

# Aquila Case Study



## Facts

- ▲ 16 A type warehouses in Romania
- ▲ Operations in multiple countries in the region: Serbia, Moldova, Bulgaria
- ▲ Multiple distribution channels:
  - ▲ Retail
  - ▲ Traditional trade
  - ▲ Vending machines
  - ▲ Gas stations
  - ▲ Cash + Carry
- ▲ 3,600 employees
- ▲ Delivery base of over 70,500 customer locations

## Objectives

- ▲ Improve the gas stations logistics operations
- ▲ Decrease operating costs
- ▲ Eliminate order backlogs
- ▲ Increase productivity
- ▲ Increase accuracy
- ▲ Increase order fulfillment percentage

## Solution

- ▲ Pick to Light for Gas Stations' SKUs

## Results

- ▲ Increase in productivity
- ▲ No increase in personnel costs
- ▲ Radical decrease of error incidents
- ▲ A reduction of the time required for training new personnel from 3-4 days to 4-5 hours
- ▲ Orders tripled
- ▲ The backlog of the order to be fulfilled was eliminated

## Benefits

- ▲ 250% increase in productivity
- ▲ 0,1% errors
- ▲ 100% order fulfilment
- ▲ No backlogs
- ▲ Short learning curve: 4-5 hours



## The Company

Aquila is one of the main Romanian transport and logistics operators.

Founded in 1994, the company has grown to be the leading provider of distribution and transport services, with a focus on the Consumer Goods industry and with an extensive client portfolio, providing services for Lavazza, Ferrero, Unilever, Phillips, Wrigley, Coca Cola, Mars and others.

While expanding its operations in other countries like Moldova, Serbia and Bulgaria, Aquila has reached a delivery base of over 70,500 customer locations, covering categories like traditional trade, retail international key accounts and local supermarkets, cash + carry and gas stations.



## A solid partnership: Aquila + Mantis

The collaboration between Mantis and Aquila started in 2006, when the need for a WMS solution was critical to support the company's development plans. Since then Mantis WMS Logistics Vision Suite (LVS) operates in all 16 Level A and regional warehouse of Aquila in Romania.

## The challenge: growing operating Costs

The Gas Stations' business line of Aquila is one of the operations successfully managed by LVS.

Back in 2019 Aquila identified a need to improve the Gas Stations logistics operations for the reason that this business line was growing consistently generating growth in numbers of customers, orders + order lines, SKUs and delivery locations. As expected, the growth of numbers also caused higher operating costs for Aquila and raised the need for improvements.

- ▲ Manage an increasing number of customers, orders, and SKUs for the Gas stations operations
- ▲ Eliminate order backlogs
- ▲ Increase productivity
- ▲ Increase accuracy for checking
- ▲ Increase order fulfilment rate



## The solution: Flexible and affordable automations - Pick to Light

In order to identify the proper solution to improve the increased number of the customers of Aquila and to eliminate backlogs, Mantis used Warehouse Intelligence and consulting services to analyze historical data and provided a Data Analysis to Aquila. This Data Analysis demonstrated a high percentage of piece picking operations for around 650 SKUs that were causing the backlog in productivity. The proposed solution was the implementation of a Pick to Light project that consisted of a Pick to Light hardware solution natively integrated with Mantis LVS.

Mantis has designed a single multi-threaded highly configurable platform (LVS - WCS Lights Server) supporting all automation technologies and systems in any combination (Pick-to-Light, Sort-to-Light / Put-Walls, Smart Pick Carts). It is tightly integrated with Mantis' embedded LVS - Warehouse Execution System (WES) to utilize advanced picking, replenishment, put-away, pre-cubing, sorting and other algorithms.

The project started with only a small part of the order lines, but in a short time, the volumes handled by the solution doubled and then tripled. This allowed Aquila to serve a larger number of orders while maintaining operational costs on a low level. The results led to an increase in productivity without increasing labor costs. Aquila also reports a decrease of the personnel needed for these operations while time allocated for training personnel has been reduced exponentially. After implementing the Pick to Light solution, errors decreased to under 1 for every 1,000 orders while order backlogs were eliminated. Taking advantage of the gravity flow racks used with the Pick to Light implementation at Aquila, LVS allows a "natural" use of the FEFO rule which is also connected to the way replenishment is performed.



## Results: A successful project with a plethora of benefits

Aquila experienced plenty of benefits because of the LVS Pick to Light solution.

Beyond the usual benefits of a mature WMS system such as LVS by Mantis, Aquila has benefited from the proprietary technology of LVS which provides native integration with the hardware of the lights thus provides speed and elevated implementation flexibility.

The use of pick to light at Aquila resulted in:

- ▲ 250% increase in productivity without an increase in personnel costs
- ▲ Radical decrease of error incidents, reaching less than 1 error for 1,000 orders
- ▲ A reduction of the time required for training new personnel from 3-4 days to 4-5 hours
- ▲ The backlog of the order to be fulfilled was eliminated

This positive experience with Mantis LVS Pick to Light solution led Aquila to extend the pick to light areas in more warehouses.



"We are 100% satisfied with the implementation of Mantis LVS at Aquila. LVS was so adaptable that fulfilled all our requirements and the implementation was performed in time and on budget. We were able to increase our productivity and reduce our execution errors to less than 1% while optimizing our processes. We consider Mantis our partner in Romania."

Marian Niculae  
Warehouse Manager, Aquila

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## Benefits



250% increase in productivity



0,1% errors



100% order fulfilment



No backlogs



Short learning curve: 4-5 hours

# About Mantis



Mantis, established in 1996, is a leading international WMS / logistics software and solutions vendor with European origins. With 9 offices and many qualified partners, Mantis is present in 30+ countries in Europe, North + Latin America, Middle East + North Africa and Asia-Pacific.

Mantis' flagship Logistics Vision Suite (LVS) is probably the only WMS / logistics software suite in the world that can be easily adapted for companies with sophisticated warehousing + distribution operations and automations. Its design represents a great leap in WMS / logistics technology, offering unique adaptability + outstanding upgradeability.

It enables professionals of Mantis and its partner network, to easily configure and roll-out it to multi-site operations (and multi-client in case of 3PLs) thus sharply decreasing the initial project time and costs. Furthermore, its state-of-the-art architecture and upgradeability allows painless upgrades and cost-effective on-going support. Finally, it allows 3PLs and other customers with internal IT resources to "self-serve" themselves covering even for the most complex of their warehousing + distribution processes, enabling them to respond fast to their continuously evolving needs while at the same time enjoying an unbeatable low multi-year TCO.

More than 500 enterprises, many of them leading multinationals, representing all major industries (3PL, Retail, Wholesale / Distribution + Manufacturing) and selling channels (traditional + multichannel e-commerce) rely on LVS to run and optimize their logistics operations. LVS customers spread across many vertical markets, such as Consumer Products, Food + Beverage, Fashion, Pharmaceuticals + H+B + Medical, Grocery Chains, ICT + Appliances + Electronics, Construction Materials, Home Improvement, Tools + Industrial Equipment, Tobacco, Spare Parts + Accessories, Books + Office Supplies, Electro-Technical + Cables, etc.

LVS has been successfully integrated with most global ERPs (SAP, Microsoft Dynamics, Oracle) as well as with a plethora of local and regional ones (IFS, Iptor, etc).



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