The Tone Curve

By Margaret Kebble

Curves are found in both Lightroom and Photoshop. (In Photoshop curves are very powerful, much more so than Lightroom). For the present, we will be concentrating on Curves in Lightroom.

Many people never use the tonal curve panel as the basic panel and the tone curve panel do similar things. However, it's useful to know how to use the Tone Curve panel as it has several tools that the Basic panel doesn't:-

- The Targeted Adjustment Tool (TAT) lets you target specific tones in your photo. This isn't possible in the Basic panel.
- You can adjust the Red, Green and Blue Channel Curves to shift color values.
- You can create a matte effect that isn't possible using Lightroom Classic's other tools.
- You can invert the Point Curve – useful if you scan negatives.

What is the Tone Curve?

The Tone Curve is a diagonal line that represents the tones in a photo from the darkest (bottom left) to the brightest (top right). This panel is located just beneath the Basic Panel. Using Curves we can adjust brightness, contrast, recover highlight and shadow detail and also execute very fine colour balance adjustments.

Lightroom has five curves – the point curve, the parametric curve, the red channel curve, the green channel curve and the blue channel curve. The parametric and point curves make specific tones in your photo lighter or darker and may be also used adjust contrast. The color channel curves are for adjusting color values rather than tonal values.
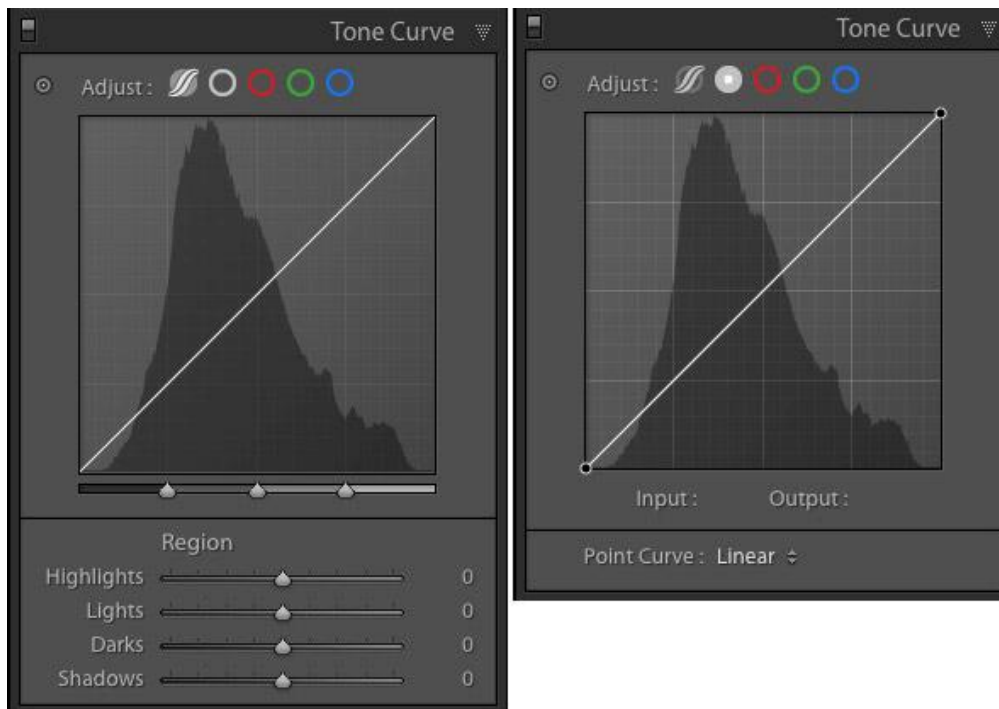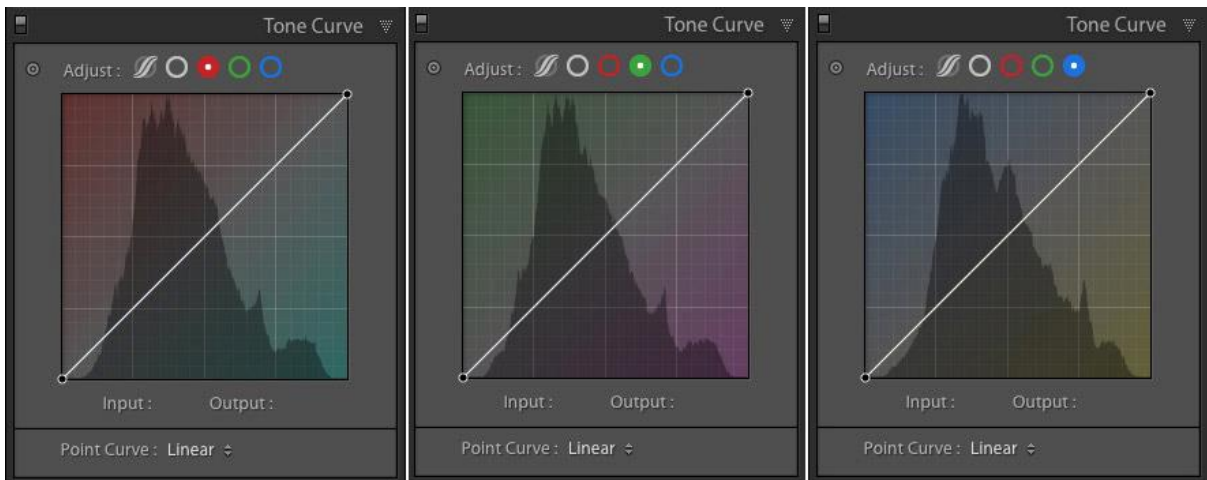
Using the Point Curve

