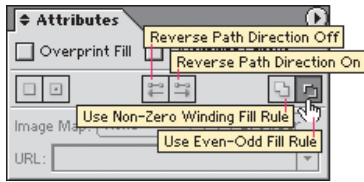*Three simple paths each made from one line. Left, appears this way regardless of the Fill Rule chosen. Center, Use Non-Zero Winding Rule. Right, Use Even-Odd Rule.*

Left, starting compound path. Center, after Path Direction of the pentagon is reversed. Right, after Path Direction of the circle is reversed.

Reverse Buttons Fill All Shapes?

Q: Why does every overlap get filled when I click either of the Reverse Path Direction buttons?

A: This occurs when you have the whole compound path selected, in which case clicking a Reverse Path Direction button assigns the same direction to all the path components. Before clicking a Reverse Path Direction button, select just one component of your compound path. The easiest way to do this is to drag any direct or group selection tool over the component's edge. You can also click on the edge with the Direct Selection or Group Selection tool, but don't click on the fill. If selecting components gets too difficult, use a compound shape instead of a compound path.—*Pierre Louveaux*

FILL RULES

When a simple path intersects itself one or more times, the spaces defined by the overlaps can be filled in one of two ways: the default Non-Zero Winding Fill Rule, or the Even-Odd Fill Rule. Under the Even-Odd Fill Rule, every other space gets filled. To specify the Even-Odd Fill Rule, choose Window: Attributes, and on the Attributes palette, click the Use Even-Odd Fill Rule button. To change it back to the default, click on the adjacent Use Non-Zero Winding Fill Rule button.

Fill Rules and Path Directions for Compound Paths

Compound paths behave in the same way as simple paths when it comes to the Non-Zero Winding and Even-Odd Fill Rules. But when the Non-Zero Fill Rule is applied, there are two additional commands that you can use to control which spaces are filled or left as holes; they are the Reverse Path Direction On and Reverse Path Direction Off commands, on the Attributes palette. Changing the direction of a path within a Non-Zero compound path flips the fill/hole relationships of the spaces enclosed within that path. Use them on only one component path of your compound path at a time; see tip at left.

When you create a compound path, the Compound Path: Make command automatically assigns path directions to the paths involved—and in most cases the choices it makes are the ones you want. Don't try to predict the result; simply start by drawing your shapes with the default Non-Zero Winding Fill Rule. If you don't get exactly what you want, try selecting the offending component and flipping its path direction by clicking on whichever Reverse Path Direction button is not pushed in for that particular component.

Use the Even-Odd Fill Rule when you want every other region of overlap to be a hole. Still not the desired result? Use compound shapes since they give you complete control. Certain results are only obtainable with compound shapes.