



Warehouse Management 101



Learning the Features and Modules of Warehouse Management Systems (WMS)

White Paper

This paper explains the fundamental terms and technology used in warehousing and warehouse automation utilizing Warehouse Management Systems or WMS from iCepts Technology Group, a technology company focused on helping companies gain efficiencies through the use of technology. This document can take some of the guess work out of common warehousing and warehouse automation terminology.

INTRODUCTION

Warehouse Management Systems (WMS) are designed to improve inventory visibility, maximize efficiency, and accuracy along with boosting customer service levels.

The following WMS modules are available as standard or optional features in Accellos One Warehouse Management Systems offered by iCepts Technology Group, Inc. To provide customers with maximum flexibility and cost effective solutions, we offer three pre-packages editions, as well as modular licensing that lets customers pinpoint the functionality that fits best with their companies unique warehouse management needs.

The pre-packaged editions: Collect Edition, Manage Edition, and Fullfill Edition are designed to meet the requirements and scope of a variety of distribution centers. All additional functionality offered by Accellos One Warehouse is licensed individually on a modular basis, which included optional modules and toolkits.

Different WMS Systems may have different functionality. This document is intended to give the reader a sample of some features available in warehouse management systems, see below and contact iCepts Technology Group, Inc, for further questions, comments, pricing or demonstrations contact us at **717-704-1000** ext. **3010** or info@icepts.com

ADJUSTMENTS

Designed to prove the wireless capability to adjust inventory levels in the warehouse.

ADVANCED REPLENISHMENT

This module supports Advanced Replenishment, which is the process of requesting that inventory be replenished from overstock bins to pick bins before products are actually required to fill sales orders. Warehouses are configured to use one of two types of advance replenishment: min/max, or days on hand. Min/max replenishment is based on a predefined minimum quantity of product that must be in pick bins. Days on hand replenishment is based on a defined minimum number of days that the product must be available in pick bins. When a dispatcher runs the Advanced Replenishment function in Web Dispatch, the system issues replenishment requests for bins that are found to be below this minimum.

BASIC ORDER ALLOCATION

Designed to provide a rules-based mechanism for allocating the available inventory to outstanding sales orders.

CAROUSELS/CONVEYORS

This module supports various brands of horizontal carousels and vertical lift modules (VLM), plus provides support for conveyor automation.

CARTON SPLITTING

Using dimensional data and standard boxes, this module enables the splitting of a “pick-and-pack” order into cartons before releasing it for picking. This facilitates picking to final carton in many environments.

CONTAINER RECEIVING

This module enables the process of receiving products into the warehouse against the inbound manifest rather than individual purchase orders. This simplifies check-in, improves accuracy, and speeds your operations. This module also provides the ability to break outbound sales orders into deliveries

COUNTING

Support both Cycle Counts (forced and manual) and physical inventory counting

DIRECTED PUTAWAY

Provides slotting functionality for the optimal placement of products within the warehouse. Useful to optimize warehouse layout and maximize picker productivity by ensuring high-volume products are stored in their best possible bin. Also, there are unique product handling requirements and/or restrictions that could be relevant for certain materials such as: freezers, hazardous materials, etc.

EOL WORKFLOW, UPS DOMESTIC & DHL DOMESTIC

This module provides the ability to launch definable workflows upon the completion of sales order process. It ships with predefined workflows that generate Bill of Lading documents, integration to the both the UPS and DHL provided shipping systems for Domestic US shipments.

KITTING

A kit is a unique product composed of a number of other products, sold as a single unit. The kitting functionality enables the collecting and assembling of individual products to create a new, saleable product unit.

LABOR STANDARDS

Allows a site to define their expected standards, and subsequently to use those standards for labor estimates and metrics relative to expected.

LICENSE PLATES

This module provides a tool to assign License Plates to groups of products. License Plates can contain similar or different items. It is often convenient to track serial numbers by License Plates. Pre-pack assortments in License Plates can be allocated and picked even though the order is for the individual items.

LOTS/SERIAL/EXPIRY

This module allows attributes to be assigned to a product. An attribute is characteristic of a product that differentiates it from other products of the same type, such as lot number, serial number, expiry date, color, size... The attribute number appears in a field after the main product number, separated by a character delimiter such as a slash. This module tracks attributes through the warehouse and provides advanced allocation and inventory controls for attributes.

MANAGEMENT REPORTING

Includes a series of focused reports designed to assist the warehouse manager in their operations including out of the box reports, SQL customer reports, standard HTML based reports that support drill-down and actions.

