

# CASE STUDY: DUTCH VALLEY

HighJump WMS Software Nourishes Productivity At Sister Food Distribution/Manufacturing Companies



## BENEFITS REALIZED

- Doubled inventory item count - 4,600 SKUs
- 34% increase in picks per hour
- 99.5% order accuracy
- 2-13,000 lines picked per day representing 18-19,000 discrete items.
- Seamless Integration with Infor FACTS
- To-the-minute product currency
- RF directed picking/shipping
- True FIFO picking/shipping
- Automatic replenishment let-down
- Seamless dataflow between distribution/manufacturing units
- Positive productivity tracking
- Enablement of incentive program

## COMPANY PROFILE

Two Mid-Atlantic sister companies with roots tracing to the early 1900s are among each others' best customers, with a manufacturing unit buying in bulk from the distribution unit which, in turn, purchases most of the manufacturer's finished grocery products for resale into its own markets. Conveniently housed together, the two companies for years have combined an Infor FACTS ERP system with HighJump's Warehouse Management System (WMS) to manage inventory and production control, each company with its own installation.

The combination has yielded exceptional results in terms of productivity, inventory/order accuracy and overall efficiency, providing a vital technology base for the continued growth and success of the overall enterprise.

## DISTRIBUTION

The distributor specializes in three product categories; food service and bakery items like tube fillings, mixes, and shortenings; bulk stock for repacking by retailers; and shelf-ready products – some of which are its own private label items – which account for about 25 per cent of its volume. Its clientele includes small independent food stores, small-to-mid-size chains, and specialty outlets such as the stores prominently featured bulk products. Sources comprise a similarly broad range, from Midwestern agriculture industry giants



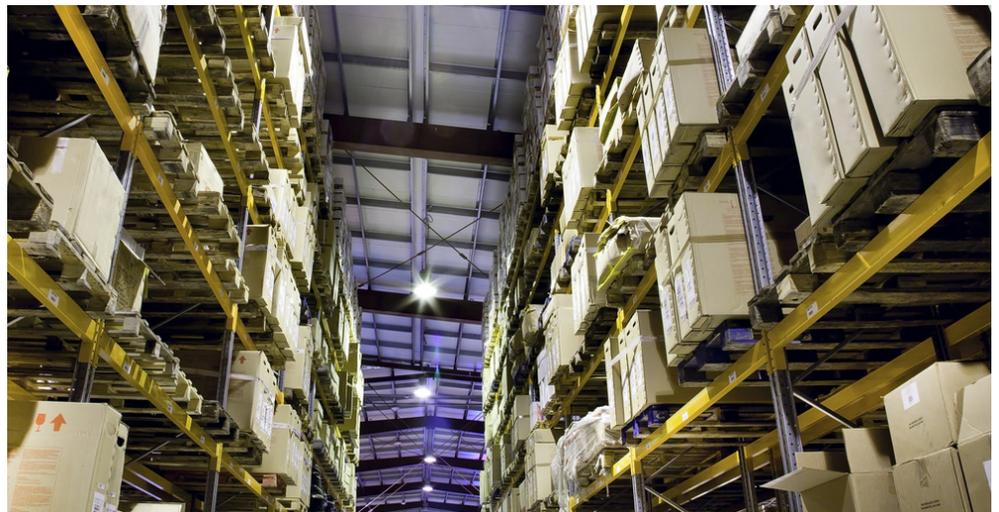
**“With no way to track the products and locations effectively, some inventory became outdated and not shippable. We could not track worker performance; order fulfillment was overly complicated, and accuracy suffered. ... we needed a dedicated system to manage our facilities.”**

like Cargill and Conagra to specialized co-ops like Blue Diamond, a 230-member California almond marketing organization. In addition to its 400 outside vendors, the distributor absorbs about 90 percent of its sister company's production. The distribution company serves markets across the lower 48 United States, covering 28 states with its own fleet of trucks, with the balance through common carriers.

### WAREHOUSE OPERATIONS

The two companies currently occupy a 220,000 square foot facility, now with a total of nearly 5,000 SKUs in five-high racking, and manned by a warehouse staff of approximately 60.

The facility features six dedicated doors for receiving incoming merchandise, enabling the distributor to process (unload, break down and tag each pallet) four-to five truckloads per hour – with the ability to do more via the expedited receiving processes enabled by the HighJump system.



Storage of the mainly palletized goods is weight-based throughout the facility with the heaviest items located at the beginning of the order fulfillment process, and ending with the lightest items. This procedure reduces the possibilities for damaging product during order selection.

Picking locations are assigned on a volume basis, with the fastest-moving merchandise located in pallet pick bins, with the slower moving items – approximately 30% of the total SKUs – occupying shelf locations. For storage, movement and internal transfers, the company employs a fleet of reach trucks, pallet jacks, and sit-down trucks, operating two production shifts and a third for maintenance and sanitation.

