

White Balance

In this lesson, we'll be taking a look at
White Balance.

Estimated Completion Time: 8 minutes.

White Balance

White Balance is the technical term for essentially ensuring that what appears white to you when taking a photo ends up being white when the photo is taken.

Depending on the light source, light can be referred to as having a different temperature. And the temperature of the light can determine how color is interpreted by the camera. A cool color temperature gives a *bluish* appearance, a warm color temperature an *orangey* feel.

So, a candle, for example, throws off light at a different temperature than does the sun.

Neutral



Cool



Warm



White Balance

Our eyes are wonderful at compensating for different color temperatures, so we don't tend to notice this different color temperature.

But a digital camera has to try to determine the color temperature, and compensate for it, automatically. A lot of the time, it gets it right. Many times, it does not, and your photos can come out with an unexpected color pall over the image.

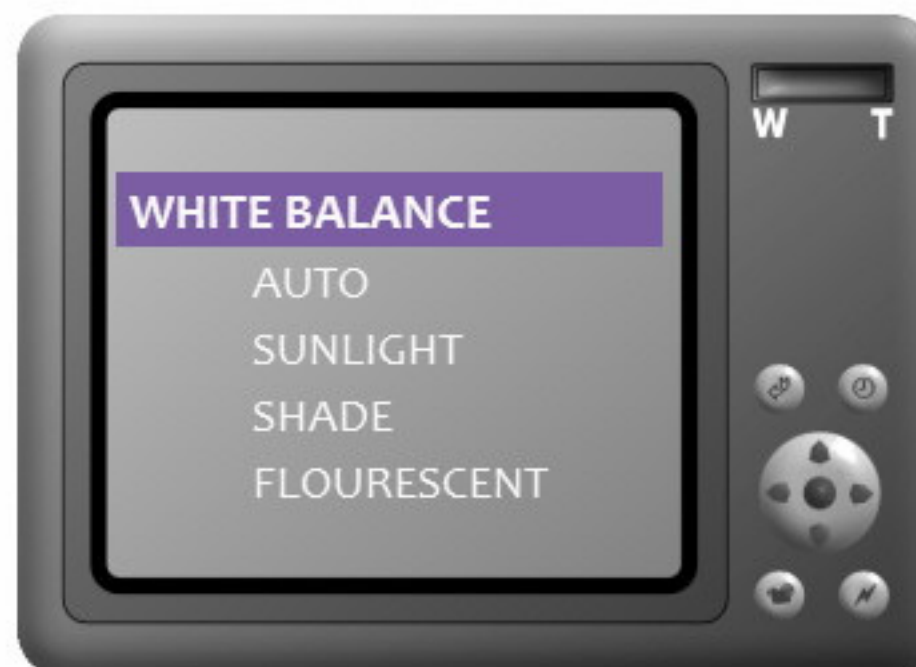


Here is a perfect example of auto white balance getting it wrong. The image has a bluish cast.

White Balance

In practise, I think digital cameras are *reasonably* good at detecting the color temperature, and compensating accordingly.

However, almost all cameras will allow a manual white balance setting to allow you to override what the camera suggests. Professionals use custom white balance, or white balance correction, a lot.



Search for the white balance setting on your camera. You'll find it has a range of settings, and that the setting you select will be able to be previewed via the digital viewfinder, so you can see the effect before you take the shot.

White Balance

Cameras tend to get automatic white balance wrong where there is preponderance one color in an image - a lot of blue, a lot of green, a lot of white, for example.



