

Nikon Capture NX "How To..." Series

Article 27 - How to use the Levels & Curves tool to optimize contrast.

Purpose: A more dynamic image can be created by increasing contrast using the "Levels / Curves" enhancement.



Before: The image is dull and lifeless.

After: Contrast is increased to make the image more dynamic.



Process:

Step 1 - Check image contrast levels.

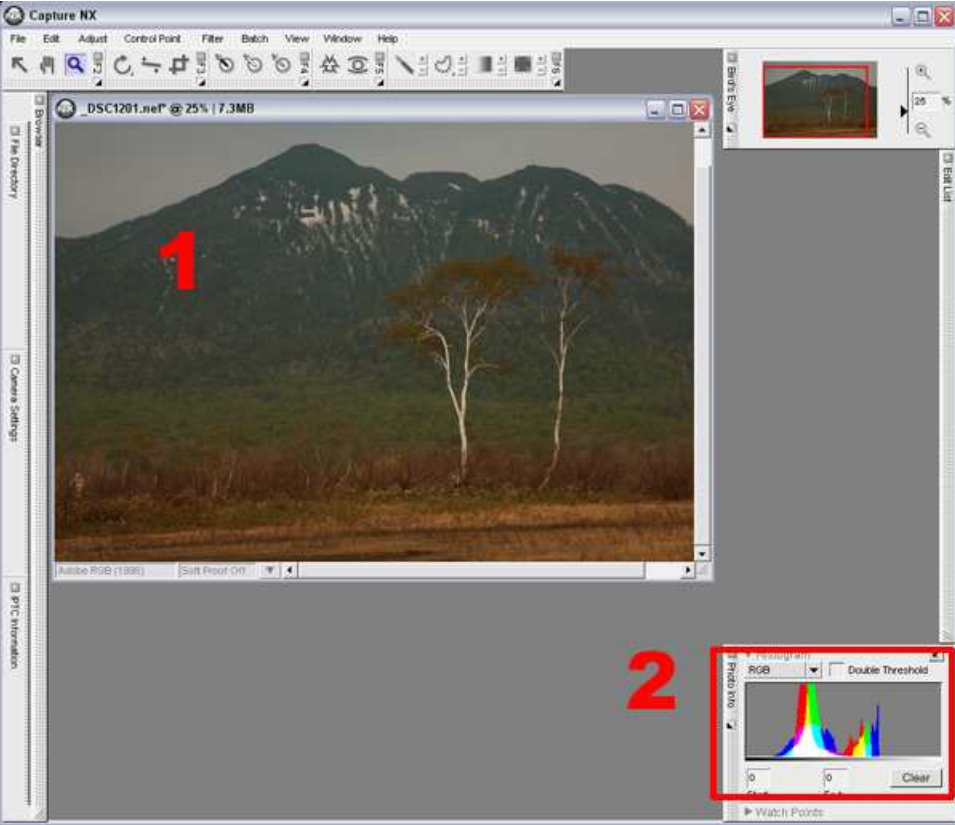
Step 2 - Adjust levels.

Step 3 - Adjust the tone curve.

Step 1 - Check image contrast levels.

1) Open an image.

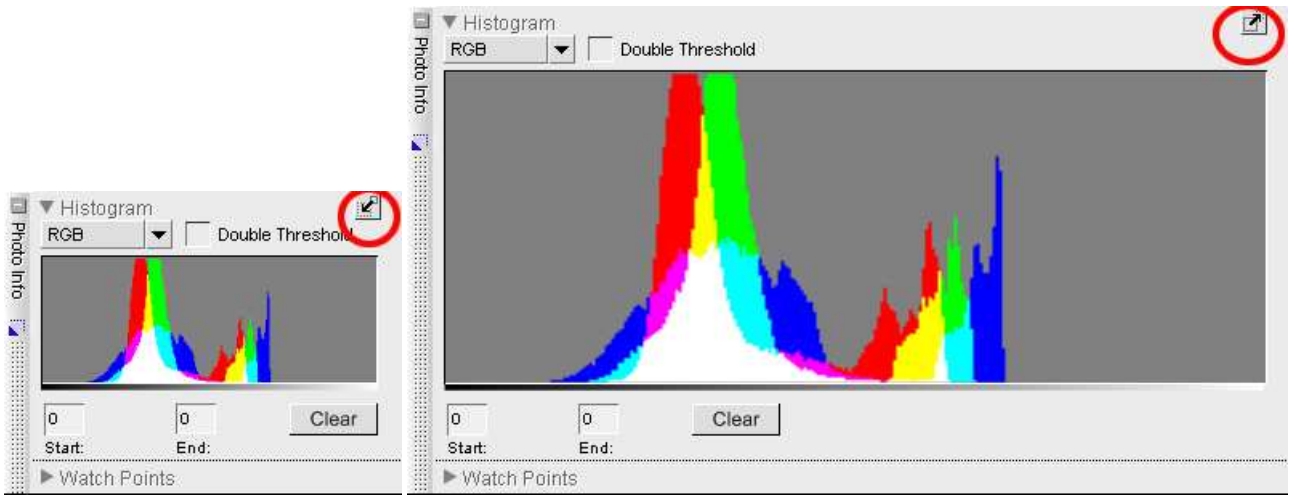
2) Check the histogram. In general, the spikes on histograms for low-contrast images (those that are dull and lifeless) are concentrated in the center of the histogram, indicating insufficient shadows and highlights. The histogram for this image shows the characteristic concentration of spikes at the center.



