OPTIMIZING IMAGERY

- Resolution
- Histogram
- Exposure/Value Changes
- Image Correction
- Cropping

OPTIMIZING AN IMAGE

1. Image size & resolution
2. Value range
3. Correction: Sharpening, Dust, Dodge/Burn, Red Eye
4. Cropping

RASTER / BITMAP IMAGES

- Bitmap = grid of pixels
- Pixel size can be changed/adjusted
- Ideally, you should never see the individual pixels in an image
Resolution is measured in pixels per inch (ppi). Resolution can be decreased or increased. For example, a 1 inch x 1 inch image at 72 ppi will be 72 x 72 pixels.

When resolution is decreased, pixels need to be removed. This can be done through downsampling, for example, via bicubic interpolation.

When resolution is increased, there are two options: make the existing pixels smaller or create new pixels. This process is called upsampling.
Raster / Bitmap Images

- Un-check the resample box!

Loss of Quality

Value Range

Step 1: Set the size and resolution
- Standards for Resolution:
  - Screen/Web - no universal standard - 72 ppi is best bet
  - Laser Print 150 ppi
  - Photo 300 ppi

Step 2: Adjust values
- The Levels dialogue box presents a graph of the values
- Adjusting the graph will alter the total value range
ADJUSTMENT LAYERS

• All adjustments should be made using Adjustment Layer
  • non-destructive
  • easy to edit/change
  • easy to remove

VALUE RANGE

Step 2: Adjust Values

• The curves dialogue box represents a graph of your images values
  • The x-axis - input values
  • The y-axis - output values

CURVES

• Curves can be used to make specific adjustments without effecting the entire image
CURVES

- To get help with curves, use the eyedroppers and the Threshold adjustment
  - Darkest region
  - Lightest region
  - Middle grey - caution!

B/W CONVERSION ADJUSTMENT

- Allows precise control over individual color to grayscale conversion

FILTERS

- Some sharp photographic images may become slightly blurry due to scanning
- Photographs may also contain artifacts from dust or age such as scratches and noise

Step 3: Fix both problems!
FILTERS

- There are many filters available to sharpen an image:
  - sharpen
  - sharpen edges
  - sharpen more
  - smart sharpen
  - unsharp mask

- The most natural effect is achieved with the “unsharp mask” or “smart sharpen”

FILTERS

- Three settings are available for adjustment
  - Amount (default 100%)
  - Radius
  - Threshold

- Caution: don’t overdo it

FILTERS

- Scratches and dust can be removed with various Noise filters

- Dust & Scratches has 2 settings:
  - Radius
  - Threshold

- Warning: Use it sparingly
DODGING AND BURNING

Step 3: Other fixes

Dodge/Burn

- Adjust leftover pixels not corrected by levels or curves
- To adjust very specific pixel areas
  - Burning an area will make it darker
  - Dodging an area will make it lighter

DODGING AND BURNING

Step 3: Other fixes

Red Eye

- Removing red eye from lens flash

CROPPING

Step 4: Crop to size and enhance

- Framing an image should highlight the subject
  - What do you want to be the focus?
  - Are there any distractions?
- Hints:
  - Portraits: Never cut off at the knees or through an eye
  - Allow for headroom or breathing room around the subject
  - Allow for space in the direction the subject is leading
  - Divide the landscape into thirds

CROPPING

- Framing an image should balance of positive and negative space (foreground & background)
- Also consider a balance of weight, value, and color
- Look for leading lines
CROP TOOL

- Allows you to view the framing before you commit
- Options:
  - Fixed Width & Height
  - Fixed Resolution
OPTIMIZING REVIEW

1. Image size & resolution
2. Value range
3. Correction: Sharpening, Dust, Dodge/Burn, Red Eye
4. Cropping

LAYERS HINTS

- Your active layer is the one highlighted in blue in the layers palette
- You must be "on" the active layer to make changes to the content there
- Adjustment layers should sit above the image layer
- Adjustment layers will affect all layers beneath