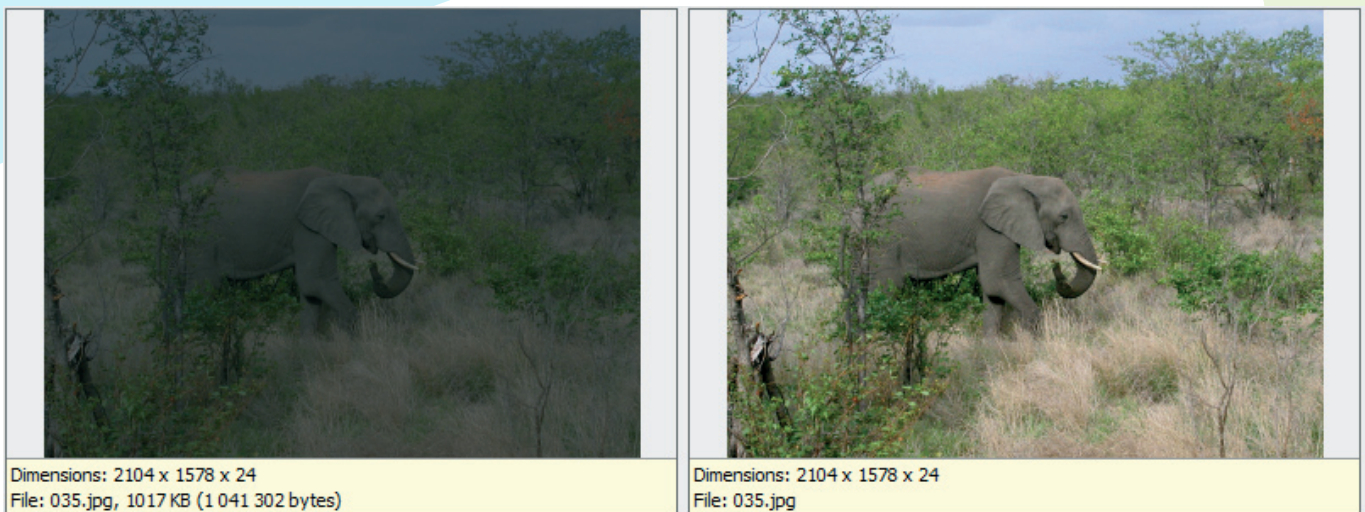


Improving Exposure with Histogram Levels

January 26th, 2011

Intended for: [pros](#)

Most digital photos need at least a couple of adjustments before publishing: they need brightening and increased contrast. The **Levels** window is an ideal tool for this job. Let's take a look at how to do the work.



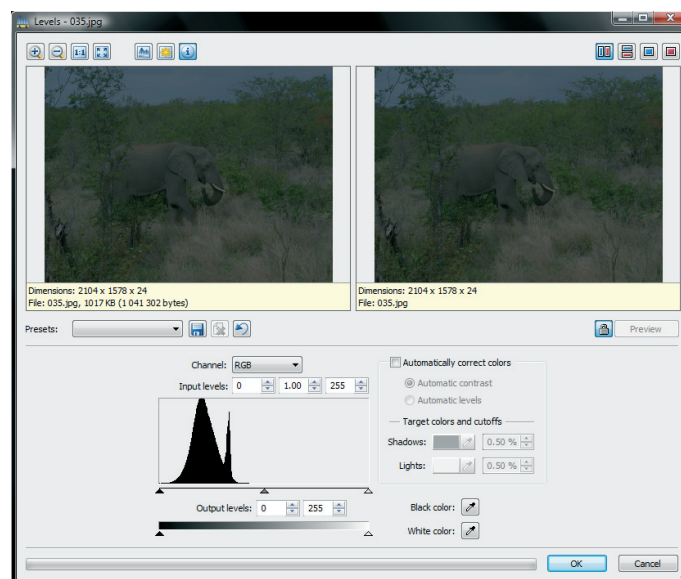
Only a little extra contrast is needed. Even a small increase adds some spice to a picture. And if you want that extra bit of contrast for your pictures, then you are just one simple change away from great results.

You may protest that contrast can be added right inside the camera. While this is true, in that case your picture is being changed already inside the camera. If you delay this kind of edit until the picture is on your computer, you have access to true originals, without any edits by you or your camera.

The Histogram Is the Foundation

[Zoner Photo Studio](#) offers several ways to adjust a picture's brightness and contrast. The best of them work via editing the histogram—a chart of the prevalence of various brightness levels in a picture—in Zoner Photo Studio's **Levels** and **Curves** menus. Here however we will only be looking at **Levels**.

To reach the Levels window in the Editor, use **Adjust | Levels...** or the **Shift+L** keyboard shortcut. To reach the (slightly different) Manager version of the window, it's **Edit | Adjust | Levels....** We'll assume here that you're in the Editor, so you now see the **Levels** window with preview area at the top and a histogram beneath it. The histogram is the most important part of this window.

