

Warehouse Management System User Guide for Exact Macola ES



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Chapter 1: Overview

The Warehouse Management System (WMS) provides a series of additional modules to the Exact Macola ES series. These modules are designed to greatly enhance a company's ability to track products through the entire warehouse.

Conventions

To use WMS, you should also be familiar with the operations of the Exact Macola ES series Accounts Receivable (A/R), Order Entry (O/E), Purchase Order (P/O), Inventory Management (I/M), Production Order Processing (POP), Shop Floor Control (SFC), Bar Code (B/C) and Electronic Data Interchange (EDI) packages. Please refer to the Exact Macola ES documentation for information about these packages.

WMS Device Manager

The WMS Device Manager module handles many one-time set up activities and is required for all Warehouse Management System applications. The Device Manager module maintains security and control fields, and provides for the advanced utilities of the system.

The Device Manager module also provides a system layer to WMS that enables communications with radio frequency handheld units. This module is used in conjunction with the other modules to allow workers the freedom of the entire warehouse. Although useful in almost any warehouse, this is particularly beneficial for warehouses that use multi-bin support.

WMS Pick and Ship Verification Module

The WMS Pick and Ship Verification module provides an easy-to-use, online method of identifying the individual items being packed in each carton. Incorrect shipments are virtually eliminated by having workers scan the bar code on each item as it is packed. WMS allows users to cross-reference multiple bar codes to the same item. For example, a single unit of an item might be represented by a UPC code, while a case of six units of the same item might be represented by a UCC-14 code. WMS keeps track of the contents of each carton and validates that the item is on the order and is not being over or under shipped. Customer specific shipping labels are generated automatically.

This module includes building and tracking pallets; consolidating multiple orders into one shipment; creating multiple shipments from one order; automatically printing bills of lading; and printing additional Crystal Reports such as packing lists and manifests.

The Pick and Ship Verification module also incorporates the WMS reporting functions. It provides the ability to automatically print reports during the shipment completion process. When activated, WMS executes up to five Crystal Reports or Visual Basic applications at the time the shipment is completed. The Pick and Ship Verification module ships with three standard bill of lading reports: a Crystal Report designed to work with the standard Exact Macola ES bill of lading form; a combination Visual Basic and Crystal Report that prints a VICS compliant bill of lading; and the Wal-Mart™ variation on the VICS standard. Users familiar with Crystal Reports can create their own custom Crystal Reports to generate packing slips, manifests, etc., or custom Crystal Reports can be purchased from an authorized WMS reseller.

WMS EDI ASN Data Collection Module

The WMS EDI ASN Data Collection module provides advanced processing options that are frequently required to generate EDI Advanced Shipping Notice (856) documents. Some of the features added include: pallet processing; advanced shipment handling to allow grouping of many orders into a single shipment; splitting an individual order into multiple shipments within a billing cycle; and the ability to feed information into the Exact Macola ES EDI ASN sub-module.

In addition, this module adds a powerful tool called autopack, which is used to generate UCC-128 compliant shipping labels in a batch mode and automatically associate the correct item and quantities with each unique UCC-128 license number. Companies that are concerned with becoming EDI compliant but do not wish to scan every item on each shipment use autopack. This functionality is popular with companies that use public warehouses. Autopack requires items to be shipped in standard quantities.

The EDI ASN Data Collection module requires the WMS Pick and Ship Verification module.

WMS Receiving and Inventory Data Collection and Labeling Module

The WMS P/O Receiving module provides the ability to receive purchase orders immediately upon receipt at the warehouse dock. Users scan or type the purchase order and use bar codes either on the product or on an automatically printed receiving document to simplify the entry of receipt data. Support for many types of bar codes, including vendor specific, multi-segmented bar codes, is included. Product labels can be generated for products that do not have bar codes already.

This module also provides the ability to do basic inventory transactions immediately from within the warehouse. Support is included for inventory transfers, issues, receipts, physical and cycle counts, and an item bin stock inquiry.

WMS Shop Floor Data Collection and Labeling Module

The WMS Shop Floor Data Collection and Labeling module allows using an R/F device to enter activity transactions for released shop orders. Support is provided for online picking, material issues and returns, and material scrap and rejections.

This module requires the Exact Macola ES Bar Code for Manufacturing module to process transactions.

WMS Production Order Processing Data Collection and Labeling Module

The WMS Production Order Processing Data Collection and Labeling module allows production to be entered against a POP order, recording the receipt of the finished good into stock. WMS prompts for bin, serial, and lot information for back flushed components as necessary. Support is provided for both RF handheld devices and workstations.

This module requires the Exact Macola ES Bar Code for Production Order Processing module to process transactions.

WMS Conveyor Interface Module

WMS Conveyor Support allows WMS to interface with a conveyor management system in a conveyor-based automated order picking environment. This interface allows WMS to send order item information to the conveyor management system during stage pick processing.

The conveyor management system uses this information to control order packing, including determining when one pallet is full and a new one needs to be started.

The conveyor system can then send the pallet packing information back to WMS, which automatically processes and performs a stage pack operation based on that data, printing pallet labels as required.

Note: While WMS Conveyor Support allows WMS to interface with a conveyor management system, WMS is not a conveyor management system itself. Conveyor Support allows WMS only to send data to and receive data from a conveyor management program; a separate conveyor management system is still necessary.

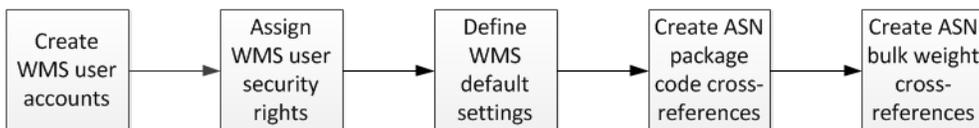
Chapter 2: Setup and Process Flow

WMS System Setup

You must complete the WMS system setup before you can use any WMS functions. In addition, you might occasionally need to change a setting or value to better suit how your company uses WMS. These are the basic procedures to complete to set up WMS:

1. Create WMS user accounts and assign security rights for shipping, purchase order, inventory management, shop floor, and production order processing. See “WMS Security Maintenance” on page 17 for more information.
2. Enter the WMS default settings on the WMS Control File Maintenance screen. The WMS control file specifies the defaults for shipping, purchase order receiving, and inventory management, as well as the printers that can be used by WMS. See “WMS Control File Maintenance” on page 21 for more information.
3. Create ASN package code cross-references. WMS uses these entries to determine the package type for items and shipments. See “WMS Package Code Maintenance” on page 55 for more information.
4. Create ASN bulk weight cross-references. The bulk weight cross-references establish a relationship between a package code in the ASN Package Code Cross-Reference file and a case pack quantity for an item. See “WMS Bulk Weight Maintenance” on page 57 for more information.

WMS System Setup Flow Chart



WMS Inventory Management Transactions

Complete the following setups and processing steps to perform I/M transactions in WMS.

WMS Inventory Management Transactions Setup

No specific setups are necessary to process I/M transactions in WMS.

WMS Inventory Management Transactions Processing

The following I/M transactions can be processed in WMS. Each transaction should be processed as necessary and is not dependent on any other WMS I/M transaction.

1. Process an inventory issue: issue an item quantity and remove it from inventory. See “Processing an Inventory Issue” on page 144 for more information.
2. Process an inventory receipt: receive an item quantity and add it to inventory. See “Processing an Inventory Receipt” on page 146 for more information.
3. Process an inventory transfer: transfer an item quantity to a different warehouse. See “Processing an Inventory Transfer” on page 147 for more information.
4. Process a physical or cycle count: perform a physical or cycle count using a directed or a non-directed count method. See “Processing a Physical or Cycle

Count” on page 148 for more information.

5. Perform stock inquiries. See “Verifying what is Open on a Purchase Order” on page 160 for more information.

WMS Purchase Order Receiving

Complete the following setups and processing steps to receive against P/O purchase orders in WMS.

WMS Purchase Order Receiving Setup

Complete the following setups, as necessary, before using WMS to receive Exact Macola ES purchase orders. In addition, you might occasionally need to change a setting or value to better suit how your company uses WMS.

1. Create vendor override entries, if necessary. If there is a vendor override set up for a vendor, WMS uses the vendor override settings instead of the defaults specified in the WMS control file. See “Vendor Override Maintenance” on page 88 for more information.
2. Create vendor bar code definitions, if necessary. If a vendor specific bar code is being used, the vendor bar code file allows you to define the bar code, including how to break down the segments. See “Vendor Bar Code Maintenance” on page 89 for more information.
3. Define product labels, if necessary. See “Label Configuration” on page 44 for more information.

WMS Purchase Order Receiving Processing

The following P/O Receiving transactions can be processed in WMS. Each transaction should be processed as necessary and is not dependent on any other WMS P/O receiving transaction.

1. Process receipts against the purchase order in WMS. Either use radio frequency devices to scan received items and quantities for a specific purchase order, or scan items with a wedge reader at a packing station. Product labels can also be generated at this time. See “Processing a Receipt Against a Purchase Order” on page 156 for more information.

WMS Production Order Processing

Complete the following setups and processing steps to perform Production Order Processing transactions in WMS.

WMS Production Order Processing Transactions Setup

No specific setups are necessary to process POP transactions in WMS.

WMS Production Order Processing Transactions Processing

The following POP transactions can be processed in WMS. Each transaction should be processed as necessary and is not dependent on any other WMS POP transaction.

1. Enter production for released production orders. See “Entering Production for a Production Order” on page 162 for more information.

2. Print product labels. (If you do not have these set up, see “Label Configuration” on page 44.)

WMS Shipping

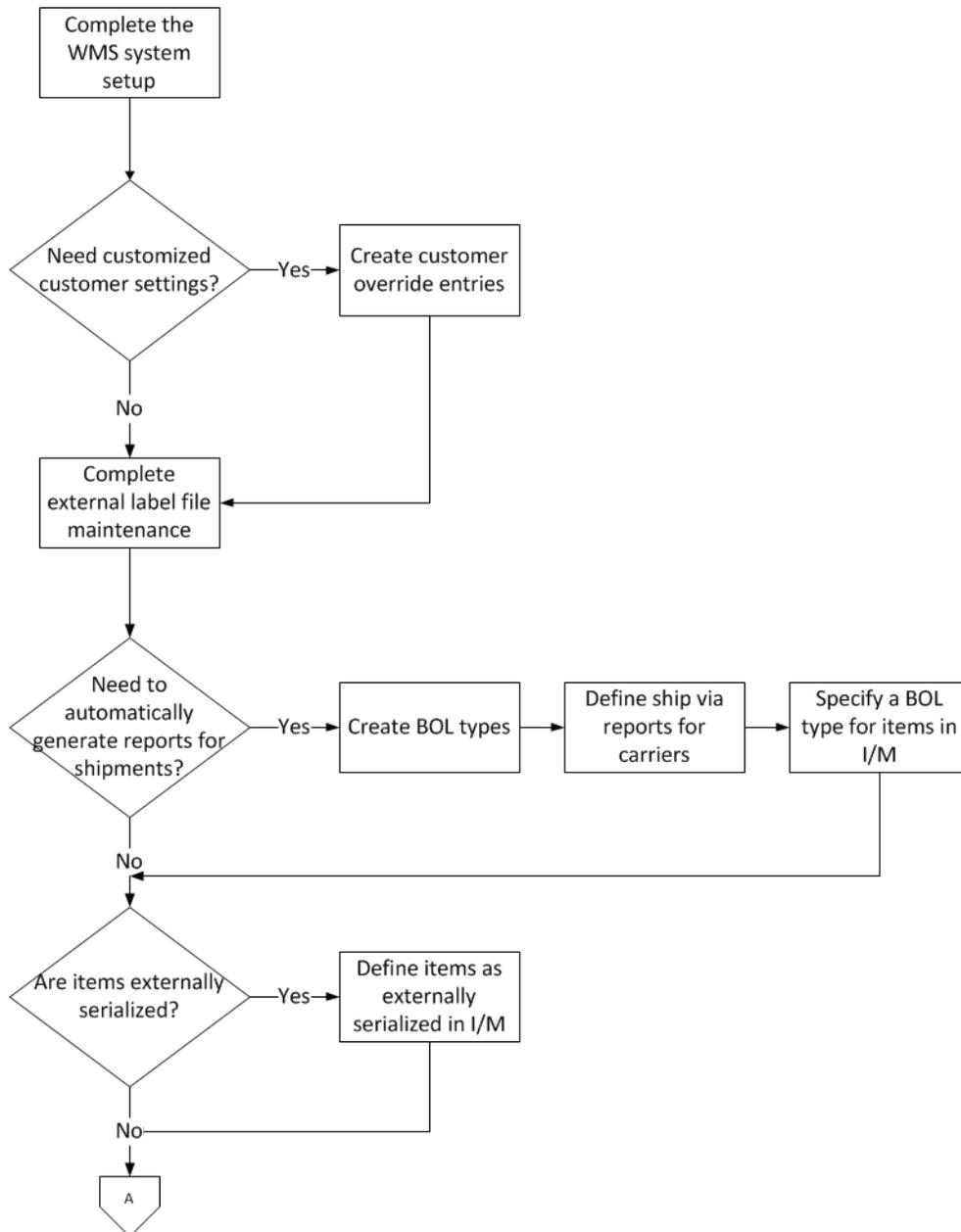
Complete the following setups and processing steps to pack and ship O/E orders in WMS.

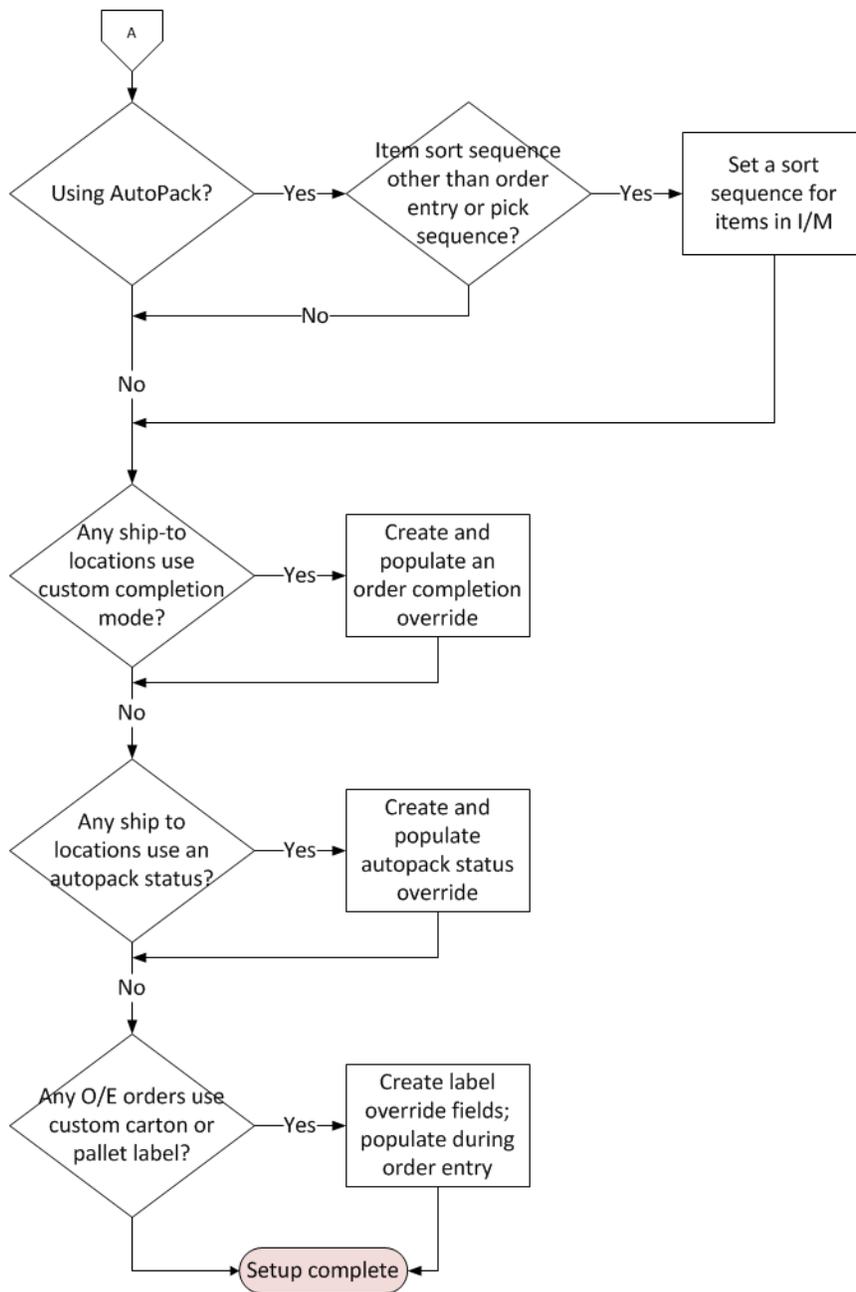
WMS Shipping Setup

You must complete the WMS shipping setup before you can use perform packing or shipping in WMS. After initial setup, you might occasionally need to change a setting or value to better suit how your company uses WMS.

1. Create customer override entries. WMS uses the defaults specified in the customer override file instead of the defaults specified in the WMS control file. See “Customer Override Maintenance” on page 70 for more information.
2. Complete external label file maintenance to specify the label format to be used by WMS and to define the variable fields to be used when the label is printed. See “External Label Maintenance” on page 73 for more information.
3. Create bill of lading (BOL) types. These entries are used by the WMS Pick and Ship Verification module to group items into specific freight classification. The BOL type setup also allows you to enter a specific description for a group, which can be printed in the commodity description section of the bill of lading. BOL types need to be created only if you are printing documents when completing shipments. See “Bill of Lading Type Maintenance” on page 75 for more information.
4. Create ship via reports entries for carriers. The WMS Pick and Ship Verification module uses these entries to determine which forms to print for each carrier. Ship via reports need to be defined only if you want to generate reports automatically when shipments are completed. See “Ship Via Reports Maintenance” on page 77 for more information.
5. Define items as externally serialized, if necessary, in the Item Master. See “Item Master Maintenance” on page 79 for more information.
6. If printing bills of lading during shipping, specify a bill of lading code for items. See “Item Master Maintenance” on page 79 for more information.
7. Set a specific sort sequence for items in the item inventory location. WMS uses this when printing autopack labels. If not defined, order entry or pick sequence is used instead. See “Item/Location Maintenance” on page 82 for more information.
8. If necessary, set up and complete a field to override the order completion mode and autopack status for individual ship to addresses in the A/R customer delivery address. Complete this setup only when these settings need to be specified for a unique individual ship-to. Otherwise, skip this setup to use the defaults already defined. See “Customer Delivery Address Maintenance” on page 84 for more information.
9. If necessary, set up a carton or pallet label override field on the sales order header in O/E. This setup needs to be completed only if you need to specify a label other than the default for certain orders. Otherwise, the default label already defined is used. See “Order Entry Header Setup” on page 85 for more information.

WMS Shipping Setup Flow Chart





WMS Shipment Processing using Paper Pick Tickets

Complete the following steps, in the order listed, to pack and ship an order in WMS using paper pick tickets. These steps must be performed for each O/E order that you need to process in WMS. Some steps, such as generating an EDI ASN, might not be necessary if your company does not use that feature.

1. Print the O/E Pick Ticket. See "Printing a Pick Ticket" on page 120 for more information.
2. Release the O/E order to WMS using post pick ticket processing. This transfers the order information to WMS so the items can be packed and shipped. See "Releasing Orders to WMS using Post Pick Ticket Processing" on page 120 for more informa-

tion.

3. Log in to WMS. Packing and shipping are done in WMS, which is executed externally to Exact Macola ES. See "Logging on to WMS" on page 91 for more information.
4. Complete packing. There are four different levels of packing. Depending on your shipping environment, you might complete more than one packing step for each order.
 - Pack the order using pack verify. Items for a specific order are packed into cartons. Each order is treated as a unique shipment. If the WMS Advanced Shipping module is not installed, WMS operates only in pack verify mode. See "Packing Orders in Pack Verify Mode" on page 131 for more information.
 - Pack cartons. Items are manually packed into cartons for each order. Individual cartons or the entire order can then be packed onto pallets or shipments. Multiple orders can be packed onto the same shipment, or an individual order can be packed onto multiple shipments. See "Packing Cartons for a Pick and Pack Environment" on page 124 for more information.

Note: In a standard pack environment, the autopack function can be used to automatically pack items into cartons.

- Pack pallets. If you palletize shipments, use the pack pallets function to pack cartons, items, or orders onto pallets. Pallets can then be packed onto shipments. See "Packing Pallets" on page 126 for more information.
 - Pack shipments. After completing any other packing phases, pack cartons, pallets, or orders onto shipments that can then be completed. See "Packing a Shipment" on page 128 for more information.
5. Process WMS order billing. This step creates a file that can be used by the Exact Macola ES Barcode for Distribution module to select orders for billing. It is also necessary for the order to be closed properly in WMS. See "Using WMS Order Billing" on page 134 for more information.
 6. Import billing information into Exact Macola ES. Quick ship polling in the Exact Macola ES Barcode for Distribution module uses the billing information file created by WMS to select orders for billing in the items and quantities shipped. See "Importing Billing Selection Information using Bar Code for Distribution" on page 138 for more information.
 7. Create the EDI Advanced Ship Notice (856). Use the Exact Macola ES EDI module to create the ASN, if necessary for this customer. See "Generating an Advanced Ship Notice Using WMS Shipment Information" on page 138 for more information.
 8. Complete O/E order processing and invoicing. See Exact Macola ES O/E Help for more information.
 9. If the order was not completely shipped, close the order in WMS. Any unshipped quantities for items are reduced to zero, allowing backorders from O/E to be processed into WMS using post pick ticket processing. See "Closing WMS Orders when the Exact Macola ES Order has been Closed" on page 141 for more information.

WMS Shipment Processing using Pick Management

Complete the following steps, in the order listed, to pack and ship an order in WMS using pick management. The steps must be performed for each O/E order that you need to pro-

cess in WMS. Some steps, such as generating an EDI ASN, might not be necessary if your company does not use that feature.

1. Create EPNs for the O/E orders.
 - Pick to pack: Cartons or pallets are immediately labeled for shipping and are ready to be combined with other cartons or pallets being shipped together. As the products are placed on the pallet, they are scanned and associated with the shipping pallet. The pallet can later be associated with a shipment simply by scanning the pallet label. See “Processing a Pick-to-Pack EPN” on page 97 for more information.
 - Pick to stage/stage pack: Indicates what products are to be picked and where to take them for staging. A pick-to-stage EPN is always associated with a stage pack EPN, which directs the packers about how to break out products that have been brought to a staging area as the result of a pick-to-stage EPN. This can be done on either an RF device or at a packing station and presents the pack out process in an order-by-order basis. See “Processing a Pick-To-Stage EPN” on page 105 for more information.
2. Complete packing. There are four different levels of packing. Depending on your shipping environment, you might complete more than one packing step for each order.
 - Pack the order using pack verify. Items for a specific order are packed into cartons. Each order is treated as a unique shipment. If the WMS Advanced Shipping module is not installed, WMS only operates in pack verify mode. See “Packing Orders in Pack Verify Mode” on page 131 for more information.
 - Pack cartons. Items are manually packed into cartons for each order. Individual cartons or the entire order can then be packed onto pallets or shipments. Multiple orders can be packed onto the same shipment, or an individual order can be packed onto multiple shipments. See “Packing Cartons for a Pick and Pack Environment” on page 124 for more information.

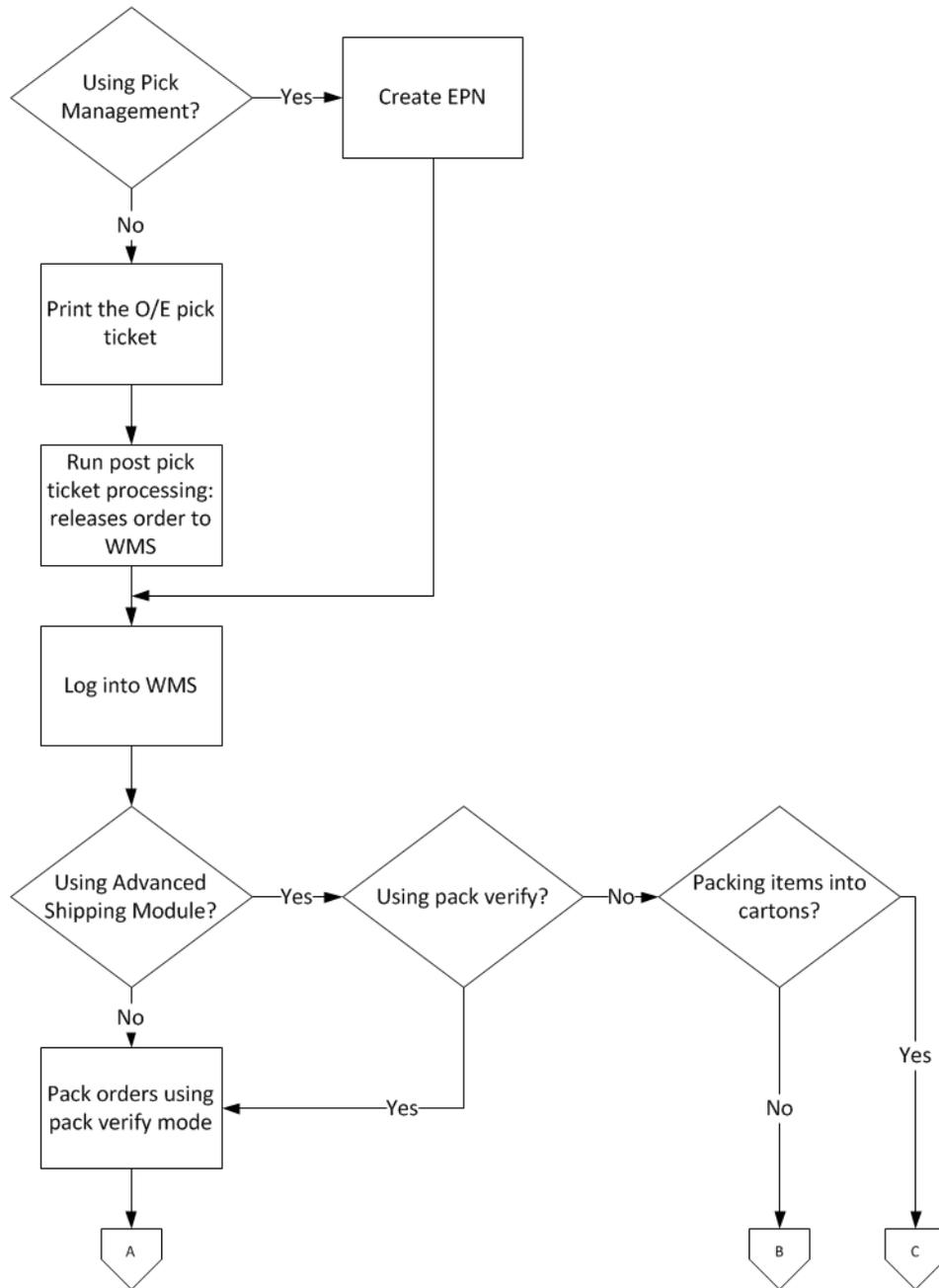
Note: In a standard pack environment, the autopack function can be used to automatically pack items into cartons.

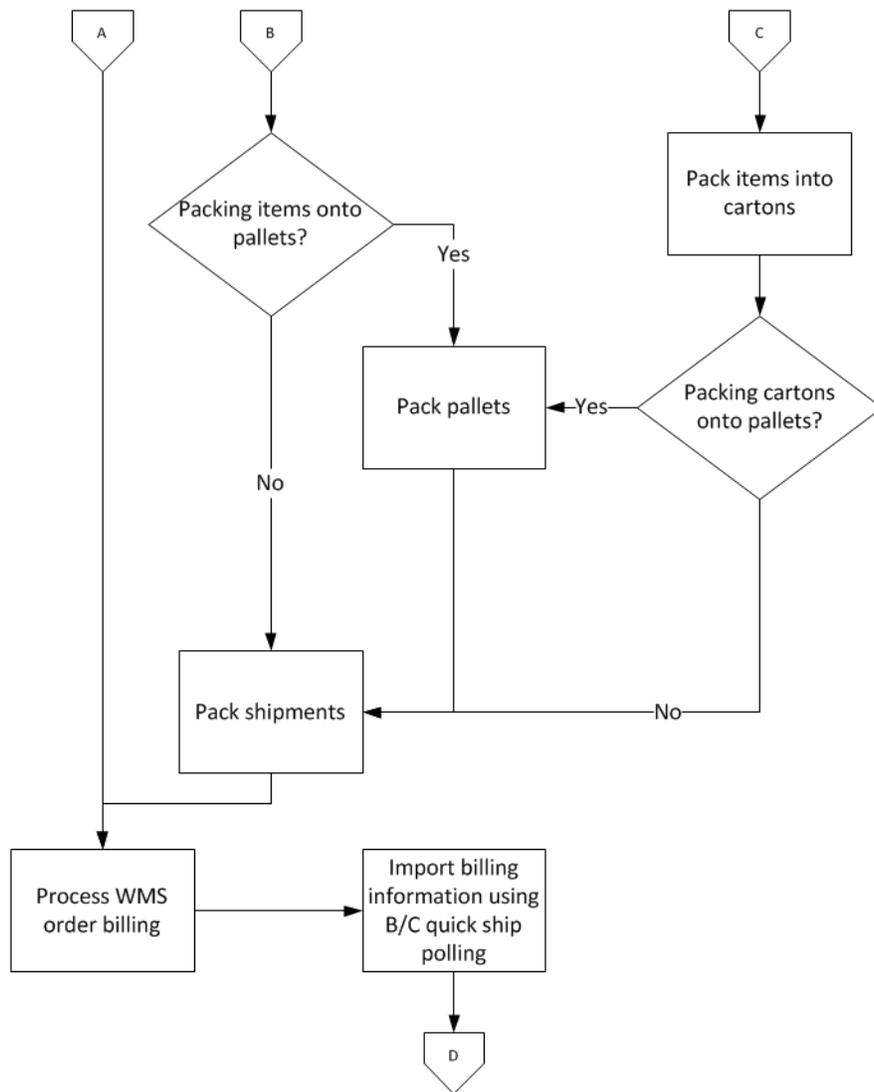
- Pack pallets. If you palletize shipments, use the pack pallets function to pack cartons, items, or orders onto pallets. Pallets can then be packed onto shipments. See “Packing Pallets” on page 126 for more information.
 - Pack shipments. After completing any other packing phases, pack cartons, pallets, or orders onto shipments that can then be completed. See “Packing a Shipment” on page 128 for more information.
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 4. Process WMS order billing. This step creates a file that can be used by the Exact Macola ES Barcode for Distribution module to select orders for billing. It is also necessary for the order to be properly closed in WMS. See “Using WMS Order Billing” on page 134 for more information.
 5. Import billing information into Exact Macola ES. Quick ship polling in the Exact Macola ES Barcode for Distribution module uses the billing information file created by WMS to select orders for billing in the items and quantities shipped. See “Importing Billing Selection Information using Bar Code for Distribution” on

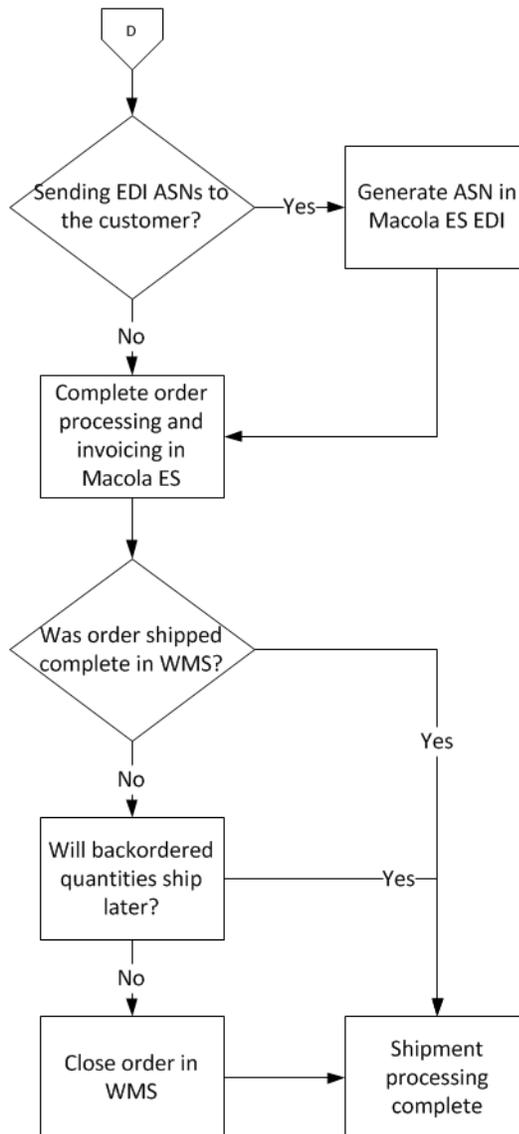
page 138 for more information.

6. Create the EDI Advanced Ship Notice (856). Use the Exact Macola ES EDI module to create the ASN, if necessary for this customer. See "Generating an Advanced Ship Notice Using WMS Shipment Information" on page 138 for more information.
7. Complete O/E order processing and invoicing. See the Exact Macola ES Help for more information.
8. If the order was not completely shipped, close the order in WMS. Any unshipped quantities for items are reduced to zero, allowing backorders from O/E to be processed into WMS using post pick ticket processing. See "Closing WMS Orders when the Exact Macola ES Order has been Closed" on page 141 for more information.

WMS Shipment Processing Flow Chart







WMS Conveyor Interface

Complete the following setups and processing steps to allow WMS to interface with a conveyor management system.

WMS Conveyor Interface Setup

Complete the following setups to allow WMS to interface with a conveyor management system. In addition, you might occasionally need to change a setting or value to better suit how your company uses WMS.

1. Activate conveyor support in the WMS control file.
2. Define conveyors, including logical sort lanes, physical sort lanes, and jackpot sort lanes.
3. Assign printers to be used by each conveyor.
4. Define FTP settings for each conveyor.

WMS Conveyor Interface Processing

Complete the following steps, in the order listed, to use a conveyor management system with WMS.

1. Create a stage pick EPN.
2. Click the Send to Conveyor button on the EPN Editor screen. WMS validates that the number of orders does not exceed the number of logical lanes defined for the conveyor. Then, WMS creates a wave definition file for the stage pick. The wave definition file contains a record for each carton that specifies the pick number, order number, sequence number, item UCC-14, cube, weight, and logical lane destination.
3. The wave pick definition file is sent to the conveyor management system. The prior wave is closed by the conveyor system when the new wave is received.
4. The conveyor system reads the UCC-14 bar codes on the cartons and directs the products to the lane specified in the wave definition file.
5. The conveyor system writes packing information back to the wave results file.
6. During the next WMS polling cycle, WMS receives the wave results file.
7. Records in the wave results file are processed as follows:
 - If the record has a UCC-14 ID and the physical sort lane listed in the record has not been previously encountered for this wave, WMS adds it to the list of physical sort lanes for the wave. WMS generates a new pallet number and packs the UCC-14 in that pallet. The pallet label is then printed to the printer specified for the lane.
 - If the record has a UCC-14 ID and the physical sort lane listed in the record has already been created for this wave, WMS compares the pallet count number in the file to the pallet count number for the previous transaction for this lane. If it is the same, the UCC-14 is packed in that same pallet. If the pallet count number is different, WMS generates a new pallet number and pack the UCC-14 in that pallet. The pallet label is then printed to the printer specified for the lane.
 - If the record has a NOREAD, UNTRACKED, or EMPTY message, it is not processed.
 - If the record has an ENDOFWAVE message, WMS increments the number of lanes completed for the EPN. Once all lanes for the EPN have received the ENDOFWAVE message, WMS marks the EPN as Conveyor Complete.
8. If any item quantities remain to be packed on the EPN, WMS leaves the EPN open and displays a Reconcile Conveyor message. Double-click the entry on the conveyor processing monitor to review any errors. If necessary, use the conveyor processing monitor to close the EPN and create a new one for any shortages.
9. If the ENDOFWAVE message is not received for a lane, click the End of Wave button to process the end of wave for the lane.
10. Once all items for the EPN have been packed, WMS marks the EPN completed.

WMS Shop Floor Control Transactions

Complete the following setups and processing steps to perform Shop Floor Control transactions in WMS.

WMS Shop Floor Control Transactions Setup

No specific setups are necessary to process SFC transactions in WMS.

WMS Shop Floor Control Transactions Processing

The following SFC transactions can be processed in WMS. Each transaction should be processed as necessary and is not dependent on any other WMS SFC transaction.

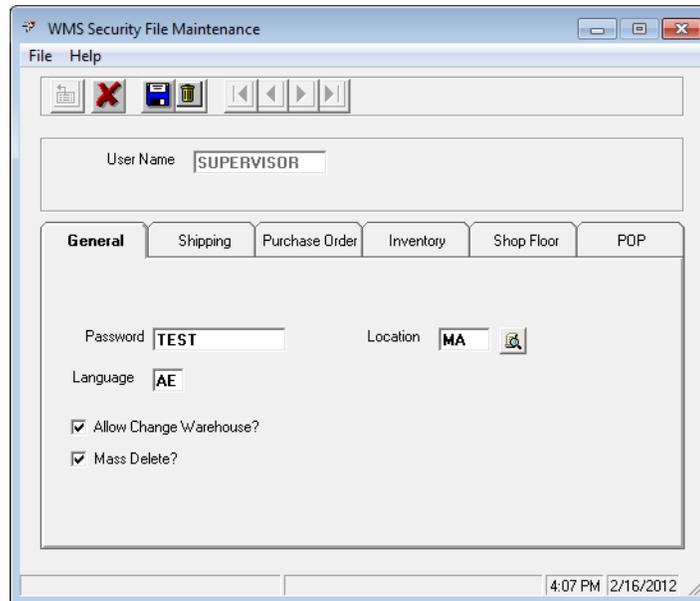
1. Issue material. Allows you to issue material for a shop order. See “Issuing Material to a Shop Order” on page 163 for more information.
2. Enter activity. Allows you to enter activity transactions for a shop order, including labor hours, machine hours, scrap quantities, and rejections. See “Entering Activity for a Shop Order” on page 164 for more information.
3. Print product labels. (If you do not have these set up, see “Label Configuration” on page 44.)

Chapter 3: WMS Setup - System

WMS Security Maintenance

WMS Security Maintenance is used to create user accounts and to assign security rights for WMS. This function should not be provided to all users. Exact Macola ES roles should be used to limit access to WMS Security Maintenance to authorized personnel.

General Tab



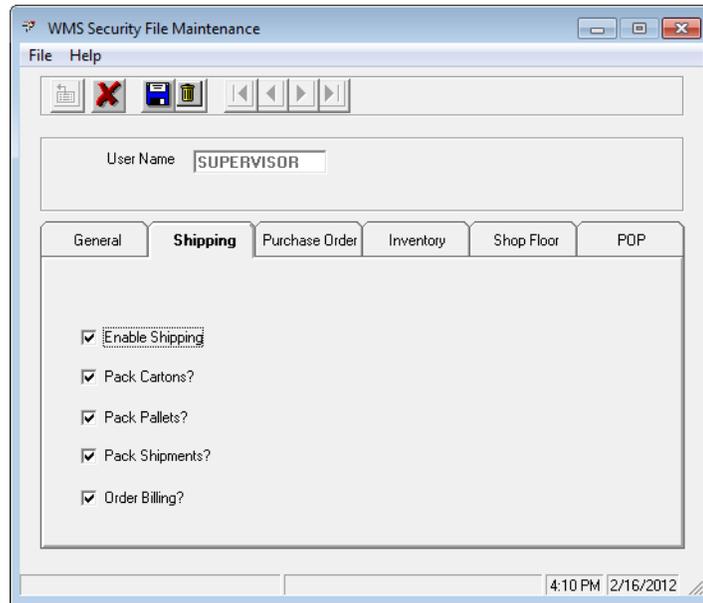
The screenshot shows a window titled "WMS Security File Maintenance" with a menu bar containing "File" and "Help". Below the menu bar is a toolbar with icons for file operations. The main area contains a "User Name" field with the value "SUPERVISOR". Below this are several tabs: "General", "Shipping", "Purchase Order", "Inventory", "Shop Floor", and "POP". The "General" tab is active and contains a "Password" field with the value "TEST", a "Location" field with the value "MA" and a magnifying glass icon, and a "Language" field with the value "AE". There are two checked checkboxes: "Allow Change Warehouse?" and "Mass Delete?". The status bar at the bottom right shows the time "4:07 PM" and the date "2/16/2012".

1. To access WMS Security Maintenance, in Exact Macola ES, on the System menu, under the Distribution heading, select WMS, WMS Security Maintenance.
2. **User Name:** Type the user name for each person who requires access to the shipping system. This can be 15 characters long.
3. **Password:** Type the user's password. This can 15 character long and can be any combination of numbers, letters, and symbols.

Note: The WMS user name and password do not have to match an Exact Macola ES user name and password. Any user who needs access to WMS but should not have access to Exact Macola ES does not need an Exact Macola ES user name or password to be set up as a WMS user.

4. **Location:** This is the default warehouse for the user. If the Allow Change Warehouse check box is cleared, the user has access only to this warehouse.
5. **Language:** Type the code for the user's language, such as AE for American English.
6. **Allow Change Warehouse:** To allow the user to change to a warehouse other than the warehouse specified in the Location field, select this check box.
7. **Mass Delete:** To allow the user to delete cartons, pallets, shipments, and orders from within WMS Inquiry, select this check box. It is recommended that only key personnel have access to this option.

Shipping Tab



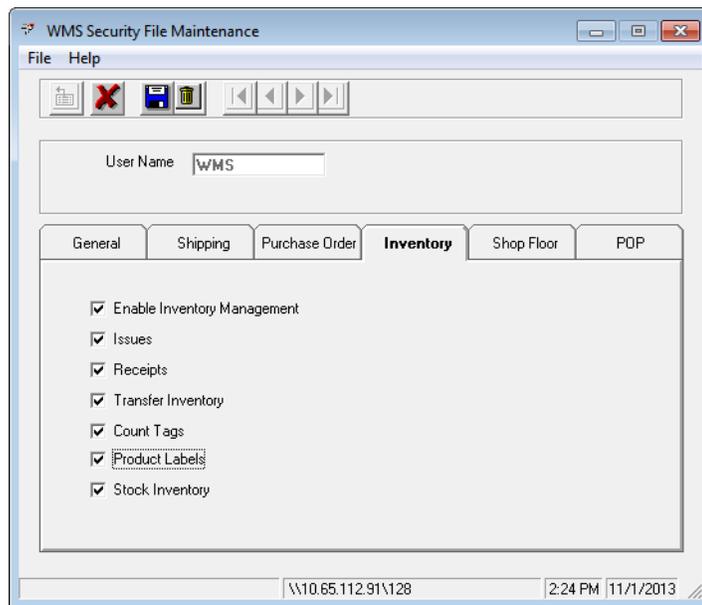
1. **Enable Shipping:** To allow the user to access shipping functions in WMS, select this check box.
2. **Pack Cartons:** To allow the user to pack items into cartons, select this check box.
3. **Pack Pallets:** To allow the user to pack pallets, select this check box. This function is used to attach cartons onto pallets.
4. **Pack Shipments:** To allow the user to pack shipments, select this check box. This function is used to attach cartons and pallets onto shipments.
5. **Order Billing:** To allow the user to access the order billing function, select this check box. To use this function, you must have the Exact Macola ES Barcode for Distribution module installed. In pack verify mode, this option allows the user to close the order and run the Update Macola function.

Purchase Order Tab



1. **Enable Purchase Order:** To allow the user to process purchase order receipts on R/F guns, select this check box.

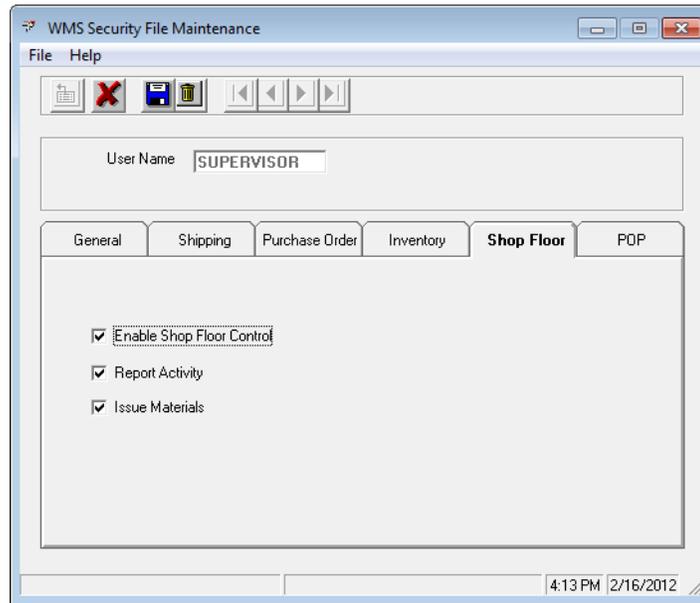
Inventory Tab



1. **Enable Inventory Management:** To allow the user access to the inventory management functions on R/F guns, select this check box.
2. **Issues:** To allow the user to issue inventory, select this check box.
3. **Receipts:** To allow the user to process inventory receipts, select this check box.
4. **Transfer Inventory:** To allow the user to transfer inventory, select this check box.
5. **Count Tags:** To allow the user access to the count tags functions, select this check box.

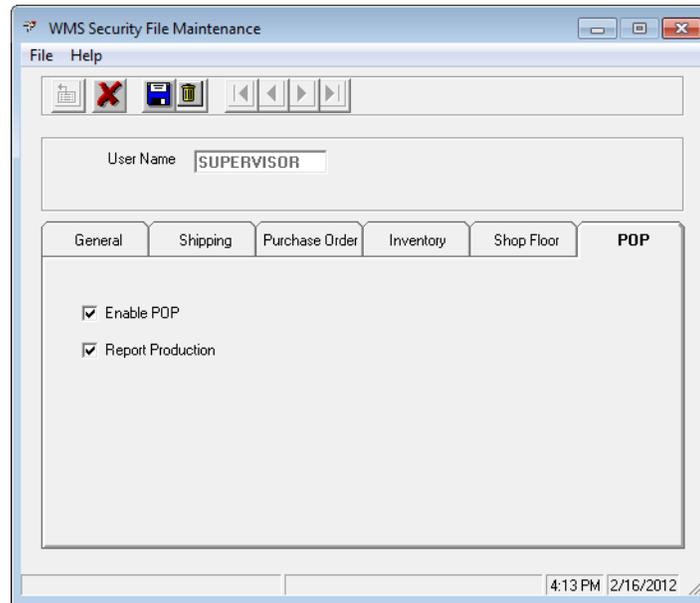
6. **Product Labels:** If this check box is selected, there is a new menu option on the RF handheld device that the user can use to print an Ad Hoc product label for any item.
7. **Stock Inventory:** To allow the user to perform stock inquiries, select this check box.

Shop Floor Tab



1. **Enable Shop Floor:** To allow the user access to the shop floor functions, select this check box.
2. **Report Activity:** To allow the user to report activity, select this check box.
3. **Issue Materials:** To allow the user to issue materials, select this check box.

POP Tab



1. **Enable POP:** To allow the user to access the production order processing functions, select this check box.
2. **Report Production:** To allow the user to report production on production orders, select this check box.

WMS Control File Maintenance

The WMS control file specifies the default settings in WMS. In Exact Macola ES, on the System menu, under the Distribution heading, select WMS, WMS Control File Maintenance.

Shipping Tab

The screenshot shows the 'WMS Control File Maintenance' window with the 'Shipping' tab selected. The window has a menu bar with 'File' and 'Help', and a toolbar with icons for file operations. Below the toolbar is a tabbed interface with tabs for 'Shipping', 'Shipping-2', 'Pick Mgmt', 'Receiving', 'Inventory', 'Shop Floor', 'POP', 'System', 'Printer', 'Conveyor', and 'Other'. The 'Shipping' tab is active and contains several sections of settings:

- General Settings:** UPC Company Code (7654321), Department Qualifier (DP), Item Master Bill of Lading Type Field (Not Defined), Allow Scanning Range (No), Default To Scanning Range (No), Force Entry of Multiplier? (checkbox).
- Billing Options:** Default Order Completion Mode (WMS Billing), ODB Generations (10), Do not Enter Freight and Misc (checkbox), Confirm Ship and Confirm Bill (checkbox checked), Immediate Auto Bill for Pack Verify (checkbox), Do not post zero ship to Quantities (checkbox).
- AutoPack Options:** Automatic Pack Cartons (checkbox), 1 Carton per Order? (checkbox), Alt Address AutoPack Override field (Not Defined), AutoPack Label sequence UDF (Not Defined).
- Shipping Label Settings:** UCC 128 Number (Carton: 1, Pallet: 2), Label Override Field (Not Defined), Defer Printing (checkbox), LBL Qty Format (#####), Label Configuration button.

The status bar at the bottom right shows the time 3:44 PM and the date 2/10/2012.

General Settings

1. **UPC Company Code:** Type your company's five digit UPC code, as assigned by the Universal Code Council, with two leading zeros. This is used as a component of the serial number on the UCC-128 label.
2. **Department Qualifier:** This value specifies where the department number is located in the inbound EDI 850 document. Typically, this value should be set to DP.
3. **Item Master Bill of Lading Type Field:** This field specifies the user defined field or user note field from the I/M Item Master file that is used to classify items into bill of lading types. If this field is set to XX, all items are classified as bill of lading type DFLT.
4. **Allow Scanning Range:** Determines whether users are allowed to scan a range of carton labels onto a shipment or pallet.
5. **Default To Scanning Range:** When activated, WMS defaults to scanning ranges if users are allowed to scan carton ranges. This option is disabled if Allow Scanning Range is set to N.
6. **Force Entry of Multiplier?:** Select this check box if a user is typically required to specify a multiplier or quantity when processing shipping entries. WMS prompts for the multiplier before asking for the item number.

Billing Options

7. **Default Order Completion Mode:** This field is used to determine when billing selection is done. This value can be overridden for a specific customer in the customer override file.
 - **WMS Billing:** Indicates that WMS requires a user to close each order individually. Use this method to allow easier control when a single order is often split

among multiple shipments within a billing cycle. The order is manually completed only after the last shipment for that order is processed for the day. Requiring the order to be closed manually prevents the accidental partial selection of an order when the user clicks the Update Macola button (this button is on the WMS main packing station screen).

- **Pack Shipments:** Indicates that an order should be completed when a shipment to which it is attached is completed. Use this method to simplify order processing. Each order is flagged as complete when the shipment is completed, eliminating the need to process each order manually with the WMS billing function. The billing selection information is passed to Exact Macola ES when a user clicks the Update Macola button.
 - **Pack Verify Cartons:** Indicates that an order should be treated as a unique shipment. When the order is completed, it is automatically attached to a shipment, which is then automatically completed. This mode is typically used for customers with individual orders that are shipped to different locations or at different times.
8. **ODB Generations:** This field specifies the number of copies of quick ship ODB files to save for shipping transactions. Although rarely necessary, having a backup of these files can help track and resolve problems that occur when updating Exact Macola ES from WMS. The maximum number of files that can be saved is 9999.
 9. **Do not Enter Freight and Misc:** Select this check box if you do not want to allow users to enter freight or miscellaneous charges during order verification.
 10. **Confirm Ship and Confirm Bill:** This check box is used to specify that WMS should perform both a confirm ship and a confirm bill operation simultaneously. This is valid only if the Exact Macola ES system is set to confirm ship. When selected, the quick ship transaction is specified for both steps simultaneously. With this option, WMS can be configured to relieve inventory before posting O/E to A/R without the additional burden of doing both a confirm ship and a confirm bill operation manually in Exact Macola ES.
 11. **Immediate Auto Bill for Pack Verify:** This check box can be used to specify that the process to update Exact Macola ES should occur immediately upon completing an order in pack verify mode. When this is selected, a user does not need to periodically click the Update Macola button. WMS automatically generates the ODB file for Bar Code quick ship polling. If quick ship polling is running, the order is selected for billing (or confirmed shipped) immediately.

Note: If this option is used, billing corrections cannot be made within WMS for pack verification orders. The order is immediately closed for this cycle and prepared for the next cycle.

12. **Do not post zero ship to Quantities:** This check box is used to suppress selection of line items that are completely unpacked. WMS leaves those items unselected when invoicing or performing confirm ship transactions.

AutoPack Options

13. **Automatic Pack Cartons:** This is a global setting that allows for the automatic generation of UCC-128 labels based on standard case quantities and the quantity ordered. This setting can be overridden for specific customers with an entry in the customer override file. When using autopack mode, the pack cartons function is unnecessary. See "WMS Bulk Weight Maintenance" on page 57 for instructions on setting up standard case quantities.

14. **1 Carton Per Order?:** This option forces WMS to create a single carton for orders that are being packed using the autopack function. When selected, autopack creates a single carton and pack all of the items on an order into that single carton. This option is disabled if the Automatic Pack Cartons check box is not selected.
15. **Alt Address AutoPack Override field:** Specify a user defined field in the A/R customer delivery address that can be used to override the order completion mode and autopack settings for a specific alternate address. This is typically used when small store orders are handled through pack verification and large DC (distribution center) orders are handled using autopack. The following values can then be specified in the field in the customer address file:
 - VN = Pack Verify Mode, AutoPack Off
 - SN = Pack Shipments Mode, AutoPack Off
 - SY = Pack Shipments Mode, AutoPack On
 - BN = WMS Billing Mode, AutoPack Off
 - BY = WMS Billing Mode, AutoPack On

Note: If any other value is typed into this UDF field, it is ignored and the default values are used.

16. **AutoPack Label Sequence UDF:** Specify a user defined field in the item location entry to use to sequence labels printed using autopack. Normally, WMS uses the Pick Ticket Order field on the Order Entry Setup screen to determine the order to print the labels. The labels are then printed either in pick sequence or in order entry sequence. When a UDF is specified in the AutoPack Label Sequence UDF field, the labels use the value of the I/M item location UDF specified here.

Shipping Label Settings

17. **Carton UCC 128 Number:** Type the label sequence number for the next carton label. This number increments for each label printed.
18. **Carton Label Override Field:** Select the user defined field from the O/E order header that is used to override the label format used to print carton (pack) labels. If set to XX, the label format cannot be overridden.

Note: WMS versions prior to 7.5.11 used a setting in the WMS INI file to allow this. The INI entry is no longer supported.

19. **Carton Defer Printing:** This check box instructs the pack cartons or pack verify function to defer printing a carton label until the carton is packed. If this field is cleared, WMS prints a label immediately when a new carton is created. However, some customers require the label to indicate the contents of the carton. If the label is printed before the items are packed, WMS cannot print the item number on the label. If the Defer Printing check box is selected, WMS does not print the label until the user clicks the Reprint button or leaves the carton.
20. **Pallet UCC 128 Number:** Type the label sequence number for the next pallet label. This number increments with each label printed.
21. **Pallet Label Override Field:** Select the user defined field from the O/E order header that is used to override the label format used to print pallet (tare) labels. If set to XX, the label format cannot be overridden.

Note: WMS versions prior to 7.5.11 used a setting in the WMS INI file to allow this. The INI entry is no longer supported.

22. **Pallet Defer Printing:** This check box instructs the pack pallets function to defer printing a pallet label until the pallet is packed. If this field is cleared, WMS prints a label immediately when a new pallet is created. However, some customers require the label to indicate the contents of the pallet. If the label is printed before the items are packed, WMS cannot print the item number on the label. If the Defer Printing check box is selected, WMS does not print the label until the user clicks the Reprint button or leaves the pallet.
23. **Label Qty Format:** The format of case packs when printed on labels. This is typically ####, which indicates four digits with no leading zeros. This format follows standard VB numeric formatting rules and defaults to #### if not specified.
24. **Label Configuration** button: Click to edit label setups, including whether labels print, the label format name, and overrides for customers, items, product categories, vendors, and vendor items. See "Label Configuration" on page 44 for more information.

Shipping 2 Tab

The screenshot shows the 'Shipping 2' tab in the 'WMS Control File Maintenance' application. The interface includes a menu bar (File, Help), a toolbar, and a main workspace with several sections:

- Bin / Serial / Lot / Catch weight Settings:** Contains checkboxes for 'Capture Catch weights?', 'Ignore Multi-Bin, Serial, and Lot Flags?', 'Use Item Pick seq as Default Bin?', and 'Allow Override of Default Bin?'. There is also a dropdown for 'I/M Ext Ser Num Field' set to 'Not Defined'.
- Over/Under Ship Handling:** Features dropdowns for 'Overship Error' and 'Undership Error' (both set to 'Hard') and input fields for 'Tolerance %'.
- Additional Bar Code Search Options:** Includes checkboxes for 'EDI Cust Item X-Ref UPC Lookup?', 'Q/E Cust Item X-Ref Cust Item Lookup?', and 'Bulk weight Customer Prefix Lookup?'. A 'Modify Literals' button is also present.
- Shipping Printer Contexts:** A table listing printer names and icons:

Billing - Order Report:	_wmsBillingOrder\Preview	[Icon]	EDI Diagnostic:	_wmsEDIDiagnostic\StdPrinter	[Icon]
Bin Verification Report:	_wmsBillingBinVerification\Preview	[Icon]			
Post Pick Audit:	_wmsPostPickAudit\StdPrinter	[Icon]			
- Ignore Item Prefix:** A list box for prefixes with 'Add', 'Update', and 'Delete' buttons.
- Other Settings:** A 'Pallet Wt:' field set to '0' and an 'Error Type:' dropdown set to 'Warn'.

The status bar at the bottom right shows the time '3:44 PM' and date '2/10/2012'.

Bin/Serial/Lot/Catch Weight Settings

1. **Capture Catch Weights:** Select this check box if WMS should record the breakdown of each quantity packed into a carton. This is a common requirement when products are sold by weight.
2. **Ignore Multi-Bin, Serial and Lot Flags:** This check box can be used to disable multi-bin, serial, and lot support in WMS. This check box instructs WMS not to ask for bin, serial, or lot numbers. This should be selected only for companies not using

the WMS automatic billing functions. This field is for use with non-pick management orders only. It does not apply to pick management orders.

3. **Use Item Pick Seq as Default Bin:** This check box can be selected to have WMS automatically default the bin number to the value specified in the item's picking sequence field from the I/M item location. This is useful if multi-bin is turned on but shipping is done from one primary bin location for each item. With this option selected, a bin number does not need to be typed or scanned unless the item is being shipped from a bin other than the standard location. This field is for use with non-pick management orders only. It does not apply to pick management orders.
4. **Allow Override of Default Bin:** This check box can be selected to allow the user to override a default bin number. This check box is disabled if Use Item Pick Seq as Default Bin is not activated. If default bins are being used and Allow Override of Default Bin is cleared, WMS does not prompt for the bin number unless the default bin has not been specified or an invalid bin is specified as the default. If this check box is selected, WMS defaults to the bin specified in the Item Pick Sequence field, but the user can override it. If the Use Item Pick Seq as Default Bin check box is not selected, WMS always prompt for a bin. This field is for use with non-pick management orders only. It does not apply to pick management orders.
5. **I/M Ext Ser Num Field:** This field (external serial number) specifies the user defined field, user note field, or user code field to be used in the I/M item master to identify that an item is externally serialized. When this field is not XX, external serial numbers can be tracked. The item master field specified must contain a Y for the item to be considered externally serialized. External serial numbers are entered but not validated against the Exact Macola ES Lot/Serial file. The external serial numbers are written to the order line comment file and can be looked up using the Exact Macola ES Where Used inquiry.

