Veritechs

Manufacturing Operations System at Delta Beverages

DELTA BEVERAGES INC

CLIENT OVERVIEW

Established in 1992, Delta Beverages is one of Canada's leading beverage co-packers of carbonated, alcoholic and non-alcoholic beverages producing 50,000 cases of high-quality beverages in glass and PET bottles every day for global F&B leaders.

Throughout the last decade, Delta beverages has seen a tremendous growth and had spared no expense to obtain the world's most advanced filling and packaging equipment to stay ahead of the competition.

To keep up with this growth, Delta beverages saw the need to embark on a digitalization journey, obtain real time production data and automate their procedures and reporting.

Veritechs partnered with Delta Beverages to develop robust solutions that enhance production efficiency, optimize operational performance, and streamline preventive maintenance processes through improved data capture and advanced analytics.

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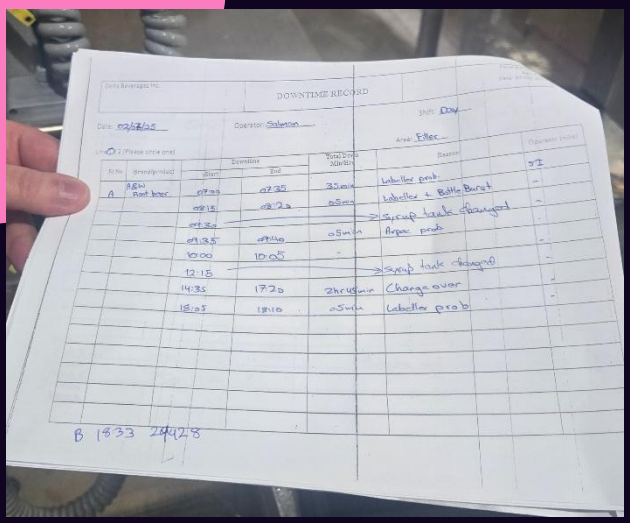
INITIAL STATE

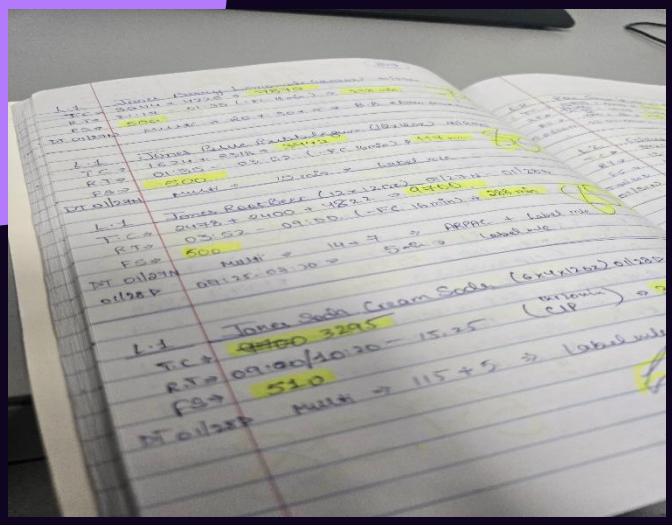
Delta Beverages had developed processes for production data collection, downtime tracking and preventative maintenance management. Despite being effective, these processes were very time consuming and tedious due to their manual nature. The main challenges that Delta Beverages faced are:

Manual and Inconsistent Data Collection

Operators relied heavily on manual recording of production records and downtime data entry, supervisors were responsible to collect paper records from each line on each shift and enter the data into spreadsheets to calculate Overall Equipment Effectiveness (OEE)



Daily Production downtime report filled by line operators



Daily downtime and OEE calculations completed by Continuous Improvement engineer

This process was highly time consuming, inconsistent and susceptible to errors.

