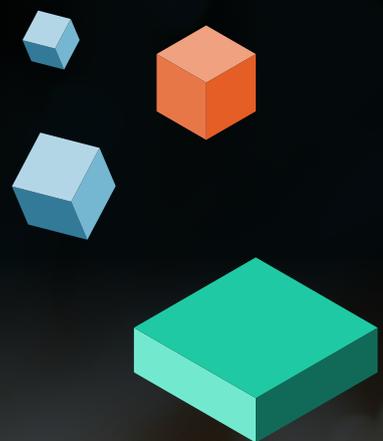


ROIMA

LOGIA WMS

All-in-one platform for warehouse management



LOGIA digitizes warehouse management and logistics - both the manual and the automated areas

All-in-one platform

Digitization of warehousing and logistics

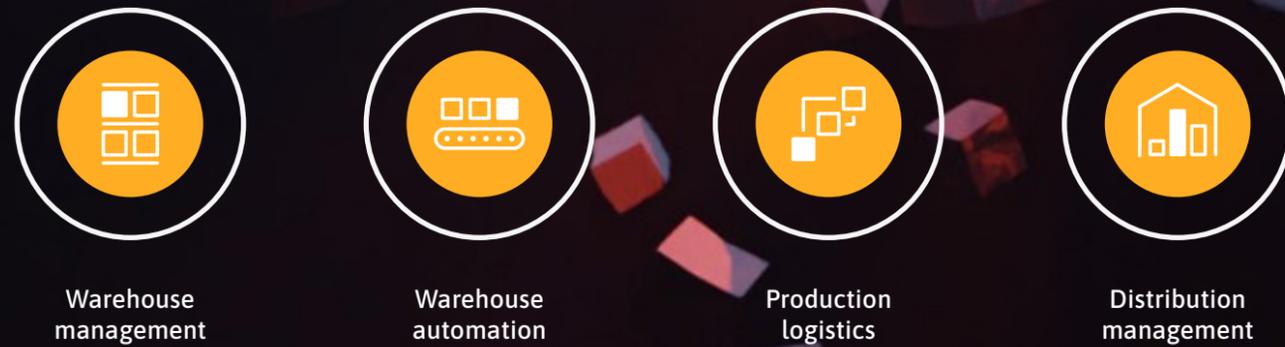
The fourth industrial revolution is in full swing. Growth and optimism put internal logistics under pressure and accelerate the need to increase scalability and flexibility.

LOGIA is the recognized software solution that can manage and optimize all areas of warehousing and logistics - a solution that digitizes warehouse management and logistics and offers new optimization and trimming opportunities to a degree that makes the investment attractive.

LOGIA ensures

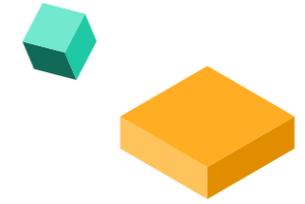
- >> **Good planning and high-level overview**
- >> **Streamlined material flow**
- >> **Minimal internal transportation**
- >> **Efficient and error-free dispatching**
- >> **Optimal use of resources**
- >> **Full integration and traceability**

LOGIA is developed and supported by the software and service company Roima. The solution saw the light of day in 1997 and has since been continuously developed and refined into a complete IT platform for warehousing and logistics.



A scalable solution

Innovative platform manages the entire logistics flow



LOGIA is a complete IT platform with specialized management packages to manage, optimize, and integrate all internal logistics. You can select one or more control packages and scale the solution according to your need and ambition. Regardless of scope, there is always only a single integration to ERP.

Intuitive and easy-to-operate

The user interface is unique due to its high degree of visualization, use of item images and simple instructions. Everything is intuitive and easy to read and act on — both in terms of planning and execution.

You can select one or more control packages and scale the solution according to your need and ambition.

LOGIA control packages

>> Warehouse management WMS

LOGIA controls and optimizes the manual warehouse and ensures optimal workflows, optimal warehouse space utilization, and easy planning and processing of orders to ensure efficient and flawless dispatching.

>> Warehouse automation WCS

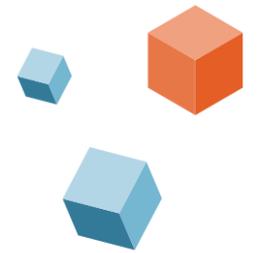
LOGIA manages all automatic warehouse equipment, such as vertical storage lifts, mini loads, rail systems, cranes, and robots. LOGIA ensures maximum equipment capacity utilization and controls equipment of different makes.

>> Production logistics

LOGIA manages picking for production, moving between production cells, moving to a semi-finished or finished goods warehouse, and notifying completion. The successive delivery and retrieval of goods to and from the production line ensures that no unnecessary space is occupied before or after the use of goods.

>> Distribution management

LOGIA controls the shipping area, ranks, and processes. Shipping space is maximized, and orders are processed efficiently and safely for carriers and customers.



