

MDS-Nx Warehouse Management System

Version 2.2

***mds* Warehouse**
from The Systems House, Inc.



Warehouse Management System (WMS)

What is it?

- WMS is a software application that helps manage and control the day to day operations in a warehouse

Why is it important to have a WMS?

- Improves Productivity
- Improved Inventory Accuracy
- Improved Order Processing Accuracy (less returns)

Warehouse Management (WMS) Functions

- Receiving/Put Away
- Replenishments
- Batch Picking
- Assigning and Picking Individual Releases
- Verification and Shipping
- Physical Inventory
- Inventory Inquiry and Adjustments



Warehouse Management (WMS) Functions



Receiving and Put Away Processes

- Receive to “Receiving Location” (staging area), Single Receiving Location, or by Zone
- Generate Put Away forms (optional)
- Put Away Merchandise and Record Bin Locations using Portable Data Terminals (PDTs)

Receiving and Put Away Processes

Application

Purchase Order Receiving Detail

Receiver# 009355 Company 01 Base Medical Supply
Warehouse 001 THE SYSTEMS HOUSE, INC.
PO Number 136690 Intrans# Date 07/24/20 Pct Add-On 0.00
Vendor# ANDA ANDA PHARMACEUTICALS Currency US 1.000000 U.S. DOLLARS

LN#	Product	Number	IntrQty	RecPrch	UM	RecStk	UM	Stk	Location	Loc Qty	C	Lab
1	60505-3278-03	Olanzapine 20mg ODT 30ct			CS	36	EA	40.0000	/EA		C	36
2	13668-0137-05	Escitalopram Oxalate 20mg tab 500			EA	24	EA	18.0000	/EA		C	24

Totals All Lines 60

Frt/Inland Frt 0.00 Ocean Frt 0.00 Duty
Misc/Brokerage 0.00 Insurance 0.00

Enter Line#,P for Prod#,AC for Additional Costs,% for Pct,0 to Accept

Rec Compl Add Costs Pct Add Seq Lines Stk Stat Printrcv Location
Help Ok/End Insert Delete Prev Next Inquiry

When items come in, you will receive them in MDS, using PO Receipts Posting.

PO RECEIVING FORM

POURCHASE ORDER NUMBER: 01136690 WHS#: 001 VENDOR#: ANDA VENDOR NAME: ANDA PHARMACEUTICALS

LN#	ITEM NUMBER	ORD QTY	OPEN P/O	RFLN	UM	FLAG	LOCATION (S)	RECV LOC (S)	RECV QTY	PROBLEM/ DISCREPANCY	LOT#
1	60505-3278-03	3	3	CS	000		A-017				
Olanzapine 20mg ODT 30ct Vend Item#: A-003											
MPC #											
2	13668-0137-05	24	24	EA	000		A-001				
Escitalopram Oxalate 20m Vend Item#: A-003											
MPC #											
TOTAL QTY RCVD											
TOTAL QTY RCVD											

To utilize in the receiving process, you can print a PO Receiving form or use the vendor's packing slip.

RECEIVED BY _____
DATE _____

Receiving and Put Away Processes

- Receive to "Receiving Location" (staging area), Single Receiving Location, or by Zone

Purchase Order Receipts Totals

Receiver Number Currency U.S. DOLLARS

Receiving Location

1.PO	Number	Open Qty	Rec Stock	(US) Cost	Cost	Frnt/In Frnt	Ocean Frnt
1.	136649	12	12				
2.							

When utilizing the Put Away process, you would receive the items just as before, but on the total screen you will be given the option to receive into the standard location or into the receiving location.

Receiving and Put Away Processes

- Put Away Form

RECEIVING PUTAWAY FORM

RECEIVER NUMBER: 009340
RECEIVING LOCATION: DOCK-1
PO NUM VENDOR
LN# ITEM NUMBER
136655 A1029 APOTEX



Receiver Number

PUTAWAY LOCATION	RECEIVED QUANTITY	UOM	PUT AWAY REMAINING	QUANTITY
A-003	120	EA		

001 60505-3278-03
LOT# 083493
Olanzapine 20mg QT 30ct

Item Number

A-003

Item Location

After the product is received, a Put Away is printed and assists your operators in receiving the product

PUT AWAY BY _____
DATE _____

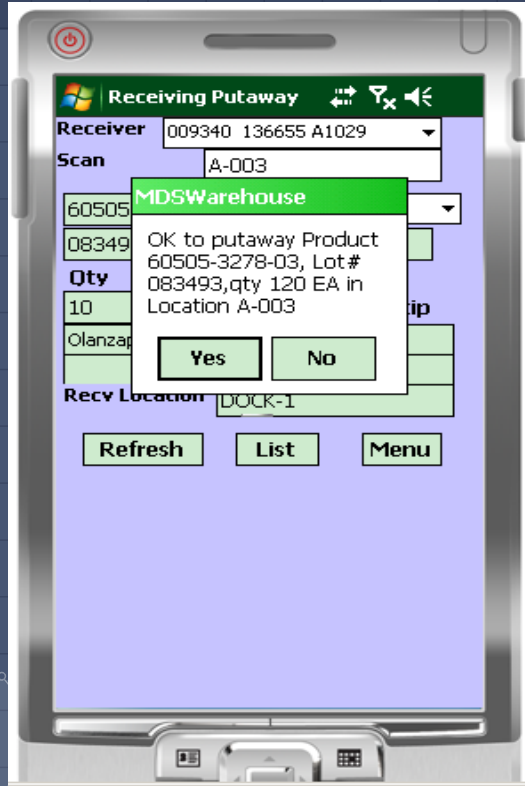
Receiving and Put Away Processes



Click the drop-down arrow next on the Receiver field and select the receiver to begin with.

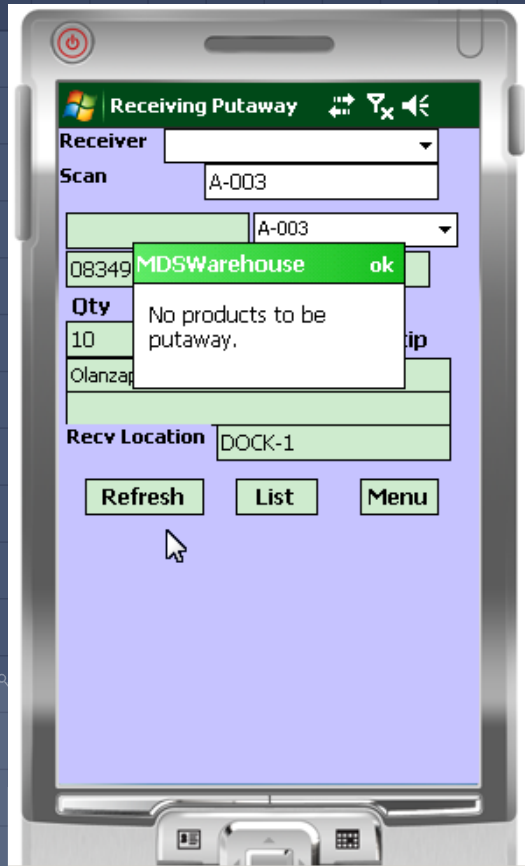
The first item is displayed, along with the location to put the item in. Simply go to that location and scan the location or item bar code. This process will default the quantity being put away.

