

How to use filters

Adobe Photoshop filters provide a range of options for changing your image's appearance. You can use filters to clean up or retouch your images, apply special art effects that give your image the appearance of a sketch or pastel painting, and apply distortions and lighting effects. These filters can create added interest or help you achieve design goals. As with many Photoshop features, though, you should take care not to overuse filters, as too many filters can make an image look overly manipulated or unprofessional. Download the assets used in [this tutorial here](#).

The Filter Gallery

Each filter has a range of settings. The Filter Gallery provides a preview of many of the special effects filters (**Figure 1**). You can apply multiple filters, turn on the effect of a filter or turn it off, reset options for a filter, and change the order in which filters are applied. When you are satisfied with the preview, you can then apply it to your image. Learn more about [the Filter Gallery here](#).

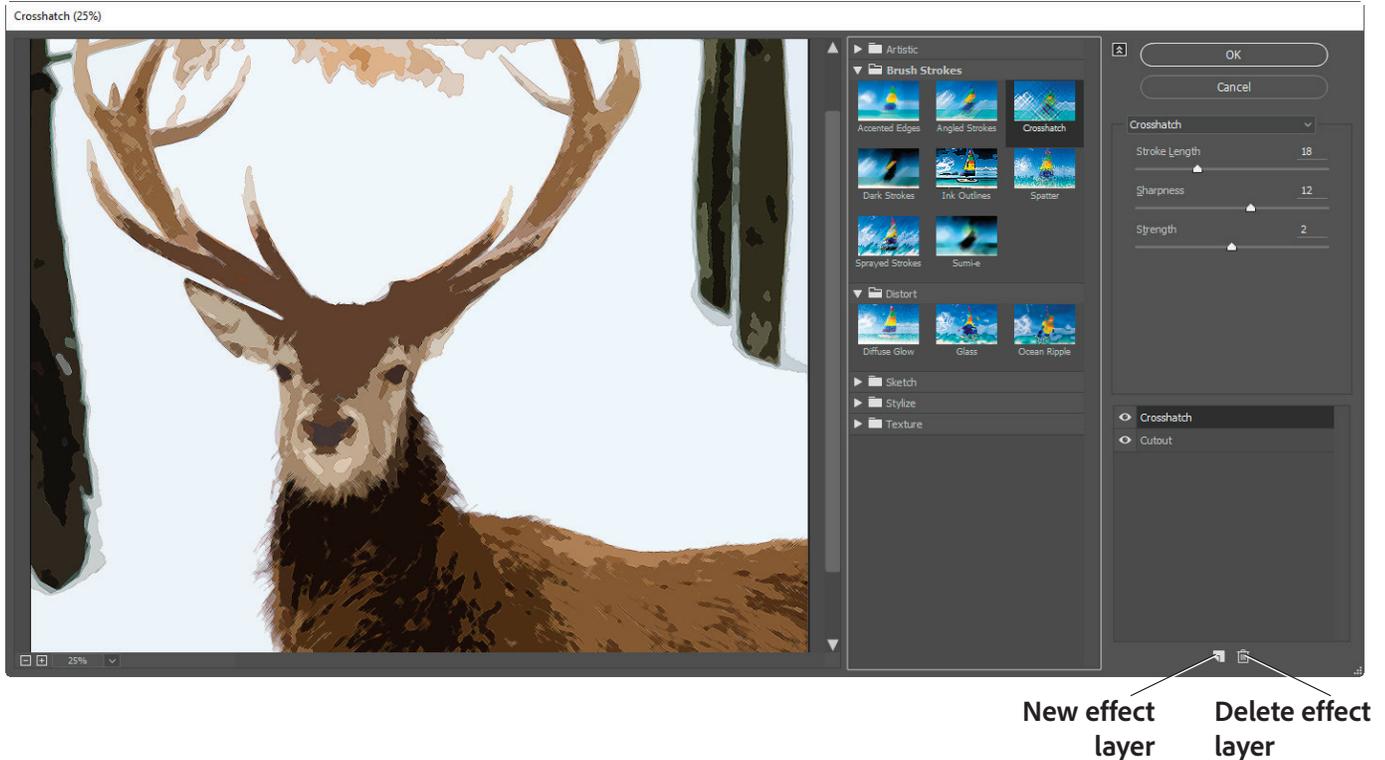


Figure 1 Image in Filter Gallery with Crosshatch and Cutout filters preview

Filters are applied to the active, visible layer or a selection. Not all filters in the Filter menu are available in the Filter Gallery. Experiment with different settings to achieve your design goals.

