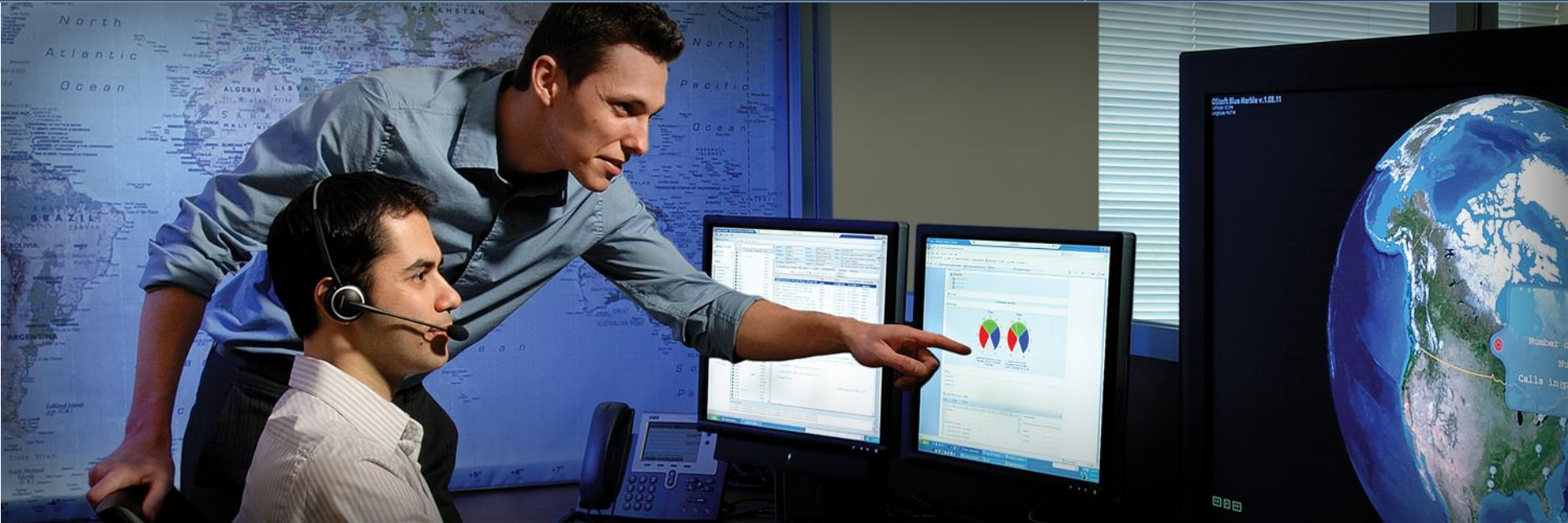




Regional Seminar Series Johannesburg - South Africa



PI System Product Roadmap

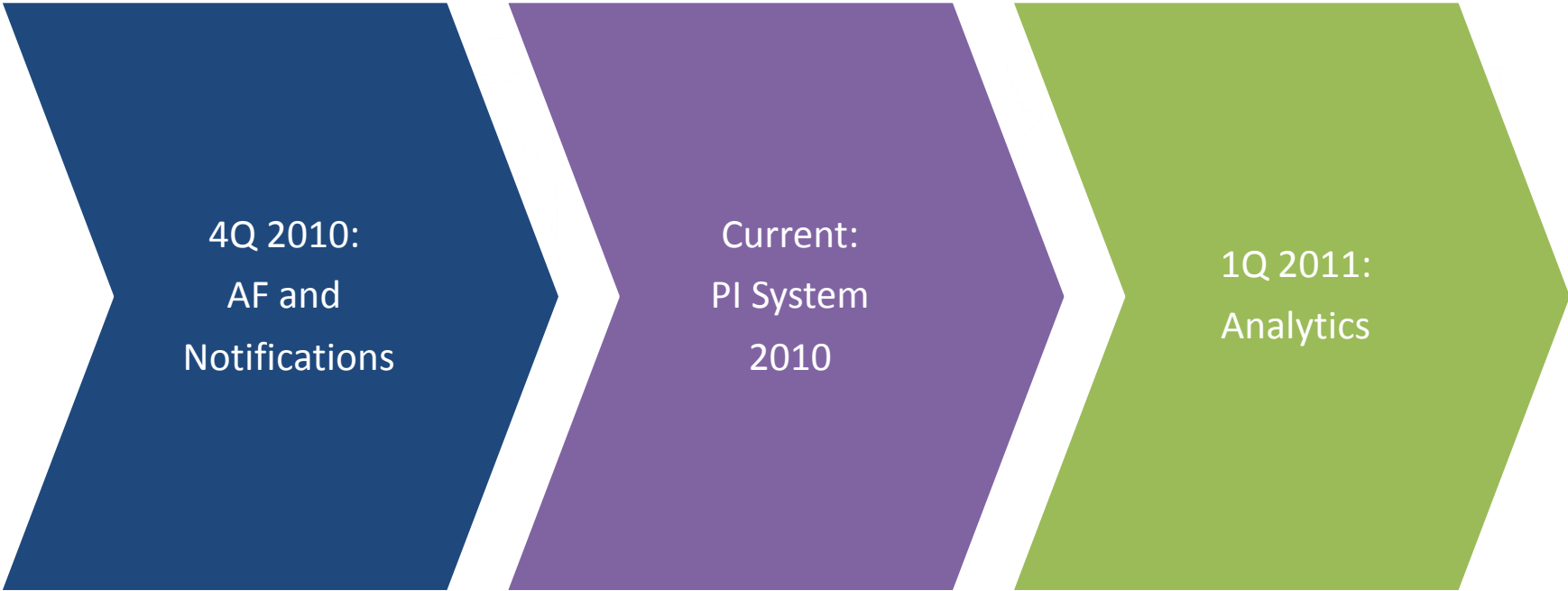
Raymond Grobler, Field Service Manager
OSIsoft Sub-Saharan Africa

24 February 2011

PI System Roadmap - Agenda



- PI System Overview
- Product Road Map
- New Products



4Q 2010:
AF and
Notifications

The diagram consists of three chevron-shaped boxes pointing to the right, arranged horizontally. The first box is dark blue, the second is purple, and the third is green. Each box contains text describing a stage in the PI System roadmap.

Current:
PI System
2010

1Q 2011:
Analytics



Connect

Acquire data from any time series data source

The Interfaces



Integrate

Aggregate, normalize and archive a large amount of information that can be scaled to your growing business requirements

The Server



Analyze

Ad-hoc or automated advanced data post-processing. Notify users and systems of significant events.

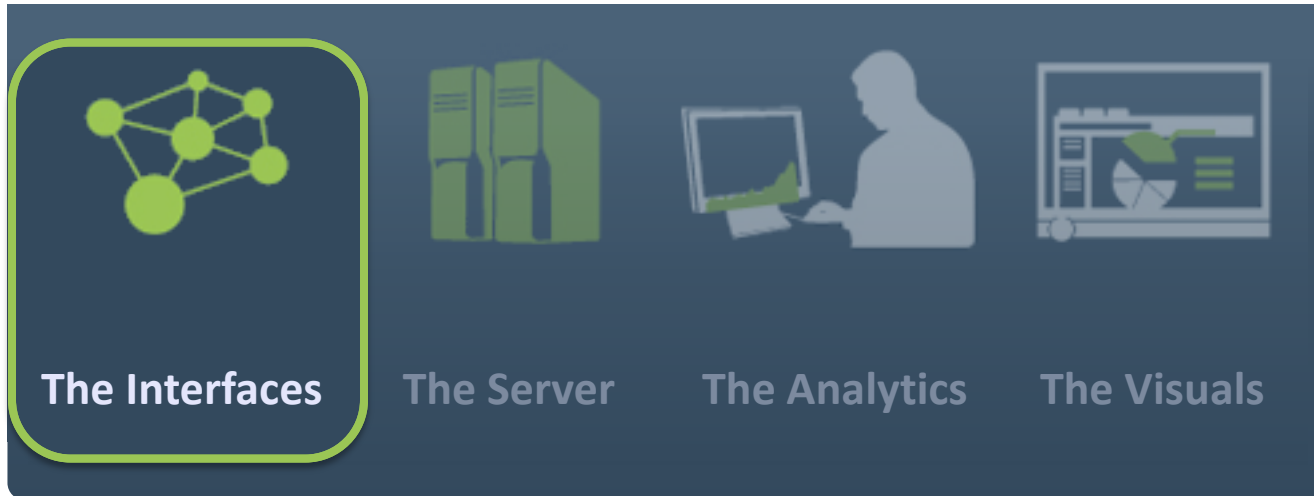
The Analytics



Visualize

Display information, identify problems and perform corrective actions with the help of simple to use and intuitive graphical and analytical tools

The Visuals

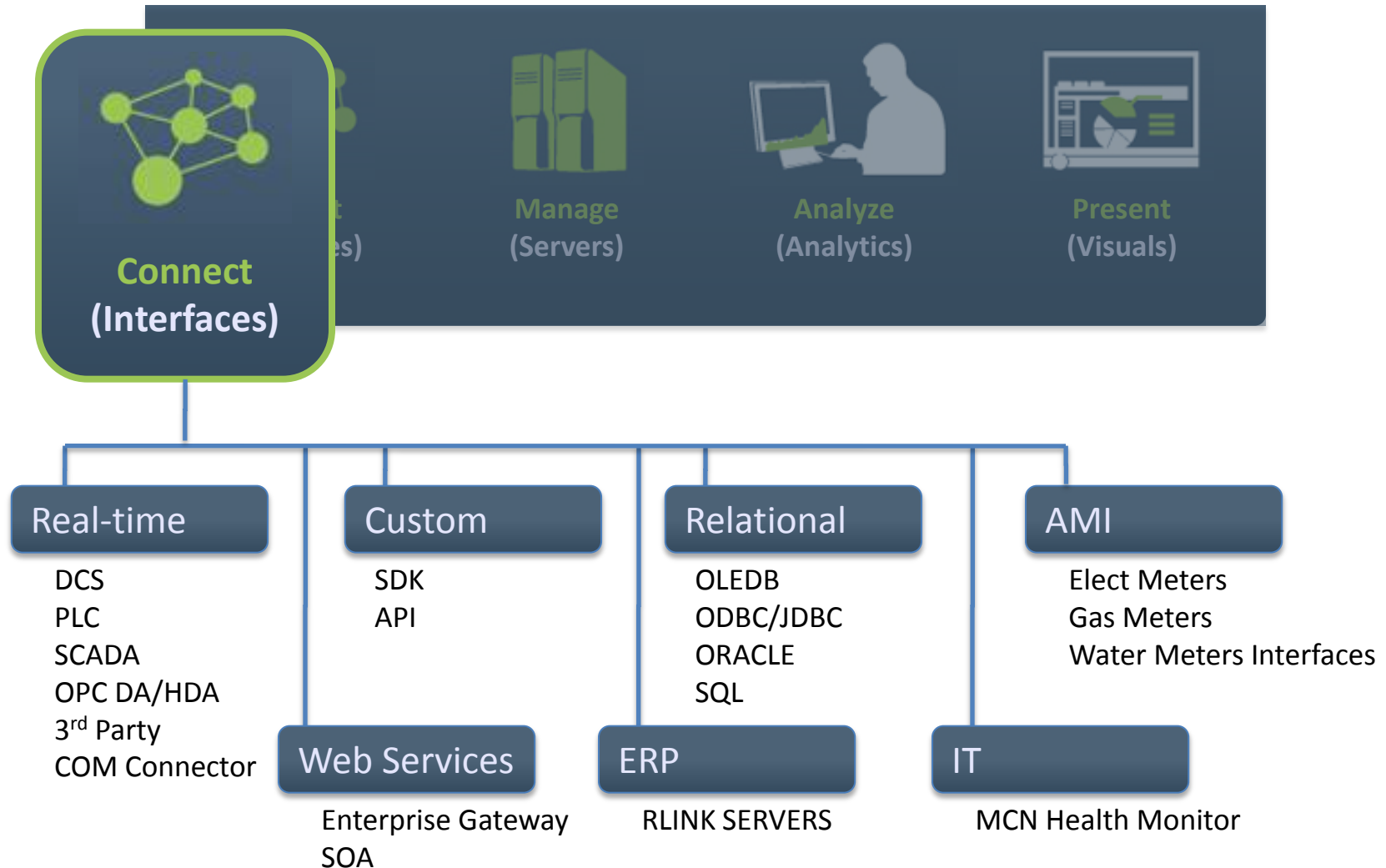


The PI System connects with real-time data sources every second, minute or day and stores the values forever