Receiving and Put Away Processes



After the scan is done, tap “Yes” to confirm your putaway

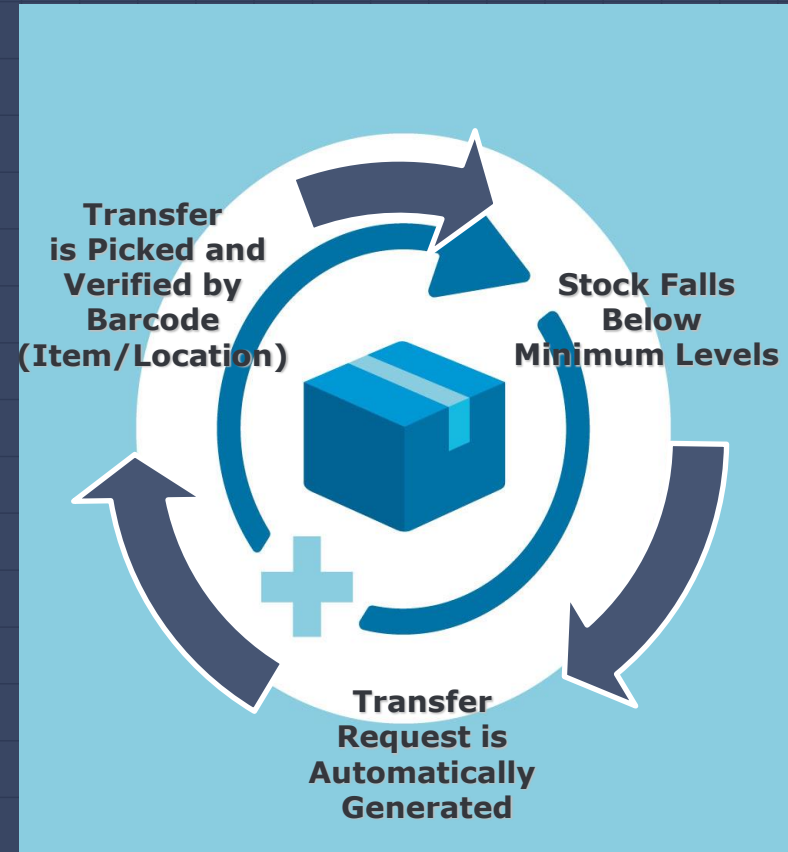
Receiving and Put Away Processes



Once all items are putaway, the system will prompt, "No products to putaway", tap "ok"

Replenishments

- Daily and Just in Time Replenishments
 - ❖ Daily – Restock all primary pick locations up to pre-determined levels
 - ❖ During day – replenish locations falling below minimum
- Transfer request generated on paper or electronically
- Transfers verified by barcode



Replenishments

base - [rs6000d.tshinc.com-BASE.12-REPL.ASSIGN012\$1]

File Edit Settings Reset Tools Mode Standard Functions Special Functions Refresh Dashboard Help

Application

MDS Replenishment Assignment

Picker ALL

Pick Status U

Ln#	Transfer	Date	Time	Ln#	Qty	Pick	Put	S	P	WZ
1	003093	05/28/20	12:56	3		84				
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										

Please make a selection, OK/END to Save, or Cancel

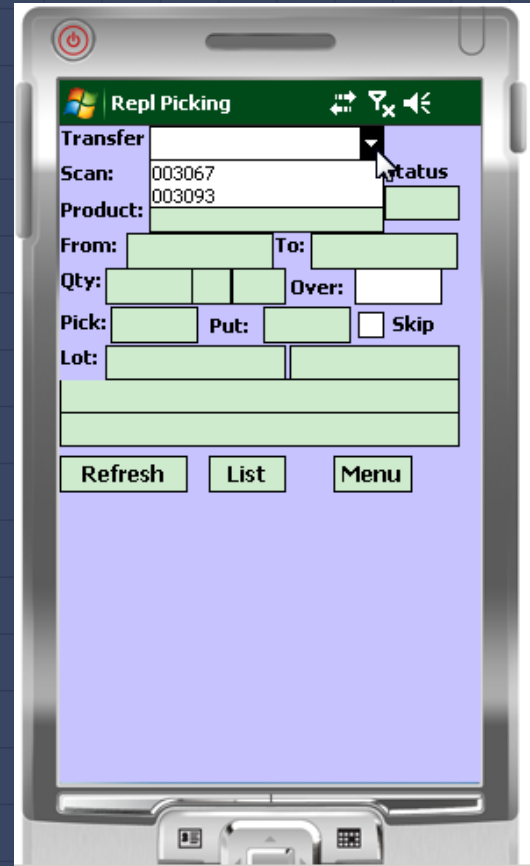
Det Rel Help Ok/End Insert Delete Prev Next Inquiry Cancel Off Popup

After the replenishment is created, the warehouse manager can assign to a Picker and Packer

Replenishment Picking

This process will pick the items from the bulk and overflow locations

Scan the Transfer ID from the report, or tap the drop-down arrow and select the transfer to work with



Replenishment Picking

The first item to pick is displayed. Go to the location and scan either the location bar code, or the item bar code to initiate the picking

***If the quantity is different, input the new quantity in the Over field

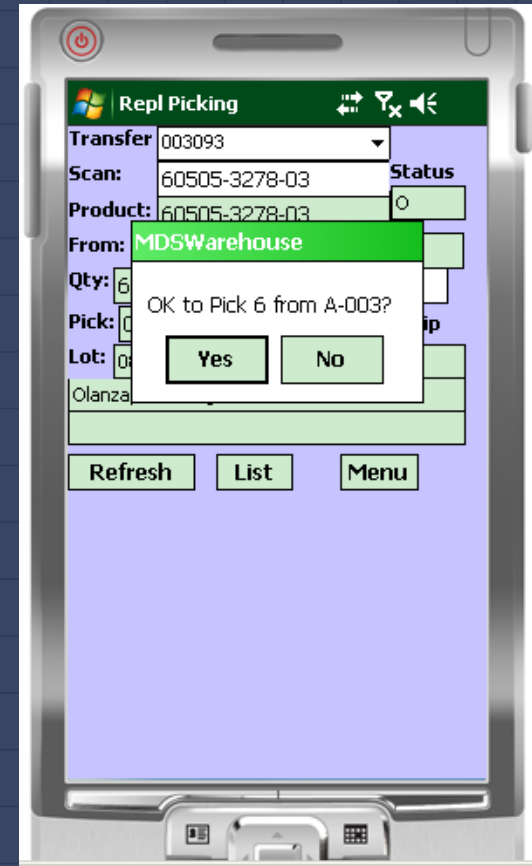
The screenshot shows a handheld device screen with a 'Repl Picking' application. The interface is green and white. At the top, there is a title bar with a Windows logo, the text 'Repl Picking', and navigation icons. Below the title bar, there are several input fields and buttons. The 'Transfer' field contains '003093'. The 'Scan:' field is empty, and the 'Status' field contains '0'. The 'Product:' field contains '60505-3278-03'. The 'From:' field contains 'A-003' and the 'To:' field contains 'A-017'. The 'Qty:' field contains '6', 'CS', and '12'. The 'Over:' field is empty. The 'Pick:' field contains '0', the 'Put:' field contains '0', and there is a 'Skip' checkbox. The 'Lot:' field contains '083493'. Below the lot field, the text 'Olanzapine 20mg ODT 30ct' is displayed. At the bottom of the screen, there are three buttons: 'Refresh', 'List', and 'Menu'.

