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Automation of Bullseye Maps:

MapInfo to ArcMap Migration at CA Department of Food & Agriculture (CDFA)

There is currently a need to migrate from MapInfo to ArcMap for the many mapping projects taken on by my unit. One of the challenges is that not everyone is familiar with ArcMap, or even GIS in general. I began automating certain tasks using ArcToolbox for those users with very little to no GIS experience. One of the most common maps we produce – which I thought would be a great map to automate using Python – is the bullseye map, which is the initial first response in CDFA whenever an actionable pest is found in California.

I created a script that takes Excel files of data on Light Brown Apple Moth (LBAM) finds and produces a bullseye map of the finds. The script I created will, after some further refinement, serve as a template for all pests we produce bullseye maps for. The only work needed to run this script is to save Excel files of the finds then open the script and input the county and city of the current day's finds at the very top of the variables list. The script can then be run and a PDF of the map is saved with our naming convention.

Because we are a very small unit – and, during the busy season, we can be tasked with producing upwards of six or more bullseye maps daily, some with several finds in many different areas – this will save hours of work and allow those with little to no GIS experience to create a bullseye map.