



**Fig. 1**  
*Simplifying and smoothing paths will decrease your file size by eliminating excess points in overly complex paths and lessen the chances of difficulties when outputting your files.*

*Using the Preview and Show Original buttons before hitting OK, will allow you see just how much you can simplify your lines without compromising the integrity of your drawing.*



**Fig. 2**  
*The triangular area between the tail, jaw and body is a solid color object and needs to be knocked out.*

**Y**ou've drawn a cartoon that your client loves and has approved. You've inked it, scanned it into your computer, cleaned it up and created a vector version with

Streamline. Is it ready to go to finish? Well, you may still need to tweak it one last bit to get it ready for coloring in Photoshop.

First of all, you may want to take a small amount of time to straighten and smooth lines, refine curves that are not quite right, or delete any excess points that were created when the cartoon was vectorized. If you've traced your cartoon tightly with Streamline, the number of points can be astronomical, with a corresponding increase in file size. The complexity of the drawing may be such that your printer will choke on it and not be able to output it. Simplify paths by deleting points clicking on them with the Pen tool with a minus sign where you can, or go to Path>Simplify and adjust the sliders. (Fig. 1) Use the Preview feature to see just how much your lines will be altered before hitting OK.

The cartoon may have areas that need to be 'knocked out' or made transparent so that you can see through them to whatever is behind in the background. (Fig 2) For example, imagine a cartoon doughnut with a hole in the middle. As Streamline traces the doughnut and creates the vector file, it will trace the outline of the hole and fill it with white, just as it would do with any other object. The program doesn't know this is a doughnut and has no way of knowing that the area in the middle should be transparent. Placed on a solid white background,

this isn't much of a problem, but if we were to combine it with another cartoon or put it on a webpage with a colored or patterned background, it wouldn't do at all. Our task is to put the hole back in the doughnut. Just deleting the white circle won't work; you'll end up looking at the solid black background that creates the entire outline of the cartoon. The solution is to make a compound path.

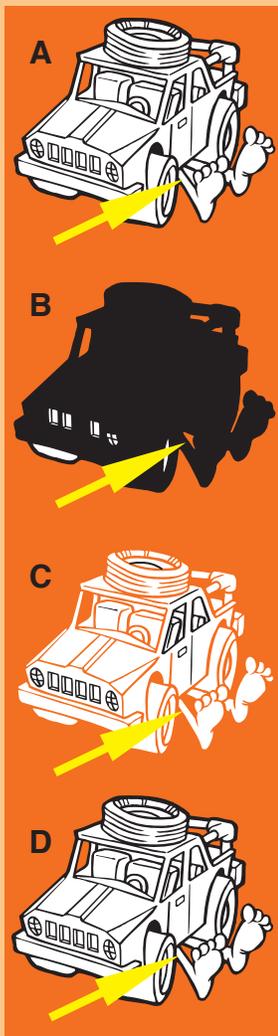
There are a few ways to make the compound paths we need, one is detailed, one is simple, and the last one is a no-brainer.

*"The cartoon may have areas that need to be knocked out or made transparent..."*

The detailed method: As Streamline traces the doughnut, it creates 4 filled objects stacked from back to front: the black outline, the white doughnut, the black hole outline, the white hole. Just choosing the outline (1) and the hole (4) to create a compound path hole won't work because the objects between them have no holes. To make it work, we have to pair up the four items in the stack with two separate compound paths. (Fig 3)

Draw a rectangle larger than your cartoon, fill it with red (or any contrasting color) and send it to the back. We will delete it as a last step if everything goes

Below:  
Sometimes the compound path that is created with the black background path will turn completely black (B). Before you panic and de-select, simply send that path to the back (C). Then send the colored background to the back (D). Voila!



right. Usually it just serves to identify areas that will need compound paths, but since we know what we want, we'll use the color to see that the holes are knocked out correctly. Now choose the center objects (2 & 3) and Compound Path>Make. It will look like nothing happened, but it did, so don't dismay. Now choose the bottom and top items (1 & 4) and Compound Path>Make. Remain calm, we're almost there. You are looking at a solid circle with a hole in the middle showing the red rectangle. Send this object to the back, then choose the red rectangle and send it to the back. If you can see red through the middle of your doughnut, congratulations, you're finished. Delete the rectangle and go have something to eat.

The simple method works on holes that are not buried deep in the cartoon where we would have to create a number of compound paths. We can usually just select both the area to be knocked out and the background object, then Compound Path>Make, and hole will knock out. Then we just send the compound path to the back, followed by the colored rectangle. If all is well, delete the colored rectangle and move on. In Fig. 4, I've created a simple compound path of the outline of the cat and the area between the tail and body.

It is possible to create a knockout deep inside your cartoon with a complicated array of successive compound paths or changing path directions, but in those situations I've usually found it faster and easier to use the No-Brainer™ method of Pathfinder>Divide tool. Select the whole cartoon and use the Pathfinder>Divide command. Now simply ungroup and choose the areas that you wish to knock-out and delete them. Done!

Fig. 3

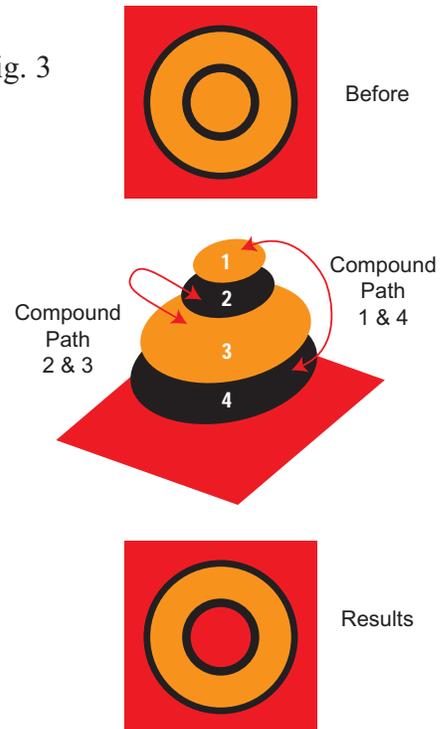


Fig. 4