Over/Under Ship Handling

6. **Overship Error:** If set to Warning, a warning message is displayed during carton packing if the quantity packed is greater than the quantity ordered, but the user can accept the message and ship the extra quantity. If set to Hard, an error message is displayed and the entry is not allowed.
7. **Tolerance %:** Used to indicate that WMS should generate a warning or error only if the item is over shipped by a value greater than the percentage specified.
8. **Undership Error:** If set to Warning, a warning message is displayed during order verification, shipment completion, and order billing if the quantity packed is less than the quantity ordered. The user can accept the message and ship without completely filling the order. If set to Hard, an error message is displayed and these functions are not allowed until the remaining quantity is packed and shipped.
9. **Tolerance %:** Used to indicate that WMS should generate a warning or error only if the item is under shipped by a value greater than the percentage specified.

Additional Bar Code Search Options

The check boxes in this section allow the user to configure how WMS determines the item number being processed when a value is entered into any of the item ID fields in WMS. The normal hierarchy of this search is to see if the specified code can be found in the following fields:

- WMS Bulk Weight Maintenance Alternate Item Identifier
- I/M Item Master UPC Code
- I/M Item Master Item Number

If the check boxes are selected, the additional search options are added, in order, to the top of this hierarchy.

These additional searches are typically used when a company has assigned the same UPC or UCC-14 number to multiple item numbers. Such use violates Universal Code Council standards and is not recommended. However, it can be difficult to remove these technical violations from a company's catalog, so these options allow WMS to be configured to correctly handle this situation. However, it is strongly recommended to avoid creating duplicate situations in the future and to make reasonable efforts to remove duplications going forward.

10. **EDI Cust Item X-Ref UPC Lookup?:** Add the EDI item cross-reference UPC No field to the search hierarchy. This option is ignored if the Exact Macola ES EDI module is not installed. Normally this check box should be cleared.
11. **O/E Cust Item X-Ref Cust Item Lookup?:** Adds the O/E customer item cross-reference Customer Item Number field to the search hierarchy. Normally this check box should be cleared.
12. **Bulk Weight Customer Prefix Lookup?:** Adds the customer number as a prefix in the WMS bulk weight cross-reference Alternate Item Identifier field. WMS adds the prefix to the specified code to the customer number between the ^ symbols, and then attempts to find the concatenated value in the Alternate Item Identifier field before using the normal hierarchy. Normally this check box should be cleared.

Shipping Printer Contexts

13. **Billing-Order Report:** Displays the default billing-order report. Click the Maintain Printer Context button to edit the report printing settings.
14. **Bin Verification Report:** Displays the default bin verification report. Click the Maintain Printer Context button to edit the report printing settings.
15. **Post Pick Audit:** Displays the default post pick ticket processing audit report. Click the Maintain Printer Context button to edit the report printing settings.
16. **EDI Diagnostic:** Displays the default EDI diagnostic report. Click the Maintain Printer Context button to edit the report printing settings.

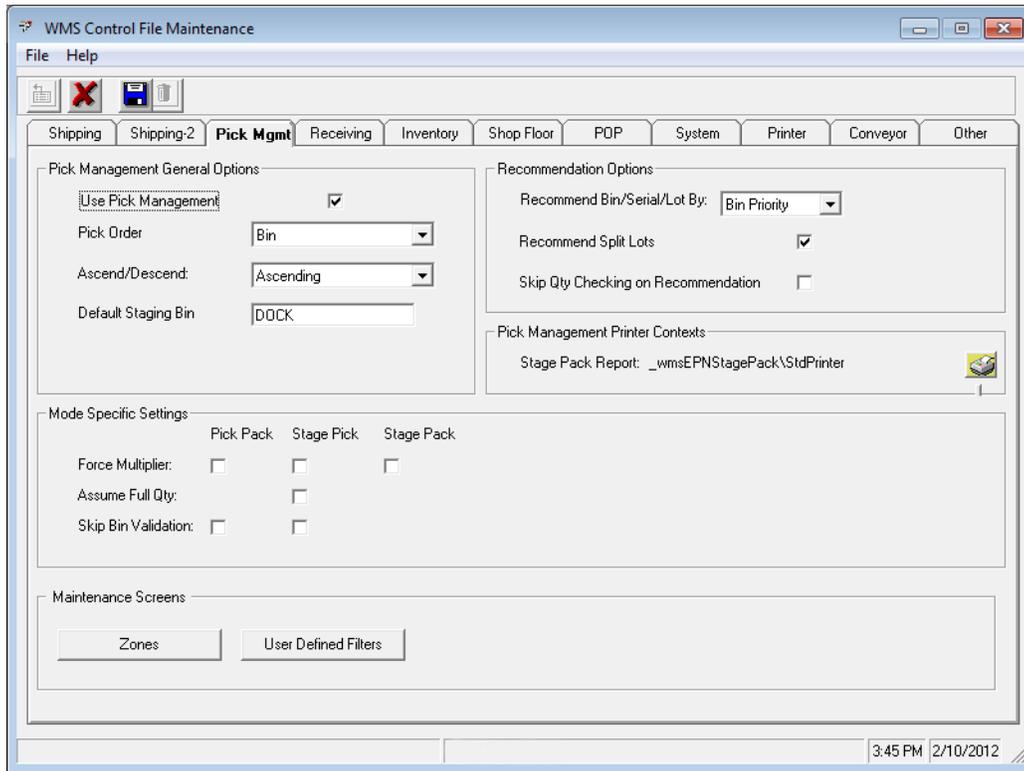
Ignore Item Prefix

Specify a list of prefixes for specialty item numbers. Items that begin with this prefix are not written into WMS and are billed automatically when the order is selected for billing. You can specify up to 10 different prefix codes.

Note: The prefix ** is automatically considered a miscellaneous item, which is the standard used by the EDI module.

17. **Ignore Item Prefix:** To add an item prefix to be ignored, type the prefix in the Ignore Item Prefix field, and then click **Add**.
18. To remove an item prefix, click the prefix in the list to select it, and then click **Delete**.
19. To change an existing item prefix, click the prefix in the list to select it. Type the new value in the field, and then click **Update**.

Pick Mgmt Tab



The Pick Mgmt tab might not be visible if Pick Management has not been enabled on your system. If you do not see this tab, please contact WMS support for further information.

Pick Management General Options

1. **Use Pick Management:** Select this check box to enable electronic pick tickets. This is intended for use in an RF environment because it enables the use of hand-held devices to walk a picker through picking the order.
2. **Pick Order:** Select the field that contains the sequencing value for the critical path through the warehouse. In a binned environment this typically is the bin number. In a non-binned environment, this is typically the pick sequence. However, the user can choose from the following values: Bin; Pick Sequence; and Inventory Location User Defined 1 - 5.
3. **Ascend/Descend:** Select whether the natural flow through the warehouse for the pick order specified in the EPN Pick Order field is Ascending or Descending.
4. **Default Staging Bin:** Type the value used when creating a stage pack as the default location for staging products. This can be overridden when the stage pack is created.

Recommendation Options

5. **Recommend Bin/Serial/Lot By:** Select Expiration Date or Bin Priority as the primary criteria when making recommendations for bin, serial, and lot items. Expiration Date is applicable only to serial and lot items. When Bin Priority is selected, WMS does not recommend a specific lot or serial number in the bin.
6. **Recommend Split Lots:** This check box should be selected if WMS can use more than one lot to fulfill the order. If Recommend Split Lots is selected, WMS uses the remainder of the oldest, non-expired lot, and then fills the remaining open quantity

from the next available lot. If this check box is cleared, WMS uses the oldest lot that has sufficient quantity to fulfill the order. This setting is ignored if the Recommend Bin/Serial/Lot By field is set to Bin Priority.

7. **Skip Qty Checking on Recommendation:** Select this check box to force WMS to recommend the item from the first valid bin, even if that bin does not have sufficient quantity to fill the order. This is typically used when bin quantities are replenished multiple times a day to guarantee there is always quantity on hand.

Pick Management Printer Contexts

8. **Stage Pack Report:** Displays the default report name for the stage pack report. Click the Maintain Printer Context button to configure the report printing settings.

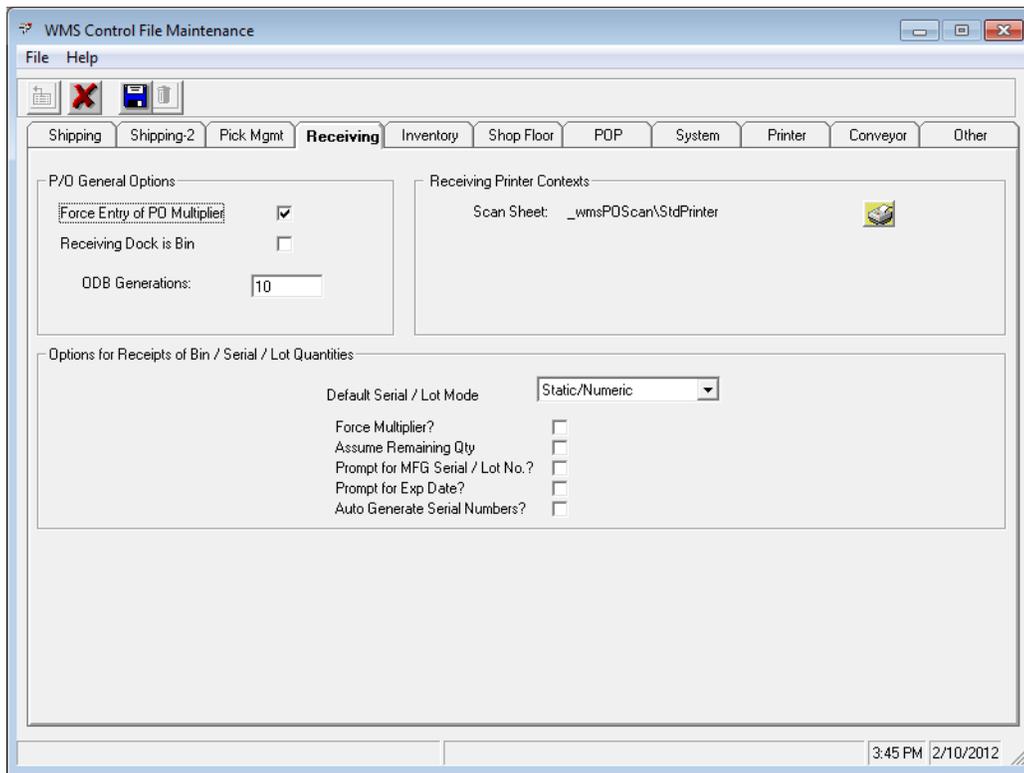
Mode Specific Settings

9. **Force Multiplier:** Select this check box if a user typically is required to specify a multiplier or quantity when processing picks. If this is selected, WMS prompts for the multiplier before asking for the item number. Set this option for Pick Pack, Stage Pick, and Stage Pack.
10. **Assume Full Qty:** Select this check box if WMS should pack the full open quantity without the user having to specify a multiplier. This option is available for Stage Pick only.
11. **Skip Bin Validation:** Select this check box to allow the user to pick from a bin without having to scan and validate that it is the correct bin. This option is available for Pick Pack and Stage Pick only.

Maintenance Screens

12. **Zones** button: Click to define pick management zones. See "Zone Maintenance" on page 66 for more information.
13. **User Defined Filters** button: Click to set up user defined queries for filtering sales orders in Pick Management. See "User Defined Filters" on page 58 for more information.

Receiving Tab



P/O General Options

1. **Force Entry of PO Multiplier:** Select this check box if the user is typically required to specify a multiplier or quantity when performing receiving entries. If this is selected, WMS prompts for the multiplier before asking for the item number.
2. **Receiving Dock is Bin:** Select this check box if the Exact Macola ES bin system is in use and goods are typically off-loaded from the truck at a warehouse dock and then transferred to where they are stored.
3. **ODB Generations:** This field specifies the number of copies of the quick receipt ODB files to save for receipt transactions. Although rarely necessary, having a backup of these files can help track and resolve problems that occur when updating Exact Macola ES from WMS. The maximum number of files that can be saved is 9999.

Receiving Printer Contexts

4. **Scan Sheet:** Displays the default report name for the scan sheet. Click the Maintain Printer Context button to configure the report printing settings.

Options for Receipts of Bin/Serial/Lot Quantities

5. **Default Serial/Lot Mode:** Choose an option for the default serial/lot mode:
 - **Static/Numeric:** Displays the bin/serial/lot static number screen
 - **Scan Full Number:** Displays the bin/serial/lot full scan mode screen

WMS displays one of these screens if the operation is a Y count point and the parent item is a serial or lotted item, or if the parent item is binned and the Receive to Staging Bin check box is cleared.

6. **Force Multiplier:** Select this check box if the user typically is required to specify a multiplier or quantity when processing purchase order receipts. If this is selected, WMS prompts for the multiplier before asking for the item number.
7. **Assume Remaining Qty:** Select this check box to default to receiving the full quantity remaining for an item. If cleared, the quantity defaults to 1 unless the user overrides it.
8. **Prompt for MFG Serial/Lot No:** Select this check box to prompt the user to enter the manufacturer's serial or lot number when receiving items.
9. **Prompt for Exp Date:** Select this check box to prompt the user to enter an expiration date when receiving items. The expiration date defaults to the current date plus the shelf life days from the item number. If the Shelf Life Days defined on the Item Master Maintenance screen is zero, the default expiration date is the current date plus fifteen years.
10. **Auto Generate Serial Numbers:** Select this check box to keep users in static numeric mode and prevent them from switching between scan numeric mode and full scan mode.

Inventory Tab

The screenshot shows the 'WMS Control File Maintenance' window with the 'Inventory' tab selected. The window contains several sections of configuration options:

- Inventory Issues:**
 - Force Multiplier
 - Assume Remaining Qty
- Inventory Receipts:**
 - Default Serial / Lot Mode: Static/Numeric (dropdown)
 - Force Multiplier?
 - Assume Remaining Qty
 - Prompt for MFG Serial / Lot No.?
 - Prompt for Exp Date?
 - Auto Generate Serial Numbers?
- Inventory Transfers:**
 - Force Multiplier
- Inventory Transactions:**
 - Allow Any To Bin
 - Specify Order Number
 - Allow Any Order Number
 - ODB Generations: 10 (text input)
 - WMS Qty Checking on ISSUE\Fer: Soft (dropdown)
- Physical / Cycle Count Options:**
 - Force Multiplier
 - Auto Advance
 - Record Non-Bin location
 - Automatically Use Empty tags
- Stock Inquiry:**
 - Hide Zero Qty Bins
- Product Labels:**
 - Default Calculated Number of Labels to 1?

The status bar at the bottom right shows the time as 11:28 AM and the date as 10/30/2013.

Inventory Issues

1. **Force Multiplier:** Select this check box if the user typically is required to specify a multiplier or quantity when issuing inventory. If this check box is selected, WMS prompts for the multiplier before asking for the item number.
2. **Assume Remaining Qty:** Select this check box to default to issuing the full quantity remaining for an item. If cleared, the quantity defaults to 1 unless the user overrides it.

Inventory Receipts

3. **Default Serial/Lot Mode:** Choose an option for the default serial/lot mode:
 - **Static/Numeric:** Displays the bin/serial/lot static number screen
 - **Scan Full Number:** Displays the bin/serial/lot full scan mode screen
4. **Force Multiplier:** Select this check box if the user typically is required to specify a multiplier or quantity when receiving inventory. If this check box is selected, WMS prompts for the multiplier before asking for the item number.
5. **Assume Remaining Qty:** Select this check box to default to receiving the full quantity remaining for an item. If cleared, the quantity defaults to 1 unless the user overrides it.
6. **Prompt for MFG Serial/Lot No:** Select this check box to prompt the user to enter the manufacturer's serial or lot number when receiving items.
7. **Prompt for Exp Date:** Select this check box to have WMS prompt the user to enter an expiration date when receiving items. The expiration date defaults to the current date plus the shelf life days from the item number. If the Item Master Shelf Life Days is zero, the default expiration date is the current date plus fifteen years.
8. **Auto Generate Serial Numbers:** Select this check box to keep users in static number mode and prevent them from switching between scan numeric mode and full scan mode.

Inventory Transfers

9. **Force Multiplier:** Select this check box if the user typically is required to specify a multiplier or quantity when processing inventory transfers. If this check box is selected, WMS prompts for the multiplier before asking for the item number.

Inventory Transactions

10. **Allow Any To Bin:** Select this check box if the bin number does not need to exist already when transferring or receiving product into the bin.
11. **Specify Order Number:** Select this check box if WMS should prompt for an order number while processing issues, receipts, and transfers.
12. **Allow Any Order Number:** Select this check box if WMS should not validate the order against Exact Macola ES Order Entry. If this check box is cleared, WMS validates the order number and allow issues, receipts, and transfers only for items that appear on the order.
13. **ODB Generations:** This field specifies the number of copies of the inventory transaction ODB files to save for issue, receipt, and transfer transactions. Although rarely necessary, having a backup of these files can help track and resolve problems that occur when updating Exact Macola ES from WMS. The maximum number of files that can be saved is 9999.
14. **WMS Qty Checking on ISSUE/Xfer:** This controls how WMS validates available bin/lot quantities for issuing and transferring quantities with regards to making use of additional information that WMS knows about the usage of a bin/lot. **Note:** WMS does not allow the bin or lot if the available quantity in Exact Macola ES will go negative.

Soft - If WMS calculates that there is insufficient quantity to issue or transfer, taking into account WMS recommendations, and pending transactions that have not been polled yet, the system gives a warning message and allows the user to over-

ride. This may cause an exception or cause a user processing an EPN to be sent to a location that does not have product available.

Hard - If WMS calculates that there is insufficient quantity to issue or transfer, taking into account WMS recommendations, and pending transactions that have not been polled yet, the system gives a message and does not allow the transaction.

Ignore - WMS looks only at the quantity available as shown in Exact Macola ES I/M.

Physical/Cycle Count Options

15. **Force Multiplier:** Select this check box if the user typically is required to specify a multiplier or quantity when processing count tags. If this check box is selected, WMS prompts for the multiplier before asking for the item number.
16. **Auto Advance:** Select this check box if the user typically makes one entry per tag. WMS automatically advances to the next tag once the current one is processed. This option is ignored for non-directed counting.
17. **Record Non-Bin Location:** Select this check box to require the user to enter a bin location, even for non-binned warehouses or items. This information prints on the reconciliation reports, which is useful in determining each item's location, but does not affect the posting.
18. **Automatically Use Empty Tags:** Select this check box for WMS to automatically use an empty tag when an item is scanned that was not included when the count was generated. If this check box is cleared and empty tags are available, WMS displays a warning. The user must acknowledge the warning to use an empty tag.

Stock Inquiry

19. **Hide Zero Quantity Bins:** Select this check box if the bin stock inquiry should default not to display zero quantity bins.

Product Labels

20. **Default Calculated Number of Labels to 1?:** If this check box is selected, it forces the default quantity to be 1 label for the entire transaction quantity, instead of 1 per unit when a bulk weight record is not found. If there is a bulk weight record, it takes precedence over this setting. If this check box is cleared, WMS assumes a quantity of 1 per, which means that you get 1 label for every unit received. For example, if this check box is cleared and there are no bulk weight matching entries and you receive 5000 pieces into inventory from P/O, I/M Receipts, POP Receipts, or SFS Receipts, it would print 5000 labels, at 1 per. If this check box is selected, it would print 1 label for the 5000.

Shop Floor Tab

The screenshot shows the 'WMS Control File Maintenance' application window. The 'Shop Floor' tab is active. The interface is organized into several sections:

- SF Activity General Options:**
 - Receive to Staging Bin?
 - Check Prev Oper Qty Complete: Soft (dropdown)
 - Over Production Message: Hard (dropdown)
- SF Activity Options for Completed Bin / Serial / Lot Quantities:**
 - Default Serial / Lot Mode: Static/Numeric (dropdown)
 - Force Multiplier?
 - Assume Remaining Qty
 - Prompt for MFG Serial / Lot No.?
 - Prompt for Exp Date?
 - Auto Generate Serial Numbers?
- Material Issue and Return General Options:**
 - Over Issue Message: Warn (dropdown)
 - Force Multiplier
- Options for Issues/ Returns of Bin / Serial / Lot Components:**
 - Force Multiplier
 - Assume Remaining Qty
- SF Activity Data Collection Options:**
 - Prompt for Path?
 - Default Operation to Y count?
 - Display Department? Override Department?
 - Display Work Center? Override Work Center?
 - Display Labor Grade? Override Labor Grade?
 - Enter Labor Hours?
 - Enter Completed Quantity?
 - Enter Item ID?
 - Enter Scrap?
 - Enter Rejected Quantities?
 - Remain In Transaction?
 - ODB Generations: 0 (text input)

SF Activity General Options

1. **Receive to Staging Bin:** Select this check box to receive orders to the staging bin automatically by default.
2. **Check Prev Oper Qty Complete:** Checks the quantity of the previous operation to determine the quantity completed for its parent item.
 - Soft: Warns when entering an amount that is over production.
 - Hard: Prevents entering an amount that is over production.
 - Ignore: Allows over production.
3. **Over Production Message:** Choose a method for handling over production entries.
 - Warn: Warns when entering an amount that is over production.
 - Hard: Prevents entering an amount that is over production.

SF Activity Options for Completed Bin/Serial/Lot Quantities

4. **Default Serial/Lot Mode:** Choose an option for the default serial/lot mode:
 - Static/Numeric: Displays the bin/serial/lot static number screen.
 - Scan Full Number: Displays the bin/serial/lot full scan mode screen.

WMS displays one of these screens if the operation is a Y count point and the parent item is a serial or lotted item, or if the parent item is binned and the Receive to Staging Bin check box is not selected.

5. **Force Multiplier:** Select this check box if users are typically required to enter a multiplier or quantity when entering receipt quantity.
6. **Assume Remaining Qty:** This is used in SFC when issuing binned, serial, or lot-ted components during a back flush. If selected, WMS defaults to issuing the full quantity remaining against the lot. If you clear this check box, the quantity defaults to 1 unless the user overrides it.
7. **Prompt for MFG Serial/Lot No:** Select this check box to have WMS prompt users for the manufacturer's serial or lot number.
8. **Prompt for Exp Date:** Select this check box to have WMS prompt users for an expiration date. The expiration date defaults to the current date plus the shelf life days from the item number. If the Item Master Shelf Life Days is zero, the default expiration is the current date plus fifteen years.
9. **Auto Generate Serial Numbers:** Select this check box to keep the users in static numeric mode and prevent them from switching between scan numeric mode and full scan mode.

Material Issue and Return General Options

10. **Over Issue Message:** Choose an option for handling over issues:
 - Warn: Warns users when issuing an amount greater than what is required.
 - Hard: Prevents users from issuing an amount greater than what is required.
11. **Force Multiplier:** Select this check box if users are typically required to enter a multiple or quantity when entering material issues and returns.

Options for Issues>Returns of Bin/Serial/Lot Components

12. **Force Multiplier:** Select this check box if users are typically required to enter a multiplier or quantity when entering issued quantities.
13. **Assume Remaining Qty:** This is used in SFC when issuing binned, serial, or lot-ted components during a back flush. If selected, WMS defaults to issuing the full quantity remaining against the lot. If cleared, the quantity defaults to 1 unless the user overrides it.

SF Activity Data Collection Options

14. **Prompt for Path:** Select this check box for WMS to prompt the user for the path number. If this check box is cleared, the system forces the path to 0000.
15. **Default Operation to Y count:** Select this check box to default the activity transaction to Y count.
16. **Display Department:** Select this check box for WMS to display the department number for the user.
17. **Override Department:** Select this check box to allow the user to enter a different department number and enable the F7 key to search for departments.
18. **Display Work Center:** Select this check box to display the work center for the user.
19. **Override Work Center:** Select this check box to allow the user to enter a different work center and enable the F7 key to search for work centers.
20. **Display Labor Grade:** Select this check box for WMS to display the labor grade for the user.

21. **Override Labor Grade:** Select this check box to allow the user to enter a different labor grade and enable the F7 key to search for labor grades.
22. **Enter Labor Hours:** Select this check box to allow the user to enter the number of labor hours.
23. **Enter Completed Quantity:** Select this check box to allow the user to enter the completed quantity.
24. **Enter Item ID:** Select this check box to allow the user to enter the item ID.
25. **Enter Scrap:** Select this check box to allow the user to enter a scrap quantity.
26. **Enter Rejected Quantities:** Select this check box to allow the user to enter a rejected quantity.
27. **Remain in Transaction:** When selected, the program returns to the quantity completed field to allow the user to scan or enter the next completed quantity without having to keep entering the shop floor order, operation, and other information. This is used when each box or pallet is typically scanned or entered instead of a single entry for the session.
28. **ODB Generations:** Enter the number of ODB files that WMS should create and keep. Enter up to a maximum of 9999. For example, if you enter 10, WMS will create a maximum of 10. The 11th ODB file will overwrite the first.

POP Tab

POP General Options

1. **Receive to Staging Bin:** Select this check box to receive orders to the staging bin automatically by default.
2. **Over Production Message:** Choose an option for handling over production:

- Warn: Warns users when entering an amount over production
 - Hard: Prevents users from entering an amount over production
3. **Enter Item ID:** This is for both POP and SFC. When selected, this allows the user to scan an Item ID to do a case pack look up for the quantity, instead of entering the quantity. The item must match the item ID cross reference to the Item Number associated with the Shop or POP order, and a case pack quantity is used as the quantity.

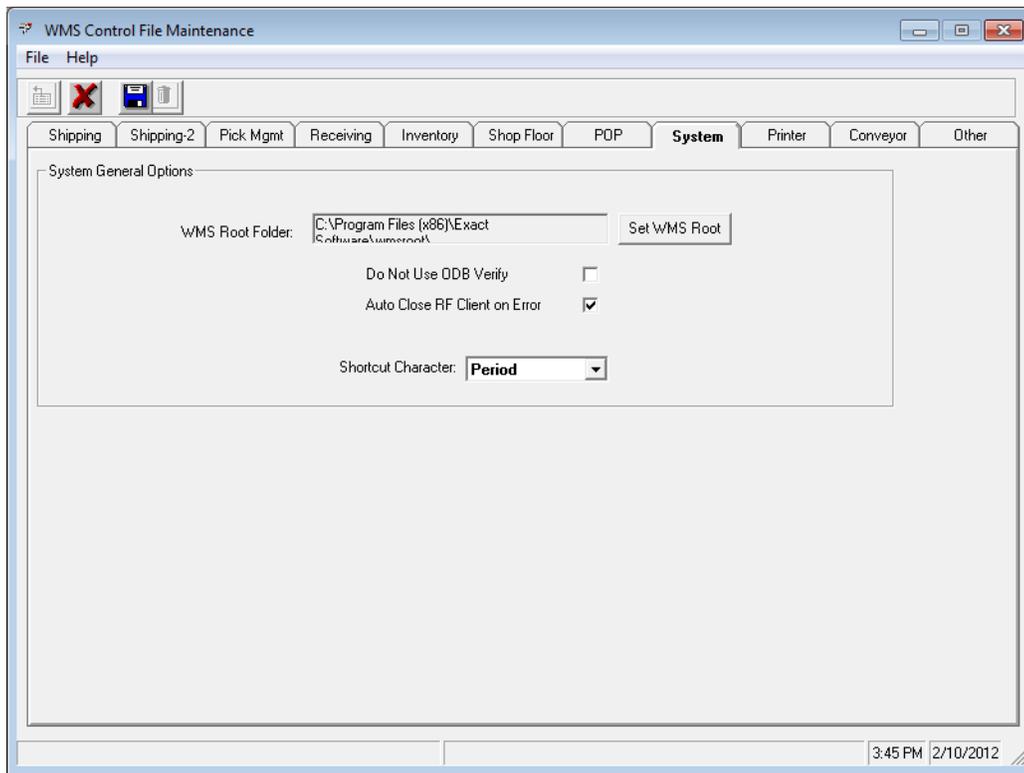
POP Options for Completed Bin/Serial/Lot Quantities

4. **Default Serial/Lot Mode:** Choose an option for the serial/lot mode:
- Static/Numeric: Displays the bin/serial/lot static number screen
 - Scan Full Number: Displays the bin/serial/lot full scan mode screen
- WMS displays one of these screens if the operation is a Y count point and the parent item is a serial or lotted item, or if the parent item is binned and the Receive to Staging Bin check box is cleared.
5. **Force Multiplier:** Select this check box if users are typically required to enter a multiple or quantity when entering a receipt quantity.
6. **Assume Remaining Qty:** This is used in POP when issuing binned, serial, or lot-ted components during a back flush. If selected, WMS defaults to issuing the full quantity remaining to issue against the lot, without a user needing to enter it. If you clear this check box, the quantity defaults to 1 unless the user overrides it.
7. **Prompt for MFG Serial/Lot No:** Select this check box to have WMS prompt users to enter the manufacturer's serial or lot number.
8. **Prompt for Exp Date:** Select this check box to have WMS prompt users for an expiration date.
9. **Auto Generate Serial Numbers:** Select this check box to keep the users in static numeric mode and prevent them from switching between scan numeric mode and full scan mode.

POP Options for Issues>Returns of Bin/Serial/Lot Components

10. **Force Multiplier:** Select this check box if users are typically required to enter a multiplier or quantity when entering a receipt quantity.
11. **Assume Remaining Qty:** This is used in POP when issuing binned, serial, or lot-ted components during a back flush. If selected, WMS defaults to issuing the full quantity remaining to issue against the lot, without a user needing to enter it. If you clear this check box, the quantity defaults to 1 unless the user overrides it.
12. **ODB Generations:** Enter the number of ODB files that WMS should create and keep. Enter up to a maximum of 9999. For example, if you enter 10, WMS will create a maximum of 10. The 11th ODB file will overwrite the first.

System Tab



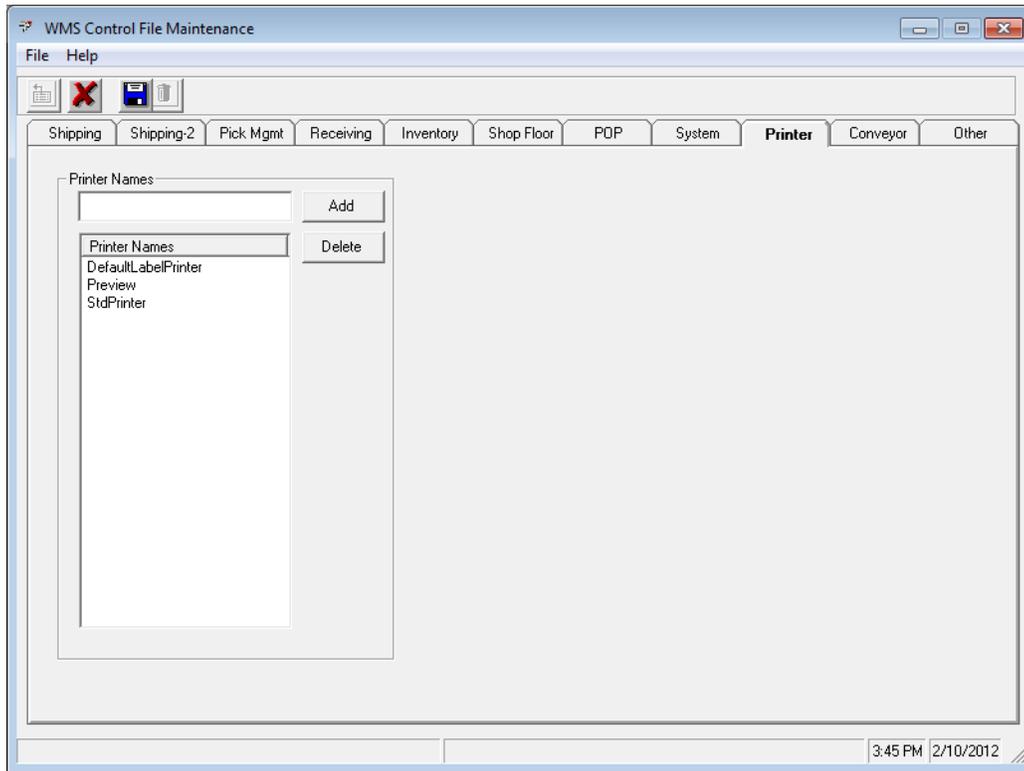
1. **WMS Root Folder:** Displays the WMS root directory. To set the WMS root folder, click the Set WMS Root button. Browse to the WMS root directory, and then click Open.
2. **Do Not Use ODB Verify:** Select this check box if you do not want to use ODB verification. WMS ODB verification is used to ensure that quantities reported by WMS have not already been processed by the Barcode module, which protects against issuing the same serial number more than once. If you are not using serial or lot items, WMS ODB verification may not be necessary.
3. **Auto Close on RF Error:** Select this check box to allow the RF client to shut down automatically if an error occurs in the RF connection. If cleared, WMS displays an error on the RF server and the client remains open until the message has been addressed.

An error happens when an RF disconnect occurs between the RF server and the RF gun. The client, running as a session on the RF server, can no longer communicate with the RF gun, so the error cannot be displayed on the RF gun. The RF gun resets and a new RF client created, regardless of the option specified here. Leaving old clients can slow down the RF server because they continue to use resources.

It is normally recommended to Select this check box.

4. **Shortcut Character:** The shortcut character can be used when typing carton or pallet IDs to eliminate the need to type leading zeroes. For example, instead of typing 00000012, you can use the shortcut character and type only 0.12, which is translated into the full value. Select Period, Comma, or Semicolon from the Shortcut Character drop-down list box to change the shortcut character, or select Disable to disallow this feature.

Printer Tab

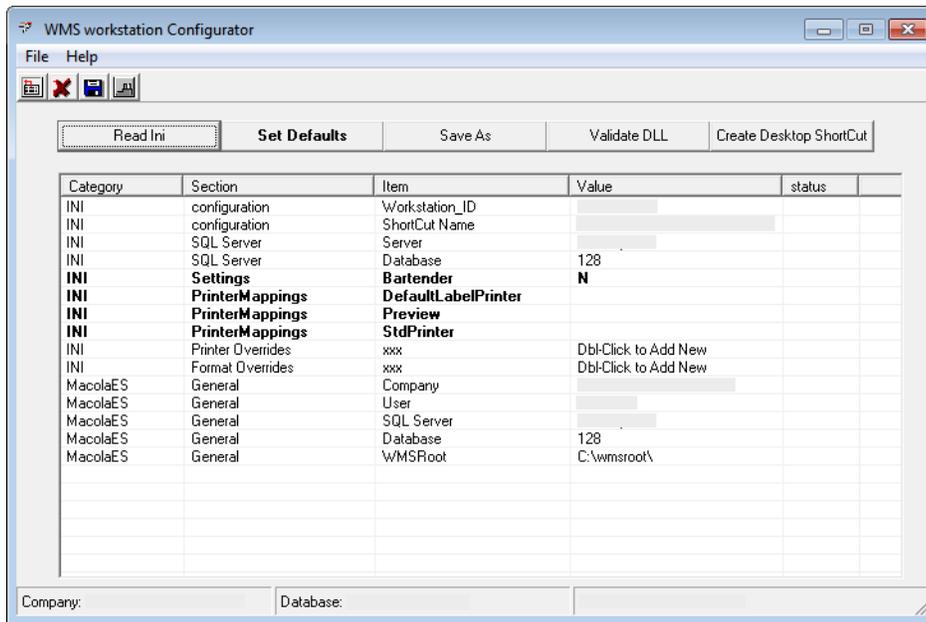


The Printer tab allows you to define logical printer names to be used when printing labels to various printers from different workstations. These logical printer names are also used when setting up printer contexts for labels and certain WMS reports.

Labels for the same process or customer are often printed at workstations in different areas of the warehouse, or even in different warehouses. Since it would be inefficient for employees to go to the other side of the warehouse to get labels they printed, each workstation can use a different printer, even when printing the same type of label. For example, receiving stations in different areas of the warehouse could each need to print 1x3 product labels for Wal-Mart. Each area would have its own printer for 1x3 labels, so employees do not have to stop working to go get the labels. However, in the WMS Label Configurator, there is still only one label definition for Wal-Mart 1x3 product labels, with only one printer name selected for it. In WMS, this printer name is a logical printer name, which allows you to print labels to different label printers based on the workstation being used.

To add a logical printer name, type the name in the **Printer Names** field, and then click **Add**. The printer name can then be selected in a printer context for labels, PO scan sheets, and other WMS reports. However, before a workstation can actually print the label or report, the logical printer name must be associated with a physical printer in the workstation's WMS INI file.

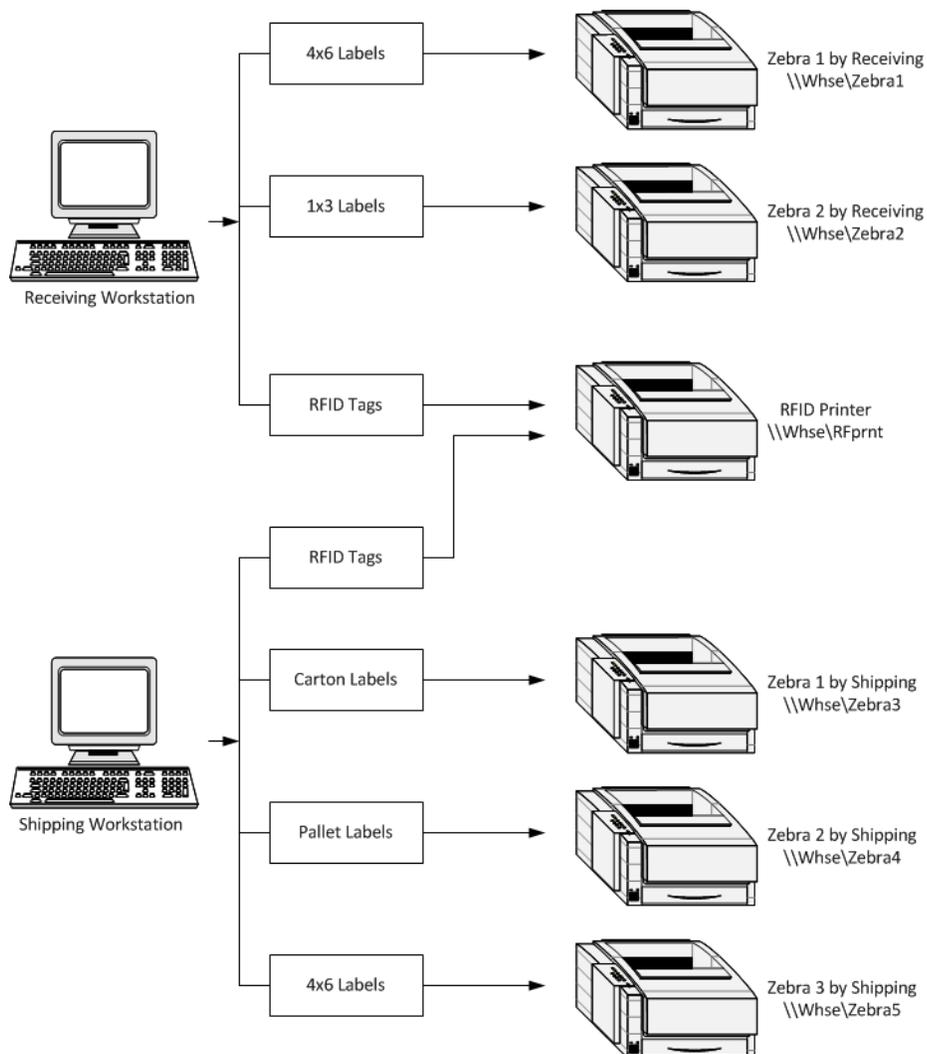
To associate the logical printer name to a physical printer, go to the WMS Workstation Configurator on the workstation. The logical printer name that you just defined is listed in the PrinterMappings section.



Double-click the logical printer name. The Available Printers list includes all physical printers to which the workstation can print. Select the appropriate printer from the list. Click Test Print to send a test page to the printer; if the document printed correctly, click Accept Printer. Otherwise, select a different printer from the list.

To change a printer mapping to a different printer, double-click its entry in the Workstation Configurator. Select a new printer from the Available Printers list, and then click Accept Printer.

Note: PREVIEW is a reserved printer name that indicates to display the label or report to the screen instead of printing it.



The diagram shows an example of logical printer names being associated to physical printers for two different workstations in a warehouse. The receiving workstation needs to print 4x6 product labels, 1x3 product labels, and RFID tags. These labels types use the logical printer names 4x6 Labels, 1x3 Labels, and RFID Tags. The shipping workstation also has to print RFID tags and 4x6 labels, but has to print pallet and carton labels as well. The warehouse has only one RFID printer, but the receiving and shipping departments each have their own printers for any other type of label.

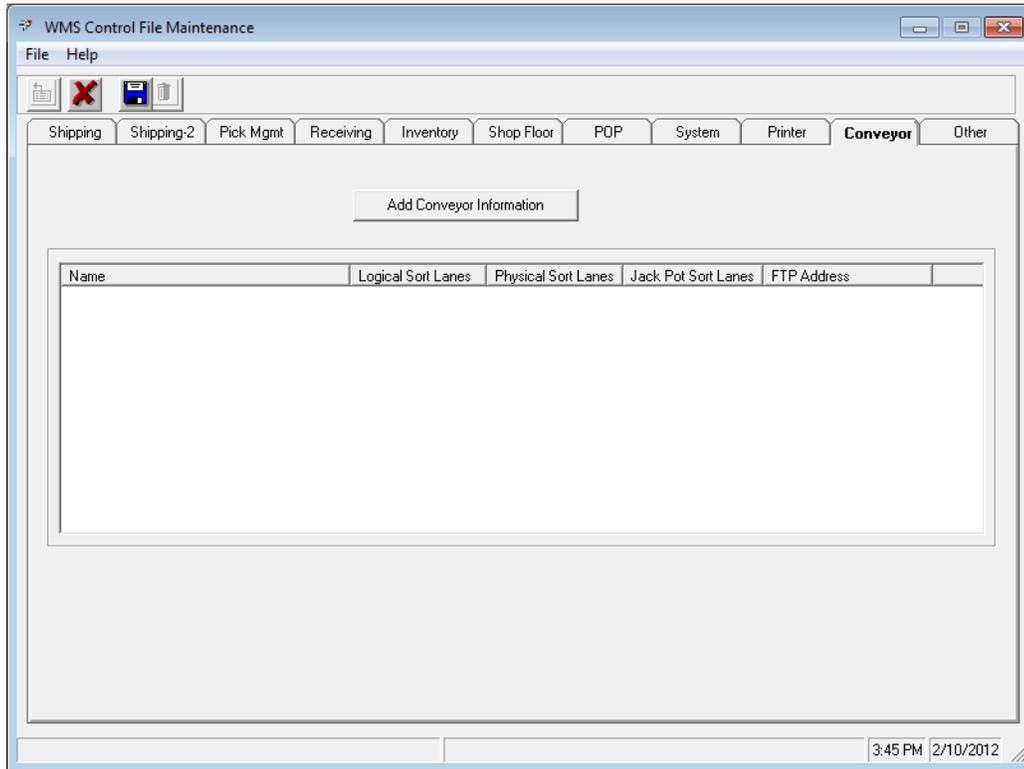
In the Workstation Configurator on the receiving workstation, the WMS logical printer name 4x6 Labels is associated with the printer \\Whse\Zebra1, which is a Zebra label printer in the receiving department. When the receiving workstation prints a label that is defined in WMS to print to the 4X6 Labels printer, the label is printed to \\Whse\Zebra1.

The shipping workstation also uses the 4X6 Labels logical printer name, but in the Workstation Configurator, 4X6 Labels is associated with \\Whse\Zebra 5, which is a Zebra printer in the shipping department. When the shipping workstation prints a label that is defined in WMS to print to the 4X6 Labels printer, the label is printed to \\Whse\Zebra5.

Since the warehouse has only one RFID printer, the logical printer name RFID Tags is associated with the printer \\Whse\RFprnt in the Workstation Configurator on both the receiving workstation and the shipping workstation. When either workstation prints a label that is defined in WMS to print to the RFID Tags printer, the label prints to \\Whse\RFprnt.

Additional logical printer names can be added on the WMS Control File Printer tab. Type the new logical printer name in the Printer Names field, and then click Add. To delete a logical printer name, select it in the Printer Names list, and then click Delete. To change an existing printer name, select it in the Printer Names list. Type the new name in the Printer Names field, and then click Update.

Conveyor Tab



WMS conveyor support is designed for use when using stage pick and stage pack operations to pack standard cartons onto pallets. A separate conveyor management system must be used to control the automated conveyors.

Click the **Add Conveyor Information** button to configure a conveyor.

General Tab

The screenshot shows the 'Add Conveyor Information' dialog box with the 'General' tab selected. It contains the following fields:

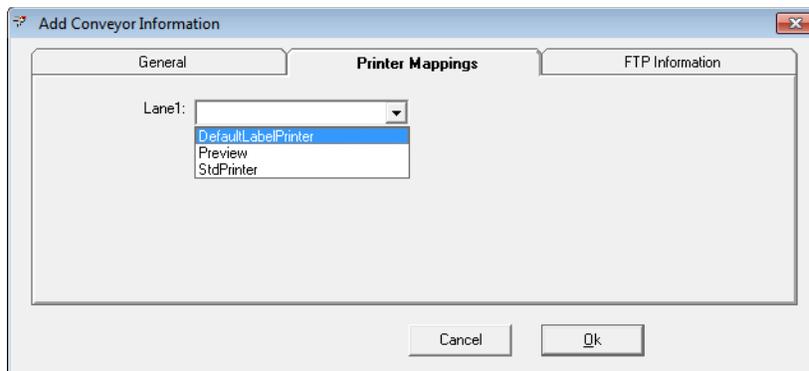
- Conveyor Name:
- Logical Sort Lanes:
- Physical Sort Lanes:
- Jackpot Sort Lanes:
- Default Bin:

At the bottom, there are 'Cancel' and 'Ok' buttons.

1. **Conveyor Name:** Type the name of the conveyor.

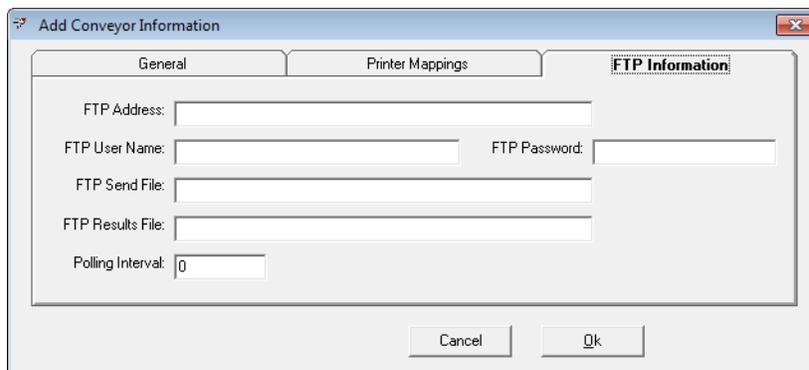
2. **Logical Sort Lanes:** Type the number of logical sort lanes to be used by this conveyor. A logical lane is composed of two physical lanes. When the pallet being packed on the first physical lane is full, the conveyor management system diverts the order to the second one, and then continues alternating between the two as the order is packed.
3. **Default Bin:** Type the I/M bin to use as the default staging bin for this conveyor.
4. **Physical Sort Lanes:** Type the number of physical sort lanes to be used by this conveyor.
5. **Jackpot Sort Lanes:** Type the number of jackpot sort lanes to be used for this conveyor. Packing exceptions due to errors, special processing, or weight and size exceptions are routed to a jackpot sort lane for packing.

Printer Mappings Tab



A printer drop-down list box is displayed for each physical sort lane defined in the Conveyor tab General settings. Select a printer for each Printer field displayed.

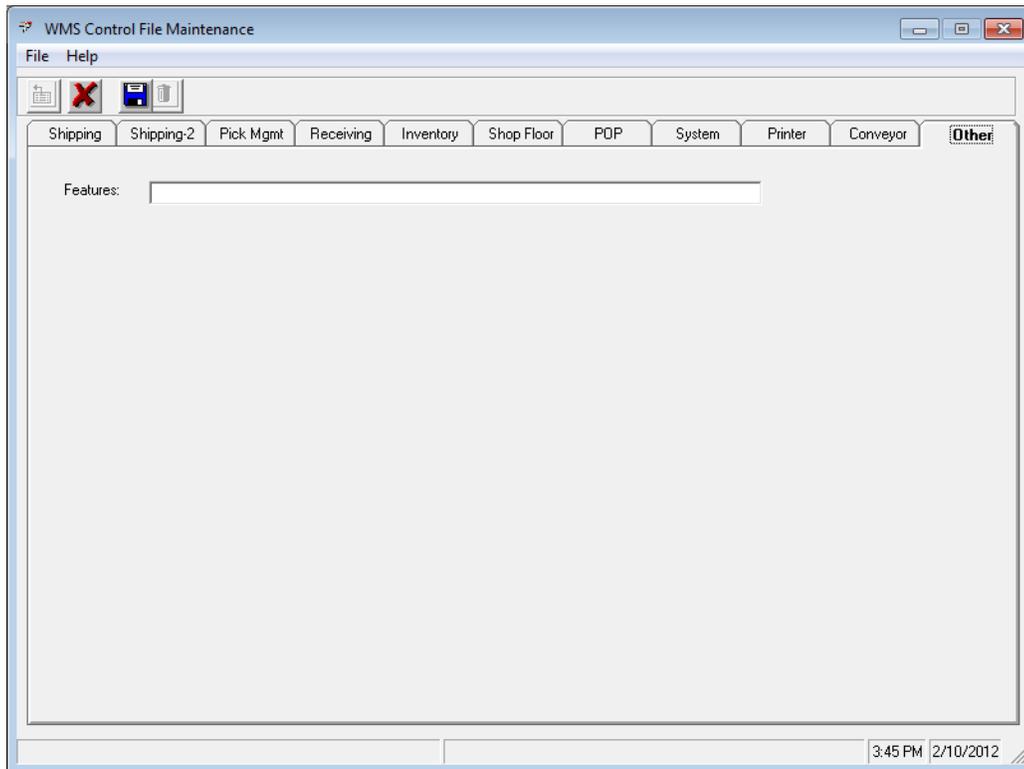
FTP Information Tab



1. **FTP Address:** Type the IP address for the FTP server.
2. **FTP User Name:** Type a user name for FTP communications.
3. **FTP Password:** Type a password for FTP communications.
4. **FTP Send File:** Type the filename of the WMS conveyor wave definition file. This file is sent to the conveyor management program and contains the order packing information. The following special characters are supported for filenames:

- * - Any value
 - ? - Any one byte value
 - %d - Date/time stamp in format yyyyymmddhhmm
5. **FTP Results File:** Type the filename of the wave results file sent from the conveyor management system to WMS. This information is used by WMS to create and pack pallets for the order. The following special characters are supported for file-names:
 - * - Any value
 - ? - Any one byte value
 - %d - Date/time stamp in format yyyyymmddhhmm
 6. **Polling Interval:** Type a value, in seconds, for how frequently WMS should check for packing information from the conveyor system.
 7. Click **OK** to save the conveyor information and return to the main Conveyor tab.

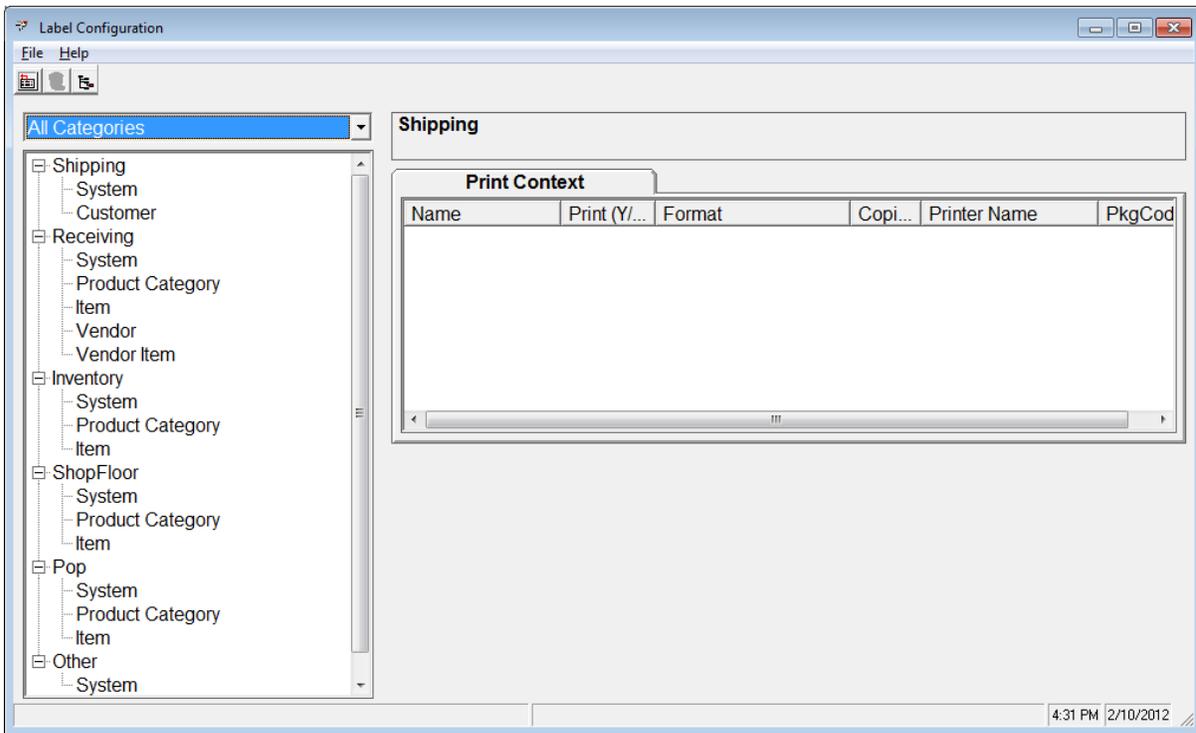
Other Tab



1. **Features:** This field should be left blank unless instructed otherwise by support personnel.

Label Configuration

WMS Label Configuration allows you to define the formats used to print the various labels for shipping, PO receiving, inventory transactions, and shop floor processes. It also enables you to establish overrides for each label at different levels, such as customer, vendor, and item.



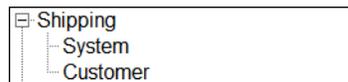
1. To access Label Configuration, on the Exact Macola ES System menu, under the Distribution heading, select WMS, WMS Control File. On the Shipping tab, click the **Label Configuration** button.
2. Select the categories to view from the drop-down list box, or select All Categories to view all label categories.



3. The various label categories and sub-categories are displayed in a tree menu in the left-hand pane. Click an entry to view the current label settings for that category. The label settings are displayed in the Print Context box.

Shipping Labels

Default shipping labels for three carton and three pallet level labels can be defined, in addition to establishing customer label overrides.



1. **System:** Default settings for shipping labels

Name	Print (Y/N)	Format	Copies	Printer Name	PkgCode
Carton - Format1	Yes	_wmsDFLTCTN	1	DefaultLabelPrinter	
Carton - Format2	No	_wmsDFLTCTN	1	DefaultLabelPrinter	
Carton - Format3	No	_wmsDFLTCTN	1	DefaultLabelPrinter	
Pallet - Format1	Yes	_wmsDFLTPLT	1	DefaultLabelPrinter	
Pallet - Format2	No	_wmsDFLTPLT	1	DefaultLabelPrinter	
Pallet - Format3	No	_wmsDFLTPLT	1	DefaultLabelPrinter	

- **Carton - Format 1 / Carton - Format 2 / Carton - Format 3:** Carton level shipping label settings. WMS allows you to define three different carton labels to be printed during shipment processing. This allows for multiple types of labels that might be required on a single carton to be printed.
- **Pallet - Format 1 / Pallet - Format 2 / Pallet - Format 3:** Pallet level shipping label settings. WMS allows you to define three different carton labels to be printed during shipment processing. This allows for multiple types of labels that might be required on a single pallet to be printed.

2. **Customer:** Customer shipping label override settings

Editing a Shipping Carton or Pallet Label Print Context

Label specific settings such as format, whether to print, and number of copies to print are defined in the Label Configuration Print Context.

1. To edit a print context for a specific level in a category, double-click the entry in the Print Context box. WMS opens the print context edit screen.

The screenshot shows a dialog box titled "Edit Shipping\System\Carton - Format1". It has several input fields and buttons. The "Print (Y/N)" field is a dropdown menu currently set to "Yes". The "Format" field is a text box containing "_wmsDFLTCTN". To the right of the Format field is a "Get Format" button. The "Copies" field is a text box containing "1". The "Printer Name" field is a dropdown menu currently set to "DefaultLabelPrinter". Below these fields, there is a "Call Type" dropdown menu set to "Bartender" and a "Parameters" text box. At the bottom of the dialog are "Cancel" and "Ok" buttons.

2. **Print (Y/N):** Select Yes or No to indicate whether the shipping label should be printed:
Yes: Print automatically without waiting for user confirmation.
No: Do not print the label.
3. **Format:** Type the name of the label format, or click **Get Format** to browse to the format file.

Note: Do not include the extension if you type the filename in the Format field. For example, type `_WMSDFLTCTN`, not `_WMSDFLTCTN.BTW`.

4. **Copies:** Type the number of copies of the label to print.

5. **Printer Name:** Select the printer to use for this label. The printer must have been set up previously on the WMS Control File Printer tab.
6. **Call Type:** Select the program used to print the label:
 - Crystal: A report designed in Crystal Reports
 - BarTender: A label designed and printed with BarTender
 - Executable: An executable program
7. **Parameters:** Specify any parameters to control the label printing application.
8. Click **OK** to save the new label settings.

Adding a Shipping Label Customer Override

1. Select Shipping from the category list.
2. Double-click Customer in the tree list. WMS displays the Add Shipping/Customer context screen.
3. **Customer:** Type the customer ID, and then press Tab.
4. WMS creates an override for the customer with the default label settings.
5. To edit a print context for a specific level in a category, double-click the entry in the Print Context box.
6. **Print (Y/N):** Select an option for whether to print the label:
 - Yes: Print automatically without waiting for user confirmation.
 - No: Do not print the label.
7. **Format:** Type the name of the label format, or click **Get Format** to browse to the format file.

Note: Do not include the extension if you type the filename in the Format field. For example, type `_WMSDFLTCTN`, not `_WMSDFLTCTN.BTW`.

8. **Copies:** Type the number of copies of the label to print.
9. **Printer Name:** Select the printer to use for this label. The printer must have been set up previously on the WMS Control File Printer tab.
10. **Call Type:** Select the program used to print the label:
 - Crystal: A report designed in Crystal Reports
 - BarTender: A label designed and printed with BarTender
 - Executable: An executable program
11. **Parameters:** Specify any parameters to control the label printing application.
12. Click **OK** to save the new label settings.

Receiving Labels

WMS PO receiving can automatically generate product labels for up to four levels, defined as unit, inner, case, and pallet. The Receiving-System option of Label Configuration determines the default calculations for each layer. These can be overridden by defining an override for a product category, item, vendor, or vendor item.

1. **System:** Default PO receiving product label settings

2. **Product Category:** Product category product label override settings
3. **Item:** Item specific product label override settings
4. **Vendor:** Vendor specific product label override settings
5. **Vendor Item:** Product label override settings for a specific vendor item

Editing a Receiving Product Label Print Context

Label specific settings such as format, whether to print, and number of copies to print are defined in the Label Configuration Print Context.

