

Shutter Lag

- The delay between you pressing the shutter release and image capture.
- Result of the various calculations the camera has to make, including focus, shutter speed, aperture and choosing the white balance.
- Compact cameras have a longer lag while SLR cameras have almost no lag.

To reduce shutter lag:

- Switch to manual focus.
- Use a preset white balance.
- Use single instead of continuous auto focus.

Resolution

- Setting your resolution is one of the most important decisions you can make and one of the easiest.
- Suggestion – always set your resolution at the highest setting!
- You can always downsize your image later with no loss of quality.

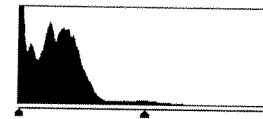
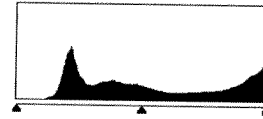
ISO Settings

- Sets the cameras sensitivity to light.
- Higher numbers increase the sensitivity to light.
- More noise at higher numbers.
- Use the lowest number that will give a good exposure.
- ISO 100 or 200 for sunlight.
- ISO 400 or 800 for low light conditions.

Digital camera ISO settings produce the same results as changing film speeds. Use ISO 400, 800 or higher for low light conditions and 100 or 200 for bright conditions.

Exposure and the Histogram

- Use the histogram to judge the exposure.
- The top graph indicates overexposure.
- The middle graph demonstrates a normal exposure.
- The bottom graph shows underexposure.



- The histogram is a graph of the number of pixels with specific brightness values from dark (on the left) to bright (on the right).
- There is really no bad histogram.

White Balance

- In camera adjustment for different kinds of light.
- Can be manually set when using manual modes

➤AWB – Auto White
Balance

➤Daylight

➤Shade

➤Cloudy, Twilight & Sunset

➤Flash

➤Fluorescent

➤Tungsten

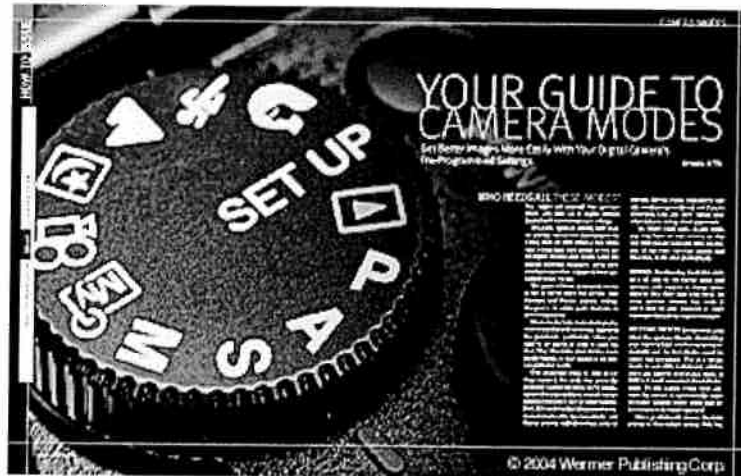
➤Custom

1. Auto white balance for general use, camera reads the light and sets the white balance. Camera can be fooled some times.
2. Daylight sets the exposure for sunlight. Use when shooting in the middle of the day, sunsets and sunrises. Will record color similar to daylight film.
3. Shade sets the exposure for shade outdoors. Will add orange/yellow to your picture. The light in open shade is very blue.
4. Cloudy is similar to shade but in less amounts.
5. Flash is designed to give good color when using on camera flash.
6. Fluorescent will add a pinkish color to balance the overall green cast of this light source.
7. Tungsten adds blue to overcome the heavy orange cast of tungsten light.
8. Custom is the most accurate of all of the settings.
9. Simulate the subtle shades of sunrise and sunset by adjusting the preset white balance on your camera. Choose the tungsten setting to add a bluish morning cast or the shade setting (cloud icon) to add the warm, brownish tones of dusk.

Optical / Digital Zoom

- Optical zoom is achieved by changing the focal length of the lens.
- No loss of resolution with optical zoom.
- Digital zoom is achieved by cropping the image on the sensor.
- Reduced resolution with digital zoom.
- Avoid using digital zoom, shoot at the highest resolution and crop the image before printing.

Camera Modes



Your Guide To Camera Modes

Program, Aperture priority and Shutter priority modes have been around for a long time on film cameras, but many new modes have been added on the latest digital models, each finely tuned for specific shooting situations. Some cameras have more than a dozen of these specialized scene modes.

