

040b73747265616d747970656481a203840163c48403737373810a0a810b
0b815f5f84012584067f411b312d37OneVision-Image: Reduce Colors

TMSColorReduce.tiff ▸ Reduce Colors

This tool enables you to reduce the number of colors used in 8- or 16-bit RGB, CMYK, and Single Channel (grayscale) images to 2 to 64 colors.

First you have to create a list of colors that the image will use after the reduction. It's easiest to leave this to OneVision. Determine the final number of colors you want with the slider *<Automatic>* and click *<Find>*. The program then searches for the colors most frequently found in the image. Swatches of the found colors are then listed in the rectangle on the right. There you can select particular colors and remove them individually by clicking *<Remove Color>*. Clicking *<Remove All>* removes all colors. Selected colors are also shown in the right color well in the *<Densitometer>* portion of the panel.

You also can create the color list yourself. To do so, you use the *<Densitometer>*, supplied in the *Reduce Color* panel. When moving your mouse cursor within a selected image, the pixel below the position of the mouse cursor is evaluated and its values are displayed. Pressing the *Alternate* key both transfers the color to the color well icon on the right and adds it to the color list field. For detailed information, how to use the densitometer, please read the chapter *<Densitometer>* (`;/../OVDensitometer/OVDensitometer.rtf; ;`).

Hint: If you want to add a color to the list that isn't available in the image itself, you can drag it from any other color well into the color list.

Use Filter

If this option is activated, a filter will be applied to the image after the color reduction, altering the color of single pixels that have no pixel of the same color in their neighborhood to the main color in their vicinity. This option is important if color reduction is used as a first step for converting images to vector graphics.

Observe Image Mask

If this option is activated, the color reduction of masked areas of the image will depend on the strength of the image mask. You shouldn't use this option, if you intend to convert the image to a vector graphic later.

Preview

This command allows you to preview the reduced-color image using a low resolution copy and leaving the original data unchanged. The Densitometer (`../OVDensitometer/OVDensitometer.rtf`;;-) allows you to compare the new and the original colors.

Apply

This command permanently reduces the colors in the original image.

Hints for Reducing Colors

Reducing colors is often used as a first step in converting images to

vector graphics, but colors need not be homogeneous. Screened images may contain patterns (Moirés) after the reduction. In these cases, you should create the color list yourself, setting the matrix size for reading colors to the maximum. Each of the resulting colors used for reduction will now be the average of a 7x7-pixel sample, so they will all be very close to all colors in their matrixes. You should also activate the *<Use Filter>* option. As mentioned above, the filter function changes small areas of unique colors to the color of their neighborhood. For this filter to work well, your image should be scanned at high resolution. This, however, may result in Moiré patterns, so you must find a middle path between preserving details and creating homogeneous color areas.

Another way to avoid Moiré patterns is to apply a mean value filter (`../TMSFilter/TMSFilter.rtf;Mittelwertfilter;↵`) on the image before reducing its colors. After the reduction, a median filter (`../TMSFilter/TMSFilter.rtf;Medianfilter;↵`) might improve the result. Though this works in largely the same way as the built-in filter of the *Reduce Colors* tool, it is more flexible, offering a matrix range of from 3x3 to 11x11 pixels. The impact of the filter should always be 100%, otherwise new colors will be created, complicating the conversion to a vector graphic.