

**Oracle® Retail Store Inventory Management**

Store User Guide

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Oracle Retail Store Inventory Management Store User Guide, Release 16.0

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# Preface

This guide describes the Oracle Retail Store Inventory Management store user interface. It provides step-by-step instructions to complete most tasks that can be performed through the user interface.

## Audience

This User Guide is for users and administrators of Oracle Retail Store Inventory Management. This includes merchandisers, buyers, business analysts, and administrative personnel.

## Documentation Accessibility

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## Related Documents

For more information, see the following documents in the Oracle Retail Store Inventory Management Release 16.0 documentation set:

- *Oracle Retail Store Inventory Management Batch Operations Guide*
- *Oracle Retail Store Inventory Management Configuration Guide*
- *Oracle Retail Store Inventory Management Integration Guide*
- *Oracle Retail Store Inventory Management Extension Guide*
- *Oracle Retail Store Inventory Management Installation Guide*
- *Oracle Retail Store Inventory Management MAF Guide*
- *Oracle Retail Store Inventory Management MAF Installation Guide*
- *Oracle Retail Store Inventory Management Release Notes*
- *Oracle Retail Store Inventory Management Security Guide*

- *Oracle Retail Store Inventory Management Wavelink Studio Client Guide*
- *Oracle Retail Store Inventory Management Data Model*
- *Oracle Retail Store Inventory Management Upgrade Guide*

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- Functional and technical description of the problem (include business impact)
- Detailed step-by-step instructions to re-create
- Exact error message received
- Screen shots of each step you take

## Review Patch Documentation

When you install the application for the first time, you install either a base release (for example, 16.0) or a later patch release (for example, 16.0.1). If you are installing the base release and additional patch releases, read the documentation for all releases that have occurred since the base release before you begin installation. Documentation for patch releases can contain critical information related to the base release, as well as information about code changes since the base release.

## Improved Process for Oracle Retail Documentation Corrections

To more quickly address critical corrections to Oracle Retail documentation content, Oracle Retail documentation may be republished whenever a critical correction is needed. For critical corrections, the republication of an Oracle Retail document may at times **not** be attached to a numbered software release; instead, the Oracle Retail document will simply be replaced on the Oracle Technology Network Web site, or, in the case of Data Models, to the applicable My Oracle Support Documentation container where they reside.

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<http://www.oracle.com/technetwork/documentation/oracle-retail-100266.html>

(Data Model documents are not available through Oracle Technology Network. You can obtain these documents through My Oracle Support.)

## Conventions

The following text conventions are used in this document:

<b>Convention</b>	<b>Meaning</b>
<b>boldface</b>	Boldface type indicates graphical user interface elements associated with an action, or terms defined in text or the glossary.
<i>italic</i>	Italic type indicates book titles, emphasis, or placeholder variables for which you supply particular values.
monospace	Monospace type indicates commands within a paragraph, URLs, code in examples, text that appears on the screen, or text that you enter.



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# Introduction

This chapter provides a functional and technical introduction to Oracle Retail Store Inventory Management (SIM).

## Overview

SIM is a mobile and PC-based inventory management application that helps track inventory positions in the store. It increases store efficiency by helping store associates to execute and monitor all store inventory transactions which allow store managers and corporate merchandisers to make better business decisions, reduce out of stock positions and simultaneously decrease total stock on hand and increase customer satisfaction.

SIM improves customer satisfaction by providing accurate and up to date in store inventory positions, reserving inventory for layaway, managing customer orders and allowing for cross store inventory lookup. This increased visibility is even more important in today's environment of order anywhere and fulfill anywhere, since customers expectations are higher than ever. Customers expect that reported inventory levels are accurate. SIM also streamlines inventory processes in a supply chain through its seamless integration with Merchandising, Point Of Service, and Warehouse systems.

SIM helps enforce best of breed in store processes and allows increased efficiency by allowing store personnel to walk the shop floor with mobile devices while performing inventory tasks.

Shrinkage is one of the main concerns retailers have, and SIM can help with this by tracking all inventory related transactions and providing a reporting structure to highlight where shrink is happening.

Serialized inventory can be tracked at every stage where it can be touched by a store employee. An extensive detailed security model can control what employees can do.

## Business Value

This section describes the business values of using SIM.

### Improved Customer Satisfaction

SIM provides an improved customer experience, with accurate, up-to-date inventory positions, customer order execution, and up-to-date accurate stock positions for all stores.

### Real-Time Inventory

Real-time inventory position is a major challenge for every store manager. SIM supports all business processes to ensure the store manager, back-end ordering systems, and customer-facing applications can provide accurate inventory positions. This visibility is delivered through a flexible web service enabled architecture optimized for high-volume querying from order management systems or in-store personal. Real-time inventory has also increased in importance to help with customer order fulfillment and online inventory promise.

### Customer Order Execution

Customer Order Execution is a collection of different business processes dedicated to the accurate fulfillment of customer orders. A single list screen displays all the transactions related to a customer order that require attention. When an order arrives in the store, a sales associate is notified. The sales associate has the option to execute a pick for single or multiple orders where, if allowed, the sales associate has the opportunity to substitute items. As the final step, it is possible to start a packaging process to ship the item or allow for a customer to pick the item up in the store.

### Cross-Store Inventory Lookups

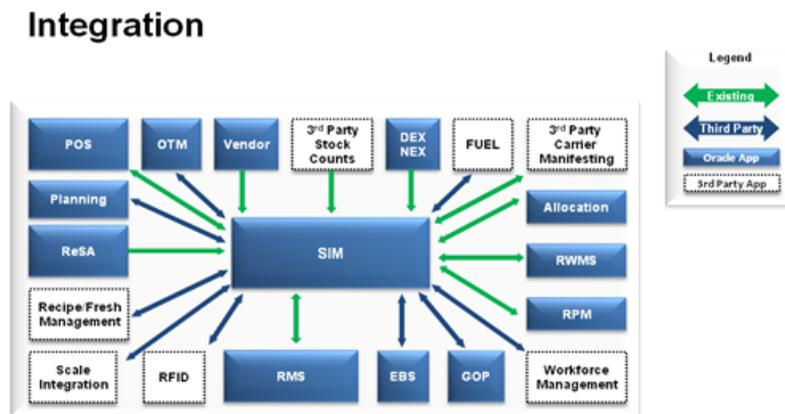
SIM allows for cross-store inventory lookup. In the case of an out of stock position, the user is able to identify stores that are close by and have available item inventory.

The web service architecture and centralized nature of SIM allow for instant up-to-date inventory for all stores. SIM also tracks a variety of different inventory buckets to provide better information to the customer and give a better understanding on what is available for sale versus reserved for other purposes.

### Streamlined Inventory Processes

SIM is a fully integrated solution with warehouses, stores, and corporate offices. SIM Store and wireless mobile processes are considered best in the industry using a near real-time integration infrastructure between warehouses, suppliers, stores, corporate, and other third-party applications.

Figure 1-1 SIM Inventory Processes



This communication model allows for accurate up-to-date information on transfers, warehouse deliveries, direct store deliveries, and sales processing for accurate inventory position. Inventory adjustments made in the store are immediately

communicated to corporate and much more. Additional integration to support the enterprise is provided to a manifest system for printing labels.

All of this information generates better replenishment results since all information at corporate will be up to date.

In addition, SIM is highly configurable with over 200 permissions, and dozens of store and system options. This makes it possible to deploy one instance of SIM across multiple time zones, geographies and different footprint stores reducing the cost to maintain multiple servers and environments. This configurability also allows for specific control of what employees are able to do.

SIM uses some of the best in the industry in store processes, such as the automatic generation of stock counts and automated generation of tickets and labels. It is comprised of store order processes to facilitate demand at the store, sequence inventory, and perform in-store replenishment where inventory is moved from the back room to the shop floor on demand.

By allowing the application mobility, these inventory processes can be executed on the shop floor, while managers can have full availability of features for setup and administration on the PC.

All common inventory transactions, such as receiving, shipping, and counting can be executed on a hand held device.

Additional efficiencies can be obtained through the handheld as well.

SIM supports, for example, item basket generation, which can be used by a sales associate to do line busting. Related items can be looked up when a customer wants a black t-shirt, but does not know if that color is available. Tickets can be printed to wireless portable printers if needed and it is possible to manage a floor plan by updating sequence information.

### **Shrinkage Reduction**

SIM allows for serialized inventory tracking, and manager approved based processes through security settings and continuous system based transactions. This results in a reduction in shrinkage.

Shrinkage often happens when employees feel there is little control exercised on inventory in the store.

Serialization is not just to ensure customer fraud does not happen, but it also reduces theft due to the perception that inventory is being monitored more closely.

In addition, the individual item can be tracked through its life in the store. This provides a perfect understanding of where items are and where they are going.

Individual item instances can be tracked the moment the item arrives at the store, up to the moment it is sold or shipped back to a vendor or warehouse.

SIM supports both serial numbers coming from the manufacturer or generated internally by the retailer. Adjustments made in the store will be immediately communicated to the corporate level.

All of this information generates better replenishment results since all information at corporate will be up to date.

By leveraging an internal security model or Oracle Identity Director (OID) for larger retailers, SIM's features can cater to a wide variety of retailers.

Mid-market retailers or retailers with tight store control can manage security within SIM only, and even allow store managers to create users, while larger retailers or those

with tight corporate control can manage everything to OID or an open LDAP implementation.

Detailed receiving, warehouse deliveries and direct store deliveries allow for retailers to monitor where inventory discrepancies happen with the ability to investigate any issues.

To improve store compliancy, it is possible to schedule standard inventory control transactions like stock counts.

Every inventory change can be tracked down to the user and transaction for the change.

Finally, inventory adjustments require a reason that can be specifically assigned to a single user allowing, for example, a sales associate to only move inventory to an unavailable status, while store managers can write off missing inventory.

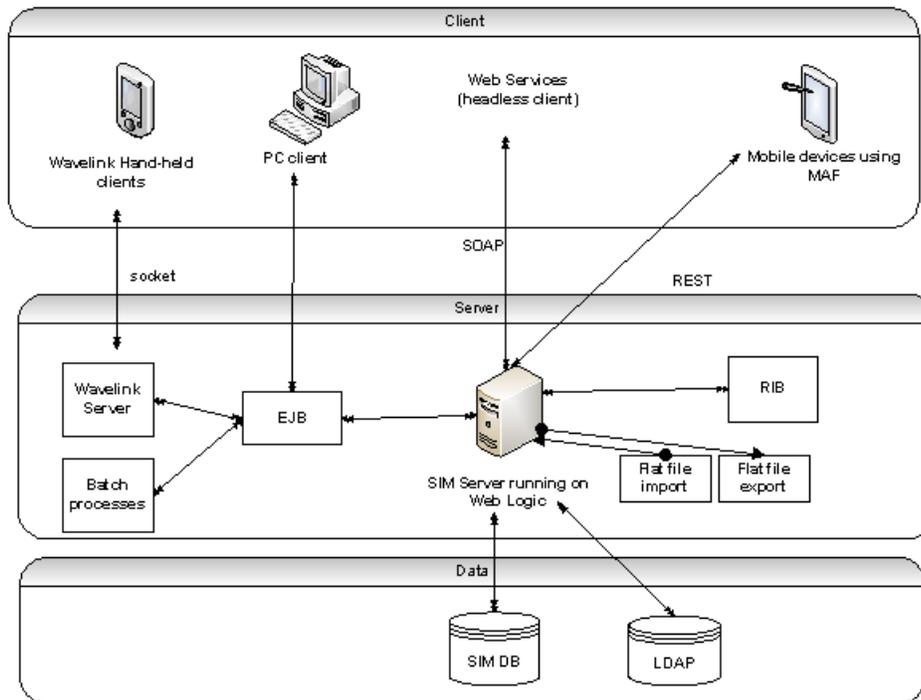
## Technical Architecture Overview

This section describes the overall software architecture for SIM, offering a high-level discussion of the general structure of the system.

### SIM Technology Stack

SIM has an n-tier architecture consisting of a client tier, a server tier, and a data tier.

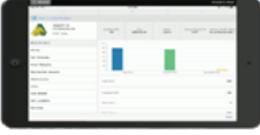
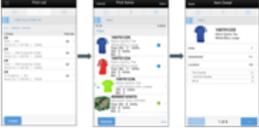
Figure 1-2 SIM Technology Stack



### SIM User Interface

SIM leverages three technologies for its different interfaces.

**Note:** This is only a high level view of functionality available by UI type. Not all detailed features are available on all devices.

	Desktop	Wavelink Handheld	MAF UI - medium	MAF UI - small
				
Technical	Java SWING	Wavelink Studio	Oracle - Mobile Application Framework	Oracle - Mobile Application Framework
Operating systems supported	Windows Desktop Version	Windows Mobile/CE, iOS, Android (Velocity client)	iOS, Android, Windows 10	iOS, Android, Windows 10
Device	PC/Desktop, Tablet	Hardened Mobile devices, Tablet	Tablet	Hardened Mobile devices (MC 40/TC 70/and so on)
Used by	Store manager, Store Ops, Inventory Control	Store associates walking the shop floor	Store/district manager	Store associates walking the shop floor
User Interaction	Mouse, keyboard, Wedge Scanner	Sled scanner, touch	Bluetooth/Wedge scanner, touch	Bluetooth/Wedge scanner, touch, Barcode scanner (MC 40)
Form factor - optimized	Large - Extra large (12"+)	Small (4" to 5")	Medium - Large (7"+)	Small (4" to 6")
Purpose	Admin, transaction approval, transaction management, research	Scanning barcodes, recording transaction information, mobility	Manager dashboard view, mobility	Scanning barcodes, recording transaction information, mobility
Transaction Dashboard			X	
Operational Views			X	
Administration / Setup / Transaction Scheduling	X			
Security Management	X			
Item Lookup	X	X	X	X
Supplier Lookup	X	X	X	
Container lookup	X	X	X (small displayed large)	X
Finisher Lookup	X			

	Desktop	Wavelink Handheld	MAF UI - medium	MAF UI - small
Transaction History	X			
Inventory Adjustments	X	X	X	X
Inventory Adjustment Template Create	X			
Store Ordering	X			
Item Requests	X	X		
Customer Order Mgmt (Orders, picking, shipping)	X	X	X (small displayed large)	X
Customer Order - Reverse Picking	X			
In Store Replenishment	X	X		
Ticketing - Scan print	X	X		
Ticketing - Batch	X			
Pricing	X			
Stock Count	X	X	X (small displayed large)	X
Stock Count - authorization	X			
Transfer shipping	X	X	X (small displayed large)	X
Transfer receiving	X	X	X (small displayed large)	X
Transfer container quick receiving		X	X (small displayed large)	X
Direct Store Delivery	X	X		
RTV	X	X		
Item Basket		X		
Inventory Location update		X		
Sequencing	X	X		

For more technical information on Wavelink Studio, see the *Oracle Retail Store Inventory Wavelink Studio Client Guide*. For more technical information on MAF, see the *Oracle Retail Mobile Application Framework (MAF) Guide*.



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## Admin and Configuration

This chapter covers SIM administration and configuration. The following topics are covered:

- **Overview:** Introduction to administration and configuration for SIM.
- **Product Groups:** Description of product group functionality.
- **Store and System Administration:** Description of administration for the store and system.
- **Technical:** Integration with Oracle Retail Integration Bus (RIB), web services, batch, and the database structure.

### Overview

The administration functions in SIM handles a variety of setup tasks. They include tasks usually performed by a SIM system administrator or a manager.

Features:

- Maintaining store, system parameters, reports, labels, tickets, printers, and reason codes.
- Scheduling inventory events such as stock counts, item requests, and wastage.
- Defining the display string for text on the User Interface (UI) as well as the SIM look and feel.
- Indicating SIM managed stores, buddy stores, and auto-receive stores.
- Managing the integration layer SIM uses with the other Oracle Retail assets.

This chapter focuses on the following:

- Product Group and Product Group Scheduler from a very high level. For specifics on the types of product groups, reference the functional areas pertaining to that type. For example, for more details on Item Requests, see Item Request Product Groups.
- High-level details of Store and System Admin screens. For specific details on functionality of these configurations, see the corresponding functional area. For example, for more details on Delivery Timeslot, see Item Requests.

For information on other topics, see the following:

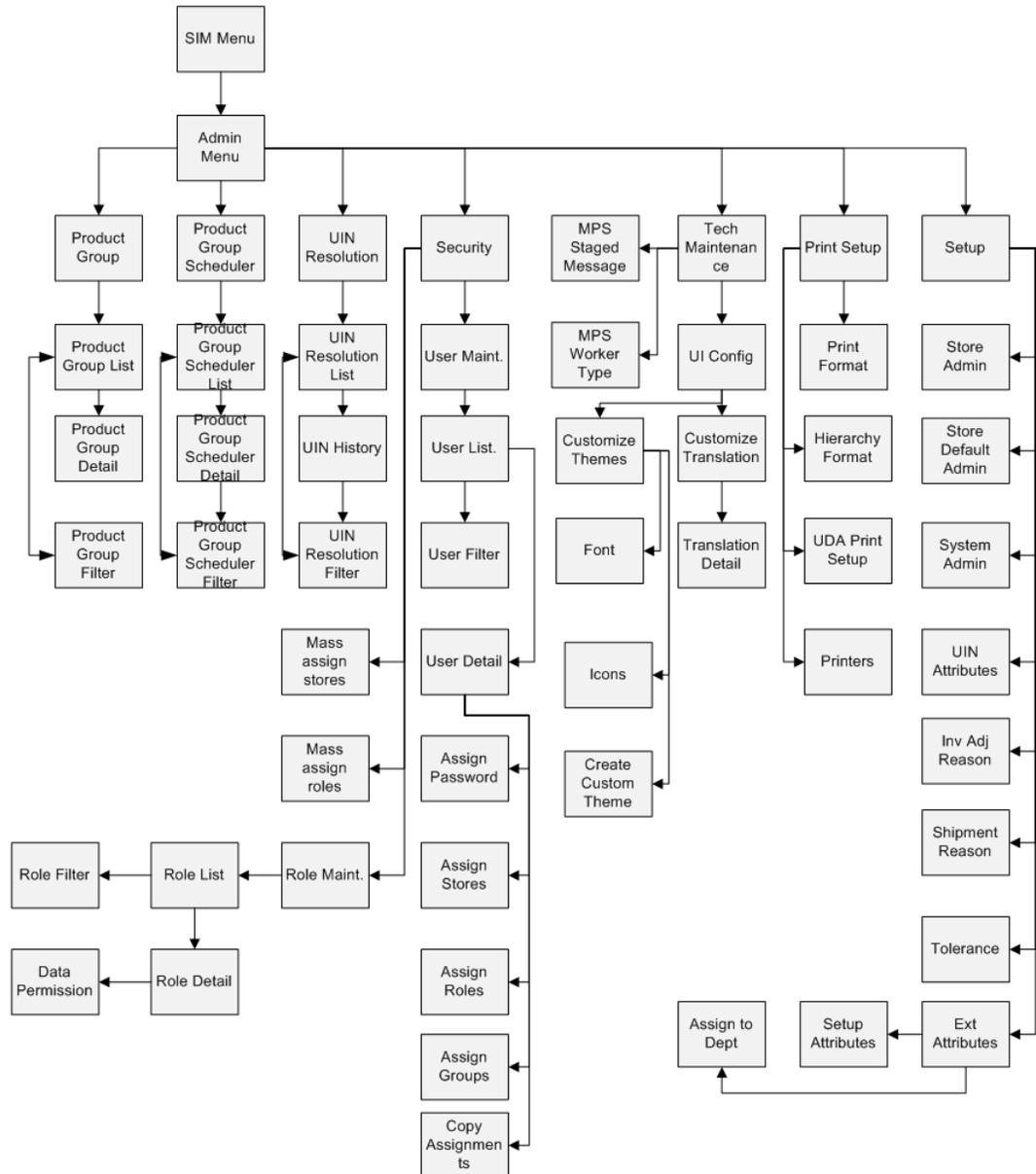
- Printing and setup details for reports, tickets, shelf labels, and printers are covered in the Printing chapter.

- Shipment Reason codes used in RTV Shipping and Transfer Shipping are covered in the Transfer chapter. The Inventory Adjustment Reason codes are covering in the Inventory Adjustment chapter.
- SIM managed stores, buddy store and auto-receive stores is covered in the Transfers chapter.
- Integration is covered in the corresponding functional areas. For example, sending transfer documents, transfer shipments, and transfer receipts is covered in the Transfers chapter.
- The UI configuration is covered in the Common Navigation chapter.
- For details on purge parameters and purge batches, see the *Oracle Retail Store Inventory Management Batch Operations Guide* and *Oracle Retail Store Inventory Management Configuration Guide*.

## Business Case

Upon installation, all stores will have their store admin settings defined based upon the Store Default Admin. The store manager can go in and modify the store admin settings for their store in the store admin dialog. These changes will only apply to the user's store. Newly created stores will come into SIM and have their store admin settings set based upon the Store Default Admin until otherwise changed for that store by the user.

Figure 2-1 Admin PC Screen Flow



## Product Groups

Within the SIM system, product groups are used to group items in order to perform various actions on them. Merchandising system are constantly adding, editing, and removing items to be sold. Creating groups of products based on attributes of an item is an efficient way of automatically including or excluding changed items when repeatable transaction are created. Product groups can be comprised of entire areas of the merchandise hierarchy (for example, an entire subclass) or can be simply a group of individual and unrelated items. A scheduling tool can then be used to extract the items for further processing at set intervals. Product groups are used by various functional areas, such as stock counts, printing new tickets and wastage management. This functionality is only available on the PC.

## Configurations

This section covers security settings.

### Security

Security permissions exist for:

- Accessing, creating, editing, and deleting product groups and product group schedules.
- Accessing store, system, and store default admin.

Data permissions exist for the different types of product groups:

- A user must have the proper permissions for a product group type to proceed with creating, editing, or deleting a product group for a particular type.

## Product Group List

**Figure 2–2 Product Group List Screen**

ID	Description	Type	Store
S01	Auto Ticket Print	Auto Ticket Print	6000 - Oceania Outlet
S02	Item Request	Item Request	6000 - Oceania Outlet
S03	Problem Line	Problem Line	6000 - Oceania Outlet
S04	Shelf Replenishment	Shelf Replenishment	6000 - Oceania Outlet
S05	Unit count	Unit	6000 - Oceania Outlet
S06	Unit and Amount count	Unit and Amount	6000 - Oceania Outlet
S07	Wattage	Wattage	6000 - Oceania Outlet

This is the Product Group List Screen. This screen displays all types of Product groups that are created on the system. Different types of product groups have their respective functionality and can be scheduled from Product group scheduler as required by the user.

## Product Group Filter

Figure 2–3 Product Group Filter Screen

The screenshot shows a dialog box titled "Product Group Filter". It has two main sections: "Hierarchy Filters" and "Additional Filters".

- Hierarchy Filters:**
  - Dept: -All-
  - Class: -All-
  - Sub-Class: -All-
- Additional Filters:**
  - Type: -All-
  - Description: (text input field)
  - Store: 1111 EP1-Rochester (RS) (B&M) MAT
  - Item: (text input field with a search icon)

At the bottom right, there are three buttons: "Apply", "Reset", and "Cancel".

This is the Product Group Filter screen. It is accessed by clicking the Filter button from the Product Group List screen. The user can filter on various search criteria. After applying the filter, the user will be returned to the Product Group List screen with the product groups displayed per the entered criteria.

## Product Group Detail - Product Group Attributes

Figure 2–4 Product Group Detail Screen

The screenshot shows the "Product Group Attributes" tab in the "Store Inventory Management" application. The screen is divided into several sections:

- Product Group Detail:**
  - \*Type: Select
  - Group Description: (text input field)
  - Group ID: (text input field)
  - Diff Type: Select
  - Group UOM: (text input field)
  - Stores: Radio buttons for "1111 - Charlotte\*" (selected) and "All Stores"
- Stock Count Detail:**
  - Variance: Variance SUOM, Variance %, Variance Value
  - Counting Method: \*Counting Method: Select, Hierarchy Break-down: None, Fe-Count Discrepancies, Auto Authorize
  - Item Status: Active, Inactive, Discontinued, Deleted (checkboxes)
  - Stock On Hand: SCH = 0, SCH > 0, SCH < 0 (checkboxes)
- Problem List:**
  - Actual Shelf Regl Amount less than Suggested Shelf Regl Amount
  - Actual Pick Amount less than Suggested Pick Amount
  - Negative Available Inventory
  - UBN Discrepancies
- Item Request Detail:**
  - Days Before Expiration
  - Days Before Delivery
- Wastage Detail:**
  - Shrinkage SUOM
  - Shrinkage %
- Ticketing Detail:**
  - Refresh Ticket Quantity before printing
- Replenishment:**
  - Auto - Replenishment

At the bottom, there is a status bar with "Client Information", "SM User", "1111 - Charlotte\*", "Product Group Detail", "Help", and "Jump".

This figure shows the Product Group Detail Screen, specifically the Product Group Attributes tab. This screen enables or disables the various attributes available on screen on the basis of the type of product group selected.

Product groups can be comprised of entire areas of the merchandise hierarchy (for example, an entire subclass) or can be simply a group of individual and unrelated items. Depending on the product group, the user can set up additional details such as:

- Variances

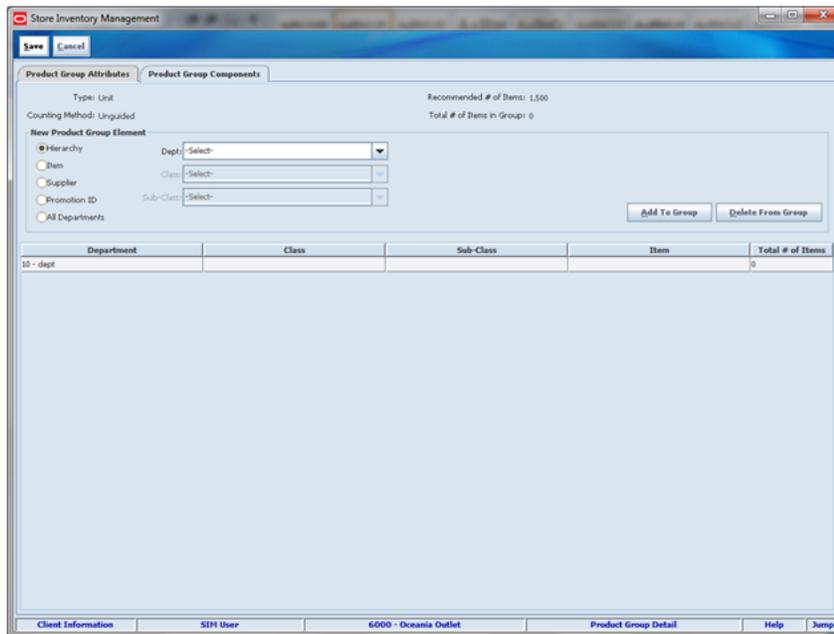
- Counting Method (Guided/Unguided/Third Party)
- Hierarchy Breakdown
- Recounts
- Item Status
- Stock on Hand
- Expiration
- Delivery Dates
- Auto Authorize
- Problem Line Parameters

Product groups can be created for:

- Unit Stock Counts
- Unit and Amount Stock Counts
- Problem Line Stock Counts
- Shelf Replenishment
- Wastage
- Item Requests
- Auto Ticket Print

## Product Group Detail - Product Group Components

**Figure 2-5 Product Group Detail Screen**



This figure shows the Product Group Detail Screen, Product Group Components tab. The components tab allows the user to select the desired products for the group. The user can select items on the screen using various selection criteria (such as Hierarchy).

The user has the possibility of creating a combination of items and/or hierarchies for a group.

The "Recommended # of Items" field will display the maximum number of items allowed for the type of product group selected. This field always displays and is pre-populated based on either the system option associated with the product group or the maximum configuration limit, whichever is lower.

The "Total # of Items in Group" field will display the estimated number of items in the group based on the criteria selected. This estimate includes the number of ranged transaction level items added. It does not take into account other factors such as status, stock on hand, pack breakdown, and so on. When the actual extraction happens, these factors will be taken into account.

## Product Group Schedule List

**Figure 2-6 Product Group Schedule List Screen**

ID	Description	Group	Next Date	Final Date	Status	Store
201	Unit stock count	505 - Unit count	8/7/2014	8/8/2014	Open	6000
202	Auto Ticket Print	501 - Auto Ticket Print	8/7/2014	8/8/2014	Open	6000
203	Item Request	502 - Item Request	8/7/2014	8/8/2014	Open	6000
204	Problem Line	503 - Problem Line	8/7/2014	8/8/2014	Open	6000
205	Unit and Amount	506 - Unit and Amount count	8/8/2014	8/8/2014	Open	6000
206	Wastage	507 - Wastage	8/7/2014	8/8/2014	Open	6000

The Product Group Schedule List screen displays a list of product groups which have been scheduled for a specific time or at regular intervals. All the types of product groups which are scheduled can be viewed, edited, and deleted. There is a filter screen which allows the user to narrow down the search per the requirement of the user.

## Product Group Schedule Filter

**Figure 2–7 Product Group Schedule Filter Screen**

The screenshot shows a dialog box titled "Product Group Schedule Filter". It has a "Date Filter" section with "Next Schedule Date" and "Final Schedule Date" fields, each with a calendar icon. Below is an "Additional Filters" section with a "Type" dropdown menu set to "-All-", a "Description" text field with a search icon, a "Store" dropdown menu set to "1111 - EP1-Rochester (RS) (B&M) MAT", and a "Status" dropdown menu set to "Open". At the bottom right are "Apply", "Reset", and "Cancel" buttons.

The Product Group Schedule Filter screen is accessed by clicking the Filter button from the Product Group Schedule List screen. The user can filter on various search criteria. After applying the filter, the user will be returned to the Product Group Schedule List screen with the schedules displayed per the entered criteria.

## Product Group Schedule Detail

**Figure 2–8 Product Group Schedule Detail Screen**

The screenshot shows the "Product Group Schedule Detail" screen within the "Store Inventory Management" application. At the top left are "Save" and "Cancel" buttons. The main area contains several input fields: "Schedule ID" (281), "Product Type" (Unit), "Product Group" (505 - Unit count), "Description" (Unit stock count), "Start Date" (8/7/2014), and "End Date" (8/8/2014). Below these are two panes for "Locations": "Available Locations" (empty) and "Selected Locations" (6000 - Oceania Outlet). Between the panes are navigation buttons: ">>", ">", "<", and "<<". At the bottom is a "Schedule" section with radio buttons for "Daily", "Weekly", "Monthly", and "Yearly", and a frequency selector set to "Every 1 day(s)". The footer shows "Client Information", "SIH User", "6000 - Oceania Outlet", "Product Group Schedule Detail", "Help", and "Jump".

This screen allows the user to schedule specific types of product groups. The product group could be scheduled for a date range and specific stores. It can be scheduled daily, weekly, monthly, and yearly as applicable. The type of Product groups that can be scheduled are Item Request, Problem line, Unit stock count, Auto Ticket print, Unit, and Amount & Wastage.



store automatically copies the value from the Store Defaults Admin to the Store Admin area.

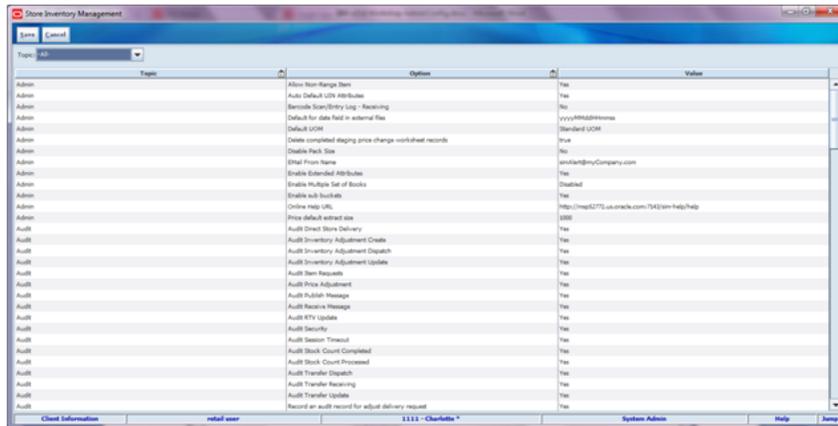
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**Note:** Making changes to this screen does not impact already existing store administration values.

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## System Admin

**Figure 2–11 System Admin Screen**



The System Admin screen functionality allows the user to set values for options that control a variety of system behaviors. The values of these system options apply only to all of the locations. The system options are in the following general categories:

- Functional area specific options (that is, DSD Receiving options)
- Audit options
- Days-to-hold options (purging)
- System usability options
- E-mail options
- Time Zone options
- Miscellaneous options

## User Interface Guidelines

The Product Group setup and scheduling and the System and Store administration dialogs are only available on the PC.

## Technical

This section covers business objects and integration.

## Business Objects

### Product Group and Product Group Schedule

SIM allows creation as well as scheduling of a product group through the Administration/Configuration. A product group consists of the hierarchy level information, if components were added to it using hierarchy, and item level information. The processing of a product group is specific to the functional area for which it is created.

Product Groups can also be scheduled for periodic processing of product group components by the respective functional areas using batch procedures.

Business Object	Description
ProductGroup	Contains detailed information for a product group along with the components in the Product Group, type, and status of the Product Group.
ProductGroupSchedule	Contains scheduling information for a specific Product Group along with the status of the schedule.
Schedule	An abstract class which represents a reoccurring schedule based on various date related criteria.

### Technical Maintenance

SIM allows users to create and maintain custom themes and custom translations. The maintenance of polling timers for different MessageFamily types is handled by MPS Work Types within this Admin category.

### Setup

SIM allows setting up of configuration parameters for store as well as system through this Admin category.

Business Object	Description
Store	Contains detailed information about a store which includes time-zone, country, currency, and transfer zone.
ConfigurationOption	Contains config value object used for retrieving System/Store Configuration information. This is primarily used for System/Store Configuration Maintenance.
ToleranceAdmin	Contains the setup and administration information for an ad-hoc stock count or fulfillment order pick including the variance count and variance percent.

## Integration

### RIB

Admin/Config information is specific to SIM and is not sent over the RIB at any time.

The individual functional areas which use the values set up in Admin/Config may or may not send information depending on their individual integration with RIB.

### Web Services

SIM does not supply any SOAP web service for Admin/Config.

## Batch

The following batch is available:

Batch Name	Description
CloseProdGroupSchedule	<p>This batch program searches for all open product group schedules with an end date before today (or user specified date), and sets the status to "C." The "C" status means the product group schedule is closed.</p> <p>This batch will close schedules for product groups, unit and unit and amount counts, wastage and item requests. The end of the batch job checks if extractions need to be made for schedules and automatically checks to see if the schedule needs to be closed.</p>

## Data Structure

The following database tables are used:

Table Name	Description
PRODUCT_GROUP	Contains detailed information of a product group along with the status and the type of product group.
PRODUCT_GROUP_HIERARCHY	Contains hierarchy information for a product group if hierarchy was used during product group creation.
PRODUCT_GROUP_ITEM	Contains item ID along with the product group ID if individual items were used during product group creation.
PRODUCT_GROUP_SCHEDULE	Contains product group schedule information for a product group along with the frequency of the schedule given by the type column.
PRODUCT_GROUP_SCHEDULE_STORE	Contains information about the last date when a product group schedule for a store was extracted.
PRODUCT_GROUP_ITEM_BKDN	Temporary table holds product group schedule items breakdown details defined by the product group schedule or product group hierarchy. This table is used in product group related event generation.
CONFIG_STORE	Contains store parameters.
CONFIG_STORE_DEFAULT	Contains default store parameters.
CONFIG_SYSTEM	Contains system parameters along with the functional topic to which the parameter belongs.

---

**Note:** For information on tables related to Security, InventoryAdjustmentReason table, and ShipmentReason table, see the functional area specific Technical section.

---

This chapter covers security features. The following topics are covered:

- [Overview](#): Introduction to security features.
- [Role Maintenance](#): Description of screens for maintaining roles.
- [User Maintenance](#): Description of screens for maintaining users.
- [Technical](#): Information on user/role security.

## Overview

SIM provides role-based user access control in order to manage application functionality and data available to users. This role-based user access control allows security to be managed in a way that corresponds closely to the organization's structure.

Security is handled by assigning privileges (permissions) to a role in SIM. These roles are assigned to users and can be different roles for different stores (in LDAP or SIM). If the user does not have permission, the feature will not be available for user.

SIM secures buttons, drop-down values, and menu options on the PC, handheld, and MAF. Additionally, permissions are validated on the Server side.

To allow flexibility on how security is implemented, three modes of deployment exist:

- **External Authentication/Authorization**

An external system controls security (LDAP). Users and role/store assignments are administered in LDAP. Authentication is performed in LDAP. Note that Oracle LDAP (for example, OID) is the only supported LDAP. This is the default and recommended model of deployment.
- **Internal Authentication/Authorization**

SIM controls all aspects of security. Users, roles, user/role/store/group assignments are all administered in SIM. Authentication is performed in SIM.
- **External/Internal Authentication/Authorization**

A hybrid approach is used for authentication. Users may be stored in either external LDAP or the internal database. Users that are created in LDAP behave the same way as the external authentication mode, but can be assigned additional roles in the internal database through the SIM management screens. After successful authentication, the external user is granted the permissions associated with roles assigned in both the LDAP and database. Users that are created in the database behave the same way as the internal authentication mode.

Deployment Mode	Controlled by?	What is controlled?
External Authentication/ Authorization <b>Default</b>	LDAP	<ul style="list-style-type: none"> <li>■ User</li> <li>■ Group</li> <li>■ Role</li> <li>■ Store</li> <li>■ Password</li> <li>■ Login</li> </ul>
Internal Authentication/ Authorization	SIM	<ul style="list-style-type: none"> <li>■ User</li> <li>■ Group</li> <li>■ Role</li> <li>■ Store</li> <li>■ Password</li> <li>■ Login</li> </ul>
External/Internal Authentication/ Authorization	LDAP + SIM	LDAP: <ul style="list-style-type: none"> <li>■ User</li> <li>■ Group</li> <li>■ Role</li> <li>■ Store</li> <li>■ Password</li> <li>■ Login</li> </ul> SIM: Additional roles

## Business Case

SIM's security model allows for very flexible UI authorization allowing to control user create, edit, and approval as a very granular level. It also is built in a flexible way to allow assignment autonomy to store users without compromising corporate security.

### Use Case 1

Everyone in the store can create inventory adjustments, but if inventory has to be removed from stock, it requires special authorization by a store manager. Data security allows users to get permission to use specific inventory adjustment reason codes. Two different roles can be created, one role has data permissions that only allow inventory to move from available to unavailable and from unavailable back into available. The second role has those reason codes that allow the user to move inventory from unavailable to be removed from stock. The associates in the store all get the first role assigned, while the first and second roles are assigned to the store manager.

This allows associates to move inventory into a bucket of unavailable and complete the inventory adjustment. The manager then can review the items in the unavailable bucket and move them to out of stock.

### Use Case 2

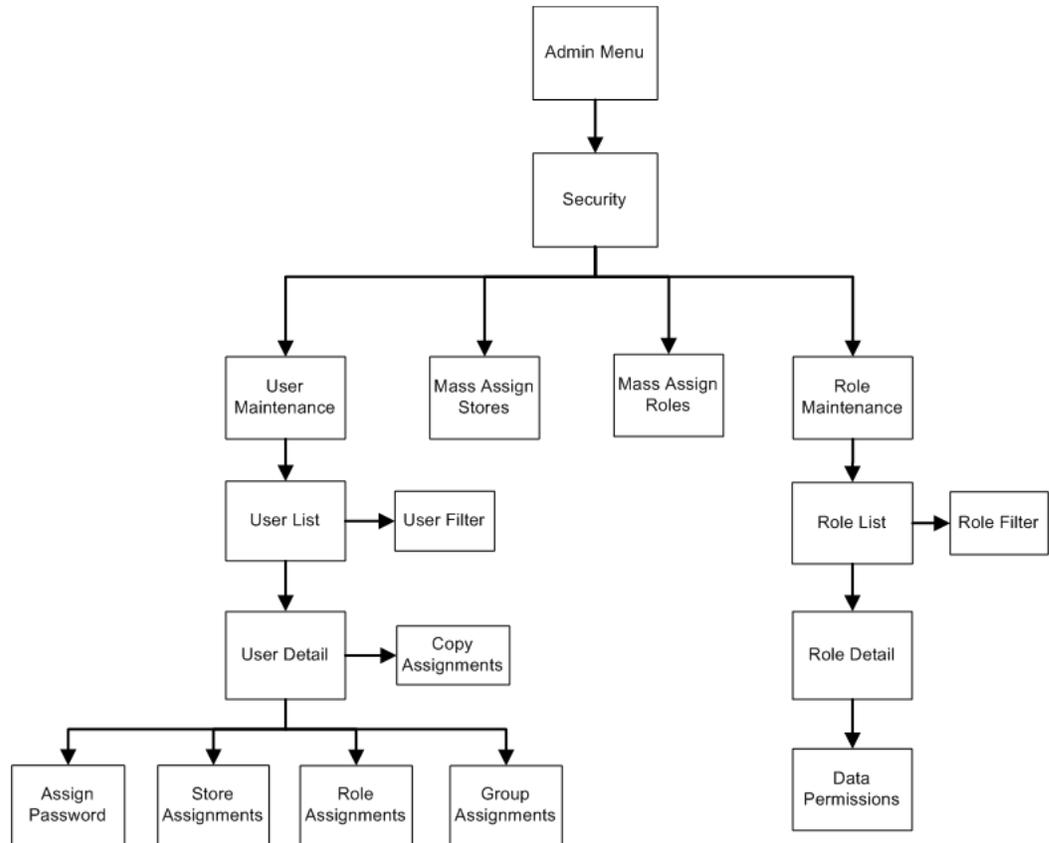
A retailer requires store managers to approve all store shipment dispatches. However, they do not want to manage the day to day vacation and schedules of their managers. Since dispatching still needs to happen, the store managers are put in charge to give this privilege to other users when they are out.

This process is supported by creating a store level role that has a required expiration date. The store managers have limited security privileges for their store only as well as the dispatch store role.

When they go on vacation or schedules are conflicting, they can assign the store role to a user for their store. In this process they also have to put in an expiration date for when they will be back.

The ability to define if a role is corporate or store level allows the implementation of this very flexible process.

**Figure 3–1 Security PC Screen Flow**



## Configurations

This section covers system parameters, notifications, and security.

### System Parameters

#### Default Days for Temporary Role End Date

- Values: 0 - 999
- Default: 5
- Topic: Security
- Editable: Yes
- For roles defined as temporary, this parameter defaults the end date to the role.

- If the value is zero, the temporary role can have any end date.

**Maximum Days for Temporary Users End Date**

- Values: 0 - 999
- Default: 5
- Topic: Security
- Editable: Yes
- For roles defined as temporary, this parameter limits the time before deactivating a temporary user.
- If the value is zero, the temporary user account can have any end date.

**User Security Mode**

- Values: External Authentication/Authorization, Internal Authentication/Authorization, External/Internal Authentication and Internal Authorization, External/Internal Authentication/Authorization
- Default: Internal Authentication/Authorization
- Topic: Security
- Editable: No
- Defines which type of authentication is used.

**Notifications**

If an email address is provided for the user at the time the new user is created or during an edit of the user (password assignment selected), the new one time password is sent in email to the user. A check is performed to ensure the system is set up to allow emails to newly created users. With hardening of security, the user email notification option not part of the SIM PC UI, but can be accessed by an Administrator through the database or a tool such as JConsole.

**Security**

Security permissions exist for:

- Accessing, creating, editing, and deleting roles and users
- Assigning individual store and mass assigning store and roles to users

Data permissions exist around role types and user types:

- A user must have proper permissions to create users as a Corporate or Store User.
- A user must have proper permissions to create, edit, or look up super users, temporary users, or store users.

## Role Maintenance

This section describes the available screens for maintaining roles.

## Role List

**Figure 3–2 Role List Screen**

Role Name	Description	Role Type
ADMINISTRATOR	Administrator	Corporate
Ewan's Role	Ewan's Role ONLY	Store
FA's Role	FA's Role ONLY	Store
OSI Security Test ONLY	Use for OSI security test ONLY	Store
INSTALLATION	Installation	Corporate
ISC FA	ISC FA	Store
Juan ONLY Role	Juan Testing Role	Store
MANAGER	Manager	Store
Nilton's Role	Nilton's Role ONLY	Store
Rhonda's Role	Rhonda's Role ONLY	Store
Sue's Role	Sue's Role ONLY	Store

The Role List screen displays a list of roles already defined in the system. It is accessed within the Security dialog by clicking the Role Maintenance button from the Security menu. The filter for this screen allows the user to filter by role name, description, role type, topic or permission.

Roles contain permissions which indicate what the functions a user has access to and can execute. As an example of functions consider creating an inventory adjustment or the dispatching of a return.

Roles may be created, edited or deleted from this screen. However, a role may not be deleted if there are users currently assigned the role.

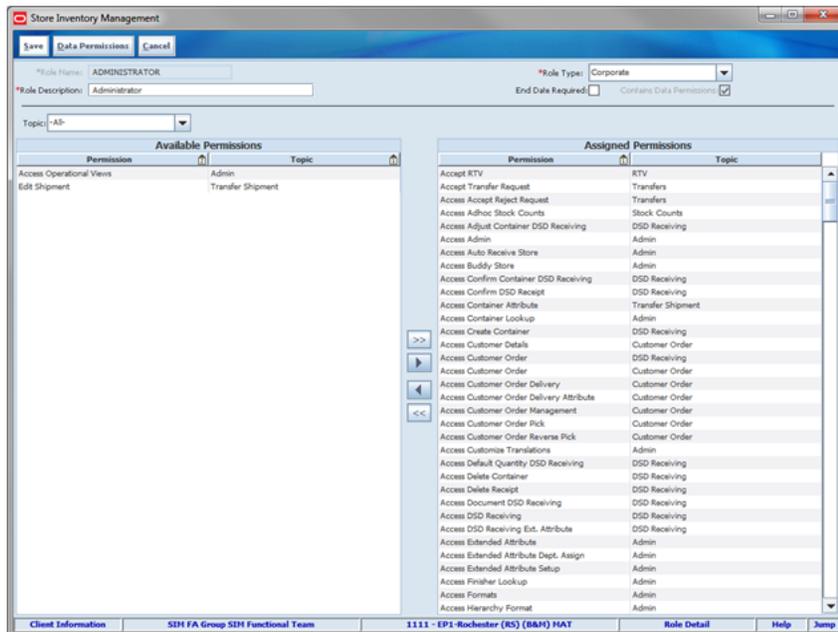
## Role Filter

**Figure 3–3 Role Filter Screen**

The Role List Filter screen is accessed by clicking the Filter button from the Role List screen. The user can filter on various search criteria. After applying the filter, the user will be returned to the Role List screen with the roles displayed per the entered criteria.

## Role Detail

**Figure 3–4 Role Detail Screen**



The Role Detail screen displays the assigned permissions for a specific role. It is accessed within the Security dialog by clicking a role from the Role List Screen.

The user with permissions to define roles will be able to assign or remove permission for new or existing roles. Many times, roles will be created based on the type of employee - District Manager, Store Manager, Sales Associate, Stocker, and so on. Roles may also be broken out by duties performed, such as Shipping, Receiving, Inventory Management, and so on.

When a role is created, the Role Type must be specified. There are two role types:

- **Corporate:** this type of role will typically perform tasks for the entire enterprise such as assigning roles to users, setting up corporate wide system/store options, creating templates, and so on.
- **Store:** this type of role will typically perform tasks for one or more stores such as receiving, inventory management, and so on.

A demo set of Corporate and Store roles is loaded during install and will have default values provided.

If the "End Date Required" is checked, when the role is assigned to a user, the system will require an end date be specified when granting the role to a user.

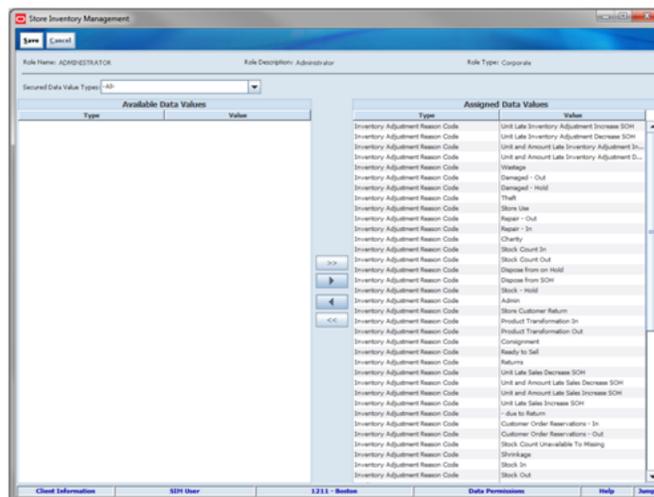
Permissions are used for all device types.

For a full list of permissions and email alerts, see the *Oracle Retail Store Inventory Management Configuration Guide*.

Specific Data Permissions may also be added to a role and can be accessed by clicking the data permissions button.

## Data Permissions

**Figure 3–5 Data Permissions Screen**



The Data Permissions screen displays the assigned data permissions for a specific role. It is accessed within the Security dialog by clicking the data permissions button from the Role Detail screen.

Secured Data Value Types contain a list of all data types where security can be applied. This provides a way to limit the data values displayed to a user in a drop-down list. For example: A Store User may only have access to use the RTV Reason Code: Damage which will apply to items returned in a store. However, other Corporate Users may need access to additional reason codes for returning other items which are not sold in the store, such as Overstock.

The following various secured data value types are available:

- Container Items Limited To
- Counting Method
- Display a List of Diff Types
- Inventory Adjustment Reason Code
- Item Request Delivery Timeslot
- Item Ticket Batch Reason
- Location Type
- Product Group Type
- Role Type
- RTV Reason Code
- RTV Shipment Reason Code
- Security Group
- Shelf Adjustment Type
- Shelf Replenishment Type
- Ticket Print Reason

- Transfer Shipment Reason Code
- User Type

For details on the secured data value types, see the various functional areas.

Role Type data permissions, are used to control which roles a user is allowed to assign based on their permissions. A user with permission to assign store roles is not allowed to assign corporate roles without additional permissions.

User Type data permissions, are used to control which user type a user is allowed to manage based on their permissions. A user with the Temporary user permission may create and manage temporary users but is not allowed to manage a Super User or Store User without additional permissions.

Security Group permissions are assigned to a user role. For additional information around security groups, see "[Group Assignments.](#)"

## User Maintenance

This section describes the available screens for maintaining roles.

### User List

**Figure 3–6 User List Screen**

Username	Name	Create Date	Status
Rhonda	Rhonda Salmi	5/2/2014	Active
RhondaUser	RhondaUser Salmi	7/31/2014	Active
Sim_User	SIM User	7/17/2014	Active

The User List screen displays a list of users already defined in the system for the store the Security Administrator is logged into. The filter can be used to reduce the list displayed by selecting any combination of the following: Username, First Name, Last Name, Role, Type, Status, Group, Create Date, Start Date, Store, Default Store, or Comments.

A new user can be created from this screen by clicking the Create button. If the Security Administrator clicks a user, the User Detail screen opens with the selected user information displayed on the screen. The user can be edited by selecting the user to go into the User Detail screen. Finally, the Security Administrator can select one or

more users to delete from the system. If the users are set up externally, they will not be eligible for deletion.

## User Filter

**Figure 3–7 User Filter Screen**

The User Filter screen is accessed by clicking the Filter button from the User List screen. The user can filter on various search criteria. After applying the filter, the user will be returned to the User List screen with the users displayed per the entered criteria.

## User Detail

**Figure 3–8 User Detail Screen**

The User Detail screen allows the Security Administrator to create new users, edit existing users, assign passwords, assign stores, assign groups, and assign roles to the selected user. It is accessed within the Security dialog by clicking a user from the User List Screen or pressing the Create button.

It is possible to edit any user type by the Security Administrator as long as it was originally created in SIM. The Copy Assignments button is only available when a user is setting up a new user. It allows the user to copy over the assignments from one user to another.

The Assign Groups button is used to assign security groups to a user. The security administrator creating or updating the user will only be able to add the groups to the user in which they have data permissions associated to their role. For more details, see "[Data Permissions](#)" and the *Oracle Retail Store Inventory Management Security Guide*.

The User Type of Super User will have access to all locations within SIM. Super Users are often set up to manage security (roles, user and role/store assignments) and setup only, but typically have no access to transactions. New stores will automatically be assigned to the super user, but roles are not auto assigned. This allows the super user to still log in to the store and assign roles to users, but not necessarily execute any transactions.

The User Type of Store User will have access to one or more stores assigned to them. If the Store User is assigned to more than one store, they will need to select the store if they want to work in any other store than their default store.

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**Note:** There are a few areas in which they may be able to work with any store they are assigned to regardless of the store they are logged into.

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The User Type of Temporary User will have limited access for a set period of time. The maximum number of days for a temporary user to be active are set up in System Administration. This feature can be used to support a temporary influx of employees during special events where employees are hired at a very quick pace by the store manager and do not need to roll onto other corporate systems.

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**Note:** The assignment of the language (locale) is not tied with the user, but rather with the store the user is logged into. The language displayed on the screen will default based on the locale of the store the user is logged into. If the store is locale=French, the user language is displayed in French; if they switch to a Dutch store, the language is displayed in Dutch.

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## Assign Password

**Figure 3–9 Assign Password Popup**

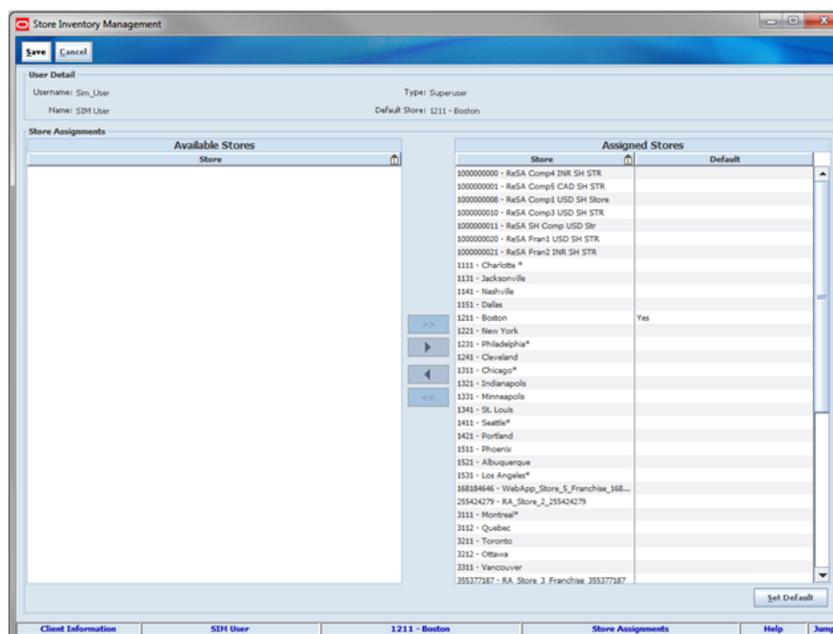


The Assign Password popup allows a user to set up an initial password for a specific user. It is accessed within the Security dialog by clicking the Assign Password button from the User Detail Screen.

The Security Administrator will be allowed to enter an initial password for the user or to have the system generate a password. SIM can be configured to include specific min/max password length and special characters. This is set up on the Password Configuration screen.

## Store Assignments

**Figure 3–10 Store Assignments Screen**

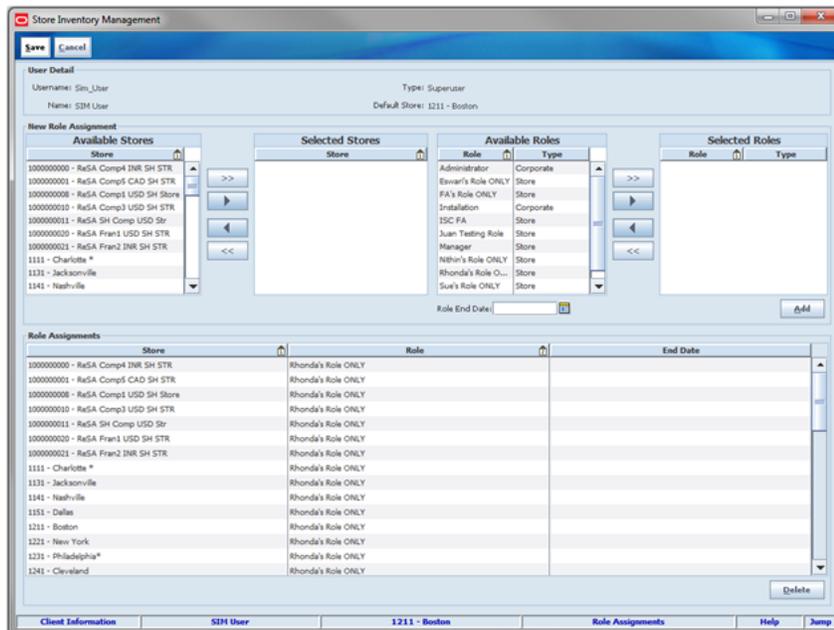


The Store Assignments screen allows a user to assign the stores to which a user will have access. It is accessed within the Security dialog by clicking the Assign Stores button from the User Detail screen.

A Super User is always required to have all stores assigned with a default store. It is not possible to remove any stores for a Super User from the Assigned Stores list.

## Role Assignments

**Figure 3–11 Role Assignments Screen**



The Role Assignments screen allows a Security Administrator to assign roles to a user. It is accessed within the Security dialog by clicking the Assign Roles button from the User Detail screen.

A role may be granted to a user for a specific time period. If the role assigned was set up with an attribute requiring the end date, the system will place an asterisk in each of the corresponding End Date fields in the table. This will visibly alert the user to enter in a date for each of the roles.

The store list will be reduced to only those stores the user has access to and the role list will only display those role types (corporate or store) where the user has data permissions.

## User Lookup

**Figure 3–12 User Lookup Popup**

The User Lookup popup allows a user to copy the store, role, and group assignments from a user already set up. It is accessed within the Security dialog by clicking the Copy Assignments button from the User Detail screen.

If the store, role, and group assignments are copied, additional changes can still be made for the new user being set up. Roles can be assigned by a user only if they possess that role as well.

## Group Assignments

**Figure 3–13 Group Assignments Screen**

The Group Assignments screen allows a user to assign permission groups to a user already set up. It is accessed within the Security dialog by clicking the Assign Groups button from the User Detail screen.

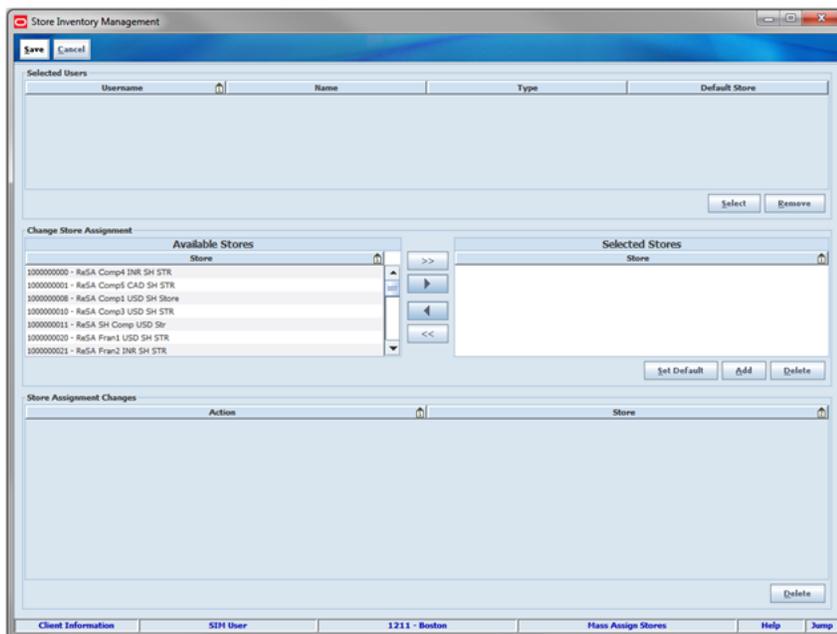
The groups available to assign to the user are available based upon the data permissions assigned to the role of the person creating the group.

Security functions are broken out into the following groups:

- Administrator User (sim\_admin\_users - Group for administrator operation users.)
- Batch User (sim\_batch\_users - Group for batch operation users)
- Integration User (sim\_integration\_users - Group for integration operation users)
- MPS Ops User (sim\_mps\_users - Group for MPS operation users)
- Security Ops User (sim\_security\_users - Group for security operation users.)
- Server Ops User (sim\_server\_users - Group for server operation users.)

## Mass Assign Stores

**Figure 3–14** Mass Assign Stores Screen

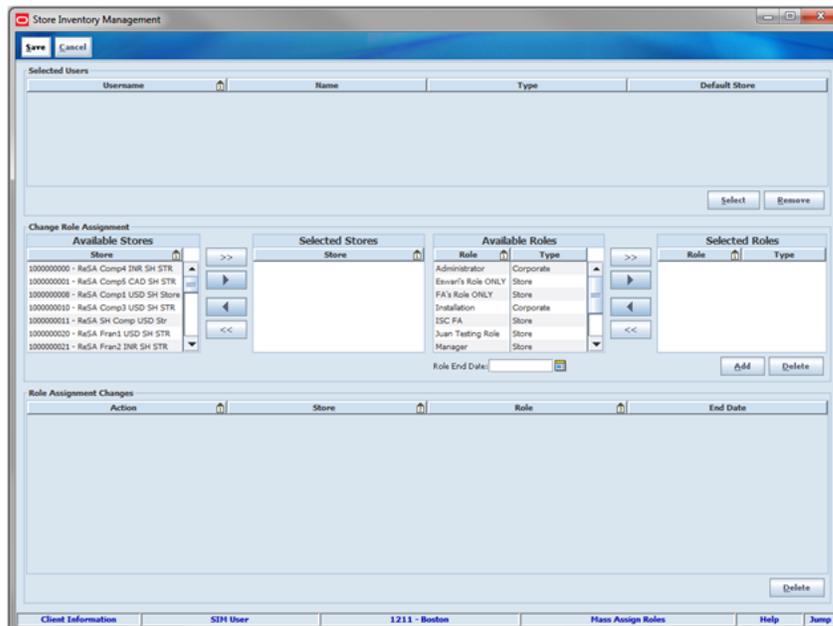


The Mass Assign Stores screen allows a user to assign stores to a selected group of users. It is accessed within the Security dialog by clicking the mass assign stores button from the Security Menu.

A Super User will always have all stores assigned. It is not possible to remove any stores for a Super User.

## Mass Assign Roles

Figure 3–15 Mass Assign Roles Screen



The Mass Assign Roles screen which allows a user to assign one or more roles to a selected group of users. It is accessed within the Security dialog by clicking the mass assign roles button from the Security Menu.

If a role selected requires an end date, the system will require an end date to be entered for the role/users selected.

## User Interface Guidelines

The Security dialog only exists on the PC.

## Technical

Authentication refers to verification of who the user is, typically through the user ID and password. Authorization refers to what that user is authorized to do as well, as it refers to role-based authorization. Users are assigned to roles and roles have permissions. Permissions allow users to perform actions through menus and buttons.

Oracle Internet Directory (OID) is the only supported LDAP with SIM. Oracle recommends "External Authentication / Authorization" as the mode to use. It is the default installation mode.

To change the security model to use internal security, use a preferred MBean browser. Under SystemConfig MBean, change SECURITY\_AUTHENTICATION\_METHOD value to 0.

For information on how to use a MBean browser, see the *Oracle Retail Store Inventory Management Configuration Guide*.

Once the security method is changed to internal security, the authentication provider needs to be changed to SIM Database Authentication provider. For details, see the

"SIM Database Authentication Provider set up" section in the *Oracle Retail Store Inventory Management Installation Guide*.

For internal security, use the installation user created during application installation to set up SIM configuration and user/role management:

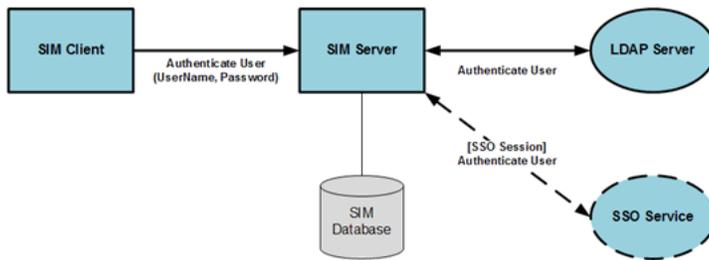
- The default algorithm used to store passwords in SIM is Secure Hashing Algorithm (SHA).
- This can be configured in the server.cfg file to be any algorithm recognized by the Java encryption API.

When creating roles, job functions, and corporate hierarchies must be considered and taken into account.

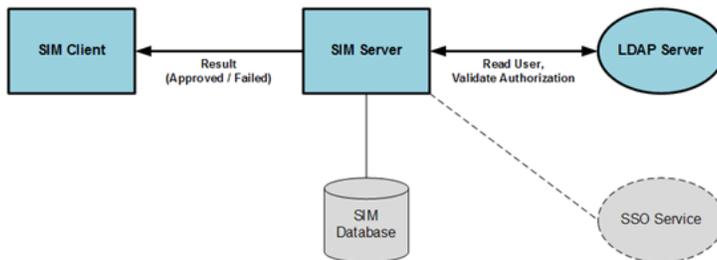
## Login Sequence

1. Authenticate the user:

a. Authenticate the user name and password for SSO or Non-SSO login.

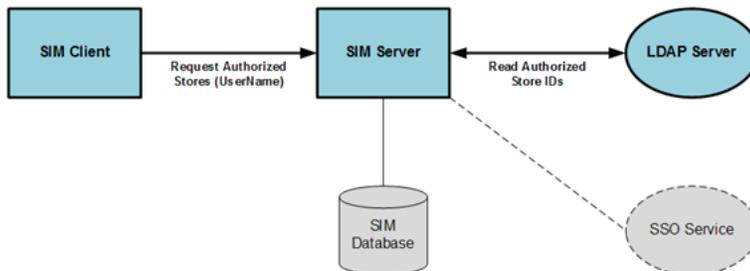


b. Validate the user login. If the user login is successful, the SIM application is opens.

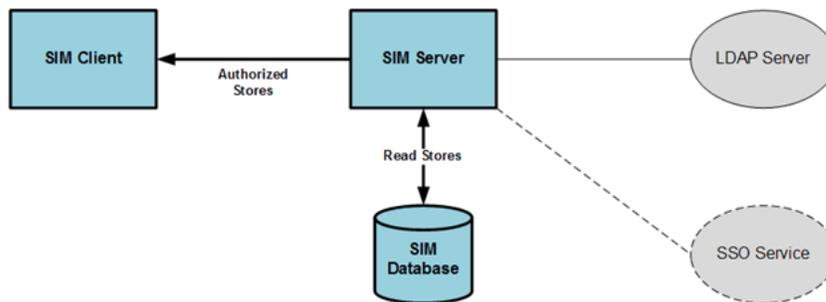


2. Request the authorized stores:

a. Read the authorized stores for the user.

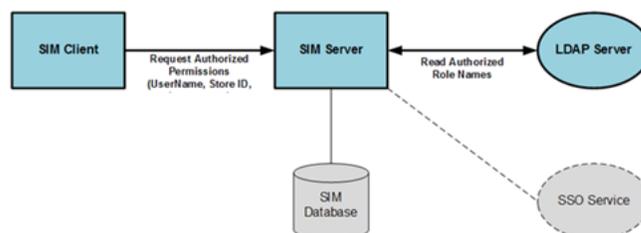


b. Set the list of authorized stores for the user.

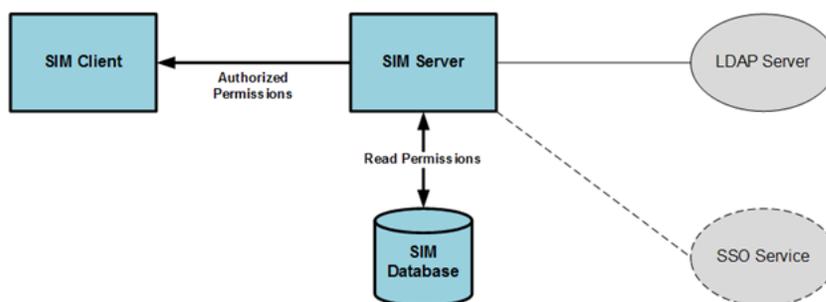


3. Request the authorized permissions:

- a. Request the authorized permissions for the user-store-role.



- b. Read the permissions for the user-store-role from the SIM database.



## Roles and Role Maintenance

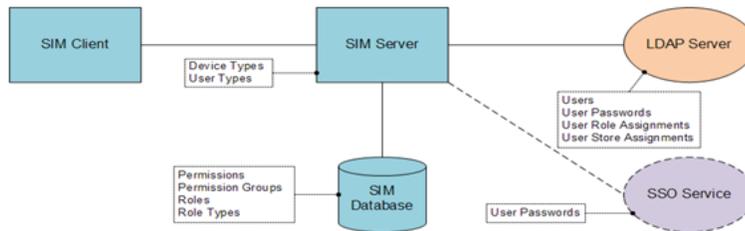
Roles are a collection of permissions which can be assigned to a user. They act as job-functions with specific authority-levels.

Roles can be created and maintained using Role Maintenance:

- Each role has a role type and a set of permissions associated with it.
- Role types are used to control which roles a user is allowed to assign based on their permissions. By default, the role types that exist in SIM application are Store and Corporate. A user with permission to assign store roles is not allowed to assign corporate roles without additional permissions.
- Role assignments can include start and/or end dates.
- Roles are created and edited in SIM using the security administration screens, and are stored in the SECURITY\_ROLE, SECURITY\_ROLE\_PERMISSION tables. When using external security, the role header information is also stored in LDAP as a simRole, although only the roleName is used by SIM and the role information is retrieved from the SIM database. Roles can contain any combination of available permissions and can overlap with other roles.

- Roles are associated with a role type, which is defined in the SECURITY\_ROLE\_TYPE table. The default role types include Store and Corporate. Role types are used to control which roles a user is allowed to assign based on their permissions. A user with permission to assign store roles is not allowed to assign corporate roles without additional permissions.
- The Role Detail screen also allows the assignment of data permissions, which control access to specific types of data. For example, data permissions can be used to control access to specific inventory adjustment reason codes, item request timeslots, role types, or product group types.
- In case external/internal authentication/authorization is used, LDAP will only need to store those roles assigned to users that are controlled by LDAP.

**Figure 3–16 Role Maintenance**



## Users and User Maintenance

User maintenance is used for creation and maintenance of all SIM user records. SIM users are assigned one or more roles which have permissions associated with them. This role-based security model controls which user can perform specific tasks or have access to specific data based on the permissions associated with the role/roles assigned to the user:

- A user is associated with a status that controls the account access of the user. Only an Active user is allowed to access the application.
- A user can have a start and/or end date to control the account access.
- Users also require store assignments in addition to roles.
- Each user is associated with a user type. The valid user types are:
  - Store user: Can have access to more than one store.
  - Temporary user: Must have an end date.
  - Super user: Has access to all the stores, but requires role assignments to gain access to functionality.

### SIM User Group Assignments

Users are granted access to secure interfaces by assigning groups to the user in the SIM UI.

All SIM users require the authenticated group assignment in order to access SIM (default group name: sim\_secure\_users). The following table lists the SIM user group assignments.

Group	User for?
SIMSecureUsers	Provided by internal authentication / must be set up when using LDAP authentication
Admin	Accessing configuration management functionality
Security Ops	Accessing user and security management functionality
MPS	Accessing MPS (staging table) admin functionality
Batch	For triggering batch clients
Integration	Accessing external integration end points (for example, RIB, POS, third-party manifest)
Server Ops	Internal server operations

This list represents application groups.

**SIMSecureUsers:** This is required for all users who need to access SIM. This is automatically provided for users authenticated with internal database security. For LDAP users, this needs to be set up. This is mandatory. Note that anyone using SIM, needs to have this application group.

The following three groups can be assigned as needed to users:

- Admin: Required for administrator operation, such as configuration management.
- Security: Required for security management operation, such as user and role management.
- MPS: Required for MPS management operation, such as staged messages and work type screens (intended for use by system administrator).

The following three groups are not meant to be used for store-users:

- Integration: Required for accessing integration end points. RIB is a default integration user.
- Batch: Required for batch job operation (batch client).
- Server: Used for internal server operation, not used by remote or external clients.

Additional special purpose groups should be assigned to users as needed for accessing special interfaces such as administrator operations or security management operations. Oracle Software Security Assurance (OSSA) Sensitive information, such as user credentials, must be encrypted and stored in a secure location, known as credential stores. These credential stores are secure software containers that store the encrypted user credentials.

SIM has implemented using credential store alias names in the following areas:

- LDAP connection credentials
- RIB service credentials (publish and subscribe)
- BIP service credentials
- Web service consumer credentials (OMS, manifest)
- WebLogic user credentials (batch, server, wireless users)

SIM uses external secure credential stores for the SIM client to look up SIM remote services:

- SIM stores the database password in a secure credential store for the database standalone program which invokes sqlplus or sqlldr.
- SIM stores the application remote login password in a secure credential store for Java application programs.

SIM also modifies programs to use security alias names for accessing database or remote applications:

- The data seeding (import) program passes the user and password when invoking the sqlplus and sql loader (sqlldr) inside the program.
- Any other data import utility or adhoc batch program uses SIM standard Java wrapper to call the stored procedure; if using Java wrapper is not applicable, and if connecting to the database through a database client utility such as sqlplus or sqlldr, then the secure pass store is used and tnsalias for database connection credential stored in the wallet must be used.

For more information, see the "Appendix: Setting Up Password Stores with Oracle Wallet" in the *Oracle Retail Store Inventory Management Installation Guide*.

SIM is intended to work with any Lightweight Directory Access Protocol (LDAP) product. Out of the box, SIM ships sample .ldif files that can be used to create data in an LDAP system. Oracle expects customers to use these files as examples to create their own data load files and hook into their own pre-existing corporate LDAP authentication system.

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**Note:** A simUser can have more than one simStore by simply repeating the userStores line, but should only have one defaultStore. A simUserRole can also have more than one simStore by repeating the userRoleStores line.

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## Business Objects

Business objects are used throughout the application code for all business processing.

Business Object	Description
Permission	Contains information about a specific permission in SIM. It is mostly used when managing roles as it contains additional information used for assignment to roles, such as description, device type, and permission group. Permissions with no device type apply to all devices. Permissions are primarily identified by their name instead of their database ID.
PermissionGroup	Object that contains information about a defined grouping of permissions in SIM. Permission groups are used to categorize and filter permissions for filtering and display purposes. It is mostly used for security management operations.
PermissionSet	Object that contains a various set of permissions. This class represents a set of permissions and any associated parameters. It is used to hold the set of permissions that have been assigned to a role. Permission sets are also used to hold the union of permissions for multiple roles that a user has been authorized to access. This class includes methods to test for the presence and absence of permissions in the set.

<b>Business Object</b>	<b>Description</b>
Role	Object containing information about a role. This class represents the header information for a role. It contains the role name, description, role type, and whether an end date is required for assignment to a user. It is mostly used for security management operations. Roles are primarily identified by their name instead of their database ID.
RoleType	Object containing information about a type of role. Role types are used for filtering and display purposes but are also used with data permissions to restrict access to functionality for certain types of roles. It is mostly used for security management operations.
Group	Object container information about a group. Groups are used for restricting access to application interfaces such as remote services. Services with special purposes or restricted operation require additional group assignment for access to be authorized.
User	Object containing user information. User objects are used to hold both internal and external user data. Users are primarily identified by their username instead of their database ID.
UserPassword	Object containing information about a user's password. It contains information for an individual password record such as date and status. It is used for both current passwords and password history. User password objects are used to hold internal password records.
PasswordConfiguration	Object containing information about a password configuration.
UserRole	Object containing information about a role assigned to a user. It includes information such as start/end date, store ID, and other state information. User role objects are used to hold both internal and external assignments. A role assignment with no specified store ID applies to all available stores.
UserStore	Object containing information about a user's assignment to a store. Store assignments do not exist for super users as they have implicit access to all stores. User store objects are used to hold both internal and external assignments.
UserGroup	Object container information about a group assignment for a user.

## Data Structure

The following database tables are used by SIM:

<b>Table Name</b>	<b>Description</b>
SECURITY_USER_ROLE	This table contains role assignments for users. This table includes cached data in fail-over mode.
SECURITY_USER_STORE	This table contains store assignments for users. This table includes cached data in fail-over mode.
SECURITY_PERMISSION	This table contains permissions that can be associated to roles.
SECURITY_PERMISSION_GROUP	This table contains permission groups that are used to categorize permissions.

<b>Table Name</b>	<b>Description</b>
SECURITY_ROLE	This table contains role information.
SECURITY_ROLE_PERMISSION	This table contains the relationship between roles and permissions, and includes permission parameters where appropriate.
SECURITY_ROLE_TYPE	This table contains the role types that are used to define roles.
SECURITY_USER	This table contains user information for access control purposes. This table includes cached data in fail-over mode.
SECURITY_USER_PASSWORD	This table contains user passwords, including the current password and password history. This table includes cached data in fail-over mode.

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## Common Usability and Navigation

This chapter covers the common usability features and navigation in SIM. The following topics are covered:

- [SIM PC](#): Usability and navigation on the PC.
- [SIM Handheld \(Wavelink Studio\)](#): Usability and navigation on the handheld.
- [SIM MAF \(UI\)](#): Usability and navigation on the MAF user interface.

### SIM PC

The PC user interface is designed to keep common functions simple and use standard features throughout the application. This section describes how to navigate and how to use the UI.

Features:

- Sign In/Out
- Change Logged In Store
- Change Password
- Customize UI Theme
- Online Help
- Quick Jump
- View Preferences
- Scan an Item
- Print and View Reports

### Configurations

Admin settings are set up and maintained on the PC application through the system and store admin screens. Not all functions described in this document may be available. Whether a function is available may depend on the security permissions or the system and store options used.

## SIM Login

**Figure 4–1 PC Login Window**



The way you start SIM depends on how SIM is set up at the location. For instructions, contact a system administrator. After you start SIM, the SIM Login window opens.

## SIM Main Menu

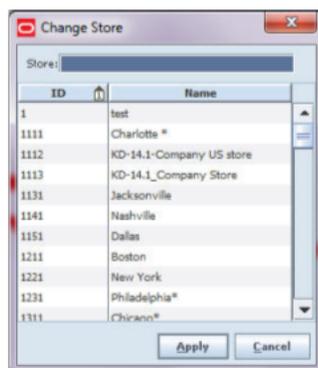
**Figure 4–2 PC Main Menu**



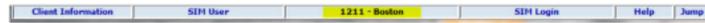
Once you successfully log into SIM, the Main menu displays the options you have permissions for. The Logout option allows you to log out of the application or log in as a different user.

## Change Store

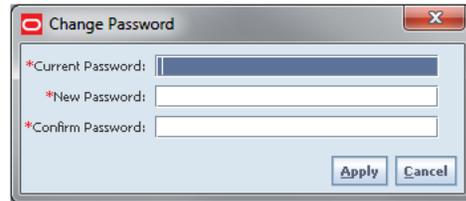
**Figure 4–3 PC Change Store Screen**



If your SIM role allows you to work with more than one SIM store, the main menu includes the Change Store button. The current SIM store is displayed in the status display area.

**Figure 4–4 PC Status Display Area**

## Change Password

**Figure 4–5 PC Change Password Screen**

You can change your SIM password at any time. The main menu includes the Change Password button. If you are a new SIM user, you may be required to change your password the first time that you log in to SIM. You should also change your password before it expires. If your password has expired, you will need the help of a system administrator to help you change your password and obtain access to SIM.

Depending on how SIM security is configured, the Change Password function may not be available.

SIM passwords are case-sensitive. Depending on how user security is configured, there may be rules for minimum and maximum length. A valid password may also need to contain specific characters, such as a capital letter or a special character (for example, # or &).

## Standard UI Features and Navigation

This section describes some of the standard features and controls of the SIM interface. There is a standard set of controls, such as buttons and lists, to select, enter, and edit data in any functional area of the SIM interface.

### Status Display

**Figure 4–6 PC Status Bar**

The status bar at the bottom of every window provides status information, access to online help, and access to detailed user information. There are six boxes on the status bar that contain important information.

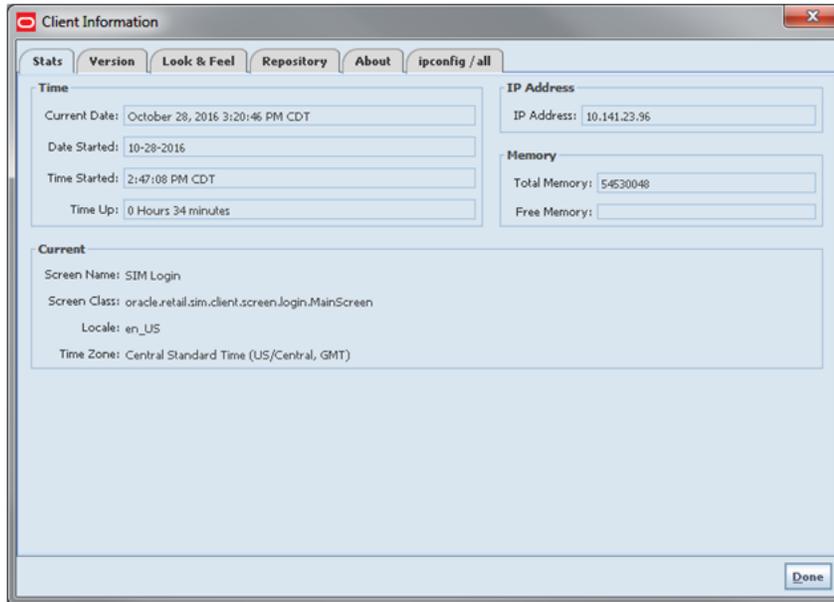
The Client Information box allows you to see client information and details. Additionally, you can change the look and feel of the SIM application. When you click this box, the Client Information screen displays.

The second box displays the identity of the user currently logged in. The third box shows the location number and location name the user is currently working in. The fourth box provides the name of the screen.

When you click the Help box, the online help feature is accessed. Finally, the Jump box allows you to use the quick jump feature; this feature can take you directly to another functional area without navigating.

## Client Information

**Figure 4–7 PC Client Information Screen**

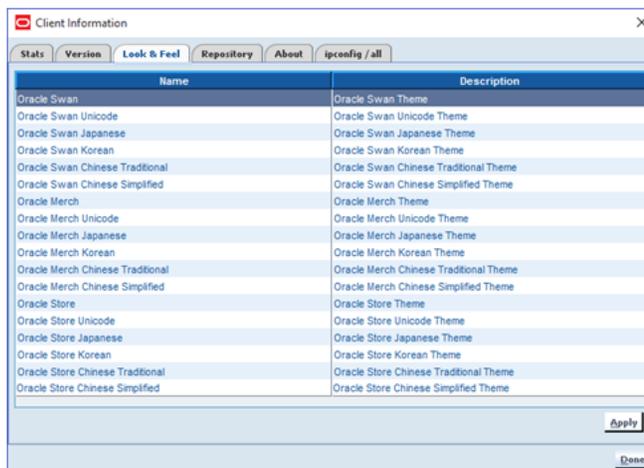


The Client Information window displays many details about the configuration of the PC currently being used. The Client Information tabs allow you to change the theme (look and feel). It displays details about the software version, user PC, and network connections. This information can be useful when it is necessary to check the current configuration or solve operating problems that may be related to the PC.

The Client Information link is available on many SIM windows, including menus, lists, and detail windows. You can access client information from any of these windows.

## Theme

**Figure 4–8 PC Client Information Screen Look & Feel Tab**



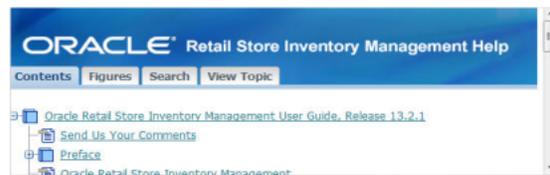
Through the Client Information window, the display theme can be changed to customize the appearance of the SIM interface.

In addition to the standard SIM theme, you can have customized themes that use your company logo, different colors, different fonts, and different icons. Through the Client Information window, you can select a theme from those available for your use from the Look & Feel tab.

## Online Help

The SIM online help contains all of the same information as the user guide. Online help is opened from any window where the HELP panel is displayed in the SIM status display bar (lower right of the window) or from the HELP button on the main menu.

**Figure 4–9 PC Online Help Window**



## Help Tabs

SIM online help is displayed in the same format as the help for many other Oracle software products. The Contents tab opens first.

The SIM online help has the following tabs:

- Contents
  - Use the Contents tab to locate and open a topic in the table of contents.
- Index
  - Use the Index tab to select any listed figure to open the help topic that contains that figure.
- View Topic
  - The View Topic tab is open when viewing a help topic.

If you want to print the topic that is currently displayed, click Printable Page.

If you want to locate the current topic in the table of contents, click Locate in Contents.

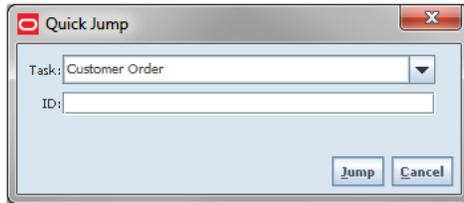
## Help Navigation

You can page through the online help topics in the same order that they are presented in the user guide. In the View Topic tab, click the Next and Previous links to browse through the help topics.



## Quick Jump

**Figure 4–10 PC Quick Jump Screen**



The SIM user interface provides a jump feature that allows you to switch quickly to another functional area, without navigating through a series of menus. The SIM status bar includes a JUMP panel in the lower right corner of the window.

Select a task for the transaction and the system will navigate to that functional area dialog for the selected task. If you enter an ID, which is optional, the system will navigate to the details of that transaction:

- When navigating to item lookup, you will return to the transaction from which you originated.
- When navigating to another transaction or functional dialog, you will leave the original functional area, will stay in the new functional area, and return to the Main Menu upon leaving the new transaction.

### Transaction Identification

If the specific identifying number is known, that information can be entered in the ID field.

If you entered an ID value, you jump to the transaction or detail window for that ID. If you did not enter an ID value, you jump to the list or lookup window for the selected functional area, where you can select the specific record you want.

For example, if you select Item Lookup and enter an item ID, you jump to the Item Detail window for that item. If you select Item without entering an ID, you jump to the Item Lookup window, where you can search for the item you want.

When you exit an item lookup, you return to the task you were doing before the jump.

For other jumps, when you exit the functional area to which you jumped, you return to the SIM main menu. The following are ID values available for quick jump.

<b>Task</b>	<b>Optional ID</b>
Customer Order Pick	Pick ID
Transaction History	NA
Customer Order	Customer Order ID
DSD Receiving	Delivery ID
Inventory Adjustment	Adjustment Number
Item Lookup	Item ID
Product Group	Product Group ID
Purchase Order	Purchase Order Number
RTV	RTV ID

<b>Task</b>	<b>Optional ID</b>
RTV Shipment	RTV Shipment ID
Stock Count	Stock Count ID
Transfer	Transfer ID
Transfer Receiving	Delivery ID or ASN
Transfer Shipment	Shipment ID or ASN

## Dropdown Lists

**Figure 4–11** *PC Dropdown List*



Some fields can accept values only from a predefined list of options. For example, a Product Type field might allow only a limited number of valid product types. A field that requires a value contained in a list has a down arrow button at the right side of the field.

If you type a value into a field with a drop-down list, SIM automatically positions to the first item in the drop-down list that begins with the characters you enter. For example, if you enter "stock" in a field with a drop-down list, SIM automatically positions to the first list item that begins with "stock."

Selections in drop-down lists are sorted in alphanumeric order, character-by-character. The sort sequence follows this pattern:

0  
1  
...  
10  
11  
...  
2  
...  
A  
...

## Selecting Values

For some fields, you can select more than one value from a list of values.

### Select a Sequence of Values

To select a sequence of adjoining items from a list:

1. Select the first item in the sequence to highlight it.
2. Hold down the Shift key, scroll to the last item you want to include, and select it. All sequential items are selected.

### Select Multiple Nonsequential Values

To select items randomly from a list:

1. Select the first item in the sequence to highlight it.
2. Hold down the Ctrl key and select each item in the drop-down list that you want to include.
3. When you have selected all the items you want, click OK.

### SIM Buttons

The following are buttons that appear in SIM windows and have special meanings and uses. These buttons are used in many different windows.

#### Calendar Button

Click the Calendar button  to open a Calendar window in which you can select a date value.



The calendar allows you to view a monthly calendar and select a date. For a date field, the Calendar button is displayed to the right of the field. When you select a date from the calendar, SIM enters the date for you in the correct format.

#### Ellipsis Button

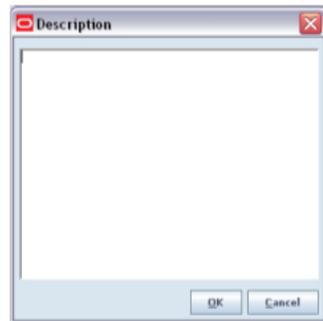
Click the Ellipsis button  to open another window that displays additional information or provides additional functions. For example, an Ellipsis button may give you the option to look up an item or supplier while you are performing another task.

#### Text Editing Button

Click the Text Editing button  to open a text editing window. This button is available for fields that allow longer text values, such as description fields.



For some fields that allow longer text values, such as a comment or description, it is sometimes difficult to see all the text you are entering. For some fields, a Text Editing button with a balloon graphic is displayed next to the field, as in the following example.




---

**Note:** If you enter a carriage return in the text editing field and click OK, the description or comments field becomes disabled. The text editing window retains the carriage return (for example, in an address). If you remove the carriage return and click OK, the description or comments field becomes editable again.

---

### Navigation and Shortcut Keys

Instead of clicking with the mouse, you can use SIM navigation and shortcut keystrokes on the keyboard. These keystrokes are similar to those you find in other PC applications. They are options that you can use to save time and motion as you work in the SIM user interface. In particular, the field navigation keys make it easier to enter and update data.

#### Field Navigation Keys

To navigate through fields in SIM windows, you can use the following shortcut keys:

Function	Key
Next field	Tab
Previous field	Shift+Tab

#### Button Shortcut Keys

Button shortcut keys are keys or key combinations that you can press, instead of clicking the mouse on window buttons. There are two kinds of shortcut keys in SIM:

- Alt+ key combinations
- The function keys F1, F2, and so on

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**Note:** Alt+ key combinations depend on the language you are using with SIM. These key combinations do not work if your keyboard has no Roman characters. The standard function keys F1, F2, and so on are supported for all languages as button shortcuts.

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#### Alt+Key Combinations

An Alt+ shortcut key option is indicated by an underlined letter on a button.



## Function Keys

You can use the function keys F1, F2, and so on, as shortcut keys for screen buttons. For each screen button, SIM assigns the function keys in order to the buttons from left to right. F1 is a shortcut key for the first button, F2 for the second button, and so on.

## View Preferences

For each PC on which SIM is installed, you can set some preferences for how the SIM interface works. This section describes how to customize your own installation of the SIM client interface through these available options.

### Set Table View Preferences

Many SIM windows contain sorted tables. The tables are lists of items, containers, suppliers, transfers, or other information that applies to the task you are performing. The Transfer Receiving List screen is an example of a SIM table.

**Figure 4–12 PC Table View Preferences Example**

ID	ASN	Source Type	Source	Expected Date	Received Date	Status	Containers	Missing	Total SKUs	Customer Order
1822	1042	Store	1000 New EIT Stor...	5-10-2016		In Progress	4		3	
1821	4345	Store	1312 Anchu Franc...	8-5-2016		New	1		1	
1841	4425	Store	1312 Anchu Franc...	8-11-2016		New	1		1	
2321	5468	Store	1312 Anchu Franc...	9-22-2016	9-26-2016	In Progress	1	✓	3	
2363	5569	Store	1312 Anchu Franc...	9-26-2016		In Progress	1		3	
2421	5707	Store	1312 Anchu Franc...	9-28-2016		New	1	✓	1	
2461	5750	Store	1312 Anchu Franc...	9-30-2016		New	1	✓	2	
2561	1908	Store	1312 Anchu Franc...	10-13-2016		New	1		2	
2744	6069	Store	1312 Anchu Franc...	10-25-2016		New	1	✓	1	
2745	6070	Store	1312 Anchu Franc...	10-25-2016		New	1	✓	1	
1852	AS13	Warehouse	30 MIDWEST PWH1	9-1-2016		In Progress	2	✓	3	
1042	AS2	Warehouse	30 MIDWEST PWH1	9-1-2016		New	1	✓	1	
1043	AS4	Warehouse	30 MIDWEST PWH1	9-1-2016		New	1	✓	1	
1044	AS5	Warehouse	30 MIDWEST PWH1	9-1-2016		New	1	✓	1	
2661	ASN_5091	Finisher	38 EXT Finisher	10-20-2016		New	1		2	
2702	ASN_5094	Warehouse	30 MIDWEST PWH1	10-21-2016		New	1		2	
882	asn3006	Warehouse	20 PWH-20	6-8-2016		In Progress	1	✓	3	

If you want a different view of a table, you can set options to control how that table is displayed to you. You can change the display of tables as follows:

- Set Text Size (Size Content)
- Set Gridline Display
- View or Change Text Size and Gridlines Settings
- Control Which Columns Are Displayed
- Sort a Table by One Column
- Sort a Table by Multiple Columns

View options can be changed at anytime. The view options are saved on the PC where they are set, so they do not need to be set again. To set view options, right-click anywhere in the table. A popup menu is displayed.

## Size Content

Source	Expected Date	Received Date
1000 New EIT Stor...	5-10-2016	
1312 Archu...		
1312 Archu...		
1312 Archu...		16
1312 Archu Franc...	9-26-2016	
1312 Archu Franc...	9-28-2016	
1312 Archu Franc...	9-30-2016	

To shrink or enlarge the text, select the desired text size from the popup menu.

## Show Gridline

Source	Expected Date	Received Date
1000 New EIT		
1312 Archu Fr		
1312 Archu Fr		
1312 Archu Fr		
1312 Archu Franc...	9-26-2016	
1312 Archu Franc...	9-28-2016	

Table rows are shaded so that they are easier to read. You can also choose whether the table has vertical lines, horizontal lines, both, or neither. To set which gridlines to display, select from the popup menu.

## PC Table Configuration Popup

Column	Visible	Sort
ID	✓	
ASN	✓	
Source Type	✓	
Source	✓	
Expected Date	✓	
Received Date	✓	
Status	✓	
Containers	✓	
Missing	✓	
Total SKUs	✓	
Customer Order	✓	

SIM tables are designed to display the information that is helpful to the user. If certain table columns are not used, you can turn off the display of those columns from the Columns tab. Additionally, the order in which columns appear in the table can be changed from the Sort tab. Also, the text size and gridlines are changed from the General tab in addition to the popup menu.

The following changes can be made:

- Control Which Columns Are Displayed
- Sort a Table by One Column
- Sort a Table by Multiple Columns

- Change the Order of the Columns

### Sort a Table by One Column

A table is sorted according to the values of a column by clicking the column heading for that column. Click the column heading again to sort in descending order.

### Sort a Table by Multiple Columns

You can also sort a table using more than one column (sort key). For example, you may prefer that a table is sorted by Class, then by Sub-Class, and then by Item.

To specify the columns used to sort the rows (records) in a table, select the Columns tab from the Table Configuration screen. The Sort button is used to identify the columns to sort by. Additionally, the Move Up and Move Down buttons are used to arrange the order of the sort. Descending is used to sort in a reverse order. For example, if you want to sort by Class, then Sub-Class (within Class), and then by Item (within Sub-Class), the sort keys must be listed in that order.

## Item Scanning

Scanning an item exists on the PC in addition to other scanning methods. This feature allows a wedge scanner to be set up on a PC.

## Advanced Item Entry

**Figure 4–13 PC Advanced Item Entry**

The screenshot shows a window titled "Advanced Item Entry" with a standard Windows-style title bar (minimize, maximize, close buttons). The window contains the following elements:

- Input fields for "Item:", "Description:", "Quantity:", "Price:", and "UIN:".
- A table with two columns: "Attribute" and "Value".
- A checkbox labeled "Auto Apply Items:" at the bottom left.
- An "Apply" button at the bottom right.

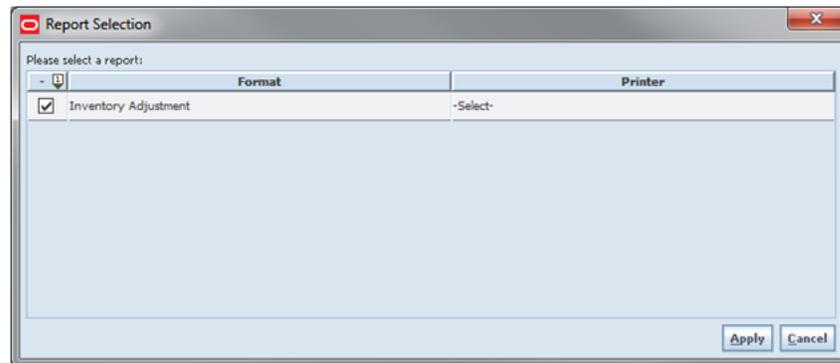
The Advance Item Entry will accept entry or scanning items and barcodes in the item entry field accepts, such as item number, GS1 databar, UPC, Type 2. Once an item or barcode is entered, the system retrieves the item information and the item and description will display.

The Scanner button is used in various functional areas to access the Advance Item Entry screen. The Advanced Item Entry window fields may vary, depending upon the function being accessed and the items being scanned. The scanner may automatically open on the screen, if configured as such.

## Print and View Reports

SIM reports and other output can be customized to use many different output devices and formats. When you request a report, or output such as labels or tags, the output depends on how SIM is configured at your site.

**Figure 4–14 PC Report Selection Popup**



The Print button is used in various functional areas to access the Report Selection popup. The reports listed will vary depending upon the functional area you are currently in.

When accessing this popup, the first column displays the name of the report. If more than one is listed, select the check box for the report you want.

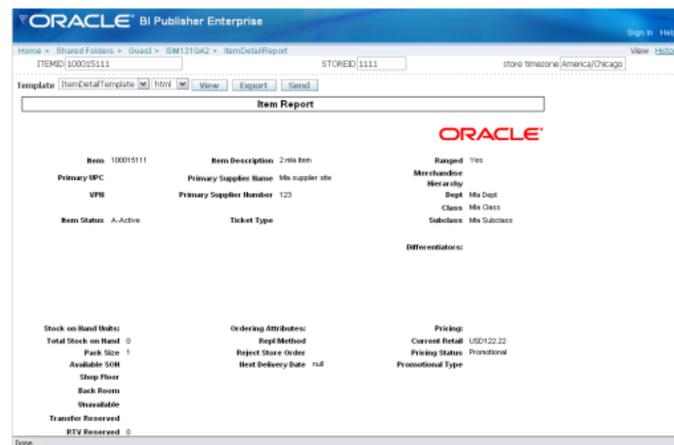
In the Printer column, select the name of the printer (or other output device) that you want to use.

Click OK. The output is processed, and you receive a confirmation message.

Some of your reports may be produced in Oracle BI Publisher. In this case, the report is displayed in your web browser.

## Item Report

**Figure 4–15 Item Report Example**



For information about using Oracle BI Publisher, see the *Oracle Business Intelligence Publisher User's Guide*.

For information about reports for SIM system implementers and administrators, see the *Oracle Retail Store Inventory Management Configuration Guide*.

## SIM Handheld (Wavelink Studio)

This section describes the method by which you log in, and log out and navigate. It also describes the common User Interface (UI) controls that are used throughout the Handheld (Wavelink Studio).

Features:

- Multiple Consecutive Users
- Select a Menu Option
- Scan an Item
- Scan a UIN Item
- Shortcut Keys
- Error Messages
- Print Reports and Labels

## Configurations

Admin settings are set up and maintained on the PC application through the system and store admin screens. Not all functions described in this document may be available. Whether a function is available may depend on the security permissions or the system and store options used.

## Multiple Users in SIM

SIM contains activity-locking functionality. This allows one user to update a transaction at a time. Depending on the functional area, if another user is processing a transaction that you want to initiate, you may receive a prompt to take over the transaction. If you take over the transaction, the original user receives a message when they try to save the transaction that they no longer have the lock. This occurs to ensure that only the user who currently owns the lock on the transaction can update the transaction.

Only two dialogs support multi-user processing:

- Stock Counts can be configured to allow multiple users to scan for the same transaction on the handheld. The PC and the handheld are mutually exclusive, so the PC can lock out multiple users in this dialog.
- Quick Receiving allows multiple users to scan containers for the same Advanced Shipment Notice (ASN). Select a menu option.

All list objects are given a corresponding number that you must enter to select that object. For example:

1 - 1000 Minneapolis

2 - 1012 St Paul

3 - 1007 Eden Prairie

To select Eden Prairie from the list, press 3.

## Scan-Scan Functionality

Scan-Scan functionality in SIM is a term that describes the ability to scan the same item multiple times and incrementally increase the quantity of the item for each scan.

The following dialogs allow scan-scan functionality in certain modes:

- Receive a direct delivery
- Receive shipments at the case level (by item)
- Approve a transfer request
- Receive a transfer
- Create a return
- Transfer requests
- Enter stock count details (unguided)
- Item requests
- Inventory adjustments
- Customer Order Deliveries

### Scan-Scan UIN Functionality

You can scan a Unique Identification Number (UIN) that is associated with a different item without being forced to exit the Scan <UIN Label> screen.

You will not need to select Done to exit the UIN screen before being able to add a UIN of another item.

#### Example

1. A stock count is created for the following items:

- Item A -- UIN 123
- Item B -- UIN 124

2. The user scans UIN 123.

The Scan <UIN Label> screen displays showing that one quantity was assigned to item A.

3. The user scans UIN 124.

A screen displays showing that one quantity was added to item B.

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**Note:** It works similar to non-UIN items for unguided counts where users can scan-scan without being interrupted.

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## Shortcut Keys

The following table describes shortcut keys for the SIM Wavelink Studio handheld.

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**Note:** Handheld devices may have different buttons used to send these characters. Depending on the dialog, only certain shortcut keys are available.

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Key	Description
Esc or Clear	Returns you to the previous window without saving any information. SIM allows you to use Esc or Clear only where appropriate. If the handheld has a Clear key, use Clear. If the handheld does not have a Clear key, use Esc.
Enter	Submits the information to SIM.
@ (Shift-2)	Toggles the unit of measure between cases and the standard unit of measure. Toggles in DSD between item and PO. Toggles in Customer Order Picking between Bin and Customer Order.
( (Shift-9)	There is additional information that you can view. You can also press the <next> key.
& (Shift-7)	Returns you to the previous window if you used <next> to view additional information. You can also press the <prev> key.
* (Shift-8)	Brings you to a Summary window. You can also press the <total> key.
! (Shift-1)	Search for information.

## Error Message

If you scan information with the handheld that SIM does not recognize, you receive an Invalid message. To continue, press Enter and scan the next item.

If you enter an alphanumeric or negative quantity or value on the handheld, you receive an Invalid message. To continue, press Enter and type the correct quantity.

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**Note:** The handheld emits a double-beep in case of errors, notifying you something is wrong.

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## Print Reports and Labels

It is possible to set up default reports on the PC client, which are printed on the handheld. Many transactions are enabled to print these default reports to their respective default printers when the transaction is completed.

It is not possible to reprint default reports from the Wavelink Studio handheld, but it is from the MAF or PC.

## SIM MAF (UI)

This section describes the method by which you log in, and log out, and navigate. It also describes the common User Interface (UI) controls that are used throughout the MAF UI.

Features:

- Welcome Screen
- Drawer/Menu
- Scan Type

- Scan Mode
- Unit of Measure
- Numeric Entry
- Filter Bar
- Scan Bar
- Search Criteria
- Item Description/Item Image
- Print Dialog
- Notes
- Item Detail - Attributes
- Item Detail - UIN

## Configurations

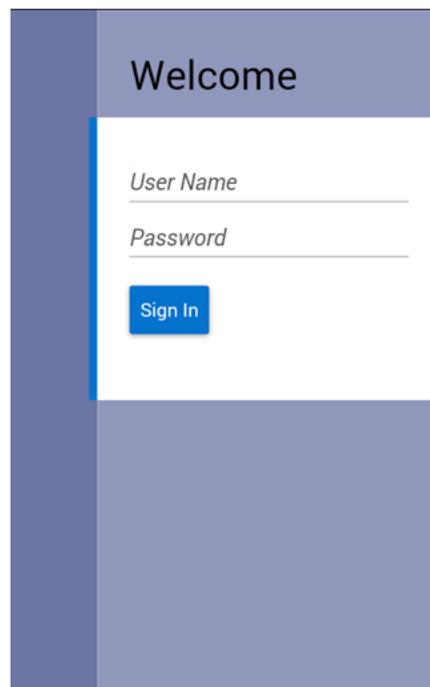
Admin settings are set up and maintained on the PC application through the system and store admin screens. The MAF UI utilizes a number of existing admin settings. Some admin settings which are specific only to MAF have the word "mobile" in the admin setting name.

## Functionality

This section describes the available screens.

### Welcome

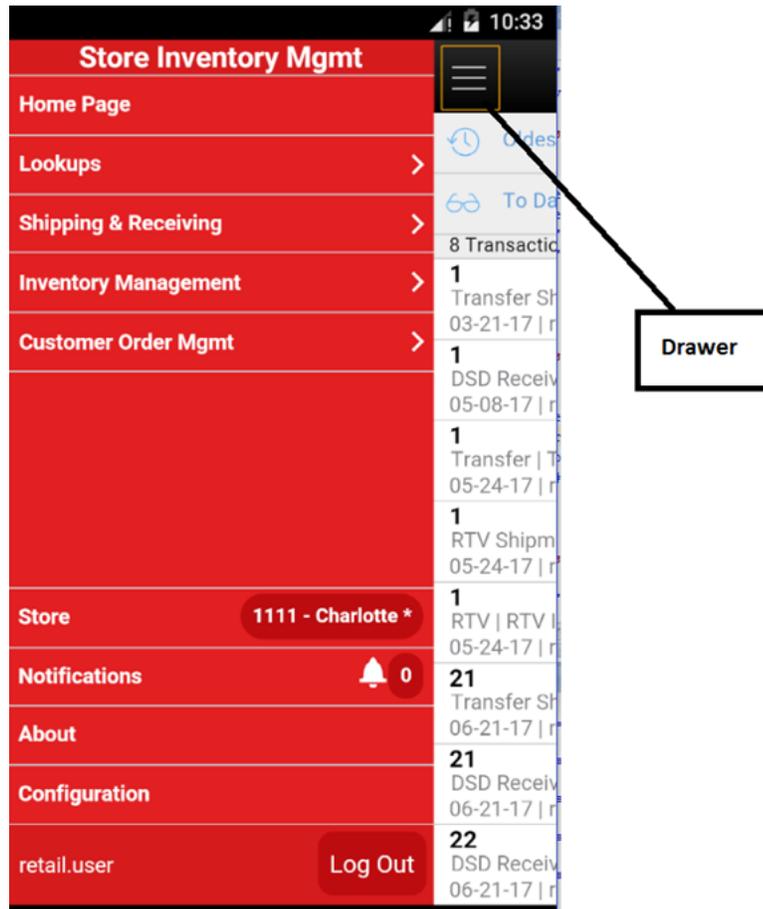
**Figure 4–16** MAF Welcome Screen



Upon launching the SIM MAF UI application, the welcome screen is displayed. SIM will attempt to log you into your default store. Upon successful login, you navigate to the Home Page.

## Menu/Drawer

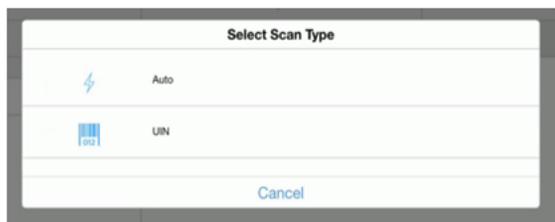
**Figure 4–17** MAF Menu/Drawer



The SIM MAF drawer is displayed as the menu panel on the left side of the screen upon tapping the drawer (hamburger stack which looks like three horizontal lines in the upper left-hand corner of the application). From the menu/drawer, you have access to various functionality of the MAF UI application.

## Scan Type

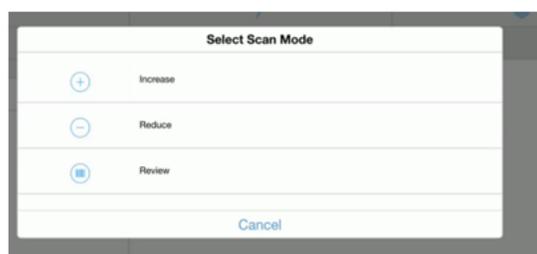
**Figure 4–18** MAF Select Scan Type



The Scan type is a found in the mode bar. It is used whenever an item can be entered or scanned within a Scan Bar. The scan type allows you to tell the system what type of item or barcode is being entered. The values for this include Auto which is represented by a lightning bolt and UIN which is a barcode. Auto is the default value when logging into the system. Auto assumes that you can enter or scan any of the supported SIM barcode types such as SKU, type 2, UPC E, GS1, UIN, and so on, and the system will parse through the various algorithms to derive the item. The other option of UIN, assumes that you will enter a serial number or AGSN and therefore the system will only run the algorithm to search for UINs. Scanning a UIN as part of the UIN option will be much faster and potentially be more accurate in the case of overlapping UIN numbers.

## Scan Mode

**Figure 4–19 MAF Select Scan Mode**



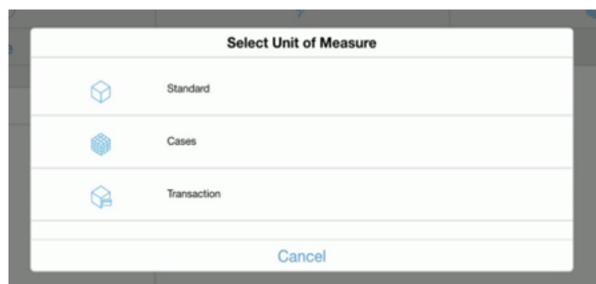
The Scan mode is a found in the mode bar. It is used whenever an item can be entered or scanned and the quantity is captured. The scan mode defines if the quantity from the barcode should be:

- Added to the existing item quantity, indicated by Increase with a plus icon.
- Removed from the exiting quantity indicated by reduce with a minus sign.
- No change to the quantity, which is review mode represented by a barcode.

The default scan mode is set to Increase.

## Unit of Measure

**Figure 4–20 MAF Select Unit of Measure**

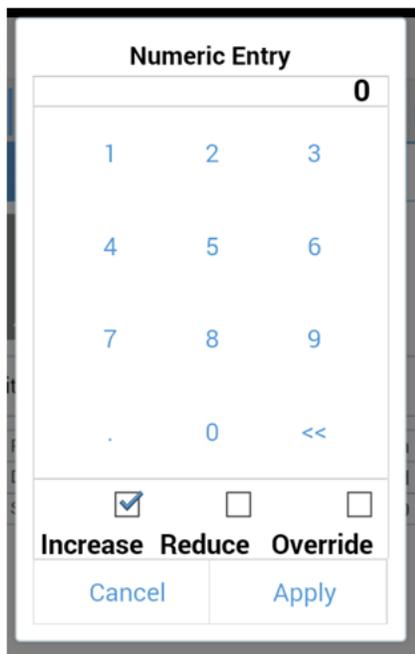


The Unit of Measure selection is a found in the mode bar. It is used whenever a quantity is captured. The unit of measure defines if the quantity displayed is going to be represented in the item's standard unit of measure, cases, or transaction unit of measure. When switching the Unit of Measure, the quantity on the screen will convert to that unit of measure. The default unit of measure will be set based upon the system configuration Default Unit of Measure. Transaction Unit of Measure will only be used

where applicable which is in Customer Orders as well as Shipping and Receiving for a Customer Order. If Transaction UOM is selected in dialogs where it is not applicable, the system will use the Standard Unit of Measure even though the Transaction UOM may be selected.

## Numeric Entry

Figure 4–21 MAF Numeric Entry



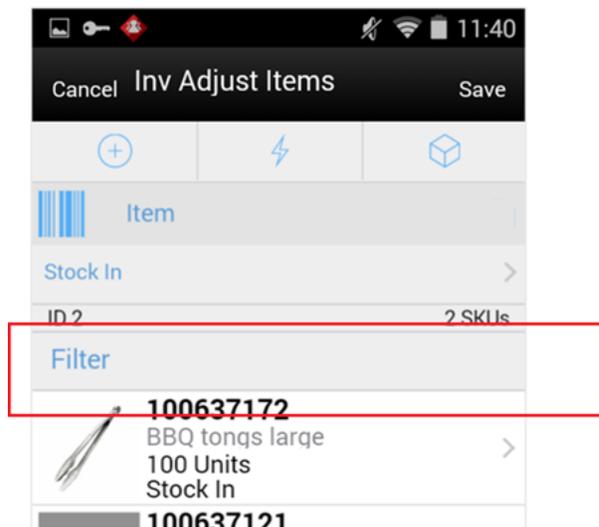
The Numeric Entry popup is used whenever there is an editable numeric field such as an item quantity field. The quantity that gets entered into the numeric entry popup will increase, reduce, or override the existing quantity on the screen. The mode on the Numeric Entry will be defaulted per the Scan Mode that is in the header bar (see "[Scan Mode](#)").

Examples:

- Qty = 15, enter in 3 increase, Qty = 18  
There is a quantity of 15 on the UI. In the popup, the user enters a quantity of three, selects the increase option, and apply. The new quantity is 18.
- Qty = 15, enter in 3 reduce, Qty = 12  
There is a quantity of 15. In the popup, the user enters a quantity of three, selects the reduce option, and apply. The new quantity is 12.
- Qty = 15, enter in 3 override, Qty = 3  
There is a quantity of 15. In the popup, the user enters a quantity of three, selects override, and apply. The new quantity is three.

## Filter Bar

**Figure 4–22** MAF Filter Bar

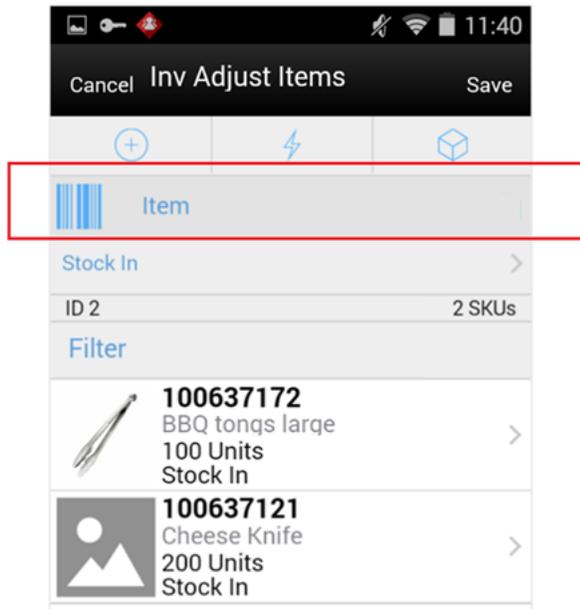


The Filter bar is used to narrow down a list of things such as items, containers, child stock counts, and so on.

You can tap and type into the filter bar, or tap and scan into a filter bar. By default, the Filter bar will be displayed on the top of the list. When scrolling down in the list, the filter bar disappears and it reappears when scrolling back up in the list. The criteria that a user can filter on will be unique per functional area. For example, inventory adjustments the user can filter on Item ID, Item Description, reason code, and UOM. The search is not case sensitive. The filter can be cleared out to return the full list. The filter will retain the entered criteria until leaving the screen in which it will be cleared out.

## Scan Bar

**Figure 4–23** MAF Scan Bar



The Scan bar is at the top of the transaction lists, Item Lists, other lists such as Child Count and Container Lists, and Item Detail screens. It will be anywhere an item or some other attribute can be entered or scanned to be viewed or edited on a transaction.

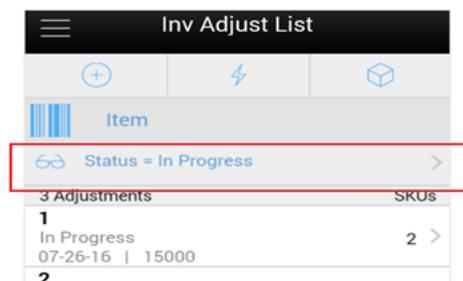
This bar allows for one defined attribute to be scanned and that attribute will be stated in the text of the bar. For example: Item, Container or SIM Customer Order ID.

In the Transaction List screens, the Scan bar will further filter or funnel down the list of transactions when doing a scan. The scanned attribute will be added in addition to the existing search criteria, eye glasses field.

In other areas such as lists, item lists, container lists, as well as Item Detail, and soon, the scan bar will go to the details for what was scanned. Quantity may be updated and the item may be added to the transaction depending on functionality.

## Search Criteria

**Figure 4–24** MAF Search Criteria



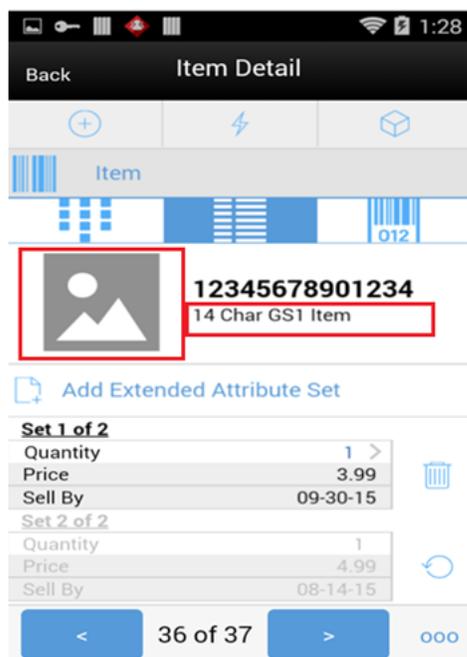
The Search Criteria field is represented by an eye glasses icon in the header of the screen. Search criteria will be found on all transaction list screens, such as Inv Adjust List shown in this figure. Criteria will be listed. If there is more than one criteria, they

will be separated by a pipe symbol. Initially when entering the dialog, the default search criteria for the functional area will be displayed. For example: in inventory adjustments it would show: Status = In Progress. If there is no default search criteria, the eye glasses will be displayed and the words "Search Criteria" will be listed.

Tapping the Search Criteria field, eye glasses, will navigate to the Search Criteria screen to select and or change criteria to search with. The search criteria field gets updated with the newly selected search criteria fields from the Search Criteria screen. When leaving the dialog, the search criteria will be reset back to the default search criteria.

## Item Image

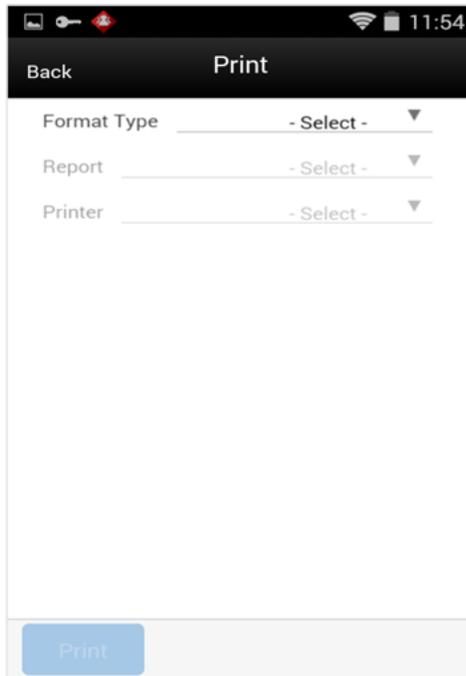
**Figure 4–25 MAF Item Detail - Item Image**



The item image is displayed throughout the MAF application wherever an item is displayed. The item image will be displayed next to the Item ID and Item Description in all applicable screens. Each functional area has a parameter called Display Item Image - Mobile. If it is set to 'Yes', the image will be displayed in that functional dialog. If it is set to 'No', the image will not be displayed.

## Print

**Figure 4–26** MAF Print



The Print dialog is accessed when selecting print on the SIM MAF application. It is available when selecting print from the footer menu within a transaction.

The transaction format type or types that are applicable to the functional area will be available for selection. For example in Customer Order Deliveries, there may be format types of Customer Order Delivery and BOL.

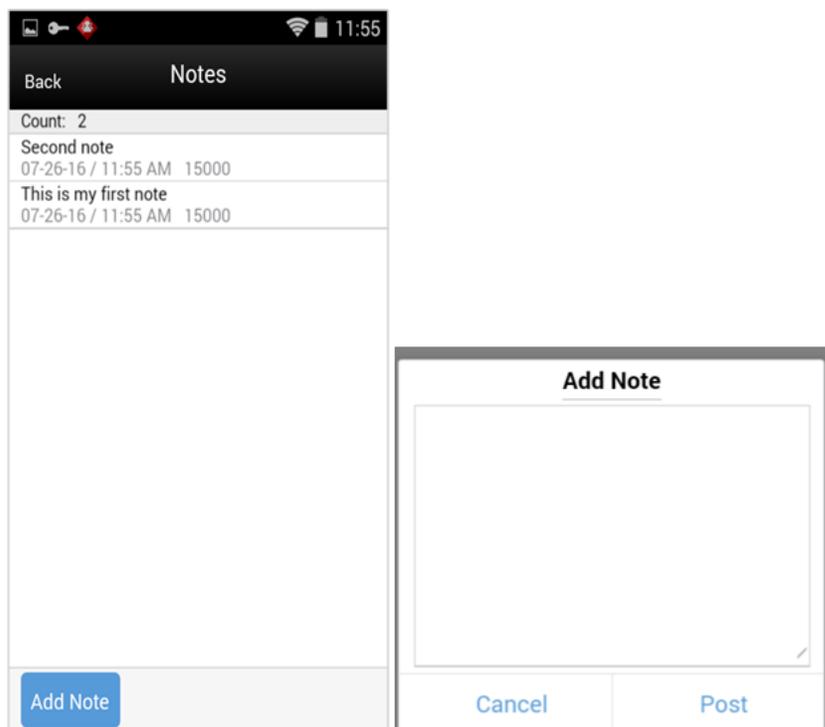
Once a format type is selected, the system will list all of the reports that are available to print for that format type. The report will default based upon the default format type. You can choose to select a different report format to print if other report formats exist for this format type transaction.

The printers for your store will be listed and you will be able to select the printer of choice. The printer will initially be defaulted to the default printer for the selected report format. Once you have selected print for the report, a message will confirm if the report was sent to print. Note that this does not mean that it has necessarily been printed, but that it has been sent to the printer.

The report format types, reports, along with defaults and printers are defined on the SIM PC application per the functionality in the Print Format and Printers dialogs.

## Notes

**Figure 4-27** MAF Notes

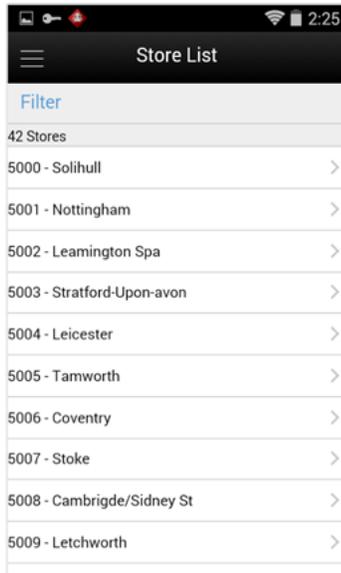


The Notes function is used to capture one or more notes about the transaction. It also allows you to view history or a trail of notes for a transaction. It is an optional process. The notes feature will be accessed from the footer menu within a transaction using the Notes menu option. Notes is available from within all transactions.

To add a note, select the Add Note button. The Add Note popup displays. Enter the note and then select post. The note will be posted to the top of the list of notes in the Notes dialog. All notes will be listed in read-only mode with the user who created them and the creation date.

## Store List

**Figure 4–28** MAF Store List

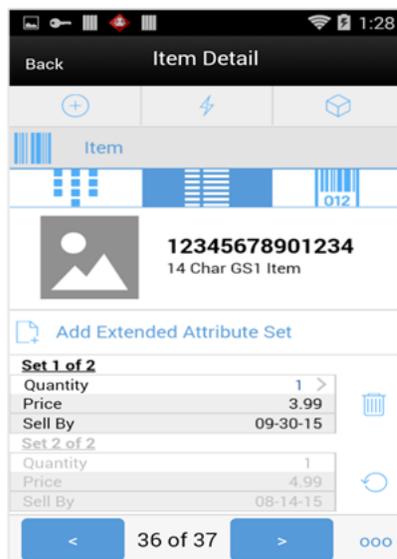


The change stores function is available from the drawer/menu by tapping the store option. It is also accessed upon selecting the store button on the Home Page in the larger MAF UI form factor. In both cases, the user is directed to the store list screen with an option to change stores.

The store list displays all of the stores that the user is authorized for. If needed, the user can search for a store by either the store ID or store name. The store list is narrowed down based upon the search. Selecting a store will display the new store in the store field and the user will stay on the Store List screen. The user is then officially logged in to the new store. All data and transactions will be for the newly selected store.

## Item Detail - Attributes

**Figure 4–29** MAF Item Detail Screen - Attributes

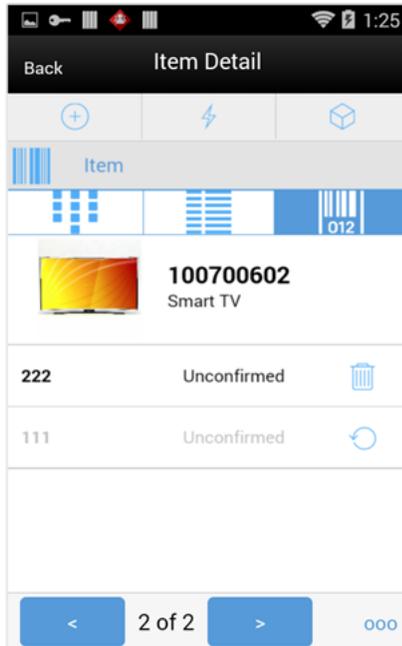


The Attributes screen is accessible from the Item Detail screen by selecting the Attributes icon. The system and store must be configured properly to allow for collection of attributes. In addition, the item must be configured to be an item that has extended attributes. This screen will display attributes that may have been captured automatically from a GS1 barcode, or they may have been manually captured in this screen.

