ACHIEVE WAREHOUSE MANAGEMENT

USER MANUAL

PRESENTED BY
ACHIEVE IT SOLUTIONS

Achieve Warehouse Management is part of the Achieve One Suite, which has been certified by SAP as conforming to SAP's standards for Business One add-on solutions.

SAP® Certified

SAP Business One Integration

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Introduction

Many companies struggle with problems in their warehouses. Inventory may be misplaced, wrong items may be shipped, and the warehouse workers may be working overtime to keep up with demands.

Achieve Warehouse Management is designed to provide the tools your company will need to process more orders and move more inventory in less time. Every function, from receiving to packing, is designed to let you pick the right goods into the right carton and ship them out the door accurately, quickly and efficiently. The system is designed to let warehouses re-engineer for maximum productivity and retail compliance by providing a process for efficient warehouse operations with Radio Frequency (RF) handhelds, bar codes, and a pick/pack/ship software package that allows you to implement this process.

As with all Achieve One modules, *Achieve Warehouse Management* has been built specifically for SAP Business One. It will integrate smoothly with all of the standard features of the Business One software. It also integrates with other Achieve One modules, including *Achieve Freight Control* and *Achieve Container Management*.

Major features of *Achieve Warehouse Management* include:

- Simultaneous Radio Frequency (RF) and Batch Scanning supported
- Purchase Order receiving and put-away
- Warehouse receiving and put-away
- Sales Order pick/pack/ship
- Inventory cycle counts
- Bin to bin transfers
- Multiple unit of measure picking
- Real-time inventory and management information
- Print, receive, transfer, ship, receive from production, and cycle count from handheld device
- UPC and code 39 label printing
- Achieve Container Management option for container receiving
- Achieve Freight Control option for UPS, USPS and FedEx shipping
- Achieve EDI Control option for UCC128
- Auto-billing process upon completion of shipment

Modes of Operation:
- Extended paper based
  - Multi-zone and bin management
- Batch/Cradle upload scanning
  - Multi-zone and bin management
  - Warehouse transactions via batch/cradle scanners
- Radio Frequency
  - Multi-zone and bin management
  - Warehouse transactions via radio frequency scanners

Setup
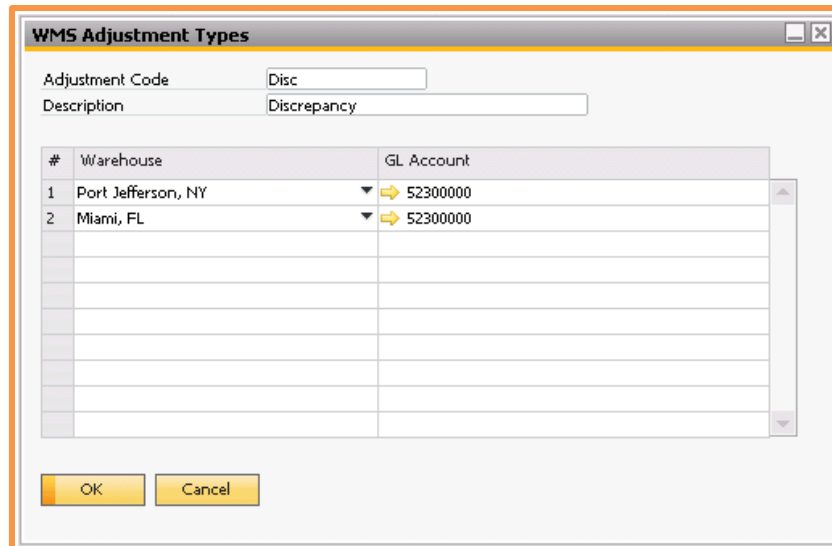
There are a number of setups that must be entered before **Achieve Warehouse Management** can be used. These are located primarily under the Administration > Achieve One menu. They are described in detail in the following section.

Please note that there are special installation procedures for **Achieve Warehouse Management.** These are described in detail in the *Achieve One Installation Guide.* They must be completed before you begin the setups described below. Also, if you are using handheld devices in the warehouse, it is necessary to configure them so that they will interact properly with the system.

WMS Adjustment Types

Administration > Achieve One Setup > Achieve Warehouse Management > WMS Adjustment Types

You may create one or more adjustment types, which will be used when entering inventory adjustments on the handheld devices. Use of various adjustment types will permit the tracking of the reasons for adjustments, and permit different GL postings for different types and/or different warehouses.

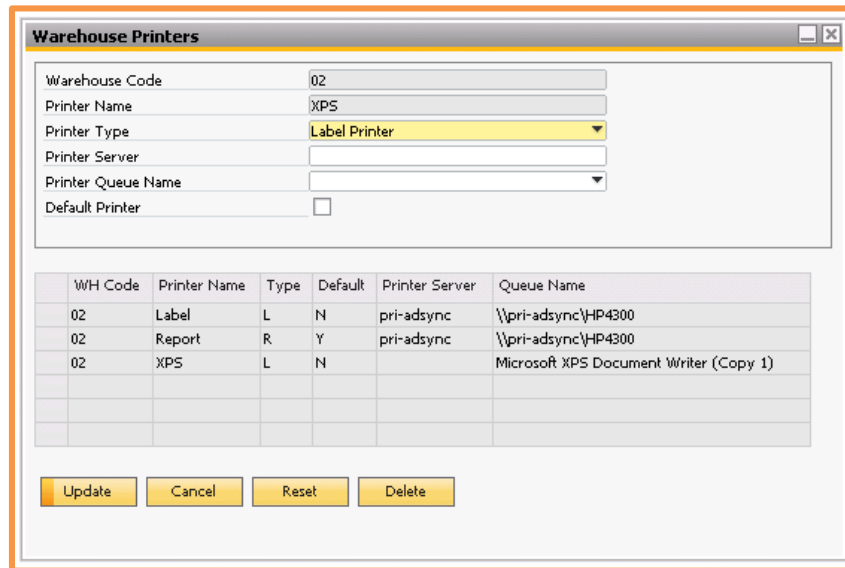| Adjustment Code	Enter a code or abbreviation for the adjustment type (30 characters)
Description	Enter the description of the adjustment type (100 characters)
Warehouse	Select a warehouse from the drop-down list
G/L Account	Select the G/L account that will be used as the offset to the Inventory account for this type of adjustment transaction.

To enter additional warehouses, you must use *Data > Add Row*, or press CTRL-I.

Note that you could create different codes for various item groups, or for reasons for the adjustment (e.g., physical count discrepancy, damaged goods, discontinued item, etc.) and you must create at least one to be used with the Goode Issue and Goods Receipt features.

Warehouse Printers
Administration > Achieve One Setup > Achieve Warehouse Management > Warehouse Printers

For each warehouse that will use WMS, it is necessary to list the printers that are available. These printers may be used to print either labels or reports in conjunction with the WMS procedures.

For each warehouse, enter the information for each printer in the upper part of the screen. As the printers are entered, they are displayed in the list below. You may modify information about an existing printer by clicking on the appropriate line.

Warehouse Code	Select the warehouse from the drop-down list.
Printer Name	Enter the name the will refer to the printer in selection lists. (50 characters)
Printer Type	Select either Label Printer or Report Printer. Note that label printers can be special printers that are designed to print barcode or other labels. Report printers may be any standard ink-jet or laser printer.

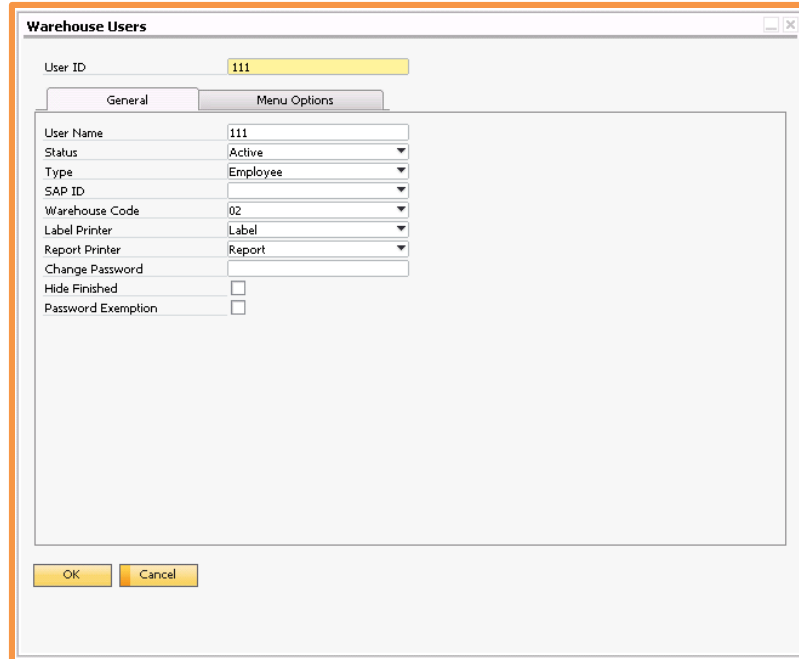| Printer Server	If desired, enter the name of the network server that is used to list and control the printers. This is not necessary if the printer server is the same as the SAP server. If the SAP /WMS server is not the print server, then the shared printer needs to be added to the WMS server (where the document processor is) in order for the document processor to automatically print.
Printer Queue Name	Select the Windows printer from the drop-down list. This list will include all printers found on the printer server that is indicated above, or those that are available to the Business One server.
Default Printer	Check this box if this printer will be the default printer for the warehouse. Only one printer in each warehouse may be the default.

Warehouse Users
Administration > Achieve One Setup > Achieve Warehouse Management > Warehouse Users

The Warehouse User setup is needed only for users who will be performing warehouse functions by means of a handheld device. These users are not required to have a license for the Business One program, and they are not included in the number of users covered by the WMS license within Business One. The number of handheld licenses is specified in the WMS contract – these are concurrent licenses, not assigned to specific individuals, so you may enter as many warehouse users as you wish. The number of individuals using handhelds at any given time must not exceed the number of handheld licenses.

For each user, enter the information on both the General and Menu Options tabs. You can modify information about an existing user by using the standard SAP Find functionality to pull up the record.

General Tab

User ID
Enter an ID code for the user (10 characters)
Tip: *Recommended to use numeric values if device does not have alpha keys*

User Name
Enter the user's name (100 characters)

Status
Select "Active" or "Inactive". Only active users may sign on to the handhelds.

Type
Select "Employee" or "User". WMS Users can be linked to either SAP Employee Master Data Records or SAP Users.

SAP ID
Select the corresponding SAP Employee or SAP User record to link this WMS User to.

Warehouse Code   Select the code for the default warehouse where this user will
   work.

Label Printer   Select the user's default label printer. The drop-down list will
                            display only label printers from the user's warehouse.

Report Printer   Select the user's default report printer. The drop-down list
                            will display only report printers from the user's warehouse.

Change Password   Enter the user's password for the handheld. This entry may be
                            used to set the password for the first time, or to change it to a
                            new password afterwards.

Hide Finished   This option will default the Hide Finished option for the
                            Handheld as enabled for this WMS User.

Password Exemption   This option will allow the WMS User to not have to enter in
                            any override passwords on the Handheld that you may set up
   for WMS.
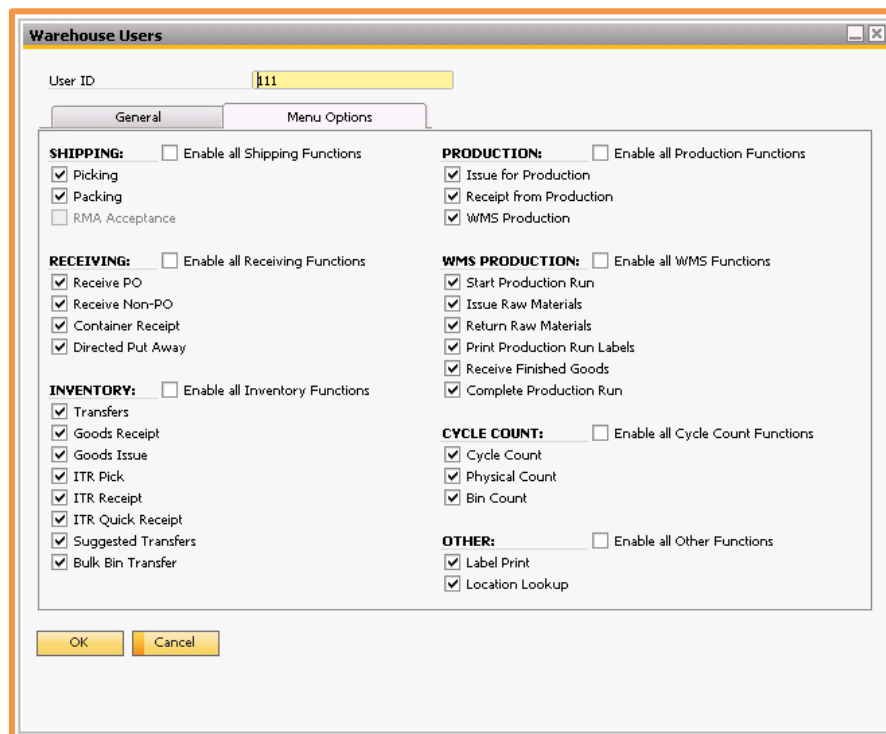
Menu Options Tab

The checkboxes on this tab indicate the menu options and functions that will be available to this WMS User on the handheld. Check only those options for which they are authorized.

Warehouse User Group Setup
Administration > Achieve One Setup > Achieve Warehouse Management > Warehouse User Group Setup

Use the Warehouse User Group Setup screen to create User Groups for assigning teams of pickers during multi-user picking on the Handheld. This feature can only be used in conjunction with the Pack Planning feature in WMS.
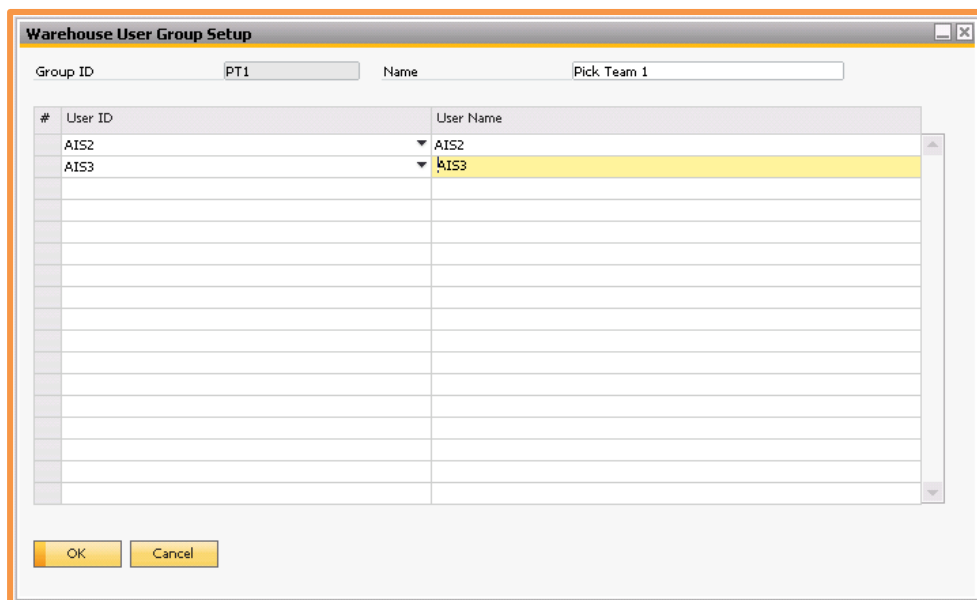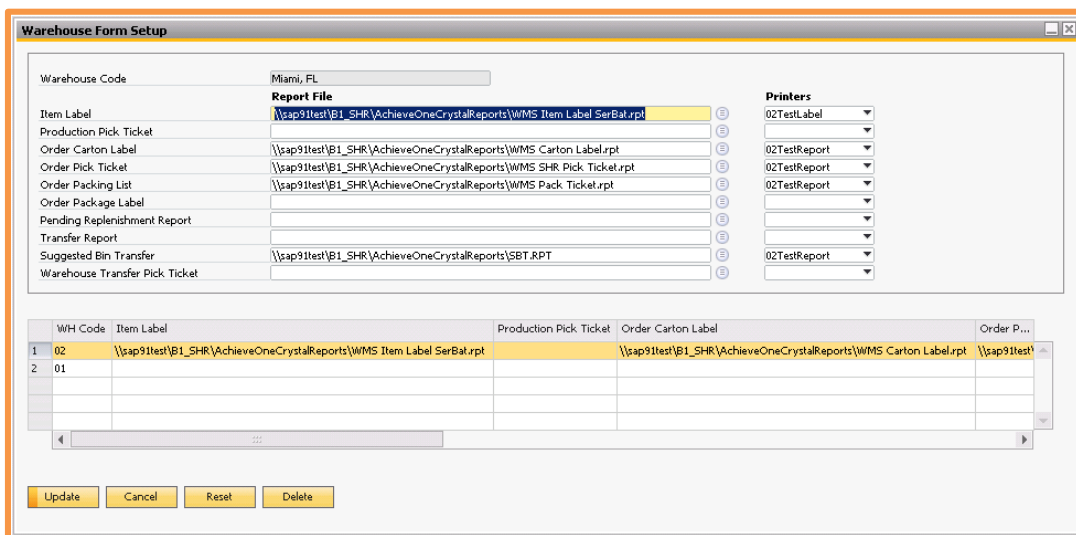

First define a Group ID code Name (usually a bit more descriptive). Next add the WMS Users to the list that you want to be a part of this User Group. Once that is completed hit Add to add the User Group to the system.

Warehouse Forms
Administration > Achieve One Setup > Achieve Warehouse Management > Warehouse Forms

Use the Warehouse Forms setup to designate report templates for each label or form that will be printed from each warehouse. These must be Crystal Reports templates (.rpt files). They may be stored anywhere on your network, but all users must have the appropriate Windows Permissions to access to them. If you are using other Achieve One modules, such as **Achieve Document Delivery**, you may use the same folder for these report templates as you use for templates for the other modules.

For each warehouse, select the templates and printers to be used in that warehouse for each label or report. As each warehouse is entered, click on "Update" and the information is displayed in the list below.

You may modify information about an existing warehouse by highlighting and clicking on the appropriate line.

The distinction between "Labels" and "Reports" depends primarily on the format of the Crystal template and the type of printer being used. In general, the item label, carton label, and production ticket would normally be labels (printed on label stock), while the pick list, packing

slip, pending replenishment report, and transfer report would most often be reports (printed on plain paper).

Note that if you do not specify a printer for a particular form, the default label or report printer for the warehouse will be used by the system.

Master 2D-1D Barcodes
Administration > Achieve One Setup > Achieve Warehouse Management > Master 2D-1D Barcodes

The Master 2D-1D Barcode screen allows you to set up templates for scanning 1D and 2D matrix style barcodes on the handhelds. Support for the barcode scanning is dependent upon the hardware device capabilities.
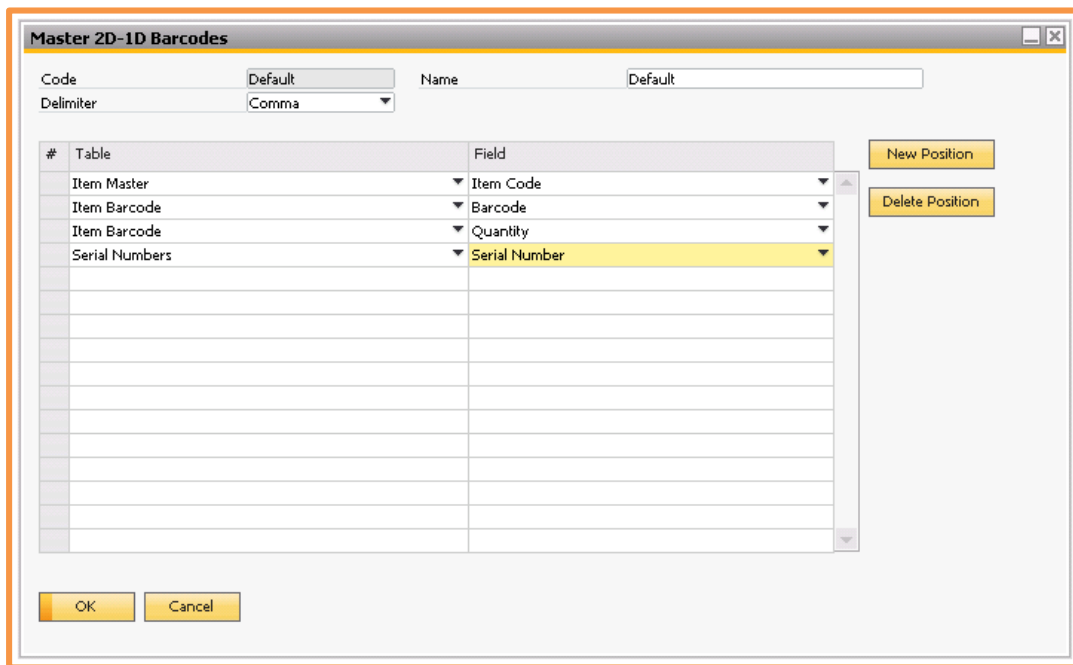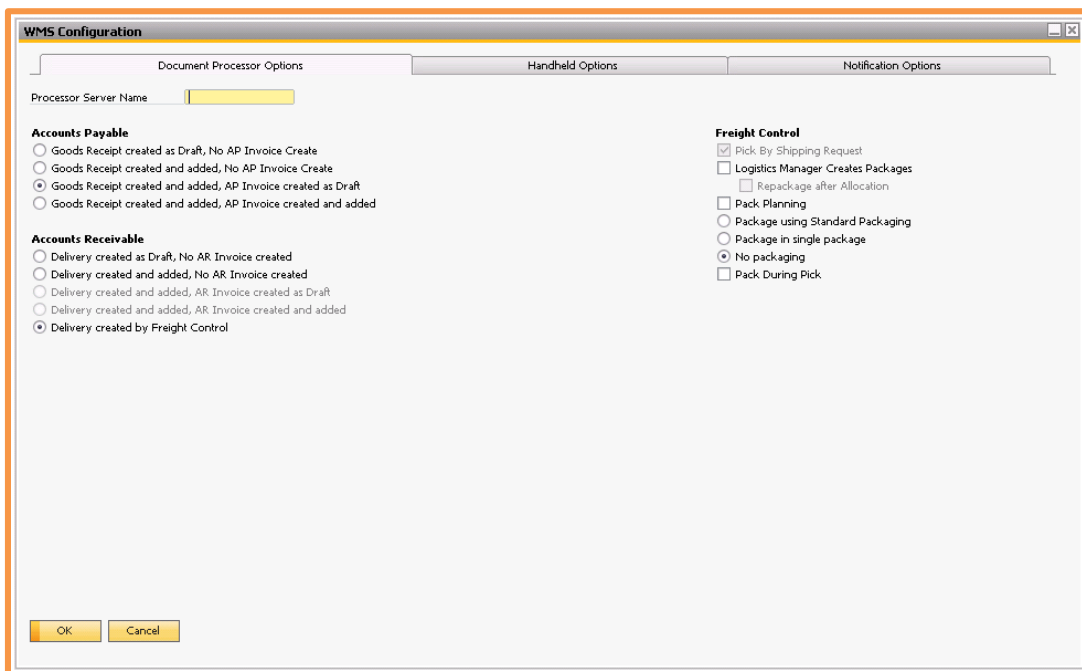
First define a template Code and Name (usually a bit more descriptive). Then choose the delimiter for the barcode, either Comma or Semi-Colon. Next choose the tables and fields that will need to be read from the barcode. You can add or remove lines by using the New Position and Delete Position boxes on the right. Once you have all the tables and fields set you can add the record.

Warehouse Configuration

Administration > Achieve One Setup > Achieve Warehouse Management > WMS Configuration
The WMS Configuration screen allows you to determine many choices in the way the WMS system will be used for your company. It consists of three major tabs.

Document Processor Options Tab

Processor Server Name	If the WMS Document Processor is located on a different server from the SAP server, enter the name. If it is on the SAP server, leave this field blank.

Accounts Payable	Select the method you wish the system to use when items are received in the warehouse:

- Create the Goods Receipt PO as a draft; do not create an A/P Invoice
- Create and add the Goods Receipt PO; do not create an A/P Invoice

- Create and add the Goods Receipt PO; also create an A/P Invoice as a draft
- Create and add the Goods Receipt PO; also create and add the A/P Invoice
  - If receiving by Container, the GRPO process is handled by the Container Management module, and this setting will not have any affect for the receiving of containerized documents.

Accounts Receivable   Select the method you wish the system to use when items have been shipped from the warehouse:
- Create the Delivery as a draft; do not create an A/R Invoice
- Create and add the Delivery; do not create an A/R Invoice
- Create and add the Delivery; also create an A/R Invoice as a draft
- Create and add the Delivery; also create and add the A/R Invoice
- Allow the Freight Control system to create the Delivery and/or A/R Invoice – the WMS system will create a Shipping Request (requires *Achieve Freight Control*)

Freight Control   If you are using *Achieve Freight Control*, there are several other options available:

Pick By Shipping Request   If checked then WMS will pick against Shipping Requests that will be created before picking in WMS instead of picking against Sales Orders that create Shipping Requests after picking

Logistics Manager Creates Packages   This can only be used if you are using the Pick By Shipping Request option. If checked then when Shipping Requests are created by the Logistics Manager, the system will automatically pack the items on them based on the default packing settings (see below).

Repackage after Allocation   This can only be used if you are using the Logistics Manager Creates Packages option. If checked, then after Shipping

Requests are allocated and moved to Ready for WMS, they will automatically re-pack.

Pack Planning

This can only be used if you are using the Pick By Shipping Request Option. If checked you will enable several functions in the Pack Planning process for predefining package contents prior to picking

Packing

Select the packaging method you wish to use:
- Package using standard packaging (in this case, each item must have a package code and quantity per package in the Item Master)
- Package in a single package
- No packaging

Pack During Pick

This can only be used if you are using the Pick By Shipping Request Option. If checked you will be able to Pack items into packages as you are picking them on the Handheld

Handheld Options Tab

Subtab: General
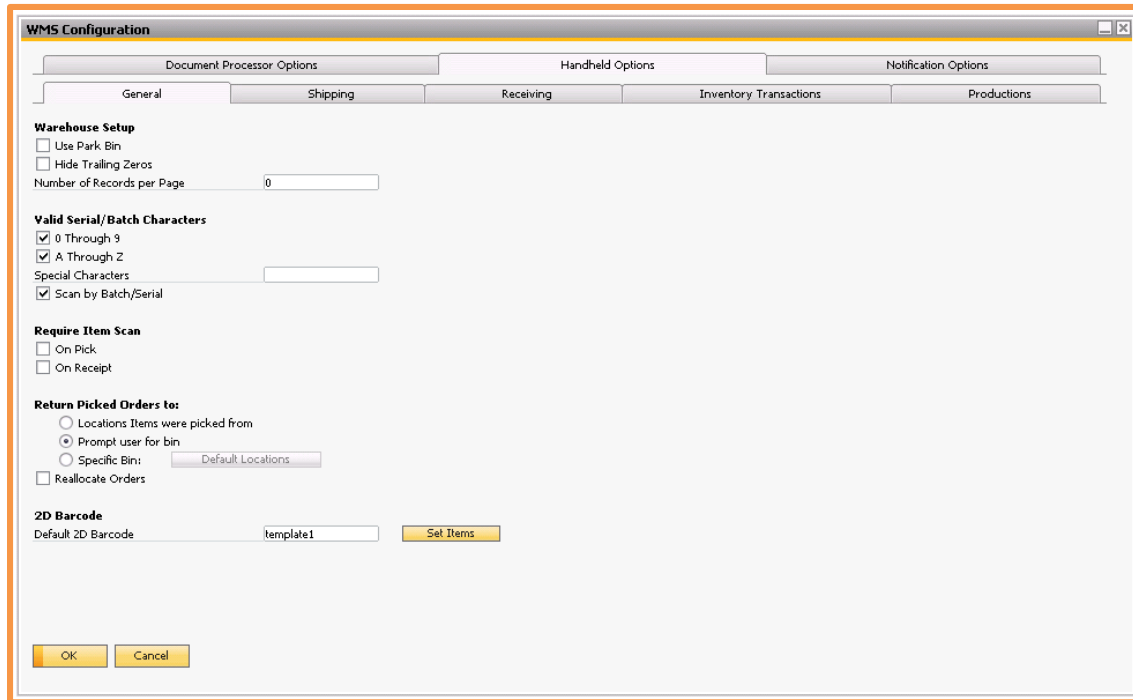
Warehouse Setup

Use Park Bin	Check this box if when you Park a shipment you want it to ask you for a bin to park it to
Hide Trailing Zeros	Check this box if you want the trailing zeros on quantities to be hidden on the Handheld

Valid Serial/Batch Characters

0 through 9	Check this box if your Batches and Serials include the numbers 0 - 9
A through Z	Check this box if you Batches and Serials include the letters A - Z

Special Characters	Enter in any special characters (such as – or /) that your Batches or Serials may include
Scan by Batch/Serial	Checking this box will allow you to enter a batch or serial number directly into the Bin field on the Handheld. When used the handheld will not need you to enter the item or bin, it will fill it in based on the batch or serial number you entered

Require Item Scan

On Pick	Check this if you want to require Handheld users to scan the items when picking. The user will not be able to tap the line on the device. The user must enter the data via the keyboard or a barcode scan.
On Receipt	Check this if you want to require Handheld users to scan the items when receiving. The user will not be able to tap the line on the device. The user must enter the data via the keyboard or a barcode scan
Return Picked Orders to	When a pick is Cancelled or a Shipping Request that was picked is Voided
Location Items were picked from	Picked items will be returned to the bins they were picked from with this option that only works when picking by Sales Order
Prompt user for bin	User will be prompted to choose the bin that they want the picked items to be returned, all items are returned to the same bin, this is not an item by item selection
Specific Bin	Designate a specific bin that all picked items will be returned, all items are returned to the same bin, this is not an item by item selection
Reallocate Orders	Check this box if you would like Cancelled Picks to first be reallocated before they are available to be picked again. If this is unchecked, and the order or shipping request is picked again, the allocations will advise the user to take from the same

locations. Checking the box allows the allocation method to select new locations based on current warehouse status

2D Barcode

Default 2D Barcode   Choose the default 2D Barcode template for WMS

      Set Items   Use this option to set the default 2D barcode template for either All items or only those Without an existing default

Subtab: Shipping
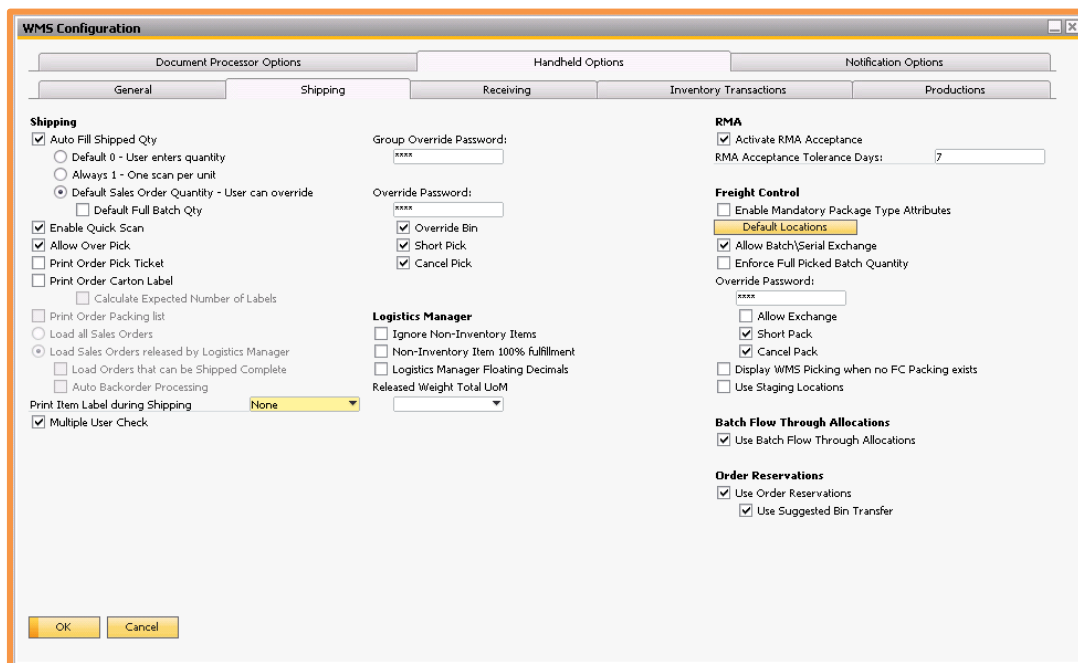
Shipping

Auto Fill Shipped Quantity   Check this box if you want the handheld to automatically fill in the quantity shipped:

If the box is checked, select one of the methods for auto-fill:	• Default 0: the handheld will display zero; the user must enter the shipped quantity • Always 1: the handheld will display 1; the user must scan each individual unit • Default Sales Order Quantity: the handheld will display the open quantity from the SO; the user may override if needed o Default Full Batch Qty; use this checkbox if you want the full batch quantity to be defaulted in when selecting batches
Enable Quick Scan	When working with serial or batch items this option will skip the item screen and go directly to the serial/batch selection screen on the handheld
Allow Over Pick	This will allow users to pick more quantity of an item than what is on the Sales Order/Shipping Request
Print Order Pick Ticket	Check this box if you want the system to print the pick list automatically when the order status moves to "Ready for WMS".
Print Order Carton Label	Check this box if you want the system to print the carton label automatically when the order status moves to "Ready for WMS".
Calculate Expected Number of Labels	This will try and estimate how many labels to print based on the item's SAP packaging settings
Print Order Packing List	Check this box if you want the system to print the packing slip automatically after completion of the pick process. Note: this option is not available if using **Achieve Freight Control**.
Load All Sales Orders OR	Indicate your choice for the method of loading sales orders to the handhelds:

Load Sales Orders Released by Logistics Manager	• Load all open sales orders: this will automatically send each sales order, as soon as it is entered, through the allocation process to "Ready for WMS" status • Load for Sales Orders released by the Logistics Manager: orders will not be released for picking until they are selected from within the Logistics Manager (this allows selection and prioritization by delivery date, customer, items, etc.)
Load Orders that can be Shipped Complete	This option applies if using the Logistics Manager: check the box if you wish the system to automatically load orders that can be shipped complete, without replenishment (i.e., there is adequate quantity of all items on the order, in bins designated as Pick bins), without first sending those orders to the Logistics Manager.
Auto Backorder Processing	This option applies if using the Logistics Manager: check the box if you wish the system to automatically load items that have been previously backordered (i.e., other items from the same order have already been shipped), but have now come into stock.
Print Item Label during Shipping	Select the option for printing item labels during the shipping process: • None: do not print labels • One per line: print one label for each line of the SO/SR (e.g., one label per item code, regardless of quantity) • One per unit: print one label for each unit shipped
Multiple User Check	This will make sure if two users happen to pull up the same document to pick in the handheld that the first one that finishes it will be the one who actually completes it (the other user will receive a message when they try to finish it). This is only to protect against simultaneously selecting the document before the system has had the opportunity to update the documents' status.

