Trading assets on the web

Terry Jackson, with EZDataRoom ("easy data room"), is eager to demonstrate the new software that the company claims will make asset divestments much more time and cost efficient. "The problem with the traditional data room method is two-fold: a) the time allowed to review the legal, commercial and technical data, usually about 2-days, is not long when you consider the millions of dollars at stake and b) the cost of hosting a string of 2-day data rooms mounts up very fast when everything is taken into account. The industry needs a better way," he says.

"A project in EZDataRoom extends the data review period to as long as the seller wants, be it weeks or months. EZDataRoom can virtually eliminate the traditional data room saving considerable time and costs for the hosting company," says Terry Jackson. He goes on to stress that "face to face meetings between sellers and buyers are still vital. They cannot be replaced since it is important for relationship building and getting the 'deal' concepts across".

"EZDataRoom is an online service for companies wishing to farm-out or sell oil and gas assets. With this software everything can be included in one centralised site and viewed remotely via the Internet without ever downloading a file. Nobody has ever done anything similar to this before," Jackson explains. "Our charges are also substantially lower than other suppliers of online data rooms," he claims.

EZDataRoom was launched in January 2005. As usual the oil industry, being very conservative, took five months to get the first project off the ground. Things have changed, however, and they are now selling by recommendation.

Jackson says that a typical scenario is developing for EZDataRoom. The face-to-face meetings are still happening and the interested parties are being shown that all the information is available online. The review is being carried out, not in the seller's office, but from the interested parties office online over the Internet where a multi-discipline team can dip in and out of the data room over an extended period. Feedback indicates that serious investors study a prospect for longer, ask questions and request downloads whilst the other companies drop out saving time and resources for the selling company.

Asked how EZDataRoom was different, Jackson answered: "It's the unique features of the software. With EZDataRoom you do not need to download a file to view it. Not only is this a good security feature but it also means that incredibility large files can be viewed virtually instantly. For example, a 3D seismic in segy format is large but with EZDataRoom a user can view and manipulate the file live and interactively. They can change a host of viewing parameters, generate cross lines on the fly and even print remotely, if permission has been granted. The same can be done for well logs. In addition office documents such as Word, Excel, PowerPoint, PDF files plus a wide range of graphics files are handled, without reformatting, in the same way. The remote users do not need any special software or plug-ins, the whole thing works using a standard web browser. It's efficient, convenient and powerful."

Another key feature is the online Presentation and Conferencing tools included with the software. This enables the seller to give live presentations of anything within the data room to anyone wherever they are located in the world. The conference facilities enable online queries to be sorted out with both participants looking at the same data. This cuts down on travelling and wasted time.

"EZDataRoom is not meant as a complete replacement for traditional data rooms. Instead, it is a compliment to this relationship building process by providing a more convenient and longer review period for potential trading partners," Jackson says.

"This is a new way of doing asset deals. We use technology to provide a useful service that benefits both buyers and sellers whilst saving a lot of travelling time," concludes Terry Jackson.

ABBREVIATIONS

Numbers
(U.S. and scientific community)

M: thousand	$= 1 \times 10^3$
MM: million	$= 1 \times 10^6$
billion	$= 1 \times 10^9$
trillion	$= 1 \times 10^{12}$

Liquids
barrel = bbl = 159 litre
bopd: bbls of oil per day
bcpd: bbls of condensate per day
bwpd: bbls of water per day

Gas
mmscfg: million ft^3 gas
mmscmg: million m^3 gas

NGL
Natural gas liquids (NGL) include propane, butane, pentane, hexane and heptane, but not methane and ethane.

Reserves and resources
STOOIP:
Stock Tank Oil Originally in Place

Oilfield glossary:
www.glossary.oilfield.slb.com

Balanced Rock. Sculpturing in the Arches National Park, Utah, USA. The softer Dewey Bridge Member mudstone below weathers more quickly than the hard, resistant Slick Rock Member above.

New Orleans, a city of past and present history

New Orleans is one of the most unique cities in the United States and one with a fascinating culture and history. Many different influences - Cajun, Creole, and southern U.S., in particular - combined with the most European ambience of any major U.S. city to produce an original, unmistakable and world-famous mixture of culture, food, music, and architecture.

