Case Study – Precision Injection Molding and Coating

This BellHawk client makes precision plastic components for safety, medical and automotive product manufacturers. These components are molded using injection molding machines, then coated with a precision optical coating, and then hand finished and inspected.

The problems that confronted this client, prior to purchasing their BellHawk barcode tracking solution were:

1. Tracking the location of work–in–process. This client has hundreds of jobs being processed in its plant, which now runs 24x7. Keeping track of the status of each customer order, through many different processing steps was proving to be very difficult. This resulted in late shipments to customers and/or excessive overtime pay.

2. Tracking the cost of the work–in–process inventory. As most of this client's inventory is tied up in work–in–process, lack of real–time cost–data capture was causing large discrepancies in inventory values.

3. Tracking lot numbers of raw materials and tracking which lots were used to mold which batches of customer parts.

4. Tracking which machines and employees were used to make the parts. Also capturing data from their automated coating lines to form a complete tracking and traceability record for each batch.

The client has a sophisticated ERP system that is used for materials planning and for scheduling jobs. Jobs and their related routes and bills of material are passed to BellHawk through an automated interface. BellHawk then tracks the receipt, put–away, consumption, production, picking, packing and shipping of materials. It also is used to capture employee and equipment labor hours on each job step.

BellHawk then sends back material costs, labor hours and machine hours to the ERP system, which computes the actual cost for each job and compares this to the planned cost.

This client uses PCs equipped with corded and cordless scanners to capture data. Some of the PCs are mounted on wheeled carts so they can be moved from location to location. In some areas, such as the entrance and exit tunnels to the automated coating lines, hands–free matrix scanners are used to speed recording of trays of materials.

The BellHawk DEX interface was used to implement the automated interface between BellHawk and the ERP system. The process control system uses some extensions to DEX to pick up the coating recipe from the BellHawk database and to send BellHawk tracking data on each tray of parts as they progress through the automated line.

As a result of implementing their BellHawk system, this client was able to expand its business six fold in less than four years without adding to its cost for personnel to manage and track this client's manufacturing process. This client now has real–time view of all its inventory and work–in–process. It also now has accurate cost data for work–in–process and finished goods batches.

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.