



LivePoint ® : Rich Analytics and Visualization for PI System ® Time-Series, Asset and Event Data

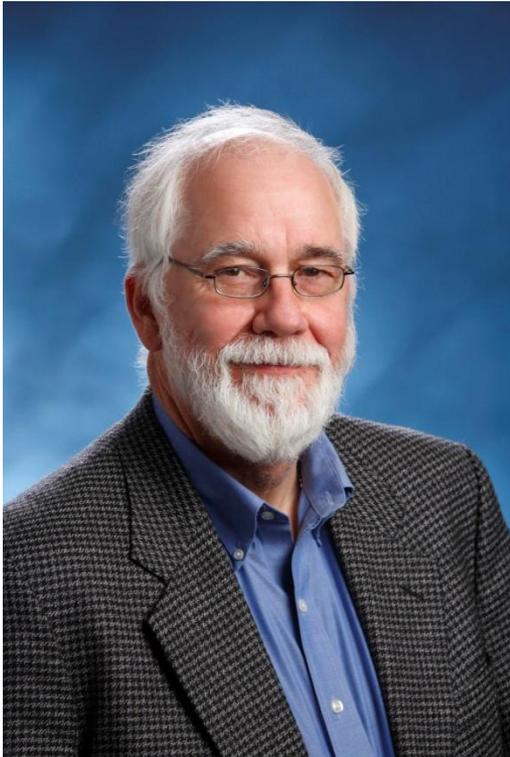
Presented by Kevin Crean
Janssen Supply Chain



Agenda

- Review of Agenda
- Webinar Series and Partner Solution Showcase
- Introduction - Janssen
- Introduction – TQS / Mirabo
- Janssen – The PI System Solution and LivePoint Utilisation
- Additional LivePoint Features
- Summary & Q&A
- Wrap-up

Mission



“Our mission is to maximize the Value our customers get from our product and services”

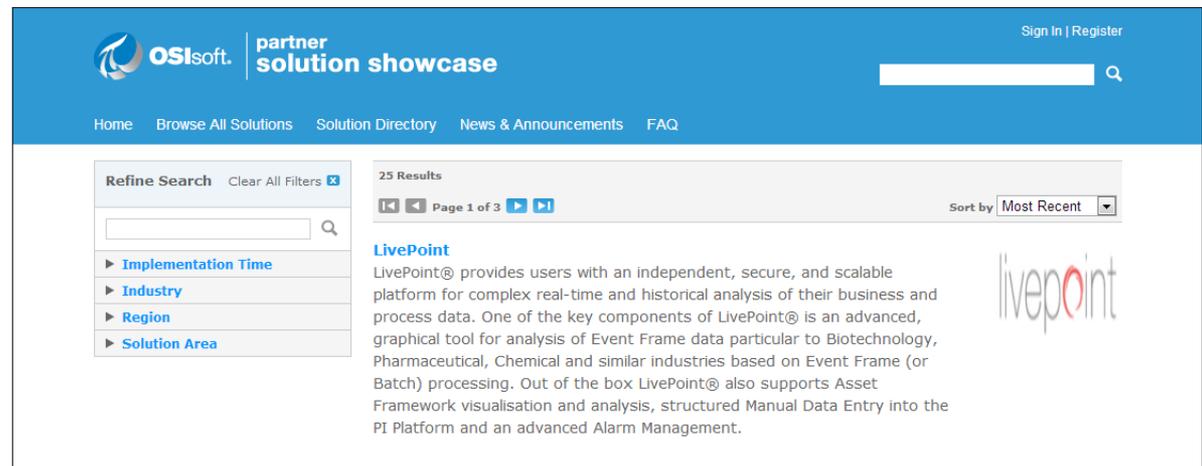
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The screenshot shows the OSIsoft Partner Solution Showcase website. The header includes the OSIsoft logo and "partner solution showcase" text, along with "Sign In | Register" and a search bar. The navigation menu contains "Home", "Browse All Solutions", "Solution Directory", "News & Announcements", and "FAQ". The main content area displays search results for "LivePoint". On the left, there is a "Refine Search" section with a search input and filters for "Implementation Time", "Industry", "Region", and "Solution Area". The search results show "25 Results" and "Page 1 of 3". The "LivePoint" result includes a description: "LivePoint® provides users with an independent, secure, and scalable platform for complex real-time and historical analysis of their business and process data. One of the key components of LivePoint® is an advanced, graphical tool for analysis of Event Frame data particular to Biotechnology, Pharmaceutical, Chemical and similar industries based on Event Frame (or Batch) processing. Out of the box LivePoint® also supports Asset Framework visualisation and analysis, structured Manual Data Entry into the PI Platform and an advanced Alarm Management." The LivePoint logo is also visible on the right side of the result.

Presenters

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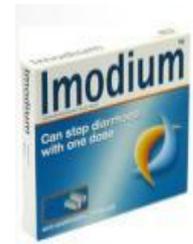
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Introduction – Janssen Pharmaceutical Products