Today, our perception of legendary New Orleans is tempered with our questions, many unanswered, regarding how significantly the city has recovered from devastating hurricanes last August. It can definitely be reported that the part of the city that contains the convention center and the major logistical venues associated with a major event such as SEG's Annual Meeting (the hotels, restaurants and French Quarter) have recovered nicely and are functioning as professionally as ever.

The SEG Executive Committee recently held a regularly scheduled meeting in New Orleans to conduct its routine business and to see first hand how things were progressing. The results of this tour of the French Quarter, Warehouse District, convention center and many of the hotels to be used during the annual meeting revealed business as usual. All of the hotels were open. The number of rescue workers staying in the hotels is going down and the number of tourists is going up.

The convention center has been completely refurbished from top to bottom and resumed holding meetings in April. The city assures us that they will be ready for SEG in October, and there appears to be solid evidence supporting this confidence.

We are glad to report that our early indications forecast a meeting of similar dimensions to recent SEG conventions. The technical program received over 800 submissions, almost identical to same number submitted for the 75th anniversary convention in Houston in 2005. The Applied Science Program will include a presentation by one of the world's leading astronomers - Richard Binzel, professor of Planetary Science in the Department of Earth, Atmospheric and Planetary Sciences at MIT and a widely recognized expert on Pluto and the asteroids.

The Society of Exploration Geophysicists is an international organization with over 25,000 members who live and/or work in well over 100 countries. SEG's annual meeting has long been the world's leading showplace for state-of-the-art geophysical instrumentation, and booth sales indicate the exhibition flow with again be overflowing with examples of the equipment that makes geophysics one of the world's most "high-tech" industries.

In conclusion, all systems are "go" for our meeting in New Orleans in October. We anticipate the registration, the quality of the technical program, and the number of exhibiting companies will be similar to the levels of recent, highly successful, SEG annual meetings. It is a position that, frankly, we did not anticipate a few months ago when it seemed unlikely that New Orleans could possibly rebuild its infrastructure in time to support a meeting of our size. But New Orleans has managed this minor miracle and we are excited to be part of re-establishing this unique place as one of the world's great cities.

Stephen Emery
Society of Exploration Geophysicists

NGF MEMBERS!

Members of NGF (Norsk Geologisk Forening/ The Geological Society of Norway) are offered a free subscription of GEO ExPro 2006 as part of their membership. If you would like to register, please write an e-mail to halfdan.carstrens@geoexpro.com.
If you want to register as a member of NGF, check www.geologi.no.

GEOLOGICAL SOCIETY OF NORWAY

SeaBird to acquire SeaBed

SeaBird Exploration Limited (SeaBird), a global provider of 2D and 3D seismic data and associated products and services to the oil and gas industry, has reached an agreement to acquire **SeaBed** Geophysical AS.

SeaBed is a geophysical company that specializes in seabed seismic. Main concept is to deploy geophone sensor nodes into the seabed and acquire high quality multi-component data. SeaBed can provide all aspects of seabed seismic; feasibility studies and pre-survey planning, data acquisition, on site QC, minor data processing and interpretation.

The objective of SeaBed is to provide services to the oil industry in order to reduce the economic risks in the exploration phase and reduce uncertainties related to reservoir description, fluid-flow and reservoir management. With the industry's strong demands for a reduction in field development and operating costs, improved technology and techniques are absolutely necessary. The concept of acquiring high quality pressure and shear wave data on the seabed will have a great impact by reducing costs and giving higher production on existing and new fields.

SeaBed's strategy has been to develop innovative and cost efficient solutions that can meet each client's specific needs and requirements. The flexibility available in the use of this highly target oriented data acquisition method make it well suited for application in exploration prospecting, reservoir description and reservoir monitoring. The company has developed solutions for the seabed acquisition of 2D, 3D as well as 4D multimode pressure and shear wave data.

SeaBird Exploration Limited specializes in high quality operations within the high end of the source vessel and 2D market, as well as in the shallow water 2D/3D market. Main focus for the company is proprietary seismic surveys (contract seismic). SeaBird does not have a multi-client data library. SeaBird operates a seismic fleet of 4 vessels with two additional vessels under conversion with expected completion during the first half of 2006.

