

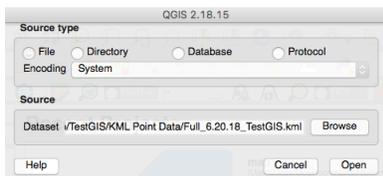
Jess Sullivan

6.23.18

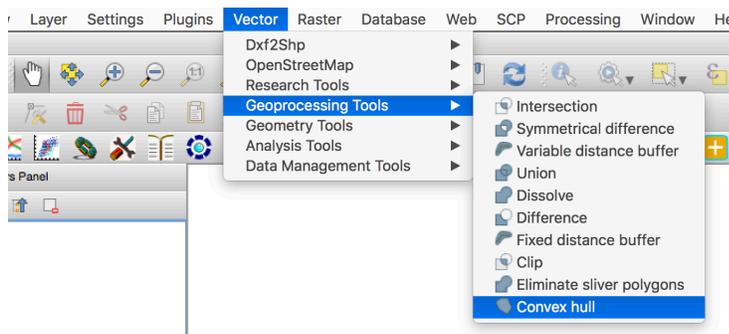
How to efficiently generate convex hull polygons and centroids from KML data

Centroids and Convex hull (the “most outside”) polygons are standard ways to start deriving info from point data. For bird data, the polygon represents a territory and a centroid represents either the center of the territory (using convex hull) or a frequency-weighted mean (average X,Y). I will cover generating a polygon centroid- there is a batch function in QGIS that can be set up the same way.

I am using QGIS 2.18 for this- version 3 (early adopter) is still a bit unstable.

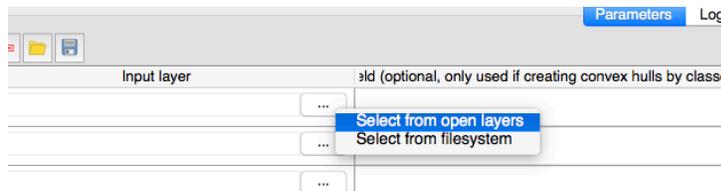


Open your KML data, organized in KML folders. When prompted, “select all” to create a new layer for each folder of points in QGIS.



Navigate to Vector, Geoprocessing Tools, Convex Hull. Enter the batch mode, and select all your open folders as Input Layers (it will auto fill!)

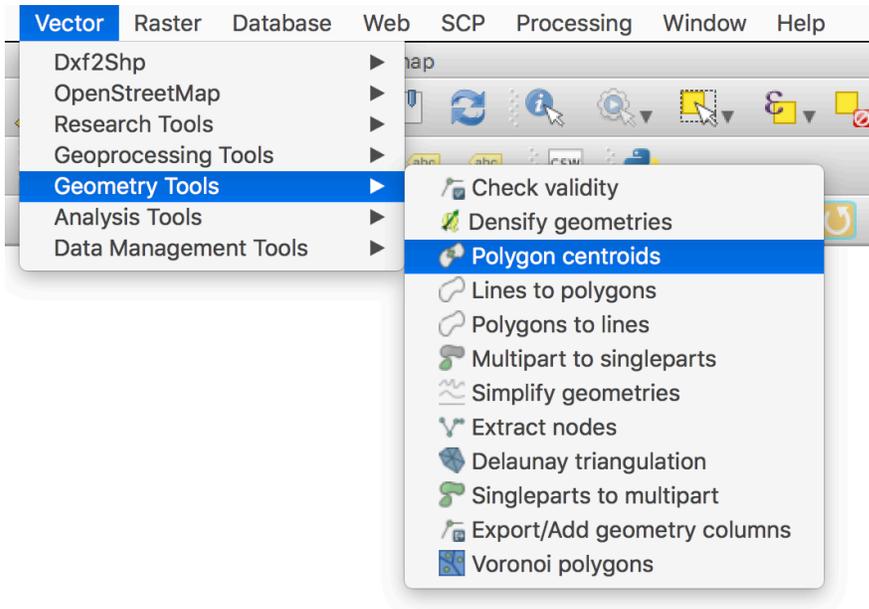
In the Convex hull field, save a path to a new folder as a SHP (shapefile). You will be prompted to autofill names- set this to “Input Layer” as a parameter value.



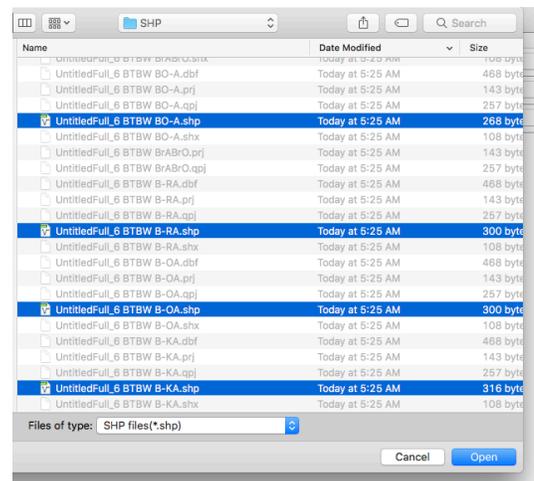
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Avoid leaving "Untitled" as a name constant- using 1,2,3 or a,b,c is cleaner in the long run ☺.

NOTE: There may not be any duplicate folder names for any of these Batch operations!



Navigate to Vector, Geometry Tools, Polygon Centroids. Enter Batch and set the input file type to SHP. This way you can select only the parts of the shapefile you want (not the metadata!)



Set the Batch up in a similar way to the polygon, but instead use KML as the output file type.

TADA!

You can now collect your KML Files from your file

browser and use them for iOS GPS apps, point data for programs (Specifically Google Earth),

etc.

-Jess