Transfer	003093	Status	0
Scan:		Product:	60505-3278-03
From:	A-003	To:	A-017
Qty:	6	CS	12
Over:		Pick:	0
Put:	0	Skip	<input type="checkbox"/>
Lot:	083493	Olanzapine 20mg ODT 30ct	

Refresh List Menu

Replenishment Picking

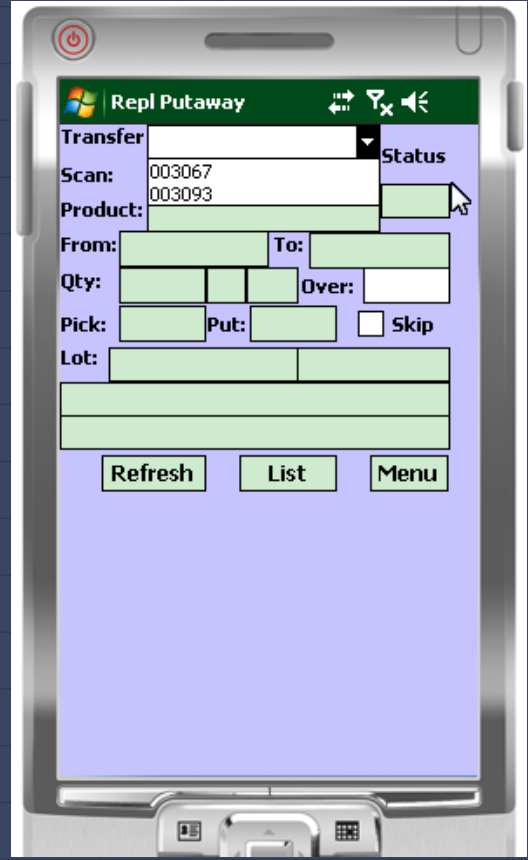
After scanning the bar code, the system will prompt “OK to Pick qty from location?”. Tap “Yes”



Replenishment Putaway

This process will put the items picked prior and put them into the primary locations.

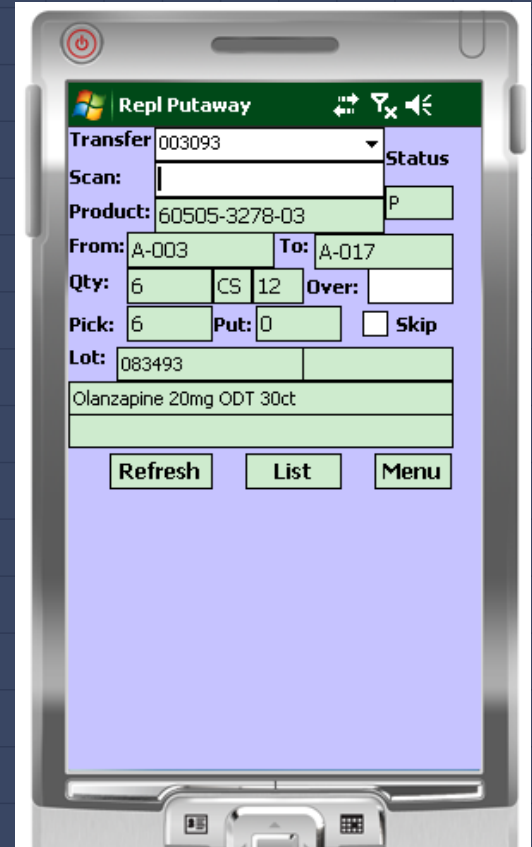
Tap the drop-down arrow and select the transfer to work with



Replenishment Putaway

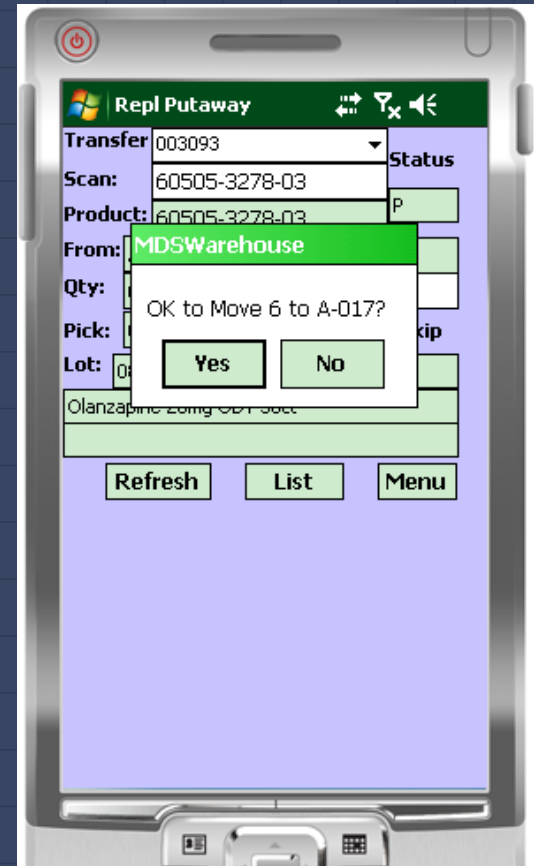
The first item to putaway is displayed

Go to the location and scan either the location bar code, or the item bar code to initiate the putaway



Replenishment Putaway

After scanning the bar code, the system will prompt “OK to Move qty from location?” Tap “Yes”



Assignment of Picking using WMS

- Batch Picking
 - Groups of releases are assigned to a picker by the warehouse manager
- Picking Individual Releases
 - Releases can be assigned by warehouse manager
 - Pick ticket can be scanned to initiate picking

Pick Ticket Assignment

File Edit Settings Reset Tools Mode Standard Functions Special Functions Refresh Dashboard Help

Application

MDS Picking Ticket Assignment

Picker ALL Pick Status U Mode UPDATE

Release	S	Date	Time	Ship-To	SV	PR	S	S	Car	S	Bik	Qty	BT	ID	S	LUM	BT	ID	S
271		01A36029001	U	05/24	09:53	L&K MEDICAL	10	5			C				C	1			
272		01A36034001	U	05/24	14:08	JULIANNE TEST	01	5			C				C	1			
273		01A36035001	U	05/24	14:18	JULIANNE TEST	01	5			C				C	1			
274		01A36035002	U	05/24	12:12	JULIANNE TEST	01	5			C				C	1			
275		01A35545001	U	05/26	18:07	L&K MEDICAL					C				C	2			
276		01A35545002	U	05/26	18:07	L&K MEDICAL					C				C	2			
277		01A09025001	U	05/27	15:09														
278		01S01739001	U	05/28	11:53	UMC MEDICAL													
279		01A35547002	U	05/30	14:19	BEST MEDICAL													
280		01A36051001	U	05/30	14:23	JULIANNE TEST													
281		01A36052001	U	05/30	14:23	JULIANNE TEST	01	5			C				C	1			
282		01A09028001	U	06/02	13:40			5			C				C	1			
283		01A09029001	U	06/02	13:42			5			C				C	1			
284		01A09038001	U	06/04	12:48	ABC CUSTOMER	01	5			C				C	1			
285		01A36068001	U	06/04	13:18	John Smith Inc.	11	5			C				C	1			
286		01S00643001	U	06/04	12:43	L&K MEDICAL	10	5			C				C	3			
287		01S00645001	U	06/04	13:01	L&K MEDICAL	10	5			C				C	2			
288		01S00645002	U	06/04	13:06	L&K MEDICAL		5			C				C	1			

This process is used to pre-assign pick tickets to the PDT operator by the warehouse manager; individually or by batch

Batch Picking

File Edit Settings Reset Tools Mode Standard Functions Special Functions Refresh Dashboard Help

