

PPDM ASSOCIATION HOUSTON DATA MANAGEMENT SYMPOSIUM & TRADESHOW

The 2017 Houston DMS was, to no-one's surprise, a resounding success. The Professional Petroleum Data Management (PPDM) Association develops the worldwide data management community on a Not For Profit basis. In Houston, through the leadership of the industry led PPDM Houston Leadership Team, Sponsors (geoLOGIC systems, Stonebridge Consulting, EnergyIQ, SigmaFlow, Informatica, DrillingInfo, EnergyMatrix and Southwest Precision Printers), Display booth vendors (geoLOGIC systems, Stonebridge Consulting, EnergyIQ, Informatica, SigmaFlow, Certis, WellDrive, Schlumberger and University of Tulsa) and more than 35 speakers, delegates were treated to two days of insightful presentations, spirited debates, superb networking and, of course, chocolate.



Trudy Curtis, CEO of the PPDM Association, recognized the commitment and work being done through over 230 volunteer roles in more than 20 PPDM Committees, Work Groups and Leadership Teams across the globe. Efforts are underway in the areas of community development through over 35 events, a professional journal and numerous technical publications. Professional Development is supported through training, certification, HR materials and collaboration with schools and colleges. International Petroleum Data Standards (IPDS) are developed by PPDM Work Groups, with the support and advice of the Regulatory Data Standards Committee.

The conference kicked off with a panel discussion, moderated by Jennifer Bell (Elements Offshore), about the future of data management in oil and gas. Bell was joined by Dr. Medhat El Nahas (U of Houston), Dr. Tim Coburn (U of Tulsa), Paloma Urbano (ConocoPhillips) and Jeremy Eade (BP). Topics ranged from the breadth of knowledge and technical skills needed by today's data managers to the need for ongoing professional development, certification programs and the importance of industry engagement in preparing the next generation for roles in data management and analytics. The discussions helped define the difference between technical data management and IT, the importance of demonstrating value to data owners, and exemplified why standards are needed (e.g. why do I have 140 different well statuses and 200 different names for a gamma ray log?).

Panel members pointed out that PPDM members have an opportunity to capitalize on a renewed interest in data analytics and data science, a demographic cohort of "digital natives" who intrinsically know that digital data is an asset, and new programs that will help data management be taught and recognized as a professional discipline.

From the educational perspective, data management curriculum can exist as elements of business management, engineering or even IT. The drive for new programs is largely based on industry demand for a particular skill set. As data management emerges as a distinct discipline, this demand will increase. Making programs attractive and interesting is essential, to attract students with the right aptitudes and attitudes. Early exposure to data management and embedding data management elements in existing programs can help identify appropriate candidates.





A second panel discussion focused on well identification challenges in the USA. Moderated by John Jacobs (John Jacobs Consulting), three panel groups led the discussion from the perspective of the regulator (Joe Stasulli, Texas Railroad Commission and Jane Stanczyk, Colorado Oil and Gas Conservation

Commission), the operator (Al Huber from Shell, Rachel Sissenwein from ConocoPhillips, Cindy Cummings from Repsol and Ricardo Bohorquez from BP) and the vendor (Ali Sangster from DrillingInfo, Zane Reynolds from IHS Markit, Lisa Stennes from TGS and Hugh Hopewell from Wood Mackenzie). Each of these three major stakeholder groups describe similar problems with developing integrated and harmonized views of well information. During the discussion, it became clear that no single stakeholder group has the ability to resolve the problem independently, but opportunities exist through collaboration and collective action. Collective action, points out Curtis, is the focus of the PPDM Regulatory Data Standards Committee.

It's difficult to develop systems that support a clear, unambiguous view of any data type, but well data has long presented industry with apparently intransigent tribulations. Resolving and reconciling differences between multiple vendors, regulatory agencies and proprietary data stores continues to be a challenging undertaking, even for experienced data managers. Tarun Chandrasekhar (BP) highlighted how these challenges impact BP during his presentation "Is This the Same Well?". The presentation "Legacy Migration Using a Virtual PPDM: A Case Study" (Mike Skeffington, EnergyIQ, and Gary Meyers, Anadarko) underscored the challenges faced by operating companies as Anadarko worked to harmonize internal data stores. Michael Higginbottom (CommerceLink) provided an excellent high level primer outlining critical steps to planning for success as a company "Runs the MDM Race to Win".