Access to modes varies with camera brands and models. Some cameras use buttons or dials, others use the menu and some use a combination of buttons and menus. Your camera manual tells you how.

Auto Mode

Auto

- If you just want to point and shoot, or hand the camera off to someone else and need a foolproof setting, this is it.
- When set to Auto, the camera does everything and locks out any adjustment to exposure.

Portrait Mode



This mode emphasizes the subject by de-emphasizing the background. The camera selects the widest possible aperture setting to minimize depth of field for a softened background. The flash usually will switch to its red-eye reduction setting when shooting in this mode. Remember to focus on your subject's eyes.

Camera still makes all settings for exposure, ISO and white balance.

Landscape Mode



In Landscape mode, your camera will select the smallest aperture to maximize depth of field in the image. Your image will be as sharp as possible under the conditions in both the foreground and background. Some cameras also will apply enhanced color saturation to the image.

Camera still makes all settings for exposure, ISO and white balance.

Sports Mode



Speed is the name of the game in Sports mode. Your camera will automatically choose the fastest shutter speed possible, and also will enable continuous high-speed shooting if available.

Camera still makes all settings for exposure, ISO and white balance.

Close-up (Macro) Mode



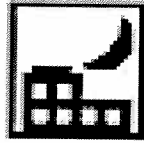
Macro shots can be an interesting window into a smaller world that we don't usually notice.

Macro mode allows you to focus on objects extremely close up, though your zoom range may be restricted.



Camera still makes all settings for exposure, ISO and white balance.

Night Mode



Successful night photography requires a slow shutter speed for a long exposure without flash. The exposure may last several seconds, so use a tripod when shooting in this mode or place your camera on a solid platform. Also, be aware that most digital sensors generate image noise during exposures of more than a few seconds.

Camera still makes all settings for exposure, ISO and white balance.

Night Portrait Mode



For flattering portraits in dark conditions, you want a combination of flash with a long exposure to pick up ambient background lights. In this mode, the flash fires to freeze the action of your subject amid the lengthened exposure.

Camera still makes all settings for exposure, ISO and white balance.

If your camera does not have this mode try shutter priority and set a slower shutter speed and turn the flash on.

Next Time

- Have you changed a lot of your settings?
- At the end of the shooting day reset to your preferred defaults.
- May save you time and some good pictures the next day.

File Formats

JPEG, TIFF or RAW

- Jpeg is the most common. Makes the smallest file size.
- Raw for the most serious photo editor. Makes the largest files.
- Tiff is available on some cameras no compression like jpeg.

Memory Cards

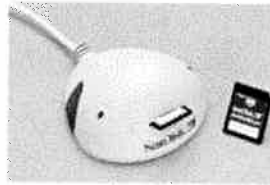
1. Keep some room available.
2. Clean'em up.
3. Format in the camera.
4. Let it write.
5. Don't stop the power.
6. At the airport.
7. Transfer with a card reader.
8. Size does matter.



1. Keep some room available: never write to the full capacity of your memory card. Always leave the last 2-3 pictures un recorded. If the camera tries to write a picture to the card when there is not enough room for the file, the card could get corrupted.
2. Clean'em up: never delete specific pictures on the camera and expect the camera to back fill those spaces. When it's time to delete pictures, delete them all. Digital cameras and memory card do not always deal well with fragmentation.
3. Format in the camera: never use the computer to delete pictures from the memory card or to re-format the card.
4. Let it write: never remove the memory card from the camera while the camera is still writing a picture to the card.
5. Don't stop the power: never remove the batteries from the camera while the camera is still writing the last picture to the memory card. If the batteries die completely while the camera is in the process of writing the last picture that you took to the memory card, you'll have a big problem.
6. At the airport: never take your digital camera and/or memory through the metal detector at the airport. Always put the camera and/or memory cards through the x-ray machine.
7. Transfer with a card reader: save wear and tear on your camera, it's batteries and electrical connections.
8. Size does matter: recommend that you use memory cards of 1 – 2 GB or less. The larger cards are nice but if you scramble the files on one of them, you've maybe lost a lot of images.

Downloading Pictures

- Connect camera to computer.
- Camera dock (Kodak Easy Share).
- Stand alone card reader.
- Computer with built-in card reader.
- Printer with built-in card reader.
- In store or lab.

