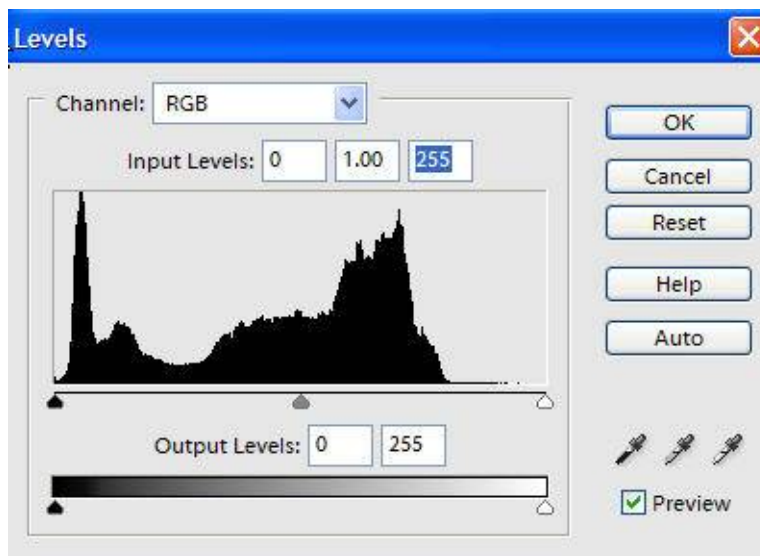


Editing Pictures with Picasa 2

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The standard approach to editing pictures with Picasa 2 is described on their web site at http://picasa.google.com/help/userguide_edit.html . They give a good overview of how to use the tools contained in the Basic Fixes tab, the Tuning tab, and the Effects tab. What I want to do is explain how to use the tools in the Tuning tab combined with the Histogram to create your own version of an improved image without relying on the automatic contrast and color tools under the Basic Fixes tab. But before I discuss Picasa, I want to cover how Photoshop and Photoshop Elements uses the Levels layer to adjust the shadows and highlights in pictures. That should give a better basis for understanding what Picasa can do with the Tuning sliders and its histogram.

Editing with Levels using Photoshop: Photoshop and Photoshop Elements, as well as other photo manipulation software, allow the use of a tool called Levels. Using Levels, you can adjust the range of tones in your picture to span the visual bandwidth and enhance things like contrast and color. Levels gives you markers for the darkest and the lightest parts of a picture. In a histogram for Levels, which is what you see when you view a Levels control, the darkest parts of an image are represented on the left side of the histogram and the lightest parts on the right. Notice in the following graphic, taken from a Photoshop Elements Levels control layer, that the color information of the picture is contained within the histogram. The histogram is the black blob that runs from left to right above the three triangles, and it gives an indication of the strength of the color tones contained in the picture. Stronger color tones have higher peaks. The absence of any value for this histogram on the right side shows that this picture does not contain many light color values. Even though the camera might have captured a person standing in front of a white wall, the data recorded in the camera does not contain any info that represents white as far as the digital image is concerned. Any white may show up as a much duller color on a print out of the photo or on the computer screen, if viewed.



Histogram – from Levels Tool in Photoshop Elements

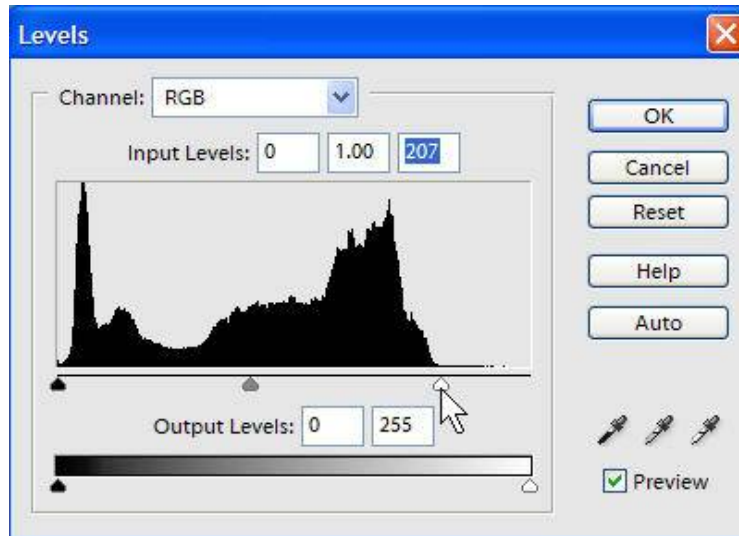
For more detailed information on histograms, read “Understanding Histograms”, at The Luminous Landscape, <http://www.luminous-landscape.com/tutorials/understanding-series/understanding-histograms.shtml> .

