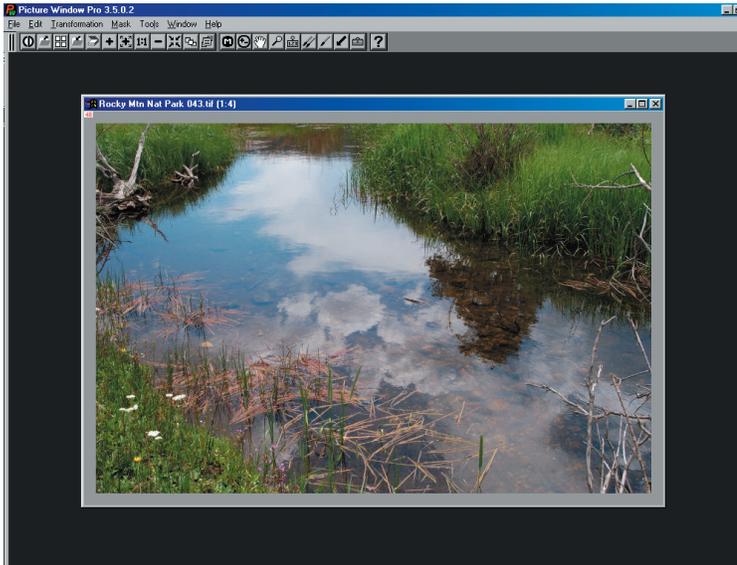


Editing Selected Areas- Part I

By Dennis Wilkins

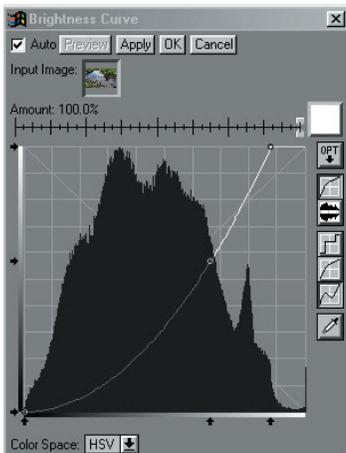
With Picture Window Pro many transformations and tools may be applied selectively to parts of an image using masks. Masks provide amazing control, as we will see.

We will start with a typical situation. Hiking in the outdoors, you can observe many beautiful natural scenes, but what you perceive with your eyes, and maybe a good pair of sunglasses, may not be possible to capture directly with a camera. The scene below was photographed in Colorado's Rocky Mountains on a partly cloudy summer day. The scene caught my eye because the intensity of the reflected clouds in the water contrasted nicely to the soft grasses.



The composition includes what I wanted, so no cropping was required. However, as you can see in the original download above, the clouds are not very impressive. It's not what I saw when I was making the photograph. The dynamic range required to capture the clouds, grasses and flowers has compressed the clouds into a flat, dull image. The first thought one might have is to increase the contrast. This can be done with Picture Window using several tools, but the most comprehensive control is obtained using the **Brightness Curve** in the Gray Transformation.

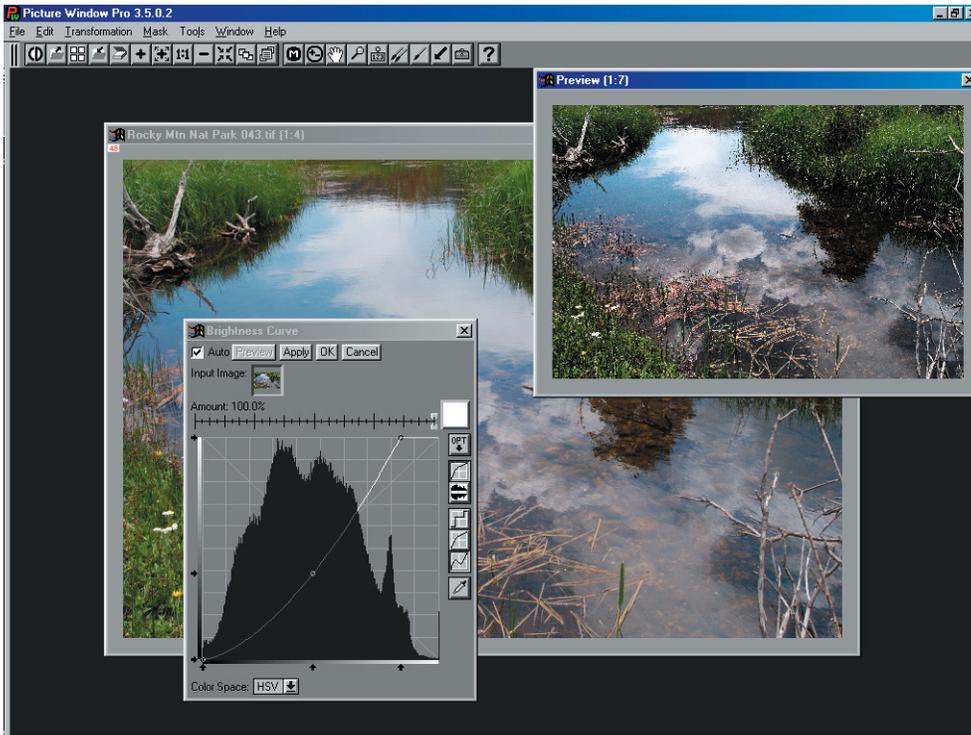
The **Brightness Curve** tool can be applied to an entire image or to a selected portion of an image by using a mask. The window on the left shows a curve applied to a whole image (the small white box on the right of the Amount sliders shows what mask is being used – in this case there is no mask selected). The lumpy figure in the window is a histogram of tones in the image, from black on the left side to white on the right side. The histogram shows the relative amount of the image in any tonal range. In this case, the middle tone areas are most predominant, and there are tones from black to white, with only very small “near-white” areas.



