

Working with Raw Format Photographs

Why RAW File format?

Size / Flexibility / “As shot” vs. adjusted images

Flexibility:

Think of RAW as making an exposure on Film, but with a Film Type that you can select - after the shot, and film for which you can choose the development – after the shot.

After the shot, you can adjust:

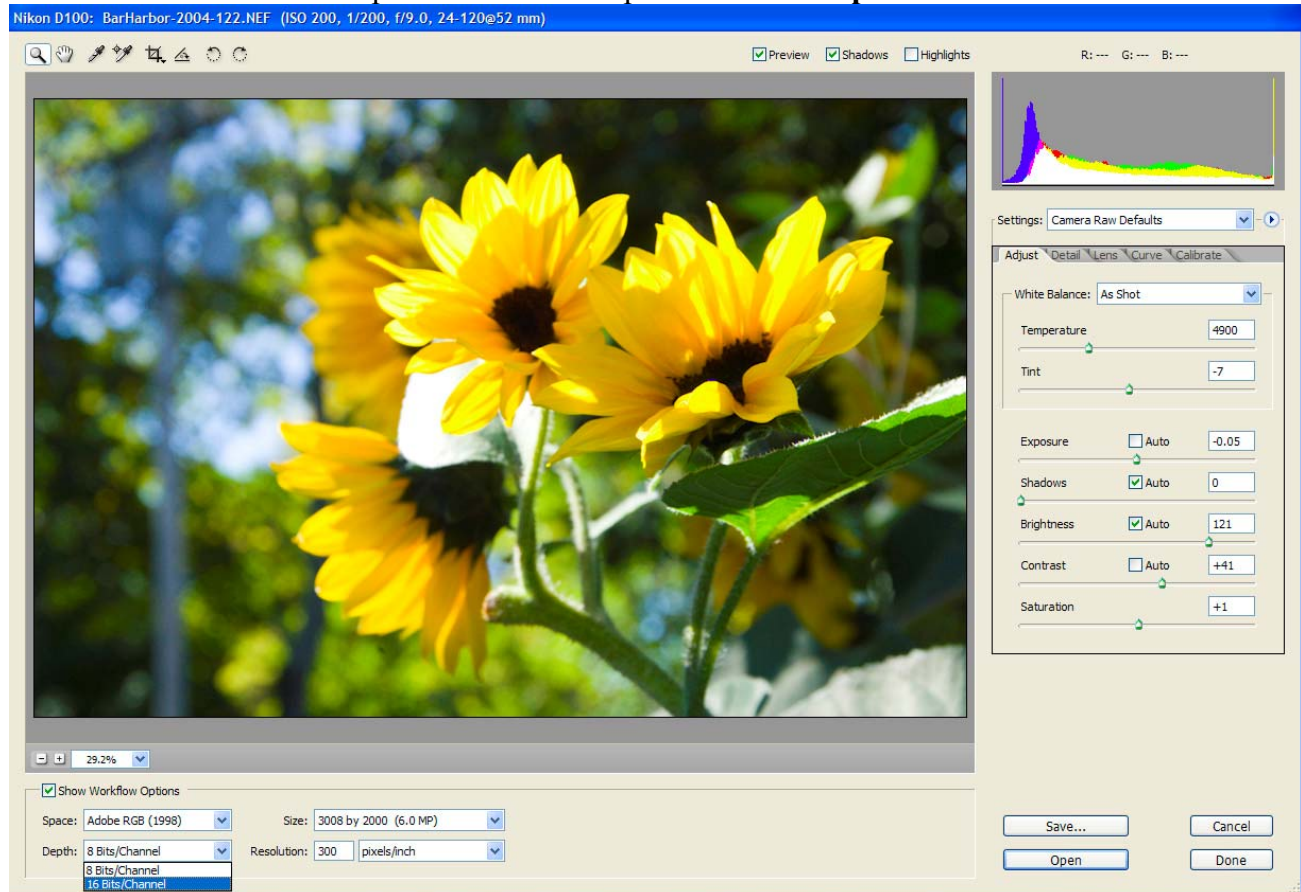
- film speed,
- Color temperature response of the sensor
- The type of light that was present
- High or low contrast film
- Push or pull processing

If you want this flexibility (Lossless!*), ... **Shoot RAW file format.**

If you shoot RAW, these choices are all made in the Photoshop **RAW Converter**.

