



# All About Prophet 21's Wireless Warehouse Management System (WWMS)

Neil Van Walbeck

Epicor

# Session Description

---

- For those who have made the decision to implement the Prophet 21 Wireless Warehouse solution or those thinking about it, this session will provide an overview of the capabilities of the WWMS solution, including our latest new features.
- Also, learn about WWMS Workbench - a tool that helps you move to paperless picking.
- Finally, hear about some best practices to make your WWMS implementation a success!



# Agenda

---

1. Benefits and Improvements
2. P21 WWMS Functions
3. System Setup Overview
4. Wireless Workbench
5. Preparing for WWMS
6. Addendum

# Safe Harbor Statement

---

**FORWARD-LOOKING STATEMENTS:** This Presentation may contain certain statements that may constitute forward-looking statements. These forward-looking statements may include statements regarding future product releases, future functionality, expected revenues, cash flows, growth prospects, installed base of customers, the launch of new products and other statements that are not historical fact. These forward-looking statements are based on currently available competitive, financial and economic data together with management's views and assumptions regarding future events and business performance at the time the statements are made and are subject to risks and uncertainties. Actual results may differ materially from those expressed or implied in the forward-looking statements. Such risks and uncertainties include but are not limited to changes in the demand for Epicor's products; the timely availability and market acceptance of new products and upgrades; the impact of competitive products and pricing; changes in the overall economic and financial condition of our markets or customers; and other factors. As a result of these factors the business or prospects expected by Epicor may not occur. Epicor undertakes no obligation to revise or update publicly any forward-looking statements.



# Prophet 21 WWMS – Benefits and Improvements

# Prophet 21 WWMS – Benefits and Improvements

---

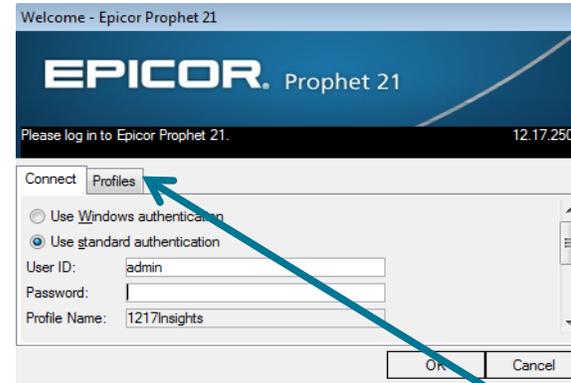
- Streamlines warehouse processes
- Real-time updating of inventory movement
- Gains in accuracy, control, and efficiency
- Track warehouse performance metrics



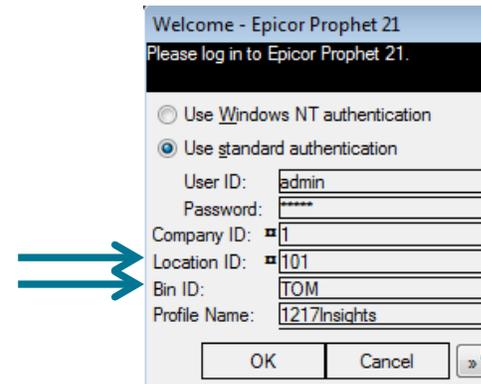
# P21 WWMS Functions

# P21 WWMS Functions

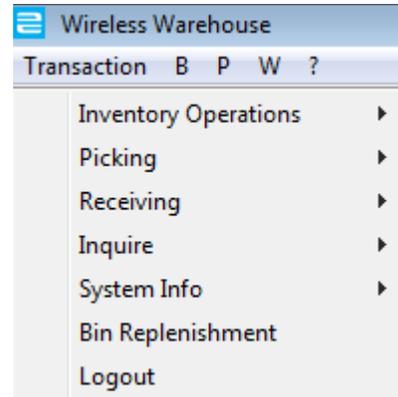
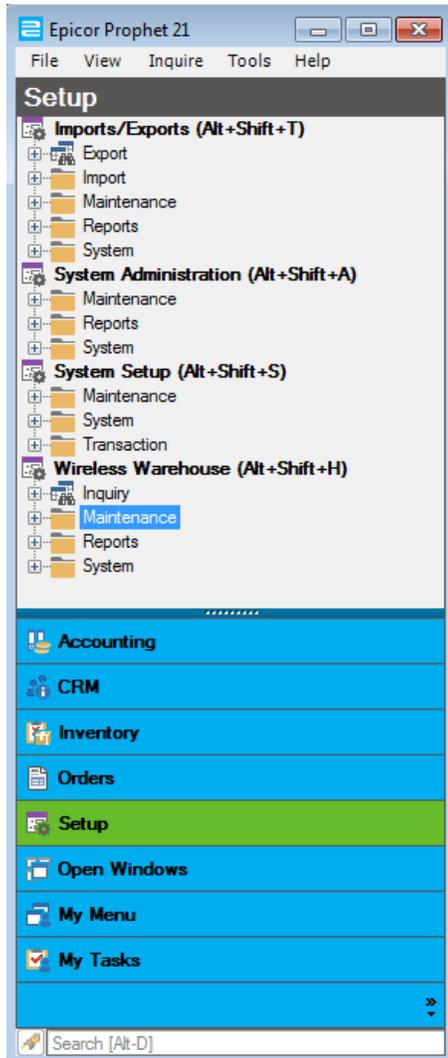
## Logging into Prophet 21

A screenshot of the Prophet 21 login dialog box. The title bar says "Welcome - Epicor Prophet 21". Below the title bar, it says "EPICOR Prophet 21" and "Please log in to Epicor Prophet 21." with the IP address "12.17.2503" on the right. There are two tabs: "Connect" and "Profiles". The "Profiles" tab is selected. Under "Profiles", there are two radio buttons: "Use Windows authentication" (unselected) and "Use standard authentication" (selected). Below these are three text input fields: "User ID:" with "admin", "Password:" (masked with asterisks), and "Profile Name:" with "1217Insights". There are "OK" and "Cancel" buttons at the bottom.

## Logging into P21 WWMS

A screenshot of the P21 WWMS login dialog box. The title bar says "Welcome - Epicor Prophet 21". Below the title bar, it says "Please log in to Epicor Prophet 21." There are two radio buttons: "Use Windows NT authentication" (unselected) and "Use standard authentication" (selected). Below these are five text input fields: "User ID:" with "admin", "Password:" (masked with asterisks), "Company ID:" with "1", "Location ID:" with "101", and "Bin ID:" with "TOM". The "Profile Name:" field is also present with "1217Insights". There are "OK", "Cancel", and a right-pointing arrow button at the bottom.

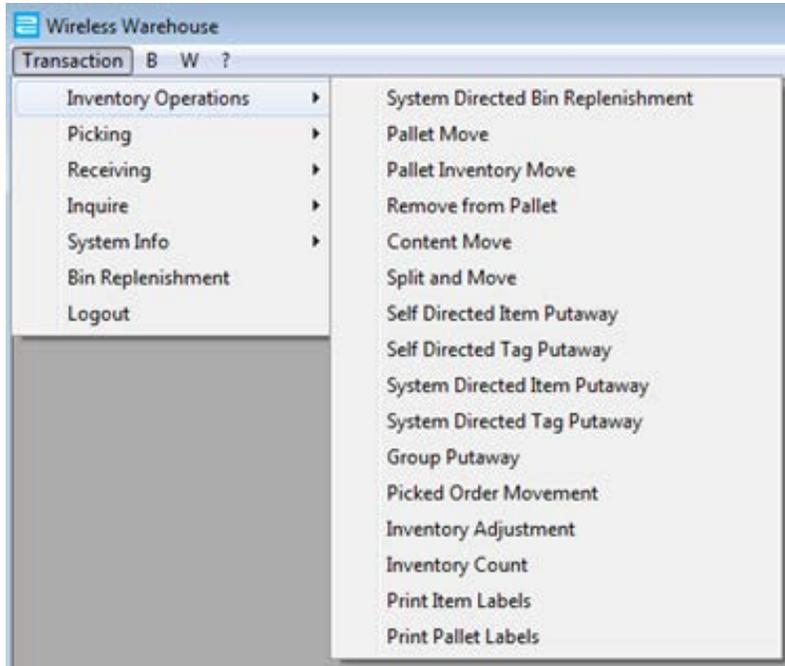
# P21 WWMS Functions



Transaction Tool Bar (single dropdown menu)

- 'B' - Bin Replenishment Indicator
- 'P' - Priority Pick Indicator (Sales Order Picking)
- 'W' - Window Dropdown (navigate multiple windows)
- '?' – Function Keys
- Bin Replenishment (also Bin Replenishment Indicator)

# P21 WWMS Functions - Inventory Operations



- WWMS Only Features

- System Directed Bin Replenishment
- Transfer Pallet Movements and Labels
- System Directed Putaway's and Group Putaway
- Picked Order Movement

