



Coresight in Genentech PTD

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Genentech

Agenda

- Genentech / Roche Background
- Problem Statement
- History of Historization in PTD
- Current State
- Challenges
- Benefits of PI Coresight
- Plans

Genentech / Roche Background

- Roche acquired Genentech in 2009
- 3 new drugs approved in 2012 and 2013, including the first antibody-drug conjugate approved by the FDA
- 31 drugs in Phase II or Phase III (Source: www.gene.com)

Genentech / Roche Background

- PTD = Process Technical Development
- Roughly 500 users accessing data from cell culture and purification pilot plants and several cell culture labs
- 2 PI servers - 60000 points & 6000 points
- Over 350 units sending data to PI

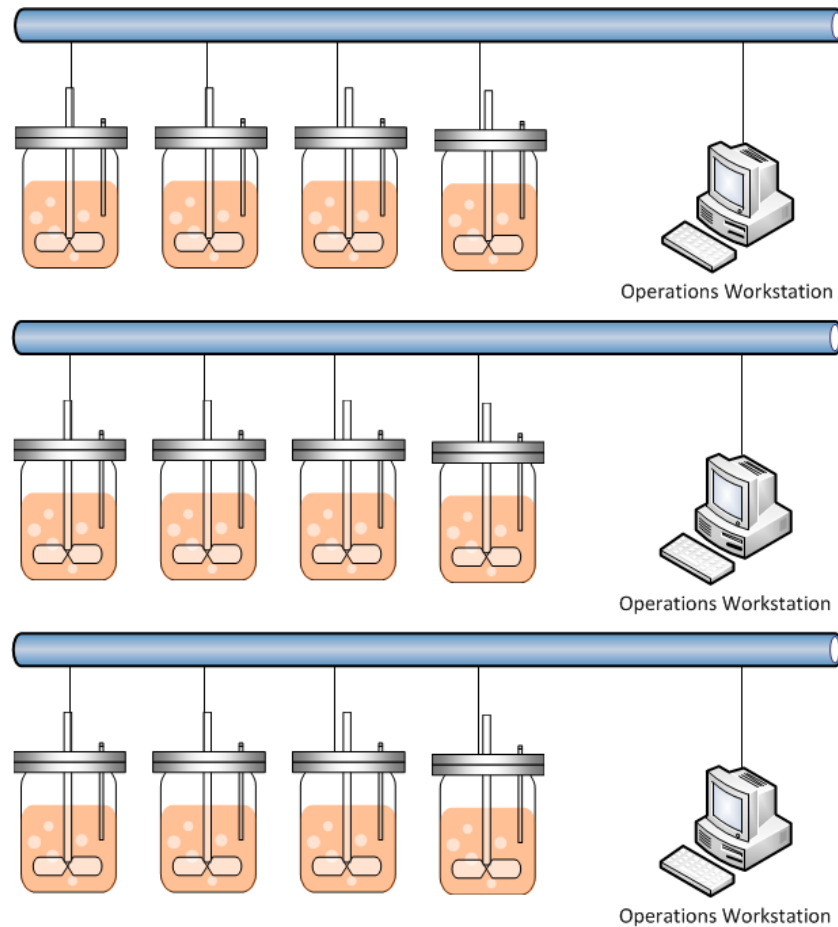
Problem Statement

All these new drugs and increased global collaboration since the Roche acquisition require better access to process development data.

History of Historization in PTD

- In 2009, majority of data collection was localized on LabVIEW based systems
- 1 DeltaV system with embedded PI
- Frequent data loss and lots of support hours
- All data exported to Excel for review and analysis