Filters have the following limitations:

- Some filters work only on RGB images.
- All filters work with 8-bit images. Only some filters apply to 16-bit or 32-bit images, please see [Photoshop Help](#) and [Filter Effects Reference](#) for information.
- When applying filters to shape layers, Photoshop first rasterizes the shape. Rasterizing means converting the shape from vector to bitmap format.
- The Blur Gallery and Liquify Filter support Smart Objects, and can preserve an image's source content with all its original characteristics, enabling nondestructive editing to the layer.

Creating a custom shape

In the following steps, you will create a shape and then apply filters to it to give it an artistic appearance.

To create a custom shape:

1. Start Photoshop and create a new document.
2. Click and hold the **Rectangle Tool** in the Tools panel, and then select the **Custom Shape Tool** (**Figure 2**).
3. In the options bar, make sure **Shape** is selected as the tool mode (**Figure 3**).
4. Select a shape from the Custom **Shape** picker in the options bar, such as Blob 1 (**Figure 4**).
5. Drag the pointer across the image to draw the custom shape, just as you would if you were drawing a rectangle.

To make the shape uniform in size, hold down the Shift key while dragging.

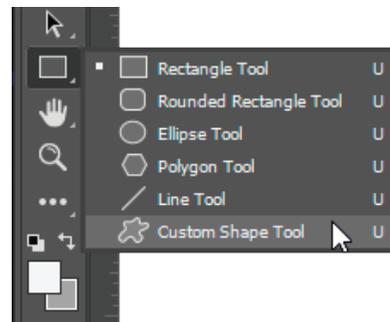


Figure 2 Custom Shape tool

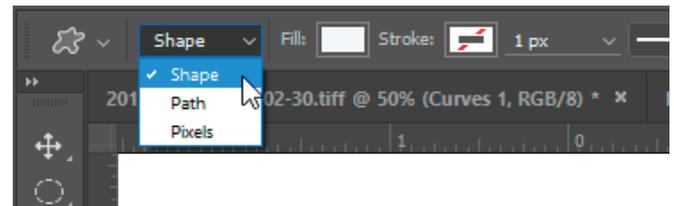


Figure 3 Custom Shape tool mode in the options bar



Figure 4 Custom Shape picker in the options bar

Applying a filter

You can apply a filter to the active layer.

To apply a filter:

1. Select the layer that contains the custom shape (Figure 5).
By default, it will be labeled **Shape 1**.
2. Choose **Filter > Filter Gallery**.
Photoshop may warn you that it needs to **Convert to Smart Object** or **Rasterize** the image before proceeding. This means the image will no longer be a vector mask.
3. Click **Rasterize**.
The **Filter Gallery** appears (Figure 6).
4. Click the **Sketch** filter in the center column to display thumbnails of available filter effects.
5. Click the **Halftone Pattern** thumbnail.
Halftone Pattern is just one of many filters with which you can achieve an artistic effect. The effect of the Halftone Pattern is similar to that of certain Pop Art techniques.
Settings for the selected pattern appear in the right column.
6. Set the options to achieve the desired effect. In this example, the **Size** is set to **10**, **Contrast** to **35**, and **Pattern Type** to **Dot**.
7. Click **OK**.
The filter is applied to the custom shape (Figure 7).