1. To edit a print context for a specific level in a category, double-click the entry in the Print Context box. WMS displays the print context edit screen.
2. **Print (Y/N):** Select Yes, No, or Prompt to indicate whether product labels should be printed when product is received:
 - Yes: Print automatically without waiting for user confirmation.
 - No: Do not print the label.
 - Prompt: Display the calculated quantity of labels and allow the user to override the number of labels printed, as well as the case pack used for this layer.
3. **Format:** Type the name of the label format, or click **Get Format** to browse to the format file.

Note: Do not include the extension if you type the filename in the Format field. For example, type `_WMSDFLTCTN`, not `_WMSDFLTCTN.BTW`.

4. **Copies:** Type the number of copies of the label to print.
5. **Printer Name:** Select the printer to use for this label. The printer must have been set up previously on the WMS Control File Printer tab.
6. **Call Type:** Select the program used to print the label.
BarTender: A label designed and printed with BarTender
7. **Parameters:** Specify any parameters to control the label printing application.
8. **Package Code:** Select the package code that should be used with the item number to find the quantity per from WMS Bulk Weight Maintenance when calculating the number of labels required.
9. Click **OK** to save the new label settings.

Adding a Receiving Product Label Override

1. Select **Receiving** from the category list.
2. Double-click the level in the tree list for which you want to add the override.
 - a. **Product Category:** WMS displays the Add Receiving/Product Category context screen. Type the product category ID in the Product Category field, and then press Tab.
 - b. **Item:** WMS displays the Add Receiving/Item context screen. Type the item number in the Item field, and then press Tab.
 - c. **Vendor:** WMS displays the Add Receiving/Vendor context screen. Type the vendor number in the Vendor field, and then press Tab.

- d. **Vendor Item:** WMS displays the Add Receiving/Vendor Item context screen. Type the vendor number in the Vendor field. Type the item number in the Item field, and then press Tab.
3. WMS creates the override with the default label settings.
4. To edit a print context for a specific level in a category, double-click the entry in the Print Context box.
5. **Print (Y/N):** Select Yes, No, or Prompt to indicate whether product labels should be printed when product is received:
 - Yes: Print automatically without waiting for user confirmation.
 - No: Do not print the label.
 - Prompt: Display the calculated quantity of labels and allow the user to override the number of labels printed, as well as the case pack used for this layer.
6. **Format:** Type the name of the label format, or click **Get Format** to browse to the format file.

Note: Do not include the extension if you type the filename in the Format field. For example, type `_WMSDFLTCTN`, not `_WMSDFLTCTN.BTW`.

7. **Copies:** Type the number of copies of the label to print.
8. **Printer Name:** Select the printer to use for this label. The printer must have been set up previously on the WMS Control File Printer tab.
9. **Call Type:** Select the program used to print the label.
BarTender: A label designed and printed with BarTender
10. **Parameters:** Specify any parameters to control the label printing application.
11. Click **OK** to save the new label settings.

Inventory Labels

WMS inventory receiving can automatically generate product labels for up to four levels, defined as unit, inner, case, and pallet. The Inventory-System option of Label Configuration determines the default calculations for each layer. These can be overridden by defining an override for a product category or item.

- **System:** Default inventory receiving product label settings
- **Product Category:** Product category product label override settings
- **Item:** Item specific product label override settings

Editing an Inventory Product Label Print Context

Label specific settings such as format, whether to print, and number of copies to print are defined in the Label Configuration Print Context.

1. To edit a print context for a specific level in a category, double-click the entry in the Print Context box. WMS displays the print context edit screen.
2. **Print (Y/N):** Select Yes, No, or Prompt to indicate whether product labels should be printed when product is received:
 - Yes: Print automatically without waiting for user confirmation.
 - No: Do not print the label.

- Prompt: Display the calculated quantity of labels and allow the user to override the number of labels printed, as well as the case pack used for this layer.
3. **Format:** Type the name of the label format, or click **Get Format** to browse to the format file.

Note: Do not include the extension if you type the filename in the Format field. For example, type `_WMSDFLTCTN`, not `_WMSDFLTCTN.BTW`.

4. **Copies:** Type the number of copies of the label to print.
5. **Printer Name:** Select the printer to use for this label. The printer must have been set up previously on the WMS Control File Printer tab.
6. **Call Type:** Select the program used to print the label.
BarTender: A label designed and printed with BarTender
7. **Parameters:** Specify any parameters to control the label printing application.
8. **Package Code:** Select the package code that should be used with the item number to find the quantity per from WMS Bulk Weight Maintenance when calculating the number of labels required.
9. Click **OK** to save the new label settings.

Adding an Inventory Product Label Override

1. Select Inventory from the category list.
2. Double-click the level in the tree list for which you want to add the override.
Product Category: WMS displays the Add Inventory/Product Category context screen. Type the product category ID in the Product Category field, and then press Tab.
Item: WMS displays the Add Inventory/Item context screen. Type the item number in the Item field, and then press Tab.
3. WMS creates the override with the default label settings.
4. To edit a print context for a specific level in a category, double-click the entry in the Print Context box.
5. **Print (Y/N):** Select Yes, No, or Prompt to indicate whether product labels should be printed when product is received:
 - Yes: Print automatically without waiting for user confirmation.
 - No: Do not print the label.
 - Prompt: Display the calculated quantity of labels and allow the user to override the number of labels printed, as well as the case pack used for this layer.
6. **Format:** Type the name of the label format, or click Get Format to browse to the format file.

Note: Do not include the extension if you type the filename in the Format field. For example, type `_WMSDFLTCTN`, not `_WMSDFLTCTN.BTW`.

7. **Copies:** Type the number of copies of the label to print.

8. **Printer Name:** Select the printer to use for this label. The printer must have been set up previously on the WMS Control File Printer tab.
9. **Call Type:** Select the program used to print the label.
BarTender: A label designed and printed with BarTender.
10. **Parameters:** Specify any parameters to control the label printing application.
11. Click **OK** to save the new label settings.

Shop Floor Labels

WMS shop floor processing can automatically generate product labels for up to four levels, defined as unit, inner, case, and pallet, when finished goods are received. The ShopFloor-System option of Label Configuration determines the default calculations for each layer. These can be overridden by defining an override for a product category or item.

- System: Default shop floor product label settings
- Product Category: Product category product label override settings
- Item: Item specific product label override settings

Editing a Shop Floor Product Label Print Context

Label specific settings such as format, whether to print, and number of copies to print are defined in the Label Configuration Print Context.

1. To edit a print context for a specific level in a category, double-click the entry in the Print Context box. WMS displays the print context edit screen.
2. **Print (Y/N):** Select Yes, No, or Prompt to indicate whether product labels should be printed when product is received:
 - Yes: Print automatically without waiting for user confirmation.
 - No: Do not print the label.
 - Prompt: Display the calculated quantity of labels and allow the user to override the number of labels printed, as well as the case pack used for this layer.
3. **Format:** Type the name of the label format, or click Get Format to browse to the format file.

Note: Do not include the extension if you type the filename in the Format field. For example, type `_WMSDFLTCTN`, not `_WMSDFLTCTN.BTW`.

4. **Copies:** Type the number of copies of the label to print.
5. **Printer Name:** Select the printer to use for this label. The printer must have been set up previously on the WMS Control File Printer tab.
6. **Call Type:** Select the program used to print the label.
BarTender: A label designed and printed with BarTender
7. **Parameters:** Specify any parameters to control the label printing application.
8. **Package Code:** Select the package code that should be used with the item number to find the quantity per from WMS Bulk Weight Maintenance when calculating the number of labels required.
9. Click **OK** to save the new label settings.

Adding a Shop Floor Product Label Override

1. Select ShopFloor from the category list.
2. Double-click the level in the tree list for which you want to add the override.
Product Category: WMS displays the Add ShopFloor/Product Category context screen. Type the product category ID in the Product Category field, and then press Tab.
Item: WMS displays the Add ShopFloor/Item context screen. Type the item number in the Item field, and then press Tab.
3. WMS creates the override with the default label settings.
4. To edit a print context for a specific level in a category, double-click the entry in the Print Context box.
5. **Print (Y/N)**: Select Yes, No, or Prompt to indicate whether product labels should be printed when product is received:
 - Yes: Print automatically without waiting for user confirmation.
 - No: Do not print the label.
 - Prompt: Display the calculated quantity of labels and allow the user to override the number of labels printed, as well as the case pack used for this layer.
6. **Format**: Type the name of the label format, or click Get Format to browse to the format file.

Note: Do not include the extension if you type the filename in the Format field. For example, type `_WMSDFLTCTN`, not `_WMSDFLTCTN.BTW`.

7. **Copies**: Type the number of copies of the label to print.
8. **Printer Name**: Select the printer to use for this label. The printer must have been set up previously on the WMS Control File Printer tab.
9. **Call Type**: Select the program used to print the label.
BarTender: A label designed and printed with BarTender
10. **Parameters**: Specify any parameters to control the label printing application.
11. Click **OK** to save the new label settings.

POP Labels

WMS POP receiving can automatically generate product labels for up to four levels, defined as unit, inner, case, and pallet, when finished goods are received. The Pop - System option of Label Configuration determines the default calculations for each layer. These can be overridden by defining an override for a product category or item.

- System: Default POP receiving product label settings
- Product Category: Product category product label override settings
- Item: Item specific product label override settings

Editing a POP Product Label Print Context

Label specific settings such as format, whether to print, and number of copies to print are defined in the Label Configuration Print Context.

1. To edit a print context for a specific level in a category, double-click the entry in the Print Context box. WMS displays the print context edit screen.
2. **Print (Y/N)**: Select Yes, No, or Prompt to indicate whether product labels should be printed when product is received:
 - Yes: Print automatically without waiting for user confirmation.
 - No: Do not print the label.
 - Prompt: Display the calculated quantity of labels and allow the user to override the number of labels printed, as well as the case pack used for this layer.
3. **Format**: Type the name of the label format, or click **Get Format** to browse to the format file.

Note: Do not include the extension if you type the filename in the Format field. For example, type `_WMSDFLTCTN`, not `_WMSDFLTCTN.BTW`.

4. **Copies**: Type the number of copies of the label to print.
5. **Printer Name**: Select the printer to use for this label. The printer must have been set up previously on the WMS Control File Printer tab.
6. **Call Type**: Select the program used to print the label.
BarTender: A label designed and printed with BarTender
7. **Parameters**: Specify any parameters to control the label printing application.
8. **Package Code**: Select the package code that should be used with the item number to find the quantity per from WMS Bulk Weight Maintenance when calculating the number of labels required.
9. Click **OK** to save the new label settings.

Adding a POP Product Label Override

1. Select Pop from the category list.
2. Double-click the level in the tree list for which you want to add the override.
Product Category: WMS displays the Add Pop/Product Category context screen. Type the product category ID in the Product Category field, and then press Tab.
Item: WMS displays the Add Pop/Item context screen. Type the item number in the Item field, and then press Tab.
3. WMS creates the override with the default label settings.
4. To edit a print context for a specific level in a category, double-click the entry in the Print Context box.
5. **Print (Y/N)**: Select Yes, No, or Prompt to indicate whether product labels should be printed when product is received:
 - Yes: Print automatically without waiting for user confirmation.
 - No: Do not print the label.
 - Prompt: Display the calculated quantity of labels and allow the user to override the number of labels printed, as well as the case pack used for this layer.
6. **Format**: Type the name of the label format, or click **Get Format** to browse to the format file.

Note: Do not include the extension if you type the filename in the Format field. For example, type `_WMSDFLTCTN`, not `_WMSDFLTCTN.BTW`.

7. **Copies:** Type the number of copies of the label to print.
8. **Printer Name:** Select the printer to use for this label. The printer must have been set up previously on the WMS Control File Printer tab.
9. **Call Type:** Select the program used to print the label.
BarTender: A label designed and printed with BarTender.
10. **Parameters:** Specify any parameters to control the label printing application.
11. Click **OK** to save the new label settings.

Other Labels

WMS can also be configured to print putaway tickets and shipment tags. Click Shipment under Other in the Label Configuration menu to access the default putaway ticket and shipment tag settings.

Editing a Shipment Tag or Putaway Ticket Print Context

Label specific settings such as format, whether to print, and number of copies to print are defined in the Label Configuration Print Context.

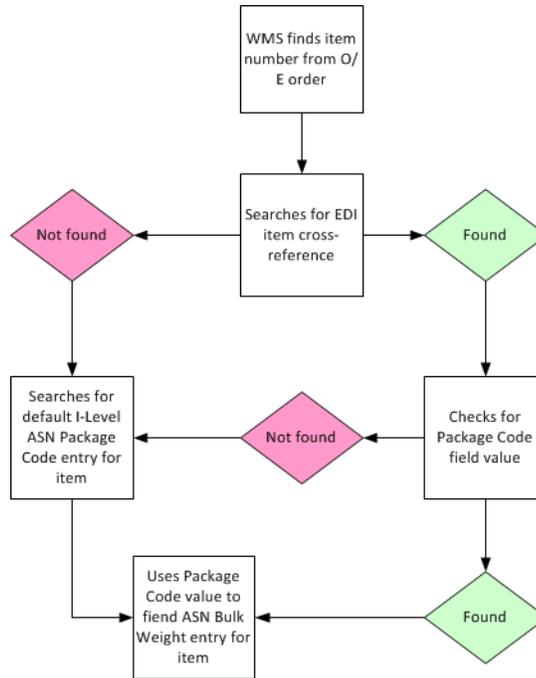
1. Double-click the entry in the Print Context box that you want to edit.
 - Putaway: Edits the print context settings for putaway tickets.
 - ShipmentTag: Edits the print context settings for shipment tags.
2. WMS displays the print context edit screen.
3. **Print (Y/N):** Select Yes or No to indicate whether the putaway ticket should be printed:
 - Yes: Print automatically without waiting for user confirmation.
 - No: Do not print the label.
4. **Format:** Type the name of the label format, or click **Get Format** to browse to the format file.

Note: Do not include the extension if you type the filename in the Format field. For example, type `_WMSDFLTCTN`, not `_WMSDFLTCTN.BTW`.

5. **Copies:** Type the number of copies of the label to print.
6. **Printer Name:** Select the printer to use for this label. The printer must have been set up previously on the WMS Control File Printer tab.
7. **Call Type:** Select the program used to print the label:
 - Crystal: A report designed in Crystal Reports
 - BarTender: A label designed and printed with BarTender
 - Executable: An executable program
8. **Parameters:** Specify any parameters to control the label printing application.
9. Click **OK** to save the new label settings.

AutoPack Package Code and Bulk Weight Setup

If you are using autopack, WMS automatically packs the items from the order into cartons based on definitions in WMS Bulk Weight Maintenance.



Using the item number from the O/E order, WMS searches for an Exact Macola ES EDI item cross-reference for this customer for this item. If a cross-reference exists, WMS checks for a value in the Packaging Code field. If a package code has been entered, WMS uses that value to find the WMS bulk weight cross-reference for the item.

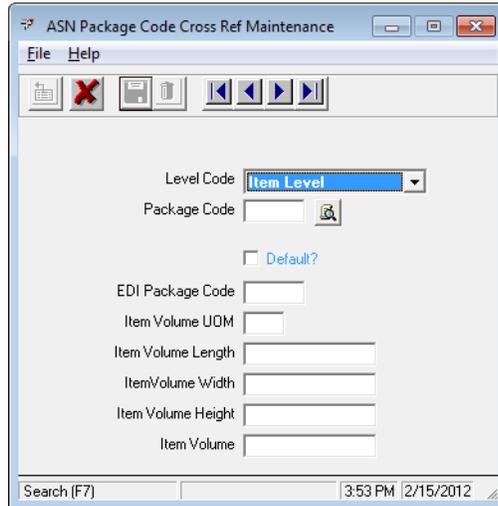
If no EDI item cross-reference is found, or no package code has been specified in the cross-reference, WMS searches WMS Package Code Maintenance for the default entry for the item. Using the package code specified in that default record, WMS finds the WMS bulk weight cross-reference for the item.

Once WMS has found the correct bulk weight cross-reference for the item, it uses the quantity in the Items Per Pack field to pack the item into the correct number of cartons.

WMS Package Code Maintenance

WMS Package Code Maintenance is used by WMS to establish carton types. The definition of the carton type depends on the level of the ASN for which it is used. At the shipment level, it is a generic definition of the class of packaging for the shipment. For instance, CTN25 is the EDI package code for a corrugated or solid carton. Similarly, PLT94 indicates a wooden pallet. If the Exact Macola ES EDI ASN sub-module is installed, Exact Macola ES provides a function to maintain this table. However, the Default Record field is hidden on the Exact Macola ES screen. If you have the Exact Macola ES Screen Designer module, you can un-hide the Default Record field and use the Exact Macola ES provided maintenance. If you do not have Screen Designer, or you do not have the EDI ASN sub-module, use the maintenance program supplied by WMS.

The WMS version of this screen provides maintenance only for shipment and item level records (Level Code = S or I).



At the item level, this function is used to define the various box sizes for the products being shipped.

1. To access the ASN Package Code cross-reference maintenance, in Exact Macola ES, on the System menu, under the Distribution heading, select WMS, WMS Package Code Maintenance.
2. **Level Code:** This field has four selections: shipment, tare, pack, and item. Only shipment and item are currently used by WMS.
3. **Package Code:** This is a user-defined field. Its usage depends on the level code specified. For a shipment type, the package code is a generic definition of the class of packaging for the shipment. For instance, CTN25 is the EDI package code for a corrugated or solid carton. Similarly, PLT94 indicates a wooden pallet.

At the item level, this field is used to define the various box sizes for the products being shipped. This code, in association with the WMS bulk weight cross-reference, can indicate a variety of standard pack sizes for a specific item.

4. **Default:** Select this check box to indicate that this package code is the default package code for this level type. Selecting this check box does not clear the check box in any other record. If another record was previously selected as the default package code for this level type, that record must be edited and the Default Record check box cleared.

The default record is used by WMS in autopack mode to determine the standard case pack when calculating the number of labels to print for a specific item. Unless overridden for a customer-item combination by specifying a package code in an EDI item cross-reference, the default package code is used to find the case pack in WMS Bulk Weight Maintenance.

5. **EDI Package Code:** Type the EDI-approved package code to be used by WMS when searching for a bulk weight entry for the item. Typically, this is CTN25 or PLT94.
6. **Item Volume UOM:** This field is not used by WMS.
7. **Item Volume Length:** This field is not used by WMS.
8. **Item Volume Width:** This field is not used by WMS.

9. **Item Volume Height:** This field is not used by WMS.
10. **Item Volume:** This field is not used by WMS.

WMS Bulk Weight Maintenance

WMS Bulk Weight Maintenance is used by WMS to establish a relationship between a package code and a case quantity for an item. How this is used depends on the WMS mode. In autopack mode, post pick ticket processing uses this file to determine the number of labels to generate. See EDI File Usage for instructions on setting up items for autopack. Otherwise, the alternate item identifier is used when scanning to cross-reference various item identifiers to an Exact Macola ES item number.

If the Exact Macola ES EDI ASN submodule is installed, Exact Macola ES provides a function to allow maintenance of this file. However, the Exact Macola ES function does not allow maintenance of the Alternate Item Qualifier and Alternate Item Number fields. WMS allows maintenance of item level records only (Level Code = I) and allows entry in the alternate item fields.

1. To access WMS Bulk Weight Maintenance, in Exact Macola ES, on the System menu, under the Distribution heading, select WMS, WMS Bulk Weight Maintenance.
2. **Item Number:** Type the Exact Macola ES item number. This must be a valid Exact Macola ES item number.
3. **Package Code:** Type the carton type for this record. The package code must have been previously set up in WMS Package Code Maintenance.
4. **Items Per Pack:** Type the quantity of stocking units associated with this item-carton combination.
5. **Pack Weight:** This field is not used by WMS.
6. **Packs Per Tare:** This field is not used by WMS.
7. **Tare Weight:** This field is not used by WMS.
8. **Alternate Item Number:** This field allows different codes, such as UPC or UCC-14 codes, to be cross-referenced to the Exact Macola ES item number.

The alternate item number can be preceded by ^CustomerNumber^ to assign a bar code to different items based on the customer number. While assigning the same bar code to multiple SKUs is not recommended, it is sometimes the most expedient way to handle special needs for a large customer. This should be done only if absolutely necessary.

Note: WMS checks for the customer number prefix only if the WMS control file Bulk Weight Customer Prefix Lookup check box is selected.

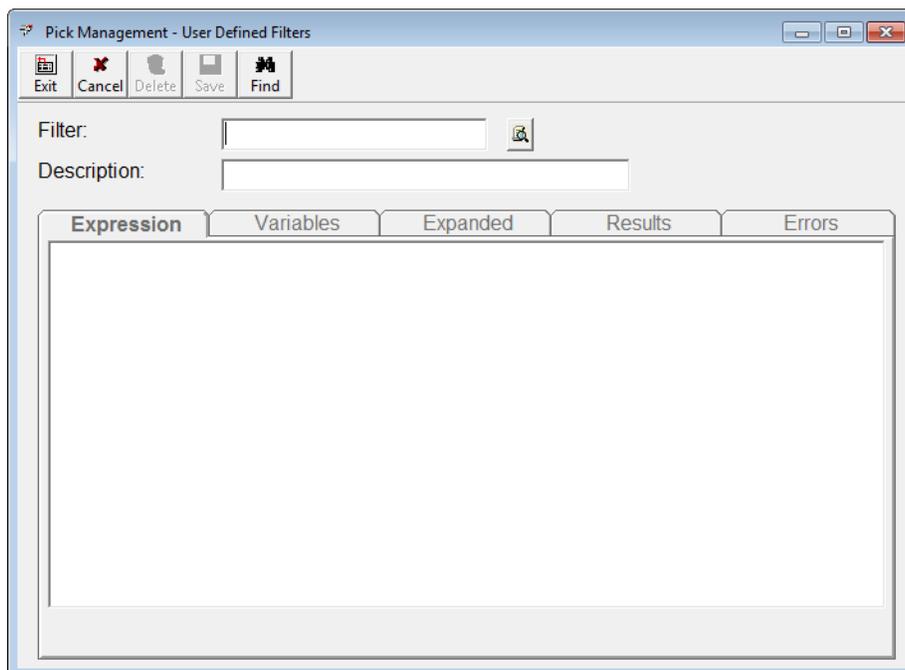
9. **Alternate Item Qualifier:** This field specifies the qualifier sent in the ASN for this carton-item combination. For example, when shipping pallets, an ASN would be created with a tare level and the trading partner would require a UCC-14, also known as the 1 2 of 5, in the pack level. UC is the EDI standard definition for UCC-14. In addition, if the Alternate ID Qualifier field in the customer override file is populated, this field must match it. This allows WMS to force the user to enter a specific type of code when the bar code type is critical.

Note: If you are using phantom cartons, you must specify an alternate item qualifier if the WMS bulk weight cross-reference uses an alternate item number to define a value that represents a carton instead of an inner pack. Otherwise, WMS does not calculate the correct number of cartons for the bill of lading.

User Defined Filters

When creating picks in Pick Management, the standard sales order filter allows you to compile a list of orders based on customer number, PO number, order date, cutoff date, and location. You can also specify whether to include customers on credit hold, orders not completely available to ship, and invoice-type orders.

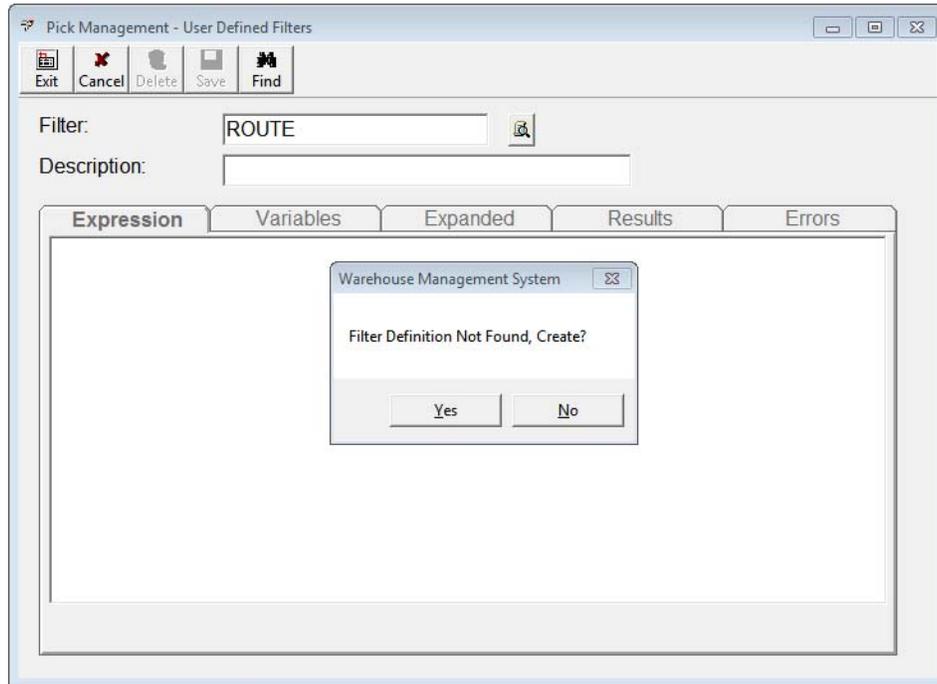
Pick Management User Defined Filters allow you to further refine your order list by defining your own filter criteria. You can define up to nine variables for use in a SQL expression that you write to add addition criteria to the Pick Management order filter.



1. To open the Pick Management - User Defined Filters screen, in Exact Macola ES, on the System menu, under the Distribution heading, select WMS, WMS Control File

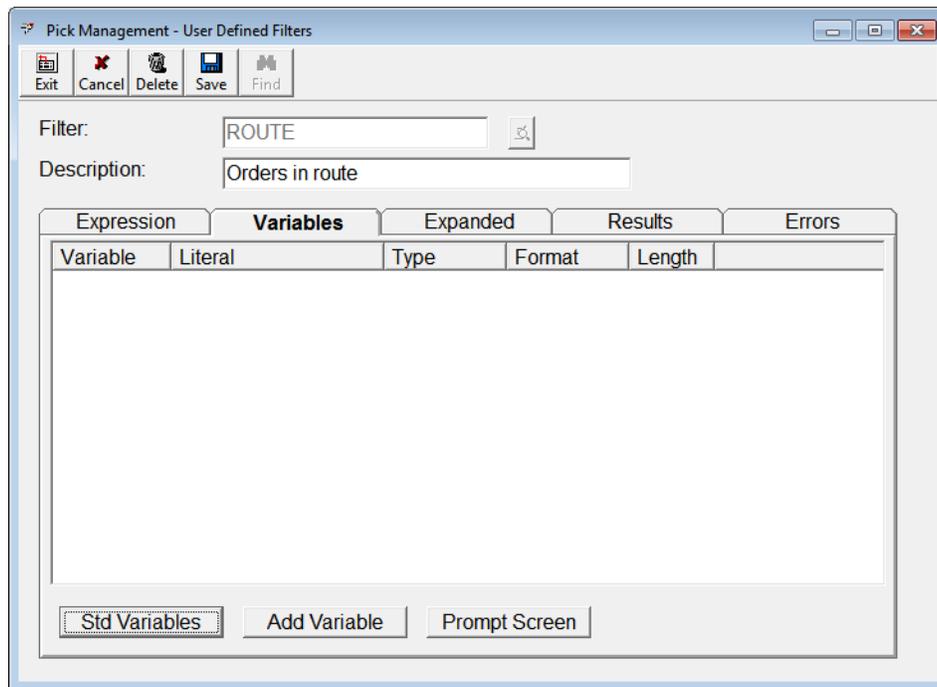
Maintenance. On the WMS Control File Maintenance screen, click the Pick Mgmt tab, and then click the **User Defined Filters** button.

2. **Filter:** Enter a name for the user defined filter, and then press Tab or Enter.
3. If WMS does not find an existing user defined filter with that name, it displays a message that the filter was not found and asks if you would like to create the filter. Click Yes to create a new filter with this name.



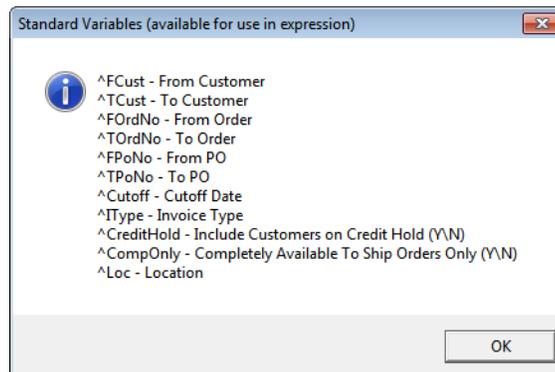
4. **Description:** Type a meaningful description for the filter. This description is displayed in the User Defined Query list on the Pick Management Sales Order Filter screen.

- Click the Variables tab to access a list of standard variables or to define new ones.

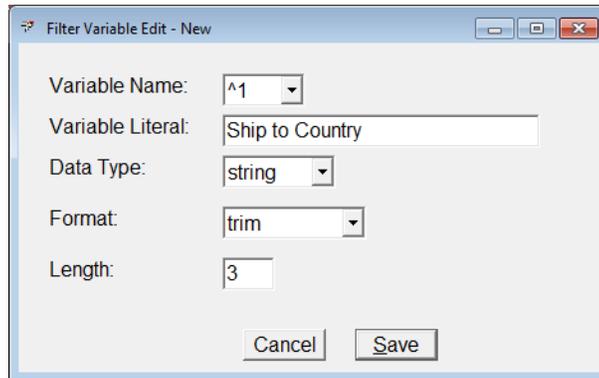


- Click the **Std Variables** button to view a list of the standard variables included with WMS:

- ^FCust: From Customer
- ^TCust: To Customer
- ^FOrdNo: From Order Number
- ^TOrdNo: To Order Number
- ^FPoNo: From PO Number
- ^TPoNo: To PO Number
- ^Cutoff: Cutoff Date
- ^IType: Invoice Type
- ^CreditHold: Include Customers on Credit Hold (Y/N)
- ^CompOnly: Completely Available to Ship Orders Only (Y/N)
- ^Loc: Location



7. Click the **Add Variable** button to define a new variable.



8. **Variable Name:** Select a name for the variable.

9. **Variable Literal:** Type a short description for the variable. This is used as the literal for the field when the user is prompted to specify a value for this filter criterion in Pick Management Sales Order Filter.

10. **Data Type:** Select the variable's data type:

- **String:** an alphanumeric value; the variable must be enclosed in single quotes in the query, such as '^1'
- **Date:** a date value
- **Number:** a numeric value

11. **Format:** Select a format for the variable:

- **Trim:** Truncates the value entered by the user to the variable's maximum length. For example, if the variable's length is 5, but the user enters 123456, the value would be truncated to 12345.
- **Spacefill:** Fills the value entered by the user with spaces at the beginning to the variable's maximum length.
- **Zerofill:** Adds zeros to the left of a numeric value entered by the user to maximum length of the variable. For example, if the variable's length is 5 but the user enters 123, the value would be zero filled to 00123.
- **Pad:** Pads the value entered by the user with spaces at the end to the variable's maximum length.

12. **Length:** Type the maximum length for variable's value.

13. Click **Save** to save the variable definition.

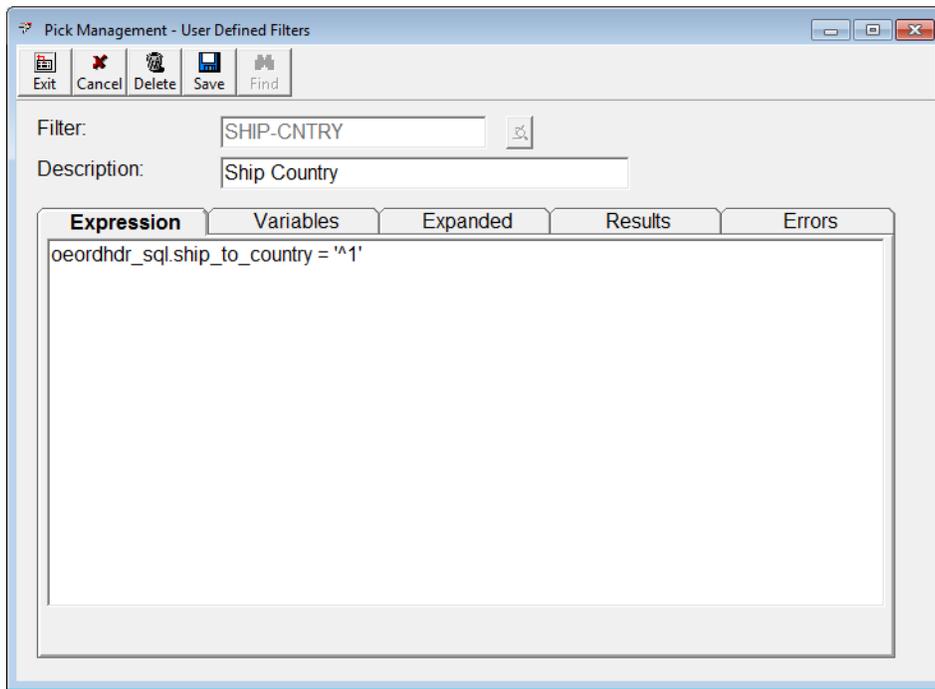
14. On the Variables tab, click the **Prompt Screen** button to enter test values for the variable. (These values are used when testing the filter by clicking the Results tab.)



15. Type the value in the field, and click **OK**.

16. To edit the variable, double-click it in the list.

17. To delete a variable, click it in the list, and then press the **Delete** key.
18. When you are done creating variables, click the Expression tab to create a query using the variables.



19. On the Expression tab, type a query in the box. This query is used in conjunction with the standard filtering options in the Pick Management Sales Order Filter.

Note: The query is the Where portion of a SQL query, and must return a true or false value. The query can be up to 3000 bytes.

20. Click the Expanded tab to view the filter query with the test variable values.
21. Click the Results tab to run the filter query and view the results.

Note: If there are errors running the query, WMS displays information about the errors on the Errors tab instead of displaying the Results tab. Correct the errors, and then click the Results tab to test the filter query again.

22. Click the **Save** button to save the filter. It can be used in the Pick Management Sales Order Filter.

WMS Workstation Configurator

The WMS Workstation Configurator enables you to define WMS INI settings, validate and register DLLs, and activate and test BarTender. Although the configurator setups are typically done when first installing or updating WMS, you can use the workstation configurator to change settings as necessary.

Creating a WMS Desktop Icon

Use the **Create Desktop Shortcut** button in the Workstation Configurator to create a WMS shortcut using the INI settings displayed.

Note: This feature is not available for Windows 98 workstations. If you are using Windows 98, you must create the desktop shortcut manually.

If using the default INI, it is not necessary to include an INI name. The default INI is c:\windows\wms.ini.

If you have saved the INI to a different location or have renamed the INI, then you need to specify this by changing the Target field for the desktop icon to read:

```
m:\program files\exact software\wms100.EXE /INI= C:\WINDOWS\NEWNAME.INI
```

In this example, C:\WINDOWS is the path to the new INI file and NEWNAME.INI is the name of the new INI.

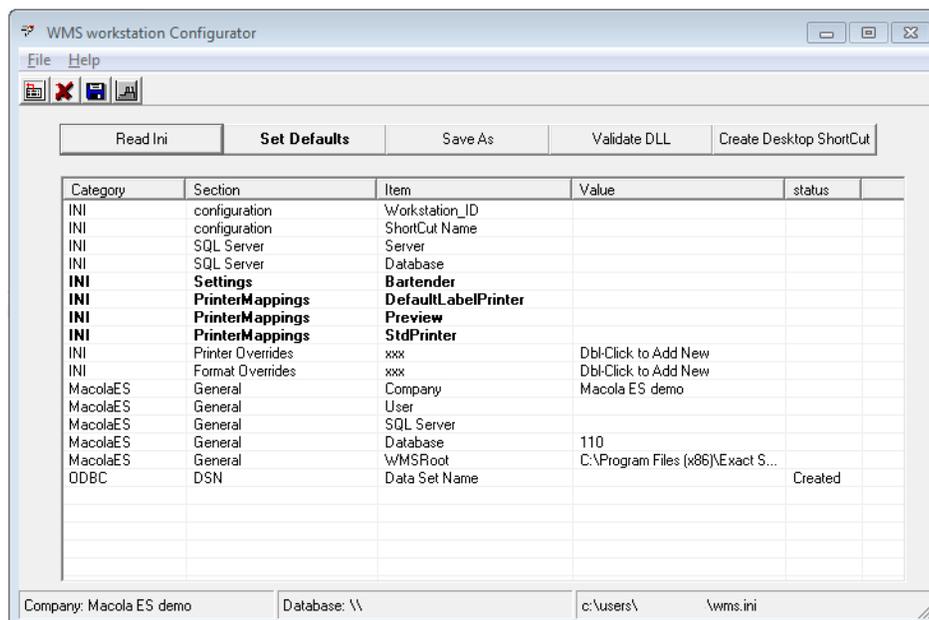
Note: The INI filename and the name of the directory that it resides in cannot be longer than eight characters.

There must be a space after the equal sign in the path.

Changing Companies in the Workstation Configurator

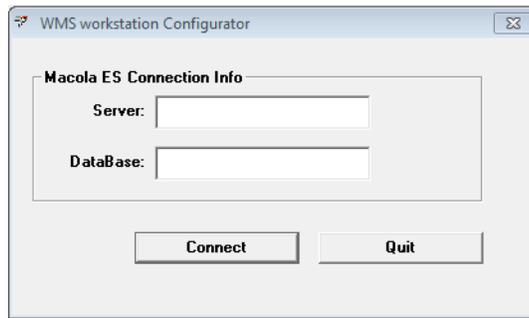
Since each Exact Macola ES data company has its own WMS INI file, you might need to change the company in the configurator before updating any settings.

Note: The name of the company to which the workstation configurator is currently connected is displayed at the bottom of the screen. The database name and location, as well as the INI file name and location, are also listed there.



1. In Exact Macola ES, on the System menu, under the Distribution heading, click WMS, WMS Workstation Configurator.
2. Click the **Change Companies** toolbar button.

3. WMS displays the Exact Macola ES Connection Information screen.



4. **Server:** Type the name of your SQL server.
5. **DataBase:** Type the database name of the company you want to switch to.
6. Click the **Connect** button to change to that data company.
7. WMS connects to the new data company and then returns to the main WMS Workstation Configurator screen.

Note: If WMS is unable to connect to the SQL server that you specify, it returns a message that the SQL Server does not exist or access to it is denied. Verify that you have entered the correct SQL server name and that you have access to it.

Configuring INI Settings

The Workstation Configurator displays the current WMS INI settings for the workstation. If this workstation has previously been configured for WMS, the workstation configuration options stored in the default INI file (wms.ini) are displayed. If necessary, a different INI file can be loaded by clicking the Read INI button, and then selecting a different INI file.

Click the **Set Defaults** button to allow the default options to be set based on the Exact Macola ES company that you are currently logged in to.

Note: The entries that are displayed in bold are not automatically set and must be manually specified.

Double-click an INI setting to change it. WMS displays a screen specific to that setting where you can change its configuration.

To create the WMS DSN, scroll to the bottom of the list and double-click the ODBC DSN entry.

Configuring WMS to Use BarTender

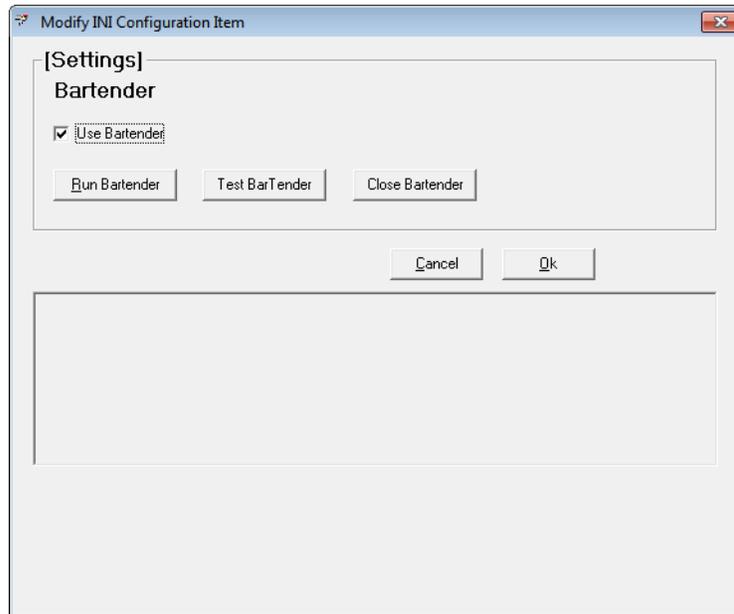
BarTender creates formats that have a .btw extension. These formats are used by BarTender and must reside in a directory that is configured in the active WMS INI file.

Any workstation or RF server used to print shipping labels, product labels, or putaway labels must have BarTender version 6.20 or higher installed. BarTender should be installed before proceeding with the following steps.

These steps must be done for each workstation.

1. In Exact Macola ES, on the System menu, under the Distribution heading, click WMS, WMS Workstation Configurator.

2. In the WMS Workstation Configurator, double-click the BarTender entry.



3. **Use BarTender:** If not already done, select this check box. Verify that the path is the directory where the BarTender label formats are stored.
4. Confirm that BarTender is installed correctly by clicking the **Run BarTender** button, followed by the **Test BarTender** button, and then the **Close BarTender** button. If correctly installed, BarTender should load and print a label to the default label printer specified in the Workstation Configurator.
5. Click the **Update EXT** button, and then click **OK**.
6. Click the **Save** button on the main WMS Workstation Configurator screen to save the settings.

The Workstation Configurator makes the following entries into the INI file as well as the EXTs associated with post pick ticket processing.

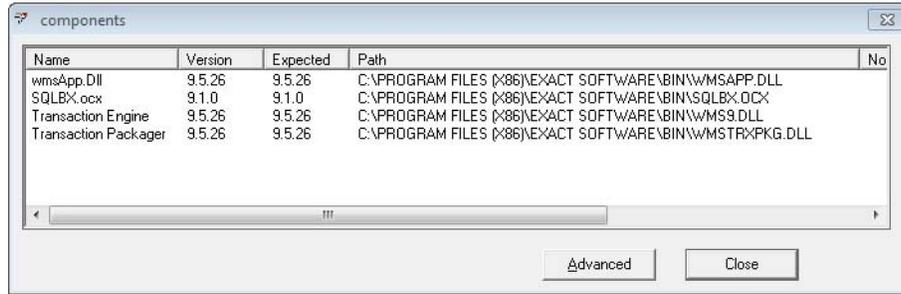
WMS.INI settings:

```
[Settings]
Bartender=ON
Format Path=<Full path to label formats>
VB01602a.ext, VB01602b.ext VB01602c.ext:
/ON /PATH <Full path to label formats>
```

Validating DLLs

In previous versions of WMS, a number of WMS system files were installed locally during the workstation installation. These files can cause problems if they are not removed from the local drive. It might also be necessary to re-register DLLs to resolve some errors in WMS.

1. Click the **Validate DLL** button to validate that the correct DLLs have been properly registered.



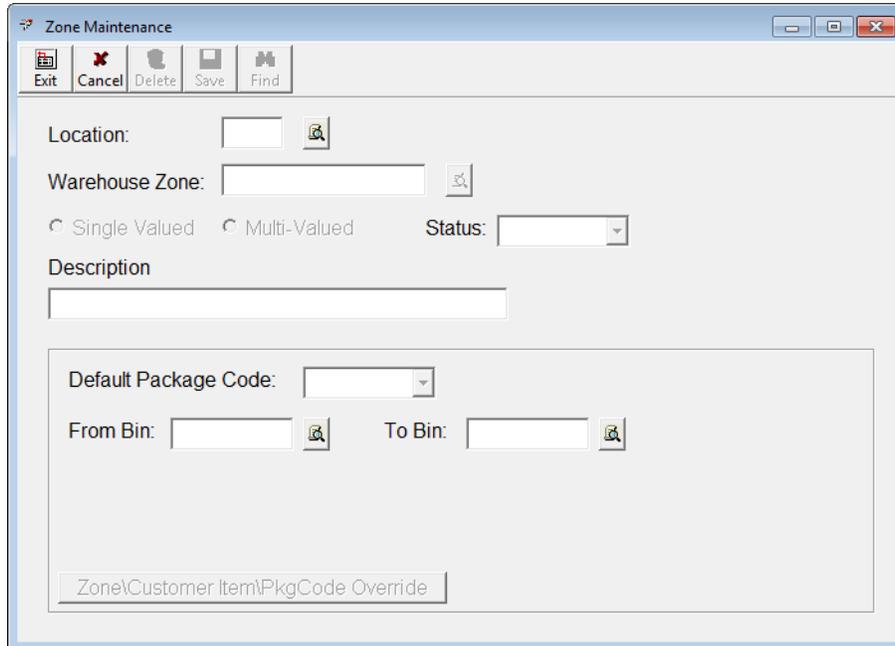
2. If there is a problem with a WMS component, it is displayed in the Notes section. If problems are found, click the **Advanced** button.
3. To search folders other than system folders, clear the **System Folders Only** check box. Click the **Search** button.
4. The program displays a confirmation window informing you that this may take some time.
5. Click **Yes** to continue.
6. If the components are found, the program displays them in the Search for Mislocated Components section.
7. Click the **Remove** button to remove extraneous copies of the controls.
8. Click the **Register** button to register the correct versions.
9. A message box is displayed for each DLL that is registered. Click **OK** to each message box.

Zone Maintenance

By default when Pick Management creates recommendations for orders, it looks at the entire warehouse to determine the location from which to pick the items. Either the bin with the highest priority is used, or the one with the oldest lot. Warehouse zones allow different areas of a warehouse to be designated for specific purposes, such as an area for pallets or one for cartons. In addition, multi-valued zones allow individual zones to be grouped into a single zone for recommendations.

Creating a Single Valued Zone

1. To access zone maintenance, in Exact Macola ES, on the System menu, under the Distribution heading, click WMS Control File Maintenance. Click the Pick Mgmt tab, and then click Zones.

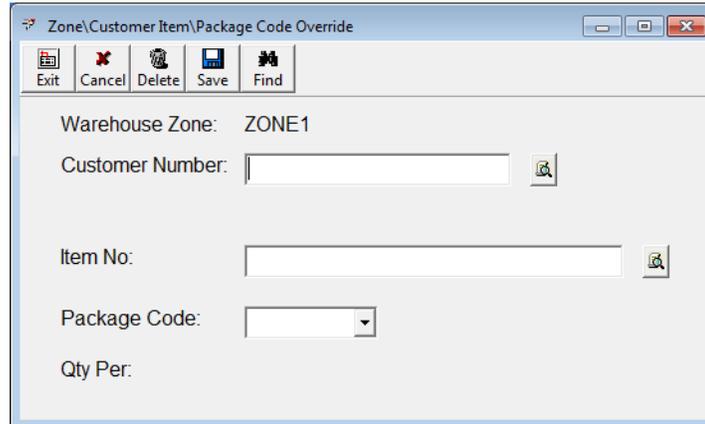


2. **Location:** Type the warehouse that contains this zone.
3. **Warehouse Zone:** Type a name for this zone.
4. Select **Single Valued**.
5. **Status:** Select a status for the zone:
 - Active: The zone is active and can be used for recommendations.
 - Inactive: The zone is not active and cannot be used for recommendations.
6. **Description:** Type a description of the zone.
7. **Default Package Code:** Select a package code for the zone.
8. **From Bin:** Specify the starting bin for the zone.
9. **To Bin:** Specify the ending bin for the zone.

Note: The starting and ending bins cannot overlap another zone. If they do, WMS displays a message listing the other zone that the current record overlaps. This must be corrected before saving the zone.

10. **Zone\Customer Item\Pkg Code Override** button: Click to set up customer item pack code overrides for this zone. The override specifies a package code dif-

ferent from the default to use for a particular customer-item combination when recommending from this zone.



11. **Warehouse Zone:** The zone ID is displayed.
12. **Customer Number:** Type the customer ID.
13. **Item No:** Type the item number.
14. **Package Code:** Select the package code for the override. If an item level WMS Package Code entry exists for this customer/item/package code combination, the Qty Per field displays that the entry was found and the quantity per defined in it.
15. Click **Save** to save the override.
16. Click **Exit** to return to the Zone Maintenance screen.
17. Click **Save** to save the warehouse zone.

Creating a Multi-Valued Zone

Multi-valued zones group single valued zones into a single zone.

1. To access zone maintenance, in Exact Macola ES, on the System menu, under the Distribution heading, click WMS, WMS Control File Maintenance. Click the Pick Mgmt tab, and then click Zones.

Zone Maintenance

Exit Cancel Delete Save Find

Location: MA

Warehouse Zone: NORTH

Single Valued
 Multi-Valued
 Status: Active

Description

Warehouse North end

Include	Zone	Description	From Bin	To Bin
<input type="checkbox"/>	ZONE1	Warehouse zone 1	100	100
<input type="checkbox"/>	ZONE2	Warehouse zone 2	200	200

2. **Location:** Type the warehouse that contains this zone.
3. **Warehouse Zone:** Type a name for this zone.
4. Select **Multi-Valued**. All single valued zones in this Exact Macola ES warehouse are displayed at the bottom of the screen.
5. **Status:** Select a status for the zone:
 - Active: The zone is active and can be used for recommendations.
 - Inactive: The zone is not active and cannot be used for recommendations.
6. **Description:** Type a description of the zone.
7. To include a single valued zone in this multi-valued zone, select its check box in the **Include** column.
8. Click **Save** to save the multi-valued warehouse zone.

Chapter 4: WMS Setup - Shipping

Customer Override Maintenance

The customer override file overrides the WMS control file defaults for a specific customer. An example of using a customer override is if you need to set up a unique label format for a customer.

1. To access customer override maintenance, in Exact Macola ES, on the System menu, under the Financial heading, select Accounts Receivable, WMS Customer Override.

2. **Customer Number:** Type the Exact Macola ES customer number. This must be a valid Exact Macola ES A/R customer number.

Shipping Label Preferences

3. **RFID Settings:**
 - **64 Bit:** Select this option to use a 64-bit value for the RFID tag, which encodes the header, filter, value, company prefix index, and serial number.
 - **Company Prefix Index:** When using a 64-bit value for the RFID tag, enter your company prefix index. The company prefix index is used when translating 64-bit RFID tags to identify the shipping company. This value is not the company prefix itself, but encodes it and refers to an index in a table that provides the company prefix value and length.
 - **96 Bit:** Select this option to use a 96-bit value for the RFID tag.

Note: The 96-bit RFID tag option is not available at this time.

4. **UCC-128 Required?**

- a. **Carton Label: Pack Pallets:** Select this check box to generate a UCC-128 label when attaching a product directly to a pallet in the pack pallets function. If selected, WMS generates a new carton number and prints the associated label for each item-multiplier entered. When cleared, WMS generates a single phantom carton for each unique scan code, accumulating multiple quantities of the same code into the same phantom carton. Phantom cartons are typically used when shipping standard cartons on pallets. Standard cartons generally require UCC-14 bar codes, but do not require UCC-128 labels. The advantage is that the user does not have to label every carton, and the size of the ASN is also greatly reduced. (**Note:** When Autopack Cartons is activated, this option controls whether the autopack function generates phantom cartons or regular cartons. Autopack options are set on the WMS Control File Maintenance screen, on the Shipping tab.)
 - b. **Carton Label: Pack Shipments:** Select this check box to generate a UCC-128 label when attaching a product directly to a pallet in the pack shipments function. If selected, WMS generates a new carton number and print the associated label for each item-multiplier entered. When cleared, WMS generate a single phantom carton for each unique scan code, accumulating multiple quantities of the same code into the same phantom carton. Phantom cartons are rarely used when not using the pack pallets function, so this check box normally should be selected.
 - c. **Carton Label: RFID Filter Value:** Select the RFID filter, which indicates the type of code being sent, such as pallet or carton. Which filter value you use and what it represents is agreed upon by you and the customer.
 - d. **Mixed Item Literal:** Type a value to be printed instead of the customer item number when a carton label is printed and more than one item exists in the carton.
 - e. **Pallet Label: Pack Pallets:** Select this check box if pallet processing is used for this customer.
 - f. **Pallet Label: RFID Filter Value:** Select the RFID filter, which indicates the type of code being sent, such as pallet or carton. Which filter value you use and what it represents is agreed upon by you and the customer.
 - g. **Mixed Item Literal:** Type a value to be printed instead of the customer item number when a pallet label is printed and more than one item exists in the carton.
5. **Department:** Select Use as Dept Qualifier or Use as Fixed Dept from the list. This controls how WMS processes the department value specified.
 - Use as Dept Qualifier: The value specified is used to search the EDI capture file to determine the department number from the inbound EDI purchase order.
 - Use as Fixed Dept: The value specified is the department number. This can be used to speed up post pick ticket processing when the department number does not change.
 6. **Dist Center Qualifier:** This value specifies how to determine the distribution center for a given customer. Typically this value should be left blank. If blank, WMS uses the EDI ship-to cross-reference and the A/R customer delivery address to find the distribution center. This is the recommended method. If a value is entered in the Distribution Center Qualifier field, WMS attempts to find the distribution center in the EDI purchase order using the information provided in the Start and Length fields.

Note: For detailed instructions on setting up distribution centers, see “Appendix A: WMS and EDI Distribution Center Setup” on page 171. Distribution center processing requires the Exact Macola ES EDI module.

7. **Distribution Center Start/Length:** These fields are used only if a distribution center qualifier is specified. The Start and Length fields then work together to extract the ship-to number from the fourth element of the N1 segment in the EDI purchase order. The N1 segment used is determined by the Distribution Center Qualifier field. The Start field indicates the position in the N104 data from which WMS searches for the ship-to number. WMS then extracts the information to the right of the starting position for the length of the value of the Length field. Distribution center processing requires the Exact Macola ES EDI module.
8. **Use EDI 2005:** Select this if using any EDI other than the old Macola Gentran EDI. Exact EDI/DataMason's Vantage Point, 1 EDI, etc. When selected, the WMS looks for 850 data like the DC/Mark For and department information in the ARALTEI_SQL table, and WMS does not write to the EDBBCIFL table for old EDI.

Processing Preferences

9. **Order Completion Mode:** This field determines when billing selection is done. This value overrides, for this customer, the WMS control file default:
 - **WMS Billing:** Indicates that WMS requires the user to close each order individually. Use this method to allow easier control when a single order is often split among multiple shipments within a billing cycle. The order is selected only after the last shipment for that order is processed for the day. This prevents accidentally partially selecting the order when the user clicks the Update Macola button.
 - **Pack Shipments:** Indicates that an order should be completed when a shipment to which it is attached is completed. Use this method to simplify order processing. Each order is flagged for selection when the shipment is completed, eliminating the need to process each order again in the WMS billing function. The selection information is passed to Exact Macola ES when the user clicks the Update Macola button.
 - **Pack Verify Cartons:** Indicates that an order should be treated as a unique shipment. When the order is completed the order is automatically attached to a shipment, and is automatically completed. This mode is typically used for customers that send individual orders that are each shipped to different locations or at different times.
10. **Alt Identifier Code:** If provided, the alternate identifier code indicates that a specific type of bar code is required. For example, if you were shipping pallets, you would have to send an ASN with a tare level, and the trading partner would require a UCC-14 in the pack level. By typing UC in the Alternate Identifier Code field, only those records in WMS Bulk Weight Maintenance with the Alternate ID Qualifier field set to UC can be used within WMS.
11. **Auto Pack Cartons?:** This check box allows UCC-128 labels to be generated automatically based on standard case quantities and the quantity ordered. This setting overrides, for this customer, the WMS control file default. When using autopack, the pack cartons function is unnecessary. See “WMS Bulk Weight Maintenance” on page 57 for instructions on setting up standard case quantities. This field is ignored if the WMS EDI ASN Data Collection module is not installed.

12. **One Carton per Order?:** This check box can be used to force WMS to create a single carton for orders that are being packed using the autopack function. When selected, autopack creates a single carton and then packs all items on an order into that single carton. This option is disabled if the Auto Pack Cartons check box is cleared.

ASN Preferences (**Note:** The send ASN preferences are used by the Macola Gentran EDI.)

13. **Send 856 Ship Level:** This check box must be selected to create the ASN shipment level record. This check box normally should be selected. This field is ignored if the WMS EDI ASN Data Collection module is not installed.
14. **Send 856 Order Level:** This check box must be selected to create the ASN order level record. This check box normally should be selected. This field is ignored if the WMS EDI ASN Data Collection module is not installed.
15. **Send 856 Tare Level:** This check box must be selected to create the ASN tare (pallet) level record. This check box normally should be selected. This field is ignored if the WMS EDI ASN Data Collection module is not installed.
16. **Send 856 Pack Level:** This check box must be selected to create the ASN pack (carton) level record. This check box normally should be selected. This field is ignored if the WMS EDI ASN Data Collection module is not installed.
17. **Send 856 Item Level:** This check box must be selected to create the ASN item level record. This check box normally should be selected. This field is ignored if the WMS EDI ASN Data Collection module is not installed.

Label Setup

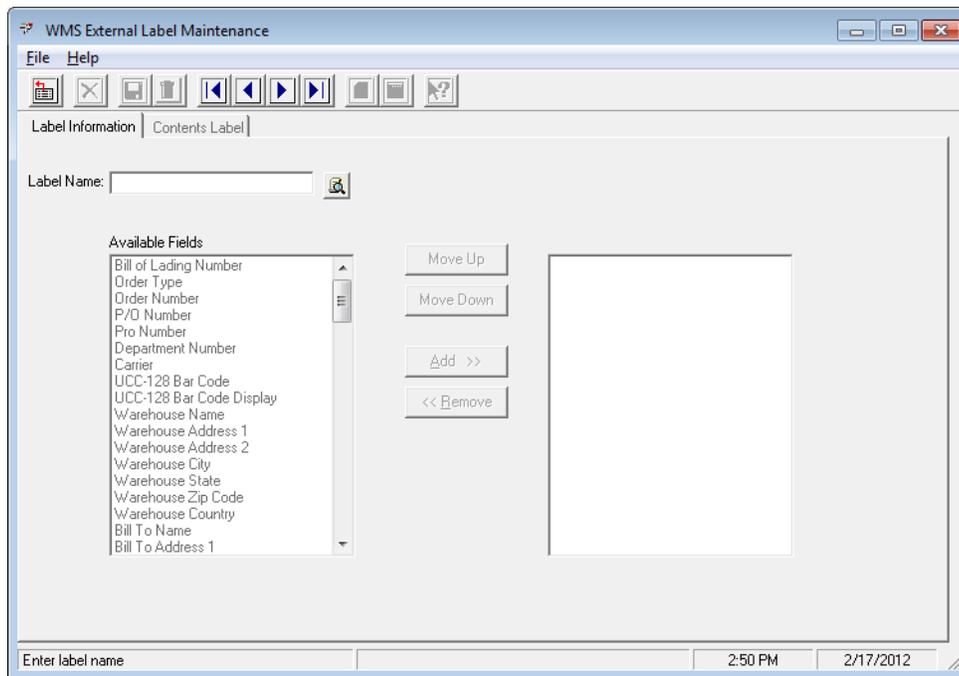
External Label Maintenance

Use WMS External Label Maintenance to define the shipping label formats to be used by WMS.

The labels themselves are formatted using BarTender from Seagull Scientific. BarTender supports most thermal printers, and new printers are added constantly. To determine which printers are supported, please visit Seagull Scientific's Web site at www.seagullscientific.com, or contact an authorized WMS reseller.

External label maintenance is used to define the label format names and to instruct WMS about the variable fields in the label that need to be updated during printing. For every label format, there is a label format and a WMS External Label Maintenance entry.

"Appendix G: External Label Field List" on page 191 contains a complete list of fields available to print on customer labels.