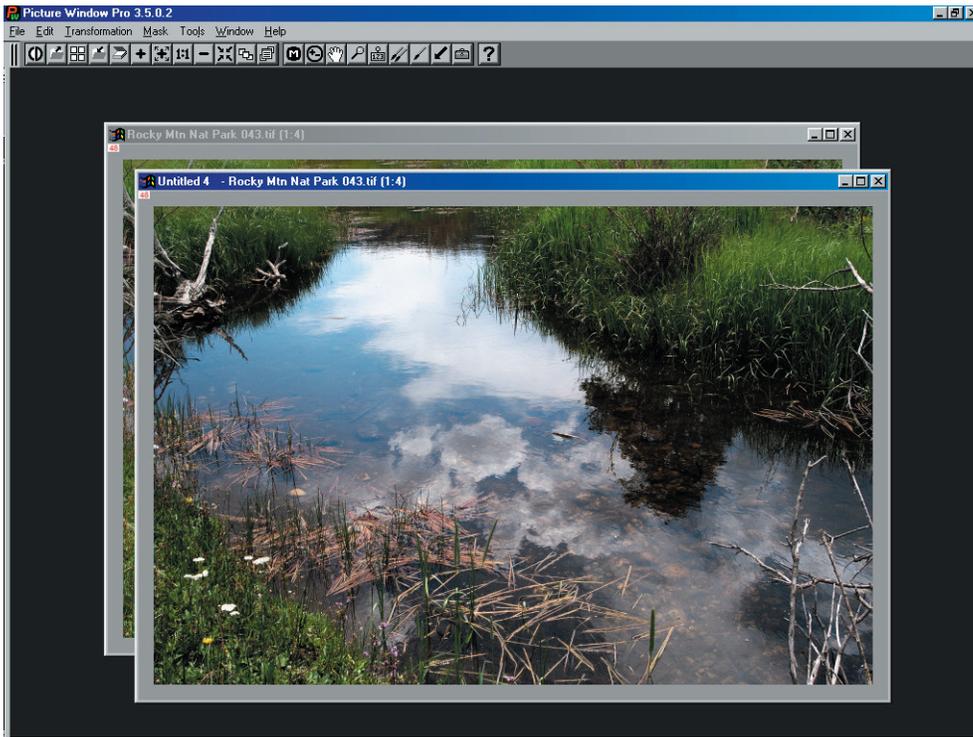
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The **Brightness Curve** enables you to move any tonal level of an image to another level, up or down. To increase contrast, you need to increase the slope of the brightness curve line. Moving the lower left corner of the transformation line to the right, and/or moving the upper right corner to the left can do this. Using this linear change causes dark areas to get darker (and possibly go totally black), and light areas to get lighter (and possibly go totally white).

The transformation line can also be curved by “shift-clicking” anywhere on the line, which will put a small circle on the line. This circle can be dragged up or down causing the line to bow into a curve. In fact, you can create several such “anchor points” on the transformation line, and curve a single response both up and down. Below the **Brightness Curve** tool is applied to the entire image.



The control curve on the **Brightness Curve** transformation (bowed down near the middle) has the desired effect of increasing contrast in the mid-tones. In addition, the upper right of the transformation line has been shifted left to increase the brightness of lighter tones. An image will be made lighter if the curve you create is above a straight line from the lower left to upper right corners. An image will be made darker if the curve you create is below a straight line from the lower left to upper right corners. In this case, all low and mid-tones are darkened while the lighter tones are lightened. The result, however, is not what I wanted . . .

