



WHITE PAPER

Voice-Directed Work solutions

LISTEN! YOUR WAREHOUSE IS TALKING!

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Listen! Your warehouse is talking...

In recent years, we have seen a convergence of technologies. A material handler can, with one hand, hold a multi-functional handheld computer allowing him to do all his logistic transactions. Just 10 years ago, such an exercise required several external peripherals. More than ever, the success of Canadian companies depends on how they manage their productivity. With the globalization of communications technology, few companies have a guaranteed market share. Continuous improvement, aimed at reducing operating costs and increasing the value of our products, is the preoccupation of every modern company. Among the concepts to address these concerns, continuous improvement in productivity, accuracy and reduction of operating costs is the ultimate way to achieve this.



FROM FRANCIS JOANNETTE

Introducing bar code systems with the latest technology in radio-frequency terminals is a good way to achieve continuous improvement in your operations. Unfortunately, these solutions can demand more manipulation while picking which minimizes the desired productivity increase.

VOICE-DIRECTED WORK : HAVING BOTH HANDS FREE

Voice-directed work technology establishes a dialogue between the warehouse operators and your ERP (enterprise resource planning), WMS (warehouse management system), as well as your inventory management system. Paper listings and small portable terminal screens are now a thing of the past. Operators can now count on a natural form of communication: SPEECH. Operators receive and execute their tasks via voice technology, enabling them to concentrate on accuracy, productivity, and security.

Voice technology enables a warehouse operator to communicate with a warehouse management system using his own voice and his own language. Voice synthesis technology will translate and convert speech coming to and from the WMS.

This technology involves the close use of three very important factors:

- Efficient management software (voice does not change existing logistics functions);
- A choice of rugged equipment;
- Operators who have participated in the choice of technology;.
- A vocabulary between 20 and 30 words is preferable. There is no need to burden the user's training with too long sentences;
- The voice will be used to read short numbers (5 or less). Above 5 characters, the barcode reader will take over for its efficiency. Bluetooth "hands-free" readers are possible;

- The creation of a voice template for a new user is done in a few minutes;
- The choice of equipment and accessories must be considered for optimal operation (depending on the work to be performed and the environment);
- It is important to choose the integrator and the manufacturer based on their reputation and knowledge to avoid spending thousands of dollars on a project that is doomed to failure;
- It is important to establish a return on investment before deploying voice technology;
- Consider a limited pilot project of a few simple voice picking screens within your WMS environment BEFORE committing to a full voice implementation. This way, you can already see if this technology is adequate for your logistics operations.

WHERE DOES VOICE TECHNOLOGY WORK

Since its introduction in the mid-eighties, voice technology has had an important impact on Canadian business operations:

- Productivity increase (up to 35%);
- Improved accuracy (up to 99.99%);
- Reduction of employee complaints and injuries;
- Reduction of employee turnover;
- Reduction of training time.

Voice-directed work can be installed in almost all WMS operations. Businesses generally start with order preparation and order picking since these logistics operations are very demanding in terms of productivity and accuracy, and require considerable manpower.



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White paper on Voice-Directed Work solutions

In fact, it's within these logistics operations that voice technology will offer its best performances. And in environments where operators must execute numerous manipulations, the opportunity of being hands-free is essential. Voice can generate productivity gains as high as 35%, and in many cases, the return on investment is attained after only 6 to 9 months of implantation. Positive results such as these encourage businesses to envision new applications such as supply logistics, receiving, stocking, and inventory. In Canada as well as in the U.S., voice has always been associated with "picking" operations. Still today, many businesses carry out order preparation with dated paper procedures.

BASIC PRINCIPLES

From numerous discussions with voice technology users, there is one comment regarding the system interaction that seems to be unanimous, "It must behave and function like a human, otherwise it will not be effective." Other factors to consider are the following:

- The new voice system must integrate with the existing WMS;
- It is important to select a "text-to-speech" system versus a "wave file" system which generates files too heavy for efficient transmission through traffic radio;
- It is preferable to contain the vocabulary to a maximum of 50 words. Keep sentences short;
- Voice will read up to 5-digit numbers. Above 5, bar code readers should complement the system;

HOW DO BARCODE, RFID AND VOICE WORK TOGETHER?

These are three warehouse performance optimization tools. By combining two or three of these technologies, we cover traceability and at the same time increase warehouse productivity as well as the speed and accuracy of picking. The reliability is close to 100%. There are applications where voice equipment is used as a complement to mobile applications. In other cases, it is the opposite. For example, RFID or barcode readers are just accessories to validate the serial number of an item. RFID is making good progress and is becoming a must-have technology in product handling. Voice, on the other hand, becomes easy to justify when a return on investment proves its profitability within 12 months.

THE VOICE OF REASON

Common daily tasks repeatedly executed by operators such as looking/reading a terminal screen, reading a bar code, entering data, can represent an important amount of money for your business. We cannot say it often enough... a return on investment within 12 months!

Just before undertaking a voice-directed work implantation project, DO have your operations diagnosed. This diagnostic will enable you to foresee the actual return on the investment. You can do the exercise yourself and gather all your non-productivity costs, or you can hire external expertise to establish a complete logistical diagnosis for you. Results can be surprising, and sometimes, even astounding.. ■

