

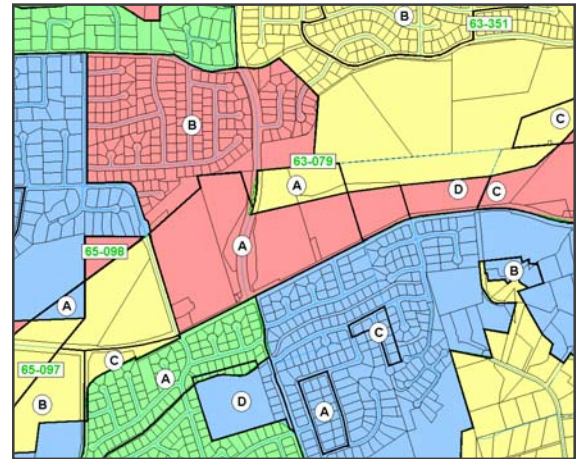


## Case Study:

# Enhancing the Election Process in Orange County, California

The Orange County (California) Registrar of Voters office has embraced Maptitude for Precinct and Election Management (Maptitude P&E) and given it a key role in their preparation for the 2004 general election and future elections. They first converted their county GIS data from Shapefiles to Maptitude format and used the geographic editing tools to create precinct boundaries that perfectly align with street centerlines, municipal boundaries, parcel boundaries, water features, and other visible features. They also created a geographic layer of portions. A portion is either a whole precinct or a split precinct, where the split is determined by a district boundary such as a school district or a water district. Map 1 shows precincts as solid colors and portions as black boundaries.

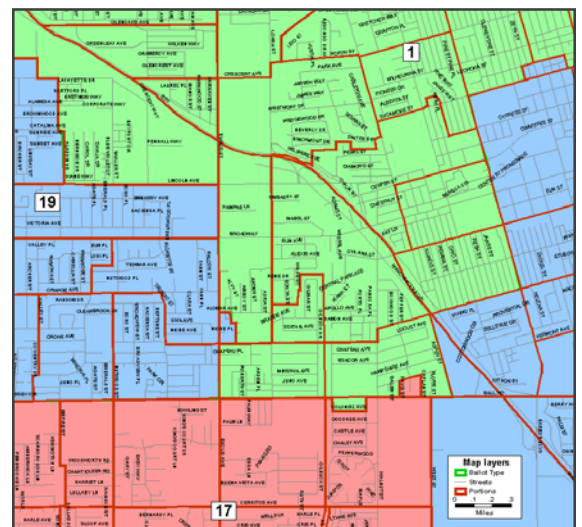
The portions layer is the major building block for all district layers, for everything from city and county wards up to state legislative and congressional districts. Orange County used a table of data from their voter registration software and the Merge by Value command in Maptitude P&E to dissolve the portions polygons into the district polygons.



Map 1: Portions and precincts

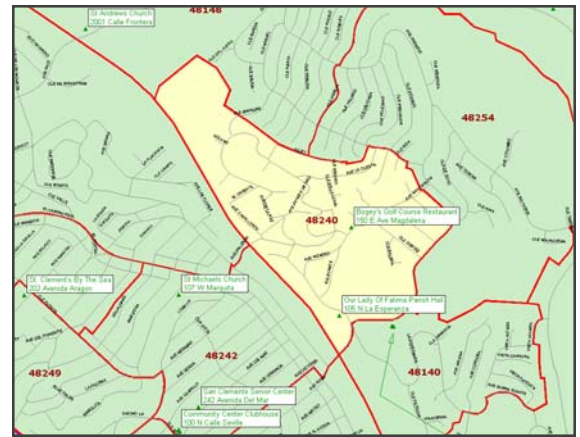
The first map required for an election is the ballot type (ballot style) map. Their voter registration software produced an equivalency file that indicates the ballot type for each portion. They joined the equivalency file to the portion layer and used the Merge by Value command to create the ballot type layer. All portions with the same ballot type were merged into a single polygon for that ballot type. In Map 2, the red lines indicate portions and the solid colors indicate ballot types.

