

DIGITAL ND GRAD FILTER

If you are a keen landscape photographer it's quite likely that you have at some point used Neutral Density Graduated filters or ND Grads. The purpose of these vital filters is to darken half the scene (usually the sky) whilst leaving the other half (usually the ground) unchanged. This is important because quite often the sky is so bright in comparison to the ground that the camera is unable to correctly expose both. This results in either a correctly exposed sky but very dark ground or a correctly exposed ground and a white overexposed sky.

When using the ND Grad, they attach to the end of your lens, quite often using a filter holder which allows them to slide up and down. The darker part of the filter is positioned over the brightest part of the scene so as to reduce the exposure. The transition between the dark party and the light part of the filter is graduated so that the filter if used correctly goes unnoticed. The trick with this is to align the graduated part of the filter with the horizon on the scene you are shooting.

Why Create a Digital ND Grad

In this tutorial I am going to explain how you can easily create your own ND Graduated filters digitally in Photoshop. This can sometimes be necessary because you haven't quite got the adjustment right in camera so the sky is still too light or in some instances too dark.

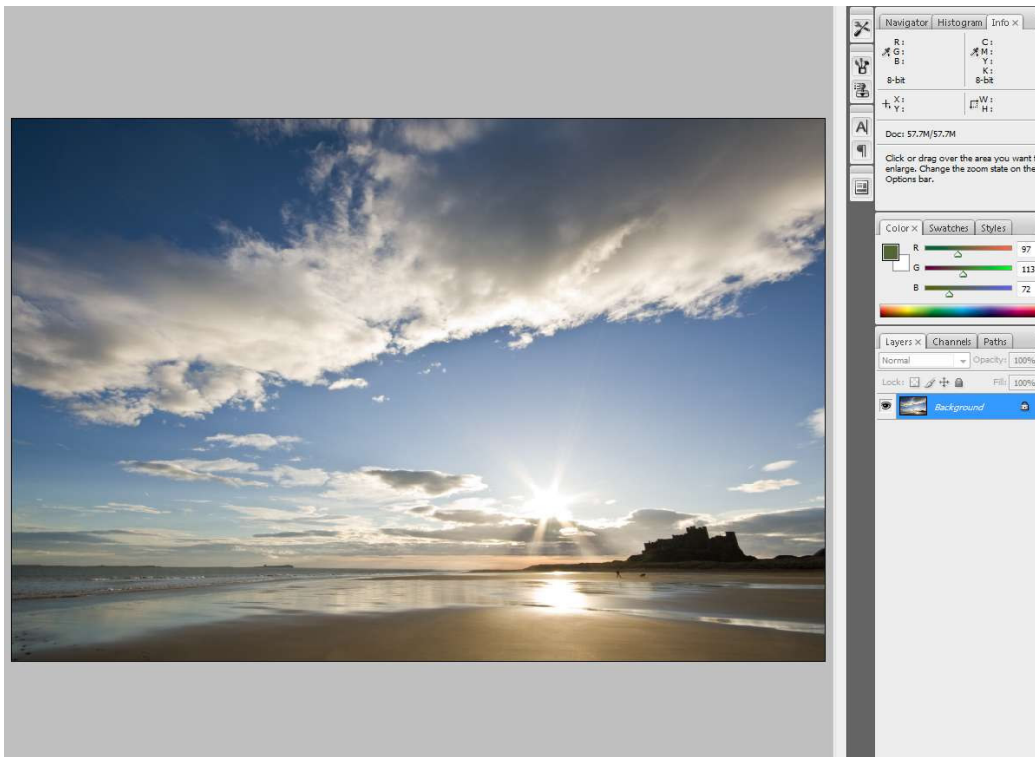
Despite what some people might tell you, doing without ND Graduated filters is not an option and I recommend you use them whenever you need to balance a light and dark area of your image. What I am about to explain will help you balance and perfect your image. If you start with a poor image with no detail in the sky or no detail in the shadows, it won't create detail where none exists.

Taking the Steps

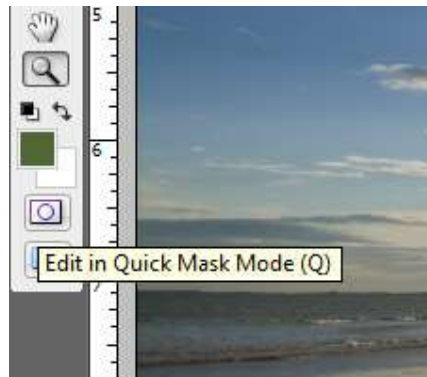
The explanation that follows is done using Photoshop CS3. It will work on any earlier version of Photoshop that supports layers and blending modes (which is most). The approach can also be applied in Photoshop Elements and Paintshop although you will need to work out the correct commands. I will also make a small apology to Mac users as I will be explaining everything based on a Windows machine so any shortcuts probably won't work on a Mac.

