
Text Effects



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Introduction

Picture Window can combine text and images in many interesting ways. This document describes techniques for creating a variety of special effects using text, including how to distort text, how to emboss text into an image, and how to fill text with a pattern. Many of these techniques can be used with other high contrast images as well as with text.

The First Step: Creating a Text Image

You can apply text directly to an image using the Text transformation, but this method gives you relatively little control over how the text looks. The first step to creating more interesting text effects is to create a black and white image containing just the text. This image can then be manipulated directly and/or used as a mask.

If you want to apply text to a base image, the best plan is to create a text image of the same size as the base image which is white where the text will appear and black everywhere else. If you just want to create an image (say for a sign) that has a solid or textured background (rather than a photograph), then start by creating a background image of the desired dimensions and resolution using File New.

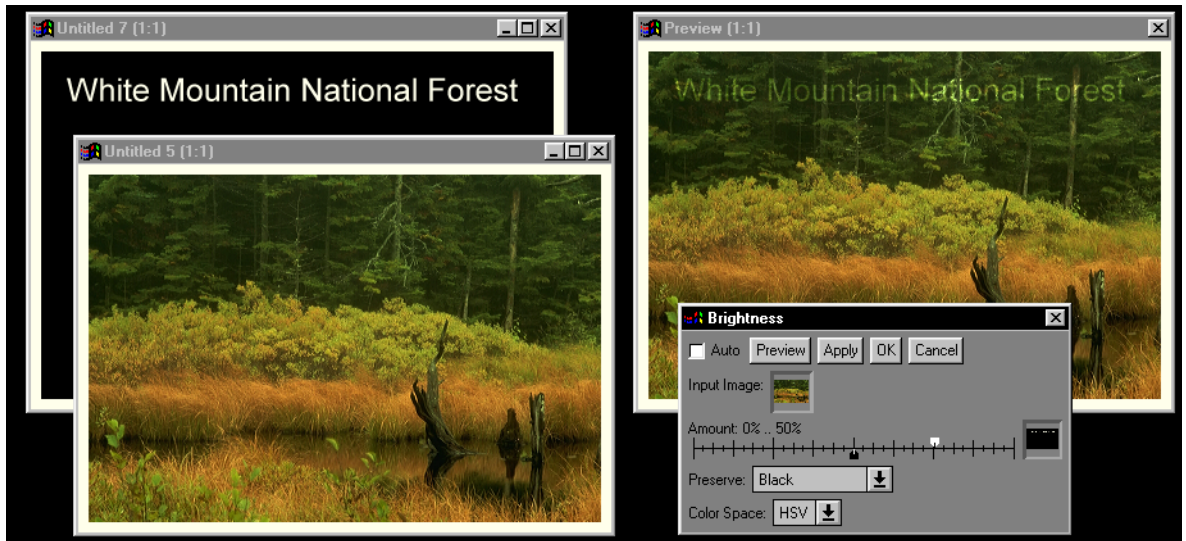
Once you have a background image, click on its window to select it and then start up the Text transformation. Set the text color to white and make the background transparent and black. Enter the text and position it by dragging the alignment point displayed over the input image and using the Preview button to see how the text will look over the base image. You can also adjust the font size, style, justification, and font at this time. When you have the text looking just the way you want it, change the background to opaque and make sure the background rectangle is covering the entire input image. Then click OK to create the text image. This should leave you with an image whose size is the same as the background image that is white where the text goes and black everywhere else.



Using Text as a Mask

One of the ways to use a text image is as a mask for the background image. Here are some simple examples of what you can do:

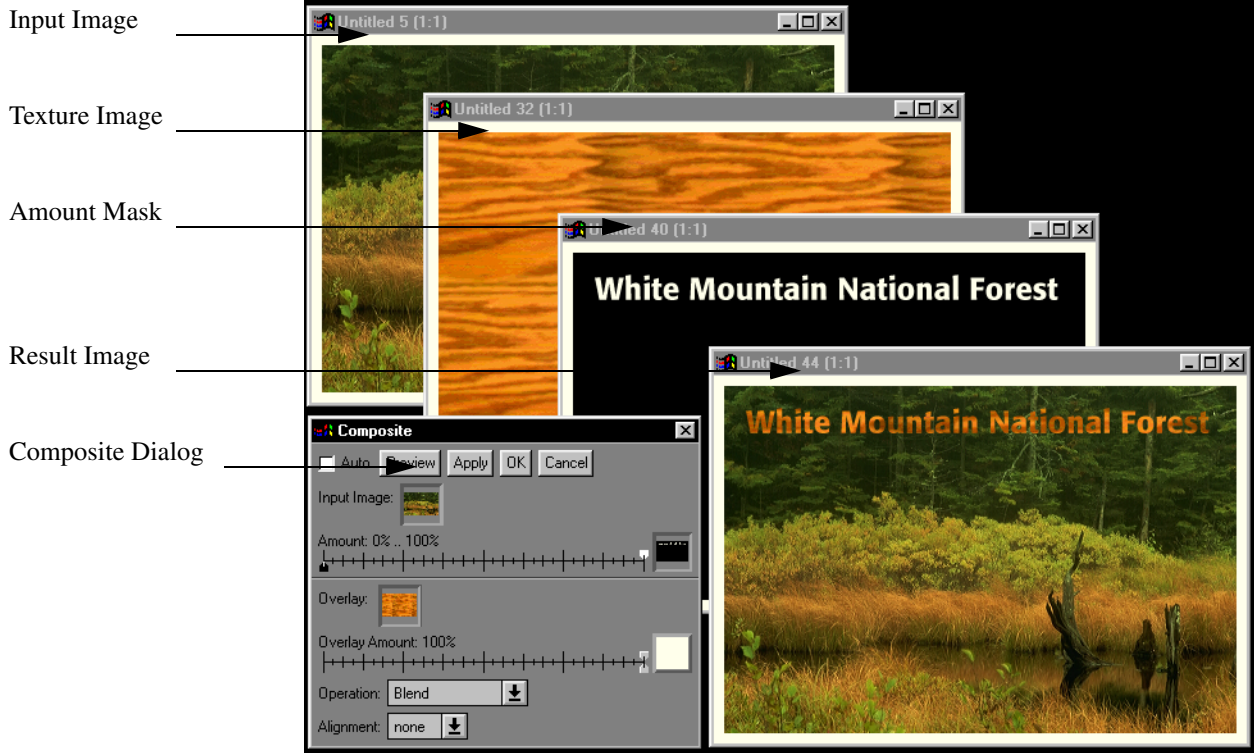
You can use a text mask with the Brightness transformation to lighten or darken the parts of the background image where the text is located:



The Brightness transformation was used to create this example. The text image was selected as the Amount mask and the white slider was moved to +50%, thus making the background image 50% brighter where the text is located. In a similar fashion, you can use the mask with the Filter or Color Balance transformations to change the color of the background image where the text is located.

Filling Text with an Image

You can use the Composite transformation to place text over a background image and fill the text with a texture contained in a third image. The basic idea is to overlay the base image with the texture image and use the text as a mask to make the texture image opaque where the text is located and transparent everywhere else:



To create this example, a clipart image of a piece of wood was first tiled and then cropped to match the dimensions as the background photograph. Then, applying the Composite transformation to the background image, the text image was selected as the Amount mask and the wood image as the Overlay image. Clicking OK produced the result shown in the lower right corner which illustrates how to place wood-grained type over an image.

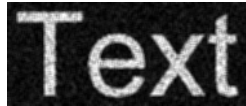
Creating text with ragged edges

To create text with ragged edges, try the following technique:

1) Use the Add Noise transformation to add graininess to the text image. The more noise you add, the more distorted the text will become.



2) Use the Blur transformation to smooth out the grain introduced by the Add Noise transformation. The more you blur, the smoother the edges will be. For greater blurring, use the Gaussian blur method and set the Radius slider to a larger value.



3) Use the High Contrast transformation to make the edges crisp again. The net result is text with an eroded or distressed look.



Rotating or Warping Text

You can use the Warp transformation to rotate text or create perspective effects. The Warp transformation may make the text a little blurry where it is magnified and a little jagged where it is reduced (see the discussion of resolution and antialiasing below).



Distorting Text

You can also use the Spiral, Kaleidoscope, or Displace transformations to alter text in other imaginative ways.



