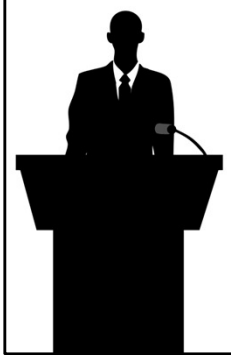
MAVES
3PL Made Visible

MAVES USERS CONFERENCE 2017



RF Order Processing

Presented By: Tim Legere

Topics

- Why use RF?
- Allocated Picking:
  - Overview
  - Process Flow
  - Configurations
- Unallocated Picking:
  - Overview
  - Process Flow
  - Configurations

Topics (Continued)

- Bulk Picking:
  - Overview
  - Process Flow
  - Configurations
- Other Order related Features
- Questions and Answers

Why Use RF?

❑ Benefits:

- Updates Information in Real-time:
  - ✓ Received stock is immediately available for Order
  - ✓ Shipped stock is immediately visible to Clients
- Increases Inventory Accuracy:
  - ✓ Scanning reduces/eliminates:
    - Data entry errors on floor and in the office and
    - Transcription errors by office of information from warehouse
- Reduces Time/Cost of Warehousing Tasks:
  - ✓ System directs, validates & answers queries for:
    - Put Away
    - Picking
    - Replenishment
    - Loading
    - Counting

Why Use RF?

❑ Key Components of RF:

- Devices:
  - ✓ Provides data validation and real time updates
- Barcode Labels:
  - ✓ Scanned by devices to accurately record and validate data and provide source information for real-time updates
- Electronic Data Interchange (EDI):
  - ✓ Provides advance notification of inbound, outbound and other activities. Enables Supply Chain to:
    - Compare/contrast expected vs. actual and report discrepancies

Allocated Picking

❑Overview:

- Business Case:
  - ✓ When is it typically used?
    - Client needs strict stock rotation
- Application Scope/Usage:
  - ✓ How does it work?
    - System reserves Ordered stock at Lot/Location levels
    - System “directs” warehouse staff to pick specific stock
- Benefits to 3PL:
  - ✓ Why is it used?
    - Few/no decisions required by RF Pickers
    - RF Pickers need NOT be familiar with Clients’ stock and Locations
    - Minimizes Picking Time/Cost since 3PL may use Labor that is:
      - Temporary and
      - Subject to High-Turnover

Allocated Picking

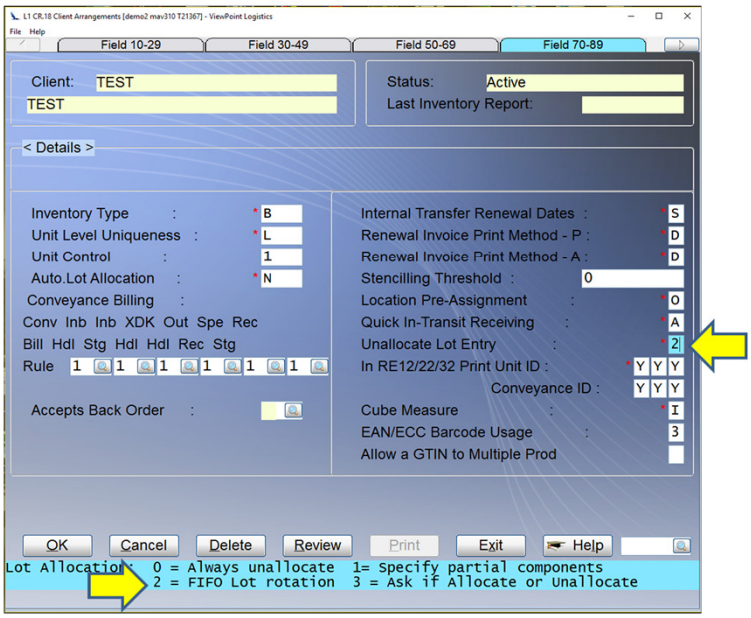
- Process Flow:
  - Does the Order Process change?
    - ✓ Steps:
      - 1. Lot Allocation (via OE.01 Create Order)
      - 2. Location Reservation (via OE.03 Pick Slip)
      - 3. Picking (via RF.01 Pick Order)

Allocated Picking

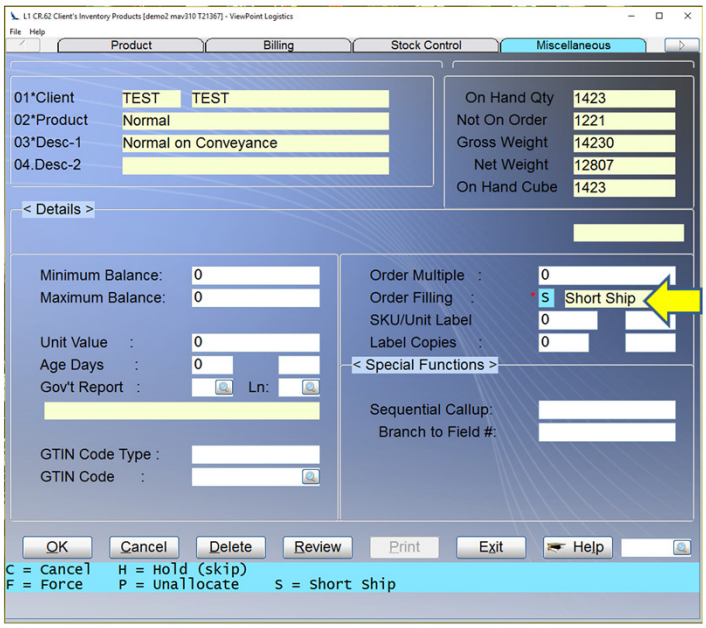
❑ Process Flow:

- 1. Lot Allocation (via Order Creation):
  - ✓ Can an Order be created without reserving the Stock?
    - Deferred Orders (Optional):
      - ➢ Create Deferred Order (OE.01)
      - ➢ Print Client Fill Report (OE.95)
      - ➢ Commit Deferred Order (OE.91)
  - ✓ Can Stock be reserved as soon as the Order is placed?
    - Regular Orders:
      - ➢ Create Regular Order (OE.01)
  - ✓ Where and how are these functions activated/set-up?
    - Lot Allocation for Order – Client Rule (CR.18)
    - Product Order Filling Rule (CR.62)
    - Lot Data / Stock Control Group Set (WP.44 – Option A)
    - Lot Stock Rotation Sequence (WP.44 – Option D)
    - Assign Lot Set to Products (WP.46)

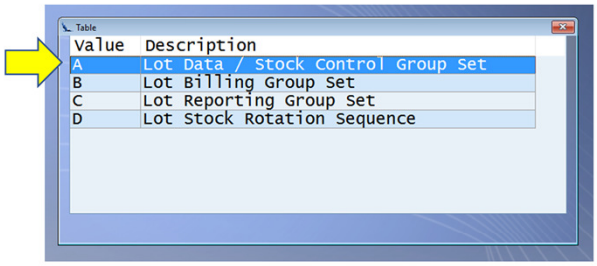
Lot Allocation for Order – Client Rule (CR.18 – Field # 86)

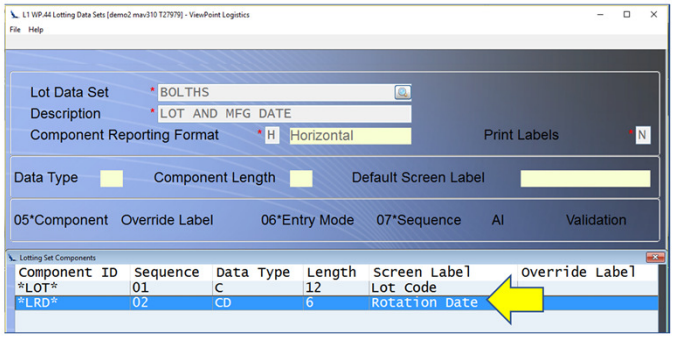


Product Order Filling Rule
(CR.62 – Field # 81)

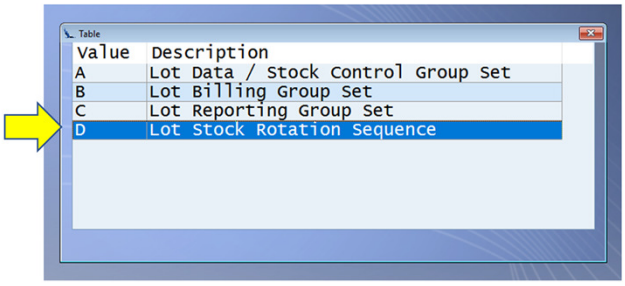


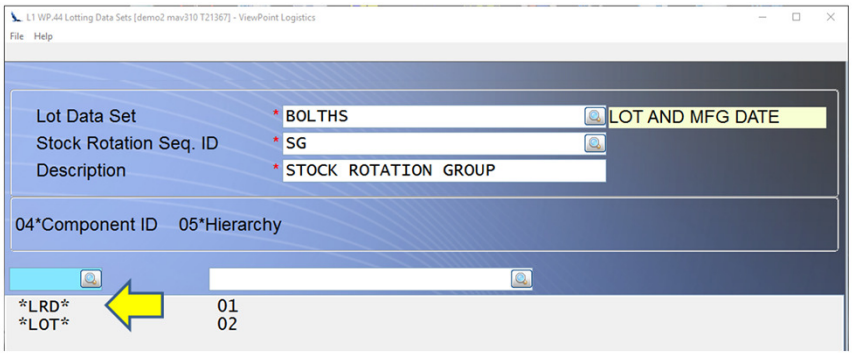
Lot Data / Stock Control Group Set (WP.44 – Option A)



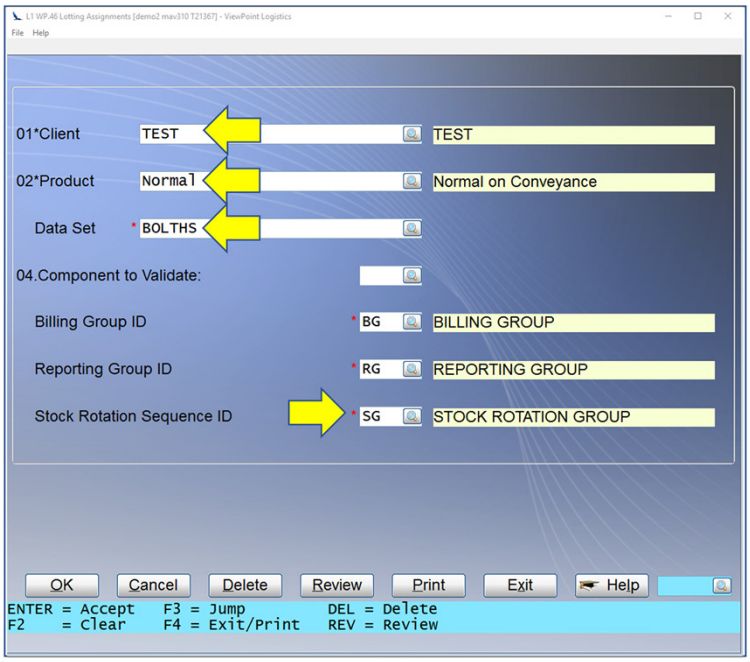


Lot Stock Rotation Sequence (WP.44 – Option D)





Assign Lot Set to Product (WP.46)

