

# Problems with Linework Going from Arc to Illustrator

## The Nature of the Problem

Objects in Illustrator and Arc each have two color components: a fill (the color inside) and a stroke (the color outside). You can put both of these components on a single object.

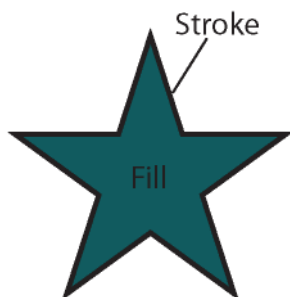


Fig 1

When you export from ArcGIS to Adobe Illustrator, instead of just exporting a single shape for each country and giving each one a stroke color (the border) and a fill color, it sometimes does something odd. It actually exports your country in multiple pieces. One piece has the correct shape of the country, with a fill color, and no stroke color. Another piece will have no fill, but will have a stroke. Worse, it will usually break up the stroke-and-no-fill parts of the country into multiple pieces. Notice in the example below, the outline of the star comes in two parts. If you lay all of these parts on top of each other, you can't see a difference – it looks like one object.

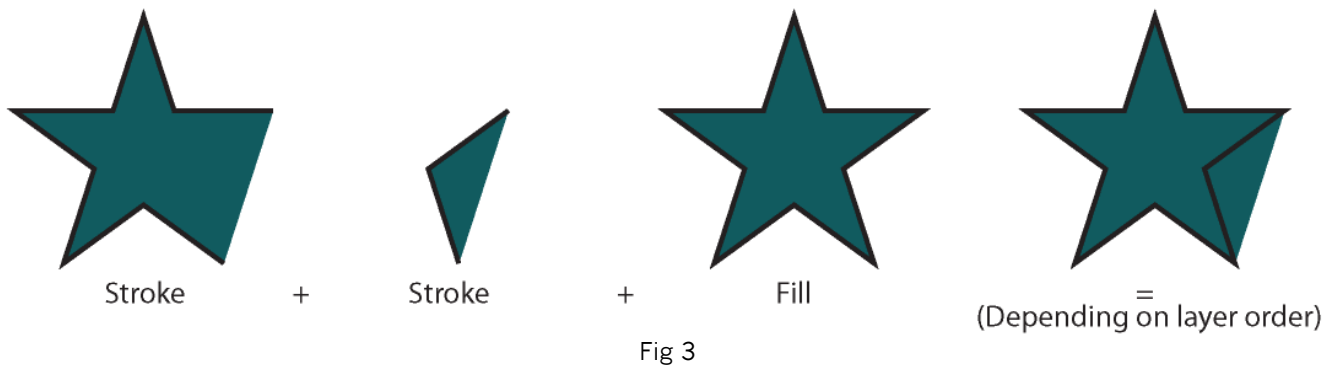


Fig 2

Notice how Figure 1 and the rightmost star in Figure 2 look the same: a star with a black border and a dark green center. But, the one on the top is a single object with a fill and stroke. The bottom one is actually three objects on top of each other. You cannot visually tell the difference.

So, to reiterate, the country border comes in multiple pieces, but the country fill comes in one solid piece. Note that Arc may not have done this to all (or even any) of your countries – this happens seemingly at random, but generally with larger countries.

All of this can be a problem when you want to change what your countries look like. If I select the entire countries layer of my map and try and change the color of every object at once, I'm changing the colors of all of fragmented those pieces that are in the layer. In the figure below, I did just that – I gave each item the same fill and stroke. Notice how, when you give a fill color to one of those open paths on the left side, that it just draws the fill by assuming the two open ends of the line are connected. When you stick all three of these pieces together now, you get a star that is filled in with green, but also has some extra fill sticking outside of it.



Obviously, this doesn't look good. We don't want the color that we put inside our countries to also fill parts of the outside.