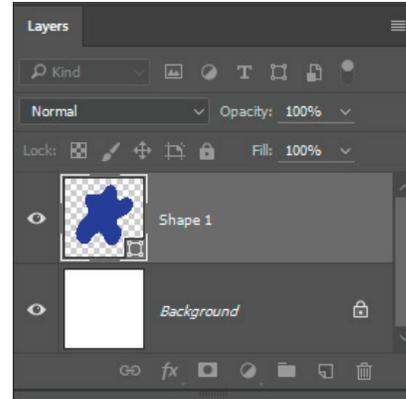


Figure 5 Layers panel

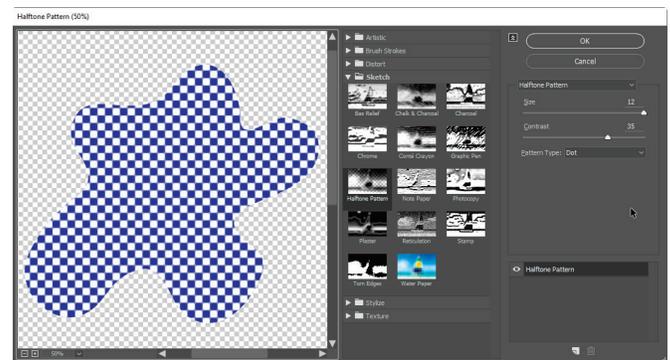


Figure 6 Filter Gallery

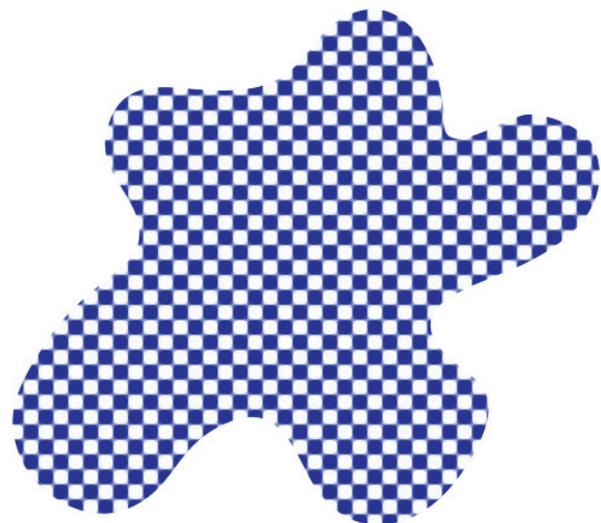


Figure 7 Halftone Pattern filter applied

Applying another filter

You can apply multiple filters to one image.

In these steps, you're applying filters to a custom shape. You can apply filters to almost any image, such as photographs or other artwork.

To apply another filter:

1. Click the layer with the custom shape.
2. Choose **Filter > Pixelate > Crystallize**.
As with the Halftone Pattern filter, a dialog box lets you preview and change settings for the **Crystallize** filter (**Figure 8**).
3. Increase the **Cell Size** slider to achieve the desired effect. In this case, the slider is set to **100**.
4. Click **OK**.

The Crystallize filter is applied to the shape (**Figure 9**).

Observe how the Crystallize filter modifies the effects of the Halftone Pattern filter. You can create a wide range of effects by combining filters.

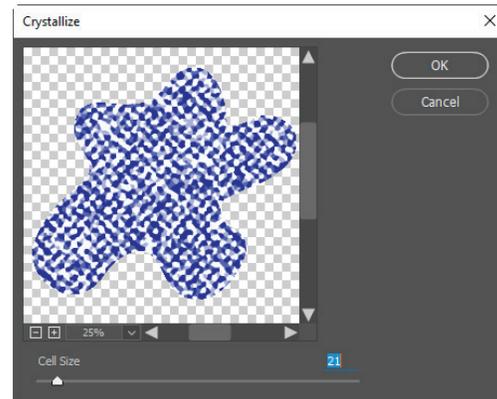


Figure 8 The Crystallize dialog box



Figure 7 Halftone Pattern filter applied

Using the Liquify filter

The Liquify filter is another interesting filter you can apply to images. It causes the image to appear melted, along the lines of a Salvador Dali painting.

By first converting your image to a Smart Object, you can work on your image nondestructively. Using the Liquify filter, you can push, pull, rotate, reflect, pucker, or bloat any area of an image.

To apply the Liquify filter:

1. Open an image in Photoshop.
2. Select the layer to which you wish to apply the Liquify filter.
3. Choose **Layer > Smart Object > Convert to Smart Object** to convert a selected layer into a Smart Object. The image layer is converted into a Smart Object.
4. Choose **Filter > Liquify**. The **Liquify** dialog box appears (**Figure 10**).