Group Override Password   Choose a password that users can enter in order to pick a package on the handheld that they are not assigned to. This can only be used in conjunction with the Pack Planning option.

Override Password   Choose a password that users can enter in order to perform the functions checked below:

Override Bin   Pick from a bin other than the one indicated on the handheld

Short Pick   Finalize picking an item after picking less than the quantity indicated on the handheld

Cancel Pick   Cancel the pick of a Sales Order and undo all entries that were made for it

Logistics Manager

Ignore Non-Inventory Items   This will keep non-inventory items out of the Logistics Manager

Non-Inventory Item 100% Fulfillment   This will leave non-inventory items in the Logistics Manager but assign them 100% Fulfillment

Logistics Manager Floating Decimals   This feature controls how decimals are displayed in the Logistics Manager in SAP. If checked, then each number will only use the number of decimals it needs (including none) instead of always showing the default number of decimals in SAP

Released Weight Total UoM   This drop down will let you select the Weight UoM for the Released Total weight field in the logistics manager

RMA

Activate RMA Acceptance   Check if you wish to utilize the RMA Acceptance functionality (validate RMA's against an expiration date)

RMA Acceptance Tolerance Days	Enter the number of days past the RMA expiration when returned items will still be accepted
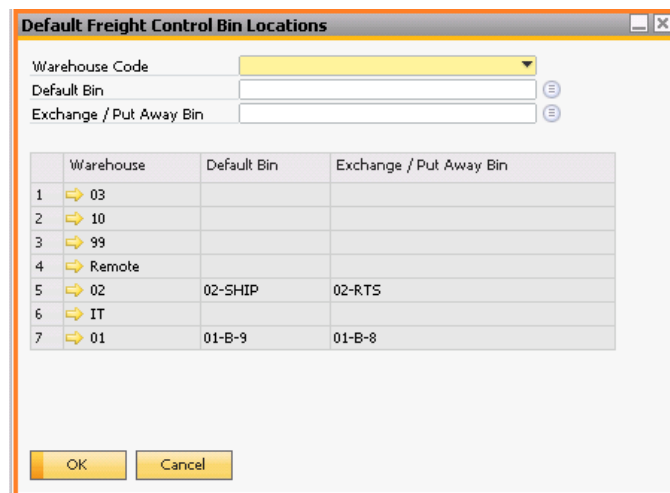
Freight Control

Enable Mandatory Package Type Attributes	This enables/disables options on the SAP package setups that can require certain package information be entered on the handheld while packing
Default Locations	If using **Achieve Freight Control**, click on the "Default Locations" button to enter the default shipping bin, which tells the system to automatically move all items to this bin as they are picked. Also enter the default exchange/put away bin which will be used for Batch Exchanges during packing as well as unpacked items on the handheld.

Allow Batch\Serial Exchange	This will allow users that are packing on the handheld to exchange the batches and serials that were picked for different ones.
Enforce Full Picked Batch Quantity	This will only allow users to pick the full batch quantity when picking batches. This is used when an item is always consumed in full by batch, such as for items stocked in weight where serialization can't be used because the inventory quantity wouldn't be 1

Override Password	Choose a password that users can enter in order to perform the functions checked below:
Allow Exchange	Exchange batches and serials during packing on the handheld
Short Pack	Finalize packing an item after picking less than the quantity indicated on the handheld
Cancel Pack	Cancel the pack of a Shipping Request and undo all entries that were made for it
Display WMS Picking when no FC Packing Exists	After picking, the Shipping Request will display the bins that the items were picked from prior to packing. It will be displayed in the tracking number field on the Packages tab of the shipping request.
Use Staging Locations	This (in conjunction with settings in **Achieve Freight Control**) will require users to choose a staging location to move picked orders to after finishing their picking on the handheld

Batch Flow Through Allocations

Use Batch Flow Through Allocations	If checked, when a batch managed line item on a Purchase Order that has a Sales Order as its base document is received, the batches will automatically be assigned to the Sales Order using SAP Business One's standard batch assignment screen. If the received quantity is greater than the sales order quantity, the sales order quantity will be increased automatically so that the full batch quantities can be assigned in SAP without any errors.

Order Reservations

Use Order Reservations	This will enable **Achieve Order Reservations** to work with WMS

Use Suggested Bin Transfer	This will enable Suggested Bin transfers for Order Reservations. When an item is reserved against stock quantities the system will prompt the user to create a Suggested Bin Transfer that will move the item from its current location to a reserved location.

Subtab: Receiving
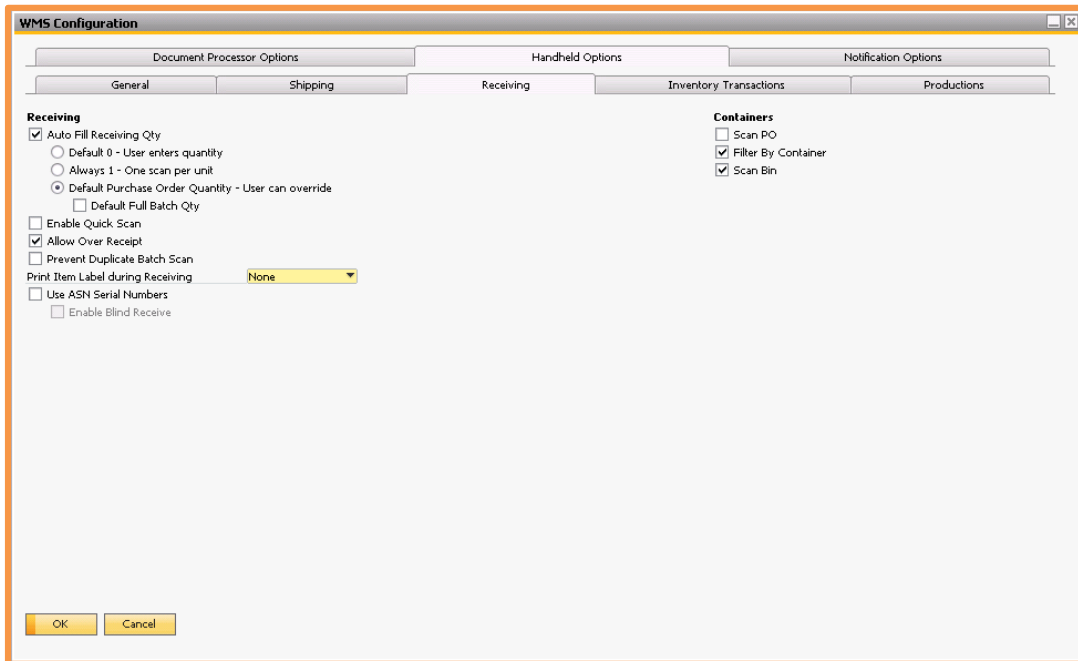
Receiving

Auto Fill Receiving Quantity	Check this box if you want the handheld to automatically fill in the quantity received
If the box is checked, select one of the methods for auto-fill:	• Default 0: the handheld will display zero; the user must enter the received quantity • Always 1: the handheld will display 1; the user must scan each individual unit • Default Purchase Order Quantity: the handheld will display the open quantity from the PO; the user may override if needed

○ Default Full Batch Qty; use this checkbox if you also want the full batch quantity to be defaulted in when selecting batches

Enable Quick Scan	When working with serial or batch items this option will skip the item screen and go directly to the serial/batch selection screen on the handheld
Allow Over Receipt	This will allow users to receive more quantity of an item than what is on the Purchase Order
Print Item Label during Receiving	Select the option for printing item labels during the receiving process: • None: do not print labels • One per line: print one label for each line of the PO (e.g., one label per item code, regardless of quantity) • One per unit: print one label for each unit received
Use ASN Serial Numbers	This can be enabled when using an Achieve One feature for very high volume called External Serial Numbers. Please see the guide Using External Serial Number with Achieve One WMS for more information
Enable Blind Receive	This can be enabled when using an Achieve One feature for very high volume called External Serial Numbers. Please see the guide Using External Serial Number with Achieve One WMS for more information
Containers	These options are for when you are using ***Achieve Container Management***
Scan PO	Check this box if you want to require users to enter the PO numbers during Container receiving.
Filter By Container	Check this box if you want Container Receiving on the handheld to filtered by the container numbers on the shipment
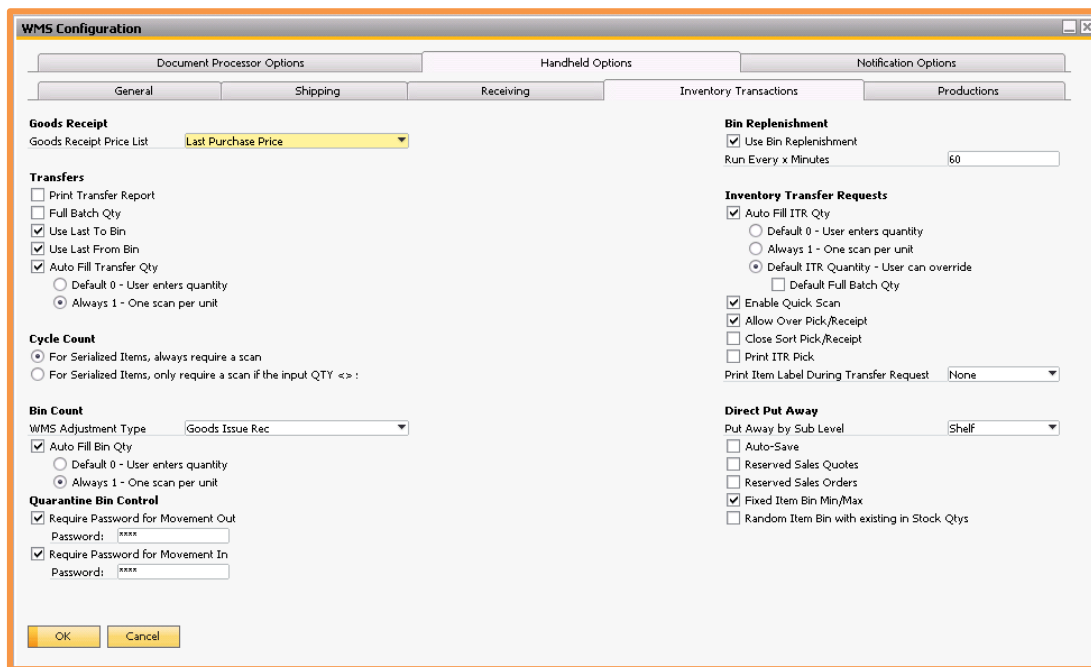
| Scan Bin | Check this box if you want to require users to scan the receiving bin during Container Receiving on the handheld. |

Subtab: Inventory Transactions

Goods Receipt

| Goods Receipt Price List | Select the price list to use as the item price during Goods Receipt processing on the handheld device. The choices are the same as those available during manual Goods Receipt entry. |

Transfers

| Print Transfer Report | Check this box if you would like the system to automatically print the Transfer Report when warehouse transfers are entered on the handheld device. |

| Full Batch Qty | Use this checkbox if you want the full batch quantity to be defaulted in when selecting batches |

Use Last To Bin   Use this checkbox to automatically default in the last To Bin used
                                      during the current transfer on the Handheld

Use Last From Bin   Use this checkbox to automatically default in the last From Bin
                                      used during the current transfer on the Handheld

Auto Fill Transfer Qty   • Default 0: the handheld will display zero; the user must
                                        enter the transfer quantity
                                      • Always 1: the handheld will display 1; the user must scan
                                        each individual unit

Cycle Count   Select the method for entering serialized item quantities during
                                      a cycle count:
                                      • Always require a scan: The user must scan each unit
                                        individually to record each serial number
                                      • Only require a scan if the input QTY <> system: If the
                                        counted quantity is the same as the system quantity,
                                        then a scan is not required; otherwise, the user must
                                        scan each unit.

Bin Count

WMS Adjustment Type   Select the default WMS Adjustment Code for bin count
                                      discrepancies

Auto Fill Bin Qty   • Default 0: the handheld will display zero; the user must
                                        enter the transfer quantity
                                      • Always 1: the handheld will display 1; the user must scan
                                        each individual unit

Quarantine Bin Control

Require Password for
Movement Out

Check this box and choose a password if you want to require that handheld users enter a password to move items out of designated quarantine bins.

Require Password for Movement In

Check this box and choose a password if you want to require that handheld users enter a password to move items into designated quarantine bins.

Bin Replenishment

Use Bin Replenishment

Check this box if you would like the AWM Document processor to create Suggested Bin Transfers to move inventory from Overstock bins to Pick bins. The Pick bins will need to have item assignments as well as Minimums and Maximums set.

Run Every X Minutes

Enter how often you would like the Bin Replenishment to run in minutes

Inventory Transfer Requests

Auto Fill ITR Quantity

Check this box if you want the handheld to automatically fill in the quantity on ITRs

If the box is checked, select one of the methods for auto-fill:

- Default 0: the handheld will display zero; the user must enter the received quantity
- Always 1: the handheld will display 1; the user must scan each individual unit
- Default Purchase Order Quantity: the handheld will display the open quantity from the PO; the user may override if needed
    - Default Full Batch Qty; use this checkbox if you want the full batch quantity to be defaulted in when selecting batches

Enable Quick Scan

When working with serial or batch items this option will skip the item screen and go directly to the serial/batch selection screen on the handheld

Allow Over Pick/Receipt	This will allow users to pick and receive more quantity of an item than what is on the ITR
Close Short Pick/Receipt	This will close ITR documents after they are finished on the handheld even if they are short picked or short received.
Print ITR Pick	Check this box if you want the system to print the ITR pick list automatically when the ITR status moves to "Ready for WMS".
Print Item Label during Transfer Request	Select the option for printing item labels during the Transfer Request process: • None: do not print labels • One per line: print one label for each line of the PO (e.g., one label per item code, regardless of quantity) • One per unit: print one label for each unit received

Direct Put Away

Auto-Save	When working with serialized items in the Direct Put Away screen on the handheld, this option removes the need to hit Save again after the serial numbers are entered
Reserved Sales Quotes	Check this box if you want to include reservations for Sales Quotes
Reserved Sales Orders	Check this box if you want to include reservations for Sales Orders
Fixed Item Bin Min/Max	Check this box if you want to include items that are assigned to Specific Item Restriction type bins and are below their bin minimum
Random Item Bin with existing Stock Qtys	

Check this box if you want to include items that are not assigned to Specific Item Restriction type bins but already have existing quantities in regular bins

Subtab: Productions

Productions

Enable Backflush Processing	Check this box if you wish to use backflush production, in which components are depleted at the time the finished item is received.
Print Production Pick Tickets	Check this box if you wish the system to automatically print production pick tickets when a Production Order is ready for WMS.
Close Production Orders on Completion	Check this box if you wish the system to automatically close each production order as soon as the finished item is received.
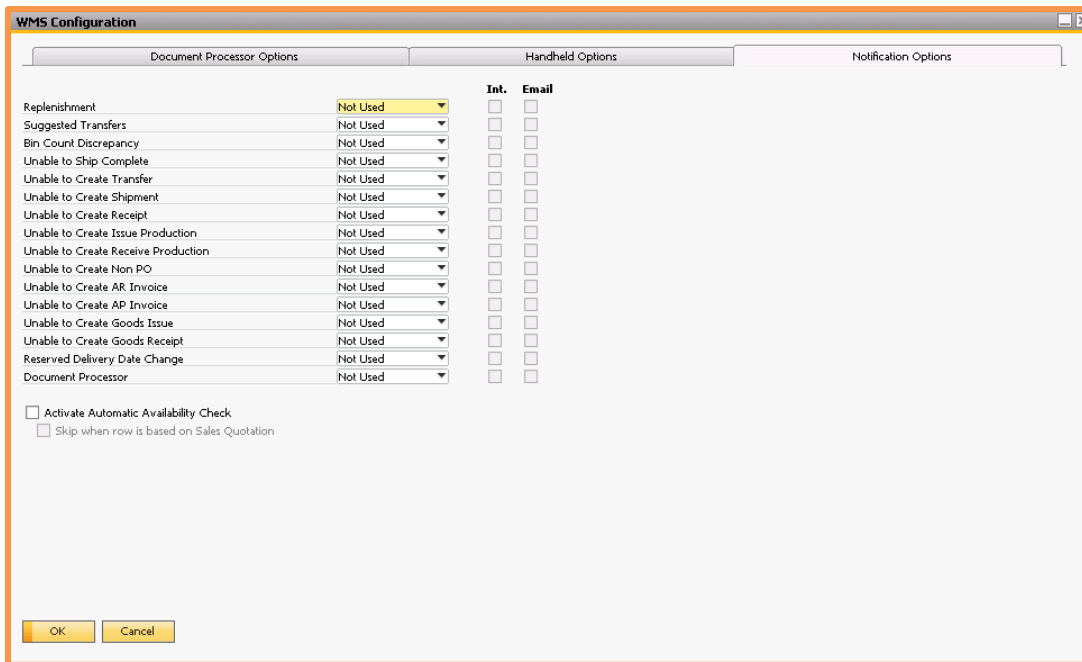
Print Item label during Production Receipt	Select the option for printing item labels during the production receiving process: • None: do not print labels • One per line: print one label for each line of the PO (e.g., one label per item code, regardless of quantity) • One per unit: print one label for each unit received
WMS Production	These are the settings for the WMS Production screen on the handheld that we will discuss later in this document
Production Adjustment Code	Select the default WMS Adjustment Code for the inventory quantity adjustments made by issuing raw materials and receiving finished goods in the WMS Production Screen
Require Issue Raw Materials	This option forces users to Issue the Raw Materials before they can print production run labels
Auto-Generate Batch/Serial Number	This option will allow users to not have to enter batch or serial numbers for finished goods manually. Instead the creation of the labels will generate new batch or serial numbers automatically.
Unique Batch Per Production Order	This option will require that each individual finished goods package received from the production run is unique
Display Field 1 *Display Field 2* *Display Field 3*	Enter in your own field name(s) to be displayed on the WMS Production Print Production Run Label screen on the Handheld
Serial Managed Label	Specify the report path for the serial managed finished goods' item label
Batched Managed Label	Specify the report path for the batch managed finished goods' item label
Item Label	Specify the report path for the non-managed finished goods' item label

Notification Options Tab

The screen lists a number of situations that could occur during WMS processing. For each one, indicate whether a specific individual should receive a notification that the incident has happened.

User   Select the name of the user who should be notified when a problem situation occurs. Select "Not Used" if you do not wish any notifications for this type of problem.

Int.   Check this box if the notification should be by internal message – an alert within Business One

Email   Check this box if the notification should be by means of the user's normal email address

Activate Automatic Availability Check	Normally the WMS system will manage item availability and will notify you when there is a backorder situation, as above. Therefore, the Business One Availability Check that would occur during Sales Order entry is turned off by default. However, if you wish to utilize this function, you may check this box to enable it.
Skip when row is based on Sales Quotation	Have the Availability Check skip checking items that are based from a Sales Quote

Warehouse Initialization

Achieve Warehouse Management contains a number of tables that are used for maintaining information about items in the warehouse, as well as sales, purchasing, and production documents that may need to be downloaded to the handhelds. It is necessary for these tables to be synchronized with the standard tables in Business One. As the system is used, this synchronization takes place automatically. However, when a company that has already been using Business One is first beginning to use the WMS program, it may be necessary to perform an initial synchronization to populate the WMS tables correctly. The Warehouse Initialization can help with this.
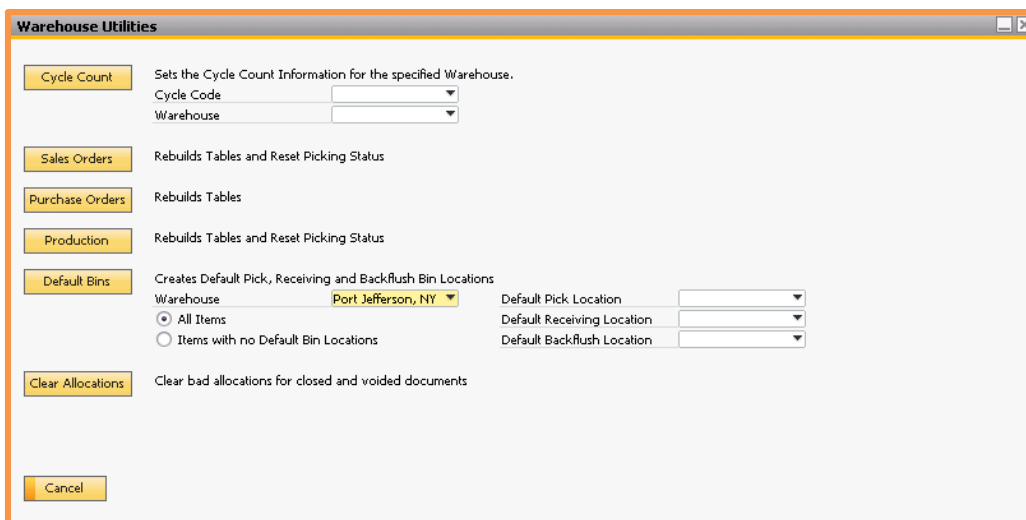
Click on each button to perform the synchronization indicated.

Cycle Count	Creates Cycle Count information for each item in the specified warehouse (note that the cycle count codes must be created before this feature can be used.)
Cycle Code	Select the Cycle Count code to enter for all items
Warehouse	Select the warehouse to populate. You may create cycle codes for only one warehouse at a time.
Sales Orders	Creates records in the WMS tables for the open Sales Orders that exist in the system and resets their picking status.
Purchase Orders	Creates records in the WMS tables for the open Purchase Orders that exist in the system.
Production	Creates records in the WMS tables for the open Production Orders that exist in the system and resets their picking status.
Default Bins	WMS has settings for Default Pick, Receiving, and Backflush bins. This utility allows you to set these fields globally instead of individually
Warehouse	Select which Warehouse to update these fields in
All Items or Items with no Default Bin Locations	Select whether you want to update only those items that have no default locations already set or ALL items.
Default Pick Location/Default Receiving Location/Default Backflush Location	Use the drop down to select which bin to set as either the Default Pick, Default Receiving, or Default Backflush location.
Clear Allocations	Sometimes it is possible for allocations to get stranded on closed or voided documents. Use this button to clean them up.

Item Master Data

Using Units of Measure

WMS uses the standard SAP Business One Units of Measure for each item. You may indicate a default purchasing unit of measure, sales unit of measure, and inventory unit of measure for each item. The system tracks item quantities by the inventory unit of measure, so it is necessary to enter a conversion factor for the other units. In addition, you may use different units of measure on sales and purchasing documents, as long as you enter a conversion factor there as well.

For full explanations of each field please see your standard SAP help documentation.

Using Packages

WMS uses the standard SAP Business One Packages for its processes. For full explanations of each field please see your standard SAP help documentation.

Standard Fields

Length, Width, Height, Volume	WMS, in conjunction with ***Achieve Freight Control***, will use these dimension fields when determining standard packaging
Weight	WMS, in conjunction with ***Achieve Freight Control***, will add this weight to the items in the package when rate shopping and determining shipment costs

WMS Added Fields

Master Package Number Scan Mandatory	Check this box if you want to require that a master package number be entered when packing on the WMS handheld
Master Package Type Scan Mandatory	Check this box if you want to require that a master package type be entered when packing on the WMS handheld
Package Volume Scan Mandatory	Check this box if you want to require that the package volume be entered when packing on the WMS handheld
Scale Weight Scan Mandatory	Check this box if you want to require that the weight be entered when packing on the WMS handheld
Carrier Scan Mandatory	Check this box if you want to require that a carrier ID # be entered when packing on the WMS handheld
Seal Scan Mandatory	Check this box if you want to require that a seal # be entered when packing on the WMS handheld
Inspection Seal Scan Mandatory	Check this box if you want to require that an inspection seal # be entered when packing on the WMS handheld

Inventory Data Tab

The Inventory Data tab will contain the default Inventory UoM for the item.

The Inventory UoM is used to indicate the actual quantity in the warehouse. It should be the base or smallest unit of measure from which all of the others are derived. If possible, the Inventory UoM should be "Each" or something equivalent which would not require fractional parts.

Please consult your support representative if you have any questions regarding the best way to set up the units of measure.

Warehouse Quantities

A new button on the Inventory Data tab of the Item Master screen allows you to see the current quantity of the item in the warehouse bins.

Click on the "Warehouse Quantity" button. The Item Qty window is displayed. You may view quantities in one warehouse or in all warehouses. The window displays a list of bins in each warehouse where this item is currently located. It includes the bin number, quantity on hand in the bin, allocated quantity, the last date that the item was added to the bin, and the bin type. You can also see the total on hand quantity.

If you drill into the gold arrow next to the number in the Allocated column it will open the Location Allocation Display window which shows you which documents make up that allocation number.

Then if you drill into the gold arrow next to the number in the Quantity column it will open up the Batch Allocation Display window. If the item is set to use Serials or Batches and has batches or serials allocated (whether from the Sales Order or from Picking) then this window will display them.

Note that the quantities shown in this window are always in the Inventory unit of measure, as are the quantities on the Inventory Data tab of the Item Master.

Also note that the committed quantity on the Inventory Data tab is not necessarily the same as the allocated quantity. The committed quantity includes all quantities on open sales orders and components on production orders. The allocated quantity includes only those items that have gone through the WMS allocation process.

Default Locations

Another new button on the Inventory Data Tab of the Item Master screen enables you to set default locations for the item in each warehouse, if desired. You may set a default bin for picking, receiving, and for production backflush.
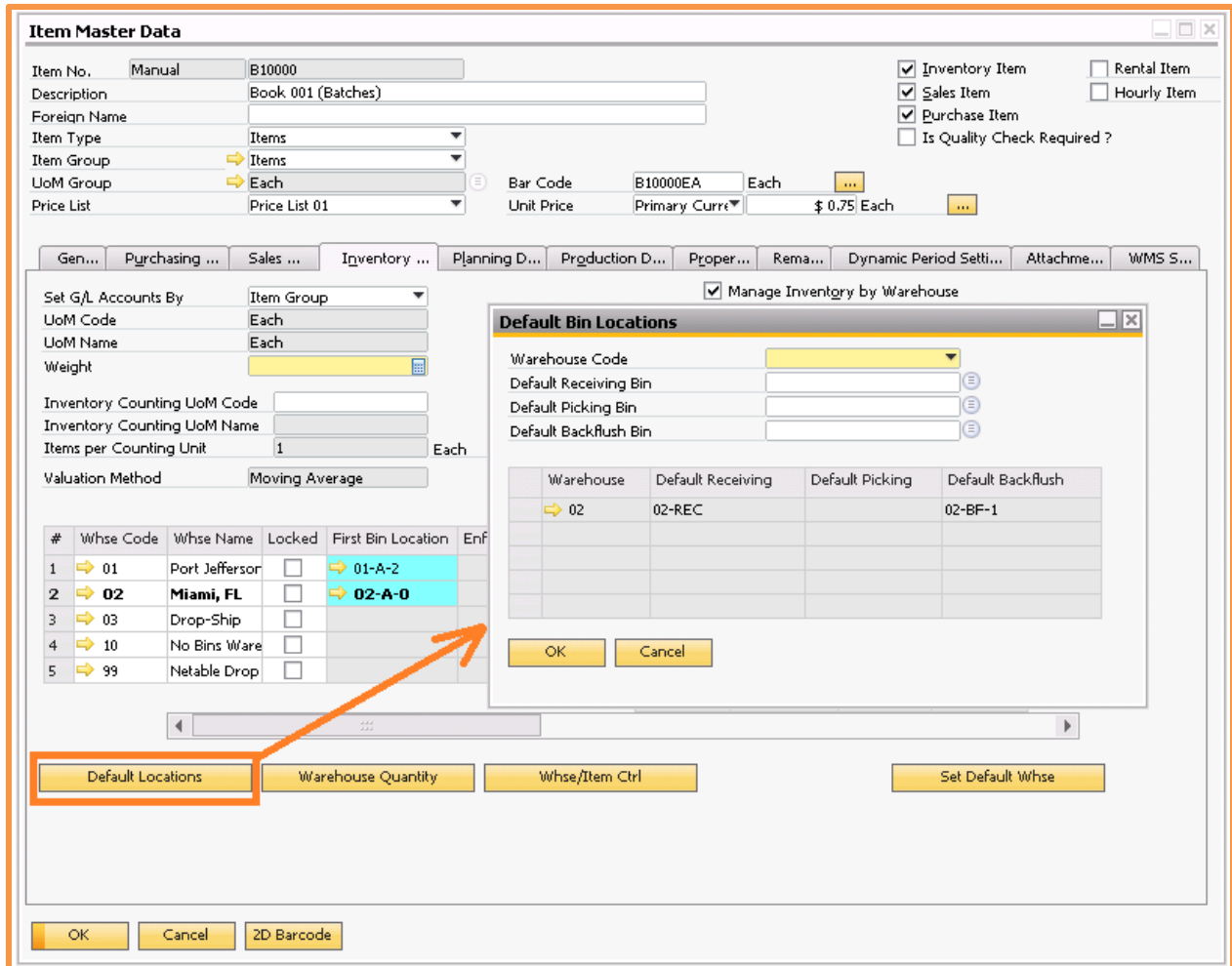
Click on the "Default Locations" button. The Default Bin Locations window is displayed. You may enter your choices in the upper portion of the window, and they will be shown in the lower portion.

Warehouse Code   Select the warehouse for the default location

Default Receiving Bin   Select the location into which this item will generally be
                          received in this warehouse

Default Picking Bin   Select the location from which this item will generally be picked in this warehouse

Default Backflush Bin   Select the location from which this item will be picked as a component during production in this warehouse. This choice is valid only if "Enable Backflush Processing" was selected in WMS Options, and if the item is not a serial or batch-number item. It is required that the item must be in this bin if it is a backflush component on a production order.

When all entries have been entered for a warehouse, click on "Update" to save the selections and display them in the grid.

Purchasing Data Tab

The Purchasing Data tab will contain the default Purchasing UoM for the item.

The Purchasing UoM found on this screen will be the default unit of measure on Purchase Orders and other purchase documents. However, you will be able to enter other valid units of measure if desired.

Please consult your support representative if you have any questions regarding the best way to set up the units of measure.

Item Master Data

Item No.	Manual	PS001	☑ Inventory Item	☐ Rental Item
Description		Poland Spring - Sparkling Water - Lime (UoM Group)	☑ Sales Item	☐ Hourly Item
Foreign Name		FN	☑ Purchase Item	
Item Type		Items	☐ Is Quality Check Required ?	
Item Group	➡	Beverages		
UoM Group	➡	Beverages	Bar Code	000	Bottle	...
Price List		Price List 01	Unit Price	Primary Curre▼	$ 1.50	Bottle	...

General	**Purchasing Data**	Sales Data	Inventory Data	Planning Data	Production Data	Properties	Remarks	Dynamic Period Settings	Attachments

Preferred Vendor	➡	V1010	⊜ ...	
Mfr Catalog No.				
Purchasing UoM Code		Case	...	
Purchasing UoM Name		Case		
Items per Purchase Unit		24	Bottle	
Package Type		Pallet	...	
Quantity per Package		4		

Length	21"	...	
Width	30"		
Height	12"		
Volume	7,560	ci ▼	
Weight	120Lb		

Customs Group	Customs Exempt ▼	%
Tax Type	Regular Tax ▼	
Standard Purchase Pack	1	
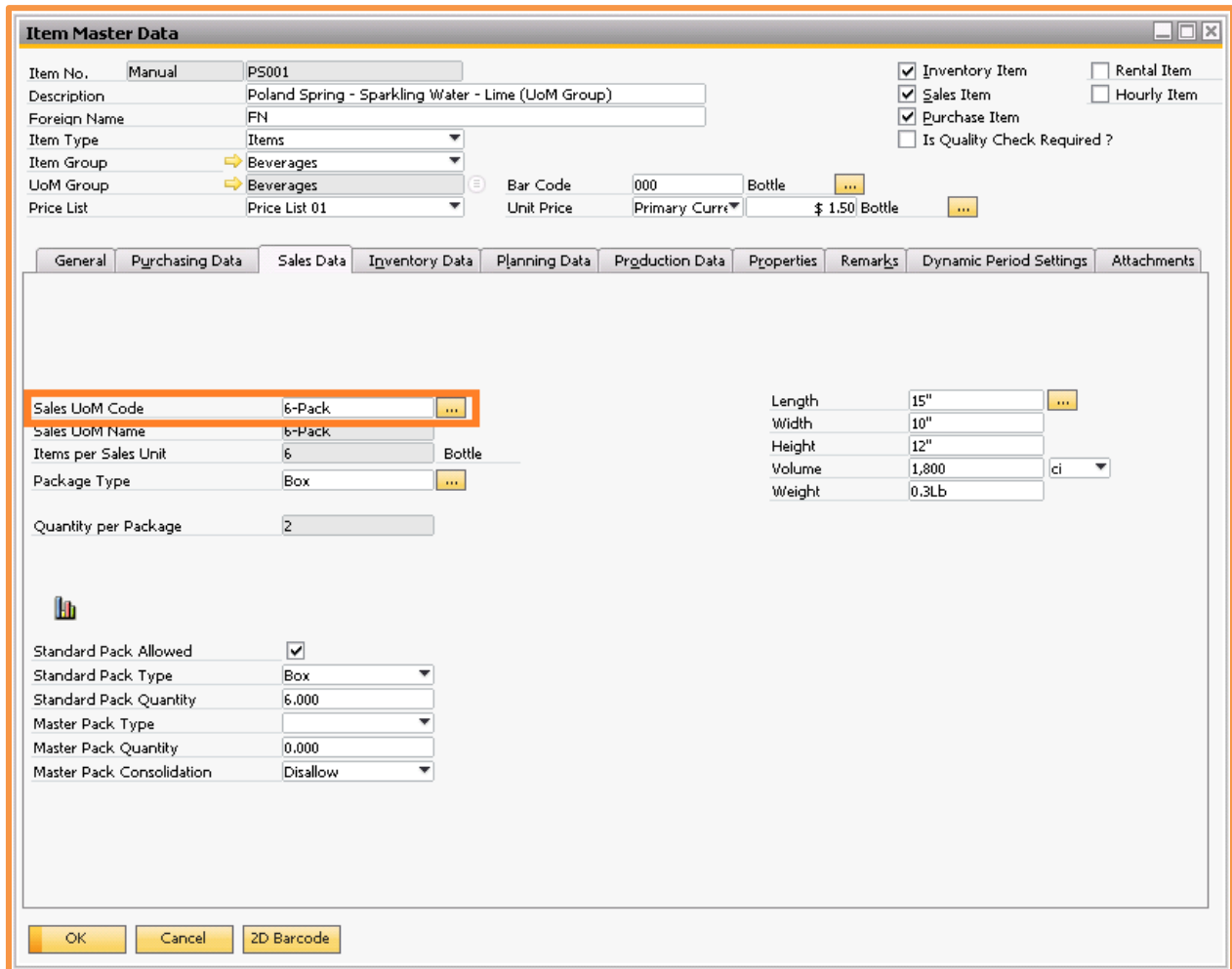
OK	Cancel	2D Barcode

Sales Data Tab

The Sales Data tab will contain the default Sales UoM for the item.