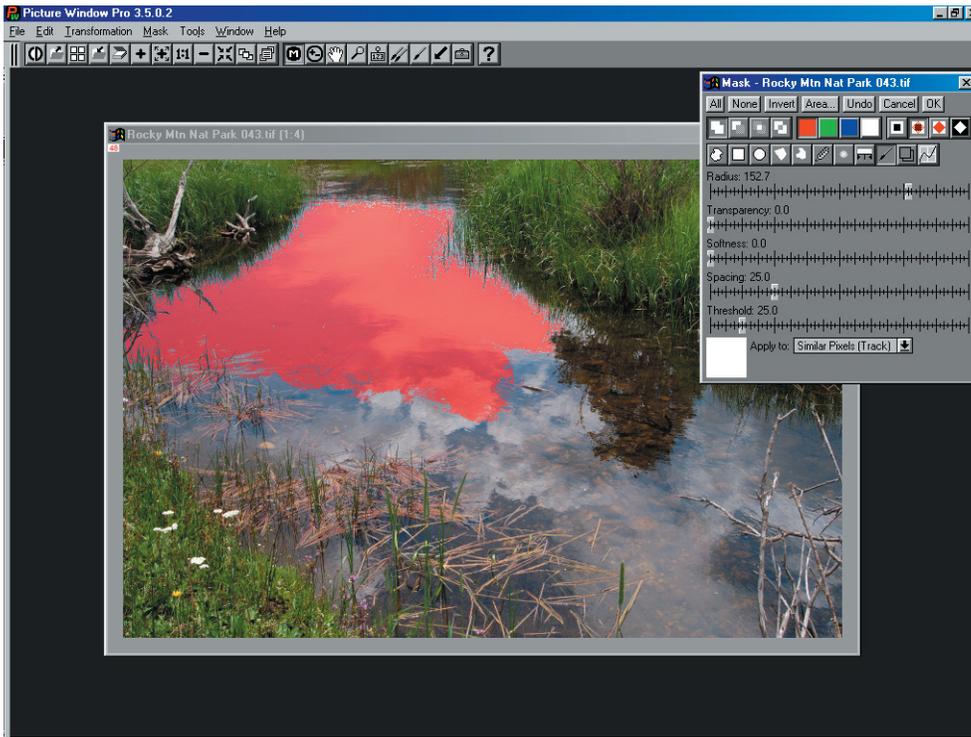


The clouds near the center have more “pop”, but we’ve lost the darker areas, the grasses look dull, the almost white flowers have been “blown out” to totally white, and we have a harsh, unpleasant image overall. Obviously just increasing the contrast is not the answer.

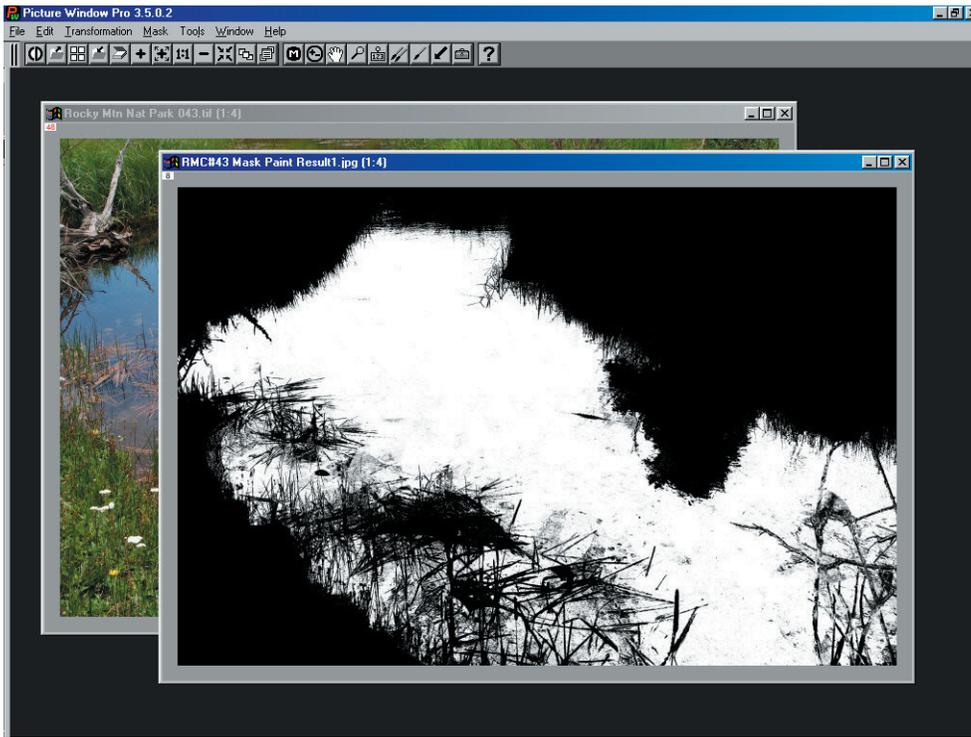
In my darkroom days, I might have approached this by “burning in” the cloud area while leaving the rest of the picture alone. In B&W printing, I might have even combined the use of “masks” with variable-contrast paper and increased the contrast of the central cloud area. This would have required two “masks”, usually cut out of opaque paper, one to expose the clouds and shield the rest of the image, another to shield the clouds and expose everything else. It was a very tedious and slow process, and it was impossible to reproduce the same effect twice.

