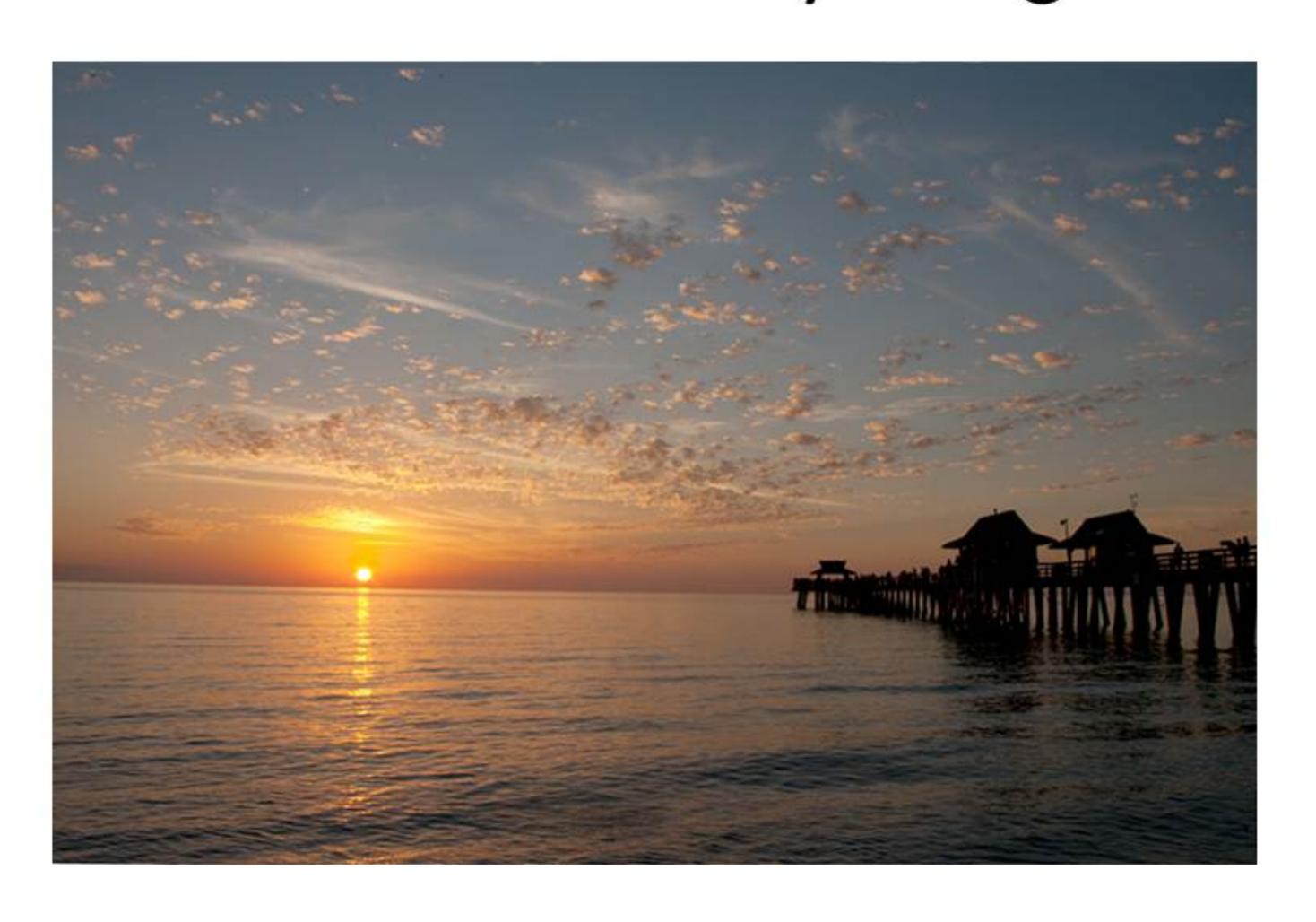
Level Your Horizons

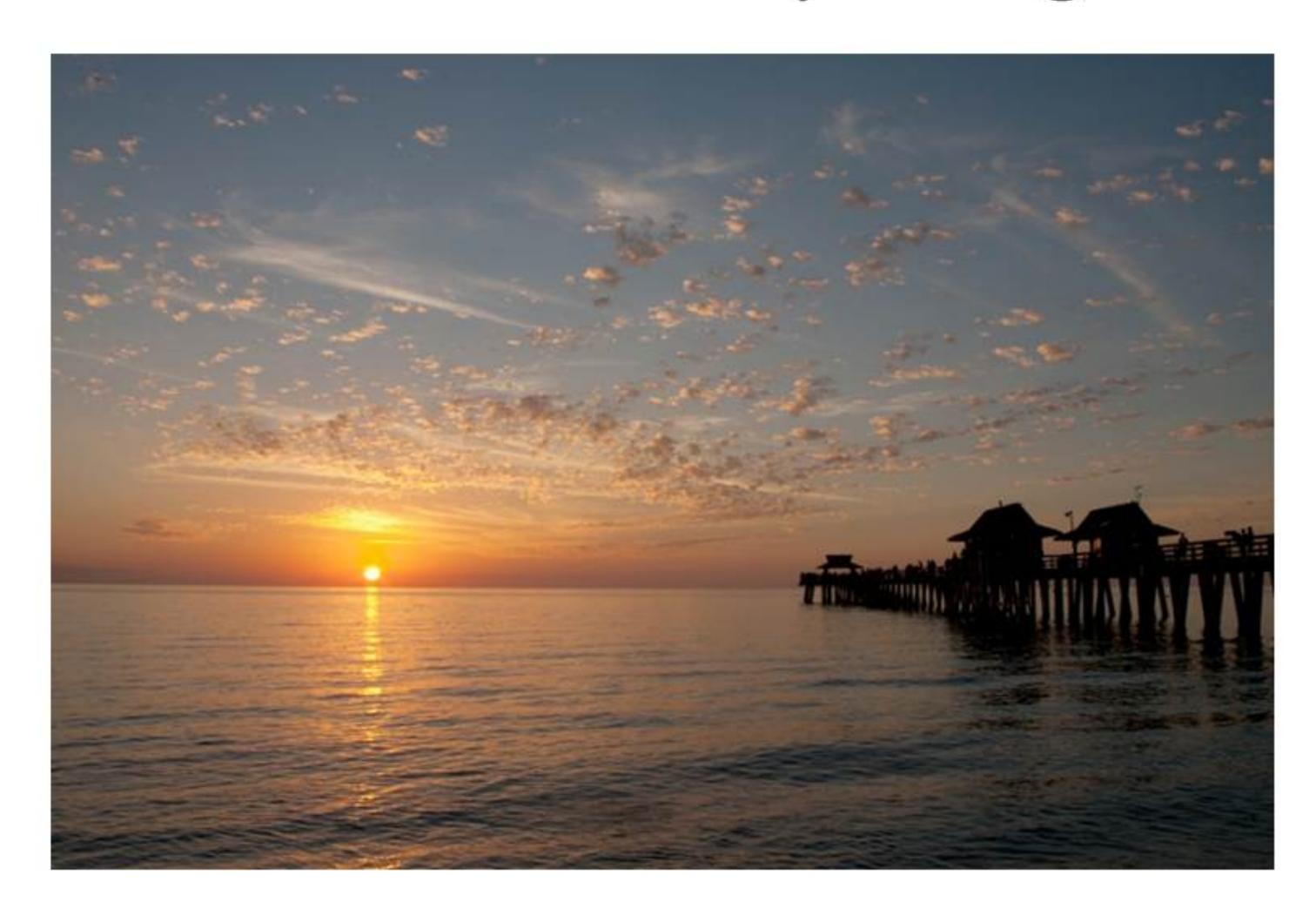
The Problem

- Lines in images that should be exactly horizontal or vertical, but are not
- The horizon that is not perfectly horizontal is the most common problem that doesn't get fixed (Tim Grey)
- Horizons that are not level detract from the image, reflect poorly on the photographer, and cost points in competitions

