

ABS Nautical Systems

Improving and Keeping Data Quality in a Fleet Management System

Robert C. Kessler

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Company Introduction

- ABS Nautical Systems (ABS NS) is a subsidiary of the American Bureau of Shipping. We provide commercial off-the-shelf fleet management solutions to the marine/offshore industries
- ABS NS was established in 1983 and today has over 150 Marine/Offshore/Gov't clients managing over 4,000 vessels/assets
- Our software solutions and consulting services help companies become more efficient in the following business functions
 - Maintenance Management
 - Purchasing & Inventory Control
 - Structural Tracking and Maintenance
 - Human Resources (Crew Management / Crew Payroll)
 - Quality & Regulatory Management
 - Vetting Management

Data Quality Defined



- *The state of completeness, validity, consistency, timeliness and accuracy that makes data appropriate for a specific use. -- Government of British Columbia*

What does Data Quality mean to you?

- *Knowing how many instances of a specific equipment exist across your fleet*
- *Identifying what ships have a spare part that is urgently needed*
- *Capitalizing your ship's inventory*
- *Consistent maintenance practices are applied throughout your organization*
- *Similar Vetting Observations are answered in an identical fashion fleetwide*

Poor Data Quality leads to inefficiencies

- **Inventory**
 - *Multiple inventory records of same spare part can lead to needless procurement*
 - *Storage of spare parts not related to any onboard equipment*
 - *Loss of inventory control*
- **Procurement**
 - *Missed critical spare deliveries*
 - *Delivery of wrong spares*
 - *Lost discount opportunities*
- **Operations**
 - *Unable to answer executive fleet questions accurately*
 - *Inaccurate vessel costs*

Data Quality Helps Reduce Costs

- **Maintenance**

- *Consistent approach to performing maintenance routines throughout fleet*
- *Consistent Dry-dock Specifications with Standard Library of Jobs*
- *Accurate picture of equipment type conditions and performance*
- *Centralized approach to maintenance*

- **Procurement**

- *Decreased procurement cycle time*
- *Ability to better leverage order history for better vendor contracts*
- *Predict spares needed for Planned Maintenance months in advance*

- **Operations**

- *Maintain consistent Vetting Observation Responses*
- *Trend Root Cause Analysis across the fleet*

Attainment

- Accept high short term costs to mitigate long term ones
 - *Establish upper management buy-in*
 - *Implement high end, stable, integrated fleet management software*
 - *Hire resources to maintain the software and the system*
 - *Trust your software company to provide consulting*
 - *Invest in Customized User Documentation and Training*
- Establish data entry controls
 - *Remove ability for “Type In” Line Items on Purchasing Documents*
 - *Minimize non transactional data entry points*
 - *Use or create a set of business rules for data entry*
 - *Enter only critical parts or those which will be used*
 - *Do not create inconsequential routine maintenance tasks*
- Use E-procurement

A real world example

- Shipowning Company with over 60 Tankers
- 40% of Requisition Lines are contracted
 - *Reduces administration*
 - *Decreases Procurement Cycle Time*
 - *Proper parts are delivered*
- Worldwide Turbocharger Service Contract
 - *Consistent approach to maintenance across fleet*
 - *Accurate maintenance budgeting*

Increasing the quality of an existing DB

- Merge redundant parts and inventories
- Archive obsolete parts
 - Use ordering history as guide
- Involve interested Power Users.
- Standardize Maintenance Tasks
 - Associate required spares with each task
- Use IMPA or ISSA Consumable Parts List
- Assign an Usage Auditor
 - Educate don't Persecute

Data Quality. The Holy Grail?

- Data Quality is relative to your company's needs
 - Implement a data quality initiative that best fits your needs
- The need for Data Quality grows as your company grows in size
 - Less costly to start initiative earlier than later
- There is no perfect parts and maintenance database
 - As Data Entry is ongoing so is Data Quality
- Data Quality is a mindset
 - It must become part of the company culture to reap benefits

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Bob Kessler

Head of Operations and Sales – EMEA

rkessler@abs-ns.com