



# OSISoft PI Integration with PharmaSuite MES

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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.

# Agenda

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

# HME AG



Interfaces to ERP-Systems

MES / Data Intelligence

IT/OT Solutions

SCADA / DCS

Serialization

Automation / PLC

Field Level

## About HME

Founded 1974  
35 experts

Engineering & Consulting  
Local & International Projects

# References, Global Projects

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



# PI System Integrator

20+ Years of PI Experience

Consulting

Qualification

Interfaces

Support

Design

Conceptualize

Training

Global rollouts

Realization

34N-75-2B

PARTNER

## Partnerships



Solution  
Partner

SIEMENS

Automation  
Drives

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



Emerson DeltaV System Integrator



Zenon COPADATA Registered Partner

Registered  
Alliance System  
Integrator

Schneider  
Electric

Schneider Registered Alliance  
System Integrator



**Recognized  
System Integrator**

A ROCKWELL AUTOMATION PARTNER

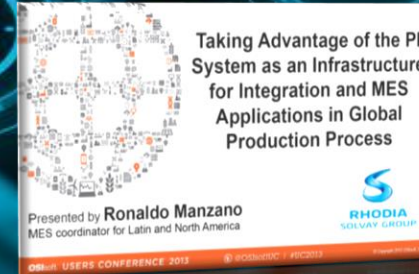
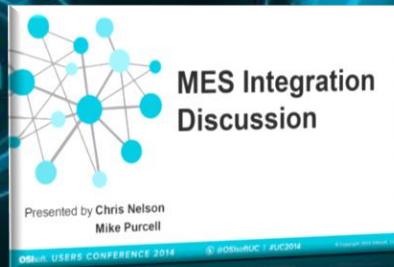
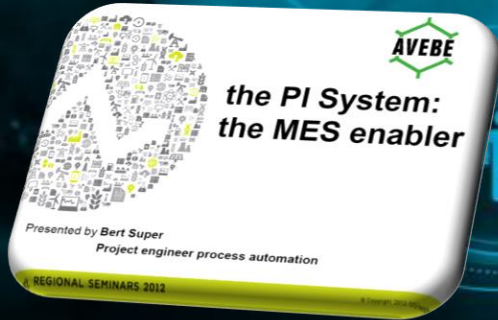
# MES

**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



# Rockwell Automation *at A GLANCE*

## OUR STRATEGY IS TO BRING THE CONNECTED ENTERPRISE TO LIFE

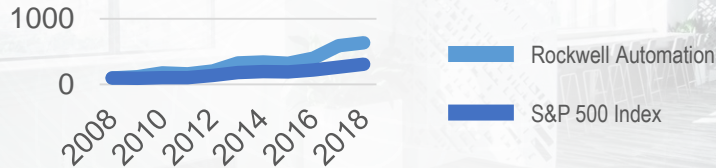
We integrate control and information across the enterprise to help industrial companies and their people be more productive.

