

## What a warehouse management system does and doesn't do

All warehouse management systems (WMS) support intake, release and storage of goods to a certain extent. A WMS is also very suitable for registering all operational procedures in the warehouse. However, there also are several things a WMS doesn't do.

### Stock registration – yes

A WMS assists in keeping accurate track of the number of articles in storage. If one article is removed, the stock level is automatically decreased with one. The system can also be instructed to give a signal when a certain product is running out; if the stock level drops under a previously fixed amount (the order level), the system will give the advise to replenish. The WMS lists the intake and release per article, including all the information related to the product like production codes, best before dates, etc. This way, the WMS can also apply the first-in-first-out rule and prevent products from unnecessary aging in the warehouse.

### Ideal inventory management levels – no

A standard WMS does not collect data about sales and therefore cannot determine the ideal inventory level in the warehouse in order to avoid for instance out-of-stock at a manufacturer/processor level. It is not possible to let the WMS calculate whether you should store one, ten, or a hundred pallets of a specific product. Nor does the system automatically tell you the preferred order level. These levels have to be calculated separately by marketing/sales people and manually entered into the system. However, some WMS suppliers have created a separate inventory management system for this type of problem.

### Control people – yes

A WMS can automatically generate intake/order pick/release orders for warehouse personnel. If a lift truck driver is ordered to put away a pallet deep in the warehouse, some systems will automatically locate the nearest pallet that should be brought back and generate an order for this pick up. Even if the WMS receives several orders simultaneously, it will convert them into separate instructions for separate warehouse workers.

This type of work is often done with the help of Radio Frequency (RF), which allows for wireless communication between the main frame computer and terminals on the lift trucks. So, no documents are required in this "paperless" operation, which improves the productivity of personnel.

### Control machines – no

With the average WMS, however, it is impossible to give direct instructions to sorter systems, conveyor belts, warehouse cranes, and other material handling systems. These machines require the system to respond at high-speed when generating orders. If a box that is placed in the sorter system passes the sensor, the control system will only have a few milliseconds to indicate whether the box should be send to the left or the right.

To control the material handling systems, often a separate system has to be installed between the WMS and the specific machines: a so-called warehouse control system (WCS). By the way, over time

many of these warehouse control systems have developed into almost full-blown warehouse management systems.

#### Order preparation – yes

A WMS assists with order preparation. The system does not only control the order pickers, but also gives instructions with regard to packaging. Furthermore, it is also possible to use the WMS for printing letters of content, order preparation, and order dispatch at the correct loading dock.

#### Transport planning - no

A WMS does not tell you which order should go in which truck. And it certainly does not tell you which orders can be combined for one delivery. For that, you require the assistance of the transport planner or a transport planning system. Some companies do not deliver per pallet, but their shipments consist of products in different shapes and sizes. In those cases, the WMS does not tell you how many goods fit in the truck or how the truck should be loaded. That also requires a different system; a so-called separate software package

#### Management Information System – no

The WMS stores a large amount of data and can provide a lot of information. However, it is not a Management Information System (MIS). In order to use the information in that way, the stored data has to be downloaded from the WMS and processed in a separate system. This can be implemented by internal IT specialists, based on the company's Key Performance Indicators (KPIs), but is also commercially available.