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WebGIS-based Natural Disaster Information System of China

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Abstract

We have constructed China natural disaster information system utilizing open source WebGIS framework. Through comparisons and researches on different WebGIS system structures, implementation patterns, spatial database management patterns and several popular software, open source WebGIS platform MapServer, PostgreSQL+PostGIS (spatial database and spatial data engine), client-side browser framework openLayer were used. This system have basic function of web information publishing, spatial data storage and management, and it collects natural disaster information that have been publishing on the internet through grabbing internet information, and based on the analysis to the text information, different kinds of natural disaster information databases were constructed. Additionally, locations of the disaster occurred were combined to provide map services, and the system is able to meet multi-user access issues, and have functions of thematic mapping, query and statistics, charting and output, et.al.

Keywords : Natural Disaster;WebGIS;Visualization;Geography e-science