



# 2016 EVENTS

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## 2016 Houston Data Management Symposium & Tradeshow *Speakers Abstracts*

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**“Necessary Evil Time”: Retaining Expertise; Outsourcing Productivity**

**Simon Bates, DDC Ltd**

Given the importance to the O&G industry of maximizing value from a reducing pool of expert talent, and generally reducing process costs, a desirable business outcome would be to achieve both together, while maintaining or raising process quality. To explain how this is done, we present a concept we call “Necessary Evil Time” (NET) and dovetail this with Knowledge Process Outsourcing (KPO). NET is time spent by in-house experts doing tasks, involving operational data, which the experts may regard as necessary evils, but which are still essential precursors to core-business ‘outputs’ of the expert. NET tasks are outsourced to Knowledge Workers of the relevant background and aptitude. Documentation of outsourced tasks brings context and precision, along with the opportunity to apply standards and data management best practices as part of a business’s overall strategy in this area. Illustrations are provided by way of an OFS case study and insights into knowledge worker credentials.

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**Three Hidden Jewels to guarantee success in Petroleum Data Management**

**Hasmik Belich, RigData**

The prolonged decline in crude prices is crippling budgets everywhere in the oil and gas industry. Achieving success in data management during the downturn demands creativity and is the opportune time to reengineer existing information processes.

Learn from our experience the uncovered hidden jewels of Petroleum Data Management that do not require extensive budgets and resources but will pave the way to better data quality in your data management approach.

Faced with the challenge to build well header and production data for four million nationwide wells, there is a story to share on how we have leveraged the PPDM model to advance the data culture in the organization, gain executive buy-in, achieve efficiency and maximize data quality in our products.

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**Regulatory Standard Solutions: Demonstration of Advancement in Regulatory Excellence**

**Art Boykiw & Pavan Kumar, Alberta Energy Regulators**

Abstract in Progress

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**Data Objects: The Evolution of PPDM’s ‘What is a Well?’**

**Steve Cooper, EnergyIQ**



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A Data Object is defined as a collection of data attributes combined with the information required to manage that object to support business workflows. Establishing common Data Objects for critical E&P information establishes a platform for effective data management that is a logical extension to accepted industry standards such as the PPDM 'What is a Well?' initiative. Having a standard set of attributes defined for a Well, Wellbore and Completion, for example, would greatly facilitate the management, exchange and visualization of information across the Well lifecycle. Beyond simply defining the attributes that logically belong with a specific Data Object, however, the real value is derived by establishing the rules for the management and quality of the data associated with each object. This represents the practical implementation of the PPDM Business Rules initiative and establishes a foundation for delivering data of an industry recognized standard.

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### **"The Ugly Duckling" Real Time Operational Data**

**Van Cosby, OSISoft LLC**

This presentation will give a basic overview of real time operational data by defining the concept of a 'tag', why it is difficult to manage as a data type and why it has been ignored by professional data managers. The balance of the presentation will discuss why real time operational data is important to the oil and gas enterprise and why it cannot be ignored any longer. An update on the latest trends in real time operational data management will be discussed with supporting case studies.

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### **Seismic Data Management in a PPDM Compliant Database**

**Cindy Cummings, Repsol & Patrick Meroney, Katalyst**

Seismic data has a complex lifecycle with many needed skill sets internal and external. To complicate the management of seismic data further, there is a lack of a standard Unique Survey Identifier (USI) to link components. Standards such as PPDM have been instrumental in providing the framework and model for managing the many components of seismic data. It is important that any data management solution to manage seismic data utilizes the PPDM seismic tables as well as other PPDM tables. The various functions throughout the lifecycle are typically not managed in a single group and various components may take place around the globe. The workflow and process to bring it all together and be managed and tied together properly can be a challenge without a controlled workflow. Managing data with a strategic plan including people, process, information and technology to ensure its durability, quality preservation, integration, reliability, availability and utilization is critical. Katalyst developed iGlass, a GIS web portal using a PPDM compliant database, to help improve the lifecycle management of seismic data. The PPDM model has been followed as closely as possible in the iGlass database development and the Katalyst staff possess the expertise to perform many critical functions making this an excellent solution for managing seismic data.

