# DIGITAL DIRECTIONS

Color negative image

This black and white image was created with the grayscale mode command.

This black and white image was created with the channel mixer menu, below. The menu has the ability to mix red, green, and blue channels with sliders. The final result is visible on the screen before you apply the effect.

This image was converted using the B/W conversion plug-in filter from "nik Color EfexPro." The menu can adjust brightsness, filter strength, and spectrum.
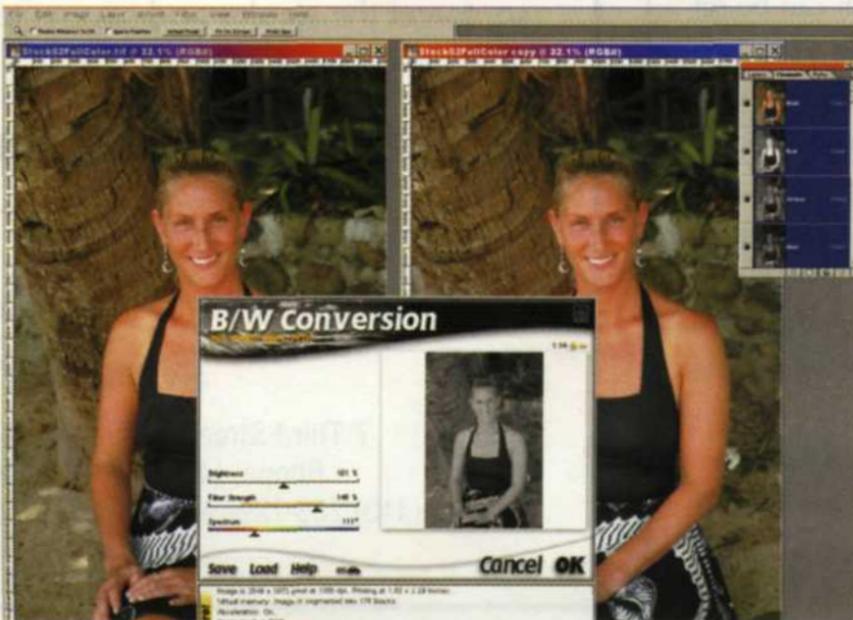
Full color image taken on color negative film

B/W image created with desaturate command

B/W image created with B/W conversion filter using the old time settings

Converting **COLOR** to **Black** and White

Jack and Sue Drafahl

One of the most basic tasks in image editing is the conversion of color images to black and white. The process is as simple as pressing the grayscale button, right? Well, maybe not, for when we delve further into this problem, we find that it might not be as simple as it sounds. It all depends on the intended use of the black and white image and the combinations of red, green and blue in the original image.

MORE BLACK AND WHITE conversions offered in basic image editing programs use the green channel to modify the gamma curve. In Photoshop, this function is found in the Image > Mode pull-down menu, and uses the convert to grayscale command. Often this function will provide the proper modification, but if your original photo has unusual color combinations or people in the image, you will have to dig a little deeper into your editing toolbag.

In order to achieve the right black and white conversion in these situations, you will have to try a couple of methods featured in the more advanced editing programs.

We will use Adobe Photoshop as our model for this discussion, but other programs such as Corel Painter 10 and Canvas 8 have similar commands and menus. The problem is that there is no clear cut correction method, but rather it is accomplished by trial and error. So, let's give it a try.

Convert to Grayscale

This is the most basic method for converting to black and white. Open the color image to be converted, go to the Image > Mode > Grayscale command, and you magically have a black and white image. Often, this conversion will result in muddy mid-tones, but you can tweak it a bit more using the histogram found in the Image > Adjust > Levels menu.