Step 1 – Open your image in Photoshop and ensure the Layers window is showing in your working area. If you can't see the layers window you can display it by selecting Window | Layers from the menu or alternatively pressing F7 on the keyboard.

The image I have selected is one where despite using a 0.6 ND grad filter at the time, the sky is still a little too light. My Photoshop working area with image open can be seen in the following screen shot.



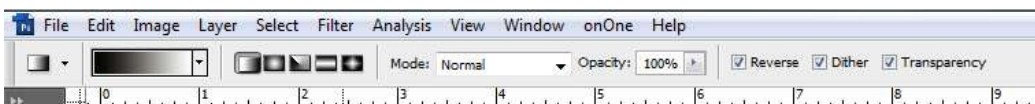
Step 2 – Switch to using the Quick Mask mode. This can be found at the bottom of the Photoshop Toolbar as shown below. The Quick Mask icon looks like a rectangle with a circle inside it. Clicking on the icon once will switch to the Quick Mask mode and clicking it again will switch to the standard mode.



Step 3 – You will now need to use the gradient tool from the Photoshop Toolbox. This looks like a rectangle which is white on one half and black on the other. If you can't see this, it's possible that the Paint Bucket tool is showing instead. If you can see the Paint Bucket icon right click on it and the gradient icon will appear for selection. Here is the gradient icon.



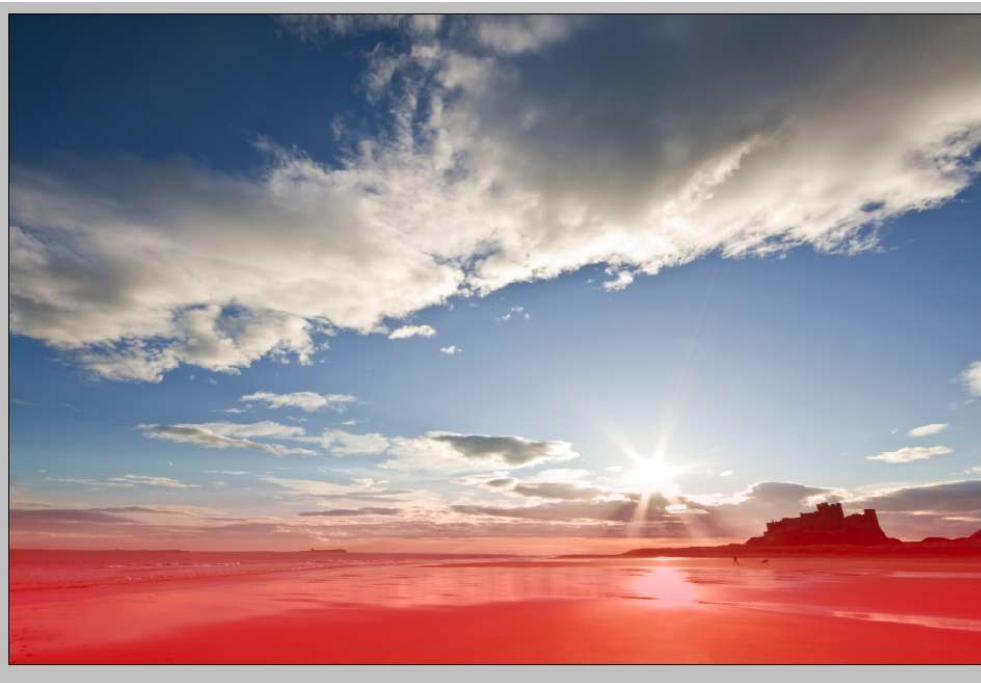
Step 4 – Once you have selected the gradient tool you need to ensure it is set up correctly using the toolbar across the top of the screen. In this instance you will need the gradient to be going from Black to White. I also like to have the “Reverse” check box checked which allows me to draw my gradient from the sky down to the land as you will see shortly. To help you, here is what my toolbar looks like when I have it set up correctly.