When you first open the Tone Curve panel, you will be in the Point Curve. When the curve is a straight line it doesn't have any effect on tones or colours. Clicking along the line that runs through the Tone Curve Window will set a *control point* on the line. You can adjust the shape of the Tone Curve by adding and moving control points. This in turn alters the photo's tones or colours. By clicking and dragging a control point up, down, left or right, you're your desired adjustment. Having multiple control points along the curve allows for great control over the tonal look of the image. The maximum amount of control points on the POINTS curve is 16.

Each Tone Curve already has two control points – one at the top right and the other at the bottom left. When you drag a control point to a new position, the curve moves with it. Add multiple control points by clicking on the diagonal line to add extra control points to give you more control over the curve's shape. Adding and moving control points changes the curve from a straight line to a curved one.

The active control point is white and the others are black. The position on the graph of the active control point is shown in the Input and Output fields. These may also be used to move an active point.

Increasing or decreasing Brightness of image
Click on the center of the Point Curve to add a control point. Drag the Control Point upwards to make the image brighter or downwards to make it darker.

Increasing the contrast of an image
Contrast may be increased by adding two more control points to create an S curve
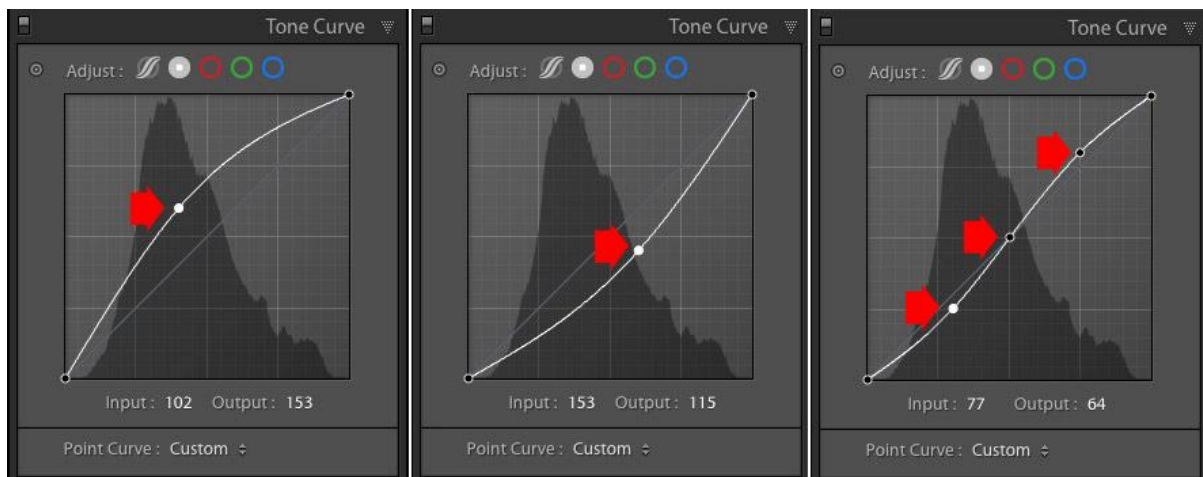
The Targeted Adjustment Tool (TAT)

The Targeted Adjustment Tool may be used with the Point Curve or the Parametric Curve: The advantage of using the Targeted Adjustment Tool is that it lets you target the exact tones you want to adjust.

