DATASCOPE
WMS FOR SYSPRO

Warehouse Management System

Version 5

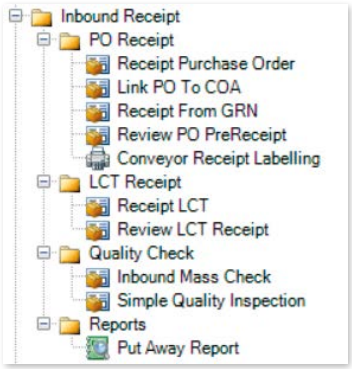
BROCHURE 3

- Inbound Receiving
- Warehouse Movements
- SCT/GIT
- Replenishment

INBOUND RECEIVING

The inbound module holds a range of functionality for processing incoming transactions. Here receipts are posted for normal purchase orders or LCTs (Landed Cost Tracking shipments) etc.

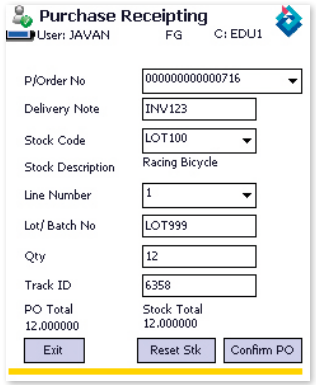
PURCHASE ORDER RECEIVING

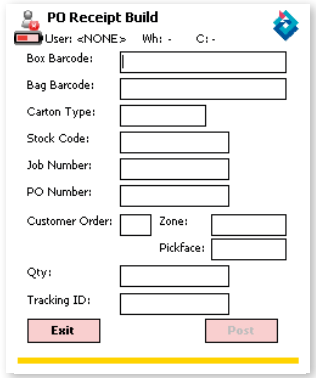


There are several ways that PO's can be received in DATASCOPE WMS. These are as follows:

1. Basic PC receipt – Here a purchase order receipt can be processed from a PC front end like one would process a receipt in SYSPRO. This is used when there are specific requirements during receiving such as cost apportionment or price editing. In this case a user with a scanner on the floor should not be processing the receipt. This is also used in simple receiving environments where a user can enter the pallet configurations from an office. Single stock code or multiple stock code TrackIDs can be created. DATASCOPE can automatically allocate TrackIDs with the correct pallet quantity based on the warehouse default pallet quantity for that stock code.
2. Master TrackID Receipt – Here a PC screen is used to process a full purchase order receipt. This receives all stock into a staging bin location and prints one large master TrackID. The scanner program "Receipt Palletization" is used to print TrackIDs for each pallet on the floor and product is scanned from the Master TrackID to the Pallets as they are packed out.

3. Scanner PO Receipt – This application on the scanner can be used to scan in receipts from suppliers during the delivery. It has been optimized to expect that all product coming in would be pre-labeled by the supplier with a single SKU per TrackID. This is a very fast receiving method for high volume deliveries. This program can be set to default the lot number to the TrackID.
4. Scanner PO Buildup – This Scanner program has been developed to allow receiving staff to scan receipts and build up pallets for put away. The scanned data is validated during the scanning process and then uploaded to the DATASCOPE WMS PC frontend for the final cost adjustments and posting to SYSPRO.
5. PO PreReceipt – This scanner program is optimized for scanning a standard supplier 2D barcode at carton level. Each carton 2D barcode label holds the purchase order number, stock code, lot number and quantity. The scanner has intelligence to direct zone based pallet packing as the cartons are scanned. A cross dock function will expedite product with outstanding replenishments.



