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GUESS' distribution evolution

“One of the great things about our WMS is how we’ve been able to bolt on just about anything we need. The way the system is configured allows for a number of access points in the software; and we’ve never had an absolute ‘no’ in terms of what we needed to do.”

–Tom Boyle, project manager, GUESS

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For more than a decade, the fashion giant's WMS has kept pace with several ERP integrations and the installation of a slew of materials handling equipment—all in an effort to keep the company on top of the fickle fashion world.

**BY MAIDA NAPOLITANO,
CONTRIBUTING EDITOR**

Established in 1981, GUESS has grown from its early beginnings of selling just jeans to a global brand with a full offering of apparel and accessories in over 80 countries. In North America, this fashion-forward company remains an iconic leader in the apparel industry, shipping 30 million units annually to major department stores, over 400 specialty retail stores, and directly to consumers online.

The company has grown dramatically from a \$6 million family business in 1982 to a global fashion empire with revenues of over \$2 billion in 2010. Such exponential growth over three decades is accomplished in part by a strong distribution system; but back in 1999—just about halfway through the company's journey—this distribution system was showing clear signs of wear.

In fact, its Los Angeles distribution center (DC) was bursting at the seams. "We literally had goods in tents out in the parking lot because we had no room inside the DC," recalls GUESS' project manager Tom Boyle. Not only was the DC overflowing, but its distribution network was also grappling with issues of lengthy transit times to most of its customers. Merchandise had to be regularly transported from Los Angeles clear across the country to where 60 percent to 70 percent of its wholesale



GUESS' WMS automatically directs cartons to their proper destinations and tracks their status in real time.



Inventory is automatically updated with every receipt and shipment. A physical inventory count now takes just 12 hours with its WMS—a significant reduction from three days.



Real-time interfaces between the WMS and WCS directs the scanned outbound carton to either go to value-added services for additional operations requested by customers, to an outbound quality check, or to an automated print-and-apply area for shipment.

business was located.

Systems-wise, the company was using an off-the-shelf, relatively manual, pick-pack system that didn't interface well with any of their other software or hardware. "This old system was built for a much smaller business, and as we grew, the controls that we needed in order to ensure that our inventory was under control just didn't exist," adds Boyle.

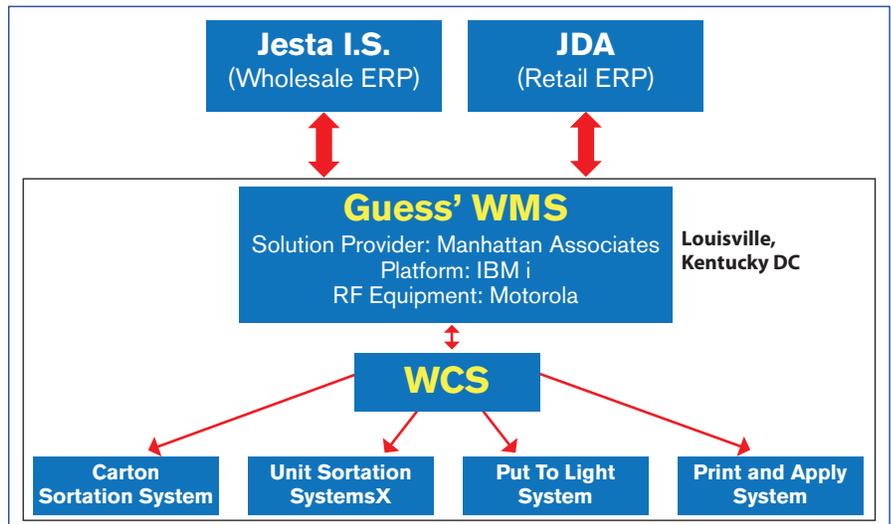
So in early 1999, GUESS hired Kurt Salmon Associates (KSA), a global management consulting firm, to assist the retailer in achieving two goals: the selection of a site for a new DC to improve service times to customers east of the Mississippi; and the selection of a new, full-featured warehouse management system (WMS) that would help GUESS execute this new strategy.

Keeping the company's business needs in mind, KSA conducted a full-scale site selection study. Lower labor rates, impressive tax breaks, and the opening of a few well-known carrier hubs were the principal reasons that had the team zeroing in on a brand new, 580,000-square foot facility in Louisville, Ky.

Once the building selection was made, a very aggressive schedule was launched to search and install a best-of-breed, advanced WMS for this new facility. The team selected Manhattan Associates' WMS (then called PkMS, now known as WM), and a two-phased roll-out schedule was initiated. In December 1999, GUESS' new WMS went live with the inbound functions of receiving and putaway, followed closely in January 2000 by outbound functions of picking, packing, and shipping.

But all this was just the beginning.

Over the next decade, the company transformed its distribution operation out of its Louisville site to meet various business challenges. And with each transformation, their WMS would be repeatedly tried and tested. Over the next few pages we'll follow how this fashion giant's WMS kept pace with a new ERP software solution and the installation of a whole slew of materials handling equipment in an effort to keep the company on top of the fickle fashion world.



How different systems and equipment interact with Guess' warehouse management system for the Louisville DC.

TRANSFORMATION #1: NEW ERP

As part of its continuing quest to efficiently deliver uncompromising quality to its customers, the company's first transformation occurred in 2003 when the company decided to implement a new ERP software solution called Jesta I. S. (formerly Essentus). "The overall project for this new ERP lasted a year, but the integration with the WMS took about four months, and that's due to 'mapping,'" says Boyle.

Bryan Feddersen, Manhattan Associates' senior manager for its client services organization and the lead for the GUESS project, explains this mapping process: "It's a very detailed and involved exercise to map all of the data elements flowing between a WMS and the host ERP system. In most cases, you do not have the same data structure and integrity requirements on the host that you do in the WMS." He adds that data needs to be translated into a format that is valid and recognizable to the system receiving the data and also to the system sending the data. The data being mapped may range from inbound carton information at receiving to outbound order data and store distribution at shipping.

