PI System 2010 – Visualizations and the PI System
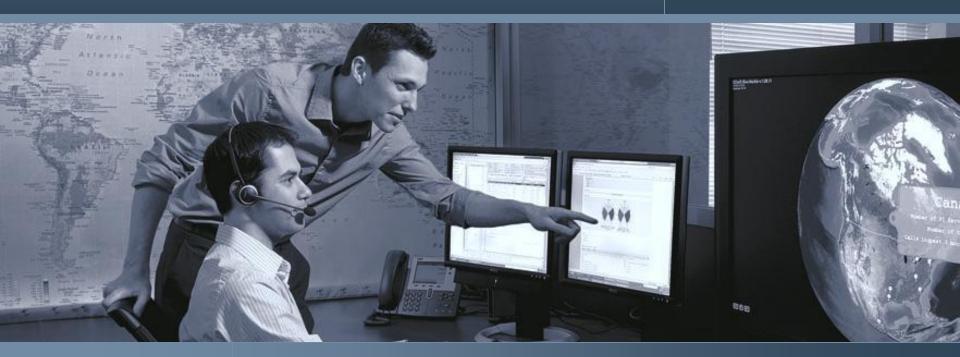
Gopal Gopalkrishnan
Product Manager
OSIsoft, LLC

November 3, 2010
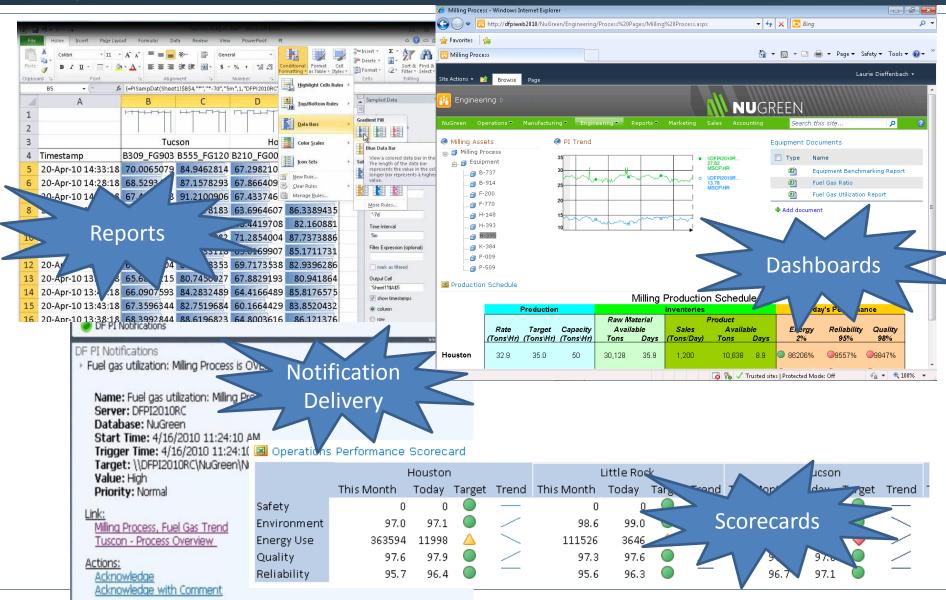
Empowering Business in Real Time.
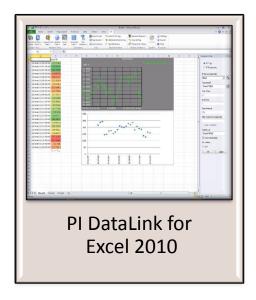
Experience

Empowering Business in Real Time.

What's New with Visualization in PI System 2010?

Reports

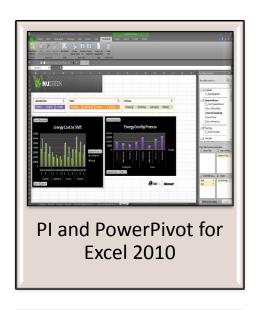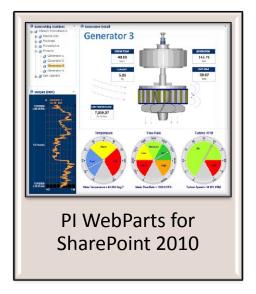Dashboards

Notification Delivery

Scorecards

Empowering Business in Real Time.

Visualization for PI System 2010

PI DataLink for
Excel 2010

PI WebParts for
SharePoint 2010

PI and PowerPivot for
Excel 2010

PI and PowerPivot for
SharePoint 2010

PI Data Access
Technologies

PI Notifications 1.1
OCS R2 Delivery Channel

Role-based Dashboarding

Management

Knowledge Worker

Content Creator
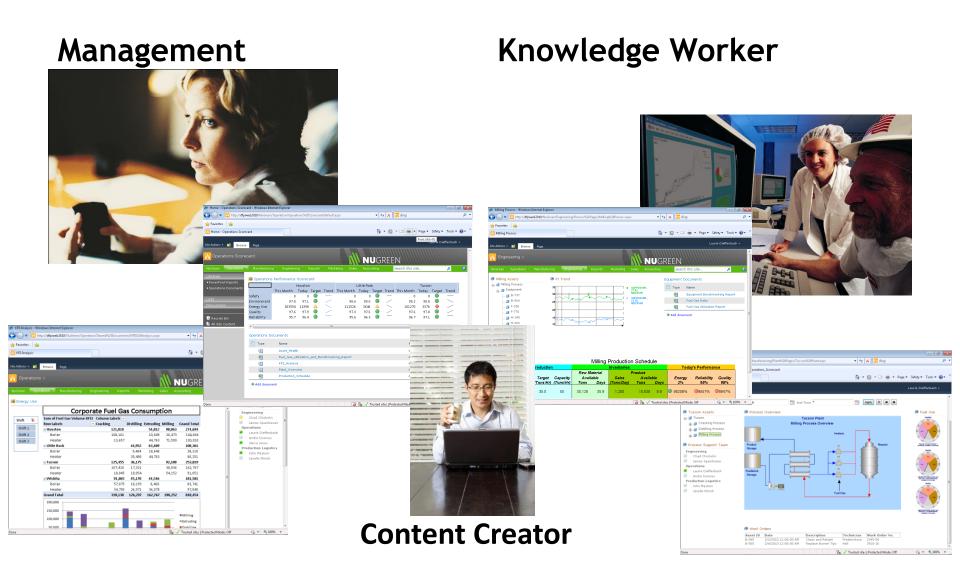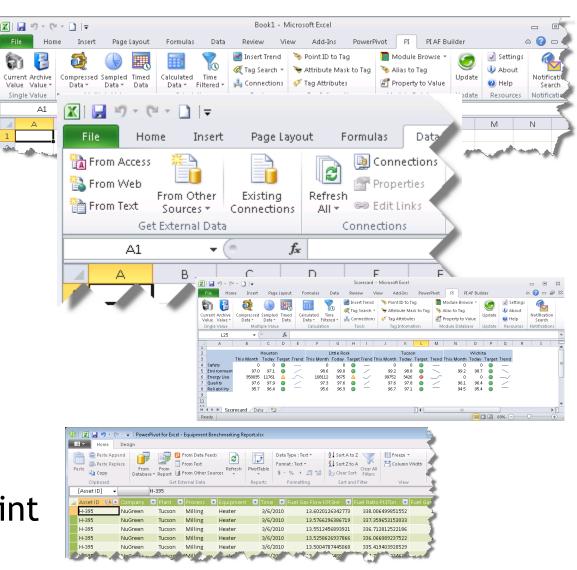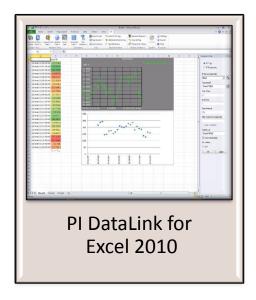
Content Creator Roles