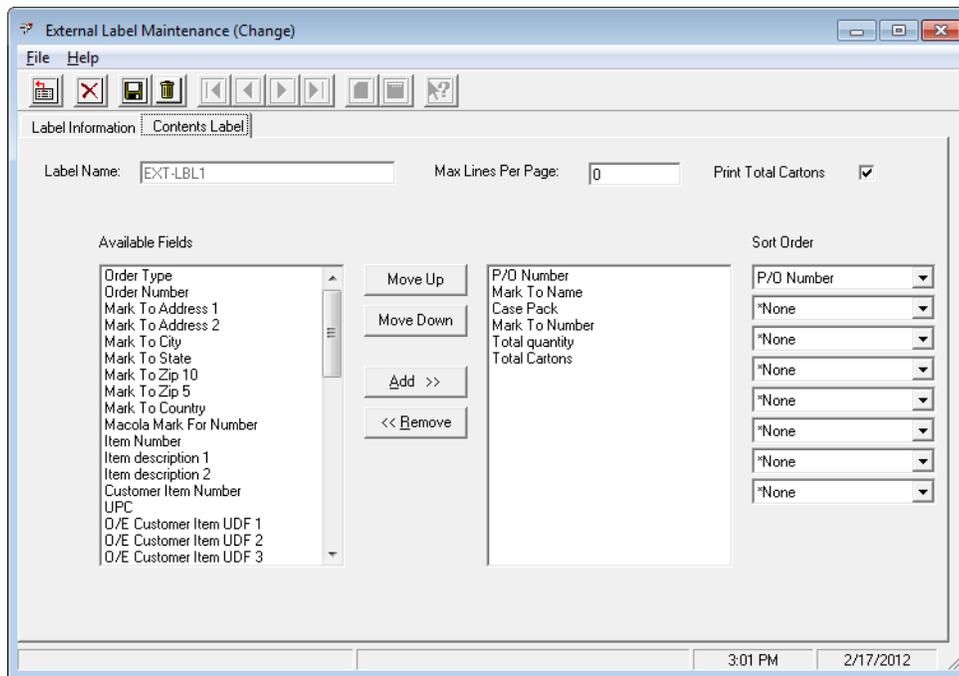


Label Information Tab

1. To access external label maintenance, in Exact Macola ES, on the System menu, under the Distribution heading, select WMS, WMS External Label Tools.
2. **Move Up**: Click this button to move the selected field in the Used Fields list up one line in the list.
3. **Move Down**: Click this button to move the selected field in the Used Fields list down one line in the list.
4. **Add >>**: Click this button to move the selected field from the Available Fields list to the bottom of the Used Fields list. Double-clicking an entry in the Available Fields list box also moves it to the Used Fields list box.
5. **<< Remove**: Click this button to move the selected field from the Used Fields list to the bottom of the Available Fields list. Double-clicking an entry in the Used Fields list box also moves it to the bottom of the Available Fields list box.

Contents Label Tab

Use the Contents Label tab to set up shipping labels that require information about the contents of a carton or pallet to be printed.



Note: This is supported only for BarTender label formats.

1. **Label Name:** The name of the label. This field is automatically set to the label name from the Label Information tab and is a display-only field on the Contents Label tab.
2. **Max Lines Per Page:** The maximum number of lines per page.
3. **Print Total Cartons:** Select this check box to have the total number of cartons listed on this label printed on the shipping label.
4. **Move Up:** Click this button to move the selected field in the Used Fields list up one line in the list.
5. **Move Down:** Click this button to move the selected field in the Used Fields list down one line in the list.
6. **Add >>:** Click this button to move the selected field from the Available Fields list to the bottom of the Used Fields list. Double-clicking an entry in the Available Fields list box also moves it to the Used Fields list box.
7. **<< Remove:** Click this button to move the selected field from the Used Fields list to the bottom of the Available Fields list. Double-clicking an entry in the Used Fields list box also moves it to the bottom of the Available Fields list.
8. **Sort Order:** Use the drop-down list boxes to specify sort orders. This groups the information for the label. Summary totals are printed for the lowest grouping level only.

Bill of Lading Type Maintenance

Bill of lading types group items into specific freight classifications and allow a specific description for the group which can be used in the commodity description section of the

bill of lading. At least one entry for the default BOL type DFLT should be created. The BOL type DFLT is used as the default when no other type is specified in Item Master.

To access Bill of Lading Type Maintenance, in Exact Macola ES, on the System menu, under the Distribution heading, select Inventory Management, WMS Bill of Lading Type.

You can also access Bill of Lading Type Maintenance from Inventory Management. In Exact Macola ES, on the BOM & IM, under the Items heading, select WMS Bill of Lading Type.

1. **BOL Type:** This field is used in the item master to classify the item and to group items together with a specific description that prints in the BOL commodity description section. More than one bill of lading type can be created for a specific freight classification, each with a unique description. BOL type DFLT is used when no other type is specified.
2. **Description:** The Description field appears on the bill of lading in the commodity description area. Normally, this should be a generic description of the articles or packages being shipped.
3. **Class Code:** The class code represents the freight class code used to determine the class of items being shipped.
4. **NMFC #:** National Motor Freight Classification Item Number. The NMFC number is assigned by commodity type and is used by LTL carriers to determine the level of rates for a shipment.
5. **User Defined 1 - 5:** Use these fields to store user defined values that need to be related to the bill of lading type.
6. **Hazardous Materials Flag:** Set this field based on the type of items being shipped. If the hazardous material flag is set to Y, an emergency response number can be specified.
7. **Emergency Response Group #:** Type the emergency response group number for hazardous materials.

Ship Via Reports Maintenance

WMS uses Ship Via Reports Maintenance to indicate which forms to print for a specific carrier. With this function, the user can specify up to five Crystal Reports or Visual Basic programs to be executed when a shipment is completed for this customer and carrier. In addition, a printer number is assigned to the report so a series of printers with the correct forms can be set up, eliminating the need for the user to select a printer for each report.

Users familiar with Crystal Reports can create their own custom Crystal Reports to generate packing slips, manifests, and other reports. Users can also contact an authorized WMS reseller to purchase custom reports.

See "Chapter 12: WMS Reports" on page 167 for a list of the standard reports supplied with WMS.

1. In Exact Macola ES, on the System menu, under the Distribution heading, select WMS, WMS Ship Via Reports Maintenance.

Report Name	Type	Parameters - Visual Basic Only	Printer	copies
1	C=Crystal Rpt			
2	C=Crystal Rpt			
3	C=Crystal Rpt			
4	C=Crystal Rpt			
5	C=Crystal Rpt			

2. **Customer Number:** Type the customer number for the report. This field can be left blank to specify a default for this carrier. A default entry should be created for each carrier, and only those customers that need to be handled differently should have an individual Ship Via Reports Maintenance entry.
3. **Ship Via Code:** Type the ship via code that requires reports to print at shipment completion.
4. **SCAC Code:** Type the Standard Carrier Alpha Code (SCAC) for this carrier. Contact the carrier or the National Motor Freight Association at 2200 Mill Road, Alexandria, VA 22314-4654 for the code for the carrier.
5. **Report Name (1 - 5):** Type the Crystal Report or Visual Basic report name for this ship via code.
6. **Type (1-5):** Choose V=Visual Basic if the report is a VB program or C=Crystal Rpt if it is a Crystal Report.
7. **Parameters - Visual Basic Only (1-5):** Specify parameters to control a Visual Basic report. This field is disabled if the report type is C=Crystal Rpt.

8. **Printer (1 - 5):** Specify the printer for the report. The actual printer and path for this code are specified in the WMS INI file.
9. **Copies (1 - 5):** Type the number of copies (1 - 9) to print of the report.

EPN Reject Reason Code Maintenance

Reject reasons are used by electronic pick management to specify the reason that a recommendation has been rejected by a user. Codes can be used to track the reasons for picking product other than what was recommended. This allows analysis to avoid such issues in the future.

1. To maintain EPN reject reason codes, in Exact Macola ES, on the System menu, under the Distribution heading, select WMS, EPN Reject Reason Codes.

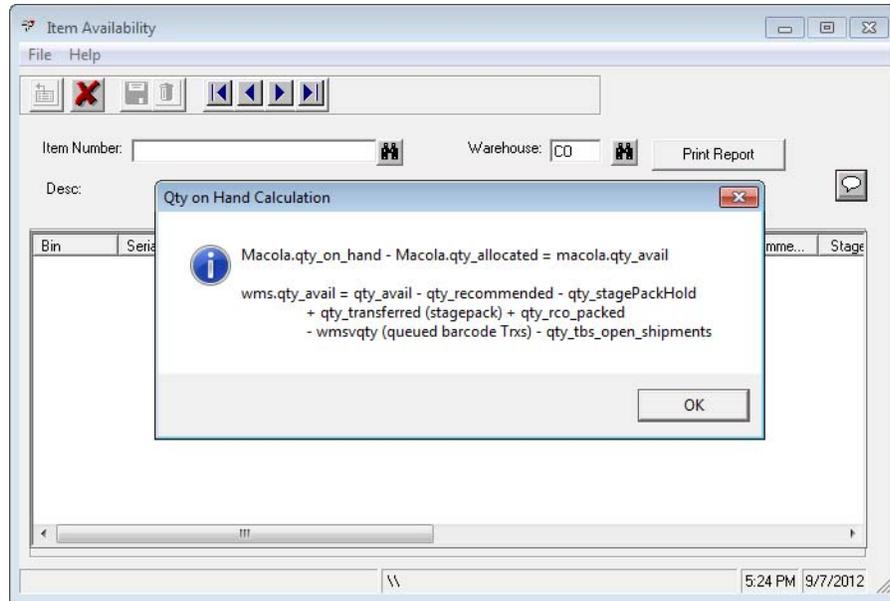
2. **Reason Code:** Type a three-character code to identify the reject reason.
3. **Short Description:** Type a short description, which can be displayed on an RF device.
4. **Full Description:** Type a longer description, which can be used in reports and standard workstation inquiries.
5. **Leave Qty: Not Avail\Available:** Activate the appropriate selection for whether the quantity that has been rejected should remain available for other orders or should be placed on hold so no other order can reserve this quantity until it has been reviewed by management.

WMS Item Availability

The Item Availability screen shows the quantities available, on hand, and allocated for the item entered at the warehouse entered. You can print a report showing the quantity information for the item and warehouse. The Qty on Hand Calculation button shows the equations for calculating the quantity on hand in Progression and in WMS. These are additional details for the calculation shown:

- Qty_avail is the quantity available in Exact Macola ES tables.
- Qty_recommended is the sum of the field "Qty_recommended" from the table sseprco - for this item in question.
- Qty_stagePackHold is the sum of the rows from sseprco table that have been staged and not packed yet. (with record type=sph)

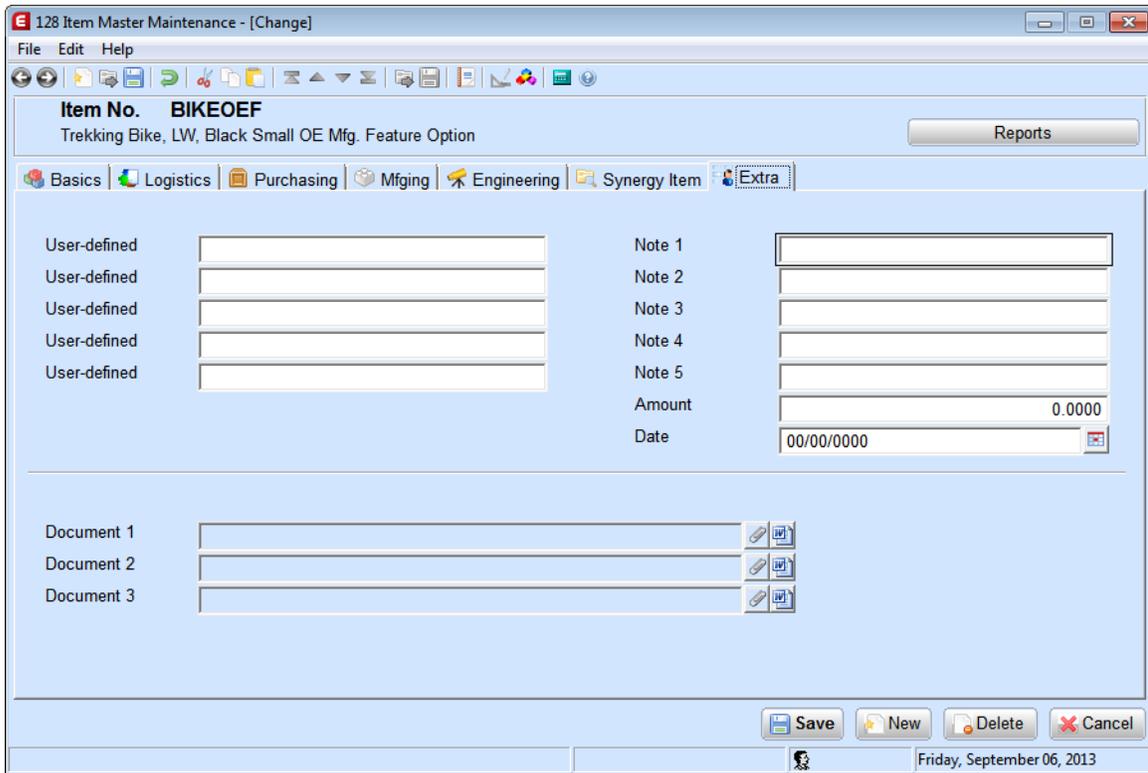
- Qty_Transferred is the sum of quantities transferred to a staged bin in the case of a stagepick/stagepack.
- Qty_rco_packed is the sum of quantities in sseprco tables that is packed (for standard items)
- wmsvqty amount is the quantity available in WMSVqty table - waiting to be polled in barcode
- qty_tbs_open_shipments is the quantity of Bin/serial/lot items in open shipments where the shipment is not completed or closed - but still open.



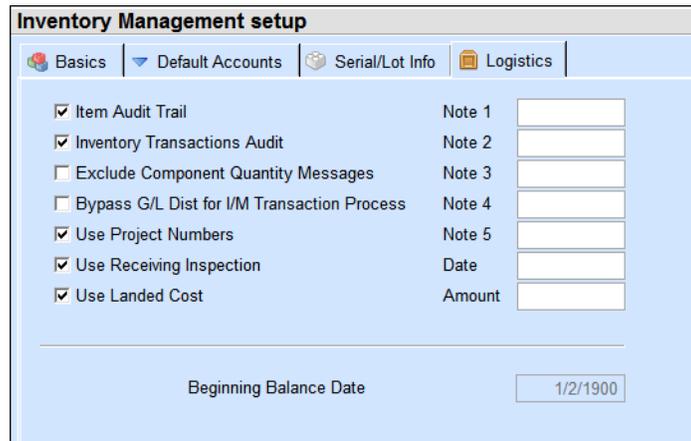
Click the **Print Report** button to see the WMS Item Availability Report. This report shows open shipments, pending transactions, and recommendations.

Item Master Maintenance

WMS can use any of the five user defined fields or user notes fields in Item Master Maintenance to identify an item's bill of lading type or that an item is to be tracked as externally serialized. To access Item Master Maintenance, in Exact Macola ES, on the BOM & IM menu, under the Items heading, select Maintenance. In Item Master Maintenance, click the Extra tab to access the five user notes fields and five user defined fields.



To change the literal for an item note field, in Exact Macola ES, on the System menu, under the Company heading, click Package Settings. Click Distribution, Inventory Management Setup, and then click the Logistics tab. Type a meaningful label in the field for the note that you want to use.

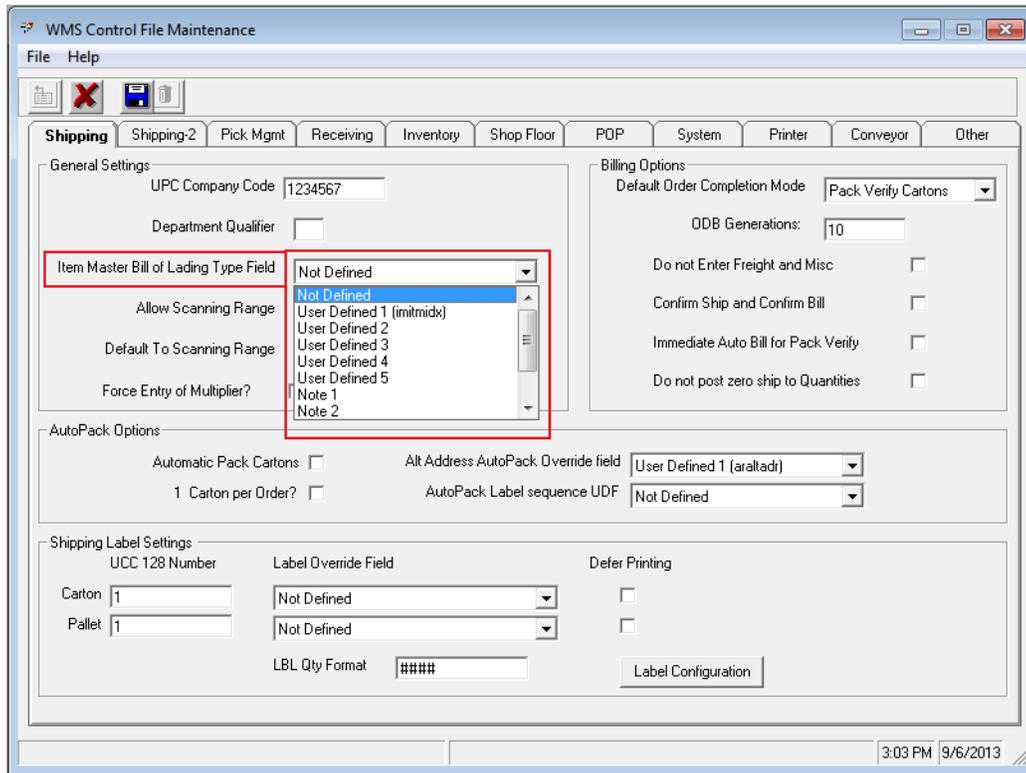


You must have the Exact Macola ES ScreenSet Designer module to change the literal for a user defined field. In the Exact Macola ES help, see Changing the Text of a Literal for instructions on changing a user defined field literal.

Bill of Lading Type Field

Use Item Master Maintenance to classify items by freight classification code. On the WMS Control File Maintenance screen, on the Shipping tab, the **Item Master Bill of Lading Type Field** specifies which field in the item master contains the bill of lading type code for the item. The bill of lading type defines a specific classification code, description, and haz-

ardous material status. (Refer to step 3. under "Shipping Tab" on page 22.)

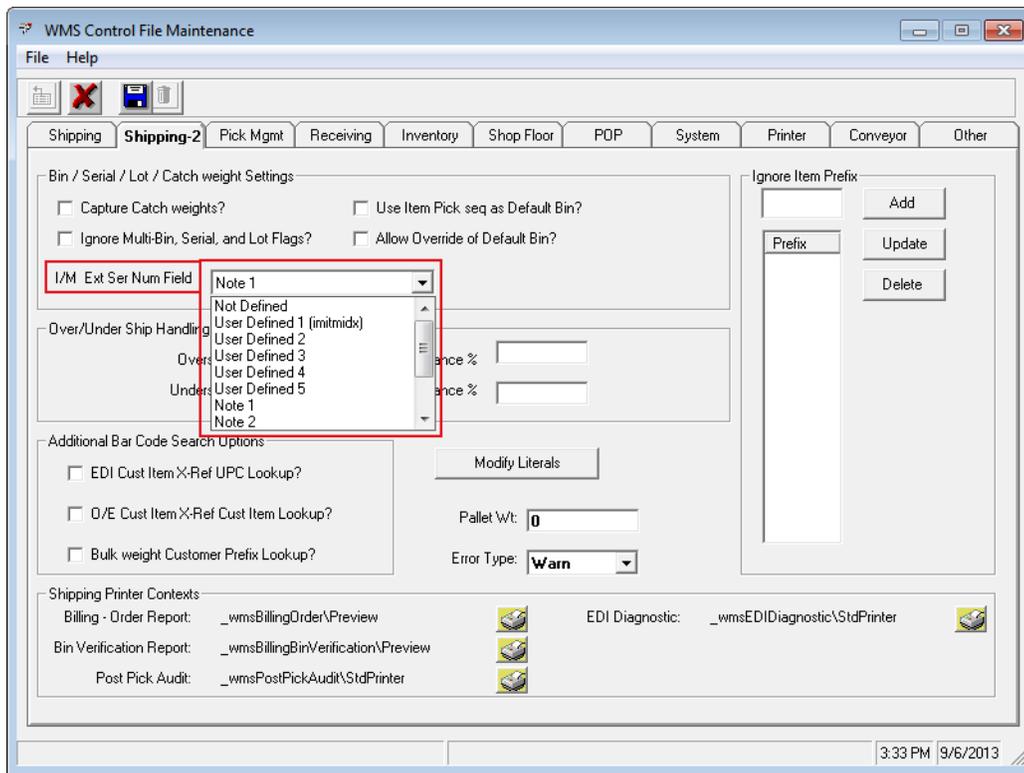


If the value of the field specified by **Item Master Bill of Lading Type Field** is left blank, WMS assumes the code is default (DFLT). For example, if the User Defined 1 is selected and for the item being processed the UDF1 is blank in the imitmidx_sql table, the program assumes DFLT. This eliminates the need to enter the BOL type in each item master record if most items have the same type.

This field is not validated by Exact Macola ES, so if the bill of lading type specified does not exist in Bill of Lading Type Maintenance, WMS cannot properly classify the item on a bill of lading.

External Serial Number Field

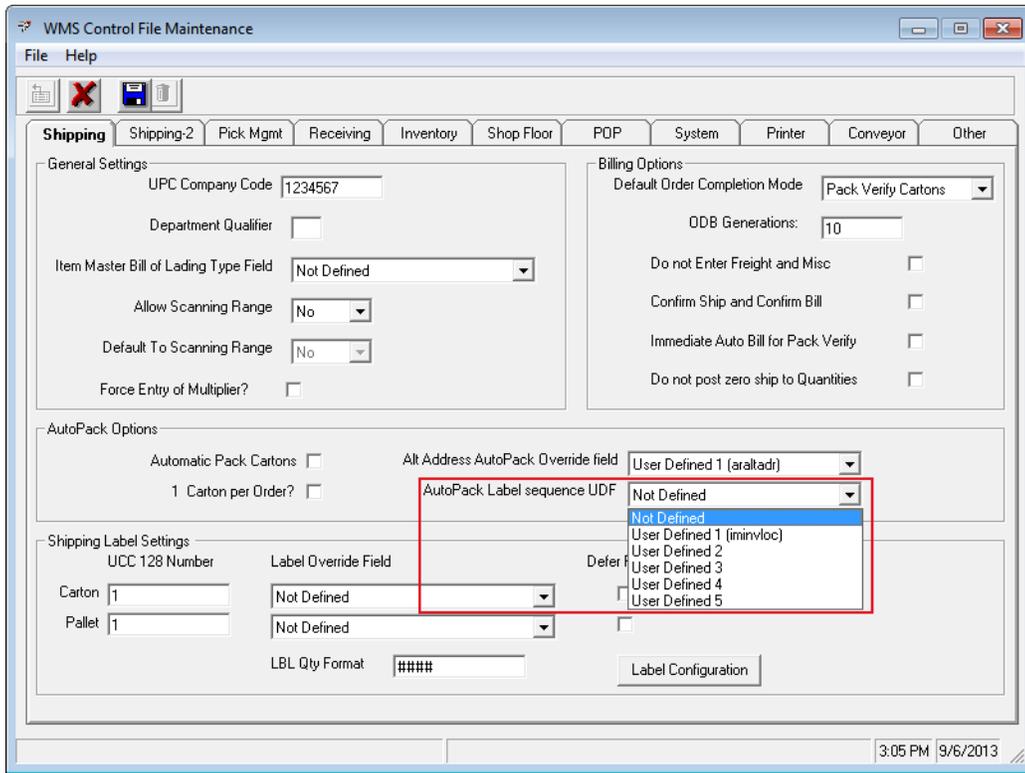
Item Master Maintenance can be used to specify that an item is externally serialized. WMS can use any of the five user defined fields or five user notes fields to store this information. Type Y in the Item Master Maintenance user defined field or user note and select the corresponding field in the **I/M Ext Ser Num Field** on the Shipping-2 tab on the WMS Control File Maintenance screen.



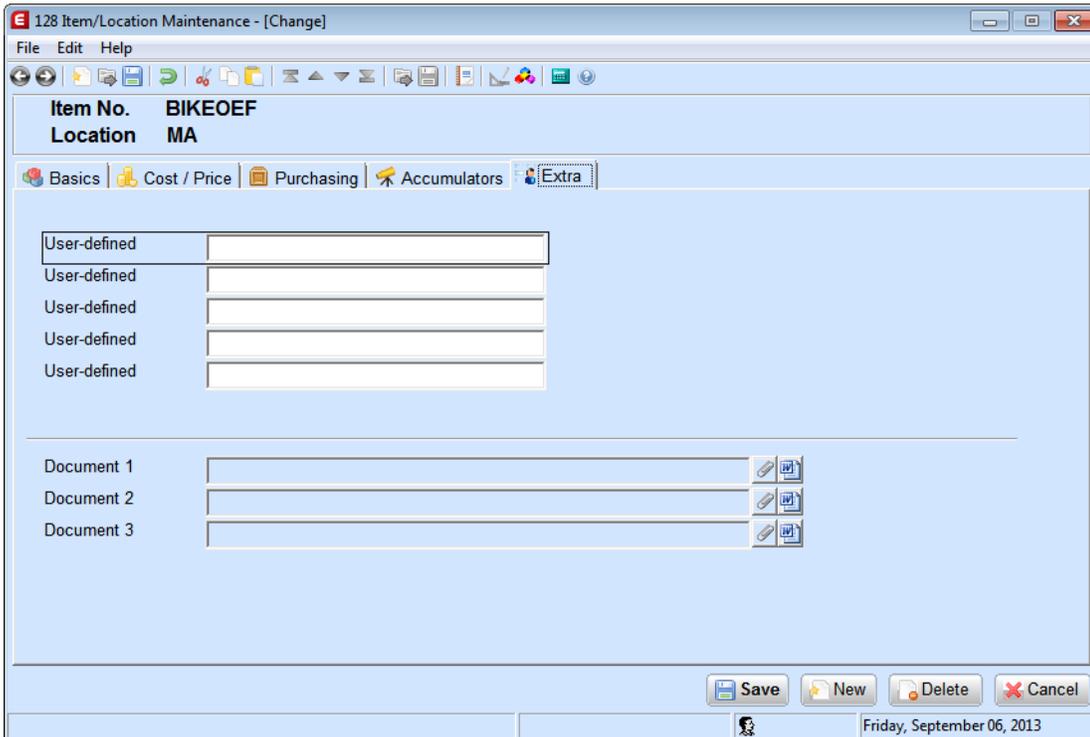
Typing a value other than Y in the first position of the Item Master Maintenance user defined field or user note causes WMS to treat the item as not externally serialized.

Item/Location Maintenance

WMS can use any of the five user defined fields in Item/Location Maintenance to specify a sort sequence other than order entry or pick sequence when printing autopack labels. The Item/Location Maintenance user defined field to be used must be specified in the **Auto-Pack Label sequence UDF** field on the Shipping tab on the WMS Control File Maintenance screen.



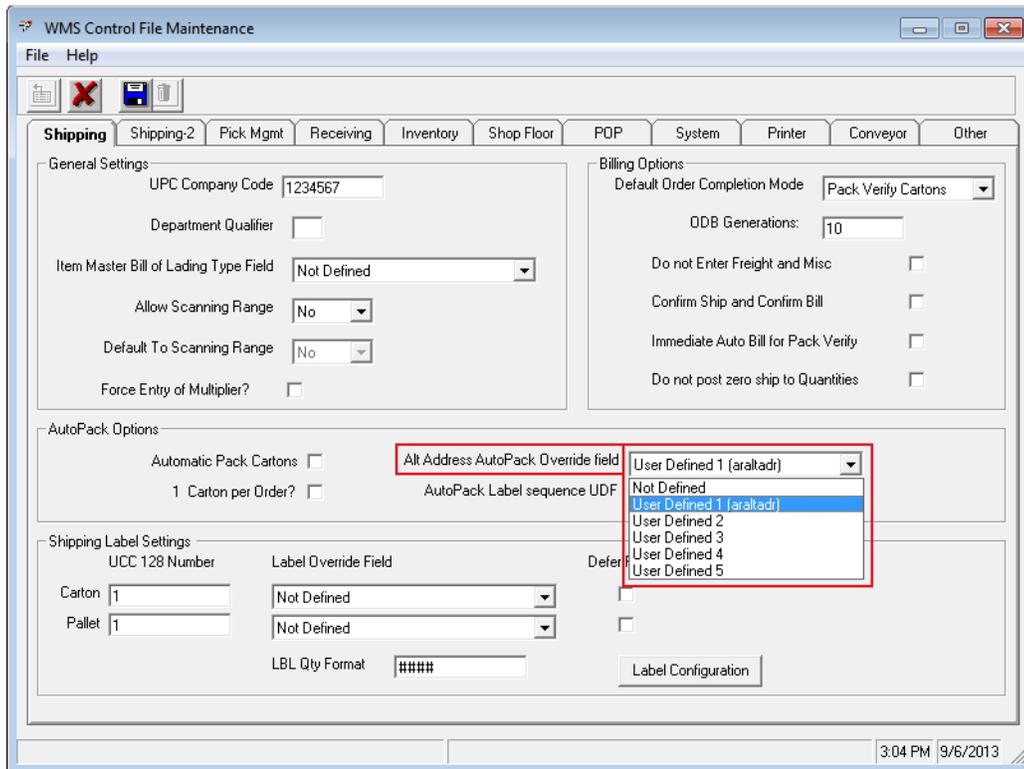
To access item location maintenance, in Exact Macola ES, on the BOM & IM menu, under the Items heading, select Item/Location. On the Item/Location Maintenance screen, click the Extra tab to access the five user defined fields.



You must have the Exact Macola ES ScreenSet Designer module to change the literal for any of these user defined fields. In the Exact Macola ES help, see Changing the Text of a Literal for instructions on changing a user defined field literal.

Customer Delivery Address Maintenance

WMS can use any of the four account free fields (Addresses: text field 2 through Addresses: text field 5) in A/R Customer Delivery Address Maintenance to override the order completion mode and the autopack status for a ship to address. The user defined field to be used must be specified in the **Alt Address AutoPack Override field** on the Shipping tab on the WMS Control File Maintenance screen. You can choose User Defined 2, User Defined 3, User Defined 4, or User Defined 5. (Refer to step 15. under “Shipping Tab” on page 22.)



These are the acceptable values to use in the customer delivery address user defined fields (Addresses: text field 2, Addresses: text field 3, Addresses: text field 4, and Addresses: text field 5):

- VN = Pack Verify Mode, AutoPack Off
- SN = Pack Shipments Mode, AutoPack Off
- SY = Pack Shipments Mode, AutoPack On
- BN = WMS Billing Mode, AutoPack Off
- BY = WMS Billing Mode, AutoPack On

Note: If any other value is used, it is ignored and the default value used.

To access the customer delivery address maintenance, in Exact Macola ES, on the A/R menu, under the Customers heading, select Maintain. Search for the customer, and click

open. On the Maintain Customers screen click the Addresses tab. Double-click an existing address to edit it, or click the Add New button to create a new address. Click the Extra tab to access the account free fields.

The screenshot shows a software window titled "Addresses - Macola". At the top, there is a menu bar with "File", "Edit", and "Help". Below the menu bar is a toolbar with several icons. The main area is divided into two tabs: "Basics" and "Extra". The "Extra" tab is currently selected. In the top section of the "Extra" tab, there are several input fields: "Name" (containing "906"), "Bicycle Stop" (with a magnifying glass icon), "Contact person" (containing "Leon Belmont"), and "Type" (a dropdown menu set to "Delivery"). There is also a checkbox labeled "Copy : Visit. addr.". Below this, there are two columns of fields. The left column contains five "Addresses: text field" (2-5), five "Addresses: date field" (1-5), and five "Addresses: number field" (1-5). The right column contains five "Addresses: yes no field" (1-5), each with a checkbox. At the bottom right, there are "Save" and "Close" buttons. The status bar at the very bottom shows "0000000668" and "Friday, September 06, 2013".

Order Entry Header Setup

WMS can use any of the five user defined fields on the O/E order header to override the carton or pallet label used when printing. These fields can be unhidden on the O/E order header screen and labeled accordingly. This feature requires the Exact Macola ES ScreenSet Designer module. Refer to the System Manager online help in Exact Macola ES for instructions on using the ScreenSet Designer to unhide fields on the order header.

WMS uses the form name specified in these fields instead of the values specified in the customer override file or the default label (**Label Configuration**) specified on the WMS Control File Maintenance screen. If the Carton Label Override field or the Pallet Label Override field is set to *Not Defined*, WMS reverts to the default name.

The user defined field you want to use must be specified in the Carton Label Override field or the Pallet Label Override field on the WMS Control File Maintenance screen.

WMS Control File Maintenance

File Help

Shipping Shipping-2 Pick Mgmt Receiving Inventory Shop Floor POP System Printer Conveyor Other

General Settings

UPC Company Code 1234567

Department Qualifier

Item Master Bill of Lading Type Field Not Defined

Allow Scanning Range No

Default To Scanning Range No

Force Entry of Multiplier?

Billing Options

Default Order Completion Mode Pack Verify Cartons

ODB Generations: 10

Do not Enter Freight and Misc

Confirm Ship and Confirm Bill

Immediate Auto Bill for Pack Verify

Do not post zero ship to Quantities

AutoPack Options

Automatic Pack Cartons

Alt Address AutoPack Override field User Defined 1 (araltdr)

1 Carton per Order?

AutoPack Label sequence UDF Not Defined

Shipping Label Settings

UCC 128 Number Label Override Field Defer Printing

Carton 1 Not Defined

Pallet 1

Not Defined

User Defined 1 (oeordhdr)

User Defined 2

User Defined 3

User Defined 4

User Defined 5

Label Configuration

3:06 PM 9/6/2013

WMS Control File Maintenance

File Help

Shipping Shipping-2 Pick Mgmt Receiving Inventory Shop Floor POP System Printer Conveyor Other

General Settings

UPC Company Code 1234567

Department Qualifier

Item Master Bill of Lading Type Field Not Defined

Allow Scanning Range No

Default To Scanning Range No

Force Entry of Multiplier?

Billing Options

Default Order Completion Mode Pack Verify Cartons

ODB Generations: 10

Do not Enter Freight and Misc

Confirm Ship and Confirm Bill

Immediate Auto Bill for Pack Verify

Do not post zero ship to Quantities

AutoPack Options

Automatic Pack Cartons

Alt Address AutoPack Override field User Defined 1 (araltdr)

1 Carton per Order?

AutoPack Label sequence UDF Not Defined

Shipping Label Settings

UCC 128 Number Label Override Field Defer Printing

Carton 1 Not Defined

Pallet 1 Not Defined

Not Defined

User Defined 1 (oeordhdr)

User Defined 2

User Defined 3

User Defined 4

User Defined 5

Label Configuration

3:06 PM 9/6/2013

Chapter 5: WMS Setup - Purchase Order Receiving

Vendor Override Maintenance

WMS Vendor Override Maintenance overrides the system defaults with vendor specific information.

The screenshot shows a software window titled "PO Vendor Override". At the top, there is a menu bar with "File" and "Help". Below the menu bar is a toolbar with several icons, including a red 'X', a search icon, and navigation arrows. The main area of the window is divided into sections. The first section is "Vendor No" with a text input field and a search icon. Below this is the "Vendor Bar Code Setup" section, which includes a "Bar Code Format" checkbox, a "Fixed Length?" checkbox, a "Length" text input field, and an "Identifier" text input field. The next section is "Vendor Level Printer Contexts", which contains a "PO Scan Sheet" text input field and a "Maintain Printer Context" button with a printer icon. At the bottom of the window, there is a status bar with "Search (F7)" on the left and "3:11 PM 2/22/2012" on the right.

1. To access Vendor Override Maintenance, in Exact Macola ES, on the System menu, under the Distribution heading, select Purchase Order, WMS Vendor Override. (Or, on the PO & RFQ menu, under the Entries heading, select WMS Vendor Override.)
2. **Vendor No:** Type the vendor's Exact Macola ES A/P number.
3. **Bar Code Format:** Select this check box if the vendor supplies a multi-segment, vendor specific bar code on products.
4. **Fixed Length?:** Select this check box if the vendor specific bar code is a fixed length. This is used to help validate that the bar code scanned is in fact the vendor specific bar code.
5. **Length:** Type the fixed length value for the length of the vendor specific bar code.
6. **Identifier:** Type the identifier code embedded in the bar code sent by the vendor, if one exists.
7. **PO Scan Sheet:** Displays the default report name for the post PO scan sheet.

Click the **Maintain Printer Context** button  to configure the report printing settings.

The receiving function can automatically generate product labels for up to four levels: unit, inner, case, and pallet. The product label setup section of the WMS control file defines the default calculations for each layer. These can be overridden in the vendor override for a vendor or in the vendor item override for a specific vendor item.

For each layer, the user specifies the label format, whether it is printed, how many copies, which printer to use, and a default package code to use in conjunction with the bulk

weight entry when calculating the number of labels required. Click a layer to change its settings.

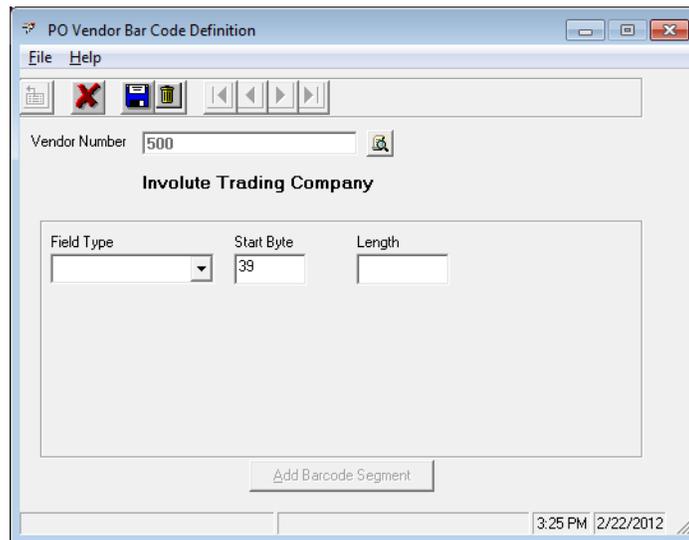
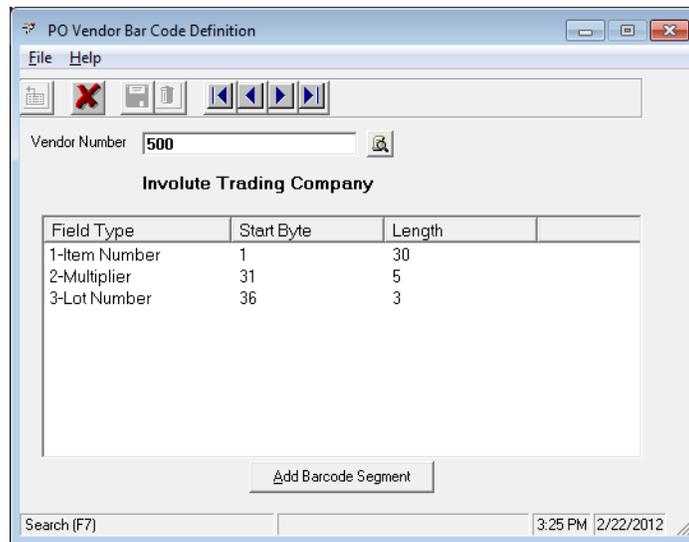
Item Number:	111648	
Description:	HI-LITER YELLOW	111648
PO#: 00007700	Vendor Item:	
Receive Date:	02/19/2003	
Job No:		

Sample Product Label

8. **Label Type:** Shows which layer is being changed. This field is set by the system when the user selects an entry to modify.
9. **Print (Y/N):** Select Yes, No, or Prompt to indicate whether product labels should be printed when product is received.
 - Yes: Print automatically without waiting for user confirmation.
 - No: Do not allow product labels to be printed.
 - Prompt: Display the calculated quantity of labels and allow the user to override the number of labels printed, as well as the case pack used for this layer.
10. **Format:** Type the form name to be used to print the product labels for this layer.
11. **Copies:** Type the number of copies of each product label that should be printed for this layer.
12. **Printer Name:** Select the printer to use when printing the product labels for this layer. The printer names must have been added previously on the WMS control file Printer tab.
13. **Pkg. Code:** Select the package code to be used with the item number to find the quantity per pack from WMS Bulk Weight Maintenance when calculating the number of labels required.

Vendor Bar Code Maintenance

Vendor Bar Code Maintenance allows multi-segmented vendor specific bar codes to be defined. This setup defines how to break down the vendor bar code segments. A vendor override indicates when a vendor bar code is in use.



1. To access Vendor Bar Code Maintenance, in Exact Macola ES, on the System menu, under the Distribution heading, select Purchase Order, WMS Vendor Barcode. (Or on the PO & RFQ menu, under the Entries heading, select WMS Vendor Barcode.)
2. Click the **Add Barcode Segment** button to add a new bar code segment definition. Double-click an existing entry to edit its settings.
3. **Field Type:** Select the type of data found in this segment from the list.
4. **Start Byte:** Type the starting position in the bar code for this segment. This is automatically set to the next byte position, based on the segment definitions already entered.
5. **Length:** Type the number of bytes that this segment contains.

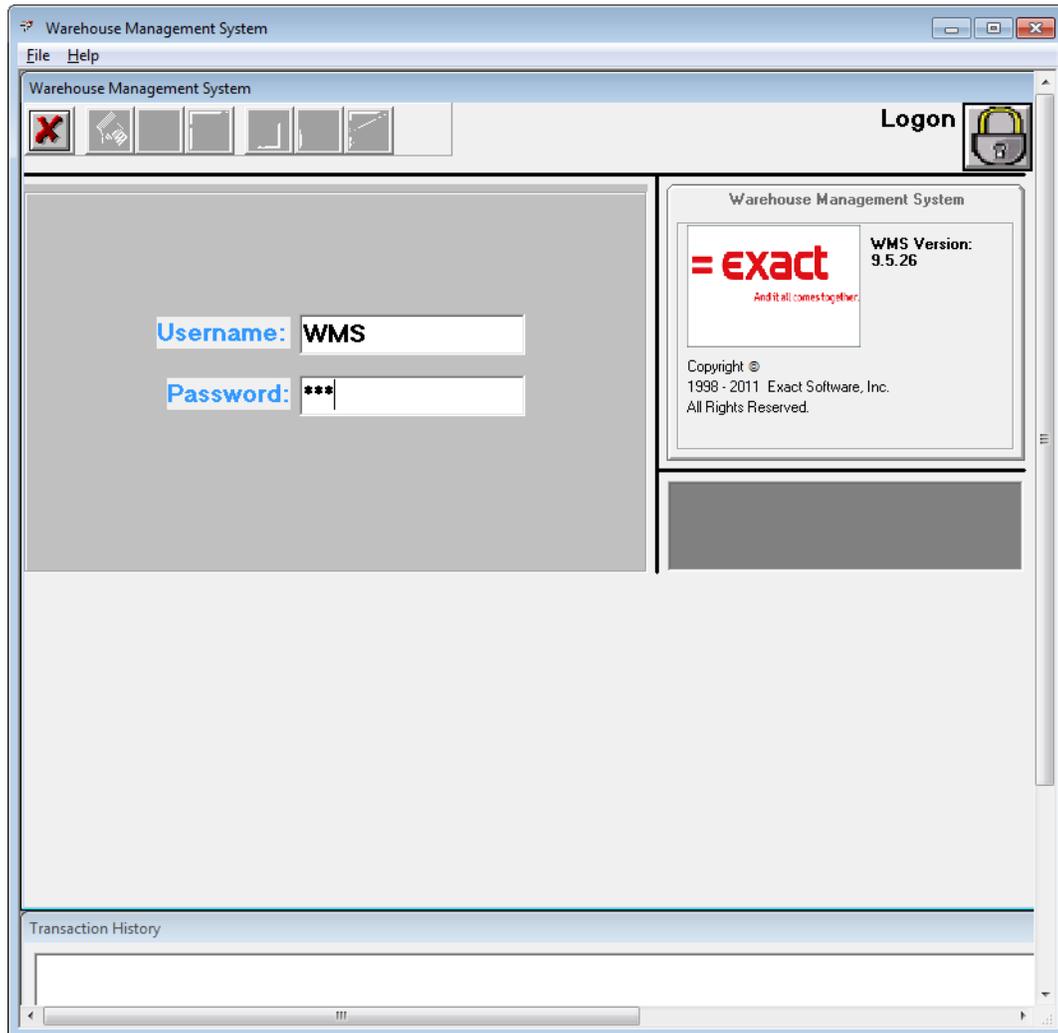
Vendor Item Override Maintenance

The Vendor Item Override Maintenance functionality has been replaced with the Label Configuration. Refer to "Label Configuration" on page 44 in Chapter 3.

Chapter 6: WMS Processing

Logging on to WMS

WMS is executed externally to Exact Macola ES. It is typically used at a packing station. Because Exact Macola ES is not necessarily required on that workstation, the administrator can prevent access to Exact Macola ES from the workstation.

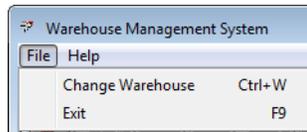


1. **Username:** Type the user name.
2. **Password:** Type the password.
3. Press Enter.

Changing the User Warehouse

If the Allow Change Warehouse check box has been selected in the user's entry in the WMS Security File, he can change the warehouse that he is working in within WMS.

1. Log in to the WMS program.
2. Click File on the WMS menu, and then click Change Warehouse.



Note: You can also change the warehouse in WMS Inquiry by clicking the Whse Code link.

3. The Users Default Warehouse field displays the warehouse that the user is logged into by default.
4. The Current Warehouse field displays the warehouse that the user is currently logged into.
5. Type the warehouse to change to in the Warehouse field, and then click Ok.
6. To automatically reset the user to his default warehouse, click the **Reset to Default** button.

Transaction History

The WMS Transaction History lists all actions performed by the user, including creating and packing cartons, pallets, and shipments, closing shipments, and billing orders. To clear the transaction history, click in the Transaction History pane. Click File on the WMS menu, and then click Clear Transaction History.



RF Emulator

The WMS RF Emulator allows you to access the WMS functions at a workstation as if you were using a handheld RF device.

To access the RF Emulator, in Exact Macola ES, on the OE & RMA menu, under the Billing/Picking/Shipping heading, select Shipping, RF emulation.

Chapter 7: WMS Shipping Transactions

Pick Management (EPN Processing)

WMS Pick Management manages the picking and packing processes for the warehouse. Orders are released to the pickers as electronic documents called EPNs (Electronic Pick Notifications), which are designed to be used in an RF environment and guide the picker through the warehouse to pick the necessary products.

An EPN is a pick work order comprised of one or more sales orders. An EPN can be created as pick-to-pack, or it can be created as a stage pick with a separate stage pack.

A **pick-to-pack EPN** is created when product can be easily picked and then immediately packed into a shipping container, either a carton or pallet. The cartons or pallets are immediately labeled for shipping and are ready to be combined with other cartons or pallets being shipped together. A typical scenario using a pick-to-pack EPN is an order that is too large to be picked as part of a batch. As the products are placed on the pallet, they are scanned and associated with the shipping pallet. The pallet can later be associated with a shipment simply by scanning the pallet label.

A **pick-to-stage EPN** is created when it makes sense to pick the products, and then bring them to a staging area where they are ultimately packed into cartons or pallets for shipping. The pick-to-stage EPN indicates what products are to be picked and where to take them for staging. A pick-to-stage EPN is always associated with a stage pack EPN.

A **stage pack EPN** is created to direct the packers about how to break out products that have been brought to a staging area as the result of a pick-to-stage EPN. This can be done on either an RF device or at a packing station and presents the pack out process in an order-by-order basis.

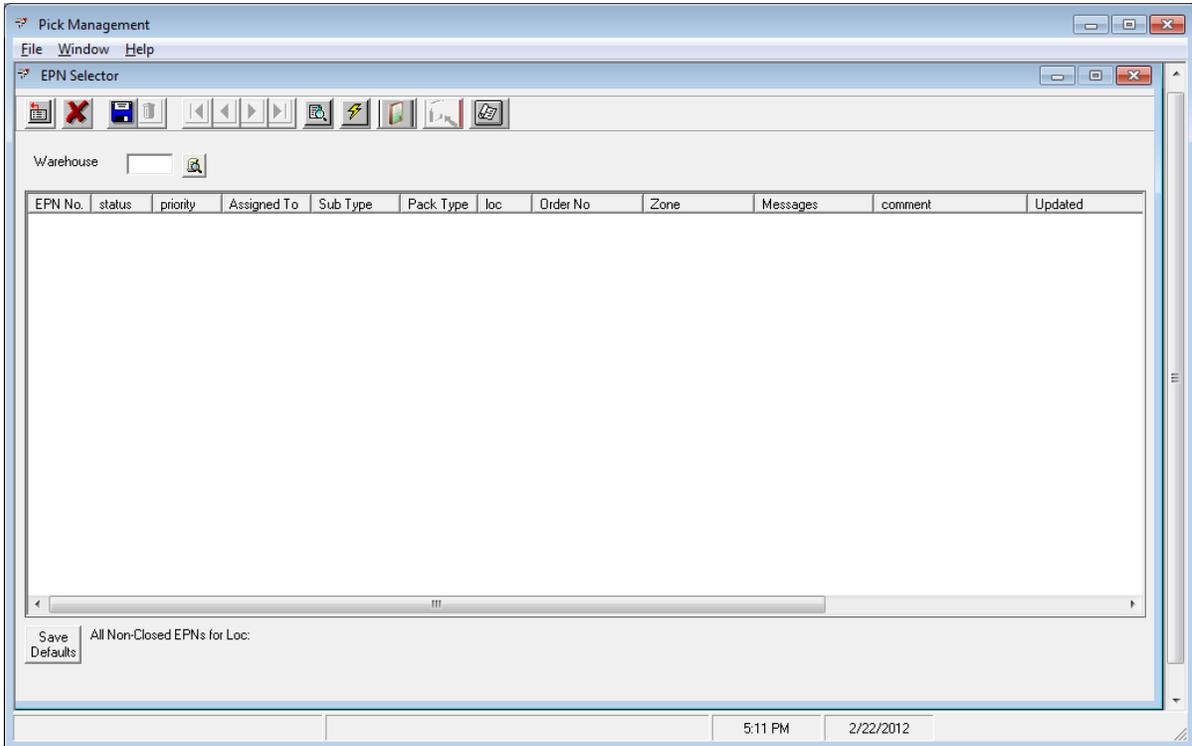
An example, pick-to-stage EPN and stage pack EPN can be used if a series of 20 similar orders require quantities of the same basic items. In a large warehouse, sending a team to pick those 20 orders individually is very inefficient because 20 passes through the warehouse would have to be made for the same items. Instead, a bulk pick-to-stage EPN can be created for the 20 orders. One pass through the warehouse can be made for the items, with the total quantity of each item brought to a staging area. The stage pack is then used to separate the items based on the quantity needed for each order.

A second example of a pick-to-stage/stage pack process is when an order is being picked for a large number of items, but cannot be easily packaged in the aisle. Products might require special packaging material that can be applied only at a packaging station. The products need to be picked and taken to the packaging station. Using pick-to-stage, the picker can be instructed about what to pick and where to bring the goods. In addition, since the picker is scanning the products as they are being picked, any mistakes can be caught before items are carried to the packing station, minimizing return trips to get the correct item. The stage pack is used as a double check process in addition to tracking which items are going into which cartons.

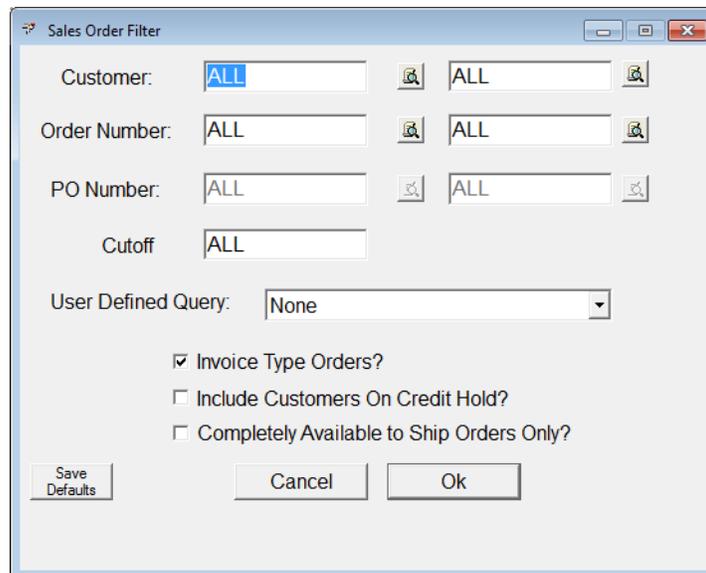
Note: O/E manufactured, pulled items are not supported with EPNs.

Creating a Pick-to-Pack EPN

1. In Exact Macola ES, on the OE & RMA menu, under the Billing/Picking/Shipping heading, select Picking, Pick Management. This opens the Pick Management screen.



2. **Warehouse:** Type the warehouse location.
3. Click the **Sales Order Filter** button on the toolbar. This opens the Sales Order Filter screen.



4. **Customer:** To filter based on customer, type a starting and ending customer number.

5. **Order Number:** To filter based on order number, type a starting and ending order number.
6. **PO Number:** To filter based on purchase order number, type a starting and ending purchase order number.
7. **Cutoff:** To restrict the orders to those shipping before a specific date, type the ship date.
8. **User Defined Query:** If you have created user defined filters, you can select a filter from the list. (WMS prompts you to provide the appropriate criteria after you click OK.)
9. **Invoice Type Orders:** Select this check box to include invoice orders.
10. **Include Customers on Credit Hold:** Select this check box to include customers currently on credit hold.
11. **Completely Available to Ship Orders Only:** Select this check box to include only orders that can be shipped complete.

Note: Click **Save Defaults** to save these filter settings as the default sales order filter criteria.

12. Click **OK**.

The screenshot shows the 'Sales Order Selector' window. It has several sections for configuration:

- Pick Sub Type:** Radio buttons for 'Pick to Pack' (selected) and 'Stage Pick'.
- Pick Creation Rules:** A dropdown for 'Pack Type' set to 'Cartons'. Below it are radio buttons for 'Individual Picks' (selected) and 'Bulk Pick'. There are also checkboxes for 'Group Orders by Customer' and 'Separate Pick Per Zone'.
- Pick Processing Settings:** Three dropdown menus for 'Priority' (Medium), 'Status' (Open), and 'Assign to User' (Unassigned).
- Recommendation Rules:** Three checkboxes: 'Leave Un-Recommended Qty's Open', 'Recommend Zone By Pkg Size', and 'Recommend for Specific Zone:'. The 'Recommend for Specific Zone' dropdown is set to 'ALL Zones'.
- Comment:** A text input field with a 'Save Defaults' button to its right.

Below the settings is a table with the following data:

Order Number	Customer Number	Customer	Ship To Number	Order Date	PO	Cnt Items	Tot Qty To Shp	Avg Qty To Shp
<input type="checkbox"/> 114	903	Dirtworld.com Online Bike Store		2/24/2012		2	4	2
<input type="checkbox"/> 116	903	Dirtworld.com Online Bike Store		2/24/2012		2	4	2

At the bottom of the window, there are buttons for 'Select All', 'Deselect All', 'Toggle Selected', 'Create EPN(s)', and 'Close'. A status bar at the very bottom reads: '.Order and Invoice Type Orders, Location: CA'.

13. WMS displays a list of orders that have items that have not yet been released and that meet the criteria specified.
14. Click any column heading to sort the list by that column.
15. **Pick Sub Type:** Select the **Pick To Pack** option.
16. **Pack Type:** Select Cartons or Pallets from the list.
17. **Individual Picks:** If you select individual picks and have selected more than one order, WMS generates a unique EPN for each order.

18. **Bulk Pick:** If you select bulk pick, WMS attempts to combine the orders into a single EPN.
19. **Group Orders by Customer:** To create a unique bulk pick for each customer, select this check box. If you clear this check box, the bulk pick is for multiple customers.
20. **Separate Pick Per Zone:** To create a separate pick for each zone, select this check box.
21. **Priority:** Allows a priority to be set for which EPNs get processed first. The choices are Low, Medium, High, or Immediate. The default is Medium. When the user presses the F2 key for next job in the EPN processing screen on the RF gun, WMS brings up the highest priority EPN that is unassigned or assigned to the user. Within a priority, an EPN assigned to the user takes precedence over an unassigned EPN, but an higher priority unassigned EPN takes precedence over a lower priority EPN that is assigned to a user.
22. **Status:** Sets the Status of the EPN: Open, Closed, Hold, and In Process. If set to close, the EPN goes through the Close process and releases un-picked quantities back as open to release to the sales order.
23. **Assign to User:** Allows the EPN to be assigned to a specific user.
24. **Comment:** Type a comment for this EPN, if desired.
25. **Leave Un-Recommended Qtys Open:** Select this check box if you do not want WMS to generate a recommendation error for any quantities for which it cannot make a recommendation. The un-recommended quantity is left open for a future pick.

Note: If you attempt to create a pick or pick/pack for an order, and the **Leave Un-Recommended Qtys Open** check box is selected and the order cannot be fully recommended, the order stays open. In the Order Number column, there is a minus '-' sign to the right of the order number if it was fully unable to be recommended, or there is an asterisks '*' to the right of the order number if it was partially recommended. The order is still included in the list of open orders after the picks have been created. Stock must be made available for the order to clear the '-' or '*'.

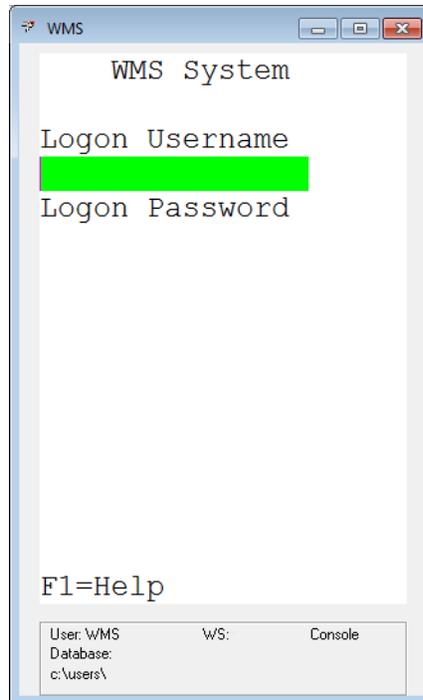
26. **Recommend Zone By Pkg Size:** If you are using zones, select this check box to group the quantity required into the number of tares, pack, and loose units required. WMS recommends tare quantities first, and recommends them from zones flagged as Tare. Pack quantities are recommended next, from pack zones, followed by loose quantities from zones set up as type Loose.
27. **Recommend for Specific Zone:** Select a specific zone for which to create the pick or select ALL Zones from the list to allow WMS to recommend from any zone.
28. Select the orders to be released:
 - **Select All:** Selects every order within the list
 - **Deselect All:** Un-selects every order in the list
 - **Toggle Selected:** Changes the selection status for the highlighted range of orders
29. When the list is correct, click the **Create EPN(s)** button.
30. WMS creates EPNs for the orders selected. It also attempts to make recommendations for products that are bin, serial, or lot controlled. If WMS is unable to make a

recommendation for one or more items, you receive a recommendation error. See “Resolving Recommendation Errors” on page 114 for information about resolving these conflicts.

