Real-time Inventory Control and Internal Traceability System

**Raw Material Receiving**
- Scan Supplier’s Pallet ID label or print serialized Pallet ID labels
- Uses EDI /ASN for Pallet contents data
- Scan Pallet ID to record Receipt Txn
- Validates Receipt to PO or EDI
- Records CTEs\(^1\) to begin Item /Lot / Batch / SN Traceability

**Warehousing & FIFO**
- Scan Pallet ID & Location ID to record all Putaway, Move & Cycle Count Txns
- Maintains FIFO & real-time location tracking by Raw Item/Lot/Qty
- Records CTEs for Back/ Forward Traceability

**Processing / Production**
- Scan Work Order or Run Nbr to start production
- Scan Pallet ID or Raw Item ID issued to Run Nbr
- Links Raw Item ID & Lot/Serial to Finished Part Nbr & Lot / Serial Nbr
- Updates inventory real-time as Raw Items are consumed and Finished Parts are produced
- Tracks WIP units sent out for processing
- Records CTEs for Back/Forward Traceability

\(^1\) CTEs = Critical Tracking Events for unique Item Traceability

**Finished Goods**

**Real-time Line-side Container Labeling**
- Print serialized Container labels at the Point of Production
  - Label is printed automatically by PLC, TouchScreen or Push-button
  - Correct label is pre-set for the Part Number being made
  - Links serialized container to Run Nbr and Raw Item ID
  - Scan the Container SN to record a Production Receipt
- Enables Traceability Back to Raw & Forward to Finished Parts

**Scan-to-Create Pallet Labels**
- Scan Container serial numbers to create a serialized Pallet ID label
- Links Container SN/ Part/Lot/Qty to Pallet ID
- Records CTEs for Pallet ID Labels printed

**Production Reporting**
- Scan Pallet ID label to record a Production Receipt
- Sends Production Txns to ERP

**Warehousing**
- Scan Pallet ID & Location ID to record Putaway, Move & Cycle Count transactions
- Real-time location tracking by Finished Item/Lot/Qty
- Records CTEs for Back/Forward Traceability

**Picking**
- Import EDI Order data or enter Picklist
- Allocates Item Nbrs to Picklist by FIFO
- Scan-to-pick Pallet IDs
- Links Pallet ID & Item/Lot/Qty to Order
- Links Pallet ID to Shipper ID
- Continues Location Tracking & Traceability by Item / Lot / Qty
- Relieves real-time inventory of Finished Goods items
- Records CTEs for Picking/ Moving Pallet IDs

**Trailer Loading**
- Links Customer Order to Trailer ID and Shipper ID
- Scan Pallet ID or SSCC label to Load on Trailer
- Verifies Pallet is correct for this Trailer / Order
- Confirms all Pallets are loaded
- Creates ASN datastream of Pallets & Order data
- Records CTEs for Forward Traceability of shipped items

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