Spiral



Kaleidoscope



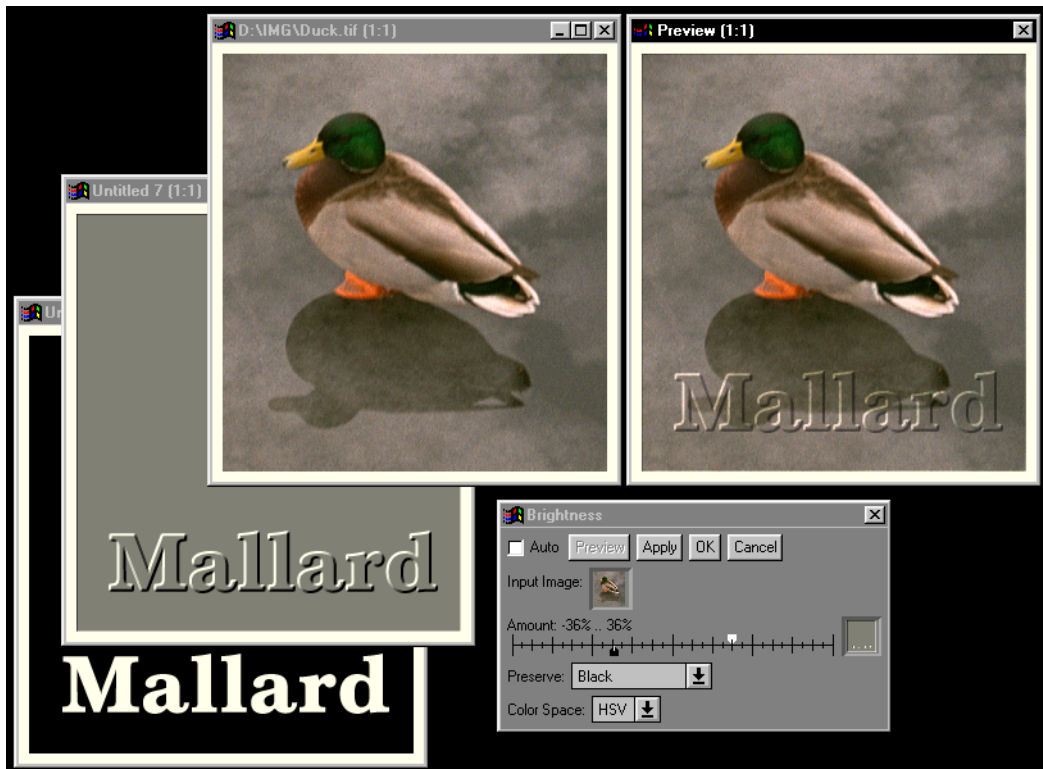
Displace

Embossing Text

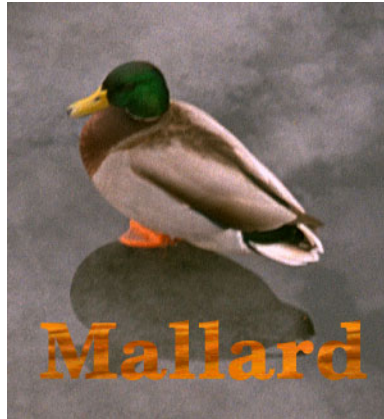
Embossed text has a certain elegant, engraved look that can be very appealing. The first step is to create a text image as described above. Then use the Emboss transformation to emboss the text. Adjust the Radius and Height settings to create the desired bevel on the edge of the text and set the Angle to control the direction of the apparent light source.



Finally use the embossed text image as a mask with the Brightness transformation and adjust the black and white sliders to emboss the text into the image.



If, prior to embossing, you apply text to the image using the technique described above, you can achieve additional effects like the following (shown before and after embossing):



Making Text Glow

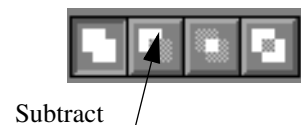
The trick to creating the effect of glowing text is to create a second text image that is feathered outward from the original text image. This creates a new mask image that defines a halo around the text and which can be used to add a glowing outline around each letter.

1) To create a halo around the characters in a text image, start by making a copy of the text image (Transformation/Geometry/Copy). Next apply the copy to the original as a mask layer. This is done by clicking on the original text image to select it and then clicking on Mask in the main menu. The submenu that drops down should include the name of the copy of the text image. Select this copy to make it a mask layer over the original.

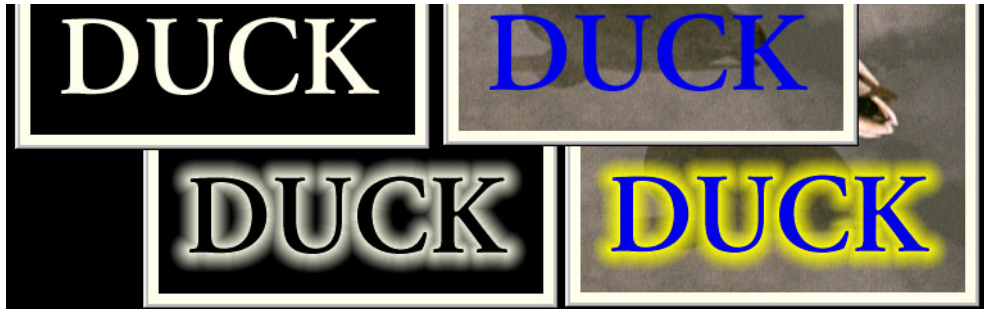
2) Next select the Mask Feather tool from the Mask dialog tool bar and select a positive Feather Width according to how large you want the halo to be. Then click Apply to feather the mask. If the result is unsatisfactory, click Undo, adjust the Feather Width slider, and click Apply again.



