

### Full Circle: Photoshop 6.0's Vector Editing

Looking back in time, we still remember when we had a computer with a whopping 64K memory, 360K floppy drive, and a black-and-white screen that could only display text. It worked fine until someone had the bright idea of adding drawing features to software programs. Since the mouse was still considered a furry creature, we entered codes using the keyboard to draw lines from one point to the next. Using the connect-the-dot method, we made

squares, triangles, and eventually could draw circles by setting a center point and a radius. Wow!

Eventually, computers became more powerful, faster, and could handle more sophisticated graphics programs. The mouse came into being, and computer graphics blossomed as bitmap editing programs and vector programs were introduced. In those days if you wanted drawings, you used a vector program and if you needed photos, you used the bitmap software. Bitmaps differed from vector images in that they were constructed of rows and columns of colored dots, very much like a TV image. The resulting images and files were much larger, and the tonal values closely resembled the real object.

Some programs offered translators so you could move and convert images from one type to the other, but the process was slow and not very practical. The need for mixed graphics became a necessity as the Internet became the norm for visual communication. Since both vector and bitmap images are used on the Internet, programs were soon developed to incorporate into this new fast-track communication system.

The mixture of vector shapes with

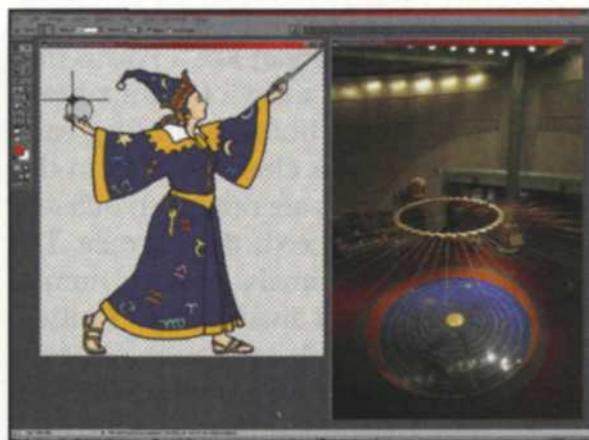
bitmap images in Adobe Photoshop 6.0 makes it the most versatile graphics-editing program available. With this software you can import both bitmap and vector drawings into the same work area, and layer them to make a composite image.

In past versions of Photoshop, the final image was converted to a bitmap image and sent to the printer. With this new version, the high quality of vector shapes and text and the tonal quality of bitmaps can be output individually. Who said you can't have it both ways? To fully understand how these two graphics systems work together, we will take you through the basic steps of using vectors in a bitmap-editing application.

First, you start with a bitmap background image. When you go to the floating toolbox, you will find a shape tool that breaks out into six separate tools, from basic to custom. The custom section breaks into more than three dozen basic shapes, like circles, arrows, stars, footprints, handprints and text balloons. Using the mouse, drag to the area where the shape will fit, and hold down the shift key so the proportions of the shape will remain the same as



Bitmap stock image.



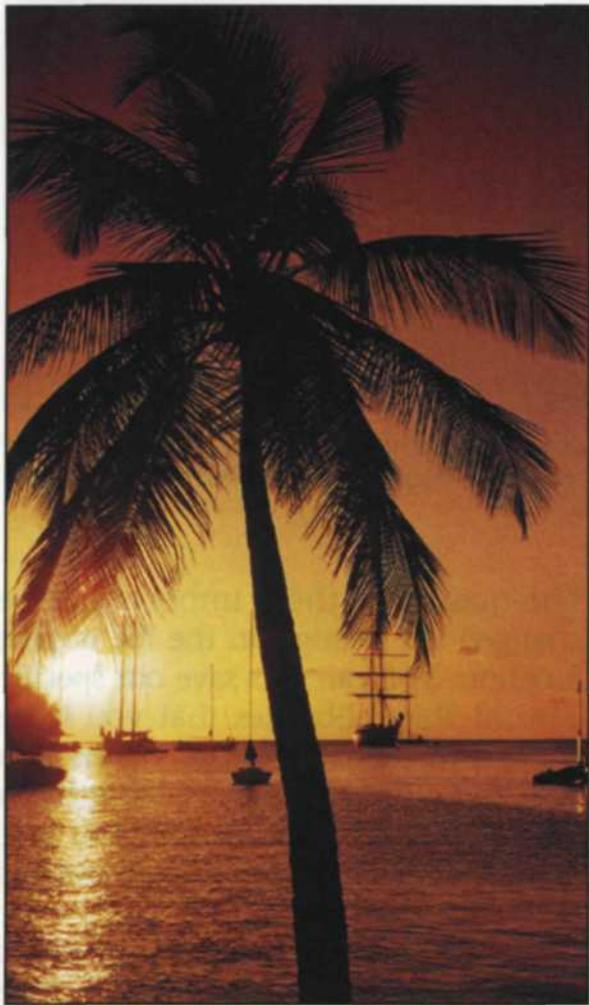
Vector graphic on left and bitmap on right



