

Voice Streamlines DCs



The need to improve picking efficiency at customer sites and achieve short ROI led Genco to adopt voice systems

BY JAMIE ALEXANDER

For many third-party logistics (3PL) providers, the selection of automation to improve distribution center (DC) operational performance takes on specialized challenges when compared to manufacturer-operated DCs.

A DC operated by a manufacturer may very well opt to build highly capitalized automation where the return is expected over a 15- to 20-year time frame. But 3PL providers are finding that their clients are progressively requiring shorter-term contracts, pushing their return on investment (ROI) where automation is concerned.

Where five- and 10-year-plus contracts once were typical, now two- to five-year contracts have become the standard. This means 3PL providers need to factor their automation investment for a much shorter ROI, which makes heavily capitalized equipment a poor option.

Equally important is the scalability of the automation as a client's needs increase or decrease. The flexibility to relocate the automation for use in a new facility is also important when a network is reconfigured or if the contract does terminate.

Some of these same issues are increasingly coming into play for company-operated DCs. Those facilities are also under pressure to reduce costs, increase productivity and shorten ROI on any necessary capital investments.

Upgrading operational performance does not always mean having to automate with extensive sortation and conveying equipment. In most DCs, order picking is the most labor-intensive function, and usually can provide the greatest cost-savings when automated.

IT-based picking options exist that have significantly lower capitalization costs and yet can exert a sizable positive impact on a DC's throughput efficiency, while reducing operating costs. For many DCs — and especially for 3PL providers — IT-based picking



options can provide the ideal automation solution to streamline their throughput cost-effectively, while realizing a short-term ROI.

The Need for Automated Picking

One of the 3PL providers that have aggressively embraced IT picking automation is Genco. It is the second largest third-party logistics provider in North America, responsible for managing 80 distribution centers totaling 30 million square feet throughout the U.S. and Canada.

Genco's clients represent some of the largest and most successful companies in the world. Implementing highly efficient automated systems for warehouse management and throughput for handling its diverse product lines — from consumer goods and electronics to medical devices and pet products — is critically important for Genco to achieve timely and accurate order delivery, while maintaining profitability.

In looking at ways to achieve continuous improvement in its clients' DCs, Genco turned to its technology partner, Speech Interface Design (SID), for guidance on the proper application of technologies and industry best practices.

Genco's basis for selecting technology improvements is anchored on four criteria:

- The technology needs to be proven, flexible and scalable to multiple warehouse management system (WMS) platforms;
- It needs to generate results in productivity, accuracy and waste reduction;

- It needs to achieve a solid return on investment; and
- The technology needs to become operational quickly, with minimal disruption to work areas.

"When we consider upgrading automation in one of our DCs, we evaluate what is the most applicable technology," says Crystal Welker, vice president of Solutions Design and Continuous Improvement at Genco. "It is very specific to the site. We have a variety of technologies that we review to see what makes the most sense [for that site]."

After conducting a business process optimization assessment, a key technology that SID recommended was highly automated voice-picking systems for eight of Genco's DCs. These DCs were using radio frequency identification, paper, or less-automated voice systems. SID focused on maximizing the throughput at the DCs with attention to the unique business processes of each of Genco's clients when optimizing its workflows with voice-based solutions.

The DCs' multiple types of picking activities included full pallets; layered pallets; case pick-to-pallet; pick-to-conveyor; pick-to-tote; pallet-build; and non-conveyable item picking applications.

"We tend to stay with more flexible systems, which can easily be moved," says Welker. "Permanent automated systems are difficult to justify because our client contracts are typically only three to five years. That need for flexibility, combined with the fact that our DCs have a high number of piece-picks of relatively slower-moving SKUs, makes voice picking an excellent option for us."

Using voice leaves both hands free to handle product.



Voice response confirms the item or location is correct, reducing picking errors.

Welker explains, “Reducing the number of times the picker handles the product is critical to improving efficiency. With a big conveyor system, product is being touched twice: once, when the picker puts it on the conveyor, and then again to move it off the conveyor to load it onto a pallet. With voice, [workflows were optimized so] the product is picked up only once to put it on the pallet, and then it is done.”

Integrating Solutions

SID configured and implemented customer-specific voice-based workflow solutions for Genco, leveraging latest-generation technology from Vocollect, a business unit of Intermec Inc. Utilizing Vocollect’s VoiceLink and VoiceDirect enterprise connectors, the Vocollect Voice solution seamlessly integrated with multiple different warehouse management systems. This flexibility allowed the voice system to work exceptionally well across the varied WMS platforms.

The voice system opens a dynamic dialog between Genco’s DC pick teams and its WMS, enabling com-

plete operational control. The Vocollect Voice platform allows Genco’s DC managers to monitor activities in real time; alter assignments that are already in progress; generate and evaluate sophisticated reports; and effectively handle special situations by shifting workers and job priorities.

Accessed via a web browser, Genco’s DC managers can react quickly to everyday exceptions and changes on the floor to ensure timely and complete order fulfillment.

Genco workers wear a headset and a portable, belt-mounted speech recognition device. Alternatively, the device can be mounted to the material handling equipment. The speech recognition device communicates to a host computer or WMS.

In practical application, an assignment from the WMS is transmitted to the picker’s voice terminal via WLAN (wireless local area network). The device translates assignment data into audible commands. The picker hears instructions and travels to the pick location. The picker speaks check digits to confirm the correct slot location. With eyes up and hands free, the picker performs the task, and then provides spoken responses to confirm the actions taken. Verbal responses are translated to data and transmitted back to the WMS. The picker then receives the next assignment while en route to the next location.

The system eliminates the need for paper, labels or data terminal screens and there is no need to key in information. This enables operators to keep both hands free. Operators simply listen, pick and speak.

The remote terminals interface with a network controller to provide fast (sub-second) response times. The picked product and order are closely monitored throughout the system, right through to shipping.

Streamlined Implementation

Businesses and 3PL providers are increasingly looking to voice systems to help them achieve greater accuracy, increased productivity and efficiency gains. At Genco, more than 350 workers are now using Vocollect voice solutions.

The flexibility of Genco’s new voice systems implemented within its eight DCs, and across multiple WMS platforms, enabled minimal disruption to operations and fast user training. Improved productivity, accuracy and safety, coupled with minimized material costs have helped Genco reach a rapid one year, or less ROI.

“With our company’s lean initiative, we are especially pleased that this voice system has helped us save our customers millions of dollars every year with improved performance and waste reductions,” says Welker.

Welker adds that the voice systems have helped provide significant bottom-line payback to customers. “It works well across multiple industries, with flexibility and scalability that helps us easily integrate the solution with many different customer warehouse management systems.” **WT**

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