So, what do we do with histograms? Well, we interpret them and use them, if desired, to adjust photos. Take the histogram above. The histogram goes all the way to the far left, indicating that the picture has well developed dark shadows or dark colors contained within the photo. However, the histogram does not go all the way to the right, and that indicates that the photo does not contain very light or white tones. These whiter tones are probably repressed in the picture. Take a look at the picture that accompanied this histogram.



The Before Picture

The picture is pretty good, but if the walls are white, they are certainly a little dim. Here's where the Levels tool comes into play in Photoshop Elements. Notice the white triangle immediately under the histogram. That sets the value of the whitest point in the photo. In Photoshop Elements, I will move that white triangle to the left until it lies immediately under the start of the first ramp up of the tones on the right side of the histogram. The Levels histogram with the white point moved is shown next.



White Triangle Moved to Start of First Ramp in Histogram

Moving this white triangle to this point means that Photoshop Elements will now consider anything from the digital photo with the input tone value of 207 and above as being equivalent to an output value of a pure white tone of 255. It effectively stretches the histogram so the picture goes from black at a 0 level tone to white at a tone level of 207. Here's how the picture itself changed.

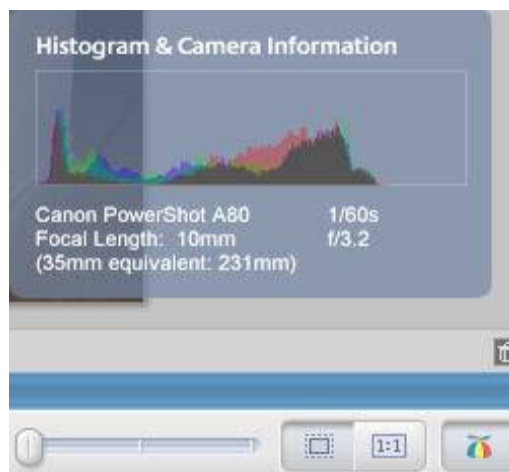


Picture After White Point Adjustment

See how the whole picture appears to be lighter and brighter? The man appears more intense, his shirt is redder, and the wall is definitely lighter. That's what can happen when we use Levels to adjust the values of the color tones inside the histogram of any picture.

Now, on to the challenge of doing this within Picasa.

Editing with Tuning Sliders using Picasa: Open the starting picture above, but in Picasa, and you should see the picture plus the histogram. If the histogram is not visible, then click on the Propeller-Beanie icon to view it.



