Endless Data

With fast developing survey data techniques, still data seems to be getting lost somewhere in the middle of processing; too much data coming in, too little emerging from storage. While on the output side there is an increasing volume of users and customers becoming more and more demanding. They want quality data faster and they want it in open-source. And different users having differing needs leads to a shift from managing data in file systems to doing so in database systems.

For example, in their feature on page 12 Schön et al mention the inability of GIS systems to fully support 3D point-clouds and Triangular Irregular Networks (TINs) in a spatially accurate manner; the alternative is to integrate all functionality within Spatial Database Management System. In our interview with Oracle (page 6), director of product management Xavier Lopez explains how the company's databases provide the storage, indexing and querying capabilities of the central geospatial data repository while geospatial mapping and location partners provide front-end tools and applications.

With ever growing volumes of data comes the commensurate challenge of sound data storage. Data needs to be stored in as raw a state as possible, and preferably just once. Official authorities like Hydrographic Offices also need to be able to store original data in order when necessary to provide proof that theirs was reliable in case of accident at sea. But in terms of the broader field of geography, it's important to keep original data for its inherent historical perspective, just as paper maps still provide a treasure chest of information.

Rather than keeping a database for every customer, reduction of data storage volume can be achieved by, for instance, holding only the rules regarding data selection for a customer. The Oracle method for data compression is to load data into blocks, basing the decision about which data is stored in which block on lowest storage volume. Data compression costs time, so that the question that remains is whether or not the space saving is worth the extra expenditure in terms of hours.

So this month Lopez explains why data compression offers more appealing benefits than does saving disk space, with its own inevitable costs, and Schön fills you in on an approach that has not yet been implemented in any commercial system. Enjoy your read!