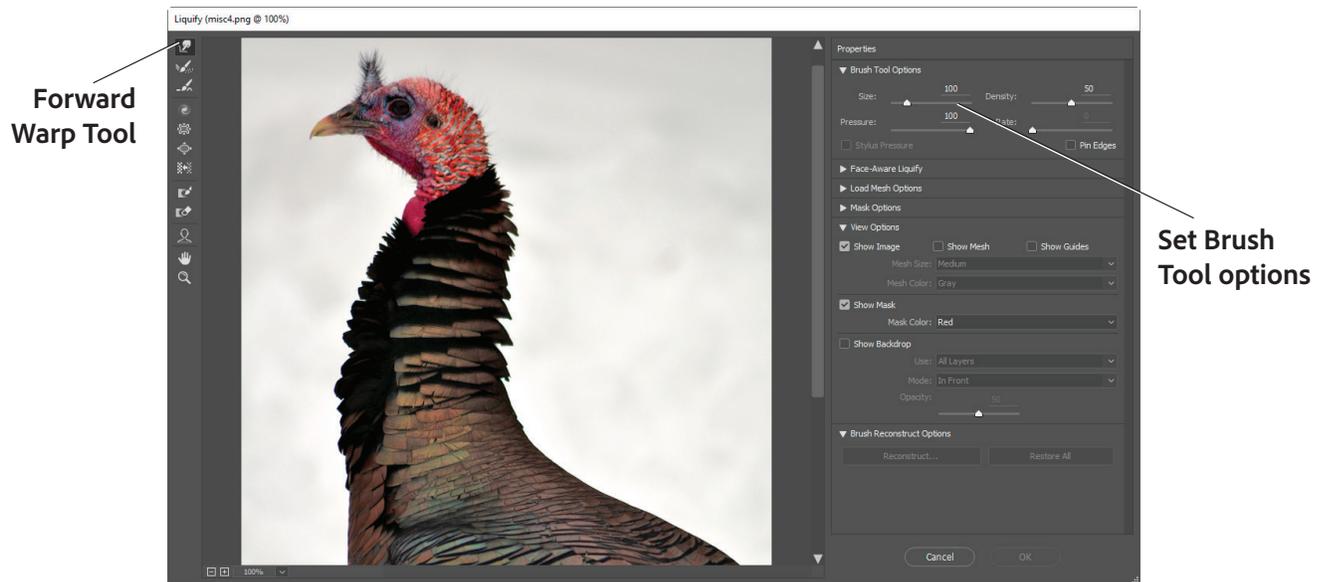


Figure 10 Liquify dialog box

5. In the right column, set a brush size to use. The brush size needs to be big enough to modify your image.
6. On the left, choose the Forward Warp tool.
7. Drag the pointer through a part of the image (**Figure 11**).

Note: The Reconstruct tool, positioned beneath the Forward Warp tool, will undo the effects of a liquify tool. To revert, choose the Reconstruct tool and then drag through the image.

Experiment with other liquify tools, such as the Pucker and Bloat tools.

8. When you are satisfied, click **OK** to apply your changes to the image.



Figure 11 Forward warp tool applied

In the **Layers** panel, observe the Smart Object and the applied Liquify Smart Filter. You can click the Eye icon to toggle the filter on or off.

Using the Blur Gallery

The Blur filters soften a selection or an entire image, and are useful for retouching. They smooth transitions by averaging the pixels next to the hard edges of defined lines and shaded areas in an image. See more [Blur Gallery examples here](#).

Advanced blur effects can be accomplished by using the Blur Gallery. Three blur effects make up the Blur Gallery:

- *Field Blur* Click to place one or more focal point pins, and apply uniform or graduated blur between the points. Use this filter on images for maximum customization for focal points settings and blur levels.
- *Iris Blur* Applies blur to create an elliptical region of focus based on your settings. The Iris Blur filter works best in images with a central element around which to focus attention.
- *Tilt-Shift Blur* Soften select areas with this filter which lets you create a band of focus with a shallow depth of field to simulate a miniature scene (**Figure 12**). The Tilt-Shift Blur filter works best in images with elevated viewpoint, and well-defined foreground, midground, and background focal planes.
- *Path Blur* Create motion blurs along paths. You can also control the shape and amount of blurring. Photoshop automatically composites the effects of multiple path blurs applied to an image.
- *Spin Blur* Rotate and blur the image around one or more points. The spin blur is a radial blur measured in degrees. Photoshop lets you work with center points, blur size and shape, and other settings, all while viewing a live preview of the changes.

