Labor management *gets the job done*

3PL leader DSC Logistics revved up productivity with conventional processes driven by a labor management system.

By Bob Trebilcock, Executive Editor

At *Modern*, we love automation. There is a wow factor about high-speed sortation, automated storage and retrieval systems, and automated guided vehicles. But we'll let you in on a dirty little secret: The vast majority of warehouses, plants and DCs still get the job done with the same tools that have been serving the industry for the past 60 years, like pallet rack and lift trucks, all jazzed up with RF-driven picking.

Well, the same is true for third-party logistics providers (3PL). For a 3PL, it's easier to bring in a new client when there's no conveyor and sortation bolted to the ground, and it's easier to scale labor up or down if demand spikes or contracts than it is to have idle automation. And, with 3PLs working on razor-thin margins, getting the most productivity out of those basic tools is important to winning new business and keeping existing customers.

That's why DSC Logistics began rolling out a labor management system (RedPrairie, 877-733-7724, www.redprairie.com) in 2005. Given the importance of labor to DSC's business, the goals for the system were relatively simple, says Jim Chamberlain, director of industrial engineering. "As a 3PL provider, labor is the biggest component of our business," Chamberlain says. "Our ability to manage that labor could be seen as a differentiator."

Since the initial evaluation of labor technology solutions, DSC implemented a labor management system (LMS) and incentive-based pay programs in 22 of its 35 logistics centers located across the United States, including a 575,000-square-foot food distribution facility in University Park, Ill. Roll outs will continue over the next few years. While the results have varied from site to site, the best improvement enabled a nearly 35% reduction in labor costs. "As a network, we're averaging just north of 20% reduction in our variable labor costs," says Chamberlain. "When you multiply that across our entire network, it's huge."

Choosing a vendor

Founded in 1960 as a public warehousing company in Chicago, DSC has since expanded its services and geographical reach. Today, DSC has evolved into a full-line supply chain partner, providing strategic knowledge and management services, from distribution to transportation to network modeling and design. The company operates 17 million square feet of distribution space across 35 distribution centers, with a presence in all of the major metropolitan areas. It manages an additional 11 facilities as the lead logistics partner in 4PL relationships. While DSC does a limited amount of piece picking and parcel shipments for some customers, its sweet spot is case and full pallet handling and distribution.

Those are labor-intensive operations and natural opportunities for labor management, a technology Chamberlain was familiar with. "In my first job out of college, I implemented engineered labor standards and labor management," says Chamberlain. "Having seen the value it delivered there, it was something I wanted to see us do at DSC."

In 2005, the DSC team was given the green light to create a short list of vendors that could meet DSC's needs. They identified several goals

(Above) Jim Chamberlain, director of industrial engineering. (Left) DSC's sweet spot is case and full pallet handling and distribution, two labor-intensive operations and perfect targets for labor management.

Photos by Mark Segal/Getty Images

for a labor management system:

- **Establish best practices that could be implemented company wide:** Developing a consistent best method to perform a task would lead to a safer work environment and would reduce turnover.
- **Improve productivity:** Getting better control over labor would lead not just to a more productive workplace; it would also create a more profitable business.
- **Gain a competitive advantage:** Better labor costs would allow DSC to deliver more value to its existing customers. With lower labor costs, DSC would also be more confident about the quotes it created for potential customers.

DSC identified four LMS industry leaders. The due diligence included reference calls, site visits, live demonstrations and a conference room pilot using DSC's data.

From the standpoint of functionality, the final selection came down to the vendors' ability to deliver on a number of points, including:

- The LMS had to integrate with DSC's proprietary warehouse management system (WMS).
- The system had to measure and report on all of an employee's time, from when they signed into the system at the beginning of a shift until the end of a shift.
- The system needed to be dynamic, with the capability to change as DSC's business changes.
- The vendor had to have a database of pre-determined time standards. "We did not want to recreate the wheel and do our own time and motion studies," says Chamberlain.

In the summer of 2005, DSC began the work for a fall rollout at a pilot site.