- WWMS Features / Prophet 21 Windows

- Self Directed Item Putaway = Bin Inventory Movement
- Self Directed Tag Putaway, Content Move, Split and Move = Tagged Inventory Movement
- Inventory Adjustment = Inventory Adjustment
- Inventory Count = Physical Count (Transaction)
- Print Item Labels = Inventory Labels (Reports)

# P21 WWMS Functions – Self Directed Putaway Example

## P21 Bin Adjustment

The screenshot shows the 'Bin Adjustment' application window. It has a menu bar with 'File', 'Edit', 'View', 'Inquire', 'Tools', 'Window', and 'Help'. Below the menu bar are tabs for 'Home', 'Application', 'System Status', and 'Help'. The main window has three tabs: 'General', 'Bins', and 'Lot/Bin'. The 'Bins' tab is active. It displays the following information:

Item ID: H 25 MM      BUSHING - SPLIT TAPER  
Total Quantity On Hand: 10.00      Total Quantity Allocated: .00

Bin	Bin Quantity On Hand	Bin Quantity Allocated	New Qty On Hand	UOM
REC05	10.00	.00	.00	EA
A-02-2A	.00	.00	10.00	EA

Total New SKU Quantity On Hand: 10.00

## Wireless Self Directed Putaway

The screenshot shows the 'Wireless Warehouse - [Self Directed Putaway]' application window. It has a menu bar with 'Transaction' and 'W ?'. The main window displays the following information:

Source

Bin ID: REC05  
Item ID: H 20 MM  
Lot:  
Traceable Factor  
Unit of Measure: EA  
Qty Avail. to Move: 10.00  
Qty to Move: 10.00

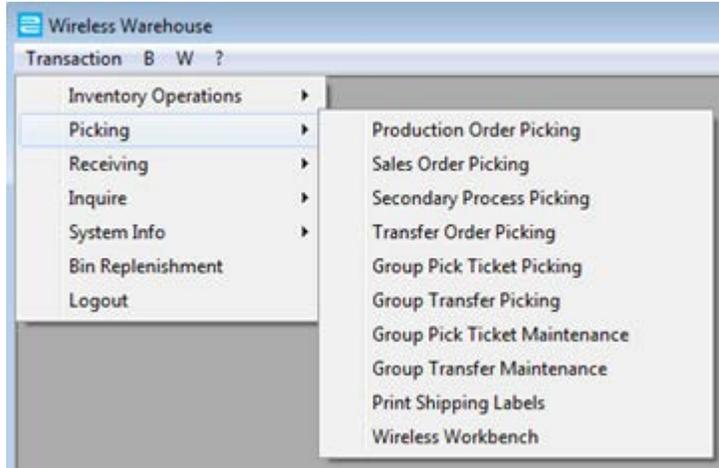
Destination

Change to Primary:   
Bin ID: C-01-1A

- P21 Bin Adjustments are limited to Unallocated Quantities \*
- WWMS Putaway moves Allocated Quantities
- Added Benefit
  - Can Update Primary Bin at the same time

\*Now P21 has Bin Inventory Movement that will allow the P21 Application to move allocated quantities

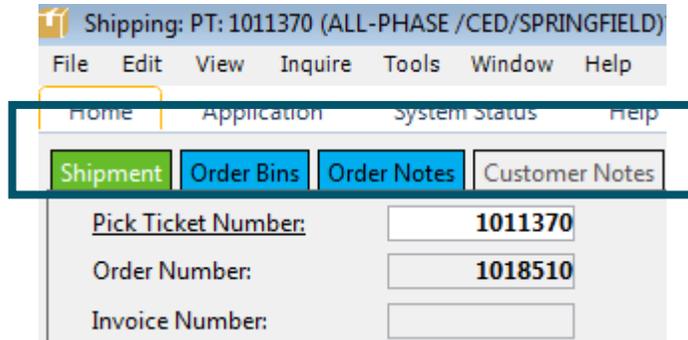
# P21 WWMS Functions - Picking



- All Baseline Picking Transaction Windows
  - (except Inventory Returns)
- Ability to Group Pick
  - Sales Orders
  - Transfers
- Maintain Group Picks manually
- Print Shipping Labels (and Item Labels) before or after picking
- Wireless Workbench
  - Can automate all of the above

# P21 WWMS Functions - Picking Example (Sales Order)

## P21 Shipping

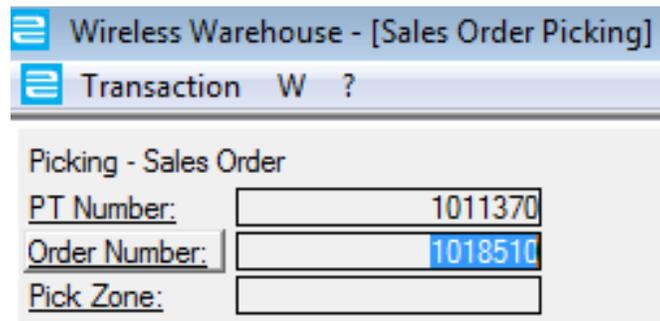


The screenshot shows the P21 Shipping window header with the following elements:

- Window Title: Shipping: PT: 1011370 (ALL-PHASE /CED/SPRINGFIELD)
- Menu Bar: File, Edit, View, Inquire, Tools, Window, Help
- Navigation Bar: Home, Application, System Status, Help
- Tab Bar: Shipment (selected), Order Bins, Order Notes, Customer Notes
- Input Fields:
  - Pick Ticket Number: 1011370
  - Order Number: 1018510
  - Invoice Number: (empty)

- P21 Shipping window Header
  - Real time updating of Order Bins (where is the shipment staged)
- Order Notes and Customer Notes can be displayed in Wireless Picking

## Wireless Picking



The screenshot shows the Wireless Picking window header with the following elements:

- Window Title: Wireless Warehouse - [Sales Order Picking]
- Menu Bar: Transaction, W, ?
- Section Header: Picking - Sales Order
- Input Fields:
  - PT Number: 1011370
  - Order Number: 1018510
  - Pick Zone: (empty)

- First step in each window is to input the Pick Ticket Number

# P21 WWMS Functions - Picking Example (Sales Order)

## P21 Shipping

Items	Bin	Lot/Bin	Serial	Tags	Item Notes	Undership	Order Line Notes	Customer Pa
Item ID:	H 3/4		BUSHING - SPLIT TAP					
Total SKU Quantity To Post:	5.00							
Transaction	Bin	Unit Quantity		UOM				
Ship	A-01-2A	5.00	EA					
Total SKU Quantity Posted:	5.00							

## Wireless Picking

Picking	
PT/Order No:	1011370/1018510
PT Line No:	2
Bin To Pick:	A-01-2A
Item ID:	H 3/4
Lot:	
Rev:	
Traceable Factor:	
UOM:	EA
Pick Qty:	5.00
Bin	

- P21 Shipping window Line Level
  - Real time updating of Allocated Bins
- Bins, Lot/Bins, Serials, Tags all updated in real time
- Adjustments can be made at picking
- Order Line Notes and Customer Part Number Notes can be displayed in Wireless Picking
- Second step is to verify the bin to pick from

# P21 WWMS Functions - Picking Example (Sales Order)

## P21 Shipping

Item ID	Item Description	Quantity Available	Quantity Picked	Quantity Shipped	Disp	UOM	Release
BK45H	SHEAVE	649.00	5.00	5.00	<input type="checkbox"/>	EA	<input type="checkbox"/>
H 3/4	BUSHING - SPLIT TAPER	120.00	5.00	5.00	<input type="checkbox"/>	EA	<input type="checkbox"/>

## Wireless Picking

Picking

PT/Order No: 1011370/1018510

PT Line No: 2

Bin: A-01-2A

Item To Pick: H 3/4

Item ID:

Traceable Factor:

Lot To Pick:

Rev:

Lot:

Serial:

UOM: EA

Pick Qty: 5.00

Qty:

- Bin Sequencing can create efficient picking paths
  - Example: 1<sup>st</sup> item on scanner is 2<sup>nd</sup> line on order
- Third step is to verify the Item and Quantity to pick
  - And/or Lot Number, Serial Number(s)

# P21 WWMS Functions - Picking Example (Sales Order)

## P21 Shipping

Items	Bin	Lot/Bin	Serial	Tags	Item Notes	Undership	Order Line Notes	Customer Pa
Item ID:		H 3/4		BUSHING - SPLIT TAPE				
Total SKU Quantity To Post:		5.00						
Transaction	Bin	Unit	Quantity	UOM				
Ship	A-01-2A		.00	EA				
Ship	TOM		.00	EA				
Ship	TOTE01		5.00	EA				
Total SKU Quantity Posted:		5.00						

- Wireless warehouse updates each line when picked, showing the bin movement and the scanner rf bin that made the pick

## Wireless Picking

Deposit Form	
PT/Order No:	1011370/1018510
PT Line No:	All
Lot:	
Qty:	
UOM:	EA
Item To Deposit:	All
Deposit Bin:	TOTE01
Put In Container:	
Container Pkg Type:	
Put On Platform:	
Platform Pkg Type:	
Put In Bin:	TOTE01

