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

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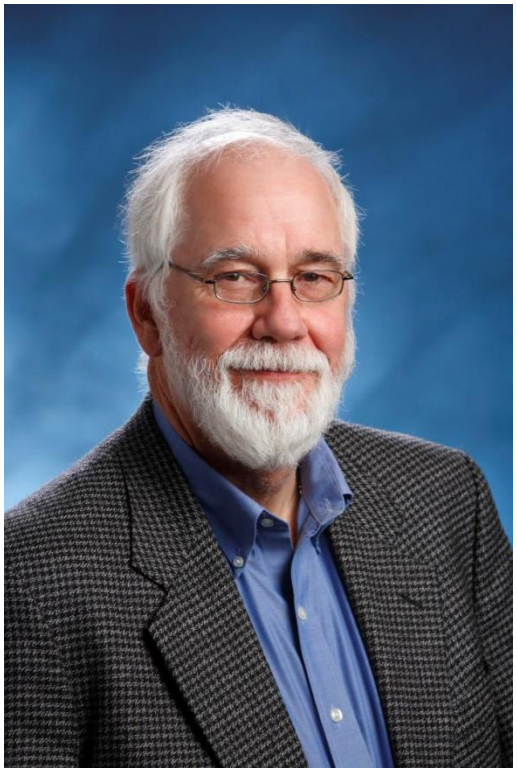
Mission



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

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OSIsoft ® Partner Solution Showcase

– Find software solutions from OSIsoft partners with specific industry and domain expertise.

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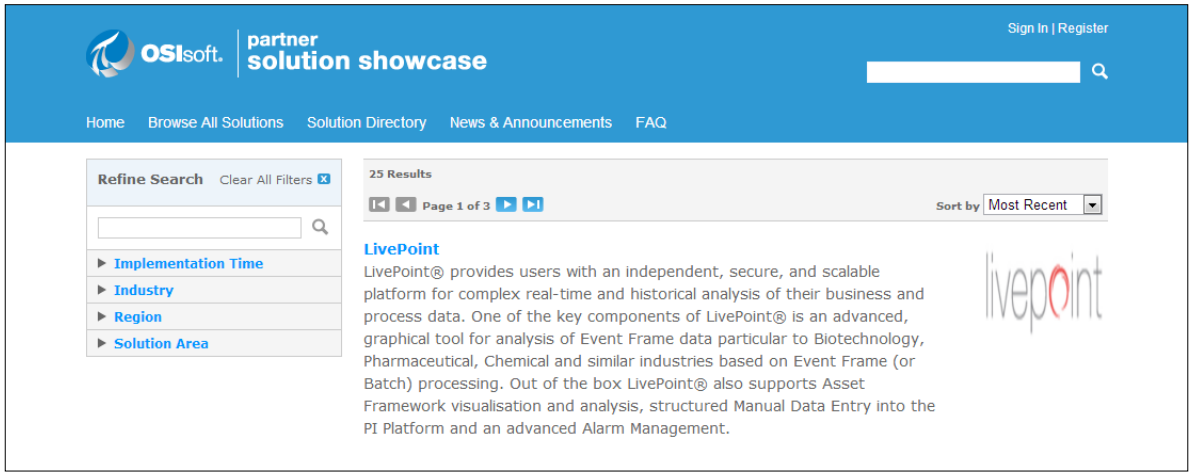

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Introduction – Janssen Pharmaceutical Products

- 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

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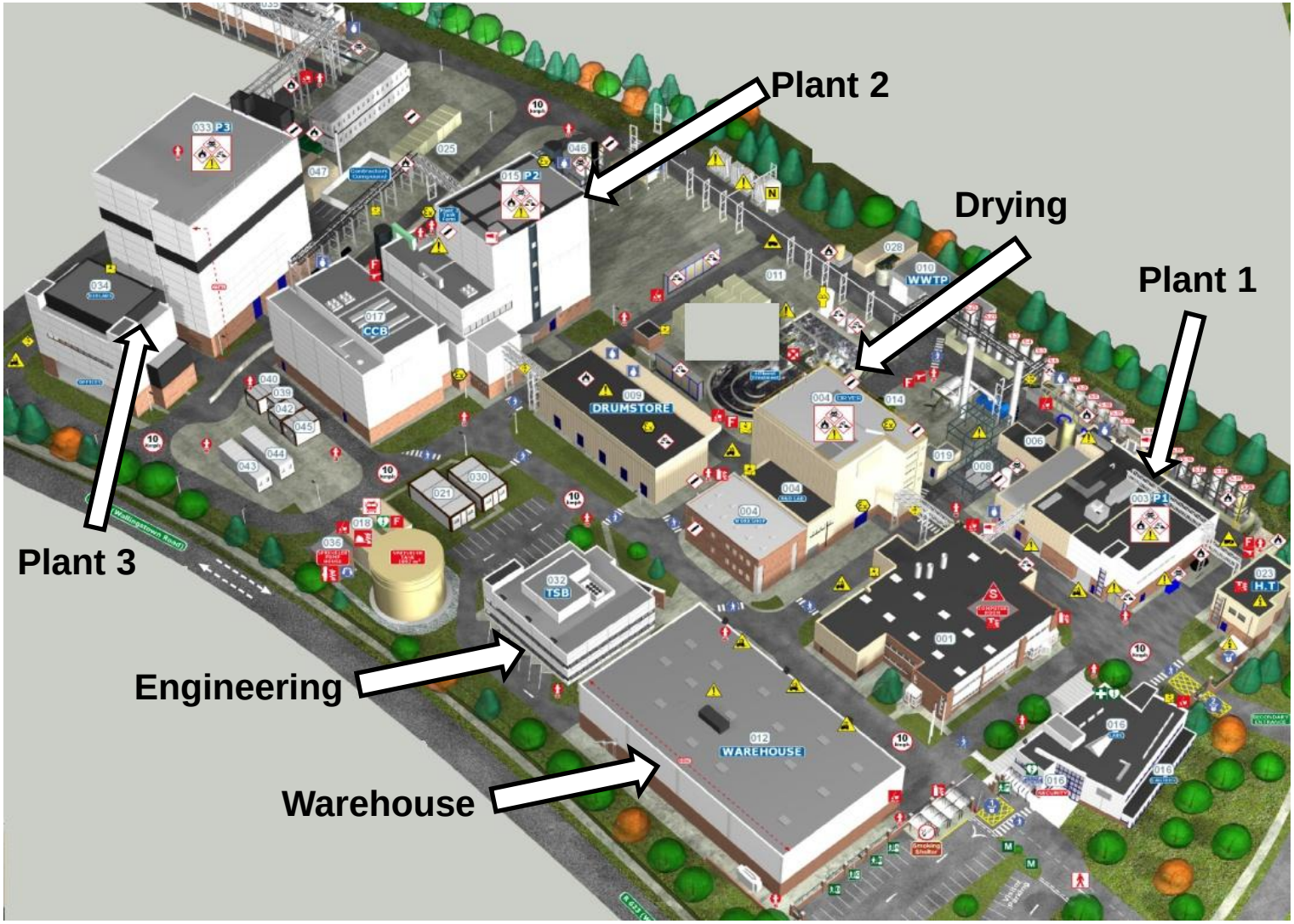
Janssen Pharmaceutical – Cork Sites



