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Glossary: Intralogistics

Focus on Software Solutions

This glossary provides an overview of key terms in intralogistics with a particular focus on software-driven solutions.

A

AMR (Autonomous Mobile Robot)
A self-driving mobile robot used for moving materials within warehouses or production facilities.

API (Application Programming Interface)
An interface enabling the automated exchange of data between various IT systems across a supply chain. It connects systems like ERP, WMS (Warehouse Management System), or TMS (Transport Management System) to enable seamless communication between suppliers, logistics providers, and customers. Real-time information on inventory, shipment tracking, or production capacity can be exchanged, making processes more efficient and transparent. This improves responsiveness to demand changes and optimizes overall supply chain planning.

APS (Advanced Planning and Scheduling)
Software used for detailed production planning and control, taking capacities and delivery times into account.

ASN – Advanced Shipping Notice
Electronic pre-advice of an incoming shipment. Contains detailed information about the shipment's contents, packaging, quantities, and expected delivery time, optimizing inbound planning and goods receiving.

B

Inventory Management
Systematic recording, control, and optimization of warehouse inventory to increase efficiency.

BOM – Bill of Materials
A structured list of all components and materials required to manufacture or assemble a product, including quantities, material numbers, and subassemblies. Essential for production planning, procurement, and inventory control.

D

Digital Twin
A virtual representation of physical warehouse or logistics processes for real-time monitoring and optimization.

E

Real-Time Locating System (RTLS)
Technology that enables precise real-time positioning of goods, vehicles, or personnel.

ERP (Enterprise Resource Planning)
Integrated enterprise software used to manage business processes including inventory, logistics, and finance.

EWM (Extended Warehouse Management)
Advanced warehouse management software, e.g., from SAP, used to control complex logistics operations.

F

FIFO – First In, First Out
Inventory method where the first items stored are also the first to be retrieved – preventing spoilage or obsolescence. Commonly used for perishable or time-sensitive goods.

Fleet Management: Coordination and optimization of the use of vehicles or robots in intralogistics via software solutions.

G

GRN – Goods Receipt Note
Document (physical or digital) confirming receipt of goods: includes details such as quantity, condition, and conformity with the purchase order. Basis for inventory updates, quality checks, and claims processing.

Guidance: In the context of software, this refers to strategic support in selecting, evaluating, and implementing appropriate systems. It helps companies navigate the complex software landscape by providing structured decision-making support. This includes:

- **Requirement analysis:** Identifying specific business needs.
- **Solution comparison:** Assessing functions, integration capabilities, and costs.
- **Best practices & recommendations:** Aligning with proven methods and market trends.

Guidance ensures companies choose solutions that align with their long-term goals.

H

HDL (Human Driven Lift Truck)
Manually operated industrial trucks, such as forklifts.

I

Identification Technologies: Systems like RFID or barcode scanning used for automated tracking of goods movements.

IoT (Internet of Things): Networking of devices and sensors to enable data-driven process optimization in logistics.

K

AI (Artificial Intelligence)
Use of algorithms to optimize warehouse movements, forecast demand, and control autonomous systems.

KPI (Key Performance Indicator)
Metrics used to measure efficiency and performance.

L

Laser Localization
A method for precise positioning of vehicles or objects within a defined warehouse environment. Laser beams are emitted, reflected by surrounding structures, and detected by sensors. By comparing the reflected signals to a digital map, the system can determine the exact real-time position without the need for floor markings or GPS.

LIFO – Last In, First Out
Inventory method where the most recently stored goods are the first to be retrieved. Useful for block storage and non-perishable goods – easy to implement but lacks age tracking.

Cloud WMS
Cloud-based warehouse management systems that offer scalable infrastructure and mobile accessibility.

M

MES (Manufacturing Execution System)
Software for real-time control and monitoring of manufacturing processes.

O

OEE (Overall Equipment Effectiveness)
A metric used to measure the overall effectiveness of equipment in production and logistics.

OLE (Overall Logistics Effectiveness)
A comprehensive metric for assessing a company's logistics performance. It combines factors such as timeliness, quality, and productivity of logistics processes. The goal is to identify optimization potential and improve efficiency across the entire supply chain.

omlox
An open standard for location data in industrial environments. It enables cross-vendor integration of various locating technologies (e.g., LiDAR, UWB, RFID, BLE) into a unified system. By standardizing interfaces and data formats, omlox ensures interoperability, transparency, and future-proofing in real-time object localization in intralogistics.

P

PO – Purchase Order
Formal order issued to a supplier, including complete details on items, quantities, pricing, delivery date, and location. Legally binding and a key reference for procurement, receiving, and invoicing.

R

RTLS (Real-Time Locating System)
Real-time tracking of objects, people, or vehicles.

Real-Time Data Processing
A general term for systems that process data immediately as it is received.

RFID (Radio Frequency Identification)
Technology for wireless identification and tracking of objects.

RPA (Robotic Process Automation)
Software-based automation of repetitive processes in intralogistics.

S

SAP EWM / WM (Warehouse Management)
A module within SAP ERP for warehouse management.

Scanner gate
A stationary scanning unit used for automated identification and tracking of goods, pallets, or load carriers. Using barcodes, RFID, or other sensor technologies, it enables contactless and error-free tracking of goods movements—enhancing transparency and efficiency.

Slotting
Algorithm-based optimization of item placement in warehouses to reduce travel paths and increase picking efficiency.

SCM (Supply Chain Management)
Software-supported planning and management of the entire supply chain.

SLS (Forklift Guidance System)
Software solution for intelligent routing and task assignment for forklifts. It minimizes idle time, improves route efficiency, and dynamically distributes tasks based on real-time data and priorities.

S&OP (Sales and Operations Planning)
A company-wide planning process that aligns sales, production, procurement, and finance to synchronize supply and demand. The goal is to avoid shortages, optimize inventory, and improve service levels.

Supply Chain
A network of companies, people, activities, information, and resources involved in producing and delivering a product. It includes all steps from raw materials to production, warehousing, and distribution to the end customer. Effective supply chain management coordinates these processes, reduces costs, and ensures high delivery reliability.

SKU – Stock Keeping Unit
Unique product identifier for a specific item variant e.g., size, color, or packaging unit. Essential for accurate inventory tracking and product-level reporting.

T

TMS (Transport Management System)
Software for planning, executing, and optimizing transportation processes.

Track & Trace
Real-time tracking of shipments and goods movements across the supply chain.

U

UWB (Ultra Wideband)
High-precision radio technology for real-time localization of objects in the warehouse. Unlike other locating technologies, UWB enables centimeter-level accuracy with extremely low latency. It is ideal for dynamic warehouse environments and supports use cases like automated goods tracking, vehicle navigation, or safety zone management.

W

WES (Warehouse Execution System)
Software for real-time execution of all warehouse operations. Unlike traditional WMS solutions, WES operates closer to the shop floor and handles tactical task allocation for humans and machines. It uses real-time data from RTLS and IoT sensors to dynamically orchestrate warehouse resources—independent of vehicle type (e.g., AMRs, HDL). The goal is maximum efficiency and transparency in daily warehouse operations.

WMS (Warehouse Management System)
Software for managing and controlling warehouse operations, often integrated with ERP systems.

Workflow Automation
Digitization and optimization of logistics workflows to improve process efficiency.