With Picture Window Pro, masks are extremely versatile. They can be as precise as a pixel, or can be soft and blurry. They enable you to control about any quality of an image: brightness, contrast, saturation, color-balance, sharpness, blurring, etc. Moreover, you can save the results digitally to use as many times as you want.

In this case, the first thing we need to do is select the water portion of this image precisely from the surrounding grasses. There are several ways to do this. The resulting mask image should have one “polarity” of the mask (black or white) coincident with the water surface and the other (white or black) covering all the surrounding area. I choose to use the Picture Window Pro **Paint** function in the Mask tool set. This is the best tool for precisely creating a mask on an image with fine details.

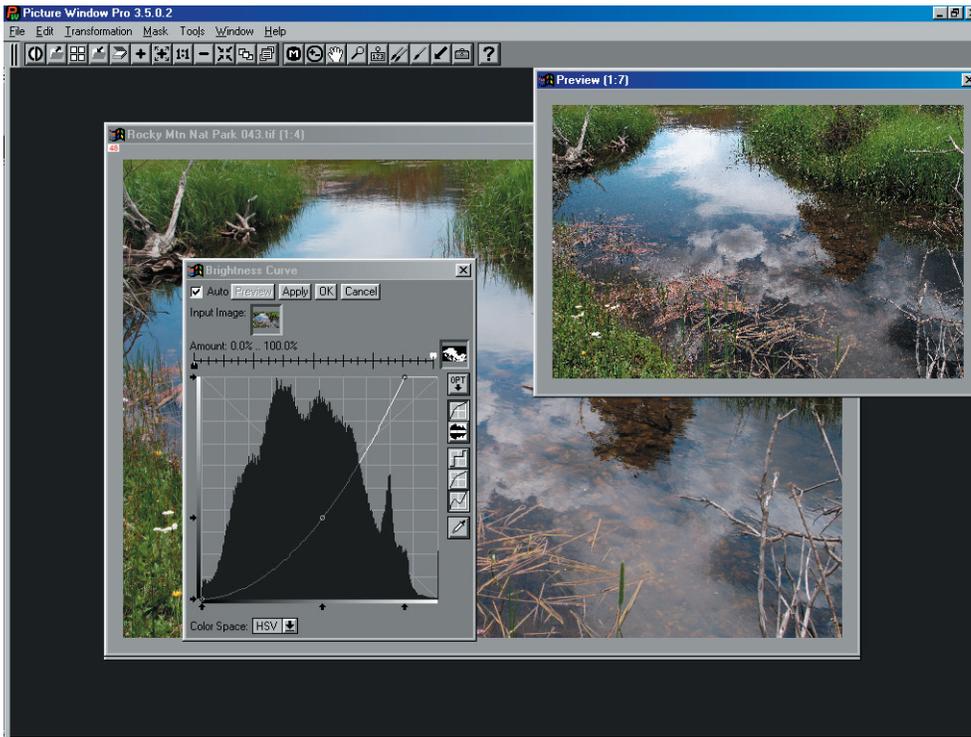


The image above shows the start of using the **Paint** tool to isolate the water and reflected sky area. It is a very fast method, much faster than programs that require creating an outline around an area. The Radius can be set large (about 150 pixels in this case), Transparency should be set to zero, Softness set to zero or left a little “fuzzy” at the edges, and using “Similar Pixels (Track)” let’s you move the paint brush around quickly and capture changing colors and densities. It’s best to paint a small area, then release the left mouse button, and paint another area. This way, if you find you are painting into a region you don’t want masked, you can use **Undo** in the mask window to undo that last step. Once the area you want is masked in this way, clicking **OK** creates the mask image:



Here I have renamed and saved the mask so I can use it again if needed. You can edit this image just like any B&W image, painting in areas if you need to change the mask. In this case, I was able to keep light areas in the surrounding grass from being selected by not “painting” over those areas. However, if there had been some white showing up in the resulting mask, I could use the normal Paint tool to clean them up directly in this mask image.