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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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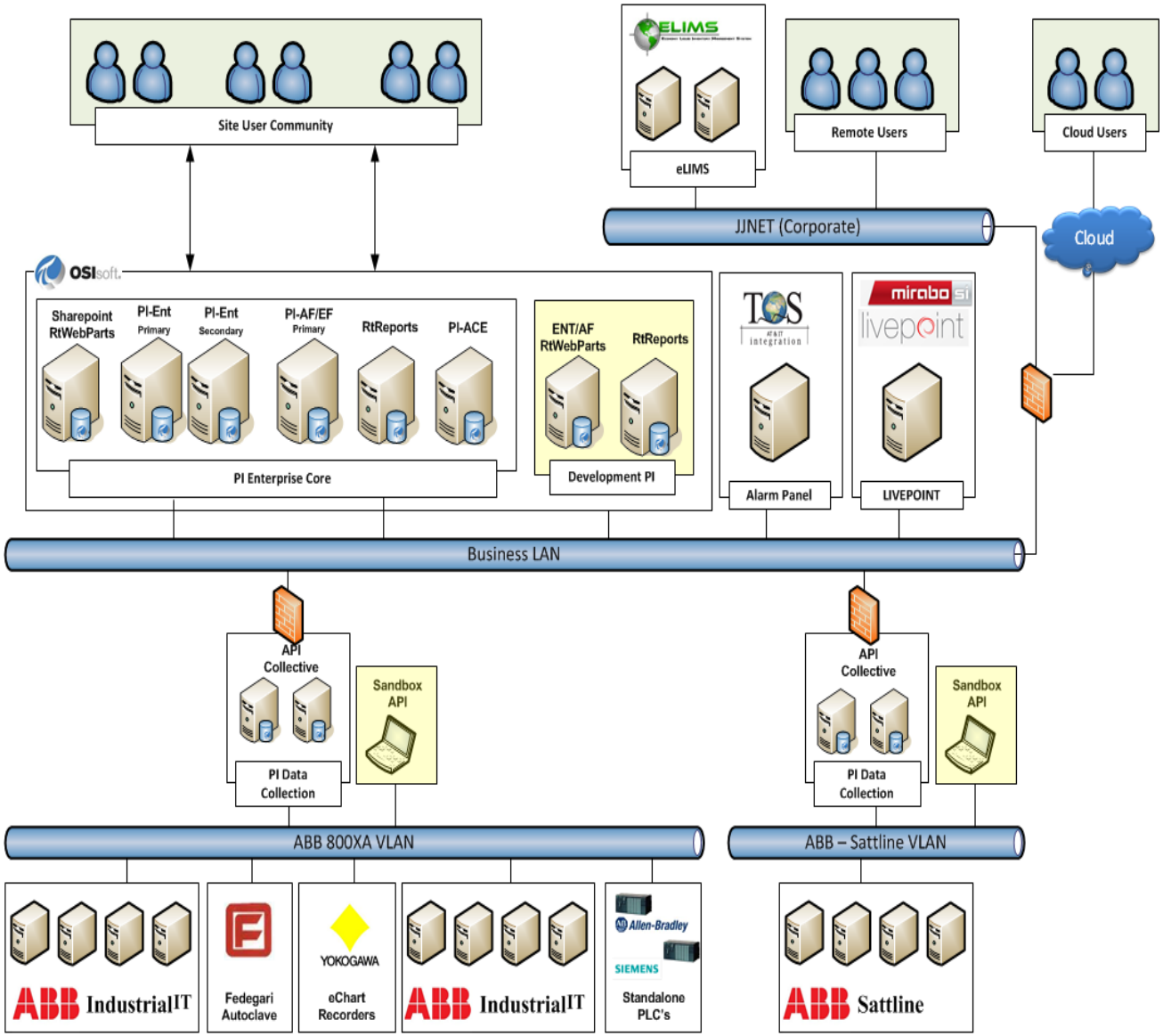
Janssen Pharma (JP) - PI System Architecture

Standard Architecture
- PI Collective
- PI AF
- PI RtReports
- API Nodes

Multiple Sources
- Separate VLANS
- DCS
- PLCs
- Chart Recorders



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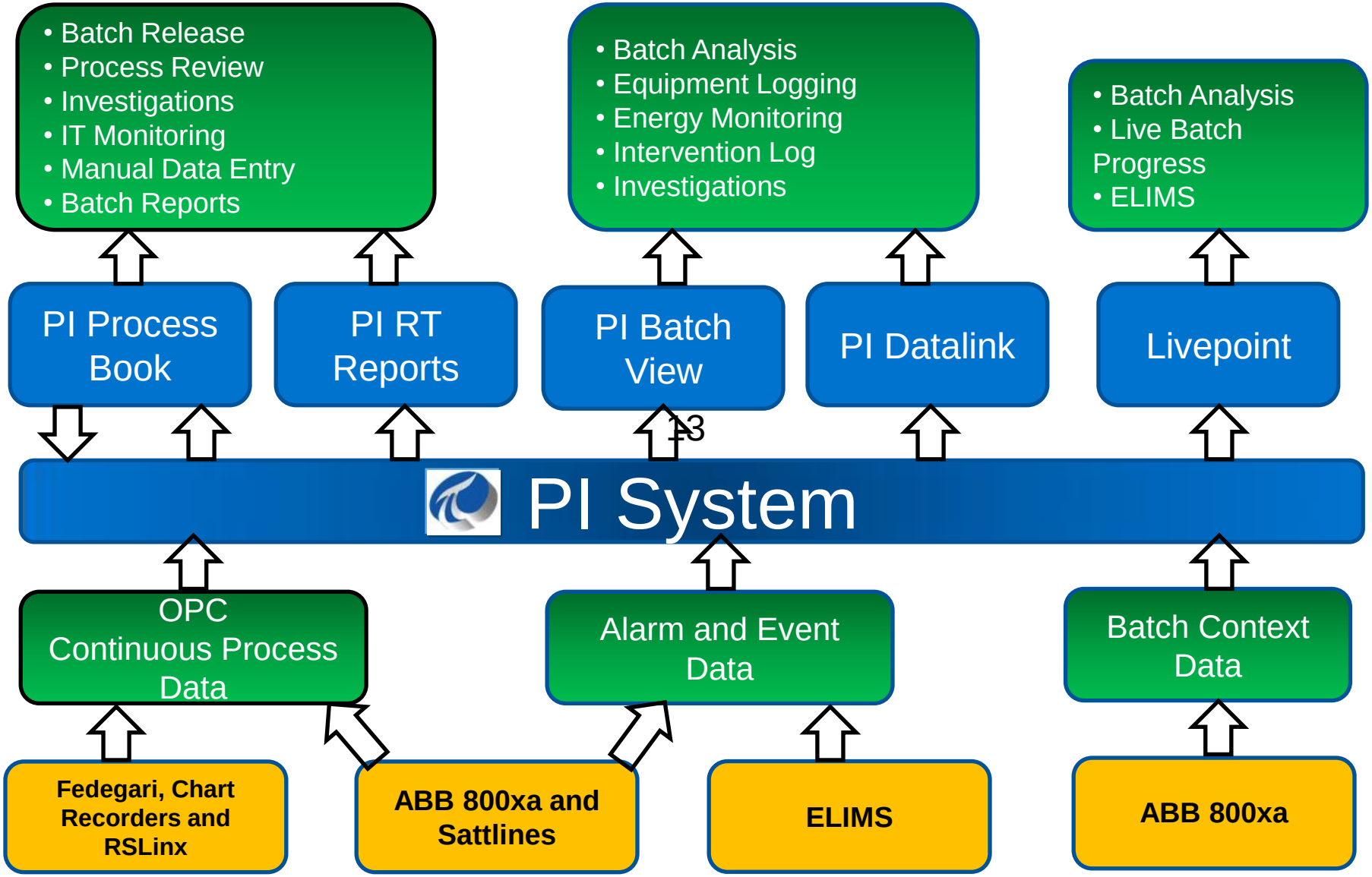
JP - Functions allocation Architecture