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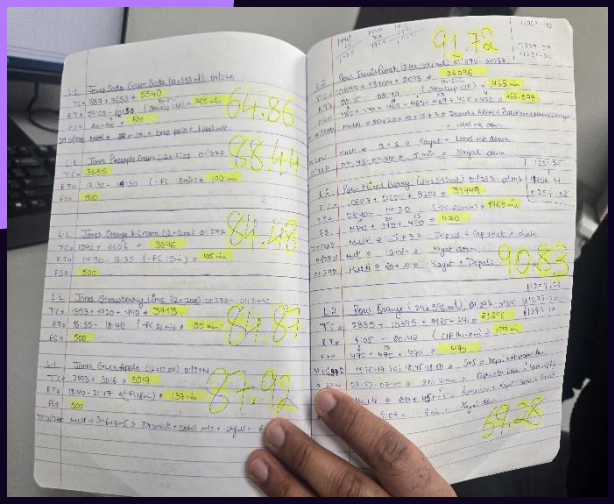
INITIAL STATE

Inaccurate Downtime Tracking

After paper reports have been collected by supervisors and populated into spreadsheets, Delta's Continuous Improvement engineer calculates key performance indicators such as downtime, throughput and OEE. This tedious process takes 2 to 3 hours every day and needs to be completed before the daily management meeting so that the leadership team can look at the previous day's performance.



Manual calculation of key performance indicators

Harman Singh
Continuous Improvement Engineer

" It takes me 2 to 3 hours every day, sometimes more if there are mistakes that need to be corrected"

The process was very time consuming, tedious and inaccurate but it allowed Delta to obtain necessary metrics to drive decision making. Harman spent around 30% of his time in report collection, data entry and manual calculations.

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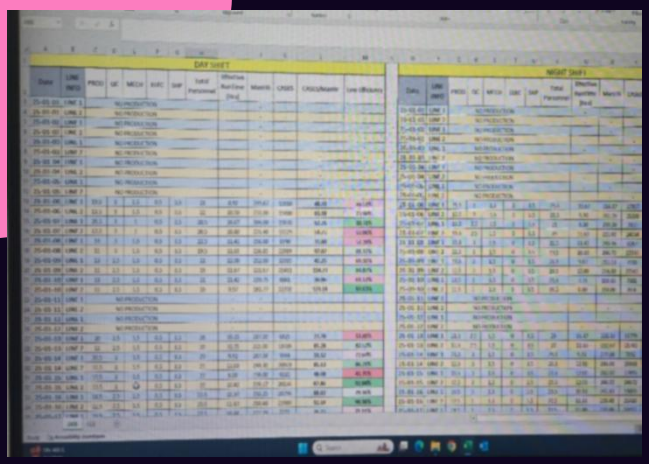
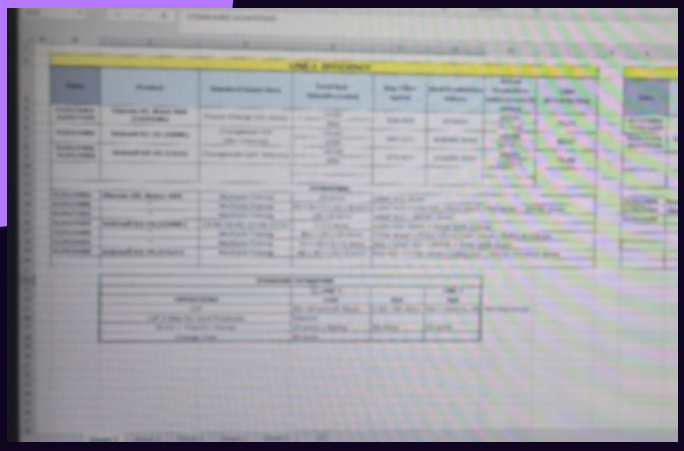
INITIAL STATE

Poor Visibility into Efficiency Metrics

Delta had made a great effort to generate efficiency metrics but its' lack of real-time insights into production efficiency, equipment effectiveness, and resource utilization hindered informed decision-making. The team also had poor visibility over key metrics like asset utilization, asset specific downtime, long term trends of changeovers and other key metrics crucial to evaluate machine utilization, SKU rationalization and to properly allocate resources and capital expenditures.



