



OSIsoft® VALUE NOW, VALUE OVER TIME





OSIsoft® VALUE NOW, VALUE OVER TIME



PI Client Road Map

Regional Seminar Series
Kansas City
2008



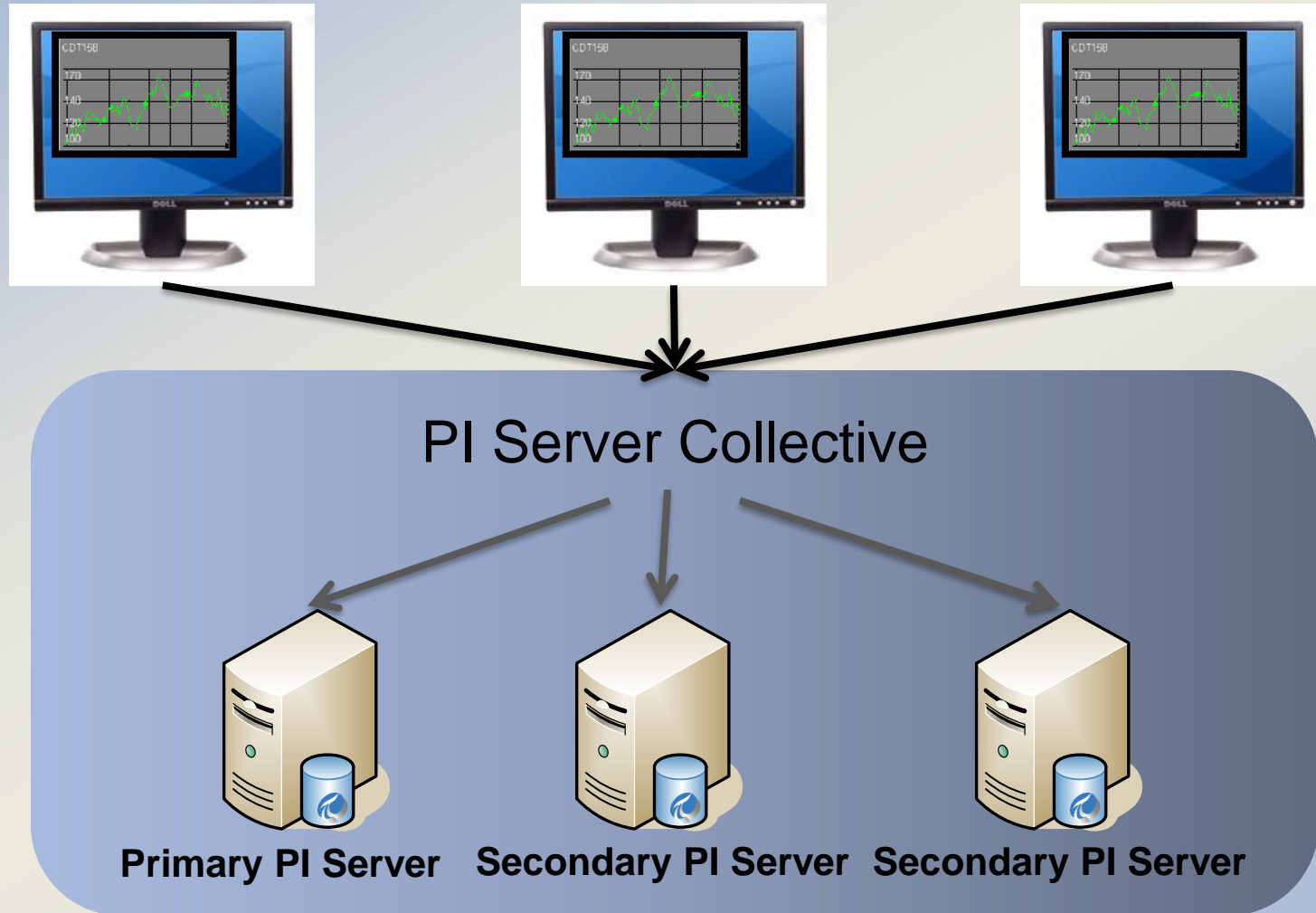
OSIsoft®

VALUE NOW, VALUE OVER TIME



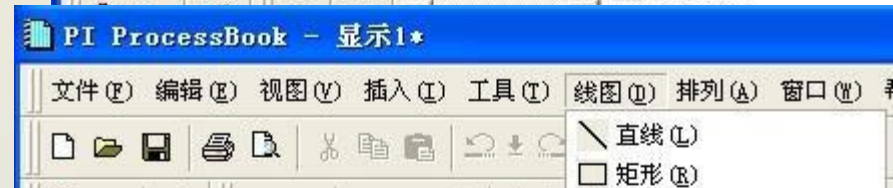
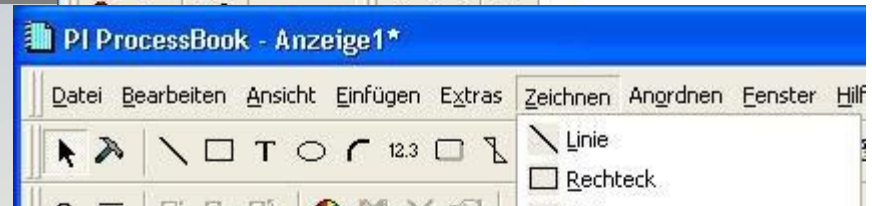
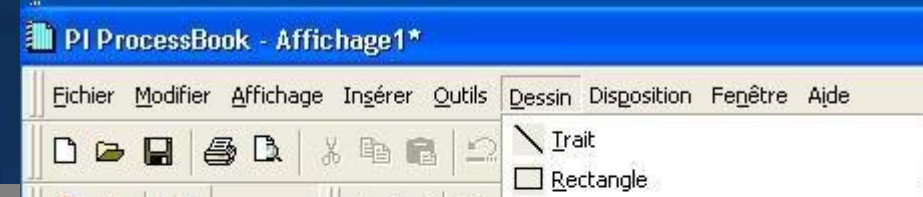
PI ProcessBook

High Availability Provided with PR1



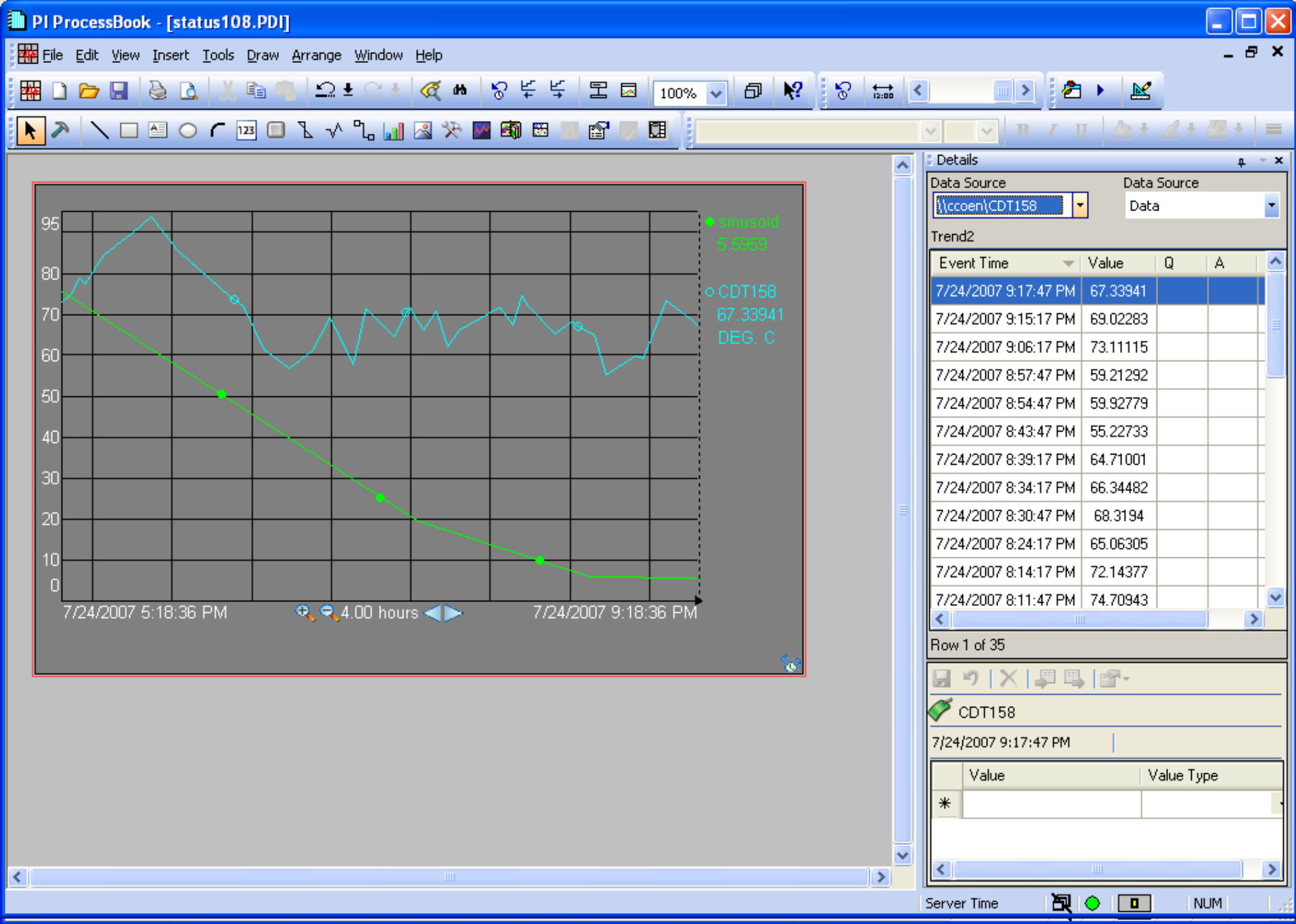
Localization

- ProcessBook and ActiveView
 - English, French, German, Spanish, Simplified Chinese, Japanese
 - Korean – in progress
- BatchView
 - Japanese



