



WASPNET WAREHOUSE

Streamline Your Warehouse Management

Summary

Waspnet Warehouse is a cutting-edge Warehouse Management System (WMS) designed to streamline and optimize logistics and warehouse management processes. Utilizing modern web and mobile technologies, Warehouse operates in the Cloud to meet the increasing demands for simplicity, accessibility, and security.



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Waspnet Warehouse

Waspnet Warehouse is a cutting-edge Warehouse Management System (WMS) designed to streamline and optimize logistics and warehouse management processes. Utilizing modern web and mobile technologies, Waspnet operates in the Cloud (or on-premises upon request) to meet the increasing demands for simplicity, accessibility, and security.

1. Key Features

Waspnet offers a comprehensive range of modular and customizable features to meet your organization's specific needs. In addition to standard inventory management operations such as receiving, sorting, storage, and picking within the internal logistics, Waspnet can also integrate:

- External logistics management, including monitoring of supply chain items.
- Tracking of goods during transportation.
- Management of multiple geographically distributed warehouses.

2. Ideal Users

Waspnet is the ideal solution for those who manage warehouses, depots, stores, and e-commerce sales. By utilizing Waspnet, users can:

- Plan workload efficiently.
- Optimize human resources.
- Reduce management costs.
- Track products effectively.

3. User-Friendly Interface

Waspnet is designed to be user-friendly. The web-based, cross-platform user interface guides operators through various functions seamlessly. Additionally, with the assistance of mobile technology (Android), all warehouse logistics functionalities are accessible through a smartphone app available for download from the Google Play Store. To handle massive workloads, Waspnet is also compatible with Zebra terminals, renowned for their reliability and robustness in the logistics industry, enabling more efficient and rapid operations.

4. Logistics and Warehouse

With Waspnet, all stages of incoming goods verification and outgoing order preparation are structured and guided to minimize manual operations. The application tracks and monitors activities such as entry, positioning, assignment, picking, and delivery, providing operators with suggested lists of items to handle while verifying quantities and references in real-time.

5. Multi-Depot

With Waspnet, the management of a multi-depot network is automated and centralized. At any given time, the system administrator has a complete view of the entire depot network, allowing them to monitor movements and stock levels while managing merchandise in individual warehouses and multiple warehouses simultaneously. Thanks to its web infrastructure, there are no geographical limitations or the need to purchase costly hardware for each depot. Waspnet is designed to handle various types of depots and hybrid depot networks composed of different types of depots working synergistically.

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Sede Legale: Via Manzoni 120A 80123 Napoli - Sede Operativa: Via Coroglio 57D c/o Città della Scienza 80124 Napoli - Tel. +039.081.741 12 08 - Fax +039.081 743 70 28 - Web www.apsnet.it - Pec apssrl@legalmail.it - Capitale Sociale Euro 36.000 i.v.- REA NA 686598 - Part.IVA N° 07156040631

Depot Types:

- **Transit-Point** - Functions as a sorting center, organizing and reallocating merchandise in the shortest possible time:
 - Human Resource Organization based on expected merchandise.
 - Fast and accurate incoming merchandise verification.
 - Sorting and association with outgoing documents.
 - Same-day booking for pickups and deliveries.
 - Real-time tracking and management of anomalies.
- **Distributor** - Handles supply, merchandise distribution, rental of storage spaces, and distribution to different recipients:
 - Multiple suppliers sending merchandise to the depot.
 - Selective incoming merchandise verification with pre-allocation to Waspnet customers.
 - Storage of items being sourced.
 - Order fulfilment with pickup bookings and outgoing deliveries.
 - Elimination of storage and re-picking times.
 - Real-time order tracking and warehouse valuation.
- **Drop-Point** - Responsible for the collection and delivery of merchandise (stationery stores, tobacco shops, private postal services, retail stores, etc.):
 - Pre-organization of logistics flows between depots.
 - Selective incoming merchandise verification and notification to recipients for pickup.
 - Monitoring of stock levels and management of merchandise returns if applicable.
 - Management of collection points for assistance or disposal of merchandise for central depots.
 - Real-time visibility of pickups and deliveries.

