OSISoft PI Integration with PharmaSuite MES

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Harald Hermann, Rockwell Automation

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Imagine

An automatic Golden Batch analysis
while the current batch is still running- phase by phase.

A Continued Process Verification Report ready
soon the batch is finished.

Receive a notification
if the current batch is not running ideal.

CPV tools can be utilized not just product specific, but holisticly.

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Agenda

- Introduction HME AG
- Introduction Rockwell Automation
- PI System and Pharmasuite – What are the synergies?
- Overview OSIsoft Interface for Rockwell Pharmasuite
- How can the interface make life easier
- Roadmap
- Q&A

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HME AG

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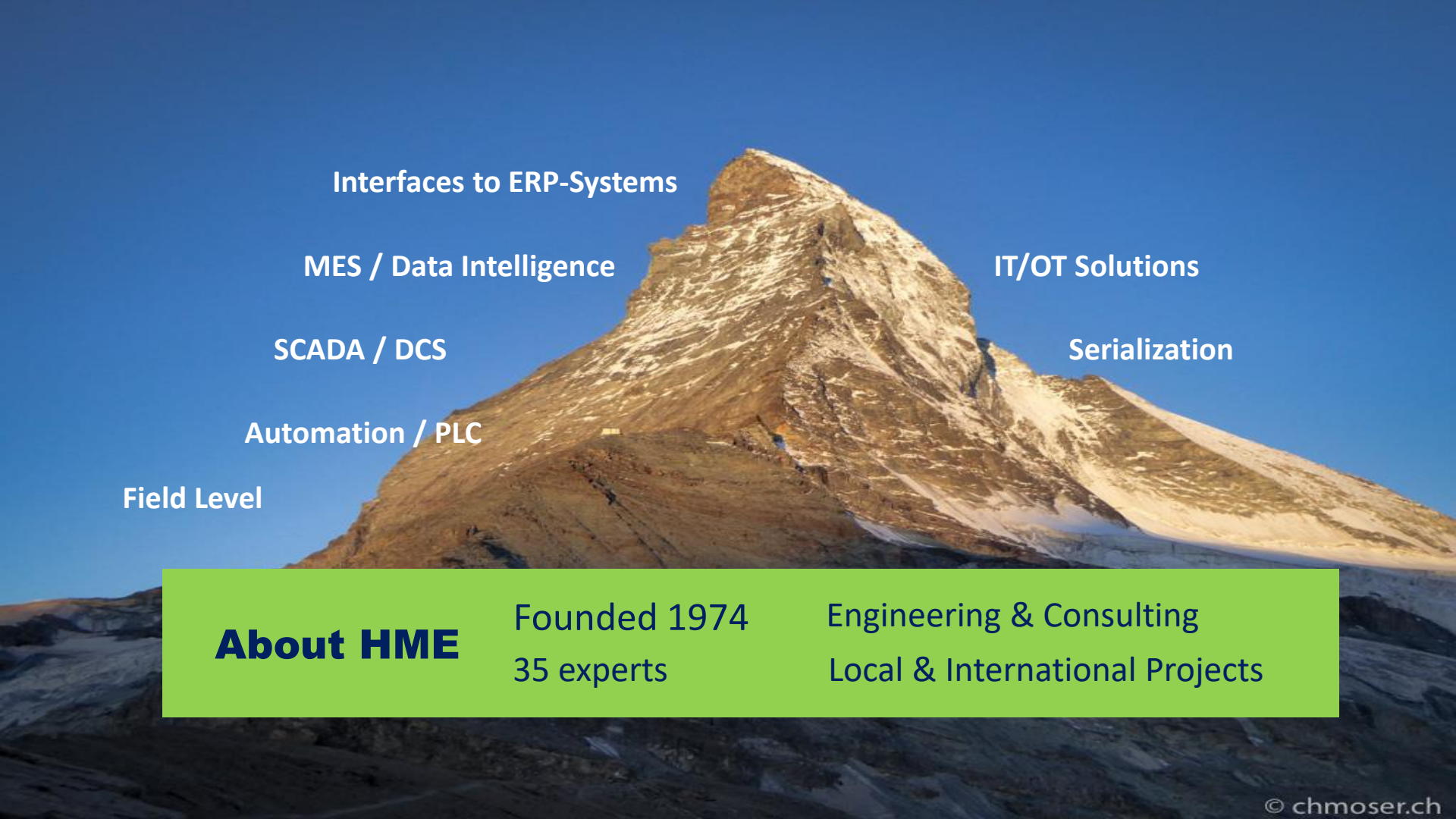
Interfaces to ERP-Systems
MES / Data Intelligence
SCADA / DCS
Automation / PLC
Field Level
IT/OT Solutions
Serialization
About HME
Founded 1974
35 experts
Engineering & Consulting
Local & International Projects
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References, Global Projects

150+ satisfied long-time customers
2,000+ Projects
1,000,000+ Hours Engineering

Partnerships

PI System Integrator

20+ Years of PI Experience

Consulting

Qualification

Interfaces

Support

Design

Conceptualize

Training

Realization

Global rollouts

OSIsoft partner

Solution Partner
Automation Drives
SIEMENS

Siemens Solution Partner
Certified Siemens Specialist **WinCC**
Certified Siemens Specialist **PCS7**

Solution Provider of GE Intelligent Platforms
- Proficy CIMPLICITY
- Proficy iFIX
- Proficy Historian