**\$6.7B**  
FISCAL 2018 SALES

**23,000**   
EMPLOYEES

**80+**  
COUNTRIES

TOTAL **SHAREOWNER**  
**RETURN** HISTORY



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

# 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***

# MES and PI – Synergies

# Data Historian and MES- Synergies?



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



Connectivity

Time Series Data

Enterprise Data Repository

Real Time Data Analysis

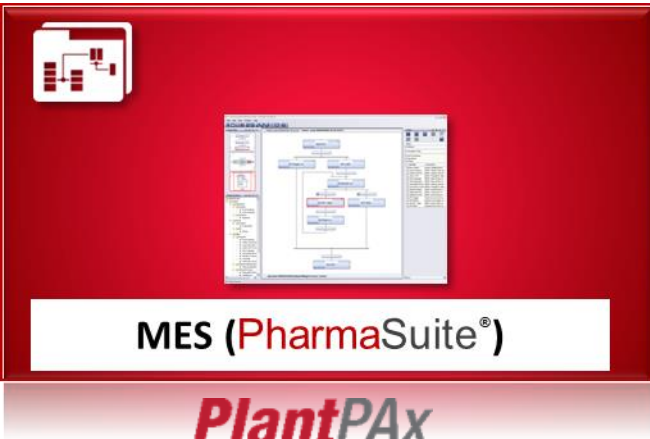
Long Term Data Storage

Non GMP Data

Share Data with Everyone

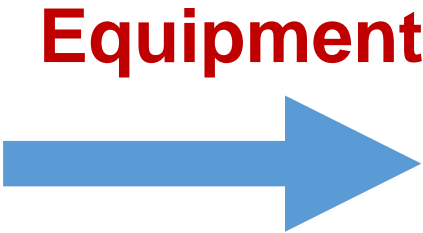
# Pharmasuite Interface

# OSISoft Interface for Rockwell Pharmasuite- Data



**Batch Record**

**Logbooks**



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



**OSI**soft

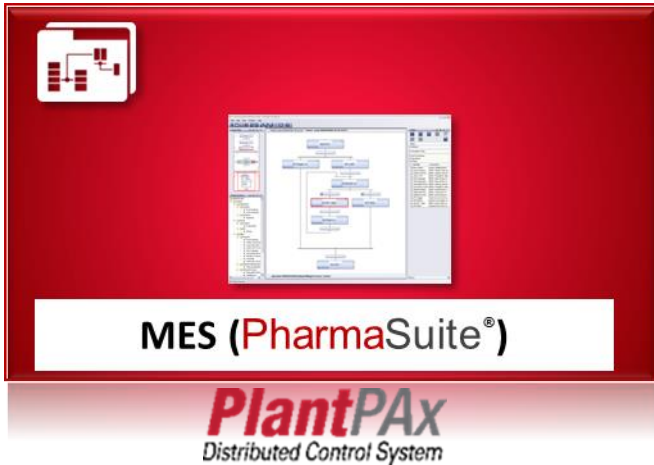
**Assets**

**EventFrames**

# OSIsoft Interface for Rockwell Pharmasuite - Design

**Managed by MES**

**Configurable**



**OSIsoft**

**Scalable**

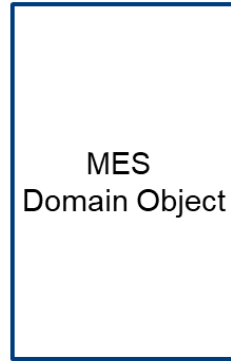
**Open Technology**

**Transformable**

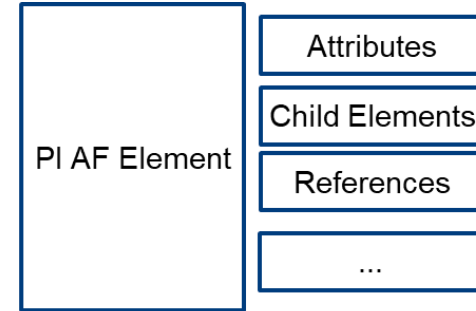


# General Representation

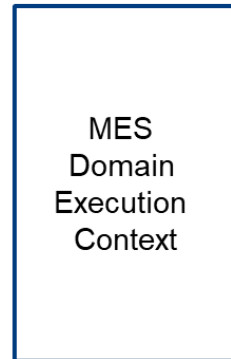
- S88 Equipment Classes
- S88 Equipment Entities
- Station
- WorkCenter
- Locations