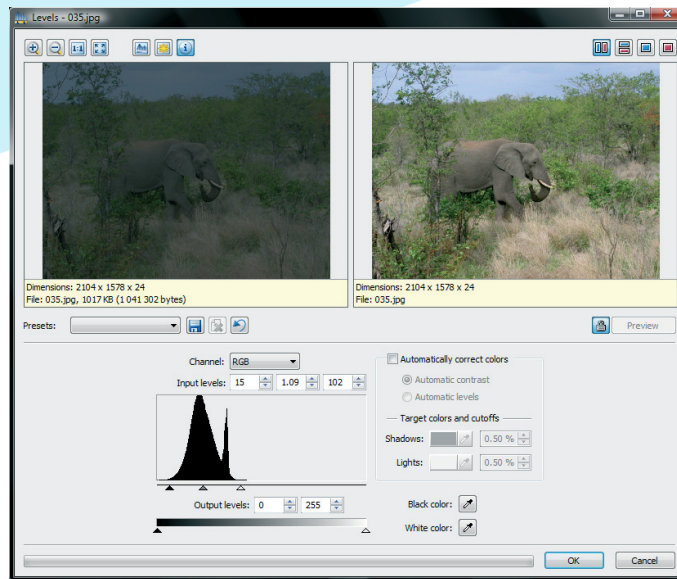


Look closely at the histogram beneath the picture and at the picture itself, which has poor contrast.

As none of our tutorials have discussed the histogram so far, we need to take a look at it here. A histogram shows how well represented shadows and lights are in a picture. The left end of the histogram shows dark shades (with black at the far left) and its right end shows light shades (with white at the far right). The heights of the bars in the histogram are based on the prevalence of various shades in the picture. In a well-exposed picture, the histogram's shape resembles a hill that levels out at black on the one end and at white on the other.

Stretching the Histogram

To increase contrast and brightness, we need to change the representations of the various shades. With the histogram to help us, this job is very easy. Under the preview, there is a channel picker, and beneath it, the histogram itself and three sliders. For this job, we want to affect all colors equally, so keep the channel at RGB.



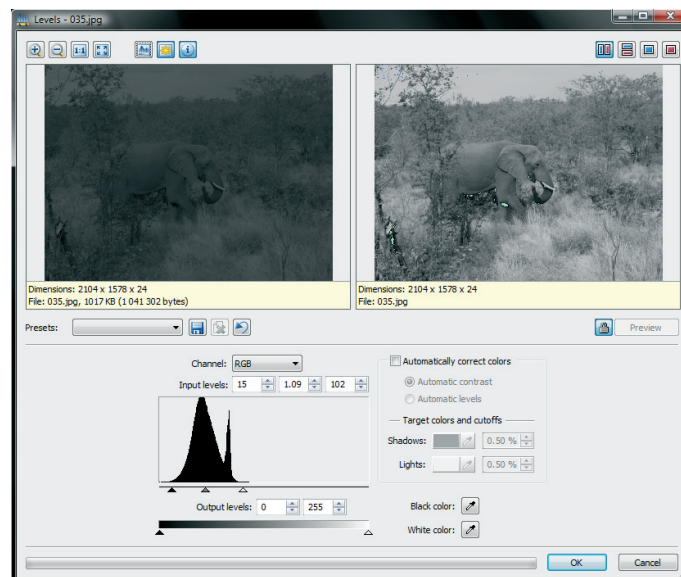
Under the histogram there is a graph illustrating the new darkest/lightest colors in the picture; the preview changes as well.

You can go by this simple rule: move the end sliders for black and white to the places where Histogram Hill reaches the ground. Moving the sliders in increases contrast (the distance between shades after the narrowed range you've set is stretched out to hit true white and true black). Moving specifically the right slider inward increases brightness. Moving the middle slider right or left particularly affects the brightness level for midtones. Move it left to brighten them, or move it right to darken them.

Always Double-check

If the distribution of light and dark shades in your picture is similar to that in our sample, don't hesitate to move both sliders a bit more towards the center. Use your own eyes; everybody has their own ideas about how much contrast is just right.

But do not forget to always make sure not to squeeze contrast so tight that you create detail-starved areas with underexposure or overexposure ("blowout"). The simplest check is right in the preview window itself—just turn on the blowout and overexposure highlighting. The preview is switched to grayscale, and blowout and underexposure are highlighted. There are times when blowout is unavoidable (such as in our illustration), but it is a small price to pay for a quick increase to brightness and contrast.



Blowout is shown in this picture in yellow and red. Underexposure is shown in blue.

Be especially wary when editing portraits or other pictures with people. Overexposed areas on a human face look especially bad. The very same level of overexposure in the background, meanwhile, is no problem.

As soon as you have everything edited just like you want it, you're ready to save the picture. Never forget the importance of **working on copies of pictures, not the originals**. If you started out working on an original, at least create a new copy when you save. Otherwise you can lose the only original version of the picture you have.