- Use different data sources

- Create scorecards

- Create multidimensional reports

- Publish to SharePoint

Empowering Business in Real Time.

Visualization for PI System 2010

PI DataLink for
Excel 2010

PI WebParts for
SharePoint 2010

PI and PowerPivot for
Excel 2010

PI and PowerPivot for
SharePoint 2010

PI Data Access
Technologies

PI Notifications 1.1
OCS R2 Delivery Channel
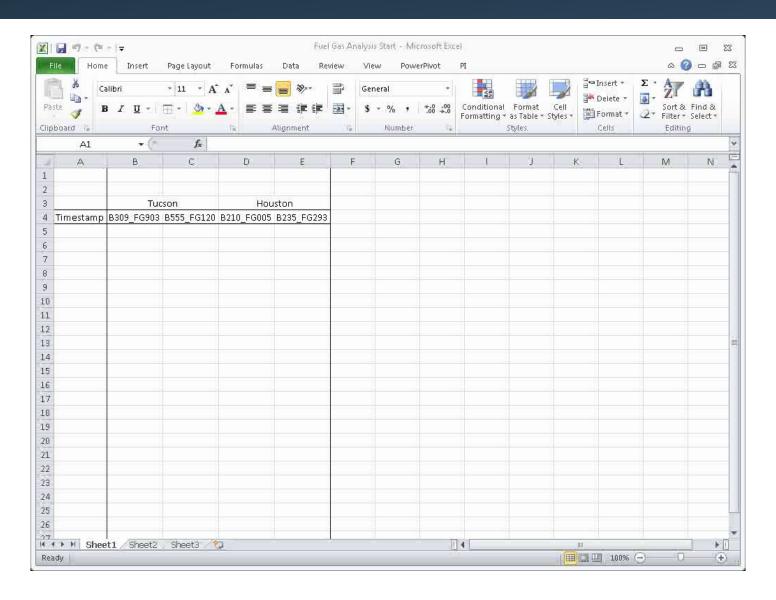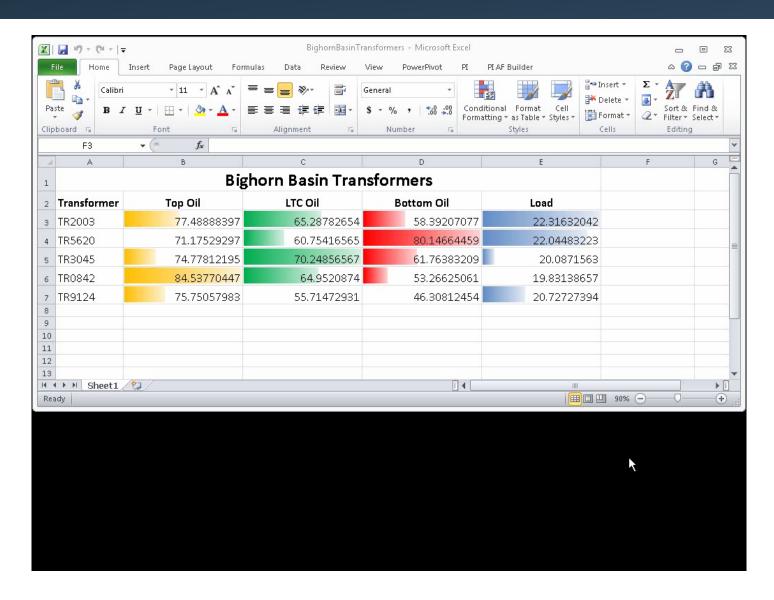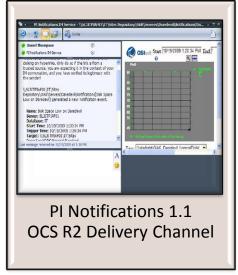
Using Excel 2010 features with DataLink

Empowering Business in Real Time.

Creating reports to drive PI WebParts pages

Empowering Business in Real Time.