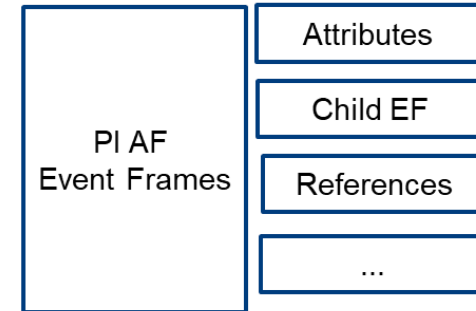
e.g. Create / Update



- Executed Batch Record
- S88 Equipment Logbook
- Order Status

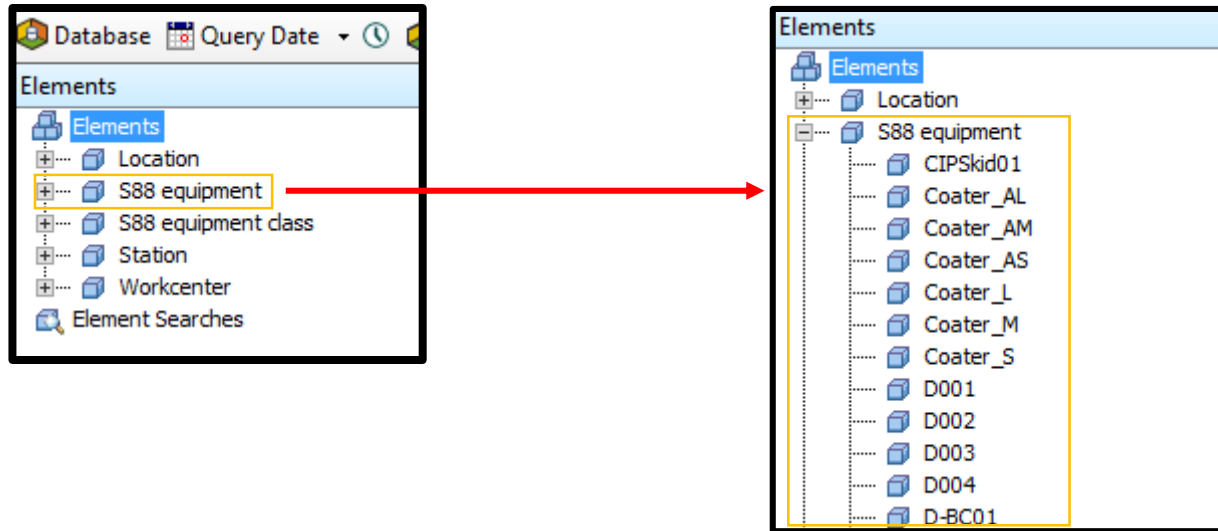


e.g. Create / Update



# Interface Preview

# PI Interface for PharmaSuite Batch Preview



# PI Interface for PharmaSuite Batch Preview

The screenshot displays the 'Coater\_AM' batch preview interface. The table lists various attributes and their values. A yellow box highlights the 'Filter' field at the top. Another yellow box highlights the '-value' attribute in the table, which has a value of 17.465. The table also includes a 'tap' icon next to the '-value' attribute.

Name	Value
Active	False
Barcode	Coater_AM
Batch ID	
Changed	False
CreationTime	2/8/2018 4:00:41 PM
Disposable	False
Drum Size	
Drying Temperature	
EquipmentClasses	
EquipmentLevelAsMeaning	Unit
InventoryNumber	2011-0753-002
LastModifiedTime	2/8/2018 4:00:41 PM
Layer Thickness	
maxValue	
minValue	
-value	17.465
Manufacturer	Pharma Machines Inc.
Model	CA-6295-M

# PI Interface for PharmaSuite Batch Preview

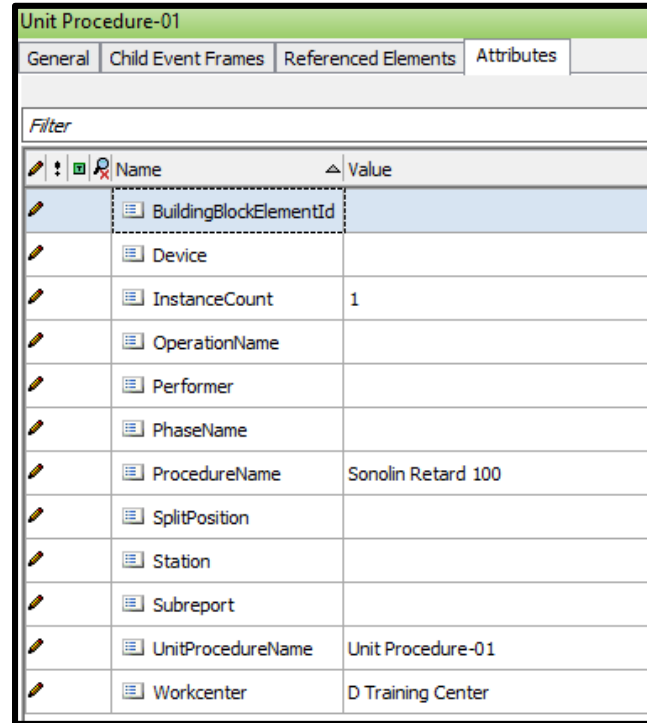
Event Frame Search 1

Group by:  C

Filter

	Name	[1.04:14:09.1829998]	Duration	Start Time	End Time
[-]	T-001		1:4:14:09.182	3/8/2018 3:38:09.01 AM	3/9/2018 7:52:18.192 AM
[-]	BX28_ControlRecipe		1:4:14:09.182	3/8/2018 3:38:09.01 AM	3/9/2018 7:52:18.192 AM
[-]	T-001		5:19:06.533	3/8/2018 3:38:09.01 AM	3/8/2018 8:57:15.543 AM
[+]	Weighing		0:07:12.297	3/8/2018 3:38:09.26 AM	3/8/2018 3:45:21.557 AM
[+]	Unit Procedure-01		0:00:13.06	3/8/2018 3:46:09.543 AM	3/8/2018 3:46:22.603 AM
[+]	Granulating 1		5:10:46.99	3/8/2018 3:46:28.553 AM	3/8/2018 8:57:15.543 AM
[+]	Weighing (2)		0:06:56.394	3/8/2018 8:32:59.293 AM	3/8/2018 8:39:55.687 AM
[+]	Granulating 1 (2)		22:53:23.576	3/8/2018 8:58:54.616 AM	3/9/2018 7:52:18.192 AM
[+]	Events		1:4:14:09.182	3/8/2018 3:38:09.01 AM	3/9/2018 7:52:18.192 AM

