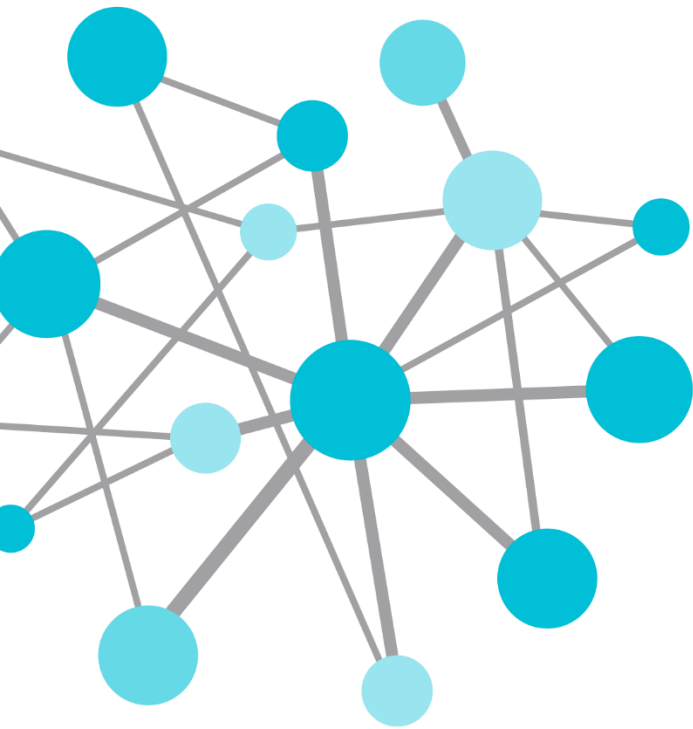


OSIsoft®

# REGIONAL SEMINAR 2014

The **Power** of **Data**

DECISION READY IN REAL-TIME



# Information on the Spot

Presented by **Isabelle Lacaille**, Customer Support Engineer  
[ilacaille@osisoft.com](mailto:ilacaille@osisoft.com)



# Different People Need Different Tools at Different Times



*Engineers and  
Operators*

Some need tools for detailed **analysis**,  
process **monitoring**, and ad hoc **exploration**

Others need tools to build heads up  
**displays**, **dashboards**, and **KPIs**



*Executive and  
Management Teams*

Executives need data **in the office**  
and **on the go**



*Maintenance and  
Asset Management Teams*

While everyone needs to **build**, **share**, or **view** reports...  
many want a **custom view** and the ability to **drill down**

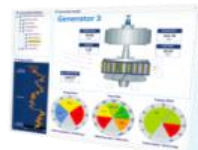
# Unlimited Access to Your Data

- The PI Visualization Suite puts **every PI System visualization tool** at your fingertips



- Allows **everyone** to **collaborate** with data to **drive innovation** and for **data-driven decision making**
- The **PI Visualization Suite** unlocks PI System **data sharing** across your business to **empower your enterprise**

**PI ActiveView**



**PI BatchView**



**PI Coresight**



**PI WebParts**



**PI ProcessBook**



**PI Manual Logger**



**PI DataLink**



**PI Visualization Suite**



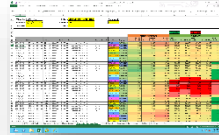
## I need to:

Provide self service BI for my users



## I need to:

Report against process and event data



**I need to:** Access process data anytime, anywhere



## I need to:

Enter data from my mobile device



## I need to:

Respond to notifications and identify problems



# I need to:

## Enter data from my mobile device



## PI Manual Logger using a smart phone







# DEMO

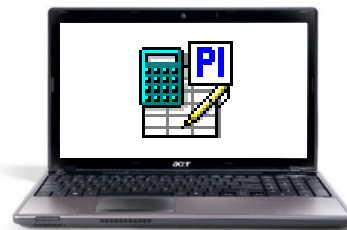


# PI Manual Logger 2014

## Tour-based manual input data collection

- PI Manual Logger **PC**

- **Configure** tours
- Enter, review, edit, or **approve** the data



- PI Manual Logger **Web**

- **Collect** data from equipment with a **mobile device**
- **Barcode**/RFID to identify tags and/or enter data

