

Spatial Data Access, Creating Structure for Managed and Unmanaged Data

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Summary

Redundancy and loss of data cause preventable frustration. The science and management of standard non geographic data has been around for as long as the modern information age, but in practice the onus is still on the users of the data for successful execution. These practices tend to have focused on structured data in the past, with Internet search engines bringing an ability to access unstructured data.

Fortunately geographic data, by nature, is structured in that it has a physical location as opposed to an academic study or financial report. It can be argued that all data has some geographic indicators, but current experience shows that the vast majority of data is completely unstructured.

We will be discussing some of the tools we have used to solve the problem of bringing structured non-location based data into a GIS interface.

Introduction

When working with spatial data such as seismic the most common vexation is the inability to see what data is in house and how it has been handled and how it relates to other spatial objects such as a Geologic survey. Success is often defined by being able to easily follow the electronic trail between structured, unstructured and spatial data, which can be very complex for these varied data types.

Our findings indicate that a seismic line can have many pieces of information associated to it. Creating links to spatial entities is a basic database linking operation, but the overhead of spatially enabling data means companies must be careful about which data is targeted. Today only a small portion of the Internet is spatially enabled, and the issues faced by the search companies is spatial search is only relevant for certain types of queries. Our experience is similar with only critical spatial entities being the cornerstones of spatial searches and the related items.

In our experience spatializing structured data increases the value of the data significantly within a company, and industry examples of payoff can be under 1 year.

Theory and/or Method

We have made use of the existing key information on spatial items to create links to online and offline data, ranging from core samples to financial reports, essentially turning the GIS into a document and item management system. Managing the two worlds of spatial and non spatial data require meticulous data planning in order to be useful.

Examples

We will be showing examples of the GIS solutions we have developed to help demonstrate the problems facing larger and smaller organizations

Conclusions

New technologies have allowed us to see and search our data in ever more creative ways, we believe over time spatial search will be critical in resource sectors, however, is not going to be the exclusive search method.