

Dealing with High Dynamic Range Using a single RAW Image

There are many occasions when the range of lighting levels in an image is beyond the capability of the image processing within a digital camera. If the image has been shot in RAW all the available information is recorded and we have the opportunity to recover of up to 2 to 3 stops of shadow and highlight detail in the computer. The following instructions show one of the many ways in which this can be done in Photoshop Elements

Open the RAW file

Adjust the Exposure slider so that the shadow detail is visible. Don't worry about the highlights which will be burnt out.

Make any other adjustments necessary to get the best out of the shadows

Set to 8bits/channel

Open the file

File/Save As with a name like Shadow Detail

Go back to the RAW file and open it for a second time

This time reduce the exposure to get the best out of the highlights. Don't worry about the shadow detail which will be lost.

Make any other adjustments necessary to get the best out of the highlights

Open the file

From the menu Windows/Images click on Cascade

Make the darker image active by clicking on it

On the Layers Palette click on the thumbnail and hold the Shift key and drag it onto the one you renamed

Now you should have two layers showing in the Layers palette

Select the background layer and add a Levels Layer

Close it without making any adjustment

Select the top layer and with the cursor on the line between this layer and the levels layer ALT+Click

Now the top layer will be Grouped with the Levels layer.

Change the name of the Levels layer to Mask

At this stage you should have the top layer showing on the screen with burnt out highlights

Creating the Mask

There are many ways of creating the mask and the most appropriate will depend on the subject. I will describe three methods. The mask will allow the correctly exposed highlights to show where it is black so the methods below are ways of putting black in the mask over the highlights

First Method

Select the Mask Layer

With the Brush Tool or the Airbrush Tool set to 50% Opacity and the Foreground Colour set to Black paint on the Mask Layer to reveal the correctly exposed highlights

Second Method

This is more useful for landscapes where the sky is burnt out and the horizon is fairly straight (i.e. no large mountains)

Select the Mask Layer

From the Tools Menu select the Gradient Tool set to Foreground to Transparent with the default Colours Black and White

With the Shift control pressed draw a vertical line for the Gradient

The sky will now show a the correct exposure but several attempts in positioning may be necessary to get the best use from the Gradient Tool

Third Method

This method is not suitable for all subjects but is sometimes worth trying

Select the top layer and Duplicate it by dragging it onto the Create a New Layer icon

Go to Adjust/Adjust Color/Remove Color to create a black and white image

Select All with CTRL+A, Copy to Clipboard with CTRL+C

Select the Mask layer and with the ALT key pressed click on the white mask at the side of the Levels icon

A white screen should appear. Use CTRL+V to copy the negative in Clipboard to the mask

Delete the top layer

The mask should now be doing its job and the highlights should be OK. It may be necessary to increase the contrast of the black and white image before putting it onto the Mask. Experiment – anything that works is worth doing!

If the highlights adjustment in RAW was not quite right you can add a Levels Adjustment Layer above the Background Layer and make an appropriate adjustment.

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