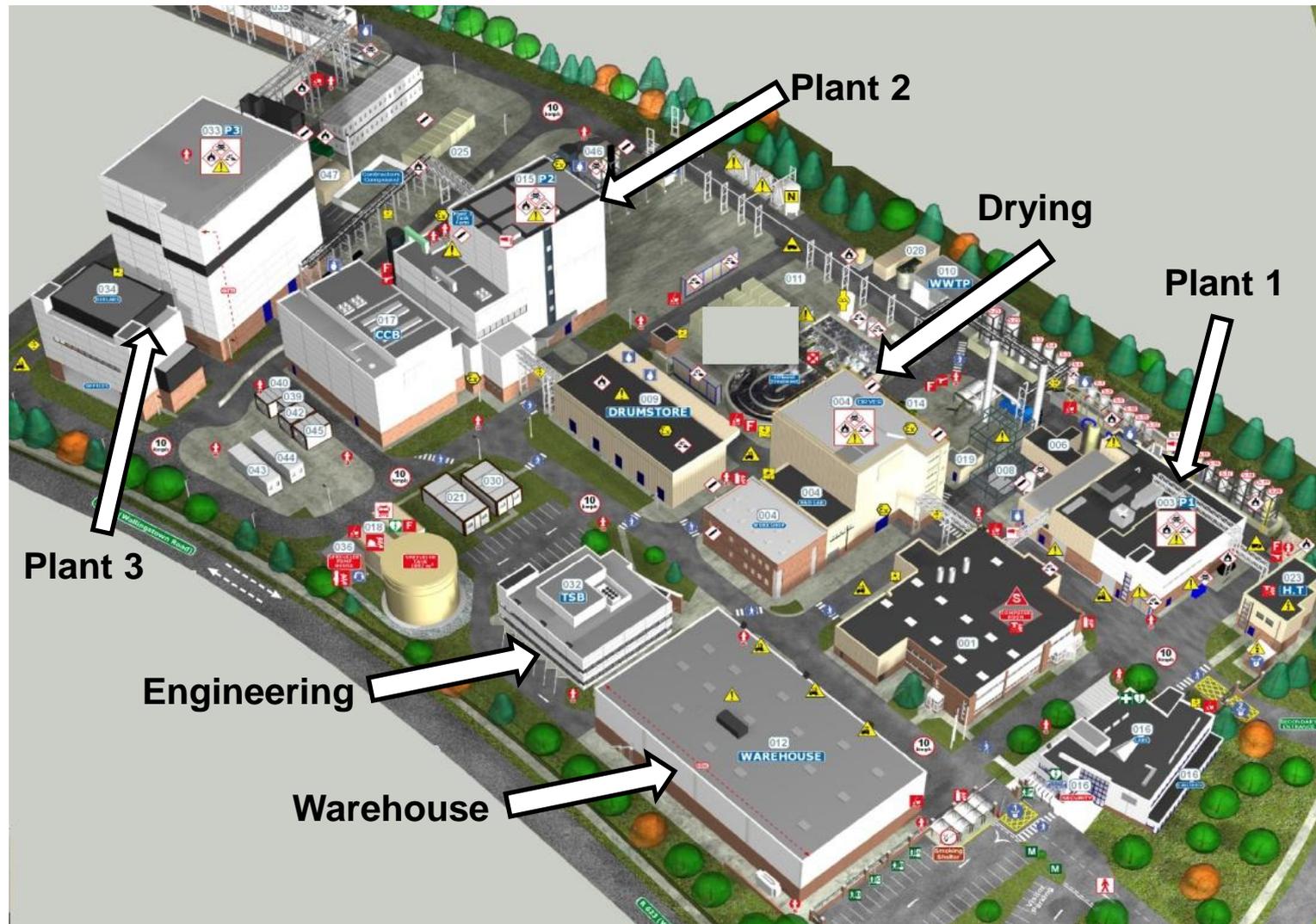


- JNJ 3 key business sectors:
 - Consumer
 - Medical Devices & Diagnostics
 - **Prescription Products**
- Janssen Supply Chain: API
 - Chemicals – 6 sites
 - Biologics – 5 sites
- Also Fill Finish, Liquids and Creams



Johnson & Johnson

Janssen Pharmaceutical – Cork Sites



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TQS Integration | Mirabo Systems

- International team of Enterprise Data Management Professionals;
- Providing software consulting and application development;
- We work OSIsoft to provide enterprise solutions.

TQS have worldwide distribution rights for the LivePoint product. TQS also have a direct involvement in Mirabo Systems and help shape the LivePoint solution developments.



- Provide independent, secure, scalable platforms;
- Support complex real-time and historical data analysis;
- True thin client allowing advanced visualization and analysis of the PI System Data.

One of the key components of LivePoint is a graphical tool for analysis of Event Frame (batch) data particular to Biotechnology, Pharmaceutical, Chemical and similar industries.



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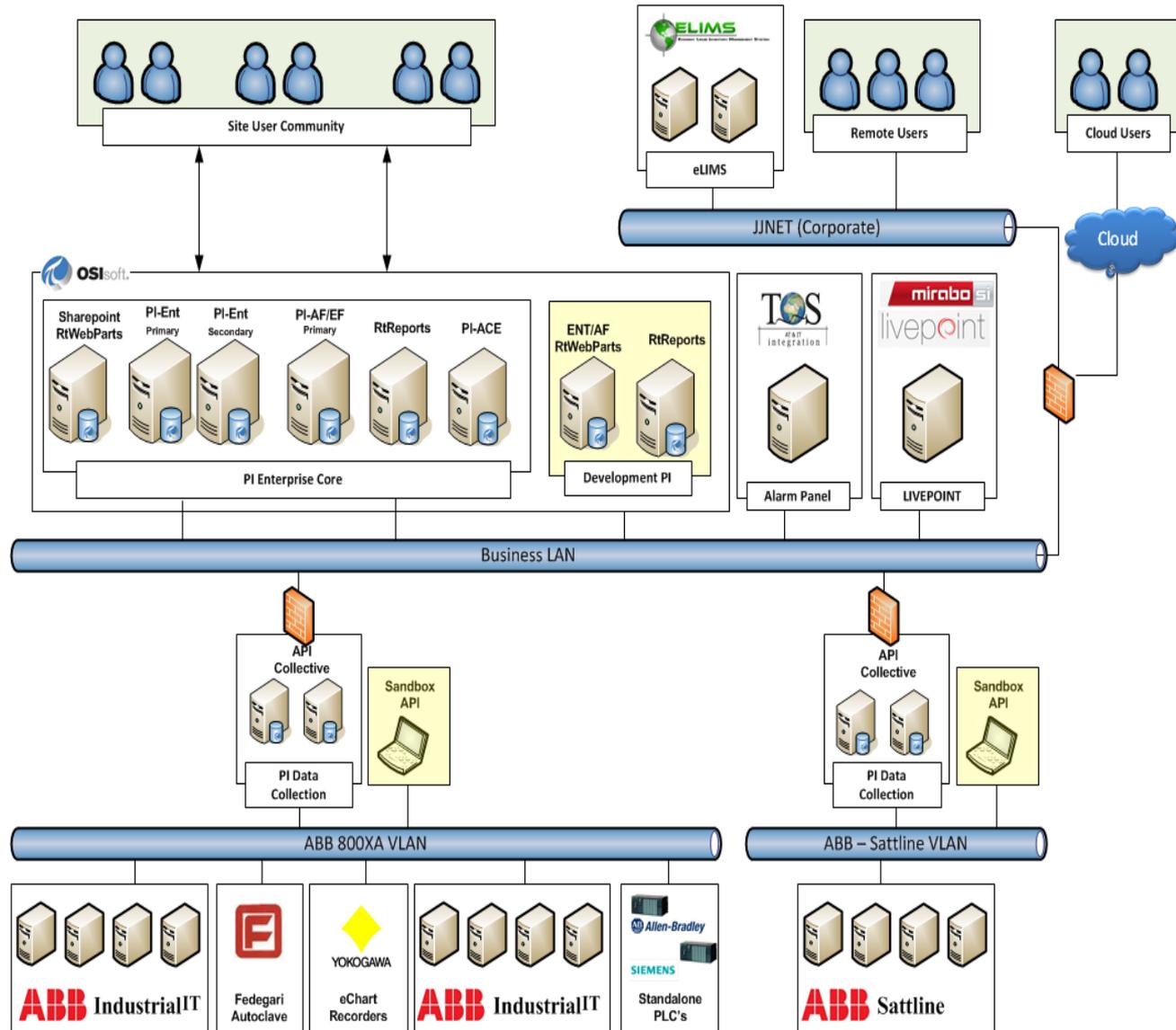
Janssen Pharma (JP) - PI System Architecture