PI DataLink for
Excel 2010

PI WebParts for
SharePoint 2010

PI and PowerPivot for
Excel 2010

PI and PowerPivot for
SharePoint 2010

PI Data Access
Technologies

PI Notifications 1.1
OCS R2 Delivery Channel
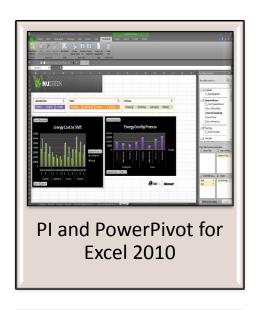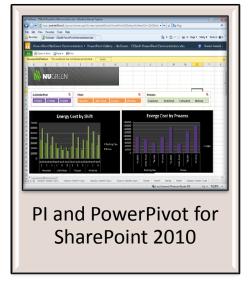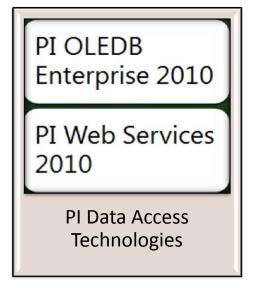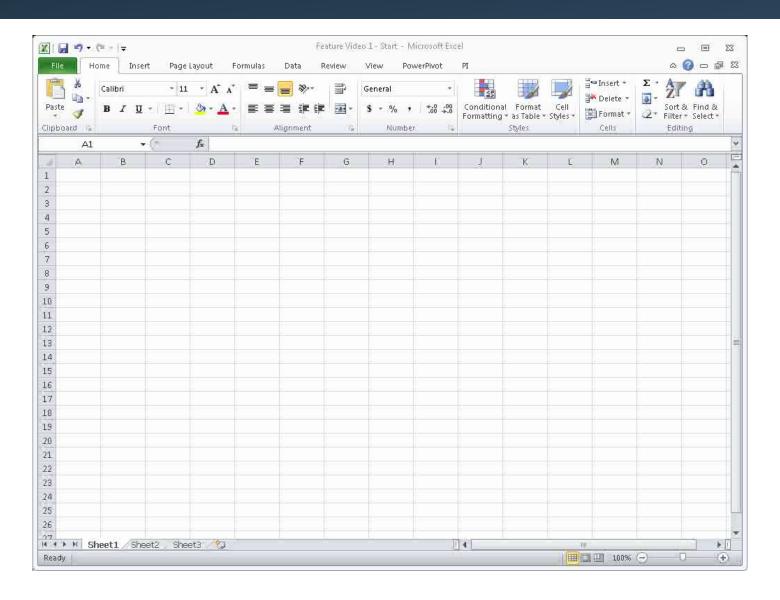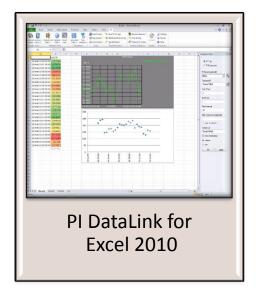
Building Multi-dimensional Reports

Empowering Business in Real Time.

Visualization for PI System 2010

PI DataLink for
Excel 2010

PI WebParts for
SharePoint 2010

PI and PowerPivot for
Excel 2010

PI and PowerPivot for
SharePoint 2010

PI Data Access
Technologies

PI Notifications 1.1
OCS R2 Delivery Channel
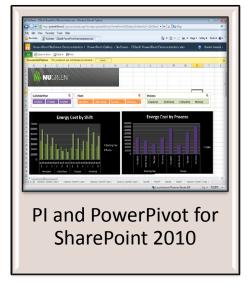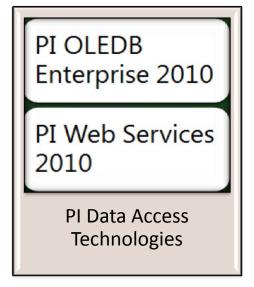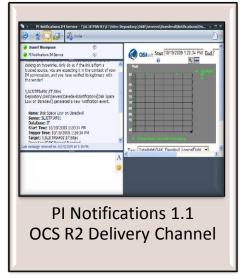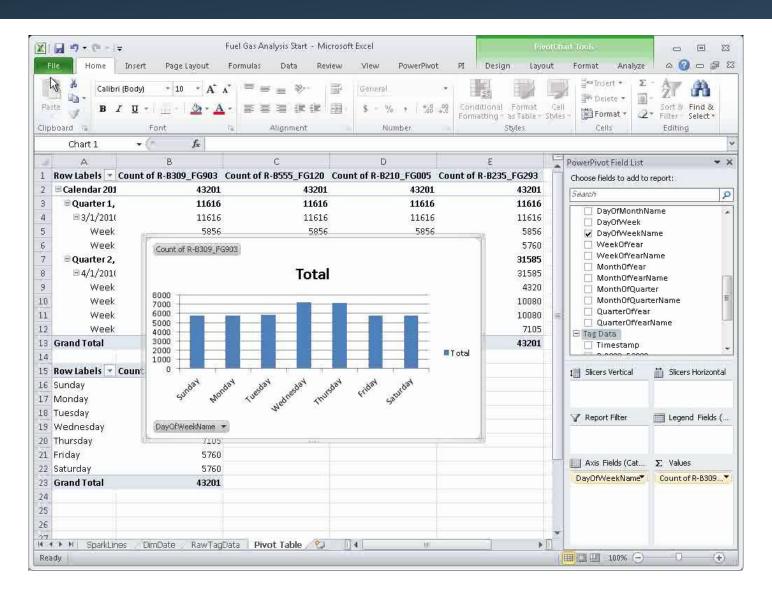
Publishing to SharePoint

Empowering Business in Real Time.
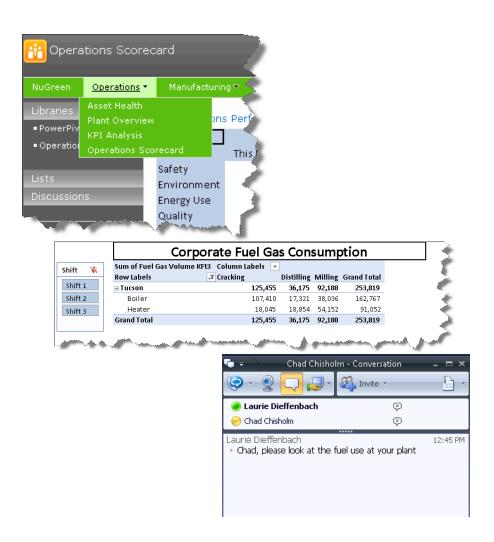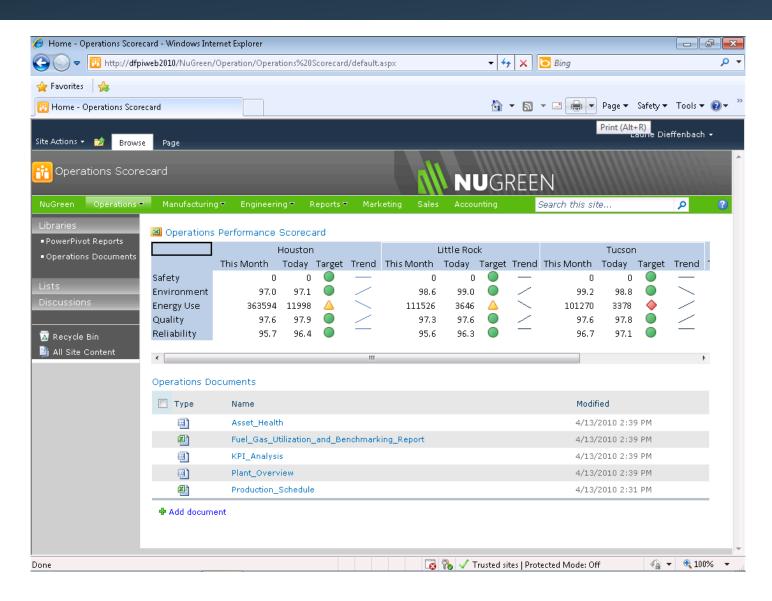
- Easy navigation to needed information
- Content is already built, but can interact with it to focus on an issue
- Easy access to assistance from experts

