Deciding Factors
of WCS

■ by **THOMAS R CUTLER**

As warehouses become more automated, there is an increased demand for real-time transaction management. Warehouse Control System acts like a manufacturing execution system because it directs the tasks…

The warehouse control system (WCS) is designed to manage activities within the four walls of a facility just like an MES (manufacturing execution system) for manufacturing. Large companies with many distribution centres will tend to have a dedicated WCS for many reasons. Although wide area networks have become more efficient, the fact remains that networks do get dropped periodically. When that happens, the network is not available to 'talk' to the host system. No picking gets done. With a WCS, on site, the order fulfillment process, which includes picking, replenishment and shipping, can continue.

Factors to consider

The first question when considering a purchase of any new software, particularly something as plant floor specific as a Warehouse Control System is: "What's the ROI?" The questions continue beyond an acceptable return on investment.
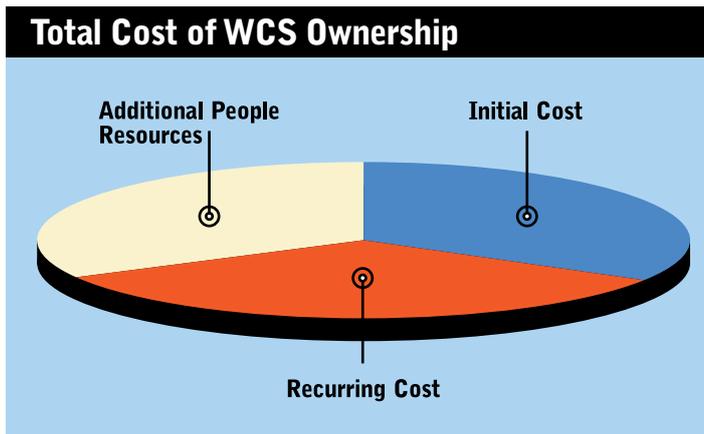
Total Cost of Ownership must also be considered, including the Initial Cost (purchase cost of WCS, new hardware computers, terminals, printers, and all other related costs). The reoccurring costs such as a maintenance contract, modifications, and upgrades will also be considered by a CFO. Other questions may include the need for additional resources that are required when the distributor or large manufacturers install an order management system.

These and other questions are best handled by at least one very knowledgeable WCS person or staff. The questions will continue as some initial threshold of responses are addressed.

Testing the efficacy of the new WCS purchase

Scalability, begs the question: "When will we

Total Cost of WCS Ownership

Additional People Resources

Initial Cost

Recurring Cost

We've seen this growth in clients ranging from Tommy Hilfiger to Under Armour to Arbonne," Hite noted.

WCS reliability is not a 'buzz word', it provides a specific benefit according to Hite, "When a WCS goes down, the lost man hours, late shipments and cost to the warehouse, can be tremendous – add diminished customer satisfaction, and it can literally cost the client significantly more money. The WCS market has grown because it has taken on the traditional 'transactional' processes that the warehouse management system (WMS) historically provided, such as order fulfillment, shipping and localised inventory control."

The reason WMS is no longer providing this transactional role is that when a WMS operates more than a single warehouse, they are generally located off site, and tend to lose transaction speed.

WCS configurability and flexibility

According to Hite, "Configurability is critical because many large distributors really do not know exactly what they need when evaluating various systems, rather they have basic ideas, but nothing concrete. Since a great WCS is configurable, it can adapt to their needs without re-writing the code and generally without increasing the cost."

Hite also suggests, "Flexibility is also critical because WCS software modules are scalable and reconfigurable to quickly accommodate the growing demands and changing business goals. Plus an integrated SQL database allows QC to tailor the look and feel of the application to best meet the clients' needs. This allows for the WCS to expand the system with ease. Rich has seen many clients' needs and demands increase and their systems have doubled and even tripled in size since the initial WCS installation."

outgrow it?" An operations manager will express the improvements with the new WCS system whereas the CFO will inquire about the life expectancy of this technology. The CFO wants to know the tax implications and, whether the company can depreciate the expense.