Standard Architecture

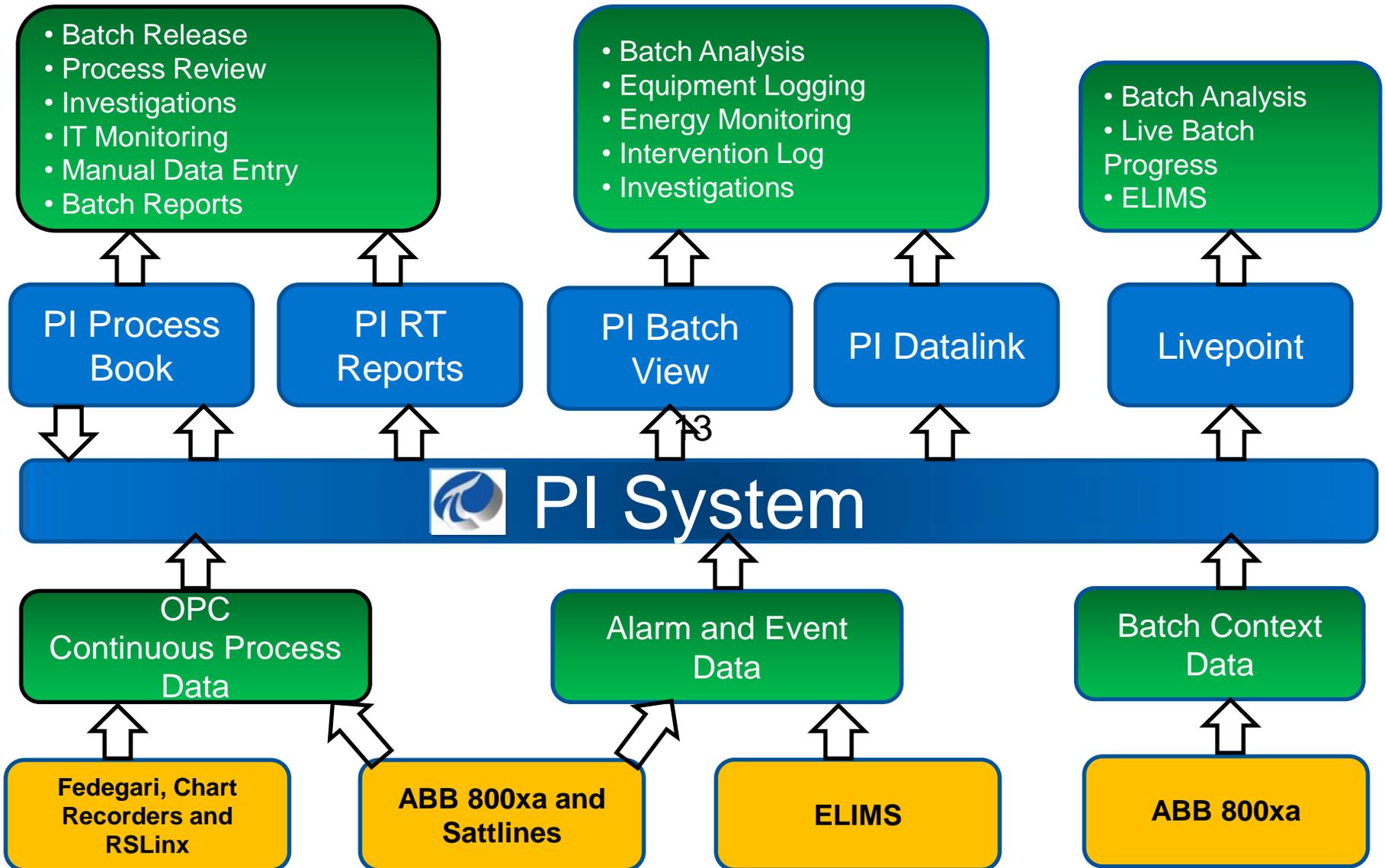
- PI Collective
- PI AF
- PI RtReports
- API Nodes

Multiple Sources

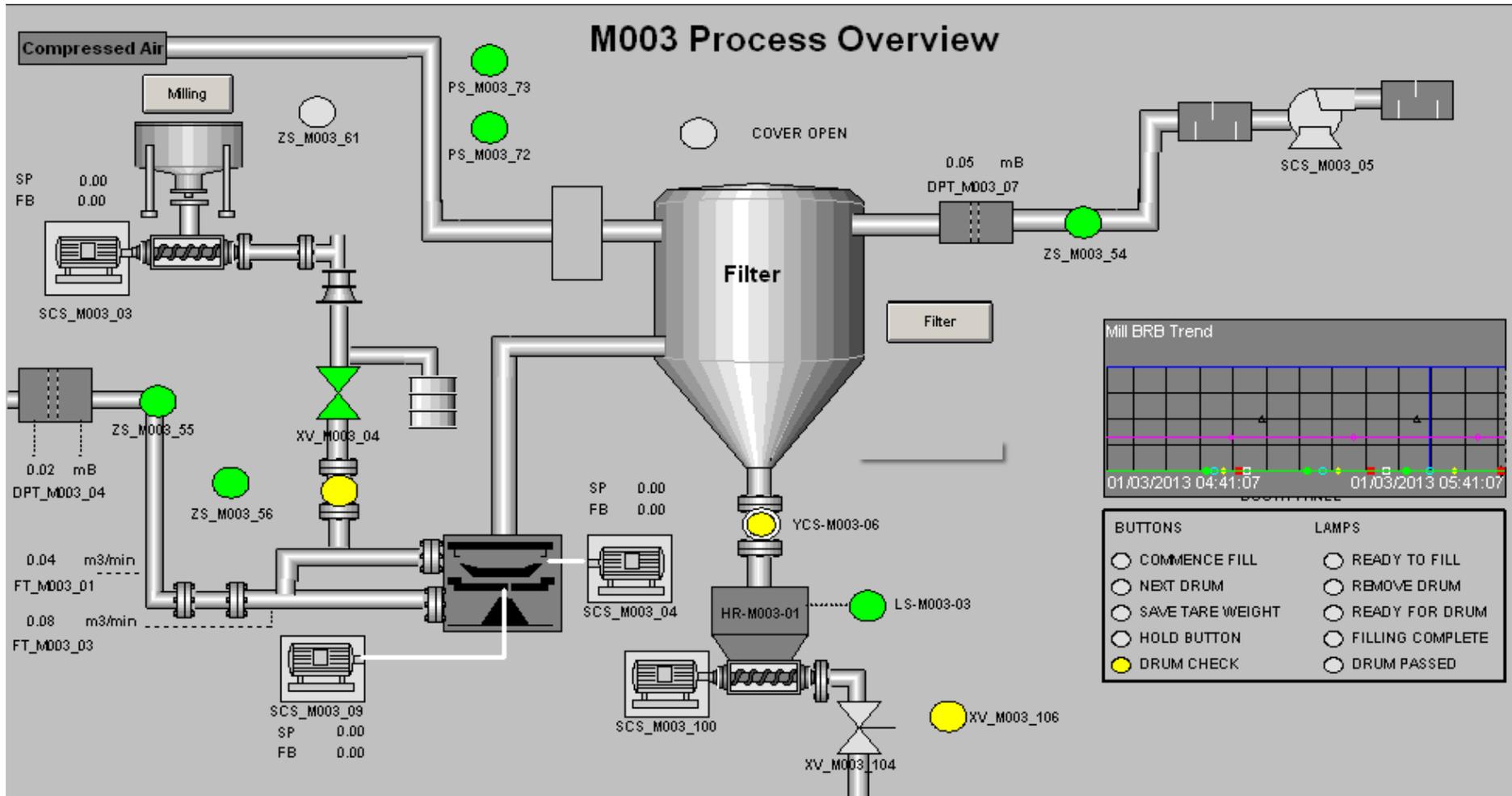
- Separate VLANs
- DCS
- PLCs
- Chart Recorders



