

Introduction to Printing

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The "art" of Fine-Art Printing

• What is Fine-Art?

- "Fine Art is defined as: ...a visual art considered to have been created primarily for aesthetic purposes and judged for its beauty and meaningfulness, specifically, painting, sculpture, drawing, watercolor, graphics, and architecture." *Dictionary.com

• Why would you want to print your images?

- "The negative is the equivalent of the composer's score, and the print the performance." *Ansel Adams

• What options do you have to produce a fine-art print?

- Online or brick & mortar printing firms
- Print your images yourself!!!

The "art" of Fine-Art Printing

- What does a Fine Art Print Look Like?
 - Accurate color reproduction of the image file with the "appropriate" color contrast.
 - Balanced tonal contrast across the entire image; whites are white with detail; shadows are not "blocked-up"; no tonal banding; transitions between tones are smooth.
 - Appropriate sharpness for the image
 - Minimized noise.

The Printing Process

- Image Capture
- Color Management
- Image Import/Image Processing (Development)
- Making The Print
- Loving The Print

Image Capture

- Composition
- Tonality
- Contrast
- Eliminate camera shake
- Motion Control
- DOF control
- File format choice (.jpg or camera raw)

Color Management

- In-Camera

- White Balance
- Camera Calibration Option

- Monitor Calibration

- A must!

- Development Adjustments

- We'll Review

- Photo Paper Profiles

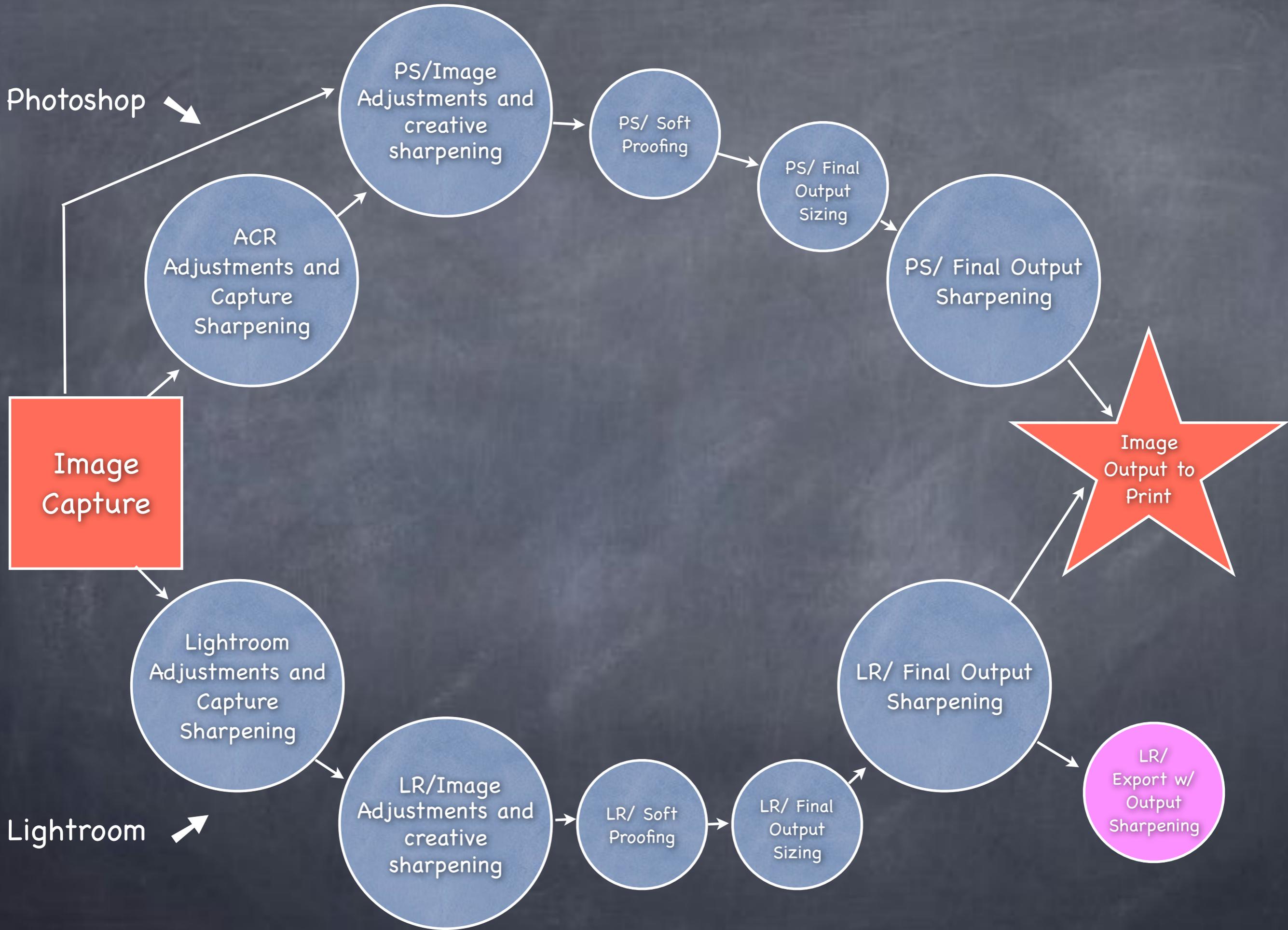
- ICC files for each paper/printer combo

Image Import/Image Preparation

- Safe Import from Memory Card
- Assign file location/filename
- Apply keywords/metadata
- Insure appropriate back-up of original files
- Reformat memory card

Image Import/Image Preparation

- Lightroom - select file in the Library Module for possible printing and open it in the develop module to make basic adjustments.
- Photoshop - open selected file in ACR, make necessary adjustments, open in PS for further creative work and printing.