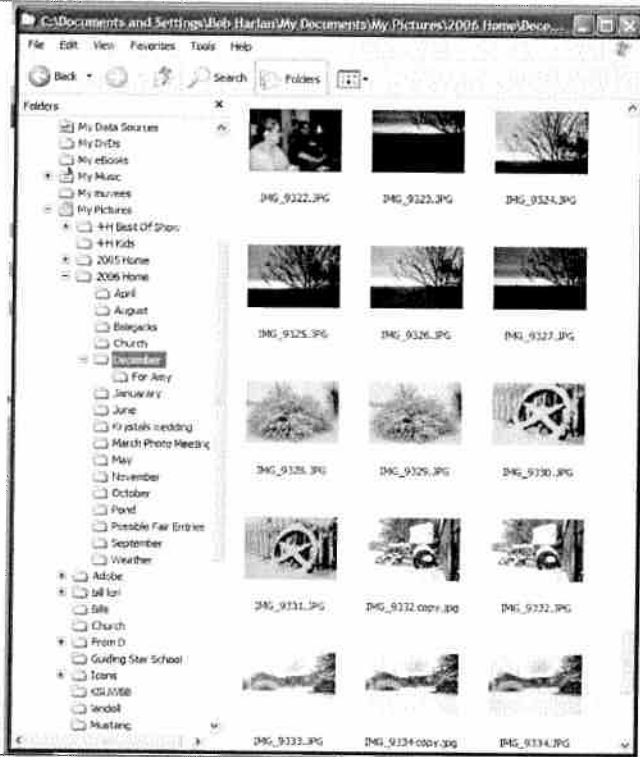


1. Connect camera to computer using cable supplied with camera. Wear and tear on camera and battery.
2. Kodak and others use a camera dock to charge camera battery and can be connected to computer to download pictures.
3. Stand alone card readers connect to computer by USB or FireWire cables. They can be universal or for one type card only.
4. Some new computers and Note books have built in card readers.
5. Some photo printers have built-in card readers and can be used to down load pictures to your computer.
6. Take the card to a photo processing center to print pictures and/or copy files to a CD.

Archiving Your Files

- Set up a system that works for you.
- Store file in two locations. Hard drives do CRASH.
- CDs and DVDs are a cheap way to backup your files.
- External hard drive gives more flexibility.
- On the internet.

Where to Store Your Files



E-mailing your pictures

- Down size the pictures so the file will be smaller.
- I use pixel settings to reduce size, usually set the longest dimension to 1024 pixels. This works out to about 4" x 6".
- Use save-as after reducing the size so you still have the original file.
- Save as jpg and set compression about midway.

Beach & Snow Mode



The bright reflections and high contrast of sand and snow often will trick your camera's meter into underexposing the scene. This mode will ensure a proper exposure by slightly overexposing based on the meter reading.

Don't have this mode?

- Set the camera's exposure compensation feature to 1.5 to 2 stops overexposed.
- Switch to manual mode and set the exposure to 1.5 to 2 stops brighter than the meter reading.
- Lock the camera's exposure while metering a midtoned object.

Flash Off Mode



In places where flash photography is prohibited, use the (Flash Off) mode. Some cameras call this “Museum” mode

Don't have this mode?

•Look for a button that has the flash symbol on or near it. When you push this button the camera will switch from Auto Flash to Red Eye Reduction to Flash Off and back to Auto Flash.

Other Modes

Some additional modes found on some cameras:

- **Fireworks**
- **Panning Shot**
- **Kids and Pets**
- **Candle Light**
- **Sunset**
- **Foliage**

Program Mode

P

This all-purpose automatic exposure mode can be used for general photography. In this mode, the camera selects a median shutter speed and aperture based on the meter reading. Allows you to manually change some settings like white balance and ISO.

Aperture Priority Mode

A

This is a terrific mode to use with a stationary subject when you want to control your depth of field and aren't concerned about shutter speed. In this mode, you choose the aperture setting and the camera automatically sets the best shutter speed to match the conditions.



When using this mode you can set the ISO and white balance.

Shutter Priority Mode

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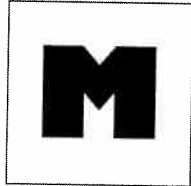
S



You'll usually want to choose shutter priority when you need to capture a moving subject. In this mode, you select the shutter speed and the camera chooses the best aperture for a proper exposure.

When using this mode you can set the ISO and white balance.

Manual Mode



You set the shutter speed and aperture. Have the option to change white balance, ISO, flash and even focus on some cameras.

Use this mode if you want complete control.