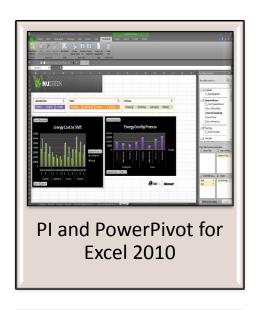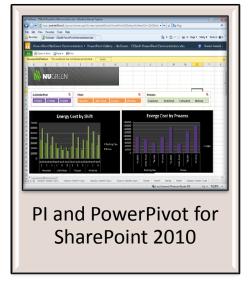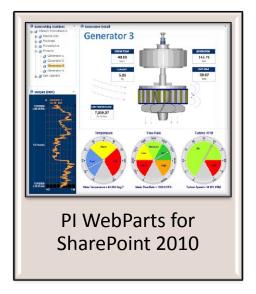Empowering Business in Real Time.

Scorecards in SharePoint

Empowering Business in Real Time.

Visualization for PI System 2010

PI DataLink for
Excel 2010

PI WebParts for
SharePoint 2010

PI and PowerPivot for
Excel 2010

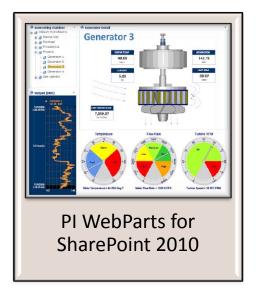
PI and PowerPivot for
SharePoint 2010

PI OLEDB
Enterprise 2010

PI Web Services
2010

PI Data Access
Technologies

PI Notifications 1.1
OCS R2 Delivery Channel
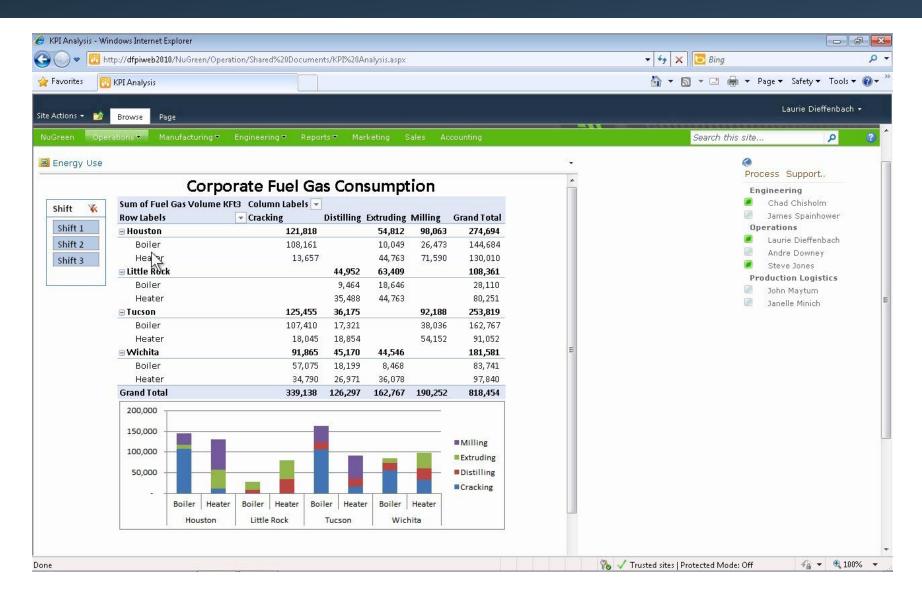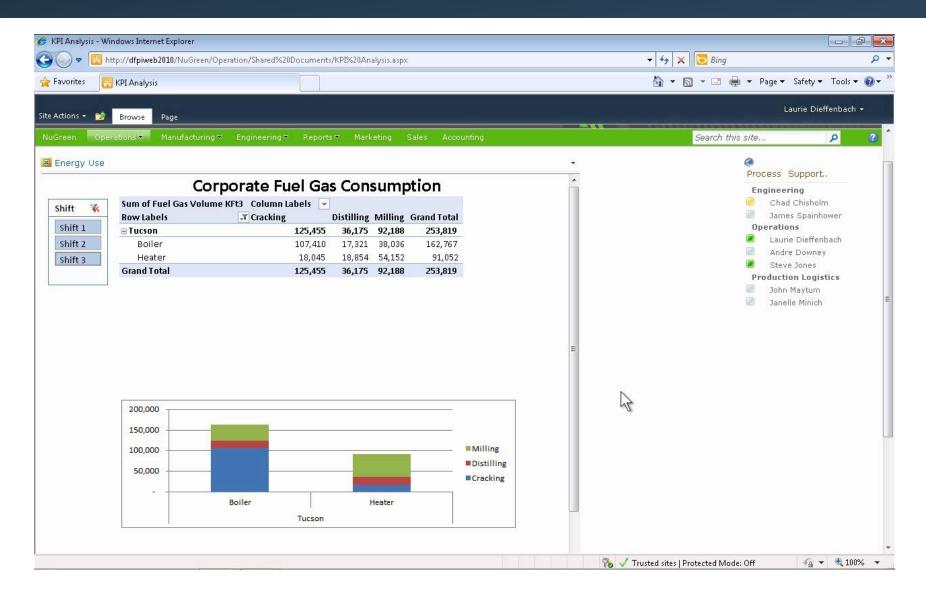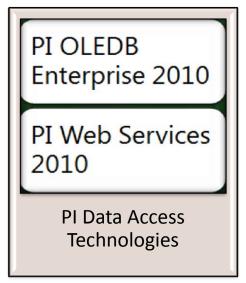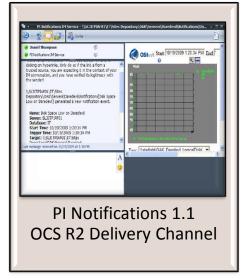
Using Reports in SharePoint

Empowering Business in Real Time.