New User Interface

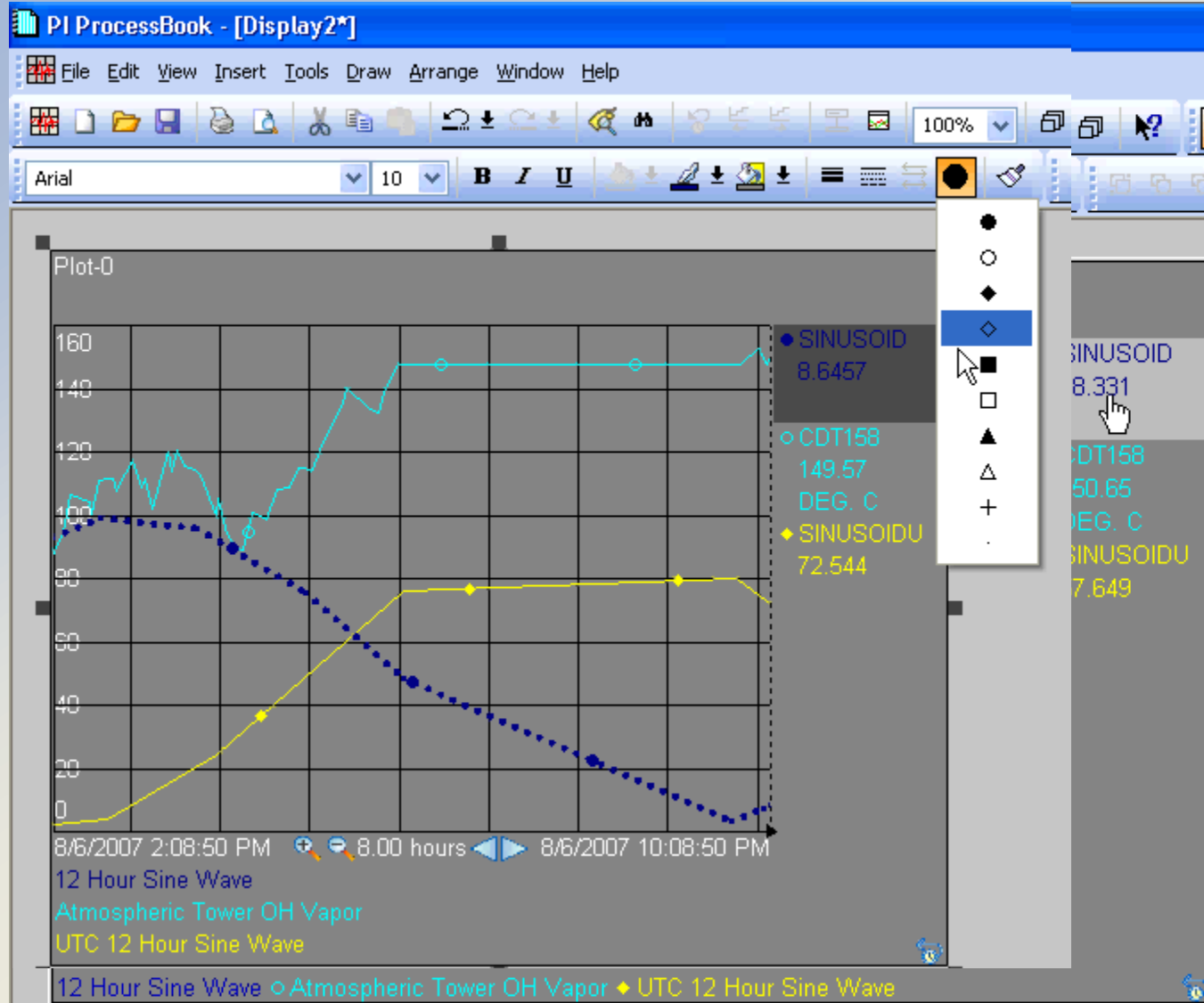
Processbook 3.1



SIG Requests Addressed

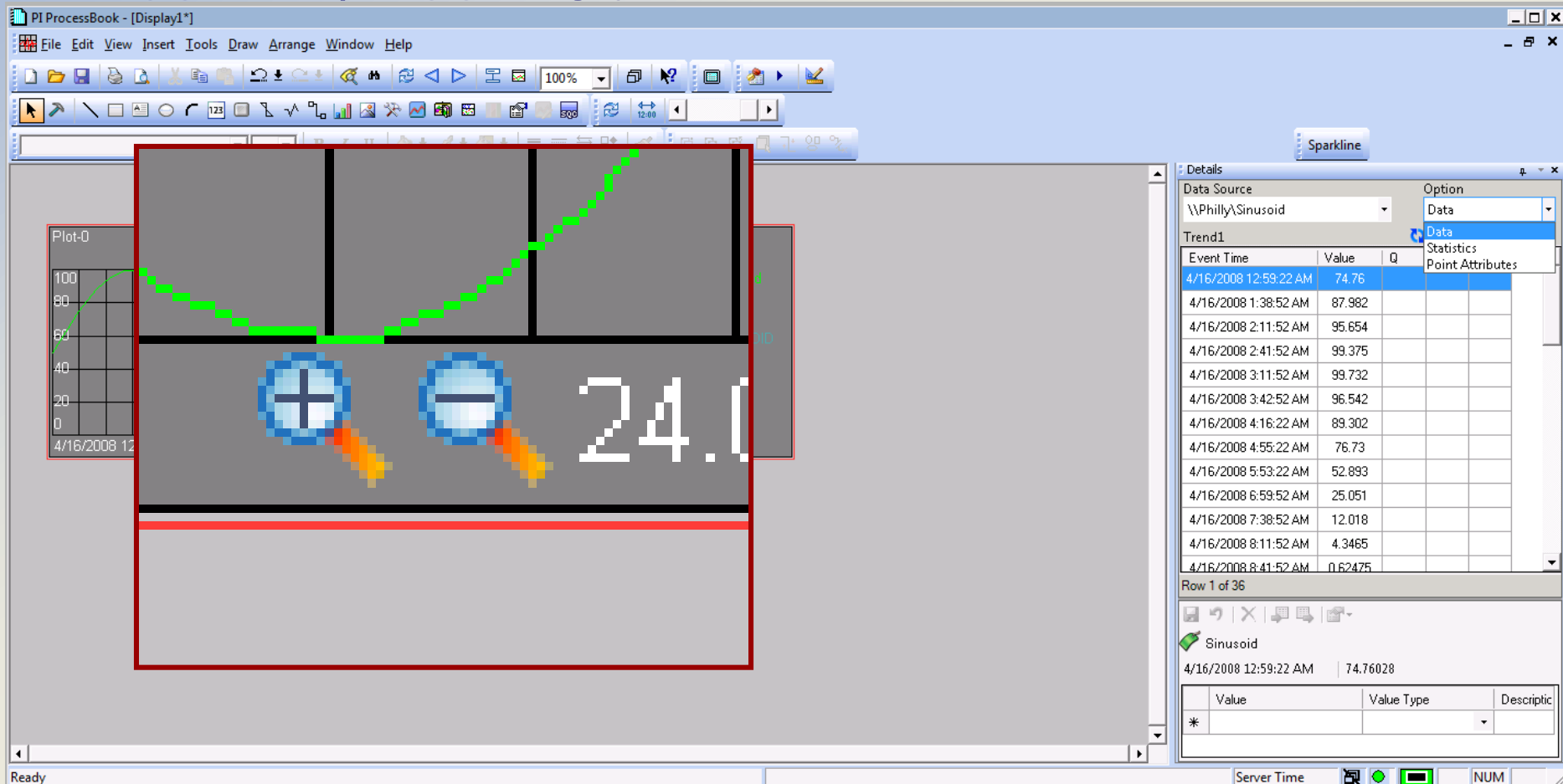
- Easy formatting
- Quick Zoom & Pan
- Details Pane
- Linear regression line
- Tooltip statistics
- Vertical trend
- Annotations

