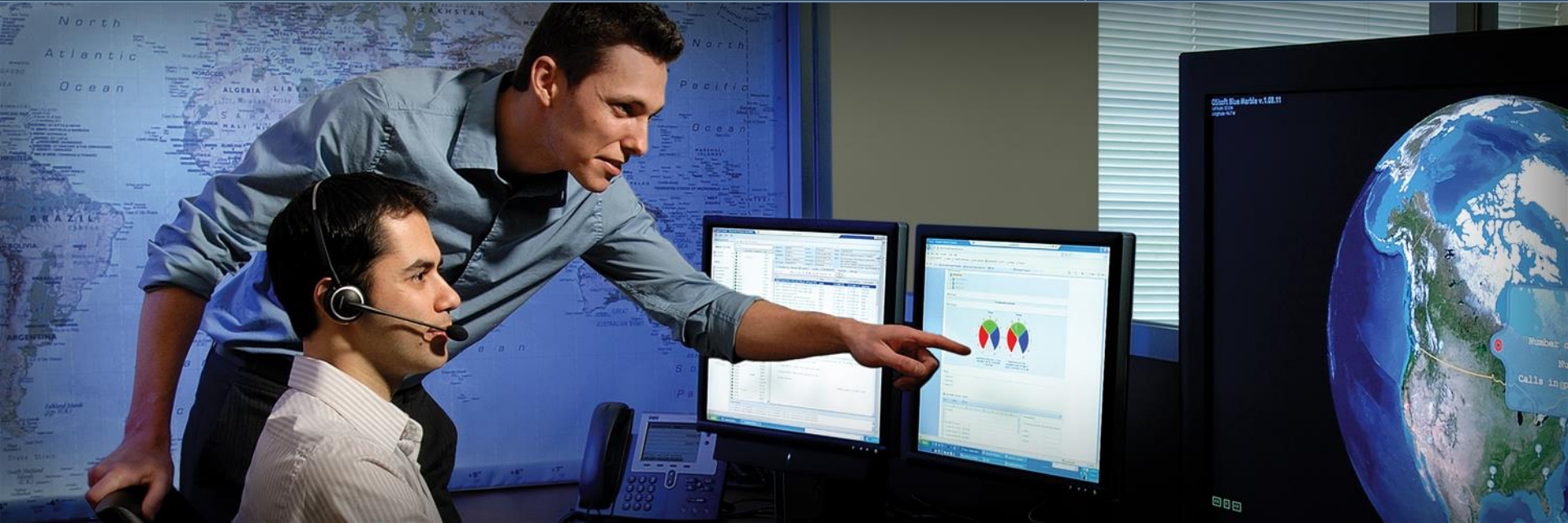




Regional Seminar Series Cleveland



Critical Facilities Management

Mike Mihuc
Regional Manager - Northeastern US
OSIsoft, Inc.

October 8, 2009

Empowering Business in Real Time.

© Copyright 2009, OSIsoft Inc. All rights Reserved.

Customers using Pi for Critical Facilities



Facility Customers



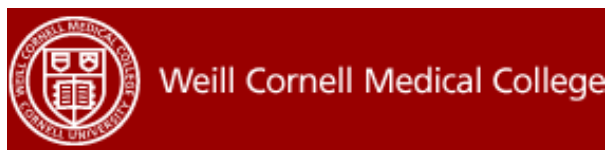
Kodak

IBM



CISCO

Data Center Customers



accenture
High performance. Delivered.



Lines of Business/ Operations

IT Infrastructure

Data Center Infrastructure

Facility Infrastructure

PI for Critical
Facilities - Value
Chain

BUSINESS SITUATION

Kodak Park wanted to find a way to present real-time energy data on their portal lowering the cost of curiosity and significantly reduce their energy utilization.

BENEFITS

Significant ROI – Millions of dollars in savings . Improved demand side management and optimization of generation assets.

Continuous Process Improvement – Identified opportunities in manufacturing to implement an energy conservation mode between product runs

Kodak Park facts

- Area > 20,000,000 Square Feet
- 11,000 Employees
- Operates its own fire department
- Operates its own rail road
- Performs its own water and waste water treatment
- Operates 2 power plants
- Benefits > \$10MM !