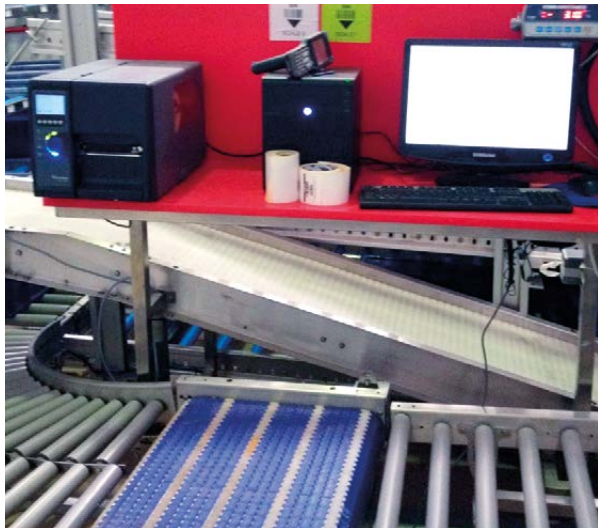


LCT RECEIPT

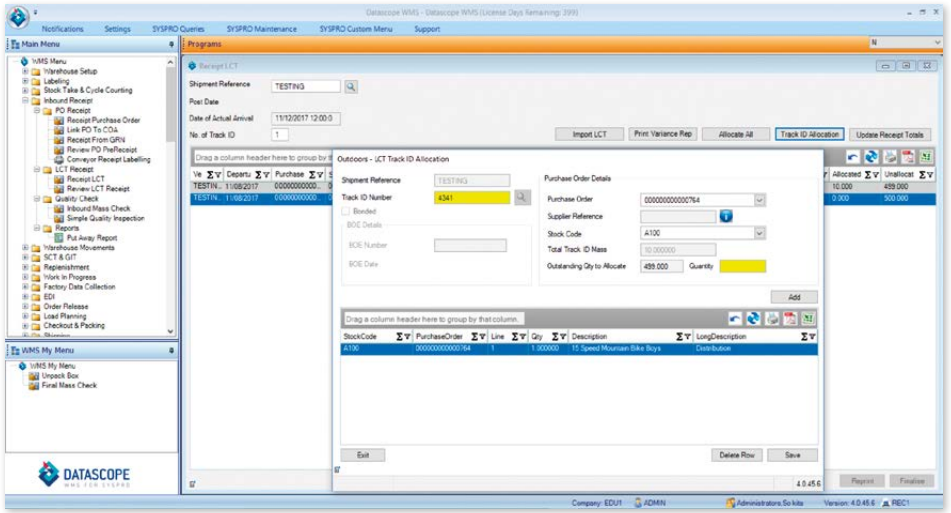
Landed Cost Tracking receipts gets quite complex as there are key steps that must take place in SYSPRO before the receipt can be processed in DATASCOPE.

The following receipts options are available:

1. PC based LCT Receipt – This application in DATASCOPE WMS allows users to open a LCT shipment that has already been costed out in SYSPRO and then drives the user to enter all pallet packing configurations to build up each pallet. Once all pallets are built up the receipt will post to SYSPRO is the quantities received match the SYSPRO LCT. All Pallet labels are then printed automatically
   - Additionally this front end allows a user to import a CSV/excel breakdown of pallet allocation data through an import function in the screen.



2. LCT PreReceipt – This scanner program is optimized for scanning a standard supplier 2D barcode at carton level. Each carton 2D barcode label holds the purchase order number, shipment reference number, stock code, lot number and quantity. As pallets are scanned and built up the data builds up the LCT receipt. Once done the receipt can be posted from the PC based LCT Review Receipt screen provided the total quantities balance to the SYSPRO LCT shipment.
3. Master TrackID Receipt – Here a LCT shipment can be opened in DATASCOPE's PC front end and received in one go with a simple "receipt all" function. This generates the SYSPRO receipt and a single full Master TrackID. The receiving staff on the floor then use the scanner palletization function to build up pallets from the Master TrackID to a new set of pallet labels.



QUALITY CHECK

DATASCOPE can manage stock codes with inspection requirements in two ways, provided the SKU is flagged as inspection required in SYSPRO:

1. Single stage inspection – Here the full quantity is received into SYSPRO inspection and the full quantity passes inspection. The DATASCOPE TrackID remains ONHOLD until the quality module(s) release the stock, but the TrackID can still be moved into a storage location/bin in the warehouse.
2. Two stage inspection – In 2 stage inspection, the full quantity is received into SYSPRO inspection and remains there until the quality modules release the stock. Since the stock is not yet in stock in SYSPRO it cannot be bin transferred.

Two additional inbound Quality check functions are available for items that are flagged as inspection required. One is a simple pallet mass check where each new pallet of the affected stock code in receiving is in an ON HOLD status and then must be placed on a weigh station linked DATASCOPE WMS to validate the mass. If the mass passes a simply percentage tolerance the pallet becomes ACTIVE and can be moved into the warehouse.

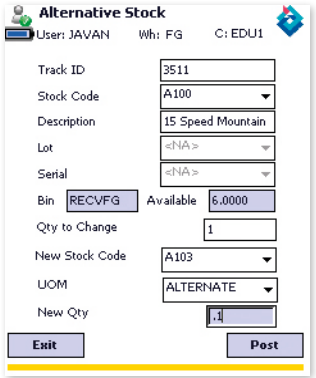
The second check is a very simple quality release function. No QC testing is managed here. It is expected that the client has their own QC system and simply wants to move pallets from ONHOLD to ACTIVE when they are happy to release them. This can be fired from an e.net business object.