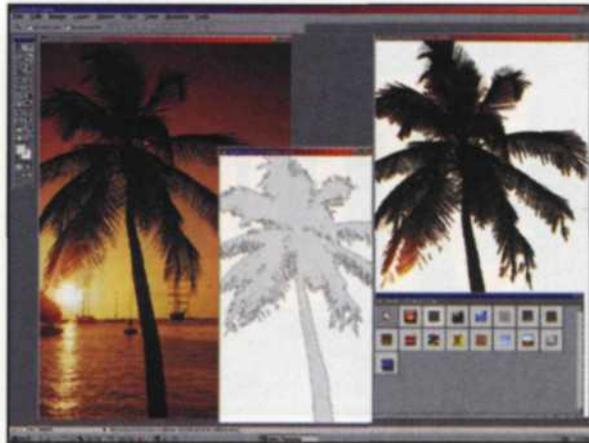
Vector graphic on bitmap with KPT 6 plug-in filter for lens flare.



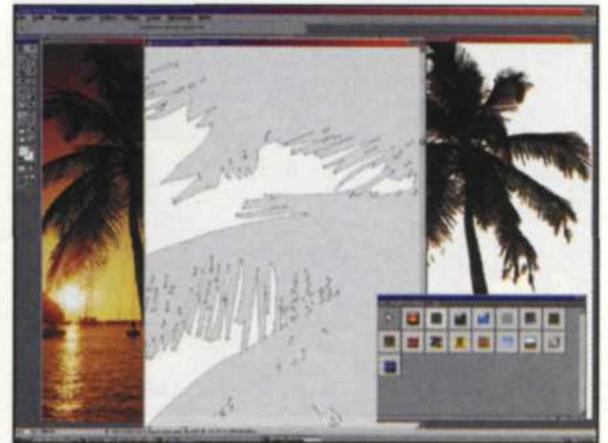
Final image



Stock bitmap image of palm tree



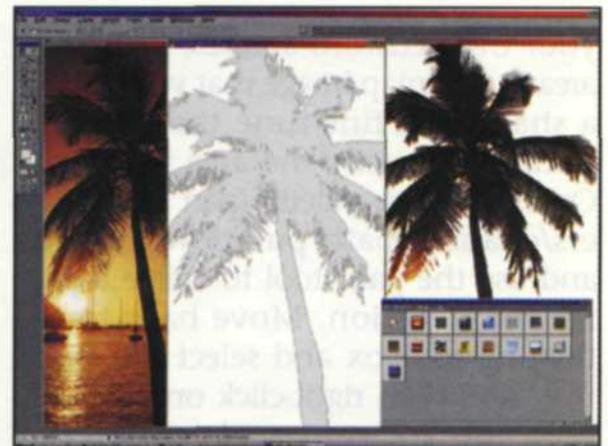
Original image left, pasted image right, and resulting shape in center of screen.



Enlarged shape in middle showing edit points along shape path.



Point of palm leaf extended. (center screen)



Original image on left, pasted layer on right, and resulting shape in the center of the screen. The style palette used to create the shape in the next screen is in the lower right portion of the screen.



Original image on left, pasted layer on right, and resulting shape in the center of the screen. The style palette used to create the color, shadows and bevels of the shape in the center screen.



Variation of styles used on the palm tree shape created from a bitmap selection.



KPT6 plug-in lens flare filter applied to palm tree shape.

the original. Once you have the size and placement of the shape, you can now use the styles pull-down menu to bevel edges, add shadows, fill with color or texture, add keylines, and more than a dozen other effects common to vector-shape editing. You can even fine-tune the edges of the shape using the point-edit tool found in the toolbox.

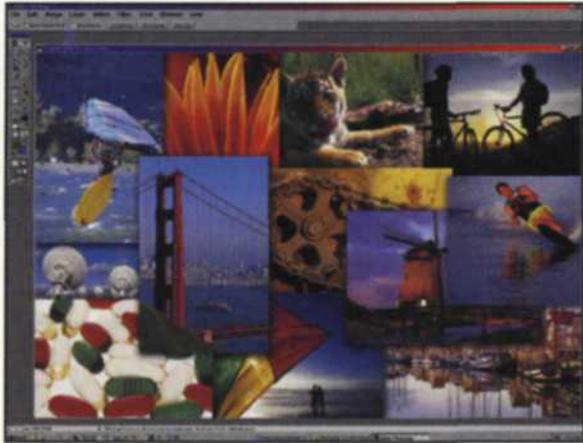
Selecting an anchor point or curve handle, you can change the shape to any configuration you like. Each

change to the shape translates to all the effects you added since you created the original shape. If you add additional shapes, you have the option of adding to the first shape, subtracting from the first shape, or showing the area where the two shapes cross.

