Photo Retouch

In this tutorial we will explore a few simple techniques to improve a digital photo using GIMP. Among other, we will make use of a couple of new features introduced in the new GIMP 2.4, the **Healing Tool** and the **Red Eye Removal** filter.

Not all the steps shown here are necessary, depending on the particular picture you may choose to skip some of them.

We will start with the boring image on the top and get to the shining one on the bottom:
Step 1 – Crop Picture

Do not be afraid to cut out useless parts of the photo. Use the Crop tool and select the part of the photo which is meaningful for the viewer. In this case, it’s the face.

Optional: Here, I activated guides for the Crop Tool using the rule of thirds (located at the bottom of the toolbar) to help me with the selection:

Note: The rule of thirds is a guideline used in the composition of images (painting, photography). According with it, dividing an image in thirds, both horizontally and vertically, will create four points of intersection that can be used to align the image to create more tension, energy, and interest.
Step 2 – Red Eye Removal

If the subject has red eyes, use the Red Eye Removal filter (Filters → Enhance → Red Eye Removal). Zoom in and adjust the slider as needed:

![Red Eye Removal Filter Interface]

**Note:** The best option is to *not need* the red eye removal tool at all. The red eye effect is created by the reflection of the camera’s flash light in the inner part of the eyes so is preferred to avoid using the flash when you can or at least set your camera to "portrait" mode, which will use the flash in a way trying to minimize the red eye effect.
Step 3 – Adjust Levels

Improve the dynamic range of the photo using the Levels dialog (Colors ➔ Levels). If you know how to use the tool, move the black and the white sliders for Input Levels to cover the histogram values and the middle sliders to the left or right if you want to enhance the white or black. If you are not familiar with histograms, the Auto button is your friend. It will help a lot:
Step 4 – Color Curves

You can enhance the photo further by adjusting the Color Curves (Colors → Curves). For a natural image, an "S" curve will do wonders. Of course, you can do a lot more with this tool, make the dark area more or less dark, the bright areas more or less bright or use it to adjust each color channel (red, green or blue).
Step 5 – Healing Tool

Next, correct large skin imperfections (wrinkles, blemishes, pimples) with the Healing Tool. It works like the Clone but it will average the Tool by defining a source and a destination area, values for a smooth result.

Choose a brush size and then zoom in on the area. Hold the CTRL key and click on an area near the blemish. Let go of the CTRL key and then go over the blemish.

Note: It is useful to change the source area (with the Ctrl key pressed) as often as you need, to have the source as similar as possible with the destination.
Step 6 – Unsharp Mask Filter

To enhance the photo details, use the Unsharp Mask filter (Filters → Enhance → Unsharp Mask). Use small values:
Step 7 – Color Balance

The face in this picture is a little too red, so I used the **Color Balance** dialog (**Colors → Color Balance**) to reduce the red a bit. As the opposite of red is cyan, the photo turned somewhat blue, so I then reduced the blue a bit:
Step 8 – Whiten Teeth & Eyes

To whiten teeth or the whites of eyes, use the Free Select Tool (lasso) and choose the Feather edges option (a small value of 5 is enough) so you don't need very precise margins. Finally, select the area to whiten (teeth here, then desaturate (Colors → Hue-Saturation) them a bit:
Step 9 – Quick Mask

The next step is to make the skin smoother but be warned, this is a dangerous tool. Abusing it may destroy your photo.

Turn on the **Quick Mask** (Select ➔ Toggle Quick Mask), and with a black foreground and white background, use the Eraser to remove the red mask covering the skin, while avoiding the mouth, hair, eyes, and eyebrows. If you delete too much, reapply that part of the mask using a brush.
When you're ready, turn off the *Quick Mask* ([Select ➔ Toggle Quick Mask]), and you'll see the skin selected. Use the *Selective Gaussian Blur* ([Filters ➔ Blur ➔ Selective Gaussian Blur]) with small values to smooth the skin:

**Note:** If you use large values for the *Selective Gaussian Blur*, you may get an artificial "plastic" effect. If the photo is very noisy, try a *Selective Gaussian Blur* over the entire photo, but be careful not to destroy the small details and get an even worse "plastic" result.
Step 10 – Add Some Glow

One last and optional step: add some glow to the photo. Duplicate the layer (Layer ➔ Duplicate Layer) and apply some Gaussian Blur (Filters ➔ Blur ➔ Gaussian Blur) to the duplicate.

Also on the duplicate layer, adjust the Color Curves (Colors ➔ Curves) and make the image very bright.
Then set the **Layer Mode** to **Soft Light** (you can play with other modes too for different effects). If you think the effect is too strong, like this, reduce the opacity of the upper layer to tone it down a bit:
Remember what we started with and see what we got as end result, the differences are quite amazing:
Tips and Suggestions:

It's not hard to enhance a photo and you should do it with all those photos you care about, a few small steps can make a difference, and GIMP has all the tools you need for the job. Only take care to not abuse them and get something worse.

Update: here are a few screencast showing an interactive version of some of the steps above:

- Red Eye removal;
- Healing Tool;
- Teeth whitening:
- Selective Gaussian Blur (airbrushing);
- Blur Overlay;
- De-emphasize the background.

Feedback

You can leave comments, complaints, suggestions, praises on my blog.

Many thanks to my friends at OpenArt.ro, www.xdrive.ro and Inovatika for motivating me to write this.

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How-to page

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