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Steps to Take When Choosing a Bar-Code Scanning System

By Thomas Heitman   0

Tags: Supply Chain Management, Materials Handling, Bar-coding Systems

There are numerous things logistics managers must consider when selecting a barcoding system. Before diving into the nuts and bolts of particular systems, first think about business goals and objectives, and ensure that the selected system will contribute to achieving growth targets. Determine how scalable the system needs to be and don't let short-term objectives cloud long-term vision. Even if specific short-term requirements need to be addressed, leave room for expansion.

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KNOW YOUR GOALS

After tying the new system to business goals and objectives, clearly identify both short- and long-term goals and requirements. This includes its impact on day-to-day business operations. Consider the purpose of the bar code system. Increased production speeds? Tracking inventory? Recording activity? Based on your needs, weigh the necessity of installing automated equipment, like conveyors, as well as how many types of bar codes need to be supported.

Next, evaluate issues that stand to be improved. Determine what processes can be streamlined to reduce cost, such as receiving, put-away, movement, picking, packing and shipping. Specifically, consider task-oriented outcomes, such as gaining accuracy over manual processes. A company's ability to take orders and fulfill them can be affected without accurate inventory data.

Once the decision has been made, identify the materials bar codes will be printed on, as well as types of bar codes that need to be scanned – one-dimensional (1D), two-dimensional (2D) or both. Common 1D barcodes include Code 39 and Code 128, while common 2D symbologies include Datamatrix, PDF417, Aztec and QR code. Evaluate scanners that support either type even if both are not currently needed, in case of future system expansion. Also consider whether the system needs to accommodate any internally generated bar codes, externally generated bar codes, or both – such as vendor UPCs, location labels, and supplier receiving documents.

After determining what bar codes to use, decide whether or not to print your own bar codes, including item labels, location labels, packing labels, picking labels, and shipping labels. Particularly, identify the volume of labels needed and how often (daily, weekly, monthly, annually), the types of printers required (direct thermal, thermal transfer, color),

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and media types, sizes, materials, adhesive types, and compliance requirements.

Then assemble a team of key users to evaluate areas of the organization where bar code scanning is necessary. That team should identify fit, form, and functional requirements, such as weight, size, keyboard, mobile, and vehicle mount; determine scanning requirements, such as distance and symbology; and identify environmental factors, such as water, dust, temperature, and light. The team should also determine necessary scan distances for all users, and take into account how material handling equipment factors into the scanning process.

Decision-makers should also verify whether their network – wired or wireless – can support the required bandwidth of a new or upgraded bar coding system. Adding a system where there wasn't one before requires a wired network capable of increased traffic. If adding a mobile scanning solution, the company must implement a wireless infrastructure. Physical environment can also be key – mezzanines, production equipment, and building configurations can all impact wireless networks. Organizations should conduct a site survey to ensure adequate coverage.

Finally, ensure a low total cost of ownership and high return on investment by planning for long-term maintenance and support. Be sure purchased equipment has comprehensive support and maintenance plans, and have a clear understanding of maintenance turnaround times and on-site versus depot service.

WHAT'S THE PLAN?

Treat the selection and implementation of a bar coding system as you would any significant enterprise-level purchase. Take the time to conduct all necessary research and form an implementation plan that is unique to your particular requirements. A well thought-out plan that considers all the necessary factors will result in a bar coding system that contributes to an organization's long-term profitability.

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