

A quick overview of the basics of my workflow in Adobe Camera Raw

This short tutorial certainly won't cover everything about Adobe Camera Raw, it's just an introduction to it. For a complete explanation of all of the features of Camera Raw, the reasoning behind it and how it relates to everything else Photoshop, I strongly recommend Ben Willmore's *Photoshop CS3 Studio Techniques*.

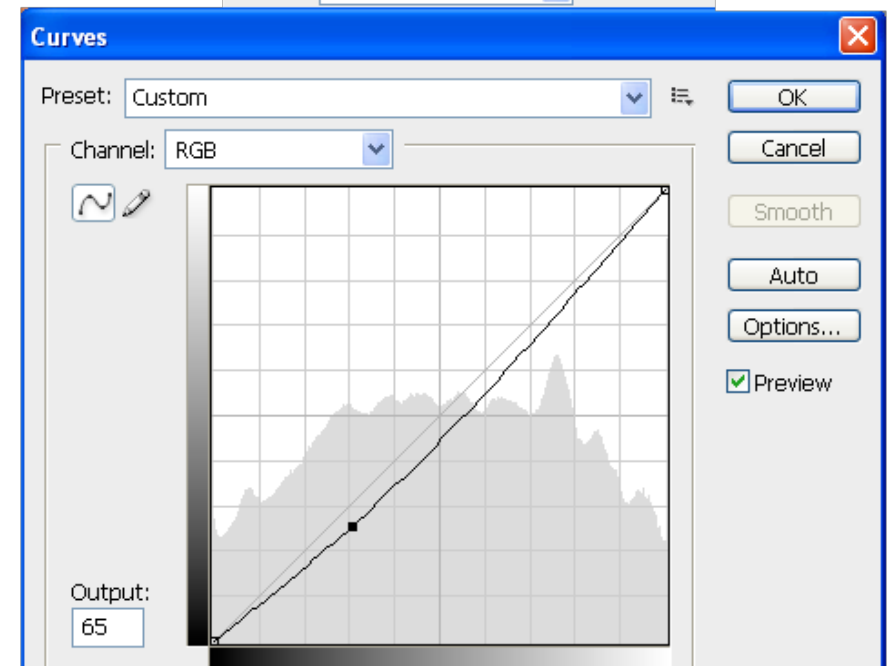
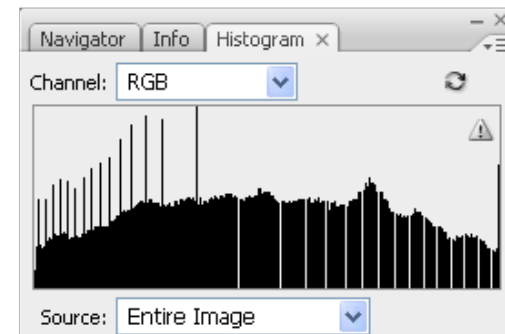
Your camera captures 12 bit color information. Without going into what a bit is, I'll just say that most people usually capture and use only eight bits. They're using only two thirds of the information their camera captured!

Since our printers and monitors can only display eight bits, some people think it's just fine to work with only eight bits from their camera. However anytime you manipulate the exposure and colors of an image in Photoshop, you'll see gaps in your histogram. That's missing color information which will degrade the quality of your photo. If you can use the other third of the information you camera captured, it can fill in those gaps, so your Photoshop manipulations aren't degrading your image. That's enough to sell me on using Raw right there!

To get the most from the illustrations in this tutorial, use the Zoom tools at the top of your Adobe Reader screen to zoom in on the examples.



Those gaps in Photoshop's Histogram indicate missing information.



Even this slight Curves adjustment causes gaps in the Histogram.

I do everything I can to capture a scene in my camera which will require no manipulation in Photoshop. The problem is that the human eye can see and instantly adjust for a much larger range of brightness than any camera can. A camera exposes an entire scene the same way. Many times there are areas in the image which are just too light or too dark to be seen without a bit of help. Your camera is capturing these extremes, but not saving them to your camera's card unless you're shooting in Raw.