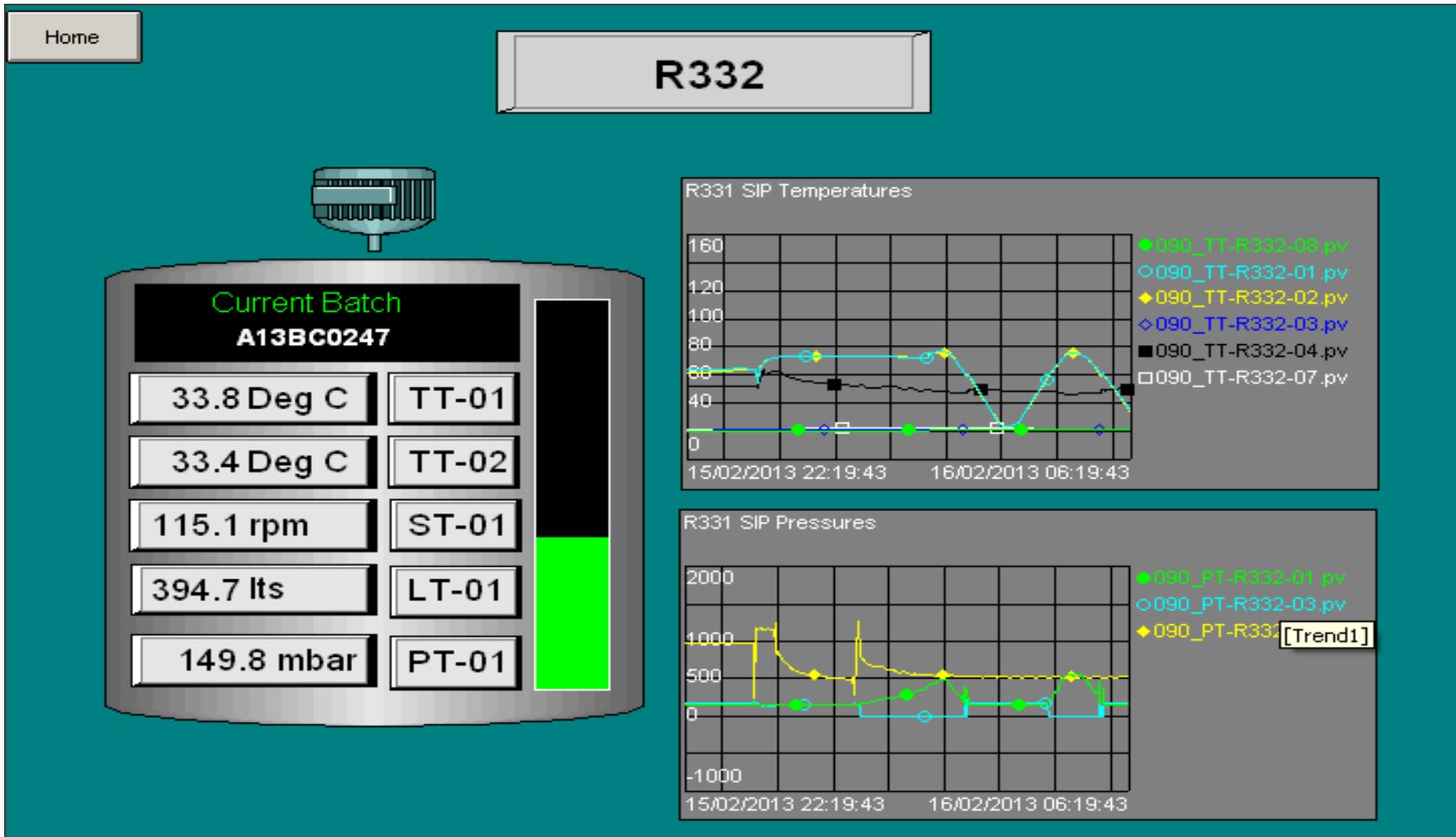
JP - Functions allocation Architecture



JP - PI System Client Tools: Batch process status



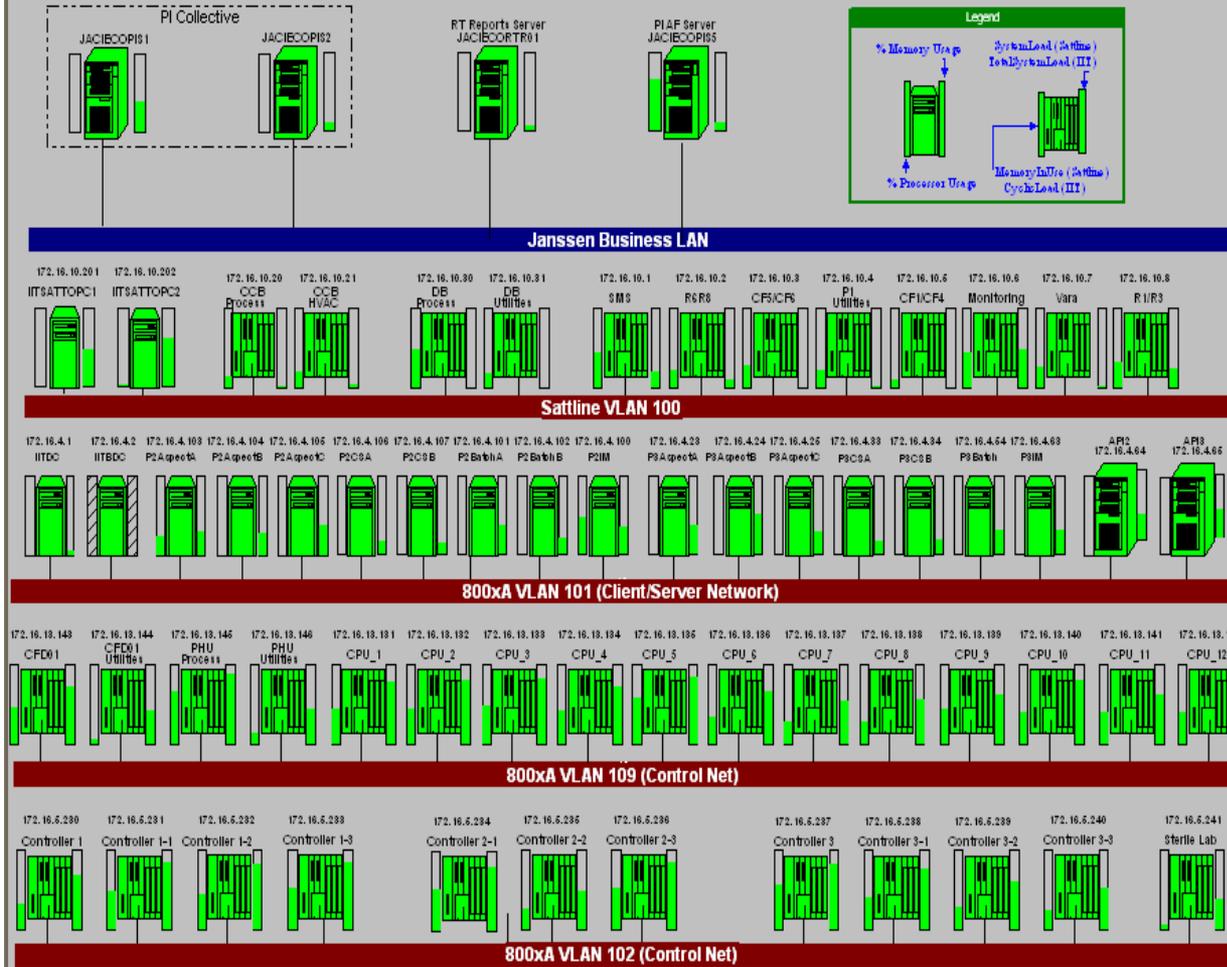
JP - PI System Client Tools: Key batch parameters values