Only camera raw images (files) contain the actual data captured by the sensor without any in-camera processing.

Double click a RAW file or press CTRL+R to open the **Photoshop RAW Converter**....



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Walk around of the Photoshop CS Raw Converter Pane:

File type and resolution at the bottom ...

- Color Space – Pick “Adobe RGB (1998)”
- Depth (bit resolution) – 8 bit vs. 16 Bit
- Size – usually use default size
- File resolution – 200-300 dpi (has no effect on image quality)

Histogram

- Use it for all adjustments....
- Black left -----White right
- Distribution of Values

Tool Palette

- Zoom tool (double click to see photo at 100%)
- Hand tool (double click to see entire photo)
- White Balance eye dropper - should be used on what you think is the midtones (18% gray)
- Crop tool – (the preset ratios automatically adjusts for horizontal or vertical image)
- Straighten tool
- Rotate buttons
- Shadows/Highlights/Preview

Key adjustments in the RAW converter

Settings – You’ll find “Previous Conversion” which can speed up your processing if you want to make the same adjustments as you did the last time you used the raw converter

Setting white balance –

White balance and/or Exposure should be done first. It cannot be duplicated by any Photoshop tool.

- “As Shot” (the camera’s white balance setting), “Daylight”, “Tungsten”, etc.
- Temperature (add warmth by moving slider to the right; coolness by sliding left)
- Tint (add green by moving slider to the left; magenta by sliding right)

Adjust Tab

Exposure --- First (also cannot be duplicated by any Photoshop tool)

- Shadows --- Second
- Brightness
- Contrast - Differs from Photoshop’s contrast. Raw contrast tries to leave the extreme shadows and highlights alone.
- Saturation - a gentler version of the Hue/Saturation of Photoshop. Offers finer adjustments. It’s a toss-up to do in Raw or Photoshop
- Color correction -- Last

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Detail Tab

- Sharpness (affects are global. If global sharpening isn't what you want, do it after raw conversion)
- Luminance smoothing (affects the general noise often seen in skies or other smooth tones)
- Color noise reduction (affects the color noise often seen in dark parts of an image)

Lens Tab

- Vignetting

Save – Saves changes to file without closing raw converter

Open – Opens file(s) in Photoshop (proper)

Done – Saves changes to file, closes the file and takes you back to Bridge

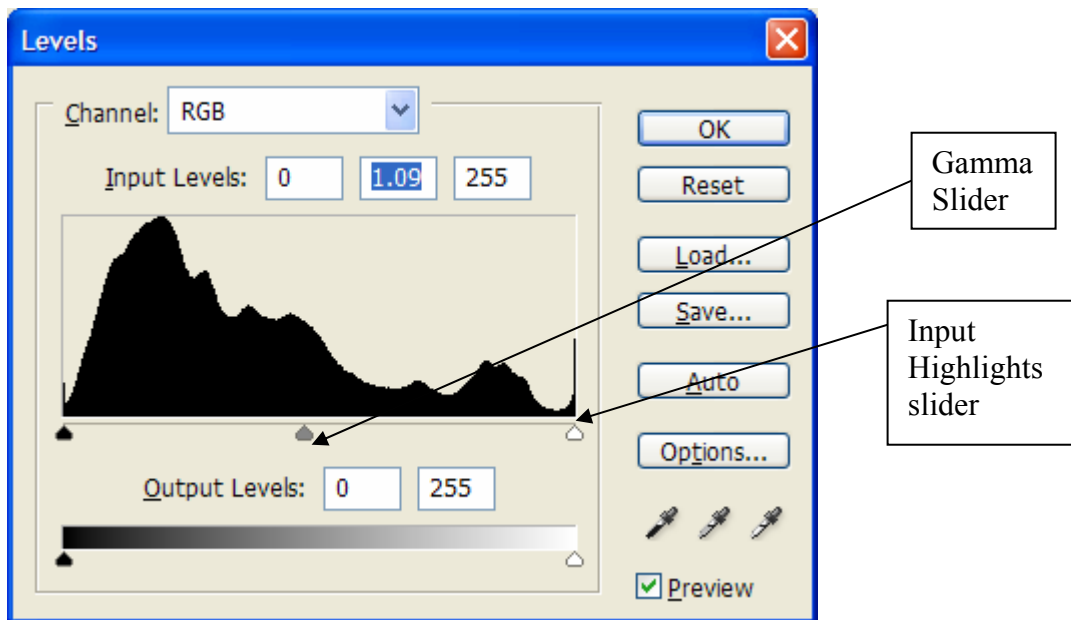
Using the Clipping Display in Exposure and Shadows

In the Camera Raw plugin that comes up when you open a raw file, hold the Alt key and drag the Exposure or Shadows sliders to display any clipped areas in the preview.