Horizon skewed by 1 degree



Horizon skewed by .5 degree



The Solutions

- Minimize skewed horizontal and vertical lines when the image is created
- Correct any remaining problems by rotating the image in the digital darkroom

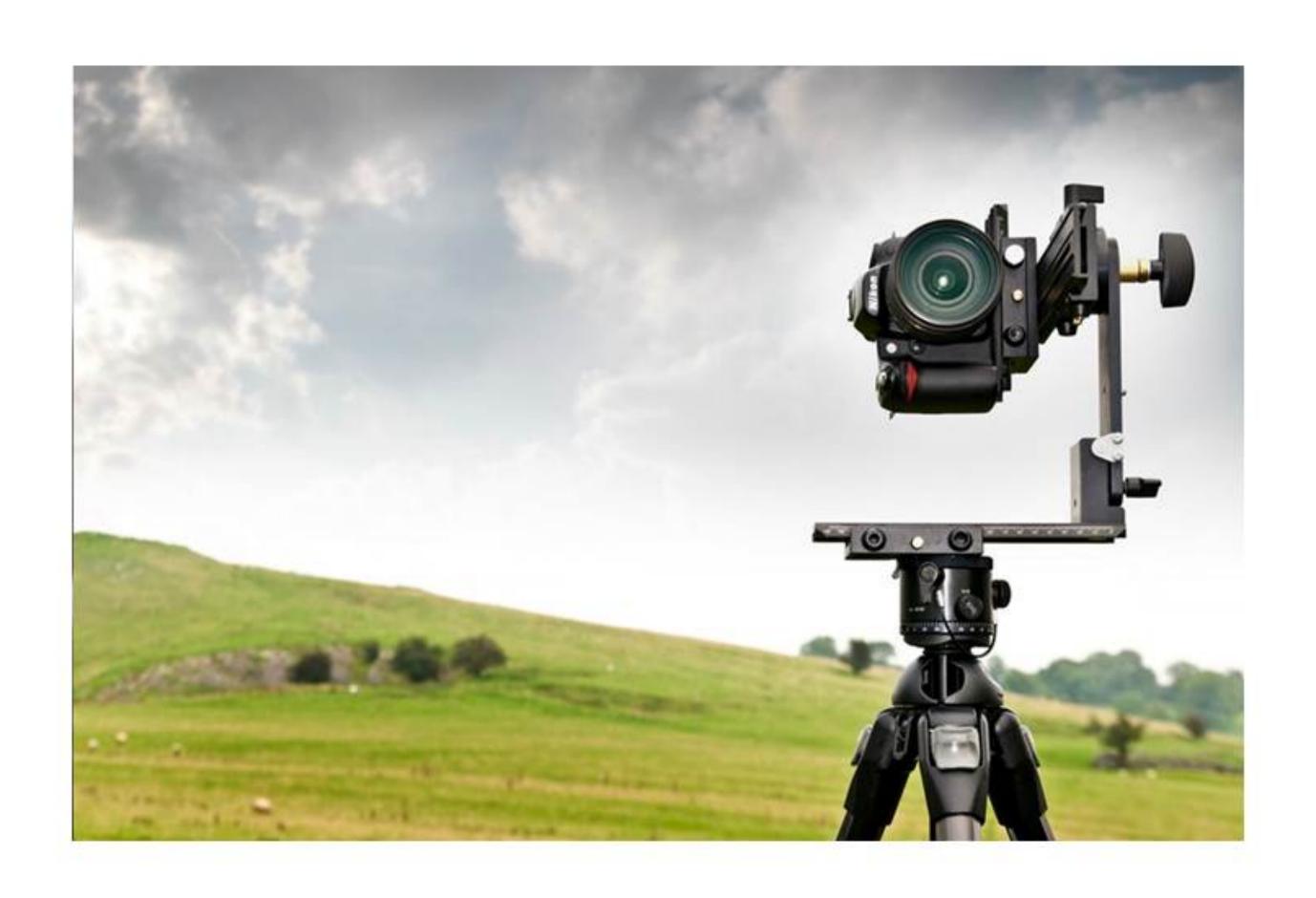
In The Field

- Use your view finder
- Use a tripod
- Use a hot shoe bubble level
- Use in-camera grid lines
- Use camera's electronic level

