



# *Working with Digital Images*

# JPEG vs. TIFF vs. RAW

## JPEG

- Intended for print/web; not ideal for editing
- Smaller file size, takes up less storage space
- “Lossy” compression can reduce image quality
- Select when file size/storage space is an issue or fast shooting is required

## TIFF

- Can be used for print by some labs but is better for editing and as a “digital negative”
- Very large file size; higher quality; slows shooting
- Lossless compression

## RAW

- Ideal for editing/post processing
- Best quality, best versatility
- Larger file but not as large as TIFFs; slows shooting

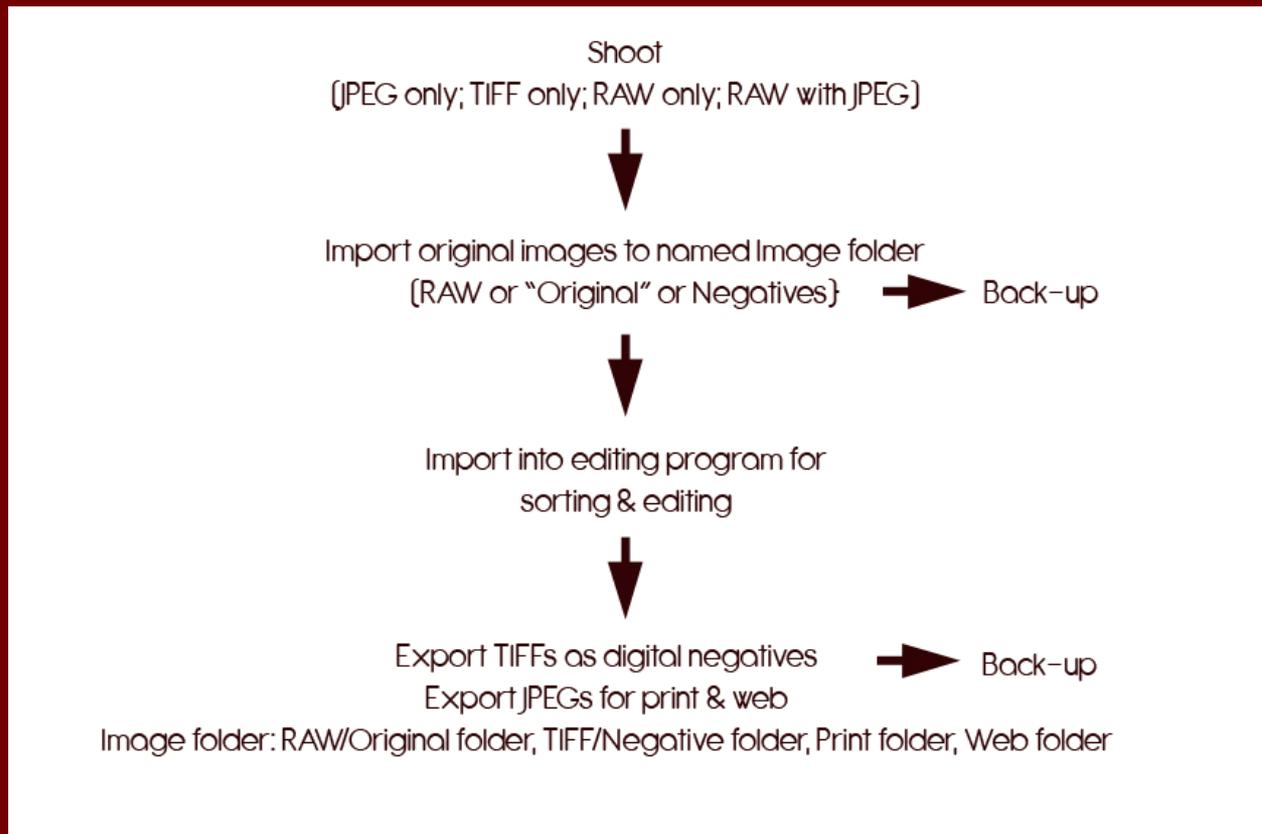
Select RAW or TIFF formats when image quality/editing capability is most important

# Back up. Back up. Back up.

- It's not a question of *if* your computer crashes; it's a question of *when* your computer crashes
- The more organized your image filing system is, the easier it is to maintain an up-to-date back up.
- Establish a back up routine; automate it if possible.
- Besides your images, other items to consider backing up include your LR preset folder or PS actions folder.
- Your best back up option is an external hard drive
- Other back up options include on-line storage sites (choose wisely & read the fine print), CD/DVDs (prone to damage & deterioration), and flash drives.

