

Sharpening Images

No matter how experienced a photographer you are, there will be times when you'll want to 'sharpen' a photograph. For example, if you use a desktop scanner, you may find that your scanned images are slightly blurry.

In this tutorial, we'll discuss the various sharpening tools provided in Photo Explosion, and explain how and when to apply them.

You'll learn how to:

- Apply Sharpen, Sharpen More, and Sharpen Edges effects.
- Apply an Unsharp Mask filter.
- Adjust Unsharp Mask settings to suit image properties.
- Choose Unsharp Mask settings appropriate for screen and printed images.
- Use the Sharpen tool to increase the contrast in an area of an image.



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Sharpening is an important step in the digital photo-editing process, but it can be difficult to achieve optimal results. Photo Explosion provides several different methods for sharpening your images. The tool and settings you use depend on the effect you want to achieve, and what you intend to do with your final image.

We'll apply various sharpening methods to the same photograph for comparing the result from each method.

Sharpen and Sharpen More

The **Sharpen** and **Sharpen More** effects enhance differences between adjacent pixels of different colors. Both of these effects apply varying degrees of sharpening to an entire image with a single click. While these effects are quick and simple to use, they don't offer the control of some of the other methods discussed later in this tutorial.

To apply the Sharpen effect

- On the **Effects** menu, choose **Sharpen>Sharpen**.



The effect has particularly enhanced sharpness in the subjects' faces, in the grass, and in the basket of flowers. The image is slightly sharper, but still maintains its softness.

- On the **Edit** menu, choose **Undo Sharpen** (or press **Ctrl+Z**).

Let's now see what happens when we apply the **Sharpen More** effect.

To apply the Sharpen More effect

- On the **Effects** menu, choose **Sharpen>Sharpen More**.

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The sharpening effect here is much more aggressive and less successful — the faces, flowers, and the blades of grass are overly defined and the overall smoothness of the image is lost.

- Again, press **Ctrl+Z** to revert to the original image.

Sharpen Edges

The **Sharpen Edges** effect also works without a dialog box, this time applying sharpening only to edges while still preserving the overall smoothness of the image.

To apply the Sharpen Edges effect

- On the **Effects** menu, choose **Sharpen>Sharpen Edges**.



Applying this effect has a more subtle effect. Edges and lines are crisper, but the image remains smooth. Again, press **Ctrl+Z** to revert to the original image.

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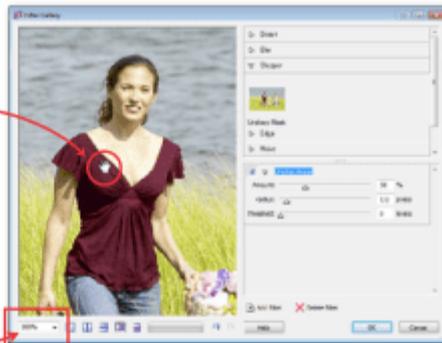
Unsharp Mask

Unsharp Mask mainly enhances the edges in an image. Unlike **Sharpen Edges**, however, this effect is applied through a dialog.

While the **Sharpen** and **Sharpen More** effects are often adequate for enhancing sharpness in graphics, the **Unsharp Mask** filter is better for adjusting sharpness in photographs. It is excellent for improving image quality, especially with scanned or resized pictures. You can apply this correction on a **filter layer** or directly to your image.

To apply an Unsharp Mask effect on a filter layer

- 1 On the **Layers** tab, right-click the layer you want to sharpen and click **Convert to Filter Layer**.
- 2 In the **Filter Gallery**, expand the **Sharpen** category and click the **Unsharp Mask** thumbnail swatch.
 - To see a different part of the image, drag with the hand pointer.
 - In the list, select a different magnification if required.
- 3 In the right pane, adjust the effect by dragging the **Amount**, **Radius**, and **Threshold** sliders, or by typing values directly into the value boxes.



- **Amount** controls the degree of sharpening at an edge (how much darker/lighter the edge borders become). This setting has a large effect on the image. Values between 80 and 120 are common.
- **Radius** determines the spread of pixels at an edge that will be affected. A radius value of 1 is generally a good starting point, with values between 0.6 and 2 also being useful.

For fine detail or low resolution images, use a lower radius setting. Use higher settings with higher resolution images.

 Filter layers let you add effects experimentally.

You can turn them on and off to compare 'before' and 'after' images by clicking the layer's  **Hide/Show** icon.

You can also edit or delete the effect later by double-clicking the filter layer to reopen the **Filter Gallery** and make your

 You can also adjust the **Amount**, **Radius**, and **Threshold** sliders by using your keyboard arrow keys or a scroll wheel, if available.

 **Radius** and **Amount** interact — reducing one value allows for an increase in the other.

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 **Screen and print settings**

Bear in mind that images need different adjustments depending on how they are going to be viewed — on screen or in print. More radius is required for higher resolution images intended for print with less radius

- **Threshold** sets the degree of color difference required across an edge before the effect is applied. Set this value too high and you'll see very little change in your image. Generally, values between 0 and 5 are useful. Use a higher threshold for grainy images or skin tones (5 or sometimes more), so the filter won't merely amplify noise in the image.

In our example, we used the following values:

Amount—120; Radius—1; Threshold—5



As you can see, applying an **Unsharp Mask** effect to this image has produced a subtle, yet very effective result. The subjects' faces are enhanced, and detail in the flowers and background is revealed, without introducing 'noise' or other artefacts.

- Press **Ctrl+Z** to revert to your original image.

 **Getting creative**

In our example, our aim was to achieve a subtle sharpening effect to enhance our photograph.

Sharpening can also be a creative tool. Sometimes you might want to make an image much sharper than it really is. For example, you may want to tell a story, make a point, emphasize an area of interest, or create an interesting visual effect.



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Sharpen tool

The previous methods allow you to increase the sharpness of an entire image. But what if you only want to sharpen certain areas of an image? Photo Explosion has a tool just for this purpose!

The **Sharpen** tool lets you enhance apparent sharpness in an area of an image by increasing contrast under the brush.

To use the Sharpen tool

- 1 On the Tools toolbar, on the Retouch Tools palette, select the  **Sharpen** tool.
- 2 On the **Brush Tip** tab, select a brush tip style and size.
- 3 If required, adjust **Size**, **Blend Mode**, and **Opacity** on the Brush Context toolbar.
- 4 Click (or drag for large areas) to sharpen the image under the brush.

In our example, we've used the **Sharpen** tool to increase sharpness in the flowers.



Well done, you've now experimented with the various sharpening methods provided in Photo Explosion. We hope that you're more confident with the tools and techniques discussed here, and are ready to work on some of your own images.

Some general tips to keep in mind:

- For optimal sharpening of an entire photograph, use the **Unsharp Mask** filter and experiment with different settings until you achieve the desired results.
- When choosing sharpening settings, don't forget to consider your image resolution and output (whether print or screen). In general, use a higher **Radius** setting for higher resolution images intended for print, less radius for lower resolution images that will be viewed on screen.
- When using the **Sharpen** tool to bring out fine detail in an area of an image, select a small brush tip and click in the area rather than dragging across it. In general, less is more, so don't overdo it or you'll add unwanted 'noise' and artifacts to the image.