Recognized System Integrator
A ROCKWELL AUTOMATION PARTNER

DELTAV

Emerson DeltaV System Integrator

COPADATA
Registered Partner

Zenon COPADATA Registered Partner

Registered
Alliance System Integrator
Schneider Electric

Schneider Registered Alliance System Integrator

Recognized System Integrator

A ROCKWELL AUTOMATION PARTNER

MES

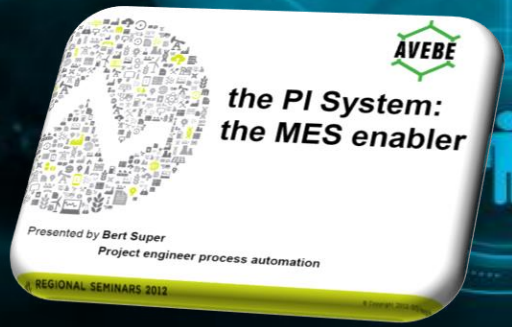
Recognized System Integrator for Information / MES Pharmasuite

Your SI in Switzerland for MES Pharmasuite by Rockwell Automation

Consulting Design Concepts

Qualification MES process design Realization

Interfaces Support Training Global rollouts



Rockwell Automation

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Rockwell Automation at *A GLANCE*

OUR STRATEGY IS TO BRING THE CONNECTED ENTERPRISE TO LIFE

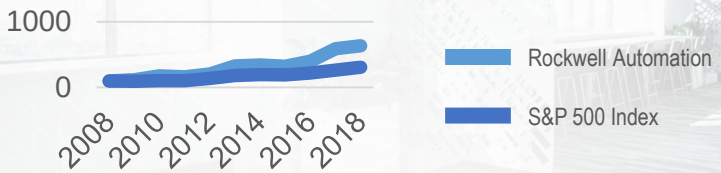
We integrate control and information across the enterprise to help industrial companies and their people be more productive.

$6.7B
FISCAL 2018 SALES

23,000
EMPLOYEES

80+
COUNTRIES

TOTAL **SHAREOWNER RETURN** HISTORY



ABOVE-MARKET GROWTH | PRODUCTIVITY | INTELLECTUAL CAPITAL **VALUE CREATION**

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Long Term Partnership- established 2006

Rockwell Automation

- Leadership in Automation and Information ***Solutions***
- Integrated Control and Information Platform
- Global Solution Provider
- Scalable offering from products to solutions

- Enterprise Data Infrastructure
- Performance Management Software ***Products***
- Initially a Technology Provider, now Encompass™ partner
- Focuses on value of data driven decision making

Market leaders joining together to provide winning solutions

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MES and PI – Synergies

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Data Historian and MES- Synergies?

Rockwell Automation

PharmaSuite®

- Recipe Management
- Operator Guidance
- Weigh/Dispense
- IPC and Manual Data
- Equipment Lifecycle
- Material Tracking
- Genealogy

PI interface for PharmaSuite

Batch Context on PI Data

Batch Context on PI Data

OSIsoft

- Connectivity
- Time Series Data
- Enterprise Data Repository
- Real Time Data Analysis
- Long Term Data Storage
- Non GMP Data
- Share Data with Everyone

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Pharmasuite Interface

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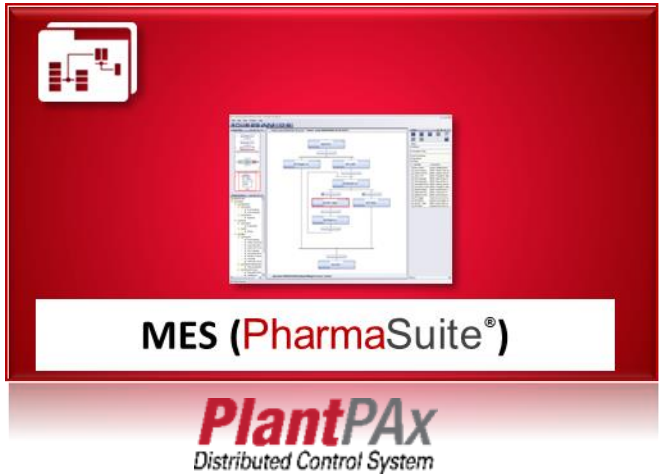
OSISoft Interface for Rockwell Pharmasuite- Data

Business Intelligence,
Statistical Analysis,
Root Cause Analysis,
OEE, Trends in MES
...



Equipment

Material

Batch Record

Logbooks

Assets

EventFrames

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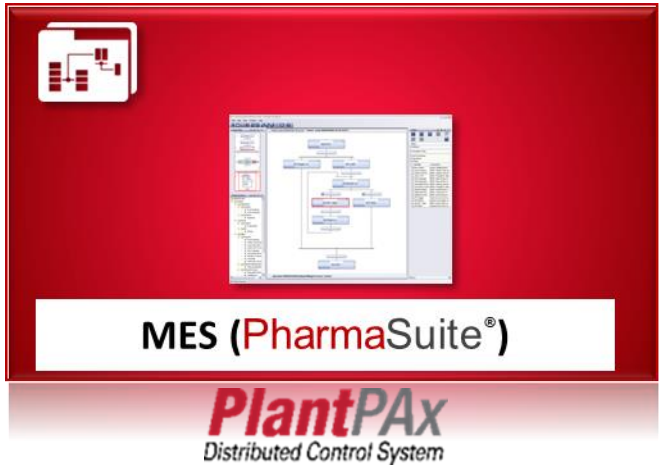
OSIsoft Interface for Rockwell Pharmasuite - Design

