EXDS
EXCELLENT DIMENSIONING SYSTEMS

CASE STUDY

DOLLAR GENERAL CASE STUDY

The Issue

Dollar General Corporation is a general merchandising chain which retails consumer goods and dayto-day essentials at discount prices. Its operations are spread throughout the United States, consisting of 6 regional distribution facilities that feed several hundred retail locations.

Dollar General undertook a project to improve its distribution and logistics functions. This began with the acquisition of a comprehensive computerized warehouse management system (commonly referred to as a WMS). Broadly defined, the objectives of implementing this state-of-the-art WMS technology were to:

- Consolidate and improve the quality of supply chain decision-making information;
- Optimize the use of distribution facility space and assets;
- Increase product turnover rates;
- Reduce inventory levels; and
- Decrease fulfillment errors.

To accomplish this mission, among other things, the WMS needed accurate and timely dimension and weight data. Such would allow for local and immediate decisions at the distribution centers involving directed put-away, pick, repack, and load planning.

The Objective

To effectively implement a WMS, Dollar General first needed to accomplish two things: (1) profile (define and load into a computer) the spatial characteristics of their distribution facilities, and (2) collect dimension and weight data on the specific product lines stored there. When combined with product-line information this would allow facility layouts to be optimized (according to the turnover, value, and physical characteristics of their stocks) and would be a critical step in enabling the WMS to direct and control daily operations. In short, Dollar General needed to cube, weigh and upload their entire product database quickly.

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The Application

Manually capturing accurate dimension and weight information for thousands of products was a huge undertaking. Faced with this task Dollar General initially considered a manual process. This involved tape measures and clipboards, but was quickly rejected as too time consuming, error prone, and expensive. To automate and economize the process they turned to Quantronix, makers of the CubiScan 100, an automated cubing and weighing system. The CubiScan is a static dimension scanning and weighing system. It automates the process of measuring and weighing packaged material and then electronically transfers all captured data to a host system quickly and accurately.

The Solution

Once a CubiScan was acquired the company had less than a month to gather data on all product lines. The task was easily accomplished thanks to the dedication of hard working employees and the easyto-use CubiScan 100. Dollar General included an optional mobility pack with the system (a mobile workstation, PC, 12 volt battery, and battery charger). This allowed them to bring the CubiScan to the freight, rather than the freight to it, and enabled them to work anywhere in the warehouse for up to 10 hours at a time without restriction. Lastly, Dollar General used the CubiScan's data/operator control software - called Qbit™ - to create a seamless and reliable data interface to the WMS. Now, in addition to maintaining and updating data on existing merchandise, Dollar General uses two CubiScan 100s per distribution facility to handle new inventory at the point of receipt.

The Benefits

A common saying in data processing applications is "garbage-in, garbage-out." Dollar General's use of cube and weight information is a prime example of this axiom. If accurate data isn't provided to the WMS it cannot function properly. Consequently, many critical storage and logistics decisions are compromised. With valid product size and weight data Dollar General's WMS now makes decisions which lead to better utilization of warehouse space, increased pick and repack efficiency, and improved shipment planning. Using a CubiScan helped Dollar General to smoothly and efficiently implement their WMS, resulting in immediate cost savings and increased productivity. Now, all of the company's distribution facilities employ at least 2 CubiScan 100s to maintain accurate cube and weight data.

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