6. Multi-Customer

With Waspnet, it is possible to manage the merchandise of multiple clients simultaneously, even within the same depot. Each Waspnet client, utilizing the logistics services offered by the depot (space rental, storage, and distribution), will have a reserved access to Waspnet. From there, they can view their incoming and outgoing documents and monitor their depot stock levels.

7. Multi-Role

Waspnet allows simultaneous access for multiple users with well-defined profiles and permissions. Its modular structure makes it easy to create new user types, assigning them the set of accessible functionalities based on the organization's needs. The pre-configured profiles include:

- Administrator
- Depot Manager
- Depot Operator
- Customer

8. Customization and Integration

Waspnet features a web architecture and a modular, scalable structure that allows the product to grow alongside user needs. By nature, it is an open and customizable system that addresses and optimizes business challenges. Waspnet can be integrated with existing management systems through its data

exchange modules, enabling seamless collaboration and ensuring operational continuity and fast learning curves. It fully integrates with billing, accounting, and management systems.

9. Real-Time Operations

Waspnet provides personalized dashboards for each profile, where the real-time status of incoming merchandise, merchandise being prepared, and prepared merchandise are always visible. The depot dashboard, which can also be displayed on Smart TVs, allows operators to have a real-time overview of incoming and outgoing workloads through automatic updates. This enables depot operators to proactively organize shifts and resource management.

10. Statistics and KPIs

Waspnet provides comprehensive data summaries for each client, depot, and operator. It allows the extraction of reports to verify and monitor the operations of each warehouse. If needed, specific Key Performance Indicators (KPIs) can be implemented and represented according to business intelligence rules for valuable analysis of company prospects.

11. Resources

Waspnet comprises a web browser-accessible portal and a mobile app specifically developed for Zebra terminals (ideal for handling large workloads) or Android smartphones (suitable for small depots or Drop-Points) chosen for managing warehouse operations. The mobile app communicates in real time through Wi-Fi/3G/4G networks, ensuring continuous data exchange with the portal. Similarly, both the terminals and smartphones feature notifications and push messages, ensuring operational simplicity even for non-experienced or seasonal operators.

12. Portal Functionality

The web portal is accessible to registered users of the system.

Users belonging to the Depot Area will be registered by an administrator account initially configured in the Waspnet system.

If a user is associated with a depot, they can only act on data related to their associated depot.

Otherwise, the user can have a broader overview and choose data related to multiple depots (e.g., Administrator profile).

A user can also be associated with a Waspnet client, in which case they can view, in read-only mode, the stock at the depot and the articles shipped following an order.

The macro functionalities provided based on the various permissions granted by the current profile are:

- Warehouse Management
- Dashboard
- Tracking
- Statistics
- Archive Management and Management Tables

13. Warehouse Management

Warehouse management allows for the visualization and monitoring of incoming and outgoing merchandise, as well as the display of historical movements and stock levels.

14. Incoming Documents

Incoming Documents enable the management of documents (goods receipts) recorded in the system. Incoming documents can be uploaded through the following methods:

- Manual entry via the web portal
- By a depot manager
- File structure import (according to standard file formats)
- Automatic retrieval through file retrieval technologies (e.g., FTP Server or email)
- Manual import using the portal's dedicated functionality

Each incoming document consists of one or more packages, which, in turn, contain one or more articles to be checked upon receipt.

For each package, it is possible to specify the code, type (cage, pallet, etc.), and any notes.

For each article, you can specify the code, description, sender reference code, expected quantity, and any dynamic characteristics (size, drop, colour, seasonality, etc.) chosen during setup, which expand the range of available search filters for movements and stock levels.

It is possible to modify and delete documents if manual intervention is required, and view the status of individual articles within the document.

15. Outgoing Documents

Outgoing Documents enable the management of documents (delivery notes, orders) recorded in the system.

