Spatial Data Warehousing: A Strategy for Integrated Urban Data Management in Support of Decision Making

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Abstract

Various data technologies for spatial data management under urban environments are briefly reviewed. The concept and principle of spatial data warehousing with respect to the urban data environment is given. The characteristics of the spatial data warehouse and its architecture are described. The potential use of spatial data warehousing for the development of an integrated urban data management in support of decision making is discussed. A three-tiered architecture for building a spatial data warehouse is then proposed. Finally, issues involving the design and implementation of spatial data warehouses are addressed.