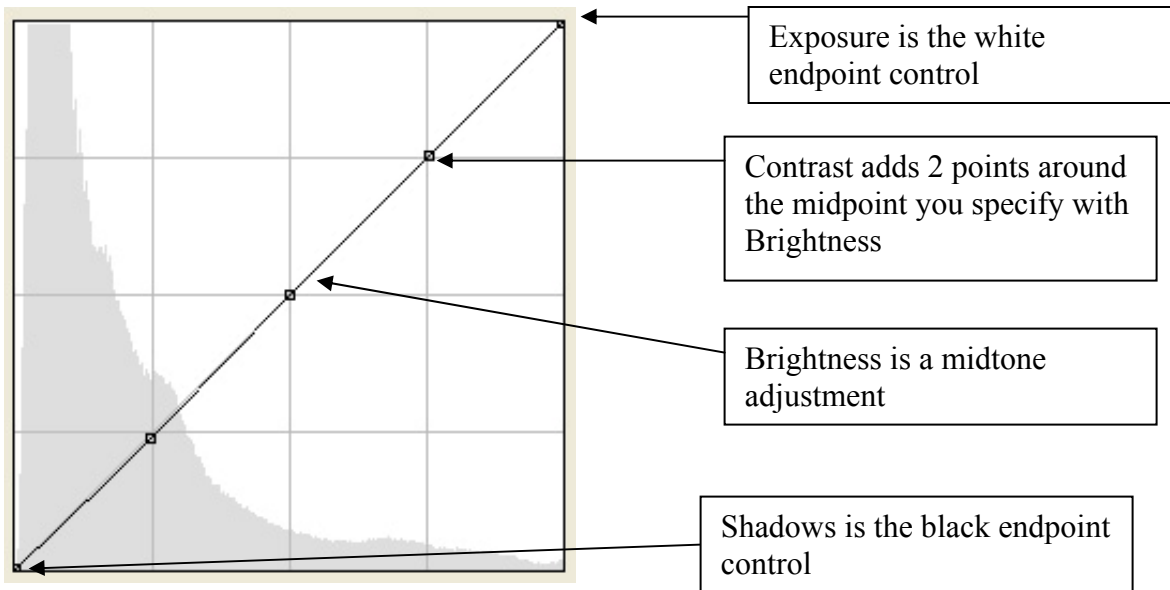
Exposure vs. Brightness in Raw Converter

Exposure is like the input highlight slider in the Levels dialog

Brightness is like the gamma slider in the Levels dialog. You can use it to adjust the relative lightness of the image.



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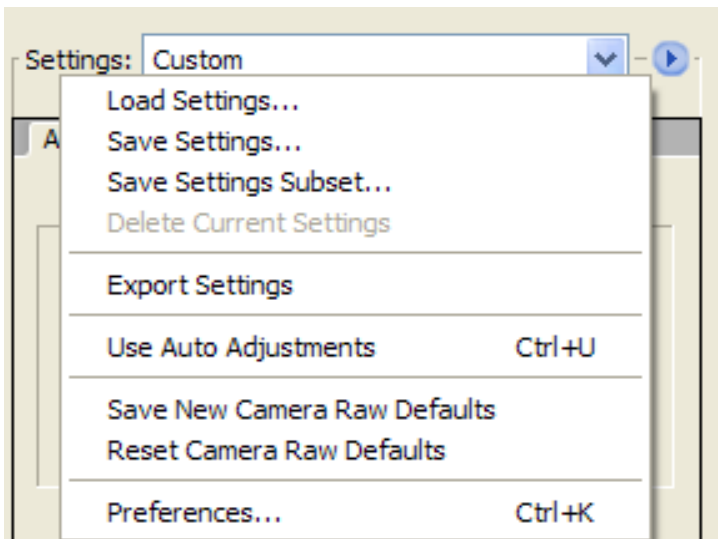


Alt key + OK (Mac – Option key + OK) = Updates the Instruction Set (IS) but does not convert the image or open in Photoshop main.