Managed by MES

Configurable



Scalable

Open Technology

Transformable

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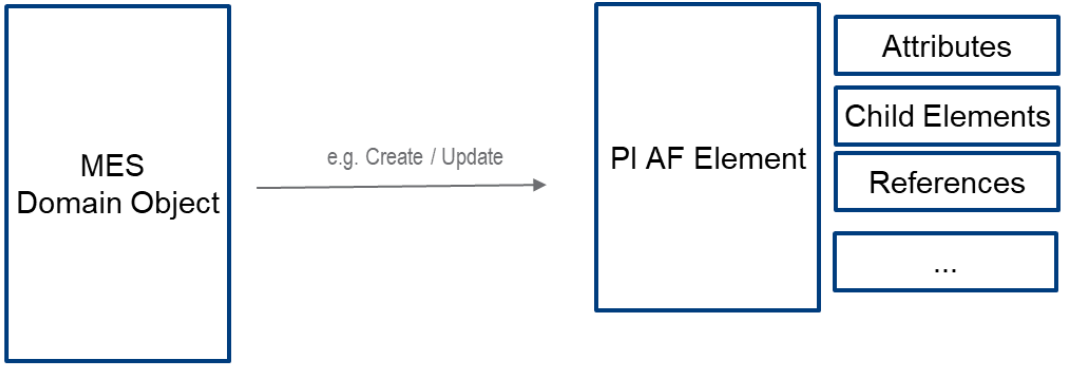
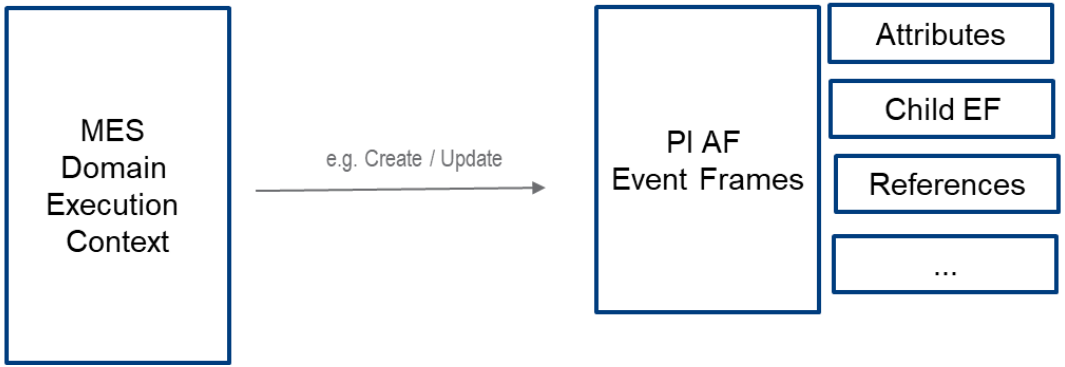
General Representation

- S88 Equipment Classes
- S88 Equipment Entities
- Station
- WorkCenter
- Locations



- Executed Batch Record
- S88 Equipment Logbook
- Order Status



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Interface Preview

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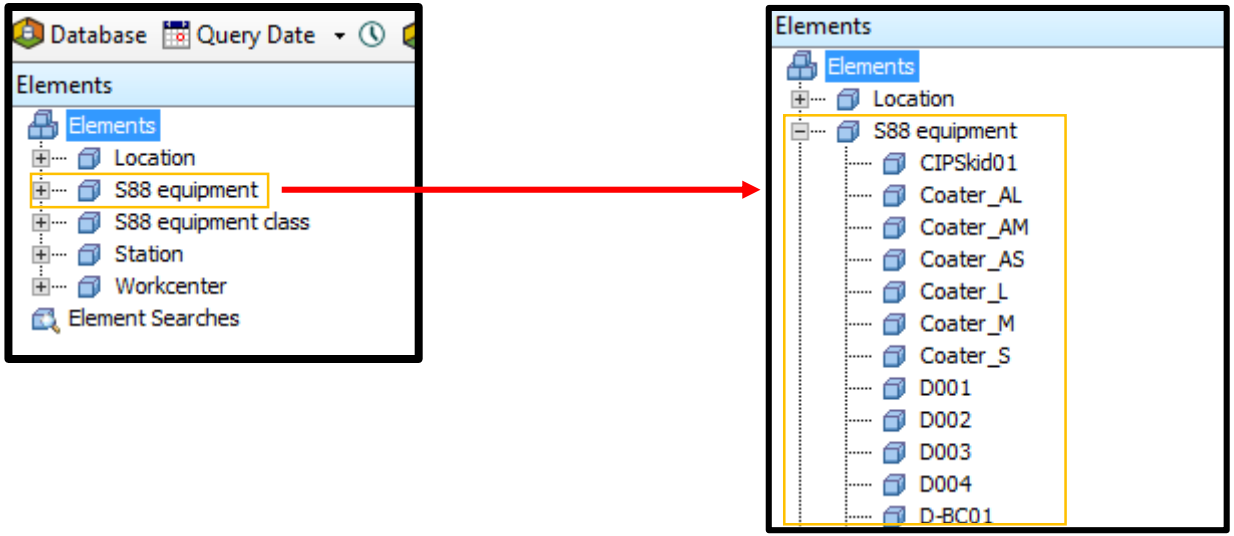
PI Interface for PharmaSuite Batch Preview