Sets of attributes can be captured manually by selecting the Add Extended Attribute Set button. The attributes to be captured depend on the attribute configuration for the item. A popup will be displayed to enter the attributes. Sets can be removed and then they will be flagged for deletion. Upon saving or confirming the transaction, the flagged sets will be removed. The restore feature will be available to bring back the attributes if necessary.

## Item Detail - UIN

**Figure 4–30** MAF Item Detail Screen - UIN



The UIN tab will be accessible from Item Detail screen from within a transaction. The system must be configured for UINs and the item must be a UIN item.

UINs can be added to the adjustment for UIN items through the scan enter item bar in the header. A UIN can be removed by tapping the trash can which will flag the UIN for removal; the UIN will be deleted from the transaction upon saving or confirming the transaction. Lastly, those UINs that have been flagged for removal can be added back to the transaction by selecting the restore option.

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**Note:** Some functional areas may have slight modifications to this screen to accommodate the functionality.

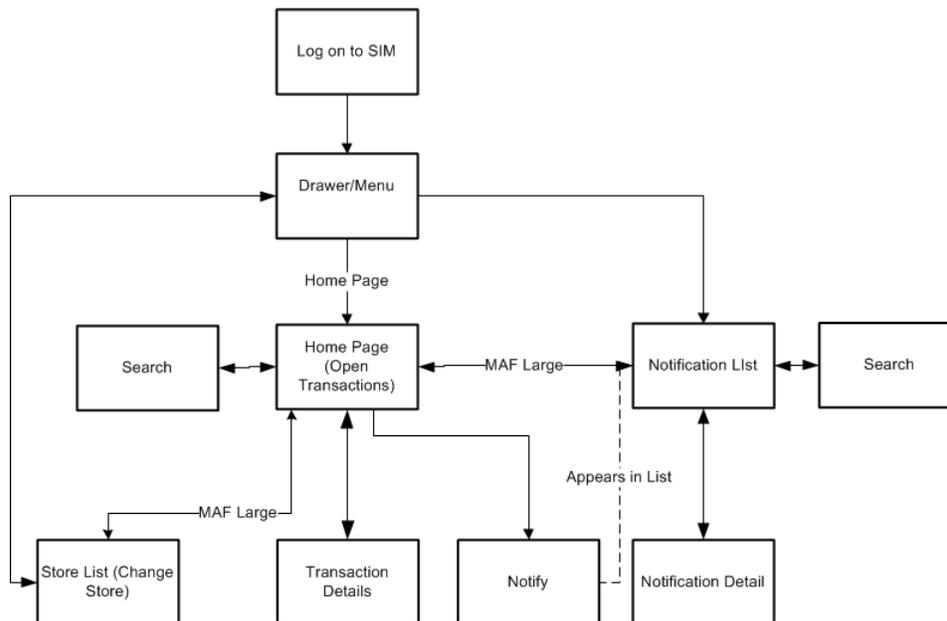
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## Home Page/Notifications (MAF Small and Large)

The Home Page lists all the open transactions for the user's store. Transactions include: Transfer, Transfer Shipment, Transfer Receiving, RTV, RTV Shipment, DSD Receiving, Inventory Adjustment, Stock Count, Item Request, Shelf Replenishment List, Customer Order, Customer Order Pick, Customer Order Delivery, and Customer Order Reverse Pick.

Features:

- View open transactions
- Change stores
- Send notifications
- Access and view notifications

**Figure 4–31 Home Page/Notifications Screen Flow (MAF Small and Large)**

This is a screen flow for the Home Page and Notifications on the SIM Small and Large applications. Initially upon logging on, the user is taken to the menu drawer. Selecting the Home Page directs the user to the Home Page screen which lists all of the Open status transactions within SIM. From the Home Page, the user can filter the open transactions, view transaction details, and send out notifications for the open transactions.

The Notification dialog is accessed from the Home Page for MAF Large and drawer/menu for both MAF Small and Large. It lists all of the notifications and allow for further filtering of the notifications or viewing of the details of the notifications.

The store list to change stores is available from the Home Page for MAF Large as well as the menu drawer for both MAF Small and Large.

## Configurations

### System Parameters

#### Search Limit Default for Home Page - Mobile

- Values: 1-999
- Default: 50
- Topic: UI
- Editable: Yes
- Default search limit for the Home Page and Notification List screen.

#### Days to Hold Notifications

- Values: 1-999
- Default: 14
- Topic: Purge
- Editable: Yes

- This parameter is used to purge notifications which are greater than or equal to this value.

### Security

- Security permissions exist to view the transactions on the Home Page, otherwise the transactions will not be listed.
- The user must have the proper security permission for the transaction being accessed from the Home Page. Example: the user must have Edit Inventory Adjustment permission in order to access the inventory adjustment from the Home Page and edit it.
- Security permissions exist to send an ad-hoc notification for an open transaction on the Home Page.
- Security permissions exist to access the notification dialog from the Home Page.

### Home Page

**Figure 4–32 Home Page**

Transactions	Date	User	Not After Date	SKUs
12 Transactions				
-99 - Customer Order Pick In Progress	09-24-15	15000		4
1 - Inventory Adjustment In Progress	09-24-15	15000	3 Notify	
2 - Inventory Adjustment In Progress	09-24-15	15000		2
3 - Inventory Adjustment In Progress	09-24-15	15000		2
-99 - DSD Receiving In Progress	09-24-15	SIM		3
-98 - DSD Receiving In Progress	09-24-15	SIM		3
1 - Customer Order In Progress	09-24-15			2
2 - Customer Order In Progress	09-24-15			2
4 - Customer Order				4

The Home Page is accessed by selecting Home Page from the menu drawer. The Home Page lists all the open transactions for the user's store. Selecting one of these transactions will navigate the user to the details for that transaction. The transaction will be able to be viewed, edited, deleted, and so on, just as it would be had you navigated there directly in that specific function. Each transaction has a transaction ID and transaction type such as inventory adjustment, stock counts, and so on, for identification. The status, last update date, user, SKUs and not after date for the transactions will be displayed.

Selecting the Stores button directs the user to the Stores List to change stores. Initially, the store will be defaulted to the user's default store upon logging in. If the user changes stores, the newly selected store will be displayed in this field. The Stores option is only available on the MAF Large Home Page.

Open transactions on the Home page are sorted based upon the sort button. The Sort will default to oldest first and tapping on this sort button will allow the user to change the sort to newest first.

The search eye glasses icon will open up a search criteria screen which can be used to further narrow down the list of open transactions. All applied search criteria will be displayed in this field. The Home Page list screen does not have any default search criteria initially when entering the screen.

The Bell icon will direct the user to the Notification List screen. The Bell icon is only available on the MAF Large Home Page. Notifications are covered later in this chapter. Swiping a transaction will display a Notify button. See "[Notify User.](#)"

## Notify User

**Figure 4–33** *Notify User Popup*



The notify users popup is displayed by swiping a transaction on the Home Page and selecting the notify button. The notify users popup will be an empty list and the user must enter in either a full or partial user name to search on. The system will return a list of valid users for the logged in user's store.

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**Note:** This popup is used to find user names and not roles.

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The user will then select a single user from the list of results and the system will create an ad-hoc notification for the open transaction to that user at the current user's logged in store. The ad-hoc notification will appear in the notification list screen of the user, that was notified, upon logging in to that store. Open transactions can have more than one notification sent.

## Transaction Search Criteria

**Figure 4–34** Transaction Search Criteria

From the Home Page, selecting the search criteria button, which looks like a pair of eye glasses, will take the user to the Transaction Search Criteria screen. This screen is used to narrow down the open transactions further and search for open transactions with specific criteria.

The header shows the number of criteria that have been applied. The Home Page open transactions displays all open transactions for the user's store by default and there will be no initial criteria applied. Open status is represented by an array of statuses and they can be different depending on the transaction. Open status will represent any status which is not completed, canceled or closed, in other words actions can still be taken.

Criteria include From and To Date which look at the last updated date on the transaction if one exists, otherwise the create date. The transaction type is the type of the transaction such as inventory adjustment, stock count, DSD receiving, and so on. The transaction ID will be the actual ID associated with the transaction, thus multiple transaction types may have the same transaction ID. The user allows for searching on the User ID, this may be the last updated user ID or the create user ID depending on the transaction. The search limit field is defaulted per the system admin setting and is used to determine the maximum number of records returned in the search.

Once search criteria have been selected and applied, the user will navigate back to the Home Page screen with the open transactions narrowed down per the entered criteria. The reset button will clear out all entered search criteria and reset it back to the default criteria. Search criteria will be retained until being either reset or leaving the Home Page dialog.

## Notification List

**Figure 4–35 Notification List**

Notifications	Create Date/Time	User
Fwd: Inventory Adjustment 1 / Inventory Adjustment	10-12-15 / 12:24 PM	15000
notification_fwd Customer Order 4 / Customer Order	10-12-15 / 10:44 AM	15000
notification_fwd Inventory Adjustment 21 / Inventory Adjustment	10-12-15 / 10:44 AM	15000
notification_fwd Customer Order 2 / Customer Order	10-12-15 / 10:42 AM	15000
notification_fwd Inventory Adjustment 1 / Inventory Adjustment	10-12-15 / 10:37 AM	15000
notification_fwd Inventory Adjustment 1 / Inventory Adjustment	09-14-15 / 10:15 PM	15000

The Notification List screen is accessed by tapping the notification (bell) icon, on the Home Page for MAF Large or from the drawer/menu for MAF Small. The notification list defaults to display all Unread notifications for the user at the user's store. he notifications could be system or ad-hoc type of notifications.

By default, the screen will display the notifications with the unread notifications first. The sort can be changed to newest first or oldest first. Notifications can be in a read or unread state with unread having a dot in front. The notification names, transaction ID, transaction type, create date, and user will be displayed for the notifications in the list.

Swiping a read notification will display a Mark As Unread button. Selecting the Mark As Unread button will set the status of the notification from read back to unread with a dot. The Mark As Unread button will only be available for notifications which have been flagged. Selecting a notification will navigate the user to the details for that notification.

The search eye glass icon will open up a search criteria screen for the notifications which can be used to further narrow down the list of notifications. All applied search criteria will be displayed in this field. The default search criteria for the notifications will be for the unread status of notifications.

## Notification Search Criteria

**Figure 4–36 Notification Search Criteria**

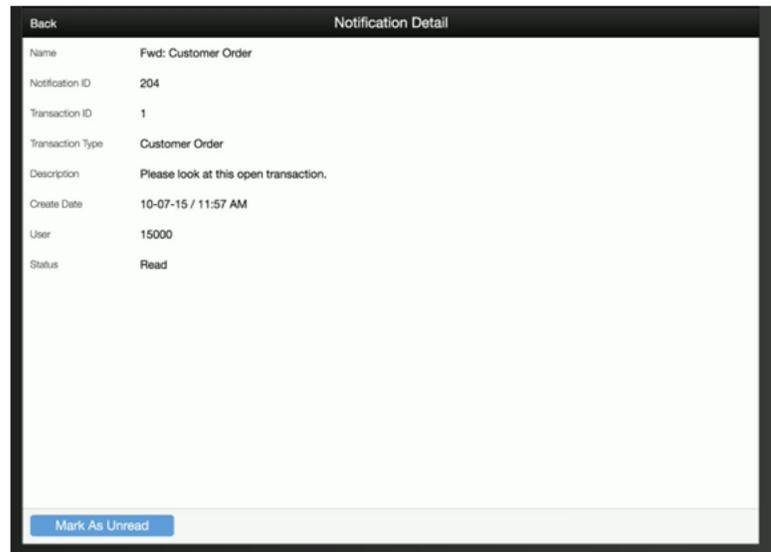
Selecting the search criteria button (eye glasses) from the Notification List screen, will take the user to the Notification Search Criteria screen. This screen is used to search for notifications for the user's store with specific criteria. The header will show the number of criteria that have been applied. The Notifications search criteria will default to the status of unread.

Criteria include Create From and Create To Date, status, notification ID and type, transaction ID and type, user, and search limit. The search limit is defaulted per the system admin setting and is used to determine the maximum number of records returned in the search.

Once search criteria have been selected and applied, the user will navigate back to the Notification List screen with the notifications narrowed down per the entered criteria. The search criteria will be retained until they are reset or when leaving the notifications dialog.

## Notification Detail

**Figure 4–37 Notification Detail**



The Notification detail screen is accessed when selecting a notification from the Notification List screen. This screen displays the details of the notification.

The notification ID is a system-generated ID. The notification name is either "Forward" with the transaction type for ad-hoc notifications, or the subject line of the system-generated email notifications. The transaction ID and transaction type are from the transaction of the notification. The create date is the date the notification was generated. The user is the user who created the notification; for system-generated notifications, the user is the user who triggered the notification such as the system or batch user. The status will either be read or unread.

When entering the notification, the status of the notification will automatically be marked to Read and the Mark As Unread button will be available. Selecting the Mark as Unread will set the status back to unread. Once the notification is in unread status, the button will change to Mark As Read. The user can set the status back to read by selecting this option.

## User Interface Guidelines

Change password, change store, and print reports exist on the PC, handheld, and MAF Small and Large.

Quick Jump exists on the PC only.

Access Online Help exists on the PC only.

Home Page and Notifications exist on the MAF Large only.



# 5

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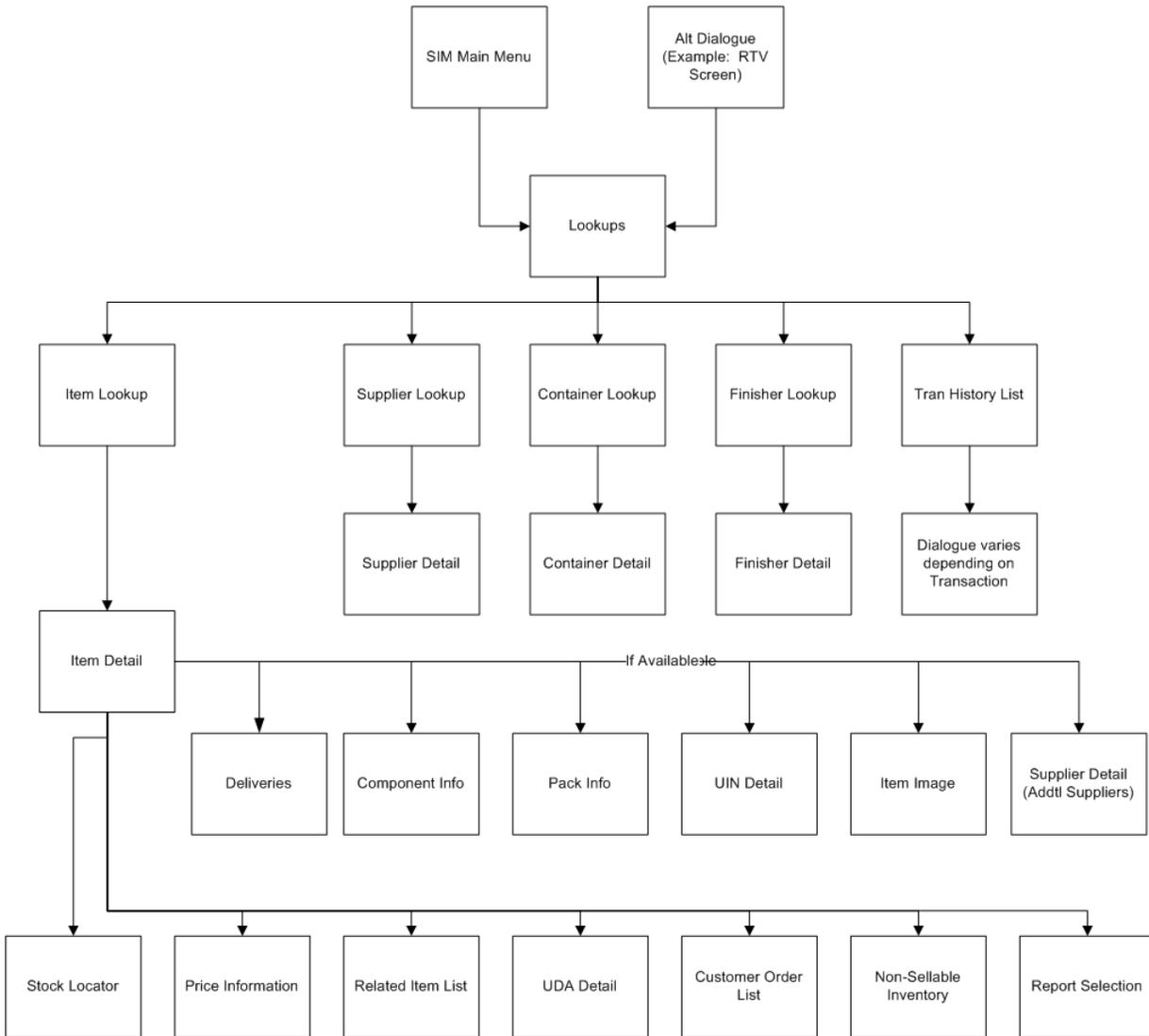
## Lookups

This chapter covers lookups in SIM. The following topics are covered:

- [Item Lookup](#)
- [Supplier Lookup](#)
- [Container Lookup](#)
- [Finisher Lookup](#)
- [Transaction History](#)
- **Technical:** Integration to RIB, web services, and the database structure.

The SIM lookup feature provides a robust system for searching information. The user is able to search by item, suppliers, delivery containers, finishers, and transaction history.

Figure 5-1 Lookups PC Screen Flow



## Item Lookup

The Item Lookup functionality provides the business user with the ability to view information related to an item. In addition, the Item lookup can also be used in conjunction with other screens to assign items to a transaction. SIM provides real-time information on inventory positions and other item detail information.

The following features are available:

- Status
- Item Suppliers
- Item Attributes
- Pricing and Price Information
- Ordering Attributes
- Stock on Hand and Non-sellable Inventory
- Ordered Quantity

- Merchandise Hierarchy
- Pack / Component Details
- Planned Deliveries
- Related Items
- Stock Locator
- UDA
- Customer Orders
- UIN

## Configurations

This section covers system parameters and security.

### System Parameters

#### Display Item Image Button

- Values: Yes/No
- Default: Yes
- Topic: UI
- Editable: Yes
- If set to "Yes," the Image button is displayed on the Item Lookup screen.
- If set to "No," the Image button is not displayed.

#### Search Limit Default for Item Lookup

- Values: 1 - 999
- Default: 500
- Topic: UI
- Editable: Yes
- This parameter sets the default search limit for Item Lookup, however, the search limit can be modified by the user.

#### Search Limit Default for Item Lookup - Mobile

- Values: 1 - 999
- Default: 50
- Topic: UI
- Editable: Yes
- Default search limit for the Item Lookup screen MAF.

#### Display Item Image for Item Lookup - Mobile

- Values: Yes/No
- Default: No
- Topic: Item Lookup

- Editable: Yes
- If set to "Yes," the item image is displayed in Item Lookup, list and details.
- If set to "No," the item image is not displayed in Item Lookup.

## Security

Security exists for:

- Accessing Item Lookup

## Item Lookup

**Figure 5–2 Item Lookup Screen**

Item	Item Description	Primary Supplier	Primary Supplier Name	Dept.	Class	Sub-Class
------	------------------	------------------	-----------------------	-------	-------	-----------

One of the most important features in SIM is to look up the inventory of an item in the store. This figure shows the Item Lookup dialog accessed within Lookups.

If only one item is found, the Item Detail is opened displaying the item that was found. If multiple items are found, a list of the items is displayed in the search results on the Item Lookup screen. The user selects an item from the list and then navigates to the Item Details for the selected item.

## Item Lookup Popup

**Figure 5–3** Item Lookup Popup

Item Lookup is also used to look up items within other functionalities such as Transfers, DSDs, Inventory Adjustments, and so on. The Item Lookup popup is accessed by clicking the ellipsis popup button in the item field of that dialog. After the search, the user is presented with a list of items. An item can be selected and applied to the transaction.

### Searching by Item

#### Item

This field holds an item number, which the user enters to search. Partial searches are not permitted on the item number. The user can enter an item number, UIN, TUC, UPC/EAN, Type 2, GS1 Databar, VPN, or SEL (shelf edge label) into this field. The system is able to locate the specified item.

#### UIN

A user can enter any Unique Identification Number (UIN) to search on. Any item having the entered UIN is returned in the search results.

---

**Note:** This field is only available if the "Enable UIN Processing" store admin is turned on.

---

### Searching by Supplier

#### Supplier

This field holds a supplier number, which the user enters to search. The user can search on primary and non-primary suppliers. The user can use the ellipsis to search for a supplier through the Supplier Lookup popup screen.

**Primary Supplier (Check Box)**

The Primary Supplier Check Box determines whether to display all items supplied by the entered supplier (based on the Supplier or Supplier Name search fields) or only display items where the entered supplier is the primary supplier for that item:

- If the indicator is checked, SIM only displays items where the entered supplier is the primary supplier of the item. This is the default.
- If the indicator is not checked, SIM displays all items supplied by the supplier ID that was entered in the search criteria field, regardless of whether or not the entered supplier is the primary supplier. In this case, the user may see items in the search results that have a different supplier ID and name than what was entered in the search criteria. This means the item is supplied by the entered supplier, but has a different primary supplier.

**Searching by Warehouse****Warehouse**

This field is a drop down listing all of the warehouses by number and name in numerical order. The user is able to select a specific warehouse and the system returns all items for the selected warehouse. When the user accesses the Item Lookup Popup from within a transaction to a warehouse, the system defaults the warehouse from the transaction.

**Searching by Finisher****Finisher**

Users can search for items by Finisher by entering a Finisher number. If needed, the finisher can be looked up in Finisher Lookup by clicking the ellipsis. The system returns all items belonging to the finisher. When the user accesses the Item Lookup popup from within a transaction for a finisher, the system defaults the Finisher from the transaction. Searching by Finisher is only available if the system is configured to use Finishers.

**Searching by UDA****UDA**

This field allows the user to pick a specific User Defined Attribute (UDA) and enter the corresponding search criteria. In order for an item to be returned, it must match all criteria entered.

**Text**

This field allows the user to enter any part of the UDA text. Wild card searches are also allowed.

**Value**

This field allows the user to select from a list of pre-defined values for the UDA.

**Date Range**

This field allows the user to enter a range of dates. Any item falling within that range is returned, providing any other criteria also matches.

## Searching by Inventory Status

### Inventory Status

This field allows the user to search by available or unavailable inventory status. The system returns all items that match the status selected by the user. If Available is selected, the system returns the items that have available inventory. If unavailable is selected, the system returns the items that have non-sellable unavailable inventory. This search feature gives the user a way to search for items that have unavailable inventory which might need further action. It can be especially useful when looking up items when creating inventory adjustments.

### Sub-Bucket

This field allows the user to continue to filter down by sub-bucket. Sub-buckets are only an option if the system is configured to use sub-buckets. The Inventory Status must be selected as "Unavailable" for the Sub-bucket filter to be enabled. The system returns all items that match the selected Inventory Status and Sub-bucket.

## Searching by Style

### Style (Item ID)

The user can search on a style item ID. The Item Description, Brand, Department, Class, and Sub-Class search options do not display when the Style Search option is selected. The user enters in a style item (style is where the item level is above/less than the transaction level), and the system returns all the transaction level children that are related to the style parent/grandparent.

#### EXAMPLE - List of Children Items using STYLE LOOKUP

##### Enter Style ID

10001001 Shirt Item level 1, tran level 2

##### Search Returns

10001011 Child 1, green shirt item level 2, tran level 2

10001012 Child 2, blue shirt item level 2, tran level 2

10001013 Child 3, red shirt item level 2, tran level 2

## Searching by Item Description

### Item Description

This field holds an item description, which the user enters to search. The user can search on partial description as well, meaning that as long as the Item Description contains what is entered in this field, results are returned. The user cannot enter more than 120 characters. This search criterion can be used for any other search type except when searching by Style.

## Searching by Brand

### Brand

This field holds the brand, where the user enters to search. The user enters in a brand for the item. The system returns all items for the brand specified. This search criterion can be used for any other search type except when searching by Style.

## Searching by Item Hierarchy

### Dept

This field allows the user to select from a list of available Departments for the selected group. This search criterion can be used for any other search type except when searching by Style.

### Class

This field allows the user to select from a list of available classes for the selected department. This field is only enabled if a department has been selected. This search criterion can be used for any other search type except when searching by Style.

### Sub-Class

This field allows the user to select from a list of available sub-classes for the selected department/class. This field is only enabled if a department and class has been selected. This search criterion can be used for any other search type except when searching by Style.

### Include Non-Ranged

When the Include Non-Ranged check box is checked, the system returns items that exist in the system that may not be ranged to the user's store, in other words, the item record does not exist for the user's store. When it is not checked, only those items that are for the user's store are returned. If searching for an item by item number, the system ignores this indicator and navigates to the details regardless of if the item is ranged or non-ranged.

## Item Detail

The Item Detail screen displays several details for a specific item. It is accessed within the Item Lookup dialog by clicking an item from the List of Items returned from the entered search criteria.

Figure 5–4 Item Detail Screen

, Item Status: Auto Stockable), 'Primary Supplier Name' (RMS\_ITEM\_SupplierSite\_196724751), 'Primary Supplier Number' (11596895), and 'Primary Location'. Below this are four columns: 'Stock On Hand Units' (Total Stock On Hand: 50, Available SOH: 50, Shop Floor: 0, Back Room: 50, Unavailable: 0, Transfer Reserved: 0, RTV Reserved: 0, Customer Order: 0, Non-sellable: 0), 'Item Attributes' (UOM: Units, Pack Size: 1, Ticket Type, Orderable: , Sellable: , Pack Item: , Consignment: , Concession: , Non-Inventory: , Store Pack Inventory: ), 'Pricing' (Current Retail: MSRP: \$200.00, Selling UOM: EA, Pricing Type, Multi Unit Price, Multi Unit Quantity, Multi Unit UOM), and 'Merchandise Hierarchy' (Dept: 5001 - Dept. 5, Class: 1 - Class 1, Sub-Class: 100 - Subclass 100, Auto Col.: Auto Black). At the bottom right is a 'Planned Deliveries' section (Received Today: 0, Ordered Qty: 0, Inbound Qty: 0, Next Delivery Date, Next Delivery Type, Next Delivery Qty). The bottom status bar shows 'Client Information', 'SFM USER', '1411 - Seattle', 'Item Detail', 'Help', and 'Jump'."/>

### Stock On Hand Info

- Total Stock on Hand = Available + Unavailable
- Unavailable = Transfer Reserved + RTV Reserved + Non-sellable + Customer Order
- Available = Shopfloor + Backroom + Delivery Bay

### Item Attributes

Additional information may also be helpful to view about an item. The following are some additional item attributes available on this screen. For additional details around item attributes, see [Chapter 6, "Item."](#)

- UOM - Standard unit of measure for the item.
- Pack Size - This field holds the pack size (number of items in a supplier case) of this item:
  - The pack size should be populated from the item/supplier/country record for the primary supplier.
  - For non-ranged items, this value should be pulled from the master item data, for the default supplier.
- Ticket Type - RMS suggested ticket type code/format.
- Orderable - Checkbox; checked if the item is orderable.
- Sellable - Checkbox; checked if the item is sellable.
- Pack Item - Checkbox; checked if the item is a pack item.
- Consignment Item - Checkbox; checked if the item is a consignment item.
- Concession Item - Checkbox; checked if the item is a concession item.
- Non-inventory - Checkbox; checked if the item is flagged as non-inventory.

- Store Pack Inventory - Checkbox; tells the system when an item will only be sold and tracked as a pack.

---

**Note:** SOH and any reference to inventory will not be available for non-inventory, consignment, or concession items.

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### Planned Deliveries

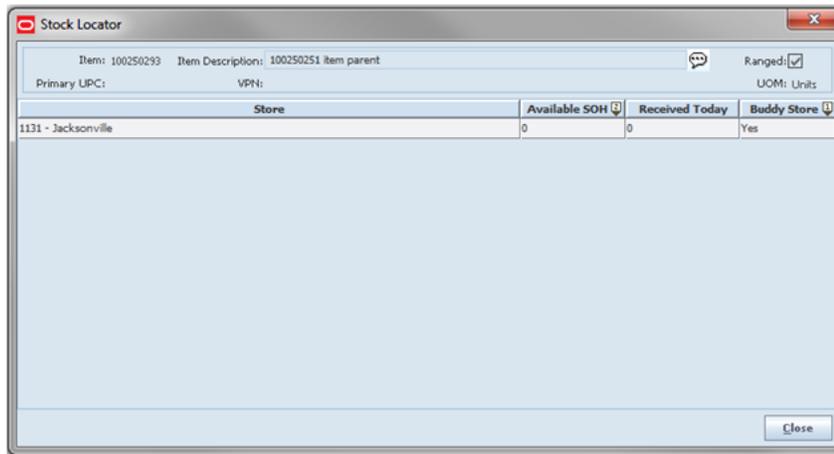
The Planned Deliveries section display information about incoming deliveries for the item being looked up. The delivery information pertains to the following:

- Approved supplier Purchase Orders with an ASN.
- Open transfers from a store, warehouse, or finisher.
- Allocation that is open.
- Inbound Qty equals the total shipped quantity from transfers, allocations, and POs on an ASN that have not been received yet.
- Ordered Qty equals the total quantity on order for all supplier orders and transfers reduced by the inbound and received quantity.

## Stock Locator Popup

The Stock Locator popup displays all of the stores and their inventory for a specific item. It is accessed within the Item Lookup dialog by clicking the stock locator button from the Item Detail screen.

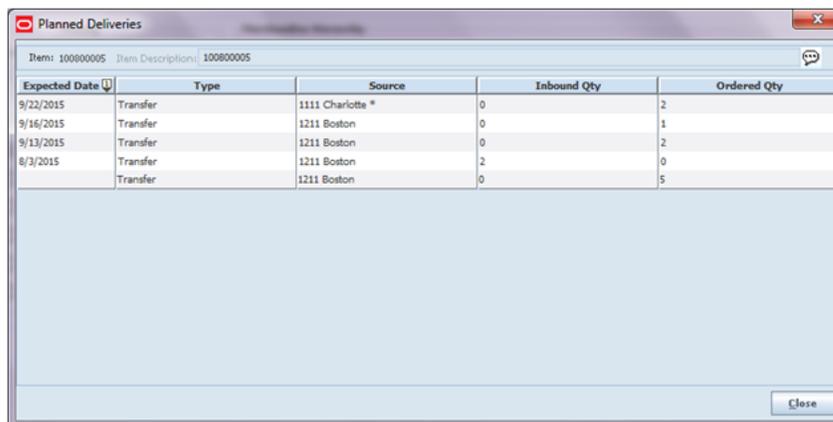
**Figure 5–5** Stock Locator Popup



The store is able to quickly look up inventory of other stores from this popup. This list is displayed with buddy stores listed first.

## Planned Deliveries Popup

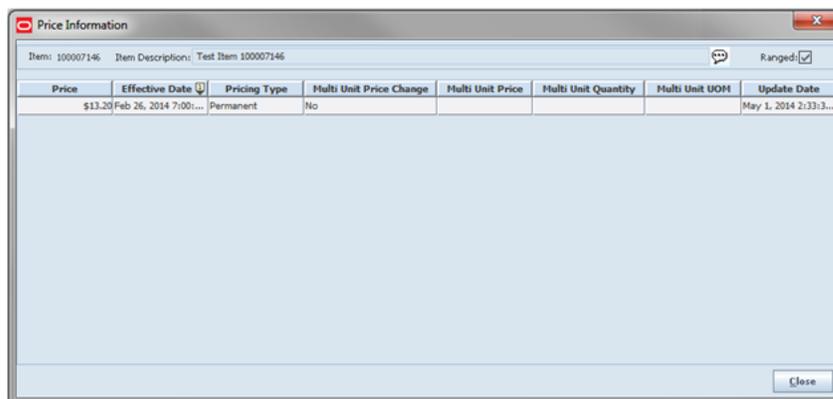
The Planned Deliveries popup is accessed within the Item Lookup dialog by clicking the Deliveries button from the Item Detail screen. The Allocation, Transfer, or Purchase Order displays the inbound quantity not yet received and the remaining quantity that remains to be shipped.

**Figure 5–6 Planned Deliveries Popup**


Expected Date	Type	Source	Inbound Qty	Ordered Qty
9/22/2015	Transfer	1111 Charlotte *	0	2
9/16/2015	Transfer	1211 Boston	0	1
9/13/2015	Transfer	1211 Boston	0	2
8/3/2015	Transfer	1211 Boston	2	0
	Transfer	1211 Boston	0	5

## Price Information Popup

The Price Information popup displays pricing information for a specific item. It is accessed within the Item Lookup dialogue by clicking the price information button from the Item Detail screen.

**Figure 5–7 Price Information Popup**


Price	Effective Date	Pricing Type	Multi Unit Price Change	Multi Unit Price	Multi Unit Quantity	Multi Unit UOM	Update Date
\$13.20	Feb 26, 2014 7:00:...	Permanent	No				May 1, 2014 2:33:3...

## Related Item List

The Related Item List screen provides a way to identify additional items, which are related to the item being looked up. All items display, even if they are not ranged to the store. The related items may include children or sibling items associated to a parent as well as cross sale, up sale, and substitute items. It is accessed within the Item Lookup dialog by clicking the related items button from the Item Detail screen.

**Figure 5–8 Related Items List Screen**

Item	Description	Diff1	Diff2	Diff3	Diff4	Type	Required	UOH	Avail. SOH
103900087	SS - Men's Pol...	Colors:WHITE	Sizes:XSsmall	Size Options:R...	pattern:school	Related	No	EA	398
103900095	SS - Men's Pol...	Colors:WHITE	Sizes:XSsmall	Size Options:R...	pattern:school	Related	No	EA	196
103900108	SS - Men's Pol...	Colors:WHITE	Sizes:Small	Size Options:R...	pattern:school	Related	No	EA	0
103900116	SS - Men's Pol...	Colors:WHITE	Sizes:Small	Size Options:R...	pattern:school	Related	No	EA	0
103900124	SS - Men's Pol...	Colors:WHITE	Sizes:Medium	Size Options:R...	pattern:school	Related	No	EA	0
103900132	SS - Men's Pol...	Colors:WHITE	Sizes:Medium	Size Options:R...	pattern:school	Related	No	EA	0
103900141	SS - Men's Pol...	Colors:WHITE	Sizes:Large	Size Options:R...	pattern:school	Related	No	EA	0
103900159	SS - Men's Pol...	Colors:WHITE	Sizes:Large	Size Options:R...	pattern:school	Related	No	EA	0
103900167	SS - Men's Pol...	Colors:WHITE	Sizes:XLarge	Size Options:R...	pattern:school	Related	No	EA	0
103900175	SS - Men's Pol...	Colors:WHITE	Sizes:XLarge	Size Options:R...	pattern:school	Related	No	EA	0
103900183	SS - Men's Pol...	Colors:Blue	Sizes:XSsmall	Size Options:R...	pattern:school	Related	No	EA	-6
103900191	SS - Men's Pol...	Colors:Blue	Sizes:XSsmall	Size Options:R...	pattern:school	Related	No	EA	0
103900204	SS - Men's Pol...	Colors:Blue	Sizes:Small	Size Options:R...	pattern:school	Related	No	EA	2
103900212	SS - Men's Pol...	Colors:Blue	Sizes:Small	Size Options:R...	pattern:school	Related	No	EA	0
103900221	SS - Men's Pol...	Colors:Blue	Sizes:Medium	Size Options:R...	pattern:school	Related	No	EA	0
103900239	SS - Men's Pol...	Colors:Blue	Sizes:Medium	Size Options:R...	pattern:school	Related	No	EA	0
103900247	SS - Men's Pol...	Colors:Blue	Sizes:Large	Size Options:R...	pattern:school	Related	No	EA	0
103900255	SS - Men's Pol...	Colors:Blue	Sizes:Large	Size Options:R...	pattern:school	Related	No	EA	0
103900263	SS - Men's Pol...	Colors:Blue	Sizes:XLarge	Size Options:R...	pattern:school	Related	No	EA	0
103900271	SS - Men's Pol...	Colors:Blue	Sizes:XLarge	Size Options:R...	pattern:school	Related	No	EA	0
103900280	SS - Men's Pol...	Colors:PISTAC...	Sizes:XSsmall	Size Options:R...	pattern:school	Related	No	EA	0

The user is able to view all the related items, four diffs, and available stock on hand from the Related Item Details screen. Selecting a related item navigates the user to the details for that related item.

Only "Active" related items are listed, where today's date is within the effective date and end date for the related item. If there is no effective date, the item is assumed to be active.

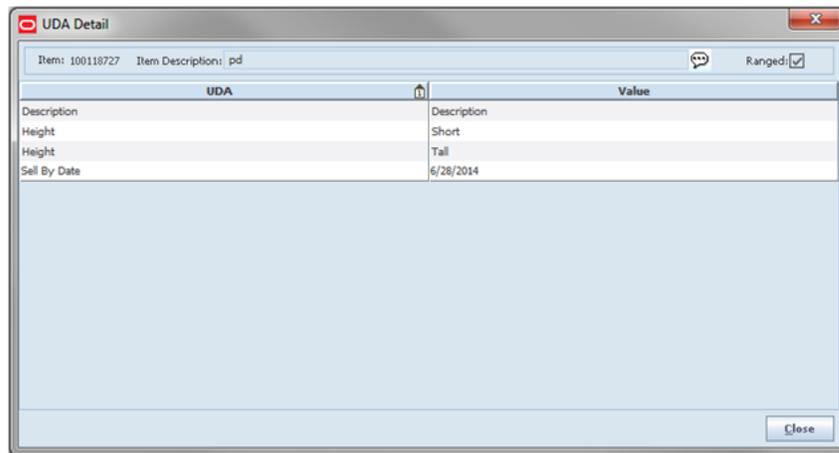
The Type field is used to identify the type of item being displayed in the Related Item List. The following are the values that may exist in the Type field:

- Related
- Cross Sale
- Up Sale
- Substitute

The Substitute item types are used within the Customer Order Picking and Shelf Replenishment Picking dialogues when a substitute item is allowed.

## UDA Detail Popup

The UDA Detail popup displays specific UDA information for a specific item. It is accessed within the Item Lookup dialog by clicking the UDA Detail button from the Item Detail screen.

**Figure 5–9 UDA Detail Popup**

## Item Customer Order

The Item Customer Order screen displays all of the customer orders for a specific item at the user's store. It is accessed within the Item Lookup dialog by clicking the customer order button from the Item Detail screen.

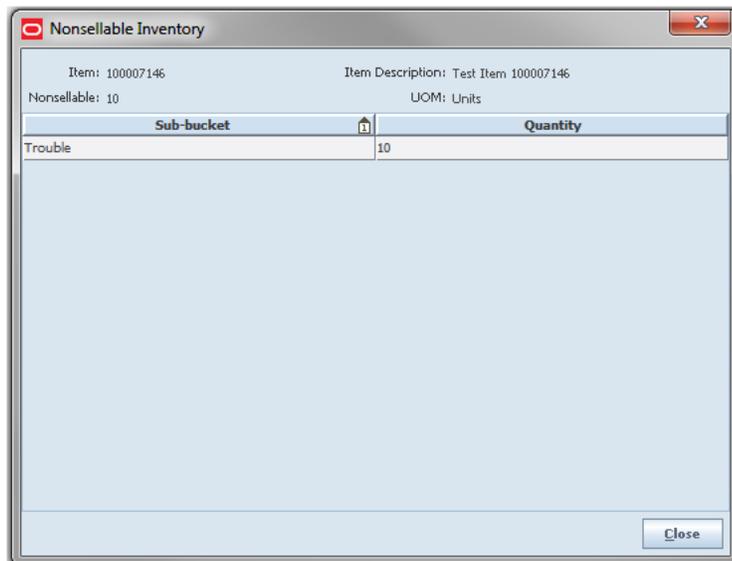
**Figure 5–10 Item Customer Order Screen**

SI2H Cust Ord...	Customer O...	Fulfillment O...	Type	Item	Item Descrip...	UOM	Quantity	Create Date	Release Date (I)	Comments
1108	111110913000		Uplenny	100118727	BRQ Bricks		3	Nov 17, 2012 11:...		
9297	3067	POS	Web Order	100118727	BRQ Bricks		1	Dec 1, 2012 3:28...	Dec 6, 2012 3:41...	

Both web order and non-web order (POS pick up) orders are listed. For more information on customer orders, see [Chapter 20, "Customer Order Management."](#)

## Nonsellable Inventory Popup

The Nonsellable Inventory popup displays inventory information for a specific item that can no longer be sold. It is accessed within the Item Lookup dialog by clicking the non-sellable button from the Item Detail screen.

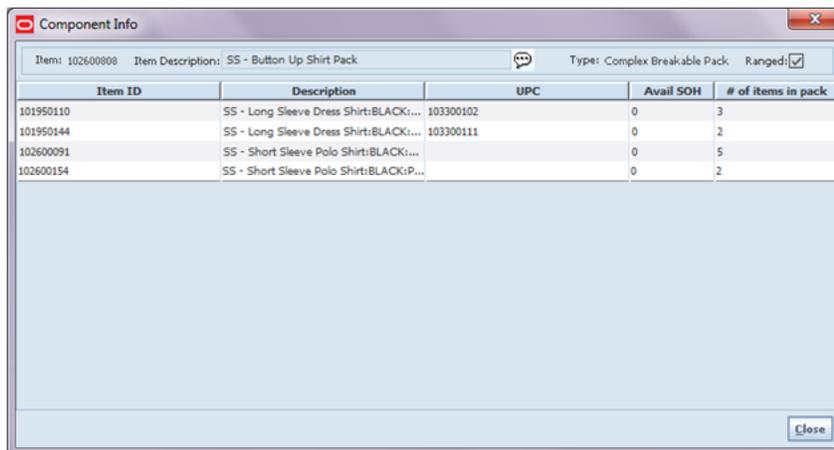
**Figure 5–11 Nonsellable Inventory Popup**

The Nonsellable field is displayed in the Stock On Hand section. This field represents how much stock is unavailable for the purposes of inventory adjustments. It is increased or decreased every time an inventory adjustment is made to or from unavailable inventory. It also gets updated when receiving damaged items into the store as well as returning unavailable items.

The Non-sellable button is available if the system is configured to use sub-buckets. Clicking this button displays the Nonsellable Inventory popup. This screen shows the non-sellable bucket with more detail, including the sub-buckets and their quantities that make up the non-sellable inventory.

## Component Info Popup

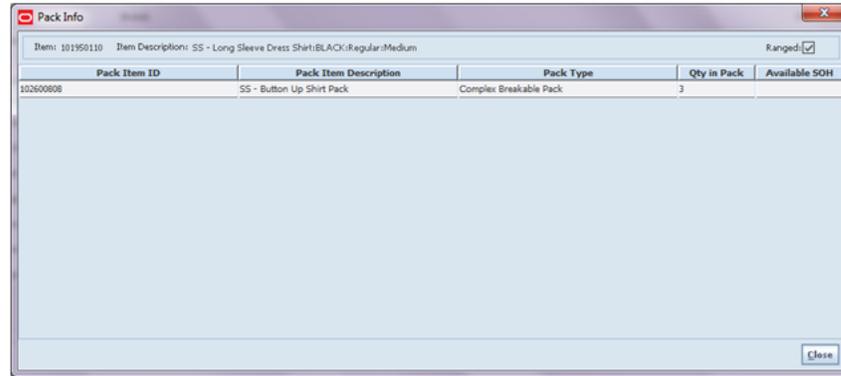
The Component Info popup displays all component items associated with the specific pack item. It is accessed within the Item Lookup dialog by clicking the Component Info button from the Item Detail screen. This button is only available when the item being looked up is a pack.

**Figure 5–12 Component Info Popup**

## Pack Info Popup

The Pack Info popup displays all packs associated with the component item being looked up. It is accessed within the Item Lookup dialog by clicking the pack info button from the Item Detail screen. This button is only available when the item selected is a component item.

**Figure 5–13 Pack Info Popup**

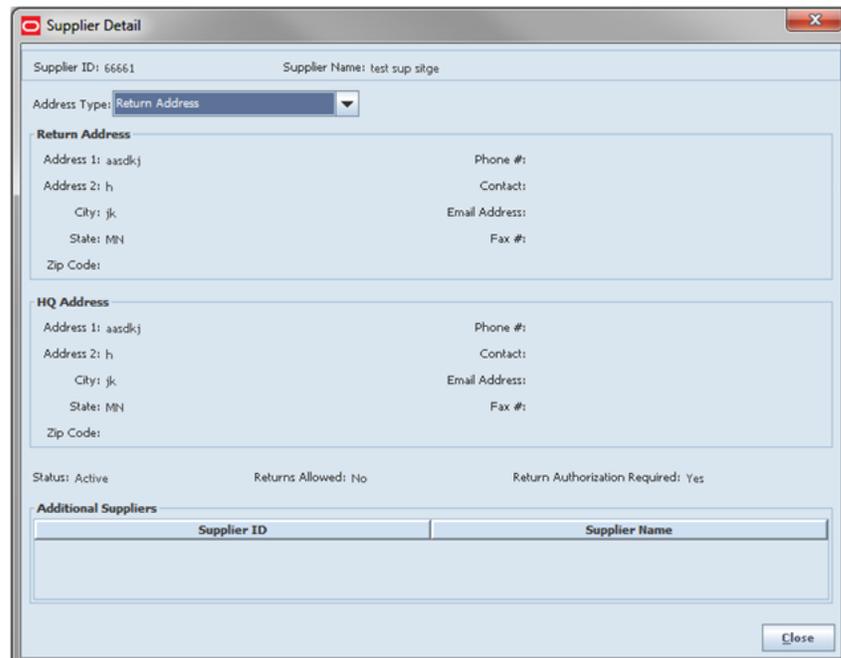


The pack items are displayed for the component with the qty in the pack for that component. Also displayed is the Pack type and Available SOH bucket of the pack. The user can select a pack item and view all the details for the pack item from the Item Details screen.

## Supplier Detail Popup

The Supplier Detail popup displays additional details about the supplier as well as listing additional suppliers if there is one. It is accessed within the Item Lookup dialog by clicking the primary supplier button from the Item Detail screen.

**Figure 5–14 Supplier Detail Popup**



This screen displays the supplier details for the primary supplier of the item being looked up. If there are additional suppliers for the item, they are listed on this screen. The suppliers are restricted if the store is configured for Multiple Sets of Books. See ["Supplier Lookup."](#)

## Item Image Popup

The Item Image popup displays an image of the item if one is provided. It is accessed within the Item Lookup dialog by clicking the image button from the Item Detail screen.

**Figure 5–15** Item Image Popup



If more than one image exists for an item, the user is able to use the arrow buttons to move from picture to picture. If the system parameter, "Display Item Image Button" is set to No, the button will not display on the screen. This allows the retailer to hide the button in case the retailer does not support displaying images.

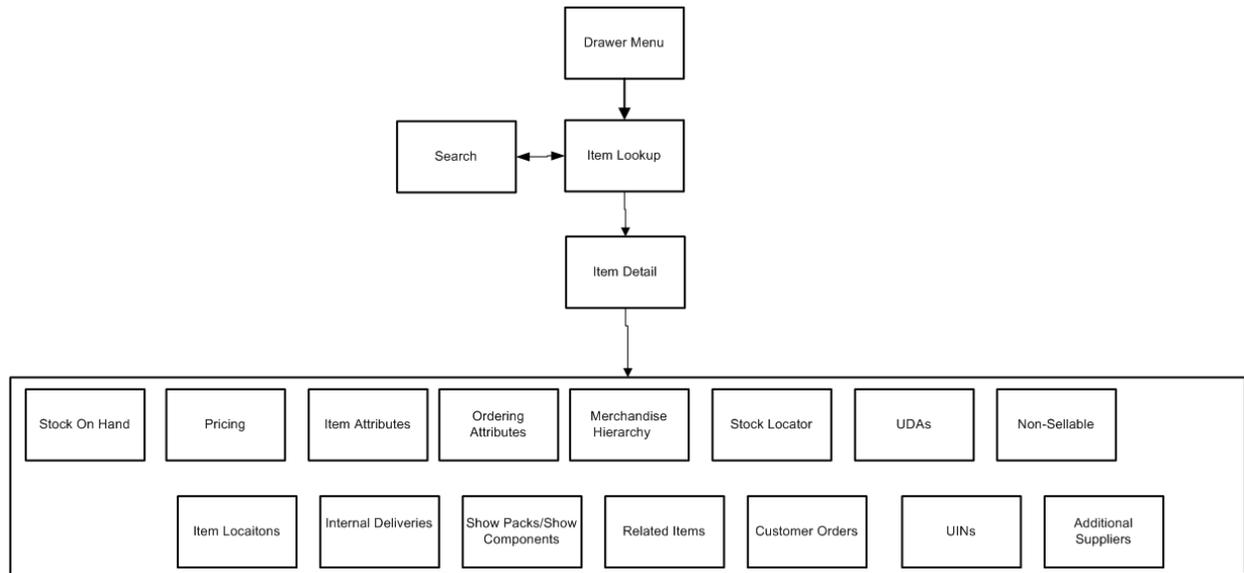
## UIN

For details on UINs, see [Chapter 6, "Item."](#)

## MAF Item Lookup

Item Lookup exists on MAF in a small and large form factor. It replicates the detail from Item Lookup on the PC. Below are the details for the MAF Small form factor. The large form factor is similar with the main difference being the Item Detail options display on the left and selecting an option displays the details in a panel on the right rather than navigates to a different screen.

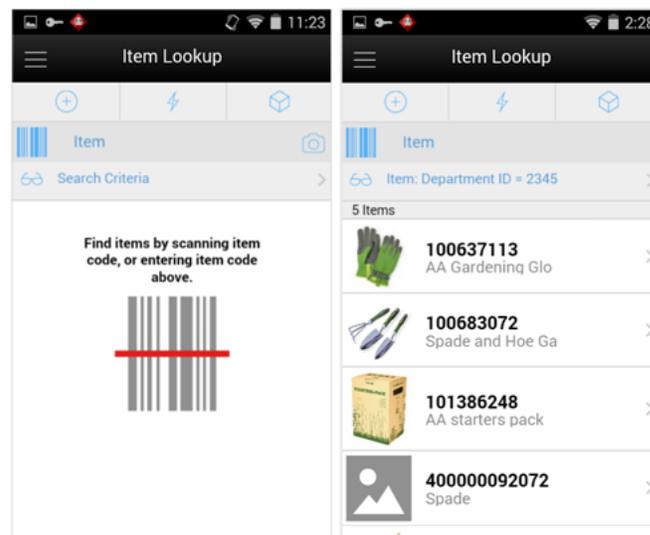
**Figure 5–16 Item Lookup MAF Screen Flow (Small)**



This is a screen flow for the Item Lookup functionality on the SIM small MAF. Selecting Item Lookup from the menu drawer directs to the Item Lookup screen. From Item Lookup, the user can search for items and view different details about the item. Details that can be viewed include Stock on Hand, Pricing, Item Attributes, Ordering Attributes, Merchandise Hierarchy, Stock Locator, UDAs, Non-Sellable, Item Locations, Deliveries, Show Packs, Show Components, Related Items, Customer Orders, UINs, and Additional Suppliers.

## Item Lookup

**Figure 5–17 MAF Item Lookup Screens**



When navigating to Item Lookup, the user is taken to a blank list screen where no item results are displayed.

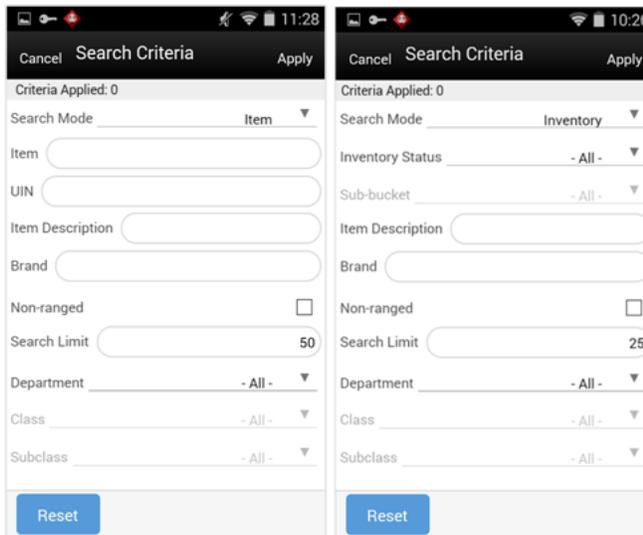
The user can use the search criteria, eye glasses, and to navigate to the Item Lookup search criteria screen to enter search criteria for items to find. After applying the search

criteria, the results are listed on the screen and the criteria applied is shown next to the eye glasses. Selecting an item from the results list navigates to the item detail for that item.

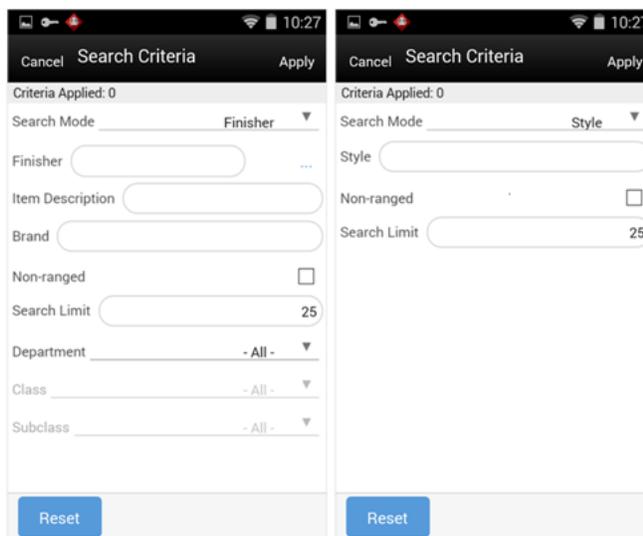
When scanning or entering an item in the scan bar, the system ignores all entered search criteria and searches for the item entered. If it results in a single item, the system takes the user automatically to the item details. If more than one item is found, it provides an item selection to select the proper item.

### Item Lookup Search Criteria

**Figure 5–18 Search Mode: Item and Inventory**



**Figure 5–19 Search Mode: Finisher and Style**



**Figure 5–20 Search Mode: Supplier and UDA**

The image displays two side-by-side screenshots of the 'Search Criteria' screen. Both screens have a black header with 'Cancel' on the left, 'Search Criteria' in the center, and 'Apply' on the right. The status bar at the top shows signal strength, Wi-Fi, and the time 10:28.

The left screenshot is for 'Supplier' search mode. It shows 'Criteria Applied: 0' and the following fields: 'Search Mode' set to 'Supplier', 'Supplier' (text input), 'Primary Supplier' with a checked checkbox, 'Item Description' (text input), 'Brand' (text input), 'Non-ranged' with an unchecked checkbox, 'Search Limit' set to 25, and dropdown menus for 'Department', 'Class', and 'Subclass', all currently set to '- All -'. A blue 'Reset' button is at the bottom.

The right screenshot is for 'UDA' search mode. It shows 'Criteria Applied: 0' and the following fields: 'Search Mode' set to 'UDA', 'UDA' (dropdown menu set to '- Select -'), 'Text' (text input), 'UDA' (dropdown menu set to '- Select -'), 'Value' (dropdown menu set to '- Select -'), 'UDA' (dropdown menu set to '- Select -'), 'From Date' (dropdown menu), 'To Date' (dropdown menu), 'Item Description' (text input), and 'Brand' (text input). A blue 'Reset' button is at the bottom.

**Figure 5–21 Search Mode: Warehouse**

The image shows a single screenshot of the 'Search Criteria' screen for 'Warehouse' search mode. It has the same header as the previous screenshots. It shows 'Criteria Applied: 0' and the following fields: 'Search Mode' set to 'Warehouse', 'Warehouse' (dropdown menu set to '- All -'), 'Item Description' (text input), 'Brand' (text input), 'Non-ranged' with an unchecked checkbox, 'Search Limit' set to 25, and dropdown menus for 'Department', 'Class', and 'Subclass', all currently set to '- All -'. A blue 'Reset' button is at the bottom.

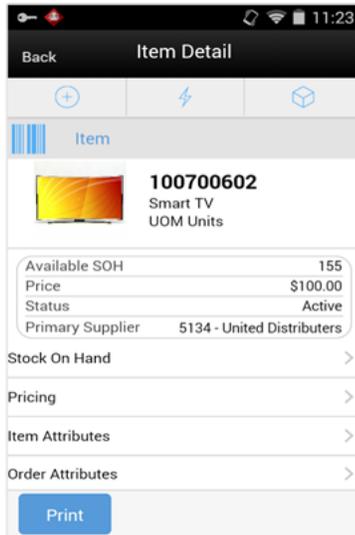
From Item Lookup, selecting the search criteria button, which looks like a pair of eye glasses, takes you to the Item Lookup Search Criteria screen. This screen is used to search for items using specific search criteria.

The Item Lookup Search Criteria screen will be different and contain different search criteria depending on the Search Mode. The user can choose to find items by item number, supplier, warehouse, finisher, UDA, Inventory Status, or style. Depending on which search mode is selected, the search criteria fields change. All search modes, with the exception of searching by style, have common search criteria consisting of item description, brand, non-ranged indicator, search limit, department, class, and sub-class.

Note that the search functions and fields for item lookup on MAF follow those of the SIM PC application.

## Item Detail

**Figure 5–22** Item Detail Screen



Selecting an item on the Item Lookup screen brings the user to the Item Detail screen. The header shows the item number, description, unit of measure, and item image if configured to show images. Additional header information includes the available stock on hand, price, status, primary supplier ID, and primary supplier name.

Upon scanning an item, the screen refreshes and the details for the newly found item are displayed. The bottom of the screen has various different features, that when selected, navigate to a screen to display the details for that feature such as stock on hand, pricing, item attributes, and so on.

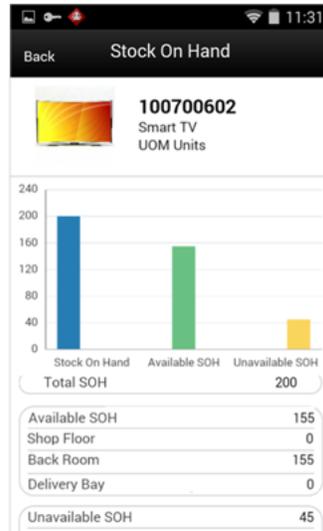
The details include the following:

- Stock on Hand
- Pricing
- Item Attributes
- Ordering Attributes
- Merchandise Hierarchy
- Stock Locator
- UDAs
- Non-Sellable (only if configured for sub-buckets)
- Item Locations (only if the Display Sequence Locations system admin = "Yes")
- Deliveries
- Show Packs
- Show Components (only for pack items)
- Related Items
- Customer Orders
- UINs (only if system is enabled for UINs and if item is a UIN/AGSN)

- Additional Suppliers

## Stock On Hand

**Figure 5–23 Stock On Hand Screen**



This is the Stock on Hand Details for an item. It was accessed by selecting the Stock on Hand option from the Item Detail screen within Item Lookup. This screen shows all the various stock on hand buckets including total SOH, available SOH, shopfloor, backroom, delivery bay, unavailable SOH, transfer reserved, RTV reserved, customer order, and nonsellable. Note that the shopfloor, backroom, and delivery bay buckets are only displayed when "Display Sequence Fields" = "Yes".

## Pricing

**Figure 5–24 Pricing Screen**



Pricing is accessed by selecting the Pricing option on Item Detail. The Pricing screen displays the Pricing Details for the item and user's store. Each price event is

represented in as a set. The sets of price events are ordered by Effective Date with most recent on the top (descending).

## Item Attributes

**Figure 5–25** *Item Attributes Screen*



Item Attributes is accessed by selecting the Item Attributes menu option from Item Detail. It displays the Item Attributes for the item at the user's store.

## Order Attributes

**Figure 5–26** *Order Attributes Screen*



Order Attributes is accessed by selecting the Order Attributes menu option from Item Detail. It displays the Ordering Attributes of Replenishment Method, Reject Store Order, and Next Delivery Date (if they exist) for the item at the user's store. This screen represents the information presented on the Item Detail - Ordering Attributes section of the PC.

## Merchandise Hierarchy

**Figure 5–27 Merch Hierarchy Screen**



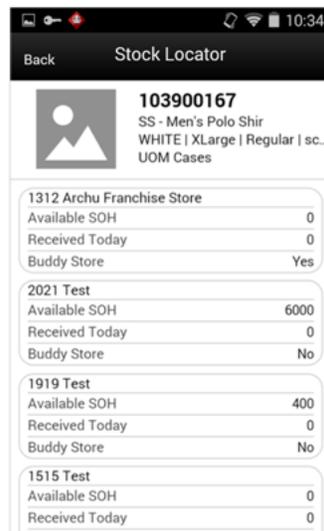
The Merchandise Hierarchy screen is accessed by selecting Merchandise Hierarchy from Item Detail. This screen displays the merchandise hierarchy associated to the item.

If the item has diffs, those are also displayed:

- <Diff1> <Diff 1 Value> if it exists
- <Diff2> <Diff 2 Value> if it exists
- <Diff3> <Diff 3 Value> if it exists
- <Diff 4> <Diff 4 Value> if it exists

## Stock Locator

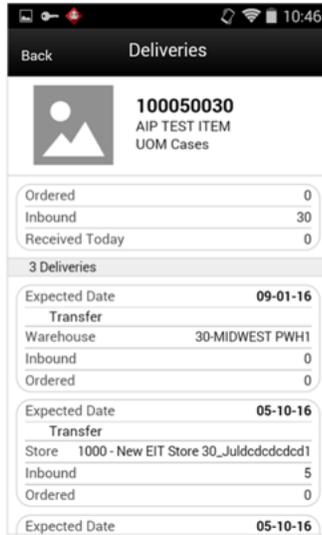
**Figure 5–28 Stock Locator Screen**



The Stock Locator screen is accessed by selecting Stock Locator from Item Detail. This screen shows the user other stores' stock on hand for the item. If transfer zones are used, only the stores within the transfer zone should appear. If no transfer zone is associated, the store is available for all transfer zones. Each store is represented in a set. The sets are ordered first by buddy stores (Yes) at the top and second by SOH (greatest at the top).

## Deliveries

**Figure 5–29 Deliveries Screen**



The Deliveries screen is accessed by selecting Deliveries from Item Detail. All quantities are in the SUOM.

The header contains the Ordered, Inbound, and Received Today quantities for the item.

The list portion of the screen represents the deliveries for the item. The user can scroll through the list of Deliveries that are coming from a Transfer or Purchase Order. The deliveries are ordered by Delivery Date with the oldest delivery at the top (ascending). If there are no deliveries, the list will be blank.

## Nonsellable

**Figure 5–30 Nonsellable Screen**

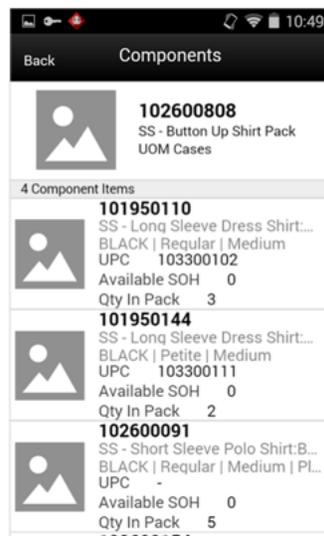


Clicking the Non-Sellable option on Item Detail displays the Non-sellable sub-bucket information for the item at the user's store. The system displays all sub-buckets that have inventory for the item at the user's store along with the corresponding inventory.

The Non-sellable menu option only displays when the system is configured for sub-buckets.

## Components

**Figure 5–31 Components Screen**

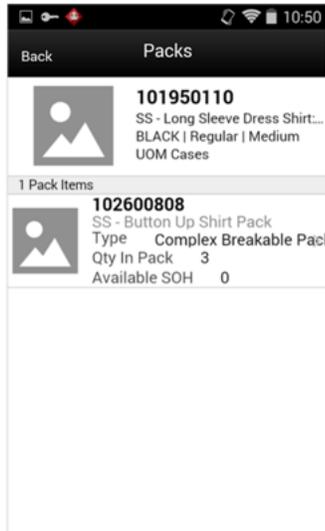


Selecting the Show Components option on Item Detail displays the components that exist for the item on the Components screen. The Show Components option is only available for those items which are a Pack item. All quantities are in the SUOM.

Tapping a component item navigates the user to the Item Detail for that item. The user remains in that item and does not return to the original item.

## Packs

**Figure 5–32 Packs Screen**

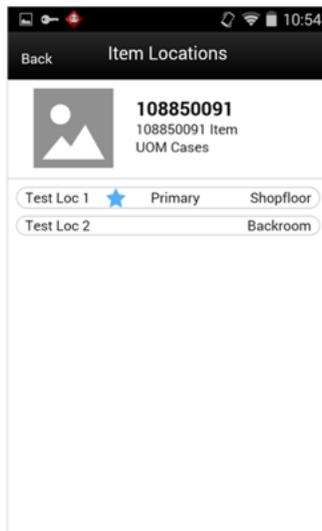


Selecting the Show Packs option on Item Detail displays the packs that exist for the item on the Packs screen. The Show Packs option is available even if the item is not part of a pack. If it is not part of a pack, no content is displayed for the item. All quantities are in the SUOM.

Tapping a pack item navigates the user to the Item Detail for that item. The user remains in that item and does not return to the original item.

## Item Locations

**Figure 5–33 Item Locations Screen**

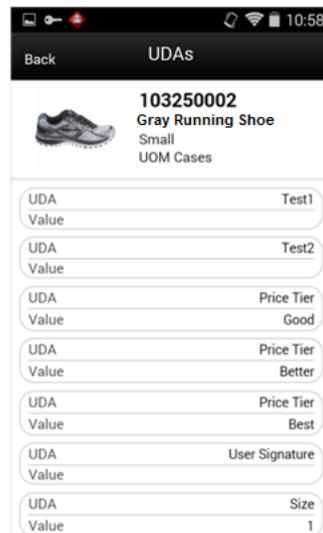


Selecting the Item Locations option on Item Detail displays the sequenced locations that exist for the item on the Item Locations screen. The Item Locations menu option is only displayed when the system is configured for "Display Sequence Fields" = "Yes." If the system is configured to display sequence fields but there are no locations defined for the item, the screen is blank.

The macro locations with the area are displayed. If the location is a primary location, it is indicated with a star. Note that this screen does not exist in Item Lookup on the PC.

## UDAs

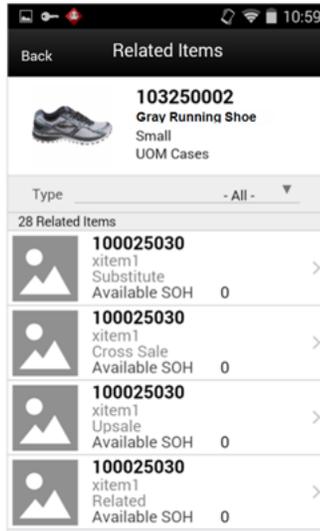
**Figure 5–34 UDAs Screen**



Selecting the UDAs menu option displays the UDA information for the item at the user's store on the UDAs screen. Each UDA and value are represented in a set. The list is ordered by UDA. If there are no records, the details are blank.

## Related Items

**Figure 5–35 Related Items Screen**



The Related Items screen is accessed by selecting the Related Items menu option on the Item Detail screen. The Related Items screen displays the related items for the item at the user's store. All quantities are in the SUOM. The related item types of cross sale, up sale, substitute, and related are listed. There is a type filter at the top of the screen allowing the user to filter by the type of related item.

If the user selects a related item record in the list, the user navigates to the Item Detail screen for that item. The user is then in the details for that item. There is not a way to navigate back to the original item. If there are no related items, the details are blank.

## Customer Orders

**Figure 5–36 Customer Orders Screen**



Selecting the Customer Orders option on Item Detail displays the customer orders that exist for the item and store. All customer order details are grouped together in a set.

The Customer Order sets are ordered by Customer Order ID in ascending order. If there are no open customer orders for the item at the user's store, nothing displays on this screen. All quantities are in the SUOM.

## Suppliers

**Figure 5–37 Suppliers Screen**



Selecting the Additional Suppliers option on Item Detail displays the Suppliers screen. This screen lists the additional suppliers that exist for the item. The primary supplier is not displayed. If there are no additional suppliers, this screen is blank.

## Supplier Lookup

The Supplier Lookup functionality provides users with the ability to view information about the supplier. The following information is available, but is not limited to this list:

- ID
- Name
- HQ Address, Phone, Contact, Contact Email
- Return Address, Phone, Fax, Contact Email
- Status
- Return Allowed
- Return Authorization Required

This dialog may be used in conjunction with other dialogs (Return to Vendor, Store Orders to a Vendor, Direct Store Delivery) to look up suppliers and assign the supplier to the transaction.

## Configurations

This section covers system parameters and security.

## System Parameters

### Enable Multiple Sets of Books

- Values: Enabled / Disabled / SIM Only
- Default: Disabled
- Topic: Admin
- Editable: No
- Enabled - MSOB is enabled in RMS. Suppliers will be limited to only those locations corresponding to the operating unit for which they are set up.
- Disabled - MSOB is disabled in RMS. No validation is performed on operating unit.
- SIM Only - MSOB is disabled in RMS. SIM will utilize the operating unit validation. Limits the suppliers available for a location. The operating unit information is set up only in SIM.
- This parameter defines whether to limit the supplier selection based on the supplier sites associated with the location.

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**Note:** This parameter is also applicable to Finishers (Return to Finisher, Lookup Finisher).

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### Search Limit Default for Supplier Lookup

- Values: 1 - 999
- Default: 500
- Topic: UI
- Editable: Yes
- This parameter sets the default search limit for Supplier Lookup, however, it is still possible for the user to change the search limit.

### Search Limit Default for Supplier Lookup - Mobile

- Values: 1 - 999
- Default: 50
- Topic: UI
- Editable: Yes
- Default search limit for the Supplier Lookup screen

### Security

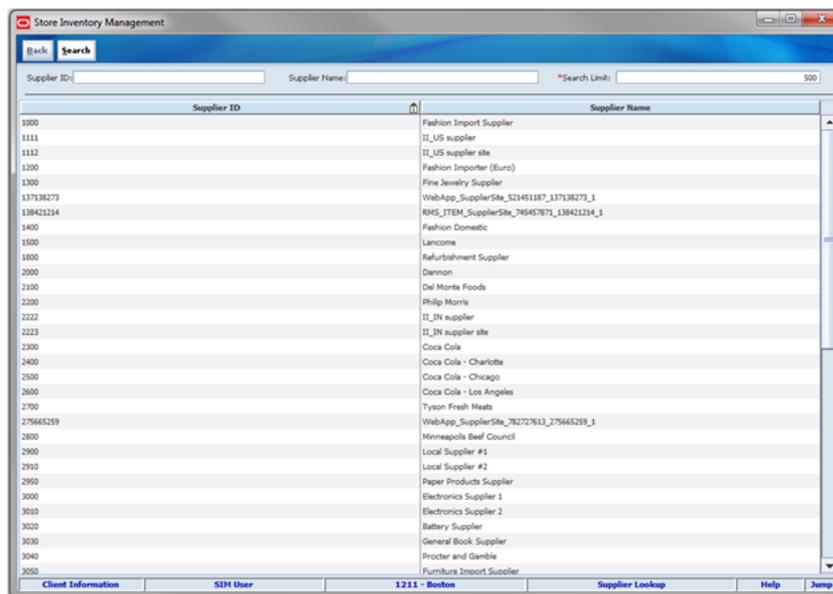
Security exists for:

- Accessing Supplier Lookup

## Supplier Lookup

The Supplier Lookup screen displays suppliers per the entered search criteria for a specific item at the user's store. It is accessed within the Lookup dialog by clicking the supplier button.

Figure 5–38 Supplier Lookup Screen

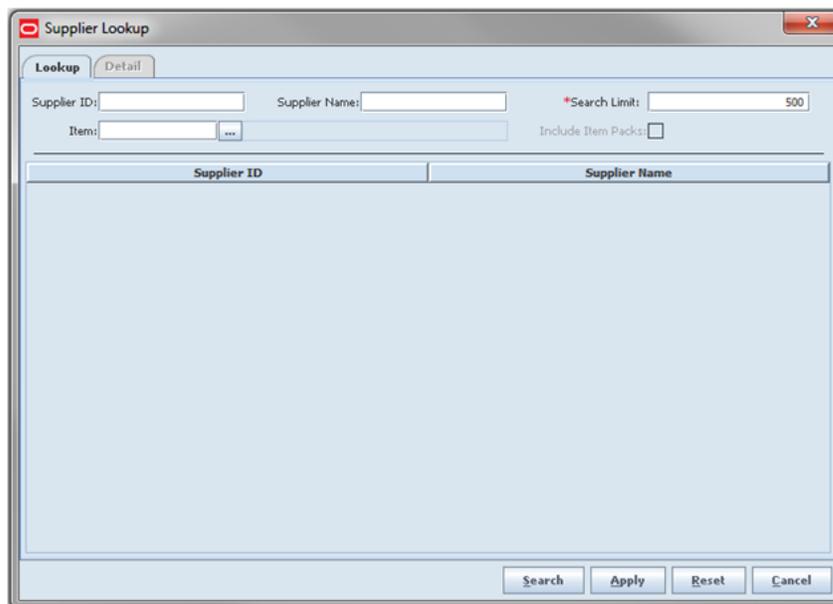


The user can look up details about any supplier, either as an inquiry or as part of another SIM task (DSD, Return to Vendor, Store Orders).

## Supplier Lookup Popup

The Supplier Lookup Popup is accessed when looking up a supplier from within a Direct Store Delivery, Return to Vendor, and Store Orders.

Figure 5–39 Supplier Lookup Popup

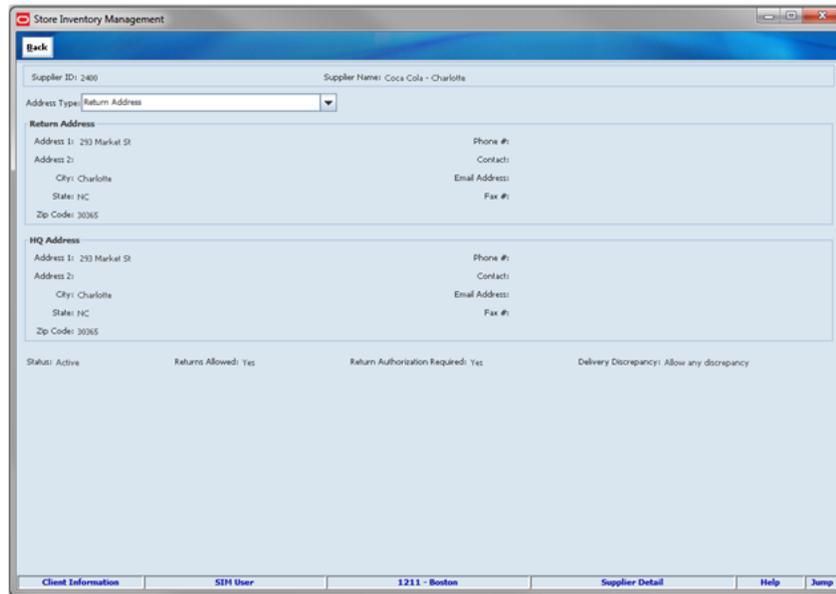


This screen allows a user to enter a supplier ID, name, or an item (or search for an item) to use as the search criteria to find the supplier. The supplier can be applied to the transaction.

## Supplier Detail

The Supplier Detail Screen displays the details for a specific supplier. It is accessed within the Supplier Lookup dialog by selecting a supplier from the Supplier List screen.

**Figure 5–40 Supplier Detail Screen**



The Supplier Detail is the same whether it is accessed from within Lookups or a transaction. Different address types for the supplier can be selected. The system displays the details for that address.

## Multiple Set of Books

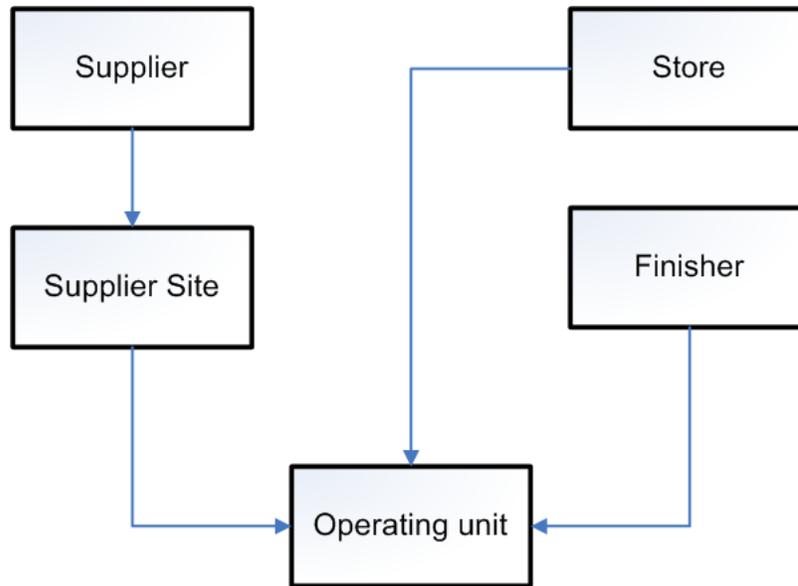
Large multi-national retailers have a need to maintain multiple sets of books in their financials systems. This need can be driven by a number of different factors such as the following:

- A company divided into different legal entities (that is, brands)
- A company having operations in different countries (with different currencies and calendars)

Suppliers and Finisher Locations carry an identifier for the operating unit (referred to as Org Unit). The Org unit limits the suppliers/finishers to only those supplier sites associated to the location.

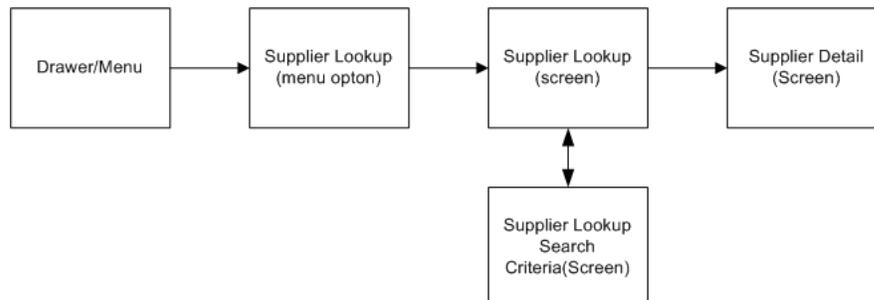
Operation Unit (referred to as Org Unit in this document) is an organization that partitions data for Oracle sub-ledger applications (Account Payables, Account Receivables, Oracle Purchasing, Oracle Order Management) consists of Sales Business Units and Operations.

Supplier site refers to the locations from which the supplier ships merchandise. A supplier can have multiple sites within one country from which it can deliver merchandise to a retailer. The item cost and terms of supply can change based on the source of delivery.

**Figure 5-41 Multiple Set of Books**

If the parameter "Enable Multiple Set of Books" is set to either Enabled or SIM Only, wherever any supplier is used in SIM, the logic requires the supplier site of the supplier to relate to the operating unit of the store. The same is true for Finishers. In case the parameter "Enable Multiple Set of Books" is set to Disabled, SIM displays all suppliers.

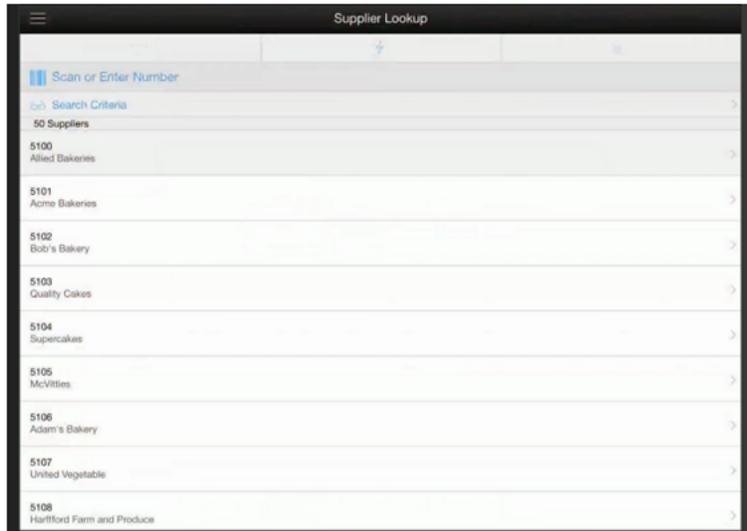
## MAF Supplier Lookup

**Figure 5-42 Supplier Lookup MAF Screen Flow (Large)**

This is the screen flow for the Supplier Lookup functionality on the SIM MAF large. Selecting Supplier Lookup from the menu drawer directs to the Supplier Lookup screen. From Supplier Lookup, the user can search for suppliers and view different details about a specific supplier.

## Supplier Lookup

**Figure 5–43** Supplier Lookup Screen



When navigating to Supplier Lookup, the user is taken to a blank list screen without any supplier results being displayed. The scan type is the only header function that is used in Supplier Lookup, which is used to determine what type of item is scanned when entering or scanning an item to identify the supplier.

The user can use the search criteria, eye glasses, to navigate to the Supplier Lookup search criteria screen to enter criteria search for suppliers. Search criteria include supplier ID, supplier name, and item. After applying the search criteria, the results are listed on the supplier lookup screen together with the applied criteria. Selecting a supplier from the results list navigates to the Supplier Detail screen for that supplier.

When scanning/entering an item in the scan bar, the system adds the scanned item to the entered search criteria and narrows down the list of suppliers by the item that was scanned. If it results in a single item, the system takes the user to the supplier details for that item. If more than one item is found, it provides an item selection to select the proper item. The item is applied to the search criteria and the supplier results are returned.

## Search Criteria (Supplier Lookup)

**Figure 5–44** Supplier Lookup Search Criteria Screen

The screenshot shows the 'Supplier Lookup Search Criteria' screen on an iPad. At the top, there are 'Cancel' and 'Apply' buttons. Below the title bar, it says 'Criteria Applied: 0'. There are four input fields: 'Supplier ID', 'Supplier Name', 'Item ID', and 'Search Limit' (with a dropdown arrow and the number '50'). At the bottom left, there is a blue 'Reset' button.

The Supplier Lookup Search Criteria screen is accessed through the eye glasses search criteria function on Supplier Lookup. The user can enter various search criteria to find a supplier. The results are listed on the Supplier Lookup screen.

## Supplier Detail

**Figure 5–45** Supplier Detail Screen

The screenshot shows the 'Supplier Detail' screen for supplier ID 8000. The supplier name is 'Lodenmeier Photography'. The status is 'Active', returns are allowed, and return authorization is required. The screen is divided into two main sections: 'HQ Address' and 'Invoice Address'. Each section lists address, city, state, zip code, phone number, fax number, contact name, and email.

Supplier ID	Supplier Name	Status	Returns Allowed	Return Authorization Required	Delivery Discrepancy
8000	Lodenmeier Photography	Active	Yes	No	Allow any discrepancy

Address Type	Address 1	Address 2	City	State	Zip Code	Phone Number	Fax Number	Contact	Email
HQ Address	950 Downtown Minneapolis	Return Suite	Minneapolis	MN	55403	2558989	3458989	Jane Brown	sales@suppliername.com
Invoice Address	209 Baker Street	Hyde Park	London	SW	125	2558989	3458989	John Doe	sales@suppliername1.com

From Supplier Lookup, selecting a supplier displays the Supplier Detail screen. This is a read-only screen to display the details of the supplier being looked up. The details are the same as those on the SIM PC application.

The upper left header shows the supplier ID, supplier name, status of the supplier, whether returns are allowed, if a return authorization number is required, and if

supplier deliveries allow for discrepancies. The upper right panel contains the header quarter address. Fields include address, phone, fax, contact name, and email if they exist for the supplier.

The lower right panel is used to populate additional address types. The types may be different per supplier, and types may be duplicated per supplier. The types are based upon the types in the SIM database which came from the merchandising system. Selecting a type on the left displays the address information for that address type on the right.

## Container Lookup

The Container Lookup functionality provides users with the ability to view information about a warehouse/finisher delivery container. The following information is available, but is not limited to this list:

- Container ID
- ASN Number
- Status (Received, In Transit, and so on)
- Receipt Date and Time
- From Location
- Number of Cases
- Damages

## Configurations

This section covers system parameters and security.

### System Parameters

#### Search Limit Default for Container Lookup

- Values: 1 - 999
- Default: 500
- Topic: UI
- Editable: Yes
- This parameter sets the default search limit for Container Lookup, however, the user can still modify the search limit.

#### Search Limit Default for Container Lookup List - Mobile

- Values: 1 - 999
- Default: 50
- Topic: UI
- Editable: Yes
- The default value on the Container Lookup List screen should be set to the value for the system parameter.

## Display Item Image Transfer Shipment / Transfer Receiving - Mobile

- Container Lookup uses the Transfer Shipment or Transfer Receiving system configuration for displaying item image. See [Chapter 11, "Transfers."](#)

## Security

Security exists for:

- Accessing Container Lookup

## Container Lookup

The Container Lookup Screen displays all of the containers that meet the search criteria for the user's store. It is accessed within the Lookup dialog by clicking the container lookup button from the Lookups menu.

**Figure 5-46 Container Lookup Screen**

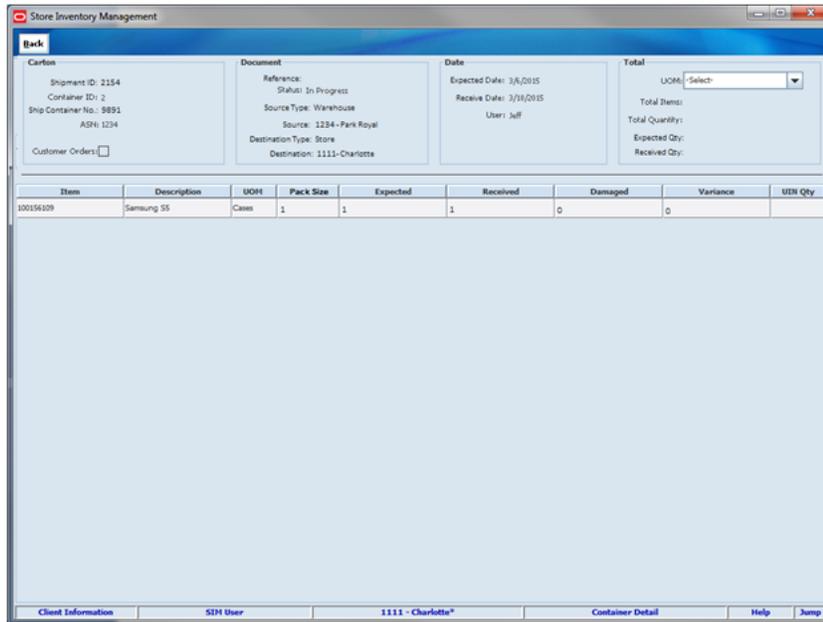
Container ID	Type	Location	Direction	Status	Receive/Dispatch	Number of SKUs	Customer Order
000000011110191108	Store	1312 Archu Franc...	Incoming	New		1	No
000000011110191111	Store	1312 Archu Franc...	Incoming	New		2	No
Container5005	Warehouse	20 PWH-20	Incoming	In Progress		3	No
000000011110159041	Warehouse	30 MIDWEST PWH1	Incoming	Missing		0	No
000000011110159052	Warehouse	30 MIDWEST PWH1	Incoming	Missing		0	No
000000011110054030	Store	1000 New EIT Stor...	Incoming	Received	5-10-2016	1	No
000000011110054045	Store	1000 New EIT Stor...	Incoming	In Progress		1	No
000000011110054056	Store	1000 New EIT Stor...	Incoming	In Progress		1	No
wc15	Warehouse	30 MIDWEST PWH1	Incoming	Received	7-15-2016	1	No
wc14	Warehouse	30 MIDWEST PWH1	Incoming	Missing	6-16-2016	1	No
wc17	Warehouse	30 MIDWEST PWH1	Incoming	Missing		1	No
wc16	Warehouse	30 MIDWEST PWH1	Incoming	Received	8-9-2016	1	No
000000011110160104	Store	1312 Archu Franc...	Incoming	Received	7-19-2016	2	No
00000000000001003	Warehouse	30 MIDWEST PWH1	Incoming	Received	7-15-2016	2	No
Container5003	Warehouse	20 PWH-20	Incoming	Received	6-8-2016	3	No
Container5004	Warehouse	20 PWH-20	Incoming	Missing		3	No
wc1	Warehouse	30 MIDWEST PWH1	Incoming	In Progress		4	No
wc2	Warehouse	30 MIDWEST PWH1	Incoming	Missing		1	No
wc3	Warehouse	30 MIDWEST PWH1	Incoming	Missing		1	No
wc4	Warehouse	30 MIDWEST PWH1	Incoming	Missing		1	No
wc5	Warehouse	30 MIDWEST PWH1	Incoming	In Progress		1	No
wc6	Warehouse	30 MIDWEST PWH1	Incoming	Damaged	7-22-2016	1	No
wc7	Warehouse	30 MIDWEST PWH1	Incoming	In Progress		1	No

Use this dialog to view details about containers. Container Lookup allows a user to look up by different fields such as Container ID, ASN, Item, Type, as well as UIN (if configured to enable UINs). The Container ID field holds the container number added by a user or generated by the system and printed on the container label. The Search Limit defaults to the value defined in the system admin "Search Limit Default for Container Lookup." The user can override this value and enter any value between 1 and 999. When searching, if only one container is found, the detail information for that container is returned. If more than one record is found, a list of results is displayed.

## Container Detail

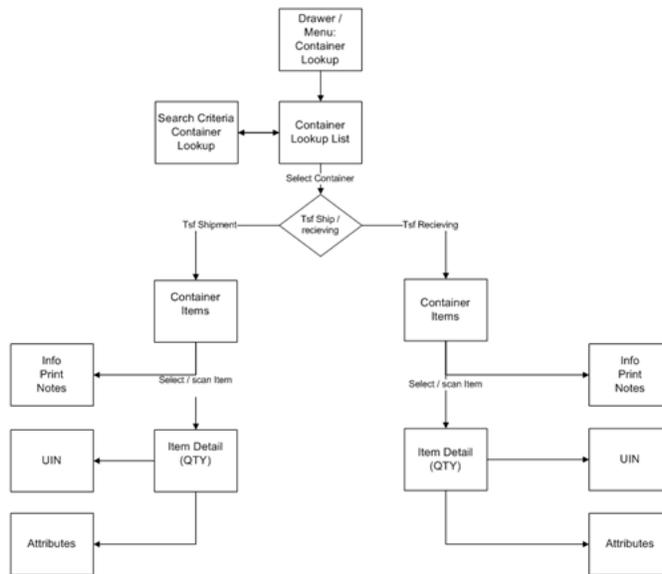
The Container Detail screen displays all of the header level container information as well as the items in the selected container. It is accessed by selecting a container from the Container Lookup screen. This screen is view only.

**Figure 5–47 Container Detail Screen**



## MAF Container Lookup

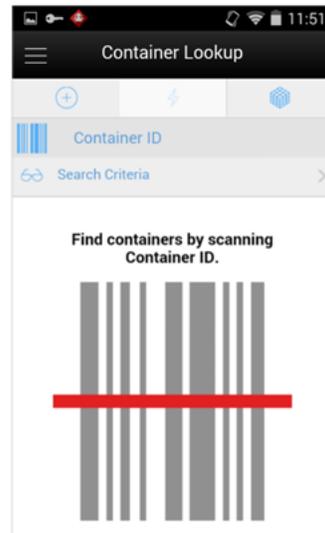
**Figure 5–48 Container Lookup MAF Screen Flow (Small)**



Container Lookup is accessed in MAF Small using the Container Lookup menu option within Lookups in the drawer. Once the user enters into the details, the user sees either the details for the container based upon the shipment or the receipt.

## Container Lookup]

**Figure 5–49 Container Lookup Screen**



The Container Lookup screen is accessed in MAF Small using the Container Lookup menu option within Lookups in the drawer. The search criteria screen is accessed using the eye glasses where the user can search for a container. The user can also scan a container (External ID (SSCC), Internal ID, or Tracking ID) and navigate to the details for that container. Container Lookup in MAF is only used for looking up containers for Transfers Shipping and Receiving. Note that Container Lookup cannot be used for looking up containers from RTV or DSD.

## Search Criteria (Container Lookup)

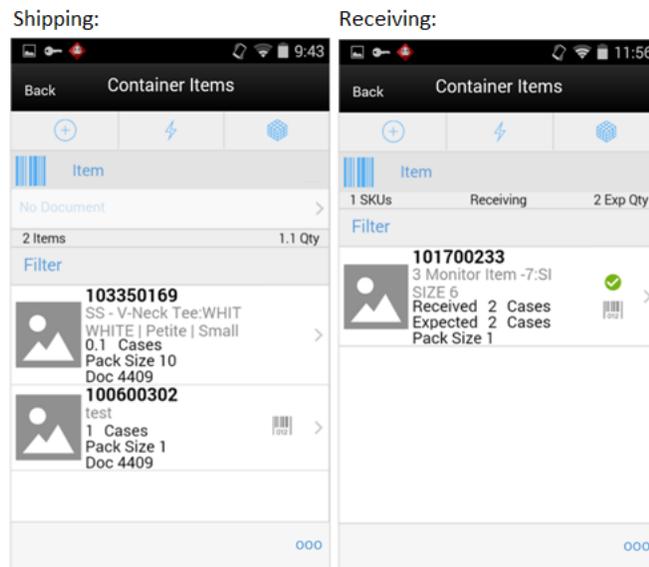
**Figure 5–50 Search Criteria Screen**

 The screenshot shows a mobile application interface titled "Search Criteria". At the top, there are "Cancel" and "Apply" buttons. Below the title bar, it says "Criteria Applied: 0". The form contains several input fields and dropdown menus: "ID" (text input), "Status" (dropdown menu with "- All -"), "Type" (dropdown menu with "- All -"), "Container ID" (text input), "Direction" (dropdown menu with "- All -"), "ASN" (text input), "Item ID" (text input), and "Search Limit" (text input with the value "50"). At the bottom of the form, there is a blue "Reset" button.

The Search Criteria screen is accessed using the eye glasses search criteria on Container Lookup. The user can enter in various criteria and the system returns the results on the Container Lookup screen.

## Container Items

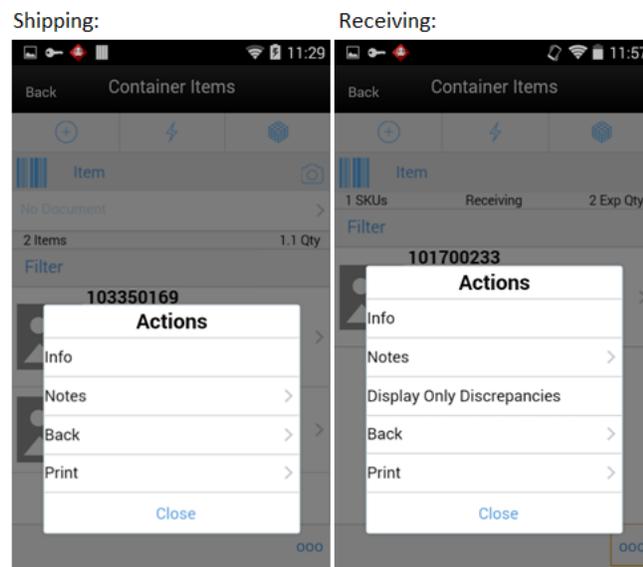
**Figure 5–51 Container Items**



The Container Items screen is accessed after going into the details for a specific container. This screen lists the items in the container. The screen varies depending on if the container is being shipped or received.

## Container Lookup Actions (Footer Menu)

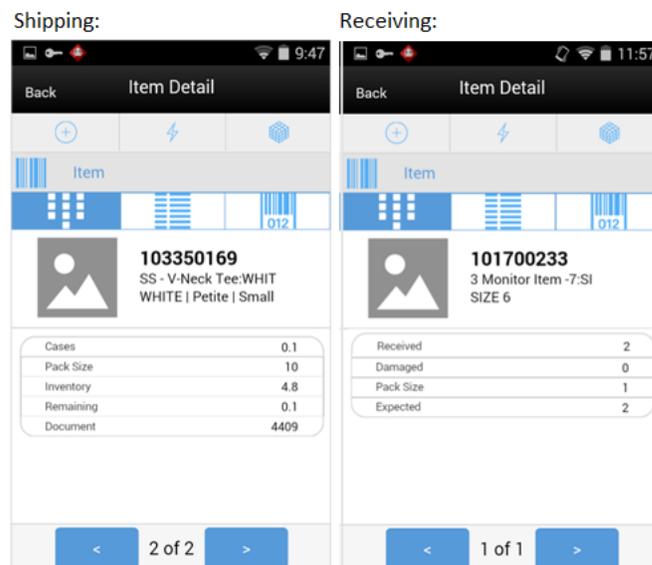
**Figure 5–52 Actions Menu**



The Actions menu is accessed after selecting the footer menu option (ellipsis) from the Container Items screen. The screen varies depending on if the container is being shipped or received.

## Container Lookup Item Detail

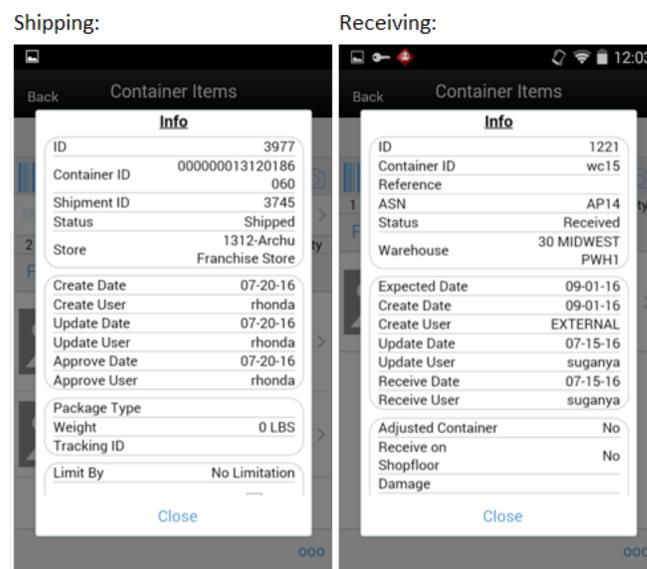
**Figure 5–53** Container Lookup Item Detail Screen



The Item Details screen is accessed after going into the item details of an item on the container. The screen varies depending on whether the container is being shipped or received. This screen is view only.

## Container Lookup Info

**Figure 5–54** Container Lookup Info Screen



The Info screen is accessed after selecting the Info menu option from the footer menu of the Container Items screen. The screen varies depending on whether the container is being shipped or received. They are the same Info screens as in Shipping or Receiving. This screen is view only.

## Finisher Lookup

External Finishers are like warehouses to SIM. Finishers have the same functionality as warehouses (that is, Return to Finisher, Deliveries from Finisher). Finishers may have multiple addresses. SIM only allows external finishers which belong to the same org unit as the store.

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**Note:** Warehouses are not restricted by org units.

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The Finisher Lookup functionality provides users with the ability to view information about an External Finisher. The following information is available:

- Finisher ID
- Finisher Name
- Principal Country
- Currency
- Language
- Payment Terms
- Contact Person details at the finisher's site
- Address info: Postal address, Return Address, Order Address, Invoice address, Remittance address
- HQ address of the external finisher
- Finisher status (Active/inactive), VAT Region, Transfer Entity ID, and Org unit ID

## Configurations

This section covers system parameters and security.

### System Parameters

#### External Finisher Enable/Disable

- Values: Enabled/Disabled
- Default: Disabled
- Topic: External Finisher
- Editable: Yes
- Enabled - External Finisher field is enabled in the Returns, Finisher Lookup, and Warehouse Delivery screens.
- Disabled - External Finisher field is not displayed.

### Security

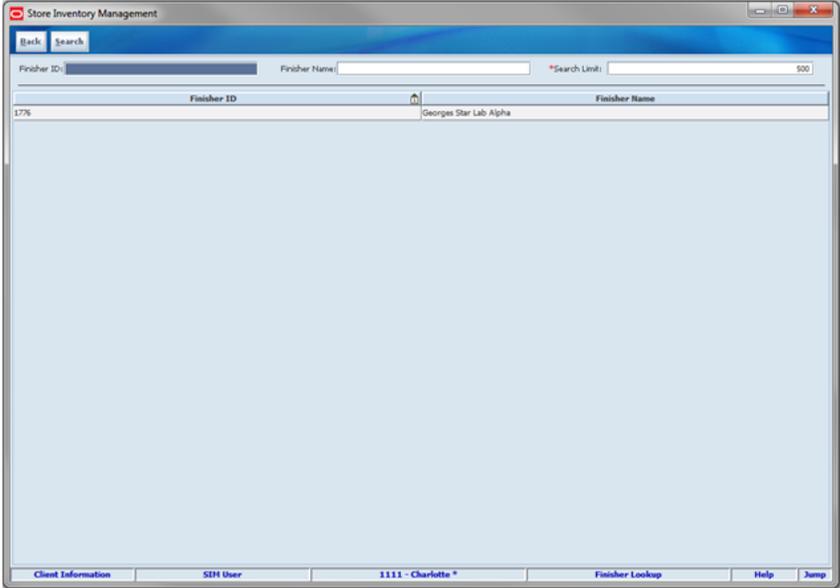
Security exists for:

- Accessing Finisher Lookup

## Finisher Lookup

The Finisher Lookup screen displays all of the finishers that meet the search criteria. It is accessed within the Lookup dialog by clicking the finisher lookup button.

**Figure 5-55** *Finisher Lookup Screen*



Finishers can be looked up by Finisher ID or Name. Finishers are restricted to those which are for the same operating unit as the store. SFor more details on operating units, see "[Supplier Lookup](#)."

## Finisher Details

The Finisher Detail screen displays the details for a specific finisher. It is accessed within the Lookup dialog by selecting a finisher from the Finisher List screen.

**Figure 5–56 Finisher Detail Screen**

<b>Back</b>	
Finisher ID: 1776	Principal Country: US
Finisher Name: Georges Star Lab Alpha	Currency: USD
Language: 1	Payment Terms: 10
Contact Person: King George II	Fax:
Phone: (555) 755-8381	Telex:
Email:	
Select Address Type: Return Address	
<b>Return Address</b>	
Address 1: 101 Dupont Circle	Phone #:
Address 2:	Contact:
City: Minneapolis	Email Address:
State: MN	Fax #:
Zip Code: 55403	
<b>HQ Address</b>	
Address 1: 101 Dupont Circle	Phone #:
Address 2:	Contact:
City: Minneapolis	Email Address:
State: MN	Fax #:
Zip Code: 55403	
Status: Active	VAT Region:
Transfer Entity ID:	Org Unit ID:
<a href="#">Client Information</a> <a href="#">SIM User</a> <a href="#">1111 - Charlotte *</a> <a href="#">Finisher Detail</a> <a href="#">Help</a> <a href="#">Jump</a>	

The user can look up all details about any external finisher, either as an inquiry or as part of another SIM task.

## Transaction History

The Transaction History Lookup functionality provides users with the ability to view information about existing transactions which have an impact to an items stock on hand.

## Configurations

This section covers system parameters and security.

### System Parameters

#### Search Limit Default for Transaction History

- Values: 1 - 999
- Default: 500
- Topic: UI
- Editable: Yes
- This parameter sets the default search limit for Transaction History, however, the user can still modify the search limit.

### Security

Security exists for:

- Accessing Transaction History



The Transaction History is available in the Quick Jump feature. Selecting a task for Transaction History navigates the user to the Transaction History dialog. ID is not applicable for Transaction History quick jump.

## User Interface Guidelines

Item Lookup exists on the PC, handheld, and MAF small and large.

Supplier Lookup exists on the PC, handheld, and MAF large.

Container Lookup for Transfer Receiving and Transfer Shipping containers exists on the PC, handheld, and MAF small.

Container Lookup for RTV and DSD Containers exists on the PC and handheld.

Container Lookup exists on the PC, handheld, and MAF small.

Finisher Lookup exists on the PC.

Transaction History Lookup exists on the PC.

## Technical

The code base artifacts listed below support different types of item lookup operations based on Item ID, Finisher, Inventory, Style, Supplier, UDA, and Warehouse. Although the names of the artifacts contain the phrase "Item," they in fact support the different lookup operations based on Finisher, Inventory, Style, Supplier, UDA, and Warehouse as well. Most of the artifacts, except for the Filter artifact, are shared for the lookup operations.

Code Base Artifacts	Description
ItemLookupPanel	<p>The underlying UI panel that contains all the UI elements to support a user-initiated lookup operation. At a high level it contains:</p> <ul style="list-style-type: none"><li>■ A Search Panel having a drop down menu that lists all the query types that could be looked up: Item, Finisher, Inventory, Style, Supplier, UDA, and Warehouse.</li><li>■ A Filter (Left) Panel in the center, an "RCardPanel" based implementation. It contains multiple panels: One for each query (lookup) type. Each such panel contains the required UI elements to take in user-entered search criteria. These panels get swapped based on the query type chosen in the search panel.</li><li>■ A Filter (Right) Panel to the right, very similar to the filter left panel having more UI elements to take in user-entered search criteria.</li></ul>

Code Base Artifacts	Description
ItemVOByItemQueryFilter	These are the filter classes. These act as containers to hold the user-entered search criteria for any particular lookup operation. Each contains the required member variables to hold the criteria and also methods to run rules checks if any against the entered data.  These filter classes correspond to the different lookup types as follows:
ItemVOByFinisherQueryFilter	
ItemVOByInventoryQueryFilter	
ItemVOByStyleQueryFilter	
ItemVOBySupplierQueryFilter	
ItemVOByUDAQueryFilter	
ItemVOByWarehouseQueryFilter	
ItemLookupModel	Contains methods to invoke the appropriate server side services and/or any application logic to support client side UI.
ItemEJBServices	Client side services class containing methods that invoke the server side logic via a remote EJB method call.
ItemBean	EJB Class on the server side that services the client requests.
ItemServerServices	It is the server side services class containing methods that get invoked from the EJB Class. It has methods to query the database with the help of either a command object or directly using a DAO object.
FindItemVosHandler	This server-side handler has methods to query the database with the help of the DAO object. A handler object is generally used to contain the execution logic of an API on the server side for extensibility.
ItemOracleDAO	This is the DAO class with all the required methods to query/update the database.

## Integration

This section covers integration through RIB and web services.

### RIB

Items integrate to SIM from RMS (Item and Item/Loc). SIM subscribes to all updates to this information.

Suppliers integrate to SIM from RMS. SIM subscribes to all updates to this information.

SIM subscribes to external finishers from RMS. SIM also subscribes to Item/Finisher relationships.

### Web Service

Web Services exist to look up item from within an external system.

Web Services exist to look up transaction history from within an external system.

Web Services exist to look up supplier from within an external system.

Web Services exist to look up finisher from within an external system.

## Database Structure

The following database tables are used:

<b>Table Name</b>	<b>Description</b>
ITEM	Contains one record for each item defined for the company. It contains the base information for an item that is consistent across all locations.
STORE	Contains information about the locations within the organization that hold items. This could include a store, warehouse, a physical location, catalog, web page, or other channel.
STORE_ITEM	Relational table connecting the store to the item. It is a many-to-many relationship. A store can contain many items, and an item can be available at many stores. It also contains the information that is defined only for an item at a specific store.
SUPPLIER	Defines all of the external sources (suppliers) for merchandise items offered for sale for the company.

Within the Store Inventory Management system, several features apply through the application across multiple functional areas. These features include the ways items are scanned and processed as well as how the feature worked based on the type of item and status of the item.

This chapter covers all aspects of item. The following topics are covered:

- [Item Type Support](#)
- [Store Pack Inventory](#)
- [UOM/Scanning](#)
- [Barcode Efficiency](#)
- [Advanced Item Entry](#)
- [UIN Tracking](#)
- [Extended Attributes](#)
- [Item Status](#)
- [Item Description](#)
- **Technical:** Integration with Oracle Retail Integration Bus (RIB), web services, batch, and the database structure.

## Item Type Support

SIM supports a variety of items, ranging from items for which no inventory is tracked (from non-inventory items and consignment and concession items) to items for which special calculations are needed, such as variable weight or UPC-E items. These items are, most of the time, used in a grocery environment.

The following are supported item barcode types:

- VPN
- SKU
- GS1
- Type 2/VPLU (A, B, C, D, E, F, G, H, I, J, K, L)
- UPC #
- UIN

SIM also has the concept of the GS1 databar. This is an industry standard databar based on the old EAN128 format. It can contain a variety of data such as serial

numbers, price, weight, and much more. Oracle has incorporated logic into the barcode tool to allow the scan of these databars and use of the embedded data for serial number, quantity, and price.

Finally, there are serialized items that require a unique item instance for each stocking unit.

SIM provides a benefit that any of these item types can be entered in any field in the dialogue and SIM will find the master item information.

## Type 2 (VPLU)

Barcodes of fresh items in grocers often contain different elements beyond just the UPC.

Type - 2 supported formats contain a prefix, UPC, price, and check digit. Based on these elements, SIM will extract the UPC and price, and calculate the weight based on the price.

This calculated weight will be used on the handheld and MAF to increase the scanned quantity. The standard process in SIM for stock counts, receiving, or shipping is to increase the quantity by one. With this functionality, the quantity will be updated with the weight of the item:

- Handheld, PC, and MAF recognize Type 2 items and de-construct it in price/item.
- Quantity is calculated by using the embedded price.
- Update the quantity entry field with the calculated quantity from the barcode.

The following table lists the supported Type 2 formats:

Format	Description	Prefix Length	Begin Item Digit	Begin Price Digit	Check Digit	Length
A	1-4-6-1	1	2	6	0	12
B	1-5-5-1	1	2	7	0	12
C	1-4-6-1	1	2	7	6	12
D	1-5-5-1	1	2	8	7	12
E	2-4-5-1	2	3	8	7	12
F	2-4-5-1	2	3	7	0	12
G	2-5-4-1	2	3	8	0	12
H	2-5-4-1	2	3	8	0	13
I	2-4-6-1	2	3	7	0	13
J	2-4-6-1	2	3	8	0	13
K	2-5-5-1	2	3	9	8	13
L	1-6-5-1	1	2	8	7	13

- Each type has a hard-coded algorithm.
- Each column in the table is the start of the position in the string (0 means there is no position for it). The description explains the length of the value.
- For example, format C 1-4-6-1 for item number 123456789012:
  - Prefix, position 1: 1

- Item number, position 4: 2345
- Check digit, position 6: 6
- Price: 789012, or 7890.12
- The weight is calculated by using the price from the label and dividing it by the current active price on file:
  - Two decimals are implied in the retrieved value from the barcode.
  - The currency for the price on the barcode is the currency of the store.
  - This price can be regular, promotion, or clearance.
  - The item's SUOM of the weight is implied.
  - Standard rounding is applied up to a maximum of three decimals.
- Example:
  - Item: 250010001500 is defined as format A; this means that the price is 000150 = \$1.50.
  - The price on file for this item is \$3.
  - The quantity is calculated as follows:  $1.5/3 = 0.5$ .

## Vendor Product Number

Sometimes the vendor product number is the easiest way to look up an item. The system will return an item or list of items based on the VPN. This functionality is available in all areas of the application where the user can enter an item as well as on the Advanced Item Entry screen. This feature exists on both the PC and handheld (Wavelink Studio).

## GS1 Data Bar

**Figure 6-1 GS1 Data Bar Example**



The GS1 DataBar is a barcode symbol with embedded information. This information can be used in the store for sale and supply chain purposes. Information may include item, price, quantity, unique identification number, Country of Origin, Lot, Expiration, as well as many other fields.

The Retail Market is seeing an increase in the use of the GS1 DataBar. SIM has a number of features to assist in the support of the GS1 DataBar.

The example, in the above figure, shows a 2D GS1 Databar.

SIM can accommodate the GS1 DataBar. Throughout SIM, on both the PC and the handheld (Wavelink Studio), where there is an item entry field, the entry or scan is allowed where applicable of a GS1 DataBar. The item will be parsed from the DataBar and used on the transaction.

When entering or scanning a GS1 DataBar, SIM will parse out the item, quantity, price, UIN along with possible other attributes, and apply those to the transaction. The price is used to calculate the quantity of the item. On the PC, when the Advanced Item Entry is not being used and a GS1 DataBar is entered into the Item Entry field, only the item will be parsed for the transaction and the other attributes will not be captured.

### **GS1 DataBar - Quantity and Price**

The quantity will be parsed and applied to the transaction.

Example: 30 lbs. is in the GS1 DataBar, then 30 lbs. will be applied to the transaction.

The price will be used to calculate the quantity, if the quantity is not provided.

The same calculation will be used that is used for Type 2 items. The price from the barcode will be divided by the current price in the system to get the quantity.

Example: An apple is scanned which has a UOM of kg. The price in the barcode is \$1.50. The price in SIM is \$3.00. The quantity will be derived by \$1.50 divided by \$3.00 to get .5 kg.

## **Store Pack Inventory**

SIM is able to provide additional visibility into the items that can be sold individually or as part of a simple or complex pack.

Features include the following:

- SOH visibility to items sold individually or as part of a pack
- Two indicators used to control the behavior:
  - Store Pack Inventory Indicator
  - SOH Inquiry at Pack Level Indicator
- Indicators set in the Item Master application (RMS)
- Item type in SIM broken out and used to identify:
  - Simple Pack
  - Complex Pack
  - Simple Breakable Pack
  - Complex Breakable Pack

SIM is able to provide an estimated quantity for the simple or complex pack when it is sold as both an individual component as well as in a pack.

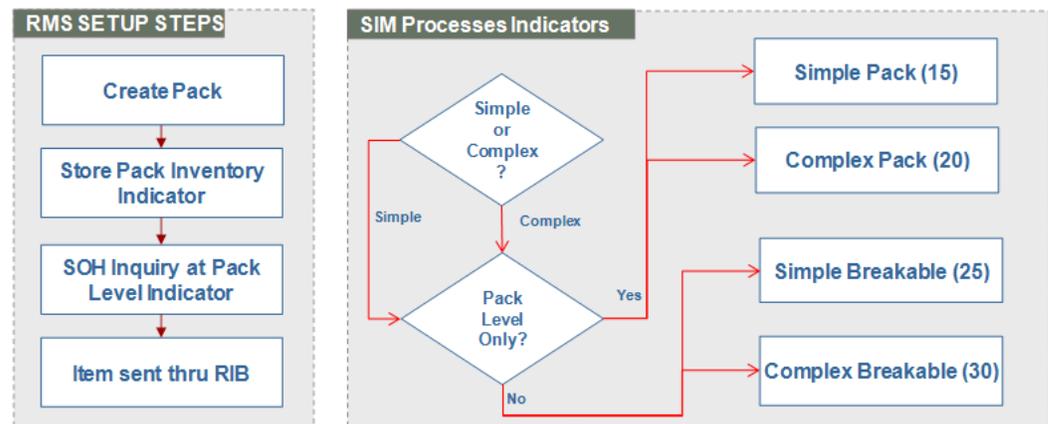
To enable this feature for pack item, there are two indicators used to control the behavior. The Store Pack Inventory indicator tells the system when an item will only be sold and tracked as a pack. When this indicator is not checked, the item can be sold and tracked at the component level with a calculated option at the pack level.

The SOH Inquiry at Pack Level indicator is used to determine if an estimated stock on hand should be calculated for the pack when the item is sold at both component and pack level.

It is critical that the item master have these two indicators set up properly in order for the information to flow into SIM properly.

SIM can categorize the item by identifying whether the pack is breakable or not based on the indicators in RMS. Breakable packs can be transacted similar to non-breakable packs, but inventory for a breakable pack will always be stored at the component level.

Figure 6–2 Store Pack Inventory Setup Flow



## Business Cases

When a pack item is created in RMS, the user will need to identify whether the pack is breakable or not by checking the Store Pack Inventory Indicator if the item is tracked and sold as a pack item only. The user will not check the indicator if the item is tracked and sold at both the pack and component level.

Next, the user will need to determine if an estimated stock on hand should be calculated for a breakable pack. The SOH Inventory at Pack Level indicator is checked when an estimate should be calculated.

When the item flows into SIM, additional processing will take place to correctly classify how the item will behave. Basically, there are four groupings of the pack that SIM will identify as the information flows in. SIM uses the type field of 15, 20, 25, and 30 to identify how the item needs to handle other types of processing, such as what displays on a stock count, and so on.

The following examples help illustrate how the calculations take place.

A company is called RKA Coffee House. The company sells various types of coffee and packages the coffee into different configurations as well as providing various gift packs.

### Example 1: Simple Pack

Pack Item 500 Medium Roast Coffee 3pk contains:

Item	Qty	UOM	SOL
5001 Medium Roast Coffee	3	8oz pkg	1200

1. Identify the component SOH.  
1200
2. Identify the number of components for the pack.  
3
3. Divide the component SOH by the number needed for the pack.  
 $1200/3 = 400$
4. Display the pack item estimated SOH.

### Pack Item 500 Medium Roast Coffee 3pk: SOH ~400

When the user looks up the component item, the SOH will display 1200 units. When the pack item is displayed, the SOH will display the number of packs that could potentially be sold to the customer. Since the component item could potentially be part of another pack configuration, this number is only an estimate. Therefore, the tilde ~ will be placed in front of the calculated SOH.

The next example is more complicated example. The coffee house wants to offer a sampler package in order for a customer to try different types of coffee. The coffee house will put one of each of their types of light and dark roast and two of medium roast coffee. Each of these coffee packages can also be sold individually. Additionally, there will be two of the coffee mugs with the RKA logo on the mug, added to the coffee sampler package.

### Example 1: Complex Pack

Pack Item 700 Coffee Sampler contains:

Item	Qty	UOM	SOL
4001 Light Roast Coffee	1	8oz pkg	600
5001 Medium Roast Coffee	2	8oz pkg	1200
6001 Dark Roast Coffee	1	8oz pkg	500
7001 Medium Roast Coffee	2	Each	1200

**1.** Identify the component SOH.

Item 4001: 600

Item 5001: 1200

Item 6001: 500

Item 7001: 1200

**2.** Identify the number of components for the pack.

Item 4001: 1

Item 5001: 2

Item 6001: 1

Item 7001: 1

**3.** Divide the component SOH by the number needed for the pack.

Item 4001:  $600/1 = 600$

Item 5001:  $1200/2 = 600$

Item 6001:  $500/1 = 500$

Item 7001:  $1200/2 = 600$

In order to make the Coffee Sampler, all the components and the correct quantity of components are needed. Therefore, take the lowest number calculated in this step.

**4.** Display the pack item estimated SOH.

Pack Item 700 Coffee Sampler SOH ~500

In the following example, there can be another pack item as part of the new gift pack.

**Example 3: Complex Pack (Simple Pack, Complex Pack, and Individual Items)**

Pack Item 750 Coffee Explorer Set contains:

Item	Qty	UOM	SOL
5001 Medium Roast Coffee	2	8oz pkg	1200
6001 Dark Roast Coffee	1	8oz pkg	500
Pack Item 900 Passport/Slate/Woodbox Combo contains:	1	Pack	
9001 Coffee Passport	1	Each	1200
9002 Slate Serving Tray w/Chalk	1	Each	600
9003 Wood Box with Stainless Steel Lid	1	Each	800
Pack Item 800 Set of 4 Ceramic Tasting Cups contains:	1	4ct	
8001 Ceramic Tasting Cups	4	3oz cup	1000

**1. Identify the component SOH.**

Item 5001: 1200

Item 6001: 500

Pack Item 900:

Item 9001: 1200

Item 9002: 600

Item 9003: 800

Pack Item 800:

Item 8001: 1000

**2. Identify the number of components for the pack.**

Item 5001: 2

Item 6001: 1

Pack Item 900 (1):

Item 9001: 1

Item 9002: 1

Item 9003: 1

Pack Item 800 (1):

Item 8001: 4

**3. Divide the component SOH by the number needed for the pack.**

Item 5001:  $1200/2 = 600$

Item 6001:  $500/1 = 500$

Pack Item 900 (~600):

Item 9001:  $1200/1 = 1200$

Item 9002:  $600/1 = 600$

Item 9003:  $800/1 = 800$

Pack Item 800 (~250):

Item 8001:  $1000/4 = 250$

In order to make the Coffee Explorer Set, all the components and the correct quantity of components are needed. Therefore, take the lowest number calculated in this step.

4. Display the pack item estimated SOH.

Pack Item 750 Coffee Explorer Set SOH ~250

The item lookup feature provides the user with more visibility into the stock on hand for the packs and components of a pack through the Store Pack Inventory Indicator.

If the indicator is checked, inventory will be held at the pack level and not broken down.

If the indicator is not checked, SIM will break down the item to the components on the backend and all inventories will be held at the component level.

Additional information on the pack and components will also be available by pressing the Pack Info button and Component Info button depending on what level is being viewed by the user.

Anywhere there is a SOH value on a screen, it may be estimated (~) if the SOH Inquiry Indicator is checked in RMS. If the indicator is not checked, a Null value will display.

## Store Pack Inventory - Other Functional Areas

When using the shipping and receiving functions in SIM, the backend processing of breaking down to the component item will be applied and the component items stock on hand will be updated for any breakable pack items.

When performing an inventory adjustment, SIM will need to look to the component items' unavailable stock on hand to determine the available quantity that can be used for the adjustment.

The user will continue to be allowed to sequence both simple and complex breakable packs and the components of those packs. When the Apply Item List button is selected on the Micro Sequence Edit screen, SIM will apply the pack and component item for any breakable packs. Anywhere an item can be entered in the sequencing flow, the user will be allowed to enter either the pack or the component of a breakable pack.

The transaction history will contain the component or the pack item depending on where inventory was updated.

## UOM/Scanning

Features:

- [Unit of Measure \(UOM\)](#)
- [Sticky UOM](#)
- [Transaction \(Preferred\) UOM](#)

- Pack Size
- Consistent Scanning (Quantity)
- Consistent Scanning (UOM)
- Consistent Scanning (Quantity)

## Configurations

This section covers system parameters.

### System Parameters

#### Default UOM

- Values: Standard UOM/Cases
- Default: Cases
- Topic: Admin
- Editable: Yes
- Standard UOM: The system defaults initially to the Standard Unit of Measure.
- Cases: The system defaults initially to Cases.

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**Note:** The user will still have the ability to toggle between Cases and Standard UOM regardless of the setting.

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#### Disable Pack Size

- Values: Yes/No
- Default: No
- Topic: Admin
- Editable: Yes
- Yes: The system allows the user to enter values into the Pack Size fields throughout the product.
- No: The system will not allow the user to enter values into the Pack Size fields, but the field will still appear on the screens.

## Unit of Measure (UOM)

The Default UOM parameter is used to default the unit of measure from within transactions. The selected option will default in the majority of the functional areas though out the application, with the exception of stock counts.

On MAF, the unit of measure is set on the Mode Bar and will initially be set based on the Default UOM parameter. Once the unit of measure is changed, it is changed throughout the application until the user has left the application. However, on the PC and handheld, the unit of measure also will default based on the Default UOM parameter, but this is defaulted every time the user enters a different transaction.

If the standard UOM is Eaches, the user will have the option to choose Units or Cases from the UOM drop down. If there is a transaction UOM, this will also be available (transaction UOM is used with customer order transactions).

- Standard UOM of Eaches: the user will only be able to enter a quantity in positive whole numbers for the SUOM of Eaches. It should not display in decimals. Example: 4 units ,not 4.0 units.  
The UOM will display as units, not eaches.
- Cases: the user will be able to enter a decimal quantity for the case quantity, if the calculated quantity results in a whole number (cannot have a partial unit).
- Example: Pack Size 12, Qty 1.5 Cases = 18 Units. This is acceptable as 18 is a whole number.
- If the standard UOM is different than Eaches, the user should have that unit of measure along with Cases as UOM options in the UOM drop down. Example: Kg and Cases:
  - Standard UOM other than Eaches: depending on the UOM the user will be allowed to enter a decimal value for the SUOM quantity.
  - The quantity will be restricted to a total of 4 digits and three decimal places if it is allowed to enter decimals for that specific unit of measure.
  - Cases: the user will be able to enter a decimal quantity for the case quantity. Example: Pack Size 3, Qty 1.5 Cases = 4.5 LBS. This is acceptable as 4.5 LBS is feasible.

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**Note:** Inventory will be allowed to hold decimal values for those items that have a standard UOM other than units that allow for decimals.

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## Sticky UOM

When entering all transactions within SIM, the system will use the existing system default unit of measure configuration to determine what the initial unit of measure should be on the transaction, Standard UOM, Cases or Transaction UOM.

If the user chooses to change the unit of measure on the PC or Handheld (Wavelink Studio), the UOM will then "stick" and keep it as such within the transaction. The user can change the unit of measure and it will then "stick" and remember the newly selected unit of measure. The UOM will reset back to the system default upon leaving the transaction.

This feature enables a user who, for example, is scanning a DSD delivery, to switch the unit of measure to cases from standard unit of measure, and can keep scanning new items at the case level without having to constantly switch from standard to case level.

The sticky Unit of Measure changes are on the PC and the handheld (Wavelink Studio) wherever the unit of measure exists and is editable.

On MAF, the unit of measure will default based on the parameter as well, however, once the unit of measure has changed from the Mode Bar, it will stay the same throughout the application. For example, the user is within a Transfer Shipment transaction and changes the unit of measure to cases. If the user goes into a Customer Order Delivery transaction, the unit of measure will remain set to cases. On the PC and handheld, the screens will always revert back to the default unit of measure when going into a different transaction.

For additional details for the MAF U, see Unit of Measure section in [Chapter 4, "Common Usability and Navigation."](#)

## Transaction (Preferred) UOM

The following UOM rules are applied throughout the customer order, transfer shipping, and transfer receiving dialogs wherever it refers to the UOM:

- Customer Orders
- Customer Order Deliveries
- Customer Order Picks
- Customer Order Reverse Picks
- Transfer Shipments
- Transfer Receipts

The UOM will be defaulted to the UOM that came on the customer order (Transaction UOM) or, in other words, it will most likely be the Selling UOM.

The user will be able to select/toggle between the Transaction (that is, Lbs, Units, and so on), Standard UOM (that is, Lbs, Units, and so on) and Cases.

