded at all.

SmartMedia: Also known as SSFDC (Solid State Floppy Disk Card). A postage stamp-sized memory card used by some digicam manufacturers as an alternative to Compact Flash cards and presently capable of storing up to 64MB of digital image information.

TIFF: Tagged Image File Format. Most digicam images are recorded as TIFFs and then JPEG-compressed in the camera. Some digicams now offer an uncompressed TIFF option so an image can be retrieved in its original state, eliminating the possibility of compression artifacts.

TFT: Thin Film Transistor. A type of digicam monitor display that allows a wider, brighter viewing angle than a standard LCD monitor.

Upsampling: See "Interpolation"

USB: Universal Serial Bus. A computer port to which peripherals can be connected and, when used by a USB-equipped digicam, allows rapid transfer of digital camera images to the computer.

White Balance: In which the color temperature of the scene is measured prior to exposure and electronically adjusted so that white objects will not take on excessive color casts of red, blue or, if shot under most fluorescent lighting, green.

Zoom Lens Apertures: Designated as two maximum apertures on the lens ring as: 1:2.8-4.0. The first number after the "1" (f2.8) applies if the lens is in full wide angle position. The second (f4), if it is at full telephoto. Similarly, minimum apertures will also vary by a full f-stop. If the zoom is set between wide and telephoto, the maximum aperture will fall in the middle, in this case, f3.5.