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## Digital Geomatics Trends for Production and Updating Topographic Map by Using Digital Generalization Procedures

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**Abstract :** An accuracy digital map must satisfy the users for two main requirements, first, map must be visually readable and second, all the map elements must be in a good representation. These two requirements hold especially true for map generalization which aims at simplifying the representation of cartographic data. Different scales of maps are very important for any decision in any maps with different scales such as master plan and all the infrastructures maps in civil engineering. Cartographer cannot project the data onto a piece of paper, but he has to worry about its readability. The map layout of any geodatabase is very important, this layout is help to read, analyze or extract information from the map. There are many principles and guidelines of generalization that can be find in the cartographic literature. A manual reduction method for generalization depends on experience of map maker and therefore produces incompatible results. Digital generalization, rooted from conventional cartography, has become an increasing concern in both Geographic Information System (GIS) and mapping fields. This project is intended to review the state of the art of the new technology and help to understand the needs and plans for the implementation of digital generalization capability as well as increase the knowledge of production topographic maps.

**Keywords:** cartography, digital generalization, mapping, GIS

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