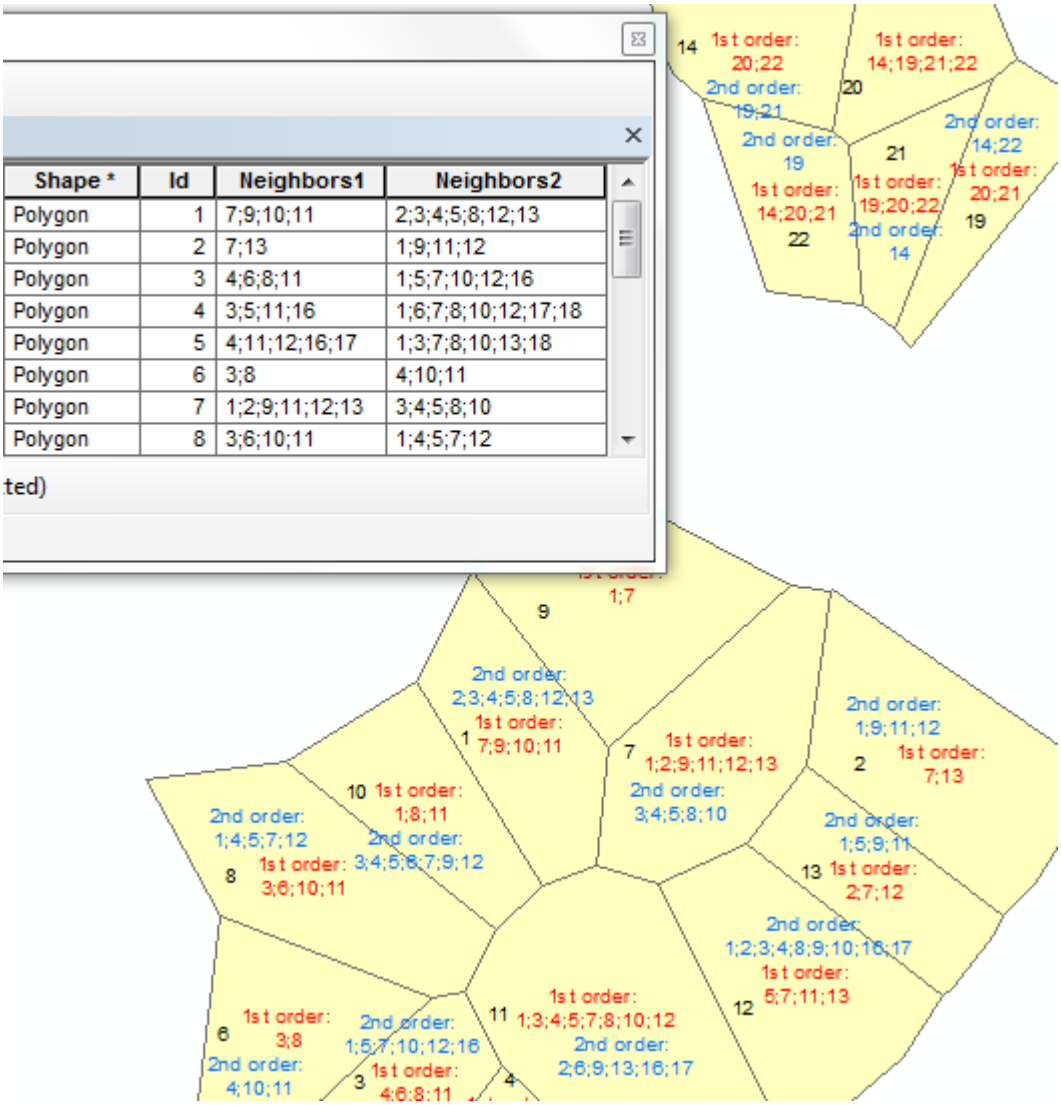
Find Adjacent & Neighboring Polygons

Title Find Adjacent & Neighboring Polygons

Description

Find and make a list of 1st and 2nd order polygon neighbors.

Illustration



Summary

This toolbox contains two Python script tools. Both find and make a list of adjacent and neighboring polygons but work slightly differently.

Both lets users select an ID field, which could be numeric ID (i.e. 1, 2, 3, 4… or FID/OID) or text/string field (i.e. Chicago, Evanston, Skokie… or zipcodes, like 60201, 60202, 60203..).

(1) **FANP Add Fields To Input Features**: stores a list of neighboring polygons in new fields. Works best for quick finding and to find 1st order neighboring polygons only and probably not for a large dataset. It took about a day (23 hours to be more precise) to finish the job against the US 5-digit zipcode polygons (32,237 cases/input). Also, the major drawback of this tool is "data over flows" - when the neighbor polygon ID list gets longer, the new text field may truncate the list due to the field size limitation (up to 254 characters)

(2) **FANP Output Text Table Join**: does the same as (1) but will store the list in a separate text file (comma delimited table format). The user may want to check the last option box to join the output text file to the input polygon features. Since it's a text file, there shouldn't be no "data loss".

So, I probably recommend (2) **FANP Output Text Table Join** tool for the reason above.

Tags

Nth order neighbors, Nth order neighbours, adjacent, neighbor, neighbour, neighboring polygons

Credits

The codes I looked at are by: ## Miles Hitchen (greatest, in VB, found in Forums.Esri.Com), ## Esri (CalcFields.py in ArcGIS Resource Center 10) ## Esri (SelectByNeighbours.py in ArcGIS Resource Center 10)

Notes:

Both tools come with Item Descriptions which you can view in ArcCatalog.

I also included a "test" polygon shapefile.

My codes are not perfect but I added as many comments as possible – hope they make sense. Let me know if you found anything. cmaene@gmail.com

04/13/2011, Chieko Maene