ARCMAP & ILLUSTRATOR | A REFERENCE GUIDE

Why use Illustrator?

Adobe Illustrator is a vector graphics tool that allows you to work with complex graphics (maps!). As a graphics program, it will render your map to a higher standard than found in GIS. It has a number of tools that allow you to stylize your map & map data that are not available in GIS software.

Two basic philosophies for Arc/Illustrator work flow

1. Do as much of the work in ArcMap as possible and then export into Illustrator for the final touches and/or to get the map ready for print.
2. Only use ArcMap to have all your data layers geographically correct and then export to Illustrator for all the design work.

The approach that you choose will probably depend on your level of comfort with ArcMap or Illustrator. A few things to keep in mind when going between ArcMap & Illustrator in terms of workflow:

- Will this map need to be updated often? Once you covert the map to illustrator, you no longer have access to the attribute table and the data is no longer geographically referenced. You cannot reverse engineer the data to go from Illustrator to ArcMap.
- Illustrator is a graphics program. ArcMap is not. Illustrator will allow more freedom in the cartographic style/ appearance of the map, but only if you know how to use Illustrator well. It's a complex program, similar in complexity to ArcMap, and takes a while to learn how to use it well.

Getting your map ready for export in ArcMap

The following list includes recommendations on preparing your map in ArcMap prior to exporting as an Illustrator document.

- None of your layers can have transparency
- If you are using special fonts or symbols, they will be converted to polygons in Illustrator
- Colors must be set to CMYK in order to preserve those values in Illustrator. *IMPORTANT: You must change something when you switch to the CMYK model, even if you just switch a value and then switch it back in order to convert the color to CMYK. If you only switch the model, the internal property of the color will not get set to CMYK and the CMYK values you saw may not be preserved.*
- Do not include outlines for polygon features – this will create an extra (unnecessary) layer in Illustrator. You can set the outline color in Illustrator (a polygon automatically has a fill & outline).

- Apply different fill colors to each layer (by geometry). In illustrator you can select all features with the same fill as a feature you have selected. This will make it easier to select & group layers in Illustrator
- With line features, use a cartographic line with round joins to create a cleaner look in Illustrator. Keep the symbology simple (no cased symbology)
- Point symbols will be exported as font characters so use something simple – it will make it easier to resize and convert the text into individual shapes in illustrator
- If you have a raster data layer on your map, make sure it is the bottom most layer in the TOC. Any layers that fall beneath a raster will also be rasterized during export.
- Add a scale bar or a record of scale so that you can build one in Illustrator.

Strategic Tip. *Once you have exported your map from ArcMap and begun to create new layers, etc in Illustrator, it is possible that you will want to add some new GIS data that wasn't originally exported. To make this easy on yourself and to keep the scale consistent, make sure that you create a bookmark in ArcMap for the map scale/extent that you can always refer back to and then export data into Illustrator.*

Exporting to Illustrator
Follow these step-by-step directions when exporting your map document into an Illustrator file (.ai)

1. Choose **File->Export Map**.
2. Use the **Save as Type** pull-down to choose **AI** (adobe Illustrator.)
3. Click the **Options** button on the lower left corner of the export dialog to reveal the export options.
4. Under the **General Options** tab, the setting for DPI reflect the resolution of whatever information is going to pass to Illustrator as Pixels.
   1. To get consistent line widths and shapes, set the DPI (in the export to .ai) to a number that is divisible by 72 (the default is 300). For example, 360, 720, 1440,etc. Set the Resample ratio to Best, with a 1:1 ratio. There is a fine line – if you go too high in resolution the file can become too large and larger polygon featured may be split into pieces because There is a limit to the number of vertices that can be exported to Illustrator. 360 DPI is a good standard.
5. Under the **Format Options** tab, you will want to set the **Picture Symbol** pull-down to ***Vectorize Bitmap or Picture Symbol Fills***
6. Check the box to **Covert Marker Symbols to Polygons**
7. Make sure the **Destination Colorspace** is set to **CMYK**.
8. Click **Save** to begin your illustrator export.

Cleaning up map in Illustrator (prep)

Ok, so now you have your map in Illustrator. These are some basic steps to 'cleaning' up the data layers so that you can work with the data more efficiently.

- Open your new Illustrator document
- Illustrator will complain that the document includes fonts that were created in a previous version that need to be converted. Click Update.
- After the Illustrator document opens, look at the Layers Window to examine the layers. You should have one layer in illustrator for each of the vector layers in ArcMap. If you had any raster layers in your export, they should be wrapped up with the bottom layer named **Image**.
- Many of your individual layers that came from ArcMap, show up in Illustrator as group layers that use a Clipping Mask. You can delete the clipping mask, or 'release' it (select on geometry, object>release clipping mask). And you can ungroup the layer if desired, by right-clicking on the layer > ungroup.