The Sales UoM found on this screen will be the default unit of measure on Sales Orders and other Sales documents. However, you will be able to enter other valid units of measure if desired.
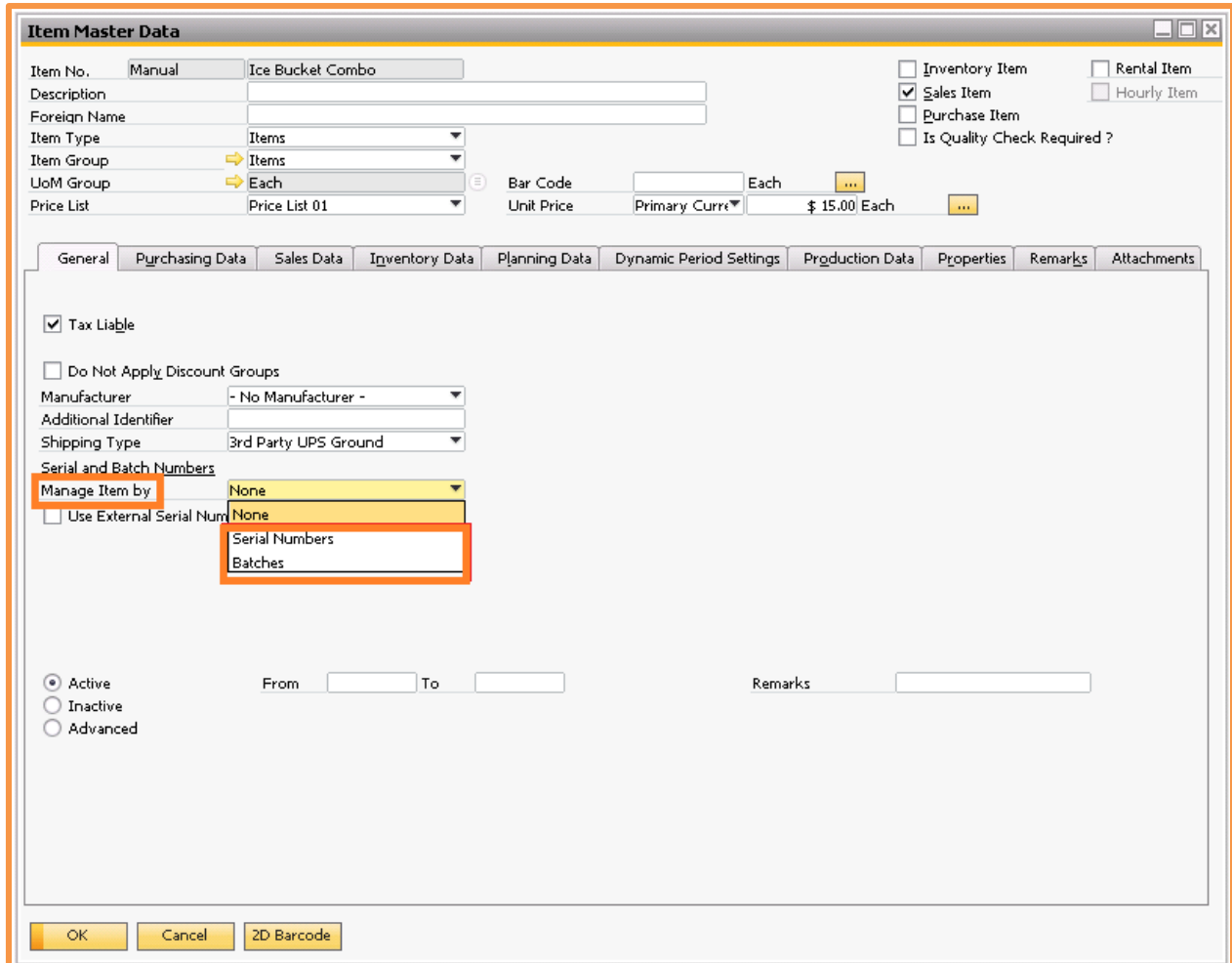
Please consult your support representative if you have any questions regarding the best way to set up the units of measure.

Special Item Options

Using Serial and Batch Numbers

Standard SAP functionality includes the option to mark items for management by serial or batch (lot) numbers.

Serial Numbers: If an item is managed by serial number, then each unit must have a unique serial number. The WMS Options setup allows you to choose whether to scan the internal serial number, manufacturer serial number, or batch/lot number for each item. Different serial numbers may be stored in different bins in the warehouse.

Batch Numbers: If an item is managed by batches, then a unique batch number is assigned to a specified quantity of the item. A batch number may be used more than once, if additional quantities are part of the same batch that was entered previously.

SAP Business One also allows you to indicate a management method for serial or batch items.
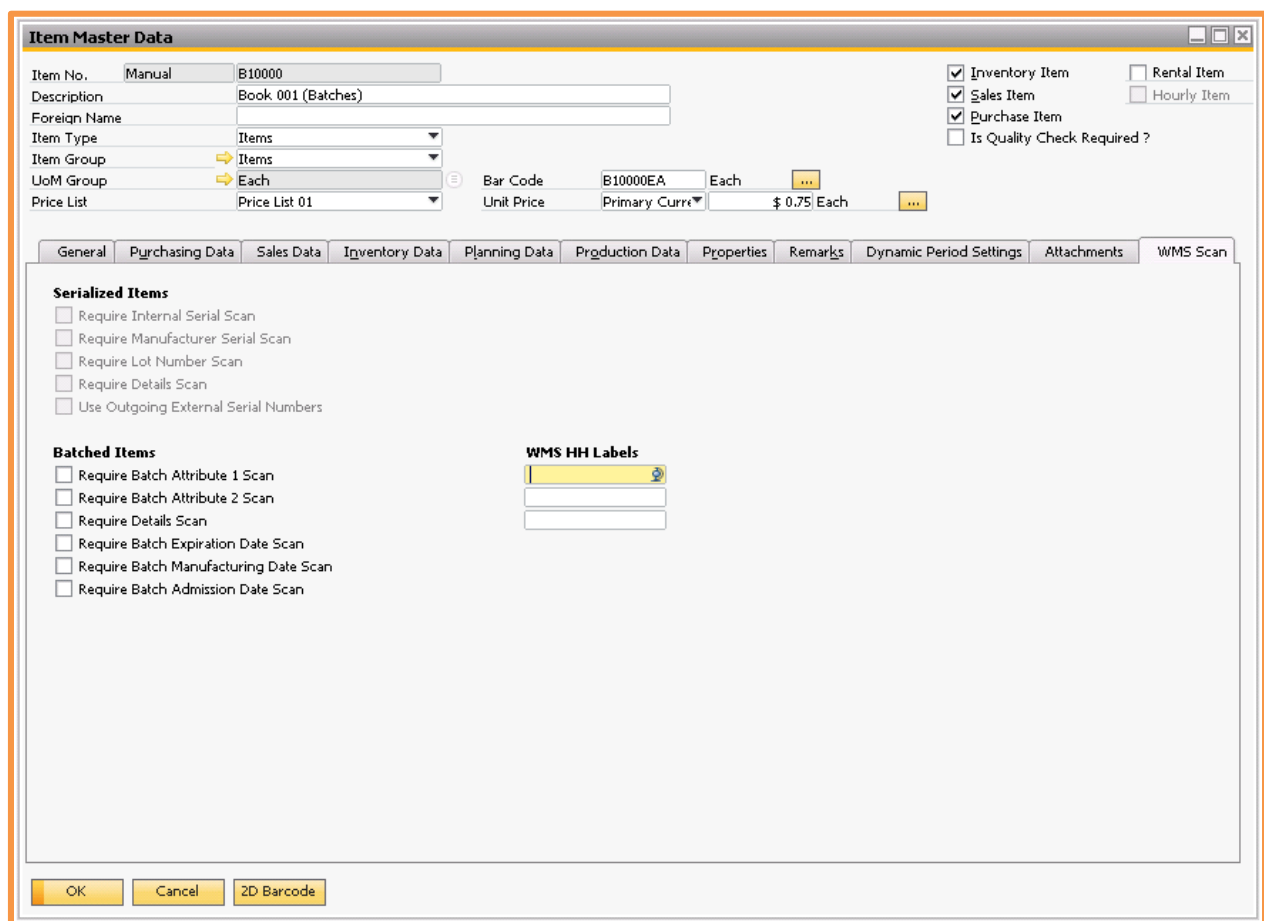
On Every Transaction: You must enter or select serial or batch number(s) on every transaction for the item, including receipts, transfers, deliveries, production, adjustments, etc. Every such item has an assigned serial or batch number at all times.

On Release Only: It is not necessary to enter serial or batch numbers as items are received or produced. However, they must be assigned whenever an item is released, including deliveries, issues for production, warehouse transfers, goods issues, etc. This method is suitable for companies that do not require serial or batch tracking within their warehouse, but do need to track items that have been sold or used in production.

Achieve Warehouse Management adheres to all of the procedures required by the Business One program. You will be required to enter or select serial or batch numbers for all transactions as indicated by the management method for the item. Please note that in order to use On Release Only for Serial Management, the option must be selected in the *Warehouse Management Options* screen discussed earlier

With WMS there is also an additional tab on the item master, *WMS Scan* that has additional options for serial and batch items.

Serialized Items

Require Internal Serial Scan	Will require that users scan a value into the Internal Serial Number field on the handheld
Require Manufacturer Serial Scan	Will require that users scan a value into the Manufacturer Serial Number field on the handheld

Require Lot Number Scan	Will require that users scan a value into the Lot Number field on the handheld
Require Details Scan	Will require that users scan a value into the Details field on the handheld
Use Outgoing External Serial Numbers	This can be enabled when using an Achieve One feature for very high volume called External Serial Numbers. Please see the guide Using External Serial Number with Achieve One WMS for more information

Batched Items

Require Batch Attribute 1 Scan	Will require that users scan a value into the Batch Attribute 1 field on the handheld
Require Batch Attribute 2 Scan	Will require that users scan a value into the Batch Attribute 2 field on the handheld
Require Details Scan	Will require that users scan a value into the Details field on the handheld
Require Batch Expiration Date Scan	Will require that users scan a value into the Batch Expiration field on the handheld
Require Batch Manufacturing Date Scan	Will require that users scan a value into the Batch Manufacturing Date field on the handheld

Require Batch Admission Date Scan	Will require that users scan a value into the Batch Admission Date field on the handheld
WMS HH Labels	These 3 fields will change the name of the label on the handheld for the 3 corresponding fields they line up with

External Serial Numbers

There is an option within **Achieve Warehouse Management** called External Serial Numbers that allows you to still use Serial Numbers for certain SAP/WMS transactions without the Serial Number data itself being stored inside of SAP. This can increase performance when dealing with large amounts of serial numbers.

External Serial Numbers works mostly just like the standard SAP Serial Numbers with one major difference; the External Serial Numbers are not bin location specific. What that means is that although the item quantities themselves will still be bin specific, the external serial numbers will not belong to a specific bin. This makes transferring External Serial Number enabled items between bins in the same warehouse easier as it will not require you to specific the serial numbers themselves.
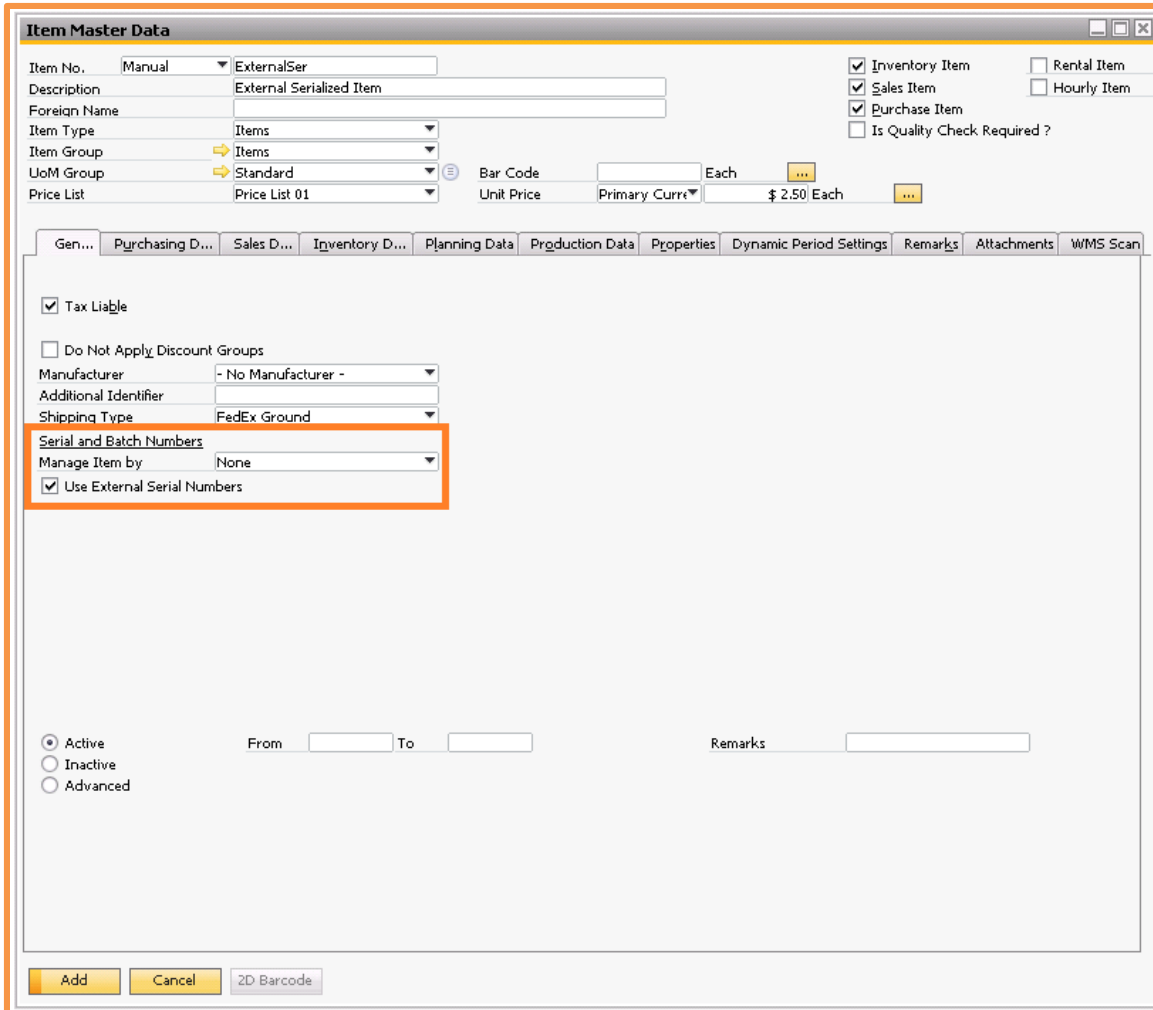
For all other transactions though, you will need to enter or select serial numbers depending on the transaction type and item master settings. Let's take a closer look at how to use External Serial Numbers.

Item Master Data

Setup

There are a few settings on the Item Master Data that must be evaluated before an item can track external serial numbers.

First, you will need to set the standard SAP field for "Manage Item by" to None. Once that is done you will see that a new checkbox labeled "Use External Serial Numbers" becomes available. To manage the item using external serial numbers, check this box.

Next you will need to go to the Production Data tab and set the "Issue Method" to be Manual.

Note, if you forget this step and try to Add or Update the item, a message will pop up letting you know that it needs to be set to Manual and asks if you would like to set it now.

The last setting is found on the WMS Scan tab, and it is called "Use Outgoing External Serial Numbers". If this flag is checked, then the external serial numbers will only need to be captured on release transactions (Deliveries, Goods Issues, etc.). If this flag is not checked then external serial numbers will need to be captured for all transactions. These options work similarly to the standard SAP Serial Number Management options of "On Release Only" and "On Every Transaction".

Lookup

Once your External Serial Number item is added and has been used in a transaction, you will be able to look up a list of the serial numbers and transactions by right-clicking on the Item Master Data screen and selecting External Serial Numbers.

That will open up the External Serial Number Transaction Display screen. At the top, you will see a list of the serial numbers, what warehouse they are in, and if they are available or not. As you highlight each row, the bottom will display the transactions that the serial number has been involved in.

SAP Business One Processes

When using External Serial Numbers inside of SAP transactions, the system will prompt you to enter or select them.

Incoming Transactions

On incoming transactions like GRPOs or Returns for example, you will need to enter in the external serial numbers that are coming into the system. To do that there are two options. Note, if your item is set to use Outgoing External Serial Numbers only, then it will not prompt you for the external serial numbers.

The first option is to highlight the item row on the document, then right-click and select External Serial Numbers. That will open up the External Serial Number Entry window.

The other option is to just try and add the document. Since the system will not let you add the document without entering the External Serial Numbers, it will open up the External Serial Number Entry window here as well.
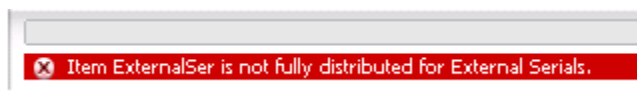
Whichever method you choose, the window will open up so you can enter in the serial numbers.

This first column is for the actual Serial Number. The second column, labeled RMA Number, is not required but may be used if this is a return that you provided your customer an RMA number for and want to help track it.

After you have filled in all your information, you can click on Add to save the serial numbers. That will bring you back to the main document screen where you can now finish your transaction.

Note, since External Serial Numbers are not bin specific like we mentioned above, the bin you select will only be for the item quantities, not the serial numbers themselves.

After the document has been added, you can pull it back up and review the serial numbers that were entered by right-clicking on the row and selecting External Serial Numbers. That will bring up the External Serial Number Display screen.

Outgoing Transactions

On outgoing transactions like Deliveries or Goods Issues for example, you will need select the external serial numbers that are leaving the system. To do that there are two options. Note, if your item is set to use Outgoing External Serial Numbers only, then you will enter your serial numbers similarly to how we just saw with the standard incoming transactions, and not select them from a list.

The first option is to highlight the item row on the document, then right-click and select External Serial Numbers. That will open up the External Serial Selection window.
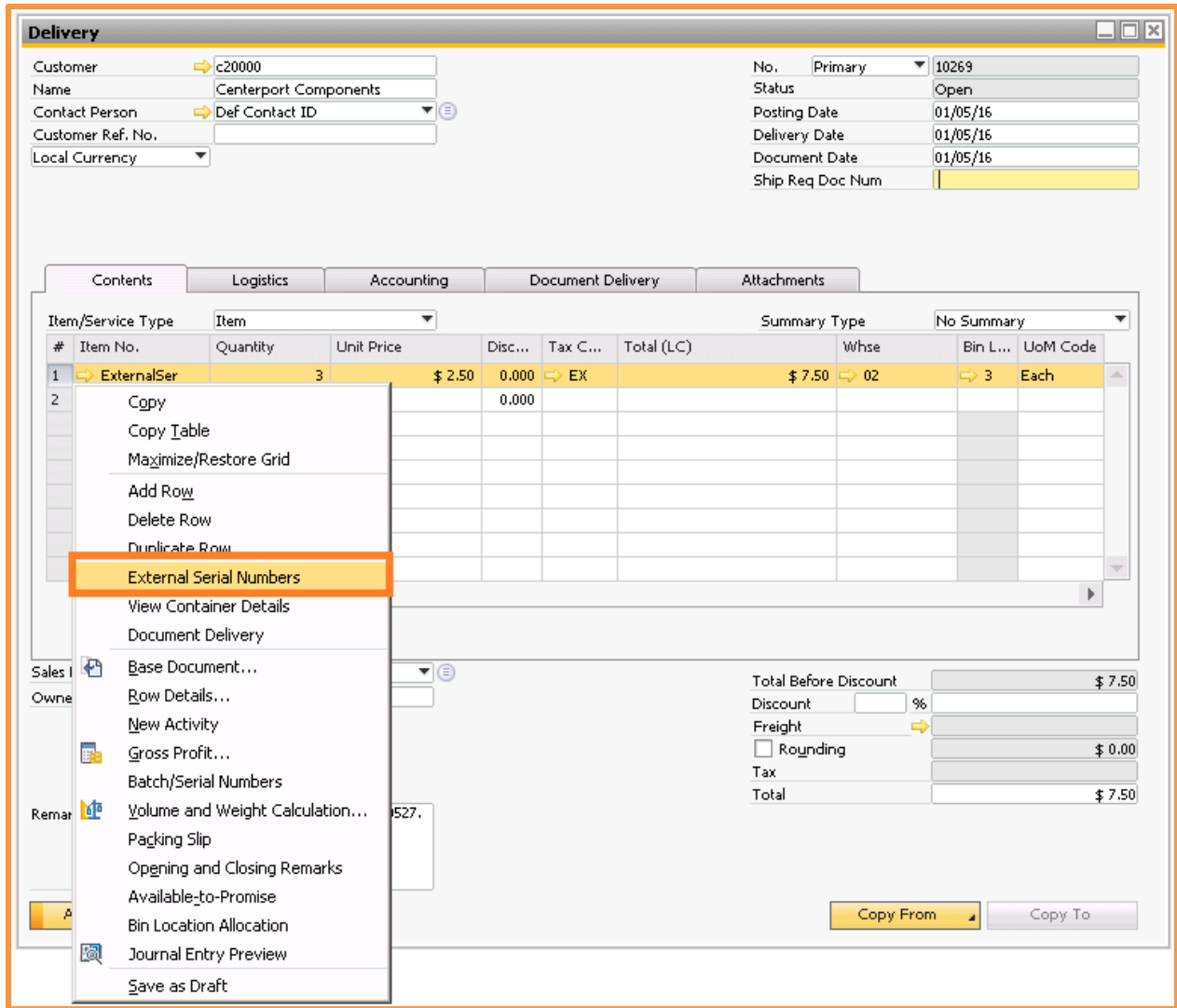
The other option is to just try and add the document. Since the system will not let you add the document without selecting the External Serial Numbers, trying to add it will open up the External Serial Number Entry window here as well.
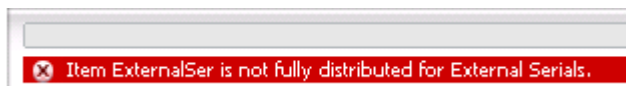
Whichever method you choose, the window will open up so you can select the serial numbers.
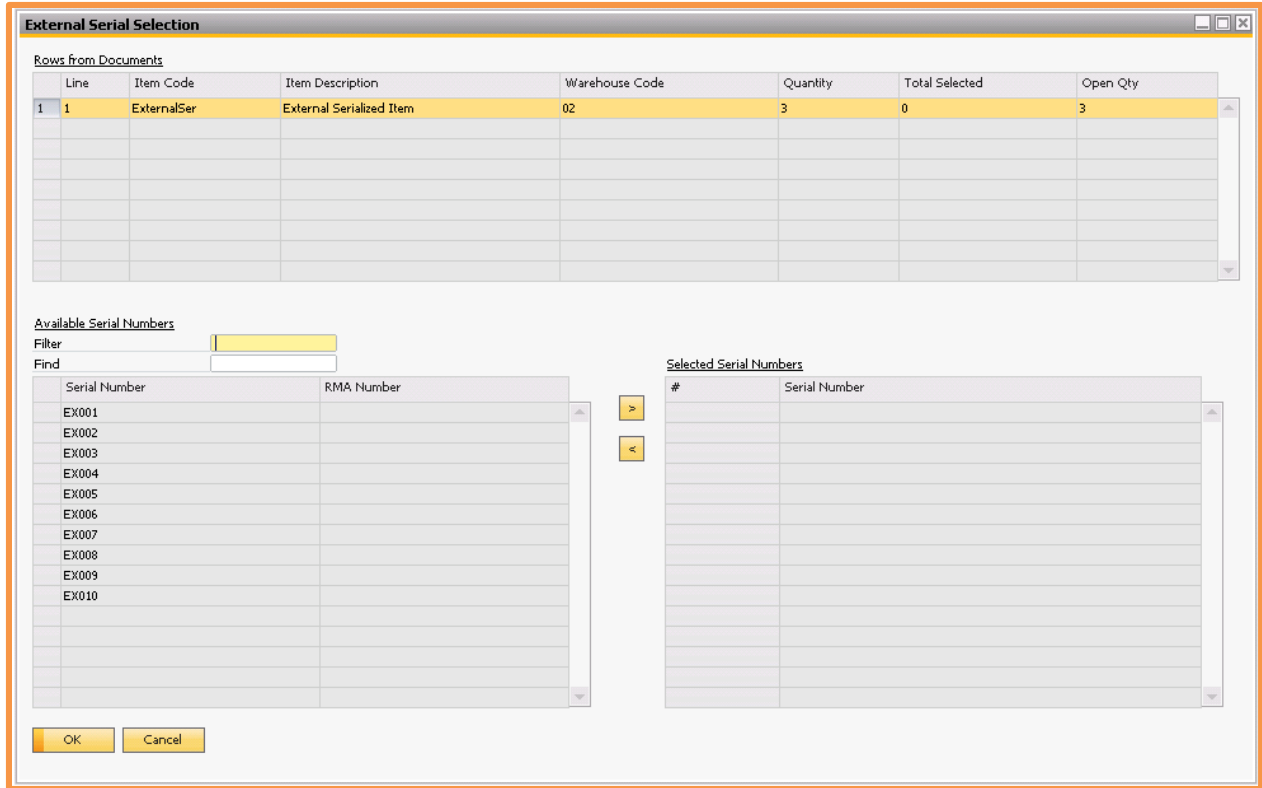
The top grid of the window shows you the items on the document that need external serials selected, the bottom left grid lists the available external serial numbers, and the bottom right grid lists the external numbers you have selected for the item.

To select your serial numbers, highlight them on the left grid and then click on the > button to move them over to the right grid.

External Serial Selection

Rows from Documents

	Line	Item Code	Item Description	Warehouse Code	Quantity	Total Selected	Open Qty
1	1	ExternalSer	External Serialized Item	02	3	0	3

Available Serial Numbers

Filter

Find

	Serial Number	RMA Number
	EX001	
	EX002	
	EX003	
	EX004	
	EX005	
	EX006	
	EX007	
	EX008	
	EX009	
	EX010	

>
<

Selected Serial Numbers

#	Serial Number

OK Cancel

External Serial Selection

Rows from Documents

	Line	Item Code	Item Description	Warehouse Code	Quantity	Total Selected	Open Qty
1	1	ExternalSer	External Serialized Item	02	3	3	0

Available Serial Numbers

Filter

Find

	Serial Number	RMA Number
	EX004	
	EX005	
	EX006	
	EX007	
	EX008	
	EX009	
	EX010	

>
<

Selected Serial Numbers

#	Serial Number
1	EX001
2	EX002
3	EX003

OK Cancel

If you need to remove a serial number from the selected grid on the right, you can just highlight it and use the < button to move it back to the available grid on the left.

After you have moved all your serial numbers to the selected grid on the right, you can click on OK to save the serial numbers. That will bring you back to the main document screen where you can now finish your transaction.

Note, since External Serial Numbers are not bin specific like we mentioned above, the bin you select will only be for the item quantities, not the serial numbers themselves.

After the document has been added you can pull it back up and review the serial numbers that were selected by right-clicking on the row and selecting External Serial Numbers. That will bring up the External Serial Number Display screen.
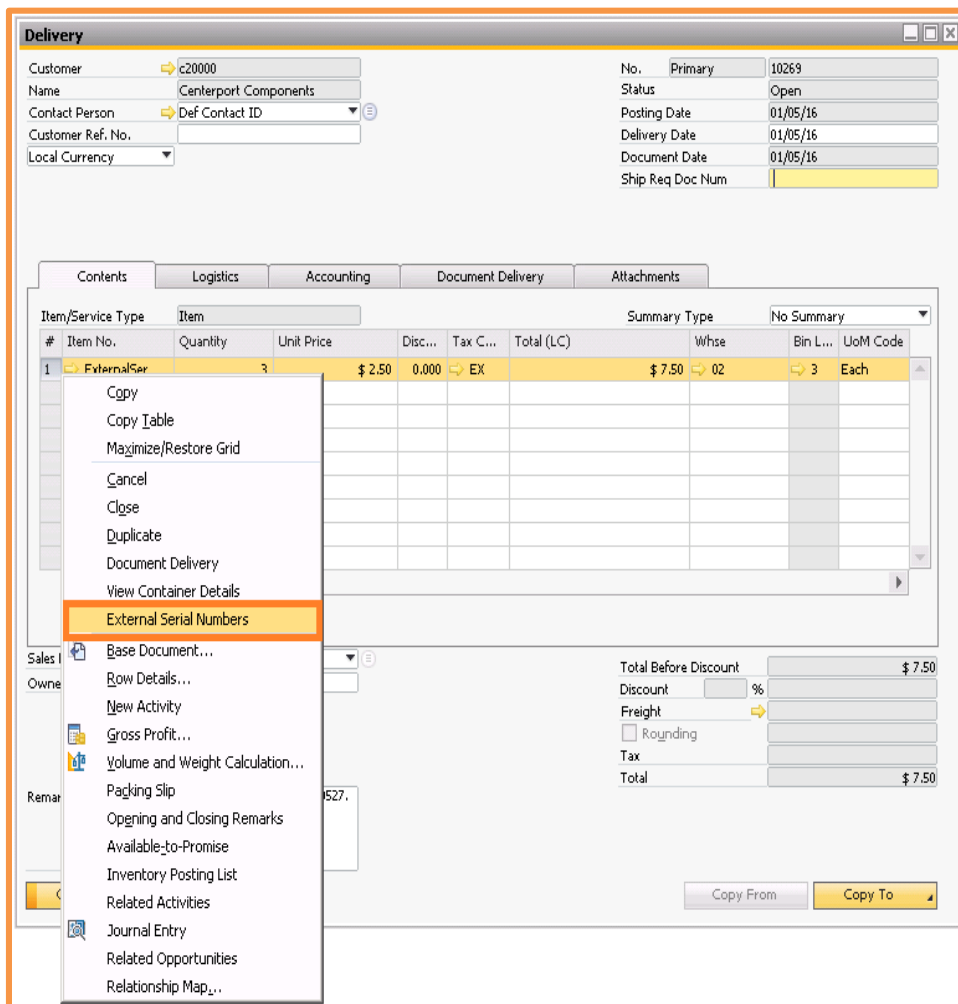
External Serial Number Display

Document Type	Delivery
Document	10269
Line Number	1
Item Number	ExternalSer
Warehouse Code	02
Quantity	3.000

Serial Number	RMA Number
EX001	
EX002	
EX003	
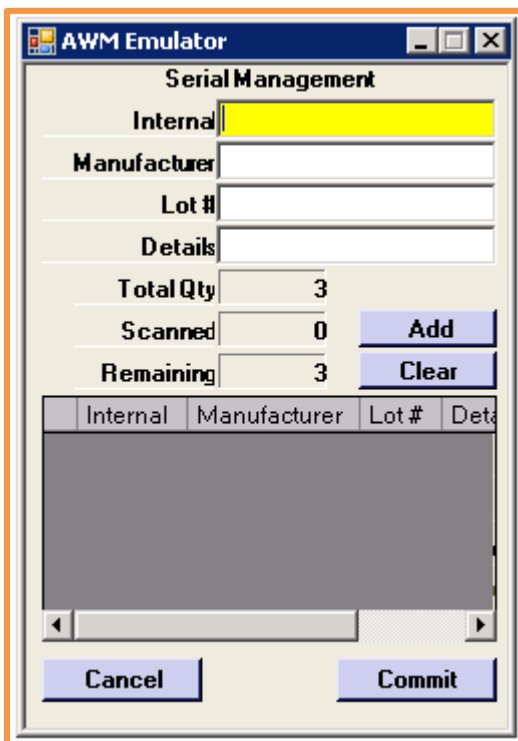
OK   Cancel

WMS Handheld Processes

When working with External Serial Numbers, the WMS Handheld Processes are fairly similar to working with regular SAP Serial Numbers but you will find some of the differences below.

