

SOLUTION

The logo for ECSS SOLUTIONS INC. features the letters 'ECSS' in a large, bold, red, sans-serif font. A thick black horizontal bar is positioned behind the 'ECSS' text. Below this bar, the words 'SOLUTIONS INC.' are written in a smaller, black, sans-serif font. The background of the logo area is white, with a grey and red geometric pattern on the left side.

ECSS

SOLUTIONS INC.

SWEDISH MATCH CASE STUDY

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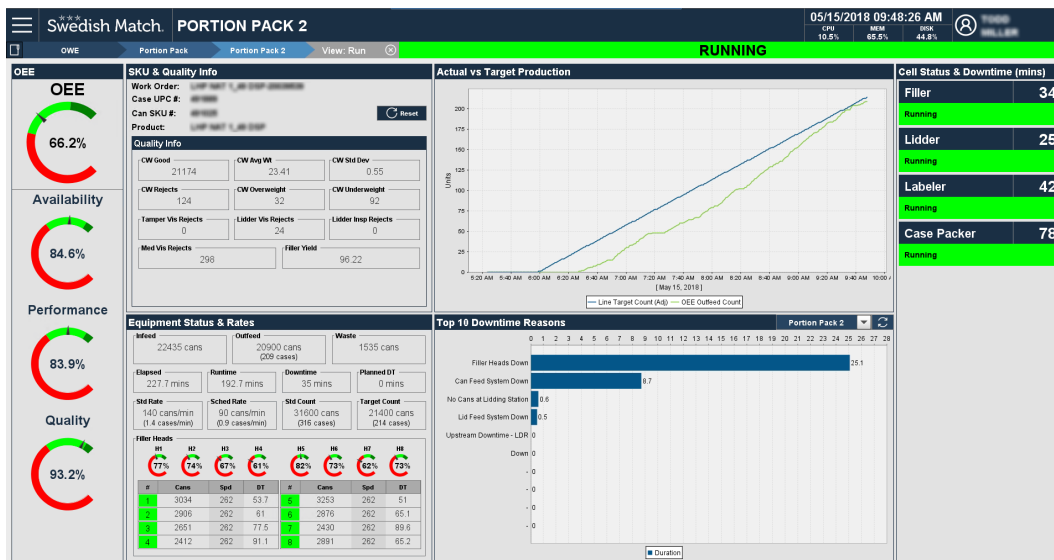
Automated Execution System For A Data Collection Problem

Swedish Match, a global manufacturer of smokeless tobacco products, found itself in need of the automation of collecting, reporting, and displaying their production data. At their manufacturing facility in Owensboro, KY, paper-based quality checks, and manually generated reports were becoming inefficient and the company needed to find an automated solution.

ECS on the case: Identifying the right solution.

This is when Swedish Match turned to ECS, to provide an efficient solution to automate the data processes and improve the overall production quantity and quality of the facility. ECS consultants conducted a joint pre-study with the company's engineering staff and identified the key issues with the current manual system: a lack of visibility into what was going on moment to moment in the facility, specifically the packaging lines. Three technology platforms were evaluated from which the Ignition platform and Sepasoft Manufacturing Execution Systems rose as the best fit for this facility, providing the means to measure operational performance, improve operational agility, and address the regulatory and product safety requirements.

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Putting it on display

To supplement the Manufacturing Execution System, ECS developed dashboards to provide real-time data on the plant floor. Display information included the line's OEE and its components, work order status, quality info, equipment rates, real-time Actual vs Target graph, top-down time graph, and production cell status. ECS was able to deliver a management dashboard with a one-stop high-level view of all the production lines. This dashboard allows Swedish Match's management team to quickly evaluate where to focus their attention and saves the time previously used to collect data and create reports.

“The best experience is how intuitively the operators have adapted to using computers on the lines and the ownership they have shown using this new system. They are very aware of the dashboards and have preferred using the new system checks over the old paper forms.” ~ Brad Logsdon, Business Analyst at Swedish Match

Productivity increased by efficiently automating the manual tasks. Operators were able to use the time previously used on the manual tasks to improve production.

Increasing production by problem reduction

By leveraging the Ignition platform, ECS was able to create unique solutions to many of the company's initial problems. ECS identified and reduced the number of form types from 25+ to 8 standardized forms used across all lines. These forms are auto-populated by the PLC and saved in stored records making them available for reporting and regulatory needs at any time. The user interaction is intuitive and seeks to minimize the effort and time spent to check logs and reports.