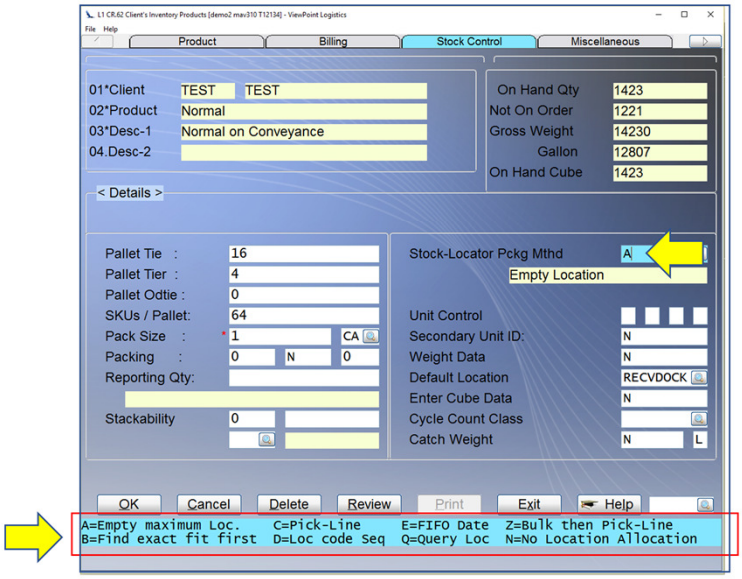


Allocated Picking

❑Process Flow:

- 2. Location Reservation (via Pick Slip):
  - ✓ What process reserves stock at the location level?
    - Print Pick Slip (OE.03)
  - ✓ How does the System determine the Locations to be Reserved?
    - Stock Location Picking Method (CR.62)
      - A = Empty Maximum Locations
      - B = Find Exact Fit First
      - C = Pickline
      - D = Location Code Sequence
      - E = FIFO Date (Single Lot ONLY)
      - N = No Location Allocation
      - Q = Query Location
      - Z = Bulk the Pickline Location

Stock Location Reservation Method (CR.62 – Field # 60)



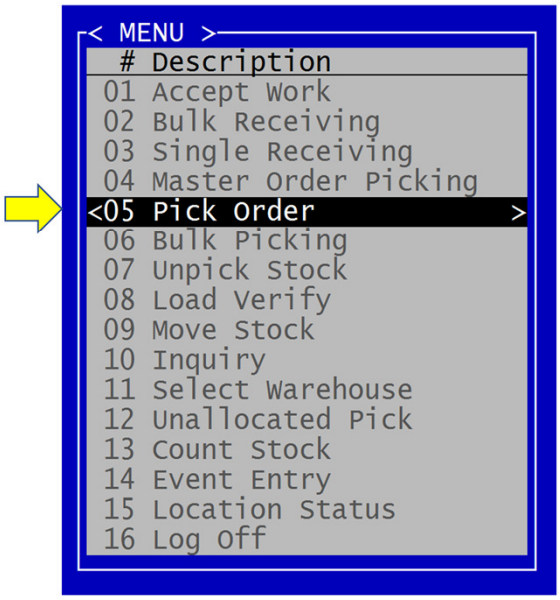
Allocated Picking

- Process Flow (Continued):
  - 2. Location Reservation (Continued):
    - ✓ Why might a printed Pick Slip be useful if I use RF?
      - Back-up (i.e. If RF is down, all devices used, etc.)
      - Work Assignment (e.g. Supervisor gives to Picker)
      - Capture Information (e.g. Client Specific Data, Remarks, etc.)
      - Audit (e.g. To record/identify Picker, Loader, Inspector, etc.)
      - Order Identification (e.g. Attach to physical stock)

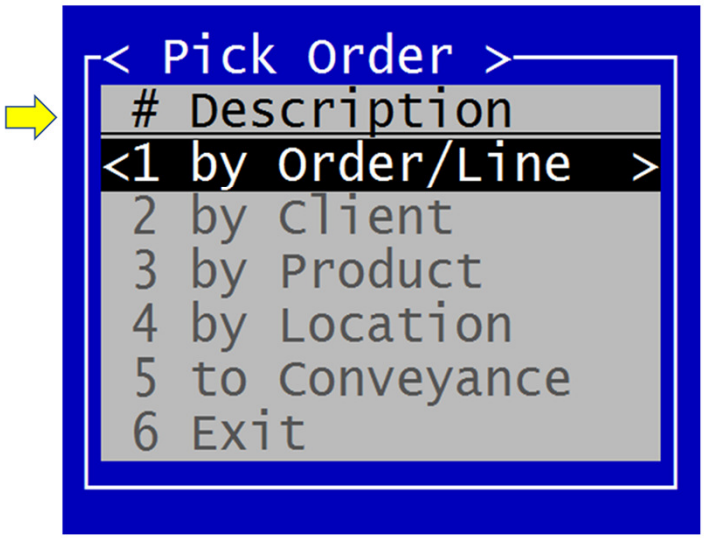
Allocated Picking

- Process Flow:
  - 3. Picking:
    - ✓ Pick Order (RF.01)

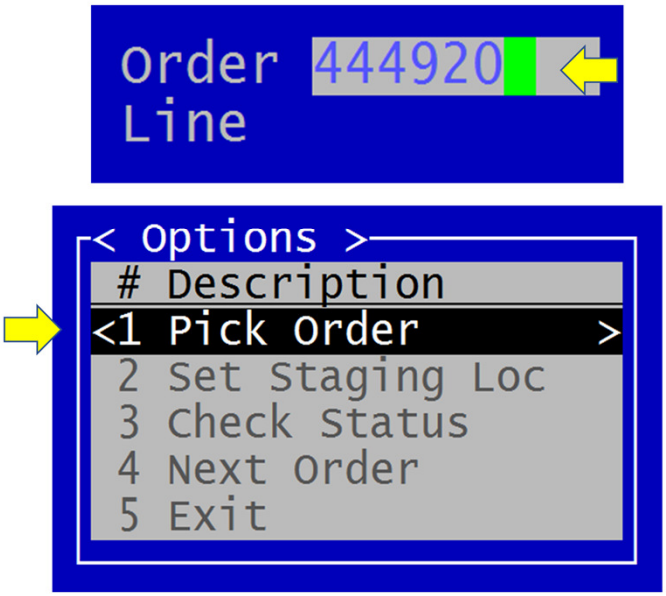
Allocated Picking Option for Pick Order



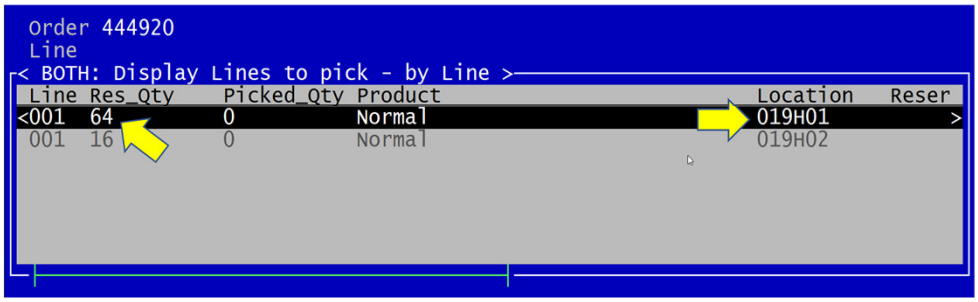
Allocated Picking
Picking/Selection Sequence



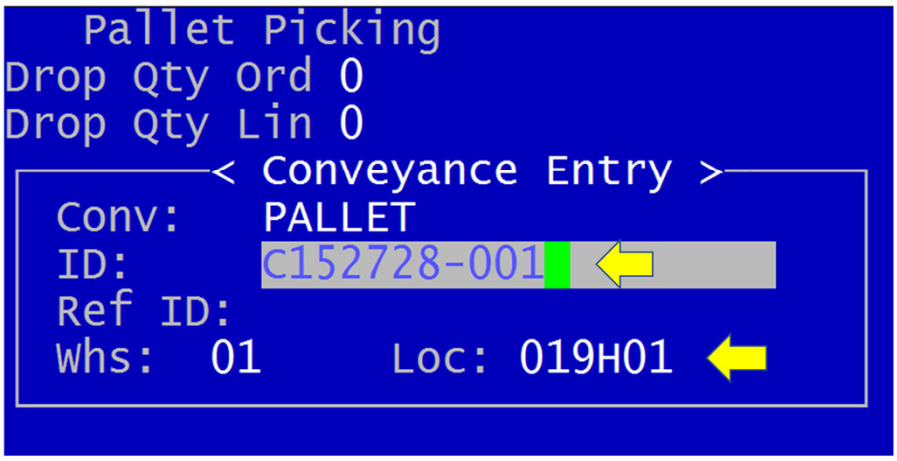
Allocated Picking
Order Selection and Action



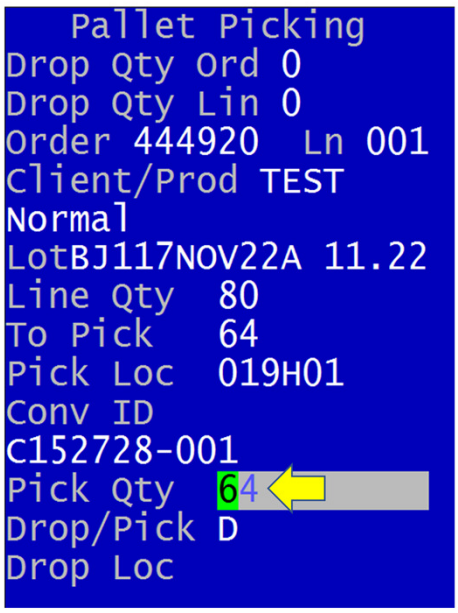
Allocated Picking
Order Line/Location Selection



Allocated Picking
Conveyance ID Selection

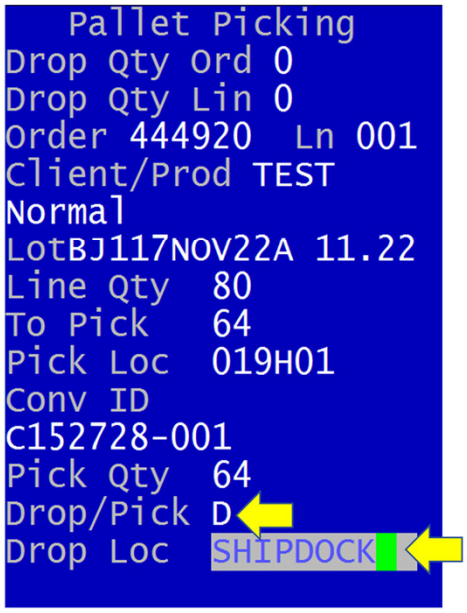


Allocated Picking
Entry of Picked Quantity

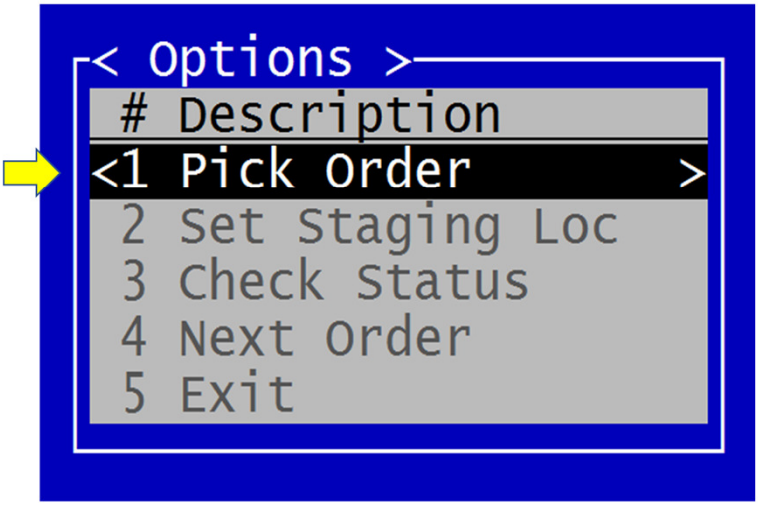


Allocated Picking

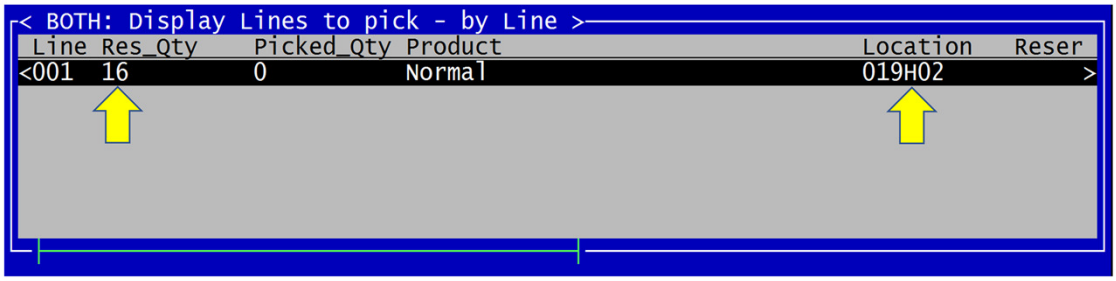
Drop of Picked Stock to Staging Location



