



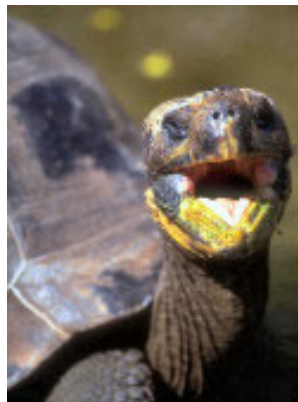
# Jasc® Paint Shop™ Pro® 8 The most complete photo and graphics editor

## Using the Mesh Warp Tool

In this tutorial, you'll learn the basics of using the Mesh Warp tool. The image you'll use is a turtle with his mouth wide open. Using the Mesh Warp tool you'll actually be able to close the turtle's mouth.

### Starting and Ending Images

Before



After



Let's get started.

### Open the Image



Although we recommend completing this tutorial with the sample image shown above, you can use another image if you choose.

- 1 You'll be using the image called meshwarp1.pspimage. Download meshwarp1.zip, extract the image file, and then open it in Paint Shop Pro.

**Note:** The Mesh Warp tool does not add pixels, it manipulates existing pixels. You can only use this tool on a raster image.

The image looks like this.



- 2 If necessary, use the Zoom tool  or the Pan tool  to adjust the image view. In the next section, we will select the Mesh Warp tool and configure its Tool Options.

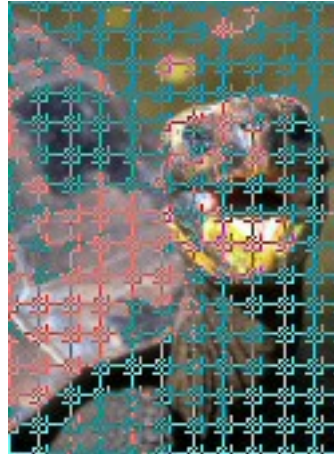
### Selecting the Mesh Warp Tool and Configuring Tool Options

- 1 Select the Mesh Warp tool from the Tools toolbar. The Mesh Warp tool is in the Deform tool fly-out menu.



- 2 On the Tool Options palette, make the following settings:
  - Click the down-arrow on the **Presets** button, and then click **Reset to Default**.
  - Mark the **Symmetric** check box.
  - Set **Mesh vertical** to 14. Notice that the Mesh horizontal setting automatically adjusts itself because the Symmetric check box is marked, forcing the grid to stay as close to symmetric as possible.
- 3 Depending on the current zoom level, the image should look like this:

**Tip:** A Symmetric mesh keeps the number of horizontal and vertical points even.



In the next section, you'll drag points on the mesh to isolate the warp area, effectively closing the turtle's mouth half way.

### Drag the Points on the Mesh to Partially Close the Mouth

We want to warp only the area around the mouth. To isolate the warp to a specific area you'll drag each point on the mesh individually. Note that the further a point is dragged from its original position, the more obvious the effect of the warp is. This can, however, cause pixelation in the image. To minimize this effect, move each point only a short distance from its original position.

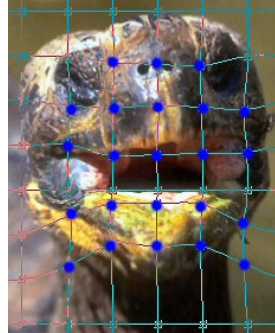
As you drag points on the mesh, a preview of the effect displays, but the actual warp is not applied to the image until you click Apply.

- 1 Notice the line of points running horizontal to the tongue of the turtle, use these points as a visual guide to where the lips come together - we'll call it the centerline.
- 2 Drag individual points toward the centerline. Some points will need to be moved on a slight diagonal, while other points should be moved straight up or down.

**Note:** When dragging the mesh points, hold down the Shift key to move a row of points. Hold down the Ctrl key to smoothly curve a column or row. Drag individual points to limit the edits to a specific area of the image.

**Note:** The mesh points change color based on the pixel color they are over. This is done so the points are always easy to see and locate.

- 3 As you drag points, occasionally hide the mesh by clearing the **Show Grid** check box in the Tool Options palette. After previewing what you've warped, mark the **Show Grid** check box again. The blue dots mark the points which were moved, and from the connecting mesh lines you can see which direction the points were moved in.



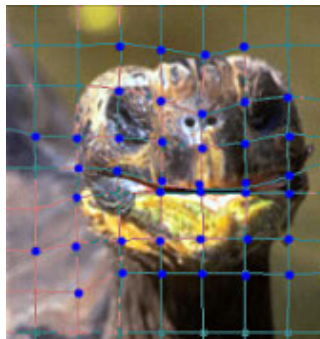
- 4 Once the mouth is half closed, on the Tool Options palette, click the **Apply** button to warp the image.

In the next section we will move the mesh points to mark the point where the lips join and completely close the mouth.

### Drag the Points on the Mesh to Completely Close the Mouth

Now we'll move the points we used as a guide in the previous section. We move the line to the image area where the turtle's top and bottom lips meet.

- 1 Drag the points on the line that we used as a guide to the location you want as the area where the turtle's lips will meet. Make the points and their connecting lines as straight as possible, use this line as your guide.
- 2 Drag surrounding points toward the guide line points. Use the shape of the turtle's face to decide how far to drag a point.
- 3 Drag the edge points too - they only move up or down (right/left edge of the image) or left to right (bottom and top edge of the image).



- 4 When you're done moving the points, click **Apply** on the Tool Options palette.

### Sharpen the Image to Restore Image Quality

When warping an image the pixels often degrade. You can reduce the amount of degradation by increasing the number of points on the mesh so that no point needs

**Note:** Despite all of the care you take some degradation will take place, but much of this can be corrected by sharpening the image after applying the final warp.

to be dragged far, but rather many points get dragged a short distance. You can also apply the effect more often to reset the mesh and perform more editing.

- 1 Choose **Adjust > Sharpness > Unsharp Mask**. This displays the Unsharp Mask dialog.
- 2 Click the dialog's **Reset to Default** button, and then click the **OK** to close the dialog. The default settings do a great job at sharpening our image, so it's not necessary to enter other values. Your image should now look like this:



#### **ADDITIONAL NOTES AND TIPS:**

- You can change the number of points at any time, but doing so will reset the grid back to square cells.
- It helps to guide your warping if you establish a line that will serve as a guide then drag the points closest to that line.
- Short drags produce less pixel degradation, and since this is a photograph, we are trying to maintain as much quality as possible. The Sharpen command, however, will fix a lot of softness that may occur from the warping.
- You can only warp the inside of an image or selection. To warp the edges of an image or selection, use the Warp Brush.
- If you forget to apply the warp and choose another tool you will get an Auto Actions warning dialog prompting you to apply the warp.
- If you'll be using your warped image in a before/after animation (for example, you could use this image to create frames for a talking turtle), you'll want to isolate the area to be edited by selecting it -- this prevents the image background from becoming warped as well.