

HIGHLIGHT SHADOW FIXING

One of the advantages of digital imaging is the ability you have to 'fiddle' with the end result. With film, you might take a negative or slide and manipulate the exposure and colour while making a print, but the amount of control you have is limited and constrained. At least compared to the vast array of tools in modern photo editing software. Lets look at a common issue that can be solved with modern software: shadow detail.

No matter how careful you are with lighting and balancing exposures between your strobe(s) and available light, you're going to get images where detail in the shadows is restricted or a lot less than you'd desire. In the past you'd probably need to make a complex selection in your image then fiddle with the Curves dialogue box or the Levels and/or Brightness/Contrast controls. However, both Photoshop and Elements (the slightly stripped down version of Photoshop but at a fraction of the price) have had a control for some time now that addresses shadow detail. You can find it under the Image> Adjustments> Shadow/Highlight menu item.

Sometimes a particular dive trip produces a number of images that needs this adjustment so I have made a custom keyboard shortcut to access the Shadow/Highlight dialogue box. Creating a custom keyboard shortcut is as simple as selecting Edit>Keyboard Shortcuts. Up pops a window that has a list of the main menu items found at the top of the Photoshop screen. What we want, in this case, is under the Image item so clicking on that will open all the available items in the Image menu. Skip down to Adjustments then click on Shadow/Highlight. A small text box becomes visible and you then press the keys you want for your shortcut.

There is a 90% chance that you will not get it right the first time. However the software will warn you that either you are not using an essential key (such as the Control or Command key) or that the shortcut you chose is already in use. Fiddle around and find one that both works and, more importantly, is convenient. No point in making a shortcut that makes you perform some sort of deranged version of that party game Twister. The idea, after all, is to make selecting the menu item much quicker than fiddling around with the menu. All of my shortcuts involve use of my left hand only (right handed me is already holding my Wacom pad pen and you will probably be holding a mouse) and keys well within reach of the Command key

(Control key on Windows) or Shift key. For example, three of my main custom shortcuts involve the Shift key plus one of the left hand F keys (F1, F2, F3.) Easy and quick to access with my left hand.

While you can use this control with tiff or jpeg files, having a 16 bit tiff file to start with will give you a much better result. Why? Because a 16 bit file has double the amount of information 'bits' than an 8 bit file. It's like a road map of a city that shows you the name of the suburb, street and traffic light intersections (lets call that an 8 bit city map) while a competitor company brings out a '16 bit' map that shows all of that plus individual street numbers, speed camera locations, public toilets, etc. Which one would you prefer to use? While both will get you there, the latter obviously will do a much better job. With twice as much information in a 16

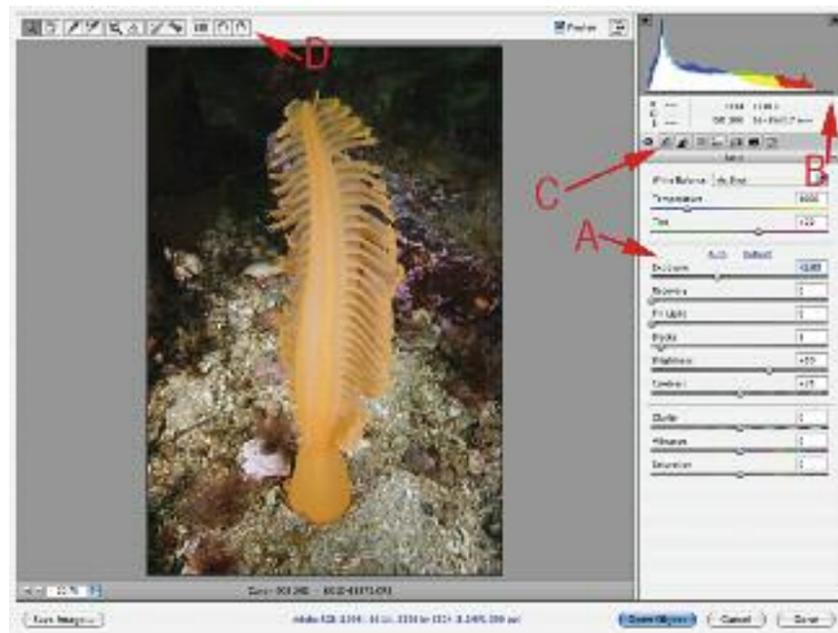


Figure1: A RAW file in the Camera RAW converter window. I have rotated the file (D) to it's correct vertical orientation, reduced overall exposure (A) to avoid clipping off highlight detail (B) but have left everything else in their default settings. This would be a 'normal' RAW conversion. I could also pull in more detail in the sand by using the Point tab in the Tone Curve palette (C) to reduce highlights further but I felt this was just unnecessary for my application.

bit file, you can make more severe adjustments with little loss in quality, particularly in highlight and shadow areas. A file squashed down with 'lossy' jpeg compression obviously has to lose something in the process, detail and the number of colours being part of that loss.