Application

MDS Picking Ticket Assignment

Picker ALL Pick Status U Mode UPDATE

Release	S	Date	Time	Ship-To	SV	PR	S	S	Car	S	Blk	Qty	BT	ID	S	LUM	BT	ID	S
271	U	05/24	09:53	L&K MEDICAL	10	5					C				C	1			
272															C	1			
273															C	1			
274															C	1			
275															C	2			
276															C	1			
277	U	05/27	18:09			5					C				C	1			
278	U	05/28	11:53	UMC MEDICAL	08	5					C				C	1	28	07	P
279	U	05/30	14:19	BEST MEDICAL	08	5					C				C	1			
280	U	05/30	14:23	JULIANNE TEST	01	5					C				C	1			
281	U	05/30	14:23	JULIANNE TEST	01	5					C				C	1			
282	U	06/02													C	1			
283	U	06/02													C	1			
284	U	06/04													C	1			
285	U	06/04													C	1			
286	U	06/04													C	3			
287	U	06/04	13:01	L&K MEDICAL	10	5					C				C	2			
288	U	06/04	13:06	L&K MEDICAL		5					C				C	1			

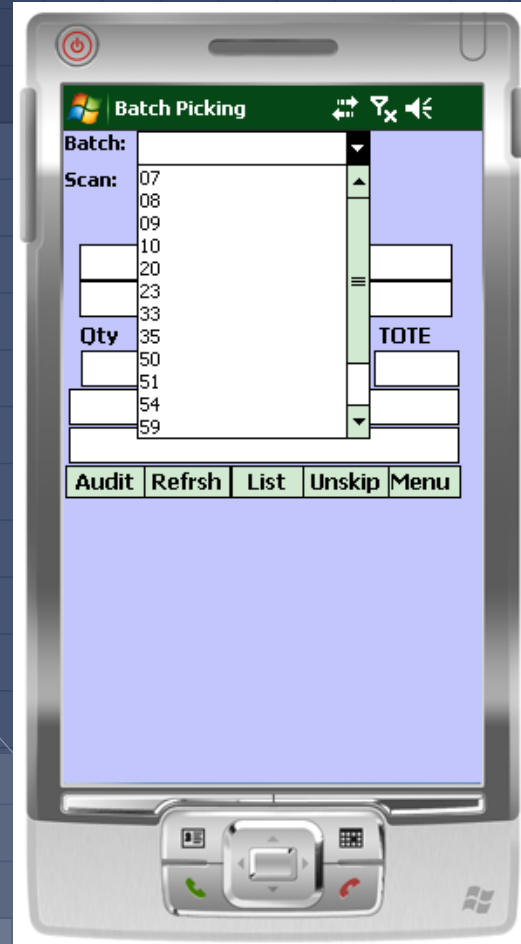
The warehouse manager can group releases together to be picked in the Pick Ticket Assignment screen

The manager would assign a batch number to multiple releases in the column "BT". The Picker would be assigned in the "ID" column.

Batch Picking

- This process will pick the multiple releases assigned to the batch

When using Batch Picking, the picker would select the batch first



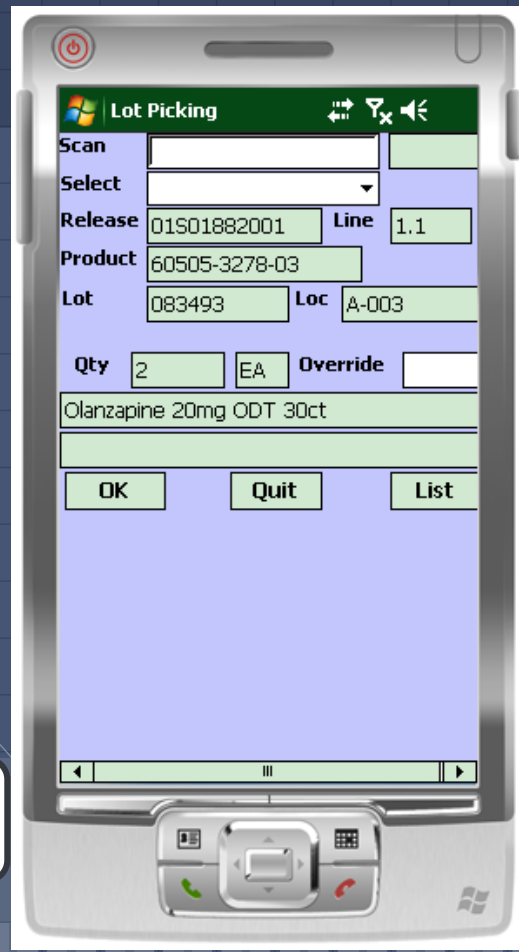
Batch Picking

- When Batch Picking, each item in the batch of releases are displayed to be picked.

The first item to pick, its location, and lot# are displayed. Go to that location to pick the item

Once at the location, scan either the item or location bar code to confirm the quantity.

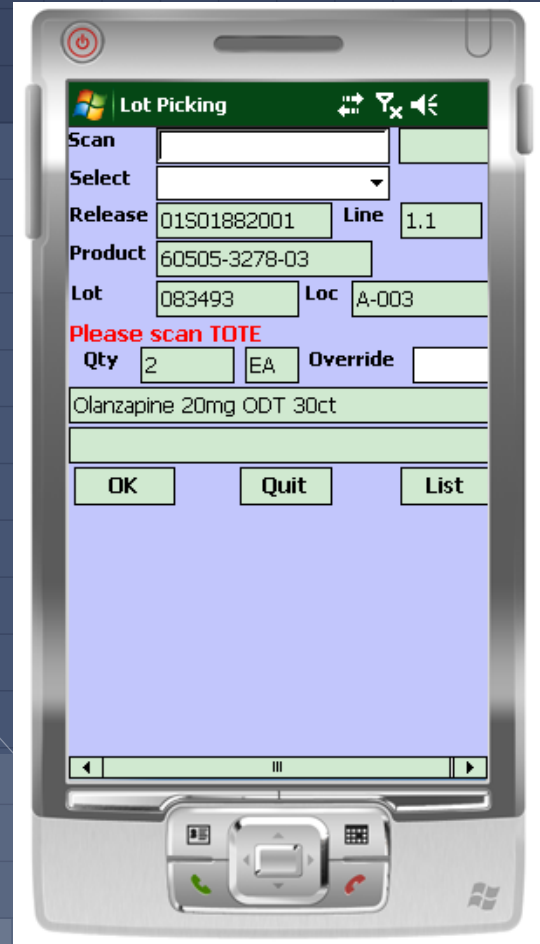
If there is a picking discrepancy, input the new quantity in the Override field



Batch Picking

- Tote Option
 - When batch picking, if tote logic is enabled, the operator can place items in totes for multiple ship to addresses for the same customer

