



Case Study: IHS Energy



Key Facts:

Industry: Oil and Gas

Problem: Data delivery hindered by inefficient processes, increasing data volumes, and inflexible systems

Solution: FME SpatialDirect

Results: Empowered customers - with reduced resource pressure on IHS

Location: Colorado, USA

The Organization

IHS Energy (www.ihsenergy.com) enables oil and gas companies worldwide to create and maintain best-in-class decision-making processes by providing and integrating essential Exploration and Production (E&P) information, intuitive software and consulting services.

IHS Energy has more global E&P data, current and historic, than anyone in the industry and offers a global database and reporting service on an unrivaled scale.

Some of the data we provide includes Well, Production, Pressure, Log, Midstream and Basin data. On a daily basis, we continue to gather, standardize, manage and report information obtained from every available source including operators, governments, agencies, public documents, customers and our own extensive network of experienced incountry scouts and energy experts. And because speed and accessibility are important to our customers, we make that information available to them by PC, the Web and client-server platforms.

The Situation

A large part of the data that IHS Energy provides is spatially enabled (for example, Wells, Fields, Reservoirs, Geological structures, Blocks definitions, and Midstream data). With this Exploration and Production (E&P) data, IHS Energy also provides a consistent set of cultural data layers, including coastlines, cities, rivers, water depth, political boundaries, and grids.

All the spatial data was previously supplied to the customer via traditional delivery mechanisms, including:

Installation on local RDBMS servers at client sites; Update of these databases via weekly, monthly or quarterly update procedures; shipment of CDs with the data in different formats.

There were a number of constraints on this delivery workflow:

Time and Resources

Deliveries on physical media (tape, CDROM) had to be processed according to the customer request and then shipped. It was possible for a number of days to elapse before the customer was able to load the data on their systems. As the data provider, IHS Energy was concerned by the delay between when the data was extracted from their databases, and when it was actually usable by the customer.

Technical Aspects

Having databases replicated at IHS Energy's customer sites or shipping CDs with IHS Energy's worldwide datasets necessarily involved clients in both data and IT management, which is often not a core activity for them. Another issue was knowing that the amount of data available will continue to increase.

Different Applications Need Different Data

IHS Energy's customers frequently maintain complex multi-application environments that require data in differing formats. This means a higher workload and can also reduce productivity.

Data Ownership

When IHS Energy's worldwide dataset is maintained by customers in a spatial database, there was no method for capturing what happens to the data (whether it was being copied or modified, for example).





The Requirements

Product Management at IHS Energy required an Internet product that could display, browse and query the spatial data in the different databases, and also deliver it to clients in a simple and effective way. The tool had to satisfy the following criteria:

User Entitlements: The system should support multiple users with different access rights to the data. The export module had to be able to apply these entitlements to the export requests.

Multiple Databases: Previously, the Spatial Data had been delivered differently by each division inside IHS Energy (International, US, Canada). So the export module had to connect simultaneously to multiple databases.

Multiple Formats: Previously, only a limited number of GIS or CAD formats had been offered due to the amount of resources involved in creating and maintaining the different formats. Also, the different divisions within IHS Energy produced the formats in different ways, so format compatibility was not guaranteed.

Attributes Filtering: The attributes available for export would depend on the users' entitlements.

Integration with the Web GIS Interface: The Export module had to be intelligent enough to know about the user status in the application and be able to Export Data via a window or selections (made by the user through queries or graphical selection).

User-Friendly: The delivery mechanism had to be simple and safe for the user and the data.

The Solution

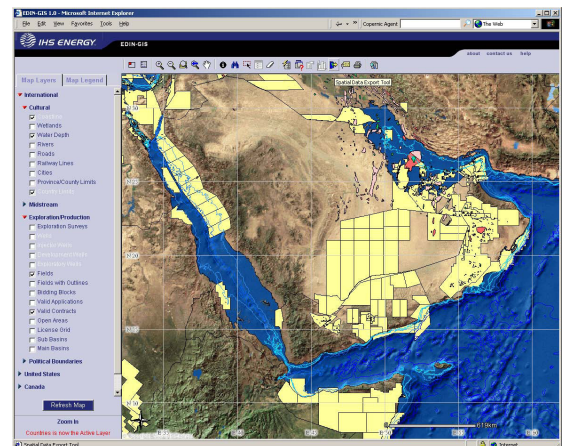
Safe Software's FME® and FME SpatialDirect® were chosen to provide the necessary components to integrate into the ArcIMS Web Interface as an Export module. FME SpatialDirect addressed all of the requirements outlined in the specifications.