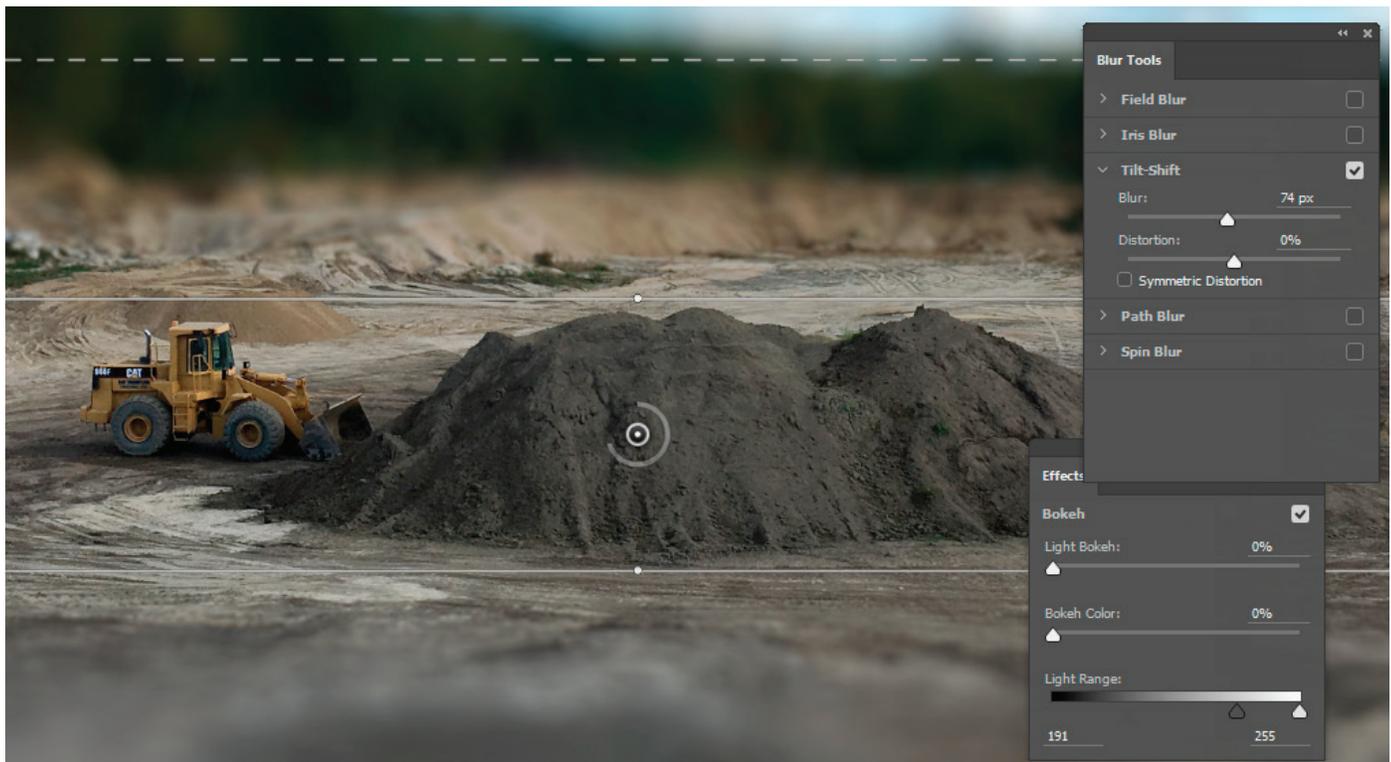


Figure 12 Image with Tilt-Shift Blur preview

To use the Blur Gallery:

1. Open an image in Photoshop.
2. Select the layer to which you wish to apply a Blur Gallery filter.

3. Choose **Layer > Smart Object > Convert to Smart Object** to convert a selected layer into a Smart Object.

The image layer is converted into a Smart Object and now permits nondestructive editing.

4. Choose **Filter > Blur Gallery > Tilt-Shift**.

The **Blur Tools** and **Blur Effects** panels open with the **Tilt-Shift** options available (Figure 13). The Blur Gallery options bar and on-image controls are also available.

5. Use the on-image tools to customize the Tilt-Shift Blur filter settings:

- Click to add a focal point pin.
- Click-drag between the solid lines to reposition the focal plane.
- Click-drag a solid or dashed line to change the perceived focal plane tilt and graduated blur areas.
- Click-drag a handle on the solid line, or between the solid and the dashed lines to rotate the focal plane.
- Click-rotate a dial that is around the focal pin to set blur level (Figure 14).

6. Compare the original image with the blur filter image by selecting/deselecting the **Preview** option in the Blur Gallery options bar.

7. You can preview other filters by clicking on the names in the **Blur Tools** panel. Experiment with the **Field Blur** and **Iris Blur** options and on-image controls to understand how they function.

Note: More than one **Blur Gallery** filter can be applied at one time. Click the check box beside the **Blur Tool** filter name to turn a filter on or off.

You can also experiment with settings in the **Blur Effects** panel. **Bokeh** highlights, color, and light range are the adjustable options. *Bokeh* is the quality of a blur, or more specifically, how out-of-focus points of light are rendered. These options simulate differences in lens aberrations. Aperture shape cause a lens to blur the image in a way that is aesthetically pleasing, while others produce blurring that is unpleasant to the eye.