Easy Toolbar Formatting



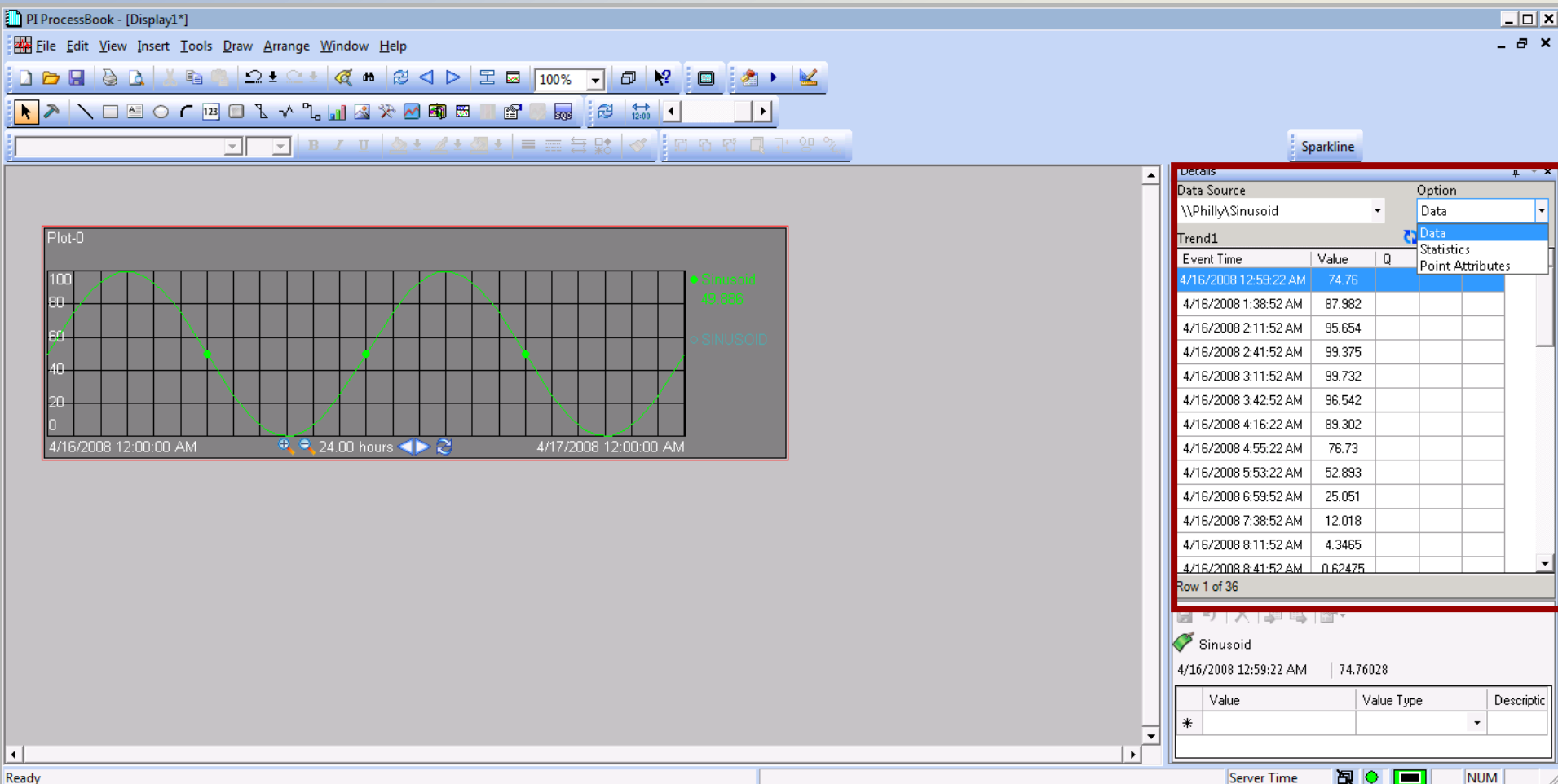
Pre-defined buttons to zoom x2 and back

- This is a new feature of Processbook 3.1
- Zoom In / Zoom Out 2x



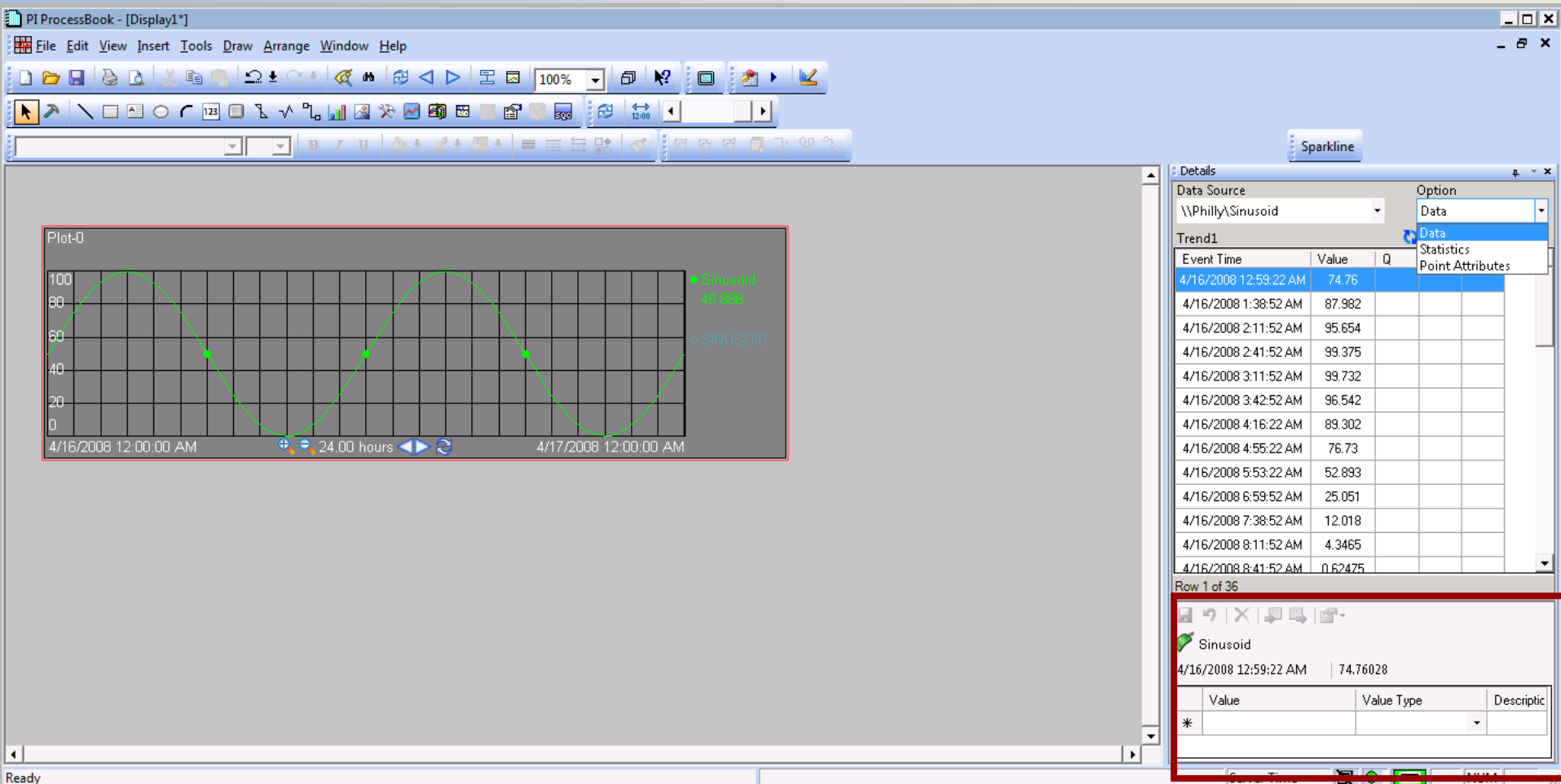
Processbook 3.1

- Trace Details in Docked Window