Easy, efficient and error-free

Warehouse management

LOGIA warehouse management is the heart of the solution, where locations, inventories, and employee resources are managed.

Inbound and outbound orders are received from the ERP system, scheduled, and started. Overview images display the warehouse status, and the order handling can be monitored and managed.

The WMS controls the manual warehouse, where employees are guided and supported through efficient and error-free expeditions.

LOGIA manages and optimizes all processes from item receipt to shipping. The processes are simplified and systematized to enable employees to handle the goods efficiently, process multiple orders in parallel, and minimize internal transportation.

Online picking lists and optimal work rhythm

Instead of using traditional paper lists that can be difficult to manage, warehouse workers can view the right information online and in real time via terminals, PDAs, headsets, iPads, and so on. The employees are guided through the process and report back continuously.

Information is presented clearly, visually, and simply. This ensures a good overview and an optimal work rhythm for the individual employee.

LOGIA meets the latest requirements for warehouse and logistics management, management information, employee management, and traceability.

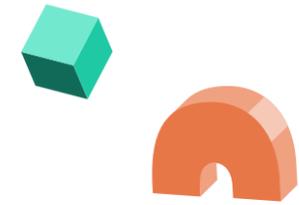
LOGIA applies effective warehouse management principles

- » mobile receipt of goods » cross docking » storage preparation
- » optimal item location » volume calculation of orders » FIFO / LIFO
- » optimal picking routes » batch picking » picking directly into shipping packaging
- » dynamic picking areas » packing and shipment consolidation
- » continuous replenishment » zero-point counting

LOGIA's user interface is simple and intuitive, making the work in the warehouse easy and efficient



**LOGIA controls and integrates
all automatic storage equipment
across all products**



Maximum capacity utilization

Warehouse automation

LOGIA automation solutions range from managing a single storage machine to managing and integrating fully automated warehouses and distribution centers.

Even the most “fully automatic” warehouses also have manual areas. LOGIA can manage the entire warehouse in one solution. This ensures good integration, a good internal logistics flow—and a single integration to the ERP system.

Automatic storage equipment management

LOGIA has standard control modules for all automatic storage equipment across makes, ensuring that equipment of different makes and variants can be mixed and controlled in the same LOGIA solution. This offers great flexibility and independence. If the needs grow and storage situations are expanded with new storage equipment, the solution can be scaled easily with additional control modules.

Maximum capacity utilization

LOGIA's control modules ensure that capacity use is maximized, both in terms of speed/efficiency and filling levels/warehouse space.

Optimal flow and load balancing

Interaction and flow between the installations is optimized. The management principles and LOGIA load balancing ensure maximum utilization of total capacity and efficient execution of orders.

Good integration between equipment, processes, and the company's ERP system provides the maximum benefit from the operation.

Extension of automation lifetime

LOGIA's management modules can also be relevant for existing installations where the control has become outdated. This can extend the system's life.

Equipment of different makes and variants can be mixed and controlled in the same LOGIA solution.

LOGIA manages automatic equipment

- » high bay warehouses
- » channel storage
- » intermediate warehouses
- » layer pickers
- » mini loads
- » vertical storage lifts
- » carousels
- » robots
- » rail systems
- » sorting systems
- » AGV, etc.



LOGIA controls and optimizes material flow in production based on Lean principles



On-time material flow

Production logistics

LOGIA controls picking for production, item flow, and inventory throughout production. The production logistics is optimized based on Lean principles and electronic Kanban.

Production and warehouse employees use LOGIA online, and the transactions happen by scanning or making simple registrations parallel with the physical movement of goods.

Optimal coordination between warehouse and production

LOGIA manages the picking of items for production orders and the delivery of items to production cells in proper time before production is started - preferably not too early

LOGIA manages

- >> raw, intermediate, and finished product warehouses
- >> inventory and locations
- >> picking materials for production
- >> JIT delivery to production cells
- >> electronic Kanban
- >> ordering and replenishment of items
- >> batch, lot, and serial number management
- >> moving semi-finished products between work areas
- >> storage in intermediate and finished goods warehouses

and definitely not late. Goods delivered too soon take up valuable space in production and may be in the way. Items delivered late cause downtime for production equipment and employees.

After production, semi-finished goods or finished goods are picked up at the place of work and moved either to the next place of work, the intermediate or finished goods warehouse, or directly to shipment.

Process, quality control, and traceability

Before, during, and after the production process, inspections may need to be performed, and measurements and values may need to be examined and recorded. LOGIA helps ensure that defined inspections are carried out and validates that measurements are within acceptable tolerances before the process continues. Only after all defined inspections have been carried out satisfactorily can the results of the production be transferred to the subsequent place of work or stored. Batch or serial numbers are easily recorded during the workflow itself, and LOGIA ensures full traceability.

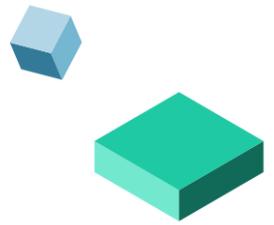
Flow of goods through production

LOGIA supports the management of material flow and inventory through production.

