Leveraging Operational Data to Support Business Decisions

Bob McIntyre - PotashCorp
Heather Quale - Mera
Agenda

- Why PI in PotashCorp?
- PI System Capabilities
- PI System Implementation in PotashCorp
  - PI System Standards and Data Validation
  - PI AF Hierarchy and Template Development
  - PI System Governance
- PotashCorp PI Solution Examples
Why do we need an Enterprise Historian?

**Our Vision:**

- **Current Practice:**
  - Decisions based primarily on historical metrics and reports.

- **Goal:**
  - Enhance decision making with real-time operational data by implementing an Enterprise corporate data historian.

- **Approach:**
  - Collaborate with PotashCorp business systems to provide timely information to the user community.
Why PI in PotashCorp?

• OSIsoft’s PI System is our Enterprise data historian:
  • Full Enterprise security capabilities.
  • Manages hundreds of thousands of tags at high scan rates, for the life of the assets.
  • Manages hundreds of users with no performance impact.
  • Leverages hundreds of managed interfaces to easily collect data from ANY control system.
  • Shares data effectively with analytics and other business systems using standard interfaces.
  • Jointly developed interfaces (PI Integrators) with vendors to share data with advanced analytics such as SAP Hana and Microsoft Azure.
PI System Capabilities
PI System Structure and Capabilities

Integrated Solutions to PI System

PI Asset Framework

Data from Control to PI Data Archive

OSIsoft PI Visualization and Reporting Tools

Analytical Solutions Requiring Data from PI

Relational Sources
PI System Implementation at PotashCorp
PotashCorp PI System Architecture
PotashCorp PI System Upgrade Approach

Requirements:
• Data confirmation
• Integration of key business systems
• Workflow development
• Effective governance
• User training

Increased Collaboration
PI System Standards and Data Validation

• Worked with the user community to develop a common tag naming standard across all sites
• Benefits of the new tag naming standard:
  • Allows the PI user community to easily locate and understand the PI data
  • Facilitates easy generation and maintenance of reports, process graphics, and dashboards
  • Developed PI AF templates to efficiently add new assets, equipment, reports, etc.
  • Enables PI AF elements to leverage common single display/report formats
  • Reduces the time for site administrators to manage and maintain the PI System
• Reviewed all tags, renaming and validating the source data

Data has to be trusted to be used
AF Hierarchy and Templates

- Developed PI AF hierarchy that compliments the Computer Maintenance Management System (CMMS) structure
- PI AF templates were developed for critical equipment and reporting
- PI AF hierarchy structure and templating ensures consistency across all sites
AF Integration to Corporate Systems

• Select data from Corporate Systems is made available to PI System users for context
• Integration of Corporate Systems in PI AF:
  • Loadout Information
  • Underground Production Data
  • Computer Maintenance Management System
  • Production and Inventory Data
  • Safety Data
PI System Governance

• PI System Governance is required to ensure accurate, timely data for the user community

• PI System Governance is dependent on the following:
  • Establishing a cross disciplinary governance board and steering committee to govern the PI System
  • Identifying and assigning the roles and responsibilities of each member
  • Creating a set of standards, processes and procedures appropriate to manage the PI System
  • Developing an evergreen process to ensure data governance will be refreshed as changes occur in the data, systems, personnel or corporation
PotashCorp PI Solutions
Screenshots – Potash Portal
Screenshots – PDF Report Viewer
Screenshots – DataLink Server Report

### SharePoint

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### Excel Web Access

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Screenshots – PI Vision
Screenshots – WebParts Equipment Dashboard
Leveraging Operational Data to Support Business Decisions

**COMPANY and GOAL**
PotashCorp, the world’s largest fertilizer company by capacity, with operations in 7 countries, is leveraging operational data to help feed the world.

**CHALLENGE**
Required consistent operational data that users could trust and easily access to make informed decisions
- Operational data that differed site to site
- Users could not locate data easily and had issues trusting the data
- PI AF was not in place

**SOLUTION**
Implemented PI AF and expanded client tools to provide users access to operational data.
- PI AF leveraged the corporate hierarchy in CMMS
- Validated and standardized all data in the PI System
- Integrated key business solutions
- Deployed PI client tools

**RESULTS**
Created a trusted source of operational data that can now be readily leveraged for business solutions
- Implemented Potash Portal for management reporting
- Deployed reconciliation engine to simplify daily production reporting
- Leveraging data foundation to support added functionality
Questions

Please wait for the **microphone** before asking your questions

State your name & company

Please remember to...

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