

Voice Recognition Comes of Age

Its not so very long ago that voice activated picking was regarded by many as just a way of getting over the dilemma of juggling a two-handed pick with an RF terminal or paper pick sheets.

That's still a good reason for considering voice picking, but in recent years there has been increasing recognition of the many benefits of 'voice-activated tasking', and these extend far beyond the picking function to, for example, goods-receiving, putaway, pick face replenishment and stock checking.

For those who are unfamiliar with the technology, the system uses speech recognition and speech synthesis to allow operatives to communicate verbally with the warehouse management system. The operatives wear a headset and microphone attached to a terminal worn on the belt, which links to the server via a RF network. Instructions are delivered to the operative by a synthesised voice, via the headset, advising, for example, what warehouse location to go to and how many of which item to pick. Each instructed action is verbally confirmed back to the system through the microphone and this provides real-time, hands-free communication with the system.

Most warehouse applications use 'speaker-dependent' voice technology. This means that the system requires each user to 'train' the system for his or her unique speech patterns, dialect, or language. Voice training usually takes about 15 to 20 minutes per user.

To minimise costs, the equipment can be shared between operatives on different shifts. It is recommended that each picker should have their own headset and microphone, but would share the belt-mounted terminal, since their voice profile can be downloaded to the terminal when logging on.

Voice recognition has been seen to generate significant benefits through improved accuracy and productivity, and systems frequently pay for themselves within a year of implementation.

The potential improvements in accuracy clearly depend on your current method of order picking, but are most dramatic if moving from a paper-based system, where improvements in excess of 80% have been reported.

Order picking is normally highly labour-intensive and can account for a high proportion of the labour costs in a Distribution Centre. The 'hands-free' operations, together with removing the need to stop to read instructions and enter or write confirmations, can drive productivity improvements, - pickers listen and speak while moving. Many users also

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say that voice direction 'pushes' operatives harder, with a constant feed of verbal instructions to which they respond well. As a result, productivity gains in the region of 15 to 20% are frequently reported.

The technology has also found many friends in 'freezer' environments, where there is now no need to fumble with gloves or take them off!

Voice recognition systems also offer the flexibility of using them either as an integral part of a Warehouse Management System or, if you already have a suitable WMS, then the Voice Recognition modules on their own can often be interfaced to it. You might even be able to use an existing RF network if both the network and access points are compliant and the coverage is adequate for the belt-mounted terminal.