



Advanced Warehouse Control & Management Software for Material Handling Systems

Egemin's Warehouse Management System (E'wms®) is our advanced software application to manage inventory, orders, locations and transport flows in warehouses and distribution environments. It constitutes the perfect link between your logistics environment and the equipment available.

E'wms® is a mature and flexible solution for increasing productivity and inventory accuracy in your warehouse or distribution center.

Functionality Layers

E'wms® is available as an integrated application suite, but can also be configured providing only the required layers and features. It is suitable for stand-alone operations or for a seamless integration within your existing administrative systems.

E'wms® consists of two main functionality layers:

Functionality Layer	Modules
E'wms®	The typical E'wms® layer containing the administrative modules: <ul style="list-style-type: none"> » inventory management module » order management module
E'wcs	The E'wcs layer (warehouse control system) covering all features related to the material flow control: <ul style="list-style-type: none"> » location management module » transport management module » visualization



E'wms® - Warehouse Management Software

The E'wms® layer consists of two main modules:

- » Inventory management module
- » Order management module

Inventory management

The inventory management module manages the stock in the warehouse according to the material flow direction:

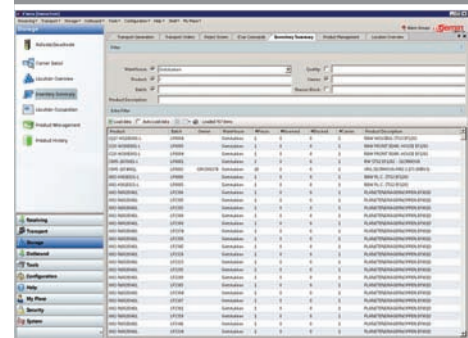
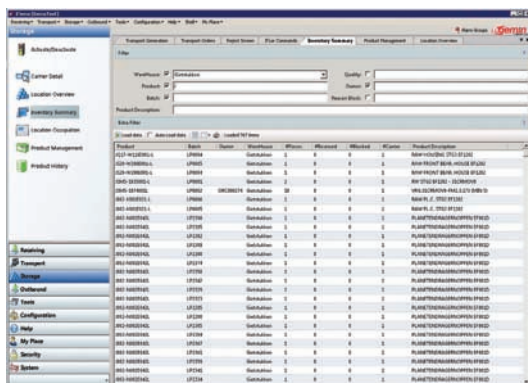
Material Flow	E'wms®
Incoming (reception)	Products are stored and linked to the carrier (or compartment). The default warehouse destination is determined based on the various product attributes (owner, lot, quality, abc qualification). Based on various location search algorithms the optimal warehouse position is assigned to the carrier.
Cross-docking	Products of a specific customer are moved from reception directly to dispatch
Outgoing (delivery)	Available inventory in the warehouse is allocated to certain order lines based on enhanced allocation algorithms, for example: <ul style="list-style-type: none"> » least remaining stock per carrier » FIFO (First in First Out) / FEFO (First Expired First Out) » capacity distribution & optimization Orders can also be automatically reallocated to another carrier in case of unexpected product shortages.

Order management

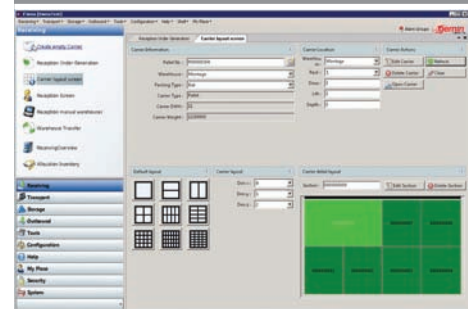
The order management module assigns product orders to warehouse infrastructure such as order picking stations, or docking lanes, based on required criteria (order priority, order due out time, order reception time, etc.). E'wms® supports various order picking concepts like single order picking, batch picking and cluster picking. Furthermore, optimization algorithms can be implemented for these concepts to fine-tune the product flows.