Click on the Targeted Adjustment Tool icon

- Click on the photo to add a control point to the Tone Curve. If you hold the mouse button down, you can move the mouse up to move the control point up or move it down to move the control point down. Alternatively, let go of the mouse button and move the control point on the Tone Curve.
- You can add as many control points as you like to the Tone Curve using this method.

Using the Parametric Curve

For the latest version of Lightroom Classic, click on the curve at the top of the tone curve window. The display will change to the parametric curve. This curve has no control points but has sliders at the bottom to change tonal values. The graph displays what will be affected. Basically the operation is the same as the point curve.

Modify Shadow or Highlight Brightness and Contrast Using Tone Curves

It is extremely difficult to lighten/darken or increase the overall contrast of a specific tonal range using the basic sliders. Curves allows you to create enough points along the curve to keep some tones exactly where they started, while brightening or darkening others. The target tool may also be used to set exact parts of the tonal range you wish to boost or reduce.

Using the Colour Channel Curves
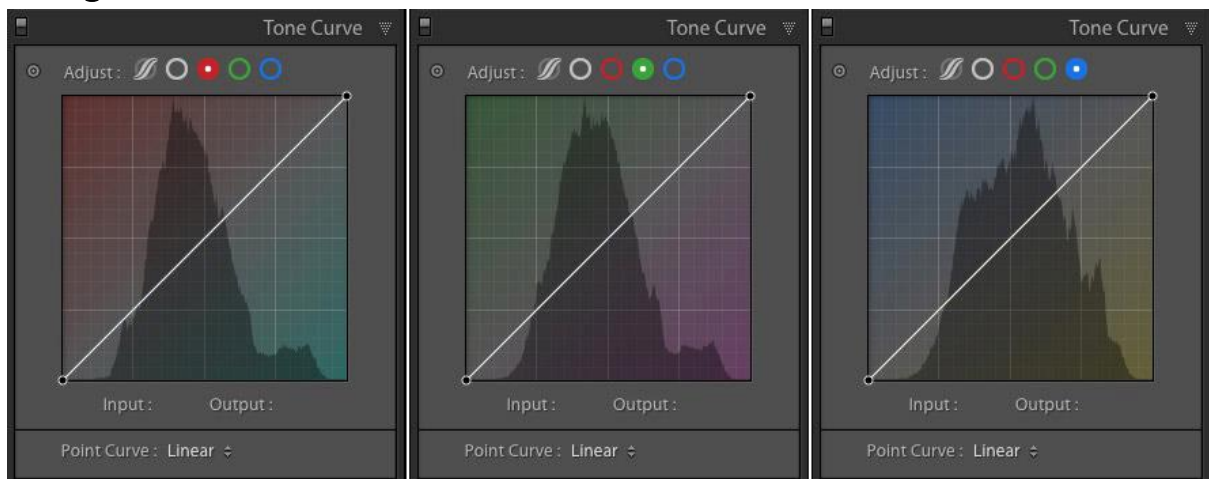
The Red, Green and Blue Channel Curves work in a similar way to the point curve, except that changing the shape of the curve affects colours rather than tonal values. Colour curves allow adjustment of the colour for a limited part of the tonal range versus the global adjustment you get with the temperature slider e.g. if your shadows are overly red you can reduce the red in the shadows through the colour curve without impacting red globally.

When deciding what direction to adjust your Colour Curve remember:
- Red is the opposite of cyan.
- Green is the opposite of magenta.
- Blue is the opposite of yellow.

Reducing any one of these colours using Colour Curves, increases that colour's opposite. Use the Targeted Adjustment Tool for extra precision.

