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# *Drop Shadows*



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## *Introduction*

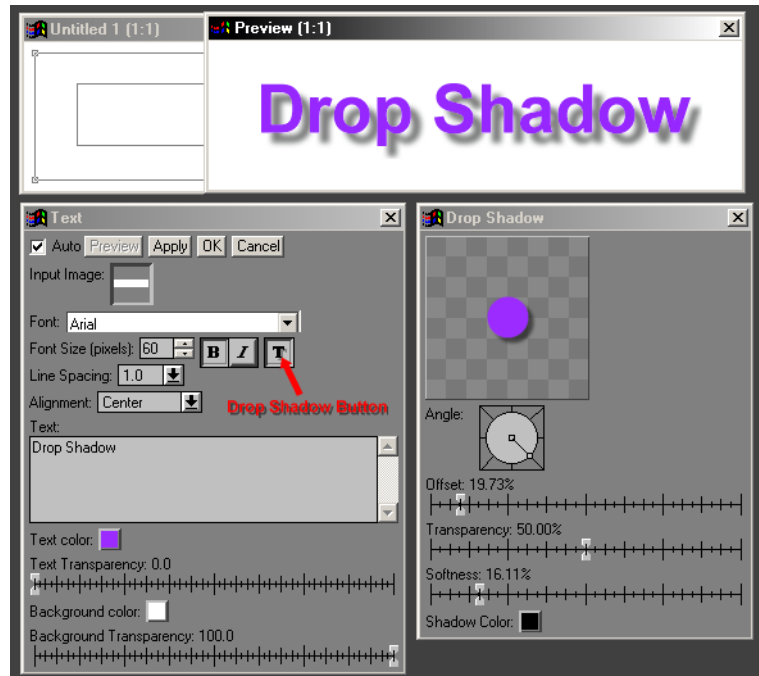
A drop shadow is a graphic artist's technique that makes an object appear to be suspended above the rest of the image by placing a cast shadow behind the object and offset a little to one side. Here is an example of a drop shadow applied to text:.

## **Drop Shadow**

As illustrated above, the direction the drop shadow is offset is normally down and to the right of the object to simulate a light source above and to the left. The greater the offset distance, the larger the apparent height of the object above the image. Drop shadows are usually blurred to simulate the soft shadow cast by a diffuse light source.

### *Drop Shadows behind Text*

Applying drop shadows to text is very easy using the Text transformation in Picture Window 3.0 or later. To add a drop shadow, just click on the drop shadow button to bring up the Drop Shadow dialog box.



Within the Drop Shadow dialog box, you can directly adjust the direction, offset, blur, color and transparency of the drop shadow.

## *Drop Shadows Behind Rectangular Images*

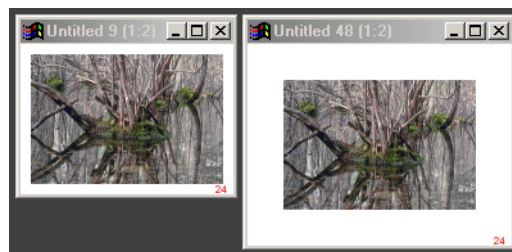
This section will explain how to create a drop shadow as a border effect around a rectangular image, like this:



The procedure for creating drop shadows like the one above involves several steps:

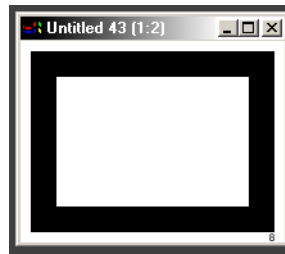
### **1) Add a white border to the image.**

This is most easily done by using the Crop/Add Border transformation (under Transformation/Geometry in the main menu). Make the border equal on all four sides and wide enough to include the drop shadow. If in doubt, make the border wider than you think you need as you can always trim any extra at the end of the process. Be sure to remember the border width you used as you will need it for the next step.



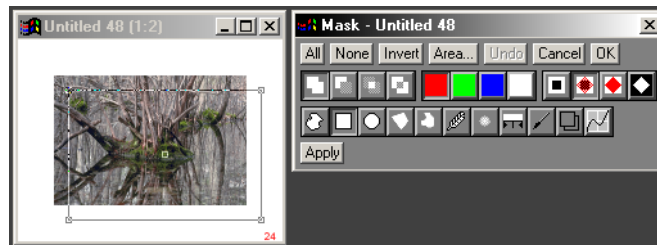
## 2) Create the first mask.

First you need to create a mask for the image with the border that covers just the image rectangle. The easiest way to do this accurately is to select the original image by clicking on it and then select File/New from the main menu. In the New dialog box, leave the color set to white, but set the Type to *Black and White* and then click OK. This will create a white image whose size is identical to that of the original image. Next use the Crop/Add Border transformation and add a black border of exactly the same width you used to add a border to the original image in step 1 above.

