

# **Data Management in the 21<sup>st</sup> Century Emerging Technologies and their Implication for Hydrography**

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## **ABSTRACT**

This paper will present one possible 21<sup>st</sup> century approach to the management and exchange of hydrographic data. This involves the use of new and emerging technologies including ISO SC4 data standards for data integration, XML standards for data transport and transformation, data warehousing, distributed system architectures such as J2EE and the adoption of some fundamental data management principles.

The ISPDM project will be used to discuss and outline the implementation of such technologies. ISPDM is a “Take-up” action, funded under the EC’s IST programme, to trial emerging data standards, warehousing and web technologies in the pipeline domain. The project commenced on 1 January 2001, will run eighteen months and is receiving 1,000,000 Euro from the Commission. The project consortium comprises of Thales GeoSolutions (UK), PrismTech (UK), Andrew Palmer & associates (UK), POSC Caesar Association (Norway) and Rosen Engineering (Germany).

The primary benefits from such a data management approach are increased organisational efficiency and effectiveness leading to enhanced decision making and the opportunity to develop new business processes. This results in cost reduction and improved competitiveness. For the hydrographic community the major advantages are:-

- Significant cost savings.
- Management of life-cycle data.
- Vendor independence vis-à-vis application suppliers.
- Resource maximisation.
- An enhanced and more competitive vendor base.
- System future proof - ISO standards are stable and technology independent.
- Data model supported by ISO.
- Web enabled systems.

Maritime safety will also be enhanced through the ready exchange of reliable data between HO’s and between HO’s and ENC vendors, in a consistent manner.

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