

The first Geomatics Guest lecture is on 15 March and is given by Han Wammes from Oracle. He questions: *"Does the Geoworld suffer from the law of the handicap of a head start?"*

Oracle spatial, the foundation of the Geoweb

Han Wammes from Oracle will give a public guest lecture on Oracle Spatial. Oracle's flagship product is the database management system (DBMS) called Oracle. However, Oracle offers a range of integrated ICT solutions from the development environment and middleware to the application server, and from ERP and CRM software to hardware (with the acquisition of Sun).

Spatial databases are managing more and more data and society is depending more and more on these services. The Geo-DBMS plays a central role in the evolving (geo) information infrastructure, also known as the Geoweb. The Oracle database is traditionally used by the majority of the government organizations (in the Netherlands and worldwide). Originally, this use was mainly for non-spatial applications, but more and more Oracle is also being used for spatial applications (or integrated spatial and non-spatial applications). Oracle is leading the development of support for geographic information and has today more support than any other commercial or open source data management software for geographic information: a range of 2D and 3D vector data types (x, y, z,...), spatial operators (buffer, intersect, nearest-neighbor, x, y, z), 2D topology within the database, point clouds (e.g. from laser scanning or multi-beam echo's), TIN (for terrain elevation models), linear referencing, version management, spatial indexing, various spatial reference systems and conversions (WGS-84 and RD2000), geo-rasters (including compression, selection of parts), XML/GML encoding, and so on.

Han Wammes will not only give an overview of the Oracle spatial capabilities from the outside, but also a look under the 'hood': how did Oracle realize this functionality. Further, a number of key application domains (x, y, and z) will be highlighted, showing the great importance for society. These examples not only illustrate Oracle's spatial database capabilities, but the whole chain of services (incl. application server with map-capabilities) available via web services protocols, such as SOAP, WSDL, etc

Oracle (Spatial) and TU Delft's section GIS technology have a long standing cooperation and various research results (topology, 3D geometric primitives) are today incorporated in the standard release or in other cases further joint R&D is anticipated. In this lecture the theory and practice of spatial data management will meet and with the audience will get an insight in one of the foundation pillars of Geomatics: the Geo-DBMS.