

PENTA

WMS

PRODUCTIVITY

TRACKING

OPTIMIZATION

WE GREW UP IN THE WORLD OF WAREHOUSES





AT THE HEART OF THE SUPPLY CHAIN GAINING CONTROL OVER LOGISTIC PROCESSES IS A LEADING FACTOR

PENTA WMS – THE STATE-OF-THE-ART SOFTWARE SOLUTION IN WAREHOUSE MANAGEMENT – HAS BEEN DESIGNED AND DEVELOPED BY A TEAM OF EXPERTS... WHO GREW UP IN WAREHOUSES

WITH MARKETS IN CONSTANT EVOLUTION THE MODERN WAREHOUSE MUST FOLLOW NEW TRENDS:

- IMPROVE CUSTOMER SERVICE IN TERMS OF QUALITY LEVEL AND RESPONSE TIME
- REDUCE STORAGE AND DISTRIBUTION COSTS
- STREAMLINE THE WAREHOUSE FUNCTIONALITIES
- SUPPLY THE MANAGEMENT WITH INFORMATION AND OVERVIEWS, ANALYSIS AND SIMULATIONS
- TRACK, MONITOR AND STORE DATA

LIKE THE CONDUCTOR OF AN ORCHESTRA THE WAREHOUSE MANAGER MUST CONTROL BOTH HUMAN AND TECHNICAL FACTORS BUT HE ALSO NEEDS TO DEVELOP ALL-ROUND COMPETENCES IN ICT, HAVE STRONG COMMUNICATION SKILLS AND A GOOD COMMERCIAL APPROACH.

Precisely because this software has been developed by logistics experts does the PENTA WMS software offer a best-of-breed solution to optimize warehouse management:

- ∴ Our software has been designed to take into account the practical features of a given warehouse, offering to logistics and warehouse managers an efficient tool which can easily be implemented in an existing structure
- ∴ Our software has been designed for the executive officers to have a complete reporting and decision-making system

PENTA WMS has been elaborated on two principles:

- ∴ **Real-Time Management**, because the warehouse is an ever-changing organism where each decision must comply with the contingencies of the moment
- ∴ **Directed Workflow**, because operators need a reliable information about the task they have been assigned and must receive a feedback on its execution

Our goals:

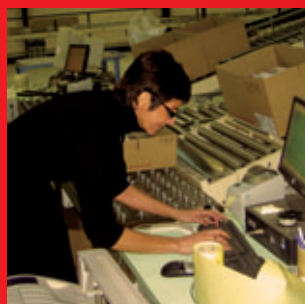
- ∴ Optimize operational efficiency according to the logistical strategy
- ∴ Maximize the storage space in function of the physical and logistical requirements of the products
- ∴ Guarantee total traceability of all the activities in the warehouse
- ∴ Make the warehouse operations reliable

Our customers:

PENTA WMS can be customized in function of the logistical reality of almost all industries. **PENTA WMS possesses the characteristics of a general system and has been designed by and for professionals** aiming at a seamless integration with the workflow reality.

We have built up our experience and customers references in the major production and logistical sectors:

- ∴ Food Industry
- ∴ Pharmaceutical Industry
- ∴ Wholesale Distribution
- ∴ Distribution
- ∴ Logistics and Transportation
- ∴ Steel Industry
- ∴ Etc.





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AN APPROACH BASED ON REALITY

We have grown up in warehouses. This is the best way of describing our approach of a project.

A good 20 year of experience in warehouses and WMS systems installed in the major industrial sectors have led us to develop a hands-on method which is backboned by our structure.

First, our corporate profile – a solid group of companies based in France, Belgium and Luxemburg. Second, the very rich scope of competences capitalized by our team which relies on the expertise of logistics, engineering, IT and automation specialists. Last, a network of partners we empower to implement completely integrated solutions.

The first step in the implementation of a PENTA solution is the analysis. Processes and flows within the warehouse are determined in close collaboration between our specialists and your management where your experience is integrated and your compliances are met.

Your configuration and your specificities are entered and a model of the software can now be checked by you for its conformity with the original specifications. Then, the system can be implemented, the users can be trained and we assist you with the start up.

With this practical approach we are able to define a precise program and keep up with schedules. And this is what makes the success of a project.

