Körber Supply Chain

WMS Glossary

An alphabetical list of terms in relation to Warehouse Management Systems (WMS)



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2D barcode

A two-dimensional barcode, or 2D barcode, is based on a flat set of rows of encrypted data in the form of bars and spaces, normally in a rectangular or square pattern.

3D loading

3D loading is a space optimization method designed to help quickly and easily plan the best compact arrangement of boxes or any rectangular object set within one or more larger containers. 3D loading is based on three-dimensional and most-dense packing algorithms.

3PL (Third-Party Logistics)

3PL or third-party logistics is a business's use of an outside company to manage a warehouse or group of warehouses.

4PL (Fourth-Party Logistics)

A 4PL acts as a single connection point between a company and its 3PLs and other logistics partners. A 4PL will generally manage all aspects of a company's entire supply chain.

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A

ABC classification

Classification of groups of SKUs based on velocity, such as units shipped per month. This array is then split into three groups – A,B, and C. The A group represents 10 to 20 percent by number of items, B represents about 20 percent of the items and 20 percent of the dollar volume. The C-class contains 60 to 70 percent of the items and represents about 10 to 30 percent of the dollar volume.

Advanced Shipping Notification (ASN)

The announcement of the delivery of goods from a supplier to the recipient in advance of the actual delivery.

Aisle

A passage between rows of racks serving as travel paths for storage and retrieval machines.

Article master data

Article master data describes an article and must be created and maintained for each item in the warehouse. The master data managed in the WMS can be individually marked as mandatory, such as an article number, or optional data (i.e., weight) to determine which master data must be filled for a new article.

ASN receiving

A process in which the receiving of items in a distribution center (DC) is streamlined by communicating what items are coming in advance of the items actual arrival.

Audit trail

An electronic record that leading WMS solutions maintain of all activities and transactions in DC operations, including receipts, putaways, cycle counts, order picks, replenishments, packing, truck loading, etc.

Automated Guided Vehicle (AGV)

An automated guided vehicle (AGV) is a computer-controlled means of transport that follows a predestined path around a facility, warehouse or distribution center without an operator or driver. An AGV's movement is directed via software and sensorbased guidance systems. Due to the planned path, precisely controlled acceleration and deceleration and the automatic obstacle detection bumpers, AGVs provide a safe movement of loads in the warehouse. An AGV can take any form a customer requires to best address their application needs. Typical AGV applications include the transportation of raw materials, finished goods to support production lines, work-in-process and storage/retrieval or other movements supporting picking in warehousing and distribution applications.

Automated picking

The process of placing, picking and retrieving items and materials from their specified storage areas through the use of computerized systems that integrate software with equipment operating in the warehouse. B

Barcode

A machine-readable code in a series of bars and spaces to create a pattern of parallel lines, used for identifying products when scanned.

Batch picking

A process of order picking in which all the items for multiple orders is picked by a single picker, one SKU at a time.

Bill of lading

A document that details items in a shipment that acts as a receipt given by the carrier of the shipment to the recipient of the shipment.

Case picking

Case picking is the process of picking full cases or carton quantities of product from a variety of storage mediums, as opposed to full pallet or "eaches" picking. When picking in cases, pickers are typically picking to a pallet, conveyor or cart.

Cluster picking

A process of order picking in which a picker picks into multiple order containers at one time.

Cold chain 3PL

A third-party logistics provider in cold chain is a business's use of an outside company to manage fulfillment, storage and delivery of cold goods.

Cold storage warehousing

Cold storage warehousing involves the storing of frozen or refrigerated goods that are perishable, or other types of sensitive goods, such as medicines and artwork, at a specific temperature range to maintain their shelf life, integrity and quality. Cold storage is typically found in food-grade warehouses.

Cross-docking

The practice of moving products directly from the receiving area to the shipping area for distribution, rather than being put away and stored for a period of time.

Customer portal

Generally a web-based application (a part of the WMS) that enables a company to securely make distribution data accessible to their customers. Typically, that data might include inventory levels and shipment information. Customer portals are almost an essential capability for third-party logistics providers.

