

Using *Distort* to correct vertical and horizontal distortions introduced by lens choice and camera angles

Subject **Keith's "Flying Scotsman" image**

Action 1: **Show vertical and horizontal reference lines**

Select: VIEW -> EXTRAS+SHOW -> GRID

This action turns on a grid pattern of true verticals and horizontals superimposed on the image. This allows us to see what in our image is truly vertical and horizontal.

My intention is to establish one aspect of the image that I want to be either a horizontal or vertical reference line.

In this image the rail is not quite horizontal so I want to make the top of the railway line horizontal. The photographer is, I think, lower than the rail down an embankment so the rail is near eye level.

Action 2: **Use the crop tool to a) allow the image to be expanded to allow for future cropping and b) straighten the image using the rail top as the reference point**

Select: CROP TOOL -> CONTENT AWARE -> STRAIGHTEN then position the cursor over the rail top at the left, press and hold left mouse button, and drag it to the rail top on the right. Let mouse button go.

This will rotate the image so that the rail is now horizontal.

To ensure that I am able to crop the left side of the image I want to use the content aware function to extend the tender behind the driver a little so I drag the left of the crop tool to the left giving me a blank space

Then PRESS ENTER and wait for the content fill operation to complete

Action 3: **Select the whole image and then edit it using the distort tool**

Select from the Top Menu: SELECT -> ALL. This will then show the running ants around the whole image.

Select from the Top Menu: EDIT -> TRANSFORM -> DISTORT. This will place a line around the image with Drag points on each corner and in the centre of each side.

On this image the top left corner needs to be dragged out to the left so that the edge of the drivers cab is vertical (lines up with one of the vertical grid lines)

Caution 1 The whole image is being distorted when a drag point is moved so distortion is being added to varying degrees in the whole image. To ensure that the remainder of the image remains relatively true you may then need to adjust

other drag points in an iterative manner until you have the effect you want most verticals are vertical and most horizontals are horizontal. BUT

Caution 2 When going through the iterative process above the **Aspect ratio** of the main object may change. You may have to use the side centre drag point to correct the aspect ratio.

Remember that you are distorting a distortion so do not expect perfection. But, with a little care the image can be significantly improved to the point where it is not noticeable by the vast majority of judges.

When you are satisfied with the result push enter

Now the image is ready for editing using all your normal processes

Other ideas from the floor

Darken and lessen the area of Grass on the foreground embankment. This is fairly easy to do but needs a light touch and a little artistic thought

- Action 1:** select the BURN TOOL and when its menu comes up select a soft and fairly small brush. Set the RANGE to highlights and the EXPOSURE to between 3 and 5%. Now brush over those areas that appear white so that there is a pale greyness painted Do this in patches across the embankment. DO NOT do it everywhere.
- Action 2:** Now changes the range in the menu to Mid-tones and use your artistic prowess to darken some of the mid-tones area a little. DO NOT darken the shadows
- Action 3:** Re-crop the image to reduce the embankment size

Remove the electric fence wire running just above the Rail. This can be done in several ways. My preferences are to use the PATCH TOOL if there is a significant area suitable near-by or the CLONE Tool if only small areas of similar tones are available. Experience will tell you what You can get away with.

- Action 1** Select the PATCH TOOL. In the menu that comes up select the SINGLE EVENT. Set the PATCH to NORMAL and set the SOURCE to DESTINATION.

Now place a selection around an area that you wish to use to overpaint the wire

Once the 'clean' area is selected, drag the selection down over the wire.

Hit enter.

Action 2

Select the CLONE TOOL. In the menu that comes up choose a SOFT BRUSH (0% hardness). Set MODE to DARKEN or LIGHTEN. In this example in most cases it is darken. Set OPACITY to about 60%. Set FLOW to 100%. Tick the ALIGNED box and SAMPLE to CURRENT LAYER.

Zoom in on the area that you wish to work on.

Select a brush size that is 2-3 times wider than the wire

Place the cursor on an area that you wish to clone from (this should be immediately adjacent to the piece of wire that you wish to hide) PRESS ALT and LEFT CLICK the mouse. This will define the source of the clone.

Now place the cursor over the piece of wire you want to disappear and drag the cursor along the wire. If this has not darkened the wire sufficiently for it not to be visible (Opacity is only set to 60%) repeat the drag.

Repeat for all instances where the line is visible