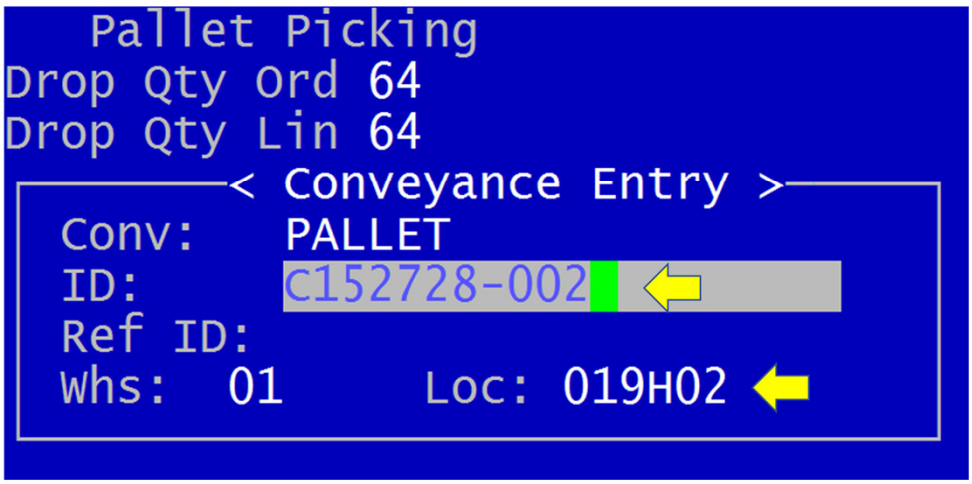
Allocated Picking
Selection of Next Action



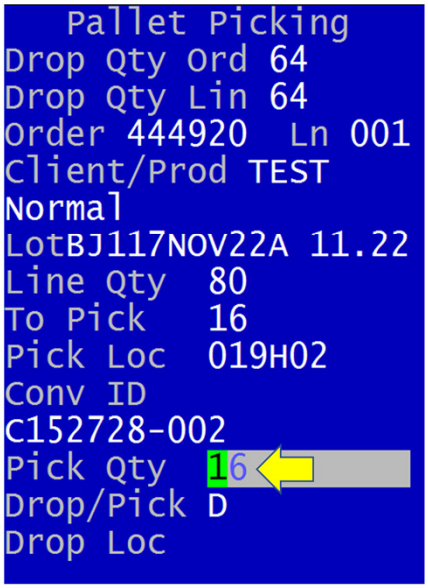
Allocated Picking
Order Line/Location Selection



Allocated Picking
Conveyance ID Selection

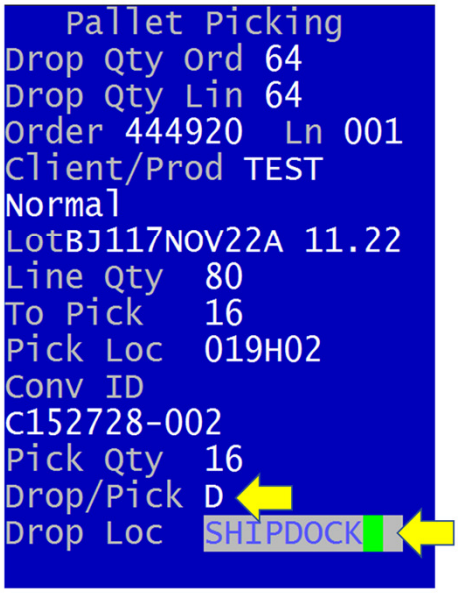


Allocated Picking
Entry of Picked Quantity

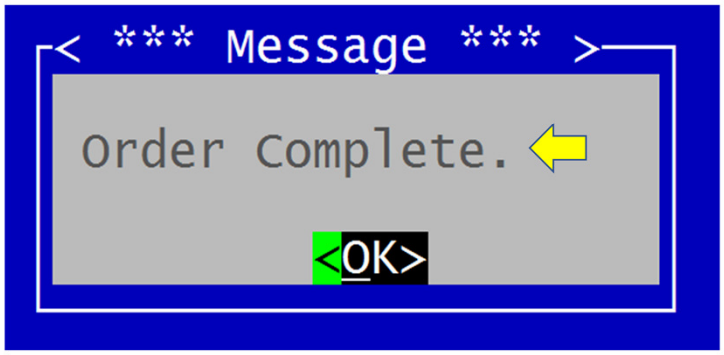


Allocated Picking

Drop of Picked Stock to Staging Location



Allocated Picking
Pick Completion Message



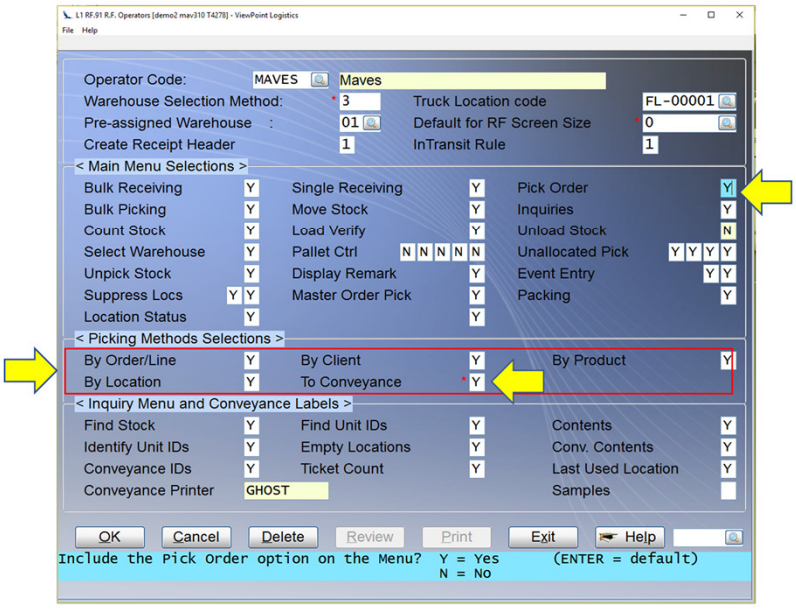
Allocated Picking

- Configuration:
  - Can RF Users be restricted to specific Picking Tasks?
    - ✓ Pick Order – Usage (RF.91)
    - ✓ Picking Method Selection Options (RF.91)
      - By Order Line
      - By Client
      - By Product
      - By Location

Allocated Picking

- Configuration (Continued):
  - Can the RF User pick stock to an identified Pallet?
    - ✓ Picking Method Selection Options (RF.91)
      - To Conveyance
  - What are the benefits of picking to a "Shipment Conveyance" (a.k.a. Rainbow Pallet)?
    - ✓ Stock Contents available for EDI (e.g. 945/856)
    - ✓ EDI may be sent to Order's Customer/Consignee/Ship-To
    - ✓ Consignee scans ID to compare/validate expected vs actual to minimize time/cost to receive goods into their inventory

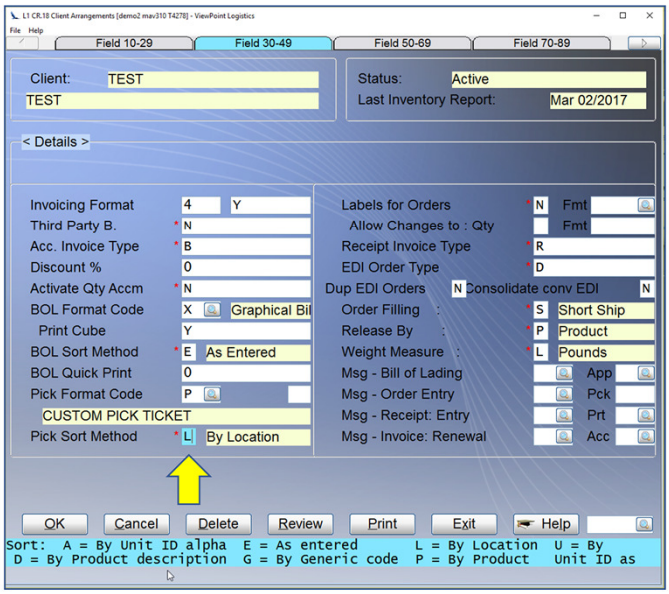
Allocated Picking
Pick Options by RF User (RF.91)



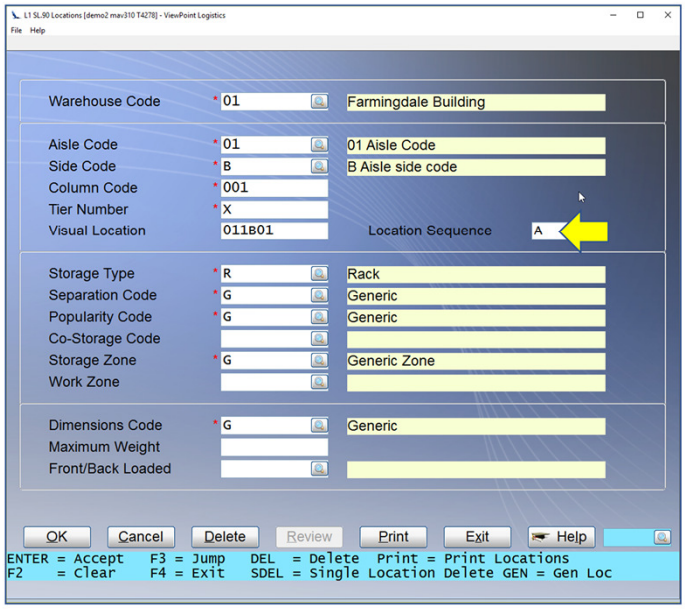
Allocated Picking

- Configuration (Continued):
  - Can the RF device display the Sequence in which to pick the Order?
    - ✓ Pick Slip Sort Method (CR.18)
      - L = By Location
    - ✓ Location Sequence Codes (SL.90)
  - What are the benefits of Location Sequence Picking?
    - ✓ Minimizes labor/picking time/cost)

Pick Slip Sort Method
(CR.18 – Field # 39)



Location Sequence Codes (SL.90 – Field # 7)



Unallocated Picking

❑Overview:

- Business Case:
  - ✓ When is it typically used?
    - Strict Stock Rotation (e.g. F.I.F.O.) is NOT required by Client
    - Stock is fast-moving/high-turnover and/or long shelf life
    - Use of Bulk Locations (with Multiple Pallets). Oldest stock is NOT readily accessible for picking
- Application Scope/Usage:
  - ✓ How does it work?
    - RF Picker must select a Lot within a defined “Pick Window”
      - ➢ Window is X Days from the Product’s Oldest Lot
        - e.g. based on a Lot Component set to Receipt Date
      - ➢ Picker can’t select ”newer” stock outside the Window
    - System displays Locations with valid stock and previews their contents
    - Full Pallet Quantities may be picked from Bulk. Less from Pickline
    - Shipment Conveyances may be used to hold stock from a Pickline

