

# Adjusting images

Welcome to Corel PHOTO-PAINT®, a powerful bitmap image-editing application that lets you retouch existing photos or create original graphics.

In this tutorial, you will use the Image Adjustment Lab to make the colors in a photograph more vibrant while also bringing out more detail and adding contrast. Some of these changes are subtle, but the final result is a high-quality photograph that a professional photographer might produce.

You will also use the Image Adjustment Lab to create various photographic effects in an image.

## What you will learn

In this tutorial, you will learn

- to set the color space
- to open an image in the Image Adjustment Lab
- to use the histogram
- to adjust the color and contrast of images
- to create photographic effects



### To set the internal color space

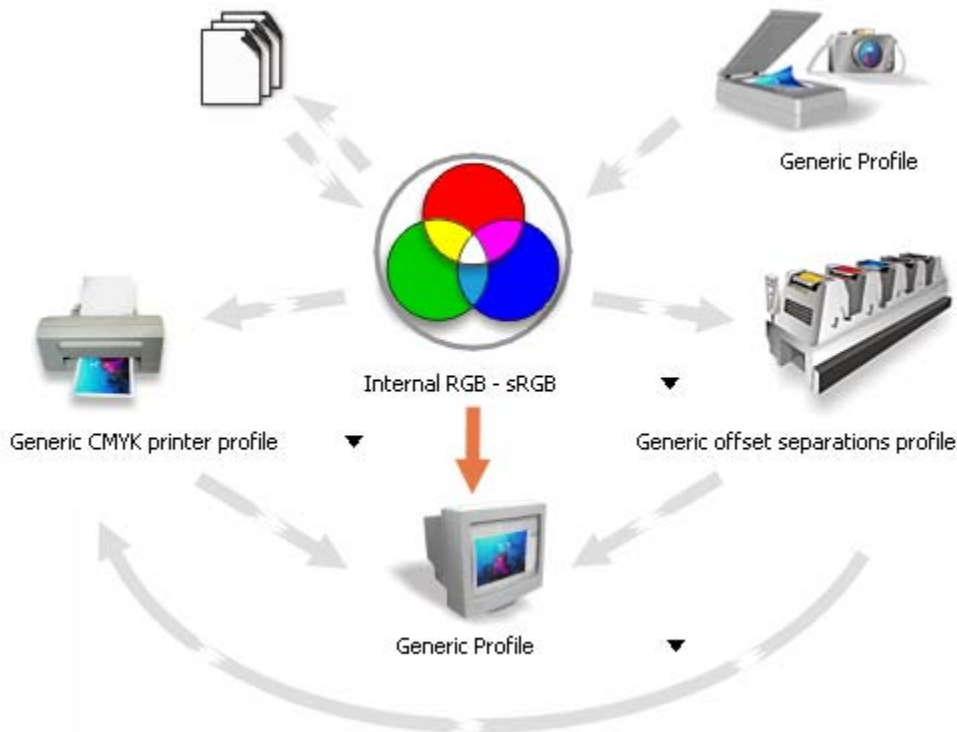
A color management system helps you consistently achieve accurate colors across a variety of devices, such as scanners, digital cameras, and printers. The first stage in setting up your color management system is to choose color profiles for your monitor and each of the devices you use. You will set the internal color space, or the central color space, for the sample image you will be using in this tutorial. The image is in the sRGB color space, so you will set the internal color space to sRGB.

**1** Click **Tools ► Color management**.

**2** Click the down arrow beneath the **Internal RGB** icon , and choose **Internal RGB - sRGB**.






- 3 Next, you will calibrate your monitor to the internal color space. Make sure the arrow pointing from the **Internal RGB** icon  to the **Monitor** icon  is orange. Click all other orange arrows between devices to disable the color profiles. (The arrows appear orange when on, and grayed and broken when off.)



- 4 Click **OK**.

## To open an image in the Image Adjustment Lab

Next, you will open the image in the Image Adjustment Lab, and set up the window so you can easily preview the changes you make.

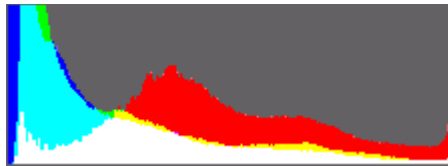
- 1 Click **File ► Open**.
- 2 Choose the folder where Corel PHOTO-PAINT is installed.
- 3 Choose the folder **Program files\Corel\CorelDRAW Graphics X4\Tutorial files**.
- 4 Double-click the filename **flower.tif**.
- 5 Click **Adjust ► Image adjustment lab**.
- 6 Click the **Maximize** button  at the upper-right corner of the window.
- 7 Click the **Before and after full preview** button  at the top of the window.
- 8 Click the **Zoom to fit** button .

## To use the histogram

You can use the histogram to evaluate and adjust the color and tone of an image; for example, a histogram can help you detect hidden detail in a photo that is too dark because of underexposure (a photo taken with insufficient light).

A histogram has a horizontal bar chart that plots the brightness values of the pixels in your image on a scale of 0 (dark) to 255 (light). The left part of the histogram represents the shadows of an image, the middle part represents the midtones, and the right part represents the highlights. The height of the spikes indicates how many pixels are at each brightness level.

In this image, there are white pixels in the shadows (the left side of the histogram), as well as in the highlights (the right side of the histogram), which indicate the presence of image detail in the white and black areas of the image. This means that you don't need to use the white and black point controls on this image. The black point control is used to shift the darkest area of an image to black; using this control will make dark areas in the image much darker. The white point control is used for brightening an area of an image; using this control will cause the lighter areas of the image to appear "blown out."



## To adjust the color and contrast of images

The picture below was taken outside in the daylight, which gives it a naturally "warm" lighting.

You can correct color casts in an image. Color casts are typically caused by the lighting conditions when a photo is taken, and they can be influenced by the processor in your digital camera or scanner.

You will "cool" the highlights to correct color casts in the image by adjusting the Temperature slider. Lower values correspond to low lighting conditions, such as candlelight or light from an incandescent light bulb; these conditions cause an orange cast. Higher values correspond to intense lighting conditions, such as sunlight; these conditions cause a blue cast.

Then, you will adjust the tint, midtones, and highlights to achieve the final effect.

The **Hints** area in the Image Adjustment Lab gives you more information about the current tool or control you are using.

As you work, click the **Create snapshot** button after each step to see your progress and compare changes.



- 1 In the Image Adjustment Lab, move the **Temperature** slider to **5725**.



- 2 Cooling the temperature has removed the orange cast from the image. You can fine-tune the image by adjusting the tint. The **Tint** slider lets you enhance the green in the image by adjusting the Green/Magenta balance. When you increase the value, you add more green to the image.
- 3 To restore the warm color, move the **Tint** slider to **23**.



- 4 To bring out more detail in the image, move the **Midtones** slider to **36**.

Unlike the Brightness and Contrast controls, which adjust the overall image, the Highlight, Shadow, and Midtone controls target specific areas of the image.



- 5 To brighten the entire image, move the **Brightness** slider to **10**.





- 6 Compare your final image with the original. The colors are now more vibrant, without losing their tone or becoming oversaturated. There is also more contrast, which makes the details more pronounced.

## From here . . .

You can explore Corel PHOTO-PAINT on your own, or you can learn more by completing other CorelTUTOR™ tutorials.

For more information about the topics and tools discussed in this tutorial, refer to the Help. To access Corel PHOTO-PAINT Help, click **Help ► Help topics**.

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