

Adobe Studio on Adobe Photoshop CS2

Use Vanishing Point to edit images in perspective

In the past, you had to stretch, skew, and transform new image elements to make them conform to the perspective of an existing photo. Now, in Adobe® Photoshop® CS2, the revolutionary, new Vanishing Point plug-in handles the chore of matching perspective for you.

Define perspective planes to redesign a building

Using the special grid tools in Vanishing Point, you quickly and easily define the perspective planes, then edit as you would in a flat image.


1 Choose and open a photo.

In Photoshop CS2, open a photo of a building of medium height, taken with a strong visual perspective, rather than a flat, two-dimensional building facade viewed head on.


2 Create a layer in which to make your edits.

In the Layers palette, click the New Layer button to create a new, empty layer. Although you can use Vanishing Point on any selected layer, including the background, using a new layer isolates your editing and preserves the original image data in the original background layer. You can then go back at any time to make further edits, or restore the appearance of the original image by simply hiding or deleting the new layer. Make sure the new layer is selected (it will be highlighted in the Layers palette), and then choose Filter > Vanishing Point.

3 Define a perspective plane.

In the Vanishing Point dialog box, select the Create Plane tool  and click four points in the image to define the first plane. For example, to define the plane for a wall of the building, click the four corners of the wall. Alternatively, click the four corners of a window in the wall, then extend the grid as in step 4 below.


4 Adjust and extend the plane as needed.

To adjust the grid defining the perspective plane, select the Edit Plane Tool  and drag the corner points to change the perspective. Drag the center points to extend the grids. Switch to the Create Plane tool and drag the center points to create an attached new grid at a 90° angle from the existing plane. Try it now: Using the Edit Plane tool, drag the center control point on the left side so that the plane just reaches the edge of the right wall. Then, switch to the Create Plane tool and drag the same point, creating a plane for the adjacent wall of the building. Always ensure your perspective grids appear in blue. If the grid is red, the plane is impossible in the existing perspective. If the grid is yellow, the perspective is unlikely.



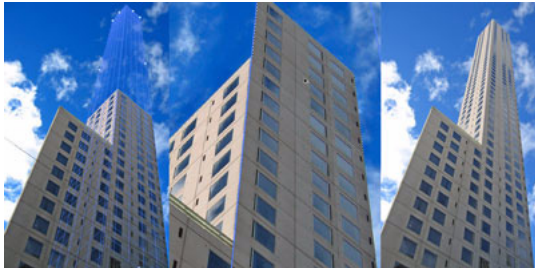
1. Drag a center point with the Edit Plane tool to extend the grid vertically or horizontally. 2. Drag a center point with the Create Plane tool to create an attached new plane set off at 90° from the original.

5 Use the Marquee tool to select the top floors of the existing building.

With the perspective planes defined for the walls of the building, select the Marquee tool  and drag to select the top floors of the building. Because you are selecting in Vanishing Point, the rectangular selection is automatically adapted to the defined perspective plane.





6 Duplicate the selection to add floors to the building.

While pressing Alt+Shift (Windows) or Option+Shift (Mac OS X), drag the selection upward to duplicate it and constrain the direction of movement. Vanishing Point automatically adjusts the perspective of the duplicated section, and you can repeat the step to add as many floors to the building as you want. Repeat the process for the second plane to complete the illusion of a skyscraper created from a medium-sized building.



From left to right: Original building with defined perspective planes. New floors duplicated in perspective from existing selection. Completed skyscraper.

Add text that conforms to the perspective of a photo

The Vanishing Point window includes the Marquee , Stamp , and Brush  tools, each of which has optional Healing modes. They function much as the Healing Brush and Patch tools do in most Photoshop contexts. When you need to use other Photoshop tools and features, simply use them before using Vanishing Point. For example, you can apply drop shadows or other effects to the text, copy the layer containing the text, choose the Vanishing Point command, and then paste the text into the Vanishing Point dialog box. You can use the Transform  tool to make further adjustments to the pasted text, again with automatic perspective correction.

1 Select a photo of a building.

If the building you've been working on is still open in Vanishing Point, click OK to apply your edits and return to Photoshop CS2. Leave the image open if it has sufficient wall space to add a sign. If not, close the image, open a more suitable one, and create perspective grids along the front and side walls. Then click OK to return to Photoshop CS2.

2 Create a text layer and copy it.

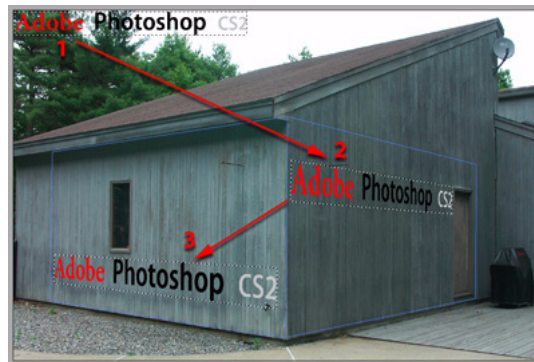
Open a new document and create some text, such as "Adobe Photoshop CS2." Then select the text layer, and choose Edit > Copy to copy the text to the clipboard.

3 Copy the sign onto the building.

Switch back to your building image, and again choose Filter > Vanishing Point. Notice that the grids you created before are saved in the image, so you don't have to define your perspective planes again. Press Ctrl+V (Windows) or Command+V (Mac OS X) to paste the copied text into the Vanishing Point dialog box. Then drag the text onto the front plane of the building. You can use the Transform tool to adjust the size of the text, and Vanishing Point automatically adjusts the perspective to conform to the plane of the building.

4 Drag the sign onto a new wall.

Select the Marquee tool and drag the sign "around the corner" onto the adjacent wall. You can similarly drag any object from one defined perspective plane to another.



1. The text as it first appears after pasting into Vanishing Point.
2. Drag the text onto a grid to automatically adjust the perspective.
3. Drag a copy of the text "around the corner" onto the second plane.

5 Experiment with optional effects.

Go deeper into Vanishing Point with these additional features:

- Select and Alt-drag (Windows) or Option-drag (Mac OS X) a window from one wall to another. Choose the Luminance option in the Healing pop-up menu to blend the moved window more cleanly into the new position.

- Select the Transform tool, and select the Flop check box to mirror the window, so that the shading “inside” the glass faces in the proper direction in the moved window.
- Select the Stamp tool, and use it to paint over a section with pixels cloned from an adjoining area. Select the Healing mode to make the Stamp tool behave like the Healing Brush tool, if necessary. Notice the cross hair cursor, which defines the source point as you paint. The brush tip not only adjusts to accommodate to the perspective plane but also shows a preview of the pixels with which you will paint.
- Enable the Brush tool and repaint a section of wall. Notice again how the brush tip gives you a visual preview of the shape and size at different points on the planes.
- As usual, hold the Shift key down to constrain the direction of your brush strokes. But as with everything else in Vanishing Point, your strokes will be constrained in perspective.

Written by the experts at Adobe.

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