

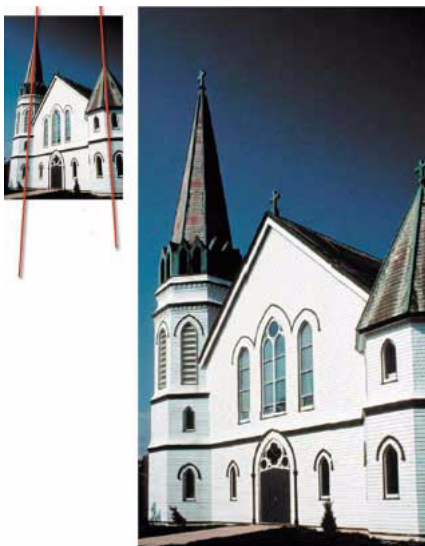
Adobe Studio on Adobe Photoshop CS2

# Keep your pictures in perspective

You know the story, you're visiting a wonderful city on holiday wanting to capture as much of the local scenes and architecture as possible. You enter the local square and point your camera towards an impressive three-spired building on the other side of the road only to find that you must tilt your camera upwards to get the peaks into the picture. At the time you think nothing of it and you move onto the next location. It is only when you are back at home about to print your photograph that you realize that the innocent 'tilt' has caused the edges of the building to lean inwards.

Now to a certain extent this isn't a problem, even though it is not strictly accurate, we all know that most buildings have parallel walls and the majority of people who look at your picture will take this into account – won't they?

Apart from a return trip and a reshoot is there anyway to correct these converging verticals? Well, I'm glad you asked. Armed with nothing except Adobe® Photoshop® CS2 and the few steps detailed here, you can now straighten all those leaning architectural shots without the cost of the return journey.



The picture on the left shows the converging verticals in the original image, on the right is the image with the perspective corrected.

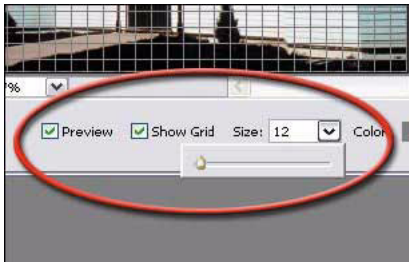
## Use the Lens Correction filter

1 Save the example image below to your computer, open it in Photoshop, and then choose Filter > Distort > Lens Correction.



Right-click the example image and choose Save Picture As (Windows) or Save Image To The Desktop (Mac OS X) to save it to your computer.

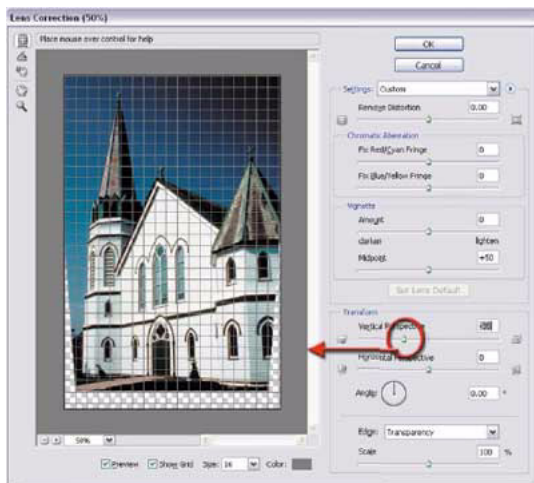
Check the Preview and Show Grid options and adjust the magnification (zoom) setting so that the picture sits within the boundaries of the preview window.



Adjust the magnification slider.

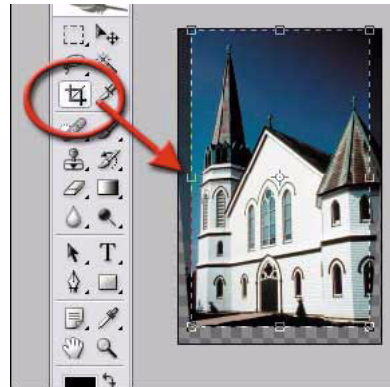
**2** Click the Move Grid tool and click and drag the grid so that it aligns with a part of the picture that is meant to be vertical. In the example the centre of each of the towers was used as the reference point. If needed, change the size of the grid to ensure that the spacing suits the example picture.

**3** Drag the Vertical Perspective slider in the Transform section of the filter dialog to the left to broaden the top part of the picture and shrink the bottom. Fine tune the adjustment so that the verticals in the building align with the grid. Click OK to apply the adjustment.



Use the Vertical Perspective slider to adjust the vertical lines in the image.

**4** Once the filter dialog closes and the corrected image is passed back to the main Photoshop workspace, select the Crop tool and drag a cropping marquee around the picture area to be retained. Press the Enter/Return key to apply the crop.

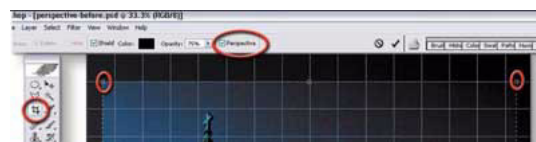


Use the Crop tool to select the part of the image you wish to retain.

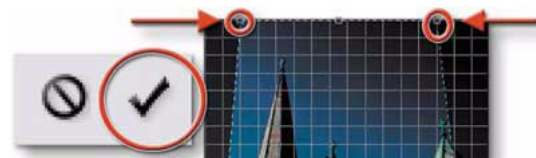
## Manual control: Technique 2

Feel like taking back the reigns yourself? With the following steps you can achieve the same results possible with the Lens Correction filter.

**1** After opening the offending image turn on the display grid (View > Grid). This will place a nonprinting grid over the surface of the picture and will act as a guide for your adjustments. In most cases we need to move the two upper corners of the picture further apart to make them parallel. To achieve this we will use the Perspective feature built into the Photoshop Crop tool.



**2** Select the Crop tool from the toolbox. Click and drag a rough cropping marquee around the picture. Tick the Perspective option in the tool's Option bar. This option changes the way that the tool functions. It is now possible to use the corner handles of the crop marquee to manipulate the photograph's perspective.



**3** In our case we need to select both the top left and right handles and drag them inwards. Continue dragging until the crop marquee edges align with the building sides, or a part of the picture that is meant to be vertical. Double-click on the picture, or select the Tick button in the tool's Option bar, to apply the perspective transformation. Check to see that the building's edges now align with the grid lines. If this isn't the case, undo the perspective change (choose Edit > Undo Crop) and then reapply the crop with slightly different settings.

**4** To complete the correction we need to make the building a little taller as the tilted camera has artificially shortened the spires. The picture needs to be a layer before we can apply the height transformation so double-click onto the background layer in the layers palette.

**5** If we stretch the picture upwards without providing some canvas space for the extra height then the top or bottom of the building will be cropped. So before extending the height we need to increase the vertical size of the canvas. Choose Canvas Size from the Resize menu (choose Image > Resize > Canvas Size) and input a new value into the height box. Here I have used a value of 130% and anchored the bottom part of the picture so that the extra canvas is added to the top.

**6** Now we can select the Scale feature from the Resize section of the Image menu (choose Edit > Transform > Scale) and click and drag the top handles to stretch the picture bigger. As a final step use the Crop tool to trim the unused sections of the canvas away from the corrected image.

**Adapted from "Photoshop CS2: Essential Skills" by Mark Galer and Philip Andrews**

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