



E'wcs, powerful control system for automatic warehouses

WHAT IS E'WCS?

The Egemin Warehouse Control System (E'wcs) is a control system that integrates all automated infrastructural equipment in your warehouse into one well-oiled and efficient transport system.

E'wcs is available on stand-alone basis but can also be purchased as part of our E'wms[®] software (Egemin Warehouse Management System). E'wcs consists of a location management and a transport management module.

SUPPORTED STORAGE METHODS

E'wcs is fully compatible with all standard storage methods such as pallet racks, mini-loads, block storage or drive-in racks, but also supports more complex methods like

satellite storage, double deep storage, flow racks and paternoster systems.

E'wcs splits up the entire transport assignment in several smaller track segments per transport means (e.g. conveyors, shuttles, cranes, forklift trucks, AGVs, etc.) and controls each sub-transport fully autonomously.

CORE FUNCTIONS OF E'WCS

E'wcs ensures an optimal usage of the transport means and storage methods. Thanks to E'wcs, all warehouse equipment is used to the fullest extent and overload problems are avoided as much as possible.

E'wcs integrates the following functions:

- Flow control of individual carriers (pallets, trays, bins, boxes) and management of

open transport assignments from start till end.

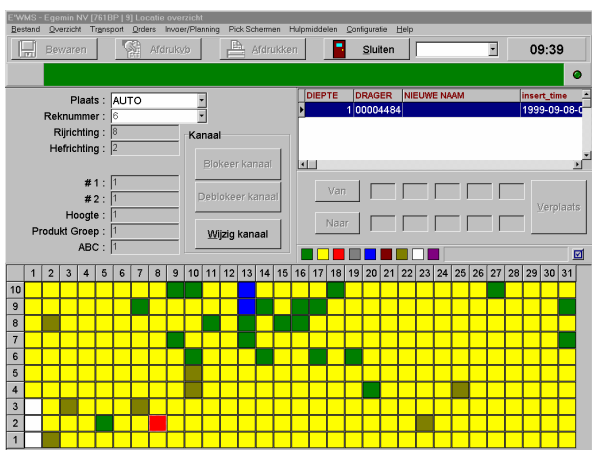
- Management of warehouse locations.

EQUAL SUPPLY OF CARRIERS

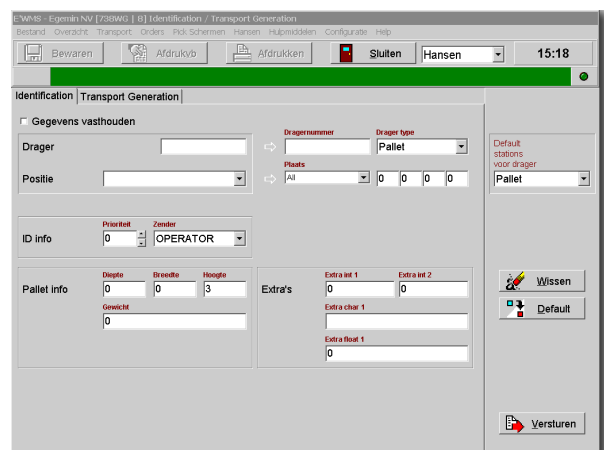
For complex warehouse installations with several large storage zones and / or working zones, E'wcs takes care of a balanced and continuous supply of carriers to all working stations. This way E'wcs avoids saturation of your logistic system.

LOCATION MANAGEMENT

The location management module manages the current locations of your carriers (pallets, trays, etc.), but not the load stored on it (this is done by the inventory management module of E'wms[®]).



E'wcs location management screen visualising warehouse positions in side view with obvious colour coding to indicate location status



E'wcs transport management screen for manual generation of new transport orders



The goods enter the warehouse at the reception zone of your plant. When the goods are ready for storage, E'wcs assigns them to a storage location in the warehouse based on our unique five-dimensional coordinate system (m-g-x-y-z), which allows for multi-warehousing. Thanks to this system, each location has a unique coordinate.

First, the host system determines in what warehouse (m) the goods need to be stored. Next, a suitable empty location is determined based on the two-tier search algorithm.

- 1 The aisle (g) is searched.
- 2 When the goods are in the right aisle, the storage location is determined (x: driving direction - y: lift direction - z: fork depth).

TRANSPORT MANAGEMENT

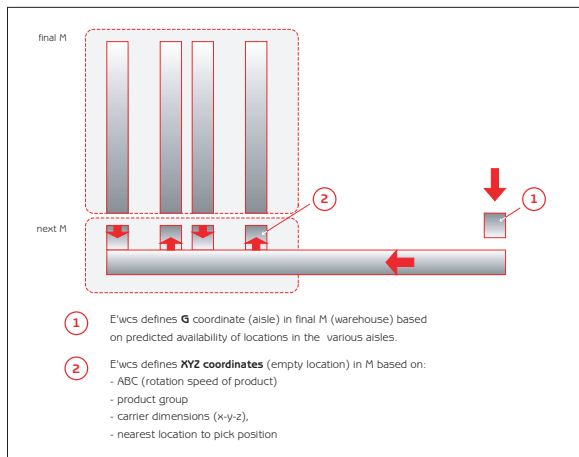
A transport order is a logistic assignment to move a load in your warehouse, e.g. from storage to working zone or vice versa. One transport order applies to one carrier only. Transport orders are further subdivided into several subtransports, each executed by one individual transport means.

The E'wcs transport model defines how transport of your goods between the storage and the working zones is organised. The execution of transport movements is done through a combination of several transport managers controlling the transport means (E'car[®] for cranes, E'tricc[®] for AGVs and E'tis[®] for towlines) and the transport management module.

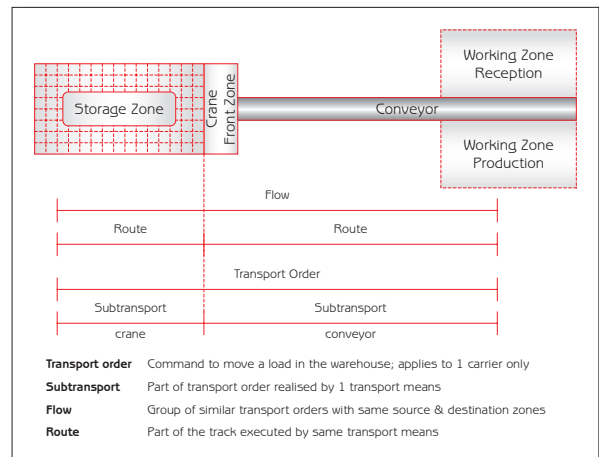
E'wcs & E'wms[®]: A PERFECT MATCH

E'wcs and E'wms[®] rolled into one makes your warehouse run smoothly and increases its efficiency. However, if you already have your own warehouse management system, you can choose to integrate our E'wcs software in your existing WMS and thus achieving optimal management of your warehouse locations and (automatic) transport movements.

Finally, E'wcs can provide a serious added value to WMS packages that do not support the typical features of automatic warehouse installations.



The search algorithm searches for free locations in two steps



The transport model defines how the goods are transported