On to Lightroom 4

Develop Module

Lightroom 4

Develop Module - Detail Panel

- Sharpening
 - Amount - Strength of sharpening (edge definition) applied.
 - Radius - How many pixels on either side of the "edge" will sharpening be applied.
 - Detail - Adjusts the amount of high-frequency (detail) information sharpened - "0" = total halo suppression; "100" = no halo suppression (but more pronounced textures).
 - Masking - Applies a mask to starting at non-high frequency edges
 - Tip: Hold down the Alt(win) / Option(mac) key while using these sliders you can see the effect applied in a grayscale view

Lightroom 4

Develop Module - Detail Panel

- Noise Reduction
 - Luminance - Strength (amount) of luminance noise reduction applied.
 - Detail - Sets noise threshold. Slide to the right will increase the detail preserved; to the left to increase image smoothing.
 - Contrast - Preserves texture and contrast; slide to the left to increase fine grain smoothing; to the right to increase texture and contrast.
 - Color - Reduces color noise while attempting to maintain color edge detail.
 - Detail (color) - Refines color noise reduction for thin, detailed color edges in extremely noisy images; move the slider to the left reduces color noise but desaturates edges; to the right it retains color edge detail but color noise may remain.
 - Tip: Hold down the Alt(win) / Option(mac) key while using these sliders you can see the effect applied in a grayscale

Lightroom 4

Develop Module

• Soft Proofing

- Choose the icc Printer/Paper profile of your choice
- Check/adjust for out-of-Gamut areas
- Make additional tone/contrast/color adjustments as necessary
- Save the Soft Proof as a Virtual Copy
- Move onto the Print Module

On to Lightroom 4

Print Module

Lightroom 4

Print Module

Optimizing Print Resolution:

- If your image at print size has a native resolution of 360 dpi or less (300 dpi or less for Canon or HP) then up-sample to 360 dpi (300 dpi for Canon and HP)
- If you do not, when you send your print to your printer, the Epson print pipeline will not use the adaptive resampling algorithm that is within Lightroom but will use it's own undocumented re-sampling procedure within the print pipeline/driver process that up-samples your image to 360 dpi before printing.
- If your image at print size has a native resolution that is greater than 360 dpi then you should up-sample to 720 dpi.

Lightroom 4

Print Module

Optimizing Print Resolution (con't):

- If you are using a pro level Epson printer (like a 3880) and you have up-sampled your image to 720 dpi be sure to check the Finest Detail check-box in the Printer Settings and print at the highest output resolution. (This is for glossy, semi-gloss, luster papers, not matte or textured papers)
- Do your up-sampling before applying print sharpening.
- The benefit of this up-sampling is that it creates the best opportunity for you to have the highest quality image print especially when you have high frequency images or images with high contrast diagonals or circles.

Lightroom 4

Print Module

Optimizing Print Resolution (con't):

- This issue has been researched extensively by Jeff Schewe (<http://www.schewephoto.com>) the author of the sharpening algorithms contained within the Lightroom print module.
- You can read more about optimizing print resolution here: <http://www.digitalphotopro.com/technique/workflow/the-right-resolution.html>

Making The Print

Paper Information

● Epson Paper Info:

- Ultra Premium Luster - Good All Around Semi-Gloss Paper - Acid Free - 10 mil - 97 ISO Brightness - Very High Color Gamut
- Exhibition Fiber - Excellent Fine Art Semi-Gloss Paper - Fiber Based - Acid Free - 13 mil - 111 ISO Brightness - Extremely High Color Gamut
- Hot Press Bright - Excellent Fine Art Matte Paper - 100% Cotton Fiber - Acid Free 17 mil - 96 ISO Brightness - High Color Gamut with Excellent Black Density

● Other Papers:

- Moab
- Hahnemühle
- Canson Infinity
- Red River
- Ilford

Making The Print Paper Profile Information

- Epson: <http://www.epson.com/cgi-bin/Store/jsp/Pro/ICCProfilesAll.dohyperlink>
- Red River: <http://www.redrivercatalog.com/profiles/inkjet-printer-color-icc-profiles-red-river-paper.htmlhyperlink>
- Canson-Infinity: http://www.canson-infinity.com/en/icc_choice.asphyperlink
- Hahnemüchel: <http://www.hahnemuehle.com/site/us/468/icc-profiles.htmlwww.canson-infinity.com>
- Moab: <http://moabpaper.com/icc-profiles-downloads/hyperlink>
- Ilford: <http://www.ilford.com/en/support/printer-profiles/>

Loving the Print

- Let the print dry before mounting or handling
- Treat your print to a fresh acid-free overmat and foam-core backing
- Show off your print (along with the ribbon you just won) by framing and displaying the print

Any Questions?