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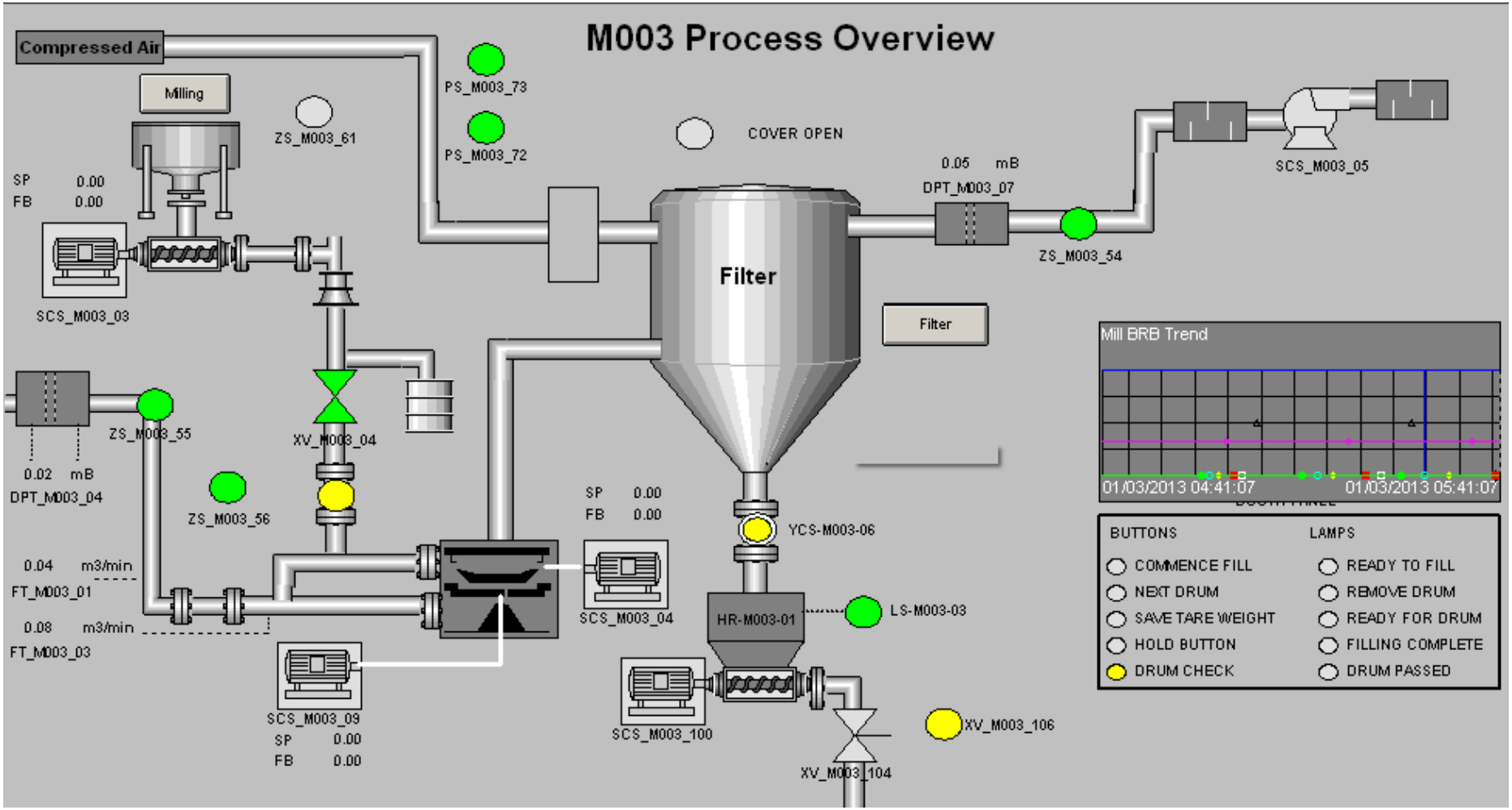
JP - PI System Client Tools: Batch process status



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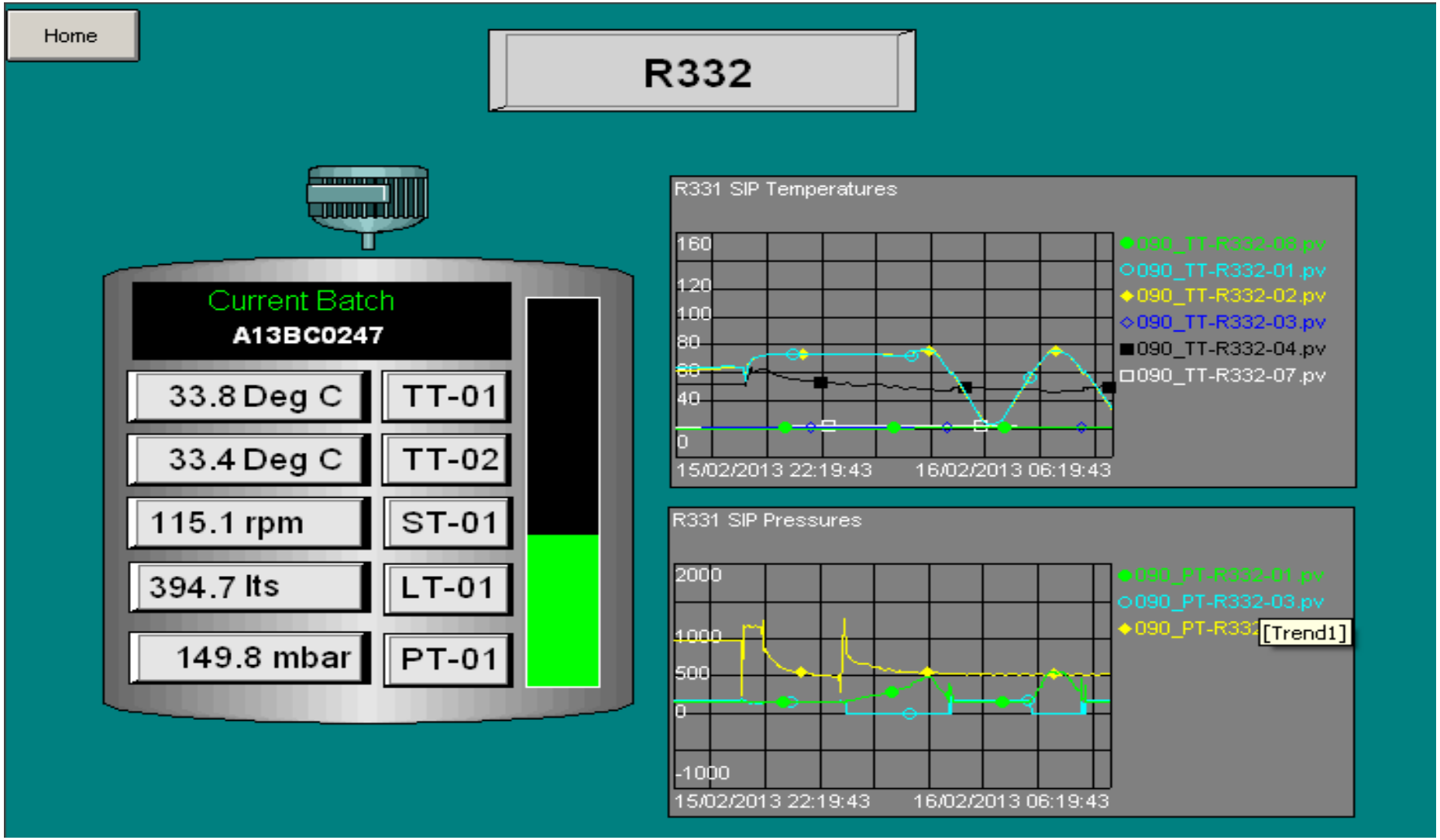
JP - PI System Client Tools: Key batch parameters values



