

## Wide-angle wonder



**W**HEN WE'RE WORKING WITH backgrounds, it's always much easier to open doors, place furniture and integrate new items if the verticals are properly squared up for us. Previously, this was a tricky task, involving complex manipulation using the Lens Distort filter.

The Adaptive Wide Angle filter, introduced in Photoshop CS6, enables us to correct both perspective and fisheye distortions with ease. It's as simple as drawing straight lines on the screen to indicate how the image should be straightened up.

Here, we'll look at a typical use of this innovative and remarkably helpful piece of technology.



**1** When you open the Adaptive Wide Angle filter (it's at the top of the Filter menu) it will attempt to find the camera lens in its database. Here, we're clearly working with a fisheye distortion; so change the pop-up menu to Fisheye, and drag the slider until you remove at least some of the distortion. I've used a value of about 3.00.



**4** Let's now straighten out the bottom of the door. Just as before, click at one end and drag to the other. You'll notice that the blue line you draw will exactly match the curved shape of the bottom of the door. When you release the mouse button, that door bottom will be straightened out.



**7** Continue to draw lines over the image: verticals down the left side and the middle of the doors (holding **Shift** as you do so), and horizontal lines (without holding **Shift**, since they aren't parallel to the image frame) elsewhere – along the front edge of the tiles, for instance.



**2** The filter works by the user drawing straight lines on the image. Start by drawing a line over the top of the door. Click at one side, then drag and release at the other side. As you can see in this zoomed-in view, the blue line doesn't match the shape of the top of the door accurately. So grab the midpoint of the line, and drag it down until it meets the top of the door.



**5** Let's draw in a vertical line. We'll begin with the right hand side of the door frame. Start at the top and drag down to the bottom, but this time hold **Shift** as you drag to indicate that this is a vertical. The line will be drawn in pink, to show that it's an orthogonal line.



**8** It's likely the edges of the image will become very distorted, as Photoshop struggles to square up the middle. You can use the Scale control to enlarge it so that most of the image area is filled with pixels; then click **Enter** to apply the transformation. Here, I've gone on to select the empty corners, and have used Content-Aware Fill to patch them.



**3** Here's the result: the top of the door now becomes a dead straight line, following the line we drew. By adjusting the line in this way, we're also giving Photoshop a clue for how to draw the remainder of the perspective lines in the image.



**6** As soon as you release the mouse button, the image will recompose itself so that the vertical line just drawn becomes a true vertical. Now, it's time to draw similar lines around the remainder of the image.



### HOT TIP

You can mark as many straight lines as you like: each one will refine the image a bit further. If you have horizontal elements in your image, of course, you can hold **Shift** to mark horizontal as well as vertical lines.