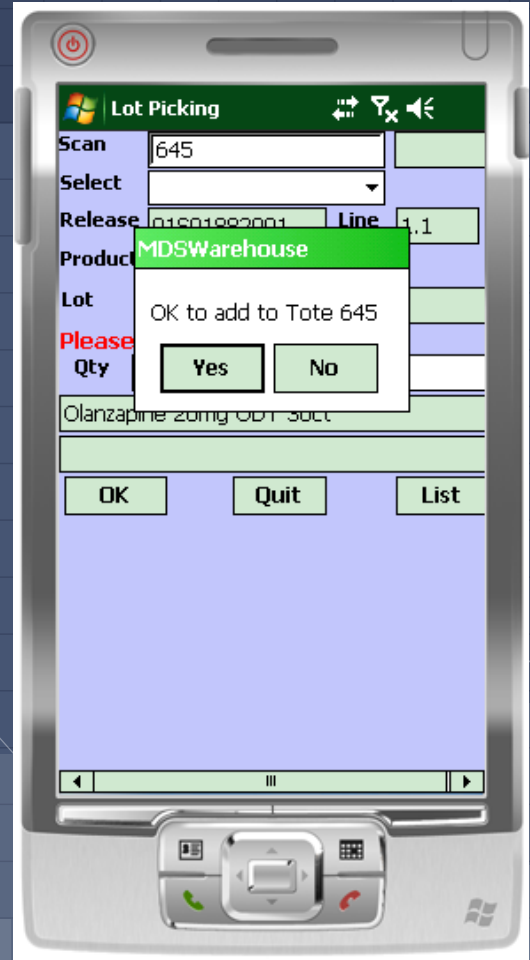
After scanning the item, scan the tote



Batch Picking

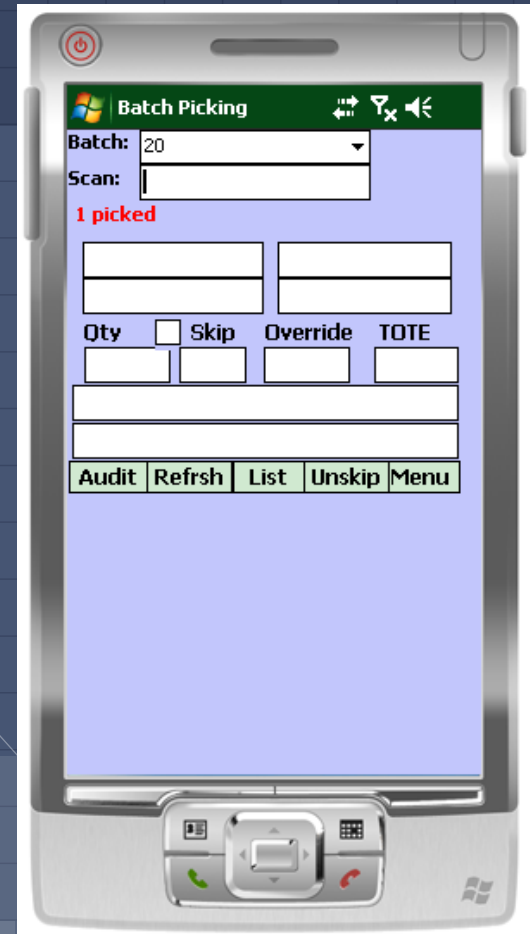
Confirm that it's OK to add the item to the tote

The next item will be displayed on the PDT, scan it, then scan the tote. If the customer is the same, you can use the same tote, otherwise a new tote will be required.



Batch Picking

After all picking is completed, tap the Audit button to finish



Assigning Individual Releases

MDS Picking Ticket Assignment

Picker: ALL Pick Status: U Mode: UPDATE

Release	S	Date	Time	Ship-To	SV	PR	S	S	Car	S	Blk	Qty	BT	ID	S	LUM	T	ID	S	
1		01S00686001	U	06/10	15:41	123 MAIN STREET	01	3											07	P
2		01S00749001	U	07/16	16:35	123 MAIN STREET	01	3												
3		01S00750001	U	07/16	16:51	123 MAIN STREET	01	3												
4		01A08736001	U	03/06	16:19	WHSE 002	11	5												
5		01A08835001	U	03/24	12:38	RACHEL CUST	09	5												
6		01A08840001	U	03/24	15:18	RACHEL CUST	09	5												
7																				
8																				
9																				
10																				
11																				
12																				
13		01A07734001	U	08/22	12:25	RACHEL CUST	09	5												
14		01A08734002	U	03/06	15:48	John Smith Inc.	11	5												
15		01A08734003	U	03/06	16:41	John Smith Inc.	11	5												
16		01A08942001	U	04/21	14:17	RACHEL CUST		5												
17		01A08950001	U	04/29	12:22	John Smith Inc.	11	5												
18		01A08987001	U	05/13	15:22	John Smith Inc.	11	5												

ENTER LINE # TO CHANGE, 0 TO ACCEPT

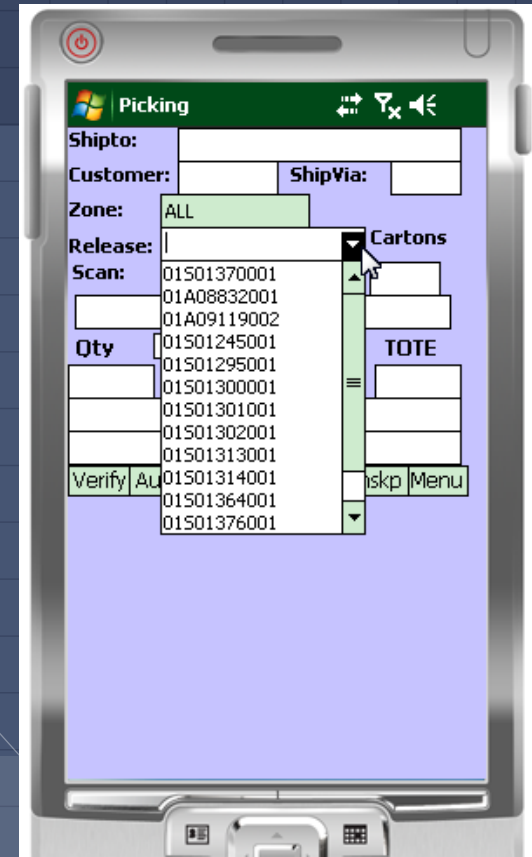
Det Rel Totelabel Update Pick Stat Help Ok/end Insert Ldelete Prev Pg Next Pg Inquiry Cancel Off

The manager would assign the picker in the "ID" field and update the status to "P" for Picking

Picking Releases

Tap the drop-down arrow to display a list of releases to choose from, then tap on the release to begin.

If the releases are not pre-assigned, scan the bar code on the pick ticket to begin the picking process



Picking Releases

- Tote Options – depending on the preset option, the operator can assign items into specific totes for shipping
 - Options when assigning totes:
 - Assign with each item scan
 - Assign once, then only when the operator changes totes



Picking Releases Without Totes

The first item to pick, its location, and lot# are displayed. Go to that location to pick the item

Once at the location, scan either the item or location bar code to confirm the quantity.

If there is a picking discrepancy, input the new quantity in the Override field

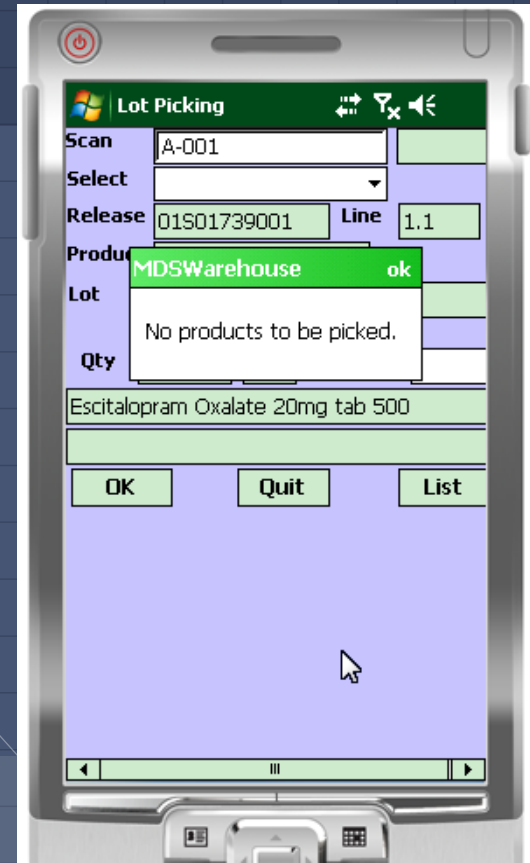
The screenshot shows a mobile application interface titled "Lot Picking". The interface is designed for data entry and includes the following fields and controls:

- Scan:** An empty input field.
- Select:** A dropdown menu.
- Release:** Input field containing "01901739001".
- Line:** Input field containing "1.1".
- Product:** Input field containing "13668-0137-05".
- Lot:** Input field containing "54687-315".
- Loc:** Input field containing "A-001".
- Qty:** Input field containing "3".
- EA:** A small input field.
- Override:** An empty input field.
- Item Name:** A text label "Escitalopram Oxalate 20mg tab 500".
- Buttons:** Three buttons labeled "OK", "Quit", and "List" are positioned at the bottom of the form.

