

By Kate Vitasek

Ready, willing, and label



- product ID and description
- package count
- part or unit labels or markings (each item in the case should have a product ID).

One thing you should not put on a case or pallet label is the location of the product, says Eric Lamphier, director of product management for Atlanta-based WMS supplier Manhattan Associates. Lamphier points out that the location of the product will move as it flows through warehouse.

Many people think that you need the clout of a Wal-Mart to persuade your suppliers to label their shipments, but that is not the case. Several industry groups have been working with suppliers and merchants to get label standards adopted:

- Alliance for Telecommunications Industry Solutions (ATIS); www.atis.org
- Computer Technologies Industry Association (CompTIA); www.comptia.org
- Electronic Industries Alliance (EIA); www.eia.org
- Uniform Code Council; www.uc-council.org
- Voluntary Interindustry Commerce Standards (VICS); www.vics.org

Most suppliers already conform to their industry's labeling standard, so if you stick to a well-known standard in your industry, they are more likely to comply. Also, the major suppliers of labeling/scanning equipment and software are well versed in these standards and are an excellent resource for information and templates, making implementation much easier on you and the supplier.

In some environments, particularly those with a retail aspect, there will be specific requirements around the use of carton, case, and pallet labels (to be compliant for worldwide trade, for instance, vendors need to adhere to the UCC128 label standards, which require, among other things, a 20-digit serial container

shipping code, also known as SSCC-18). Leverage these labels and standards where possible.

On the receiving end The basic function of the receiving process is to check that the material received matches the purchase order. The best practice is to be able to take material to the storage location with a few scans of the material label. Scanning the label at receipt enables all relevant information to be automatically transmitted into your ERP/WMS system. Again, though, this requires your suppliers to place proper labels on the goods, and for your ERP/WMS system to be well integrated.

It is important that merchandise be properly labeled, at least to the case level, before it is moved from the receiving area. If the product was not labeled by the supplier, the receiving team should print and apply the labels. This extra labor will pay dividends in the long run.

Most systems support inputs from bar-coded labels, so data entry can be accomplished by scanning rather than typing. Even if you do not have the most sophisticated system, eliminating typing reduces receiving labor. An economical "wedge" barcode reader can be used with most any data entry terminal; these range in price from about \$60 to \$150.

RF scanning guns and portable label printers can make the process even more flexible. Typical installation would include wireless access points sized to support the area of coverage and the number of devices in use (from \$500 to \$3000), data collectors (from \$500 to \$1800) selected to support the type of transactions and data to be exchanged with the system), mobile printers (from \$500 to \$700).

Don't forget to review how you are labeling your storage locations. Well-labeled materials and a well-labeled facility go

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You might not think that adding something as simple as a barcode label to a carton or a pallet would make a huge difference in your operations. But applying good labeling practices can simplify multiple warehouse processes including receiving, inventory control, picking, and shipping. Think about the costs of lost time and productivity every time one of your warehouse workers can't identify the merchandise within your four walls. Accurate labeling results in reduced labor costs, fewer errors, and improved flow through the distribution facility.

David Farmer, vice president of sales for West Reading, PA-based distribution software, equipment, and services provider Fortna, encourages clients to adopt the following rules when comes to labeling:

- Label all your materials from the time they enter your warehouse to the time they are shipped out on a customer order; better yet, have your supplier properly label the material before it sends the goods to you.
- Use both human-readable and machine-scannable labels, and be sure to install the proper scanning devices (automated or manual). Make labels visible throughout the materials flow of the warehouse.
- To tie the information flow with the

product flow, link information through your enterprise resource planning software (ERP) or your warehouse management system (WMS).

- Minimize the labor required to print, correct, and reprocess labels. Produce labels and transact movements at the point of use.
- Verify the label as soon as it is printed, checking it for scanability to eliminate downstream errors.

Label of contents Experts agree that the place to start your material label process is with your suppliers. Having material properly labeled when it arrives on your dock has huge benefits, including reducing receiving time and errors. You should have material labeling specifications that your procurement team can share with suppliers. Suppliers' adherence to the standards should be measured and tracked as part of a vendor review process.

A good labeling specification will require the following information to be on the label:

- supplier information
- pallet labels
- pallet quantity
- case labels
- case quantity
- purchase order number

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hand in hand. Use large, clearly legible location labels to identify areas, aisles, rack bays, and shelves. Provide clearly legible, barcode-readable “license plate” labels for each identifiable location in the warehouse. To facilitate material movement, these need to be large enough to be seen at some distance. The license plate should include important information such as part IDs and quantities.

Remember, people run the warehouse, and few of us can decipher a barcode, so keep the part ID large enough to read. Employees must first be able to navigate to a location. Then, whether putting away or picking, they should be able to use a scan gun to record the location as well as the material.