By sliding the middle slider (midtones)
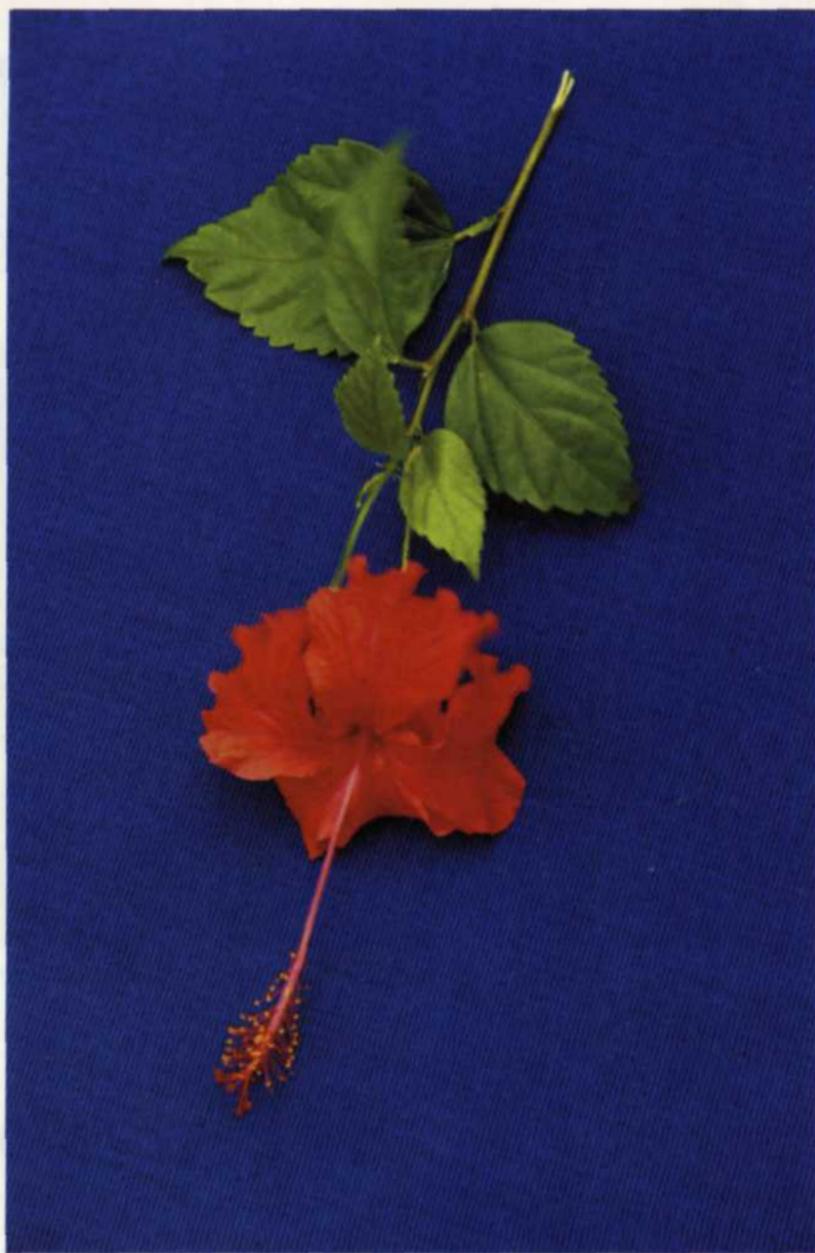
This month's front cover features a full color negative image of a red, green and blue subject. The comparison of the full color image with the b/w image is created from: top right, red channel; center right, green channel; bottom right, blue channel.
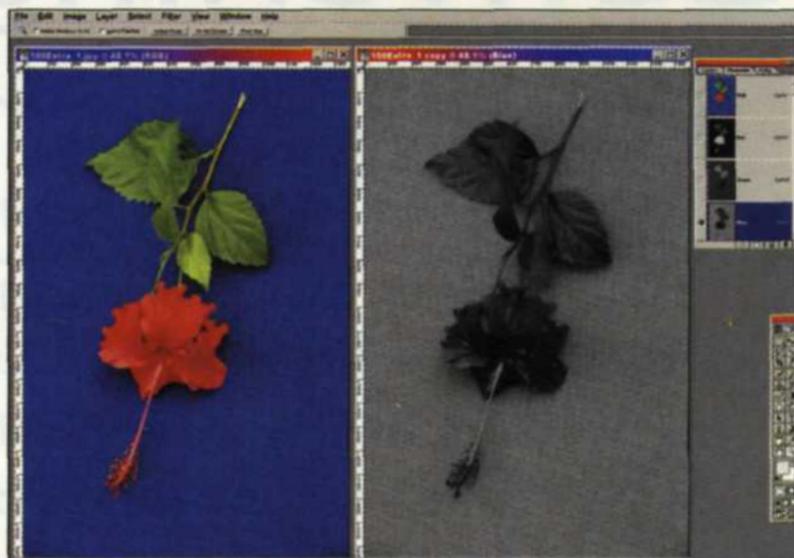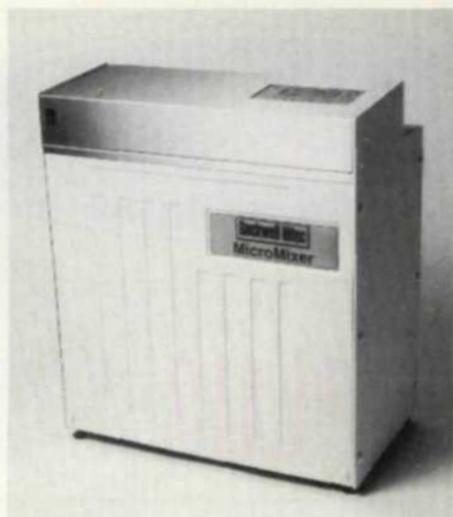
in the histogram to the left, and the left slider (shadow) a little to the right, it cleans up the conversion and gives it more sparkle. DeSaturate The DeSaturate command can be found at the Image > Adjust > DeSaturate pulldown menu. When you apply this command, the color saturation levels of the red, green, and blue channels are reduced to 0. This comes in handy if you are mixing a lot of RGB color photos with black and white and need to keep all images in the RGB mode.

