



Case Study – Pharmaceutical Manufacturer

This client purchased their BellHawk system about 3 years ago and has been operating it successfully ever since.

This rapidly growing company manufactures pharmaceutical consumer products that are sold through Tier 1 organizations such as Wal-Mart, Target and CVS. The company has three manufacturing facilities and two warehouses, which are co-located with manufacturing plants.



This company originally chose to implement their BellHawk system to solve a specific inventory problem. They needed to halve the size of their main warehouse so they could convert the other half to a manufacturing facility for a new product line.

Prior to implementing their BellHawk System, this client's 60,000 square foot warehouse had defined locations for each type of raw material and finished goods. Using BellHawk, they were able to halve the size of the warehouse by using dynamic binning.

In this dynamic binning method, materials are placed wherever there is space available and the locations where materials are put-away are recorded using wireless mobile computers. Then, when materials are to be retrieved, the mobile computers are used to display the locations of the materials in age-first order, enabling rapid retrieval without having designated locations.

Put-away of materials is recorded using location barcodes on bins, racks and shelves. Location barcodes are also hung over floor locations used for the storage of pallets. Retrieval of materials for production and shipment to customers is facilitated by the use of barcoded picking sheets that are scanned to select the materials to be retrieved.

The major factor that led this customer to select BellHawk was the availability of source code for the software so the client could modify the software to fit their specific needs. This client had previously started to develop their own software "from scratch" to meet their specific needs but came to realize that this development effort would take way too long. By starting with BellHawk they were able to purchase over 90% of the capability they needed, working out-of-the-box. This enabled rapid deployment of a dynamic binning system to halve the size of the warehouse which was necessary to meet rapidly expanding customer demand.

Another major factor in selecting the BellHawk software was that it was developed to be compliant with 21 CFR Part 11. As this client is using the system for purely inventory tracking and its people are still maintaining their mix batch record data using manual data recording methods, they have not yet needed to validate their electronic tracking system to FDA GMP requirements. The capability to validate their customized system in future when needed was, however, very important.

With the assistance of the technical staff at BellHawk Systems, this client has expanded the capabilities of their BellHawk system to track raw materials from receiving to their consumption in their automated production lines. The system now also tracks finished goods from when they come off the production lines to picking, packing and shipping for customers.

This client's BellHawk system is used to track the lot number of pallets, barrels, bags, cans, and other containers of raw material as well as their expiration date. This system also tracks the QC

status of raw materials and prints out red and green quality control labels for attachment to pallets of raw materials using data from the BellHawk database.

This client makes extensive use of the BellHawk Fetch module for its manufacturing people to order up materials from a remote warehouse and to have it transported to the appropriate production line on a just-in-time basis. As part of this, the client tracks vendor owned consignment packaging material in a separate area of their main warehouse.

As this client has grown, they have purchased another manufacturing and warehouse facility over 1,000 miles from their main warehouse and manufacturing facilities. These remote facilities are linked to the main facilities by low-cost VPN data links over the Internet. This client is now using the BellHawk wireless mobile computer store-and-forward technology to enable data collection operation in all its multiple plants, all linked back to a central BellHawk server.

This client started out with a small accounting system linked to the BellHawk software. This is so that receipts, inventory changes and shipments recorded in BellHawk are all reflected in the accounting system without double data entry.

This client is now upgrading to a Sage ERP system that can handle tracking finances in multiple plants. Because BellHawk is able to work with many different accounting and ERP systems, our client is able to achieve this upgrade without disrupting production or warehouse operations, which still continue using BellHawk.

This client has integrated their BellHawk system with their EDI system, such that orders from customers are automatically entered into BellHawk. Also their BellHawk system automatically produces Advanced Shipment Notices that are sent through their EDI system to their customers.

This client is using a mix of about a dozen older Hand Held Products 9500 wireless mobile computers and newer Motorola MC9090G units. These units work interchangeably, using the BellHawk store and forward (BSAF) technology. The use of BSAF has enabled this client to minimize the number of access points they needed to install. For example, in the main warehouse, only two access points with four antennas were required despite the use of many aisles of closely spaced metal racking.

In the shipping area, this client uses their BellHawk system to stage shipments to over 20 virtual docks, which are then shipped through 4 physical docks. This enables very effective use of dock space as well as repaid turnaround times for loading trucks. This client uses the point-of-action data validation capabilities of BellHawk to help ensure that the correct materials are staged in the correct virtual dock.

Expanding upon the Access/VBA source code of the BellHawk reports module, the IT department of this client has been able to rapidly respond to a large number of requests for custom reports. Some of these have come from internal users of the BellHawk system and others have come from customers, who want regular reports on the status of their orders.

This client has estimated that they were able to pay for the cost of their BellHawk system is much less than a year by being able to substantially increase sales without increasing the warehouse staff needed to manage their inventory.

For more information about BellHawk, please see our website at www.BellHawk.com. For a free consultation on how to solve your barcode tracking problems, please call 508-865-8070 x302.