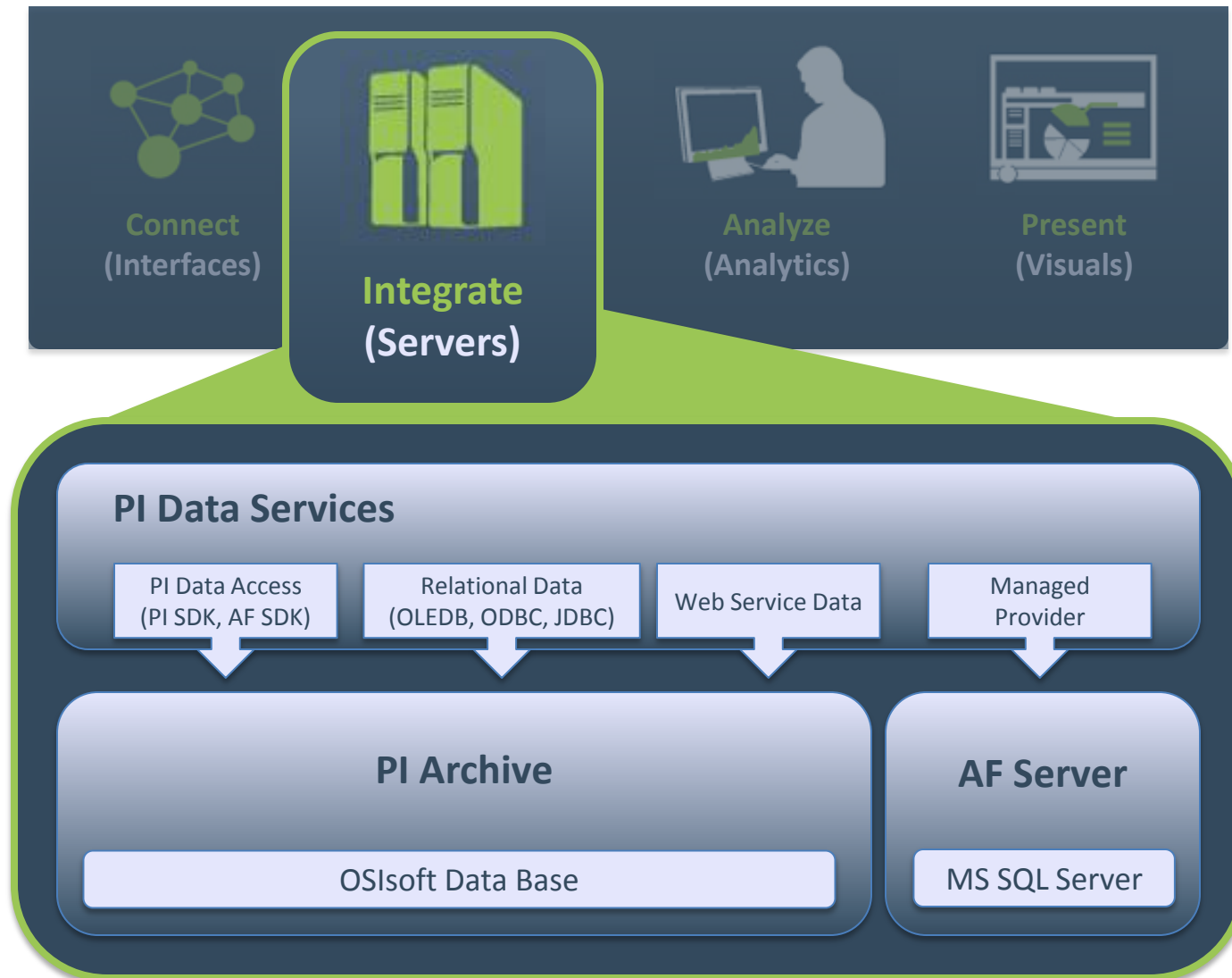
- Measures and aggregates a broad range of data types
- Handle either or both time-series data and events
- Secures the access and transmission of the data
- Data collection redundancy and high availability

The PI System can connect to more than 400 different systems

The PI System: Connect



The PI System: Servers



Reliably gather, archive and serve large volumes



Gather and archive large volumes of data. Scalable to meet your business needs.

Scalability

High Availability

Security

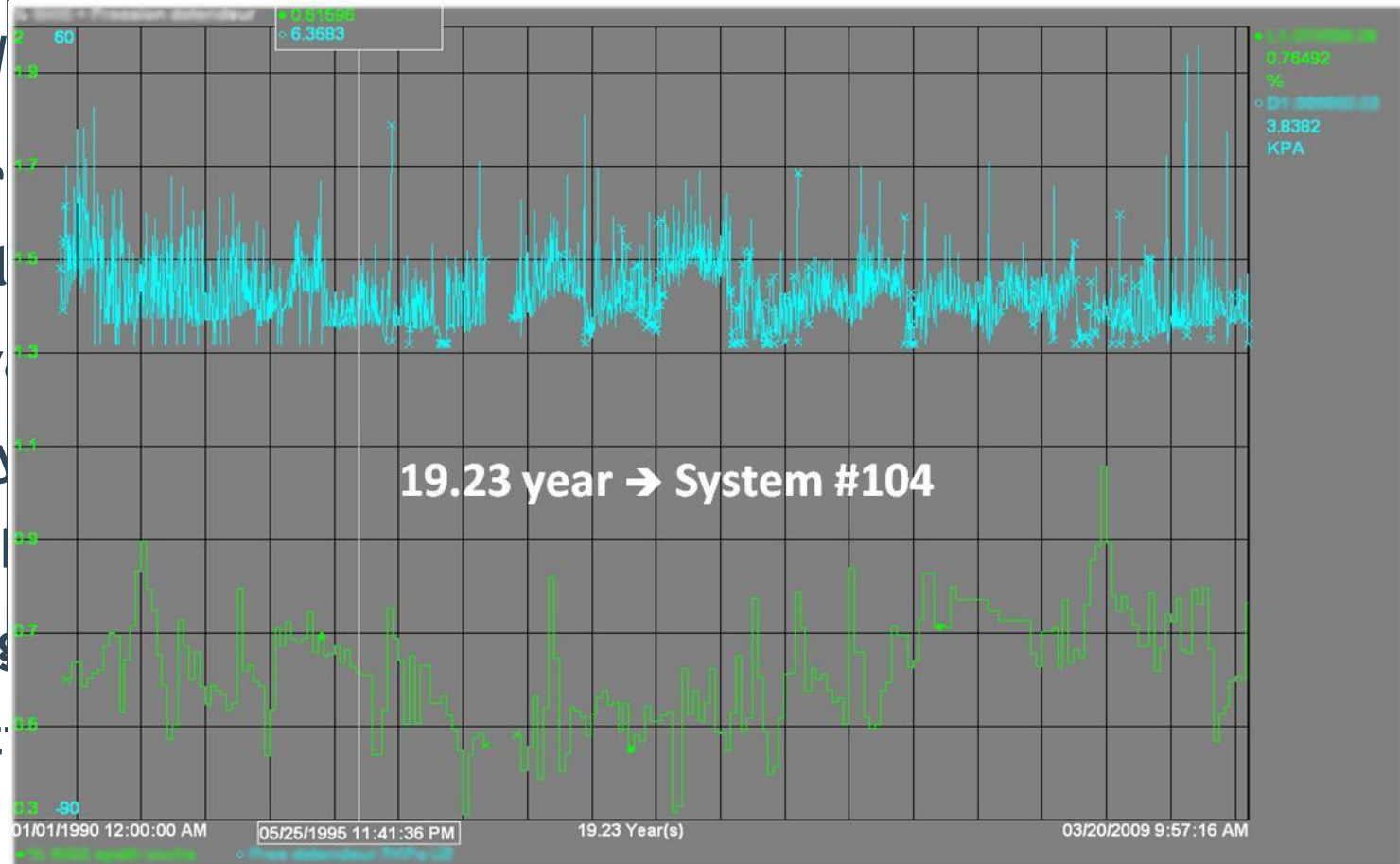
PI Server

System Management

System Access

PI Asset Framework

Unified

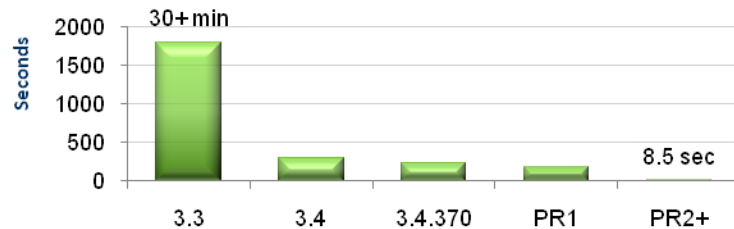


The PI Server Performance Over Time



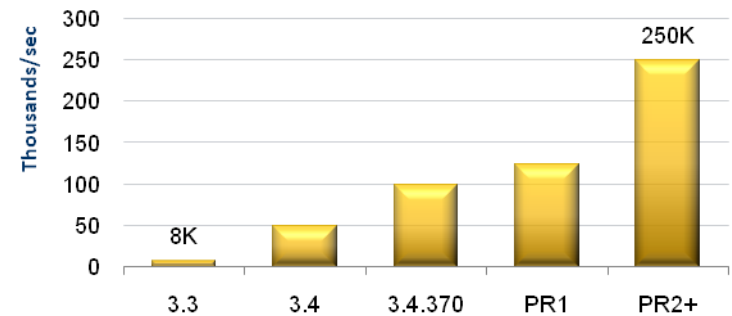
Startup Time

Initialization Time per Million of Points



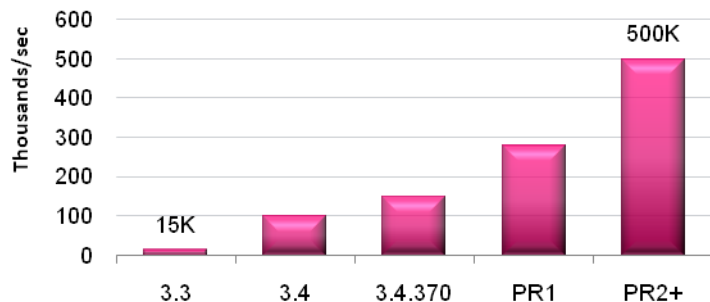
Archiving Rate

Events Stored to Disk



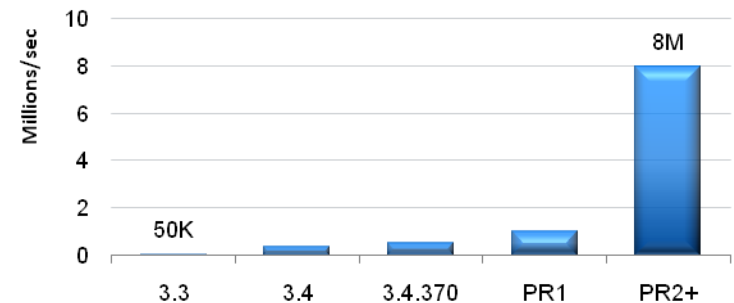
Snapshot Rate

Events Processed in Memory



Archive Query Rate

Events Served to Clients



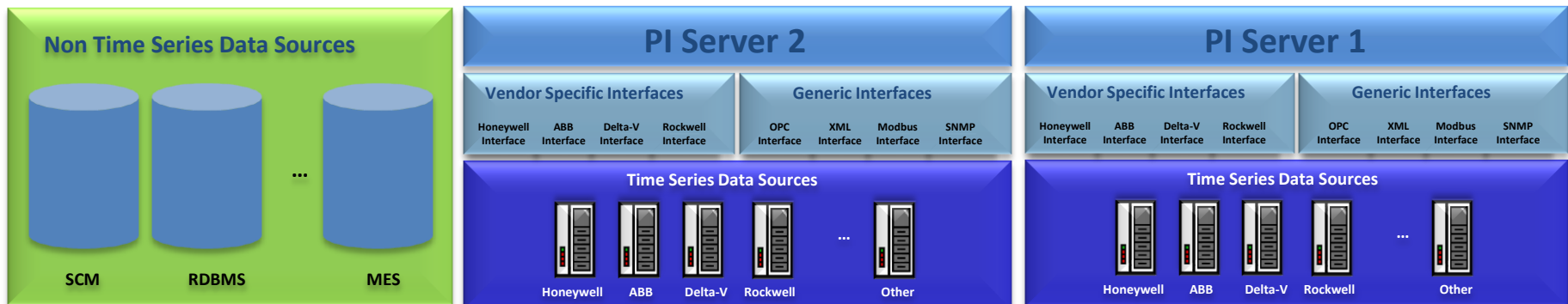
The PI AF Server in the PI System



- Structures and organizes the real time data by asset/equipment
- Store static information
- Reach to non time series data
- Spans multiple PI Servers