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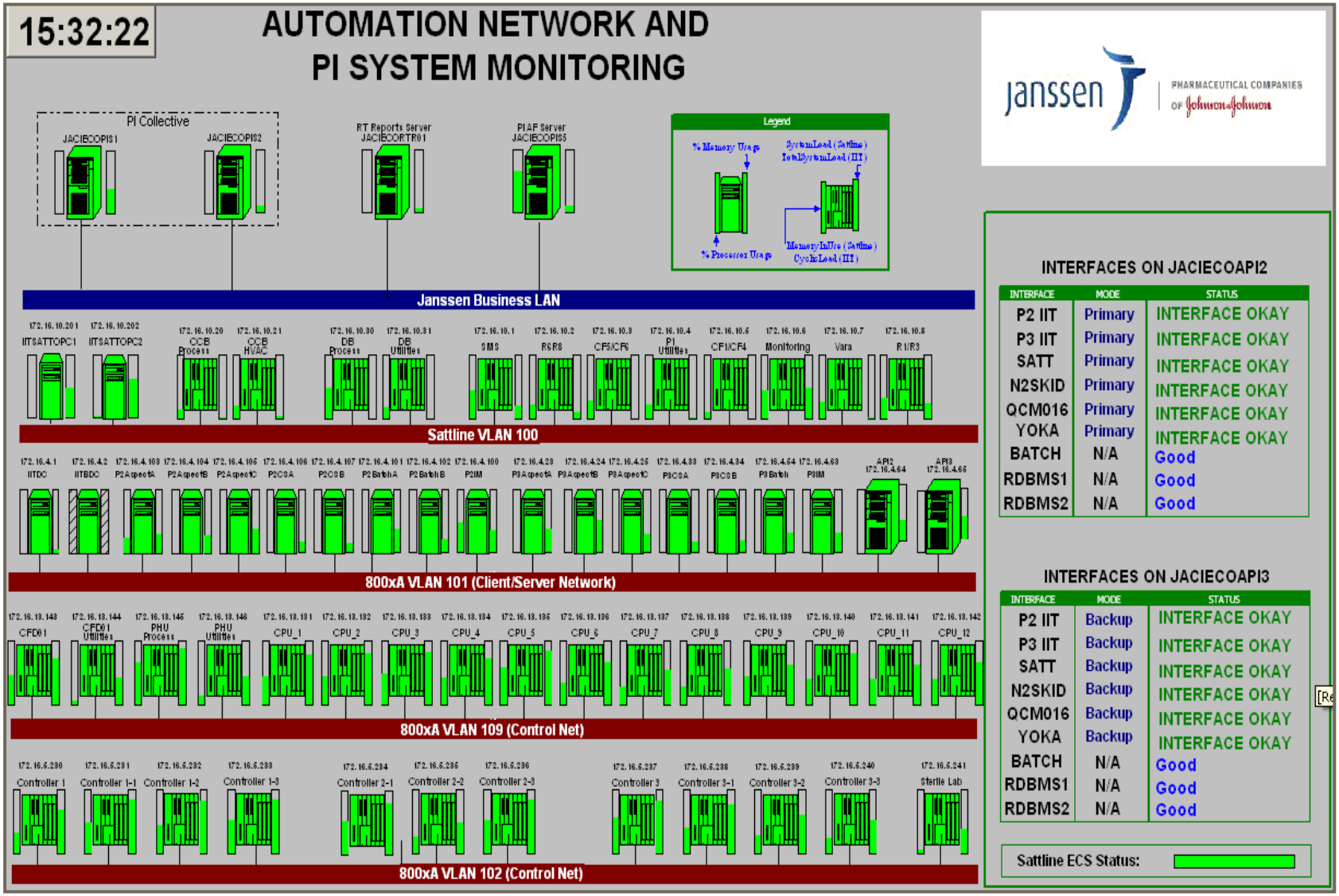
JP - PI System Client Tools: Automation network status



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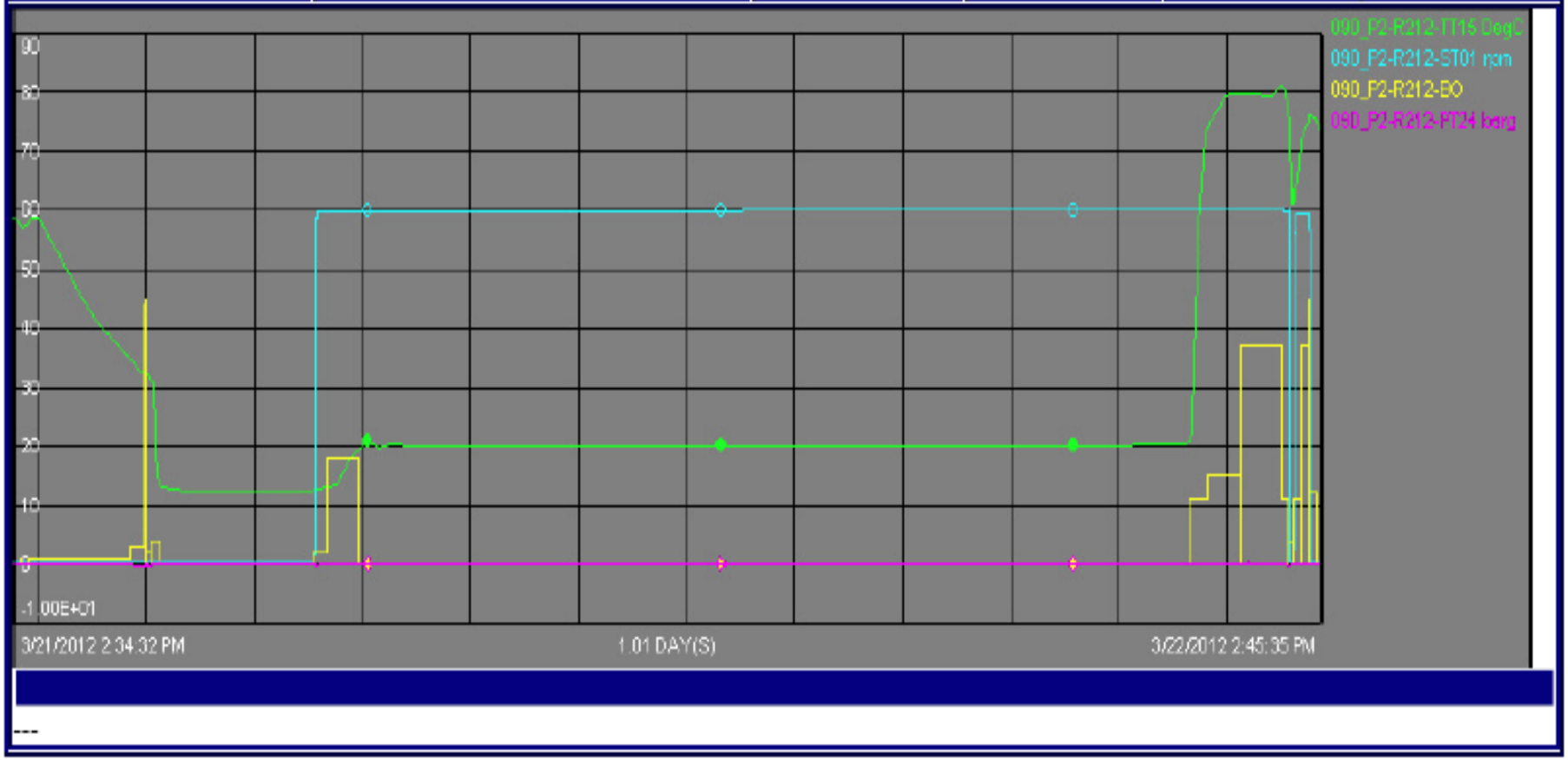
JP - PI System RtReports : Key parameters trend