Serial Management Screen
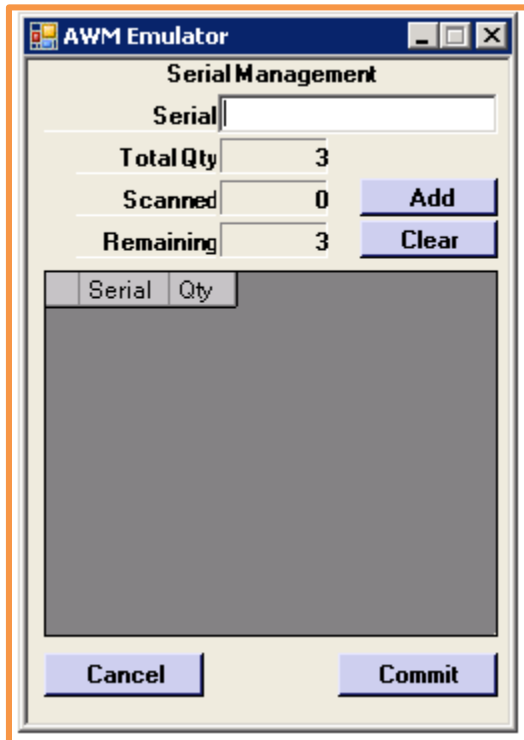
When using a standard SAP Serial Managed item, the Serial Management screen on the handheld looks like this:

As you can see you have the ability to use the Internal, Manufacturer, Lot #, or Details field when entering the serial number.

When using a WMS External Serial item, the Serial Management screen on the handheld looks like this:

There is only one field to enter the serial number into, and that is because there is only one External Serial Number field in the WMS database.

Transfers

When doing a transfer between bins in the same warehouse for a standard SAP Serial Managed item, you are required to use the … button to select the serial numbers.
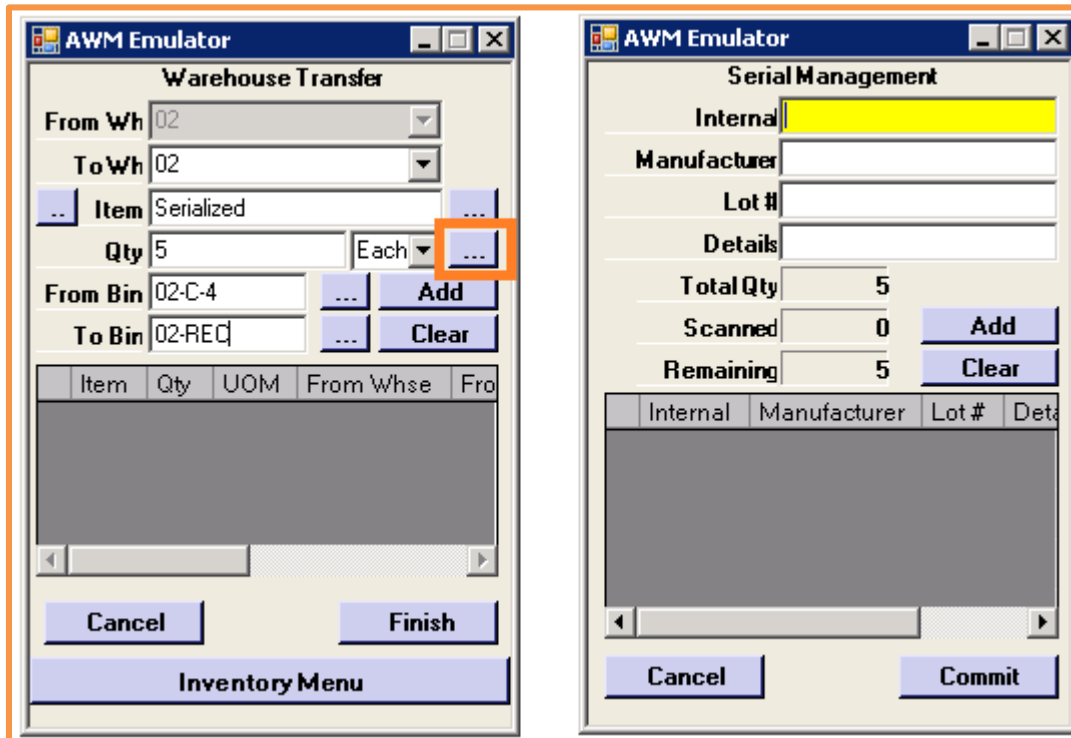
When doing a transfer between bins in the same warehouse for an External Serial item, there is no … button because you are not required to select the serial numbers.
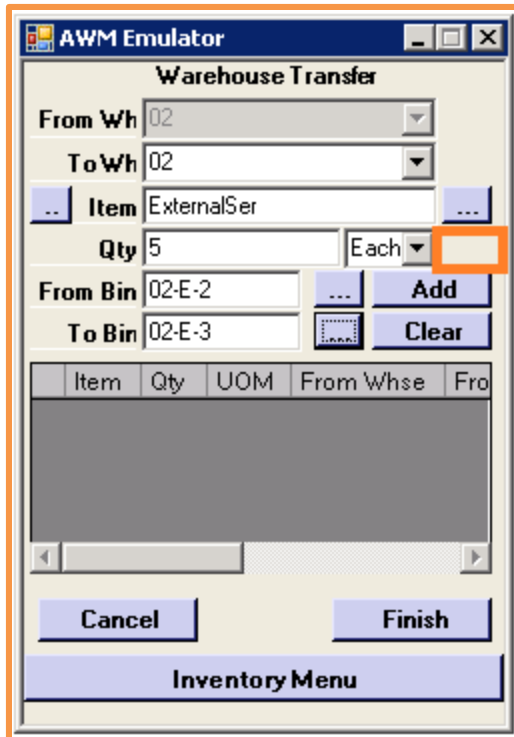
Note, if you make a transfer between 2 different warehouses you will be required to specify the External Serial Numbers that were moved.

Cycle Count Menu

As we mentioned earlier, External Serial Numbers do not belong to specific bins, only the item quantities do. Therefore, when using the counting functions on the handheld you are only specifying the counts and quantities of the items themselves in each bin location. That means that when you post an inventory count, the External Serial Numbers themselves are not adjusted. So when dealing with External Serial Numbers, it is recommended that you use Goods Issues and Goods Receipts to make inventory adjustments since you can specify External Serial Numbers during those transactions.

Location Lookup

Also, since External Serial Numbers do not belong to specific bin locations, when you use the Location Lookup on the handheld you will only see the quantity of the item in the bin, not the specific serial numbers.

Using Non-Inventory Items

SAP Business One allows you to designate items that are non-inventory items. The system does not maintain quantities of these items, although they may be included on sales and purchasing documents.

Achieve Warehouse Management handles these items differently from regular inventory items for which quantities must be tracked. There are two kinds of non-inventory items that can be included on documents.

Item-Type Non-Inventory Items

This category includes such things as catalogs, information sheets, or promotional materials. They may be included on a sales order so that they will be packed with a shipment of other goods, or shipped by themselves.

This type of item is identified by the fact that "Inventory Item" at the top of the screen is not checked, and the Item Type is "Item". It is required to enter a default picking location for each warehouse where the item would be found.

This item may be included in sales documents. Depending on your settings for non-inventory items that we saw earlier in this document, the item can appear on the handheld along with other items to be picked. Inventory transactions will be recorded for it as with ordinary items, however, no bin quantities are tracked.

Labor-Type Non-Inventory Items

This category includes fees for labor or other services, and does not represent physical items. While they may be included on sales orders for subsequent billing, they are not picked for shipment and will not appear on handheld devices at any time.

This type of item is identified by the fact that "Inventory Item" at the top of the screen is not checked, and the Item Type is "Labor". No default bin locations should be entered.

Since these items cannot be picked or shipped, they do not appear on the handheld devices, even if they are on an order with physical items. However, once such an order is picked, the labor-type items will be copied to the Delivery document along with the other items, and subsequently copied to the Invoice.

Bin Location Settings

WMS works with the standard SAP Business One Bin Locations and Master Data fields as well as some new fields that WMS will create.

Standard Fields

WMS uses the standard Bin Location Master Data fields for some of its functionality. For full explanations of each field please see your standard SAP help documentation.

Exclude from Auto. Alloc. On Issue	If this box is checked, then this bin will not be used for the allocation of inventory during WMS processes.
Alternative Sort Code	Enter an alternative sort code for the bin location if necessary. During the WMS allocations, the system can use the code as a criteria to decide from which bin locations items are allocated.
Bar Code	Enter in a barcode for the bin if necessary. The barcode, when scanned on the WMS handheld, will bring up this bin
Minimum Qty	When using the directed put away or bin replenishment functions in WMS, this is the minimum quantity for the item assigned to this bin
Maximum Qty	When using the directed put away or bin replenishment functions in WMS, this is the maximum quantity for the item assigned to this bin
Item Restrictions	If the bin has item restrictions then WMS will respect them when processing transactions

Batch Restrictions   If the bin has batch restrictions then WMS will respect them when processing transactions

Transaction Restriction   If the bin has transaction restrictions then WMS will respect them when processing transactions

WMS Added Fields

Location Type   Select the bin type:

- Pick – items may be allocated and picked
- Overstock – items may be allocated, but not picked; items will be used to replenish pick-type bins
- Quarantine – items may be stored but they may not be allocated or picked (e.g., items waiting for quality control testing, damaged items, etc.)
- Staging – items may be moved here as part of the pick staging process

- Shipping – if using **Achieve Freight Control** these bins can be used as a shipping type bin when picking on the handheld

Reserved Bin/Loc

In conjunction with **Achieve Order Reservations**, this bin will be designation as a bin for reserved items

Override Loc

This option will determine if an item allocated to be picked from this bin can be overridden and changed to a different bin during picking:

System – Lets the Bin Override password option in WMS Configuration dictate if this bin can be overridden. If you set a Bin Override password, then it will prompt for it when trying to change bins; if you do not set a Bin Override password, then this bin can be changed without any password

Always – This bin can always be overridden regardless of a Bin Override password being set or not

Never – This bin can never be overridden regardless of a Bin Override password being set or not

Replenishment UOM

When using the Bin Replenishment function this lets WMS know which Unit of Measure the Min and Max are in

Eligible Carriers

If you are using Staging Bins, then you can limit which Orders can be staged in this bin based on the Carrier from the Shipping Method

You can also set these WMS specific fields globally using the standard SAP Manage Location Management screen. Just open up the screen and click on the User Defined Field … button. That will open up a secondary window where you can set these fields with the desired information.

Warehouse – Setup

WMS works with the standard SAP Business One Warehouse Setup fields as well as some new fields that WMS will create.

Standard Fields

For full explanations of each field please see your standard SAP help documentation.

Auto. Alloc. On Issue	This option determines the bin order that WMS will allocate inventory during WMS picking processes

- Single Choice – This option is not allowed when using WMS
- Bin Location Code Order
- Alternative Sort Code Order
- Descending Quantity
- Ascending Quantity
- FIFO
- LIFO

WMS Added Fields

| *Bin Location Tab –* | This setting specifies which UoM's WMS can use when |
| *Allocation UoM's* | allocating inventory during the picking processes |

- All Sales UoMs – This will allow WMS to allocate in any unit of measure from the item master records going from largest to smallest

- Inventory UoM Only – This will restrict WMS to only allocate in the inventory unit of measure from the item master records
- Sales Order UoM – This will restrict WMS to only allocate in the unit of measure that is set for the item on the Sales Order being picked

Warehouse Management Tab – Plant Code	Enter the plant code for this Warehouse (2 character max). This will indicate that this warehouse can be used in WMS Production on the Handheld.
Warehouse Management Tab – Number of Shifts	Enter the number of shifts per plant. This will then allow users to select their shift number when they are running the WMS Production on the Handheld.
Warehouse Management Tab – Back-to-Back Auto Deliver	If *Use Batch Flow Through Allocations* is enabled, then after the Sales Order is updated, a delivery will be created automatically. Note, because this is a Warehouse-level setting, all such instances in this warehouse will have deliveries automatically created, and not go through WMS picking. Therefore you may decide it is best to create a separate warehouse to handle these back to back transactions.
Warehouse Management Tab – In Transit Warehouse	This checkbox will indicate that this Warehouse is the In-Transit warehouse for Inventory Transfer Request Picking and Receiving

Warehouse Management Procedures

The following sections provide detailed instructions for the various procedures that can be performed using the Warehouse Management System.

Note that the instructions for using handheld devices indicate that the user should enter data at various points. Entries may be made on the handheld by scanning a barcode label or by typing. Upon startup, the handheld device will display the warehouse Main Menu:
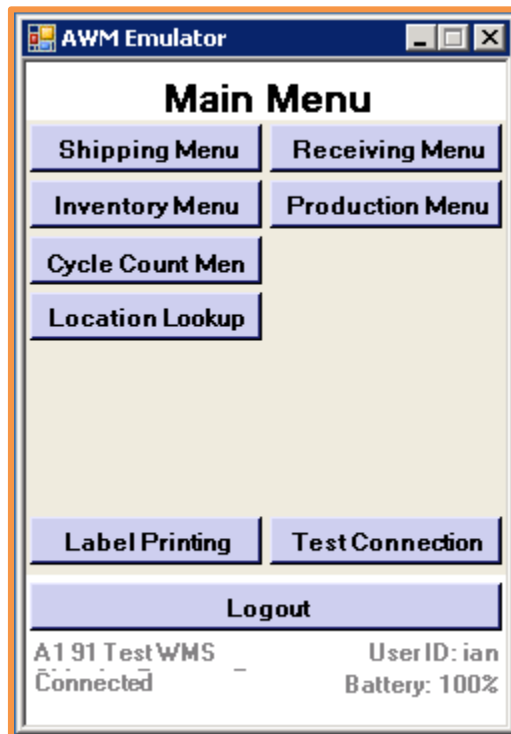
Receiving Menu
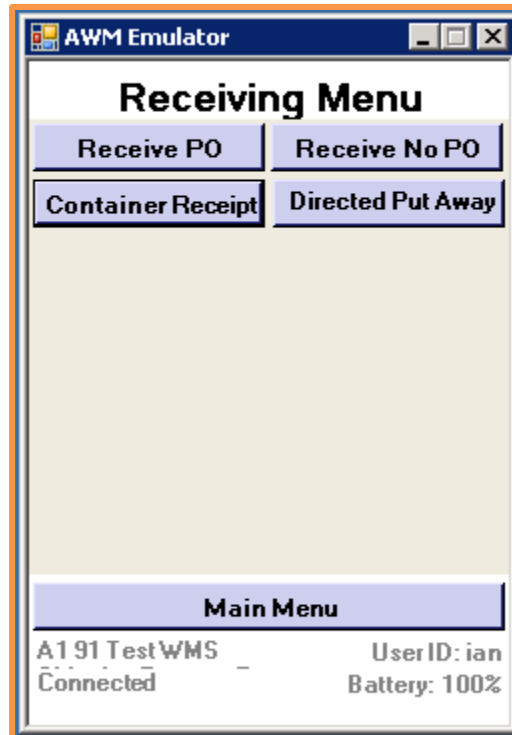
Receive PO

When items arrive in the warehouses that have been ordered by means of a Purchase Order, use the following procedures to enter them into the Business One system.

Note that you may choose to print item labels at the time of receipt. Doing so will enable you to scan each item as it is placed in its warehouse location and as the receipt is entered on the handheld device.
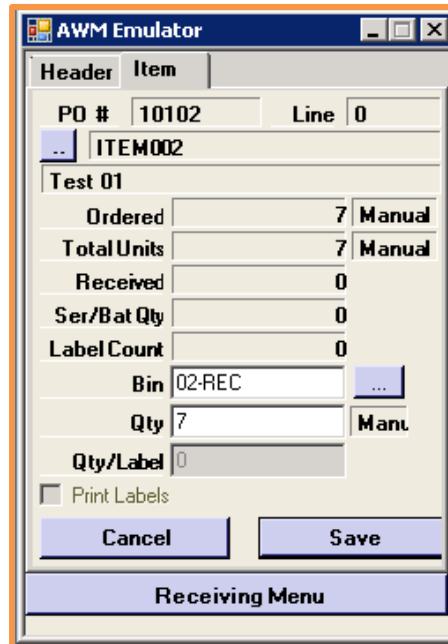
1. Using the packing slip, labels, or other information available, determine the vendor of the shipment and, if possible, the PO number.
2. Select "Receive PO" from the Receiving menu on the handheld. Then enter the PO number, if known. You may also click on the search button to search by item or vendor.
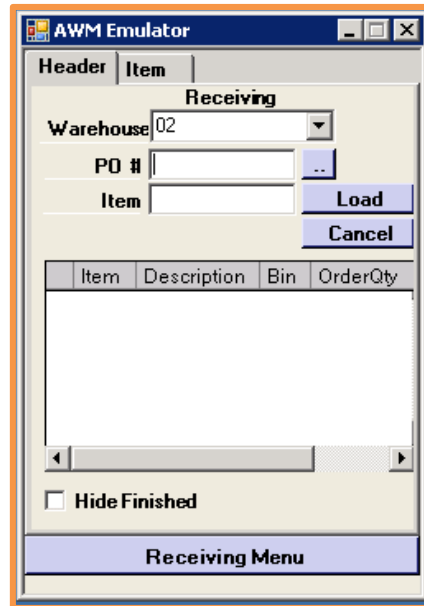
3. Once the PO is selected, you may select "Load" to display a list of the items on the PO.

4. Select or scan an item to see the detail and verify the quantity.

5. Enter, scan, or select the bin where the item is put away. Only one bin may be selected. Then select "Save".

6. The screen returns to the list of items. When all items have been completed, select "Finish" to finalize the receipt.

Depending on the selections made in the WMS Options, the system will create a Goods Receipt PO as a draft or as a completed document. It may also create an A/P Invoice either as a draft or completed document.

Receive No PO

When items are received in the warehouse that have not been entered on Purchase Orders, it is necessary to create the Goods Receipt PO directly. Note that when using the handheld device, the system will automatically save the GRPO as a draft, thus enabling users to verify that the items should be received before actually entering them into the system.

Note that you may choose to print item labels at the time of receipt. Doing so will enable you to scan each item as it is placed in its warehouse location and as the receipt is entered on the handheld device.

1. Using the packing slip, labels, or other information available, determine the vendor of the shipment.
2. Select "Receive No PO" from the Receiving Menu of the handheld device.
3. Enter the vendor, item, and bin. You may use the select button on each field, if desired. Then enter the quantity, and select the unit of measure. (Note that if you scan a barcode that is specific to the unit of measure, the correct UoM will automatically appear). When everything is correct, select "Add". The item then appears in the lower part of the screen. You may enter additional items in the same way.

4. When all items have been entered, select "Finish" to finalize the receipt.

5. The system creates a draft Goods Receipt PO. Note that the remarks at the bottom of the document indicate that it was created by the WMS scanner.

6. Once it is determined that the receipt is correct, and the items should be added to inventory, it is necessary to display the draft and add it as a complete GRPO.

Please note: because draft documents do not allow batch or serial number entry, it is not possible to include items requiring batch or serial entry on non-PO Receipts by means of the handheld device.

Container Receipt

The following procedures apply only if you are using **Achieve Container Management** for import shipments.

Container shipments are often very large, possibly consisting of multiple Purchase Orders and many different items. It often requires considerable time, and more than one warehouse worker, to log and receive all of the items that arrive in a single container. It would be inconvenient and counter-productive to require that the shipment be received as individual PO's, with the requirement that a single user complete each PO Receipt within a single session.

The Container Receiving element of WMS includes the following special features:

- Users may scan the Container number without needing to enter individual PO numbers, unless the WMS Options have been set to require a PO scan.
- Multiple users may receive the same Container at the same time, or at different times.
- A user may receive some of the items on a Container, exit out, and receive additional items at a later time.
- A given item may be received in partial quantities; the program will consolidate the quantities into a total for each item. If the same item appears more than once on the Container document, the quantities will be assigned to each instance in sequence until all are fulfilled.
- Only Shipments that have a status of "Warehouse Receiving" can be pulled up on the handheld
- The quantity received in the warehouse will be shown on the Container document in a column titled "Scanned Quantity". This may be compared to the existing "In-Transit Quantity".

Note that you may choose to print item labels at the time of receipt. Doing so will enable you to scan each item as it is placed in its warehouse location and as the receipt is entered on the handheld device.

These procedures may be performed by more than one person at the same time, or at different times, until all of the items in the container are received.

1. Using the packing slip, labels, or other information available, determine the shipment number and if possible the container and PO number(s).
2. Select "Container Receipt" from the Receiving menu on the handheld. Then enter the shipment number, if known. You may also click on the search button [...] to search by shipment number.
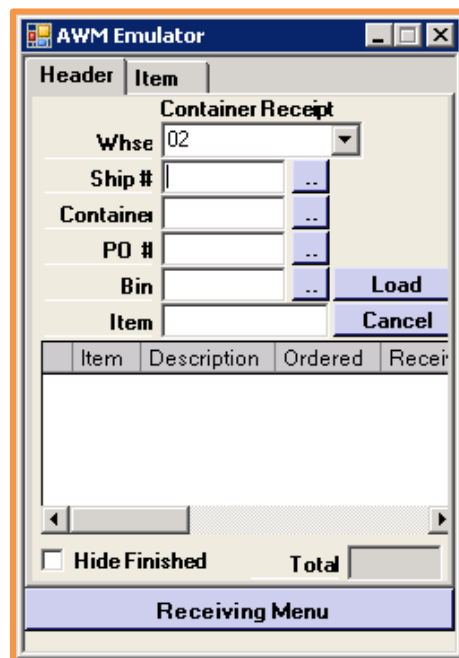
3. Click on "Load" to display the items on the shipment. Enter the bin where items will be received.
4. Depending on your WMS Configuration settings you may need to enter in the Container and PO numbers.
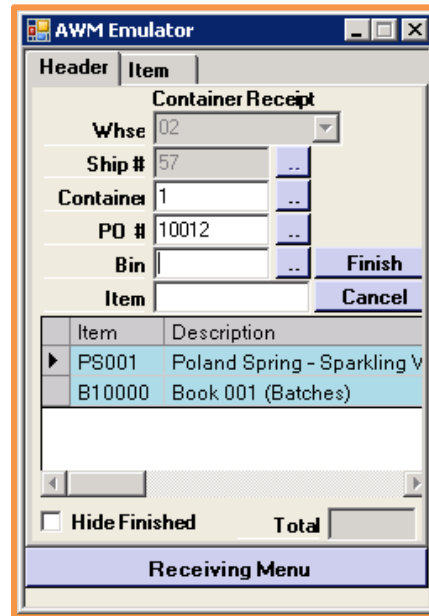
5. Select the first item to receive. Enter the quantity received, then click on "Save".

6. Continue receiving additional items. Click on "Finish" when all items have been received.

7. The Container document will show the received quantities in the column "Scanned Qty". Warehouse locations are also shown on the document

8. Change the Container status to "Received". The system will create one or more Goods Receipt PO's.

9. As required, you may create the Landed Cost document and change the Container's status to "Complete".

Directed Put Away

The following procedure applies only if you are using the Directed Put Away function.

1. Select "Directed Put Away" from the Receiving menu on the handheld. Then enter the Receiving Bin that you want to perform the direct put away in if known. You may also click on the search button [...] to search for the receiving bins.
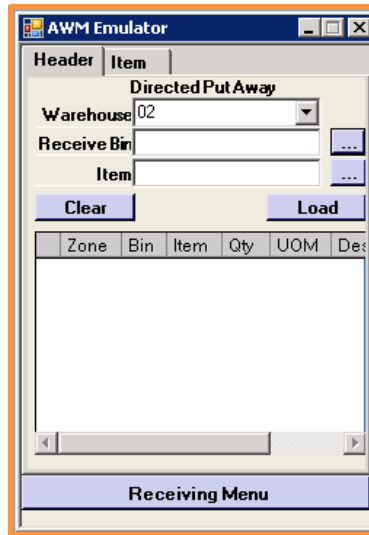
2. Once the Receiving Bin is selected, you can then either specify an item and hit Load, or just hit Load to see all eligible items.
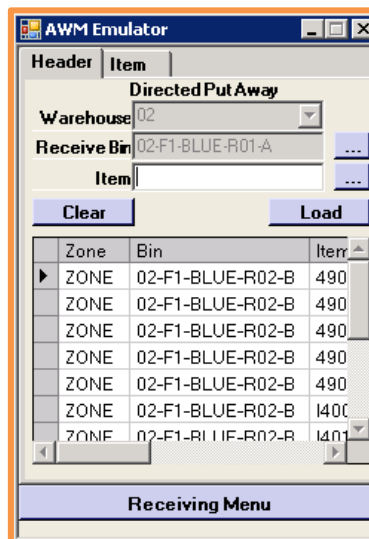
3. When the list pulls up you can start selecting the items. That will bring you to the item put away screen which displays the bin it is going to move the item to. It also fills in the quantity it wants to move. You can change it if need be otherwise you can confirm the quantity and move the items by hitting "Save".
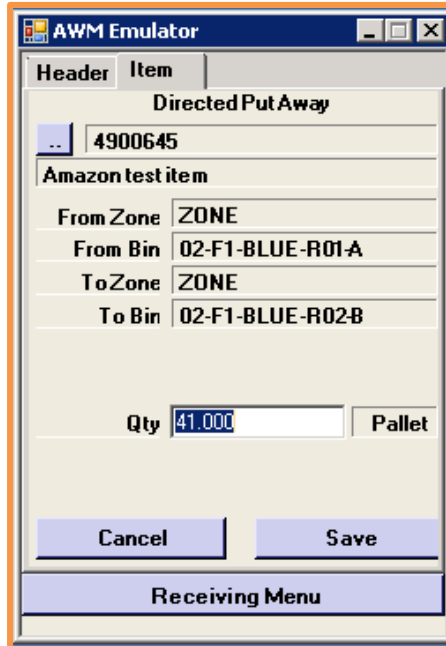
4. Continue the process until all the desired moves have been made.

Shipping Menu
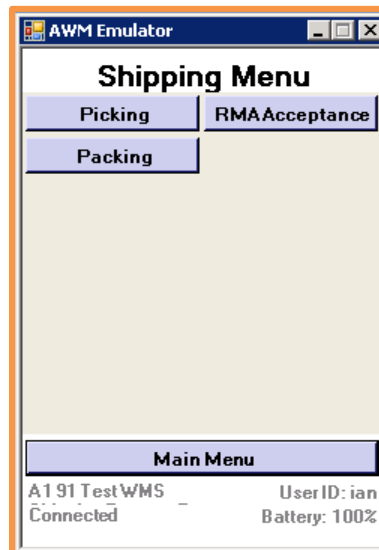
Picking

Only items that have been released to WMS can be picked for shipping. Depending on the settings in the WMS Configuration, items may be released immediately after a Sales Order has been added, or they may be released through the Logistics Manager. Also depending the WMS settings, you may be picking against a Sales Order or a Shipping Request. See the section on the Logistics Manager below in this manual for additional information.

When using handheld devices for shipping, you may print a pick ticket if desired, or you can use the handheld to guide you to each order that is ready for picking.

1. Select "Picking" from the Shipping menu.
2. If you know the sales order or shipping request number, you may enter or scan it on the handheld device. Otherwise, click on the selection icon [...] and then select "Load".
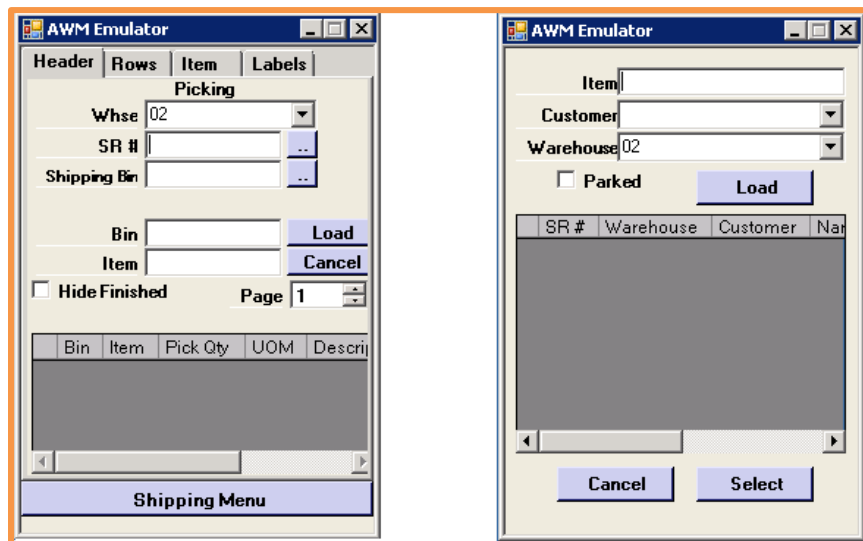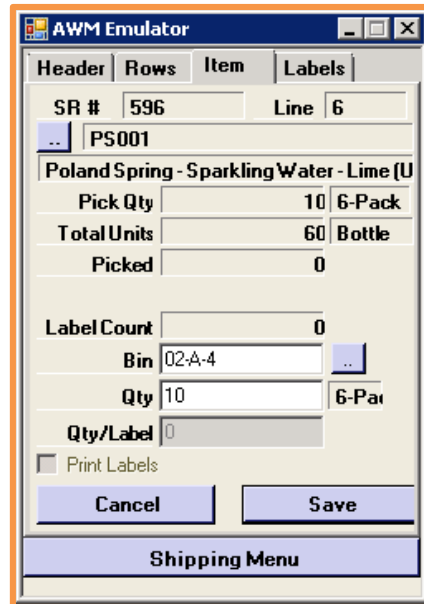

3. Choose the document to be picked, and click on "Select". The list of items for that document is displayed. Also if you are using *Achieve Freight Control* the Shipping Bin field will be filled in with the default shipping bin designated in the WMS Configuration screen that we saw earlier.
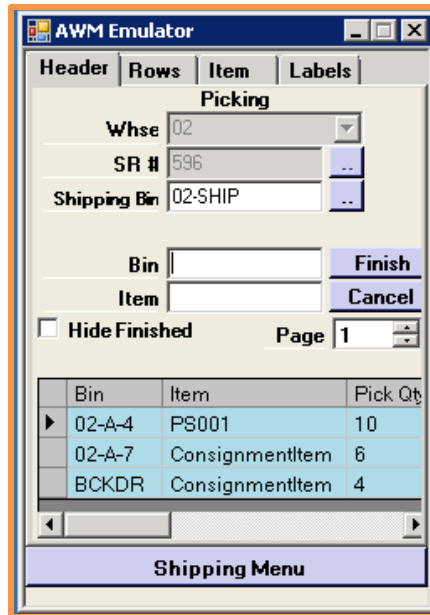
4. Select the first item to be picked. The screen displays details about the item, including the bin where it has been allocated from. Whenever possible, you should pick the item from the bin that is displayed. However, if it is not available in that bin, you may use the selection icon to see other bins where the item can be found. You may need to enter a special password, or have a supervisor enter one, in order to pick from an alternate bin.

    Note that it may be necessary to pick from more than one bin in order to pick the full quantity of the order. In that case, pick the quantity indicated from the first bin. The system will then display the next bin to pick from, and so on.

    Verify or change the quantity being picked. Then select "Save".

5. After an item has been picked, it is displayed in green on the screen.

Note that if you click the "Hide Finished" checkbox, items will be removed from the display after it has been completely picked.

6. Continue until all items have been picked. If you are using the paging option you may have to page down or up to move through the items. Then select "Finish". The screen will confirm that all items have been picked, or it will indicate that the pick is not complete. In that case, you may finish if it is not possible to pick any more of the items, or you may return to the list and pick the remaining items. Note that it is also possible to "Park" an order if you need to exit before it is completed. You will then be able to resume picking the order at a later time.
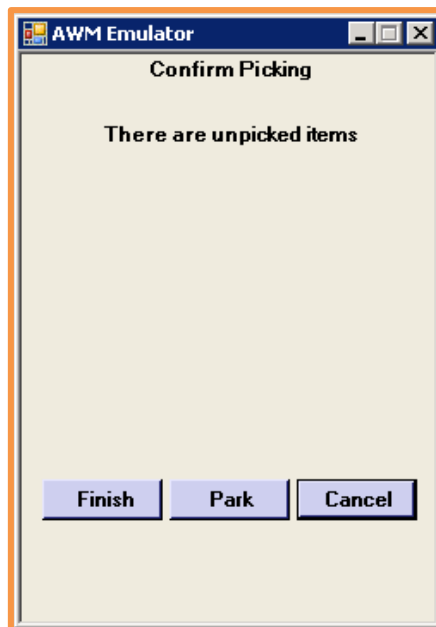
Depending on the selections made in the WMS Options, the system will create a Delivery as a draft, a completed Delivery document, a completed Delivery document and an A/R Invoice as a draft, a completed Delivery document and a completed A/R Invoice document or a Shipping Request if you have *Achieve Freight Control* and are set to pick by Sales Orders.

Packing

If you are using **Achieve Freight Control** and are set to pick by Shipping Request then you have the option to Pack on the Handheld. Only Shipping Requests that have already been picked can be packed.