In the event that the Transaction UOM on the Customer Order /Fulfillment order is not recognized or cannot be converted in SIM, then it will not be used, and only the Standard UOM and Cases will be used with the system defaulting to the Standard UOM.

Sticky UOM will be applicable when the preferred UOM is not available. This means that the system will remember the last UOM mode (standard UOM or cases) and use that throughout the transaction until preferred UOM is possible.

When switching the UOM for the quantities on the screen, it will convert from Transaction UOM to Standard UOM and vice versa as well as from Standard UOM to then cases.

Stock on hand updates to the database are always made in the standard unit of measure, as that is what is held in the database.

All communication with external systems through the RIB will have the quantity in the standard UOM.

## Pack Size

The Pack Size represents the quantity of that item within a Case. The Pack Size is set up in RMS when adding the supplier to the item. RMS terminology is Case Size (that is, Case Size in RMS = Pack Size in SIM). Within SIM, the Pack Size for the primary supplier is used (if the supplier is unknown), otherwise it uses the pack size for the supplier that is being used (Returns / DSD / Store Orders).

When referring to the Default Case Size, this is the Case size defined on the item master which is the item's primary supplier Pack size.

The Pack Size is not the number of component items within a Pack Item, rather the number of items within a case (box). Pack Size is used for all types of Items and Packs. If enabled within SIM, the user can override the pack size for all items and packs.

Many screens within SIM allow the user to enter an item quantity in both units and cases. When entering an item quantity in cases, the user has the option of changing the default Pack Size of the case. This feature will allow the customer to disable the Pack Size column on the screens and make the fields "view only."

**Editing Pack Size**

- The pack size cannot be changed from 1 if the UOM is set to the Standard UOM.
- When selecting cases, the Pack Size will be allowed to be displayed or changed by the user to a decimal value and allows decimals for any Standard UOM other than eaches.

Example:

Item is kg and has a case size of 15.

- If the UOM is set to kg, the quantity can have a decimal (15.5 kg), but the pack size can only be 1 (1 kg).
- If the UOM is set to case, but the SUOM = kg, the pack size can be set to a decimal value. Example: case of 15.5kg.

**Changing the Quantity and Pack Size**

How the Quantity field changes when the Pack Size changes depends on when the user changes the "quantity" and "pack size" fields. Changing the pack size only will not change the quantity of standard unit of measure. Changing the quantity of Cases will change the quantity of standard unit of measure if the pack size is greater than 1.

Example 1:

UOM system parameter set to "Cases":

1. Access a "saved" return with a return quantity of 10 for Item A and a pack size of 1. Note that UOM is Cases. If the user toggles to "Units," the return quantity will also be 10.
2. Toggle back to "Cases" and change pack size to 2. Note that the quantity field has changed to 5. SIM calculates the new quantity for Cases based on the new pack size of 2.
3. Toggle to "Units" and the quantity will still be 10 when displayed in units. The total quantity for units does not change since only the pack size was changed.
4. Toggle back to "Cases" and change the quantity of Cases from 5 to 10 (pack size still = 2). Now toggle to 'Units' and the quantity will be 20. Units quantity was recalculated based on the new "Cases" quantity with pack size = 2.

The pack size will be stored on the transaction.

On the PC, only one Pack Size can be captured per line item. This will store whatever pack size is on the line item at the time of saving/completing the transaction.

On the handheld and MAF however, the user may have entered various pack sizes and the system will store the last pack size entered on the transaction.

Example 2:

Receive Item A, 10 Cases, Pack Size 10 (100 Units), then receive Item A 10 Cases Pack Size 5 (50 units). This equates to receiving 150 Units with a Pack Size of 5 (30 Cases).

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**Note:** Warehouse deliveries are an exception and the Pack Size is not editable for items that exist on the ASN, as it is the Pack Size from the ASN. Unexpected items the Pack Size will be editable per the configuration.

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**Note:** Pack size is displayed on the count/recount detail screen, but is not editable.

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### Consistent Scanning - Quantity

The handheld (Wavelink Studio) and MAF consistently addresses scanning throughout the application. The quantity will always be inclusive of all entries and or scans for the item. This quantity will represent the total quantity.

Example:

1. Scan item A for the first time, the quantity will default to 1 unit. Scan item A two more times, the quantity will increase with each scan to two and then three units.
2. Scan Item B for the first time. The quantity will default to 1 unit. Scan Item B one more time, for a total quantity of 2.
3. Scan item A again. It will take the user to the quantity screen with the quantity defaulting to 4. This is derived by taking 3 from the previous scanning of Item A and then adding 1 to this for the scan to get to this screen. It is an all-inclusive quantity. This represents the total quantity at all times to the user.

### Consistent Scanning (Quantity)

The handheld (Wavelink Studio) and MAF consistently addresses scanning throughout the application. The quantity will always be inclusive of all entries and or scans for the item. This quantity will represent the total quantity.

Example:

1. Scan item A for the first time, the quantity will default to 1 unit. Scan item A two more times, the quantity will increase with each scan to two and then three units.
2. Scan item B for the first time. The quantity will default to 1 unit. Scan item B one more time, for a total quantity of 2.
3. Scan item A again. It will take the user to the quantity screen with the quantity defaulting to 4. This is derived by taking 3 from the previous scanning of item A and then adding 1 to this for the scan to get to this screen. It is an all-inclusive quantity. This represents the total quantity at all times to the user.

### Consistent Scanning (UOM)

Consistent Scanning also addresses applying quantities from scans based upon the UOM.

For Each or Unit items, the barcode quantity will be added to the quantity on the screen in the mode of the unit of measure on the UI. In other words, the system will take the quantity from the barcode and just add that to the quantity in whatever UOM is displayed on the screen.

- For Standard UOM, the quantity from the barcode is added to the quantity on the screen in the standard UOM.

Example: 3 units on the UI. The barcode is scanned for 1 unit; therefore the quantity on the UI is incremented to 4 units.

- For Cases, the quantity from the barcode is added to the quantity on the screen in cases.

Example: 10 cases on the screen. Barcode is scanned for 4, now the quantity on the UI increments to 14 cases.

For items that are not eaches, such as pounds, kilograms, meters, and so on, the barcode quantity will be added to the quantity on the screen in the Standard Unit of Measure Mode. So it assumes the quantity is in the standard UOM.

- For Standard UOM, the quantity from the barcode is added to the quantity on the screen in the standard UOM.

This is the same as the preceding example for Each items.

- For Cases, the quantity is added to the Standard UOM mode and then converted back to cases.

Example: 1.8 cases on the UI; this is equivalent to 18 pounds, as 10 pounds equal one case for this item. The barcode scan is for 4 pounds. The new quantity will equal 22 pounds, which will be converted back to 2.2 cases for the UI.

## Barcode Efficiency

Barcode Parsing in SIM has become configurable. In the database, a client can define whether the type of barcode will be "Active." If it is "Active," this would mean the system would perform the logic to look for this type of barcode when parsing.

A sequence is also available. This is used to determine the order of parsing of the different types of barcodes.

Example: 111 is scanned. If configured as such, the system will check to see if 111 is a SKU first before checking if 111 is a serial number.

SIM supports the following barcodes: SKU, GS1, UIN, UPC E, and Type 2 A through L. The system will have all of these types per installation, however, SKU will be the only one which is active.

## Advanced Item Entry

This section cover the advanced item entry functionality.

### Configurations

#### System Parameters

##### Use Advanced Item Entry

- Values: Yes/No
- Default: No
- Topic: Admin
- Editable: Yes
- Yes: The Advanced Item Entry Popup will automatically open when entering the functional areas that use the popup. If there are required fields on the screen, the Advanced Item Entry will give an error to the user informing of the required fields when applying the item.
- No: The Advanced Item Entry Popup will not automatically open. The user can still use the Scanner button to open it.

### Auto Apply Advance Item Entry

- Values: Yes/No
- Default: No
- Topic: Admin
- Editable: Yes
- Yes: The Auto Apply checkbox on the Advanced Item Entry popup will default to checked.
- No: The Auto Apply checkbox on the Advanced Item Entry Popup will default to unchecked.

## Advanced Item Entry Popup

The Advanced Item Entry popup is automatically displayed when creating or editing a transaction. This popup is accessible throughout the application where items may be scanned for a transaction.

**Figure 6-3 Advanced Item Entry Popup**

The screenshot shows a window titled "Advanced Item Entry" with a close button (X) in the top right corner. The window contains several input fields: "Item:", "Description:", "Quantity:", "Price:", and "UIN:". Below these fields is a table with two columns: "Attribute" and "Value". At the bottom left, there is a checkbox labeled "Auto Apply Items:". At the bottom right, there is an "Apply" button.

The Advanced Item Entry popup behaves as a scan screen allowing the scanning in of items and applying the item to the transaction, just as the scanner does on the handheld (Wavelink Studio). This allows retailers to hook up a wedge scanner to the PC application and perform scanning of items. If the system is configured as such, the Advanced Item Entry will automatically be displayed when creating or editing a transaction. If a retailer does not want this screen to automatically open all the time, the system can be configured so that it will only be available when clicking the Scanner button.

The Advanced Item Entry will accept entry or scanning of the same types of items and barcodes that the item entry field accepts such as item number, UPC, UIN, GS1 DataBar, type 2, and so on. Once an item or barcode is entered or scanned, the system will retrieve the item information and the item and description will be displayed on the popup.

All data in the GS1 DataBar will display on this screen regardless if the extended attribute has been assigned to the department/class/sub-class of the item. For

example, the production date may exist in the GS1 DataBar, but the retailer does not use that data element in grocery but uses it in the meat department. The production date will display on the Advanced Item Entry screen when scanned.

When entering or scanning Type 02 items in the Advanced Item Entry window, it will get the price and it will be used to calculate the quantity to apply to the transaction. GS1 DataBars may have UIN, quantity or price used for the quantity scan. All other items will just have a scan of 1 for the quantity and the price is blank.

The Apply button will apply the item, quantity and UIN (if applicable) to the line item on the transaction. If the Auto Apply Items box is checked, the apply step will happen automatically upon scan. This check box can default to be checked based upon a store configuration and unchecked by the user if needed. All existing validations for the item will occur before applying the item to the transaction.

There is a status bar section below the attributes that will display any errors or warnings to the user which may occur upon scanning.

The advanced item entry has slight variations depending on the functional area. The screen above is the generic version that is used through most of the application. An example of a variation would be in the receiving dialogs; there is a radio button to select if the user wants to apply the scans to the regular or damaged quantities on the receipt as well as the capability of looking up an item.

## UIN Tracking

SIM provides the capability to track items by unique identification numbers (UIN). If the user uses unique identification numbers, these numbers are displayed and tracked in a number of functional areas in SIM, including deliveries, transfers, returns, and stock counts. The user can also look up items by UIN.

To ensure accuracy and keep track of the UIN items, UIN items have states that can shift when they are added to different transactions. A full audit trail by user allows for close tracking on what has transpired with those items.

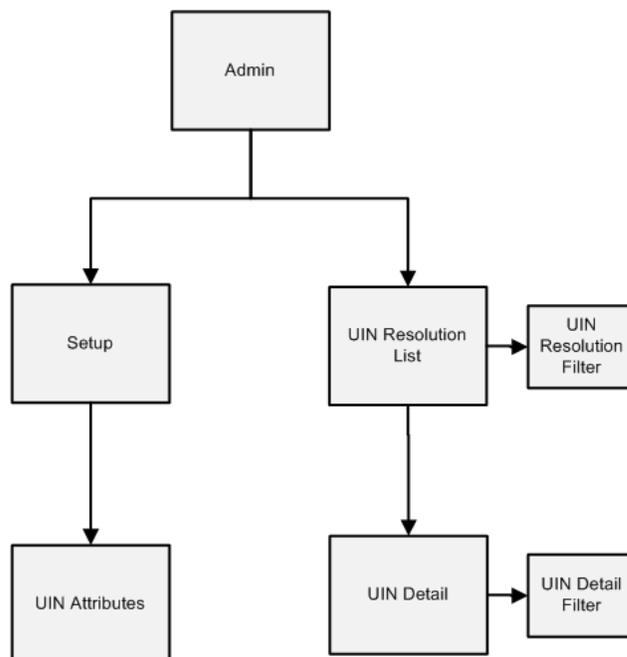
### Features

UINs can be of two types:

- **Serial number**

Serial numbers are unique identifiers for individual instances of an item, typically attached to items by the manufacturer. During receiving, the serial numbers must be scanned and associated with items.
- **Auto-Generate SN (AGSN)**

AGSNs are serial numbers generated by SIM that the user can use to identify each instance of an item. SIM can also print item labels that contain the unique AGSNs.

**Figure 6-4 UIN PC Screen Flow**

## Configurations

This section describes system parameters, store parameters, and security.

### System Parameters

#### Allow Store UIN Relocation

- Values: Enabled/Disabled
- Default: Enabled
- Topic: UIN
- Editable: Yes
- Enabled: The UINs being added to a transaction, which did not previously exist at the store but are in the system, can be added to the transaction. Completing the transaction will update the UIN status for the current store and the store the UIN was assigned to previously.
- Disabled: The UINs being added to a transaction, which did not previously exist at the store but are in the system, cannot be added to the transaction.

#### Auto-Default UIN Attributes

- Values: Yes/No
- Default: No
- Topic: Admin
- Editable: No
- Yes: When a new item is created through the RIB, the UIN attributes default based on the department/class to which the item is assigned.

- No: When a new item is created through the RIB, the UIN attributes do not default based on the department/class the item is assigned to, but rather default from an external system.

**Search Limit UIN Default for UIN Resolution**

- Values: 1 - 999
- Default: 500
- Topic: UI
- Editable: Yes
- This parameter indicates the default search limit for the UIN Resolution screen.

**Store Parameters****Enabling UIN Functionality**

- Values: Yes/No
- Default: No
- Topic: Admin
- Editable: No
- Yes: The application will enable all UIN features.
- No: The UIN buttons or fields will not be displayed. The system will skip any unnecessary steps regarding UIN functionality.

**Security**

Security exists for:

- Accessing and assigning UIN attributes
- Accessing, resolving, and updating the status of UINs
- Creating a UIN on the fly, receiving UINs from other stores
- Viewing UIN history and details

**UIN Attributes**

The UIN Attributes screen allows the System Administrator to assign UIN attributes to a Department/Class. It is accessed within the Admin dialog by clicking the UIN Attributes button on the Setup menu.

Figure 6–5 UIN Attributes Screen

Department	Class	UIN Type	UIN Label	Ticket Type	Capture Time	External System Creat...
100 - II_dept1	100 - II_class1					
10 - dept	10 - cc					
1100 - Soft Drinks*	1 - Carbonatd Sft Drink*					
1100 - Soft Drinks*	2 - Diet Card Sft Drink*					
1100 - Soft Drinks*	3 - New Age Beverages					
1100 - Soft Drinks*	4 - Recycleable Bottles*					
1101 - test_dept_del	1 - test_class					
1101 - test_dept_del	2 - test_class					
1102 - Detergents*	1 - All Purpose*	Serial Number	Serial Number		Store Receiving	
1102 - Detergents*	2 - Laundry*	Serial Number	Serial Number		Store Receiving	
1103 - Cereal -Ready to Eat	1 - Cold					
1103 - Cereal -Ready to Eat	2 - Hot					
1104 - Canned,Glass Fruit*	1 - Peaches*					
1104 - Canned,Glass Fruit*	2 - Pears					
1104 - Canned,Glass Fruit*	3 - Tomatoes					
1105 - Salty Snacks*	1 - Pretzels					
1105 - Salty Snacks*	2 - Cheese Snacks					
1105 - Salty Snacks*	3 - Potato Chips					
1106 - Spices*	1 - Meat Tenderizers					
1106 - Spices*	2 - Spices/Seasonings*					
1106 - Canned*	2 - C...					

This screen is editable only when RMS and SIM are not integrated. These values will be coming from RMS and need to be kept in sync. This screen will be pre-populated with all department/class combinations initially and display any values previously set up at the store the user is currently logged into. For non-integrated environments, this screen is used in SIM to indicate which items should have serial number attributes. Even with RMS integrated, SIM can override the RMS settings if the "Auto-default UIN Attributes" is set.

The UIN Type dictates the workflow and can have a value of either Serial Number or AGSN (Auto-generated serial number). The UIN label is used for displaying on various screens and reports and may include Serial Number, IMEI, SIN, License Number, and Part Number. This can also be customized by the customer. The Ticket Format will only be enabled for the UIN Type of AGSN and is used to default the format in which the AGSN will be printed for placing on the item at the time of receiving or other times a new AGSN is needed.

The capture time is used to define when the UIN will first be entering the system. There are two options available, Sale and Store Receiving. Sale is used when UINs will not be tracked in SIM and are only tracked at the time the UIN is sold. Store Receiving is used to capture the UIN any time the UIN is introduced into the SIM application, such as at the time of DSD Receiving. Store Receiving will also automatic capture serial numbers communicated on integration messages.

## UIN Resolution List

The UIN Resolution List displays all exception records created through the UIN Update Status web service, Customer Order web service, or externally-generated

Receipt Adjustments. It is accessed within the Admin dialog by clicking UIN Resolution button on the Admin menu.

**Figure 6–6 UIN Resolution List Screen**

Item	UIN	Create Date	Current Status	New Status	Action	External Transacti...	Quantity	Resolved
100143041	004	8/3/2014	In Stock	Sold	Return	1111	+1	No

When this screen opens, only records not yet resolved are shown. Not every record may need an update. It is up to the user to determine which records need resolution.

Exception records are created when the following services attempt a status change not allowed:

- UIN Update Status web service
- Customer Order web service
- Externally-generated Receipt Adjustments
- POS sales / returns will also generate an exception

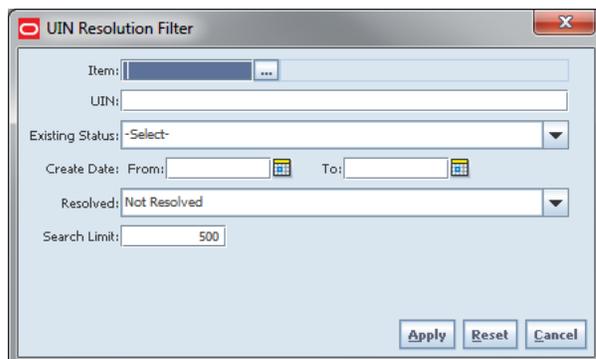
The UIN record does not automatically mark as resolved when the status update occurs. The user needs to manually mark the record as resolved.

Marking the record as resolved does not resolve the discrepancy on the transaction. The UIN discrepancy can be resolved directly via the transaction from which the discrepancy originated. The user can resolve certain UIN discrepancies by checking the UIN Discrepancies flag when creating a product group for a Problem Line stock count. This will add the items to the problem line stock count if SIM has more/less active UINs than stock on hand. This type of problem can be resolved through any

stock count as it will bring the number of active UINs back in sync with the stock on hand.

## UIN Resolution Filter

**Figure 6–7** UIN Resolution Filter Screen



The screenshot shows a dialog box titled "UIN Resolution Filter". It contains the following fields and controls:

- Item:** A text input field with a dropdown arrow.
- UIN:** A text input field.
- Existing Status:** A dropdown menu currently showing "-Select-".
- Create Date:** Two date pickers labeled "From:" and "To:".
- Resolved:** A dropdown menu currently showing "Not Resolved".
- Search Limit:** A text input field containing the value "500".
- Buttons:** "Apply", "Reset", and "Cancel" buttons at the bottom right.

The UIN Resolution Filter screen is accessed by clicking the Filter button from the UIN Resolution List screen. The user can filter on various search criteria. After applying the filter, the user will be returned to the UIN Resolution List screen with the UINs displayed per the entered criteria.

## UIN History

The UIN History screen displays audit records for each UIN status update. It is accessed within the Admin dialog by clicking a record and the View History button on the UIN Resolution List screen.

**Figure 6–8 UIN History Screen**

Item: 100143041      Item Description: 181 Bug

Serial Number: 004

Current Status: In Stock

Update Status: -Select-

Store	Date	Status	Functional Area	Identifier	User
1111 - Charlotte *	6/17/2014 9:27 AM	In Stock	Inventory Adjustment	241	Sue

Client Information    SIM User    1111 - Charlotte \*    UIN History    Help    Jump

Every time a status change occurs for a UIN, an audit record is captured. All functional areas will have an identifier, however, for manual transactions, the functional area field displays "Manual."

## UIN Detail

The UIN Detail screen displays the details for the selected UINs. It is accessed within the Lookups dialog. The user can use Item Lookup to search for the UIN item and click the UIN Details button to display the details.

Figure 6–9 UIN Detail Screen

UIN	Status	Container	Functional Area	Identifier	Damaged
13361	In Stock		Inventory Adjustment	1681	No
13362	In Stock		Inventory Adjustment	1681	No
13363	In Stock		Inventory Adjustment	1681	No
13364	In Stock		Inventory Adjustment	1681	No
13365	In Stock		Inventory Adjustment	1681	No
13366	In Stock		Inventory Adjustment	1681	No
13367	In Stock		Inventory Adjustment	1681	No
13368	In Stock		Inventory Adjustment	1681	No
13369	In Stock		Inventory Adjustment	1681	No
13370	In Stock		Inventory Adjustment	1681	No
13371	In Stock		Inventory Adjustment	1681	No
13372	In Stock		Inventory Adjustment	1681	No
13373	In Stock		Inventory Adjustment	1681	No
13374	In Stock		Inventory Adjustment	1681	No
13375	In Stock		Inventory Adjustment	1681	No
13376	In Stock		Inventory Adjustment	1681	No
13377	In Stock		Inventory Adjustment	1681	No
13378	In Stock		Inventory Adjustment	1681	No
13379	In Stock		Inventory Adjustment	1681	No
13380	In Stock		Inventory Adjustment	1681	No

All UINs in an "Open" status for the store the user is logged into is the default display.

The user is able to update the status by selecting a UIN from the list and then changing the status on the UIN History screen. This screen does not allow for multi-select. An item ticket may also be printed for an AGSN UIN.

For details on printing AGSN UIN tickets, see [Chapter 16, "Printing."](#)

for additional details pertaining to UINs, see the specific functional areas.

## UIN Detail Filter

Figure 6–10 UIN Detail Filter Screen

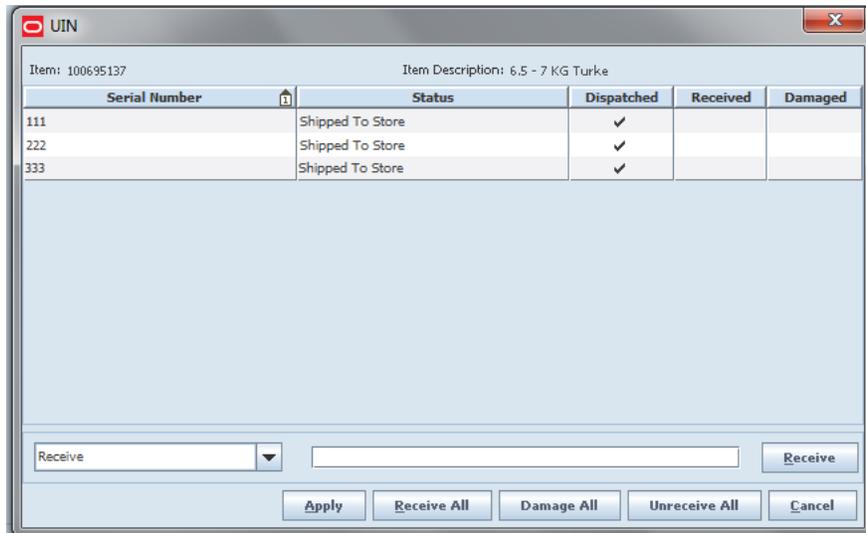
The UIN Detail Filter screen is accessed by clicking the Filter button from the UIN Detail screen. The user can filter on various search criteria. After applying the filter, the

user will be returned to the UIN Detail screen with the UINs displayed per the entered criteria.

## UIN Popup

The UIN Popup screen displays UINs for a transaction. It is accessed within the transaction for various functions by clicking the UIN Qty field on the Transaction Detail screen.

**Figure 6–11 UIN Popup Screen**



This version of the screen will be used at the time of receiving for the following functions:

- DSD Receiving
- Transfer Receiving (warehouse, store, finisher)

Serial numbers are often predefined and known by the supplier or warehouse. This information is often interfaced on the advanced shipment record (ASN) and then validated in the store to ensure the correct serial numbers are delivered. In the case of very tight inventory supply chain processes, the store may be able to receive all of the serial numbers during the receiving process with a simple push of a button. The system may also be configurable to auto-receive deliveries with notifications to alert users when the number of recorded UINs is different than the shipped qty.

When the UIN serial numbers come with the ASN, the serial numbers will be pre-populated on this screen. A view-only version of this screen will be available after the transaction has been confirmed. In other areas of the application, some of the columns may vary slightly based on where the user is located.

For additional details around UIN processing, see each functional area.

## MAF

All validations and rules for UINs on MAF is available functionality on the PC and handheld (Wavelink Studio) application.

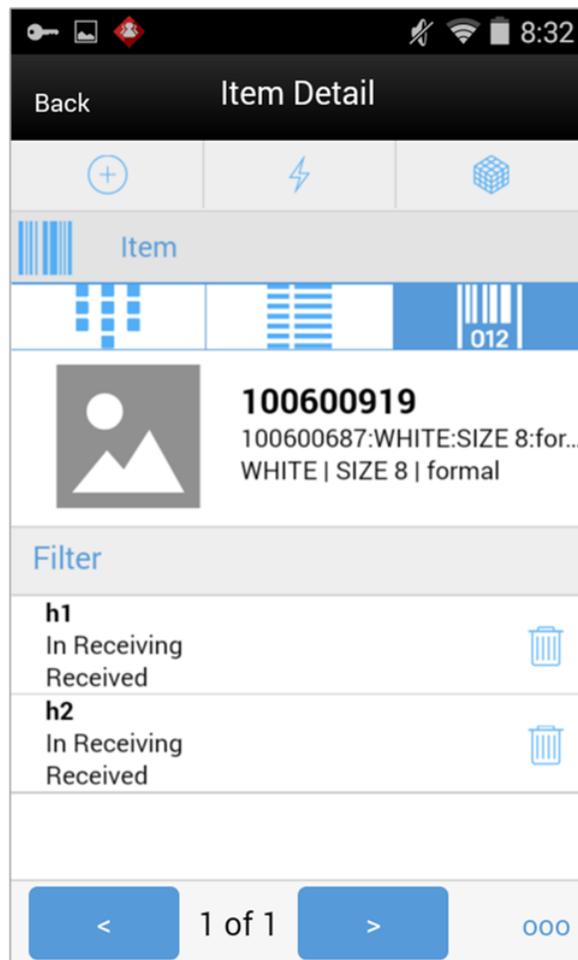
Features:

- Enter UINs

- Lookup UIN History

## Item Detail

**Figure 6–12** MAF Item Detail Screen



The Item Detail screen also provides the ability to manage the UIN details by selecting the UIN icon. From this screen, the user has the ability to view, add, or edit UINs for an item. All rules and validations on MAF should be the same as that of the PC. The user will need the appropriate security permissions to access the screen.

The above figure is used in Receiving dialogs. The UIN and UIN Status will display in all dialogs. However, there is additional functionality required for Receiving UINs and therefore the screen and functions may vary from the other dialogs.

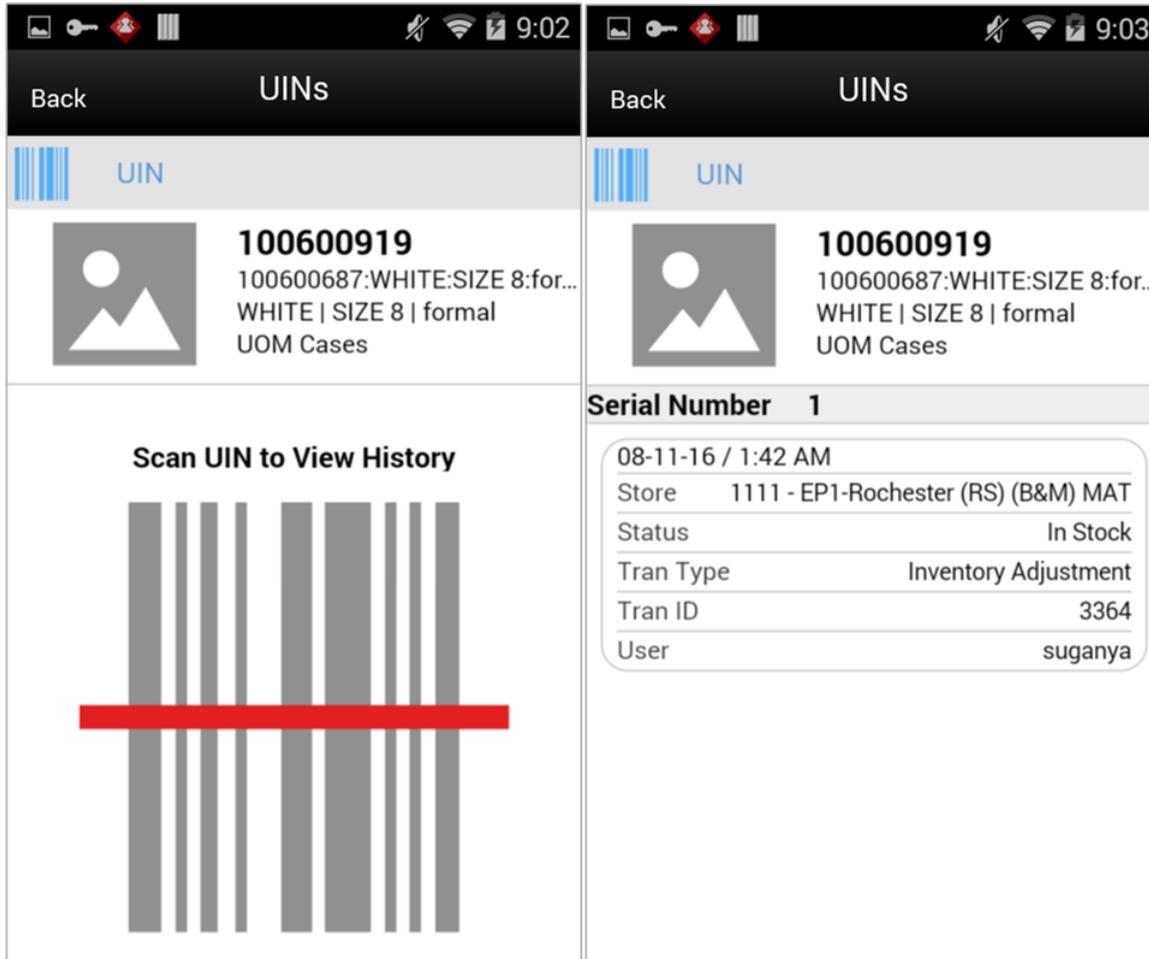
The user has the ability to scan or enter UINs directly from this screen and can use the right and left arrows to cycle through items. Additional footer menu options are available for the receiving dialogs that allow the user to perform the same functions as those on the PC. The trashcan icon allows the user to remove the UIN.

For the Receiving dialog, the user can receive all, damage all, and unreceive all the UINs by accessing those menu options from the footer menu. Additionally, the user can switch between the damage receiving mode and regular receiving mode.

Since the user is within the Item Detail screen, the user can also remove, restore, and reset the item by accessing those menu options from the footer menu.

## Item Lookup

Figure 6–13 Item Lookup Dialog



The Item Lookup dialog allows the user to display history for a specific UIN for the selected item. First, the user must enter / scan a UIN to display the history for the item. The history information is grouped together in sets and the user has the ability to scroll through the list. This screen has the same functionality as that of the PC with the exception the UIN status cannot be changed on MAF.

## Extended Attributes

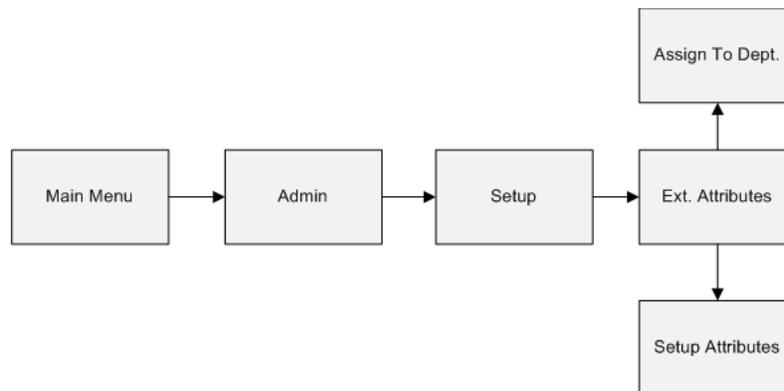
Extended Attributes are available on the PC, handheld (Wavelink Studio), and MAF. If extended attributes are enabled, these attributes can hold additional data about an item on a particular transaction. Some of the attributes available are Batch/lot numbers, expiration/use by dates, best before/sell by dates, and country of origin. The GS1 DataBar standards include many other attributes. All of the GS1 DataBar attributes are available for use by the customer.

The extended attributes are assigned by Department/Class/Sub-Class in order to configure which attributes are applicable for an item belonging to the appropriate merchandise hierarchy. Once configured, the user is able to add these attributes by scanning a GS1 DataBar on the handheld or an MAF device. If the GS1 DataBar is not

scan able or not available, the data may be entered manually on the handheld, PC, and MAF.

In addition to manually entering the information on the PC, the information may also be removed and reentered. Additionally, the feature has the capability to define information mutually agreed between trading partners using AI 90 and other company internal information using AI's 91 to 99. This provides additional flexibility to track custom pieces of information.

**Figure 6–14 Extended Attributes PC Screen Flow**



## Configurations

This section covers system parameters, store parameters, and security.

### System Parameters

#### Enable Extended Attributes

- Values: Yes/No
- Default: No
- Topic: Admin
- Editable: Yes
- Yes: The system will capture the extended attributes when scanning a GS1 DataBar and additionally may edit or capture the extended attributes manually by setting the store parameter "Use Extended Attribute Entry" to Yes.
- No: The Ext Attributes button or menu option will not be available on either the PC, handheld, or MAF regardless of the store parameter.

### Store Parameters

#### Use Extended Attribute Entry

- Values: Yes/No
- Default: No
- Topic: Admin
- Editable: Yes
- Yes: The Ext Attributes button will display on the PC where available in the functional areas that use the popup. There are required fields on the screen, the

Extended Attribute popup will give an error to the user informing of the required field when applying the item. The Ext Attributes menu option will be made available on the handheld where the feature is made available in the functional areas. The Attributes Icon will appear on the Item Detail screen where the feature is made available in the functional area.

- No: Neither the Ext Attributes button or menu option will be available.

### Security

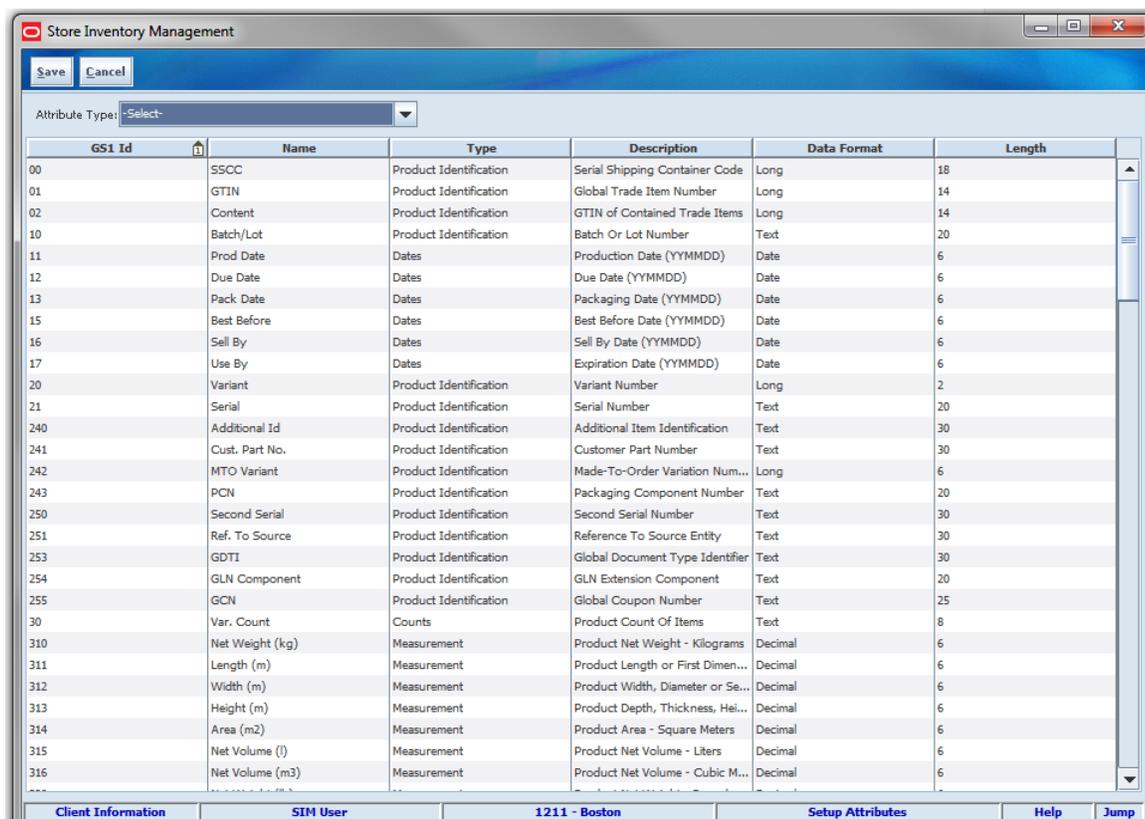
Security permissions exist for:

- Accessing setup screens, and editing setup and hierarchy assignment screens
- Accessing, creating, editing, and removing extended attributes from an item
- Separate permissions are available for each functional area

### Setup Attributes

The Setup Attributes screen displays additional attributes which can be captured for an item. These attributes are referred to as extended attributes. It is accessed within the Admin dialog by clicking the Setup Attributes button on the Extended Attributes menu.

Figure 6–15 Setup Attributes Screen



The list of extended attributes is pre-populated based on the industry standards for the GS1 DataBar. The Name and Description will be defaulted based on the standards, but can be changed to a more meaningful name for the client. Since the client will likely only use a subset of the available GS1 codes they will scan on the product, the client

may re-purpose some of the codes for capturing data manually. The Type field allows the client to group their attributes in any fashion they desire. Once there are values in the Type field, the filter on the top of the screen may be used. This field will be blank initially.

The format and length of the field cannot be changed.

Changes to the Name will update the name displayed for the field on the following screens:

- Assign Attributes Screen
- Extended Attribute Entry Popup

## Assign Attributes

The Assign Attributes screen allows the user to assign specific attributes to an item hierarchy. These attributes are referred to as extended attributes. It is accessed within the Admin dialog by clicking the Assign To Dept button on the Extended Attributes menu.

**Figure 6–16 Assign Attributes Screen**

The screenshot shows the 'Assign Attributes' screen in the 'Store Inventory Management' application. The interface includes a 'Department Selection' section with a dropdown menu set to 'Dept: 6165' and an 'Apply' button. Below this are two lists: 'Available Class/Sub-Class' and 'Selected Class/Sub-Class', with navigation arrows between them. The 'Selected Class/Sub-Class' list contains one entry: '2000 - Dog Biscuits / 2000 - Tartar Cont...'. To the right is the 'New Extended Attribute Assignment' section, featuring a dropdown for 'Attrib Type: -Select-' and two lists: 'Available Extended Attributes' and 'Selected Extended Attributes'. The 'Available Extended Attributes' list includes items like 'Active Potency', 'Additional Id', 'Amount', and various 'Area' types. The 'Selected Extended Attributes' list currently contains 'Area (f)'. Below these sections is a table titled 'Department Assignments' with the following data:

Department	Class	Sub-Class	Extended Attribute Name	Extended Attribute Description	Display Order
6165 - Dog Products	2000 - Dog Biscuits	1000 - Regular	Price	Amount Payable Per Single Item ...	1
6165 - Dog Products	2000 - Dog Biscuits	2000 - Tartar Control	Price	Amount Payable Per Single Item ...	1
6165 - Dog Products	2000 - Dog Biscuits	1000 - Regular	Variant	Variant Number	2
6165 - Dog Products	2000 - Dog Biscuits	2000 - Tartar Control	Variant	Variant Number	2

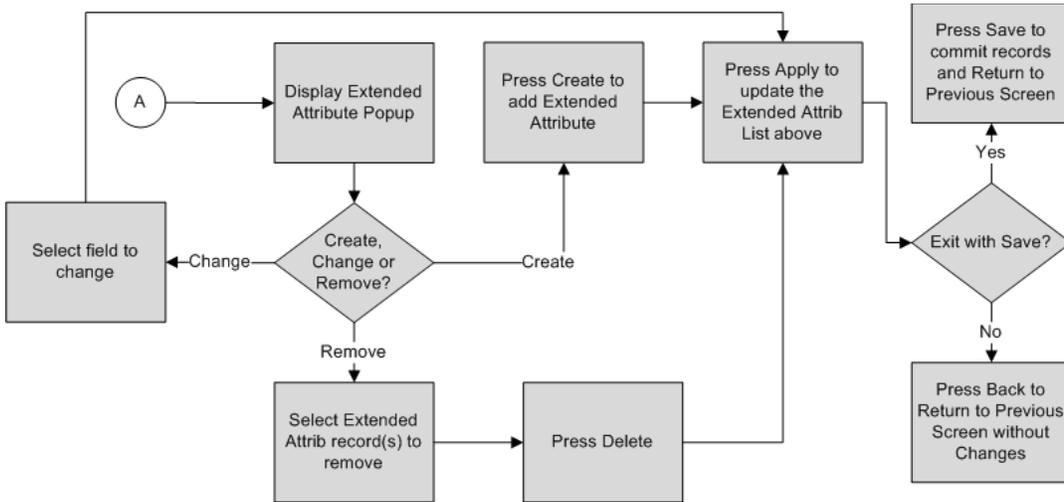
The bottom status bar displays 'Client Information', 'User2 Smith2', '5000 - Solihull', 'Assign Attributes', 'Help', and 'Jump'.

With the appropriate security permissions, the user is able to assign the extended attributes to capture for a particular item hierarchy. This allows the user entering the extended attribute data on the transaction to capture only the necessary information

and provides a more efficient and more accurate way to manage the data entry. This is especially helpful when entering the data from the handheld (Wavelink Studio).

The user also has the ability to assign the order in which the fields will display for data entry purposes. A maximum of 10 extended attributes can be assigned to a department/class/sub-class item hierarchy.

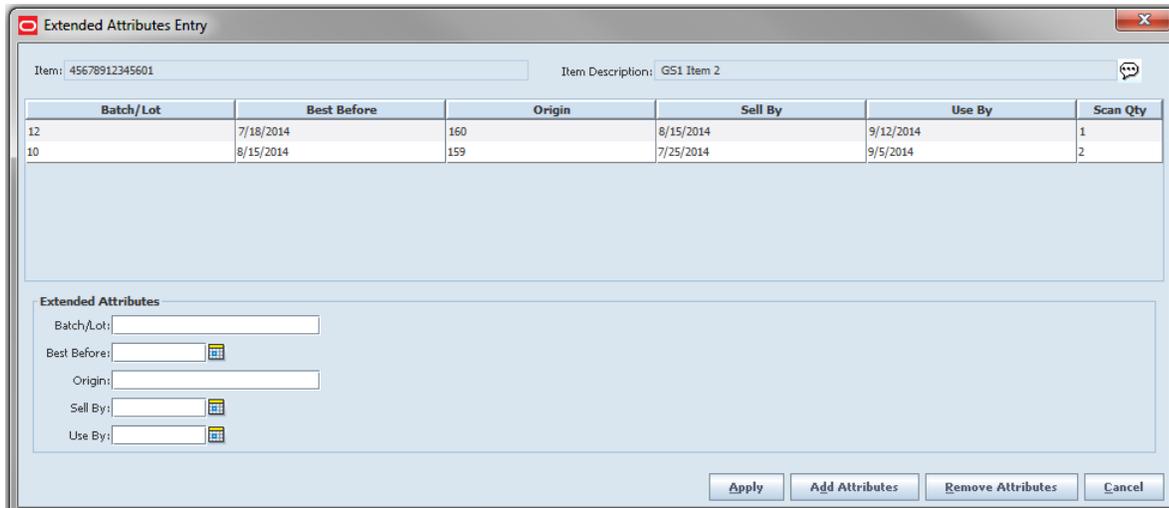
**Figure 6-17 Business Process Flow**



### Extended Attributes Entry

The Extended Attributes Entry popup allows the user to add or remove additional data stored for an item. It is accessed within each dialog by clicking the Ext Attributes button within each functional area. The button will only appear if the user has security permissions and the feature has been enabled for the store location.

**Figure 6-18 Extended Attributes Entry Popup**



With the appropriate security permissions, the user is able to view, cancel, add, or remove extended attributes on the PC and MAF. The user can only add, and cannot view, edit, or remove extended attributes on the handheld (Wavelink Studio).

This popup screen is accessible from the following dialogs on the PC:

- Transfer Shipment
- Transfer Receiving
- DSD Receiving
- RTV Shipment
- Stock Count
- Customer Order Delivery

## Attributes Processing

The attributes can either be added by scanning a GS1 DataBar by using a handheld (Wavelink Studio) or MAF device, the Advanced Item Entry Pop-up, or manually adding the information.

The pre-configured fields displayed on this screen will be based on the item displayed on the top of this screen. The fields are based on the Department/Class/Sub-Class the item belongs to, which are assigned to the item hierarchy on the Attribute Assignment screen. The fields will display in the order defined on the Attribute Assignment screen. The system will display the extended attributes assigned to this item hierarchy. There is an additional field called Scan Qty that will always exist on this screen and is not assigned on the Attribute Assignment screen. All fields are optional.

There are no validations on the data entered with the exception of dates entered in date format and fields defined as a number must contain numbers. These field level definitions are based on the GS1 Industry Standards. For example, the GS1 Standards define the country of origin to contain a three-digit number (ISO) industry standard country code. However, the system will not validate the three-digit number is one that is defined by ISO, but only that the user has entered a number in that field. The client will need to understand which three-digit codes to use when manually entering the data in the form.

The system will only store the unique combination of all fields on this screen. If the user scans more than one item with the same attribute values, the scan quantity will be increased by 1. For example: the user scans each unit for the same item. There are three units, but two of them have the same batch, country of origin, and sell by dates, and so on. There will be two records added, one record will have a scan quantity of 1 and the other will have a scan quantity of 2.

The scan quantity for all of the attribute records may add up to the total received quantity for the item but is not validated. When the user manually adds an attribute record, the scan quantity will automatically increase by one. The system will not update the received quantity for manually entered records or if the scan quantity attribute is manually updated. This is merely for informational purposes only.

If an item is removed from a transaction, all extended attribute data stored with that item transaction will also be removed. In reverse, setting the quantity of an item to 0, or canceling an item, will not remove the GS1 databar attributes.

## MAF

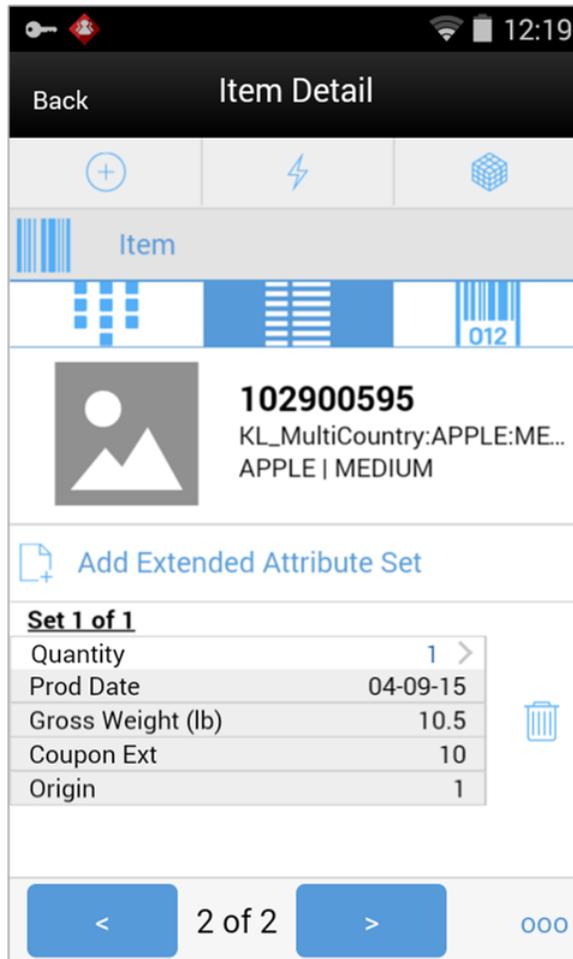
Extended Attributes exist in a small and large form factor on MAF.

Features:

- Enter Extended Attributes

## Item Detail / Attributes

Figure 6–19 Item Detail Screen



The user goes to the Item Detail when selecting or scanning an item from a transaction list screen. From this screen, the user has the ability to view, add, or edit attributes for the item by selecting the Attribute icon. All rules and validations on MAF should be the same as that of the PC. The user will need the appropriate security permissions to access the screen.

The attributes are displayed as a set of attributes. The user can scroll down to view the additional sets. The trashcan icon allows the user to remove an attribute set and the undo arrow allows the user to restore the attribute set. The user can tap the Add Extended Attribute Set bar to enter new data.

Using the right and left arrows at the bottom of the screen will move the user to the next item in the transaction. The user can also remove, restore, and reset the item by accessing those menu options from the footer menu.

## Item Status

There are five different statuses for an item: Active, Inactive, Temporary/Auto-Stockable (Q-Status), Discontinued, and Deleted. Depending on the status of an item, certain functions may not be allowed. When an item is currently not ranged to a store, the item may be assigned a temporary active status if the system is

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configured to allow the user to range an item. SIM will treat the item as though it were in an active status with no functional restrictions.

## Configurations

### System Parameters

#### Allow Non-Ranged Items

- Values: Yes/No
- Default: Yes
- Topic: Admin
- Editable: Yes
- Yes: The store is allowed to add a non-ranged item to a transaction
- No: The store is not allowed to add a non-ranged item to a transaction

## Restrictions

### Temporary/Auto-Stockable (Q-Status)

Before an item can be used by a store in SIM, the item needs to be ranged. Ranging an item depends on two factors, the item host system (for example, RMS) and whether SIM allows the ranging of items. If the system parameter "Allow Non-Ranged Items" is enabled, SIM allows the store to add non-ranged items to transactions.

When SIM temporarily ranges an item, the item is assigned the status of "Q." This status is treated as though it is an active item. The item is ranged and set to Active status when RMS sends the item/location relationship. This will happen after the transaction that ranges the item in SIM is completed. There can be a delay, or it could never happen if the transaction is never approved.

### Discontinued

When an item is discontinued, the item cannot be ordered from a supplier, but it can be transferred from a warehouse or store. Discontinued items can appear on stock counts and it is possible to ship to a finisher.

### Inactive

When an item is inactive, the item cannot be ordered from a supplier (that is, Item Request, Store Orders) and cannot be transferred in from a warehouse or store if the receiving location is inactive or deleted for the item. All other transfers are acceptable.

Inactive items are not allowed for Finishers.

If the item in an inactive status is on a delivery (DSD/Warehouse Delivery), the item may be received or the item may be added to the delivery. An inactive item may be received on a transfer, but cannot be transferred to another store when it is inactive at the destination store.

Inactive items are not allowed to be ordered or added to an item request.

### Deleted

When an item is deleted, the item cannot be ordered from a supplier. Deleted items will be prohibited on Item Requests and cannot be transferred out from a warehouse

or store if the item status in the receiving location is deleted. All other transfers are acceptable.

Deleted items are not allowed for Finishers.

If the item in a deleted status is on a delivery (DSD/Warehouse Delivery), the item may be received or the item may be added to the delivery. A deleted item may be received on a transfer, but cannot be transferred to another store when it is deleted at the destination store.

It is not possible to create price changes, clearances or promotions for deleted items.

## Item Description

When an item is set up in the Merchandising system, the user enters a description for the item. The short description of an item is a product of the first 20 characters of the long description and is often used for POS receipt printing, but does not always offer enough detail to a user in helping to identify the item. SIM allows the customer to choose between displaying the long item description and the short item description on the PC, handheld, and MAF.

## Configurations

### System Parameters

#### Display Item Description

- Values: Short Item Description/Long Item Description
- Default: Short Item Description
- Topic: UI
- Editable: No
- Short Item Description: The description displayed everywhere in SIM will be the short item description.
- Long Item Description: The description displayed everywhere in SIM will be the long item description.

#### Display HH Length: Diff x (x=1-4)

- Values: 0 - 20
- Default: 0
- Topic: UI
- Editable: Yes
- This parameter determines the number of characters for each diff to display for the differentiators if values are provided from the Merchandising system. There are four diff settings.

#### Display Item Description Diffs - mobile

- Values: Yes / No
- Default: Yes
- Topic: UI

- Editable: No
- Yes: A second item description line for diffs will be used wherever an item description is displayed on the MAF device.
- No: The second line will not be displayed for the item description on MAF.

If set to Long Item Description, SIM will display the long description. The Merchandising system concatenates the diff descriptions with the long item description so the user is able to view all diff information. The diffs display in order from Diff 1 to Diff 4.

On the PC, the item description field will truncate if necessary.

On the Handheld (Wavelink Studio), there will be two lines dedicated to the item description field. The first line is the Item Description and the second line will be for any Diffs. The length of each diff displayed is controlled by the "Display HH Length: Diff x" parameter.

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**Note:** On the handheld, if displaying the long description, the Diffs may display as part of the long description (if sent that way from the merchandising system) as well as separately on the second line for displaying the Diffs (per diff display configurations).

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The item description on the MAF will take up one or two lines depending on an system configuration:

- If the system admin, "Display Item Description Diffs - mobile" is set to Yes, the system will display two lines for the item description. Line one will be the item description, short or long, per the system configuration. Line two will be the diffs for the item, diff 1, diff 2, diff 3, diff 4. If there are no diffs for the item, the second line will be blank.
- If the system admin, "Display Item Description Diffs - mobile" is set to No, the system will display one line for the item description. Line one will be the item description, short or long, per the system configuration.

## User Interface Guidelines

The Advanced Item Entry dialog allows adding items to a transaction on the PC only and can leverage a wedge scanner.

UIN Attribute Configuration and resolving UIN discrepancies is only on the PC.

Viewing UIN history details is available on the PC, MAF small, and MAF large.

Adding, editing, and removing UINs on a transaction exists on the PC, handheld, MAF small, and MAF large form factor.

Extended Attribute configuration is only on the PC.

Adding, editing, and removing extended attributes on a transaction exists on the PC, MAF small, and MAF large form factor.

Extended Attributes can only be added to a transaction on the handheld (Wavelink Studio). Editing and removing is not available.

## Technical

This section covers integration, batch, and the database structure.

## Items

Items have many different ways in which they need to be used within the system, so numerous different business objects represent different concepts of the usage of item.

<b>Business Object</b>	<b>Description</b>
Item	A small view of basic item information that can be held on several other business objects.
ItemDetailVo	Single business object that contains nearly all the information about an item.
ItemType	Enumeration of item types within SIM. Each item is assigned a type at the store level: 0 - Normal Item 5 - Consignment Item 10 - Concession Item 12 - Non-Inventory Item 15 - Simple Pack 20 - Complex Pack 25 - Simple Breakable Pack 30 - Complex Breakable Pack
ItemVo	A small view of basic item information that is returned as the result of an item search.
OrderItem	Contains information about an item that could be used for ordering and thus this business object is used for item requests and store orders.
RelatedItem	Contains information about an item related to another item, most specific the item differentiators.
RetailItem	Contains information about an item needed for ticketing, such a price and ticket format information.
SaleItem	Contains information about an item needed for an item basket.
StockItem	Contains item and inventory information as well as a series of APIs for updating inventory correctly. This is the primary business object used on most transaction line items.
SupplierItem	Represents the information about an item at a supplier.
UINDetail	Contains detailed information about a specific item UIN including the UIN type, the functional area it belongs to, and the status.
UINProblemDetail	Contains details of the problem that occurred processing a UIN including the old and new UIN status and a Boolean value indicating whether the problem is resolved or not.

## UINs

SIM supports UINs (serial numbers). UINs need to exist independently as their own concept as well as be associated to various transactions as they are being processed. Multiple business objects representing a UIN exist to handle this in the most efficient manner possible.

<b>Business Object</b>	<b>Description</b>
UinDetail	Complete information about a UIN.

<b>Business Object</b>	<b>Description</b>
UinValue	Basic information about a UIN necessary to process a transaction.

## GS1 Barcode / Extended Attributes

SIM supports extended attributes during the adding of item detail to transaction. An extended attribute captures not only the item and quantity, but any additional information within the barcode that has been configured to be captured by the system. When a GS1 compliant barcode is scanned, the application can parse out the selected attributes and associated them with the line item. These extended attributes are persisted along with the transaction in a database table ending with \_ATT.

<b>Business Object</b>	<b>Description</b>
BarcodeAttributeAdmin	Contains detailed information for GS1 Barcode.
MdseHierarchyAttribute	Contains Barcode Attribute information for a specific item hierarchy.
ExtendedAttribute	An extended attribute consists of a barcode and quantity and multiple BarcodeAttributes associated to that particular extended attribute.
BarcodeAttribute	A barcode contains one single pairing of information within an extended attribute.

## Integration

This section covers integration through RIB and web services.

### RIB

Items come to SIM from a merchandising system through the RIB (items, item loc messages). SIM also gets information about items associated to a supplier through the RIB. Extended attributes are not received or sent on RIB payloads.

<b>RIB Payload</b>	<b>Description</b>
ItemDesc	This payload contains information about an item. It contains a wide variety of information about the item including suppliers, UPCs, ticketing information, image information, UDAs, and related items.
ItemLocDesc	This payload contains information about an item at a specific location.
ItemSupDesc	This payload contains information about an item for a specific supplier.
ItemSupCtyDesc	This payload contains information about an item for a specific supplier within a specific country.

### Web Services

SIM supplies SOAP web services for retrieving information about items (StoreItem) and information about item inventory (StoreInventory).

In addition, item information is transmitted for detailed line items for transactional web services such as those for Commerce Anywhere, Inventory Adjustments, Transfers to Store, Transfers to Warehouse, Transfers to Finisher, and Return to Vendor (RTV). The line item details include UINs as well as any extended attributes for read and save operations.

The following service operations are supported for the StoreItem web service.

Service Operation	Description
lookupItemHeaderByItem	Retrieves basic item header information through simplified item search criteria.
lookupItemHeaderBySource	Retrieves basic item header information through source (supplier, warehouse, finisher) search criteria.
lookupItemHeaderByUDA	Retrieves basic item header information through user defined attributes search criteria.
lookupItemHeaderByInventory	Retrieves basic item header information through inventory search criteria.
lookupRelatedItem	Retrieves a list of related items for a specific item and store.
readItemDetail	Retrieves detailed information about a single item at a single store.
saveItemImage	Saves information about an image or QR code for a specific item.

The following service operations are supported for the StoreInventory web service.

Service Operation	Description
lookupAvailableInventory	Retrieves inventory availability information for multiple items at multiple stores.
lookupAvailableInventoryAllStores	Retrieves inventory availability information for a single item at all stores.
lookupInventoryInStore	Retrieves the inventory information for multiple items at multiple stores.
lookupInventoryInTransferZone	Retrieves the inventory information for items within a transfer zone for a specific store.
lookupInventoryForBuddyStores	Retrieves the inventory information for items a buddy store of a specific store.
lookupFutureInventory	Retrieves future inventory information for a specific item and store.

## Batch

The following batch is provided by SIM:

Batch	Description
UINAttributeImport	This batch is used to load bulk setup of item UIN attribute configurations by department and class. These are used as determine UIN information for specific items within the system.

## Data Structure

The following database tables are used:

<b>Table Name</b>	<b>Description</b>
BARCODE_ ATTRIBUTE	Holds GS1 barcode attribute configuration for a store.
BARCODE_ PROCESSOR	Barcode format processor definition. It contains the name (identifier code) for the barcode type as well as a description, whether or not it is active, and what order to process it in.
ITEM	This table contains one record for each item defined for the company. It contains the base information for an item that is consistent across all locations.
ITEM_ COMPONENT	Defines all of the items contained within a simple or complex pack item. For a simple pack, there will be only one record for the pack item listing its member item. For a complex pack, more than one record can exist.
ITEM_ HIERARCHY	Item hierarchy table that defines department, class, and sub-class information available for an item.
ITEM_ HIERARCHY_ ATTRIB	Holds extended attributes assigned to item hierarchies within a store.
ITEM_IMAGE	This table holds the item image information.
ITEM_QR_ CODE	This table contains the item QR code image.
ITEM_UIN	This table contains information about UINs. It is specific to the UIN itself and not associated to any particular transaction.
ITEM_UIN_ PROBLEM	Contains Item UIN problem records along with the old and new status of the UIN. Also contains the resolved column which indicates whether the problem has been resolved or not.
RELATED_ ITEM	This table contains the associated between an item and second item that is related in some manner.
RELATED_ ITEM_TYPE	This table contains the type of relationship available for an item.
STORE_ITEM	This table contains the information for an item at a specific store.
STORE_ITEM_ STOCK	This table contains the inventory information for an item at a specific store.
STORE_ITEM_ STOCK_ HISTORY	This table contains the movement of stock on hand positions over time.
STORE_ITEM_ STOCK_ NONSELL	This table contains the unavailable inventory separated into specific sub-buckets by reason code.



## Sales Integration

This chapter describes the sales integration. The following topics are covered:

- **Overview:** Description of how SIM, Point of Sale (POS) systems, and Sales Audit systems are integrated. Also, how the sales wastages process is handled in SIM.
- **Processing:** Information on how the sales integration is processed.
- **Technical:** POS transaction update import process, Oracle Retail Sales Audit (ReSA) sales audit import process, web services, batch, and the database structure.

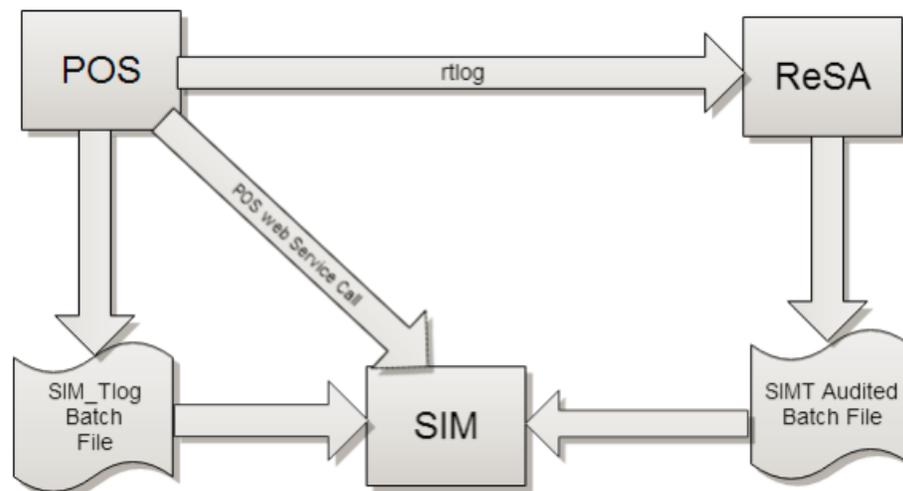
### Overview

SIM integrates with POS systems and Sales Audit systems to ensure that the inventory positions are accurate. This is especially important for Commerce Anywhere where accurate up-to-date inventory positions are required to reduce customer disappointment when trying to locate items that appear in inventory or delays in filling customer orders.

POS is the primary source of sales, returns, void, and some customer order transaction information to SIM. ReSA sends only modified or new POS transaction records to SIM.

POS systems integrated with SIM can do the transaction updates using a web service. Sales Audit systems can only communicate through a file import process.

**Figure 7-1 POS and Sales Audit Integration**



Following are the features of the integration:

- Real-time web service and batch integration
- POS transaction and audited sales data integration
- Automatic disposition processing for returns
- Wastage processing for grocery
- Full Unique Identification Number (UIN) integration

## Configurations

This section covers store parameters.

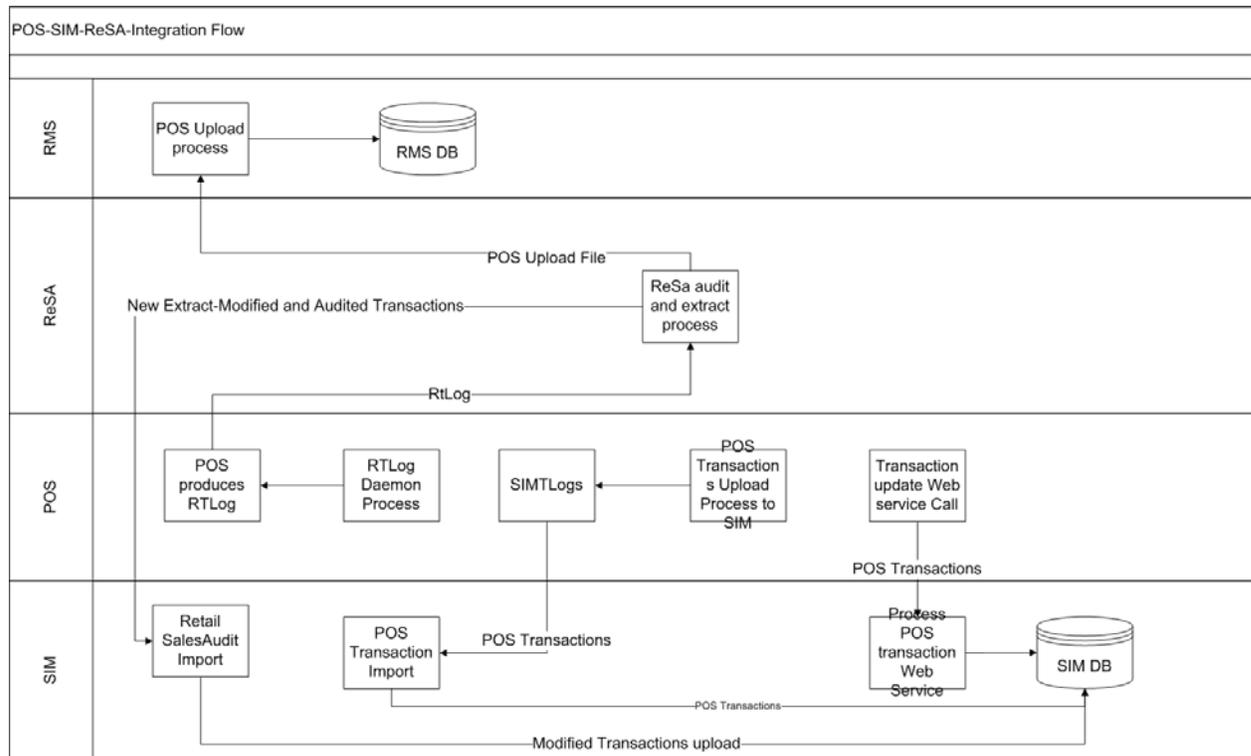
### Store Parameters

Enable Item Disposition in Transaction Updates:

- Values: Yes/No
- Default: Yes
- Topic: Admin
- Editable: Yes
- This parameter is used to determine whether, while processing the return and void transactions, the POS reason codes mapped to the item disposition in SIM have to be considered and the inventory updated based on the item disposition.

## POS and Sales Audit Process Flow

The following figure shows how a POS, such as Xstore Point of Service, Retail Sales Audit, and SIM are integrated. A POS generates an RTLog containing all the POS transactions and sends it to the Oracle Retail Sales Audit system (ReSA). ReSA sends the audited modified or new transactions to SIM. ReSA also sends the POS transaction upload file to RMS to update inventory. Xstore is interfaced with SIM to update the inventory transactions near real time through a web service. Other POS systems can also use a batch to import transactions directly into SIM. SIM also processes the POS transactions that have been changed or entered into the sales audit system and updates the inventory based on the delta.

**Figure 7-2 POS and Sales Audit Process Flow**

There are two reasons for POS to send sales data directly to SIM and not to the auditing system:

- Real-time inventory updates to support Commerce Anywhere are critical. A possible round trip from POS to ReSA to SIM takes too long in the dynamic inventory environment of today.
- POS is the application that owns sales data and ReSA owns audited data. Architecturally, it makes more sense to have data supplied by the owner of that data. POS sends sales data and ReSA sends audit changes to SIM.

### Sales and Return Processing

As part of the sales processing, SIM updates the inventory depending on the nature of the transaction. The following are the supported transaction types for the sales processing: Sale, Return, and Post Void of these transactions. The audit system should not modify the post void transactions. A change to a void is not supported by SIM.

### Serialization

Part of the transaction sent to SIM supports UIN integration. When items are sold, the UIN is updated in SIM to "sold." If it is returned, the UIN is moved back to "In Stock." In some scenarios, the UIN sold or returned is in an invalid state for SIM to process. For example, a UIN that is sold, but was already sold or moved out of inventory. In such a case, SIM still processes the stock on hand change, but adds the UIN to the resolution screen for processing.

For more information on UINs, see [Chapter 6, "Item."](#)

## Customer Order Processing

In SIM, the Retail Sales Audit import process, POS Transaction import process, and POS Transaction web service process support the following types of customer orders. For more information, see [Chapter 20, "Customer Order Management."](#)

- For layaway and on hold, SIM supports create, update, cancel, and pickup/delivery. For external web order type, only pickup transactions performed in POS are sent to SIM.
- Pickup transactions, both in-store and external, cannot be voided or modified by sales audit and if these transactions are modified by sales audit system, SIM just drops the transaction and does not process.

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**Note:** Current Xstore functionality is limited to only layaway and on hold orders. Web order processing is not supported in this release.

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## Item Disposition

When the "Enable Item Disposition in the Transaction Update" store admin parameter is turned on, POS has the opportunity to move inventory for return and post void transactions to "unavailable" or "out of stock." This is especially useful in some environments where items returned have to be disposed of or have to be reprocessed.

The external sale transaction coming into SIM may include a reason code that is mapped to the inventory adjustment reason codes in SIM. Point of Service maps the SIM reason codes, and the reason codes are sent to SIM in the web service or file extract for the return and post void transactions. SIM first processes the return or post void and updates stock on hand. Next, if the indicator is set and a reason code exists, SIM checks this reason code with the one in inventory adjustment reason code table. If a valid match is found, SIM generates an inventory adjustment to notify external systems and execute the disposition instructions tied to the inventory adjustment reason code. Based on the disposition mapped to the reason code, SIM moves the returned inventory to not for sale or out of stock and updates the history trail. If sub-buckets are used, they are also updated if the movement is to not for sale. UIN states are updated accordingly as well.

If the reason code received is invalid/not present/mapped incorrectly, the system writes an error log and continues to process the stock on hand part of the transaction.

For more information on inventory adjustment reason codes, see [Chapter 8, "Inventory Adjustments."](#)

## Wastage

Wastage is the process through which inventory is lost over time (for example, bananas turning black) or when processing the item for sale (trimming off fat for sale of a ham).

In order to maintain more accurate inventory values, SIM uses two methods to control wastage:

- The first method provides users in stores the ability to create wastage product groups. For more information, see [Chapter 8, "Inventory Adjustments."](#)
- The second method is controlled through the sales process. The sales transaction information can contain a wastage percentage for variable unit of measure items. If that is not present on the sales transaction coming in, SIM looks up the wastage percentage and uses that for inventory reduction beyond the sale.

Each of these methods has a specific use and can be used in combination with each other. In the sales method, items such as cheese or ham, are only reduced when the outside layers are cut off to sell the item.

### **Drop Ship**

When the sales records indicate the record is a drop ship, SIM does not perform any processing of this record since the drop ship process implies the inventory is shipped from a third-party location and not from the store.

### **Item Types**

SIM only processes SKU or UPC numbers. GS1 databars, or any other smart barcodes such as VPLUs or Type-E barcodes, should have been extracted to their SKU or UPC number by the POS system.

In addition, SIM only updates inventory for stock holding items. Concession, non-inventory items, and consignment items do not update any stock on hand and are not processed.

Items with the store pack inventory indicator turned off are automatically broken down and the inventory of the component items is updated.

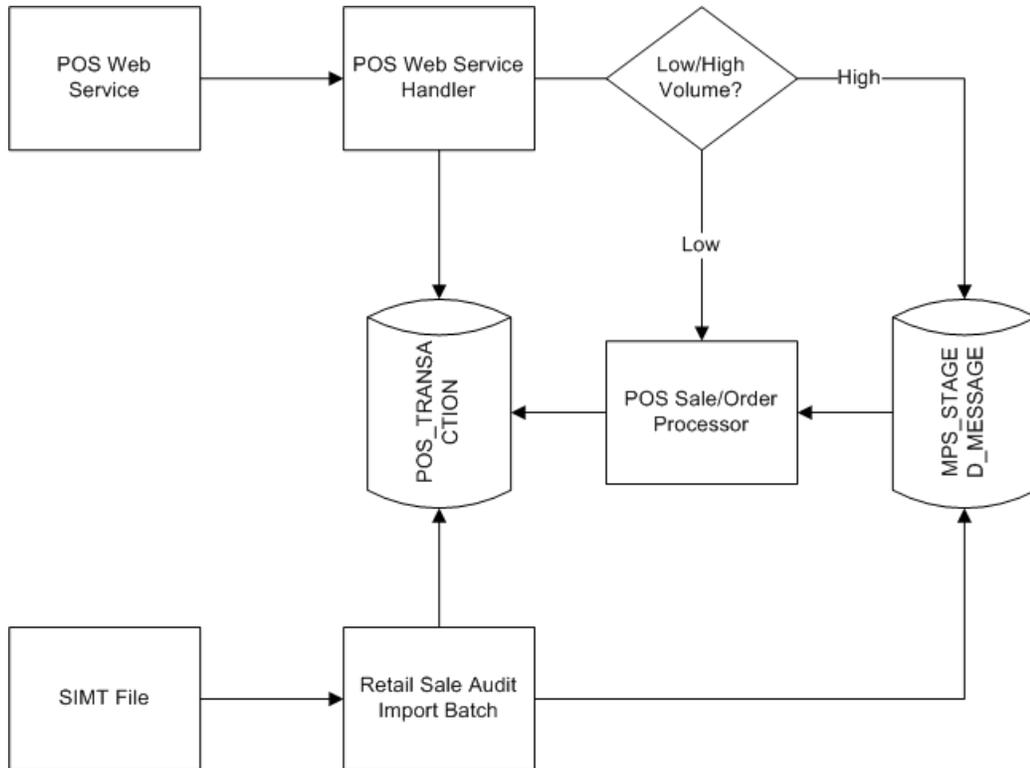
### **Additional Impacts**

Outside of updating inventory buckets directly, sales data also has impacts on three other areas. For more information, see their relevant sections:

- In-Store replenishment
- Stock Counts - late sales
- History Trail

## **Transaction Import in SIM**

The following figure shows the transaction import flow.

**Figure 7-3 Transaction Import Flow**

SIM has one place to stage POS transactions. Similarly, SIM also stages ReSA audit batch transactions. After staging, the transactions are picked up for processing and the inventory gets updated in SIM tables. Following are the steps involved in staging:

1. The sales and order transactions are split into separate lists.
2. Processing request identifiers are assigned to groups of records based on grouping criteria. For sales, the same item ID cannot span across multiple requests. For orders, the same customer order ID cannot span across multiple requests.
3. All the POS records are written to the POS\_TRANSACTION table.
4. If low volume of records, the records are processed immediately. If high volume of records, a processing message is stored in MPS\_STAGED\_MESSAGE table for the POS transaction message family containing information such as the request ID, store ID, and transaction type (POS-SALE, POS-ORDER, and ReSA).
5. Message are picked up from the MPS\_STAGED\_MESSAGE table, the POS transaction are retrieved, and processing is completed.

### POS to SIM: Option A (Web Service)

POS may integrate its transactions to SIM using a web-service: POSTransaction. The published WSDL has only one operation: ProcessPOSTransactions. ProcessPOSTransactions processes point-of-sale transactions through an asynchronous process.

This service only allows 5,000 overall PosTrnItms, though they may be distributed between any number of actual PosTrn transactions. Exceeding this limit causes a web service fault to occur. These transactions may belong to multiple store IDs. This operation validates the input, parses the payload information, creates a POSTransaction object, and stages these records to be processed later.

## POS to SIM: Option B (Flat File Upload)

POS may integrate its transactions to SIM using a bulk-load flat file. The POS Transaction Import Batch loads all the data within the file, saving the records in the POS\_TRANSACTION table and then grouping the records into requests to write into the STAGED\_MESSAGE table to be processed shortly.

## ReSA - SIM Integration

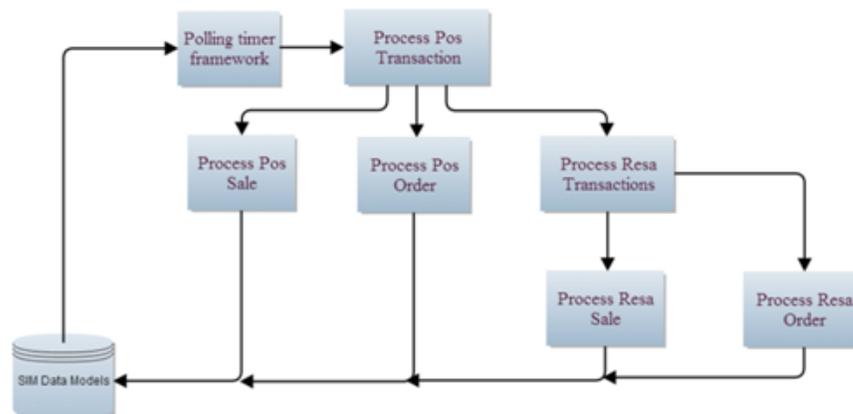
As previously described, an actual sales transaction extract is given by POS directly to SIM. All the transactions in a file must belong to a single store. After parsing the records from the file, the process stages them into the POS\_TRANSACTION and MPS\_STAGED\_MESSAGE tables as previously described. Following are the key technical Java classes:

- RetailSaleAuditImportHandler which prepares a list of POSTransaction from the import file.
- RetailSaleAuditDataParser, which contains the actual file parsing logic.
- StageResaTransactionCommand, which contains the actual staging logic.

## Processing

The following figure shows the integration processing flow.

**Figure 7-4 Integration Processing Flow**



SIM can update SOH correctly in its transaction tables. The Polling Timer Framework polls the MPS\_STAGED\_MESSAGE table for any unprocessed/failed messages for which the message family is enabled in the MPS\_WORKER\_TYPE table.

**ProcessPosTransactionCommand:** Reads message details when triggered by the polling timer framework and identifies which command will process the transactions the logic as follows:

- If transaction type = SALE, it triggers ProcessPosSaleCommand.
- If transaction type = ORDER, it triggers ProcessPosOrderCommand.
- If transaction type = ReSA, it triggers ProcessResaTransactionCommand.

**ProcessPosSaleCommand:** Designed to process the business logic for sale, void sale, return, or void return transactions. It internally calls ProcessSaleUinCommand for UIN related transactions.

**ProcessPosOrderCommand:** Designed to process the business logic for order new, order cancel, and order fulfill transactions. It internally calls ProcessOrderUinCommand for UIN related orders.

**ProcessReSATransactionCommand:** Designed to process the audited transactions coming in from the Retail Sale Audit System. If the transaction was created in ReSA, it processes it straight away. If the transaction was not created in ReSA but rather by POS, it rolls back the original transaction that came from POS and then processes the audited records.

## Technical

SIM can import transactions from both POS and ReSA. The whole process is divided into two parts: Staging and Processing.

### Staging:

The activity of importing transactions into SIM data models is called staging. SIM imports the transactions into its data models using the web service (POS only) or the batch import process (POS-ReSA).

The staging logic for POS separates the sale transactions from order transactions and stages them into separate records. In addition to that, there is a MAX\_SIZE limit on the number of transactions in each request provided that the same item\_id does not span across multiple request IDs for sale and for order, the same order ID does not span across multiple request IDs. POS cannot stage a transaction ID more than once for the same store ID.

The staging logic for ReSA creates multiple request IDs depending on the MAX\_SIZE limit for each request, provided that same transaction ID does not span across multiple request IDs.

### Processing:

For each request ID, the polling timer framework picks up the staged records. The records are then passed on to the consumer which calls the processing logic to update the inventory.

For POS sale/order processing, failure can occur at the line item level but for ReSA transactions, failure can only occur at the transaction level, that is, if a single line item fails in a transaction then the whole transaction is failed.

ReSA processing is different from POS processing in the way that it first tries to roll back the completed transactions with the same transaction ID. If the rollback is successful, it processes the audited transactions and only when all the transactions are processed successfully, the data models are updated.

Business objects are used within the application code for all business processing.

Business Object	Description
PosTransaction	Contains detailed information about the transaction including the transaction type and source.

## Integration

This section covers integration.

## RIB

RIB payloads are used to communicate to external systems through RIB Integration.

RIB Payload	Description
InvAdjustDesc	RIB payload that contains information about the destination of the adjustment and an InvAdjustDtl.
InvAdjustDtl	Contains detailed information about the item adjustment.

## Web Service

SIM supplies the following SOAP web service operation:

Service Operation	Description
processPosTransaction	Stages POS transaction details to SIM data models.

## Batch

The following batches are provided by SIM:

Batch Name	Description
POSTransactionImport	Batch to import sale/order information coming directly from POS.
RetailSaleAuditImport	Batch to import sale/order audit transaction coming in from ReSA.

## Data Structure

The following database tables are used by SIM:

Table Name	Description
POS_TRANSACTION	Table to hold staged POS transaction records for sale and order transactions.
POS_TRANSACTION_LOG	Table to hold transaction processing logs for failed transactions.
MPS_STAGED_MESSAGE	Table to hold the staged inbound and outbound messages. For the posTransaction message family, this table holds header level request details.



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# Inventory Adjustments

This chapter describes inventory adjustments. The following topics are covered:

- **Overview:** Introduction to inventory adjustments.
- **Functionality:** Inventory adjustments and templates.
- **MAF:** Screens.
- **Technical:** Integration with Oracle Retail Integration Bus (RIB), web services, batch, and the database structure.

## Overview

Inventory Adjustments allow a retailer to change the number of units in stock or mark them as non-sellable due to damage and other reasons:

- Inventory adjustments are the manual adjustment of an item's inventory by a store user for a given reason.
- Inventory adjustments change inventory positions based upon a reason code which is associated to a disposition. Depending on the disposition, different inventory buckets are updated.
- Sub-buckets allow for the tracking of unavailable inventory into smaller buckets such as repair, recall, or damaged. Sub-buckets are system configurable and can be turned off.
- Multiple line items can be associated to a single inventory adjustment header transaction.

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**Note:** Inventory adjustments are published at the item level to the merchandising system.

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- Inventory adjustments can be saved. This allows different people to create and approve the transaction.
- Templates allow for quick and easy application of the same inventory adjustment multiple times.
- A copy feature exists to replicate a completed adjustment.
- Adjustments to stock from other areas of the system do not create inventory adjustment records. They are transaction history records. See "[Transaction History](#)" (Stock Count Adjustments, Receiving Damaged goods, Returning of Unavailable stock, Late Sales, Wastage, and Customer Orders).

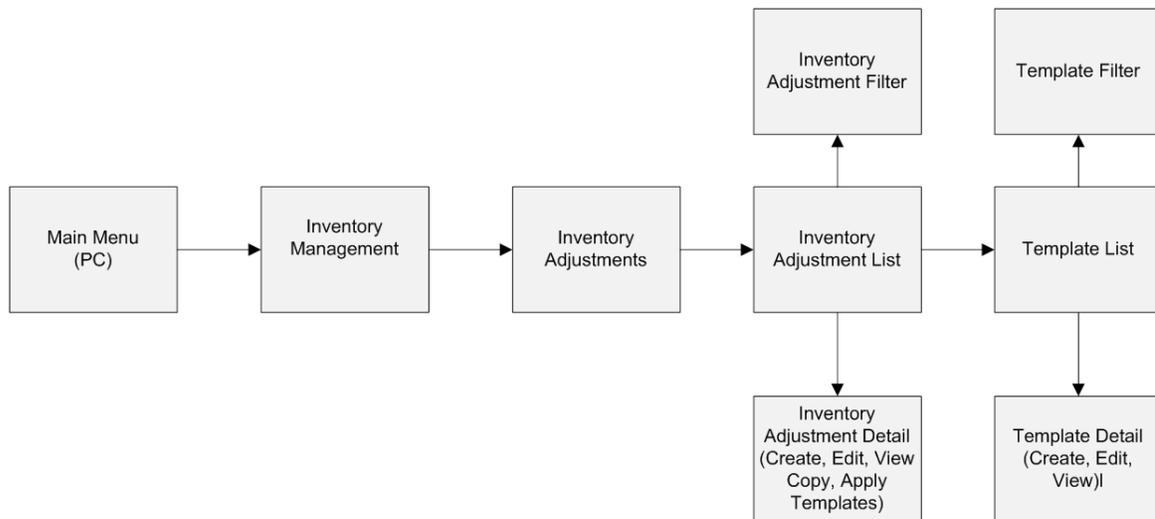
## Business Case

- Inventory Adjustments can be used to adjust inventory in the store up or down, or mark items available or unavailable, for any reason the user should choose. For example, Inventory Adjustments can be used to decrease available sellable stock when items are found to be damaged, thus moving the inventory from Available stock to Unavailable (non-sellable) stock.
- Sub-buckets are used to separate unavailable inventory into individual buckets, such as those items that are needed for display ("display" sub-bucket) and those that are needed for repair ("repair" sub-bucket).
- A return coming to SIM from the Point of Sale can automatically move an item into available inventory or unavailable inventory or remove it from inventory per the reason on the return.

When a customer makes a return, the associate can assign a reason code on what needs to happen with that item that ties into SIM back to the disposition and possible sub-bucket allowing for additional inventory adjustment processing, such as, an electronic item is returned and the box has been opened. The sales associate marks the item as "requires validation." This reason code moves the item into the "requires validation" sub-bucket, which can then in its turn be analyzed by a technician who can, depending on business process, dispose of the item (remove from stock), return it to the vendor (move to other sub-bucket) or warehouse, or mark it as available for sale (remove from sub-bucket).

- Inventory Adjustment Templates can be used for repetitive grouped transactions such as receipts or basket creation use, for example, making Chocolate Chip cookies for a baker. The template would be used to convert 1 kilogram of flour, a dozen eggs, a carton of milk, and 1 kilogram of Belgian chocolate chips into 120 chocolate chip cookies. All ingredients would have reasons that would decrease inventory and the cookies would increase inventory. The template receipt allows the user to reapply the same ingredient ratio multiple times without having to add the individual items to the inventory transaction each time when creating a new batch of cookies.
- Complex Packs can be made in a very similar way using templates for basket creation over the holidays. For example: 1 Face Wash, 1 Moisturizer, and 1 Body Spray can be used to create 1 Spa Basket.

**Figure 8–1 Inventory Adjustment PC Screen Flow**



Inventory Adjustments exist under the Inventory Management menu. From the Inventory Adjustment List screen, the user can filter the records as needed. The user can then view, create, edit, copy, and apply templates on the Inventory Adjustment Detail screen for an inventory adjustment. Within Inventory Adjustments, the Template dialog lists the templates where the user can filter the templates. The user can also view, create, and edit templates on the Template Detail screen.

## Configurations

This section covers store parameters and security.

### System Parameters

#### Search Limit for Inventory Adjustments

- Values: 1 - 999
- Default: 500
- Topic: UI
- Editable: Yes
- Defines how many inventory adjustment records are returned in the Inventory Adjustment List screen.

#### Enable Sub-Bucket

- Values: Yes/No
- Default: Yes
- Topic: Admin
- Editable: No
- Defines if the retailer breaks their unavailable inventory up into smaller buckets.
- If this is set to "No," sub-buckets are not used anywhere in the system.
- If it is set to "Yes," the system uses sub-buckets within inventory adjustments and returns.

### **Search Limit Default for Inventory Adjustments - Mobile**

- Values: 1 - 999
- Default: 50
- Topic: UI
- Editable: Yes
- Default search limit for the Inventory Adjustment List screen.

### **Display Item Image for Inventory Adjustments - Mobile**

- Values: Yes/No
- Default: No
- Topic: Inventory Adjustments
- Editable: Yes
- If it is set to "Yes," the item image is displayed on the Inventory Adjustment Detail screen.

### **Security**

Security permissions exist for:

- Accessing, creating, editing, completing, and deleting inventory adjustments.
- Accessing, applying, and deleting templates.
- Creating UIN on the Fly.
- Edit Quantity (MAF Only).
- All permissions exist on the PC, handheld, and MAF applications where applicable.

Data Permissions exist for reason codes:

- A user must have the proper permissions for a reason code to proceed with creating, editing, or deleting an adjustment or template for a particular reason code.
- Access permissions exist for the Inventory Adjustment Reason Code Maintenance.

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**Note:** A very common problem is that a new reason code is created, but is not associated to the role the user has been granted. If that does happen, the user will not be able to use the new reason code.

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## **Functionality**

This section describes the available screens and templates.

## Inventory Adjustment Reason Maintenance

Figure 8–2 Inventory Adjustment Reason Maintenance Screen

Code	Description	Use in UI	Disposition	To Sub-bucket	From Sub-bucket	Publish	System
1	Wastage	<input type="checkbox"/>	- Stock On Hand			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
2	Shrinkage	<input checked="" type="checkbox"/>	- Stock On Hand			<input checked="" type="checkbox"/>	<input type="checkbox"/>
3	Repair - In	<input checked="" type="checkbox"/>	- Unavailable		Trouble	<input checked="" type="checkbox"/>	<input type="checkbox"/>
75	Stock Count Unavailable To Missing	<input type="checkbox"/>	- Unavailable		Trouble	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
76	Unit Late Sales Increase SOH	<input type="checkbox"/>	+ Stock On Hand			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
77	Unit Late Sales Decrease SOH	<input type="checkbox"/>	- Stock On Hand			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
78	Unit and Amount Late Sales Increas...	<input type="checkbox"/>	+ Stock On Hand			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
79	Unit and Amount Late Sales Decreas...	<input type="checkbox"/>	- Stock On Hand			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
81	Damaged - Out	<input checked="" type="checkbox"/>	- Stock On Hand			<input checked="" type="checkbox"/>	<input type="checkbox"/>
82	Damaged - Hold	<input checked="" type="checkbox"/>	+ Unavailable	Trouble		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
83	Theft	<input checked="" type="checkbox"/>	- Stock On Hand			<input checked="" type="checkbox"/>	<input type="checkbox"/>
84	Store Use	<input checked="" type="checkbox"/>	- Stock On Hand			<input checked="" type="checkbox"/>	<input type="checkbox"/>
85	Repair - Out	<input checked="" type="checkbox"/>	+ Unavailable	Trouble		<input checked="" type="checkbox"/>	<input type="checkbox"/>
86	Charity	<input checked="" type="checkbox"/>	- Stock On Hand			<input checked="" type="checkbox"/>	<input type="checkbox"/>
87	Stock Count In	<input type="checkbox"/>	+ Stock On Hand			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
88	Stock Count Out	<input type="checkbox"/>	- Stock On Hand			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
89	Dispose from on Hold	<input checked="" type="checkbox"/>	- Stock On Hand & - Unavailable		Trouble	<input checked="" type="checkbox"/>	<input type="checkbox"/>
90	Dispose from SOH	<input checked="" type="checkbox"/>	- Stock On Hand			<input checked="" type="checkbox"/>	<input type="checkbox"/>
91	Stock - Hold	<input checked="" type="checkbox"/>	+ Unavailable	Trouble		<input checked="" type="checkbox"/>	<input type="checkbox"/>
92	Admin	<input checked="" type="checkbox"/>	- Stock On Hand			<input checked="" type="checkbox"/>	<input type="checkbox"/>
93	Store Customer Return	<input checked="" type="checkbox"/>	+ Stock On Hand			<input checked="" type="checkbox"/>	<input type="checkbox"/>
94	Product Transformation In	<input checked="" type="checkbox"/>	+ Stock On Hand			<input checked="" type="checkbox"/>	<input type="checkbox"/>
95	Consignment	<input checked="" type="checkbox"/>	- Stock On Hand			<input checked="" type="checkbox"/>	<input type="checkbox"/>
96	Ready to Sell	<input checked="" type="checkbox"/>	- Unavailable		Trouble	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
97	Returns	<input type="checkbox"/>	- Unavailable		Trouble	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

The Inventory Adjustment Reason Maintenance screen is an administrative screen on the PC application for the creation and maintenance of inventory adjustment reason codes. The reason codes are used within inventory adjustments and inventory adjustment templates. Upon initial install, a list of default inventory adjustment reason codes is available. The reason codes defined in SIM need to match that of the merchandising system.

The following table provides the list of SIM Inventory Adjustment reason codes:

Code	Reason	Disposition	To Sub-Bucket	From Sub-Bucket	UI	System	Transaction	Publish Ind
1	Wastage	-Stock on Hand			No	Yes	Wastage	Yes
2	Shrinkage	-Stock on Hand			Yes	No		Yes
3	Repair - In	-Unavailable		Trouble	Yes	No		Yes
75	Stock Count Unavailable to Missing	-Unavailable		Trouble	No	Yes	Stock Count for UINs	Yes, all types except Unit and Amount

<b>Code</b>	<b>Reason</b>	<b>Disposition</b>	<b>To Sub-Bucket</b>	<b>From Sub-Bucket</b>	<b>UI</b>	<b>System</b>	<b>Transaction</b>	<b>Publish Ind</b>
76	Unit Late Sales Increase SOH	+Stock on Hand			No	Yes	Late Sales	Yes
77	Unit Late Sales Decrease Sales	-Stock on Hand			No	Yes	Late Sales	Yes
78	Unit and Amount Late Sales Increase SOH	+Stock on Hand			No	Yes	Late Sales	Yes
79	Unit and Amount Late Sales Decrease SOH	-Stock on Hand			No	Yes	Late Sales	Yes
81	Damaged - out	-Stock on Hand			Yes	No		Yes
82	Damaged - Hold	+Unavailable	Trouble		Yes	Yes	Receiving of Damages	Yes
83	Theft	-Stock on Hand			Yes	No		Yes
84	Store Use	-Stock on Hand			Yes	No		Yes
85	Repair - Out	+Unavailable	Trouble		Yes	No		Yes
86	Charity	-Stock on Hand			Yes	No		Yes
87	Stock Count In	+Stock on Hand			No	Yes	Stock Count	Yes, all types except Unit and Amount
88	Stock Count Out	-Stock on Hand			No	Yes	Stock Count	Yes, all types except Unit and Amount
89	Dispose from on Hold	-Stock on Hand and -Unavailable		Trouble	Yes	No		Yes
90	Dispose from SOH	-Stock on Hand			Yes	No		Yes
91	Stock - Hold	+Unavailable	Trouble		Yes	No		Yes
92	Admin	-Stock on Hand			Yes	No		Yes
93	Store Customer Return	+Stock on Hand			Yes	No		Yes
94	Product Transformation In	+Stock on Hand			Yes	No		Yes
95	Consignment	-Stock on Hand			Yes	No		Yes
96	Ready to Sell	-Unavailable		Trouble	Yes	Yes	RUA Decrease Receiving	Yes

<b>Code</b>	<b>Reason</b>	<b>Disposition</b>	<b>To Sub-Bucket</b>	<b>From Sub-Bucket</b>	<b>UI</b>	<b>System</b>	<b>Transaction</b>	<b>Publish Ind</b>
98	Product Transformation Out	-Stock on Hand			Yes	No		Yes
180	Customer Order Reservations - In	+Customer Order			No	Yes	Reserve Customer Order In POS	Yes
181	Customer Order Reservations - Out	-Customer Order			No	Yes	Cancel Fulfill Customer Order in POS	Yes
182	Stock In	+Stock on Hand			Yes	Yes	Moving UIN from another store in Inventory Adjustments	Yes
183	Stock Out	-Stock on Hand			Yes	No		Yes
184	Unit Late Sales Inventory Adjustment Increase SOH	+Stock on Hand			No	Yes	Inventory Adjustment Late Sales Unit	Yes
185	Unit Late Sales Inventory Adjustment Decrease SOH	-Stock on Hand			No	Yes	Inventory Adjustment Late Sales Unit	Yes
186	Unit and Amount Late Sales Inventory Adjustment Increase SOH	+Stock on Hand			No	Yes	Inventory Adjustment Late Sales UA	Yes
187	Unit and Amount Late Sales Inventory Adjustment Decrease SOH	-Stock on Hand			No	Yes	Inventory Adjustment Late Sales UA	Yes
188	Receipt Hold	-Unavailable	Trouble		No	Yes	Receiving Unavailable	Yes

All reason codes have a disposition associated with them. The disposition is used to define the direction of stock movement for the adjustment. The following table lists the available dispositions:

<b>From Disposition</b>	<b>To Disposition</b>	<b>Display value</b>
ATS	DIST	- Stock On Hand
ATS	TRBL	+ Unavailable
DIST	ATS	+ Stock On Hand
TRBL	ATS	- Unavailable
ATS	COR	+ Customer Order Reserve
COR	ATS	- Customer Order Reserve

From Disposition	To Disposition	Display value
TRBL	DIST	- Stock On Hand and - Unavailable
TRBL	TRBL	-Unavailable and + Unavailable

Those reason codes that have the "Use in UI" indicator checked appear as reason codes in the Inventory Adjustment dialog.

System reason codes cannot be removed and can only have the description edited. System reason codes are those used within the SIM system for making stock on hand updates, for example, "Stock Count-In" which is used within stock counts.

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**Note:** These are not considered inventory adjustments as the stock count itself represents the transaction of the change.

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If the system is configured to use sub-buckets, then the sub-buckets are enabled. Sub-buckets are linked with the inventory adjustment reason codes to make it easy for users to move inventory to, from, and between sub-buckets when adjusting unavailable stock. An example is stock reserved for display or demonstration purposes versus stock that is unavailable because it needs to be repaired. A sub-bucket is a pre-populated list which is defined in the database.

If using sub-buckets, all reason codes that have a disposition which is "to unavailable" stock require a "to sub-bucket" to be selected. Those reason codes that have a disposition which are from unavailable stock require a "from sub-bucket" to be selected.

Note that the -Unavailable and + Unavailable is a disposition used for those retailers that are configured to use sub-buckets. It allows movement of inventory from one sub-bucket to another only within SIM. The inventory stays within the unavailable bucket. These adjustments are not published.

The Publish indicator is used for integration purposes. If this check box is checked, the adjustments associated with that reason code are published upon completion of the adjustment. This indicator can only be modified for those reason codes which are normally editable (non-system reason codes). All reason codes installed on setup have this indicator checked, meaning they are published.

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**Note:** A common use of the Publish indicator is the support of initial inventory position seeding from the merchandise system during implementation. Inventory adjustments may come to SIM (through a web service) and SIM then updates the inventory per the adjustment; the adjustments do not get published out to the external system per the Publish indicator. Also, the Publish indicator can be used to update SIM inventory positions in a custom RMS or third-party implementation to sync both inventory positions with the corporate system.

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## Inventory Adjustment List

Figure 8–3 Inventory Adjustment List Screen

Adjustment ID	Template	Date	Status	Total SKUs	Create User
301	121	4/4/12	In Progress	2	Sue
401		4/20/12	In Progress	4	Sue
481	241 - mMULTIPLER TEST	4/24/12	In Progress	1	Sue
482		4/24/12	In Progress	5	Sue
521	241 - mMULTIPLER TEST	5/1/12	In Progress	1	Sue
541		5/3/12	In Progress	2	Sue
6281		5/30/13	In Progress	1	INTEGRATION_SERVICE
6302		5/31/13	In Progress	1	INTEGRATION_SERVICE
6342		6/3/13	In Progress	3	Sue
6461		6/7/13	In Progress	1	INTEGRATION_SERVICE
7441		8/6/13	In Progress	1	Becky
7491		8/8/13	In Progress	1	eswarim
7663		8/21/13	In Progress	1	Sue
7665		8/21/13	In Progress	1	Sue
7762	221 - Sue Item validation Change	8/28/13	In Progress	4	Sue
8643		11/18/13	In Progress	1	Sue

Client Information: orsimadmin orsimadmin | 1111 - Charlotte 11\* | Inventory Adjustment List | Help | Jump

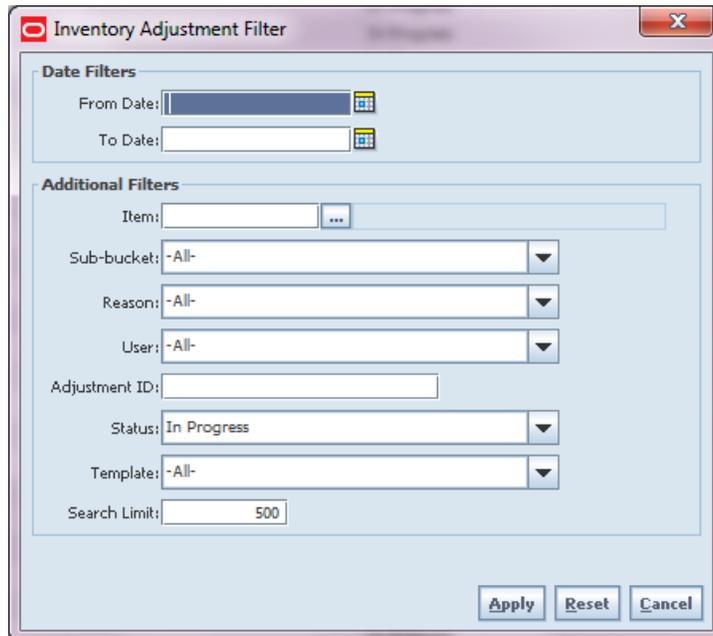
All manually created inventory adjustments as well as those created by an external system, such as through the web service, appear in the Inventory Adjustment list screen. The system defaults to display all "In Progress" status inventory adjustments. The Filter button opens a filter screen allowing for further filtering of the inventory adjustments.

By clicking an adjustment in the list, the user navigates to the Inventory Adjustment Detail screen for that transaction.

Each inventory adjustment is a transaction with one or more items on it with one adjustment ID. The Total SKUs column states how many line items are on the inventory adjustment transaction. Additional header level information for the adjustment is listed including template, date, status, and user.

## Inventory Adjustment Filter

**Figure 8–4** *Inventory Adjustment Filter Screen*



The screenshot shows a dialog box titled "Inventory Adjustment Filter". It contains two main sections: "Date Filters" and "Additional Filters".

**Date Filters:**

- From Date: [Date Picker]
- To Date: [Date Picker]

**Additional Filters:**

- Item: [Text Field]
- Sub-bucket: [-All-] [Dropdown]
- Reason: [-All-] [Dropdown]
- User: [-All-] [Dropdown]
- Adjustment ID: [Text Field]
- Status: [In Progress] [Dropdown]
- Template: [-All-] [Dropdown]
- Search Limit: [500] [Text Field]

At the bottom right, there are three buttons: **Apply**, **Reset**, and **Cancel**.

The Inventory Adjustment Filter screen is accessed by clicking the Filter button from the Inventory Adjustment List screen. The user can filter on various search criteria. After applying the filter, the user is returned to the Inventory Adjustment List screen with the adjustments displayed per the entered criteria.

## Inventory Adjustment Detail

Figure 8–5 Inventory Adjustment Detail Screen

Item	Item Description	Reason	Disposition	Sub-bucket	UOM	Pack Size	Inventory	Quantity	UIN Qty
100171499	pd:Yellow	Consignment	- Stock On Hand		Cases	1	0	3	
100102012	Hams Beer	Damaged - Hold	+ Unavailable	+Trouble	Cases	6	505	4	

The Inventory Adjustment Detail screen is accessed by clicking the Create button to create a new adjustment or double clicking an adjustment record to view or edit the adjustment. Both of these methods can be used from the Inventory Adjustment List screen.

When creating an inventory adjustment, the user can add multiple items. All of those items are grouped together under a single adjustment ID having one header transaction. The item must be unique on the adjustment.

Reason codes are available at the header level, as well as, the line item level. When selected at the header level, the selected reason code automatically defaults for all of the items being added to the inventory adjustment transaction. The user still has the option of overwriting that reason code at the detail level. Once the reason code is changed at the header, it uses the newly changed reason code for all newly added items from that point onward.

The reason codes have a disposition associated to them which determines stock movement of the item. Once a reason code is selected, the disposition and sub-bucket for the reason is displayed. This is purely informational to aid in making adjustments. Sub-buckets are only displayed if the system is configured for them.

Within the adjustment details, SIM displays the inventory for the item. This quantity represents a different bucket depending on the reason code. If the user selects a reason

to take out of available inventory, this field represents the available inventory bucket. If the user takes out of the adjustment unavailable bucket, non-sellable bucket, it shows that quantity.

The quantity being adjusted may exceed available inventory, however, it may not exceed unavailable inventory. The system validates the inventory bucket based upon the disposition associated to the reason code.

For those items that are UIN items, the user may be required to capture UINs:

- All non-AGSN (Auto Generated Serial Numbers) UINs require UINs to be captured, regardless of the disposition of stock movement. The quantity field cannot be entered for non AGSN UIN items. It gets updated as the UINs get added and removed from the adjustment.
- For AGSN items, if a reason code has a disposition of anything except Out of Stock to In Stock (+Stock on Hand), a UIN is required to be captured. This is because the UIN already exists in the system and the system needs to know which AGSN UIN is being adjusted. In this case, the quantity field cannot be entered; it is updated as the AGSN is added/removed.
- For AGSNs being adjusted from Out of Stock to In Stock (+ Stock on Hand), the system auto generates the AGSN number and print upon completion of the adjustment. This means that capturing of the AGSN is not required and the quantity can be entered. However, the user may still capture the serial number if one exists. In this case, the system auto-generates the serial numbers and print for those where the quantity entered exceeds the UINs captured.

A template can be applied to the adjustment. This is an optional step that allows the user to select a template from the list and apply it which takes all the items, reasons, and quantities from the template and applies them to the adjustment. If needed, the user can enter a multiplier which takes all the quantities from the template and multiplies them by the multiplier. For example: Ham, quantity 1 lb., Bread quantity 2 EA. If the multiplier is 2, it gives Ham, quantity 2 lb., Bread quantity 4 EA. Once a template is applied, the user can still add and remove items as well as update the quantities.

It is possible to copy an existing inventory adjustment. This can occur by entering an existing "Completed" status adjustment and selecting the Copy button. The copy feature is not available if the adjustment contains UIN items. After doing a copy, a new inventory adjustment is created with all of the items, quantities, and reasons which were on the original adjustment. There is a Reference Adjustment ID on the newly copied adjustment which holds the adjustment ID for any inventory adjustment that has been copied.

Lastly, the inventory adjustment can be saved or completed. Saving allows an adjustment to be saved in an "In Progress" status to be completed later. Saving an adjustment does not publish the adjustment nor does it reserve any inventory; it simply saves it. The Save button can be used to implement a Save and Approval process. Confirming the adjustment completes the adjustment. The stock on hand bucket is updated based upon the quantity and reason code disposition.

If the inventory adjustment is first saved, and later the user opens up the transaction and tries to confirm, item level validation is performed again. This is especially important for sub-buckets since it is not allowed to become negative.

## Template List

Figure 8–6 Template List Screen

Item	Item Description	Reason	Disposition	UOM	Pack Size	Quantity
100239714	Smoked Turkey	Stock Out	- Stock On Hand	Cases	1	2
100214107	Heinz Ketchup	Stock Out	- Stock On Hand	Cases	1	3
100137807	Ham	Stock In	+ Stock On Hand	Cases	1	1

Templates are created when the user has items that need to be routinely adjusted. A template for the item, reason, and quantity can be created and then applied to an inventory adjustment to quickly replicate it. Templates are accessed by clicking the Template button on the Inventory Adjustment List screen. This takes the user to the Template List screen which shows by default all "In Progress" or, in other words, saved templates. "In Progress" status templates can be edited. They can also be deleted from the Template List screen. The templates can be filtered further by using the Template Filter.

## Template Filter

Figure 8–7 Template Filter Screen

The screenshot shows a 'Template Filter' dialog box with the following fields and controls:

- Date Filters:** 'From Date' and 'To Date' fields, each with a calendar icon.
- Additional Filters:**
  - 'Item' field with a search icon.
  - 'Template ID' text input field.
  - 'Description' text input field.
  - 'Reason' dropdown menu (set to '-All-').
  - 'User' dropdown menu (set to '-All-').
  - 'Status' dropdown menu (set to 'In Progress').
- Buttons:** 'Apply', 'Reset', and 'Cancel' buttons at the bottom right.

The Template Filter screen is accessed by selecting the Filter button on the Template List screen. The filter allows a user to search for templates using various search criteria. After applying the filter, the user is returned to the Template List screen with the templates displayed per the entered criteria.

## Template Detail

Figure 8–8 Template Detail Screen

The screenshot shows the 'Template Detail' screen with the following information:

**Form Fields:**

- Buttons: Save, Add Item, Remove Item, Confirm, Cancel
- Template ID: New
- Description: Ready Meal Template
- Status: In Progress
- Comments: How to make Turkey and Gravy
- Reason: -Select-
- Date: Create Date: 9/25/2013, Approval Date: (empty)
- User: Create User: orsadmin, Approval User: (empty)

**Item Table:**

Item	Item Description	Reason	Disposition	UOM	Pack Size	Quantity
100239714	Smoked Turkey	Stock Out	- Stock On Hand	Cases	1	2
100214107	Heinz Ketchup	Stock Out	- Stock On Hand	Cases	1	2
100180408	Ready Meal	Stock In	+ Stock On Hand	Cases	1	1

**Client Information:** orsadmin orsadmin | 1221 - New York | Template Detail | Help | Jump

The Template Detail screen is accessed by clicking a template in the Template List screen to view or edit the details of an existing template. To create a new template, click the Create button in the Template List screen.

Creating a template is similar to creating an inventory adjustment. When creating a new template, all templates require a description. The comments, however, are optional. The user enters the items that need to be in the template along with their reason and quantity. The disposition for the reason as well as sub-bucket (if applicable and configured) is displayed to assist.

A few restrictions exist when creating templates:

- Reason codes are restricted to those reason codes which do not touch the unavailable inventory or non-sellable bucket.
- UIN items cannot be added to templates. The main reason for these restrictions is that template functionality is built out for generic processes and UIN usage and adjusting unavailable inventory is very specific.

Templates can be saved as "In Progress" to edit and complete later, or they can be confirmed which sets the template to a "completed" status. Only completed status templates are available to be applied to an inventory adjustment.

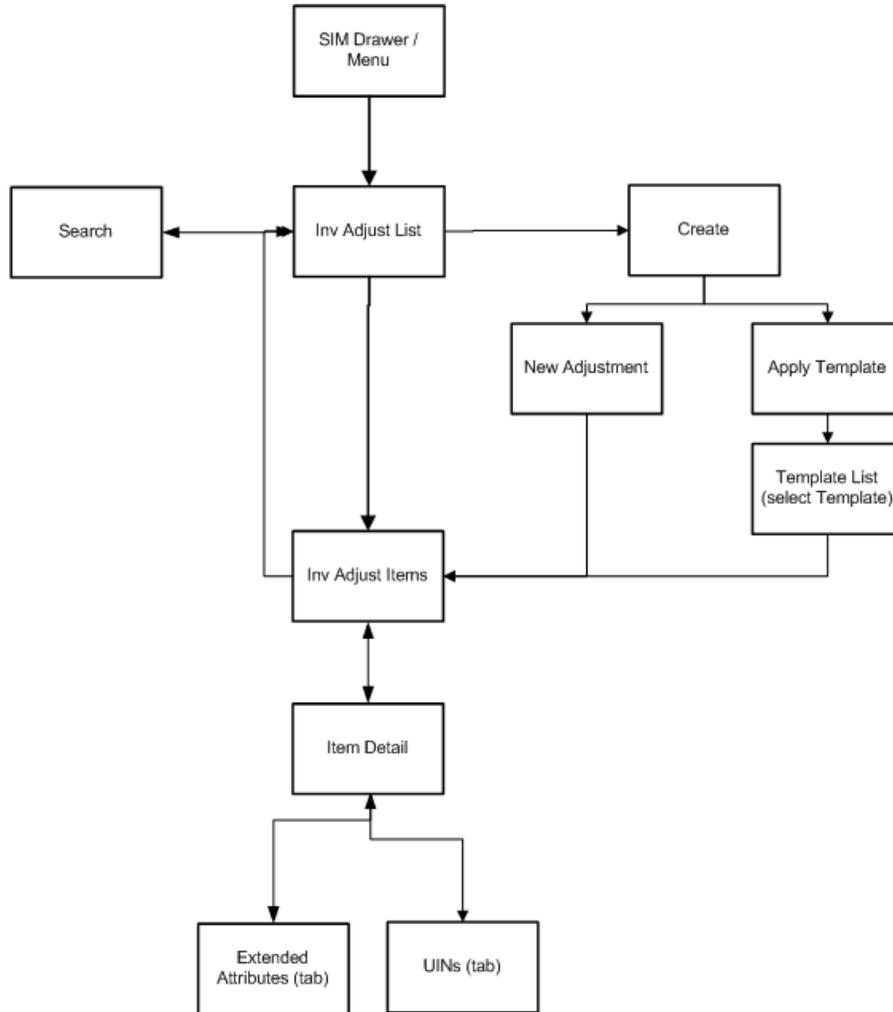
The creation of templates does not exist on the handheld application; however, they can be applied to inventory adjustments on the PC, handheld, and MAF.

## MAF

All validations and rules for inventory adjustments on MAF are the same as those for the PC application. Inventory Adjustments exist in a small and large form factor on MAF. The following features are available:

- Search for inventory adjustments
- Create a new inventory adjustment
- Create a new inventory adjustment from a template
- Copy an existing inventory adjustment
- View or edit an existing inventory adjustment
- Delete "In Progress" adjustments
- Print inventory adjustments

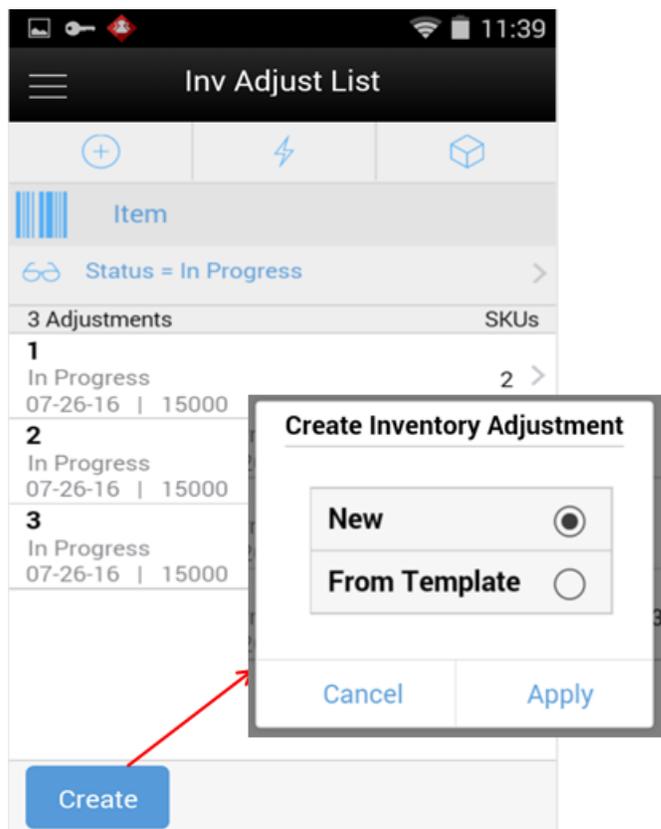
**Figure 8–9 Inventory Adjustment MAF Screen Flow (Small)**



Inventory Adjustments are accessed on MAF through the Inventory Adjustment menu within the drawer. Selecting the menu option takes the user to the Inv Adjust List screen. On this screen, the user has the option to search for adjustment records which will be presented on the Inv Adjust List screen. The user has the option to create an inventory adjustment, apply a template to create an adjustment, or edit or view an adjustment. When creating, editing, or viewing an inventory adjustment, the user is first be directed to the list of items on the Inv Adjust Items screen. The user can add, view, and edit the details of the items on the Item Detail. On the Item Detail screen, there are tabs for UINs as well as Extended Attributes if the system and/or item is configured for these.

## Inv Adjust List

Figure 8–10 Inv Adjust List Screen



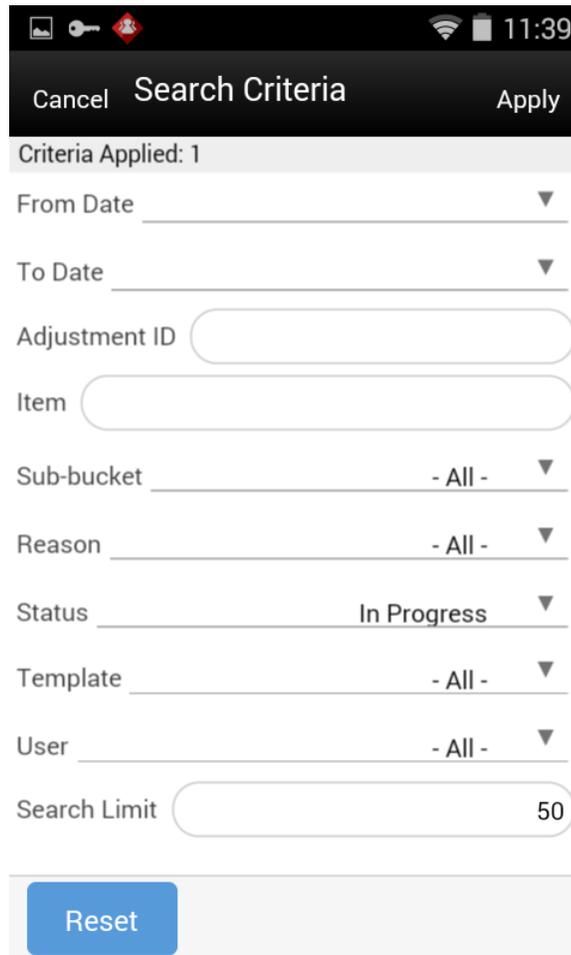
When navigating to Inventory Adjustments, the user is taken to the Inv Adjust List screen with the default list being defined for "In Progress" adjustments.

The user can use the search criteria eye glasses to navigate to the Inventory Adjustment Search Criteria screen to enter search criteria for inventory adjustments. When scanning/entering an item in the scan bar, the system adds the scanned item to the entered search criteria and narrows down the current list of adjustments by the item that was scanned.

The Create button prompts the user to create a new adjustment either from scratch or by applying a template. Creating a new adjustment directs the user to the Inv Adjust Items screen with no details (items) to build a new inventory adjustment. Creating an inventory adjustment from template prompts the user to select the template to apply prior to going to the inventory adjustment details. Lastly, selecting an adjustment from the list navigates to the details for that adjustment.

## Search Criteria (Inventory Adjustments)

*Figure 8–11 Search Criteria Screen (Inventory Adjustments)*



The screenshot shows a mobile application interface for setting search criteria. At the top, there is a status bar with icons for signal, Wi-Fi, and battery, and the time 11:39. Below the status bar is a dark header with 'Cancel' on the left, 'Search Criteria' in the center, and 'Apply' on the right. The main content area is white and contains the following fields:

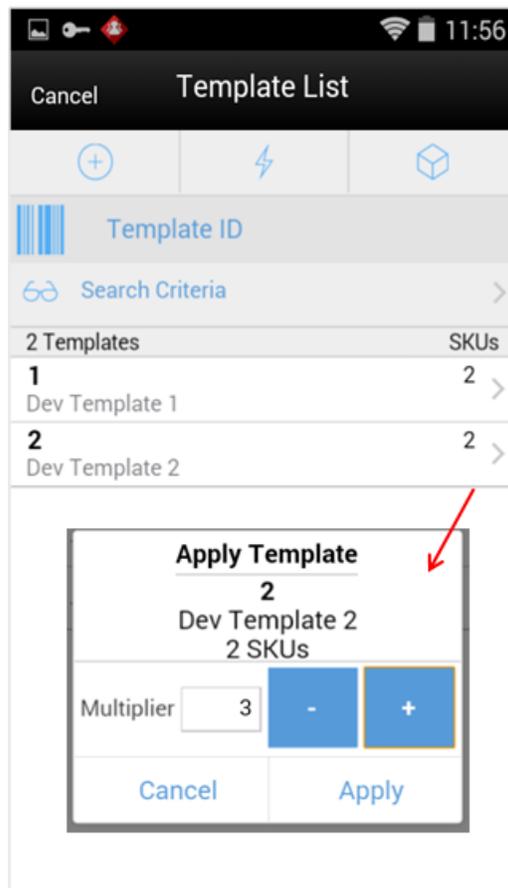
- Criteria Applied: 1
- From Date:  ▼
- To Date:  ▼
- Adjustment ID:
- Item:
- Sub-bucket:  - All - ▼
- Reason:  - All - ▼
- Status:  In Progress ▼
- Template:  - All - ▼
- User:  - All - ▼
- Search Limit:  50

At the bottom, there is a blue 'Reset' button and a greyed-out area.

The Inventory Adjustment Search Criteria Screen is accessed by the eye glasses on the Inventory Adjustment List (Inv Adjust List) screen. After applying the search criteria, the results are listed on the Inv Adjust List screen and the criteria applied is shown.

## Template List

Figure 8–12 Template List Screen



When creating an adjustment by template, the user is taken to the Template List screen. The screen defaults to display all of the "completed" status templates for the user's store. Since only templates which are in "completed" status can be applied to an adjustment, other status templates are not available. Templates are created and maintained on the PC application. Templates can only be applied to an inventory adjustment on MAF.

The user can use the search criteria eye glasses to navigate to the Template Search Criteria screen to enter search criteria for templates.

The scan bar on the header allows the user to enter or scan a template ID which is added to the existing search criteria. The system searches for "completed" status templates with that ID and returns it on the Template List screen.

Selecting a template from the list displays the multiplier popup window. This popup allows for the selection of a multiplier to be applied to the template. Whatever quantity is entered here will be multiplied times the quantity of all items on the template. Once the template has been selected and the multiplier has been applied, the system directs to the Inventory Adjustment Detail screen for a new "In progress" inventory adjustment that was generated with the items, reasons, and quantities from the template. All item quantities can be edited and items can be added/removed.

## Search Criteria (Templates)

*Figure 8–13 Search Criteria Screen (Templates)*

Cancel Search Criteria Apply

Criteria Applied: 0

From Date

To Date

Item

Reason  - All -

User  - All -

Template ID

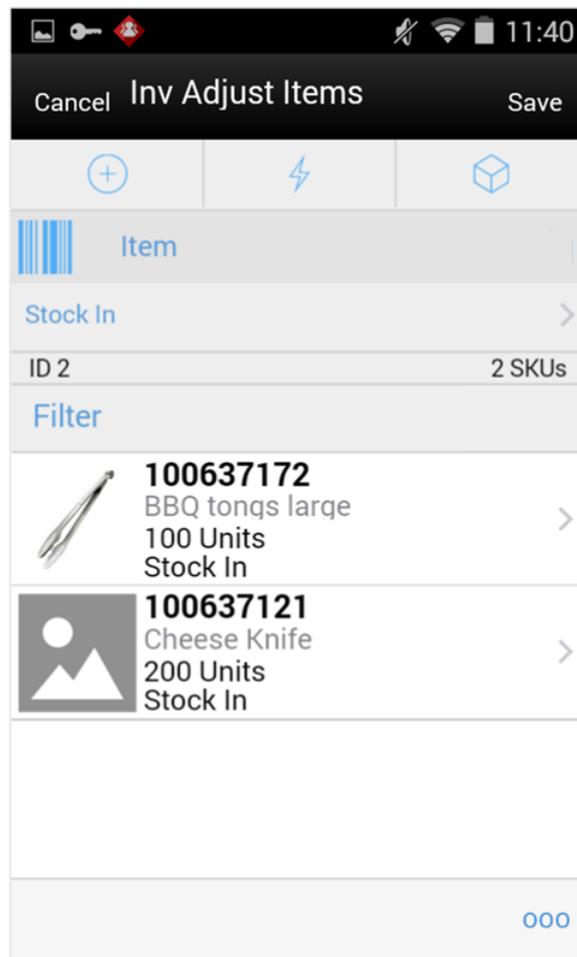
Description

Reset

The Template Search Criteria Screen is accessed by the eye glasses on the Template List screen. After applying the search criteria, the results are listed on the Template List screen and the criteria applied is shown. The searched templates returned are a subset of the "completed" status templates.

## Inv Adjust Items

Figure 8–14 Inv Adjust Items Screen



The Inv Adjust Items screen is the screen the user goes to when creating a new adjustment from scratch as well as from applying a template. The items are listed for the adjustment. The item image for the line items is displayed per configuration. The items screen is also what is displayed when selecting an adjustment from the Inv Adjust List screen.

Line items appear in a list and selecting a line item navigates to the item details of that item. If an item has been changed in the current session, it is indicated by a bar on the left of the item. Scrolling in the list of items on the left displays a filter. The filter can be used to narrow down the list of items. Filtering can occur by item ID, description, reason, and unit of measure.

A reason code must first be selected before being able to add or edit an item on the adjustment. The reason code selected here is at the header level and is applied to all newly added items until it is changed to a different reason in which the newly changed reason is added to the items.

Scanning or entering an item in the scan bar navigates to the Item Detail screen for that item. Quantity may be updated depending on the scan mode.

The ellipsis in the lower right hand corner accesses the footer menu which contains all of the functions that can be performed on an inventory adjustment.

**Footer Menu**

The footer menu is accessed from the ellipsis footer menu on the Inv Adjust Items screen. The menu functions includes the following:

- Info: Accesses the Info popup.

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**Note:** The Notes option accesses the notes common dialog to capture notes.

