Best Practices - Inventory Management Software with Automated Data Collection for the Mid-Sized Business

Inventory management software, especially one that uses barcode technology, is a key tool to the success of controlling your inventory - but it isn’t the first step. Before installing any software or other technology products, it’s important to have a well-designed warehouse and a process that works efficiently and manages for minimal shrinkage.

Warehouse Design

There are companies that specialize in laying out efficient warehouses - it can be a complex planning process. Unless you have literally thousands of items and need some advanced warehouse management processes, the best way to lay out your warehouse, is by using common sense.

- Group the fast-moving items together and toward the front of the warehouse for easier access.
- Decide if you want to store in order of part number or if the size of your items dictate the layout - in any case use a logical layout. Put groups of like items together, for example. You want it to be intuitive for your workers.
- Are you using shelving? Leave room for new part numbers or excess inventory on the shelves - and/or figure out where you can put overages and new items if the shelves are full.
- Are some of the items in large boxes or too large individually for shelving? Designating a floor “location” is often the best choice. The location can be up against a wall or taped off in the middle of the warehouse.
- Determine a numbering scheme for your locations. (Example: Section A, Shelf 1 = Location A1)
- Are the inventory items going to be boxed or bagged? You will need bins for the smaller unboxed items. Some companies ask their vendors to package smaller items in specific quantities for easier picking. If you always use the item in quantities of 10, get them pre-packaged that way.
- Once you have made these determinations, put the warehouse layout on paper to use as a guide.
Label the Warehouse

LOCATIONS:
Now that you have the warehouse layout designed, you will need to put barcode labels on your locations and items. There are options for location labeling that include:

- A barcode label on the shelf that can be adhered to the shelf or stuck to a magnetic strip that can be moved if the numbering scheme or items change.
- A series of barcode location labels at eye-height on one end of the shelving unit (this works if the top shelves are too high to scan effectively).
- A large barcode label on the floor or hanging from the ceiling to label areas that don’t have shelving. (The type of label material in this case will be specialized - get help from a label expert before spending time on something that won’t work.)

ITEMS:
Item barcodes are typically the actual part numbers. Much of today’s inventory comes already labeled with barcodes. There are decisions to make when labeling, so make sure you partner with a company that has a good working knowledge of the materials and adhesives available for barcode technology – not all barcode resellers or inventory software companies understand labeling.

- Do you want to label each item individually?
- Would you rather label a case, bag, box?
- Are some parts too small and not packaged for labeling? The best solution is to place loose items in a labeled bin.
- What do you want on the label? Just part number and description? Serial Number? If you handle perishables you may also want the expiration date.
- Most barcode readers are capable of scanning multiple barcode schemes, so if your items that come already labeled are coded with a different barcode than the one you want to use on your other inventory items, that’s OK.
- The label is important. If your inventory will be in a challenging environment (a cooler or freezer or if you have stacks of lumber that sit in the rain, for example) you’ll need specialty label material and/or adhesives.

Define Your Inventory Process

You know your business better than anyone. Now is the time to evaluate the process with which you receive, record, count, use and ship your inventory. The most profitable companies statistically have an effective inventory management system and you want to be on that list! One of the best ways to define your inventory management processes is by creating a flow chart by function. Make sure your processes meet your business needs and give you the results you want. Most businesses don’t need all the bells and whistles in an inventory management system and to overdesign the process
will result in warehouse “gridlock” – it would create inefficiencies as personnel perform unnecessary tasks. The main functions within an inventory process are:

RECEIVING:
This is the action of receiving a new shipment of items - verifying the shipment is correct, getting quality approvals (if necessary), putting the items on the shelf and recording the receipt in the software system. Questions to ask yourself:
• Do you want to receive against a Purchase Order, do a Blind Receipt (receive without a PO) or both? Make sure you think of all possibilities and plan for contingencies because too rigid a system can cause time management issues.
• Do you need or want to print an item barcode label at receiving?
• Will you be putting the items away immediately or will there be a holding area?
• Do you want to know where your inventory is at every moment? For example, are you going to record a move into the holding area and QC “locations” or will it move through those areas fast enough that you don’t need to record its location it until it’s put into storage?
• Do you need to record lots or serial numbers for traceability purposes?
• Do you want to receive by “case” but issue or ship by “each”?