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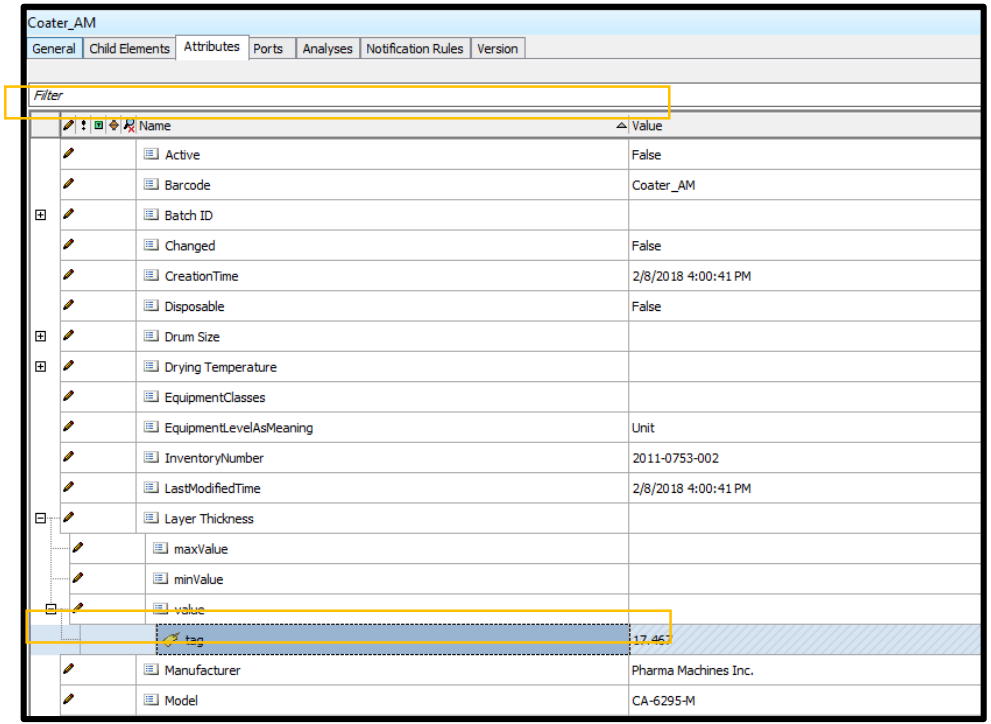
PI Interface for PharmaSuite Batch Preview



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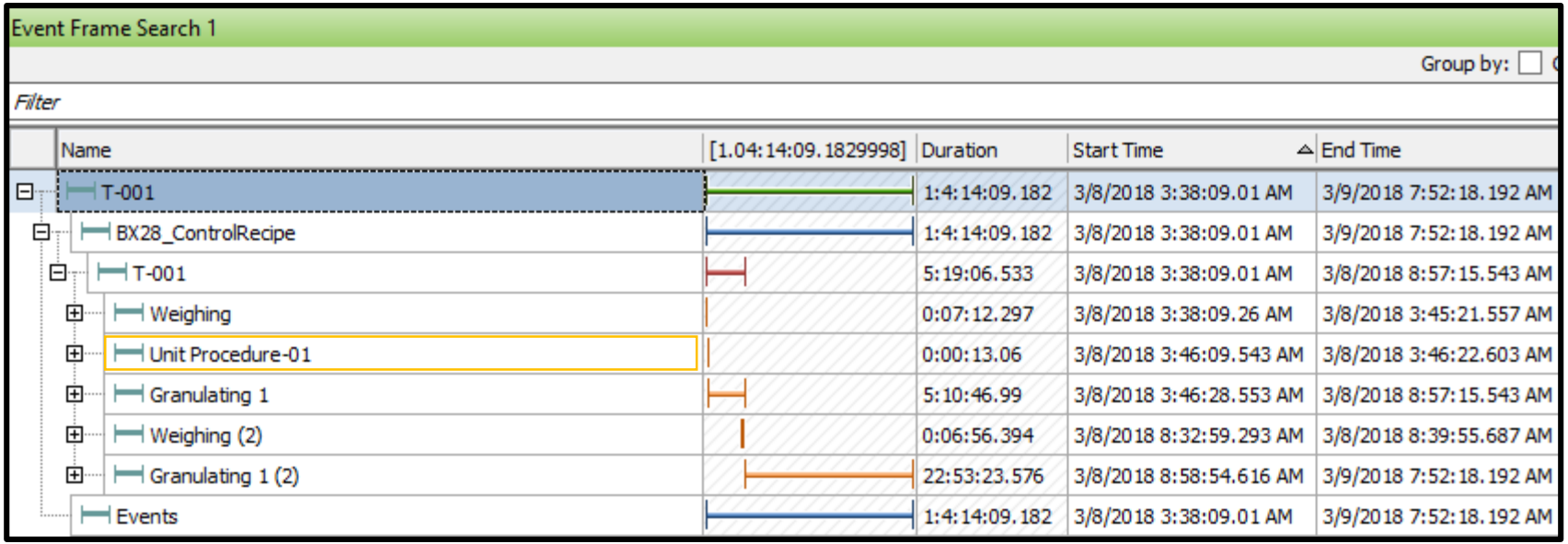
PI Interface for PharmaSuite Batch Preview



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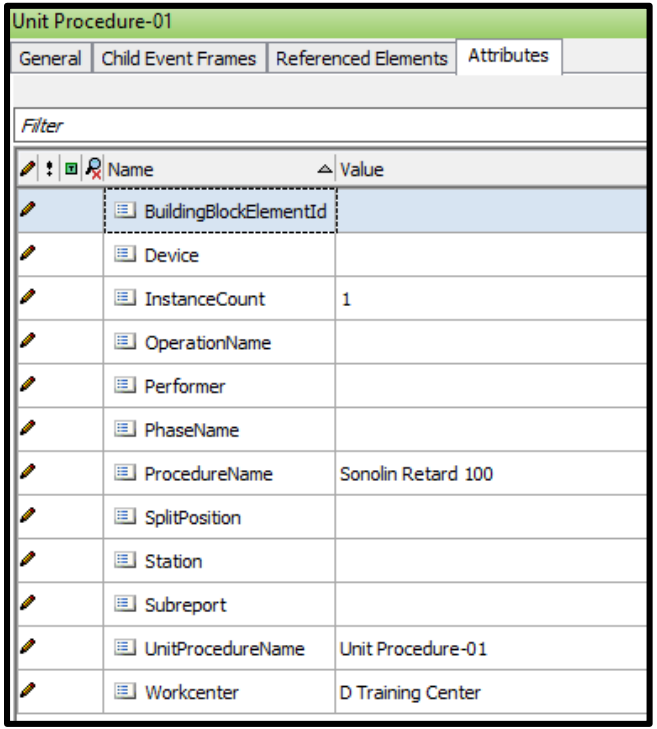
PI Interface for PharmaSuite Batch Preview