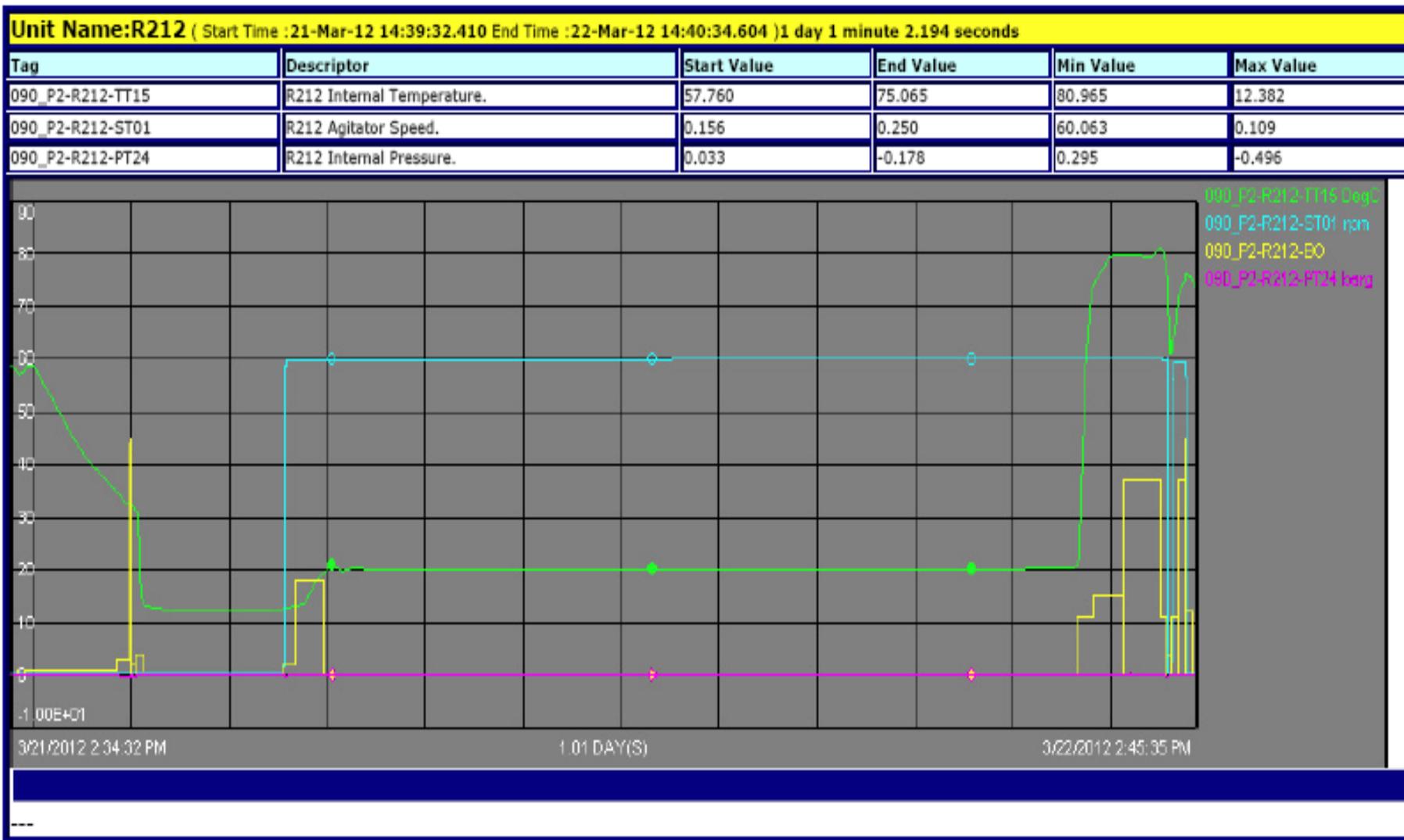
JP - PI System Client Tools: Automation network status