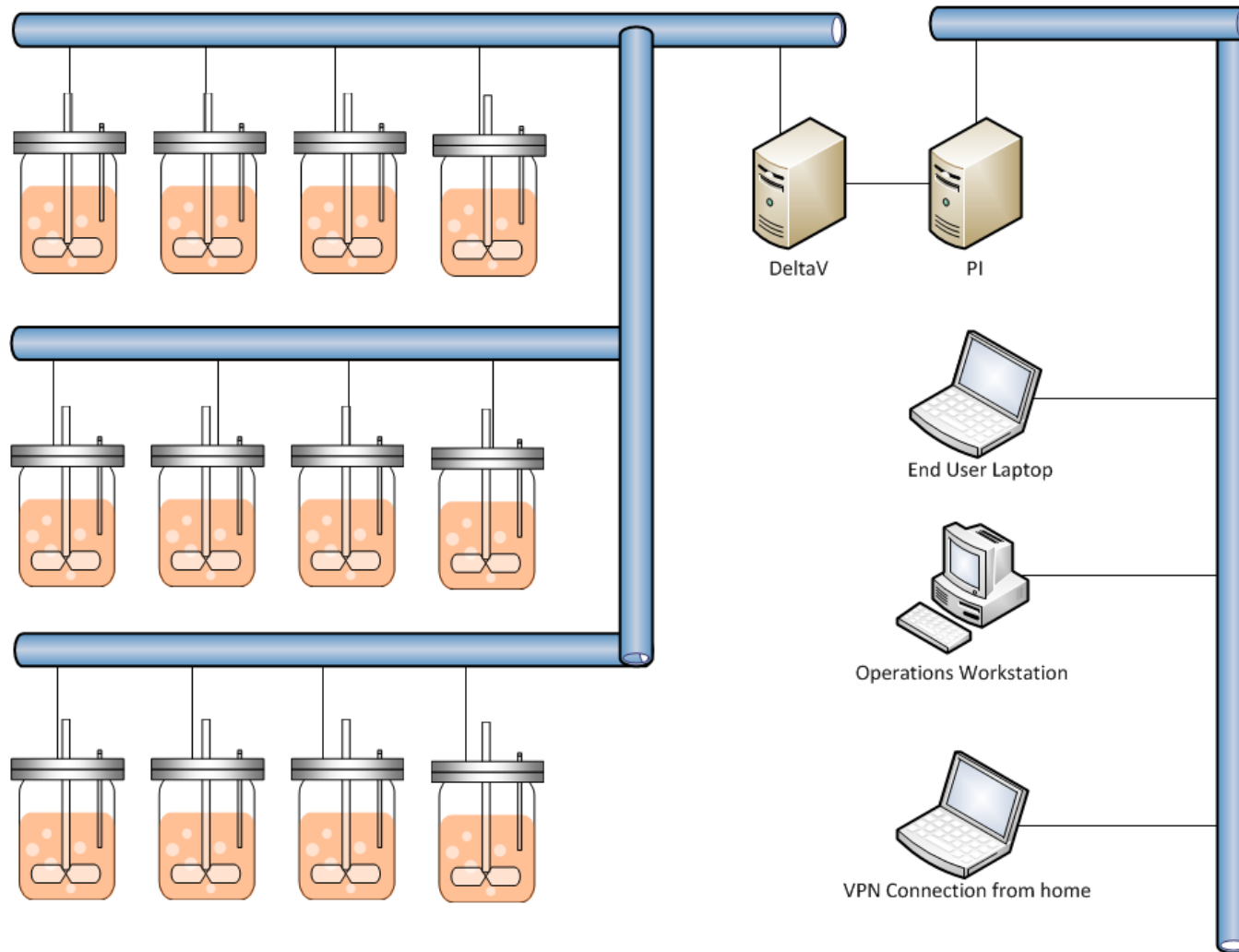
History of Historization in PTD



History of Historization in PTD

- 2009 - Cell Culture PI Server installed
- 2010 - 4 DeltaV systems sending data to PI
- 2010 - Purification skids migrated from IP21
- 2011 - Custom web client developed by GAP
- Since - Additional analyzers, systems added

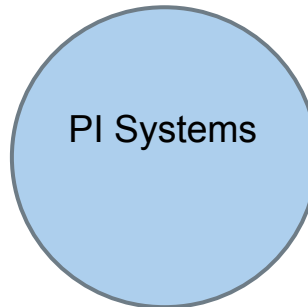
Current State



Current State

Data Sources

- DeltaV Systems
- Rockwell PLCs
- Nova Analyzers
- GE PLCs
- ~~Dasgip Bioreactors~~
- ~~Foxboro DCS~~



PI Clients

- PI ProcessBook / ActiveView Displays
- Data Report Tool
- Custom Web Client
- Matlab Analysis Tool
- PI Coresight