Unallocated Picking

❑ Overview:

- Scenarios:
  - What Order requests/scenarios does it support?
    - ✓ Any Lot within the Pick Window
    - ✓ A Lot with matching requested Component Values
    - ✓ A Specific Lot (Stock resides in Multiple Locations)
    - ✓ Oldest Lot (Pick Window = 0 Days. Stock in Multiple Locations)
- Benefits:
  - ✓ Enables Users to plan/pick more accessible stock
  - ✓ Minimizes # Less than Full Pallets (e.g. to 1 in Pickline)
  - ✓ Multiple Users/Equip pick Order (i.e. from Bulk/Pickline)
  - ✓ Reduces Labor Time/Cost to pick Orders

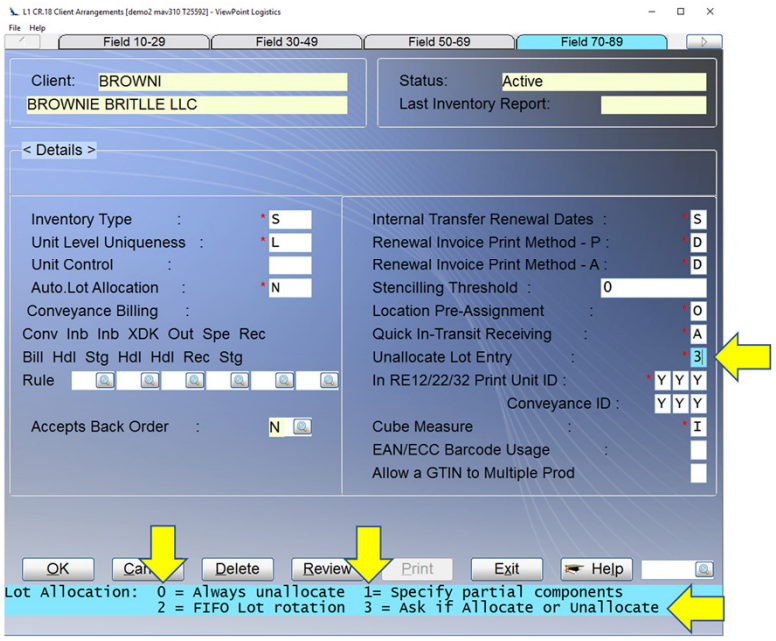
Unallocated Picking

- Process Flow:
  - Does the Order Process change?
    - ✓ Steps:
      - 1. NO Lot Allocation (via OE.01 Create Order)
      - 2. NO Location Reservation (via OE.03 Print Pick Slip)
      - 3. Unallocated Picking (via RF.01)

Unallocated Picking

- Process Flow:
  - 1. NO Lot Allocation (via OE.01 Create Order):
    - ✓ What displays in the Lot when an Order is created in OE.01?
      - Typically, it is the Lot "Unallocated" which has NO stock
      - This Lot serves as "Placeholder" until replaced by the selected Lot(s) during RF Unallocated Picking
    - ✓ Are Deferred Orders required for Unallocated Picking?
      - Optional: Deferred Orders (OE.01/95/91)
      - Mandatory: Regular Order – Unallocated Lots (OE.01)
        - Created as a result of OE.91 Deferred Order Committal, or
        - Created directly (no Deferred Order was created/required)
    - ✓ Where/how is the use of Unallocated Lots activated?
      - Lot Allocation for Order – Client Rule (CR.18)

No Lot Allocation for Order – Client Rule
(CR.18 – Field # 86 = “0” “1” or “3”)

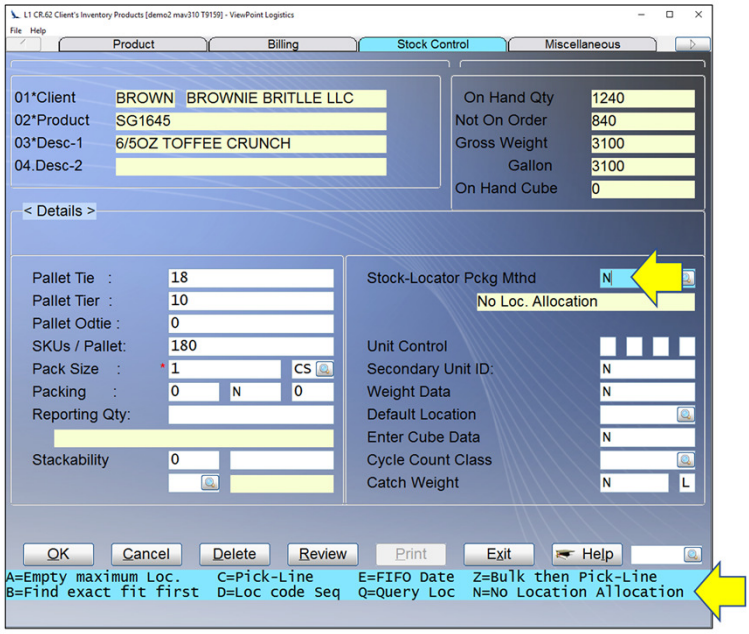


Unallocated Picking

❑ Process Flow:

- 2. NO Location Reservation (via Pick Slip):
  - ✓ What process prints the Pick Slip?
    - Print Pick Slip (OE.03)
      - ➢ Lot displays as “Unallocated” on Pick Slip
      - ➢ Location displays as “Unallocated ” on Pick Slip
  - ✓ If NO Locations are reserved why print a Pick Slip?
    - Back-up (i.e. Prints Products. In case RF is down, all devices used, etc.)
    - Work Assignment (e.g. Supervisor gives to Picker to start picking)
    - Capture Information (e.g. Client Specific Data, Remarks, etc.)
    - Audit (e.g. Signature of Picker, Loader, Inspector, etc.)
    - Order Identification (Attached to physical stock)
  - ✓ How is the Location Reservation “prevented”?
    - Stock Location Picking Method (CR.62)
      - ➢ N = No Location Allocation

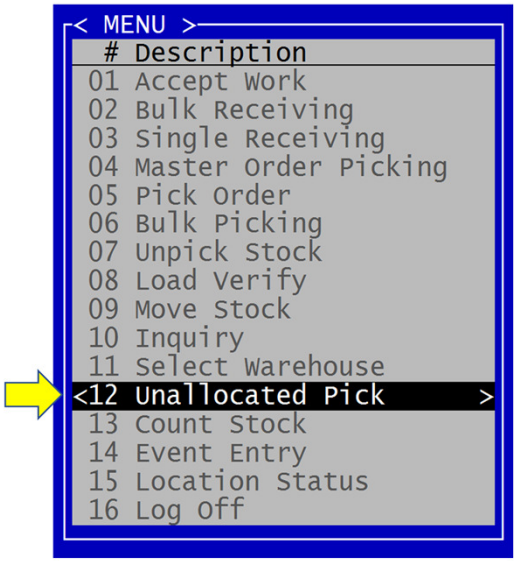
Stock Location Reservation Method (CR.62 – Field # 60 = “N”)



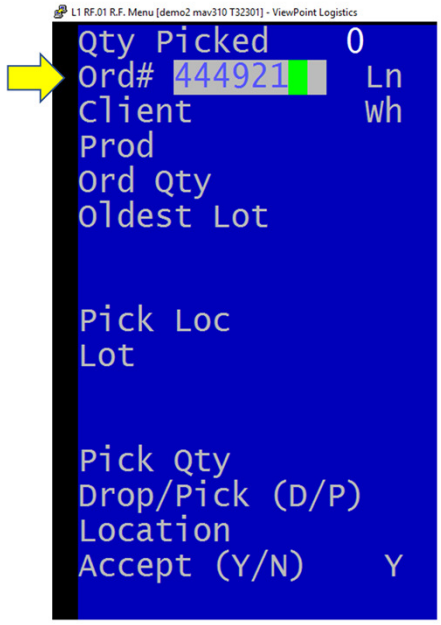
Unallocated Picking

- Process Flow:
  - 3. Unallocated Picking:
    - ✓ Unallocated Picking (RF.01)

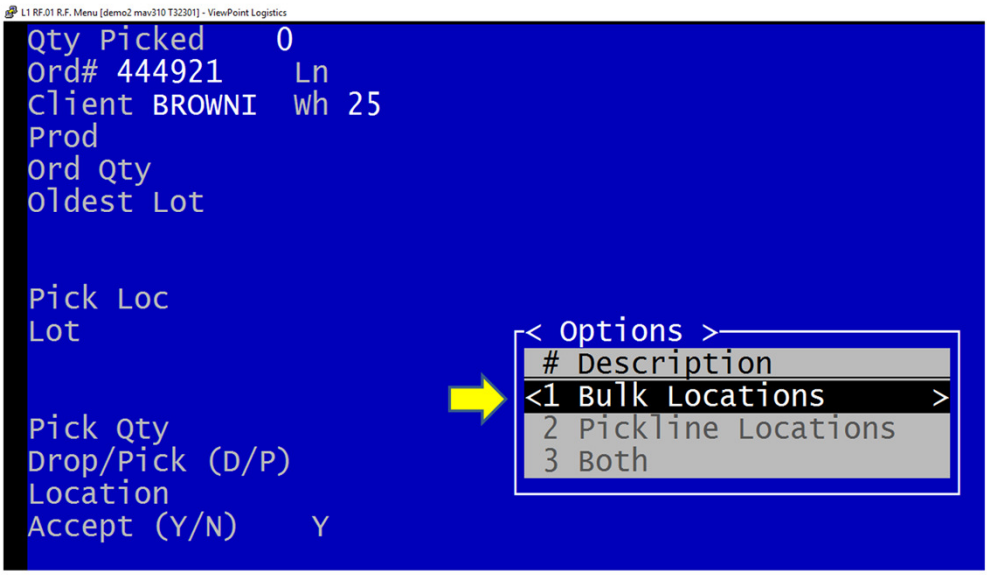
Unallocated Picking
Select Unallocated Picking Option



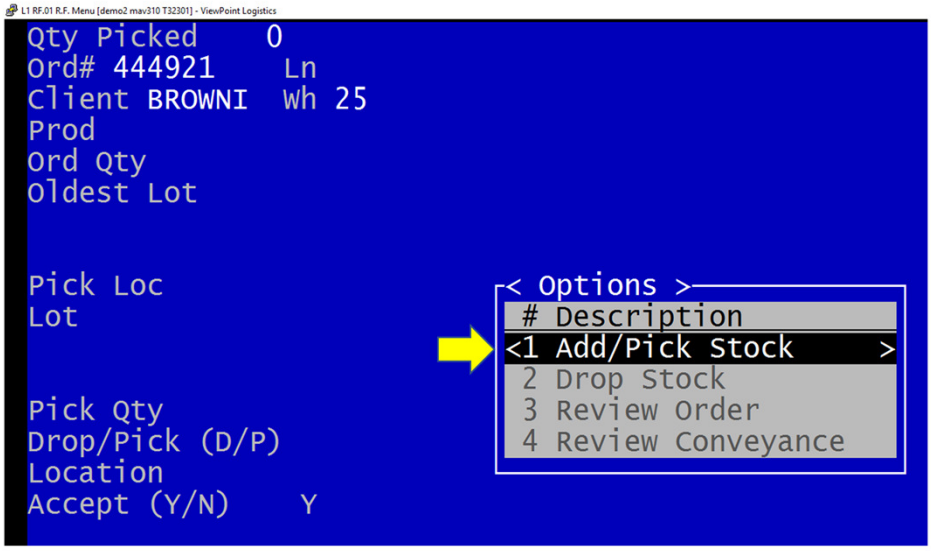
Unallocated Picking
Select Order to Pick