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D

Directed putaway

A basic picking method in which an order picker is tasked with fully picking a customer order by themselves. This is the way many distribution centers picked orders before the introduction of a WMS, which can enable more advanced methods, such as batch or cluster picking, pick and pass/ zone picking, assigning order picks to one associate for pallet picking and another for cases picking, and other techniques.

Discrete picking

A process of order picking in which the picker picks all the items for one specific order.

Distribution Center (DC)

A distribution center (DC) is a product storage facility where goods are sorted, packed and processed for shipment. DCs are a key part of the supply chain for order fulfillment, products and storing produced goods before shipment to retailers or customers. Well-placed DCs can reduce the costs involved with getting a product to its destination via bulk shipping to the heart of a market. DCs often use various equipment to handle inventory, such as forklifts, automated storage and retrieval systems (AS/RS), pallet jacks, shipping containers, boxes, cartons and pallets.

Dock door management

A WMS capability (docking logistics) that enables the scheduling and assignment of dock doors to inbound receipts, outbound shipments, and associate staging lanes to shipments or receipts by warehouse managers.

Ε

eCommerce

The buying and selling of goods or services completed electronically on the Internet.

Enterprise Resource Planning (ERP)

An integrated software system for comprehensive planning and coordination of entrepreneurial and business management tasks. An ERP system aims to use the resources available in a company as efficiently as possible. It includes programs for almost all tasks of a company (accounting, human resources, product development, etc.) and logistical applications for inventory management and scheduling.

F

Fast-moving consumer goods (FMCGs)

Fast-moving consumer goods (FMCGs) are nondurable products that sell quickly at a relatively low cost. FMCGs form one of the largest global industries.

First In, First Out (FIFO)

FIFO is an inventory management method that assumes goods purchased or produced first are sold first. This means the oldest inventory gets shipped out to customers before newer inventory. Food warehouses often implement this strategy to ensure the products with the soonest expiration date are the first ones to be shipped out to customers.

First-Expired, First-Out (FEFO)

FEFO is an inventory management technique used to deal with the logistics of products with a limited shelf life. The product with the earliest expiration date is allocated for a new customer order. These items include perishable products or consumer goods with a specified expiration date.

First-In, Last-Out (FILO)

FILO is an inventory management procedure where the most recently received product is the one allocated for a customer order. FILO is sometimes used for international shipments with longer lead times or for inventory that needs to be moved to offsite storage.

Incentive pay

Distribution center workers are rewarded with an increase in wages or other prizes, such as gift cards or vacation days, when their performance exceeds baseline performance standards. By partially sharing the labor savings created by the worker exceeding expectations as an incentive, the hope is that the worker will maintain that high level of performance.

Item master

An organized collection of data that details key information for each inventory item handled by the warehouse, including its name, description, weight, dimensions, unit of measure, serial number tracking, etc. Item masters are used as an information source for production planning activities and purchasing.

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J

Just-in-Time

Just-in-Time is a supply-chain management method in which products are ordered, stored, assembled or manufactured to fulfill an order just-in-time. No matter how skilled you are at calculating demand, you will run into incidents where demand exceeds your supply. Many companies store safety stock, or more stock than their predicted demand requires, to cover them when these demand surges occur. The JIT method of inventory management does not use safety stock in order to cut down on storage costs.

K

Kitting/de-kitting

The kitting process consists of combining two or more individual items (SKUs) or component parts into a ready-to-ship package with its own SKU number, known as a kit. A WMS should be able to manage the kitting process while maintaining visibility into the individual components of the kit.

De-kitting is the reverse process of returning kitted SKUs into individual items again. De-kitting is often done when kits are returned or too many kits were made.

Last-mile delivery

The process of transporting goods from a warehouse or distribution center to their final destination (the customer). Last-mile delivery refers exclusively to the final stage of the logistics supply chain, which happens after packing and vehicle loading.

Lead time

The time it takes to complete a logistics process. The lead time for inventory replenishment includes the time required to fulfill a purchase order, transport goods from supplier to warehouse, inspect the shipment, and then restock that inventory.