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### **Data Babble**

**Trudy Curtis, PPDM Association**



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Data and information have been around for millennia. Professionals responsible for creating, managing and distributing data have existed for as long as data has existed. Whether the data is transcribed on stone, clay, papyrus, paper, film or disk drives, the mandate has always been to be sure that data or information is available to the people who need it, at the time it's needed, in a form that's usable, and with content that's trusted.

Human nature intervened. The objective of managing data is to create an environment where data remains trusted, available and accessible to all stakeholders and processes through the E&P life cycle, without being lost or corrupted. With the best of intentions, today's data is often lost to those who need it, disorganized when it is needed quickly, and incomprehensible to people whose job is to understand it, or just plain wrong.

New technology promises to solve our problems, make us efficient, and make us richer. Like any edifice, technology requires a solid foundation if it's to be successful; in our industry, the foundation is data. This talk focusses on how the problems we have with data and what needs to be done about it, so that advancing technologies can achieve their potential in our industry.

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## **Practical Data Quality at BreitBurn Energy: How to Apply DQ in the Real World**

**Mike Dominick, Breitburn Energy & William "BJ" Cummings, Stonebridge Consulting**

Data and process are two sides of the same coin. This codependence becomes an issue when "upstream" data errors—the result of multiple people entering the same data in multiple systems, or people failing to enter data they feel is irrelevant, etc.—inevitably lead to "downstream" breakdowns in reporting and operational processes. This session will focus on similar data quality (DQ) experiences at BreitBurn Energy. Facing the dual challenge of absorbing a major acquisition and deploying a new ERP system, BreitBurn partnered with Stonebridge Consulting to develop a data management solution that utilized best practice-based rules and process automation to run DQ checks against source systems. This session will offer lessons learned—e.g., "Just because it's running doesn't mean it's working."—and share examples of DQ tools that enable BreitBurn to proactively validate that interfaces are working, ensure new business processes are followed, and respond to "data busts" quickly and prevent them from reoccurring.

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## **The Transformation of the Offshore Oil and Gas and Shipping Sectors through Data Management and advanced Analytics**

**Colin Frost, Energetive & Henrique Paula, Global Energy Initiatives**

This will be jointly presented by ABS (the American Bureau of Shipping) and Energetive. It will examine the significant data-driven transformation of the offshore and marine industry sector, which is starting to get underway (this sector encompasses oil and gas offshore and shipping operations).

As one of the world's leading Class Society's, ABS is establishing itself as a thought leader and expert in promoting data standards, managing data as an asset and applying data analytics to help improve safety and operational efficiency in the offshore oil and gas and marine sectors.

The presentation will reveal how 'big data' was born in the shipping sector hundreds of years ago, bring us up to the present day and then take us into the future, in terms of how data can add significant value



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to the sector, and how to overcome some of the challenges that exist, e.g. the remote and often harsh nature of operations of vessels and platforms at sea. The potential is significant and transformational.

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**Presentation Title TBD**

**Justin Glatz, Informatica**

With the contracting Oil and Gas market, Data Managers and Technologists are challenged to “get out of their own way” when it comes large-scale cost reduction. Pressures in reducing costs while minimizing expenditures coupled with an all-time high for the need to be agile has equated to blunt or blind “cost cutting” methods rather than efficiently leveraging a company’s spend: Cost Optimization. This impacts all businesses within the ENP space, from Geology, Engineering, Finance, Land, and Legal. Cuts remove capabilities, especially when these business units need more data and agility in the current state of the market.

This discussion will briefly discuss some of the prevalent business strategies to optimize enterprise costs and discuss how technology teams are asked to enable such efforts.

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**Strategic Planning for Long Term PPDM Data Migration**

**Volker Hirsinger & Dave Hudson, Petrosys USA Inc.**

With the PPDM data model now in its third decade, the petroleum E&P industry relies on many PPDM implementations for long term data management and business process integration.

Incremental model changes can have a wide ranging impact on data content, applications interfaces, information architectures and workflows. A long term migration strategy can ensure that this change confers the full intended value of the data model enhancements to the business, whilst minimizing data management costs and applications risks.

In this paper PPDM data model changes are grouped into four distinct categories – addition of data domains; introduction of additional linkages within and across domains; increases in granularity of existing domains; and the introduction of more generic data structures.

Potential benefits, complications and risks of each of these types of change are discussed in the context of practical examples, and strategic options related to implementing data model upgrades are put forward.