Built-in Collaboration

Empowering Business in Real Time.
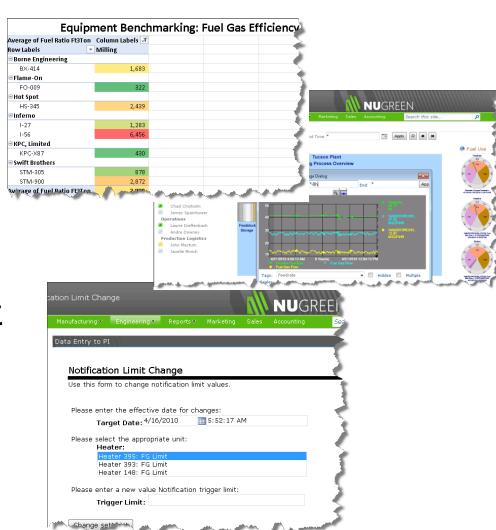
Knowledge Worker Roles
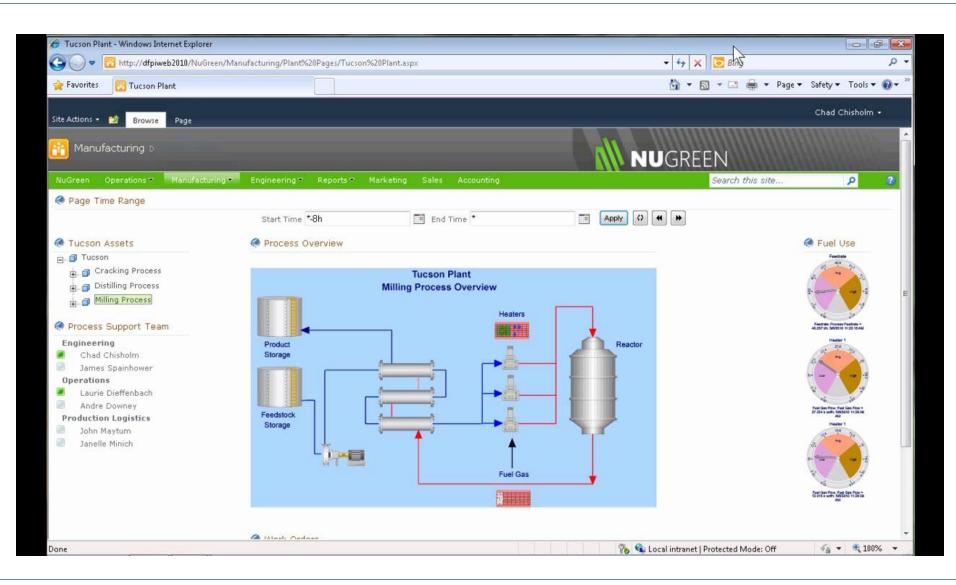
- Access to all needed tools

- Contribute material for use by others

- Act to resolve problems and prevent recurrence
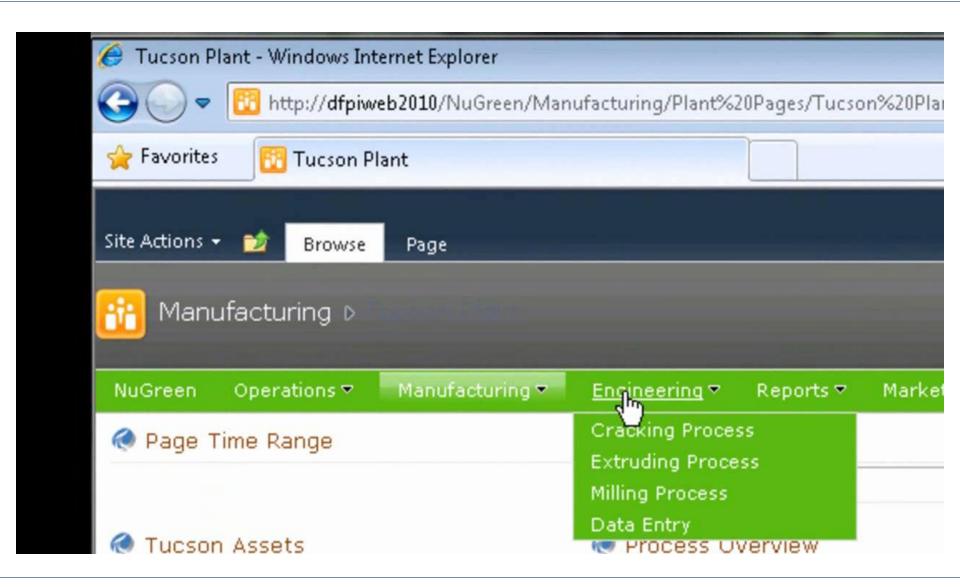
Appropriate Detail Available

Empowering Business in Real Time.
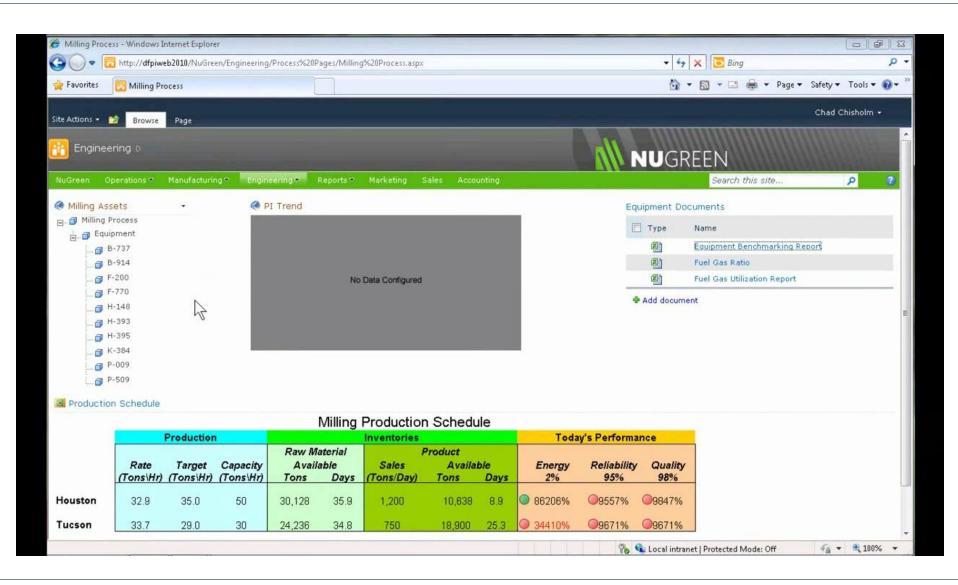
Navigate to Appropriate Information

Empowering Business in Real Time. © Copyright 2010, OSIsoft LLC. All rights Reserved.
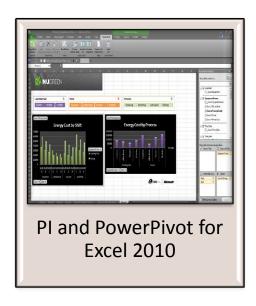
View Data as Needed

Empowering Business in Real Time.

