



Data Sharing in an OEM Environment

Presented by **Doug Berg, Brian Goldinger (Eli Lilly)**
Colin Moore, Abel Padilla (PA-ATS)



Agenda for Today's Presentation

- About Lilly and PA-ATS
- Business Context and Challenges
- Data Collection Architecture
- OEM Implementations
- Virtual Environment
- Merging Configuration
- Performance Parameters
- Challenge – Solution - Results
- If You Found This Interesting...
- Contact Information for Presenters

Eli Lilly and Company

Key Facts

Lilly at a Glance

- A heritage 140 years strong: company founded on May 10, 1876
- Headquarters located in Indianapolis, Indiana, U.S.A.
- Approximately 41,000 employees worldwide
- More than 9,000 employees engaged in research and development
- Clinical research conducted in more than 55 countries
- Research and development facilities located in six countries
- Manufacturing plants located in 13 countries
- Products marketed in 120 countries

2016 Financials

(dollars in millions, except per-share data)

- Net sales: \$19,958.7
- Net income as reported: \$2,408.4
- Earnings per share as reported: \$2.26
- Dividends paid per share: \$2.00



Lilly and OSIssoft

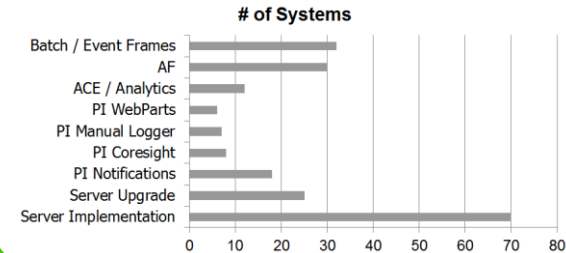
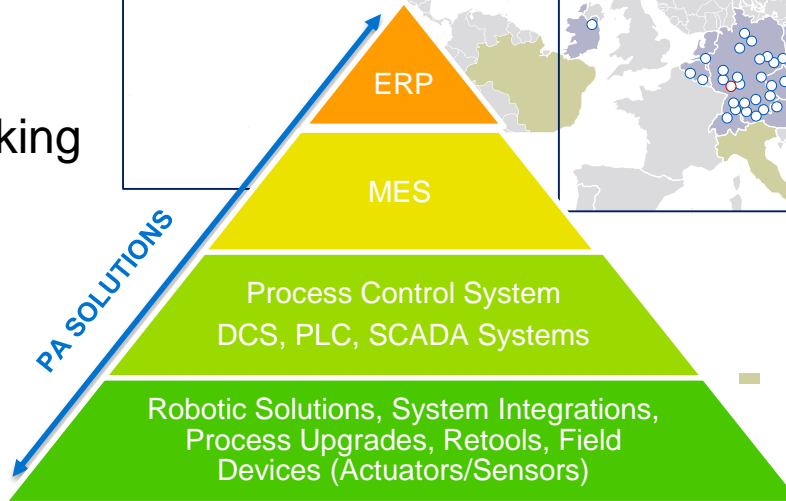
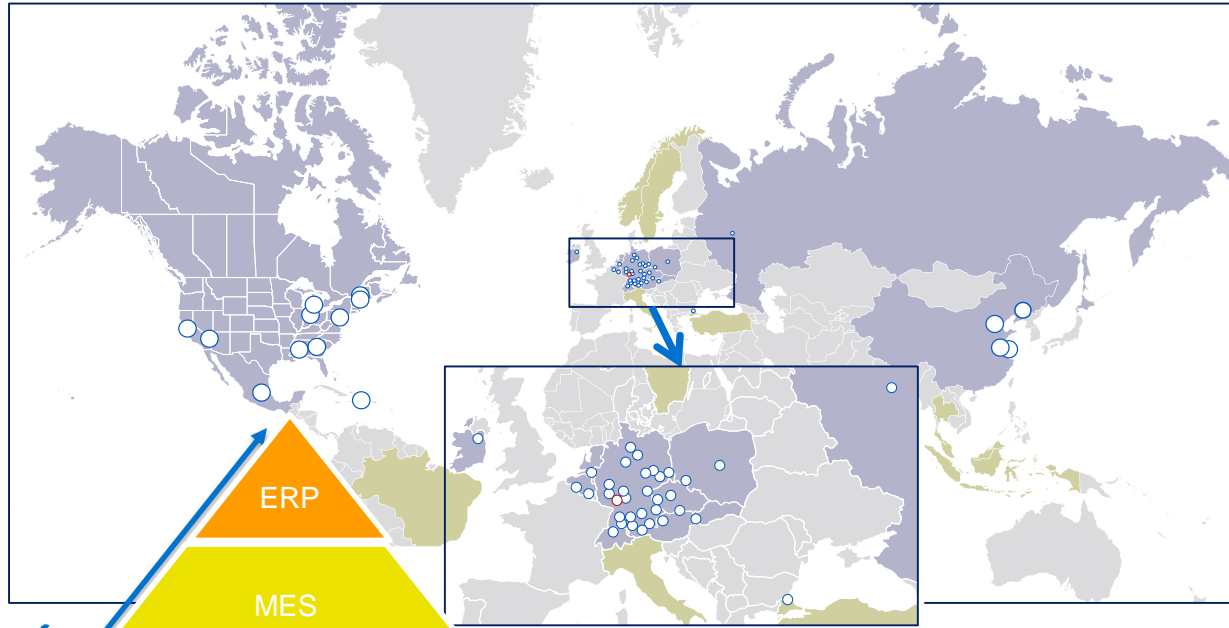
- PI System[®] user since 1995, with implementations across 22 manufacturing facilities worldwide
- 1 million estimated PI Tag[™] count
- This presentation is focused in the Medical Device component of our Manufacturing division.