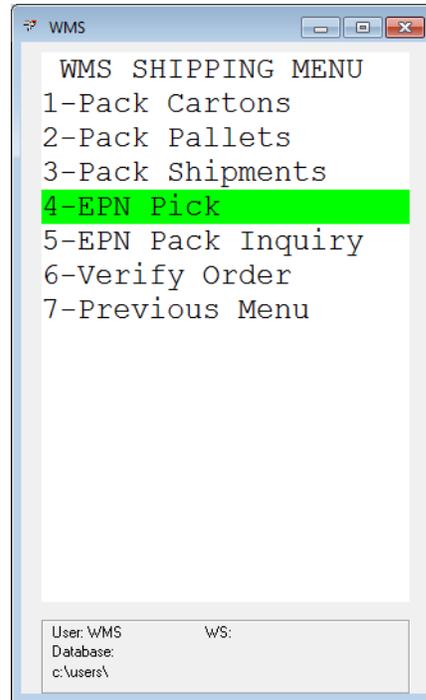
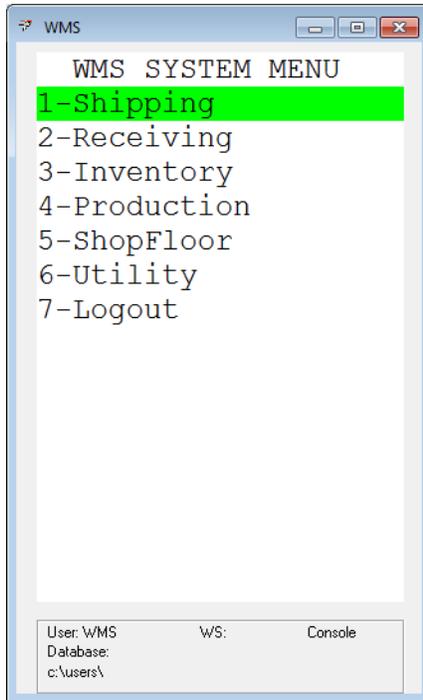
31. Click the **Close** button to close the sales order selector and return to the EPN selector screen.
32. WMS displays the EPNs that have been created.

Processing a Pick-to-Pack EPN

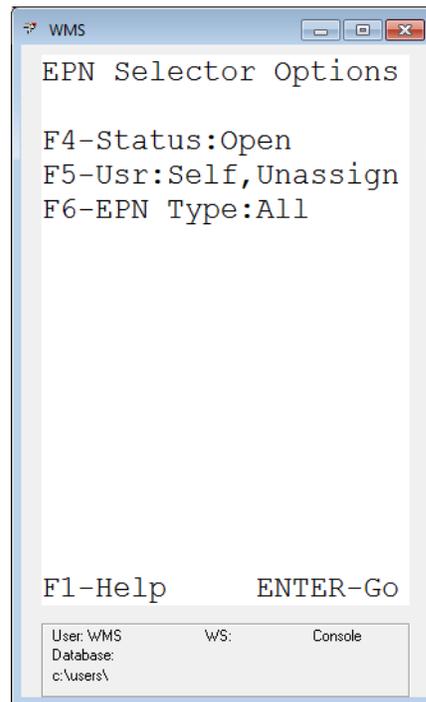
1. Log on to WMS on an RF handheld device.



2. If the order is not in your default warehouse, select **Utility** to change to the correct warehouse. Type the correct warehouse location code in the **To** field, and then press **Enter**.
3. Select **Shipping**, and then select **EPN Pick**.

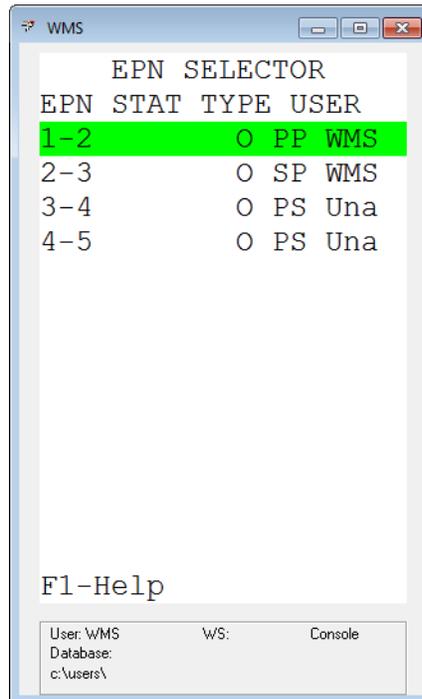


4. Press the **F2** key on the EPN Processing screen for the highest priority, open EPN assigned to you or currently unassigned.
- OR - Press the **F7** key to access the EPN Selector Options screen and select from a list of EPNs. On the EPN Selector Options screen, you can change the status, the user, or the type of EPN.

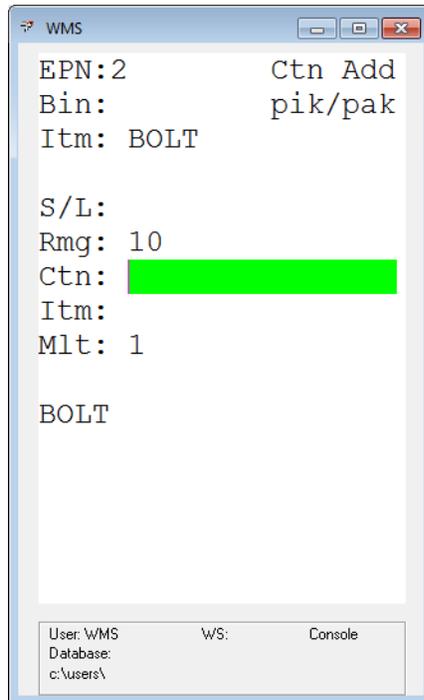


5. Pressing the **F4** key toggles the Status field among: Open | Hold | Open, Hold.

6. Pressing the **F5** key toggles the User field among: Self, Unassigned | All | Self | Unassigned.
7. Pressing the **F6** key toggles the EPN Type field among: All | Stage Pick | Stage Pack | Pick to Pack.
8. On the EPN Selector Options screen, press **Enter** to see a list of EPNs that meet the criteria you specified. Select the EPN you want to process, and then press **Enter**.



9. WMS displays the first item to be picked and packed.



10. The carton that items are to be packed in should be listed in the CTN field. Press the **F2** key to generate a new carton. WMS generates a carton number and prints a bar coded customer specific shipping label to attach to the carton.

Note: If the label did not print correctly, press the **F8** key to reprint it.

11. WMS prompts you to scan and validate that you are at the specified bin.

12. Scan the bin number.

Note: In a non-binned environment, the bin number displayed is the pick sequence value from the inventory location file, and you are not prompted to verify the bin number.

13. WMS prompts you to scan and verify the item being picked and packed.

14. To enter a quantity for the item, press the **F4** key. Type the new quantity in the **Mlt** field, and then press **Enter**.

15. Scan the item. If the item is serialized or lotted, WMS prompts for the serial/lot number to be scanned also.

16. When the item has been completely picked, WMS displays the next item.

Note: A down arrow indicates that there are additional records after the current one. An up arrow indicates that there are additional records before the currently displayed record. You can skip forward or backward by pressing the up or down arrow keys.

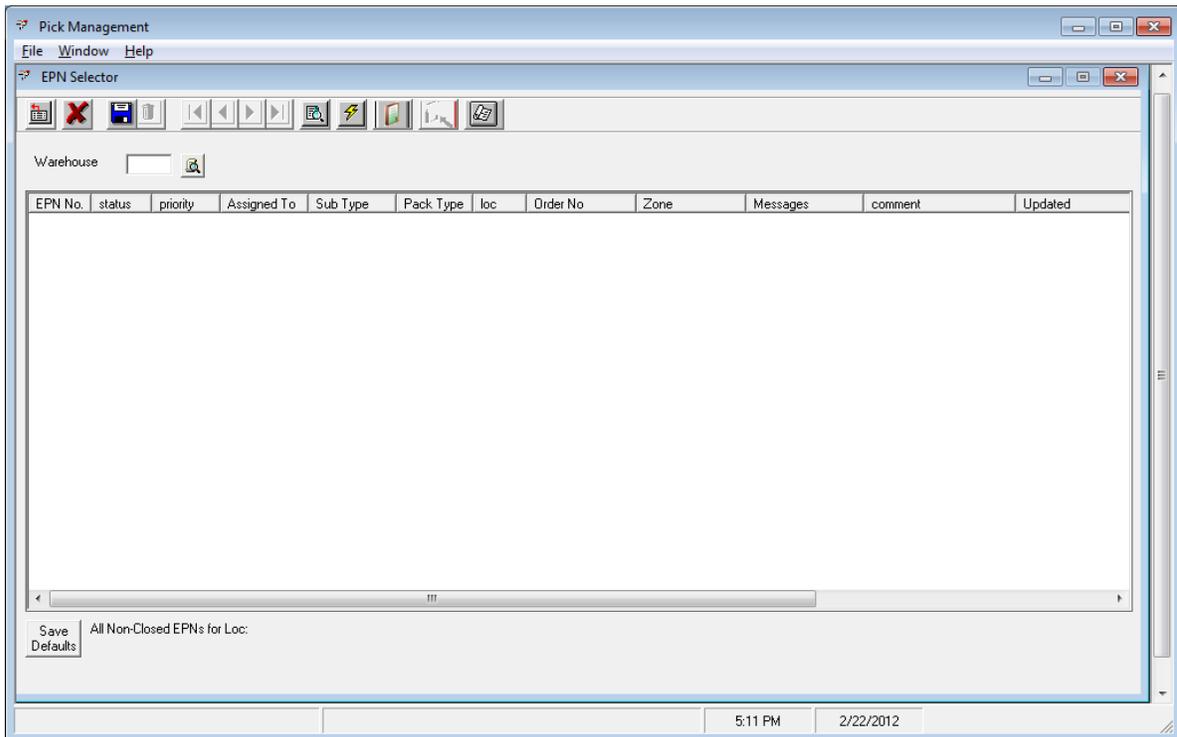
17. If you go to the specified location and the product is not available, you can display a new recommendation by pressing the **F3** key. This shows a list of reason codes to

specify why you are rejecting the recommendation. Select the code that best describes the reason that the recommendation is being rejected.

18. Press the **F7** key to display the entire EPN.
19. Press the **F5** key to enter remove mode.
20. Press the **F2** key to start a new carton.
21. Press the **F6** key to toggle the mode among carton, pallet, and shipment packing.
22. When the EPN has been completely picked, WMS displays a message that the EPN is completed. Press **Enter** to accept the message.
23. Press **Escape** until you have exited to the EPN Processing screen.
24. Now that the cartons have been picked and packed, they need to be attached to a shipment.

Creating a Pick-to-Stage and Stage Pack EPN

1. On the OE & RMA menu, under the Billing/Picking/Shipping heading, select Picking, Pick Management.



2. **Warehouse:** Type the warehouse location in the Warehouse field.
3. Click the **Sales Order Filter** button on the toolbar. This opens the Sales Order Filter screen.

4. **Customer:** To filter based on customer, type a starting and ending customer number.
5. **Order Number:** To filter based on order number, type a starting and ending order number.
6. **PO Number:** To filter based on purchase order number, type a starting and ending purchase order number.
7. **Cutoff:** To restrict the orders to those shipping before a specific date, type the ship date.
8. **User Defined Query:** If you have created user defined filters, you can select a filter from the list. (WMS prompts you to provide the appropriate criteria after you click OK.)
9. **Invoice Type Orders:** Select this check box to include invoice orders.
10. **Include Customers on Credit Hold:** Select this check box to include customers currently on credit hold.
11. **Completely Available to Ship Orders Only:** Select this check box to include only orders that can be shipped complete.
12. **Save Defaults** button: Click to save these filter settings as the default sales order filter criteria.

13. Click **OK**.

14. WMS displays a list of all orders that have items that have not yet been released and that meet the criteria specified in the previous step.

15. Click any column heading to sort the list by that column.

16. **Stage Pick**: Select the Stage Pick option. This makes additional fields available.

17. **Link to Pack EPN**: If this stage pick feeds an existing stage pack, type the stage pack number in the Link to Pack EPN field.

-OR- Press the **F2** key to create a new stage pack for this stage pick.

- On the Create Stage Pack EPN screen, you can specify the user, priority, and pack type, as well as the stage bin for the product.
- Comment**: Type a comment for this stage pack in the Comment field, if desired.
- Conveyor**: If you are using the WMS Conveyor Interface module to interface with a conveyor management system, select the name of the conveyor to use for this stage pack from the Conveyor list.
- Click the **Create EPN** button to create the stage pack and return to the Sales Order Selector screen.

18. **Pack Type:** The Pack Type field is automatically determined based on the stage pack associated to the stage pick.
19. **Individual Picks:** If you choose Individual Picks and select more than one order, WMS generates a unique EPN for each order.
20. **Bulk Pick:** If you choose Bulk Pick, WMS attempts to combine the orders into a single EPN.
21. **Group by Customer:** When you select Bulk Pick, you can select Group by Customer to create a unique bulk pick for each customer. If Group by Customer is not selected, the bulk pick is for multiple customers.
22. **Separate Pick Per Zone:** To create a separate pick for each zone, select this check box.
23. **Priority:** Sets the Status of the EPN: Open, Closed, Hold, and In Process. If set to close, the EPN goes through the Close process and releases un-picked quantities back as open to release to the sales order.
24. **Status:** Sets the Status of the EPN: Open, Closed, Hold, and In Process. If set to close, the EPN goes through the Close process and releases un-picked quantities back as open to release to the sales order.
25. **Assign to User:** Allows the EPN to be assigned to a specific user.
26. **Leave Un-Recommended Qtys Open:** Select this check box if you do not want WMS to generate a recommendation error for any quantities for which it cannot make a recommendation. The un-recommended quantity is left open for a future pick.

Note: If you attempt to create a pick or pick/pack for an order, and the **Leave Un-Recommended Qtys Open** check box is selected and the order cannot be fully recommended, the order stays open. In the Order Number column, there is a minus '-' sign to the right of the order number if it was fully unable to be recommended, or there is an asterisks '*' to the right of the order number if it was partially recommended. The order is still included in the list of open orders after the picks have been created. Stock must be made available for the order to clear the '-' or '*'.

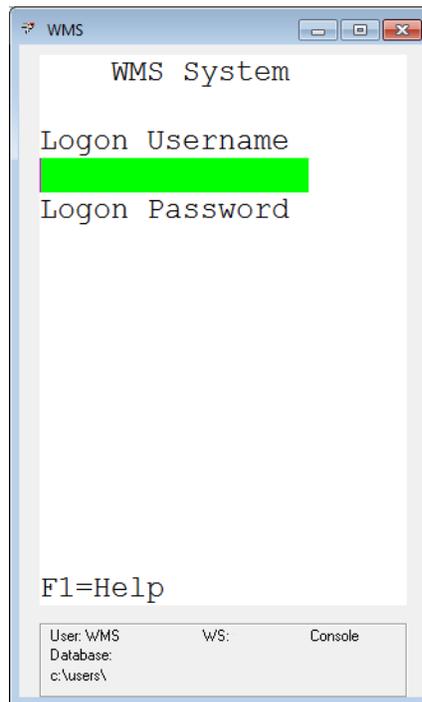
27. **Recommend Zone By Pkg Size:** If you are using zones, select the Recommend Zone By Pkg Size check box to group the quantity required into the number of tares, pack, and loose units required. WMS recommends tare quantities first, and recommends from zones flagged as Tare. Pack quantities are recommended next, from pack zones, followed by loose quantities from zones set up as type Loose.
28. **Recommend for Specific Zone:** Select a specific zone for which to create the pick or select ALL Zones from the Recommend for Specific Zone list to allow WMS to recommend from any zone.
29. **Comment:** Type a comment for this EPN, if desired.
30. To save these settings as the default for pick creation, click the **Save Defaults** button.
31. Select the orders to be released:
 - Click the check box beside the order number to select a single order or individual orders.
 - **Select All:** Selects every order within the list.
 - **Deselect All:** Un-selects every order in the list.

- **Toggle Selected:** Changes the selection status for the highlighted range of orders.
32. When the list is correct, click the **Create EPN(s)** button.
 33. WMS creates one or more stage pick EPNs for the orders selected. It attempts to make recommendations for products that are bin, serial, or lot controlled. If WMS is unable to make a recommendation for one or more items, it displays a recommendation error. See “Resolving Recommendation Errors” on page 114 for information about resolving these conflicts.
 34. Click **Close** to return to the EPN Selector screen and see a list of the EPNs that have been created.

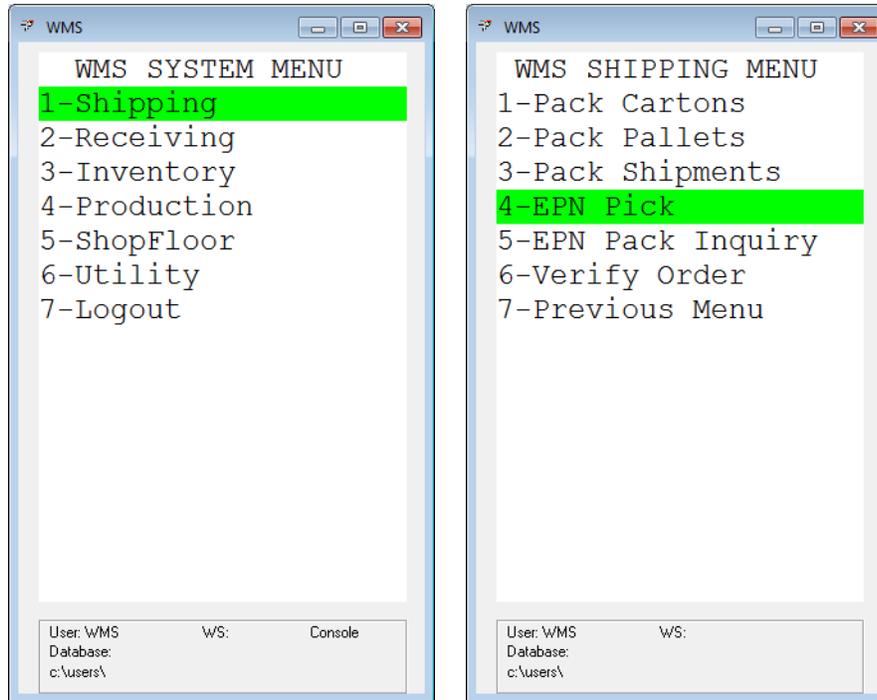
Processing a Pick-To-Stage EPN

In a pick-to-stage, stage pack process, the picking process and the packing process are two separate functions. After the pick-to-stage has been completed, the stage pack needs to be processed. This can be done as products are brought to the staging area during the pick-to-stage process, and can be done by the same or different users.

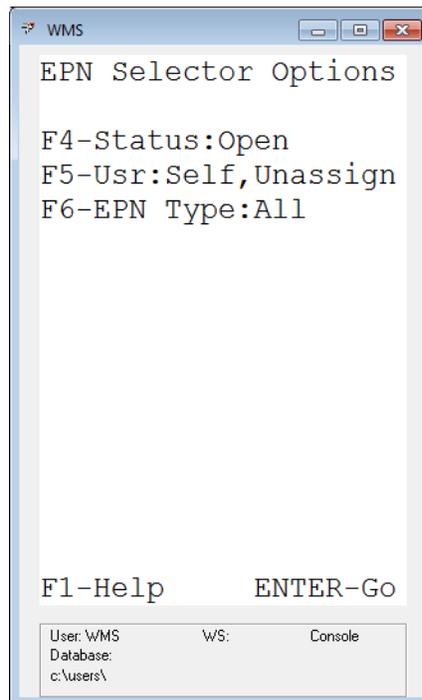
1. Log on to WMS on an RF handheld device.



2. If the order is not in your default warehouse, select **Utility** to change to the correct warehouse. Type the correct warehouse location code in the To field, and then press **Enter**.
3. Select Shipping, and then select EPN.

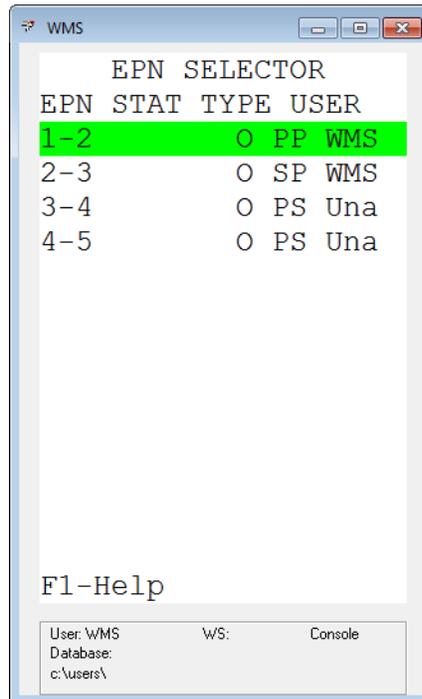


4. Press the **F2** key on the EPN Processing screen for the highest priority, open EPN assigned to you or currently unassigned.
 - OR - Press the **F7** key to access the EPN Selector Options screen and select from a list of EPNs. On the EPN Selector Options screen, you can change the status, the user, or the type of EPN.

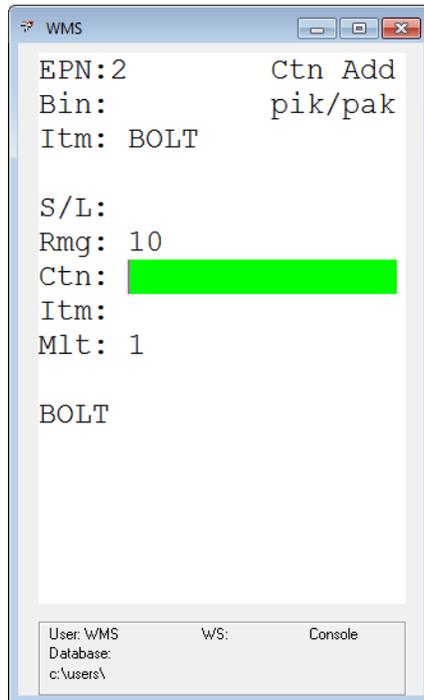


5. Pressing the **F4** key toggles the Status field among: Open | Hold | Open, Hold.

6. Pressing the **F5** key toggles the User field among: Self, Unassigned | All | Self | Unassigned.
7. Pressing the **F6** key toggles the EPN Type field among: All | Stage Pick | Stage Pack | Pick to Pack.
8. Press **Enter** on the EPN Selector Options screens to see a list of EPNs that meet the criteria you specified. Select the EPN you want to process, and then press **Enter**.



9. WMS displays the first item to be picked.



10. WMS prompts you to scan and validate that you are at the specified bin.

11. Scan the bin number.

Note: In a non-binned environment, the bin number displayed is the pick sequence value from the inventory location file, and you are not prompted to verify the bin number.

12. WMS prompts you to scan and verify the item.

13. To enter a quantity for the item, press the **F4** key. Type the new quantity in the **Mlt** field, and then press **Enter**.

14. Scan the item. If the item is serialized or lotted, WMS prompts for the serial/lot number to be scanned.

15. WMS displays the next item when the current item has been completely picked.

Note: A down arrow indicates that additional records exist after the current one. An up arrow indicates that there are additional records before the current one. You can move forward or backward by pressing the up and down arrow keys.

16. If you go to the specified bin and the product is not available, you can display a new recommendation by pressing the **F3** key. WMS also displays a list of reason codes for rejecting the recommendation.

17. Select the code that best describes the reason that the recommendation is being rejected.

18. Press the **F7** key to display the entire EPN.

19. Press the **F5** key to enter remove mode.

20. When the EPN has been completely picked, WMS displays a message that the EPN is complete. Press **Enter** to accept the message. If the EPN has not been completely picked, you can drop off what you have picked, and press the **F2** key to transfer what you have picked to pack. Then, you can continue to pick more. You can continue until the EPN has been completely picked. This is useful in a scenario where you have more to pick than you can bring back to pack in one trip. This also tells the system the packers can begin packing while the remainder of the EPN is being picked.
21. Press **Escape** until you have exited to the EPN Processing screen.

Note: As the items are picked in a binned environment, an inventory transfer is processed from the item bin to the stage bin.

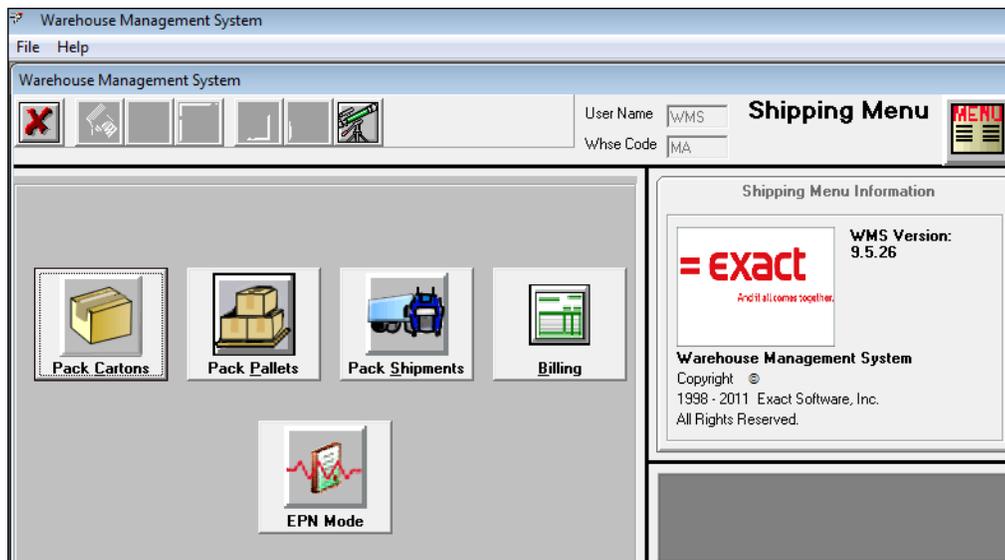
Processing a Stage Pack EPN - Packing Station

In a pick-to-stage, stage pack process, the picking process and packing process are two separate functions. During the stage pack process, items that have been picked during one or more stage-to-pick process are packed into cartons or pallets and labeled accordingly. When using a packing station, WMS prints a report to indicate what products are needed for each order.

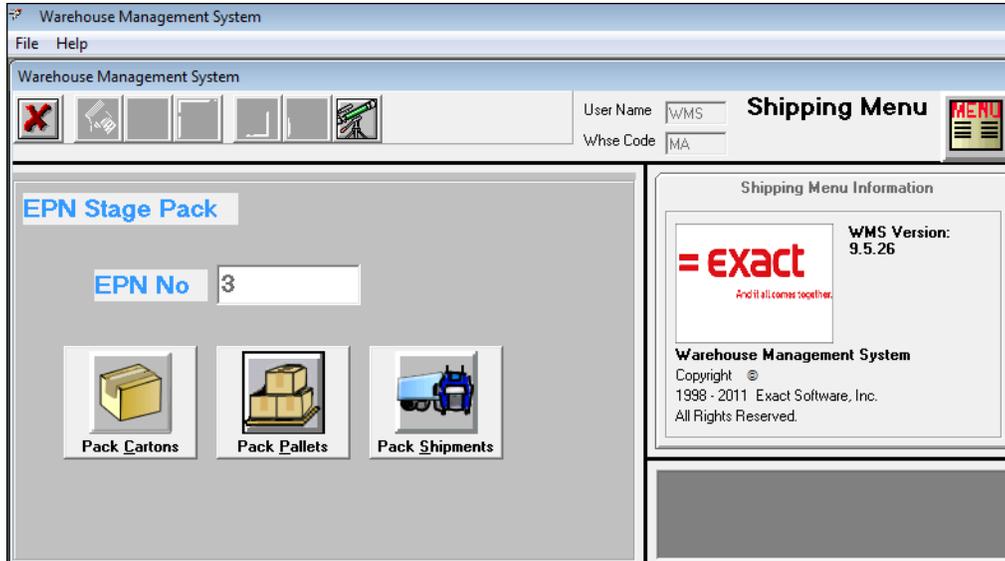
Date: 02/25/2004 Time: 11:37:48AM		EPN Stage Pack Sheet EPN No:17		Page: 1 Warehouse:CO -	
Customer:	00000000100	Name:	John Q. Windows Company		
Ship To:	00000000100	Ship To:	John Q. Windows Company		
Order Number:	1057				
Item Number	Item Description	IOM	bin no	ser lot no	qty recommended qty staged
HCHAZELNUT	Hot Chocolate Mix - Hazelnut	EA	500		1.00 1.00
HCRASPBERRY	Hot Chocolate Mix - Raspberry	EA	205		2.00 2.00
Order Number:	1058				
Item Number	Item Description	IOM	bin no	ser lot no	qty recommended qty staged
HCHAZELNUT	Hot Chocolate Mix - Hazelnut	EA	500		1.00 1.00
HCHAZELNUT	Hot Chocolate Mix - Hazelnut	EA	501		1.00 1.00
HCRASPBERRY	Hot Chocolate Mix - Raspberry	EA	205		1.00 1.00

Sample EPN Stage Pack Sheet

1. Log on to WMS at the packing station.



- If the order is not in your default warehouse, select File from the WMS menu, and then click **Change Warehouse**. Type the correct warehouse location code in the Warehouse field, and then click **OK**.
- Click the **EPN Mode** button on the WMS Shipping menu to open the EPN Stage Pack screen.



- EPN No:** Type the stage pack EPN number to be processed, and then press Enter.
- Click the button for the correct packing mode: Pack Cartons, Pack Pallets, or Pack Shipments.
- Scan the order number from the EPN scan sheet.
- If the carton exists, you can scan the carton number.

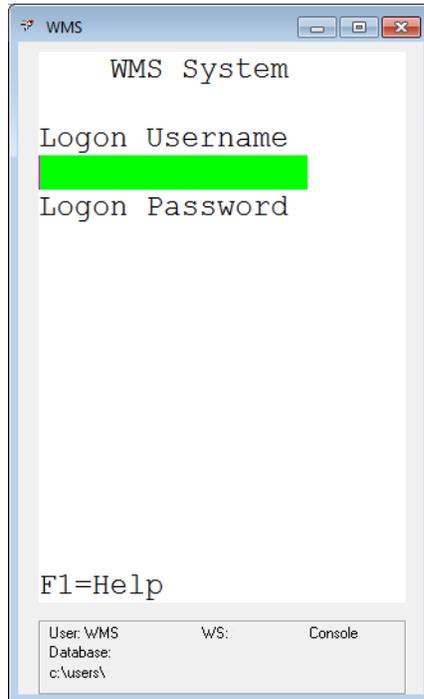
To create a new carton, press the **F2** key, or click the **New Carton** button; WMS generates a new carton number and prints the appropriate customer specific shipping label. If the label did not print correctly, press the **F8** key to reprint it, or click the **Reprint Label** button.


- Scan or type the item being packed. If the item is serialized or lotted, WMS prompts you to scan the serial/lot number as well.
- To enter a quantity multiplier for the item, press the **F4** key, or click the **Multiplier** button. Type the item quantity to pack in this carton in the **Multiplier** field, and then press **Enter**.
 
- To remove an item quantity from the carton, press the **F5** key, or click the **Remove Mode** button. Type the quantity in the **Multiplier** field, and then press **Enter**.
 
- When the order is complete, press the **F11** key, or click the **Verify Order** toolbar button. If you press the **Escape** key to exit the order, WMS automatically verifies the order.
 
- Proceed to the next order on the EPN until all orders have been packed.
- After the cartons have been picked and packed, they need to be attached to a shipment. See "Packing a Shipment" on page 128 for information.

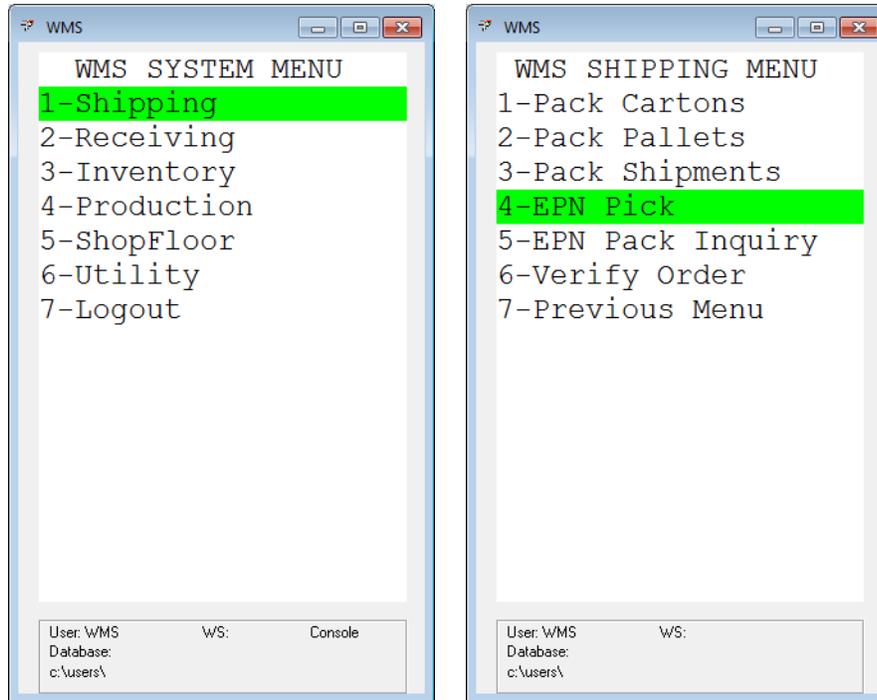
Processing a Stage Pack EPN - RF Client

In a pick-to-stage, stage pack process, the picking process and packing process are two separate functions. The stage pack process packs the products that have been picked from one or more stage-to-pick processes into cartons or pallets, and labels them accordingly. If using an RF device, the device walks the user through the orders.

1. Log on to WMS on an RF handheld device.

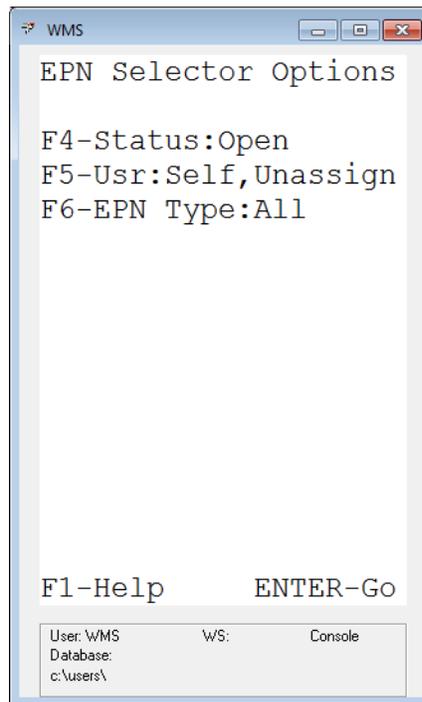


2. If the order is not in your default warehouse, select **Utility** to change to the correct warehouse. Type the correct warehouse location code in the **To** field, and then press **Enter**.
3. Select **Shipping**, and then select **EPN**.



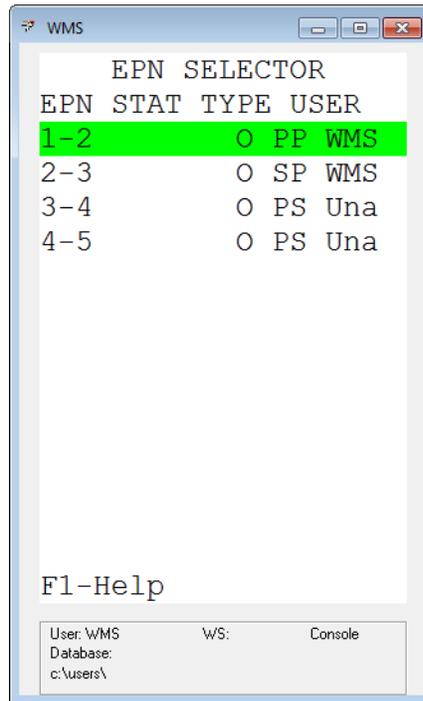
4. Press the **F2** key on the EPN Processing screen for the highest priority, open EPN assigned to you or currently unassigned.

-OR- Press the **F7** key to access the EPN Selector Options screen and select from a list of EPNs. On the EPN Selector Options screen, you can change the status, the user, or the type of EPN.

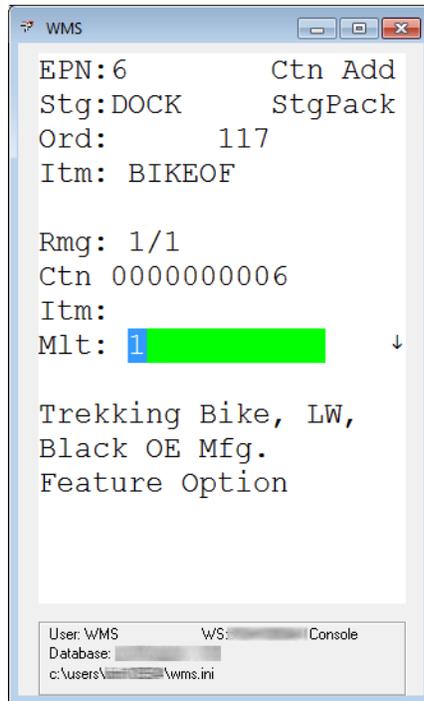


5. Press the **F4** key to toggle the Status field among: Open | Hold | Open, Hold.

6. Press the **F5** key to toggle the User field among: Self, Unassigned | All | Self | Unassigned.
7. Press the **F6** key to toggle the EPN Type field among: All | Stage Pick | Stage Pack | Pick to Pack.
8. Press **Enter** on the EPN Selector Options screens to see a list of EPNs that meet the criteria you specified. Select the EPN you want to process, and then press **Enter**.



9. WMS displays the first item to be packed.
10. The carton that items are to be packed in should be listed in the CTN field. Press the **F2** key to generate a new carton. WMS generates a carton number and prints a bar coded customer specific shipping label to attach to the carton. If the label did not print correctly, press the **F8** key to reprint it.



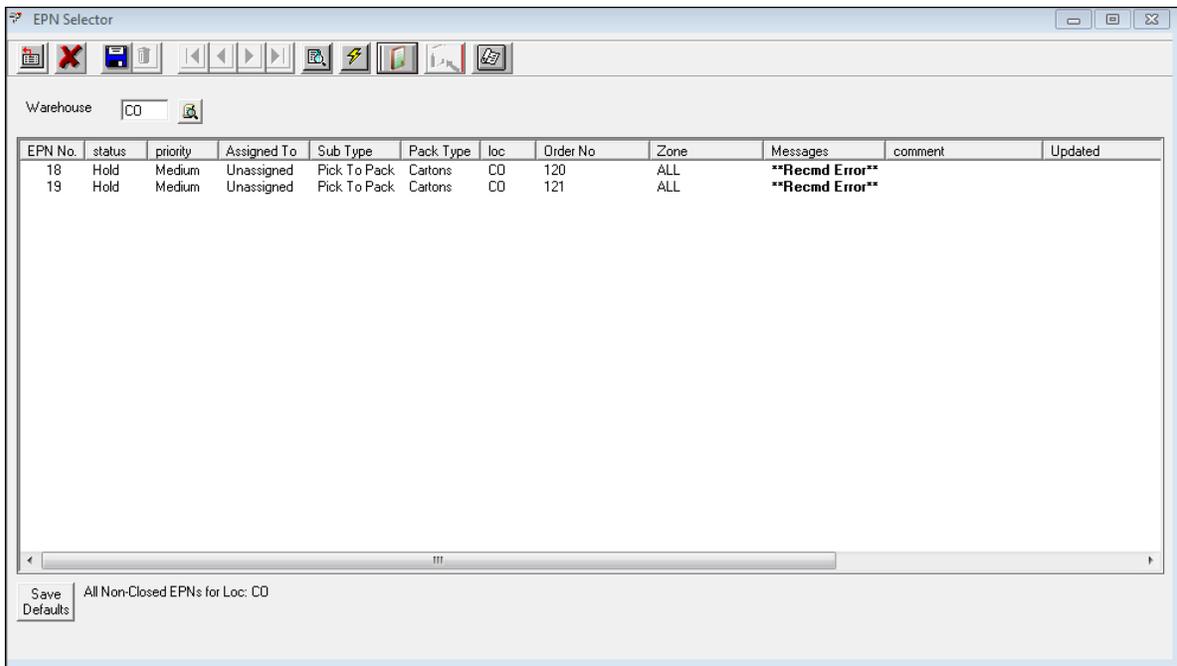
11. WMS prompts you to scan and verify the item being packed.
12. To enter a quantity for the item, press the **F4** key. Type the new quantity in the **Mlt** field, and then press **Enter**.
13. Scan the item. If the item is serialized or lotted, WMS prompts for the serial/lot number to be scanned.
14. WMS displays the next item when the current item has been completely picked.

Note: A down arrow indicates that additional records exist after the current one. An up arrow indicates that there are additional records before the current one. You can move forward or backward by pressing the up and down arrow keys.

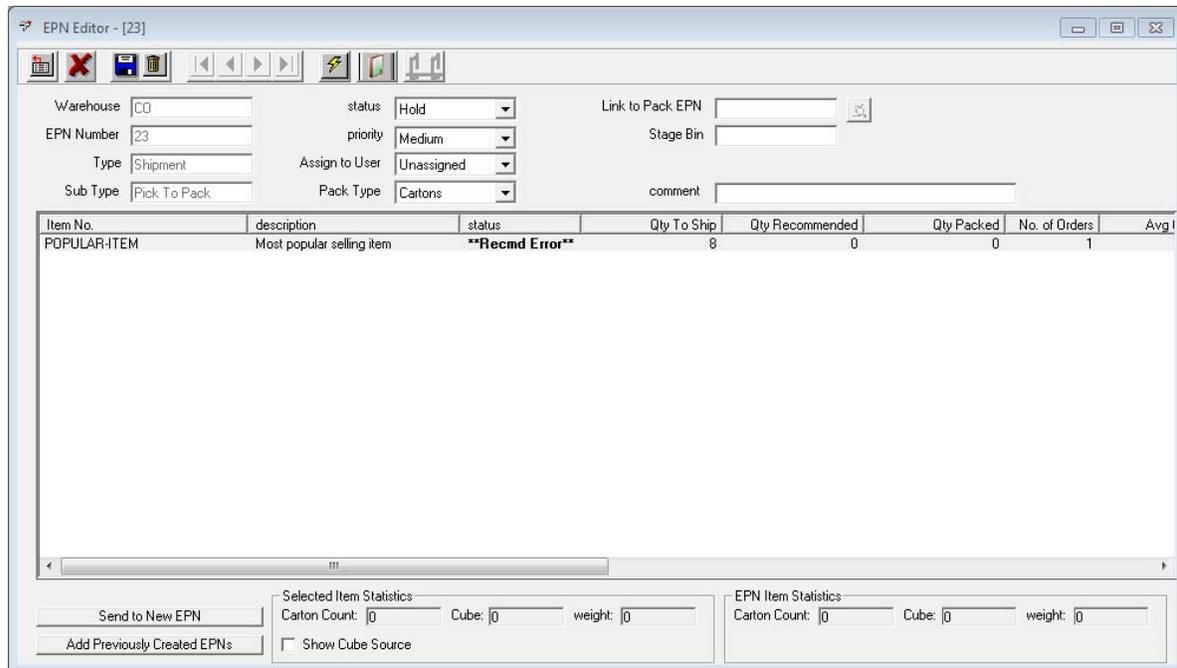
15. Press the **F7** key to display the entire EPN.
16. Press the **F5** key to enter remove mode.
17. When the EPN has been completely packed, WMS displays a message that the EPN is complete. Press **Enter** to accept the message.
18. Press **Escape** until you have exited to the EPN Processing screen.
19. After the cartons are picked and packed, attach them to a shipment. See "Packing a Shipment" on page 128 for information on packing shipments.

Resolving Recommendation Errors

Pick Management recommends the bin, serial, and lot to fill an order based on settings in the WMS control file. An insufficient quantity on hand of a product results in an EPN recommendation error. To maximize the efficiency of the picking/packing process, recommendation errors should be resolved before the picker receives the EPN. WMS automatically places any EPN with recommendation errors on hold.



1. In Exact Macola ES, on the OE & RMA menu, under the Billing/Picking/Shipping heading, select Picking, Pick Management.
2. Double-click the EPN with the recommendation error.



3. WMS displays all items required for the EPN. Items that have recommendation errors have a status of "***Recmd Error***". Click the status column heading to sort the list by status. Click it a second time to sort in descending order, which brings all items with errors to the top of the list.

4. Double-click an item with a recommendation error to display the EPN Item screen.

Order No.	Customer Name	Order Total	Line No.	status	Neg Release	Qty To Ship	Qty Recommended	Qty Staged
121	Bike D'Rama	200	1	**Recmd Error**		8	0	0

Ctrl Enter - Toggle Qty F3 - View Order Enter - Edit Qty F5 - Remove Order from EPN F6 - View Recommendations

5. The EPN Item screen lists the orders for the selected EPN that require this item. Press the **F3** key to view the detail for an order.

6. Double-click a line to edit the quantity. Use the Edit Qty screen to change the amount released.

Cancel Ok

7. **Qty To Ship:** Type the revised quantity to ship, and then click **Ok**.

- Press the **F6** key on the EPN Item screen to review the recommendation for an order.

View Recommendations - [23- 121-POPULAR-ITEM- 1]

Order No: 121 Item: POPULAR-ITEM Line No: 1

Zone	Bin	Serial Lot No.	Qty Recommended	Qty Picked	Qty Staged	Qty Packed	Picking sequence	Expiration Date
<input type="checkbox"/>	100		7	0	0	0	100	

Close Modify

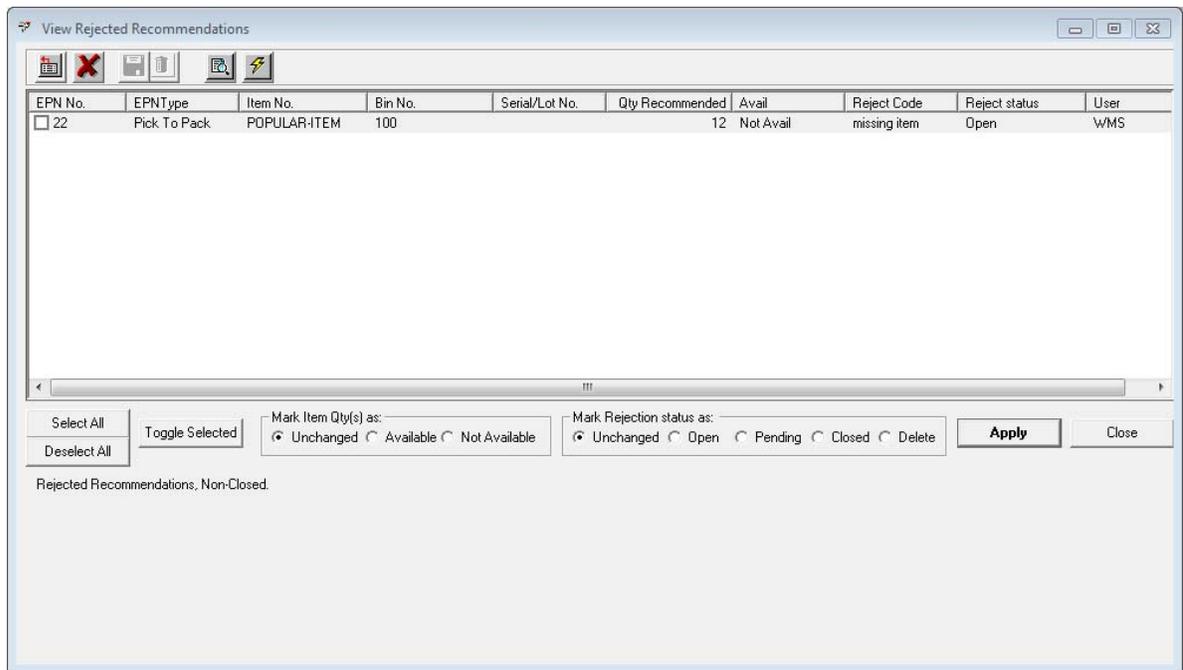
Select a row to modify

- Select a row and click the **Modify** button to open the Modify Recommendations screen.
- If there are recommendations that can be changed, you can change them or click **Cancel**.
- On the View Recommendations screen, click **Close**.
- On the EPN Item screen, press Ctrl+Enter on a line on the EPN Item screen to toggle the quantity for an order between zero and the full released amount.
- Press the **F5** key on the EPN Item screen to remove the entire order from the EPN. WMS prompts you to verify that you want to remove the order.
- Click **Yes** to remove the order from the EPN. Click **No** to leave the order in the EPN.
- Use these tools to decide which orders should remain and which should be removed. When the errors have been resolved, press **Escape** to return to the EPN editor screen. Change the status on the EPN to Open, and then click the **Save** button.

Reviewing Rejected Recommendations

When an item is not available to be picked from a specific bin, serial or lot, the picker can reject the recommendation. WMS prompts for a reject reason, and the information is written to the rejected recommendations system. Based on the reason, that bin, serial, or lot for that item can be marked unavailable until the rejected recommendation has been reviewed and addressed.

To review the rejected recommendations, select File from the Pick Management screen, and then click Review Rejected Recommendations.



WMS displays all open rejected recommendations. The quantity for the rejected recommendations can be made available or unavailable. The record can be left open or marked pending, closed, or deleted. The status codes control the recommendations displayed so new entries can be easily distinguished from ones awaiting disposition.

Reviewing Negative Releases

A negative release occurs when a user reduces the quantity for a line item in Exact Macola ES Order Entry below the quantity that has been released to an EPN. When this occurs, the EPN needs to be reviewed to remove the quantity.

1. The Negative Release toolbar button is active when negative releases exist. Click the **Negative Release** toolbar button.
2. WMS displays any EPN items with a negative release state.

EPN Item - [26 - POPULAR-ITEM]

Warehouse: C0

EPN Number: 26 User: Unassigned Link to Pack EPN:

Type: Shipment priority: Medium Stage Bin:

Sub Type: Pick To Pack comment:

Item No.: POPULAR-ITEM Qty Available: 2

description: Most popular selling item Qty to Pick: 2

Order No.	Customer Name	Order Total	Line No.	status	Neg Release	Qty To Ship	Qty Recommended	Qty Staged
122	Outdoor Adventure Outlet	25	1		*	2	2	0

Ctrl Enter - Toggle Qty F3 - View Order Enter - Edit Qty F5 - Remove Order from EPN F6 - View Recommendations

- Double-click a line or press Enter to edit the quantity. Use the Edit Qty screen to change the amount released.

Edit Qty

EPN Number: 26

loc: C0

Order: 122 Line No: 1

Customer: Outdoor Adventure Outlet

Item Number: POPULAR-ITEM

Qty To Ship: 2

OEORDLN Qty To Ship: 1 Max Release Qty: 1

Released Qty To Ship: 2 Minimum Release Qty: 0

- Type the revised quantity to ship in the Qty to Ship field, and then click **Ok**. The item is reprocessed through the recommendation system and the EPN updated.

Traditional Paper Pick Tickets

Although the Pick Management functions provide many advantages, WMS supports a traditional paper environment for sites that are more comfortable with paper picking tickets or that do not have the RF infrastructure necessary to take full advantage of the Pick Management functions.

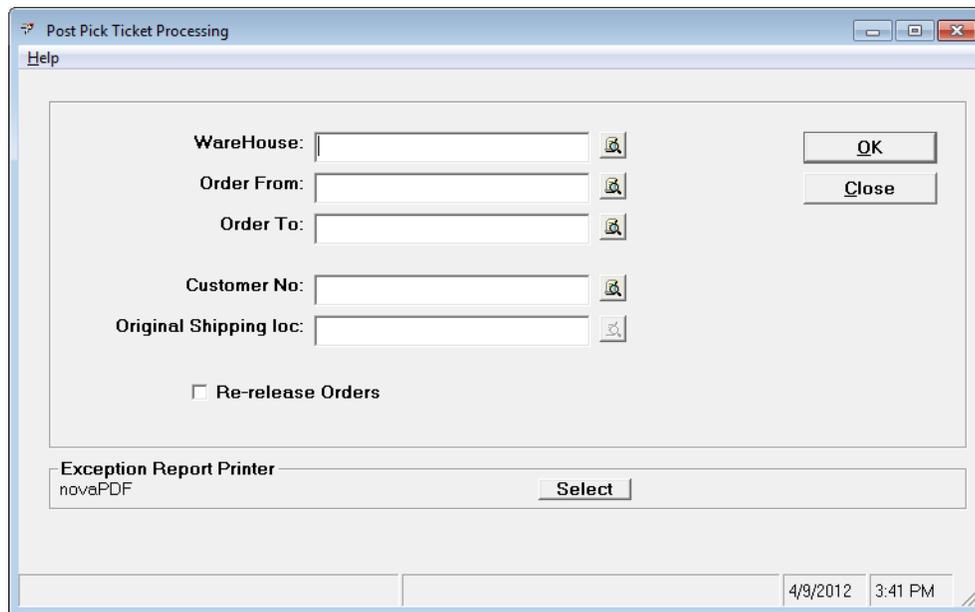
Printing a Pick Ticket

To print pick tickets, in Exact Macola ES, on the OE & RMA menu, under the Billing/Picking/Shipping heading, select Picking, Print Picking Tickets. Complete the pick ticket selection screen.

Releasing Orders to WMS using Post Pick Ticket Processing

Pick ticket processing is used to authorize WMS to ship a Exact Macola ES order. Only those orders that have had pick tickets printed can be released to the Warehouse Management System. In addition, if the WMS EDI ASN Data Collection module is installed and an order for a customer configured for autopack is processed, WMS automatically performs carton packing for the order, generating all of the compliant shipping labels required.

When an order for a customer configured for autopack is processed, WMS generates labels for the remaining unpacked quantity for each line item that has had a pick ticket printed. See "Reprinting Existing or Printing Additional Shipping Labels for an Order" on page 121 for more details.



1. On the OE & RMA menu, under the Billing/Picking/Shipping heading, select Picking, Post Pick Ticket Process.
2. **Warehouse:** Type the warehouse to be processed. This field can be left blank to process all warehouses.
3. **Order From** and **Order To:** Type an order number range, or leave the fields blank to process all orders.

Note: If you do not need to restrict a release to a specific customer number and original shipping location, you should leave these fields blank as they slow down the release process.

4. **Customer No:** These fields are used to allow restricting the release to a specific customer and original shipping location. If you have a range of orders (for example 100 through 200) with mixed customers, but only want to release a specific customer, enter the customer number.

5. **Original Shipping Loc:** If you want to restrict to a specific original shipping location, then enter one. Original shipping location means the original shipping location in a DC/Mark for situations that would be the DC, not the ultimate store the order is coded for.

Note: Any order within the range that has had a pick ticket printed and has not been previously sent to WMS is processed. In addition, any order within the range that has had a change to the line item quantity to ship and the pick ticket printed is processed whether or not the order has been previously released.

6. **Re-release Orders:** To force the orders within the range to be re-released even if no quantity change has been made since the order was previously released, select this check box. This is typically done when an order has been deleted from WMS.
7. Verify that the label printer and the exception report printer are set to the correct locations, or click the **Select** button to change to the correct printer.
8. Click **OK**.

Reprinting Existing or Printing Additional Shipping Labels for an Order

Whether the label stock jammed while printing, someone tore one or more labels, or something makes them unreadable, WMS has a number of ways to reprint existing shipping labels for an order. Additional labels can also be printed if a customer increases the quantity ordered after the labels have been generated for the order.

The autopack function prints labels for the unpacked quantity of each line item, so releasing a new, higher quantity automatically generates the required labels during the normal release process. This eliminates the need to manually print additional labels. Because this can generate an over ship situation, printing additional labels is permitted only when the WMS control file Over Ship Message field is set to W for warning. Additional labels should be printed only when more labels are actually required, rather than as a method for replacing damaged labels.

If a series of existing labels are damaged, the labels should be reprinted. WMS allows you to reprint all labels for an order or all labels for an item on the order. Individual labels can also be reprinted from the pack cartons function in WMS. If a single shipping label needs to be reprinted, the pack cartons reprint is the recommended method. The following sections describe the methods for printing additional or replacement labels.

Reprinting a Series of Existing Shipping Labels

Re-Print UCC-128 Labels enables a user to reprint all labels for an order or all labels for a particular item on an order.

The screenshot shows a software dialog box titled "Re-Print UCC-128 Labels". It features a "Help" button in the top left corner. The main area contains three input fields: "WareHouse:", "Order No:", and "Item :", each with a search icon to its right. To the right of these fields are "OK" and "Close" buttons. Below these is a checkbox labeled "Print Additional" and a "Qty:" input field. At the bottom of the dialog, there is a section for "Exception Report Printer" with "novaPDF" selected and a "Select" button. The status bar at the bottom of the window displays "Enter warehouse code", the date "7/13/2012", and the time "1:42 PM".

1. In Exact Macola ES, on the OE & RMA menu, under the Billing/Picking/Shipping heading, select Picking, WMS Re-print UCC-128 Label.
2. **Warehouse:** Type the warehouse code for the order to be reprinted.
3. **Order No:** Type the order number. Labels can be reprinted for only one order at a time.
4. **Item:** Type the item number. If this field is left blank, the labels for all items on the order are reprinted.
5. Verify that the correct label printer is selected. Click the **Select** button to change printers if necessary.
6. Click the **OK** button. WMS reprints the requested labels.

Reprinting Individual Shipping Labels

Being able to reprint an individual label is convenient when you need to reprint only a few. WMS can reprint a specific label during carton packing. This is true even when the label was originally generated by the autopack function.

1. To reprint a single label, log on to the WMS packing station.
2. If the WMS EDI ASN Data Collection module is installed, select Pack Cartons from the WMS menu. In pack verify mode, WMS automatically enters the pack verify function. The instructions are the same for both modes.
3. **Order No:** Type the carton number to be reprinted. Either the 10-digit or 20-digit carton number can be used.
4. WMS looks up the carton and automatically displays the order number.
5. Press the **F8** key, or click the **Reprint Label** toolbar button.
6. Press the **Escape** key to exit the order.

Printing Additional Shipping Labels

Printing additional shipping labels can cause an over ship situation. Therefore, this function is permitted only if the WMS control file Over Ship Message field is set to W for warning. In addition, printing additional shipping labels assumes that a standard quantity of an item is packed into each carton. The rules determining the quantity placed in each carton are the same as those used by the autopack function. This feature is available only if the WMS EDI ASN Data Collection module is installed.

The screenshot shows a software dialog box titled "Re-Print UCC-128 Labels". It contains several input fields and buttons. The fields are labeled "WareHouse:", "Order No:", and "Item :", each with a magnifying glass icon. To the right of these fields are "OK" and "Close" buttons. Below these is a section with a checkbox labeled "Print Additional" and a "Qty:" input field. At the bottom, there is a section for "Exception Report Printer" with "novaPDF" selected and a "Select" button. The status bar at the bottom shows "Enter warehouse code", a date "7/13/2012", and a time "1:42 PM".

1. In Exact Macola ES, on the OE & RMA menu, under the Billing/Picking/Shipping heading, select Picking, Re-Print UCC-128 Labels to print additional shipping labels.
2. **Warehouse:** Type the warehouse location for the order that needs additional labels to be printed.
3. **Order No:** Type the order number. Additional labels can be printed only for one order at a time.
4. **Item:** Type the item number to assign to the new labels.
5. **Print Additional:** Select this check box.
6. **Qty:** Type the number of additional labels to print.