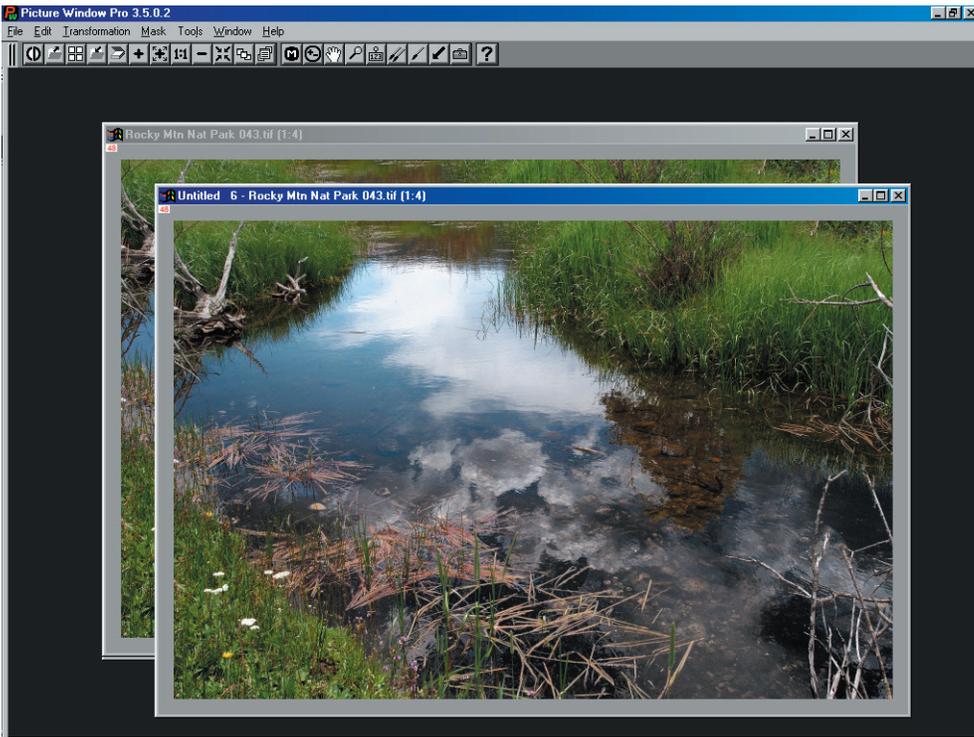
Using the original image and this mask together enables changing the contrast and density in the water/cloud area without affecting the surrounding areas:



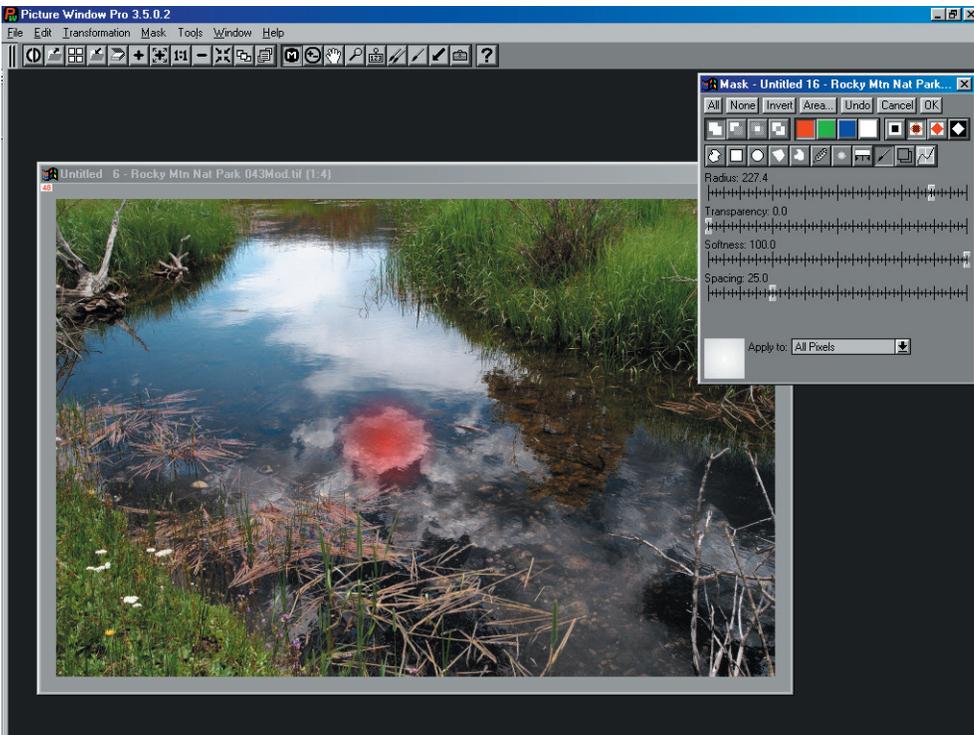
Above is shown the application of a **Brightness Curve** transformation to the image through the mask just made. Note the mask image is selected in the little box to the right of the **Amount** sliders. When an amount mask is chosen, the slider scale shows two “knobs”, one black, one white. The setting of the black slider will be applied to the image “under” the black part of the mask, and the setting of the white slider applied to the image “under” the white part of the mask. The resulting image can be seen above in the preview window. The settings can be changed and the results observed immediately if the “**Auto**” preview box in the upper left corner is checked.

