

Power Retouche Retouching Suite

How to master saturation with our Photoshop plugin

Now you can raise saturation without fragmenting the image into primaries like red, green and blue. Our saturation editor operates with a full 360° colorwheel. It offers four saturation methods: Achromatic, Chromatic, Photographic and Regular. It lets you saturate different colors independently - and much more...



■ Power Retouche Photoshop plug-ins are also for Paint Shop Pro, Corel Draw, Illustrator, Fireworks and other graphic software or photo software for photo editing, retouching and restoration (Mac & Win) see [list](#)

Saturation plugin - Tutorial

Benefits of the plugin

- Saturate without splitting the image into "primaries"
- Full 360° colorcircle
- Four modes of saturation
- Saturate or desaturate individual colors, levels, etc.

The saturation filter plugin works with these image modes (Windows and Mac)...
8 & 16 bit / channel: RGB, CMYK

saturation filter controls

This is the saturation plug-ins control panel (Mac). Click on the image to enlarge.

The filter has these sets of controls:

1. Mode - achromatic, chromatic, photographic and regular
2. Saturation of all or specific colors
3. Retouch levels
4. Graduated effect
5. Brightness-range
6. Color-range



Example -



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The saturation plugin is a novel approach to saturation. It saturates in the same way as color and light are interrelated in nature.

The saturation plugin gives you full control of saturation. here we desaturated blues and saturated yellows.

What is saturation?

What is saturation

Saturation is the relative intensity of a colors hue. In principle saturation should be a distinct quality free from from other qualities such as the colors brightness, but it is not. For example a fully saturated blue should be darker than a fully saturated yellow. That is what makes saturation so complex.

Other saturation tools do not take this into account, since they operate on the intensity of the RGB cathodes in the monitor, not on the appearance of the photo.

How saturation editor differs from other saturation tools

Saturation Editor defines the percentage of saturation-change relative to the image at hand, not relative to maximum luminance of the RGB cathodes in a monitor as other saturation tools do. This means that with Saturation Editor 100% saturation enhancement might produce more spectacular results in some images than in others. The benefit is, you never ruin the integrity of your image.

SaturationEditor allows oversaturation by expanding the slider to 200%. This is useful since oversaturating in

Photographic mode might only oversaturate a few midtones and leave the rest saturated to a lesser degree than you might want. Remember our 100% is relative to the image in toto and is set as the safest optimal level.

The plugin uses a set of complex algorithms to figure out what would be appropriate 100% for that image. This is based on Munsell colorspace and uses a full spectrum colorcircle as a basis for saturation. Instead of the common misnaming of 100% saturation as a 100% rescaling of RGB luminance values, Saturation Editor scans the image and compares each pixel's saturation with the rest of the image - and in Photographic mode even also compares with the amount of light in the image, that falls on the given object. Saturation Editor then sets 100% to the degree where the image can be saturated the most without compromising any of the above mentioned criteria.

The plug-ins controls

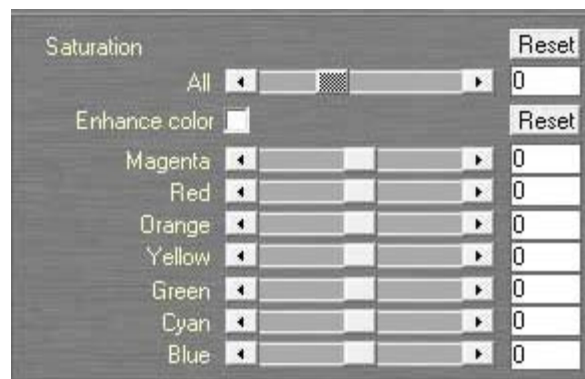
Saturation

The first slider adjusts saturation from -100% (which produces a grayscale-image) to 200%.

The seven other sliders let you adjust saturation for specific colors.

The sliders interact so you can use All to saturate every color and then use for example Red to either avoid saturating reds or to enhance reds further.

The upper Reset button will reset the All slider to 0, the lower Reset button will reset all the individual color sliders to 0.



In the example below we set cyan and blue to -100 and yellow and orange to 100. This turned the background sky grayscale and enhanced the color of the flower.



Original

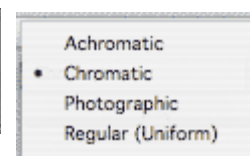


Filtered

The mode control set

Four modes of saturation

The plugin offers four modes of saturation. The slider "Include" is only available for the two modes Chromatic and Achromatic.



Photographic mode saturates the same way color and light are interdependent in nature.

Regular/Uniform saturation will saturate everything evenly.

Chromatic saturation maps the saturation of the original image and preserves its color relationships. Basically strong colors get saturated more than weak colors.

Achromatic saturation will only saturate vaguely colored areas in order to bring out the inherent colors in them. Basically dull colors get saturated more than vivid colors. Be careful with this method if your image has much colored film grain or noise.

As the two modes Chromatic and Achromatic depend on the levels of saturation in the image, it is appropriate for these two methods to have a control for how the levels of saturation in the original will affect the way the plugin saturates various parts of the image. This is the Include slider and it changes the curve for the relationship between the originals level of saturation and the new saturation. Basically the higher the setting of Include, the more will get changed by the plug-in.