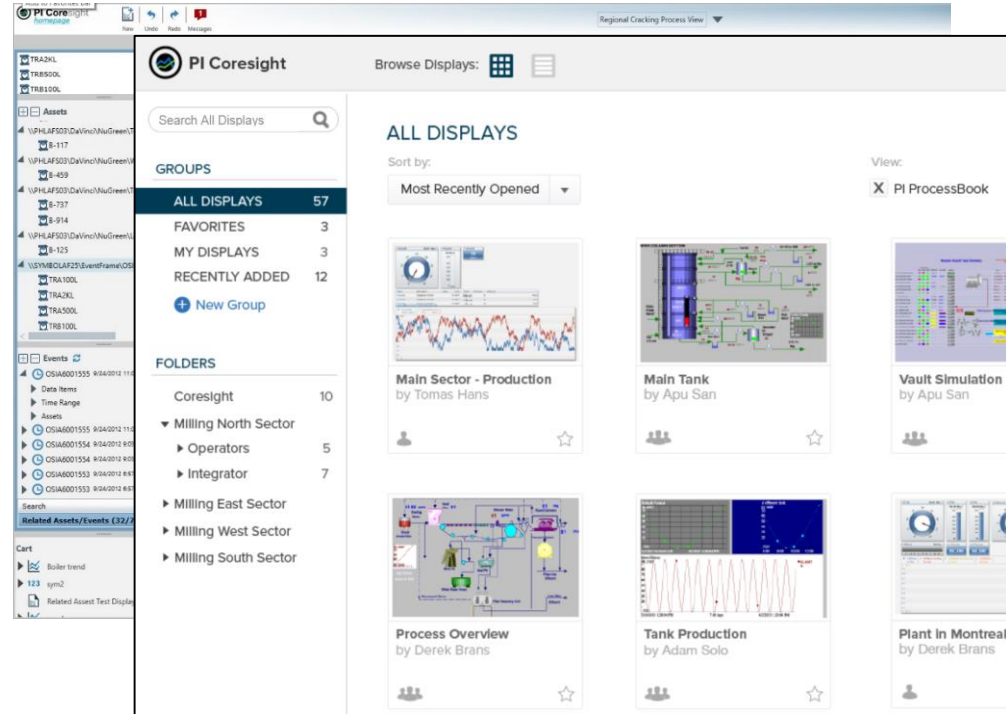


# I need to:

## Respond to notifications and identify problems

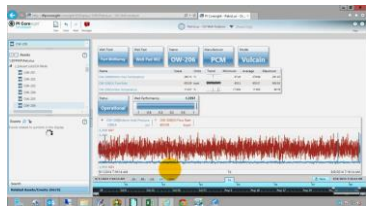


Notification-driven  
investigation using  
PI ProcessBook  
and PI Coresight



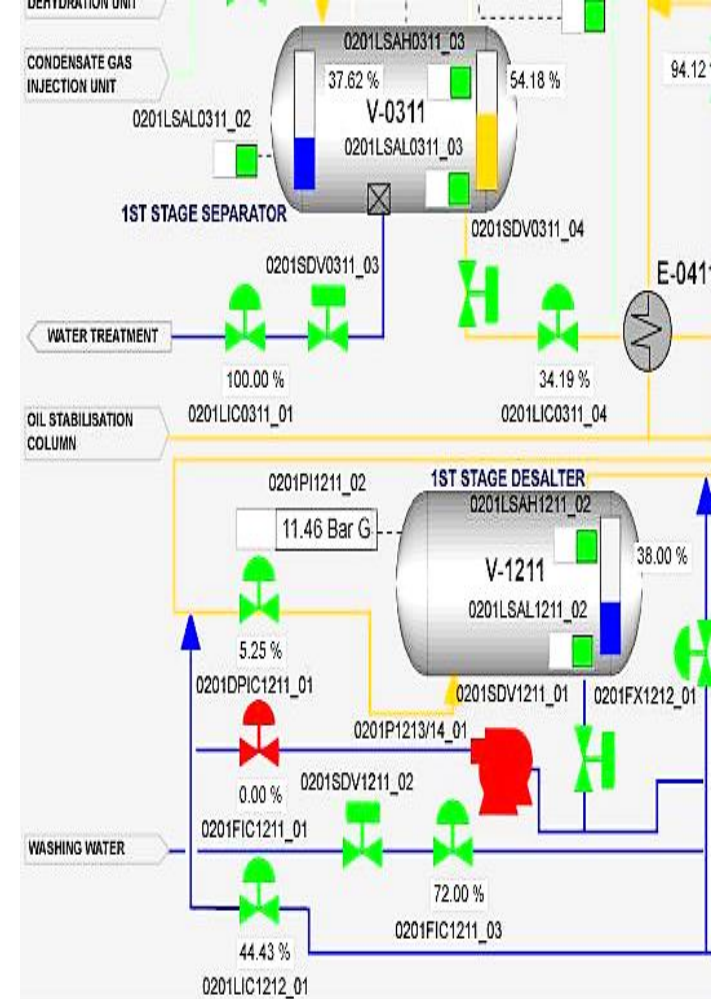


# DEMO



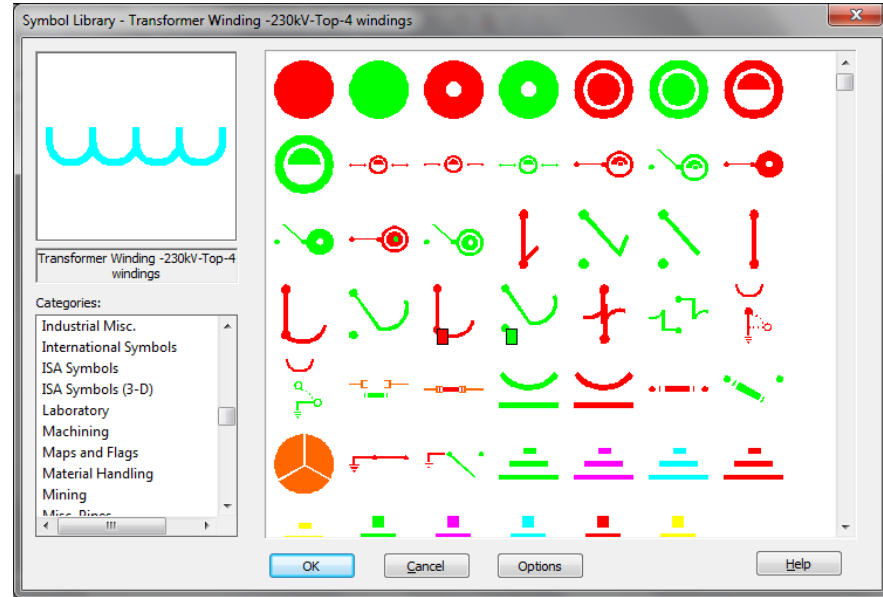
# PI ProcessBook

- Display **real-time** and **historical** data
  - Process representation
  - **Trend** with traces
  - Context management with **PI AF**
  - **Replay** problematic events
  - **Drill-down** capabilities



# PI ProcessBook 2014

- Launch ad hoc analysis in **PI Coresight**
- New Transmission and Distribution Symbols
- **Assign displays** to PI AF Elements and Templates



# Demo: Assign Displays to PI AF Elements

PI ProcessBook - [Tank Farm\*]

File Edit View Insert Tools Draw Arrange Window Help

100%

Arial 10

**B** *I* U

<< 1/8/2014

1/10/2014 >>

AF Browser

Test

Elements

AFDisplayBuilder

DataTypes

DHOLLEBEEK7600 ModuleDB