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**Lessons Learned: Insights for DM people**

**Fred Kunzinger, Noah Consulting**

Over the course of more than thirty years in E&P, over twenty of which have been in Data Management, I’ve learned many things. The most valuable lessons have not been the specifics of each task, but rather, the way in which those tasks are approached. This talks looks at the insights I’ve gained as a person whose role was to succeed by ensuring others had what they needed to be successful, thereby making the company successful. These insights, along with their corresponding anecdotes, are presented with the



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hope that others can benefit from these learnings as they continue to advance the discipline of Petroleum Data Management.

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## **The Importance of Standardization from the Regulators Perspective**

**Trent Marx, Resource Energy Solutions**

Oil and gas regulatory authorities globally deal with many and varied parties across the entire oil and gas ecosystem. Oil and gas regulators are challenged with similar issues across all geographies and do already make good use of global standards to solve their challenges. However, the standards for data management and integration are sorely lacking. Regulators desperately need a common language and framework for managing and understanding data. The scope of these standards must address, nomenclature, terminology, formats and semantics such that they can be adopted everywhere. Tremendous opportunities abound for regulators adopting data management standards such as greater quality and completeness of data, a common understanding for industry information shared both internally and across government agencies, the development of common practices for benchmarking industry compliance by E&P and service companies; and lower costs for managing and maintaining IT systems at the core of the regulators network.

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## **Presentation TBD**

**Rich McAvey, Gartner**

With markets expected to remain in oversupply, is it possible for oil and gas companies to grow? Success depends on developing new capabilities, higher levels of optimization and new sources of revenue. Examples from inside and outside the oil and gas industry show that these results can be delivered by digitalization. However, progress depends upon a new approach to data management.

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## **Achieve Data Governance in E&P by integrating GeoScience and Analytical MDM**

**Srujan Peddy & Greg Briscoe, AdvancedEPM Consulting**

Harmonizing Metadata across federated systems is a recognized challenge. For instance, within Oil and Gas industry, data descriptions for Corporate Well Master, Accounting, Budgeting, Reporting and Analytical Systems are fractured and often duplicated across multiple systems. In this talk we will discuss a governance solution to synchronize the metadata into a single unified repository and publish subsequent changes. Using Oracle Hyperion Data Relationship Management tools, we will walk through unified repositories for Well hierarchies, Well attributes and Budgeting and Reporting hierarchies. We will use an example of finance integration of well data enrichment, orchestrating with budgeting and reporting while maintaining chart of accounts. The presentation will summarize governance and data hierarchy maintenance covering lifecycle from planning to abandonment. These solutions use Taxonomy, Audit Trails, Workflow and Integration API's.



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## **Unlocking Smart Value Creation across the Upstream Data Landscape**

**Nishanth Raj, Deloitte**

The dramatic fluctuation in oil prices over the past several months has forced Upstream O&G companies to take a closer look at their costs and operating processes. In midst of this price shock, achieving operation excellence has become a top management priority and it is driving companies to come up with new ways to cut costs, increase operation and safety performance. O&G companies need to aim for deeper collaborations, leaner process designs, streamlined data orchestration capabilities and better governance in order to better assess and integrate operations across the Upstream data management landscape. This paper focuses on an approach to help Upstream decision makers address these challenges to identify their 'sweet spot' for efficient data management, business reporting, enterprise science, advanced analytics & workflow orchestration across core upstream O&G functions.

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## **Implementing a Data Quality Program at Concho**

**Joseph Seila, Concho**

This presentation will discuss how we setup things here at Concho and will include a compare and contrast some of the differences because we're doing things a little differently here and speak to how you need to have a strategy that works for your company.

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## **Shale Boom Presentation**

**Matt Tatro, Noah Consulting**

Can the Shale boom still be profitable at \$20 oil and how can technology and process facilitate? 2015 saw a dramatic downturn in oil prices driven both by the lack of demand in many parts of the world and the reaction of OPEC to protect their market share from the Shale boom. Most economic models for Shale were originally set with a minimum price of oil around \$50. Producing oil in shale presents different challenges to the industry and requires tightly integrated business processes and technology. This presentation will show how companies can transform their business, including their cost models, and be in a much better position to take advantage of the new reality. Technologies, such as the cloud, which are now broadly used in many industries, could provide oil companies with the capabilities to thrive in a down oil price market.