- The colour channel curves are useful for creative colour effects like those found in develop presets.
- A blue channel curve may be used to add blue to the shadows but have a minimal effect on highlights. It's a subtle effect that you might find useful for landscape photos or portraits.
- Colour Curves can be especially helpful when correcting skin tones.
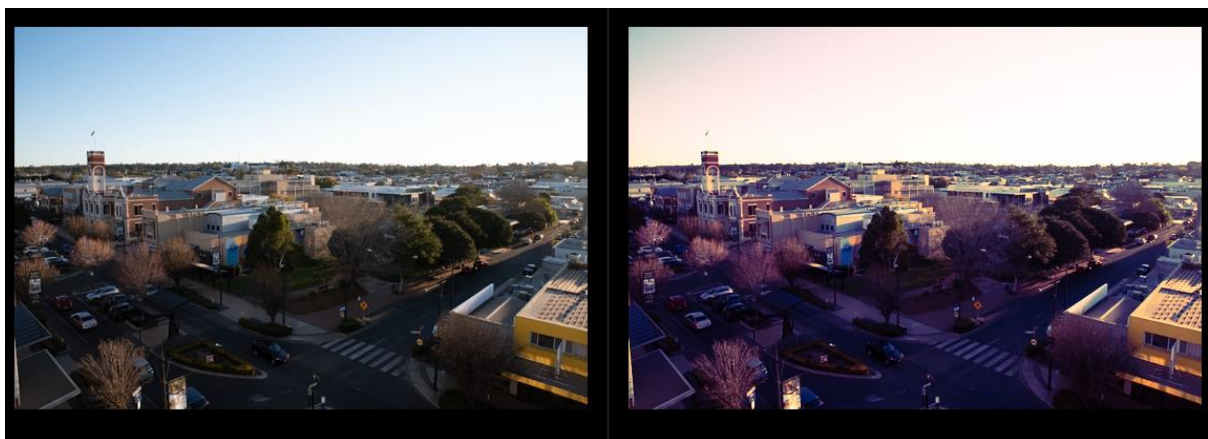
Colour grading using curves.

Creating Presets

Adjusting colour curves can take a lot of time. So when you find a colour recipe that works for you, it can be helpful to save it as a preset. You can then use this as a starting point for your images and fine tune the curve as each individual image necessitates.

Click on the "+" button at the top of the Presets Panel on the left column of Lightroom. When the preset box pops up, just make sure you only check "Tone Curve" so that when you use this on other images, your preset is adjusting the Tone Curve only.

Creating a matte effect

The matte effect is where you use the Tone Curve to create a photo that looks like it's printed on matte paper or taken on film. The idea is that the darkest shadows are gray rather than black. It works well with black and white photos.

To achieve this effect, move the left control point (i.e.- the black point) upwards a little. The more you move it, the stronger the effect is. But don't overdo this.

You can use the technique with the Blue Channel Curve to shift the colors in the shadows towards blue at the same time. It's common with portraits and fashion.

Modify White or Black Points on A Tone Curve

If you drag the black point towards the right, along the bottom of the graph, you will turn dark tones into pure black. This is usually only useful if your image has extremely low contrast, and there is no image detail on the left end of the histogram to begin with:

Doing this to the white point gives a similar effect - Dragging the white point leftward across the top of the histogram will clip your highlights to pure white.

If you drag the black point away from both edges, up into the graph's X and Y axis at the same time, then you will effectively be performing both functions at once- you will clip some blacks, while at the same time turning them into a flat, faded looking dark tone. Be very careful when doing this!

Dragging the white point down along the right edge will turn white into a light grey tone. And dragging the white point both downward and to the left will perform both dramatic adjustments at the same time. Again, be very careful with edits such as these!

Last but not least, you can use curves to manipulate not just luminance tones altogether, but also individual colours. This is a very powerful process, and usually, just the tiniest bit of adjustment will have a huge effect on your image.

When Not to Use Tone Curves in Lightroom

Lightroom's Basic Develop Module sliders are still extremely powerful and should be used to perform the "heavy lifting" of processing particularly dynamic, contrasty images.

Why? Because while tone curves are extremely good at adding contrast, and brightening/darkening large ranges of tone in an image, they're just not very good at doing the opposite- stretching the tones in an image, to fit the highlights and shadows of a high dynamic range (HDR) single exposure into the normal realm of contrast that we're used to.

This is what the Shadows and Highlights sliders are really good at in Lightroom's Develop Module. They can bring up very dark shadows, or bring down very bright highlights, and yet still render the whole image with pleasing contrast in the other tonal ranges.

As a general rule, try to correct the overall warm/cool look of your images' colours using the White Balance "Temperature" slider, and then use the next slider, "Tint", to fine-tune any green/pink colour casts.

Only then should you delve into RGB curves, for either achieving very specific, tricky corrections, or of course for totally creative looks. But again, be careful, usually the tiniest adjustment is more than plenty!

Resources used:

A Gibson – Tonal Curves

How to Use Curves in Lightroom: The full tutorial – Post-processing by Brian Pex