"We have been keeping an eye on the company for years and felt that the time to do something was right. SeaBird shot the successful SeaBed survey on the Cantarell field for Pemex in 2004 (**GEO ExPro No. 2, 2004**), so we know them very well. We are excited to get into the Ocean Bottom Seismic (OBS) market, and are confident that this will grow into a profitable addition to our range of services," says Mr. Tim Isden, Chairman of SBX.

"It is positive to have an owner that has ambition and industry understanding as well as access to vessel capacity in a very tight market," says SeaBed founder and inventor Eivind Berg. He is also pleased to get an owner that supplements the copmpany on QHSE, operational experience and business development.

Increased capacity for multi component seabed data acquisition

The timing looks good for RXT: "As for the towed streamer market there is an excess of demand over supply for multi component seabed seismic which has resulted in a number of programs being delayed from 2006 to 2007" says Chris Walker, VP of Geophysics for RXT and continues; "The ocean bottom cable market, especially 4C, is focused more towards production than exploration so we anticipate that with the superior imaging capabilities of the VectorSeis Ocean OBC system and the increased cost-effectiveness of our operations, demand will continue to be strong even if the current exploration driven activity "boom" comes to an end."

On Friday April 28th Reservoir Exploration Technology (RXT) took over their new OBC vessel Ocean Pearl during a ceremony in Stavanger. This will be the first time multi component data will be acquired with only one vessel with both cable/buoy handling and the seismic source operated from the Ocean Pearl. The vessel is configured to deploy/recover the VSO cables and buoys as well as dual 4000+ cu. in. seismic sources. It is equipped to handle 12 cables – double that of any other OBC vessel. The new vessel, built in 1997, is owned by the Shipman group and has been converted from a cable-laying vessel by Rosenberg Shipyard.

Until now RXT has been operating their first crew in the Gulf of Mexico, a dual vessel operation comprising a shooting vessel - the m/v Beulah Chouest - and a cable/buoy handler - the M/V Bourbon. Their GOM operations started in June 2004.

The vessel-rigging boom currently experienced in the towed streamer market is not found in the seabed seismic segment. With the new vessels coming this year and the ones planned for 2007 and 2008 an increase in the order of 30% is expected in the global towed streamer fleet. For seabed seismic, Ocean Pearl appears to represent the only new capacity currently being introduced. WesternGeco is an important player in the multi component market promoting their Q-Seabed technology. PGS, on the other hand, recently decided to pull out of the seabed market and converted their vessels for towed streamer operations. Node based ocean bottom seismic acquisition is offered by Fairfield and SeaBed Geophysical. RXT, however, has already secured funding for their third crew, which is planned to be in operations in Q1 2007.

For the North West European market RXT has announced that they have been awarded a contract for acquisition of 4C seismic data for BP on their Clair Field west of Shetland and that they have received a letter of intent from Statoil for acquisition of 4C seismic data on the Norwegian Continental Shelf. This will keep Ocean Pearl busy through the 2006 North Sea season.

Doing it alone

In 1988 Mark Sun looked into the future and asked himself a question. "Is this what I want to do with the rest of my life – and is this the best way to do it?"

The inspiration for this life-changing moment was the realisation that the interpretive software tools that he was using as a young explorationist with Suncorp in Calgary did not work as well as he thought they should. Investigating why the software did not seem to make sense or even undertake many common tasks, he realised that programs written by non-explorationists would never fully satisfy the needs of the interpreter.

A keen 'hacker' in his youth, Mark felt he could produce a better product. As he puts it "I wanted to do something more creative with my life, working when, where and how I liked. Why not make life easier for other geoscientists while I'm about it?" So in 1989 he sold his house and bought a workstation with the proceeds. He moved from Calgary back to his parents' basement in Vancouver and set about developing his product. Two years later he sold his first commercial workstation, and both he and his product have been developing ever since.

