

W. R. Grace's Journey toward a Data Infrastructure



INDUSTRIAL KNOWLEDGE
A Yokogawa Company

GRACE - Talent, Technology, Trust

- Built on talent, technology, and trust, Grace high-performance specialty chemicals and materials improve the products and processes of our customer partners around the world.
- Over 3,700 Grace employees safely and sustainably develop, manufacture, license, support, and sell leading technologies to a wide variety of industries. For more than 70 percent of our sales of catalysts and silica-based materials, we rank #1 or #2.

GRACE

Talent | Technology | Trust™



Industrial Knowledge (A Yokogawa Company)

- Yokogawa's global network of 88 companies spans 56 countries. Founded in 1915, the US \$4 billion company conducts cutting-edge research and innovation. Yokogawa is engaged in the industrial automation and control (IA), test and measurement, other business segments.
- Industrial Knowledge has been a leader for over 16 years in sharing real-time process data using the cloud based Data-as-a-Service (DaaS) model. Today 50% of the worlds energy and chemical companies use one of the services from Industrial Knowledge.
- Industrial Knowledge has been a preferred PI systems integrator and consultant for over 16 years.

Presenters Background

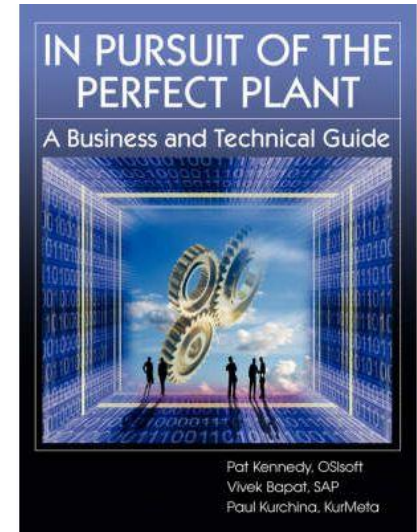
- Dan Zamojski - GRACE
 - Senior Process Control Engineer
 - Over 7 years with GRACE in various roles.
 - Joint leader on Global Process Controls Team, tasked with building unity across organization.
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- Gene Sullivan – Industrial Knowledge (A Yokogawa Company)
 - Director of Business Development/Sales
 - Chemical Industry Focused Leader
 - Over 25+ years Industry Experience

Making PI history at Grace

Two years ago, a few Grace engineers from the East Chicago plant attended the 2014 OSIsoft Regional Seminar in Chicago...

By early 2015, the East Chicago plant completed a controls upgrade and installed an embedded version of PI.

In 2016 Grace installed PI at the Duren Plant [Germany] and partnered with Industrial Knowledge to implement PI at the Albany facility in Oregon.



Challenge

- **Plant:** Albany, OR : 100+ employees, Materials Technology and Specialty Catalysts
- **Existing Infrastructure:** A simple historian that was included in the SCADA package
- **Challenges:**
 - Not built for long term data collection or heavy loads.
 - They only had 75 total tags being collected and were required to go to a computer and burn a CD with the data, then export into excel.
 - They then looked through hand written batch cards to find the time frame of the data needed to examine.
 - 12 to 14hrs a week were spent doing this.
- There was a desire to make the data accessible to everyone who needed it in a simple and robust way.
- Also wanted to collect batch information and easily visualize batches and do analysis of these batches.

Solution

Goals:

- 1) Expose real-time data to operators, engineers and management
- 2) Improve batch yields with better information and visualization for analysis.

Solution:

- 1) Partner with Industrial Knowledge to develop specification for the successful implementation of a PI system. Emphasis placed on:
 - Server infrastructure utilizing virtualization
 - OSIsoft PI with PI Coresight, Process Book, and PI Datalink.
- 2) Commissioned Industrial Knowledge to implement the PI system:
Asset Framework and Event Frames
- 3) Next Step: Install PI notifications for more real-time process monitoring.

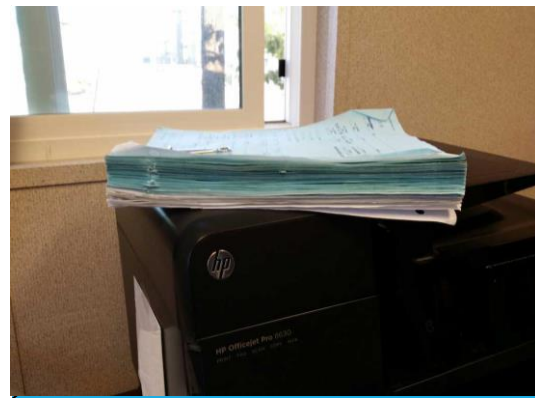
Results

- Engineering Productivity Improvements: 30% more time a week for the process engineers to target other cost savings opportunities.
 - The time spent on data analysis has dropped from 12 to 14 hours down to 2 hours per week.
- Manufacturing data can now be used in real-time enabling engineers to catch batch yield opportunities enabling a more efficient manufacturing support process.
 - Using Event Frames vs. having to wait for hand written batch report.
- More operational process ownership using real-time data
 - Using PI Coresight and other tools to monitor/improve their process.

