Standards in Hydrocarbon Accounting

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Choosing a topic

- Pain
- Data integrity and reliability
- Use of spreadsheets
- Under-valued profession
- Lack of best practices
- Knowledge transfer and training
Identifying best practice

- Easy: 25%
- Very Hard: 30%
- Hard: 35%
- N/A: 10%

- ISO: 22%
- H&S: 17%
- Others: 39%
- None: 11%
- Internal Standards: 11%
Standard needs

- Process standards
- Service standards
- Data standards
Integration challenges

Hydrocarbon Allocation and Reporting

- Cloud Services
- Partner Systems
- Lab Tests
- Corporate Portal
- IP21
- OSI PI
- OFM
- SAP

Security
ISO 15926

“Having developed a generic data model and Reference Data Library for process plants, it turned out that this subject is already so wide, that actually any state information may be modelled with it.”
Designing standards

• Design initially for usefulness
• Draw upon existing installed bases
• Expand your installed base fast before adding features
• Make it simple
• Modularise
The First Rule of Standards

Adoption Beats Perfection
Coverage

- DTS measurement
- Fluid analyses and samples
- Flow networks
- Production operations reports
- Production reports
- Historian data
- Well tests
- Wireline formation tests
PRODML: The Bad

- Size
- Inadequate user guidelines
- Lack of reference applications
- Implicit relationships
- Lack of hyperlinks
- Rigid structure
Markup soup
The Open Data Protocol

- REST-based
- OASIS standard
- Support from Microsoft, SAP, PetroWEB, EnergySys…
- Fundamentally changes users’ interaction with data
- Removes distinction between cloud and on-premises
- Metadata at the core
The OData Stack

Semantics: $metadata

Syntax: AtomPub or JSON

Protocol: HTTP

Identifiers: URI

Character Set: UNICODE
A Definition of Agile

ag·ile (adjective) \
• able to use change to gain a business advantage
• quick, smart, and clever