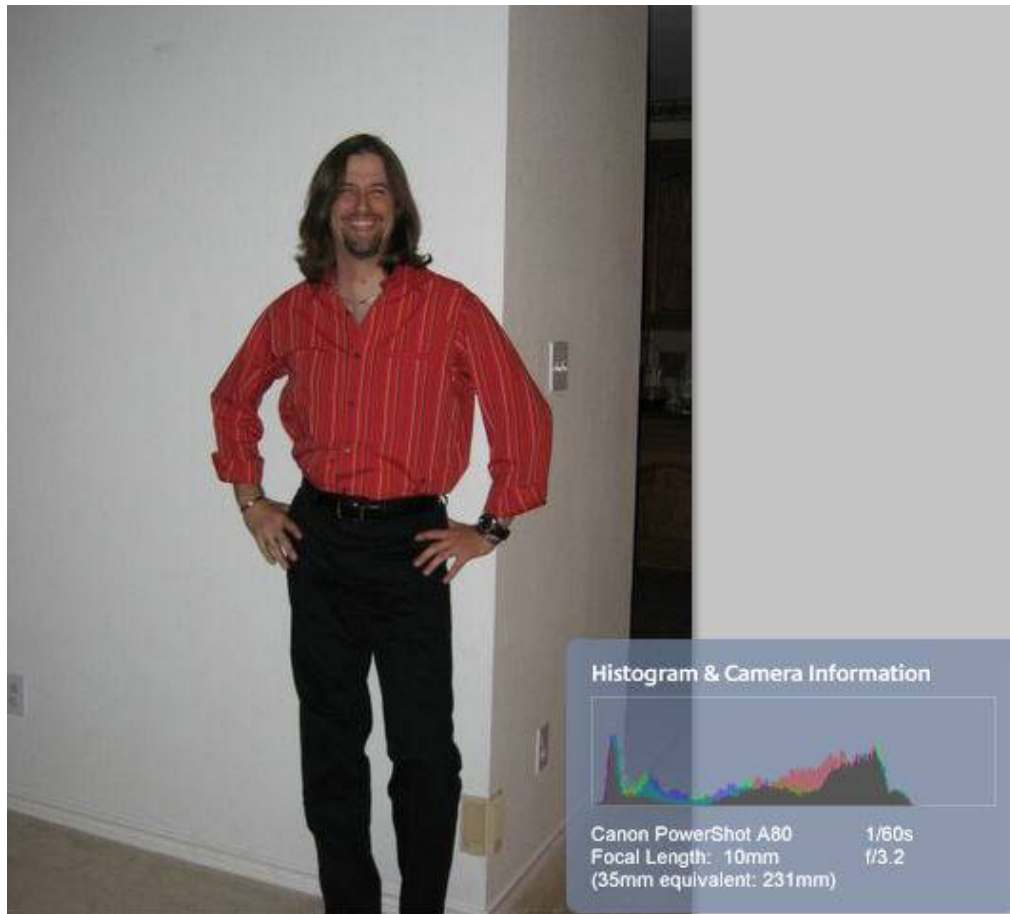
Histogram with Propeller-Beanie Icon

When you start with an original picture, the sliders for the Tuning tab are all the way to the left, as shown below.



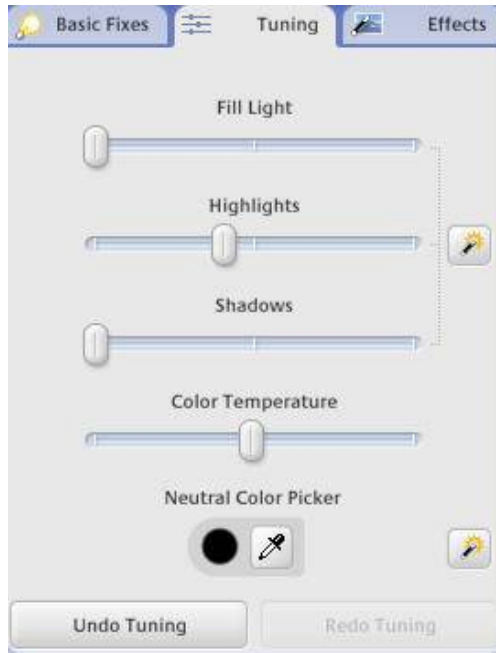
Initial Tuning Slider Locations

Just a reminder. Here is the photo we are starting with, as displayed in Picasa.



Initial Photo with Histogram

The histograms in Picasa are like the Levels diagram in Photoshop Elements. The difference is that in Picasa the separate spectrums are shown for the RGB colors (red, green & blue), plus the integrated spectrum is shown as the black area. In Photoshop Elements, you can see the different RGB spectrums by selecting their color channels in the Levels layer (not discussed in this tutorial). The histogram in Picasa also gives you the camera information about the photo, such as shutter speed and f stop setting. From the above picture, you can see that the histogram does not reach the right side of the chart. And in fact, the picture is rather dull, from a color point of view. To bring back the brightness and highlights to the picture, we need to stretch the histogram to the right by moving the Highlights slider to the right. When we move the Highlights slider to just left of center, we get the picture that follows.