Formulas

Random

Tank Farm

AwesomeTank1

AwesomeTank2

Tank1

Tank2

TimeRangeMethods

AwesomeTank1

69.6918 psi

200 cm3

General Child Elements Attributes Ports Version

Name: AwesomeTank1

Description:

Template: AwesomeTankTemplate

Categories:

Default Attribute: <None>

[Extended Properties](#)

Server Time NUM

# What Can I Do with PI Coresight?

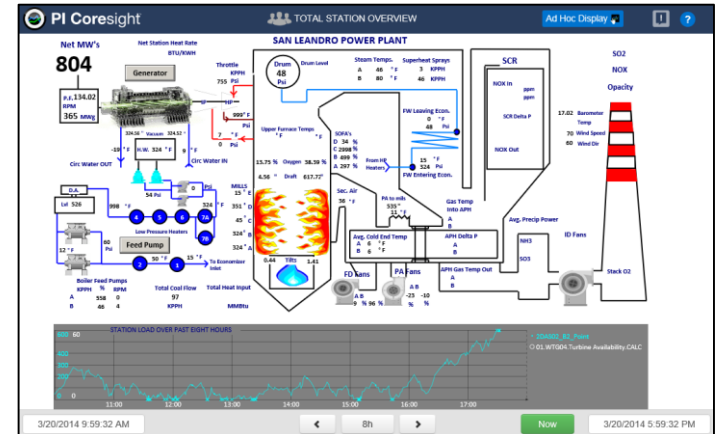
- Not sure exactly what I am **looking for**...
- I found an **interesting event**, now I want to compare it to other time ranges or equipment
- I have an interesting display that I want to **share with others**





# Introducing PI Coresight 2014

- Ad hoc analysis + authored displays



I need to:

Access operational data  
anytime, anywhere



Real-time data on  
your tablet using  
PI Coresight





# DEMO

# PI Coresight on Mobile Devices

- Fast and easy access to PI System data
- View PI ProcessBook displays
- Designed for small screens
- Viewable on any device

