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Figure oriented global recognition method of maps. (English) Zbl 1082.68793
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Summary: Global Recognition(GR) method is a very good recognition method of drawings. Using the method, lines are vectorized through the topological relation of patches which are formed by the row scan process. There is wide foreground if the method is applied to map recognition field. But map recognition has its own features, so GR should be changed or improved for the new application field. In this paper, based on the analysis of the features of global recognition, a new method of Figure Oriented Global Recognition (FOGR) method for maps is presented. FOGR recognizes figures directly from patches, through analyzing the topological relation of patches. It is very good at extracting figures from maps. On theory, FOGR is closer to the process of reading drawings of human. Experiments show that the result of FOGR is very exact.

MSC:

68T10 Pattern recognition, speech recognition

68U05 Computer graphics; computational geometry (digital and algorithmic aspects)

68U35 Computing methodologies for information systems (hypertext navigation, interfaces, decision support, etc.)

Keywords:

map recognition; geographic information system