Asset/Equipment centric access to information



The PI AF Server



Xcel - PI System Explorer

File Edit View Go Tools Help

Database Query Date Back Check In New Element New Attribute Search

Elements

- Elements
 - PSCo
 - BTERM TA
 - BTERM (BTER)
 - LEGGETT TA
 - LEGGETT (LGT)
 - NCAR TA
 - NCAR (NCA)
 - TransformerBank1
 - CircuitBreaker1554
 - Feeder1554
 - ACLineSegment 105_36900
 - ACLineSegment 121_12100
 - ACLineSegment 123_5100
 - DistTransformer XFM_OH_09-29
 - DistTransformer XFM_OH_171-530
 - 300179F80002158D**
 - 30017A4800021F87
 - 30017A5800022229
 - 30017A58000223BC

300179F80002158D

General Child Elements **Attributes** Ports Version

Group by: ☐ Category

Search

| Name | Unit Of Measure | Value Type | Data Reference |
|------------------------------|-----------------|------------|----------------|
| SDPLocation | <None> | String | <None> |
| Type | <None> | String | <None> |
| +kWhPulses | <None> | Double | PI Point |
| kWhPulses | <None> | Double | PI Point |
| ClockDriftAdjustTime | second | Double | PI Point |
| ClockDriftAlarmCount | <None> | Double | PI Point |
| ClockDriftSeconds | second | Double | PI Point |
| ClockDriftThresholdSeconds | second | Double | PI Point |
| Current240VVoltage | volt | Double | PI Point |
| LastOutageTime | second | Double | PI Point |
| MeterKh | <None> | Double | PI Point |
| NetkWh | kilowatt hour | Double | PI Point |
| NetkWh-ErrorCode | <None> | String | PI Point |
| NetkWh-Validated | kilowatt hour | Double | PI Point |
| NumberPowerOutages | <None> | Double | PI Point |
| PhaseAVoltage | volt | Double | PI Point |
| PhaseCVoltage | volt | Double | PI Point |
| Register+kWhPulses | <None> | Double | PI Point |
| Register-kWhPulses | <None> | Double | PI Point |
| RegisterClockDriftAdjustTime | second | Double | PI Point |

300179F80002158D Modified: 7/9/2009 8:52:49 PM. Version: 1/1/1970 12:00:00 AM, Revision 1

PI Data Access: The 2010 Wave



SAP NetWeaver®



Microsoft® BizTalk® Server

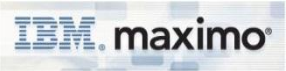


Microsoft® SQL Server®

Analysis/Reporting Services



Microsoft® Visual Studio®



ORACLE®



Microsoft® Silverlight



Microsoft® SharePoint®

TIBCO
The Power of Now™



PI JDBC

PI Web
Services 2010

PI OLEDB
Enterprise 2010

PI OPC DA/HDA
Server 2010

OSIsoft SDKs



Asset Information / Metadata

Notifications

Analytics

Relational / Non Time Series Data



PI Server



PI Server Collective

Time Series Data

The PI System: Analyze



- Pump daily uptime

```
TimeEQ('04:123PUMP_STAT.DC','t','*', "ON")/3600
```

- High/Low alarm on tank level with alarm reset every shift

```
If ( Hour('*') = 6 or Hour('*') = 18 ) and Minute('*') = 1 Then
    If (TagMIN('DC1-LI-005.PV','*', '*-5m') >= 'UO-Niveau-Reservoir-Floculent-max'
        or TagMax('DC1-LI-005.PV','*', '*-5m') <= 'UO-Niveau-Reservoir-Floculent-min') then
        1
    else 0
else Max(PrevVal('DC1-LI-005.PV.Alarme.RQ','*-5s'),
    If (TagMIN('DC1-LI-005.PV','*', '*-5m') >= 'UO-Niveau-Reservoir-Floculent-max'
        or TagMax('DC1-LI-005.PV','*', '*-5m') <= 'UO-Niveau-Reservoir-Floculent-min') then
        1
    else 0)
```

The PI Analytics :PI Totalizer



Name & Type | Sampling | Results | Archive | Security | System | Options | Summary

Name: Pump_Starts
Description: Number of start
SourceTag: Statut_Pompe
Eng Units: Starts
Point Type: Int32

Totalizer Type
☐ Summary Calculation ☒ Count Events
☐ All Events ☒ Events where value changes

Name & Type | Sampling | Results | Archive | Security | System | Options | Summary

Write final results
☒ after a time period elapses ☐ after a number of source events
☐ based on a trigger event ☐ continue forever (interim results ONLY)

Details
Start schedule at: 0 Minute(s) after midnight
Results every: 2 Minute(s) ☒ Vary w/ DST

Name & Type | Sampling | Results | Archive | Security | System | Options | Summary

Write final results
☒ whenever a new source tag event occurs
☐ Periodically ☒ Interpolate ☐ Event
Start schedule at: 0
Sample every: 2

☐ Whenever the event expression changes
☐ Filter the source data with the following expression

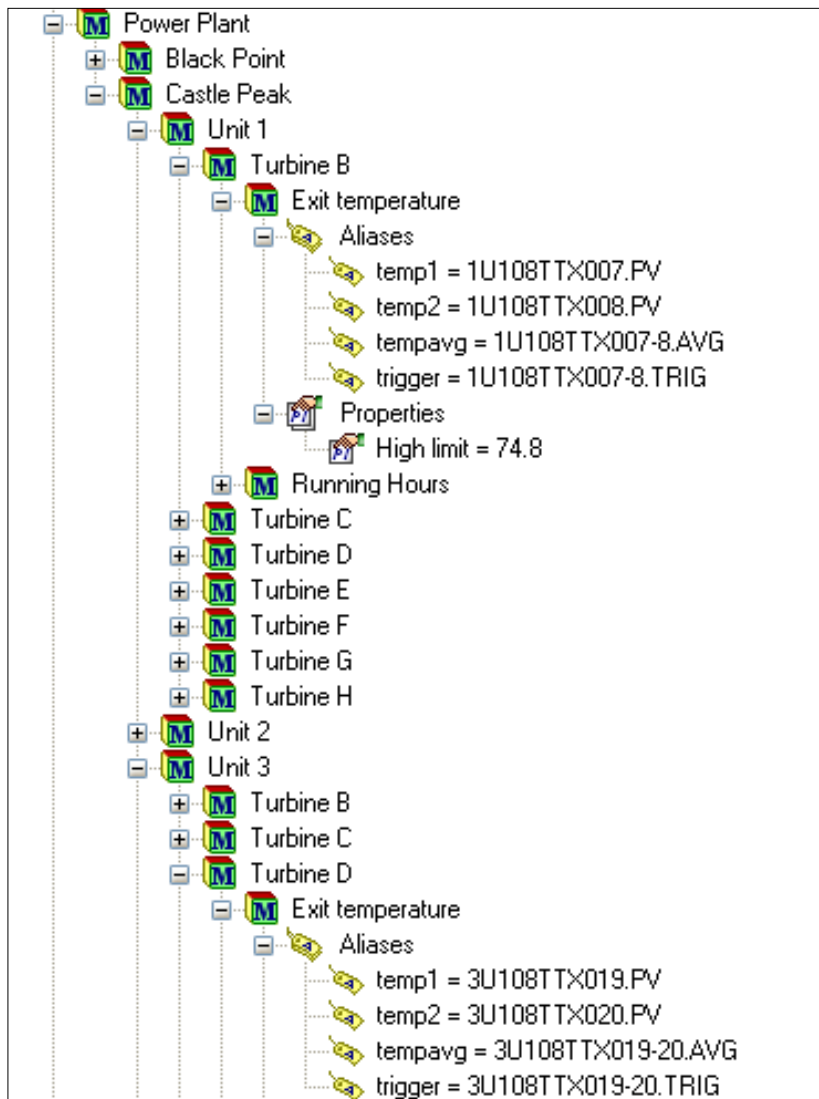
Name & Type | Sampling | Results | Archive | Security | System | Options | Summary

Options
☐ Allow external reset
☐ Use negative source values
☐ Source tag is a DCS integrator
☐ Close at end of the Sampling Period
☐ Source OverRange is ZERO + SPAN
☐ Use Source Tag BAD in place of "Bad Total"

Source UnderRange is: ☐ zero ☐ bad
Final result at: ☐ start ☐ end ☒ both

Conversion Factor: 1
Source = Zero below 0
Pct good values needed 85

PI ACE (Advanced Computing Engine)



