

KDOT's Spatially Enabled Data Warehouse

Presenter

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Kansas DOT (KDOT) is developing a spatially enabled transportation data warehouse in the Oracle environment using Oracle Warehouse Builder (OWB). KDOT's data warehouse effort uses Ralph Kimball's data warehouse development methodology, dimensional modeling, and formal extract, transform, load (ETL) staging methods. It is challenging to use formal data warehouse ETL processes to transform traditional GIS feature-based relational models into data warehousing dimensional models due to the limited transformation tools that have been available. Recent advances in technologies and KDOT business processes, however, have made the process simpler and provide a very powerful tool for data integration.

The presentation will cover an introduction to data warehousing and dimensional modeling, the processes KDOT uses to stage and integrate transportation event data using LRS techniques, and explain how the data warehouse can be used by traditional GIS tools and portals.