Unit Name:R212 (Start Time :21-Mar-12 14:39:32.410 End Time :22-Mar-12 14:40:34.604)1 day 1 minute 2.194 seconds

Tag	Descriptor	Start Value	End Value	Min Value	Max Value
090_P2-R212-TT15	R212 Internal Temperature.	57.760	75.065	80.965	12.382
090_P2-R212-ST01	R212 Agitator Speed.	0.156	0.250	60.063	0.109
090_P2-R212-PT24	R212 Internal Pressure.	0.033	-0.178	0.295	-0.496



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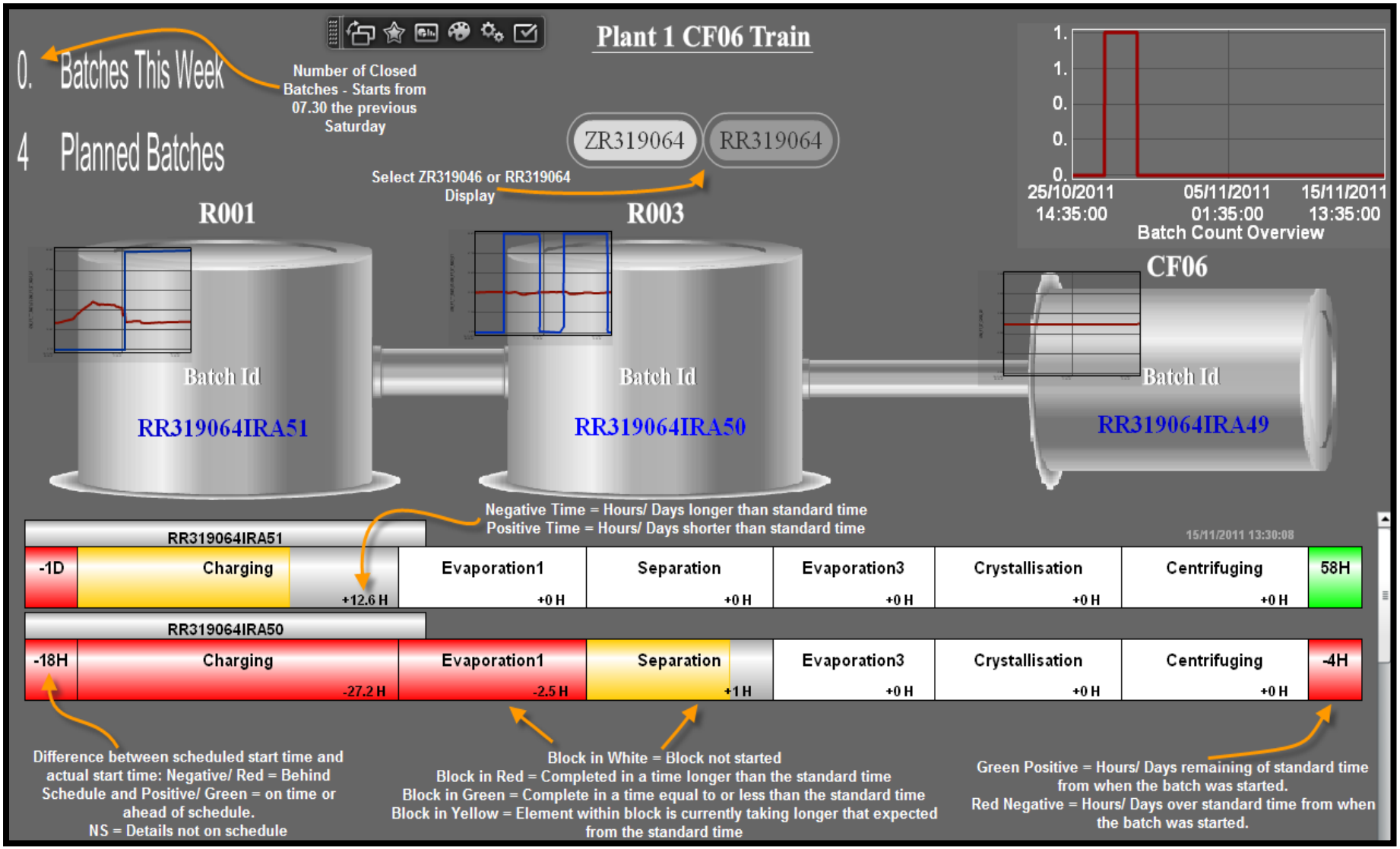
JP - PI System Client Tools: Batch phases timeline