# PI Interface for PharmaSuite Batch Preview

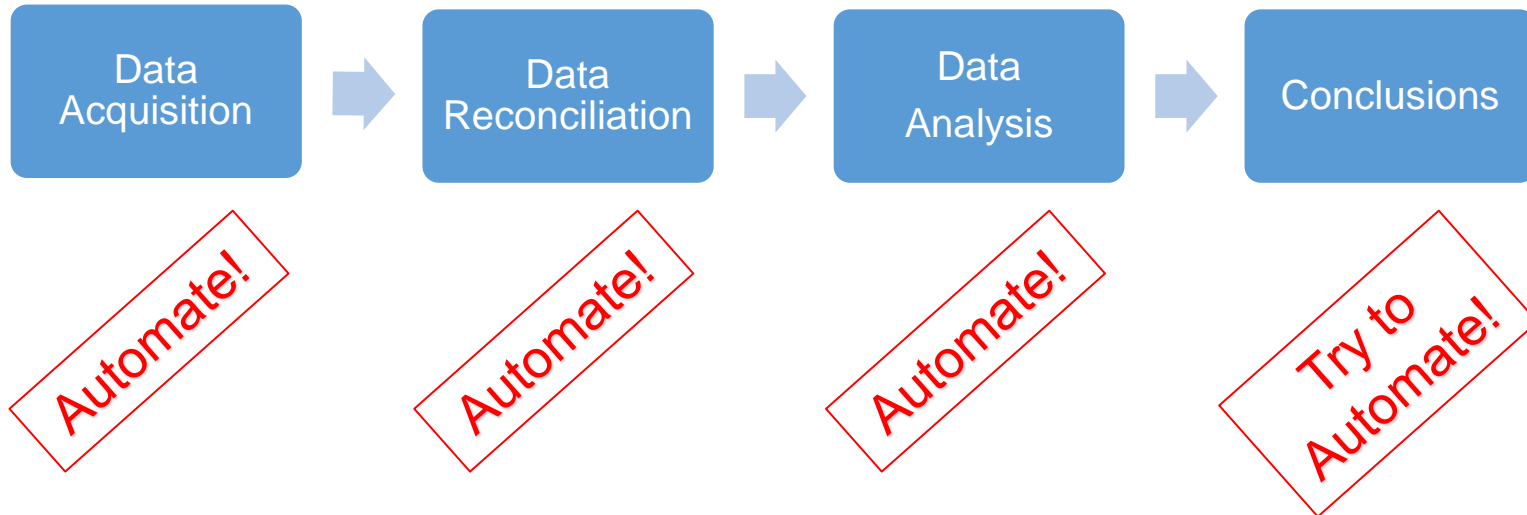


The screenshot displays a software interface window titled "Unit Procedure-01". It features a tabbed menu with "General", "Child Event Frames", "Referenced Elements", and "Attributes". The "Attributes" tab is active, showing a table with a "Filter" input field above it. The table has two columns: "Name" and "Value". The "BuildingBlockElementId" cell is highlighted with a dashed border. Each row in the table includes a small icon on the left side.

Name	Value
BuildingBlockElementId	
Device	
InstanceCount	1
OperationName	
Performer	
PhaseName	
ProcedureName	Sonolin Retard 100
SplitPosition	
Station	
Subreport	
UnitProcedureName	Unit Procedure-01
Workcenter	D Training Center