15:32:22

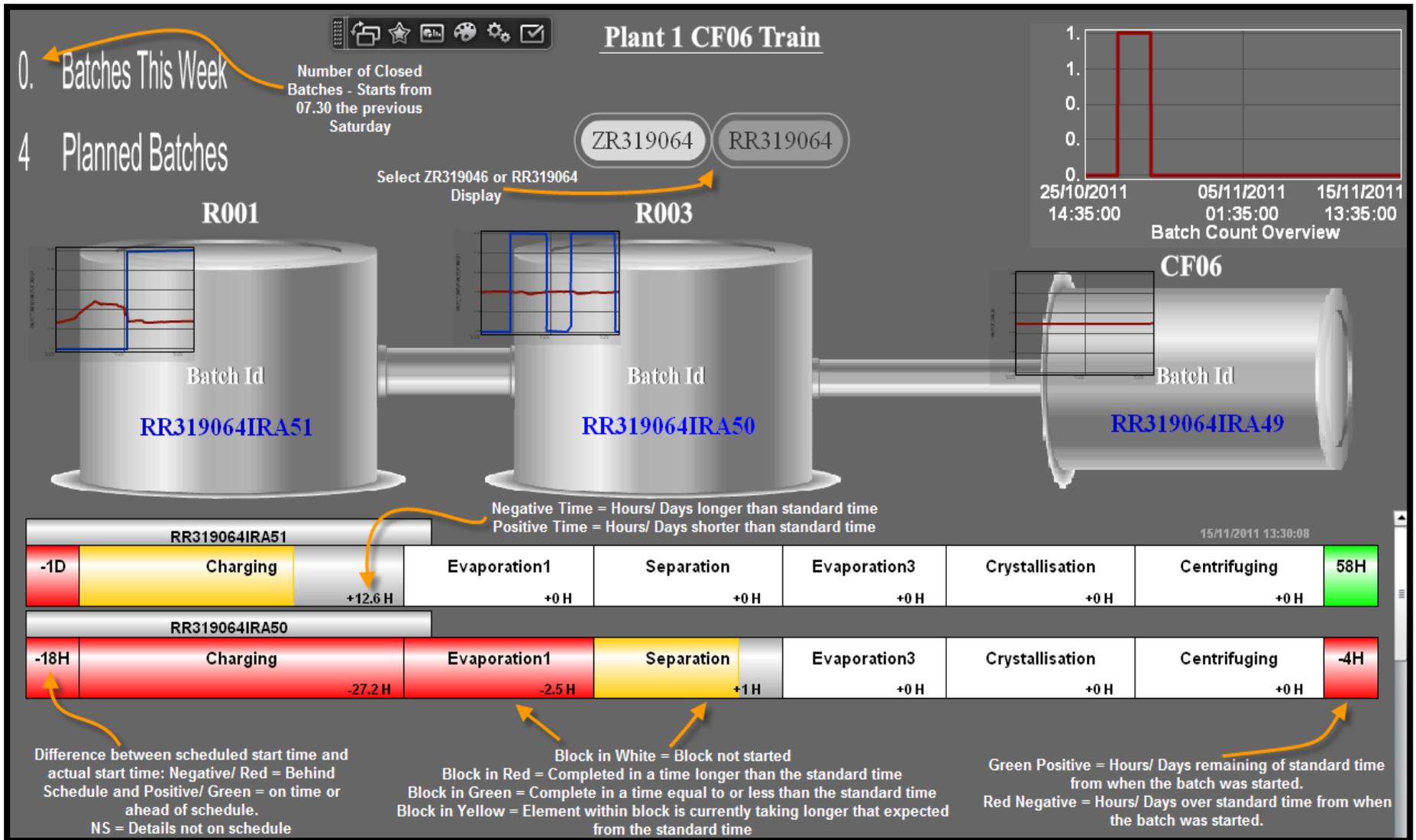
AUTOMATION NETWORK AND PI SYSTEM MONITORING



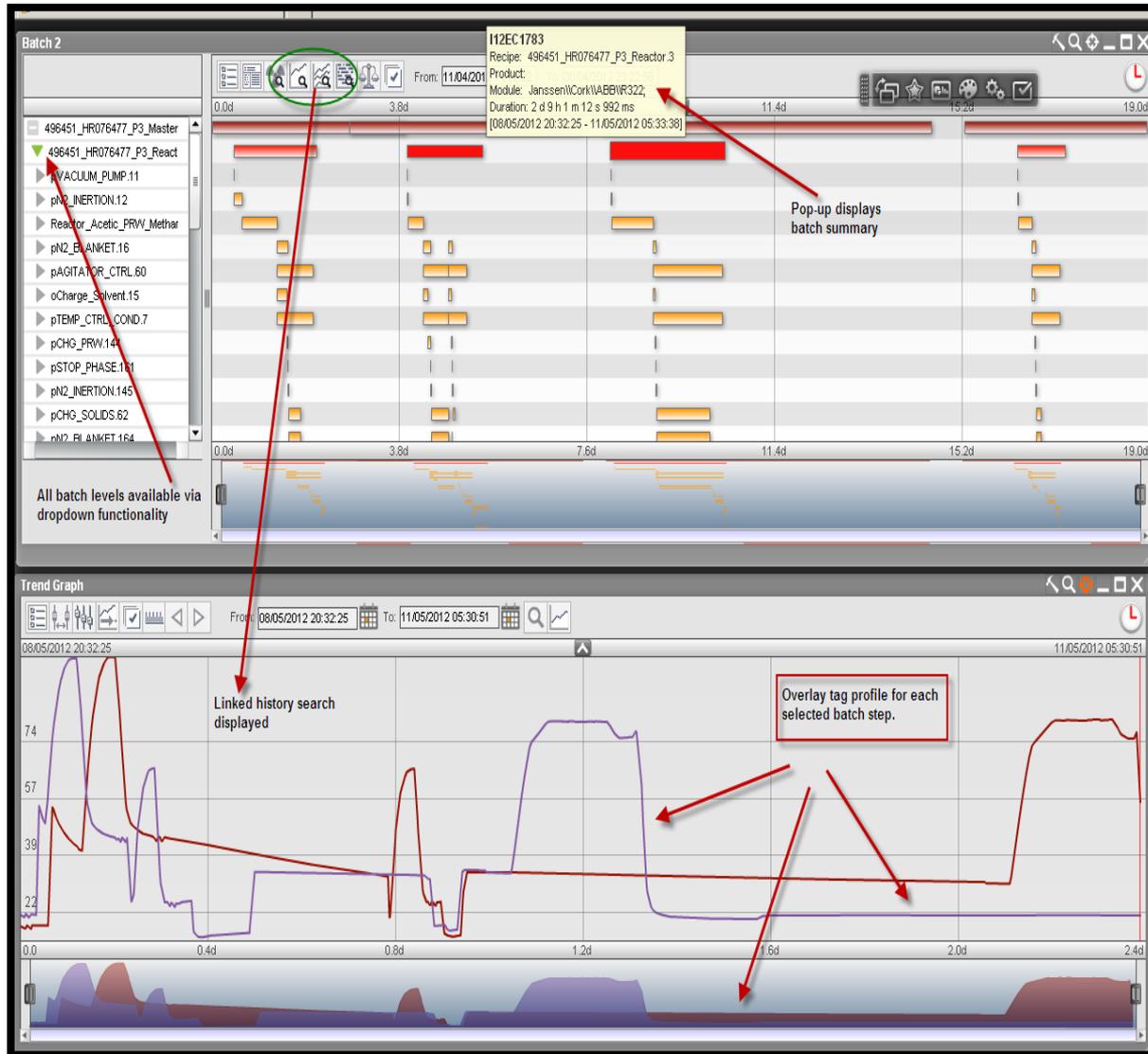
JP - PI System RtReports : Key parameters trend