- Final step is to “deposit” Items picked

# P21 WWMS Functions - Picking Example (Sales Order)

## P21 Shipping

<input type="checkbox"/> Confirm Shipment	<b>Invoice</b>	<b>Packing List</b>	<b>Labels</b>
<input type="checkbox"/> Front Counter Tax	<input type="checkbox"/> Print <input type="checkbox"/> Fax	<input type="checkbox"/> Print <input type="checkbox"/> Fax	<input type="checkbox"/> Print
<input type="checkbox"/> Delete	<input type="checkbox"/> Email	<input type="checkbox"/> Email	

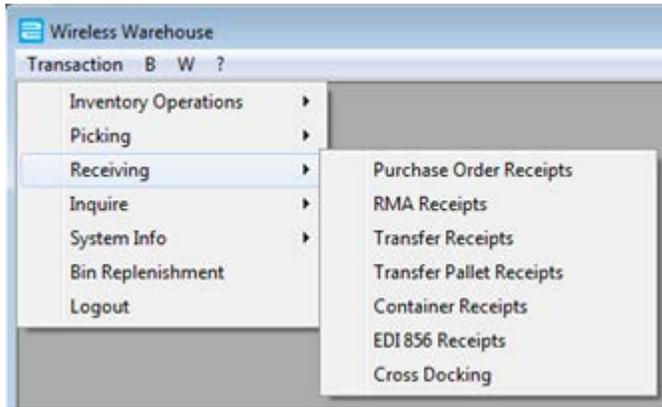
## Wireless Picking

<b>Wireless Item Labels:</b>		<b>Wireless Shipping Labels:</b>	
Tag Number:		Order Number:	1018510
Item ID:	H 3/4	Pick Ticket:	1011370
Lot:		Customer ID:	100617
Package Type:		Ship To ID:	100617
Qty/Per:		Customer PO:	
UOM:	EA	Route:	
Unit Quantity:		Carrier:	
Label ID:	ITEM_WS	Label ID:	SHIPPING_S
No of Labels:	1	No. Ship Labels:	1

<b>Print Packing List:</b>	
Pick Ticket No:	1011370
Customer ID:	100617
Ship To ID:	100617
No of Copies:	1

- Options include
  - Printing Shipping Labels
  - Printing Item Labels
  - Printing Packing List
- Also
  - Undershipping / Overshipping
  - Backorder, Cancel, or Unallocate Quantities
  - Adjust Inventory on the fly

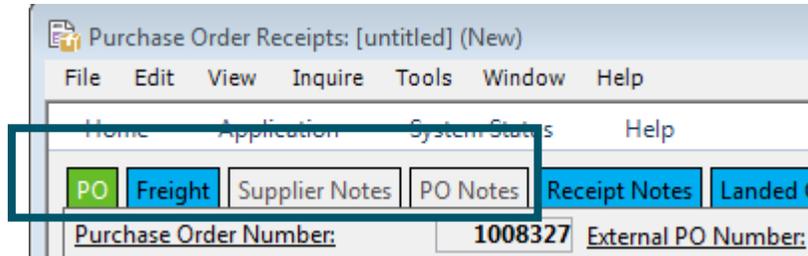
# P21 WWMS Overview - Receiving



- Purchase Order and Transfer Receipts can be approved from the Scanner
- Transfer Pallet Receipts has no inbound scanning (rescanning of all items)
- EDI856 Receipts can be reviewed from the Scanner
- Cross Docking is the Scanner's version of the Pick Ticket Report (no output to printer)

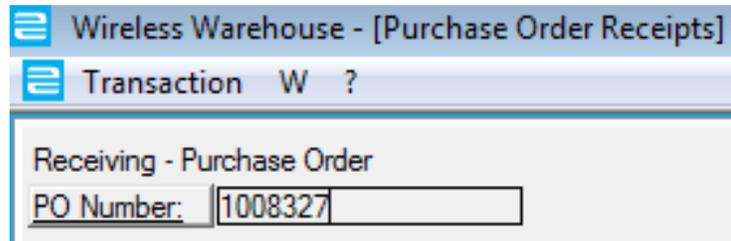
# P21 WWMS Functions – Receiving Example (Purchase Order)

## P21 Purchase Order Receipts



- P21 Receipt Header
  - Freight Charges can be added
  - Supplier Notes and Notes can be displayed in Wireless Receiving

## Wireless Purchase Order Receipts



- First step in each window is to input the PO Number
  - External PO Number works also

# P21 WWMS Functions – Receiving Example (Purchase Order)

## P21 Purchase Order Receipts

Item ID	Description	Quantity Ordered	Quantity Received	Quantity Remaining	Quantity Received	UOM	Complete	Exclude From Lead Time	Wrong Part Received
H 1	BUSHING - SPLIT TAPER	50.00	2.00	48.00	.00	EA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4L220	BELT - FHP	100.00	2.00	98.00	.00	EA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
LOT SERIALIZED	Stock Item	5.00	.00	5.00	.00	EA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- P21 Receipt Line
  - Bins, Lot/Bins, Serials, Tags all updated in real time \*
  - Item Notes and PO Line Notes can be displayed in Wireless Receiving

## Wireless Purchase Order Receipts

Wireless Warehouse - [Purchase Order Receipts]  
Transaction W ?

Receiving - Purchase Order  
 PO Number: 1008327  
 PO Line: 2  
 Qty Ordered: 100.00  
 Qty Remaining: 98.00

Item ID: 4L220  
 Rev:   
 Wrong Part Received Flag: N  
 UOM: EA  
 Unit Size: 1.0000000000  
 Qty: 15  
 Lines Received: 1 of 3

- Second step is to validate Item and Quantity
  - Can trip the Wrong Part Received Flag

\*Wireless Receipts are unapproved by default. Real time in this case is when approved

# P21 WWMS Functions – Receiving Example (Purchase Order)

## P21 Purchase Order Receipts

Items	Bin	Lot/Bin	Serial	Tags	Item Notes	PO Line Notes	Allocation	Line Freight	Of
Item ID:	4L220			BELT - FHP					
Total SKU Quantity To Post:			.00						
Bin			Unit Quantity	UOM					
			.00	EA					
Total SKU Quantity Posted:			.00						

- Third step is to identify the inbound bin that the item just received is in

## Wireless Purchase Order Receipts

Wireless Warehouse - [Purchase Order Receipts]	
Transaction W ?	
Receiving - Purchase Order Deposit	
PO Number:	1008327
Deposit Bin:	
Put In Bin:	REC04

Wireless Item Labels:	
Tag Number:	
Item ID:	4L220
Lot:	
Package Type:	
Qty/Per:	
UOM:	EA
Unit Quantity:	5.00
Label ID:	ITEM_WR
No of Labels:	1

- Prior to scanning a deposit bin, Lots, Serials and Tags can be captured/created
  - Can print Item Labels before depositing

# P21 WWMS Functions – Receiving Example (Purchase Order)

## P21 Purchase Order Receipts

Vendor ID:  Browning Manufacturing  Allocate Automatically  Allocate Manually  Receive Only

Supplier ID:  Browning Manufacturing

Division ID:  Browning Manufacturing

Receipt Number:  Shipment ID:  Period:   Approved  Print Labels

External Reference Number:  Year:

- An Unapproved PO Receipt is immediately created
- Each Item and Quantity has been deposited into a bin

Items	Bin	Lot/Bin	Serial	Tags	Item Notes	PO Line Notes	Allocation	Line Freight	OBT Items	Release Schedule	Disassembly
Item ID	Item Description	Quantity Ordered	Prior Qty Received	Quantity Remaining	Quantity Received	UOM	Complete	Exclude From Lead Time	Wrong Part Received		
4L220	BELT - FHP	100.00	2.00	98.00	15.00	EA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

Items Bin Lot/Bin Serial Tags Item Notes PO Line Notes Allocation Line Freight

Item ID:  BELT - FHP

Total SKU Quantity To Post:

Bin Unit Quantity UOM

EA

Total SKU Quantity Posted:

# P21 WWMS Functions – Receiving Example (Purchase Order)

## Wireless Purchase Order Receipts

Wireless Warehouse - [Purchase Order Receipts]  
Transaction W ?