MULTI-CARRIER SHIPPING TOOLKIT

This module provides a standard set of interface points that can be used to integrate popular multi-carrier shipping systems like ClipperShip and Imagine.

MULTI-COMPANY/3PL

This functionality supports distribution centers that service multiple companies or are third-party logistic (3PL) providers, and multi-company warehouses. 3PLs are specialized 'outsourced' warehouse operators.

MULTI-LOCATION/SITE TRANSFER

The Multi-Location/ Site Transfer module allows a single Accellos installation to manage multiple locations, controls visibility between locations, and provides tools for efficiently.

MULTI-ZONE

A zone is an area within a physical location where inventory is stored or different activities are performed. A zone serves to organize stock and warehouse staff workloads.

The Multi Zone module allows you define up to 26 zones. This module enables zone picking, pick and pass picking, multi-zone simultaneous and sequential picking, and replenishment by zone.

ORDER MANAGEMENT

This module allows you to plan your warehouse activities, allocate stock to specific customers according to your corporate policies, and manage your fill rate and backorders.

PACKAGING

The packaging functionality supports a warehouse with substantial repackaging operations. It helps prioritize and manage the repackaging lines.

PUTAWAY/SLOTING

This module enables directed putaway, which allows a putaway driver to search for an appropriate bin to which to move a product during Receiving, Fill Bins, and Direct Move functions. Suggestions provided to the user are based on empty bins, or current bin locations. The module also provides slotting reports to improve productivity.

RFID TOOLKIT

The RFID Toolkit provides a standard set of integration points that can be used by an RFID middleware provider to develop specific RFID enabled functions within the warehouse.

RMAS

This module enables Returned Materials Authorizations (RMAs), which allows customers to return products to the warehouse. It automatically generates purchase order for the returned goods, with the appropriate RMA codes.

SINGLE CARRIER SHIPPING

Lets you integrate “free” shipping systems which provides scripting necessary to integrate with systems supplied by UPS, FedEx, DHL

STOCK LOCATOR

Designed to provide visibility into the physical location of goods in the warehouse facilitating the movement of those goods within the warehouse facilitation the movement of those goods within the warehouse. Some optional functionality include: decimal quantities restrict consolidation of Stock with different expiry or FIFO dates, and ability to enter incidents via the handheld.

WAVE PLANNING

Designed to provide a flexible, user-configurable method to build waves of sales orders to be picked into the warehouse. Some optional functionality include pack & hold, ship with other goods, order consolidation at waving, ability to define and schedule wave planning templates and more.

WEB DISPATCH

This is the web-based user interface for Accellos, accessed with Internet Explorer from any client PC. The Web Dispatch core module provides reporting capabilities to monitor daily warehouse operations in real time, and to generate historical reports. Web Dispatch also displays sales, work and purchase orders in the warehouse. To allow warehouse managers to control order processing in the warehouse via Web Dispatch, you should purchase the Order Management module.

WEB ORDER ENTRY

This module enables purchase orders to be entered into Accellos One Warehouse through Web Dispatch. Web order entry is used by warehouses that do not have a host system, by third-party logistics (3PL) providers that do not use a single host system, or to provide a web order-entry portal suitable for B2B sales.

WIRELESS PICKING

Designed to move paper-based picking processes into the wireless world. This core module supports multiple styles of RF picking, picking stations, split pack-sizes, batch-pick and repack, shipment labels, and warehouse packing slips. Pick bins are replenished using Hot Replenishment, which is the process of requesting that inventory be replenished to pick bins to meet current sales order requirements. Some examples of optional functionality include: Clone Picking, HAZMAT restrictions, carton restrictions based on weight, cube, or value, plus many other options.

WIRELESS RECEIVING

Designed to move paper-based receiving processes into the wireless world. This core module supports paperless check-in, product and carton labeling. It also supports non-PO receiving, for warehouses that allow receipt of products into the warehouse that do not appear on a purchase order. Some examples of optional functionality include: Ability to send internal emails alerts when orders are suspended, validate quantities upon PO completion, Hot Key to Putaway Labels function from receiving, Hot Key to Display Special Instructions and many more.

SUMMARY:

We hope this information give you an idea of the functionally and benefits of a “best-in-breed” Warehouse Management System (WMS). As noted before, certain options are available with different packages of the Accellos One system and it is best to contact us for a free assessment and pricing to determine the appropriate warehousing solution for your company

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