You can also use the Image > Adjust > Levels to slightly adjust the colors, and

provide a sepia or monochromatic color cast to the black and white image. Color Channels More dramatic black and white variations can be accomplished using the color channels menu.

Using the Windows > Show Channels pulldown menu you will see the RGB color image at the top and black and white images below that represent the red, green, and blue components. By selecting the appropriate channel thumbnail image, which in most cases is the red and green channels, you will see which results provides the most desirable black and white

conversion. Rarely would you use the blue channel, as most of its images become dark and muddy. Once you find one of the channels is close, you can make the final adjustments using the Image > Adjust > Variations menu. You also have the option of going to the Image > Adjust > Levels menu and tweaking the midtones and shadows using the histogram sliders. Often portrait flesh that converted well with the red channel, will need some adjustments using the histogram. Then convert it to grayscale using the Image > Mode pulldown menu and

you will be asked to discard the remaining unused channels.

You can also create some very stark black and white conversions when a color image features very pure red, green, and/or blue channels. We used our sample image of a red rose with green leaves on a blue background and made three black and white conversions using the channels command.

The red conversion resulted in an off-white flower, dark green leaves, and a black background. The green conversion resulted in an off-black flower, gray leaves, and a very dark gray background. The blue conversion resulted in a black flower, dark gray leaves, and a light gray background. None of these conversions may suite your fancy, but they do show the extreme conversion range.

Another method for using color channels is with the Image > Adjust > Channel Mixer pulldown menu. If you check the monochrome box at the bottom of the menu, you have the option of mixing a percentage of each color channel in the final black and white conversion.

The default is at 100% red, 0% green, and 0% blue. Using the percentage sliders, you can make unending black and white combinations with these channels.

Best of all, each adjustment is immediately visible on your editing screen. When you see one you like, say OK, and you immediately have a black and white RGB image. You can convert this image to grayscale and make midtone or shadow adjustments using the levels editor.

Photoshop Plug-in Filters

If you have a black and white plug-in conversion filter, such as the one found in nik Color Efex Pro, you can tweak black and white conversions to perfection. Simply load your color image, then go to Filter > nik Color Efex Pro pulldown menu, and select the black and white conversion command. This menu will display a thumbnail of the image in black and white, and sliders to adjust Brightness, Filter Strength, and Spectrum.

This plug-in filter works the same as if your were using colored filters on your camera lens with black and white film in your camera. The difference is that you can control the intensity and hue of the filter, as well as the brightness of the final image.

You have literally millions of possible combinations with this filter and each slider change provides an immediate visual change to the thumbnail image. There is even a feature that allows you to magnify a portion of the thumbnail image if you need to see detail in a specific area.

When you have a satisfactory black and white conversion, simply say OK to apply the black and white conversion to the main image. We really like the control this filter provides, and recommend that you start with 130% brightness, 100% filter strength, and the hue set somewhere near orange. This filter also has a Color Stylizer function that allows you to create black

and white images with slide monochromatic hues such as sepia or blue tone.

The Old Photo command enables you to select a specific color channel or even all three, and change contrast, monochromatic warm or cold hue, paper color, brightness, and even add grain to enhance the old time black and white effect.

Calculations

One of the more complex methods for black and white conversions uses the Image > Calculations pulldown menu. You should only use this menu if you have proficient knowledge of channels, layers and the Calculations menu. This method allows you to combine two channels, layers, or a combination of each using a variety of opacity settings, and more than a dozen blending methods.

You can even invert one channel or layer for some very unusual black and

white effects. The combinations for black and white conversion are endless. The problem is that this is a more complex system and we highly recommend using the help command before attempting your first conversion.

Bottom Line

By now, it should be obvious that there is no one clear-cut way to convert color to black and white. The method you select will often depend upon what your client needs as an end product. Remember, to speed up the conversion process, make a macro or action filter for future jobs. This allows you to see the conversions quickly and if one method doesn't yield the desired results, simply undo or step backwards and try another. ●

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