VoxTempo: Advancing Voice Automation in the Distribution Center

How Natural Language Voice Recognition is optimizing warehouse worker productivity through shortened dialogue and rapid onboarding
Voice automated technology is a proven solution to optimizing employee performance across every job function in a distribution center. From receiving and put away to packing and loading for delivery – and all the touchpoints between – voice equips workers with the means to profoundly enhance productivity and accuracy.

Forward-thinking businesses that implemented voice in the warehouse have been met with massive benefits including accelerated product speed through the warehouse, significantly fewer mistakes, reduced labor costs and shortened training times. These streamlined operations recognized significant advantage over their competition.

The technology behind these developments has continued its trajectory through advancements in speech recognition, which have exploded into the consumer space and made popular by devices like Amazon Alexa, Apple’s Siri and Google Assistant.

VoxTempo is Voxware’s answer to leverage Natural Language Voice Recognition (NLVR) technology in the warehouse. VoxTempo provides a more streamlined and user-friendly alternative to how voice recognition has previously been deployed in voice systems. Additionally, VoxTempo delivers far superior accuracy than the traditional speaker dependent or independent model used in industrial environments as well as popular consumer models utilizing similar technology.
Dependent vs. Independent vs. Natural Language Voice Recognition

VoxTempo represents a move forward from the previous generation of voice automation technology, transitioning from a speaker dependent to a speaker independent Natural Language Voice Recognition model.

In the speaker-dependent model, new users would undergo a voice training session in which they would repeat a series of commands (e.g., “Pick three, confirm.”) to teach the system to recognize the unique signature of their voice and speech patterns. For a standard picking workflow, sometimes 100 different phrase combinations would need to be used for training, often leading to lengthy training times.

VoxTempo eliminates the need for voice training or for users to stick to a traditional grammar set. Instead, VoxTempo relies on the natural speech patterns and words of the human workers. Quite simply, any individual can equip themselves with a headset and immediately begin issuing commands that the system will recognize, register and provide a response with near 100% accuracy for every interaction.

Straight to Work

With no need for voice training – which could take hours in some deployments and most likely will need to be periodically repeated – VoxTempo’s benefits are immediately apparent in the onboarding of new employees, practically eliminating the time and effort needed to introduce them to the warehouse floor.

The speaker-dependent model was vastly superior to more traditional systems of training workers moving from scanning and paper to voice, reducing onboarding time from weeks to hours. While a tremendous improvement, it remained difficult to execute amidst a hiring surge of hundreds of new employees.

VoxTempo offers additional value when considering the hiring of seasonal employees that may only be scheduled to work in the facility for a limited amount of time during peak seasons. Voice training for short-term employees was a decision to be carefully considered, but NLVR eliminates that concern: using VoxTempo, seasonal employees can log-in and be ready to start work faster than HR can process their paperwork.

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Rosetta Stone

The ability to adapt to the large population of warehouse workers whose first language is not English is a growing need for warehouses as immigrant populations in the US continue to grow. The Pew Research Center reported that the number of working-age immigrants in the US is projected to rise to 38.5 million by 2035, up from about 30 million today.

With more than 30 languages supported by VoxTempo, workers can speak in the language with which they are most proficient and warehouse management will appreciate the luxury of expanded hiring options.

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Chasing Perfection

Voice technology effectively raised the bar for two areas of paramount importance in the warehouse: speed and accuracy. With VoxTempo’s implementation, these advantages will become even more pronounced.

Speaker-dependent software propelled equipped facilities past competitors using outdated methods like paper picking or traditional scan picking. Indeed, even in the previous version releases of Voice Management Suite, Voxware customers routinely reported greater than 99.99 percent accuracy and productivity increases between 25 to 30 percent.

Now, NLVR technology will result in greater productivity achievements much more rapidly and allow accuracy to continue its climb to near perfection. This improvement means that the right product finds its way through the facility quickly and to the customer on-time, building brand loyalty and strengthening reputation.

voxware
Profit from a Smarter Supply Chain
In the Field

With any new technology, warehouse management will want to see beyond the promises and dig into real-world examples of the system in environments similar to their own. As VoxTempo began rolling out in late 2020, stories of enhanced operations soon surfaced.

For Frontier Distributing, a mid-sized pet food and pet supplies distributor who serves nearly 700 Pet Specialty Retailers in the Midwest from its 100,000 square feet distribution center in Oxford, Michigan, VoxTempo delivered immediate results.

“VoxTempo eliminated the need for lengthy and awkward training sessions,” said Jacob Smith, General Manager, Frontier Distributing. “We were able to get our employees productively working the very first day on the job.”

Smith noted the benefits of VoxTempo had a two-fold approach.

“Not only was it a benefit for the company in reducing time spent training new employees by not having to invest countless hours with them, but the employees greatly appreciated it too. They were able to start working right away, learning our warehouse and where things are located as opposed to learning the proper terminology to use. I believe that everyone wants to be productive and working and VoxTempo enables our workers to do that instantly.”
Speak Freely

VoxTempo is a core technical framework within the VMS system and is immediately available to all Voxware customers.

Of the many benefits of Voxware’s unique Solution as a Service (SaaS) model, companies are future proofing their investments. Automatic software upgrades and hardware device refreshes are included to ensure the latest technology is being deployed.

If you are considering upgrading your facility to a voice automated model or are considering other advanced technology like vision picking (Augmented Reality), Voxware’s implementation consulting team offers a streamlined process that will work around your busy schedule to ensure that the system is implemented efficiently without disturbing daily operations.

For a consultation, or simply to learn more about VoxTempo and the other revolutionary features included in Voxware’s product offerings, contact them today: https://www.voxware.com/contact-us. To hear conversations between the system and a warehouse worker, please click here.