Test

Context: Wocallhost\Power Plant\Castle Peak\Unit 1\Turb Reference Time *

Input Aliases

| Tag Name | Test Value Type | Current Value | Clamping | Bad Value |
|----------|-----------------|---------------|-------------|-----------------|
| temp1 | Current Value | 76.15458 | No Clamping | No Substitution |
| temp2 | Current Value | 74.56452 | No Clamping | No Substitution |

exit_temp (Declarations)

```
Public dblLimit As Double

' Tag Name/VB Variable Name Correspondence Table
' Tag Name                                VB Variable Name
' -----
' temp1                                    temp1
' temp2                                    temp2
' tempavg                                  tempavg
' trigger                                  trigger

Public Overrides Sub ACECalculations()
    tempavg.Value = (temp1.Value + temp2.Value) / 2
    If tempavg.PrevVal() < dblLimit And tempavg.Value > dblLimit Then
        trigger.Value = 1
    Else
        trigger.Value = 0
    End If
End Sub

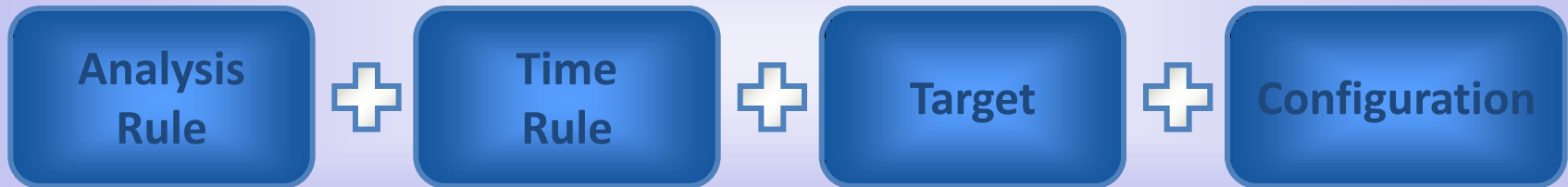
Protected Overrides Sub InitializePIACEPoints()...

' User-written module dependent initialization code

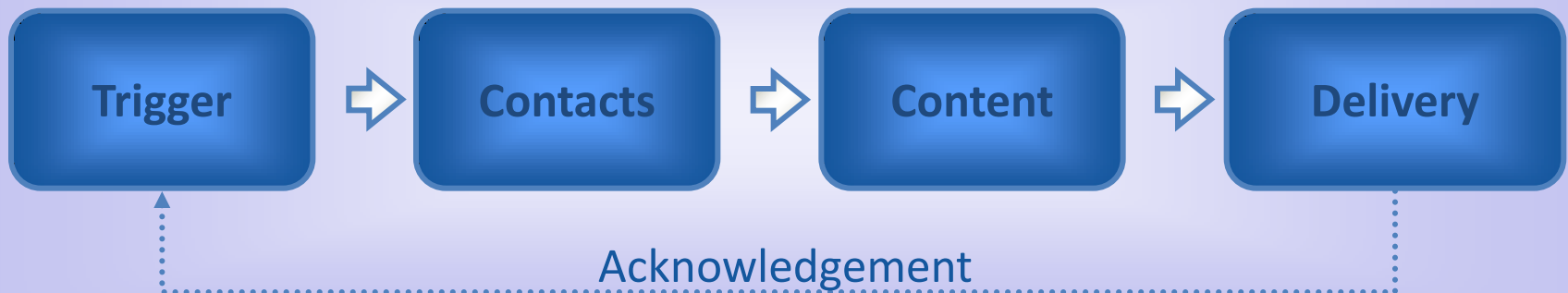
Protected Overrides Sub ModuleDependentInitialization()...

' ...
Protected Overrides Sub ModuleDependentTermination()
End Sub
End Class
```

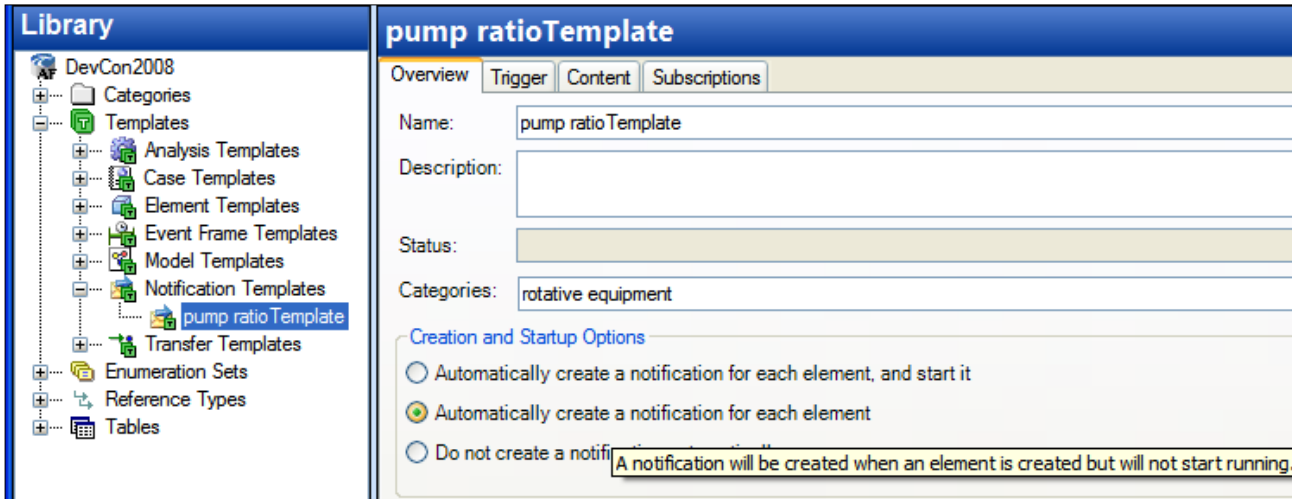

Business Logic



Notification Emission



- Notification Templates

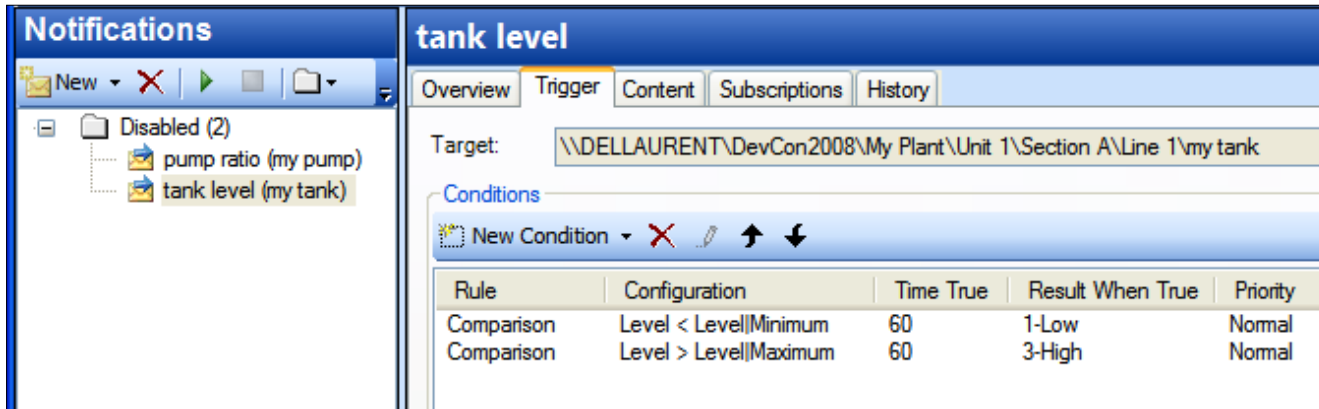


The screenshot shows the 'pump ratioTemplate' configuration window. The left pane shows the 'Library' tree with 'Notification Templates' selected. The right pane shows the 'Overview' tab with the following details:

- Name: pump ratioTemplate
- Description: (empty)
- Status: (empty)
- Categories: rotative equipment
- Creation and Startup Options:
 - ☐ Automatically create a notification for each element, and start it
 - ☒ Automatically create a notification for each element
 - ☐ Do not create a notification

A tooltip is visible over the 'Do not create a notification' option, stating: 'A notification will be created when an element is created but will not start running.'

- Notifications Rules

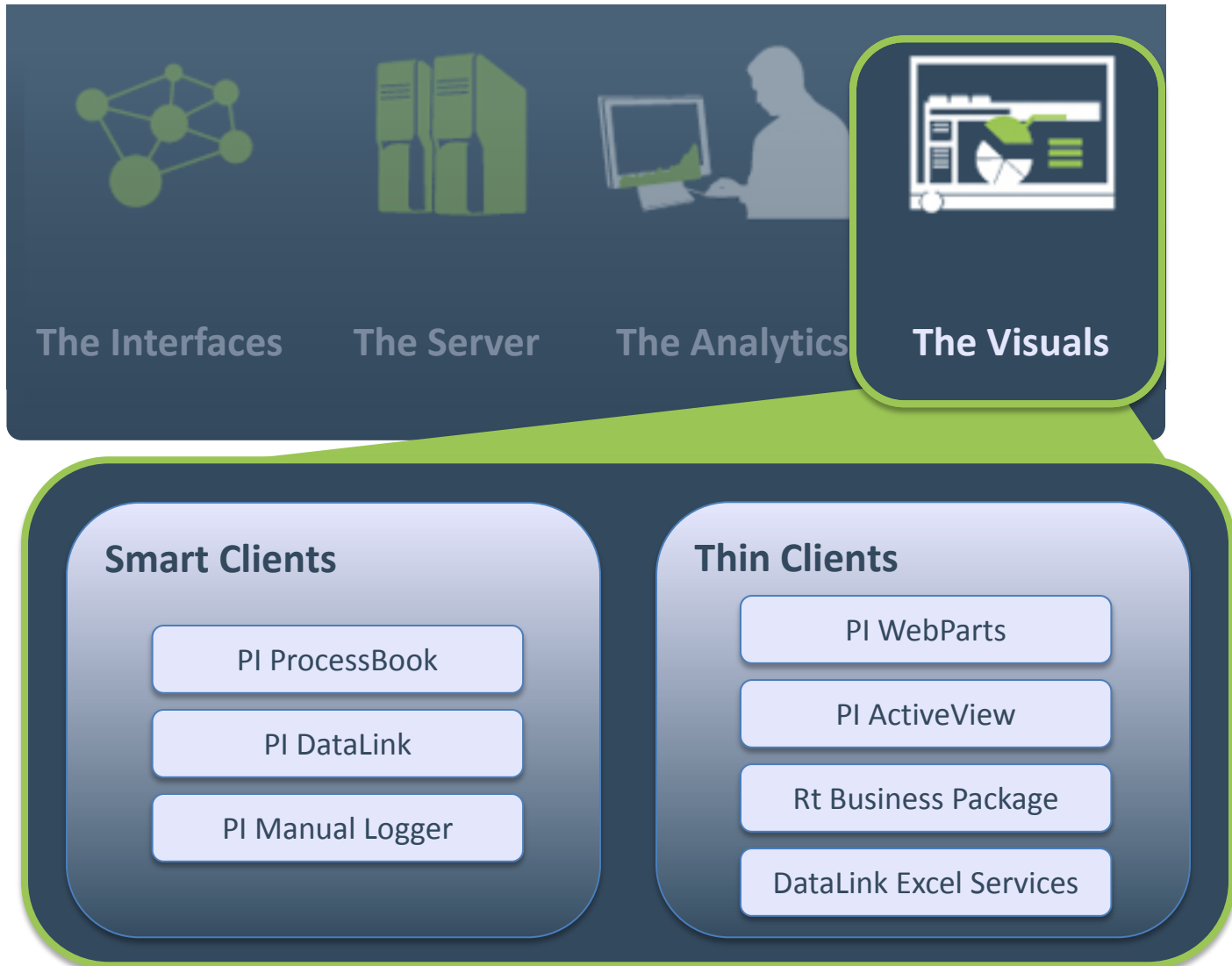


The screenshot shows the 'tank level' notification rule configuration window. The left pane shows the 'Notifications' tree with 'tank level (my tank)' selected. The right pane shows the 'Trigger' tab with the following details:

- Target: \\DELLAURENT\DevCon2008\My Plant\Unit 1\Section A\Line 1\my tank
- Conditions:
 - New Condition

| Rule | Configuration | Time True | Result When True | Priority |
|------------|-----------------------|-----------|------------------|----------|
| Comparison | Level < Level Minimum | 60 | 1-Low | Normal |
| Comparison | Level > Level Maximum | 60 | 3-High | Normal |

The PI System: Visualize

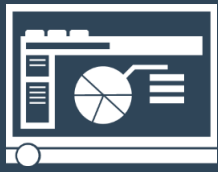


VISUALIZE - Visualization Capabilities



Gain a comprehensive view of operational information

informed decisions and drive business success



Present

View data, identify historical problems, and take corrective action with familiar, easy-to-use graphical tools.