These changes do nothing to your basic image Bits; the basic image is unchanged.

These changes only change the Instruction Set to say “how the image should be converted.”

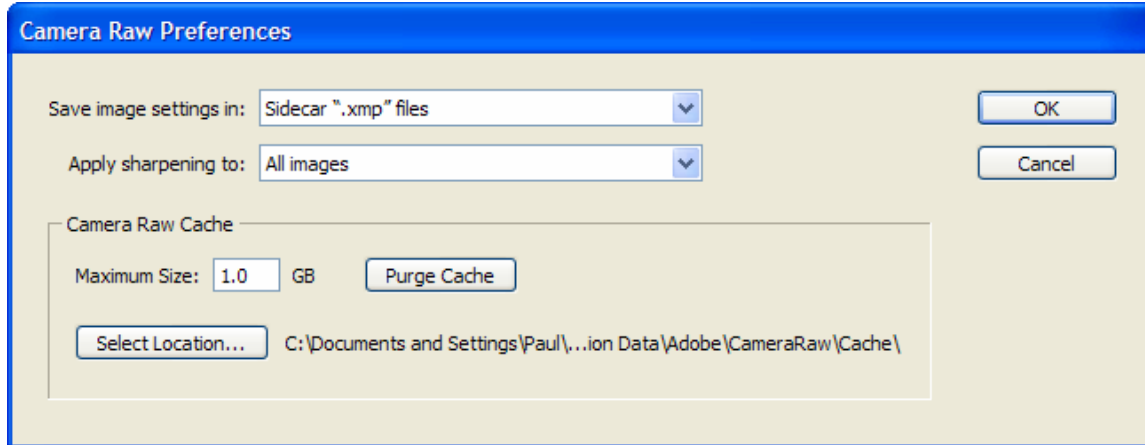
You can make adjustments and save the settings. From the flyout menu you can then select “Save as New Camera Defaults” and all other files opened will come into the converter with these saved settings.



In the Camera Raw dialog, click on the plug-in menu and select Preferences:

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You should then see this dialog below. Change “Save image settings in:” to the option below:



Working with multiple images

If you have several images with nearly the same exposure conditions as the one just corrected, apply the changes to all these images:

- Select all the similar images
- Right click in the browser window, select Previous Conversion in the Settings box and it will apply these changes to all the images.....

(CS2 only) Highlight several photos in Bridge then press CTRL + R to open the Raw Converter

- The raw converter will appear with all the images in a filmstrip on the left side
- Highlight one or more images on the left and then make your adjustments
- If you want to make the same adjustments to other images in the filmstrip, highlight them and select Synchronize at the top. You'll have the option of selecting some or all of the adjustments you just made.

Multiple Raw conversions of the same file

When: Use on Wide-Dynamic-Range --- Wide-Brightness-Range Images
Or mixed contrast images

Why: To get the most efficient DIGITAL conversion of the RAW image

How: (Photoshop CS2 procedures)

- 1) Do a raw conversion protecting the Highlights – Get them all....!!!
This is usually a “Reduced Exposure” Setting (- Stops)
This is the darker image.....

Open the RAW file into Photoshop.

- 2) In Photoshop, select File/Place from the menu
When the Open dialog box comes up, find the same raw file you opened above.

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Using the Exposure slider, increase the exposure (+Stops)

This will be the lighter image

!! The highlights in the image will (may) be SATURATED!!

Open this RAW file into Photoshop. It will place it in your previously opened image as a new layer. You'll see a black X over your image. Just hit Enter. You've just created a "Smart Object".

3) To the new, upper layer, Layer 1,

Add a Layer mask

i. From the layer menu (Layers/Layer mask/Reveal All) or

ii. From the icon at the bottom of the layers palette

On this Mask, Black Paint hides the layer that it is on – revealing the layer below (the background layer), White reveals the layer that it is on. Notice that when you open the MASK on Layer 1 that it is filled with WHITE, (fully revealing layer 1 and fully masking the "Background layer")

Paint on this Mask with Black to Hide the blown out highlights on Layer 1!

Note: you can paint with partially transparent Black (lower brush opacity) to blend.

4) You could repeat step 2 as many times as you want to best expose different parts of the image. Each time you do File/Place, you'll get a new layer.

A big advantage to this process is that you can double click on the picture icon on any of the "Placed" layers and get back to the raw converter to make further adjustments, ad infinitum!