
A Distributed GIS for Managing Shanghai Landscape Resources

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Abstract

Given the decentralized computing environment for managing landscape resources in Shanghai, China, this paper introduces a Distributed GIS application to support a more efficient and effective approach for resource management. Four critical computing issues related to such a Distributed GIS are addressed: (1) large image management, (2) time dimension management, (3) network communication of geospatial information within the computer network, and (4) spatial data access through a spatial data engine. This paper suggests possible solutions to these four issues and illustrates how general landscape management functions are implemented through a Distributed GIS. This paper also offers some insights on the design and development of a Distributed GIS.

Keywords

distributed GIS, time scaled spatial data model, image library, landscape
