

Enterprise Gis: Role and Importance in Data Management, Interpretation & Dissemination Using an Integrated Systems Environment

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There is a lack of a systematic and interactive means of sharing final interpretation maps with relevant stakeholders in the organization. Usually an interpretation system contains built-in geographic component to display interpreted maps, however the use of GIS in an enterprise model for various E&P workflows remains a challenge due to the large amount of data in diversified formats and multiple fold transformations. In addition, persistent presentation layers are not maintained for interpreters, which hamper improvements in productivity, consistency and ability to focus.

In order to fill this void, an enterprise GIS with data management and data dissemination capability was developed. All geospatial data (Seismic Navigation, Well Location, Culture Data and Satellite Imagery) was transformed and restructured to a uniform data model and stored in a centralized geodatabase. Similarly the output data from geophysical/geological applications such as time structure contour maps, depth contour maps, porosity and facies distribution maps are systematically managed in the centralized geodatabase.

A centralized schematic geospatial data repository brings data credibility to all interpretation projects by ensuring the use of a common and reliable geospatial dataset. The Geophysical/Geological interpretation systems directly consume the preconfigured map services published by the GIS Server, and correspondingly, the interpretation results in the form of 2D, 3D maps, reports and graphs (with a geographical connotation) are made available across the organization to relevant stakeholders using a common web portal.