Piloting labor management

With a solution in hand, the next step was to pilot labor management to see what kind of benefits the technology could deliver. "We decided to prove the concept in one facility and if it proved fruitful, we would move ahead through the network," says Chamberlain.

Internally, DSC decided to run the pilot at a facility in McDonough, Ga.—its best managed site. The theory was that if they can deliver an improvement at the most productive site, the results will be better at marginal sites.

To prepare for the pilot, DSC had to create best practices and a template for each of the tasks that would be managed and an IT process to collect and feed the data about those job functions to the labor management system.

The 3PL decided to measure the tasks associated with receiving, putaway, pallet picking and case picking, replenishment, product moves and trailer loading. But rather than go live with all of those tasks at once, they decided to do them one function at a time, beginning with case picking since that is the most labor intensive function.

"We started by reviewing our current process for case picking, and then worked with our vendor, our operations managers, our engineering group and our associates to re-engineer the task and develop the best practice," says Chamberlain. In this case, that meant observing the complete cycle of a case pick, from the time an associate received an assignment from a supervisor and keyed into an RF-enabled scanner to the completion of the final pick and the delivery of a stretch-wrapped pallet to the shipping dock.

This was an opportunity to build ergonomic best practices into the preferred method, like bending at the knees and not at the waist, and to re-engineer the task. "One example was to have

DSC has rolled labor management out in 22 of its 35 locations, with an average 20% reduction in variable labor costs.

associates park their pallet jack on the same side of the aisle as they are picking," says Chamberlain. "That allows other members of the team to pass by them unobstructed."

Add up little changes like that, he says, "and it's the difference between someone who is very smooth with their picking and someone for whom it is a struggle."

Parallel to creating best practices, DSC developed a warehouse map that defines all of the locations in the building, both horizontal and vertical, and measures the travel time to serve those locations on various pieces of equipment. "Since accountability and incentive-based pay were going to be tied to the labor management system, it was important that we were accurate to the inch," says Chamberlain.

Change management and training were also important to the ramp up phase. DSC understood that some employees would feel threatened by the changes. "We wanted supervisors to understand that not everyone is going to ramp up at the same level, and we wanted to make sure that we were coaching on the floor so that associates were improving before we went live," says Chamberlain. "We didn't want to have people who weren't going to be successful."

The last step before the formal go-live was to turn on the system behind the scenes to get a baseline level of performance to measure from. If everyone was working at 75% of the standard, that would be the starting point. The goal was to get everyone to standard within six to seven weeks of going live.

In all, the prep work took about five months. By March 2006, DSC had flipped the switch to go live on all functions.

Lessons learned

Once DSC went live on case picking, the 3PL created a methodology for rolling out the solution across the other processes. "There is only so much change that people can handle at a time," says Chamberlain. "So, once we went live with case picking, we would develop a best practice for the next task, create a standard, roll it out and then ramp it up to get everyone working at that standard. We repeated that for each job function."

"We wanted supervisors to understand that not everyone is going to ramp up at the same level, and we wanted to make sure that we were coaching on the floor so that associates were improving before we went live."

—Jim Chamberlain, director of industrial engineering

About two months after going live with case picking, DSC put metrics in place to measure how the facility was performing against the baseline and, more importantly, how achievements in productivity translated into savings.

That information was used to develop an accountability policy and an incentive-based compensation program. With the system up and running, employees were expected to hit standard over the course of a week, meaning that one day they may be up, one day they may be down, but over the course of a week they were on target.

If they didn't hit standard during a week, however, management would compare how they had performed over the previous month to determine if it was an isolated week or a trend; if they hadn't hit the standard consistently over a four-week period, DSC would do a six-month analysis. Only then would an employee get written up. "We wanted to take into consideration that an employee is going to have a bad week now and then without disciplining them," says Chamberlain. "But we also wanted to be clear that you can't have multiple weeks below standard if you want to be part of the team."

Within four months of rolling out the system, DSC implemented the incentive-based compensation program, which rewarded associates for working above the standard.

