



Home Improvement Retailer Realizes Big Gains With Tighter YMS Integration

Improves Productivity, Cuts Expenses, And Streamlines The Supply Chain

PRODUCTS ARRIVE AT THE RIGHT PLACE AT THE RIGHT TIME

Streamlining operations and creating deeper enterprise-level visibility into distribution systems is vital for driving efficiency and improving profits. And that's why a major home improvement retailer recently launched a massive overhaul of their distribution model. They concluded that logistics and yard operations presented solid opportunities for significant savings.

Keeping retail shelves stocked with the right products depended on a complex supply and logistics chain spanning 19 distribution centers (DCs) across the U.S. Unfortunately, legacy yard management systems (YMS) lacked integration, and management sought more robust YMS functionality to optimize switcher productivity, door utilization, equipment utilization, and on-time deliveries.

CHALLENGE

When it comes to logistics, getting the right trailer to the right dock door at the right time helps eliminate a choke point in the supply chain. It also enables fluidity between transportation and distribution center operations — and ultimately to the retail floor. Management at the home improvement retailer

knew that increasing switcher efficiency and accuracy was critical to improving overall yard productivity.

Achieving success meant finding a way to integrate up to three disparate logistics environments including YMS, warehouse management (WMS), and transportation management systems (TMS). The goal was to significantly speed up trailer check-in and gain visibility through tight integration across various systems. Decision makers required a platform that would provide real-time data and reporting analytics, allowing them make process improvements across the enterprise.

Faced with rising fuel and switcher maintenance costs, the company needed to improve switcher productivity and reduce trailer-yard dwell time as much as possible. With industry-average switcher expenses running over \$100,000 annually, reducing the number of switchers at each yard while improving productivity would generate guaranteed ROI across multiple DCs. The new system would need to eliminate the manual intervention and check-in/out process, digitize error-prone paperwork, provide intelligent switcher moves, and provide a more effective way of matching the demands of the warehouse with yard operations.

Customer

Major Home Improvement Retailer

Industry

Consumer and professional home improvement products and services

Challenge

- Improve enterprise visibility
- Accelerate inbound check-in process
- Reduce yard audit hours
- Boost switcher productivity

Solution(s)

- Zebra® Yard Management System

Results

- Optimized switcher productivity
- Accelerated inbound and outbound gate operations
- Integrated disparate YMS, WMS, and TMS environments
- Boosted warehouse productivity
- Gained deep, real-time enterprise visibility into logistics operations

SOLUTION

The optimal solution called for a system that delivered improved check-in/out time, boosted switcher productivity, and optimized shipping and receiving operations. Such a solution would allow the DC staff to streamline their gate operations, process more trailer moves per hour, and optimize the flow of goods and material to and from dock doors. Achieving these goals required a yard management system whose configuration capabilities could support the retailer's unique business processes out of the box, and was capable of interfacing with disparate warehouse and transportation systems.

Yard management systems that bridge transportation, logistics, and distribution operations allow organizations like large retailers to eliminate choke points and increase overall velocity, which reduces waste and costs. Systems that provide rich yard planning and exception management capabilities with configurable business rules can help optimize yard operations, which in turn can optimize the transportation and warehouse management operations on either side of the YMS.

The retailer concluded that Zebra® YMS was best suited for enabling tight orchestration of their yard, transportation, and warehouse operations. Zebra YMS includes an application-programming interface (API) that provides connectivity with back-end WMS and TMS, enabling a continuous, fluid flow of inbound and outbound material. It also provides alert notifications to yard operators to identify and respond to exceptions, which results in better on-time delivery performance, improved safety, and increased equipment utilization.

Zebra YMS provides a systematic approach to resolving what multiple systems and manual processes managed previously. Yard workers can leverage the power of handheld devices

to remotely check in and check out trailers, and perform required yard audits. The Zebra YMS API enables seamless integration and commonality of reporting so there are consistent performance metrics business-wide.

Built upon a flexible deployment model, Zebra Professional Services set up, configured the Zebra YMS solution at one DC, and trained the retailer's staff. Then, the retailer copied the deployment model and implemented the system at the other 18 sites on their own.

RESULTS

Zebra YMS reduced the average trailer check-in time by 80%. Consolidating systems results in faster check-in, drivers no longer have to wait as long in line at the gate, which also saves fuel costs. Faster check-in and trailer drops means reduced labor and dwell time — ultimately enabling faster product movement to the retail floor.

Gate operators now have customized handheld capabilities for streamlined mobile check-in/out. Before loaded trailers arrive, Zebra YMS receives inbound appointments through an interface with the retailer's TMS. The handheld automatically matches on the driver's appointment, which reduces the amount of data entry. The gate operator then collects driver information, performs a seal check, and inspects the trailer. This data is all captured by Zebra YMS, where the information is used for reporting, alerting, and parking assignment purposes.

Zebra YMS prints a gate pass for each check-in, which serves several purposes. First, it provides instructions to the driver on where to park the trailer and where to pick up an outbound trailer. Next, it serves as a security document because it shows when the driver arrived, what they brought to the yard, and what they are expected to remove from the yard. Last, it expedites the checkout process by scanning the barcode on the gate pass upon driver departure.

Upon leaving the yard, an automated audit occurs, verifying that the driver is leaving the yard with the right equipment. A variety of business rules help yard staff control the flow of trailer moves between the gate, parking spaces, and dock doors. This powerful feature minimizes the travel time and distance of trailers and switchers, boosting overall yard efficiency. Zebra YMS gets the right trailer to the right dock door at the right time, improving supply chain velocity.

The retailer integrated Zebra YMS with their systems across 19 DCs, enabling them to pull yard operational data and generate reports for each site and region. Zebra YMS provides actionable information decision makers need for creating a more efficient, agile business. Management uses this data to compare and report site performance, giving them deep insight across all the DCs from an enterprise perspective.