8. When you are satisfied with the image, click **OK** to apply the **Blur Gallery** settings.

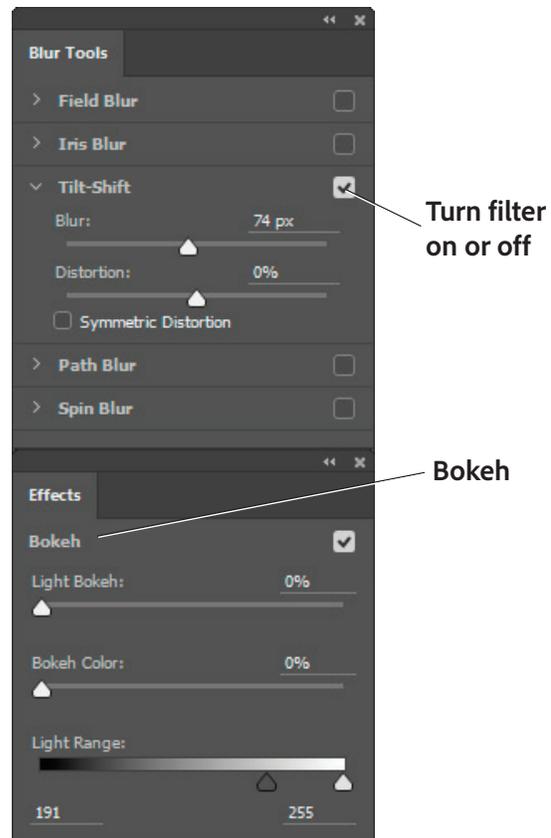


Figure 13 Blur Tools and Blur Effects panels

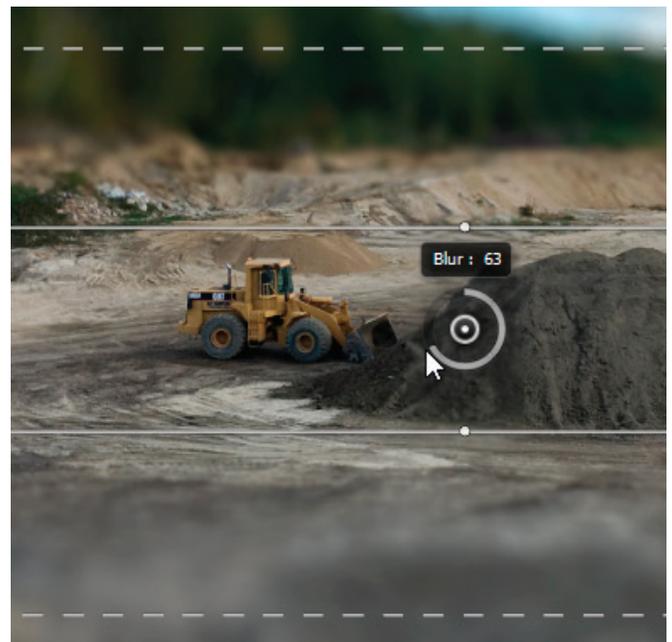


Figure 14 Setting the blur level

The Vanishing Point filter

Vanishing Point simplifies perspective-correct editing in images that contain perspective planes—for example, the sides of a building, walls, floors, or any rectangular object (**Figure 15**). In Vanishing Point, you specify the planes in an image, and then apply edits such as painting, cloning, copying or pasting, and transforming. All your edits honor the perspective of the plane you're working in. When you retouch, add, or remove content in an image, the results are more realistic because the edits are properly oriented and scaled to the perspective planes. After you finish working in Vanishing Point, you can continue editing the image in Photoshop. To preserve the perspective plane information in an image, save your document in PSD, TIFF, or JPEG format.



Figure 15 Making edits on the perspective planes in an image before (left) and after (right)

The Vanishing Point dialog box (Filter > Vanishing Point) contains tools for defining the perspective planes, tools for editing the image, a measure tool, and an image preview (**Figure 16**). The Vanishing Point tools (Marquee, Stamp, Brush, and others) behave similarly to their counterparts in the main Photoshop toolbox. You can use the same keyboard shortcuts to set the tool options. Opening the Vanishing Point menu displays additional tool settings and commands. Get more details about [the Vanishing Point filter here](#).

