

Sigma/Q Stays Ahead of the Pack

Central American Packaging Leader Increases Overall Equipment Effectiveness (OEE) by 40% with the Shoplogix™ Plantnode® Real-Time Performance Management Solution



CASE STUDY

40%

INCREASE IN OEE

23%

AVERAGE INCREASE
IN RUN SPEED

36%

DECREASE IN
MAKE-READY TIME

THE COMPANY

Sigma/Q is a leading manufacturer of quality packaging in North and Central America serving various markets across the globe. The company focuses on reproduction and pre-press, flexible packaging, corrugated packaging, folding carton, packaging labels, greeting cards, gift boxes, gift wrap, recyclable paper, plastic packaging, luxury bags, cases, displays and prepaid cards.

THE GOAL

Sigma/Q's primary goal was to improve plant performance and reduce operational costs. The first step to achieving these goals was to automate the data collection process and build a foundation for continuous improvement with accurate, reliable information.

THE CHALLENGE

Sigma/Q was faced with two main challenges. The first was transitioning to an automated data collection process without significant downtime. The second was to translate the automated data into measurable value.

THE SOLUTION

To achieve its goal Sigma/Q selected Shoplogix Plantnode, a powerful performance management solution designed to maximize manufacturing efficiency and deliver bottom line results in a short period of time. By automating the data collection and analysis processes and introducing a real-time strategy, Shoplogix's Plantnode enabled Sigma/Q to streamline the flow of information to optimize manufacturing performance.

Plantnode provided Sigma/Q management with real-time reporting and analysis capabilities that provided the necessary visibility into operations to support planning and strategic decision-making. At the plant level, Plantnode provided real-time visibility of equipment performance to each operator with an LED display located above assets on the plant floor. With the LED providing continuous feedback, the operator is empowered to take immediate action to increase machine performance related factors such as run speed and uptime at the moment issues occur rather than after the fact. The Plantnode solution also

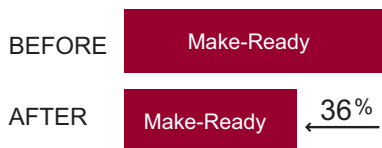
Key Success Factor: Operator Involvement in the Performance Improvement Process

improved Sigma/Q's reporting accuracy with the bar code scanner. "The scanner allowed us to automatically collect job and shift information and to assign downtime reasons quickly and accurately", stated Salvador Miranda, Special Projects Manager for Sigma/Q.

The company rolled out the Plantnode solution on an enterprise scale across nine plants within its Latin American operations. Commenting on the implementation, Miranda states, "With the Shoplogix manufacturing experts on hand, installation was complete in only half a day with virtually no downtime. The product was highly intuitive and within a few hours our operators were trained and interfacing with the Plantnode solution without skipping a beat."

Reduction in Make-Ready Time

Source: SigmaQ 2007



Make-ready time was reduced as a result of real-time feedback to operators through Shoplogix LED display boards.

RESULTS

Real Data, Real Decisions,
Real Results

With the Shoplogix Plantnode solution, Sigma/Q achieved its goal of improved plant performance and reduced costs. Make-ready times were reduced by 36% and run speed was increased by an average of 23%.

Reporting Made Easy

Sigma/Q's existing manual data collection process was labor- and time-intensive. In addition, the manual recording of machine data left the company vulnerable to inaccuracies.

"With Plantnode's advanced reporting functionality our reports are completed in a matter of minutes. This reporting improvement has resulted in a 65% reduction in labor required for reporting," says Miranda. "Eliminating our manual data took out

Increase in Overall Equipment Effectiveness



Availability x Performance x Quality

Shoplogix Plantnode increased machine availability and performance without sacrificing quality. Subsequently, Overall Equipment Effectiveness increased by 40%.

the guess work. We no longer question the reliability of our machine data so we are able to make production decisions with confidence", stated Juan Carlos Sol, from Sigma/Q's Special Projects Unit.

Leveraging the Operator

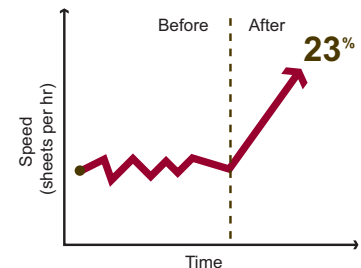
As a progressive manufacturer, Sigma/Q also had incentive programs in place where operators received bonuses based on individual accomplishments. When Plantnode was installed the company was able to assign accountability and identify key contributors to reward them appropriately during performance reviews. As a result, operators aspired to achieve higher levels of operational excellence, promoting a culture of continuous improvement across the various plants.

"Our operators are more proactive and better equipped to improve the output of their machines while supporting our productivity goals. At the same time, our management team is able to make better and more informed decisions based on real-time equipment information.

Within the first few weeks of installing Plantnode we identified a significant amount of unused capacity on our die cutting machines. Knowing exactly where to focus our efforts, we increased our Overall Equipment Effectiveness (OEE) by 40%. With this additional capacity, we deferred the purchase of additional equipment, saving us millions of dollars in capital investment", says Sol.

Increase in Average Run Speed

Source: SigmaQ 2007



Sigma/Q had substantial variability in run speed due to frequent starts and stops in the manufacturing process. After Plantnode was installed, variability was dramatically reduced and run speed was increased by 23%.

CONCLUSION

Shoplogix has supported Sigma/Q's goal of improved productivity and cost reduction by delivering real-time visibility into its machine operations. Management now makes production decisions based on real-time equipment data and operators respond immediately to unplanned downtime. Miranda stated, "We are truly leveraging the skills and knowledge of operators with Plantnode. They play an integral role in achieving our performance improvement goals. Shoplogix has elevated us to a whole new level of productivity and we are closer to our vision of manufacturing excellence."



Contact our Manufacturing and Operations specialists at info.shoplogix.com

Toronto HQ: 877-469-9994 | 905-469-9994 | www.shoplogix.com

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