Line

All the products that share the same SKU or UPC number.

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Manual picking

The process of picking items, products or merchandise from the warehouse's inventory without the benefit of software and other equipment that would automate some or all of the process.

Material Handling Equipment (MHE)

Material handling equipment (MHE) is mechanical equipment used for the movement, storage, control and protection of materials, goods and products throughout the process of manufacturing, distribution, consumption, and disposal. MHEs usually require integration with the WMS, and have a broad range of mechanical systems: conveyors, Automated Storage and Retrieval Systems (AS/RS), sortation systems, etc.

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Order

An order consists of all the products that are included on a single transaction from a customer.



Pick list

The list of items pickers need to retrieve from warehouse shelves or storage. Customer orders are broken down into lists of purchased items or "pick lists," which are given to pickers to retrieve.

Pick to cart operations

A process of order picking where a cart would be loaded with multiple totes or shippers, while the picker makes a single pass through the pick zone and sort to pick containers. The pick to cart method is used to avoid unproductive travel in the warehouse containers.

Purchase Order (PO)

A purchase order is a document that is sent from a buyer to a supplier requesting an order for merchandise. The purchase order usually lists the item type, quantity and agreed-upon price.

Putaway

Removing an incoming order from the location where it is received to the final storage area. Putaway involves recording the movement and identification of the storage location where an order has been placed.

Q

QR Code

A Quick Response (QR) code is a scannable code, made up of various black and white squares, that enables cameras or smartphones to read it and take the user to a stored URL.



R

Receiving

Receiving is the first step of the eCommerce fulfillment process, which involves delivering, unloading, and storing inventory in a warehouse facility. By utilizing inventory management, the receiving process enables warehouses to replenish inventory and ensure it is accurately stocked.

Replenishment

The process that involves moving stock from a secondary storage area to a fixed storage location.

S

Stock Keeping Unit (SKU)

A barcode and/or unique identification number assigned to products by a retailer. Stock Keeping Units (SKUs) typically consist of a scannable barcode and a unique numeric or alphanumeric number. SKUs are different from Universal Product Codes (UPCs) because they are managed and assigned by the company selling the product, not by the Global Standards Organization. As a result, it is possible for a product from two different retailers to wind up with the same SKU. It is common for products to have both a SKU and a UPC.

Stock-taking

The recording of all assets or inventories for the correct determination of a company's current assets. The WMS supports the stock-taking process by planning and keeping track of the inventory count.

U

Unit

One particular physical item or product.

UPC (Universal Product Code)

A UPC is a type of code printed on product packaging to help identify a particular item. It consists of a machine-readable barcode, and a unique 12-digit number. UPCs are widely used worldwide for tracking trade items in stores.



W

Wave picking

Similar to discrete picking in that one picker picks one order, one SKU at a time, except there is a scheduling window to coordinate and maximize the picking and shipping operations.

Warehouse Control System (WCS)

A Warehouse Control System (WCS) is a real-time integrated control solution with the WMS to provide additional controls and functionality over the facility's automated equipment.

Wholesale distribution

A wholesaler is a company that buys goods in bulk at a discount from a manufacturer and then resells them to retailers and other businesses in smaller quantities at a higher price.

Warehouse Management System (WMS)

A Warehouse Management System (WMS) is a software solution designed to keep track of all warehouse operations, including receiving, putaway, picking, shipping and inventory.

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Zone picking

A process of order picking where different pickers pick items of an order from specific assigned storage areas to be assembled for shipping later.

Zone-batch picking

Zone-batch picking is a combination of methods in which pickers are assigned a zone, just like traditional zone picking, and are directed to batch pick within their zone.

Zone-batch-wave picking

Zone-batch-wave picking is when each picker is assigned a zone and picks all SKUs for the orders stocked in the assigned zone. The picker picks for more than one SKU at a time.

Zone-wave picking

Zone-wave picking is a combination of methods in which pickers are assigned a zone, and each picker within their given zone picks all of the SKUs for all orders that are stocked in that zone, one order at a time.

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