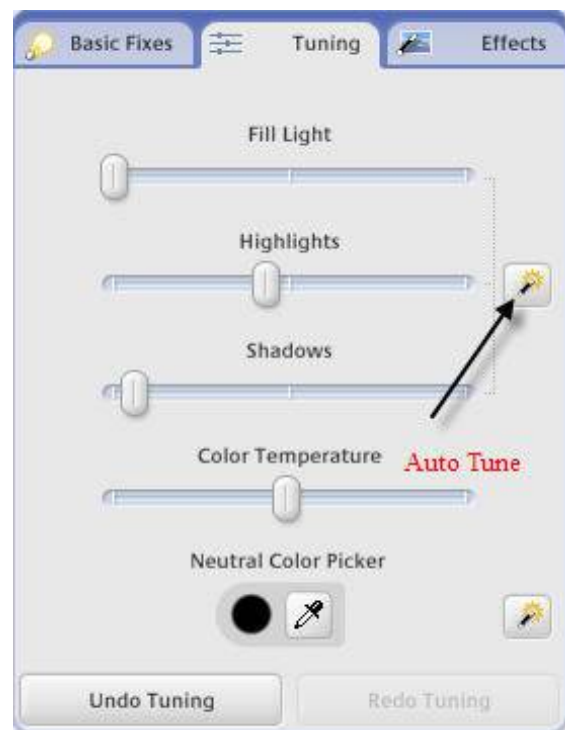
Highlights Slider Moved Right



Picture After Highlights Slider Moved Right

Notice that the histogram is now stretched to the far right of the frame, and the colors of the photo are brighter (i.e., the highlights have been enhanced). This is different from the Levels layer in Photoshop Elements, where the histogram is not visibly stretched, but the white point gets manually moved left into the start of the first slope. Here in Picasa, moving the Highlights slider to the right moves the start of the first slope to the right. We move the Highlights slider until we have moved the first slope to the right of the frame. That's how we know to stop moving the slider. Any more movement to the right, and we will lose some of the color from the brighter parts of the picture. From the standpoint of what it does to the photo, the two approaches (Photoshop and Picasa) are equivalent and the results are similar.

One question to ask is: how does this approach compare with using some of the auto tuners in Picasa? There are auto buttons in the Basic Fixes tab for contrast and color, but we will keep focused on the Tuning tab in this tutorial. The auto tune icons are the little yellow wand icons on the right. Picasa calls them one-quick fix icons, and there are two here: one for lighting and one for color. If you use either of these, I would recommend using the lighting auto tune icon first. The figure below shows the Tuning tab after the lighting auto tune is applied to the photo.



Auto Tuning with Lighting Icon

This figure shows that the auto tuning moves the Highlights slider to the same location that we did manually. The difference here is that the Shadows slider was also moved - slightly to the right. If you look back at the initial histogram of the picture when it was first opened in Picasa, you will see that there is a small gap between the far left portion of the histogram spectrum and the left hand side of the frame. Moving the Shadow slider to the right actually stretched the left hand side of the histogram to the left side of the frame.

We could have done this manually and have achieved the same thing. After working with histograms for a while, you will notice things like the small gap on the dark side of the histogram and manually move the Shadow slider to eliminate the gap. Here is the photo after the auto tune.