How can the interface  
make life easier

# Report Creation Steps



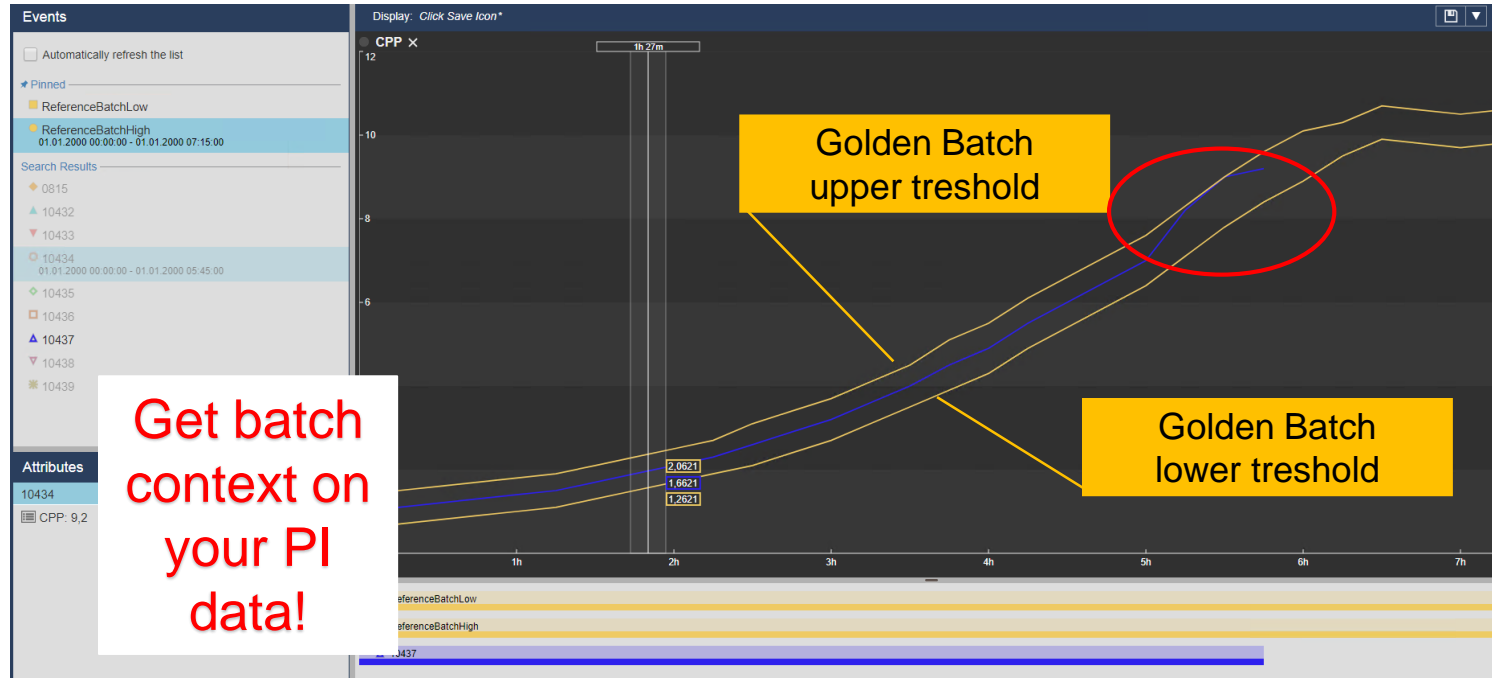


# Realtime Golden Batch Monitoring

How is the batch running?

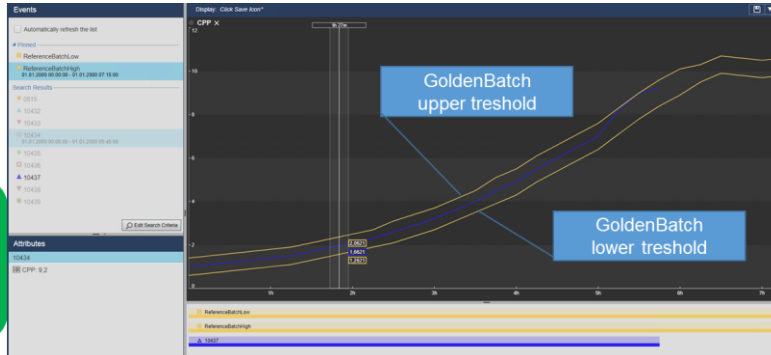
Just got a notification from our PI system. Its not ideal. Talking to the operators...

Get batch context on your PI data!