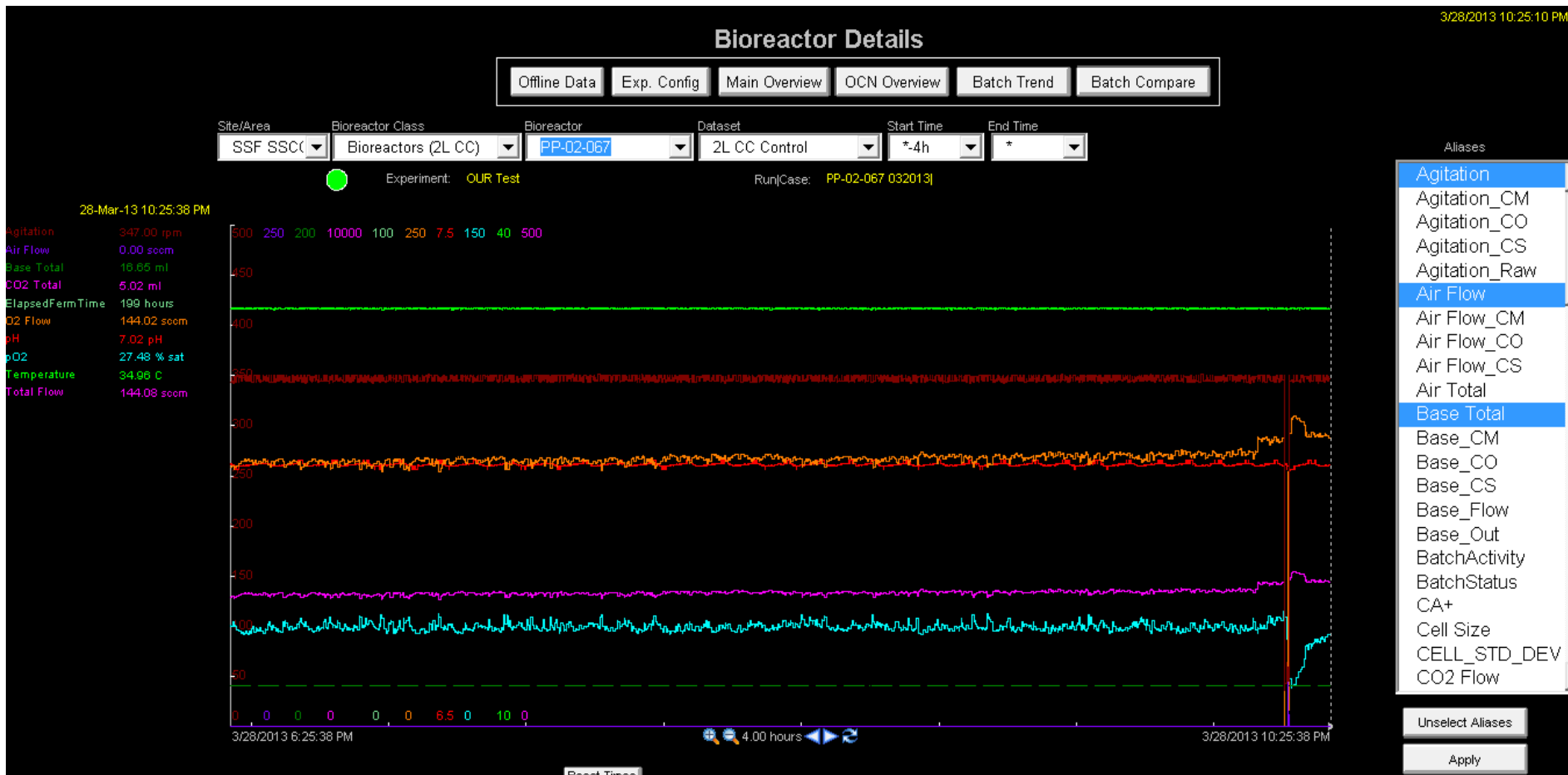
Current State

- PI is the primary software for trend review
- Multiple analytic tools built from one core system
- Preferred historian platform across the Roche network