White Balance

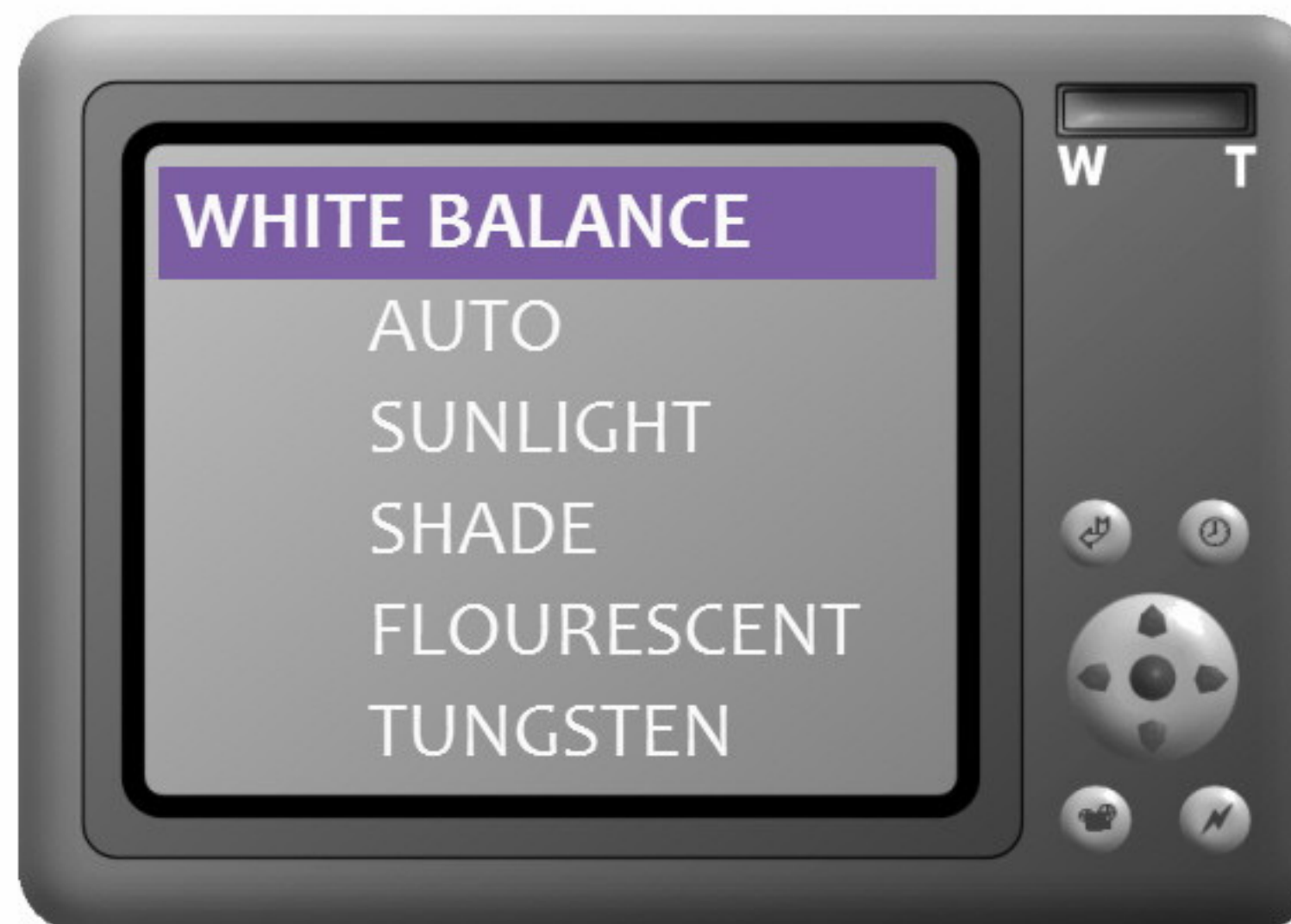
Color temperature, or white balance, is also quite easy to correct on the computer.



On the left, the camera has got the white balance horribly wrong. To fix something this bad is simple.

*We used Corel Photo Paint Pro, but the process would be the same in most graphics programs. Essentially, you can indicate a point in the image, and say - **this should be white**. The software then adjusts all color information by adjusting the selected point to be white. So, having a white reference point is handy.*

White Balance



Most white balance settings on your camera are fairly obvious. Are you outdoors? Using a Flash? Under a florescent light?

However - try a few different settings. As mentioned, you should be able to see straight away in the viewfinder how the white balance selected will affect your photo. And choose one that looks the best.

White Balance

Where there is not a lot of color information for a camera to determine appropriate white balance, it can often be terribly out.



On the left, the camera has got the white balance horribly wrong. Where there is limited color for the camera to determine white balance, this is common. On the right illustrates how the shot should have turned out.

White Balance



Above, you can see a series of different custom white balance settings, and the resulting effect.

White Balance

White Balance Bracketing is a feature, generally found on higher end cameras, that will use three or more different white balance settings on the same photograph.

The interesting thing with this setting is that you take only one photograph - the camera saves three or more, each with a different white balance setting. And, of course, this means you can choose at a later stage the best result.

Below, you can see some unretouched examples of this.

Neutral



Warm



Cool



White Balance

If you take photographs in **RAW** format, you can actually set the white balance after you take the photograph. This is thanks to the amazing amount of information that a RAW photo contains (16 bits per channel, as opposed to 8 bits per channel for JPEG). Technically, you can also edit white balance for JPEG files as well, but you'll get better results with RAW.

This is another reason why professionals swear by RAW photo format.



Not all software can even view RAW files, much less edit them to their full capability. Adobe has several programs that can. We cannot even do justice to a RAW file on the average computer display.

White Balance

You've now completed this lesson.

In this lesson, we took a look at
White Balance.