View finder



Tripod



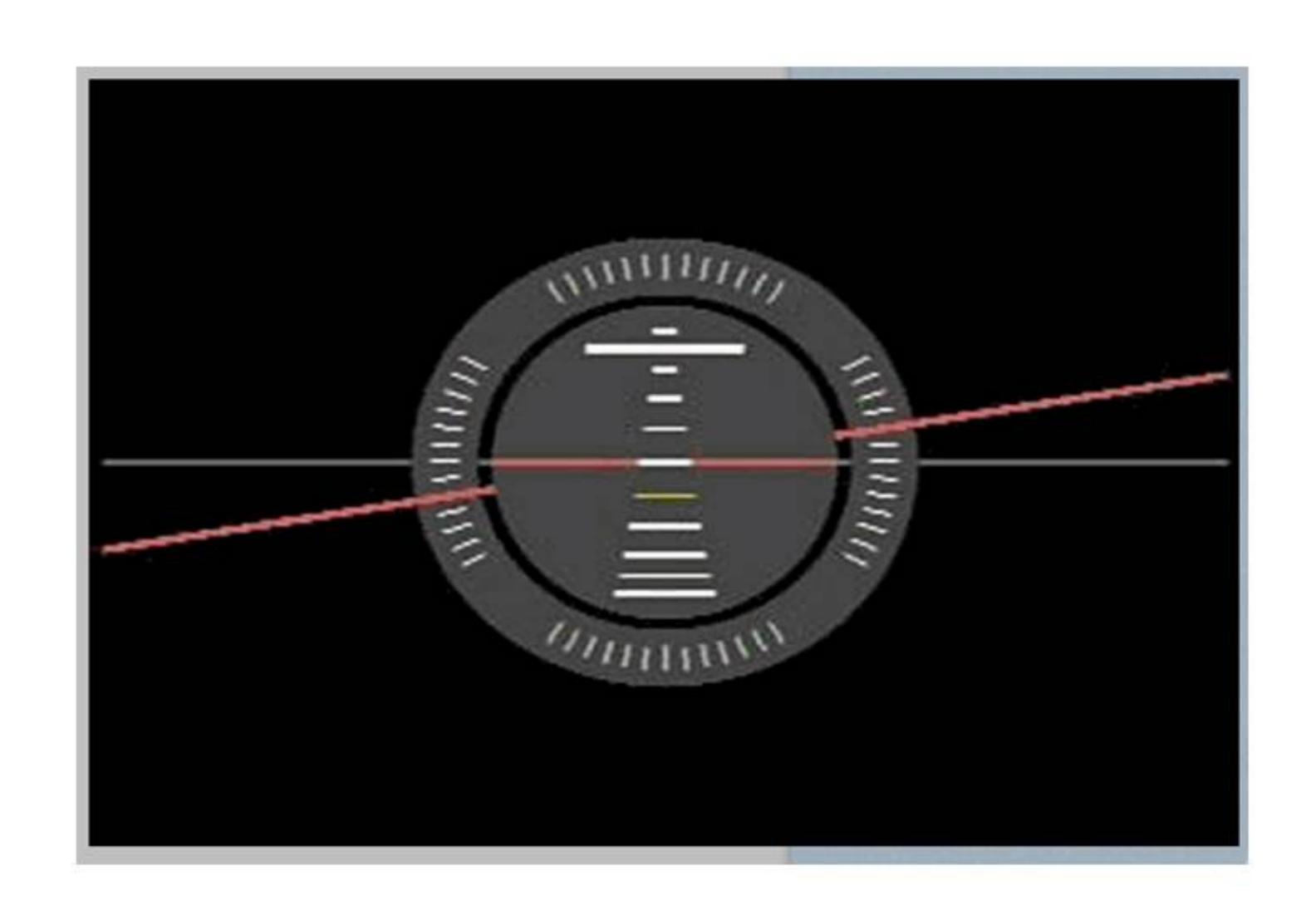
Hot Shoe Bubble Level



In-camera Grid Lines



Canon 7D Electronic Level



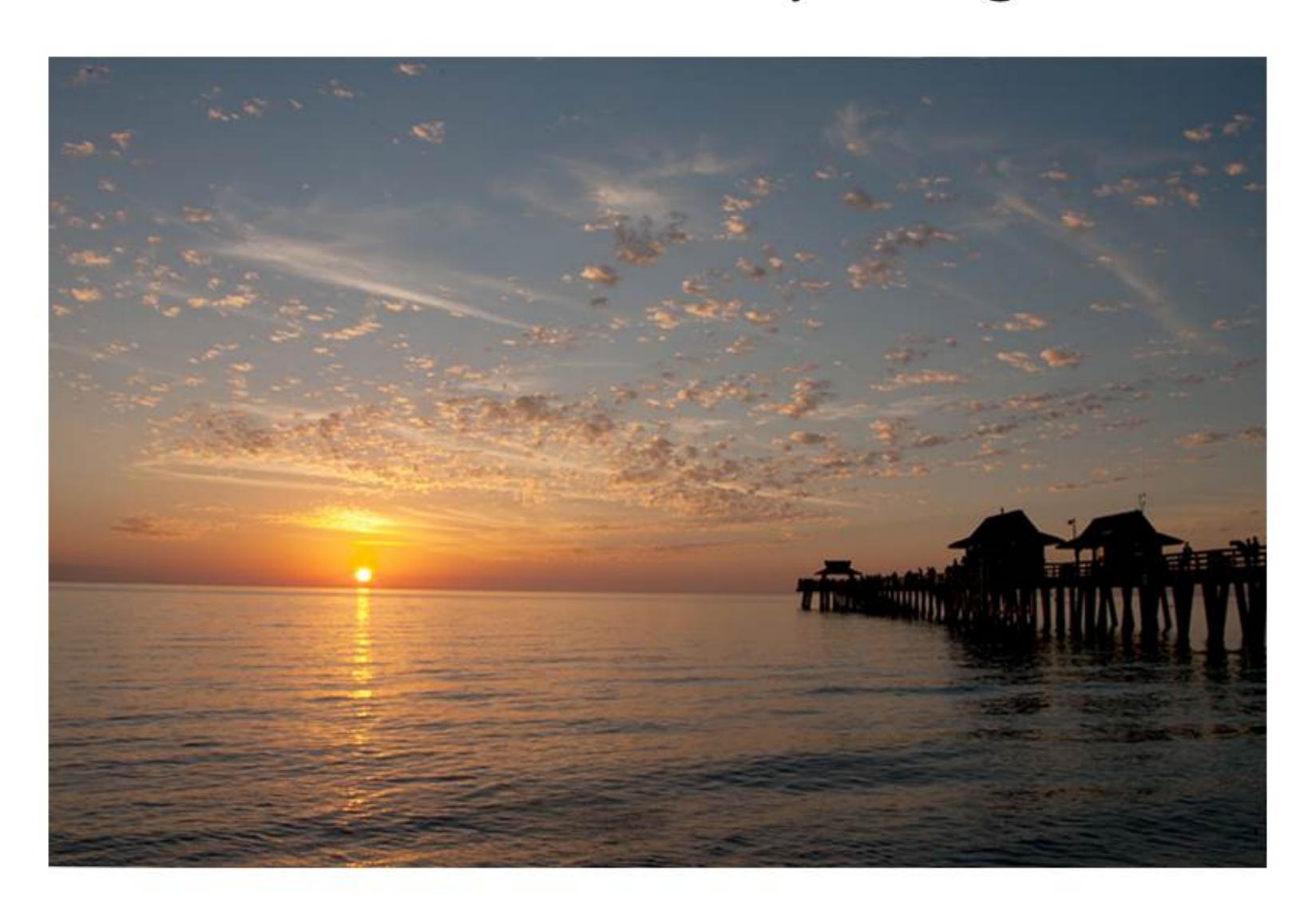
In The Digital Darkroom

- Evaluate the image
