

## **DEFINITIONS and PHRASES of DIGITAL PHOTOGRAPHY:**

### **Ambient light:**

The natural light in a scene.

### **Archival:**

The ability of a material, including some printing papers and compact discs, to last for many years.

### **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, the aperture opening when set to f/2.8 is larger than at 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 to your own liking. See also shutter speed.

### **Application:**

A computer program, such as an image editor or image browser.

### **Buffer:**

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

### **Burning:**

Selectively darkening part of a photo with an image editing program.

### **CCD:**

Charge Coupled Device: one of the two main types of image sensors used in digital cameras. When a picture 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 convert this light into electrons. The number of electrons, usually described as the pixel's accumulated charge, is measured, then converted to a digital value. This last step occurs outside the CCD, in a camera component called an analogue to digital converter.

### **CD-R:**

CD Recordable: a compact disc that holds either 650 or 700 MB of digital information, including digital photos. Creating one is commonly referred to as burning a CD. A CD-R disc can only be written to once, and is an ideal storage medium for original digital photos.

### **CD-RW:**

CD Rewritable: similar in virtually all respects to a CD-R, except that a CD-RW disc can be written and erased many times. This makes them best suited to many backup tasks, but not for long term storage of original digital photos.

### **CMOS:**

Complementary Metal Oxide Semiconductor: one of the two main types of image sensors used in digital cameras. Its basic function is the same as that of a CCD. CMOS sensors are currently found in only a handful of digital cameras.

### **CMYK:**

Cyan, Magenta, Yellow, Black. The four colours in the ink sets of many photo-quality printers. Some printers use six ink colours to achieve smoother, more photographic prints. The two additional colours are often lighter shades of cyan and magenta.

### **Compact Flash™:**

A common type of digital camera memory card, about the size of a matchbook. There are two types of cards, Type I and Type II. They vary only in their thickness, with Type I being slightly thinner. A Compact Flash memory card can contain either flash memory or a miniature hard drive. The flash memory type is more prevalent.

### **Contrast:**

The difference between the darkest and lightest areas in a photo. The greater the difference, the higher the contrast.

### **Digital camera:**

A camera that captures the photo not on film, but in an electronic imaging sensor that takes the place of film.

### **Dodging:**

Selectively lightening part of a photo with an image editing program.

**Download:**

The process of moving computer data from one location to another. Though the term is normally used to describe the transfer, or downloading, of data from the Internet, it is also used to describe the transfer of photos from a camera memory card to the computer.

**DPI - Dots per inch:**

A measurement of the resolution of a digital photo or digital device, including digital cameras and printers. The higher the number, the greater the resolution.

**EXIF:**

Exchangeable Image File: the file format 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 photo data within the file.

**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. Many fun and creative effects can be created with external flash.

**Fill flash:**

A flash technique used to brighten deep shadow areas, typically outdoors on sunny days. Some digital cameras include a fill flash mode that forces the flash to fire, even in bright light.

**Fire:**

Slang for shooting a picture.

**Fire Wire:**

A type of cabling technology for transferring data to and from digital devices at high speed. Some professional digital cameras and memory card readers connect to the computer over Fire Wire. Fire Wire card readers are typically faster than those that connect via USB. Also known as IEEE 1394, Fire Wire was invented by Apple Computer but is now commonly used with Windows based computers as well.

**Gray scale:**

A photo made up of varying tones of black and white. Gray scale is synonymous with black and white.

**Highlights:**

The brightest parts of a photo.

**Histogram:**

A graphic representation of the range of tones from dark to light in a photo. Some digital cameras include a histogram feature that enables a precise check on the exposure of the photo.

**Image browser:**

An application that enables you to view digital photos. Some browsers also allow you to rename files, convert photos from one file format to another, add text descriptions, and more.

**Image editor:**

A computer program that enables you to adjust a photo to improve its appearance. With image editing software, you can darken or lighten a photo, rotate it, adjust its contrast, crop out extraneous detail, remove red-eye and more.

**Image resolution:**

The number of pixels in a digital photo is commonly referred to as its image resolution.

**Inkjet:**

A printer that places ink on the paper by spraying droplets through tiny nozzles.

**ISO speed:**

A rating of a film's sensitivity to light. Though digital cameras don't use film, they 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 will adjust it automatically depending on the lighting conditions, adjusting it upwards as the available light dims.

Generally, as ISO speed climbs, image quality drops.

**JPEG:**

A standard for compressing image data developed by the Joint Photographic Experts Group, hence the name JPEG. Strictly speaking it is not a file format, it is a compression method used within a file format, such as the EXIF-JPEG format common

to digital cameras. It is referred to as a lower resolution format, which means some quality is lost in achieving JPEG's high compression rates. Usually, if a high-quality, low-compression JPEG setting is chosen on a digital camera, the loss of quality is not detectable to the eye.

**LCD:**

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

**Media:**

Material that information is written to and stored on. Digital photography storage media includes compact flash cards and compact discs.

**Megabyte (MB):**

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

**Mega pixel:**

Equal to one million pixels.

**Memory Stick®:**

A memory card slightly smaller than a single stick of chewing gum. Like Compact Flash and Smart Media, it is flash-based storage for your photos.

**NiMH:**

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

**Online photo printer:**

a company that receives digital photos uploaded to its Web site, prints them, then sends the prints back by mail or courier.

**Panning:**

A photography technique in which the camera follows a moving subject. Done correctly, the subject is sharp and clear, while the background is blurred, giving a sense of motion to the photo.

**Pixel:**

Picture Element, digital photographs are comprised of thousands or millions of them; they are the building blocks of a digital photo.

**RAW:**

The RAW image format is the data as it 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 in the eye. The effect is most common when light levels are low, outdoor at night, or indoor in a dimly lit room.

**RGB:**

Red, Green, Blue: the three colours to which the human visual system, digital cameras and many other devices are sensitive.

**Saturation:**

How rich the colours are in a photo.

**Sensitivity:**

See ISO speed.

**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 and Fire Wire in modern computers.

**Sharpness:**

The clarity of detail in a photo.

**Shutter speed:**

The camera's shutter speed is a measurement of how long its shutter remains open as the picture is taken. The slower the

shutter speed, the longer the exposure time. When the shutter speed is set to 1/125 or simply 125, this means that the shutter will be open for exactly 1/125th of one second. The shutter speed and aperture together control the total amount of light reaching the sensor. Some digital cameras have a shutter priority mode that allows you to set the shutter speed to your liking. See also aperture.

**Smart Media™:**

a wafer-thin, matchbook size memory card. This is also a flash memory based storage medium.

**Thumbnail:**

A small version of a photo. Image browsers commonly display thumbnails of photos several or even dozens at a time. In Windows XP's My Pictures, you can view thumbnails of photos in both the Thumbnails and Filmstrip view modes.

**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. USB card readers are typically faster than cameras or readers that connect to the serial port, but slower than those that connect via Fire Wire.

**White balance:**

A function on the camera to compensate for different colours of light being emitted by different light sources.