1. Select "Packing" from the Shipping menu.
2. If you know the shipping request number, you may enter or scan it on the handheld device. Otherwise, click on the selection icon [...] and then select "Load".
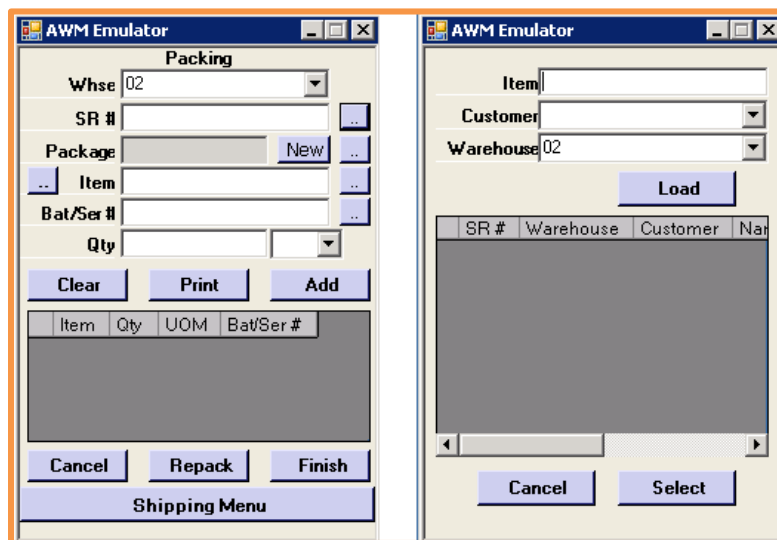
3. Choose the document to be packed, and click on "Select". Package number 1 will default in.
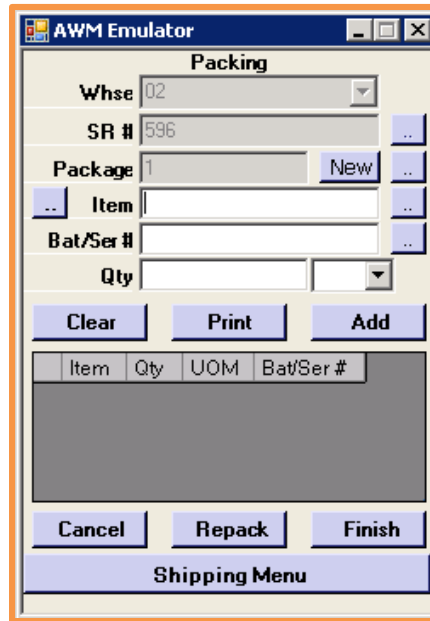
4. If you know the first item to pack you can enter it or scan it. If not, you can use the button to pull up a list of the items that were picked. Select the first item you want to pack into the current package.
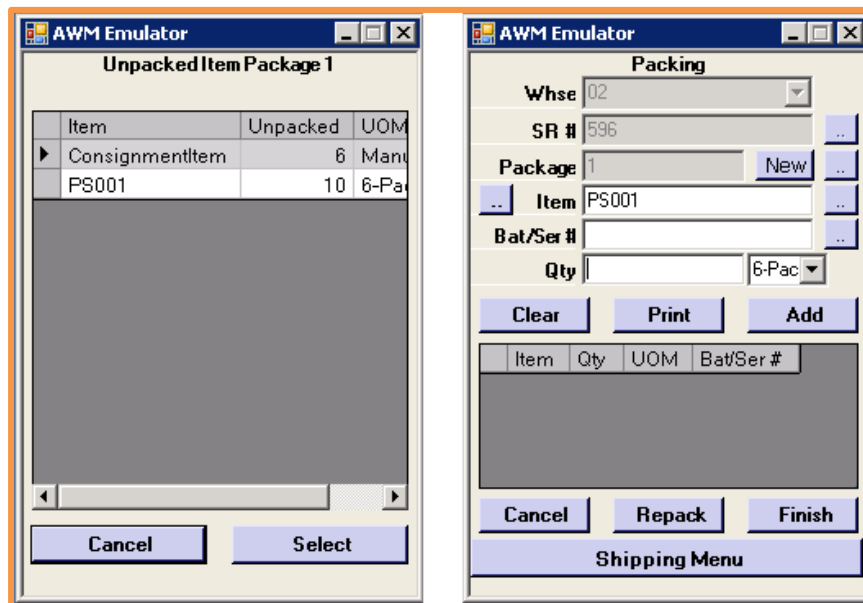
5. If the item is batch or serial managed you will need to choose which batch or serial number you want to pack. If you know the number you can enter it or scan it. If not, you can use the [...] button to pull up a list of the batches and serial numbers that were picked.

6. Next enter in the quantity that you are packing into the current package for that item and hit Add. That will bring the item into the bottom grid and allow you to continue packing.
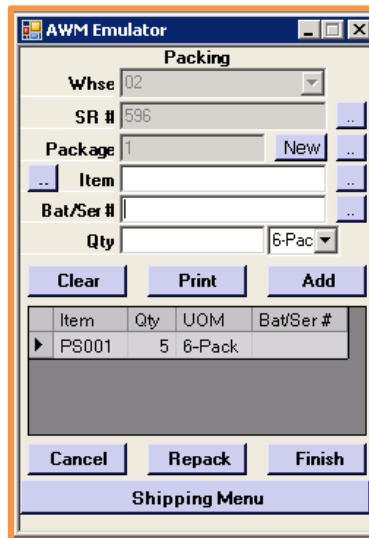
7. As you pack the rest of the items you can either pack them into the current package or use the New button to create a new package. To change the package you are currently packing in use the [...] button to pull up the list of packages. While in the packages list you can also use the Details button to add package details such as package type, Carrier ID, etc.
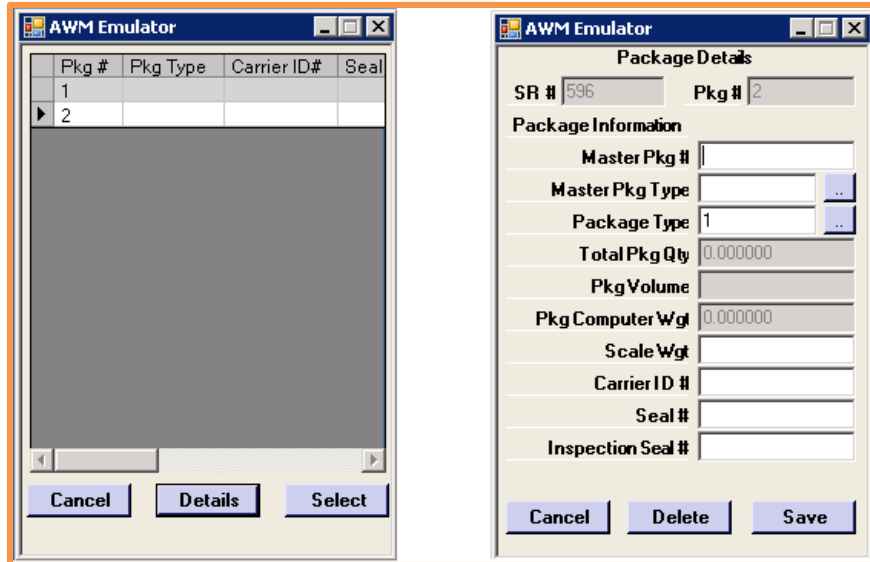
8. Continue until all items have been packed then select "Finish". The screen will confirm that all items have been packed, or it will indicate that the pack is not complete. In that case, you may finish if it is not possible to pack any more of the items, or you may return to the list and pack the remaining items.

9.
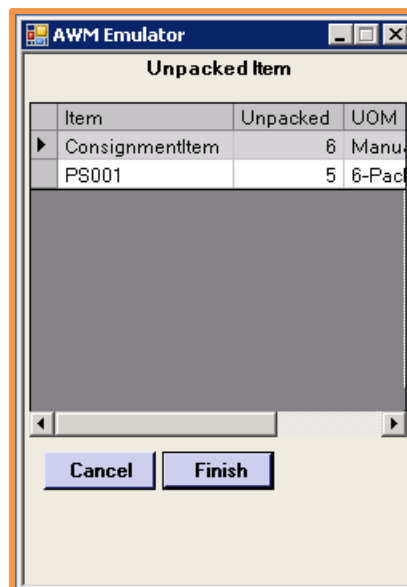
That will complete the packing for your Shipping Request and allow you to continue the shipment process (see the *Achieve Freight Control* manual for the remaining steps).

RMA Acceptance

<u>Standard SAP</u>

When you receive notification that a customer wishes to return an item, you must enter a Return document. However, if this document is added, it will immediately add the item(s) into inventory. It is desirable to avoid doing so until the item(s) actually arrive at the warehouse. The following procedure is recommended:

1. Create the Return document in the normal way. Note the User-Defined Fields relating to the RMA:

> **WMS RMA Number**   Enter the RMA number assigned to this return

> **WMS RMA Expiration**   Enter the expiration date for the return

2. Save the Return as a Draft.
3. Instruct the customer to mark the returned item with the RMA number, and to return it by the RMA Expiration date.
4. When the item is returned to the warehouse, warehouse personnel may verify that it is acceptable by means of the RMA Acceptance program on the handheld device.

RMA Evaluation on Handheld Devices

1. Select "RMA Acceptance" from the Shipping menu on the handheld.
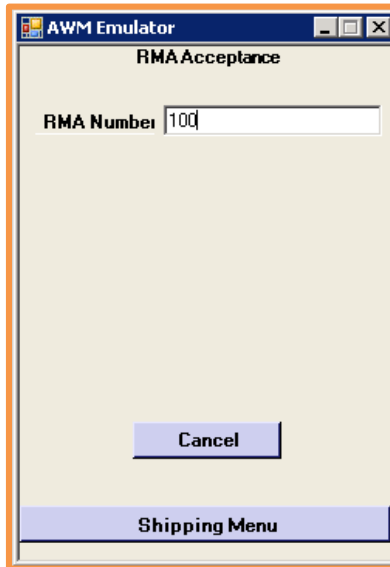
2. Enter the RMA number.
3. The system checks to see whether the RMA number is valid, and what the expiration date is. The results are displayed on the screen.
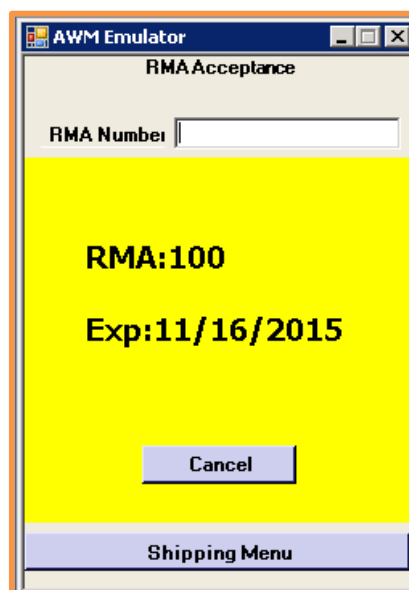
The screen is color-coded to indicate the status of the expiration date:

- Green – the RMA has not expired
- Yellow – the RMA has expired within the last 30 days
- Red – the RMA expired more than 30 days ago
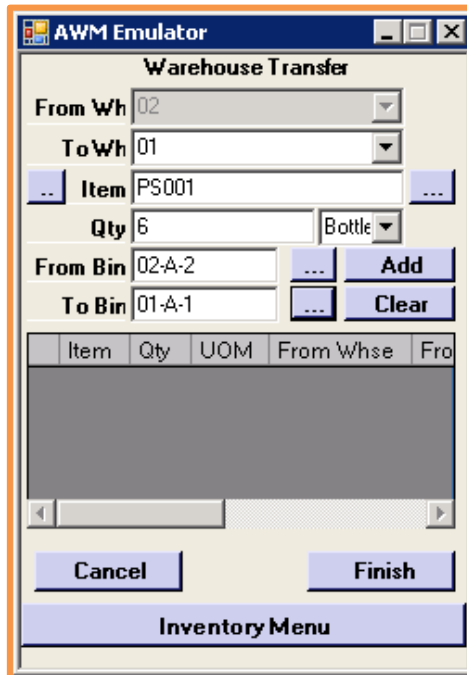
Users or supervisors may decide whether or not to accept the return based on this information. If you choose to accept it then you would continue the standard SAP returns process using the Return Draft Document.

Inventory Menu

Transfers

You can transfer inventory from bin to bin within the same warehouse or between different warehouses on the handheld.

1. Select "Transfer" from the Inventory menu.
2. Enter the appropriate information on the screen.
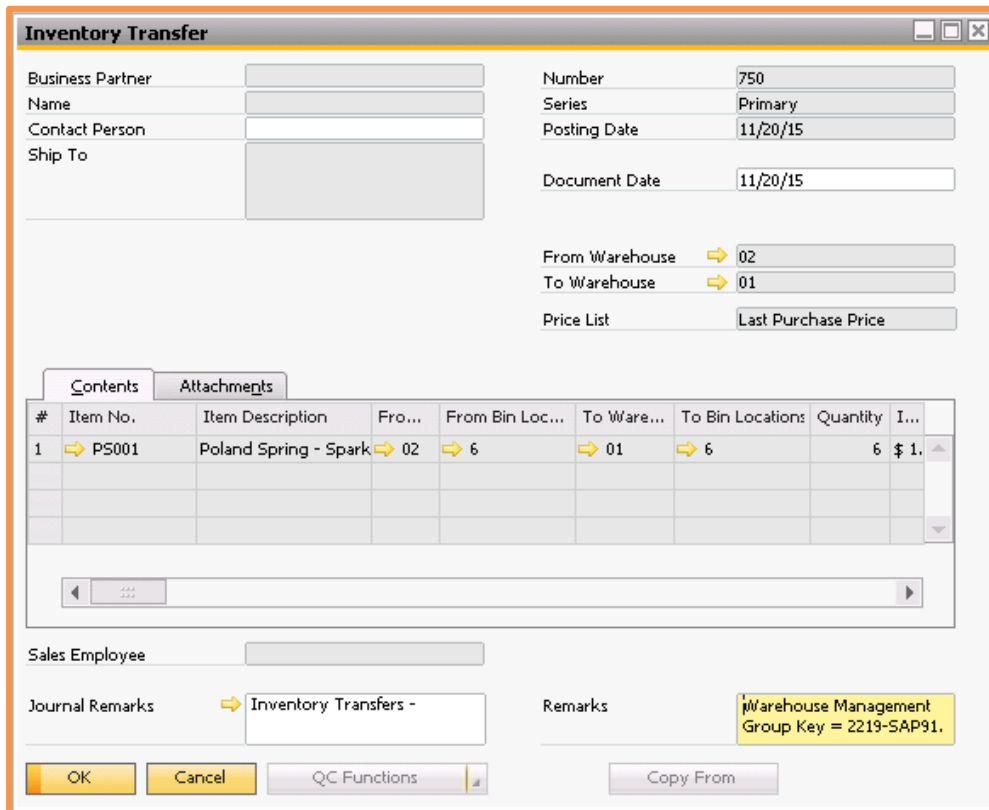
Note that the selection button for the "From Bin" will display only bins where the item is currently located, while the selection button for the "To Bin" will display all possible bins.

3. Select "Add" when the entries for the item are complete. The item will be displayed in the lower section of the screen.

4. You may enter transfers for as many items as needed. When all have been entered, select "Finish".

5. A transfer document will be created in SAP.

Suggested Bin Transfers

Suggested Bin Transfers (SBTs) can be created from *Achieve Order Reservations* or from the replenishment process in warehouse management. Only items that have been released to WMS can be accessed on the handheld for transferring.

When SBTs are created they will automatically move themselves from the Open Documents tab to the Pending Replenishment tab in the logistics manager. To release them to WMS you will need to select them on the Pending Replenishment tab and then click the Release button on the bottom of the screen. Once they are on the Ready for WMS tab they will be available on the handheld.

1. Select "Sugg Bin Tran" from the Inventory Menu.
2. If you know the SBT number, you may enter or scan it on the handheld device.

    Otherwise, click on the selection icon and then select "Load".
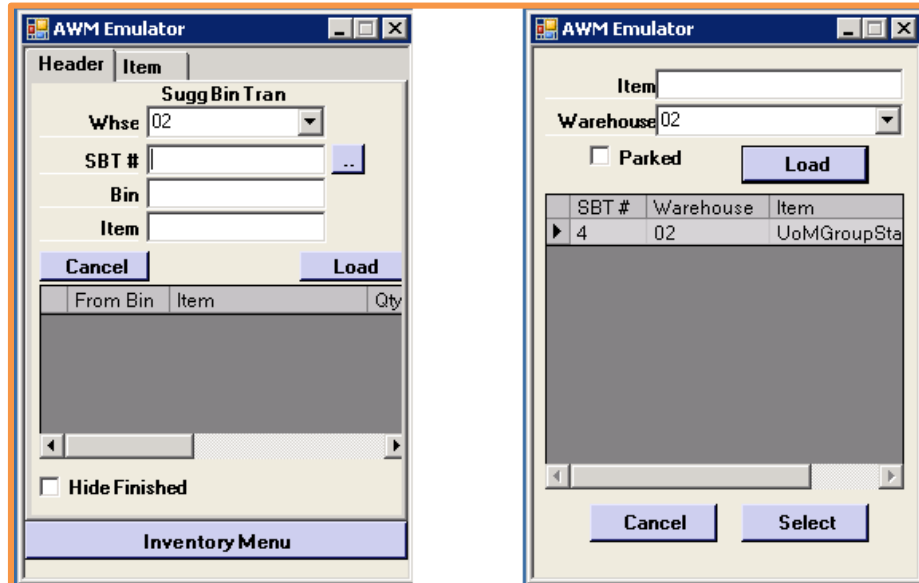
3. Choose the document to be transferred, and click on "Select". The item for that document should now be displayed.
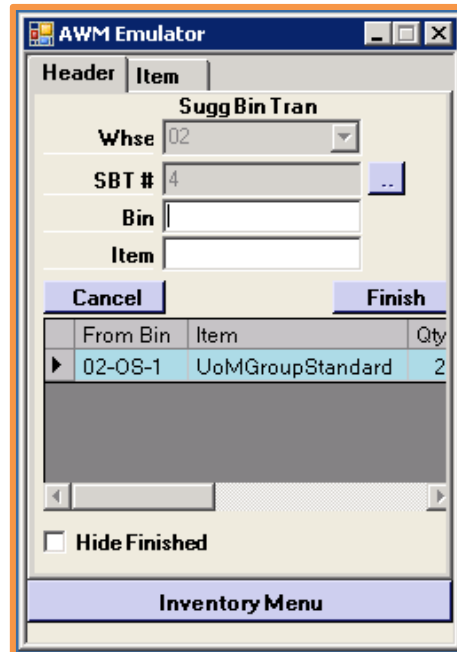
4. Select the item to bring up the screen that displays the item details, including the bins where it wants you to take the item from and move the item to. Whenever possible, you should move the item to the bin that is displayed. However, if you want to move it to different bin you can enter, scan, or select another bin.

Verify or change the quantity being transferred and select "Save".
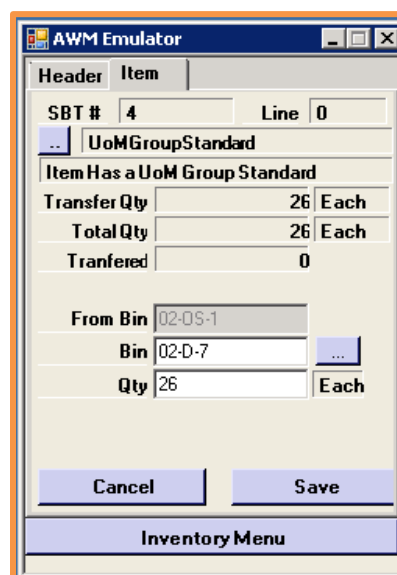
After the item has been picked, it is displayed in green on the screen.
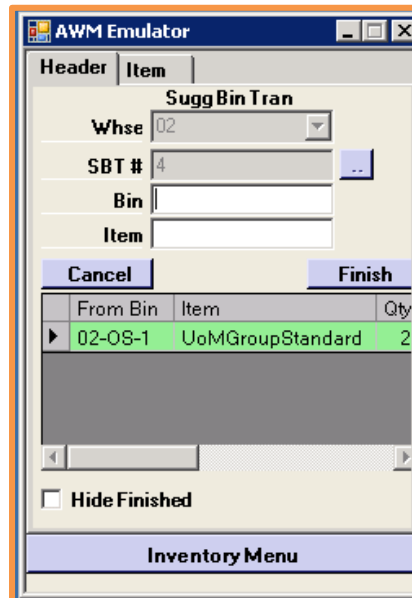
Note that if you click the "Hide Finished" checkbox, the item will be removed from the display after it has been completely picked.

5. Select "Finish". The screen will confirm that the full quantity of the item has been picked, or it will indicate that the pick is not complete. In that case, you may finish if it is not possible to pick any more of the item, or you may return to the list and pick the remaining quantity.
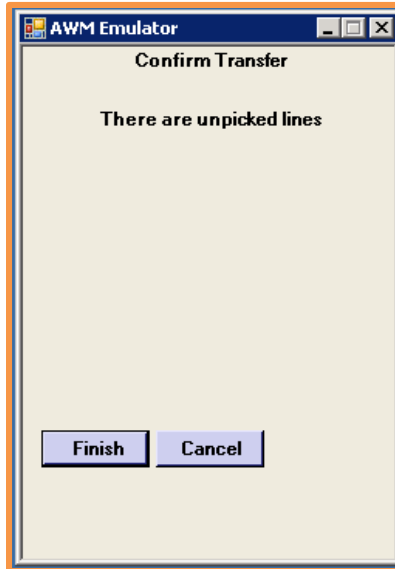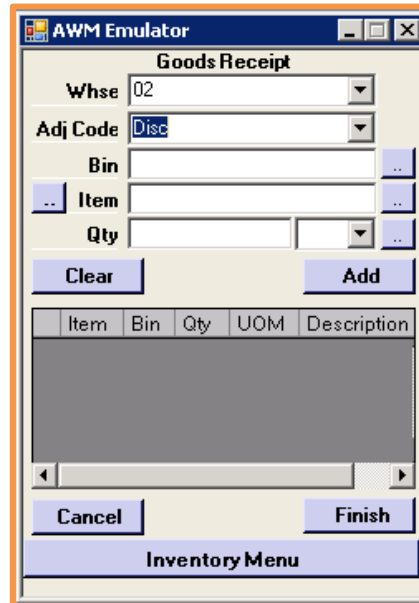
The system will now create a transfer document in SAP.

Note, there is also an option on the bottom of the Pending Replenishment tab to delete unwanted SBTs. To do that, select the lines you want to delete and then click the Delete SBT button on the bottom of the screen.
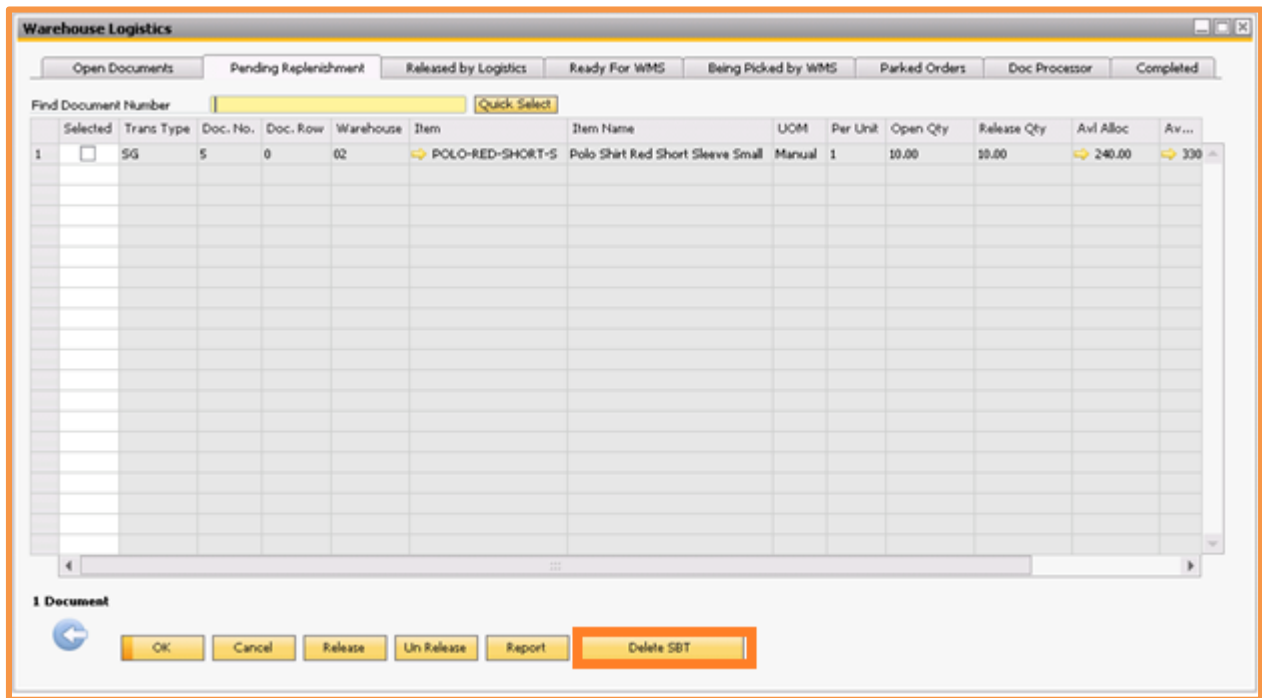
Goods Issue/Goods Receipt

1. Select "Goods Receipt" or "Goods Issue" from the handheld device main menu.

2. Enter the warehouse code. Then select the Adjustment Code for this adjustment – the choices are determined by the Adjustment Types entered in the WMS setup, and will determine the GL posting for this transaction.
3. Enter the bin, item, and quantity of the adjustment. Enter in the quantity that you want to add or remove from inventory. Click on "Add" to confirm the item.
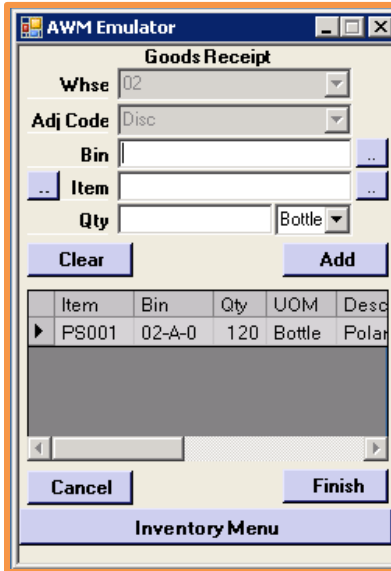
4. When all items have been entered, click on "Finish".
5. The system creates an SAP Goods Receipt or Goods Issue document for the items that were entered.
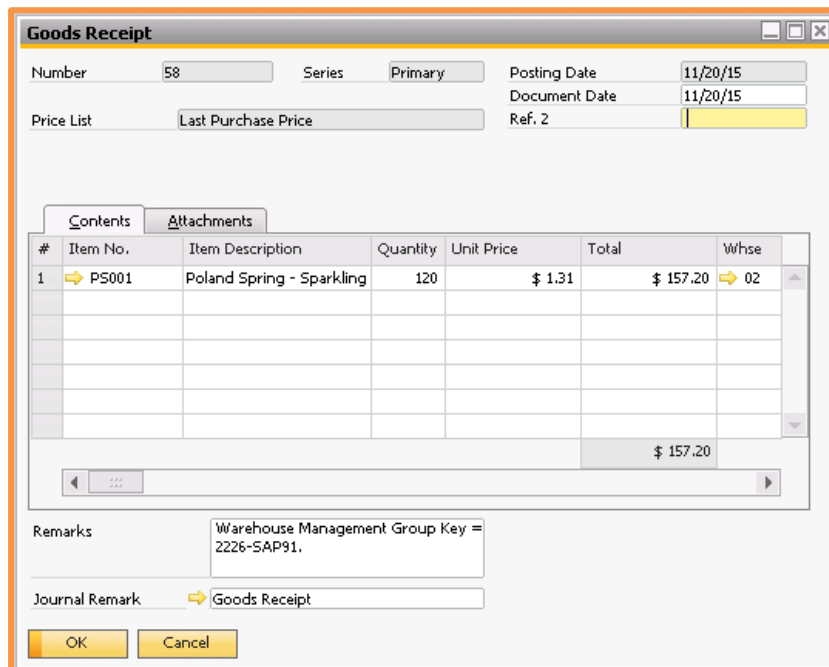
Note that the Inventory Offset – Increase/Decrease account will be set according to the adjustment type.

Inventory Transfer Requests

You can pick and receive Standard SAP Inventory Transfer Requests (ITRs) using the WMS Handheld.

<u>SAP Entry</u>

Before you can pick or receive the ITR on the handheld you must create the document in SAP. When you create an ITR using standard SAP it adds just one document. However when you create an ITR with WMS, the original ITR is closed as soon as it is added and two new ITR documents will automatically be created.
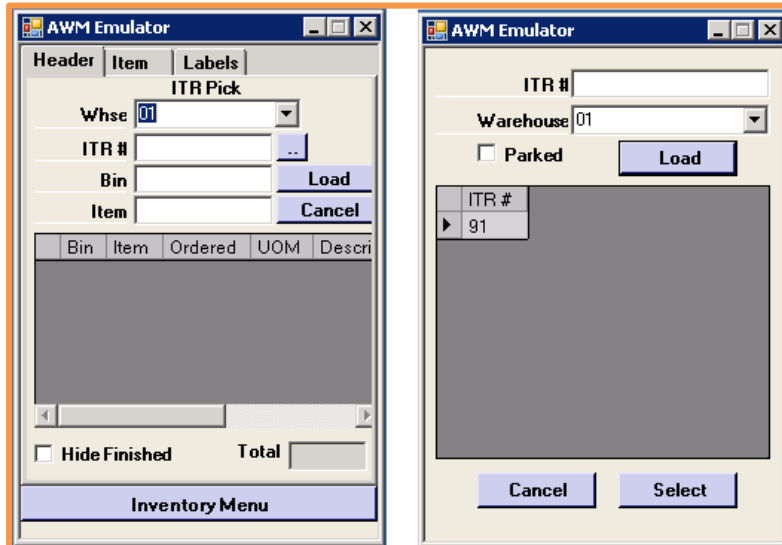
The first document will be created to move the inventory from the original ITR's From Warehouse to the designated In Transit (IT) Warehouse. The second document will be created to then move the inventory from the designated IT Warehouse to the original ITR's To Warehouse. These two documents will now correspond to the ITR Pick and the ITR Receipt on the handheld.
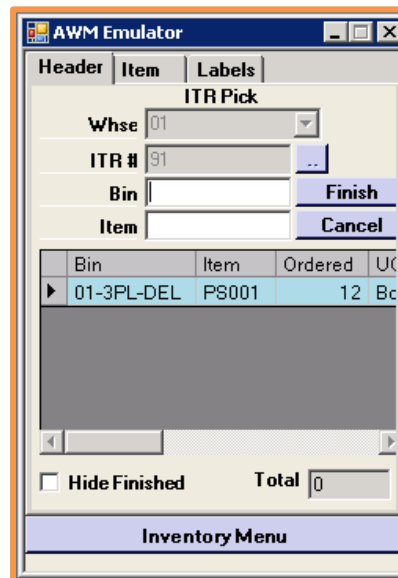
Handheld ITR Pick

Only items that have been released to WMS can be picked for an Inventory Transfer Request. When using handheld devices for picking ITRs, you may print a pick ticket if desired, or you can use the handheld to guide you to each document that is ready for picking.

1. Select "ITR Pick" from the Inventory menu.
2. If you know the ITR number, you may enter or scan it on the handheld device.

   Otherwise, click on the selection icon [...] and then select "Load".

3. Choose the document to be picked, and click on "Select". The list of items for that document is displayed.


4. Select the first item to be picked. The screen displays details about the item, including the bin where it has been allocated from. Whenever possible, you should pick the item from the bin that is displayed. However, if it is not available in that bin, you may use the selection icon to see other bins where the item can be found. You may need to enter a special password, or have a supervisor enter one, in order to pick from an alternate bin.

Note that it may be necessary to pick from more than one bin in order to pick the full quantity of the order. In that case, pick the quantity indicated from the first bin. The system will then display the next bin to pick from, and so on.

You will also notice that there is a To Bin field. This is the bin in the In Transit warehouse that the items are going to be moved into before they reach their destination. These bins are most likely not actual physical bins but temporary place holders for the items. Although if you want to have some better visibility you may want to create bins for each mode of transportation that is used to ship these goods between warehouses. That way you know which items are on which vehicles.

The default receiving location for the item in the IT warehouse will be defaulted in, but if that is not set up or if you just need to change it to a different bin, you can you can enter, scan, or select it here.

Then verify or change the quantity being picked and select "Save".
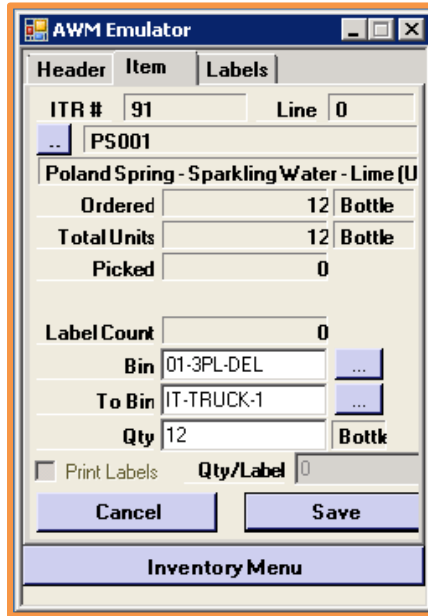
After an item has been picked, it is displayed in green on the screen.
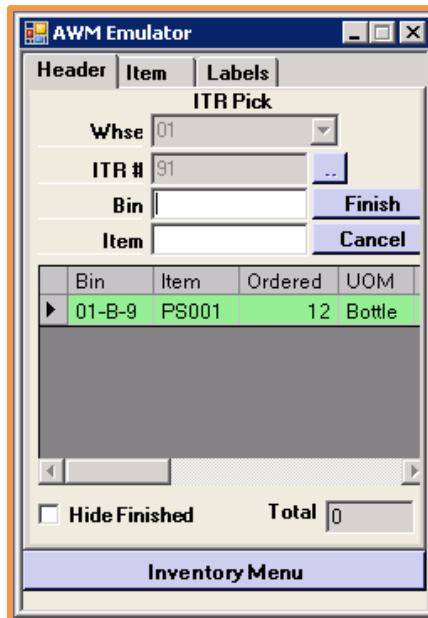
Note that if you click the "Hide Finished" checkbox, items will be removed from the display after it has been completely picked.