The spikes on the histogram are concentrated in the center.

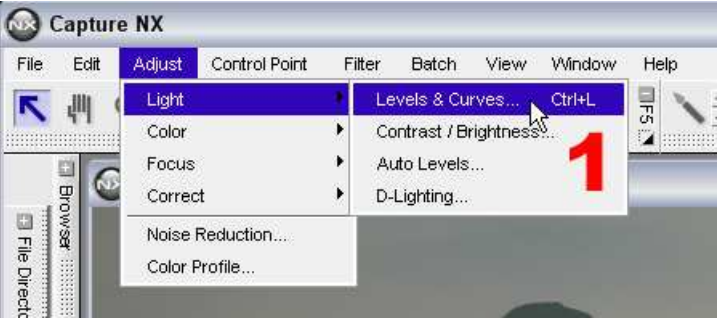
Enlarging the histogram:

With Capture NX Ver.1.1, the histogram can be enlarged for easier viewing. Click the button at the top right of the "Photo Info" palette to enlarge histogram display. Click the same button again to return display to normal size.

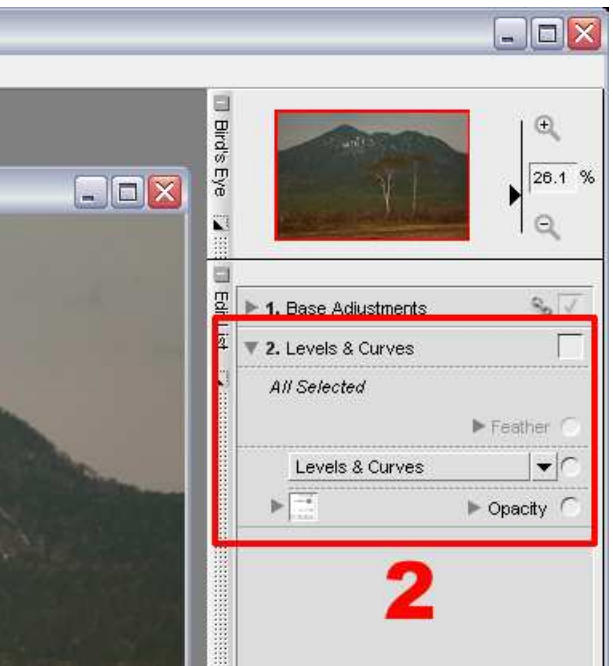


Step 2 - Adjust levels.

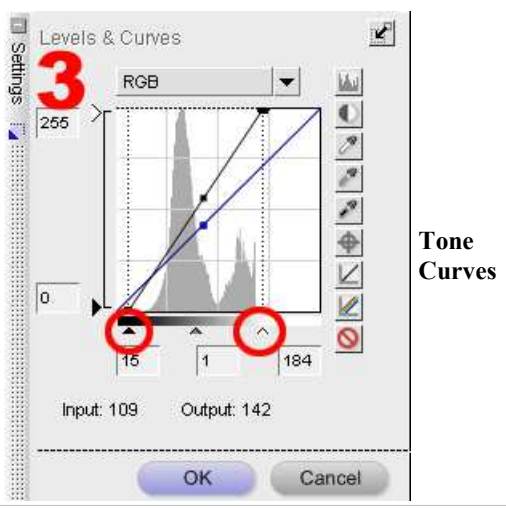
1) Select "Levels & Curves" from the "Adjust" then "Light" menus.



2) A "Levels & Curves" step is added to the "Edit List".