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How can the interface make life easier

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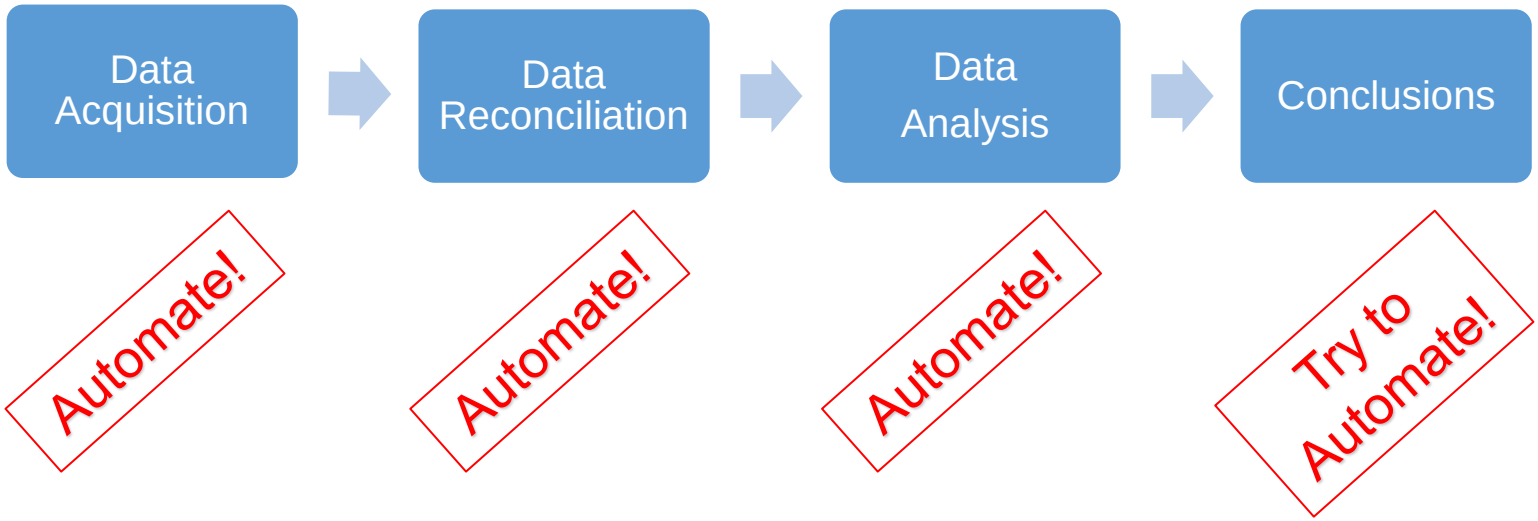
Report Creation Steps



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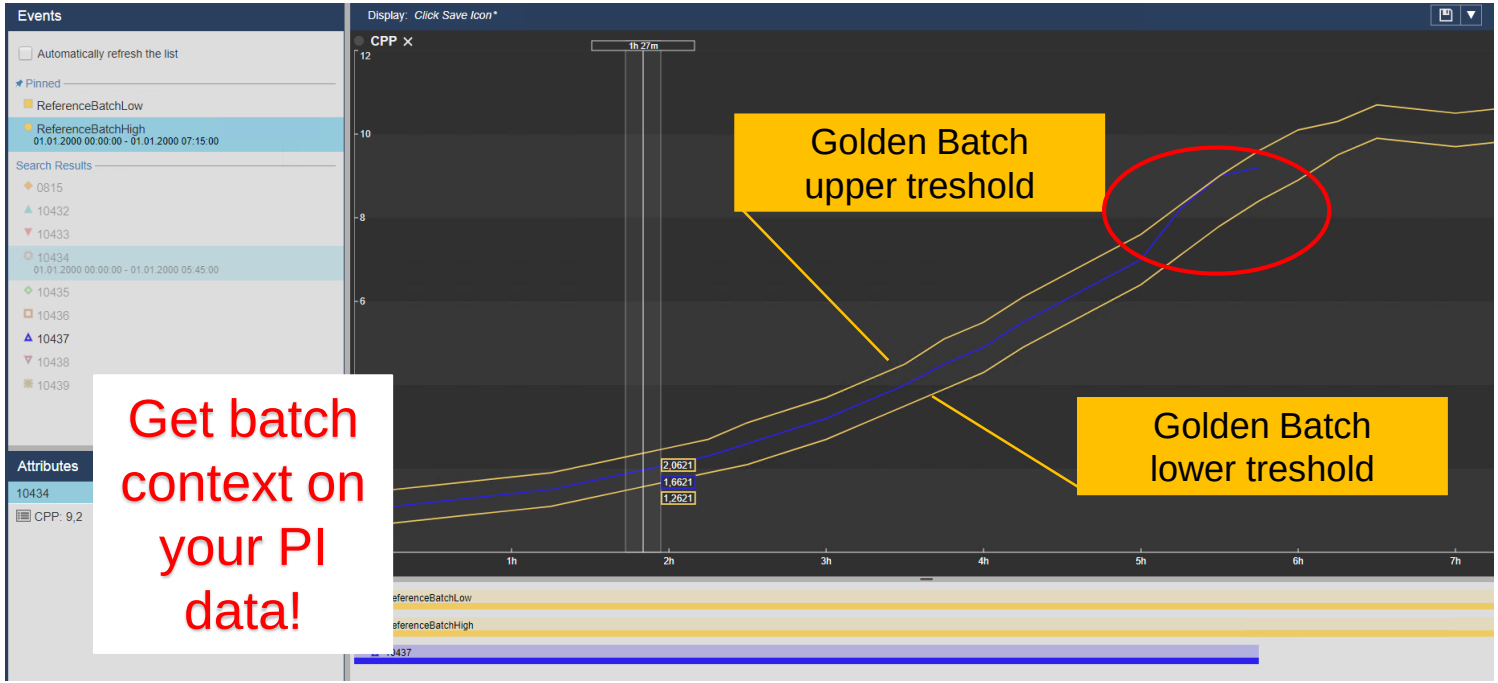
Realtime Golden Batch Monitoring

How is the batch running?

