Geographical information system for hydrographic data

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Abstrak

A model to contour hydrographic data was designed to determine the depth of water. Because uf sparse and random nature of the given data, we superimposed an optimally sized grid system on the region and assigned the known data at their corresponding grid points. Thon We used the principle of minimum curvature tn derive finite difference? equations that calculated the remaining grid points. We iterated these equations until a convergence criterion of 0.01 over the whole grid was reached; this gave us a grid of values to contour. To insure corvergent.e of the grid before round-off error swamped the routine, we put the grid through an initializenq routine. The Geographical Information System is used to develop a powerful set of tools for concerting and displaying hydrographic data from the real world.