

WHITEPAPER



➤ **Bar code labeling & best inventory practices go hand in hand**



Retail Application Paper: Bar code labeling & best inventory practices go hand in hand.

Retailers know that in order to succeed in the marketplace, they must get maximum return on their biggest asset - inventory. This means eliminating problems such as overstocking, inventory shrinkage and inaccurate inventory records.

A retailer with an inefficient inventory system in place can eventually expect customer and employee frustration, as well as concern from major retail contractors - many who levy non-compliance fines to vendors if they don't comply with labeling and shipping specifications. Even just one incident can rack up heavy costs; for example, searching for a lost product can quickly incur labor, production interruption, and expedited transportation costs. Inventory shrinkage costs retailers billions of dollars each year, and although theft plays a role here, another primary reason is inaccurate data entry and accounting.

Without a doubt, bar code technology has proven to be an answer to these problems, and has allowed retailers to create, and practice, "smart inventory" management.

Bar Codes Used in the Retail Industry

Bar codes are considered a "keyless data entry" system that automatically encodes and decodes information. Before we delve into some of the essential uses of bar codes for smart inventory practices, let's do a quick overview of the most commonly used bar codes in the retail industry.

Almost every American consumer is familiar with the "Universal Product Code" (UPC) bar code. The UPC-A code is used to label products sold at retail stores in North America, and identifies the manufacturer and specific product so that point-of-sale cash register systems can instantly look up the price. UPC-A symbols consist of 11 data digits and one check digit. The first digit is a number system digit that generally identifies the product type. The next five digits are a manufacturer's code, and the last five digits identify the actual product. (The UPC-E code is an extension of the UPC-A code, and is primarily assigned to small retail items). Typically, it is the manufacturer who acquires these ID numbers, and must do so through the Uniform Code Council (<http://www.uc-council.org/>).

EAN-13 is the global bar code for retail goods, and in fact, the Uniform Code Council has decreed that by January 1, 2005, all retail scanning systems in the United States must be able to read the EAN-13 symbol in addition to the standard UPC-A. This will eliminate the need for European manufacturers to double-label products exported to the United States and Canada.

Code 128 compliant bar codes can read text, numbers and several functions, and generally provide important information about shipping and supply chain locations. Most of the largest retailers require their vendors' bar codes to comply with the Code 128 standard.

Accurate Inventory Reporting from the Beginning of Production

For the purpose of providing a comprehensive picture of the retailer's inventory process, let's assume that the retailer also manufactures some of the products it sells, and labeling starts at the warehouse where raw goods are shipped.

As soon as materials arrive for production, employees encode and print bar code labels with part numbers, quantity and location in the warehouse where the goods are stored. Each bin in the warehouse has its own shelf label, and employees record the data off the labels using bar code scanners. Continuous scanning occurs as the products are moved off the shelves and used in production, and eventually shipped out of the warehouse. The result is an accurate inventory report created at the very beginning of the production process, which helps prevent over or under-stocking products.

Before the completed products leave the manufacturing facility, employees affix updated bar code labels that indicate exactly where the products were stored in the warehouse, and if the retailer requires it, even the specific shipping docks the goods departed from.

Efficient Retail Transactions

The retailer must also attach UPC bar codes that usually contain SKU (Stock Keeping Unit) numbers to the finished product for its own outlet stores, and certainly for products marked for sale to larger retail partners. As mentioned earlier, the UPC bar code allows for point-of-sale scanning, and eliminates time spent by an employee hunting down the price for a particular product.

Where's the Product?

In a nutshell, the UPC bar code allows retailers to track their inventory. From a revenue perspective, knowing which products are moving, and which ones aren't is essential. However, customer satisfaction issues offer an equally compelling reason for retailers to track their products. If a customer is not happy with an item and returns it, the bar code label can provide important data to the retailer, such as shipping location, date of origin and, for items like perishable foods, "best by" dates. This helps the retailer identify where the defective product came from, and if the entire product batch is substandard.