- Rotate the image, as needed
- Crop the rotated image

Software options

- Photoshop Ruler Tool
- Lightroom Straighten Tool
- Elements Straighten Tool

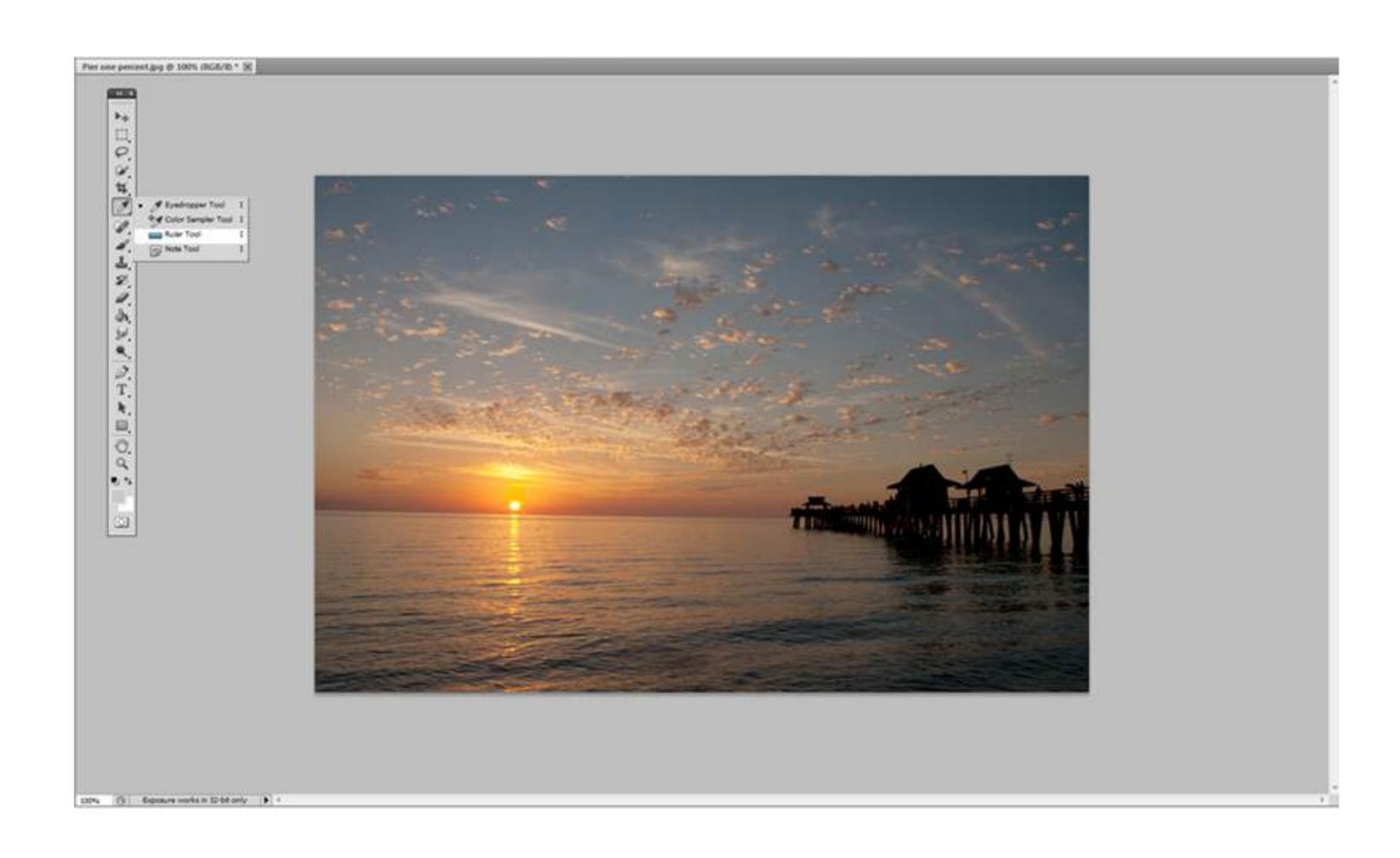
Horizon skewed by 1 degree



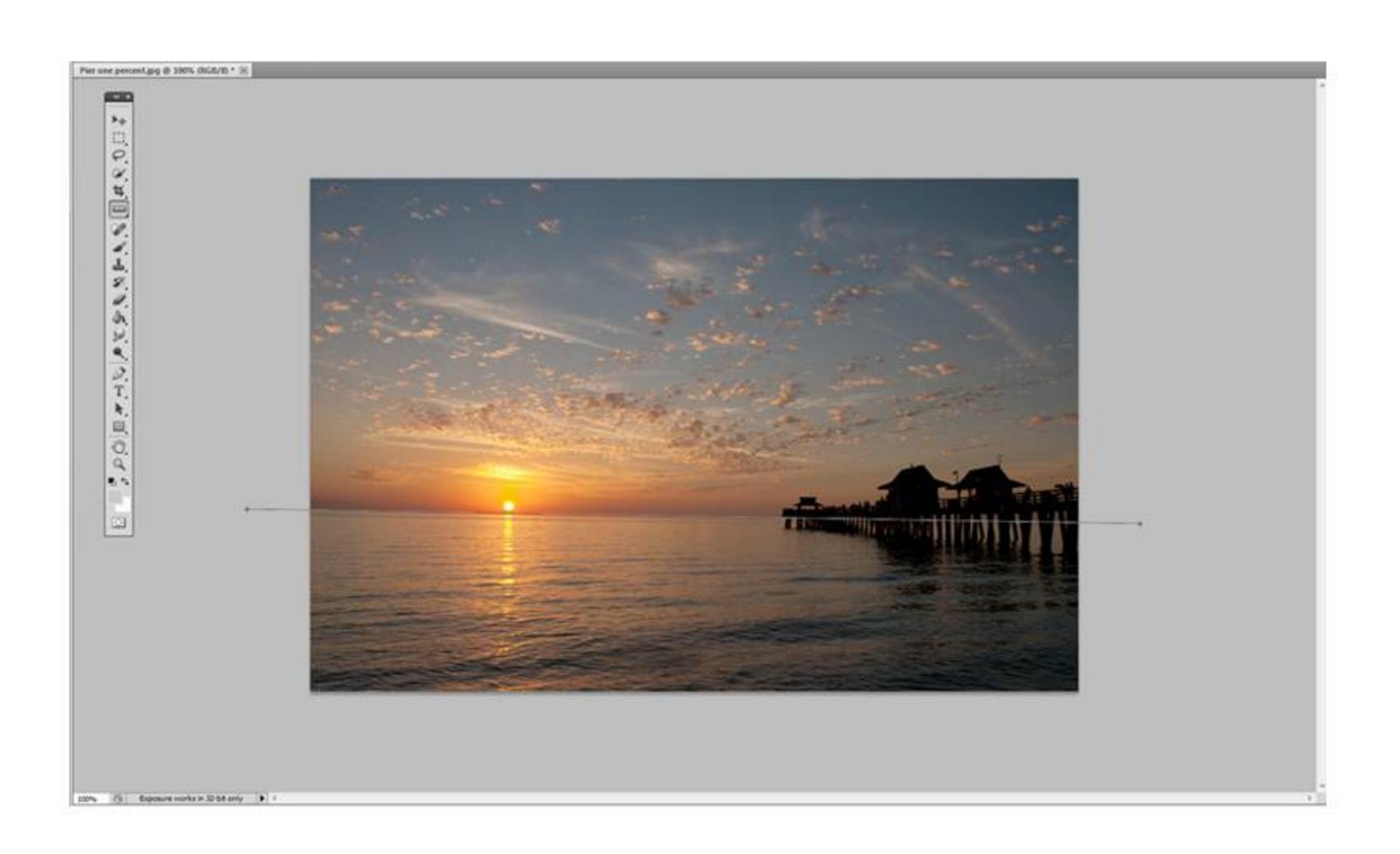