Process

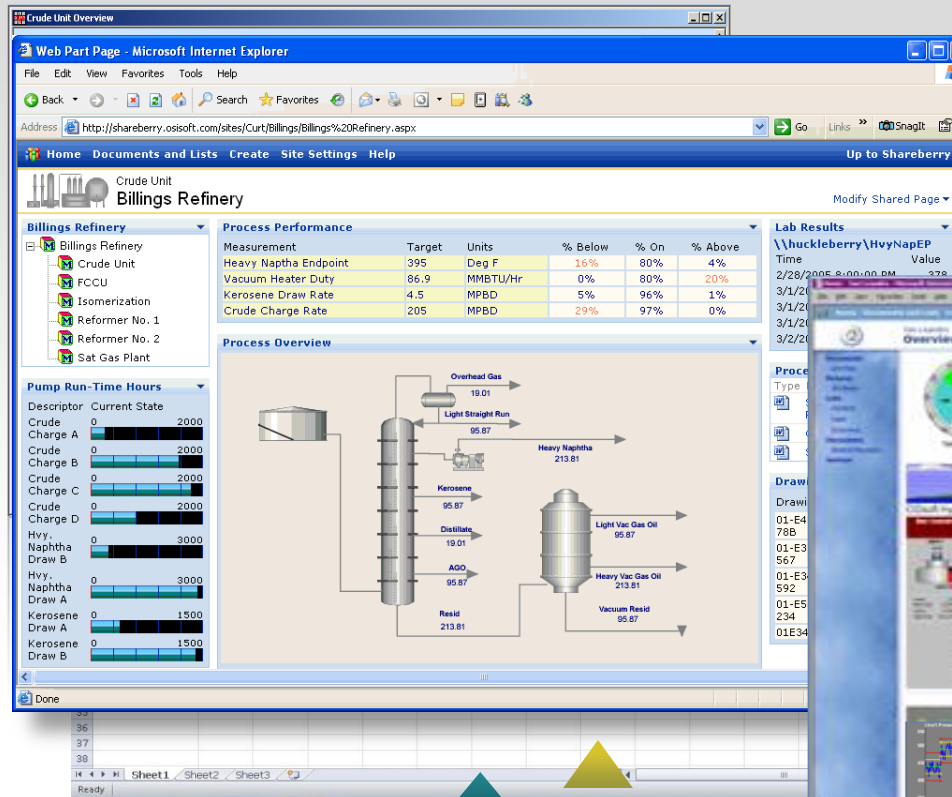
ProcessBook®

PI DataLink™

DataLink for Excel Services

PI BatchView

PI WebParts™



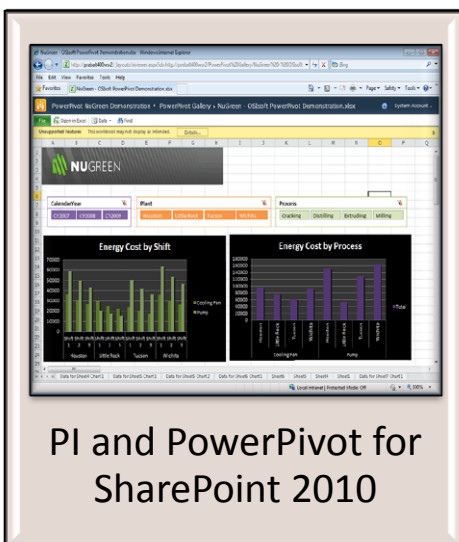
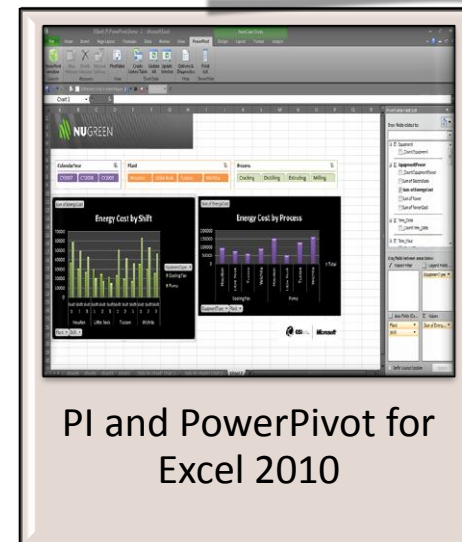
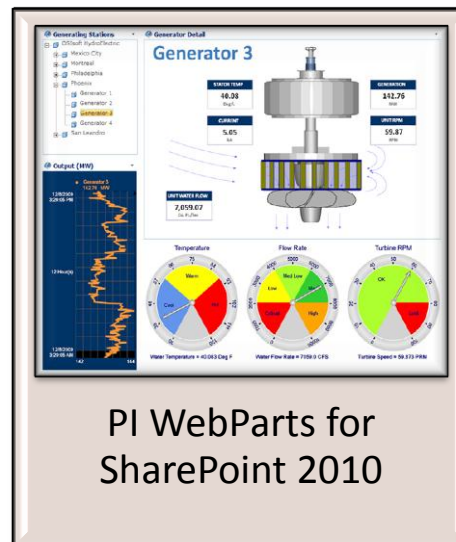
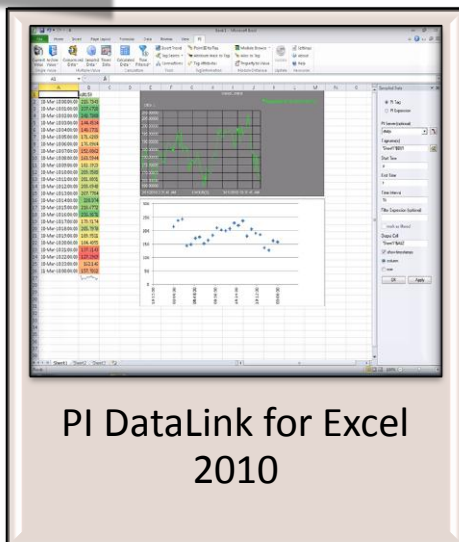
PI WebParts™

Provide access to real-time and historical process information for analysis and reporting

Empowering Business in Real-time.

Copyright 2011, OSIsoft, LLC. All rights Reserved.