Just got a notification from our PI system. Its not ideal. Talking to the operators…



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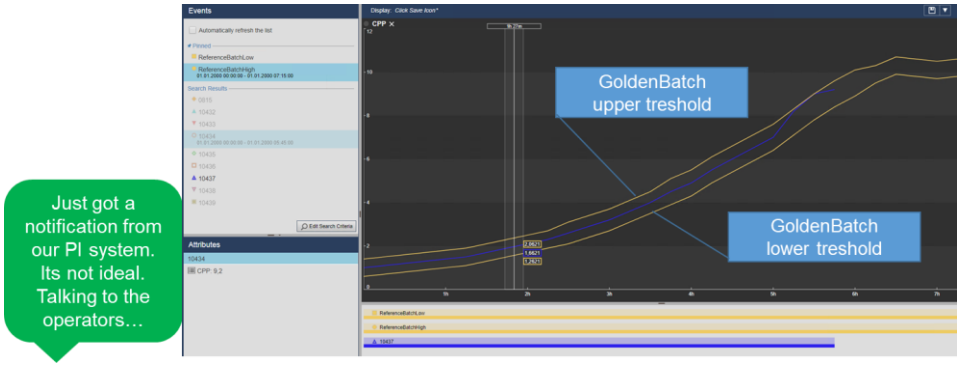
Golden Batch



Benefits of realtime batch monitoring vs retrospective batch monitoring

Improved performance

Higher yields

Higher product quality

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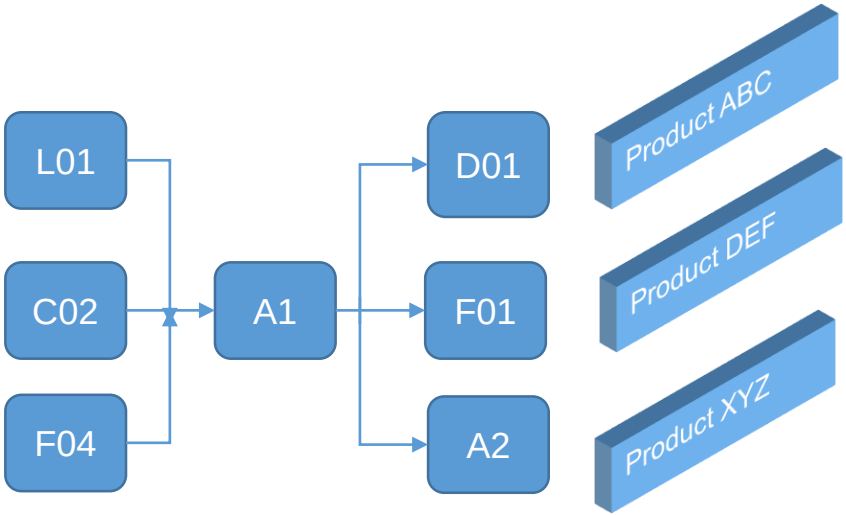
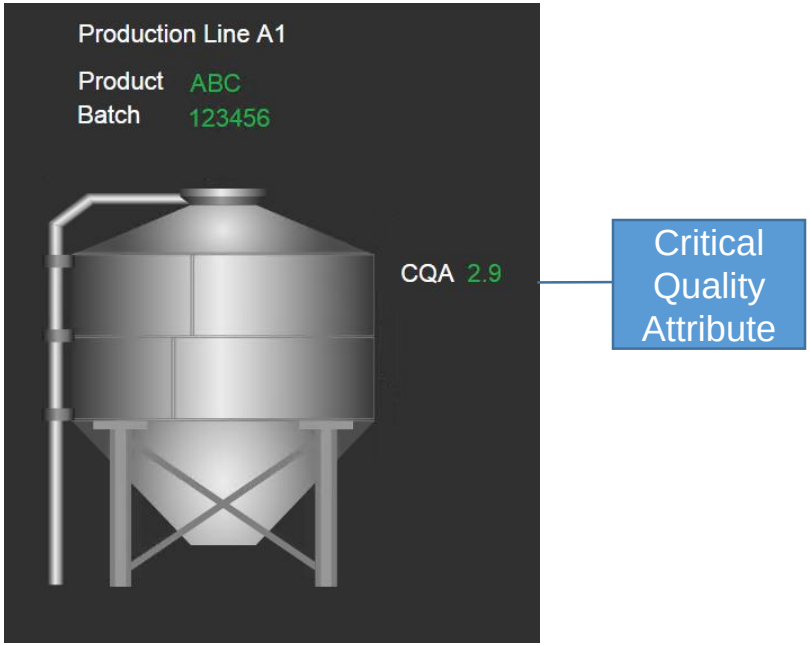
Continued Process Verification