Note that a mask may be a continuous tone image, rather than just black and white. If the mask is a continuous tone image, the image under the gray levels between black and white will be transformed at amounts between the settings of the black and white sliders. This enables some powerful effects to be applied.

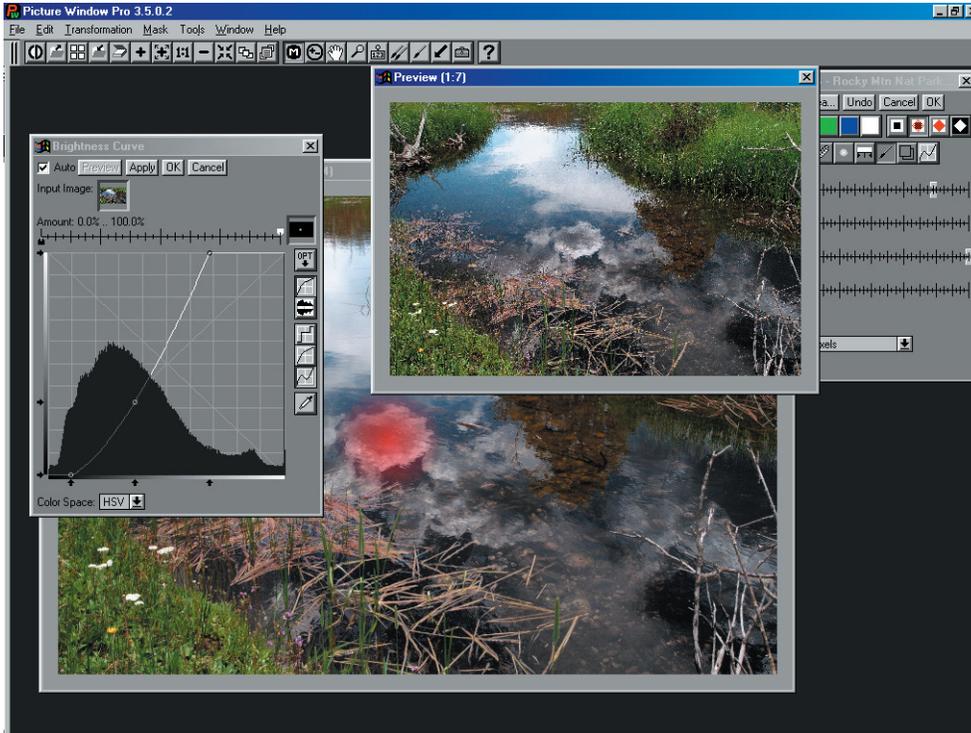
When the settings are as desired, clicking **OK** will open a new window with the resulting transformed image, as shown below:



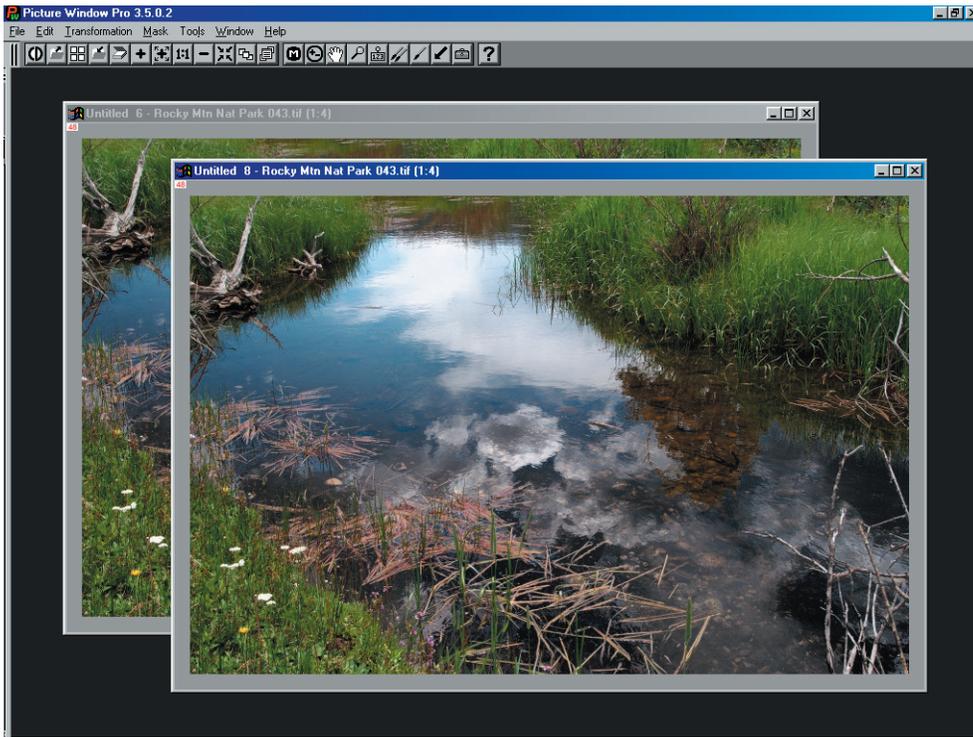
The image is beginning to look more like what I saw when I made the photograph, but there are still two changes to make: first, when I saw this scene the central cloud had the sun behind it and was brighter looking than it looks here. I couldn't use a more aggressive **Brightness Curve** in the last step because the clouds near the top of the picture would start to "burn out" (they would end up a mass of white with no detail). Therefore, what we need here is . . . another mask! This is a simple one . . . just a round soft mask centered on that cloud.



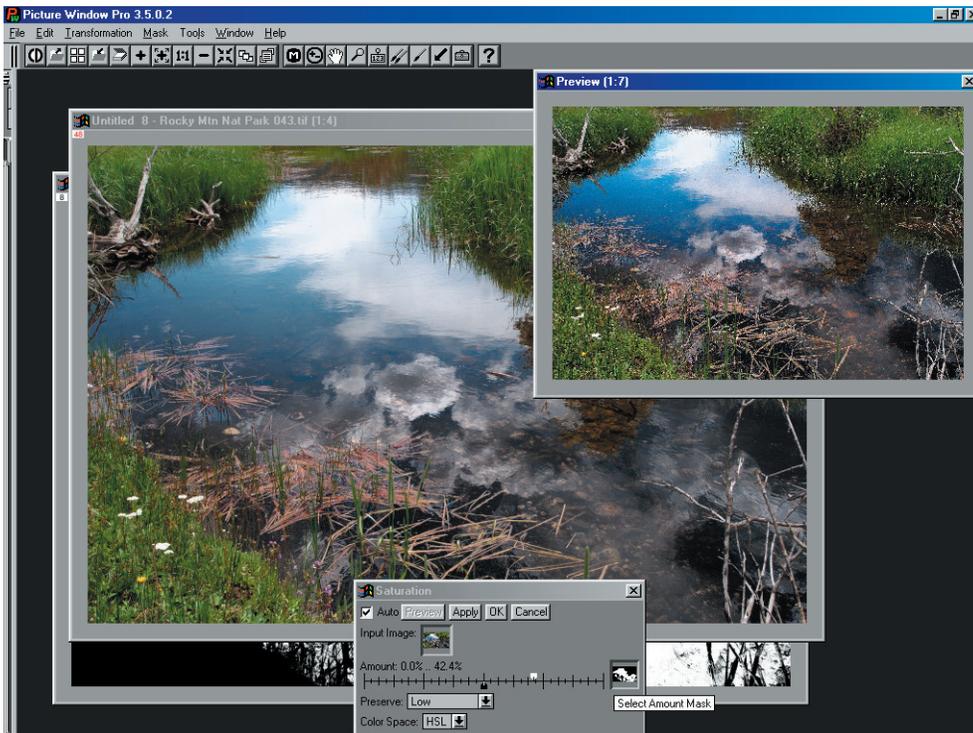
Here I've used the **Paint** tool in the **Mask** window with a radius of about 127 pixels (it will go as high as 400 pixels) and 100% softness so the center is dense and it fades towards the edges. This is not a complex mask, and I don't think we will need it again, so rather than save it, let's just use it directly to control a strong contrast change to the cloud.