JP - PI System Client Tools: Batch phases timeline

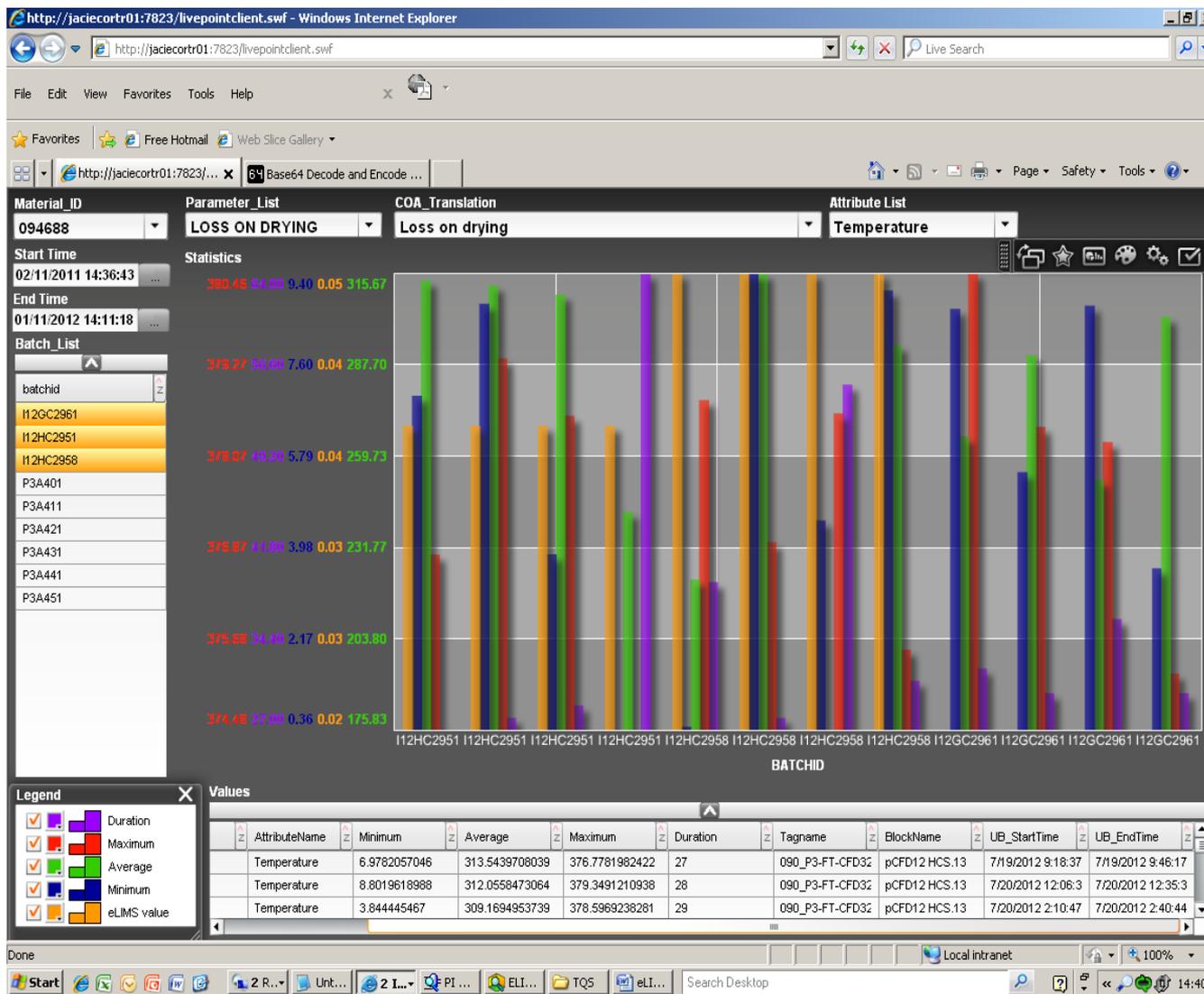


Creating Solutions – Linking out to Detailed Analysis



- Batch Data Analysis
 - Batch Search
 - Multiple Levels
 - Multiple Steps
 - Cycle Times
 - Export Facility
- Processing Data
 - Tag Search
 - Link to Batch Gantt
 - Multiple Batch Data
 - Overlay Analysis
 - Export Facility

Creating Solutions – One System/ One View



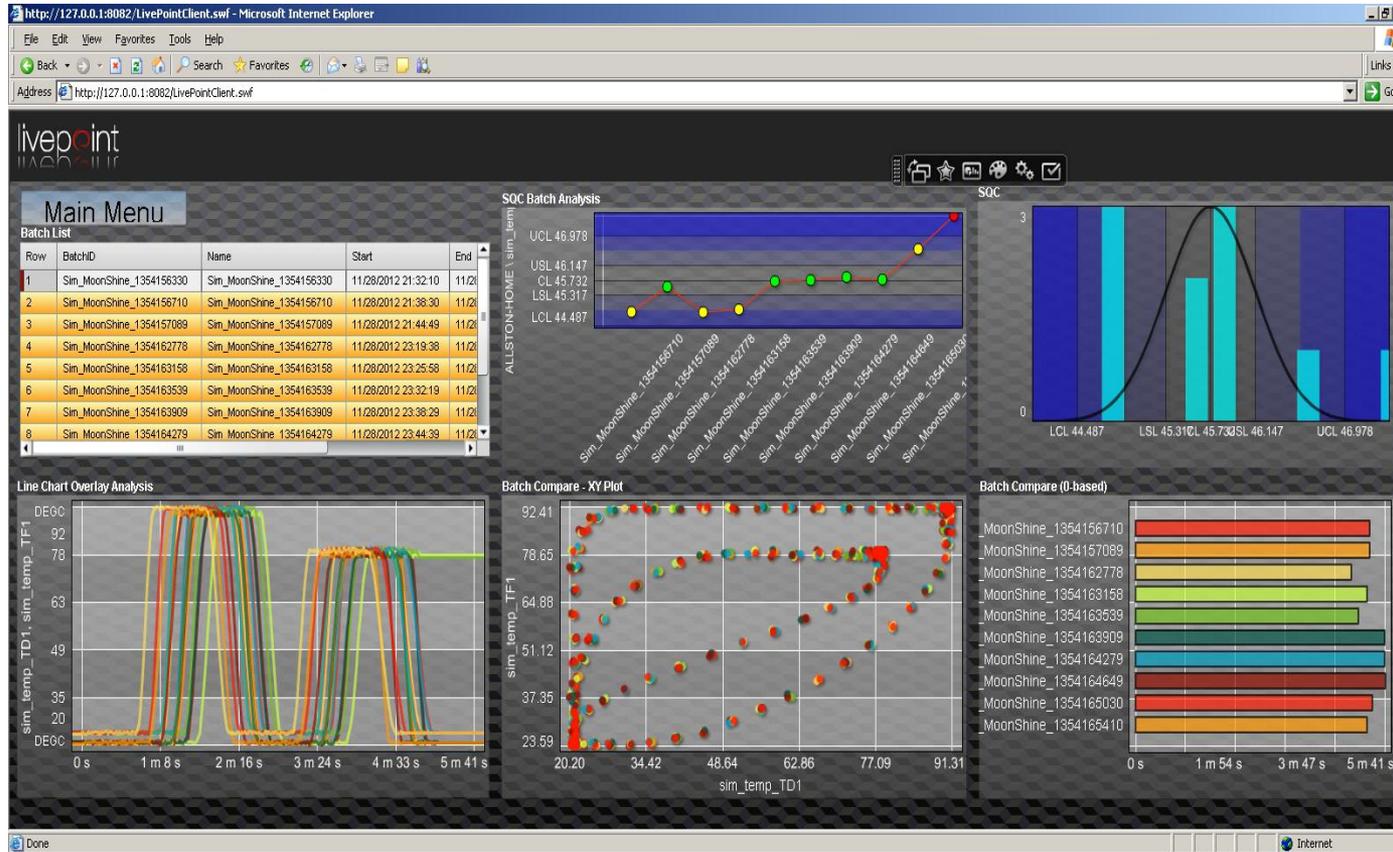
VIEW PROCESS DATA
 Batch Search
 Batch Step Duration
 Max Tag Value
 Min Tag Value
 Average Tag Value

