

# Voice Technologies

**topsystem**  
OPTIMIZING PROCESSES

topsystem Systemhaus GmbH - Your Partner in Aviation and Logistics

**topSPEECH-Lydia®**  
**The Voice in Logistics!**

**Pick by Voice**

**Put by Voice**

**Inventory**

**Quality Management**

**Special Applications**



[www.topsystem.de](http://www.topsystem.de)

# topSPEECH-Lydia®

## A speech system that has it all!

### Pick by Voice - Progress in Warehouse

Recently voice has set the tone in warehouses as speech-based applications provide the greatest potential for innovation. With topSPEECH-Lydia®, topsystem has answered market demands offering a state of the art solution to the supply chain.

topSPEECH-Lydia® frees the worker from unnecessary moves, i.e. the handling of paper lists or scanning devices are now in the past. Speech-applications optimize ergonomics and maximize smooth and expeditious workflow in part by leaving hands and eyes free for essential work steps.

The preliminary written instructions on an MDE video display terminal are replaced by spoken work instructions through a headset. Voice entry by microphone replaces data input via keyboard or scanner. With voice picking, the

users experience immediate increase in efficiency and cost saving as only few select speech commands are used for repetitive work actions.

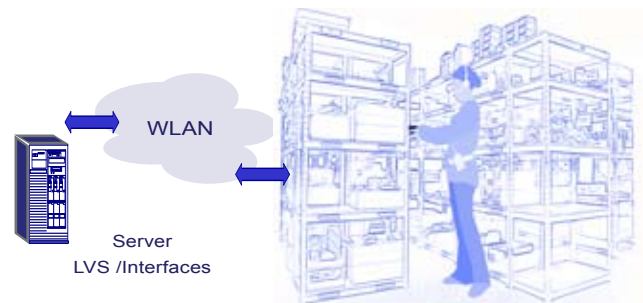
Speech entry and output is performed locally on the user's client equipment. The entered data is transmitted by radio communication to an interface computer. Our client-based speech entry allows the implementation of applications in areas not fully radio-covered, such as outdoor or free field applications.

topSPEECH-Lydia® understands any language, even multiple languages in one application (typical for warehouse environments).

#### Benefits at a glance:

- Cost Reduction**  
No printing and distribution of paper lists. Real-time control over the current stock of inventory.
- Quality Increase**  
As each item is picked, location and quantity are validated, reducing errors significantly and removing the need for extra quality control.
- Optimized Ergonomics**  
At all times hands and eyes are free for essential work steps. Smooth and expeditious workflow.
- Less Training Time**  
Speaking and listening are basic skills. An immediate work start is possible because of the simple dialogue structure.
- High Acceptance and Motivation**  
The improvement in effectiveness leads to high acceptance and motivation along with a higher worker contentment.

#### Requirements for the use of topSPEECH-Lydia®



**Speechserver-software:** The administration of speech profiles is performed on a standard state-of-the-art Windows or Linux server.

**Radio data transmission:** topSPEECH-Lydia® using current radio data transmission standards such as IEEE 802.11 b/g topSPEECH-Lydia® can be integrated into existing radio networks.

**Interfaces:** topSPEECH-Lydia® can integrate directly with existing warehouse management and ERP systems via database or file interface, which means that the speech-based application (Pick by Voice) can easily be integrated into existing logistics systems. topSPEECH-Lydia® is the only speech system which works 100% online with SAP.

## System Modules

The latest release of topSPEECH-Lydia® comes with eight innovative components, making the application of speech in noisy warehouse environments even more reliable.

Standardized speech-recognizers are pushed to their limits, when the ambient noise level is too high or the user does not speak the high level language of the speech application clearly and fluently enough.

topSPEECH-Lydia® is more flexible. New functionality makes speech recognition much more reliable. The use of the system has been improved, especially for training and with challenging conditions.

### **Speech Recognition**

User preference of either speaker dependent or speaker independent recognition, with additional post implementation training possible.

### **Voice-Log in**

The log in to the system also works conveniently with speech and NOW without training. Globally unique!!

### **Co-Pilot**

Supervisors can hear and guide the initial steps of workers with the topSPEECH-Lydia® Co-Pilot.

### **Audio Filter**

In order to achieve optimal performance of speech recognition, even in noisy environments, our recognizer is equipped with a noise-audio-filter.

### **Service Module**

Using the service module all speech clients can be conveniently configured and serviced from any PDA.

### **Speech Test**

A speech test reveals whether the speech of a worker is correctly understood and what potential improvements are available.

### **Start up Updater**

Software updates and configurations are transmitted automatically at user log on.

### **Diagnostics Statistics**

Should recognition errors be detected by the software, the logic will determine the reason and correct as required.

# topSPEECH-Lydia®-PDA

## Leads the Way in Logistics!



### Innovative and robust

#### topSPEECH-Lydia® meets current standards

topSPEECH-Lydia® is a product completely developed by topsystem. Our experts continuously work on new product features and innovations in order to react to market requirements and individual customer requests.



### Hardware independent

#### Cost effective due to use of standard hardware

topSPEECH-Lydia® is currently the only hardware independent Pick by Voice application worldwide. The use of standard PDAs and speech recognition software specifically developed by topsystem makes Voice Picking applicable and affordable for every warehouse.



### Natural speech output

#### topSPEECH-Lydia® has a human voice

The natural speech output, with a choice of either a male or female voice, guarantees a faster and easier training period than applying a computer generated voice. Right from the start this leads to higher acceptance and motivation from the workers.



### Speaker independent

#### Start work immediately without training

Our speaker independent system offers a quick start for your workers. With topSPEECH-Lydia® even short-term and temporary personnel can start work immediately. Even dialects and accents are usually recognized properly and without training.



### Security

#### Supporting the latest security standards

topSPEECH-Lydia® supports WPA2/ 802.11i. Data is transmitted solely via encryption. Additionally authentication is required to ensure that only authorized users have access to the system and can recall data.



### topSPEECH-Lydia® Connector for SAP

#### Direct connection to SAP

topSPEECH-Lydia® is currently the only system worldwide that can be integrated quickly and easily without middleware into the SAP Warehouse Management System. Data interchange is possible with both voice and screen.



### topSPEECH-Lydia® NoiseMaster

#### Noise-resistant - even over 94 db

The newly developed headset topSPEECH-Lydia® NoiseMaster is a combination of headphones and microphone. It is optimized for use in noisy warehouse environments. Innovative noise canceling technology eliminates static and even dynamic noises over 94 db.