Visualization for PI System 2010

PI DataLink for
Excel 2010

PI WebParts for
SharePoint 2010

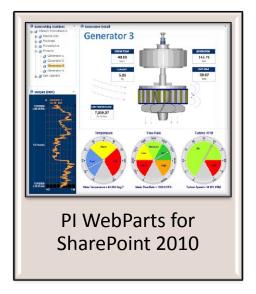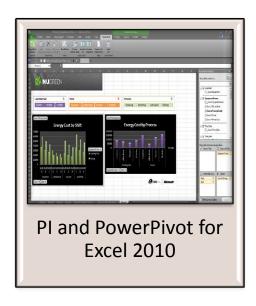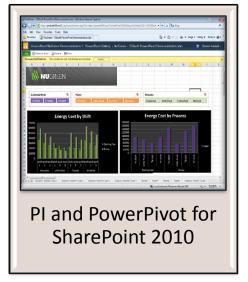PI and PowerPivot for
Excel 2010

PI and PowerPivot for
SharePoint 2010

PI Data Access
Technologies

PI Notifications 1.1
OCS R2 Delivery Channel

Empowering Business in Real Time.
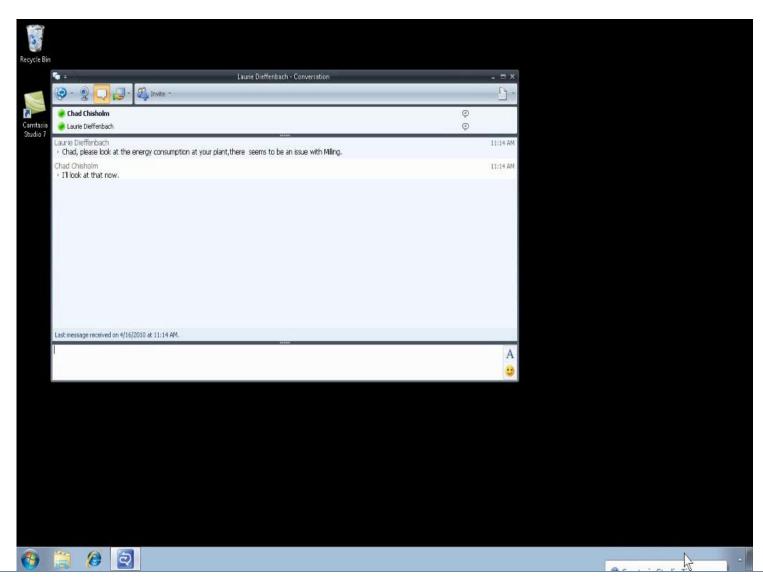
Notification Limit Change

Use this form to change notification limit values.

Please enter the effective date for changes:

Target Date: 5/6/2010   🗓 11:33:08 AM

Please select the appropriate unit:

Heater:

Heater 395: FG Limit
Heater 393: FG Limit
Heater 148: FG Limit
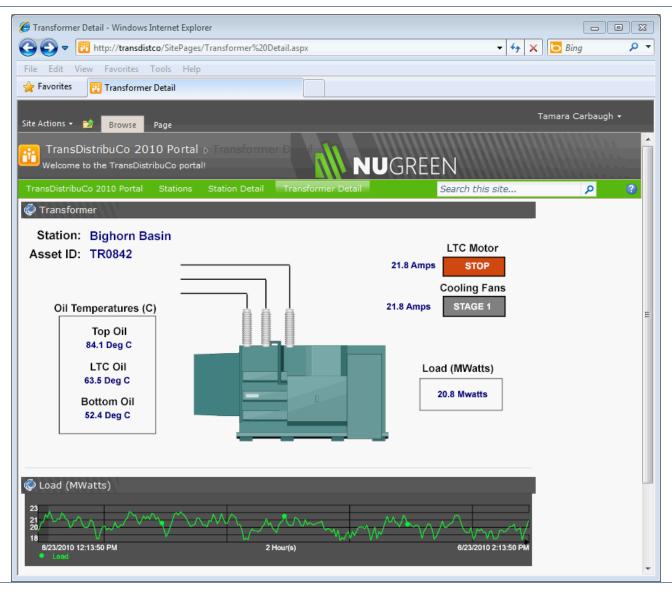
Please enter a new value Notification trigger limit:

Trigger Limit:

Change setpoint

Empowering Business in Real Time.

Get to relevent content

Empowering Business in Real Time.

PI WebParts 2010

OSIsoft

Legacy maintenance software

- Functional
- Maintenace staff is trained on it
- Company has made a large investment in it and has created a web front end for it
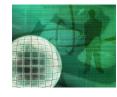
Excel Reports

- Reports that engineers and managers rely on
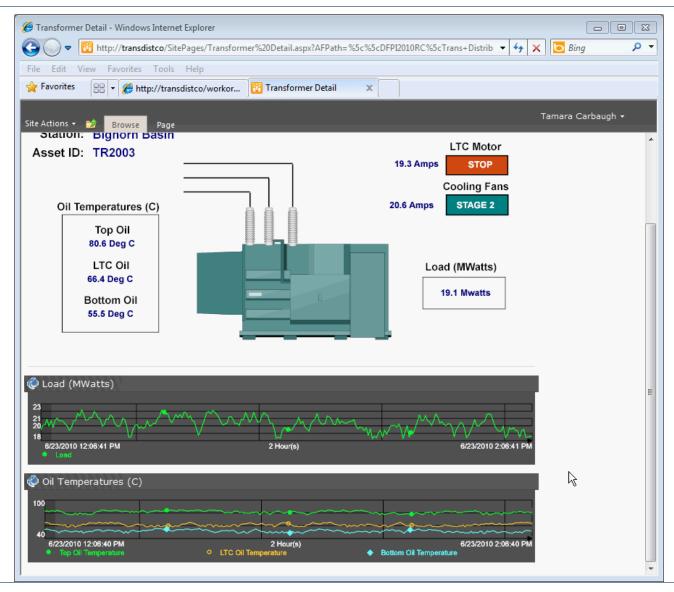
Manuals, Safety, Maps

- Key data that is stored online
    - Safety
    - Equipment manuals
    - Weather
    - Maps