Calculation of key performance indicators using manually populated spreadsheets



The impact of this poor visibility is hard to quantify since much of it is in cost avoidance and data-driven capital expenditures into equipment. Not to mention the inability to have profitability and other financial data stratified by product.

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INITIAL STATE

Inefficient Preventive Maintenance Procedures

The maintenance department at Delta had challenges in scheduling, executing, and documenting preventive maintenance activities. Preventative maintenance was done based on a reoccurring calendar that does not take into consideration the asset utilization. Scheduling of tasks was done on very busy whiteboards that could lead to errors and miscommunication. The execution of maintenance tasks was done on paper that was archived with no visibility over adherence and completion making maintenance audits particularly challenging.

Maintenance planning and scheduling on whiteboards

The impacts of an inefficient maintenance program could be dire and can range from inadequate resource allocation for technicians and replacement parts, all the way to costly breakdowns and disruptions to customer fulfillment.

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A Problem Well-Defined is a Problem Half-Solved

Our team developed a deep understanding of Delta's processes, mapped the daily process flows and identified gaps that lead to inefficiencies. We then worked hand-in-hand with the Delta team to develop custom solutions that bridge the gap through digitalization and automation. Engaging front line workers and obtaining their feedback on the applications was essential and it was incorporated into the refined final products. We also coached frontline users on the proper use of the applications for optimal performance.

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SOLUTIONS PROVIDED BY VERITECHS

To address these challenges, Veritechs implemented a robust and fully integrated Manufacturing Operating System that includes:

1 CUSTOM PRODUCTION APPLICATION (.NET)

A user-friendly application enabling production line operators to:

- Enter real-time hourly production counts.
- Precisely log downtime events and categorize them for accurate tracking.
- Validate data entries to ensure accuracy and prevent duplicates.
- Automated calculation of asset utilization and productivity and efficiency metrics.

2 MICROSOFT POWERAPPS SUITE

- Production Management App
  Enabled seamless scheduling, tracking, and management of preventive maintenance tasks, including assignment tracking and task performance reporting.
- Technician Work Order App
  Improved workflow efficiency for technicians by providing detailed task lists, documentation, and completion tracking.
- Admin App
  Allowed administrators to easily manage SKUs, update asset information, and configure production-related settings.

3 POWERBI DASHBOARDS

- Developed ten comprehensive dashboards offering insights such as:
- Real-time monitoring of daily and hourly throughput.
- Detailed downtime analytics, categorizing types, frequencies, and durations.
  Overall Equipment Effectiveness (OEE) metrics, calculating Availability, Performance, and Quality.
- Preventive maintenance and work order execution logs, tracking tasks and technician performance.

4 SQL SERVER DATABASE

- Comprehensive storage of production data, downtime records, and maintenance logs.
- Asset usage tracking for precise preventive maintenance scheduling.
- Optimized data structure for rapid retrieval and visualization in Power BI.
- Historical data archival capabilities for trend analysis and reporting.

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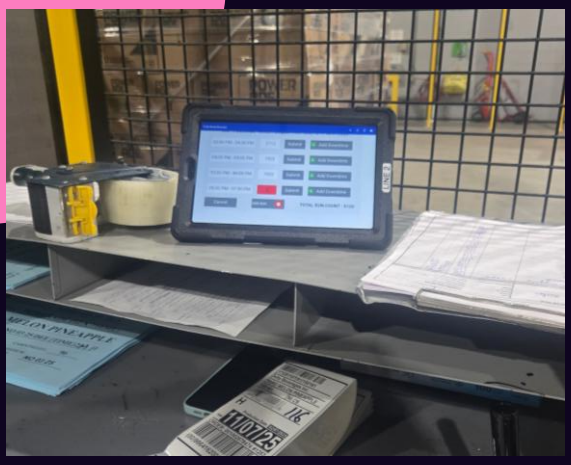
CURRENT STATE

Digitalization & Automation of Production Data Collection

We developed a web-based application that replaced manual downtime recording. Line operators use their tablets to log production counts and downtime reasons throughout the shift. This enables real time visibility of problems as they occur and allows fast corrective actions to be taken leading to improved operational efficiency.

