

**Second Energistics Standards Summit
Houston, November 2007**

About 100 attended Energistics' (formerly POSC) second 'Standards Summit' in Houston. The standards body has seen significant (44%) growth this year and now finalizing its post-rebrand reorganization prior to 'completing the mission' in 2008. The meeting focused on Energistics' flagship WITSML and PRODML standards. While WITSML has not displaced WITS on the rig, it is seeing take-up as a data aggregator with support from Schlumberger's InterAct communications service. BP gives strong backing to WITSML, comparing the standard's situation with that of the process control industry's OPC protocol a decade ago. PRODML started after WITSML, but fast track development anticipates 'enterprise scope' for 2008. Rick Morneau called for WITSML – PRODML harmonization with a 'single ML for oil and gas.' The global unique well identifier project crawls along towards completion – in the form of a 'well identity service' to be managed by IHS. Finally, a joint proposal from ONGC and Energistics to initiate a study of seismic work practices – including processing parameters with a view to an XML-based update of SEG tape standards.

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TW0717_1 Introduction – Randy Clark, Energistics

Randy Clark described 2007 as a year of reorganization and growth¹ (44%) – with a new name, new strategy and greater geographical diversification. Mark Greene (Accenture) has joined the board. For 2008 the aim is to 'complete the mission,' and to develop an 'end to end' methodology for standards collaboration and corporate deployment.

TW0717_2 WITSML

TW0717_2.1 BP's commitment to WITSML – Julian Pickering, BP

Pickering described the need to make WITSML more attractive and to leverage the drilling information standard to optimize drilling performance. The aging drilling population means the 'big crew change' is getting very close. This looming problem can be mitigated by the deployment of digital solutions that minimize re-work. A decade or so back, OPC was in a similar position to WITSML today. There was a concern that it would

¹ Energistics currently has 90 members made up of 44 sustaining, 18 associate and 28 contributing (SIG members). In the main, 'sustaining' category, there are five majors (BP, Shell, Total, Chevron and ExxonMobil) and one NOC (ONGC). In the same category, there is only one independent/small oil co (Pioneer) so this sector is hugely under represented. The picture is much better for service companies. Statoil and ConocoPhillips take part through the 'contributing' SIG category.

adversely affect the process control market. Today we know this was not in fact the case. Open standards can strengthen a market. WITSML will influence all types of real-time drilling and completion information. To make this happen we need a 'win-win' situation within the next 3 years. WITSML has to develop from an 'interesting tool' to THE way of doing business. BP is performing internal WITSML bench testing before deployment. BP has a commitment to WITSML.

TW0717_2.2 WITSML to displace WITS? – Jon Curtis, Petrolink

Curtis noted that 18 years ago there was little interest in real-time, 3 or 4 years ago saw a big increase due to the aging population situation and the complexity of data. The earlier WITS specification was about depth-based data. In its second version, WITSML is about both depth and time-based data. Surprisingly, WITSML has not replaced WITS which is still used. Typically, rigs transmit WITS data to the data center. From here it is aggregated into a WITSML data stream. We now need to make WITSML faster and suppress the WITS format. We need to feed data directly with WITSML, have some form of integrated display. For example we could feed data directly into real-time open hole analysis using WITSML.

TW0717_2.3 InteAct now WITSML-enabled – Melissa Symmonds, Schlumberger

Symmonds stated that Schlumberger's operations were now WITSML-enabled. Schlumberger's InterAct has an API for WITSML 1.2 and 1.3.1. These enable data hub operations, server to server communications and data browsing. A WITSML data link was added to the Schlumberger Operations Support Center in 2003 and Petrel has a link as of 2007 that enables real time evaluation of drilling trajectory in conjunction with the geological model. Schlumberger's 'InterAct' real time connectivity service has 30,000 users per month (unclear what percentage use WITSML).

TW0717_2.4 Q&A

What were the challenges to implement WITSML?

BP – Human factors and politics – getting people to move, internal challenge. One BP-specific issue is that there is no central policy, each unit is free to run its business so it is a new start for each unit. WITSML also needs a consistent message, feedback has not always been positive.

What is the percentage of usage?

Schlumberger – Around 25% especially in Aberdeen

Petrolink – Around 5%

BP – It is in use on the BP-operated Tangguh LNG Project (Indonesia) and is being implemented for operations in the Gulf of Mexico and Angola.

Who has to stay on the rig and who has to go?

Petrolink – Interpreters and analysts on the rig have to go. The technology for this is already here. We do not need people who are not 'hands-on' on rigs.

How to get other companies to use it?

BP – We need to add value and provide tools. We need to get the infrastructure in place then it will be more convincing. We need to make sure WITSML adds value. WITSML should be an opportunity for small companies.

Petrolink – WITSML allows more information than WITS to be sent.

Why is OPC more successful than WITSML?