Evaluate the Image



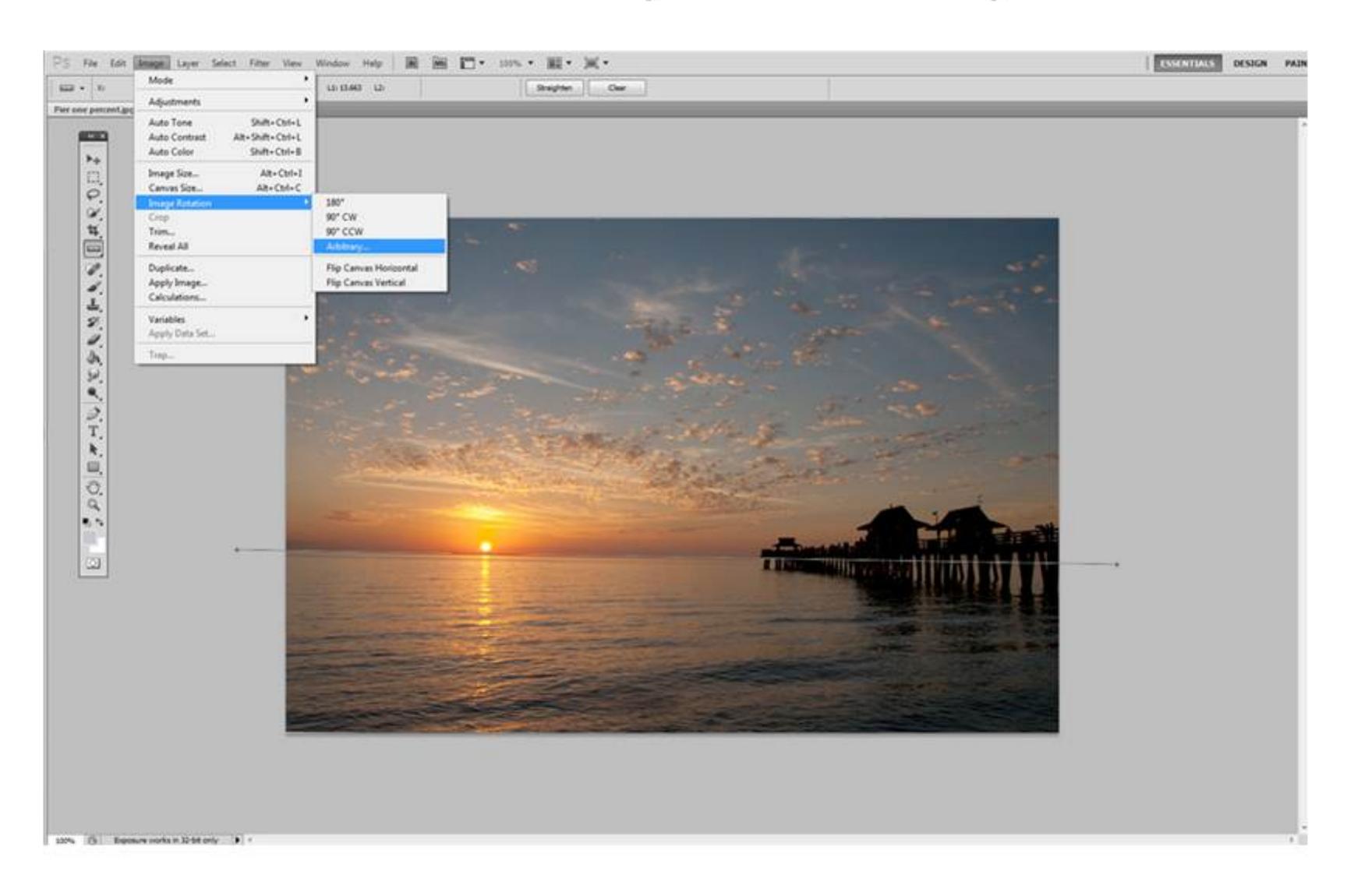
Select the Ruler Tool



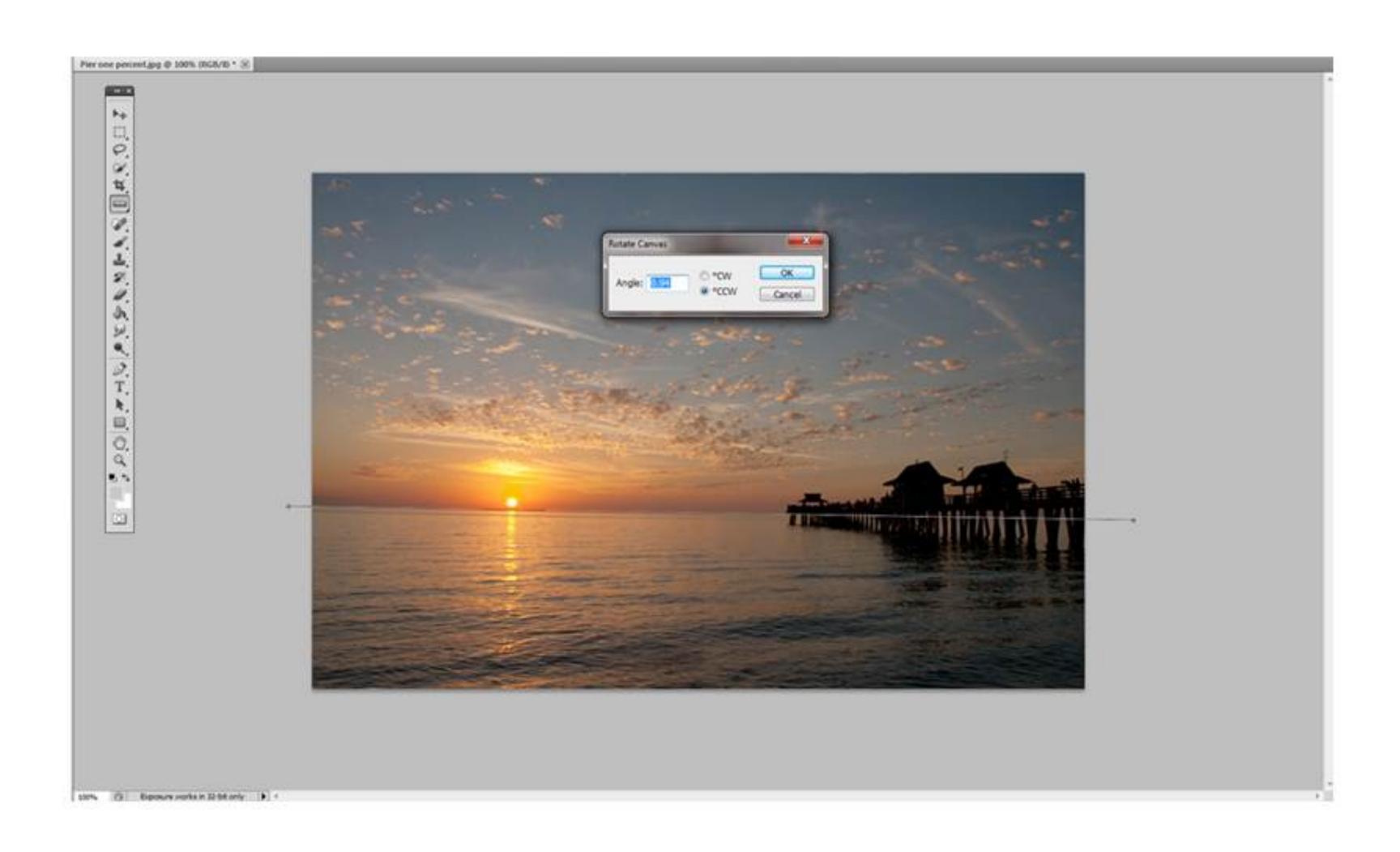
Draw a line that matches the horizon



Select rotation by arbitrary amount



Calculated rotation will be displayed



