

New Assistive Technology Streamlines Warehousing Services and Opens Employment to More AbilityOne Employees

By Gisele McAuliffe, contributing feature writer

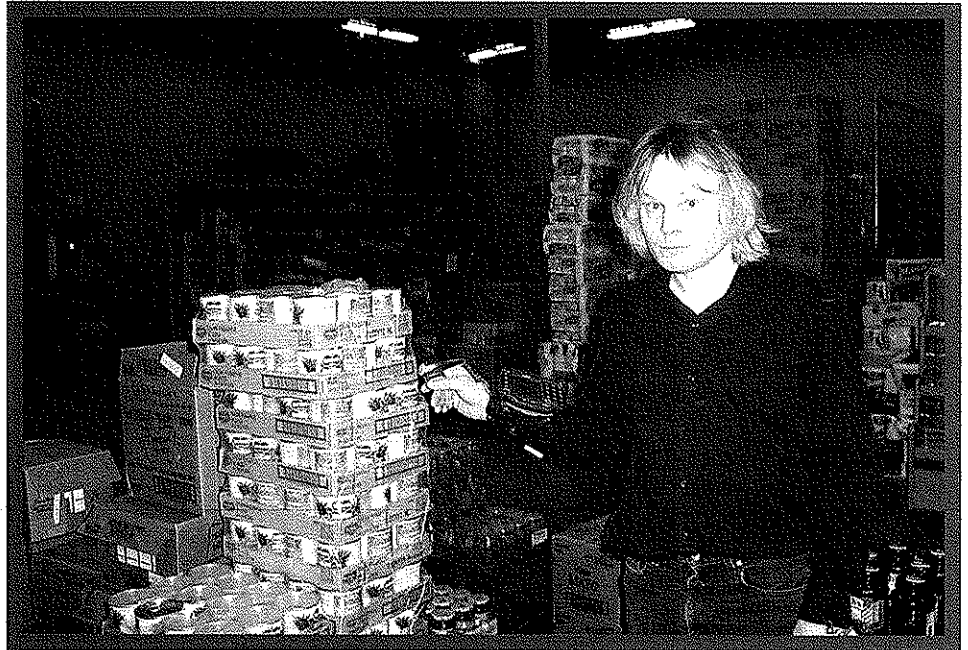
A newly developed assistive technology may transform AbilityOne Program inventory management, warehousing and stockroom services. Changes include reduced job training, greater productivity, increased product sales and the employment of a larger segment of people with severe disabilities in a job function that was previously unattainable.

The Device

NISH Rehabilitation Engineers Paul Nishman and Kevin Ryan led the development of the assistive technology responsible for this service transformation—a product barcode scanner like those used in most stores nationwide with rewritten software. They came up with the idea while examining the warehousing and day stocking activities carried out by BH Services at the commissary of the Ellsworth Air Force Base, S.D.

They noticed some complexities involved with the operation that might be improved by automation. For example, when boxes of products were unloaded from trucks for placement in the warehouse or commissary, employees with memory difficulties had to rely on more experienced staff to tell them where products should be stored. Nishman and Ryan thought a Universal Produce Code (UPC) scanner programmed to display the location within the commissary that each product should be stored could make the process easier and more efficient.

“We got a scanner, took it out there and quickly realized that the action of scanning the UPC of an item and then turning away to view information displayed on a desktop screen was cumbersome for the user,” Nishman



AbilityOne commissary employee Dale shows off the wearable scanner attached to his arm and ring finger as he inventories the warehouse of products for the Ellsworth AFB commissary.

said. “So, we purchased a wearable scanner that fits on an individual’s wrist and ring finger and displays information on a small screen strapped to the forearm.”

Even the wearable scanner required too much time to look at and read the screen so Nishman programmed it to speak instructions to the user, thus eliminating reading as a job requirement.

The next challenge was to develop a workflow that would maintain accurate up-to-date product and inventory information with a minimum impact on overhead cost.