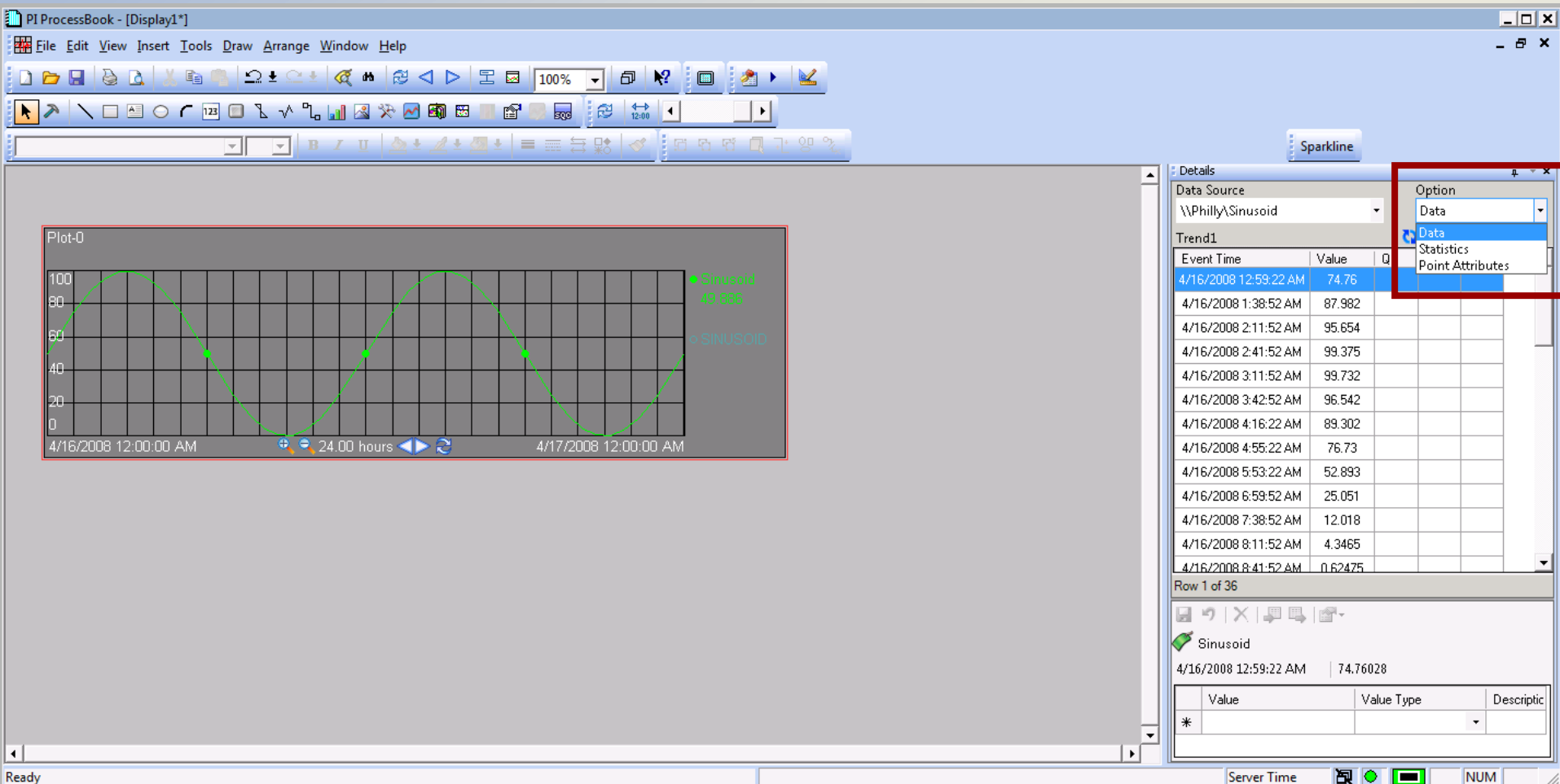
Processbook 3.1

- Annotation Entry

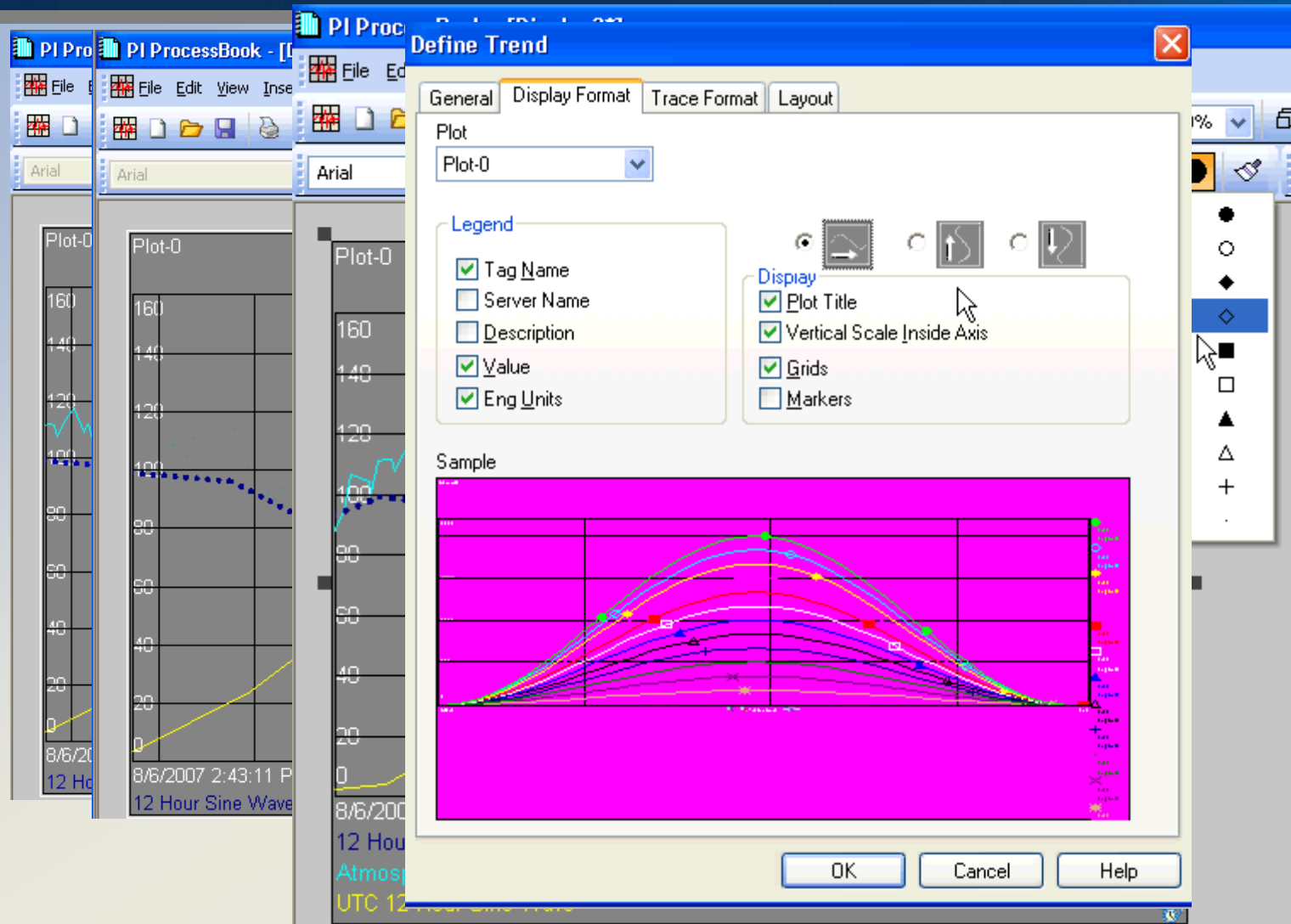


Processbook 3.1

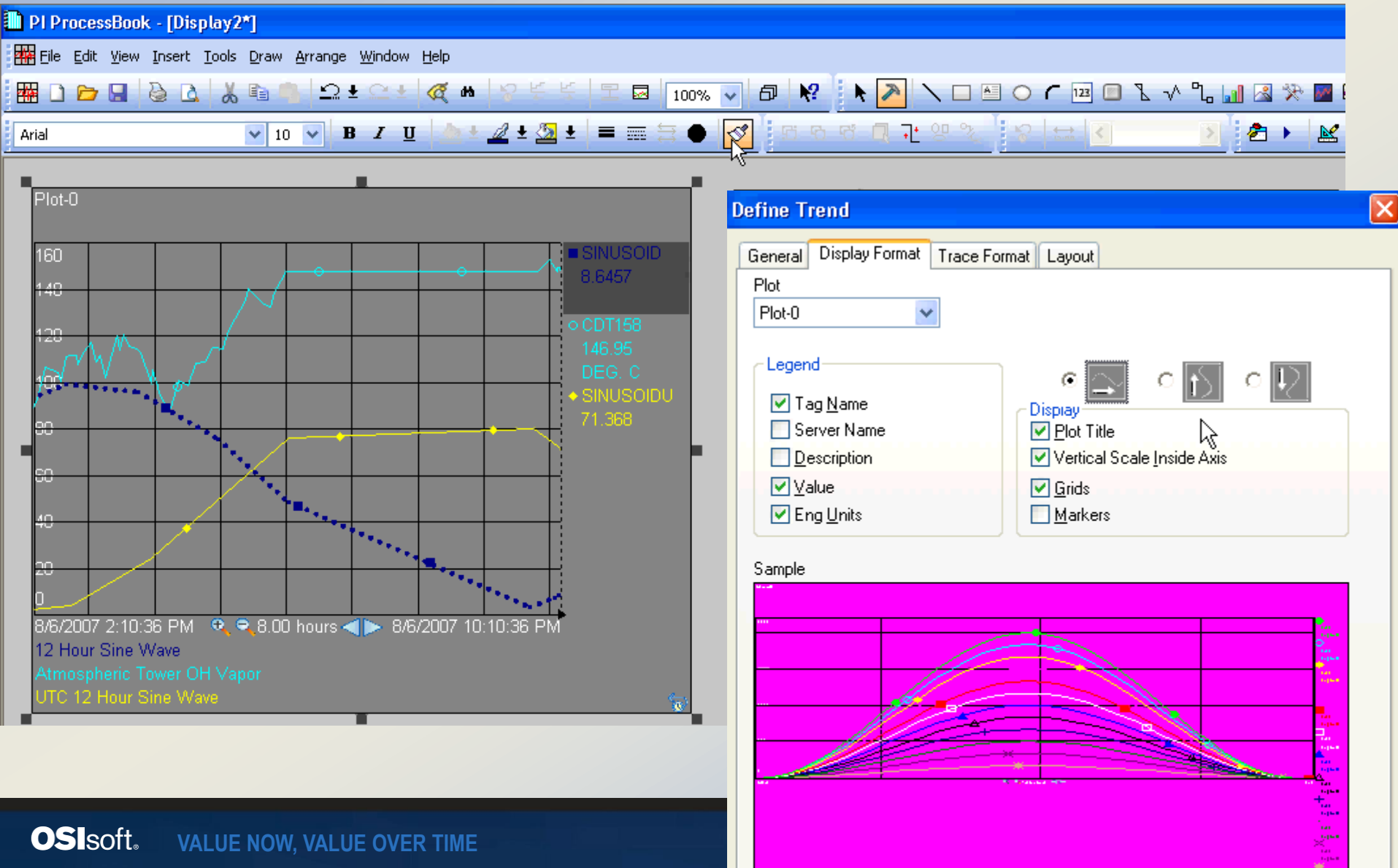
- Detail Choices



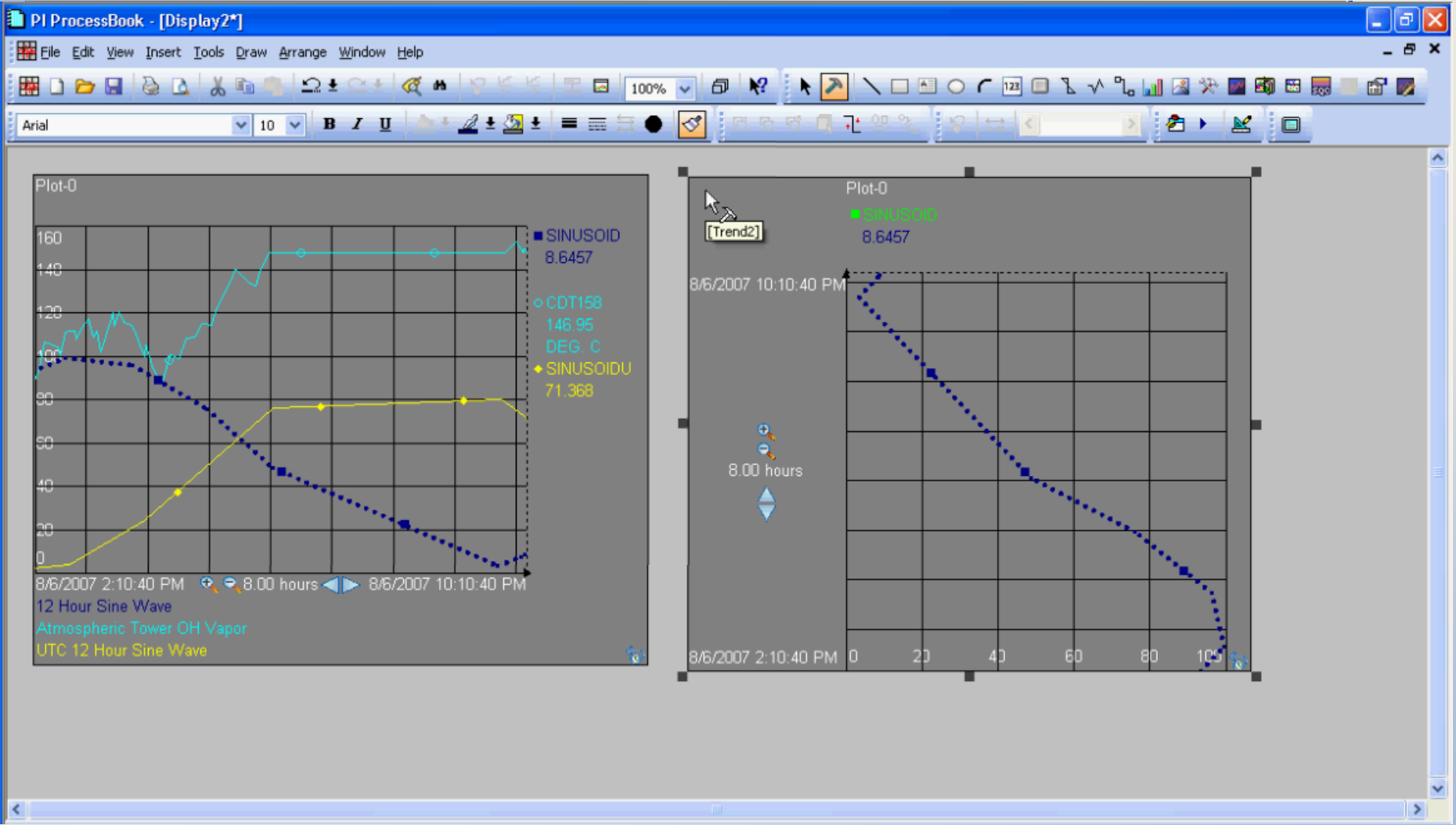
Interactively highlight / show/hide single trend in trend display



