ORDER MOVEMENT MANAGER (OMM) - TANK INVENTORY SYSTEM (TIS) DEPLOYMENT

Case Study

October 2013
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WHY OMM-TIS?

- The year is 2011
- Shell Manufacturing Portfolio Study identified that the Tank Farm Management and tank inventory systems were at end-of-life, had marginal vendor support and not compliant to Group Infrastructure standards
- Although requiring tedious manual inputs of movements, receipts and shipment estimates, those systems were known and comfortable

Order Movement Manager - Tank Inventory System (OMM-TIS)
Order Movement Manager-Tank Inventory System (OMM-TIS) is a Mfg Target Application that aligns with global processes and integral to the strategic portfolio.

An established product used at several Shell sites: Buenos Aires, Qatar and Pernis (10 years) that we’re currently deploying at 6 US Fuels sites.

OMM-TIS facilitates business initiatives and monthly close and controls an centralizes Master Data Administration.

And, it’s user friendly, mature, reliable, upgradeable and supported.
WHO, WHEN, WHERE

Who

- **Responsible & Accountable:** Oil Operations Production/Oil Movements within the Process Control Network
- **Information used by includes:** Yield Analysts, Finance Product Analysts, Finance Operations/Accounting, Economics and Scheduling

When

- Currently being implemented - 2013

Where

- All US Refineries
OUR CHALLENGES

- Inventory and movement management is integral to the Manufacturing Portfolio as a prerequisite for integration with DS1 GSAP – and current systems were out of date, had lack of controls and automation and procedural formality and end of life
- Current system had isolated incidents of failure
- Marginal vendor support
- High Asset Integrity (AI) Challenges
- High Group Infrastructure Compliance Issues
- Other connected application (Advisor) had a close dependency on the legacy Oil Movement and Custody Transfer for movements information, receipts and shipment estimates - that upgrade was not compatible
- Significant change for sites and their users from across Yield Accounting, Finance, Operations, Economics & Scheduling, Process Control
RECENT SUCCESSES & PROGRESS

■ **US Sites**
  — *First two* went live in Q1 2013 and *second two* went live Q2 and Q3 2013 respectively
  — *Current site* kicked off, Site Focal Points and core team identified, design data collected and design approved with Factory Acceptance Testing in progress. UAT Forthcoming.
  — *Next site has* kicked off, Site Focal Points and core team identified, design data collected and design review completed for September.

■ **Buenos Aires Refinery (Argentina)**
  — Went live November 2009 with 300+ movements, tank levels and temperatures monitored in real-time, 800+ samples, 3,000+ properties analyzed and all information updated in Mass Balancing systems

■ **Fredericia Refinery (Denmark)**
  ■ *Order Movement Manager* deployed, and Site training completed in Feb 2013

■ **Pernis**
  ■ *Automated Movements Site* for 10 years
Global Process Owners Involvement

Early engagement with Site Leadership Team (SLT)

Steering Team kickoff

Integration with other Hydrocarbon Mgt Systems, LEAN, Learning Advisors, & DS1-GSAP

Organizational Risk & Readiness Interviews with SLT
WHAT WENT WELL

- Focus was on business benefits and ROI
- Incorporated best practices and lessons learned from earlier deployments
- Developed early and ongoing communications
- Involvement of stakeholders in site design demos for input and feedback
- Ensured vendor site training was fit-for-purpose and sustainable thru CBT
- Post Deployment ‘Health Checks’ and celebrating team success
VALUE TO SHELL

- Integral to the Manufacturing portfolio as a pre-requisite for integration with DS1-GSAP
- Met Manufacturing Oil Movements requirements on the basis of cost and functionality
- Supports disciplined daily focus and execution and reliability improvement
- Helps increase operational efficiency, improves safety, and optimizes equipment utilization through interfacing with other strategic applications
- Automated Data Sharing between different system via easy interfaces to FMB, Lab Systems & Historian
- Provides Predictive Monitoring capability for operations personnel and assists facilitating Ensure Safe Production Processes
QUOTES FROM BUSINESS

We didn’t try to change the system to meet our processes, but got a good understanding of the system and determined the most effective way to configure it to meet our needs. The change was viewed as an opportunity to improve, not a threat (i.e., the Glass was Half Full).

....Finance, 18th July 13

The integrated system helps us to navigate multiple windows. Pumperlog didn’t do any calculation; it was all manual entries. This system does everything, and we just need to click the button. Also, the Storm button is a good feature to avoid any false alert during a storm/high wind situation.

....Mfg Operations, 4th Aug 13

By integrating both the Order System and Tank System it is giving us a lot of value to minimize operational errors.

....MFG Operations, 18th July 13

This is very easy to operate and user friendly tool to navigate to what I want. Also, training was adequate and fit for purpose to operate for our daily jobs.

....Operations Terminal, 18th July 13
SITE / PROJECT TEAMS