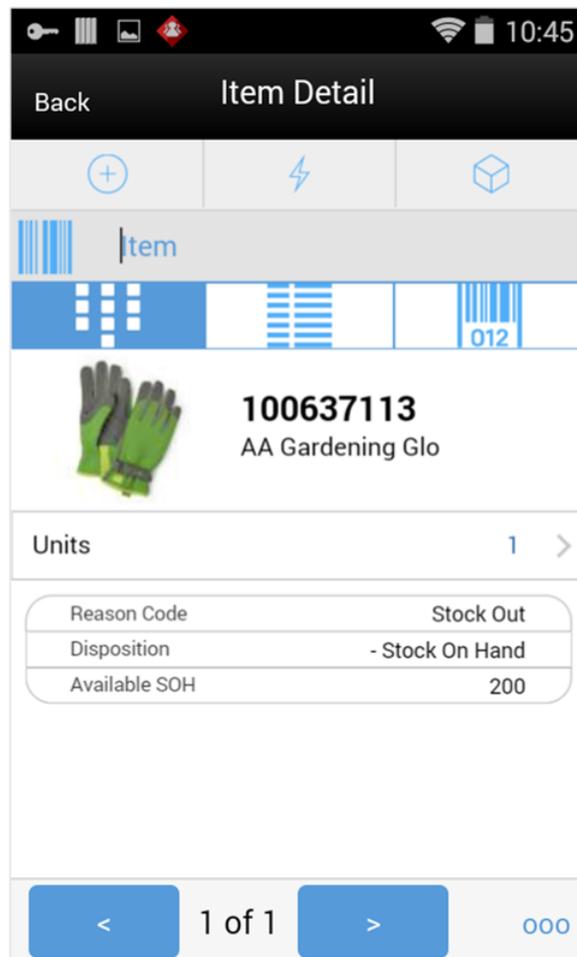
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- Confirm: Confirms and completes the adjustment. All stock on hand updates are made and the adjustment is published out; this is the same functionality as the PC.
- Save: Saves the adjustment in "In Progress" status to be completed later.
- Delete: Marks the inventory adjustment to "canceled" status.
- Cancel: Exits the adjustment; changes made in that session are not saved.
- Print: Displays the common print dialog to print the inventory adjustment report.
- Copy: The copy function is only available for those adjustments in a "completed" status. It takes the current adjustment, copies it, and creates a new editable adjustment with a new ID. It references the copied adjustment's ID.

## Item Detail (Quantity)

Figure 8–15 Item Detail Screen (Quantity)



The Item Detail screen is the screen the user goes to when selecting or scanning an item from the Inv Adjust Items screen. Scanning or entering an item on this screen in the scan bar updates the quantity per the scan mode and refreshes the Item Detail screen for the item and quantity scanned. The quantity can be edited and updated manually if permissions allow.

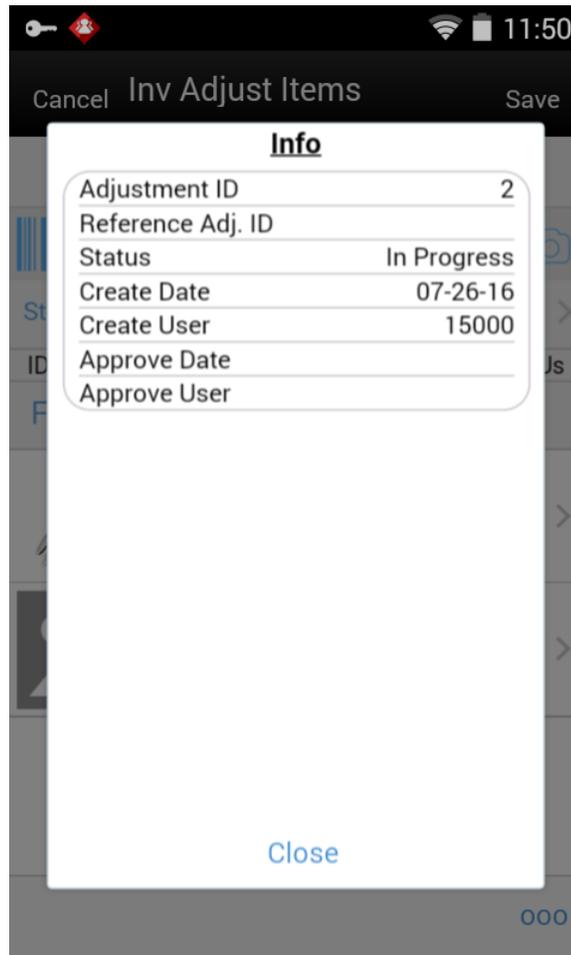
The item information including the image (which is system configured) display in the header. The bottom portion of the screen contains information fields for reason code, disposition, and the stock on hand pertaining to the bucket stock is coming from.

The footer menu, ellipsis button, contains a reset function as well as remove and restore functions. The user can page through existing items on the adjustment using the arrows on the bottom.

The Item Detail screen has an extended attributes tab to add and remove extended attributes if the item is configured as such. There is also a UIN tab to take user to the UIN screen to add/remove UINs for UIN items.

## Info Screen

Figure 8–16 Info Screen



The Info screen is an informational popup that contains read-only information about the header level of the adjustment. Details include adjustment ID, reference adjustment ID, status, create date, create user, approve date, and approval user.

## Wastage

There are two methods of wastage. First method is through sales processing. (See [Chapter 7, "Sales Integration."](#)) The second method is when wastage can be set up and scheduled through product groups and product group schedules. It is usually used when an item's size is reduced because of not being sold over time. For example, meat becomes lighter as fluids evaporate.

Variance percentage or standard UOM amounts can be set up on the wastage product group. Individual items and item hierarchies can be associated into a product group. A user can schedule the date when a wastage product group batch process is run; adjustments to inventory are automatically made based upon the variances set up on the product group. Transaction history records are written to record this. Inventory adjustments created in the back end with a reason code of "Wastage" are to be sent over the Oracle Retail Integration Bus (RIB) to the merchandising system.

## User Interface Guidelines

The Inventory Adjustment dialog allows for creation, editing, deleting, and applying templates on the PC, handheld, MAF Small, and MAF Large.

Template creating and editing only exists on the PC.

Reason Code Maintenance is only on the PC.

## Technical

SIM draws a technical distinction between inventory adjustments that are created manually through screens or through web services and those that are the by-product of another transaction or even, such as a stock count. In technical terms, the phrase Inventory Adjustment refers to those that are manually created (or through the web service), whereas transaction history record or stock history record refers to those events that are produced as the product of an event.

Inventory adjustments are treated exactly the same as all other transactions from a technical design approach, with a header record and detail records. Many different items can be assigned to a single adjustment and that relationship is maintained both at the database and client level.

Inventory adjustments are the first area that uses templates. There are parallel template tables and objects. Adjustments can be created from one of these templates allowing the speed up of work. All tables and objects are kept separate, even though the data is very similar, both for efficiency and the ability to cleanly separate business logic for the two different entities.

Business objects are used within the application code for all business processing. The following business objects are used for inventory adjustments:

Business Object	Description
InventoryAdjustment	Contains header information about an inventory adjustment including status.
InventoryAdjustmentLineItem	Contains detailed information about a specific item on the adjustment including reason and quantity.
InventoryAdjustmentReason	Contains detailed information about a single adjustment reason including "to" and "from" disposition and whether or not it should be published.

## Integration

This section describes the integration of inventory adjustments through RIB, web services, and batch.

### RIB

Inventory adjustments integrate to RMS at the item level using the RIB. SIM creates the adjustments and groups them together by a header with multiple items, but for integration purposes they are published out at an item level.

Inventory adjustments are published for all manual and external system generated adjustments where the Publish indicator for the reason code is checked. Adjustments are also published for other types of transactions in SIM where the merchandise system is expecting an adjustment for stock on hand updates, for example, receiving a DSD with damaged goods. An adjustment is created behind the scenes only for publishing purposes to notify the merchandising system to move the goods into the

unavailable bucket. These system type adjustments are not considered an adjustment within SIM; however, they are published as such for integration purposes.

RIB payloads are used to communicate to external systems through RIB Integration.

The following table shows the list of RIB Payloads available for inventory adjustments.

RIB Payload	Description
InvAdjustDesc	RIB payload that contains information about destination of the adjustment and an InvAdjustDtl.
InvAdjustDtl	Contains detailed information about the item adjustment.

### Web Service

SIM supplies an InventoryAdjustment SOAP web service. The following service operations are supported for this web service:

Service Operation	Description
lookupInventoryAdjustmentReason	Returns all the inventory adjustment reason codes.
lookupNonSellableQtyType	Returns all the non-sellable quantity types (or sub-buckets) for inventory quantities.
lookupInventoryAdjustmentTemplateHeader	Retrieves header information for inventory adjustment templates based on search criteria.
readInventoryAdjustmentTemplateDetail	Reads a single inventory adjustment template in full detail.
lookupInventoryAdjustmentHeader	Retrieves header information for inventory adjustments based on search criteria.
readInventoryAdjustmentDetail	Reads a single inventory adjustment in full detail.
saveInventoryAdjustment	Save an inventory adjustment in an open or "In Pprogress" state.
confirmInventoryAdjustment	Confirms an inventory adjustment, updating the inventory positions and closing the adjustment.
saveAndConfirmInventoryAdjustment	Performs the functionality of the save operation followed by the functionality of the confirm operation.
cancelInventoryAdjustment	Cancels the inventory adjustment.

### Batch

The following batch is provided by SIM:

Batch Name	Description
WastageInventoryAdjustments	Batch to execute Wastage Product Groups for Wastage Inventory Adjustments.

### Data Structure

Note that adjustments produced by stock counts, transfers, deliveries, or any other system transaction might trigger an adjustment integration message being sent to an

external system are not stored in these tables. The following database tables are used in inventory adjustments:

<b>Table Name</b>	<b>Description</b>
INV_ADJUST	Holds the inventory adjustment records.
INV_ADJUST_LINE_ITEM	Holds inventory adjustment line item.
INV_ADJUST_LINE_ITEM_ATT	Holds extended attributes associated to line items of inventory adjustments.
INV_ADJUST_LINE_ITEM_UIN	Holds the inventory adjustment UIN.
INV_ADJUST_REASON	Defines the reason codes that are available for attaching to a stock inventory adjustment. Each reason code contains a disposition.
INV_ADJUST_TEMPLATE	Defines the inventory adjustment template.
INV_ADJUST_TEMPLATE_ITEM	Defines the inventory adjustment template line item.



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## Direct Store Delivery

This chapter covers Direct Store Delivery (DSD). The following topics are covered:

**Overview:** Introduction to DSD.

**Functionality:** Description of available screens.

**Technical:** Integration with Oracle Retail Integration Bus (RIB), web services, batch, and the database structure.

### Overview

A direct store delivery is a delivery in which the supplier drops off merchandise directly at the store. These deliveries, received directly at the store, can be against existing purchase orders raised by the corporate or by the store, or without a purchase order. The delivery supports containers coming in directly with advance shipment notice or the system will create a container when the ASN is loaded in SIM. Even for receipts without ASN the system will allow the user to create containers.

The store can receive partial shipments, resulting in multiple deliveries against a single purchase order. When all items have been received and a delivery has been finalized, the delivery receipt can be printed.

Features:

- Direct deliveries against a Purchase Order (PO) and with Advance Shipment Notice (ASN) from the supplier. This feature also supports containers coming directly from the source and allows the user to create additional containers.
- Direct Deliveries against a PO and without ASN from the supplier. The user can receive the delivery by creating one or more containers.
- Direct deliveries without a PO.
- Receive inventory at the store directly from the vendor using the DEX/NEX method. The system will create a container and no more containers can be added.
- Add extended attributes to the item.
- Print delivery reports.
- Scanner option to scan the data bar in the receiving process.

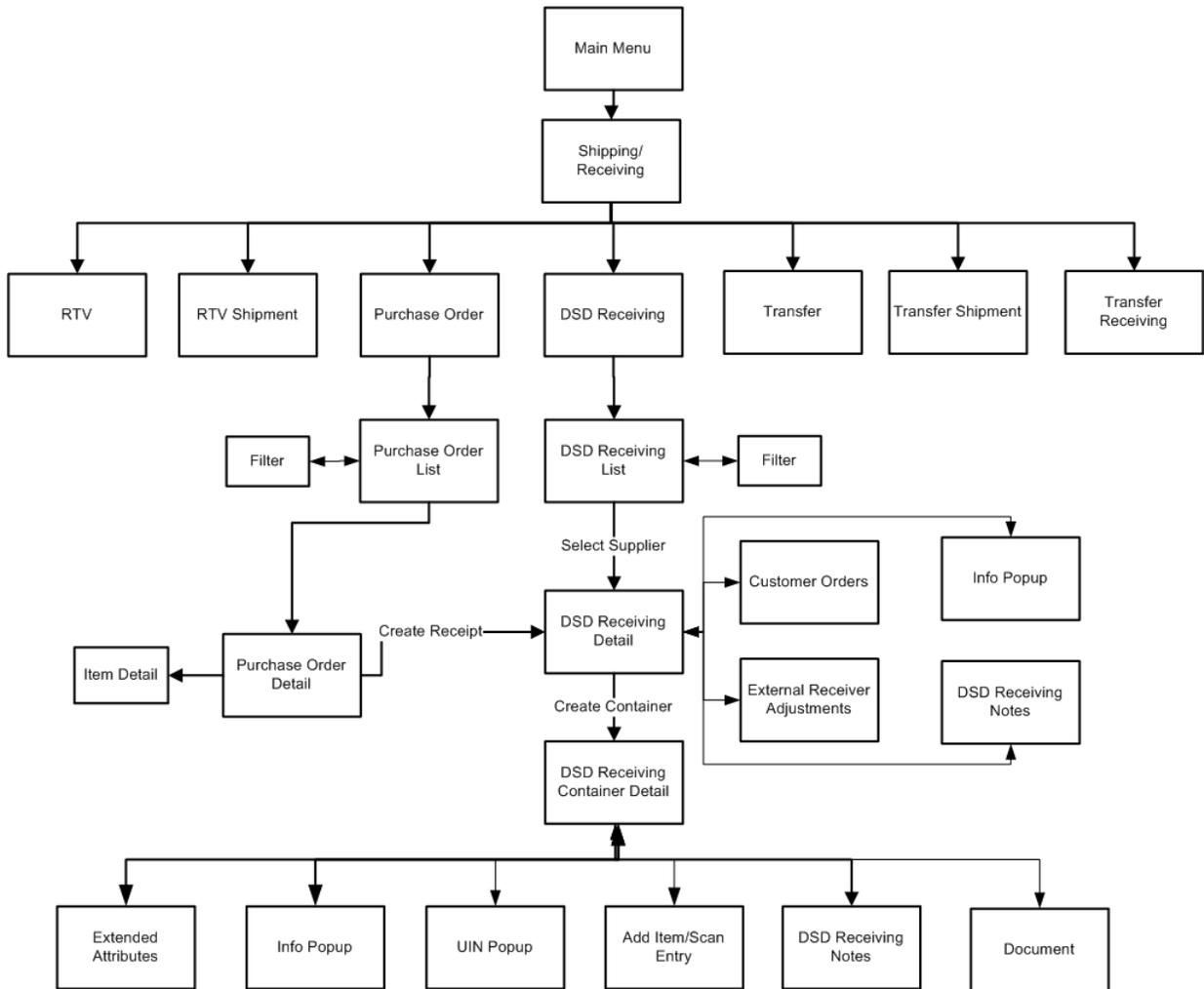
#### Business Cases

- DSD Receiving Process for PO based delivery with ASN:
  1. Corporate office places a purchase order to the vendor and instructs the vendor to supply the goods directly to the store.

2. Supplier ships the goods with the ASN to the store and the store receives the goods against the ASN.
- DSD Receiving Process for a PO based delivery without ASN:
    1. Corporate office places a purchase order to the vendor and instructs the vendor to supply the goods directly to the store.
    2. Supplier ships the goods, but no ASN is sent to the store and the store receives the goods against the PO.
  - DSD Receiving Process for a Dex/Nex based delivery:
    1. Supplier scans what is needed at the store, goes to the truck, and picks out the items that need to be delivered.
    2. The supplier docks a device or sends the dex/nex delivery document to the retailer through a network.
    3. Dex/Nex input file is uploaded into SIM and the store personnel confirm the receipt after viewing in the detail screen in SIM.
  - DSD Receiving Process without PO:

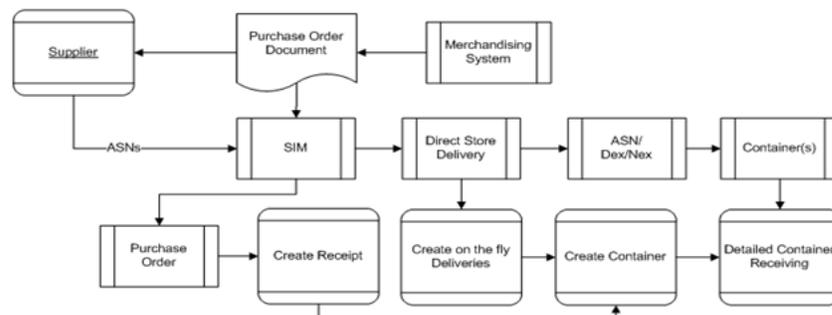
Stores that are allowed receiving the goods without purchase order can verbally place the order to the vendor and create those receipts on the fly.

**Figure 9-1 Direct Store Delivery PC Screen Flow**



The user can access the DSD Receiving and Purchase order from the Shipping and Receiving menu. The DSD Receiving List screen that appears after selecting the DSD Receiving option lists all the active deliveries that are available in SIM and allows the user to create or modify a receipt. The user can also create a new receipt on the fly without any purchase order by selecting the create receipt button.

**Figure 9-2 ASN Flow**



After selecting the ASN, active delivery, or supplier for an on the fly delivery, the DSD Receiving detail appears and allows the user to proceed with the detailed receiving

using the DSD Receiving Container Detail screen. The user can access various options such as Extended Attributes, Info, UIN, Add Item/Scan, Document, Notes, and so on, from the DSD Receiving Container Detail screen to perform various functions.

The Purchase Order List screen that appears after selecting the Purchase Order allows the user to view the Purchase Order detail and create a receipt against a PO.

When the user selects to create a receipt, the system takes the user to the DSD Receiving Detail screen and follow the same flow as described above.

## Configurations

This section covers system parameters, store parameters, notifications, and security.

### System Parameters

#### Always Send DSD Receipt Cost

- Values: Yes/No
- Default: No
- Topic: DSD Receiving
- Editable: Yes
- Yes: When the receipt is published, the unit cost will be sent if there is not an override cost.
- No: When there receipt is published, only the override cost will be sent if it exists.

#### Disable Discrepancy Checks in DSD

- Values: Yes/No
- Default: No
- Topic: DSD Receiving
- Editable: Yes
- Yes: The user will not have to review discrepancies at the end of receiving on the handheld.
- No: The user will have to review discrepancies at the end of receiving on the handheld.

#### Display Unit Cost for Direct Deliveries

- Values: Yes/No
- Default: No
- Topic: DSD Receiving
- Editable: Yes
- Yes: Display Unit Cost and allow editing on both the PC and handheld when receiving. If Yes, SIM displays the original cost and allows entering the new cost for the on-the-fly and Dex/Nex deliveries. For the delivery with PO and ASN, it displays the unit cost. Display the Unit Cost on the Direct Delivery Report when printing.

Unit cost will also be displayed in the Store Ordering dialog.

- No: Do not display this data to the user in the DSD Receiving Container Detail screen. Do not display the unit cost on the Direct Delivery Report. If No, SIM does not display the unit cost and does not allow editing or entering new cost.

Unit cost will not be displayed in the Store Ordering dialog.

#### **Direct Delivery - Preferred Currency**

- Values: Store Currency/Supplier Currency
- Default: Store Currency
- Topic: DSD Receiving
- Editable: Yes
- This parameter will default the store or supplier currency to newly created POs depending on preference.

#### **DSD Receiving Search Default**

- Values: PO/ASN/Container/Item/Supplier
- Default: Container
- Topic: DSD Receiving
- Editable: Yes
- This is applicable on the handheld.
- This parameter determines what the default search method to identify the delivery on the handheld.

#### **Enable DSD Pack Receiving**

- Values: Yes/No
- Default: No
- Topic: DSD Receiving
- Editable: Yes
- Yes: When scanning an item on a handheld that is a component for a pack, the system will prompt the user "Does this item belong to a Pack." If the user selects Yes, the system will return the pack items for the item to be used on the delivery. If the user selects No, the system will put the component item on the delivery.
- No: The system will not validate whether the scanned item is a component item when doing a delivery on the handheld.

#### **Ignore the Supplier DSD Indicator to Create a PO on the Fly**

- Values: Yes/No
- Default: Yes
- Topic: DSD Receiving
- Editable: Yes
- Allows the system to ignore the supplier level indicator to create a PO in SIM.
- Yes: The system ignores the supplier level flag and will always allow stores to create purchase orders for any supplier based on the receipt.

- No: The system will verify creating a purchase order on the fly is allowed based on the supplier level flag.

**Number of Days Received Direct Deliveries can be Adjusted**

- Values: 0-999
- Default: 0
- Topic: DSD Receiving
- Editable: Yes
- 0: no adjustment
- 1: allowed to adjust until the end of today
- 2: allowed to adjust until the end of tomorrow
- X: allowed to adjust until X number of days starting with today as day 1
- This parameter specifies the number of days received direct deliveries can be reopened and adjusted. If a direct delivery falls within the number of days, an Adjust Delivery button will display on the received delivery. The user will be allowed to edit values and confirm the delivery.

**Over Received Quantity Email Alert**

- Values: Yes/No
- Default: Yes
- Topic: DSD Receiving
- Editable: Yes
- This parameter will generate a notification when more than the expected quantity has been received and the store parameter Direct Delivery Auto Remove Over Received Quantity is set to Yes. The alert will include the UINs marked for removal.

**Customer Order Receipt Email Alert**

For additional details on this parameter, see [Chapter 11, "Transfers."](#)

**Enable Multiple Sets of Books**

- Values: Enabled/Disabled/SIM Only
- Default: Disabled
- Topic: Admin
- Editable: Yes
- Enabled: Multiple Sets of Books (MSOB) is enabled in RMS. Suppliers will be limited to only those locations corresponding to the operating unit for which they are set up.
- Disabled:- MSOB is disabled in RMS. No validation on the operating unit is performed.
- SIM Only: MSOB is disabled in RMS. SIM will utilize the operating unit validation. Limits the suppliers available for a location. The operating unit information is set up only in SIM.

- This parameter defines whether to limit the supplier selection based on the supplier sites associated with the location.

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**Note:** This parameter is also applicable to Finishers (Transfer to Finisher, Lookup Finisher).

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### **Barcode Scan/Entry Log - Receiving**

- Values: Yes/No
- Default: Yes
- Topic: Admin
- Editable: Yes
- Yes: Captures, on the handheld, all container and item scans or manual entries by user, location, and time at the point of receiving deliveries. Containers are captured in the quick receiving dialog when item level is captured in the Item Receiving function of the Container Summary for DSD and Transfer Receiving.
- No: Does not capture any container or item information in the handheld receiving dialogs.

### **Store Parameters**

#### **Allow Multiple Deliveries against PO with No ASN**

- Values: Yes/No
- Default: Yes
- Topic: DSD Receiving
- Editable: Yes
- Yes: The user is able to create more than one delivery for the same PO when the PO does not have an associated ASN.
- No: The user can only create a single delivery against a PO when the PO does not have an associated ASN. The PO will be closed when the delivery is confirmed.

#### **Auto Close Days after Expected Date**

- Values: 0-999
- Default: 5
- Topic: DSD Receiving
- Editable: Yes
- Number of days after the expected delivery date the ASN will be closed.

#### **Auto Pick on Receive - Direct Delivery/Transfer Delivery**

For additional details on this parameter, see [Chapter 11, "Transfers."](#)

#### **Direct Delivery Auto Remove over Received Quantity**

- Values: Yes/No
- Default: No

- Topic: DSD Receiving
- Editable: Yes
- Yes: The user is able to create more than one delivery for the same PO when the PO does not have an associated ASN.
- No: The over received quantities will stay in the delivery transaction.

#### **Direct Delivery Default to Shop floor Receiving**

- Values: Yes/No
- Default: No
- Topic: DSD Receiving
- Editable: Yes
- This parameter determines whether the receiving checkbox or handheld option on the DSD Receiving Container screen will default to receive inventory into the shop floor instead of automatically receiving into the back room.
- Yes: The DSD Receiving Container workflow will default the checkbox or handheld option to receive inventory into the shop floor. The shop floor inventory bucket will be incremented instead of the backroom bucket. If a capacity is defined for the item, the maximum shop floor quantity will equal the capacity; otherwise, the shop floor will be updated to the entire receipt amount.
- No: The checkbox or handheld option will be defaulted to back room and all inventory will be automatically received into the back room or delivery bay.

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**Note:** With the proper permissions, the user will still have the option to receive onto the shop floor while receiving the delivery by changing the default to shop floor on the handheld or PC.

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- Damaged inventory will not move to the shop floor.

#### **Direct Delivery Invoice Entry**

- Values: Enabled/Disabled/Unique
- Default: Enabled
- Topic: DSD Receiving
- Editable: Yes
- Enabled: This option allows the user to enter any value for the invoice number, including duplicates.
- Disabled: The Invoice Number and date fields are disabled.
- Unique: The Invoice Number field will allow entry, however, the user will not be able to enter a duplicate invoice number based upon the supplier.

Upon entering an Invoice Number, the system will validate if the invoice already exists for the supplier defined on the DSD. If a duplicate exists, there will be an error. If no duplicate exists, the invoice number will be accepted.

#### **Direct Delivery Receive Item Capacity**

- Values: Yes/No

- Default: No
- Topic: DSD Receiving
- Editable: Yes
- This parameter determines whether the capacity will be considered while receiving the deliveries.
- Yes: While receiving, the capacity will be considered.  
For example: If capacity is 50, delivery is for 100, and Available SOH is 10 on the shop floor, if this parameter is on and receive in shop floor is checked, 40 (un-damaged) will be moved to shop floor and the rest to the backroom.
- No: While receiving, the capacity will not be considered.
- Damaged inventory will not move to the shop floor.

#### **DSD Receiving Auto Remove Damaged Quantity**

- Values: Yes/No
- Default: No
- Topic: DSD Receiving
- Editable: Yes
- Yes: All damaged items on the delivery are removed automatically when confirming the transaction.
- No: All damaged items remain on the delivery when confirming the transaction.

#### **Auto Pick Mixed Containers**

- Values: Yes/No
- Default: No
- Topic: Customer Orders
- Editable: Yes
- Yes: If a container has items in it that are for both customer orders and non-customer orders, SIM will auto pick the container. It will mark those items that exist on the customer order as picked.
- No: If there is a mixed container of customer order and non-customer order items, it will not get auto picked and the picked quantities will not be updated.

#### **Auto Pick on Receive - Direct Delivery**

- Values: Yes/No
- Default: No
- Topic: Customer Order
- Editable: Yes
- Yes: SIM will automatically fill in the pick quantities on the customer order when receiving. This can only happen if the customer order record has already come into the system. If there is no customer order, the auto picking will not happen at the time of receiving, rather it will occur when the customer order comes in.
- No: SIM will not pick when receiving goods.

### **Reserve Customer Order Inventory upon Receiving**

- Values: Yes/No
- Default: No
- Topic: Customer Order
- Editable: Yes
- This store parameter will dictate when inventory for a cross channel customer order should be reserved.
- Yes: Inventory will be reserved upon receiving a delivery in the store which contains the customer order (Store to store transfer, DSD, Warehouse delivery).
- No: Inventory will be reserved upon getting the customer order into the store.

### **Notifications**

The Customer Order Receipt Alert notification will be triggered upon confirmation of a receipt of a DSD Receipt which is for a web order customer order. This is controlled by the Customer Order Receipt Email Alert system setting.

### **Security**

Security permissions exist for:

- Accessing DSD Receiving, Accessing Purchase Order, Allow DSD Receiving with PO, Allow DSD Receiving without PO, Access to create a new container, Access to purchase order menu, editing, confirming delivery, over receiving, override supplier discrepancies, and so on.
- Override supplier discrepancies permissions is to determine whether the user can override the supplier discrepancy check.
- Hide cost.
- Email notification when receiving items for a customer order.

## **Functionality**

This section describes the available screens.

## DSD Receiving List

Figure 9–3 DSD Receiving List Screen

ID	ASN	Supplier	Type	Expected Date	Status	Containers	Missing	Total SKUs	Customer Order
548		101620561 JI Supplier...	On The Fly		In Progress	1		1	
549		101620561 JI Supplier...	On The Fly		In Progress	0		0	
561		101620561 JI Supplier...	On The Fly		In Progress	0		0	
741		281731884 RHM5_ITEM...	On The Fly		In Progress	3		0	
810		101620561 JI Supplier...	On The Fly		In Progress	1		0	
811		101620561 JI Supplier...	On The Fly		In Progress	1		0	
812		101620561 JI Supplier...	On The Fly		In Progress	1		0	
814		101620561 JI Supplier...	On The Fly		In Progress	1		0	
885		281731884 RHM5_ITEM...	On The Fly		In Progress	1		0	
1401		281731884 RHM5_ITEM...	PO		In Progress	0		0	
221		101620561 JI Supplier...	On The Fly		In Progress	1		0	
4421		281731884 RHM5_ITEM...	PO		In Progress	0		0	
881		281731884 RHM5_ITEM...	On The Fly		In Progress	1		0	
882		281731884 RHM5_ITEM...	On The Fly		In Progress	7		1	
884		281731884 RHM5_ITEM...	On The Fly		In Progress	1		0	
1264		281731884 RHM5_ITEM...	On The Fly		In Progress	1		1	
1265		281731884 RHM5_ITEM...	PO		In Progress	2		0	
1266		281731884 RHM5_ITEM...	PO		In Progress	1		0	
1267		281731884 RHM5_ITEM...	PO		In Progress	1		0	
1268		281731884 RHM5_ITEM...	PO		In Progress	1		0	
4481		101620561 JI Supplier...	On The Fly		In Progress	1		0	
4761		281731884 RHM5_ITEM...	PO		In Progress	1		0	
2011		281731884 RHM5_ITEM...	PO		In Progress	1		0	
2014		281731884 RHM5_ITEM...	On The Fly		In Progress	0		0	
2015		281731884 RHM5_ITEM...	PO		In Progress	1		0	
101		101620561 JI Supplier...	On The Fly		In Progress	0		0	
102		101620561 JI Supplier...	PO		In Progress	1		0	
103		101620561 JI Supplier...	PO		In Progress	0		0	
242		281731884 RHM5_ITEM...	On The Fly		In Progress	2		2	
446		101620561 JI Supplier...	PO		In Progress	1		0	
447		281731884 RHM5_ITEM...	PO		In Progress	1		0	
448		281731884 RHM5_ITEM...	PO		In Progress	1		0	
4865		281731884 RHM5_ITEM...	PO		In Progress	1		0	
866		115868815 RHM5_ITEM...	On The Fly		In Progress	1		1	

The DSD Receiving List screen is accessed when the user clicks on the DSD Receiving button from the Shipping and Receiving menu.

The DSD Receiving List by default shows all the active deliveries, that is "In Progress" and "New" for the user to do the detailed receiving. It includes all types of deliveries. If the supplier has sent an ASN or a Dex/Nex file, it is uploaded and listed here with "New" status. The user can select a delivery and do the detailed receiving. If the user has started the delivery process, it shows the delivery with the "In Progress" status. The user can select the "In Progress" deliveries to continue the receiving. The user can also select the completed deliveries to do the adjustment.

The deliveries created in SIM are shown with the type On The Fly.

The deliveries that have ASN from the source are shown with the type ASN.

The deliveries that are PO based and no ASN are shown with the type PO.

For the deliveries transmitted into SIM using DEX/NEX, the type of the delivery will be shown as DEX/NEX. For more details, see "[Direct Exchange and Network Exchange Receiving](#)."

From the DSD Receiving List window, the user can do the following:

- Use the Filter button to filter the list based on the given criteria.
- Select Create Receipt to create a delivery without any PO (on the fly).
- Select the delivery from the list and do detailed receiving or edit the delivery.
- Select one or more deliveries and print a report.

The user is taken to the DSD Receiving Detail screen to access the existing delivery upon double clicking a delivery record.

The user can click the Create Receipt button which will direct the user to the DSD Receipt Create popup to create a delivery without an existing Purchase Order. The

user will have to search for or select a supplier from whom the delivery is coming. The user will be directed to the DSD Receiving Detail screen. As soon as the delivery is created, a PO for it will get created internally and the user can view it using the Purchase Order dialog.

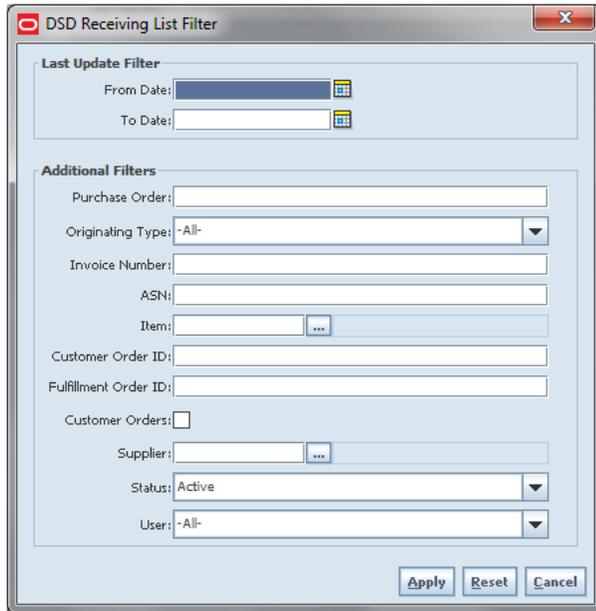
**Customer Orders**

DSD Receipts that are affiliated with a customer order will be denoted by having the customer order indicator checked. The customer order indicator will be displayed on the DSD Receiving List screen. The user will be able to filter on DSD Receipts that are for customer orders as well as search for receipts that are for specific customer order fulfillment orders.

For additional details, see the Multi Leg Orders section in [Chapter 20, "Customer Order Management."](#)

**DSD Receiving List Filter**

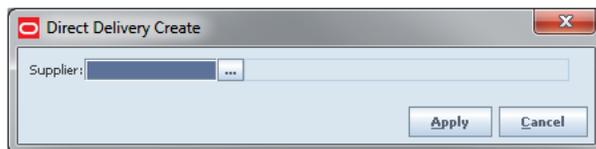
*Figure 9–4 DSD Receiving List Filter Screen*



The DSD Receiving List Filter screen is accessed by clicking the Filter button from the DSD Receiving List screen. By default, the DSD Receiving List screen lists the active deliveries; the user can use this filter to search for deliveries on various other criteria. After applying the filter, the user will be returned to the DSD Receiving List screen with the deliveries displayed based on the entered criteria. The user can use the Reset button on this screen to reset all the filtering criteria to default values.

## DSD Create

**Figure 9–5 Direct Delivery Create Popup**



This popup screen appears when the user selects the Create Receipt button on the DSD Receiving List screen to create an on the fly receipt that does not have a PO in SIM.

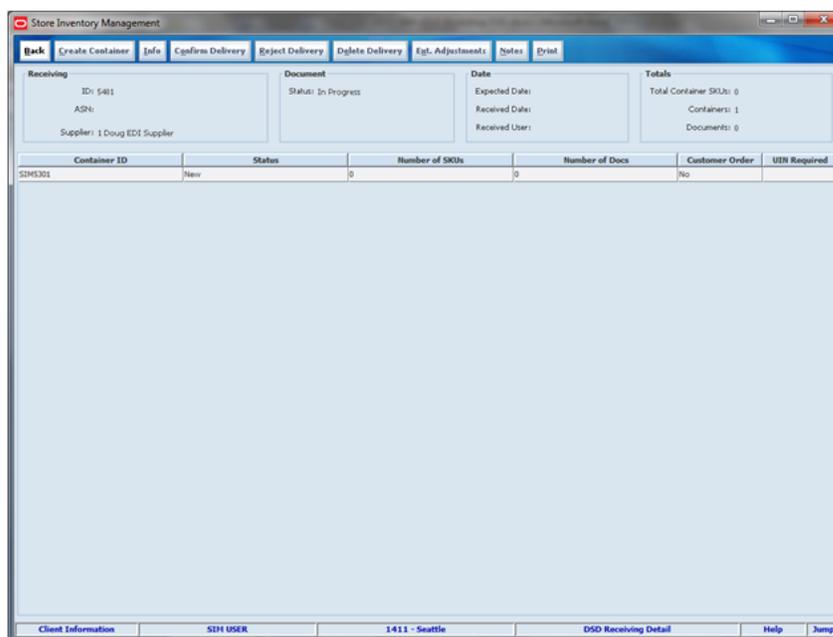
The user can enter the supplier ID, or click the Ellipsis button to open the supplier lookup window and select the supplier.

After the user clicks Apply, it takes the user to the DSD Receiving Detail window to create new containers and do detailed item level receiving. See "[DSD Receiving Detail](#)."

The selected supplier must be allowed to create new Purchase Orders or the "Ignore the Supplier DSD indicator to create a PO on the fly" parameter has to be set to Yes to receive a delivery without a PO from that supplier.

## DSD Receiving Detail

**Figure 9–6 DSD Receiving Detail Screen**



The user can see the DSD Receiving Detail window for all type of deliveries. It appears under the following conditions:

- When the user double clicks the delivery from the DSD Receiving List screen
- When the user selects the Create Receipt button from the Purchase Order Detail screen

- After selecting the supplier, when the user selects the Create Receipt button from the DSD Receiving List to create an on the fly delivery

If the user is receiving a delivery with an ASN or Dex/Nex type of delivery, it shows the containers. The user has to select the container and double click to go to the DSD Receiving Container Detail window to do the detailed item level receiving. With the exception of Dex/Nex deliveries, the user can also create a new container using the Create Container option which takes the user to the DSD Receiving Container Detail window to receive unexpected containers or when adding a container for a delivery without ASN.

This screen shows zero containers in case the user is creating a new receipt without a PO or with a PO and no ASN. The user has to click Create Container in that case to start the receiving process.

On this screen, the user can also select to do other operations by selecting the respective button:

**Info:** The user can click the info button to enter the invoice particulars. More details are explained in the later part of this guide.

**Default Qty:** The default quantity button will help the user to default the remaining expected quantity to the received quantity in the containers that are new and in progress. The system will not default the quantities for the items that are processed earlier and contains a value including zero. This button is not enabled for the on the fly delivery.

**Confirm Delivery:** Upon selecting this button, the system will confirm the delivery. This will move all the containers to "received" or "missing" if the container does not have any received or damaged quantity.

**Reject Delivery:** The user can click the Reject Delivery if the delivery has to be rejected. This will reject the delivery and move all the containers to canceled status and move the status of the delivery to Rejected. This will also remove any UINs present in the delivery. Rejection of a delivery is possible only for the deliveries that are in "In Progress" or "New" status and it will not allow rejecting if there are any received or damaged containers in the delivery.

**Delete Delivery:** The user can click the Delete Delivery if the delivery has to be deleted. This will cancel the delivery and all the containers inside the delivery.

**Customer Orders:** The user can select this button to view the customer orders associated to the delivery. More details are explained in the latter part of this guide. This button is not enabled for on the fly delivery.

**Ext. Adjustment:** The user can view any adjustments done by the external system for the delivery. More details are explained in the latter part of this guide.

**Notes:** The user can use this button to enter any notes for the delivery. More details are explained in the latter part of this guide.

**Print:** The user can use this button to print the delivery. Upon selecting the button, the system opens the Report Selection window for the user to select the format and the printer.

Header fields on this screen are as follows:

Field	Description
ID	Unique ID created by SIM.
ASN	ASN number of the delivery. Data shown only if it is applicable.

Field	Description
Supplier	The supplier from whom the store is receiving this delivery.
Purchase Order	The purchase order number generated by SIM, or the purchase order number provided by an external system.
Status	The status of the delivery/receipt.
Expected Date	Estimated time of arrival. Data shown only if applicable.
Received Date	The date the receipt is first created.
Received User	The SIM user who received the delivery.
Total Container SKUs	Sum of container level unique items in the delivery.
Containers	Total number of containers in the delivery.
Documents	Total number of purchase orders associated with this delivery.

Detail fields on this screen are as follows:

Field	Description
Container ID	Unique ID created by SIM or container ID that came in ASN from the external vendor system.
Status	Current status of the container.
Number of SKUs	Number of SKUs present in the container.
Number of Docs	Total number of purchase orders the container is associated to.
Customer Order	Indicates whether customer order exists.
UIN Required	Indicates whether UIN required items present in this delivery.

### Delivery Rejections and Supplier Discrepancy Check

The system does the discrepancy check based on the supplier level "Supplier delivery exception" attribute. The attribute can indicate to "Allow any discrepancy," "Do not allow any discrepancies," or "Allow overages but not short receipts." Discrepancy checking only happens for those deliveries that have an expected quantity; this includes DSD deliveries for Dex/Nex and PO deliveries with or without ASN. Deliveries on the fly do not check for any discrepancies.

Discrepancy checking is done at the container level against the expected quantity. For an ASN or Dex/Nex, this would be the expected quantity of the container, while for a delivery on the fly against an existing PO, it is the remaining quantity of the PO.

The user has the ability to override the discrepancy check at the container level based on the "Override supplier discrepancies" security permission. Once a container is moved to submitted or received, no additional validation is performed.

Depending on the type of DSD, some containers will move to submitted and require the whole delivery to be confirmed, while others will move to a received status. The reason for this is transactional integrity.

With an ASN, the received container can move to a received status, which indicates that the Stock on Hand is updated and the merchandising system is notified that the container is received. The transaction will automatically move to confirmed when all containers are received.

Dex/Nex and PO on the fly do not update inventory until the delivery is confirmed, hence they move to a submitted state. At that time, the delivery transaction is

confirmed, the merchandizing system is notified of the whole delivery, inventory is updated and the submitted containers move to received.

PO deliveries without an ASN fall into a unique case. If there is a discrepancy check performed, the container will move to submitted and require the delivery to be completed for any updates and integration. If on the other hand, the supplier does not require a discrepancy check or the supplier allows overage and it is a short receipt that is overridden, the container will be moved to a received state, the Stock on Hand will be updated, and the merchandizing system will be notified when it is confirmed. Manual closure of the delivery transaction is required in all cases because additional containers may need to be added.

The following table describes the state the container moves into or when the user is stopped when confirming a container.

	PO on the fly	PO without ASN	PO with ASN	DEX NEX
Discrepancy check on carton confirm	No	Yes	Yes	Yes
Supplier Restricted, carton confirm status	Submitted	Submitted	Received	Submitted
Supplier Restricted and No override discrepancy allowed	Submitted	Hard Stop	Hard Stop	Hard Stop
Supplier Restricted and override discrepancy allowed	Submitted	Confirm Prompt Submitted	Confirm Prompt Received	Confirm Prompt Submitted
Supplier Allow Overage, No override allowed and carton has short receiving	Submitted	Hard Stop	Hard Stop	Hard Stop
Supplier Allow Overage, override allowed and carton has short receiving	Submitted	Received	Received	Submitted

### Customer Orders

The DSD Receiving Detail has a customer order field at the container line level to indicate if the container is for a customer order. If all items in the container are for a customer order, it will be Yes. If no items in the container are for a customer order, it will be No. Lastly, if some items are for a customer order and some are not, it will be Mixed.

Selecting a container and then clicking the Customer Order button will display the customer orders for that container. It will display the Customer Order and fulfillment order IDs, along with the container ID, status, total SKUs, and comments for the customer order.

Upon confirmation of the receipt, the user will be prompted that the delivery is for a customer order. This will allow the user to set it aside.

The user can drill down into the details of the container by selecting the container; the system will navigate to the DSD Receiving Container Detail. The DSD Receiving Container Detail has a customer order field at the header to indicate if the container is for a customer order: Yes meaning for customer order, No meaning there are no customer orders, and Mixed meaning some items are for customer orders and some are non-customer orders.

For additional details, see the Multi Leg Orders section in [Chapter 20, "Customer Order Management."](#)

## Receiving Info

**Figure 9–7 Receiving Info Screen**

The screenshot shows a window titled "Receiving Info" with the following fields and values:

- Delivery ID: 733
- ASN:
- Supplier: 999998 FP Testing
- Status: In Progress
- Containers: 1
- Expected Date:
- Create Date: 10-3-2016
- Create User: suganya
- Update Date: 10-3-2016
- Update User: suganya
- Received Date:
- Received User:
- Invoice Number: [Text Field]
- Invoice Date: [Date Picker]
- Invoice Cost: [Text Field]
- Carrier Entity: [Text Field]
- Carrier Type: Corporate (Dropdown)
- Carrier Code: [Text Field]
- License Plate: [Text Field]
- From Address: [Text Field]
- Freight ID: [Text Field]
- Bill Of Lading: [Text Field]
- Buttons: Save, Cancel

This screen is accessed from the DSD Receiving Detail screen when the user clicks the Info button.

This screen provides the header info such as delivery ID, ASN, supplier, number of containers, status, expected date, and so on. It allows the user to enter the invoice particulars of the delivery.

The user has to complete the fields that are enabled and then click Save to return to the DSD Receiving Detail window.

Invoice Number - Enter the invoice number for the delivery.

Invoice Date - Enter or select the date of the invoice.

Invoice Cost - Enter the total cost of the delivery.

Carrier Entity - Enter the name of the carrier.

Carrier Type - Select the carrier type from the drop-down list.

Carrier Code - This field is enabled based on the selection in the Carrier Type field. Enter the code for the carrier. Not enabled for Corporate.

License Plate - Enter the license plate number of the carrier's truck.

From Address - Enter the address from where the delivery came. This field is enabled based on the selection in the Carrier Type field. Not enabled for Corporate.

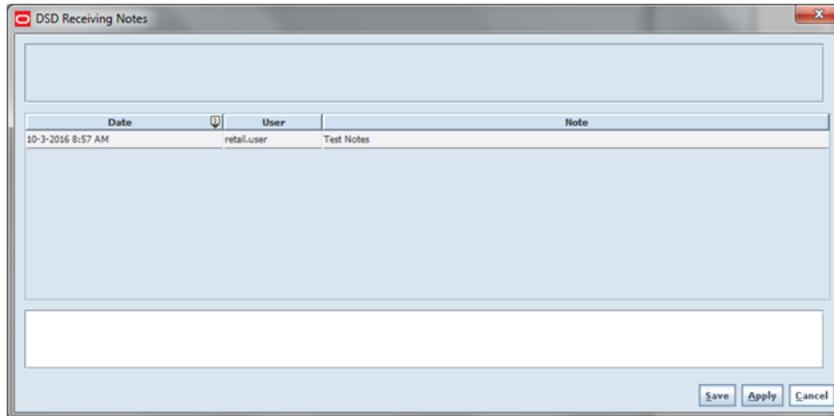
Freight ID - Enter the freight code.

Bill of Lading - Enter the bill of lading.

It will be in view-only mode if the delivery is in Canceled, Received, or Rejected state.

## DSD Receiving Notes

**Figure 9–8 DSD Receiving Notes Screen**

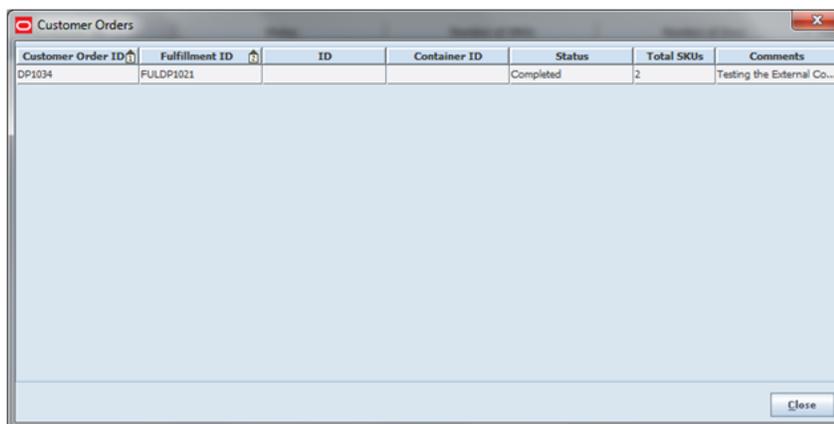


This screen is accessed from the DSD Receiving Detail screen or DSD Receiving Container Detail screen when the user clicks the Notes button. This screen is used to mention any notes about the delivery which would be useful later for audit purposes. In this screen, the user can add new notes or view the existing notes.

It will be in view-only mode if the delivery is in Canceled, Received, or Rejected state.

## Customer Orders

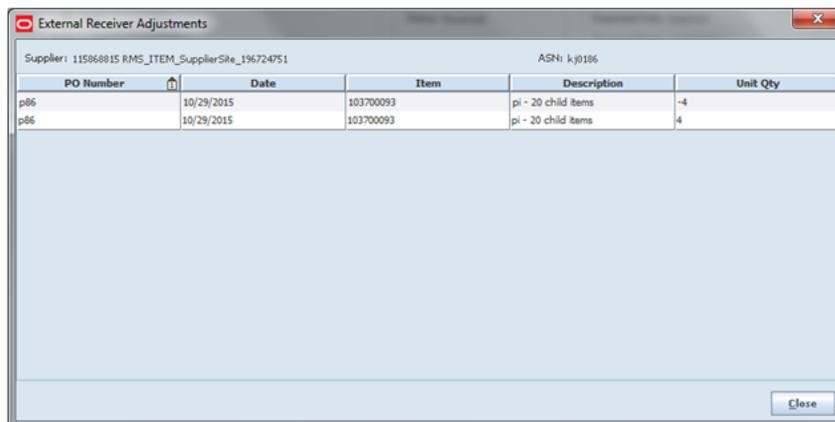
**Figure 9–9 Customer Orders Screen**



This screen appears when the user selects the Customer Orders button on the DSD Receiving Detail screen. It will display the customer order and fulfillment order IDs, along with the container ID, status, total SKUs, and comments for the customer orders associated with the delivery. If there is no customer order associated, it will display an error upon selecting the button.

## External Receiver Adjustments

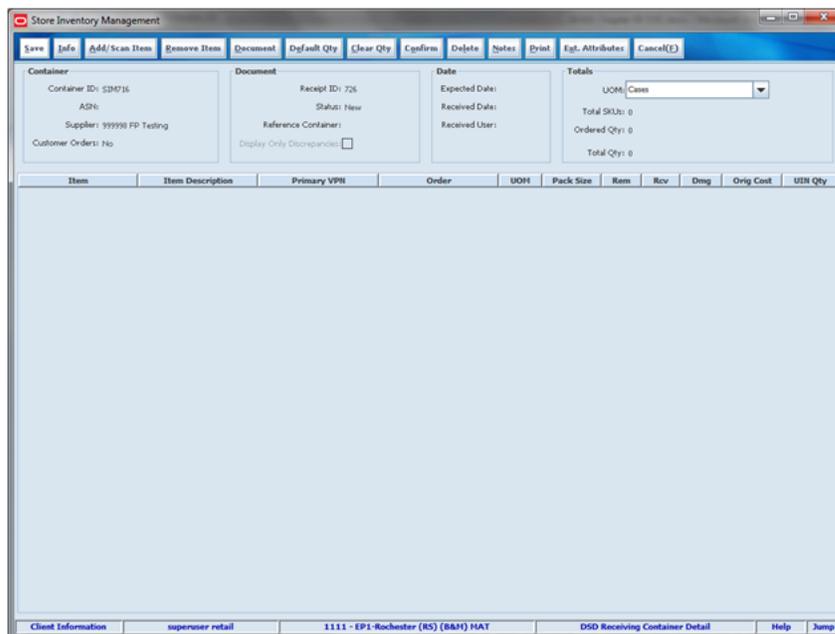
**Figure 9–10 External Receiver Adjustments Screen**



The user can access this window from the DSD Receiving Detail screen by selecting the Ext. Adjustments button. This view-only screen displays the Purchase Order Number, Date, Item, Description, and adjusted quantity for the external receiver adjustments that exists for the delivery. Users will be able to access this screen only when there are any adjustments created for the delivery from the external system. SIM adjusted deliveries are not shown here.

## DSD Receiving Container Detail

**Figure 9–11 DSD Receiving Container Detail Screen**



This screen is accessed when the user clicks Create Container or doubled clicks a container on the DSD Receiving Detail. This is the screen seen by the user for detailed item level receiving irrespective of the type of deliveries.

This screen displays the contents and details for a container on an ASN, or on the fly / Dex/Nex delivery. It is possible to mark damages for an item and receive item quantities. All this information is initially coming from the supplier ASN with the exception of the received and damaged cases. For a new ASN or Dex/Nex based delivery, the items from the container are pre loaded on the detail section from the source. Depending on system options, the user is able to add additional items to the container.

For a new container created for the on the fly delivery, the user can add/scan the items to receive.

For a new container created for a PO based but no ASN, the user can use the document option or add/scan item to add items to receive.

Containers can have the following states:

- New: Containers that are still not started for processing
- In Progress: Receiving process started
- Missing: No items received and delivery is confirmed
- Damaged: If the container contains any damaged item
- Received: When the container is confirmed
- Submitted: When the supplier discrepancies is not allowed for deliveries with PO/ASN if the delivery type is Dex/Nex or on-the-fly
- Canceled: When the container is deleted

On this screen, the user can select the respective buttons to perform the following functions:

**Info:** The user can select this button to enter the container information. For more details, see "[DSD Receiving Container Info.](#)"

**Add/Scan Item:** The user can select this button to enter the items to receive or add new items to the container.

**Remove Item:** The user can select the line item that has to be removed and click Remove Item.

**Document:** The user can select this button to add the items from the Purchase Order. Refer the Document Selection section for more details. This button is not enabled for the on the fly delivery.

**Default Qty:** The user can select this button to default the remaining expected quantity to received quantity and populate on the screen. Default Qty sets the status of the integrated UINs to In Receiving for the delivery. In addition, a validation check is performed to ensure the expected quantity matches the serial numbers for items, if that is not the case, the user will not be allowed to receive all. If there are no UINs available for an UIN required item, the quantity is set to zero. This button is not enabled for the on the fly delivery.

**Clear Qty:** The clear qty button can be used by the user to clear all the received quantities and populate zero quantity to the items.

**Confirm:** Upon selecting the Confirm button, the user confirms the container receipt. After selecting to confirm, the container will be received and cannot be edited.

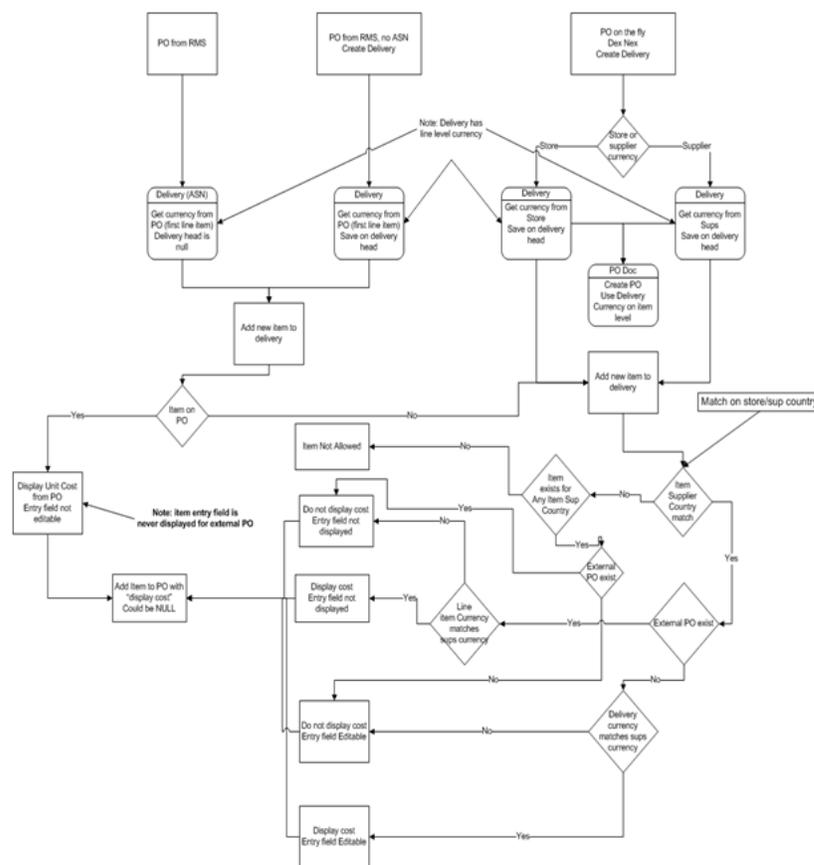
**Delete:** The user can use the delete button to delete the current container. The container will be canceled after user confirms to delete the container.

Notes: The user can use this button to enter any notes for the delivery. See "[DSD Receiving Notes](#)."

Print: The user can select this button to print the delivery. Upon selecting the button the system opens the Report Selection window for the user to select the format and the printer.

Ext. Attributes: The user has to select a row item and click this button to enter the extended attributes for an item. This window captures additional information about an item. If the extended attribute is not configured for the item, the system will display an error upon selecting this button.

**Figure 9–12 Cost Processing**



In general, if a PO was created by the merchandizing system, SIM does not allow the user to edit the cost as it was defined by the external system. SIM will also not communicate any cost information to the merchandizing system.

If the delivery is on the fly or Dex/Nex, SIM will use the cost coming from the dex/nex file, or default based on item supplier country information. It is possible with the right permissions to edit this cost and the cost can be communicated to the external system.

The ability to view or edit the cost is configurable with the right permissions.

Header fields on this screen are as follows:

<b>Field</b>	<b>Description</b>
Container ID	Unique ID created by SIM or container ID that came in ASN from the external vendor system.
ASN	ASN number of the delivery. Data shown only if it is applicable.
Supplier	The supplier from whom the store is receiving this delivery.
Customer Orders	Indicates whether customer order is associated to this delivery.
Receipt ID	Unique Receipt ID created by SIM for the delivery.
Status	Current status of the container.
Reference Container	Any reference container provided for this container in the info.
Display Only Discrepancies	The user can use this check box to filter only the items that are in discrepancy. Not enabled for on the fly delivery.
Expected Date	Estimated time of arrival. Data shown only if applicable.
Received Date	The date the receipt is first created.
Received User	The SIM user who received the delivery.
UOM	The user can select the UOM at the header level to apply that for the items received. Changing this will apply to all the items in the detail.
Total SKUs	Total number of items present in this container.
Ordered Qty	Total ordered quantity in this container.
Expected Qty	Total expected quantity in this container.
Total Qty	Total received quantity in this container.

Detail fields on this screen are as follows:

<b>Field</b>	<b>Description</b>
Container ID	Unique ID created by SIM or container ID that came in ASN from the external vendor system.
Status	Current status of the container.
Number of SKUs	Number of SKUs present in the container.
Number of Docs	Total number of purchase order the container is associated to.
Customer Order	Indicates whether customer order exists.
UIN Required	Indicates whether UIN required items present in this delivery.
Item	Item ID received in the container.
Item Description	Description of the item.
Primary VPN	Primary VPN of the item.
Order	Purchase Order number that came from external system or SIM created.
UOM	UOM of the item received.
Pack Size	The user can enter the number of packs in a case.
Rem	Remaining quantity of that item in the container.
Exp	Expected quantity of that item in the container.

Field	Description
Rcv	Received quantity. This field is editable and the value can be entered by the user to input the received quantity of the item. Quantity entered in the Item/Scan is populated in case the item was added using this button. In case the user has used the Default Qty option, the field is populated with the remaining quantity.
Dmg	Damaged quantity. This field is editable and the value can be entered by the user to input the received quantity of the item that damaged. Quantity entered in the Item/Scan is populated in case the item was added using this button.
Orig Cost	This shows the original cost of the item.
New Cost	The user can enter the cost of the item at which the item is received from the supplier. This is allowed for on the fly and Dex/Nex based deliveries.
UIN Qty	If an item requires serial number type unique identification numbers (UIN), this field displays the number of items for which UINs have been scanned or entered.

## DSD Receiving Container Info

**Figure 9–13 DSD Receiving Container Info Screen**

This screen is accessed from the DSD Receiving Container Detail screen when the user clicks the Info button. It will be in view mode if the delivery is in Canceled and Completed state. This screen provides information about the container and allows the user to enter the following details.

**Reference Container:** This field is used to identify a misdirected container.

**Receive on Shop Floor:** Indicates whether the delivery will be received on the shop floor instead of automatically receiving into the back room. This allows the user to Top off the shop floor first, depending upon how it is configured.

Damage Remaining: When this field is checked, the remaining items in the container will be marked as damaged.

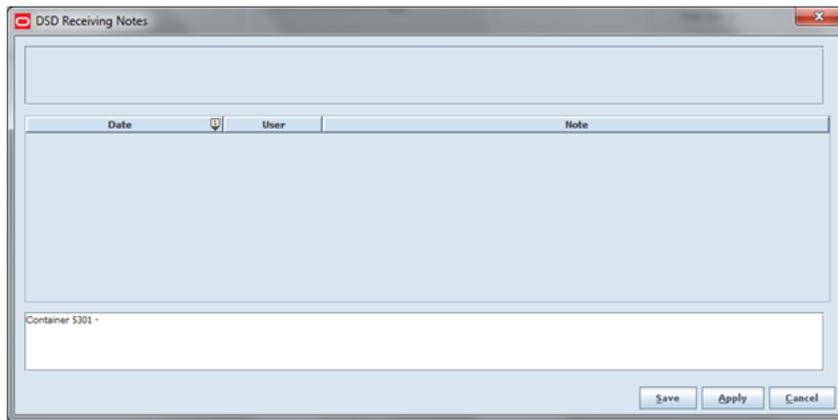
Damage Reason: Enter the reason for the damaged container.

SSCC: Enter the GS1 Barcode container ID.

Tracking ID: Enter the identifier assigned to a container when shipping. This can be used to track the location of the delivery.

## DSD Receiving Notes

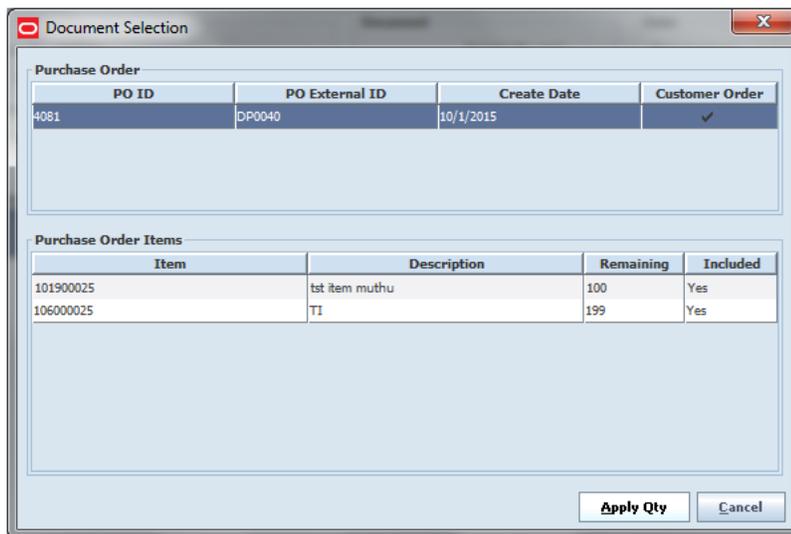
**Figure 9–14 DSD Receiving Notes Screen**



This screen is accessed from the DSD Receiving Container Detail screen when the user clicks the Notes button. The Container ID is added before the notes; the user can choose to keep it or change it. This helps to keep notes for the container for later Audit purposes.

## Document Selection

**Figure 9–15 Document Selection Popup**



This pop-up can be reached through the DSD Receiving Container detail screen by clicking Document button. This popup will show the purchase orders and, when the user selects the purchase order, the items in the purchase order are shown. The user can add it to the delivery by selecting the PO and its items and apply. Multiple selections of items are allowed.

## Purchase Order List

**Figure 9–16 Purchase Order List Screen**

ID	External ID	Supplier	Create Date	Status	Customer Order
421		22 Brooks Running	02-08-16	In Progress	
461	p01	11 EIT Supplier Site	12-09-16	Approved	
481	p02	11 EIT Supplier Site	13-09-16	Approved	
482	p03	11 EIT Supplier Site	13-09-16	Approved	
568	288623	11 EIT Supplier Site	22-09-16	Approved	
584	313623	11 EIT Supplier Site	23-09-16	Approved	
585	298626	11 EIT Supplier Site	23-09-16	Approved	
817		11 EIT Supplier Site	04-10-16	In Progress	
819		11 EIT Supplier Site	04-10-16	In Progress	
821		11 EIT Supplier Site	04-10-16	In Progress	
822		11 EIT Supplier Site	04-10-16	In Progress	

This screen is accessed when the user selects the Purchase Order button from the Shipping / Receiving screen.

The Purchase Order List is a screen that allows users to view purchase orders placed to the suppliers to supply goods for the user's store. The default is to display the list of all active status, that is "Approved" and "In Progress" purchase orders. A filter screen is available to filter out the records.

This screen provides the following header level information about the Purchase Order including the ID which is SIM generated, External ID, Supplier, Create date of the PO, current status of the PO, and also indicates whether the customer order is associated with the PO.

From the Purchase Order List screen, a user can double click a Purchase Order to go the Purchase Order Detail screen to view the details for the PO.

Purchase Orders created internally in SIM for on the fly deliveries are also shown in this list.

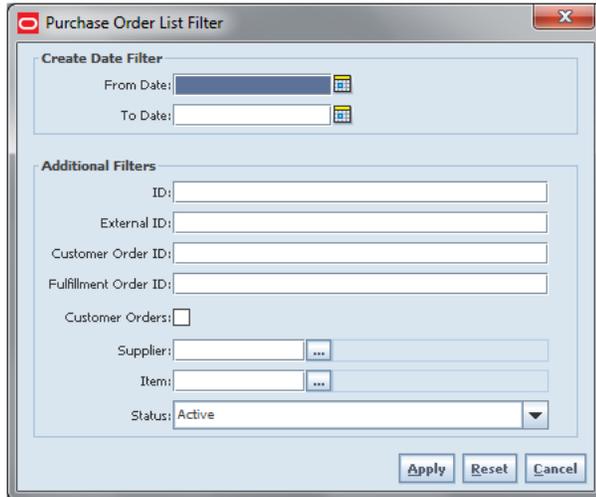
### Customer Orders

Purchase Orders that are affiliated with a customer order will be denoted by having the customer order indicator checked. The customer order indicator will be displayed on the Purchase Order List and Detail screens. The user will be able to filter on purchase orders that are for customer orders as well as search for purchase orders that are for specific customer order fulfillment orders. The Purchase Order Detail screen

will display if it is for a customer order at the header along with the customer order fulfillment order IDs. For additional details, see the Multi Leg Orders section in [Chapter 20, "Customer Order Management."](#)

## Purchase Order List Filter

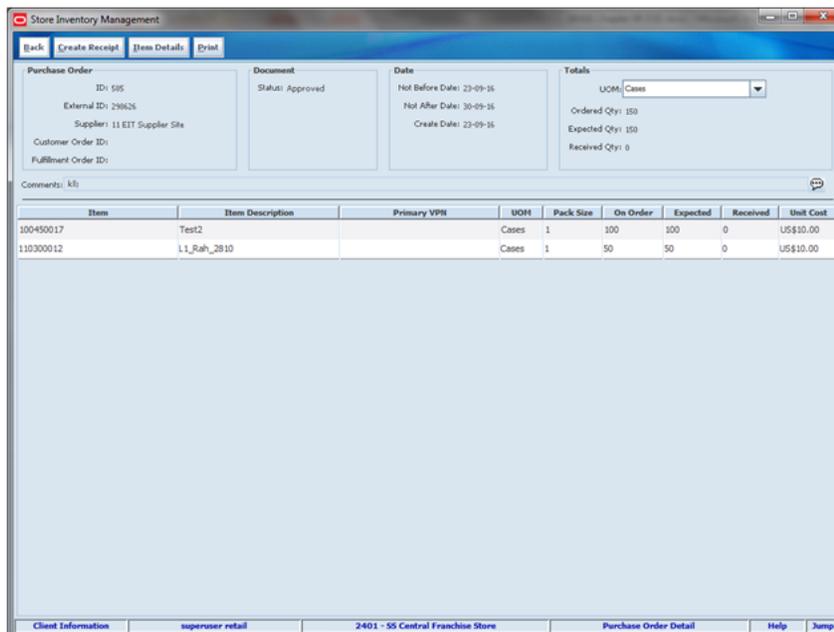
**Figure 9–17 Purchase Order List Filter Screen**



This is the Purchase Order List Filter screen. It is accessed by clicking the Filter button from the Purchase Order List screen. The user can filter on various search criteria. After applying the filter, the user will be returned to the Purchase Order List screen with the Purchase Orders displayed per the entered criteria.

## Purchase Order Detail

**Figure 9–18 Purchase Order Detail Screen**



The Purchase Order Detail is accessed when the user double clicks the Purchase Order record from the Purchase Order list screen.

The Purchase Order Detail screen displays all of the Purchase Order header and item details for the selected purchase Order. This screen is view only for informational purposes.

The header contains the header information including: Supplier, SIM created unique Id, External Purchase Order ID, Customer Order (if applicable), Fulfillment Order (if applicable), current status of the PO, Create Date, Not before date, Not after Date, and UOM. The user can select the UOM from the dropdown to view the items based on the selected UOM.

The ordered quantity is the total quantity remaining in the order for all the items, the expected quantity is the total ordered quantity in the order for all items and the received quantity is the total of how many quantities quantity received.

The detail level has the item, description, Pack Size, as well as the On Order, Expected and Received.

The user can create a receipt from the Purchase Order Detail. The Create Receipt button will navigate to the DSD Receiving Detail screen with the existing Purchase Order applied to the delivery. The user can create container and start the receiving process as previously described.

## Adjust Deliveries

**Figure 9–19 DSD Receiving Container Detail Screen**

Item	Item Description	Primary UOM	Order	UOM	Pack Size	Rem	Rcv	Dmg	Orig Cost	UIN Qty
06000025	71		9001134	Units	1	0	1	1	\$5.99	

The Adjust option on the DSD Receiving Container Detail screen allows the received container to be reopened for receiving. The system allows the user to add items, delete items, modify the quantity, save, or confirm the delivery. All options are available as if the container was never received.

It is not allowed to move a container back to In Progress if UINs that were in the container have been processed in another transaction.

The period at which the user is allowed to adjust the deliveries from the time the receipt is confirmed is based on the parameter and also the user should also have security permissions to edit the delivery. This option is applicable only on the PC and not on the handheld. Once the container is moved back to "In Progress," the user can work on it as if it was never received.

## Direct Exchange and Network Exchange Receiving

Direct Exchange (DEX) and Network Exchange (NEX) receiving are uniform communications standards. DEX is the means through which a supplier, using a handheld device, can exchange electronic invoicing information with a store's direct store delivery (DSD) system. NEX differs in its delivery system, using the web as opposed to a hand-held cradle.

SIM is designed to support the integration of a supplier's DEX/NEX information into direct delivery-related screens, thereby simplifying the receiving process. Data is transferred to a store's DSD system using the Electronic Data Interchange (EDI) transaction set 894 (delivery/return base record). The uploaded data will allow the store user to view, edit, and confirm the information contained in the file before receiving the direct store delivery. The system will automatically create a container and user will be able to do detailed receiving against that container.

A system option controls whether or not expected quantities are defaulted in for direct store deliveries with Dex/Nex. This allows more detailed control by the retailer. If the quantities are not automatically defaulted, the user can scan each unit individually to ensure that the correct quantities are recorded. If the quantities are defaulted, only a visual inspection can be done since scanning the item will automatically increase the received quantity.

## Customer Order Reserve On Receipt / Auto Pick

DSD Receiving can be configured to reserve inventory for customer orders upon receiving and also to auto pick the inventory. For additional details on this process, see ["Customer Orders."](#)

## User Interface Guidelines

The DSD Receiving dialog in the PC allows receiving new deliveries that are in SIM via ASN or Dex/Nex or existing in progress deliveries or allows the user to create a new receipt without a PO.

The Purchase Order dialog on the PC allows viewing the Purchase Order and create receipts using the create receipt option from the PO dialog.

DSD Receiving exists only in PC and handheld.

## Technical

### TECHNICAL

SIM user can create DSD in the following ways:

- With purchase order and without ASN:

Payload PODesc is consumed in SIM and the purchased order is available on the screen. The user views the purchase order on the detail screen, clicks Create Receipt and creates a direct delivery against the order. Multiple direct deliveries can be created against a purchase order.

- With purchase order and with ASN:  
Payload PODesc is consumed in SIM and the purchased order is available on the screen. An ASN with reference the purchase order is consumed and a direct delivery is created in SIM database. On the screen, the user selects a delivery and receives delivery.
- Without purchase order:  
The user manually receives a delivery and no purchase order is associated to the delivery. The user selects the Create Receipt option from the DSD Receiving List screen. The receipt of this delivery will create a PO.

Direct Deliveries have header information, container information, and detailed records information.

## Business Objects

Business objects are used within the application code for all business processing.

Business Object	Description
VendorDelivery	Contains header-level information about a direct delivery.
VendorDeliveryCarton	Contains carton-level information about a direct delivery.
VendorDeliveryLineItem	Contains detailed information about a direct delivery line item.
VendorDeliveryOriginType	Contains the method by which the vendor delivery was created: ASN, PO, DEX-NEX, or MANUAL.
VendorDeliveryQueryFilter	Contains values of various attribute of direct delivery query filter.
PurchaseOrder	Contains header level information of a purchase order.
PurchaseOrderLineItem	Contains line level information of a purchase order.
PurchaseOrderQueryFilter	Contains values of various attributes of purchase order query filter.

## Integration

This section covers integration through RIB and web services.

### RIB

RMS publishes the Purchase Orders created for the direct store deliveries using RIB messages. SIM subscribes to these messages and stores them in the SIM database to enable receipt against Purchase Orders.

RMS publishes the unit cost of the item at the item/supplier/country level for SIM to use in the receiving process.

SIM publishes the receipts done against the Purchase Order to the merchandising system (Receiving message).

SIM publishes the DSD receipts created in SIM without a Purchase Order to the merchandising system (DSDReceipts and DSD Deals messages).

SIM publishes the receiver unit adjustment done for the deliveries that are already confirmed (receiving message).

SIM is also capable of subscribing to the vendor EDI ASNs through RIB using the ASN In message format.

RIB payloads are used to communicate information from SIM to external systems and from external system to SIM through RIB Integration.

<b>RIB Payload (Subscriber)</b>	<b>Description</b>
PORef	RIB payload that contains reference level information of a purchase order. This payload is used for removal of purchase orders.
PODesc	RIB payload that contains detailed information of a purchase order. This payload is used for creation and modification of purchase orders.
ASNInRef	RIB payload that contains reference level information of an ASN. This payload is used for removal of an ASN.
ASNInDesc	RIB payload that contains detailed information about the ASN. This payload is used for creation of a direct delivery (document type= 'P') or a warehouse delivery (document type= 'D').

<b>RIB Payload (Publisher)</b>	<b>Description</b>
ReceiptDesc	RIB payload that contains detailed information of the direct delivery receipt. This is published when the purchase order is not null.
DSDReceiptDesc	RIB payload that contains detailed information of the direct delivery receipt. This is published when the purchase order is null.
SOStatusDesc	RIB payload sent from SIM to convey changes in item status for a specific fulfillment order.
InvAdjustDesc	RIB payload that contains information about destination of the adjustment and an InvAdjustDtl.

### Web Services

SIM supplies SOAP web service for the receiving of vendor deliveries (direct deliveries).

The following service operations are supported for the VendorDelivery web service.

<b>Service Operation</b>	<b>Description</b>
lookupVendorDeliveryHeader	Retrieves basic header information for one or more vendor deliveries that match the input criteria.
readVendorDeliveryDetail	Retrieves detailed information about a vendor delivery. This does not contain any information about containers or items on the delivery.
createVendorDelivery	Creates a new vendor delivery.
updateVendorDelivery	Updates a vendor delivery.
receiveVendorDelivery	Moves all the containers to "In Progress" status and defaults the received quantities. It puts the delivery in "Received" status so that it can be confirmed.

Service Operation	Description
confirmVendorDelivery	Confirms all the open cartons on the delivery and moves the delivery to received status, updating the inventory appropriates.
rejectVendorDelivery	Moves a vendor delivery to rejected status. This can only occur if none of the containers are received.
cancelVendorDelivery	Moves a vendor delivery to canceled status. This can only occur if none of the containers are received.
lookupVendorDeliveryCartonHeader	Retrieves basic header information about containers on a delivery.
readVendorDeliveryCartonDetail	Retrieves detailed information about a delivery container including the detailed item information.
createVendorDeliveryCarton	Creates a new container on a delivery.
updateVendorDeliveryCarton	Updates details information about a container and its items.
confirmVendorDeliveryCarton	Confirms the receipt of the container.
cancelVendorDeliveryCarton	Cancels a container on the delivery.
openVendorDeliveryCarton	Reopens an already confirmed container allowing it to be received again.
lookupVendorDeliveryOrders	Retrieves custom order information associated to the specified vendor delivery.

## Batch

The following batch is available:

Batch Name	Description
DEX/NEX File Import Batch	This batch imports the direct delivery shipment records (PO, shipment and receipt) from Dex/Nex files in the DEX/NEX directory into SIM.  SIM processing creates a DEX/NEX direct delivery for the uploaded data. This process allows the store user to view, edit, and confirm the information contained in the DEX/NEX file before approving, so the information can become an in-progress direct delivery.
DSD Receipt Close Batch	This batch attempts to automatically confirm and open DSD that is a certain number of configurable days past its due date.

## Data Structure

The following database tables are used:

Table Name	Description
DSD	Contains header level information of a direct delivery.
DSD_CARTON	Contains carton level information about a direct delivery.
RTV_SHIP	Contains line item level information about a direct delivery.
DSD_LINE_ITEM	
DSD_LINE_ITEM_ATT	Contains information about extended attributes of a direct delivery line item.

<b>Table Name</b>	<b>Description</b>
DSD_LINE_ ITEM_UIN	Contains UIN level information about a direct delivery line item.

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## RTV and RTV Shipment

This chapter covers RTV and RTV Shipment. The following topics are covered:

**Overview:** Introduction to RTV and RTV Shipment.

**Functionality:** Description of RTV Admin, Shipment Reason Maintenance, RTV, and RTV Shipment.

**Technical:** Integration with Oracle Retail Integration Bus (RIB), web services, batch, and the database structure.

### Overview

The return's process in SIM supports the retailer with the reverse logistics flow. A reverse logistic flow means that inventory is shipped out of the store to a supplier or warehouse for redistribution or disposal. This particular workflow only supports shipping inventory back to the supplier.

Some examples around reverse logistics:

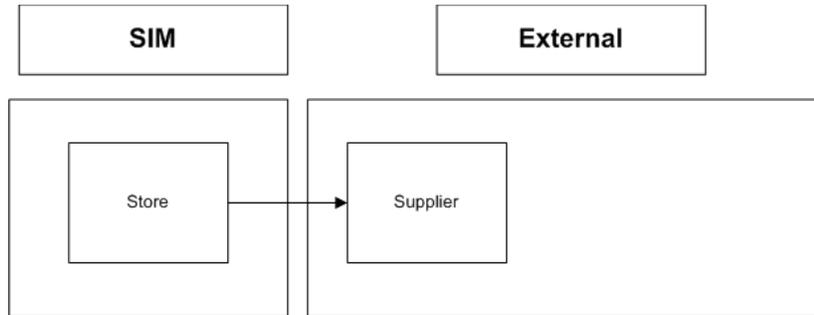
- Regulatory when product has to be destroyed because of recalls.
- Return of inventory to the vendor of items that are nearing their expiration date.
- Return inventory back to the supplier because of malfunctions or poor quality.

Features:

- RTV document and RTV shipment support shipping to the supplier.
- A single RTV shipment supports multiple containers.
- An RTV shipment can be tracked at the Container and Shipment levels.
- Container hierarchy limitations.
- Container label printing.
- BOL includes container details.
- Support for multiple users working on different containers within the same shipment.
- Each item has one or more reason codes explaining the reason it is shipped back.
- BOL captures shipment purpose, tracking ID, shipment method, destination information, and container information.
- RTVs can be initiated in SIM or externally.
- Approval or rejection of externally-generated RTV requests.

- Authorization Return ID.
- Not after date facilitates the user to ship the shipment before the shipment is expired.
- Supplier-level RTV restrictions when creating an RTV.

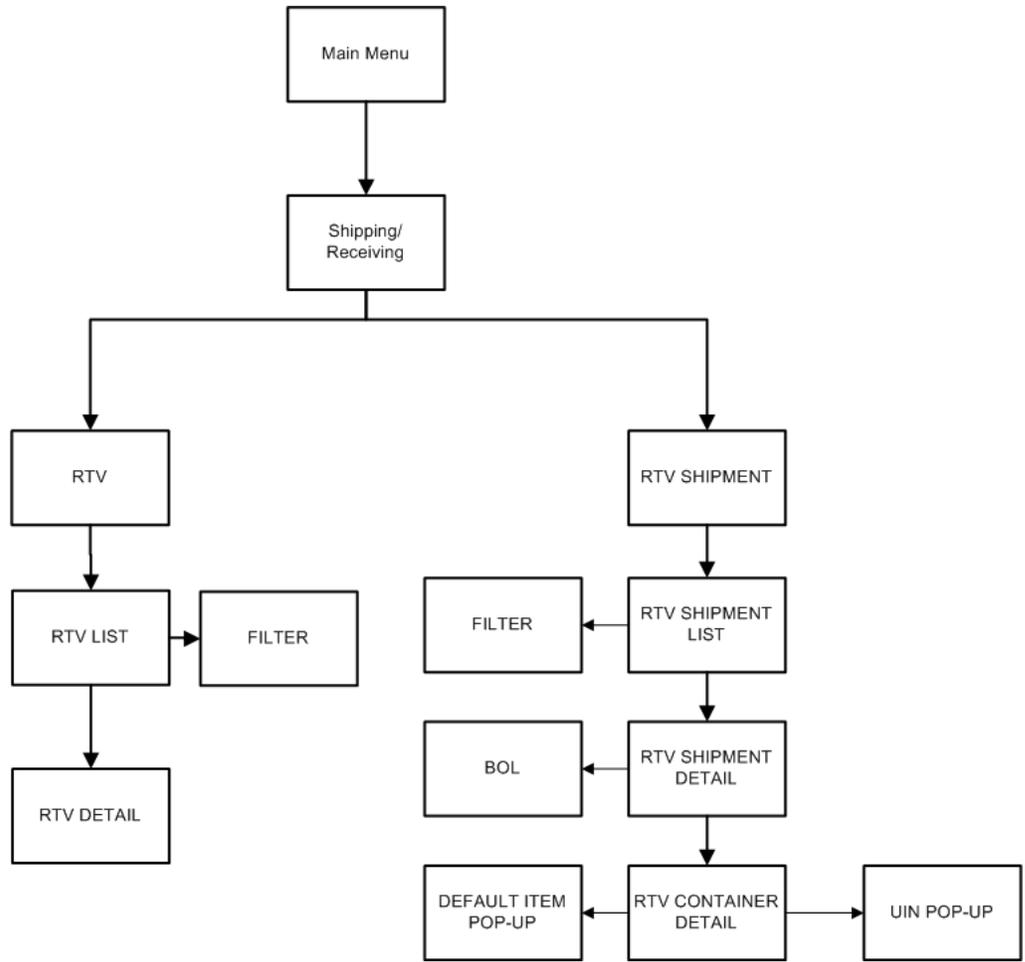
**Figure 10–1 Supported Return Flows**



## Business Cases

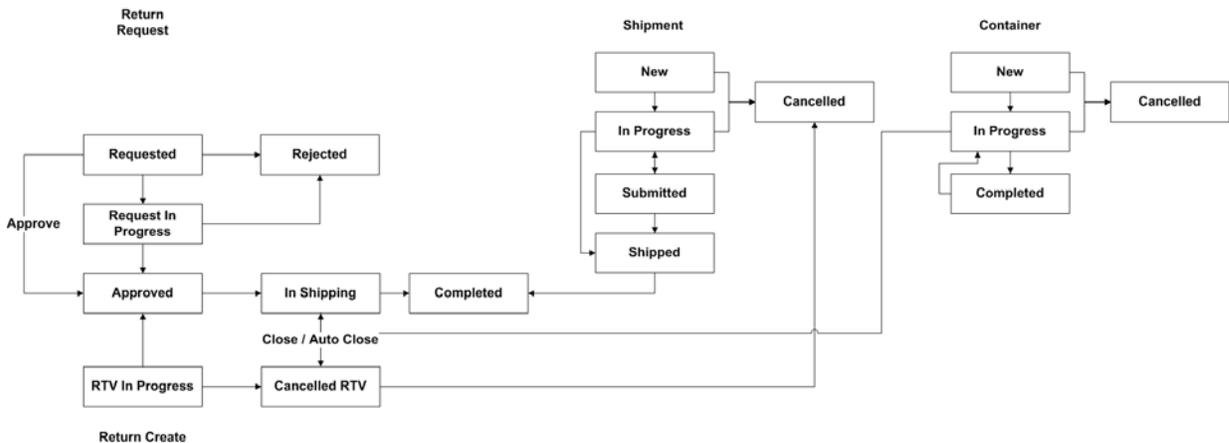
- Damaged item process:
  - Two customers return DVD players that are not working. The POS transaction identifies them as damaged. This automatically associates the items to an unavailable bucket in SIM.
  - The retailer creates a return to vendor for two DVD players which were damaged. They will be sent back to the vendor with a reason of Damaged using unavailable inventory.
- Recall process:
  - SIM receives communication from the vendor requesting 100 units of chicken to be returned back to the supplier.
  - The store user will create the return on the PC and enters the quantity to be returned; in this case, the store returns 99 units and approves the RTV. Subsequently, the user creates a shipment for this RTV, packs the goods in a container, prints the container label, and confirms the container. The RTV is then ready for shipment.

**Figure 10–2 RTV and RTV Shipment PC Screen Flow**



The RTV and RTV shipment flows exist under the Shipping/Receiving menu. From the RTV List and RTV Shipment screens, the user can filter the records as needed.

**Figure 10–3 RTV and RTV Shipment Status Flow**



## Configurations

This section describes system parameters, store parameters, notifications, and security.

## System Parameters

### Add Item to Return Requests

- Values: Yes/No
- Default: Yes
- Topic: RTV
- Editable: Yes
- Determines if the SIM user is allowed to add items to a return request that was sent from RMS (or an external system).

### Days to Send Email Alert Before Not After Date for RTV Requests

- Values: 0 - 999
- Default: 2
- Topic: RTV
- Editable: Yes
- Return requests generated in an external system sometimes require the return to be dispatched before a certain date. This option prompts the recipient of the email X days before the not after date is reached if the return was not dispatched.

### DSD Delivery Supplier for RTV

- Values: Yes/No
- Default: Yes
- Topic: RTV
- Editable: Yes
- Yes: The system needs to check both the DSD Allowed indicator (Indicator on Supplier table which determines whether or not a supplier can create a new Purchase Order) and the return allowed indicator (also an indicator on the supplier table).
- No: Only the returns allowed indicator needs to be validated for supplier returns.

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**Note:** Regardless of the indicator, SIM should always be able to dispatch the RTV if it was created in an external system.

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### Add Item to Return Requests

- Values: Yes/No
- Default: Yes
- Topic: RTV
- Editable: Yes
- Determines if the SIM user is allowed to add items to a return request that was sent from RMS (or an external system).

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## System Parameter

### RTV Unavailable Request Qty Email Alert

- Values: Yes/No
- Default: Yes
- Topic: RTV
- Editable: No
- A notification is generated when an RTV request is not auto-accepted if the "Auto Approve RTV request" parameter is set to Yes and the request has unavailable quantity greater than SIM stock.

## Store Parameters

### Enable Sub Buckets

See [Chapter 8, "Inventory Adjustments."](#)

### Pre-Shipment Notification

- Values: Yes/No
- Default: No
- Topic: RTV Shipment
- Editable: Yes
- Yes: SIM will publish a pre-shipment message.
- No: SIM will not publish a pre-shipment message.

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**Note:** This store parameter exists for each of the functional areas: RTV Shipment/Transfer Shipment/Customer Order Delivery.

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### RTV Shipment Carrier Default

- Values: Sender/Receiver/Third Party
- Default: Sender
- Topic: RTV Shipment
- Editable: Yes
- When creating a return, the Carrier Type on the BOL defaults initially based upon this parameter (PC and handheld). The user can still change this value (on the PC) and if so, that will be the value used on the return. This allows for a Carrier type when creating returns on the handheld as the BOL is not accessible from the handheld:
  - Sender: Sender will be selected for Carrier Type on BOL.
  - Receiver: Receiver will be selected for the Carrier type on BOL.
  - Third Party: Third Party will be selected for the Carrier type on the BOL. The type (drop down) will be defaulted to "Other."

### Dispatch Validate

- Values: Ship Direct/Ship Submit

- Default: Ship Direct
- Topic: RTV Shipment
- Editable: Yes
- Ship Direct: SIM will control all processes. The user will be able to go from create/edit directly to dispatch.
- Ship Submit: This option requires the user to press the Submit button, and a specific press of the dispatch button. An additional feature is that an external system will generate a dispatch message through a standard web service.

**Auto Accept External Generated RTV Request**

- Values: Yes/No
- Default: No
- Topic: RTV
- Editable: Yes
- Yes: The moment the RTV request gets into the system SIM approves it with requested quantity.
- No: The user has to manually accept and approve request

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**Note:** When auto-approve is Yes, the checks for return allowed or DSD return allowed restrictions do not matter since the RTV in this scenario is always coming from the external system.

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**Not After Date Default Days**

- Values: 0 - 999
- Default: 30
- Topic: RTV
- Editable: Yes
- This parameter sets the number of days after which an RTV document can be closed after the not after date is passed.
- All status documents will be marked cancelled once this criteria is met.

**SSCC Shipping Label ID Generation**

- Values: Automatic / Manual
- Default: Automatic
- Topic: Admin
- Editable: Yes
- Automatic: The system will generate an identifier for printing on the shipping label.
- Manual: The user will need to enter an identifier for printing on the shipping label.
- This store parameter is used for RTV Shipment and Transfer Shipment.

### Notifications

The RTV Not After Date Alert batch process warns users a number of days in advance that the RTV is about to reach the Not After date and must be dispatched. The value for the number of days of advance warning is configurable using the system's administration screens.

The Resolve Unavailable quantity Discrepancy in RTV request notification warns users when the Auto approve parameter is set to yes and the RTV request has more quantity in unavailable than SIM. Notification asks the user to resolve the discrepancy and accept manually.

### Security

Security exists for:

- Accessing, creating, editing, and deleting an RTV.
- Accessing, creating, editing, deleting, submitting, cancelling submit, and dispatching an RTV Shipment.
- Adding and deleting items to an RTV and RTV Shipment.
- Data permissions for the shipment reason codes.
- Accessing the Shipment Reason Maintenance screen.
- Security for the notifications.

## Functionality

This section describes the available screens.

### RTV list

Figure 10–4 RTV List Screen

RTV ID	External Id	Authorization	Supplier	Not After Date	Status	Total SKUs
743		43	281731884 - RMS_ITTEM_SupplierSta_	6/24/2015	In Shipping	1
761		1863	115868815 - RMS_ITTEM_SupplierSta_	6/24/2015	Approved	1
762		#F	115868815 - RMS_ITTEM_SupplierSta_	6/24/2015	RTV In Progress	0
781		455	115868815 - RMS_ITTEM_SupplierSta_	6/24/2015	RTV In Progress	1
782		344	115868815 - RMS_ITTEM_SupplierSta_	6/25/2015	RTV In Progress	0
801			281731884 - RMS_ITTEM_SupplierSta_	6/25/2015	RTV In Progress	0
802			115868815 - RMS_ITTEM_SupplierSta_	6/25/2015	RTV In Progress	0
804			115868815 - RMS_ITTEM_SupplierSta_	6/23/2015	RTV In Progress	1
806		111	281731884 - RMS_ITTEM_SupplierSta_	6/25/2015	In Shipping	1
821		9433	281731884 - RMS_ITTEM_SupplierSta_	6/25/2015	In Shipping	3
841			115868815 - RMS_ITTEM_SupplierSta_	6/25/2015	RTV In Progress	0
881			281731884 - RMS_ITTEM_SupplierSta_		RTV In Progress	0
882			281731884 - RMS_ITTEM_SupplierSta_		RTV In Progress	0
901			115868815 - RMS_ITTEM_SupplierSta_		RTV In Progress	0
903			115868815 - RMS_ITTEM_SupplierSta_	6/26/2015	In Shipping	2
908			281731884 - RMS_ITTEM_SupplierSta_	6/27/2015	In Shipping	1
1026		222	115868815 - RMS_ITTEM_SupplierSta_	7/1/2015	In Shipping	1
1141	25620168	12345	281731884 - RMS_ITTEM_SupplierSta_	7/30/2015	In Shipping	2
1221		234	115868815 - RMS_ITTEM_SupplierSta_	7/29/2015	In Shipping	2
1301		12222	281731884 - RMS_ITTEM_SupplierSta_	8/2/2015	In Shipping	0
1302		12222	281731884 - RMS_ITTEM_SupplierSta_	8/2/2015	In Shipping	1
1303		12222	281731884 - RMS_ITTEM_SupplierSta_	8/2/2015	In Shipping	1
1304		1433	281731884 - RMS_ITTEM_SupplierSta_	8/2/2015	In Shipping	2
1305			115868815 - RMS_ITTEM_SupplierSta_	8/2/2015	In Shipping	0
1321		14334	281731884 - RMS_ITTEM_SupplierSta_	8/2/2015	In Shipping	1
1322			115868815 - RMS_ITTEM_SupplierSta_	8/2/2015	In Shipping	0
1364			115868815 - RMS_ITTEM_SupplierSta_	8/2/2015	RTV In Progress	0
1365			281731884 - RMS_ITTEM_SupplierSta_	8/2/2015	RTV In Progress	0
1541			281731884 - RMS_ITTEM_SupplierSta_	8/8/2015	RTV In Progress	0
1584		1444	115868815 - RMS_ITTEM_SupplierSta_	8/9/2015	In Shipping	1
1602			281731884 - RMS_ITTEM_SupplierSta_	8/12/2015	Approved	1
1701		11	115868815 - RMS_ITTEM_SupplierSta_	7/1/2015	In Shipping	0
1702			115868815 - RMS_ITTEM_SupplierSta_	8/1/2015	In Shipping	0
1846		245	281731884 - RMS_ITTEM_SupplierSta_	8/16/2015	In Shipping	2
1847			281731884 - RMS_ITTEM_SupplierSta_	8/18/2015	RTV In Progress	0

The RTV List screen displays a list of previously created RTV documents for a specific user's store. The RTV List screen is accessible by clicking the RTV button from within the Shipping and Receiving menu. The system defaults to all records which are in "Active" status meaning if RTV is in any of the following statuses: "RTV In Progress," "Request In Progress," "In Shipping," "Approved," and "Requested." A Filter option is available to further filter on the return records.

The RTV List screen allow the user to potentially perform numerous tasks. The user can create, view, edit, and print, an RTV. Deleting an RTV can occur, but is only allowed on those returns which are in "RTV In Progress" status. If a deletion occurs, the return will have a status of "Canceled RTV."

## RTV List Filter

**Figure 10-5 RTV List Filter Screen**

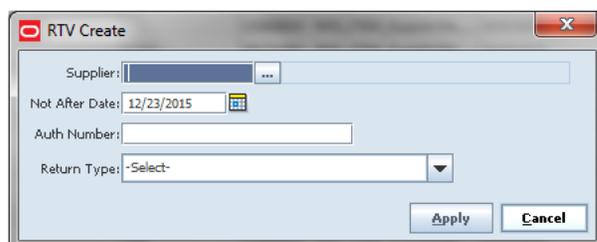
The RTV List filter is used to narrow down the list of RTVs on the RTV List screen. The user can access this dialog by clicking filter on the RTV list screen. The following fields are available:

- RTV ID: This field displays the unique return ID assigned by the system when the return was created.
- RTV External Id: The return can be filtered on the basis of the External Id generated from the external system.
- Auth number: The Authorization Number is entered by the user at the time of the creation of the return. The return can be searched for with that Authorization number.
- Supplier: By clicking the ellipse button on the dialog, the user can search supplier for which the return would be created.
- Item: By clicking the ellipse button on the dialog, the user can search the item ID for which the return was created.
- Status: The return can be filtered on the basis of statuses. There are four valid statuses for a return/request:
  - Open: includes "RTV In Progress," "Request In Progress," "In Shipping," "Approved" and "Requested."
  - Closed: includes "Rejected," "Completed," "Canceled RTV," and "Canceled Request."

- RTV In Progress: Someone is working on a RTV, but it is not yet approved and has been saved once.
  - Request In Progress: Someone is working on a RTV request, but it is not yet approved and has been saved once.
  - Requested: RTV request was received from RMS, but has not yet been processed by a SIM user.
  - Rejected: RTV request was rejected and information sent back to RMS.
  - Approved: When the RTV / RTV Request is ready to be shipped.
  - Cancelled RTV: When an RTV is cancelled, if it was generated from a shipment or was cancelled after approval.
  - Cancelled Request: When an RTV request is cancelled, if it was generated from a shipment or was cancelled after approval.
  - In Shipping: When the RTV has a shipment against it with at least a single container saved or approved.
  - Completed: when an RTV is shipped.
- Reason: The return can be filtered on the basis of the reason code. The user is able to select a reason code from the drop-down.

## RTV Create

**Figure 10–6 RTV Create Screen**



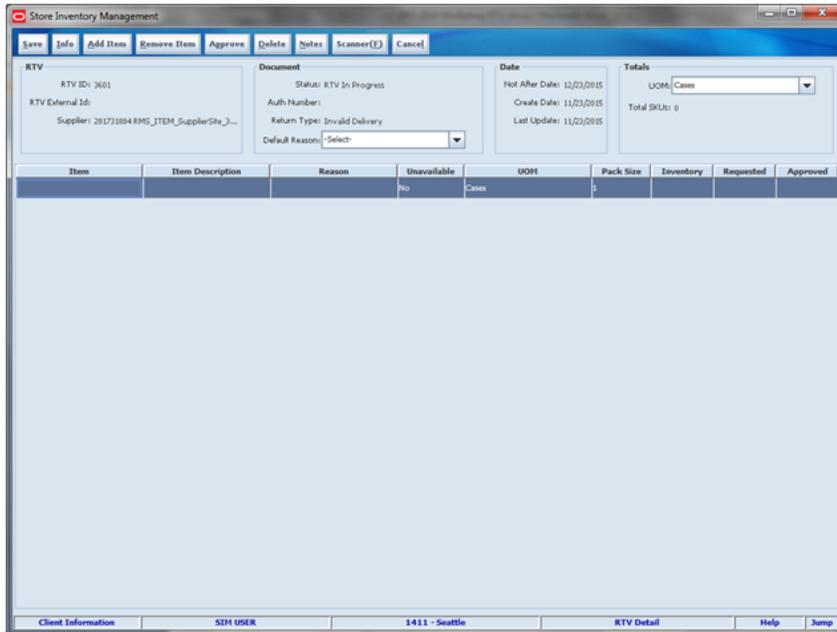
The screenshot shows a window titled "RTV Create" with a close button in the top right corner. The window contains the following fields and controls:

- Supplier:** A text input field with an ellipsis button to its right.
- Not After Date:** A date input field showing "12/23/2015" with a calendar icon to its right.
- Auth Number:** A text input field.
- Return Type:** A dropdown menu currently showing "-Select-".
- Buttons:** "Apply" and "Cancel" buttons located at the bottom right of the window.

The user will be directed to the RTV Create popup by clicking create on the RTV list screen. The user can select the supplier through the ellipsis button or by typing in the supplier ID if known. Suppliers that are configured to allow returns can only be selected here. The Not After Date gets defaulted from a parameter. The user can enter the Auth number if required for the supplier or optional if so desired. This can also be changed later if necessary. Select a Return Type, that is, the motive of the return. This can be configured to the business needs; some examples are damaged goods, Invalid delivery, and Seasonal. After filling in all information, the user can click Apply to create the RTV for the supplier.

## RTV Detail

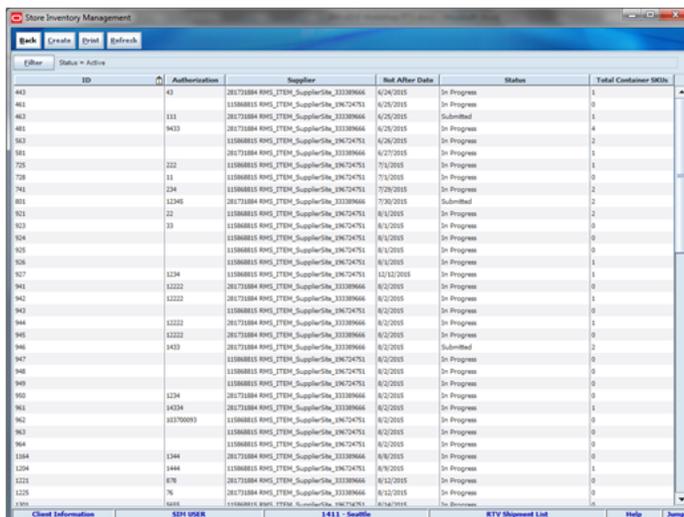
Figure 10-7 RTV Detail Screen



The RTV Detail screen displays the logical document of the RTV and several functions such as Add/remove item, save RTV, approve RTV, and delete RTV. Once the RTV document is approved, the inventory in SIM is reserved. The RTV Detail screen is accessed upon creating a new RTV document as well as selecting an existing one. The user can add an item and quantity to be returned and approve the document which makes it ready for shipment through the RTV Shipment dialog. A user can add notes to the document for reference. The user can create or go to a shipment for the document directly from RTV document dialog once the RTV is in approved status.

## RTV Shipment List

Figure 10-8 RTV Shipment List Screen



The RTV Shipment List screen can be accessed by clicking the RTV Shipment button on the Shipping/Receiving menu. This screen provides a list of RTV shipments for the user's store.

This screen allows a user to create a shipment for an RTV and lists the RTV Shipments associated to the user's location. The list by default displays all RTV Shipments in "In Progress" status and sorted by oldest date to newest date. If the shipment is deleted, SIM will mark the shipment and its corresponding document to cancel. A shipment can be deleted by double clicking it and clicking delete. Lastly, a shipment can be edited or viewed by selecting an RTV shipment and navigating to the details for the RTV shipment.

## RTV Shipment List Filter

**Figure 10–9 RTV Shipment List Filter Screen**

The RTV Shipment List filter is used to narrow down the list on the RTV Shipment List screen. The user can access this dialog by clicking Filter on the RTV Shipment list screen. The following fields are available:

- ID: This field displays the unique shipment ID assigned by the system when the return was created.
- Supplier: By clicking the ellipse button on the dialog, the user can search for RTV shipments for that supplier.
- Item: By clicking the ellipse button on the dialog, the user can search by item ID.
- Auth number: The Authorization Number is entered by the user at the time of creation of return.
- Not After Date: This field holds the not after date. This date reflects the time span before which the return should be accepted.
- Status: The return can be filtered on the basis of these statuses:
  - New: When the shipment is created, it is in new status.
  - In Progress: When an RTV shipment is saved, it goes into in progress.
  - Submitted: When all containers and items are defined for the shipment, the shipment is ready for shipping.
  - Shipped: When the RTV is shipped.
  - Canceled: When the RTV shipment is in canceled state.
- Reason: RTV shipments can be filtered based on the reason code. The user can select a reason code from the drop-down list.

## RTV Shipment Create

**Figure 10–10 RTV Shipment Create Popup**

The user can access the RTV Shipment Create popup by clicking create on the RTV Shipment list screen. The user needs to select the supplier through the ellipsis button. The not after date gets defaulted from a parameter. If an Auth number is required for the supplier, that needs to be entered. Next, the user selects a Return Type, that is, the motive of the return. This can be configured to the business needs; some examples could be damaged goods, Invalid delivery, Seasonal. After filling in all information, the user can click Apply to create the RTV shipment for the supplier.

## RTV Shipment Detail

**Figure 10–11 RTV Shipment Detail**

Shipment	Document	Date	Totals
ID: 2781 RTV ID: 3621 RTV External ID: Supplier: 281731884 R945_1TEM_SupplierSite_33339666	Status: In Progress Auth Number: 1234 Return Type: Damaged	Not After Date: 12/24/2015 Last Update: 11/24/2015 Dispatch Date:	Total Container SKUs: 0 Containers: 2

Container ID	Status	Number of SKUs
002817318840147017	In Progress	0
002817318840147026	In Progress	0

The RTV Shipment Detail screen can be reached when the user clicks apply on the RTV shipment create dialog. It is also accessed by selecting an RTV Shipment from the RTV Shipment List. From this screen, the user can create multiple containers in which to put items. The user can submit / dispatch the shipment as per the system configuration. If the user has access to the BOL Detail screen, the user can access the carrier details for the shipment. Additionally, the user can add notes at the shipment level as well as print reports for the shipment.

## Shipping Info

Figure 10–12 Shipping Info Popup

The Shipment Info popup can be reached once the user clicks the Info button in the RTV shipment screen. This screen lists details about the return shipment. The user can change the auth number if required. The not after date can be altered until the current day is less than the not after date.

## BOL Detail

Figure 10–13 BOL Detail Screen

ID	Container ID	Weight (KG)	Package Type	Tracking ID
2981	002817318840147017			
2982	002817318840147026			

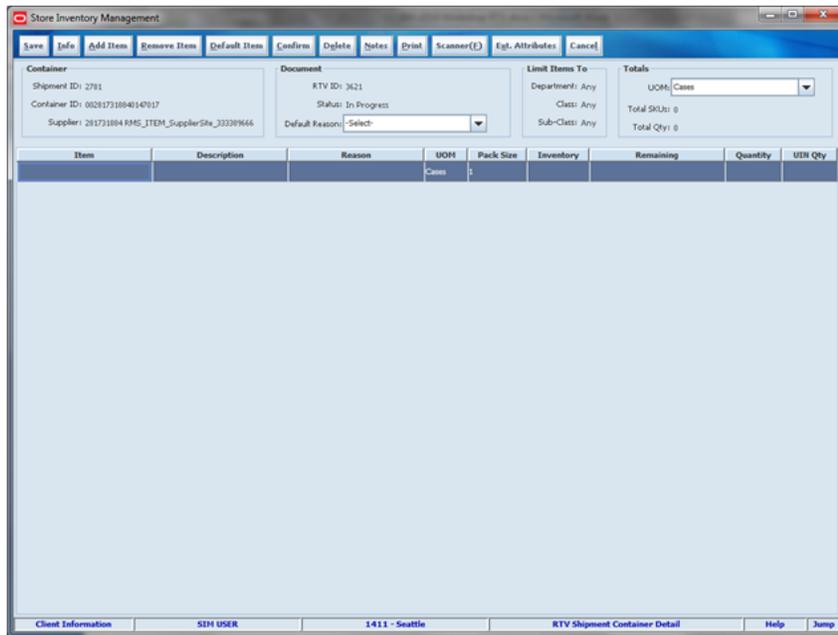
The BOL Detail screen is used to display the shipping details for an outgoing RTV shipment. The BOL Detail screen contains the appropriate information for the entire

shipment to identify the sender, receiver, and carrier of the goods. Some information is defaulted from the shipment or container table and some is manually captured on this screen.

For additional details on BOL, Manifesting, and pre-shipment, see [Chapter 12, "Shipping and Receiving Common Components."](#)

## RTV Shipment Container Detail

**Figure 10–14 RTV Shipment Container Detail Screen**



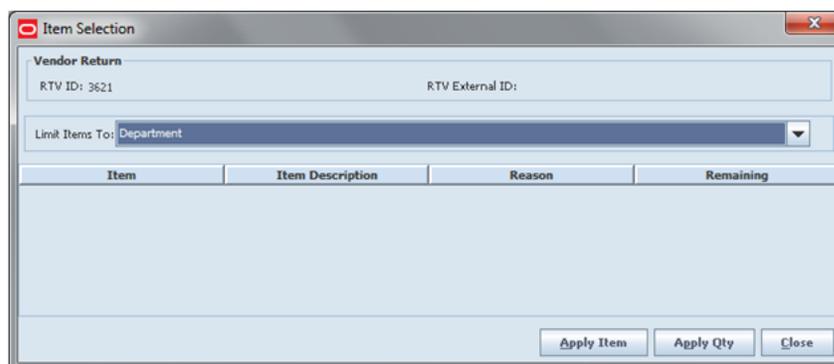
The RTV Shipment Container Detail screen can be reached once the user clicks create container on the RTV Shipment Detail screen. Many functions can be performed through this screen:

- Manifesting container. See [Chapter 12, "Shipping and Receiving Common Components."](#)
- Add items to a container with reason codes for each item.
- Items and quantities can be defaulted from an approved RTV document.
- Item can be added to the container manually which are not on the document.
- A shipment can be created on the fly without a document. Once a container is saved, an adhoc document is automatically created for this shipment. Subsequent items added to the same or additional containers are added to the same document.
- If an item is a UIN item, the UINs need to be added to be returned to increase the quantity.
- UOM is selected at the header level of the shipment container and hence applies to all the items on the container. Toggling the UOM at the header will change the UOM and convert the quantity at the line item level.
- The user may choose to add notes to the container.
- The user can print a container report from this screen.

- The user can add extended attributes to items (if the system and item are configured to do so).
- The user can save, confirm, and delete a container from this screen.
- Hierarchy limitation for the container can be defined from this screen.

## Item Selection

**Figure 10–15** *Item Selection Popup*



The Item Selection screen defaults items into the RTV container screen through the "Apply Item" and "Apply Quantity" buttons. Apply item will default selected items to the container, while Apply Quantity will default the selected items and quantities. The remaining quantity column informs the user about the quantity on the document that is not shipped yet, and can be used. The remaining quantity is not reduced until a container is confirmed for shipping.

Unlike the transfer dialog, this dialog defaults to the RTV document assigned to the shipment since only a single RTV doc can be assigned to a single RTV shipment. The Item selection will allow for one or more rows to be selected.

This popup can also be used to limit merchandise to a container, for example if a retailer wants only shoes to be packed into one container it can be controlled through this dialog. This can be done through the "Limit Items To dropdown" feature. When it is selected, the system will limit the items in the container to only those items within the same hierarchy level. This can be by Department, Class, Sub-class, or None. The Department, Class, or Sub-class used for the container will be set based upon the first item added or scanned into the container. It is a permission-controlled feature and the user will need permissions to set the limit for the container. The default value will be set to none, meaning the items added to the container may belong to any hierarchy.

## Container Info

**Figure 10–16 Container Info Popup**

The Container Info pop-up appears when a user clicks the container info button on the RTV Container Detail screen. When done filling the container, the user will select the Info button to set up the Container Label, Package Type, Weight, and Apply changes. If the system is configured to use manifesting, the carrier may require weight and package size to be entered on this screen before confirming the container. The system will check if the weight is required and if so, will alert the user when they have not filled in this information.

The Container ID label can be generated by SIM, or can be manually entered. SIM follows the SSCC-18 standard when generating labels. Various container labeling formats may be created and printed as needed. If not printing internal labels, it is possible to get a tracking ID from a manifesting system or manually enter one.

When the manifesting system is called, the tracking ID will be returned and can be viewed on this screen. It is also possible to manually enter it.

The user will use this screen to print the container label.

Various label formats for the container label may be created. Container labels can differ across countries or regions. The Transfer Shipping Label can specify a default format. This can be managed by accessing the Print Format screen from Admin/Print Setup.

The SSCC-18 Barcode is used for printing the label that is placed on the shipping container once all the data is available to print on the label, such as the container ID and tracking ID. The carton label follows standard GS1/EAN/SSCC-18 common label formats and all the barcodes on this label are GS1-128 symbologies. The SSCC barcode will be the largest barcode on the label and will contain the destination for the container as well as the unique label container ID. This will allow the system to find the contents of the container within the system.

If there are issues with the carrier for some reason and a different carrier must be used, the user will need to return to the BOL Detail screen and adjust the carrier. This process will move all the containers back to In Progress and the user will need to reconfirm each container to get a new tracking ID.

## RTV and RTV Request

### Return to Vendor (Supplier)

To create a an RTV, a supplier must be identified for the return; this can be done by entering in the Supplier ID or using the widget to look up a supplier.

The Supplier must allow for returns. This is an indicator that is defined at the supplier level. The next validation will be to check the system setting "DSD Delivery Supplier for RTV." This configuration (if set to Yes) requires that the supplier must also be a DSD Supplier (indicator on the supplier) in order to create the RTV. Lastly, if the system is configured to use Multiple Sets of Books, then the supplier is limited to the same operating unit as that of the store.

Once a supplier has successfully been added, the next step would be to enter in an Authorization code, which is required for certain suppliers. Items along with reasons can be added to the return. For Return to Vendors, the system allows a mix of available and unavailable inventory status items on the return; therefore, all reasons for the Return to Vendor type will be listed. All items on the return must be sourced by the supplier designated on the RTV.

### Return Requests

A Return Request is a return to vendor that comes into SIM from an external system. A Return Request is a request for items to be returned. In SIM, the user accesses the return request on the PC application. The items, quantities and reasons (for RTV) will be listed. The user can enter in the actual return quantity and modify the reason code. Once a return request is saved into a "Request In Progress" status it appears in SIM as a regular return and it can be edited and/or dispatched on the PC or handheld. The system can be configured to allow the user to add additional items to the return request. The system allows for items to be removed on a return request that were not initially added during the session. After the session has been saved, the quantity for the item will be set to zero, similar to original requested items.

## Processing

When a return document is saved or updated from the RTV shipment, the system will move the items from either available or unavailable (non-sellable) inventory, based on the inventory status, and move it to the reserved bucket within unavailable inventory. The Return to Vendors uses the RTV Reserved bucket. Upon dispatching of the return, the reserved buckets will be relieved and the stock on hand will be decremented. If sub-buckets are turned on, the appropriate sub-bucket associated with the return reason will be updated when returning from unavailable inventory.

### Example 1: Return to Vendor using Available Inventory

Item Lookup before:

Store A:

- Total SOH = 706
  - Available SOH = 706
  - Total Unavailable SOH = 0
  - RTV Reserved = 0
1. The user creates an RTV to move inventory from Store A to the Vendor using available inventory.

2. The user enters a return quantity of 6 and clicks Approve.
3. A quantity of 6 is placed into the reserved bucket in both SIM and RMS. RMS is updated through sending a mod message.
4. The retail ordering system takes into account the saved (reserved) quantity when replenishing the item through its regular ordering (auto-replenishment) process.
5. Total SOH - Non sellable (Adjustment Unavailable Qty) - Transfer reserved quantity - RTV reserved quantity - Customer Reserved Qty = Available Quantity

Store A:

- Total SOH = 706
- Available SOH = 700
- Total Unavailable = 6
- RTV Reserved = 6

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**Note:** Unavailable is a total of all sub-buckets.

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6. Modify Return Qty to 8 and click Dispatch.

Item Lookup:

- Total SOH = 698
- Available = 698
- Unavailable = 0
- Reserved Qty = 0

**Example 2: Return to Vendor using Unavailable Inventory**

Item Lookup before:

Item Lookup	Database
Total SOH = 800	RTV_Quantity =0
Available = 700	Nonsellable (Adjust Unavail) = 100
Unavailable = 100	
Nonsellable = 100; Sub-bucket: Trouble 75, Admin 25	
RTV Qty = 0	

1. The user enters a return quantity of 10 (unavailable) and clicks Approve.

Item Lookup	Database
Total SOH = 800	RTV_Quantity =10
Available = 700	Nonsellable (Adjust Unavail) = 90
Unavailable = 100	
Nonsellable = 90; Sub-bucket: Trouble 65, Admin 25	

Item Lookup	Database
RTV Qty = 10	

---

**Note:** The available quantity will still display as 700 on the UI and reports.

---

2. Modify Return Qty to 12 and click Dispatch.

Item Lookup:

- Total SOH = 788
- Available =700
- Unavailable = 88
- Nonsellable = 88; Sub-bucket: Trouble 63, Admin 25
- RTV Qty = 0

## User Interface Guidelines

The RTV dialog allows for creating, editing, and deleting of RTVs on the PC only.

The RTV shipment dialog allows for creating, editing, and deleting of RTV shipments on the PC and handheld. Creation of an RTV shipment without an RTV document, will automatically create an RTV in the backend.

RTV documents can be initiated from the store or from an external system such as RMS.

## Technical

### RTV Creation

RTVs can be created in two ways:

- Based on a request from RMS
- A SIM-initiated RTV

Each vendor return will have one or more items.

### RTV Shipment

Each RTV shipment will tie back to a single vendor return document.

RTV shipment can be created in two ways:

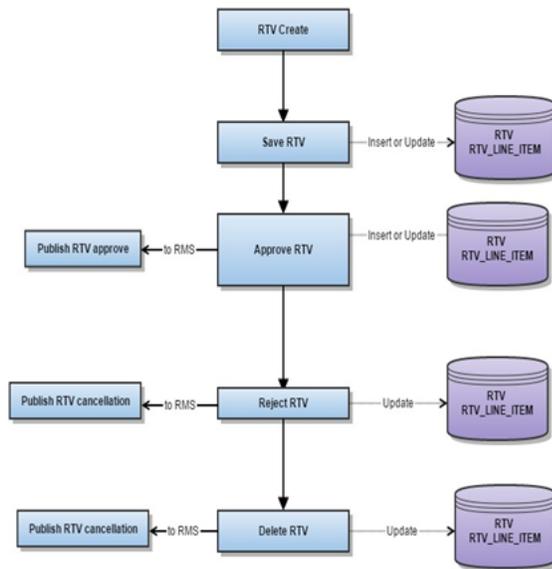
- From an approved vendor return document. This can be done only from the PC client.
- Without any vendor return document. This can be done from both the handheld and PC client. Creation of vendor return shipment will create an approved vendor return on the fly.

Each vendor return shipment will have one or more containers; each container in turn will have one or more items.

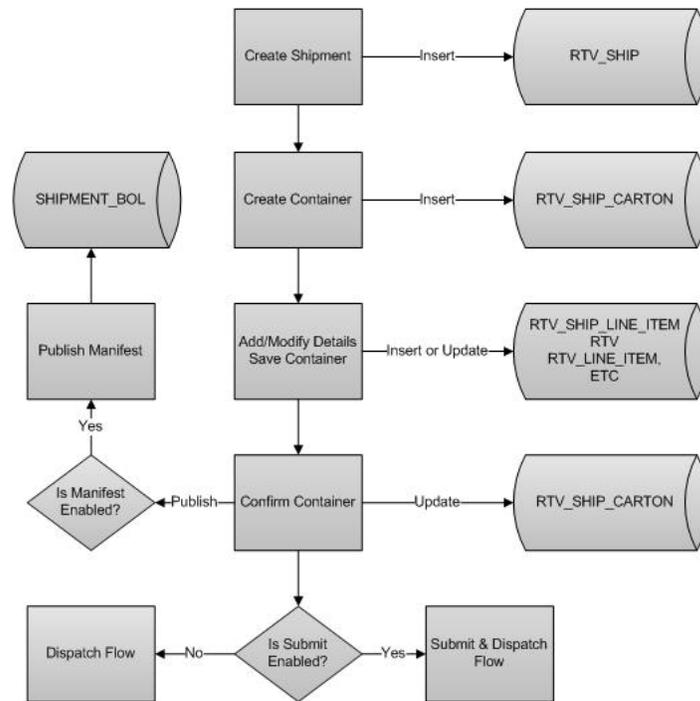
SIM may publish messages when the following happens:

- RTV shipment container is updated, and saved (Return To Vendor Publish)
- RTV shipment is cancelled or rejected (Return To Vendor Publish)
- RTV shipment is dispatched (Return to Vendor Publish and Ship Info Desc Publish, if dispatched without submitting)
- RTV shipment is submitted (Ship Info Desc Publish)
- RTV shipment container is confirmed (RTV manifesting, if configured)
- RTV shipment is submitted (Pre-shipment notification, if configured)

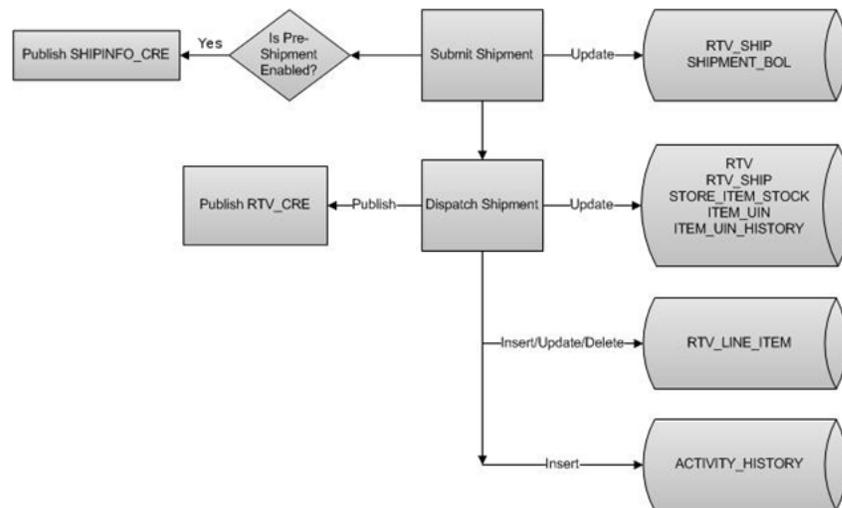
**Figure 10–17 RTV Creation Flow**



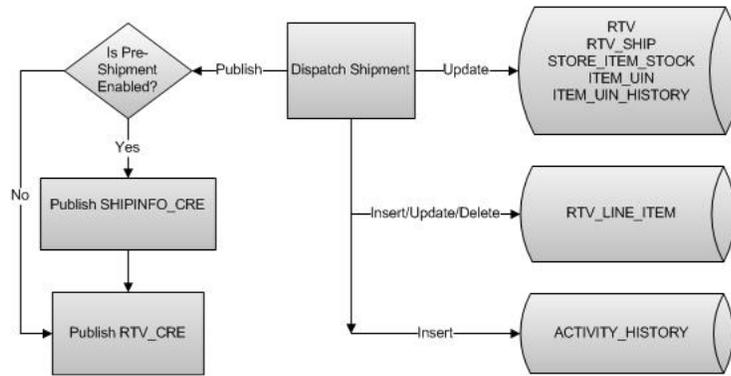
**Figure 10–18 RTV Shipment Flow**



**Figure 10–19 RTV Shipment Submit and Dispatch Flow**



**Figure 10–20 RTV Shipment Dispatch Flow**



## Business Objects

Business objects are used within the application code for all business processing.

Business Object	Description
VendorReturn	This object defines a vendor return within SIM. It contains VendorReturnLineItems.
VendorReturnLineItem	Single business object that contains nearly all the information about an item.
VendorReturnOrigin	This object defines the origin of a vendor return: External, Internal, through a Shipment.
VendorShipment	This object defines a vendor shipment within SIM. It contains VendorShipmentCartons.
VendorShipmentCarton	This object defines a vendor shipment container within SIM. It contains VendorShipmentLineItems.
VendorShipmentLineItem	The object defines a single line item of detailed item information for a VendorShipment within a container.

## Integration

This section covers integration through RIB and web services.

### RIB

The following payloads are used in RTV operations.

RIB Payload	Description
RTVReqDesc	This payload is sent from an external system to indicate a request for a vendor return. It creates or updates a vendor return document within SIM. It contains a series of RTVReqDtl.
RTVReqDtl	This payload contains the detailed information about the items on the vendor return.
RTVReqRef	This payload contains reference information about a vendor return when an external system wishes to attempt to cancel the return.
RTVDesc	This payload is sent from SIM to external systems when an RTV shipment is dispatched.

## Web Services

Web services are available for vendor return documents and vendor return shipments. The following service operations are supported for the VendorReturn web service.

Service Operation	Description
lookupVendorReturnHeader	Retrieves vendor return header information with no item details.
readVendorReturnDetail	Retrieves detailed information about an entire vendor return.
saveVendorReturn	Creates or updates information about a vendor return.
approveVendorReturn	Processes a vendor return moving it from in-progress status to approved status.
cancelVendorReturn	Processes a vendor return moving it from in-progress status to canceled status.
closeVendorReturn	Processes a vendor return moving it from in progress status to canceled, rejected, or completed status.

The following service operations are supported for the VendorShipment web service.

Service Operation	Description
lookupVendorShipmentHeader	Retrieves vendor shipment header summary information.
readVendorShipmentDetail	Retrieves vendor shipment header detailed information (no item information, only header).
saveVendorShipment	Creates or updates information about a vendor shipment header but no detailed item information.
submitVendorShipment	Submits a vendor shipment prior to dispatch moving the shipment to submitted status.
cancelVendorShipmentSubmission	Cancels the submission of a vendor shipment. This moves the shipment back to in-progress status.
cancelVendorShipment	Cancels a vendor shipment moving it to canceled status.
dispatchVendorShipment	Dispatches a vendor shipment moving it to dispatched status.
lookupVendorShipmentContainer Headers	Retrieves vendor shipment container summary information.
readVendorShipmentContainerDetail	Retrieves detailed information about a container including detailed information about the items in the container.
saveVendorShipmentContainer	Creates or updates a vendor shipment container including detailed information about the items in the container.
confirmVendorShipmentContainer	Confirms a vendor shipment container is ready to ship. This moves the container to completed status.
cancelVendorShipmentContainer	Cancels a vendor shipment container moving it to canceled status.
openVendorShipmentContainer	Reopens a previously confirmed container moving it back to in-progress status.

## Batch

The following batch is available:

Batch Name	Description
Vendor Return Closure Batch	When the not after date is reached, the vendor return document needs to be auto closed. The vendor return shipment associated with it will be auto cancelled.
Purge Vendor Return Batch	This batch purges the closed and cancelled vendor return documents. This is dependent upon a parameter to check the number of days after which it is allowed to be purged.

## Data Structure

The following database tables are used:

Table Name	Description
RTV	Contains header level information of a vendor return.
RTV_LINE_ITEM	Contains item level information of a vendor return.
RTV_SHIP	Holds the header information for a vendor shipment.
RTV_SHIP_CARTON	Holds the container information for a vendor shipment.
RTV_SHIP_LINE_ITEM	Holds the detailed line item information for a line items within a container for a vendor shipment.
RTV_SHIP_LINE_ITEM_ATT	Holds extended attributes associated to the line items of a vendor shipment.
RTV_SHIP_LINE_ITEM_UIN	Holds UINs associated to the line items of a vendor shipment.