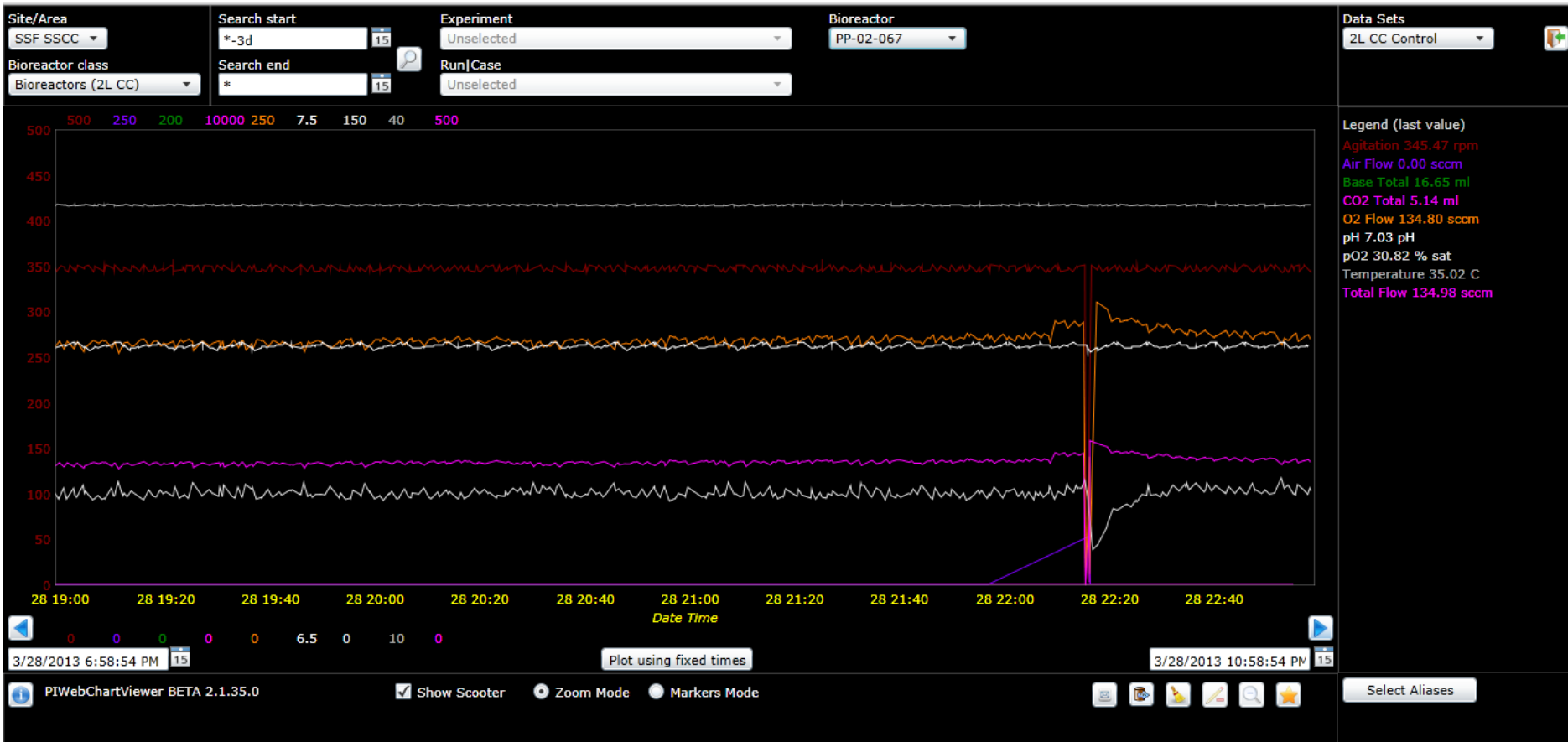
Current State

- Pre-configured displays to ease navigation
- 40 ActiveView displays for on the floor of the labs and pilot plant
- 4 PI ProcessBook terminal servers
- Limited use of DataLink or local PI ProcessBook install
- Custom web based PI client

PI ProcessBook Displays



Custom Web Client



Custom Web Client Challenges

- Still difficult to share trends
- Difficult to service
- Future development expensive
- No mobile platform

2011 – PI Coresight on the Horizon

COTS = lower development and maintenance costs, relative to custom web client

Web based = less client install support

Very easy to share trends, not just screen shots

PI Coresight in PTD

- Enrolled in beta test in November 2011
- Commercial release installed in January 2012
- Gathering regular feedback from a select subset of end users (PTD pilot deployment)

Challenges to Implementing PI Coresight

- Primary PI Server on 3.4.380 (no AF)
- Limited user experience with PI ProcessBook
- Lack of batch relativity
- Unable to specify pen colors

Current State of PI Coresight

- 75 users
- 240 displays
- Still in pilot, not released to all users
- Limited application of AF element templates and categorization

PI Coresight Benefits

- Mac compatibility
- Easy to share - email a link to a trend, not just a screenshot
- Ease of use - first time users don't need extensive instruction
- iPad App allows for on the go trend review

iPad App



For the future

- AF structure providing asset relativity
- Event frames providing batch relativity
- Auto-generated displays from url
- Navigation improvements from Sharepoint(?)



DEMO



THANK

YOU

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