

Imaging Techniques – How to Sharpen an Image

Topic: –HOW TO SHARPEN AN IMAGE

The use of the USM (Unsharp Mask) Sharpen filters is essential and should be applied to every image in varying and appropriate amounts. It should also be the last task you perform before printing. The USM is used to enhance the detail of the image. The process does not actually sharpen an image but applies a light and dark line along areas of image contrast. This gives a perceived impression of sharpness between adjacent pixels because of the contrast increase. Ideally you should save your .psd image unsharpened. Then when you come to print the image you can safely resize the image if necessary and apply Unsharp Mask. It will not be necessary to save this sharpened or resized version.

The **ONLY** sharpen filter to use is the strangely named **Unsharp Mask** or **USM** filter for short (Filter>Sharpen>Unsharp mask). The other options give no control and should be avoided.

1. To use the USM (Unsharp Mask) choose **Filter>Sharpen>Unsharp Mask**.
2. When the Unsharp mask dialog box first appears make sure the **Preview box** is ticked. This allows for real-time changes to be seen in the main document window.
3. It's useful to switch this check box off and on to see the effect of the filter on the image. However, if you do this always make sure the image is first set to 100% otherwise you will not see a true impression of the changes taking place. Incidentally this is true for all functions and features in PhotoShop.
4. Adjust the Amount Slider, the Radius slider and the Threshold slider settings. You can do this by clicking the appropriate slider triangle and dragging it to increase or decrease the setting. You can also move the triangle, after it has been clicked, via the cursor arrow keys. This gives excellent control and precise adjust one pixel at a time.
5. Click the **OK** button or press the **Enter** key on the keyboard to apply the USM filter.

Amount: this function controls the amount of sharpening that is applied to the edges. You can set 1 to 500 %. Entered values below 50% give very subtle sharpening. 50% to 200% provide moderate sharpening and between 200% and 500% a more pronounced effect. There is an interrelationship between the settings used for **Amount**, **Radius** and **Threshold** and should be a consideration when making USM settings.

Radius: Controls the thickness or depth of the enhanced pixels along the areas of high contrast. Normally a setting of between 1 and 2 pixels will give acceptable results. For more subtle effects use a pixels Radius setting of 0.5 to 1, particularly if the image is for the Web.

Threshold: sets the level of minimum contrast between pixels before the USM filter will recognise the difference and apply the filter. The Threshold can be set from 0 to 255. If Zero (0) is set all pixels in an image or selection, will be effected by the USM filter. If 255 is set then no pixels will be effected even if the Amount is set to maximum. You can adjust the Threshold setting to fine tune how far beyond the high contrast edges pixels will be affected.

A good general setting of **Amount 85**, **Radius 1.2** and **Threshold 4** will usually work with most images, but experiment with the settings to arrive at the correct level of sharpening. Don't over sharpen an image. Remember the effect is less sever on print then on the screen.