


MOVING TO MAXIMO

THE IMPORTANCE OF DATA INTEGRITY - TAXONOMY,
HIERARCHY AND DATA CLEANSING

COMPANY PROFILE

- Methanex is the world's largest supplier of methanol to major international markets in North America, Asia Pacific, Europe and Latin America. This means every day - the world over - Methanex plays a vital role in people's lives. Methanol is an important ingredient in many of the essential industrial and consumer products that make the world a better place in which to live, work and play.
 - Methanol can be found in everything from windshield washer fluid to recyclable plastic bottles, plywood floors to paint, silicone sealants to synthetic fibres. The fastest growing markets for the use of methanol are in the energy sector including: direct gasoline blending, dimethyl ether and biodiesel.
 - As a global enterprise, Methanex has manufacturing, marketing and supply chain capabilities in North America, Latin America, Europe, the Caribbean, the Middle East and throughout the Asia Pacific region.
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DEFINITIONS

Hierarchy

System of things arranged in a graded order

Taxonomy

The description, identification, naming, and classification of assets or items

PFD

Process flow diagram

P&ID

Piping and instrumentation diagram



PROBLEM

Old Plant - Established in the 1980's

- Old assets and old asset management system nearing end of support
- 10 year shut down = 10 year void in data continuity and content
- Bad data – typo's, inconsistent descriptions, incorrect noun/qualifiers
- Transition from a three plant operation to a single plant operation - data not current

Upgrading our existing asset management system to IBM Maximo highlighted data consistency and quality issues.

We needed to define:

- What is an asset?
- What is a location?
- How are they related and identified in our existing system?
- How does that correlate to the relation and identification in the other region's asset management system?

APPROACH & SOLUTION

Methanex chose ATCO I-Tek to implement IBM Maximo and to help with the data cleansing project

- IBM Maximo & Asset Reliability experts – one stop shop
- Holistic approach to asset management – Maximo implementers and enablers
- Established trusted advisor with an understanding of requirements

Methanex	ATCO I-Tek
<ul style="list-style-type: none">- Management- Project Manager- Subject Matter Experts	<ul style="list-style-type: none">- Maximo, Reliability & Data Experts- Business Processes- Change Management- Consulting & Planning

APPROACH & SOLUTION

Together with ATCO I-Tek we:

Determined what data we would need to gather in order to be able to identify and build the hierarchy/taxonomy

- Process flow diagrams
- P&ID drawing files
- Existing plant numbering schemes
- Physical locations
- Equipment locations
- Our existing asset management system

Then:

1. Extract

2. Normalize

3. Standardize

Remember:

Spend time looking at data changes and standardization before you build your taxonomy/hierarchy

↑ Data Quality = ↑ User Confidence = ↑ Use = ↑ ROI

CHALLENGES

- **Format of current documentation**
 - Hard copies
 - Electronic/soft copies
 - Scans
 - Images
 - Editable
- **Staff knowledge and plant familiarity**
 - Ability to make critical timely decisions
- **Dedicated resource team**
 - Unable to spare resources for the duration of the project
 - Competing projects that are using the same resources
 - Resources required for plant interruption event

Understanding the **best practice** for determining your hierarchy and what logically will work for your business is only the **starting point**.

Now we must **collaborate** across departments to agree on a **single vision**...



BENEFITS

- Standardized data = more accurate version of what is currently in your facility
- Standardized data gathering and input processes ensure the data you are entering is accurate and uniform now and into the future
- Improve how data is defined, represented and used by adopting industry best practices to fine tune current business processes
- More accurate reporting and KPI's
- Improve organizational cohesion
 - Better understanding of interconnectedness to and interactions with other departments

LESSONS LEARNED

This is a big job and it isn't easy – engage experts, external and internal

- Experienced vendors to assist with “best practices” and “blueprints” to streamline the process.
- Have dedicated resources from at least the Technical and Maintenance departments that know the plant and process systems flow.
- Helpful to involve Procurement and Finance, that know the business, to assist with cost centers and GL coding.
- Management buy in to committing the correct resources is key

Establish guidelines and standards around data entry

- Pay attention to detail regarding how the data is entered –make sure data is complete and accurate.


A well defined equipment hierarchy makes granular reporting easier

- Building an “Asset Registry” ensures that you have cleaner data for assets, locations, equipment and spare parts

Pay attention to definitions in the taxonomy

- More detailed equipment classifications support reliability initiatives → better definition of downtime reporting, failure analysis, systems availability and maintenance indicators

Develop templates and standards for data entry to improve ongoing processes

- Identify mandatory data
 - Create guidelines around data entry
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CONCLUSION

Data cleansing is a necessary project at any stage of facility maturity

- Ensures the information being used for business decision making is sound
- If you can trust the data, you will have a more efficient system for reporting and analysis

Big complex job - many people and many moving parts

- Time and funds need to be invested and budgeted for

Involvement from all areas of the plant is critical

- Ensures all data represented → complete hierarchy/taxonomy

Formalize standardization processes and formats

- Ensures that data entered is complete and accurate