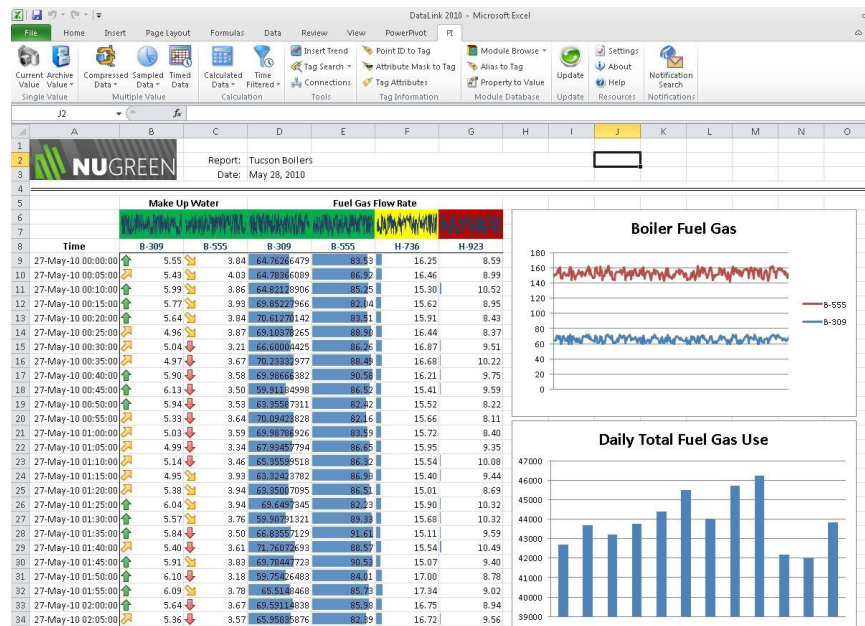


# I need to:

## Report against process and event data



### Events reporting in Excel using PI DataLink





# DEMO

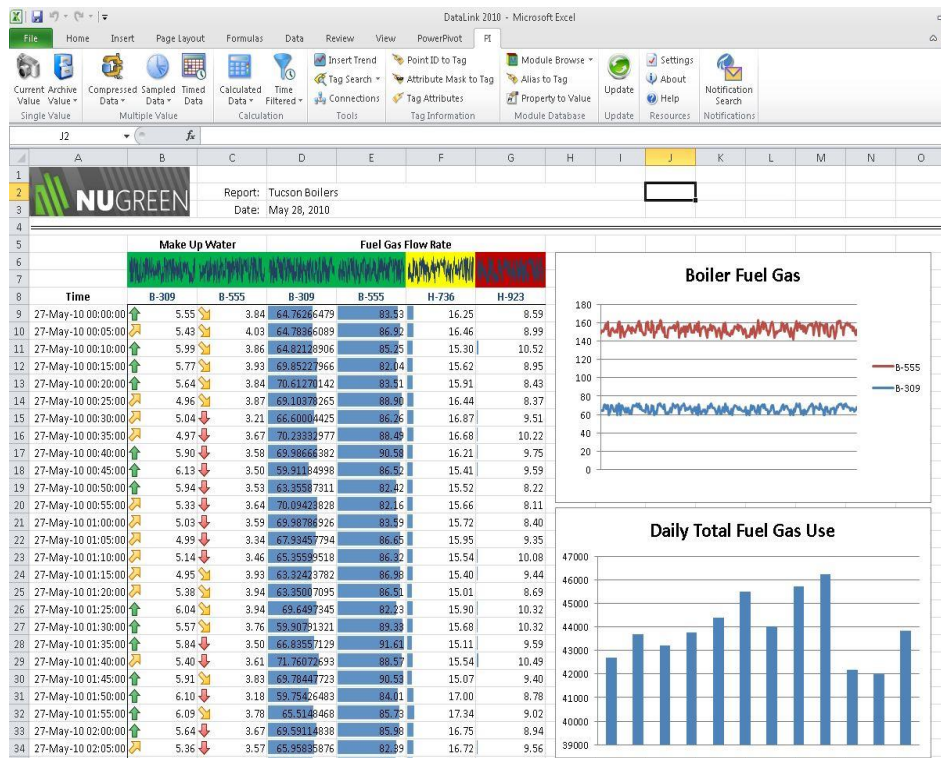


# PI DataLink

Add-in to **Microsoft Excel**

- Create reports
- Apply calculations
- Retrieve data

*OSIsoft's most popular product by installations*





# PI DataLink – Events Report Example

Copy of Copy of UC2014 Power Gen Reports - Excel

FILE HOME INSERT PAGE LAYOUT FORMULAS DATA REVIEW VIEW ADD-INS PIDATALINK PI BUILDER Team

B21 : {=PIEDat(GLOBAL!\$B\$2,"Production Summary Report"!\$C\$3,"Production Summary Report"!\$C\$4,0,"Production Summary Report"!\$F\$4,"Unit.TIME.Day","Production Summary Report"!\$F\$5,"", "", "", "", "active in range","start time"}

