splunk> turn data into doing™

CASE STUDY

Leading Flooring Solutions Provider, Shaw Industries, Breaks Production Records With Splunk IoT

Key Challenges

To retain its competitive position, Shaw Industries Group needed access to real-time data on its factory floor for better production performance.

Key Results

Since deploying the Splunk® platform, Shaw Industries improved work order lead times, increased product sample output and accelerated speed to business insight.

Industry: Manufacturing

Solutions: Industrial Data and the Internet of Things

Providing quality from the ground up.

With annual sales nearing $6 billion, Shaw Industries Group, Inc. supplies carpet, resilient, hardwood, tile and stone and laminate flooring products and synthetic turf to residential and commercial markets around the world. To retain its competitive position, Shaw Industries has implemented industrial internet of things (IIoT)-based, real-time factory floor analytics. Data from systems and industrial sensors provides new business insights, improving production performance and spurring friendly competition among plant workers.

Blending IoT and Business Data

Initially, Shaw Industries adopted the Splunk platform to provide visibility into a new post-consumer recycling facility. Given the ease of ingesting plant data and correlating disparate industrial data streams, additional Shaw manufacturing plants began implementing their own Splunk instances, resulting in a corporate initiative spanning 37 manufacturing facilities. Today, approximately 300 managers and engineers are trained to write Splunk searches for their machine and enterprise data. Plant managers and production managers consume Splunk dashboards for key business insights.

"We blend IoT and business data," says Erika Swartz, a process engineer in the company's Fibers division. "The biggest value comes when you can put those sources together. I use business information to contextualize process data that previously had no context. This accelerates our time to insight, and allows us to answer important questions on key business metrics. Before Splunk, our team spent a lot of time analyzing and combining reports to understand what impacted metrics. Now we plug our data sources into Splunk and can automate analysis to understand where our opportunities are."

Turning Data Into Outcomes

- Improved work order lead times to serve customers quickly
- Significantly increased product sample output
- Reduced energy usage at one facility, resulting in significant cost savings

Built for Speed and Customer Service

One group that is boosting output with the Splunk platform is the Samples division, which provides the sales force and some retail stores with hardwood floors, resilient laminate, ceramic tile, and stone product samples. "At Shaw Samples, we're all about speed and servicing the customer," says Gabriel Gerges, the department manager. "One of the most important metrics our department uses is work order lead time — the time it takes to service a work order, from when it is created to the time it ships. Splunk has helped us drastically increase speed to drive our business."

In the past, the Samples division relied on lagging metrics to monitor production. Since the plant provided associates with a Splunk efficiency data dashboard to show real-time production, the plant has more than doubled production with focused process improvements. "This past week, we broke our record for the panels produced, so Splunk is helping to change the way we do business," Gerges says.

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> **Gabriel Gerges,** Department Manager, Samples Division, Shaw Industries Group, Inc.

An unexpected benefit of the factory floor dashboard is the sense of fun competition that has developed. "You might have two operators who are trying to outperform each other, and there's some good camaraderie on the floor now that you probably wouldn't have seen in the past," Gerges says.

> For us, transparency of information is important. We now have real-time data with context to make decisions quickly and accurately, and we are providing the same information to people across the business, so that they can make decisions, too."
>
> **Erika Swartz,** Process Engineer, Fibers Division, Shaw Industries Group, Inc.

Insights Into Equipment Performance, Energy Efficiency

According to Gerges, when he worked in Shaw's residential carpet division previously, there were so many data points, including programmable logic controller (PLC), supervisory control and data acquisition (SCADA), and work order data; it was sometimes difficult to get a good understanding of issues or equipment performance. "Instead of finding out that there was something wrong two hours ago, and having two hours' worth of 'off quality,' Splunk helped us better understand how our machines were running at any point, using real-time data," Gerges says.

At one of Shaw's carpet facilities, Gerges used Splunk® Enterprise to analyze energy usage to help reduce energy intensity, which is a company-wide goal. "After a lot of testing, and making data-driven changes by utilizing Splunk, we reduced energy usage significantly," Gerges says.

Overall, by collecting and analyzing manufacturing and industrial sensor data in real time, Shaw has gained new visibility and insights into business-impacting issues like quality and performance.

"For us, transparency of information is important," Swartz concludes. "We have real-time information to make decisions quickly and accurately, and we are providing the same information to people across the business, so that they can make decisions, too."

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