

## Understanding Warehouse Management System Support for New Order Picking Technologies

### Ensure you Understand Supporting Software Options and Costs before Deciding on a Technology; Upgrade, Modify, or Interface?

SCDigest Editorial Staff

*The following article was taken in part from a recent edition of The Supply Chain Digest Letter on Advanced Order Picking Systems. To download a copy of that Letter and access other information, please see our Resources Page: [Advanced Order Picking Systems Resources Page](#).*

Order picking is of course at the heart of distribution center activity, and as we describe elsewhere in the Supply Chain Digest Letter on Advanced Order Picking systems, new approaches, such as the rise of voice-based systems and the new multi-modal concept, have generated some new excitement in an area that had been somewhat static in terms of technology and strategies for a number of years.

Regardless of what new picking technology is used, there will be requirements for support for that technology and related process changes within the Warehouse Management System (WMS). Often, companies do not fully understand what those requirements will be before they embark on a new picking system project.

The situation will be different depending on not only the type of picking technology selected, but also the specific WMS you have in place. For example, is the WMS a commercial package, an in-house developed application, or what was a commercial package but which now can be considered a legacy system? How old is the current version of even a commercial package?

The answers to these questions will likely significantly impact the effort and cost of implementing a new picking technology.

For example, few commercial WMS systems natively

**Before deciding on a new technology approach, logistics managers and corresponding IT personnel need to well review the software support options, costs and flexibility.**

---

supported voice until the very recent past. So, unless you have a fairly recent version that does offer direct support for voice, if you want to add voice and want WMS support, you will need to either upgrade your system to a more current version, or have the vendor make modifications to your existing system.

In that situation, there is a third alternative. You could have the WMS be "interfaced" to a voice software sub-system, usually provided by the voice hardware vendor. This is how voice systems were traditionally deployed before WMS vendors supported the technology directly. This means the WMS would pass orders to the voice software sub-system, and get back picking results/activity, but would not control the picking process directly, in real-time.

While some WMS work for this integration would still be required, it may be less expensive certainly than a full upgrade and probably less than making modifications to the existing system for direct voice support.

The same basic idea holds for homegrown or legacy systems. If support for a new picking technology, such as voice, is required, a company can use

**Understanding Warehouse Management System Support for New Order Picking Technologies (Con't)**

Picking Technology	Type of WMS Support	Comments
Radio Frequency	Native	Standard in almost all WMS packages. Sophistication of these capabilities (e.g. cluster picking support) varies substantially, however.
Voice	Native or Interfaced	Until recently, most WMS systems integrated with a voice software sub-system. The (better) trend now is direct integration, similar to RF devices, though older packages and home grown systems may need to be interfaced. Support for voice picking is not as comprehensive as for RF, so modifications may be needed.
Pick-to-Light	Interfaced	A separate PTL software control system is almost always used.
RFID	Native (evolving)	Few WMS systems yet have strong RFID support, and almost no older installed systems do.
Pick-to-Belt	Native	The main WMS integration is with the wireless pick technology used (RF or Voice). The WMS must be able to batch orders in pick release.
Carousels	Native or Interfaced	The WMS may directly control carousel picking, or pass orders off to a separate control system (more typical). Direct control usually requires a fairly large amount of customization.

[www.scdigest.com/letter](http://www.scdigest.com/letter)

Your Monthly Digest for Supply Chain Information

this as a catalyst to acquire a new package, build direct support within the WMS, or use the interfaced approach. For companies adopting voice technology in these scenarios, the latter option is most common.

Integration with Pick-to-Light systems will usually require an interfaced approach regardless of the WMS in place. Orders are passed to the carousel control system, which manages picking

execution and again sends results back to the WMS.

The table above gives a summary view of WMS integration with various picking technologies.

Before deciding on a new technology approach, logistics managers and corresponding IT personnel need to well review the software support options, costs and flexibility.