For retail stores that specialize in renting goods and have multiple locations, a bar code tracking system is essential. Costume shops, video rental stores and other retailers often allow customers to pick up an item at one store, and return it to another. Without bar code labels on each item, it can be difficult, if not impossible, for the retailer to keep an accurate record of where inventory is located.

Vendor Label Compliancy

Suppliers to the largest retail giants almost certainly have to adopt stringent compliance standards for bar code labels - or they won't be preferred vendors for very long. For the large retailers, bar code labels that contain pallet, lot and container information is necessary for efficient receiving and tracking procedures. What's more, compliance requirements consistently change or expand, and without a defined bar code labeling system in place, a vendor won't be able to keep up and comply with the latest standards.

Bar Code Labeling Supplies

Once the retailer implements a bar code system, including scanners and a compatible inventory application, the next step is to make sure of consistent access to labeling supplies and equipment. It's important to find a supplier that produces quality paper, synthetic, adhesive, inking and other materials used to produce the labels needed for bar code labels, and cutting edge equipment that won't become obsolete in just a few years.

Bar Code Printers and Labels

In the retail industry, durable printers that can handle extreme temperatures and produce high quality, legible bar codes are a must. Compliance fines can be levied against vendors who produce poorly readable labels; therefore, thermal printers are a popular choice with retailers. In fact, thermal printers are capable of printing bar code dimensions as small as 3 millimeters. Printers used to produce retail bar code labels must also be light and compact, so as not to take up valuable space allotted for inventory.

Retailers also need various types of labels for product identification and shipping compliancy. The labels need to be temperature resistant, and tamper-proof. It's essential for the retailer to find a reliable supplier of high quality labels that are affordably priced, since large quantities will be regularly purchased and used.

Datamax Corporation, a leading manufacturer of bar code and RFID equipment and supplies, provides the complete solution for complex retail enterprises. The Datamax Class™ printers are the retailer's printers of choice when value, performance and features are the primary requirements.

The Datamax Ex2 offers an entry-level solution that is lightweight, space-saving and perfect for low- to medium-volume retail applications. The Ex2 also offers an exceptional value so it is a perfect fit for the retailer's budget. The Datamax M-Class is a mid-range solution, offering the rugged features of an industrial thermal printer but with a smaller footprint for cramped retail spaces.

For more information about Datamax printers and supplies that can benefit retail applications ranging from storefront and back office to distribution centers and more, please visit the Datamax website at www.datamaxcorp.com.

About Datamax:

Datamax, a subsidiary of Dover Corporation (NYSE:DOV), specializes in the design, manufacture, and marketing of products for bar code and RFID labeling, including thermal demand printers, label, ticket and tag materials, and thermal transfer ribbons. Headquartered in Orlando, Florida, Datamax has representative offices throughout the United States and in Singapore, China, and the United Kingdom, as well as label converting and preprinting facilities in Robinson, Illinois. Datamax markets its products exclusively through a network of resellers in more than 65 countries worldwide.

Datamax is proud of its industry affiliations with EPCglobal, the Association for Automatic Identification and Mobility (AIM), the Material Handling Industry of America (MHIA), the Automotive Industry Action Group (AIAG), the International Ticketing Association (INTIX), and the International Association of Amusement Parks and Attractions (IAAPA).

Corporate Headquarters

4501 Parkway Commerce Boulevard
Orlando, Florida USA 32808
Phone (407) 578-8007
Fax (407) 578-8377
customercare@datamaxcorp.com

Datamax International

Herbert House
Elizabeth Way, Pinnacles
Harlow, Essex CM19 5FE UK
Phone +44 1279 772200
Fax +44 1279 424448
rbyrne@datamaxcorp.com

Datamax Latin America

4501 Parkway Commerce Boulevard
Orlando, Florida USA 32808
Phone (407) 523-5520
Fax (407) 578-8377
tdelgado@datamaxcorp.com

Datamax - Asia-Pacific Rep. Ofc.

19 Loyang Way
#01-01 Changi Logistics Centre
Singapore 508724
Phone +65-6542-2611
Fax +65-6542-3611
datamax@pacific.net.sg

Datamax - China Rep. Ofc.

Phone +86 21 64952882
datamax_cn@china.com