*A successful WMS solution is a matter of logistics experts. Efficient logistics is a question of common sense. Sound common sense cannot be acquired without experience. Useful experience is anchored in reality. This is why our team counts with experts who... **grew up in warehouses.***

What you need to take into account in reality-based management:

- :: The warehouse layout
- :: The available storage types and their characteristics
- :: The available resources and their capacities
- :: The article compliances
 - :: Physical compliances
 - :: Logistical compliances
- :: The specific competences of the operators
- :: The urgency of the missions
- :: The optimization of resources integrating combined movements





EACH FUNCTIONALITY IN THE WAREHOUSE

Receiving functionality: added value for incoming goods

- :: Blind Receiving, a totally configurable tool
- :: EAN SSCC Label Based Receiving
- :: Announced Receiving

Put-away functionality and on-demand reorganization

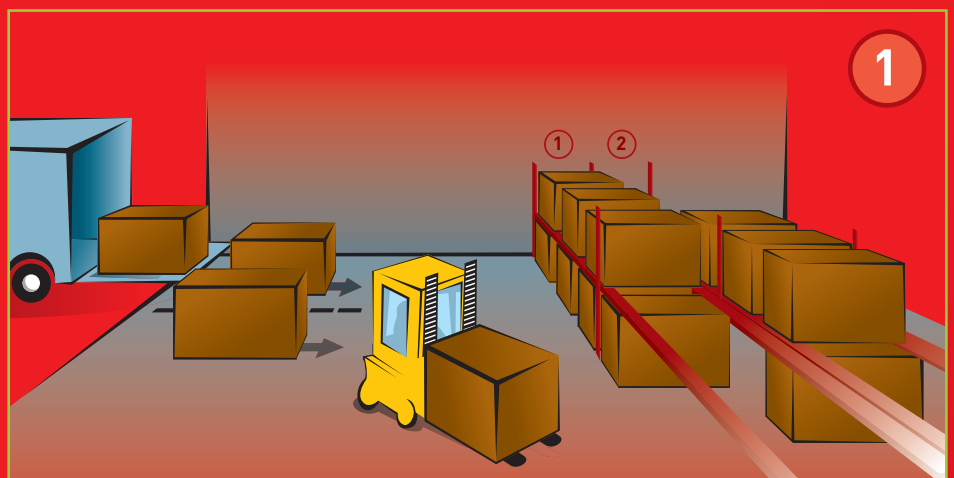
With PENTA all storage types can be used (pallet shelves, mass storage, drive in, flow rack, rack, etc.)

The requirements of each storage type are integrated in a dynamic way:

- :: Calculation of the mass location capacity in function of the pallet characteristics (allowed stacking height, deck type...)
- :: Optimization of the cell level according to the pallet dimensions
- :: Calculation of pallets between the supporting beams according to the compliances

Furthermore:

- :: The resources are controlled in function of their capacity and physical position in the warehouse
- :: The cross-docking functionality is being controlled



Order processing according to your personality

PENTA WMS is flexible and leans itself to your specifications. Choose and combine operations according to your personal scheme:

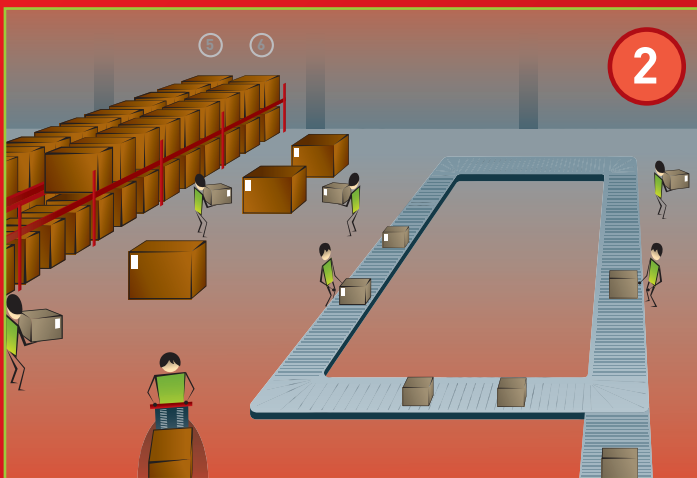
- :: Flow Management: order per order, per wave with or without splitting
- :: Priority Reservation Criteria: article, lot, FIFO, FEFO, LIFO, minimum authorized, quality, default code etc.
- :: Priorities can be altered in real time according to the compliances of the moment

PENTA WMS processes the following operations:

- :: Splitting order processing into pallet retrieval on the one hand and picking on the other hand
- :: Managing picking zone replenishment on a threshold basis or on demand
- :: Managing priorities, calculating availability, reservation, confirmation of inventory shortage
- :: Following criteria according to reservation compliances
- :: Cross docking
- :: Route accounting