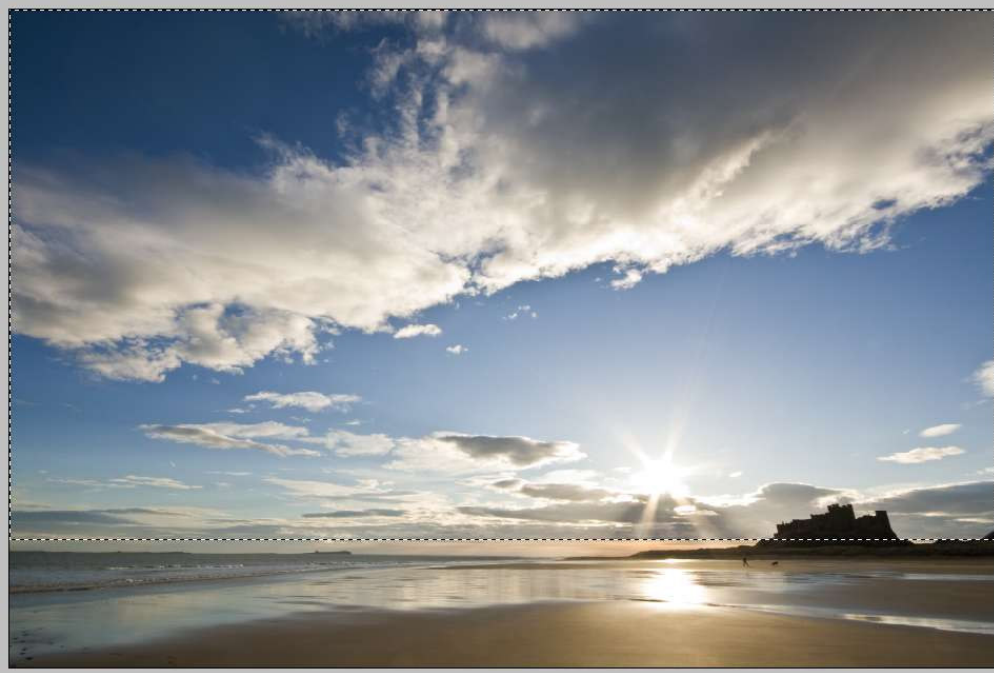
Step 5 – Draw your gradient by clicking on an area of the sky and dragging the mouse down vertically to below the horizon. You can see this in the following screen shot where the vertical line represents the gradient I have dragged using the mouse.



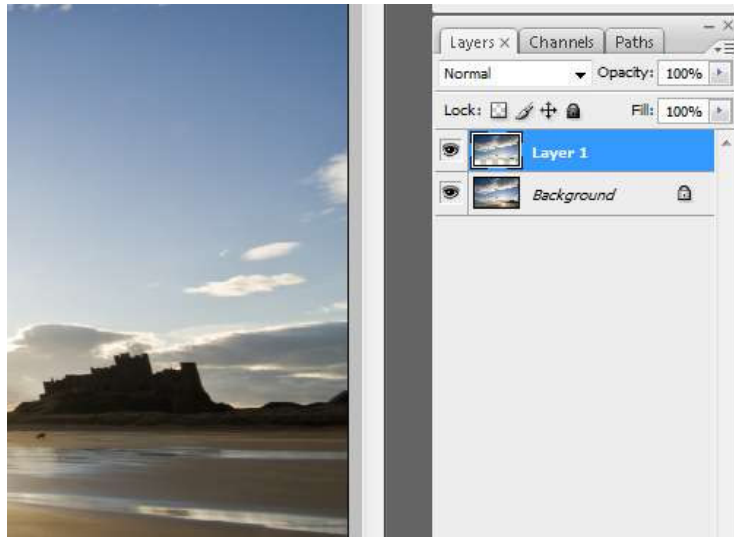
Once I release the mouse the gradient will be drawn. In this case, because we are using the Quick Mask mode, the gradient will be represented by a semi transparent red mask. This can be seen in the following screen shot.



Step 6 – Switch from Quick Mask mode to normal mode by clicking on the quick mask icon again as you did in step 2. This will cause the sky to become a selection. Whilst the selection is shown by a square box, the bottom part of the selection is really a gradient, just as with a real ND Grad filter. The following screen shot illustrates the selection I have made.



Step 7 – Create a new layer based on a copy of the selection you have made. I find the easiest way to do this is using the shortcut keys Ctrl-J. You can also use Layer New | Layer _____ via copy from the menu. Once you have done this you should see the newly created layer in the Layers Window as illustrated in the screen shot to the right here.



Step 8 – Change the blending mode in the Layers Window for the newly created layer from Normal to Multiply. The effect of this is to make every pixel from the top layer darker. Quite often this effect is too strong and needs to be reduced in order to balance the image. To do this, use the Opacity slider in the Layers Window. Reducing the opacity will reduce the strength of the effect.

In my example shown below I have reduced the opacity down to 60%.



A Lighter Alternative

There are a number of ways to create a ND Grad filter digitally but they are all based on the same technique of drawing a gradient. I like the method here of setting the blending mode as different blending modes can have different effects. For example, if the area you have selected is too dark and you would like to lighten it, set the blending mode “Screen” rather than “Multiply”.

If you are finding it difficult to follow the above instructions, check out my video tutorial on the Lenscraft website “Darken a Light Sky”.