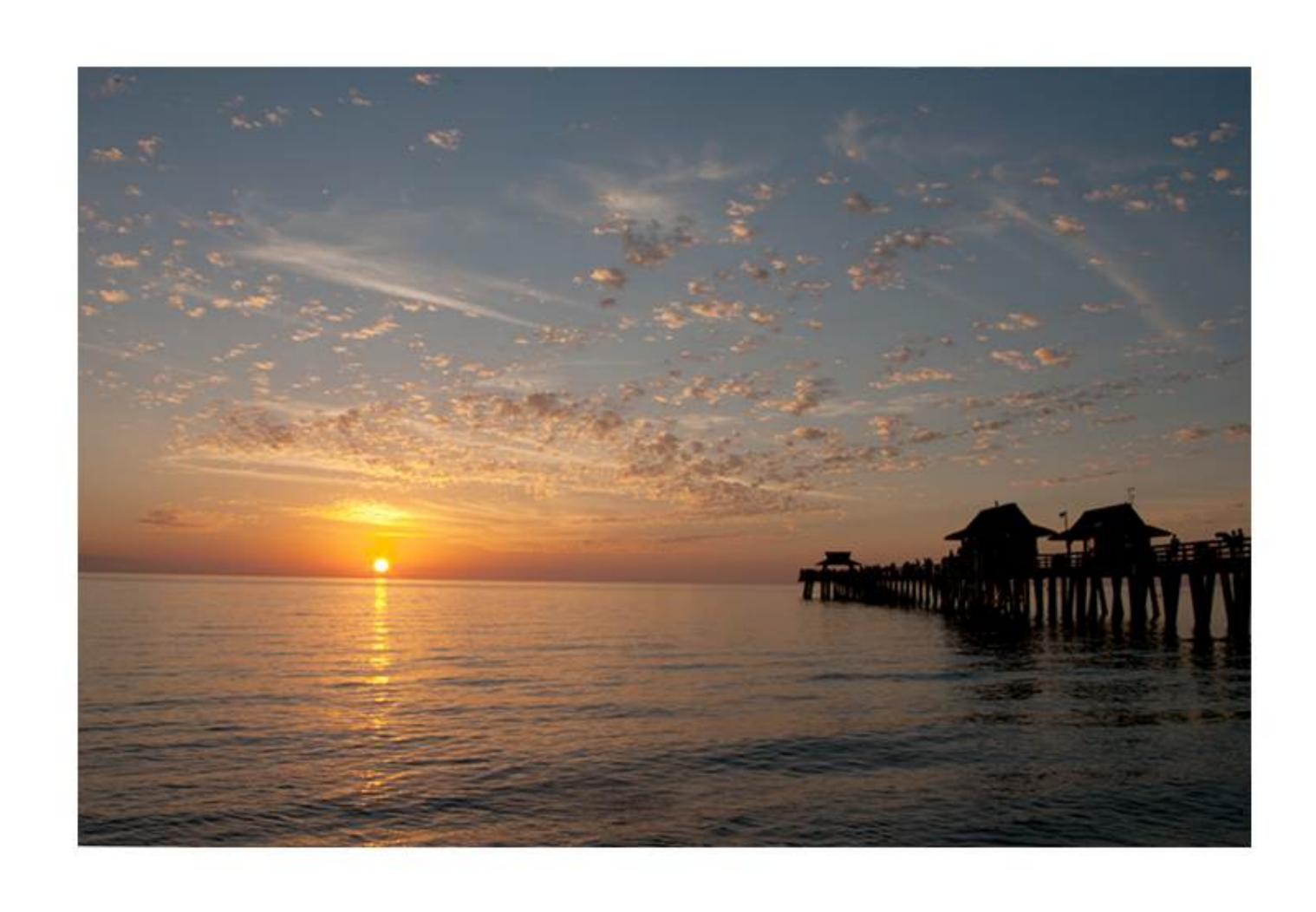
Click on OK to rotate image



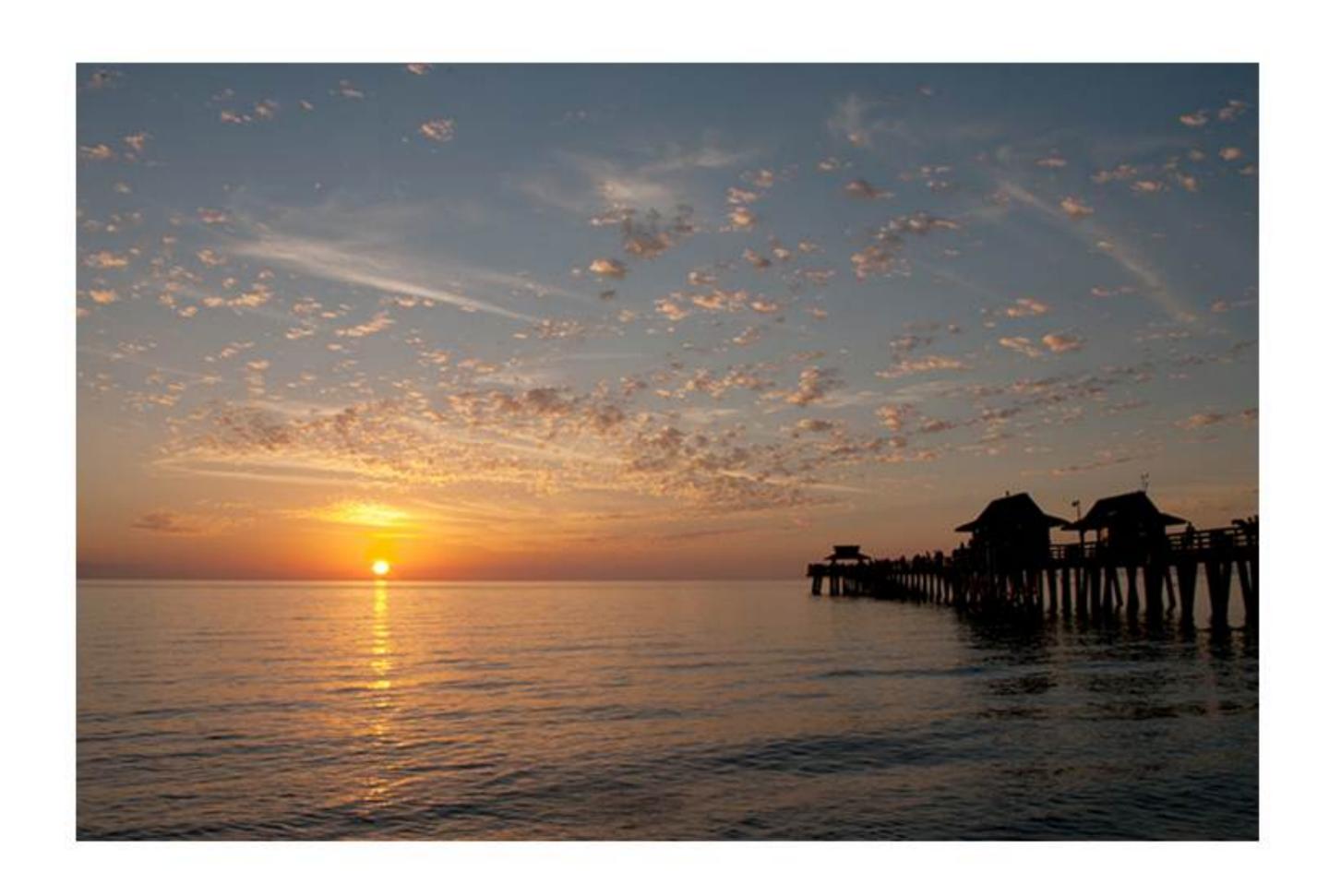
Recrop image as desired



Before



After



Evaluate the Image



Select the Ruler Tool



Draw a Line to a Reflected Point