5. Continue until all items have been picked. Then select "Finish". The screen will confirm that all items have been picked, or it will indicate that the pick is not complete. In that case, you may finish if it is not possible to pick any more of the items, or you may return to the list and pick the remaining items. Note that it is also possible to "Park" an ITR pick if you need to exit before it is completed. You will then be able to resume picking the ITR at a later time.
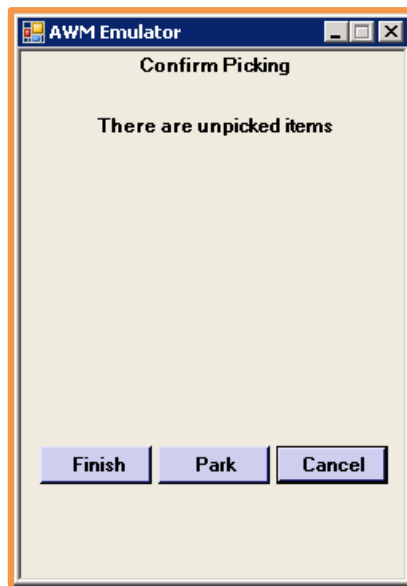
After you hit Finish, the ITR pick document will be closed and the inventory will be moved into the In Transit warehouse.

When the goods then reach their destination the WMS users at that warehouse will perform the next step, the ITR Receipt.

Handheld ITR Receipt

Receiving an ITR is a little different from receiving a Purchase Order because just like with picking, only items that have been released to WMS can be received for an Inventory Transfer Request Receipt.

1. Select "ITR Receipt" from the Inventory menu.
2. If you know the ITR number, you may enter or scan it on the handheld device. Otherwise, click on the selection icon [...] and then select "Load".
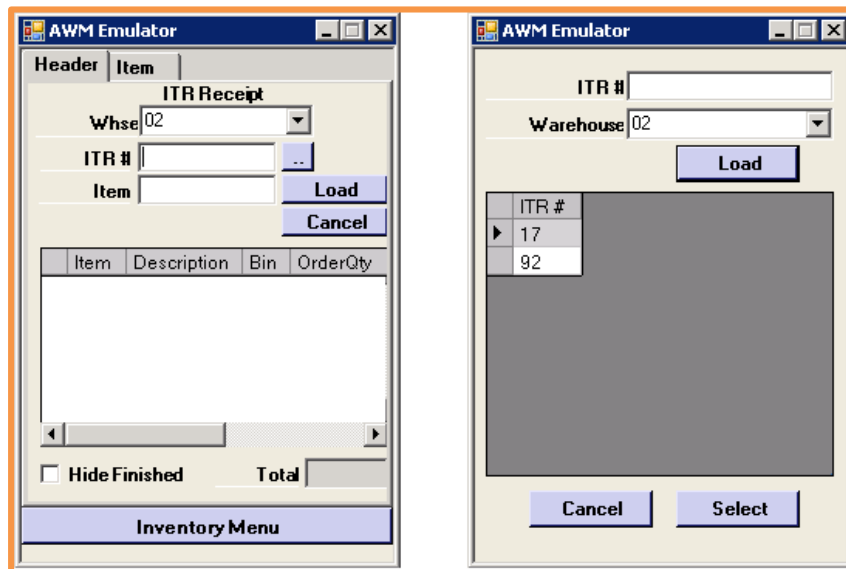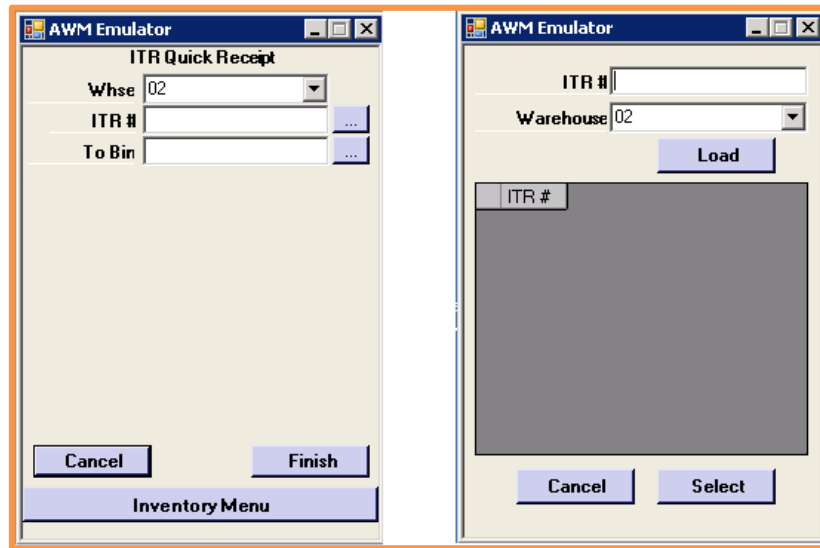

3. Choose the document to be received, and click on "Select". The list of items for that document is displayed.
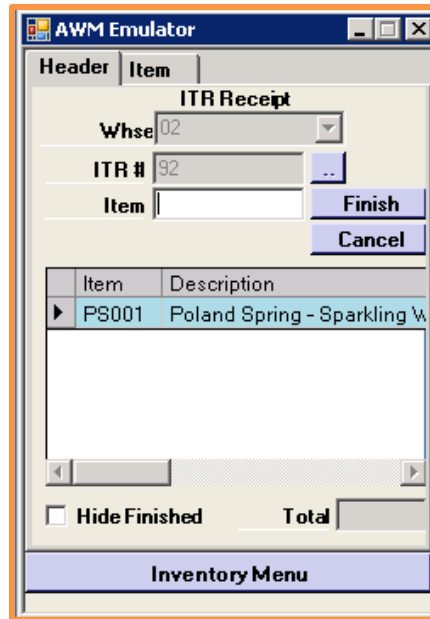
4. Select or scan an item to see the detail and verify the quantity. You will also see the To Bin on this screen as well. The default receiving location for the item in the destination warehouse will be defaulted in, but if that is not set up or you just need to change it to a different bin, you can enter, scan, or select it here.

5. The screen returns to the list of items. After an item has been picked, it is displayed in green on the screen.
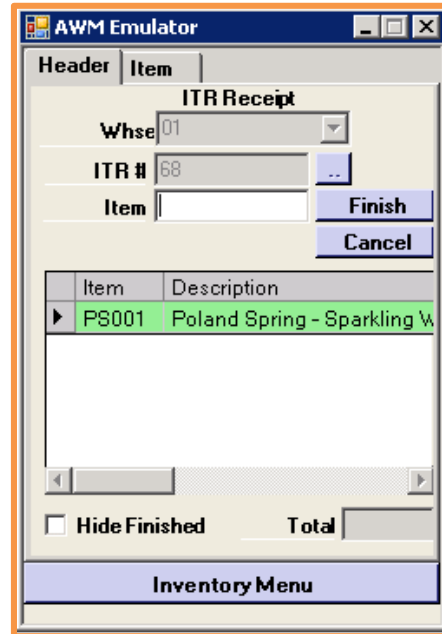
Note that if you click the "Hide Finished" checkbox, items will be removed from the display after it has been completely picked.

6. When all items have been completed, select "Finish" to finalize the receipt.

After you hit Finish, the ITR receipt document will be closed and the inventory will be moved from the In Transit warehouse to the destination warehouse.

Handheld ITR Quick Receipt

The ITR Quick Receipt screen on the handheld lets you quickly blind receive an entire ITR without having to scan each item individually.

1. Select "ITR Quick Receipt" from the Inventory menu.
2. If you know the ITR number, you may enter or scan it on the handheld device.

Otherwise, click on the selection icon and then select "Load".

3. Choose the document to be received, and click on "Select".

4. Next enter, scan, or select the bin that all of the items on the ITR are going to be transferred into and hit Finish.
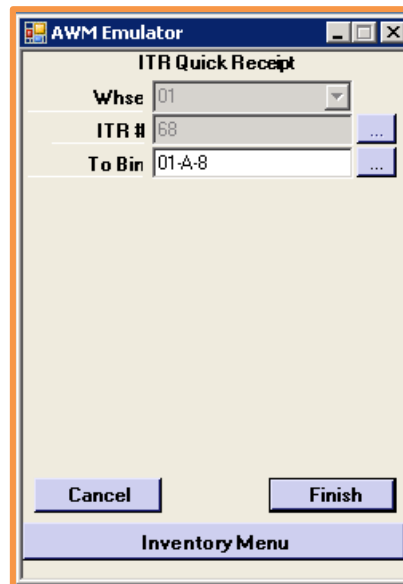
After you hit Finish, the ITR receipt document will be closed and the inventory will be moved from the In Transit warehouse to the destination warehouse.

Bulk Bin Transfer

The Bulk Bin Transfer screen allows you to move all items from one bin within a warehouse to another bin in that same warehouse. You do not have to specify which items, batches, or serial numbers, the bulk bin transfer will move everything.

1. Select "Bulk Bin Transfer" from the Inventory menu.
2. Scan, enter, or select the From Bin that you want to move all of the items out of.
3. Scan, enter, or select the To Bin that you want all of the items to be moved into.
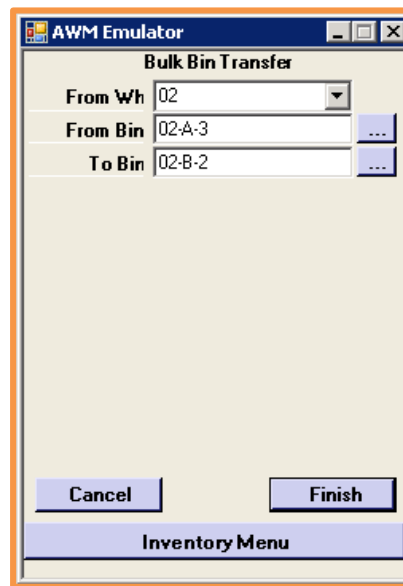
4. After you choose your To and From bins, hit Finish and the items will be transferred.

Production Menu

Issue Components

When issuing components for Production Orders, the system follows the same rules as it does for Sales Order picking.

Note that issuing components is necessary only in the case of "manual" components on Production Orders. If a component is marked as "backflush" then this step may be skipped and it is only necessary to receive the produced item; the components will be automatically removed from inventory at that time. However, serial or batch-number items require you to use the "manual" method.
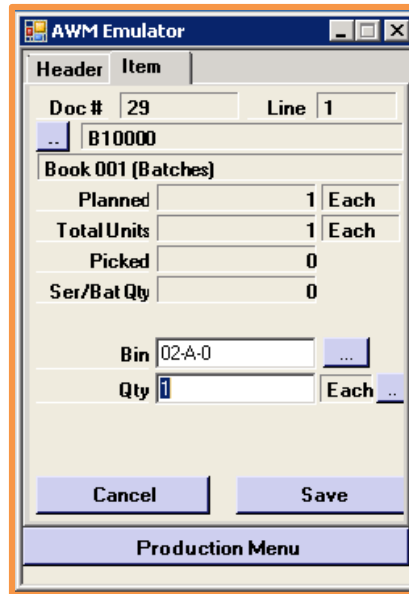
Handheld Device Entry

1. After the Production Order is added, change the status from "Planned" to "Released".
2. In the Logistics Manager, select the Production Order for release to WMS.
3. Select "Issue Production" from the handheld Production Menu.
4. If you know the Production Order number, you may enter or scan it on the handheld device. Otherwise, click on the selection icon [...] and then select "Load". Choose the Production Order to pick, and click on "Select". The component items are then displayed
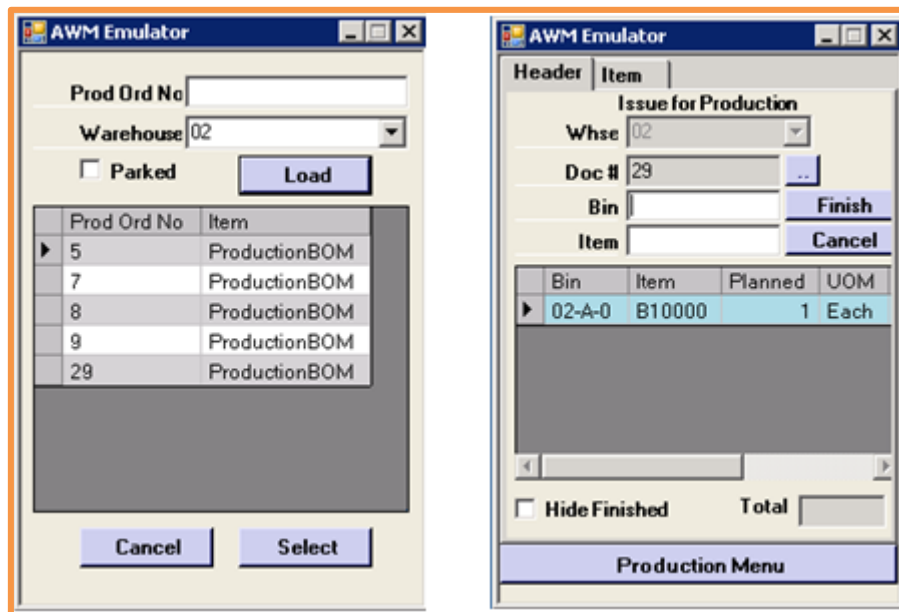
5. Select each component in turn by clicking on its row or by scanning a bin and item code combination.
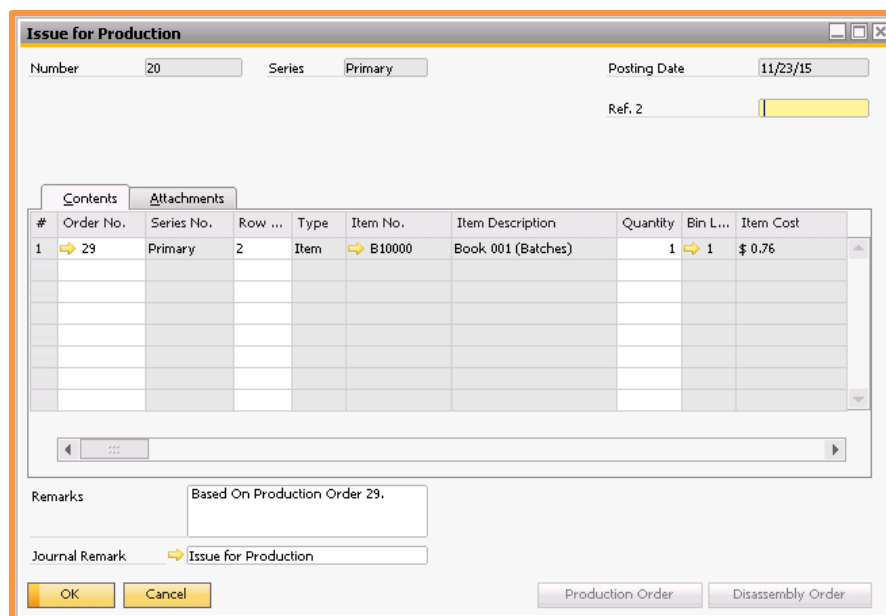
6. Confirm or change the picking bin and quantity. Then click on "Save". The handheld returns to the previous screen. Repeat with the remaining components.
7. When all of the components have been picked, click on "Finish".
8. The system will create an Issue for Production document. The items are removed from inventory at this point.

Receipt from Production

Once items have been produced, you must enter a Receipt from Production in order to receive them into inventory. Note that you may create partial receipts at any time, until the entire Production Order is finished.

If "Enable Backflush Processing" has been selected in the WMS Options, you may enter components on a Production Order that are marked "backflush". In this case, a Receipt from Production may be entered without first issuing the components. The following conditions are required in order to use Backflush processing:

- The component item must be marked as "backflush" in the Item Master and on the Production Order
- A default Backflush bin must be established for the item
- A sufficient quantity of the item must be present in the default Backflush bin before beginning the Receipt from Production procedure
- Note that serial and batch-number items may not be designated as "backflush".

Handheld Device Entry

1. Select "Production Receipt" from the handheld Production Menu.
2. If you know the Production Order number, you may enter or scan it on the handheld device. Otherwise, click on the selection icon and then select "Load". Choose the order to receive, and click on "Select".
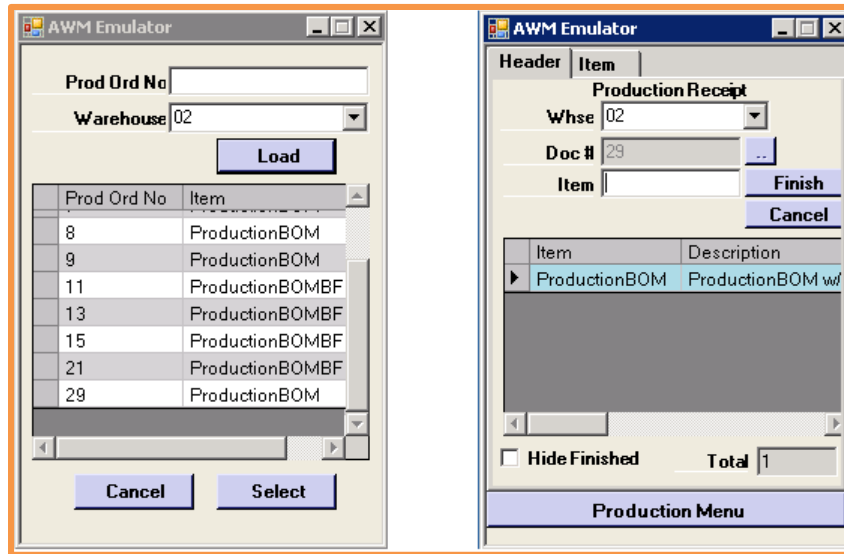
3. The finished item is shown in the lower portion of the screen. Click on the item number.
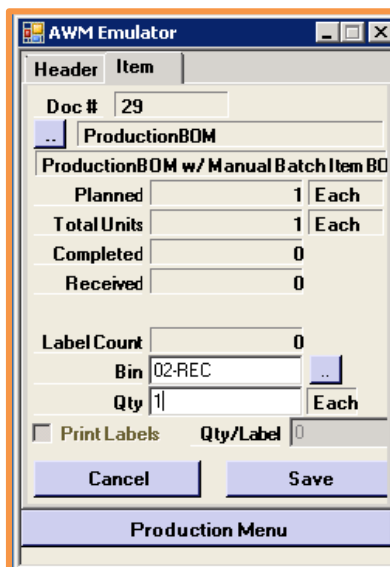
4. Enter the bin where the item is received, and the quantity. Then click on "Save". The handheld returns to the previous screen.
5. Complete the receipt by clicking on "Finish".
6. The system creates a Receipt from Production document.

7. Depending on your WMS settings you may need to change the status of the Production Order to "Closed" when all of the finished products have been completed.
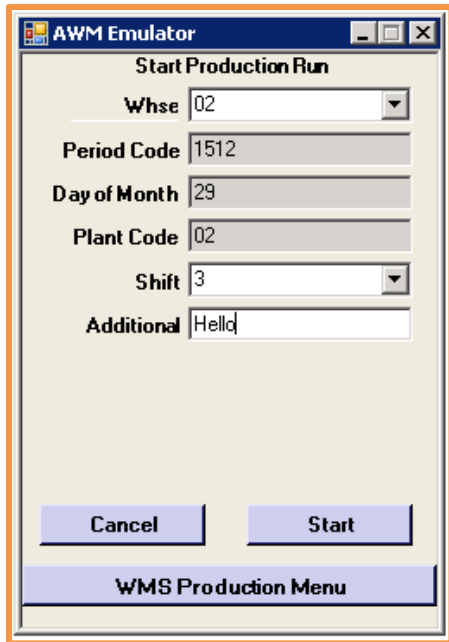
WMS Production

As you have just seen, WMS has the ability to work with standard SAP production orders. However, sometimes finished goods may not be known in advance and will need to be generated "on-the-fly". For these instances you have the option to use the WMS Production screen on the handheld.
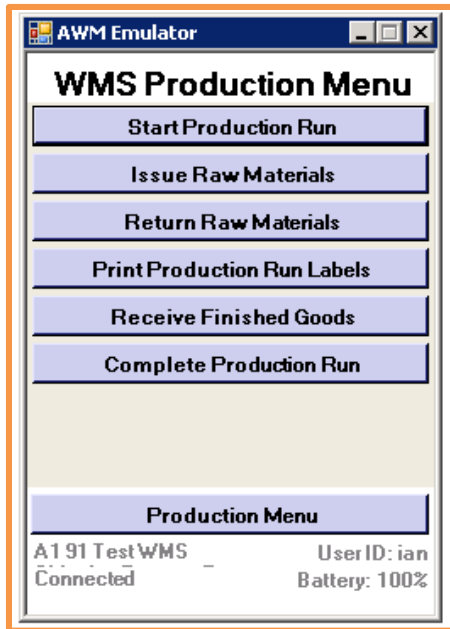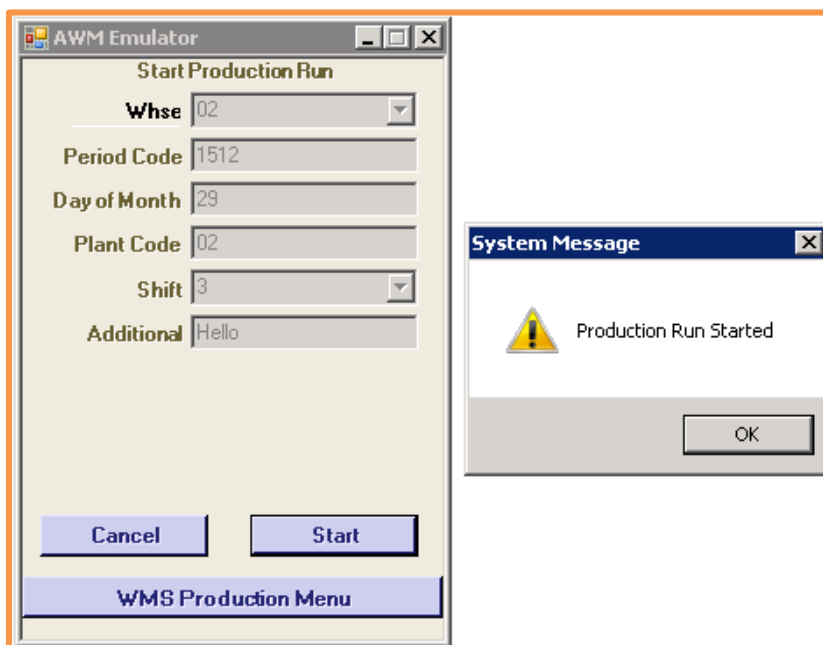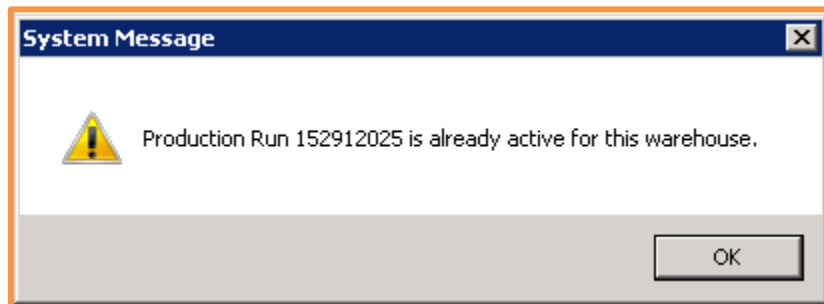
Start Production Run

The first step is to start your production run. To begin, click on the Start Production Run option from the WMS Production menu. Once you are in there, select your warehouse code and shift number. You will see that the Period Code, Day of Month, and Plant Code will all be filled in by default for you. These numbers will create your production run number. If you want to add a custom suffix to the end of your production run number, you can enter it into the Additional field.

Once all the information looks good, select the Start button to create your production run number and start the production run.

If the production run number already exists it will give you an error message.
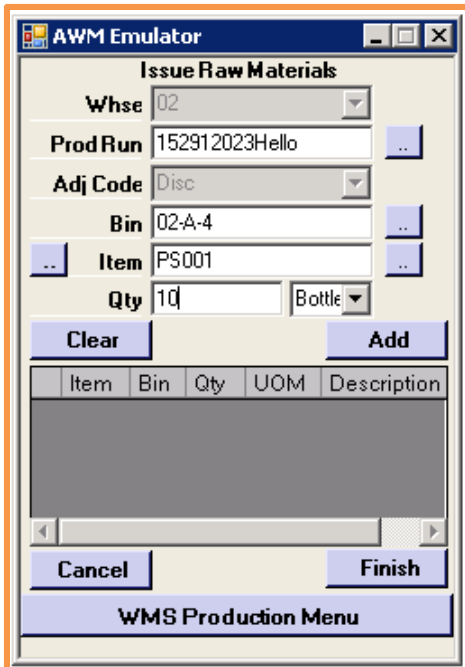

Issue Raw Materials

The next step is to issue the raw materials for the production run. To start, go to the Issue Raw Materials screen from the WMS Production menu.
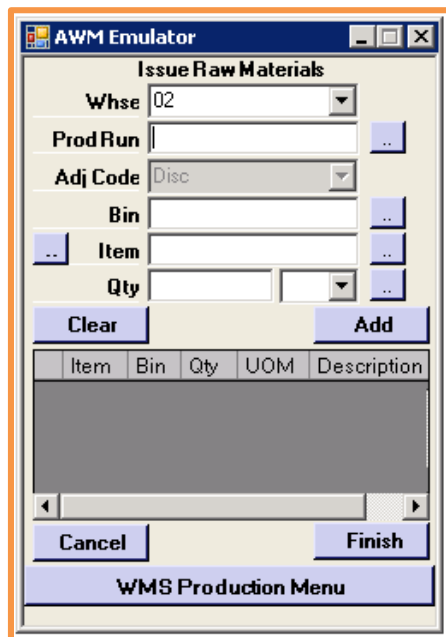
The adjustment code field will default in based on the settings we saw earlier in the WMS configurations. Select your warehouse and then enter or scan in your production run number. If you need to, you can use the … button to bring up a list of available production runs to choose from.

Once the production run number is selected you can begin issuing the raw materials. Select the item you want to issue as well as the bin location you want to issue it from. Next, enter the quantity of the item to issue and hit Add to bring it to the bottom grid.
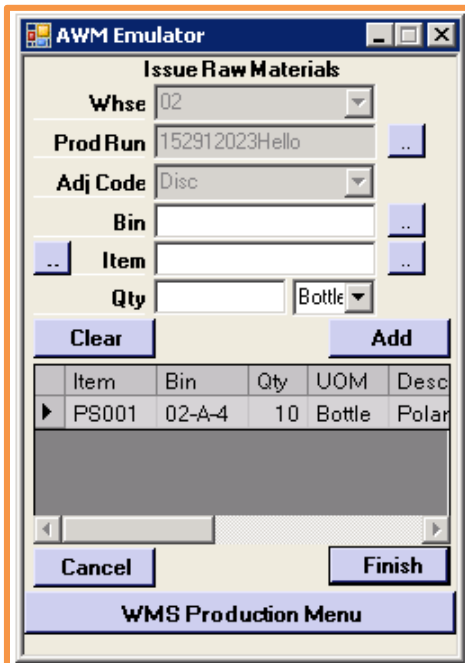
Continue this process until all materials have been issued, then hit Finish. A Goods Issue will be created in SAP for the raw materials issued.
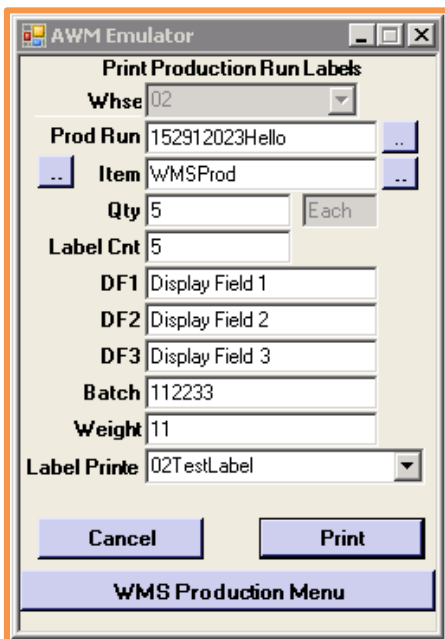
Print Production Run Labels

The next step is to print your production labels as each finished good comes off of the assembly line. To do this, go to the Print Production Run Labels screen from the WMS Production menu. Once you are in the screen, choose your warehouse and production run number.

Next, enter the item code for the finished good into the Item field. After that, enter the quantity of the finished good item that you produced as well as the number of labels you need to create. If you have added your own display fields like we saw earlier in the WMS configuration, then you can fill those in as well.

If the finished good item is serial or batch managed, you will need to enter the serial number or batch number into the appropriate field. If you enable the *Auto-Generate Batch\Serial Number* option in the WMS configuration, you can leave this field blank and it will generate the serial or batch number during the label printing.
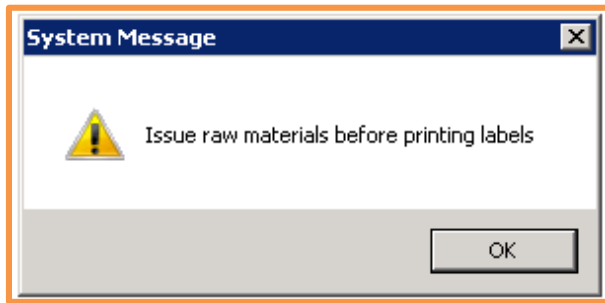
Lastly, enter in the weight, select your label printer, and hit Print to produce the labels.

If you have the *Require Issue Raw Materials* option set in your WMS Configuration and you try to print labels for a production run that does not have the materials issued yet, you will get an error.
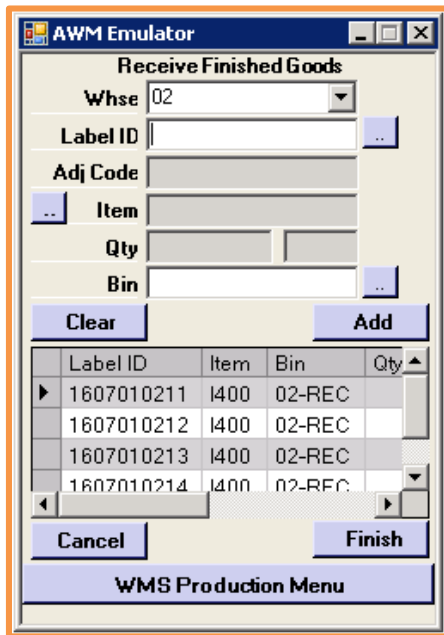
Receive Finished Goods

Receiving the finished good(s) is the next step in the process. To start, go to the Receive Finished Goods screen from the WMS Production menu. It will first ask you how many labels you are going to be scanning, so enter that number in and hit OK.
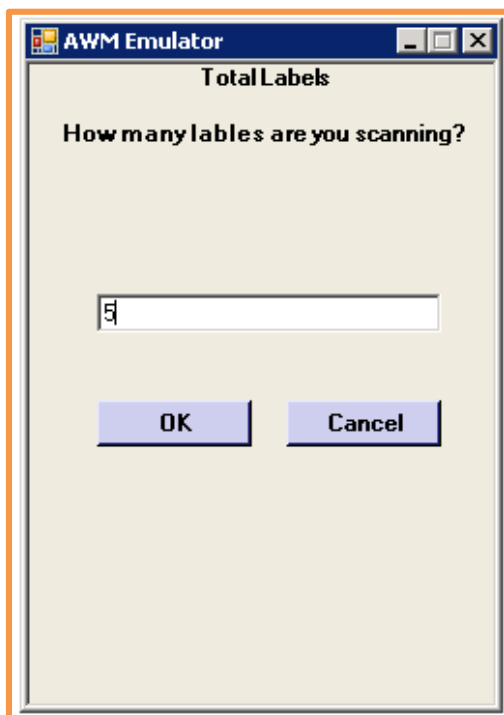
On the next screen you will select your warehouse and enter or scan in your first Label ID. The item code and quantity for the matching label ID's finished good will be filled in. Next, select the bin location you are receiving the finished good into and hit Add to bring it down to the bottom grid. Continue this process until all of the label IDs for the production run have been scanned and added. When you are done click Finish.


A Goods Receipt will be added to SAP for the finished good.

Complete Production Run

The final step in the WMS Production process is marking your production run completed. To do that, go to the Complete Production Run screen from the WMS Production menu. Select your warehouse, then enter or scan in the production run number and hit Complete.
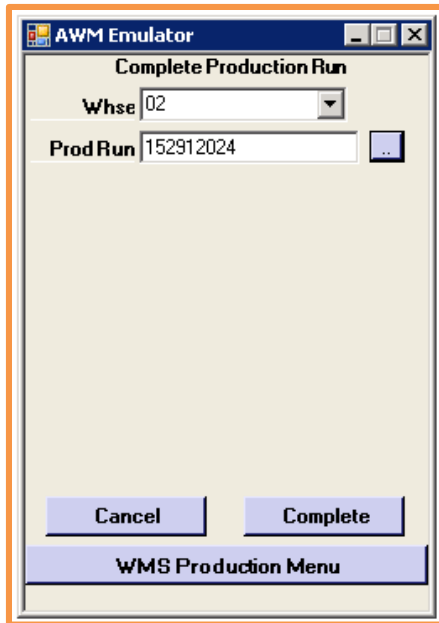
If the finished goods have not been received yet it will let you know that you have to do so before you can complete the production run.
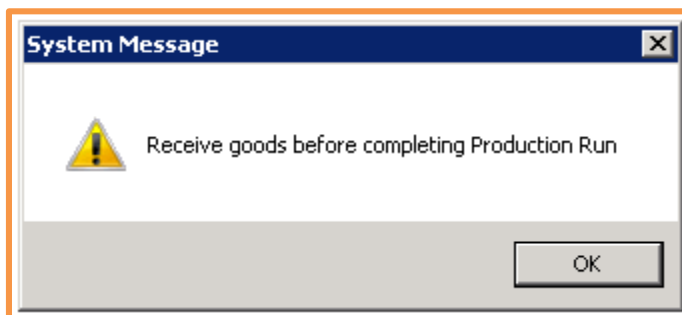

Otherwise it will mark the production run completed.