Note: This is not the quantity of the item to be placed in each carton, but the actual number of cartons needed.

7. Click the **OK** button.
8. WMS prints the specified number of labels.

Generating a Completely New Set of Labels for an Order

While not a normal practice, it is sometimes advantageous to start over completely. The most common reason for this is when a setup problem causes labels to be generated with an incorrect case pack, which makes each of the labels incorrect. The quantity of labels would generally be incorrect as well. WMS allows a user with sufficient rights to delete an order from the shipping system so it can be reprocessed as though it had never been processed before.

The first step in this process is to delete the order from WMS as detailed in “Deleting an Order from WMS” on page 142. Once deleted, the order needs to be reprocessed into WMS.

Post Pick Ticket Processing

Help

WareHouse: 

Order From: 

Order To: 

Customer No: 

Original Shipping loc: 

Re-release Orders

Exception Report Printer
novaPDF

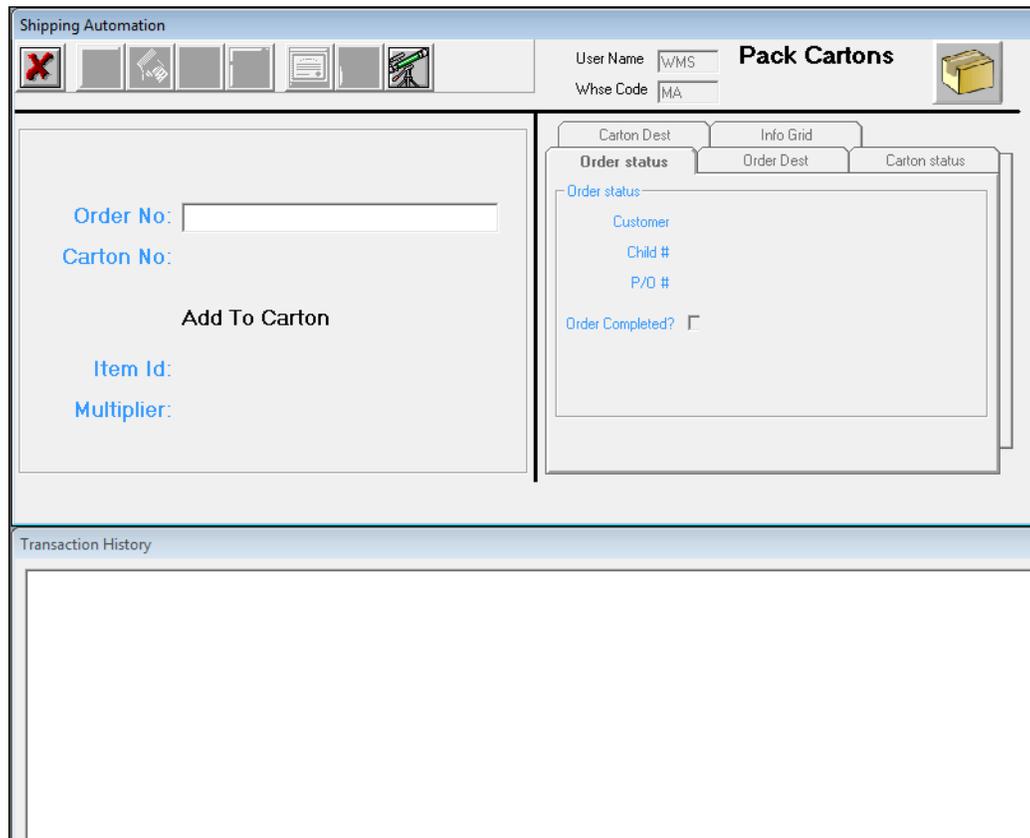
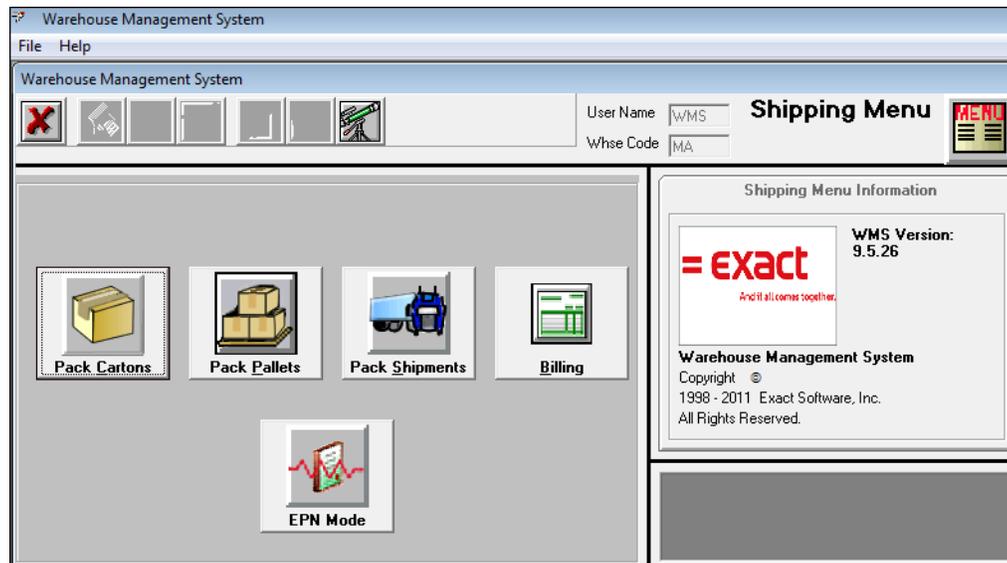
4/9/2012 3:41 PM

1. In Exact Macola ES, on the OE & RMA menu, under the Billing/Picking/Shipping heading, select Picking, WMS Post Pick Ticket Processing.
2. **Warehouse:** Type the warehouse number for the orders to be re-released.
3. **Order From** and **Order To:** Type the range of the orders to be re-released.
4. **Re-release Orders:** Select this check box.
5. Verify that the correct label printer and exception report printer are specified. Click the **Select** button to change the printer if necessary.
6. Click **OK** to continue.
7. WMS re-releases the orders within the range. Labels are generated for any order that contains unpacked quantities and that is for a customer configured for auto-pack. The quantity to pack for each line item on each picked order in the range specified is updated to the current quantity to ship.
8. When processing is complete, click **Close** to exit.

Packing Cartons for a Pick and Pack Environment

The carton packing function is used in a pick and pack environment to pack multiple items into a carton. UCC-128 labels are generated at this time.

1. Log on to the WMS packing station.
2. If the order is not in your default warehouse, select File from the WMS menu, and then select Change Warehouse. Type the correct warehouse location code in the **Warehouse** field, and then click **OK**.
3. Click the **Pack Cartons** button to open the Shipping Automation screen.



4. **Order No:** Type or scan the Exact Macola ES order number. To create a new carton and generate a UCC-128 label, you must first specify the order number. WMS links the carton number and the items placed into the carton to the order.
5. Press the **F2** key, or click the **New Carton** button to create a new carton. WMS generates and prints a UCC-128 label.



Note: If the label did not print correctly, press the **F8** key, or click the **Reprint Label** button to reprint it.

6. Click the **Multiplier** button to specify a multiplier for the next item to be processed. In the **Multiplier** field, type the quantity to multiply the next item by. For example, if you enter a multiplier of 4, the next item case pack, as defined in WMS Bulk Weight Maintenance, is multiplied by 4. If the item's case pack is defined as 6, then 24 eaches are packed into the carton. 
7. **Item Id:** Scan or type one of the following: item number, UCC-14 (I-205) number, UPC number, or any bar code that has been set up in WMS Bulk Weight Maintenance.
8. Continue to type or scan the item IDs being packed into this carton. A transaction history box at the bottom of the screen displays all transactions that have been processed during the session.

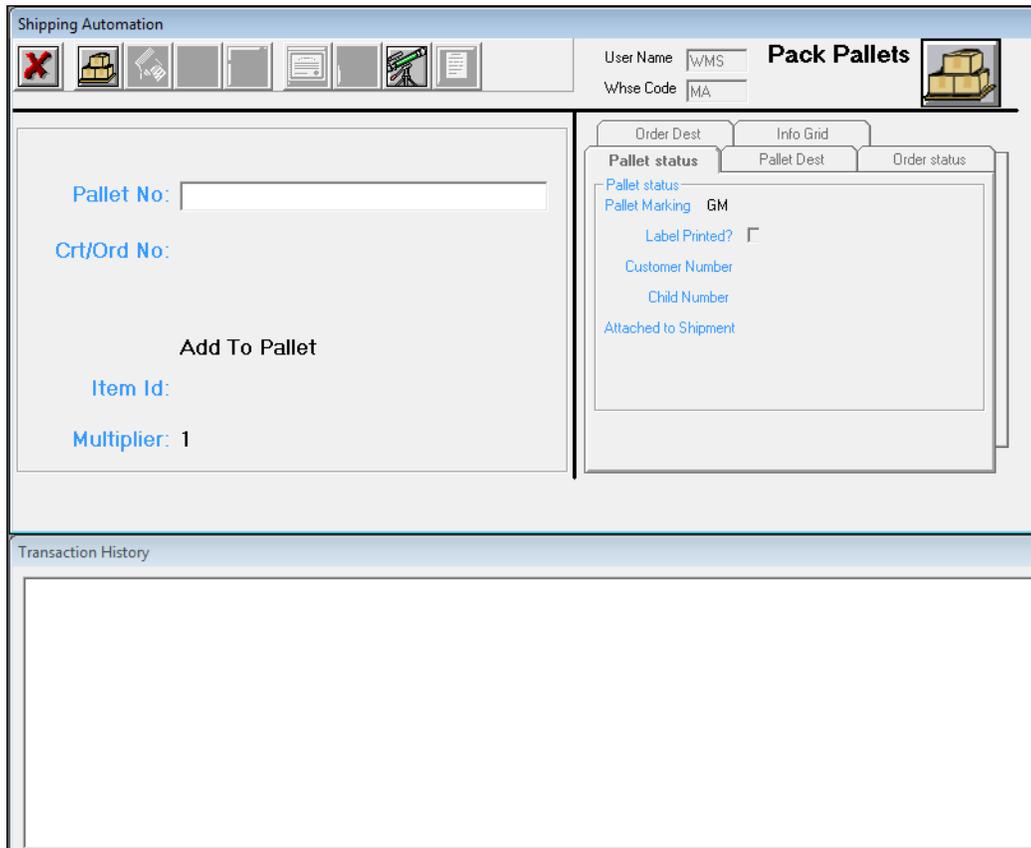
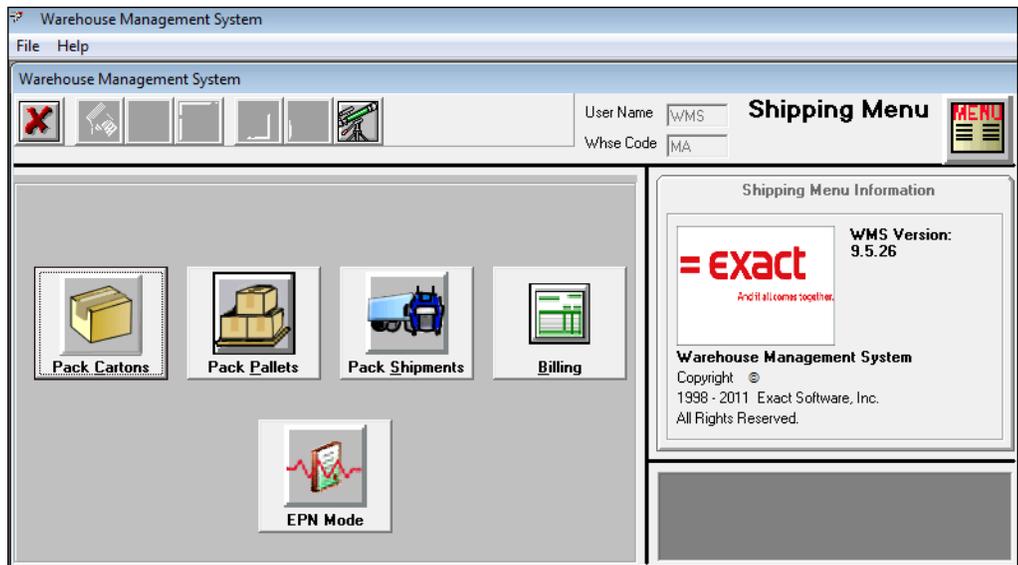
Note: The history box is cleared when the session is completed and a new session begins. It can also be cleared manually. To manually clear the transaction history, click in the transaction history pane, and then select File, Clear Transaction History from the WMS menu.

9. When the carton is fully packed, if needed, click the **New Carton** button to start a new carton for this order.
10. To remove an item from a carton, press the **F5** key, or click the **Remove** toolbar button to enter remove from carton mode.
11. **Item ID:** Type or scan the item number, UCC-14 (I-205), or UPC number to be removed from the carton.
12. If necessary, use the multiplier function to multiply the quantity removed.
13. Press Enter to remove the item.
14. Click the **Add** toolbar button to return to add to carton mode and pack more items.

Packing Pallets

The pack pallets function is used to pack cartons onto pallets. The cartons can have been packed by carton packing or can have been automatically generated by the auto pack function as a result of printing pick tickets. WMS can also automatically create a carton around an item scanned directly onto a pallet.

1. Log on to WMS.
2. If the order is not in your default warehouse, select File from the WMS menu, and then click Change Warehouse. Type the correct warehouse location code in the **Warehouse** field, and then click **OK**.
3. Click the **Pack Pallets** button.



4. Press the **F2** key, or click the **New Pallet** toolbar button to create a new pallet.
5. To attach cartons that were created by either carton packing or the auto pack function, scan or type the UCC-128 number of the carton in the **Crt/Ord No** field.
6. To attach an item directly to the pallet, type the order number in the **Crt/Ord No** field.

7. In the **Item Id** field, type or scan the item number, UCC-14 (I-205) number, UPC number, or any bar code that has been setup in WMS Bulk Weight maintenance.
8. If the customer is configured in Customer Override Maintenance to require carton UCC-128 labels, a UCC-128 label is printed.

Note: If the label did not print correctly, press the **F8** key, or click the **Reprint Label** button to reprint it.

9. Click the **Multiplier** button to specify a multiplier for the next item. In the Multiplier field, type the number of units of the next item added to the pallet.

Note: If the customer is configured to require carton UCC-128 labels, a single carton is created to contain the multiplied quantity.

Packing a Shipment

Pack Shipments tells WMS what cartons and pallets were combined onto a truck. With this function, a single Exact Macola ES order can be split into multiple shipments, or multiple Exact Macola ES orders can be combined into one shipment.

Example 1: During back-to-school season, Target sends a single order for 5000 cartons of note pads. These cartons will not fit in one truck. In fact, three trucks are lined up at the dock to handle the order. WMS defines a shipment as all pallets or cartons being shipped on one truck to the same customer destination. This destination might be a distribution center that will ultimately re-route the cartons to many stores, but initially they are all shipping to the same D/C. In this example, three shipments, and therefore three ASNs, should be created, one for each truck.

Example 2: Federated sends a purchase order for 150 stores. Exact Macola ES creates 150 O/E orders. Of these orders, 50 are going to D/C 1, 60 to D/C 2 and 40 to D/C 3. Federated requires the orders going to D/C 1 to be treated as one shipment if they are all on one truck. This would indicate three shipments and therefore three ASNs.

1. Log on to WMS.
2. If the order is not in your default warehouse, select File from the WMS menu, and then click Change Warehouse. Type the correct warehouse location code in the **Warehouse** field, and then click **OK**.
3. Click the **Pack Shipments** button.

Warehouse Management System

File Help

Warehouse Management System

User Name: WMS Whse Code: MA

Shipping Menu

Shipping Menu Information

= exact
And it all comes together.

WMS Version: 9.5.26

Warehouse Management System
Copyright ©
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Pack Cartons Pack Pallets Pack Shipments Billing

EPN Mode

Shipping Automation

User Name: WMS Whse Code: MA

Pack Shipments

Order Dest Info Grid

Shipment status Shipment Dest Order status

Shipment status:

Ship Date

Exp Dlv Date

Ship Via

Trailer Number

Pro Number

Packaging Code

Shipment Completed?

Load Number

Dock

Pickup Date

Pickup Time

Modify

Shipment No:

Add To Shipment

Plt/Ctn/Ord No:

Item Id:

Multiplier: 1

Transaction History

- Press the **F2** key to open a new shipment, or click the **New Shipment** toolbar button.



Shipping Automation

User Name: WMS Whse Code: MA **Pack Shipments**

Page 1 | Page 2 | Page 3 | Page 4 | Page 5 | Page 6 | Page 7

BOL No: 00000003

Ship Date: **Dlvy Date:**

Ship Via:

Trailer No:

Pro Number:

Pkg Code:

Load Number:

Order Dest Info Grid

Shipment status Shipment Dest Order status

- Shipment status

Ship Date

Exp Dlvy Date

Ship Via

Trailer Number

Pro Number

Packaging Code

Shipment Completed?

Load Number

Dock

Pickup Date

Pickup Time

Revert

Transaction History

- Ship Date:** Type the shipment date. The shipment date defaults to today's date if not specified.
- Exp Dlvy Date:** Type the expected delivery date. The expected delivery date defaults to today's date if not specified.
- Ship Via:** Type the ship via code.
- Trailer No:** If shipping by truckload, type the trailer number.
- Pro Number:** If using an LTL carrier, type the carrier's pro number.
- Pkg Code:** Enter or search for the package code. The (shipment level) code must be set up in WMS Package Code Maintenance (see "WMS Package Code Maintenance" on page 55).
- Use Page 2 through Page 6 to enter information that might be needed on a bill of lading or other report.
- Once the fields are completed, press **Enter**. WMS prints a shipment tag label. This label is for internal use only. The shipment tag represents a physical truck that is loaded with orders going to a common destination.

Note: If the label did not print correctly, press the **F8** key, or click the **Reprint Label** button to reprint it.



13. **Plt/Ctn/Ord**: Scan or type a UCC-128 number in the pallet/carton/order field to attach a carton or a pallet to the shipment. Type the order number to attach the entire order to the shipment.
14. **Item Id**: If attaching an order, type or scan an item ID to pack the item directly onto the shipment. The item is validated against the order and UCC-128 labels are printed, if required.

Note: If the label did not print correctly, press the **F8** key, or click the **Reprint Label** button to reprint it.



15. To attach all existing cartons and pallets for an order to this shipment, click the **Verify** toolbar button. 
16. If the order completion mode for the customer is set to pack shipments, the order is marked for completion when the shipment is completed; otherwise, the order must be closed manually. See "Using WMS Order Billing" on page 134 for information about manually completing orders.
17. The **Freight** and **Misc** fields are displayed only if the order completion mode for the customer is set to pack shipments; if they are displayed, type the appropriate values into the fields.
18. Press **Enter**.
19. When all cartons, pallets and orders have been attached to the shipment, click the **Complete Shipment** toolbar button. 
20. Click the **Exit** button when finished. 

Packing Orders in Pack Verify Mode

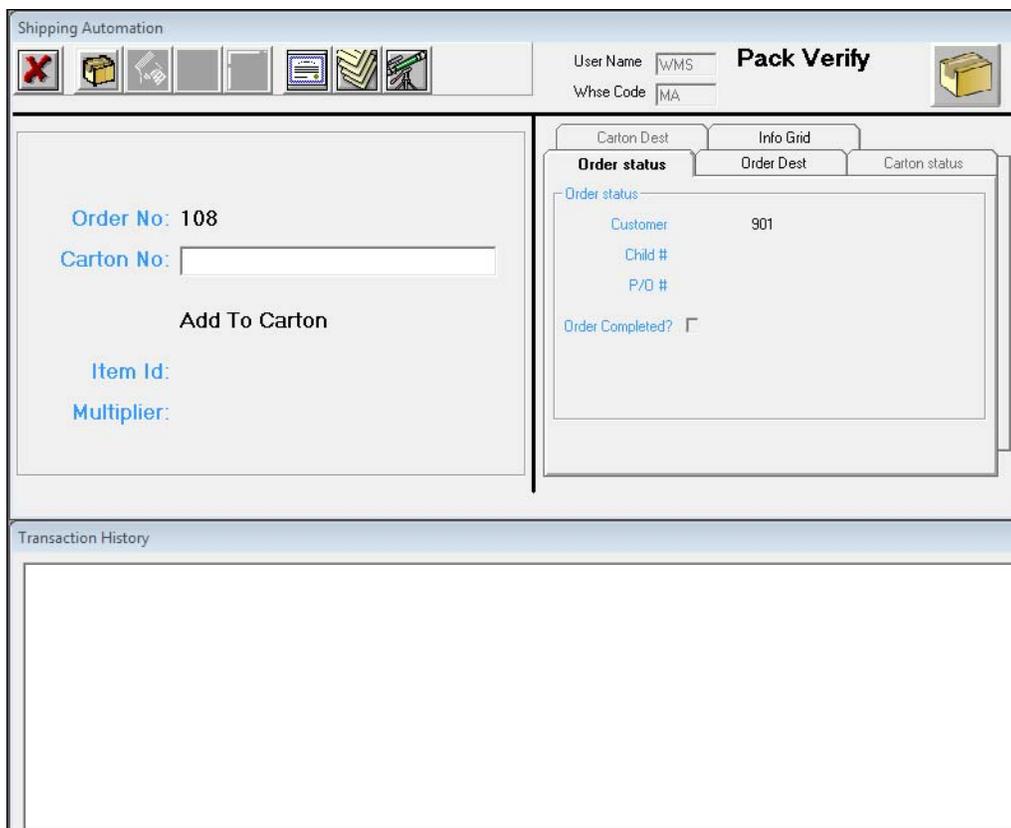
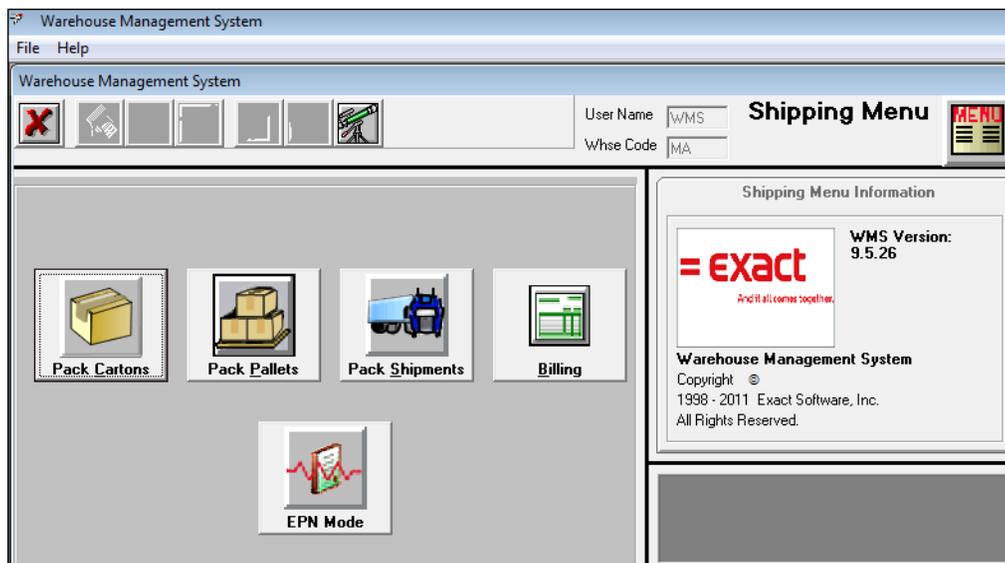
WMS has many advanced options for handling the large, multi-order shipments that are typical for EDI ASNs. However, WMS can also process individual orders efficiently. The WMS pack verification mode is designed to streamline the process of handling individual orders.

The mode is determined by settings in the WMS control file and the WMS customer override file. In pack verify mode, the user has all advanced options available, but when an order is entered in Pack Cartons, WMS determines that the customer is configured for pack verify, and Pack Cartons operates in that mode.

Packing an Order

1. Log on to WMS.
2. If the order is not in your default warehouse, select File from the WMS menu, and then click Change Warehouse. Type the correct warehouse location code in the **Warehouse** field, and then click **OK**.

3. Click the **Pack Cartons** buttons.



4. **Order No:** Type or scan the order number.
5. Press the **F2** key, or click the **New Carton** toolbar button, or to create a new carton.
6. A shipping label is generated and printed.



Note: If the label did not print correctly, press the **F8** key, or click the **Reprint Label** button to reprint it.

7. **Multiplier:** Press the **F4** key, or click the **Multiplier** button to specify a multiplier for the next item ID to be processed.



Type the quantity to multiply the next item entered by. For example, if you enter a multiplier of 4, the next item case pack, as defined in WMS Bulk Weight Maintenance, is multiplied by 4. If the item's case pack is defined as 6, then 24 eaches are packed into the carton.

8. **Item Id:** Scan or type any of the following: item number, UCC-14 (I-205) number, UPC number, or any bar code that has been set up in WMS Bulk Weight Maintenance.
9. Continue to type or scan the item IDs being packed into this carton. A transaction history box at the bottom of the screen displays all transactions that have been processed during the session.

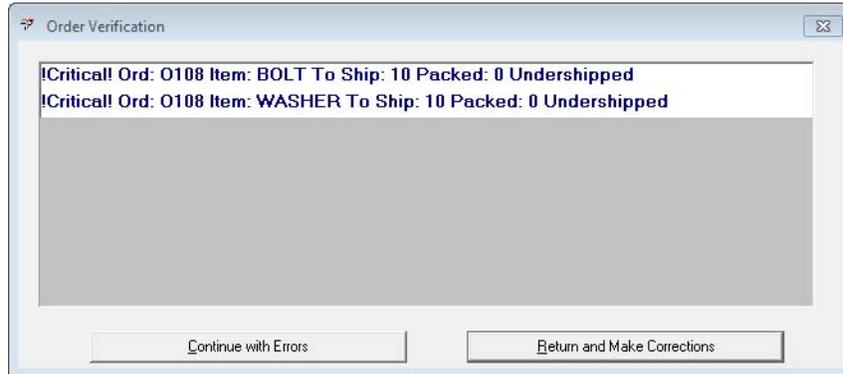
Note: The history box is cleared when the session is completed and a new session begins. You can also clear it manually. To manually clear the transaction history, click in the transaction history frame, and then select File, Clear Transaction History from the WMS menu.

10. When the carton is fully packed, click the **New Carton** button to start a new carton for this order.
11. To remove an item from a carton, press the **F5** key, or click the **Remove** toolbar button to enter remove from carton mode.
12. **Item Id:** Type or scan the item number, UCC-14 (I-205), or UPC number to be removed from the carton.
13. If necessary, use the multiplier function to multiply the quantity removed.
14. Press Enter to remove the item.
15. Click the **Add** toolbar button to return to add to carton mode and pack more items.

Exiting an Order

When all cartons are packed, the order can be completed, or the user can exit the order to work on another one. To complete the order, the user must have billing rights specified in the WMS security file. If the user does not have billing rights or the order is not ready to be completed and billed at this time, he can press Escape to exit the carton, and then press Escape again to exit the order.

WMS verifies that the order is completely packed. An information box displays any errors that are found.



- Click the **Return and Make Corrections** button if a correction needs to be made.
- Click the **Continue with Errors** button if the errors are acceptable.

WMS either returns the user to the order so corrections can be made, or returns the user to the order number field to work on the next order.

Completing an Order

A user with WMS billing rights can complete the order. If the user also has pack cartons rights, he can make corrections to the packaging, too. If the user does not have pack cartons rights, he can only complete the order or return it to a packer for corrections.

1. **Order No:** Type or scan the order number to be completed.
2. Press the **F11** key, or click the **Complete Order** toolbar button.
3. WMS scans the order for errors, such as items that are under shipped or over shipped, and display a window with any messages.
4. Click **Return and Make Corrections** to return to the carton packing/pack verify screen if you have pack carton rights, or to the order number field if you do not.
5. If you click **Continue with Errors**, the order completion process continues and then displays the complete order screen.
6. The complete order screen allows shipment information to be entered, including the ship via code to be used for this order. If the ship via code entered requires reports to print on shipment completion, the Page 2 to 6 tabs become active so you can enter information to be printed on the bill of lading.
7. Press Enter when all the information is entered.
8. WMS generates any bill of lading reports that have been specified.
9. WMS returns to the **Order No** field so the next order can be processed.
10. When all orders have been processed, click the **Update Macola** button to finalize the orders and pass the information to Exact Macola ES. See "Importing Billing Selection Information using Bar Code for Distribution" on page 138 for information about importing the selection information into Exact Macola ES.

Using WMS Order Billing

WMS requires orders to be processed through the WMS billing system to close a billing cycle properly. This is required whether or not the selection information is passed to Exact

Macola ES. If not done properly, problems might occur when processing a backorder against the order.

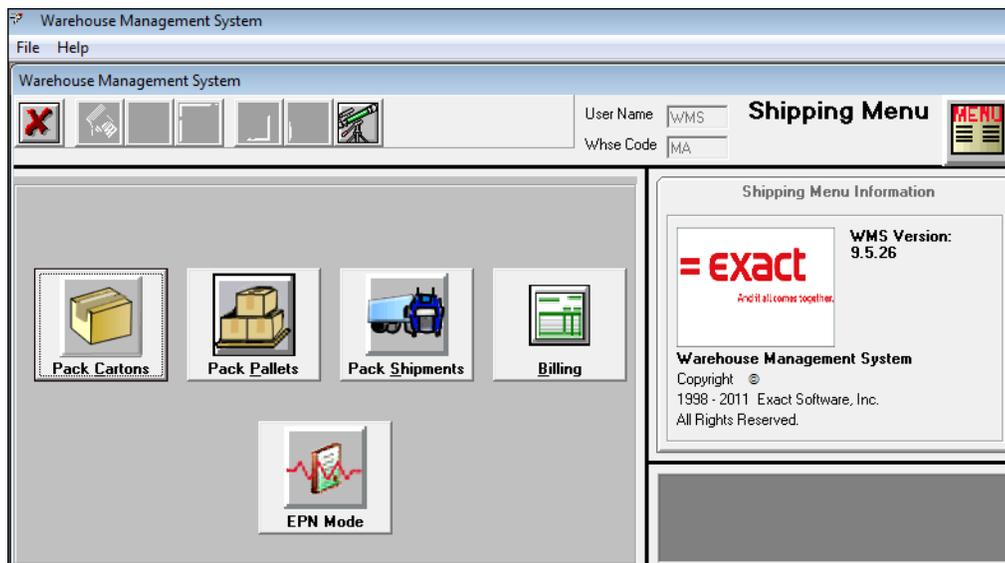
WMS does not actually select orders for billing in Exact Macola ES, but instead passes information to Exact Macola ES using the Bar Code for Distribution module. The Bar Code module allows WMS to transfer billing selection information to Exact Macola ES and is therefore required to complete the automation process. See “Importing Billing Selection Information using Bar Code for Distribution” on page 138 for detailed instructions about importing the selection information.

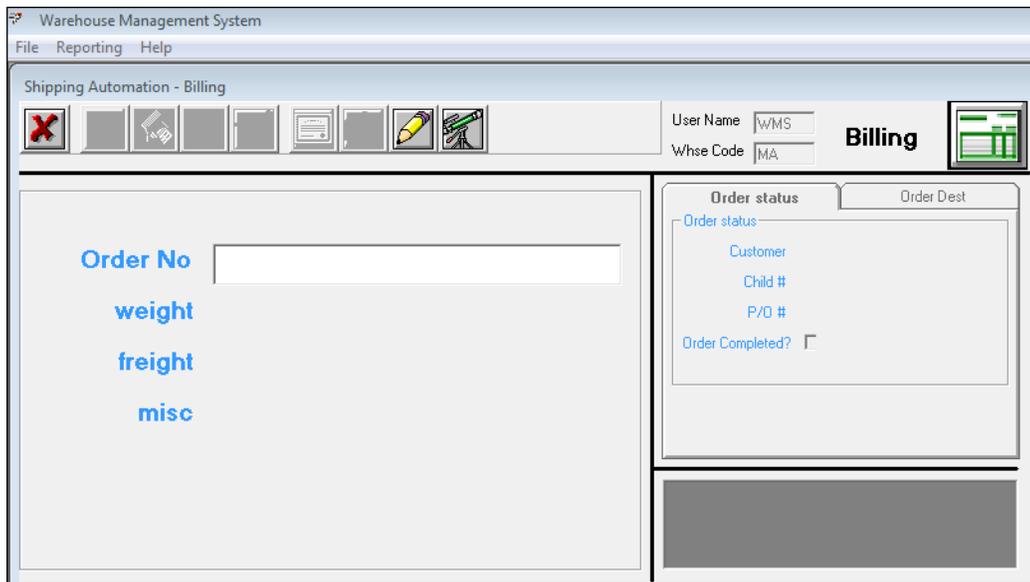
WMS has three different modes for completing orders: WMS Billing; Pack Shipments; or Pack Verify Cartons. The mode used is determined by the selection in the **Default Order Completion Mode** field on the WMS Control File Maintenance screen (see page 22). (This can be overridden for a specific customer in the customer override file.)

If the order completion mode flag is set to WMS billing, orders are flagged as complete when a user specifically requests the order to be billed. If the order completion mode is set to pack shipments, orders are flagged as complete when a shipment that includes the order is completed. Pack shipments mode is convenient for companies that rarely split an order into multiple shipments within a billing cycle, while WMS billing is best for companies that frequently split orders into multiple shipments within a billing cycle. The final option is pack cartons verify mode, which indicates that an order is to be treated as an individual shipment. Order completion is done immediately during carton packing, so manual billing is not necessary.

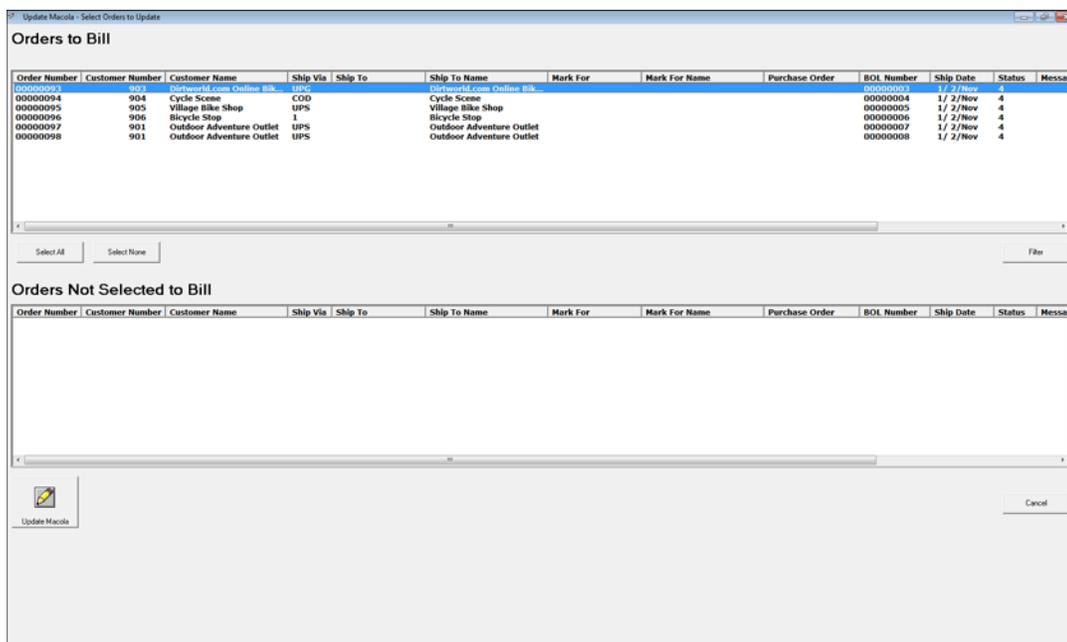
Order Completion Mode is WMS Billing

1. Log on to WMS.
2. If the order is not in your default warehouse, select File from the WMS menu, and then click **Change Warehouse**. Type the correct warehouse location code in the Warehouse field, and then click OK.
3. Click the **Billing** button to open the Billing screen.





4. **Order No:** Type the order number.
5. WMS calculates the order weight based on the weight of the line items in the Exact Macola ES Item Master.
6. **Freight:** Type the freight charges for the order, if any.
7. **Misc:** Type any miscellaneous charges for the order.
8. Press Enter.
9. WMS completes the order.
10. After all orders are complete, click the **Update Macola** toolbar button to open a screen to select the orders to bill. By default, all orders flagged as eligible to bill in WMS are in the top section (Orders to Bill).



11. You can sort the orders by double-clicking any column heading.
12. If there are orders that you do not want to bill, you can use the mouse to click and drag an order to the lower section (Orders Not Selected to Bill). You can hold the Ctrl key and select non-sequential orders or hold the Shift key to select sequential orders. You can also double-click an order to move it from one section to the other.
13. When you have the orders you want to bill in the top section (Orders to Bill), click the **Update Macola** button. WMS creates the ODB files for Exact Macola ES Bar Code to import. The Bar Code quick ship polling function can process the ODB files for billing in Exact Macola ES.

Note: The orders are not selected for billing in Exact Macola ES until the Bar Code for Distribution quick ship function has been run. See "Importing Billing Selection Information using Bar Code for Distribution" on page 138 for information about running that process.

Order Completion Mode is Shipment Completion

1. Log on to WMS.
2. If the order is not in your default warehouse, select File from the WMS menu, and then click Change Warehouse. Type the correct warehouse location code in the Warehouse field, and then click OK.
3. Click the **Billing** button.
4. In this mode, all orders are flagged for completion when a shipment that they are attached to is completed.
5. After all orders are complete, click the **Update Macola** toolbar button to open a screen to select the orders to bill. By default, all orders flagged as eligible to bill in WMS are in the top section (Orders to Bill).



6. You can sort the orders by double-clicking any column heading.
7. If there are orders that you do not want to bill, you can use the mouse to click and drag an order to the lower section (Orders Not Selected to Bill). You can hold the

Ctrl key and select non-sequential orders or hold the Shift key to select sequential orders. You can also double-click an order to move it from one section to the other.

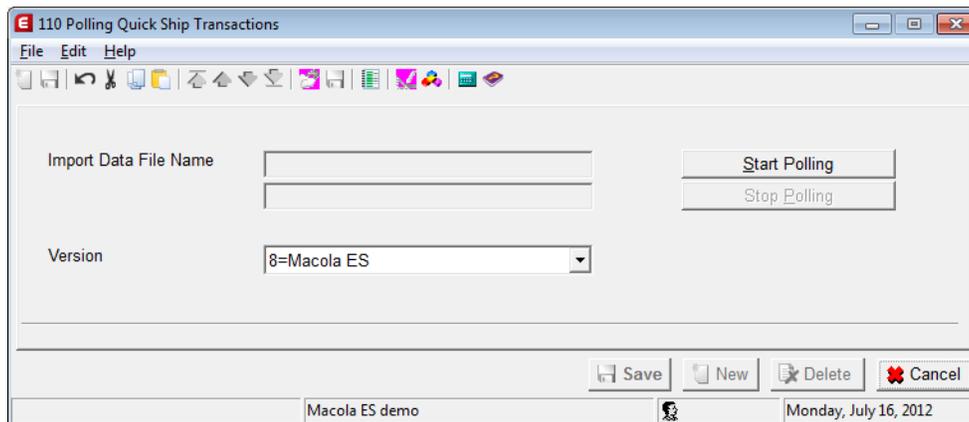
8. When you have the orders you want to bill in the top section (Orders to Bill), click the **Update Macola** button. WMS creates the ODB files for Exact Macola ES Bar Code to import. The Bar Code quick ship polling function can process the ODB files for billing in Exact Macola ES.

Note: The orders are not selected for billing in Exact Macola ES until the Exact Macola ES Bar Code for Distribution module quick ship function has been run. See "Importing Billing Selection Information using Bar Code for Distribution" on page 138 for information about that process.

Importing Billing Selection Information using Bar Code for Distribution

WMS does not select orders for billing like Order Entry does; instead, it interfaces with the Exact Macola ES Bar Code for Distribution module to pass order selection information into Exact Macola ES. Once the Update Macola function has been completed, the Exact Macola ES Bar Code for Distribution module quick ship function can be used to import this information into Exact Macola ES.

1. In Exact Macola ES, on the EDI & BC menu, under the Bar Code heading, select Polling, Quick Ship.



2. Click the **Start Polling** button to begin the polling process. This process retrieves all orders that were processed by the Update Macola function and select the Exact Macola ES orders based on the information that was passed from WMS.
3. Once complete, the order is selected for billing. Please refer to the Exact Macola ES O/E online help for instructions on completing the billing cycle.

Note: This program can be started on a dedicated machine and run continuously, which allows WMS to send billing information to Exact Macola ES instantaneously. This is not usually necessary, but is available if desired.

Generating an Advanced Ship Notice Using WMS Shipment Information

If the Exact Macola ES EDI Bar Code Holding File module and the WMS EDI ASN Data Collection module are not both installed, ASN creation cannot use WMS shipment informa-

tion. Refer to the Exact Macola ES EDI online help for instructions on generating an ASN without using WMS shipment information.

The Exact Macola ES EDI ASN module is used to generate an advanced ship notice. Before an ASN can be created, the order must have been at least selected for billing if O/E is set to Confirm Bill. If O/E is set to Confirm Ship, the order must have been at least shipped, and if set to Confirm Pick the order must have been at least picked. The order can have had the invoice printed, and it is possible to generate the ASN after the order has been posted. However, since data on the O/E order cannot be changed after the invoice is posted, it is generally recommended to create the ASN before the invoice is posted. This allows incorrect or missing information on the order, such as the ship date or ship via code, to be corrected so it can be included on the ASN.

If the WMS EDI ASN Data Collection module and the Exact Macola ES EDI Bar Code Interface File module are installed, WMS can greatly simplify ASN creation in Exact Macola ES by eliminating the need to manually enter all the carton and pallet information for a shipment. The information collected by WMS is used during the ASN creation instead.

1. In Exact Macola ES, on the EDI & BC menu, under the EDI heading, select Outbound, Create.

The screenshot shows the '110 Create Outbound Documents' dialog box. The 'Current Data (Orders)' radio button is selected. Under 'Documents', the '810 / 880 (Invoice)' checkbox is checked. The 'Include Order Status' dropdown is set to '=All'. The 'Order/Invoice No.', 'Customer no.', 'Order Date', and 'Ship Date' fields are all set to 'ALL'. The 'OK' button is highlighted.

- a. If you are creating the ASN from an open order, select **Current Data(Orders)**.
- b. Tab to the starting **Order/Invoice No** field.
- c. Type the first order number, if you are filtering by order number. To create based on all orders, leave this set to All.

Note: Even if the invoice has been printed for the order, if the invoice has not been posted yet, you must enter the order number here, not the invoice number.

- d. Type the last order number in the ending **Order/Invoice No** field, if you are filtering by order number. To create based on all orders, leave this set to All.
 - e. If you are creating the ASN from a posted invoice, select **Posted Data (Invoices)**.
 - f. Tab to the starting **Order/Invoice No** field. Type the first invoice number, if you are filtering by invoice number. To create based on all invoices, leave this set to All.
 - g. Type the last invoice number in the ending **Order/Invoice No** field, if you are filtering by invoice number. To create based on all invoices, leave this set to All.
2. If you are filtering by customer number, type the starting customer number in the starting **Customer No** field. To create based on all customers, leave this set to All.
 3. If you are filtering by customer number, type the ending customer number in the ending **Customer No** field. To create based on all customers, leave this set to All.
 4. If you are filtering by order date, type the starting order date in the starting **Order Date** field. To create based on all order dates, leave this set to All.
 5. If you are filtering by order date, type the ending order date in the ending **Order Date** field. To create based on all order dates, leave this set to All.
 6. If you are filtering by O/E ship date, type the starting ship date in the starting **Ship Date** field. To create based on all ship dates, leave this set to All.
 7. If you are filtering by O/E ship date, type the ending ship date in the ending **Ship Date** field. To create based on all ship dates, leave this set to All.
 8. Select the **856 (Advanced Ship Notice)** check box.
 9. You can further refine which orders are included using the **Include Order Status** field. To include all orders regardless of status, leave this set to All.
 10. Click the **OK** button. Exact Macola ES EDI begins the ASN creation process.
 11. If a flat file still exists from the last outbound creation, Exact Macola ES displays a messaging prompting you to append, erase, or cancel:
 - Append -- Saves the data already in the flat file and places the new data at the end of it.
 - Erase -- Deletes the data already in the flat file and replaces it with the new data.
 - Cancel -- Saves the data already in the flat file and does not create any new data. Stops the ASN creation process.
 12. Exact Macola ES sorts the orders based on the filter criteria specified and displays the ASN Shipment Level Maintenance screen.

The ASN Shipment Level Maintenance screen allows you to enter or override certain shipment details for this ASN. Although most or all of these fields have default information in them, you can enter data in a field and have that override appear on the ASN only if the format that you are using pulls data from that field. If the EDFFORMAT.TXT lists that a shipment value is pulled from a shipment level (S record) field in the EDBBCIFL table, then you can normally override it on this screen. The information on this screen is only for the

shipment level of the ASN. It does not affect the order, tare, pack, or item levels of the ASN.

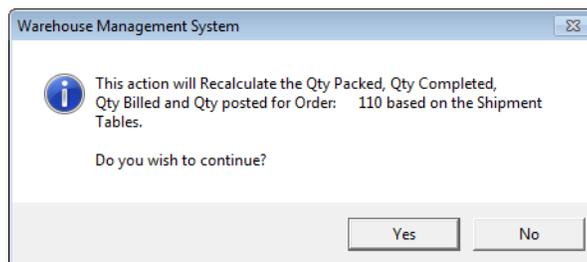
Note: The ASN Shipment Level Maintenance screen is displayed once for each ASN that is created.

13. If the **Misc Info** button is active on the ASN Shipment Level Maintenance screen, click it to enter information in the ASN misc fields. The data expected in a misc field and the label displayed for the misc field are determined by the ASN format.
14. To continue with the ASN creation, click OK or press the Enter key.
15. When the ASN creation is complete, Exact Macola ES displays a message asking if you want to print the transmission report. Click Yes to print the report, or No to continue without printing the report.
16. The outbound creation closes automatically.

Recalculating the Totals for an Order in WMS

Although rare, the system total values for an order line item can become out of synch with the transaction files. This is most likely to happen if a problem occurs during shipment completion. A utility has been provided to recalculate the totals for the order when necessary.

1. Log on to WMS as a user with mass deletion rights.
2. Press the **F3** key, or click the **WMS Inquiry** toolbar button to launch the WMS Inquiry.
3. Make sure that the current view is Order/Carton/Item. If not, select View from the menu, and then click Order/Carton/Item.
4. Type the order number requiring re-calculation in the Order # field.
5. Right-click the order number in the list, and then click Re-calculate Order Totals.
6. WMS displays a message that the order totals will be recalculated. Click Yes to continue.



WMS recalculates the quantity packed, quantity completed, quantity billed, and quantity posted for the order based on values in the shipment transaction table.

Closing WMS Orders when the Exact Macola ES Order has been Closed

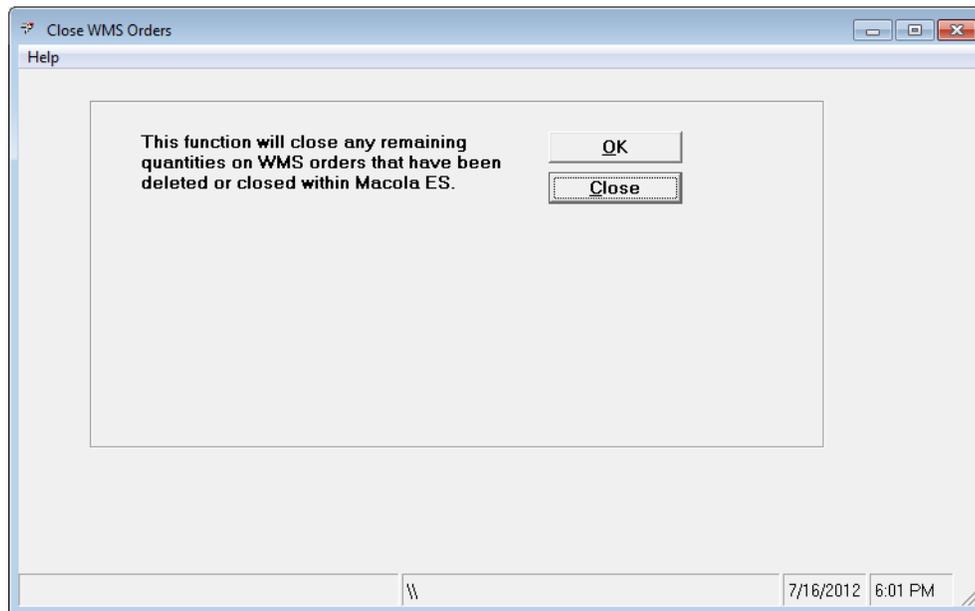
WMS maintains its own order information. When an order is deleted from Exact Macola ES, closed using the Exact Macola ES close order function, or automatically closed posting the invoice, WMS must be informed that the order is no longer eligible for shipment. Normally the order would be updated in WMS using post pick ticket processing, but a pick

ticket cannot be generated for these orders, so another tool is needed. The Close WMS Orders function searches all open WMS orders and closes any order that is not an open Exact Macola ES order by reducing the quantity to ship to zero.

An exception report is printed to alert the user of any order that contains packed cartons that have not been completed.

This function should be used after posting O/E invoices to A/R, or any time an order is manually closed. If an order is deleted from Exact Macola ES, the order can be closed in WMS using this function, or deleted using the WMS Inquiry mass deletion function. See "Deleting an Order from WMS" on page 142 for information about the mass deletion function.

1. In Exact Macola ES, on the OE & RMA menu, under the Invoice & Process Orders heading, select WMS Close Orders.

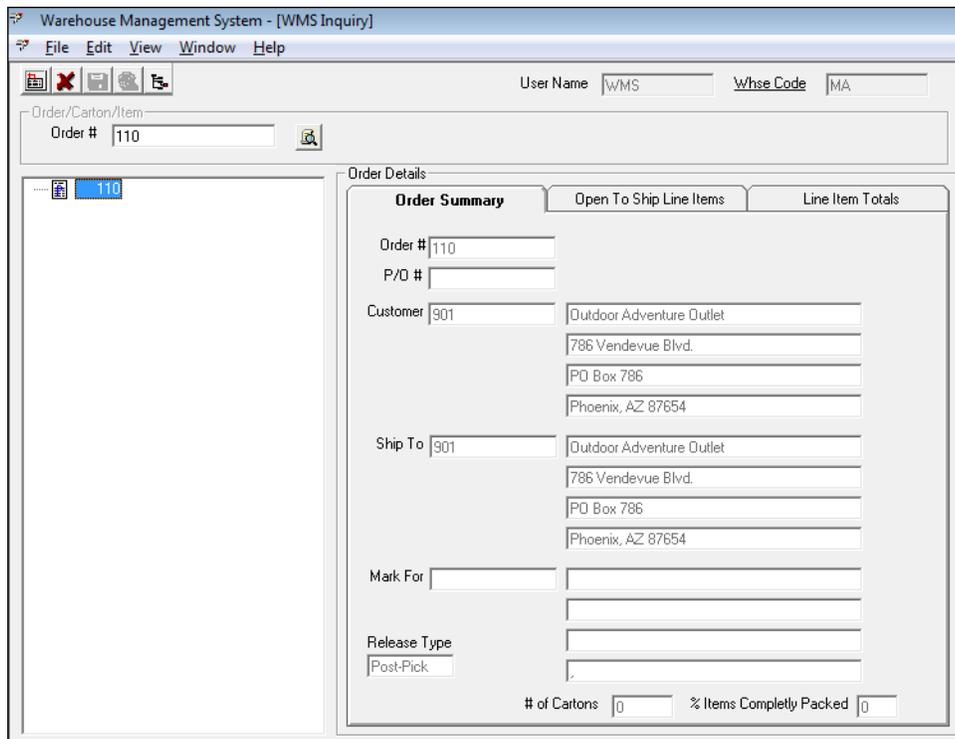


2. Click the **OK** button. WMS reads through all open WMS orders and reduces the quantity to ship to zero on all line items for deleted or closed Exact Macola ES orders.

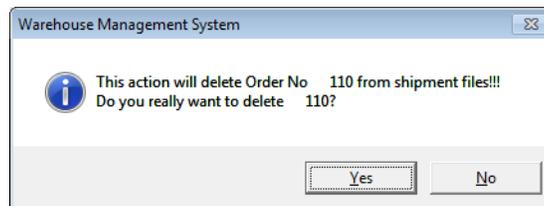
Deleting an Order from WMS

When necessary, the work done on an order in WMS can be removed. This process should not be taken lightly, and only certain users should be given access to this functionality.

1. Log on to WMS as a user with mass deletion rights.
2. Press the **F3** key, click the **WMS Inquiry** toolbar button to launch the WMS Inquiry.
3. Make sure that the current view is Order/Carton/Item. If not, select View from the menu, and then click Order/Carton/Item.
4. Type the order number to be deleted in the **Order #** field.



5. Right-click the order number in the list, and then click **Delete**.
6. WMS displays a message that the order will be deleted. Click Yes to continue.



7. WMS deletes the order and all associated cartons from the shipping system.

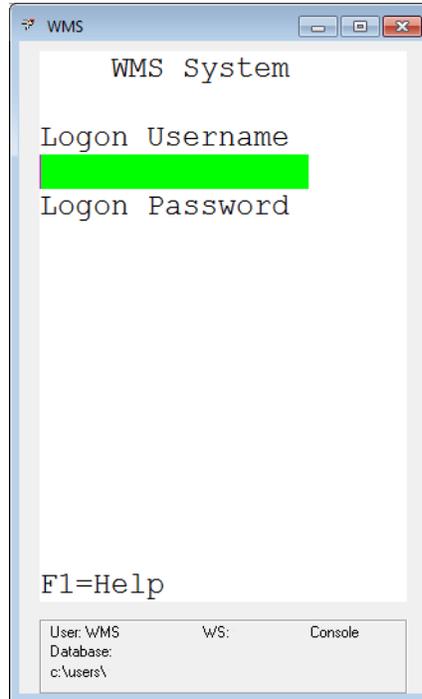
Note: If this order is attached to a completed shipment, the order cannot be deleted without first re-opening the shipment.

8. Exit the inquiry when done.

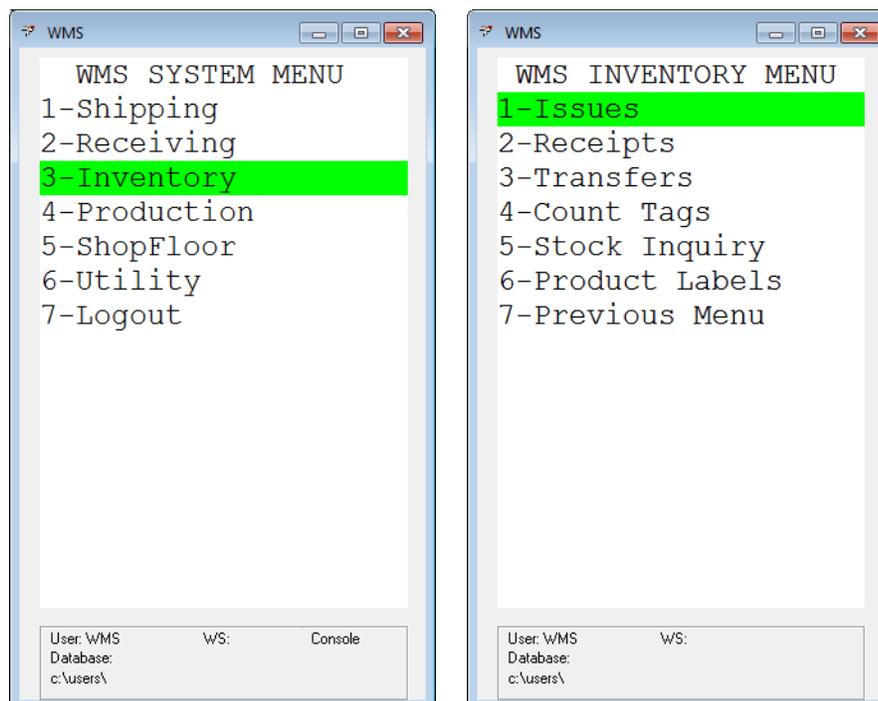
Chapter 8: WMS Inventory Transactions

Processing an Inventory Issue

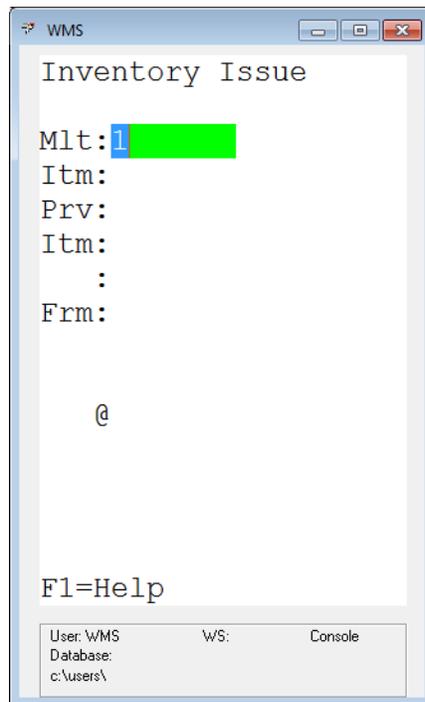
1. Log in to WMS on an RF handheld device.



2. Select Inventory, and then select Issues.



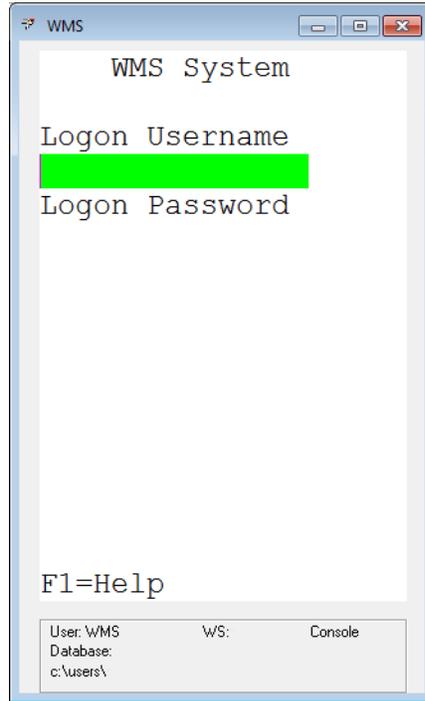
3. **Mlt**: Type the quantity to issue.