Think about the frustration every warehouse manager has faced when materials “go missing” due to errors in receiving and put-away. Following some simple processes in the warehouse will help to reduce errors:

- Require that every case and every pallet have a label to identify it; scan the label to verify that you are transacting/moving the correct product.
- Mark all storage locations, and replace and damaged location tags.
- Make sure labels are readable even when the products are slotted in the racks; you do not want to have to pull them down to see what they are.
- Change labels if partial materials are removed from the location or moved to a broken pallet area.
- Have a set process to return to storage any goods that are picked but unused, as this process is prone to human error.

Picking and shipping labels The key to defining a picking label process is understanding how the picking process fits in to your system overall. The most common practice is to prepare order documents in advance, picking to the paper pick document, then confirming the pick and labeling the product in a separate step. The picked product then needs to be matched to the shipping documents. This method requires little system integration with the pick activity, but it is prone to wasted labor checking and matching

Are your practices poor or best?

A warehouse in which individual pallets and cartons have a rainbow of multicolored labels, some machine generated and some handwritten, is not just confusing and messy; it’s also costly. Every label you apply costs money, so keep in mind the KISS philosophy: Keep It Simple, Stupid. A well-organized operation needs 1) a pallet label; 2) a carton label; 3) a product label; 4) a picking label; and 5) a shipping label. If yours has more than these, you need to rethink what you’re doing.—KV

product. And even with this method, it’s beneficial to use the material label’s barcode to verify that you have picked the correct product.

Manhattan Associates’ Lamphier advocates creating pick labels as far into the process as possible. “By printing picking labels at the time the product is picked, it ensures that the product to be shipped is the product on the label,” he says. “If you pick from a preprinted pick list or label, you run the risk of the information on the label, which often becomes the packing slip, being wrong if there was a pick error or you had to short a product because of an out of stock.”

Lamphier also suggests that companies consider eliminating dedicated shipping “departments” altogether, instead combining the picking and shipping process. “Best practice is to apply the shipping label at the time of pick,” he says. In fact, this “print and apply” approach is rapidly becoming a popular way of saving time and labor in the warehouse.

Tools of the trade You most likely already have in your facility the tools to support the use of barcoded labels. There are many styles of scanning guns: simple units

tethered to a computer, in-line automated readers, fully functional wireless units with displays and impressive scanning ranges. Simple tethered scanning guns range from \$60 to \$150, most data collectors range from \$500 to \$1800, with the long range (15 ft. or more) from \$1,500 to \$1,800. Most work with multiple barcode formats and are reasonably priced.

If you are not using wireless technologies, now is the time to upgrade. Many products, such as devices from Hebron, KY-based Datalogic and Blackwood, NJ-based Metrologic have their own transmitting stations with a reasonable range of about 40 ft.; these scanning guns will add flexibility to the work area at a low cost.

Label printers have also come a long way over the years. Many options are available, with some of the most versatile being lightweight portable printers that your staff can carry. Think of placing these devices into your receiving area or pick area so that you can print the label at the point of use with a very low investment in equipment. You can pick up a label printer for about \$300.

The best practice has the scanning and label-printing equipment

linked to the WMS/ERP system, allowing you to send and receive information and to perform transactions. All major WMS/ERP systems support such interfaces.

If you’re surprised at the number of ways your operation could benefit from upgrading your labeling practices, you’re not alone. In working with my clients I have found that many do not take advantage of already-available barcode technology and equipment to identify, control, and move materials within their warehouses. Many do not have documented processes to ensure that all material in the warehouse is identified with key information. What’s more, many have not worked with their ERP/WMS solution provider to link warehouse transaction functions and label printing to the system. But taking the time to evaluate your current use of technology and making modest, incremental changes may drive surprising results. ■

Kate Vitasek is managing partner of Bellevue, WA-based consultancy Supply Chain Visions.



Best bets for labeling standards

	POOR PRACTICE	COMMON PRACTICE	BEST PRACTICE
Company labeling standard	No labeling standard	Documented as part of operations process, seldom shared with all trading partners	Companywide, documented standard based on an industry standard and shared with all trading partners
Supplier-labeled materials	No requirements for suppliers to label materials	Ask suppliers to label materials but rarely enforce the practice; do not measure compliance	Require all products to be labeled to a standard; enforce and measure compliance
Data collection	Few tethered scanning guns and no RFID	RF scanning guns in most areas, including some on lift trucks; evaluating or piloting RFID	Fully wireless data collection, using barcode or RFID labels for data input
Label printing	Few label printers; inflexible software	Centralized label printing; limited number of printers at or near the point of use; stand-alone or limited connection to WMS/ERP system	Label printers at the point of use or using print-and-apply technology; software fully integrated with ERP/WMS system; labels printed automatically with transactions
Material license plates	No standard, handwritten tags	Process for printed tags with basic material information in barcode and readable format	Printed tags pulled from the WMS
Pick instructions	Paper-based pick list, with no use of labels	Pick labels or shipping labels trigger the pick	Automated RF, pick-to-light, or voice picking instructions, with optional pick labels or shipping labels as trigger
Shipping labels	Match pick documents to material; product labeled after pick process	Cartons labeled during the pick process; shipment documents produced as a batch in shipping process	Pick and shipping process completed at same time; labels printed on demand; labels comply to customer specifications directly from ERP/WMS system