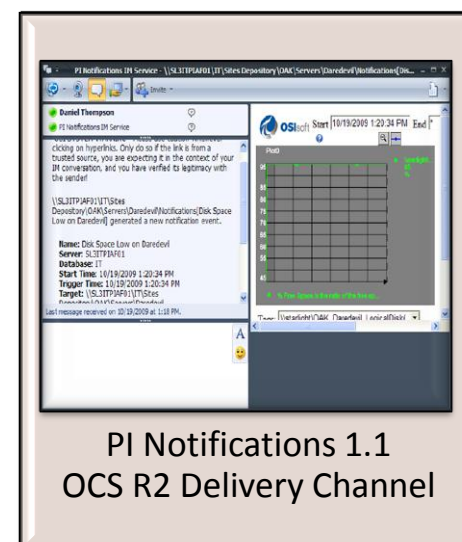
PI for Office 2010

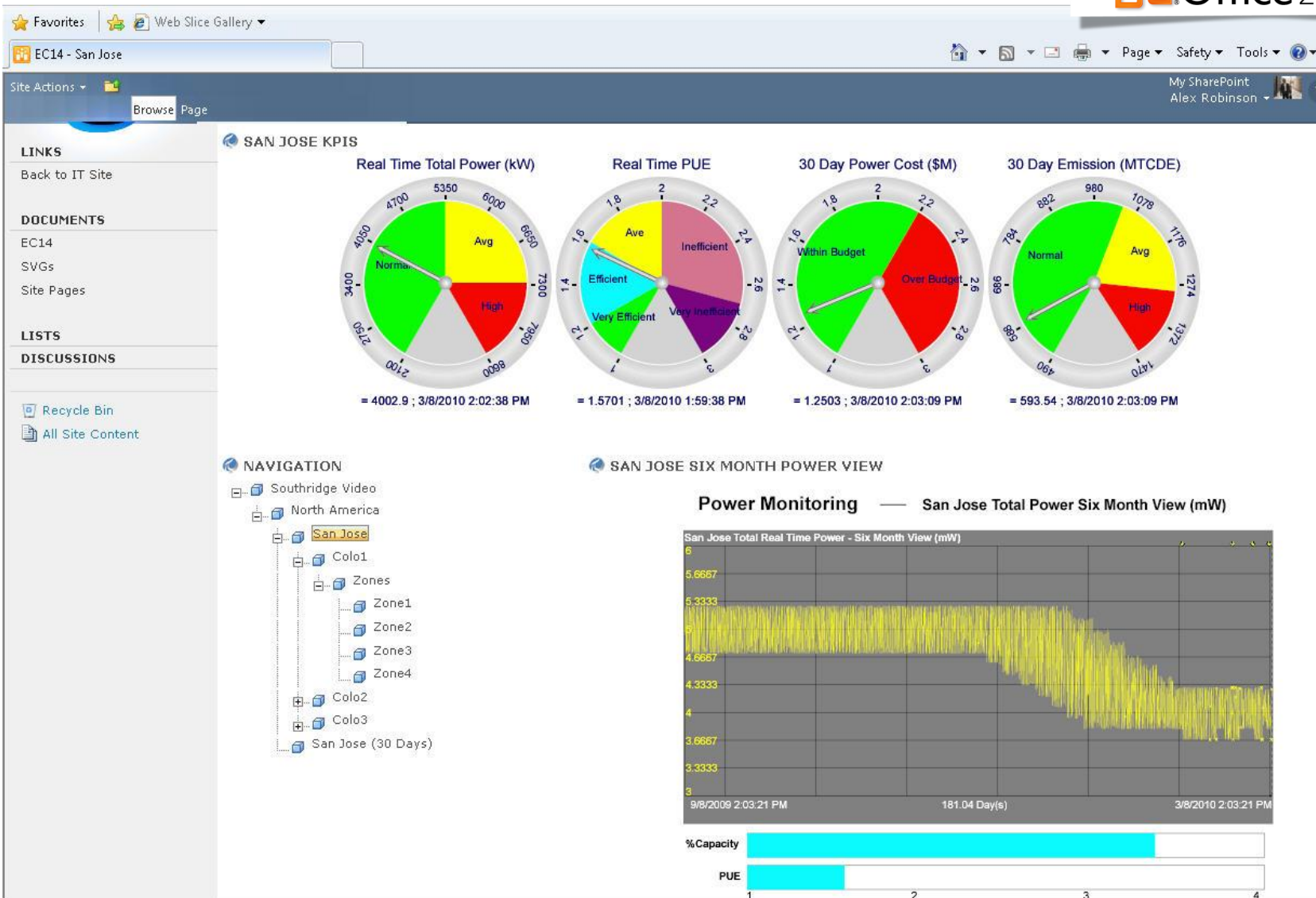


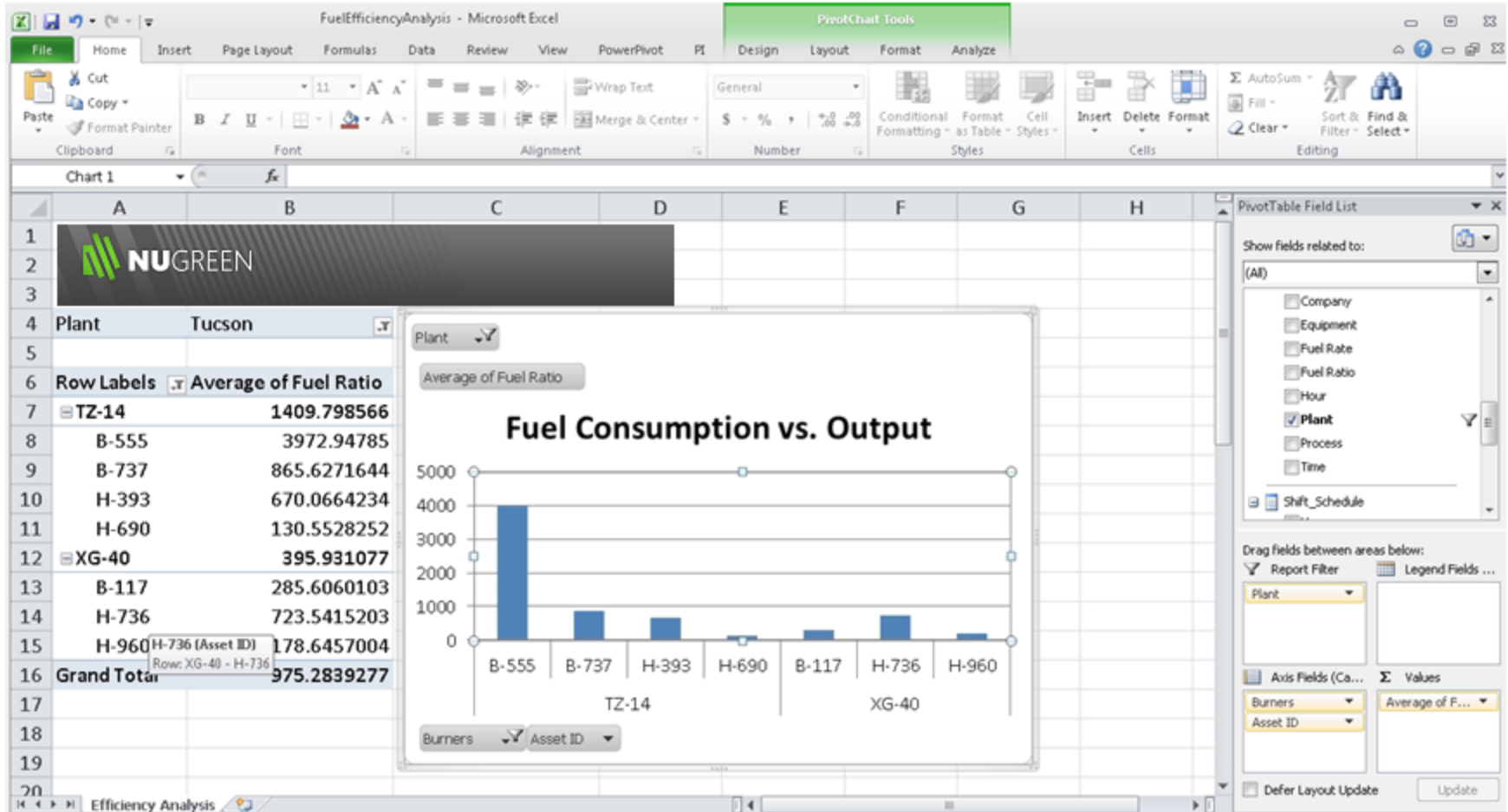
PI OLEDB
Enterprise 2010

PI Web Services
2010

PI Data Access
Technologies



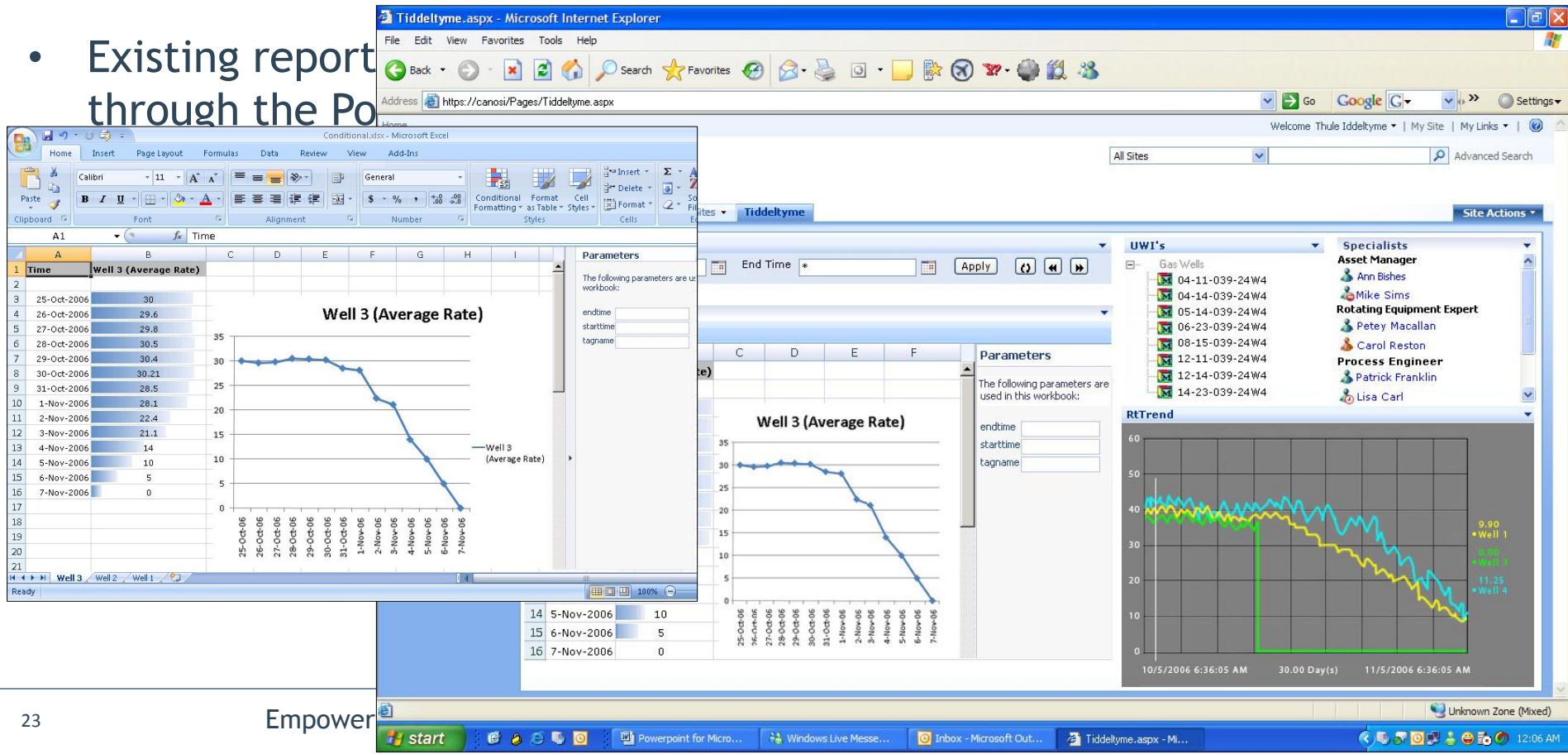


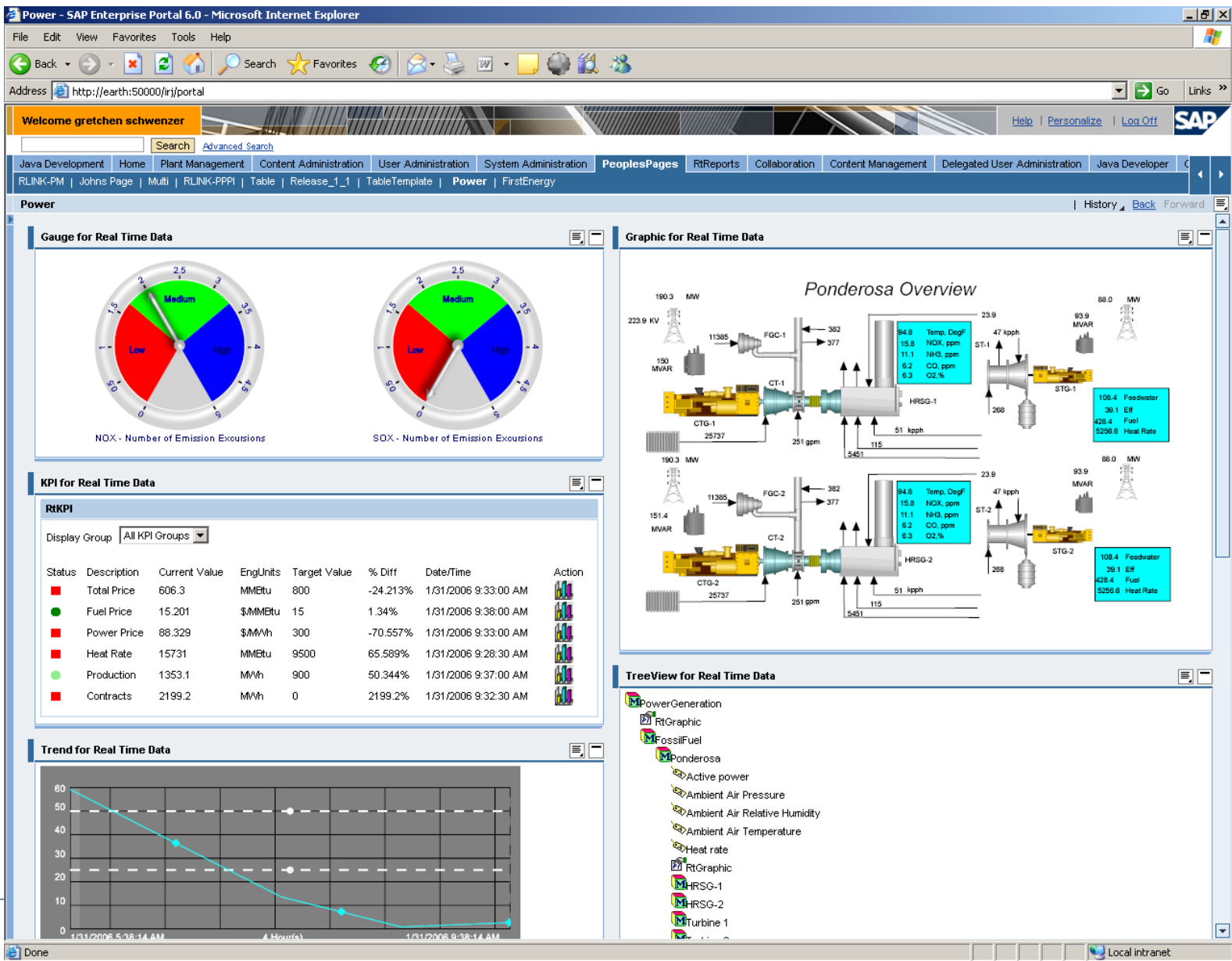


PI DataLink for Excel Services (DLES)



- Deploy DataLink functions across the enterprise
- No PI DataLink or Excel installation required on client
- Existing report through the Po





The PI System Road Map



PI System Roadmap



| Featured Products | Q1 2010 | Q2 2010 | Q3 2010 | Q4 2010 | Q1 2011 | Q2 2011 | Q3 2011 - Q4 2011 | Q1 2012 - Q2 2012 |
|---|---------|---------|---------|---------|---------|---------|-------------------|-------------------|
| CLIENT View more | Q1 2010 | Q2 2010 | Q3 2010 | Q4 2010 | Q1 2011 | Q2 2011 | Q3 2011 - Q4 2011 | Q1 2012 - Q2 2012 |
| PI ProcessBook 3.2.3.0 | | ✓ | | ✓ | | | | |
| PI ActiveView 3.2.0.0 | | | | | | | | |
| PI DataLink 2010 (4.2) | | ◆ | ✓ | | | | | |
| PI DataLink Server 2010 (4.2) | | | ◆ | | | | | |
| PI Manual Logger 2010 (4.2) | | | | | ◆ | | | |
| PI WebParts 2010 R2 (3.1) | | ✓ | | ◆ | | | | |
| DATA ACCESS View more | Q1 2010 | Q2 2010 | Q3 2010 | Q4 2010 | Q1 2011 | Q2 2011 | Q3 2011 - Q4 2011 | Q1 2012 - Q2 2012 |
| PI JDBC 2010 R2 (1.0) | | | | ◆ | | | | |
| PI ODBC 1.3.1.0 | ◆ | | | | | | | |
| PI OLEDB 3.3.0.1a | | | | | | | | |
| PI OLEDB Enterprise 2010 (1.0.16) | | | | | ◆ | | | |
| PI OPC DA/HDA Server 2010 (1.2.7.0) | | | | | | | | |
| PI SDK 1.3.8.388 | ✓ | | | | | | | |
| PI Web Services 2101 R2 (1.1.7.0) | | | | ◆ | | | | |
| SERVER View more | Q1 2010 | Q2 2010 | Q3 2010 | Q4 2010 | Q1 2011 | Q2 2011 | Q3 2011 - Q4 2011 | Q1 2012 - Q2 2012 |
| PI ACE 2.1.32/1.2.32 | | | | | | | | |
| PI AF 2010 R2 (2.3) | | | | ◆ | | | | |
| PI for StreamInsight New Product | | | | | | | | |
| PI Server 2010 (3.4.385) | | | | | ✓ | | | |
| PI Notifications 1.1.1200.35 | | ✓ | ✓ | | | | | |
| INTERFACES View fewer Search | Q1 2010 | Q2 2010 | Q3 2010 | Q4 2010 | Q1 2011 | Q2 2011 | Q3 2011 - Q4 2011 | Q1 2012 - Q2 2012 |
| PI OPC Interface/PI OPC DA 2.3.11.0 | | | | ◆ | | | | |
| PI to PI 3.8.3.0 | | | | | | | | |
| PI Universal File Loader (UFL) 3.1.0.10 | | ◆ | | | | | | |
| Relational Database (RDBMS) 3.18.1.0 | | | ◆ | | | | | |
| PI OPC HDA (OPCHDAint) 1.4.0 | | | | | | | | |
| | Q1 2010 | Q2 2010 | Q3 2010 | Q4 2010 | Q1 2011 | Q2 2011 | Q3 2011 - Q4 2011 | Q1 2012 - Q2 2012 |

