

Voice-controlled  
commissioning with  
**PickTerm**  
*voice*



**PickTerm** is a representative of the latest generation of voice-operated, paperless order picking systems. Instead of warehouse lists or an RF terminal, the picker is equipped with a headset with microphone optimised for picking and connected to a PDA. The entire order picking process is controlled by voice. The **PickTerm** system uses a speech recognition that is independent of the speaker.

# PickTerm

*voice*

## ● General

In contrast to conventional order picking by means of printed lists or radio, **PickTerm** does not interrupt the natural work flow: The pickers have their hands and eyes free for order picking. The headset and the connected microphone replace the classical RF terminal. The efficiency of the order picking process is considerably improved due to the increased freedom of motion. Keyboard entries and observing the display – all these steps are no longer required when using **PickTerm**. The operator can concentrate his attention entirely on his activity.

## ● Process

The entire communication between the picker and the system is by means of speech. The system instructs the pickers through the headset to what position in the warehouse they have to go. After having reached the specified position, they quote a check digit located at the warehouse position and thus confirm that they are at the correct position. After this acknowledgement, the system specifies the quantity to be picked from the warehouse compartment. The pickers confirm the taking out of goods and the quantity by means of keywords. After the taking out of goods has been successfully confirmed, the system indicates the position of the next pick. The described procedure can be modified any time to adjust it to special requirements. The system can also be used in the area of material supply and assembly.

## ● The technology:

### Summary of the architecture

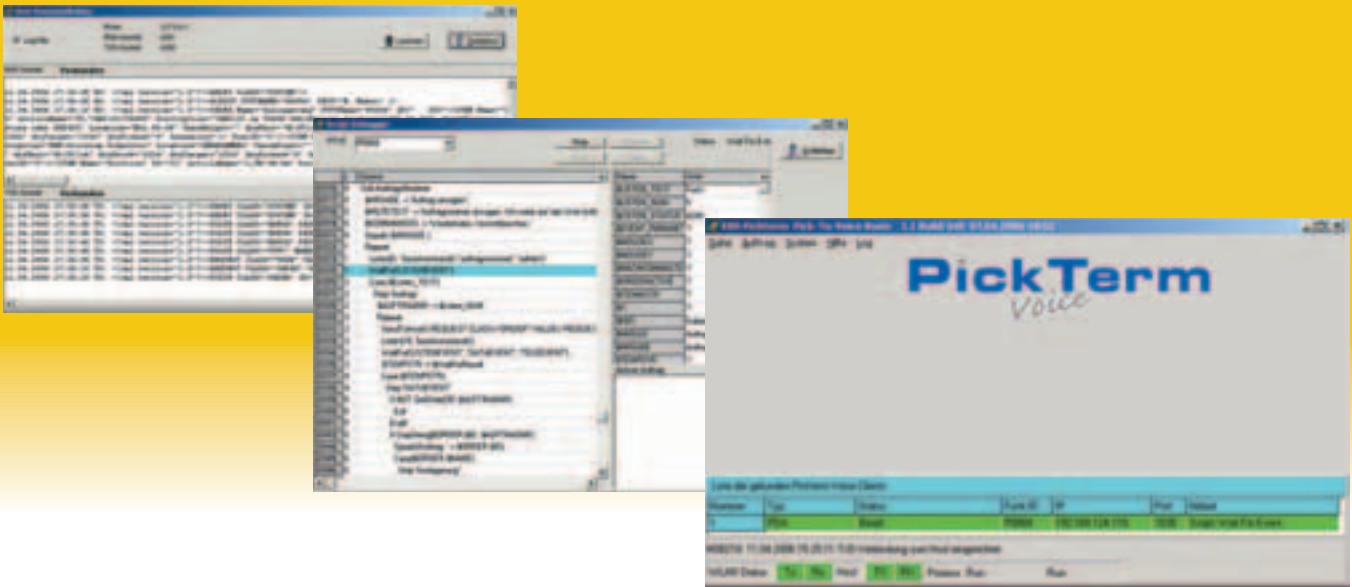
The **PickTerm** system, which is independent of the speaker, is based on a client/server solution designed around the software module WinKOMM-PTVBasis. Operated on a Windows platform, the central component WinKOMM-PTVBasis offers the infrastructure for the processing of the commissioning orders. By means of an efficient and user-friendly configuration, it provides the option to freely design order processing and dialogs.

Via a number of prepared modules functioning as interfaces to the host system, the **PickTerm** system can receive orders from a host system, process them and afterwards send them back to this system.