Picture and Histogram Using Lighting Auto Tune Icon

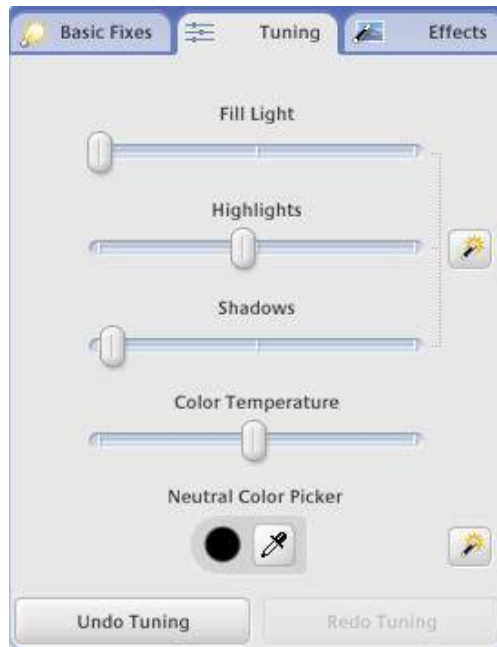
The final picture is shown above after application of the one-click fix for lighting icon. We have not used the Auto tune icon for the color. In this picture, the color auto tune would add very little.

Demo of Tuning Sliders on One More Picture: Ok, let's apply the manual tuning to one more picture. This next picture was taken indoors using a flash, and is typical of many digital indoor flash photos where the flash power is marginal at best. The picture looks underexposed, and you can hardly see the guy inside the cabinet.



Underexposed Flash Photo

The histogram shows two things. There is a lack of light tones at the upper end of the spectrum and the dark tones do not span the gap to the left of the frame. To correct for this we can move the Highlights slider to the right and the Shadows slider just a little to the right. As we move the Highlights slider, it is important to look at the effect on the picture. There is a small, but important, amount of color information contained in the extension of the histogram just to the right of the first slope. We will expand the histogram using the Highlights slider until that extension just meets the right side of the frame. Moving the slider any more would lose valuable color info from the picture.



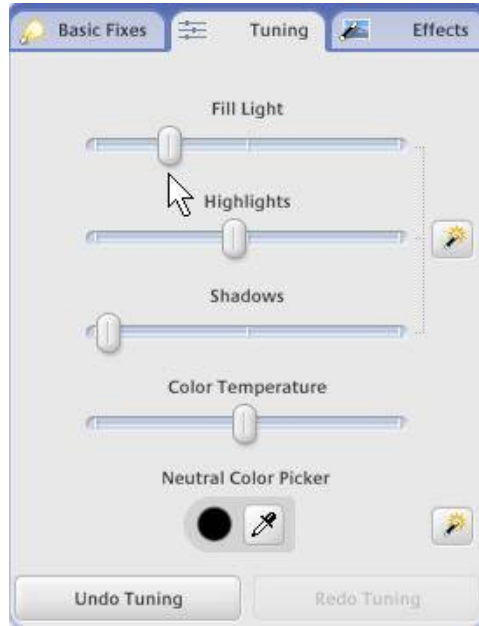
Highlights and Shadows Added



Worker after Highlights and Shadows Shifters Moved

The picture's histogram looks better, but the picture is still pretty underexposed from the weak camera flash. So we need to take advantage of the Fill Light slider. It acts similar to an addition fill flash and increases the lightness of the whole picture. Let's add a little

Fill Light using the slider. When we do that, we have the picture that I would consider as being finished.



Fill Light Added



Worker with Highlights, Shadow and Fill Light Adjustments

Using the Fill Light in Picasa is similar to moving the Gamma point triangle (the center triangle) in Photoshop Elements. It causes the midtones in the Picasa histogram to shift to the right. Every adjustment you make using sliders on the Tuning tab page should be done to suit your personal tastes. Generally speaking, you aim to have the histogram span the length of the chart, and you use the Fill Light slider to lighten the image if you need it.

Summary: Much has been said about the beauty of using the Levels layer in Photoshop Elements to enhance a picture image. And certainly, there are things you can do with a Levels layer, such as adjusting individual color channels, that you can't do with Picasa. However, Picasa still packs a lot of power to adjust the look and feel of a picture using the sliders under the Tuning tab in the editing portion of the program. It is up to the individual to experiment and compare what she/he can do manually versus using the auto tuning icons. Personally, I prefer the manual approach. Good luck as you try applying Picasa to your pictures.

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