### EVOLVING REQUIREMENTS

By the mid-1980s, the company was operating 30,000 square feet of warehouse space. Employee responsibilities had become increasingly specialized and there was no assurance, for example, that the person who placed a product in storage would be the one who needed to locate it for shipping. Problems ensued: the “memory system” was no longer adequate, picking processes were inefficient, and there was no effective way that the FIFO approach – so critical to perishable food products – could be maintained.

The FACTS ERP system had been in place for about 10 years when management concluded that a dedicated warehouse management system was critical to the company's future. The warehouse had grown to 60,000 square feet, the inventory item count to some 2,500 SKUs, and inventory management – performed within FACTS – was increasingly problematical.

"We had thousands of pallets and it was increasingly difficult to continue a FIFO approach that relied on people's memories," the operations vice president says. "With no way to track the products and locations effectively, some inventory became outdated and not shippable. We could not track worker performance; order fulfillment was overly complicated and accuracy suffered. The problem was not with the FACTS software or the warehouse staff; we simply had grown to the point that we needed a dedicated system to manage our facilities."

### THE SEARCH AND THE SYSTEM

An important consideration was that the software would interface with the company's FACTS ERP software. A hands-on management team reviewed several options, settling on the HighJump Warehouse Management System (then Radio Beacon), which it found would integrate well with FACTS and would require only minimal adjustments on either end. "It was a major turning point for the company," the executive says, "and it started at the top."

HighJump WMS is a scalable and flexible real-time warehouse management software system that streamlines operations and inventory management through the use of automated paper-free processes, and radio frequency (RF) communications. With these technologies, it tracks stock into, out of, and within warehouses, streamlining and verifying processes with each movement.

For inbound product, it facilitates receiving up to full containers and coordinates the breakdown and putaway activities. For picking and shipping, it facilitates order receipt and fulfillment through paper pick tickets or wireless RF terminals, customer compliant label generation, and real-time integration back to the ERP software.

The implementation was performed by HighJump WMS reseller iCepts Technology Group, a full-service Central Pennsylvania software consulting company that provides wholesale distribution and manufacturing industries with various technology solutions. iCepts had previously provided the company's FACTS ERP solution.

The iCepts team analyzed the company's operations and requirements, structured an implementation plan, and executed the integration with FACTS. Dutch Valley and iCepts worked together to conceptualize a warehouse organization plan with barcodes for each pallet and/or bin position. The warehouse locations were then replicated virtually within the HighJump software so that putaway and picking could immediately be reflected in the software's inventory records. Information transfer was set up with two-way communications using a WaveLength wireless network and handheld wireless computers, initially Symbol devices and now, DataLogic.

"The integration was not difficult, but the transition was a huge all-hands effort," the vice president says. "We had perhaps 2,300 SKUs that we needed to get out of FACTS and into HighJump. The stock all had to be found, counted, and labeled and then scanned into the new inventory records. Everybody pitched in because we had to complete the transition within a very short time window so that our service to customers could continue without interruption."

"Fortunately, the software was easy to learn and to operate, so the cutover to the new processes was not a problem for our staff."

### WORKFLOW - INBOUND

Along with its base of long-term vendors, the distributor's buying committee consistently shops for additional products and vendors that fit its marketing concept, managing purchasing, inventory control, vendor and product data, and customer relations with the FACTS system and maintaining inventory records both in FACTS and the HighJump software.

The FACTS records enable the purchasing team to monitor stock on hand, and to issue purchase orders with specified delivery dates. When product is delivered, the relevant purchase orders are downloaded to the HighJump software and accessed by receivers, who use the handheld devices to compare the actual physical contents with the purchase order details.

The pallets normally are unlabeled at arrival, so the receiving team generates barcoded pallet tags for each one, identifying the items, dates received, and quantities. The pallets are then transported in to the warehouse, where they are placed either in pick bins or in up-stock/replenishment locations. The respective pallet tags and putaway locations are scanned and automatically entered in the HighJump inventory record, which then updates the FACTS database.

When the receiving process is complete, management is assured that the product is in the house and from there, once in, its movement is easily tracked.

### WORKFLOW - OUTBOUND

Customer orders arrive via phone, fax, and web, with customer service entering them into the FACTS software. When order entry is complete, the orders transmit to HighJump with a single keystroke. Orders are organized by routes and are filled based on indicated ship dates that can range from immediate/rush to hours, days or weeks.

Allocations are based on these delivery timetables, and the system will not permit fulfillment if there is not enough product in a picking location. Once the picking bin has been replenished, the system will automatically place the order in ready-to-wave status.

Like the receivers, order selectors operate with handheld devices. When orders are ready, they are waved out with picking tickets and individual item labels are generated. Selectors scan the pick tickets into their handhelds, which in turn access the HighJump inventory records. The HighJump

system directs the selectors to the picking locations via the handheld devices.