The clients are automatically logged on at the WinKOMM-PTVBasis software module. After logging on, the clients are ready to process the waiting orders.

The clients are lightweight, portable, small-sized computers used for the communication with the pickers. Interaction with the operator takes place by means of clearly understandable voice output and a speech analysis for the answers. Operation of the client via screen is also implemented in the **PickTerm** system.





● **WinKOMM-PTVBasis:**

The WinKOMM-PTVBasis software module is the server for all other modules in the system. The program operates in the background and provides the basis for the control of the procedures while being a tool for the creation and modification of task sequences in the system.

An efficient script language, in which the procedures during commissioning as well as the voice dialogs are defined, forms the central component of this module. For each client, a separate script can be created and started.

A script consists of commands that are easy to learn and use. For example, an announcement for the operator can be programmed using the instruction "SPEAK (,The order can begin)". The script is saved in a text file that is loaded automatically when the client logs on. The WinKOMM-PTVBasis software module includes an efficient script debugger with single-step features for troubleshooting. Operational sequences can thus easily be generated or modified.

The orders are transmitted to the WinKOMM-PTVBasis software module via XML documents. In this process, the order memory in PTVBasis is automatically adapted to the order structure. The fields included in the orders are generated and are then

available for processing in the script. Due to this flexible and automatic adjustment to the data structures of the orders, additional configurations are unnecessary.

● **PTV server:**

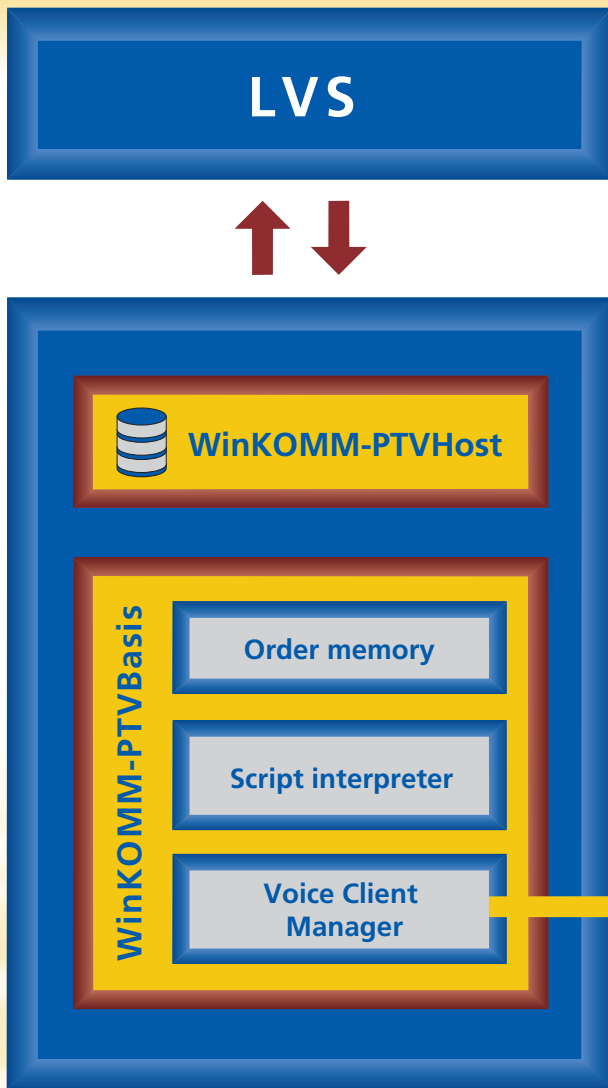
Although the WinKOMM-PTVBasis software module and WinKOMM-PTVHost can be installed on a server that is also used for other software products, many IT responsables prefer to install these software modules on a separate server. This facilitates system organisation and administration.

● **Possible applications:**

In addition to its main use in commissioning, our system is also prepared for operational sequences in production and maintenance.

Why carry out machine inspections using the operating instructions and the manual? Our system tells you what to do.

# WinKOMM-PTVHost



This software package includes the communication with the host LVS and can store a large number of orders, if necessary. Thanks to the system architecture, the host system is relieved of the logistic tasks in commissioning. The host system only has to provide the orders and receives the completion notices. With a corresponding configuration, it is also possible to continue order processing after the connection to the host system has been interrupted, provided that the orders have been made available to the **PickTerm** system before.

**PickTerm**  
*voice*  
Client



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