EF Template		Unit Time.Day	Site Name	San Leandro Power Plant	Day of Week	
Search Start	1/10/2014 0:00	Unit Name	Unit 1	EF Name	*	
Search End	*					
<div>Top 10%</div> <div>Bottom 10%</div>						
AMBIENT TEMPERATURE						
GROSS MW						
Event name	Start time	End time	Duration	Site Name	Primary element	Day of Week
2014_01_10	10-Jan-14 00:00:00	11-Jan-14 00:00:00	1:00:00	San Leandro Power Plant	Unit 1	FRIDAY WEEKDAY
21	2014_01_11	11-Jan-14 00:00:00	12-Jan-14 00:00:00	1:00:00	San Leandro Power Plant	Unit 1 SATURDAY WEEKEND
22	2014_01_12	12-Jan-14 00:00:00	13-Jan-14 00:00:00	1:00:00	San Leandro Power Plant	Unit 1 SUNDAY WEEKEND
23	2014_01_13	13-Jan-14 00:00:00	14-Jan-14 00:00:00	1:00:00	San Leandro Power Plant	Unit 1 MONDAY WEEKDAY
24	2014_01_14	14-Jan-14 00:00:00	15-Jan-14 00:00:00	1:00:00	San Leandro Power Plant	Unit 1 TUESDAY WEEKDAY
25	2014_01_15	15-Jan-14 00:00:00	16-Jan-14 00:00:00	1:00:00	San Leandro Power Plant	Unit 1 WEDNESDAY WEEKDAY
26	2014_01_16	16-Jan-14 00:00:00	17-Jan-14 00:00:00	1:00:00	San Leandro Power Plant	Unit 1 THURSDAY WEEKDAY
27	2014_01_17	17-Jan-14 00:00:00	18-Jan-14 00:00:00	1:00:00	San Leandro Power Plant	Unit 1 FRIDAY WEEKDAY
28	2014_01_18	18-Jan-14 00:00:00	19-Jan-14 00:00:00	1:00:00	San Leandro Power Plant	Unit 1 SATURDAY WEEKEND
29	2014_01_19	19-Jan-14 00:00:00	20-Jan-14 00:00:00	1:00:00	San Leandro Power Plant	Unit 1 SUNDAY WEEKEND
30	20-Jan-14 00:00:00	21-Jan-14 00:00:00	1:00:00	San Leandro Power Plant	Unit 1 MONDAY WEEKDAY	
31	2014_01_21	21-Jan-14 00:00:00	22-Jan-14 00:00:00	1:00:00	San Leandro Power Plant	Unit 1 TUESDAY WEEKDAY
32	2014_01_22	22-Jan-14 00:00:00	23-Jan-14 00:00:00	1:00:00	San Leandro Power Plant	Unit 1 WEDNESDAY WEEKDAY
33	2014_01_23	23-Jan-14 00:00:00	24-Jan-14 00:00:00	1:00:00	San Leandro Power Plant	Unit 1 THURSDAY WEEKDAY
34	2014_01_24	24-Jan-14 00:00:00	25-Jan-14 00:00:00	1:00:00	San Leandro Power Plant	Unit 1 FRIDAY WEEKDAY
35	2014_01_25	25-Jan-14 00:00:00	26-Jan-14 00:00:00	1:00:00	San Leandro Power Plant	Unit 1 SATURDAY WEEKEND
36	2014_01_26	26-Jan-14 00:00:00	27-Jan-14 00:00:00	1:00:00	San Leandro Power Plant	Unit 1 SUNDAY WEEKEND
37	2014_01_27	27-Jan-14 00:00:00	28-Jan-14 00:00:00	1:00:00	San Leandro Power Plant	Unit 1 MONDAY WEEKDAY
38	2014_01_28	28-Jan-14 00:00:00	29-Jan-14 00:00:00	1:00:00	San Leandro Power Plant	Unit 1 TUESDAY WEEKDAY
39	2014_01_29	29-Jan-14 00:00:00	30-Jan-14 00:00:00	1:00:00	San Leandro Power Plant	Unit 1 WEDNESDAY WEEKDAY
40	2014_01_30	30-Jan-14 00:00:00	31-Jan-14 00:00:00	1:00:00	San Leandro Power Plant	Unit 1 THURSDAY WEEKDAY
41	2014_01_31	31-Jan-14 00:00:00	01-Feb-14 00:00:00	1:00:00	San Leandro Power Plant	Unit 1 FRIDAY WEEKDAY
42	2014_02_01	01-Feb-14 00:00:00	02-Feb-14 00:00:00	1:00:00	San Leandro Power Plant	Unit 1 SATURDAY WEEKEND
43	2014_02_02	02-Feb-14 00:00:00	03-Feb-14 00:00:00	1:00:00	San Leandro Power Plant	Unit 1 SUNDAY WEEKEND
44	2014_02_03	03-Feb-14 00:00:00	04-Feb-14 00:00:00	1:00:00	San Leandro Power Plant	Unit 1 MONDAY WEEKDAY
45	2014_02_04	04-Feb-14 00:00:00	05-Feb-14 00:00:00	1:00:00	San Leandro Power Plant	Unit 1 TUESDAY WEEKDAY
46	2014_02_05	05-Feb-14 00:00:00	06-Feb-14 00:00:00	1:00:00	San Leandro Power Plant	Unit 1 WEDNESDAY WEEKDAY
47	2014_02_06	06-Feb-14 00:00:00	07-Feb-14 00:00:00	1:00:00	San Leandro Power Plant	Unit 1 THURSDAY WEEKDAY
48	2014_02_07	07-Feb-14 00:00:00	08-Feb-14 00:00:00	1:00:00	San Leandro Power Plant	Unit 1 FRIDAY WEEKDAY
49	2014_02_08	08-Feb-14 00:00:00	09-Feb-14 00:00:00	1:00:00	San Leandro Power Plant	Unit 1 SATURDAY WEEKEND
50	2014_02_09	09-Feb-14 00:00:00	10-Feb-14 00:00:00	1:00:00	San Leandro Power Plant	Unit 1 SUNDAY WEEKEND
51	2014_02_10	10-Feb-14 00:00:00	11-Feb-14 00:00:00	1:00:00	San Leandro Power Plant	Unit 1 MONDAY WEEKDAY

READY LIVE LIVE Root Cause Compare Boiler Feed Pump Relative Production Summary Report Hourly Report Daily Anomaly Investigation GLOBAL DAY Data