Wireless antennas situated throughout the warehouse maintain connectivity between the handhelds and the HighJump software and once an item has been picked, the scanner immediately and automatically updates the HighJump inventory records. After the final pick, HighJump moves the order to "completed" status; which allows the invoice to be printed. The completed order then proceeds to the dock, where it is staged for shipping.

### MANUFACTURING

The standalone manufacturing company maintains its own business management software environment, its own HighJump WMS implementation, and a staff of 23 employees. Besides representing the primary source for some of the distribution company's private labels, its catalog features some 300 dry products such as trail mix, baking mixes, powdered soup, and dip mixes, and sweetened coconut, available in bulk packaging options of from five to 25-pound cases.

Most of the company's operations are partially or fully automated with equipment for mixing and processing and for packaging, palletizing, and sealing or shrink-wrapping for shipment. As a customer, the manufacturing unit acquires 60 percent of its ingredients from its sister company, following the same acquisition procedures as outside customers. It develops and maintains formulas and recipes for each of its products, manufacturing both on-demand and maintaining inventory of certain finished goods for its sister company's inventory.

### WORKFLOW - INTERNAL

When Distribution issues a purchase order for a quantity of product, Manufacturing in turn issues a purchase order to Distribution for the necessary ingredients – e.g. 100 cases of peanuts, 50 pounds of coconut, 20 pounds of almonds, etc. – receives them into its own inventory, and sets up a production schedule. (Correspondingly, Distribution's records would show the quantities sold and shipped to Manufacturing.) In the reverse process, Distribution issues a sales order, fulfills it, and both sides balance their books.

According to the manufacturing manager, a particularly valuable HighJump capability is lot control. All of its products entail multiple ingredients, each one bringing the remote potential for customer or regulatory challenge. The HighJump software allows the company to assign a lot number to each ingredient as well as to the finished products, enabling the progression of each ingredient to be tracked through the production process and providing full traceability in the event of a recall.

## RESULTS

The enterprises' experience with the HighJump software has been excellent, says management, effectively supporting dramatic growth from the 60,000 square foot facility in use when the software was acquired to the 220,000 square foot building that houses operations today. Inventory count has risen from about 2,300 items to more than 4,600. The solution was upgraded only once, to take advantage of advanced reporting, information display capabilities, and faster data processing.

According to management, productivity increased almost immediately with the implementation of the HighJump software, which enabled the company to establish productivity goals and measurements and to set up an incentive program.

"We had no way to track productivity before," says the operations vice president. "And when we launched the incentive program, productivity went through the roof. We have had growth in double digits for several years and we have not had to add personnel. We initially estimated that we would achieve 60-70 picks per hour per person and actually measured a consistent 97 picks per hour three years later. Currently, we regularly achieve 130 picks per selector per hour, a 34 percent increase, and we are achieving 99.5 percent order accuracy in the process."

Through the incentive program and the ability to measure performance, the distribution company has been able to handle more and larger orders with the same size staff. But there's more: the software allows management to measure each worker's time between picks, which in turn enabled a productivity bonus plan that is paying off handsomely. Output now averages 12-13,000 lines per day, representing 18-19,000 individual items.

The ability to track and time-stamp stock in HighJump also allows the company to maintain product currency virtually to the minute and to operate on a true FIFO basis. Order control is dramatically better through replenishment controls that restrict picking to product that is currently in the lower level pick-holes. The upper level pallets serve as back-up, with replenishment product let down automatically, minimizing the number of let-downs needed in the course of a day.

"It is an absolute win-win," says the operations vice president. "Our supply chain is delivering superior service and customer satisfaction and the HighJump software is a critical element in that delivery."

### About iCepts Technology Group, Inc. **Supply Chain & Technology Experts**

Since 1980, iCepts Technology Group, Inc. has been working with wholesale distributors, manufacturers, and other industries with various supply chain management technology solutions in order for these organizations to achieve greater efficiency, streamline operations, and gain access to vital business reporting in order to stay competitive plus profitable.

### THE HIGHJUMP TEAM IS HERE TO HELP!

If you have any questions regarding HighJump or how our products can improve your business, our passionate team is here for you.

**Call us today at 800.328.3271. or email [info@highjump.com](mailto:info@highjump.com)**



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SUPPLY CHAIN NETWORK SOLUTIONS

## ABOUT HIGHJUMP

In almost every industry, buyers are becoming more fickle, and more demanding. For logistics executives, effectively meeting buyer needs has become a relentless quest for speed and agility. Traditional supply chain solutions – siloed, complex and hard-to-implement – no longer suffice, as competitors find ways to deliver goods faster and more profitably.

In this "now" economy, HighJump helps you stay agile, with adaptable, connected solutions that harness the power of your trading partner community. From the warehouse to the storefront, from the desktop to the driver's cab, we can help you achieve new levels of supply chain responsiveness, performance and profitability.

HighJump's suite of warehouse management, business integration, transportation management, and retail/DSD solutions form a complete, powerful and adaptable platform that allow you to drive growth, customer satisfaction and revenue. **HighJump: supply chain accelerated.**

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