Receiving Review - Receipt Lines

PO Number: 1008327  
PO Line Number: 2  
Receipt Number: 1005168  
Item ID: 4L220  
Description: BELT - FHP  
UOM: EA  
Qty Ordered: 100.00  
Prior Qty Rec'd: 2.00  
Qty Remaining: 98.00  
Qty Received: 15.00

Complete:   
Item 1 of 1 <Enter> to Continue

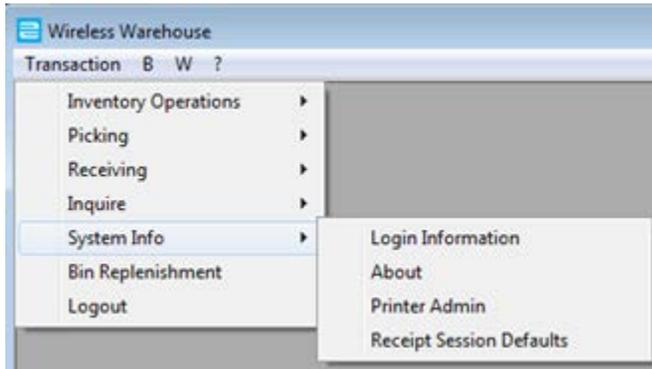
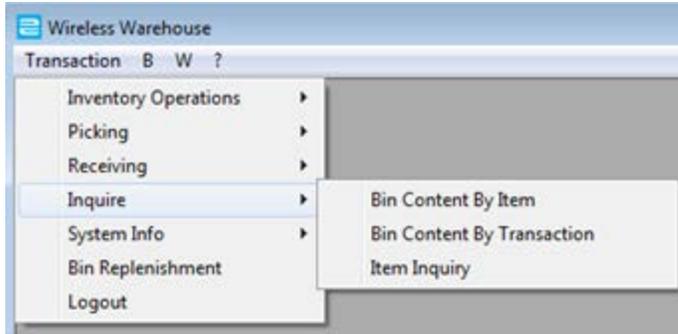
Wireless Warehouse - [Purchase Order Receipts]  
Transaction W ?

Receiving Review - Receipt Header

PO Number: 1008327  
Receipt Number: 1005168  
Approve:   
Excl from lead time:   
Allocation:  Auto Allocation  Receive Only

- Wireless PO Receipts can request to Approve the Receipt
  - Receipt Lines under or over-received will be reviewed
  - Ability to mark short received lines complete
  - Receipt Header can be saved as approved/unapproved
  - Can change Allocation setting
- Other Features
  - Learn Barcode
  - Enter Inbound Freight

# P21 WWMS Functions - Inquire and System Info



- Scan Bins to review Items and/or Transactions within
- Item Inquiry is the Scanner's version of Item Master Inquiry
  - Shows Bins, Quantity on Hand, Quantity Allocated
- Can review User and Database logins
- Can set a personal label printer for the session



# System Setup Overview

# System Level Setup

- Inventory Management
  - Serials Lots and Bins
- Integrated Lot/Bin Tracking
  - *Must be enabled*
  - *even if never using lots*
- Advanced Bin Tracking
  - *Must be enabled*

The screenshot displays the 'System Settings' application window. The left-hand pane shows a tree view of settings categories, with 'Inventory Management' expanded to show sub-categories like 'Adjustment', 'General', 'Item Usage', 'Receipts', 'Serials Lots and Bins', 'Serials Lots and Bins Defaults', 'Tagging', and 'Transfer'. A blue arrow points from the 'Serials Lots and Bins' category to the right-hand pane. The right-hand pane contains several configuration sections:

- Serials and Dimensions:** Includes checkboxes for 'Use serial numbers', 'Track dimensions', 'Track Outbound Serials Only', 'Use Slab/Stone Processing', and 'Require Slab Serials/Dimensions at Vessel Receipts'. The 'Default Dimension Scale' is set to 'Inches'.
- Use lots:** Includes checkboxes for 'Use lots', 'Automatically assign lot numbers', and 'Allow Lot Information at Vessel Receipts'. The 'Next lot number' is set to 2. A note states: '\*\*Note: you must bypass application role security at login to set this value.' The 'Integrated lot/bin tracking' checkbox is checked, and 'Lot Bin Tracking for Item Defaults' is set to 'Disabled'. The 'Primary Bin' is set to 'NOBIN'.
- Use bins:** Includes checkboxes for 'Assign Bins at Order Entry', 'Assign Bins at Inventory Return Entry', 'Assign Bins at Transfer Entry', 'Assign Bins at Production Order Entry', and 'Assign Bins at Process Transactions'. A note states: 'These settings can only be modified by Epicor support. Please contact Epicor support to have these settings changed.' The 'Default Primary Bin in Shipping' checkbox is checked, and the 'Secondary Processing Finished Items' dropdown is set to 'Do not default Bin'.
- Advanced Bin Tracking:** Includes checkboxes for 'Use Advanced Bin Tracking', 'Freeze Locations during Cycle Count', and 'Print Multiple Lot/Bin Information on Forms'. The 'Defined Weight UOM' is set to 'LB' and the 'Defined Volume UOM' is set to 'EA'.

A second blue arrow points from the 'Advanced Bin Tracking' section to the 'Print Multiple Lot/Bin Information on Forms' checkbox.

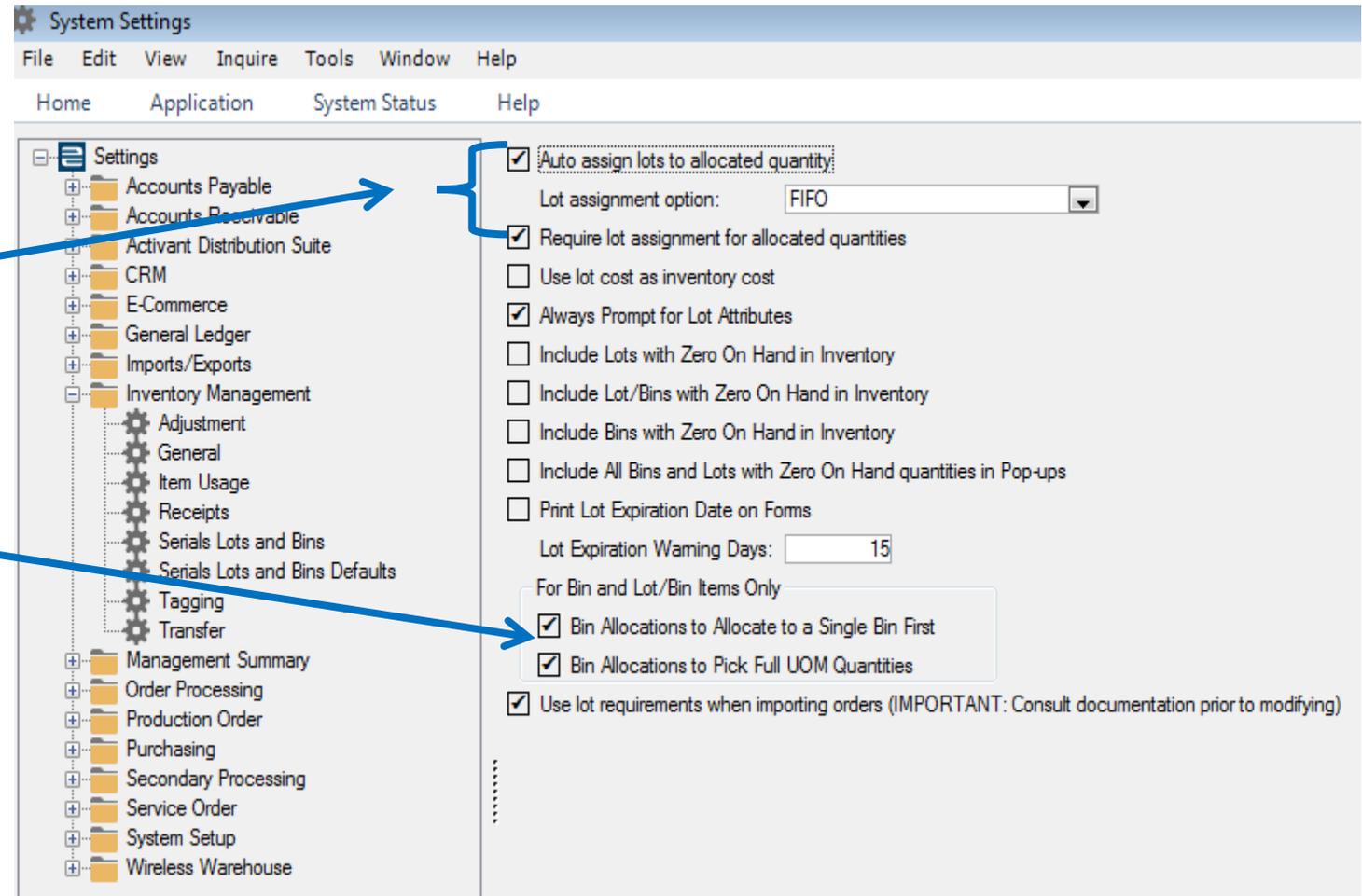
# System Level Setup

---

- **Lot/Bin Integration**
  - Must be enabled to enable Advanced Bin Tracking
  - Lots do not have to be used
  
- **Advanced Bin Tracking Enabled**
  - Required for WWMS
  - Makes Bin Types, Pick Zones and Putaway Zones required on All Bins
  - Bin allocations base functionality is Pick to Clean
  - Pick Zones can control allocations to items in multiple bins
  - Provides Non-pickable and Quarantine Bin Functionality

# System Level Setup

- Inventory Management
  - Serials Lots and Bins Defaults
- If tracking Lots
  - *Must enable to be able to pick from scanner*
- Additional Allocation Controls



# System Level Setup

- Wireless Warehouse
  - General
    - *All global setting for WWMS*

The screenshot displays the 'System Settings' application window. The left-hand pane shows a tree view of settings categories, with 'Wireless Warehouse' expanded to show 'General' and 'GTIN Unit of Measure'. The right-hand pane contains the configuration options for the 'General' settings, including checkboxes for enabling the wireless warehouse, using system-generated tags, bin replenishment, confirmation, and workbench features, as well as dropdown menus for various strategies and sequences.