There is a larger quality module which handles tests and criteria at a stock code level.

WAREHOUSE MOVEMENTS

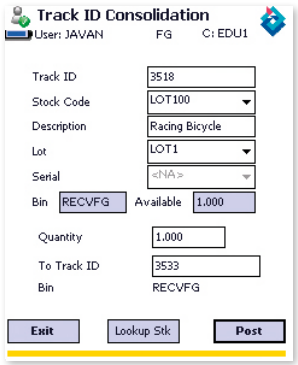
This module covers the inventory transactions that would be performed within a warehouse. These are not transactions related to receiving or picking, they focus in general on warehouse movements.

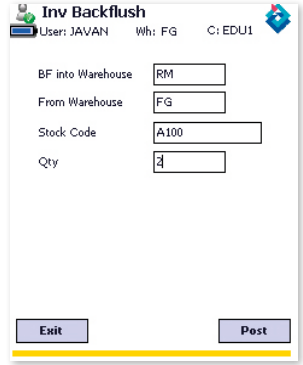
> Alternative Stock – This Scanner and PC program allows a user to scan a TrackID and to convert the SKU on this TrackID to another SKU if the relationship has been setup in SYSPRO Alternate Stock Code Cross Reference system. The transaction posts a negative stock issue out of the of SKU and a positive issue in of the replacement SKU. If there is a cost difference this is posted to stock variance account as setup in the software settings. Conversion factors can also be applied when posting these transactions.



> TrackID Consolidate – This scanner transaction is a simple ability to move a stock code or a portion of stock from one TrackID to another. It is mainly used for cleaning up partial pallets. Options exist to default the quantity to the pallet quantity and auto-post transactions.

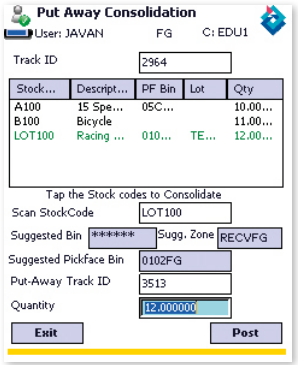
> Inventory Backflushing – Here the scanner is used to process simple inventory backflush transactions on the factory floor. The system settings determine the level to backflush i.e. Single or Multiple and the new TrackID label is printed according to the user's

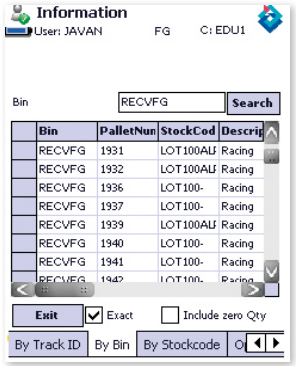


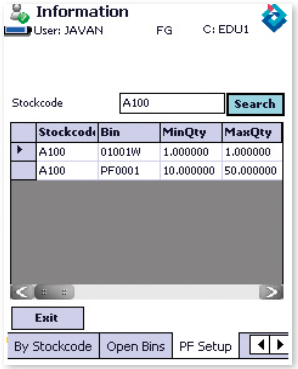


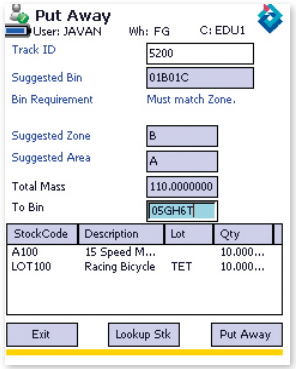
warehouse and print station settings.

- Quarantine Move – This is a simple bin transfer on the scanner to move any TrackID from a normal stocked warehouse into a Quarantine warehouse.
- Supplier Return – This scanner screen allows a user to scan a pallet to return it to a supplier. This is only used if we are returning stock that has already been GRN'd in and the stock is Lot traceable. For most return to suppliers a negative GRN will return the stock.

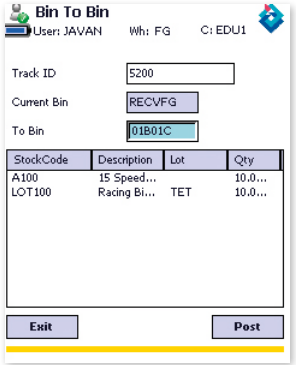








- Put Away Consolidate – This scanner application is used when putting away a multiple SKU pallet. The screen walks the user through placing the stock into the default pick face locations in a pick face warehouse or onto pallets with the same SKU on them in a bulk warehouse.
- Information Check – This Scanner screen shows a general information check. Here we can query the locations of a stock code or the content of a TrackID etc.
- Put Away – The Put Away screen is used to move full TrackIDs from the receiving marshalling bins



into the warehouse. Depending on the settings in the software one can direct put away to a warehouse or warehouse and zone or warehouse, zone and open bin. Users not following these instructions are recorded with the option of an override required from a supervisor. Additionally, a cross dock prompt can be triggered at put-away if the replenishment system indicates that stock is required in the pick face. This can be setup to only request cross dock if there is no available stock in bulk or anytime the pick face drops below re-order qty.