7:25 AM 4/1/2014

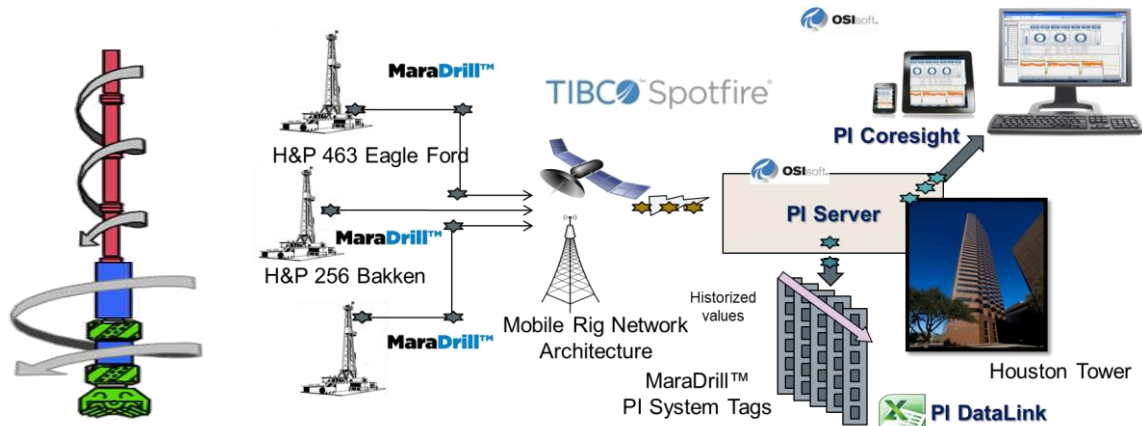
Daily Events

Unit Trip!

# Real-Time Drilling Optimization



From stick-slip identification to stick-slip mitigation.



## CHALLENGES

**Lack of real-time** drilling analytics and guidance capability **at the drill site**

Extended drill time and down hole **tool damage**

Increased use of **resources**

## SOLUTION

Installation of the **PI System real-time integration and applications infrastructure**

Creation of drilling process **high fidelity real-time analytics and visualization** capabilities at the drill site

## RESULTS

**Drilling time and capital well cost savings** due to reduction in resources

**Reduced vibration and damage** to downhole tools

Continuous optimization onsite and retrospective **post-well analysis**



## Update on Marathon Oil's MaraDrill(TM) PI-based Optimization Solution

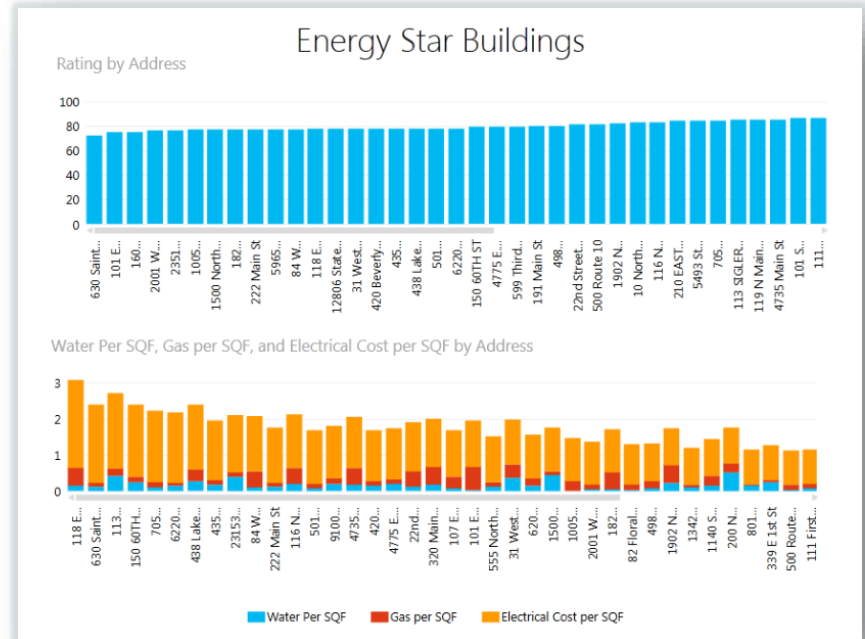
Ken Startz  
Marathon Oil

I need to:

Provide self-service BI  
for my users



Rich reports  
in Microsoft  
Power BI



# From Data to Decision-Ready Data

Access to analytical tools

Power  
Query

Power  
Pivot

Power  
View



Excel

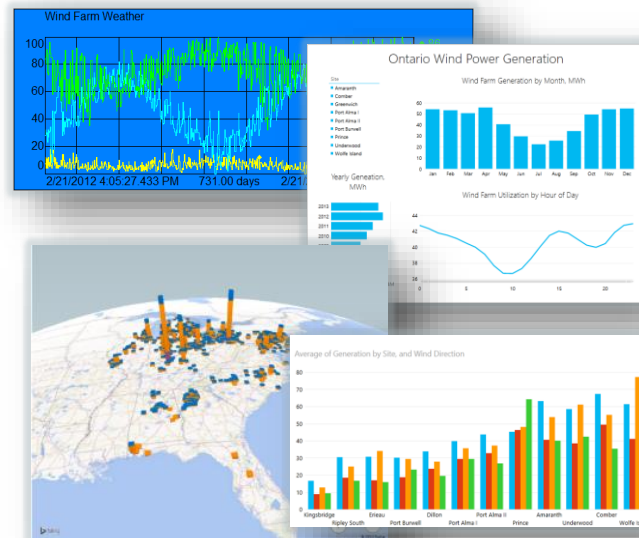


Access to data

PI Web API



Data

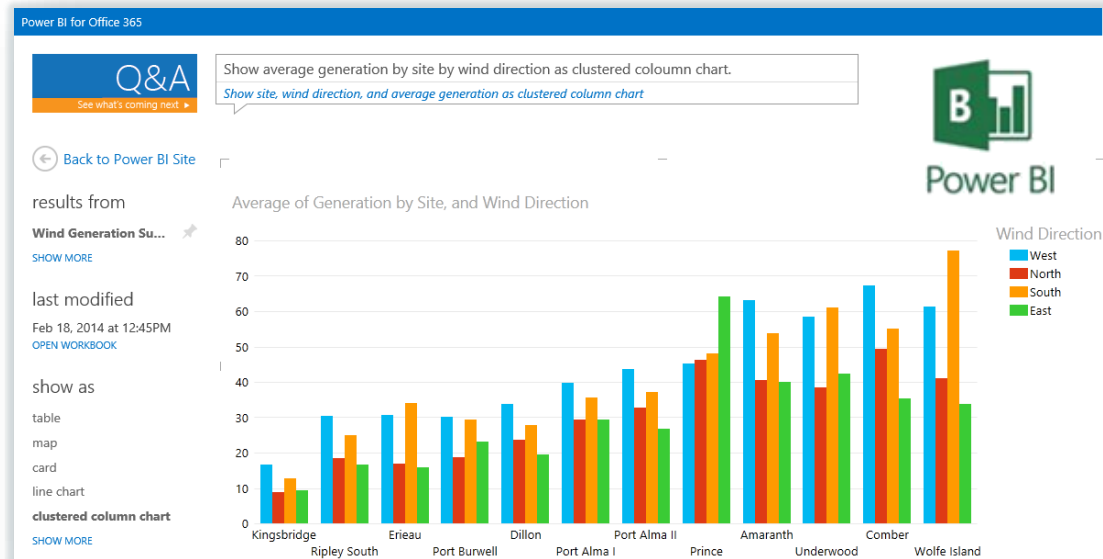


“Decision Ready” Data

# Microsoft Power BI for Office 365

- Analysis anywhere with **Power BI Sites** and the **Power BI App**
- Ask and answer with **Power Q&A**
- Scheduled data **refresh**
- Benefit from the **latest updates**

*“Show generation by site by wind direction as column chart”*



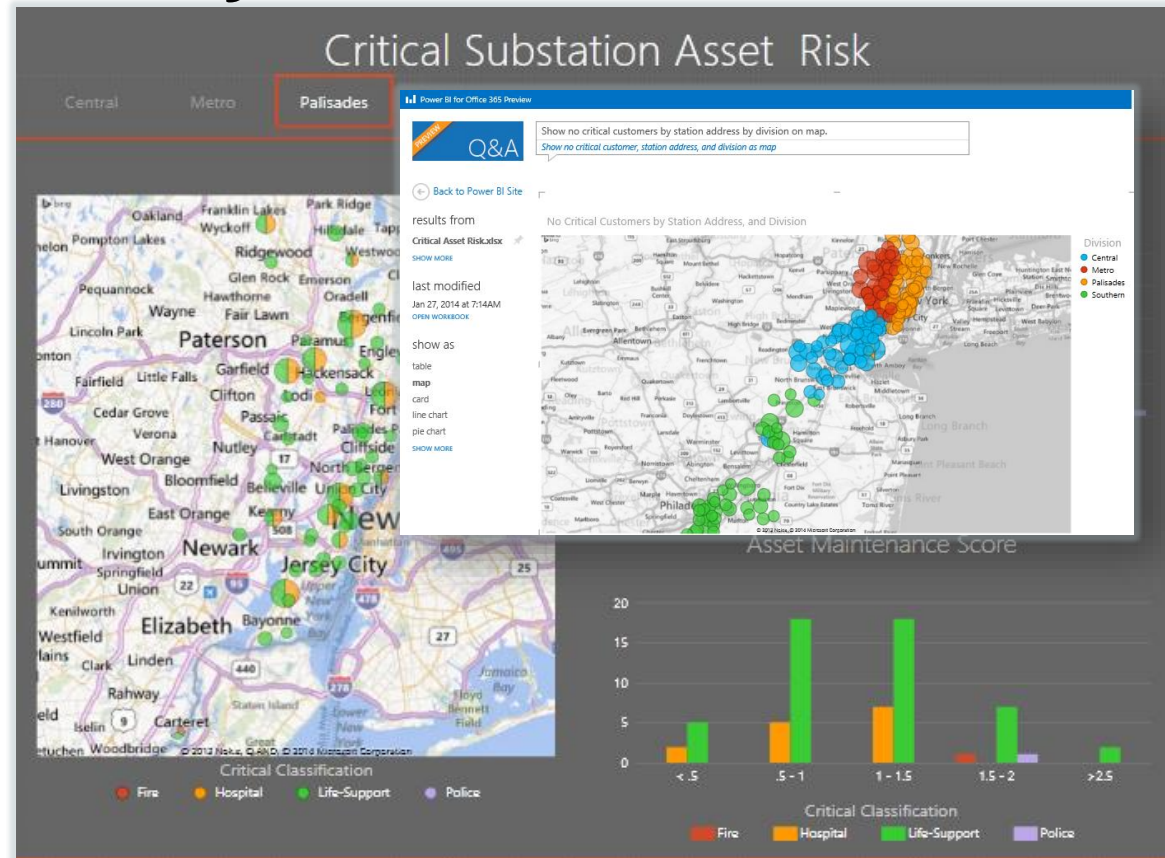
# Making Decision-Ready Accessible

## Objective

- Share a vision of making substation asset health analysis available to domain experts

