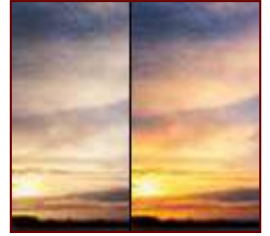


# Power Retouche

correct lens-distortion  
sharpen without artefacts ... & more...  
**Photo-retouching plug-ins**

## How to master saturation with our photo software and 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 two saturation methods: Photo and regular. Photomode correlates saturation of hue with the colors brightness-value and chroma. Regular mode saturates evenly. The example to the right is done in photo mode. At the end of the tutorial we compare with Photoshop.



• 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
- Photomode and regular mode

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

[Tutorial](#)

[Tutorial as pdf](#)

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#### saturation filter controls

This is the saturation plug-ins control panel at one fourth size. Click on the photo or the links to see the plug-in at full size.  
The filter has these sets of controls:

1. Saturation
2. Mode - Photographic or regular
- 3 . Graduated effect
- 4 . Brightness-range
- 5 . Color-range



[See Windows plugin](#)

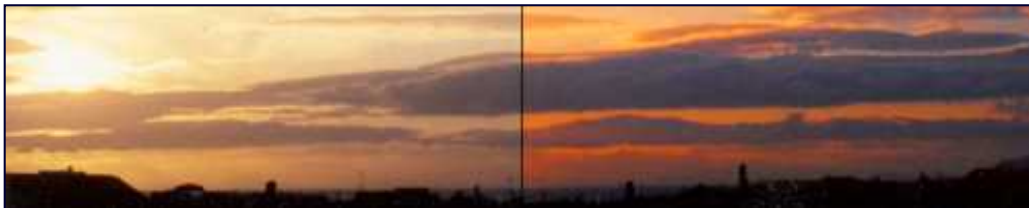
[See Mac plugin](#)

[Download Win plug-ins](#)

[Download Mac plug-ins](#)

[Download tutorials](#)

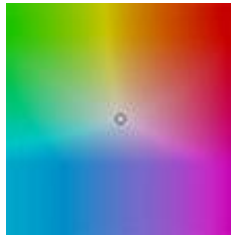
#### Example -



The saturation plugin is a novel approach to saturation. It saturates in the same way as color and light are interrelated in nature. In the example we targeted the orange light and left the shadows unchanged

# The excellence of Power Retouche - saturating with a full colorwheel

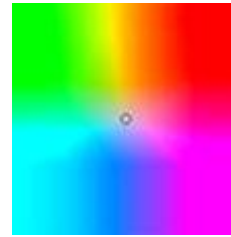
## Example: saturating a colorwheel



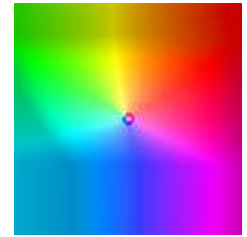
Original image



Photographic mode



Regular mode



Adobe Photoshop

All examples were saturated 100%.

Notice that our Saturation Editor preserves the originals relationship between saturated and unsaturated colors and that our unique photographic mode of saturating does this to the utmost degree.

## What is saturation?

### What is saturation

Saturation is also called "chroma" and it 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-value, but it is not so. A fully saturated blue will 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.

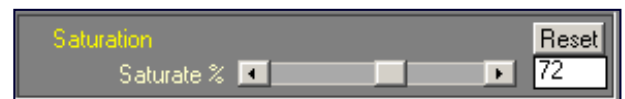
SaturationEditor allows oversaturation by expanding the slider to 200%. This is useful since oversaturating in Photographic mode might only oversaturate fx a few midtones and leave the rest saturated to a lesser degree than you might want. Remember our 100% is relative the image in toto and is set as 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 pixels 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 filter controls

### Saturate %

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



# The mode control set

**Photographic mode**  
&  
**Regular mode**



The two modes saturate in very different ways.

Regular mode saturates everything evenly.

Photographic mode saturates in the same way color and light are interdependent in nature. Thus dark blues can get saturated more than dark yellows, pale blues less than bright yellow, etc. The example below clearly shows the naturalness of photographic saturation.



Photographic saturation, 100%

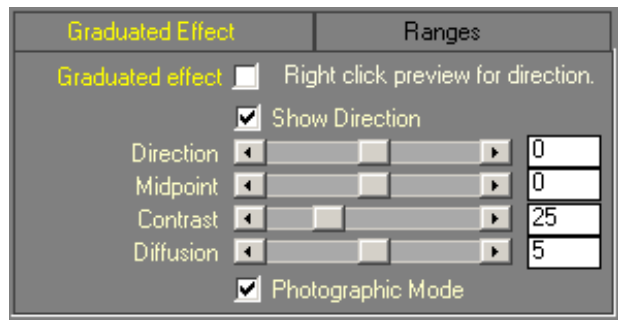


Regular saturation, 100%

Please download the [original tiff image](#) ("Gisli.tif") 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 and invariably brighten those blues, that by nature should be dark and subdued.

## 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. 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.



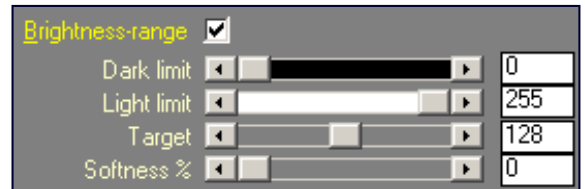
In this example we applied a graduated effect towards the bottom, setting midpoint low. This retouch saturated the foreground, bringing it forward, without altering the horizon or sky.



## The Brightness range control set

These controls are common to most Power retouche plugin filters.

Dark limit - only color brighter than this will be filtered.  
 Light limit - only colors darker than this will be filtered.  
 Target - pixels at this brightness level will be filtered the most.  
 Softness - When set to 0 all pixels in range get filtered equally (in that case softness is functionally at 0). At 100 the effect fades out until its 0 at the limit-values.



### Example of brightness range filtering

In this example we 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.



## The color range control set

### Color range saturation

The color range controls set is also common to most of the Power Retouches.

These are the settings used in the



example...



### Brightness range or color range?

Notice the difference from the targetrange and from the previous examples. The difference between this example and the brightness-range examples stems from the fact that they target different areas of the photo. The brightness-range will target a given brightness, whereas the color-range will target a specific color (at the middle of the two sliders). The way we set the color sliders, we made sure to have the orange colors in the centre so they would be saturated the most.

Even though they both exclude the same area of the photo (the dark blue sky), they produce very different results.

Since this filter is about color, it is more natural to use the color range than the brightness range.