LOGIA manages the picking of items for production orders and delivery to production cells in proper time before production is started.



LOGIA provides an overview of the space, ports, and ranks of the shipping area



Overview and optimal utilization

Distribution management

LOGIA manages the last part of order handling in the form of freight ordering and shipping preparation. The system provides an overview of the shipping area, gates, and ranks, and controls the allocation and registration of space for load carriers in the most optimal ranks in relation to the loading port.

Everything is registered and managed. This eases the work of both warehouse workers and carriers and ensures that carriers easily take the right goods with them.

Dynamic rank control

Delivery to and pickup from the shipping area must preferably be done successively so as not to cause queues at ports and space problems in the shipping area.

LOGIA manages and reserves ranks for orders in the shipping area. This is based on loading times and volume forecasts for the orders.

The order pallets are allocated the necessary space and ranked by customer, so that they can be placed according to the unload order during delivery. The dynamic space allocation process controls the order-assigned ranks as close as possible to the port they loaded from, relative to the current time slot. This results in less internal transportation and more efficient loading.

LOGIA controls the rank area based on space requirements, utilization rate, and reservations, and warns if space requirements cannot be met within the registered loading times. This means that orders can be moved around, or load times changed.

This control ensures that ranks can be reused for different orders throughout the day.

Load control

LOGIA optimizes the handling of shipments from the shipping area to the carrier, ensuring that it is performed as efficiently and flawlessly as possible.

When the goods are collected, LOGIA controls which orders load and indicates where they are located in the shipping area. LOGIA controls the loading of the goods in the correct order.

Load carrier labels are scanned as the pallets are loaded to prevent the loading of incorrect pallets and ensure that no pallets are forgotten. When loading is finished, the data is used for the automatic printing of freight papers to avoid typing and minimize errors.

Integration for transport management

LOGIA has standard integration for, among others, Consignor and other TA systems. The employee experiences it as one system and can easily order freight as an integral part of the workflow. Everything is ordered and registered online.

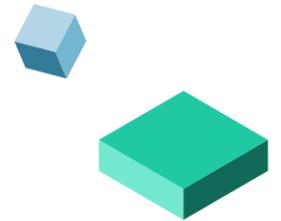
LOGIA provides an overview of the space, ports, and ranks of the shipping area and controls the allocation and registration of space for load carriers.



LOGIA is designed and developed specifically for the warehouse and logistics function

Optimization of the entire logistics

Planning, overview, and an optimal work rhythm



LOGIA is a software solution with special modules for warehouse management, automation management, production logistics, and shipment management. The solution binds the entire logistics flow together, provides an overview, and ensures excellent planning. This supports an optimal work rhythm and ensures the best results.

LOGIA manages and optimizes all internal logistics and ensures optimal flow and integration between manual and automated areas. The solution offers Lean management at all levels, and the goal is to improve efficiency, minimize errors, and reduce costs.

Whereas an ERP system is planning-oriented, LOGIA is task-oriented. All workflows are supported and all data in the processes is secured and gathered. All employees are online, and the user interface is designed based on the needs and user environment of the warehouse and logistics function. It is process-oriented, manageable, and easy to understand.

Planning and overview

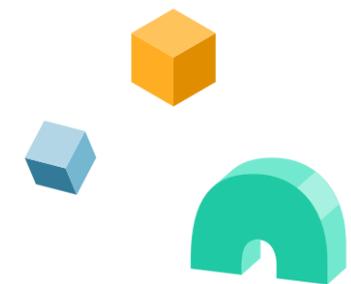
LOGIA provides the tools needed to optimize and manage logistics efficiently. LOGIA creates an overview and ensures good planning and optimal use of all resources.

Optimal work rhythm

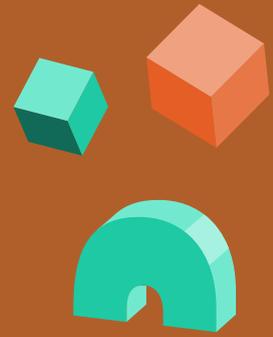
Workflows are optimized, and unnecessary tasks and handling are removed. Employees are guided through the workflow, and the information is displayed visually, simply and in an easily understandable way. This ensures both a good overview and an optimal work rhythm for the individual employee.

Performance measurement and optimization

LOGIA provides a factual basis for decisions to continuously optimize efficiency, manage costs, and increase delivery reliability.



LOGIA binds all the logistics together. This provides an overview and creates excellent results.



The all-in-one warehouse platform

LOGIA is the all-in-one warehouse platform. The platform comprises everything for warehouse and logistics management and optimization, including warehouse management/ WMS, warehouse automation/WCS, production logistics, and distribution management.

LOGIA's control modules can be used individually or as a complete solution. Control modules can be added as needed, and, regardless of the scope, there is always only one integration to the ERP system.

LOGIA is developed and supported by the software and service company Roima. We are specialists in software solutions for production, logistics and supply chain.

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