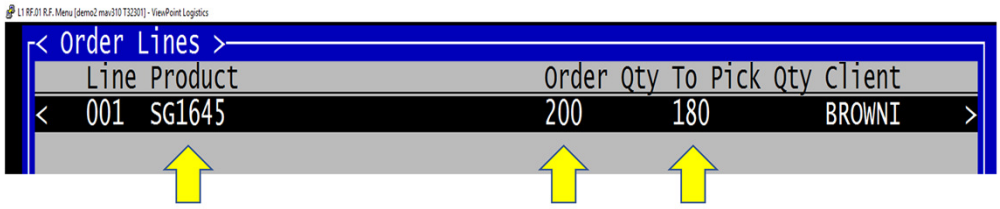
Unallocated Picking
Select Bulk Type of Picking
(i.e. Full Pallets from Bulk Locations)



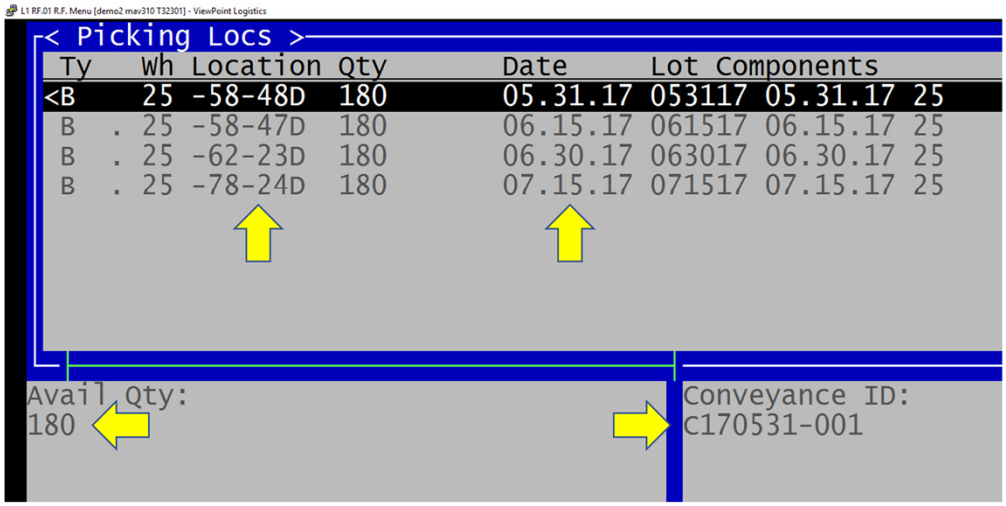
Unallocated Picking
Choose Next Action to Perform



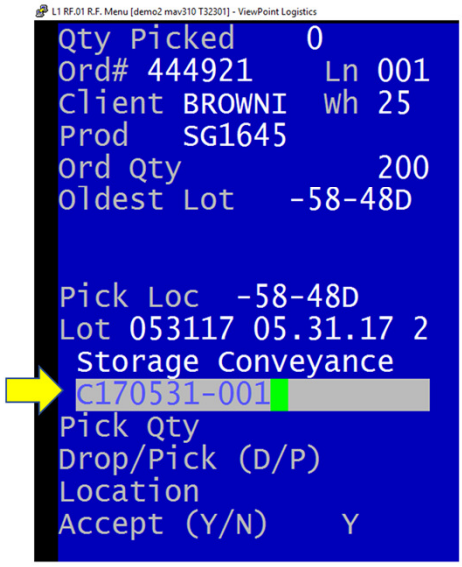
Unallocated Picking
Select Order Line to Pick



Unallocated Picking
Select Location (from which to Pick Stock)

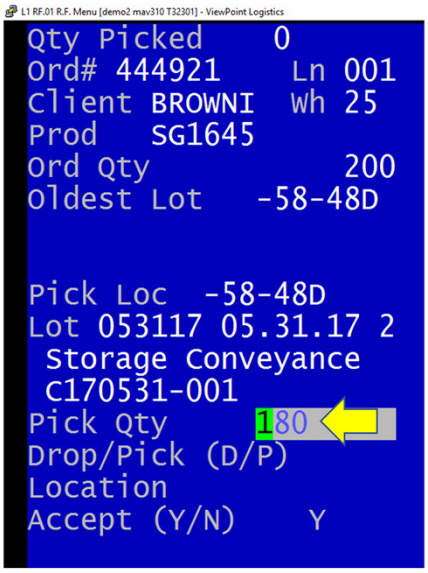


Unallocated Picking
Select Storage Conveyance
(from which stock was Picked)

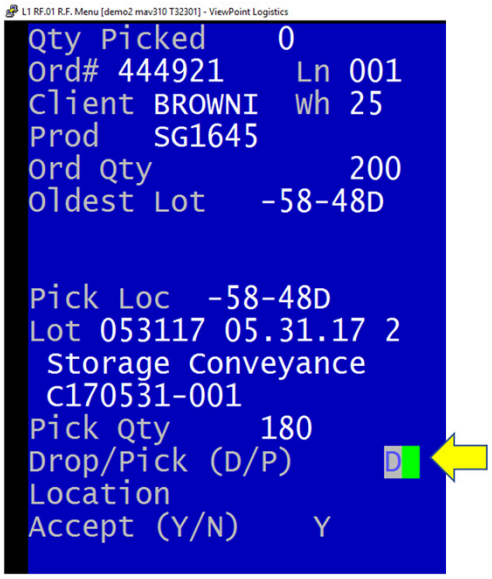


Unallocated Picking

Enter Quantity Picked (from Storage Conveyance)

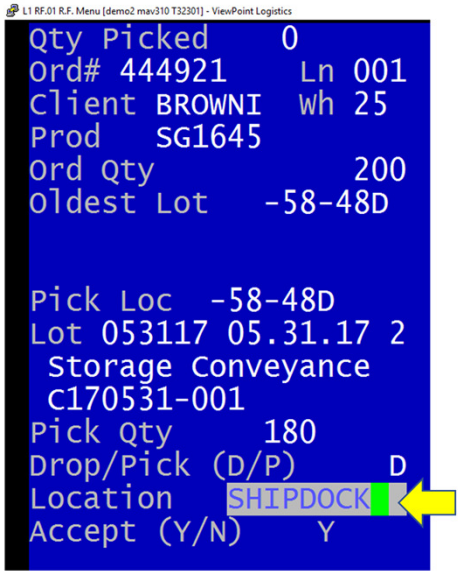


Unallocated Picking
Perform Drop Action (of Storage Conveyance)

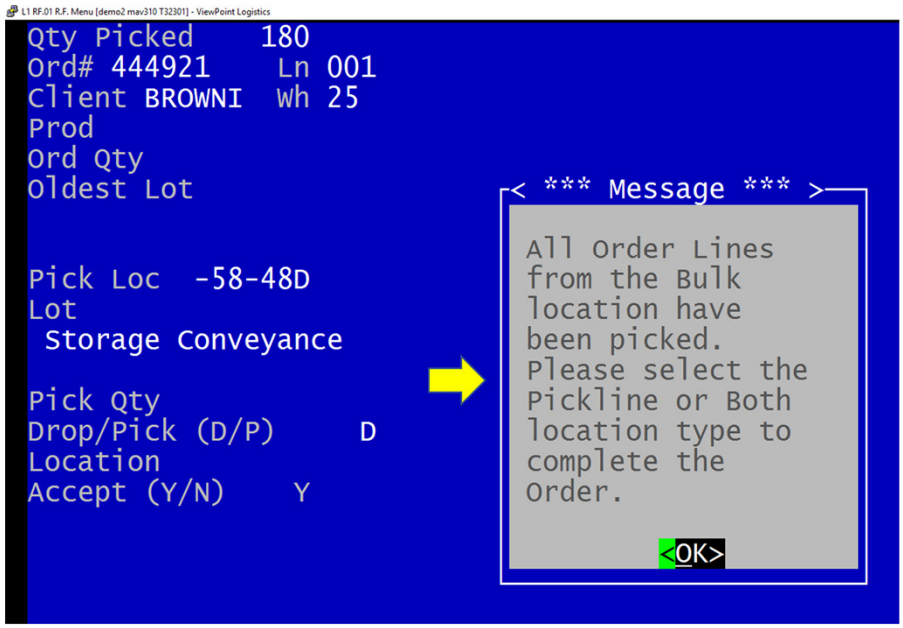


Unallocated Picking

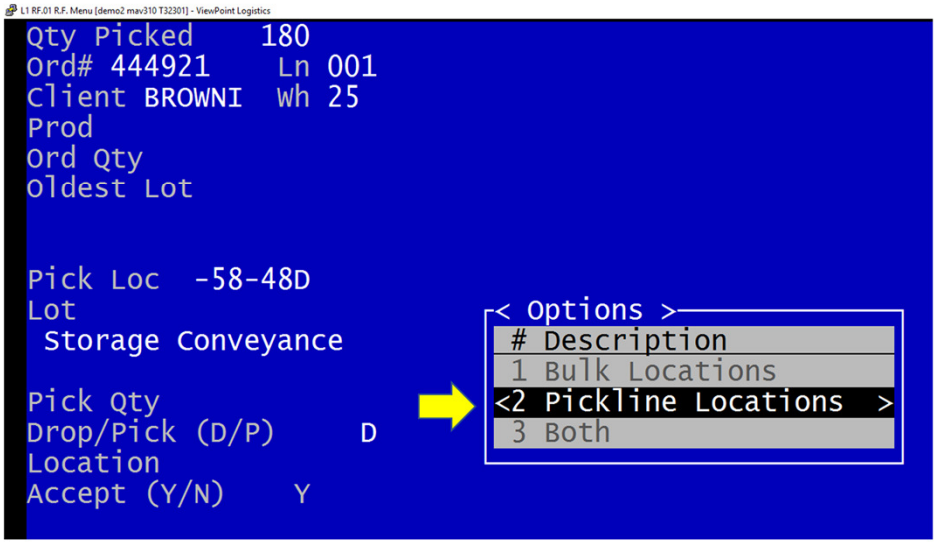
Select Drop Location (for Storage Conveyance)



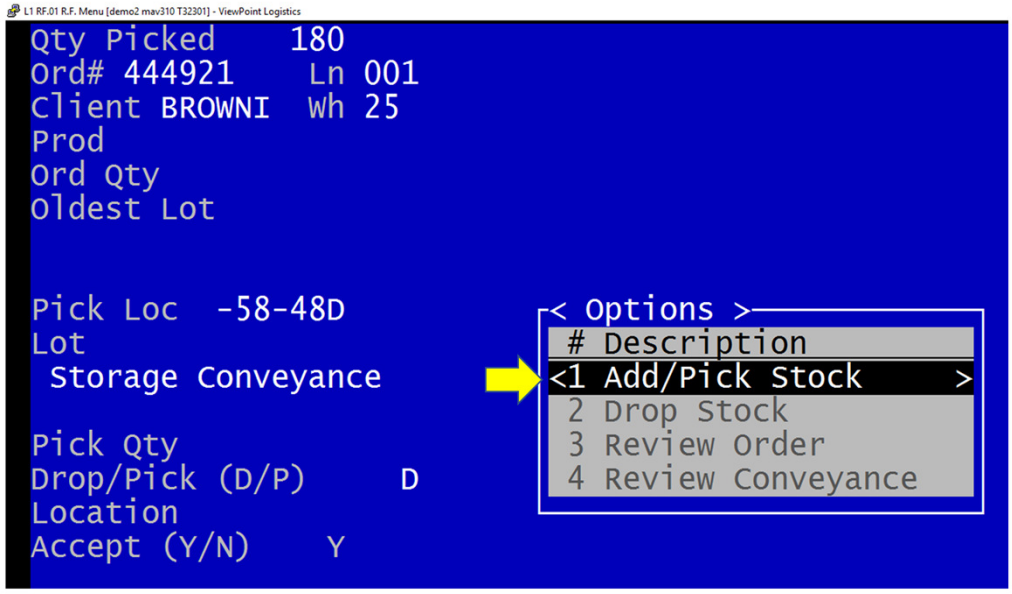
Unallocated Picking
Message: Bulk Picking Complete



