Abstract

Development of the Enterprise GIS Utility Data Platform at ADWEA; With Integration of the Utility Business Infrastructure and Upper Structure

Track: Database Design, Automation, and Management

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Abu Dhabi Water and Electric Authority (ADWEA) enterprise GIS system is built to modernize ADWEA by integrating AM/FM/GIS within the planning, operation, maintenance, customer service, financial, and management activities. Data is one of the major components in building a “workable” GIS system. This paper explores the complexity, challenges and achievements in the development process of a seamless geospatial utility database with an underlying landbase infrastructure.

Data conversion, editing and checking process was exceptionally managed to respond to the fast track nature of the project (fourteen months). Six international data models were customized to properly simulate ADWEA business infrastructure and upper structure. At the end, over 187 GIS data layers and 1700 fields were created.

More than 100,000 documents were collected, reviewed, compiled and filtered with different data formats. Extensive effort was required to identify and resolve inconsistencies among the various data sources. The creation of the seamless landbase and the consolidation process between Abu Dhabi and Al-Ain areas added a serious challenge to the project.

The data maintenance process is now part of the daily work flow with around 50 editors maintaining the data for a user community of almost 350 users at ADWEA’s and its affiliated companies.

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