PNEC Data and Information Integration Conference
Houston, April 2006

Phil Crouse presents Oil IT Journal editor,
Neil McNaughton, with the PNEC award[1].

PNEC continues to thrive – with some 370 attendees this year – almost half oil company employees. PNEC organizer, Phil Crouse pulled off a considerable coup this year by persuading Wal-Mart CTO, Nancy Stewart to present a paper on Wal-Mart's data management systems. This was without doubt the highlight of 10 years of PNECs. Stewart's presentation showed how great attention to data and information management underpins Wal-Mart's business.

Wal-Mart is 'manic about data' and has established a humongous central data repository with almost a Petabyte of online data and real time connectivity to all its stores around the world. This allows the company's planners to 'ask any question, any time,' tracking customer preferences and re-jigging stocks and displays for maximum effect. Wal-Mart's enthusiasm for data contrasts with oil and gas which, as attendees to PNEC know, has neglected management of its data over the years. In oil and gas, you can ask any question any time, but you maybe won't get an answer right away! The Wal-Mart case history provides much food for though for oil and gas majors and argues in favor of a radical overhaul of IT/IM strategy. With oil at $70 this ought to be a better investment than share buy-backs.

Other presentations traced familiar ground. Better widgets are improving Kerr McGee's browser experience. Shell continues to enhance (and measure) data quality. More metrics underpinned Burlington Resources' (now part of ConocoPhillips) application portfolio rationalization. Finally, OpenSpirit have been quick to jump on the Google Earth bandwagon and can now offer the popular GIS front end as a data browser for any OpenSpirit enabled data source.

Highlights

Wal-Mart – 'manic about data'
Unstructured data management (Kerr McGee)
Google Earth in oil and gas (OpenSpirit)
Information quality metrics (Shell)
AJAX in oil and gas (Kerr McGee)
Geoscience productivity (ConocoPhillips)
IM framework for oil and gas (IHS)

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[1] *Photo courtesy Cindy Crouse – more on the PNEC awards on page 10.*

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TW0608_1   Realizing the value of unstructured data – Paul Haines, Kerr McGee

Haines cut to the quick with some practical definitions. A 'taxonomy' is a folder structure. Structured data is that which is held in database tables. Unstructured data is that stored in files. Semi structured data is stored in an EDMS[2]. Current challenges are that you either can't find data, or that you find too much – e.g. 22 deviation surveys for one well! There is 'no magic in data management,' it's just work. It is hard to quantify the ROI of data management. There is even little consensus as to what data management is. Often, the results of interpretations end up in a knowledge 'black hole'.

Haines proposes a three dimensional data matrix of domain (well, petrotech, drilling etc.), maturity (raw interpreted) and geographic location. This can be useful to understand data management scope and educate business users. Kerr McGee's new data management vision is of a single doorway to data. Priority is given to unstructured data which represents 80% of oil company data according to an IBM study. Kerr McGee has built a high level corporate taxonomy, implemented standards and assigned roles and responsibilities to business users and data 'gatekeepers.' Data acquisition goes through the gatekeeper before archival.

Kerr McGee aligns its data management effort with information value – for example, corporate files get most effort. Taxonomy is held in LiveLink. This ensures that all relevant documents are retrieved. For instance a basin map covering three states will be retrieved from queries to 'Petrotechnical', 'US Onshore', 'Texas' and 'US Offshore GoM' as appropriate. Moving files to the EDMS has benefited from the standard taxonomy, search, version control and document management. This has positive spin-off regarding Sarbanes-Oxley and records and information management (RIM) compliance.

A Kerr-McGee developed application, WellArchiver, manages well files and metadata capture. Search and retrieval leverages WellExplorer (Geologix), NitroView (Exprodat) and LiveLink (OpenText). The ILX Viewer (InnerLogix) is also used to spider the Kerr-McGee repository for well log files. WellExplorer provides textual queries and can launch NitroView, ILX Viewer and provides access to CoreLab's off-site data store.

A mid-term goal is knowledge 'promotion,' moving information up to a petrotechnical database for results capture, management and re-use. The key is to 'make solutions that users like and will take-up.'

Q&A

What skill sets are required of the gatekeepers?

Basic IT, some knowledge of oil and gas helps. It's a challenge to find them – in fact we have a few openings! We have tried several profiles. Some are hired as contractors and may later be taken on as staff.

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[2] *Electronic document management system.*