Getting Good Digital Images
from Photographs
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OUTLINE

1. Start with a good original

2. Scan the image

3. Set the Highlight and Shadows as appropriate

4. Remove color casts if any

5. Sharpen

The details on the next page assume the use of Photoshop 5. Most of the features are in earlier versions, and other packages, but the exact commands may vary.

1. Start with a good original

The better the original, the easier it will be to bring it into the computer successfully. A good range of values—light to dark range—will make for a better looking image.

Exceptions: Slides or negatives with a very broad range of values may require a lot of work to convert to the 256 shades of brightness current software supports. Prints currently can not exceed this; thus, the better the print, the easier it is to get good results.

2. Scan the image

Do as much basic correction for light-dark range as possible during the initial scan stage

If an image is too bright after being scanned, there's no way to recover the lost highlights. The same is true for overly dark images and the shadows. If the highlights and shadows can be set as part of the pre-scan calibration, the image will have more useful data once it comes in.

3. Set the Highlight and Shadows as appropriate

RGB: 0,0,0 for shadow, 255,255,255 for highlight

CMYK: never rarely less than 5c,2m,2y for shadow, or 80c,70m,70y,70k (this depends on the target process)

Basic tools for this:

> Auto Levels: Quick and surprisingly good *sometimes*

> Levels: convenient, but not as powerful as Curves

>> Use the histogram to identify what the brightest and darkest parts of the image are. Move the sliders in to match.

> Curves: The most flexible and powerful; sometimes confusing. Recommended approach.

> DO NOT USE: Brightness or Contrast. The others let you trade-off bad data for good data; this merely throws data away without giving anything back.

4. Remove color casts if any

Use the eyedropper tool to see if 'gray' areas are neutral (identical R, G, and B values). If they're not:

1. Use the multiple-eyedropper (Shift-Eyedropper) to mark a few neutral areas, both relatively light and dark.
2. Go into Curves and adjust each channel to correct. Use the values in the Info palette to help identify when they're neutral. (This is not hard, but it does take practice to do easily/quickly)

5. Sharpen

Using the Unsharp Mask filter, sharpen the image.

Rule of thumb starting point:
> Amount: 150-200%
> Radius: output resolution/200
> Threshold: 3-6 depending on image graininess.

Iterative approach:
> Set Amount to the maximum (500%)
> Start with Radius at output resolution/100
> Threshold: start with 3-6 as above.

> Here, you set it to oversharpen a lot to make it easier to see what the best values for Radius and Threshold should be. Once they're not obvious, drop Amount until it's not showing visible artifacts. (Turning preview on and off is good for this)

- Note: In all cases you must be viewing the image at 1:1 if you plan to use the preview. If you are not, the sharpening will not look the way it's being applied.
- Note: For images for printing, you will probably need to sharpen so that there are some visible artifacts on screen. The screen is only 72-90 dpi, while the printer will undoubtedly have more. This difference makes the changes less visible on the printed page.

If desired, and if there are shiny items (metal glints, eyeglasses, the catch light in eyes, etc.), use the Sharpen Tool (not the filter) to selectively sharpen those areas.