# Golden Batch

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

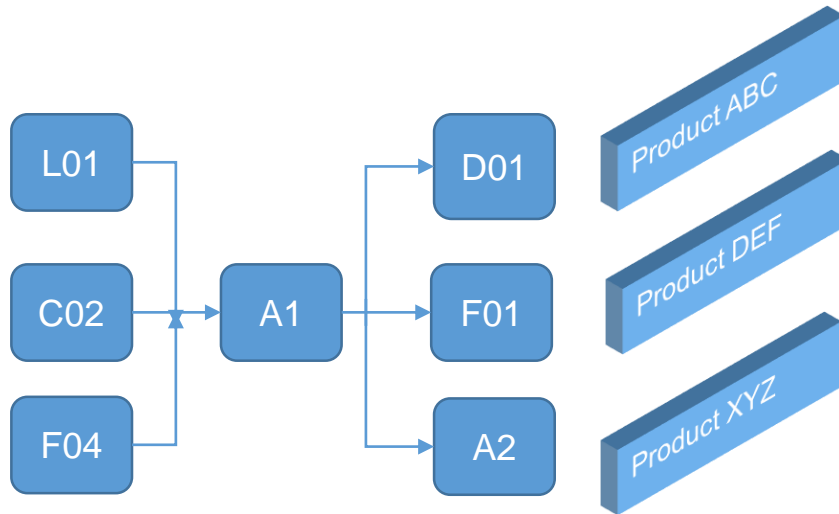


## Benefits of realtime batch monitoring vs retrospective batch monitoring

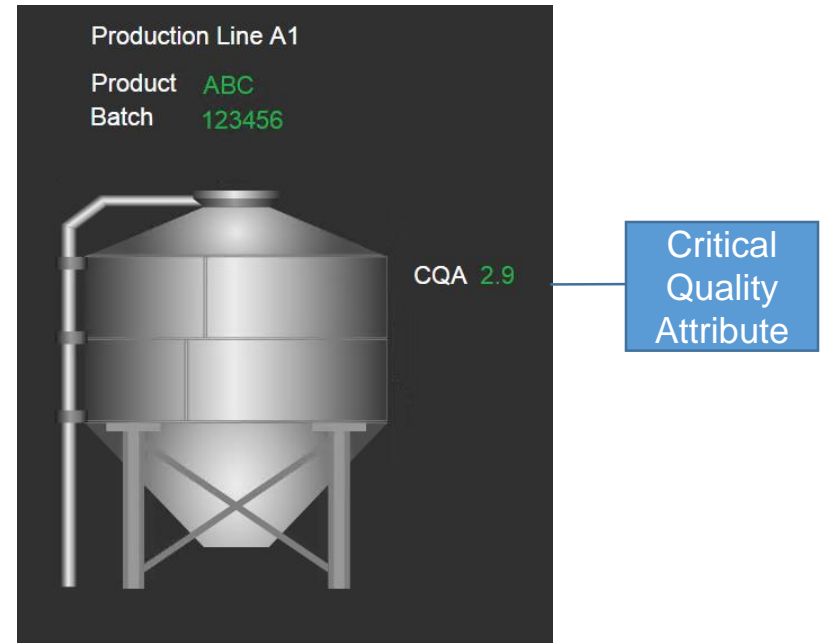
- Improved performance
- Higher yields
- Higher product quality

# Continued Process Verification

Three individual products

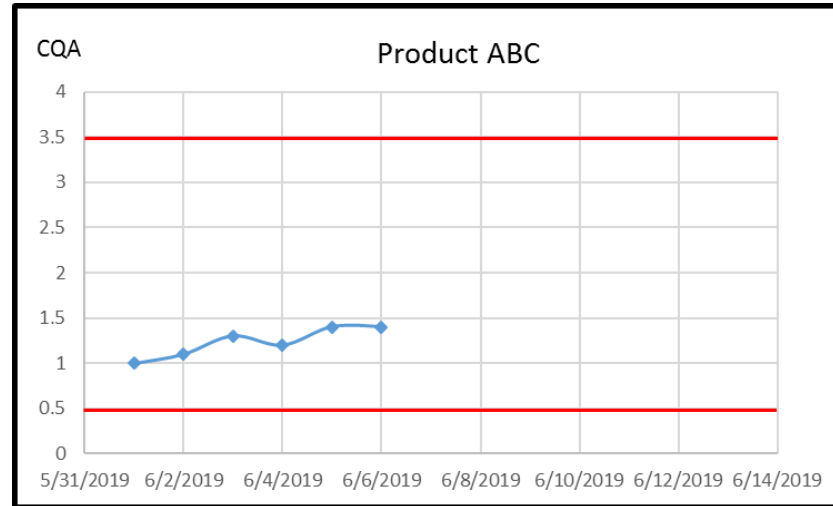


One shared process



# CPV – by product

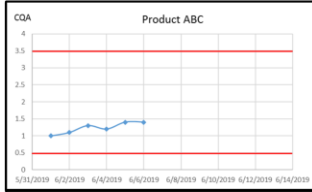
Do we have a trend in CQA for ABC?