Brian Richardson (Independent) described a swift and intense project for a National Oil Company in his presentation "Leveraging PPDM for Well Log Validation". In this short project, several months were spent laying the foundation to rationalize about 30,000 logs to correct and harmonize well header information, check parameter values, standardize the use of NULL values and adjust logical depth intervals to match actual curve data intervals. With the foundation set, the actual integration was completed in just a few weeks, rather than the impossible time forecast (8 – 15 man years) to do the work manually.

Building on the National Oil Company theme, Jess Kozman (PPDM Association), shared a story about the "Field Validation of Industry Standards at a National Oil Company". Using a roadmap based on an integrated set of standards, The NOC was able to achieve tangible business value of about \$2.5 Million, identify and correct both technical and process related problems, and correlate their data management strategy to overall corporate performance. Building on the theme of new technology that adds value, Jess delivered his presentation live from Singapore via the telepresence robot "Professor Caprock".



Several talks on new technology highlighted the value that research and development can bring to our profession. Jim Crompton (Noah Consulting) talked about "Providing a Firm Foundation for An Integrated Operating Center", an approach which allows

sophisticated and integrated collaboration, decision making and tactical execution between well site and operating centers. Bringing the most experienced operations personnel into these programs allows many teams to take advantage of senior staff, and to mentor the next generation. Kumaran Veeraragavan (Bluedeq) discussed the value of “Classifying Well Files Using

Artificial Intelligence” to bring upwards of 85% accuracy through common sense approaches and realistic goals. Bluedeq have successfully automated workflows documents with CDR and embedded image handline. This is a technology to watch as it continues to advance in coming years.



Ken Cavner (Origin Energytech Services) shared some insights into “Data Warehousing in the Cloud”, a trend that continues to accelerate as technology advances. Through these and other new technological advances, data can become increasingly agile, available and accessible to all stakeholders through the life cycle. Nishanth Raj and Anoop Kuriakose (Deloitte) discussed “Advanced Data Management and Analytics Enablement for Oil and Gas”. “Smart Machines Herald A New Era: An Upstream Perspective” by John Rowe (Enaxis Consulting) gave the audience an inspiring perspective on how design thinking is driving advancement, emphasizing that “we ain’t seen nothing yet”! Rowe advocates an approach using digital services and cognitive processing, in which the unit cost can approach zero, so that discipline efficiencies can continue to expand.

From a practical perspective, the real world experience of Jonah Energy as they “Updated Tools and Techniques (to) Bring New Life to Old School Data Warehousing” was provided by Telha Ghanchi (Stonebridge) and Thomas Burgett (Jonah Energy) as they brought together accounting, reserves, production and field estimates data. Initially, users experienced challenges with getting access to the data they needed; in fact, users were spending more time looking for information than

they were spending on their primary duties. Confusion with semantics, disparate sources of information, and a plethora of tools were resolved through the creation of a master data solution. Jonah estimated that at least 110 hours per month were saved in the areas of production and reserves, and tremendous efficiency gains were realized through the completion of the project.

One of many benefits that PPDM conferences bring is the opportunity to hear from some of our most experienced and celebrated data managers, and this year was no exception. Pat Ryan, currently part of Noah Consulting, has spent many decades in data management for vendors and operators. In “A Data Manager’s Look Back”, Pat drew out the many cultural and technical changes that our profession has seen since the 1970’s. Pat’s optimistic view of the future of data management was reflected by Shari Bourgeois (Certis) in her preface to the talk “A Case to Evolve from Managing Data To Mastering Critical Technical Data”, co-presented by Katy James (Certis). Positioning data as an agile resource that can be leveraged by many ensures that trusted data is accessible to as many stakeholders as possible.



Overall, the Houston Symposium provided attendees with, not only the opportunity to learn about what’s new in the field of Data Management, but also the chance to network with colleagues and build new relationships within the industry. We would like to thank the Houston Leadership Team for all their efforts and hard work to make this agenda interesting and valuable to members of our community, and for facilitating the sessions. creating and stewarding data.