## Sequences

The following sequences are available for the RTV feature:

- RTV\_SEQ
- RTV\_LINE\_ITEM\_SEQ
- RTV\_SHIP\_SEQ
- RTV\_SHIP\_CARTON\_SEQ
- RTV\_SHIP\_LINE\_ITEM\_SEQ
- RTV\_SHIP\_LINE\_ITEM\_ATT\_SEQ
- RTV\_SHIP\_LINE\_ITEM\_UIN\_SEQ

This chapter covers the transferring of goods from one location to another. This chapter covers the following topics:

- [Transfer Functionality](#)
- [Transfer Document](#)
- [Transfer Shipping](#)
- [Transfer Receiving](#)
- [Technical](#)

## Transfer Functionality

Transfers and allocations define the movement of goods between internal entities or trading partners. Requests from corporate or other stores for shipping inventory out can be auto approved without human interaction and it is possible to transfer unavailable inventory between all entities with a store as a starting or ending point of the transaction.

Transfer functionality in SIM is split up into three dialogs: Transfers (Documents), Transfer Shipping, and Transfer Receiving:

- Transfer documents define the logical movement of goods and are often created at corporate. They define the intent of what needs to be shipped.
- Transfer shipping is the physical task of shipping out goods to a store, warehouse, or external finisher.
- Transfer receiving, is the physical task of receiving in goods from a store, warehouse, or external finisher.

Transferring features:

- Transfer zone restrictions are enforced
- Initially limit store selection to buddy stores
- Auto receiving store to store transfers

### **BUSINESS CASE**

#### **Scenario 1: Warehouse Shipment**

1. The store manager is notified that a request for transfer has been created by the merchandising system for a shipment back to warehouse 1.

2. The store manager goes into the transfer document dialog, looks up the request, and determines the request is for shipping back unavailable damaged items.
3. The store manager makes a decision to honor all the items needing shipment and accepts the entire request.
4. The store manager asks the shipping clerk to create a new shipment for warehouse 1.
5. The shipping clerk goes into the transfer shipment dialog and creates a new shipment and new container for warehouse 1.
6. The shipping clerk selects the transfer for unavailable damaged items and adds the entire transfer document into the container.
7. The shipping clerk updates the quantity to ship, confirms the container, and subsequently dispatches the shipment. The shipment is ready to go on the truck back to warehouse 1.

**Scenario 2: Store to Store Transfer Receipt**

1. A user in the convenience Petrol Store creates a transfer request for the main store located on same premises (for example, Fleet Farm and gas station \ can also be used for offsite backroom concept).
2. The user walks to the main store and fills the transfer from the backroom inventory. The shipment is dispatched.
3. The user in the Petrol Store goes into the Transfer Receiving dialog and locates the delivery.
4. The user updates the quantity received and confirms the entire delivery. The transfer document is updated with the received quantity (all items shipped) and closed.

Figure 11-1 Transfer Solution Flow

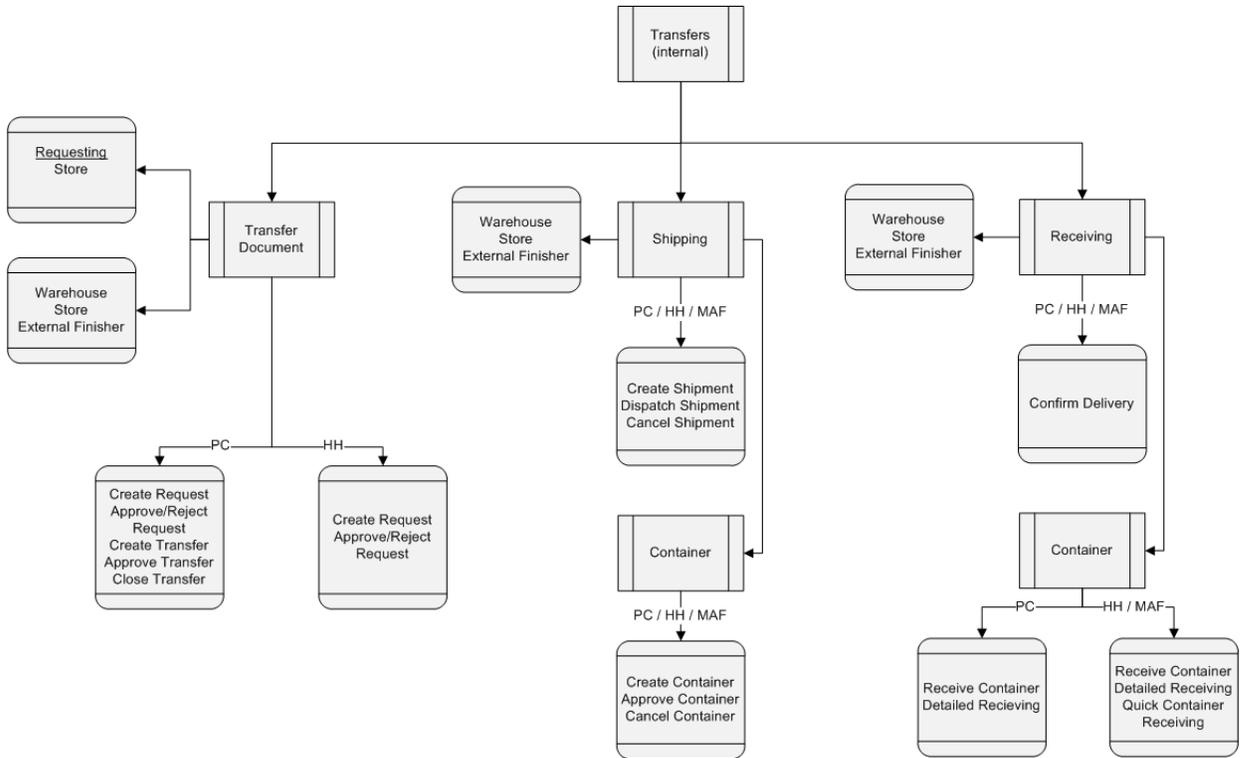
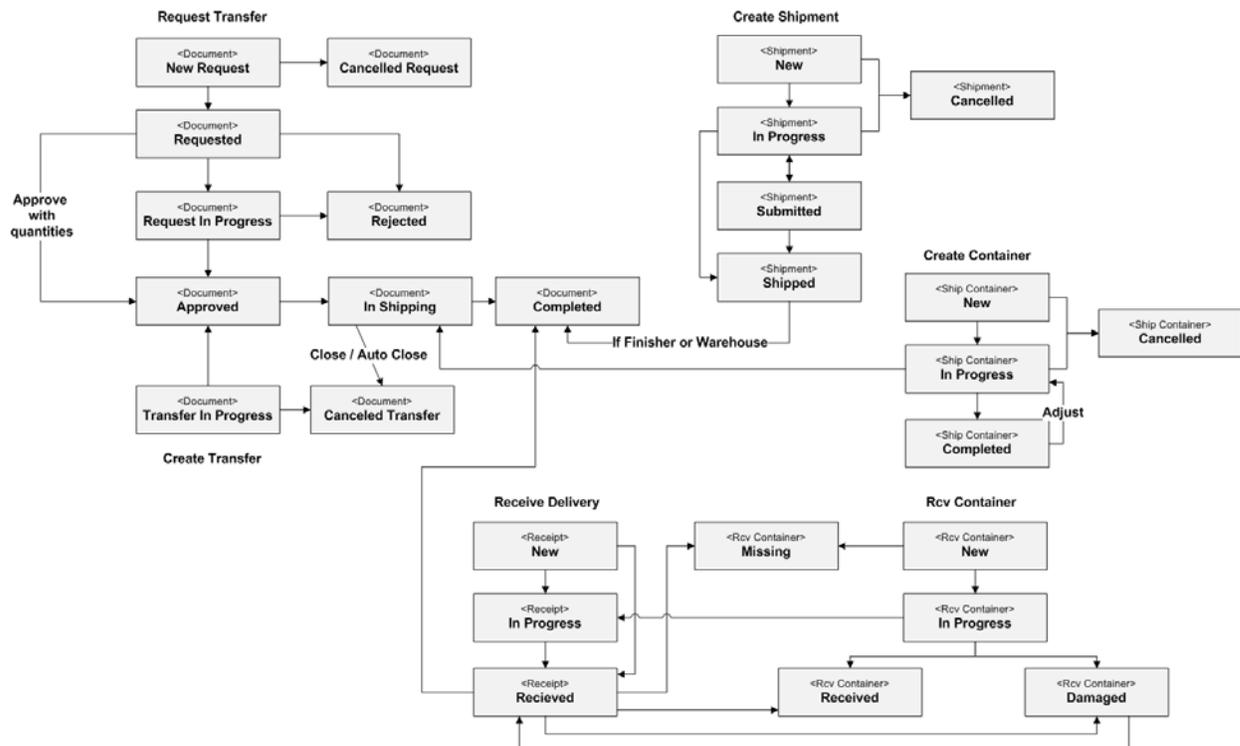
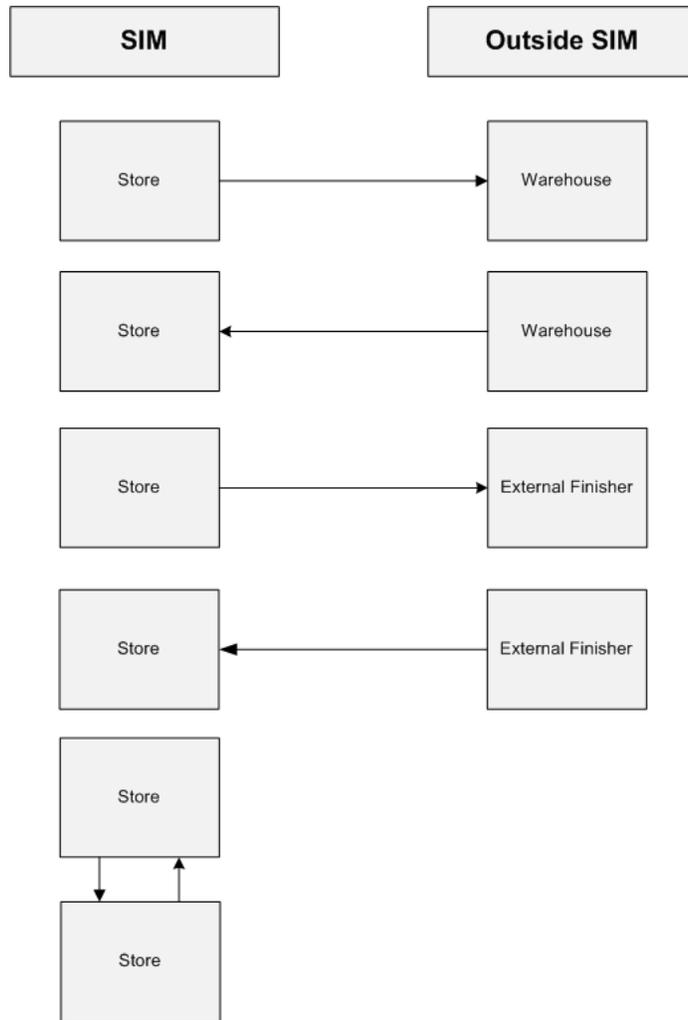


Figure 11-2 Transfer > Shipment > Receipt Status Flow

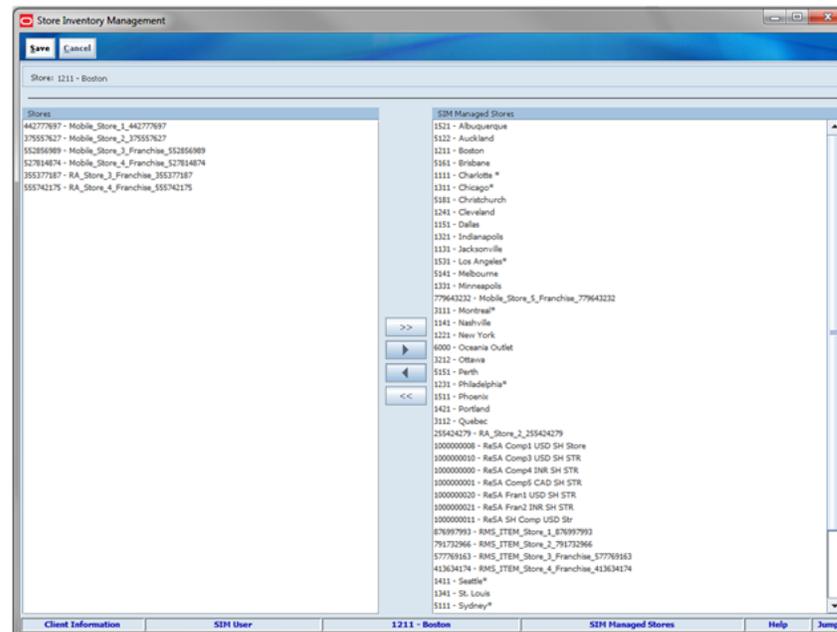


**Figure 11-3 Supported Entity Flow**



## SIM Managed Stores

Figure 11–4 SIM Managed Stores Screen



SIM Managed Stores is an administrative screen which allows a user to select stores to use within the enterprise. This screen should only be used during implementation time. The SIM Managed Stores Screen is accessed within the Setup dialog by clicking the SIM managed stores button from the SIM Stores menu.

Some stores may not use SIM, but exist within the enterprise. This administrative screen allows the user to select the stores using SIM. When a store is not a managed SIM store, the assumption is made that the other application handles communication between that store and the merchandising system.

The only transaction SIM prevents from publishing is the receipt message from a transfer.

The auto receiving logic should be set up for the non-SIM managed store to auto receive from any store that receive deliveries. This then allows transfer shipments/deliveries to take place between SIM managed and non-managed stores.

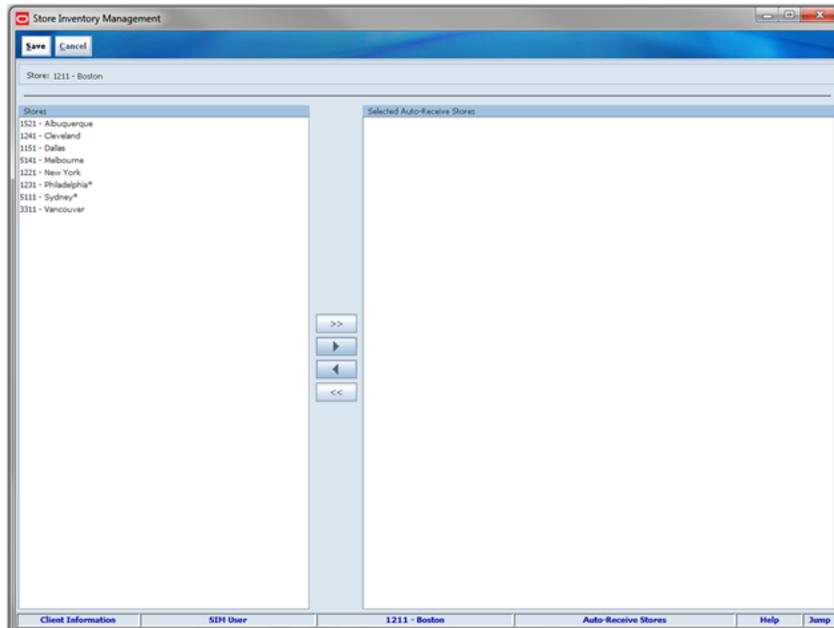
Example: Store A is not managed by SIM, but Store B is a managed store. SIM will need an internal receipt generated in order to close out the transfer delivery. Store A would be set up to auto-receive transfer deliveries.

If store A is auto-receiving transfer deliveries, it would normally generate a RIB message at the same time. This would be unfavorable, because assuming Store A is running some other system to manage the inventory, that will let RMS know when the delivery is received. If that third-party system and SIM both sent a receipt message, the delivery would effectively be double-counted. Hence, the message is suppressed within SIM (which is not the system of record for the non-managed store A).

Security needs to be set up to restrict users accessing the non-SIM managed store for all other inventory transactions. If other transactions are created and completed, SIM will publish this information since these stores are supposed to be non-active in SIM.

## Auto-Receive Stores

**Figure 11–5 Auto-Receive Stores Screen**



Auto-Receive Stores is an administrative screen which allows a user to select stores from which to automatically receive items. The Auto-Receive Stores screen is accessed within the Setup dialog by clicking the Auto-Receive Stores button from the SIM Stores menu.

Only stores within the same Transfer Zone or with no Transfer Zone display in the stores window.

If a store is selected to auto-receive from and the store parameter Store Auto Receive is set to "External message," the SOH of the receiving store is automatically adjusted as soon as the listed store dispatches the shipment.

If a store is selected to auto-receive from and the store parameter Store Auto Receive is set to "Date Driven," the SOH of the receiving store is automatically adjusted as soon as the listed store dispatches the transfer shipment if the secondary store parameter, Store Auto Receive number of days is set to zero. If the number of days is more than zero, a batch program will automatically receive any store transfers still open x days after being shipped.

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**Note:** For auto receiving to work, the system parameter needs to be set correctly and the store needs to be selected to auto-receive from. This is different from auto receiving warehouse or external finisher deliveries which only are controlled by the system option.

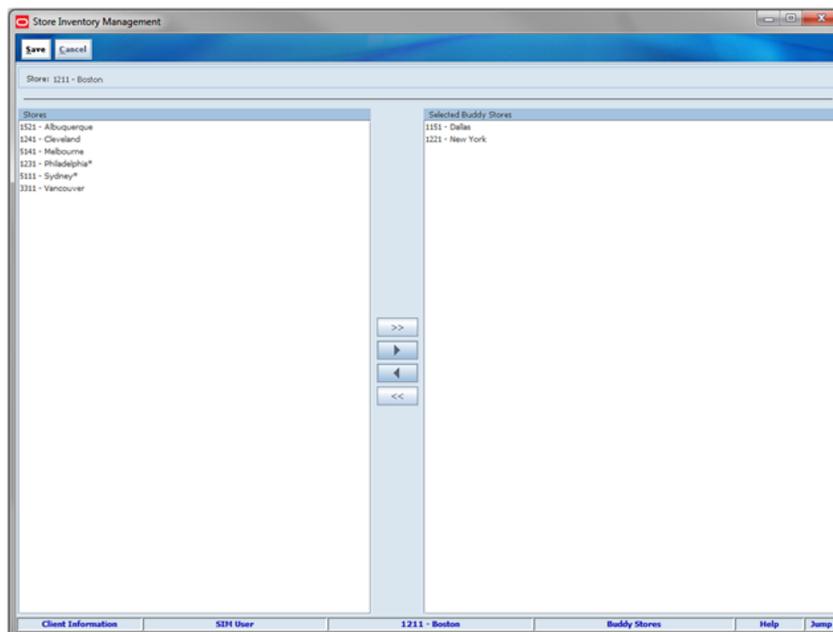
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## Buddy Stores

**Figure 11–6 Buddy Stores Screen**



The Buddy Stores screen allows a user to select stores the transferred items are normally sent. The buddy store list is available from several selection menus to shorten the list of values to select from when searching or creating transfers to another store. The Buddy Stores screen is accessed within the Setup dialog by clicking the Buddy Stores button from the SIM Stores menu.

The Buddy Store setup does not restrict a store from transferring items to non-buddy stores, but does restrict what will display in the store selection dropdown on the transfer, shipment and receiving dialog. Only stores within the same Transfer Zone as the logged in store will display in the stores window. If a store does not have a Transfer Zone assigned, the store will also be displayed in the stores window for selection. The lack of a Transfer Zone implies that this store is accessible by all shipping locations and can ship to all locations.

Most of the time transfer zones are setup to restrict shipments between countries or where it would be prohibitively expensive to ship to due to distance.

## Transfer Document

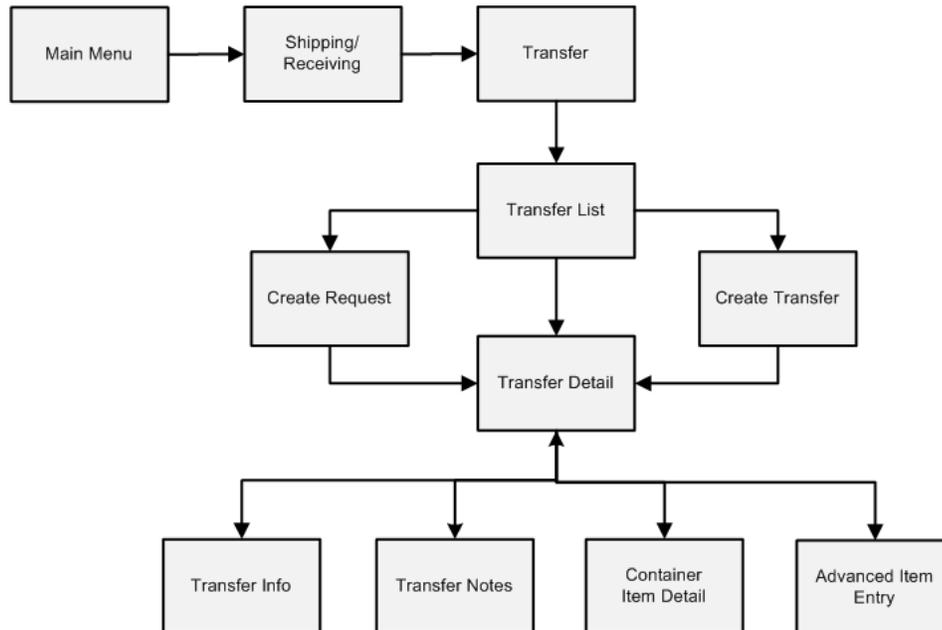
The transfer document dialog allows the user to create, accept, and reject transfer documents for the warehouse, store, and external finisher in a single dialog.

Transfer Document features:

- Transfer documents allow the movement of goods between store, warehouse, and external finisher.
- Created internally or externally.
- Transfer documents created externally can be approved or rejected.
- A handheld flow exists to pick items for the transfer request document.
- Transfers using unavailable inventory.

- Visibility of shipment and receipt values after transfer approval.

**Figure 11-7 Transfer Document PC Screen Flow**



## Configurations

This section covers system parameters, store parameters, notifications, and security.

### System Parameters

#### Auto Item to Transfer Requests

- Values: Yes/No
- Default: Yes
- Topic: Transfers
- Editable: Yes
- This parameter allows the user to add items to a requested transfer sent from RMS (or external system).

#### Days to Send Email Alert Before Not After Date for Transfer Requests

- Values: 0 - 999
- Default: 30
- Topic: Transfers
- Editable: Yes
- This parameter specifies the number of days prior to the not after date to send a notification. This applies to any requested transfer.

#### Transfer Request Approve Email Alert

- Values: Yes/No

- Default: No
- Topic: Transfers
- Editable: Yes
- This parameter generates a notification when a requested transfer is approved. This only applies when requesting from one store to another.

#### **Transfer Request Email Alert**

- Values: Yes/No
- Default: No
- Topic: Transfers
- Editable: Yes
- This parameter generates a notification when a transfer is requested. This only applies when requesting from one store to another.

#### **Transfer Request Reject Email Alert**

- Values: Yes/No
- Default: No
- Topic: Transfers
- Editable: Yes
- This parameter generates a notification when a requested transfer is rejected. This only applies to requests from one store to another.

#### **Unavailable Qty Discrepancy Email Alert**

- Values: Yes/No
- Default: No
- Topic: Transfers
- Editable: Yes
- This parameter generates a notification when a requested transfer request is not auto accepted/approved, when configured, for various reasons. Example: the quantity requested is more than the quantity available to ship.

### **Store Parameters**

#### **Auto Accept External Generated Request**

- Values: Yes/No
- Default: No
- Topic: Transfers
- Editable: Yes
- Yes: the system automatically accepts the requested transfer (default the requested quantities into the accepted field and moves the request to "Approved" for RMS requested transfers.
- No: the request will need to be manually approved.

### **Auto Accept Store Transfer Request**

- Values: Yes/No
- Default: No
- Topic: Transfers
- Editable: Yes
- Yes: the system automatically accepts the requested transfer (default the requested quantities into the accepted field and moves the request to "Approved" for RMS requested transfers.
- No: the request will need to be manually approved.

### **Not After Date Default Days**

- Values: 0 - 999
- Default: 30
- Topic: Transfers
- Editable: Yes
- This parameter adds a value to today's date to default the Not After Date when creating or requesting a transfer. This date will be looked at when determining to auto close a document.

### **Transfer Handheld Picking Mode**

- Values: Enter Pick Quantity/Scan Every Item
- Default: Enter Pick Quantity
- Topic: Transfers
- Editable: Yes
- Enter Pick Quantity: the user will need to manually enter the pick quantity and then scan the item to validate that it is the correct item.
- Scan Every Item: the user will be required to scan each instance of the item on the pick and then scan the bin, if required, instead of manually entering a pick quantity for all items picked. This method ensures every item is validated as the correct item to pick.
- This parameter is used on the handheld when picking items for a requested transfer and pre-packing the items to be placed in a container for shipment.

### **Notifications**

Notifications exist for:

- Dispatched requested transfer
- Accepted requested transfer
- Rejected auto requested transfer approval
- Not After Day on requested transfer has passed

### **Security**

Security permissions exist for:

- Accessing, creating, editing, deleting, rejecting, and requesting transfers

- Accessing, creating, editing, deleting, and approving transfers
- Context fields

## Transfer List

Figure 11–8 Transfer List Screen

ID	External Id	Source Type	Source	Destination Type	Destination	Status	Total SKUs	Customer Order
1182		Finisher	2 Jack's Repair	Store	1111 Charlotte *	New Request	2	
3796	3000018807	Finisher	1863 General Grant Fix It	Store	1111 Charlotte *	Approved	1	
3642	3000018900	Finisher	1863 General Grant Fix It	Store	1111 Charlotte *	Approved	1	
1171	1171	Finisher	2 Jack's Repair	Store	1111 Charlotte *	New Request	1	
1172	1172	Finisher	2 Jack's Repair	Store	1111 Charlotte *	New Request	1	
1173	1173	Finisher	2 Jack's Repair	Store	1111 Charlotte *	New Request	1	
3799	3000018808	Finisher	1863 General Grant Fix It	Store	1111 Charlotte *	Approved	1	
3785	3000018806	Finisher	1863 General Grant Fix It	Store	1111 Charlotte *	Approved	1	
1901		Store	1111 Charlotte *	Finisher	1863 General Grant Fix It	Transfer In Progress	0	
4039		Store	1111 Charlotte *	Finisher	2 Jack's Repair	Transfer In Progress	0	
4172		Store	1111 Charlotte *	Finisher	1863 General Grant Fix It	Approved	1	
3783		Store	1111 Charlotte *	Finisher	1863 General Grant Fix It	In Shipping	1	
3784		Store	1111 Charlotte *	Finisher	1863 General Grant Fix It	In Shipping	1	
3797		Store	1111 Charlotte *	Finisher	1863 General Grant Fix It	In Shipping	1	
3798		Store	1111 Charlotte *	Finisher	1863 General Grant Fix It	In Shipping	1	
1143		Store	1111 Charlotte *	Finisher	1863 General Grant Fix It	Approved	1	
1964		Store	1111 Charlotte *	Finisher	1863 General Grant Fix It	In Shipping	2	
6102		Store	1111 Charlotte *	Finisher	1863 General Grant Fix It	In Shipping	3	
1247		Store	1111 Charlotte *	Finisher	1863 General Grant Fix It	Transfer In Progress	0	
1423		Store	1111 Charlotte *	Finisher	1863 General Grant Fix It	In Shipping	1	
1563		Store	1111 Charlotte *	Finisher	1863 General Grant Fix It	In Shipping	2	
1124		Store	1111 Charlotte *	Finisher	1863 General Grant Fix It	Approved	1	
1785		Store	1111 Charlotte *	Finisher	1863 General Grant Fix It	In Shipping	1	
1285		Store	1111 Charlotte *	Finisher	1863 General Grant Fix It	In Shipping	1	
1904		Store	1111 Charlotte *	Finisher	1863 General Grant Fix It	Approved	1	
641		Store	1111 Charlotte *	Store	1131 Jacksonville	In Shipping	1	
644		Store	1111 Charlotte *	Store	1131 Jacksonville	In Shipping	1	
1143		Store	1111 Charlotte *	Store	1131 Jacksonville	In Shipping	4	
1143		Store	1111 Charlotte *	Store	1131 Jacksonville	In Shipping	4	
1121		Store	1111 Charlotte *	Store	1022 Croon Store	Approved	2	
2001		Store	1111 Charlotte *	Store	1131 Jacksonville	Approved	1	
2242	146	Store	1111 Charlotte *	Store	1131 Jacksonville	Requested	1	✓
2243	147	Store	1111 Charlotte *	Store	1131 Jacksonville	Approved	1	✓
2246		Store	1111 Charlotte *	Store	1131 Jacksonville	Transfer In Progress	0	

The Transfer List screen displays a list of previously created transfer documents incoming and outgoing for a specific user's store. The screen is accessed within the Transfer dialog by clicking the Transfer button on the Shipping/Receiving screen.

The transfer document is what a user creates to explain what to ship from one location to another. This includes transfers to a warehouse, store, or external finisher. The following functions are included in the Transfer dialog:

- View Transfer Documents and Requests for Transfer
- Create, Accept, or Reject a Request
- Create, Approve, or Cancel a Transfer
- Look up Shipping and Receiving Details
- Close a Transfer
- Print a Transfer Report

### Destination Types

- Transfer Shipment to Store (Store to Store):

To create a Store Transfer Shipment, the destination type of "Store" must first be identified for the shipment. The system will provide a list of valid store locations.

- Transfer Shipment to Warehouse (RTW) and to Finisher (RTF):

To return items to a warehouse, the destination type of "Warehouse" must first be identified for the shipment. The system will provide a list of valid warehouses. For a Return to Finisher, the user would select destination type of "Finisher" and select

the destination for the shipment, or search for it using the lookup widget. Finishers are restricted to those which are for the same operating unit as the store.

### **Create Transfer**

A transfer is created from the Transfer List screen when a store wants to send items to another store. When a transfer is created but not yet approved, the transfer will display a status of "In Progress." The transfer reserved bucket will update the moment the transfer is approved. When the items on the transfer are shipped, the saved quantity in the transfer reserved bucket will be removed. This will keep the available quantity accurate. Any reserved quantities will be communicated to the merchandising system.

A context type and value can be entered if necessary. The context type is used to give a reason or purpose for the transfer. For context types of "PROM," a promo ID will need to be entered or selected from the list of promotions in the lookup. If the promo ID exists, the description for the promotion will be displayed. If the promotion ID does not exist in the system the description displays as "Unknown." If the transfer is created from a transfer request, the context type will be disabled.

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**Note:** The context types are defined as part of data setup and must match that of RMS.

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### **Request**

A request is created from the Transfer List screen when a store wants to receive items from another store. A request can be generated from an external system or be created in SIM.

From the Transfer Request Create popup, the Buddy Store field will automatically list all the buddy stores set up for the store the user is logged into, however, any other store can also be searched and selected from the Source field as long as they are within the same transfer zone. The transfer request is only available for store to store transfers (Source Type = Store).

If the store requesting items wants the items before a certain date, a date can be selected or typed into the Not After Date field. The request will automatically cancel if not accepted by this date. There are notifications in place to ensure the transaction is fulfilled in time, if configured.

A context type and value can be entered if necessary. The context type is used to give a reason or purpose for the request. For context types of "PROM," a promo ID will need to be entered or selected from the list of promotions in the lookup. If the promo ID exists, the description for the promotion will be displayed. If the promotion ID does not exist in the system the description displays as "Unknown." If the promotion ID is a transfer request from RMS, the context type will be disabled.

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---

**Note:** The context types are defined as part of data setup and must match that of RMS.

---

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The request needs to be accepted by the other store before a transfer can be shipped. Once accepted, the transfer document can be filled in a shipment/container.

Reservation of inventory will happen at the time the request is accepted.

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**Note:** A transfer request is a state of the transfer. A request that is approved will be the same as a transfer that was created and approved without a request.

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### Customer Orders

Transfer documents can come from the merchandising system to request goods from one store to another store that are for a customer order. These transfer documents will appear in the Transfer dialog.

There will be a customer order indicator on the Transfer to denote that the transfer has a customer order affiliated with it. When searching for a customer order using the filter, the user can search for those transfers that are for customer orders, or search for a transfer that contains a specific customer order and fulfillment order ID.

The details of the transfer will denote if the transfer is for a customer order and the information popup will display the specific customer order and fulfillment order ID for that transfer if there is one. The Allow Partial Delivery Indicator is populated based upon the customer order. If the box is not checked then: when accepting a transfer request, the user must accept the full amount being requested.

For additional details, see the Multi Leg Orders section in [Chapter 20, "Customer Order Management."](#)

## Transfer List Filter

**Figure 11–9** *Transfer List Filter Screen*

The Transfer List Filter screen is accessed by clicking the Filter button from the Transfer List screen. The user can filter on various search criteria. After applying the filter, the user will be returned to the Transfer List screen with the transfer documents displayed per the entered criteria.

## Transfer Detail

**Figure 11–10 Transfer Detail Screen**

The Transfer Detail Screen displays several details for a specific transfer at the user's store. The Transfer Detail Screen is accessed within the Transfer dialog by clicking a transfer, Create Transfer button, or Create Request button on the Transfer List screen.

For adding an item to a transfer based on the item status, see [Chapter 6, "Item."](#)

This screen allows the user to perform many different functions such as create, accept, and reject requested transfers in addition to closing transfers. Depending on the action taken by the user, some fields/buttons will be displayed while others may not.

### Accepting/Picking Request

Once the requested transfer is created by the receiving store or in the merchandising system, the user on the shipping side of the transfer can enter approved quantities or pick items and set them aside for eventual shipment. A handheld workflow is available to quickly pick, pack, and ship. Commerce Anywhere shipping requests can use this process where the user pre-packages the shipment by printing out a picking report, pick items from the shelf and physically confirm the store has the inventory available.

The picking flow saves time by allowing the user to access a requested transfer, identify the quantity available, and place the item in a bag or other type of box. This bag or box can then quickly be added to the container in the transfer shipping process.

The store can be configured to scan every item on the handheld during the pick process or enter a pick quantity and subsequently scan the item to validate it is the correct item. If set to scan every item, the user will be required to scan each instance of the item. Once the quantities are entered or picking is completed, the transfer moves to an approved status.

Only transfers in "Approved" or "In Shipping" status are available to be shipped.

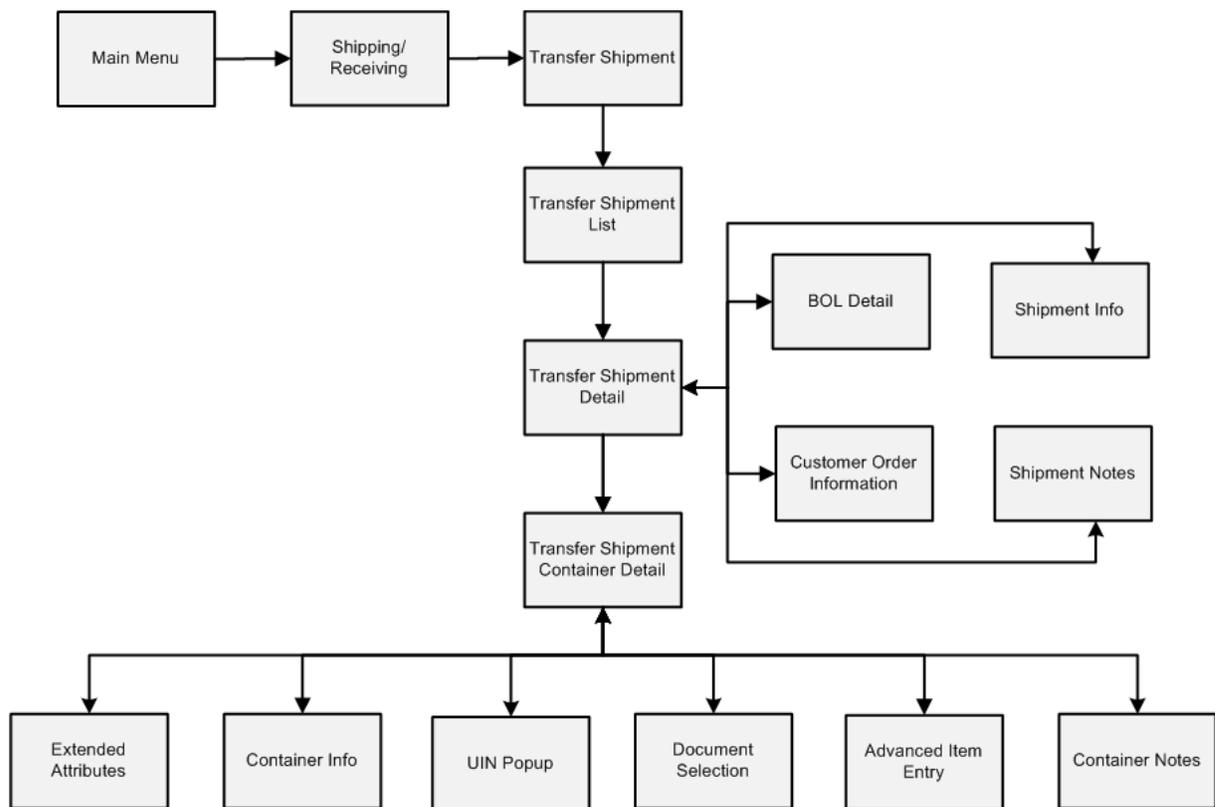
## Transfer Shipping

The Transfer Shipping dialog is focused on shipping out containers. Each container can be associated to one or more complete or partial transfer documents. Containers can also be restricted to specific merchandise hierarchies to prevent mixing of items.

Transfer Shipment features:

- Supports shipping to the store, warehouse, or external finisher
- Multiple transfer documents allowed in a single container
- Create container without referencing a transfer document (on the fly)
- Limit store selection by buddy store and transfer zone
- Multiple containers allowed in a single shipment
- Manifest system integration and package tracking ID processing
- Two step approval process to warn of pending shipments
- Restrict merchandise packaged together by merchandise hierarchy

**Figure 11–11 Transfer Shipment PC Screen Flow**



## Configurations

This section covers system parameters and security.

## System Parameter

### Customer Order Fulfillment Restriction

- When this parameter is set to Restricted, the transfer must be fulfilled in full. No partial shipments will be allowed.
- For additional details, see the "Customer Order Picking" section in [Chapter 20, "Customer Order Management."](#)

### Display Item Image Transfer Shipment - Mobile

- Values: Yes/No
- Default: No
- Topic: Transfer Shipment
- Editable: No
- Yes: The item image will be displayed in the item list and the details of the transaction.
- No: The item image will not be displayed in the Transfer Shipping dialog.

### Search Limit for Transfer Shipments - Mobile

- Values: 1 to 999
- Default: 50
- Topic: UI
- Editable: Yes
- Defines how many shipment records will be returned in the Transfer Shipment List screen.

### Security

- Editing the BOL or Shipment details
- Accessing, creating, editing, deleting, submitting, cancelling submit, and dispatching shipments
- Accessing, creating, editing, deleting, and confirming containers
- Adding and removing items in containers for shipments

## Transfer Shipment List

**Figure 11–12 Transfer Shipment List Screen**

ID	ASN	Status	Destination Type	Destination	Last Update	Containers	Customer Order
21	21	New	Store	8758 DP Store	5/7/2015	0	
41	41	In Progress	Store	1131 Jacksonville	5/28/2015	1	
61	61	In Progress	Store	1111 Charlotte *	6/9/2015	1	
144	144	In Progress	Store	1211 Boston	6/23/2015	1	
146	146	In Progress	Store	1211 Boston	6/23/2015	1	
181	181	In Progress	Store	1024 Croom - 102...	6/29/2015	1	
201	201	In Progress	Store	1023 Croom Store	6/30/2015	5	
261	261	In Progress	Store	1131 Jacksonville	7/6/2015	1	
301	301	In Progress	Store	1141 Nashville	7/7/2015	1	
442	442	In Progress	Warehouse	2 N. America Central	7/16/2015	1	
502	502	New	Store	1111 Charlotte *	7/21/2015	0	
503	503	New	Store	1111 Charlotte *	7/21/2015	0	
504	504	New	Store	1111 Charlotte *	7/21/2015	0	
507	507	New	Warehouse	5 AUS Warehouse	7/21/2015	0	
541	541	New	Store	1023 Croom Store	7/24/2015	0	
546	546	In Progress	Store	1311 Chicago*	7/24/2015	1	
562	562	In Progress	Store	1311 Chicago*	7/24/2015	1	
563	563	In Progress	Store	1311 Chicago*	7/24/2015	1	
564	564	In Progress	Store	1311 Chicago*	7/24/2015	1	

The Transfer Shipment List is a screen which displays a list of previously created shipments incoming for a specific user's store. The Transfer Shipment List is accessed within the Transfer Shipment dialog by clicking the Transfer Shipment button on the Shipping/Receiving screen.

Shipments to store, warehouse, or external finishers are under a single new dialog. This dialog focuses on building a single shipment to a single entity and can contain one or more containers. Each container can be managed by a different user. This allows multiple people to work on a single shipment at one time.

The screen defaults to a list of all existing active shipments. Various search criteria include searching by: Last Update, Destination, Transfer for Allocation ID, ASN, Customer Order information, status, and promotion.

The main functions include the following:

- Create, edit, cancel, or dispatch a shipment
- Create, edit, cancel, or confirm a container
- View customer orders associated with a container
- Manage carrier shipping information and print container labels
- Print shipment reports
- Select a reason for a shipment to a warehouse or finisher
- Container ID generation based on SSCC standards

The first step in the shipment process is to create a new shipment. Once created, the shipment will display in the list of shipments and can be viewed or edited at a later time.

There is also a field available to enter an Authorization Number when shipping back to warehouse or finisher.

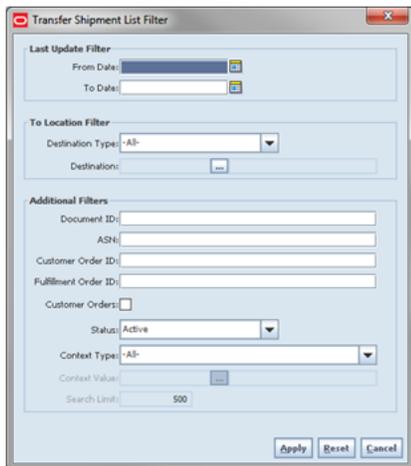
### Customer Orders

Those transfer documents that are affiliated with customer orders will be shipped to other stores in this dialog. The customer order will be indicated on the transfer shipment. The user can search on transfer shipments that are for customer orders as well as search on specific customer order fulfillment orders.

For additional details, see [Chapter 20, "Customer Order Management."](#)

## Transfer Shipment List Filter

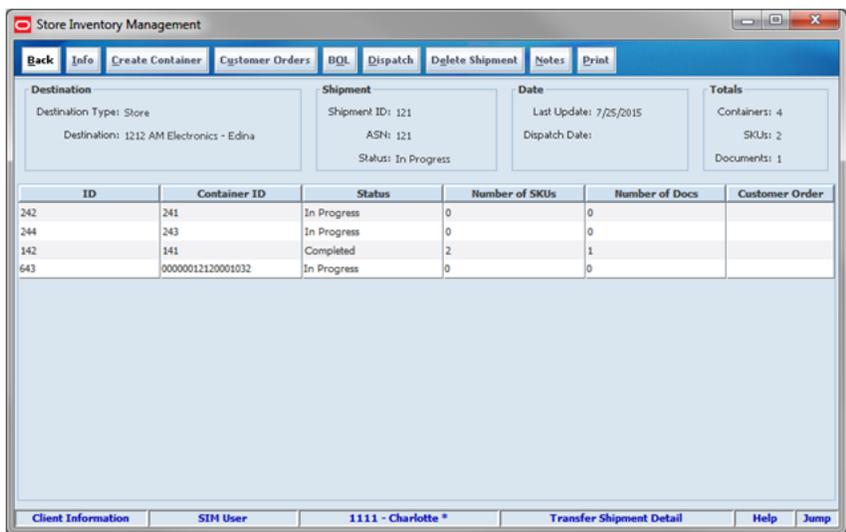
**Figure 11–13 Transfer Shipment List Filter Screen**



The Transfer Shipment List Filter screen is accessed by clicking the Filter button from the Transfer Shipment List screen. The user can filter on various search criteria. After applying the filter, the user will be returned to the Transfer Shipment List screen with the transfer shipments displayed per the entered criteria.

## Transfer Shipment Detail

**Figure 11–14 Transfer Shipment Detail Screen**



The Transfer Shipment Detail screen displays a list of previously created containers for the selected shipment. The Transfer Shipment Detail is accessed within the Transfer Shipment dialog by selecting a shipment or clicking Create Shipment on the Transfer Shipment List screen.

The containers within a single shipment will display on this screen. If the shipment has just been created, the list will be blank. Several functions may be performed on this screen to include the following:

- Viewing additional details
- Updating authorization number
- Creating a new container
- Viewing existing customer orders
- Set up the carrier shipment details
- Printing a shipment and container report

### **Submit**

The shipment can be saved in "In Progress" status to continue edits later or it may be submitted or dispatched. Submitting is possible when the store setting Dispatch Validate is configured for "Ship Submit." Submitting will set the shipment to a "Submitted" status and not allow for edits, there are no updates to inventory at this point. The only step possible will be to Cancel Submit or Dispatch.

### **Dispatch**

When the shipment is dispatched, the transfer reserved quantity for the outbound location will decrease in addition to the stock on hand. If no shipping quantities are identified the transaction should be cancelled. Inbound is increased at the receiving store for what has been shipped.

### **Customer Orders**

The Transfer Shipment Detail has a customer order check box at the container line level to indicate if the container is for a customer order. Selecting a container and then clicking on the customer order button will display the customer orders for that container. It will display the customer Order and fulfillment order IDs, along with the container ID, status, total SKUs, and comments for the customer order.

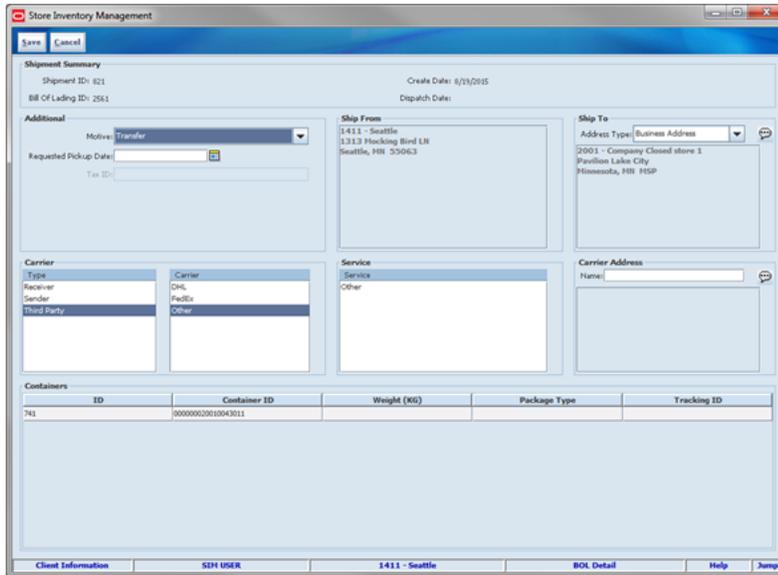
When dispatching a transfer shipment, if the transfer associated to the shipment has the Allow Partial Indicator set to Yes, then the user must ship the full amount which is requested.

Upon selecting a container on the Transfer Shipment Detail, the user will be taken to the details of that container on the Transfer Container Detail. The Transfer Shipment Container Detail has a customer order check box at the header to indicate if the container is for a customer order.

For additional details, see [Chapter 20, "Customer Order Management."](#)

## BOL Detail

Figure 11–15 BOL Detail Screen



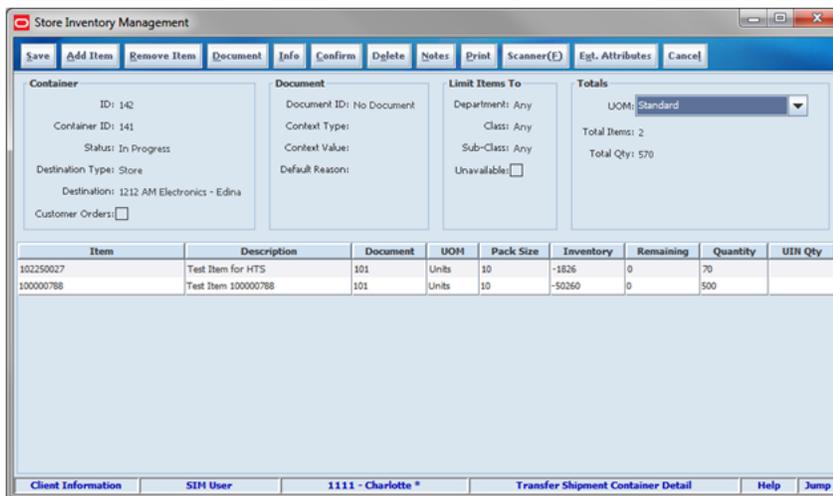
The BOL Detail screen used to manage carrier information for all types of shipments. It is accessible through the BOL button on the Transfer Receiving Detail screen.

The BOL will contain the appropriate information to identify the sender, receiver, and carrier of the goods. The Carrier Type will be defaulted based on the transfer carrier table; however, the user can modify this if necessary. For carrier types of Third Party, the Service will need to be selected.

For additional details on the BOL screen and how it is used with manifesting and pre-shipment, see [Chapter 12, "Shipping and Receiving Common Components."](#)

## Transfer Shipment Container Detail

Figure 11–16 Transfer Shipment Container Detail Screen



The Transfer Shipment Container Detail screen displays the details for an outgoing container. The Transfer Shipment Container Detail is accessed within the Transfer Shipment dialog by selecting a container or clicking Create Container on the Transfer Shipment Detail screen.

There are several functions the user is able to perform on this screen. Some of the features include:

- Create, edit, delete, or confirm a container
- Select transfer items or add loose items
- Manage carrier shipping information
- Print a container label or container report
- Manage extended attributes for items
- Manage UINs

A container is created from the Transfer Shipment Detail screen when a store wants to send items to another store, a warehouse, or external finisher. The container can be created with or without referencing a transfer document. When a container is created but not yet completed, the container will display a status of "In Progress." The transfer reserved bucket will update the moment the container is saved. When the shipment is dispatched, the saved quantity in the transfer reserved bucket will be removed. This will keep the available quantity accurate.

For additional details for adding items to the container, see "[Document Selection.](#)"

### **Shipment to Warehouse and Finisher**

For warehouse and finisher containers, Inventory Type of "Available" or "Unavailable" is held at a container header level. This means that all items in the container must be for the same inventory type, there cannot be a mixture. This is different for return to vendor (RTV) shipments. Therefore, once items from a transfer have been added to the container, the inventory type is set for the container and can no longer be changed. However, a shipment may have both unavailable and available containers.

If inventory is from unavailable inventory, the shipped quantity cannot exceed the unavailable stock. If the system is configured to use sub-buckets, then the sub-bucket associated to the reason codes which are for unavailable inventory will be displayed. The sub-bucket will be updated as the unavailable inventory is updated.

A default reason code will be selected from the Document Selection screen. Reason codes available are based on the reason codes setup in the Shipment Reason Code administrative screen. Additionally, the user will be granted data permissions for the reason codes they can assign.

Additional validation is performed when a loose item is added to a container, to check the item is also available in the destination location. This prevents the user from shipping inventory to a warehouse or finisher that does not store that type inventory. Example, snowboards are not allowed to be returned to a warehouse in Florida, but are ok to be shipped to a warehouse in Upstate New York where they can be used. Loose items can only be added to a container set to use available inventory

For those items that are UIN items, it will be required to capture UINs. As the UINs are captured, the UIN quantity field will be updated.

## Document Selection

**Figure 11–17 Document Selection Popup**

ID	External ID	Not After Date	Status	SKUs	Context Type	Context Value	Orders
5127			Approved	1			

Item ID	Description	Remaining Qty
100005004	100005004	1

The Document Selection popup displays a list of approved transfers and items available to add to a container for the selected destination store. The Document Selection is accessed within the Transfer Shipment dialog by clicking the Document button on the Transfer Shipment Container Detail screen.

This screen is used to select the transfer or allocation document available to add items to an outgoing container. The documents displayed will be based on the destination type and location already selected at the time of creating the shipment.

When the user enters this screen, they are able to select the inventory type of available or unavailable. When the user selects "Unavailable," an additional dropdown for the default reason code will also display. The user will be required to set the default reason code before they can leave the screen.

### Limit Items to (Hierarchy Restriction)

If the user wants to set up the container to restrict the container to hold the same type of items, they can set up the container to restrict by department, class, and subclass. The user does not select the actual department, but rather sets the hierarchy level they want to restrict by. When the first item is added to the container, the department, class, and/or subclass is set for the container based on the hierarchy the item is part of. The container detail screen will display the hierarchy that is locked in. Any items added subsequently must match the hierarchy of the first item. For example, if the restriction was set up to limit items to the same department and the first item added was for the Women's Department, only items that match the Women's Department can be added to the container, but it will not matter which class and subclass the item is in since the hierarchy level is set at Department.

The hierarchy level is auto defaulted depending on the permission the user has been given.

### Options to Add to Container

Users can select an approved transfer document and have different options to apply the items. When the user is working in the container screen, any items added manually, will be added to the selected transfer document. If the user does not want to add the items to the transfer, they can select No Document from this screen, to clear out the selection. Items added manually will be added to the Ad Hoc transfer if no document is selected, otherwise they are added to the transfer doc selected. Adding loose items to a container is only allowed for Containers setup for Available inventory.

- Apply Item(s): The items are pre-filled in the container without quantities.
- Apply Item(s) & Quantity: The items with their remaining quantity are added into the container.
- Use Document: The user manually adds the items to the container validating against the selected document. The user will be prompted when an item does not exist on the document. If not, the user may or may not have the ability to add to the container or to the selected document.
- No Document: This is used when the user adds items to a container that are not pre-defined on a transfer document.

Once the document and items are selected, the document ID is populated in the header of the container detail screen as well as next to each item added to the container. There are various permissions that will control which options a user can perform.

### Unavailable Containers

For unavailable containers, the reason code exists at the header and the detail level.

The default reason code is selected from the Document Selection screen and the reason code will automatically default for all of the items being added to the container. The user still has the option of overwriting that reason code at the detail level.

Each reason code will be assigned an inventory type of available or unavailable. For transfer shipments, only the inventory type of "Unavailable" can be set up with reason codes. RTV Shipments are allowed to use reason codes for both inventory types. When creating the transfer, the user will select if the inventory for the transfer will come from available or unavailable inventory. Inventory (available or unavailable stock) for the item is displayed for informational purposes based upon the inventory status for the reason.

Reason codes will be restricted to those reason codes the user has data permissions for.

## Container Info

**Figure 11–18 Container Info Popup**

Container Info

ID: 41  
Container ID: 41  
Shipment ID: 41  
Destination Type: Store  
Destination: 1131 Jacksonville  
Status: In Progress

Create Date: 5/28/2015  
Create User: Helen  
Last Update: 5/28/2015  
Last Update User: Helen  
Approval Date:  
Approval User:

Container ID:   
Package Type:   
Weight (LBS):   
Tracking ID:   
Container Label:

Apply Print Label Cancel

The Container Info popup displays additional details for a container. The details needed for printing shipping labels and manifesting can be found on this popup. The Container Info is accessed within the Transfer Shipment dialog by clicking the Info button on the Transfer Shipment Container Detail screen. See the Common Shipping and Receiving chapter For additional details, see [Chapter 12, "Shipping and Receiving Common Components."](#)

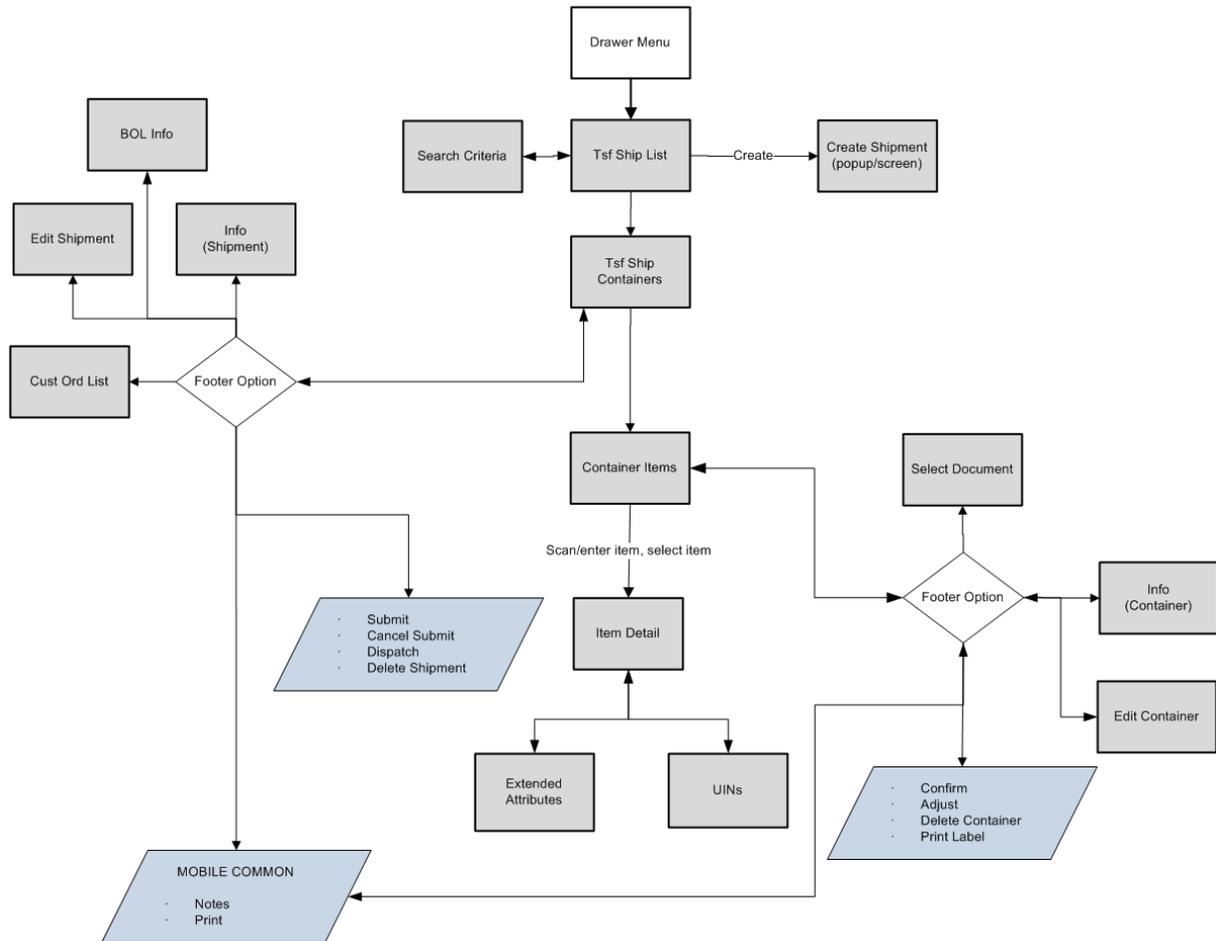
## MAF

All validations and rules for transfer shipments on MAF is functionality also available on the PC application. Transfer Shipments exist in a small form factor on MAF.

Features:

- Search for transfer shipments
- Create a new shipment
- Create a new container
- View or edit an existing shipment or containers
- Delete or cancel "In Progress" containers or shipments
- Submit, cancel submit, or dispatch a shipment
- Print pre-shipment, manifest, and transfer shipment reports
- Print container labels

Figure 11–19 Transfer Shipment MAF Screen Flow (Small)



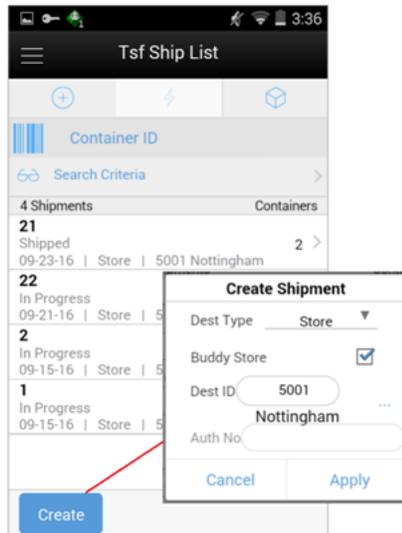
Transfer Shipments will be accessed on MAF through the Shipping / Receiving menu within the drawer. Selecting the menu option will take the user to the Tsf Ship List screen. On this screen, the user has the option to search for shipment records which will be presented on the Tsf Ship List screen. The user has the option to create a shipment, edit or view a shipment.

When creating, editing, or viewing a shipment, the user will first be directed to the list of containers within the shipment on the Tsf Ship Containers screen. The user has the option to create a container, edit or view a container.

When creating, editing, or viewing a container, the user will be directed to the list of items in the container on the Container Items screen. The user can add, view, and edit the details of the items on the Item Detail screen. On the Item Detail screen, there will be tabs for UINs as well as Extended Attributes if the system and/or item is configured for these.

## Tsf Ship List

**Figure 11–20 Tsf Ship List Screen**



When navigating to Transfer Shipping, the user is taken to the Tsf Ship List screen with the default list being defined for "Active" shipments.

The user can use the search criteria eye glasses to navigate to the transfer shipment search criteria screen to enter search criteria for transfer shipments. When scanning/entering a container ID in the scan bar, the system adds the container ID to the entered search criteria and narrows down the current list of shipments by the item scanned. The user can scan or enter the internal or external container IDs or the tracking ID to find the matching shipments. If there are multiple containers found with the same scanned or entered number, the user is prompted to select the shipment/container to return.

The create button will prompt the user to create a new shipment. The user will have the ability to create a shipment for store, warehouse, or finisher. Buddy stores are available to allow for searching for a location to ship to that are close in proximity. Creating a new shipment will direct the user to the Tsf Ship Containers screen with no containers. If the user selects an existing shipment, the same screen will display a list of created containers.

## Search Criteria (Transfer Shipment)

**Figure 11–21 Search Criteria Screen**

The screenshot shows a mobile application interface for 'Search Criteria'. At the top, there are 'Cancel' and 'Apply' buttons. Below the title, it indicates 'Criteria Applied: 1' and 'Last Update Filter'. There are two date pickers for 'From Date' and 'To Date'. A 'To Location Filter' section contains a 'Destination Type' dropdown menu currently set to '- All -'. Under 'Additional Filters', there are four text input fields: 'Document ID', 'ASN', 'Customer Order ID', and 'Fulfillment Order ID'. A blue 'Reset' button is located at the bottom left of the form.

The Transfer Shipment Search Criteria screen is accessed by the eye glasses on the Tsf Ship List screen. After applying the search criteria, the results will be listed on the Tsf Ship List screen and the criteria applied will show. The following fields can be searched on from this screen: last updated, destination type, destination ID, destination, document ID, asn, item, container ID, customer order ID, fulfillment order ID, customer orders exist, shipment status, context type, and context value.

## Tsf Ship Containers

**Figure 11–22 Tsf Ship Containers Screen**

The screenshot shows the 'Tsf Ship Containers' screen. At the top, there is a 'Back' button and the title 'Tsf Ship Containers'. Below the title are three icons: a plus sign, a lightning bolt, and a box. A 'Container ID' section shows a barcode icon and the text 'Shipment ID 22' and '2 Containers'. A 'Filter' button is below this. The main content area displays a list of containers with two items: '61 In Progress | Cust Ord 000000050040004016' and '24 Canceled | Cust Ord 000000050040002045'. At the bottom, there is a blue 'Create' button and a '000' indicator.

When creating or selecting an existing shipment from the Tsf Ship List screen, the user is taken to the Tsf Ship Containers screen with the list being defaulted to "Active" containers. When scanning/entering a container ID in the scan bar, the system will navigate the user to the Container Items screen and display the items currently in the

selected container. The user can scan or enter the internal or external container IDs or the tracking ID to find the matching containers in the shipment.

The create button will create a new container for the shipment. Creating a new container will direct the user to the Container Items screen with no details (items) in order to build a new container. Lastly, selecting a container from the list will navigate to the details for that container.

### **Footer Menu**

Info: The Info option will access the Info (Shipment) popup.

BOL Info: The BOL Info option will access the BOL Info screen.

Note: The Notes option accesses the notes common dialog to capture notes.

Customer Orders: The Customer Orders option will access the Cust Ord List screen.

Create: Create will create a new container in the shipment.

Edit Shipment: Edit Shipment will access the Edit Shipment screen.

Submit: Submit will perform validations for "In Progress" shipments and lock the shipment for additional edits. The shipment will be ready for dispatch. This menu option will only be available when the store parameter "Transfer Shipment Dispatch Validate" is set equal to Ship Submit.

Cancel Submit: Cancel Submit will reverse the Submit and move the shipment back to "In Progress."

Dispatch: Dispatch will perform validations and post transactions to finalize the shipment and no further changes are allowed.

Delete: Delete will mark the shipment to "Canceled" status.

Back: Back will exit the shipment.

External Printing: External Printing will display the External Printing popup to select a printer for the pre-shipment notice and manifest documents.

Print: Print will display the common print dialog to print the transfer shipment report.

## Edit Shipment

**Figure 11–23 Edit Shipment Screen**

The screenshot shows the 'Edit Shipment' screen on a mobile device. The top bar includes 'Cancel', 'Edit Shipment', and 'Save' buttons. The form contains the following fields:

- Bill Of Lading ID: 22
- Motive: Administrative
- Pickup Date: (empty)
- Ship To Address:
  - Address Type: Business Address
  - (Empty text input area)
- Carrier Info:
  - Type: Third Party
  - Carrier: Other

The Edit Shipment screen is used to enter details for the shipment including transportation details. The information entered and/or selected on this screen is the same as the BOL Detail screen for the PC. The same rules and validations apply. Details will include: BOL ID, motive, pickup date, ship to address, carrier type, carrier, carrier service and carrier address. If the shipment is to a warehouse or finisher, the user will also have the ability to enter an authorization number.

The Carrier information will be locked down once the container has been confirmed. At that time, the Adjust Carrier button will be available to move the containers back to "In Progress" which will allow the user to make changes to the carrier and other shipment details.

## Info (Shipment)

**Figure 11–24 Info (Shipment) Popup**

The screenshot shows the 'Info (Shipment)' popup screen on a mobile device. The popup displays the following information:

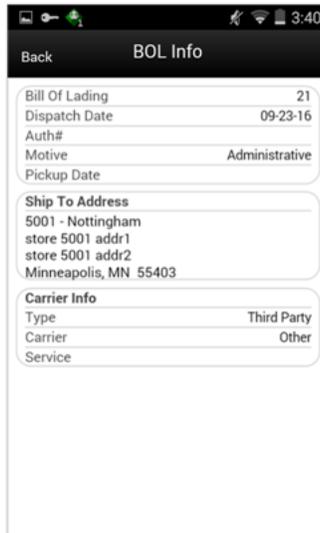
Info	
Destination Type	Store
Destination	5001-Nottingham
Shipment ID	21
ASN	21
Status	Shipped
Create Date	09-20-16
Create User	retail.user
Last Update	09-23-16
Last Update User	retail.user
Dispatch Date	09-23-16

A 'Close' button is located at the bottom of the popup.

The Info (Shipment) is an informational popup that contains read-only information about the header level of the shipment. Details include: destination type, destination, shipment ID, asn, status, create date, create user, last update, last update user, submit date, submit user, dispatch date, and dispatch user.

## BOL Info

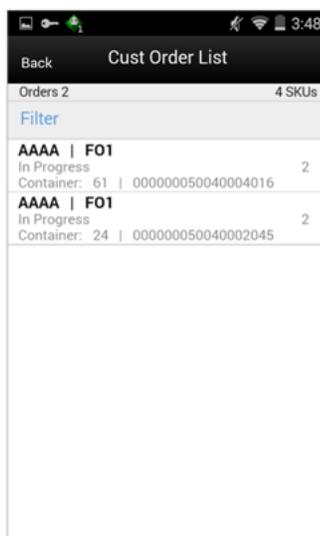
**Figure 11–25 BOL Info Screen**



The BOL Info is an informational screen that contains read-only information about the carrier details for the shipment. This screen is view only and the details are managed on the Edit Shipment screen. Details include: BOL ID, dispatch date, auth#, motive, pickup date, ship to address, carrier type, carrier, carrier service, and carrier address (if entered).

## Customer Order List

**Figure 11–26 Cust Order List**

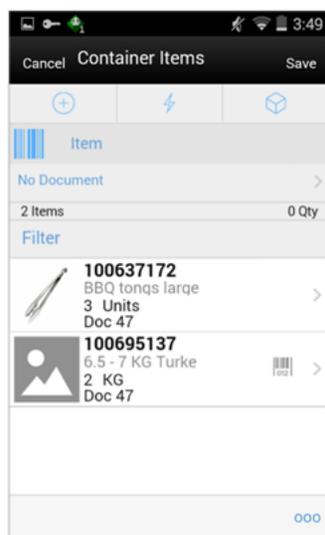


The Cust Ord List is an informational screen that contains read-only information about the customer orders within the shipment. The customer order information will be on the transfer documents selected for the shipment. Details include: Customer Order/Fulfillment Order, status, cnt ID, and container ID.

Scrolling in the list of customer order/fulfillment orders on the left will display a filter. The filter can be used to narrow down the list of items. Filtering can occur by customer order ID, fulfillment order ID, container ID, and customer order status.

## Container Items

**Figure 11–27** Container Items Screen



The Container Items screen is the screen the user goes to when creating a container or a new container. The items on the list are for the container. The item image for the line items is displayed per configuration. The Container Items screen is also what is displayed when selecting a container from the Tsf Ship Container screen.

Line items appear in a list and selecting a line item will navigate to the item details of the item. If an item has been changed in the current session, it will be indicated by a bar on the left of the item. Scrolling in the list of items on the left will display a filter. The filter can be used to narrow down the list of items. Filtering can occur by item ID, description, document ID and reason code.

When a container is setup to use unavailable inventory, a reason code must first be selected before being able to add or edit an item in the container. The reason code is selected on the Edit Container screen. Containers that are setup to use available inventory will not use reason codes. The reason code selected is at the header level for the container and it will be applied to all newly added items until it is changed to a different reason, in which the newly changed reason will be added to the items.

Scanning or entering an item in the scan bar will navigate the user to the Item Detail screen for the item. Quantity may be updated, depending on the scan mode.

Directly below the scan bar, the currently selected transfer document will display. When the first entering the container, "No Document" will be displayed. The user will need special permissions to add items without selecting a document. The user will access the active documents by tapping on this bar which will bring the user to the Select Document screen.

Next to each item, the extended attribute icon will display if the item has any extended attributes assigned and the UIN icon will display if the UINs have been associated to the item.

The ellipsis in the lower right hand corner will access the footer menu which will contain all the functions that can be performed on a container.

### Footer Menu

Info: Info will access the Info (Container) popup.

Notes: The Notes option accesses the notes common dialog to capture notes.

Edit Container: Edit Container will access the Edit Container screen.

Adjust: The Adjust option will reopen a container in Completed status and move it back to In Progress.

Confirm: Confirm will move the container in an In Progress status to Completed.

Save: Save will save the container in "In Progress" status to be completed later. This option is only available when the screen is in edit mode.

Delete: Delete will mark the container to "Canceled" status. This option will only be available for containers that are in a New or In Progress status.

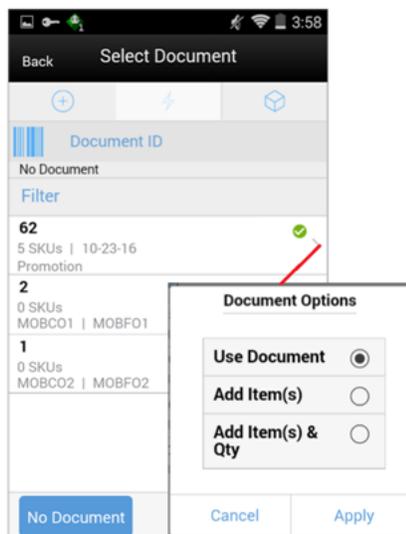
Cancel: Cancel will exit the container and changes made in that session will not be saved. This screen is only available when the screen is in edit mode.

Back: Back will bring the user back to the previous screen. This option is only available when the container is view only.

Print: Print will display the common print dialog to print the Transfer Shipment Container report and Transfer Shipping Label.

### Select Document

**Figure 11–28** *Select Document Screen*



The Select Document screen is used for adding items to ship into the container. The user goes to this screen when tapping the Document ID in the header bar of the Container Items screen. If there are no approved documents to display, the list will be

empty. The list is sorted by documents with a remaining quantity on top, then by not after date, and then by document ID.

A list of documents for Inventory Type of "Available" or "Unavailable" will display based on the selected option on the Edit Container screen. The default will be to display documents with inventory type set to available.

Additionally, if the user has placed a hierarchy restriction on the container using the Limit Item To dropdowns on the Edit Container screen, only those documents with items matching the criteria will display. This will happen once the restriction is set by adding the first item to the container. If the container is empty, all documents will be displayed for the appropriate inventory type.

Scanning or entering a document ID on this screen in the scan bar will display the Document Options popup if any are found. The user can add items only, add items and the remaining quantity or simply use the document for validation when scanning/entering items to the container.

Scrolling in the list of documents on the left will display a filter. The filter can be used to narrow down the list of documents. Filtering can occur by document ID, external ID, customer order ID, fulfillment order ID, context type, and context value.

The following icons will be displayed to indicate the status:

- Green circle with check indicates the document has remaining quantities.
- Orange triangle with exclamation point indicates the document has no remaining quantities.

The No Document button is used to clear the selected document. The user needs special permissions to use this button. Any items added to the container when No Document is selected, will be added to an ad hoc transfer created for the entire shipment for any unexpected items not associated with an existing transfer. The button will not be available when the container has been setup to pull items from unavailable inventory buckets.

## Edit Container

**Figure 11–29** Edit Container Screen

The screenshot shows the 'Edit Container' screen with the following fields and options:

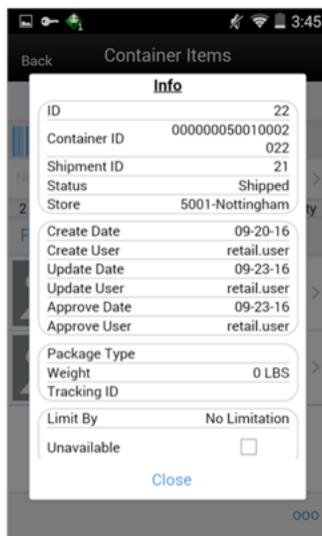
- Header: Cancel, Edit Container, Save
- ID: 61
- Unavailable:
- Container ID: 00000050040004016
- Package Type: Medium (dropdown)
- Weight - LBS: 0
- Tracking ID: (empty text field)
- Limit Items To: None (dropdown)
- Department: Any
- Class: Any
- Subclass: Any

The Edit Container screen is used to enter details for the container including transportation details. The user navigates to this screen from the footer menu on the Container items screen. Details will include: ID, inventory status, container ID, package type, weight, tracking ID, and container restriction by hierarchy. If the inventory status is unavailable, the reason code and sub-buckets (if configured to use sub-buckets) will also be available.

The inventory status and the container restriction by hierarchy will be locked down once the first item has been added to the container. If manifesting has been configured, the package type and weight may be required by the carrier selected for the shipment before the user can confirm the container.

## Info (Container)

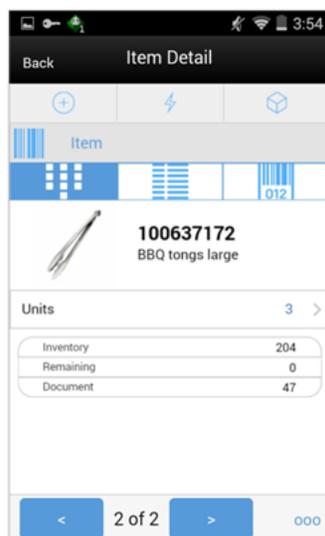
**Figure 11–30 Info (Container) Popup**



The Info (Container) is an informational popup containing read-only information about the header level of the container. Details include: ID, container ID, shipment ID, status, destination type and destination, create date, create user, update, update user, approve date, approve user, package type, weight, tracking ID, container hierarchy limit, and inventory status.

## Item Detail (Quantity)

**Figure 11–31** Item Detail (Quantity) Screen



The Item Detail screen is the screen the user goes to when selecting or scanning an item from the Container Items screen. Scanning or entering an item on this screen in the scan bar will update the quantity per the scan mode and refresh the item detail screen for the item and quantity scanned. The quantity can be edited and updated manually if permissions allow.

The item information including the image which is system configured to display in the header. The bottom portion of the screen contains information fields of inventory qty, remaining qty, document qty and reason code (for unavailable inventory only) pertaining to the bucket stock is coming from.

The footer menu (ellipsis button), contains a reset function as well as remove and restore functions. The user can page through existing item in the container view the arrows on the bottom.

The Item Detail has an extended attributes tab to add and remove extended attributes if the item is configured as such. There is also a UIN tab to take the user to the UIN screen to add and remove UINs for UIN items.

## Transfer Receiving

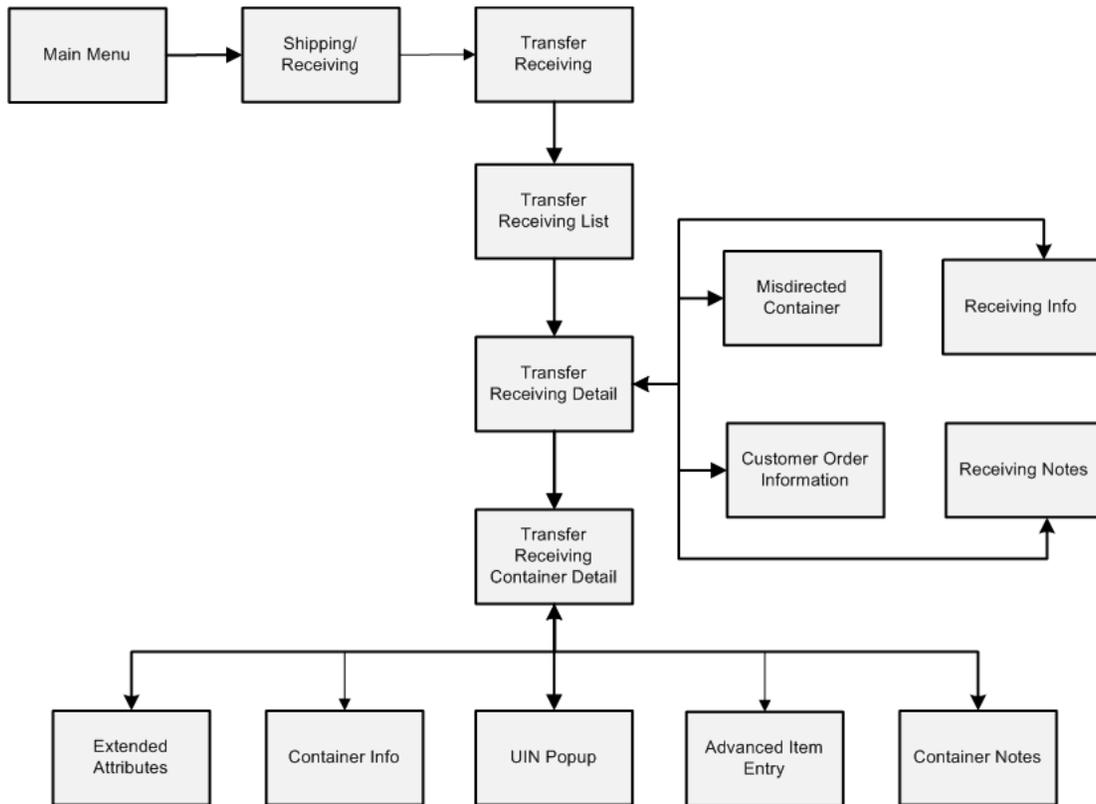
The receiving dialog allows users to receive store, warehouse and external finisher deliveries with containers. It allows these containers to be received blind, without the user knowing the expected quantity. The containers can also be for unavailable inventory. Lastly, SIM supports misdirected containers or unexpected containers originally not listed on the delivery.

Transfer Receiving features:

- Receive by Advance Shipment Notice (ASN), container, item level, or automatically
- Record damages during receiving
- Blind receiving

- Manage container deliveries for another destination or creating an additional container
- Multiple methods to scan and identify the container delivery (GS1, Container ID, Tracking ID)
- Inventory updated immediately as containers are scanned and confirmed

**Figure 11–32 Transfer Receiving PC Screen Flow**



## Configurations

This section covers system parameters, store parameters, notifications, and security.

### System Parameters

#### Allow Unexpected UINs

- Values: Yes/No
- Default: No
- Topic: UIN
- Editable: Yes
- Yes: The unexpected UIN is allowed. Completing the transaction will update the UIN Status and update the store the UIN is assigned to. An email alert will be generated upon confirming the receipt.
- This parameter is used when a UIN is not assigned to the current store, but assigned to a different store within the enterprise. When the current store does not own the UIN, but it is within the enterprise, an email notification will be sent to

the store where the UIN was originally associated with. This applies to Transfer Receiving, Inventory Adjustments, and Stock Counts. These discrepancies will not appear on the Resolution List screen, instead the notification will occur through an email and can be resolved by adding the item to a Problem Line stock count or resolving it using an inventory adjustment.

### **Barcode Scan/Entry Log - Receiving**

- Values: Yes/No
- Default: No
- Topic: Admin
- Editable: Yes
- Yes: Captures, on the handheld, all container and item scans or manual entries by user, location, and time at the point of receiving deliveries. Containers are captured in the quick receiving dialog while item level is captured in the Item Receiving function of the Container Summary for DSD and Transfer Receiving.
- No: Does not capture any container or item information in the handheld receiving dialog.

### **Customer Order Receipt Email Alert**

- Values: Yes/No
- Default: No
- Topic: Customer Order
- Yes: This parameter generates notification for customer order receipts. An email notification will trigger when the receipt has been confirmed for transfer receiving or DSD, including inventory for a cross channel customer orders.

The transfer receipt or DSD receipt is associated with a specific customer order, however, note the customer order/fulfillment order may not exist in the system and the notification will still take place.

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**Note:** It is not necessary to check if the customer order/fulfillment order exists or that it has been picked yet

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A notification will be produced for each delivery and can contain multiple customer/fulfillment orders on the same notification.

- No: Email alert not generated.

### **Damaged Delivery Email Alert**

- Values: Yes/No
- Default: No
- Topic: Transfer Receiving
- Editable: Yes
- This parameter generates a notification for transfer receipts with items marked as damaged.

### **Days Shipped Delivery Overdue Email Alert**

- Values: 1-999

- Default: 7
- Topic: Transfer Receiving
- Editable: Yes
- This parameter generates a notification for transfer receipts with items marked as damaged.

#### **Disable Discrepancy Checks in Transfer Receiving**

- Values: Yes/No
- Default: No
- Topic: Transfer Receiving
- Editable: No
- Yes: The system will not perform discrepancy checking and, whatever the user enters as a received quantity will not be validated against the expected quantity.
- No: The system will perform discrepancy checking.

#### **Display Item Image Transfer Receiving - Mobile**

- Values: Yes/No
- Default: No
- Topic: Transfer Receiving
- Editable: No
- Yes: The item image will be displayed in the item list and the details of the transaction.
- No: The item image will not be displayed in the Transfer Receiving dialog.

#### **External Finisher UIN Qty Discrep Email Alert**

- Values: Yes/No
- Default: No
- Topic: Transfer Receiving
- Editable: Yes
- Whenever the transaction cannot be auto received, the system generates a notification when there is a discrepancy with the number of UINs on the Finisher Return and the UINs received.

#### **Misdirected Container Email Alert**

- Values: Yes/No
- Default: No
- Topic: Transfer Receiving
- Editable: Yes
- This system parameter will generate a notification when there is a misdirected container that has been received in another location.

#### **Number of Days Received Transfers can be Adjusted**

- Values: 0-999

- Default: 0
- Topic: Transfer Receiving
- Editable: Yes
- 0: no adjustment allowed
- 1: allowed to adjust until the end of today
- 2: allowed to adjust until the end of tomorrow
- X: allowed to adjust until x days starting from today
- This parameter controls the number of days a container can be adjusted within a receipt after (Warehouse, Store, or External Finisher) are received.

**Receive Entire Transfer**

- Values: Yes/No
- Default: No
- Topic: Transfer Receiving
- Editable: Yes
- Yes: The transfer delivery must be received in full, no items can be added or removed from any container on the delivery/receipt.
- No: The transfer delivery allows for adding and removing of items from any container on the delivery/receipt.

**Store Receiving Force Close Indicator**

- Values: RL/SL/NL
- Default: RL
- Topic: Transfer Receiving
- Editable: Yes
- RL: (Receiver Loss) Any shipped quantity that was not received is a loss at the receiving store.
- SL: (Sending Loss) Any shipped quantity that was not received is a loss at the sending store.
- NL: (No Loss) Any shipped quantity that was not received does not affect the receiving or the sending store.

**Store Receiving Over/Under Email Alert**

- Values: Yes/No
- Default: No
- Topic: Transfer Receiving
- Editable: Yes
- This parameter generates a notification when items on a transfer receipt with a source type of Store is greater than or less than the expected quantity.

**Warehouse/Store UIN Qty Discrepancy Alert**

- Values: Yes/No

- Default: Yes
- Topic: Transfer Receiving
- Editable: Yes
- This parameter generates a notification when there is a discrepancy with the number of UINs on the ASN and the UINs received when auto receiving a warehouse or store delivery with a source type of Warehouse.

### **Store Parameters**

#### **Auto Close Receipt**

- Values: 1-99
- Default: 1
- Topic: Transfer Receiving
- Editable: Yes
- 0: close the receipt immediately
- 1: close the receipt the end of today
- 2: close the receipt the end of tomorrow
- X: close end of day x days starting from today
- The batch program will auto close any transfer receipts and marks all non-received containers to missing. Partially received containers will be marked as damaged.

#### **Auto Pick on Receive - Direct Delivery/Transfer Delivery**

- Values: Yes/No
- Default: No
- Topic: Customer Orders
- Editable: Yes
- Yes: SIM will automatically fill in the pick quantities on the customer order when receiving the delivery that is for that customer order.
- No: The picked quantities are not updated.
- This parameter exists for each of the areas of receiving, DSD Receiving, and transfer receiving.

#### **Auto Pick Mixed Containers**

- Values: Yes/No
- Default: No
- Topic: Customer Orders
- Editable: Yes
- Yes: If a container has items in it that are for customer orders and non-customer orders, then SIM will auto pick the container. It will mark those items that exist on the customer order as picked.
- No: If there is a mixed container of customer order and non-customer order items, it will not get auto picked and the picked quantities will not be updated.

**External Finisher Auto Receive**

- Values: Not allowed/External message/Date Driven
- Default: Not allowed
- Topic: Transfer Receiving
- Editable: Yes
- Not allowed: Auto receiving is not allowed for the external finisher.
- External message: Will receive the full external finisher delivery with a source type of Finisher, the moment an ASN transaction arrives that indicates that the delivery needs to be auto received.
- Date Driven: Will look at a secondary store option (External Finisher Auto Receive number of Days) to determine how many days the transaction stays open before it is fully received. If it is set to 0, it will auto-receive on the ETA date.

**Store Auto Receive**

- Values: Not allowed/External message/Date Driven
- Default: Not allowed
- Topic: Transfer Receiving
- Editable: Yes
- Not allowed: Auto receiving is not allowed for the store.
- External message: Receives the full store delivery the moment an ASN transaction arrives when the indicator on the ASN identifies this as an auto receive delivery.
- Date Driven: Receives the delivery automatically when the date is reached. A second option, Store Auto Receive Number of Days, is used to determine how many days the transaction stays open before it is fully received. If Store Auto Receive Number of Days is set to 0, it will receive immediately when the transfer is shipped.

**Store Auto Receive Number of Days**

- Values: 0-99
- Default: 0
- Topic: Transfer Receiving
- Editable: Yes
- 0: immediate receiving
- 1: end of day today
- 2: end of day tomorrow
- X: end of day x days starting from today
- The batch program will auto receive any store transfers not previously closed x-days after they have been shipped. This parameter is only used when the Store Auto Receive parameter is enabled.

**Store Transfer Default to Shop Floor Receive**

- Values: Yes/No
- Default: No

- Topic: Transfer Receiving
- Editable: Yes
- This parameter determines whether the receiving checkbox or handheld option on the Container Info screen will default to receive inventory into the shop floor instead of automatically receiving into the back room for the source type of Store.
- Yes: The Transfer Receiving Container workflow will default the checkbox or handheld option to receive inventory into the shop floor. The shop floor inventory bucket will be incremented instead of the backroom bucket. If a capacity is defined for the item, the maximum shop floor quantity will equal the capacity; otherwise the shop floor will be updated to the entire receipt amount.
- No: The checkbox or handheld option will be defaulted to the back room and all inventory will be automatically received into the back room or delivery bay.

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**Note:** With the proper permissions, the user will still have the option to receive onto the shop floor while receiving the delivery by changing the default to shop floor on the handheld or PC.

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- Damaged inventory will not move to the shop floor.

#### **Store Transfer Receive Item Capacity**

- Values: Yes/No
- Default: No
- Topic: Transfer Receiving
- Editable: Yes
- This parameter determines whether the capacity will be considered while receiving the deliveries for the source type of Store.
- Yes: While receiving, the capacity will be considered.  
  
For example: If capacity is 50, delivery is for 100, and Available SOH is 10 on shop floor, then if this parameter is on and receive in shop floor is checked, then 40 (un-damaged) will be moved to shop floor and rest to back room.
- No: While receiving, the capacity will not be considered.
- Damaged inventory will not move to the shop floor.

#### **Warehouse Auto Receive**

- Values: Not allowed/External message/Date Driven
- Default: Not allowed
- Topic: Transfer Receiving
- Editable: Yes
- Not allowed: Auto receiving is not allowed for the warehouse deliveries.
- External message: Will receive the full warehouse delivery the moment an ASN transaction arrives that indicates that the delivery needs to be auto received and the source type is Warehouse.

- Date Driven: Will look at a secondary store option (Warehouse Auto Receive number of Days) to determine how many days the transaction stays open before it is fully received. If it is set to 0, it will auto-receive on the ETA date.

#### **Warehouse Auto Receive Number of Days**

- Values: 0-99
- Default: 0
- Topic: Transfer Receiving
- Editable: Yes
- 0: immediate receiving
- 1: end of day today
- 2: end of day tomorrow
- X: end of day x days starting from today
- The batch program will auto receive any warehouse transfers not previously closed x-days after they have been shipped. This parameter is only used when the Warehouse Auto Receive parameter is enabled.

#### **Warehouse Default to Shop Floor Receive**

- Values: Yes/No
- Default: No
- Topic: Transfer Receiving
- Editable: Yes
- This parameter determines whether the receiving checkbox or handheld option on the Container Info screen will default to receive inventory into the shop floor instead of automatically receiving into the back room for the source type of Warehouse.
- Yes: The Transfer Receiving Container workflow will default the checkbox or handheld option to receive inventory into the shop floor. The shop floor inventory bucket will be incremented instead of the backroom bucket. If a capacity is defined for the item, the maximum shop floor quantity will equal the capacity; otherwise the shop floor will be updated to the entire receipt amount.
- No: The checkbox or handheld option will be defaulted to backroom and all inventory will be automatically received into the back room or delivery bay.

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**Note:** With the proper permissions, the user will still have the option to receive onto the shop floor while receiving the delivery by changing the default to shop floor on the handheld or PC.

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- Damaged inventory will not move to the shop floor.

#### **Warehouse Receive Item Capacity**

- Values: Yes/No
- Default: No
- Topic: Transfer Receiving

- Editable: Yes
- This parameter determines whether the capacity will be considered while receiving the deliveries for the source type of Warehouse.
- Yes: While receiving, the capacity will be considered.  
For example: If capacity is 50, delivery is for 100, and Available SOH is 10 on shop floor, then if this parameter is on and receive in shop floor is checked, then 40 (un-damaged) will be moved to shop floor and the rest to the backroom.
- No: While receiving, the capacity will not be considered.
- Damaged inventory will not move to the shop floor.

### **Notifications**

- When an overdue store transfer shipment has not been received within the days to hold parameter.
- When damages are received on a transfer receipt.
- When a transfer receipt is received over or under the quantity sent.
- When a UIN qty discrepancy exists on an ASN.
- When a store has requested more inventory than what is at the source location.
- The Customer Order Receipt Alert notification will be triggered upon confirmation of a receipt of a Transfer Receipt which is for a web order customer order. This will be controlled by the Customer Order Receipt Email Alert system setting.

### **Security**

Security exists for:

- Adding, editing, and damaging items
- Accessing, creating, editing, deleting, and confirming containers
- Adding Items and selecting container documents to containers
- Copying a misdirected container
- Email notification when receiving items for a customer order

## Transfer Receiving List

Figure 11–33 Transfer Receiving List Screen

ID	ASN	Source Ty...	Source	Expected ...	Received Date	Status	Containers	Missing	Total SKUs	Customer Order
643	1103	Store	1131 Jackso...	8/5/2015		In Progress	9		2	
1345	2065	Store	1131 Jackso...	8/20/2015		In Progress	12	✓	4	
1522	2281	Store	692951858 A...	8/25/2015		In Progress	3		3	
1665	2404	Store	1131 Jackso...	8/26/2015		In Progress	2		4	
2004	2523	Store	1131 Jackso...	8/27/2015		In Progress	7	✓	3	
2202	2741	Store	1131 Jackso...	9/1/2015		In Progress	2	✓	1	✓
2203	2742	Store	1131 Jackso...	9/1/2015		In Progress	2	✓	1	
3742	4245	Store	1131 Jackso...	10/8/2015		In Progress	9	✓	4	
3884	4466	Store	1131 Jackso...	10/13/2015		In Progress	4	✓	2	
4084	4746	Store	1131 Jackso...	10/19/2015		In Progress	1	✓	1	
4161	4885	Store	1131 Jackso...	10/22/2015		In Progress	2	✓	2	
4261	4963	Store	1131 Jackso...	10/26/2015		In Progress	1		1	
4485	5223	Store	1131 Jackso...	11/3/2015		New	1		1	
443	863	Store	1131 Jackso...	7/31/2015		In Progress	5	✓	5	
3803	924	Store	1211 Boston	10/11/2015		New	0		0	
503	925	Store	1211 Boston	8/3/2015		In Progress	9		6	
1143	ASN_1143	Warehouse	2 N. America...	8/10/2015		In Progress	5		6	
4169	ASN_1257	Warehouse	2 N. America...	10/22/2015		New	1		1	

The Transfer Receiving List screen displays a list of deliveries coming for a specific user's store including warehouse deliveries, store to store deliveries, and external finisher deliveries. The Transfer Receiving List is accessed within the Transfer Receiving dialog by clicking the Transfer Receiving button on the Shipping/Receiving screen.

The system defaults to all records which are in "Active" status meaning "New" or "In Progress" status. A Filter option is available to further search on the delivery records.

From the Transfer Receiving List screen, the user has the potential to perform numerous tasks. The following functions are included in the Transfer Receiving dialog:

- Default Qty (Receive All) at Delivery/Receipt or Container level
- oCreate, edit, cancel, or confirm a container
- oView customer orders associated with a container
- oReceive unexpected containers or items and print new container label
- oAdjust a received container
- oCustomer order auto picking and notification
- oActivity logging for all item scans or entry

These deliveries are all populated through the system from an internal or external source. The ASN corresponds to the Shipment ASN for a store to store transfer.

An estimated expected date will be populated if one exists in the ASN. When the delivery has been received, the receive date field will be updated. The user is also able to identify any container marked as missing or holding customer orders.

The user will simply select the delivery to work on and is then brought to the Transfer Receiving Detail screen.

This dialog allows the user to view any customer order information as well as identify when containers have both customer order and not customer orders within the same container.

If an unexpected container arrives, the user may search for the container using the misdirected container screen and receiving notes may also be captured at the receipt and container level.

### Customer Orders

The Transfer Receiving List has a customer order check box to indicate if the transfer being received is for a customer order. The Filter contains the indicator to allow for searching on transfer receipts that are for customer orders. The filter also contains fields to specify the customer order or fulfillment order to search on.

For additional details, see [Chapter 20, "Customer Order Management."](#)

## Transfer Receiving List Filter

**Figure 11–34** *Transfer Receiving List Filter Screen*



The Transfer Receiving List Filter screen is accessed by clicking the Filter button from the Transfer Receiving List screen. The user can filter on various search criteria. After applying the filter, the user will be returned to the Transfer Receiving List screen with the transfer receipts displayed per the entered criteria.

## Transfer Receiving Detail

**Figure 11–35** Transfer Receiving Detail Screen

ID	Container ID	Status	Number of SKUs	Number of Docs	Customer Order	UIN Required
2131	00000001111099951	In Progress	1	1	No	✓
2762	000000000000001301	Damaged	1	1	No	
3103	000000011110117083	In Progress	0	0	No	
3104	000000011110117092	In Progress	0	0	No	
2803	000000000000001502	Missing	1	1	No	
3841	000000011110173061	Missing	0	0	No	
4881	000000011110212131	New	0	0	No	

The Transfer Receiving Detail screen displays a list of containers for the selected delivery/receipt. The Transfer Receiving Detail is accessed within the Transfer Receiving dialog by selecting a delivery on the Transfer Receiving List screen.

This screen will list all of the containers along with status, number of SKUs expected, whether it is for a customer order, how many transfer documents are referenced and if there are any items in the container that require UINs.

Containers can be received individually by selecting the container. If the user clicks on Default Qty button, all items received quantity for each container is set to the expected quantity. Containers can only be received at a container level if they have not been received at the item level.

If UINs are required for some items in the container, then additional rules apply. If they are AGSN items, then serial number capturing is not required, as they will be auto generated upon receipt. If they are non AGSN UINs, the system will first check if the UINs came in on the ASN, if so, it is possible to receive at the container level. If the UINs are not on the ASN, then container level receiving is not possible, and the user must do item level receiving to capture the UINs.

If the delivery has already been received and if the receipt date is within the system configured number of days allowed to adjust a receipt, it is possible to for the user to reopen the specific container on a receipt by clicking the container. The user can adjust the container from within the container dialog.

The receipt can be saved as "In Progress" to complete receiving at a later time. Saving the receipt will not make any updates to the stock on hand.

Confirming the receipt will mark all containers, with received quantities, to Received. Stock on hand is updated when the status of the container changes to Received, either from within the receipt details or from within the Container. Any containers with no received quantities will be marked as Missing.

### Customer Orders

The Transfer Receiving Detail has a customer order field at the container line level to indicate if the container is for a customer order. If all items in the container are for a customer order, it will be Yes. If no items in the container are for a customer order, it

will be No. Lastly, if some items are for a customer order and some are not, it will be Mixed.

Selecting a container and then clicking on the customer order button will display the customer orders for that container. It will display the customer Order and fulfillment order IDs, along with the container ID, status, total SKUs, and comments for the customer order.

Upon confirmation of the receipt, the user will be prompted that the delivery is for a customer order, this will allow the user to set it aside.

The user can drill down into the details of the container by selecting the container; the system will navigate to the Transfer Receiving Container Detail. The Transfer Receiving Container Detail has a customer order field at the header to indicate if the container is for a customer order: Yes meaning for customer order, No meaning there are no customer orders, and mixed meaning some items are for customer orders and some are non-customer orders.

For additional details, see [Chapter 20, "Customer Order Management."](#)

## Transfer Receiving Info

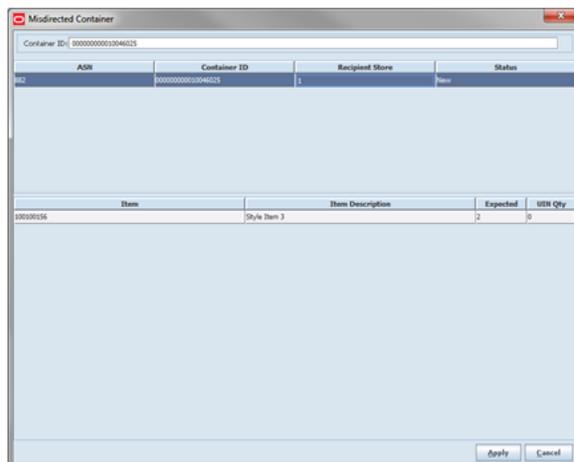
**Figure 11–36** *Transfer Receiving Info Popup*

The Transfer Receiving Info popup displays the details for the selected delivery/receipt. Additional delivery details can be recorded on this popup, such as carrier entity, type, and code. The Receiving Info is accessed within the Transfer Receiving dialog by clicking the Info button on the Transfer Receiving Detail screen.

This screen is used to display additional details about the receipt. There are some entry fields to record delivery information such as the carrier entity, type, and code. The entry fields are editable until the receipt is closed. The License Plate and Freight ID fields may be for other purposes, such as a Weigh Bill ID or BOL ID. The field names can be customized by the client.

## Misdirected Container

**Figure 11–37 Misdirected Container Screen**



The Misdirected Container screen displays a list of containers for other locations when the user searched by container ID. The Misdirected Container is accessed within the Transfer Receiving dialog by clicking the Misdirected Container button on the Transfer Receiving Detail screen.

This screen is used to find and receive an existing container intended for another location. If there is more than one container with the same container ID, they will all display in the top half of the screen. When the user selects a container, the contents of the container will display on the lower half of the screen.

If the container is found, the contents of the container can be copied to a new container and added to a new transfer. The original container ID will be referenced on the Container Info screen. Additionally, the original container will be identified as missing and a notification is sent to the store of the original intended location. If desired, the user is able to print a label for the container to replace the original label.

If the container is not found, the user will need to create the container manually by selecting the Create Container button on the Transfer Receiving Detail screen. All items will need to be added or scanned individually. The original container ID will need to be manually entered in the reference container field on the Container Info screen.

### Customer Orders

If there are customer orders associated with the container, the customer order fulfillment orders are received with a zero quantity. A notification is generated for the original store indicating the container was received in another location and the container is set to missing.

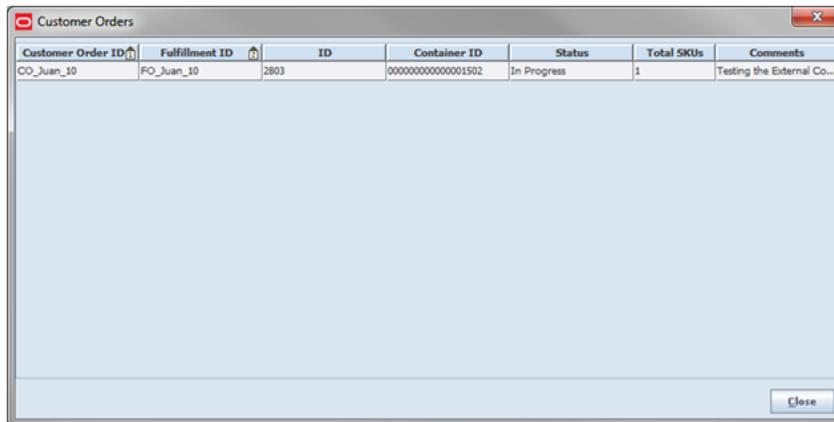
For additional details, see [Chapter 20, "Customer Order Management."](#)

### Receive Entire Delivery

If the system parameter Receive Entire Transfer is set equal to Yes, the user cannot copy a misdirected container.

## Customer Orders

**Figure 11–38 Customer Orders Screen**

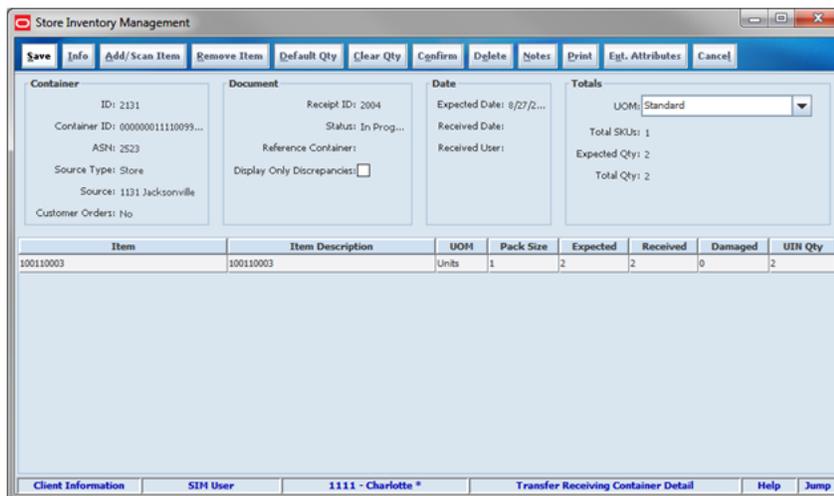


The Customer Orders screen displays a list of containers referencing the customer orders for the selected delivery. The Customer Order Information is accessed within the Transfer Receiving dialog by clicking the Customer Order button on the Transfer Receiving Detail screen.

This screen provides a method to look at the customer order information within the containers for the selected delivery/receipt. This screen is similar to the Customer Order List screen.

## Transfer Receiving Container Detail

**Figure 11–39 Transfer Receiving Container Detail Screen**



The Transfer Receiving Container Detail screen displays the details within a container. The Transfer Receiving Container Detail is accessed within the Transfer Receiving dialog by selecting a container or clicking Create Container on the Transfer Receiving Detail screen.

This screen is used to work with the contents and details within the container. Information is populated from an Advanced Shipment Notice (ASN) and the user will

mark the items as received or damaged as well as identify UINs from this screen. The unit of measure can be easily changed for all items on the screen from cases to standard unit of measure. The default UOM system parameter will determine the default display on this screen. If there is a transaction unit of measure, this will be used in place of the standard unit of measure, when selected.

If configured, unexpected items may be added to the container. A new transfer will be created for the unexpected items. There will only be one transfer created for the entire receipt.

The entire container may be marked as damaged and a reason for the damage from the Container Info screen. Additionally, the container can be marked to receive on the shopfloor directly. For additional details, see "[Container Info](#)".

### **Receive Transfer Delivery**

When the delivery is being received, the status of the delivery/receipt will move to "In Progress" status at the receiving store. If the user presses the cancel button, the delivery/receipt will remain as "New." If configured for blind receiving, the expected inbound quantities will not display.

The user may select to use Default Qty button or change the quantity received and mark items as damaged if necessary. The user will also be able to identify specific UINs that were received on the delivery. The UIN Popup is used to mark the UINs as received and/or damaged. Items may be either added or removed from the delivery/receipt as well. When the delivery has been confirmed, a receipt is generated.

For additional details on the UIN popup screen, see [Chapter 6, "Item"](#).

When confirming a delivery, the status is updated to Received and inventory is updated. The merchandising system is also notified at the container level for the receipt. This provides an up to date view.

When damaged items are received the inventory for those items will be put into a Non-sellable Unavailable bucket. The total received is the sum of the received and the damaged quantities.

### **Receive Entire Delivery**

If the system parameter 'Receive Entire Transfer' is set equal to Yes, the user cannot add or remove items from a delivery.

### **Managing Discrepancies**

Deliveries can be received for over, short or the exact quantity dispatched.

Discrepancies are easily managed with the Display Only Discrepancies checkbox.

When checked, the expected column will be compared with the received plus damaged column and only the items with a discrepancy will display. Unexpected items added during the session will not show up on the discrepancy list since there is no expected quantity. A discrepancy report will also be available to print out the list as well.

Store to Store transfer receipt overages will adjust the difference out of the sending store's stock on hand. There is not an inventory adjustment created for this overage but an e-mail notification will be generated and sent to the sending store.

### **Adjust Container**

After the delivery has been received, it is possible for a user to adjust each container on the receipt. This will depend on the Number of days received transfers can be adjusted system parameter. The user will press the Adjust button and the container moves back

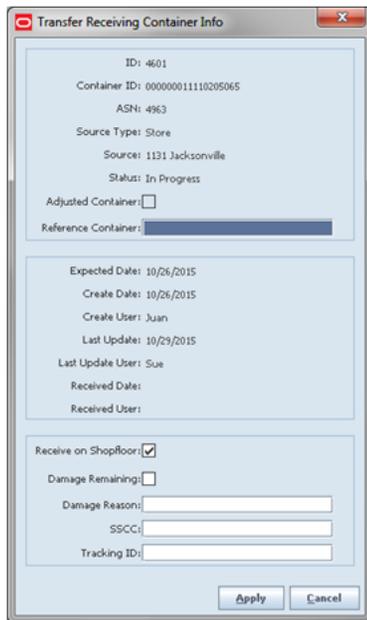
to "In Progress." The entire container is reversed out and is the user will need to reconfirm. The full reversal will display in Transaction History.

Adjusting can only be done at the container level. The entire receipt cannot be adjusted at once. Once the original receipt has been confirmed, the inbound bucket will no longer see a change. In some cases, the container may be restricted from adjustments, such as when customer order reservations exist. If the container has been adjusted, a checkbox will be marked in the Container Info screen. The received quantity and damage quantity fields will be populated with the same value as when the container had been confirmed.

External systems such as RMS have the ability to sent receipt adjustments which only include the delta. Transaction History will also display the delta in this case.

## Transfer Receiving Container Info

**Figure 11–40** *Transfer Receiving Container Info Popup*



The screenshot shows a window titled "Transfer Receiving Container Info" with the following fields and controls:

- ID: 4601
- Container ID: 00000011110205065
- ASN: 4963
- Source Type: Store
- Source: 1131 Jacksonville
- Status: In Progress
- Adjusted Container:
- Reference Container: [Redacted]
- Expected Date: 10/26/2015
- Create Date: 10/26/2015
- Create User: Juan
- Last Update: 10/29/2015
- Last Update User: Sue
- Received Date:
- Received User:
- Receive on Shopfloor:
- Damage Remaining:
- Damage Reason: [Text Field]
- SSCC: [Text Field]
- Tracking ID: [Text Field]
- Buttons: Apply, Cancel

The Transfer Receiving Container Info popup displays additional details within a container. The Transfer Receiving Container Info is accessed within the Transfer Receiving dialog by clicking the Info button on the Transfer Receiving Container Detail screen. For additional details, see [Chapter 12, "Shipping and Receiving Common Components."](#)

## Advanced Item Entry

**Figure 11–41 Advanced Item Entry Popup**

The screenshot shows a software window titled "Advanced Item Entry". At the top left is a red close button. Below the title bar is a "Damaged:" checkbox. The main area contains several text input fields: "Item:", "Description:", "UIN:", "Received Qty:", "Damaged Qty:", and "Case Size:". Below these fields is a table with two columns, "Attribute" and "Value". At the bottom of the window, there is an "Auto Apply Items:" checkbox and an "Apply" button.

The Advanced Item Entry popup displays details of an item entered or scanned with a wedge scanner for adding to the selected container. The Advanced Item Entry is accessed within the Transfer Receiving dialog by selecting a container or clicking the Add/Scan Item button on the Transfer Receiving Container Detail screen. This screen is available in other functions, but has been modified specifically in this area.

This popup provides item lookup capability. The item can be marked as damaged for the full amount or the received and damages quantities maybe filled in. If a wedge scanner is used, the information can be populated from GS1 databar. The item, UPC, and UIN may also be scanned or entered.

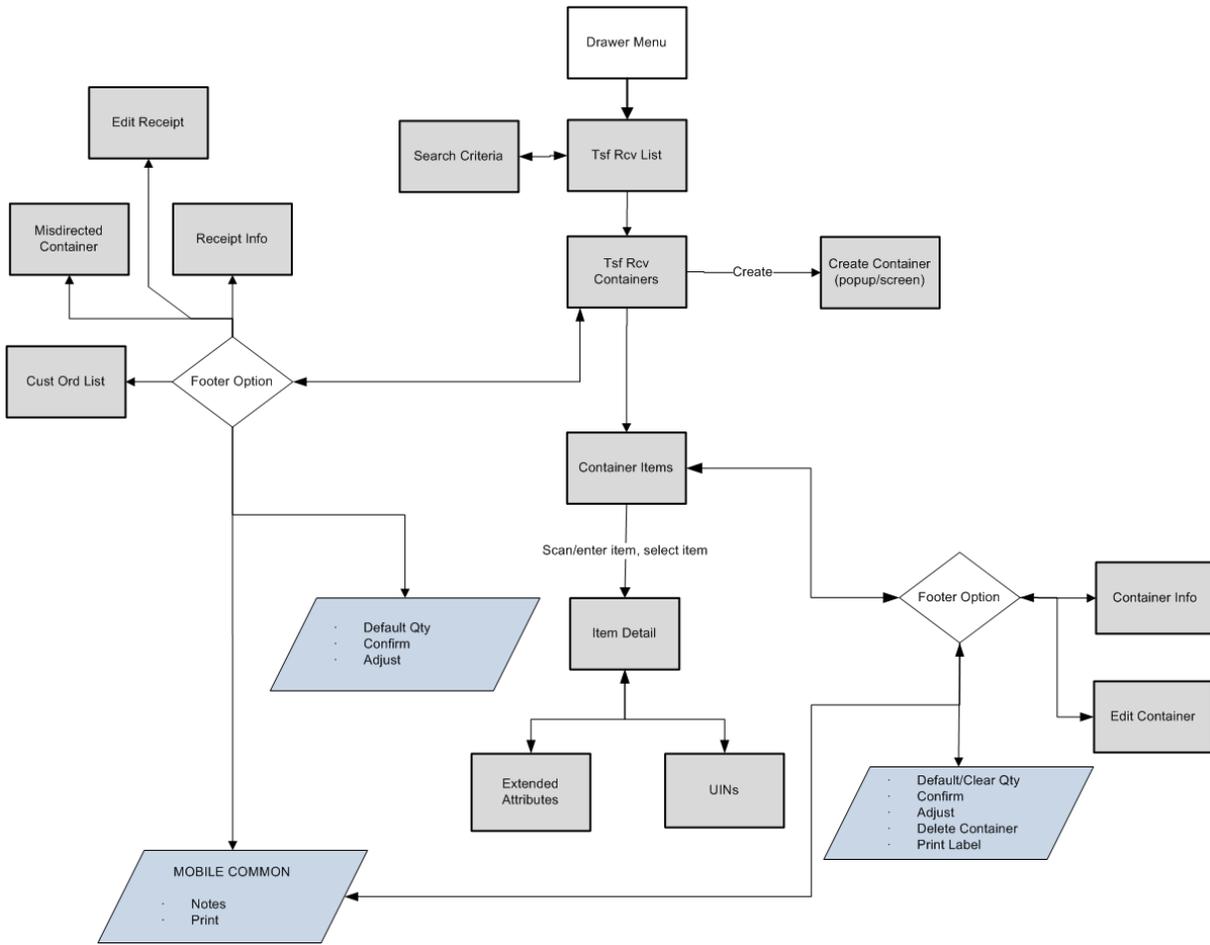
## MAF

All validations and rules for transfer receipts on MAF is available functionality on the PC application. Transfer Receipts exist in a small form factor on MAF.

Features:

- Search for transfer receipts
- Create a new container
- View or edit an existing receipts or containers
- Delete or cancel "In Progress" containers or receipts
- Confirm, mark damage, mark missing, or receive a container
- Print transfer receipt reports
- Print container labels

Figure 11-42 Transfer Receiving MAF Screen Flow (Small)



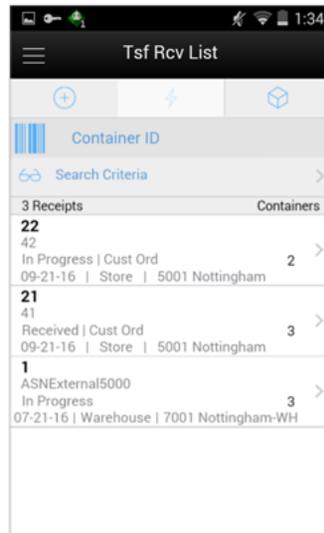
Transfer Receiving is accessed on MAF through the Shipping / Receiving menu within the drawer. Selecting the menu option will take the user to the Tsf Rcv List screen. On this screen, the user has the option to search for delivery/receipt records which will be presented on the Tsf Rcv List screen. The user has the option to edit or view a delivery/receipt.

When editing or viewing a delivery/receipt, the user will first be directed to the list of containers within the delivery/receipt on the Tsf Rcv Containers screen. The user has the option to create a container, edit or view a container.

When creating, editing, or viewing a container, the user will be directed to the list of items in the container on the Container Items screen. The user can add, view and edit the details of the items on the Item Detail screen. The Item Detail screen has tabs for UINs as well as Extended Attributes if the system and/or item is configured for these.

## Tsf Rcv List

**Figure 11–43 Tsf Rcv List Screen**



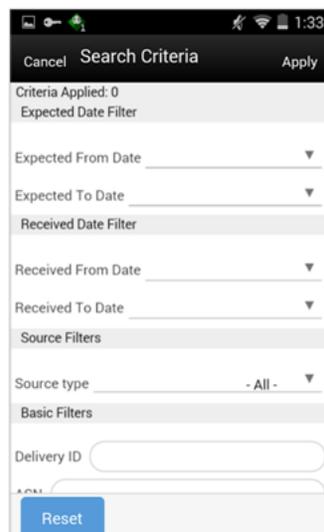
When navigating to Transfer Receiving, the user is taken to the Tsf Rcv List screen with the default list being defined for "Active" receipts.

The user can use the search criteria eye glasses to navigate to the transfer receipt search criteria screen to enter search criteria for transfer receipts. When scanning/entering a container ID in the scan bar, the system adds the scanned container ID to the entered search criteria and narrows down the current list of receipts by the container ID scanned. The user can scan or enter the internal or external container IDs to find the matching containers in the receipt.

Selecting a receipt will direct the user to the Tsf Rcv Containers screen and will display a list of containers.

## Search Criteria (Transfer Receiving)

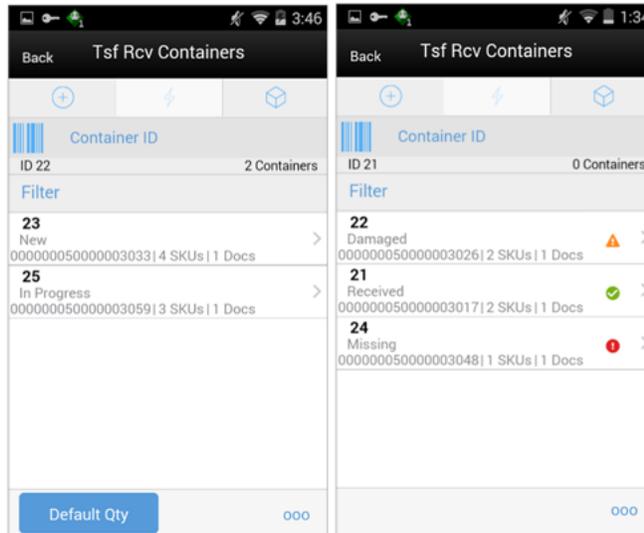
**Figure 11–44 Search Criteria (Transfer Receiving) Screen**



The Transfer Receiving Search Criteria screen is accessed by the eye glasses on the Tsf Rcv List screen. After applying the search criteria, the results will be listed on the Tsf Rcv List screen and the criteria applied will show. The fields available to search by include: expected date, received date, source type, source ID, source, delivery ID, asn, item, status, container ID, document ID, customer order ID, fulfillment order ID, customer orders exist, context type, and context value.

## Tsf Rcv Containers

**Figure 11–45 Tsf Rcv Containers Screen**



When selecting a receipt from the Tsf Rcv List screen, the user is taken to the Tsf Rcv Containers screen with the list showing "Active" containers above the rest. When scanning/entering a container ID in the scan bar, the system will navigate the user to the Container Items screen and display the items currently in the selected container. The user can scan or enter the internal or external container IDs to find the matching containers in the receipt.

The filter can be used to narrow down the list of containers. Filtering can occur by internal ID, container ID, and container status.

The following icons will be displayed to indicate the status of the container: green circle with check indicates the container is received, orange triangle with exclamation indicates the container is damaged, and the red circle with exclamation indicates the container is missing. If the container is in a "New" or "In Progress" status an icon will not display.

The default qty button will copy the expected quantity to the received quantity for all containers in the receipt. Selecting a container from the list will navigate the user to the Container Items screen.

### Footer Menu

Info: The Info option will access the Info (Receipt) popup.

Notes: The Notes option accesses the notes common dialog to capture notes.

Customer Orders: The Customer Orders option will access the Cust Ord List screen.

Create: Create will create a new container in the receipt.

Edit Receipt: Edit Receipt will access the Edit Receipt screen.

Default Qty: Default Qty will copy the expected quantity to the received quantity field for all containers on the delivery/receipt. This is also available.

Misdirected Container: The Misdirected Container option will access the Misdirected Container screen.

Confirm: Confirm will set the receipt to a "Received" status.

Back: Back will exit the receipt.

Print: Print will display the common print dialog to print the transfer receipt report.

## Edit Receipt

**Figure 11-46** Edit Receipt Screen

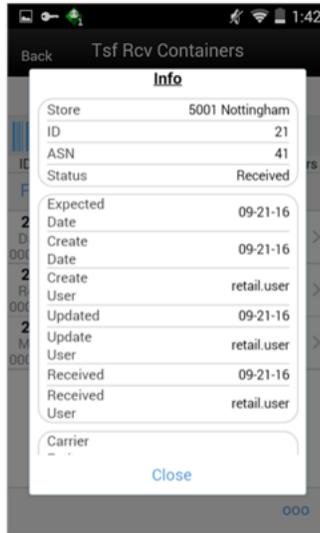


The screenshot shows a mobile application interface for editing a receipt. At the top, there are three buttons: "Cancel", "Edit Receipt", and "Save". Below the buttons, the "ASN" is listed as "42". The "Carrier Info" section contains several input fields: "Name" with the value "fedex", "Type" with a dropdown menu set to "Third Party", "Code" with the value "136", "License Plate" with the value "28292", "Freight ID" with the value "37738", and "Bill Of Lading" with the value "73737289272". The "From Address" section has two lines for "Address Line 1" and "Address Line 2", which are currently empty.

The Edit Receipt screen is used to enter details for the delivery including transportation details. Details include: asn, carrier name, carrier type, carrier code, license plate, freight ID, bill of lading, and delivery from address.

## Info (Receipt)

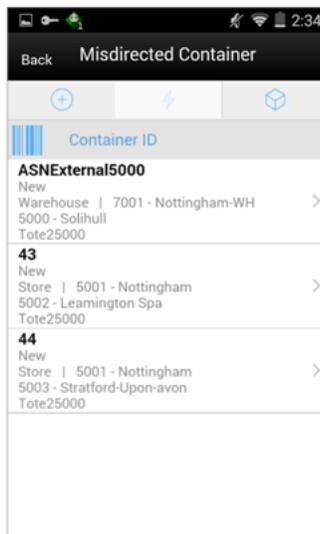
**Figure 11–47 Info (Receipt) Popup**



The Info (Receipt) is an informational popup that contains read-only information about the header level of the receipt. Details will include: source type, source, ID, asn, status, expected date, create date, create user, updated, update user, received, received user, carrier entity, carrier type, carrier code, license plate, from address, freight ID, and bill of lading.

## Misdirected Container

**Figure 11–48 Misdirected Container Screen**

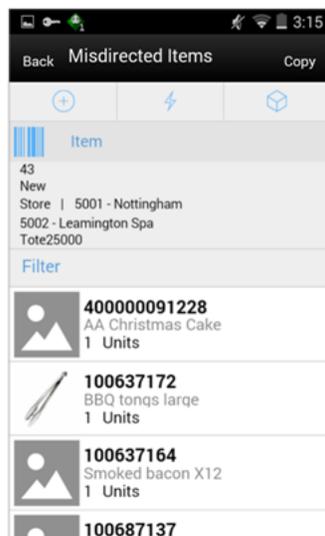


When selecting Misdirected Container from the Tsf Rcv Containers screen, the user is taken to the Misdirected Container screen with the screen showing an empty list. When scanning/entering a container ID in the scan bar, the system will display matching containers available in the entire enterprise. The user can scan or enter the internal or external container IDs to find the matching containers in the receipt.

When selecting a container within the list, the user will navigate to the Misdirected Items screen.

## Misdirected Items

**Figure 11–49** *Misdirected Items Screen*



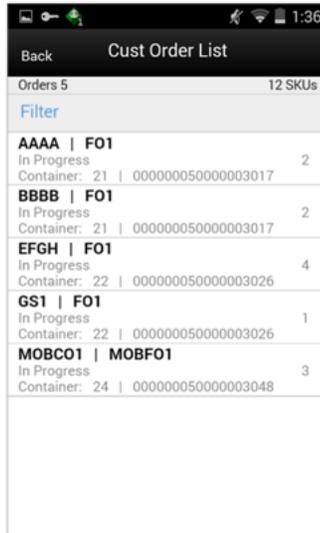
The Misdirected Items screen is the screen the user goes to when selecting a container from the Misdirected Containers screen. Details about the intended destination are displayed at the top of the screen. The details include: ID, container status, source type, source, destination type, destination, and container ID. When scanning/entering an item in the scan bar, the system will update the filter bar and display the resulting item.

The filter can be used to narrow down the list of items. Filtering can occur by item ID and description.

The Copy button will copy all items from the container to a new container. A notification will be sent to the original destination store to inform them the container intended for their location has been received in another location. Next, the system will prompt the user to print a new container label with the new container ID in order to place on the container for future reference. The old container ID will be written into the reference container field for the newly created container and the old container will be moved to a "Missing" status.

## Cust Ord List

Figure 11–50 Cust Ord List Screen

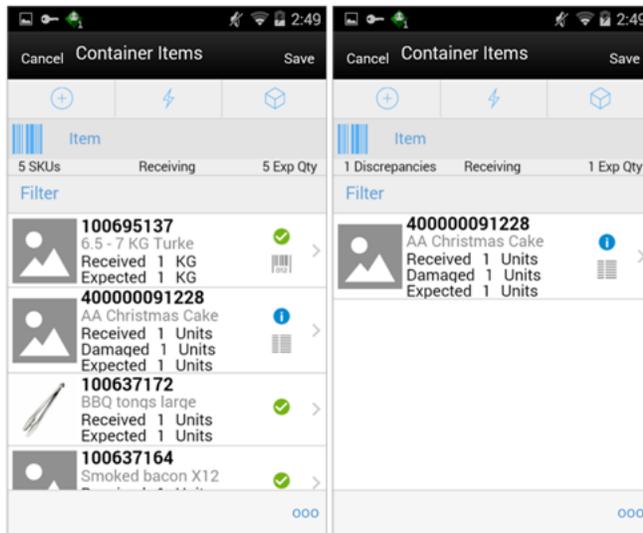


The Cust Ord List is an informational screen that contains read-only information about the customer orders within the receipt. Details include: Customer Order/Fulfillment Order, status, cnt ID, and container ID.