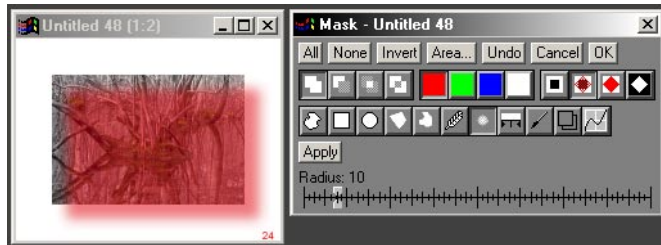


## 3) Create the final mask.

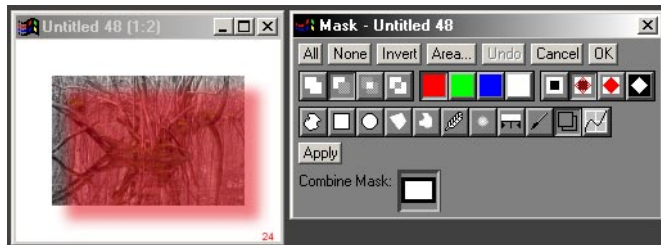
To do this, you will need to use Picture Window's Mask command. First select the image with the white border by clicking on it and then select Mask from the main menu. Then click on the rectangle mask tool on the bottom mask tool bar and click and drag over the central image rectangle in the input image to outline it. Finally drag the interior of the rectangle to offset it in the direction you want the drop shadow to fall.



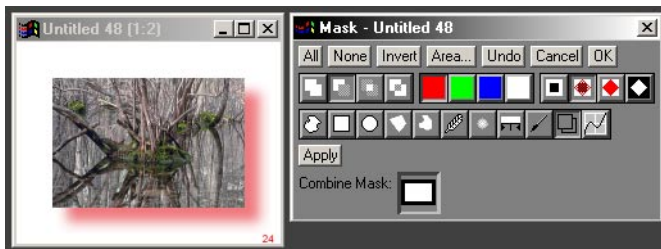
When you click Apply, you should then see a mask rectangle in the desired location with a sharp edge. To blur the mask to soften the drop shadow, select the Blur tool from the bottom mask tool bar, pick a radius and click Apply. If you don't like the result, click Undo in the Mask dialog box and try it again. When you are done you should have something like this:



Finally, you need to subtract the first mask. To do this, click on the Combine mask tool on the bottom mask tool bar and set the operation to Subtract by clicking on the second icon in top left mask tool bar. Then click on the white rectangle next to Combine Mask and select the first mask (the white rectangle with the equal black borders) from the popup image menu.

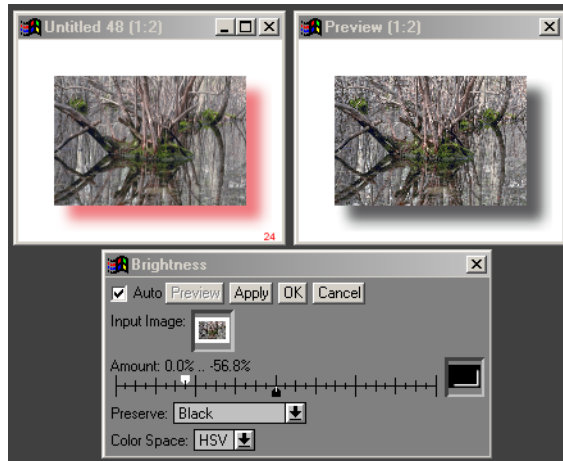


When you click Apply, you should be left with something like this:



#### 4) Darken the masked areas.

The easiest way to do this is to use the Brightness transformation. First click on the image with the mask still applied to it to select it. Next, select Transformation/Gray/Brightness from the main menu. Finally, drag the white slider to the left to darken the background when the mask is located.



When it looks right, click OK and you are done.

#### 5) Trim the border.

After creating the drop shadow, you can use the Crop/Add Border transformation to remove the excess white border if you wish.

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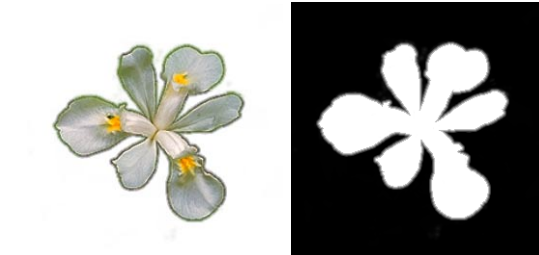
## *Irregular Drop Shadows*

Now that you know how to create rectangular drop shadows, you may have guessed you can use a similar same technique to make irregular drop shadows.

One possible procedure is as follows:

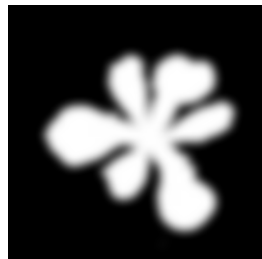
### **1) Create the first mask.**

The first step is to create a mask to isolate the object you wish to cast a drop shadow. If the object is near the edge of the image, you may need to add a border to the image first as described above.



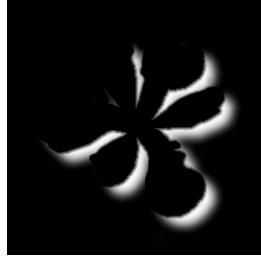
### **2) Offset and blur the mask.**

Make a copy of the mask from the previous step and offset it in the direction of the drop shadow. -- we'll call this mask 2. The easiest way to do this is to use the Displace transformation (under Geometry). Then blur the offset mask using the Blur transformation with the Gaussian option.



**3) Subtract the first mask.**

Next, use the Difference transformation (under Special Effects) to subtract the first mask from the blurred, offset mask. This accounts for the fact that the drop shadow is obscured by the object that casts the shadow.

**4) Use the mask to create the drop shadow.**

This step is the same as Step 4 in the previous section.