If a large company wants to know the cost to install at multiple sites as well as the stability, financial status and size of the WCS company, it is quickly addressed by establishing referrals and a strong industry reputation. Depending on the organisation's objectives, source code availability may also be a concern.

The cost of doing nothing may be most expensive.

Rich Hite, President of QC Software, suggests, "The most important aspects of WCS for major distributors include dependability, modular functionality, configurable flexibility, and reliability. WCS is more dependable because…it uses standardised modules that are field proven, versus customised software. Many of the WCS modules have been running for over more than six years."

"WCS modular functionality is important because additional functionality can be added as required. The system can grow as the customers need to grow. You don't lose your initial investment when new functionality is needed.

"The WCS market has grown because it has taken on the traditional 'transactional' processes that the warehouse management system historically provided"

Top Reasons CFOs Select a WCS Solution
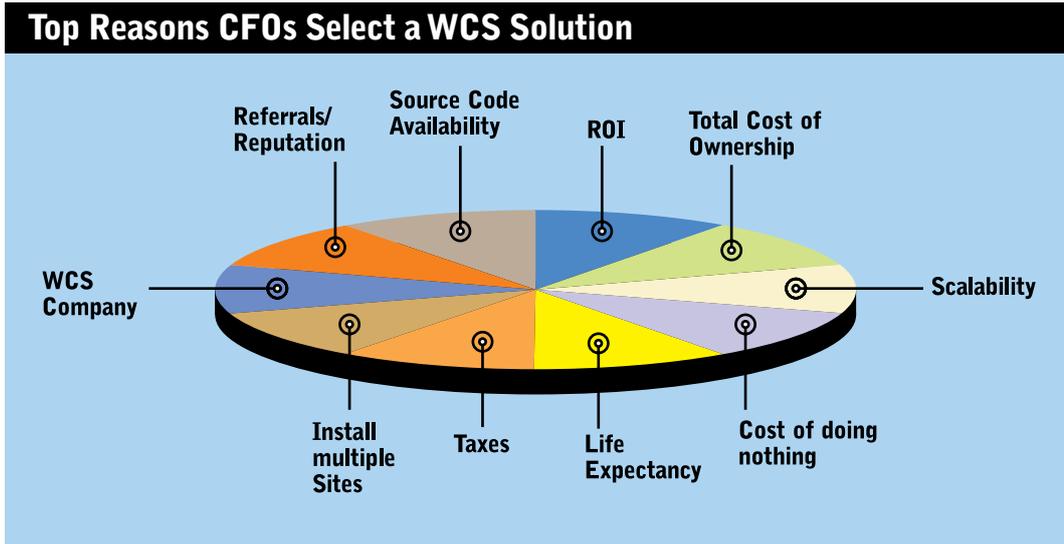
The unique elements of the most effective WCS software includes a carrier compliant shipping solution, order management, wave-planning, cartonization (very few provide cartonization); most WCS have a larger MHE (material handling equipment) focus or are more about routing rather than an operational focus.

The best WCS solutions fill in the functionality gaps of the WMS or ERP that may extend the life or even prevent a costly replacement of the warehouse customers' current business systems. Many companies offer Warehouse Control Systems but there are very few that specialise in it. Companies like FKI Logistex, Diamond Phoenix and Fortna provide a WCS, but not as their core business. They typically provide conveyor systems and WCS is merely another offering.

"A WCS is for high volume distribution centres, companies that process thousands of orders per day and utilise conveyor"

The future of WCS looks bright. As warehouses become more automated, there is an increased demand for real-time transaction management. WMS are designed to manage information; they are planning systems versus execution systems, yet it is fair to say that the WCS is the MES for the warehouse because it directs the tasks.

Is WCS 'wrong' for anyone? Typically, a WCS is for high volume distribution centres, companies that process thousands of orders per day and utilise conveyor. That said even smaller operations are seeing functionality in replacing WMS systems with effective WCS plant floor solutions. **2.0**

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