The application is running on a device with a physical keyboard and a trackball, as indicated by the hardware at the bottom of the screen.

Picking Releases Without Totes

Once all items on the release are picked, tap
“ok”



Picking Releases with Totes

- ▣ This example, the Tote option is to scan a tote when picking each item

The first item to pick, its location, and lot# are displayed. Go to that location to pick the item

Once at the location, scan either the item or location bar code to confirm the quantity.

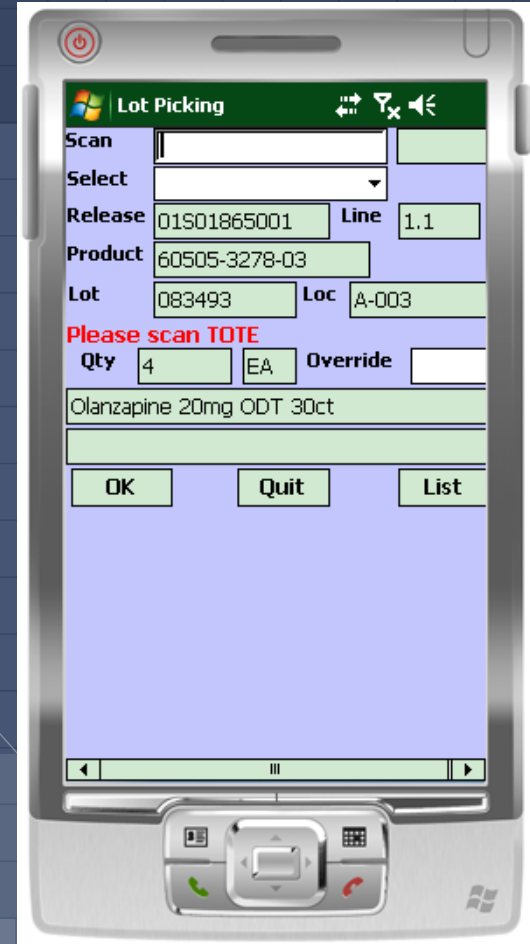
If there is a picking discrepancy, input the new quantity in the Override field



Picking Releases with Totes

- ▣ This example, the Tote option is to scan a tote when picking each item

Scan the tote that the item will go in

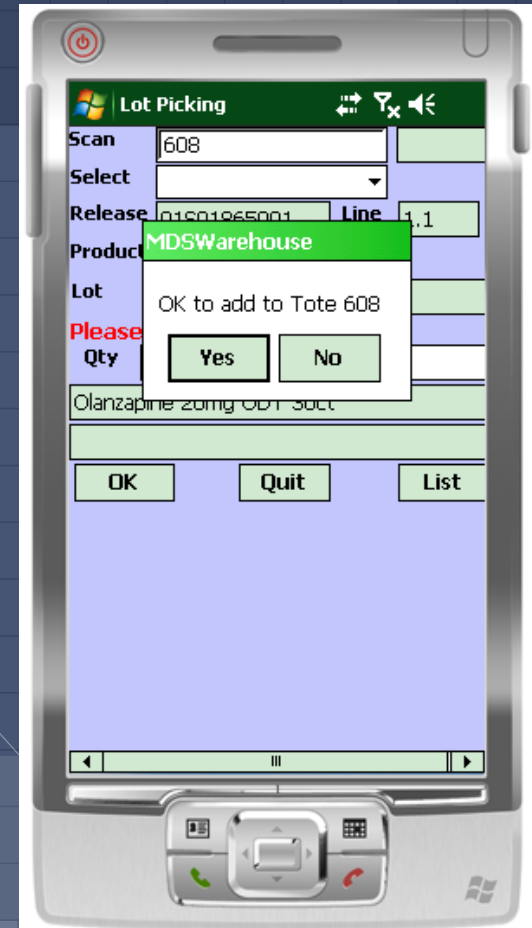


Picking Releases with Totes

- This example, the Tote option is to scan a tote when picking each item

Confirm that it's OK to add the item to the tote

The next item will be displayed on the PDT, scan it, then scan the tote. The tote can be the same tote or a new tote



Picking Releases with Totes

- ▣ This example, the Tote option is to scan a tote when picking each item

Once all items on the release are picked, tap “ok”

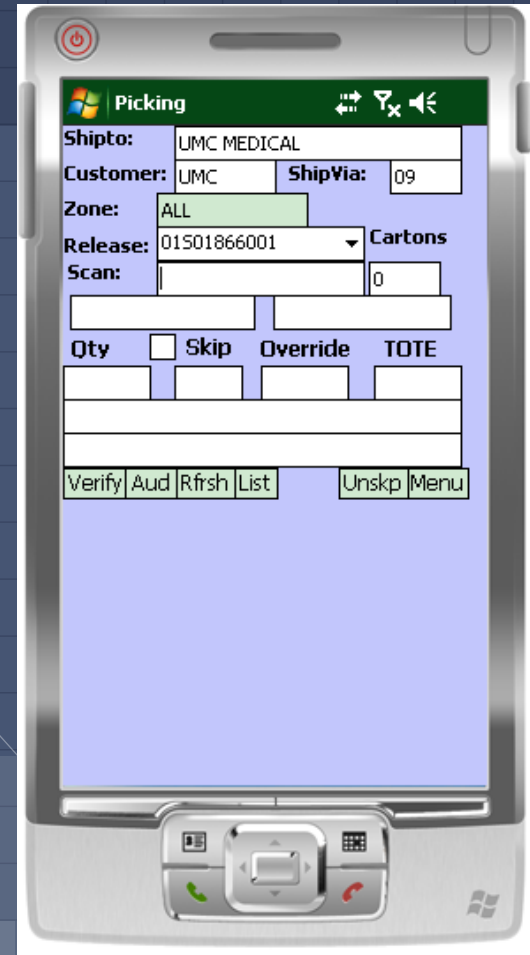


Verification and Shipping

- There are three options for Verifying (Invoicing) the release:
 - Through the Picking module on the PDT
 - Using the Verification module on the PDT
 - Using MDS to verify the release

Verification and Shipping Done Through the Picking Module

After Picking is complete, tap on the Verify button



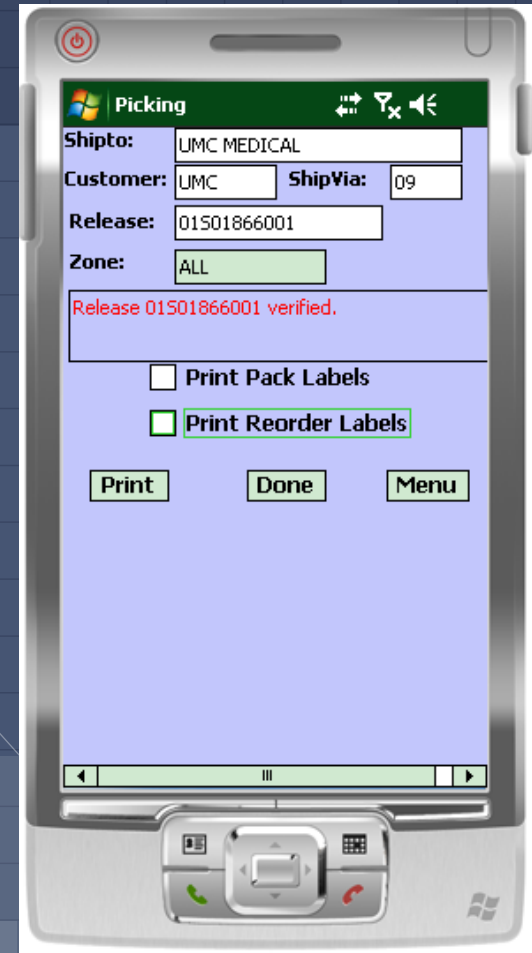
Verification and Shipping Done Through the Picking Module

The release has now been verified. There are options to print the packing and/or reorder labels.