A little low, but no trend

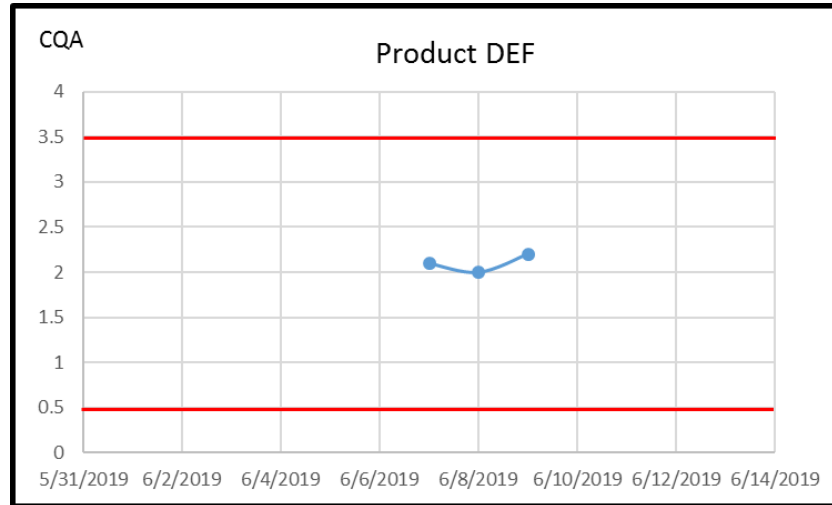
# CPV – by product

Do we have a trend in CQA for ABC?



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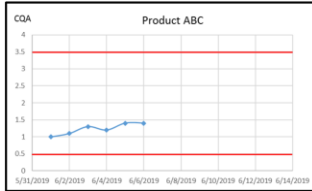
Do we have a trend in CQA for DEF?



No, looks fine.

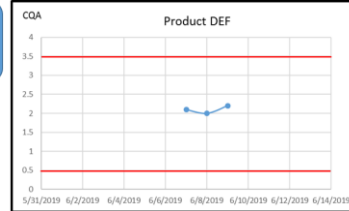
# CPV – by product

Do we have a trend in CQA for ABC?



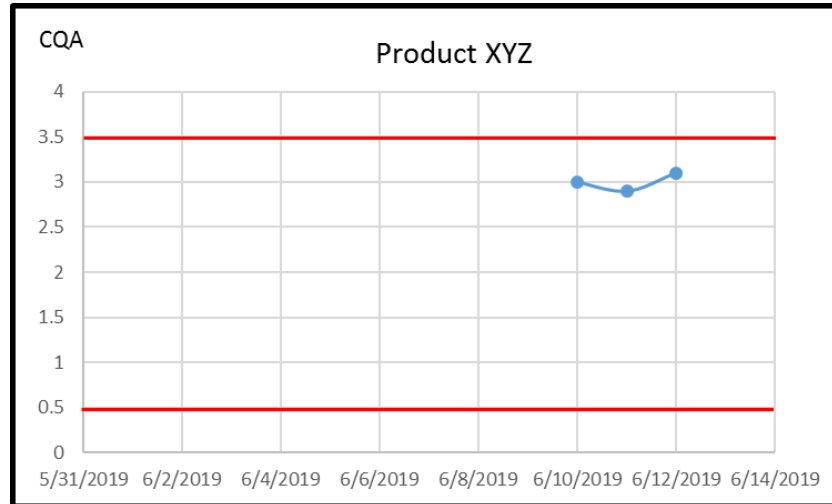
A little low, but no trend

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

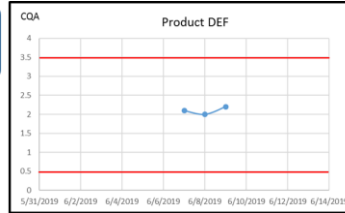
# CPV - holistic

Do we have a trend in CQA for ABC?



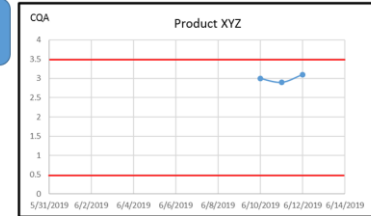
A little low, but no trend

Do we have a trend in CQA for DEF?



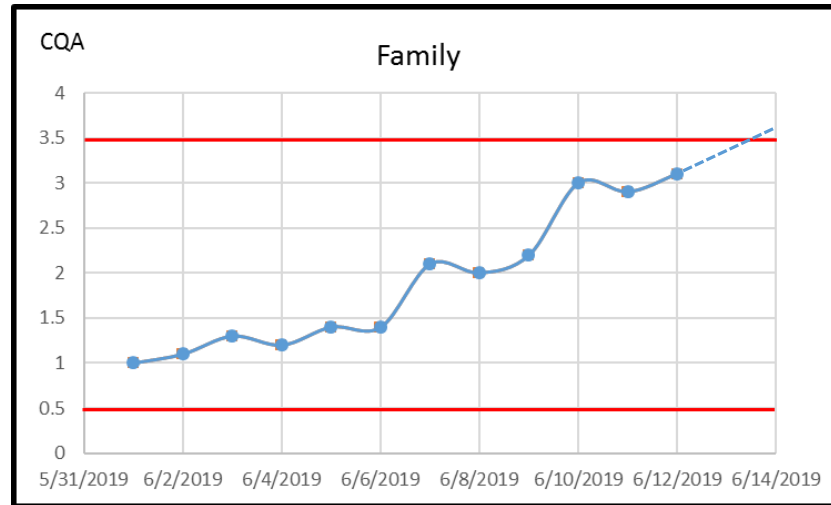
No, looks fine.