Finally, to hollow out the inside of the letters and leave only the halo, select the Mask Combine tool and then click on the white square just to the right of Combine Mask. This should pop up a menu of masks you can combine with the current mask. Select the name of the original text image, and set the Mask Operation to Subtract and click Apply, and then OK to exit the Mask dialog.



2) Once you have the halo mask, you can use any of the techniques described above to apply to the background image.



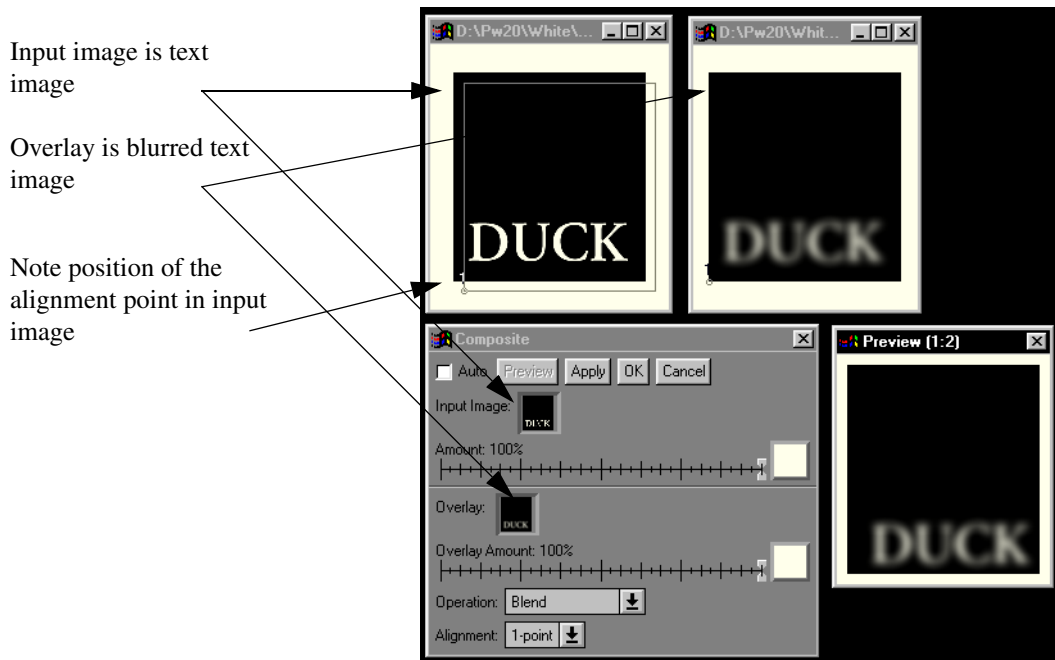
Creating Drop Shadows

To create a drop shadow, you need to create a blurred version of the text mask, offset it from the original, and subtract out the original mask. The new mask can then be used to darken the image and create an effect like a cast shadow.

1) Create the text image and blur it using the Blur transformation. Select the Gaussian blur option and adjust the Radius setting to achieve the desired softness of the drop shadow:



2) Use the Composite transformation with 1-point alignment to offset the blurred image with respect to the text image. By convention, the drop shadow is offset to the right and below the text.



3) Use the offset, blurred text image as a mask in conjunction with the Brightness transformation to darken the background image where the shadow will fall (see Using Text as a Mask above).



4) Apply the text to the background image using any of the techniques described above.



Resolution and Antialiasing

The characters that make up text are derived from fonts stored in your computer. TrueType and PostScript fonts represent characters by modeling the outline of each one as a series of smooth curve segments that can be scaled to any desired size. When Windows renders text as a bitmap, it determines which pixels lie within the character outlines and which lie outside the outlines and sets the color of each accordingly. This leaves rough edges on the characters since boundary pixels are either black or white.

Smoother, more precise text in images can be created by a technique called *anti-aliasing* in which pixels around the edges of the letters take on a gray level proportional to the percentage of the pixel that is covered by the character outline. Picture Window automatically antialiases text in the Text and Layout transformations. But, to work properly, antialiasing must be done at the correct resolution. If you expand or shrink the image significantly after antialiasing, you will invalidate the assumptions made when the text is rendered and may develop jagged or blurry edges. This can be an important consideration when you combine a previously generated text image with another image using the Composite transformation and 2 or more alignment points or when you resize or distort text using the Resize, Warp, Spiral, or Displace transformations.