The four modes saturate in very different ways.

The image to the right is the original.



Chromatic saturation, 200%



Achromatic saturation, 100%



Photographic saturation, 100%

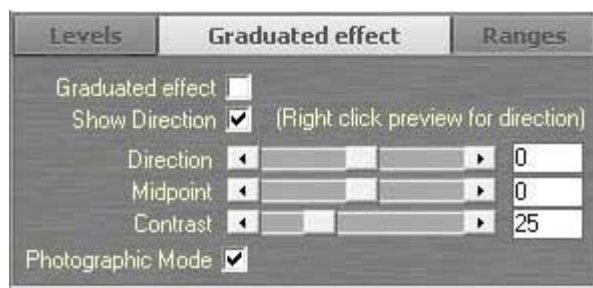


Regular saturation, 100%

Please download the [original tiff image](#) and try for yourself. Test against the saturation tool in any common image editing application to compare. Other saturation tools split the image up into chunks of primary colors (RGB).

Graduated effect

These controls are common for many of the Power Retouche plug-ins. Using graduated effect will cause the filter to apply it's filtering at full strength in one side of the image and then fade the effect out towards the other side. You can change direction by right clicking the preview (Windows) or ctl. clicking (Mac). Midpoint will shift the balance between how large an area will be filtered at full strength and how much will have a faded out effect. Contrast will change the acceleration and spread of the fade-out. Photographic Mode will integrate the effect into the image in a natural way.



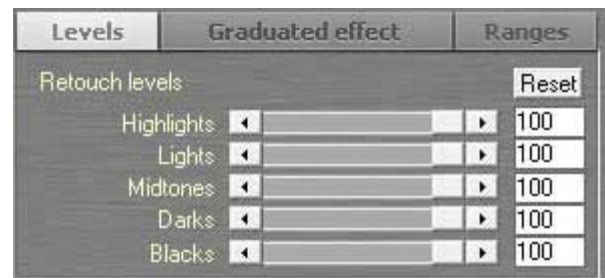
In this example we applied a graduated effect towards the bottom, setting midpoint low. This retouch saturated the foreground without altering the horizon or sky. Thus creating a greater sense of depth.



Retouch levels

Retouch levels are common to most Power Retouche plug-ins.

With these you can control how much the various levels will be changed by the filter.



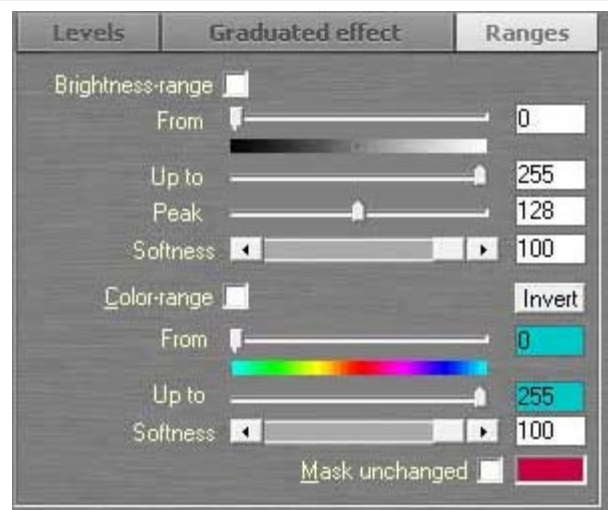
Ranges

These controls are also common to most of the Power Retouche plug-ins.

If you use the brightness range, only areas brighter than "Dark Limit" and darker than "Light Limit" will be changed.

If you use Color-range, then only colors to the right of the "From" slider and to the left of the "Up to" slider will be changed. This also counts if you place the "From" slider to the right of the "Up to" slider. In this way any selection is possible. You can also use both controls to edit a specific color range of a certain brightness, like only the bright blue sky, for example. The Invert button will change the sliders to include everything that was previously excluded.

Mask unchanged will apply the color of the mask to areas outside of the selected ranges. This helps set the range sliders.



Example of brightness range saturation

In this example we used regular saturation mode and targeted the clouds in order to leave the evening sky as it is...

Saturation 100%
Dark limit 126
Light limit 240
Target 240
Softness 100%

Please compare with above examples.



Example of color range saturation

In this example we set From to orange and To to blue, thus selecting the meditating girl. In order to integrate the changes nicely with the original we set Softness to 100%.



Histogram and Colorvalues

Histogram

These controls are common to most of the Power Retouche plug-ins. The displayed histogram will be for the area in the preview. You can choose between individual colorchannels, all colorchannels or luminance.

Pixel data

The colorpicker allows you to pick a point (pixel) in the preview and get some interesting data about it. The d-values tell how much the pixel is changed in percent.

S tells the saturation level of the pixel; dS how much saturation has changed. In the other plug-ins with similar controls the luminance value will be displayed (L and dL) instead of S and dS, but in this plug-in we decided to show saturation.

Since posterization is not an issue with this plug-in, there is no anti-posterization slider.