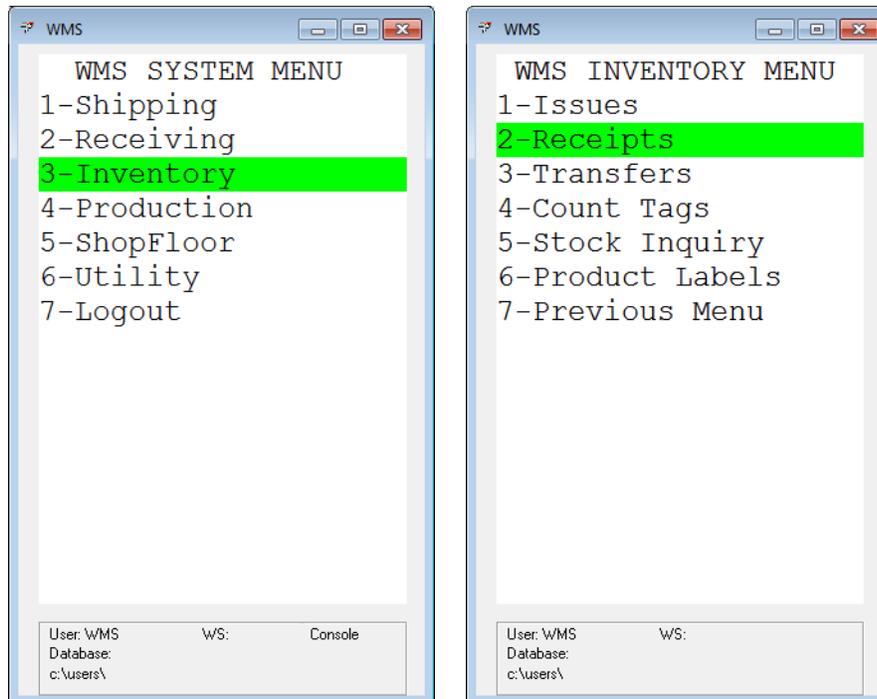
4. **Itm**: Type or scan an item number, UPC code, UCC-14, or any other bar code that has been configured to represent the item.
5. If the item is binned/lotted, you are prompted for the bin/lot number.
6. WMS automatically processes the issue and removes the quantity from inventory.

Processing an Inventory Receipt

1. Log in to WMS on an RF handheld device.



2. Select Inventory, and then select Receipts.

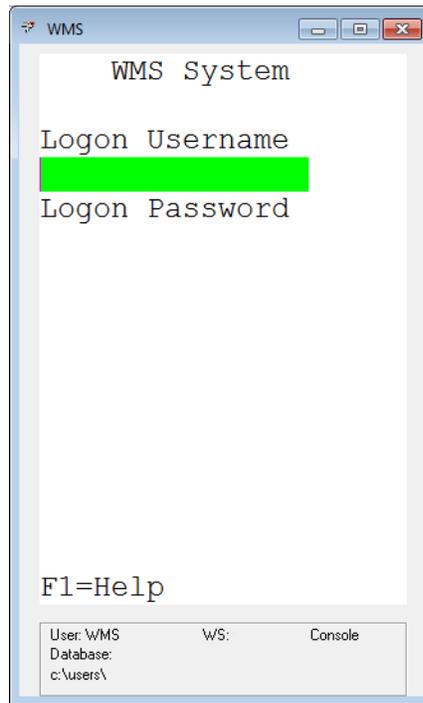


3. **Mit**: Type the quantity to receive.

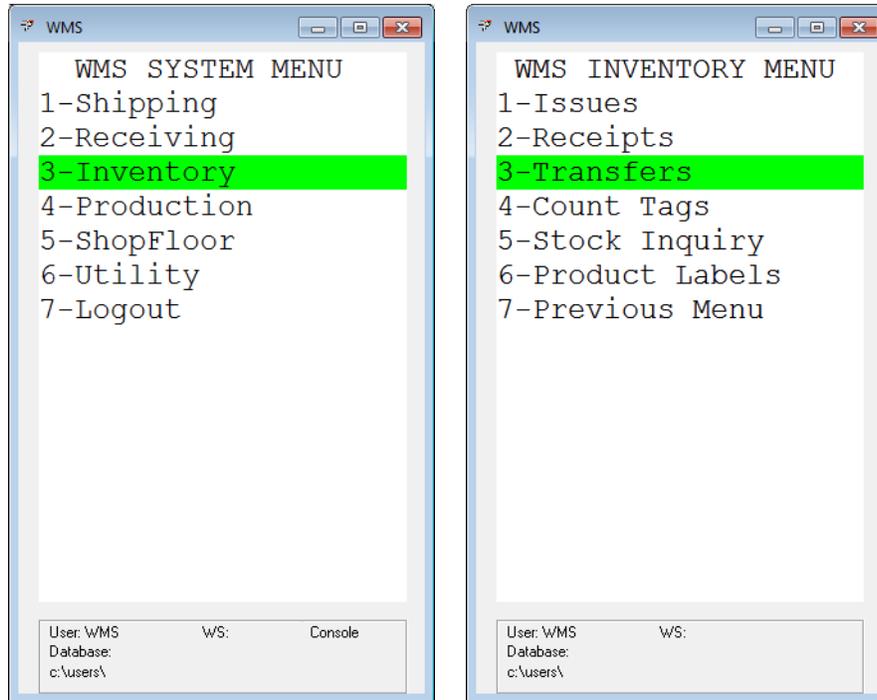
4. **Item:** Type or scan an item number, UPC code, UCC-14, or any other bar code that has been configured to represent the item.
5. If the item is binned/lotted, you are prompted for the bin/lot number.
6. WMS prints labels for the items. Depending on how you have WMS set up, you can print one label for the transaction or one label for each item. (Refer to page 33 "Default Calculated Number of Labels to 1?")
7. WMS automatically processes the receipt and adds the quantity to inventory.

Processing an Inventory Transfer

1. Log in to WMS on an RF handheld device.



2. Select Inventory, and then select Transfers.



3. **To:** Type the warehouse to transfer product to. The From field is automatically set to your current warehouse.
4. **Mlt:** Type the quantity to receive.
5. **Itm:** Type or scan an item number, UPC code, UCC-14, or any other bar code that has been configured to represent the item.
6. If the transfer is for a binned item, WMS prompts for the bin to transfer product from.
7. If the item being transferred is a binned item, WMS prompts for a bin to transfer product to.
8. WMS automatically processes the transfer and moves the quantity in inventory.

Processing a Physical or Cycle Count

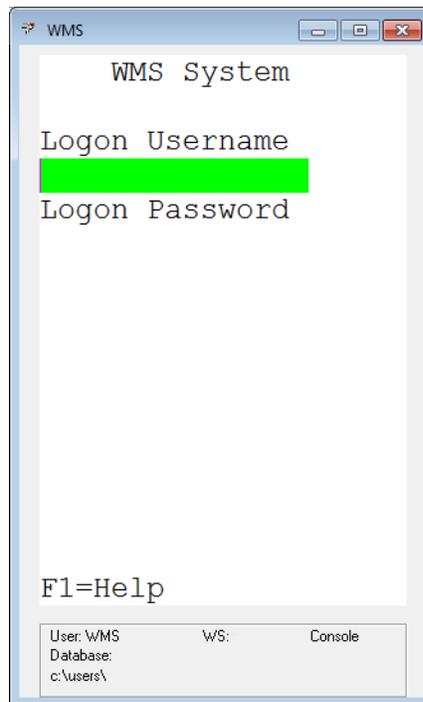
WMS allows you to enter count information with an RF device during a physical or cycle count. See the Exact Macola ES I/M user guide or online Help for information about creating a physical or cycle count.

Once created, WMS can process the count as either a directed or a non-directed count.

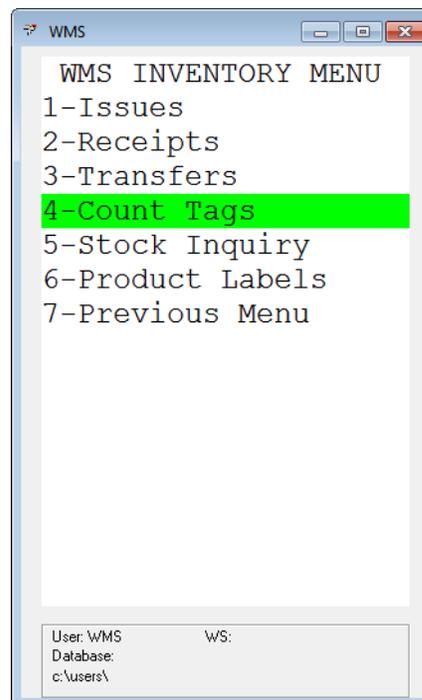
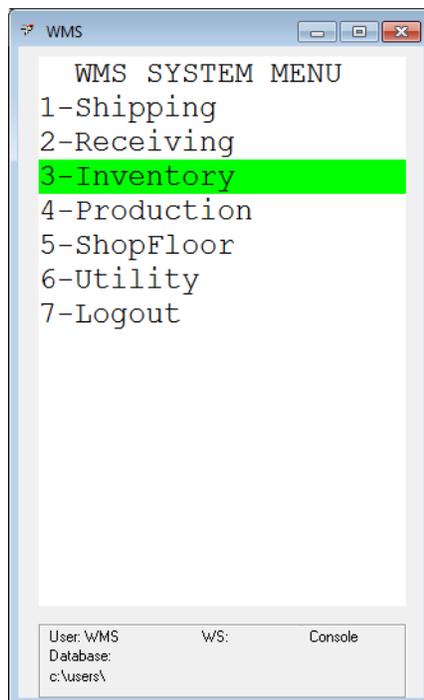
Directed Count Processing

The directed count process is particularly useful in binned environments. The count should be created with the sort by bin option activated. Each RF user is given a batch code and range of tags to count.

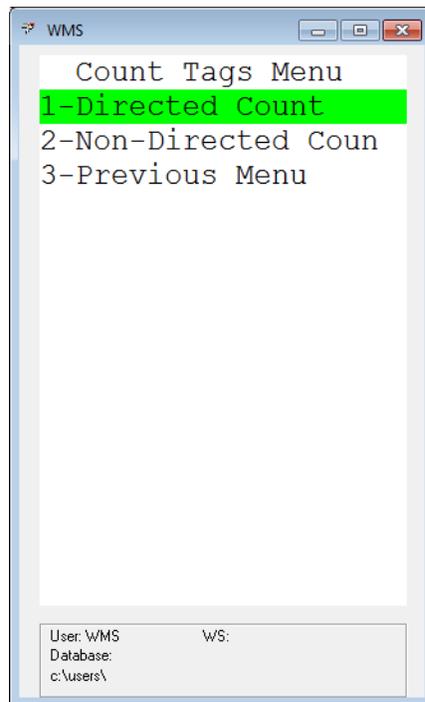
1. Log in to WMS on an RF handheld device.



2. Select Inventory, and then select Count Tags.



3. Select Directed Count from the Count Tags menu.



4. **Batch #**: Type the batch number.
5. **Tag #**: Type the starting tag number.
6. WMS displays the bin and item to count.
7. **Mlt**: Type the count.
8. **Itm**: Type the item number, UPC number, UCC-14 number, or any other bar code that represents this item.

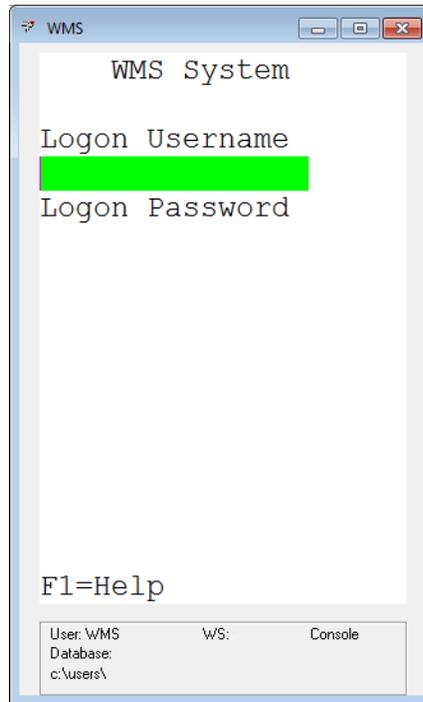
Note: If you type the UCC-14 case code, the quantity in the Mlt field should be the number of cases.

9. WMS validates that you are counting the correct item.
10. Scan the bin number to confirm that you are at the correct bin. If the wrong bin is scanned, WMS generates an error message.
11. After the current count is entered, WMS directs you to the next item.
12. When finished with your range, press **Escape** or **CLR** to exit.

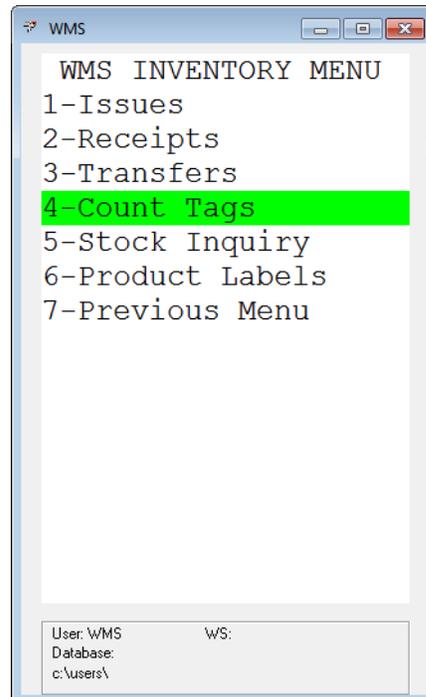
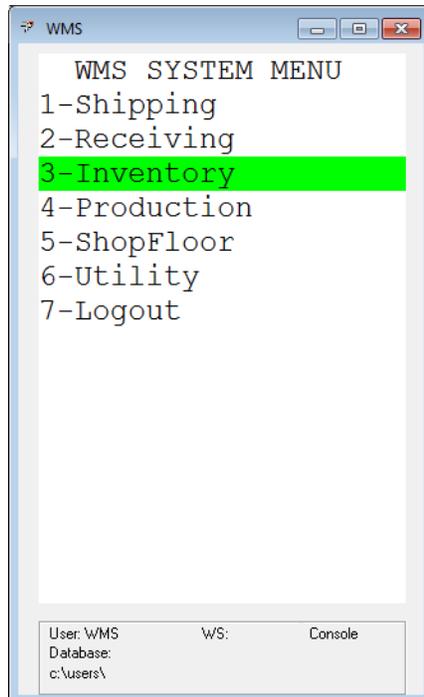
Non-Directed Count Processing

The non-directed count process is particularly useful for non-binned or full physical situations. Each RF user is given a batch to count and directed to a specific area or aisle of the warehouse.

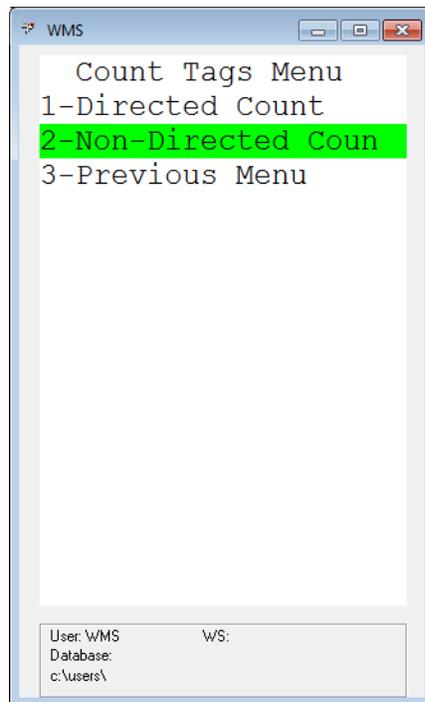
1. Log in to WMS on an RF handheld device.



2. Select Inventory, and then select Count Tags.



3. Select Non-Directed Count from the Count Tags menu.



4. **Batch #**: Type the batch code.
5. **Mlt#**: Type the counted quantity.
6. **Itm#**: Type or scan the item number, UPC number, UCC-14 number, or any other bar code representing the item being counted.

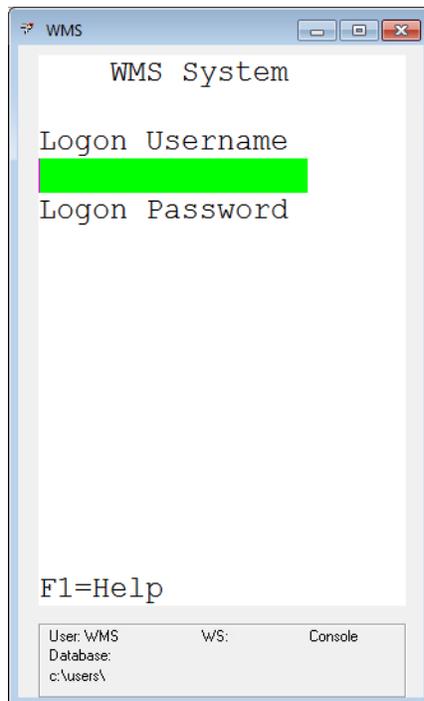
Note: If you type a UCC-14 case code, the quantity in the Mlt# field should be the case quantity.

7. If the item is binned, WMS prompts for a bin number. Type or scan the bin number.
8. WMS updates the tag for that item-bin combination.
9. When complete, press Escape or CLR to exit.

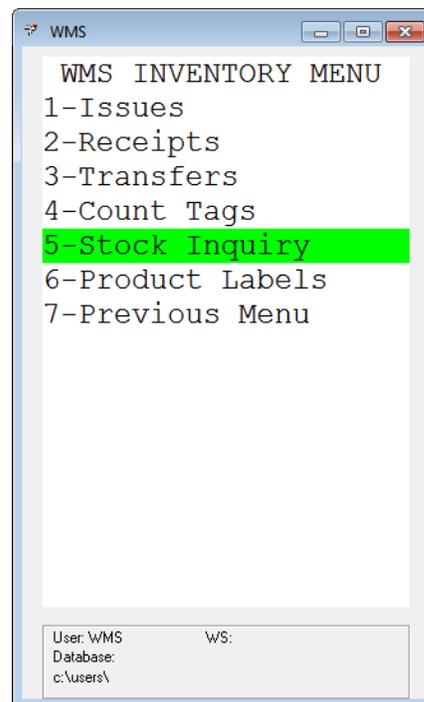
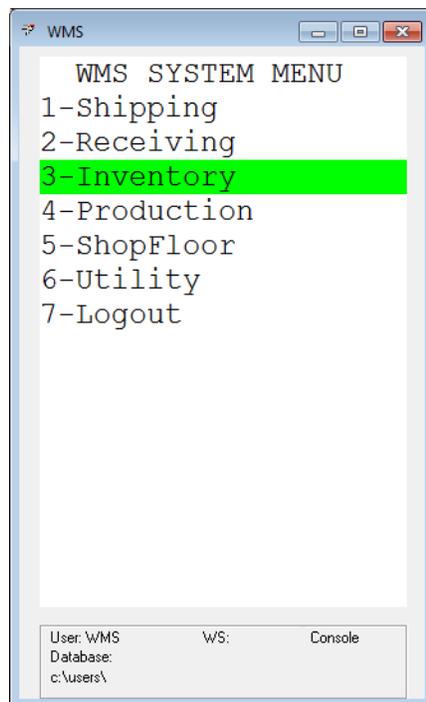
Viewing a Bin Stock Inquiry on RF Devices

Using a WMS RF device, an item can be located in a warehouse without going to a workstation.

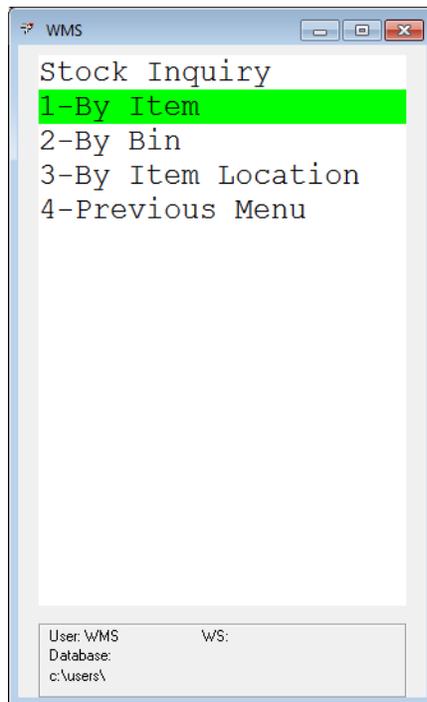
1. Log in to WMS on an RF handheld device.



2. Select Inventory, and then select Stock Inquiry.



3. Select either By Item; By Bin; or By Item Location from the Stock Inquiry menu.

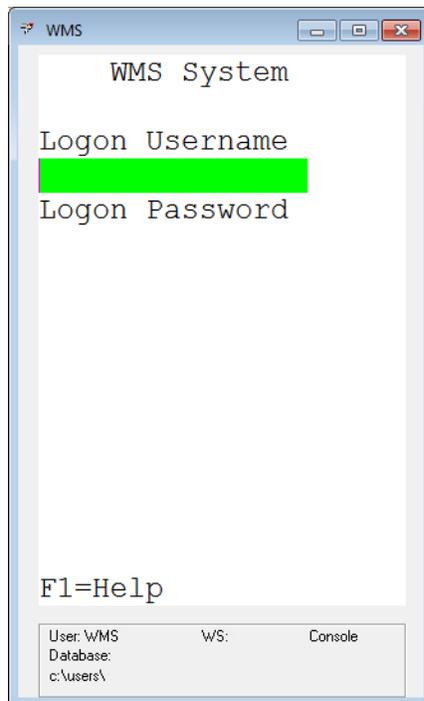


- By Item mode: In the Itm field, type or scan the item number, UPC number, UCC-14 number, or any other bar code representing the item to be located. WMS displays the item number, the total for the current warehouse, and the location of the items, if bins are in use.
 - By Bin mode: In the Bin field, type or scan the bin number. WMS displays the items and quantity on hand in the bin.
 - By Item Location mode: This version of the Stock Inquiry provides more of a multi-level item view for an item. It shows other locations than the one that is logged in, and drill down to bin and lot is possible. It also shows On Hand, Available, WMS Available and other status values such as recommendations and pending transactions (Vqty).
4. Press **F6** to toggle between by item and by bin modes.
 5. Press **F8** to toggle between showing zero quantities and hiding zero quantities.
 6. Use the up and down arrows to scroll through pages.
 7. After reviewing the list, press the **Escape** or **CLR** key to exit.

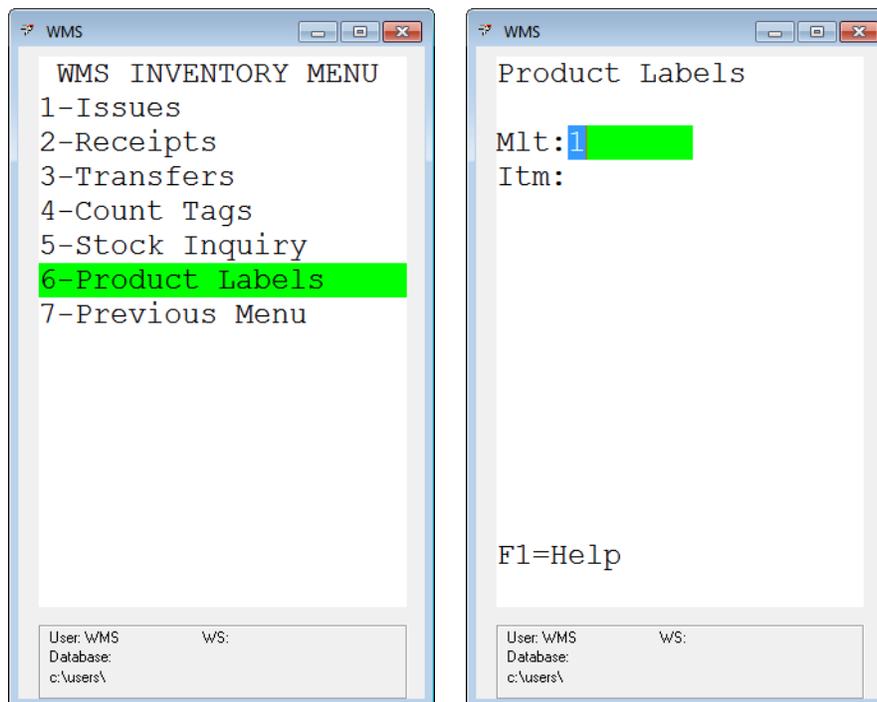
Printing Product Labels

Using an RF handheld device, you can print ad hoc product labels if your WMS user security is set to allow printing ad hoc inventory labels. Refer to "Inventory Tab" on page 19 for information about this setup.

1. Log in to WMS on an RF handheld device.



2. Select Inventory, and then select Product Labels.



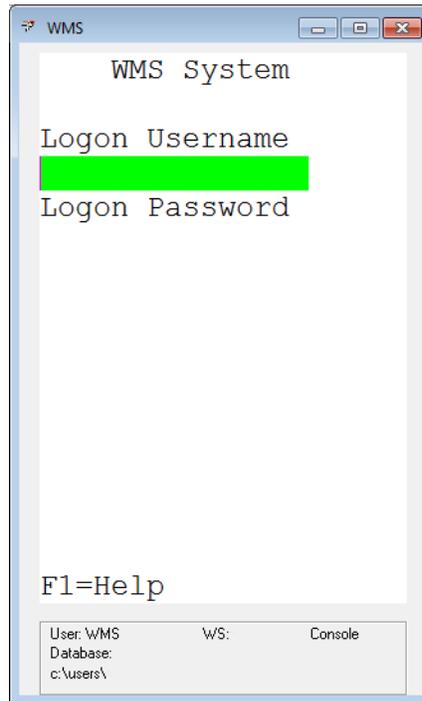
3. **Mlt**: Enter the number of labels to print.
4. **Itm**: Enter the item number.
5. Press the **Escape** to print the labels.

Chapter 9: WMS Purchase Order Receiving Transactions

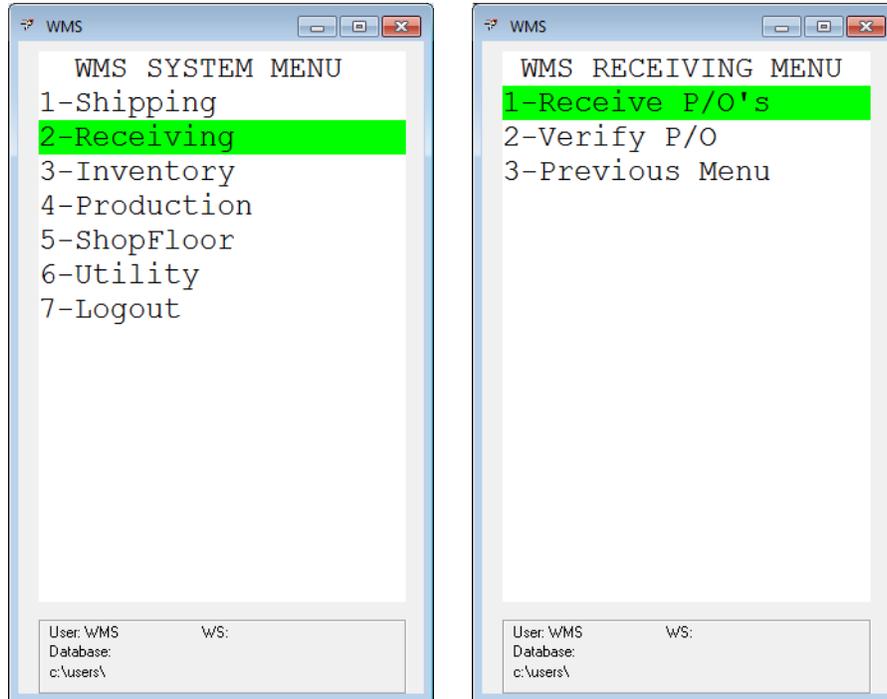
Processing a Receipt Against a Purchase Order

The WMS receiving function processes receipts against a purchase order that was entered in the Exact Macola ES Purchase Order package and can generate product labels.

1. Log in to WMS on an RF handheld device.



2. Select Receiving, and then select Receive P/Os.



3. If you are using bins in Exact Macola ES, you can use the dock as bin mode in WMS. If this option is turned on, WMS prompts for a dock; otherwise, it skips this field.

Dock: Type the Exact Macola ES bin number that represents the dock to which you are receiving product. All subsequent receipts are processed against this bin until you change the dock.

4. **PO:** Type the purchase order number for the purchase order that you are receiving.
5. **RLS:** If this is a release against a blanket PO, type the release number.
6. If the vendor has been configured to print a warehouse PO scan sheet, WMS prints it at this time.
7. **Mlt:** Press **F4** to specify a multiplier for the next item, if necessary. Type the value to multiply the next item quantity by.
8. **Itm:** Scan or type one of the following: item number, UCC-14 (I-205) number, UPC number, or any bar code that has been set up in WMS Bulk Weight Maintenance.
9. If the same IM item number appears multiple times on the PO, WMS prompts you to specify against which occurrence you are receiving.
10. If the item is lotted or serialized, WMS prompts for the lot or serial number. If you typed a quantity in the Mlt field, enter serial numbers for the entire quantity. If Auto Generate Serial Numbers is activated on the WMS control file Receiving tab, WMS automatically generates serial numbers for the entire quantity.
11. WMS determines if putaway tags are in use and prints one if required.
12. WMS validates the item against the purchase order and determines if product labels are required. If so, it either automatically prints them or prompts the user. See "Overriding Product Labels When Prompting" on page 158 for details about prompted product labels. Depending on how you have WMS set up, you can print

one label for the transaction or one label for each item. (Refer to page 33 “Default Calculated Number of Labels to 1?”)

13. To remove item quantities, press the **F5** key. You can remove up to the total quantity listed for an item on the PO. Press the **F5** key again to return to add item mode.
14. After entering all receipts, press the **Escape** or **CLR** key on the RF device.
15. WMS verifies if the purchase order has been fully received; if not, a list of items that have not been fully received is displayed.
16. Use the up and down arrow keys to scroll through the list.
17. After reviewing, press the **Escape** or **CLR** key on the RF device.

Overriding Product Labels When Prompting

The WMS receiving function can produce product labels as receipts are entered. During setup, labels are configured to print automatically, not to print at all, or to prompt the user before printing. This can be set as a global default, overridden by vendor, and overridden by vendor item; it can also be set differently for each PO layer. See “Receiving Tab” on page 30 for information about the global settings. See “Vendor Override Maintenance” on page 88 for information about overriding by vendor. See “Vendor Item Override Maintenance” on page 90 for information about overriding by vendor item.

1. **Itm**: While entering receipts, type or scan the item code. WMS displays the PO number, the item number, and the quantity being received.
2. For each layer set to prompt for product label printing, WMS displays the number of labels to be printed, the item ID, and the quantity per label. If a layer is set not to print or always to print, that layer is not displayed.
3. Use the up and down arrow keys to scroll through the entries.
4. Type Y or 1 to set the entry to print.
5. Type N or 0 to set the entry not to print.
6. Type C or 2 to change the entry.
7. If you choose to change an entry, WMS displays a screen showing the layer being changed, the number of labels to be printed, and the item ID associated with those labels.
8. You can type a new number of labels to print. This changes only the number of labels for the layer, not the quantity received.
9. Use the arrow keys to select a different package code to use for the layer, which changes the number of labels calculated and the item ID associated with the label.
10. Press Enter to save the change.
11. After making all changes, press **Escape** or **CLR** on the RF device. WMS prints the labels.

Workstation Product Label Printing

WMS allows you to print item product labels from a workstation (in addition to printing them from a handheld RF unit). WMS first calculates the total quantity to be considered for printing, and then determines the number of labels necessary based on the total item quantity and the WMS Bulk Weight Maintenance Items Per Pack field.

1. In Exact Macola ES, on the BOM & IM menu, under the Inventory Management heading, select Print WMS Product Labels. The Product Label Printing screen opens.

2. **Item:** Scan the item ID or type it. WMS displays the item description in addition to the product label configuration.
3. The Item Units field displays the number of units of the Macola item. If you entered the Macola item number in the Item field, Item Units displays 1. If you entered the item's alternate ID, the Item Units field equals the WMS Bulk Weight Maintenance Items Per Pack field. For example, if you entered the UCC-14 case code, the Item Units field displays the item's case pack, or the number of stocking units in the carton.
4. The Multiplier field defaults to 1, but can be overridden by entering the quantity of the item for which you need to print labels, based on the Item Units field. For example, if you entered a UCC-14 case code representing a 4-pack of the item, enter the number of 4-packs for which you need labels. If you entered the Macola item number, however, enter the number of individual stocking units of the item.
WMS multiplies the value in the Multiplier field by the value in the Item Units field to determine the total quantity of the item for which to print labels.
5. The label configuration list box indicates the labels that are generated based on the total quantity and the rules defined for each level in Label Configuration. For each level, WMS divides the total item quantity by the level's quantity per, as defined in the WMS Bulk Weight Maintenance Items Per Pack field for that level, to determine the number of product labels to print. The number of labels to be printed for each level is displayed in the LblToGen column.
6. To edit the label configuration for a level, double-click the level. WMS displays the label configuration editor for that level. See "Label Configuration" on page 44 for more information about defining label configurations.
7. Click the **Print** button. Labels are printed for any levels with the check box in the Name column selected.

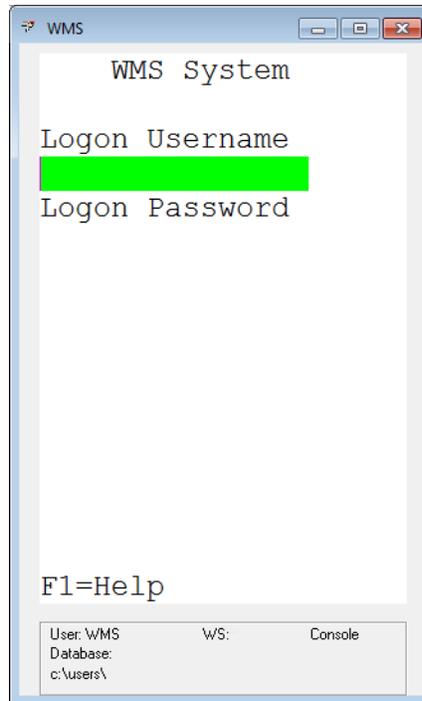
Verifying what is Open on a Purchase Order

There are several ways to display a verification screen for a purchase order. WMS automatically displays a verification screen when a user finishes processing receipts and escapes out of the purchase order. See "Processing a Receipt Against a Purchase Order" on page 156 for more information.

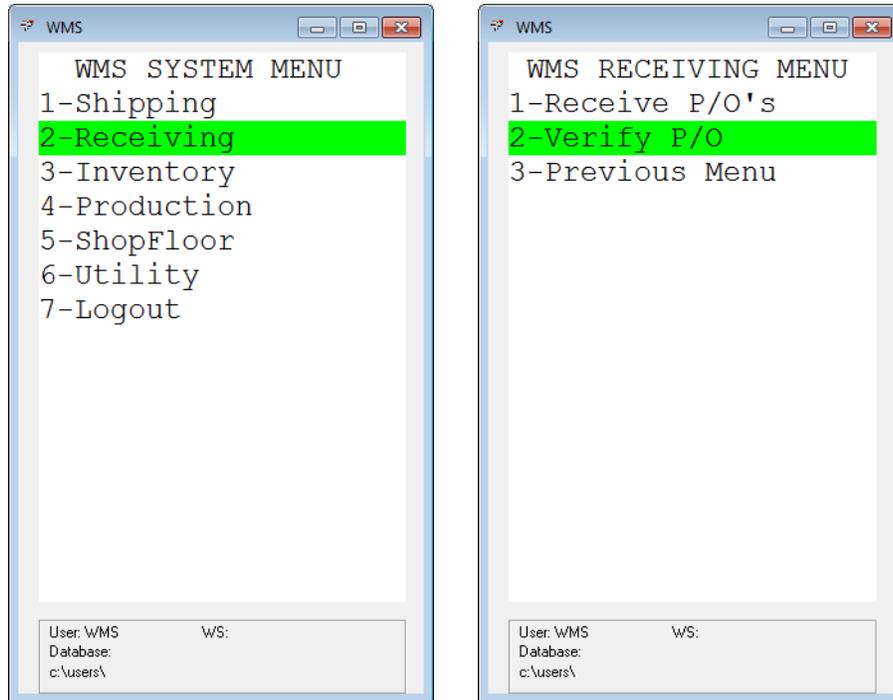
During receiving, you can request a PO verification screen by pressing the **F7** key in either the Mlt or Itm field.

You can also use the following steps to verify a PO without having to enter receipts.

1. Log in to WMS on an RF handheld device.



2. Select Receiving, and then select Verify P/O.



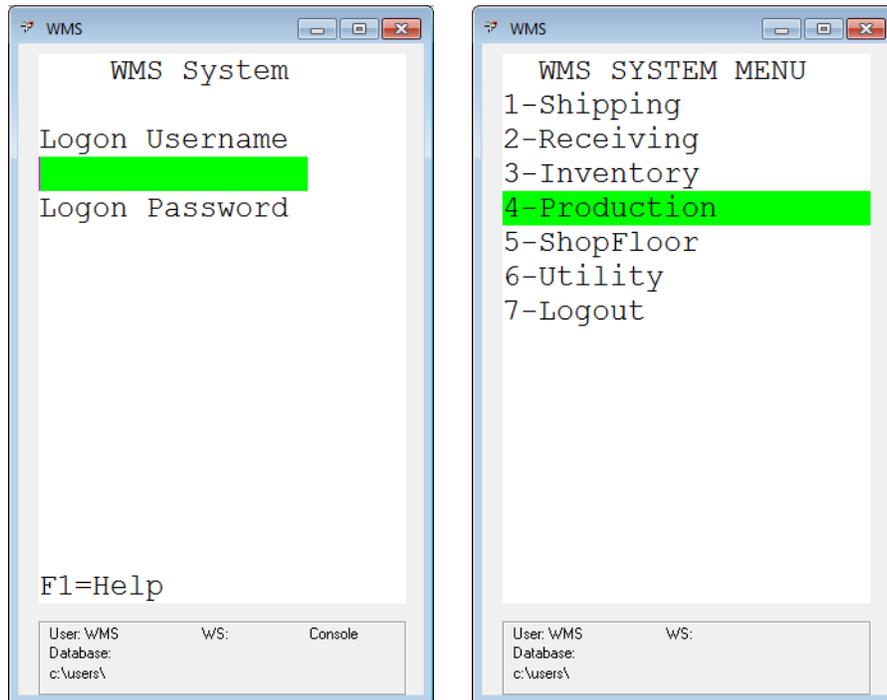
3. **PO:** Type the purchase order number to verify.
4. **RLS:** If this is a release against a blanket PO, type the release number.
5. If the vendor has been configured to print a warehouse PO scan sheet, WMS prints it at this time.
6. WMS displays a list of items for the PO which currently are not fully received.
7. Press the up and down arrow keys to scroll through the list.
8. After reviewing the list, press the **Escape** or **CLR** key on the RF device to exit.

Chapter 10: WMS Production Order Transactions

Entering Production for a Production Order

The WMS production function allows you to enter production for released production orders on an RF device.

1. Log on to WMS on an RF handheld device.

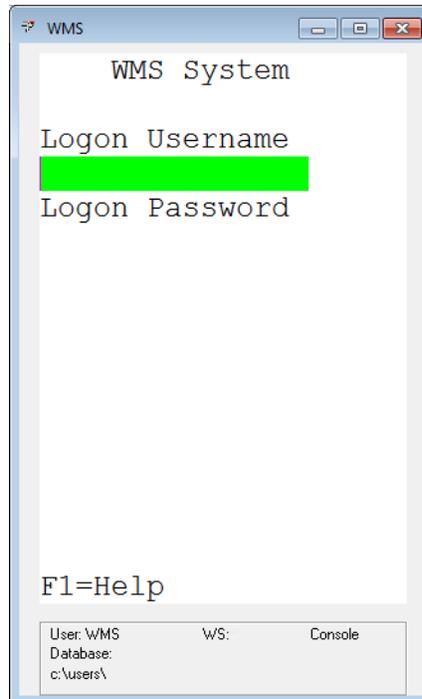


2. Select Production.
3. **Bin**: If Receive to Staging Bin is activated in the WMS control file, WMS prompts for a bin. Type the bin for the production.
4. **Ord**: Type the production order number.
5. **Itm**: WMS displays the item number for this order.
6. **Qty**: Type the quantity produced.
7. **Order Complete**: Type Y in the Order Complete field if the order is complete; type N if the order is not complete.
8. If there is a lotted or serialized component in the parent item, WMS prompts for the lot or serial information.
9. If the item is a binned item, WMS prompts for the bin information.
10. WMS returns to the Ord field for the next production transaction. Enter the next transaction, or press **Escape** or **CLR** to return to the WMS System menu.

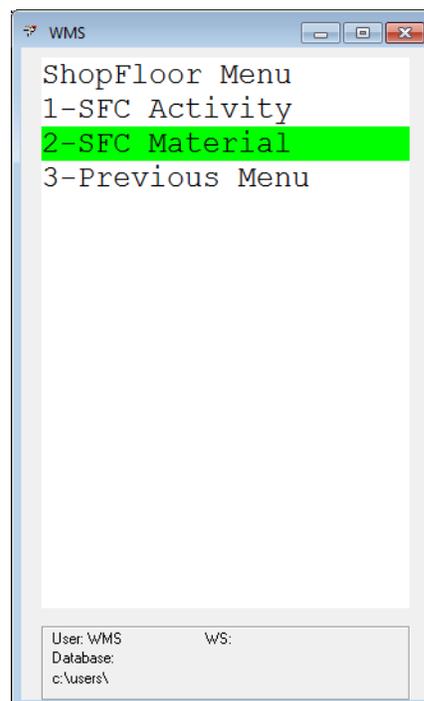
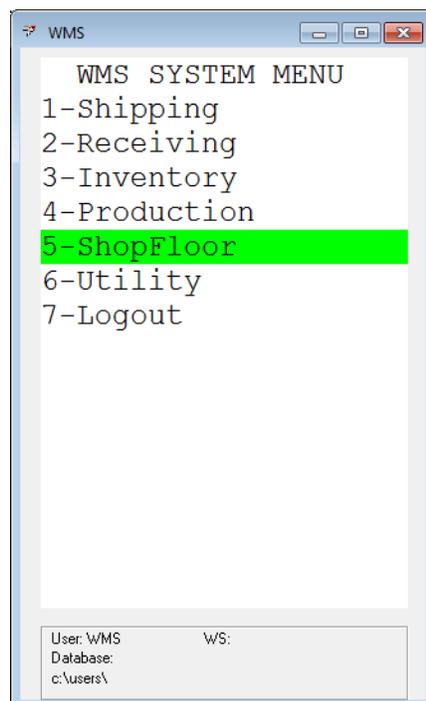
Chapter 11: WMS Shop Floor Transactions

Issuing Material to a Shop Order

1. Log on to WMS on an RF handheld device.



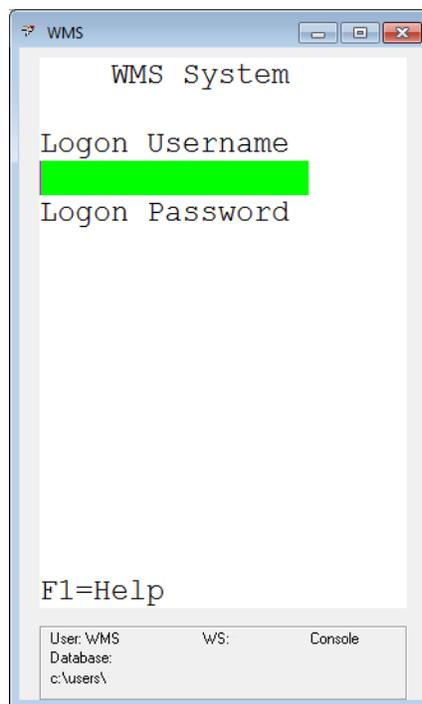
2. Select Shop Floor, and then select SFC Material.



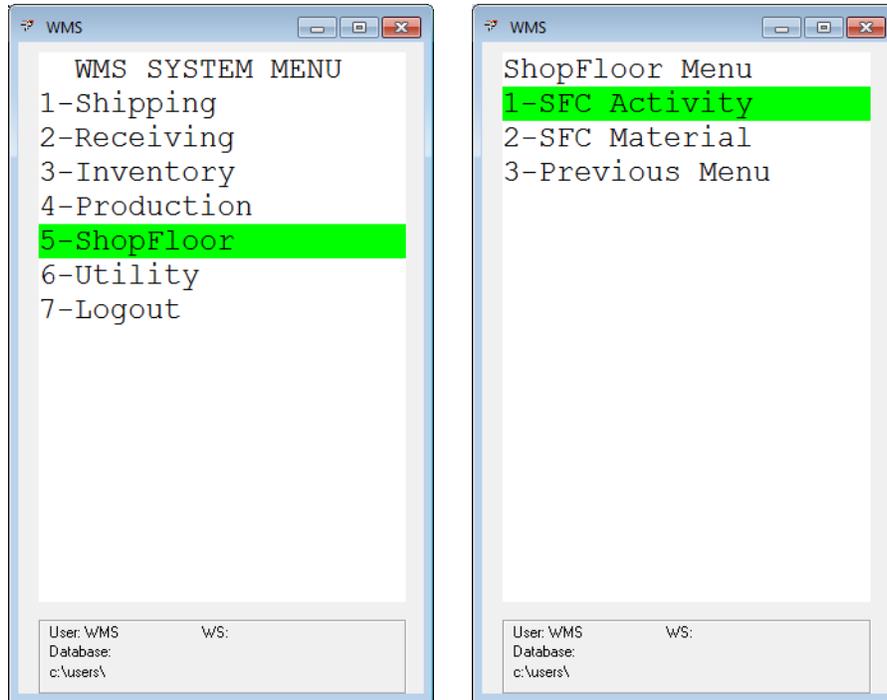
3. **Ord**: Type the SFC order number.
4. **Pth**: If prompted, type the path.
5. **Mlt**: To enter a quantity for the item, press **F4**, and type the quantity.
6. **Itm**: Type the item number.
7. If the item is lotted or serialized, WMS prompts for the lot or serial number. If you typed a quantity in the Mlt field, enter serial numbers for the entire quantity.
8. WMS returns to the Ord field for the next material issue. Continue issuing material for the shop order, or press **Escape** or **CLR** to return to the WMS System menu.

Entering Activity for a Shop Order

1. Log on to WMS on an RF handheld device.



2. Select Shop Floor, and then select SFC Activity.



3. **Bin:** If prompted, type the bin number. This bin number is the default for subsequent activity transactions until you close the SFC Activity screen.
4. **Ord:** Type the order number.
5. **Pth:** If prompted, type the path number.
6. **Opr:** Type the operation number.
7. **Dpt:** If prompted, type the department number. Press the **F7** key to search for a department number. (For F7 to work, Override Department must be selected on the WMS Control File Maintenance screen.)
8. **Wct:** If prompted, type the work center number. Press the **F7** key to search for a work center number. (For F7 to work, Override Work Center must be selected on the WMS Control File Maintenance screen.)
9. **Hrs:** In the Labor section, type the number of labor hours. You cannot enter hours exceeding 23.5. If you need to enter more than 23.5 hours, enter multiple transactions to split the hours.
10. **Emp:** Type the employee number. This must be an employee who has been set up as a manufacturing employee. Press the **F7** key to search for the employee.
11. **Grd:** If prompted, enter the labor grade. Press the **F7** key to search for the labor grade. (For F7 to work, Override Labor Grade must be selected on the WMS Control File Maintenance screen.)
12. **Hrs:** If the operation has a machine, type the number of machine hours in the Hrs field in the Machine section.
13. **No:** If the operation has a machine, type the machine number in the No field.
14. **Cmp:** In the Quantities section, type the quantity complete in the Cmp field.
15. **Opr Complete:** If the operation is complete, type Y in the Opr Complete field; if not type N.

16. **Qty**: Type the scrap quantity in the Qty field in the Scrap section.
17. **Cde**: If you entered a scrap quantity, type the scrap code. Press the **F7** key to search for the scrap code.
18. **Qty**: If the operation is a Y count point operation, type any rejected quantity in the Qty field in the Rejected section.
19. **Rsn**: If you entered a rejected quantity, type a reject reason code. Press the **F7** key to search for the scrap reason code.
20. **NCM**: If you entered a rejected quantity, type a non-conforming material location in the NCM field. Press the **F7** key to search for the NCM location.
21. **Itm**: If you entered a rejected quantity, type the reject item number in the Itm field.
22. WMS returns to the Ord field to process the next activity transaction. Continue processing transactions. Press **Escape** or **CLR** to return to the WMS System menu when done.

Returning Material

1. Log in to WMS on an RF handheld device.
2. Select Shop Floor, and then select SFC Material.
3. **Ord**: Type the SFC order number.
4. **Pth**: If prompted, type the path.
5. **Mlt**: Type a negative quantity in the Mlt field.
6. **Itm**: Type the item number in the Itm field.
7. If the item is lotted or serialized, WMS prompts for the lot or serial number. If you typed a negative quantity in the Mlt field, you need to enter serial numbers for the entire quantity.
8. WMS returns to the Ord field for the next material issue or return. Continue issuing or returning material for the shop order, or press Escape or CLR to return to the WMS System menu.

Chapter 12: WMS Reports

Supplied Reports

The following reports are included with WMS:

_wmsBillingBinVerification.rpt: A Crystal report that lists any bins, serial items, or lot items that would result in a negative quantity if the current billing was processed. These errors should be corrected before proceeding with billing.

_wmsBillingOrder.rpt: A Crystal report that lists the orders and items that would be billed by updating Exact Macola ES with the current billing information.

_wmsBolTare.rpt: A Crystal report designed to work with the standard bill of lading form. (Form Number 3S 728, 728 or LS 728 available from the Exact Forms Department) This report is designed to calculate based on pallets.

_wmsBolVics.rpt: A Crystal report that prints the standard VICs compliant bill of lading. It requires the VICS preprocess program wms224.exe be executed before printing. The ship via reports entry should be made with the Report field set as wms224, Type = Visual Basic, Parameters should be blank. Printer and Copies are needed.

_wmsEDI Diagnostic.rpt: A Crystal report that is a diagnostic report designed to assist technical support in troubleshooting problems that may occur during ASN generation. Refer to WMS EDI/ASN Diagnostic Report for more information.

_wmsEPNStagePack.rpt: A Crystal report that is used in conjunction with a stage pack at a packing station. It details, for this stage pack, what items are needed for each order.

_wmsPOScan.rpt: A Crystal report that prints a PO scan sheet.

_wmsPostPickAudit.rpt: A Crystal report that is used to print an audit report if there are any exceptions caused by re-releasing orders with Post Pick Ticket Processing.

_wmsBolVicsWalm.rpt: A Crystal report that prints the Wal-Mart variation on the VICS compliant Bill of Lading. It requires the VICS preprocess program wms224.exe be executed before printing.

Interface to User Created Reports

Users can create their own reports for the Bill of Lading module. The interface can process reports that are written using either Crystal Reports or Visual Basic.

Crystal Reports

Crystal Reports must be created to accept the bill of lading number as Parameter 0. The parameter field must be created with the name bol_num.

The program sets the printer device, driver and port, and the number of copies to print based on the ship via report entries and the currently active INI file.

Note: If the printer name is Preview, the system automatically forces Crystal to display the report to the screen.

Visual Basic

When launching Visual Basic programs, the system uses command line options to pass information to the called program. The following details the information provided in the command line that must be parsed in the Visual Basic application.

/INI = <iniFileSpec>: INI filename and location

/BOL = <Bol Number>: Bill of lading (shipment) number to print

/PRINTER = <Printer Name>: The printer to print the report to

/COPIES = <Number of Copies>: The number of copies desired

Any options specified in the Parameters field of Ship Via Report Maintenance follow the data path.

Chapter 13: WMS Inquiry

One of the most powerful features of the Warehouse Management System is the WMS Inquiry. This is invaluable to shipping managers and personnel who need to review the status of a shipment.

WMS Inquiry provides five views into the shipping system data. All views have a similar format with an expandable tree view on the left and detailed information on the right. Navigate among the available views by clicking View on the WMS Inquiry menu.

1. The PO/Order/Carton/Item view groups orders with the same customer and purchase order number. This is commonly used when customers send EDI orders with the same PO number for many stores. This view gives the shipping manager an overview of the entire PO.
2. The Order/Carton/Item view is used to see the cartons that have been packed for a specific order.
3. The Label/Pallet/Carton/Item view is used to determine what a specific UCC-128 label was used for. This is useful if a box is found in the warehouse with a label, but no one knows what it was packed for.
4. The Shipment/Pallet/Carton view is used to see all pallets and cartons that have been packed.
5. The Order/Shipment/Pallet/Carton/Item view is used to see all shipments for an order, including the pallets and cartons on each shipment.

WMS Inquiry can be accessed from anywhere within WMS by clicking the telescope button on the toolbar.



Inquiry by Order/Carton/Item

Click the order number in the tree to display summary line item information in the Order Details section of the screen. Click an item to display detailed information about that item.

The inquiry uses color to provide easy visual identification of an item's status. If an item number is displayed in blue, that item is under shipped or not fully packed. An item number displayed in red is currently over shipped. If an item number is displayed in black, it has been completely packed as ordered.

Appendix A: WMS and EDI Distribution Center Setup

This section describes the file settings that must be in place for WMS to correctly process distribution centers for Exact Macola ES store orders. When using parent/child relationships, all entries use the parent customer number.

DC Setup and the Customer Override File

If a customer override exists for the customer, the Distribution Center Qualifier field typically should be blank. If a value is entered in this field, WMS assumes that it can determine the distribution center from the EDI purchase order. Otherwise, WMS uses the Exact Macola ES A/R customer delivery address and EDI ship-to cross-references entries for the stores and distribution center to find the addresses and IDs to use when printing labels.

DC Setup and the A/R Customer Delivery Address

An A/R delivery address must exist for each store and each distribution center. For example, if customer KMAR001 has three stores and one distribution center, it must have four A/R alternate addresses, one for the DC (distribution center) and one for each store.

Delivery addresses work like alternate addresses in Progression SQL. You can use these addresses as alternate ship to addresses for O/E orders. Each delivery address is linked to an inventory location that can be different from the default location specified for the customer. You must define a unique contact on the Contact Persons tab for each unique delivery address.

1. In Exact Macola ES, on the A/R menu, under the Customers heading, click **Maintain**. This opens a browser showing a list of customer.
2. Select the customer to open and click **Open**. This opens the Maintain Customers screen.
3. Click the **Addresses** tab.
4. Click the **New** button to the right of the list box. The Type search screen opens.
5. Select Delivery and click the **Select** button. The Addresses screen opens.
6. Select the **Contact person** for the new Delivery address. Press the **F7** key or click the **Search** button to search for existing customer contacts.

Note: If a delivery address already exists for this contact, Exact Macola ES does not allow you to add a new address for the same contact. When you attempt to save the address, Exact Macola ES displays "Data already exists".

7. **Copy: Visit. Addr.:** This check box controls if the delivery address contains the same information as the main visit address. If you want to enter different street, city, and state information for the delivery address, clear the Copy: Visit. Addr. check box and continue to the next step. If you want the delivery address to match the information from the main visit address, select this check box and skip to step 14.
8. **Address 1, Address 2, Address 3** fields, enter the street address portion of the delivery address.
9. **City:** Enter the city of the address.

10. **State:** Enter the state of the address. Click the **Search** button, or press the **F7** key to search for existing states.
11. **Zip Code:** Enter the zip code for the address.
12. **Country:** Enter the Country for the address. Press the **F7** key, or click the **Search** button for existing countries.
13. **Phone/Fax:** Enter the phone and fax numbers for the address.
14. **Location:** Enter an inventory location to associate with this address.

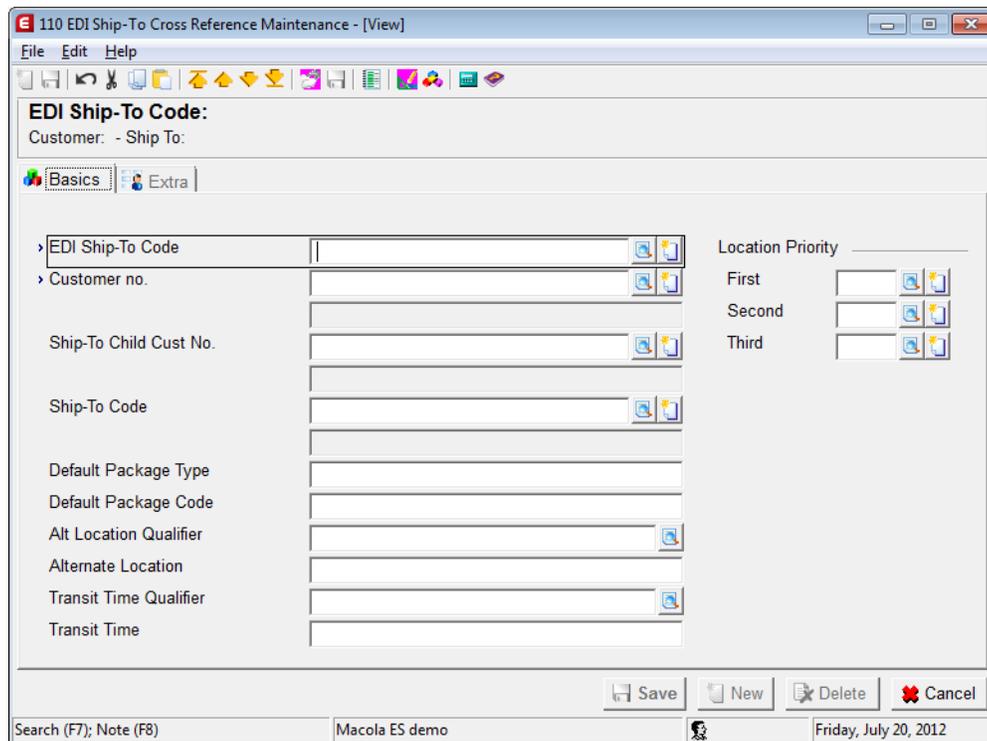
Exact Macola ES uses the inventory location entered here as the default shipping location when entering O/E orders for this customer to this address. You can change the default location when you enter orders in O/E.

For example, you have several branches or outlets for your products that are widely separated in distance, perhaps even in different states. When orders come in from a customer, they are usually filled from only one of these outlets. So, if you have two locations from which an item can be sold, one in Los Angeles and one in New York, and the customer is located in New York, the order is going to be filled from your New York warehouse. During the entry of the customer's order, whenever a stock item is being ordered, Exact Macola ES verifies that the item is actually stocked in the customer's ordering location and that there is sufficient stock of the item at that location to fill the order.

15. **Address Code:** Enter the Address Code for the address. This field is used to identify the address in the alternate address search screen. This can be the same code that the customer uses for the location, or a code that you assign. You may wish to include the Contact name in this code, as it allows users to determine existing contact delivery addresses from the search.
16. **FOB:** Enter the FOB code for the address. Press the **F7** key, or click the **Search** button to search for existing FOB codes.
17. **Ship Via:** Enter the Ship Via code for the address. Press the **F7** key, or click the **Search** button to search for existing Ship Via codes.
18. **UPS Zone:** If you ship to this address using UPS, enter the UPS Zone for the address.
19. **Tax Schedule or Tax Code:** You must enter either a Tax Schedule or a Tax Code for each delivery address. If you are using tax codes, you can enter up to three tax detail codes. Press the **F7** key, or click the **Search** button to search for existing tax schedules or tax detail codes.
20. **Salesperson Number:** Enter the Salesperson Number for the salesperson responsible for the customer account. Press the **F7** key, or click the **Search** button to search for existing salespeople.
21. Click **Save** to save the record. If you receive the message "Data already exists", then a delivery address already exists for the selected Contact. You can change the contact to one who does not have an associated delivery address, or return to the Addresses tab screen and edit the existing delivery address for the desired contact.

DC Setup and the EDI Ship-To Cross-Reference

The EDI ship-to cross-reference defines the relationship between the ID that a customer uses for a store or distribution center and the Exact Macola ES A/R customer delivery address ID for that location. It also defines the distribution center that services a store. An EDI ship-to cross-reference is required for each store and distribution center.