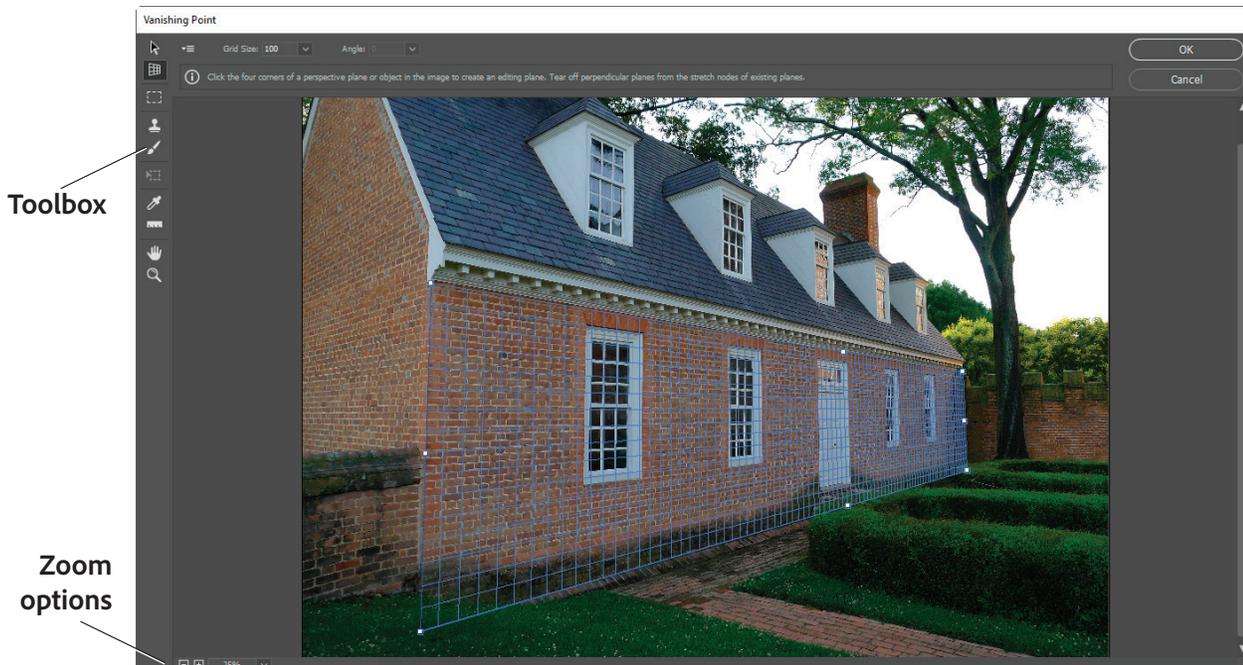


Figure 16 Vanishing Point dialog box

To use the Vanishing Point filter:

1. Start Photoshop and open an image that contains a perspective plane.
2. Open the **Layers** panel.
3. Click the Create A New Layer button to add a new layer (**Figure 17**).

When using the **Vanishing Point** filter, it is best to make your changes in a separate layer so you do not alter your original image.

4. Make sure the new layer in the **Layers** panel is selected (**Figure 17**).
5. Choose **Filter > Vanishing Point**.

The **Vanishing Point** dialog box appears (**Figure 16**).

6. Your first step is to select a perspective plane to modify. Make sure the Create Plane tool is selected (**Figure 18**).
7. Click the four points of a perspective plane.

In the example (**Figure 19**), four points on the house wall are selected. When you click the fourth point in the plane, a grid forms between the four points.