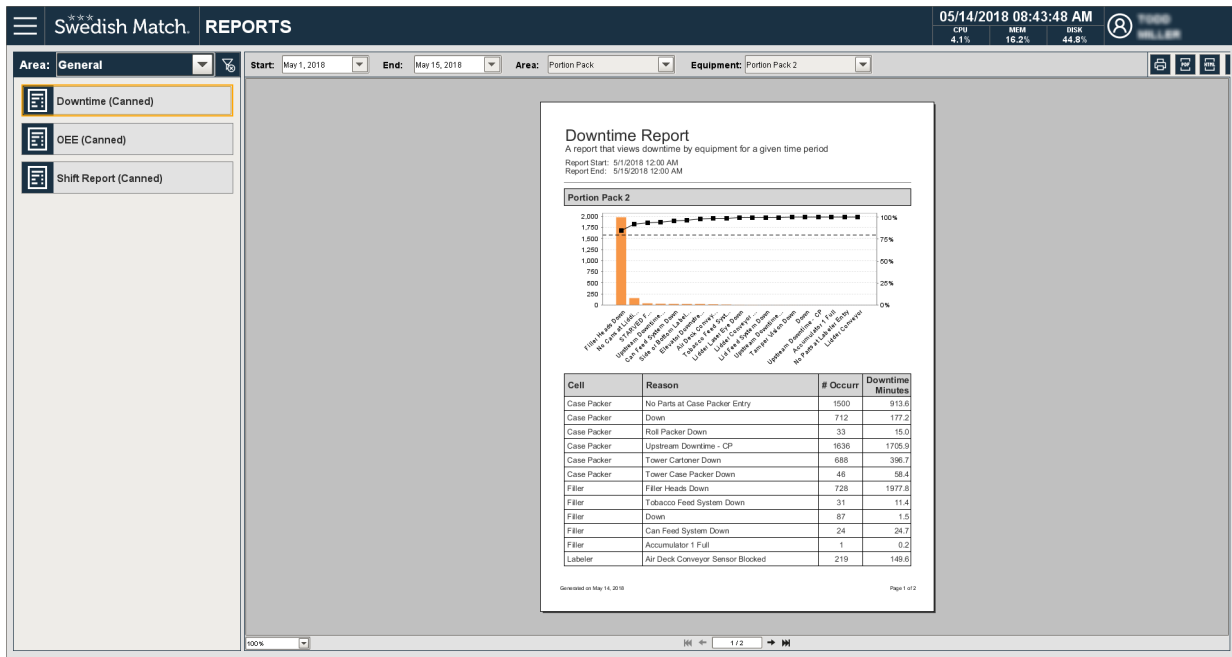
“With Ignition, we're starting the journey toward a more real-time environment, providing users with up-to-date information needed to make fact-based decisions. In collaboration with ECS, we've managed to exceed the expectations of our business partners – who are already thinking of new ways of leveraging the capabilities of the application.” ~ Mark Cook, Manager of Business Engagement at Swedish Match

A look at our reporting:

Swedish Match. LOOSE LEAF										05/15/2018 09:55:01 AM		
NON-PRODUCTION												
West					East					Palletizer		
#	Total	Good	DT	OEE	#	Total	Good	DT	OEE			
1	6229	5645	105.7	52%	9	3075	2232	13.4	69%	88.7%		
2	7922	7524	104	70%	10	2310	2878	44.4	90%	Combi Produced 239		
3	8388	8388	95.3	77%	11	6461	6116	74.5	56%	3 oz OEE		
4	7866	7374	95.3	68%	12	6435	6243	68.9	58%	68.3%		
5	0	0	0	0%	13	6512	5996	1019.4	9%	West Case Packer 188 East Case Packer 330 Produced 518		
6	0	0	0	0%	14	9319	6075	1005.7	9%	Bartelt 8 OEE		
8	3402	3401	60.7	64%	15	8224	7650	79.3	71%	84.8%		
					16	9380	8884	77.3	82%	Case Packer Produced 63		

Swedish Match. SUPERVISORS DASHBOARD										05/15/2018 09:57:57 AM					
RUNNING															
Portion Pack 2										22,452			67%		222
CD													52%		212
Bartelt 1_6													62%		192
Bartelt 8													86%		65
Bartelt 9_10													89%		245
Bartelt 11_16															

SWEDISH MATCH
CASE STUDY



Swedish Match. QUALITY ASSURANCE 05/14/2018 08:45:16 AM

Quality Assurance Forms

Entry View Report View

Start: **May 1, 2018 12:00 AM** End: **May 15, 2018 12:00 AM** Location: **Portion Pack 2**
 Include Verified Records?

Location	Item Description	Operator	Entry Date	VerifiedBy	VerifiedDate	Comments	ResultsS	Retest	Edited
Portion Pack 2	UPPER CASE PACKER	SWANSON	May 1, 2018 12:00 AM				<input checked="" type="checkbox"/> PASS	<input type="checkbox"/> NO	<input type="checkbox"/> NO
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X-Ray Metal Detector
 Vendor Lot Leak Test
 Case Inspection Label Inspection
 Bag Inspection Product Inspection

SWEDISH MATCH CASE STUDY

THE PAYOFF OF AUTOMATION

What initially appeared to be an efficient solution for a problem in data collection quickly revealed itself to have profound effects on the productivity of the Owensboro facility.

Swedish Match compares the changes to the difference of driving a car by looking only through the rear-view mirror vs. looking out the windshield. The new dashboards allow operators and management to see where they are going and make adjustments as needed to stay on track.

Since implementing ECS's solution, Swedish Match has increased the schedule rate on a critical line by 12.5%, logged over 60,000 operator Quality checks from Jan 1st to May 10th, and continued a positive trend in OEE.