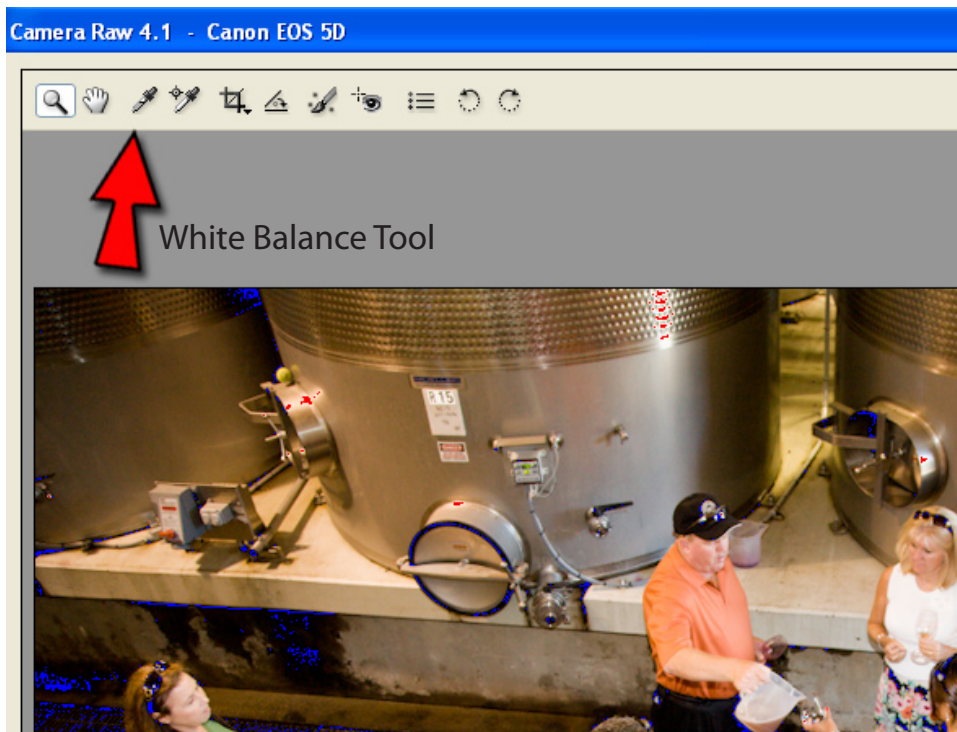
OK, let's get started. I'll take you right into working on a single image in Photoshop CS3's Camera Raw, but you don't have to go through all of these steps with every image you want. At the end of this tutorial, I'll show you how to batch process your images cutting your time to a small fraction of what it would be working on one image at a time.

When I first open an image in Camera Raw, I start near the upper left corner with the white balance tool. I often don't need to use this tool, because

my camera's pretty good with Auto White Balance, and in tricky situations my camera let's me create a custom white balance. If I want to be sure the white balance (the accuracy of the color throughout the image) is correct, I can select the White Balance eyedropper (red arrow) and sample an area I know to be white, black or neutral colored. I can click on that eyedropper or just press the "i" key on my keyboard. I'd sample the blouse of the woman at the right which I remember is a true white.