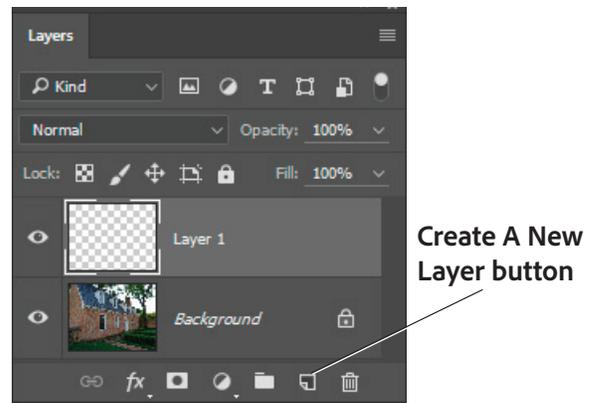


Figure 17 Layers panel

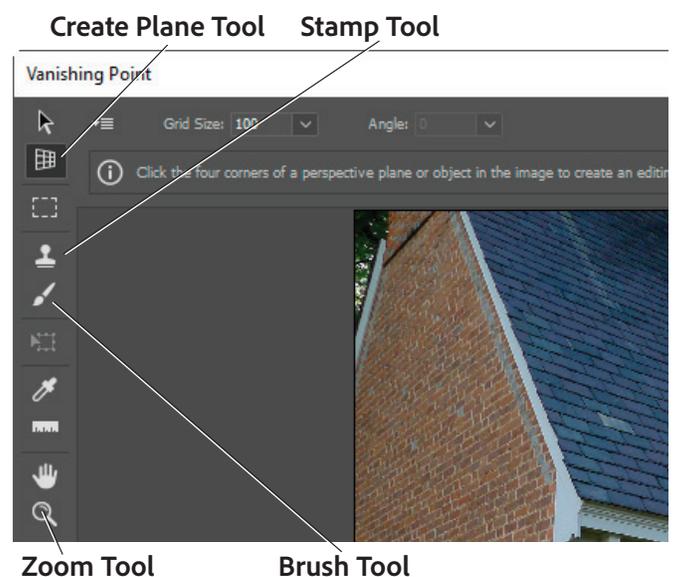


Figure 18 Vanishing Point toolbox

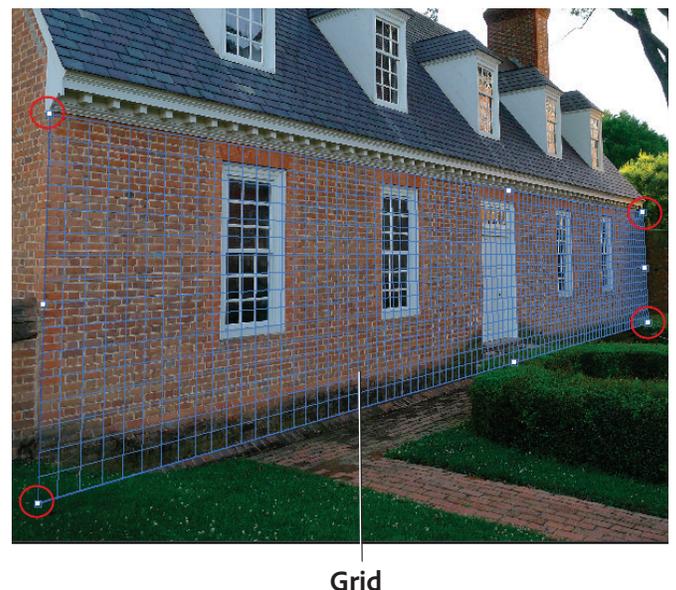


Figure 19 Creating a plane

8. Select the Brush tool in the **Vanishing Point** dialog box (not in the Tools panel).
So you can see better, you can magnify the image by using the Zoom tool.
The brush tip (normally a circle) becomes an oval that continually re-aligns with the image plane as you move the brush around.
9. Select the Stamp tool in the **Vanishing Point** dialog box.
10. Hold down the **Alt** (Windows) or **Option** (Mac OS) and click within the perspective plane to select an area for cloning (**Figure 20**).
11. Drag in the image to clone the area.
Observe that the shape of the clone area aligns with the plane.
12. When you have completed your changes, click **OK** to close the **Vanishing Filter** dialog box and apply the changes to the image.
Because you began by adding a new layer, all changes appear in the new layer.

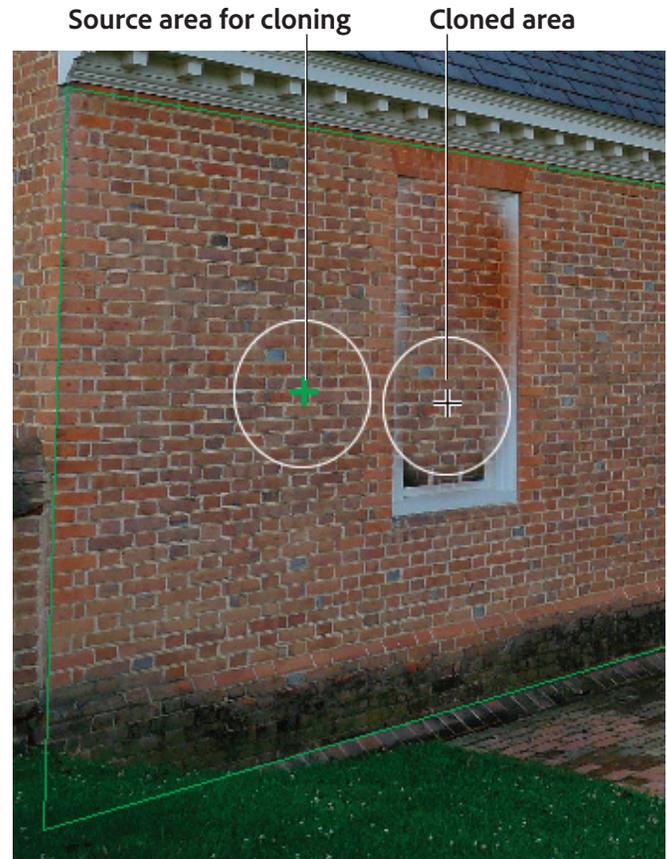


Figure 20 Cloning with Vanishing Point

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