- Major release
- Minor release
- Service Pack

PI Server 2010 Releases



11-Oct-2010

Major release
 Minor release
 Service Pack

[older](#)
[newer](#)

| Featured Products | Q2 2009 | Q3 2009 | Q4 2009 | Q1 2010 | Q2 2010 | Q3 2010 | Q4 2010 | Q1 2011 | Q2 2011 - Q3 2011 |
|--|---------|---------|---------|---------|---------|---------|---------|---------|-------------------|
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| PI ProcessBook | | | | | | | | | |
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| PI DataLink | | | | | | | | | |
| PI DataLink Server | | | | | | | | | |
| PI Manual Logger | | | | | | | | | |
| PI WebParts | | | | | | | | | |
| DATA ACCESS View more | Q2 2009 | Q3 2009 | Q4 2009 | Q1 2010 | Q2 2010 | Q3 2010 | | | |
| PI JDBC | | | | | | | | | |
| PI ODBC | | | | | | | | | |
| PI OLEDB | | | | | | | | | |
| PI OLEDB Enterprise | | | | | | | | | |
| PI OPC DA/HDA Server | | | | | | | | | |
| PI SDK | | | | | | | | | |
| PI Web Services | | | | | | | | | |
| SERVER View more | Q2 2009 | Q3 2009 | Q4 2009 | Q1 2010 | Q2 2010 | Q3 2010 | Q4 2010 | Q1 2011 | Q2 2011 - Q3 2011 |
| PI ACE | | | | | | | | | |
| PI AF | | | | | | | | | |
| PI for StreamInsight | | | | | | | | | |
| PI Server | | | | | | | | | |
| PI Notifications | | | | | | | | | |
| INTERFACES View more Search | Q2 2009 | Q3 2009 | Q4 2009 | Q1 2010 | Q2 2010 | Q3 2010 | Q4 2010 | Q1 2011 | Q2 2011 - Q3 2011 |

PI AF
Scalability
HA

PI Server
Windows
Security

PI
Notifications
Templates

PI Server 2010
Assets and Tags,
Scalability, Packaging :
PI Data Archive; PI AF;
PI ACE; PI Notifications,
PI MCN Interfaces

Data Access Releases 2010



11-Oct-2010

Major release
 Minor release
 Service Pack

[older](#)
[newer](#)

| Featured Products | Q4 2008 | Q1 2009 | Q2 2009 | Q3 2009 | Q4 2009 | Q1 2010 | Q2 2010 | Q3 2010 | Q4 2010 | Q1 2011 |
|--|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
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| PI WebParts | | | | | | | | | | |
| DATA ACCESS View more | Q4 2008 | Q1 2009 | Q2 2009 | Q3 2009 | Q4 2009 | Q1 2010 | Q2 2010 | Q3 2010 | Q4 2010 | Q1 2011 |
| PI JDBC | | | | | | | | | | |
| PI ODBC | | | | | | | | | | |
| PI OLEDB | | | | | | | | | | |
| PI OLEDB Enterprise | | | | | | | | | | |
| PI OPC DA/HDA Server | | | | | | | | | | |
| PI SDK | | | | | | | | | | |
| PI Web Services | | | | | | | | | | |
| SERVER View more | Q4 2008 | Q1 2009 | Q2 2009 | Q3 2009 | Q4 2009 | Q1 2010 | Q2 2010 | Q3 2010 | Q4 2010 | Q1 2011 |
| PI ACE | | | | | | | | | | |
| PI AF | | | | | | | | | | |
| PI for StreamInsight | | | | | | | | | | |
| PI Server | | | | | | | | | | |
| PI Notifications | | | | | | | | | | |
| INTERFACES View more Search | Q4 2008 | Q1 2009 | Q2 2009 | Q3 2009 | Q4 2009 | Q1 2010 | Q2 2010 | Q3 2010 | Q4 2010 | Q1 2011 |

PI JDBC 2010
 1st Release
 Supports 32 & 64
 Bit Windows and
 Linux

PI OLEDB
 Enterprise 2010
 1st Release
 Read only Access
 to AF

PI OLEDB
 64-Bit

PI SDK
 64-Bit

PI OPC Server
 OPC Compliance
 Tested

PI Web Services 2010
 1st Release
 Exposes PI and AF
 data to web service
 Queries

Visualization Releases 2010



11-Oct-2010

Major release Minor release Service Pack

[older](#) [newer](#)

| Featured Products | Q2 2009 | Q3 2009 | Q4 2009 | Q1 2010 | Q2 2010 | Q3 2010 | Q4 2010 | Q1 2011 | Q2 2011 - Q3 2011 |
|--|---------|---------|---------|---------|---------|---------|---------|---------|-------------------|
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| PI Manual Logger | | | | | | | | | |
| PI WebParts | | | | | | | | | |
| DATA ACCESS View more | | | Q4 2009 | Q1 2010 | Q2 2010 | Q3 2010 | | | Q3 2011 |
| PI JDBC | | | | | | | | | |
| PI ODBC | | | | | | | | | |
| PI OLEDB | | | | | | | | | |
| PI OLEDB Enterprise | | | | | | | | | |
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| PI Web Services | | | | | | | | | |
| SERVER View more | | | | Q1 2010 | Q2 2010 | Q3 2010 | Q4 2010 | Q1 2011 | Q2 2011 - Q3 2011 |
| PI ACE | | | | | | | | | |
| PI AF | | | | | | | | | |
| PI for StreamInsight | | | | | | | | | |
| PI Server | | | | | | | | | |
| PI Notifications | | | | | | | | | |
| INTERFACES View more Search | Q2 2009 | Q3 2009 | Q4 2009 | Q1 2010 | Q2 2010 | Q3 2010 | Q4 2010 | Q1 2011 | Q2 2011 - Q3 2011 |

PI ProcessBook
AF Element Relative
Displays
Playback

PI Manual Logger 2010
Performance; SQL Server
2008 32 & 64 Bit.

PI WebParts 2010
SharePoint 2010,
AF, 64-Bit

PI DL Server 2010
SharePoint 2010

PI DataLink 2010
Office 2010

PI System Roadmap - 4Q 2010 AF Wave



| Featured Products | Q1 2010 | Q2 2010 | Q3 2010 | Q4 2010 | Q1 2011 | Q2 2011 | Q3 2011 - Q4 2011 | Q1 2012 - Q2 2012 |
|--|---------|---------|---------|---------|---------|---------|-------------------|-------------------|
| CLIENT View more | Q1 2010 | Q2 2010 | Q3 2010 | Q4 2010 | Q1 2011 | Q2 2011 | Q3 2011 - Q4 2011 | Q1 2012 - Q2 2012 |
| PI ProcessBook | | ✓ | | ✓ | | | | |
| PI ActiveView | | | | | | | | |
| PI DataLink | | ◆ | ✓ | | | | | |
| PI DataLink Server | | | ◆ | | | | | |
| PI Manual Logger | | 🌀 | | | | | | |
| PI WebParts | | ✓ | 🌀 | ◆ | | | | |
| DATA ACCESS View more | Q1 2010 | Q2 2010 | Q3 2010 | Q4 2010 | Q1 2011 | Q2 2011 | Q3 2011 - Q4 2011 | Q1 2012 - Q2 2012 |
| PI JDBC | 🌀 | | | ◆ | | | | |
| PI ODBC | ◆ | | | | | | | |
| PI OLEDB | | | | | | | | |
| PI OLEDB Enterprise | | | 🌀 | | ◆ | | | |
| PI OPC DA/HDA Server | | 🌀 | | | | | | |
| PI SDK | ✓ | | | | | 🌀 | | |
| PI Web Services | | | 🌀 | ◆ | | | | |
| SERVER View more | Q1 2010 | Q2 2010 | Q3 2010 | Q4 2010 | Q1 2011 | Q2 2011 | Q3 2011 - Q4 2011 | Q1 2012 - Q2 2012 |
| PI ACE | | | | | 🌀 | | | |
| PI AF | | | 🌀 | ◆ | | | | |
| PI for StreamInsight | | | | | 🌀 | | | |
| PI Server | | | 🌀 | | ✓ | | | 🌀 |
| PI Notifications | | ✓ | ✓ | | 🌀 | | | |

PI WebParts 2010 R2
Complete AF
Attribute Access

PI JDBC 2010 R2
Full Asset (AF) Support

PI Web Services 2010 R2
Complete AF Attribute
Access

PI AF 2010 R2
AF Builder

Coming Soon: Releases in Q1 2011 – Q2 2011

Improved Analytics and Notifications

PI System Roadmap - upcoming releases



| Featured Products | Q1 2010 | Q2 2010 | Q3 2010 | Q4 2010 | Q1 2011 | Q2 2011 | Q3 2011 - Q4 2011 | Q1 2012 - Q2 2012 |
|--|---------|---------|---------|---------|---------|---------|-------------------|-------------------|
| CLIENT View more | Q1 2010 | Q2 2010 | Q3 2010 | Q4 2010 | Q1 2011 | Q2 2011 | Q3 2011 - Q4 2011 | Q1 2012 - Q2 2012 |
| PI ProcessBook | | ✓ | | ✓ | | | | |
| PI ActiveView | | | | | | | | |
| PI DataLink | | ◆ | ✓ | | | | | |
| PI DataLink Server | | | ◆ | | | | | |
| PI Manual Logger | | | | | | | | |
| PI WebParts | | ✓ | | ◆ | | | | |
| DATA ACCESS View more | Q1 2010 | Q2 2010 | Q3 2010 | Q4 2010 | Q1 2011 | Q2 2011 | Q3 2011 - Q4 2011 | Q1 2012 - Q2 2012 |
| PI JDBC | | | | ◆ | | | | |
| PI ODBC | | | | | | | | |
| PI OLEDB | | | | | | | | |
| PI OLEDB Enterprise | | | | | ◆ | | | |
| PI OPC DA/HDA Server | | | | | | | | |
| PI SDK | ✓ | | | | | | | |
| PI Web Services | | | | ◆ | | | | |
| SERVER View more | Q1 2010 | Q2 2010 | Q3 2010 | Q4 2010 | Q1 2011 | Q2 2011 | Q3 2011 - Q4 2011 | Q1 2012 - Q2 2012 |
| PI ACE | | | | | | | | |
| PI AF | | | | ◆ | | | | |
| PI for StreamInsight | | | | | | | | |
| PI Server | | | | | ✓ | | | |
| PI Notifications | | | | | | | | |

PI OLEDB Enterprise enhancements, AF Attributes searches based on the Attribute values

PI ACE 2011 Scalability, Performance, 64-bit

PI SDK 2011 Enhanced HA Support

PI for StreamInsight 2011 1st Release

PI Notifications 2010 Message Formatting, 64-Bit, MS Lync

PI Notifications 2010: Message Format



The diagram illustrates the structure of a PI notification message. It shows a template editor on the left and a rendered email message on the right.

