



SUMMARY

Genentech

A Member of the Roche Group

Industry

Life Sciences, Specialty Chemicals

Business Value

- Data Democratization
- Quality Improvement
- Real-time KPI Dashboards
- Regulatory and Compliance
- Safety and Security

PI System™ Components

- PI Server™
 - Data Archive
 - Event Frames
 - Asset Framework (AF)
- PI Vision¹
- PI DataLink
- PI Integrators

Genentech Migrates to Event Frames to Reduce Analysis Time at Pharmaceutical Facility by 25%

A member of the Roche Group, Genentech is a leading biotechnology company that discovers, develops, manufactures and commercializes medicines to treat patients with serious or life-threatening medical conditions. Although Genentech has been a PI System user for over 15 years, they were initially hesitant to embrace Event Frames as a new batch technology until they assessed the cost, value and functionality.

"We're constantly trying to figure out how we can get better, and management, VPs, senior directors, everyone through the chain supports that," said Myles Sumlin, senior engineer at Genentech. After spending countless hours parsing through reports to compile required compliance data, Sumlin led his team to develop a plan to upgrade to PI Server 2015 and deploy Event Frames with minimal impact to system uptime, user procedures or project budget.

With the assistance of system integrator Control Systems Integration, Inc., Genentech became the first large scale pharmaceutical to realize the value of Event Frames by configuring key performance indicators (KPIs) and reducing analysis time by 25%.

Solving the Issue of Multi-Sourced Data

As with many organizations, especially in the pharmaceutical industry, there is a wide spectrum of data sources, spreadsheets and tools, making it difficult to aggregate, analyze and make decisions. Prior to the Event Frames implementation, Genentech staff were spending numerous hours analyzing PI System data in spreadsheets. Many of their KPIs were being calculated in the DeltaV control system and later documented in PI Batch while other KPIs were being manually calculated in other tools, such as Excel and Matlab.

"Our scientists and our engineers are constantly calculating data, analyzing it and using all sorts of different tools...Sometimes it's multi-sourced...And not all of it is directly linked to PI Batch. So we're constantly trying to figure out how we can bring this all together in one spot so that it's easy for a super user," said Sumlin.

Genentech was able to centralize multiple data sources by upgrading to PI Server 2015, developing a full virtual environment of Asset Framework (AF) and interface servers that would link to their control systems to pull data, and migrating data from PI Batch to Event Frames. In an initial test migration, the team used the Emerson DeltaV Batch Interface to move three years of batch data and a total of 2 million events into Event Frames.

Once everything proved successful, the team moved forward with the official migration of all data dating back to April 2006 -- a total of 7 million events over

10 years. Sumlin recalled, "For our users, the key was just communicating to them that they weren't going to lose anything. All the data would be migrated over. And the server itself... the historical data, all of that would be readily available." The entire migration required just three days of downtime.

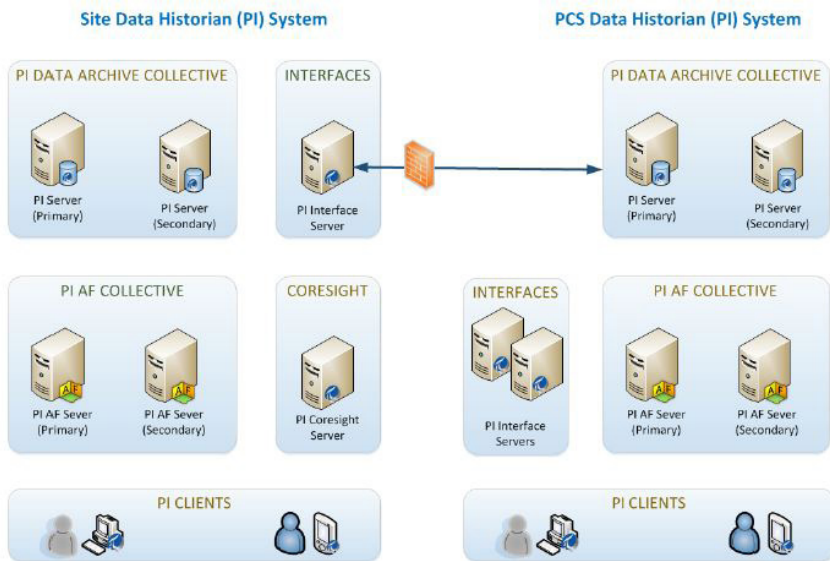


Figure 1: Genentech used a PI to PI interface to connect its two PI Systems - the "embedded PI System" that is part of its DeltaV control system and the site PI System in which the team performs its advanced data analysis.

Realizing Value Over Time

With the migration, Event Frames now allows users to view value immediately and reduce analysis time by an estimated 25%. There is no longer a need to wait on the EBR from the MES, and Genentech saves hours every week because employees no longer have to go through and build templates from scratch for different users. "Being able to just pull up, in most cases either DataLink or PI System Explorer and see that Event Frame and get that value themselves without crunching the data has been huge for them," said Sumlin. "And then they can focus their efforts on other things in our process, deviation management, etc."

Sumlin also mentioned that this project provided the team with confidence in the PI System. "I always say that PI is a powerful tool that we never come close to taking advantage of all the things it can do...This project has helped... convince many of those super users that we can keep innovating with these tools, and they do work, and they do get the job done."

In addition, this migration to OSIsoft's Event Frames has set off a variety of new procedures to be implemented at Genentech to better realize the value of viewing and analyzing data all in one place. With more accurate data and easy-to-use templates and notifications, the team now has the infrastructure and capability to streamline its processes, drill down and capture specific events, and focus on the right KPIs.

¹ PI Coresight was renamed to PI Vision in 2017

Sumlin, Myles. *Migrating a Pharmaceutical Facility to Event Frames*. OSIsoft.com. 6 April 2016. Web. 19 April 2016. <<http://www.osisoft.com/Presentations/Migrating-a-Pharmaceutical-Facility-to-Event-Frames>>.

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Myles Sumlin
Senior Engineer
Genentech