You are given options to print the pack labels and reorder labels when you are shipping the packages.

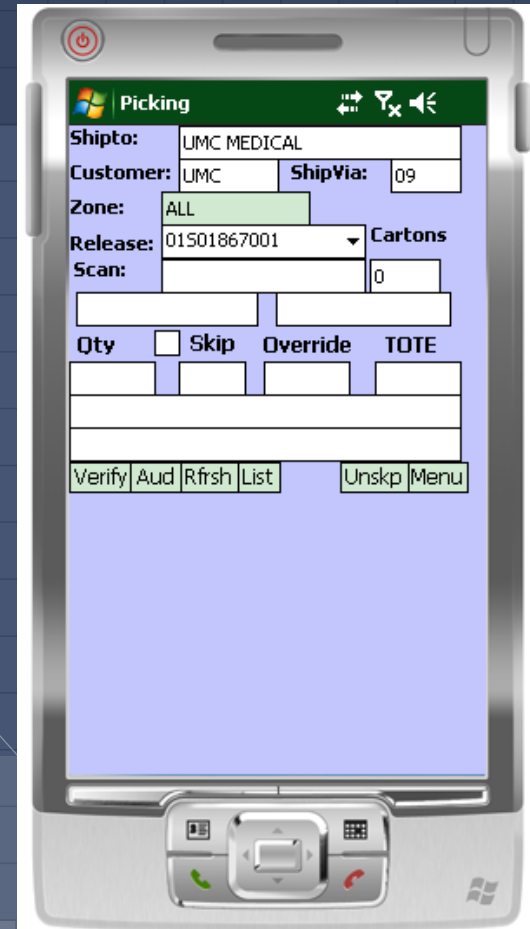
When complete, tap “Done”

If set to print, packing list and invoice will also be generated



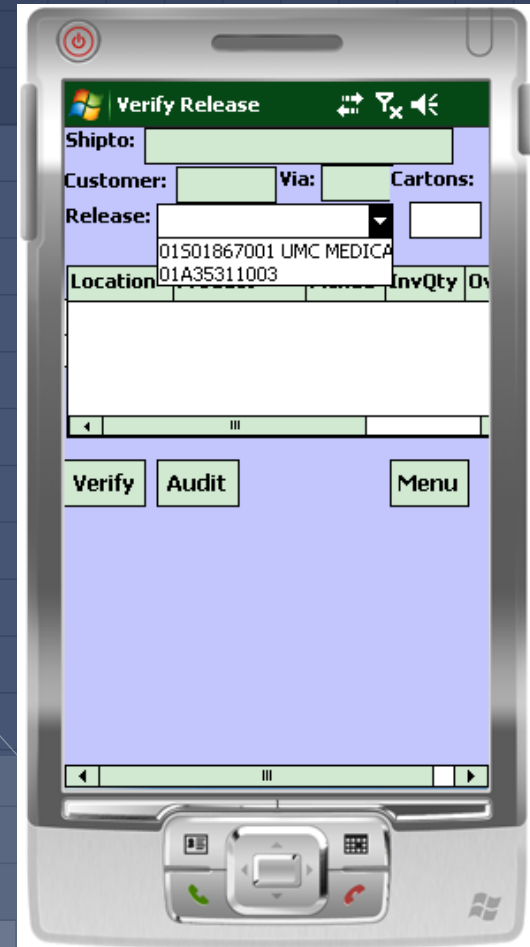
Verification and Shipping Done Through the Picking Module

In the Picking module, after completion, tap “Aud” to finish



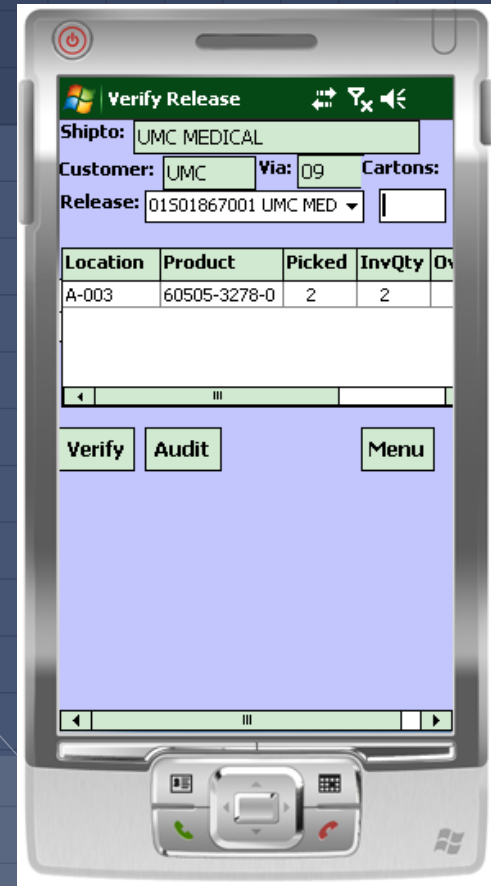
Verification and Shipping Done Through the Verification Module

The release drop-down will display all releases ready to be verified, select one



Verification and Shipping Done Through the Verification Module

Review on the screen the items and quantities picked. Tap the Verify button to invoice



Verification and Shipping Done Through the Verification Module

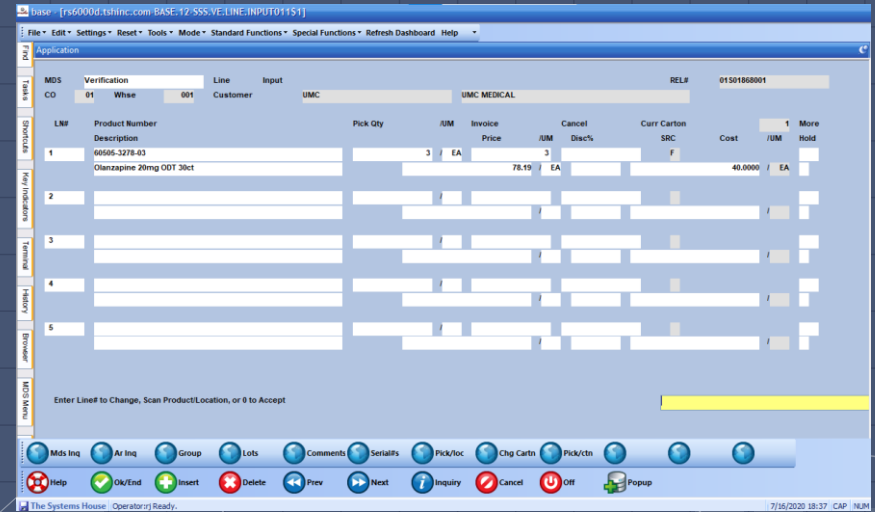
When complete, the release will be verified