Measurements

- 600 **Electric** Distribution **Meters**
- 600 Additional Distribution **Meters** for Steam, Chilled water, Brine, Compressed air, Process water, Nitrogen, Natural gas etc.
- Significant **Metering** Used within the Power Houses to Manage the **Generation** Side

Kodak Benchmarked their Process



KODAK Workforce Portal

Welcome JAMES BREEZE

Welcome myHR KP Energy

Utilities Home | Utilities Generation | Building Usage | Ad-Hoc Trend

Steam Scorecard

Total KP Plant Steam Flow

1426 KPPH

Goal < 1350



Electric Scorecard

KPE Steam Flow to MFG & Refrigeration

497 KPPH

Goal < 400



Chilled Water Scorecard

KPW,X&M Steam Flow to MFG & Refrigeration

377 KPPH



Kodak Water Scorecard

KPS Steam Flow

79 KPPH



Compressed Air Scorecard

Exhaust Steam to Atmosphere

127 KPPH



Total Boiler Build-Up

353 KPPH



260# Steam - Tie Line Flow from B-321 to B-31

57 KPPH

Total Megawatts

98 Megawatts



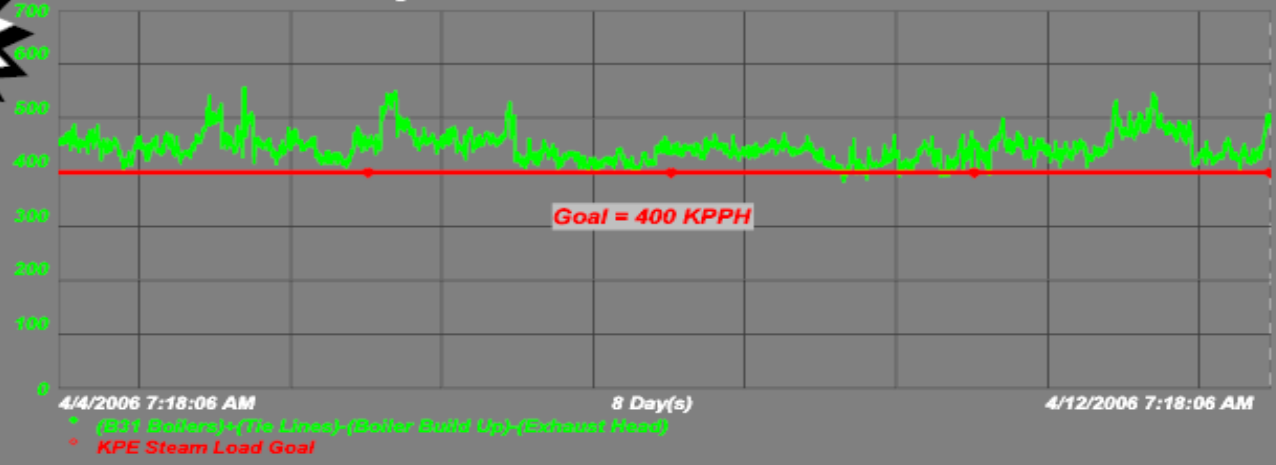
Goal < 95

Purchased Power

14.0 MWATTS

Link to "The Energy Times"

KPE Steam Flow to MFG and Refrigeration



KP - 22 Inch Fire Suppression Water Main



KODAK Workforce Portal

Welcome JAMES BREEZE

[Log Out](#)

Welcome | myHR | KP Energy Admin | Content Administration | **KP Energy**

Utilities Home | **Utilities Generation and Fire** | Building Usage | Eastman Gelatine | Ad-Hoc Trend

