

Photoshop Lab 1

<http://sean.edison-albright.com/info/lab1>

Part I: Comparing vector images and raster/bitmap images

Vector images use points, lines, and shapes to store the details of an image. This is good for logos and cartoons, but too complicated for photographs. Photographs are usually **raster** or **bitmap images**, which means they are made up of a collection of pixels. **Pixels** are small dots like on a television screen or like the tiles in a mosaic.

1. Open the file vector.pdf. You can find it on the web or I will provide it on a CD. The computer should open this file with Adobe Acrobat Reader.
2. Use the magnifying glass tool in Acrobat Reader to zoom in on the image. Look at the text and at the lines around the shapes. What do you notice about the image as it gets larger?

You can close vector.pdf.

3. Download the file raster.png from the web by right-clicking on the link and choosing "Save link as." Save the file in your home directory on the Z: drive.
4. Open Photoshop using the PS icon on your desktop.
5. In Photoshop, choose File->Open. Go to the folder where you saved raster.png, select it and open it.
6. Use the magnifying glass tool in Photoshop or choose View->Zoom In to get a closer look at the raster image. Look at the text and at the lines around the shapes. How is this image different from the previous image?

Part II: Comparing the resolution of raster/bitmap images

The **resolution** of a raster or bitmap image is the number of pixels the photo has every millimeter. More pixels means more detail, and a larger file. Fewer pixels means less details, and a smaller file.

1. Download the files low_res.jpg and high_res.jpg from the website.
2. Open low_res.jpg in Photoshop. Look at the sign on the door. Can you read the writing? Try zooming in.
3. Open high_res.jpg in Photoshop. Can you read the writing now?
4. How does the low resolution picture look different from the high resolution picture?