MOVES:
The function of moving an item or issuing to a job or work order is not a requirement in all companies. If it is something that you need to do, the process is fairly straightforward. Moves record when the inventory item is taken from one location to another. The main step here is making sure that each location is numbered. You could use “virtual” numbers if an item moves to a vehicle or some other place where it doesn’t make sense to have a location label. Use a sheet of barcodes or printed, laminated badges with barcodes as an alternative. Moving inventory does not relieve the inventory quantities – it simply puts it in a different place.

SHIPPING:

We use the term “shipping” to indicate the process of relieving your inventory of items. It could when a part is consumed internally (gloves or glue), when an item is issued to a job to be used and not returned, or when an item is shipped to a customer. In any case, there must be a method of eliminating that item from your inventory while recording where it went for audit purposes.

SOME THINGS TO CONSIDER IN THE SHIPPING PROCESS:
• A process to reduce inventory of consumables that are consumed internally could include a requisition, internal work order or expense form – or simply a scan into the software with the right cost code.
• Issuing to a job or work order will occur primarily in manufacturing, field service or construction
companies. The paperwork that moves with the job can be barcoded, so the steps would be “scan the work order number, scan the item”. The issuing of an item takes it out of inventory and assumes it is not coming back.

- Do I need to verify in any way against a Sales Order or Packing Slip that I am shipping the correct item (Pack Verification)? Is it OK to do partial shipments?
- Does my customer require a specific type of shipping label format that I need to produce (Compliance Labeling)?
- What if I make a mistake and ship the wrong thing? How do I want to handle this situation?

Count Inventory

Knowing what you have in your warehouse is the main function of inventory management. Having an effective method of doing a periodic count of your current inventory on hand will assure that your records are accurate.

PERIODIC INVENTORY COUNT:
A periodic inventory count occurs when the entire inventory is counted at some pre-determined interval. It could be monthly, quarterly, semi-annually or annually. The process of counting the entire inventory is time consuming, even when barcoding is used. A periodic inventory count requires that all functions that affect inventory levels stop until count is completed and any discrepancies are reconciled.

CYCLE COUNTS:
Because taking a periodic inventory count may be a major undertaking in even a small business, many companies perform cycle counts throughout the year and a periodic count only at year-end as an audit. Once an effective cycle count program is installed, many companies eliminate the periodic inventory count altogether.

The concept of a cycle count is that by counting smaller sections of the inventory at frequent intervals (even daily), the process of the count is much less time consuming and the inventory remains more accurate. Errors in recording inventory quantities (reported 4 items received, but actually got 40) will be identified quickly. By continually confirming on-hand quantities, outages will be significantly reduced, and the result will be a more accurate real-time inventory.

Barcode Data Collection Solution for Your Warehouse

Often smaller to mid-sized businesses have an inventory module that comes with their accounting system, but it isn’t set up to handle barcode data collection. Affordable stand-alone barcode data collection solutions can bring the functionality your company requires and can upload details to your current accounting system, saving data entry time and errors. The data collection software resides on mobile
wireless barcode scanning computers that will prompt the user through various functions. The data is then uploaded via middleware that sits on your server and acts like a traffic cop, sending data between the accounting system and the mobile barcode software.

HOW DOES IT WORK?

RECEIVING: Purchase orders can be downloaded from the accounting system to the mobile device. This information will allow the receiving clerk to verify quantities and part numbers against orders. The software can also prompt a barcode printer to produce labels for the items received. All details are uploaded to the accounting system, increasing inventory totals appropriately and closing out purchase orders.

MOVES: The mobile computer can be used to move inventory from one location to another, and to record specific storage locations.

DIRECTED PICK/PACK VERIFICATION: A Sales Order or Work Order can be downloaded to the mobile device. The mobile software will tell the warehouse worker where to go to find the items on the list and how many to issue. The worker scans items picked to verify they are correct, eliminating packing and shipping errors.

SHIPPING (OR ISSUE TO JOB): Barcode scanning is used to confirm an item has been shipped or issued to a job. Again, this information is uploaded to the accounting system, either reducing inventory and allocating the cost to the job or prompting the printing of an invoice, which then relieves inventory.

The middleware process is invisible to the warehouse and accounting personnel and happens automatically, either immediately or on a timer set in the middleware program. Inventory balances are updated. Invoicing can happen immediately. The company saves time, eliminates manual data entry and the bottom line improves.

Conclusion

A well-designed and effective inventory management system will have a major impact on the health of your business. It will save you money, improve customer service, and enhance the performance of work crews. The use of barcode data collection in the warehouse has been proven to increase accuracy of data entry to over 99%, eliminate duplicate data entry and improve efficiencies by over 80%.