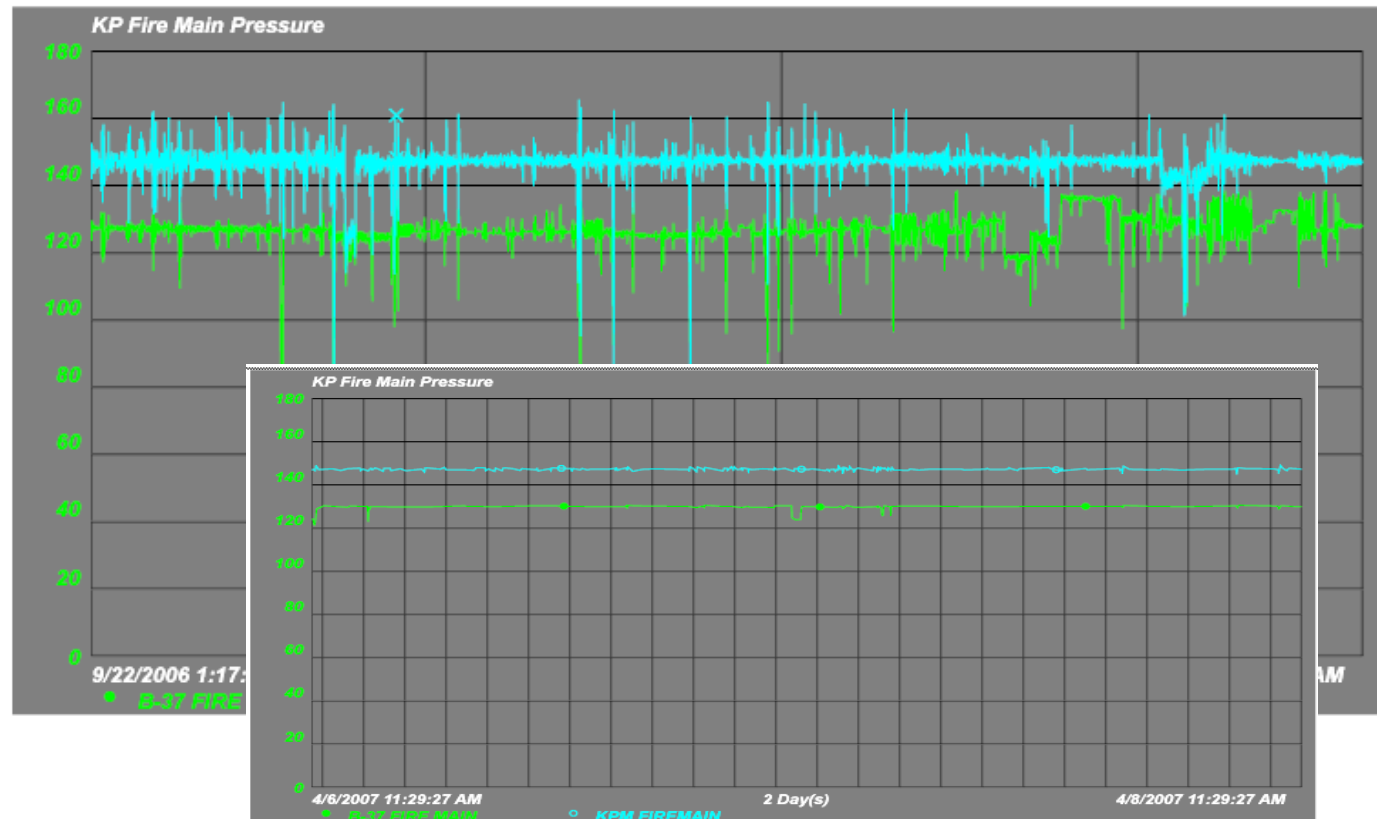
Detailed Navigation

- Steam Elec Overview
 - ☐ Steam and Electric
 - Steam Elec Overview
 - KPE Steam Diagram
 - Purchased Power
 - ☐ Refrigeration and Water
 - ☐ Waste Water Treatment
 - ☐ High Purity Water
 - ☐ Nitrogen
 - ☐ KP Fire Department
 - KP Fire Main Pressure**

Start Time: 9/22/2006 1:17:46 PM

End Time: 12/31/2006 11:17:46 AM

Apply



- First step is understanding and benchmarking your operations
- OSIsoft has interfaces for Critical Facilities and IT
- Your Account Manager would be happy to talk with you in order to understand your situation and to see how PI could create value

PI expansion update- see for yourself



UC Davis

<http://facilities.ucdavis.edu/Dashboard/>

Queen's University

<http://livebuilding.queensu.ca/>

Rochester University

<http://meters.energy.rochester.edu/rc%20sharepoint%20files/hutch%20hall%20electric.aspx>

2009 User Conference Critical Facilities Track -

[Industry Observations and Trends](#) (David Jump, Quantum Energy) - [PPT](#)

[The Daily Miracle of Internet Connectivity \(PI Data Centers\)](#) (Greg Dumas, DST Controls, Ernest Holloway, Pamela Bringham, Equinix) - [PPT](#)

[Real time Data for Data Center and Lab Energy Efficiency](#) (Chris Nolan, Cisco Systems, Ken Morikawa, OSIsoft) - [PPT](#)

[The Data Center Dashboard](#) (Steven Berkovich, Teresa Tung, Accenture) - [PPT](#)

[Understand How PI is being used at Microsoft in the 10min. Wrap](#) (Scott Mauvais, Microsoft Technology Center) - [PPT](#)



Thank you

© Copyright 2009 OSIsoft, Inc.

777 Davis St., Suite 250 San Leandro, CA 94577