Click on Straighten button

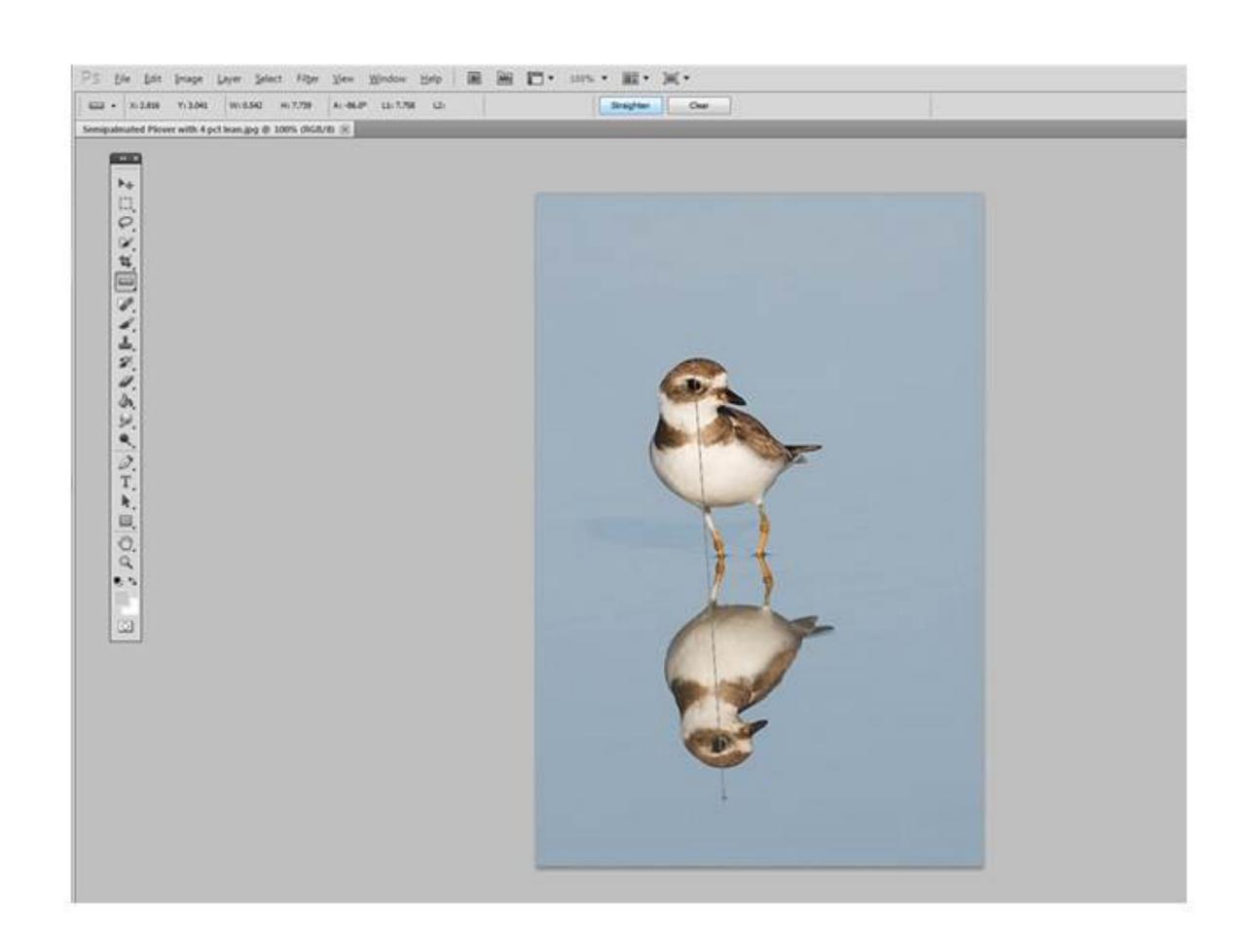


Image is rotated and cropped



Original and Adjusted Images





Summary

- The accuracy of the vertical and horizontal lines in our images reflects on our expertise as photographers, and impacts our scores in competitions
- Make a concerted effort in the field to create images with accurate vertical and horizontal lines
- Use your digital darkroom tools to fine-tune vertical and horizontal lines