Exenta Shopfloor Control

Carhartt

Leverages Shopfloor Control to increase efficiency and support strategic transformation and growth.

Industry

Garment Manufacturing

Challenges

- » Lacked real-time visibility.
- » Inability of the old system to support customization and scalability.
- » Highly manual and time-intensive payroll processes.

Benefits

- » Increased average efficiency by 13% overall.
- » Delivered real-time visibility into production.
- » Helped eliminate production bottlenecks and other barriers to growth.
- » Saved 320 person hours per payroll and approximately \$60,000 USD annually.



Carhartt is one of the most recognized brands in North America, delivering high quality, durable workwear for hard working people. Founded in Detroit, Michigan in 1889, Carhartt is well known for its signature outerwear, including jackets and overalls. But in recent years, the brand has also expanded product lines to clothe men, women and children through all seasons.

It's a large-scale manufacturing operation. The company is proud to employ more than 3,500 associates across seven manufacturing facilities located in the U.S. and Mexico. Carhartt services many channels, selling direct to consumers and small businesses as well as maintaining a large wholesale retail presence and even operating Carhartt-owned retail stores.

The Need for an Industry-Specific SFC

As Carhartt prepared to enter a period of rapid growth, the company lacked the strategic technology base needed to scale up and support manufacturing operations. The company used an old manufacturing system that did not provide real-time production visibility, nor did it offer enough flexibility in variable operator pay calculations.

"Our previous solution was all batch processes. We would print coupons which the operators applied to gum sheets, and then a day later, we would scan all those gum sheets in order to be able to update operator pay and see movement of production through the sewing lines," recalled Katrina Agusti, who is responsible for the definition, justification, and delivery of strategic business IT initiatives across Carhartt.







"We were always reacting a day behind and we didn't have any insight into what was happening on the shop floor real time."

The management team at Carhartt wanted real-time visibility into production and operator performance. They also wanted to be able to support many types of payroll calculations the company uses to incentivize associates. Agusti led the evaluation and selection of Exenta Shopfloor Control, a real-time manufacturing execution system (MES) that leverages an innovative Android™ app, management dashboard, and off-the-shelf tablets running on Wi-Fi networking to collect production data.

Ready for Change

Carhartt selected Exenta Shopfloor Control (SFC) for three primary reasons. First, they wanted real-time collection of manufacturing data so they could gain visibility into production and operator performance. Second, they wanted an easy-to-learn solution end users would feel comfortable using to create a good associate experience. Finally, they wanted to have the flexibility to support multiple, customizable pay types so they could try different models of variable pay with different subsets of associates. Additional factors such as native bilingual English and Spanish support, both inside the solution and at Exenta support, as well as a modern architecture with its lower IT support burden also helped to make the business case.

Why Exenta?

Designed specifically for the needs of clothing manufacturers, Exenta Shopfloor Control has streamlined Carhartt's shop floor processes by tracking and reporting the progress of shop floor production in real time. In this way, supervisors, plant managers, and supply chain managers all share an understanding of the timing and trends in production, helping them manage costs and quality. Exenta has also delivered deep visibility into operator performance and insights into how different pay types can help Carhartt optimize productivity.

Real-Time Visibility Helps Eliminate Production Bottlenecks

Exenta Shopfloor Control supplies production supervisors with the ability to react in the moment to correct or adjust production or operations. This ensures product flow while also maintaining high quality. Real-time visibility enables supervisors to track production by the individual operator, highlighting issues and facilitating solutions. Production supervisors can see when something's not quite right and react quickly to coordinate with the operator(s) and make needed adjustments. The operator can see their production/performance data as well, so it is fully transparent and helps facilitate better communication between associates and managers.



"Exenta Shopfloor Control gives supervisors the ability to look for trends, look for outliers instead of just looking at a sea of workstations and hoping you might recognize where you're not running at capacity."

Plant and Supply Chain Managers Gain New Insights and Awareness

While production managers closely monitor the minute-by-minute production of both individual operators and teams, plant managers enjoy a macro view of their entire facility using Exenta Shopfloor Control. Real-time data helps them understand whether their lines are running properly, at the right level of efficiency and at target output levels. If they see something coming out of alignment with production goals, they can talk to the production supervisors about what is going on in their individual areas.

At the highest level of corporate supply chain management, the ability to see production in real-time, across all manufacturing facilities is invaluable. Zooming out, they can see company-wide production levels and drilling down, they can dig into any individual facility.

"To continue to scale, we needed to get to the root cause of some of the production bottlenecks and really address those permanently."