BP – OPC is on the operation side and it started 10 years ago. It is very similar and has the same process history. WITSML is about data – we are getting there.

Why is there a delay in the information delivery?

Because of the mechanism that goes 'from store' is different from going 'to store.'

What about SOA?

SOA needs to be understood by the field people.

Schlumberger – We need to slow down the rate of change. We should wait for new requirement that we cannot resist before implementation.

TW0717_3 PRODML

TW0717_3.1 PRODML, a common language for production – Laurence Ormerod, Weatherford

PRODML is the most viable way to enable production interoperability where a fragmented market represents significant opportunities for cheaper integration through standardization. During 2006/2007 PRODML a 'common language' for production has been created and some commercial application has begun with pilots in production reporting (Statoil), waterflow management (Chevron), DTS data management (Weatherford). Schlumberger has released the first commercial application. The road-map for the next three years includes – Daily reporting (2007), Norwegian joint venture production reporting (2008), ESP wells (2009) and SRP wells (2010). By 2010, PRODML will offer an extended language, multiple protocols with professional support. Note that a multi year commitment is required for successful project completion.

TW0717_3.2 Orchestrating PRODML – Patricia Yeska, TIBCO

TIBCO provided the 'orchestration' layer for a 2007 PRODML pilot that used real time tank level data to notify InFusion of which wells to close. The project found that upstream processes can be configured without coding and that PRODML is both flexible and useable, even in its current early release state.

TW0717_3.3 Enterprise PRODML – Rick Morneau, Chevron

PRODML targets production optimization, the protocol provides a solution for both data providers and integrators and providers. The PRODML roadmap sees 'enterprise scope' for 2008 – leveraging the pilots, and performant usage by 2009. Morneau opined that combining WITSML and PRODML would be a good idea, 'It seems crazy to fragment, we need to work together, we need a standard ML.'

TW0717_3.4 Q&A

Does PRODML operate at the device level or the application level?

This is still a matter of debate. But device level is not the main focus right now. First, we need an information model. This is feasible but it is still too early.

TW0717_4 Special Interest Groups and Projects

TW0717_4.1 Well identifier service – Nick Duncan, IHS

IHS' Well Identity Service was initially offered in the 1980s to IHS clients. Subsequent to the POSC/Energistics global unique well identifier initiative, IHS offers a public registration service that is available to non clients. Wells registered in the public index are freely available to all. The public service is to be operational before the end of the year. Commercial and service level negotiations are ongoing between IHS and Energistics. More from guwi@ihs.com.

TW0717_4.2 Geophysical SIG and workgroup – Ashok Kumar Tyagi, ONGC

ONGC's modifications to SEG-Y (made in conjunction with its EPINET database project) were presented to POSC/Energistics in 2005. The possibility of extending these was discussed at a meeting in Kolkata, India in 2006. Participants included CGG, EAGE, Landmark, BP, SEG, Western GECO, Paradigm, Reliance, GSPC, Satyam and ONGC. Leon Thomsen (BP) and SEG president elect suggested involving the SEG standards committee. Following more internal work, ONGC asked Energistics to host a Geophysical SIG to look into issues such as storing observers report and other ancillary information in SEG-Y headers, encapsulating such information alongside SED-D and XML formats for data exchange and capture of velocity and processing parameters. The result is that an Energistics-backed Geophysical SIG was kicked off in Delhi in October 2007². This will begin an assessment process with initial funding from ONGC, looking for more companies to sign up. Toward the end of Q1 2008 there will likely be a recommendation for a SIG/WorkGroup project.

² See also the article in the October 2007 edition of *The Leading Edge on GeophysicalML*. <http://tle.geoscienceworld.org/cgi/content/full/26/10/1318>. While has been to date no cooperation between the ONGC/Energistics initiative and the SEG Tape Standards committee, Energistics' Alan Doniger assures us that this initiative will not create a 'fork' from the SEG Committee's work.

TW0717_4.3 e-Permitting – Alan Doniger, Energistics

Energistics has been working with US federal and state agencies on a WITSML-based electronic permitting standard – leveraging software licensed from the US Groundwater Protection Council (GWPC). The original idea was to extend WITSML to include e-permitting aligned with the GWPC’s reporting protocol. The project was halted following a federal funding cut earlier this year. Energistics approached Pioneer, which has the presidency of the Colorado Oil and Gas Association (COGA), to take the work forward. Around 6,000 wells were drilled in Colorado last year – with some 200 by Pioneer. Current permitting involves much paperwork and can take 30-60 days. The resulting standard will bring efficiency gains and will likely be used by other US regulators. Support for the project from other COGA members is being sought.

TW0717_5 Technology Watch from The Data Room

This report has been produced as part of The Data Room’s Technology Watch reporting service. For more on this subscription-based service please visit the [Technology Watch home page](#) or email tw@oilit.com.



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