# Stay Organized

- Image files can accumulate quickly so establishing a file system and sticking to it can help you stay organized
- Use file names that make images easy to find



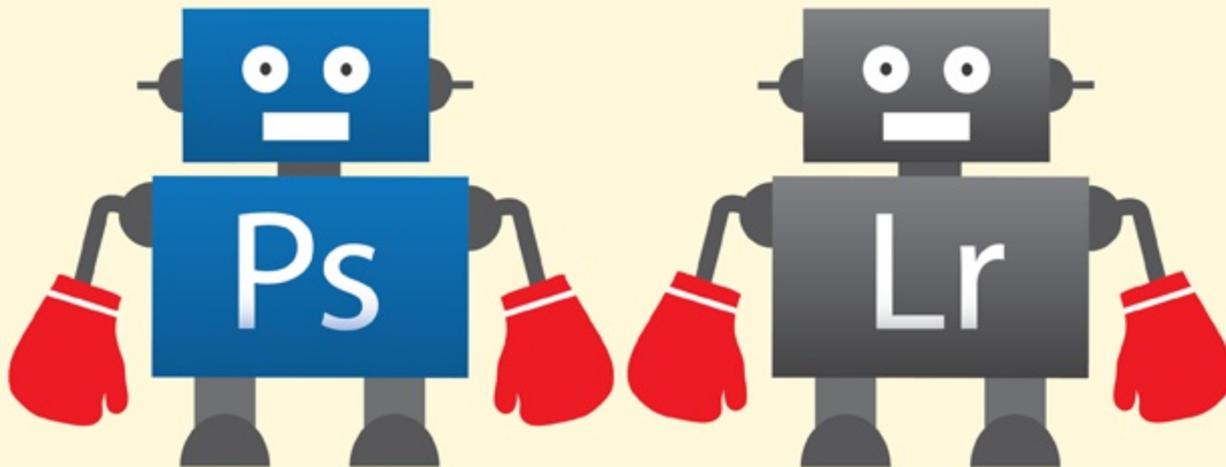
# Editing/Post-Processing

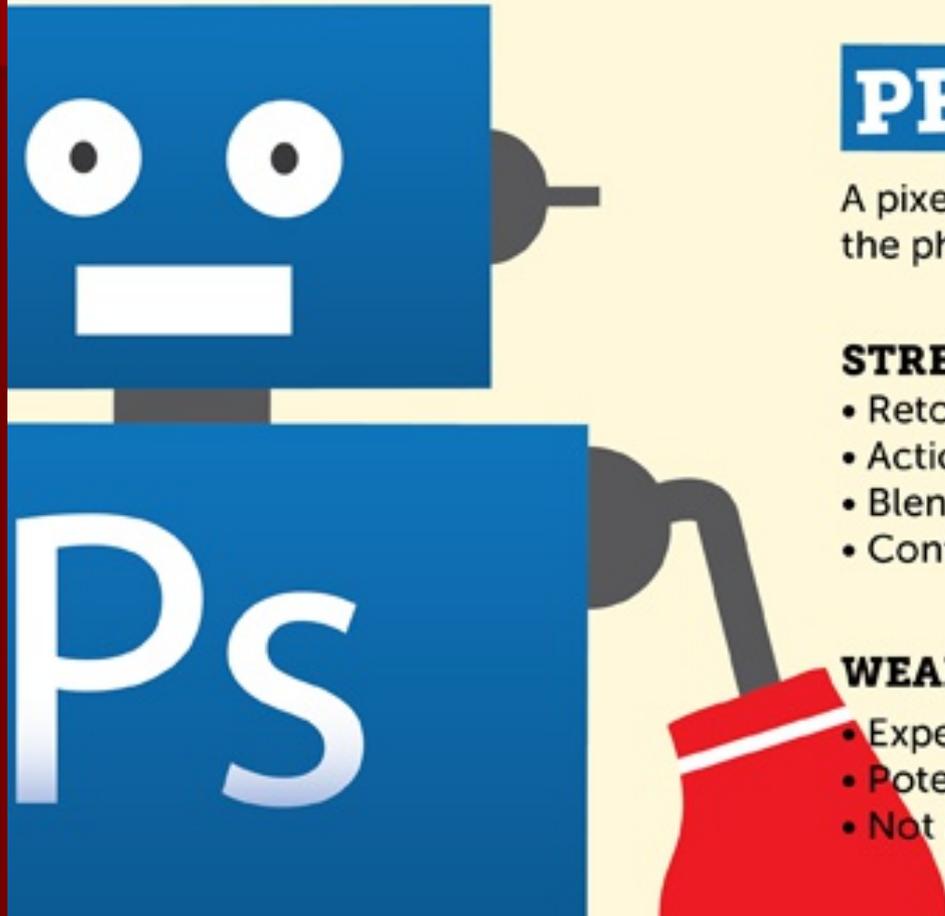
- When it comes to editing and post-processing, photographers have a variety of choices.
- The two most popular image editing programs are Adobe Lightroom and Adobe Photoshop.
- While 'Photoshop' has become synonymous with digital image editing, in reality, most professional photographers do the majority of their image editing (85% or more) in Lightroom.
- As both PS and LR have their own unique strengths and weaknesses, both programs are extremely useful for photographers.
- A variety of free editing programs also exist. Two of the best ones include Gimp and Picasa.