Variable Pay Functionality Provides the Flexibility to Pursue Manufacturing Goals

Carhartt uses various pay rules, including efficiency-based pay, training curves, and more. Out of the box, Exenta Shopfloor Control provides flexibility to create and manage as many pay formulas and types as needed. Best of all, Carhartt can create new pay scenarios without having to put in change requests to IT and wait for development—a huge improvement in flexibility over their old solution.

Having this much flexibility with pay allows Carhartt to support newer initiatives. For example, in some scenarios, the company is moving toward modular teams where pods of associates work together on one product. Exenta Shopfloor Control supports team-based pay incentives that help drive this type of lean manufacturing.

"We have a new project focused on lean principles trying modularize some production. Having group workstations creates the sense of teamwork when the team is measured on the team's output versus an individual output. There's several concepts in there that we're piloting and trying out, and I'm anxious to see how it comes together," said Agusti. Carhartt cross trains some employees, and to do this, they use training curves in payroll. As workers are learning a new skill and not yet up to standards in productivity, they will be paid at a reduced rate. As their productivity scales up week over week, so does pay rate until they hit the full 100%. Exenta includes the option to set up customizable training curves in the pay system quickly and easily.

Real-Time Transparency in Incentive Pay Improves the Associate Experience

For associates, being able to see the impact of speed and quality on their pay can be a powerful incentive. It's also nice to be able to trust in the automation of payroll calculations and not to have to worry about gum sheets and keeping their own written records.

"We wanted to be able to provide a really great associate experience. Exenta Shopfloor Control increased trust because we were providing the transparency to the associate that they can actually see what's happening with their production. They can see the impact of their speed and quality on their overall pay. And it was instantaneous."

At the same time Carhartt was implementing Exenta Shopfloor Control, the company was also undertaking a major employee engagement initiative with the goals of driving employee satisfaction and reducing turnover. As the revamped compensation and benefits packages, the flexibility Exenta added to their variable pay options allowed them to innovate. Shop floor control added transparency to the associate experience, raising the trust level and providing a tool they feel comfortable using to perform their jobs more effectively and efficiently.

Automation Lowers the Cost of Payroll Processing

While the primary goal with Exenta Shopfloor Control was improving production, Carhartt was also able to automate payroll processing so much they could redeploy payroll clerks to perform higher value work. By eliminating the manual production, collection and scanning of gum sheets and automating payroll calculations, Shopfloor Control saved each payroll clerk roughly eight hours of low-value work each week—a total of 320 person hours per pay period company-wide. As a result, Carhartt was able to redeploy three full-time payroll personnel toward more strategic work. This represents a savings of \$60,000 USD annually.

"We were able to take one headcount from each of our three largest facilities and redeploy them to do more value-add type of work. That continues to support our growth strategy. We were able to make that shift pretty quickly because all calculations happen on the fly in Exenta, and the data integrates to our gross-to-net solution that then cuts the checks."

Adapting for a Pandemic and Leveraging Future Opportunities

When the COVID-19 pandemic hit in 2020, Carhartt had to make rapid changes and Exenta Shopfloor Control helped them adapt quickly. Two U.S. plants shifted immediately to the production of PPE—new products Carhartt associates needed to learn how to make. Throughout the pandemic, there have been many changes and shifts to production lines, so real-time production monitoring has been more important than ever. Even during the pandemic, Agusti explains how "with Exenta Shopfloor Control, Carhartt achieved an average efficiency increase of 13% overall. We were expecting between 8 to 10%, so it exceeded expectations. We got to a higher level, and we got there quicker than I was expecting. We weren't even through the fifth or sixth line in the pilot and Exenta was already showing us efficiency improvements of the early pilot lines. It was really great."

To keep workers safe and comply with social distancing guidelines, plant supervisors needed to reduce capacities within the facilities. In order to achieve that, Carhartt quickly changed to a four-by-four schedule where associates worked four days on, then took four days off. Pay schedules were adjusted within Exenta to support the new schedule. Additionally, increased absenteeism presented a challenge. With Exenta, production supervisors have real-time visibility into absenteeism so they can react much sooner. Supervisors can see what jobs employees are trained for with a simple button click. This makes it easier to redeploy people and avoid production bottlenecks.

Looking forward, Agusti plans to leverage Exenta Shopfloor Control to find even more ways to strengthen productivity and efficiency at Carhartt. For example, she sees a future opportunity for using real-time equipment data to reduce machine down time, improve preventative maintenance, and lower overall maintenance costs on the shop floor. She's also beginning to examine Exenta's tracking capabilities for quality and repairs processes within the finishing center.

"Our implementation of Exenta Shopfloor Control went very smoothly. They were very patient, very accommodating, and I know that the team feels really good about continuing to invest in the platform. We are definitely planning to continue to invest in the platform and take on additional capabilities that the solution will offer," said Agusti.



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