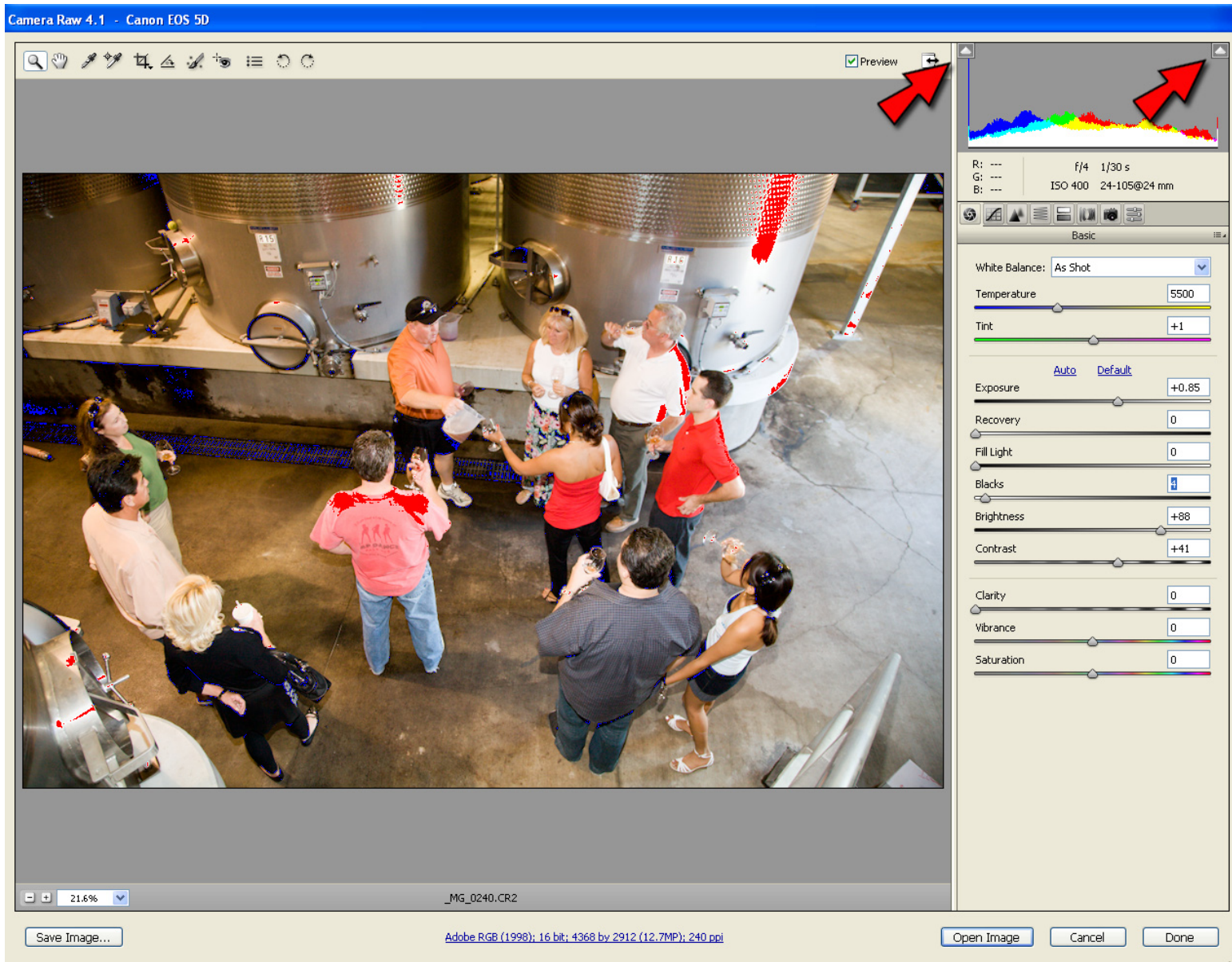
Sometimes in my graphics job, I regret having "properly" cropped a photo because I'd like to use the unimportant areas I cropped off as a background for text. When I crop and straighten in Camera Raw, it remembers what the crop and angle were and I can go back to the Camera Raw file and change those if I want! Very handy.

Notice that the straighten tool becomes the crop tool after you've straightened your image.



In the right column of the Camera Raw dialog box you'll see a very explicit histogram. In the upper right and left of that histogram, I click on those two black triangles (my red arrows) and that'll make any blown (overexposed to the point of having no detail) areas of my photo display as red (no, they