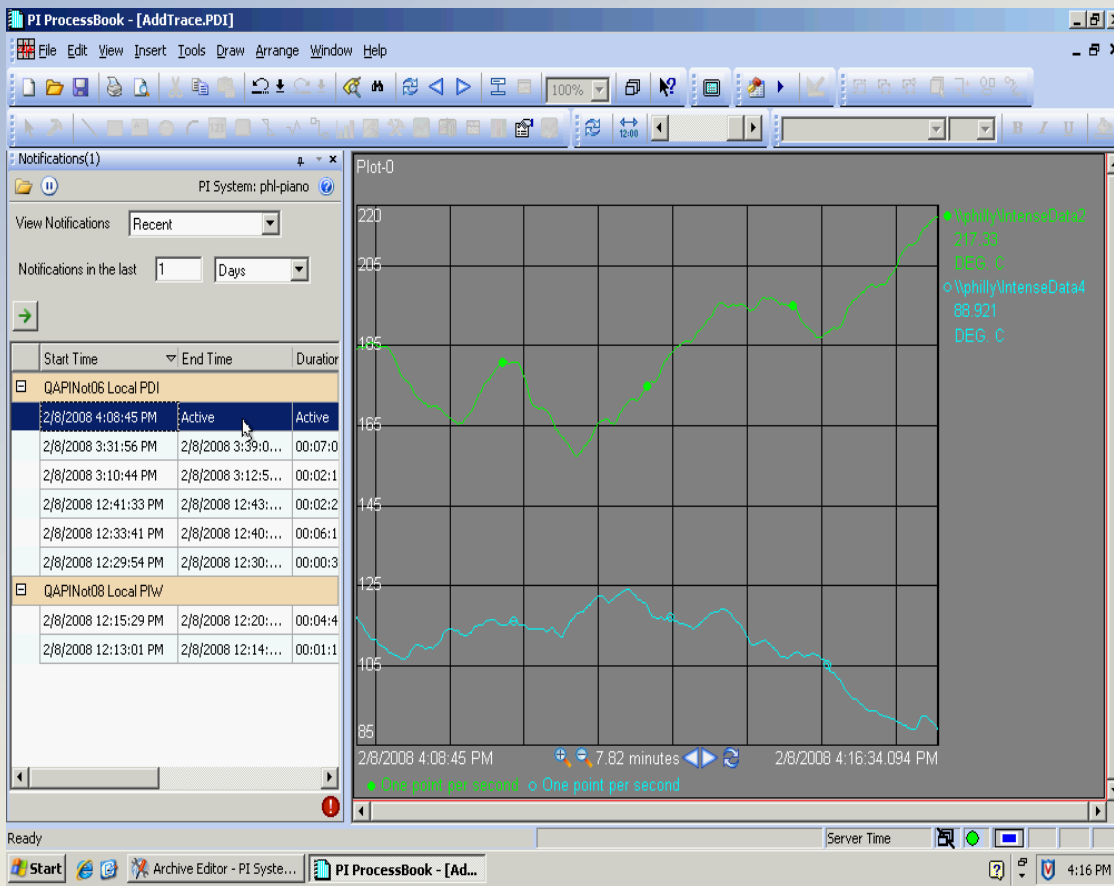
New trend types



Format Paintbrush



PI Notifications



- ProcessBook display as content
- ProcessBook display linked as content
- Instant trend
- Pass time context to display

Future

- Windows security integration
- ProcessBook 3.2 (PR2)
 - Next round of localized releases
 - AF 2.0 integration
 - More UI improvements
 - More new symbols
- ActiveView 3.2 – Docked windows support

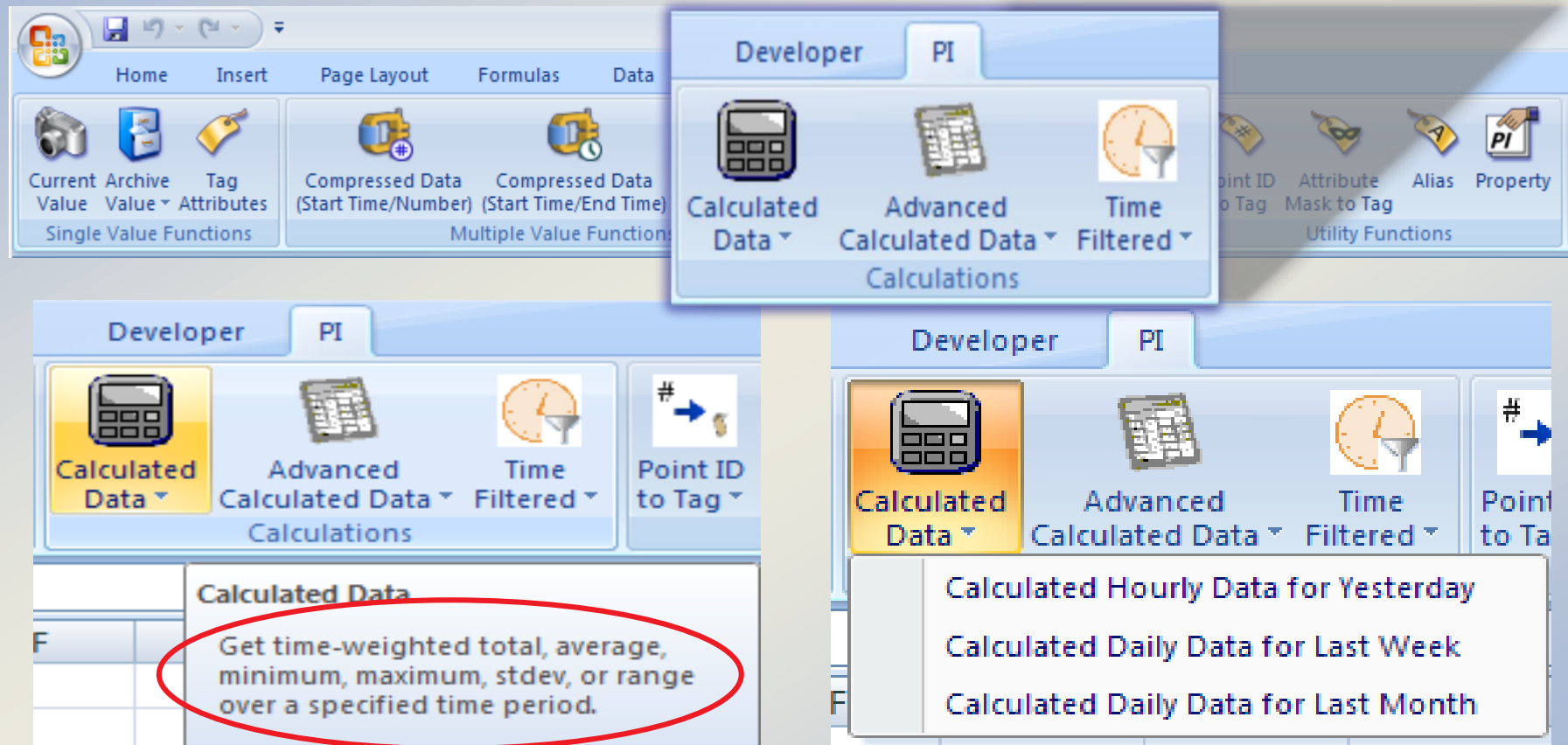
DataLink for Excel 2007

Benefits of DataLink + Excel 2007

- Provides a new DataLink user experience
- Supports the current DataLink user experience
- Allows DataLink spreadsheets on the Web
- Includes new data formatting features
- Increased limits for larger spreadsheets
 - More data on a spreadsheet with 1M rows by 16K cols
- Improved performance
 - Faster, multithreaded Excel calculation engine

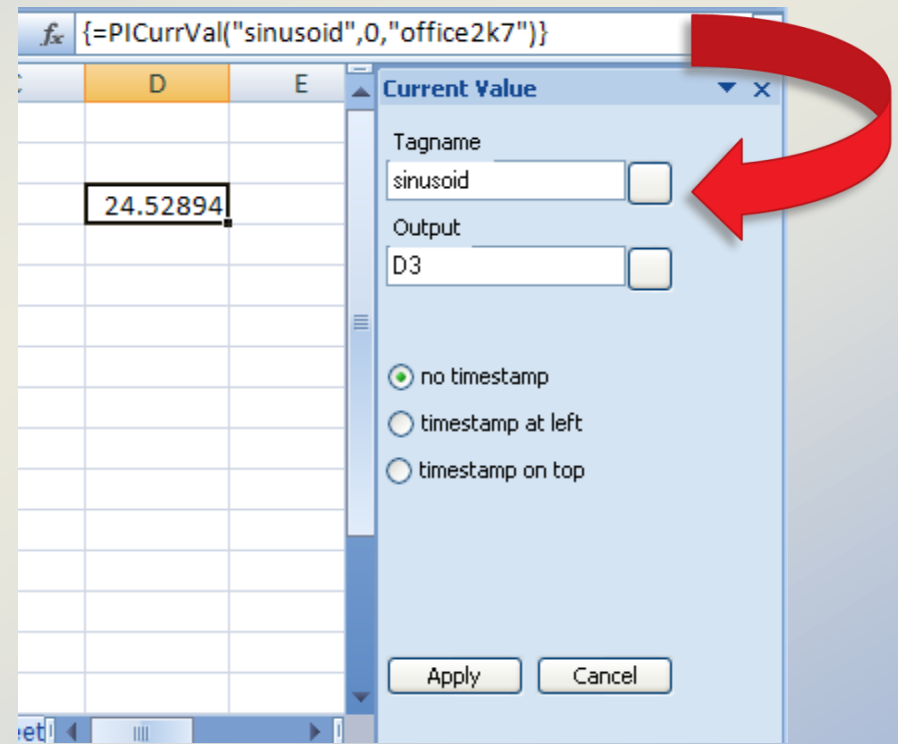
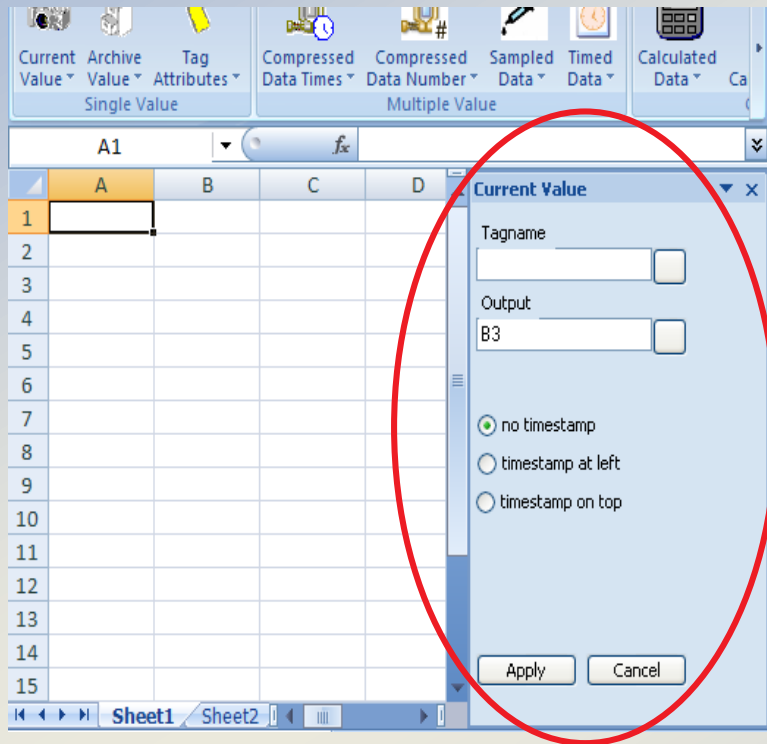
New DataLink UI in Excel 2007