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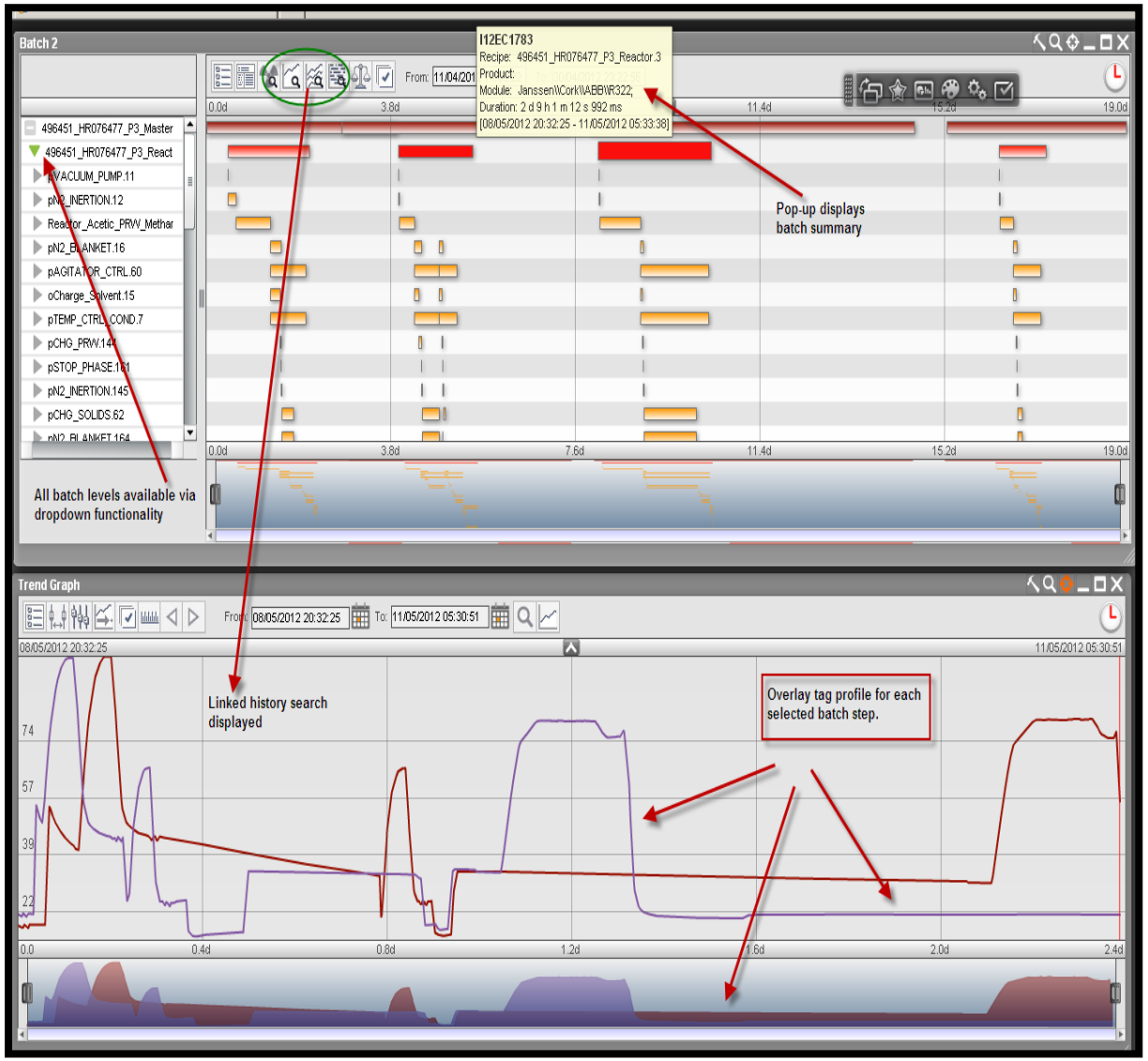
Creating Solutions – Linking out to Detailed Analysis



- 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

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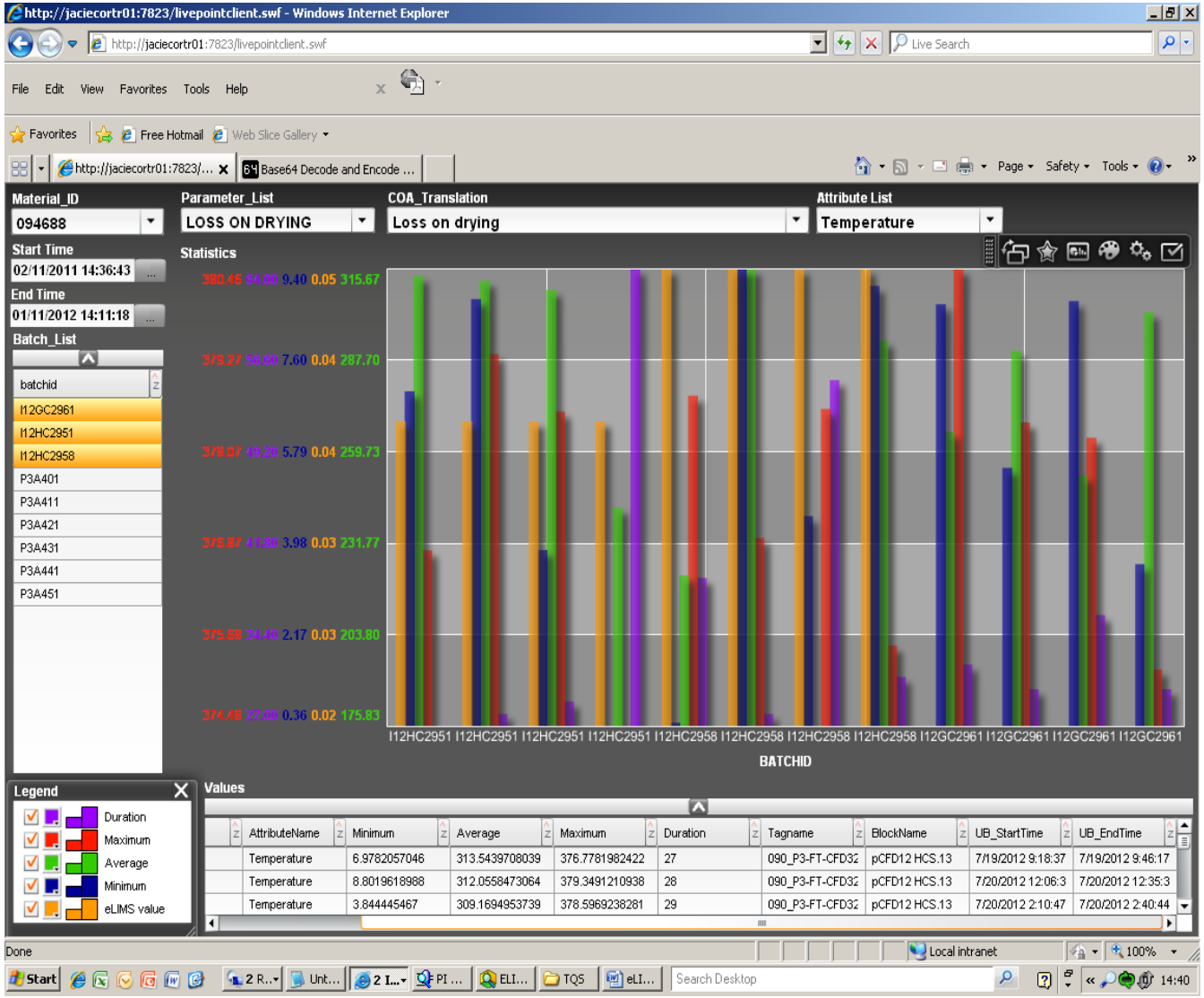
Creating Solutions – One System/ One View