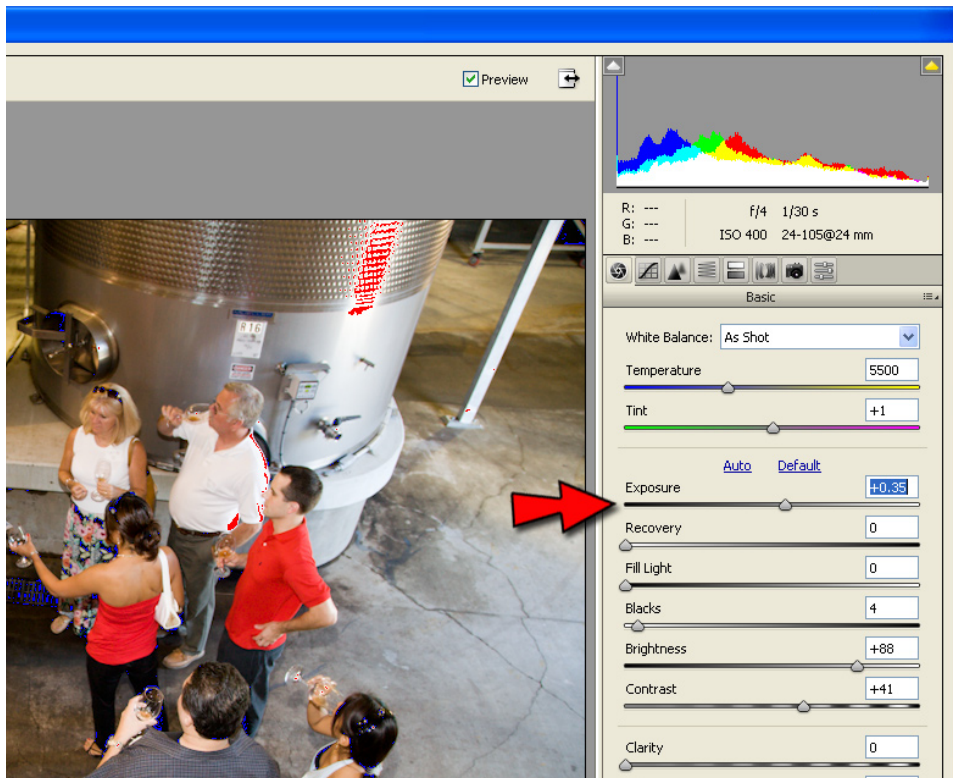
won't stay that way) and any underexposed areas (which would show no detail) will display as blue. I like this easily seen system. I don't know why they're not on by default. They'll stay on when you click those buttons unless you decide to turn them off to look at the photo without those colored warning areas.



I'm using Photoshop CS3's Camera Raw (v.4), and if you're not using CS3, your Camera Raw won't have as many features, but you'll still get a handle on the features your version has.

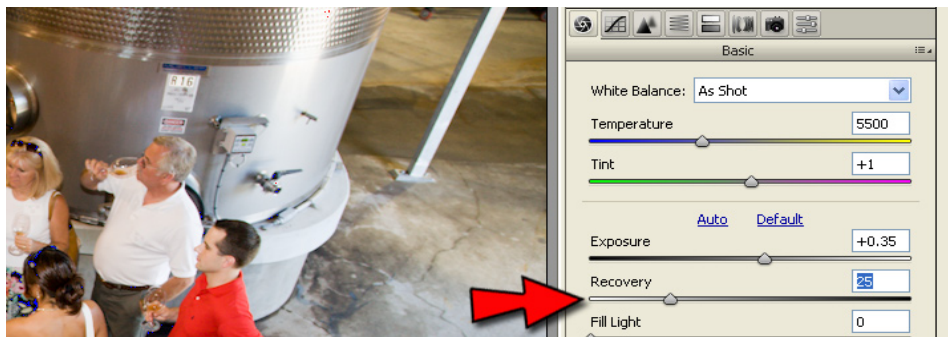
I go straight down the sliders in the right column. We've already adjusted Temperature by setting our White Balance. Unless I want some special effect, I don't do anything with Tint.

Now we get to the really important parts. The Exposure slider is what controls the highlight areas of your image. Notice these sliders (in CS3) are colored with a gradient showing you the effect they'll have. You can see that if we slide the Exposure slider to the left we'll have fewer blown highlight areas and sliding it to the right will make the highlights even brighter. This feature rescues many an image.



