# Fresh, Swift and Convenient

The Klinkhammer Group presents Klinkware, a new generation of warehouse management software and material flow control, that the company promises will set a milestone in terms of speed and intuitive operation.

he family-run mid-sized company with 40 years of experience in warehouse logistics, availability of goods and distribution technology recently presented a new generation of warehouse management software and material flow control. Frank Bennemann, Managing Director of AK Warehouse Solutions GmbH, part of the Klinkhammer Group, said; "The speedy power pack Klinkware is a completely new development and is based on up-to-date technology and software architecture". The processing speed of the control jobs in form of PLC-telegrams is up to five times faster than in the present system existing so far".

During the development, the specialists of AK Warehouse Solutions placed a strong emphasis on both the ease of use of touch panels, tablets and forklift truck terminals and on the clearly structured, ergonomic graphical user interface of the stationary and web-based version. With this solution, the new generation of the company's previous warehouse management software DC21, the user is provided

with a long-lasting and future-oriented software which already today allows for the trends in connections and functions.

#### One Touch

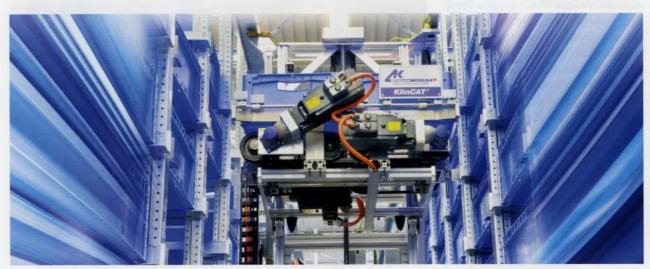
The mobile touch variant works in a similar way to an app. The slide function avoids laborious and extensive scrolling, the 'smear' tool navigates easily through lists and by tipping the relevant functions zoom in. Scalable views offer with the 'one-page' function the possibility to decide for an overall view or partial view by one touch. The lean and easy to use software thus considerably facilitates the handling for the user and saves time.

#### **Stationary PCs and Web Versions**

The menus of the stationary PCs and of the web version are logical to follow, self-explanatory and the ideal basis for the daily work. Meaningful icons and an easy, graphical navigation through the warehouse management processes allow a fast and easy orientation within the software. This way, the familiarization of the user with the software is reduced to a minimum.

### **Speed Counts**

Thanks to the completely new technology platform the processing speed of control jobs in form of PLC-telegrams is much faster than with the previous system. In tests with four PLC-controllers running simultaneously around 50 telegrams per second and PLC could be received and replied just as quickly. This corresponds to a throughput of 400 telegrams received and sent per second. This speed increase is achieved by the fact that job processing is not done sequentially but in parallel and thus more control jobs can be processed in the same time. Another innovation is the use of the 'in memory' database technology being used for the rapid processing of statistical assessments, data exchange and archive functions. For these applications, not a conventional, relational database, but an object-oriented 'in memory' database is used that works like a main memory and allows an extremely fast



The new multi-level shuttle 'KlinCAT' combines an automatic storage/retrieval crane and a shuttle system.

access to the data. Evaluations, data exchange and archives consequently do not affect the performance of the logistics system and are even faster.

### Simple Connection to Interfaces

One of the new features among others is the simple connection to interfaces to ERP and other software systems. Klinkware integrates into existing system landscapes and also offers a link to shipping and special systems. Interfaces can be adapted easily by means of own configurations and Java scripting such that they can be even programmed by the user itself. This is possible thanks to an interface converter, the integration framework WRX, which is used for complex migration and connection processes.

## **Future-oriented Technology**

Another focus was placed on the software's release capability. As for warehouse management software mostly customer specific adaptations

are made, a modular structure of the software package is even more important for software updates. Often customer-specific software must be revised after some years due to changing operating systems, hardware and databases. Cyclically performed updates ensure that the customer — within the scope of a service contract — always has the current version at his disposal and does not miss any further development.

# Flexible Software Platform, Individually Adaptable

After a brief familiarization period customers themselves are able to select the warehouse strategies. They can decide whether it is about FiFo, ABC-classification, height and weight categories, about order release rules, order picking sequences or the supply to the packing stations. The software has been designed such that it features a maximum of flexibility to adapt to customer-specific processes. Whether highly complex automated lo-

gistics systems or conventional manual warehouse area, the new software utilizes all potentials of the warehouse optimally and guarantees cost-efficient processes.

#### **Software Architects**

Nowadays, software plays a crucial role in all intralogistics concepts. No conveyor component or function, no storage and retrieval crane and no warehouse process can do without software. "For the new development, the self-owned software company within the company, exclusively takes care of the continuous further development and optimization of the warehouse management system and bundles all activities", underlines Frank Klinkhammer, Managing Director. "With this clear focus and the experience gathered in hundreds of systems realized in the most various branches the company is able to provide its customers with even more targeted and comprehensive advice".