Outgoing documents can be uploaded through the following methods:

- Manual entry via the web portal
- By a depot manager
- By a Waspnet client
- File structure import (according to standard file formats)
- Automatic retrieval through file retrieval technologies (e.g., FTP Server or email)
- Manual import using the portal's dedicated functionality

Each outgoing document consists of recipient information and one or more articles.

For each article, you can specify the code, description, sender reference code, requested quantity, and any dynamic characteristics chosen during setup.

It is possible to modify and delete documents if manual intervention is required, and view the preparation or dispatch status of individual articles within the document.

The following functionalities are available for outgoing documents:

- Picking List Printing
- The list of articles in each printed document is ordered based on their associated positions. This guides the warehouse operator in the picking process for all the articles needed to complete the document.
- Massive Transport Document Printing
- Enables the preparation of a list of recipients/ Transport Documents to be processed (in the order of preparation), allowing for the allocation of storage areas for outgoing merchandise. This facilitates the commitment and fulfilment process for operators.
- Each Transport Document will include a QR code containing recipient and Transport Document information, which is essential for association and preparation operations.

16. Movements

Allows the display of historical movements of goods in the warehouse, both for loading and unloading purposes.

Users can enter, modify, and delete movements manually if necessary, such as for inventory movements, restoring stock due to shortages, or correcting wrong associations.

17. Stock

Provides real-time visibility of warehouse stock, with detailed information on items categorized by customer (if the warehouse offers third-party logistics services).

Users can also view the positions associated with items in the warehouse and manually assign positions using the "Position" button, if not done through the mobile app. This allows the association of a position (defined in the warehouse position registry) with the selected item.

Data can be exported in Excel or PDF format.

18. Shipment Labels

Allows the display of packages in preparation, prepared packages, and shipped packages.

For each package, users can identify the outgoing document(s) it belongs to, the recipient, the package type, the label printing date (if the warehouse decides to use a customized label automatically generated by Waspnet based on the scanned items in the package), and any other specific shipment information.

19. Dashboard

The dashboard presents summary data for the warehouse to which the authenticated user belongs. In the case where the user doesn't belong to a specific warehouse, it displays data for all registered warehouses on Waspnet.

The dashboard is customizable based on individual user needs, allowing them to choose from available widgets. It is also responsive and adapts to the screen size of the device in use.

Additionally, users can choose to enable real-time synchronization of the dashboard, providing them with an up-to-date overview of their warehouse(s) at all times. This feature is often used for warehouse dashboards displayed on smart TVs.

The following widgets are available on the dashboard:

Items Awaiting Confirmation: Displays imported rows from incoming documents that are awaiting confirmation or partially confirmed. Completed rows are dynamically filtered and hidden from the list in real-time.

Documents to be Prepared: Shows all automatically imported outgoing documents that are awaiting merchandise commitment or partially fulfilled. Completed and ready-to-ship documents are dynamically filtered and hidden from the list in real-time.

Merchandise Value: Provides real-time information on the value of goods in stock.

Incoming Confirmation: Provides indicators of confirmed packages/items during the day.

Outgoing Preparation: Provides indicators of documents/shipments prepared for outgoing merchandise.

Warehouse Status: Provides indicators of items committed, prepared, and in stock.

Shipments of the Day: Provides indicators of items/documents prepared and/or shipped on the current day.

20. Tracing

The various tracing functions allow Waspnet users to conduct comprehensive investigations on incoming, outgoing, and shipped goods.

Bidirectional searches, from incoming to outgoing and from outgoing to incoming, enable users to have detailed and analytical information about items, documents, and shipments.

21. Items

Starting from an item code, users can trace which shipment/package it was received with or which delivery notes and shipments it was associated with.

22. Documents

Starting from a document, users can trace the items used for fulfilment, the corresponding deliveries, and the shipments generated for the document.

23. Shipments

Starting from a shipment code, users can trace the associated delivery notes and the items shipped.

Additionally, for packages shipped with couriers that support tracking, users can access the delivery status history with all available details, from pickup to delivery.

24. Statistics

Used Packaging:

Users can view statistics related to the packaging used during the shipping process. This analysis allows for an understanding of the most frequently used packaging types for each warehouse or Waspnet customer.

