OpenSpirit® CONNECTION
Volume 6, April 2009

FEATURE STORY

Proving Reserves Right from the Start

By Dan Piette, OpenSpirit President & CEO

Finding oil isn't really about finding oil. Finding oil is about finding and producing oil at a profit. And unless you are just a small producer who sells your own products and lives off the results, producing oil at a profit isn't really about producing oil at a profit. It is about increasing shareholder value.

There are a lot of factors that go into determining a company's value, but one of the most measurable is proven reserves. Companies calculate and report a "BOE" or Barrels of Oil Equivalent for their annual reports, and it is one of the factors that investors look at when deciding whether or not to buy stock. Generally, the greater the BOE, the more money the stock is worth.

Furthermore, an oil company's ability to get access to capital is driven by their reserve basis. Before the recent credit crisis, a company could borrow money against all reserves categories – proven, probable and possible. Now, lenders only consider proven reserves in their go/no-go decision to lend them money. And without sufficient working capital, oil companies are stretched to get projects developed. Fewer active projects translate into lower reservoir producing rates.

Making things easier to prove

The SEC recently released a document called *Modernization of the Oil and Gas Reporting Requirements* http://www.sec.gov/rules/proposed/2008/33-8935.pdf. In it, the SEC proposes sweeping changes in the way that reserves are calculated and reported to the government for accounting purposes.

That is all well and good, you might say, but what the heck does that have to do with me and my own particular search for the right data?

Well, it has everything to do with the success of your company in the marketplace. For the first time, the SEC seems willing to accept something besides a drill stem test to verify proven reserves. That means that it will now be possible to move reserves from probable to proven using interpretation based only on seismic and well logs.

The imperative of moving reserves from one category to another cannot be denied. How this is done will be the subject of many studies by the financial consultants over the next few years. But one thing that we know to be true: they will demand that the data used will be of the highest quality, and represents the most recent information that the company possesses.

The goal of the scientists and engineers at a company is to move into the upper left part of the chart on page 2.

The goal is to maximize the quantity of proven reserves and move probable/possible volumes to proven. So how does that happen? Interpretation and decisions based on data.

So, how do you ensure that you have the highest quality, most recent data in play?

One way would be to hire a data consultant to come in to make sure that you are using best practices for data management. Another would be to add some full-time data management staff that would then monitor data use by your geoscientists.

These options allocate valuable information management resources on tedious tasks and almost guarantee longer cycle times and poorer quality investment (where to drill) results since manually moving and managing

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Digital Pathways Delivered

Achieve Exponential Efficiency

Break Free from Application Bias

Unravel the Mystery of Units & Coordinates

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FEATURE STORY

data is inherently error prone and time consuming. It will take longer to reach a "go drill" decision and prove up a play. Not a good way to drive operational efficiency when access to capital and reserves are the metrics to drive performance.

Or, you can put together a workflow that uses commercially available connections into your existing data stores and quality control software to ensure the information you are moving is the *right* information to move. In other words, link together what you already have and make everything work together.

Doing it Right from the Start

During the past several months, we've been doing some research – all based on interviews with senior leaders at several client and business partner sites. You will be hearing more about this in the near future. The overarching message is pretty simple:

- All oil companies have mixed portfolios
- Oil needs to come out of the ground as cheaply as possible
- There will always be a need to plug other tools into your workflows
- It's virtually impossible for a software provider to focus on stellar geoscience solutions and multi-vendor connectivity at the same time

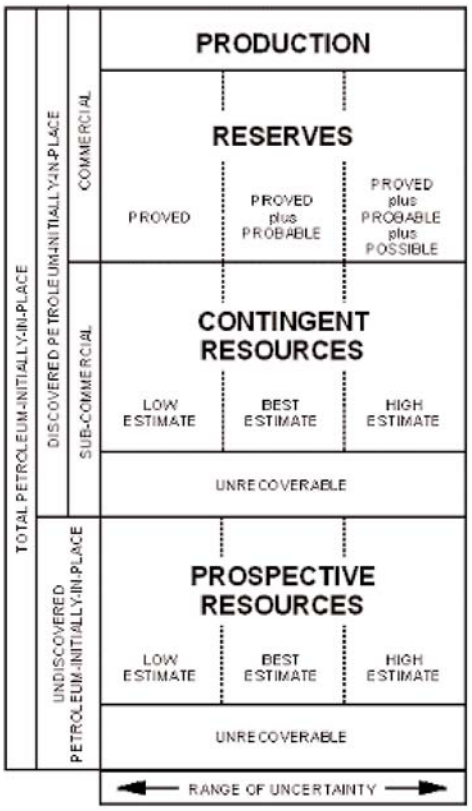
Ensuring data quality is actually a great example of how to do things Right from the Start. For example, OpenSpirit is in the process of connecting to several different data cleansing software packages. Innerlogix, DataFlux, SAS, and Intervera all either have released application adapters using the OpenSpirit Software Developer Kit, or are in the process of doing so. Using these products will give your modelers and interpreters an auditable "trail of goodness" to make sure that only the best data will be used when making your interpretation.

