
DIGITAL IMAGING WORKFLOW

Part #3: Master Image Editing, part 1

This workflow is *one* approach in the creation of images for the internet or for printing by an ink jet printer, not for a commercial CMYK printer. It is meant to be a guideline to processing images, not a set of rules to be strictly followed. Many alternative techniques are equally valid and in some cases, are a better approach than detailed here for a specific image.

Basic Workflow:

- Camera Image File + Modifications and Adjustments => Master Image File (psd format).
- Master Image File + versions 1...n of the image's final size, resolution, sharpening & file format => Output Image File versions 1...n.
- Backup your data

Step 3: Master Image Editing

Complete the editing of the Master Image in Photoshop.

Notes:

1. Few images will need all the processing of this step and RAW images may have been processed in Camera RAW.
2. Save the Master Image periodically as it is edited.
3. To edit selectively, use a Layer Mask to isolate the effect.
4. Be sure your monitor is profiled before editing the master image.

1) Pre-Edit

- a. File > Save As this Master Image in Photoshop psd format
- b. Evaluate image to see what needs to be changed

2) Correct Orientation

- a. Image > Rotate Canvas to rotate the image by 90° or to flip the image
- b. PS CS2: Filter > Distort > Lens Correction to visually correct the image for misalignment or distortion
- c. Measure tool: draw a horizontal or vertical line; Image > Rotate Canvas > Arbitrary to correct rotational misalignment
- d. Edit > Free Transform or Transform to correct the image for misalignment, perspective, or distortion
- e. Crop tool: remove unwanted areas but don't crop for final format

3) Shadows/Highlight Filter

- a. Duplicate the background layer image
- b. Image > Adjustments > Shadows/Highlights to moderate image shadows and highlights
Amount: amount of shadow lightening, 0%=no

change...100%=maximum shadow lightening

Tonal Width: range of shadow tones that are modified, 0%=only very dark pixels...100%=dark areas extending into the mid-tone areas

Radius: area about the pixel to be evaluated and changed, 0=each dark pixel is a shadow...
2500=only a large dark area is considered as a shadow

4) Add a Levels Adjustment Layer to Maximize Dynamic Range

Note: for RAW images, maximize dynamic range in Camera RAW instead of here.

Shadows slider: slide the black slider right to the left edge of the histogram thus defining the black-most pixels; any pixels left of the black slider print as pure black

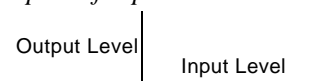
Highlites slider: slide the white slider left to the right edge of the histogram thus defining the white-most pixels; any pixels right of the white slider print as pure white

Midtones slider: set the input level to adjust midtone brightness; moving slider {left | right} = {brighter | darker}

- a. Try Auto for a first guess correction, especially if there is need for a major adjustment
 - Auto Setup: Options > Find Dark and Light Colors (Auto Color mode), Snap Neutral Midtones, Clipping Points = 0.05% to 0.01%, and Save as Defaults
- b. Slide highlight histogram slider left to the right edge of the histogram data; use alt+highlight slider to fine-tune the slider for no highlight clipping
- c. Slide shadow histogram slider right to the left edge of the histogram data; use alt+shadow slider to fine-tune the slider for no shadow clipping
- d. Slide mid-tone histogram slider to adjust mid-tone brightness

5) Add a Curves Adjustment Layer to Modify Tonal Characteristics

Curve Grid: a plot of input values vs. output values



The slope of the graph's line determines the effect upon contrast

- equal to 45° => no contrast change
- greater than 45° (steeper) => increase contrast
- less than 45° (flatter) => decrease contrast

- Raising the curve lightens the image.
- Lowering the curve darkens the image.
- Creating an S-curve increases contrast
- Other than special effects, the curve should always have an upward slope (greater than 0°).

- a. Try Auto for a first guess correction, especially if there is a color cast
 - Auto Setup: Options > Find Dark and Light Colors (Auto Color mode), Snap Neutral Midtones, Clipping Points = 0.05% to 0.01%, and Save as Defaults
- b. Create a curve to achieve the desired tonal characteristics
- c. Mouse left-button on image to determine where to modify the curve; ctrl+Mouse left-button to set a point
- d. Set Curves Adj Layer to Luminosity blend mode to avoid color shift
- e. To selectively brighten and darken, add additional brighten and darken Curves Adjustment Layers, each with a Layer Mask
- f. To remove a color cast,
 1. Display the Info palette
 2. Position the Color Sampler tool over a neutral area
 3. Add a Curves Adjustment Layer in Normal blend
 4. Select the Curves' channel with the lower RGB value and raise the curve to match the channel with the middle of the three values
 5. Select the Curves' channel with the higher RGB value and lower the curve to match the channel with the middle of the three values
 6. Modify the Composite RGB curve for contrast