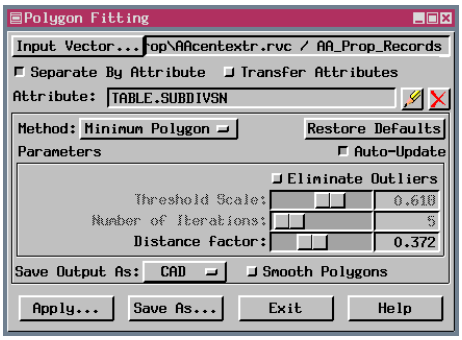
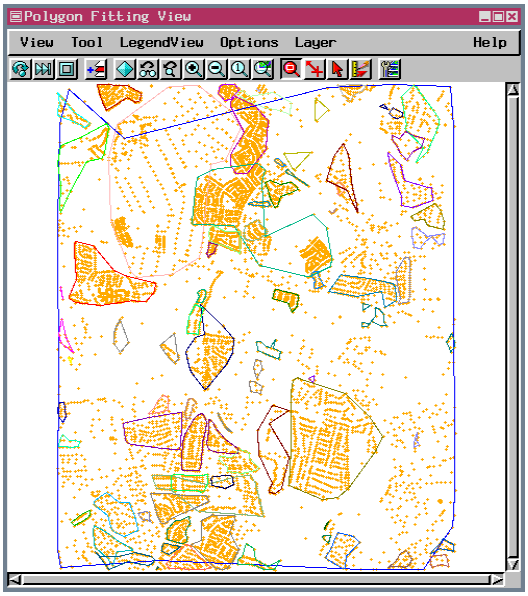
Polygon Fitting By Attribute



The Polygon Fitting process (Process/Vector/Compute/Polygon Fitting) now lets you specify an attribute to use for separating polygons so that you can fit groups of polygons to points with a variety of attributes in a single pass. For example, if you have vector points that represent observations of a number of different identified individuals, you can generate separate home range polygon sets for each of the individuals in a single application of the parameters set. For visualization purposes, the set of polygons is drawn in a unique color when the separate by attribute feature is chosen and you are generating a CAD object. You can also elect to have vector output with full topology preserving the attributes of the input points.

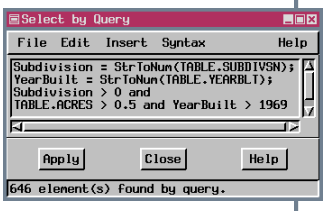
Polygon Fitting can use the database records attached to thousands of points and provide polygons that represent groupings by attribute value (string or numeric). The process runs on all points or on selected points. The property development subdivision polygons generated for all of nearly 7,500 points are shown at the right. The larger, outer polygon represents those properties that are not part of any subdivision. Using a query to select only those points assigned to a particular subdivision with a lot size greater than 0.5 acres built on after 1969, again separating by subdivision, produces the result below.



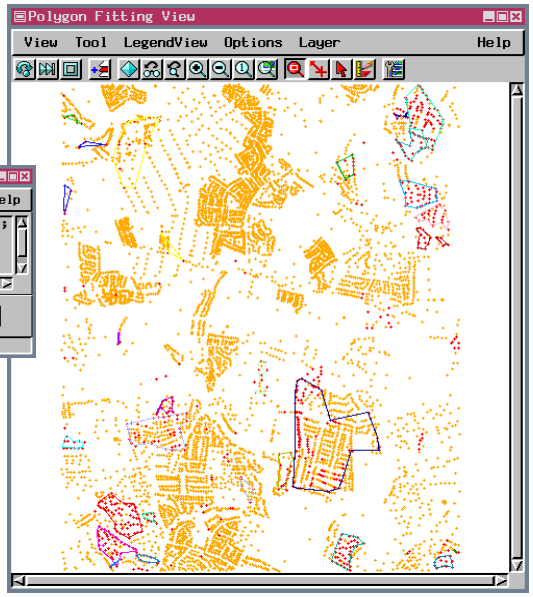
Subdivision polygons produced from nearly 7,500 real property centroids (above).

If no points are selected, the process runs on all points. If points are selected, the process runs only on the selected points. Points can be selected with the Select tool, the GeoToolbox, by query, or by record from a tabular view. You can also elect to transfer attributes to the polygons generated. All records are copied and appropriate attachments made to the polygons generated if you choose the transfer attributes option.

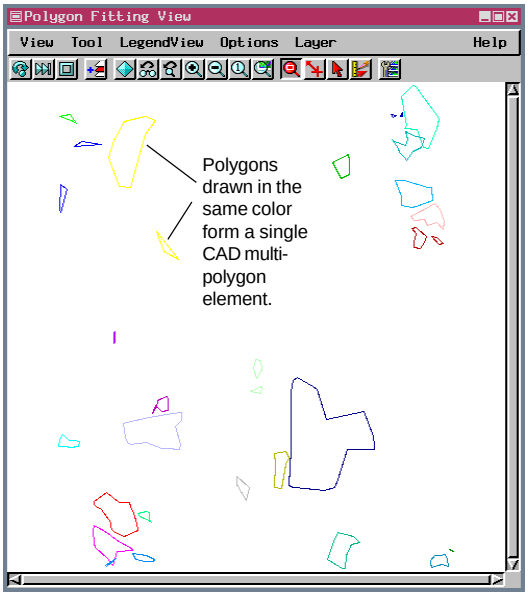
You can save the output as a vector or CAD object. If saved as CAD, you get a single polygon or multi-polygon element for each polygon set. When a vector object is chosen, the output has polygonal topology and is, thus, ready for other GIS operations.



Your selection query can make use of any field, ***including computed fields***, and need not use the same table as the attribute used to separate polygons.



Points that represent property greater than 0.5 acres in size belonging to any specified subdivision and built on after 1969 were selected (approximately 650 points) for polygon fitting and separated by subdivision number.



These subdivision polygons are the same as shown at the left, but the property centroids are hidden.