

## **Hart Schaffner Marx Tailors Technology for Cutting Room Optimization**

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### **CUTPLAN Manages Fabric Utilization to Specific Case and Piece level**

Since 1887, Hart Schaffner Marx has signified leadership and excellence. Today, it remains a strong apparel brand and the volume-leader in America's tailored clothing business. Hart Schaeffer Marx is the flagship brand of Hartmarx Corporation's (NYSE:HMX) HMX Tailored business, a diversified collection of 'bridge/better' brands that accounted for almost one-half of the corporation's \$598 million in sales in 2005.

To sustain its ability to provide its customers with the greatest degree of flexibility, value and quality, Hart Schaffner Marx draws on the expertise of its six company-owned domestic manufacturing facilities. These plants produce up to 10,000 suits and 15,000 pants each week. Sewing plants are supported by three dedicated cutting facilities in Cape Girardeau, MO, Des Plaines, IL, and Buffalo, NY.

In the early 70's, Hart Schaffner Marx custom-designed its mainframe computer system to convert sales numbers into cutting orders and plans. Back then, the primary focus of the system was on minimizing labor costs - specifically the manual cutting operation which represented the biggest restraint in the process. Over the years, Hart Schaffner Marx has fully automated the cutting task by installing more than 15 Gerber computerized fabric cutting machines throughout its facilities. "Our mainframe did a good job except for saving goods", stated David Huffman, Senior Analyst - Manufacturing Administration and 30-year employee of Hart Schaffner Marx. "Because it operated off of target (planned) maker lengths instead of actual markers, it sacrificed fabric in favor of optimizing cutting time and costs."

Like most fashion manufacturers, Hart Schaffner Marx shifted its cost savings focus as fabric replaced labor as the largest cost component of their products. With fabric costs averaging well over \$10 per yard, the company implemented the CUTPLAN software from AMS, Inc. in 1991 with the goal of optimizing the entire cutting process - from order creation to cut goods. With orders typically comprising 60 pieces and a maximum of 25 ply height of 1 or 2 fabric types, managing the complexity of a high-style / small-order cutting operation was also a significant driver for the new software.

"From the start, we saw significant savings in fabric and reduction in work-in-process levels with CUTPLAN", added Huffman. "It provided us with better sectioning plans, more control over picking sizes, and other key benefits that the mainframe could not offer. The fabric savings came in part because CUTPLAN uses actual marker lengths for planning instead of the old target lengths. Our mainframe could only send 'close' to the right amount of fabric to the cutting room. And because the mainframe planning was not accurate enough, we used to have to put 2-3000 extra units in process each day just to make sure that we had enough to keep things running efficiently. With CUTPLAN, no errors are left to happen; whatever we put in that day is going to come out."

To further streamline the cut planning process, Hart Schaffner Marx had their PC-based

CUTPLAN integrated with their existing mainframe system. This made it possible to share piece goods inventory information between the systems, enabling even greater fabric savings through CUTPLAN's fabric allocation software module. Now, in addition to cut planning, FABPLAN creates a picking order for fabric down to the specific piece and case where it is located so that it can be sent to the cutting room. Together, the integrated planning and allocation software modules provide the cutting room with everything they need to pick fabric, spread and cut – all within a matter of hours from receipt of the order.

The fabric allocation piece was strategic at Hart Schaffner Marx due to the restraints that the original mainframe planning placed on the process. For example, 3 or 4 'fill-in' fabric pieces were sent with each order in order to compensate for lack of accuracy in their old methods. And when pieces were not long enough, the remnant pieces would have to be returned and a new longer piece cut and sent to the cutting room. This resulted in wasted time, extra handling, higher WIP levels, and excessive and difficult-to-manage fabric remnants. According to Huffman, "Fill-in's used to be one of our biggest problems; now it is our smallest. By helping us precisely match fabric lengths to marker lengths, CUTPLAN actually prevents remnants."

"With all of these improvements, we know CUTPLAN is generating savings for Hart Schaffner Marx. We believe that our overall fabric savings has exceeded the 2%-3% benchmark that is commonly referenced with CUTPLAN. We have also reduced cutting work-in-process by a minimum of 3 days and removed 2-3 days of marker making time from the process.

"We continue to work closely with AMS to customize our CUTPLAN solution to our specific needs. For example, we have recently added more simulation capabilities. They are very responsive to our needs, often getting us what we need in the same day."

### **Highlights:**

- Hart Schaffner Marx is the volume-leader in America's tailored clothing business
- Hartmarx generated \$598 million in sales in 2005
- Six domestic plants produce up to 10,000 suits and 15,000 pants each week
- Implemented CUTPLAN in 1991
- PC-based CUTPLAN integrated with mainframe system
- FABPLAN creates fabric pick order down to the specific piece and case
- By precisely matching fabric to marker lengths, CUTPLAN prevents remnants
- Fabric savings exceeding the 2%-3% benchmark, reduced cutting WIP by 3 days