Integrate PI with existing investments

Integrating Existing Apps with PI WebParts

Empowering Business in Real Time.
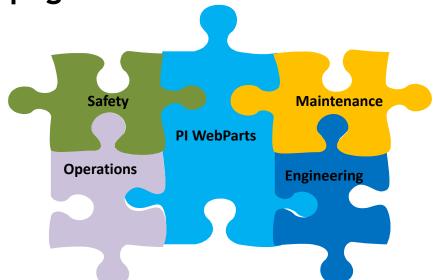
Value of PI WebParts 2010
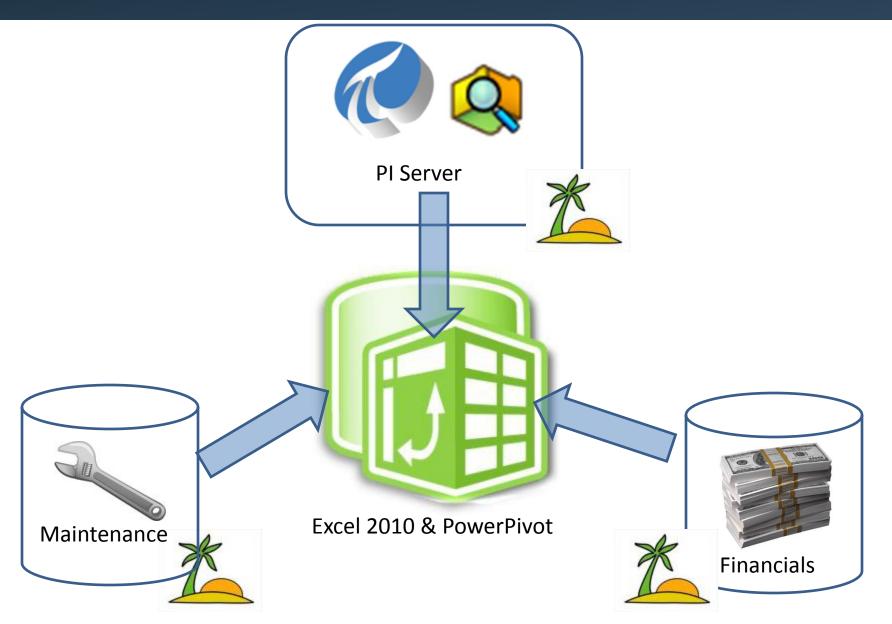
- Aligns with
  - PI for Office 2010 (2007 still supported)
  - PI Server 2010
- **Easy configuration, no code programming**
- **Leverage existing applications**
- **Fewer pages to maintain**

PI Server

Maintenance

Excel 2010 & PowerPivot

Financials
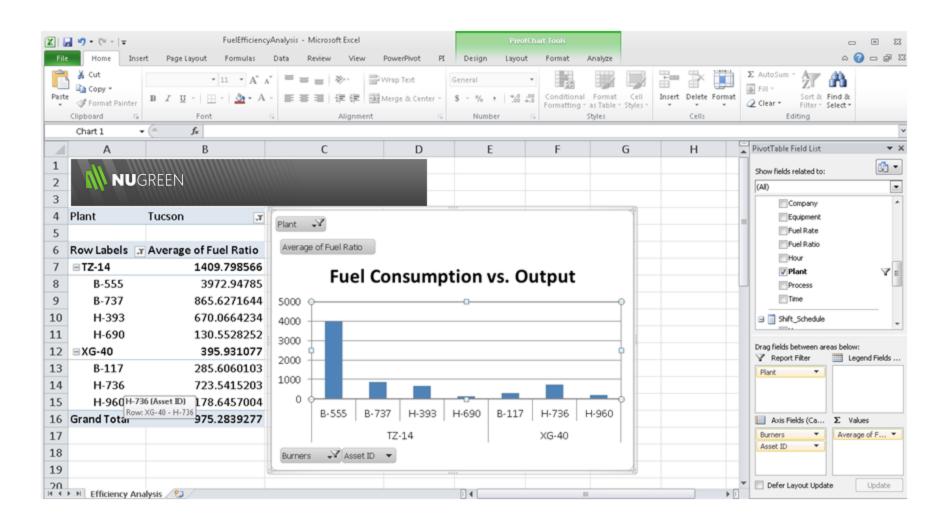
PI DataLink + Excel 2010 + PowerPivot

What's New in PI DataLink 2010

- Supports Microsoft Office 2010 (32-bit)

    (Office 2007 and Office 2003 as well)

- Internationalization and Localization

    English, French, German, Spanish, Portuguese, Russian, Simplified Chinese, Japanese, Korean

What's New in PI DataLink Server 2010
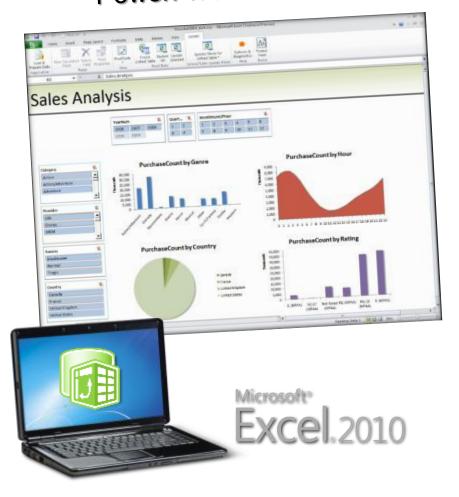
- Supports SharePoint 2010 (64-bit)

  (Microsoft Office SharePoint Server 2007 as well)

- Internationalization and Localization

  English, French, German, Spanish, Portuguese, Russian, Simplified Chinese, Japanese, Korean

Empowering Business in Real Time.

Managed Self Service BI

PowerPivot for Excel
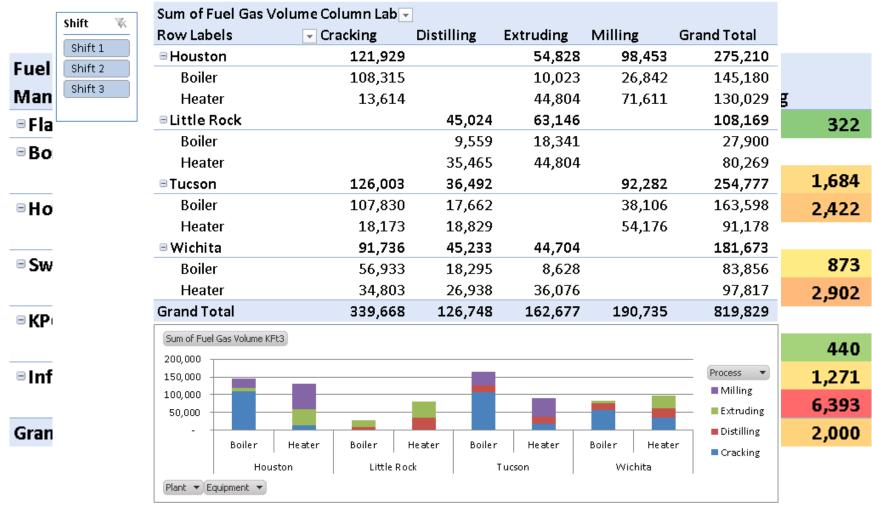
PowerPivot for SharePoint