We also created uptime trackers for each machine asset that fully integrate with the the maintenance applications to trigger preventative maintenance tasks based on actual usage.



Tablets replaced many clipboards and manual reports

With real-time visibility of downtime, the Delta team now can correct issues as they occur instead of discussing them the following day. Reactive problem solving became more proactive.

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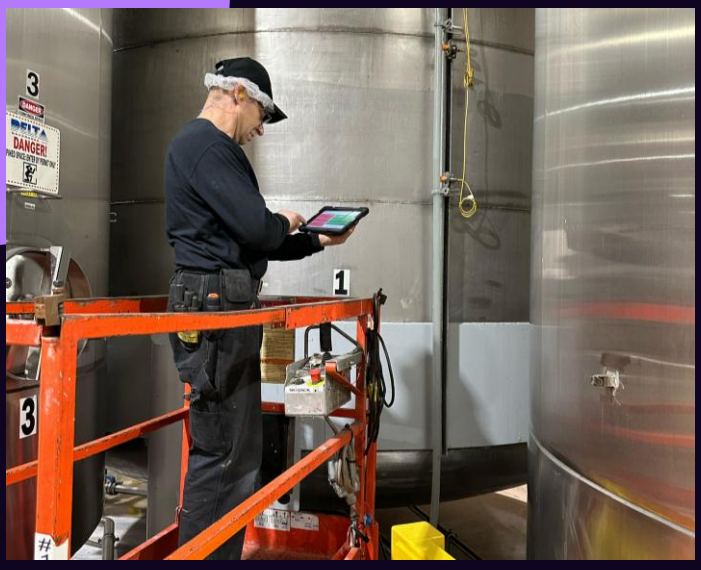
CURRENT STATE

Digitalization & Automation of Maintenance Processes

Maintenance leaders are now tracking, assigning and managing Work Orders and Preventative Maintenance (PM) tasks using mobile devices and custom applications that trigger PMs of each machine asset based on their individual run uptime. Maintenance leaders can attach work instructions and pictures to Work Orders and audit the adherence and ensure compliance.

Maintenance technicians also carry their tablets and track, and complete Work Orders and PMs using their own application. They can attach pictures and provide feedback regarding their work. mobile devices

Tablets



With real-time visibility and accurate cadence of maintenance work, the Delta team is now allocating resources more effectively. Preventative maintenance became more predictive.

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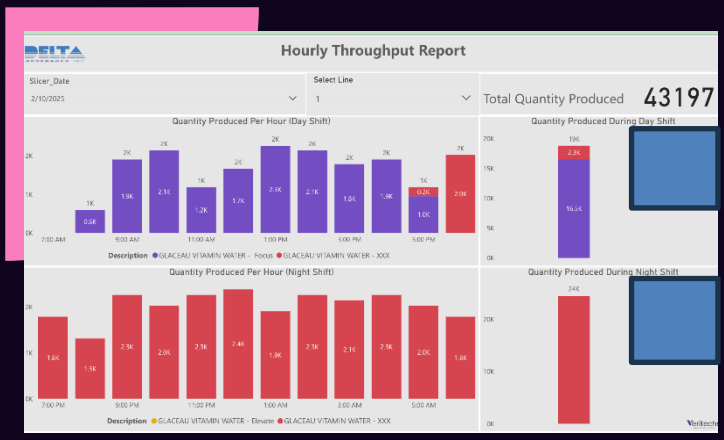
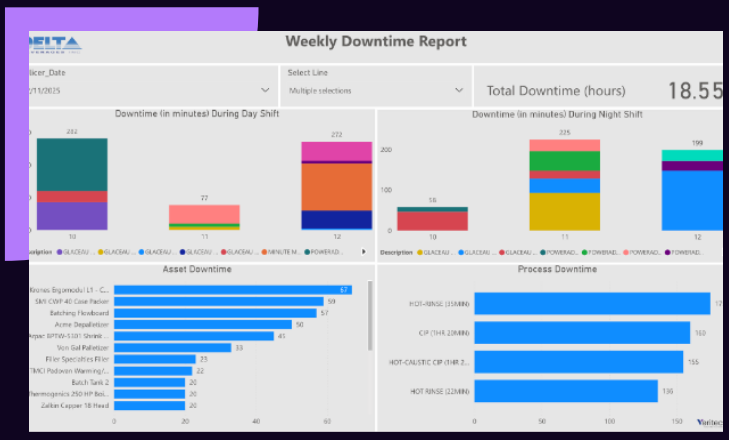
CURRENT STATE