Return Raw Materials

The Return Raw Materials screen can be used when you want to return unused raw materials back into inventory. Start by going to the Return Raw Materials screen from the WMS Production menu.
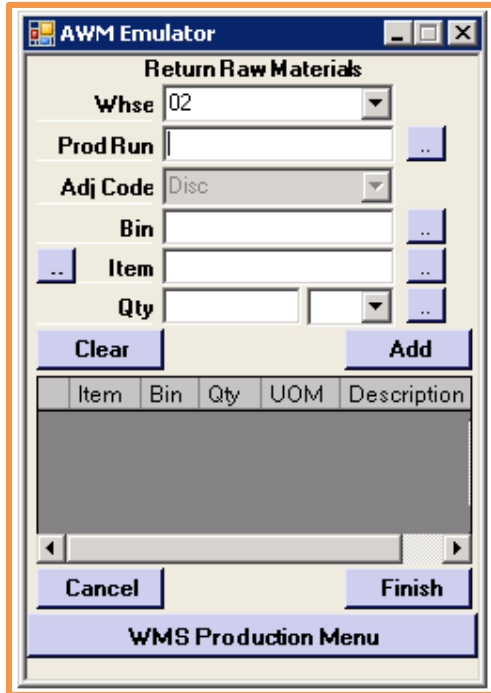
The adjustment code field will default in based on the settings we saw earlier in the WMS configurations. Select your warehouse and then enter or scan in your production run number. Once the production run number is selected you can begin returning the raw materials back to inventory. Select the item you want to return as well as the bin location you want to return it to. Next, enter the quantity of the item to issue and hit Add to bring it to the bottom grid.
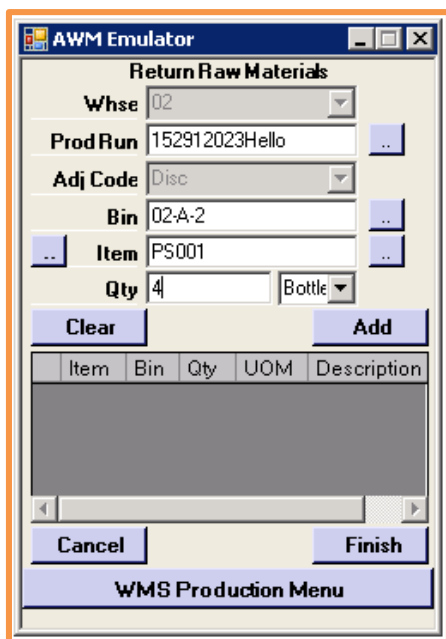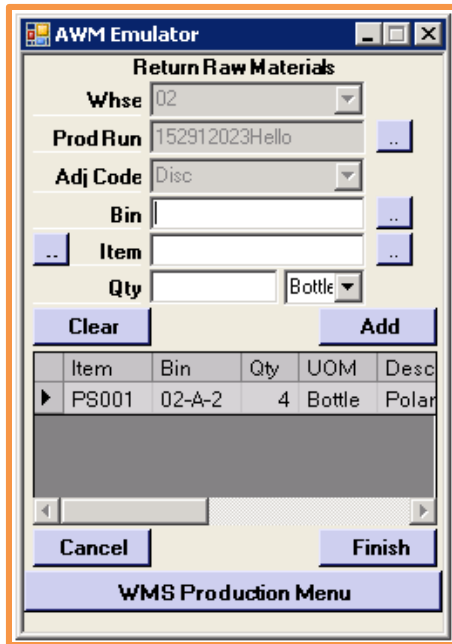
Continue this process until all materials have been returned, then hit Finish. A Goods Receipt will be created in SAP for the raw materials returned.

Cycle Count Menu

The Counting functions are used to record physical counts of items in the warehouse. It can be used on the fly or if a discrepancy is noted while working in the warehouse, but it is advised that you set up a regular schedule of cycle counts so that each item is counted over the course of a given time period. Otherwise, you can use WMS to perform a full physical inventory of the entire warehouse.

Cycle Count

This procedure allows you to count items in particular bins in the warehouse, even if the same items exist in other bins as well. For example, you may wish to count the bins in Row A. Bin A-1-L contains item XYZ, with a quantity of 10. You may enter this count, and the system will compare it to the previously recorded count of 12. An adjustment will be made of -2 in bin A-1-L. However, quantities of item XYZ that exist in other bins will be assumed to be correct. This method is designed to facilitate a count of particular areas of the warehouse.
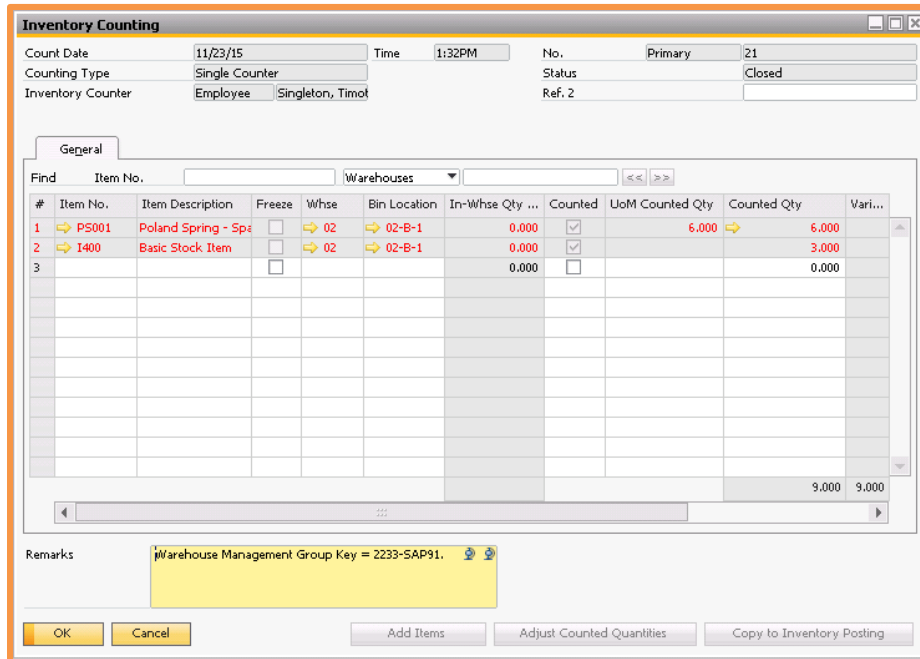
The Cycle Count screen requires the use of the standard SAP Cycle Codes. To create the Cycle Codes in SAP go to Administration > Setup > Inventory > Inventory Cycles

After you create the codes, you will need to enter a Cycle Code for each item in the Item Master. The Cycle Codes are entered on the Inventory Data tab, on the row for each warehouse. Based on the frequency of the cycle, the system will automatically enter the next date for the count; however, you may change the date if needed.

1. On the handheld select "Cycle Count" from the Cycle Count Menu.
2. Enter the bin, item, and quantity. Be sure to enter the actual quantity in the bin, not the difference between the system quantity and the actual quantity. Note that only items that have Cycle Count Codes for this warehouse will be allowed. Selecting the search button next to the item code field will provide a list of these items, and may be used as a "count sheet".
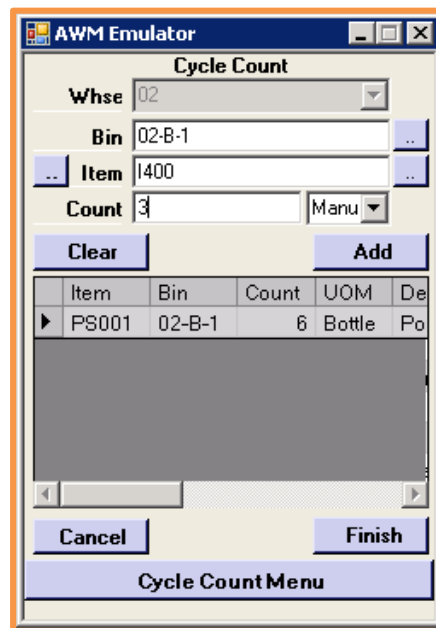
3. Select the "Add" button. The item will be displayed in the lower part of the screen.
4. Enter as many items as needed. Then select "Finish" to confirm the entries.
5. After you hit Finish, WMS will create a standard SAP Inventory Counting document for the items and bins you counted. Note that you cannot have more than one Inventory Counting document with an item/bin combination on it at the same time with WMS.

6. Review the counts and when you are ready you can copy them to an Inventory Posting document using standard SAP procedures.

Physical Count

This method allows you to account for the quantities of each item in a bin that is counted. Once you select a bin to be counted a user must count all items in that bin before moving to another bin. If any item in a selected bin is not counted, the system assumes that the quantity of the item in that bin is zero. This method is designed to accommodate a full physical count of the entire warehouse.

1. On the handheld select "Physical Count" from the Cycle Count Menu.

2. Enter the bin, item, and quantity. Be sure to enter the actual quantity in the bin, not the difference between the system quantity and the actual quantity. Selecting the search button next to the item code field will provide a list of all items in the warehouse.
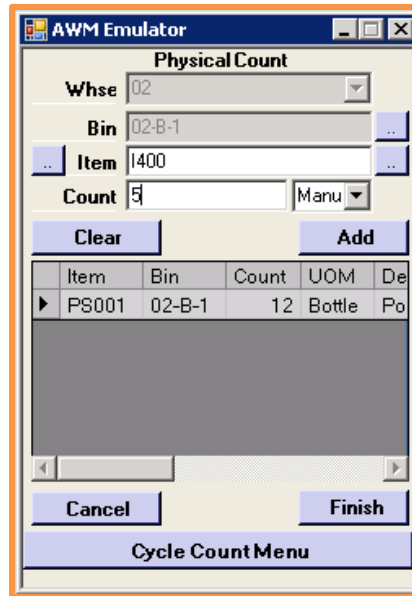
3. Select the "Add" button. The item will be displayed in the lower part of the screen.

4. Enter as many items as needed, but each item can only be counted once per bin. Then select "Finish" to confirm the entries. *Be sure that each item in the bin has been counted completely. Any item in the bin that is not counted will be assumed to have a zero quantity.*

5. After you hit Finish, WMS will create a standard SAP Inventory Counting document for the items and bins you counted. Note that you cannot have more than one Inventory Counting document with an item/bin combination on it at the same time with WMS.

6. Review the counts and when you are ready you can copy them to an Inventory Posting document using standard SAP procedures.
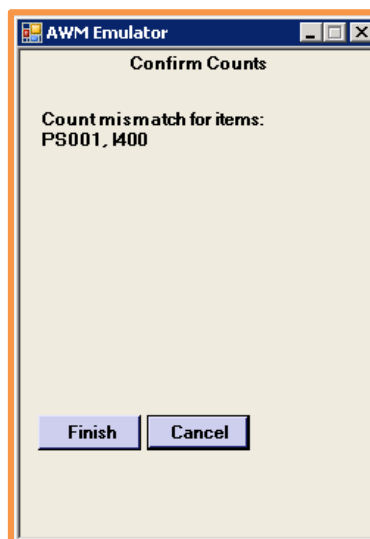
Bin Count

This method allows you to create an immediate adjustment for one bin at a time. You would enter a count of all items in a specified bin. The system will then take those counts and automatically create a standard SAP Inventory Posting document for that bin. Quantities in other bins are not affected. This method does not require the use of Cycle Codes or the manual creation of an SAP Inventory Posting document.

1. Select "Bin Count" from the Cycle Count Menu.
2. Enter the bin, item, and quantity. Be sure to enter the actual quantity in the bin, not the difference between the system quantity and the actual quantity.
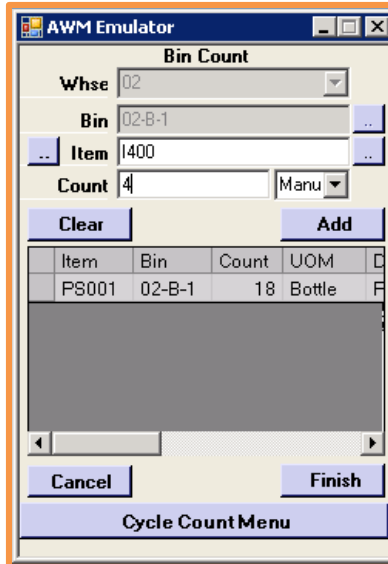
3. Select the "Add" button. The item will be displayed in the lower part of the screen.
4. Enter the rest of the items in the bin. Then select "Finish" to confirm the entries.

5. Because a posting document will be created, the handheld compares the entered items and quantities with what SAP says is actually in the bin. If any item in the bin has not been counted, or if there is a discrepancy in the count, a message will display. You may click on "Cancel" to go back to the entry screen, or "Finish" to record your counts. Note that any item that was not counted will be considered to have zero quantity in this bin; quantities in other bins are assumed to be correct.

You also have the ability to completely clear out a bin if you need to. Since WMS assumes an item that is not counted is a 0 during a Bin Count, if you only enter a bin and do not add any items to the grid, it will prompt you with a message asking you to clear the inventory in that bin when you hit Finish.
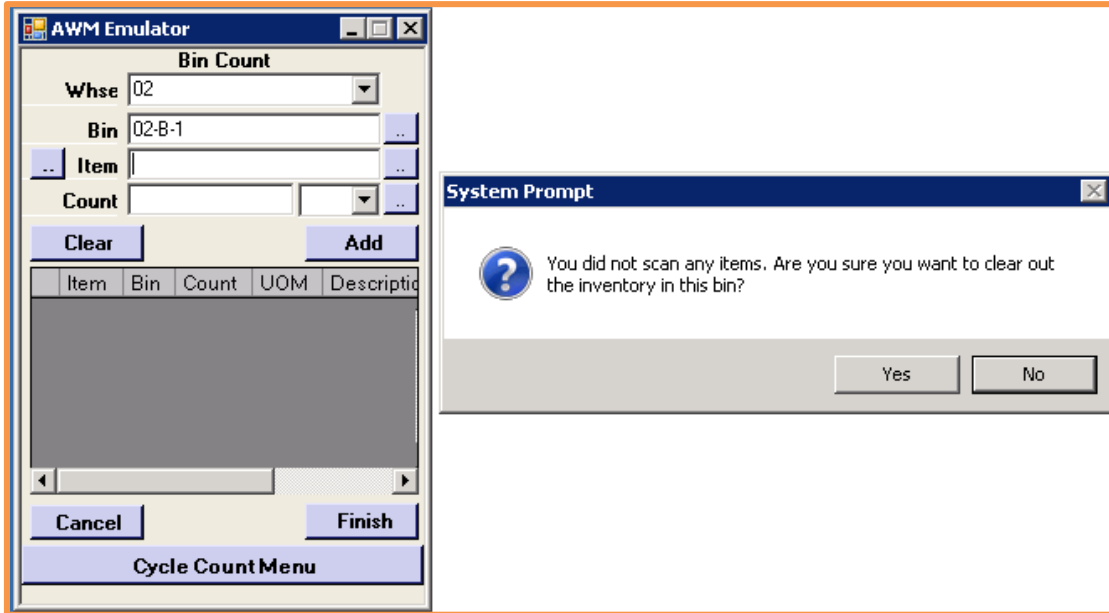
6. After you hit Finish, WMS will create an Inventory Posting document for that bin.
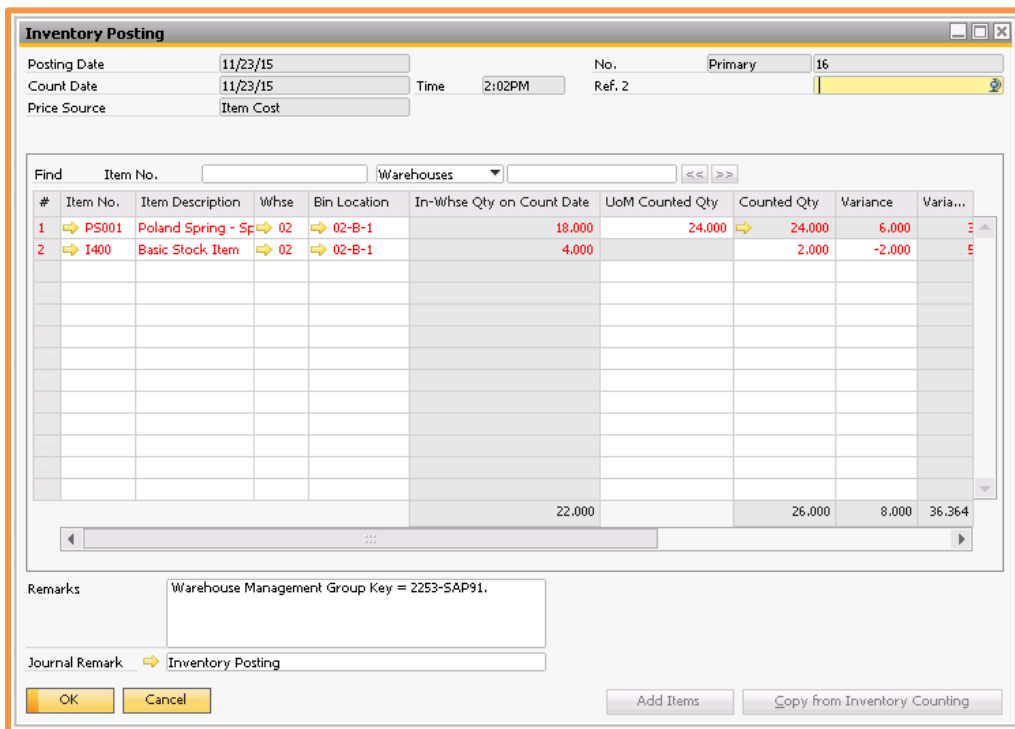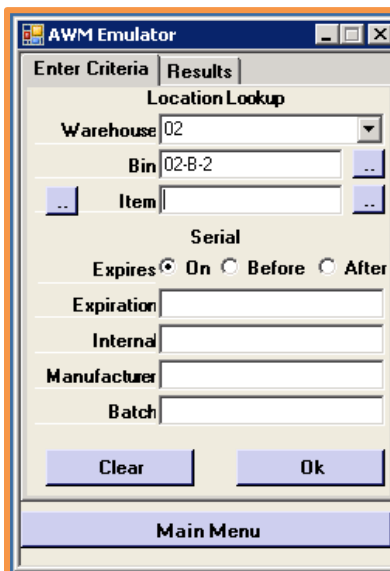
Location Lookup

This program allows you to see a detailed listing of current locations of specified items, including batch or serial numbers in each bin. You can search by a variety of criteria to find relevant information.

This program can be used directly from the handheld device or from within SAP Business One as described in the WMS Management section below.
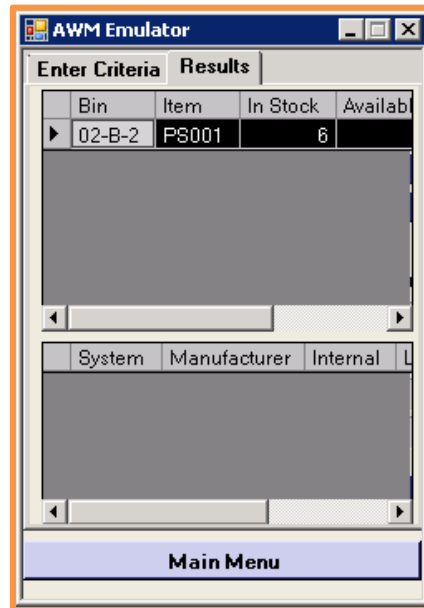
1. Select "Location Lookup" from the handheld Main Menu.

2. Enter the selection criteria: you may enter information in as many of the fields as you wish; warehouse, bin, item, expiration date, and serial or batch number.

3. Select the "OK" button to see the results of the search.

4. The screen displays a list of bin/item combinations that meet the criteria. By scrolling to the right, you may see the quantity on hand, available quantity, and last date for each row. If the item is managed by serial or batch numbers, the detail is displayed in the section below.
5. Select the "Enter Criteria" tab along the top to return to the first screen.
6. You may search as much as you want and then return to the main menu.

Label Printing

This program allows you to print item labels for receiving or shipping. The label format is determined by the Crystal Reports template referenced in the Warehouse Forms program, and labels will print to the printer designated in the Printer Maintenance program.

Labels may be printed directly from the handheld device or from within SAP Business One as described in the WMS Management section below.

1. Select "Label Printing" from the handheld device Main Menu.
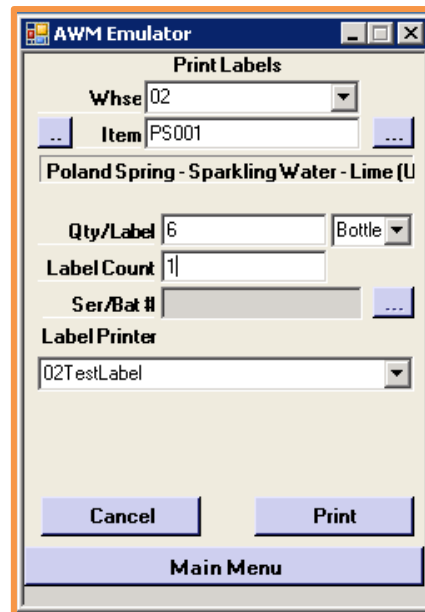
2. Enter the item code. The description is shown automatically.
3. Enter the quantity and unit of measure that are to appear on the label
4. Enter the number of labels to print
5. Be sure the correct printer is selected at the bottom of the screen.
6. Select the "Print" button to begin printing.
7. If necessary, you may select the "Cancel" button to stop the printing.
8. You may continue to print more labels, or return to the main menu.

Using the Logistics Manager

Achieve One > Achieve Warehouse Management > Warehouse Logistics Manager

The WMS Options program, described earlier in this manual, provides two different methods of sending sales orders to the warehouse for picking.

1. Load all open sales orders. This method assumes that all orders should be picked and shipped as soon as possible. As soon as a sales order is added to the system, it is immediately released to WMS so it will be available for picking. No other action is needed.

2. Load Sales Orders released from Logistics Manager. This method provides greater flexibility. It accommodates scenarios where orders may be placed in advance, for future shipment, and should not be picked immediately. It also allows for prioritization by customer or item, selection by route, and other combinations of criteria. Use of the Logistics Manager requires that one or more individuals must monitor orders and release them as appropriate to the warehouse for picking.

The Logistics Manager also provides a means of tracking individual items in the picking and shipping process. The warehouse manager will be able to see how items move through the procedure, how many are waiting for various actions, and so forth.
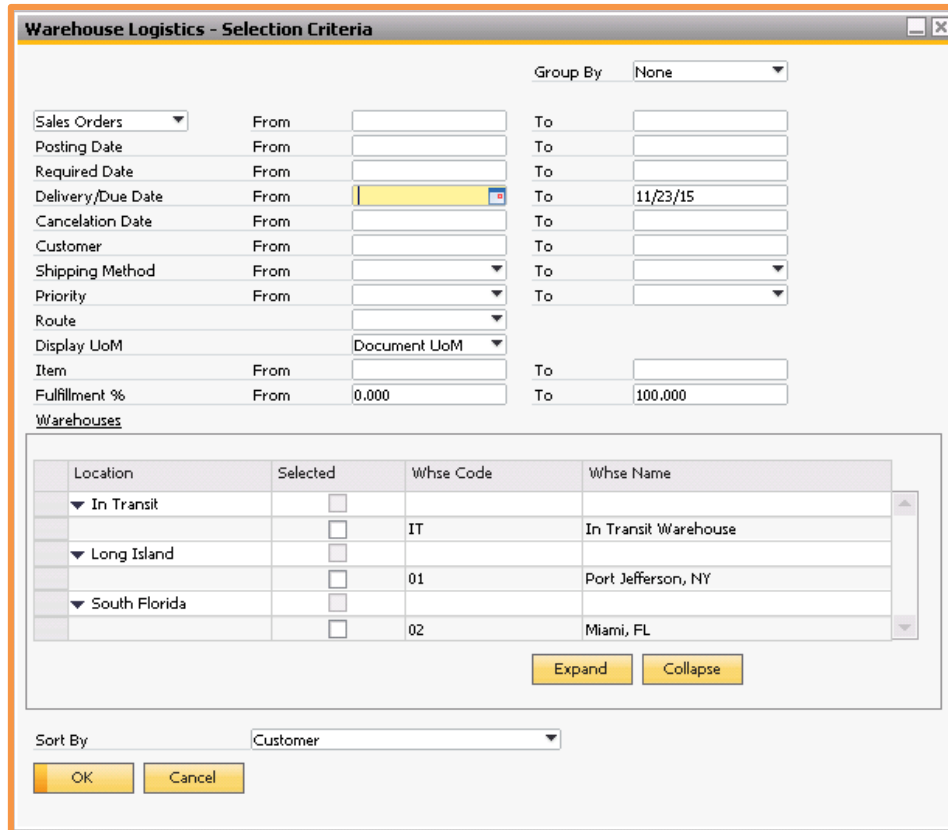
Note that the WMS Options also provides two possible exceptions to the use of the Logistics Manager. Orders may be sent to the warehouse automatically if either of these choices is selected:

   a. Load orders that can be shipped complete. In this case, any order where all items are available and unallocated will be sent directly to WMS; only those that will be partially shipped or which require replenishment will require manual release with the Logistics Manager.

   b. Auto Backorder Processing. In this case, once an order has been partially shipped but some items were not originally available, the remaining items will be sent directly to WMS as soon as they are received and become available.

The following section describes the use of the Logistics Manager.

Selection Criteria

The Selection Criteria screen of the Logistics Manager provides many options for determining which orders will be available for picking. It is important to use these options in such a way that all orders are viewed at some point so that none are missed. However, it may be useful to restrict selection so that certain orders can be selected at the same time, and then reset the criteria to find other groups of orders later.

You may use any combination of criteria to display a list of orders to be picked.

Group By	Select the method for grouping items on the list: • None – display each document line item separately • Document – display one line per document
Sales Orders, Reserve Invoices, Production Orders, Suggest Transfers or Inventory Transfer Requests	Select the type of document to work with. You may select Sales Orders, AR Reserve Invoices, Production Orders, Suggest Bin Transfers or ITRs. You may also enter a beginning and/or ending document number to include in the list, or leave blank to include all document numbers
Posting Date	Enter a beginning and/or ending posting date for documents to be included, or leave blank to include all posting dates.
Required Date	Enter a beginning and/or ending required date for documents to be included, or leave blank to include all required dates.

Delivery/Due Date	Enter a beginning and/or ending delivery date for documents to be included, or leave blank to include all delivery dates.
Cancellation Date	Enter a beginning and/or ending cancellation date for documents to be included, or leave blank to include all cancellation dates.
Customer	Enter a beginning and/or ending customer for documents to be included, or leave blank to include all customers.
Shipping Method	Enter a beginning and/or ending shipping method for documents to be included, or leave blank to include all shipping methods.
Priority	Enter a beginning and/or ending priority level for documents to be included, or leave blank to include all priority levels. Note that the priority level is found in the Shipping Type for each document.
Route	If you are using delivery routes, you may select a route from the drop-down list. Only orders for that route will be included. Otherwise, leave the field blank if routes are not used, or if all routes are to be included.
Display UoM	Choose if you want to see the item quantities in the document's unit of measure or the item's inventory unit of measure.
Item	Enter a beginning and/or ending item code for documents to be included, or leave blank to include all items.
Fulfillment %	Enter a beginning and/or ending fulfillment percentage for documents to be included, or leave blank to include all fulfillment percentages. The fulfillment percentage is the percent of items on an order that are available and unallocated in the warehouse.

Warehouses   The screen displays all of the warehouses in the company, grouped by location. Check those that are to be included in the list.

Sort By   Select the way the list of items should be sorted:
- Customer
- Delivery Date
- Document Number
- Warehouse
- Priority

Once you have entered your selections, click on "OK" to view the Open Documents screen of the Logistics Manager.

Open Documents Tab

The Logistics Manager opens to the Open Documents tab. Use this tab to select the items that will be sent to WMS for picking.

The screen displays a list of all items that meet the conditions of the selection criteria. You can see information about the document, customer, item, available quantity, and fulfillment percent. You may also change the quantity to be released on any row.

Note that you can change the sorting of the items by clicking on a column heading, regardless of the "Sort By" selection that was entered. For example, if the UPS pickup will be soon, you may want to click on "Shipping" so that all UPS orders are grouped together.

You may select items that you wish to pick by checking the box at the beginning of the row, and then click on the "Release" button. Once you have release an item, it will no longer appear in the Open Documents tab.

There is an option on the bottom of the tab called Allocation Criteria. This button will allow you do create allocation rules for when you release your documents. For each document type you can select specific locations of the warehouse that the documents can be allocated from upon release. These will then become the default settings going forward so if you need to change or remove them just open up the window and update them.
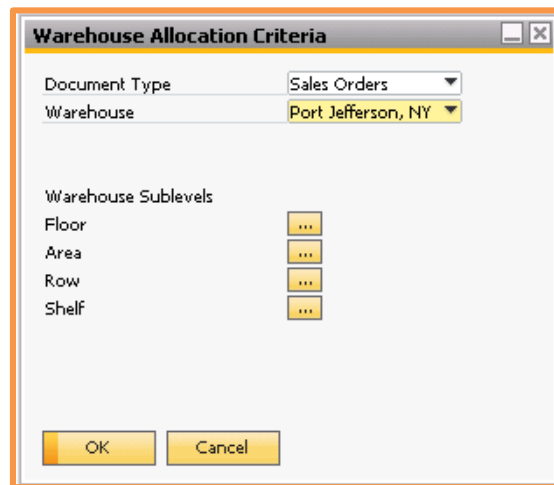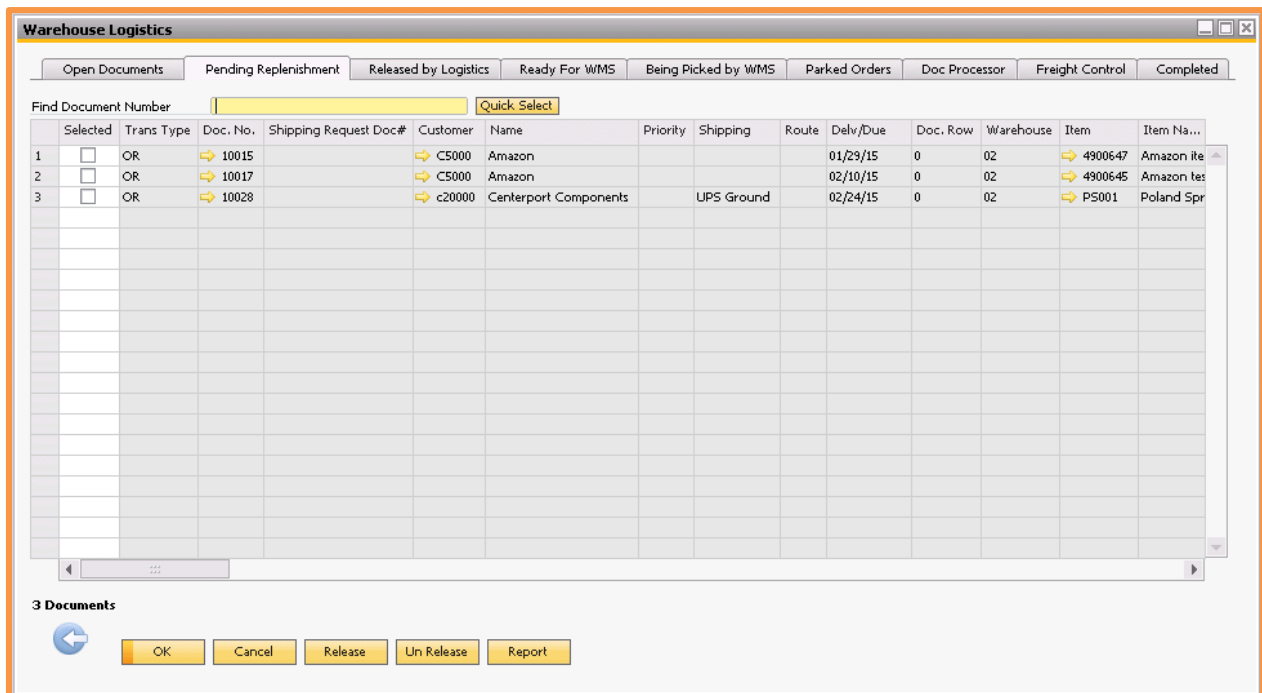

Pending Replenishment Tab

Once an item or document has been released from the Open Documents tab, it moves to the Pending Replenishment tab. Here it will begin allocation. The system will determine whether there is sufficient unallocated quantity in picking bins to accommodate it. If there is, then the

item or document will move itself to the Ready for WMS tab. If not, then the item or document will stay in the Pending Replenishment tab until there is sufficient quantities.

There is an exception though. If the document has multiple lines, and some of the lines can be shipped, as long as the document allows partial delivery (standard SAP field) then all rows from the document will move to Ready for WMS with the non-allocated rows being designated to the backorder bin (BCKDR).
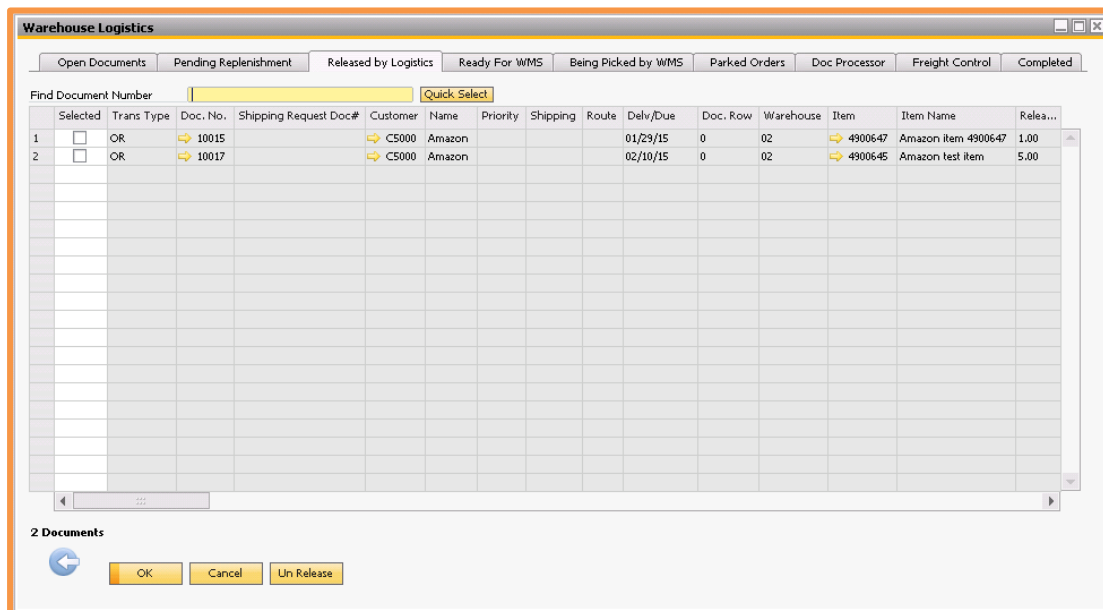

Items shown on the Pending Replenishment tab may also need to be moved from overstock bins to picking bins. Once those have been moved, they will be released automatically, or by means of the "Release" button on this screen.