Core features from reception to delivery

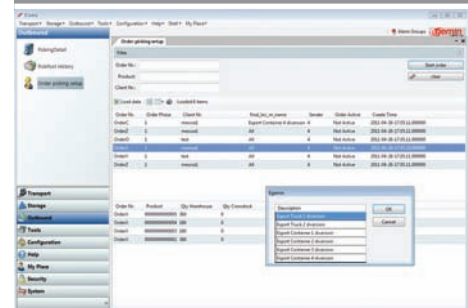
- » Receiving & inventory management: inbound flow of products in warehouse
- » Replenishment of (dynamic) picking zones
- » Inventory allocation: assign stock to orders
- » Order assignment: assign orders to resources or work stations
- » Load balancing and control of picking stations and/or order picking resources
- » Consolidation and dispatch labeling



Inventory management screen with location data, carrier details, inventory information



Carrier layout screen for management of carriers and carrier compartments and actual carrier data



Outbound order picking: starting an outbound customer order towards the truck export zone

E'wcs - Warehouse Control Software

Egemin's warehouse control system (E'wcs) is a control system that integrates all automated warehouse equipment in your warehouse into an efficient transport system. It ensures an optimal usage of the transport means and storage methods and avoids overload problems as much as possible.

E'wcs consists of two main modules.

- » Location management module
- » Transport management module

E'wcs visualization can be added when required.

Location management

The location management module manages the current locations of your carriers (pallets, totes, bins, trays, boxes), but not the load stored on it which is done by the inventory management module of E'wms®. The products are assigned to a storage location in the warehouse based on a unique five-dimensional coordinate system. This coordinate system supports location management within different types of storage throughout the warehouse: single deep / double / multideep, carrier-size dependent positions, single or multiwarehousing operations.

Transport management

The transport management module defines how goods are moved between the various zone in your warehouse, e.g. from storage to working zone or vice versa. Individual movements of carriers are realized through transport orders which consists of a number of subtransports, each executed by an individual transport means. The transport management module controls several transport managers, which in turn control the transport means:

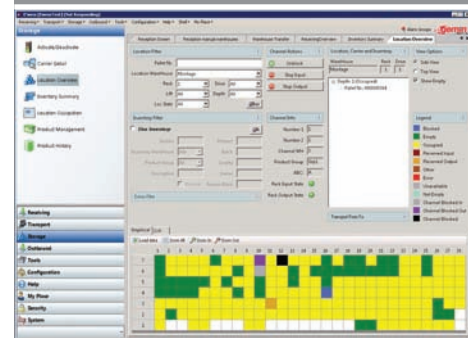
- » E'car® for stacker cranes / transfer cars
- » E'con for conveyors
- » E'tricc® for AGVs
- » E'tis® for in-floor chain conveyors

Core features of E'wcs

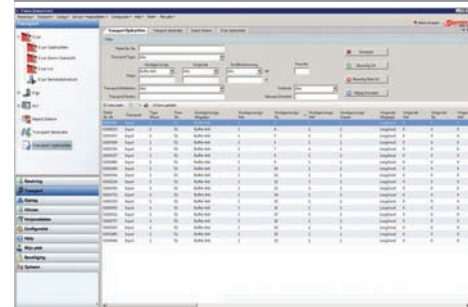
- » Flow control of individual carriers and management of open transport orders.
- » Management of warehouse locations
- » Equal supply of carriers to working stations to avoid saturation and to provide a balanced workload

Supported storage methods

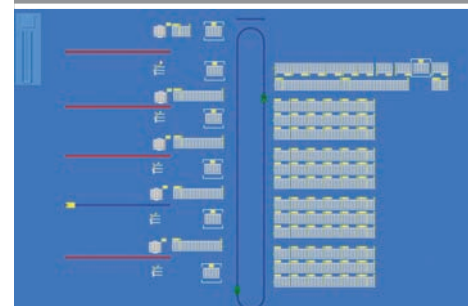
E'wcs is compatible with standard storage methods such as pallet racks, miniloads, block storage or drive-in racks. It also supports more complex methods like satellite storage, double deep storage, flow racks and paternoster systems.



