



## CASE STUDY: Teacher Created Materials Publishing

### OVERVIEW

Teacher Created Materials Publishing (TCM) develops innovative and imaginative educational materials and services for students worldwide. Everything the company does is created by teachers for teachers and students to make teaching more effective and learning more fun. The company sells supplemental learning materials, selling primarily into the direct-to-school markets (i.e. schools and districts).

### CHALLENGES

One of the company's most significant challenges is the fact that the requirements of each school district's curriculum can vary widely. As a result of this wide variation, TCM has tens of thousands of pieces of material to manage. Historically, forecasting and replenishment have been a challenge.

The situation is more complex due to the fact that TCM also has a production component to its operation, whereby it can customize a kit for a school's or district's unique requirements. For example, a school may like a classroom kit, but prefer book A over book B, as well as want to add the name of the school and its logo. This level of customization alters the way items are created, packed and processed.

Time is a critical factor in TCM's business. Seasonality often drives the delivery schedule, with many of the direct to school customers needing products just before summer school, or prior to the start of the new school year. Funding deadlines and regional deadlines also add a layer of complexity to the timeliness of delivery execution.

Prior to choosing Robocom, TCM was essentially a paper-based warehouse. The lack of automation caused a number of problems across the company's operations. "We had very little visibility from the time an order came in, through the picking process and the time it shipped out," explains Nick Jones, Vice President of Operations for Teacher Created Materials Publishing. "There were times we would lose visibility on orders and not realize there was an issue until the customer called to inquire. Managing and tracking inventory was also very problematic."

Bottlenecks on the production line were a significant problem, particularly when it came to processing orders for library sets – sets of books that are made to order that need to be pulled together, shrink wrapped and labeled. "We would get hit with these set orders that we weren't anticipating and our manual operations couldn't easily scale with the demand. The result would be a bottleneck at the shrink wrap tunnel or bottlenecks just due to resource constraint."

### SOLUTION SNAPSHOT

#### BUSINESS CHALLENGE

A lack of automation resulted in numerous problems across TCM's operations, including lack of visibility, difficulty tracking inventory, and bottlenecks on the production line.

#### ROBOCOM SOLUTION

TCM is using R-WMS to manage all of its warehouse operations, including managing and tracking close to 50,000 different SKUs across its three warehouses totaling 90,000 sq. ft.

#### RESULTS

With live metrics, TCM is improving productivity: pick accuracy has increased approximately 25% and packing efficiency is up almost 10%. Inventory accuracy has greatly improved. The company is far more agile, able to quickly scale operations up or down due to better visibility and transparency.

*“With Robocom we are far more agile, which means we have a leg up on the competition. R-WMS as has given us the ability to quickly scale up, provided us greater visibility into our inventory and operations, and given us the ability to forecast so we can anticipate our customer’s future needs. These are all things we need to grow our business and compete at a high level.”*

*— Nick Jones  
Vice President of Operations  
Teacher Created Materials  
Publishing*

TCM sought a warehouse management system (WMS) that could help it increase throughput and inventory accuracy, deliver the agility to quickly and easily scale its operations up or down, enable the company to flatten out the variability that could cause significant issues, such as overstock or lack of inventory, and forecast projects and inventory so they could support their customers’ need for customization more easily and efficiently.

## **DECISION**

TCM launched an aggressive search for its new WMS. The company initially looked at a litany of different candidates, whittling it down to a short list of final vendors. “We evaluated all companies that we felt would meet the cost, service, and technology requirements to meet our evolving business needs,” says Jones.

Jones says TCM chose Robocom over the competition for a number of reasons. First R-WMS already supported integration with the company’s existing ERP system. “Out of the gate that was a huge advantage and benefit for us. We also liked the actual interface of the system. In the demo we were able to see how the system really worked and liked that it was very user friendly and intuitive. That coupled with the integration gave Robocom a leg up on the competition.”

TCM went live with R-WMS in March 2015. The company is using the system to manage close to 50,000 different SKUs across its three warehouses – one 20,000 sq. ft. and the other 30,000 sq. ft. and a newly added 40,000 sq. ft. facility

## **Benefits and Results**

Jones says one of the immediate benefits they have realized with R-WMS is access to live metrics, which is improving productivity and driving greater employee accountability. “We now have TV screens in the warehouse that track how many lines per hour each employee is picking. This has fostered a healthy competitive environment and an environment of transparency.”

The company tracks a number of metrics, including lines per hour, replenishments, returns, and errors among others. “We have our IT team compiling all of our data and looking for different ways we can manipulate it to drive great insight and benefits across our operations.” Jones says that pick accuracy has increased approximately 25% and packing efficiency is up about 10%.

Traceability is another significant benefit TCM has realized with R-WMS. “We now know exactly where an item is at anytime – whether it is in inventory, is being processed or has shipped. In addition, our cycle counts have gotten much better because we have perpetual inventory tracking and, as a result, our inventory accuracy has also greatly improved.”

Prior to Robocom, producing library sets was a major challenge. “We can now forecast orders before they come in and pre-build library sets months ahead of time. This ability to be proactive has flattened out the demand fluctuation associated with these sets and greatly improved our efficiency.”

Jones says TCM is delivering better customer service by decreasing errors. And with real-time visibility and automation TCM can react to an order as soon as its allocated.

R-WMS has given TCM the ability to prioritize shipments. "For example, we have rush order functionality that highlights all of the "ship today" orders so that we can make sure those orders are processed and shipped immediately. "

Jones believes R-WMS has given TCM a true competitive edge in the market. "With Robocom we are far more agile, which means we have a leg up on the competition. R-WMS as has given us the ability to quickly scale up, provided us greater visibility into our inventory and operations, and given us the ability to forecast so we can anticipate our customers' future needs. These are all things we need to grow our business and compete at a high level."

For example, TCM recently won the business of some very large customers. "We were able to successfully execute against these new orders in part because we could quickly identify where inventory was, know that it was accurate, and we could order inventory if we were short. Our supply chain is now far more responsive. We can scale our operations up or down if we need to because we have that better visibility and transparency."

## EXPERIENCE WITH ROBOCOM

Jones says their experience with Robocom has been extremely positive. "Robocom has been a very good partner to us. They have helped us with the implementation and continue to help us as we work with the system to implement new features and drive even greater gains. They are very responsive to our needs and questions and have demonstrated a commitment to ensuring our success."

## ABOUT ROBOCOM SYSTEMS INTERNATIONAL

Robocom Systems develops, licenses and supports Supply Chain Execution software solutions, including Warehouse Management, 3PL Billing, Transportation Management, Voice Technology and Labor Management. An Enterprise Transportation System and Enterprise Resource Planning System round out the Supply Chain Execution offering. Robocom's investment in research and development is keenly focused on the needs of the business leaders responsible for the day-to-day results in warehousing, distribution, third party logistics, transportation and trucking operations. For more information visit [www.robocom.com](http://www.robocom.com)

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