

DataJaguar

Operations Improvement
Beyond Automation



Production Analytics for Batch Manufacturers



Gain Insights To...

- Accurate Cause of Delays
- Future Batch Status
- Precise Areas for Improvement



Emerson Impact Partner

REAL-TIME BENEFITS

VISUALIZE your entire production status in operational terms.

CAPTURE reasons for delays as they occur.

ENFORCE categorization of 'reasons for delays' in production.

PREDICT when current batches end, and focus attention on batch stages.

DETERMINE how batch performance impacts your production schedule.

'REASONS' CATEGORIZED IN A LOGICAL HIERARCHY FOR ANALYSIS

Select Reason for Delay:

Availability

+ Blocked

- Equipment Breakdown

+ Instrumentation

- Mechanical

Pump Failure

OPERATORS / SCHEDULERS DASHBOARD

The dashboard displays a 'Batch Status' table with columns for Batch, Unit, Recipe, Stage, Start, and Delays. Below it is a 'Batch History' table with columns for Batch, Unit, Recipe, Stage, Start, and Delays. The interface includes a navigation menu on the left and a settings icon on the right.

Delays	Projected End Time
0	08/22/2019, 11:53:13 AM
13	08/22/2019, 11:54:13 AM
0	08/22/2019, 1:08:31 PM
1	08/22/2019, 12:33:50 PM
-3	08/22/2019, 11:33:12 AM

Operators and schedulers can view the current batch stages and their projected end times, without needing to understand the details of batch recipes in the control system.

CONTINUOUS IMPROVEMENT PLATFORM

Reason Analysis

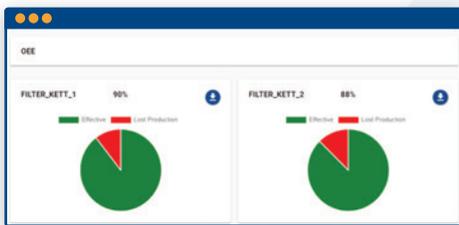
Reason	Count	Min	Max	Avg	SD
Availability, . . .	370	-2	9	7	0.94
Availability, Blocked, Other - Comment Required,	368	-11	-8	-9	0.77
Availability, Blocked, Drain Tank Unava					
Availability, Blocked, White Water Pit P					
Availability, Equipment Breakdown, Mechanical, Chiller					
Availability, Starved, Manpower Unava Turnover					

ACCESS DETAILS FORMATTED FOR PROCESS IMPROVEMENT

Filter Recipes | Filter Units | Filter Stages

Batch	Recipe	Unit	Stage	Value
DJTestNew2201269PROC_V2-123	PROC_V2-123	BLEND_TK_7	TRANSFER	-10
User: BatchProcessor		Comment: TRANSFER Under Auto Answer		
Stage Start: Aug 11, 2019, 8:42:46 PM		Stage End: Aug 11, 2019, 8:49:52 PM		
Entered At: Aug 12, 2019, 4:25:00 PM		Corp Code: 5824		
Actual: 7		Target: 17		
DJTestNew2201270PROC_V2-123	PROC_V2-123	BLEND_TK_7	TRANSFER	-11

MAKE INFORMED DECISIONS TO JUSTIFY CAPITAL EXPENDITURES WITH REAL DATA TO BACK UP YOUR INTUITIONS.



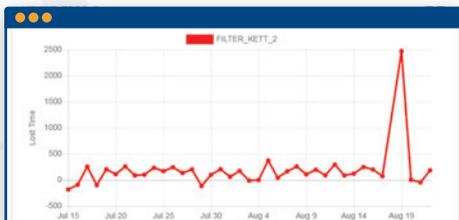
AUTOMATICALLY CALCULATE OVERALL EQUIPMENT EFFECTIVENESS (OEE)

VIEW BATCH STAGE PERFORMANCE

Instantly see:
Counts, Min & Max and Standard Deviation

UP_FILTER_PRO1

Unit	Stage	Count	Max	Min	SD
FILTER_KETT_1	COOL	387	74	0	9.84
FILTER_KETT_1	FILTER	382	187	0	26.77
FILTER_KETT_1	INITIALS	388	97	0	17.86
FILTER_KETT_1	MIX	387	2246	0	115.27
FILTER_KETT_1	POST FILTER HOLD	382	26	1	1.57
FILTER_KETT_2	COOL	377	2236	0	113.92
FILTER_KETT_2	FILTER	374	177	0	27.45
FILTER_KETT_2	INITIALS	378	85	0	15.53
FILTER_KETT_2	MIX	374	185	0	16.63



TRACK LOST TIME OF UNITS

REVIEW REAL-TIME AND HISTORIC BATCH COMPARISON



ACCELERATE YOUR OPERATIONS IMPROVEMENT

TURN ASSET DATA INTO ACTIONABLE INFORMATION

COMPARE CURRENT DATA TO HISTORICAL BATCHES:

- When is the current batch going to be completed?
- Is the current batch progressing normally, ahead or behind schedule?
- Are there anomalies in the current batch influencing the completion time?

CAPTURE PRODUCTION EVENTS AS THEY HAPPEN:

- Why was production delayed?
- What caused deviations from normal?
- What knowledge can the operator add?
- What is happening when we're not producing?
- Why is a batch sitting and waiting?

EXPECTED RESULTS:

- Increase operational awareness
- Streamline operational processes
- Make better informed decisions
- Significantly decrease lost production time
- Pinpoint opportunities for improvement
- Justify ROI for capital spending

IMPROVE YOUR PLANT'S PERFORMANCE WITH DATAJAGUAR™ FROM PROCONEX

Proconex has been providing innovative software solutions to manufacturing facilities for over 25 years. Leveraging its 70 years of experience providing automation solutions as an Emerson Impact Partner, Proconex creates targeted software applications that improve operations, maintenance practices, and safety. Our development process integrates customer participation from product conception through commercialization. The result: products that accelerate improvement programs and provide real world benefits.

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