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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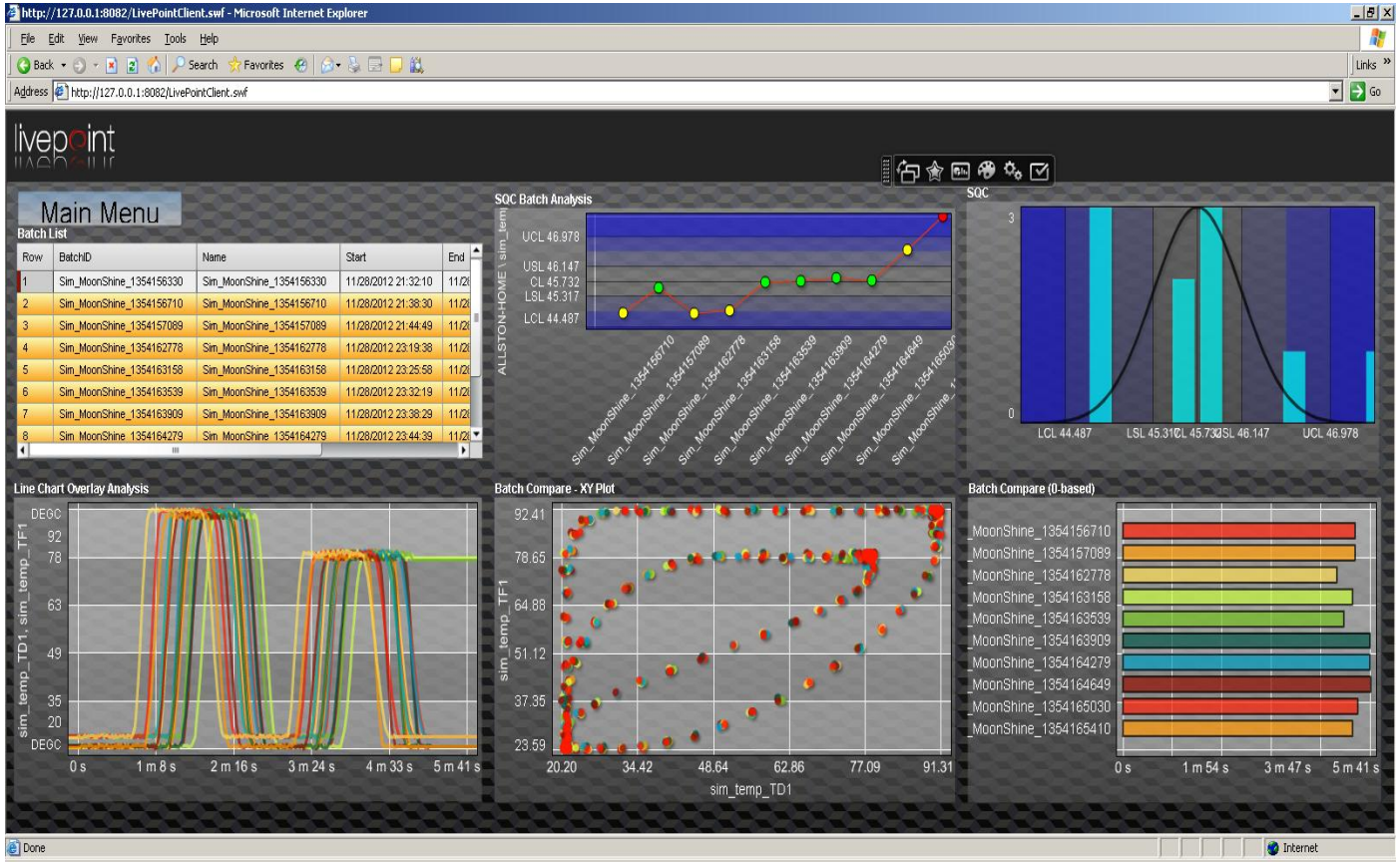
Additional Features – Event Frame Viewer / Analyzer



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

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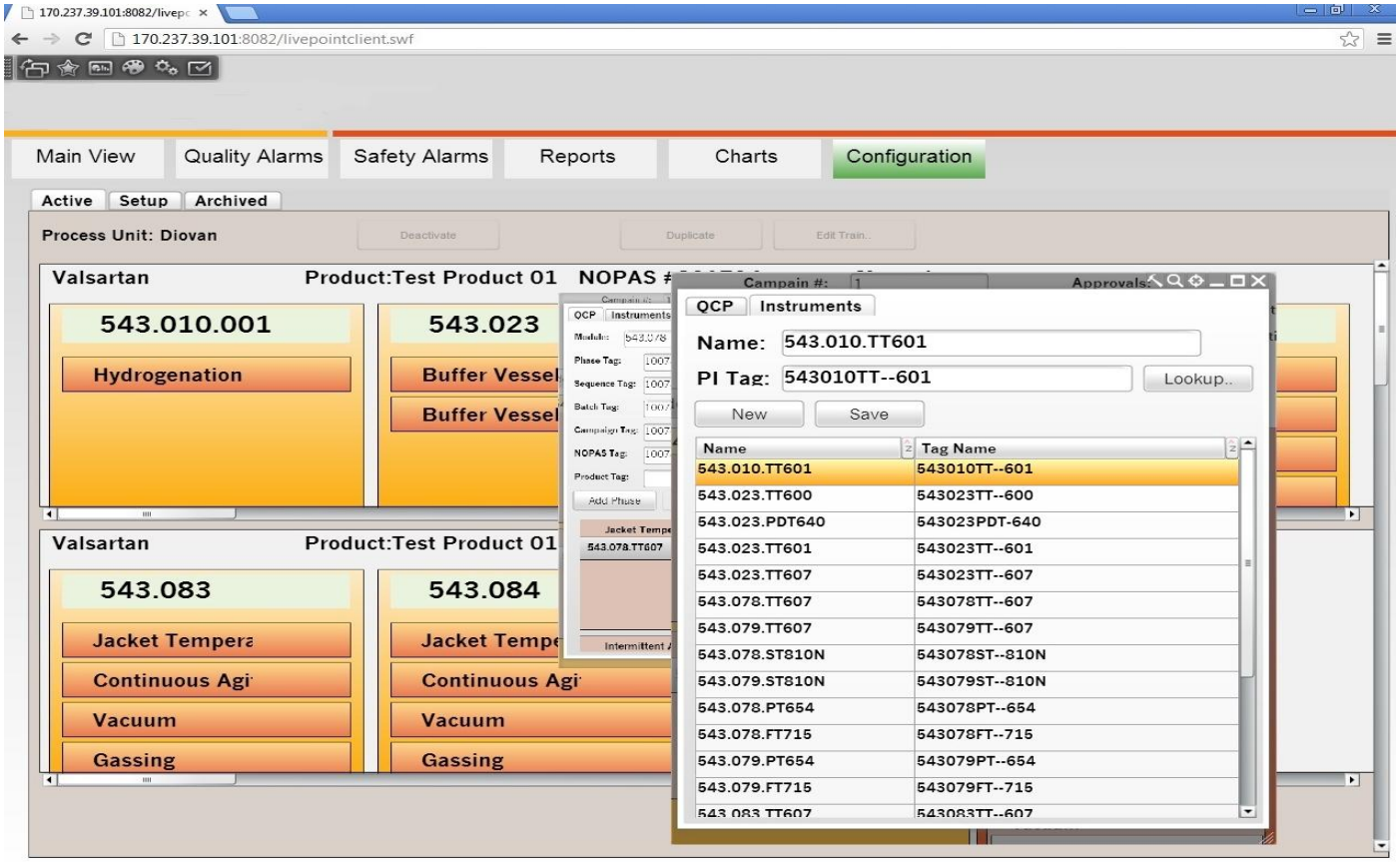
Additional Features – Continuous Process Verification



