

## Simple Customizations can have a Large Impact

Here is another Tips & Tricks column that comes by way of my GIS/Map Making Class at the University of Tampa. We were doing an exercise in Geocoding/Address Matching and I asked the class what local businesses they would like to geocode. Of course, fast-food restaurants were the most popular choices and we decided on McDonalds Fast Food Restaurants. So, we prepared a street locator using local street map data, opened a web-browser, navigated to the McDonald's website and found addresses for a few of the local outlets. Of course, we could have just used the McDonald's locator map, but that was not the point of the exercise. We copy/pasted those addresses into a spreadsheet and used ArcGIS Pro 3.0 along with our locator to geocode the restaurants.

The locator worked very well, and the resulting feature class displayed on the street map as default (4 point, green) point markers. Everyone was impressed that the technology works, but unimpressed with the display (Figure 1). This reminds me of one of my mantras... Never accept the defaults! Yes, they all knew that they could alter the display symbology, but there are just a bunch of other, generic point markers in the Esri palette. So... what to do?

### TIP — IN ARCGIS PRO: ADD A CUSTOM PICTURE MARKER

ArcGIS Pro and ArcGIS Desktop can use several image formats including, .JPG, .TIF, PNG and/or .BMP as "Picture Markers". For a McDonald's picture marker, we GOOGLED "McDonald's logo", and selected a free-to-use transparent logo and saved it to

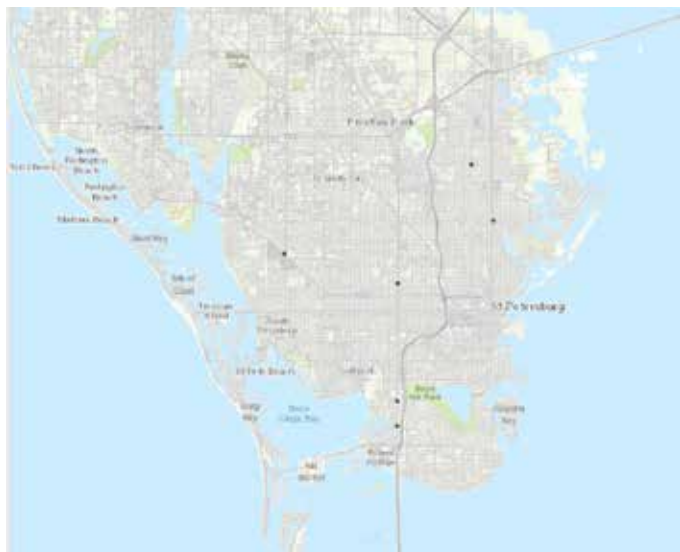


Figure 1. Default display after geocoding McDonalds restaurants in the St. Petersburg, Florida Area.

a writable directory. The picture downloaded in .PNG format.

Selecting the McDonald's geocoded layer in the Contents pane, either right-click and open the Symbology Pane (or double-click on the point marker to open the Symbology Pane), and double-click on the point marker in the Symbology Pane to get to the Format Point Symbol menu, then open the Properties dialog (Figure 2).

Note that the default is "Shape marker", use the arrow to drop down the choices and select "Picture marker" (see Figure 2). This will open a new dialog box (Figure 3). Choose "File..." and navigate to your picture marker. Once selected, you can change the size rotation, etc. on this menu; we made the picture marker 15 points. Pressing "Apply" at the bottom of this dialog box will apply your new Picture marker, to make a more customized map as in Figure 4.

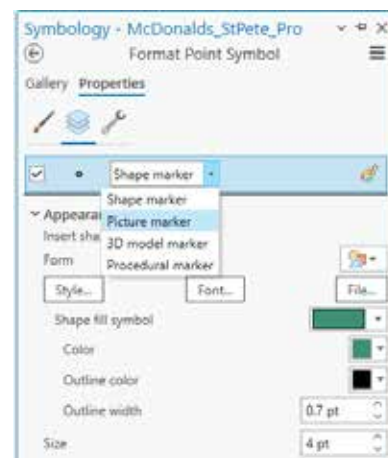


Figure 2. The Properties dialog box in the Symbology Pane in ArcGIS Pro.



Figure 3. The Picture marker dialog box allows you to select a picture marker and manipulate the properties in ArcGIS Pro.