Now that Orange County had a ballot type map, they were able to consolidate portions into voting precincts, which are one or more portions with the same ballot type and a single polling site. To do this they used the redistricting features of Maptitude P&E. They identified the portion layer as the base layer from which the voting precincts would be built. They also identified the ballot type layer as the layer that a voting precinct could not cross. If they tried to create a voting precinct that contained more than one ballot type, the redistricting routine would stop them.



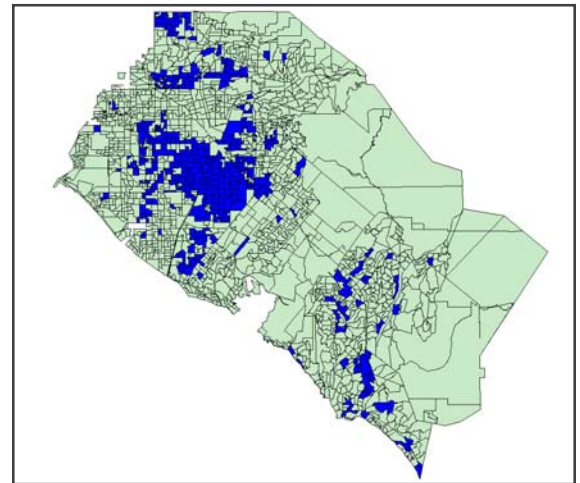
Map 2: Ballot types and portions

Orange County used the advanced geocoding functions in Maptitude to map all polling places. They added this layer to the voting precincts map. They then printed two sets of maps. One shows each voting precinct and the polling place. The other shows each voting precinct, along with the surrounding precincts and the polling places for those voting precincts. These maps are used at the polling place to give directions to voters who have come to the wrong polling place and need to get to their correct polling place. Map 3 shows the polling place for voting precinct 48240 and all nearby polling places.



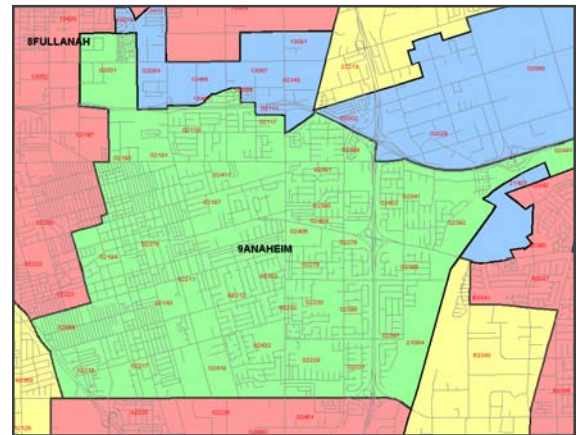
Map 3: Polling places in and around precinct 48240

Orange County is required to provide language assistance at polling places with more than a certain number of non-English language speaking voters. They created maps showing voting precincts with significant numbers of Spanish, (Map 4) Chinese, Vietnamese and Korean speakers. The process was easy, straightforward, and fast. The language assistance staff provided a data table indicating the need for assistance in each of the four languages at each voting precinct. Orange County then joined the table to the voting precinct layer and created four selection sets, one for each language.



Map 4: Precincts requiring Spanish language assistance

Orange County deploys 200 coordinators during election day to ensure that voting is going smoothly at the polling places. Polling places are grouped into clusters and subclusters. Each coordinator is responsible for a subcluster. Orange County used the redistricting features of Maptitude P&E to combine voting precincts into clusters and subclusters and to provide maps to the coordinators. Map 5 shows one of the subclusters in Anaheim.



Map 5: Subcluster of polling places

These are just a few of the ways you can put Maptitude P&E to work in your elections office. For more information, contact Caliper Sales at (617) 527-4700 or sales@caliper.com.