**System Settings**  
File Edit View Inquire Tools Window Help  
Home Application System Status Help

**Settings**

- Accounts Payable
- Accounts Receivable
- Activant Distribution Suite
- CRM
- E-Commerce
- General Ledger
- Imports/Exports
- Inventory Management
- Management Summary
- Order Processing
- Production Order
- Purchasing
- Secondary Processing
- Service Order
- System Setup
- Wireless Warehouse
  - General
  - GTIN Unit of Measure

Wireless Warehouse Enabled  
Key: rdc`iYVdŠ

Use system generated Tags for Wireless Warehouse

**Wireless Bin Replenishment**

Use Wireless Bin Replenishment  
 Create based off of quantity available

Use Pull to Pick  
 Use Second Scan for Single Item Bins

**Wireless Confirmation**

Approve PO Receipts  
 Approve Transfer Receipts

Use Wireless Label Printing

Wireless Warehouse - Transfer Undership:  Backorder  
Default Disposition:  Cancel

Display Update Was Successful Message  
 Enter as Save and Next Keystroke in Receipts

Putaway Strategy: Putaway Algorithm  
Empty Bins Strategy: Empty Bins in Zone Sequence  
Group Pick Sequence: Warehouse Seq Asc  
Single Pick Sequence: Warehouse Seq Asc

Start Pick at Heaviest Line (normal pick sequence applies afterward)  
 Prompt for Serials during PO Receipts when Tracking Outbound Serials Only  
 Clear Suggested Deposit Bin Between Receipts

**Wireless Workbench**

Enable Workbench  
 Prompt Picker at the End of Each Transaction

Specify Warehouse Pick Zone First  
 Require Lot Scan in Picking  
 Cancel Remaining Underpicked Qty on Sales Order  
 Lock Physical Count by Bin/Allow multiple users on same count  
 Approve On The Fly Inventory Adjustments in WWMS Picking

# Additional Setup

---

- System Settings / Inventory Management
  - General
    - *Enable Pallets (for Transfer Pallet Functionality)*
  - Tagging
    - *Enable Tags if using*
  - Transfer
    - *Enable Use Transfer Schedule Functionality for Staging Bins and Related Door Bins*

# Additional Setup

---

- Inventory Management / Maintenance
  - Bin Type Maintenance
  - Pick Zone Maintenance
  - Putaway Zone Maintenance
  - Putaway Zone List Maintenance
  
- Inventory Management / System
  - Item Defaults Maintenance
    - *Must set Track Bins and assign a Default Primary Bin for all locations going WWMS*
  - Location/Bin Maintenance
  - Item Maintenance
    - *All Stock Items and all Non-stock Items with Quantity must track bins for WWMS Locations*

# Additional Setup – Enabling on the Location

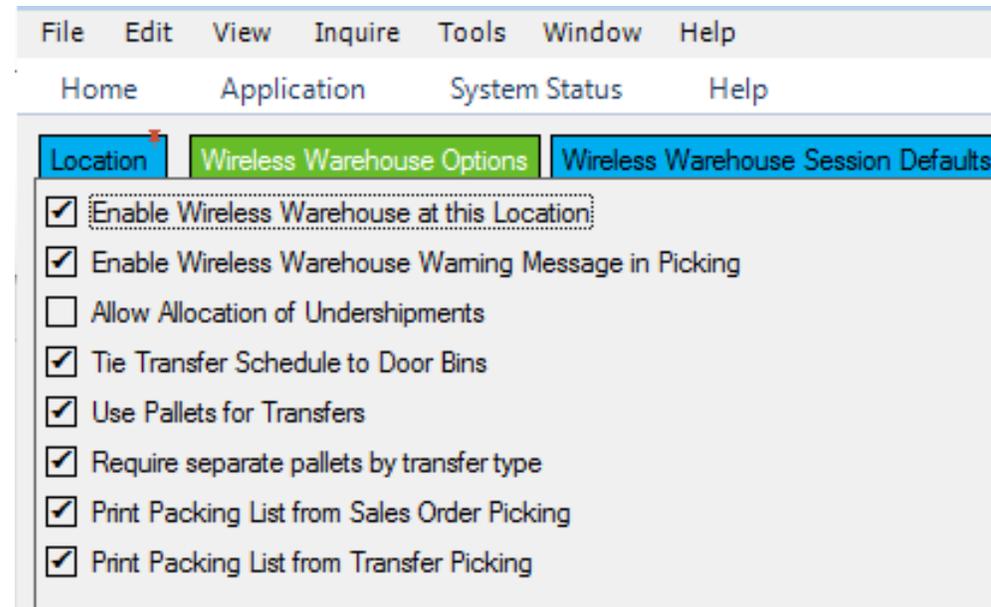
- Location Maintenance
  - Require Lot/Bin Integration must be enabled

The screenshot displays the 'Location Maintenance' window for Company ID 1 and Location ID 101. The interface includes a menu bar (File, Edit, View, Inquire, Tools, Window, Help) and a navigation bar (Home, Application, System Status, Help). The 'Location' tab is active, showing the following fields and options:

Location ID:	101	Distribution Inc West	<input type="checkbox"/> Delete
Mailing Address:	8863 W Asbury Ave		
Mailing Address 2:			
Mailing City/St/Zip:	Lakewood	CO	80227
Mailing Country:	US		
Central Phone:	303-969-9698	Central Fax:	
Company ID:	1	Distribution Inc	
Tax Group ID:			
Branch ID:	010	DI West	
	<input checked="" type="checkbox"/> Require Lot/Bin Integration		
	<input checked="" type="checkbox"/> Use Tags at this Location	Tag Prefix:	

# Additional Setup – Enabling on the Location

- Location Maintenance - Wireless Warehouse Options Tab
  - To print Packing Lists from the scanner, Unconfirmed Packing Lists must be enabled



# Additional Setup – Enabling on the Location

- Location Maintenance - Wireless Warehouse Session Defaults
  - If printing packing lists from the scanner, the printer is assigned here

The screenshot shows the 'Wireless Warehouse Session Defaults' configuration window. The window has a menu bar (File, Edit, View, Inquire, Tools, Window, Help) and a sub-menu bar (Home, Application, System Status, Help). The main content area is divided into several sections:

- Picked Order Movement - Similar Tran Defaults:**
  - Pick Tickets:
    - Same Ship To
    - Same Carrier
    - Same Route
  - Warehouse Transfers:
    - Same Destination Location
    - Same Carrier
    - Same Route
- Foms Printer:** CutePDF Writer
- Transaction Type:** Container Receipts
- Receipt Defaults:**
  - Approved
  - Allocate Automatically  Receive Only
  - Enter Lot Attributes Via Wireless Device
- Item Label Defaults:**
  - 1 Label Per Unit Of Measure
  - 1 Label Per SKU
  - Number of Labels: 1



# Wireless Workbench

# Wireless Workbench

---

- The workbench is a warehouse management/supervisor tool to dynamically manage the flow of transactions to be picked and pushed to scanners.
- Bin replenishments can also be assigned through workbench.
- The workbench can be setup to Auto-Assign. This allows the warehouse manager to define the number of tickets per warehouse worker and the system continually pushes tickets to maintain that number.
- Priority tickets (Sales Orders only) are always rolled to the top of the list using the Order Priority but any transaction can also be manually moved if needed

# Wireless Workbench

- Wireless Workbench Query Maintenance

- The system scans all available pick transactions that meet the criteria and will move those to the Workbench.
- Multiple queries can be utilized to run multiple workbenches simultaneously.

The screenshot displays the 'Workbench Query Maintenance: ALL' application window. The interface includes a menu bar (File, Edit, View, Inquire, Tools, Window, Help) and a sub-menu (Home, Application, System Status, Help). Below the menu, there are three tabs: 'Form View' (selected), 'SQL Statement', and 'Query Preview'. The main form area contains the following fields and controls:

- Workbench Query ID:** A text field containing 'ALL' and a dropdown menu set to 'All Transactions'.
- Extended Description:** A large empty text area.
- Include Transactions in Query:** A group box containing five checked checkboxes: 'Orders', 'Production Orders', 'Bin Replenishments', 'Transfers', and 'Secondary Processes'.