Unallocated Picking
Select Pickline Type of Picking
(i.e. Less than Full Pallets from Pickline Locations)

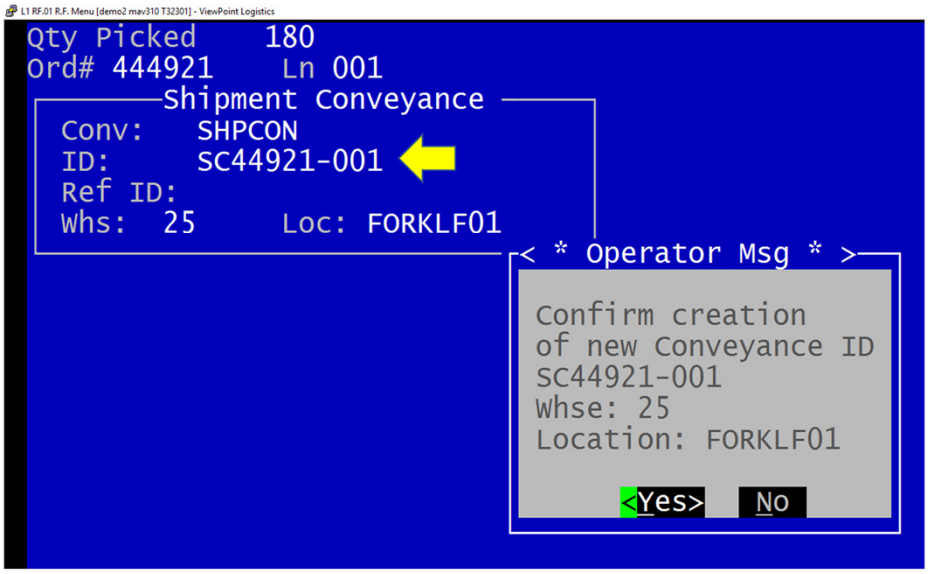


Unallocated Picking
Choose Next Action to Perform



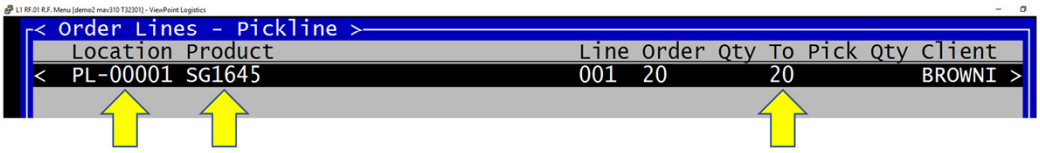
Unallocated Picking

Identify Empty/New Shipment Conveyance ID



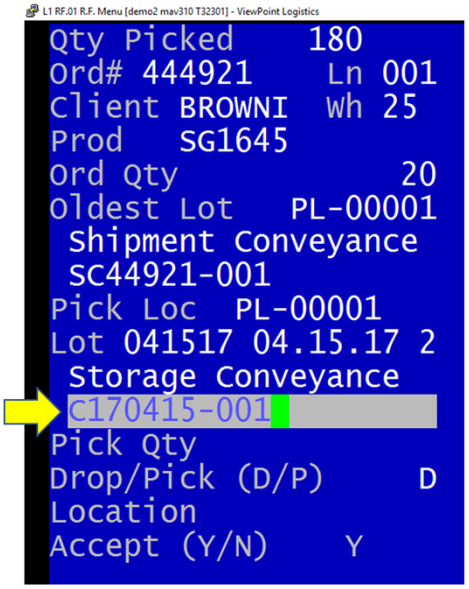
Unallocated Picking

Select Order Line to Pick (from a Pickline Location)



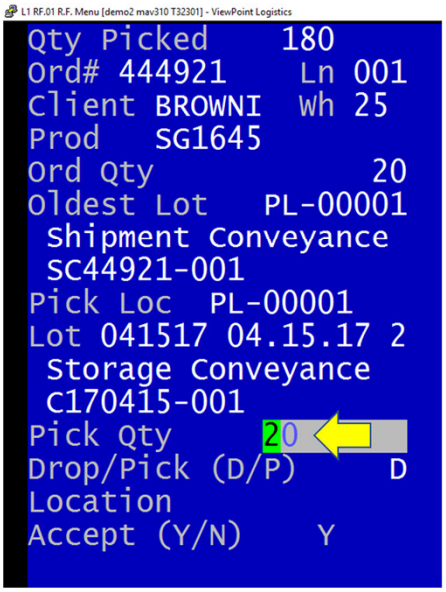
Unallocated Picking

Select Storage Conveyance (to Pick from)



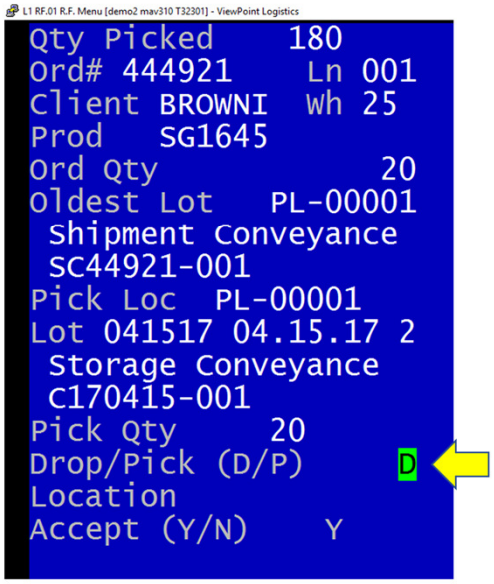
Unallocated Picking

Enter Quantity Picked (from Storage Conveyance)



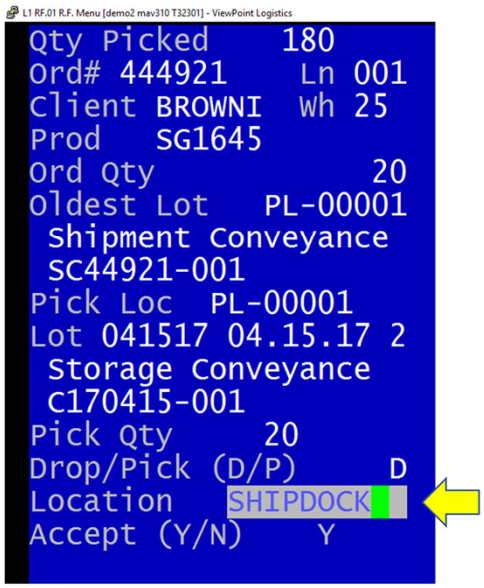
Unallocated Picking

Perform Drop Action (of Shipment Conveyance)

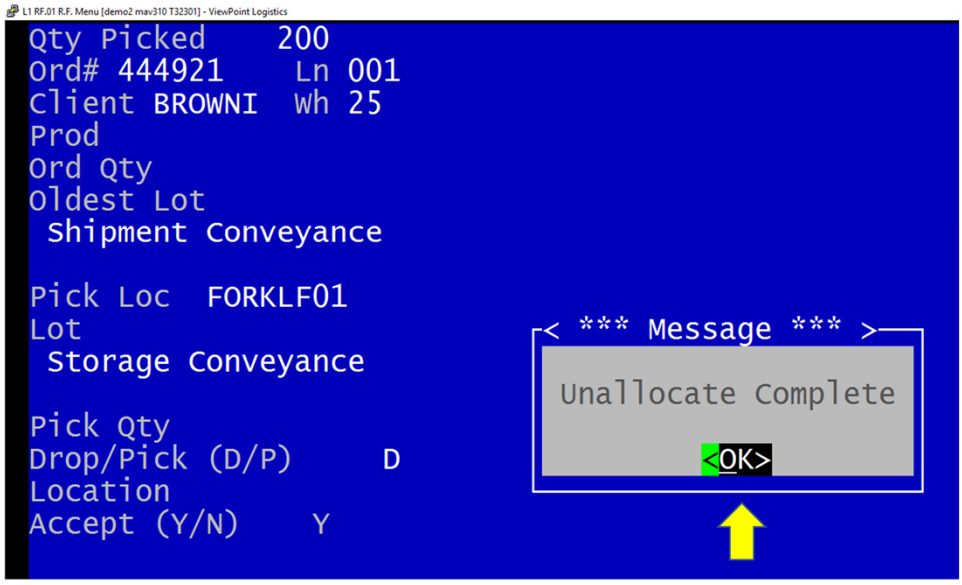


Unallocated Picking

Select Drop Location (for Shipment Conveyance)



Unallocated Picking
Message: Order Picking Complete

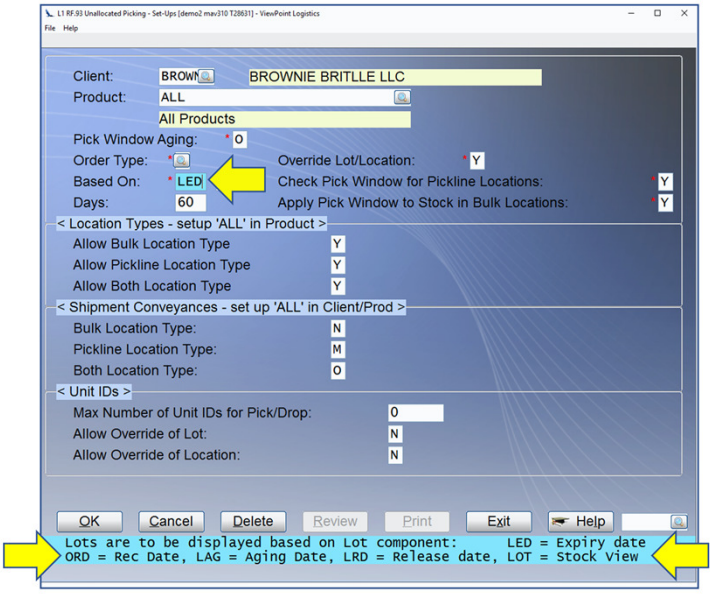


Unallocated Picking

❑ Configurations:

- How may the Pick Window be defined?
  - ✓ Unallocated Picking – Set-Up (RF.93)
    - Product's with a Lot Set containing a:
      - ➢ Release Date (*LRD*)
      - ➢ Age Date (*LAG*)
      - ➢ Expiry Date (*LED*)
- Can Unallocated be used with Lots without a Date?
  - ✓ Unallocated Picking – Set-Up (RF.93)
    - Original Receipt Date (ORD)
    - Stock Control View - 1st Lot Component (LOT)

Unallocated Picking
Pick Window Definition (RF.93)

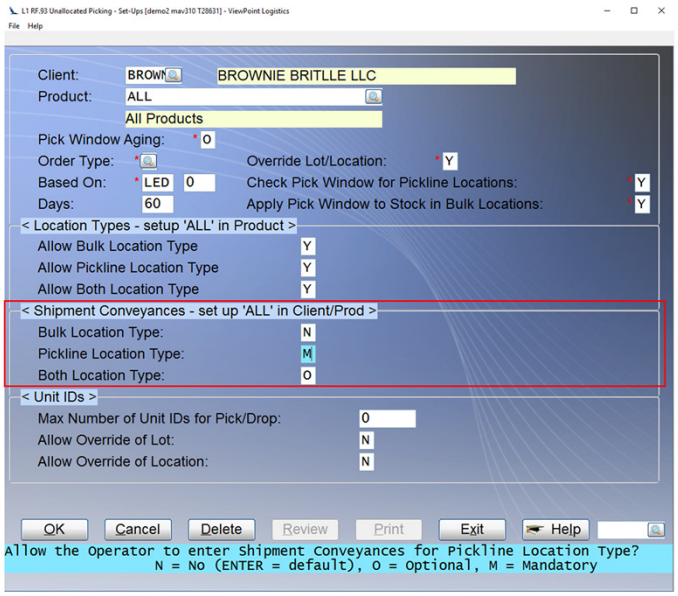


Unallocated Picking

❑ Configurations:

- How are Picklines replenished?
  - ✓ Via the RF.01 Move to Pickline option
  - ✓ Benefits:
    - System recognizes Picklines with LOW quantities
    - Recommends real-time moves of Full Pallets, of the Product's Oldest stock, from Bulk Locations to Picklines
- Does Unallocated Picking support the use of Conveyances? If so, how is it activated?
  - ✓ Storage (Pick From)
  - ✓ Shipment (Pick To – e.g. Build a Rainbow Pallet

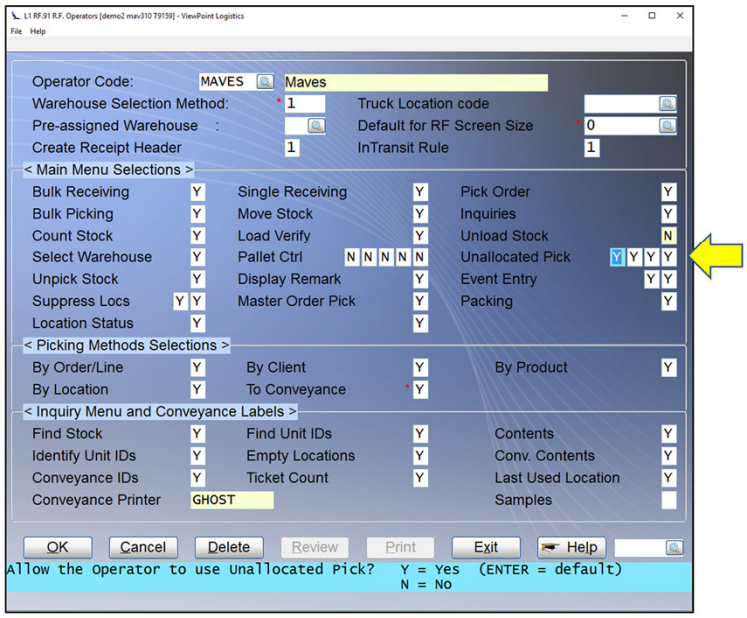
Unallocated Picking
Use of Shipment Conveyances (RF.93)



Unallocated Picking

- Configuration:
  - Can RF Users be restricted to specific Unallocated Picking Tasks?
    - ✓ Unallocated Picking Options (RF.91)
      - Use of Unallocated Picking
      - Select Location Type (i.e. Bulk, Pickline, Both)
      - Use Shipment Conveyances
      - Exit Order before Dropping

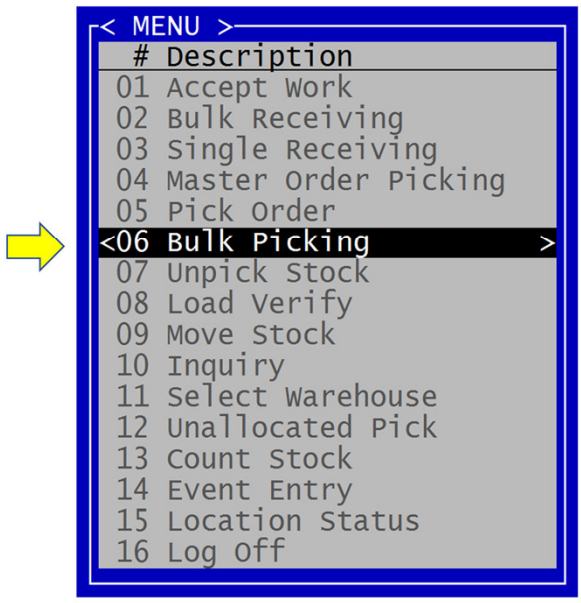
Unallocated Picking
Options by RF User (RF.91 – Fields 23-26)



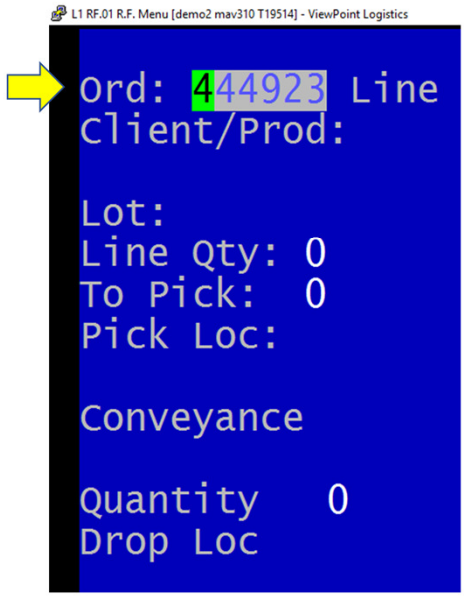
Bulk Picking

- Business Case/Scenarios:
  - Most often used for Pallet-In/Pallet-Out Clients
  - Multiple Pallets constitute an Order
  - Lot information may include Order data (e.g. Sales Month and Store)
  - Received Pallets are then segregated by Order (into a single Location)
- Application Scope/Usage:
  - How does it work?
    - ✓ Order is created for appropriate Lot(s)
    - ✓ Pick slip is generated and assigned to Picker. All stock in a single area (Location)
    - ✓ User selects Order and begins scanning Conveyance IDs in the location
    - ✓ System validates ALL stock on Conveyance is required by one/more Lines from the Order
  - What Conveyance Stock Mixes are valid?
    - ✓ Homogenous (Single Product and Lot)
    - ✓ Heterogeneous (Multiple Products/Lots)
- Benefits to 3PL:
  - Minimizes Picking Time/Cost
  - Ensures that the correct/complete Order is picked