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

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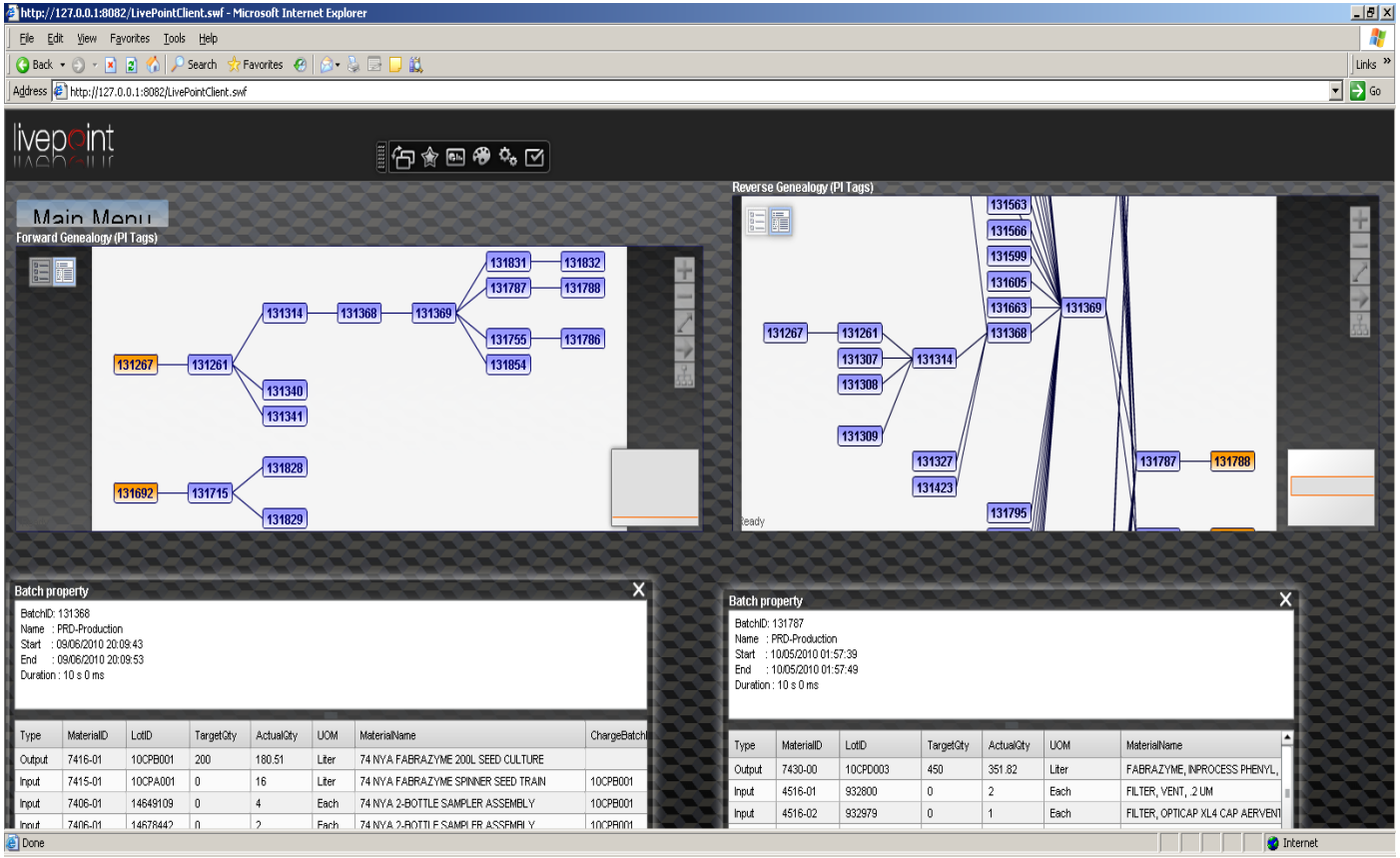
Additional Features – Genealogy



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

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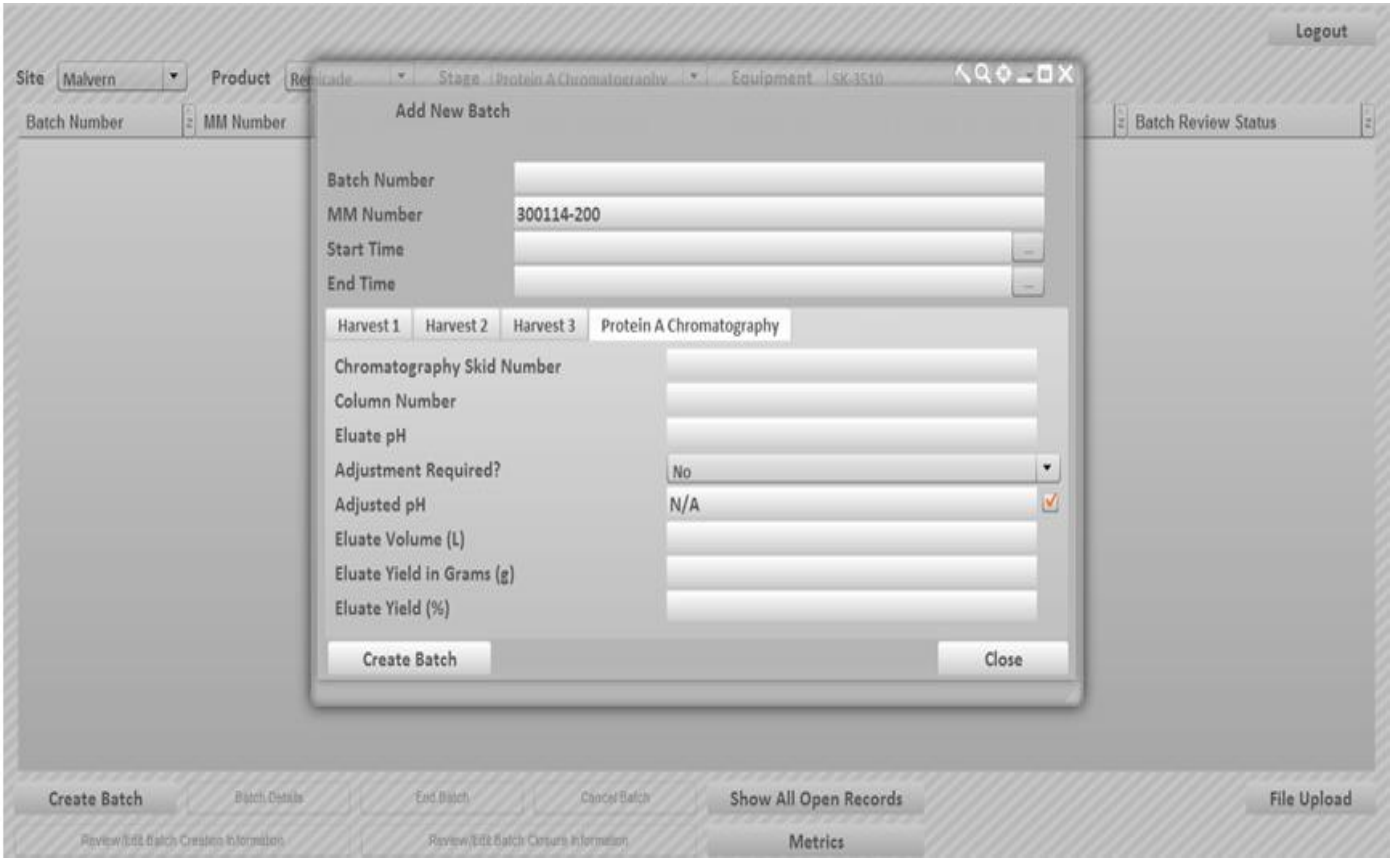
Additional Features – Manual Data Entry



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:

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Thank you

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