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## **How Dynamic Services-based Architecture Alleviates Data Management Woes**

**Randi Tucker, Quorum Business Solutions**

With the digitization of devices and operational technology, organizations are not only advancing their ability to capture more data, but are also creating novel ways to consume it. This should facilitate quicker and more strategic decisions to guide them through ever-changing business climates. To realize these benefits, organizations must move away from single-purpose solutions built as monolithic stacks, which can be too inflexible for modern business operating models. Likewise, data management approaches need



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to evolve to capitalize on technology innovations. Quorum is pairing user-centric design with services-based, API-enabled architectures to drive meaningful advances in software usability, scalability, and flexibility. The intent is not to rip and replace existing technology stacks but to support iterative infrastructure modernization. IT can now be agile and bimodal, adopting new technologies for innovation centers, while maintaining systems still needed to keep the lights on.

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## **Engineering Information Management, Let's Change the Game**

**Linderick Whitworth & Matt McKinnley, Datum360**

What we do Datum360 Software as a Service (SaaS) enables owner operators and EPCs to ensure that the right information is delivered to the right place at the right time, improving project and operational efficiency by increasing information quality, eliminating duplication of effort; reducing delays and errors because of low quality or missing data and so reducing data handling costs Engineering Information Management, Let's Change the Game As the industry gets used to a lower oil price the focus to improve efficiency and reduce costs continues. Many existing Information systems have been built on, tweaked, improved and customised for individual clients. It is time to take a step back, stop making minor improvements on existing methods and change the game completely. We can now review and analyse the existing rules of the game used on a selection of Projects and Assets to identify where significant changes can be made in the specification, collection, distribution, reporting and use of Engineering Information. The focus of these reviews is to identify repeated experiences that contribute to the perception that managing data is a difficult and costly process. Once identified each experience is considered in relation to new technology and information management techniques and how the rules applied can be changed. The results provide insight into how this collaboration can enhance standardisation in the form of common handover specifications or Class Libraries. Once choosing and implementing technology that could respond to an Engineering Class Library that specifies required information was a major cost. However using PIM360 which is based upon the latest database technologies and leverages cloud delivery, resources can be re-focused on engineering data content and compliance. The main game changers are:

- Stop Customising: Most customers have the same requirements.
- Simplify: Clearly specify requirements and manage any changes.
- Quick start: Use new technology to enable very same day implementation
- Re-use Data: Standard equipment data, hold data once use many.
- Highly visible data: Focus on quick navigation between various data sources, user doesn't need to know where it is from just how trusted it is.
- High Speed: Enable true high speed searching, reporting and export/import.
- A one stop shop for engineering data.
- Provision of management of change functionality that provides an audit trail for all engineering data In Summary Managing data has provided many challenges and difficulties in the past and is still seen as problematic.

With recent advances in technology and data handling techniques there is plenty of opportunity to make the game more fun and efficient!



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## **Better Data. Better Insights. Better Decisions**

**Bret Wiener, Seven Lakes Technologies**

Well Lifecycle Management is a complex challenge for the Oil & Gas Industry. From the conception of a well through planning, drilling, completion, production, and plugged/abandoned - a large volume of critical data is created across multiple siloed departments and databases. This leads to plenty of business challenges and problems such as not being able to identify proper well counts, drilling on wells that you may no longer own, or simple profitability reviews. Such issues lead to large negative impacts on the bottom line. Silo problems can be dissolved using intuitive software technology that enables collaboration among departments and connecting of databases. Furthermore, proper data management leads to quality data and delivers bottom line impacting analytical insights. Come and learn how this can be accomplished with quick time to value and often 4x faster than traditional industry practices.

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## **The Process of Becoming a Certified Petroleum Data Analyst**

**Daniel Perna & Ty Myers, Devon Energy**

Many professional disciplines reap great benefits from certification programs, including disciplines in the E&P space (petroleum landman, petroleum geologist, petroleum engineer, e.g.). In 2015, PPDM unveiled its "Certified Petroleum Data Analyst" (CPDA) designation for E&P data managers, along with the accompanying certification exam, handbook, and maintenance requirements. Faced with this opportunity, many have asked: Why should I become certified by PPDM? What is the exam like? How can I prepare for the exam successfully? What will it take to maintain certification? This presentation aims to answer those questions and more from the perspective of two E&P data stewards who have earned that certification.