Using J2EE technology (Java server side), IHS Energy was able to integrate FME SpatialDirect and FME as required and also add extra functionalities:

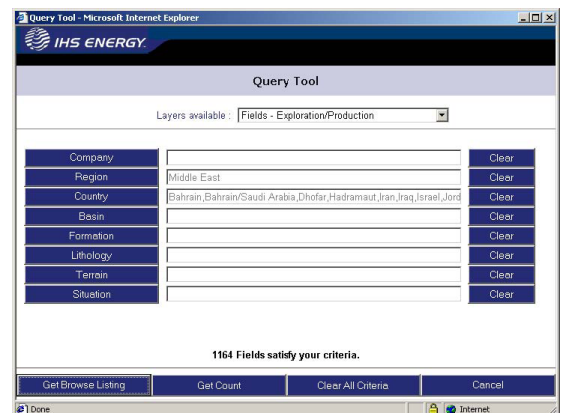
- Thin web interface
- Multiple database sources accessed simultaneously
- Entitlements on the data
- Multiple header attributes
- Several formats supported
- Integration into ArcIMS
- Data Inventory before export can start (pre-counting)
- User Requests History
- System load controlled by QServer component
- SSL support

The Results

The resulting product is a thin web interface (HTML-based) that allows users to browse and query the data and export it according to their specific requirements:

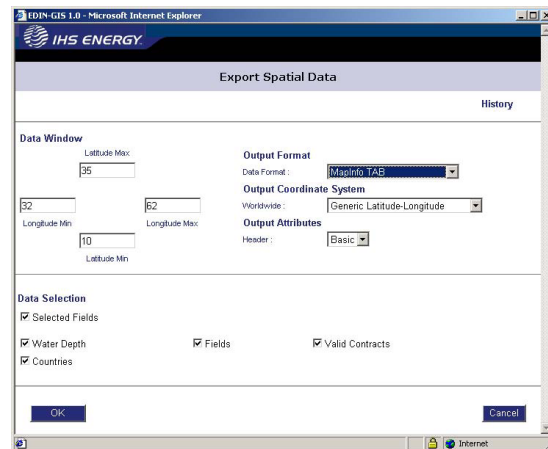


Users can select data using a number of different tools. This example shows the Query Tool.





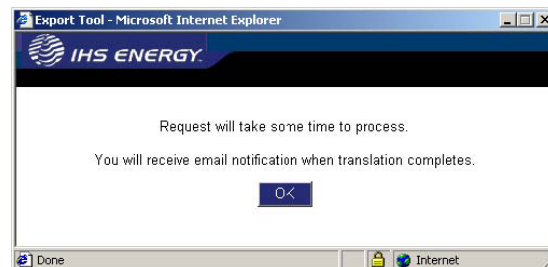
When users start the Export Tool, this screen appears. From here, they can choose the desired layers, format, coordinate systems and attribute header parameters.



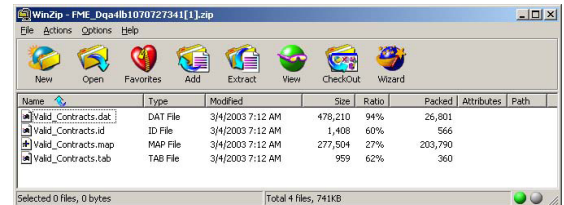
After processing the choices, a data inventory is made according to the user's data entitlements.



Users can then start the export process. They are notified by e-mail when exports are complete.



When the exports are complete, users can download the files for use locally.



The Benefits For Customers

- Customers can get **up-to-date data into their favorite application** with a simple click.
- Customers **do not need servers** dedicated to the management of the several datasets.
- Customers can easily **get the same data in multiple formats**, allowing them to more easily support the use of different applications within their company.
- Customers **can carry out this process** from any computer and location, in or outside their company, and **without installing specific software**.

For IHS Energy

- **Reduced delivery resources:** with an automated system, IHS Energy can support one or hundreds of deliveries per day.
- **The number of export formats available, and their continuous upgrade by Safe Software:** this removes the need for IHS Energy to devote resources to keeping up with the evolution of export formats.
- **The ability to address some data delivery issues that were not possible before:** for example, additional formats, data selection, smaller customers.
- **Customers can work effectively in IHS Energy's preferred environment** (web applications in hosted environments), and still be able to work in their desktop applications with the data they need, when they need it.
- **The customer is doing the work themselves!**

Learn More

To find out how FME can help address your data interoperability challenge, or to download a free evaluation copy of FME, visit www.safe.com.



www.safe.com