W. R. Grace's Journey toward a Data Infrastructure

COMPANY and GOAL

A GRACE plant was in need of a solution to make the process data accessible to everyone who needed it in a simple and robust way.



CHALLENGE

Time consuming data collection and analysis was dragging down the productivity of site process engineers.

- 12 to 14 hrs/wk spent collecting and analyzing data
- Limited visibility to process as it was running

SOLUTION

Implemented a PI system with appropriate infrastructure

- Coresight
- Datalink
- Event Frames
- Notifications

RESULTS

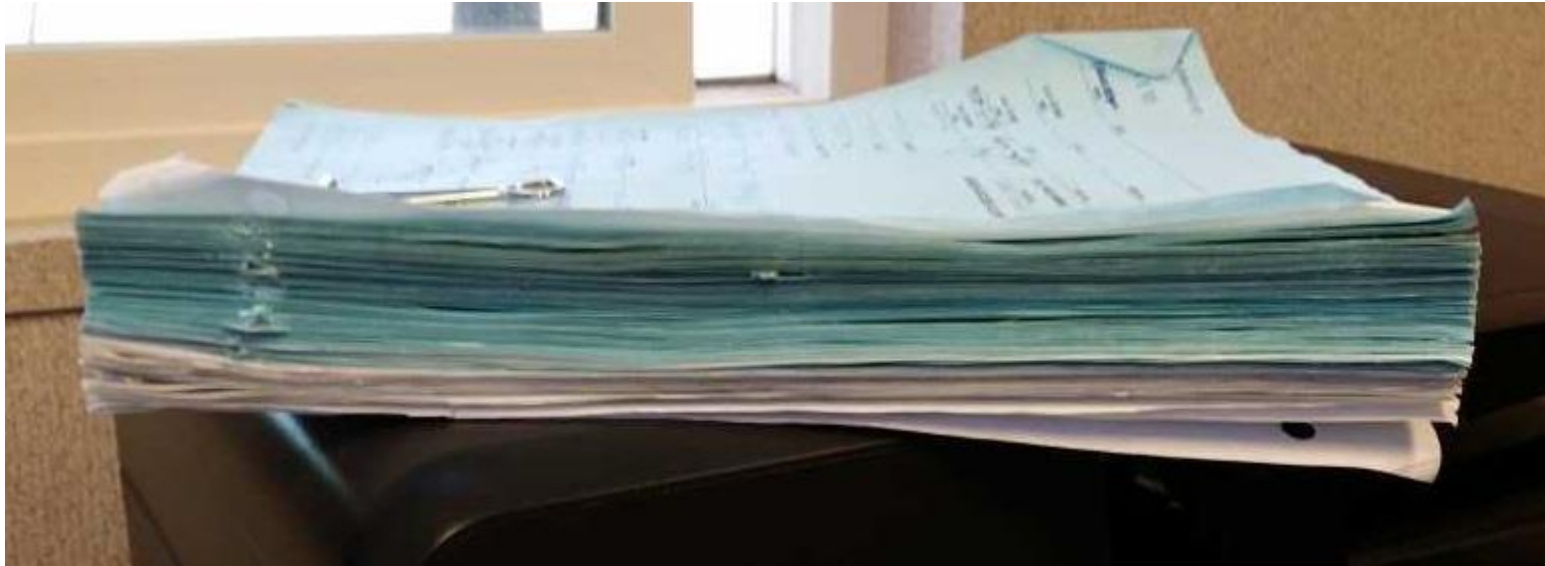
Reduced data analysis time from 14 hrs/wk down to 2.

- Paper batch records have been replaced with real-time batch data visualization via PI Coresight
- Freed up 30% more time for Process Engineers to tackle new projects.
- Access to data now from anywhere.

