

# PLAID ACHIEVES PRODUCTIVITY IMPROVEMENTS WITHIN 90 DAYS

of New Supply Chain Initiative

## OPERATIONS

Headquarters: Stone Mountain, GA  
Distribution Centers: 1

## MANHATTAN SOLUTION

Warehouse Management,  
Transportation Execution



## CHALLENGE

Increasing compliance requirements and 20-year-old legacy system challenged Plaid's ability to serve its customers.

## SOLUTION

Plaid implements Manhattan's Warehouse Management and Transportation Execution solutions based on compelling ROI analysis.

## PROGRESS & RESULT

Increased labor productivity and shipping efficiency, improved order accuracy, reduced IT costs.

"With increasing customer demands, we needed a solution to provide immediate relief in our DC and a convincing ROI analysis to get management approval. Manhattan Associates' Value Assessment (MAVA) made it easy—our executive team found the data compelling enough to approve the project."

GREG PEARSON, VICE PRESIDENT OF IT AND MATERIALS, PLAID ENTERPRISES

# IMMEDIATE SUPPLY CHAIN IMPROVEMENTS

at Plaid

## INCREASING CUSTOMER DEMANDS FROM MAJOR RETAILERS SEND PLAID SEEKING NEW SUPPLY CHAIN CAPABILITIES

Since publishing its first macramé instructional book in 1976, Plaid Enterprises Inc. has become one of the world's leaders in the creation, manufacture and distribution of craft and home décor products. From paints and rubber stamps to stitchery and glass crafting supplies, Plaid produces more than 5,000 craft products under 50 brand names. The company's products reach a wide variety of crafters in more than 50 countries.

More and more, Plaid's business has focused on large retail customers with increasing compliance requirements. Yet the company was having difficulty keeping its 20-year old legacy warehouse management system updated with these requirements—including use of customer carrier routing guide, shipping label compliance and automated cartonization. Plaid's existing software was falling further behind the increasing customer demands.

According to Greg Pearson, vice president of IT and materials, "We knew that achieving operational excellence in distribution can create a competitive advantage—and it's a requirement for doing business with major retailers." After extensive development and review of a large material handling and distribution center (DC) renovation project, the Plaid management team could not justify the investment required. The company needed a solution to address immediate requirements with a convincing return on investment (ROI) to move forward.



**"We've seen the greatest ROI in order fulfillment processing. Whether building a skid or a carton, the automatic cartonization capability provides big savings by directing warehouse staff to automatically pick full pallets when necessary, and by optimizing the case picking process."**

## MANHATTAN AND PLAID COMPLETE ROI ANALYSIS TO DETERMINE IMPACT OF AUTOMATIC DISTRIBUTION AND TRANSPORTATION FUNCTIONS

Manhattan recommended a smaller investment in supply chain solutions— Warehouse Management and Transportation Execution—to help Plaid address immediate needs. In order to provide the Plaid executive team with an ROI analysis that justified the project, Manhattan recommended that the company also apply its Manhattan Associates Value Assessment (MAVA) methodology. MAVA allows companies like Plaid to set realistic expectations and establish goals that are achievable. The MAVA analysis enabled Plaid to determine the actual impact of automating distribution and transportation functions relative to the costs of the project— before investing in software.

## MAVA ANALYSIS REVEALS SIGNIFICANT ROI POTENTIAL FROM IMPLEMENTING MANHATTAN SOLUTIONS

The MAVA process was thorough enough to meet Plaid's needs for a comprehensive ROI analysis, but efficient enough to be completed in just a few weeks. Working together, Manhattan and Plaid were able to model various improvement parameters associated with productivity improvements and transportation savings based on results from similar projects with other Manhattan customers. Yet, the analysis provided Plaid with the flexibility needed to adjust these parameters based on the company's unique requirements and comfort level.

## CUSTOMER CASE STUDY

After a collaborative fine-tuning, the MAVA analysis brought Plaid and Manhattan to a goal with which both companies were comfortable—an estimated 12% improvement in overall productivity. After reviewing the analysis, Plaid executives found the data compelling enough to approve implementation of the Warehouse Management and Transportation Execution solutions.

### **PLAID INCREASES LABOR PRODUCTIVITY, IMPROVES ORDER ACCURACY, REDUCES IT COSTS AND BOOSTS SHIPPING EFFICIENCY IN RECORD TIME**

Upon implementation of the Manhattan solutions, Plaid was able to measure success by comparing actual business improvements with expected benefits estimated by the MAVA analysis— particularly in regards to labor productivity improvements. The analysis includes a 'benefit ramp' feature for calculating ROI. In Plaid's case, the MAVA model assumed that, in the first three months after implementation, only a partial improvement should be expected, to allow the operation time to fully utilize the solution. This expected improvement would then increase incrementally every three months until reaching 100%. "We actually achieved a 12% productivity improvement within the first three months of implementing the solutions— three months ahead of schedule," said Pearson.

"We've seen the greatest ROI in order fulfillment processing. Whether building a skid or a carton, the automatic cartonization capability provides big savings by directing warehouse staff to automatically pick full pallets when necessary, and by optimizing the case picking process." The cubing of orders, cartons or pallets makes it possible to achieve the level of productivity Plaid was seeking, and wave management capabilities further balance work throughout the day. The labor tracking/productivity reports in Warehouse Management enable Plaid to track labor utilization rates for its employees. Additionally, pallet building is optimized and replenishment is automated, thereby eliminating stock-outs.

Although Plaid built its ROI analysis primarily on labor productivity improvements, the company has observed additional benefits—improved order accuracy, reduced IT costs and improved cross-docking, as well as improved shipping efficiency due to electronic integration with FedEx and UPS. Because the Warehouse Management and Transportation Execution solutions are easy to use, new workers require minimal training. In addition, Plaid's IT resources have been freed up to focus on other projects—a key benefit for the company.

Plaid's labor productivity continues to trend even higher. With the Manhattan solutions in place, the company is well positioned to pursue further automation and achieve even greater efficiencies.