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?

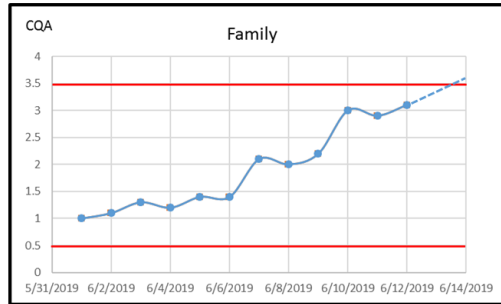


ohoh

Possible violation within the next 2 batches

# 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



# Roadmap

# Roadmap

Demanded by various OSIsoft and RA customers

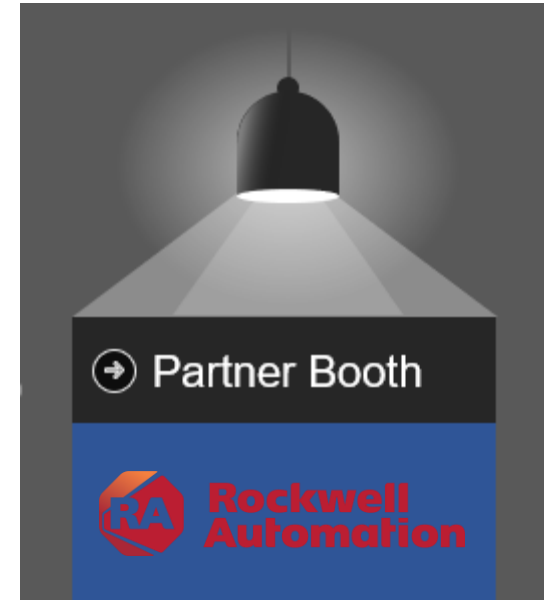
It was tested using a few selected customer projects

Finishing the development, last stages

When will the interface be released?

# Contact Information

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- Global Enterprise Account Manager
- Rockwell Automation
- [hhermann@rockwellautomation.com](mailto:hhermann@rockwellautomation.com)
- +49 721 9650 756



# Questions?

Please wait for  
the **microphone**

State your  
**name & company**



# Please remember to...

**Complete Survey!**

Navigate to this session in  
mobile agenda for survey

An advertisement for the OSISOFT PI World app. The background is dark blue with a subtle pattern. On the right is a smartphone displaying the app's logo, which consists of a stylized white atom symbol above the text "OSISOFT PI World". To the left of the phone, the text "TO DOWNLOAD APP, SEARCH OSISOFT PI WORLD" is written in white. Below this text are two black buttons: "Download on the App Store" with the Apple logo and "GET IT ON Google Play" with the Google Play logo.

謝謝 KEA LEBONA  
 TAPADH LEIBH 고맙습니다  
 БАЯРЛАЛАА MISAOTRA ANAO  
 DZIĘKUJĘ CI NGIYABONGA TEŞEKKÜR EDERIM GRACIES OBRIGADO شكرا SALAMAT  
 DANKIE TERIMA KASIH DANKON TANK TAPADH LEAT  
 KÖSZÖNÖM SPASIBO MULȚUMESC  
 PAKMET CIZGE OSIssoft.  
 GO RAIBH MAITH AGAT PIWorld  
 БЛАГОДАРЯ GRACIAS HVALA FAAFETAI  
 ТИ БЛАГОДАРАМ MAHADSANID HVALA ESKERRIK ASKO  
 TAK DANKE MAHALO IĀ 'ŌE HVALA ХВАЛА ВАМ  
 RAHMAT MERCI TEŞEKKÜR EDERIM  
 HATUR NUHUN DANK JE EΥΧΑΡΙΣΤΩ GRATIAS TIBI GRAZIE  
 GRAZZI ПAKKA PĒR ДЯКУЙ DI OU MÈSI  
 PAXMAT CAĜA FALEMINDERIT ありがとうございます ŏAKUJEM  
 SIPAS JI WERE TERIMA KASIH MATUR NUWUN  
 CẢM ƠN BẠN UA TSAUG RAU KOJ  
 WAZVIITA ТИ БЛАГОДАРАМ  
 СИПОС