**PHOTOSHOP**

**VS.**

**LIGHTROOM**





# PHOTOSHOP

A pixel based image editor. Gives total control over the photo, right down to each individual pixel.

## STRENGTHS:

- Retouching
- Actions
- Blending
- Content Aware Fill
- Layers
- Compositing
- Stitching

## WEAKNESSES:

- Expensive
- Potentially Destructive
- Not a RAW Editor
- Not Workflow Centric
- Steep Learning Curve

# Photoshop: Strengths

## Retouching

- Photoshop excels at retouching. If you need to remove blemishes, get rid of stray hairs, reduce bags under eyes, whiten teeth, remove garbage, or perform any other change to a specific part of an image, then Photoshop is likely the fastest way to do it.

## Layers & Opacity

- Photoshop works on the principal of layers (imagine the way cartoons used to be drawn). You can create layers of different adjustments and control their opacity (the intensity of that layer). This allows for super precise control of the look of your image.

## Actions

- Actions let you to record a sequence of steps in Photoshop so that all you need to do is press a button and they'll automatically be carried out.

Actions can be quite complex and an entire industry has sprung up around creating and selling them. Because Photoshop has a steep learning curve, buying pre-made actions to achieve certain effects has become a popular option for many photographers.

# Photoshop: Strengths

## Compositing

- Photoshop can be used in a wide variety of ways to combine and manipulate images. Did you run into a blinker in a group photo? No problem with Photoshop! You can copy a pair of open eyes from one image, and paste them into the blinking image! This combining of images is termed compositing, as you're combing elements from multiple images into a single one. Photoshop is fantastic at it.

## Blending

- Photoshop can blend multiple images together in order to produce a single photo with highlight and shadow detail that you couldn't normally achieve. This is known as high dynamic range or HDR, and is an increasingly popular technique.

## Stitching

- With Photoshop you can stitch together multiple images to create one large panorama. This is particularly awesome for landscapes.

# Sample HDR (High Dynamic Range) Image



# Photoshop: Weaknesses

## Expensive

Weighing in at \$500-\$700 (\$800 when bundled with Lightroom), full Photoshop CS is a pricey program. However, Photoshop Elements is more reasonably priced at around \$75-\$120 and has most of the features photographers find useful.

## Potentially Destructive

If you're not careful it's easy to accidentally save over your original file, making it impossible for you to return to the untouched image.

## Steep Learning Curve

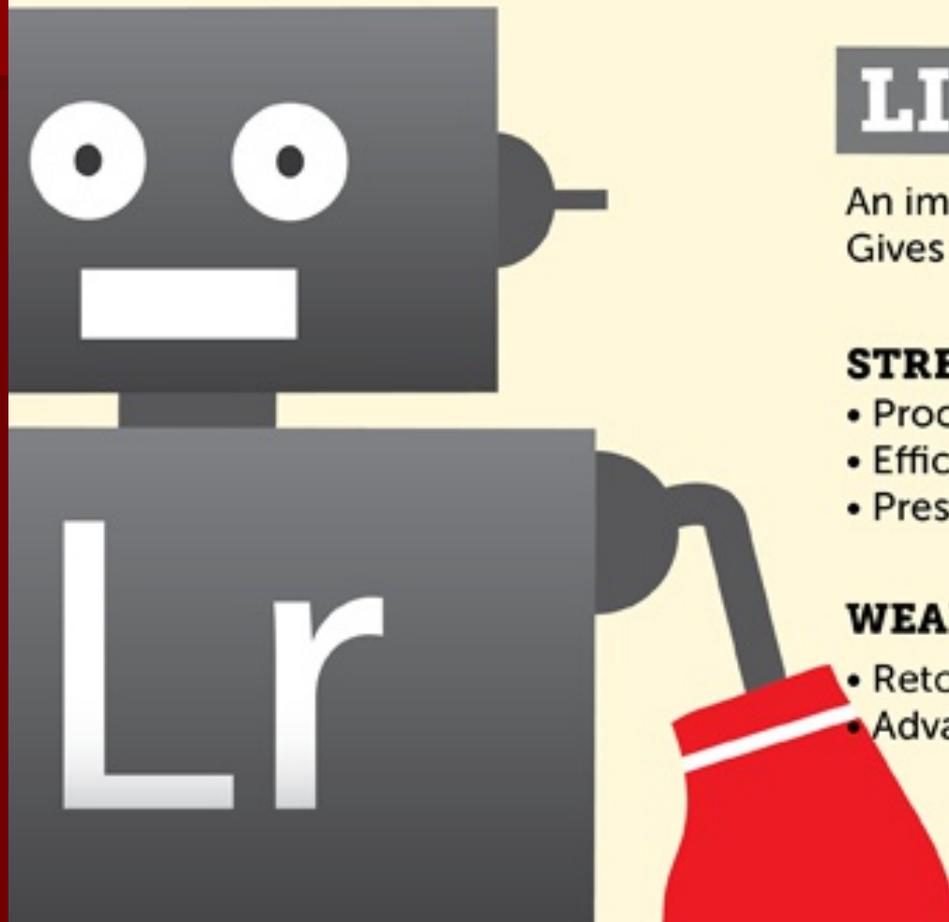
Photoshop is a full-scale graphic design program offering many functions and detailed Control. Learning how and when to use each feature can be pretty overwhelming.

