

Find the Value

Optimizing a hybrid production environment

CHALLENGE: Keep up with the supply chain demands of a growing business

PRODUCT SOLUTION: SAP planning tools and supply chain management solutions from Bristlecone

COMPANY: Cox Target Media

FACILITIES: Largo, Florida

OPERATION: Producer of Valpak coupon envelopes

The challenge

Cox Target Media produces the familiar blue Valpak coupon envelope delivered to millions of consumers across the United States. Although Valpak has a reputation for doing high-quality work and delivering on time, the company's manufacturing technology had been in place for a long time and expansion opportunities were limited. The daily production environment involved workers keeping different orders separate on large carts and physically moving them around the plant.

Valpak's plants in Largo, Florida, and Elm City, North Carolina, were operated by custom-producing orders that consisted of millions of possible combinations of components and raw materials. These included printed product formats, paper types, packaging, inks, layout, and images. Workers loaded machines with paper and ink, ran an order, and moved immediately to the next one. With dramatically increasing demand, a change was required to support Valpak's long-term growth.

"Our current production process had been in place for three decades. Over the years, as volume grew, we simply added more people," says David Fox, vice president of manufacturing for Valpak. "Our technology and equipment didn't change very much, and individual coupons were handled and moved as many as a dozen times before they left our plants. We were getting to the point where, the more

we sold, the less efficient we were getting to be."

The solution

Valpak's production process was typical of the industry, but its booming business was not. Company executives were challenged to capitalize on new automated technology while operating effectively in a custom production environment.

In 2004, leaders announced an initiative to redefine the manufacturing and distribution processes. One of these improvements turned out to be a new manufacturing center. The \$200 million, 470,000-square-foot facility in St. Petersburg, Florida, will replace the Largo and Elm City plants and produce 54 billion coupons annually. The new facility will provide the responsiveness of a job shop make-to-order (MTO) environment, while achieving the production economies of scale of a make-to-stock (MTS) model.

In addition to sophisticated presses and robotic handling equipment for the new plant, Cox selected SAP Advanced Planning Optimizer (APO) to drive its planning. Company decision makers felt a sophisticated planning engine would be most capable of handling the detailed scheduling required by an MTO demand stream and MTS manufacturing strategy.

In preparation for the opening of the facility in 2008, Valpak chose Bristlecone to optimize this unique hybrid environment because of its domain expertise in advanced planning methods, comprehensive understanding of how to combine MTS supply and MTO demand models into an integrated environment and its employees' extensive experience in mapping the SAP solution to such a planning model.

Leveraging the power of SAP APO through smart workarounds,

Bristlecone experts helped Valpak implement a solution that focused on enhancement, rather than re-invention, while meeting the business's planning requirements. Notably, the solution effectively reconciles the MTO demand stream with the MTS system on the supply side.

As a customer places an order, the new tool looks at aggregate demand, determining where commonalities exist across all orders. Though execution continues to be customized on the individual customer level, the system makes it easier to create a detailed production planning schedule.

For example, if two customers require two-panel coupons printed in green ink, their jobs can be scheduled contiguously to save press setup time and reduce production costs. In addition, the Bristlecone solution has enabled Valpak professionals to create a supply plan that recognizes and works with both capacity and material constraints. This helps mitigate the problems caused by the mix of products ordered and the sequence in which they are ordered.

The results

Deploying Bristlecone's customization of SAP APO has benefited Valpak in many ways. The per-job production timetable has decreased dramatically from 4 days to 4 hours. Production capacity has doubled, and scheduling and automation are more tightly integrated.

By partnering with SAP and Bristlecone, Cox Target Media has created a production environment that enables company managers to plan and schedule customer orders at a highly granular level. The result is successfully meeting aggressive schedules and reducing operating costs across the board. 