Real Time Interpretation

Mark's innovative product is the EarthWorks Exploration System, which combines the power of an interpretive workstation with real time processing technology. It includes all the features needed for full prospect analysis, from picking horizons and simple mapping, to complex zero offset modelling and fault association and visualisation. The system usually uses two monitors, with seismic data on one and the mapping application on the other. As the seismic is picked, filtered or manipulated on one screen, the map can be seen on the other screen, automatically re-gridding, contouring or re-imaging the data.

"It is an intuitive, menu driven system," Mark explains. "It allows the interpreter to adjust filters and apply tools 'on the fly' to bring out geological character. You can overlay different seismic data versions to see changes over time, or drag things around and change the character of a feature whilst looking at it. This is instant real-time analysis at the click of the mouse. I call it 'what-if interpretation'."

An important feature of the EarthWorks system that geoscientists particularly profit from is the ability to bring in pre-stack data. Mark explains this feature "Traditionally, interpreters use stacked data, where the seismic traces have been averaged to a common depth point (CDP) for each shot. But if there is any error in the processing the seismic will have the wrong character. By bringing in pre-stack data we can compare it on screen with the processed lines and see the nature of the data. It is also very important with AVO analysis and the identification of gas. The job of the geophysicist is to recommend where and where not to drill, and the more we can see, the better our information and the greater the risk reduction."

Independent and rapidly evolving product

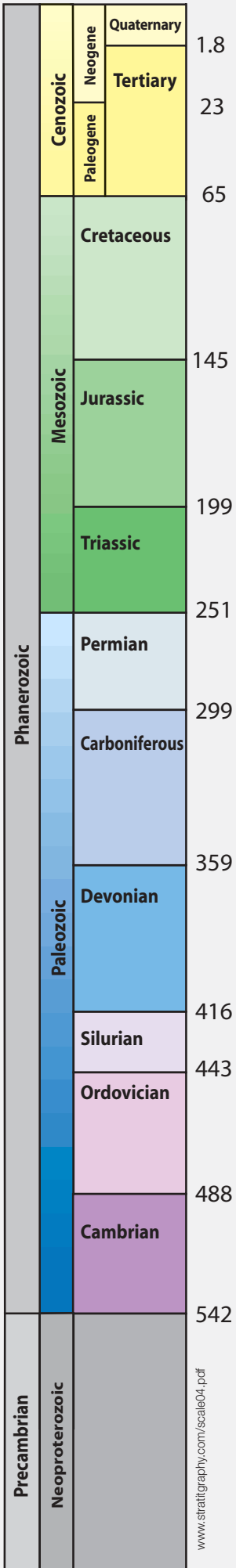
Independence is an important feature of Mark Sun's business. "Most products in the industry are hooked into the major applications, so the geophysicist has to learn individual products to solve various problems, plus spend a lot of time transferring data from one product to the next. With EarthWorks, everything is in one system, and because the system has been designed by interpreters, it is very easy for other interpreters to learn to use."

Mark Sun takes prides in the fact that the product is constantly evolving to meet customer requirements. "Having only one main software developer - myself - means we can easily update the product and add new features in a very short space of time," he says.

Mark decided early that he would design his product on "whatever hardware gave the best performance." The system is built on an operating system called OpenVMS, powered by a 64-bit HP Alpha processor, simply because this gives the most power and the fastest response. As he points out: "Many oil companies are trying to become PC-based, because PCs are cheap. But this gives short term savings. With the speed and power of a product like EarthWorks, an interpreter can save literally months of interpretation time"

Emphasis on independence also means that although his company, Genetek, is gradually growing, Mark has no intention of expanding any faster. "I want to develop the product so that it continues to solve problems for geoscientists – not because I have some venture capitalists breathing down my neck."

Jane Whaley



Do you prefer chess or poker?

How much does human bias affect geological models and can we account for the uncertainty it introduces?

Dr. Clare Bond at the AAPG in Houston in April inviting geoscientists to participate in the Odin Project, an initiative to study how people use their 'prior knowledge' and concepts to interpret seismic data.