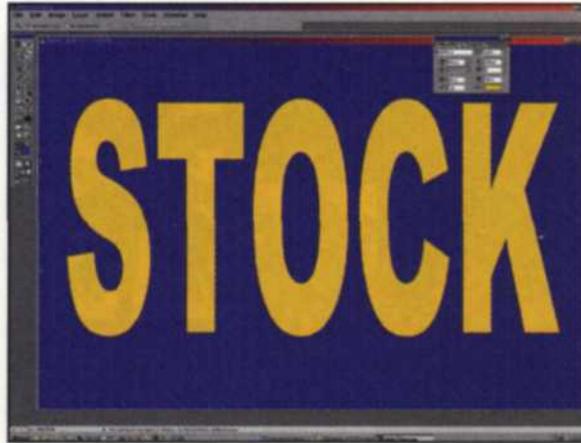
Each shape has dozens of creative controls in the layers and styles menu. The knockout function is great for what we used to call cookie-cutter effect. Place a vector or bitmap drawing on the

background layer, and then add a color layer to cover the background layer. Add a text or shape to the top layer and use the knockout function to display the background layer underneath. If the image underneath is not coming through the knockout area properly, move the top layer over to match the image underneath.

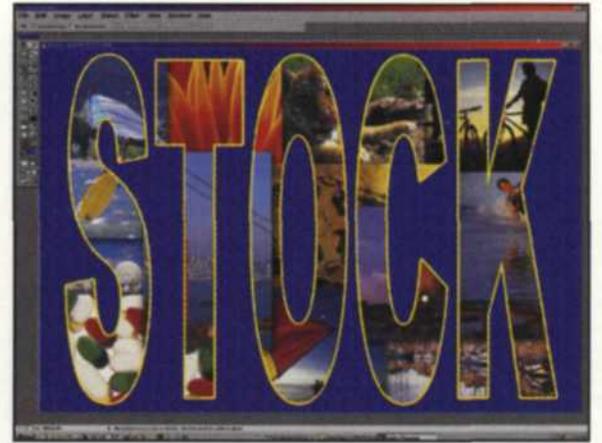
Adobe realized that users would want more than the basic shapes, so they have added the capability for creating



Composite image of stock photos, complete with drop shadows.



Fill layer added with blue style applied to layer. Text "STOCK" was then added to layer.



Knockout effect was applied to text shape so that composite image on bottom would show through.

your own custom shapes. Select the area in a bitmap image that you want as a shape and fine-tune the selection until it is exactly the area you want. Open the path palette (part of the layers/channel/path pull-down menu), and use the path tool to create a path for the selection. Move back to the floating toolbox and select the shape tool, and then right-click on the selection. After you name and save this new shape, it will open up in the shape toolbox every time. This is a great function if you work with custom shapes in logos, and advertising symbols.

Most of the filters, third party plug-ins and styles can be applied directly to any shape in Photoshop 6. If an effect is not available for a specific shape (grayed out), you can easily convert the shape to a bitmap using a shape rasterize function, found in the layers pull-down menu. Vector shapes and bitmaps can be mixed and converted back and forth

to fit your needs.

The text function uses vector shapes so text can be sized or changed without sacrificing image quality. After typing the text directly on screen, you can right-click on the selected text and apply warping, anti-aliasing at different levels, add a work path for custom warps, add shape styles, or rasterize to bitmap text. The sky is the limit! For example, if you have a text logo that you often use in your images, you can convert the text to a shape and store it in the shape toolbox. When you need the logo, simply go the shape toolbox, select it and magically, the logo text appears on the screen. You can still size and style the text shape as you would any other shape.

We also found that clip-art from other vector-based programs can be imported into Photoshop and converted to bitmap clip-art or shapes via the Postscript file export/import function.

The quality of these imports can be changed via settings on the file import function. You can also save out specific custom shape libraries that you have created for a specific job. When you start to work on a project requiring a specific custom shape, just load in that library and select the custom shapes related to that project.

The incorporation of vector graphics into Photoshop 6 has brought the world of image editing full circle. We can now enjoy the full potential of both vector and bitmap graphics in one program. All the creative tools are there for you to use in Photoshop 6. All that is missing is your imagination. For further information regarding Photoshop 6.0 visit: [www.adobe.com](http://www.adobe.com).

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