And to make sure that all the data will be used, the OpenSpirit Scan Utility can be run on a regular basis to seek out and display new data that has been added to any of the data stores that your company may be using regularly.

It is of critical importance to use all your data, in the most productive workflow, to make this happen. OpenSpirit is just one of the tools you need. But by letting an oil company choose the best tool for the job, regardless of vendor, the best data can be coupled with the best software to generate the best results.

And those results will mean a better return on investment.

Let OpenSpirit help you do it right from the start. ◆



Resources Classification System: *The horizontal axis represents the range of uncertainty in the estimated potentially recoverable volume for an accumulation, whereas the vertical axis represents the level of status/maturity of the accumulation. Many organizations choose to further sub-divide each resource category using the vertical axis to classify accumulations on the basis of the commercial decisions required to move an accumulation towards production. (*From *Petroleum Resources Classification System and Definitions,* www.world-petroleum.org.)

Friday, June 12
Holiday Inn Amsterdam (near the RAI Convention Center)

Social Event for Technical Symposium Attendees
Thursday, June 11 at Hortus Botanicus Amsterdam

Details and Registration Information
www.openspirit.com/symposium

New Additions to Sales and Services Team

Mehdi Belrhalia: Business Development Manager, Middle East & Africa

Mehdi comes to OpenSpirit from Schlumberger Information Solutions (SIS) where he served as the Sales and Marketing Manager for Southeastern Europe. He started with SIS in 1997 as a geophysicist and assumed a number of different roles of increasing responsibility in France, West Africa, North Africa and Southeastern Europe.

He will be located in the Abu Dhabi office.

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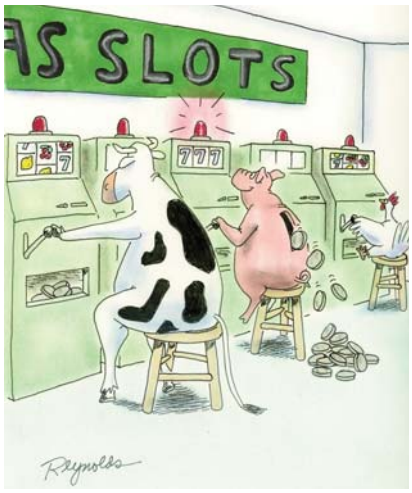
Improve your Integration Payout with OpenSpirit v3.1.3

Realizing extraordinary value from your geoscience environment takes planning. OpenSpirit is your solution for multi-vendor application and data interoperability. Whether you are an administrator, end user or developer, you will see improved workflow performance and functionality with OpenSpirit v3.1.3, released in February, including:

- ArcGIS Extension and Scan Utility support for ESRI ArcGIS® 9.3
- ArcGIS Extension support for Windows® XP 64-bit operating environments
- Recall 5.2 data connector support on Solaris
- Data connector support for Finder 9.5 & OpenWorks® R5000.0.0.3
- New OpenSpirit LoadIT™ WITSML data transfer utility



PERFORMANCE INDICATORS

- Three-fold performance improvements when sending 2D seismic data sets from SeisWorks® to Petrel®
- Improved performance using Scan Utility for handling OpenWorks 2D navigation data

With v3.1.3, OpenSpirit provides the connectivity that drives cross-discipline collaboration and lets you choose the winning combination that makes the most dollars and cents for your business.

You can download the v3.1.3 installation kits at: http://www.openspirit.com/supportdl
User Name/Password: openspirit/osplvwle

If you have questions, please contact us and we'll be happy to assist you. ◆

Phase Out of v2 SDK Set for December 2010

The OpenSpirit v3 SDK (Software Developer Kit), also known as the v3 API, released in May 2008 provides many new features as part of our v3 architecture. This new set of Java, .NET and C++ SDKs serve as the foundation for future enhancements to the OpenSpirit integration capabilities, such as the native data model access. In addition, the new SDKs are easy to use, offer more user events and capabilities that our partners can utilize.

At the time of releasing the v3 SDK, we announced that all versions of the older v2 SDK were deprecated. In order to allow our partners time for upgrading to the new SDK, we have supported backward compatibility of the OpenSpirit runtime for adapters built on the v2 SDK. Many partners have already upgraded to the new SDK, therefore, we no longer intend to continue support for the old v2 SDK.

In continuance with our plans to move forward on the v3 architecture and v3 SDK enhancements, we have set December 31, 2010 as a retirement date for the v2 SDK. Following this date, commercial OpenSpirit runtime releases will not be certified to work with partner application adapters built on the v2 SDK.