VIEW PRODUCT DATA
 Batch Search
 Batch Step Duration
 Max Tag Value
 Min Tag Value
 Average Tag Value

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Additional Features – Event Frame Viewer / Analyzer



Multi Component viewer:

- Multiple component deployment to single screens
- SQC, XY plot, Line Chart & Batch \ Event Frame Overall or Phase duration comparison.
- True this client solution allowing users access from any workstation
- Multiple user roles and privileges, linked to Active Directory

Additional Features – Continuous Process Verification

The screenshot shows the LivePoint client software interface. The main window is titled "170.237.39.101:8082/livepointclient.swf". The navigation bar includes "Main View", "Quality Alarms", "Safety Alarms", "Reports", "Charts", and "Configuration" (highlighted). Below the navigation bar, there are tabs for "Active", "Setup", and "Archived". The main content area displays "Process Unit: Diovan" and "Product: Test Product 01". A modal window titled "QCP Instruments" is open, showing a table of instrument tags and their names. The table has two columns: "Name" and "Tag Name".

Name	Tag Name
543.010.TT601	543010TT--601
543.023.TT600	543023TT--600
543.023.PDT640	543023PDT-640
543.023.TT601	543023TT--601
543.023.TT607	543023TT--607
543.078.TT607	543078TT--607
543.079.TT607	543079TT--607
543.078.ST810N	543078ST--810N
543.079.ST810N	543079ST--810N
543.078.PT654	543078PT--654
543.078.FT715	543078FT--715
543.079.PT654	543079PT--654
543.079.FT715	543079FT--715
543.083.TT607	543083TT--607

CPV component:

- FDA Requirement
- Allows several different levels of interaction with Process specialists creating/Modifying Process Alarms
- DCS Alarm monitoring/Commenting
- Full Reporting on all Safety and DCS Alarms
- Full audit trails
- Email / SMS / Pager / DCS notifications

Additional Features – Genealogy

The screenshot displays the LivePoint client interface within a Microsoft Internet Explorer browser window. The main interface is divided into two primary genealogy views: 'Forward Genealogy (PI Tags)' on the left and 'Reverse Genealogy (PI Tags)' on the right. Both views show hierarchical trees of material IDs (PI Tags) connected by lines representing production relationships. The 'Forward Genealogy' view shows a tree starting from 131267 and 131692, leading to 131281 and 131715, which then branch into various other tags like 131314, 131340, 131341, 131828, 131829, 131368, 131369, 131831, 131832, 131787, 131788, 131755, 131786, and 131854. The 'Reverse Genealogy' view shows a tree starting from 131787 and 131788, tracing back through 131314, 131261, 131307, 131308, 131309, 131327, 131423, 131795, 131368, 131663, 131605, 131598, 131568, and 131563.

Two 'Batch property' windows are open, providing detailed information for specific batches. The first window is for BatchID: 131368, and the second is for BatchID: 131787. Both windows include a table with the following columns: Type, MaterialID, LotID, TargetQty, ActualQty, UOM, MaterialName, and ChargeBatch.

Type	MaterialID	LotID	TargetQty	ActualQty	UOM	MaterialName	ChargeBatch
Output	7416-01	10CPB001	200	180.51	Liter	74 NYA FABRAZYME 200L SEED CULTURE	
Input	7415-01	10CPA001	0	16	Liter	74 NYA FABRAZYME SPINNER SEED TRAIN	10CPB001
Input	7406-01	14649109	0	4	Each	74 NYA 2-BOTTLE SAMPLER ASSEMBLY	10CPB001
Input	7406-01	14678447	0	2	Each	74 NYA 2-ROTTI F SAMPLER ASS'Y	10CPB001

Type	MaterialID	LotID	TargetQty	ActualQty	UOM	MaterialName	ChargeBatch
Output	7430-00	10CPD003	450	351.82	Liter	FABRAZYME, INPROCESS PHENYL...	
Input	4516-01	932800	0	2	Each	FILTER, VENT, 2 UM	
Input	4516-02	932979	0	1	Each	FILTER, OPTICAP XL4 CAP AERVENT	

Genealogy component:

- Visual representation of genealogy tree
- Based on materials data for a given production system
- Genealogy representation based on either PI Tags / Batch and / or Event Frames
- Both Forward and Backward Genealogy supported

Additional Features – Manual Data Entry

Site: Malvern Product: Refractive Stage: Protein A Chromatography Equipment: SK-3510

Batch Number: MM Number: 300114-200

Start Time: End Time:

Harvest 1 Harvest 2 Harvest 3 Protein A Chromatography

Chromatography Skid Number

Column Number

Eluate pH

Adjustment Required? No

Adjusted pH N/A

Eluate Volume (L)

Eluate Yield in Grams (g)

Eluate Yield (%)

Create Batch Close

Create Batch Batch Details End Batch Cancel Batch Show All Open Records File Upload

Review/Edit Batch Creation Information Review/Edit Batch Closure Information Metrics

Manual Data Entry:

- Support manual entry of data into the PI System / PI EF / SQL
- Workflow driven to ensure data accuracy
- User defined selectable attribute drop-down supported
- Data maintained locally until customer pushes data to PI via review / approval cycles

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Data Visualization & Analysis from Multiple Sources

- Benefits: Provides a scalable, robust framework solution with multiple predefined modules;
- Visualization & Analysis: Industry's first full Event Visualization and Analysis solution;
- Through this client, access customer PI System time-series, asset, and event data from anywhere.

Questions

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Contacts – Follow up

What would your systems look like after a conversion by TQS / Mirabo Systems International?

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Upcoming Webinars

- May 1** - Pimsoft - Sigmafine: Unit Yield Performance and Plant Production Accounting with the PI System Infrastructure
- May 15** - Umetrics - SIMCA-online: Complex Analytics Applied to PI System™ Data
- June 5** - Infotechnics - Opralog: Integrating Plant and Process Data for Improved Operational Efficiency and Plant Safety
- June 19** - Magion Universe - Under Production intelligence (muUPI): Driving Real-time Operational, Process and Workflow Improvements with muSuite and muProMon:

<http://partners.osisoft.com/solutions>



Thank you

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