Three individual products



One shared process



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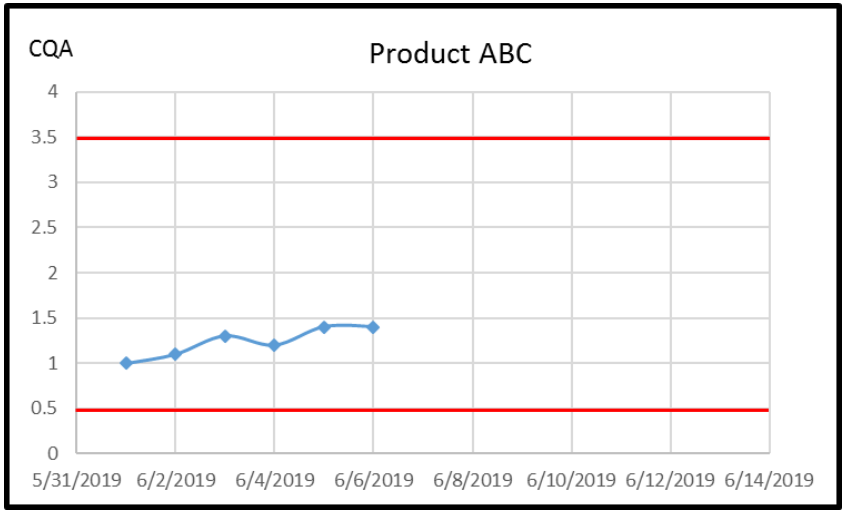
CPV – by product

Do we have a trend in CQA for ABC?



A little low, but no trend

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CPV – by product

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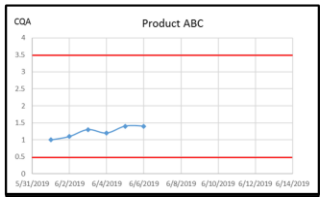
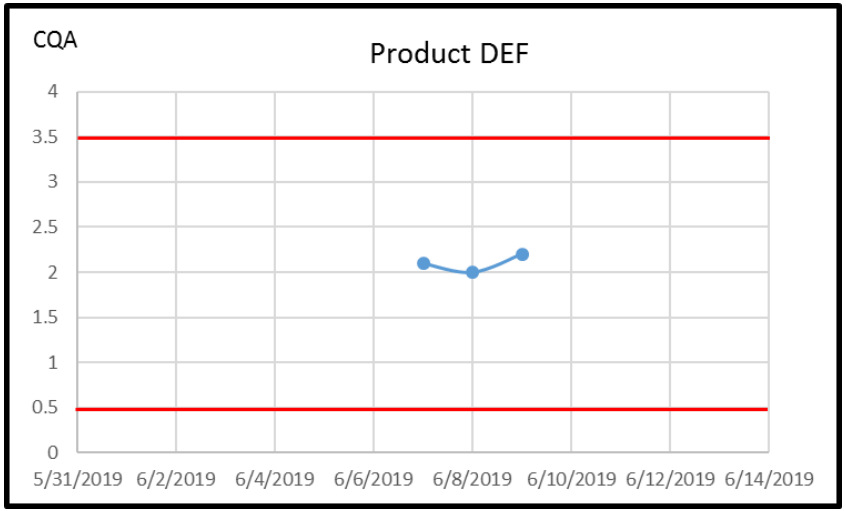


A little low, but no trend

Do we have a trend in CQA for DEF?



No, looks fine.

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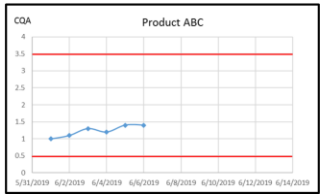
CPV – by product

Do we have a trend in CQA for ABC?



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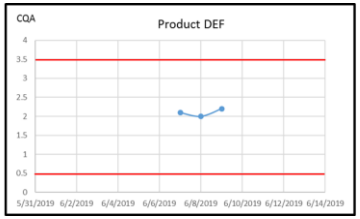
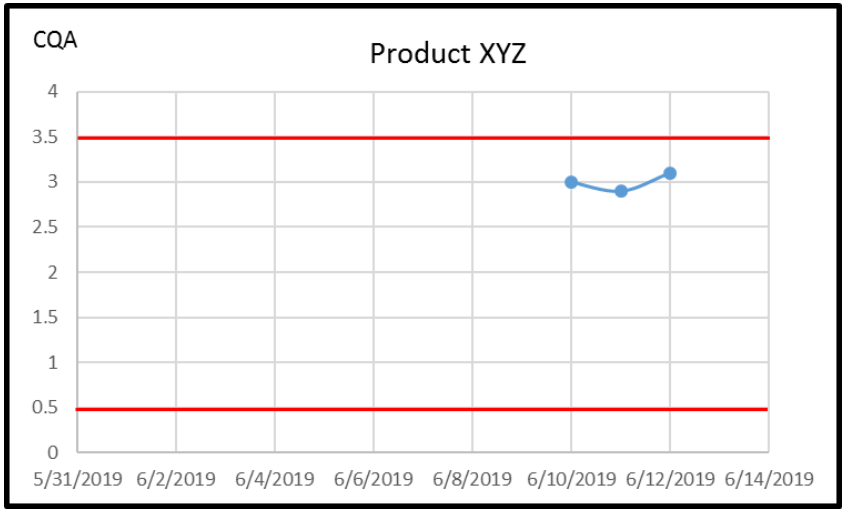


No, looks fine.

Do we have a trend in CQA for XYZ?



A little high, but no trend

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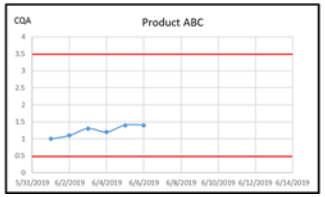
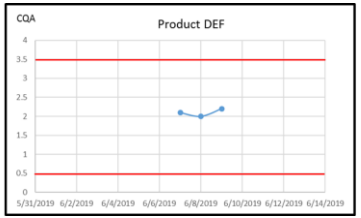
CPV - holistic

Do we have a trend in CQA for ABC?