Template Editor (Left):

- Subject:** Alert on element [Target]
- Attachments:** (Empty)
- Body:**
Warning: [Triggering Condition:Triggering Condition]
[Attribute1:Name]: [Attribute1:Value] [Attribute1:UOM] ([Attribute1:TimeStamp])

Rendered Message (Right):

This message was sent with High importance.

From: dthompson@osisoft.com Sent: Mon 7-Jun-10 9:09 AM
To: David Moler
Cc:
Subject: Alert on element \\PIANODEMO\Demo1.2\Demo 01

Warning: Attribute1 has exceeded target:
Attribute1: 11 (7-Jun-10 9:08:40 AM)

Annotations:

- Free-form composition of subject and body:** A red box with arrows pointing to the Subject and Body fields in the template editor.
- Content is substituted when alert is triggered:** A red box with arrows pointing to the placeholder text in the Body field of the template editor and the actual warning message in the rendered email.

PI Notifications 2010 - MS Lync



Tuscon heater H-393 OVER LIMIT: 38.72 scf/h for gas utilizati...

PI Notifications - Available

IM Call Video Share

PI Notifications 5:22 PM

- The Tuscon plant milling process heater H-393 has a gas utilization **over limit** at 38.72 scf/h

Trigger Time: 10/13/2010 5:22:14 PM Pacific Daylight Time (GMT-07:00:00)

Triggering Condition: Fuel Gas Flow > UpperAlarmLimit

Fuel Gas Flow: 38.72 scf/h

UpperAlarmLimit: 25 scf/h

Link:
[Instant PI WebParts Trend](#)

Actions:
[Acknowledge](#)
[Acknowledge With Comment](#)

Last message received on 10/13/2010 at 5:22 PM.

PI Notifications

Tuscon heater H-393 OVER LIMIT: 38.72 s...

Redirect Ignore

- Message Formatting
 - More control over the appearance of the subject and body
- Performance
 - History retrieval is improved by an **order of magnitude**
 - Native 64-bit operating system support
- Internationalization

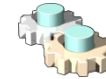


- Scheduled to be released early 2011

- Multiple Schedulers



ACE Scheduler 1



ACE Scheduler N

- Performance Improvements
 - Components re-written in .NET



- Visual Studio 2010 support




- Native 64-bit operating system support




Coming Soon: Releases in Q2 2011 – Q3 2011


Upcoming Releases

| Product | Version | Date | Description | Features |
|---|---------|-------------------|---|--|
|  PI ProcessBook 2011 | 3.3 | Q3 2011 – Q4 2011 | This release of PI ProcessBook introduces major improvements for non-English versions and improvements to how time is manipulated for a single or multiple displays. There is also additional support for the Asset Framework (AF) element attributes that reference PI Tags, including statistics and annotations. | Unicode implementation supports non-English characters plus regionalization standardization to support using the same displays across different locale settings;
Time range enhancements make time navigation more straightforward;
Full replacement of Module Relative Displays with Element Relative Displays is provided. |


Upcoming Releases

| Product | Version | Date | Description | Features |
|--|---------|----------------------|---|---|
|  PI ActiveView 2011 | 3.3 | Q3 2011 –
Q4 2011 | In this release, docking windows provide access to ProcessBook time range controls, the Details window and element selection for element relative displays; other runtime enhancements from ProcessBook, such as unicode support are also included. | Docking Windows provide access to ProcessBook time range controls, the Details window and element selection for element relative displays; other runtime enhancements from ProcessBook, such as unicode support |


Upcoming Releases


| Product | Version | Date | Description | Features |
|--|---------|----------------------|--|---|
|  PI DataLink 2011 | 5.0 | Q3 2011 –
Q4 2011 | PI DataLink 2011 brings support for the PI Asset Framework allowing you to work with both assets and tags. A new PI System Search enables you to find the information you are looking for quickly and efficiently. PI DataLink 2011 is the most compatible version of DataLink to date and supports 32-bit and 64-bit versions of Microsoft Excel 2007 and 2010. | <ul style="list-style-type: none">• Accept PI AF attributes as equals to tags• Integrated Search & AF Guided Find• 64-bit Support |

Upcoming Releases


| Product | Version | Date | Description | Features |
|---|---------|-------------------|---|----------|
|  PI DataLink Server 2011 | 5.0 | Q1 2012 – Q2 2012 | PI DataLink Server 2011 is the SharePoint companion release for PI DataLink 2011. | |

Upcoming Releases


| Product | Version | Date | Description | Features |
|--|---------|-------------------|---|--|
|  PI WebParts 2011 | 4.0 | Q3 2011 – Q4 2011 | PI WebParts 2011 transitions from Adobe SVG to Silverlight for all graphical elements. Also included is additional support for SharePoint 2010. | <ul style="list-style-type: none">• Transition Adobe SVG to Silverlight graphics• Enhanced AF Search Web Part |

| | | | | | |
|---|---------------------|-----|-------------------|---|---|
|  | PI OLEDB Enterprise | 1.2 | Q3 2011 – Q4 2011 | This release introduces support for Event Frames, as well as some asset database access enhancements (e.g. bottom-up element attribute hierarchy search, indexed element attribute value search). | This release introduces support for Event Frames, as well as some asset database access enhancements (e.g. bottom-up element attribute hierarchy search, indexed element attribute value search). |
|---|---------------------|-----|-------------------|---|---|

Upcoming Releases

| Product | Version | Date | Description | Features |
|---|---------|---------|---|---|
|  PI SDK 2011 | 1.4 | Q2 2011 | Support buffered data writes and writing to High Availability PI. | <ul style="list-style-type: none">• Buffered data writes to PI Server 3.4.375+• Support for writing to High Availability PI• New PI SDK Utility, includes support tools |

Upcoming Releases


| Product | Version | Date | Description | Features |
|---|---------|---------|--|--|
|  PI Web Services 2010 R2 | 1.1 | Q4 2010 | This is a minor release to PI Web Services 2010, which adds a GetPISnapshotData method, support for additional insert modes (e.g. replace), as well as support for all AF Attribute types. | <ul style="list-style-type: none">- GetPISnapshotData method- Support for additional insert modes (e.g. replace)- Support for all AF Attribute types |

PI Server 2010 SP1 (2.4.380 SP1)



Upcoming Releases

| Product | Version | Date | Description | Features |
|-----------------------|-------------|-------------------|--|---|
| ✓ PI Server 380 SP1 | 3.4.380 SP1 | Q1 2011 | Addresses anomalies and minor updates associated with PI Server 3.4.380 release. | |
| PI Server "Verrazano" | 3.4.390 | Q1 2012 – Q2 2012 | This is a major release that provides performance and scalability enhancements. | <ul style="list-style-type: none">• Scale up to 20 million tags• Higher throughput for data in and out of PI Server• Provide data updates to a larger number of clients• Improve robustness and data recovery• Enhancements to security |

| | | | | | |
|---|------------|-----|----------------------|--|--|
|  | PI AF 2011 | 2.4 | Q3 2011 –
Q4 2011 | This major release is planned to include additional infrastructure to support future OSIsoft products including Analytics and Event Frames. There will be continuous improvement in product performance and bug fixes. | Major features planned: infrastructure support for Analytics based on element attributes running on a scheduler without users having to write code and for Event Frames. There will be continued performance and memory footprint improvements. Bug fixes and other miscellaneous improvements are also planned. |
|---|------------|-----|----------------------|--|--|

New Products



What is the DaVinci project?



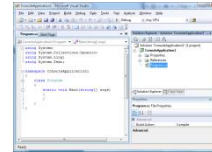
- The intent of the first release of this product is to address the need to quickly build displays of data in an ad hoc fashion;
- Features focus of the product are searching capabilities and display components like tables, trends and gauges;
- This isn't a new display development tool intended to replace ProcessBook. It is intended to facilitate in-depth analysis of a problem that's been identified;
- No features are currently planned to support the use of images in any way;
- DaVinci is Silverlight dependent, Sharepoint is supported but not required



PI & StreamInsight Platform - Q1 2011



StreamInsight Application Development

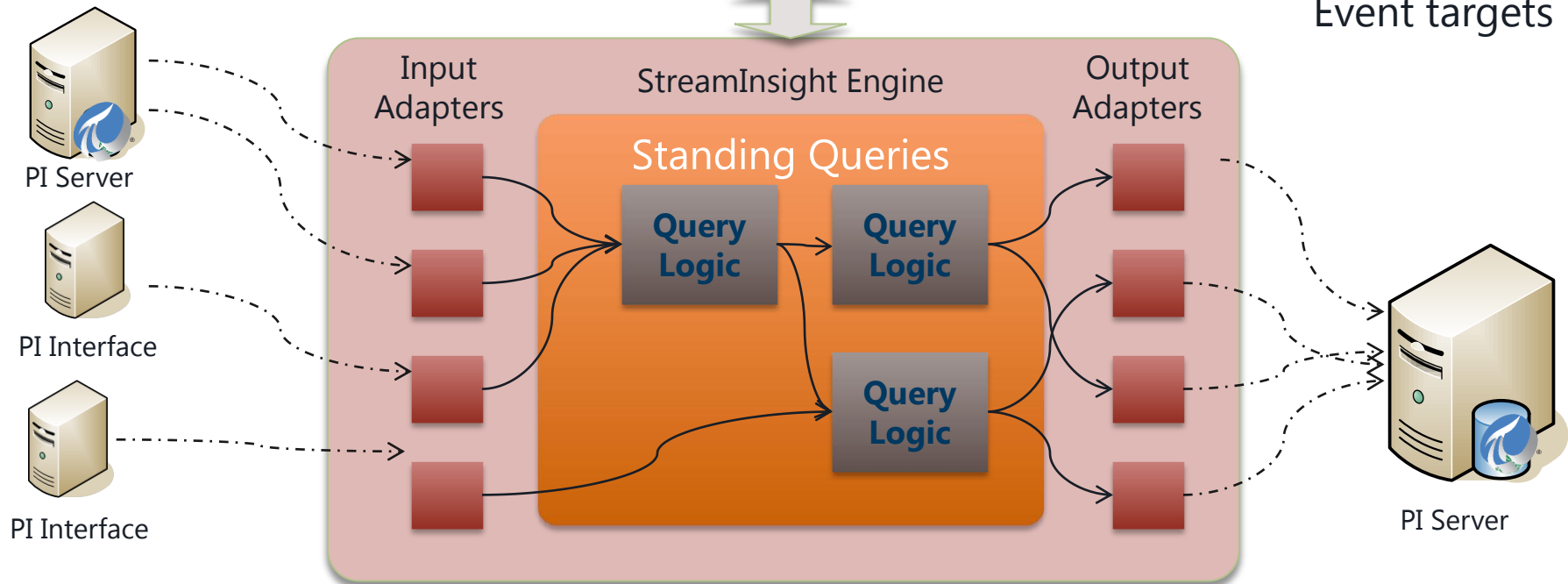


.NET
C#
LINQ

Event sources

StreamInsight Application at Runtime

Event targets



- Complex Event Processing (CEP)
- High Throughput Stream Processing Architecture
- Monitor your data from multiple sources for meaningful patterns, trends, exceptions, and opportunities.
- Analyze and correlate data incrementally while the data is in-flight

- See PI System Roadmap on OSIsoft Technical Support

<http://techsupport.osisoft.com/techsupport/NonTemplates/roadmap.aspx>



Thank you

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