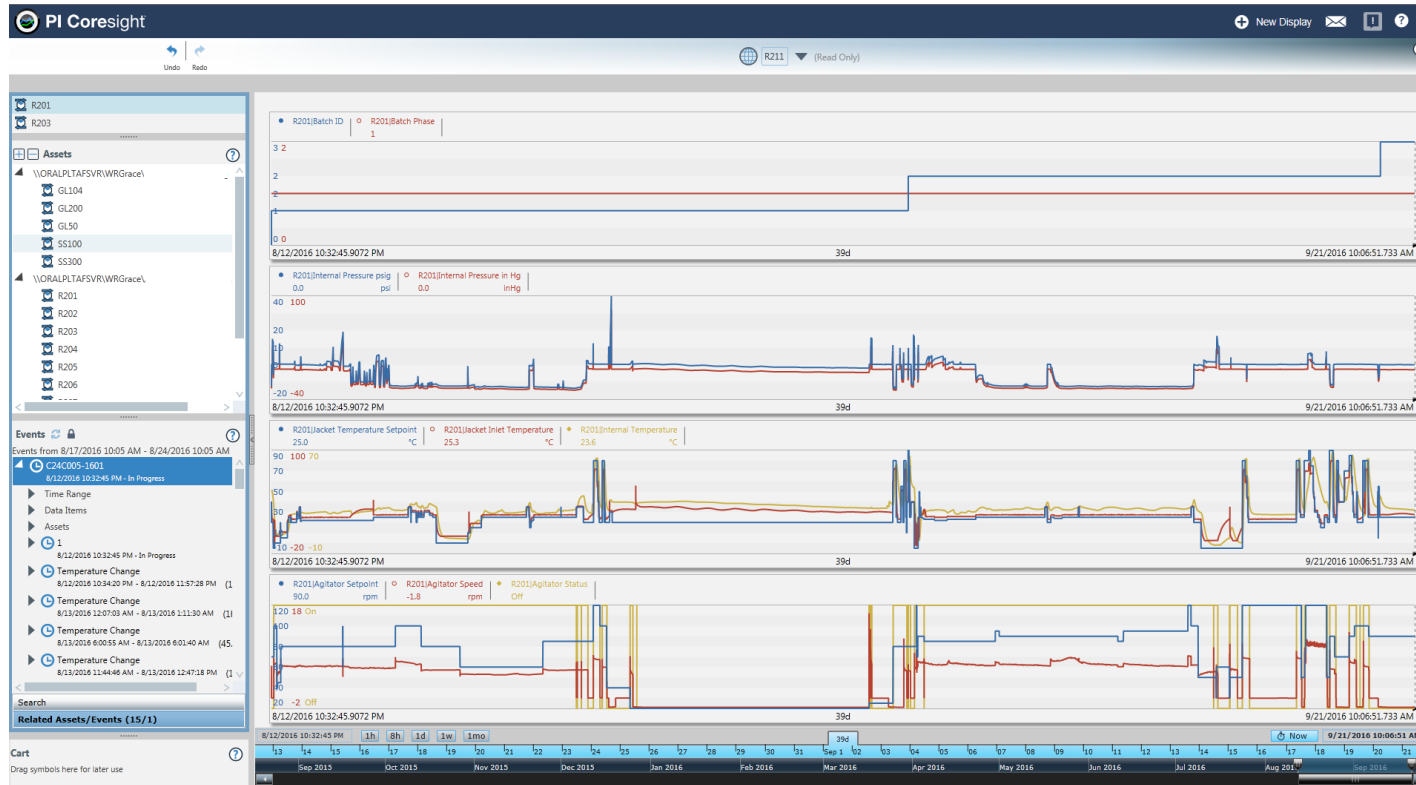


With PI and Industrial Knowledge...

We transformed our operations from paper batch records



To real-time data visualization



Contact Information

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Questions

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



State your **name & company**

Please don't forget to...

Complete the Survey for this session



The Power of Data
DECISION READY IN REAL-TIME

Evaluation Form (Seminar Location - Date)

Name: _____ Company: _____

Email: _____

Quality and content of the presentations	Poor	Good	Excellent	N/A
Welcome	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Journey To Real-Time Operational Intelligence	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The Power of Connection	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tank Level Management System	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Using the FI System to Aid in Troubleshooting Operational Aspects of Oil and Gas Well Drilling and Completion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Unleash your Infrastructure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Information on the Spot	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wrap-up/Seminar Conclusion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality and organization of the seminar				
Choice of date	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Time allowed for lunch/breaks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Choice of presentations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Break time allowed for the presentation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



감사합니다

谢谢

Danke

Merci

Gracias

Thank You

ありがとう

Спасибо

Obrigado

