Embarking on a Journey with the PI System

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**Company Background**

- **Company Headquarters:** Paris, France  
  - 2015 Revenue = $5.66 Billion

- **Plant Based in Ravenswood, West Virginia**  
  - Largest Constellium facility in United States  
  - Built in 1955

- **Produce Aluminum Plate and Coil Products used in:**  
  - Aerospace industry (ie wing skins, space crafts & rockets)  
  - Military Vehicle Protection  
  - Automobile Industry  
  - Tractor Trailers  
  - Rail Cars  
  - Pleasure Boat

- **Employees:**  
  - Plant = over 1,000  
  - Company = over 10,000 (22 Total Plants Worldwide)

- New to OSIsoft PI (since 2015)
Operational Business Challenges

• Product Flow
  – Casting ➔ Hot Rolling ➔ Plate & Cold Rolling ➔ Customers

• Ever Increasing Product Quality and Production requirements

• Culture of Continuous Improvement

• Limited Financial and Manpower Resources
Journey to PI

• 4 Years Ago
  – Corporate Initiative “Process Quality and Efficiency Improvement”
  – Explore ways to drive Process Optimization & Quality
  – Legacy Data Historian in use since 2000
    • Used mainly by Engineers only
  – Open Data Infrastructure:
    • Provide awareness
    • Real time & historical data to more Employees
Journey to PI

• Legacy Data Historian
  – Challenges:
    • Hard to make updates
      – Some custom code
      – Required 3rd Party
  • No Asset Context
  • Support Issues
Journey to PI

- **New Requirements for Data Infrastructure:**
  - Ability to Manage System within Limited Resources**
    - Off-The-Shelf Software (no/minimal custom code)
  - Asset Context with Data
    - Open Data and Awareness to Non-Engineering Groups
  - Exceptional Customer Support
  - Perpetual Software License Model

**Limited Internal Resources to Support Data Infrastructure
What led us to OSIsoft

• Colleague Recommendation

• Promise of:
  – Continued Product Development
  – Excellent Customer Support

• Attended the 2015 OSIsoft Regional Seminar
  – Impressed by Customer Value and Community
Proof of Concept

• Original POC ➔ Annealing Furnace area

• POC was successful:
  – System is expanding into additional area
  – Other Departments requesting PI System
Intern Project ➔ PI System Demand ↑↑

- Summer Intern Assignment:
  - 1-2 weeks
  - Build Processbook Screens for area
    - Process Graphics
    - Charts
    - Operator Display

- CEO and Middle Managers want similar Dashboards

- Plant Wide Project ➔ “Process Data Visualization Project”

- Many New PI System Requests ➔ Tough to Manage!
Future Plans

• Expand PI System to All Critical Processes at Plant

• Full Asset Framework Hierarchy

• Use of Asset Analytics, Event Frames & PI Notifications

• Multi-level Management Dashboard

• Big Data / Business Intelligence Analysis & Displays
OSIsoft Support

• Field Service Support for:
  – Installation
  – Architecture
  – Technical Questions

• Excellent Tech Support

• OSIsoft Youtube Channel
Summary of Our Journey...

COMPANY and GOAL

Constellium produces aluminum plate and coil products for the transportation, defense and aerospace industries. The objective was to expand process data collection and data availability to plant engineers and management.

CHALLENGE

Replace process data historian with product that at least matches and preferably exceeds existing capability.

• Accessing multi data sources
• Process Data Visualization
• Improved analysis tools

SOLUTION

Pilot Project to prove the feasibility of replacing the existing historian with OSI products and associated visualization tools

• PI Server & Asset Framework & Visualization tools

RESULTS

Pilot Project has been successful. Currently in planning stages of expansion of PI System on a plant wide basis

Leverage of newly acquired tools
• PI Asset Framework
• PI Analytics
• PI Event Frames
• PI Visualization Suite
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Questions

Please wait for the microphone before asking your questions

State your name & company

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Evaluation Form (Seminar Location - Date)

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