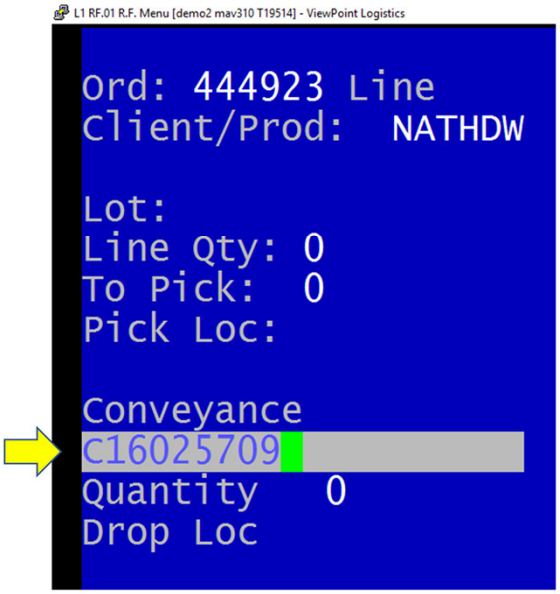
Bulk Picking
Select option



Bulk Picking
Select Order to Pick

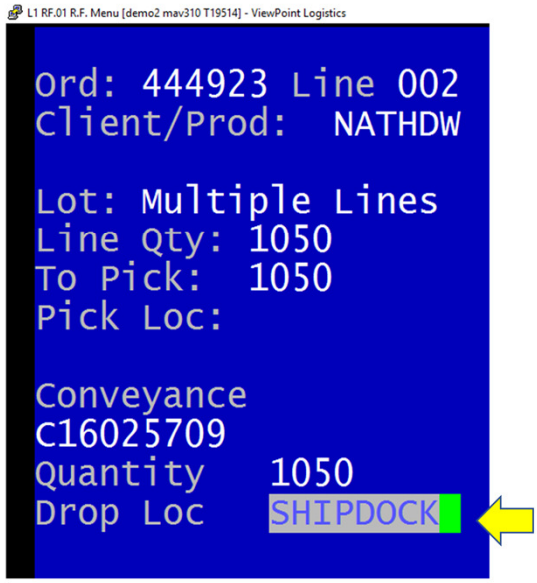


Bulk Picking
Scan Storage Conveyance to Pick



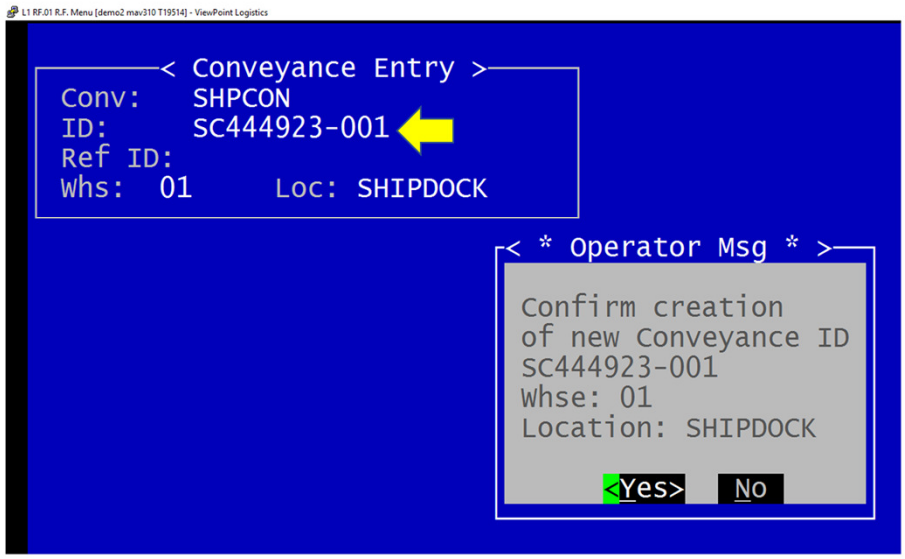
Bulk Picking

Drop Storage Conveyance to Stage Location



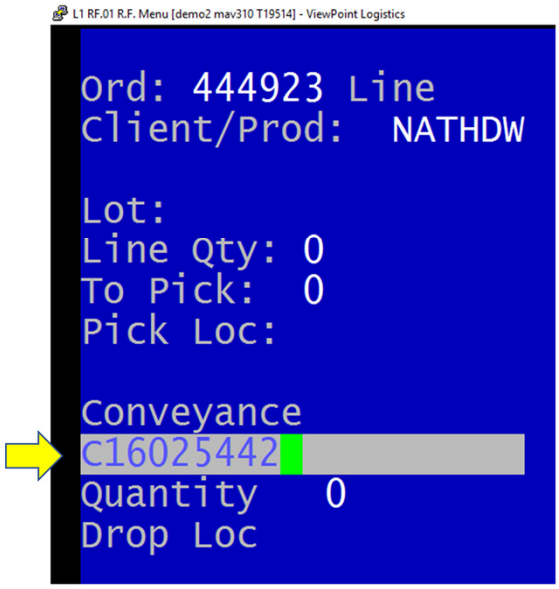
Bulk Picking

Optional: Identify as Shipment Conveyance



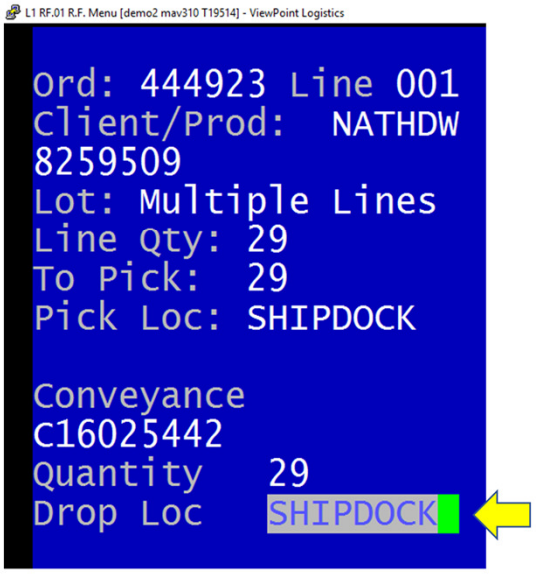
Bulk Picking

Scan another Storage Conveyance to Pick



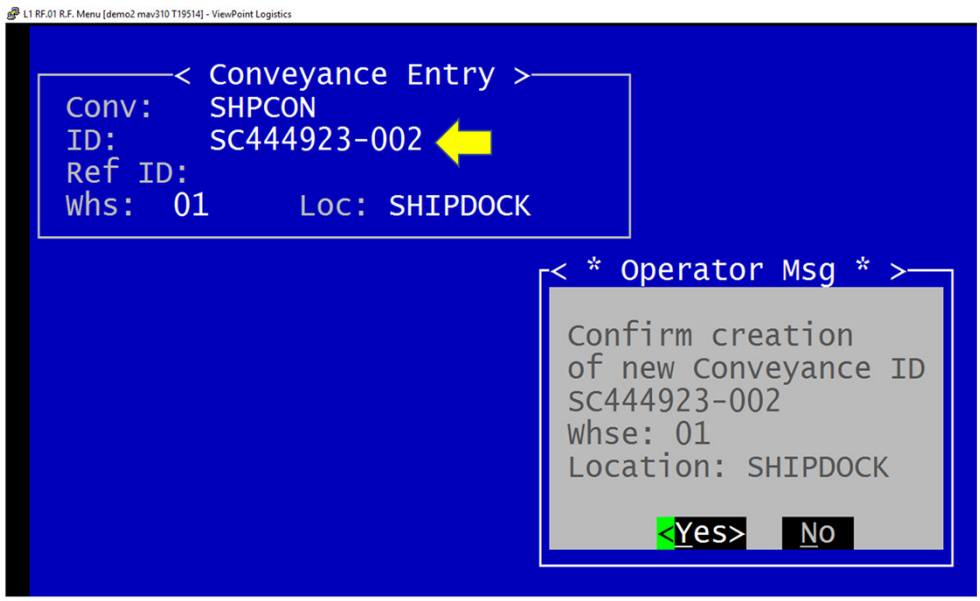
Bulk Picking

Drop Storage Conveyance to Stage Location

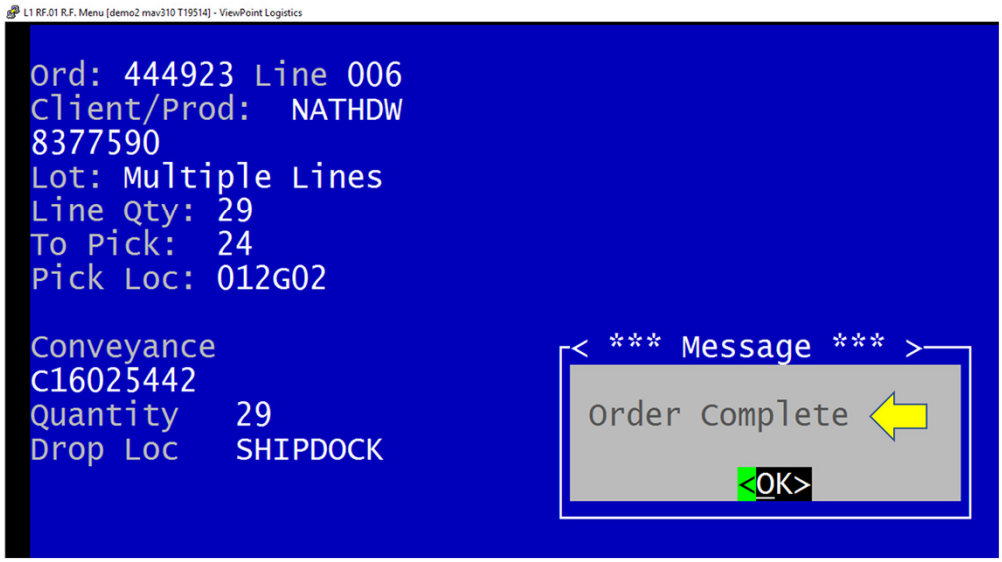


Bulk Picking

Optional: Identify as Shipment Conveyance

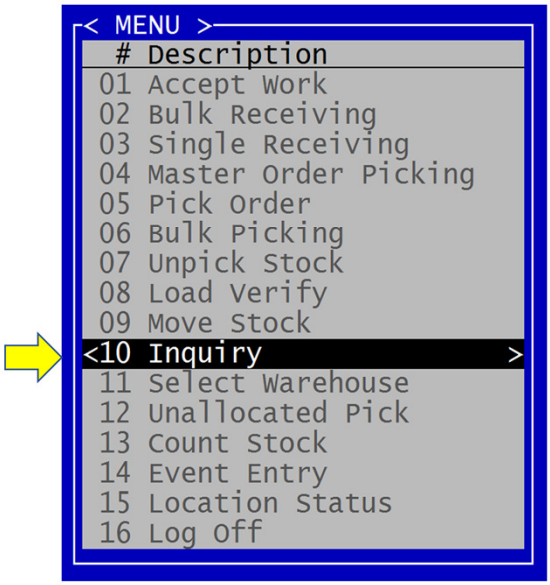


Bulk Picking
Message: Order Complete



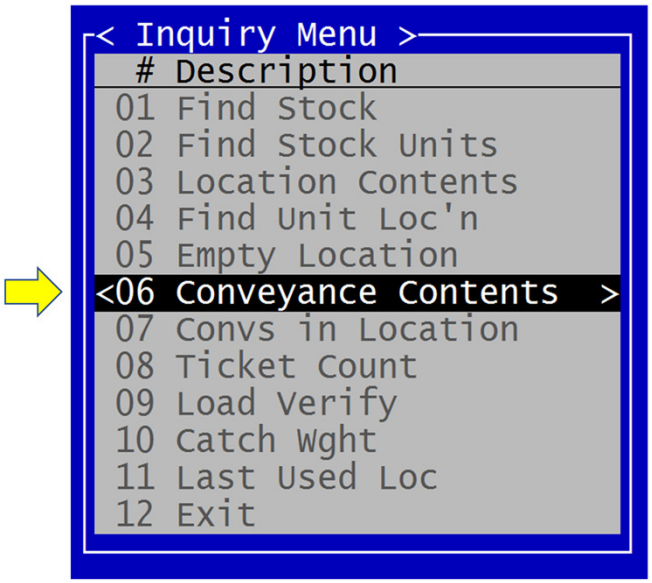
Bulk Picking

Query – View Shipment Conveyance Contents



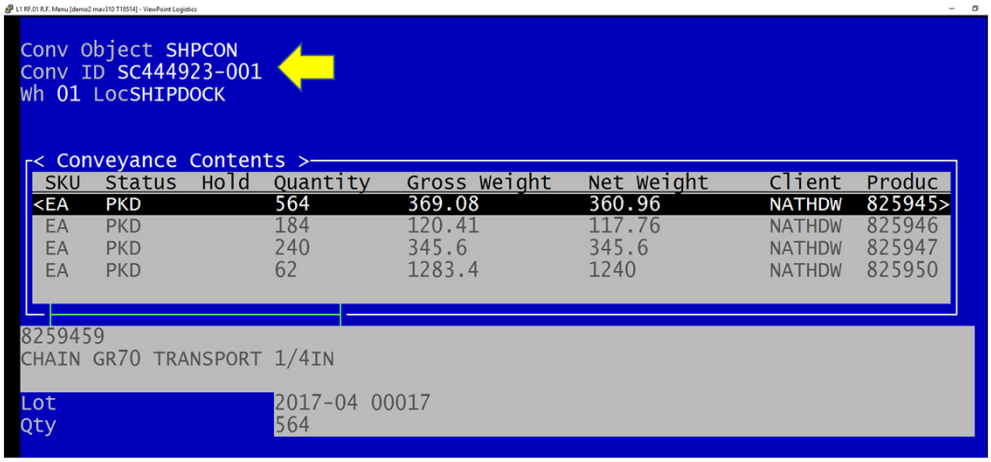
Bulk Picking

Select Conveyance Contents option



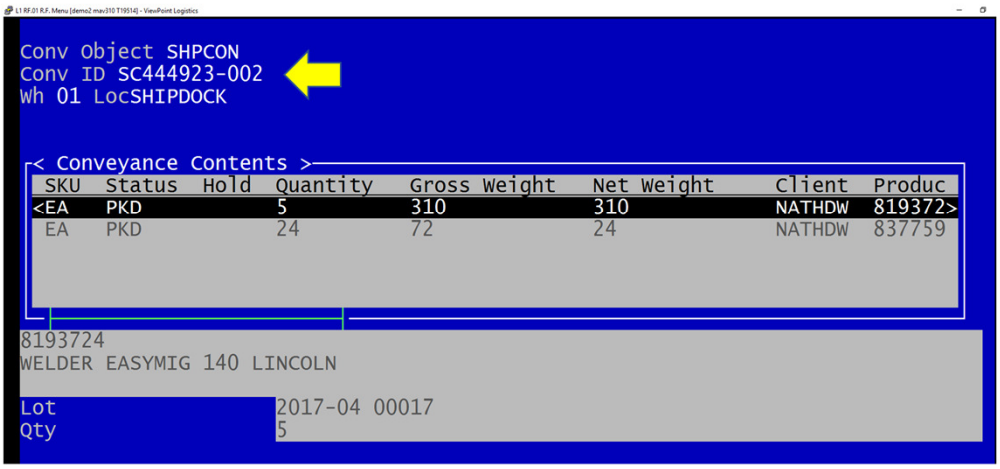
Bulk Picking

Scan 1st Shipment Conveyance ID. View Contents



Bulk Picking

Scan 2nd Shipment Conveyance ID. View Contents



Other Order related Features

- Pre-Picking:
  - Work Assignment and Acceptance
  - Automated Generation/Printing of Pick Slip
  - Default of Stage/Drop Locations
- During Picking:
  - Viewing of Remarks
  - Validation of Data (via Scan) for:
    - ✓ Product
      - For 3PL Codes (in CR.62)
      - GTINs
      - Compliant/Proprietary Barcodes
    - ✓ Pick From Storage Location
    - ✓ Conveyance IDs (forces scan – disables entry/browse)
    - ✓ Each Piece (e.g. for High value goods)

Other Order related Features

- During Picking (Continued):
  - Applying Holds (e.g. not in location, damages, etc.)
  - Catch Weights (e.g. require piece weight – No Unit ID)
  - Pallet Exchange/Control
  - Monitoring of Progress (via HighViews)
- Other Types of Picking:
  - Wave Picking (Master Orders)
  - Over Picking – a.k.a. Pick Tolerance

Other Order related Features

❑In Support of Picking:

- Queries:
  - ✓ Find Stock (Normal, Conveyance ID, Unit ID)
  - ✓ Location Contents
  - ✓ Conveyance Contents
  - ✓ Conveyance IDs in Location
- Post Picking:
  - ✓ Packing (e.g. into cartons using 3rd party carrier – e.g. UPS)
  - ✓ Load Verification (i.e. minimizes misloads)
  - ✓ Load Manifest Report (e.g. sequence/contents of Conveyances)
  - ✓ Signature Capture (e.g. of Carrier Driver on Bill of Lading)
  - ✓ Unpicking (e.g. for order changes, split loads, etc.)
  - ✓ Event Entry (e.g. internal tasks, chargeable services, etc.

Questions and Answers