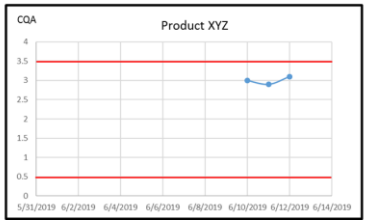
A little low, but no trend

Do we have a trend in CQA for DEF?



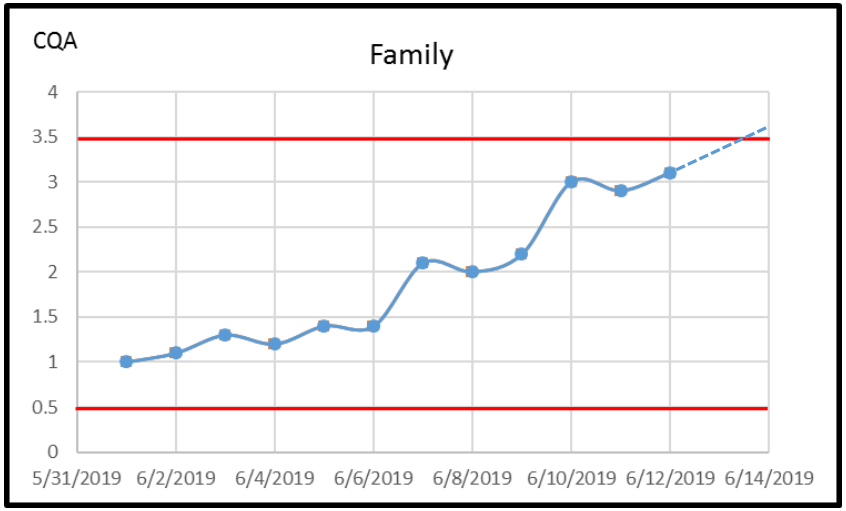
No, looks fine.

Do we have a trend in CQA for XYZ?



A little high, but no trend

Do we have a trend in CQA on the A1 unit?



ohoh

Possible violation within the next 2 batches

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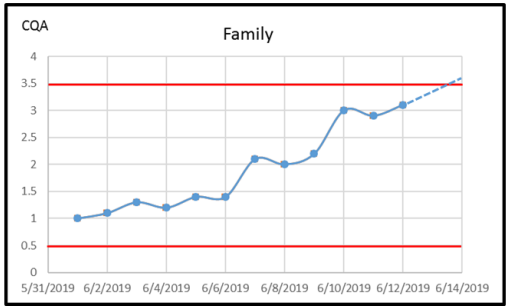
CPV - holistic

Do we have a trend in QCA on the A1 unit?



ohoh

What are the consequences:

- Lost Batch because of OOS
- Stop of production
- Deviation investigation
- Quarantined batches
- Lower OEE
- Lost sales

Benefits of the automated CPV:

Awareness ahead of time
Extra time to find the root cause
No lost batch
No quarantined batches
OEE remains at high level
Reduced costs

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Roadmap

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Roadmap

Demanded by various OSIsoft and RA customers

It was tested using a few selected customer projects

Finishing the development, last stages

When will the interface be released?

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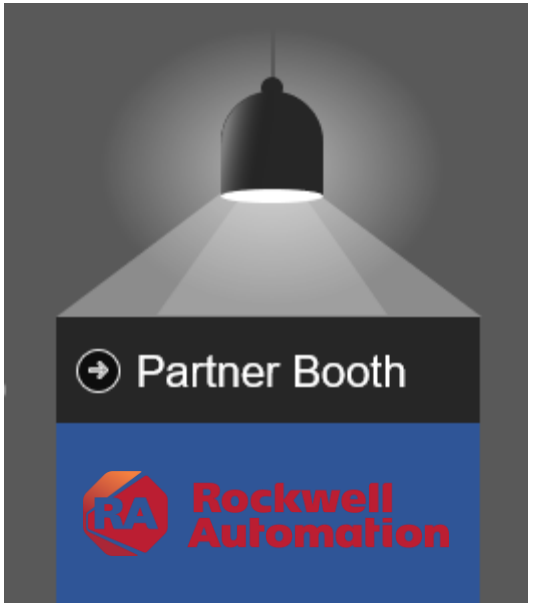

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Questions?

Please wait for the **microphone**

State your **name & company**

Please remember to…

Complete Survey!

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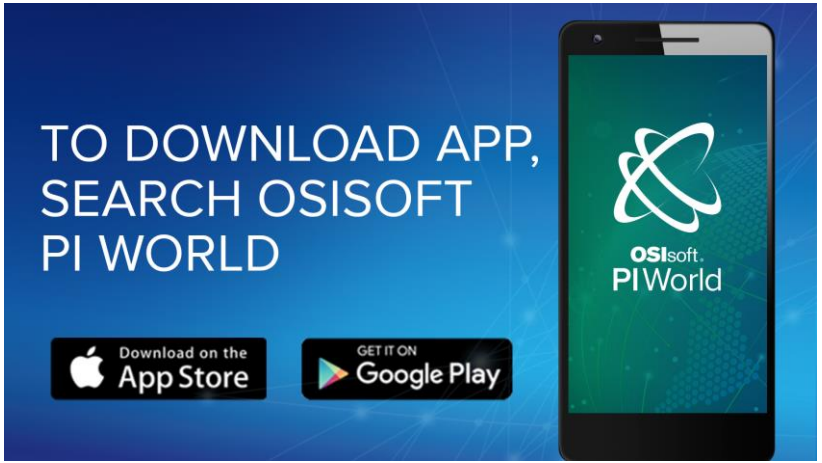

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