



# **Sharpening and the Unsharp Mask Filter in Photoshop**

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# The Sharpen filters

## What They Do

The Sharpen filters focus blurry images by increasing the contrast of adjacent pixels.

## Sharpen and Sharpen More

These filters **focus a selection** and improve its clarity.

The **Sharpen More** filter applies a stronger sharpening effect than does the Sharpen filter.

## Sharpen Edges and Unsharp Mask

These filters find the areas where **significant color changes** occur and sharpen them.

The Sharpen Edges filter sharpens only edges while preserving the overall smoothness of the image. Use this filter to **sharpen edges without specifying an amount**.

For **professional color-correction**, use the **Unsharp Mask** filter to adjust the contrast of edge detail and produce a lighter and darker line on each side of the edge.

# About Unsharp Masking

**Unsharp masking, or USM, is a traditional film compositing technique used to sharpen edges in an image.**

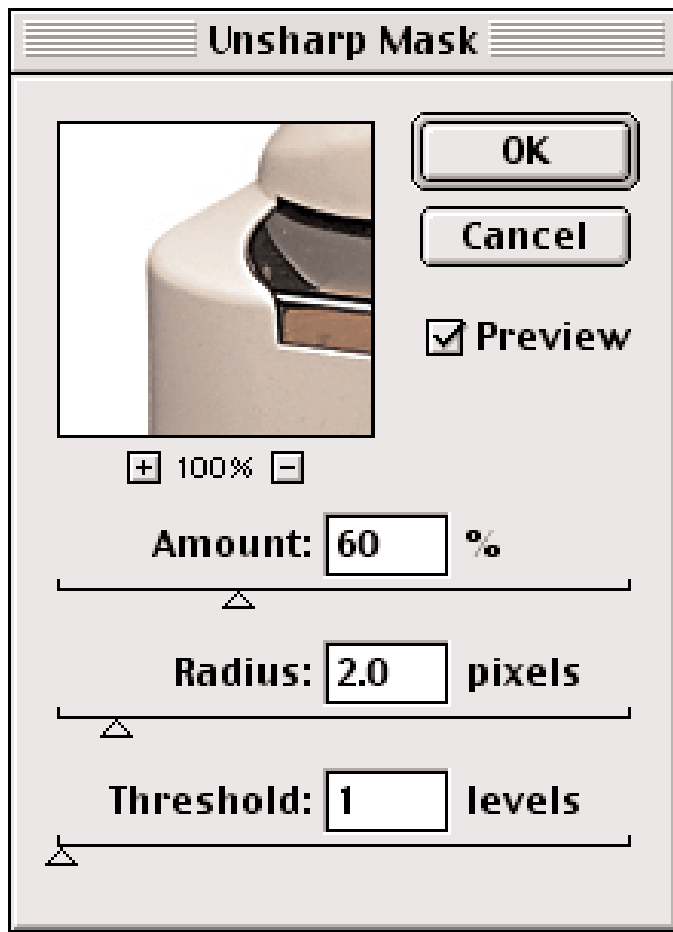
**The Unsharp Mask filter corrects blurring introduced during photographing, scanning, resampling, or printing. It is useful for images intended for both print and online viewing.**

**Unsharp Mask locates pixels that differ from surrounding pixels by the threshold you specify and increases the pixels' contrast by the amount you specify. This process will emphasize the edge and create the illusion of a sharper image.**

**In addition, you specify the radius of the region to which each pixel is compared.**

**The effects of the Unsharp Mask filter are far more pronounced on-screen than in high-resolution output. If your final destination is print, experiment to determine what settings work best for your image.**

# The Unsharp Mask Filter



## Amount

Determines how much to increase the contrast of pixels

## Radius

This determines the number of pixels surrounding the edge pixels that affect the sharpening. A lower value sharpens only the edge pixels, whereas a higher value sharpens a wider band of pixels.

## Threshold

This determines how different the sharpened pixels must be from the surrounding area before they are considered edge pixels and sharpened by the filter.

# Using Unsharp Mask to sharpen an image

**Choose Filter > Sharpen > Unsharp Mask.  
Make sure the Preview option is selected.**

**Click on the image in the preview window to see how the image looks without the sharpening.**

**Drag in the preview window to see different parts of the image,  
and click + or - to zoom in or out.**

**Change the settings according to the image.**

# Using Unsharp Mask to sharpen an image

## Amount

Drag the Amount slider or enter a value to determine how much to increase the contrast of pixels. **For high-resolution printed images (250 to 350 dpi) an amount between 150% and 200% is recommended.**

## Radius

This determines the number of pixels surrounding the edge pixels that affect the sharpening. **For high-resolution images, a Radius between 1 and 2 is usually recommended.** A lower value sharpens only the edge pixels, whereas a higher value sharpens a wider band of pixels. This effect is much less noticeable in print than on-screen, because a 2-pixel radius represents a smaller area in a high-resolution printed image.

## Threshold

This determines how different the sharpened pixels must be from the surrounding area before they are considered edge pixels and sharpened by the filter. To avoid introducing noise (in images with flesh tones, for example), **experiment with Threshold values between 2 and 20.** The default Threshold value (0) sharpens all pixels in the image.

# Using Unsharp Mask: Lab Color Option

**If applying Unsharp Mask makes already bright colors appear overly saturated, convert the image to Lab mode and apply the filter to the “L” channel only.**

**This sharpens the image without affecting the color components.**