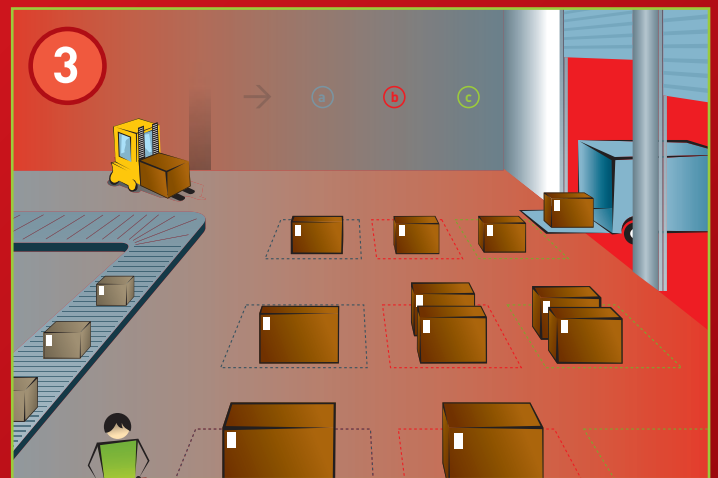
IS CONTROLLED AND OPTIMIZED BY PENTA



Retrieval: applied optimization

PENTA WMS optimizes retrievals and integrates the following items:

- ∴ The physical restrictions of the warehouse:
 - ∴ Location types and accessibility
 - ∴ Trip duration between the locations
- ∴ The resources:
 - ∴ The fork-lift trucks (horizontal and vertical speed, simple or double forks, lifting height)
 - ∴ Their position in the warehouse
- ∴ The management rules
- ∴ The priorities in order processing



Order picking in carton or retail: increased service

PENTA WMS combines several picking modes:

- ∴ From the stock
- ∴ From a set location
- ∴ From a dynamic location

The picking tasks are synchronized with replenishment tasks in order to avoid inventory shortage.

These operations are controlled and directed in order to optimize the follow-up of your order pickers.

Labelling according to your needs

Both for receiving and order processing activities, **PENTA WMS** features labelling functionalities which are integrated within the handling operations.

Loading control / follow-up of shipments: pursuit of quality on the very docks

Quality management does not end at the shipping dock.

PENTA WMS features a real-time loading control functionality which guarantees that the right goods will be loaded in the right trucks, thus avoiding expensive shipment errors.

MANAGEMENT TOOLS, PLANNING AND SUPERVISION: OBTAINING INFORMATION IN REAL TIME

FOR AN EFFICIENT MANAGEMENT OF RESOURCES PENTA WMS OFFERS A SET OF TOOLS WHICH DISPLAY THE UPCOMING TASKS AND THE RESOURCES TO BE INVOLVED.

A GLOBAL VIEW OF THE ACTIVITY CAN BE DISPLAYED AT ANY TIME; THE TASKS BEING PERFORMED BY THE USERS CAN BE FOLLOWED IN REAL TIME.



The screenshot displays the Penta WMS software interface. It features a top navigation bar with tabs for 'Menu', 'Tools', 'Reports', and 'System'. Below this, there are several configuration panels on the left, including 'Parameters', 'Resources', and 'Tasks'. The main area is a large table with multiple columns, likely representing tasks, resources, and their status. The table is populated with data, showing various task names and associated resource IDs. The interface is designed for real-time monitoring and management of warehouse activities.

Task ID	Task Name	Resource ID	Status	Priority	Due Date
1001	Task 1	1001	Active	High	2023-10-27
1002	Task 2	1002	Active	Medium	2023-10-28
1003	Task 3	1003	Active	Low	2023-10-29
1004	Task 4	1004	Active	High	2023-10-30
1005	Task 5	1005	Active	Medium	2023-10-31
1006	Task 6	1006	Active	Low	2023-11-01
1007	Task 7	1007	Active	High	2023-11-02
1008	Task 8	1008	Active	Medium	2023-11-03
1009	Task 9	1009	Active	Low	2023-11-04
1010	Task 10	1010	Active	High	2023-11-05



Each operation is stored automatically and in real time in the history (lifting of quarantine, alteration of best before dates, article transfer, etc.). Information about previous operations can be easily located (receiving, order processing, follow-up of a lot, operator, pallet etc.).

The following operations can be performed at any time:

- ⌘ Measuring the efficiency of your organization by generating summaries according to your own criteria (period, movement type, operator, etc.)
- ⌘ Tracing your goods, following the incoming and outgoing items along with the consignees
- ⌘ Controlling inventory in real time
- ⌘ Supervising the whole warehouse situation or getting information on a specific operation (receiving, order processing etc.)
- ⌘ Controlling alerts with configurable tools (short receiving deadline, best before date, etc.).



Mail & internet modules

Reports and statements are automatically transmitted to a selection of recipients on a periodical basis or according to predefined events.

The Internet module makes a selection of data available via a login and password which you attribute yourself.

Costs management / preinvoicing module: you can benefit from these functionalities

PENTA WMS provides visibility on operational costs and this allows you to optimize them.

