

Introduction to Photoshop Curves

Curves is a more powerful tool than Levels. Small adjustments can make large differences to an image. A light touch is required. Curves can improve Prints by compressing the tonal range of an image to better utilise the limited dynamic range of Prints. Ask an A Grader, after you gain some familiarity with the Curves tool.

This article discusses Curves adjustments

- to a colour to correct a colour cast
- to RGB/Luminosity to improve tonal balance and
- as an adjustment layer to get a more subtle effect

These principles apply to any reasonable quality image editor, if you don't use Photoshop, although the exact instructions here apply to Photoshop only.

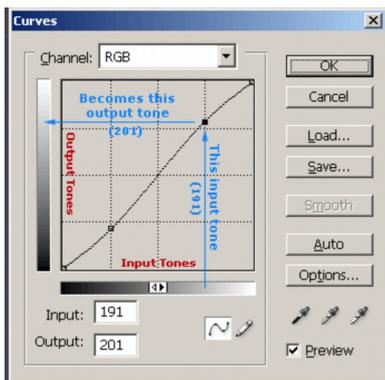
This is a summary of one of the many excellent Tutorials at Cambridge In Colour. If you're a self-starter <http://www.cambridgeincolour.com/tutorials.htm> has something for every aspect of photography and processing. - Ed.

The Photoshop curves tool is perhaps the most powerful and flexible image transformation, yet it may also be one of the most intimidating. Since photographers effectively paint with light, curves is central to their practice because it affects light's two primary influences: tones and contrast.

How The Curves Tool Works

Similar to Photoshop levels, the curves tool can take input tones and selectively stretch or compress them. Unlike levels however, which only has black, white and midpoint control, a tonal **curve** is controlled using any number of anchor points (small squares below, up to a total of 16).

For each input tone on the horizontal the graph shows the output tone on the vertical. Tones are stretched as the graph is raised from the diagonal line and compressed as the graph is lowered from the diagonal.



Compressed tones receive less contrast, whereas stretched tones get more contrast.

An S-curve adds contrast to the midtones at the expense of shadows and highlights, whereas the inverted S-curve does the opposite. Notice how these change the histogram and how these changes influence the image: reflection detail on the side and underside of the boat become clearer for the inverted S-curve while water texture becomes more washed out (and the opposite for the S-curve).

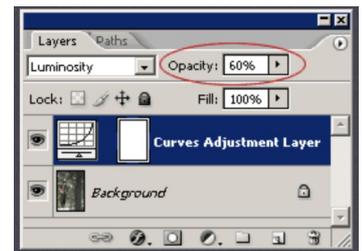
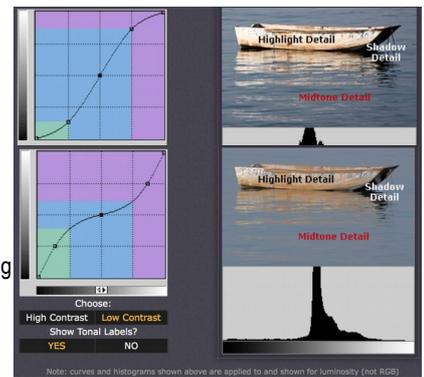
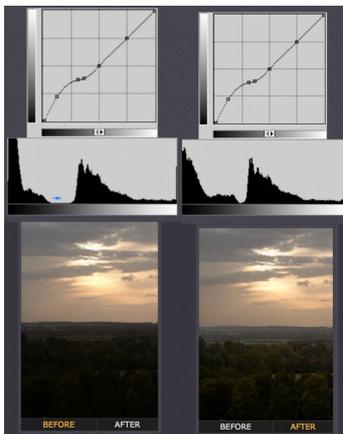
You can never add contrast in one tonal region without decreasing it in another. **The curves tool only redistributes contrast. All photographs have a "contrast budget" and you decide how to spend it.**

Even minor movement in an anchor point can result in major changes in the final image. Moderate adjustments which produce smooth curves usually work best. If you need extra fine-tuning ability, try enlarging the size of the curves window.

Curves Adjustment Layer

Adjustment layers (Layer > New Adjustment Layer > Curves...) can be set to make curves only apply to the luminosity channel by choosing a different blending mode (right).

You can make your curves adjustment more subtle by reducing the opacity (circled in red). You can continually fine-tune the curve without changing the actual image levels each time, reducing posterisation.



Utilising Empty Tonal Range

If gaps occur in between tonal peaks, curves can decrease contrast in these unused tones — thereby freeing up contrast to be spent on tones which are actually present in the image.

Use a curve to close the tonal gap between the sky and darker foliage.

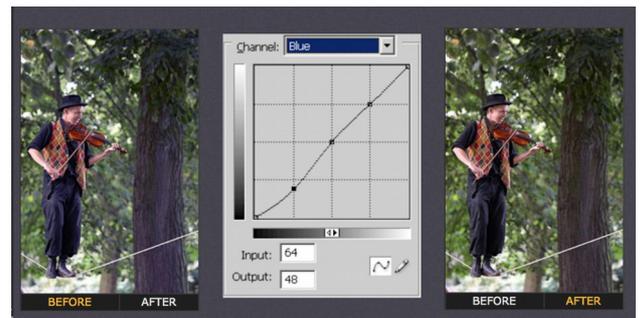
The histogram of the image on the left shows where to apply the curve, to produce the histogram and image on the right.

For the full article: <http://www.cambridgeincolour.com/tutorials/photoshop-curves.htm>

Correcting Colour Balance with Curves

Curves can be used on individual colour channels as a powerful way of correcting colour casts in specific tonal areas. Say your image had a bluish colour cast in the shadows, but both the midtones and highlights appeared balanced. Changing the white balance or adjusting the overall colour to fix the shadows would inadvertently harm the other tones.

Selectively decrease the amount of blue in the shadows and apply anchor points along the diagonal for tonal regions you do not wish to change. If you do not require precise colour adjustments, the curves tool is probably overkill. In such cases a colour balance correction would be much easier ("Image > Adjustments > Color Balance..." in Photoshop).



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A special welcome to our visitors. We hope you enjoy the meetings and develop a love and passion for photography. One of the aims of our club is to encourage, foster, develop and advance skills and promote the enjoyment of photography. If we can help you in any way or you have any questions, would like to know more about the club or would like a membership form please feel free to ask any member of the club.

Peninsula Camera Club

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