
The Use of Spatial Decompositions for Constructing Street Centerlines

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Abstract

Although national data sets are becoming readily available at low cost, scale usually limits their utility for planning and managing small municipalities. As a result, most communities are faced with the construction of their own municipal Geographic Information Systems (GIS), information systems that are critical in handling land-related activities where high accuracy is essential. Most small municipalities cannot afford to begin by commissioning a large scale *cadastral* map and thus must opt for spatially questionable facsimiles where surveys showing administrative boundaries, property lines and street centerlines are suspect. The accuracy in these data can be enhanced and the results of great value to most city operations. We introduce a new method that applies theoretically based spatial decompositions to automate the generation of street centerlines from spatially corrected block and parcel data. This new centerline data base is a vast improvement over existing data bases for most municipalities.