## Outcome

- Provision Office 365 users with Power BI and Excel





## I need to:

Provide self service BI for my users



## I need to:

Enter data from my mobile device



## I need to:

Respond to notifications and identify problems

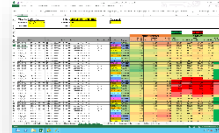


**I need to:** Access process data anytime, anywhere



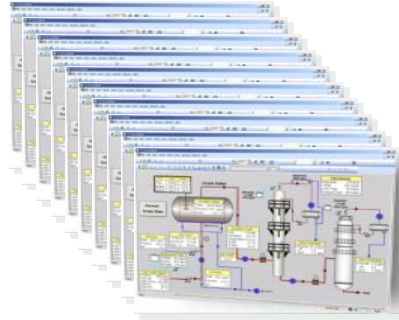
## I need to:

Report against process and event data



# What do Your Users Need?

The **PI Visualization Suite** and **PI System Access** gives you the optimal user experience



so PI System data can be **accessible** throughout your **entire business**, at **all times**.

# Optimize Client License Management

## The **PI Visualization Suite** and **PI System Access**

optimize the management of  
your client licenses

One license providing access  
to all PI System visualization  
tools across the organization



# Key Points to Take Home

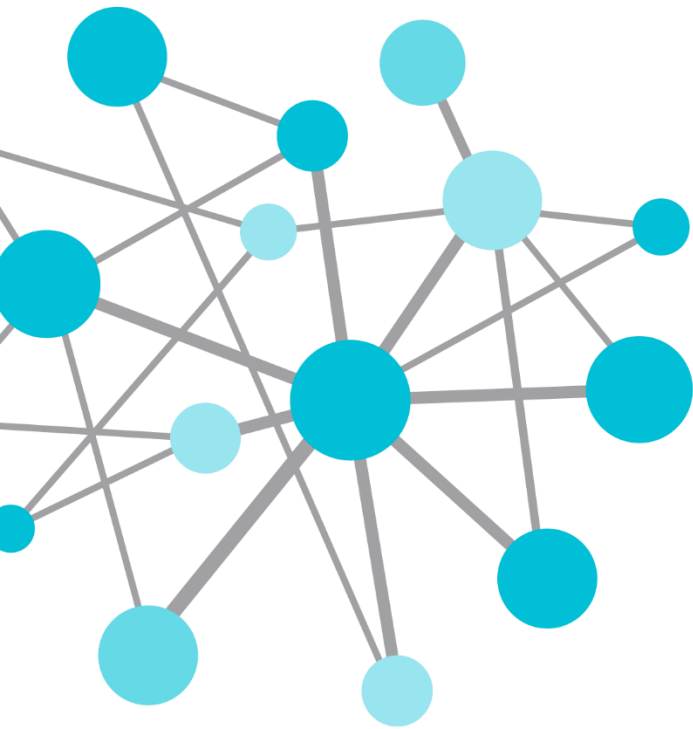


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**REGIONAL  
SEMINAR** 2014  
The **Power** of **Data**  
DECISION READY IN REAL-TIME

Experience the value of the information on the spot with **unlimited access to the PI System**

- Tools to answer all your users needs
- Access information anywhere, anytime, from any device
- Simplifies compliance and license management



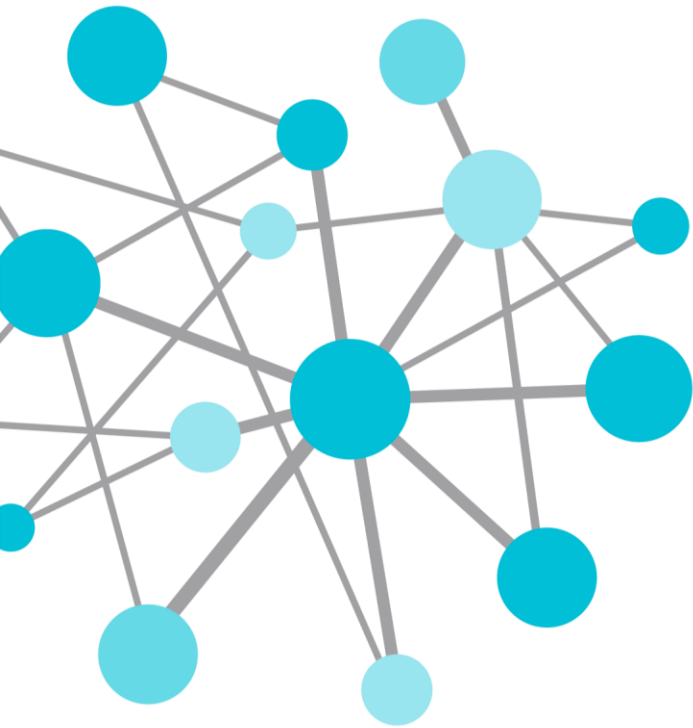


# Questions

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



**Please state your name  
and your company**



THANK  
YOU

Brought to you by  **OSI**soft.

# Isabelle Lacaille

Customer Support Engineer

[ilacaille@osisoft.com](mailto:ilacaille@osisoft.com)

OSIsoft, LLC