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## Adjusting White Balance in Lightroom and Photoshop RAW

This information sheet is designed as a supplement to the GC2 Photo Club video on the same subject. It is provided to help reinforce learning and as a reference document for you to keep.

The white balance in a photograph varies depending on the type of lighting at the time of shooting. Different light sources contain different amounts of the colour spectrum. A tungsten light source, such as a traditional light bulb, contains more warm colours such as red and yellow, whereas midday sunlight contains more cold casts, such as blue.

Different times of the day and different weather conditions also affect how white balance is recorded by our camera.

Light is warmer in colour at sunrise and sunset but colder in colour at noon, flash tends to be balanced for noon daylight on a clear day, which is slightly blue in most cases. If the sky is cloudy that will make the colour even colder. Photographs taken in the shade or shadows will be colder still (very blue cast).

Candlelight on the other hand will record in a photograph as very red.

Most SLR cameras allow you to set the white balance for the conditions you are shooting under. They also usually have an Auto White Balance setting, which works well in most situations, however they can be fooled by mixed light sources.

You can also change the white balance in your image in Lightroom or Photoshop Camera RAW. It helps if you shoot the image in RAW (another good reason for shooting in RAW) however, even though you can make changes to jpegs and other file formats this way, the changes are limited as the camera will already have rendered the white balance in the image.

White balance has two components in Lightroom or RAW adjustments.

Colour Temperature, cold blue through to hot red, adjusted by the top slider, which is measured on the Kelvin scale (Kelvins or k).

Also Tint, which is adjusted by the bottom slider, green through to magenta.

I shot this image under tungsten shop lighting but with my cameras white balance set to daylight. As you can see the image is too warm.



Figure 1

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To correct the images white balance in Lightroom I have three main options:



Figure 2

First I can click on the words 'As Shot' at the top of the panel and, in the popup box, click on Auto to let Lightroom try to correct it for me. As you can see Lightroom has made a very good job, as it usually does, and is good place to start, as you can now fine tune the white balance with the sliders.

You can also click on one of the other choices, if you know what conditions you shot the image under. In this case I know it was shot under tungsten lighting so I can click on tungsten and, once again, you can see that Lightroom has got the balance very neutral.

Scroll through the choices to see what effect they have.

Secondly you can use the Eyedropper tool at the top left of the panel.

You do this by clicking on the Eyedropper tool and dragging the icon to an area that you think is a neutral grey or white, such as the back cloth in this case. Then click on that area and Lightroom makes the adjustments. Again you can see that Lightroom has made it very neutral as I selected a fairly Neutral coloured area.



Figure 3



Figure 4

Lastly, I can use the sliders to set the white balance manually. This is my favourite method as I have full control. Although you can make the white balance neutral I like to make a subjective choice, in this case I want the image to be just a touch warm to reflect the fact that it was taken in a cosy little bric-a-brac shop which was warmly lit. In this case, after letting Lightroom set the balance to neutral for me, I moved the slider slightly to the right to a temperature of about

3600 Kelvin. If you know the exact temperature you require you can click on the number and type in your own figure.



Figure 5

Notice if I change to a jpeg copy I made of this image the numbers have disappeared. This is because your camera has already rendered the white balance for this image and although you can make a very good job of adjusting the colours with the sliders you are not actually changing the white balance in the image.

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You will also notice that if you click on the words 'As shot' you still have the Auto option, which again works very well, however, the others, apart from 'Custom', are no longer available. The Eye dropper will still operate in the same way.



Figure 6

Now skip over to Photoshop and open this image in the RAW filter.



Figure 7

By clicking on Photo > Edit in > Edit in Adobe Photoshop CC (or your current version) Photoshop should recognise it as a RAW file and open it automatically in RAW, if not use the keyboard shortcut Shift+CTRL+ALT (for CC)

In Photoshop RAW you will see that you have the sliders for temperature and tint as in Lightroom but less options if you click on 'As shot'. You also have the Eyedropper tool, however it is in the top toolbar, third icon from the left. The choice is yours what program you prefer to make your adjustments in.

As I said I like to set a custom white balance to my own choice as you don't always want your photos to have a neutral white balance, for instance if you take a shot of a seascape at sunset and get all of those warm red and purple tones in the sky and reflecting in the water, do you really want to balance them out to a neutral grey? In addition, do you want to lose that blue cold tone of a ski mountain landscape?

We hope you found this information sheet useful, visit our web site at [www.gc2photoclub.com](http://www.gc2photoclub.com) for more tutorials and information.

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Bye for now

Geoff and Gary