Art Stone designs and manufactures dance attire. Thus, the company knows all about the world of dance; its dance attire can be found in dance classes and competitions across the United States. With a product that has to capture attention on stage, the company needed a production process that could handle the intricate fabrics that sets it apart from the competition. Adding to the complexity was the fact that of the company’s 800 styles, 600 change on a yearly basis and they run the full range from children’s costumes to high end performance attire. Art Stone needed to overcome these challenges and achieve fast turnaround times with shorter production runs to meet demand, all while still being cost effective.

Lectra’s cut order optimization technology helped improve the company’s material consumption by 10 to 15 percent, and throughput by approximately 20 percent. The solution provided flexibility and responsiveness in the manufacturing process, while also allowing Art Stone to keep production close to consumers and achieve shorter time-to-market. This helped the company focus on increasing market share and expanding its presence in Europe, Asia and Australia.
Art Stone produces attire geared to the specific needs of dance teachers across the United States. The company is known for creating consistently high quality ballet costumes as well as delivering unique, intricate designs. “Manufacturing dance attire can be tricky; each design uses four to eight fabrics, some of which are challenging such as brocade, which tends to ravel easily,” explains Ashley. “The nature of our business calls for a certain level of flexibility and responsiveness in our manufacturing process. We rely on shorter production runs but still need to operate in a cost effective manner to keep our current price point even in the face of rising fabric expenses.”

When Ashley joined the company in 2006, she noticed that a significant amount of time was being wasted in the cutting process and that inefficient markers were leading to poor fabric utilization. She turned to Lectra, a company with which Art Stone had been working since 1994. “Lectra always takes the time to understand my business. So when they spoke to me about a solution that would address my challenge in the cutting room, I listened.”

Lectra recommended Optiplan, a cut order optimization solution. The solution featured powerful order planning algorithms that balance spreading, cutting and offloading activities while taking into account production constraints such as fabric costs, labor rates, table lengths and ply heights. The system then identifies the most efficient and cost effective approach to a given number of orders.

Prior to adopting Lectra’s Optiplan, Art Stone had three CAD designers creating markers full time, while a large contingent of operators spread and cut the fabric prior to assembly. Now, the company has been able to reduce the number of employees operating each cutter by half and has redirected the CAD designers to other areas of the business. “The solution has helped improve our production efficiency. Our average marker efficiency rose from 70 to 80 percent, and our cutting productivity has increased by 30 to 50 percent on a daily basis. We cut faster than we can sew! The best part is that our employees have now become thinkers instead of just doers.”

Moreover, Art Stone has been able to improve throughput by 20 percent and decrease the average fabric usage per garment by 10 to 15 percent. “In one year, we covered the cost of the technology in fabric savings alone,” Ashley shared. “Now we have the resources needed to focus on growth activities.”

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