EDI Ship-To Cross-Reference

1. In Exact Macola ES, on the EDI & BC menu, under the Maintain heading, select Ship Via.
2. In the EDI Ship-To Code field, type the customer's ID for this location. This information is found in either the fourth element of the N1 segment or in the SDQ segment of the EDI purchase order.
3. Type the Exact Macola ES A/R customer number in the Customer No field. This must match the customer number specified in the EDI Trading Partner cross-reference.
4. If you have selected Each Store Mode=C in the EDI trading partner cross-reference, enter the Exact Macola ES A/R child customer number for this location in the Ship-To Child Cust No field. If you have selected Each Store Mode=N in the EDI trading partner cross-reference, this field is disabled.
5. In the Macola Ship-To Code field, type the Exact Macola ES A/R customer delivery address ID for this location.
6. In the Alt Location Qualifier field, type DB if this cross-reference is for a store. If this cross-reference is for a distribution center, leave this field blank.
7. In the Alternate Location field, type the distribution center number for this store. If this cross-reference is for a DC, leave this field blank.

When a label is printed for the store, WMS uses the alternate location listed in the store's EDI ship-to cross-reference to find the EDI ship-to cross-reference for the DC. Then, WMS uses the DC's EDI ship-to cross-reference to find the A/R customer delivery address entry for the DC so it can print the distribution center address in the ship to section of the label. WMS uses the individual store's address in the mark for section of the label, if required.

Appendix B: WMS File Maintenance

As orders and shipments are processed in WMS, data is written to various tables in the database. Over time, these tables can become large, degrading performance. Setting up a regular maintenance schedule to purge WMS related files can help prevent performance issues. As with any system maintenance, these steps should be performed only after completing and verifying a full system backup.

WMS Purge Utility

The WMS Purge Utility purges the following files:

- OEPCKHDR: WMS Pack Header
- OEPCKLIN: Pack Line
- OESHPTBS: Bin Serial Lot
- OESHPTCL: Carton
- OESHPTCW: Catch Weight
- OESHPTIL: Item
- OESHPTSL: Shipment Transaction Shipment
- OESHPTTL: Pallet
- SSEPNHDR: EPN header
- SSEPNLIN: EPN line file
- SSEPNORD: EPN order file
- SSEPNPACK: EPN Pack file
- SSEPNRCO: EPN recommendation file
- SSPACKLANE: EPN conveyor pack file (Not used at all sites; only those who use conveyor packing use this file)

Follow these steps to open the purge utility:

1. Open Exact Macola ES.
2. On the System menu, under the Utilities heading, select Distribution, WMS, Purge Utility Program.
3. **Purge Activity On and Before:** Enter a date.
4. Click the **Purge** button.

The data is purged based on the date you enter. If the date specified is less than one year old, a warning message is displayed asking you to verify that you want to purge the data. Once you purge, that historical data is lost and can be retrieved only by restoring it from a backup. You should never enter a date that would purge active shipments.

Manually Purging WMS Files

In addition to running the WMS purge utility, the OEBOLWRK table and VICS BOL table need to be purged periodically. These tables are not cleared by the WMS purge utility and must be manually initialized. To purge these tables, the following tables must be initialized in Microsoft SQL Enterprise Manager:

- OEBOLWRK: Bill of Lading Processing File
- EDVICSHD: VICs BOL Header File
- EDVICSL1: VICs BOL Sub 1
- EDVICSL2: VICs BOL Sub 2

Refer to the Microsoft SQL Enterprise Manager online Help for information about initializing tables.

In addition to manually purging the tables listed above, the WMS log files should periodically be deleted or archived to a backup disk. The log files are located in the Log directory in the WMS root.

- **wmsTrace.log**: contains information about WMS processing, including processing time
- **Err.log**: all error messages that occur during WMS processing are written to this file
- **RF transaction logs**: contain information about processes performed on RF guns. The log filename is the end of the IP address, with a .LOG extension.

Purging the EDI Barcode Holding Interface File

If you are using the Exact Macola ES EDI ASN sub-module and EDI Barcode Holding Interface sub-module, WMS writes shipment information to a table called EDBBCIFL. The ASN creation process can then access the data in this table to return shipment related information to the customer on the ASN. Over time, this table can become very large, degrading ASN creation performance. Although no purge function exists in Exact Macola ES EDI or WMS for maintenance of the EDBBCIFL EDI Barcode Interface file, it can be purged by initializing the table in System Manager.

Warning: You should have a full, verified system backup before completing these steps. All users must be out of ASN creation and WMS shipment completion when initializing the table. Therefore, it is recommended to perform this procedure after completing all shipments and sending all ASNs for the day.

1. Open Exact Macola ES.
2. On the System menu, under the Company heading, select Table List.
3. Find and select the edbbcifl_sql EDI Bar Code Interface File row in the table.
4. Click the **Delete All** button.

Note: If there are no records in the table, the **Delete All** button is not displayed.

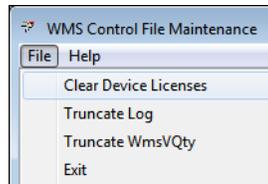
5. A message is displayed asking you to confirm that you want to delete the records. Click **Yes** to initialize the file.

You now have an empty EDBBCIFL table to be used to generate new ASNs. If you need to recreate an ASN, reopen the shipment in WMS, and then complete it again. The EDBBCIFL records for that shipment are recreated.

Clearing Device Licenses

Open the Control File Maintenance screen. To view device licenses, click Help on the WMS menu, and then click About. Click the Modules button. On the Registered Modules window, click the Devices Currently In Use tab to view the number of devices in use in addition to a list of the devices.

To clear the devices, click File on the WMS Control File Maintenance menu bar, and then click Clear Device Licenses. All devices are reset and reconnects when they next log in to WMS. If devices are logged in when you clear the devices licenses, they automatically reconnect with the next transaction that they perform.



Appendix C: Troubleshooting

This section describes how to resolve the most common problems that occur in WMS. If this section does not provide the solution to your problem, please contact your WMS support provider. Please note that the System Diagnostic Tool often helps your support technician assist you more effectively.

WMS Help/About Options

In addition to displaying the version of WMS installed, selecting Help and then clicking About on a WMS screen gives access to several advanced troubleshooting tools. These are typically used by support technicians to help you resolve problems.

WMS Help/About System Info

WMS System Info displays information about your system configuration that can be used to troubleshoot problems.

1. On any WMS program screen, select Help from the menu bar, and then click About.
2. Click System Info.
3. WMS displays the Microsoft System Info window, which can be used to determine your system configuration.

WMS Help/About Modules

The Modules button displays information about the WMS modules registered and the device licenses in use.

1. On any WMS program screen, select Help from the menu bar, and then click About.
2. Click Modules.
3. The Modules tab lists all WMS modules and whether they are registered in this installation.
4. The Devices Currently in Use tab displays the total number of WMS device licenses in use and the name of the device using each license. See Clearing Device Licenses for information about clearing the device licenses currently in use.

WMS Help/About Components

The Components button displays information about the program components used by WMS. This information can be used to verify that you have the correct version of each component installed, as well as where the file is located.

1. On any WMS program screen, select Help from the menu bar, and then click About.
2. Click Components.
3. WMS lists the path to each WMS component file, the version of the component found, and the version of the component expected.

WMS Help/About Diagnostic

The Diagnostic button creates a report that support technicians can use to troubleshoot a variety of problems.

1. On any WMS program screen, select Help from the menu bar, and then click About.
2. Click Diagnostic.

3. Specify a name for the diagnostic file and the location in which to save it.
4. WMS creates the diagnostic file, and then returns to the main WMS Help/About screen.

WMS Help/About On-Line Support

At times support technicians might need to remotely access your computer to resolve a problem you are having. WMS On-Line Support provides an easy way for them to do that using Webex remote access.

1. On any WMS program screen, select Help from the menu bar, and then click About.
2. Click On-Line Support.
3. Enter the meeting ID provided by the support technician working with you, and then click OK.

WMS Help/About Resolution

WMS checks a variety of Exact Macola ES files for item information. For example, if you enter an item's alternate ID when printing product labels, WMS checks the EDI item cross-reference, OE customer item entry, WMS bulk weight entry, and IM item master record to determine which type of item number you entered and find the relevant information about that item. The WMS Resolution utility allows support technicians to determine how the data you entered is being resolved, so they can pinpoint which setup needs to be corrected when troubleshooting a problem.

1. On any WMS program screen, select Help from the menu bar, and then click About.
2. Click Resolution.
3. WMS displays the resolution information about the processes you have been performing.
4. To clear the resolution information, click the Clear button. You can then perform the problem process again, and WMS displays only the resolution information about that individual process.

WMS EDI / ASN Diagnostic Report

WMS provides a diagnostic report designed to assist technical support in troubleshooting problems during ASN generation. The report generates a listing of the information being passed into Exact Macola ES from WMS. Providing this information allows your technical support provider to determine where the problem is occurring and provides information helpful in isolating the cause of the problem.

To print this report, select File from the WMS menu while in Pack Shipments or Pack Cartons. Click WMS EDI/ASN Diagnostic Report. Type the bill of lading number for the shipment that is not processing correctly. A report containing all interface records is printed to the screen. Either print the report or export it to a Microsoft Word file by clicking the Export toolbar button, and then selecting Word as the file type.

Post Pick Ticket Process Trace Tool

The post pick ticket process program can generate a trace file designed to assist technical support with troubleshooting problems with releasing orders, as well as tracking problems with distribution center processing. To generate a trace file, select the Help, Trace Mode option from post pick ticket processing before processing the order. Then process the

order normally. A file called WMSTrace.Log is created in the Exact Macola ES root directory.

WMS Update Utility

After updating Exact Macola ES, you must run the WMS Update Utility to determine if any files need to be converted.

1. Open Exact Macola ES.
2. On the System menu, under the Utilities heading, select General, WMS File Utilities.
3. Click the **Start Update Process** button.
4. WMS validates the WMS data directory and each individual file.
5. WMS validates each file and rebuild any that need to be rebuilt.
6. When complete, a log of what WMS has done is displayed.

Note: If necessary, you can also set the WMS root on this screen by clicking the Set WMS Root button. Browse to the Exact Macola ES WMS root directory, and then click Open.

Troubleshooting FAQ

The following section discusses a number of common setup problems and the resolutions for them.

Error 429 or 339 when running WMS program from Exact Macola ES menu

On some workstations, I am receiving an error 429 or 339 when I run a WMS program from the Exact Macola ES menu.

The WMS programs are external to Exact Macola ES and require a number of Windows controls that are not used by Exact Macola ES to be registered. The workstation setup program must be run on any workstation that is going to run WMS. Running the workstation install should update your Windows controls and allow the workstation to execute the WMS programs. See your installation or upgrade manual for information about the workstation setup program.

WMS program appears to hang at splash screen

When I run the main WMS program, the splash screen is displayed and the program appears to hang.

WMS may have displayed an error message that is being completely hidden by the splash screen. To determine if this is the case, modify the properties of the WMS desktop shortcut. At the end of the current command in the Target field, add /NOSPLASH. This instructs WMS not to display the splash screen at startup. If an error is being displayed, you will be able to see it. Once the error is corrected, the program should begin to launch correctly.

Using BarTender, some carton labels print multiple copies

I am using the BarTender interface and when I print a carton label for a specific format, I get multiple copies.

When the BarTender label format is created the number of copies can be specified in print options. Use the full version of BarTender to open the format and change the number of copies. Then save the format. This should correct this problem.

Department number missing from label

When I print the label, the department number is missing.

WMS uses the EDI capture file (EDCCAPFL) to determine if the department number was sent in a REF segment. By selecting Use as Dept Qualifier in the Customer Override File Department field and specifying a qualifier value of DP, WMS searches the EDI capture file for a matching REF segment and return the associated department number on the label.

The PO number on the O/E order must match the PO number in the EDI capture file. If the PO number on the order was changed, WMS cannot find the corresponding entry in the EDI capture file. If the EDI capture file was purged or initialized after the O/E order was created, WMS cannot find the department number.

If the department number is a constant value for the customer, Use as Fixed Dept can be activated in the customer override. The value specified in the department number field is used when printing the label.

If the setups above have been verified and the department number still does not print, check External Label Maintenance to confirm that the Department Number field is shared with BarTender. The share name in the label configuration is DEPT_NUMBER.

Error #3021

ERROR #3021 EITHER BOF OR EOF IS TRUE, OR THE CURRENT RECORD HAS BEEN DELETED. REQUESTED OPERATION REQUIRES A CURRENT
OEWMSCTLW_C_PV_IMMED_AB SOURCELINE#20075

The WMS File Update needs to be run. Open Exact Macola ES, click the System menu, under the Utilities heading, select General, WMS File Utilities. Click the **Start Update** button to update the WMS files.

Error #53 file not found

This error is returned if the value in the WMS control file the ODB Generations field is lower than the number of the ODB file the system is trying to create. Creating the file would exceed the number of ODB files that you have specified be saved. To correct this problem, increase the value in the ODB Generations field. The maximum value for this field is 999. Specifying a number higher than 999 in the WMS control file results in an Error 6 Overflow.

Error #88 Incompatible mode

I get an error 88 Incompatible mode after clicking Start Update Process in WMS File Utility.

WMS has encountered a lock by a workstation or by a gun. Make sure everyone is logged out, including RF guns and workstations. This is not a registration error.

Error cannot connect to Macola database

When I try to log in to WMS, I get a Cannot Connect to Macola Database error.

Verify that your user name and password are set up in WMS Security Maintenance and that your user has been granted access to the WMS functions.

Error exceeded allowable licenses

I am running the WMS Device Registration, and I now get an error that we have exceeded our allowable licenses. We cannot determine what devices are consuming the registration. How can I tell what devices are running?

Open the Control File Maintenance screen. To view device licenses, click Help on the WMS menu, and then click About. Click the Modules button. On the Registered Modules window, click the Devices Currently In Use tab to view the number of devices in use in addition to a list of the devices.

To clear the devices, click File on the WMS Control File Maintenance menu bar, and then click Clear Device Licenses. All devices are reset and reconnects when they next log in to WMS. If devices are logged in when you clear the devices licenses, they automatically reconnect with the next transaction that they perform.

Error Invalid File Name 20507

I get an Invalid File Name 20507 error when printing the BOL.

This message indicates a problem with the ship via reports record for this shipment. WMS is trying to print a Crystal Report or VB program and cannot find it. Verify the report name, parameters path, and that the report is located in the \wmsroot\CRW directory. Check these for both the customer specific report and the default report for the carrier listed on shipment in WMS.

If the customer is Wal-Mart, the parameters path must be set as Parameters = /R=BOL_WALM /B= 5,5,19,19.

Runtime error 374

I just upgraded WMS. When I try to start WMS now, I get a runtime error 374 Failed to activate control 'VB.Usercontrol'.

The SQLBX.OCX file is missing from the Bin directory on the workstation. Search the workstation for SQLBX.OCX. More than one copy of the file might exist on the computer. Copy the SQLBX.OCX to the Bin directory, and then register it. Depending on the version of Windows installed on the workstation, it might also be necessary to reboot after registering the OCX file.

Weight calculation mis-match

The weight calculation in WMS does not seem to match the weight on the O/E order.

The weight in Order Entry is calculated using the item weight that was in Item Master at the time that the order was created. This is true for both manually entered orders and orders integrated by the EDI module.

The weight in WMS is calculated using the item weight listed in Item Master at the time that the shipment is completed. If the item weight is changed in I/M after the order is created but before the shipment is completed, WMS uses the new item weight.

ASNs created by the EDI module can return either the O/E order weight or the weight calculated by WMS, depending on whether the ASN format is designed to pull the weight from the O/E header file or from the EDI Barcode Holding file. The bulk weight cross-reference Pack Weight and Tare Weight fields are not used by ASN formats. If the correct weight is calculated in WMS but not returned on the ASN, please contact EDI support for assistance.

Error action cannot be completed

I get an error that the action cannot be completed because other application is busy.

WMS returns this error because BarTender has generated an error; however, the BarTender error message window is not visible on the screen. To make the BarTender error visible, edit the properties of the WMS startup icon and add /btvisible to the command line for wms100.exe. This allows you to toggle and see the BarTender message so you can

troubleshoot the problem with that application. Contact Seagull Scientific support at 425-641-1408 for assistance with correcting the BarTender error.

BOL# not found OEBOLWRK message

WMS BOL# not found OEBOLWRK message during a WMS Inquiry

This error is returned if the pallet does not show as attached to the shipment in the shipment/pallet/carton view in WMS Inquiry. To correct this error, initialize the OEBOLWRK file. This is a work file and no loss of data occurs.

WMS Error 11_0012- 01

When a given order and carton number are entered by the user, WMS validates that the order and carton number exist. Error 11_0012-01 "Order Number is not Authorized to Ship" is returned when there is no carton that exists for that order, or no such order exists in that carton.

You can also get this error if you fail to run the WMS post pick ticket process.

WMS Error No DDF Location Specified

The WMS .INI file is in a directory with a name longer than eight characters. The WMS Inquiry does not support long file names. Place the .INI file in a directory with a name that has eight or fewer characters, with no spaces. Right-click the WMS desktop icon and select Properties. Change the command line path to the new location of the .INI file by adding /ini=<file path>.

After purge, EDBBCIFL file still large

I ran the WMS Purge Utility, but my EDBBCIFL file is still large.

The EDBBCIFL EDI Bar Code Interface file is not purged by this process. Use the steps in WMS File Maintenance to purge the EDBBCIFL file.

Appendix D: EDI File Usage

This section indicates the file and field usage of the Exact Macola ES EDI module when used with WMS. Any field not mentioned is not used by WMS and should be set according to the Exact Macola ES EDI user manual.

ASN Bulk Weight Cross-Reference

WMS uses this file to determine the items per pack in autopack mode, as follows:

1. Pick ticket is printed for the item.
2. If an EDI item cross-reference record exists for the customer and item being processed, and the Package Code field is populated, the item level record for this item-package code combination is used to determine the items per pack.
3. Otherwise, the default package code is used to determine the items per pack.

WMS uses this file to allow scanning and cross-referencing of any type of code to a Exact Macola ES item number.

4. Populate the Alternate Item Number field with the code to be cross-referenced.
 - UPC
 - UCC-14 (I-205)
5. Populate the Alternate Item Qualifier field to indicate what type of code is being used.
 - UP = UPC
 - UC = UCC-14 (I-205)

ASN Package Code Cross-Reference

At least one "S" package code type record must be specified.

- CTN25 = cardboard box
- PLT94 = wooden pallet

The most common "S" record should be set as default.

At least one "I" package code type record must be specified to use the ASN bulk weight cross-reference.

If using auto-pack, one "I" package code type record must be set as default.

EDI Item Cross-Reference

If a Packaging Code is specified, the post pick ticket processing program uses it in auto-pack mode to find the bulk weight file record to use in determining the quantity per pack.

For all other fields, refer to the EDFORMAT.TXT file included on the Exact Macola ES EDI Trading Partner CD.

EDI Misc Charge Code Cross-Reference

Refer to the EDFORMAT.TXT file included on the Exact Macola ES EDI Trading Partner CD.

EDI Setup File

1 ASN/Order?: This check box should be cleared

1 ASN/BOL: This check box should be selected

ASN Module: This check box must be selected (This is controlled by a Exact Macola ES EDI registration file)

Bar Code Holding File?: This check box must be selected (This is controlled by a Exact Macola ES EDI registration file.)

EDI Ship-To Cross-Reference

For detailed information about distribution center settings, see “Appendix A: WMS and EDI Distribution Center Setup” on page 171.

To associate a distribution center with a store:

1. Create an EDI ship-to cross-reference for the store:
 - a. Type the trading partner’s code for the store in the EDI Ship-To Code field.
 - b. Type the Exact Macola ES A/R customer ID in the Cust No field.
 - c. Type the Exact Macola ES A/R customer delivery address ID for the store in the Macola Ship-To Code field.
 - d. Type DB in the Alt Location Qualifier field.
 - e. Type the trading partner’s code for the distribution center in the Alternate Location field.
 - f. For all other fields, refer to the EDFORMAT.TXT file included on the Exact Macola ES EDI Trading Partner CD.
2. Create an EDI ship-to cross-reference for the D/C:
 - a. Type the trading partner’s code for the distribution center in the EDI Ship-To Code field.
 - b. Type the Exact Macola ES A/R customer ID in the Cust No field.
 - c. Type the Exact Macola ES A/R customer delivery address for the D/C in the Macola Ship-To Code field.
 - d. For all other fields, refer to the EDFORMAT.TXT file included on the Exact Macola ES EDI Trading Partner CD.

EDI Ship Via Cross-Reference

Refer to the EDFORMAT.TXT file included on the Exact Macola ES EDI Trading Partner CD.

EDI Trading Partner Cross-Reference

WMS uses the 856 check box to determine if it needs to write to the EDI Bar Code Holding interface file for ASN creation.

On the Outbound Options tab, Ship To Distribution Center should be activated.

For all other fields, refer to the EDFORMAT.TXT file included on the Exact Macola ES EDI Trading Partner CD.

Appendix E: Program and Command Line Options

This section documents the programs that comprise the Warehouse Management System. Some of the programs have command line switches that you can use to change the operation of the program.

File Utilities (Initialize, Import, Export)

Program Details

Name: wms605.exe

Standard Installation Location: \ExactSoftware\Bin

Command Line Options

/MOD= <Mode>: Set program mode to INITIALIZE, IMPORT, EXPORT

PO Vendor Bar Code Definition

Program Details

Name: wms373.exe

Standard Installation Location: \ExactSoftware\Bin

Command Line Options

none

PO Vendor Item Override File Maintenance

Program Details

Name: wms377.exe

Standard Installation Location: \ExactSoftware\Bin

Command Line Options

none

PO Vendor Override

Program Details

Name: wms372.exe

Standard Installation Location: \ExactSoftware\Bin

Command Line Options

none

Post Purchase Order Print Processing

Program Details

Name: wms375.exe

Standard Installation Location: \ExactSoftware\Bin

Command Line Options

none

VICS Preprocess Program

Program Details

Name: wms224.exe

Standard Installation Location: \ExactSoftware\Bin

Command Line Options

/BOL= <Bol Number>: Bill of lading (shipment) number to print

/COPIES= <Number of Copies>: The number of copies to print

/PRINTER= <Printer Name>: The printer to print the report to

/DATAPATH= <Path to Data>: The path to the Exact Macola ES database (no DDF attached)

/SQL: Connect to Exact Macola ES SQL database

/DATABASE= <SQL Database Name>: The name of the Exact Macola ES SQL database

/SERVER= <SQL Server Name>: The name of the Exact Macola ES SQL database server

/USER= <SQL UserName>: The user name to log in to the Exact Macola ES SQL database

/PASS= <SQL Password>: The password to log in to the Exact Macola ES SQL database

/R= <ReportName>: Name of the Crystal Report to run (Optional; if blank assumes BOL_VICS)

/B= <W,X,Y,Z>: Line count for sections; W = Customer order first page, X = Customer order other pages, Y = Class order first page, Z = Class order other pages.

/S: Save the data in the VICS work files when completed (used for assisting in modifying the reports)

WMS Attached Workstation and RF Server Program

Program Details

Name: wms100.exe

Standard Installation Location: \ExactSoftware\Bin

Command Line Options

/SERVER: Start program in server mode

/INI= <path>: Uses specified .INI file in place of WMS.INI

/NOSPLASH: Don't display the startup splash screen.

/LITE: Force execution of the Pack Verify Only mode

/USER= <UserName>: Ignored unless /SERVER is specified.

/PASSWORD= <Password>: Ignored unless /SERVER is specified.

/BTVISIBLE: If BarTender interface is active, load BarTender as a visible application instead of as a hidden process.

WMS Bill of Lading Type Maintenance

Program Details

Name: wms162.exe

Standard Installation Location: \ExactSoftware\Bin

Command Line Options

none

WMS Bulk Weight Maintenance

Program Details

Name: wms151.exe

Standard Installation Location: \ExactSoftware\Bin

Command Line Options

none

WMS Control File Maintenance

Program Details

Name: wms161.exe

Standard Installation Location: \ExactSoftware\Bin

Command Line Options

none

WMS Customer Override Maintenance

Program Details

Name: wms163.exe

Standard Installation Location: \ExactSoftware\Bin

Command Line Options

none

WMS External Label Tools

Program Details

Name: wms604.exe

Standard Installation Location: \ExactSoftware\Bin

Command Line Options

none

WMS Inquiry

Program Details

Name: wms220.exe

Standard Installation Location: \ExactSoftware\Bin

Command Line Options

/Wxxx: Warehouse location

/U<UserName>: Force a user name

/INI<Explicit Path>: Uses specified .INI file in place of SASERVER.INI

WMS Package Code Maintenance

Program Details

Name: wms150.exe

Standard Installation Location: \ExactSoftware\Bin

Command Line Options

none

WMS Post Pick Ticket Processing Program

Program Details

Name: wms602.exe

Standard Installation Location: \ExactSoftware\Bin

Command Line Options

/TRACE: Forces WMS into Trace mode without requiring the user to select from the Help menu

/REPRINT: Start program in reprint mode

/CLOSE: Start program in Close WMS Orders mode

/ON: Print labels using BarTender from Seagull Scientific

/eltroncharshift: Used with legacy Eltron Direct Printing on windows workstations that cut the first character off when printing to a generic text printer

/PATH <path>: Location of BarTender formats

/INI= <path>: Location of .INI containing format of case packs and default label printer

/btvisible: Force BarTender to be visible

The following command options are used to automate the release of orders from another application:

/noprompt: Run without putting up starting prompt screen

/rerelease: Select the re-release check box

/from=: From order number

/to=: To order number

/loc=: Set location

WMS Purge Utility

Program Details

Name: wms426.exe

Standard Installation Location: \ExactSoftware\Bin

Command Line Options

none

WMS Security Maintenance

Program Details

Name: wms168.exe

Standard Installation Location: \ExactSoftware\Bin

Command Line Options

none

WMS Ship Via Reports Maintenance

Program Details

Name: wms167.exe

Standard Installation Location: \ExactSoftware\Bin

Command Line Options

none

WMS Workstation Configuration Utility

Program Details

Name: wmscfg.exe

Standard Installation Location: \ExactSoftware\Bin

Command Line Options

none

Appendix F: Function Key Usage

WMS uses function keys consistently throughout the warehouse transaction entry functions. The following defines each function key.

- F1 - Help
- F2 - New
- F3 - Launch Inquiry
- F4 - Enter Multiplier
- F5 - Add/Remove Mode Toggle
- F6 - Secondary Mode Toggle (Receipt Entry, toggles Accept / Reject Mode)
- F7 - RF Verify
- F8 - Reprint Label
- F9 - Exit
- F10 - Next Unprocessed Item (RF devices only)
- F11 - Verify / Complete Order (attached workstations only)
- F12 - Verify / Complete Shipment (attached workstations only)

Note: RF guns do not support function keys beyond F10.

Appendix G: External Label Field List

This section lists the fields that are available to print on shipping labels. The BarTender field name must be used as the share name in BarTender for WMS to correctly print the label.

Table 1: External Label Field List

Field Name	BarTender Field Name
Bill of Lading Number	BILL_OF_LADING
Order Type	ORDER_TYPE
Order Number	ORDER_NUMBER
P/O Number	PO_NUMBER
Pro Number	PRO_NUMBER
Department Number	DEPT_NUMBER
Carrier	CARRIER
UCC-128 Bar Code	UCC128_BAR_CODE
UCC-128 Bar Code Display	UCC128_DISPLAY
Warehouse Name	WAREHOUSE_NAME
Warehouse Address 1	WAREHOUSE_ADDRESS_1
Warehouse Address 2	WAREHOUSE_ADDRESS_2
Warehouse City	WAREHOUSE_CITY
Warehouse State	WAREHOUSE_STATE
Warehouse Zip Code	WAREHOUSE_ZIP_CODE
Warehouse Country	WAREHOUSE_COUNTRY
Bill To Name	BILL_TO_NAME
Bill To Address 1	BILL_TO_ADDRESS_1
Bill To Address 2	BILL_TO_ADDRESS_2
Bill To City	BILL_TO_CITY
Bill To State	BILL_TO_STATE
Bill To Zip 10	BILL_TO_ZIP
Bill To Zip 5	BILL_TO_ZIP_5
Bill To Country	BILL_TO_COUNTRY
Ship To Name	SHIP_TO_NAME
Ship To Address 1	SHIP_TO_ADDRESS_1
Ship To Address 2	SHIP_TO_ADDRESS_2

Table 1: External Label Field List

Field Name	BarTender Field Name
Ship To City	SHIP_TO_CITY
Ship To State	SHIP_TO_STATE
Ship To Zip 10	SHIP_TO_ZIP
Ship To Zip 5	SHIP_TO_ZIP_5
Ship To Country	SHIP_TO_COUNTRY
Ship To Number	SHIP_TO_NUMBER
Mark For Name	MARK_FOR_NAME
Mark For Address 1	MARK_FOR_ADDRESS_1
Mark For Address 2	MARK_FOR_ADDRESS_2
Mark For City	MARK_FOR_CITY
Mark For State	MARK_FOR_STATE
Mark For Zip 10	MARK_FOR_ZIP
Mark For Zip 5	MARK_FOR_ZIP_5
Mark For Country	MARK_FOR_COUNTRY
Mark For Number	MARK_FOR_NUMBER
Case Pack	CASE_PACK
Item Number	ITEM_NUMBER
Item Description 1	ITEM_DESC_1
Item Description 2	ITEM_DESC_2
Customer Item Number	CUST_ITEM_NUMBER
UPC	UPC
Order Carton Number	ORDER_CART_NUMBER
O/E Customer Item UDF 1	CUST_ITEM_UDF_1
O/E Customer Item UDF 2	CUST_ITEM_UDF_2
O/E Customer Item UDF 3	CUST_ITEM_UDF_3
O/E Customer Item UDF 4	CUST_ITEM_UDF_4
O/E Customer Item UDF 5	CUST_ITEM_UDF_5
Parent Customer Number	PARENT_CUSTOMER
Parent Customer File UDF 1	PARENT_CUST_UDF_1
Parent Customer File UDF 2	PARENT_CUST_UDF_2
Parent Customer File UDF 3	PARENT_CUST_UDF_3

Table 1: External Label Field List

Field Name	BarTender Field Name
Parent Customer File UDF 4	PARENT_CUST_UDF_4
Parent Customer File UDF 5	PARENT_CUST_UDF_5
Parent Customer File Note 1	PARENT_CUST_NOTE_1
Parent Customer File Note 2	PARENT_CUST_NOTE_2
Parent Customer File Note 3	PARENT_CUST_NOTE_3
Parent Customer File Note 4	PARENT_CUST_NOTE_4
Parent Customer File Note 5	PARENT_CUST_NOTE_5
Child Customer Number	CHILD_CUSTOMER
Child Customer File UDF 1	CHILD_CUST_UDF_1
Child Customer File UDF 2	CHILD_CUST_UDF_2
Child Customer File UDF 3	CHILD_CUST_UDF_3
Child Customer File UDF 4	CHILD_CUST_UDF_4
Child Customer File UDF 5	CHILD_CUST_UDF_5
Child Customer File Note 1	CHILD_CUST_NOTE_1
Child Customer File Note 2	CHILD_CUST_NOTE_2
Child Customer File Note 3	CHILD_CUST_NOTE_3
Child Customer File Note 4	CHILD_CUST_NOTE_4
Child Customer File Note 5	CHILD_CUST_NOTE_5
Ship To A/R Alt Address UDF 1	S2_ALT_ADR_UDF_1
Ship To A/R Alt Address UDF 2	S2_ALT_ADR_UDF_2
Ship To A/R Alt Address UDF 3	S2_ALT_ADR_UDF_3
Ship To A/R Alt Address UDF 4	S2_ALT_ADR_UDF_4
Ship To A/R Alt Address UDF 5	S2_ALT_ADR_UDF_5
Mark For A/R Alt Address UDF 1	M4_ALT_ADR_UDF_1
Mark For A/R Alt Address UDF 2	M4_ALT_ADR_UDF_2
Mark For A/R Alt Address UDF 3	M4_ALT_ADR_UDF_3
Mark For A/R Alt Address UDF 4	M4_ALT_ADR_UDF_4
Mark For A/R Alt Address UDF 5	M4_ALT_ADR_UDF_5
Order Header UDF 1	ORDER_HDR_UDF_1
Order Header UDF 2	ORDER_HDR_UDF_2
Order Header UDF 3	ORDER_HDR_UDF_3

Table 1: External Label Field List

Field Name	BarTender Field Name
Order Header UDF 4	ORDER_HDR_UDF_4
Order Header UDF 5	ORDER_HDR_UDF_5
Line Item UDF 1	ORDER_LINE_UDF_1
Line Item UDF 2	ORDER_LINE_UDF_2
Line Item UDF 3	ORDER_LINE_UDF_3
Line Item UDF 4	ORDER_LINE_UDF_4
Line Item UDF 5	ORDER_LINE_UDF_5
Exact Macola ES Ship To Number	MAC_SHIP_TO_NUM
Exact Macola ES Mark For Number	MAC_MARK_FOR_NUM
Order Carton Total	Order_Carton_Total
Serial / Lot Number	SERIAL_LOT_NUMBER
Expiration Date	SL_EXPIRATION_DATE

Appendix H: Wavelink Setup

Wavelink must be run as an application. However, when first installed it is setup to run as a service. Follow these steps to disable the Wavelink service:

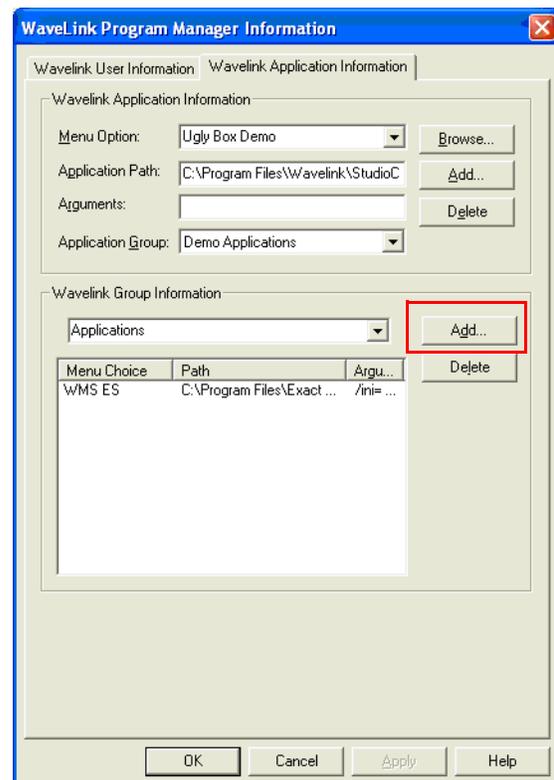
1. Browse to the Control Panel, Administrative Tools, and Services.
2. Double-click Wavelink Network Server, and then click Stop Service.
3. Select Disabled in the Startup Type field.
4. Click Apply.
5. Double-click Wavelink Server Startup Service, and then repeat the steps above.

Add Wavelink Server to the Startup Menu

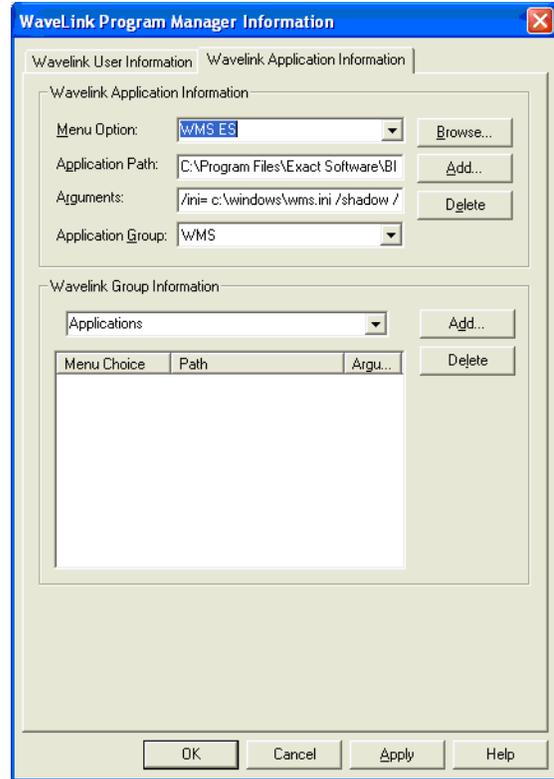
1. Click Start on the Windows desktop, and then choose Programs, Wavelink Studio, and Wavelink Studio Server. Right-click Wavelink Studio Server and select Copy.
2. Browse to Windows Explorer, Documents and Settings, All Users, Start Menu, Programs, Startup. Paste the Wavelink Studio Server shortcut in the Startup directory.

Add Menus to Wavelink Studio for WMS

1. Browse to Start, Programs, Wavelink Studio, and then click Wavelink Studio Administrator.
2. Click the Utilities Menu and choose Program Manager Administrator.
3. Click the Wavelink Applications Information tab.
4. Type Applications in the Wavelink Group Information field, and then click the **Add** button next to it.
5. **Menu Option:** Type WMS System.
6. **Applications Path:** Type the path to the WMSRFC.exe.
7. **Arguments:** Type the path to the WMS.INI. For example:
/ini= c:\windows\WMS.ini.

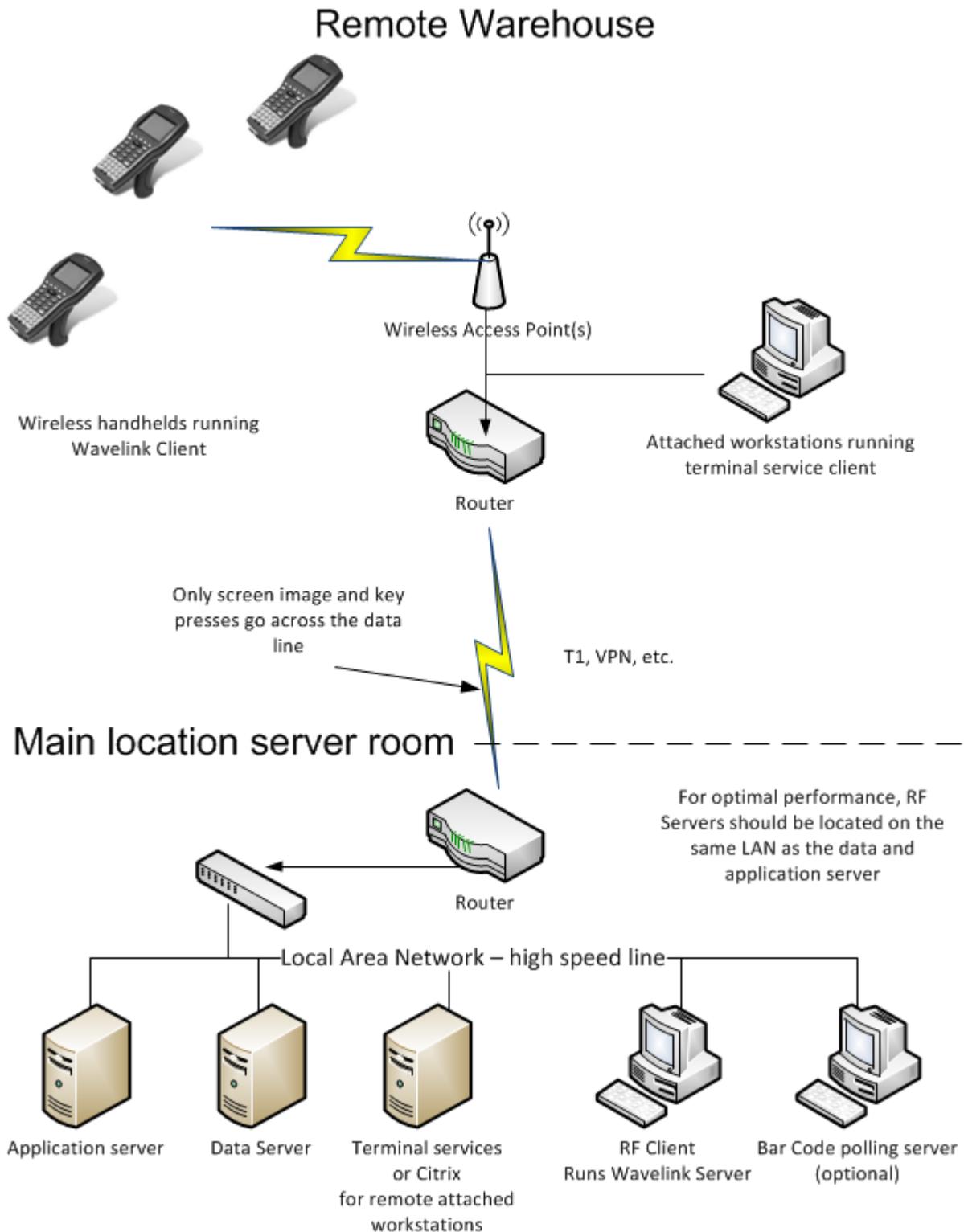


8. **Application Group:** Choose Applications from the list.
9. If WMS.INI is not located in the Windows directory of the local drive on the Wavelink server, specify the correct location.
10. Click **Add**.
11. Click the Wavelink User Information tab.
12. **Current Wavelink User:** Type the user name and then click Add. This can be the same as the user name that is setup in the WMS Security File.
13. Click the **Password** button.
14. **Old Password:** Enter the old password.
15. **New Password** and **Confirm Password:** Enter the new password and enter it again for confirmation. This can be the same password as in the WMS Security File. If the user name and password are the same, type the value into all three fields.
16. Click **OK**.



17. On the Wavelink User Information tab, click Applications under the Wavelink Application Groups, and then click the >> button to add it.
18. Click **Apply** and then click **OK**.

Appendix I: Remote Warehouse Hardware Diagram



Appendix J: Using BarTender Label Share Names

WMS uses the table name and field name as the BarTender share name for the label, using the format `tablename.fieldname`. Both the table and field name must be lower case and should be identical to the table and field name in SQL Enterprise Manager. For example, if you needed to print the purchase order number on a P/O product label, the share name would be `poordhdr_sql.ord_no`.

Labels can access fields in the following tables.

Exact Macola ES Table	SQL Table Name
AP Vendor File	cicmpy
ASN Bulk Weight File	edablkfl_bw
EDI Item Cross-Reference File	edcitmfl_sql
IM Item Category File	imcatfil_sql
IM Inventory Location File	iminvloc_sql
IM Item Master File	imitmidx_sql
IM Item Location File	imlocfil_sql
IM Serial/Lot Master File	imlsmst_sql
OE Customer Item File	oecusitm_sql
OE Order Header History File	oehdrhst_sql
OE Order Line History File	oelinhst_sql
OE Order Header File	oeordhdr_sql
OE Order Line File	oeordlin_sql
PO Order Header File	poordhdr_sql
PO Order Line File	poordlin_sql
POP Order File	ppordfil_sql
SFC Order File	sfordfil_sql
System Code File	sycdefil_sql

Please note that fields are accessible only when they are applicable to the process during which the label is printed. For example, if you are printing product labels while processing a receipt in SFC, the label does not access information from the PO order header table.

Label References

Row References

A transaction can contain multiple occurrences of certain types of information. For example, when receiving, an item can list multiple serial or lot numbers. Row references allow

you to specify which occurrence to print on the label. The following row references are available for WMS labels.

Row Reference	Exact Macola ES Data
row.ord_no	Order number
row.item_no	Item number
row.bin_no	Bin number
row.ser_lot_no	Serial/lot number
row.qty	Quantity
row.lot_exp	Lot expiration date
Row.mfg_serlot	Manufacturer's serial/lot number

When using a row reference on a label, you must specify not only the share name but also the occurrence you want to include. This positional reference is separated from the share name with a pipe character, such as row.ser_lot_no|1. To include the first three serial/lot numbers for an item on the label, for example, you would include the following row references:

- row.ser_lot_no|1
- row.ser_lot_no|2
- row.ser_lot_no|3

Calculated References

In some cases, it is necessary to include a calculated value on a label, such as the total number of cartons. WMS includes a number of calculated references to enable you to include this information on labels. These calculated references not only perform mathematical calculations like the total quantity or number of cases, but can also be used to print information such as the system date, system time, or case pack associated with the transaction.

Share Name	Calculated Value	Available For
calc.tot_qty	Total quantity	All labels
calc.date	System date	All labels
calc.timeampm	System time in format HH:MM AM/PM. Example: 10:23 AM	All labels
calc.time	System time in format HH:MM:SS. Example: 23:24:00	All labels
calc.number_of_cases	Number of cases	PO putaway labels
calc.case_pack	Case pack	PO putaway labels
calc.dock	Dock	PO putaway labels

Share Name	Calculated Value	Available For
calc.primary_bin	Primary bin	PO putaway labels
calc.secondary_bin	Secondary bin	PO putaway labels

Label Directives

Label directives provide additional instructions to the label generation process. To include a label directive when designing the label in BarTender, add a text object with the share name LabelDirectives outside the label's printable area. Enter the specific label directive, such as ForceMinLabelQty, in the Screen Data field. To include multiple label directives, separate each with a pipe, such as RowSort= ser_lot_no|ForceMinLabelQty.

RowSort Label Directive

The RowSort label directive is used to sort the rows that are available in the transaction and affects the order in which rows are used by row references on the label. To sort a row, specify RowSort for the label directive, and then list the row to be sorted. For example, to sort the bin number rows, you would specify RowSort=bin_no in the Screen Data field. Multiple data rows can be sorted by separating the rows with a commas, such as RowSort=bin_no,ser_lot_no, which would sort both the bin number and serial/lot number rows.

Note: Only fields that are available as row references can be sorted using the RowSort label directive.

ForceMinLabelQty Label Directive

The ForceMinLabelQty label directive forces WMS to print as many labels as there are rows of data. For example, if an item with three serial numbers is received, the user can choose to print only one label. A label would be printed for the first serial number, but not the other two. This can result in insufficient labels being printed for the transaction. If the label is designed with the ForceMinLabelQty label directive, however, WMS automatically prints three labels, one for each serial number. Using the ForceMinLabelQty label directive ensures that enough labels are printed for the product being processed.

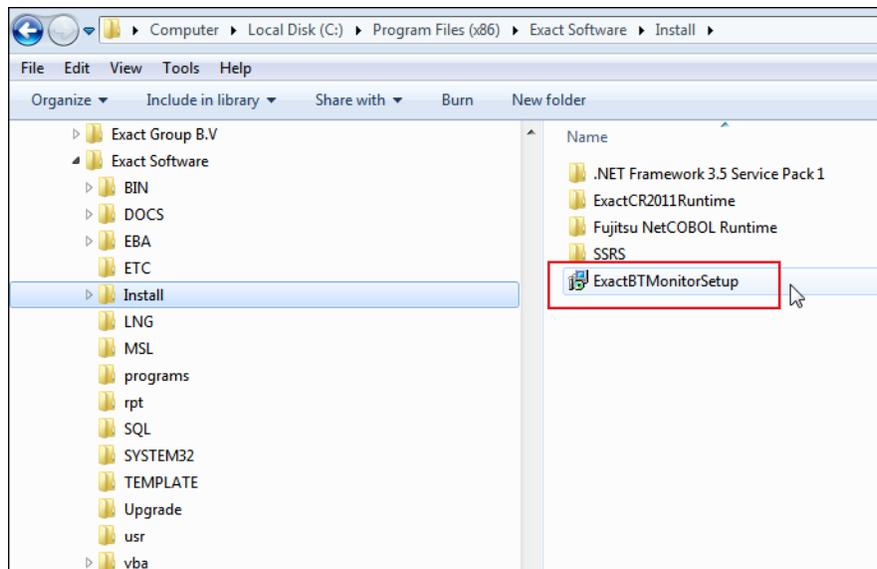
Appendix K: Installing the Exact Bartender Monitor Service

There is a new Windows service that can be installed that will stop a running Bartender service any time WMS or a WMS function is abnormally closed. This helps system performance by keeping multiple Bartender services from running. WMS does this through a Windows Service called "ExactBTMonitor". This is a service that you should install on the Wavelink server, so that it can stop Bartender services if an RF handheld device signal gets dropped or is abnormally stopped.

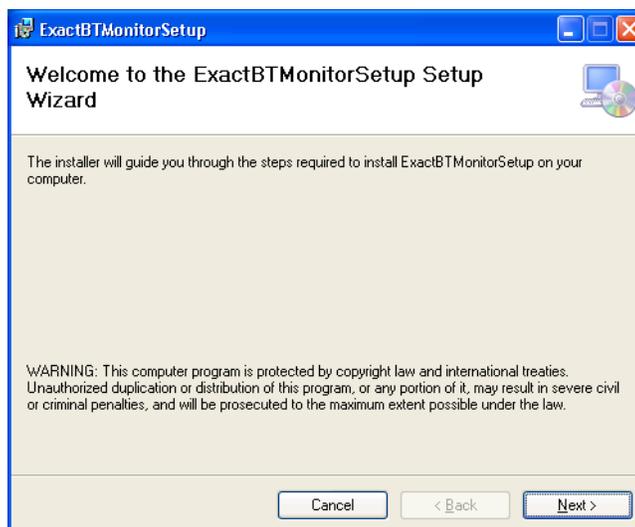
Complete the following procedure to install the Exact Bartender Monitor Service.

Note: You should run the Exact Bartender Monitor Setup as an administrator user.

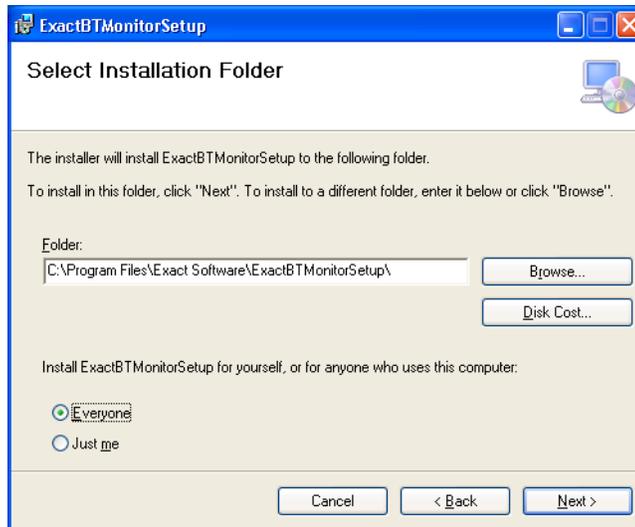
1. Using Windows Explorer, browse to the \Exact Software\Install folder.



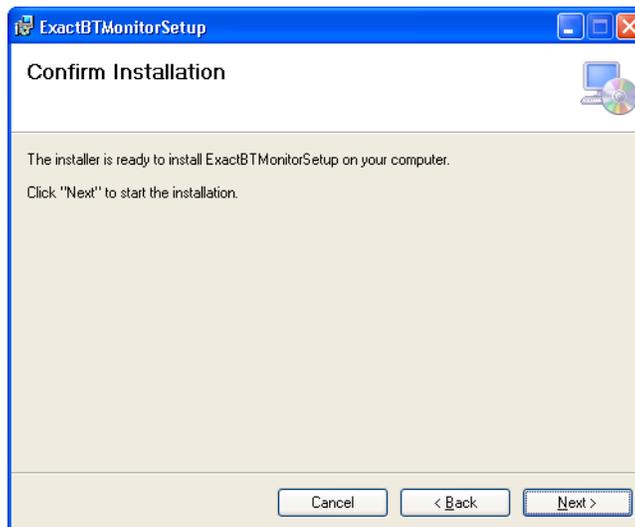
2. Double-click the file called ExactBTMonitorSetup.msi. This starts the ExactBTMonitorSetup wizard.



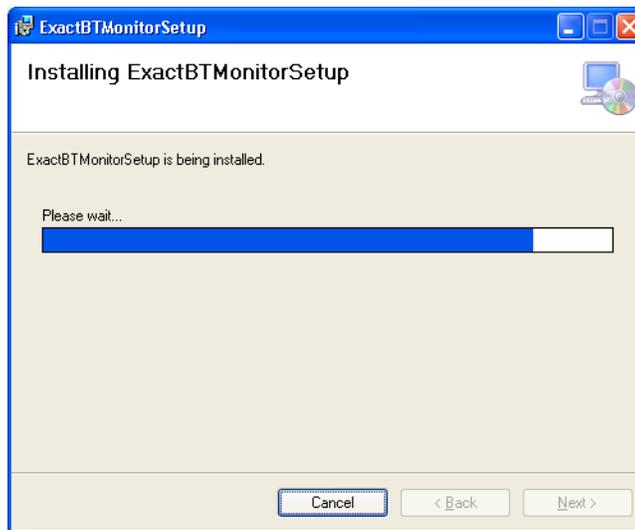
3. Click **Next**.
4. Enter an installation Folder for the Exact Bartender Monitor Service. By default, the folder is a new folder under the Exact Software folder: “\Exact Software\ExactBT-MonitorSetup”. For Windows XP, this is the “C:\Program Files” folder. For Windows 7 and Windows 8, this is the “C:\Program Files (x86)” folder.
5. There is an option to install the Exact Bartender Monitor Service for your computer profile and login only or to install it for everyone who logs in to the computer. You should choose “Everyone”. (If you choose “Just me”, anyone else who logs in to the computer will not be able to use the Exact Bartender Monitor Service.)



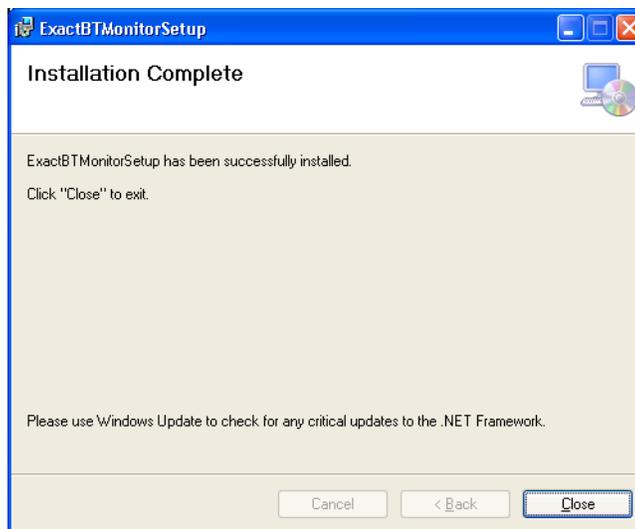
6. Click **Next**. Confirm the installation.



7. Click **Next**. The installation routine starts.

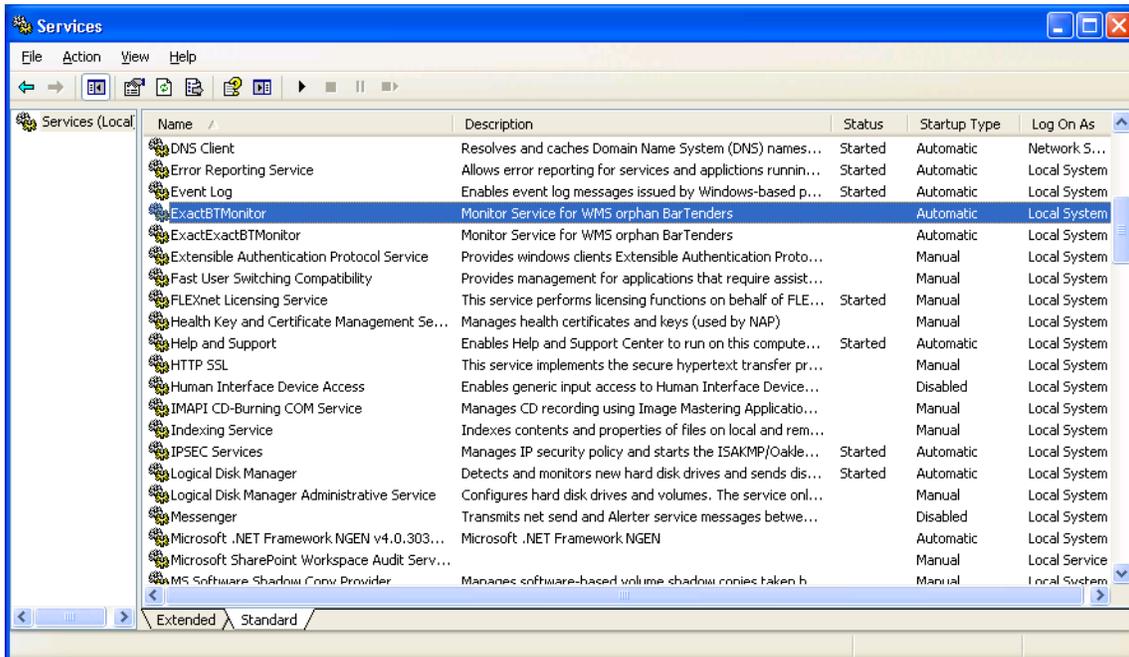
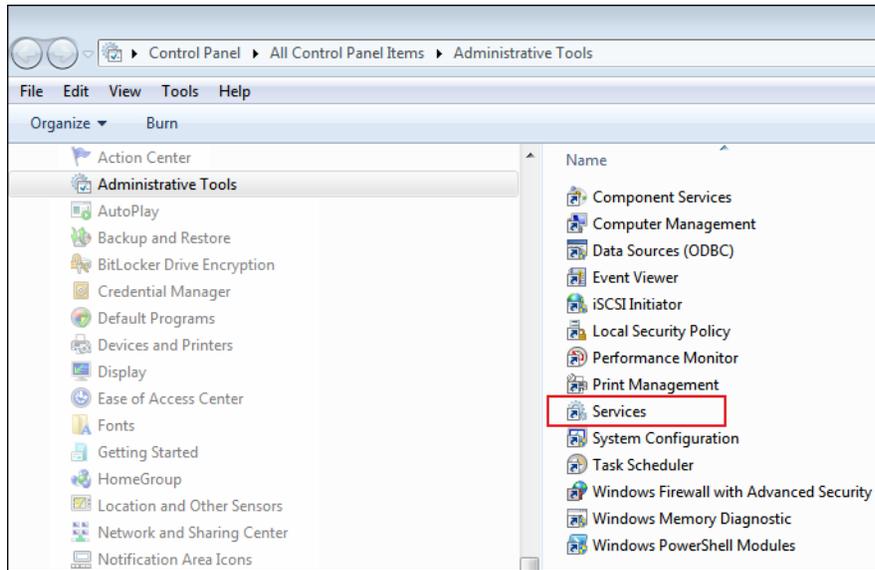


8. When finished, click **Close** to close the installation wizard. The installation wizard creates a new folder “\ExactBTMonitorSetup” under the “\Exact Software” folder.



9. Run Windows Update to check for any critical updates to the Microsoft .NET Framework.
10. When the Windows Update process is complete, you may need to reboot the workstation.
11. Verify that the Exact Bartender Monitor Service (ExactBTMonitor) is running. Open the Control Panel:
- Click “Start”.
 - Select “Control Panel”.
 - When the Control Panel opens, click “Administrative Tools”.

- d. Double-click "Services". This opens the Microsoft Windows Services.



- e. The Status should be "Started", and the Startup Type should be "Automatic".
Note: After installation, the ExactBTMonitor service is not started until you manually start it or reboot the workstation.
- f. Close the Microsoft Windows Services and the Control Panel.

Glossary

These terms are used throughout the WMS software and user guide.

A/P	Accounts Payable
A/R	Accounts Receivable
ASN	Advanced Ship Notice
B/C	Bar Code
BOL	Bill of Lading
DC	distribution center
EDI	Electronic Data Interchange
EPN	Electronic Pick Notification
FTP	File Transfer Protocol
I/M	Inventory Management
O/E	Order Entry
ODB file	Open Document Database file
P/O	Purchase Order
POP	Production Order Processing
R/F	Radio Frequency
SFC	Shop Floor Control
UCC	Uniform Commercial Code
UDF	user defined field
VICS	Voluntary Interindustry Commerce Solutions

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