Scrolling in the list of customer order/fulfillment orders on the left will display a filter. The filter can be used to narrow down the list of items. Filtering can occur by customer order ID, fulfillment order ID, container ID, and customer order status.

## Container Items

Figure 11–51 Container Items Screen



The Container Items screen is the screen the user goes to when selecting a container to receive from the Tsf Rcv Containers screen. The items on the list are for the container. The item image for the line items is displayed per configuration.

When the screen is set to regular receiving mode, the header bar will display the number of skus, "Receiving," and total expected quantity. Scanning/entering an item will update the received quantity. When the screen is set to damage receiving mode, the header bar will display the number of skus, "Damages," and total expected quantity. Scanning/entering an item will update the damaged quantity. Finally, when the screen is set to display only discrepancies, the number of discrepancies is displayed on the left.

Line items appear in a list and selecting a line item will navigate to the item details of the item. If an item has been changed in the current session, it will be indicated by a bar on the left of the item. The filter can be used to narrow down the list of items. Filtering can occur by item ID, description, expected qty, received qty, and damaged qty.

Scanning or entering an item in the scan bar will navigate the user to the Item Detail screen for the item. Quantity may be updated, depending on the scan mode.

The following icons will be displayed next to the item: green circle with check indicates the item is not discrepant and the blue circle with an "i" indicates the item is discrepant. A discrepant item is when the received quantity plus the damaged quantity does not equal the expected quantity. The extended attribute icon will display if the item has any extended attributes assigned and the UIN icon will display if the UINs have been associated to the item.

The ellipsis in the lower right hand corner will access the footer menu which will contain the functions that can be performed on a container.

### **Footer Menu**

Info: Info will access the Info (Container) popup.

Notes: The Notes option accesses the notes common dialog to capture notes.

Default Regular Qty: The Default Regular Qty option will copy the expected quantity to the received quantity field. UIN items where the UIN is already in the system, will update the UIN status to "In Receiving."

Clear Qty: The Clear Qty option will clear the received quantity and damaged quantity fields for ALL items in order for the user to start over. UIN items will move back to the previous UIN status.

Damage Mode: The Damage Mode option will allow the user to scan/enter items and update the damage quantity field.

Regular Mode: The Regular Mode option will allow the user to scan/enter items and update the received quantity field. This is the default mode.

Edit Container: Edit Container will access the Edit Container screen.

Adjust: The Adjust option will reopen a container in Completed status and move it back to In Progress.

Damage Remaining Qty: The Damage Remaining Qty option will update the remaining quantity not yet received to be applied to the damaged quantity field.

Display Only Discrepancies: The Display Only Discrepancies will display only the items with a received quantity plus damaged quantity that do not match the expected quantity.

Display All Items: The Display All Items will allow the user to revert back after displaying only discrepancies. This is the default display.

Confirm: Confirm will move the container in an "In Progress" status to "Received."

**Save:** Save will save the container in "In Progress" status to be completed later. This option is only available when the screen is in edit mode.

**Delete:** Delete will mark the container to "Canceled" or "Missing" status. If the container is from an external system, the container will be marked as "Missing," otherwise, it will be marked as "Canceled." This option will only be available for containers that are in a "New" or "In Progress" status.

**Cancel:** Cancel will exit the container and changes made in that session will not be saved. This screen is only available when the screen is in edit mode.

**Back:** Back will bring the user back to the previous screen. This option is only available when the container is view only.

**Print:** Print will display the common print dialog to print the Transfer Receipt Container report and Transfer Receiving Label.

## Edit Container

**Figure 11–52 Edit Container Screen**

The screenshot shows a mobile application interface for editing container details. At the top, there are navigation buttons for 'Cancel', 'Edit Container', and 'Save'. The main content area contains several input fields and a checkbox:

- Container:** A text field containing the value '00000050000003033'.
- Reference Container:** An empty text input field.
- Receive on Shopfloor:** A checkbox that is currently unchecked.
- Damage Reason:** A text field containing the value 'broken during transit'.
- SSCC:** An empty text input field.
- Tracking ID:** An empty text input field.

Below these fields is a large, empty white rectangular area, likely a placeholder for a list or additional information.

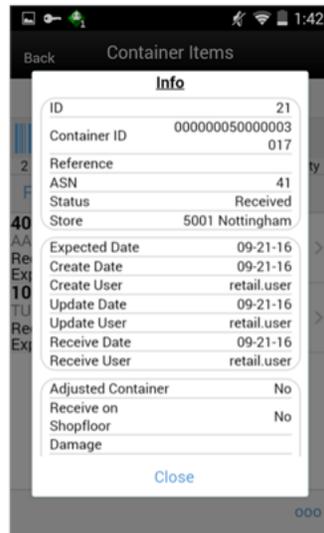
The Edit Container screen is used to enter details for the container including transportation details. The user navigates to this screen from the footer menu on the Container items screen. Details include: reference container, receive on shopfloor, damage reason, SSCC, and tracking ID.

The reference container field is used to identify the original container ID and will be filled in when the user has copied a container from the Misdirected Items screen. If the container was manually created, the user will be able to enter the original container ID here.

The Receive on Shopfloor checkbox will only display for deliveries from a store or warehouse. This may be configured to automatically be checked or unchecked. With the appropriate permissions, the user is able to add or remove the check mark to indicate if the delivery will be moved directly to the shopfloor. For additional details, see [Chapter 14, "Shelf Replenishment."](#)

## Info (Container)

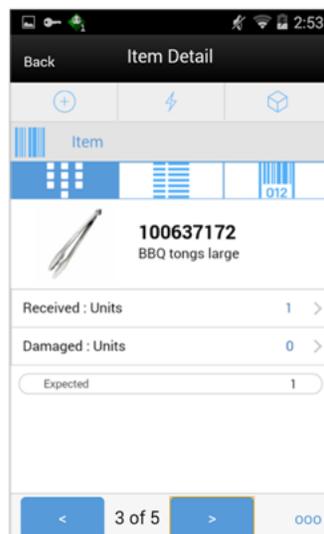
**Figure 11–53 Info (Container) Popup**



The Info (Container) is an informational popup that contains read only information about the header level of the container. Details include: ID, container ID, reference, asn, status, source type and source, expected date, create date, create user, update date, update user, receive date, receive user, adjusted container, receive on shopfloor, damage reason, SSCC, and tracking ID.

## Item Detail

**Figure 11–54 Item Detail Screen**



The Item Detail screen is the screen the user goes to when selecting or scanning an item from the Container Items screen. Scanning or entering an item on this screen in the scan bar will update the quantity per the scan mode and refresh the item detail screen for the item and quantity scanned. The quantity can be edited and updated manually if permissions allow.

The item information including the image which is system configured to display in the header. The bottom portion of the screen contains information fields of inventory qty, remaining qty, document qty, and reason code (for unavailable inventory only) pertaining to the bucket stock is coming from.

The footer menu (ellipsis button), contains a reset function as well as remove and restore functions. The user can page through existing item in the container view the arrows on the bottom. If the container is displaying only discrepancies, the user will page through only the discrepant items.

The Item Detail has an extended attributes tab to add and remove extended attributes if the item is configured as such. There is also a UIN tab to take the user to the UIN screen to add and remove UINs for UIN items.

### **Reserve On Receipt / Auto Pick**

The system can be configured to reserve inventory upon receiving and also to auto pick the inventory. This would occur if a retailer chooses to fulfill their customer orders via other channels other than store inventory. A retailer may wish to configure the system to always reserve inventory when it is received and auto pick it or set it aside, thus not needing a formal picking process.

If Reserve Customer Order Inventory on Receipt is Yes, then if the customer order is in SIM, the reserved quantities will be updated on the customer order. If the Auto Pick on Receive indicator is set to Yes, the picked quantity on the customer order will be updated. It does not create an actual pick list. If the Customer Order is not in SIM yet, it will not be possible to reserve the inventory or auto pick the customer order. When the customer order comes into the system, it will reserve the inventory at that time as well as auto pick the customer order. For both the reservation and pick quantities, they will be updated with the quantity received minus the damaged quantity. Damaged received goods will not be taken into consideration for reservation or for picking. If what was received is greater than what was stated on the customer order, then the reserved and picked quantities will be updated with the order quantity.

## **Quick Receiving**

The Quick Receiving dialog allows users to receive store, warehouse, and external finisher deliveries by scanning a container and marking the container as received immediately without scanning all the items within the container. This feature is available on the handheld and MAF Small platforms.

Quick Receiving features:

- Receive entire container
- Receive missing containers
- Automatic confirm receipt
- Multiple users scanning concurrently for same delivery

### **Configurations**

#### **System Parameters**

##### **Quick Receiving - Prompt for received containers**

- Values: Yes/No
- Default: No

- Topic: Transfer Receiving
- Editable: No
- Yes: The user is prompted when they scan a container that has already been received, which provides more information at the expense of an interrupted workflow.
- No: The system will perform discrepancy checking.

**Quick Receiving - Receive missing containers**

- Values: Yes/No
- Default: No
- Topic: Transfer Receiving
- Editable: No
- Yes: The user is able to receive a container previously identified as missing.
- No: The ability to receive a missing container is disabled.

**Quick Receiving - Receive misdirected containers**

- Values: Yes/No
- Default: No
- Topic: Transfer Receiving
- Editable: No
- Yes: The user is able to receive a misdirected container intended for another location.
- No: The ability to receive a misdirected container is disabled.

**MAF**

All validations and rules for Quick Receiving on MAF is existing functionality on the handheld application. Quick Receiving exists in a small form factor on MAF.

Features:

- Receive missing and misdirected containers
- Update inventory immediately
- Captures containers scanned, received, rejected, and invalid scans

## Quick Rcv List

Figure 11–55 Quick Rcv List Screen



When navigating to Quick Receiving, the user is taken to the Quick Rcv List screen. When the user first comes to this screen, an empty list will display. When scanning/entering a container ID in the scan bar the system searches for the container and will populate the list with the scanned value. The user can scan or enter the internal or external container IDs or the tracking ID to find the matching shipments. The list will display anything that is scanned or entered including invalid scans.

The following icons will be displayed to identify which scans are valid and which are in error:

- Green circle with check indicates the container is received.
- Orange triangle with exclamation point indicates the container was previously received.
- Red circle with exclamation point indicates the container ID scanned or entered is invalid.

## Processing

### Transfer Force Close Indicator

Transfer shortages will be adjusted based on the Transfer Force Close Indicator parameter settings NL, RL, or SL.

This indicator is used to determine the processing of a transfer when there is a short receipt. When RMS is integrated with SIM, this setting in RMS must match SIM.

- **No Loss:** Sending store is incremented/decremented by the overage/shortage.  
No Loss Shortage: Shortage is added back to the sending store.

	Sending Store	Receiving Store
Beginning SOH	1000 SOH	1000 SOH, 0 In Transit
Sent qty 50	950 SOH	1000 SOH, 50 In Transit

	<b>Sending Store</b>	<b>Receiving Store</b>
Received qty 30 (shortage)	970 SOH	1030 SOH, 0 In Transit

- **Sending Loss:** For shortages, no perpetual inventory is sent back to the sending store. Sending store is financially responsible.

---

**Note:** This is handled on the RMS side.

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Sending Loss Shortage: Shortage is not added back.

	<b>Sending Store</b>	<b>Receiving Store</b>
Beginning SOH	1000 SOH	1000 SOH, 0 In Transit
Sent qty 50	950 SOH	1000 SOH, 50 In Transit
Received qty 30 (shortage)	950 SOH*****	1030 SOH, 0 In Transit

- **Receiving Loss:** For shortages, no perpetual inventory is sent back to the sending store. Receiving store is financially responsible.

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**Note:** This is handled on the RMS side.

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Receiving Loss Shortage: Shortage is not added back.

	<b>Sending Store</b>	<b>Receiving Store</b>
Beginning SOH	1000 SOH	1000 SOH, 0 In Transit
Sent qty 50	950 SOH	1000 SOH, 50 In Transit
Received qty 30 (shortage)	950 SOH*****	1030 SOH, 0 In Transit

### Available Versus Unavailable Inventory

When a transfer is saved, the system will move the items from either available or unavailable (nonsellable) inventory, based on the inventory status, and move it to the reserved bucket within unavailable inventory. For warehouse and finisher returns, the Transfer Reserved bucket are updated. Upon dispatching of the transfer, the reserved buckets will be relieved and the stock on hand will be decremented. If sub-buckets are turned on, the appropriate sub-bucket associated with the shipment reason will be updated when transferring from unavailable inventory.

#### Example 1: Transfer TO Warehouse using Available Inventory

Item Lookup before:

- Total SOH = 800
- Available = 700
- Unavailable = 100

- Nonsellable = 100 Sub-bucket: Trouble 75, Admin 25
- Reserved Qty = 0
- 1. Return Qty = 10 (Available), click Save.
  - Item Lookup:
    - Total SOH = 800
    - Available = 690
    - Unavailable = 110
    - Nonsellable = 100 Sub-bucket: Trouble 75, Admin 25
    - Reserved Qty = 10
- 2. Modify Transfer Qty to 8, click Dispatch.
  - Item Lookup:
    - Total SOH = 792
    - Available = 692
    - Unavailable = 100
    - Nonsellable = 100 Sub-bucket: Trouble 75, Admin 25
    - Reserved Qty = 0
- 3. Modify Return Qty to 8 and click Dispatch.
  - Item Lookup:
    - Total SOH = 698
    - Available = 698
    - Unavailable = 0
    - Reserved Qty = 0

**Inventory Position Updates - Transfer Documents using Available Inventory**

- Approving a Transfer (All):
  - Transfer Reserved (+)
  - Available SOH (-)
- Confirming a Container with a Transfer Document created on the fly:
  - Transfer Reserved (+)
  - Available SOH (-)
- Confirming a Container with a Transfer Document previously created:
  - No changes
- Dispatching a Shipment:
  - Transfer Reserved (-)
  - Total SOH (-)
  - In bound Qty (+) for Receiving Store
- Confirming a Container at Receiving Store:
  - Available SOH (+)

- Inbound Qty (-)
- Confirming a Container at Receiving Store with Damages:
  - Unavailable (+):
    - \* Sub-bucket (+)

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**Note:** Assumes Shipping Qty is less than or equal to Approved Transfer Document Qty.

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### Inventory Position Updates - Transfer Documents Using Unavailable Inventory

- Approving a Requested Transfer Document:
  - Transfer Reserve (+)
  - Total SOH (no change)
  - Nonsellable (-):
    - \* Sub-bucket (no change)
- Confirming a Container with a Transfer Document previously created:
  - Transfer Reserve (no change)
  - Nonsellable (no change):
    - \* Sub-bucket (-)
- Dispatching a Shipment:
  - Transfer Reserve (no change)
  - Total SOH (-)
  - In bound Qty (+) at Receiving Store
- Confirming a Container at Receiving Store:
  - Unavailable (+):
    - \* Sub-bucket (+)
  - In bound Qty (-) at Receiving Store

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**Note:** Assumes Shipping Qty less than or equal to Approved Transfer Document Qty; No Transfer Documents created on the fly allowed.

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## User Interface Guidelines

The Transfer (document) dialog allows for creating transfer, approving transfer and closing transfer only exists on the PC.

Creating request, approving and rejecting request exists on the PC and handheld.

The Transfer Shipping dialog allows for creating shipment, dispatching shipment, canceling shipment, creating container, approving container, adjusting container, and canceling the container on PC, handheld, and MAF Small.

The Transfer Receiving dialog allows for confirming receipt, copying misdirected container, receiving container and detailed receiving on PC, handheld, and MAF Small.

Quick Container Receiving exists on the handheld and MAF Small.

## Technical

This section covers creating transfer documents which are then included in a transfer shipment and dispatched to another store, warehouse, or finisher.

### Transfer Creation

Transfer documents can be created in the following ways:

- Requesting store can create a transfer request.
- Sending store can initiate a transfer by creating a transfer.
- RMS can create a transfer request.

Each transfer document will have one or more items.

### Transfer Messages

SIM will publish messages to RMS when the following happen:

- Transfer is rejected.
- Transfer is approved.
- Transfer quantity is updated from the shipment.

### Transfer Shipment Creation

Transfer Shipment describes the containers and the items for the shipment taking place. The shipment may be for one or more transfer documents as long as the transfer is going to the same destination. Dispatching a shipment will update the transfer document.

The user can create a shipment without referencing existing transfers or can create a new transfer on fly (Ad hoc transfer) based on the shipment information.

### Transfer Receiving

This transaction captures a delivery that took place from a warehouse, store, or finisher to the store receiving the delivery. It describes the containers and the items of the delivery that should be received by the store. Receiving a container of the delivery will update the transfer document.

Figure 11-56 Transfer Request Flow

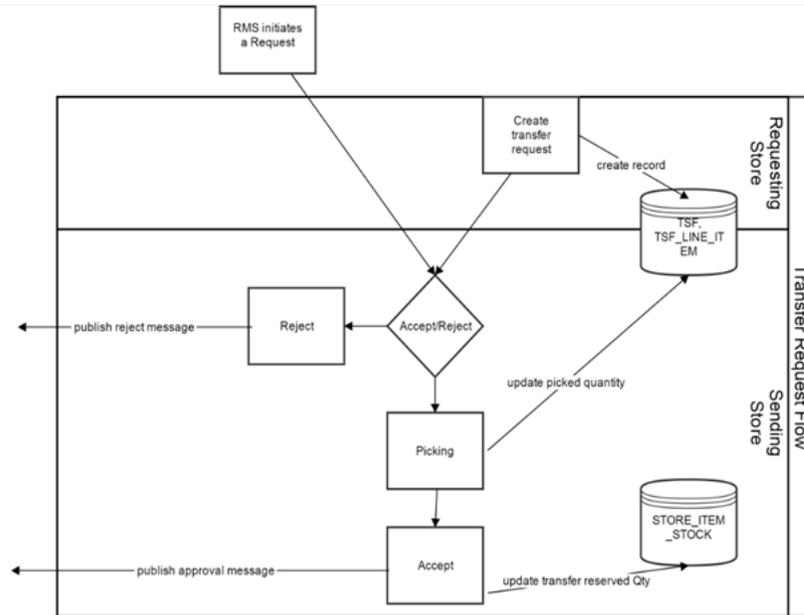
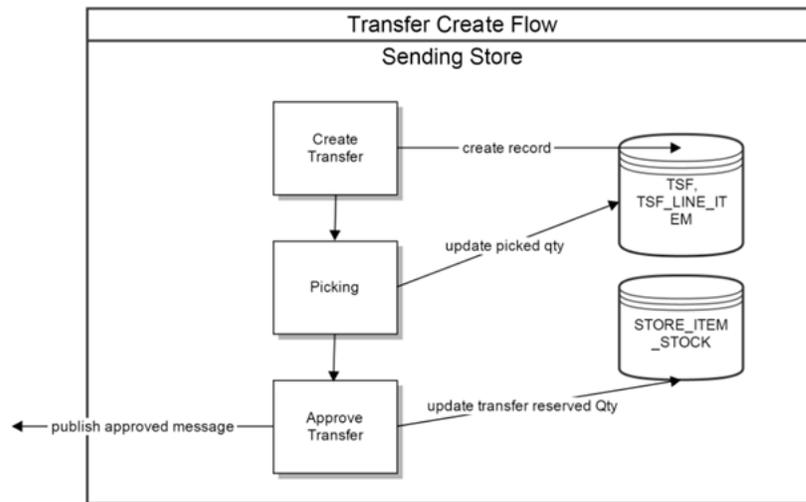
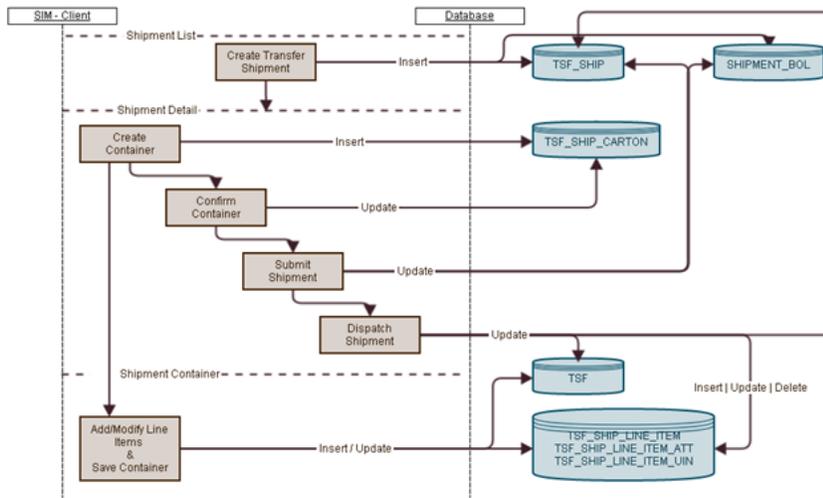


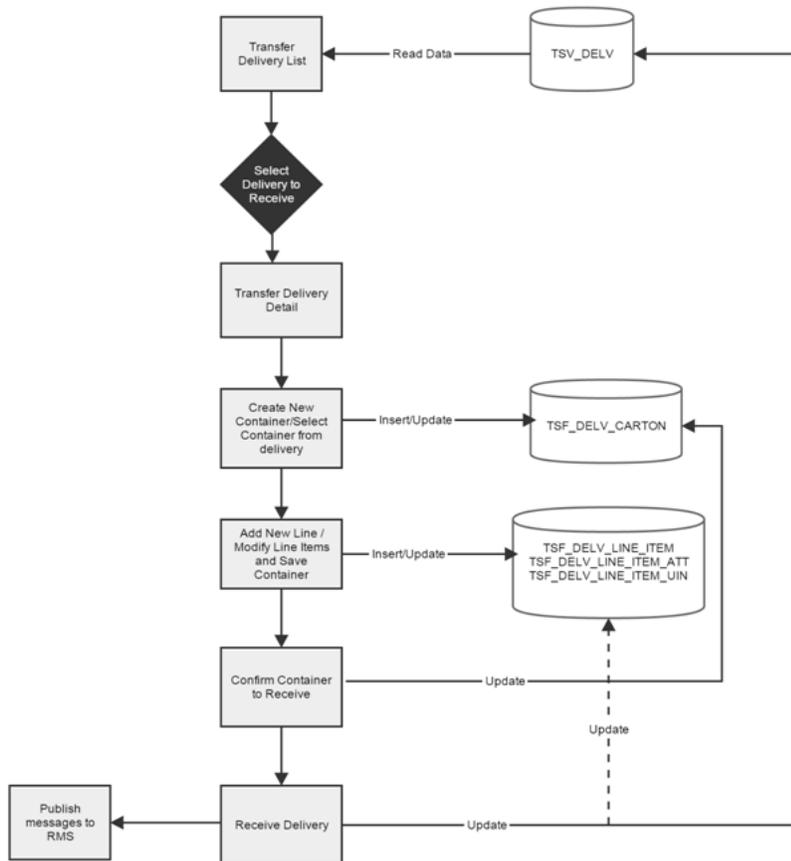
Figure 11-57 Transfer Create Flow



**Figure 11–58 Transfer Shipment Creation Flow**



**Figure 11–59 Transfer Receiving Process Flow**



**Business Objects**

Business objects are used within the application code for all business processing. SIM allows the setting up of configuration parameters for the store as well as the system through this Admin category.

<b>Business Object</b>	<b>Description</b>
BuddyStore	Contains the unique ID and name of the buddy store object.

## Integration

This section provides information on the integration of transfers.

### RIB

#### Transfer Doc

<b>RIB Payload</b>	<b>Description</b>
SODesc	This message is received from external systems when a stock order/transfer has been created.
SOStatusDesc	This message is received from external systems when a stock order/transfer has been modified.
SORef	This message is received from external systems when a stock order/transfer has been deleted.

#### Transfer Shipment

<b>RIB Payload</b>	<b>Description</b>
ASNOutDesc	This message is sent to external systems when the transfer shipment is dispatched.
ManifestCloseVo	This message is received from an external system to indicate physical shipment has been accepted. This will attempt to auto-close the transfer shipment if all items are shipped.
ManifestDesc	This message is sent to an external system when manifesting is activated and a transfer shipping container is confirmed.
ShipInfoDesc	This message is sent to an external system when pre-shipment notifications are active and a transfer shipment is either submitted or dispatched (without previously being submitted).
SOStatusDesc	This message is sent to an external system when a transfer shipment container is saved with shipping quantities. It is also sent when a transfer shipment container is canceled but had shipping quantities. Increase and decrease of quantities is indicated by the SI or SD codes.

#### Transfer Receiving

<b>RIB Payload</b>	<b>Description</b>
ASNInDesc	Sent from external system to indicate a delivery is tracking place. It creates a transfer delivery record within SIM.
ReceiptDesc	Sent to external system when a transfer delivery is confirmed.

## Batch

The following batch is supported for transfers:

### Transfer Doc

Batch Name	Description
Transfer Close Batch	When the not after date is reached, the transfer document needs to be auto closed.
Transfer Not-After-Date Alert Batch	Generates email alerts for any pending transfers with a Not After Date near to the current date.
Purge Closed Transfers Batch	This batch purges the completed and cancelled transfer documents. This is dependent upon a parameter to check the number of days after which it could be purged.

### Transfer Receiving

Batch Name	Description
Transfer Delivery Auto Receive Batch	Auto-receives the transfer deliveries from the database depending on the date that is passed as a parameter, in case no date is passed then the current date is used to auto-receive the deliveries.
Transfer Delivery Close Batch	This batch closes the transfer deliveries that have passed their not after date and are in a valid state for closure.
Transfers Overdue Batch	Sends email alert for overdue transfer deliveries.

## Data Structure

The following database tables are used in transfers:

### Transfer Doc

Table Name	Description
TSF	Contains header level information of a transfer.
TSF_LINE_ITEM	Contains item level information of a transfer.

### Transfer Shipment

Table Name	Description
TSF_SHIP	This table holds header level information about a transfer shipment.
TSF_SHIP_CARTON	This table holds container level information about the containers associated to a transfer shipment.
TSF_SHIP_LINE_ITEM	This table holds transfer shipment line item records.
TSF_SHIP_LINE_ITEM_ATT	This table holds extended attributes associated to line items of transfer shipment.
TSF_SHIP_LINE_ITEM_UIN	This table holds UIN records associated to transfer shipment line item.

## Transfer Receiving

Table Name	Description
TSF_DELV	This table holds header level information about a transfer delivery.
TSF_DELV_CARTON	This table holds container level information about the containers associated to a transfer delivery.
TSF_DELV_LINE_ITEM	This table contains transfer delivery line item records.
TSF_DELV_LINE_ITEM_ATT	This table holds extended attributes associated to line items of transfer delivery.
TSF_DELV_LINE_ITEM_UIN	This table holds UIN records associated to transfer delivery line item.

## Sequences

The following sequences are available for the transfer document:

- TSF\_SEQ
- TSF\_LINE\_ITEM\_SEQ
- TSF\_SHIP\_SEQ
- TSF\_SHIP\_CARTON\_SEQ
- TSF\_SHIP\_LINE\_ITEM\_SEQ
- TSF\_SHIP\_LINE\_ITEM\_ATT\_SEQ
- TSF\_SHIP\_LINE\_ITEM\_UIN\_SEQ
- TSF\_DELV\_SEQ
- TSF\_DELV\_CARTON\_SEQ
- TSF\_DELV\_LINE\_ITEM\_SEQ
- TSF\_DELV\_LINE\_ITEM\_ATT\_SEQ
- TSF\_DELV\_LINE\_ITEM\_UIN\_SEQ



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## Shipping and Receiving Common Components

This chapter describes the common components of shipping and receiving. The following topics are covered:

- **Overview:** Overview of shipping and receiving.
- **Functionality:** Description of screens available for shipping and receiving.
- **Technical:** Business objects, database structure, and manifesting setup.

### Overview

The shipping and receiving functions in SIM have several common components. The following functional areas are included: Customer Order Deliveries, Return to Vendor Shipments, and Transfer Shipping/Receiving for store, warehouse, and external finisher. They include tasks usually performed by shipping or receiving associates. This also includes integrating to a third-party manifesting system for rate shopping to find the least expensive delivery method.

Following are the features of shipping and receiving:

- Manifest web services for rate shopping
- Maintenance of shipment reason codes
- Print shipping documents (Bill of Lading, Manifest, and Pre-Shipment Notice)
- Print container labels

### Manifesting

Manifesting systems help retailers create manifest documents, Bill of Lading (BOL), shipping container labels for shipments, and reduce cost through rate shopping by finding the least expensive delivery method for the given shipping criteria.

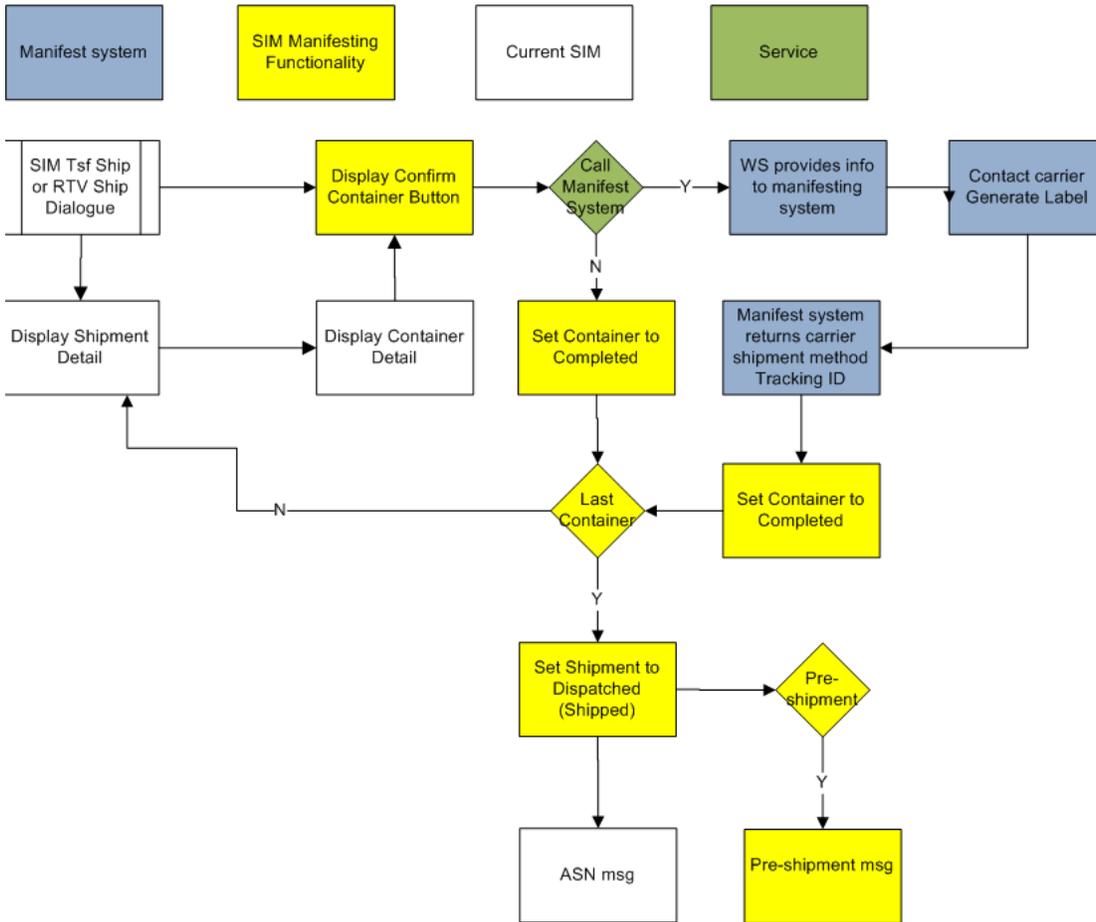
For larger shipments, multiple containers may exist and each container requires a separate tracking ID. For RTV Shipment and Transfer Shipment, the manifesting service will be called when confirming each container. The carrier and service are required to be the same for all containers within the same shipment. The container and shipment are all inclusive for Customer Order Deliveries.

If a manifesting system is not integrated, the system provides a method for tracking the shipments and containers as well as allows printing of container labels using various user-defined label designs.

### Business Case

A user creates a shipment (store, warehouse, finisher, customer order delivery, or return to vendor) and enters in the package type of "Small" and Weight of 2.3 lbs. The Manifesting system will do the rate shopping for the carrier and service and automatically print out a label for the package.

Figure 12-1 Integration - Flow-Ship Container



The above flow shows the confirmation of a container and how a call is made to the manifest system. The flow is highlighted in different colors to help identify different integration points.

When the user confirms each container for an RTV or Transfer shipment, the system can invoke the web service to provide the required shipment details to the manifesting system and subsequently return a tracking ID for each container.

After all containers have received their tracking ID, the user is able to ship the shipment, or an external system indicates to SIM that the shipment is dispatched.

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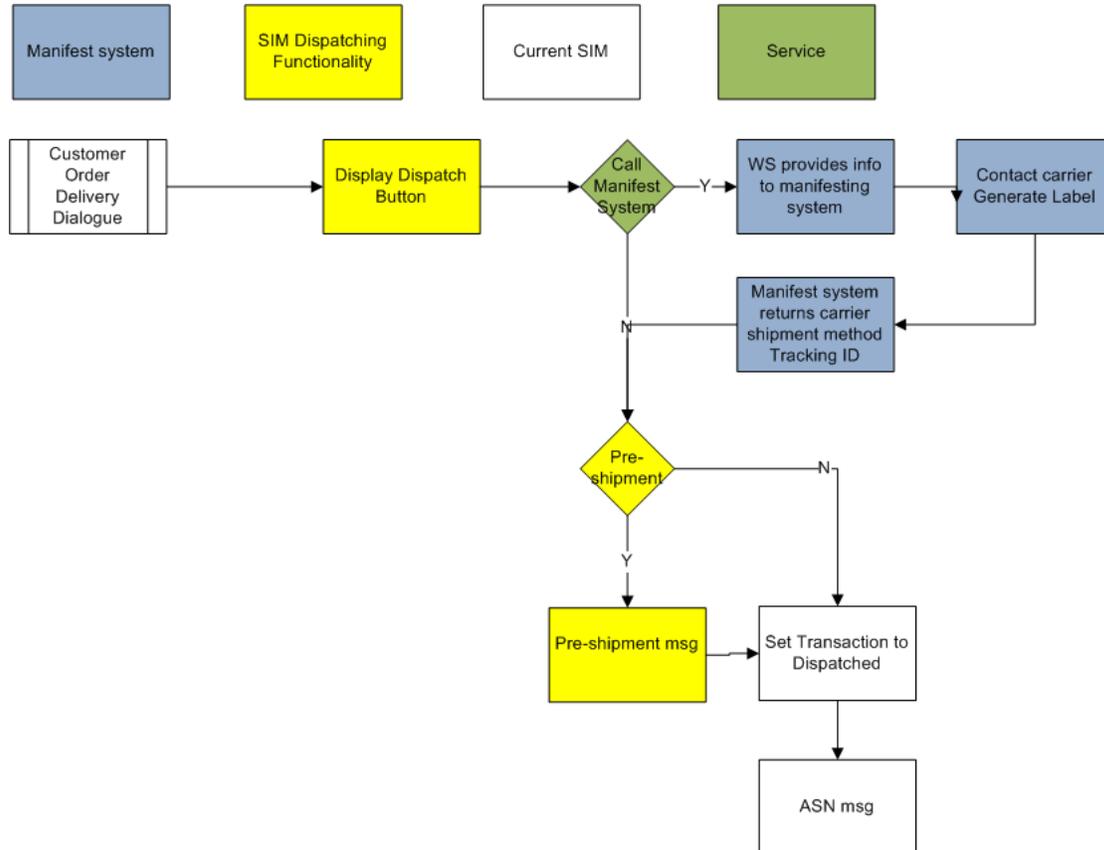
**Note:** Customer Order Deliveries only use the web service at submit or dispatch since the shipment will always be a single container.

---

If SIM is configured to publish a pre-shipment, it sends the pre-shipment notice to the pre-shipment system.

If the carrier must be changed for the shipment with transfer shipment or RTV shipment, the user is required to adjust the carrier, which will cause all containers to move back to "In Progress." Once the shipment has been dispatched, the user will no longer be able to adjust the carrier.

**Figure 12–2 Customer Order Deliver Flow**



The above flow represents when a Customer Order Delivery is dispatched and a call is made to the manifest system. The flow is highlighted in different colors to help identify different integration points.

## Configurations

This section covers parameters and security.

### Store Parameters

#### Dispatch Validate

- Values: Ship Direct / Ship Submit
- Default: Ship Direct
- Topic: Customer Order Delivery
- Editable: Yes
- Ship Direct: SIM controls all processes. The user will be able to go from create/edit directly to dispatch.

- Ship Submit: This option requires the user to press the submit button, and specifically press the dispatch button. An additional option is available to have an external system generate a dispatch message through a standard web service.

#### **Transfer Shipment Dispatch Validate**

- Values: Ship Direct / Ship Submit
- Default: Ship Direct
- Topic: Transfer Shipment
- Editable: Yes
- Ship Direct: SIM controls all processes. The user will be able to go from create/edit directly to dispatch.
- Ship Submit: This option requires the user to press the submit button, and specifically press the dispatch button. An additional option is available to have an external system generate a dispatch message through a standard web service.

#### **RTV Shipment Dispatch Validate**

- Values: Ship Direct / Ship Submit
- Default: Ship Direct
- Topic: RTV Shipment
- Editable: Yes
- Ship Direct: SIM controls all processes. The user will be able to go from create/edit directly to dispatch.
- Ship Submit: This option requires the user to press the submit button, and specifically press the dispatch button. An additional option is available to have an external system generate a dispatch message through a standard web service.

#### **Ship To Store Carrier Default**

- Values: Sender / Receiver / Third Party
- Default: Third Party
- Topic: Transfer Shipment
- Editable: Yes
- Sender: Sender will be selected for Carrier Type on BOL Detail screen.
- Receiver: Receiver will be selected for the Carrier type on BOL Detail screen.
- Third Party: Third Party will be selected for the Carrier type on the BOL Detail screen. The Carrier name (drop down) will be defaulted to "Other."

#### **Ship To Warehouse Carrier Default**

- Values: Sender / Receiver / Third Party
- Default: Third Party
- Topic: Transfer Shipment
- Editable: Yes
- Sender: Sender will be selected for Carrier Type on BOL Detail screen.
- Receiver: Receiver will be selected for the Carrier type on BOL Detail screen.

- Third Party: Third Party will be selected for the Carrier type on the BOL Detail screen. The Carrier name (drop down) will be defaulted to "Other."

#### **Ship To Finisher Carrier Default**

- Values: Sender / Receiver / Third Party
- Default: Third Party
- Topic: Transfer Shipment
- Editable: Yes
- Sender: Sender will be selected for Carrier Type on BOL Detail screen.
- Receiver: Receiver will be selected for the Carrier type on BOL Detail screen.
- Third Party: Third Party will be selected for the Carrier type on the BOL Detail screen. The Carrier name (drop down) will be defaulted to "Other."

#### **RTV Shipment Carrier Default**

- Values: Sender / Receiver / Third Party
- Default: Third Party
- Topic: RTV Shipment
- Editable: Yes
- Sender: Sender will be selected for Carrier Type on BOL Detail screen.
- Receiver: Receiver will be selected for the Carrier type on BOL Detail screen.
- Third Party: Third Party will be selected for the Carrier type on the BOL Detail screen. The Carrier name (drop down) will be defaulted to "Other."

#### **Manifest Transfer to Finisher**

- Values: Yes/No
- Default: No
- Topic: Web Service Enablement
- Editable: No
- Yes: The Manifesting system will be called for Transfer to Finisher.
- No: The Manifesting system will not be called.

#### **Manifest Transfer to Warehouse**

- Values: Yes/No
- Default: No
- Topic: Web Service Enablement
- Editable: No
- Yes: The Manifesting system will be called for Transfer to Warehouse.
- No: The Manifesting system will not be called.

#### **Manifest RTV to Supplier**

- Values: Yes/No
- Default: No

- Topic: Web Service Enablement
- Editable: No
- Yes: The Manifesting system will be called for Return to Vendor.
- No: The Manifesting system will not be called.

#### **Manifest Transfer to Store**

- Values: Yes/No
- Default: No
- Topic: Web Service Enablement
- Editable: No
- Yes: The Manifesting system will be called for Transfer to Store.
- No: The Manifesting system will not be called.

#### **Manifest Customer Order Deliveries**

- Values: Yes/No
- Default: No
- Topic: Web Service Enablement
- Editable: No
- Yes: The Manifesting system will be called for Customer Order Deliveries.
- No: The Manifesting system will not be called.

#### **Manifest Weight UOM**

- Values: List of UOMs from the Weight UOM table.
- Default: Default UOM from Weight UOM table.
- Topic: Admin
- Editable: Yes
- The UOM selected for this store admin will be used as the Weight UOM for the weight on the BOL in transfer shipment, customer order deliveries, and RTV shipment.

#### **Pre-Shipment Notification**

- Values: Yes/No
- Default: No
- Topics: RTV Shipment/Transfer Shipment/Customer Orders
- Editable: Yes
- Yes: SIM will publish a pre-shipment message.
- No: SIM will not publish a pre-shipment message.

---

---

**Note:** This store parameter exists for each of the functional areas: RTV Shipment/Transfer Shipment/Customer Order Delivery.

---

---

### SSCC Shipping Label ID Generation

- Values: Automatic / Manual
- Default: Automatic
- Topic: Admin
- Editable: Yes
- Automatic: When Automatic is selected, the system will generate an identifier for printing on the shipping label.
- Manual: When Manual is selected, the user will need to enter an identifier for printing on the shipping label.
- This store parameter is used for RTV Shipment and Transfer Shipment.

### Security

Security permissions exist for:

- Accessing, creating, editing, and deleting Shipment Reason Codes.
- Accessing, creating, editing, and deleting Print Formats.
- Accessing Session Printer.
- Accessing and editing Shipment Information and BOL Details.
- Accessing and editing Container Information Details.
- All permissions exist on the PC, handheld, and MAF applications where applicable.

Data permissions exist for:

- A user must have the proper permissions for a RTV Shipment Reason Code and/or Transfer Shipment Reason Code to proceed with creating, editing, or deleting an item for a particular reason code.

---

---

**Note:** A very common problem is that a new reason code is created, but is not associated to the role the user is granted. If that does happen, the user will not be able to use the new reason code.

---

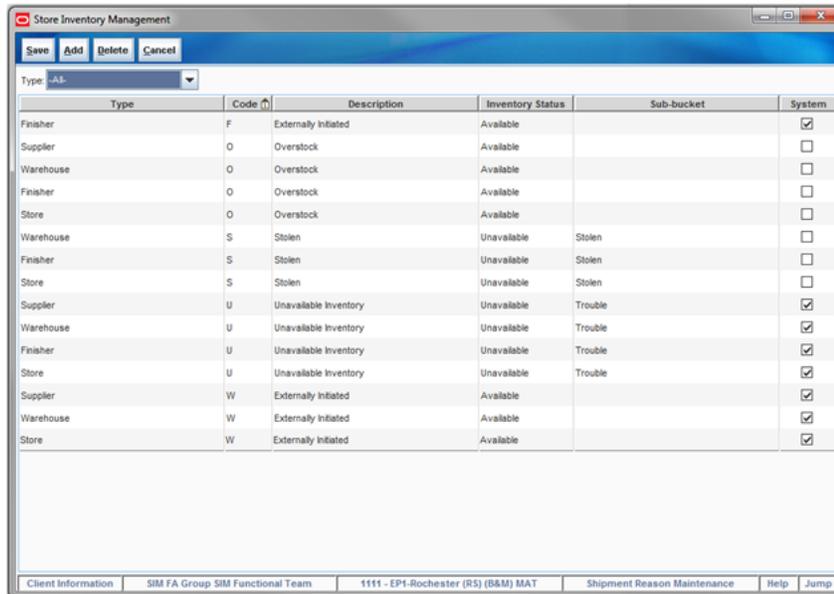
---

## Functionality

This section describes the screens available for shipping and receiving.

## Shipment Reason Maintenance

Figure 12–3 Shipment Reason Maintenance Screen



The Shipment Reason Maintenance screen is an administrative screen on the PC application for creation and maintenance of Shipment reason codes. The reason codes are used within Transfer Documents, RTV Documents, Transfer Shipments, and RTV Shipments. Upon initial install, a list of default shipment reason codes will be available. The reason codes defined in SIM need to match that of the merchandising system.

The following table provides the list of SIM Shipment reason codes:

Type	Type ID	Code	Description	Use Available	Nonsellable	System
Finisher	4	F	Externally Initiated	Yes		Yes
Store	1	O	Overstock	Yes		No
Warehouse	3	O	Overstock	Yes		No
Finisher	4	O	Overstock	Yes		No
Supplier	2	O	Overstock	Yes		No
Finisher	4	U	Unavailable Inventory	No	Trouble	Yes
Store	1	U	Unavailable Inventory	No	Trouble	Yes
Warehouse	3	U	Unavailable Inventory	No	Trouble	Yes
Supplier	2	U	Unavailable Inventory	No	Trouble	Yes
Store	1	W	Externally Initiated	Yes		Yes
Supplier	2	W	Externally Initiated	Yes		Yes
Warehouse	3	W	Externally Initiated	Yes		Yes

All reason codes have an inventory status associated to them. The inventory status is used to define the inventory bucket which will be relieved when the shipment is dispatched.

Those reason codes that are for the type of Store, Warehouse, or Finisher appear as reason codes in the Transfer dialog. The reason codes that are for the type of Supplier appear as reason codes in the RTV dialog.

System Reason codes cannot be edited or removed. System reason codes are required to be available in SIM. These values are populated through a data seeding script and the system check box is only checked during that process. For those non-system reason codes, once the reason code is saved, only the description can be edited.

If the system is configured to use sub-buckets, then the sub-buckets are enabled. Sub-buckets are linked with the shipment reason codes to make it easy for users to move inventory to, from, and between sub-buckets when adjusting unavailable stock. Some examples of these are stock reserved for display or demo purposes versus stock that is unavailable because it needs to be repaired. The sub-buckets are a pre-populated list which is defined in the data base.

If using sub-buckets, all reason codes that have an inventory status of unavailable will require a sub-bucket to be selected.

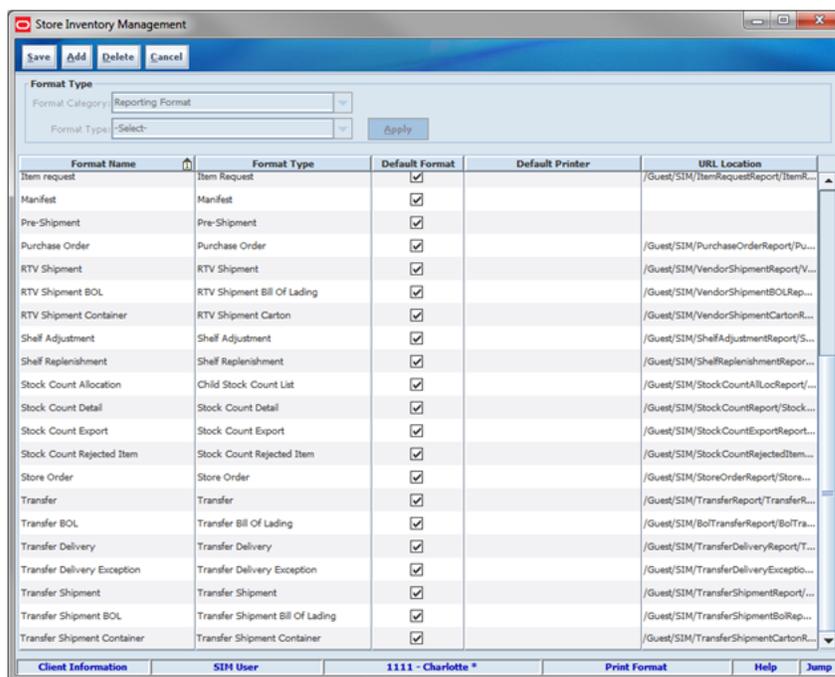
---

**Note:** Before a reason can be accessed by a user, it is important to associate that reason code to a role that the user has the privileges to use in that store.

---

## Print Format

Figure 12-4 Print Format Screen



The Print Format screen is an administrative screen used to set up reports, item tickets, shelf labels, and container labels to support various functions within SIM. This screen

is accessed from Admin > Print Setup. This screen is also covered in the Printing Chapter for formats used in printing item tickets and shelf labels. This screen is only available on the PC.

To support the Shipping and Receiving processes, the Manifest report, Pre-Shipment Notice, and labels are setup in the Print Format screen. This includes both a format that SIM will print, as well as the default printer to be used for both internal and external systems to perform printing.

There is not an actual report created in SIM for pre-shipment and manifesting. If printing is needed, the user has to configure those reports. Since these two reports are generated through an automated process, the system only allows one format per format type of "Pre-shipment" and "Manifest."

Shipping labels can be printed and placed on the container in the following functional areas: Transfer Shipping, RTV Shipping, and Transfer Receiving. Customer Order Deliveries are only printed through an external manifesting system.

Container labels can differ across countries or regions. SIM allows the client to add as many different formats as they require for label printing within SIM. These formats will be assigned to one of the following format types: RTV Shipping Label, Transfer Shipping Label, and Transfer Receiving Label.

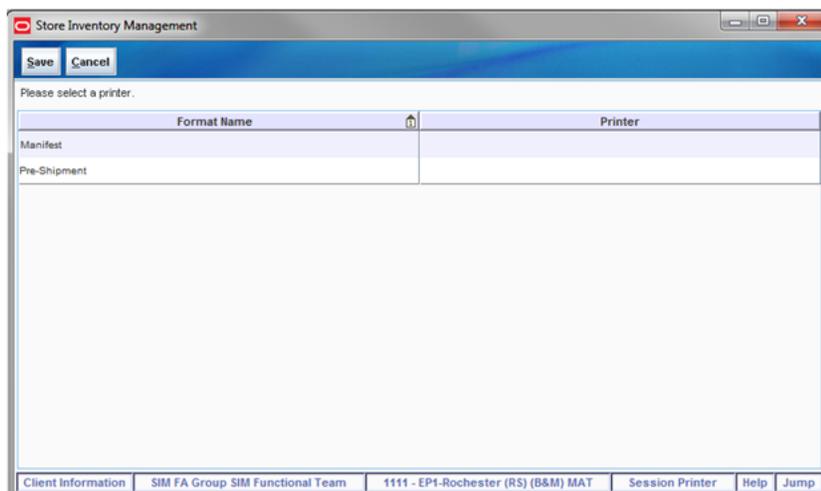
The container label formats can be displayed by selecting the Format Category "Shipping Format." One of the formats must be selected as the default for each type. A default template is provided out of the box for each functional area.

The Format Type is specific to the functional area and only those formats display from the respective dialogs. Example: Format Type of "Transfer Shipping Label" will only display in the Transfer Shipment dialog.

A barcode is printed on the label and the SSCC Shipping Label ID Generation store parameter is used for creating the identification used for linking the barcode to the container in the system. For additional details, see ["Label Configuration."](#)

## Printer Setup - Session Printer

**Figure 12–5 Session Printer Screen**



The Session Printer screen is used to set the printer to be used for printing the Manifest and Pre-Shipment documents. Since these documents are automatically printed during the manifesting process, a printer must be defined ahead of time. This printer

information is sent to the external system. The external system uses this to print documents.

The printer can be set up in either the Print Format screen (as the default printer) or defined as the session printer. This in turn will be sent as the printer to use from the external system.

---

---

**Note:** The manifesting process is called from the "Submit" or "Dispatch" function in a transfer shipment, RTV shipment, or customer order delivery.

---

---

The pre-shipment and manifest messages follow the following default logic:

1. Use printer setup for Session Printer.

If a default printer is defined from the Print Format screen (PC only) and a session printer is defined from Session Printer screen (PC, handheld, MAF), the session printer will be used.

2. Use printer setup as Default Printer from Print format screen (PC only).

Default printer is defined and no session printer is defined, then the default printer will be used.

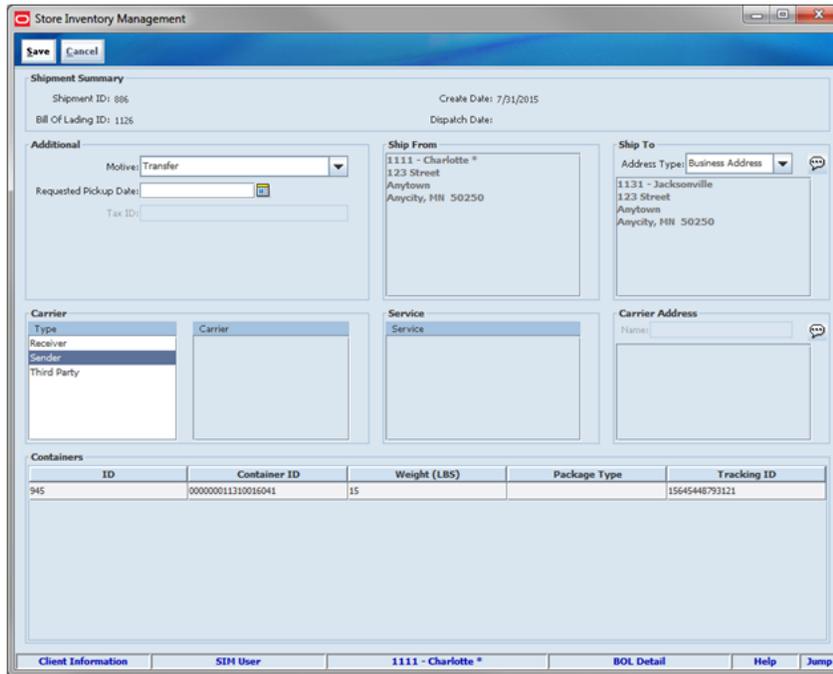
3. No printer is set up, then no value is published.

If no default printer is defined from the Print Format screen (PC only) and no session printer is defined from Session Printer screen (PC, HH, MAF), the value will not be published for printing.

## BOL Detail

The BOL Detail screen is used to enter the shipping details for an outgoing shipment. The following figures shows a transfer shipment. The BOL dialog is used in all shipments (RTV Shipment, Transfer Shipment, and Customer Order Deliveries) and is fairly constant in all of these functionalities.

**Figure 12–6 BOL Detail Screen**



Transfer Shipment and RTV shipment may have several containers for a shipment. For Customer Order Deliveries the container and shipment are all inclusive; therefore there is only one tracking ID, weight, and package type for the shipment. Since Transfer Shipments and RTV Shipments may contain several containers, each container requires a unique tracking ID and is used when recording the shipment information. The carrier must be the same for all containers within the same shipment. The weight, package type, and tracking ID are entered on the BOL screen for customer orders and on the Container Info screen for RTV Shipment and Transfer Shipment. For additional details for Customer Order Deliveries, see [Chapter 20, "Customer Order Management."](#)

**Motive**

The motive for the shipment is based on the functional area and sequence number. The code with the sequence of 1 will be displayed by default. These values will be included in the data seeding script. Additional codes may be added by the client.

Code_type	Code	Description	Required	Sequence
BOLR	RTV	Return To Vender	Y	1
BOLR	CHY	Charity	Y	2
BOLT	TSF	Transfer	Y	1
BOLT	ADM	Administrative	Y	2
BOLT	RAL	Re-Allocation	Y	3
BOLF	COF	Customer Order Delivery	Y	1
BOLF	V2B	B2B	Y	2

## **Carrier and Service Selection**

The carrier defaults based on the store parameter <XYZ> Carrier Default set up by transaction (store, finisher, warehouse, and RTV). Customer Order Delivery defaults to "Third Party" if the customer has identified a carrier to use on the customer order. If no carrier is identified on the customer order, "Sender" is defaulted for orders with a delivery type of "Ship To Customer." If the delivery type is "Pick Up," the carrier is defaulted to "Receiver."

If the carrier type is "Third Party," the Carrier is available for selection. This field may be overwritten by the manifesting system when used. The user may select "Other" from the list of carriers. If "Other" carrier is selected, the Carrier Name and Address will be enabled.

When a carrier is selected, a list of services available for the carrier will be selectable. This field may be overwritten by the manifesting system when used in addition to the Carrier. The manifesting service call made can include checking for the best rate and will override what was selected by the user.

Data setup scripts will be required to populate the Shipment Carriers, Shipment Carrier Services, Shipment Weight UOM, and Shipment Package Sizes.

Each Carrier will have one of three manifest types: (P) Parcel, (H) Home Fleet, and (O) Other. Only carriers with a manifest type of (P) Parcel will be used with the manifesting integration service. Depending on the carrier service, weight and package size may be required. The system will alert the user when the information is missing.

### **Adjust Carrier (Transfer Shipment and RTV Shipment Only)**

When the container is confirmed (transfer shipment and RTV shipment), the manifesting system is called and the tracking id is returned for the container. A label is printed at this time and placed on the container. The label may be automatically printed from the manifesting system or can be printed from the Container Info screen if configured.

The BOL Detail screen is frozen once the first container is confirmed and cannot be changed without moving all the containers for the shipment back to an In Progress state. This is done by using the Adjust Carrier feature. The BOL Details can be adjusted until the shipment is dispatched. If the user has the appropriate permissions. Once the user selects Adjust Carrier, a new carrier may be selected and each container will need to be reconfirmed to manifest again.

## Container Info

**Figure 12–7 Customer Info Screen**

The screenshot shows a 'Container Info' dialog box with the following fields and values:

- ID: 6081
- Container ID:
- Shipment ID: 5743
- Destination Type: Store
- Destination: 1131 Jacksonville
- Status: In Progress
- Create Date: 12/14/2015
- Create User: retail.user
- Last Update: 12/14/2015
- Last Update User: retail.user
- Approval Date:
- Approval User:
- Container ID: (input field)
- Package Type: -Select-
- Weight (LBS): (input field)
- Tracking ID: (input field)
- Container Label: Transfer Shipping Label

Buttons at the bottom: Apply, Print Label, Cancel.

The Container Info screen is accessed by pressing the Info button on the Container Details screen, from the appropriate dialog. The Container Info screen is used to enter the Container ID, package type, weight, and tracking ID of the container. Additionally, the user can also print a label to place on the container from this screen. If manifesting is used, the manifesting service will return the tracking ID and may be configured to print the container label. The Container Info screen is accessed from the Transfer Shipment Container Detail, RTV Shipment Container Detail, and Transfer Receiving Container Detail screens. Since the BOL Detail screen defines the entire shipment, the Container Info screen is used to identify the package type, weight, and tracking ID for each individual container.

The customer order feature does not use this screen. For customer order deliveries, the package type weight and tracking ID are entered directly on the BOL Detail screen. Container Labels are only printed externally.

The Transfer Receiving dialog also uses this screen to print a new container label. When a container was unexpected or intended for another store, a new container ID is created and the user can print a new label. The tracking ID may also be captured on this screen.

The validations listed below apply to Transfer Shipments, RTV Shipments, and Customer Order Deliveries. The validations for Transfer Shipments and RTV Shipments are performed at the time of confirming the container, while Customer Order Deliveries performs the validations upon submit or dispatch of the shipment.

### Tracking ID

The Tracking ID will contain a single ID for tracking the package; it can be entered by the user, come from the manifesting system or come from the shipping ASN. It may get overwritten/updated by an external manifesting system. The tracking ID entered within the Transfer Receiving dialog is for informational purposes, and can be leveraged to find a container.

### Weight and Package Validation

The weight field is used to enter in the weight of the package. The weight will be entered in the unit of measure based on the store admin Manifest weight UOM.

The package type is used to define the dimensions of package such as Large Envelope, Small Box, Medium Box, and so on. The package type will be selected from a defined list of packaged types in the Carton Dimension table.

Depending on the carrier/service selected for the shipment, the package type and weight may be required (this is only validated when the manifesting system is called). The Shipment Carrier Service table identifies when the weight and package type is required. This table is populated from a data script.

Since BOLs are not accessible on the handheld device, if required per the carrier service, the weight and package type will be prompted for when creating the container.

Note that when creating a transfer shipment container or RTV shipment container on the handheld, the carrier is defaulted based upon a store setting, Carrier Default. When the setting is "Third Party," the carrier is "Other" and the service is blank. Therefore, the user is not prompted for the weight and/or package type unless the carrier /service had been set as something different through the BOL on the PC requiring one.

## MAF

All validations and rules for shipping and manifesting on MAF is existing functionality on the PC application. Shipping and Manifesting exists in a small form factor on MAF.

Features:

- Enter Carrier BOL Information
- Enter Container ID, Weight, Package Type, and Tracking ID
- View Carrier BOL Information
- Set External Printer
- Print Container Label

The user has the ability to enter the carrier details for both Transfer Shipments and Customer Order Deliveries. RTV Shipments are not currently available on MAF. The user can access the Edit Shipment screen by navigating to the Shipment and selecting Edit Shipment from the footer menu.

## Edit Shipment

**Figure 12–8 Edit Shipment Screen**

The screenshot shows a mobile application interface for editing a shipment. At the top, there are navigation options: 'Cancel', 'Edit Shipment', and 'Save'. The main content area is divided into several sections:

- Bill Of Lading ID:** 6227
- Motive:** Administrative
- Pickup Date:** (empty field)
- Ship To Address:**
  - Address Type:** Business Address
  - Address:** 1311 - TWD Store X, UIO 567, UIO,
- Carrier Info:**
  - Type:** Third Party
  - Carrier:** hennaexpress.com parcel service

For Transfer Shipments, if the shipment is for sending items to a warehouse or finisher, the user has the option to enter an Authorization Number. This is not applicable to Transfer to Store or Customer Order Deliveries. Security permissions exist for the user to enter an Authorization Number.

In order to prepare the shipment for manifesting, the user is required to enter the carrier information on this screen. When the carrier Type is Third Party and the Carrier Service is a (P) parcel service, the manifesting service is called when the user confirms the container. Security permissions exist for the user to edit the Carrier BOL information.

For Transfer Shipments, once the first container is confirmed, the Adjust Carrier button is available to move any manifested containers back to "In Progress." The user will then have the ability to edit the carrier information. Security permissions exist for the Adjust Carrier button to display.

For Customer Order Deliveries, the user also enters the package type, weight, and tracking ID from this screen.

For additional rules and validation, see ["BOL Detail."](#)

## Edit Container

**Figure 12–9** *Edit Container Screen*

The Edit Container screen is only applicable to Transfer Shipments, since Customer Order Deliveries shipment and container is all inclusive. The user will enter the package type, weight, and other container details from this screen. Security permissions exist for the user to edit this screen. For additional details, see "[Container Info](#)".

## External Printing

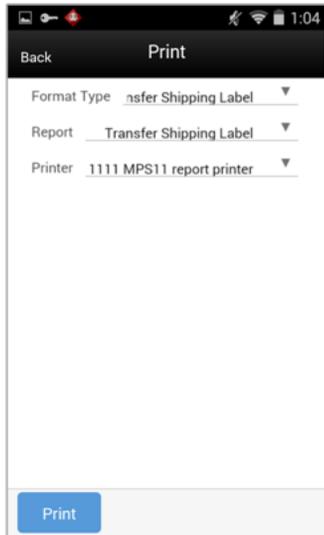
**Figure 12–10** *External Printing Screen*

This screen can be accessed within the Shipment by selecting "External Printing" from the footer menu. The external printer can be defined for the pre-shipment and manifest documents. These settings will remain until the user logs out of the application. This setting is applicable across all functional areas within SIM that use the Pre-Shipment and Manifest documents. If the printer is selected for Transfer

Shipment, the same printers will be set for Customer Order Deliveries dialog and vice versa. For additional details, see ["Printer Setup - Session Printer."](#)

## Print

**Figure 12–11 Print Screen**



The Print screen is used for printing reports and also for printing labels. This screen can be accessed within the Shipment by selecting "Print" from the footer menu. For Transfer Shipments, to print a label, the user selects the format type of "Transfer Shipping Label." All formats that exist for that format type display in the dropdown list for the user to select from. If a default printer exists for the label, the printer is displayed. This is not applicable to Customer Order Deliveries since that dialog only prints labels from an external manifesting service.

## Label Configuration

The container barcode generator feature is designed for printing shipping labels and tracking of the container from beginning to end. When the barcode is scanned at the destination location for a store to store transfer, the system will automatically be able to identify all the items in the container.

This can be used to generate a unique identifier that will be affixed to a label on the container. This barcode is SSCC-18 compliant. The store configuration allows the client to use the automatic barcode generator or to turn the feature off.

Separate shipping labels exist for the following functional areas: Transfer Shipping, RTV Shipping, and Transfer Receiving. Customer Order Deliveries only print labels externally. For additional details on label setup, see ["Print Format."](#)

## Barcode Generation Store Parameter

The standardized SSCC-18 Barcode is used for generating the container ID.

The store parameter, <SSCC Shipping Label ID Generation> will need to be set to Automatic or Manual. This configuration is used when creating the container and is used when printing a container label.

If the feature is set to manual, the user will need to enter a container ID from the Container Info screen before printing a container label.

When set to automatic, the Container ID will automatically generate. No user intervention is required. This parameter is configured to automatically generate.

### SSCC-18 Barcode Generation Field Definitions

**Figure 12–12 SSCC-18 Barcode Generation Field Definitions**



The following are the required fields that make up the SSCC-18 barcode:

- **Application Identifier:** The AI "00" indicates the SSCC-18 data structure will follow. No changes allowed.
- **Extension Digit:** The Extension Digit has no defined logic and is used to increase the capacity of the Serial Reference. Can be modified with a script.
- **GS1 Company Prefix:** GS1 Company Prefixes are 7 to 10 digits. Serial Reference Numbers are 6 to 9 digits. Set to use 10 digits. When field is null in the database, Destination ID will be used when barcode is generated. Can be modified with a script.
- **Serial Number:** The Serial Reference number is assigned by the holder of the GS1 Company Prefix to uniquely identify a shipping container (logistic unit). The combined length of the GS1 Company Prefix and Serial Reference is always 16 digits. Set to 6 digits.
- **Check Digit -** Calculated using the Modulo 10 algorithm.

The Application Identifier indicates the SSCC-18 data structure will follow. No changes are allowed. The Extension Digit can be modified and used to increase the capacity of the serial reference. Some companies use this to specify the package type. This will be set to zero and can be modified with a script.

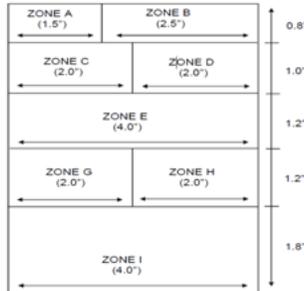
The GS1 Company Prefix represents where the shipment is going to. It is set to use the Destination ID and occupy 10 digits.

The Serial Number is assigned by the client to uniquely identify a shipping container (logistic unit). This is generated within SIM when the SSCC Shipping Label parameter is configured to Automatic. This field is set to 6 digits.

The check digit is calculated using the Modulo 10 algorithm.

## Label Format Template

Figure 12–13 Label Format Template



The carton label will follow standard GS1/EAN SSCC-18 common label formats and all the barcodes on this label are GS1-128 symbologies.

The bottom zone is used to host the SSCC-18 (Serial Shipping Container Code) barcode, which contains the transfer contents information.

The label is formatted into several information zones. Zones include both human readable information and GS1/EAN-128 information. Standard font.

- Titles should be placed in the upper left-hand corner of the zone in 8 pt. text.
- Zones A, B, C, G, I should be 8 pt. text.
- Zones D, E, F, H should be 30 pt. bold text.
- Zone E department name field, use "Mixed" if multiple departments are in transfer.
- Zone F list all department numbers if multiple departments are in transfer. If too many, truncate.

Figure 12–14 Sample Template for Transfer Shipment

From Line 1 Line 2 Line 3	To Line 1 Line 2 Line 3	<b>Zone</b>	<b>RTV SHIP</b>	<b>TSF SHIP</b>	<b>TSFRCV</b>
		<b>A</b>	Source	Source	Source
		<b>B</b>	Destination	Destination	Destination
		<b>C</b>	(420) + Destination Zip	(420) + Destination Zip	(420) + Destination Zip
		<b>D</b>	RTV	TRNSFR	TRNSFR
		<b>E</b>	External Return ID Barcode	Customer Order Indicator Context Type   Value Number of Items	Label Reason Reference Container ID Number of Items
		<b>F</b>	Return Type	Dept #(s)	Dept #(s)
		<b>G</b>	Destination ID - Barcode	Destination ID - Barcode	Destination ID - Barcode
		<b>H</b>	Destination   ID	Destination Type   ID	Destination Type   ID
		<b>I</b>	Barcode (Top) SSCC Number (Bottom)	Barcode (Top) SSCC Number (Bottom)	Barcode (Top) SSCC Number (Bottom)
(420) SHIP TO POSTAL CODE (420)DestinationZip <b>42094588</b> LABEL TYPE <b>TRNSFR</b> CUSTOMER ORDER: NUMBER OF ITEMS: CONTEXT TYPE: CONTEXT VALUE: :DESTINATION TYPE (01):DEST_ID <b>015000</b> :DESTINATION TYPE :DEST_ID SSCC-18 :CARTON_ID <b>00000</b>					

This is a sample template that is included for Transfer Shipment. Additionally, RTV Shipment and Transfer Receiving will also have a label format out of the box. The fields on each template are listed in the table on the right.

Multiple label formats may be set up for each of the format types and a default format to use for each type. For additional details, see "[Print Format.](#)"

## User Interface Guidelines

The Bill of Lading screens allow for editing on the PC and MAF Small.

Setting the session printer exists on the PC, handheld, and MAF Small.

Label Format creating, editing, and deleting only exists on the PC.

Label Printing exists on the PC, handheld, and MAF Small.

Shipment Reason Code Maintenance only exists on the PC.

## Technical

Business objects are used within the application code for all business processing.

Business Object	Description
BarcodeAdmin	Contains the admin configuration values to generate a barcode for a particular store.
GenerateShipCartonBarcodeHandler	Severe business logic handler that generates the actual container identifier.

The GenerateShipCartonBarcodeHandler can be replaced with a customized version using the service provider. This allows the customer to determine the exact container ID generation if desired.

### Barcode Customization

The client can customize the value in the Extension Digit and the GS1 Company Prefix (use two fields) with a script on table (BARCODE\_CARTON\_ADMIN). The following fields can be modified:

- STORE\_ID: These settings must be defined for each store generating container barcodes.
- EXT\_DIGIT: Some companies use the Extension Digit to specify the Package Type. This can be a number from 0 to 5. SIM uses 0.
- ORG\_SIZE: Since the GS1 Company prefix can be between 7 and 10 digits, this dbfield can be changed to identify the size of the field:
  - Changing the org size will affect the Serial Number size. The combination of the two fields must equal 16.
  - The GS1 Company prefix will be set to 10 digits and the Serial Number will be 6 unless changed with a script.
- ORG\_NUMBER: This holds the organization number.

If null, the destination ID will be used. When the destination ID is used, the ORG\_SIZE should remain at 10 since the destination ID must use 10 digits.

## Data Structure

The following database tables are used by SIM:

Table Name	Description
BARCODE_CARTON_ADMIN	Contains store configuration information on how to generate container barcodes.
SHIPMENT_BOL	Contains shipment information that includes all handling information for a transaction.

Table Name	Description
SHIPMENT_CARRIER	Contains information about a carrier that handles shipments.
SHIPMENT_CARRIER_SERVICE	Contains information about various handling services each carrier offers.
SHIPMENT_CARTON_DIM	Contains information about various shipment containers.
SHIPMENT_WEIGHT_UOM	Information on various units of measure to specify shipment weight.

## Manifesting Setup

### Manifesting Requirements

- Carrier Type is Third Party
- Carrier Service (Manifest Type) is Parcel (P)
- Configuration is enabled (Transfer to Store | Finisher | Warehouse | Return to Vendor | Customer Order Delivery)

Figure 12–15 SHIPMENT\_CARRIER\_SERVICE Table

ID	CODE	DESCRIPTION	MANIFEST_TYPE
1	O	Other	O
2	UPS	UPS	P
3	USPS	US Postal Service	P
4	FEDX	FedEx	P

### Manifest Type "O" and "H"

Carrier/Service with Manifest Type of "O" (Other) and "H" (Home fleet) does not go through the manifesting system. When Manifest Type is "O," SIM prompts the user to enter the carrier address where the shipment is to be sent for fulfillment. Manifest Type of "H" is within the company and therefore, does not prompt the user for an address.

Figure 12–16 Manifest Type



### Weight and Dimension Requirements

Some carriers require weight, dimension, or both values to be sent in the manifest payload. If so, the carrier's service should have either the WEIGHT\_IND or CARTON\_DIM\_IND flag set to Y (or both) in the SHIPMENT\_CARRIER\_SERVICE table.

Figure 12–17 SHIPMENT\_CARRIER\_SERVICE Table

ID	CODE	DESCRIPTION	AVG_DELIVERY_DAYS	IS_DEFAULT	SHIPMENT_CARRIER_ID	WEIGHT_IND	CARTON_DIM_IND
1	O	Other		N		N	N
2	UPS1	UPS next day	1	N		N	N
3	UPS2	UPS 2 day	2	Y		Y	Y

### Web Service

SIM supplies an outbound and inbound Shipment Manifest SOAP web service. The following are supported service operations:

- A web service is used to send all the shipment information to the external manifesting system and also to receive close shipment requests from external systems.
- A web service accepts requests from external systems to close shipments. It is used to find those "Submitted" shipments for the provided tracking ID, carrier, service and date, and dispatch those shipments.

---

**Note:** SIM supplies a WSDL and XSD that defines the web service, operation, and data content. This web service will need to be implemented either for the manifesting system or a plug-in set up. Alternatively, SIM's standard customization pattern allows for replacing the outgoing call entirely.

---

#### OUTBOUND: ShipmentManifestService

Service Operation	Description
createManifest	Requests the external manifesting system to create a new parcel manifest for an input transaction.

#### INBOUND: StoreShipmentManifestService

Service Operation	Description
closeManifest	Instructs SIM that submitted shipments meeting the input criteria have been picked up by the handler.



This chapter covers sequencing. The following topics are covered:

- **Overview:** Introduction to sequencing.
- **Functionality:** Description of the functionality to sequence locations, sequence items, and re-sequence a location.
- **Technical:** Integration with Oracle Retail Integration Bus (RIB), web services, batch, and the database structure.

### Overview

Sequencing functionality provides users the ability to know the relative location of an item in a store. Sequencing a store improves store processes and reduces the time that employees spend looking for items. The retailer can sequence all items in the store and create unique locations to hold the items.

Sequencing defines how many items can be stored in a particular location, and allows the definition of a capacity for that item location combination. The capacity is used for in-store replenishment when generating the shelf replenishment pick list. Sequencing is used within Stock Counts, Customer Order Picking, Transfer Request, and Shelf Replenishment to aid the user in proceeding to the next item during the transaction for efficiency. Lastly, the Sequencing Primary Location is displayed to the user on the Item Detail screen.

Sequencing functionality within SIM can be accomplished on a PC-based deployment, on a wireless handheld device, or on a combination of the two deployment methods.

The following features are available:

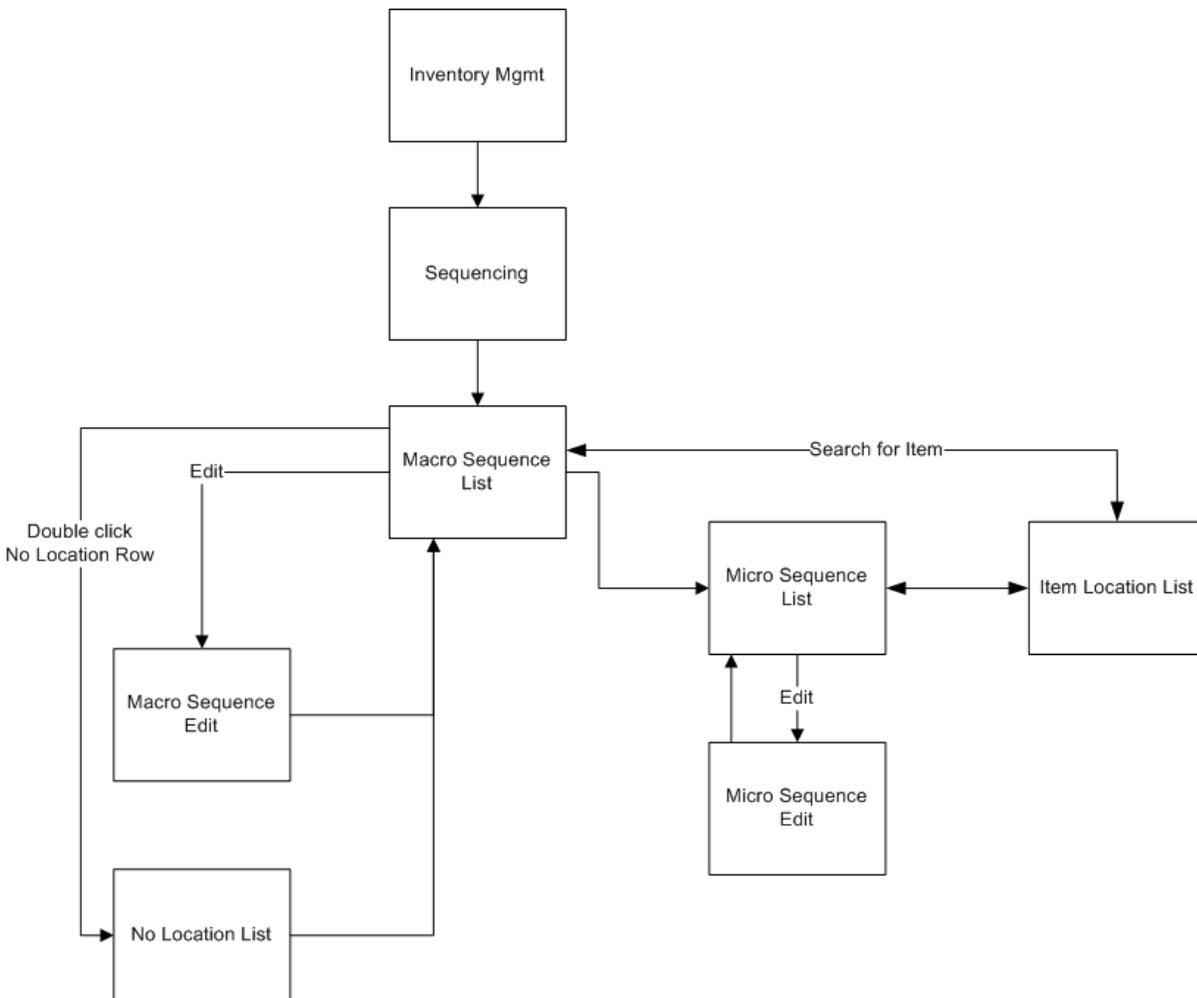
- Add, remove, and rearrange macro locations in Shop floor and Backroom. (Delivery Bay is not a sequenced location)
- Apply class list to create macro locations.
- Add, remove, and rearrange items in a macro location (micro sequencing).
- Apply item list to add items to macro locations.
- Add locations to an item including primary and secondary locations.
- Re-sequence an entire macro location (handheld only).
- Define capacity for items in a location.
- Define and print shelf edge labels and quantities.

## Business Case

- A grocery retailer originally has a rack with personal care products. Now the Plan-o-gram has changed and this rack will now have oral care products. The user can make updates to the macro location with the items of oral care by using the sequencing dialog on the handheld (sequence location).
- Sequencing is used to define the capacity for an item in a location which is in turn used for determining shelf replenishment needs.

### Sequencing PC Screen Flow

Figure 13–1 Sequencing PC Screen Flow



Sequencing exists under the Inventory Management menu. From the Macro Sequence List screen, the user can filter the records on an item basis to find all locations for a given item. The user can then view, create, edit, and delete locations as well as items in a location.

## Configurations

This section covers parameters.

## System Parameters

### Search Limit Default for Sequencing

- Valid Values: 1-999
- Default: 500
- Topic: UI
- Editable: Yes
- This parameter indicates the default search limit for the No Location List screen filter.

### Store Parameters

#### Display Sequence Fields

- Values: Yes and No
- Default: No
- Topic: Sequencing
- Editable: Yes
- Indicates whether or not sequencing fields are displayed in the Item Lookup screen.

#### Assign Shelf Edge Labels

- Values: Yes and No
- Default: No
- Topic: Sequencing
- Editable: Yes
- If the value of this option is Yes, users are required to assign shelf edge labels for sequencing.

### Security

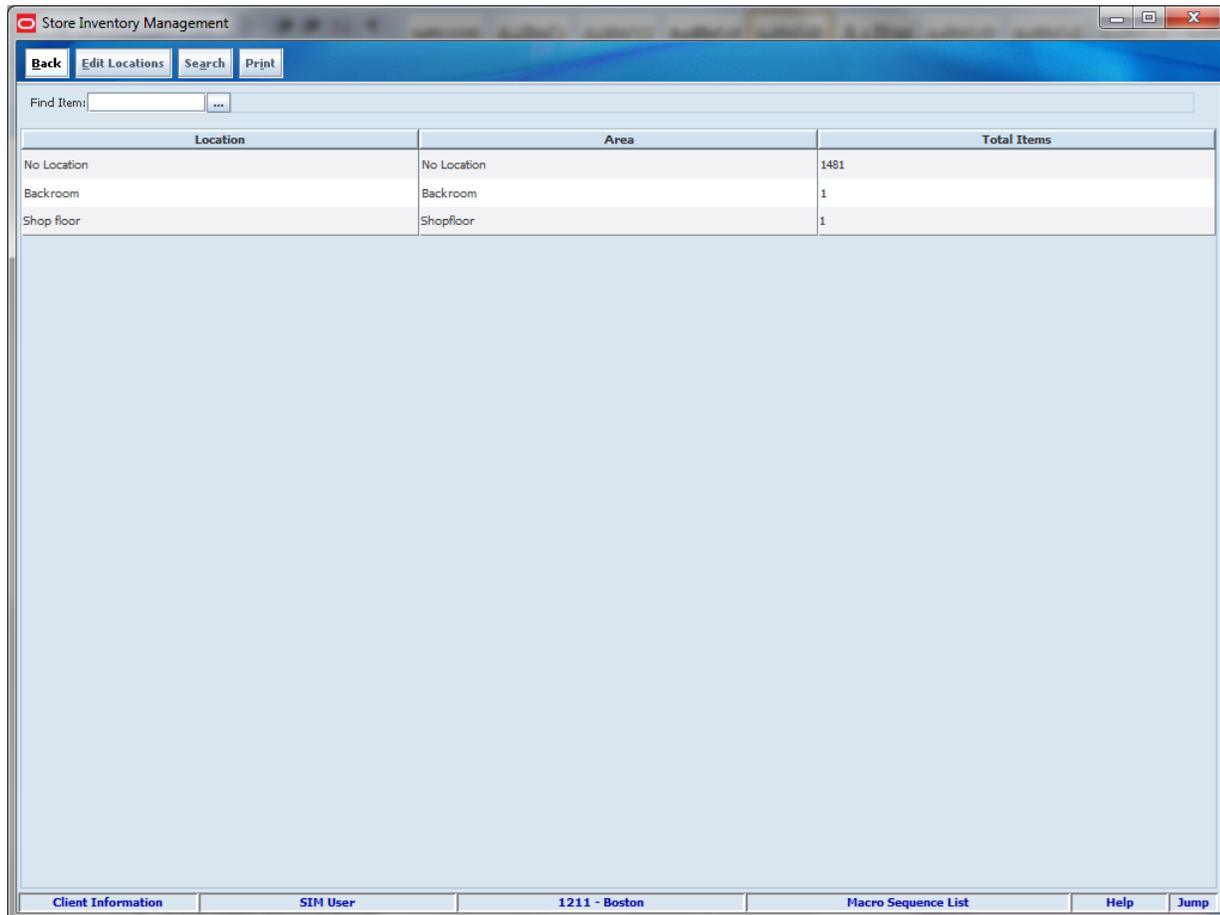
Security Permissions exists for access, add, delete, and edit for sequencing. Permissions also exist for applying class and Item list for locations, arranging sequencing locations and items within locations. For the handheld, permissions exist for accessing, sequencing, and sequence item within a location.

## Functionality

This section describes the screens available for sequencing.

## Macro Sequence List

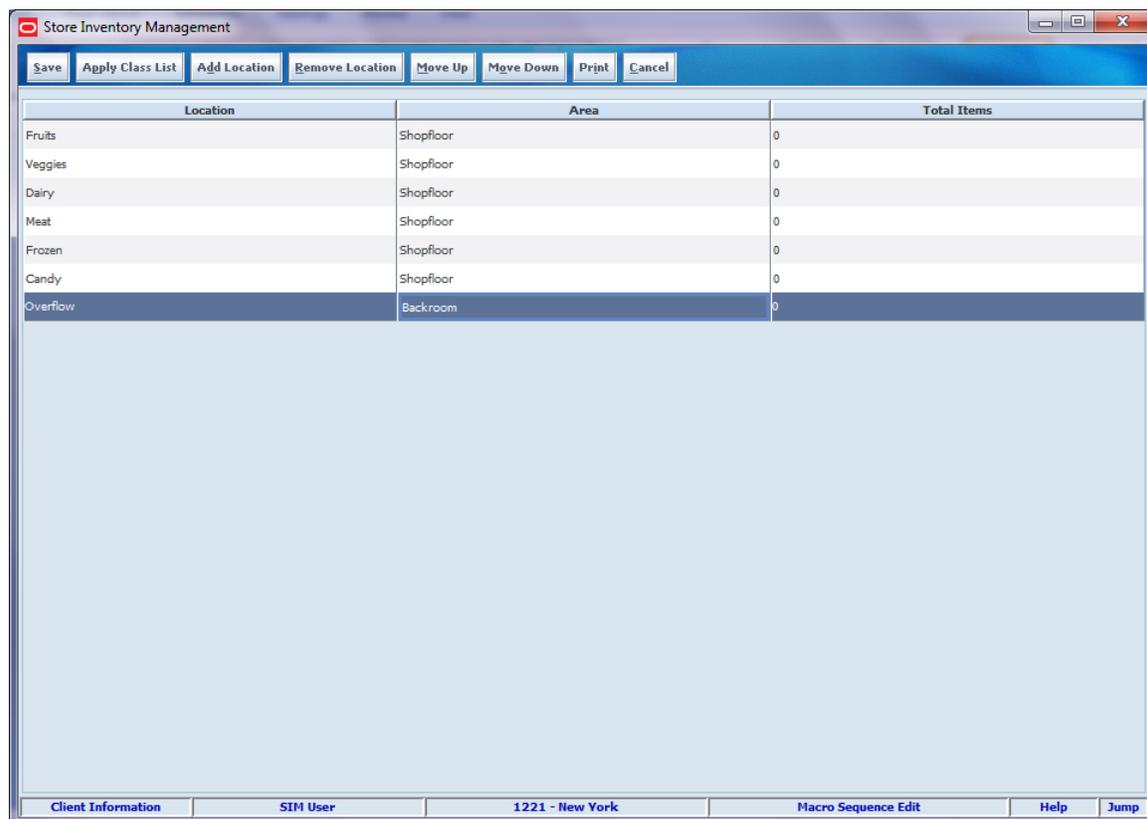
Figure 13–2 Macro Sequence List Screen



This figure shows the Macro Sequence List screen. This screen displays all the macro locations of the store with the number of items in it. The user can choose to edit locations from here. From this screen, the user can search on an item and the system will provide an Item Location List screen with all locations for that item. If a location is double clicked, the user navigates to the Micro Sequence List for that location. The Macro Sequence List screen is mainly informational listing out all of the macro locations in order.

## Macro Sequence Edit

Figure 13–3 Macro Sequence Edit Screen



This figure shows the Macro Sequence Edit screen. From the Macro Sequence List, if the user selects the Edit option, the Micro Sequence Edit screen is displayed. This screen allows the user to edit the location description and change the area (Backroom or Shop floor) for locations. In addition, the user can move a location up or down, which will change the relative position of that location to another. If needed, the user can add new locations and remove existing locations. For some retailers, the locations may be based off of the merchandise hierarchy class. If this is the case, the Apply Class List button automatically creates macro locations for each of the classes in the system. The print feature prints out shelf edge labels for all items in the macro sequence location.

## Micro Sequence List

**Figure 13–4 Micro Sequence List Screen**

Store Inventory Management

Back Edit Items

Location: Shop floor Total Items: 4 Shopfloor/Backroom: Shopfloor

Item	Item Description	Capacity	Width	UOM	Label Format	Label Qty	Multiple Locations
100037003	test	10	10	Units	Shelf Label	1	Yes
100009002	test	11	0	Cases	Shelf Label	1	No
100118719	pd:Black	0	0	Units	Shelf Label	1	No
100118014	8 npsg	0	0	Units		1	No

Client Information SIH User 1211 - Boston Micro Sequence List Help Jump

This figure shows the Micro Sequence List screen. If the user double clicks any location on the Macro Sequence List screen, this screen is displayed. The screen displays the information of the items in the location and their various features.

If the item exists in more than one location, this is indicated. The user can click on an item on the screen and direct to the Item Location List screen to view all of the locations for the item.

## Micro Sequence Edit

**Figure 13–5** *Micro Sequence Edit Screen*

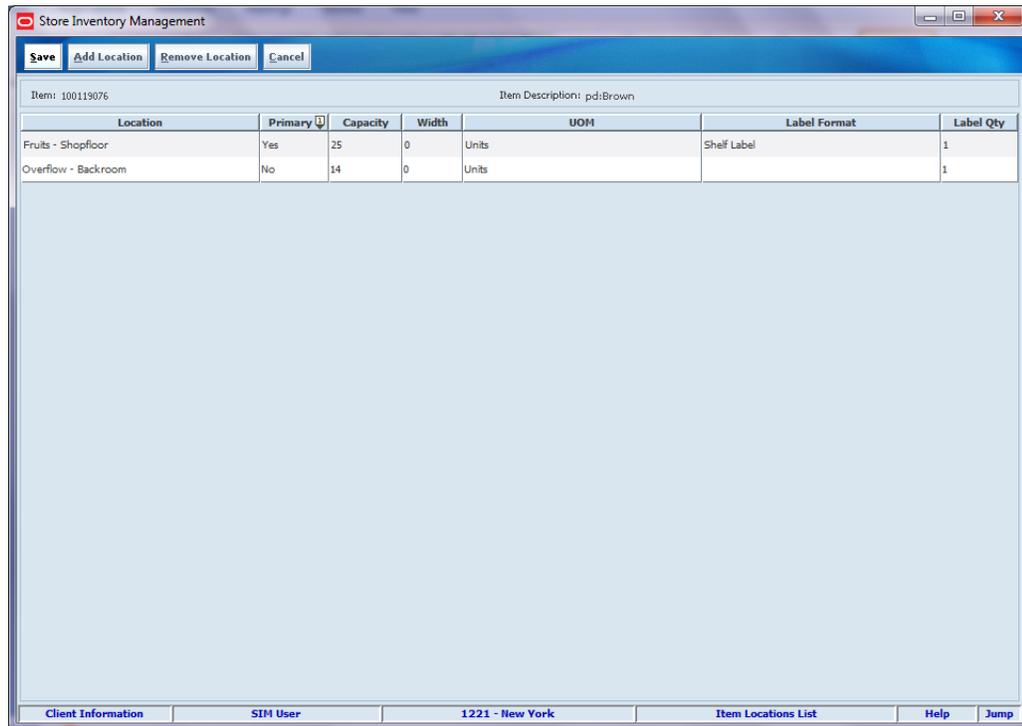
Item	Item Description	Capacity	Width	UOM	Label Format	Label Qty	Multiple Locations
100037003	test	10	10	Units	Shelf Label	1	Yes
100009002	test	11	0	Cases	Shelf Label	1	No
100118719	pd:Black	0	0	Units	Shelf Label	1	No
100118014	Bl npsg	0	0	Units		1	No

The Micro Sequence Edit Screen displays all the items in sequence order in the location they are assigned. The items can be added and removed from the location. The order of the items is considered the micro sequence order; this order can be modified by selecting an item and moving it up and down. If the macro location is a class, the Apply Item List function allows the user to apply all items that are part of the merchandise hierarchy class to the macro location.

The Capacity column is used in shelf replenishment to determine the limit of items on the location. Similarly, Label format allows the user to select the type of ticket the user wants to print which can be printed from ticketing. A user can double click the item and be taken to the Item Locations List Screen.

## Item Locations List

**Figure 13–6 Item Locations List Screen**



The Item Locations List screen shows the user all the store locations for the item. This screen appears when the user double clicks an item from the Micro Sequence List screen. Existing locations can be added and removed for the item. If the user adds a location to an item, the item will be added at the end of the micro sequence within that location. An item can have only one location as its primary location.

# No Location

**Figure 13–7 No Location Screen**

Item	Item Description	Location	Capacity	Width	UOM	Label Format	Label Qty
100006143	Test Item 100006127	No Location	0	0	Units		1
100250171	100250162 Test item parent:Gree...	No Location	0	0	Units		1
100250189	100250162 Test item parent:Gree...	No Location	0	0	Units		1
100250197	100250162 Test item parent:Gree...	No Location	0	0	Units		1
100250200	100250162 Test item parent:Gree...	No Location	0	0	Units		1
100250218	100250162 Test item parent:Red:...	No Location	0	0	Units		1
100250226	100250162 Test item parent:Red:...	No Location	0	0	Units		1
100250234	100250162 Test item parent:Red:...	No Location	0	0	Units		1
100250242	100250162 Test item parent:Red:...	No Location	0	0	Units		1
101000587	Regular item	No Location	0	0	Units		1
101600110	Regular T	No Location	0	0	Units		1
103450274	New Item	No Location	0	0	Units		1
105300229	Simple PAck Item	No Location	0	0	Units		1
105300237	Regular T	No Location	0	0	Units		1

The No Locations List screen allows users to add a primary location, label format, and quantity to an item that does not exist at another store location. The screen displays all the items with no location associated to them. Once the item is added to a location, it will be micro sequenced as the last item in the location. Non-sellable items are not displayed on this screen.

## Re-Sequence Location

*Figure 13–8 Re-Sequence Location Screen*



This screen is reached by selecting the Sequencing option under the Inventory Management menu. The handheld allows for sequencing an item, which means adding and removing locations for an item as well as moving the item within an existing location. The Sequence Location option enables the user to take an existing location and remove all the items in it and re-sequence that location by adding all new items into that location. The handheld does not allow the creation of macro locations.

### User Interface Guidelines

The Sequencing dialog allows for creating, editing, and deleting of Macro and Micro Locations on the PC and handheld.

Items can be assigned to the added locations for better tracking of Inventory. Locations can be at Shop floor or Backroom.

### Technical

A sequence is a location in a store. Using sequencing functionality, a retailer can divide the store area into multiple sequences and map items to them.

By default, all the items are mapped to a no-location sequence. As the retailer creates sequences and map items to them, the items are moved from a no-location sequence to their corresponding sequence and the mapping records are created in SIM data models.

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**Note:** The no-location sequence should not be deleted.

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Business objects are used within the application code for all business processing. The following business objects are used for sequencing:

<b>Business Object</b>	<b>Description</b>
StoreSequenceArea	Contains information about the store area that contains sequence items.
StoreSequenceItem	Contains information about an item within a store sequence area.

## Integration

This section provides information on the integration of sequencing.

### RIB

There is no integration specific to sequencing. When an item is created in RMS and integrated to SIM, SIM will create the item. The item will initially appear in the No Location macro sequence location until the user otherwise moves it.

### Web Services

There are no web services for sequencing.

## Batch

The following batch is supported:

<b>Batch Name</b>	<b>Description</b>
Store Sequence Import Batch	<p>SIM integrates with an external system using a batch process to obtain sequencing information from the external system:</p> <ul style="list-style-type: none"> <li>■ It will create micro locations.</li> <li>■ It will create macro locations.</li> </ul>

## Data Structure

The following database tables are used in sequencing:

<b>Table Name</b>	<b>Description</b>
STORE_SEQUENCE_AREA	Hold data defining different locations defined in a store.
STORE_SEQUENCE_ITEM	Defines a map of an item to a location and what order the item is in within the location.



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## Shelf Replenishment

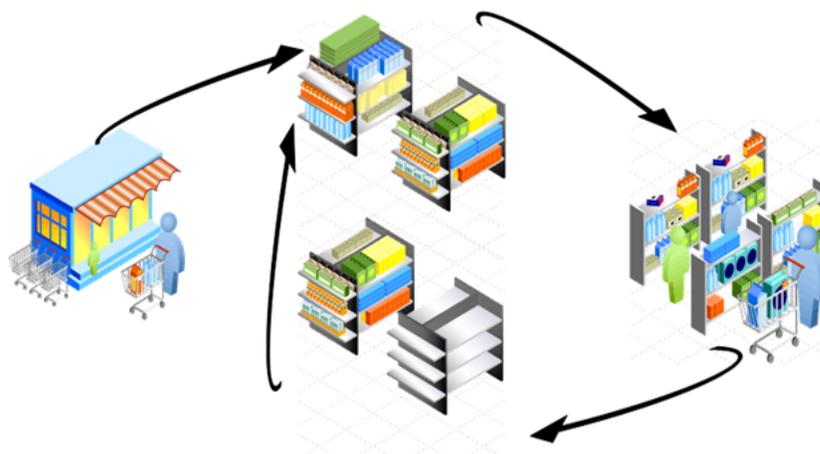
This chapter covers shelf replenishment. The following topics are covered:

- **Overview:** Introduction to Shelf Replenishment.
- **Functionality:** Shelf Replenishment, Shelf Adjustment, Item Substitution, and Receive on Shop floor.
- **Technical:** Integration with Oracle Retail Integration Bus (RIB), web services, batch, and the database structure.

### Overview

The replenishment process attempts to ensure that the shop floor inventory is set at a level best suited for enticing customers to buy a product and to prevent empty shelves. Shelf replenishment functionality within SIM is related to the movement of goods from the back room to the shop floor and shop floor to back room. For example, when a user sees that a certain soda quantity is low, the user can initiate a replenishment process so that more of the soda is moved from the back room. Similarly, if there is excess stock on the shop floor, SIM supports processes to move inventory to the backroom. Some of the processes require capacity setup and some form of plan-o-gram sequenced data, while others do not.

**Figure 14–1 Shelf Replenishment**



Shelf replenishment-related processing within SIM includes the following features:

- Six different replenishment methods:
  - Capacity algorithm based on stock level percentages

- Sales based
- Ad hoc empty shelf scanning
- Display stock replenishment
- Receiving on the shop floor
- Automatic
- The system can calculate the optimal quantity of inventory on what should be held on the shop floor to prevent empty shelves
- On demand generation of pick lists with real-time data
- Store employees are driven to replenish the most urgently needed items first
- Optional item location guidance when picking items by backroom micro sequence
- Formal or informal picking dialog
- Ad hoc update shop floor and backroom process to balance and correct inventory positions
- Optional substitution when lacking inventory
- Within day partial or end of day full replenishment pick lists for user efficiency

Capacity replenishment uses shop floor capacity and backroom inventory positions to calculate a pick list optimized to keep shelves on the shop floor well stocked. The user only has to indicate how many cases they want to replenish and which items by selecting the product group. This method is focused on those retailers and items which have a well defined plan-o-gram.

The capacity-based replenishment method is best used by retailers who have a structured shop floor where it is easy to define capacity, items are fairly static, and multiple units are on the shop floor. This is especially useful for grocery retailers and mass merchandise retailers. The structured shop floor is important to this method since there is an inherent cost involved with the need to understand how much capacity exist on the shop floor. A dynamic environment with continuously changing assortments or single item counts often is too costly to maintain the plan-o-gram shopfloor capacity.

Ad Hoc scanning is focused on those retail environments who want to have a very simple easy to use shop floor replenishment system. The user is able to scan items on the shop floor which become a backroom pick list for someone to pick items on and bring to the shop floor.

Sales-based shelf replenishment is based on a process that records all sales coming into the store. The sold item is added to the pick list based on merchandize hierarchy. Similar to the ad hoc scanning process, this does not require plan-o-gram information. Sales-based shelf replenishment is especially well suited for fashion retailers who have constantly changing assortments and have many low, or even single instance items like special shoe sizes or undergarments.

Display Stock is a replenishment method specifically geared towards single unit items that are used to sell to customers and are related to each other by style. The process allows a user to scan the items they have on the shop floor. SIM will generate a pick list for those styles and differentiator combination not represented on the shop floor.

Business Case example: A handbag retailer displays all the colors within a style for purses. Susan finds the perfect burgundy colored purse, picks it up from the shop floor, and goes to a sales counter. The sales associates on the sales floor do not notice that that particular color/model is not displayed anymore. Jane looked at a magazine

and really wanted to have the featured red colored purse, but when shopping for that specific purse she does not see it on the shop floor and assumes it has sold out or was never carried. She decides to walk out of the store without a purchase and look at a different purse vendor who may have the red colored purse.

This scenario could easily have been resolved by the sales associate scanning periodically the items that are displayed on the shop floor and generating a list of missing items in inventory using the display replenishment methods.

Shop floor receiving will allow the receiving associate to indicate if they are receiving in the backroom or directly on the shop floor. This method is most often used with those retailers that have daily deliveries and move delivered quantities directly to the shop floor since most of the delivered quantities are just in time deliveries as is the case in the grocery environment.

The automatic option will refresh the store shop floor quantities based on capacity and available inventory for a specific merchandise selection. This feature can be used by those retailers who have a process where the store is brought back into a refreshed state at the end of the day and do not want to run manual or calculated pick lists. Another possible scenario could be when a large refresh is required due to significant plan-o-gram changes or when initially configuring a store.

## Business Case

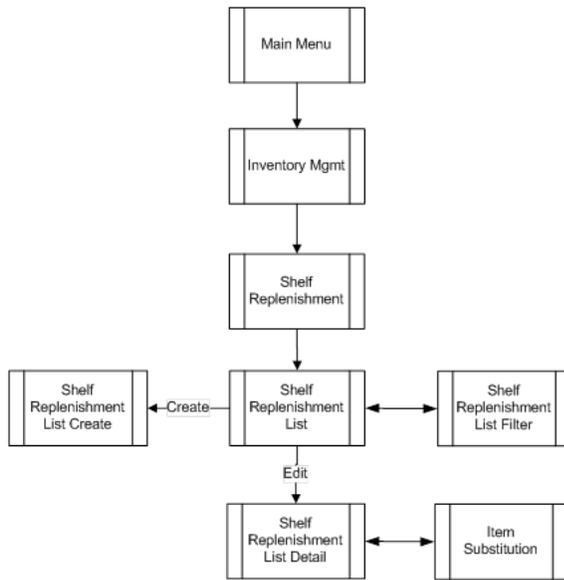
- Replenishment of shop floor.

This operation will help a retailer to move goods from the backroom to the shop floor. This is done to achieve a better fill rate at the store; the more shelf space is utilized, the better sales. This is possible even if a retailer is not using sequencing.

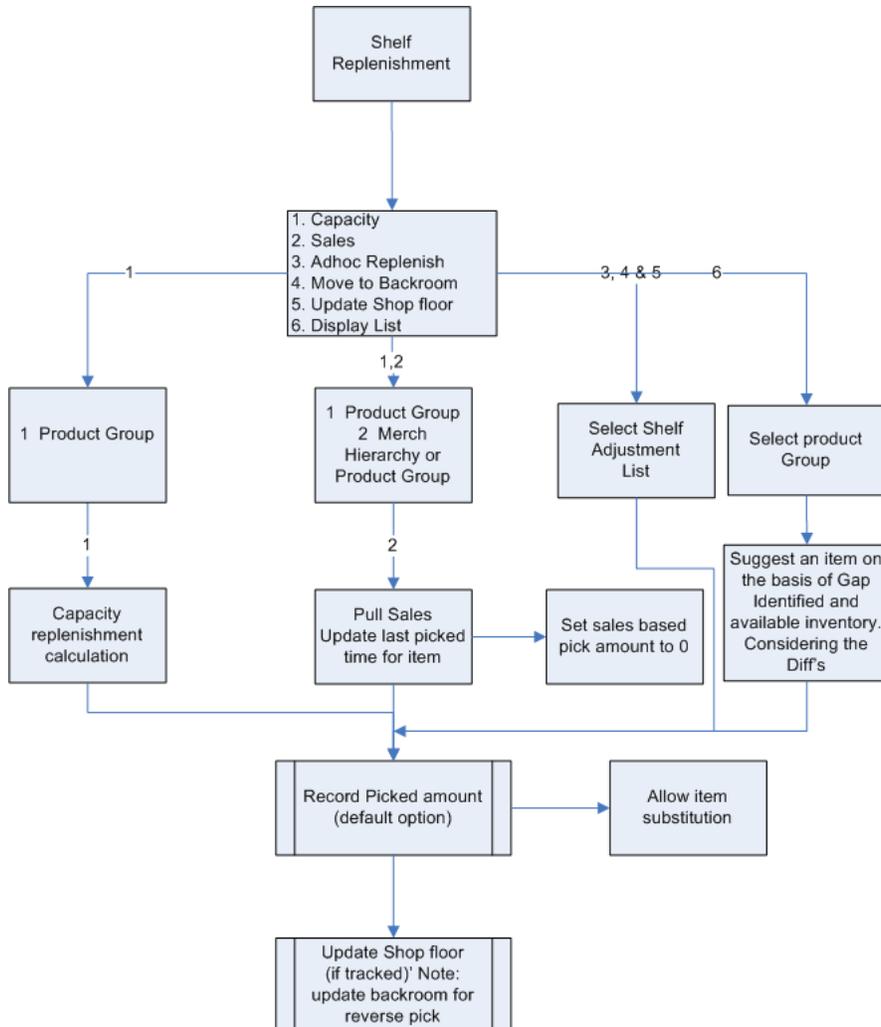
- Moving items to the back room

Moving of Items from Shop floor to the Backroom is possible. It helps a retailer to move extra goods from the shop floor, which could be an outcome of receiving the delivery at the shop floor itself or incorrect movement of goods. For example, if a retailer receives a delivery at the shop floor but there is not enough space to keep the full delivery, then the retailer can use this functionality to move the goods to the backroom which are not required for that moment on shop floor. Secondly, if due to manual intervention there has been a movement of goods from the backroom to the shop floor and the shop floor cannot accommodate that much quantity, the retailer can push back the excess quantity to the backroom.

**Figure 14–2 Shelf Replenishment PC Screen Flow**



**Figure 14–3 Shelf Replenishment Process Flow**



Shelf Replenishment exists under the Inventory Management menu. From the Shelf replenishment List screen, the user can filter the records as needed. The user can then view, create, edit, delete, and complete shelf replenishments.

## Configurations

This section covers system and store parameters.

### System Parameters

#### Shelf Replenishment UI Limit

- Values: Not to exceed the value of the UI performance limitation configuration setting
- Default: 1500
- Topic: UI
- Editable: Yes
- This option determines the maximum number of line items allowed on a Shelf Replenishment List. This check occurs in addition to and after the application limits the transaction based on the pick list system parameters.

### Store Parameters

#### Replenishment - At Case Level

- Values: Yes/No
- Default: No
- Topic: Shelf Replenishment
- Editable: Yes
- This parameter determines whether to replenish shelves at the Case level or at the standard unit of measure. This will override the "Default UOM" system parameter.
- Yes: The standard UOM will default to Cases on the Shelf replenishment screens on both the handheld and PC.
- No: The standard UOM will default to "Eaches" on the Shelf replenishment screens on both the handheld and PC.
- Regardless of how this parameter is set, the user will be able to toggle between cases and SUOM.

#### Replenishment - Delivery Bay Inventory

- Values: Yes/No
- Default: Yes
- Topic: Shelf Replenishment
- Editable: Yes
- This option allows the user to turn on or off the delivery bay functionality.

#### Replenishment - End of Day Max. Fill %

- Values: 0 to 100

- Default: 100
- Topic: Shelf Replenishment
- Editable: Yes
- This configurable percentage allows each store to set its own fill percentage for creating end-of-day shelf replenishment lists.

**Replenishment - Handheld Picking Mode**

- Values: Enter Pick Quantity / Scan Every Item
- Default: Enter Pick Quantity
- Topic: Shelf Replenishment
- Editable: Yes
- This parameter determines whether the user will need to scan every item during the pick process or whether the user will manually enter a pick quantity, then scan the item to validate it is the correct item.
- Enter Pick Qty: The user will need to manually enter the pick quantity and then scan the item to validate it is the correct item.
- Scan Every Item: The user will be required to scan each instance of the item on the pick and then scan the bin, if required, instead of manually entering a pick quantity for all items picked. This method ensures every item is validated as the correct item to pick.

**Replenishment - Item Substitution Store Discretion**

- Values: Yes/No
- Default: No
- Topic: Shelf Replenishment
- Editable: Yes
- This parameter determines whether or not a user will be able to choose any item for item substitution functionality on the Shelf Replenishment List Detail screen on the handheld and PC.
- Yes: The user will be allowed to choose any item to substitute. An item lookup feature on the PC allows the user to search for an item to select.
- No: The user will be restricted to scanning/entering an item that exists on the list of approved substitute items defined by RMS.

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**Note:** If there are no items defined in RMS for item substitution, the Item Substitution dialog is displayed with the original item in the header and no substitutes.

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**Replenishment - Within Day Max. Fill %**

- Values: 0 to 100
- Default: 75
- Topic: Shelf Replenishment
- Editable: Yes

- This configurable percentage allows each store to set its own fill percentage for creating within-day shelf replenishment lists.

### Shelf Adjustment List Printing

- Values: Automatic/Manual
- Default: Manual
- Topic: Shelf Replenishment
- Editable: Yes
- This parameter determines whether Shelf Adjustment list Printing will be automatic or manual.
- Automatic: Report and tickets will be printed automatically. In case of multiple reports, the system will prompt to choose.
- Manual: The user will need to initiate printing of the list.

## Functionality

This section describes the available screens.

### Product Group Detail

**Figure 14–4 Product Group Detail Screen**

This figure shows the Product Group Detail screen. The shelf replenishment product group is required to be set up for three types of in-store replenishment:

- Capacity based requires the user to define product group components which will be used to generate the pick list.
- The Display List type shelf replenishment helps the user to scan a list of items available on the shelf and create a list and compare it with the product group and identify the gap and replenish. This screen allows the user to select the diff

through which the replenishment would be done. The Display list method requires the user to define outside of the product group components to also define the differentiator. The combination of differentiator and product group used with a scanned list will provide the user with a list of items that were not scanned.

- Auto replenishment requires the user to set the "auto replenishment" indicator and define product group components. After setup, the user is also required to add this product group to the scheduler for batch scheduling. This setup will auto "top off" the shop floor. If the product group is only used one time, it also could be used to bring the shop floor up to capacity after a major plan-o-gram change without requiring user intervention in SIM.

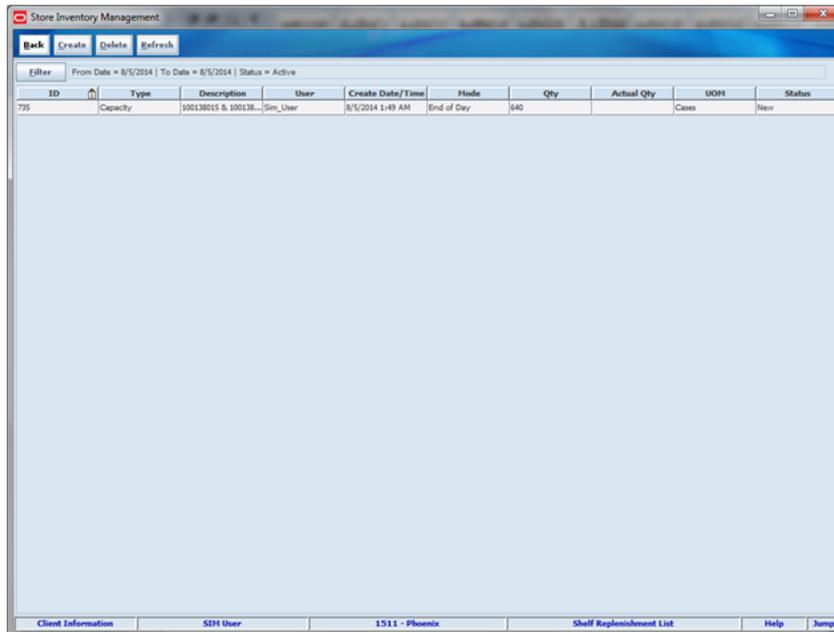
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**Note:** When scheduling for today, the user will have the option to immediately execute the "top off."

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## Shelf Replenishment List

**Figure 14–5 Store Replenishment List**



The Shelf Replenishment List screen allows the user to create, edit or delete a replenishment list. The Shelf Replenishment List screen is accessible from the Shelf Replenishment button on the Inventory Management menu. All types of replenishment lists are displayed with the total quantity to pick and the actual picked quantity. When the user selects a replenishment list the user is brought to the Shelf Replenishment List Detail screen where the list details may be picked and completed. If the user creates a new replenishment list, the user is brought to the Shelf Replenishment List Create popup.

Four types of in store replenishment methods can be defined here: Capacity, Display List, Ad Hoc, and sales.

The Mode field indicates if the pick list is an end of day list which fills the shelves to capacity (pending backroom inventory) or if the pick list will only pick up to a specific user-defined quantity.

## Shelf Replenishment List Filter

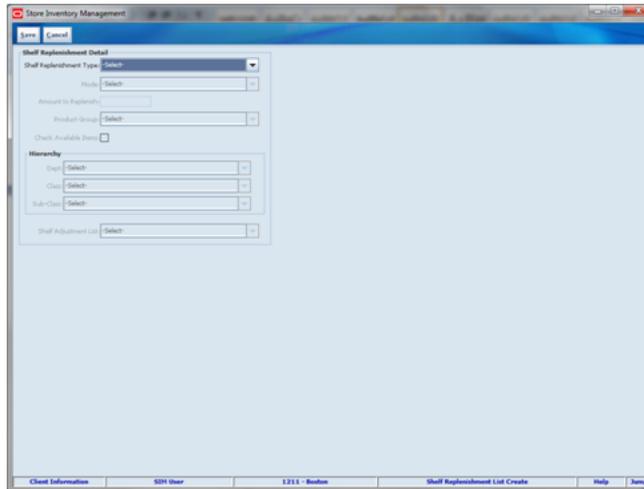
**Figure 14–6 Shelf Replenishment List Filter Screen**

This screen can be reached from the Shelf Replenishment List screen by clicking the filter button. This helps to limit the search on Shelf Replenishment List screen through date, hierarchy, and various additional filters:

- Shelf Replenishment List ID: limit search by shelf replenishment ID
- Type: drop-down list with valid values:
  - Capacity
  - Adhoc
  - Display
  - Sales
- Mode: drop-down list with valid values "End of Day" and "Within Day." This field is disabled if Shelf replenishment Type = Shelf adjustment or Adhoc Replenishment as it is not used for these types of replenishment.
- Product Group: drop-down list of all shelf replenishment product groups. Only enabled for "Capacity" and "Sales" shelf replenishment types.
- Shelf Adjustment List: drop-down list of all Shelf Adjustment Lists. Only enabled for "Shelf Adjustment" and "Adhoc Replenishment" shelf replenishment types.
- Item: existing
- Status: allows the user to filter by the state of the replenishment record. If filtering by "Active" status, SIM will return New and In Progress shelf replenishments.
- User: limit search by the user who created the replenishment.

## Shelf Replenishment List Create

**Figure 14–7 Shelf Replenishment List Create Screen**



The Shelf Replenishment List Create screen is used to create a new shelf replenishment list based on various criteria specified by the user. This screen is accessed by clicking the Create button from the Shelf Replenishment List screen.

The user is able to create four different types of shelf replenishment lists: Ad Hoc, Capacity, Display, and Sales based replenishment lists.

Additionally, the user can specify an amount to be picked.

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**Note:** Units is the total number of individual units, not the number of SKUs.

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If the user wants the system to check available inventory, SIM does not restrict to only backroom stock. This feature is also useful to identify if substitution is possible. The need of the item is checked, and no constraint is applied.

Based on the replenishment list type selected, some fields will display while others will not.

### Replenishment List Types

#### Capacity (Algorithm Based on Stock Level Percentages)

Capacity-based replenishment is dependent on the capacity defined for an item in sequencing at the shop floor. A user can choose to replenish within the day or end of the day. The difference between the capacity quantity and the actual stock on the shop floor becomes the suggested quantity to replenish. If the user chooses to replenish the stock within the day, the user also has an option to enter a quantity to replenish taking into account the manpower availability. If the user chooses to replenish at the end of the day, it is assumed that the user will have sufficient manpower and be able to replenish the full deficit.

Capacity-based replenishment uses the difference of the shop floor capacity and the shop floor quantity to calculate the gross need of how many units need to move to the shop floor. This need is constrained by several factors, how many units are present in

the backroom and how many units does the user actually have time to pick and move to the shop floor.

Capacity-based replenishment uses a specific algorithm to define the optimal method to replenish the shop floor quantity:

- The total capacity equals the sum of capacity for all shop floor locations.
- The Out of stock % equals the total capacity minus the shop floor quantity divided by the total capacity times 100.

Calculation:

- The Gross Need Units equals the total capacity minus the shop floor quantity.
- The item list is sorted in the order of percentage Out of stock.
- The Net Need calculation uses the total capacity, total max fill percentage, and the mode.
- The total available replenish quantity equals the backroom plus the delivery bay stock. This step is only used when checking available stock on hand.
- The fill quantity equals the Net Need or the total available, whichever is smaller.
- The Within day fill will create a list until units replenished meet the within day fill quantity.
- The End of day fill will create a list with all items needing replenishment.

### **Sales Based**

Sales-based replenishment uses a concept in which the shop floor is intact and accurate every morning. As units are sold, new units will take their place. Often if a unit is sold out, because of limited availability, a substitution will be used to replenish. When the substitute is sold, the substitute will be replenished. The advantage of this type of method is sequencing is not required, since everything replenished is based on sold units.

A user can choose to replenish within the day or at the end of the day. If the user chooses to replenish within the day, they have an option to enter the quantity they have time to replenish. This replenishment quantity is restricted by the quantity entered by the user, and is pro-rated. If the user chooses to replenish at the end of the day, it assumes sufficient manpower will be able to replenish the suggested quantity.

This method is mostly used by fashion retailers who have no defined capacity and many items that are single size/color/style items. It often is used in conjunction with substitution to allow them to keep the shop floor looking filled by substituting the sold unit with one that is in the backroom.

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**Note:** This method will often be used with the option to ignore available inventory. This allows "out of stock" items on the replenishment list to be substituted.

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### **Ad Hoc (Empty Shelf Scanning)**

The Ad hoc replenishment is the easiest method of all the various types of shelf replenishment. With this method, the user scans the goods that need replenishment and a replenishment list is created from the units scanned.

The system uses this replenishment list to move the goods from the backroom to the shop floor based on backroom availability. The reason to have a separate process

between scanning and generating is that one user can create a list and another user can execute the shelf replenishment allowing for distribution of workload. It is even possible to prevent a shelf replenishment list from generating and just print a report of the scanned items.

Since this process does not have a dependency with either sales or capacity, it gives an advantage to the retailer to move goods without any complex setup.

**Display (Sales Floor/ Shop Floor)**

The shelf replenishment method of Display stock replenishment is fully based on the idea that if a customer does not see the item on the shop floor, they do not know the item exists.

This method provides a way to reduce the inefficiency of receiving new styles in the backroom, and not having full knowledge of what is displayed and what should be moved from the backroom to the shop floor.

The generic process is the user will scan all display stock items, and then compare them against a product group with all the styles available for that department. The user will then identify what is the differentiator needing to be displayed on the floor. Often this is color.

Because this type of method is often used in a fashion setting, it does not require sequencing or capacity at all. Capacity need is always one item per primary differentiator.

A product group is required to set up with all the items on a shelf. The following table is an example which shows six items with various colors and sizes. In order for the comparison between shop floor display and backroom, all of the items need to be set up in the product group.

Next, a shelf adjustment list needs to be created by scanning the items on display. For this example, the user only has item 124 on the display shelf.

Item ID	Diff 1	Diff2
123	Black	S
124	Black	M
125	Black	L
234	Red	S
235	Red	M
236	Red	L

While creating the product group, the user selected to sort by the color. Since the scanned item is black, the sorting is by color. The system will try to find a different color available in the backroom. After the comparison between the two lists, SIM tells the user item 236 needs to be replenished.

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**Note:** The suggested red item to be replenished will depend on available backroom inventory and the sort of the second differentiator. If Diff 2 had been defined differently, such as L = 10, M = 08, and S = 06, then item 234 would have been recommended instead for replenishment.

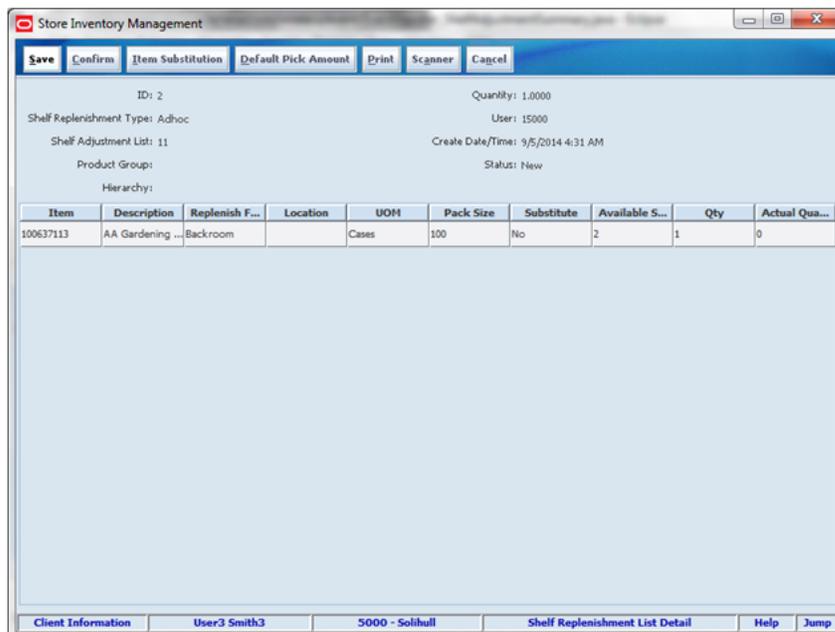
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## Shelf Replenishment List Detail

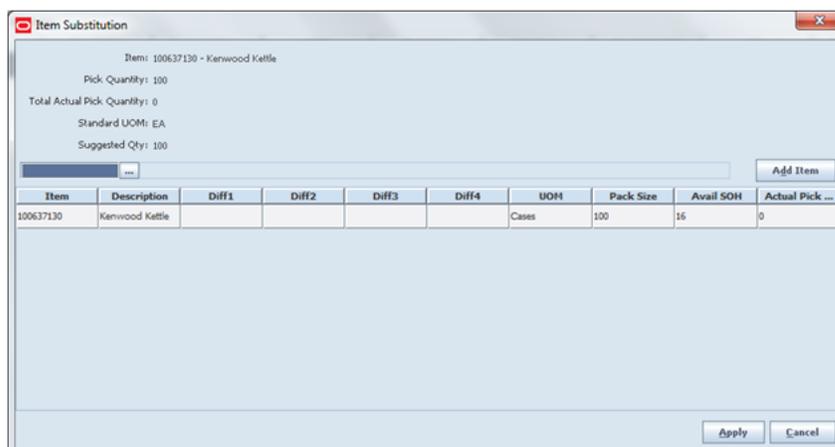
**Figure 14–8 Shelf Replenishment List Detail Screen**



The Shelf Replenishment List screen allows the user to view all the details of the replenishment list. This screen is accessed by selecting a replenishment list from the Shelf Replenishment List screen. If the item is not available for replenishment, the item can be substituted by selecting the Item Substitution button.

## Item Substitution

**Figure 14–9 Item Substitution Popup**



The Item Substitution popup is used to find a substitute item when the requested item has no inventory. The Item Substitution popup can be accessed from the Shelf Replenishment List Detail screen. Using item substitution helps maintain a better fill rate within different areas of the store. The substitutions can be recommended by corporate or they can be ad hoc picked depending on system settings. This is a similar

process as in the Customer Order Picking dialog. Depending on security permissions, the user can be restricted to just the corporate items or be free to select anything they want.

## DSD Receiving Container Info

**Figure 14–10 DSD Receiving Container Info Popup**

The DSD Receiving Container Info popup is used to identify a container to receive on the shop floor. This popup is accessed from the DSD Receiving Container Detail screen. If the store parameter, "Direct Delivery Default to Shop floor Receiving," is set to Yes, the checkbox will already be marked and the user will only enter the screen and unmark the checkbox when they want to receive in the backroom.

## Transfer Receiving Container Info

**Figure 14–11** *Transfer Receiving Container Info Popup*

Transfer Receiving Container Info

ID: 3743  
 Container ID: 000000011110166155  
 ASN: 2741  
 Source Type: Store  
 Source: 1131 Jacksonville  
 Status: In Progress  
 Adjusted Container:   
 Reference Container:

Expected Date: 9/1/2015  
 Create Date: 9/28/2015  
 Create User: SIM\_User  
 Last Update: 12/2/2015  
 Last Update User: dev  
 Received Date:   
 Received User:

Receive on Shopfloor:   
 Damage Remaining:   
 Damage Reason:   
 SSCC:   
 Tracking ID:

Apply Cancel

The Transfer Receiving Container Info popup is used to identify a container to receive on the shop floor. This popup is accessed from the Transfer Receiving Container Detail screen. If the store parameter, "Store Transfer Default to Shop floor Receiving" and/or "Warehouse Default to Shopfloor Receiving," is set to Yes, the checkbox will already be marked and the user will only enter the screen and unmark the checkbox when they want to receive in the backroom. External Finisher containers are always be received in the backroom.

## Handheld Workflows

This section describes the store replenishment workflows on the handheld.