Below the form, there are five tabs for transaction types: 'Orders' (selected), 'Transfers', 'Bin Replenishment', 'Production Orders', and 'Secondary Processes'. Underneath these tabs is a data table with the following columns:

Customer ID	Corporate ID	Ship To ID	Pick Ticket No	Order No	Order Date

# Wireless Workbench

- Wireless Workbench Maintenance

Criteria Bench Transactions by Zone Group Users

Workbench ID: MAIN Main

Company ID: 1 Epicor Prophet 21 Supply

Location ID: 100000 WH - Central Warehouse

Row Status Flag: Active

Workbench Scan: 15 min 0 sec. Last Executed: 04/28/15 05:03:38

Query ID: MAIN Main

Auto Assign Transactions

Auto Assign:

Max Orders Per User:

Max Lines Per User:

Re-sort Picker Queue:

Group Picking

Create Groups:

Max Orders Per Group:

Max Lines Per Group:

# Wireless Workbench

- Wireless Workbench Maintenance

Criteria Bench Transactions by Zone Group Users

New Ticket Count:  New Priority Ticket Count:  Last refresh:

Workbench ID:  Query ID:

Warehouse User	Type	No of Tickets	Total Lines	Transaction No	Type	Status
*UNASSIGNED TICKETS*		31	115	0		
ADMIN	Picker	0	0	0		Inactive
JIMS	Picker	0	0	0		Inactive

Type	Transaction No	Priority Pick	Source No	Customer Name	Corporate ID	Ship To ID	Transaction Date	Required Date	Print Date	Customer PO No	Shipping Route	Zi
PT	1008530	<input type="checkbox"/>	1012364	AJ Heating and Cooling	100238	100009	03/19/12	11/03/11	03/19/12		DR1	80
PT	1008551	<input type="checkbox"/>	1012541	AJ Heating and Cooling	100238	100009	03/19/12	12/15/11	03/19/12		DR1	80
PT	1008560	<input type="checkbox"/>	1012589	AJ Heating and Cooling	100238	100009	03/19/12	12/28/11	03/19/12		DR1	37
PT	1008741	<input type="checkbox"/>	1012541	AJ Heating and Cooling	100238	100009	07/02/12	12/15/11	07/02/12		DR1	80
PT	1008765	<input type="checkbox"/>	1013143	AJ Heating and Cooling	100238	100009	07/02/12	06/20/12	07/02/12	62012	DR1	37
PT	1009091	<input type="checkbox"/>	1013913	Action Industry Supply	100238	100202	05/22/13	05/23/13	05/22/13		1	19

# Zone Picking with Workbench

---

- Assign pickers to groups
- Assign zones to pickers in the group
- One or more pickers can share picking responsibilities for a zone
- You can assign a group in which every member picks only that zone
- Once assigned to a group, pickers no longer receive tickets to their individual queue

# Workbench

Criteria **Bench** Transactions by Zone Group Users

New Ticket Count:  New Priority Ticket Count:  Last refresh:

Workbench ID:  Query ID:

Warehouse User	Type	No of Tickets	Total Lines	Transaction No	Type	Status
*UNASSIGNED TICKETS*		31	115	0		
GROUPFORZONE	Group	0	0	0		Inactive

Type	Transaction No	Priority Pick	Source No	Customer Name	Corporate ID	Ship To ID	Transaction Dat	Required Dat	Print Date	Customer PO No	Shipping Route
PT	1008530	<input type="checkbox"/>	1012364	AJ Heating and Cooling	100238	100009	03/19/12	11/03/11	03/19/12		DR1
PT	1008551	<input type="checkbox"/>	1012541	AJ Heating and Cooling	100238	100009	03/19/12	12/15/11	03/19/12		DR1
PT	1008560	<input type="checkbox"/>	1012589	AJ Heating and Cooling	100238	100009	03/19/12	12/28/11	03/19/12		DR1
PT	1008741	<input type="checkbox"/>	1012541	AJ Heating and Cooling	100238	100009	07/02/12	12/15/11	07/02/12		DR1
PT	1008765	<input type="checkbox"/>	1013143	AJ Heating and Cooling	100238	100009	07/02/12	06/20/12	07/02/12	62012	DR1
PT	1009091	<input type="checkbox"/>	1013913	Action Industry Supply	100238	100202	05/22/13	05/23/13	05/22/13		1

# Workbench

Create / Edit Picker Group

Group

Picker Group ID:

Picker User ID	Assigned Group	Selected	Queue Action	Zone List
ADMIN		<input checked="" type="checkbox"/>	Move To Unassigned	SEC1
JIMS		<input checked="" type="checkbox"/>	Move To Unassigned	A, B

# Workbench

Criteria Bench Transactions by Zone **Group Users**

User ID	Status	Transaction No	Type	Picking in Zone	Zone List
ADMIN	Inactive				SEC1
JIMS	Inactive				A, B

---

User:

Bin Zone ID	# of Tickets	# of Lines
<input type="text" value="SEC1"/>	<input type="text" value="6"/>	<input type="text" value="9"/>
Total:	<input type="text" value="6"/>	<input type="text" value="9"/>

---

User:

Bin Zone ID	# of Tickets	# of Lines
<input type="text" value="A"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
<input type="text" value="B"/>	<input type="text" value="0"/>	<input type="text" value="0"/>
Total:	<input type="text" value="0"/>	<input type="text" value="0"/>

# Zone Picking with Workbench

---

- When you assign pick tickets to a group, Prophet 21 assigns them to individual pickers in the group
- System matches zones of the tickets in the queue to pickers assigned to the zones
- Tickets that span multiple zones presents the line items in zone sequence
- Prophet 21 does not assign line items that fall outside of the groups' zone responsibilities
- Auto assign works with zone picking, but will only work for workbenches containing a single zone picking group

# Order Priority Maintenance

---

- Order Processing / System
  - Workbench weighs the importance of each ticket using a measurement called Order Priority.
  - Can set the criteria for order priority, or let the system do it.
  - The higher the priority, the more important the order.
  - Order priority is important when you automate the process of assigning pick tickets.
  - Scans with the highest priority go to the top of the list.

# Order Priority Maintenance

---

- By Carrier
- By Customer / Ship To
  - Examples Class A, Class B, Regular, Preferred, etc.
  - Ship To's default to the Customer setting. Can be edited.
- By Order Type
  - Examples Expedite, Rush, Low Priority, etc.
  - Can be set as a Workbench Priority Pick
- By Order Threshold
  - Must have one more priority line than order values to account for orders that exceed the established limits.

# Order Priority Maintenance

Query Form View Order Threshold

Order Priority Type: Order Type

Order Priority ID: RUSH

Order Priority: 1,024

Status: Active

Workbench Priority Pick

## Priority Scoring - Example

**Customer/Ship to**  
Grade A - 1024  
Grade B - 520

**Carrier**  
Next Day Air - 512  
2<sup>nd</sup> Day - 128

**Order Type**  
Expedite - 1024  
Standard - 512

**Order Threshold**  
\$1000 - 100  
\$5000 - 500

### Order 1

Customer - Grade A (1024)  
Carrier - 2<sup>nd</sup> Day (128)  
Order Type - Standard (512)  
Order Threshold - \$5000 (500)  
**Total Priority Score = 2194**

### Order 2

Customer - Grade B (520)  
Carrier - Next Day Air (512)  
Order Type - Expedite (1024)  
Order Threshold - \$1000 (100)  
**Total Priority Score = 2156**



# Preparing for WWMS

# Preparing for WWMS

---

- Get your House in Order
  - A successful implementation of WWMS begins with accurate inventory quantities
  - Commit to correcting Inventory Quantities, specifically Bin Quantities before going live
- Get your Data in Order
  - Bin Quantities – See above
  - Lot/Bin Reconciliation
- New to Tracking Bins
  - Develop a logical bin numbering system to easily identify positions in the warehouse
- Already Tracking Bins
  - You can rearrange the normal sorting of the bins on a pick to an efficient pick path
- Label the Warehouse
  - Generate Bin Barcodes and label all bins