In the third-party logistics **PENTA** provides the preinvoicing functionality necessary to your activity:

- ⌘ Inventory Level Day/Week/Month
- ⌘ Receiving
- ⌘ Retrieval
- ⌘ Order Picking
- ⌘ Miscellaneous Operations
- ⌘ Etc.

Communication: be open minded

Your activity needs to open itself to the external world. **PENTA WMS** communicates with:

- ⌘ The management systems of your business (sales management, E.R.P.)
- ⌘ Customers, suppliers, executive officers, other services
- ⌘ Carriers

PENTA WMS uses a variety of communication techniques:

- ⌘ Data base exchange and sharing
- ⌘ E.D.I.
- ⌘ Internet messages
- ⌘ Remote access via the Internet (VPN, Virtual Private Network)

PENTA WMS directed warehouse management

Real-time warehouse management requires new data collecting material (radio terminals, barcode reading, RFID enablement, presence sensors etc.). These new tools must be integrated in the environment of receiving operators, fork-lift truck drivers, persons in charge of the docks and warehouse managers.

For data collection in the very warehouse – where handling operations must be synchronized with data registration – it is essential to choose the hardware which suits best the needs of the organization in terms of size, weight, screen type etc.

Radio terminals equipped with **PENTA WMS** are user friendly. The Windows screens are obvious and easily accessible. Therefore, radio terminals are easily integrated in the daily life of a warehouse.

The management accesses control screens displaying an overview of the data they need in order to transmit to the warehouse personnel the necessary information for a quick decision making.

The HMI advanced screens make the display of data simple thanks to charts, use of colors, multi-window display, multi-criteria research, on-demand extraction, interface with word processors, spreadsheets, message edition and transmission, etc.

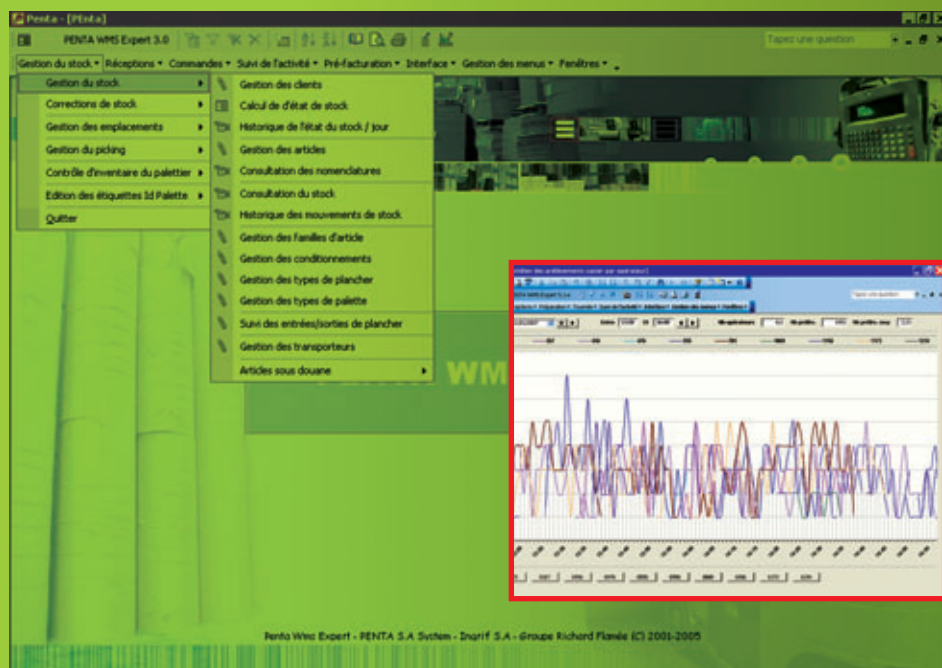
PENTA WCS optimizing automated systems

Integrating automated systems for conveying, putting away, palettizing, labelling, weighing, barcode reading etc. must not become a stumbling block in your organization.

PENTA WCS has been designed to take into account the specific requirements of each automated system: AGV, stacker crane, conveyor etc., each of these systems feature characteristics which must be integrated into the scheme in order to harmonize and optimize the flows within the warehouse.

Our analysts can help you in team work with our technological watch cell. Our engineers master the interface with these equipments for a seamless integration within **PENTA WCS**.

Our partners are able to offer you integrated solutions designed to adapt perfectly to your own situation.





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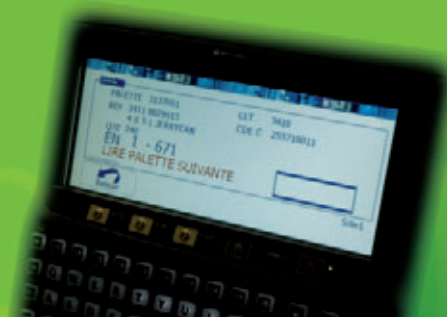
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