

Title: The Potential of the Current Oracle Spatial Data Bases for 3D Topographic Data Integration

Abstract

The use of three-dimensional data is central to the mapping and design workflows of various industries including public sector, engineering, architecture, utilities, oil exploration, and urban planning. Three advances are accelerating the adoption of 3D solutions into broader applications: increased deployment of sensor technologies, the availability of commercial off the shelf 3D content, and the growing maturity software tools.

However, the use of conventional file systems to manage large volumes of 3D data poses a challenge for large projects that need to handle billions of Lidar points and/or need to visualize whole 3D city models.

What is needed are data management solutions that can manage the various 3D workflows: scalable sensor repository, point cloud filtering, 3D vector or surface model creation, to Web publishing.

Further, organizations can realized increased return on their investment by being able to scale their data holdings to any size and readily integrate 3D data with other with other business information workflows.

This paper highlights the use of relational databases to natively manage various types of 3D data to support a range of application workflows. It focuses on the new 3D data management in Oracle Database 11g for managing 3D Lidar point cloud data, terrain/surface models, and 3D vector models.

By using standard relational database technology, users and developers of 3D are able reduce data management cost and increase workflow efficiency.

Speaker:

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Speaker bio:

ALBERT GODFRIND has over 25 years of experience in designing, developing, and deploying IT applications. His interest and enthusiasm for spatial information and geographical information systems started at Oracle when he started working with the spatial extensions of the Oracle database in 1998. Ever since, Albert has been "evangelizing" the use of spatial information both to GIS and IT communities across Europe, consulting with partners and customers, speaking at conferences, and designing and delivering in-depth technical training.

Albert is one of the authors of the first book on Oracle Spatial, "Pro Oracle Spatial - The essential guide to developing spatially enabled business applications"

Prior to joining Oracle Corporation, Albert held several positions in database engineering at Digital Equipment Corporation (DEC), where he worked on the development of the Rdb database system.