- Ribbon makes it easier to find the right function



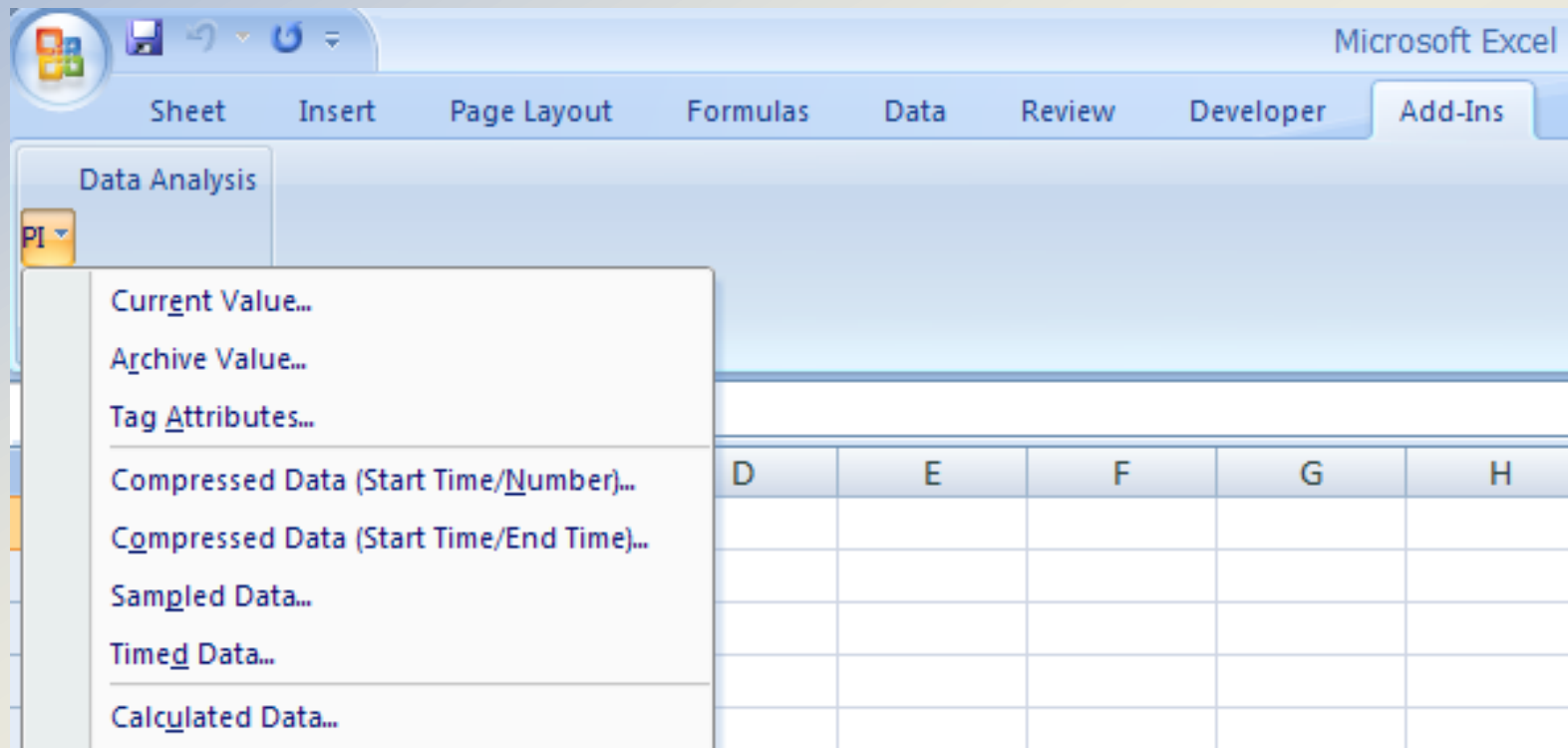
New DataLink UI in Excel 2007

- Task pane makes it easier to modify a function



Current DataLink in Excel 2007

- DataLink 3.x is available from the Add-Ins tab



DataLink – Platform Release 1

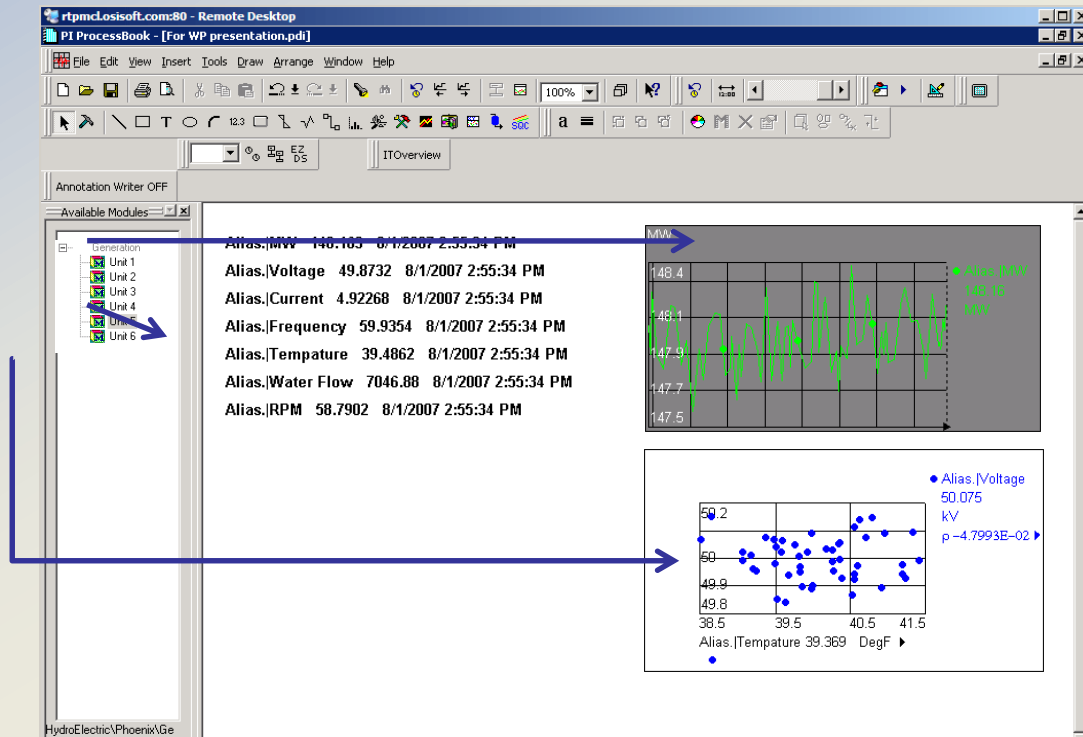
- Support for Windows Vista
- Localized in several languages
 - French
 - German
 - Japanese
 - Korean (Planned for Q4 2007)
 - Simplified Chinese
 - Spanish

DataLink – Platform Release 2

- Part 1
 - Support for Excel 2007
 - RibbonX and Custom Task Pane user interface
 - Larger spreadsheets and better performance
 - Includes PI Notification add-in
 - Search, display, and acknowledge MyPI notifications
- Part 2
 - Leverage AF 2.0 (Data Directory)

RtWebParts

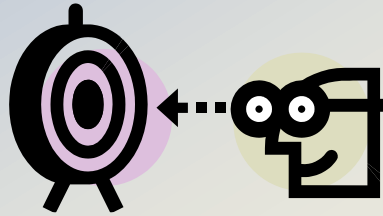
What are Web Parts?



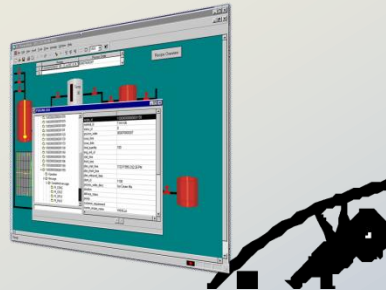
Types of RtWebParts

- Set Context

- Display Data



- Leverage Process



Setting Context

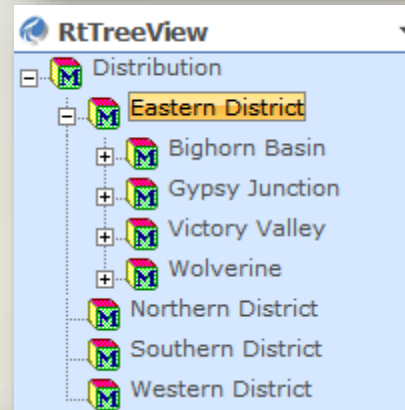
- RtTimeRange
- RtTreeView
- RtTable

RtTimeRange

Start Time
*-2h

End Time
*

Apply



RtTable

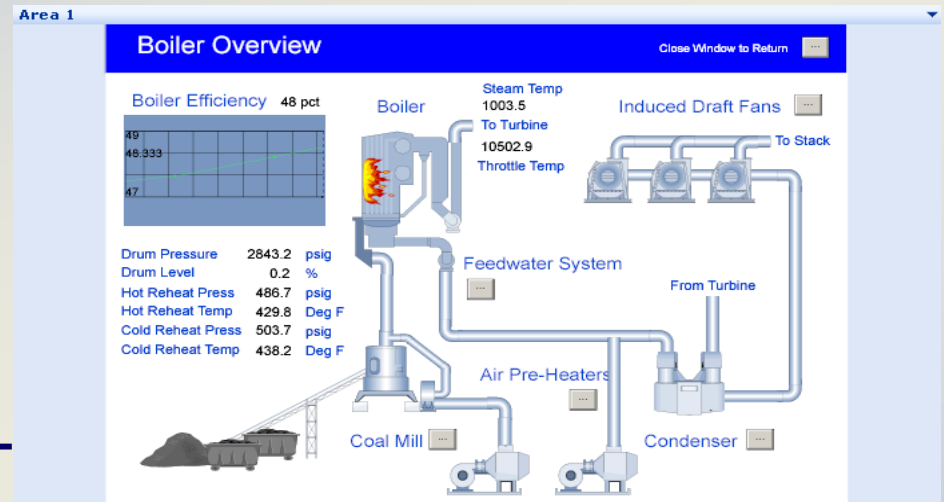
PI Point	Time	Current Value	Alarm Time	Alarm Limit
\\rtpmi\CD:F144	8/1/2007 3:02:34 PM	9419.2	8/1/2007 2:26:18 PM	9300
\\rtpmi\CD:F162	8/1/2007 3:08:34 PM	2943.3	8/1/2007 12:09:31 PM	2800
\\rtpmi\CD:F163	8/1/2007 3:07:04 PM	6999	8/1/2007 1:13:45 PM	6800
\\rtpmi\CD:F165	8/1/2007 3:08:34 PM	5216.9	8/1/2007 3:08:14 PM	5100
\\rtpmi\CD:F169	8/1/2007 3:03:04 PM	4999.9	8/1/2007 1:00:39 PM	4800
\\rtpmi\CD:F170	8/1/2007 3:08:04 PM	5063.3		
\\rtpmi\CD:F171	8/1/2007 3:06:34 PM	2635.5		
\\rtpmi\CD:F172	8/1/2007 3:08:04 PM	3065.8		

Displaying Data

- RtTrend
- RtGauge
- RtXYPlot
- RtMessenger
- RtValues
- RtTimeSeries
- RtTable

Leveraging ProcessBook

- RtGraphic
 - SVG-Based
 - Lightweight
- RtActiveView
 - Supports PDIs
 - Requires ActiveView L