Here we've opened up the **Brightness Curve** transformation while the mask creation window is still open, and we see the little mask window in the Brightness Curve box (just right of the Amount sliders) is mostly black with a little white dot near the center – that dot is where our mask is located. The white slider is at 100% and the black at 0%, so any curve change we apply will affect the center of our mask most, and fade towards the edges of the mask. This is what we want. I have applied a strong curve, pulling the top of the curve to the left three divisions on the histogram scale and bowing the center down. The results can be seen in the preview window, and on clicking **OK** in the **Brightness Curve** window, a new image will be created with the change . . .

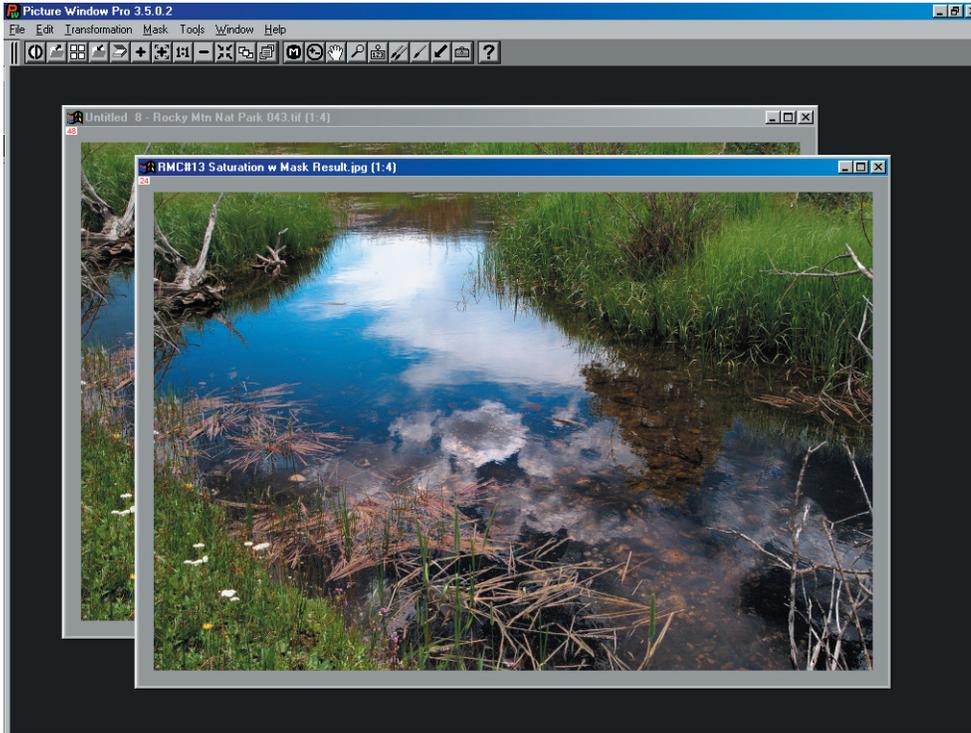


This is looking more like I remember the scene, except the sky . . . the color in the sky is not as deep as I remember. This was up in the Rocky Mountains at an elevation of over 8,000 feet. The sky was *deep* blue. However, the grasses look about right, so I need to use a mask again to selectively adjust the intensity of the sky reflection without increasing the saturation of the grasses. The first mask we made can be used to do this:



The image above shows the “water” mask used with a **Color Saturation** transform. In this case I wanted to increase saturation in the sky, but not in the grass. So only the white slider has been moved up, to about 42%. The black slider was left at zero. I also set “**Preserve Low**” to keep from increasing saturation of the lowest tones. You could also decrease saturation with this transformation, even all the way to a B&W image if you wished. This could be used to create a special-effect image with color in one part of the image and B&W in the rest of the image.

When the transformation adjustments are set, click **OK** and a new window will be created with the modified image . . . the resulting image reminds me of first hiking up the trail to this bend in a small stream, and seeing the wonderful reflection of the sky:



Masks in Picture Window Pro can accomplish a lot more than I ever could in a darkroom. Creative use of the tools in Picture Window Pro enables a photographer to transform the basic images captured by a camera into the photographer’s vision of the world.