Remember, taking a jpeg file from your camera then converting it to 16 bit in Photoshop or Elements will not work. Sure, you will end up with a 16 bit file, but since the colour and dynamic range (range from black to white) has been reduced the conversion to 16 bit just 're-describes' the same information. Nothing new is added. In fact you can try doing just that, convert a jpeg to a 16 bit tiff file. Zoom in to 100-200% and you will see the blocky jpeg texture still there, where it has taken a number of surrounding pixels and moved their colour and brightness to a predetermined 'average'. Having an image file that just describes 5,000 tones and colours (such as a compressed jpeg file) compared to one that describes 5,000,000 tones and colours, reduces your ability to get the best out of your photo. The advantage of having a compressed jpeg taking up less room on your hard drive pales into insignificance when you need quality.

That is why, if your camera allows you, your camera should be set up to save the RAW image file (a data file that records the information sent by every pixel in your camera sensor) which can then be converted into a 16 bit tiff file, or even a jpeg if you wish.

Getting back on track, open your image file. Make whatever colour, density and other adjustments you think are needed. Do not worry about shadow detail at this stage. Just get the main subject looking 'right'. Once that is done, either use your new keyboard shortcut or use the Image>Adjustments>Shadow/Highlight menu selection. From memory, Photoshop opens the dialogue box with a setting of 50% or something ridiculous like that. You will find, as is true in life in general, that less is more. Drag the Amount slider in the upper Shadows section all the way across to the left to '0'. Your image will return back to it's original appearance. If not, make sure the 'Preview' check box is active. Now begin dragging the slider to the right. I find that somewhere between 5% and 20% is about right. Don't worry, you won't break anything. Drag away. In fact, often going to extremes reveals what looks right.

Yes, there is a slider there for Highlights as well. And yes, playing with that is allowed. Fiddle away. The Highlights slider obviously targets the upper luminosity levels of your image. I find that zooming in on the image helps you see what is happening to the highlights while you fiddle. If your computer is a bit slow and/or old, you may improve things by moving the sliders a bit then releasing the mouse

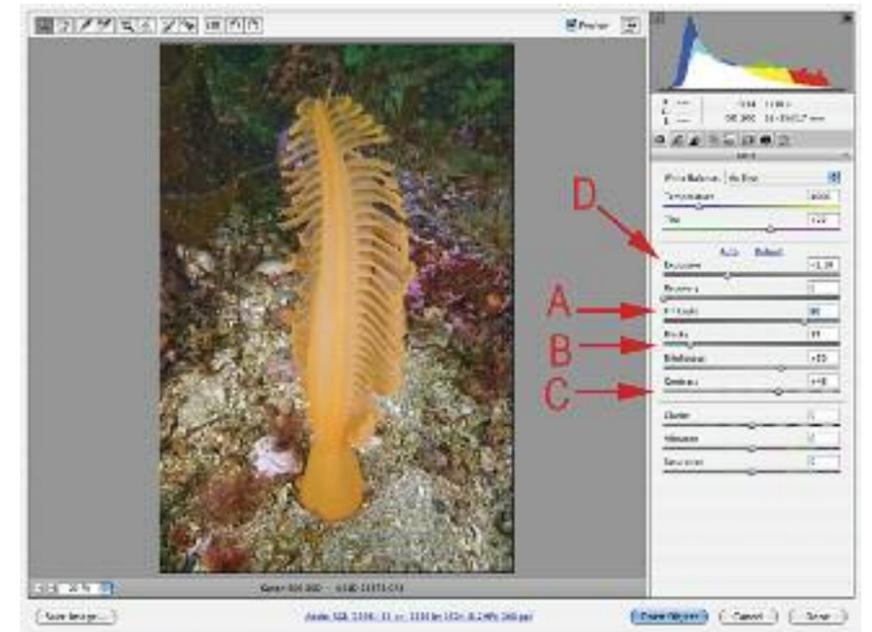


Figure2: My best results came from a reasonably high Fill Light adjustment (A) along with an increase in Blacks (B) to stop the shadows looking too flat as well as a bump up in Contrast (C). Finally, due to changes in the mid tones, I needed to reduce the Exposure (D) a fraction.

button, allowing the screen view to refresh.