## Shelf Replenishment List Type

Figure 14–12 Shelf Adjustment Screen



This figure shows all the types of shelf adjustment lists that can be created and used for creating a pick lists or directly updating the shop floor or backroom:

- **Shop Floor Adjust:** This list allows the user to scan the items on the shop floor and update the shop floor quantity with the scanned item quantities. The shelf adjustment list can only be created on the handheld. After the creation of the list, the user clicks confirm to update the stock on the shop floor. Adjust the shop floor will also adjust the backroom to ensure that the shop floor plus backroom is equal to the SOH.
- **Backroom Adjust:** This is very similar to the shop floor adjusted, except here the user scans the backroom and updates the backroom quantities. Adjusting the backroom will also automatically adjust the shop floor to ensure the SOH is always equal to shop floor plus backroom.

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**Note:** Both the shop floor and backroom adjust methods ignore capacity and sequencing setup, so it is possible to update the shop floor with more units than capacity is identified for.

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- **Display List:** This list is intended for the user to scan the shop floor display items. The list of scanned items will be compared on the PC or handheld when generating a pick list. This list can only be created on the handheld.
- **Ad Hoc Replenish:** For Ad Hoc replenishment, the user will scan gaps on the shelf. When the list is complete, the user can save it and have it executed on the PC or handheld. This list can only be created on the handheld.

### Shelf Replenishment Type

Figure 14-13 Shelf Replenishment Screen



Similar to the PC, the handheld can also be used to generate shelf replenishment lists and execute those lists. Four replenishment list types can be created and actioned from the handheld:

- Capacity
- Sales
- Ad Hoc
- Display List

### Most Common Functional Process

The following table describes the most common functional processes on the handheld.

Vertical	Replenishment Method	Complexity	Use Case	Item Scan	Pick List Generate	Product Group	Likely Use Backroom /Shop Floor	Plan-O-Gram
All	Ad Hoc Scan	Simple	- Scan items - Print report - Pick from report	Yes	No	No	No	No
All	Ad Hoc Scan	Medium	- Scan items - Generate pick list - Pick from report	Yes	Yes	No	Yes	Optional

Vertical	Replenishment Method	Complexity	Use Case	Item Scan	Pick List Generate	Product Group	Likely Use Backroom /Shop Floor	Plan-O-Gram
All	Update Shop Floor	Simple	- Scan items - Complete updates to shop floor	Yes	No	No	Yes	Optional
All	Update Backroom	Simple	- Scan items - Complete updates to backroom	Yes	No	No	Yes	Optional
Fashion	Fashion List	Medium	- Scan items - Generate pick list based on product group - Action pick list manually or through handheld	Yes	Yes	Yes	Yes	No
Grocer Hard Line	Assisted Generation	High	- Set parameters - Create product group - Action within/end of day pick list - Pick based on handheld presented sequence	No	Yes	Yes	Yes	Yes
Fashion	Sales	Medium	- Set up product group - Action within/end of day pick list - Pick from list on handheld or report	No	Yes	Yes	No	No
Fashion	Sales	Simple	- Use merch hierarchy - Action within/end of day pick list - Pick from list on handheld or report	No	Yes	No	No	No

Vertical	Replenishment Method	Complexity	Use Case	Item Scan	Pick List Generate	Product Group	Likely Use Backroom /Shop Floor	Plan-O-Gram
Grocer	Receive Shop Floor	Medium	- Receive transaction - Indicates receive shop floor - Update shop floor to max capacity, move rest to backroom	No	No	No	Yes	Optional
Fashion	Auto Shop Floor Update	Simple	- Set up product group - Schedule product group - End of day, auto update shop floor to capacity	No	No	Yes	Yes	No

Description of columns in preceding table:

- Vertical: Type of item vertical.
- Complexity: Difficulty of execution.
- Use Case: High-level steps.
- Item scan: Scan a list of items.
- Pick List Generate: Generate a pick list or not.
- Product Group: Is product group setup required?
- Likely use backroom/shop floor quantities: does this replenishment method track inventory at the backroom and shop floor or not.
- Plan-o-gram: This indicates if capacity is required to be set up. Plan-o-gram integration reduces the need to maintain this manually in SIM.

## User Interface Guidelines

The creation of an Ad hoc or fashion item list with items that need to be replenished can only be created on the handheld. Both the PC and handheld can execute the replenishment list.

Updating the shop floor or the backroom is a handheld function only.

## Technical

SIM creates shelf replenishments and updates inventory buckets for four types of shelf replenishments: Capacity, Sales, Ad Hoc, and Display List by the creation of pick lists. SIM also supports on-the-fly stock movement (from shop floor to backroom and vice versa) using the Shelf Adjustment List.

From a technical perspective, both Shelf Replenishment and Shelf Adjustment List have a header record and can have multiple detail records.

For shelf replenishments that are created using a product group (could be Sales type or capacity type), depending on the number of items in the product group and the system parameter Shelf Replenishment UI Limit, the shelf replenishment may be broken down into multiple shelf replenishments each with line items not more than the value of the system parameter. The only condition is that a sub-class hierarchy is never divided further. For example:

- Product group has 1100 items such that 500 items are in sub-class A and 600 items are in sub-class B.
- The stock at shop floor for each item is lower than their respective defined capacity.
- Shelf Replenishment UI Limit = 1000
- User creates capacity-based shelf replenishment.
- This will create two capacity-based shelf replenishments, one for sub-class A (with 500 items) and another for sub-class B (with 600 items).

Business objects are used within the application code for all business processing. The following business objects are used for shelf replenishment:

<b>Business Object</b>	<b>Description</b>
ShelfReplenishment	Contains header information about the shelf replenishment including status.
ShelfReplenishmentLineItem	Contains detailed information about a specific item on the shelf replenishment including pick area and pick quantity.
ShelfAdjustment	Contains header information about the shelf adjustment including status.
ShelfAdjustmentLineItem	Contains detailed information about a specific item on the shelf adjustment including requested quantity.

## Integration

This section provides information on the integration for shelf replenishment.

### RIB

There is no integration through RIB to other Oracle Retail products.

### Web Services

Shelf replenishment is integrated with external systems through web services.

SIM supplies the ShelfReplenishment SOAP web service which has following service operations:

<b>Service Operation</b>	<b>Description</b>
lookupShelfReplenishmentHeaders	Retrieves header information for one or more shelf replenishments based on input search criteria.
readShelfReplenishment	Retrieves detail information for a shelf replenishment.
createShelfReplenishment	Creates a shelf replenishment in New status.
updateShelfReplenishment	Updates the line item records of the shelf replenishment and updates the status for New shelf replenishments to In-progress.

Service Operation	Description
confirmShelfReplenishment	Confirms a shelf replenishment updating the inventory positions and completing the replenishment.
cancelShelfReplenishment	Cancels a shelf replenishment.

SIM also supplies the ShelfAdjustment SOAP web service which has following service operations:

Service Operation	Description
lookupShelfAdjustmentHeaders	Retrieves header information for one or more shelf adjustments based on input search criteria.
readShelfAdjustment	Retrieves detail information for a shelf adjustment.
saveShelfAdjustment	Creates a new shelf adjustment or modifies an existing shelf adjustment.
confirmShelfAdjustment	Confirms a shelf adjustment of type Shop floor Adjust or Move to Backroom.
cancelShelfAdjustment	Cancels a shelf adjustment.

## Batch

The following batch is supported:

Batch Name	Description
Auto Replenish Capacity Batch	This batch is run to maximize capacity. It needs to be scheduled for the correct product group and have the "Auto Replenishment" indicator set. It will only affect those items that have been set up in the product group. It is usually run when the store is closed.
Cleanup Shelf Replenishment Batch	This batch moves inventory from the delivery bay to the back room. It also marks any uncompleted shelf replenishment pick lists as cancelled.

## Data Structure

The following database tables are used in shelf replenishment:

Table Name	Description
SHELF_REPLENISH	Contains shelf replenishment header information including store for which the shelf replenishment was created, type, status, amount to pick, and create date-time.
SHELF_REPLENISH_LINE_ITEM	Contains detailed item level information for all the line items in the shelf replenishment including suggested quantity and actual picked quantity.
SHELF_REPLENISH_BKDN	This is a temporary table which contains breakdown information for shelf replenishments created using product group having large number of items. Contains shelf replenishment breakdown details along with the item ID.

<b>Table Name</b>	<b>Description</b>
SHELF_ADJUST	Contains header level information for a shelf adjustment list along with the type of adjustment, status, and create date-time.
SHELF_ADJUST_LINE_ITEM	Contains detailed line item level information for the items in the shelf adjustment list including suggested quantity.
RPRT_SHELF_REPLENISH_V	This view contains header as well as item level detailed records for shelf replenishment.
RPRT_SHELF_ADJUST_V	This view contains header as well as item level detailed records for shelf adjustment.

This chapter covers stock counts. The following topics are covered:

- **Overview:** Introduction to stock counts
- **Functionality:** Description of available screens.
- **Technical:** Integration with Oracle Retail Integration Bus (RIB), web services, batch, and the database structure.

### Overview

SIM provides the ability to schedule, perform, and authorize stock counts.

Portions of the stock count functionality, such as the setup of product groups, schedules, and authorizations, are performed on the PC only. Users can configure and execute different types of stock counts such as cycle or annual counts, ad hoc counts, or counts that are based on inventory position or problems like negative stock on hand. Merchandising and individual level counting require setup and scheduling utilizing product groups, with the exception of AD Hoc counts. The Ad Hoc count will allow the user to decide which items they want to count by scanning from the shelf immediately.

Most of these counts can be scheduled to be executed repetitively on certain dates reducing the need for daily or weekly count management.

Because a variance percentage can be set, items within tolerance can, but do not have to be authorized individually.

#### Business Case

- Ad Hoc stock count

A customer is looking for a blue tooth speaker in the color black. The customer finds the location on the shelf, but there are only bright pink speakers and asks a sales associate if there are any black speakers in the storage room. The sales associate looks up the inventory and the system shows there are three on hand. The sales associate looks in the backroom and cannot locate any in the store and informs the customer and reports to the store manager. The store manager instructs the sales associate to perform an ad hoc stock count to immediately correct the inventory.

- Unit stock count

The dairy department of a grocery retailer orders milk on Tuesdays and Fridays. Before they get the order in, they are always running out of stock. The department



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## System Parameters

### Search Limit Default for Stock Count List - Mobile

- Values: 1-999
- Default: 50
- Topic: UI
- Editable: Yes
- This parameter determines the number of records to be displayed on stock count list screen.

### Display Item Image Stock Count - Mobile

- Values: Yes/No
- Default: No
- Topic: Stock Counts
- Editable: Yes
- Yes: This parameter indicates if the item image will be displayed in a transaction. It is in the item list and the details of the transaction.
- No: The image will not be displayed.

### Stock Count Display Default Timeframe

- Values: Yes/No
- Default: No
- Topic: Stock Counts
- Editable: Yes
- This parameter determines if the timeframe used for the stock count is a selectable option.
- Yes: The user will be allowed to select whether the stock count is being performed before the store opens or after the store closes.
- No: The user is not allowed to make a selection and will not be prompted.

### Search Limit Default for Stock Count List - Mobile

- Values: Greater than or equal to 1
- Default: 1
- Topic: Stock Counts
- Editable: Yes
- The user will not be able to schedule a Unit and Amount stock count for at least 1 or more days out from the creation date of the schedule.

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**Note:** If the system is integrated with RMS, the values in the two systems must be the same.

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### Stock Count Null Count Quantity = 0

- Values: Yes/No

- Default: No
- Topic: Stock Counts
- Editable: Yes
- Yes: The system changes the quantity to zero for items not counted (null quantity to zero), which makes the items appear as though they were counted.
- No: The system does not change the quantity to zero for items not counted, but rather leaves the value as null. These items will still appear as though they were not counted.

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**Note:** This parameter does not apply to Unit and Amount stock counts.

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#### **Unguided Stock Count Allow Multiple Users**

- Values: Yes/No
- Default: Yes
- Topic: Stock Counts
- Editable: Yes
- This parameter controls whether more than one user can scan simultaneously again the same child stock count for an unguided count.
- Yes: The system will allow more than one user to access the same stock count, child count.
- No: The system will allow more than one user to access the same stock count, but only one user may access a child stock count at a time.

#### **Unguided Stock Counts Automatic Save**

- Values: Yes/No
- Default: No
- Topic: Stock Counts
- Editable: Yes
- Yes: The physical count timestamp and item count quantity are automatically saved when the next item on the count is scanned.
- No: The physical count timestamp and item count quantity are saved when the user manually saves the count. It is assumed with this option, the user frequently saves.

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**Note:** The physical count timestamp is taken when the user scans the item for the first time.

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#### **Unit & Amount Stock Count Sales Processing**

- Values: Daily Sales Processing/Timestamp Processing
- Default: Timestamp Processing
- Topic: Stock Counts
- Editable: Yes

- **Timestamp Processing:** This option is used when sales data is available near real-time with a date and time available on the transaction. The user is not prompted to select Before Store Open or After Store Close when starting the stock count since the sales timestamp will be used to compare with the timestamps taken during the stock count.
- **Daily Sales Processing:** This option is used when sales data is only available with a date and no time is provided and/or when integrated with RMS. The user is either prompted or the store parameter determines when the stock count is performed, (before store opens or after store close). The date is used to determine if a sale is late or not.

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**Note:** Unit and Amount stock counts require some dual processing in RMS for capturing the financial value. RMS is only capable of processing sales data on a daily bases and disregards the time value if included.

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### Unit Stock Count Sales Processing

- Values: Daily Sales Processing/Timestamp Processing
- Default: Timestamp Processing
- Topic: Stock Counts
- Editable: Yes
- **Timestamp Processing:** This option is used when sales data is available near real-time with a date and time available on the transaction. The user is not prompted to select Before Store Open or After Store Close when starting the stock count since the sales timestamp will be used to compare with the timestamps taken during the stock count.
- **Daily Sales Processing:** This option is used when sales data is only available with a date and no time is provided. The date is used to determine if a sale is late or not.

### Updating Stock On Hand

- Values: Discrepant Items only/All Items
- Default: Discrepant Items only
- Topic: Stock Counts
- Editable: Yes
- **Discrepant Items only:** The system will update only items identified as discrepant when the Update Auth Qty button is selected and when the stock count has been authorized, only the SOH is updated for the discrepant items only.
- **All Items:** The system will update all items regardless if they are discrepant or not when the Update Auth Qty button is selected and when the stock count has been authorized, the SOH is updated for all items, including the non-discrepant.

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**Note:** Discrepant items are defined as items having a counted to actual variance greater than the pre-configured allowed variance. Non-discrepant items have a difference between the counted and actual qty, but they are within a tolerated variance. Unit and Amount stock counts will disregard this setting since all items will always be updated for that type of stock count.

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**Problem Line UI Limit**

- Values: 1-100,000
- Default: 1,500
- Topic: UI
- Editable: Yes
- This parameter determines the maximum number of line items allowed on a problem line stock count.

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**Note:** This parameter is used when breaking down transactions into smaller, more manageable portions. This limitation will be in addition to the values entered by the user on the Product Group Detail screen, which also helps to limit the size of the transaction.

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**Unit Count UI Limit**

- Values: 1-100,000
- Default: 5,000
- Topic: UI
- Editable: Yes
- This parameter determines the maximum number of line items allowed on a unit stock count.

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**Note:** This parameter is used when breaking down transactions into smaller, more manageable portions. This limitation will be in addition to the values entered by the user on the Product Group Detail screen, which also helps to limit the size of the transaction.

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**Store Parameters****Display Late Inventory Adjustment Message**

- Values: Yes/No
- Default: Yes
- Topic: Stock Counts
- Editable: Yes
- Yes: When the user is confirming a Stock Count in the Authorization phase and there are items on the stock count with In Progress Inventory Adjustments, the user may return to the stock count to complete the inventory adjustments or to continue and ignore the adjustments. When the user is approving an inventory adjustment with items on an open stock count, a message is displayed allowing the user to determine if further processing should be undertaken. Similar logic to how late sales are processed will be used for these adjustments.
- No: When the user is confirming a Stock Count in the Authorization phase and there are items on the stock count with In Progress Inventory Adjustments the system ignores the inventory adjustments and allows the user to complete the count. When the user is approving an inventory adjustment, there is no additional processing.

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**Note:** The system will process the inventory adjustment similar to how late sales are processed and determine if the stock count should be adjusted or not. The update to the stock count is not immediate but rather is at the time of authorization if there are reversing entries created.

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### Stock Count Default Timeframe

- Values: Before Store Open/After Store Close
- Default: Before Store Open
- Topic: Stock Counts
- Editable: Yes
- This parameter defines when the stock count is performed in relation to the store opening hours for Daily Sales Processing. This value may be overridden at the time of the stock count, if the system is configured to allow the override. If an override is allowed, this setting will determine the default value displayed on the PC or handheld screen.
- Before Store Open: The stock count is performed before the opening of the store. All sales on the day of the stock count will only update SOH. It will not update any counted quantities.
- After Store Close: The stock count is performed after the closing of the store. All sales on the day of the stock count will update both SOH and any counted quantities. If using RMS, After Store Close must be selected.

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**Note:** Timestamp processing does not use this parameter.

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### Security

Security exists for:

- Accessing, creating, editing, deleting, saving, and approving a stock count
- Adding and deleting items on a stock count
- Managing rejected items, performing snapshot, counting, recounting, and updating the authorization quantities
- Data permissions for selecting a third-party counting method, selecting a product group type of Unit, Unit and Amount, and Problem Line

## Types of Stock Counts

Each type of stock count can be useful for a retailer and all play an important part in the management of inventory.

### Ad Hoc Stock Counts

Unlike the other stock count types, Ad Hoc stock counts are not scheduled, but rather performed at random times when a user decides to correct inventory.

Since this count type is performed randomly, there are no predefined lists and the user can scan any item in any order. The user can count any inventory item even if the item has been discontinued.

The Ad Hoc counts can only be initiated on the handheld. The inventory snapshot is taken as each item is added to the stock count. Snapshot is a process in which the system will capture the current stock on hand quantity. To understand more on this process, see "[Starting a Stock Count](#)". For Ad Hoc counts, discrepancy thresholds are set up differently from other count types by accessing the Ad Hoc Stock Count screen.

Inventory Adjustments will be created and sent to the merchandising system when an inventory change is made in SIM.

### **Unit Stock Counts**

The unit stock count must be scheduled. They can be scheduled and executed the same day if the user desires. This count type can be setup on a recurring basis: daily, weekly, monthly or yearly.

The items to include in the stock count are identified by setting up a product group. The product groups are a one-time setup and can be reused for future stock counts. Product groups are used for creating the list of items as well as identifying how the stock count is processed. When setting up the stock count, the user can define which items to include by selecting by item, supplier, promotion or merchandise hierarchy level. There are various settings used to determine how an item will be identified as being discrepant.

The snapshot is determined by child count or when the first item is counted on the Wavelink handheld. Unlike Ad hoc counts or unit and amount counts, the user is not able to add items during the count different than those extracted from the product group.

Unit counts are the only stock count type that allows the user to select any item status to include in the count. The user can also select whether to include items that do not have any stock on hand. Inventory Adjustments are created and sent to the Merchandising System for any inventory adjustments made.

### **Problem Line Stock Counts**

The problem line stock count is setup once and scheduled to run daily. If there are no problem items, a stock count will not be created. Setup of the stock count can be done at the item, supplier, promotion or merchandise hierarchy level. Each day, the system will run the problem batch and find any problem items and populates those items on a stock count. Discrepancy Thresholds are defined the same as the Unit count, but there are additional criteria defined during Product Group Setup. The additional information the user can select for the problem line counts includes, Actual Pick Amount less than Suggested Pick Amount, negative available inventory and UIN Discrepancies (Unique Identification Numbers).

Problem line stock counts follow exactly the same workflow as unit counts. The only exception is the product group setup.

### **Unit and Amount Stock Counts**

The Unit and Amount stock counts must be scheduled for a specific date. These stock counts, need to be scheduled at least 1 day ahead of time. When the count is scheduled it is sent to the merchandising system so that it can also create a corresponding stock count.

Item lists are created by merchandise hierarchy or can include all departments. Unit and Amount counts cannot select by item, supplier or promotion, because the merchandising system holds the valuation at the merchandise hierarchy level.

The item status and SOH Quantity cannot be selected and are defined by the system. Inventory Adjustments are created in SIM but they will not flow into the merchandising system. Instead, a file is created in SIM with the new SOH quantity rather than the delta. This file will be sent through the RIB and processed by the merchandising system.

**Summary**

The following figure shows a summary of the similarities and differences between the various types of stock counts.

**Figure 15–2 Summary of Types of Stock Counts**

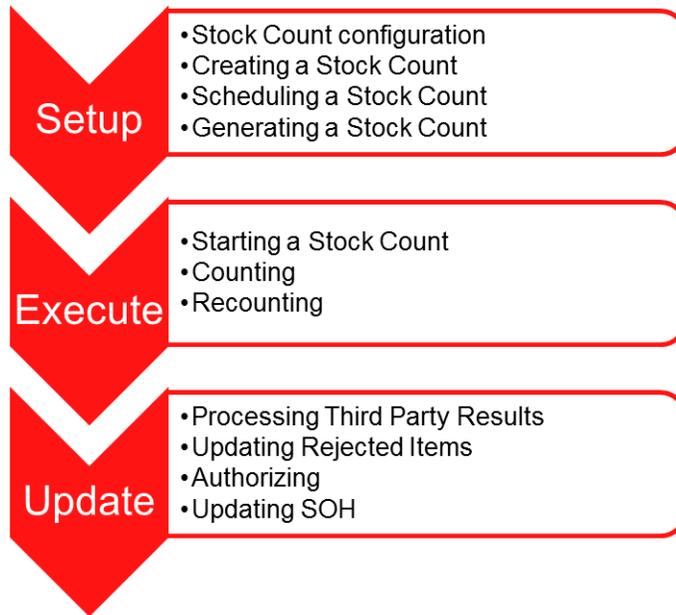
	Use Predefined Item List	Must be initiated on the HH	Schedule Stock Count	Take Snapshot as each item is counted	Take Snapshot During Count	Take Recount Snapshot	Guided Counting Method	Unguided Counting Method	Third Party Counting Method	Schedule Weekly, Monthly, Yearly	Schedule Daily	Can Use Merchandise Hierarchy	Sends Delta Inventory Adjustments	Sends Flat File	Re-Count Process
Ad Hoc		X		X					X						
Problem Line	X		X		X	X	X	X	X		X	X	X		X
Unit	X		X		X	X	X	X	X	X	X	X	X		X
Unit and Amount	X		X		X		X	X	X		X	X			X

Unit, Problem Line, Unit and Amount stock counts all use predefined items lists and must be scheduled. Ad Hoc stock counts do not use a predefined item list, are not scheduled and must be initiated on the handheld. The snapshot for Unit, Problem Line and Unit & Amount stock counts is taken for all items on the count at the same time, while the Ad Hoc stock count takes the snapshot as each item is counted. Only the Unit and Problem Line allow the snapshot to be retaken during the recount. Ad Hoc stock counts never use guided counting and as a result files cannot be imported from a Third Party service. Only the Unit stock count can be scheduled on a recurring basis. The Problem Line can only be scheduled daily and Unit and Amount scheduled for a specific date.

Since the Ad Hoc stock count is not defined using product groups, it is the only type of count that does not have a recounting stage.

**Stock Count Process**

There are several settings a retailer will need to setup in order for the system to process stock counts correctly. Product groups are used to create different kinds of stock counts. The user will assign items to the product group and add criteria to select items. The Ad Hoc stock counts do not use product groups and the stock count is actually created at the time the user is counting the items.

**Figure 15–3 Stock Count Process**

Once the product group is created, the user is able to schedule the stock count using the previously created product group. The generation process will extract stock counts on a specific date based on the stock count schedule.

The stock count is typically started by the user entering the first count for the inventory. The snapshot is then taken which allows SIM to calculate the difference between the counted quantity and what the system has on record.

The counting process allows the user to scan the items. The users will then go through the store and count all of the various items. The system can prompt the user for the next item to count when the product group is setup for a guided count or the user can determine the order of the items to count. The system will calculate the variances and the user may have to do a recount of the stock count.

Many retailers will use a third-party service rather than using their own resources for performing a stock count. When they are used for a Unit and Amount stock count, the results are provided in the form a flat file which will be imported into SIM. Some counted items might be rejected when data is scanned or imported into SIM. After all the items have been counted and recounted, the user will need to give final approval and authorize the stock count. Stock counts can also be set up to automatically approve.

Finally, when all other steps of the process have been completed, the stock on hand position needs to be updated to properly reflect the counted quantities. The Inventory Adjustments are sent to the Merchandising System except in the case of a Unit and Amount stock count, a flat file with the final results are sent to the Merchandising System.

A third-party service can perform all types of stock counts, except an Ad Hoc stock count. There are some limitations when a retailer is using RMS as their Merchandising System.

In addition, when posting sales from a point of sale (POS) system, the sales do not always come in timely and therefore special late sale processing takes place to accurately update stock count quantities.

### Special Configuration Considerations

Stock count processing settings are used to define whether the time can be used to determine if the count should be adjusted when sales are processed. Timestamp processing requires sales data to be uploaded with a specific time in addition to the date for every sales transaction. The Daily sales processing only requires the date but no time is required.

If Daily processing is selected, the user will also need to select whether the stock count will occur before or after business hours. The retailer will need to keep in mind special consideration when configuring this setting as this may not match what the retailer is currently using.

There are two parameters to control the way sales are processed. One parameter will control the type of sales processing for Unit and Amount stock counts and the other will control the processing for Unit, Ad Hoc and Problem Line stock counts. Since RMS performs similar processes as SIM for the Unit and Amount stock counts and RMS is only able to process on a daily basis, the Unit & Amount Stock Count Sales Processing parameter must be set to Daily processing. This would also be true if the retailer has a different merchandising system that only handles processing by date. The Unit Stock Count Sales Processing parameter is used for all other stock counts and Timestamp processing can be used if their system is capable of providing timestamps back to SIM in the Sales file. Implementing the Sales Processing web service will allow the retailer to take advantage of real time updates and provide the ability to use timestamp processing for all other stock counts except unit and amount stock counts.

If RMS is being used, this setting must be set to After Store Close to coincide with the Unit & Amount Stock Count Sales Processing parameter setting for unit and amount stock counts because of when the process runs for RMS.

The UI limit is used to limit the number of items that exist on a stock count.

## Functionality

This section covers the available screens.

### Creating a Stock Count

With the proper security, the user can setup groups of items to be used to create Stock Counts. These groups can be comprised of entire areas of the merchandise hierarchy (for example, an entire subclass) or can be simply a group of individual and unrelated items.

Ad Hoc stock counts do not use product groups but rather discrepancy thresholds are setup using the Tolerances screen. The discrepancy thresholds are accessed from the tolerance button on setup menu, only on the PC application.

The Tolerances Screen is used to define when items should be considered discrepant for Ad Hoc Stock Counts and is auto-populated with all department/class combination that are setup in the merchandising system.

Tolerances can be created for both Ad Hoc Stock Counts and Customer Order picking. This is defined by the Topic at the top of the screen. Tolerances are set up at the class hierarchy level. Tolerances can be defined for Variance percentages as well as standard unit of measures.

**Figure 15–4 Tolerances Screen**

Dept	Class	Variance %	Variance Standard UOM
100 - Pashani Smoke Test	100 - Pashani Smoke Test	0	
1013 - RA Dept	1013 - RA Class	0	
1021 - AUTO_Department_Cost_Normal_1021	1 - AUTO_Normal_Class_Department_1021	0	
1022 - SURESH_Department_Cost_Normal_1022	1 - SURESH_Normal_Class_Department_1022	0	
109 - BEER	23 - beer class	0	
1100 - Soft Drinks*	4 - Recycleable Bottles*	0	
1100 - Soft Drinks*	1 - Carbonatd Sft Drink*	0	
1100 - Soft Drinks*	2 - Diet Card Sft Drink*	0	
1100 - Soft Drinks*	3 - New Age Beverages	0	
1101 - RPM Dept	1101 - RPM Class	0	
1102 - Detergents*	1 - All Purpose*	10	10
1102 - Detergents*	2 - Laundry*	10	10
1103 - Cereal-Ready to Eat	1 - Cold	0	
1103 - Cereal-Ready to Eat	2 - Hot	0	
1104 - Canned,Glass Fruit*	3 - Tomatoes	0	
1104 - Canned,Glass Fruit*	1 - Peaches*	0	
1104 - Canned,Glass Fruit*	2 - Pears	0	
1105 - Salty Snacks*	2 - Cheese Snacks	0	
1105 - Salty Snacks*	3 - Potato Chips	0	
1105 - Salty Snacks*	1 - Pretzels	0	
1106 - Spices*	4 - Pepper	0	
1107 - Peant Bttr,Preserv*	1 - Peanut Butter*	0	
1108 - Yogurt*	2 - Light Non Fat*	0	
110 - Wine	111 - wine house	0	
1110 - Self Service Cheese	2 - Cheddar Vlby Chees	0	
1111 - Self Srv Frsh Beef*	3 - Beef Select	0	
1112 - Self Srv Frsh Pork	2 - Case Ready Pork	0	
1113 - Fresh Fruit*	4 - Oranges*	0	
1114 - Fresh Vegetables	4 - Potatoes	0	
1115 - Health.Beauty Care*	4 - Colognes/Altershave*	0	
1116 - Analgesics	2 - Adult	0	
1117 - Cigarettes,Tobacco*	3 - Smokeless	0	
1117 - Cigarettes,Tobacco*	1 - Cigarettes*	0	
1117 - Cigarettes,Tobacco*	2 - Cigars	0	

The Dept and Class fields are display only fields which allow the user to enter the threshold for the item assigned to this class to be considered discrepant. All Classes in the item hierarchy associated with the current store will be displayed. This table is auto-populated. Whenever a new Class is added to SIM, the class will be added to this screen as well.

The Variance % field allows the user to enter the threshold in terms of a percentage of items counted for an item to be considered discrepant. The system will compare the SOH inventory level with the quantity entered on the stock count by the user.

The Variance Standard UOM (Standard Unit of Measure) field allows the user to enter the threshold in the standard UOM.

### Product Group Setup

The first step to create a stock count is to select criteria during the product group setup. The Product Group Attributes tab allows the user to select the desired criteria or rules for generating and executing a stock count. The user can set up additional details such as:

- Variance
- Counting Method (Guided/Unguided/Third Party)
- Hierarchy Breakdown (Location/Dept/Class/Sub-class)
- Recount Discrepancies
- Auto Authorize
- Item Status
- Stock on Hand
- Problem Line Parameters

Figure 15–5 Product Group Detail Screen

This figure shows all the editable fields when creating a standard Unit stock count. All fields are grayed out and do not apply to stock count product groups.

At least one variance field must be set in order to create the product group. The variance %, variance units, and variance value fields are checked to determine if an item is discrepant.

The Variance SUOM (Standard Unit of Measure) field allows the user to enter the threshold based on the item's standard UOM. This is used when comparing the system total SOH with the stock count quantity. An item is discrepant if it deviates + or - over or is equal to the Variance SUOM. Inputting a variance of 0 means the item is discrepant any time it varies from the Stock On Hand quantity.

### Example

If the variance is set to 10 units, an item has a current SOH of 100 and has a counted quantity of 90 or a counted quantity of 110, the item is considered discrepant and would appear on a recount. If the counted quantity is 91, the item would not be discrepant and would not be on the recount since the difference between  $100 - 91 = 9$  which is less than the 10 units.

The Variance % field allows the user to enter the threshold in terms of a percentage of items counted for an item to be considered discrepant. The system will compare the system total SOH with the stock count quantity. An item is discrepant if it deviates + or - over or equal to the Variance %. Putting in a variance of 0 means the item is discrepant any time it varies from the Stock On Hand quantity in every case.

In this example, the Variance % is set to 10%, an item has a current SOH of 20 and has a counted quantity of 18; it would be considered discrepant since 10% of 20 = 2. If the counted quantity is 19, the item would not be discrepant and would not be on the recount since the difference between  $20 - 19 = 1$  which is less than the 10 %.

The Variance Value field allows the user to enter the threshold in terms of a dollar amount for an item to be considered discrepant for Unit and Amount stock counts.

This is a cash amount compared to the number of Discrepant Units times the current unit retail of the goods. SIM uses the current retail price from Item Lookup, (the extracted promotion or clearance price is not used). If the calculated value exceeds the Variance Value, then the item is considered discrepant during the stock counting process. An item is discrepant if it deviates + or - over or equal to the Variance Value. This applies to Unit and Amount counts only. If the variance is null, it is not used to determine discrepancies.

### **Counting Method Section**

The counting method section allows the user to determine whether the count is guided, unguided, or performed by a third-party counter.

The Guided count method prompts the user to scan the next item in sequence. SIM generates a master count broken down by location. The user is prompted to scan the next item based on its location within the store. If an item exists in multiple macro locations, the user is warned if the item has not been counted in all macro locations.

The Unguided count method allows the user to scan any item in any order. Unguided stock counts provide more flexibility and cuts down on the time it takes to completely scan a count. This process applies to both the count and recount processes.

The Third Party count method allows a third-party service to perform the actual counting using a third-party system. This feature is controlled through the product group setup by choosing Third Party for the counting method. Selecting this counting method extracts the items to be counted and sets up the system for a "results file" import.

Hierarchy Breakdown is used to break down the stock count into separate child stock counts for each hierarchy added to the group. The child stock counts may be broken down further based on size. See the Total # Items in Group section for more details. This field is disabled for all guided stock counts. Guided stock counts are always broken down by Location based on macro sequencing:

- If None is selected, SIM will generate one master stock count based on all components added.
- If Location is selected, SIM will generate a master count with the child counts grouped by macro location.
- If Department is selected, SIM will generate a single master stock count and items are grouped by department for their child stock count. For example, if the user adds Dept 1000, Dept 1001, and Dept 1002 for Product Group A, SIM will generate a single master stock count for Product Group A with 3 child stock count records (one for each department that was added to the group).
- If Class is selected, SIM will generate a master stock count and the child stock counts are grouped by Class.
- If Sub-class is selected, SIM will generate a master stock count and the child stock counts are grouped by sub-class.

The Re-count Discrepancies checkbox tells the system whether or not a stock count requires a recount for discrepant items. A required recount needs to be completed before the stock count is able to move on to the authorization process. This option is disabled for Third Party Counts since the counting process is outside of SIM.

The Auto-Authorize checkbox is used to identify stock counts requiring the system to automatically authorize the count. If checked, SIM will automatically authorize the stock count once the user has completed the count/re-count stage. In this case, no user intervention is needed to authorize the count. Third Party stock counts can also be

auto-authorized. In this case, the count is performed by the third-party system and no user intervention is required in SIM after the snapshot has been taken and the third-party file has been uploaded to SIM.

### Item Status Section

The user is able to choose which items to extract based on status for Unit stock counts only. The section is disabled for all other counts. When the stock count is extracted, SIM includes only items with one of the flagged statuses.

At least one of the status boxes must be checked before the product group can be created.

### Stock On Hand Section

This section is used to identify which items to include in the stock count when the system extracts the items for the stock count. For example, the user can select whether items with a zero stock on hand quantity should be included in the stock count.

Item Status	SOH Larger than Zero	SOH Equals Zero	SOH Smaller than Zero
Active (A)	Allowed	Allowed	Allowed
Inactive (I)	Allowed	Not Allowed	Allowed
Temporary (Q)	Allowed	Allowed	Allowed
Discontinued (C)	Allowed	Allowed	Allowed
Deleted (D)	Allowed	Not Allowed	Allowed

This table indicates when an item can be extracted for a Unit and Amount stock count. Because Unit and amount counts are usually for the entire store, it is best to avoid counting items that likely are not in the store. If any are found during the unit and amount count, they can easily be added.

Problem Line stock counts also disable the item status and will always include Active (A & Q), Inactive, and Discontinued items on the stock count with a negative SOH.

### Problem Line Section

An additional section is available for Problem Line stock counts. This section is used to identify which items are considered a problem and need to be added to a stock count. This applies to Problem Line Product Group Type only and is not available for selection when other types are selected.

**Actual Shelf Repl Amount less than Suggested Pick Amount:** When a store is using the SIM feature for replenishing stock from a backroom, there may be some corrections to stock required based on the Shelf Replenishment list quantity. If checked, SIM will add the item to the problem line count if the actual shelf replenishment amount entered for the item on the shelf replenishment list was less than the suggested system shelf replenishment amount.

**Actual Pick Amount less than Suggested Pick Amount:** When a store is using the SIM feature for Customer Order Picking, there may be discrepancies that occurred during the customer order picking process of a completed customer order pick. This functionality will only be enabled for Problem Line Stock Counts. The item will be put on the problem line stock count when the system thinks there were enough to pick, but the actual pick quantity was less than the suggested pick quantity. Discrepant pick items will be defined as follows:

- Completed Customer Order Pick

- The actual pick amount is less than the suggested pick amount
- The item is not allowed to be substituted

Negative Available Inventory: If checked, SIM will add the item to the problem line stock count if the item has negative available inventory. This can be the result of the cashier scanning one variety of an item, even though, several varieties were purchased, such as different flavors of a drink mix, were all scanned using one package. This could result in a negative inventory for the flavor scanned.

UIN Discrepancies: If checked, SIM will add the item to the problem line stock count if the item has UIN discrepancies. Discrepant UINs are items where the total stock count hand from the item does not equate to the same number of UINs for the store. This can happen due to the following processes:

- Selling the same UIN twice, or returning the same UIN twice
- Updating the UIN status due to incorrect processing
- Receiver unit adjustments coming from the merchandising system
- Pulling a UIN from another store during the receiving process

### **Components Tab**

The Product Group Components tab allows the user to select the desired product for the group. This tab is not available until a Product Group Type, such as Problem Line, has been selected. The user can only add a single product group element at a time but is able to create a combination of items and/or hierarchies for a single group. At least one element must be added in order to create the group.

The Unit and Problem Line stock counts allow the user to select items to include on the stock count by hierarchy, specific items, supplier, or promotion ID.

The Unit and Amount stock count will only allow the user to select items to include on the stock count by hierarchy or all departments.

## New Product Group Element Section

**Figure 15–6 Product Group Detail Screen**

Department	Class	Sub-Class	Item	Total # of Items
111 - Alcohol and Liqueurs				54

On the Product Group Components tab, SIM displays the type (Unit, Unit and Amount, or Problem Line) and counting method (Guided, Unguided, Third Party, and Auto) that was selected for the product group.

The Total # of Recommended Items indicates the total number of recommended items for an individual product group element. This field will always display and is pre-populated based on either the system parameter associated with the product group or the maximum configuration limit, whichever is lower.

The Total # of Items in Group is the approximate number of items that may be extracted on the stock count based on the sum of the selections. The exact number can vary based on criteria setup and item attributes.

There are multiple ways to select items to add to the product group:

- When the Hierarchy option is selected, the department, class and subclass drop down boxes will appear. The Class dropdown does not enable until a Department is selected and the Sub-class drop down does not enable until a Class is selected. Once the user selects the desired hierarchy, clicking the Add to Group button adds the lowest level hierarchy to the count group. A line item is added to show the user all the hierarchies associated with the count group.
- When the Item option is selected, the user can type in an item to add to the product group. An Item Lookup feature allows the user to search on an item, if necessary. The description is displayed for the item entered. Additional considerations:
  - The user is allowed to add both a component and a pack item to the product group
  - The user is allowed to add both sellable and non-sellable pack and/or component items

- The user is not allowed to add non-inventory items
- When the Supplier option is selected, the user can select a supplier and all items associated with the supplier will be added to the stock count. This is helpful when needing to perform a count for a specific supplier.
- When the Promotion ID option is selected, the user can use this to add items to the product group. This is helpful when monitoring items with a high turnover or high theft during a promotional event. This is not available for Unit and Amount product group type.
- When the All Departments option is selected all other selections will clear out. Selecting the All Departments feature ensures the product group is set to include all departments in the stock count. An All Department stock count is assumed to be a stock count for the entire store. Selecting any other element option will automatically turn off the all department selection.

## Scheduling a Stock Count

Once the products groups are created, the user can schedule how often each group is to be counted.

**Figure 15–7 Product Group Schedule Detail Screen**

For Unit and Amount stock counts, the user must schedule the count for at least 1 + days out from the creation date of the schedule. The default setting for the Stock Count Lockout Days system option is 1 and identifies when the items to include in the stock count is populated into SIM from the Merchandising System. The reason for the lockout days is a store needs a certain amount of time to prepare for a count and therefore changes shouldn't be allowed x number of days prior to allow for the prep time.

The Stock Count Lockout Days can be changed in the system admin screen, but SIM will not allow the user to schedule the count to run for the current day.

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**Note:** If SIM is integrated with RMS, this value needs to be synched up with the RMS System Option, STAKE\_REVIEW\_DAYS. If RMS is not installed, the value should remain at 1.

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Using a calendar wizard, the user selects the count group and whether it is to be counted daily, weekly, monthly, or yearly. One or more stores can be assigned to the schedule, depending on the stores the user has access to. Once the scheduled is created, the stock count can be viewed from the Stock Counts button which is accessible from the Inventory Management menu. If the stock count is scheduled for a date in the future, the count can be viewed from the Future Stock Count List screen. If the count is scheduled for today's date, it will appear on the main Stock Count List screen.

Occasionally stock counts may need cancellation due to weather or other circumstances. If a stock count has not been completed, it can be cancelled by the user and a new one created. When the stock count is deleted, a message is sent through the RIB messaging in order for the Merchandising System to be notified.

## Generating a Stock Count

On a daily basis, a batch process is triggered that creates stock counts for the current day based on scheduled product groups. The process will create the stock counts for each individual store. If a scheduled count included a list of 5 stores, then 5 separate stock counts are created, each with different stock count IDs. The system will create the stock count item records for every item contained in the Product Group assigned to the scheduled stock count and ranged to the store. Select item locations when the Guided checkbox is checked.

### Stock Count Status

SIM will need to validate items and data based on criteria selected during the Product Group setup.

Select items based on what is selected under the Item Status section. For example, if the Active and Inactive checkboxes are checked and the rest are null, SIM will extract all items with a status equal to "Active" and "Inactive," but will exclude "Discontinue" and "Deleted" items. Items are chosen based on selected SOH criteria, but if all are checked SIM will extract regardless of SOH value.

### Extraction Timeline

The batch will allow the live extraction of stock counts up to one day in the future of the current time. This will allow the retailer to start a large stock count up to 24 hours before the actual schedule date. This means entering tomorrow as a date is valid and it will extract tomorrow's stock count as a live stock count.

All Stock Counts extracted through the batch process on the schedule date begin as Stock Count New and the Type is set to "Stock Count." Other SIM features also use product groups.

Pack extraction rules for Pack items:

- If a non-sellable pack was added to the product group, but the individual component in the pack was not, when the extraction runs, all the components are extracted along with the pack.

- If a sellable pack is breakable and is added to the product group, but the individual component in the pack was not, when the extraction runs, all the components are extracted along with the pack.
- If a sellable component is added to the product group and the sellable component is part of a breakable pack, the pack is extracted along with the component.
- If a sellable pack is not breakable and is added to the product group, only the pack is extracted. The components are not extracted.
- If the created product group is based on hierarchy, the pack and components of the pack must exist within the hierarchy to be extracted.  
If the component item is part of the product group hierarchy, but the pack is not, only the component item is extracted.
- If the created product group is a Problem Line, the pack and its components must have a negative stock on hand to be extracted.

### **Third Party Stock Count Extraction Report**

The third-party counter needs to receive an extract of the items, quantities and Universal Identification Numbers (UIN) to count from SIM. This report can be printed to the screen and subsequently saved by a user. The report only needs to be accessible in the stock count dialog.

The Third Party Stock Count Extraction Report allows a retailer to extract the snapshot value and in store UINs in an XML format that should be counted for a specific stock count. This report may need to be modified by individual retailers for different third parties when performing a stock count, and is only meant as a starting point. If this report is generated before a snapshot is taken, the UIN and snapshot quantity field is empty, and so the assumption is that the extract will be created after the snapshot is taken.

If a Hierarchy Breakdown is selected during the Product Group setup, SIM will extract a separate child stock count for the specified hierarchy. A master count is created for a single product group and is then broken down into one or more child counts based on the counting method or hierarchy breakdown chosen during the product group setup.

Product groups that contain hierarchies are exploded out to the item level when added to stock count schedules for unit and amount stock count types in the batch. For any product group that exceeds the limit, SIM creates multiple child records and appends "(x/y)" to the description. This indicates that more than one child record is associated with the original master product group, where: for example, for a Batteries stock count broken down into six separate child stock count records. In this example, the maximum number of line items is 10,000 and the total number of items in the product group is 40,000. The product group exceeds the maximum limit of 10,000 line items and must be broken down into smaller sections: SIM first breaks down the count by department. If a department has 10,000 or fewer line items (such as Department B in the example), the department does not need to be broken down. The department is extracted into its own child count record.

If a single department exceeds the 10,000 line items limit, SIM breaks down the count further to the class level. If none of the classes exceed the maximum line items limit (like Class C1 and Class C2 in the example), SIM extracts each class as a single child count record.

If a class exceeds the maximum line limit (like Class A1 in the example), SIM breaks down that class further to the subclass level.

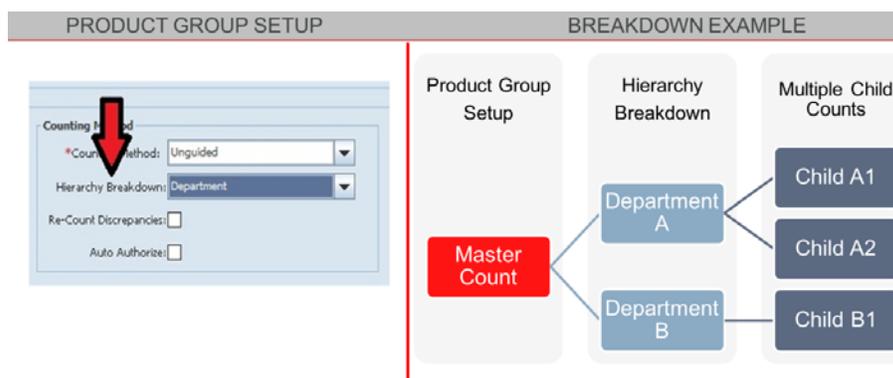
### Child Count Creation

During product group setup, the user is able to determine how to break up the stock count into smaller counts.

If a selection is made from the Hierarchy Breakdown dropdown box during Product Group setup, SIM will extract a separate child stock count for the specified hierarchy. A master count is created for a single product group and is then broken down into one or more child counts.

For any product group that exceeds the limit, SIM creates multiple child records and appends 1 out of x to the description. This indicates that more than one child record is associated with the original master product group.

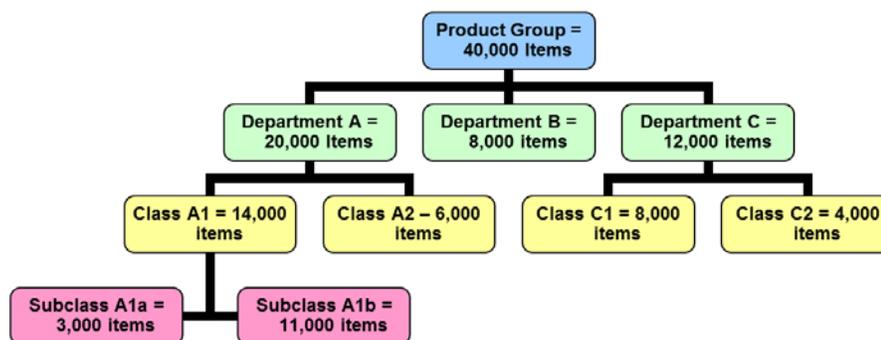
**Figure 15–8 Child Count Creation**



### Example

**Figure 15–9 Child Count Example**

- Maximum # of Line Items = 10,000
- Total # of Items in Product Group = 40,000



In this example, the user has created a product group for a Unit and Amount count with 40,000 items. The system parameter, called maximum # of line items, is set to 10,000. The Product Group exceeds the maximum limit of 10,000 line items and must be broken down into smaller sections:

1. SIM will first break out by Department.

2. If a Department has less than 10,000 line items, the Department will not need to be broken down further. As seen from this example, Department B has only 8,000 items and will not be broken down.
3. If a Department exceeds the limit, SIM will break it down to the class level. The user can see Department A and Department C have more than 10,000 items. They are broken down further into Classes.
4. If none of the classes exceed the 10,000 line limit, SIM will extract each Class as a single stock count. Class A2, C1, and C2 all fall below the limit.
5. Class A1 still exceeds the limit and will be broken down further to the subclass level.
6. Since the Subclass level is the lowest level breakdown for Unit and Amount counts, it will not be broken down further. Subclass A1b has 11,000 items which exceeds the maximum limit, but since it is the lowest level, the stock count will not be broken down further.

## Starting a Stock Count

One of the first steps when executing a count is to take a snapshot. SIM records the stock on hand position for each item in the count. A date timestamp is associated with the snapshot. This quantity will later be compared against the counted quantity.

The point at which a snapshot is taken depends on the type of the stock count. Taking the snapshot affects the status of each count. For an Ad Hoc stock count, the snapshot is captured when the first item is scanned on the handheld device. For a Unit and Problem Line count, the snapshot is also taken when the first item is scanned on the handheld but it can also occur on the PC. For a Unit and Amount count, the snapshot can only be taken from the PC. The snapshot can be taken at any time during the initial count phase. Unlike the other three stock counts, starting the Unit and Amount count process on the HH will not trigger the snapshot. When a snapshot is taken for a Unit and Amount count, it is taken for all child counts at the same time. When a Third Party count is executed, the snapshot needs to happen before the stock count results can be uploaded into SIM.

If the user selects the Complete button for one or more child counts before the snapshot has been taken, the selected child records will go into a Pending status until the snapshot is taken.

The user may add non-ranged items to a Unit and Amount count if the item belongs to the hierarchy defined when the product group was setup. A non-ranged item is an item that exists in the Enterprise-System, but has not been assigned to the store. When the snapshot was taken, the non-ranged item would not have been included. When the user adds a non-ranged item, the snapshot is captured when it is scanned and added to the count.

The child counts will not be able to move to a type of Recount or Authorize until the Take Snapshot button has been clicked.

## Stock Count List

From the Stock Count List screen, the user will double-click a master stock count and be guided to a Child Stock Count List screen. If a product group generates a master with multiple child counts, multiple stock counts will appear on the Child List screen. If a product group generates a master count with one child record, only one stock count will appear.

Figure 15–10 Stock Count List Screen

<span>Back</span> <span>Future Stock Counts</span> <span>Delete</span> <span>Print</span> <span>Refresh</span>							
<span>Filter</span> Status = Active <span style="float: right;">Total Items: 1305</span>							
Count ID	Count Description	Count Group	Date	Type	Status	Items Left To Count	
122	MJM Duplicate	MJM Duplicate	9/26/12	Stock Count	In Progress	3	
383	36-C	36-C	2/19/13	Authorize	In Progress	3	
605	Defect 459	Defect 459	3/6/13	Stock Count	In Progress	6	
781	Guided All	Guided Location All	3/12/13	Stock Count	In Progress	267	
881	Department Unguided All	Department Unguided	3/21/13	Stock Count	In Progress	264	
882	Component 2	Component 2	3/21/13	Stock Count	In Progress	2	
883	Component 1	Component 1	3/21/13	Stock Count	In Progress	1	
886	component 1 by dept	Component 1 By Dept	3/21/13	Stock Count	In Progress	2	
901	Hierarchy	Unt Ung- Hier	3/21/13	Stock Count	In Progress	3	
902	Hierarchy- Dpartment	Hierarchy- Department	3/21/13	Stock Count	In Progress	3	
1341	Unit Guided All Dept	Unit G- All dept	4/23/13	Stock Count	In Progress	308	
1361	Ung All depart	PR- UNG: All	4/24/13	Stock Count	In Progress	30	
1421	Unit Guided- Non- Sellable	Unit Guided	4/25/13	Stock Count	In Progress	0	
1461	Another Schedule	Test 14 digit Item	4/30/13	Stock Count	In Progress	0	
1482	PR All	Probleine All Test	4/30/13	Stock Count	In Progress	31	
2061	test	testgt1	7/3/13	Stock Count	In Progress	2	
2222	SJT Pack NONS	SJT Non-Sellable Pack	7/11/13	Stock Count	In Progress	2	
2482	Promotion test 1	Promotion ID Test 1	7/25/13	Stock Count	In Progress	2	
2563	pr TEST 2 sUE	0P- TEST 2	7/29/13	Stock Count	In Progress	28	
2562	Problem Line suppliers	Problem Line Suppliers	7/29/13	Stock Count	In Progress	27	
2622	Item status 14407316	Item Status 14408316	7/31/13	Stock Count	In Progress	8	
2681	Sue/Heidi	Sue/Heidi test	8/5/13	Authorize	New	0	
2841	Print Recount test a	test print recount	8/8/13	Re-Count	In Progress	0	
3123	test1	test test	8/20/13	Stock Count	In Progress	123	
3165	supplier-98989	Supplier- 98989	8/21/13	Stock Count	New	7	
3166	Supplier: 1000000055	Supplier- 1000000055	8/21/13	Stock Count	New	7	
3163	Problem Line suppliers	Problem Line Suppliers	8/21/13	Stock Count	New	27	
3183	UIN	UIN	8/21/13	Stock Count	New	7	
3232	10	UI Breakdown	8/21/13	Authorize	New	7	
3267	test4148	Test4148	8/22/13	Stock Count	In Progress	1	
3363	Sue Neg 1z Test	Sue Neg 1z test	8/26/13	Stock Count	New	21	
3364	Neg 2nd test batch	Neg 2nd test.	8/26/13	Stock Count	New	21	
3483	uin	UIN	8/30/13	Stock Count	New	63	
3643	regvar3	regvar3	9/10/13	Authorize	In Progress	4	

The Future Stock Counts button allows the user to view counts scheduled in the future.

SIM allows the user to save the child stock count and resume at a later time. This functionality exists on both the handheld and PC. Saving the count will indicate the count is still in progress. The count will not move on to the next stock count phase of Re-Count or Authorize until the user selects the Complete button.

### Stock Count Filter

The Filter button appears in the header section of the Stock Count List screen and when pressed will bring up a dialog box that allows the user to filter the Stock Counts in the List by the filtered criteria.

Figure 15–11 Stock Count Filter Popup

**Stock Count Filter**

**Date Filters**  
 Schedule Date:

**Hierarchy Filters**  
 Dept:   
 Class:   
 Sub-Class:

**Additional Filters**  
 Count Group:   
 Type:   
 Status:

The following fields help to limit the search:

Date Filters:

Schedule Date: ability to search on the date the Stock Count is scheduled for, default to blank.

Hierarchy Filters:

Department: defaults to All

Class: defaults to All

Subclass: defaults to All

Since a Product Group can consist of more than one merchandise hierarchy, the filter will return all stock counts and counting groups that contain that hierarchy.

Additional Filters:

Count Group: dropdown list of all product groups that exist on the Product Group List screen. Defaults to All.

Type: valid values are Stock Count, Re-Count, Authorize and All. Defaults to All.

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**Note:** The user will not be able to filter on Future Stock Counts; these counts will only be accessible from the Future Stock Counts button.

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Status: valid values are New, In Progress, Confirmed, Completed, All and Active. Defaults to Active. Active will include New and In Progress stock counts. The Status field will automatically be disabled if Future Count is selected for Type.

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**Note:** Confirmed is the status of a guided Unit and Amount stock count for all items that are in Authorize Type and have not yet moved to Completed due to not having the results exported. Once exported, the stock count will move to Completed status.

---

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### **Future Stock Count List**

Future counts are view only and accessed from the Future Stock Count List screen.

**Figure 15–12 Future Stock Count List Screen**

Count Description	Count Group	Date	Product Group Type	Items To Count
RAGAV TEST	ragav test	12/19/13	Unit	1

Selecting the Search button from the Future Stock Count Filter dialog brings the user to the Future Stock Count List screen with the results displayed based on the search criteria. Double-clicking the record will generate the future count.

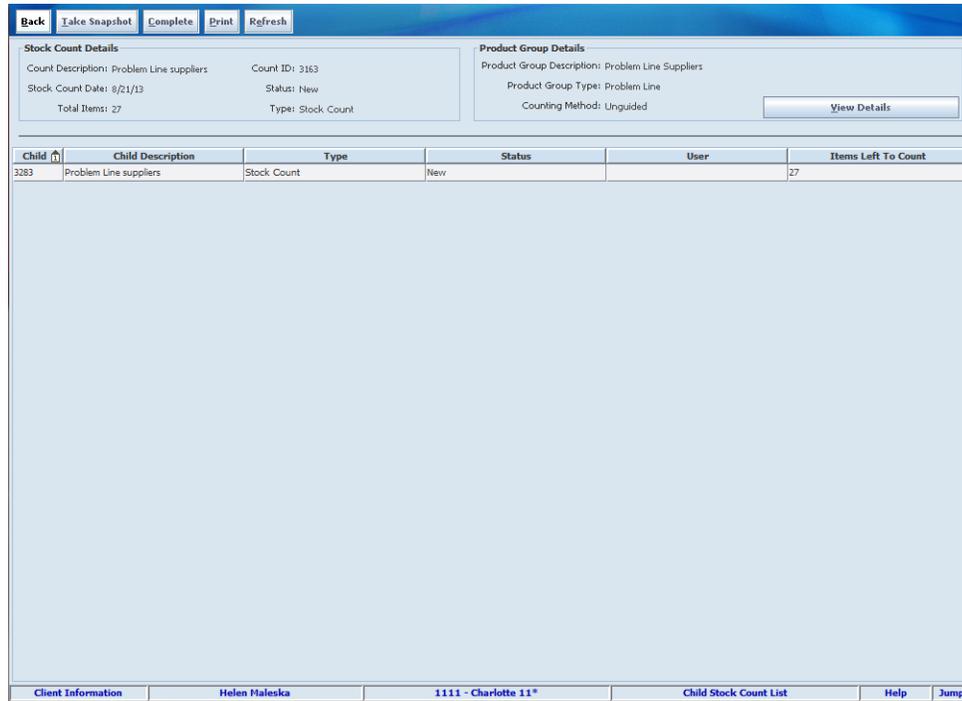
The user cannot take the snapshot or take any action on a Future Stock Count.

The screen is identical to the regular Child Stock Count List screen except the only buttons listed will be the Back and Refresh buttons. Closing out of the Child Stock Count List screen will save the record for today only and the all the records will be purged at the end of the day. Once the schedule date is reached, SIM deletes the count from the Future Stock Count List screen and re-extracts the count for the most up-to-date data. The stock count then moves to the Stock Count List window.

### Stock Count Child List

From the Stock Count List screen, the user will double-click a master stock count and be taken to the Child Stock Count List screen where the user can execute the count.

**Figure 15–13 Child Stock Count List Screen**



SIM allows the user to save the child stock count and resume at a later time. This functionality exists on both the handheld and PC. Saving the count will indicate the count is still in progress. The count will not move on to the next stock count phase of Re-Count or Authorize until the user selects the Complete button.

The user will do most of their work on this screen including taking the snapshot, printing reports, and completing the various phases of the stock count.

**Stock Count Detail**

The user will double-click a child stock count and be taken to the Child Stock Count Detail screen where they can print a report before taking the snapshot. The user can also take the snapshot from this screen in addition to the Child Stock Count List screen.

Figure 15-14 Stock Count Detail Screen

Item	Description	UOM	Pack Size	Count	UIN Qty
10010010010012	Fanta 60003	Units	100		0
10010010010014	Fanta 60003	G	100		0
10010010010018	Fanta 60003	KG	100		0
10010010010019	Fanta 60003	KG	100		0
10011001100111	Fanta 60003	Units	50		0
100134207	PS Item	Units	1		0
100135307	Tide Extra	Units	1		0
100135930	Item1:Black:Gooseberry:Medium:14.5...	Units	1		0
100136429	Item1:Gray:Raspberry:Large:28 OZ	Units	1		0
100144207	04272011 test 1	Units	1		0
100144807	test	Units	80		0
100147020	Item3:Green:Raspberry:Small:6OZ	Units	1		0
100148210	Mayank Item	Units	1		0
100156307	test	Units	80		0
100169908	Regular Item Jp-1	Units	1		0
100170207	Laks Mod TB	Units	1		0
100177107	PAV REG ITEM BA	Units	1		0
100188888	Fanta 60003	Units	50		0
100197508	Regular Item Jp-5	Units	1		0
100197810	Complex Buyer Pack	Units	1		0
100201407	SMP PCK	Units	1		0
100218907	BBQ Bricks	Units	1		0

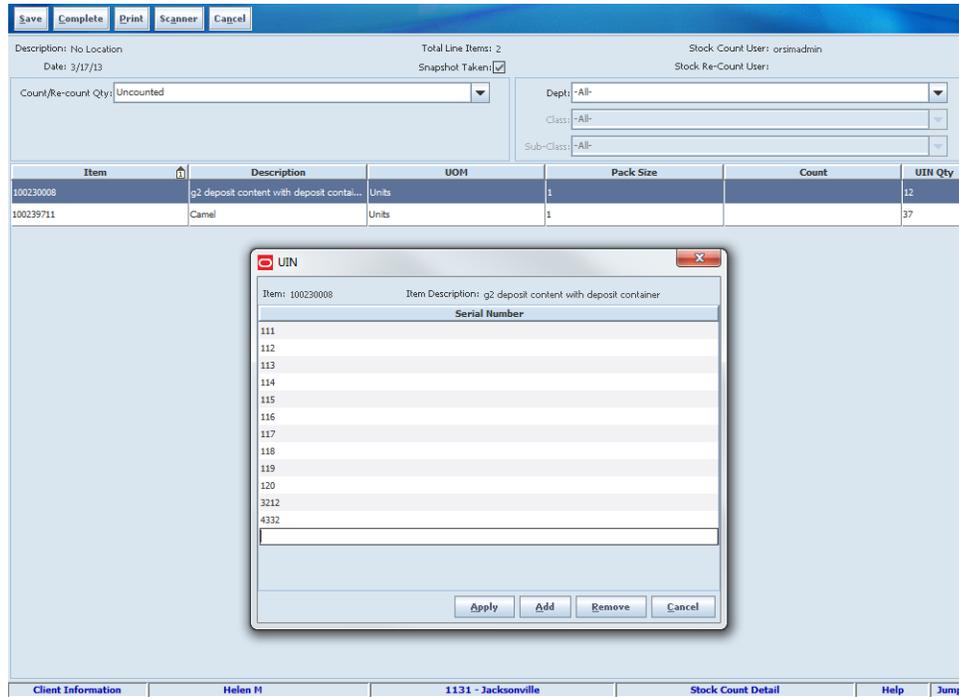
SIM allows the user to save the child stock count and resume at a later time. This functionality exists on both the handheld and PC. Saving the count will indicate the count is still in progress.

There are additional filtering options as well to assist the user with reducing the amount of items to display.

**UIN**

The UIN popup screen is accessed by clicking in the UIN Qty field from the Stock Count Detail screen. This screen is only accessible if the item is a serialized item.

**Figure 15–15 UIN Popup**



Retailers who sell items such as electronics, cell phones, firearms, medications, and fresh items, often have to track unique numbers or attributes for a single item or group of items. These identifiers might be serial numbers, unique identification numbers, FCC IDs, International Mobile Equipment Identity (IMEI) numbers, or other kinds of identifiers. Unique identification numbers aid the retailer in tracking expensive or controlled items, or items that may be subject to manufacturer recalls or investigations by legal authorities.

SIM provides the capability to track items by unique identification numbers (UIN). If the SIM application is not configured to use UINs, this does not apply. If the UINs are not used, fields and functions related to UINs are not available in the SIM user interface.

If UINs are required for an item, the UINs must be scanned, entered or automatically generated when stock is received. When UINs are generated for tracking items, users can print labels with the generated UINs.

If the store uses UINs, the snapshot captures the status of those items in the store as part of the store's stock on hand, as well as those UINs in missing status.

The UINs in these statuses are displayed on the Stock Count Authorization window, to identify which UINs are not counted. Another feature is to generate additional auto generated serial number tickets during authorization if there are some items found that did not have an affixed label. When performing a Unit & Amount stock count that includes UINs, a snapshot must be taken before the child stock count can be started.

## Counting

When the user performs a stock count, a count of all items should be included in the stock count during the first count phase. The user performs an initial count of the items listed in the stock count which can be completed immediately or saved and completed at a later time.

**Figure 15–16 Stock Count Detail Screen**

Sequence ID	Item	Description	Area	UOM	Pack Size	Count	UIN Qty
4450	100136073	Item1:Brown:Blueberry:M...	Shopfloor	Units	1		
4451	100136072	Item1:Brown:Blueberry:M...	Shopfloor	Units	1		
4452	100136010	Item1:Black:Raspberry:Lar...	Shopfloor	Units	1		
4453	100136070	Item1:Brown:Blueberry:Me...	Shopfloor	Units	1		

Unavailable inventory must be counted as well. For example, if some items are ready to be returned to a supplier but the return has not yet been dispatched, the items are counted, even though they will not be placed on the shop floor for sale. They are still inventory owned by the store until they are no longer in the store.

A Stock Count moves to In Progress after the user starts the counting process or takes the snapshot. Some retailers divide the store into logical zones for counting stock. An item can exist in multiple zones within the store. There are some items that may not be assigned to a specific zone.

If a stock count is setup as a guided count, during the counting process, the user will be guided through the micro sequence order of the items. If a particular child does not have a micro sequence, the user will be guided by item number.

After completing the count, the child count may not move to the next phase (re-count or authorization), if an item belongs to multiple children, the child will be waiting for the other children to finish counting the item before completing the child count.

SIM will use the Store Pack Inventory Indicator to determine if a pack is breakable or not.

If the indicator is checked, the pack can only be counted as a pack. If the indicator is not checked, the pack and any components of the pack can be counted separately and the following rules will apply:

Features for Counting Packs and Components:

- The user is allowed to count at the pack and/or component level during the count and recount phase.
- Both the pack and the component appear during the count and recount phases for breakable packs (Authorization phase they will be rolled up).
- If the user scans the pack, the pack item's count quantity will increase.

- If the user scans the component, the component item's count quantity will increase.
- It is possible the component of a breakable pack belongs to a different class/sub-class than the pack.  
The child count will move to a "pending" status until the item is counted in all locations.
- When the stock count moves to the next phase, the system uses the counted component quantity and counted pack quantity and rolls up the number to the component level to determine if the item is discrepant.

For additional details on the Store Pack Inventory Indicator, see [Chapter 6, "Item."](#)

SIM contains activity-locking functionality. This allows one user to update a transaction at a time. Depending on the functional area, if User A is processing a transaction User B wants to initiate, User B may receive a prompt to take over the transaction. If User B takes over the transaction, the original user receives a message when they try to save the counted quantity they no longer have the lock. This is to ensure only the user who currently owns the lock can update the transaction.

While a user is performing a stock count, items that require UINs, must capture the UIN when performing a stock count on the PC or handheld. The count quantity will always equal the number of UINs captured for the item.

The Count and Re-count stages will only allow the user to count items with a UIN that already exist in the store. If an UIN is found that does not exist in the store, the user will need to set it aside until the authorization phase.

## Recounting

After all items have been counted, the stock count can move to a recount phase. The process is similar to the count phase except not all of the items are recounted.

SIM provides a way to identify items outside of what is an acceptable difference between the snapshot and the counted quantity. For example, the system shows there are 20 gallons of milk and 25 were counted. There is a difference of 5 gallons. The retailer may feel it is not necessary to recount this item. Using the same example, they only counted 5 gallons. It is likely the counter had either mistyped the quantity or missed another area where the item was located. That would warrant a recount. The variances are defined as part of product group setup or on the Ad Hoc stock count setup screen. Those items falling outside of the acceptable range are considered to be discrepant.

There could be items on the stock count with a difference, but only those items considered discrepant are listed on the recount screen. The items with a difference between the snapshot and the counted quantity that fall within an acceptable range are considered non-discrepant. Looking at the item list on the upper right hand corner, if item B was within an acceptable range, only item C would be on the recount.

The first action of the recount is to retake the snapshot for the Unit and Problem Line stock count. The Unit and Amount count does not allow for a new snapshot during this phase. The snapshot allows the system to take into account other transactions that may have taken place since the first snapshot and records the current stock on hand levels for all the items on the recount. The user can take a recount snapshot from either the Stock Count Child List window or the Stock Re-Count Detail window.

If the Re-count Discrepancies box was checked during the product group setup and at least one item is discrepant after the count, a re-count is required. If the Product Group

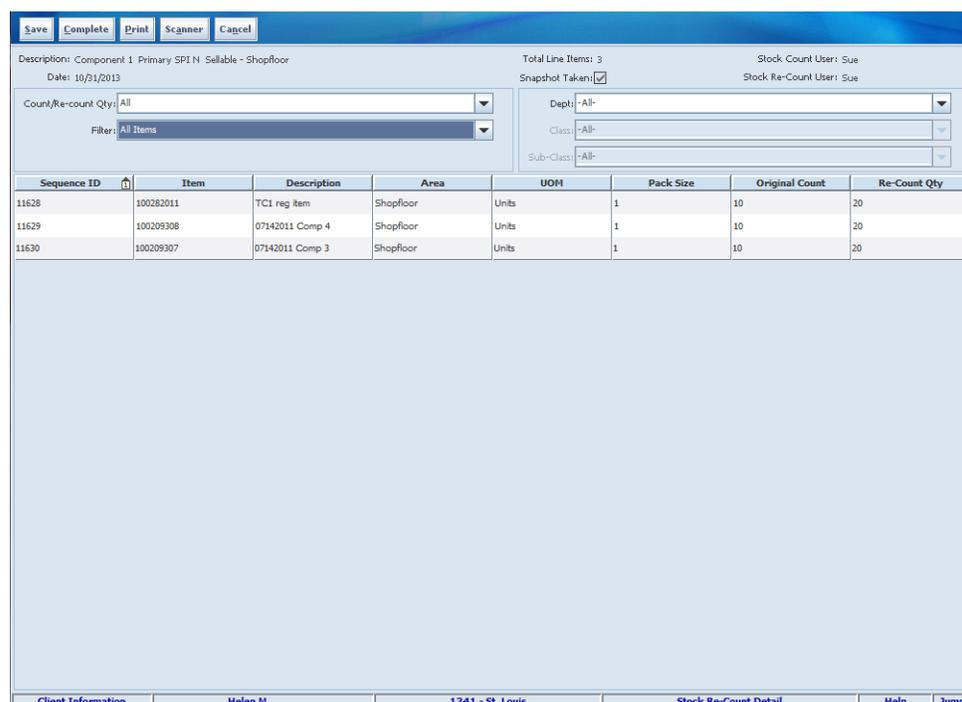
is not set up to Re-Count Discrepancies, all items are moved to the authorization screen and the items exceeding the variance limits will appear as discrepant items.

Retaking the snapshot only applies to the Unit and Problem Line stock counts. Unit & Amount stock counts need the snapshot coordinated with RMS, therefore retaking the snapshot would potentially cause the two systems to be out of sync. The snapshot from the initial count is used throughout the process. Also, the Ad Hoc stock counts do not go through a recount phase and therefore the re-count snapshot does not apply for Ad Hoc counts. If the Unit and Amount Stock Count uses a Third Party method, the recounting process does not apply. The assumption is the Third Party service performs the recount process.

### Stock Recount Detail

The Stock Count Recount Detail Screen is available when the user selects a child stock count from the Stock Count List Screen. The user is taken to a Child Stock Count Detail screen where they can print a report before re-taking the snapshot. The user can also take the snapshot from this screen in addition to the Child Stock Count List screen.

**Figure 15-17 Stock Re-Count Detail Screen**



SIM allows the user to save the child stock count and resume at a later time. This functionality exists on both the handheld and PC.

Saving the count will indicate the count is still in progress.

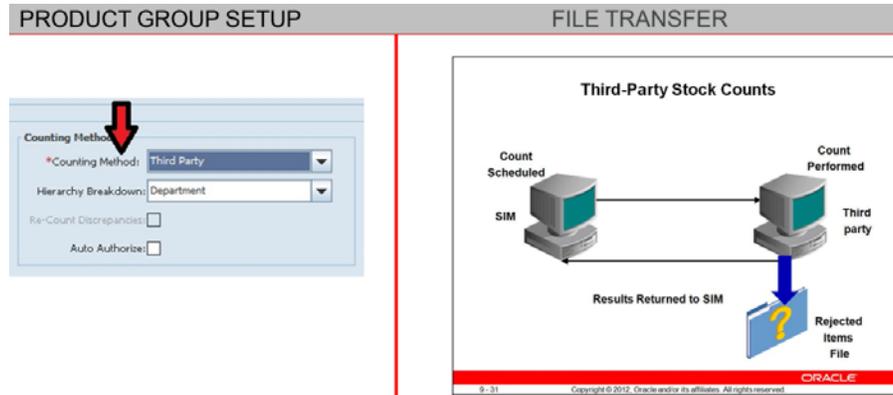
There are additional filtering options as well to assist the user with reducing the amount of items to display.

### Processing Third-Party Results

The Third Party count method allows a third-party service to perform the actual counting using a third-party system. This feature is controlled through the product group setup by choosing Third Party for the counting method. SIM supports the

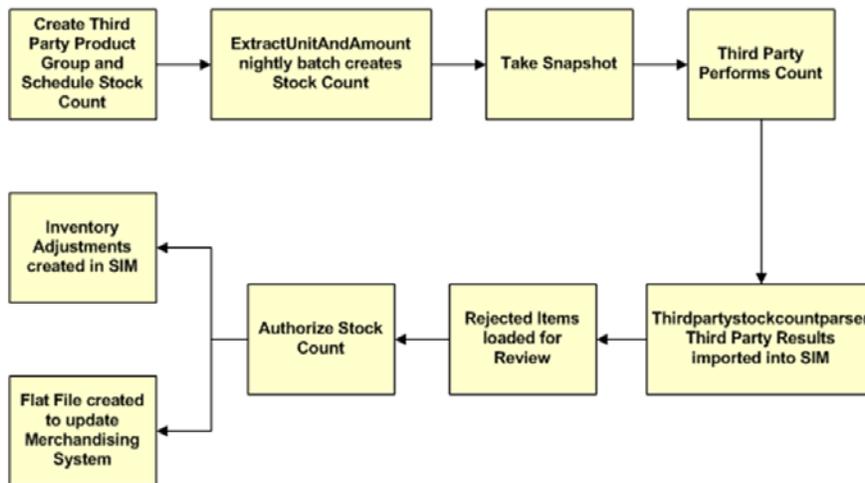
creation of Third Party stock counts for any merchandise hierarchy level found in SIM. Note that the Ad Hoc count does not support a third party counting method. Therefore, a third-party service will only be able to count Unit, Problem Line, or Unit & Amount counts.

**Figure 15–18 Third-Party Results Process**



The third-party service may perform the count with their own equipment and subsequently provide the results in a flat file. SIM allows for the importing of a Stock Count file from a Third party counting system, and updates the existing stock count records in SIM with the Item/Quantity data being returned. If there are items that were not part of the stock count in SIM, the items will go into a rejected items file for further resolution. This may include assigning ID numbers to items rejected as part of the import process.

**Figure 15–19 Third-Party Results Process Details**



The first step in the process is to create a product group. Then, the product group would be scheduled.

A nightly batch identifies any pending stock counts and will create the count the night before the actual schedule date. The batch will extract all of the items to include in the stock count based on the settings at the time the product group was created. Once the schedule date has been reached the snapshot can be taken, or a parameter can be passed when running the upload batch to take the snapshot automatically before the results file is processed.

SIM compares the Third Party results information with the SOH value currently held in SIM. Any items not recognized by SIM are stored in a reject table. The Rejected Items Resolution screen allows the user to assign a valid SIM Item ID to the count information. An Authorization screen allows the user to view all items in the stock count that are discrepant. Pre-defined variance criteria are used to determine which items should be considered discrepant. Once the discrepant items have been reviewed and approved, SIM exports the stock count information to RMS and creates inventory adjustments for consumption in SIM.

Some retailers have Sarbanes-Oxley (SOX) controls in place and automatically authorize the stock count results as they are imported. If this is in place, the Rejected Items screen will be view only, and SIM will export the flat file created within SIM to RMS without any interaction by the user.

## Viewing/Updating Rejected Items

Rejected items can be created through two means: Invalid scans performed on the handheld by a user and Third party stock counts that do not match the child when they are uploaded.

**Figure 15–20 Rejected Items Screen**

SIM Item Id	Item Description	Rejected Item Id	Rejected UIN	Status	Count Quantity	Count Location	Comments	User ID	UIN Qty
		100144207		UIN Required	2	478		BATCH_USER	
		1001		Item Not On File	1	478		BATCH_USER	
		10010010010012	2941	Item Not On Count	1			BATCH_USER	
101320476	Test Item 101320476	101320476	1290	UIN Not At Store	1			BATCH_USER	0

The Rejected Items button on the Child Stock Count List screen will take the user to the Rejected Items screen.

The user can view rejected items, and assign valid SIM item IDs to items not on file and non-ranged items. The user can also update unique identification numbers (UIN) if they are required for some items in the count.

If there are no rejected items for the count, a message is displayed to inform the user there are no rejected items. In that case, the Rejected Items window does not open.

Third Party counts can include inconsistencies to be resolved within SIM. Items might be counted that are not currently recorded in SIM inventory. Some counted items

might not be currently ranged to the store and are not expected to appear in the count. The user can assign item IDs to items not on file and can include non-ranged items in the stock count. Some items counted in a Third Party stock count might be items not included in the stock count product group and should not have been counted. If that is the case, no action can be taken with these items and they cannot be assigned SIM item IDs.

This user is also able to add UINs at this time. The user is able to manage the rejected items only if the auto-authorize option has been disabled.

If any items sent from a Third Party system are not already ranged to the store, the system configuration to Allow Non-Range Item is set to Yes, and the count is a unit and amount count. SIM will add the item to the appropriate stock count record and the snapshot will be set to 0.

Any items without a valid SIM ID will not be part of the finalized stock count. Once the count is in Authorize Complete status, the Rejected Items screen becomes view only.

### **Reasons for Rejection**

The Item Not on File is an item that does not exist in the SIM enterprise-wide inventory. These items might not be set up in the merchandising system. Not on file items can be added to the count only if they have been set up.

The Item Not at Store is an item that exists in the SIM enterprise-wide inventory but is not assigned to the store. They are also referred to as non-ranged items. These items can be added to the count.

The Item Not on Count is an item not included in the stock count product group when the stock count was extracted. These items cannot be added to the stock count and they should not have been counted. The user is unable to take any action with these items.

Some items that require UINs to be identified during the count can be rejected for additional reasons.

If the same UIN was counted twice for the same valid SIM item during the third party count, the UIN Duplicate reason will be assigned. SIM accepts the first item/UIN combination but rejects any duplicates.

If a valid SIM item was counted, but the UIN was not provided in the third-party data file, the reason for rejection will be UIN required.

The user can assign a valid SIM item ID and UIN.

If an item has UIN Not on Count, a UIN was scanned but the item/UIN combination does not exist in the product group element selected for the count. The user is unable to take any action with these items (that is, the user is able to view the UINs counted).

The UIN Not at Store is where an item/UIN combination exists at a different store. Depending on the SIM system configuration, the user may be able to reassign this item/UIN combination to the store. If the SIM configuration does not allow reassignment, then no action can be taken with these items.

If an item has UIN Not on File, the item does not exist in SIM. The user can assign the item a valid SIM item ID but UIN must be entered for the item once the item has been setup.

If Auto Generated Serial Number type UINs are required for the item but the counted items do not have AGSNs assigned in the third party data file, the items are rejected. The user must generate the AGSNs.

There are also some additional UIN rules to keep in mind.

If an item with a required UIN is not counted during the stock count process but is currently In Stock, Reserved for Shipping or Unavailable, the UIN status is updated to Missing.

If an item with a UIN on the stock count does not exist in the store, the UIN will need to be added during the Authorize stage. At that point, the UIN is created for the store where the stock count is occurring and the status updated to In Stock.

If a UIN on the stock count was received in a different store and the Store Setting, Allow Unexpected UINs is set to Enabled, the store attribute for the UIN is updated to the store where the stock count is occurring and the status updated to In Stock.

If the UIN on the stock count has the correct store attribute and is in, Shipped to Warehouse, Shipped to Vendor, Removed from Inventory, Customer Order Fulfilled, Sold or Missing status, the UIN status is updated to In Stock.

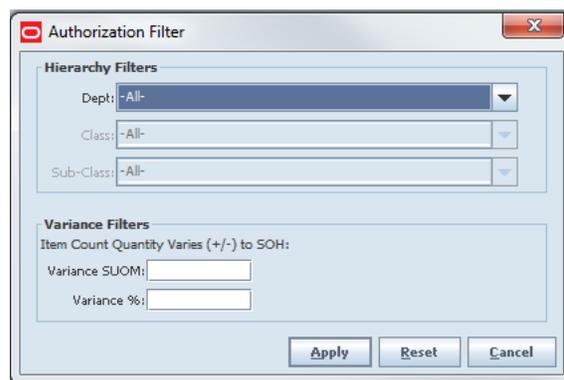
For UINs with a status of In Stock after the initial count but move to another status before the count is authorized, SIM does not update the UIN and remains with a status of In Stock upon confirmation.

## Authorizing a Stock Count

After the stock count/recount process has taken place, the Third Party results file has been imported, and the rejected items have been resolved, the next step in the process is to authorize the stock count. This is the last step that allows a user to make any last minute corrections.

### Authorization Filter

**Figure 15–21 Authorization Filter Popup**



The Authorization Filter is used to assist with locating the stock count that will be worked with. The filters can be used to pull up by merchandise hierarchy or the user can focus on items with the largest variances.

### Stock Count Authorization

On the Authorization screen, the SOH field will always display the last snapshot quantity, either the snapshot of the count or the re-count.

**Figure 15–22 Stock Count Authorization Screen**

Item	Description	UOM	Count Qty	Cnt Var	Cnt Var %	SOH	Authorized Qty	UIN Qty
100147020	Item3:Green:Raspberry:Small:6OZ	EA	5	-133	96.38%	138		

On the Authorization screen, the user can enter quantities for both discrepant and non-discrepant items. The screen will default to discrepant items and the user will have the option to filter to all items.

SIM will use the component item for authorization even if the pack item was counted during the count/recount phase. This applies to both simple and complex breakable packs. Only the component will appear during authorization and is the rolled up quantity from the counted pack and component quantity.

The user is able to select the Update Auth Qty button to auto-fill all Authorized Qty with the last count quantity:

- The Authorized Qty field will update with the rolled up quantity of the packs and components.
- The variance columns will be based on the rolled up quantity.

The user is able to select the Count Detail button on the Authorization Detail screen to view the count quantity for the pack as well as the component for breakable packs.

**Pack Item and Component Item Count Detail**

The Pack Item and Component Item Count Detail popup will display in a view-only mode when the Count Detail button is pressed.

**Figure 15–23 Pack Item and Component Item Count Detail Popup**

Item	Description	Type	# of components in ...	UOM	Count Qty	Re-Count Qty
123456	Shampoo/Conditioner	Complex Pack	1	Units	20	20
223456	Shampoo	Component		Units	50	50
333456	Shampoo 2 Pack	Simple Pack	2	Units	30	30

The Close button will return the user to the Authorization Detail screen to complete their processing.

The header section includes the component item ID and description, the component item's current SOH, the Total Counted Qty based on a rolled up count quantity for the component, and any packs and the Total Authorized Qty.

The Total Authorized Qty will be zero if an authorization quantity has not yet been entered for the component item.

The detail section will identify the specifics of what was counted and recounted:

- Type can be Component, Simple Pack, or Complex Pack.
- The # of Components in Pack includes the number of the current component items that exist in the specified pack.

This field will be null if the type of item is Component.

**Figure 15–24 Stock Count Authorization Screen**

Item	Description	UOH	Count Qty	Cnt Var	Cnt Var 9%	SOH	Authorized Qty	UOH Qty
100147020	Item3:Green:Raspberry:Small:6OZ	EA	5	-133	96.38%	138		

The user is able to select the Update Snapshot button to apply any sales transactions occurring after the stock count has been moved into the authorization phase. If additional sales processing occurs while the user is in the authorize phase, the Update Snapshot button will be available to update the snapshot as needed prior to confirming the count. If the Update Snapshot is not selected, any sales records are not applied when the user authorizes the count, and they will be treated as sales that came in after the stock count was closed and processed accordingly.

Once the complete button has been pressed, the stock count becomes view only and no quantities can be changed. The only available button on any of the screens is the Back button which will return the user to the previous screen without making any changes.

### Inventory Adjustment Impacts

When an inventory adjustment is created and approved during a stock count, a record will be written to a staging table for further processing when the stock count is completed. However, there may be additional inventory adjustments that remain "In Progress."

If the store parameter, Display Late Inventory Adjustment Message is configured to Yes, the user will be asked if they want to continue. If they do not continue, they will return to the authorization screen and can now finalize the in progress inventory adjustment before completing the count.

If they choose to continue, the in progress inventory adjustment will be ignored, but all other adjustments already in the staging table will still be processed. If the store is not configured to use the message, all "In Progress" Inventory Adjustments will also be ignored, without prompting the user.

### Additional Considerations

Sequencing must be implemented to use guided stock counts and multiple location validation to occur. There is a possibility for a single item on a stock count to be

located in multiple locations in the store. The Unit and Problem Line stock counts, SIM performs a check for guided stock counts if some locations for the items have not been counted.

The warning message will only appear if the items have been counted in at least one location but have not been counted in all locations. The message will only appear once and the user is given the option to continue counting. This option will allow the user to finish counting the items in all locations and enter a more accurate authorized quantity count.

At this point, some stock count quantities might match SIM inventory levels or be within the variance count or percentage set for the product group. There might also be discrepant item counts, if the recount also resulted in discrepancies. The user can accept counted quantities or enter different authorized quantities for all items.

If the product group was set up for automatic authorization of the count, the child stock counts are automatically authorized when completed, and are updated automatically.

SIM will automatically authorize the count, and export the stock count data to RMS. If this is a Third Party count, this process will happen as part of the import of the Third Party Results file. Some companies require the auto-authorization for SOX compliance reasons.

In this case, any items considered Rejected will not be assigned an existing item ID. This business process assumes the retailer has resolved all discrepancies and data conflicts with the Third Party service. The rejected items will be view only. No user intervention occurs in SIM for this process to occur.

Manual authorization is required if the Auto Authorize option is not selected during the Product Group setup. When a stock count is ready for approval, the last state of the count requires entering the authorized quantities for items in the count.

At this point, some stock count quantities might match SIM inventory levels or be within the variance count set for the product group. There might also be discrepant items which resulted in the recount. The user can accept counted quantities or enter different quantities.

The user can update authorized quantities by updating manually or by selecting various buttons to fill in any blank quantities. Any item in the stock count can be changed. For a count with many different items, the user may want to enter quantities only for certain items.

If this is a Third Party count, SIM will populate the Count Quantity on the stock count records, and set the authorize quantity equal to the count quantity. As with any other type of stock count, the user will need to authorize the count on the Stock Count Authorization screen.

Once the Confirm button is selected, the inventory adjustment is written in SIM for Unit and Problem Line counts. For Unit and Amount counts, the inventory adjustment is done upon confirming the last child count and the results will also be exported to RMS.

### **Authorizing Stock Counts - Rules**

When the user reenters a stock count in the authorize phase that has not yet been completed, the last snapshot remains constant.

The Filter drop down list on the Authorization screen will allow the user to view All Items that were a part of the Stock Count. The user is allowed to enter data into the Authorized Quantity field for both discrepant and non-discrepant items.

The user can auto-fill the authorized qty field by selecting the Update Auth Qty button. A warning is displayed to the user if some items do not have an Authorized Quantity entered when the Confirm Authorization button is clicked.

If the user selects OK and the Stock Count Null Count Quantity = 0 system setting is set to No, all items without an Authorization Quantity will have their SOH left as it is, with no adjustments made. The item is considered not counted in this case. If, however, the system setting is set to Yes, all items without an Authorization Quantity will have their SOH set to the last counted quantity. This would be zero if the user never physically entered a count quantity.

If the Updating Stock on Hand parameter is set to Discrepant Items Only, SIM will only update the SOH for discrepant items that were counted.

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**Note:** The two above-mentioned parameters only apply to unit and problem line stock counts. Unit amount counts will always default to zero if not counted and stock will always be updated, even if not considered discrepant.

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If this is set to All Items, SIM will adjust the SOH for both discrepant and non-discrepant items that were counted.

The discrepant items are the items with a difference greater than a set variance. The non-discrepant items are items that had a difference, but are within an acceptable tolerance.

Unit and Amount stock counts have some additional rules. Once the last child count is confirmed from the Child List screen or Authorization screen, SIM will complete the master stock count process and all Authorized Quantities for the entire stock count record both discrepant and non-discrepant items are updated and sent to RMS.

Unit and Amount counts will update SIM by creating Inventory Adjustments similar to the other types of counts; however, a flat file is created with the new inventory position and is sent to the merchandising system instead of the inventory adjustment. Items in deleted or inactive status that still have SOH are included on Unit and Amount stock counts.

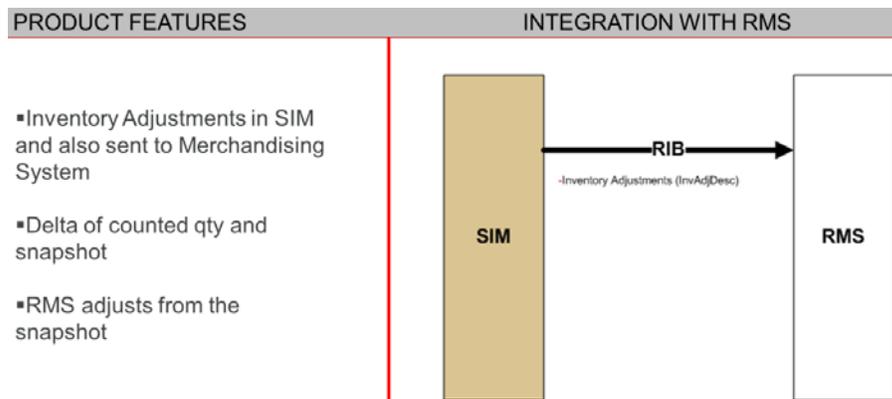
Additionally, a flat file is created with UINs and the UIN status. This flat file will be available to be imported into merchandising systems to update the UIN status after a Unit and Amount stock count.

For Third Party counts, the filter will not be available for Discrepancy/All Items since this information will not be available.

## Updating Stock on Hand

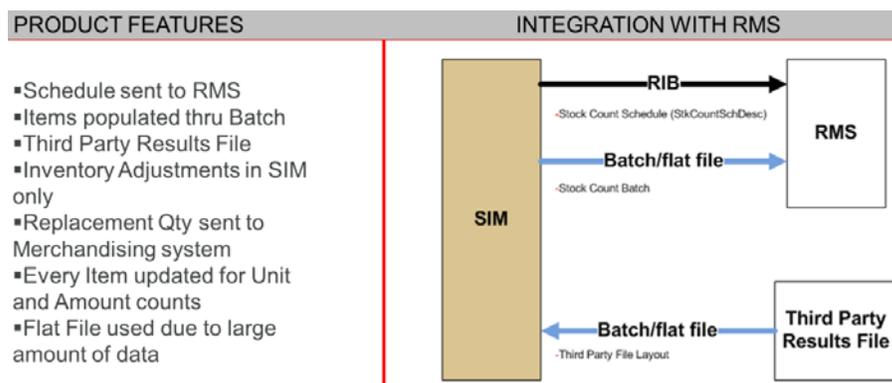
If SIM is integrated with RMS, when the Unit, Ad Hoc or Problem Line count is completed and confirmed in SIM, any discrepant items will have their SOH decremented or incremented in SIM and the appropriate inventory adjustment will be sent to RMS to keep RMS and SIM in sync. These types of counts only send the difference between the counted quantity and the snapshot to RMS. This means that if RMS started out with a different inventory position than SIM, the discrepancy will stay the same.

**Figure 15–25 Updating a Stock on Hand Process**



A Unit and Amount stock count has some additional considerations when RMS is implemented.

**Figure 15–26 Updating a Unit and Amount Stock Count Process**



When a Unit and Amount stock count is scheduled in SIM, the schedule information including the store, department, class, subclass, and start date is sent to RMS through RIB messaging. A message is sent to RMS each time a schedule is created, updated or deleted.

The stock count items are populated for a Unit and Amount through a batch process rather than immediately which is why the lockout days must be greater than or equal to one.

For Third Party Unit and Amount stock counts, a Third Party Service, comes into the store to count the items and then sends a results flat file which is in turn imported into SIM with the stock count results.

Once the count is completed and confirmed in SIM, items will have their SOH decremented or incremented in SIM using inventory adjustments and SIM will in turn create a flat file and send to the Merchandising System to keep the systems in sync.

### Handling of Sales

There are many factors that influence the stock on hand in the system. Items are received into the store which will increase the stock on hand. When a customer purchases an item, the stock on hand will decrease and if the customer returns the item, the stock on hand will subsequently again be increased. As long as everything is instantaneous, SIM is able to have an accurate picture of our actual stock on hand. But

as with any process, there are errors that occur and periodic stock counts need to be performed to correct those errors.

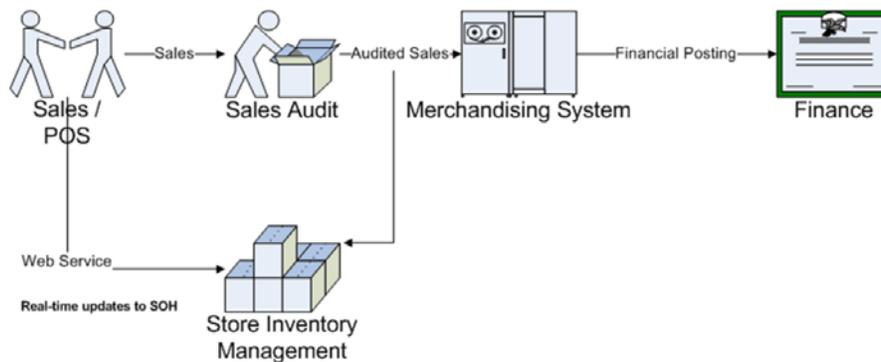
When a stock count is performed, the most accurate picture can be captured if all other processes have completed and the store is closed. However, with the continued pressure to have product available for sale 24 hours a day, 7 days a week, an accurate stock count becomes a challenge. Sales are adjusting the stock on hand as well as inventory adjustments. There is a complication with concurrent activities to ensure the stock count is accurately reflected for the true inventory.

**Normal Sales Processing**

When a product is sold to the customer, the system that captures the sale needs to communicate to the inventory system. Since there are different systems that handle capturing the sales and managing the inventory, the point of sale system needs to send the information to other systems for auditing the transaction, processing the financial aspect of sale as well as updating the current inventory.

The recommendation is for stock counts to be executed while the store is closed, however SIM does allow the user to perform a stock count at any time. Often times, a stock count is performed during the regular business day, but this can cause issues with inventory because the sales many times may not be processed in the system until hours or perhaps days later, due to various issues.

**Figure 15–27 Normal Sales Processing**



Some retailers require legally updating inventory numbers directly in SIM. Other retailers require near real-time updates to improve the customer experience by having more accurate data. For these reasons, a Sales Web service was developed to allow the retailer's point of sale system to send the sales directly to SIM. The dotted line on this diagram illustrates this. An additional benefit to this web service is it enables the 24/7 stock counts to process sales using a timestamp processing. This does require the retailer to create an integration to use the web service. ReSA provides the transaction timestamp.

Late sales are processed in a two stage process in order to improve the performance of processing late sales and stock count processing. If there are no open stock counts ReSA will only update Stock on Hand. If there is at least one open stock count, ReSA processing will write the sale record to a new staging table for every stock count open if the snapshot has already been taken for the specific count. The following rules apply:

- When a sale or return happens in POS, SIM will update SOH and SIM will check if there are any open stock counts for the item being processed.

- If open stock counts exist for the item and the snapshot was taken, a record is written to the staging table.
- If no open stock counts exist for the item and the last approved stock count date is after the sales transaction date, then a late sale inventory adjustment is created to back out the change made to SOH.
- If no open stock counts exist for the item and the last approved stock count date is before the sales transaction date, then SIM will only update SOH.

### **Inventory Adjustments**

When an inventory adjustment is being confirmed/approved with items on an open stock count, the adjustment may be applied to the open stock. The adjustment will be written to a staging table for further processing.

If the store parameter, Display Late Inventory Adjustment Message is set to Yes, the user will have the choice whether the system should process the adjustment when confirming/approving the adjustment.

If the parameter is set to No, the system will always process the adjustment without prompting the user.

The processing is similar to how late sales are processed. Depending on the create timestamp of the adjustment, the snapshot may be updated or if a reversing adjustment is needed, the following inventory adjustment reason codes will be used:

- 184 Unit Late Inventory Adjustment Increase (used for problem line, ad hoc as well)
- 185 Unit Late Inventory Adjustment Decrease (used for problem line, ad hoc as well)
- 186 Unit and Amount Late Inventory Adjustment Increase
- 187 Unit and Amount Late Inventory Adjustment Decrease

### **Stock Count Sales Configuration Settings**

There are four main stock count settings to look at for processing stock counts.

The Stock count processing setting tells the system whether SIM must process by date only or whether date and time can be used when processing incoming sales. In order to use Timestamp processing, the point of sale system data must be capable of capturing and sending the data with a specific time and date for every sales transaction. If the point of sale system only provides a date, Daily Sales Processing must be selected.

The Stock Count Sales Processing system parameter is split out into two different parameters. One parameter will control the type of sales processing for Unit and Amount stock counts and the other will control the processing for Unit, Ad Hoc, and Problem Line stock counts.

Since the ReSA audit file provides a timestamp, the client may configure their system to process Unit, Problem Line, and Ad Hoc stock counts to use timestamp processing. Web Services can be used with ReSA by allowing the web services to provide the initial sales to SIM and ReSA will provide any changes made to the data after the sales have been audited.

If RMS is implemented, the Stock Count Processing setting for the Unit and Amount must continue to be set to daily due to real time update restrictions in RMS.

If Daily processing is selected, the user will also need to select whether the stock count will occur before or after business hours. If RMS is being used, this setting must be set

to After Store Close to coincide with the Unit & Amount Stock Count Sales Processing parameter setting for unit and amount stock counts because of when the process runs for RMS.

**Stock Count Phases**

In addition to providing the information with a timestamp, SIM needs to capture the counting process timestamp at various intervals during a stock count in order to process sales correctly. There are many things to consider when processing sales during an open stock count. Some of these considerations include: when did the sale take place, when it is processed, what count phase are we in, has the snapshot been taken and has the item been counted.

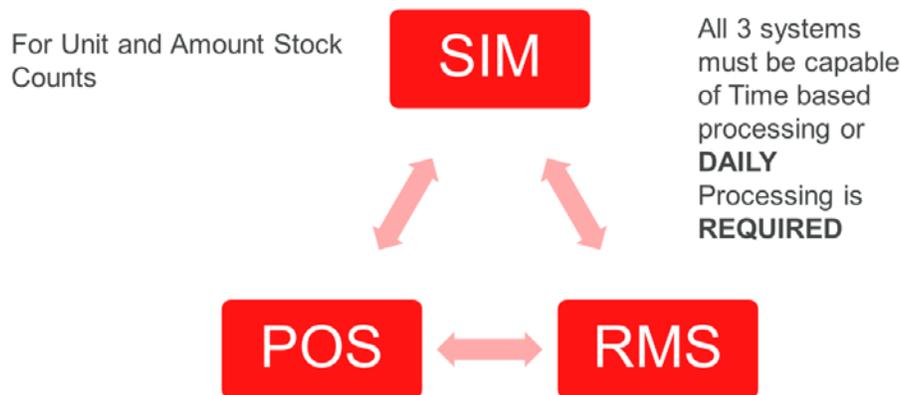
**Figure 15–28 Stock Count Phases**



**Daily versus Time-Based Processing**

As more retailers continue to operate on a 24 hour, 7 days a week basis, there is an immediate challenge to keep the business running. Not too long ago, it was normal business process to close a store to perform a stock count. However, in today's world of constant demand, it has become virtually impossible to shut down a store for a day. Therefore, with the continued pressure to keep the store open, some additional challenges have come into existence for the most accurate, up to date stock count.

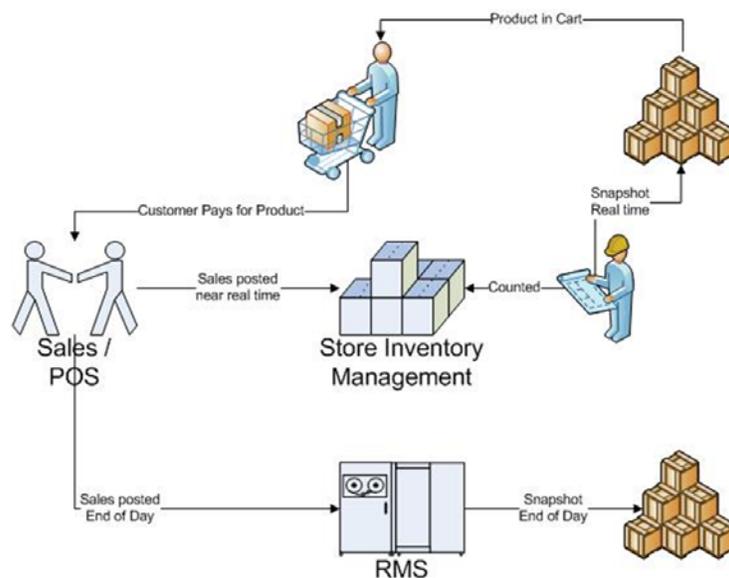
**Figure 15–29 Daily Versus Time-Based Processing**



Many point of sale systems, are now capable of capturing the time an item has been sold to the consumer. Now with the Sales web service, SIM can be configured to use near real-time updates. The introduction of the sales web service, allows SIM to have the capability to use logic to compare the sales activity with the counting activity. SIM has introduced various methods for capturing the time, various activities occur during the stock count. The snapshot, counted quantity, authorized quantity all have a time stamp based on when the user performed the activity. When the Sales Processing configuration is set to Timestamp processing, the additional logic to look at the time can be employed for a more accurate picture of inventory.

However, there is a limitation when RMS is implemented or other merchandising system that does not use timestamp processing but do create their own stock count with relevant updates. When a unit and amount count is performed there are several differences in processing. SIM will send a flat file to RMS with the results from the stock count. RMS will use this flat file and make the appropriate adjustments based on the snapshot taken in RMS. RMS also processes the sales for the stock count date to determine how to adjust the stock count for financial impact. Any inventory adjustments generated in SIM for a unit and amount stock count do not flow into RMS. Therefore, there is not a method for processing time based sales against the stock count in both SIM and RMS. As a rule of thumb, all three systems must be capable of time based processing in order to set the unit and amount stock count setting to Timestamp.

**Figure 15–30 Daily Versus Time-Based Processing Flow**



This figure shows a view of how the retailer may perform a stock count during open business hours.

### Timestamp Processing

First, the retailer will perform a snapshot in SIM and the current stock on hand will be captured. For example, the snapshot identifies, 10 - 13" TVs. The stock counter personnel, count 9 TVs since there is one in a customer's cart. The customer pays for the TV and the sales transaction is captured with the date and time of the event. The point of sales system will then communicate thru the web service and SIM will process the sale. When processing the sale, the system checks to see if there is an open stock count for the item. After looking at the date and time the system determines the item was not counted and will update the snapshot to 9 based on the item that was sold.

When the stock count is finalized, because the snapshot and the counted quantity are the same, there are no inventory adjustments created.

### Daily Sales Processing

Before Store Open, the retailer will perform a snapshot in SIM and the current stock on hand will be captured. Again, the snapshot identifies, 10 - 13" TVs. The stock counter personnel count 9 TVs and again, there is one in a customer's cart. The customer pays for the TV and the sales transaction is captured with the date of the event. The point of

sale system communicates to SIM thru the web service and SIM processes the sale. The system checks to see if there is an open stock count for the item. If an open stock count exists, the sale will be written to a staging table. As the user presses Complete for each phase of the stock count, SIM will use the staging table and the date of the transaction to determine if the stock count needs to be updated. The system determines the date is the same. Because the system is set up to Before Store Open, it assumes any transaction with the same the date happened after the item was counted because the system assumes the stock count was performed before the store was open. Since, the snapshot remains at 10, when the stock count is finalized, SIM will create an inventory adjustment of -1.

In the same scenario with After Store Close, the system determines the date is the same, but because the system is set up for After Store Close, the assumption is the count has occurred after the store has closed. SIM needs to update the snapshot to 9 to account for the sale. Since the snapshot has been adjusted to 9, when the stock count is finalized, there will be no inventory adjustment created.

When RMS is implemented, RMS takes a separate snapshot for the Unit and Amount stock counts and will apply sales for the same day before the snapshot has been taken. Therefore, when using RMS, the SIM setting must be set to Daily Sales processing and After Store Close.

### **When Is the Snapshot Updated?**

Stock count processing will process the sales records written to a staging table by the ReSA audit Sales Processing or with the POS sales web service. Additionally, when an inventory adjustment is created and approved with items on an open stock count, the adjustments records are written to the same staging table. The Stock Count processing will look to the staging table. This process will run when moving to the next phase of the count, before the discrepancy calculations.

The following will run this process:

- Moving from Count to Recount Phase
- Moving from Recount to Authorize Phase
- Selecting the Update Snapshot button during Authorization Phase:
  - When pressed, any sales records in the staging table after entering the Authorize phase will update the snapshot.
  - Records processed before the count is confirmed.
  - Screen is refreshed and the stock count is up to date.
  - If the button is not selected before confirming, reversing late sale inventory adjustment will be created for the sales.

When Daily Processing is selected, the system needs to know whether the stock counts will be performed before the store is open or after the store is closed.

For those retailers that do not close their stores for the stock count, this option becomes more difficult to select.

What is the difference between the before store open and after store close options?

With both Before Store Open and After Store Close, the snapshot is updated if the sale date is before the stock count date. The user will see that the difference is when the sale date is the same as the stock count date.

If using Before Store Open, the assumption is that any sales that happen on the same date as the count date or later, the system will assume the sale happened after the item was physically counted. Therefore, the snapshot will not be updated.

If using After Store Close, the assumption is that any sales that happen on the same date as the count date will assume the sale happened before the item was physically counted. In this scenario, the snapshot will be updated.

### Example - Daily Sales Processing In Place

Figure 15-31 Daily Sales Processing In Place Example

## 13" Sony TV – Stock on Hand of 10

Before Store Open	After Store Close
Snapshot Taken = 10 TVs	Snapshot Taken = 10 TVs
Counted = 9	Counted = 9
Process Sale of 3 TVs	Process Sale of 3 TVs
Update SOH = 7	Update SOH = 7
Snapshot is NOT updated = 10	Snapshot is updated = 7
Complete Count	Complete Count
Stock Count Inventory Adjust = -1	Stock Count Inventory Adjust = +2
Update SOH = 6 (SS-Sale-IA)	Update SOH = 9 (SS-Sale+IA)

The above figure shows what happens when the setting is set to Before Store Open in the left hand column and when it is set to After Store Close in the right hand column.

The current stock on hand is 10 - 13" Sony TVs. The store manager starts the counting process by taking the snapshot. Now, the store has opened for the day. The stock counter, counts 9 TVs. Sometime during the day, 3 TVs are sold. When the sales reach SIM, the stock on hand automatically updates to 7 units. So far the two settings behave the same way.

Now the snapshot does not get updated and remains at 10 when using the Before Store Open setting, while the After Store Close configuration updates the snapshot to 7. As mentioned, the Before Store Open configuration assumes the TV's were counted before the items were sold, while the After Store Close configuration assumes the opposite.

When the stock count is completed, both configurations create an inventory adjustment based on the difference between the snapshot and the counted quantity.

The Before Store Open configuration will create an adjustment of negative 1 since subtracting 10 from 9 equals -1.

In the right hand column, the After Store Close setting will also create an adjustment, but the inventory adjustment is a positive 2 since 9 subtracted from 7 equals 2.

The Before Store Open configuration will subtract the inventory adjustment from the current stock on hand of 7, which results in a final updated stock on hand of 6.

The After Store Close configuration will add the inventory adjustment to the current stock on hand of 7, which results in a final updated stock on hand of 9.

If the system has been incorrectly set up to use Before Store Open when RMS is used, SIM will automatically be out of sync with RMS. SIM will think the system has 6 items on hand, while RMS will think there are 9.

**Example 2 - Daily Processing Completed**

*Figure 15-32 Daily Processing Completed Example*

**13” Sony TV – Stock on Hand of 10**

Before Store Open	After Store Close
Snapshot Taken = 10 TVs	Snapshot Taken = 10 TVs
Counted = <b>9</b>	Counted = <b>9</b>
Complete Count	Complete Count
Stock Count Inventory Adjust = -1	Stock Count Inventory Adjust = -1
Update SOH = <b>9</b> (Snapshot-IA)	Update SOH = <b>9</b> (Snapshot-IA)
Process Sale of 3 TVs	Process Sale of 3 TVs
<b>No</b> Reversal Inventory Adjust	Reversal Inventory Adjust = +3
Update SOH = <b>6</b> (SOH-Sale)	SOH = <b>9</b> (IA-Sale=net 0)

In this example, the sales are not processed until after the stock count has completed. The snapshot and the counted quantity is still the same.

When the stock count completes, the same inventory adjust of negative 1 is created for both stock counts.

Since the Before Store Open setting assumes the count happened before the sale, stock on hand is adjusted as usual.

The After Store Close setting will assume the count happened after the sale. The sale is assumed to have been accounted for when the item was counted and authorized. Therefore, the sale will be deducted twice; once when the inventory was counted and when the sale was applied to stock on hand.

Therefore, the system will create a reversing adjustment to correct the stock on hand.

The updated stock on hand will be 6 and 9 respectively.

**Timestamp Processing**

Since late sales can span multiple days, and items could be counted on multiple stock counts during those days, the timestamp will be kept on the stock count line item level.

Timestamp processing allows the retailer to be more precise in determining when the sales occurred and when the snapshot should be updated. SIM captures the timestamp, which includes both the date and time, when the item is physically counted and authorized.

The timestamp is held for each individual item on the stock count.

The physical count timestamp is compared with the sales timestamp to determine if the snapshot should be updated.

Any items that are left blank are assumed to be not counted and a physical timestamp will not be taken for those items. If the item was counted but none were found, the user will enter a zero and SIM will take a timestamp for that item.

A new snapshot will be taken during the recount phase for the Unit, Problem Line, or Ad Hoc when a recount is required. Unit and Amount counts do not allow for a new snapshot during the recount phase and the system will continue to use the original snapshot throughout the process. The reason for this is that RMS also takes a snapshot. A Unit and Amount count assumes that all inventory transactions have been processed in both systems before the snapshot is taken.

The physical timestamp will be refreshed in case of a re-count when the item is counted again. The new timestamp will be the time the item was scanned or entered on the screen.

If there are multiple users performing a stock count, the oldest, or least recent, physical timestamp of all users counting the item, will be used.

If the stock count is being executed by a third party, they should not perform any counting until the snapshot has been taken. It signifies that all inventory transactions are frozen.

In all cases, the stock on hand will always be updated when sales are being processed.

### Example - Timestamp Processing

Figure 15-33 Timestamp Processing Example

## 13" Sony TV – Stock on Hand of 10

Sales Before Timestamp	Sales After Timestamp
Snapshot Taken = 10 TVs	Snapshot Taken = 10 TVs
Counted = 9	Counted = 9
Process Sale of 3 TVs	Process Sale of 3 TVs
Update SOH = 7	Update SOH = 7
Snapshot is updated = 7	Snapshot is NOT updated = 10
Complete Count	Complete Count
Stock Count Inventory Adjust = +2	Stock Count Inventory Adjust = -1
Update SOH = 9 (SS-Sale+IA)	Update SOH = 6 (SS-Sale-IA)

This example takes a closer look at how timestamp processing logic determines when the snapshot is updated. Here again is the 13" Sony TV example. In the Daily Sales processing example, how the system processes the results based on the Before Store Open and After Store Close setting is compared. Timestamp processing does not use this setting. Instead, the processing is based on when the item has been physically counted. Each line here is showing the sequence of events. The Process Sale of three TVs is on the third line, which means the snapshot was taken and the items were physically counted before the sales were processed. But the TVs were actually sold before the snapshot and the count of the items.

In the left hand column in this example, there is a sale that happened before the snapshot was taken or the item was physically counted. Because the sale was not correctly accounted for in the system, the snapshot has been overstated. The snapshot

needs to decrease by 3 units. However, the counted quantity is not reduced because it is assumed these 3 items were no longer on the shelf when they were counted based on the timestamp.

When the count is completed, the inventory adjustment is based on the counted quantity and the updated snapshot. There is still a discrepancy between what is counted and what the system says we have, therefore, the correct updated stock on hand should be 9.

**Example - Completed Stock Count**

*Figure 15-34 Completed Stock Count Example*

**Example – Completed Stock Count  
13” Sony TV – Stock on Hand of 10**

Before Store Open	After Store Close
Snapshot Taken = 10 TVs	Snapshot Taken = 10 TVs
Counted = 9	Counted = 9
Complete Count	Complete Count
Stock Count Inventory Adjust = -1	Stock Count Inventory Adjust = -1
Update SOH = 9 (Snapshot-IA)	Update SOH = 9 (Snapshot-IA)
Process Sale of 3 TVs	Process Sale of 3 TVs
No Reversal Inventory Adjust	Reversal Inventory Adjust = +3
Update SOH = 6 (SOH-Sale)	SOH = 9 (IA-Sale=net 0)

In the right hand column, there is a sale that happened after the item was physically counted. Since the sale occurred after the snapshot and after the item was physically counted, the sale should not impact the snapshot. There is a discrepancy between what is counted and what the system says we have, therefore, the stock on hand should be updated from 7 to 6 since the discrepancy between the snapshot and counted quantity was negative 1.

**Inventory Adjustment Impacts**

There are also special rules that apply if an inventory adjustment is made during an open stock count.

If an inventory adjustment is made which is generated through the system, the snapshot is updated if there is a count not yet authorized. If the inventory adjustment is manual, the inventory adjustments follow similar rules for handling sales.

For additional details on processing inventory adjustments during an open stock count, "[Authorizing a Stock Count](#)".

This is necessary to handle the case where a stock count is started before another stock count is completed.

Wastage does not update the snapshot. The reasoning behind this is that wastage updates are an average recurring administrative discrepancy update. Sometimes the wastage will be lower and sometimes the wastage inventory adjustment is higher than the true state of the SOH. A stock count on the other hand is a specific exact count at a specific time. Interfering with the average wastage disposal could create unforeseen problems since the system does not know if the wastage adjustment is for the coming time period or for the time period including the stock count. Depending on the

business practice, the stock count should be performed after or before the wastage batch program runs.

Inventory adjustments that are only moving inventory between buckets such as from unavailable to available and vice versa, do not update the snapshot since they do not have a SOH impact.

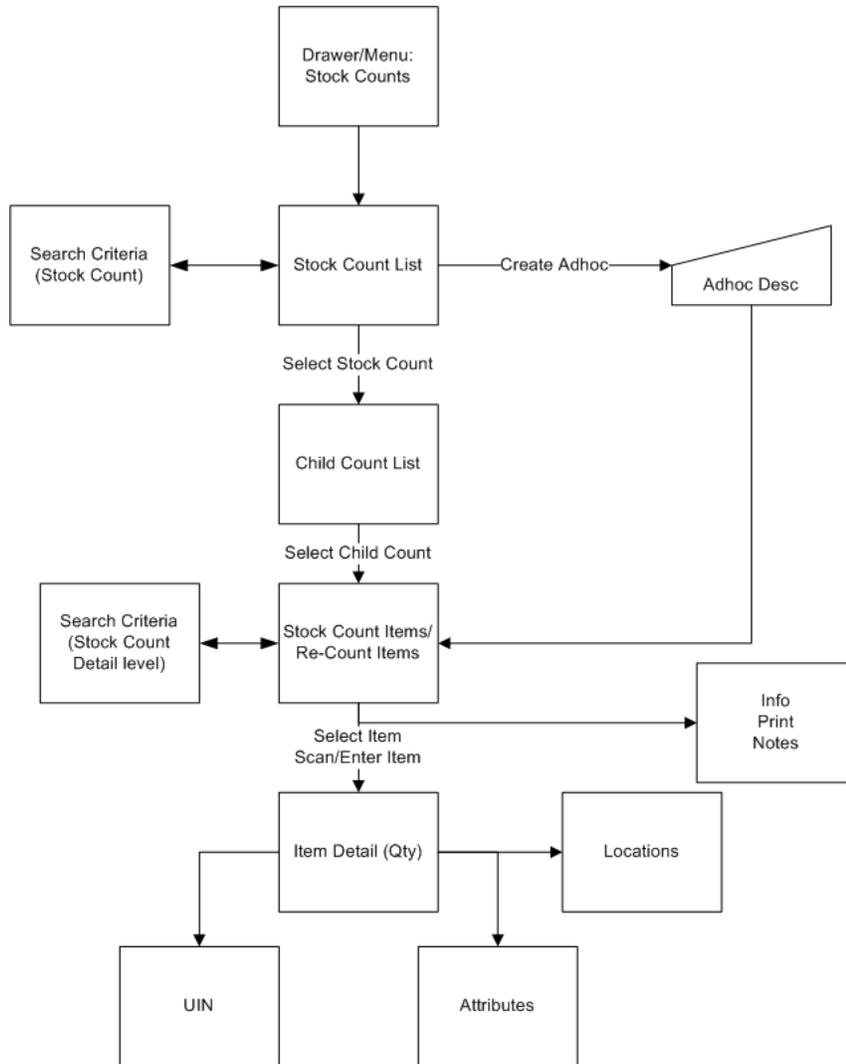
## **MAF**

All validations and rules for stock count on MAF is the same functionality as the PC application.

Features:

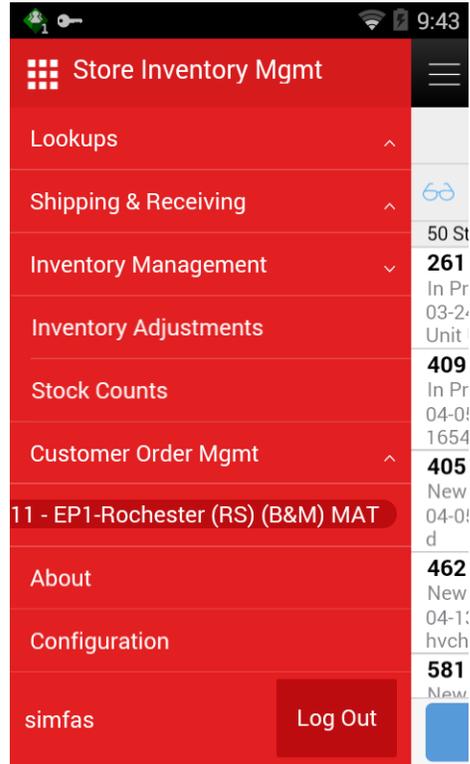
- Search for stock count
- Create a new AdHoc stock count
- View or edit an existing stock count
- Count items for stock count
- Print stock count

**Figure 15-35 Stock Count MAF Screen Flow (Small)**



## MAF Main Menu Drawer

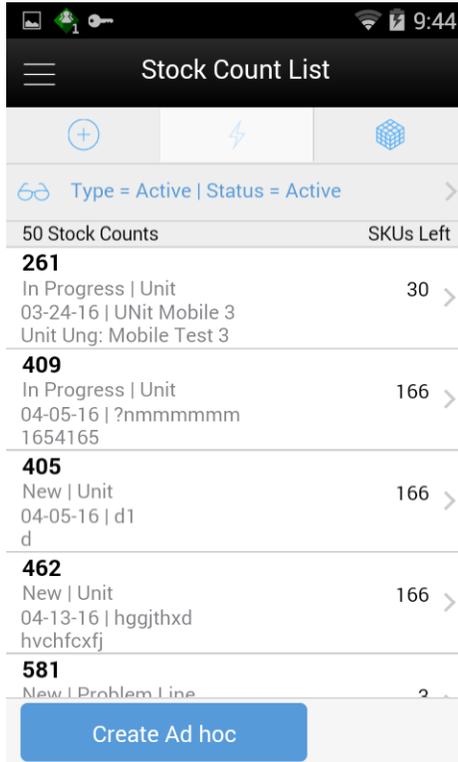
Figure 15–36 Main Menu Drawer



After logging into SIM, the main menu drawer is displayed. The user can select Stock Count from the main menu drawer and be directed to the Stock Count List screen. Stock count functionality is available under Inventory management.

## MAF Stock Count List

**Figure 15–37 Stock Count List Screen**



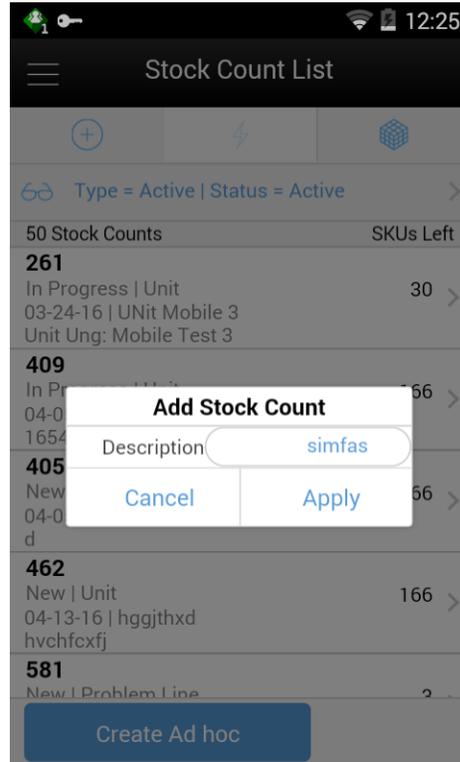
The user can select Stock Count from the Main Menu Drawer and be directed to the Stock Count List screen. The user will need permissions to access this screen. The Stock Count List screen behaves and displays the same content as the Stock Count List on the PC. When the user enters the screen, SIM will default to display records with a status of "Active" and type of "Active."

The transactions may include, Ad hoc stock count, Unit count, Problem Line count, and Unit and Amount count:

- The user is required to have the Edit Adhoc Stock Count permission to edit an Adhoc stock count.
- The user is required to have the Edit Unit Stock Count permission to edit a Unit stock count.
- The user is required to have the Edit Unit Amount Stock Count permission to edit a Unit and Amount stock count.

## MAF Ad Hoc Stock Count

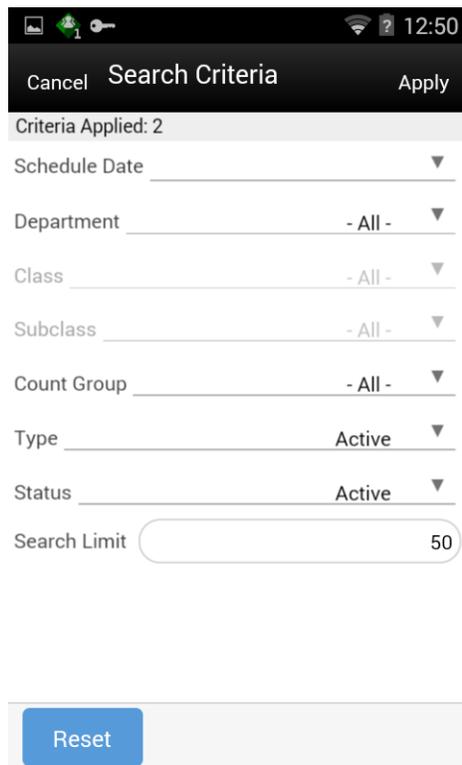
**Figure 15–38 Add Stock Count Popup**



The user can select Create Ad Hoc from Stock Count List and be directed to the Add Stock Count popup to add a description for an Ad Hoc stock count. The user will need permissions to access this screen. When the user enters the screen, the text box for entering description for Ad Hoc stock count is filled with highlighted <user ID> (same as that of the handheld) which, once written with text, goes off.

## MAF Stock Count List Search Criteria

**Figure 15–39 Search Criteria Screen**



The user can select the eye glasses from the stock count list screen and be directed to the Search criteria screen. The Search Criteria Screen has the same field/functionality as the Stock Count Filter screen on the PC with the exception that the mobile will also have a new type of Active. When the user enters the screen, SIM will default to display records with a status of "Active" and type of Active.

### Fields

Criteria Applied <x>: The number of criteria applied to the search, where X is the number.

Scheduled Date: The date for which the scheduled stock count is scheduled for. Default to blank.

Department - List of values containing all of the departments. The value will be defaulted to All. Since a Product Group can consist of more than one merchandise hierarchy, the filter will return all stock counts that are affiliated with the department or where the counting groups contains that hierarchy. When a department is cleared out, the class and sub-class will also be cleared out.

Class - List of values containing all of the classes for the selected department. The user must select a department first for the class to be editable. The value will be defaulted to All. Since a Product Group can consist of more than one merchandise hierarchy, the filter will return all stock counts that are affiliated with the class and counting groups that contain that hierarchy. When a class is cleared out, the subclass will also be cleared out.

Sub-Class: List of values containing all of the sub-classes for the selected class. The user must select a class first for the class to be editable. The value will be defaulted to

All. Since a Product Group can consist of more than one merchandise hierarchy, the filter will return all stock counts affiliated with that subclass and counting groups that contain that hierarchy.

Count Group: List of all product groups that exist on the Product Group List screen in PC. Defaults to All.

Type: List of values. Valid values are Stock Count, Re-Count, Authorize, Active, and All. Default value is Active. Active is a type just for MAF Mobile; it represents Stock Count and Recount (not Authorize).

Status: valid values are New, In Progress, Processing, Completed, All, and Active. Default value is Active. Active will include New and In Progress stock counts.

---

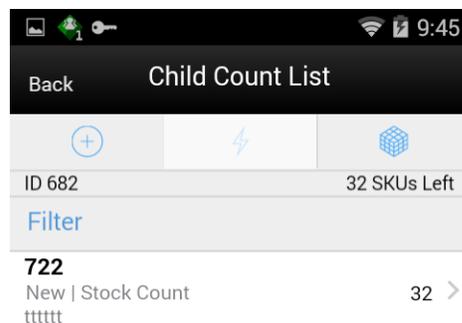
**Note:** Confirmed is the status of a guided Unit and Amount stock count for all items that are in Authorize Type and have not yet moved to Completed due to not having the results exported. Once exported, the stock count will move to Completed status. If user selects a stock count in confirmed or completed status it will be in view only mode.