Note that users are notified of the need for replenishment by means of the Notification Options (either by internal message or by email), or by printing the information on this screen using the "Report" button. The report button gives you the option to see the items that have not been printed yet or that have already been printed in case you lose the print out.

It is also possible to "Un Release" items from this screen. In this case, the items will return to the Open Documents screen.

Released By Logistics Tab

If an item does not need replenishment, or if replenishment has been completed, it will move to the Released by Logistics tab.

The only time documents will stay on this tab for a little while is when they are manually released from the Pending Replenishment tab. When that happens they will sit here as the AWM Document Processor completes their allocations.

Ready for WMS Tab

Once an item has been allocated to specific bins, it will appear on the Ready for WMS tab. These items are ready to be pulled up on the handhelds by the users. A carton label and/or pick ticket will print at this point if so configured.
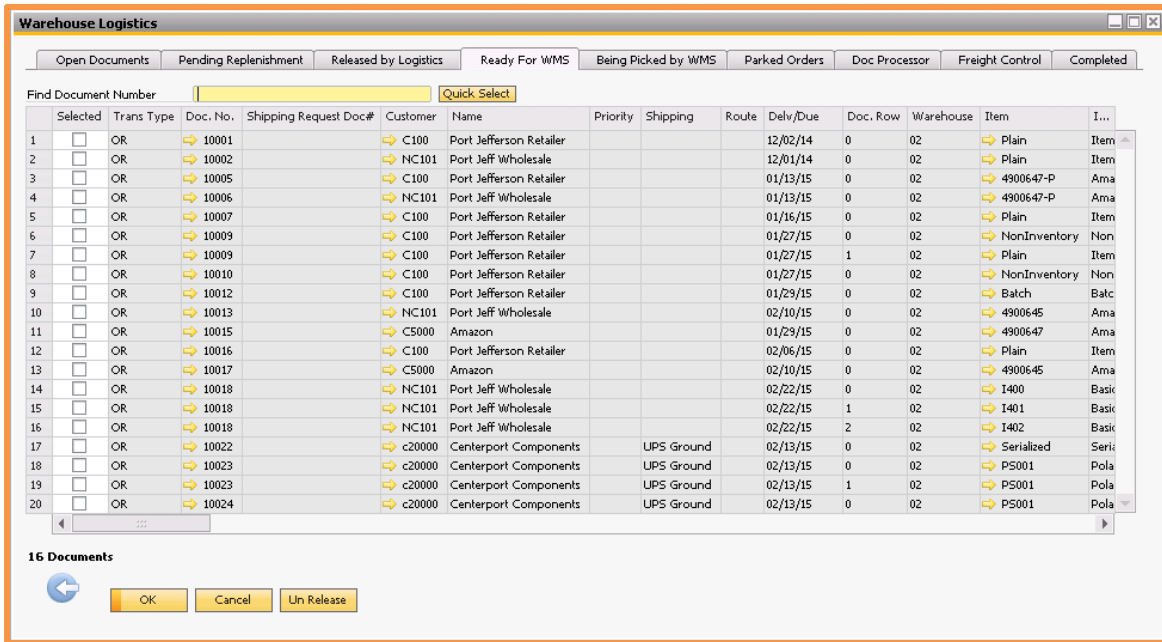
Being Picked by WMS Tab

This tab shows items that are currently in the process of being picked on the handheld. There is a button on this tab called Park that allows you to park an order that is currently being picked. This function is not used in the normal picking process, but can be helpful in scenarios like handhelds dying in the middle of picking. If that happens and you are unable to pull it back up on a handheld you can use Park button to park it so that you can then un-park it on the handheld and continue picking the order.
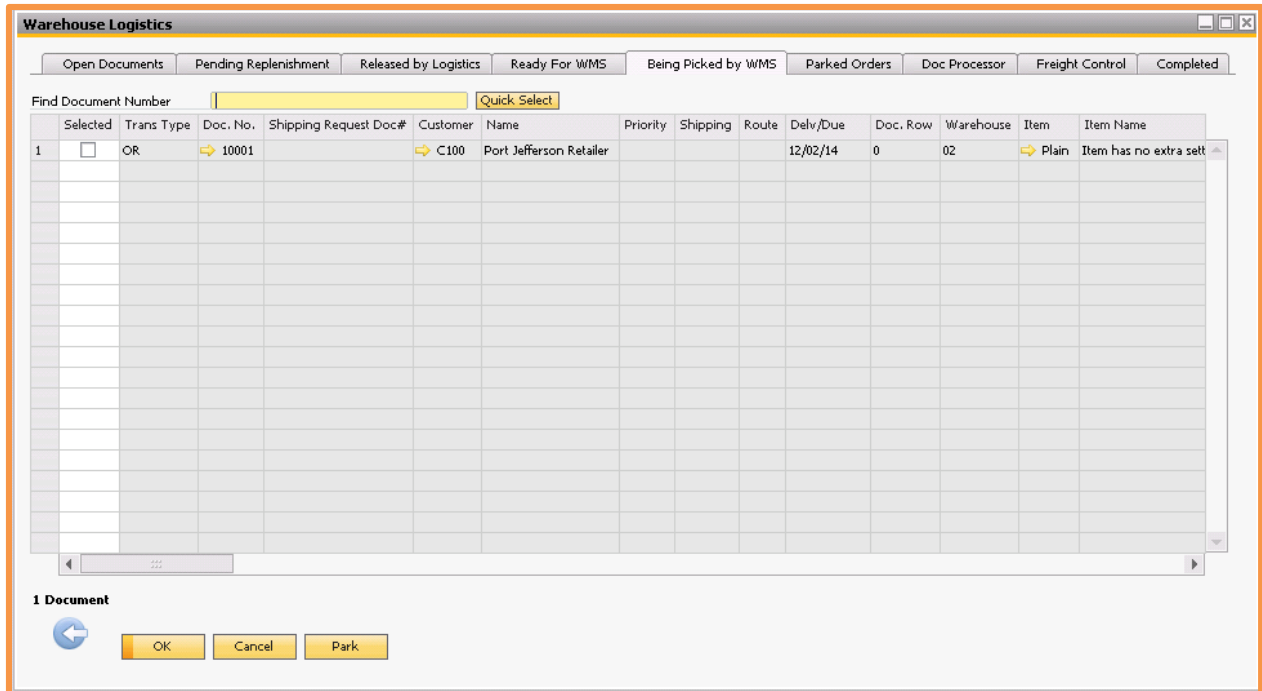
Doc Processor Tab

Documents that are on the Doc Processor tab have been finished but are waiting for the AWM Document Processor to pick them up and continue them through the WMS process.

Parked Orders Tab

Handheld users have the ability to "Park" an order, which leaves it in an uncompleted state while they work on another order. The user can reopen a parked order and complete it at a later time. This tab shows items that are currently parked by users.

Freight Control Tab

If **Achieve Freight Control** is being used, this tab will show items that have been picked and have had Shipping Request documents created. The Freight Control program will be used for the remaining steps of the shipment.

Completed Tab

If **Achieve Freight Control** is not being used, this tab will show items that have been picked and are pending the creation of a Delivery document.

Note: When an order appears on any of the tabs prior to "Being Picked by WMS", it is possible for users to make changes to the Sales Order in SAP. Changes to the order quantity will cause the order to become unallocated and return to the Open Documents tab. Once the order appears on the Being Picked tab, it can no longer be edited – users will receive a message indicating that the order is being picked and cannot be changed.

Logistics Manager: Pick by Shipping Request

When you have WMS set to pick by Shipping Request, the logistics manager process follows a similar path except for the few changes below. Note that all tabs except the Open Documents tab (which will still show Sales Orders) will show the documents as Shipping Requests.

Selection Criteria

The document type drop down will now have another option called Shipping Requests. You can enter a beginning and/or ending shipping request number to include in the list, or leave blank to include all shipping request numbers.

Open Documents Tab

If you pick by Shipping Request, when a Sales Order is moved from the Open Documents tab a Shipping Request will be created. There is an option on the bottom of the screen that says "Shipping Request Type" giving two options on how to create them. "By Customer" means that if you have multiple Sales Orders selected for the same customer, the system will combine the ones that share the same Warehouse, Ship-To, Shipping Method, Shipping Spec and Delivery date into a single Shipping Request. The others will have their own individual Shipping Requests created. "By Order" means that no matter how many Sales Orders you select that share similar data, they will all have their own individual Shipping Requests created for them.

There are also two ways to move the Sales Orders from the Open Documents tab. If you use the Release button, the Shipping Requests will be created and then moved to the Pending

Replenishment tab for allocation. However if you use the Create button, which only appears if you pick by shipping request, it will create the Shipping Requests and leave them on the new Shipping Request tab (see section below). It will not move them forward to the Pending Replenishment tab automatically.

Shipping Request Tab

This is a new tab that only appears when you are picking by shipping request. The documents on this tab will be Shipping Requests that were either created outside of WMS, were created by the Create button on the Open Documents tab, or were unreleased from Pending Replenishment, Released by Logistics or Ready for WMS. You can use the Release button on this tab to move shipping requests through WMS.

Freight Control Picked/Freight Control Packed Tabs

Instead of there being just one Freight Control tab, when you pick by shipping request there will be two freight control tabs; Freight Control Picked and Freight Control Packed. The Freight Control Picked tab will show all the open shipping requests that have been picked but are not yet packed. The Freight Control Packed tab will show all the open shipping requests that have been picked and packed but not yet delivered.

WMS Management and Utility Programs

The Achieve Warehouse Management System includes a number of programs that can be used to monitor warehouse inventory and perform various inventory management functions. These are found on the Achieve Warehouse Management menu. Some of the features are also available on the handheld devices.
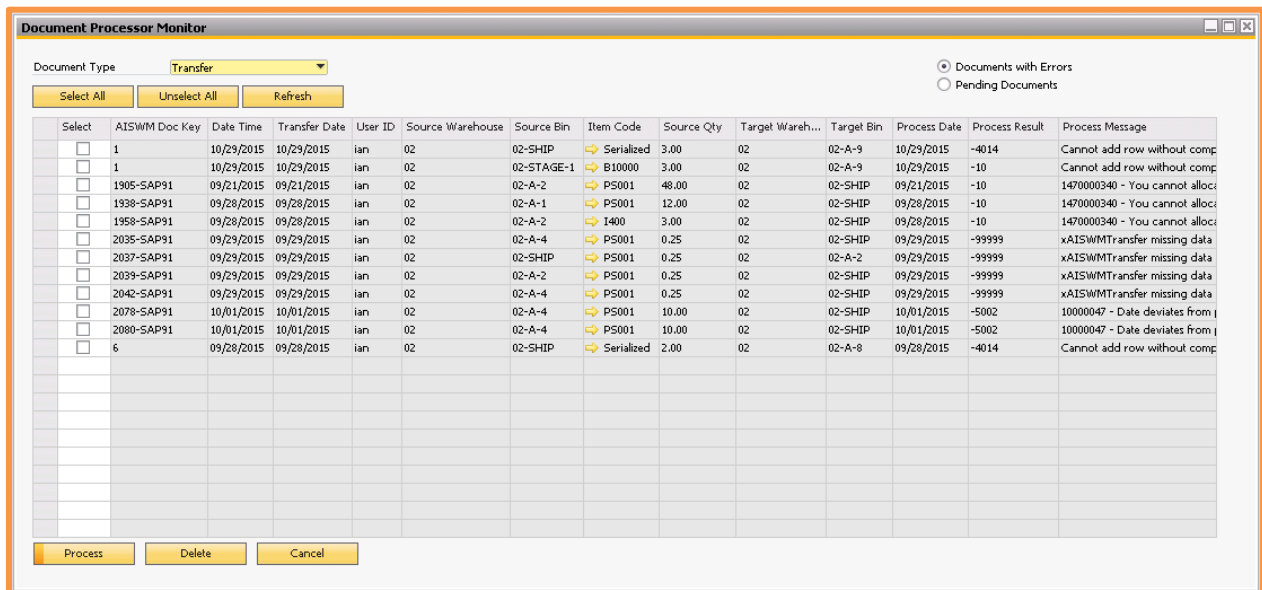
Document Processor Monitor

Achieve One > Achieve Warehouse Management > Document Processor Monitor

There are two options for looking at data in this screen, Documents with Errors and Pending Documents. You can choose which to look at by selecting the appropriate radio button on the top right.

Documents with Errors

On occasion, when the WMS system attempts to create various SAP documents, there may be an error or problem that prevents the document from being created. It is necessary to determine these errors so that they can be corrected and the appropriate documents can be created. It is recommended to check this screen at least once each day.

Select the document type to check. You may choose any of the following:

- Delivery
- Transfer
- Production Issue
- Goods Issue
- Inventory Transfer Request

- Receiving
- Production Receiving
- Goods Receipt
- Containers
- Inventory Counting
- Inventory Posting

Click on "Refresh" after the selection is made. The screen displays a list of any instances where documents were not created during normal WMS processing. In some cases, the problem may be corrected (e.g., a customer or item may be inactive and must be changed back to active status, or the SAP quantity may need to be adjusted). In other cases, the issue may be one of timing, and reprocessing the document may result in success.

Make any changes necessary, and select the items for reprocessing. Then click on "Process". If the documents are created successfully, they will be removed from the screen. If there does not seem to be any way to resolve the issue, you may use the "Delete" button to remove the item from the WMS system.

Pending Documents

Using this option will show you what transactions are still pending for the AWM Document Processor. If there are a large amount of transactions listed here and they do not seem to be decreasing as you refresh, you may need to check to make sure the AWM Document Processor is running.
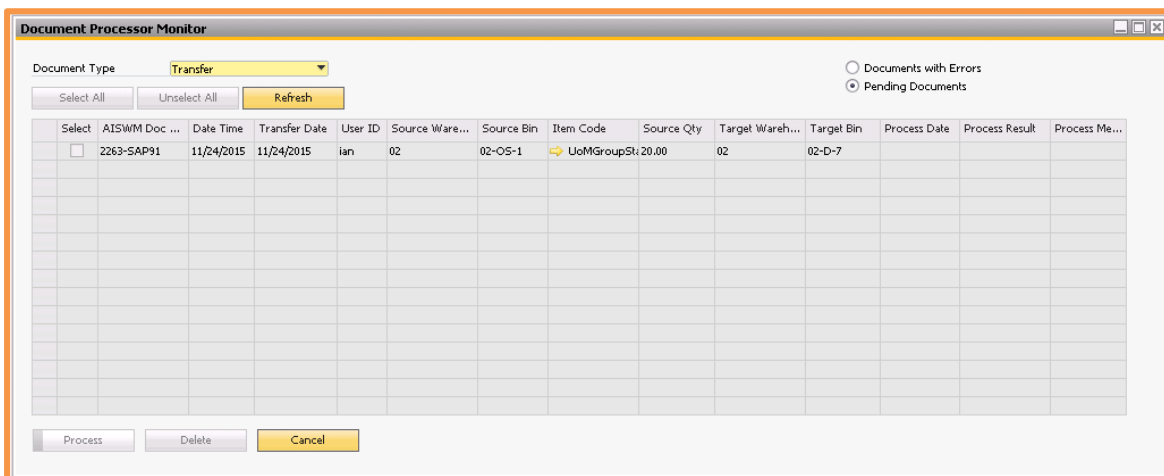
Handheld Audit
Achieve One > Achieve Warehouse Management > Handheld Audit

The Handheld Audit program allows managers to see a complete log of activities performed on the handheld units, with their results. You may track the activities by user, by item, by

document, or by type of action. Each activity is marked with the date and time at which it occurred.

Enter the filter criteria in the header:

Event Type   Enter the event type to display. Choose from:
- ALL – All Events
- APPEXIT – Exit WMS
- CONTAINER – Container Receipt
- COUNT – Inventory Count
- GOODSISSUE – Goods Issue
- GOODSRECEIPT – Goods Receipt
- ISSUEPROD – Issue for Production
- ITR – ITR PICK
- ITRRECEIPT – ITR RECEIPT
- LABEL – Print Labels
- LOGIN – Sign In
- LOGOUT – Sign Out
- PACKSLIP – Print Pack Slip
- RECEIVE – Goods Receipt Document
- RECEIVEPROD – Receive from Production
- SHIP – Delivery Document
- SHRPACK – Shipping Ticket Pack
- SHRPICK – Shipping Ticket Pick
- SYNC – Database Sync
- TRANSFER – Warehouse Transfer

User ID   Enter the ID of the user to display, or leave blank to include all users

Warehouse Code   Select the code of the warehouse to display, or leave blank to include all warehouses

Bin Code   Enter the code of the bin to display, or leave blank to include all bins

Item ID   Enter the code of the item to display, or leave blank to include all items

Scanner ID   Enter the ID of the scanner to display, or leave blank to include all scanners

Document	Enter the number of the document to display, or leave blank to include all document numbers

Line Action	Select the Line Action to display. Choose from:

- Cancel
- Failure
- Finish
- Load
- Print
- Reset
- Success

You may also leave the field blank to include all actions

From Date/To Date	Enter the first and last dates of the events to display, or leave blank to include all dates

From Quantity/ *To Quantity*	Enter the smallest and largest quantities to display, or leave blank to include all quantities

Once the criteria have been entered, click on "Load Grid" to display the selected events.

WMS User Inquiry

Achieve One > Achieve Warehouse Management > WMS User Inquiry

This program displays a list of handheld units that are currently in use. It displays the access date, ID and name of the user, the scanner ID number and IP Address, the action currently taking place, the document number if applicable, and the version of Achieve One that the handheld is running.

Click on "Load Grid" to see the current status of the handhelds.

While on this screen you can also use the Delete Line button on the bottom to log users out of the handhelds. This is helpful if a handheld dies in the middle of using it and the user cannot log back in.

WMS Print Queue

Achieve One > Achieve Warehouse Management > WMS Print Queue

This program allows you to see print jobs that are pending from the WMS system.
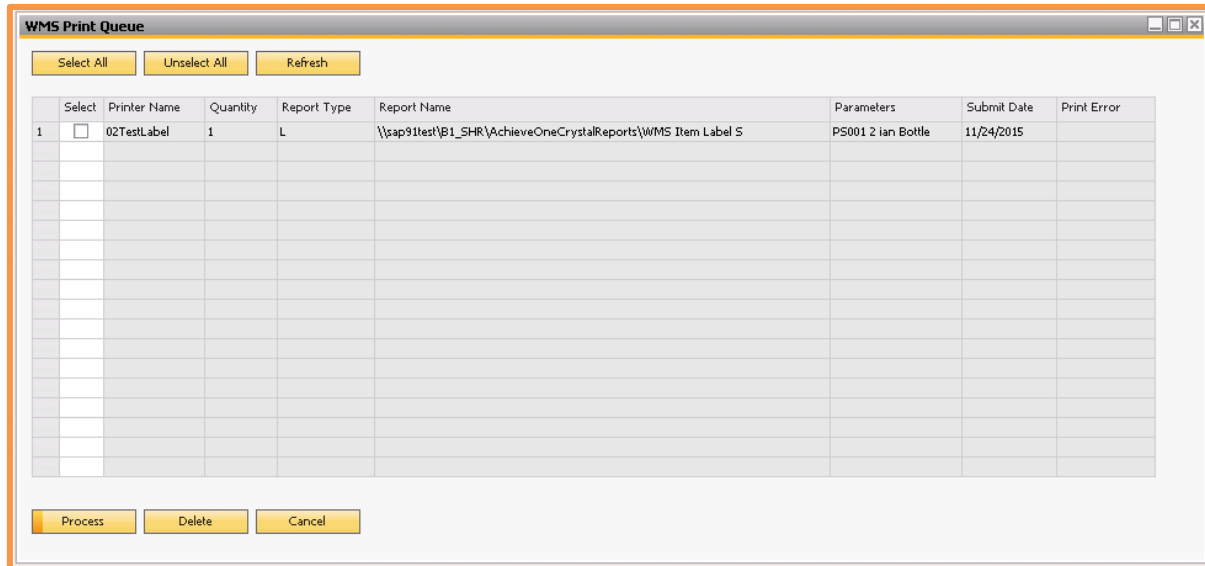
If you wish to prevent a report from printing or maybe the print job failed, you can check its box and click on "Delete" at the bottom of the screen to remove it from the queue.
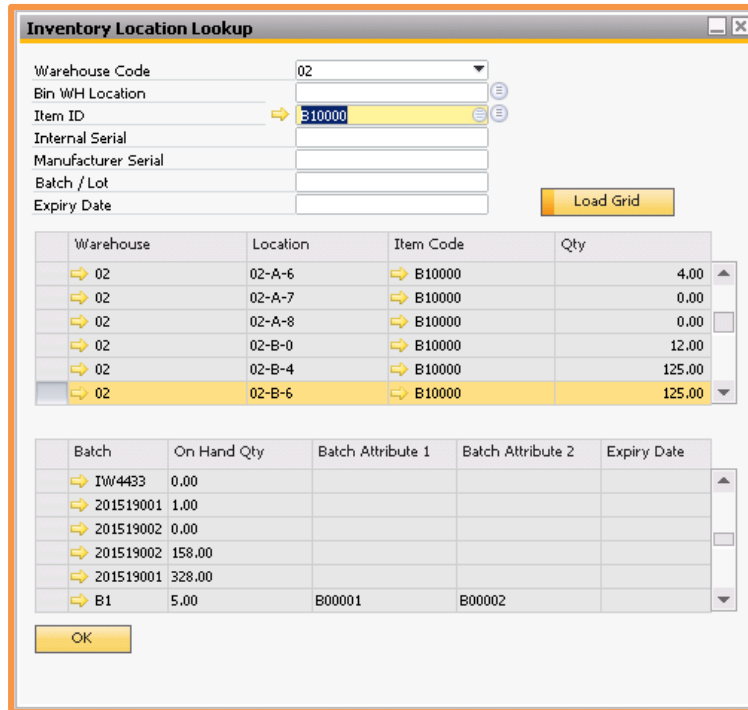
However, instead of deleting a failed print job, you could also try to re-print it. After addressing the issue, check the boxes of the jobs you want to try printing, then use the "Process" button at the bottom to clear the error and have WMS try again.

Inventory Location Lookup
Achieve One > Achieve Warehouse Management > Inventory Location Lookup

This program allows you to see a detailed listing of current locations of specified items, including batch or serial numbers in each bin. You can search by a variety of criteria to find relevant information.

Note that this program can be accessed from the handheld units as well as from within SAP.

Enter the filter criteria in the header:

Warehouse Code   Select the code of the warehouse to display, or leave blank to include all warehouses

Bin WH Location   Enter a bin number to display, or leave blank to include all bins

Item ID   Enter an item code, or leave blank to include all items

Internal Serial   Enter an internal serial number, or leave blank to include all serial numbers

Manufacturer Serial   Enter a manufacturer's serial number, or leave blank to include all serial numbers

Batch/Lot   Enter a batch number, or leave blank to include all batches

Expiry Date   Enter an expiration date for batches, or leave blank to include all expiration dates
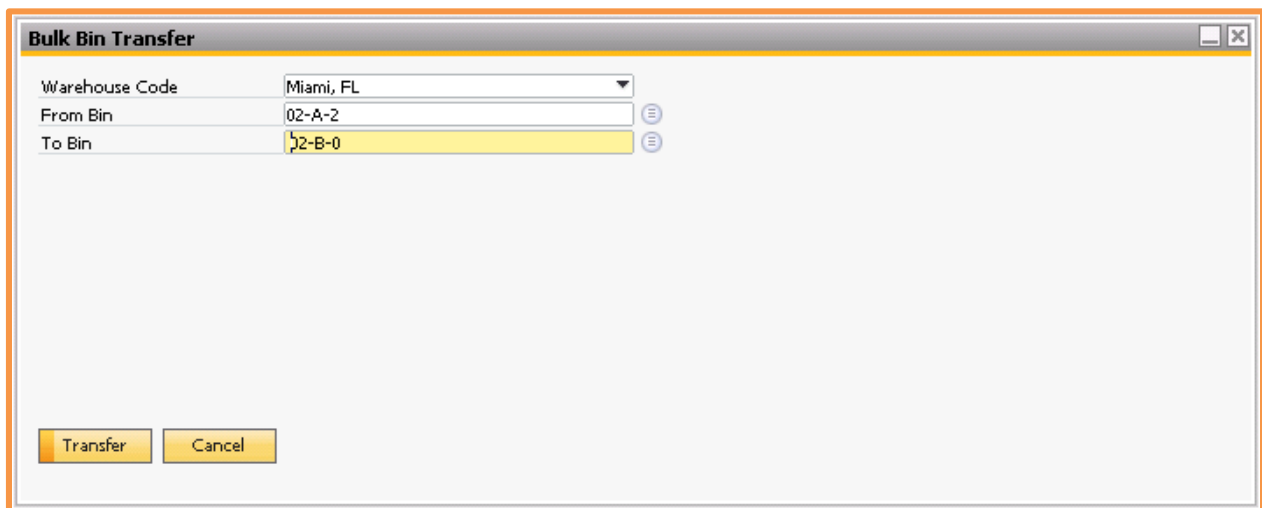
Once the criteria has been entered, click on "Load Grid" to display the selected items. For batch or serial number items, highlight a line in the upper grid and the lower grid will display the specific batches or serial numbers located in that bin.

Bulk Bin Transfer

The Bulk Bin Transfer screen allows you to move all items from one bin within a warehouse to another bin in that same warehouse. You do not have to specify which items, batches, or serial numbers, the bulk bin transfer will move everything.

Note that this program can be accessed from the handheld units as well as from within SAP.

First select the Warehouse Code, then enter in the From and To Bins. Once you have all the data filled in, click the Transfer button at the bottom and all the inventory in the From Bin will be transferred into the To Bin.
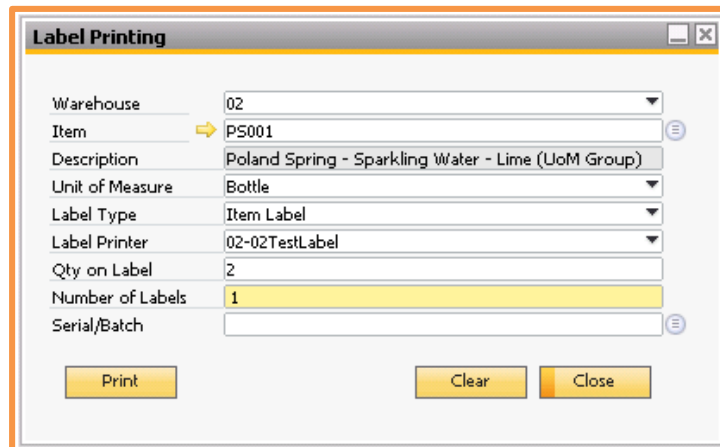
Label Printing
Achieve One > Achieve Warehouse Management > Label Printing

This program allows you to print item labels for receiving or shipping. The label format is determined by the Crystal Reports template referenced in the Warehouse Forms program.

Note that this program may be accessed from the handheld units, as well as from within SAP.

Enter the following information:

Warehouse	Select the warehouse
Item	Enter the item code
Description	The item description appears automatically
Unit of Measure	Select which unit of measure the label should print in
Label Printer	Select the printer for the labels, from the list of WMS printers for the warehouse
Qty on Label	Enter the item quantity, which will be printed on each label
Number of Labels	Enter the number of labels you wish to print
Serial/Batch	If the item is batched or serialized enter the serial or batch number you want printed on the label

When the information is complete, click on "Print" to print the labels.

Warehouse Logistics Inquiry

Achieve One > Achieve Warehouse Management > Warehouse Logistics Inquiry

This program allows users to see the various screens of the Logistics Manager, without the ability to filter the selections or perform any actions. It may be used by management personnel to monitor the status of warehouse operations

First choose how you want the documents grouped by, either Document or None. Then select the document type you want to review, Sales Orders, Reserve Invoices, Production Orders, Suggested Transfers, Inventory Transfer Requests, or Shipping Requests. That should bring up the appropriate data for you to review across each of the tabs.

For a complete description of each tab on the screen, see the section on Using the Logistics Manager, earlier in this manual.

Note that the **Achieve Order-To-Cash** Inquiry screens also contain the WMS Logistics views, and may be viewed by specific item, customer, or vendor.

Suggestions for Warehouse Management Practices

The following suggestions may be useful in implementing the Achieve Warehouse Management System in your warehouse. Please feel free to discuss them, and any other questions that arise, with your support representative.

Equipment

- *Long range vs. short range scanners:* At times companies find that their short-range scanners won't reach the bin barcodes on the top racks, and vice versa for the long-range scanners for the rack positions on the floor. A workaround is to have all the bin barcodes closer to the ground, on the bottom rack position, so that even if you don't have long-range scanners you can still scan it. But then this opens up the issue of accidentally scanning the wrong rack position. To avoid this, you might want consider a mix of scanners. All of this should be discussed and considered when determining the RF handhelds to purchase for the WMS Module.

- *Barcode labels and thermal ribbon:* There are various types of barcode label printers, ribbons and labels. There are a few things to consider on thermal ribbons and labels. There are usually three types of labels and ribbons, for various sizes of barcode labels. For the labels it has to do with how "permanent" the adhesive on the back of the label is, and it usually gets broken down into a temporary, semi-permanent, and permanent type categorization. You should consider this for both the item and bin labels, depending on the environmental conditions that the labels will be in. You can use regular warehouse labels (hot/cold/dust) on equipment for serial numbers, but usually permanent labels in refrigerated or frozen storage for items or bins, etc. Then for the thermal ribbon you have the same type of considerations, but this time it's relating to the thermal transfer and how much that needs to hold up to environmental conditions.

WMS Database

- *SBO and WMS Database Data not syncing:* This occasionally happens, especially when in testing mode and the Document Processor is not setup to automatically run. This can usually be fixed by manually stopping and starting the Document Processor. Usually it is installed on the SBO Server. Use the Windows Administrative Tools > Services to stop and re-start the service "AWM Document Processor".

Data

- ***Scanner/Hardware configurations and Barcode Setup in Item UoM Tab in Item Master:*** Depending on the Scanner settings, some scanners automatically incorporate check digits (the standard usually for different package sizes) before and after the main part of the barcode. It also depends on which barcode format you're using as well. You should test the scanners, especially if they're existing ones, to see how they are configured. Do they scan the barcode and strip the check digits; do they just read back the entire barcode check digits before and after and all? WMS Item UoM Tab needs the entire Barcode, in the Item UoM Tab in the Barcode Field, to distinguish between the different UoM's for the same Item. So typically you would setup the entire barcode in the UoM Tab, and then make sure the scanners read them properly.

Labels

- ***Labels:*** every bin must be labeled so it can be scanned by the barcode reader. If the bin contains one specific item, you can have a label with the item code on the bin. Otherwise, each item must have a label so it can be scanned as it is put away, moved, or picked. Note that different package sizes will have different barcodes, so it is important to re-label items if they are repackaged or if packages are broken up.

- ***Serial and batch numbers:*** if possible, create barcode labels with the serial or batch number for each item, so they can be scanned as needed.

Warehouse Organization

- ***Bin ID's:*** When assigning ID codes to the bins, it is important to incorporate codes indicating the warehouse, zone, row, and location within the row (for example, NYEAST22-16-3 for New York warehouse, East zone, row 22, section 16, shelf 3). This enables warehouse personnel to go directly to the right location when putting items away or picking them. It is also important not to have more than one bin with the same ID, even if they are in different warehouses.

- ***Keep fast-moving items in the front section of the warehouse and slower-moving items in the rear.*** Aisles should be arranged so that workers can move up and down the fast-moving sections without having to go to the slower-moving areas unless they need to.

- **Zones:** you may wish to divide a large warehouse into zones, with certain items always in the same zone.

- **Bin types:** keep enough stock in picking bins to last a few days, and regularly replenish from overstock bins. The overstock bins can be located in the rear, a loft area, or other part of the warehouse that is not needed for picking.

- **Quarantine:** items that have been returned as damaged, those that are waiting for quality-control testing, obsolete items, or any others that should not be sold to customers must be placed in quarantine-type bins. Items in these bins will be considered part of the total inventory quantity and value, but they will never be allocated for picking. It is advised that you regularly review items in these bins to be sure that they will be moved to pick or overstock bins if they are acceptable for sale, or returned to the vendor or otherwise disposed of if they are not. Keeping items in quarantine bins for extended periods will cause confusion for sales and customer-service people when they check on the available quantity of the items.

- **FIFO picking:** if you have designated the picking method as FIFO (first-in, first-out; or oldest first), the system will specify picking each item from the bin that appears to be the oldest before moving on to newer bins. The "age" of the bin is determined by the date on which it was last touched, or when items were last placed in it. It is important to put newer items into different bins so that the aging system is accurate – if you keep adding to the same bin, the system will think that all of the items in it are newer, even if it contains a mix of old and new items.

Item Management

- **Physical Inventory and Cycle Counting:** In order to maintain correct inventory quantities, it is necessary to do physical counts of the stock and update the computer system with any discrepancies. Some companies count the entire warehouse once or twice a year. However, this schedule allows discrepancies to exist and compound for many months without being corrected. In addition, it is virtually impossible to determine the cause of the discrepancies if a long time has elapsed since they occurred. Finally, a full-warehouse physical inventory is disruptive to the entire company, and usually involves personnel who are not familiar with the warehouse being involved in the counting.

Instead, it is recommended to perform cycle counts, which include a selected part of the inventory, more frequently. Ideally, there should be a cycle count of a limited number of items every day. This can be scheduled in such a way that only an hour or so is needed to count the designated items each day, and every item in the warehouse will be counted at least once a year. Fast-moving items should be counted more frequently, since they are more likely to have discrepancies. The count should take place at a time when items are not being moved in or out of the warehouse, and no inventory-related activity is being done on the computer; most likely this will be before or after business hours.