If you haven't already upgraded, we encourage you to download the v3 SDKs posted on the OpenSpirit Developers Forum at http://devnet.openspirit.com/forumdisplay.php?f=68. If you have any questions – please contact our developer support in the forum or email support@openspirit.com. ◆

SHORT SHOTS

OpenSpirit News

LoadIT WITSML 2009 is Here

LoadIT WITSML™ enables real-time transfer of critical well data from multiple WITSML server sources to multiple OpenSpirit-enabled data stores. It is the first end-to-end, source-to-destination and vendor-independent solution for the transfer of real-time data from the rig site to the project data store.

With LoadIT as a bridge, drilling workflows can be easily extended to encompass the subsurface geoscience environment, providing an "anywhere-to-anywhere" transparent real-time solution to support asset team collaboration and decision making.

Contact sales@openspirit.com for more information.

Web Server 2008 is Available

The OpenSpirit Web Server 2008 installation kits are available for the Linux, Solaris and Windows platforms.

You can download the v3.1.2 SP1 installation kits at:

http://www.openspirit.com/supportdl

User Name/Password: openspirit/osplvwle

Software Developer Kit API Documentation Available

The OpenSpirit data model and documentation for the C++, Java, and .NET APIs is available at http://www.openspirit.com/solution-sub/56.htm

Events and Technical Symposia

- EAGE, Amsterdam, June 8-11, 2009
- OpenSpirit Technical Symposium, Amsterdam, June 12, 2009 **REGISTER TODAY!**
- SEG, Houston, October 25-28, 2009
- OpenSpirit Technical Symposium, Houston, October 29, 2009

OpenSpirit Training Dates

OpenSpirit Basics

- May 26, 2009
- August 25, 2009
- December 1, 2009

OpenSpirit for Administrators

- May 27, 2009
- August 26, 2009
- December 2, 2009

For more information and to register:
www.openspirit.com/train

SMT and OpenSpirit Expand Strategic Relationship

In February, Seismic-Micro Technology (SMT) and OpenSpirit announced that they will provide clients the ability to more easily share data between geoscience applications. SMT will leverage the full power of the OpenSpirit v3.x interoperability framework in an upcoming release of its KINGDOM software. The next-generation SMT KINGDOM™ Application Adapter will allow interpreters to work in the user-friendly Windows® environment while sharing data with any OpenSpirit-enabled application or data repository.

Commenting on the announcement, Randy Harvey, Vice President of Development, SMT, said, "Large organizations face the reality of supporting multiple geoscience applications that don't always play well together. By working with OpenSpirit, SMT will help customers integrate their geoscience applications, data stores, and GIS systems. This means geophysical and geological professionals can work in their application of choice and have it remain accessible by the entire asset team."

This new relationship will improve the capabilities in both software products, making geoscience collaboration easier. Customers will be able to move data easily between KINGDOM, the leader in Windows-based interpretation, and other OpenSpirit-enabled geoscience applications, regardless of their operating system. Supported applications include Halliburton's (HAL) Landmark OpenWorks® software and Schlumberger's (SLB) GeoFrame® and Petrel® software.

"Over the years, SMT has made good use of OpenSpirit as a complement to KINGDOM software," said Dan Piette, President & CEO of OpenSpirit. "We are excited about the growth of this strategic relationship, their support of our new technologies, and the enterprise decision to leverage OpenSpirit as part of their data management and interoperability strategy."

Looking to the future, SMT and OpenSpirit will continue working together to improve data connectivity, scalability and performance for customers. ◆

R5000 Leadership Recognition: *OpenSpirit Business Partner managers Brian Boulmay and Nick Gosda, and OpenSpirit Chief Technology Officer Clay Harter, accept a Certificate of Appreciation from Chris Usher, Senior Director, Landmark Software and Services. The presentation was made during the recent DecisionSpace® Developers' Network Forum in recognition of OpenSpirit's support for the R5000 release, enabling immediate uptake of Landmark's latest technology.*

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Terry Berg: Technical Advisor
Terry joined OpenSpirit in January from Petrosys USA, where she served as a Pre-sales & Sr. Support Specialist. With 18 years of experience in upstream E&P, including Occidental Petroleum and Phillips Petroleum, Terry is skilled in the use of multi-vendor, best-in-class geoscience applications and data stores.

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Nick Gosda: Business Partner Manager
Joining us from Schlumberger is Nick Gosda, who will serve as a Business Partner Manager. He brings 17 years of experience in the horizontal software industry, including Oracle, Ariba and NetIQ.

Nick and Business Partner Manager, Brian Boulmay, will be working together to ensure that our new and existing global partners have the technical tools and sales and marketing support that they need to streamline the implementation and adoption of their OpenSpirit-enabled applications.

nick.gosda@openspirit.com

Edward Tsang: Support Engineer
We are pleased to welcome Edward Tsang as a Support Engineer in our Services organization. Most recently an Application Migration & Deployment Specialist with Avery Dennison, Edward specializes in Windows-based applications and operating systems. He also performed petrotechnical application support and quality assurance at SIS and Science Applications International Corporation.

edward.tsang@openspirit.com. ◆

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