Used Materials

Users can view statistics related to the materials used during the shipping process. This analysis allows for an understanding of the most frequently used packaging materials for each warehouse or customer.

Total Handled Packages by Period

Users can obtain a report on the packages that were in the preparation phase, already prepared, or shipped/retrieved within a chosen period. The report includes internal package labels, associated courier waybills, fulfilled outgoing documents, and Waspnet customer (sender). The report can be exported in PDF and Excel formats.

Total Handled Items by Period

Users can obtain a report on the items handled within a chosen period, displaying item codes, types, details, and the package in which they were included, if applicable.

25. Mobile App

With the Waspnet mobile app, warehouse operators can login using their badge, which is a card with their name and a barcode that was previously created, or by entering their credentials. The user will already be associated with the respective warehouse through the web portal.

The app allows operators to perform various warehouse operations and communicates in real-time with the web portal, automatically updating the inventory and tracking the operations performed by the operators.

The mobile app provides the following functionalities, representing the operational phases of the processing workflow:

Incoming Confirmation:

For confirming incoming goods, the operator selects the customer for whom the goods were delivered (if the warehouse handles third-party logistics, otherwise the default customer is the warehouse itself).

The operator scans the barcode or manually enters the code of the incoming package (box or pallet) to identify the corresponding incoming document.

If no incoming document is found, the system displays a non-blocking warning message and proceeds to the next phase.

After scanning the package, the operator can scan or manually enter the barcode of each item contained in the package.

The mobile app displays the expected quantity and, if a matching loading document is found, it shows the confirmed quantity and any damaged quantity.

If there are outgoing documents ready for fulfilment (as identified by the system), the app lists them on the display and allows the operator to scan one or more of them for fast commitment without going through the storage phase.

If both the selected Waspnet customer and the warehouse are enabled for storage, the next phase is to position the items in stock. The operator can simply scan the QR code of the warehouse location to associate the items with their respective positions (see 3.6.4).

Outgoing Document Association:

The association phase is used to allocate items in stock to specific outgoing documents, ensuring efficient workflow management and preventing incorrect item associations with other outgoing documents.

The operator starts by selecting the Waspnet customer they are working for.

After selecting the customer, the operator scans or manually enters the barcode of the item to be allocated.

Upon entering the code, the app suggests the outgoing documents to which the item can be allocated. By scanning the QR code of a document (using the app's functionality), the app prompts the operator to enter the quantity to be allocated.

Once the item is allocated, the app returns to the list of suggested outgoing documents, updated with the latest allocation, allowing the operator to continue with additional allocations for the previously scanned item or return to the item entry screen.

As the operator performs these operations, the web portal updates the real-time status of individual outgoing documents and/or recipients, providing indications on the dashboard.

Package Preparation for Shipment:

The preparation phase follows the association of outgoing documents and is used to prepare the packages for shipment, effectively fulfilling the associated documents.

The preparation phase begins with scanning the outgoing document to be fulfilled.

After scanning the document or the area where the items are parked, the system displays a list of items and their expected quantities for fulfilment.

When scanning an item, the system prompts the operator to enter the quantity to be prepared (i.e., placed in the package). After confirming, the app returns to the updated list of items, allowing the operator to iterate the process until the entire document is prepared.

In the case of a shipment with multiple packages, the operator can close the current package preparation and continue with a new one.

Once the package (or shipment) is closed, the app prompts the operator to enter the packaging materials used, the packaging type, and the selected courier.

After completing these steps, the package is considered closed, and if the package completes the fulfilment of the associated outgoing document, the app initiates the printing of the internal package label (via the desktop client, see 4.3) and generates the courier waybill (if waybill generation is enabled, see 3.6.5).

Delivery:

The delivery phase follows the package preparation phase and is used by operators to mark the prepared packages as "out for delivery."

During this phase, the operator scans the internal package label that was automatically printed during the package preparation phase and scans the identification of the courier's waybill.

Once the internal package label and the courier's waybill are associated, the package and its contents are marked as "out for delivery."