

Map Generalization and Thematic Data Integration

ISPRS Commission II

Júlio C. L. d'Alge

Image Processing Division - DPI

National Institute for Space Research - INPE

julio@dpi.inpe.br

This paper discusses the impacts of map generalization on the integration of thematic data within a typical GIS environment. Because the map as a data model still is a major source for the creation of spatial databases, generalization can be seen as a transformation capable of deriving less detailed databases. As a consequence, since any transformation is subject to uncertainties, generalization does impact the integration of thematic data collected at varied scales or spatial resolutions. Different aspects of data integration are examined through the analysis of the effects of data cleaning, database simplification, and cartographic simplification on thematic data. A set of procedures is then proposed that eases thematic data integration under generalization constraints.