Fortunately, Jesta had integrated with Manhattan's WMS many times in the past in similar projects with other supply chain organizations; thus, much of its mapping had already been

pre-configured. "Host interface design is always complex, especially when it is the first time you've worked with a particular vendor's software," says Feddersen. "But with several hundred clients in our client base, we've been able to build a repository of knowledge and experience from working with a large number of different host systems."

TRANSFORMATION #2: SEPARATING WHOLESALE AND RETAIL

After a couple of years, another major change further tested the flexibility of its WMS. For years, inventory for both wholesale and retail had always been combined, and wholesale sold to retail as if retail were a wholesale customer.

In 2005, GUESS decided to split its business into two separate entities with each owning their own inventory—but still running both out of one DC. Not only did the WMS have to be modified to reflect this split, but it now had to integrate with retail's JDA ERP system.

"Dividing the inventory into retail and wholesale was not tremendously difficult," recalls Manhattan's Feddersen. "The complexity was in trying to decide when you made an adjustment whether you made an adjustment to retail's or to wholesale's inventory."

Louisville's distribution team successfully tested the concept over two weekends, both operationally and within the WMS, bringing in full crews

to actually run a split of the inventory and to make sure that everything that was talked about on paper would actually work.

TRANSFORMATION #3: NEW EQUIPMENT

The DC's pursuit of excellence did not stop there. Over the next few years, the fashion retailer invested in state-of-the-art materials handling equipment to automate and increase the throughput and accuracy of its order fulfillment process in Louisville.

In 2007, GUESS added a bomb-bay unit sorter that automatically sorted individual units to its stores or to wholesale orders. From 2009 to 2010, a put-to-light system was implemented primarily for retail's quick response replenishment and for direct to consumer online orders. This year, the team is in the midst of installing a tilt tray sorter for more delicate handling of piece-pick items such as watches and jewelry.

With each new installation of a piece of materials handling equipment, interfaces with the different systems had to be built and tested, sometimes remotely at a vendor's facility. Overall, however, each integration went smoothly, lasting only two to three months depending upon the complexity of the equipment.

HOW THE SYSTEM WORKS

The GUESS WMS is continuously interfacing with various systems and equipment as it directs the paperless flow of inventory through its DC. It begins with advanced shipping notices (ASNs) that are transmitted from suppliers to Jesta for wholesale, and to JDA for retail. These ASNs are then electronically relayed to the WMS.

Even before the case physically arrives at the receiving dock, each case license plate number (LPN) already exists in the WMS from this ASN. As cases are unloaded onto conveyors and scanned, they are automatically received, inventory is automatically updated, and the warehouse control system (WCS) is automatically notified to direct the case coming down the pike for one of many destinations: an inbound quality check, a weighing/

More from our WMS Experts

Tom Boyle, project manager, GUESS

On what's most critical for a new WMS implementation:

"Users have to have a clear understanding of what they really want to accomplish. Honestly, in our implementation, that was one of our issues. We did not force greater user involvement at a high enough level from the very beginning, but we worked those out along the way."

Bryan Feddersen, senior manager with client services at Manhattan Associates

On tips for a good WMS design:

"Make sure that the right people are involved and that there's good input from both the IT side and the operations side. You don't want to start designing your functional flow based on purely one side's input. Operations may tell you to do it one way, not taking into account what IT's priorities or restrictions or capabilities might be, and vice versa. Good communication is needed from both sides to make that happen."

scaling station for dimensions, the put-away area for storage, or immediately to the picking area for shipping. At each destination, each case is scanned so that the WMS can be continually updated with its current location and status.

On the outbound side, the WMS performs an allocation to decide whether there's enough inventory for that order and where to get the inventory from within the DC for distribution into the sorters or the put-to-light. After cartons of orders are packed, they're inducted into the conveyor system labeled with a unique LPN.

Real-time interfaces between the WMS and WCS directs the scanned outbound carton to either go to value-added services for additional operations requested by customers, to an outbound quality check, or to an automated print-and-apply area where shipping labels

are automatically applied. Each case then crosses a scale and a tape machine before being diverted to the appropriate shipping lane.

A SYSTEM WITH BENEFITS

It's been over a decade since the initial WMS roll-out, and GUESS can't stress enough the importance of the system's flexibility and operation over the years. "With it, we know exactly where our inventory is, what state it's in, and exactly what our capacity is on the floor," says Boyle.

Because every unit is tracked in real time, the WMS ensures that the right goods ship to the right locations every time, causing accuracy to "go through the roof." A physical inventory count now takes just 12 hours, down from three days.

Integrating the WMS with unit sorters and put-to-light systems significantly increased throughput allowing the shipment of 30 percent to 40 percent more inventory year over year. This shift to automation also realized hard savings of \$1.3 million in 2009. Weekly store orders have been reduced from multiple shipments per week to just once per week with the consolidation of store orders.

More importantly, its WMS allowed the company to keep up with exponential demand and scale up to a brand new, larger DC. "It also provided the flexibility to handle all new interfaces such as the installation of new sorters and the implementation of new host systems for wholesale and retail," adds Feddersen.

Boyle could not agree more: "One of the great things about our WMS is how we've been able to bolt on just about anything we need. The way the system is configured allows for a number of access points in the software; and we've never had an absolute 'no' in terms of what we needed to do."

In fact, the Louisville DC's WMS has been so successful that GUESS has rolled out the same system in its DCs in Montreal, Hong Kong and Shanghai. □

Maida Napolitano is a Contributing Editor to Logistics Management