## Not Workflow Centric

Photoshop is designed to work with individual images. you need to use other programs like Adobe Bridge to view, sort and organize your images.

## Not A RAW File Editor

If you're shooting in the RAW format then you'll need to either process your images in Adobe Camera Raw (ACR) or Lightroom before bringing them into Photoshop.



## LIGHTROOM

An image management and editing program.  
Gives efficient global control over an image.

### **STRENGTHS:**

- Process RAW Files
- Efficient Workflow
- Presets
- Non-Destructive
- Easier to Learn
- More Affordable

### **WEAKNESSES:**

- Retouching
- Advanced Image Manipulation
- Photos Only

# Lightroom: Strengths

Lightroom is an image management and editing program. Using Lightroom, photographers are able to work through their images from import, to sorting and organization, to processing, and finally all the way to export and sharing on the web. It's a workflow centric program designed to help you efficiently work with large quantities of images.

## Process RAW Files

You can quickly make adjustments to settings like exposure, contrast, and saturation. You can also perform sharpening, noise reduction, add vignettes, crop, add split toning and even apply creative dodging and burning effects with the adjustment brush.

## Efficient Workflow

Lightroom covers nearly every step of the post production process. You can import your images, sort through selects, tag images with keywords, organize collections, perform RAW processing, create slideshows, print photos, create web galleries, and even share directly to Facebook & Flickr.

# Lightroom: Strengths

## Presets

Lightroom has presets, which are similar to actions in Photoshop. The difference is that instead of saving a sequence of steps for how an image should be processed (like actions in Photoshop), Lightroom presets record how all the adjustment sliders are configured. This also makes it faster to apply presets to multiple images in LR.

## Non-Destructive

Whether you're working with RAW files or JPEGs, Lightroom does not edit the original files. When you make adjustments to an image what you're actually doing is creating a set of instructions for how Lightroom should save a copy of the file. These instructions are stored by Lightroom. You don't have to worry that you might accidentally save over the original—which also make it easy to experiment without fear.

## Easier to Learn

Lightroom is more straightforward and easier to learn. The interface is also designed to help you work through images in a logical manner.

## More Affordable

Lightroom costs approx. \$150. It's a great stand alone program but can be combined with PS Elements.

# Lightroom: Weaknesses

## Retouching

While simple retouching is possible in Lightroom, it's really not the program to use if you need to do moderate to extensive retouching. It doesn't have the fine tuned control or speed necessary. For that you're going to need Photoshop, where the clone stamp and spot healing brush will allow you to perform retouching much faster and better than you possibly could in Lightroom.

## Advanced Image Manipulation

If you need to combine photos, stitch photos together, or do any sort of heavy image manipulation work then you'll need to head to Photoshop. Lightroom works well for making global adjustments to images, but for pixel level editing Photoshop is what you need.

## Photos Only

Lightroom is a program designed specifically for photographers editing photos. Photoshop, on the other hand, can be used to edit a wide variety of graphics, not just photos.

# Lightroom vs. Photoshop

## Who's the Winner?

It's a draw!

Photoshop and Lightroom are two very different programs that both offer immense value to photographers. It would be a mistake to say that you should only be using one program or the other!

Most wedding and portrait photographers will find they can do 90-95% of their editing in Lightroom. Lightroom helps you speed through your workflow, especially when working with RAW files. However, when it comes to retouching or advanced image manipulation, Photoshop is definitely the winner.

For photographers who don't need all the horsepower that Photoshop offers, Adobe has a consumer level version of the program called Photoshop Elements. It offers a lot of the essential retouching features you might need, as well as panorama and HDR tools, but at a fraction of the cost of Photoshop. Photoshop Elements and Lightroom would be a great, relatively affordable combination for new photographers to start out with.