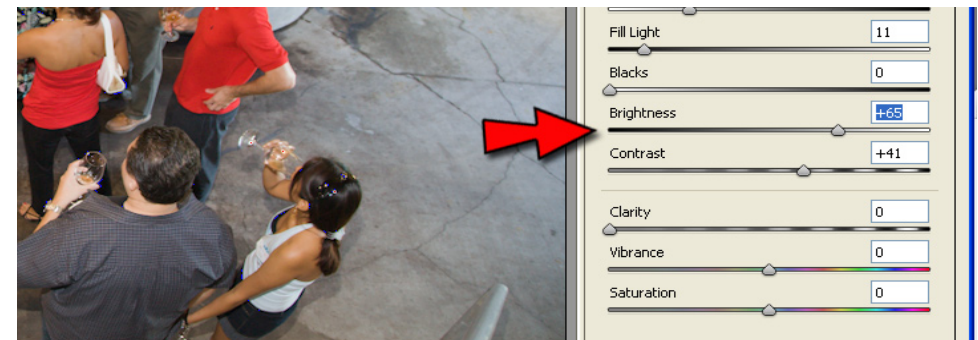
Notice that as you adjust the Exposure slider your histogram reflects these changes.

New to CS3 is the Recovery slider. I use this to recover blown areas in the very brightest areas of the photo. It's like an Exposure slider, but for the very brightest highlights.



This next slider is also new to CS3 and a very welcome addition. The Fill Light slider will lighten the darker areas of the image, similar to the effect a fill light (or flash) would've given you. It's not always needed, but when you have very dark shadows in important areas of a photo such as a person wearing a hat in full sunlight.

The former "Shadows" slider has been renamed "Blacks." Moving this slider to the right will give you more detail in the very darkest areas, but you may just want some of the smaller black areas to remain pure black.



The Brightness slider is confusingly named in my opinion. Just pretend it's called "Midtones," because that's what it controls. Too often we don't maximize these important areas of an image.

Unless I'm trying to work extremely fast or there's an extreme adjustment I intend to make, I do the remaining adjustments in Photoshop (some of them in Lab color, but that's another tutorial I haven't written) instead of Camera Raw.

Two of those remaining sliders do deserve some explanation, though. Clarity, which is sharpening, and Vibrance which is nifty, because it's a sharpen which won't affect flesh tones. Nifty idea.

Two other tools which are new to Camera Raw in CS3 are the Retouch Tool, which my teacher called the "dust buster" (you'll learn why) and the Red Eye removal tool.

We try to keep our DSLR sensors free of dust, but when some dust does

accumulate on a sensor, each speck of dust shows up on every image in the same spot in the form of an out of focus dark spot. Sure, you'll clean your sensor before you take more photos, but to save you retouching every dust spot on every one of the images you've taken since the dust accumulated, Camera Raw permits you to automate this cloning operation and apply it to a selected batch of images. What a time saver!

The Retouch Tool is different enough from Photoshop's Clone tool that it deserves a bit of explanation. Having selected the Retouch Tool, you choose a brush radius and whether you want to heal or clone. You then click on a spot you want to retouch (you'll see a circle outlined in red and white) and Raw selects a source for you (outlined in green and white), but you can drag that to anyplace on the image you want.

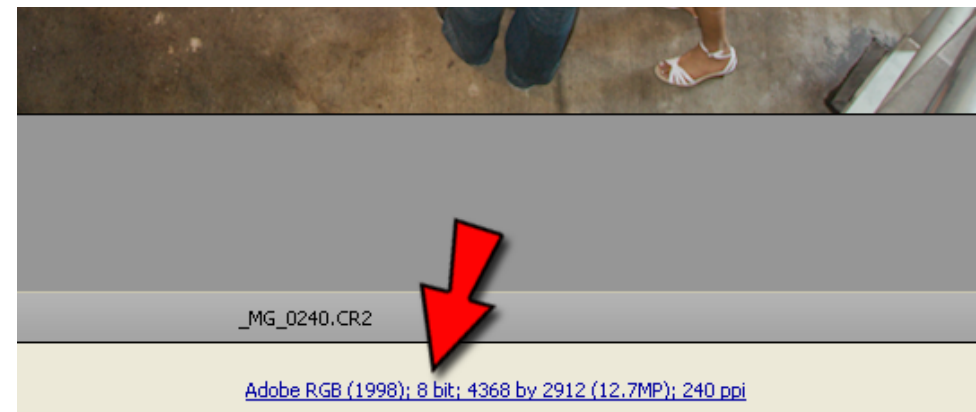
If you open several images at once in Camera Raw and retouch one of them, you can then click Select All and click the Synchronize button and select Spot Removal from the pop-up menu which will appear.