### TIP — IN QGIS: ADD A CUSTOM PICTURE MARKER

Adding a custom picture marker in a QGIS project uses a very similar workflow to that described above. QGIS, also recognizes the common graphic formats, .JPG, .TIF, .PNG and/or .BMP.



Figure 4. The same map as in Figure 1, but with customized McDonald's logo Picture markers.

To add the custom picture marker, double-click on the symbol in the Layers panel to open the QGIS Symbology panel. Here, notice that the default symbol marker is "Simple Marker", click on the "Simple Marker" to open the Symbol Layer type menu (Figure 5), use the dropdown to select Raster Image Marker (Figure 6).

Use the ellipses (...) or the dropdown arrow to navigate to the picture file to use as a marker (Figure 7) and adjust the size, and other properties as needed, then click "Apply" to change the marker and then "OK" to dismiss the Symbology Marker panel. The resulting map is identical to the ArcGIS Pro Map as in Figure 8.

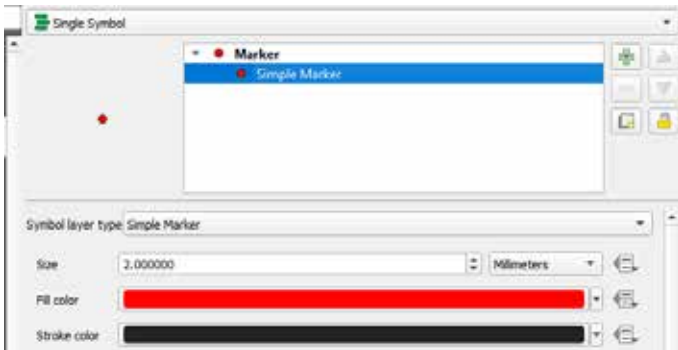


Figure 5. The Symbol Layer dialog in the Symbology panel in QGIS.

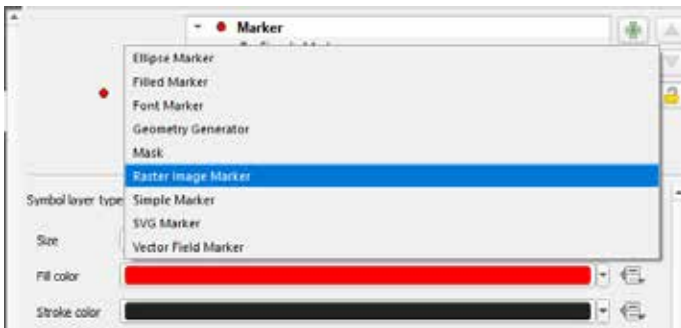


Figure 6. Selecting the Raster Image Marker from the Symbol Layer dialog in QGIS.

We had so much fun with this little trick, students went on to construct maps with gopher tortoise, starfish, sharks, and octopi, not to mention Burger Kings, Chipotle's, Starbucks, and other favorite places with little picture markers.

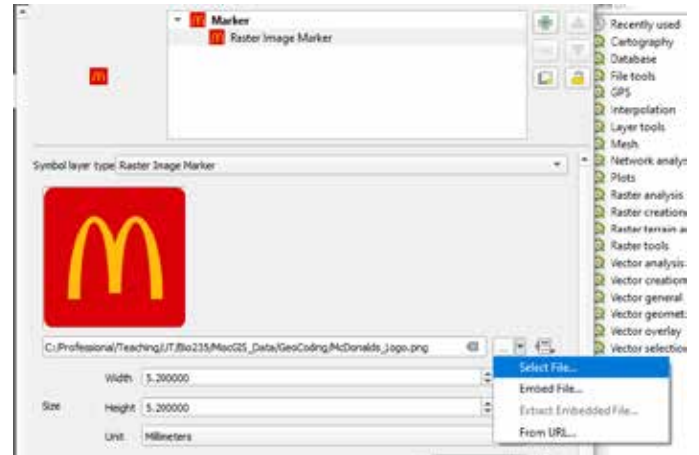


Figure 7. Navigating, selecting and applying a Raster Image Marker file in QGIS.



Figure 8. The QGIS Map displaying the McDonald's logo Raster Image Marker file.

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Send your questions, comments, and tips to [GISTT@ASPRS.org](mailto:GISTT@ASPRS.org).

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