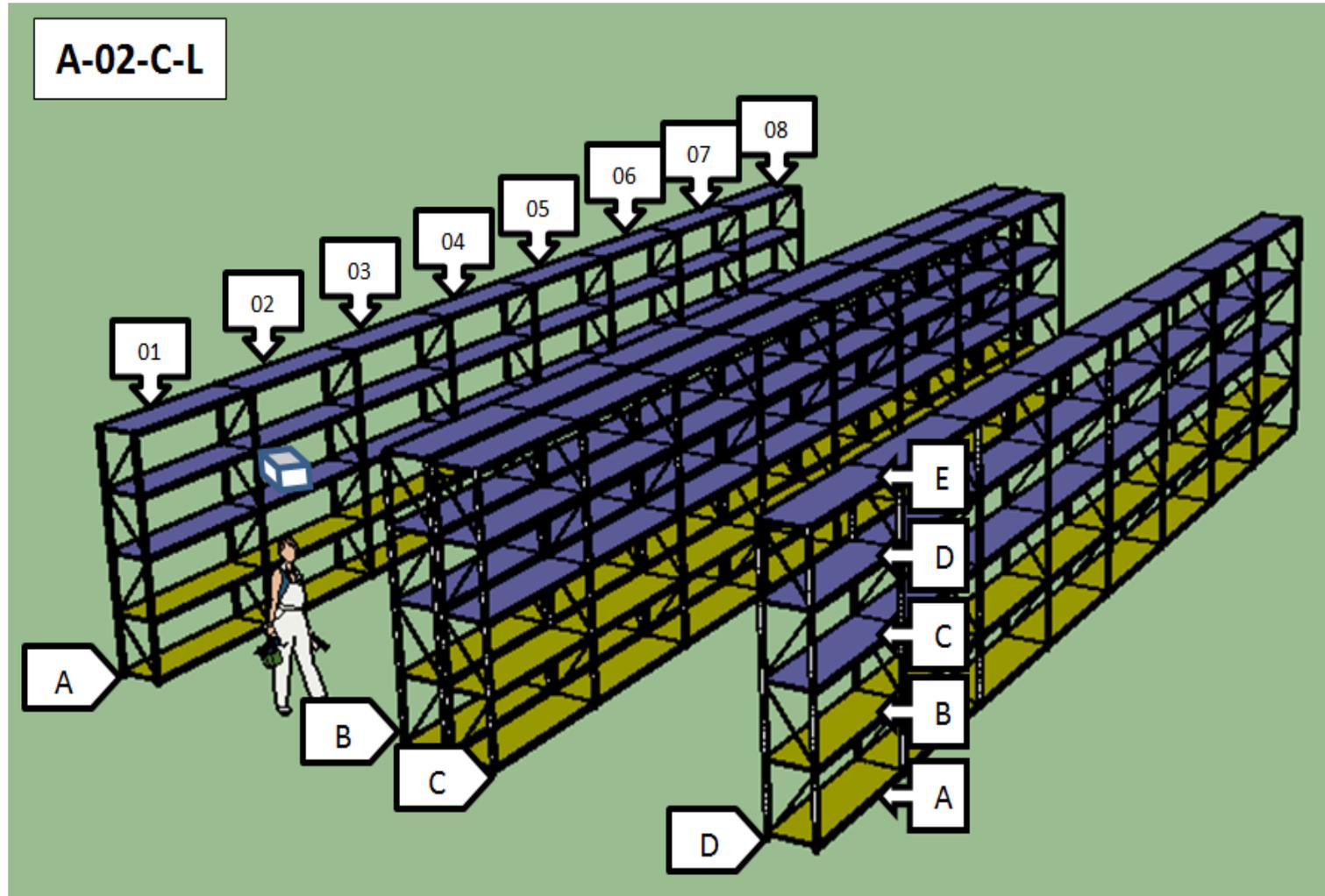
# Bin Nomenclature

---

- P21 Bin ID's allow a maximum of 10 alpha-numeric characters
- Setup a consistent format to sort properly
  - P21 Bins will sort as characters (1, 10, 11, 12, 2, 3, etc)
- Using numbers in any designation should be consistent.
  - 1 – 9 (9 variations)
  - 01 – 99 (99 variations)
- Segment for easier reading and identification
  - A-02-C-L

# Bin Nomenclature

- A-02-C-L (example)
- A = Row (Left to Right)
- 02 = Section (Front to Back)
- C = Shelf (Bottom to Top)
- L = Position (L or R)



# Pick Zones and Putaway Zones

---

- Pick Zones

- Used to define an allocation hierarchy when items are in multiple bins
  - *Picking bins versus Overstock bins*
- Used to separate Picking responsibilities by employee or type of picking equipment
  - *Zone Picking*

- Putaway Zones

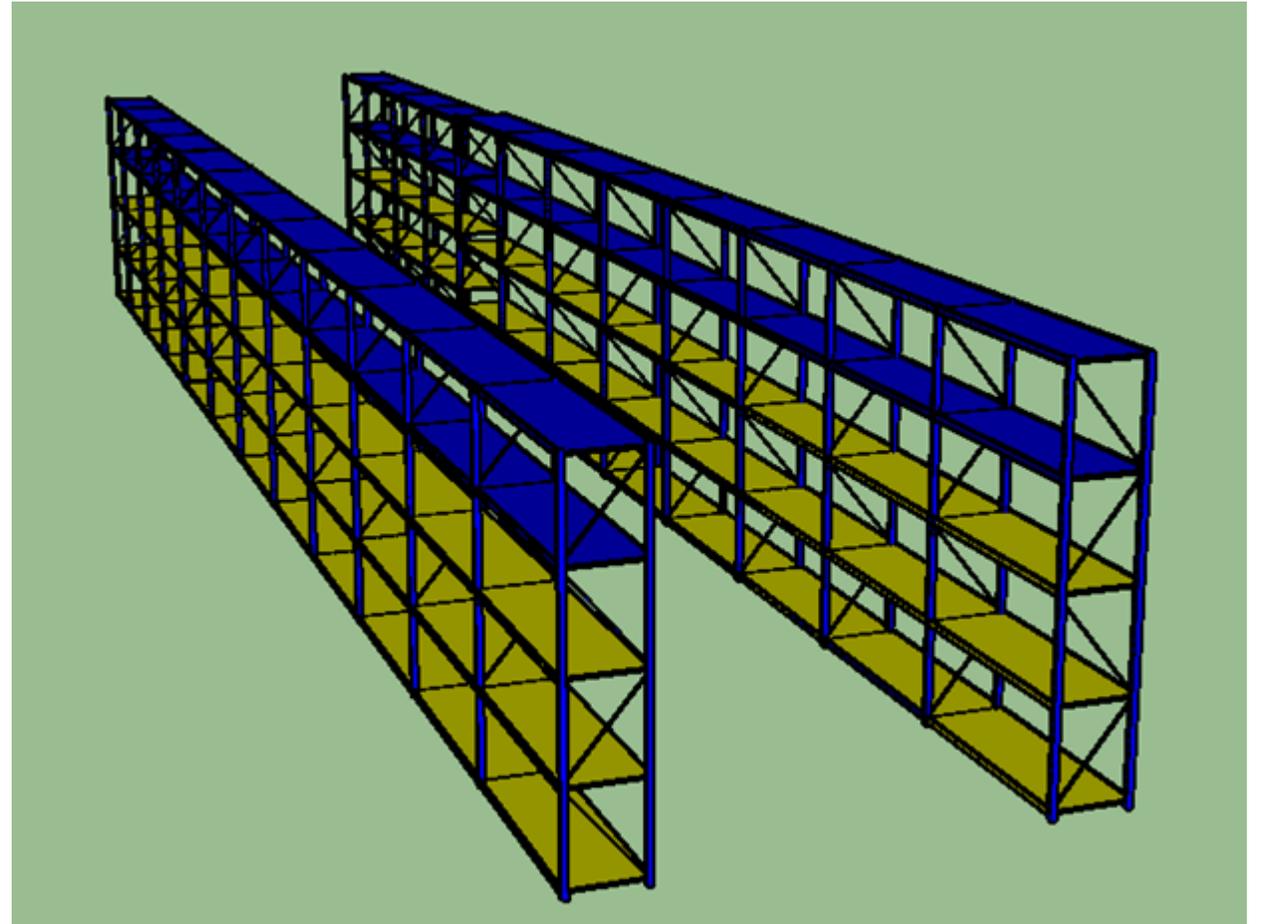
- WWMS functionality only.
- Putaway Zones are used primarily to control the putaway of material, such as putting material away in zone A before zone B

- Putaway Zone List Maintenance

- Used in conjunction with putaway zones as maps to control the putting of material to a specific zone, such as heavy items to the zone on the floor.