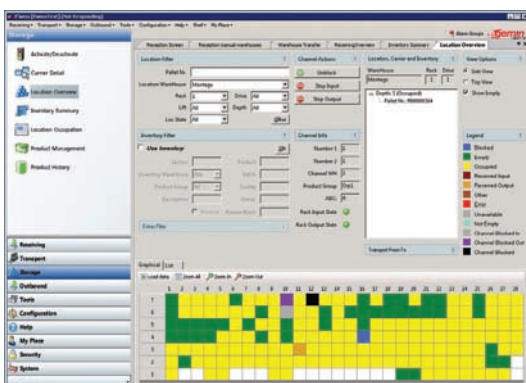
Location management screen with warehouse positions in side view and clear colour coding for location status



Transport Order screen: consult, change or prioritize warehouse transport orders



Visualization screen in E'wcs (optional)



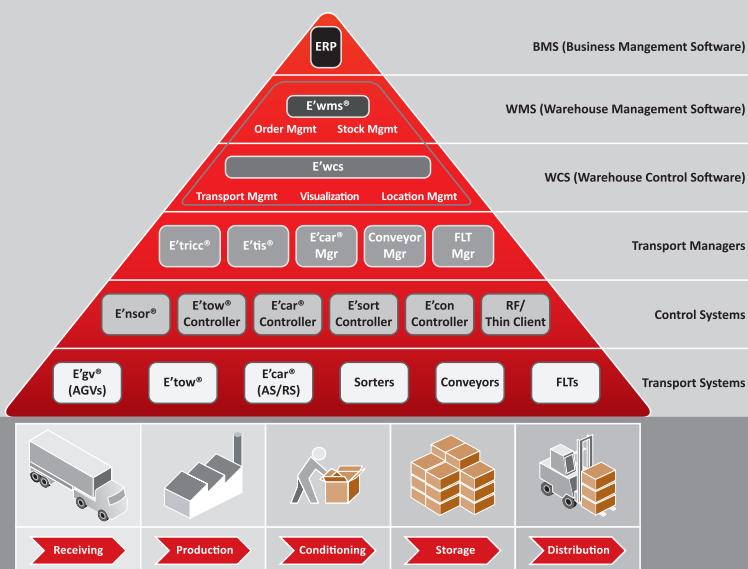
Features Matrix

Feature	E'wms®	E'wcs
ERP Host Interface	✓	✓
Order management	✓	
Inventory management	✓	
Location management	✓	✓
Transport management	✓	✓
Visualization	•	•
Advanced Intake goods reception	•	
Picking strategies (single, batch or cluster picking)	•	
Picking methods (pick-to-light, drop-to-light, RF picking, voice picking)	•	
Replenishment	•	
VAL activities	•	
Track & tracing Module	•	•
Statistical and KPI management reporting	•	•
Location and stock optimization	•	•
Equipment Alarm Management	•	•
AGV systems support	•	•
In-floor chain conveyor systems support	•	•
AS/RS systems support	•	•
Sorting systems support	•	•
Satellite storage systems	•	•
Vertical lift or paternoster storage	•	•

- ✓ Standard features
- Available features (project specific)

A wealth of benefits...

- » Fully compatible with multi-warehousing
- » Designed for both automatic and manual warehousing
- » Intuitive and user-friendly user interface
- » Modular software for quick project configuration & fast time-to-market
- » Integration in one system controlled by Egemin (sorters, conveyors, E'gvs, control software, tracking & tracing)
- » Seamless integration with all common ERP software (Microsoft® Dynamics AX, SAP, Baan, JD Edwards) specific client IT platforms and Business Management Systems
- » Modern client server application architecture (Microsoft® technology / SQL Server® database)



automation integration



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