

# Introduction to White Balance

White Balance is an aspect of photography that many digital camera owners don't understand or use – but it's something well worth learning about as it can have a real impact upon the shots you take.

So for those of you who have been avoiding White Balance – let me introduce you to it. I promise to keep it as simple as possible and keep what follows as useable as I can:

**At its simplest – the reason we adjust white balance is to get the colors in your images as accurate as possible.**

Why would you need to get the color right in your shots?

You might have noticed when examining shots after taking them that at times images can come out with an orange, blue, yellow etc look to them – despite the fact that to the naked eye the scene looked quite normal. The reason for this is that images different sources of light have a different 'color' (or temperature) to them. Fluorescent lighting adds a bluish cast to photos whereas tungsten (incandescent/bulbs) lights add a yellowish tinge to photos.



The range in different temperatures ranges from the very cool light of blue sky through to the very warm light of a candle.

We don't generally notice this difference in temperature because our eyes adjust automatically for it. So unless the temperature of the light is very extreme a white sheet of paper will generally look white to us. However a digital camera doesn't have the smarts to make these adjustments automatically and sometimes will need us to tell it how to treat different light.

So for cooler (blue or green) light you'll tell the camera to warm things up and in warm light you'll tell it to cool down.

## Adjusting White Balance

Different digital cameras have different ways of adjusting white balance so ultimately you'll need to get out your camera's manual out to work out the specifics of how to make changes. Having said this – many digital cameras have automatic and semi-automatic modes to help you make the adjustments.

## Preset White Balance Settings

Here are some of the basic White Balance settings you'll find on cameras:

- **Auto** – this is where the camera makes a best guess on a shot by shot basis. You'll find it works in many situations but it's worth venturing out of it for trickier lighting.
- **Tungsten** – this mode is usually symbolized with a little bulb and is for shooting indoors, especially under tungsten (incandescent) lighting (such as bulb lighting). It generally cools down the colors in photos.
- **Fluorescent** – this compensates for the 'cool' light of fluorescent light and will warm up your shots.
- **Daylight/Sunny** – not all cameras have this setting because it sets things as fairly 'normal' white balance settings.
- **Cloudy** – this setting generally warms things up a touch more than 'daylight' mode.
- **Flash** – the flash of a camera can be quite a cool light so in Flash WB mode you'll find it warms up your shots a touch.
- **Shade** – the light in shade is generally cooler (bluer) than shooting in direct sunlight so this mode will warm things up a little.

## Manual White Balance Adjustments

In most cases you can get a pretty accurate result using the above preset white balance modes – but some digital cameras (most DSLRs and higher end point and shoots) allow for manual white balance adjustments also.

The way this is used varies a little between models but in essence what you do is to tell your camera what white looks like in a shot so that it has something as a reference point for deciding how other colors should look. You can do this by buying yourself a white (or grey) card which is specifically designed for this task – or you can find some other appropriately colored object around you to do the job.

I've done this with the following two shots.

The first shot is one of some books on my wife's bookshelf taken in Auto White Balance mode. The light in my room is from three standard light bulbs and as a result the image is quite warm or yellow.



After taking this picture I then held up a piece of white paper to my camera to tell it what color white is. Then I took a second shot with this setting and got the following result – which you'll see is a much truer color cast than the first image.