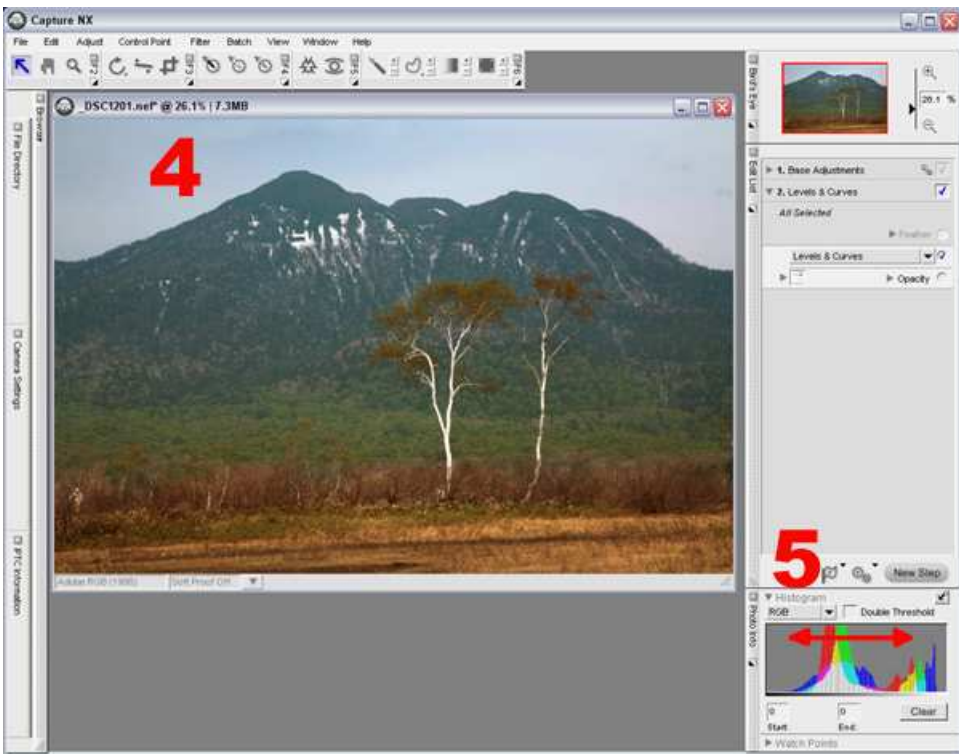
3) Move the black point and white point sliders in the "Levels & Curves" dialog toward the center of the histogram. Keep in mind that too much adjustment will result in loss of detail in highlight and shadow areas.



Move the black point and white point sliders toward the center of the histogram. By reducing the distance between the black and white points, contrast is increased.

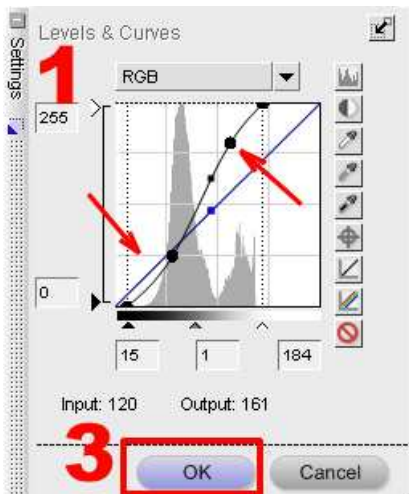
4) Contrast in the image is increased and the image becomes more dynamic.

5) The image histogram in the "Photo Info" dialog shows a broader range (from left to right) of spikes than was displayed for the image prior to adjustment.



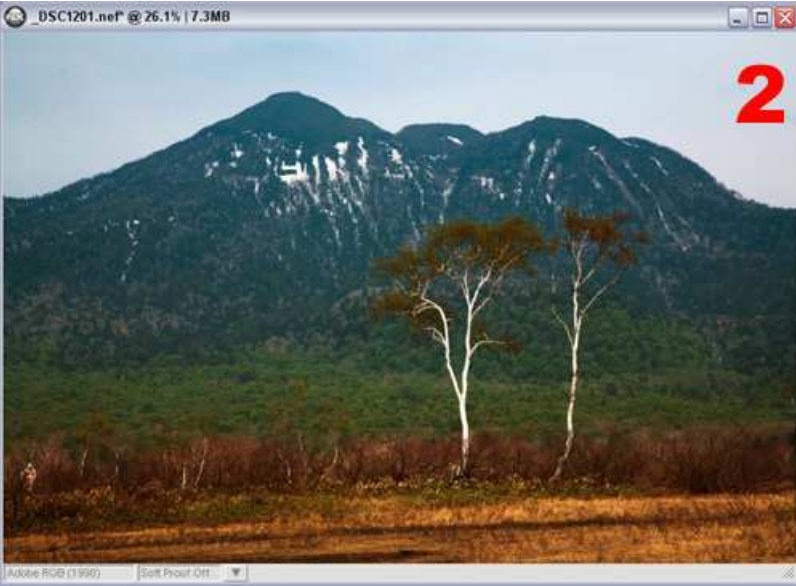
Step 3 - Adjust the Tone Curve.

1) Next, adjust the tone curve to increase contrast a little more. To increase contrast, the curves should take the shape of an "S". Here, a very gentle "S" curve is created to emphasize the brighter areas (midtones to highlights) of the image.



2) With optimum contrast, the printed image will be clear and sharp.

3) Click "OK" to finalize "Levels & Curves" enhancement.



Enlarging Levels & Curves dialog:

With Capture NX ver.1.1, the Levels & Curves dialog can be enlarged by clicking the button in the upper left corner of the dialog. This makes more precise adjustment to the curves possible. Click the same button again to return display to normal size.