If set to print, packing list and invoice will also be generated



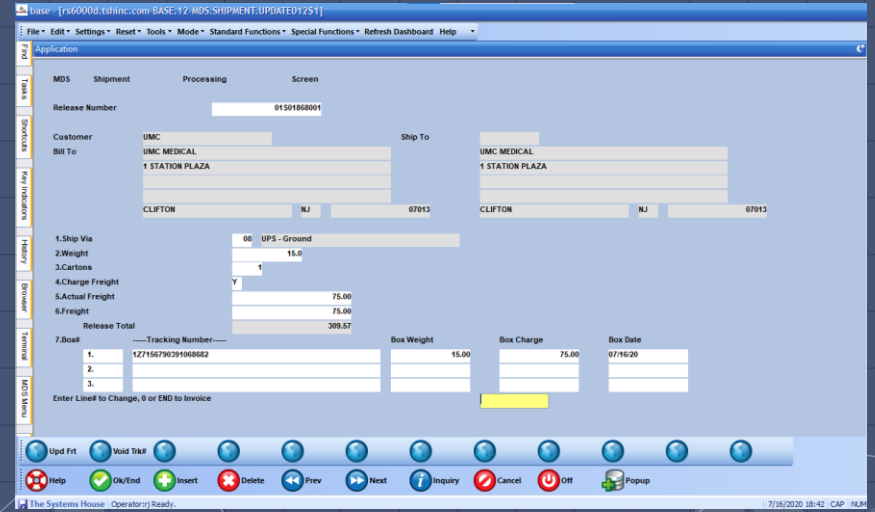
Verification and Shipping in MDS

- After being picked on the PDT, the release would then be verified in MDS



Verification and Shipping in MDS

- Shipping information can be processed by the operator, or in an automated process



Physical Inventory

- This process is used to enter cycle counts

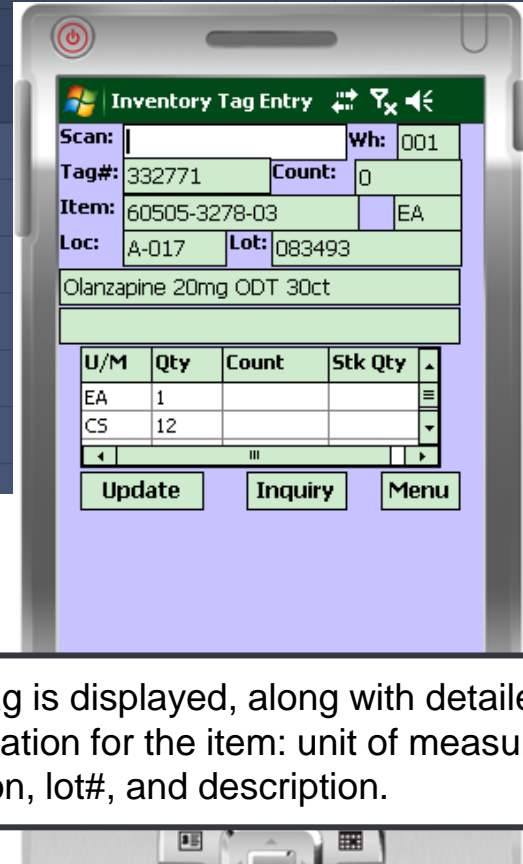
The tags are printed and given out. Simply scan the bar code on the tag. Input your counts and tap “Update”



TAG NO 332770 CYCLE COUNT# 2020
P/N 60505-3278-03 Stock UM: EA CS: 12 EA: 1
DESC Olanzapine 20mg ODT 30ct
WHS NO 001 WHS LOC A-003 LOT NO 083493
CS : _____ EA: _____ EA _____ EA: _____ Count : _____ Ver By: _____ Recount



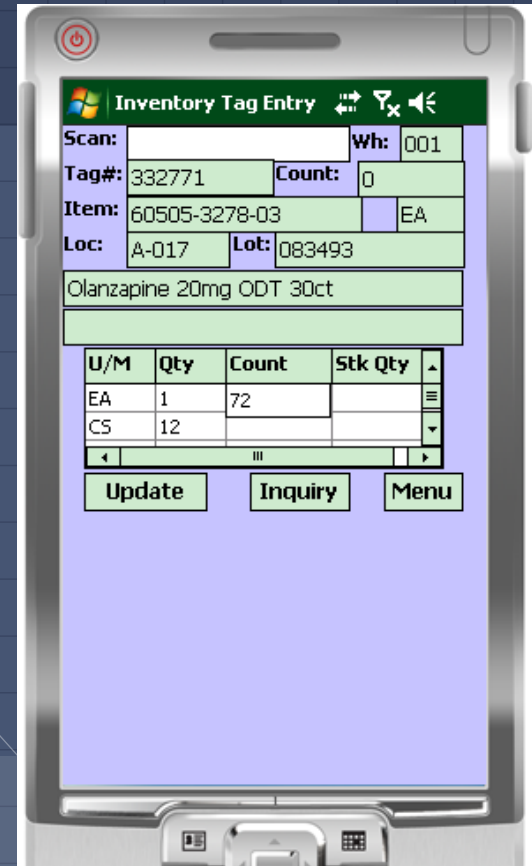
TAG NO 332771 CYCLE COUNT# 2020
P/N 60505-3278-03 Stock UM: EA CS: 12 EA: 1
DESC Olanzapine 20mg ODT 30ct
WHS NO 001 WHS LOC A-017 LOT NO 083493
CS : _____ EA: _____ EA _____ EA: _____ Count : _____ Ver By: _____ Recount : _____



The tag is displayed, along with detailed information for the item: unit of measure, location, lot#, and description.

Physical Inventory

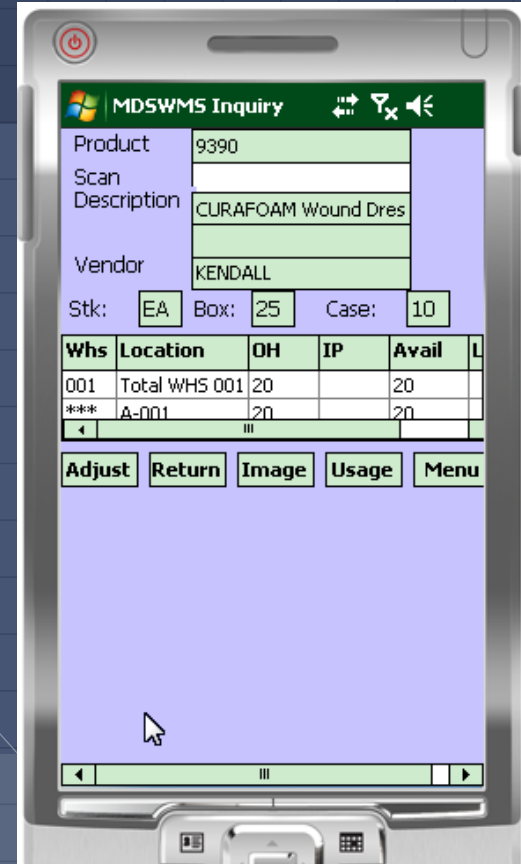
Tap on the Count box and input the counts.
When complete, tap "Update". Then you are
ready to scan the next tag



Inventory Inquiry

You can lookup stock information for any item in the system.

Inventory adjustments can be made for any non-lot items. Just tap on the “Adjust” button



Inventory Inquiry

Select the location, quantity, and reason code, then tap on the “Update” button

The screenshot shows a mobile application interface for inventory inquiry. The title bar is green and contains the text "MDSWMS Location Ac" along with several icons. The main screen is light purple and displays the following fields:

- Product: 9390
- CURAFoAM Wound Dressing
- Warehouse: 001 THE SYSTEMS HOU
- Location: A-001 20
- OnHand Whs: 20 LOC: 20
- New Location: (empty dropdown)
- Moved Qty: -2
- Reason Code: 06 DAMAGED GOODS

At the bottom of the form are three buttons: "Update", "Cancel", and "Menu". A mouse cursor is pointing at the "Update" button.