The biggest challenge of all, however, was the months of collaboration and highly detailed work required to create and refine a database and process for the commissary inventory managed by BH Services. “It’s like building something from scratch,” said Marty

Krause, vice president of operations at BH Services.

The nonprofit agency (NPA) is responsible for some 10,000 different commissary products at Ellsworth AFB. Getting all those UPCs correctly loaded into a database was a collaborative effort involving Ellsworth AFB, BH Services and NISH. According to John Antar, BH Services project manager of the Ellsworth AFB commissary, it was a huge undertaking with a variety of unanticipated challenges. “For example, sometimes the UPC on an individual product is different from the UPC on a boxed case of the same item and that caused confusion,” Antar said. “Paul Nishman linked those two different UPCs together so it was seamless. It saved a lot of time because we no longer had to open every case when scanning inventory.”

Putting it to the Test

"It works great for us," Krause said. "In my opinion, the system is a universal solution for all AbilityOne Program commissary contracts. If I were to try to take the device away from Dale and Eric, our employees using it now, I would have a fight on my hands."

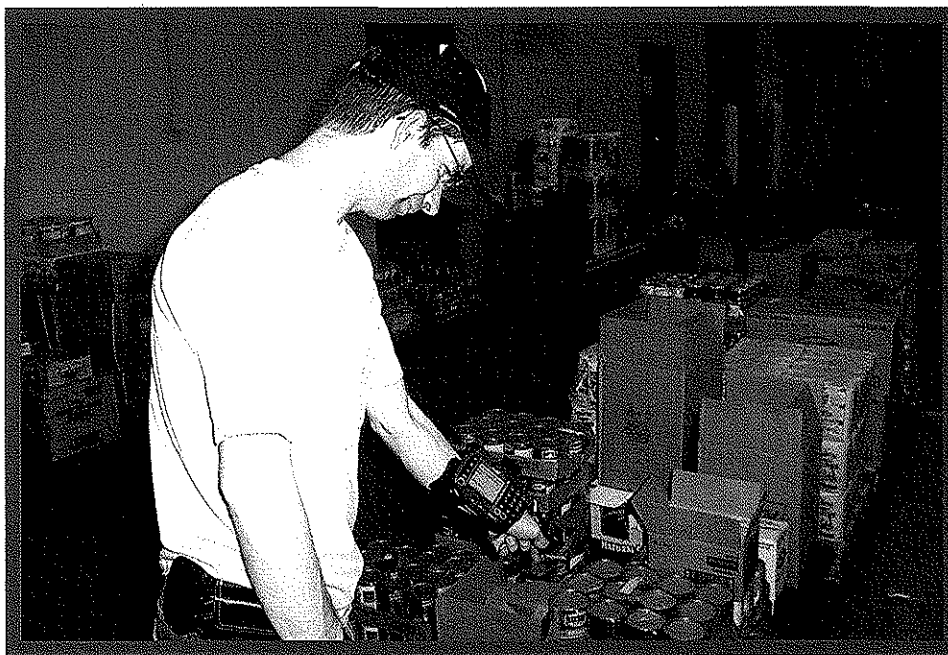
Starting in October 2007, NISH and BH Services began testing the efficacy of the scanner with AbilityOne employees at Ellsworth AFB commissary. The goal was to see how well-experienced store employees with disabilities could adapt to using the new equipment. The results were outstanding and, according to Krause, a long list of benefits emerged during the first six months of trial.

"I would highly encourage NPAs to look at this system very closely," Krause said. "If you can have technology that allows people to do a job they couldn't do before, reduces errors and increases efficiencies—that's the way to move in the future. It just pays dividends across the board. It provides better customer service, generates more revenue because shelves are better stocked and makes it possible for a new segment of individuals with disabilities to do a job they weren't able to do before. Individuals already proficient in warehousing and stocking accomplish their jobs faster and better. Our personnel now can get stock on the shelves four times faster than the pen and paper way."