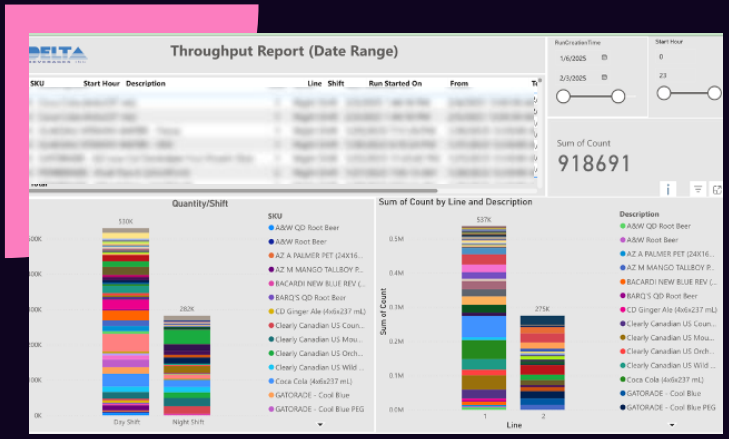
Advanced Business Intelligence Analytics Reports

Having real-time visibility over operational performance is crucial for Delta's team to discuss during their daily meetings. We created a dozen of reports that allow leadership to dissect hourly and daily throughput, downtime and OEE which enables data-driven decisions.

We also created long-term trending reports that provide insight on performance trends, top loss analysis, maintenance adherence and compliance and many other insightful custom reports.







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RESULTS

Delta Beverages embarked on their digitalization journey with Veritechs and immediately saw the tangible results in their operations and maintenance. The project had a return on investment in less than a year, simply by automating tasks that accounted for 30% of the team's time. The savings opportunities are plenty and the team will continue to leverage automation and real time data to achieve world class manufacturing standards and allow Delta Beverages to thrive as Canada's leading beverage co-packer.

Andrew Elias
Vice President of Delta Beverages

"The results of the Digital Manufacturing Operations System with Veritechs have been outstanding. The project has provided us with increased real-time visibility over performance metrics, significantly improving our ability to monitor and optimize operations. Additionally, adherence to maintenance tasks has improved, reducing downtime and enhancing overall efficiency. The data-driven decision-making capabilities we've gained have been invaluable, allowing us to make more informed and strategic choices"

"Our time is now dedicated to solving problems instead of collecting data"

"The project delivered a quick return on investment, with substantial savings in administrative labor hours alone"

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CONCLUSION

Your Next Steps

By now, you know that:

- Data clarity leads to smarter decisions.
- Digital Transformation doesn't have to be overwhelming.
- Automation is key to eliminating inefficiencies and scaling growth.

But knowledge alone won't transform your business. **Taking action will.**

The companies that embrace technology and automation today will dominate their industries tomorrow. **Don't get left behind.**

Let's Make Digital Transformation Happen—Together.

1. BOOK A FREE STRATEGY CALL
   to get a customized plan for using data, AI, and automation to scale your business.
2. GET EXPERT INSIGHTS TAILORED TO YOUR BUSINESS
   —no generic solutions, just high-impact strategies that deliver real ROI.
3. WALK AWAY WITH CLEAR NEXT STEPS
   —so you can implement digital transformation with confidence and speed.

SCHEDULE YOUR CALL WITH US

The future of business is AI-driven, automated, and data-powered. The only question is—**will you lead the transformation or fall behind?**