PROCESS AUTOMATION SOLUTIONS™

an  company

- Acquired September 2014
- Founded in 1986
- Presence in 16 countries
- Network of 47 offices
- 25+ (5 Accredited) engineers actively working on OSIsoft projects
- Industry Segments
 - Pharma/Biotech
 - Food & Beverage
 - Mining/Metals
 - Power Generation



Business Context

- Lilly's medical devices are assembled as discrete parts from discrete components
- Our custom assembly machines are designed and built by Original Equipment Manufacturers (OEMs)
- Assembly technology is typically “indexing motion” or “continuous motion”
- Throughput up to 240 ppm today
- Considerable focus at OEM on quantifying performance and variability



Humalog® U-200 KwikPen®



Business Challenge

- Variability
 - Studying part/machine variability requires large data sets over time, different analysis techniques. No consistent, robust tool for this. Stats experts not always at OEM; PI Cloud Connect™ offers options.
- Machine Performance Baseline
 - Subtle performance changes over time due to transport and component wear. Longtime reference to baseline is advantage
- Debug Support
 - OEM can't always debug alone during startup. PI Cloud Connect offered flexibility of engineering support from the Lilly offices, reducing travel and allowing broader analysis.

Data Sharing in an OEM Environment

COMPANY and GOAL

Eli Lilly and Company, a global leader in healthcare, continuously optimizes the delivery of medical device assembly lines to ensure patients have the medicines they need when they need them.



CHALLENGE

Characterizing assembly line variability and speeding debug extended assembly line delivery time/cost.

- OEMs do not generally have pervasive data collection/analysis tools on site

SOLUTION

PI System ® allows us to quickly deploy a system to collect required data at the OEM; PI Cloud Connect™ lets us bring additional expertise to bear in real time

- Tools include PI DataLink® and PI Coresight™

RESULTS

Results are still being measured. Come back next to #OSIssoftUC next year

If You Found This Interesting...

- This is really the first act of a two-act play.
- We have another presentation at the User Conference, where we discuss how this solution is used in production at the contract manufacturer facility for ongoing manufacturing operations.
- You are welcome to join us for “Data Sharing in a Contract Manufacturing Environment”, which takes place later today.

Contact Information

Doug Berg

dberg@lilly.com

Automation Engineer
Eli Lilly and Company



Brian Goldinger

bpg@lilly.com

IT Consultant
Eli Lilly and Company



Contact Information

Colin Moore

colin.moore@pa-ats.com

Director of Operations - Midwest
Process Automation Solutions



Abel Padilla

abel.padillamijares@pa-ats.com

Sr. System Integrator
Process Automation Solutions



Questions

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State your **name & company**

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谢谢

Danke

Merci

Gracias

Thank You

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Спасибо

Obrigado