Throughout that first roll out, there were lessons to be learned and tweaks to be made. "We learned that communication was critical," says Chamberlain. "For instance, we initially thought that coaching and training associates who were working below standard would be common sense, but it wasn't. So, we added modules to train our supervisors so that coaching was a learning session and not a disciplinary session. Once we did that, coaching became a huge success."

Initially, DSC included every worker in the warehouse on the incentive plan. The idea was to share the wealth with everyone, rather than risk alienating some associates. The result was that the pie was spread too thin, with incentives sometimes amounting to less than a dollar. "Now, we only include those people who are being measured by the labor management system, and the program really does incentivize people who can save us money," says Chamberlain. He adds that the program is truly self-funding: The savings are greater than the amount of the payouts.

The benefit: The system delivered a 20% improvement in McDonough, a surprise given that it was a very well run facility to begin with. Since then, DSC has continued to roll out the program to successive sites.

"There are so many things that we have taken from this program," says Chamberlain. "But the biggest is that it enabled us to deliver on the promise that we have made to our customers. In the past, we hoped we had a strong team that would deliver results. Now, we know that any proposal we put forward, we are going to be able to achieve that." □

Managed labor

DSC uses labor management to get the most from conventional systems.

By Bob Trebilcock, Executive Editor

DSC Logistics, University Park, Ill.

Size: 575,000 square feet
Products: Food grade products
Throughput: 17 million cases per year
Shifts: 5 days, 2 shifts (Flexes to 3 shifts during peak business)
Employees: 30 to 45 employees, depending on the season

System suppliers

LABOR MANAGEMENT: RedPrairie, 877-733-7724, www.redprairie.com

WAREHOUSE MANAGEMENT SYSTEM: DSC Logistics, developed in-house

LIFT TRUCKS: Crown Equipment, 419-629-2311, www.crown.com

MOBILE COMPUTING AND BAR CODE SCANNING: LXE, 800-664-4593, www.lxe.com; Motorola, 800-722-6234, www.motorola.com; and Datalogic, 800-929-3221, www.scanning.datalogic.com

Thanks to its labor management system, DSC Logistics' suburban Chicago distribution center, one of 35 in its network, is delivering big gains with conventional systems. For each of the processes associated with receiving, putaway, replenishment and picking and shipping, the labor management system (LMS) tracks the performance of associates against engineered labor standards. That information is used as part of an incentive payment system developed by DSC.

Receiving: To initiate the receiving process **(1)**, an associate signs into the RF system and inputs the number associated with an inbound order. The associate then either scans a license plate bar code on a pallet as it comes off the truck, or creates, applies and scans a license plate bar code if the pallet doesn't already have one. The pallet is then scanned into a location in a staging lane **(2)**. Once all of the pallets from that load have been staged, a dock associate will do an inbound check to make sure that the quantity and quality of the loads match the purchase order. The inventory is now received in the system.

Putaway: The facility is a mix of floor and rack locations **(3)** determined by the product stored in that location. After an associate scans the license plate bar code on a pallet, the WMS system will choose the appropriate location for storage. At the storage location, the associate will scan a location bar code label to confirm the putaway.

Replenishment: DSC also operates a directed replenishment program. The WMS system prioritizes replenishment picks according to five levels of demand; a hot replenishment, for instance, is for an item that is in short supply at a location about to be picked.

Picking: Before initiating a pick, an order selector signs into an RF unit and chooses pallet picks or case picks. If the selector chooses pallet picks, the system will direct him to a pallet location **(3)**; once there, the selector will scan the license plate bar code on the pallet and then scan a location tag in the staging area **(2)** on the dock. The pallet is now ready for shipment. If the selector chooses case picks, they will sign into an order and retrieve an empty pallet. The system will then direct the selector from one pick location to the next in the appropriate storage area **(3)** until all the cases for that assignment have been picked to the pallet. Once the pallet is complete, the selector will take it to be stretchwrapped and then scan it into a staging location **(2)** on the dock. The pallet is now ready for shipment.

Shipping: In the staging area **(2)**, associates scan a license plate bar code on a pallet. The warehouse management system then directs them to the right trailer **(1)** for delivery.

Daniel Guidera