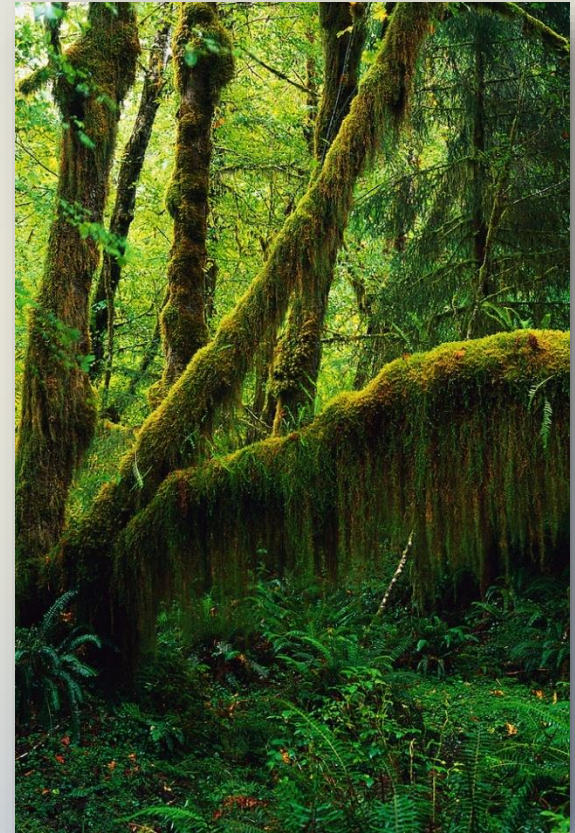


What's new in RtWebParts v1.2?

- Released January 10, 2007
 - **High Availability**
 - Expensive Query Handling
 - Complex Web Service Support
 - RtGraphic Support for Multistate Symbols
 - Japanese Language Pack

What's new in RtWebParts v2.0?

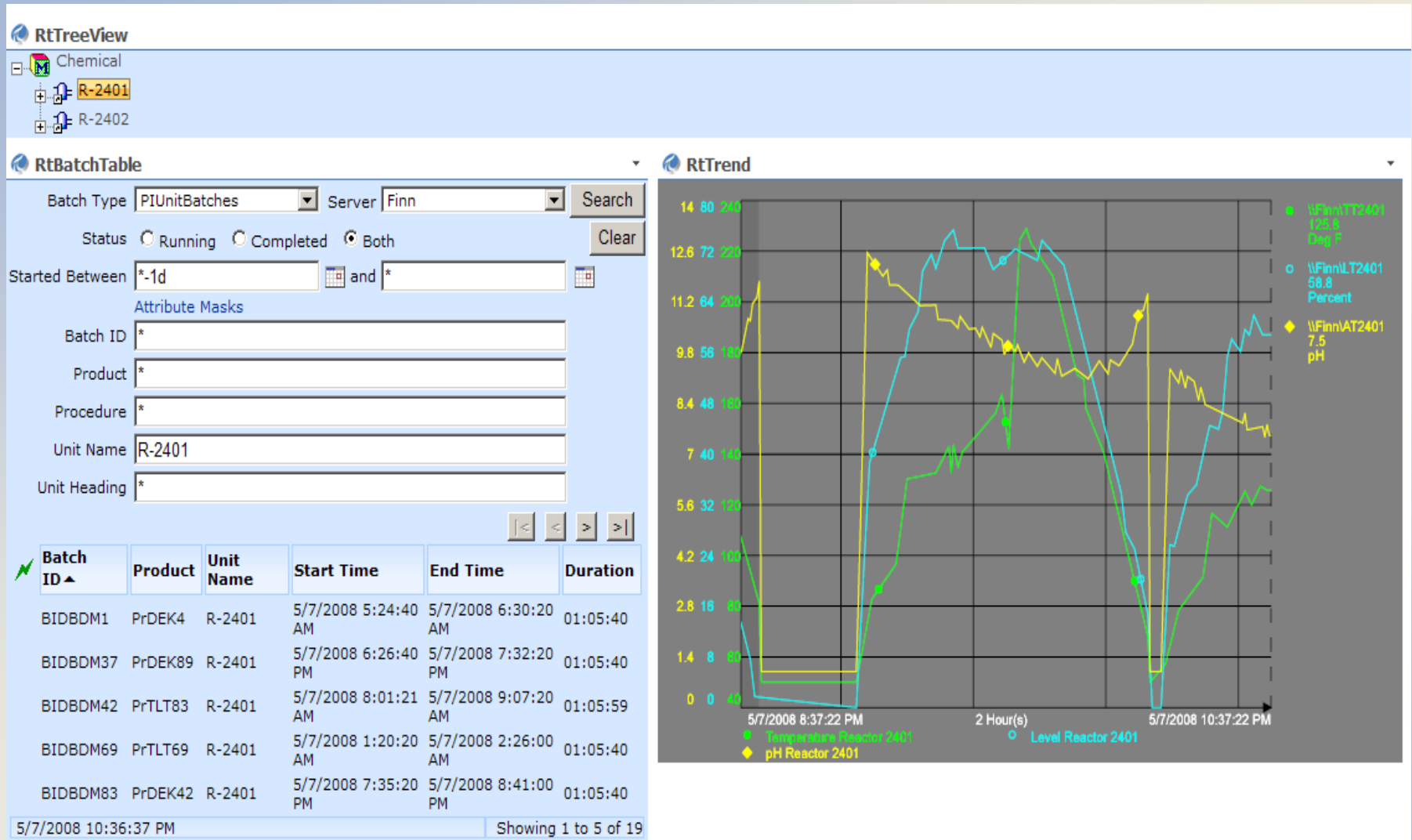
- Released June 21, 2007
- MOSS!
 - Workflow
 - Content Management
 - Excel Web Access Web Part
- New Ad hoc Trend (URL-Configurable)



What's new in RtWebParts v2.1?

- Released April 8, 2008
- RtBatchTable Web Part
 - Search
 - Can Receive Context
 - Provides Context
- RtTable Advanced Configuration
 - Extended Conditional Formatting
- Individual Web Part Printing

Batch Table Web Part

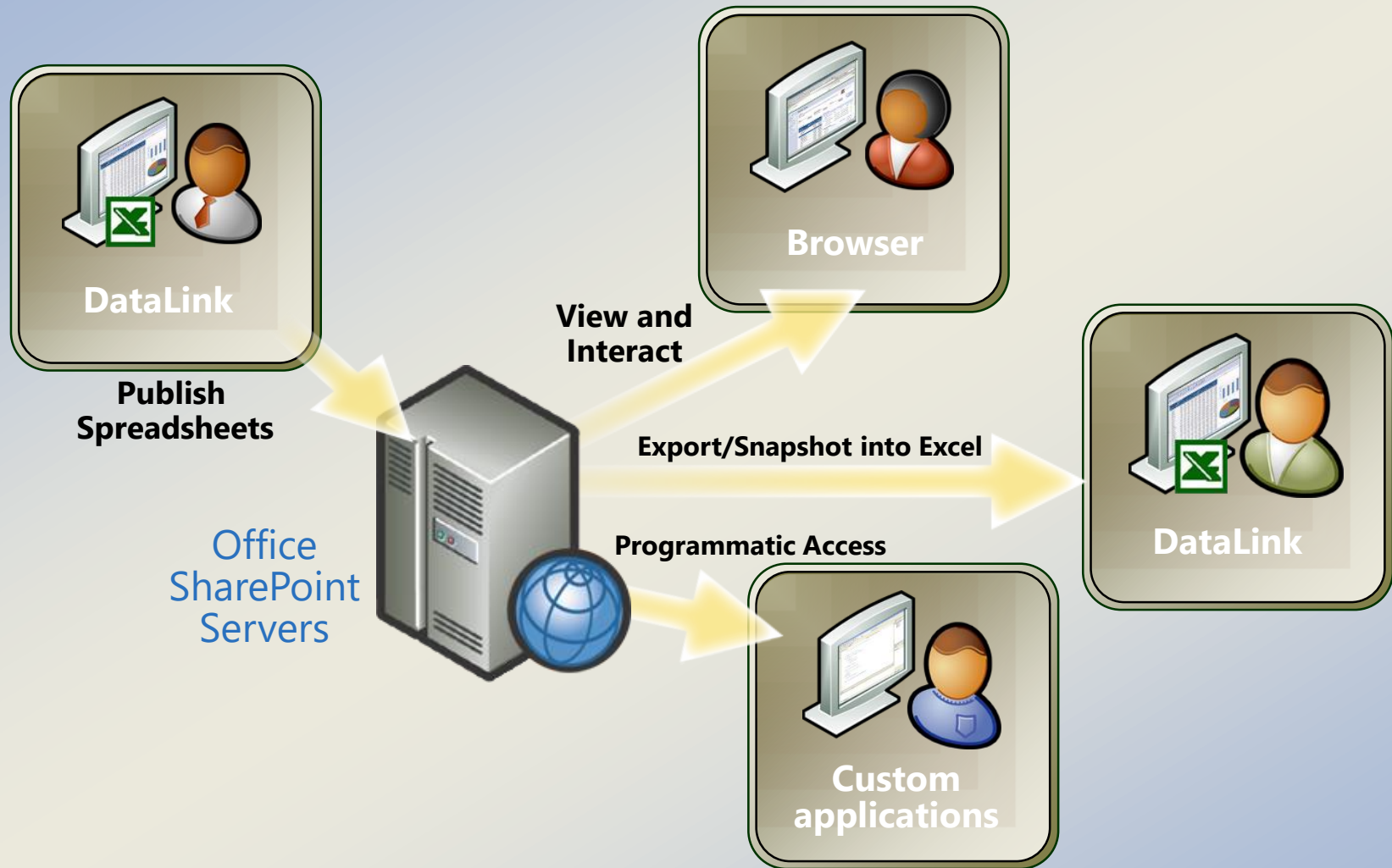


What's next?