- Bin to Bin – This scanner program is used to simply move a TrackID from one bin to another. Additionally, if the destination bin scanned is in another warehouse, an immediate transfer will be performed and all the stock on the TrackID will be moved provided the stock codes have been setup for the destination warehouse in SYSPRO.
- Job Return – The job return function on the scanner allows a user to scan a TrackID for a product that was issued to a Job and return a new quantity back into stock.
- Palletization – This program is used to label and build up pallets in the receiving area. This is used extensively when Master TrackID receiving is in place. The screen is highly configurable allowing users to default the quantity to pan size, force users to scan stock codes and prevent mixing of stock codes on a TrackID.
- 2D Put away – This scanner program is used to scan away carton stock where we have the 2D carton labelling in play.
- Expense Issues – These transactions can be posted on a mobile device or PC. This is used to expense issue consumable stock items or machine spare parts. The transaction issues the stock to a GL account.

SCT/GIT

The SCT (Supply Chain Transfer) and GIT (Goods in Transit) module has been designed to manage interbranch transfers.

SIMPLE GIT

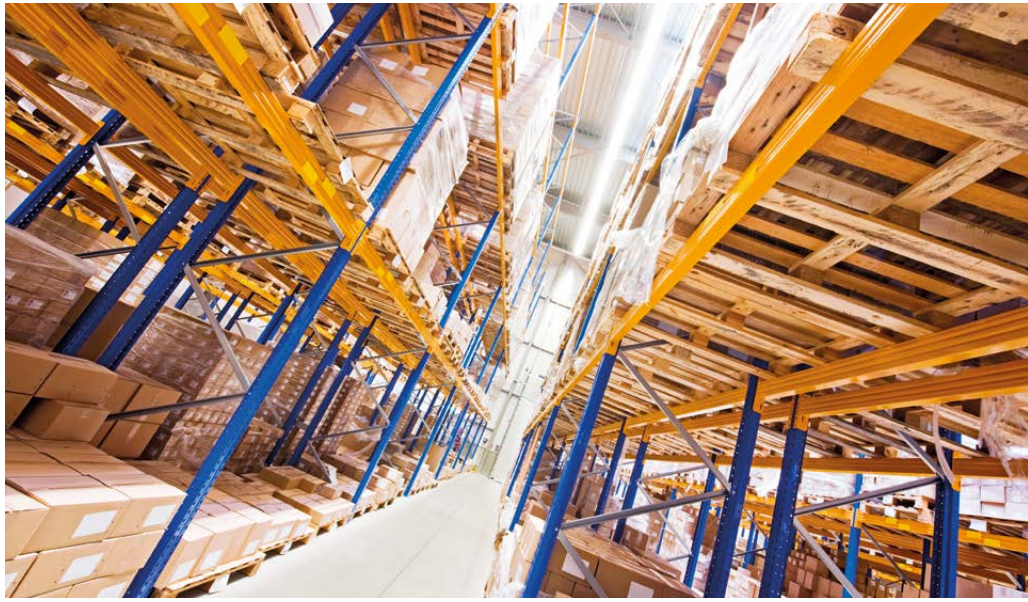
This module is designed to very simply scan full TrackIDs (e.g. Pallets) out of one warehouse and into the other. The software records the affected TrackIDs and moves the stock into In-Transit in SYSPRO. Documentation for the transfer is automatically printed. The TrackIDs are then scanned on arrival at the destination warehouse, and the stock is moved out of SYSPRO In-Transit and into a bin in the receiving warehouse.

SCT/GIT MODULE

This module manages the release and picking of SCT orders from a distribution center and the receipt back into stock at the destination warehouse. The SCT release works in the same manner as any normal sales order. The order is included in the wave releasing process and picking slips are printed in the same fashion as normal sales order picking slips. The picking process and packing and checkout processes follow the setup for the warehouse. At the invoicing step, DATASCOPE WMS simply releases the order into a GIT and prints the GIT documentation.

Releasing of SCT orders for picking.