Previously, BH Services employees inventoried warehouse and commissary shelves with a pen and notepad—a more time consuming and less accurate process. With the new device, an employee scans the UPCs of products available in the warehouse and the UPCs of commissary shelves that need restocking. Then, the database generates a list of matched products. The "pick list" also includes the location in the warehouse of each item that must be retrieved, as well as the location in the commissary where each product should be placed. Furthermore, the system makes it



After scanning the UPCs of the current warehouse inventory, BH Services store employee Dale uses the wearable scanner to record the UPCs of shelves that need restocking.



AbilityOne employee Eric uses the wearable scanner for inventory management.

possible to identify popular products that may be sold out unless a larger quantity is stocked in the commissary that same day. This enhances the availability of products to commissary shoppers and boosts sales.

Perhaps the greatest advantage of all is the degree to which this assistive technology expands the capabilities of AbilityOne employees. The

simplification of previously complex tasks has cut the amount of training time required for an individual to become proficient in writing orders to just half a day. "A new door to employment has been opened for thousands of people with disabilities that previously could not have performed warehousing and stocking," Krause said.

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Wider Application

Krause, Antar and Nishman agree the handheld scanner linked to a well-constructed product database and process would benefit a commissary operation of any size. Antar noted, however, that the key to success is a close partnership with the government customer and a list of the following day's delivery report.

Krause agreed. "Relationships with your customers are vitally important and we're fortunate to have that here at Ellsworth AFB where we have a great partnering agreement with our customer, NISH and the individuals we serve," Krause said.

The handheld scanner linked to a database and programmed with

simplified processes for commissary management is a flexible system that decreases the challenges of managing any type of stocking operation. Nishman encourages NPAs to examine the applicability of the device for all types of warehousing contracts. "We have the experience to customize this for other types of operations and we would like to do that," Nishman said.

Seeking an Assistive Technology?

Nishman, who is based in the NISH Northwest Region in Seattle, Wash., and Ryan, who is based in the NISH South Region in Atlanta, Ga., lead NISH's productivity enhancement effort. They are dedicated to helping NPAs that wish to improve access

to jobs for people with the most severe and profound disabilities, and enhancing the productivity of those already employed. Nishman and Ryan help AbilityOne Program service contractors nationwide reengineer jobs for improved universal access and work directly with individuals to create specific interventions that extend the existing capabilities of an AbilityOne Program employee.

For more information about improving job productivity and accessibility, including the handheld scanner, please contact Paul Nishman at pnishman@nish.org or 206/272-3506, or Kevin Ryan at kryan@nish.org or 678/581-7296. **WP**

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Operating and Managing a Successful Custodial Business

June 23, 24 in Savannah, GA or August 25, 26 in Albuquerque, NM

In this course offered by the NISH Academy, you will learn how to:

- Identify better ways to organize, manage and operate a custodial operation
- Identify the art and science of cleaning in order to raise the level of productivity and overall effectiveness
- Learn about products and procedures that will provide for a cleaner, healthier and safer environment
- Apply current best practices of the professional cleaning industry
- Communicate more effectively with employees, management and customers
- Identify sources for obtaining the most effective and productive supplies, chemicals and equipment
- Learn about future trends in carpet and floor care, as well as other aspects of building service contracting
- Transition to green cleaning to meet the needs of our customers without increasing overall operational costs.

This course is valuable for executives, project managers, front-line supervisors or those seeking advancement or growth in the cleaning industry or having direct responsibility for custodial operations. This is an excellent program for new as well as seasoned staff in existing custodial operations or for those planning to offer commercial or residential cleaning services in the future.

Raymond Kirsner, who has been in the Jan San Industry since 1971, teaches this course. Kirsner, a new instructor for the NISH Academy this year, is president of Fitch Co., a Baltimore-Md. based supplier of janitorial supplies. He has also worked on the education committees of International Sanitary Supply Association (ISSA), The ProLink Distributor Group, and Butcher Co. He was also Chairman of the Advance Co. Advisory Committee.