This tool is great for dust bunnies, but I'd do any more elaborate retouching with the tools within Photoshop.

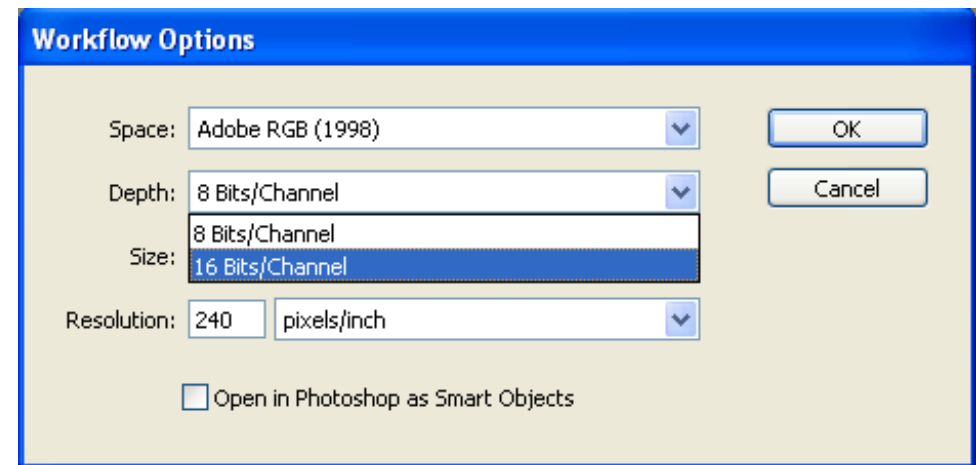
None of these changes you've made in the Camera Raw dialog box will take effect until you either click Done (and it'll save your changes to the Raw file) or Open Image(s).

Wait a moment, though! Remember we wanted to work with all twelve bits of color information, right? You can open this document as 8-bit or 16-bit in Photoshop. Ben Willmore describes this as owning twelve cars and having to choose between an eight-car garage and a sixteen car garage. Since Photoshop doesn't give us a 12-bit option, we'll work with our twelve bits by choosing to save the image as 16-bit.

Directly beneath your image, you'll see a single line showing the colorspace in which this image will open, the bit depth and image size. Click on this line and a dialog box will appear permitting you to change your colorspace



or bit depth. Click on the box next to the word Depth and use the drop down menu to select 16 Bits/Channel. Click OK. Now you're ready to Open your image as a Photoshop document. Click Open Image.



16-bit Photoshop documents are naturally twice the size of 8-bit documents. For this reason, I will make whatever needed adjustments (Curves, etc.) in Photoshop and change to 8-bit prior to Saving my Photoshop document. Purists may say I should save everything as 16-bit, but I still have my Camera Raw document to go back to. I save only the Raw files of the better images. I have a lot of hard drive space at work, but it's not infinite.

You don't have to go through all of these steps with every image you shoot in Raw. Here's my favorite Raw shortcut:

Take a look at all of the images from a photo shoot in Adobe Bridge. You'll see that many of them are taken from exactly the same spot in exactly the same light. Open one of those images, make your basic exposure corrections and click Done. Now select all of the similarly exposed images in your Bridge folder (use Control/Command or Shift to select contiguous images). Then right-click and choose Develop Settings > Previous Conversion. This will apply the exposure corrections you just made to all of the images you selected.

You can do this to each batch of images which have similar exposure conditions.

The latest Camera Raw will even open tiffs and jpegs. Occasionally someone will send me an image which is a tiff or (worse) a jpeg. This is the only time I'll work on a jpeg. If the image requires adjustments, I'll start in Camera Raw. I'm only starting out with eight bits per channel, but I'll do what I can. Personally, I always shoot in Raw.

I've only shown you the very basics of Camera Raw. We only touched on the first tab in that right column. I hope this will get you started, anyway.



Before



After Camera Raw adjustments.

This is just a photo I took at work, but look at what we were able to do for it in a few simple slider adjustments in Camera Raw. This has greatly simplified any improvements we'll make to it in Photoshop.