# Pick Zones and Putaway Zones

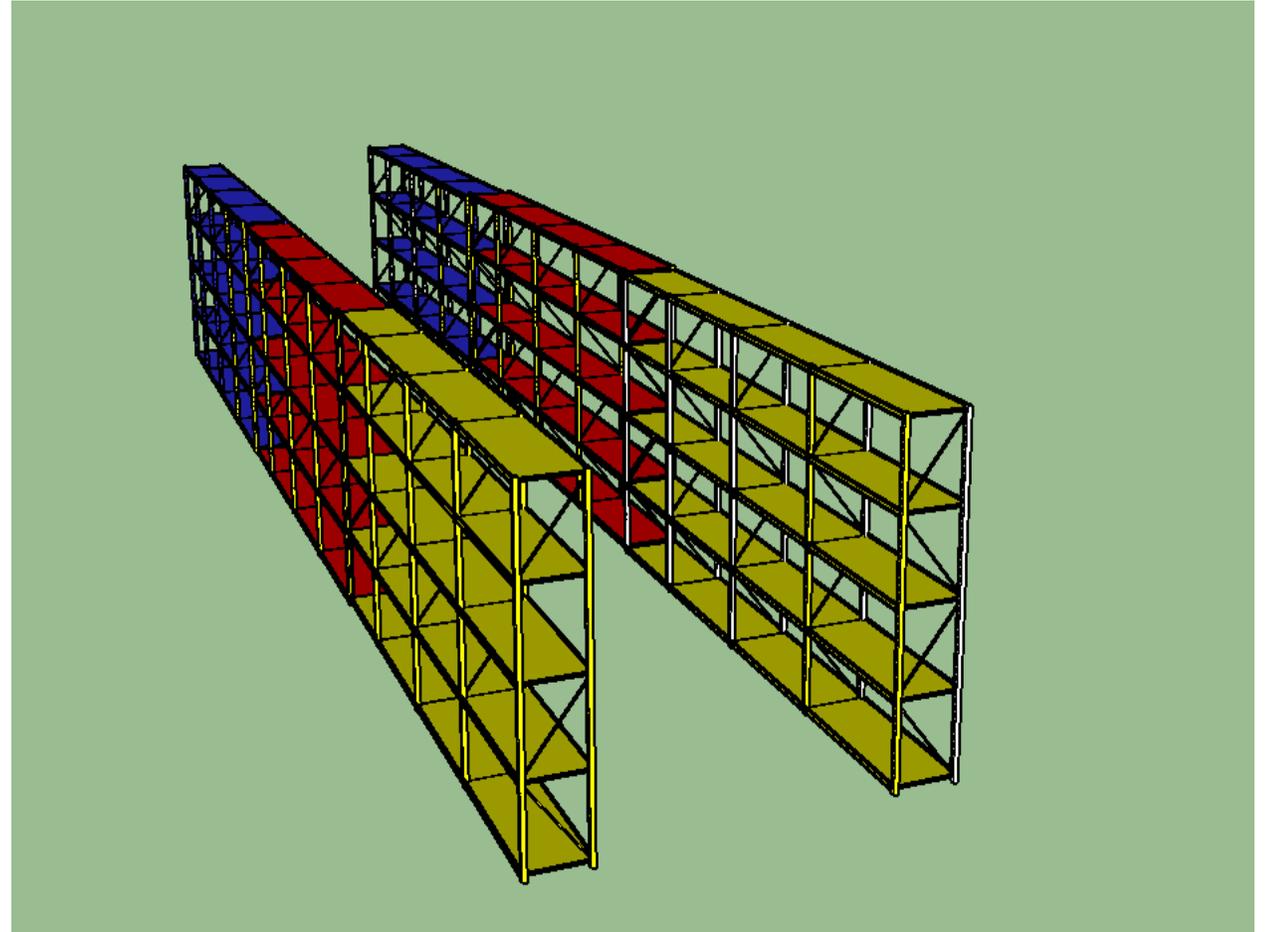
- 2 Pick Zones
  - Yellow Zone is main picking bins picked by cart
  - Blue Zone is overstock and picking by forklift



# Pick Zones and Putaway Zones

---

- 3 Putaway Zones
  - Yellow Zone is A Hit Items
  - Red Zone is B Hit Items
  - Blue Zone is C Hit Items



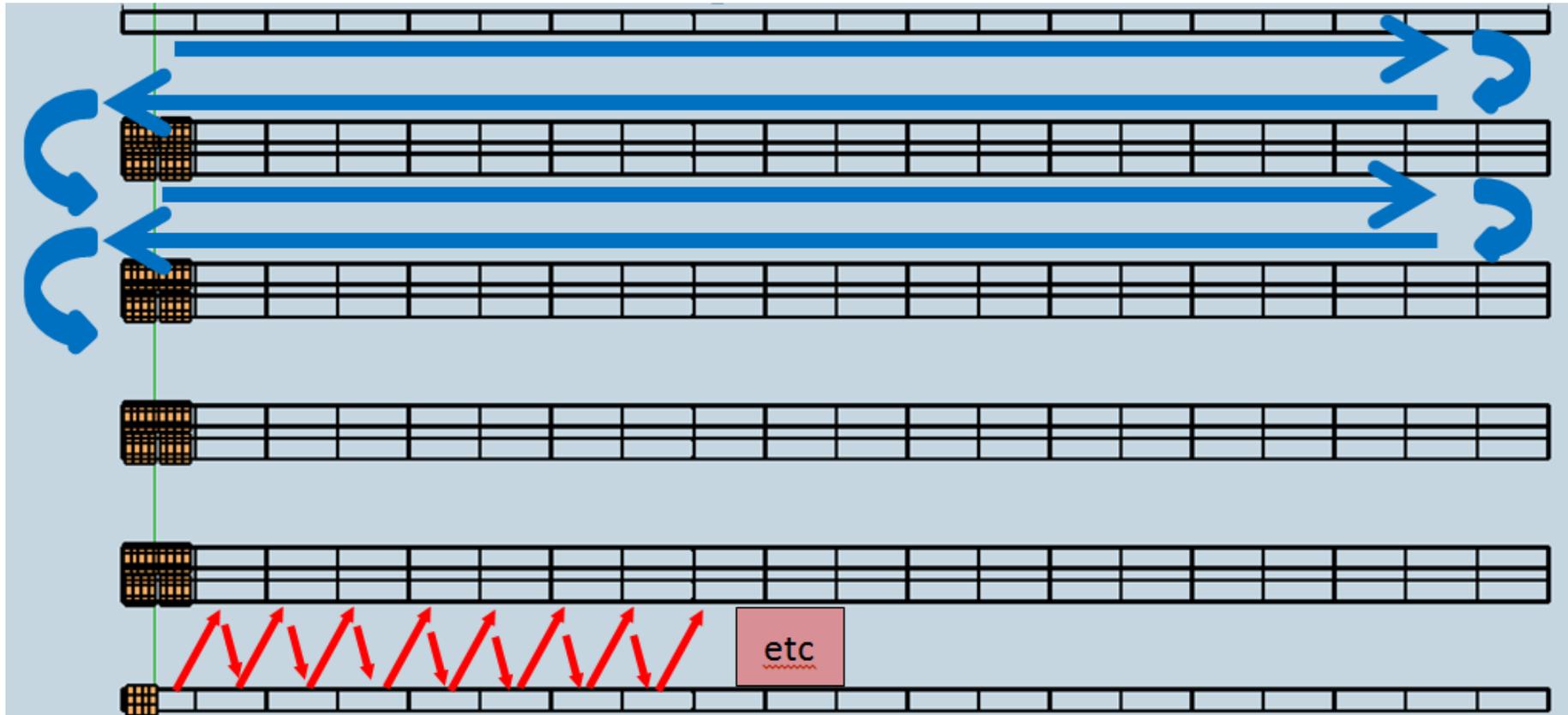
# Bin Sequences

---

- All 3 sequences are the first level sort. Bin ID is the second level sort
- Pick Zone Sequence
  - Pick Path used when Zone Picking
  - Printing Pick Tickets in Bin Pick Sequence will page-break by Pick Zone and sort by the Pick Zone Sequence on the bins to be picked
- Warehouse Sequence
  - Pick Path used when picking whole transactions
  - Printing Pick Tickets in Warehouse Sequence Ascending with sort by that sequence on the bins to be picked
  - Also is the Inventory Count path
- Putaway Zone Sequence
  - Putaway Path used when Group Putaway
  - Part of Putaway Algorithm and Empty Bin Strategy

# Bin Sequences

- Any sequencing can be accommodated behind the scenes without needing to rely only on sorting by bin



# Prophet 21 Location/Bin Maintenance

Location/Bin Maintenance: Comp: 1, Loc: 101, Bin: A-02-C-L (New)

File Edit View Inquire Tools Window Help

Home Application System Status Help

Query Bin Form View Replenishment Form View

Company ID:	1	Distribution Inc	
Location ID:	101	Distribution Inc West	
Bin ID:	A-02-C-L	Putaway:	
Bin Type:	INVENTORY	Putaway Zone:	WH
<input type="checkbox"/> Pick Locked		Putaway Zone Sequence:	9970
<input type="checkbox"/> Put Locked		Picking:	
<input type="checkbox"/> Full		Pick Zone:	A
<input type="checkbox"/> Frozen for Counting		Pick Zone Sequence:	10
Date Last Counted:		Warehouse Sequence:	10
Max. Weight	400.0000	Dimensions:	
Current Weight:	.0000	Length:	36.0000
Max Volume:	23,328.0000	Height:	18.0000
Current Volume:	.0000	Width:	36.0000
<input type="checkbox"/> Consolidation Bin		Max Unique Items Allowed:	0
<input type="checkbox"/> Door Bin		<input checked="" type="checkbox"/> New Bin	
<input type="checkbox"/> Staging Bin		<input type="checkbox"/> Delete	
Staging Bin's			
Related Door Bin:			

- Bin ID – 10 Characters Max
  - A-03-C-L (example)
- Bin Type: Inventory
  - Putable and Pickable
- Putaway Zone: WH
- Pick Zone: A



# Addendum

# WWMS Labeling Options

---

- Bin Labeling

- It is a good practice to use high quality labels for the bins as they aren't moving like inventory
- Use magnets if possible so the bin size can be adjusted as needed
- Make sure all bins are labeled with barcodes for scanning
- Make sure labels are barcoded with a symbology that the guns use. Code 128 or Code 39 (3 of 9)
- You can also use an external labeling program like Bartender

**Thank You!**