### How to Fix It

If we could just get rid of all of those parts that have a stroke but no fill, that would be great. Notice that the parts which are all fill and no stroke are still whole shapes. They are the shape of the entire country. It's the stroke-and-no-fill parts that are broken up into a bunch of open paths that look weird and wrong when you try and fill them. If we could just keep the third item of Figures 2 and 3, we'd be great.

So, we have to get rid of the first two items in Figure 2. How can we go and pick out and delete all of those little stroke-and-no-fill bits? First, it's worth mentioning that this solution will only work if you haven't yet tried to change the colors

If you can select just one of them, you can tell Illustrator to find them all. One method for selecting one of these troublesome paths is to go into the layers panel and look around for one of them.

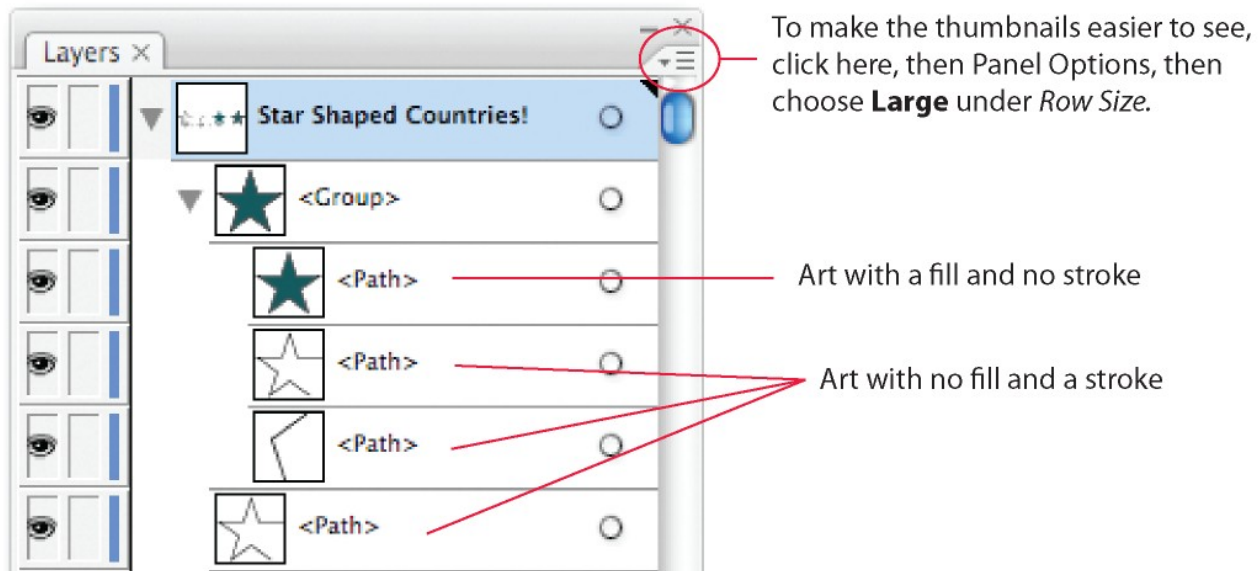


Fig 4

When you expand your layer, you'll see a group. Expand the group and you can see all the artwork inside – all the country pieces. Notice how it shows you a little picture of each one. Use that picture as a visual cue to figure out which ones have no fill, but do have a stroke. Now, select one of them, by clicking in the empty space just to the right of the circle. You should see it highlighted on your map.

Now that you have one selected, go to the Menu bar and choose *Select* → *Same* → *Fill and Stroke* and *Stroke*. What this means is that Illustrator goes around and selects everything else that matches what you had selected: in this case, lines with no fill, and a stroke of whatever color you happened to have. Note that it won't select things from locked layers.

Hit delete. All these troublesome paths should go away. You can now go back to selecting the entire countries layer (or what have you), and changing the colors without trouble.

Besides simply following these directions, you need to have an understanding of what's going on – the concepts of fills and strokes, and of objects laying on top of each other, are fundamental for Illustrator. The *Select* → *Same* → *Fill and Stroke* tool is also very handy and worth understanding, as you'll find a lot of times you'll want to use it.