The results of the shadow slider can be astonishing. Of course, you will have noticed that there is a 'Show More Options' check box. Make it active and, viola, a whole range of new controls come into view. Possibly the most useful at this point is at the bottom, a button titled 'Save As Defaults'. I recommend that you set the Shadow slider to 5% or 10% (leaving

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winner and his unique work is on www.marinethemes.com

digital photography

everything else alone) and save that as your default. If you have done a lot of fiddling up to this point, hold down the Option key and the Cancel key will change to Reset. Click it, change the shadow slider to the above values then save as the default settings. Click OK then open it up again to fiddle some more.

I find that just changing one thing at a time allows more control of the process. For example, you can change shadows, then highlights then maybe tweak contrast, all as separate adjustments. Then you can go back each step in the History palette to see how you are progressing in comparison to the original. If you make a number of changes in one dialogue box then you will have to redo the lot if one is not quite right.

As mentioned above, make your adjustments subtle. You should not be trying to drag out information where there is none. Going too far will decrease contrast too much, making your photo flat and dull. The same applies to highlight adjustments. In fact, I find that if you have 10 images that need shadow adjustments, maybe one will be improved with some minor highlight tweaking. Since all images are different, spend some time playing with the Tonal Width, Radius and Midtone Contrast sliders. Radius will help you avoid halos on high contrast edges. With a bit of experience you will probably find that in most cases just the Amount slider will need to be adjusted with little or no correction elsewhere.

Now, I assume that at least some of you are now saving your RAW files, even if only for backup purposes. I admit that for most casual uses a jpeg file is just fine, which is why I have my camera set up to save both RAW and jpeg. But with modern cameras able to use 8 gig to 32 gig cards and multi terabyte backup hard drives becoming very affordable, there is no reason to worry about having too many image files. However, there is a bonus (one of many) available to RAW file users so open a RAW file that needs some shadow work in Photoshop or Elements. (If you can't open your RAW file you most probably need to update your RAW converter file. (See the links to Adobe below to find your update.) The photo will be presented to you in the conversion window.

Make any basic adjustments, such as rotating, tweaking exposure and maybe some minor colour corrections. Now, using primarily the Fill Light slider, drag it to the right to lighten up the shadows. You can also tweak the Contrast and Blacks sliders. You will most probably need to adjust the Exposure a touch as you go. Leave the lower controls (Clarity, Vibrance and Saturation) alone at this stage. You can fiddle with them later. Your aim is to open up the shadows while retaining the highlight and midtone detail. Once you are happy with the image, click Open Image.

While you can get the same result within Photoshop using the Shadow/Highlight dialogue box, this method will give you more options. It is not better, just different. You may find that for a particular image this will work better, others will fare better within Photoshop or Elements. Personally I prefer to make minimal adjustments in the RAW converter window, but if it can give you something positive, then go for it.



I am a firm believer in the notion that there is "no free lunch". There is always a cost. When performing adjustments to shadow detail it is particularly prone to the introduction of noise or, if overdone, can make the entire image look flat and dull.

You may find that changing the shadow detail is desirable in the background but not the main subject and/or foreground. In this case you can either use selections to select the area you want to preserve then switch that to select the excluded area, the part you actually want to work on, by choosing Select>Inverse from the main menu bar. For example, with a diver against a dark background you may find it easier to select the diver then inverse the selection to work on the background. Or your image may dictate that just selecting the shadow areas is easier. If there is a small area that needs to have the shadow adjustment removed, just use the History brush as described in previous articles.

As with the shadows, highlight adjustments will work well if they already have some detail. Blown out highlights will not be saved

Figure 3: Here we have a 'normal' conversion (A) where I just reduced the exposure to make the sea pen look normal which also darkened the already dark background. Once opened I applied the Shadow/Highlight adjustment, changing the Shadow slider only giving me more detail in the shadows (B). The alternative (C) was all done in the RAW converter window. It has a bit more snap and colour in the shadows. Both versions could be pushed a bit further and all could do with some work on the trunk of the sea pen itself, increasing contrast and bringing out more detail.

by this method. You need information to start with so this process is to improve, not create, detail. If the highlights have detail which is missing, you can use the Tone Curve palette in the RAW converter window to increase the density a touch (Figure 1 C). Just don't over do it as your highlights will go muddy.

> LINKS

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