BI for Manufacturing

30 Day Corporate Fuel Gas Consumption

Sum of Fuel Gas Volume	Column Labels				
Row Labels	Cracking	Distilling	Extruding	Milling	Grand Total
⊟ Houston	121,929		54,828	98,453	275,210
Boiler	108,315		10,023	26,842	145,180
Heater	13,614		44,804	71,611	130,029
⊟ Little Rock		45,024	63,146		108,169
Boiler		9,559	18,341		27,900
Heater		35,465	44,804		80,269
⊟ Tucson	126,003	36,492		92,282	254,777
Boiler	107,830	17,662		38,106	163,598
Heater	18,173	18,829		54,176	91,178
⊟ Wichita	91,736	45,233	44,704		181,673
Boiler	56,933	18,295	8,628		83,856
Heater	34,803	26,938	36,076		97,817
Grand Total	339,668	126,748	162,677	190,735	819,829

Slicing Data by Shifts

- Link in an Excel Table containing shift schedule
- Use DAX[1] to add an "Hour" column to the "Fuel Use" table;

  =HOUR([Time])

- Create a Relationship between the "Hour" columns in each table.

1. Data Analysis Expression Language

Keep Insights Up to Date

Publish Solution

PowerPivot user specifies
the data sources

SharePoint automatically
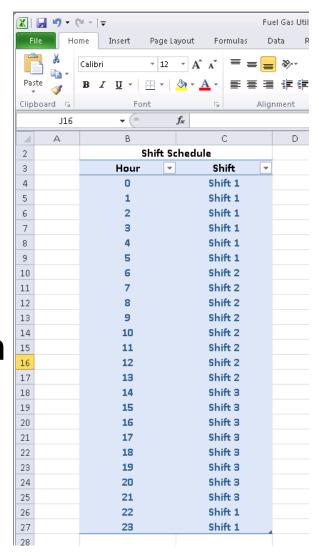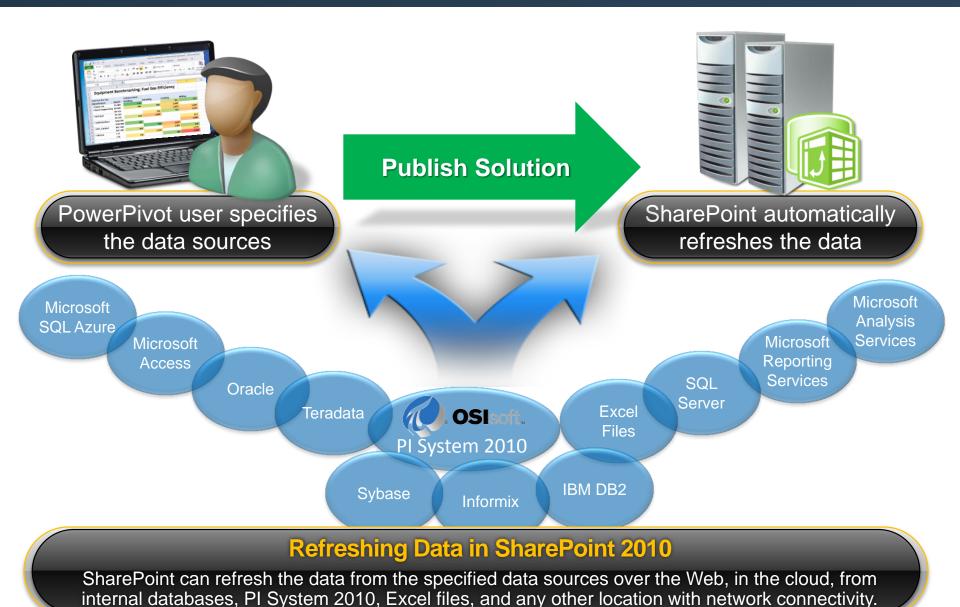refreshes the data

Microsoft
SQL Azure

Microsoft
Access

Oracle

Teradata

OSIsoft
PI System 2010

Sybase

Informix

IBM DB2

Excel
Files

SQL
Server

Microsoft
Reporting
Services

Microsoft
Analysis
Services

Refreshing Data in SharePoint 2010

SharePoint can refresh the data from the specified data sources over the Web, in the cloud, from internal databases, PI System 2010, Excel files, and any other location with network connectivity.

Self-service BI Toolkit for PI

- ## Dimensions and Facts
  - PI Asset Framework (PI Server 2010)
- ## Datasets for BI Data Extraction
  - PI OLEDB Enterprise 2010 (PI for Office 2010)
- ## Desktop Analysis and Cube Configuration
  - Microsoft PowerPivot for Excel 2010
- ## Enterprise Availability
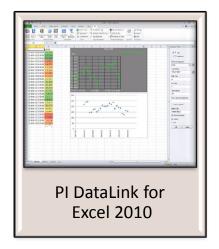 - Microsoft PowerPivot for SharePoint 2010
  - Microsoft SharePoint 2010
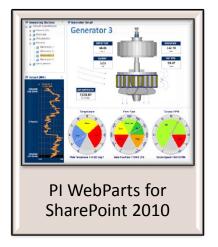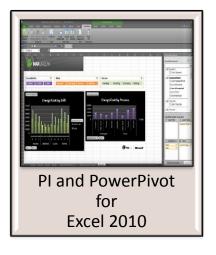 - Microsoft SQL Server 2008 R2
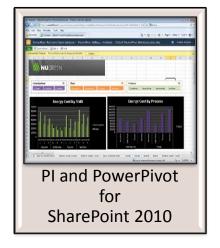
Visualization for PI System 2010
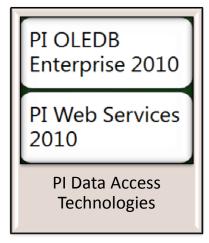
Everything you need to work with PI data in Microsoft Office (2010)

PI DataLink for
Excel 2010

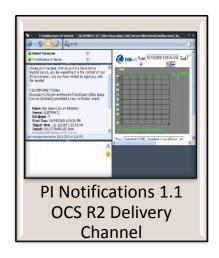PI WebParts for
SharePoint 2010

PI and PowerPivot
for
Excel 2010

PI and PowerPivot
for
SharePoint 2010

PI OLEDB
Enterprise 2010

PI Web Services
2010

PI Data Access
Technologies

PI Notifications 1.1
OCS R2 Delivery
Channel

Thank you