- RtWebParts v2.2
 - AF 2.0
 - PI Notifications
 - Silverlight
 - Language Packs

DataLink for Excel Services

Workflow with Excel Services



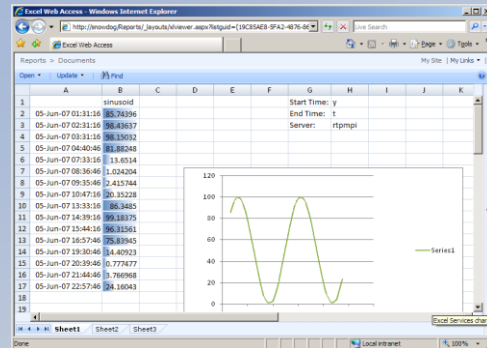
Value of DLES + Excel Services

- Shows “one version of the truth”
 - Simplify collaboration around spreadsheets
- Provides enterprise content management
 - Make spreadsheets accessible and manageable
- Enables business intelligence in real-time
 - Improve business insight into PI data on demand

DLES is DataLink on the Web

- Only requirement is a Web browser
 - No DataLink needed on Client PC
 - Excel 2007 is not required anywhere
- Enter parameters and recalculate PI data
 - Allow dynamic spreadsheets, but keep them secure
- Create dashboards with RtWebParts
 - Display graphical, interactive pages using context
 - DLES is available with an active RtWebParts license

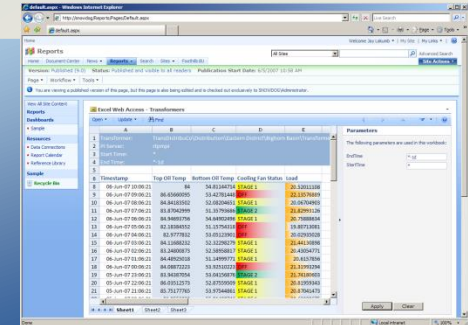
DLES – Architecture



Web Front End

Excel Web Access

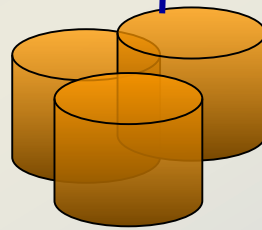
Excel Web Access



Application Server

DataLink for Excel Services

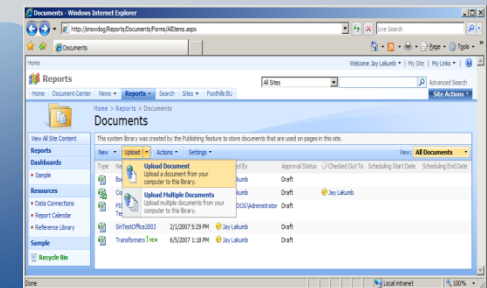
Excel Calculation Services



PI Server

SharePoint Content Database

DataLink Spreadsheets

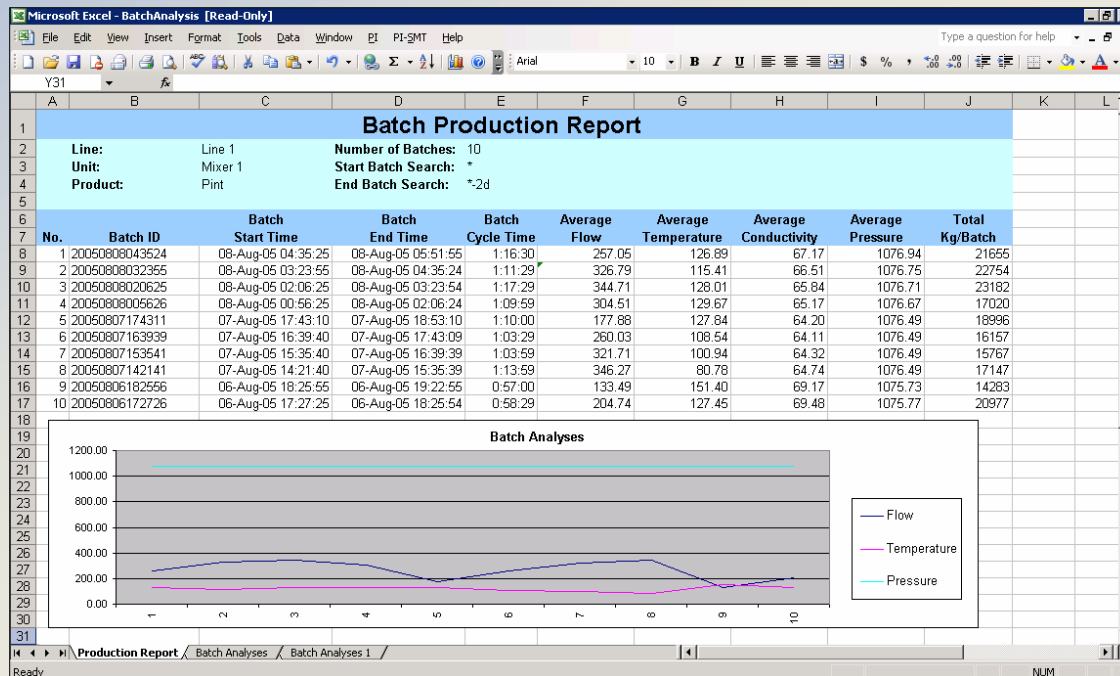


DLES – System Requirements

- Server
 - Windows Server 2003
 - Office SharePoint Server 2007
 - Enterprise edition only
 - SQL Server
 - 2005, Express, or 2000
 - PI Server 3.3 or higher
- Excel Client
 - Excel 2007, or
Excel 2003/XP/2000 with free
Office 2007 Compatibility Pack
 - DataLink Add-In, or
BatchView Add-In
- Web Client
 - Internet Explorer 6 or 7, or
other standard Web browser
 - [Optional] Excel 2007, or
Excel 2003/XP/2000 with free
Office 2007 Compatibility Pack

DLES – Initial Release

- Support for DataLink functions
- Support for BatchView functions



DLES – Platform Release 2

- Delivery 1
 - Support for PI Notifications

Book1 - Microsoft Excel

Home Insert Page Layout Formulas Data Review View Add-Ins

Current Value Tag Compressed Data Compressed Data Sampled Data Calculated Data Advanced Time Point ID Attribute Alias Property Tag Module Con

Single Value Functions Multiple Value Functions Calculation Functions Calculation Functions Utility Functions Tool

A1 [=PINotificationSearch(0, "LITWAREDEMO", "*", "t", "DU,SA,PR,AK,AC,CN,CM,AE", 23)]

1	2	A	B	C	D	E	F	G	H	I	J
1	2	Notification Count:	4								
2		Duration	State	Priority	Acknowledged	Action	Contact	Contact Method	Acknowledge		
3		00:00:05	OutsideControl	Normal	No						
4						Sent	Administrator_Email1	Email			
5						Sent	Jay Lakumb	Email	Acknowledge		
6		00:02:30	OutsideControl	Normal	No						
7						Sent	Administrator_Email1	Email			
8						Sent	Jay Lakumb	Email			
9		00:02:42	OutsideControl								
10											
11											
12		162:01:25	OutsideControl								
13											
14											
15											
16											
17											
18											
19											
20											
21											
22											
23											
24											
25											
26											

Notification Search

Search Settings

PI System: LITWAREDEMO

View Notifications: Timerange Start Time: End Time:

Output Cell: Sheet1!\$A\$1

Start Time	End Time	Duration	State	Priority	Acknowledged	Action
7/31/2007 6:40	Active	Active	OutsideControl	Normal	No	
7/31/2007 6:40	7/31/2007 6:41	00:01:20	OutsideControl	Low	No	Sen
7/31/2007 6:40	7/31/2007 6:41	00:01:20	OutsideControl	Normal	No	Sen
7/31/2007 6:40	7/31/2007 6:41	00:01:20	OutsideControl	Normal	No	Sen
7/31/2007 6:40	7/31/2007 6:41	00:01:20	OutsideControl	Normal	No	Sen
7/31/2007 6:40	7/31/2007 6:41	00:01:20	OutsideControl	Normal	No	Sen
7/31/2007 6:40	7/31/2007 6:41	00:01:20	OutsideControl	Normal	No	Sen
7/31/2007 6:40	7/31/2007 6:41	00:01:20	OutsideControl	Normal	No	Sen

• Deli

And now

- A word from our partner

Visual KPI 3.0 Architecture

Data Sources



Any Historian

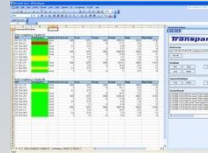
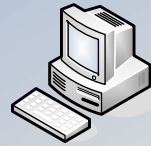
- Real-time Data
- Meta Data
- Equations

Any RDB

- Existing Data
- External KPIs

Any LOB App

- Link to financials
- Planned values
- SAP, MRO, etc.



Visual KPI Excel Editor

- Excel 2003 or Excel 2007 with VSTO
- Configuration only, no run-time association or storage

Publish Scorecards via Web Services

Web Services

Web Services

XML over HTTP

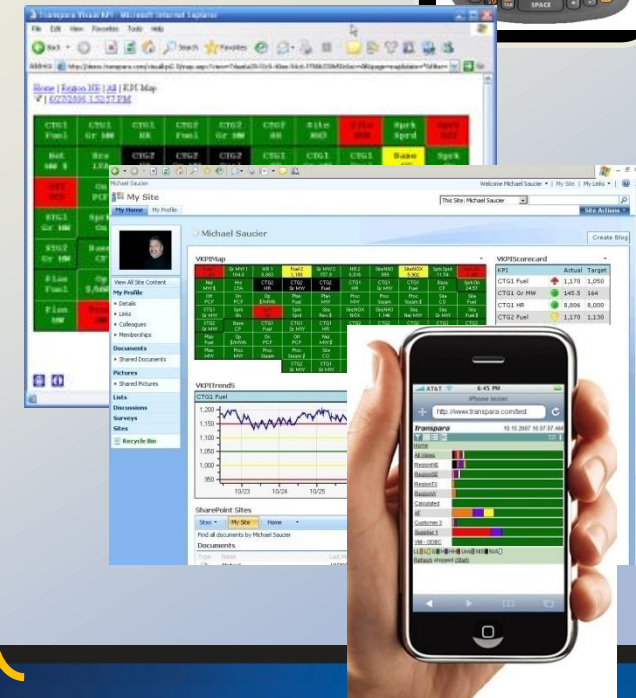


Visual KPI Server

- Composite KPI Engine
- All meta data in SQL 2005
- Windows Server 2003
- ASP 2.0 Web Site

- Web Services Config

Any Mobile or Desktop Client



Visual KPI



Web-based Operations Intelligence Software

- Leverage data from existing applications
 - Real-time & transactional systems
 - Access anywhere
 - Use any desktop, laptop, mobile device (250+)
 - Composite KPIs and scorecards with no additional programming
-
- Mobilizes “one version of the truth”
 - Delivers information in context
 - On-demand or by notification
 - Speeds response to critical events
 - Fast deployment and value



Value Generated at Western Power

Over \$10 million/year

- KPI Categories Implemented
 - System Demand Management
 - Mobile Workforce Enablement
 - Customer Reliability Tracking
- Roles Affected
 - Executives: CAIDI, SAIDI, SAIFI
 - Watch Supervisors: # cust off supply, # active alerts
 - Maintenance Managers: top 10 longest outages
 - Protection Engineers: 40 worst feeders
 - Asset Managers