"If you put several geoscientists in front of the same dataset, you will get as many different interpretations as there are geoscientists," says Dr. Clare Bond with Midland Valley Exploration. She is using the opportunity at conferences and workshops to get geoscientists to interpret the same seismic section and answer questions about their background knowledge and personality. "Seismic data is inherently fuzzy due to the limited resolution, making it an ideal data source for assessing variations in data interpretation by individuals. These interpretations are based on differing assumptions, bias and experience. We call this 'concept uncertainty'," she says.

The Odin Project, a joint initiative between the University of Glasgow and Midland Valley Exploration, looks at how people use their 'prior knowledge' and concepts to interpret. The project uses seismic data as the experimental medium.

In order to quantify the range in interpretations of a single data set by professionals, more than 200 geoscientists from industry and academia have been asked to interpret the same seismic section. The aim is to assess the impact that such interpretations have on structural models and, ultimately, on prospectivety. An important aspect of the experiment is to know 'exactly' what the seismic section represents that people are asked to interpret – a 'Catch 22' scenario if using 'real' seismic, where the 'true' answer is unknown. The data set was therefore created using a structural modeling and restoration program in order to produce a known geological scenario. Synthetic seismic was 'shot' across the model to produce an image for interpretation.

Both statisticians and psychologists are involved in the analysis of the data. In addition to questions about technical education, background and experience, participants are asked personality type questions like; "Do you make your own decisions regardless of what other people say?", "Do you prefer chess or poker?", or "Do you read the manual or find your own way?"

The results of the initial Odin experiment will be published later this year. Already, however, some observations and preliminary conclusions are available. Initial findings suggest that people's previous experience affects both their approach and the outcome of their interpretation. The range of interpretations is huge, with only 43% of interpreters getting the tectonic setting of the seismic section correct. Interpretation styles vary from those that draw straight lines to pick discontinuities or concentrate on faults, to those that follow seismic reflections to pick horizons. These differing interpretational styles have resulted in interpretations of the single data set that can be divided into a number of tectonic regimes ranging from salt to inversion tectonics.

So far the results show that those that have worked predominantly in a particular tectonic regime have in many cases brought their experience from that regime to play in their interpretation.

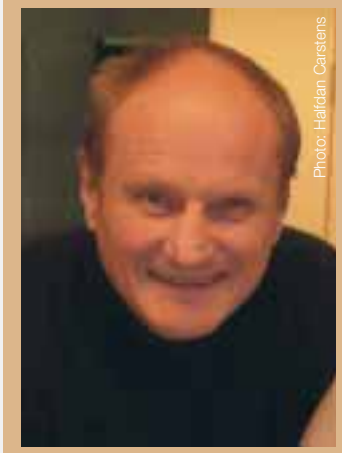
"Interestingly, length of experience alone is not a crucial factor in achieving a correct interpretation, and in many of the interpretations you can see how individuals have applied their background experience and knowledge even when there is little or no fit to the data. Understanding when use of 'prior knowledge' becomes a hindrance rather than an aid is important for optimising interpretational accuracy and minimising uncertainty. How we deal with this variability in geological interpretation of a single dataset and the processes we use to validate our geological models is clearly an important consideration when assessing productivity of petroleum reservoirs. Its important not to get hung up on the "right" and "wrong" interpretation but to understand the range and reasons for differences in the interpretation outcome and how to use this to manage risk and uncertainty." Clare explains.

emgs wins award

Electromagnetic Geoservices AS (**emgs**) has received the prestigious 2006 Hart's E&P Meritorious Engineering Award in the "exploration system" category for its seabed logging survey method (GEO ExPro No. 1/2004).

Svein Ellingsrud, vice president Research &Development, emgs, accepted the award at the Offshore Technology Conference (OTC). Thanking the panel of industry leaders who made the award, Ellingsrud noted that the commercialization of seabed logging has brought the industry a completely new type of remote-sensing survey, which is changing the face of offshore exploration.

"Identifying hydrocarbon reservoirs before drilling is improving exploration efficiency and profitability for a rapidly increasing number of operators. Recognition of our contribution by leading industry figures, in the form of this prestigious Hart's award, means a lot to everyone at emgs. The award endorses the industry's acceptance of seabed logging as a valuable offshore exploration tool," he said.



Svein Ellingsrud, VP E&P, excepted the Hart's E&P award on behalf of emgs.