Many SCT orders are essentially branch fulfillment orders from a central distribution center. These orders are therefore often very large and bulky. Giving the order to a single picker would be problematic so the software allows SCT orders to be released by picking area and or allows the order to me automatically released as multiple picking slips with a max number of lines set on each pick slip. The multiple picking slips are then consolidated at checkout.



Receipt of SCT/GIT

The software supports scanner and PC based receipt. TrackIDs that were picked can be re-activated or new TrackIDs created and a non-merchandise cost captured and applied on receipt.

REPLENISHMENT

DATASCOPE WMS has two main replenishment systems.

SIMPLE REPLENISHMENT SYSTEM

The first is a simple replenishment process that monitors all pick face bin stock levels and compares these to the reorder level set against each bin.

Depending on the replenishment setting selected on the bin the module will:

a.) Replenish to the bin max level based on reorder level
b.) Replenish to the bin min level based on reorder level
c.) Replenish to the bin max level plus SYSPRO sales order

and job demand in the next X days (where X days is a warehouse setting) or picking slip demand (based on reorder level)

d.) Replenish a set replenishment qty (based on reorder level)

e.) Replenish to the reorder level plus SYSPRO sales order demand in the next X days (where X days is a warehouse setting) or picking slip demand

Replenishments generated in this program automatically load a mobile device task to have the stock pulled from the correct source warehouse (as set against the pick face setup). The TrackID to fetch stock from can be selected by the user or forced by the system based on FIFO or smaller quantity TrackIDs.

Certain lines will be flagged as critical automatically if there is not enough stock in the pick face bin to satisfy demand for the pick face (bearing in mind some orders will be split over pick face and bulk). Additionally, lines can be flagged as urgent from the sales order allocation screen if the user is unable to release picking slips to the floor due to pick face shortages. Both urgent and critical lines can be viewed separately by scanner operators on the floor to action immediately.

Users can select specific pick face zones to replenish allowing for easy work load distribution. The stock can be replenished in a single step mode where the user scans the stock from the bulk bin location and directly to the pick face or in a two-stage replenishment mode where a pallet is built up and then moved to the pick face to put away. Several screens are available for the put away process depending on the level of stock control required – carton level replenishment, item by item scanning or quantity entry.

DIRECTED REPLENISHMENT

This replenishment mode allows for advanced requirement calculations and then makes use of the wave release option to generate the replenishments in the format of a picking slip.

Demand Calculations

There is not one magic rule for calculating replenishment orders. Some calculations can be quite simple yet others can be very complex. Some may be a movement to a Pick face bin others may be a replenishment to another bulk location. In some warehouses, the replenishment system is used to generate a consolidate order pick to move stock to the floor for detailed order picking. Due to this the DATASCOPE WMS system allows for custom scripted replenishment calculations to be imbedded into the software. Typically, when using this module, a custom rule would be discussed, written and applied to the site.

Once the replenishment orders have been loaded, the module has a full wave release screen to review the replenishments and then release that as picking slips in logical groupings. For instance, you may review all replenishment orders and then sort them by bulk warehouse bin zones. You could then release a separate picking slip per zone or aisle in a zone. This helps to optimize the picking of replenishment orders.

In another scenario, you may want to release the picking slips by pick face zone. Here you will be less efficient when picking in the bulk area but your replenishment order will be easy to put away into the pick face.

Yet another scenario would be to generate a replenishment by bulk warehouse zone to optimize the bulk picking and then release a second replenishment order from the staging area to the pick face where the pick is grouped by pick face zone.

The release of replenishment picking slips works in the same way as all picking in the DATASCOPE WMS software in that the picking slip is assigned to a picker and all detail is tracked including what was picked from where to where at what time by whom.

REPLENISHMENT MASS CHECK

This module performs a mass check on a replenishment pallet. For many companies, this is not a requirement but in some mass driving operations this is important. One such example is in a food manufacturing operation. Here we may call for a replenishment of a food or chemical ingredient which must be weighed to confirm that mass before it is issued to production.

MASS BASED INVENTORY ADJUSTMENT

This function is like the mass check above but it has been designed to correct any mass variance of lot controlled product going into a pick face warehouse. Here a replenishment may call for 40 pounds of a product to be placed into a pick face. A single bag of the product is picked and delivered to the pick face warehouse entrance. Before simply scanning this into the pick face the bag can be placed on a weigh scale that integrates to this software to process a weight check. The screen then processes any small positive or negative stock adjustment to get the mass correct. Ensuring the mass is correct before moving the stock into a pick face bin helps to ensure that we do not get picking errors later where the picking transacts 2.34 pounds to a job but DATASCOPE WMS only has 2.1 pounds in the bin.

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