---

Search Limit: Entry field. The user can define a search limit for the number of transactions being displayed. It is a Required Field. The value will default through a system admin setting, Search Limit Default for stock count list - Mobile.

## MAF Child Count List

**Figure 15–40** Child Count List Screen



The user can select Stock Count from the Stock Count List and be directed to the Child Count List screen. When the user enters the screen, SIM will sort the child count by ID.

Closed child count should be at the bottom and Active child counts should be at the top and then this ID sorting should be applied.

Selecting a child count will take the user to the Stock Count Items /Stock Re-Count Items screen. Ad hoc Stock Counts will automatically have a single child count created. (Ad hoc stock counts will have one stock count to one child). The child count will be automatically named the same as the stock count (assigned description by user) with the words (child) after it.

The snapshot of a stock count will happen as follows:

- Unit or Problem Line: Can be taken from Child count list screen for the whole stock count or from the Stock count item screen if not in re-count mode. For Re-Count, it will be taken automatically.
- Adhoc: Takes snapshot as items are added.
- Unit and Amount: Takes snapshot on PC at any point in the stock count process, so long as it is before moving on to either recount/auth.

The user can access the Child Count List screen by creating an Adhoc stock count or selecting a stock count from the Stock Count List screen.

The user must have the Edit Adhoc Stock Count permission to open the screen in edit mode when displaying an Adhoc count; otherwise the screen will open as view only.

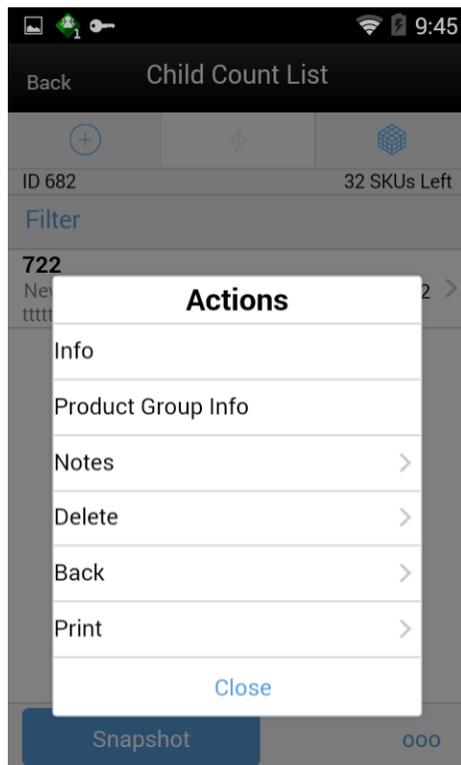
Similar to a unit count, the user must have the Edit Unit Stock Count permission to open the screen in edit mode when displaying a Unit count; otherwise, the screen will open as view only.

The user must have the Edit Unit and Amount Stock Count permission to open the screen in edit mode when displaying a Unit and Amount count; otherwise the screen will open as view only.

Snapshot: This will take snapshot for all the child counts on the stock count. This will take a snapshot for Problem line and Unit type of stock counts only. If any other type of stock count, this button will not be visible.

## Footer Menu

**Figure 15-41** Child Count List Footer Menu



This opens up a footer menu with following options:

Info: Info popup will be displayed.

Product Group Info: Product Group Info popup will be displayed.

Notes: Notes dialog will be displayed.

Print: This will open the print dialog. Browser printer is not supported and will not be displayed as an option.

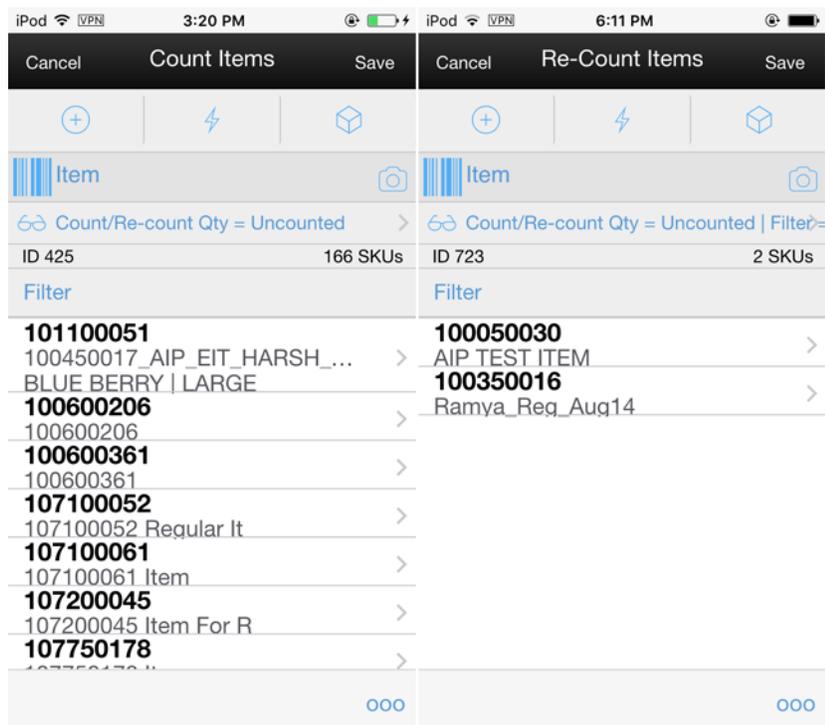
Back: This will navigate the user back to the Stock Count List screen.

Delete: This will delete the Stock Count that is under consideration and have not yet been authorized.

Close: This will navigate the user to stock count list screen.

## MAF Stock Count Items and Stock Re-Count Items

**Figure 15-42** *Count Items and Re-Count Items Screens*



The user can select a child count from the Child count list screen and be directed to the Stock Count items or stock Re-count items screen depending upon the status of the stock count. This screen appears when a child stock count is selected and the Child stock count type is Stock Count New or Stock Count In Progress. Item Images will be displayed per a system admin setting for stock counts. The system will default to show the "uncounted" records.

If the item has a UIN captured, it will have the UIN icon on the line item. If the item has an Item attribute captured, it will have the Item attribute icon on the line item. Selecting an item will go to the Item Detail for that item. All newly added items and modified items will have a bar on left to denote those have been modified.

When the user enters the screen, SIM will sort the items left to count as below:

If guided and if items are sequenced, then order by sequence order.

If it is un-sequenced, "no location" items falling at the end by item description order.

If unguided, items are always sorted by item description.

Snapshot of stock count will happen as follows:

Unit: Can be taken from Child count list screen for the whole stock count or from Stock count item if not in re-count mode. For Re-Count it will be taken automatically.

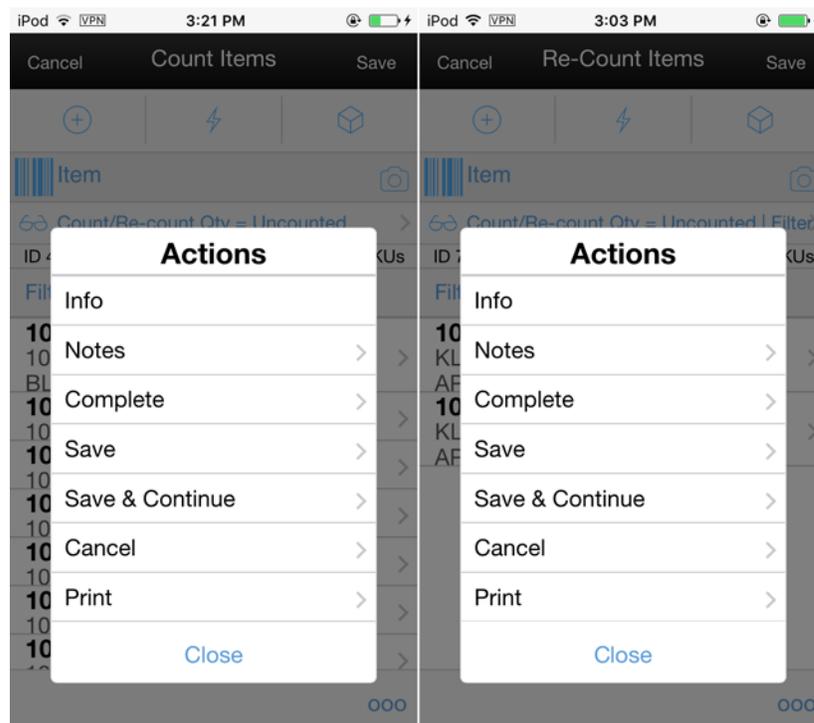
Adhoc: Takes snapshot as items are added.

Unit and Amount: Takes snapshot on PC at any point in the stock count process, so long as it is before moving on to either recount/auth.

Problem line: Same processing as Unit Stock Count.

## Footer Menu

**Figure 15-43** *Count Items and Re-Count Items Footer Menu*



Info: Info popup will be displayed.

Notes: Notes dialog will be displayed.

Complete: This will complete the child count and navigate the user to the Child Count List screen. The user is required to have the Complete Stock Count permission for this menu option to display.

Save: This will save the child count and navigate the user to Child count list screen.

Save & Continue: This will save the child count and user will be in the same dialog.

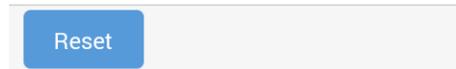
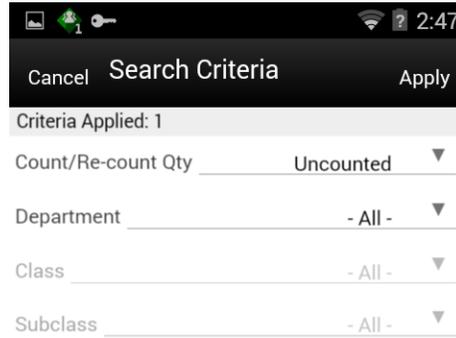
Cancel: This will discard changes to stock count / re-count and navigate the user to Child count list screen. This will be "back" when in view only mode.

Print: This will open the print dialog.

Close: This will navigate the user to stock count items screen.

## MAF Search Criteria - Stock Count Items and Stock Re-Count Items

**Figure 15-44 Search Criteria Screen**



The user can select the eye glasses from the Stock count Items / Stock Re-Count Items screen and be directed to the Search criteria screen. It will have the same criteria as the header of the Stock Count / Stock Re-Count Detail screen of the PC.

The default will be:

Stock Count: Count / Re-Count Qty = 'uncounted'

Re-Count: Count / Re-Count Qty = 'uncounted', Filter = 'Discrepant'

The Count / Re-Count Qty will default as the filter on the top of the Stock Count / Stock Re-Count screen.

### Fields

Criteria Applied <x> - the number of criteria applied to the search, where X is the number.

Count / Re-Count Qty: Valid values are All, Counted and Uncounted.

Filter: Valid values are All Items and Discrepant Items. Displays only when it is a Re-Count.

Department: List of values containing all of the departments pertaining to that stock count. The value will be defaulted to All. Since a Product Group can consist of more than one merchandise hierarchy, the filter will return all stock counts that are affiliated with the dept or where the counting groups contains that hierarchy. When a department is cleared out, the class and sub-class will also be cleared out.

Class: List of values containing all of the classes for the selected Department. User must select a department first for the class to be editable. The value will be defaulted

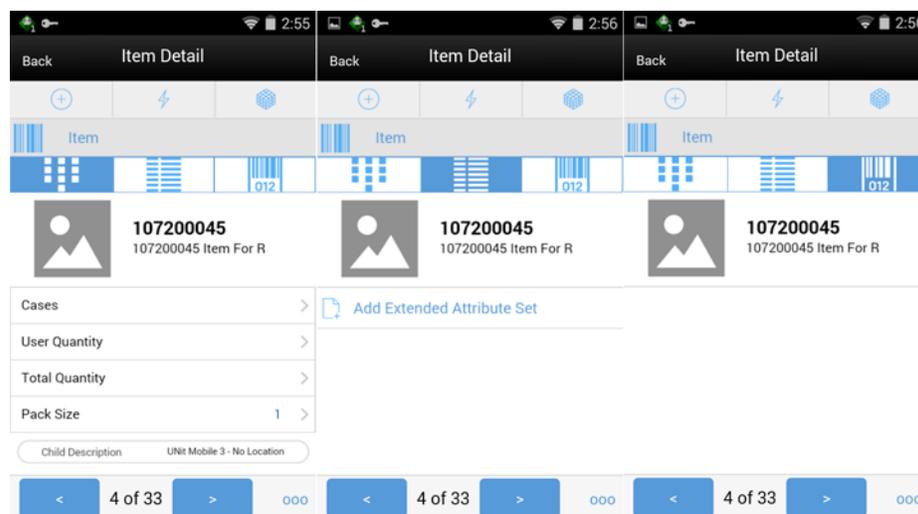
to All. Since a Product Group can consist of more than one merchandise hierarchy, the filter will return all stock counts that are affiliated with the class and counting groups that contain that hierarchy. When a class is cleared out, the subclass will also be cleared out.

**Sub-Class:** List of values containing all of the sub-classes for the selected Class. The user must select a Class first for the sub-class to be editable; the value will be defaulted to All. Since a Product Group can consist of more than one merchandise hierarchy, the filter will return all stock counts affiliated with that subclass and counting groups that contain that hierarchy.

**Reset:** Button will clear the screen of any previous search criteria that was entered by the user and set back to the default values. The screen will remain open for the user to enter in new search criteria.

## MAF Item Detail

**Figure 15-45** *Item Detail Screen*



The Review Item Detail screen. is displayed when selecting an Item from the Stock Count / Stock Re-Count screen or scanned and scan mode in mode bar is set to "0". The image display will be controlled by the system parameter. This screen will help the user to review quantity for the stock count.

If the stock count is completed and where no further edits can be made, this will be a view only screen. Sorting of items will be, If guided and items are sequenced, then order by sequence order with non-sequenced "no location" items falling at the end by item description order. If unguided, items are always sorted by item description.

Removal of an item after it has been added is not allowed in Stock Count.

Cases or Units is the sum of the quantity of the items scanned until a new item is scanned. This field indicates the number of items a user has in front of them they have scanned.

User Quantity is the sum of all quantities for an item since the last time it was saved.

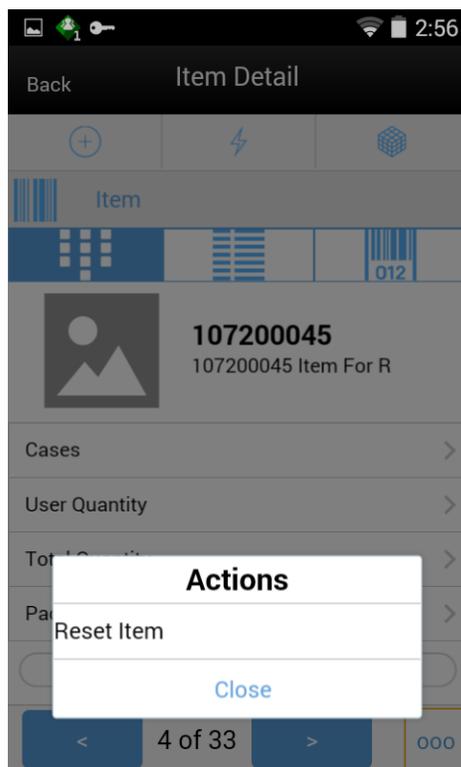
Total Quantity includes the quantities from the database when it was last read, increase with the user quantity.

Example: Assuming all items are units.

1. Scan item A.  
User quantity 1  
Session quantity 1  
Total quantity 1
2. Scan item A again.  
User quantity 2  
Session quantity 2  
Total quantity 2
3. Scan item B.  
User quantity 1  
Session quantity 1  
Total quantity 1
4. Scan item A.  
User quantity 1  
Session quantity 3  
Total quantity 3
5. Save count and scan item A.  
User quantity 1  
Session quantity 1  
Total quantity 4
6. Scan item B.  
User quantity 1  
Session quantity 1  
Total quantity 2

## Footer Menu

**Figure 15–46** *Item Detail Footer Menu*



If the user wants to reset the changes done in the same session, the user can reset it through the footer menu on the Item Detail screen.

## User Interface Guidelines

The Stock Count dialog allows for creating, editing, counting, and deleting of Stock Counts on PC. The Stock Count dialog allows for creating, editing, and counting of Stock Counts on the handheld.

The Stock Count dialog allows for creating, editing, counting, and deleting of Stock Counts on MAF.

Other than the Ad Hoc Stock count, all other stock counts can only be scheduled through the Product Group and Product Group Schedule on the PC.

## Technical

SIM provides stock count functionality through which the retailer can create different types of stock counts and update inventory accordingly. Stock counts can either be scheduled in SIM or can be imported from a third party. As it relates to SIM scheduled stock counts, SIM supports product group breakdown for better performance. Child stock counts are created depending on the breakdown method for a master stock count.

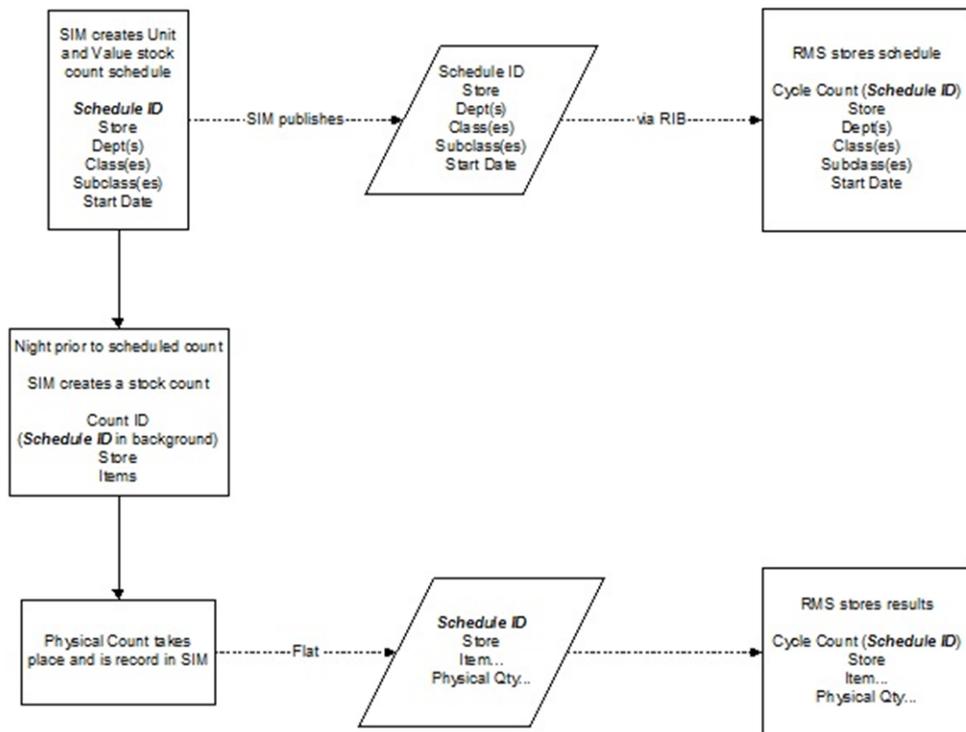
Business objects are used within the application code for all business processing.

Business Object	Description
StockCount	Contains header details of a stock count.
StockCountAuthorizeUin	Contains UIN details for a line item authorization.
StockCountBreakdownType	Stock counts may be broken down into smaller child counts based on LOCATION, DEPARTMENT, CLASS, or SUB-CLASS.
StockCountChild	Contains detailed information about a child stock count. Each stock count may have numerous smaller, child counts that comprise the whole.
StockCountImport	Contains details of a stock count import record.
StockCountImportExtract	Contains header level extract details for an imported stock count.
StockCountLineItem	Contains information about a line item on a stock count which a particular stock count child. For LOCATION based counts, the same item may appear within multiple locations.
StockCountQueryFilter	Contains information to encapsulate query filter search criteria for stock counts.
StockCountRejectedLineItem	Contains details of an item that was rejected during the count.

## Integration

When Unit and Amount stock counts are scheduled in SIM, the schedule must also be published to RMS. There are specific tables that RMS uses to create the stock count in RMS that are also used for taking the snapshot.

**Figure 15-47 Stock Count Integration**



When the stock count is created in SIM, the Schedule ID, store, department, classes, subclasses and the stock count start date are all published to the RIB. RMS will

consume this message and populate their corresponding tables with the information. Any updates to the stock count schedule will also be published to the RIB. RMS will delete the previous schedule and recreate a new schedule based on the updated information.

On the night before the scheduled count, SIM creates the stock count with all of the items to be counted. Once the stock count is completed, SIM sends a flat file with the same schedule ID previously published to the RIB. RMS consumes the results for further processing.

**Figure 15-48 Unit and Amount Stock Count Schedules**

StkCountSchDesc	StkCountSchProd	StkCountSchLoc
<ul style="list-style-type: none"> <li>• Cycle_count</li> <li>• Cycle_count_desc</li> <li>• Stocktake_type</li> <li>• Stocktake_date</li> <li>• Location_type</li> <li>• StkCountSchProd</li> <li>• StkCountSchLoc</li> </ul>	<ul style="list-style-type: none"> <li>• Dept</li> <li>• Class</li> <li>• Subclass</li> </ul>	<ul style="list-style-type: none"> <li>• location</li> </ul>

These messages are used by SIM to communicate unit and amount stock count schedules to RMS. RMS uses this schedule to take an inventory snapshot on the date of a scheduled stock count.

SIM sends the messages to RMS for the Stock Count Schedules where the type of the group attached is Unit & Amount at the time of creating/updating/deleting the stock count schedule.

SIM will need to send a message when an update to a Unit and Amount Group attached to a schedule is edited. When the status of a stock count message coming from SIM is changed, RMS performs a complete delete of the stock count and then a complete re-insert with the modified information.

When a Unit and Amount Stock Count in SIM is deleted, the deletion of the count is published to the RIB and consumed by RMS.

Once the stock count has been authorized, SIM sends the count results in a flat file to RMS for further processing.

When Unit or Problem Line counts are scheduled in SIM, they do not get published to the RIB. However, the InvAdjustDesc message is used by SIM to communicate all inventory adjustments to the RIB. RMS or other merchandising systems then use these messages to adjust inventory accordingly.

There are specific inventory adjustment reason codes that are reserved for system use only and cannot be used for other purposes. The following reason codes are used for stock counts.

87 is used to increase stock on hand and 88 to decrease stock on hand, these two types of inventory adjustments are used for all types of stock counts, however, in the case of Unit and Amount stock counts, the inventory adjustment will only be created in SIM. There is no message that goes to the RIB.

76 is used to increase stock on hand and 77 to decrease stock on hand when applying late sales for Unit, Problem Line, or Ad Hoc stock counts. Note the description only lists Unit. But this reason code is used for all three types of stock counts.

78 is used to increase stock on hand and 79 to decrease stock on hand when applying late sales for Unit and Amount counts. This type of count has its own reason codes because in the case of a unit and amount count, late sales inventory adjustments are not sent to RMS. RMS handles late sales processing for Unit and Amount stock counts separately from SIM.

### RIB

RIB payloads are used to communicate to external systems through RIB.

RIB Payload	Description
InvAdjustDesc	RIB payload that contains information about destination of the adjustment and an InvAdjustDtl.
InvAdjustDtl	Contains detailed information about the item adjustment.

### Web Service

SIM does not integrate using a web service to any other Oracle Retail products for stock counts.

## Batch

The following batches are provided by SIM for stock counts:

Batch Name	Description
ExtractUnitAmountStockCount	Batch to extract unit and amount type of stock counts.
ExtractUnitStockCount	Batch to extract unit type of stock counts.
ProblemLineStockCount	Batch to generate problem line stock count records.
StockCountAuthorizeRecovery	Batch for reprocessing recoverable stock counts that had an error during final confirmation processing.
ThirdPartyStockCountImport	Batch to import third-party stock counts.

## Data Structure

The following database tables are used in SIM for stock counts:

Table Name	Description
STOCK_COUNT	Table to hold one row for each stock count in the system. It defines the stock count instances of a stock count schedule. These records are generated by the SIM batch processes using the stock count schedules defined.
STOCK_COUNT_ADHOC_CONFIG	This table contains one row for each ad hoc stock count that is initiated at a store.
STOCK_COUNT_CHILD	This table contains a row for each location or department that is being counted for the stock count.
STOCK_COUNT_IMPORT	This table contains the third-party file information from a stock count and is used during the import process.

<b>Table Name</b>	<b>Description</b>
STOCK_COUNT_LINE_ITEM	Contains line item level details for a stock count.
STOCK_COUNT_LINE_ITEM_ATT	Holds extended attributes associated to line items of the stock count.
STOCK_COUNT_LINE_ITEM_UIN	This table contains all the UINs that are assigned to a particular line item on a stock count. It also contains whether the UIN is counted, recounted, or authorized. It is de-normalized to include the UIN description for performance.
STOCK_COUNT_REJECTED_ITEM	This table contains rejected items from third-party stock counts.
STOCK_COUNT_SALE	This table holds information about point of sales transactions that occurred during an open stock count.
STOCK_COUNT_ADHOC_V	A view for Adhoc stock count details.
RPRT_STOCK_COUNT_NOF_V	Stock count report view for not on file items.
RPRT_STOCK_COUNT_V	Stock count report view.



This chapter covers printing. The following topics are covered:

- **Overview:** Introduction to printing.
- **Functionality:** Description of the functionality for printing.
- **Technical:** Integration with Oracle Retail Integration Bus (RIB), web services, batch, and the database structure.

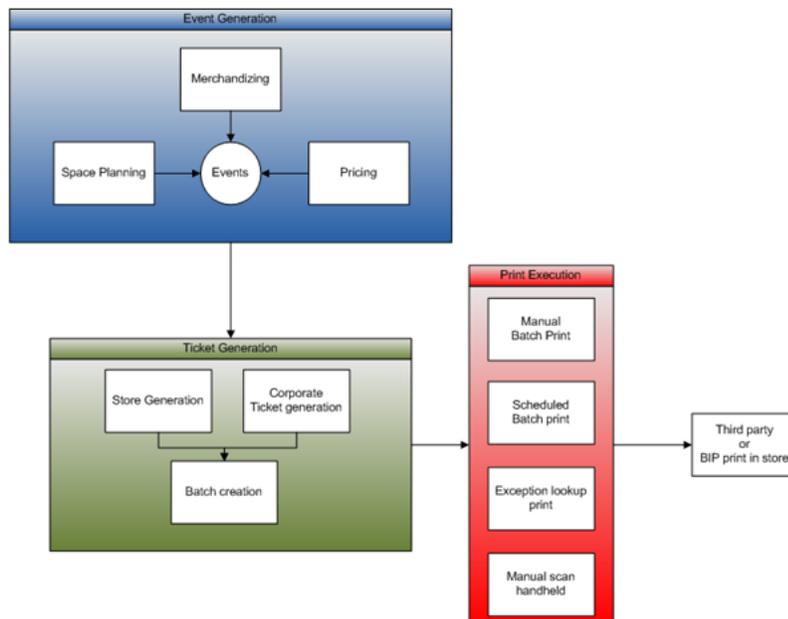
## Overview

SIM can print reports or tickets and labels.

Operational reporting provides the ability to print a variety of reports linked to processes from specific functional areas in SIM such as shelf replenishment reports, stock count sheets and shipping documentation. SIM uses a print engine to provide report formatting/layout mechanism to specify the exact data fields to be printed and gives the customer access to change the output if desired. SIM reports are designed using Oracle's BI Publisher reporting tool. SIM provides the trigger for the reports such through print buttons or user options. The print engine is responsible for the type, format, and content of the report.

For a complete listing of SIM provided reports, see the *Oracle Retail Store Inventory Management Configuration Guide*.

Ticketing provides the ability to print shelf edge labels and item tickets for stock at the store and use an external application to print and manage the format details. Shelf edge labels (label formats) and Item tickets (ticket formats) events can be executed and printed in SIM. Tickets or labels can be printed for individual items on the PC and the handheld or groupings of item tickets (batches) can be imported and be managed on the PC for mass printing. Tickets and labels can also be auto-generated when price changes, description, or QR changes are introduced to SIM from external systems.

**Figure 16–1 Printing Overview**

Depending on the type of printing topology used, different pieces of SIM ticketing are leveraged. In general, corporate will generate an event (blue) that requires tickets to be generated. This ticket generation (green) can happen in SIM, or in a third-party corporate system that generates a batch. SIM can handle the print execution (red) through manual user intervention, or automated printing. In addition, SIM also has the ability to generate and print tickets in a one step process, both on the PC and handheld.

The physical printing of the ticket is performed by a printing solution such as BIP or other third-party system.

## Features

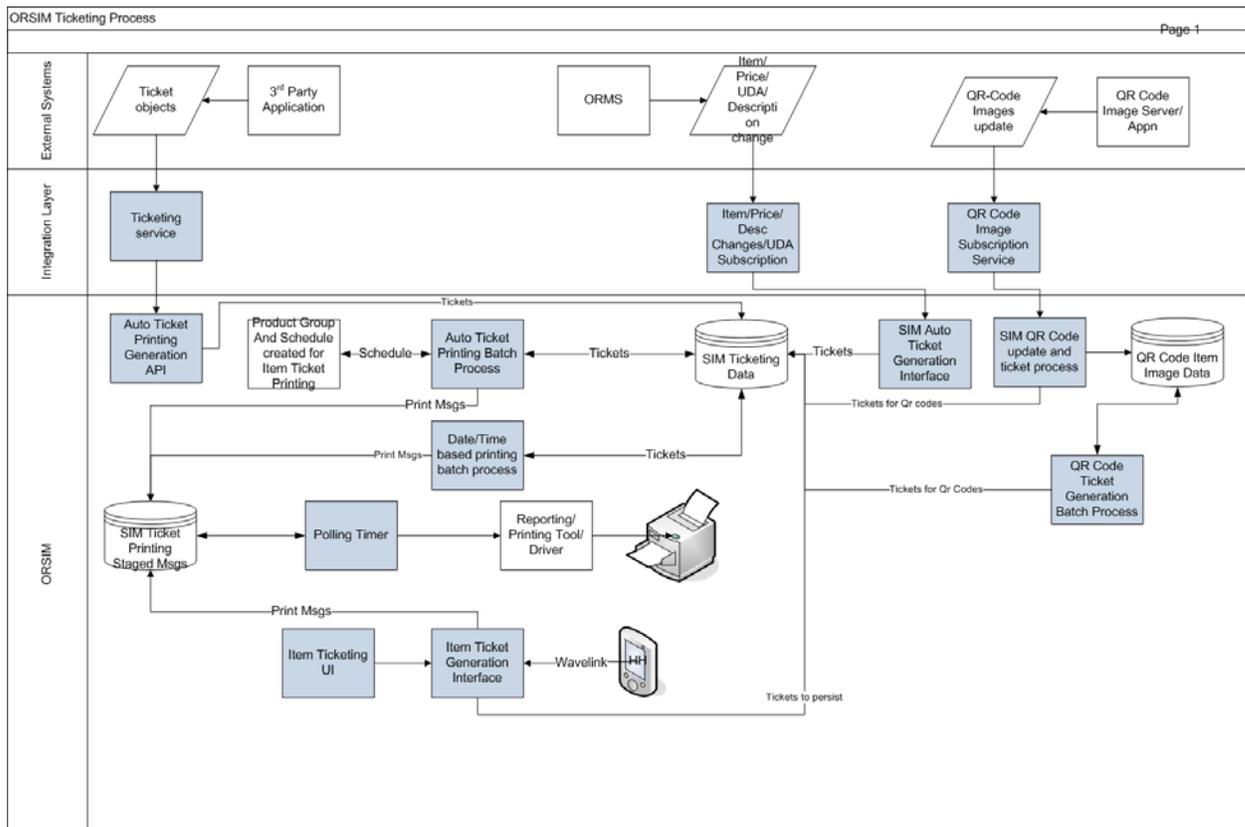
- Auto Ticket generation and batch import services
- Manual batch generation based on store transaction events
- Manual, or auto printing
- Ad Hoc create and print
- Mobile or PC printing

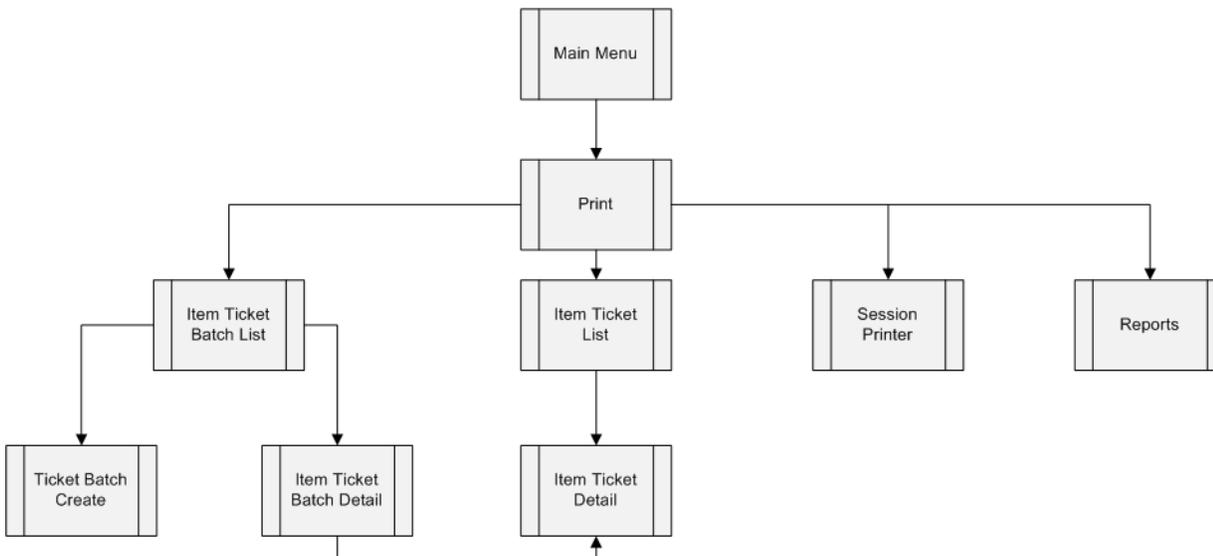
## Business Cases

- Tickets managed externally:
  - A retailer created tickets for an upcoming promotion in their third-party ticketing system.
  - The SIM web services are used to import the tickets into SIM as a single batch.
  - The tickets can be printed by the user or scheduled to print automatically.
- Tickets created based on a delivery:
  - A retailer received a direct store delivery and needs to print item tickets for the delivery.

- The user selects all the direct deliveries received for a specific day and generates tickets.
- The tickets are ready to be printed immediately or may be scheduled to print later.
- Tickets printed on demand:
  - The user identifies some missing product labels in the store.
  - The handheld is used to scan the item with a missing label and the user specifies the quantity of labels to print.
  - The tickets print directly to the mobile IP printer and the store user places the ticket on the shelf.
- Labels scheduled for printing:
  - A retailer creates a product group to manage printing new shelf labels every week when promotions are going into effect.
  - The batch looks at scheduled product groups and automatically sends the generated tickets and labels to a specific printer in the evening before the price change is going into effect. The tickets are printed in sequence order.
  - The store user comes in the store the next morning and is able to replace all the shelf labels for the promotional items.

**Figure 16–2 Ticket Printing Process**



**Figure 16–3 Printing PC Screen Flow**

### Setting Up Reporting and Ticketing Defaults

Formats are templates created in external systems that define the layout of how a ticket or report looks. Formats are setup in the output tools or devices used to produce them. An output tool could be a printer or a software tool such as Oracle Business Intelligence Publisher browser. SIM only references the name of the format so it can be referenced by the external printing application.

## Configurations

This section describes system parameters, store parameters, and security.

### System Parameters

#### Search Limit Default for Ticketing

- Values: 1 to 999
- Default: 500
- Topic: UI
- Editable: Yes
- This parameter indicates the default search limit for the Item Ticket List filter.

#### Ticketing UI Limit

- Values: 1 to 100,000
- Default: 1500
- Topic: UI
- Editable: Yes
- This limitation is used on the Product Group Detail screen to help limit the size of the Auto Ticket Print Product Group.

## Store Parameters

### Auto Generate Item Tickets for Clearance Price Changes

- Values: Yes/No
- Default: Yes
- Topic: Ticketing
- Editable: Yes
- Yes: When a clearance price event comes from the pricing system, a new item ticket is sent to the ticketing dialog.
- No: When a clearance pricing event comes from the pricing system, the system does not generate an item ticket.
- This parameter determines whether the system has to auto generate item tickets in SIM when there is a clearance price event coming in from the pricing system.

### Auto Generate Item Tickets for Promotion Price Changes

- Values: Yes/No
- Default: Yes
- Topic: Ticketing
- Editable: Yes
- Yes: When a promotion price event comes from the pricing system, a new item ticket is sent to the ticketing dialog.
- No: When a promotion pricing event comes from the pricing system, the system does not generate an item ticket.
- This determines whether the system has to auto generate item tickets in SIM when there is a promotion price event coming in from the pricing system.

### Auto Generate Item Tickets for Regular Price Changes

- Values: Yes/No
- Default: Yes
- Topic: Ticketing
- Editable: Yes
- Yes: When a regular price event comes from the pricing system, a new item ticket is sent to the ticketing dialog.
- No: When a regular pricing event comes from the pricing system, the system does not generate an item ticket.
- This determines whether the system has to auto generate item tickets in SIM when there is a regular price event coming in from the pricing system.

### Auto Shelf Edge Labels for Clearance Price Changes

- Values: Yes/No
- Default: No
- Topic: Ticketing
- Editable: Yes

- Yes: When a clearance price event comes from the pricing system, a new shelf label is sent to the ticketing dialog.
- No: When a clearance pricing event comes from the pricing system, the system does not generate a shelf label.
- This determines whether the system has to auto generate labels in SIM when there is a clearance price event coming in from the pricing system.

#### **Auto Shelf Edge Labels for Promotion Price Changes**

- Values: Yes/No
- Default: No
- Topic: Ticketing
- Editable: Yes
- Yes: When a promotion price event comes from the pricing system, a new shelf label is sent to the ticketing dialog.
- No: When a promotion pricing event comes from the pricing system, the system does not generate a shelf label.
- This determines whether the system has to auto generate labels in SIM when there is a promotion price event coming in from the pricing system.

#### **Auto Shelf Edge Labels for Regular Price Changes**

- Values: Yes/No
- Default: No
- Topic: Ticketing
- Editable: Yes
- Yes: When a regular price event comes from the pricing system, a new shelf label is sent to the ticketing dialog.
- No: When a regular pricing event comes from the pricing system, the system does not generate a shelf label.
- This determines whether the system has to auto generate labels in SIM when there is a regular price event coming in from the pricing system.

#### **Maximum Ticket Quantity to Print**

- Values: 1 to 10000
- Default: 500
- Topic: Ticketing
- Editable: Yes
- This parameter determines the maximum ticket size to print in one command. This is used in auto ticket printing batch and the ticketing dialog.
- UI: If the ticket quantity exceeds this value, the system displays a warning message.
- Batch: The batch will split the ticket quantity and send the tickets in multiples of the maximum ticket quantity size if it exceeds the set value.

**Send Item Tickets to Ticketing for Description Change**

- Values: Yes/No
- Default: No
- Topic: Ticketing
- Editable: Yes
- Yes: When a new description comes from another system, a new item ticket is sent to the ticketing dialog.
- No: When a new description comes from another system, SIM does not generate an item ticket.

**Send Shelf Edge Labels to Ticketing for Description Change**

- Values: Yes/No
- Default: No
- Topic: Ticketing
- Editable: Yes
- Yes: When a new description comes from another system, a new shelf label is sent to the ticketing dialog.
- No: When a new description comes from another system, SIM does not generate a shelf label.

**Send Item Tickets to Ticketing for QR Code Change**

- Values: Yes/No
- Default: No
- Topic: Ticketing
- Editable: Yes
- Yes: When a QR code type image comes from another system, a new item ticket is sent to the ticketing dialog.
- No: When a QR code type image comes from another system, SIM does not generate an item ticket.

**Send Shelf Edge Labels to Ticketing for QR Code Change**

- Values: Yes/No
- Default: No
- Topic: Ticketing
- Editable: Yes
- Yes: When a QR code type image comes from another system, a new shelf label is sent to the ticketing dialog.
- No: When a QR code type image comes from another system, SIM does not generate a shelf label.

**Security**

Security permissions exist for:

- Accessing, creating, editing, deleting, and printing item tickets and shelf labels.

- Accessing, creating, editing, and deleting ticket batches.

Data permissions exist for printing from transactions:

- A user must have the proper permissions to generate item tickets from specific transactions, such as Direct Store Deliveries.

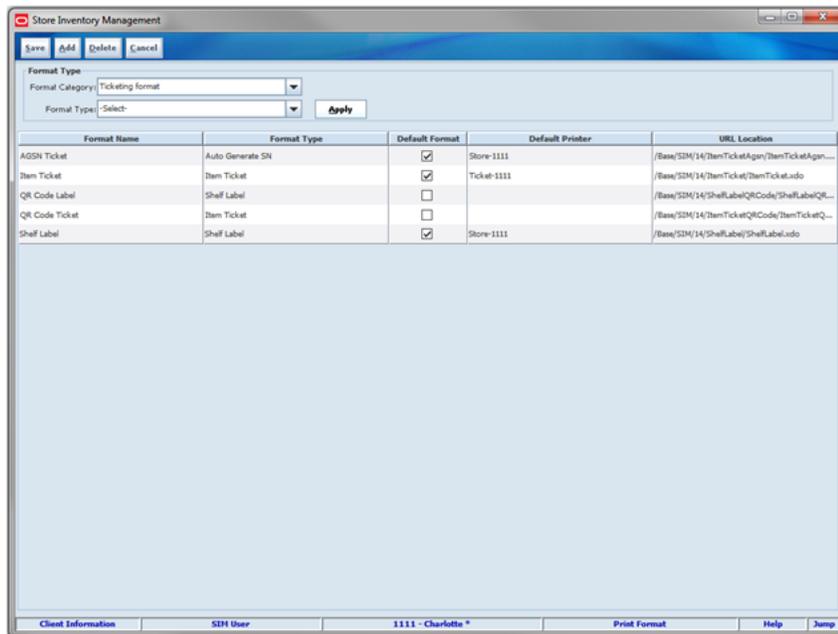
## Functionality

This section describes the available screens.

### Print Format

The Print Format screen is accessed from the Admin dialog from the Print Format button on the Print Setup menu.

**Figure 16–4 Print Format Screen**



The Print Format screen is an administrative screen used to set up reports, item tickets, shelf labels, and container labels to support various functions within SIM. This screen is accessed from Admin > Print Setup. This screen is also covered in the Shipping / Receiving Common Components chapter for formats used in those functional areas. This screen is only available on the PC.

The purpose of this screen is to specify a name, type, and location of the format. The screen also allows a user to select a default format and default printer for each type of format.

The user will be required to select a Format Category before a list is displayed on the screen. The user will also have the ability to filter based on Format Type and delete any pre-existing formats.

The system allows only one default format/printer to be set up for a specific format type. An error message will display if the user has selected more than one format as the default format. This is set up by store location. A user should select a default printer. If the default printer is not selected, there is no place to direct the tickets or

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labels as to when a ticket batch is automatically scheduled to print. If no auto printing is required, not assigning a printer will allow the user to select a printer when printing or the user has to set up a session printer.

Multiple reporting, labels, or ticket formats can be created for each format type.

The following Reporting format types are available:

- Customer Order
- Customer Order Bin Label
- Customer Order Delivery
- Customer Order Delivery BOL
- Customer Order Pick
- Customer Order Pick Discrepancy
- Customer Order Reverse Pick
- Direct Delivery
- Direct Delivery Discrepant Item
- Inventory Adjustment
- Item Basket
- Item Detail
- Item Request
- Manifest Report
- Pre-Shipment Report
- Purchase Order
- RTV
- RTV Shipment
- RTV Shipment BOL
- RTV Shipment Container
- Shelf Adjustment
- Stock Count Allocation
- Stock Count Detail
- Stock Count Export
- Stock Count Rejected Item
- Store Order
- Transfer
- Transfer Receiving
- Transfer Receiving Exception
- Transfer Shipment
- Transfer Shipment BOL
- Transfer Shipment Container

For additional details on reports, see the *Oracle Retail Store Inventory Management Configuration Guide*.

The following Shipping Label format types can be created:

- RTV Shipping Label
- Transfer Receiving Label
- Transfer Shipping Label

For additional details on shipping labels, see [Chapter 12, "Shipping and Receiving Common Components."](#)

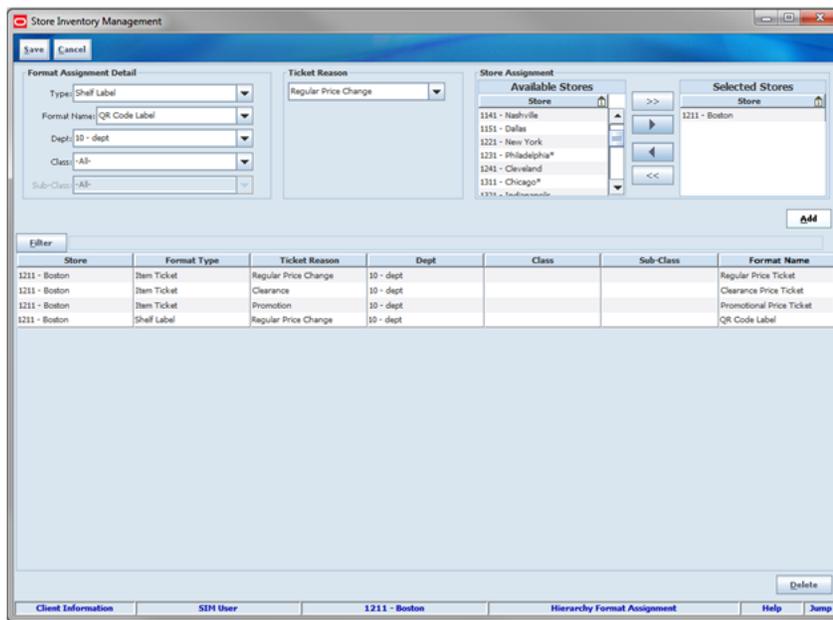
The following Ticketing format types can be created:

- Auto Generate SN
- Item Ticket
- Shelf Label

## Hierarchy Format Assignment

The Hierarchy Format Assignment screen is accessed from the Admin dialog from the Hierarchy Format button on the Print Setup menu.

**Figure 16–5 Hierarchy Format Assignment Screen**



The Hierarchy Format Assignment screen is used to auto assign the formats when generating a ticket event based on a Format type and price event. This allows the retailer to override the default ticket format for specific categories of items and/or events. For example, if the retailer has both clothing and electronics, they could print a hangtag and a ticket with a sticky back label. Since it is by price event, they could for the hangtag create a clearance ticket that has a sticky back.

Formats can be assigned at department/class or subclass level and can also be assigned for multiple stores. The user is allowed to assign a format hierarchy to any store where the user has access. A filter option is available to return specific records.

The Ticket Reason may include: Clearance, Promotion or Regular price change. When that pricing event occurs for an item within the hierarchy assigned, a ticket will be generated for the selected store. The Format assigned will be used when printing the ticket. For example: The regular price of a box of Oatmeal changed from \$2.09 to \$2.29. A new shelf label will be printed when this pricing event occurs for any stores with this format assignment.

The Item Ticket and Shelf Label format types will display in the drop-down list to select from. The list of formats is based on what is configured for the client from the Print Format screen.

Ticket formats can be set up in three ways:

- Item level format defined by RMS, which corresponds to a ticket format in SIM
- Default format defined in SIM in the print format dialog
- Format assigned at the hierarchy level as defined above

Labels formats can be set up in three ways as well:

- Item level format defined in SIM's sequence tables
- Default format defined in SIM in the print format dialog
- Format assigned at the hierarchy level as defined above

The following rules will be used for auto generated from web service import / merchandising system integration or Generate Tickets from the Add Transaction screen.

#### **Format Assignment in SIM for Auto Generated Item Tickets:**

1. If the ticket is generated based on a price change (regular price change, clearance or promotion), SIM will look in the hierarchy format table and assign the format matching the ticket reason for the price event and the item.
2. If there is no format in the hierarchy format table for a pricing event or if the ticket is not based on a price change (description change, and so on), the system captures the suggested ticket format from the item if one exists (the suggested ticket format is assigned in RMS) and finds the matching format name.
3. If a format is not assigned from the previous step, the system assigns the default from the Print Format table for the format type of "Item Ticket."

If the ticket is generated for the description changes or UDA changes and if the suggested ticket format is not available, SIM will look for the price event that is effective on the day it is created and search for the corresponding format for the item in the hierarchy format table and assign it if available.

#### **Format Assignment in SIM for Auto Generated Shelf Labels**

1. If the label is generated for a pricing event, SIM will look for the hierarchy format table and assign the format matching to the price event and the item.
2. If there is no format in the hierarchy format table for a pricing event or if the label is for a non-pricing event, the system captures the format name defined in sequencing for the item.
3. If a format is not assigned from the previous step, the system assigns the default from the print format table for the format type of "Shelf Label."

### Format Assignment in SIM for Auto Generated AGSNs

1. The system checks the format for the UIN Item based on Dept/Class the item belongs to. This is set up in the UIN Attributes screen. If the format exists, the format will be assigned to the AGSN ticket.
2. If the format does not exist in the UIN Attributes screen, the system checks the print format table for the default Auto Generate SN Format Type.
3. If a format is not assigned from the previous step, the system captures the suggested ticket format from the item and the system checks the print format table for the format and assigns if one exists.
4. If a format is not assigned from the previous step, the system assigns the default Format from the format table for the format type of "Item Ticket."

If SIM does not find a matching format, the Format Type and Format fields should start out blank. The user would then need to go into the detail screen and assign a valid Format Type and Format value for all the records.

### SIM Ticket Generation-Manual

1. If the item is assigned with the suggested ticket format in RMS, SIM defaults that format and allows the user to edit.

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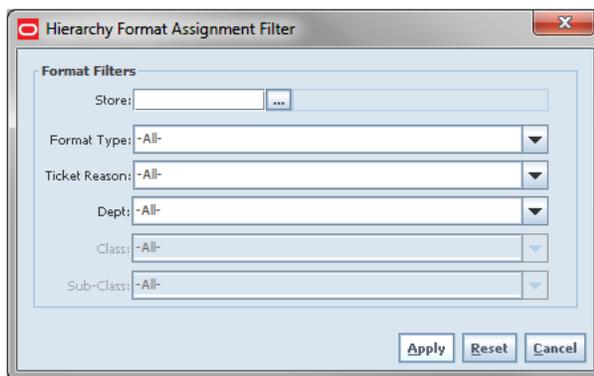
**Note:** When using the handheld, it is possible to first set up a format that will stay the same for any scanned items.

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2. If the item is not assigned with the suggested ticket format from RMS, SIM looks for the default format for the format type and default if available.
3. If the system is not able to find the format to assign it for the item, the user has to select the format during the manual printing process.

## Hierarchy Format Assignment Filter

**Figure 16–6 Hierarchy Format Assignment Filter Screen**

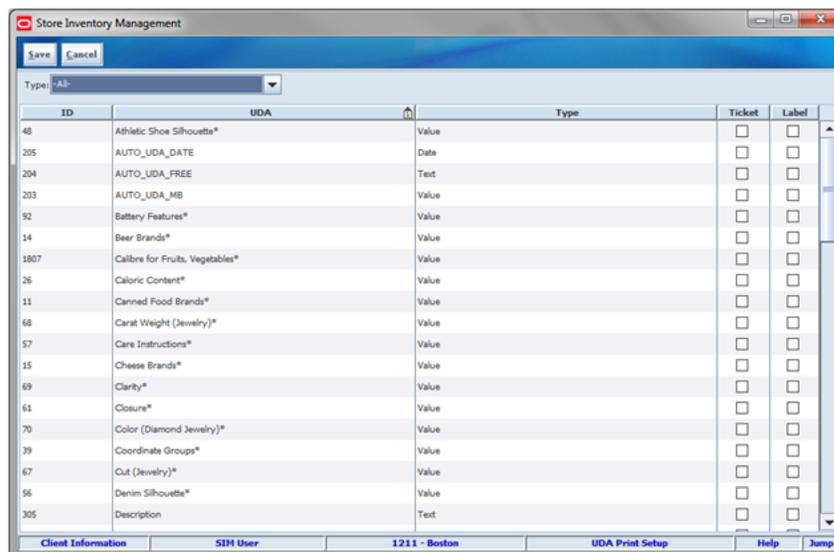


The Hierarchy Format Assignment Filter screen is accessed by clicking the Filter button from the Hierarchy Format Assignment screen. The user can filter on various search criteria. After applying the filter, the user will be returned to the Hierarchy Format Assignment screen with the format assignments displayed per the selected criteria.

## UDA Print Setup

The UDA Print Setup screen is accessed from the Admin dialog from the UDA Print Setup button on the Print Setup menu.

**Figure 16–7 UDA Print Setup Screen**



The UDA Print Setup screen is used to identify when SIM processes a change to User Defined Attributes (UDAs), the system will generate a ticket and/or label when the Ticket or Label checkbox is checked and that specific UDA changes. This setup applies to all stores since UDAs are not store specific, but rather tied to items.

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**Note:** UDAs can be integrated from an external system, but a user in SIM will have to set up the configuration if they wish to generate a ticket or label.

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The user can print the ticket and/or label from the Print dialog.

The Item Ticket Detail screen will display any UDAs associated to an item with Ticket and/or Label checked from this screen.

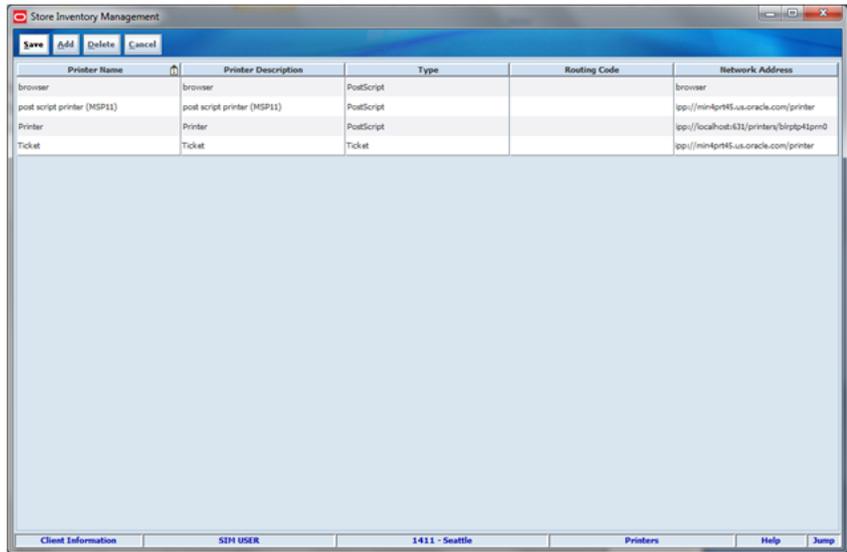
### UDAs and Value Pairs

When a UDA is identified to generate a ticket or label when changing, it will also automatically default to the ticket's value pair when the right type (ticket or label) is generated manually or automatic on the PC or batch. A value pair is defined as having an attribute name and attribute value that can be defined for an item and subsequently printed on a label. These names and values can come from a UDA that is associated with a specific item from a merchandising system. The user may also manually enter this information directly from the Item Ticket Detail screen by clicking the Ticket UDA button.

## Printers

The Printers screen is accessed from the Admin dialog from the Printers button on the Print Setup menu.

**Figure 16–8 Printers Screen**



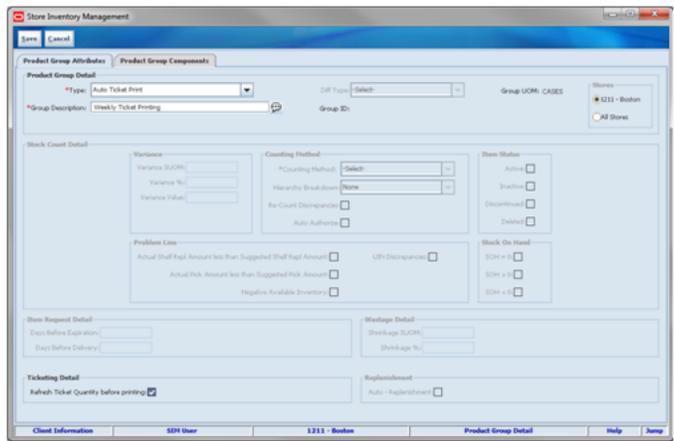
The Printers screen is used to create new printers for different report types and format types. The user can add, view, edit, and delete a printer as well as assign a routing code and network address for the printer. The user will have the ability to select a report server and set up a browser-based printer to display reports in a PDF format without having BI Publisher implemented.

The routing code allows a third-party printing application to route a ticket when printing. This feature facilitates a mixed print solution. Four values will be available from a seeding data perspective, but can easily be extended since no functionality is driven from them in SIM. The values are as follows:

- Ticket Print Solution
- Electronic Label
- Label Print Solution
- <none>

## Auto Print - Product Group Setup

**Figure 16–9 Auto Print - Product Group Detail Screen**



The user has the ability to select Auto ticket Print from the product group type dropdown. This option allows the user to indicate if they want a stock on hand refresh of the tickets before printing.

On the product group components tab, the user has the ability to add items to the product group using all options with the exception of the all departments radio button. This option is excluded for performance reasons.

The exact timing of printing the tickets will all depend on the time the batch runs. The batch has logic to minimize duplicate ticket printing. For example, it will consolidate a ticket generated for a description change if there is also a ticket generated for a price change.

### **Ticket Consolidation**

SIM consolidates tickets and updates across all batches within a batch generation method (Product Group, External or Manual generated) for those item tickets matching all of the following:

- Item number
- Print date
- Format Type
- Format Name

This auto-updating happens when manually printing a ticket or automatically through the batch.

- If a price change event and another type of change happens for the same item number, print date, format type, and format name, only one ticket is printed and the other tickets are marked as "Print Submitted" and do not actually print.
- If multiple price change events are made for the same item number, print date, format type, and format name, each of the tickets will be printed.

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**Note:** An item may change prices within a day, such as an early bird promotion, before 1pm. Therefore, there may be multiple price changes for the same day.

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**Note:** There may be situations in which a request for the same item ticket comes in at the same time and the system is not able to identify the duplicate ticket to consolidate. If that happens, the business process will need to manage the extra ticket printed. This should be an edge case and happen rarely.

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### **Item Ticket List**

The Item Ticket List screen is accessed from the Print dialog from the Item Ticket button on the Print menu.

Figure 16–10 Item Detail List Screen

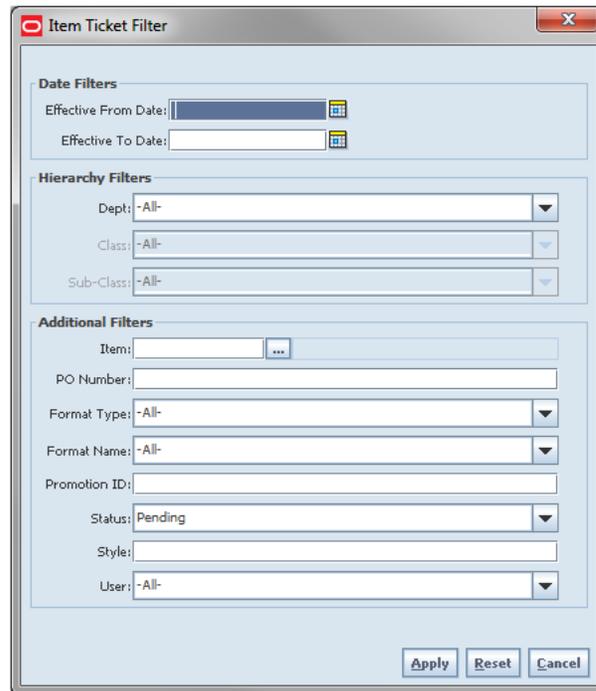
Item	Description	Batch ID	Format Type	Qty	Price	Multi Unit	Status	Format Name	Promotion	Effective	Create Date	User	PO #
11360038	pi		Item Ticket	1	\$125.00	No	Pending	Item Ticket		Sep 24, 2014	Sep 24, 2014	Auto Create	
113600475	Testae		Item Ticket	1	\$60.00	No	Pending	Item Ticket		Sep 24, 2014	Sep 24, 2014	Auto Create	
100142920	pi	116	Auto Generate SN	1	\$145.00	No	Pending	AGSN Ticket		May 22, 2014	Sep 24, 2014	Rhonda	
100142862	pi	116	Auto Generate SN	1	\$145.00	No	Pending	AGSN Ticket		May 22, 2014	Sep 24, 2014	Rhonda	
100142743	pi	116	Auto Generate SN	1	\$145.00	No	Pending	AGSN Ticket		May 22, 2014	Sep 24, 2014	Rhonda	
100142735	pi	116	Auto Generate SN	1	\$145.00	No	Pending	AGSN Ticket		May 22, 2014	Sep 24, 2014	Rhonda	
100142736	pi	116	Auto Generate SN	1	\$145.00	No	Pending	AGSN Ticket		May 22, 2014	Sep 24, 2014	Rhonda	
100142794	pi	116	Auto Generate SN	1	\$145.00	No	Pending	AGSN Ticket		May 22, 2014	Sep 24, 2014	Rhonda	
100142660	pi	116	Auto Generate SN	1	\$145.00	No	Pending	AGSN Ticket		May 22, 2014	Sep 24, 2014	Rhonda	
100142831	pi	116	Auto Generate SN	1	\$145.00	No	Pending	AGSN Ticket		May 22, 2014	Sep 24, 2014	Rhonda	
100142891	pi	116	Auto Generate SN	1	\$145.00	No	Pending	AGSN Ticket		May 22, 2014	Sep 24, 2014	Rhonda	
100142903	pi	116	Auto Generate SN	1	\$145.00	No	Pending	AGSN Ticket		May 22, 2014	Sep 24, 2014	Rhonda	
100142751	pi	116	Auto Generate SN	1	\$145.00	No	Pending	AGSN Ticket		May 22, 2014	Sep 24, 2014	Rhonda	
100142815	pi	116	Auto Generate SN	1	\$145.00	No	Pending	AGSN Ticket		May 22, 2014	Sep 24, 2014	Rhonda	
100142874	pi	116	Auto Generate SN	1	\$145.00	No	Pending	AGSN Ticket		May 22, 2014	Sep 24, 2014	Rhonda	
100142911	pi	116	Auto Generate SN	1	\$145.00	No	Pending	AGSN Ticket		May 22, 2014	Sep 24, 2014	Rhonda	
100142760	pi	116	Auto Generate SN	1	\$145.00	No	Pending	AGSN Ticket		May 22, 2014	Sep 24, 2014	Rhonda	
100142778	pi	116	Auto Generate SN	1	\$145.00	No	Pending	AGSN Ticket		May 22, 2014	Sep 24, 2014	Rhonda	
100142807	pi	116	Auto Generate SN	1	\$145.00	No	Pending	AGSN Ticket		May 22, 2014	Sep 24, 2014	Rhonda	
100142823	pi	116	Auto Generate SN	1	\$145.00	No	Pending	AGSN Ticket		May 22, 2014	Sep 24, 2014	Rhonda	
100142958	pi	116	Auto Generate SN	1	\$145.00	No	Pending	AGSN Ticket		May 22, 2014	Sep 24, 2014	Rhonda	
100142866	pi	116	Auto Generate SN	1	\$145.00	No	Pending	AGSN Ticket		May 22, 2014	Sep 24, 2014	Rhonda	
100122048	pi	115	Auto Generate SN	1	\$130.00	No	Pending	AGSN Ticket		Sep 22, 2014	Sep 23, 2014	Rhonda	
100119201	pd-Black	113	Item Ticket	1	\$125.00	No	Pending	Regular Price ...		Sep 23, 2014	Sep 23, 2014	Sim_User	
109551228	TI	112	Item Ticket	1	\$500.00	No	Pending	Regular Price ...		Aug 5, 2014	Sep 23, 2014	Sim_User	
109551236	TI	112	Item Ticket	1	\$500.00	No	Pending	Regular Price ...		Aug 5, 2014	Sep 23, 2014	Sim_User	
106491036	v_CP	111	Item Ticket	1	\$100.00	No	Pending	Item Ticket			Sep 23, 2014	Sim_User	
1111150394	CW1	110	Auto Generate SN	5	\$10.00	No	Pending	AGSN Ticket			Sep 23, 2014	Sim_User	
105900662	105900620 B...	109	Auto Generate SN	1	\$1.00	No	Pending	AGSN Ticket			Sep 21, 2014	dev	
105900662	105900620 B...	108	Item Ticket	1	\$1.00	No	Pending	Item Ticket			Sep 21, 2014	dev	
100118938	pd-Brown	103	Item Ticket	2	\$125.00	No	Pending	Item Ticket		Sep 18, 2014	Sep 18, 2014	dev	
100116167	pi	100		9	\$20.00	No	Pending			Sep 3, 2014	Sep 17, 2014		
100250200	100250182 T...	92	Item Ticket	12	\$2.86	No	Pending	Item Ticket			Sep 17, 2014		
106491036	v_CP	92	Item Ticket	1		No	Pending	Item Ticket			Sep 17, 2014		
111110194	PH1	86	Item Ticket	16	\$11.00	No	Cancelled	Item Ticket			Jan 11, 2014		

From the Item Ticket List screen, the user has the potential to perform numerous tasks. The user can create, edit, delete, update the format, refresh the quantity, and print a ticket. A Filter will automatically display when the user enters the screen. Once the user has entered the screen, the filter option is available to further filter on the item tickets displayed.

The Update Format button can be used to assign a format to item tickets with a blank format. The Refresh Qty button can refresh the ticket quantity based on the current SOH. The status of the item ticket may have one of the following three values: Pending, Cancelled, or Print Submitted.

## Item Ticket Filter

**Figure 16–11** Item Ticket Filter Screen



The screenshot shows a dialog box titled "Item Ticket Filter" with a close button (X) in the top right corner. The dialog is divided into three sections:

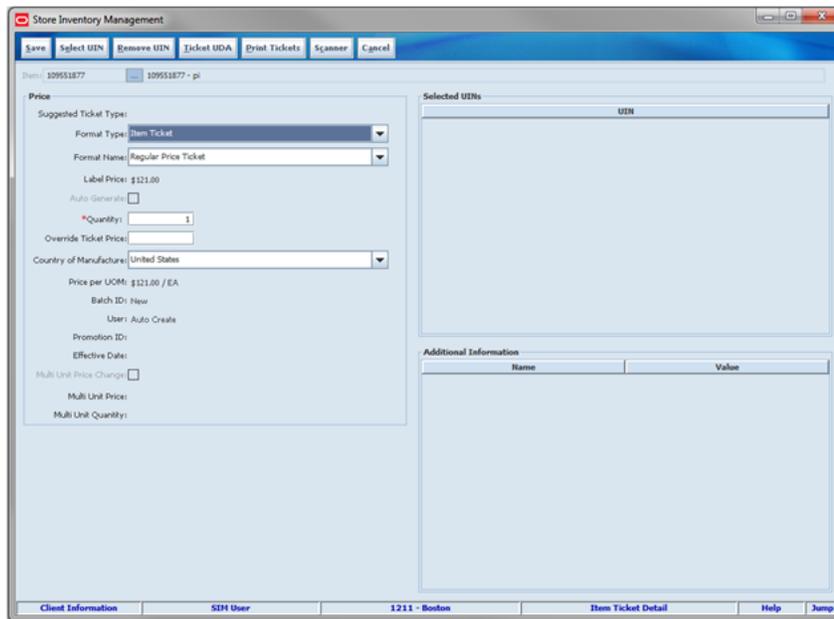
- Date Filters:** Contains two date input fields: "Effective From Date:" and "Effective To Date:". Each field has a calendar icon to its right.
- Hierarchy Filters:** Contains three dropdown menus: "Dept:" (set to "-All-"), "Class:" (set to "-All-"), and "Sub-Class:" (set to "-All-").
- Additional Filters:** Contains several input fields and dropdown menus: "Item:" (with a search icon), "PO Number:" (text input), "Format Type:" (dropdown set to "-All-"), "Format Name:" (dropdown set to "-All-"), "Promotion ID:" (text input), "Status:" (dropdown set to "Pending"), "Style:" (text input), and "User:" (dropdown set to "-All-").

At the bottom right of the dialog, there are three buttons: "Apply", "Reset", and "Cancel".

The Item Ticket Filter screen is accessed by clicking the Filter button from the Item Ticket List screen. The user can filter on various search criteria. After applying the filter, the user will be returned to the Item Ticket List screen with the item tickets displayed per the entered criteria.

## Item Detail Ticket

The Item Ticket Detail screen is accessed from the Item Ticket List screen and Item Ticket Batch Detail screen by selecting an item ticket.

**Figure 16–12 Item Ticket Detail Screen**

The Item Ticket Detail screen allows the user to manually add or edit individual item tickets/labels. If the user enters the screen from the Item Ticket Batch List screen, the user can add or edit the individual ticket/label for the batch. The user can also select UINs, remove UINs, add UDA, update the format, update the quantity, override the price, change the Country of Manufacture, and print a ticket. The scanner may be used to scan an item to print a ticket as well.

Tickets in a "Print Submitted" or "Cancelled" status cannot be modified. Tickets may be reprinted.

### UIN Item

The Auto-Generate checkbox will be available if the item selected allows for auto-generated serial numbers. If this box is checked, the user is not able to select UINs and an error message will display when the Select UINs button is pressed. The user may use Select UINs for AGSN items if they want to reprint an existing AGSN. In that case, the auto-generated box should remain unchecked.

The Selected UINs frame displays a list of UINs that will print for the item selected.

### Pack Items

Pack items can have item tickets created, but the following rules apply:

- Non-sellable Simple/Complex packs cannot have a ticket created.
- Sellable Simple/Complex packs are allowed to create a ticket and are handled the same as any other normal sellable item regardless if the item is sold at the pack level only or at the pack and component level.

### Additional Information

The Additional Information frame displays any existing UDAs for an item that are flagged as requiring a Ticket/Label to be printed when SIM generates a ticket. In addition, the user can add any other information they want to appear on the ticket/label. The user can also remove any pre-populated UDAs or other added attributes from the session. To manage the Additional Information frame, the user will

select the Ticket UDA button and a Popup screen displays to allow the user to manage the extra ticket data.

It can also be populated from external sources when they integrate a ticket batch into SIM.

## Item Ticket Batch List

The Item Ticket Batch List screen is accessed from the Print dialog from the Item Ticket Batch button on the Print menu.

**Figure 16–13 Item Ticket Batch List Screen**

Batch ID	Tran ID	Ticket Reason	Effective Date	Format Type	Total Items	Status
65	186265	Regular Price Change	9/9/2014	Item Ticket	1	Pending
67	901	Clearance	9/9/2014	Auto Generate SN	2	Pending
69	1302	Direct Deliveries	9/10/2014	Shelf Label	1	Pending
70	6666	Promotion	9/10/2014	Auto Generate SN	1	Pending
71	7307	Purchase Order	9/10/2014	Item Ticket	1	Pending
72	403	Regular Price Change	9/10/2014	Shelf Label	3	Pending
74	1122	Transfers	9/10/2014	Item Ticket	3	Pending
75	1421	Direct Deliveries	9/10/2014	Shelf Label	2	Pending
76	26605	Purchase Order	9/10/2014	Auto Generate SN	1	Pending
79	702	Warehouse Deliveries	9/11/2014	Item Ticket	1	Pending
81	1481	Direct Deliveries	9/11/2014	Item Ticket	2	Pending
82	1161	Transfers	9/11/2014	Item Ticket	1	Pending
84	663	Warehouse Deliveries	9/11/2014	Auto Generate SN	1	Pending
85	1181	Transfers	9/11/2014	Item Ticket	1	Pending
86	1501	Direct Deliveries	9/11/2014	Item Ticket	1	Pending
90	1122	Transfers	9/17/2014	Item Ticket	2	Pending
100	7777	Clearance	9/3/2014	Item Ticket	1	Pending
103		Daily Batch	9/18/2014	Item Ticket	1	Pending
106	22005	Purchase Order	9/21/2014	Item Ticket	1	Pending
109	22005	Purchase Order	9/21/2014	Auto Generate SN	1	Pending
110	1501	Direct Deliveries	9/23/2014	Auto Generate SN	1	Pending
111	1421	Direct Deliveries	9/23/2014	Item Ticket	1	Pending
112	311263	Regular Price Change	8/5/2014	Item Ticket	2	Pending
113		Manual	9/23/2014	Item Ticket	1	Pending

The Item Ticket Batch List screen displays a list of ticket batches generated by various methods. The user has the potential to perform numerous tasks. The user can create, edit, delete, update the format, refresh the quantity, and print tickets. Only records in a "Pending" status may be deleted. The filter option is available to further filter on the item ticket batches displayed. It is possible to reprint all tickets regardless if they are in Pending, Print Submitted, or Cancelled status.

When the filter is used, the user is able to search for a specific transaction, such as PO. The Tran ID is populated based on the type of transaction where the batch was generated. The following IDs are used to create the Tran ID for the batch:

- PO number in the case of PO
- Container ID in the case of Warehouse, Store, Finisher, or Supplier deliveries
- Clearance ID in the case of Clearance price change
- Price Change ID in the case of Regular Price Change
- Promo ID in the case of Promotion price change

The Format Type can be one of the following values:

- Item Ticket
- Shelf Label

- Auto Generate SN

The Item Ticket Batch can be in one of the following statuses:

- Print Submitted: Sent to the printer
- Pending: Not printed yet
- Cancelled: User deleted the ticket/batch

**Create Batch**

The system allows the user to create a new batch manually, by selecting the item tickets to include in the batch or the user may select transactions based on the following events:

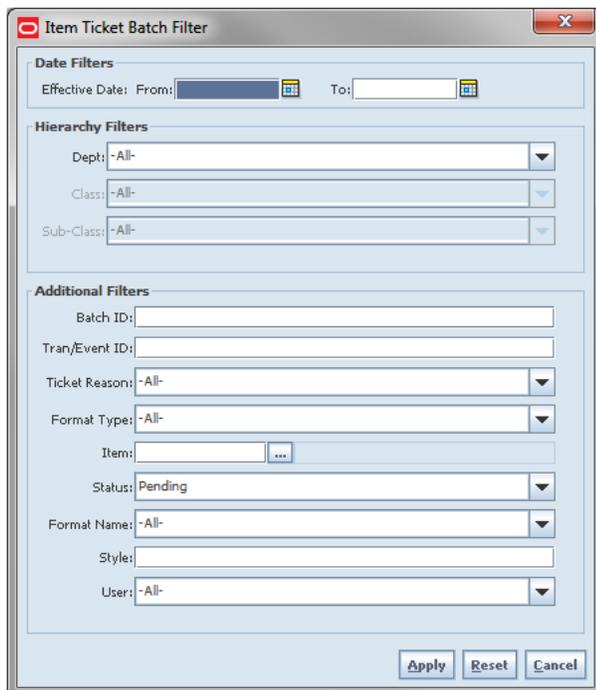
- Clearance
- Promotion
- Regular Price Change
- Expected Containers (Warehouse, Store, Finisher, and Supplier)
- Received Containers (Warehouses, Store, Finisher, and Supplier)

The user will be brought to the Add Transaction screen to select which transactions to use for creating the item tickets.

For those items added by selecting the Ticket reason of Manual, a Daily Batch will be created and all tickets will be added to the daily batch for processing purposes. The user is brought to the Item Ticket Detail screen to add the item tickets rather than the Add Transaction screen.

**Item Ticket Batch Filter**

*Figure 16–14 Item Ticket Batch Filter Screen*

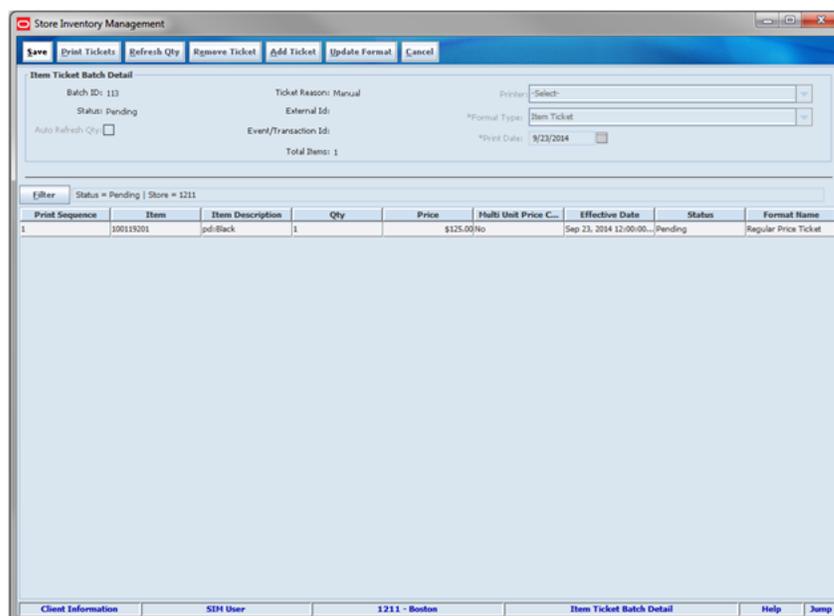


The Item Ticket Batch Filter screen is accessed by clicking the Filter button from the Item Ticket Batch List screen. The user can filter on various search criteria. After applying the filter, the user will be returned to the Item Ticket Batch List screen with the item ticket batches displayed per the entered criteria.

## Item Ticket Batch Filter

The Item Ticket Batch Detail screen is accessed from the Item Ticket Batch List screen by selecting an item ticket batch.

**Figure 16–15** *Item Ticket Batch Detail Screen*



The Item Ticket Batch detail screen displays the item details present in the selected ticket batch. The user can create, edit, delete, update the format, refresh the quantity, and print tickets. This screen is accessed by clicking a particular batch from the Item Ticket Batch List screen. The filter option is available to further filter on the item ticket details displayed.

User have the options to print the tickets for the selected items or update the Qty based on the current SOH for the selected items, delete selected items ticket, update format, add tickets, or double click the row and go to Item Ticket Detail screen.

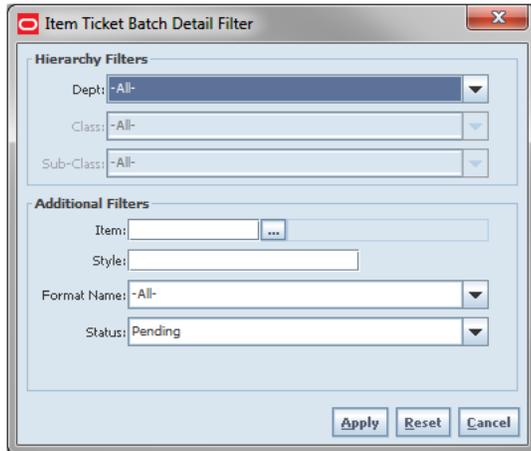
When the batch is created through an external system, all fields will be disabled on the header, however, an item ticket can be added to the pending ticket batch. The external ID will display the batch ID coming from an external system. The print date will also be provided by the external system; however, the user can modify this date until the batch is closed.

An item ticket can only be added to a batch in pending status. The header level status will only be updated to "Print Submitted" when everything in the batch was printed or when some item tickets are printed and the rest are cancelled.

The system will automatically update the quantity of the item tickets to the current stock on hand if the Auto Refresh Qty box is checked. Otherwise, the individual records may be selected to update when the Refresh Qty button is selected. If there is a SOH less than 1, item tickets will not be printed.

## Item Ticket Batch Detail Filter

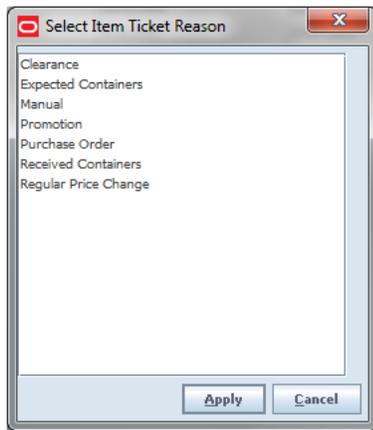
**Figure 16–16** *Item Ticket Batch Detail Filter Screen*



The Item Ticket Batch Detail Filter screen is accessed by clicking the Filter button from the Item Ticket Batch Detail screen. The user can filter on various search criteria. After applying the filter, the user will be returned to the Item Ticket Batch Detail screen with the item tickets displayed per the entered criteria.

## Select Item Ticket Reason

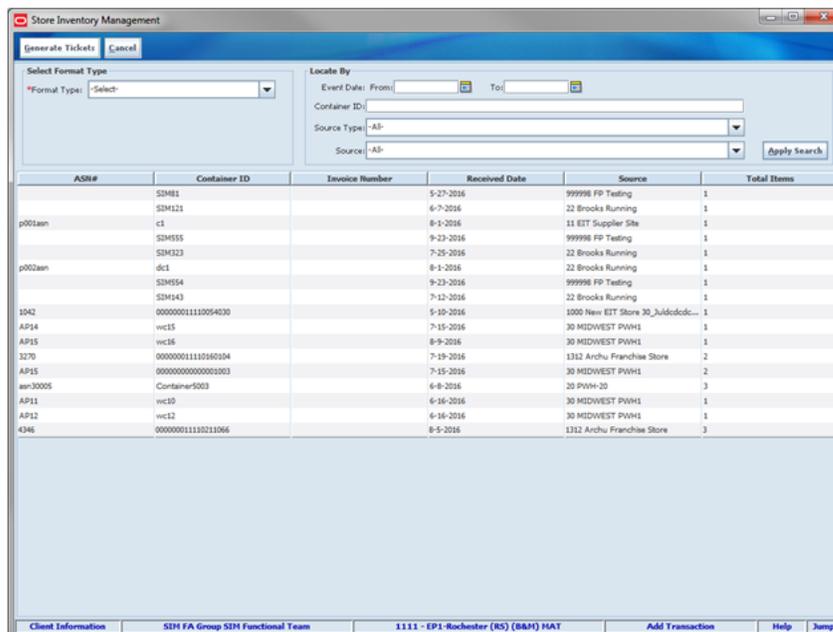
**Figure 16–17** *Select Item Ticket Reason Screen*



The Select Item Ticket Reason screen is accessed from the Item Ticket Batch List Screen by clicking Create Batch button. The user is first prompted with a Select Item Ticket Reason popup screen to select the type of event batch to create.

## Add Transaction

**Figure 16–18 Add Transaction Screen**



The Add Transaction screen is displayed once the user has selected an item ticket reason after clicking the Create Batch button from the Item Ticket Batch Detail screen.

This screen is used to generate tickets for entire transactions. Specific transaction types can be located on this screen including:

- Received Containers
- Expected Containers
- Purchase Orders
- Price Events: Clearance, Promotion, and Regular Price Changes

The received quantity will be used to generate tickets when the Received Containers are selected on Select Item Ticket Reason screen.

The expected quantity will be used to generate tickets when the Expected Containers are selected on Select Item Ticket Reason screen.

The user can search for specific transactions and may select one or more transactions from the list to generate tickets. When the user returns to the Item Ticket Batch List screen, the user will see an item ticket batch for each of the transactions selected from the Add Transaction screen.

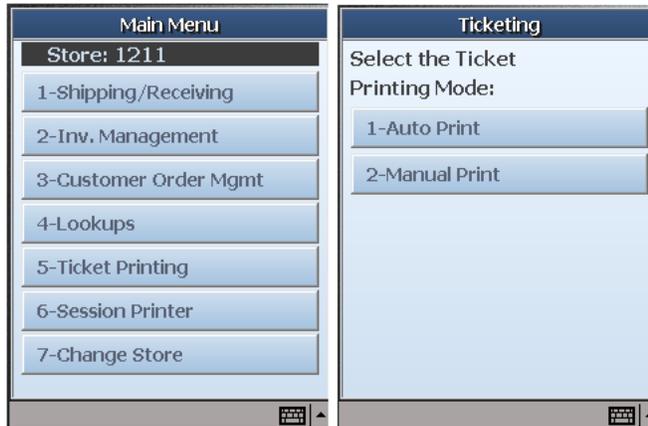
The system can locate a delivery by supplier when the transaction is by Purchase Order or Direct Delivery. Transfer from Store and Transfer from Warehouse may be located by where the transaction originated from.

## Ticketing on the Handheld

Ticket printing on the handheld is accessible from the Main Menu when using Wavelink Studio. There are two modes of printing tickets, auto print and manual print. In auto print mode, the user is able to print tickets quickly by defining format, printer, quantity, and event before scanning the item. When the item is scanned, SIM will

determine if a ticket needs to be printed allowing the user to scan uninterrupted. In manual print mode, the user is able to set an override price, quantity, country of origin, format, and printer for each scanned item depending on the need.

**Figure 16–19 Handheld Main Menu**

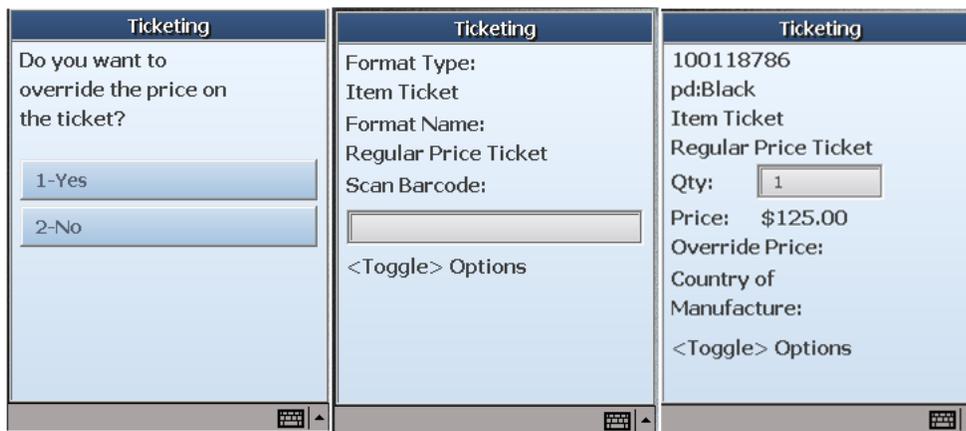


Each of the printing modes offers additional features.

**Auto Print Mode**

This mode is used for printing tickets for a price event in the past, future, or current date. It allows the user to scan all items on a shelf, rack, or other area and automatically print tickets only for the items going on sale or coming off a sale. The user also has the option to print a ticket for every item scanned with the price relevant for the day selected. The user may swap formats and/or printers by toggling to another screen at the point of any item scan.

**Figure 16–20 Handheld Auto Print Mode Screens**



- Pre-defined options:
  - Define the number of tickets
  - Select the price event; regular price, promotion, clearance, or always print
  - Effective date range
  - Select Printer

- Select format type/name
- Use Case - Re-ticketing items expiring at the end of the day:
  - A format ticket is created that takes the current price and divides it by 2. The ticket printed states: 50% off and generates a type 2 with embedded price.
  - The user scans items that are expiring with a fixed weight (such as Yogurt and milk).
  - SIM prints a ticket barcode and puts it over the ticket on the package.

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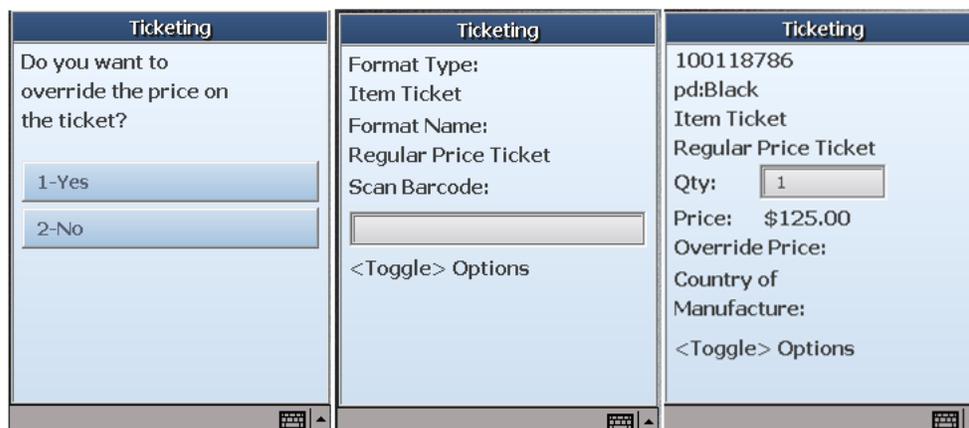
**Note:** When selecting a printer, it is possible to scan a printer logical or IP name, but only if BIP is not the ticket printing solution.

---

### Manual Print Mode

This mode can be used to print a set quantity of tickets for each item scanned and to override a price currently on the item. This is typically used for quickly printing missing tickets for items. This process is also used when generating or reprinting UINs for AGSN tickets. The user may swap formats and/or printer by toggling to another screen at the point of any item scan.

**Figure 16–21 Handheld Manual Print Mode Screens**



- Options:
  - Price Override (controlled by security permissions)
  - Define the number of tickets
  - Select the printer
  - Select the format type/name
  - Select the country of manufacture
  - Print new or reprint AGSNs (controlled by security permissions)
- Use Case - Items are delivered on a DSD without a price:
  - The user scans the item's UPC.
  - The user types in the number of units received.
  - SIM prints a specific number of tickets.
  - The user quickly tags the received items and scans the next group of items.

## User Interface Guidelines

Batch management and bulk printing can only be done on the PC.

Similar to the UDA and printer setup, management of the ticket and shelf label formats is only available on the PC.

## Technical

### Ticket Printing Background

Ticketing involves the creation and printing of tickets for store items. Tickets can be created for three format types: (Item Ticket, Shelf Label, and Auto Generated UINs). Users can have multiple formats per each format type, but can choose only one as default for each type.

The Item Ticket business object is used to create a single ticket which holds most of the data relevant for printing a ticket. Such data includes item information, quantity, and price. The Item Ticket Request business object is used to create a group of tickets. An ItemTicketRequest object represents the Item Ticket Batch functionality which allows for creation of a batch of tickets for specific reasons (transactions) in SIM.

### Ticket Printing

Ticket Printing is handled through BI Publisher or an alternative external solution that can be integrated with SIM. However, depending on the print processing solution used, specific information is send off through a web service. Ticket printing is kicked off asynchronously (that is, after the message is staged, all tickets in that call are marked as Print Submitted since SIM does not interface with the response of the implemented printing solution BI Publisher or third-party alternative).

Business objects are used within the application code for all business processing. The following business objects are used for printing:

Business Object	Description
ItemTicket	Contains detailed information about a single ticket.
ItemTicketQueryFilter	Contains information to encapsulate search criteria for item tickets.
ItemTicketRequest	Contains header information about a batch as well as corresponding ItemTickets.
ItemTicketRequestQueryFilter	Contains information to encapsulate search criteria for Item Ticket Batches.
PrintFormat	Contains information about a specific format such as name, template URL, and type of format.
PrintFormatType	Contains details for the print format category, either report type or ticket format.
MdseHierarchyNode	Contains merchandise hierarchy information of an item and is used for creating print format for item ticket or shelf label.
TicketFormatHierarchy	Contains information about the print format type and the item ticket reason.
UDADetail	Contains detailed information about the User Defined Attributes including the type of UDA.
StorePrinter	Contains detailed information of a store printer including the network address for the printer.

## Integration

This section provides information on the integration for printing.

### RIB

External systems using the RIB can generate tickets and labels or simply provide information that is crucial for the tickets.

Data provided that is referenced in the ticketing dialogs:

- Item-level ticket formats can come in from the merchandise system as part of the item message
- Country of manufacture
- Price per unit of measure

Data that can generate ticket or label events:

- Price event messages are sent from the pricing system. SIM generates tickets for all price events based on the admin parameters. When SIM receives a price change delete, any pending tickets will be cancelled.
- Item description changes sent through the RIB trigger the creation of tickets and shelf labels.
- UDAs can come from the Merchandising system as well. See above for more details on when and how they generate labels and tickets.
- QR code image links with a start and end date.

RIB payloads are used to communicate to external systems through RIB integration.

RIB Payload	Description
ItemDesc	Item / Ticket associations
ItemTcktDesc	This message can be part of ItemDesc and publishes from RMS when an Item Ticket is created, modified, or deleted.
ClrPrcChgDesc	Sent from an external system to indicate a clearance price change. It then generates a ticket for the pertinent item.
ClrPrcChgRef	Sent from an external system to indicate a clearance price change has been deleted.
PromotionDesc	Sent from an external system to indicate a promotion price change. It then generates a ticket for the pertinent item.
PromotionRef	Sent from an external system to indicate a promotion price change has been deleted.
RegPrcChgDesc	Sent from an external system to indicate a regular price change. It then generates a ticket for the pertinent item.
RegPrcChgRef	Sent from an external system to indicate a regular price change has been deleted.

### Web Services

Web Services exist to provide additional information to external third-party printing services to include the following: ticket ID, store ID, item, item description, price (regular, promotion, clearance price and type, effective date), merch hierarchy (description), diffs, all other item detail ticket print information, print order, QR code, and image URL and MSRP.

It is also used to integrate batches coming from a third-party ticket batch system. The printing request may be immediate or for a particular date and time.

SIM provides the following SOAP web services. The following are the services and their supported service operations.

SIM supplies the ItemTicket Service which has following service operations:

Service Operation	Description
CreateItemTickets	Creates an Item Ticket Batch with item tickets as detail records of that batch. Responds with the batch ID.
LookupItemTicketFormat	Returns a list of formats that exist in SIM.

SIM supplies the TicketPrinting Service which has following service operations:

Service Operation	Description
PrintTickets	Interface for printing tickets to an external printing solution (such as BIP). An external system is required to implement the web service.
PreviewTickets	Interface for sending previewing information to an external system.

## Batch

The following batch is supported for printing:

Batch Name	Description
AutoTicketPrint	A ticket batch program will search for internal generated item tickets and labels which have been created in SIM and match with a product grouping scheduled. This batch also looks for external created batches communicated to SIM without a specific print date. A print job is created and assigned to the printers based on the formats assigned. A polling event is created to take the print jobs created by the batch and send them to the printer in the order the print jobs were created.
ExternalTicketBatchPrint	A batch in SIM looks for third-party batches generated by external system with a specific integrated date and time. SIM will print these batches based on the integrated time line.
GenerateItemQRCodeTicket	QR codes can have an activation and expiration date. This batch creates item tickets or shelf labels for item QR code changes.

## Data Structure

The following database tables are used for printing:

Table Name	Description
ITEM_TICKET	The table hold item tickets that have been requested for printing.
ITEM_TICKET_UDA	The user defined item ticket attributes that the item ticket is related to.

<b>Table Name</b>	<b>Description</b>
ITEM_TICKET_UIN	This table contains the specific UIN information associated with the item ticket.
PRINT_FORMAT	Contains the print format (report or ticket/label) configuration for stores.
PRINT_FORMAT_DEFAULT	Contains the print format (report or ticket/label) default configurations. The records in this table are copied into print_format when a store is added.
PRINT_FORMAT_TYPE	Defines the print format types for a report or item ticket.
PRINT_STORE_ORDER	This table stores the details of a store order which needs to get printed.
STORE_PRINTER	Associates printers with the retail stores in which the printers are installed.
STORE_PRINTER_ROUTE	Store printer routing code which specifies the specific printing solution.
STORE_PRINTER_TYPE	The set of distinct printer types used to categorize how retail store printers are used.
TICKET_FORMAT_HIERARCHY	Ticket format hierarchy
TICKET_PRINT	This table holds one row for each ticket print request.
TICKET_PRINT_LINE_ITEM	The table holds ticket print line items for the ticket print.
TICKET_REQUEST	Stores item ticket requests.



This chapter describes pricing. The following topics are covered:

- [Overview](#): Introduction to pricing.
- [Processing](#): Description of the pricing type of promotions.
- [Technical](#): Integration with Oracle Retail Integration Bus (RIB), web services, batch, and the database structure.

## Overview

Pricing is an important feature in SIM that supports four key areas:

- Price lookup (item detail, history):
  - Allows for a quick price lookup when customers ask without having to switch applications
  - Allows for price validation when scanning shelf labels
  - Allows price history research
- Ticket/label printing:
  - For more information, see [Chapter 16, "Printing."](#)
- Price change functionality:
  - This feature is usually used when, for some reason, the current store price requires immediate adjustment. This can occur because the price does not reflect the price in the flier or a nearby competitor has a lower price that the store tries to match.
- Variable item types 02 and GS1 databar:
  - Both of these barcodes have an embedded price that often is used to understand the inventory implications. For more information, see [Chapter 6, "Item."](#)

SIM only supports regular price changes, multi-unit pricing, simple promotions, and clearances. SIM does not support complex promotions which are usually conditional and built upon certain thresholds or criteria that need to be met. SIM does however support overlapping simple promotions.

The Price Change functionality allows the user to request a price change to an item at the location. Price changes can be Permanent, Clearance, or Promotional. The corporate system checks the pricing rules and looks for conflicts. If the corporate system approves the price change, it takes effect and labels can be printed. If the corporate system rejects the request, the user can modify and resubmit the request.

All prices are held at the item/location level in SIM.

Multi-unit pricing allows a retailer to define a special permanent price when buying more than a single unit. Multi-unit pricing gives the retailer the ability to sell multiple units of the item at a discounted rate, for example, Multi units = 2, Multi Unit Retail = \$9.99, Multi Units UOM = eaches. Buy two units of Item A for \$9.99.

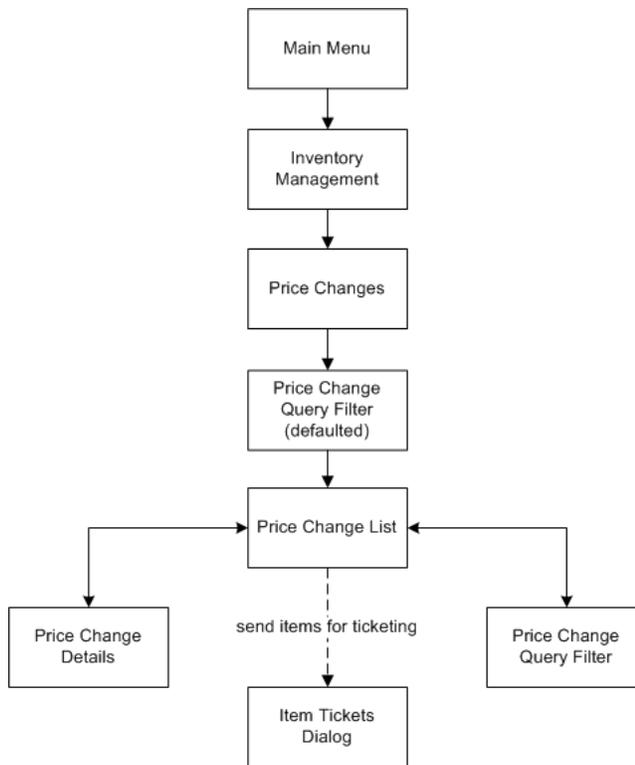
SIM subscribes to multi-unit pricing coming from RPM and displays the multi-unit information. SIM does not support multiple levels of multi-unit pricing such as buy an apple for \$1, buy 5 pounds of apples for \$3, buy 10 pounds for \$5.

## Business Case

Many retailers run into competition from a nearby store of another brand. When such a scenario occurs, they have a price war to attract customers to their stores. In such a competitive environment, if one reduces its price, the other will need to perform a price reduction as well. In order to execute more immediate price changes, the retailer may use the price change functionality to change prices in an emergency scenario.

Many retailers use the handheld as a device for a simple price lookup. This is helpful for the customer in the store who needs to know the price of the product.

**Figure 17–1 Pricing Screen Flow**



Price Changes exist under the Inventory Management menu. From the Price Change List screen, the user can filter the records as needed. The user can view, create, and edit Price changes on the Price change Detail screen for a Price change. The user can choose to print tickets and/or shelf edge labels for the price changes.

## Configurations

This section covers system parameters.

## System Parameters

### Search Limit Default for Price Changes

- Values: 1 - 999
- Default: 500
- Topic: UI
- Editable: Yes
- This parameter indicates the default search limit for the Price Change Filter.

## Processing

Following are the types of price changes:

- Regular Price Change: A price change that occurs on an item due to a change in the price from the manufacturer could lead to this kind of price change.
- Promotion Price Change: A price change that occurs to enhance sales or to attract customers to buy an item. This may lead for some specific number of days.
- Clearance Price Change: A price change that is applied to move the product out of store which is sitting on the rack for a long period of time.
- Time-based Promotion: A price change that is for specific hours in a day.

Following are the types of overlapping price changes:

- If there is a regular price change running on an item and a promotional price change is also applied to it, then in that case, a promotion price change takes precedence over a regular price change and only the promotional price change is applied.
- If there is a regular price change running on an item and at the same time there is a clearance also running on that item, then a clearance price change takes precedence over a regular price change and only the clearance is applied.
- If there is a promotional price change running on an item and a clearance price change is also running at the same time, a promotional price change is applied over and above the clearance price change.
- In a time-based promotion, if an item has multiple promotions running at the same time, then the later one takes precedence; this is decided by the pricing engine in RPM while sending it to SIM. It does not generate tickets or labels as the promotion starts and ends on the same day.

For example, there is a promotion running on an item from 8:00 a.m. to 8:00 p.m. There is another promotion that is supposed to apply from 10:00 a.m. to 1:00 p.m. Then, in this case, from 8:00 a.m. to 10:00 a.m., the first promotion would apply and from 10:00 a.m. to 1:00 p.m., the second promotion would apply and then again from 1:00 p.m. to 8:00 p.m., the first promotion would apply.

## Item Lookup Price Information

Figure 17–2 Item Lookup Price Information

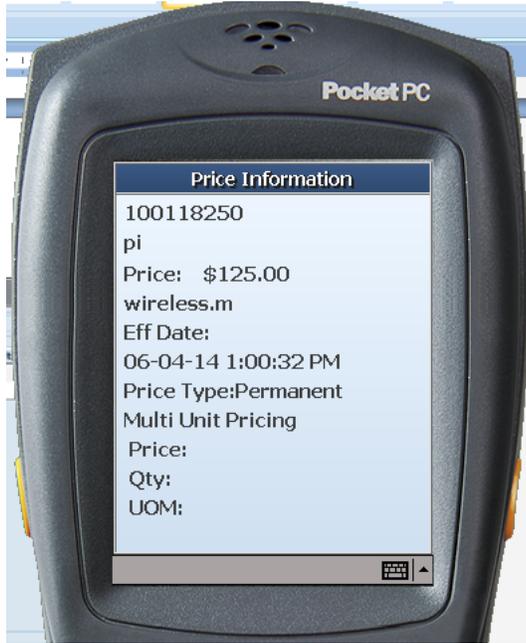


Figure 17–3 Price Information Screen

Price	Effective Date	Pricing Type	Multi Unit Price Change	Multi Unit Price	Multi Unit Quantity	Multi Unit UOM	Update Date
\$125.00	Jun 4, 2014 1:00:32...	Permanent	No				Jul 16, 2014 6:41:4...
\$61.00	Apr 30, 2014 12:00:00...	Promotional	No				Jul 16, 2014 6:41:4...

These figures show the price information screens that can be viewed from the SIM PC item Lookup and handheld Item Lookup dialogs.

These screens show the effective date and time of the price change. They also have the ability to display historical prices, but do not display future price changes.

**Note:** The price displayed on this screen is not necessarily the item location price from the database, but is rather a value looked up from the pricing tables.

## Price Change List Screen

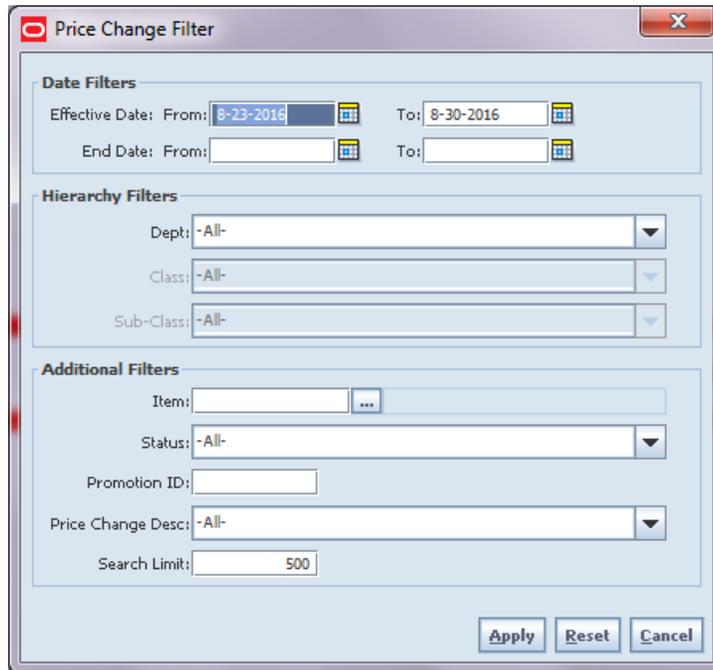
Figure 17-4 Price Change List Screen

Effective Date	End Date	Item	Description	Current Price	Current Status	New Price	New Status	Multi Unit	Multi Unit	Multi Unit	Status	Promotion	Price Change
Apr 30, 2014...	Apr 30, 2014...	100118241	pi	\$125.00	EA	\$61.00	EA			No	Completed	170	Promotional
Apr 30, 2014...	May 5, 2014 ...	100118250	pi	\$125.00	EA	\$61.00	EA			No	Completed	170	Promotional
Apr 30, 2014...	May 15, 201...	100114486	pi	\$125.00	EA	\$115.00	EA			No	Completed		Clearance
Apr 30, 2014...	May 10, 201...	100114507	pi	\$125.00	EA	\$100.00	EA			No	Completed		Clearance
Apr 30, 2014...	May 10, 201...	100114515	pi	\$125.00	EA	\$100.00	EA			No	Completed		Clearance
Apr 30, 2014...		100114355	ti	\$125.00	EA	\$115.00	EA			No	Completed		Clearance
Apr 30, 2014...	May 31, 201...	100118428	pi	\$125.00	EA	\$100.00	EA			No	Completed		Clearance
Apr 30, 2014...	May 31, 201...	100118461	pi	\$125.00	EA	\$87.50	EA			No	Completed		Clearance
Apr 30, 2014...		100114697	pi	\$125.00	EA	\$100.00	EA			No	Completed		Clearance
Apr 30, 2014...		100114785	pi	\$125.00	EA	\$100.00	EA			No	Completed		Clearance
Apr 30, 2014...		100114751	pi	\$125.00	EA	\$100.00	EA			No	Completed		Clearance
Apr 30, 2014...		100114742	pi	\$125.00	EA	\$100.00	EA			No	Completed		Clearance
May 1, 2014 ...	May 5, 2014 ...	100114831	pi	\$125.00	EA	\$100.00	EA			No	Completed	441	Promotional
May 1, 2014 ...		100116967	pd:Navy	\$125.00	EA	\$115.00	EA			No	Completed		Clearance
May 2, 2014 ...	May 5, 2014 ...	100114355	ti	\$125.00	EA	\$100.00	EA			No	Completed	241	Promotional
May 2, 2014 ...	May 5, 2014 ...	100114283	ti	\$125.00	EA	\$100.00	EA			No	Completed	242	Promotional
May 2, 2014 ...		100116941	pd:White	\$125.00	EA	\$105.00	EA			No	Completed		Clearance
May 2, 2014 ...		100114443	ti	\$125.00	EA	\$115.00	EA			No	Completed		Clearance
May 2, 2014 ...		100114419	ti	\$125.00	EA	\$115.00	EA			No	Completed		Clearance
May 3, 2014 ...	May 5, 2014 ...	100114953	pi	\$125.00	EA	\$115.00	EA			No	Completed	361	Promotional
May 3, 2014 ...		100114857	pi	\$125.00	EA	\$80.00	EA			No	Completed		Permanent
May 3, 2014 ...		100114865	pi	\$125.00	EA	\$80.00	EA			No	Completed		Permanent
May 3, 2014 ...		100114873	pi	\$125.00	EA	\$80.00	EA			No	Completed		Permanent
May 3, 2014 ...		100114881	pi	\$125.00	EA	\$80.00	EA			No	Completed		Permanent
May 3, 2014 ...		100114945	pi	\$125.00	EA	\$80.00	EA			No	Completed		Permanent
May 3, 2014 ...		100114902	pi	\$125.00	EA	\$80.00	EA			No	Completed		Permanent
May 3, 2014 ...		100114911	pi	\$125.00	EA	\$80.00	EA			No	Completed		Permanent
May 3, 2014 ...		100114929	pi	\$125.00	EA	\$80.00	EA			No	Completed		Permanent
May 3, 2014 ...		100114937	pi	\$125.00	EA	\$80.00	EA			No	Completed		Permanent
May 3, 2014 ...		100114890	pi	\$125.00	EA	\$80.00	EA			No	Completed		Permanent
May 3, 2014 ...	May 23, 201...	100114638	pi	\$125.00	EA	\$112.50	EA			No	Completed	401	Promotional
May 3, 2014 ...	May 23, 201...	100114654	pi	\$125.00	EA	\$112.50	EA			No	Completed	401	Promotional
May 3, 2014 ...	May 23, 201...	100114662	pi	\$125.00	EA	\$112.50	EA			No	Completed	401	Promotional
May 3, 2014 ...		100114726	pi	\$125.00	EA	\$100.00	EA			No	Completed		Clearance
May 3, 2014 ...		100114718	pi	\$125.00	EA	\$100.00	EA			No	Completed		Clearance

This figure shows the Price Change List screen. Selecting a price change from the list navigates to the details for that price change. Clicking the Create button also navigates to the Price Change Detail screen to create a Price Change Request. The Filter button navigates to the Price Change Filter screen. Finally, there are Item Tickets and Shelf Labels buttons that send tickets and labels into the ticketing dialog. See [Chapter 16, "Printing."](#)

## Price Change Filter Screen

Figure 17-5 Price Change Filter Screen



The screenshot shows a dialog box titled "Price Change Filter" with a close button (X) in the top right corner. The dialog is divided into three main sections:

- Date Filters:** Contains two rows of date pickers. The first row is for "Effective Date" with "From:" set to "8-23-2016" and "To:" set to "8-30-2016". The second row is for "End Date" with "From:" and "To:" fields empty.
- Hierarchy Filters:** Contains three dropdown menus: "Dept:" set to "-All-", "Class:" set to "-All-", and "Sub-Class:" set to "-All-".
- Additional Filters:** Contains five fields: "Item:" (empty text box with a search icon), "Status:" (dropdown menu set to "-All-"), "Promotion ID:" (empty text box), "Price Change Desc:" (dropdown menu set to "-All-"), and "Search Limit:" (text box containing "500").

At the bottom right of the dialog are three buttons: "Apply", "Reset", and "Cancel".

The Price Change Filter screen is accessed by selecting the Filter button on the Price Change List Screen. It is used to search for Price Changes based upon various criteria.

## Price Change Detail Screen

Figure 17–6 Price Change Detail Screen

The Price Change Detail screen is accessed by selecting the Create button from the Price Change List screen to create a new SIM price change request. It can also be accessed by clicking a price change on the Price Change List screen. The Price Change Detail screen is only used to create new price change requests or to review price changes existing in SIM.

After the price is submitted, RPM executes its validation rules and lets the SIM user know in real time if the change is approved or not. These validation rules can include, but are not limited to, overlapping promotions restrictions or store change restrictions.

### User Interface Guidelines

The Price Information dialog can be viewed from Item Lookup on the PC and handheld.

---

**Note:** This is only for looking up current and past prices for an item.

---

The Price Change dialog is accessed only from the PC.

**Note:** This shows all price changes for past and present, and future.

## Technical

Item prices in SIM are initially seeded from the Oracle Retail Merchandise System (RMS) into SIM's item price table as the initial regular prices for items.

Item price changes can come through multiple ways:

- Batch Data Files
- Retail Integration Bus
- Web Services

Once the price changes are coming into SIM, the new prices along with the effective dates are persisted into the ITEM\_PRICE table.

The current price is retrieved from the ITEM\_PRICE table based at the store time when the user requests the price lookup. If there are multiple price changes occurring for a store item on a specific date, the most recent effective price becomes the store item's current price. The following business objects are used within the application code:

Business Object	Description
ItemPrice	Contains item price detail information about a specific item on the specific date.
PriceChange	Contains item price change information for a specific price change type (regular price change, promotion price change and clearance price change).
PriceType	Contains the SIM price types. 202 - Regular Price (change), 201 - Promotional Price Change, 200 - Clearance Price.
PriceSource	Contains Price source (0 - normal, 1 - store requested price change).

## Integration

This section covers integration for pricing.

### RIB

RIB payloads are used to communicate to external systems through RIB Integration.

RIB Payload	Description
RegPrcChgDesc	RIB payload that contains information about the regular price change.
ClrPrcChgDesc	RIB payload that contains information about clearance price change.
PromotionDesc	RIB payload that contains information about promotion price change.
PrmCnlItemLocDesc	RIB payload that contains information about item location promotion cancelation.

### Web Services

SIM has two main functions for web services:

- [Requesting a Price Change from RPM](#)
- [Looking Up Prices](#)

### Requesting a Price Change from RPM

SIM integrates with Oracle Retail Price Management (RPM) to get the price changes, promotions, and clearance events. This integration happens with the RIB or through batch processes. SIM is also capable of requesting price changes, clearances, or promotions using the PC UI feature. This feature calls the RPM web service to get the price changes completed for the items in the store.

SIM does not calculate specific pricing points based on criteria send. The expectation is that the exact price is provided for all regular, promotion (overlapping or not), and clearance price changes.

When a same date price change is requested by SIM and approved by RPM, SIM updates its internal pricing tables immediately with this information. RPM in turn publishes the price change to the RIB, the batches, and other entities such as RMS and POS that need to be aware of this change. SIM is able to start using the price when printing tickets and labels or when looking up the price for customers due to the direct update after RPM approval.

In case the price is not for the same day, SIM waits for the RIB message or batch process to upload file information.

SIM uses the PriceChangeService SOAP web service to retrieve future retail price from RPM.

The following service operations are supported for this web service:

Service Operation	Description
createPrcChgDesc	SIM calls external system to create price change for a specified price type.
deletePrcChgDesc	SIM calls external system to delete price change for a specified price type.

### Looking Up Prices

The SIM price lookup web service is mostly intended for external systems or handheld extensions to SIM to help provide those systems with SIM pricing information. A great use case for this could be the opportunity to provide a price check within SIM.

A custom dialog can be built to scan the price of an item and display the price from the POS system and the current price in SIM. If they do not match, a different web service call can be made to the ticketing architecture to generate a new label. It can also be used to look up tomorrow's price for printing and generating tickets.

SIM supplies a StoreItemPrice SOAP web service. The following service operations are supported for this web service:

Service Operation	Description
lookupItemPriceHeader	Retrieves summary information for store item price.
readItemPrice	Retrieves detailed information about a single store item price.
lookupItemPriceOnEffectiveDate	Retrieves summary information for a store item price on a specified date.

SIM uses the PriceInquiryService SOAP web service to retrieve the future retail price from the pricing engine. The following service operations are supported for this web service:

Service Operation	Description
findPricePrInqCriVo	SIM calls external system to retrieves future retail price header information.

## Batch

The following batch jobs are supported:

Batch Name	Description
Bulk Price Regular Batch	This batch updates regular price changes from RPM to SIM.
Bulk Price Promotion Batch	This batch updates promotion price changes from RPM to SIM.
Bulk Price Clearance Batch	This batch updates clearance price changes from RPM to SIM.
Price Change Extract Retry Batch	A batch process also exists for reprocessing failed price change extract processing. This can help reduce the user intervention needed to resolve timing errors.
Item Price To History Batch	A batch process that writes the expired item price records into the item price history table.

## Data Structure

The following database tables are used by SIM:

Table Name	Description
ITEM_PRICE	Contains item price records for store item. A given store item may have many item prices with different effective dates if applicable.
ITEM_PRICE_HISTORY	Contains archived item price records.
PRICE_CHANGE_WORKSHEET	Staging area to hold the price change records.
ITEM_PRICE_V	The item price view table contains item price and item detail information combined.

This chapter describes the Item Basket. The following topics are covered:

- **Overview:** Introduction to the Item Basket.
- **Processing:** Information on how an Item Basket is used.
- **Technical:** Integration, web services, and the database structure.

## Overview

SIM often has the only wireless network in the store. It is very expensive to run two applications with different protocols in the same store, especially with smaller retailers. Therefore, SIM's Item Basket on the wireless device is very well suited to aid the retailer with line busting, investigative item lists, and creating gift registries.

The handheld provides an Item Basket menu option that can capture items and their quantities by entering/scanning the UPC.

When all items are captured, the handheld presents an option to print a ticket with a barcode for the customer. This barcode can be scanned or entered by a third-party system to retrieve the basket from SIM.

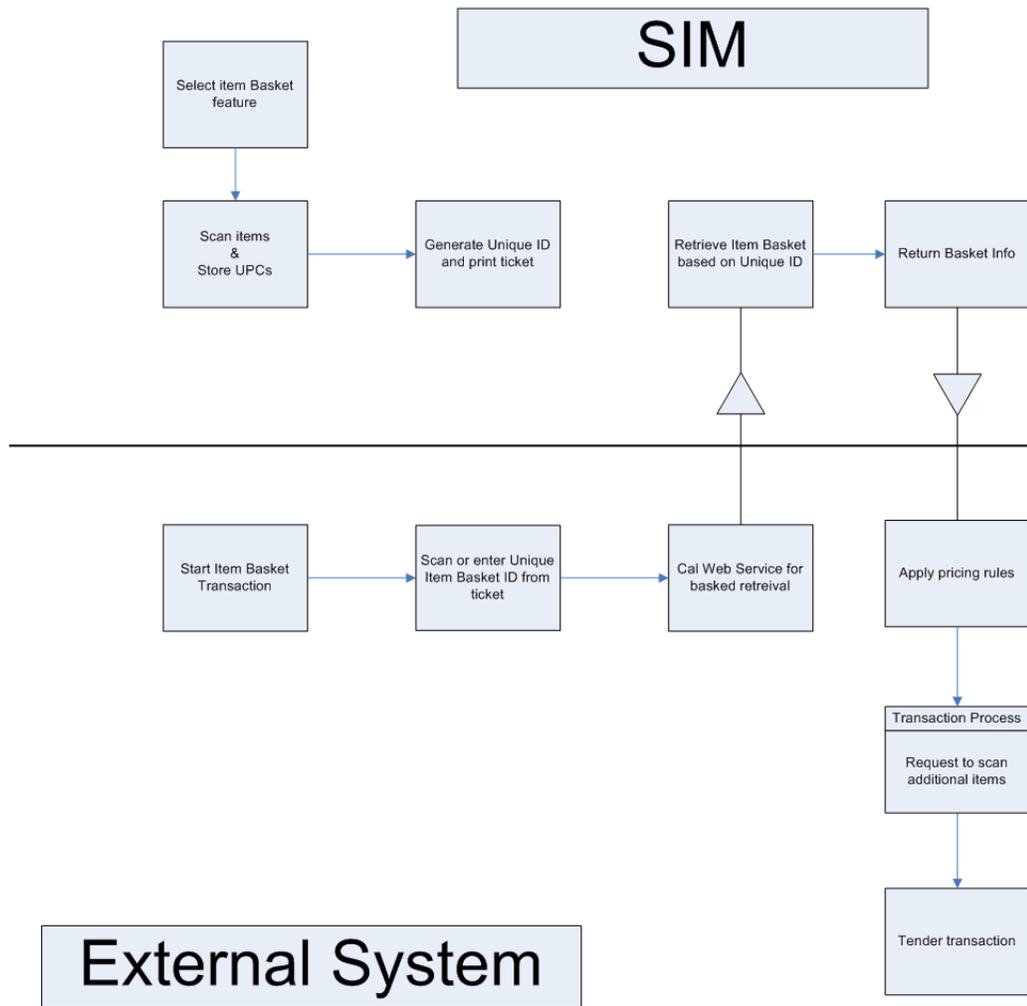
An external system, such as a POS, can scan the barcode of the ticket or enter the ID and make a web service call to SIM to retrieve the basket information.

The process consists of two parts. The first part is the creation of the Item Basket using the handheld. The second part is interfacing the details of the Item Basket to another system.

## Business Case

The retailer uses the Item Basket functionality in their store at the check out to "line bust" when the lines are long. The SIM handheld device is used to create an Item Basket which is retrieved by the POS using a web service to complete the sale.

**Figure 18-1 Business Process flow**



## Configurations

This section covers store parameters and security.

### Store Parameters

Parameters for Item Basket printing:

- Values: Manual / Automatic
- Default: Manual
- Topic: Item Basket
- Editable: Yes
- Automatic: the Item Basket ticket is printed when the transaction is complete.
- Manual: the system does not automatically print the ticket. The user has the option to print the Item Basket ticket using the handheld options.

### Security

Security exists for the following:

- Accessing, creating, deleting, saving, and printing an Item Basket
- Adding to and deleting items from an Item Basket

## Processing

Item Basket is a feature only on the SIM handheld. It is located under the Inventory Management menu and is used to create a list of items and quantities. When creating an Item Basket, the user selects the type of Item Basket to create. The retailer can define various different types of Item Baskets necessary for their business in the database.

Once the type is selected, the next step for the user is to enter an Alternate ID for the basket. This ID can be anything (member ID, random number, and so on). It is used to identify the basket at an external systems (such as a point-of-sale system).

Items are entered/scanned along with the quantities to be added to the basket. Items can be added and removed from the basket. Once all items have been added, the basket can be saved. Item Baskets can be edited as well as deleted.

When an Item Basket is printed, a ticket with a possible barcode is printed that can be used to enter/scan at the POS system later to identify the Item Basket. Printing can happen by selecting the print option from the summary. Printing can also happen automatically upon saving the Item Basket, if the system is configured for automatic printing.

## User Interface Guidelines

Item Basket functionality only exists on the handheld.

## Technical

The Item Basket process is designed to allow retailers to pre-scan the items in a customer's cart so as to reduce the item required at the checkout. At check out at the register, the sales associate only needs to scan the Item Basket tag, which will retrieve the items., calculate the pricing, and handle the payment.

The process consists of two parts. The first part is the creation of the Item Basket using the handheld. The second part is interfacing the details of the Item Basket to the external system.

From a technical approach, Item Basket and all related items are designed like all other transactions in SIM: with a single header record and one or more detail records.

Business objects are used within the application code for all business processing.

Business Object	Description
ItemBasket	Item Basket is simply a collection of items and quantities that get persisted to the database.
ItemBasketLineItem	Item Basket Line Item contains attributes and logic for a single item within an Item Basket.
ItemBasketType	Contains information about various Item Baskets.

## Integration

This section covers integration of Item Basket.

## RIB

This functional area does not integrate using RIB to any other Oracle Retail products.

## Web Service

SIM supplies an Item Basket SOAP web service. The service operations are supported:

<b>Service Operation</b>	<b>Description</b>
lookupItemBasketTypes	Retrieves all Item Basket types.
readItemBasketDetail	Reads Item Basket detailed information by SIM internal reference.
readItemBasketDetailByExtID	Reads Item Basket detailed information by reference external to SIM.
deleteItemBasket	Deletes an Item Basket.
saveItemBasket	Creates or updates the detailed information of an Item Basket. This operation requires having an activity lock.

## Data Structure

The following database tables are used by SIM:

<b>Table Name</b>	<b>Description</b>
ITEM_BASKET	Contains Item Basket header information such as user ID, create-date, update-date, store ID, and customer reference.
ITEM_BASKET_LINE_ITEM	Contains detailed item level information for all the line items in the Item Basket.
ITEM_BASKET_TYPE	Contains the type of Item Basket.

This chapter covers ordering. The following topics are covered:

- **Item Requests:** Request inventory for individual items.
- **Store Orders:** Request inventory for purchase orders and warehouse transfer requests.

## Item Requests

This section covers inventory requests for individual items.

### Overview

Item Requests provide the ability for the store to request inventory for individual items. Inventory can be requested for items that are ordered by the central merchandising system or for items that are fully replenished based on store requested demand. The inventory is sourced to the store based on the corporate replenishment setup. This can be either a delivery from a warehouse or a drop ship from the supplier. The actual sourcing, delivery timings, and final quantities remain a function of the replenishment system.

Features include:

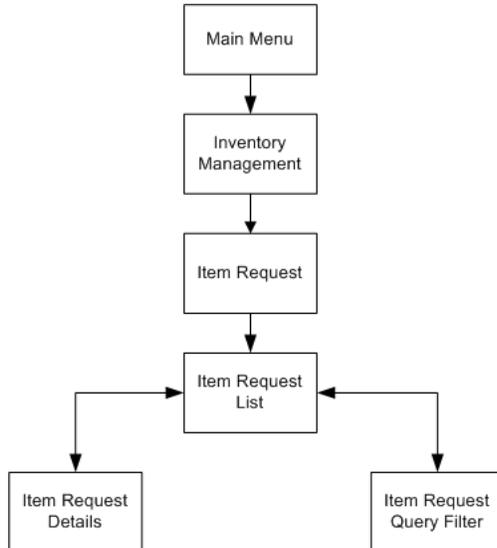
- Manual creation of item requests
- Scheduled item requests
- Saving of item requests
- Editing and deleting saved manual and system-created item requests
- Printing of the Item Request Report
- Each item request will have a requested delivery date
- Item Requests may have a delivery timeslot

### Business Case

- A retailer has certain items that are needed at different times of the day. Within an item request, a timeslot for the delivery can be specified, so it is possible to order doughnuts in the morning, sandwiches at lunch, and hot meals in the evening.
- A retailer realizes that they are often out of dairy items or have too much spoilage because of very variable customer purchase habits. The retailer decides to have the store order what is needed by scheduling an item request product group for the Dairy Department for each Monday. An item request is generated on Monday for

the dairy items and the retailer walks through the items on the request and enters in the needed quantity. The item request is fired off to the merchandising system and three days later the items arrive at the store on a warehouse to store transfer or supplier direct deliveries.

**Figure 19–1 Item Request PC Screen Flow**



Item requests exist under the Inventory Management menu. From the Item Request List screen, the user can filter the item request records as needed. The user can create, view, edit, save, and confirm item requests.

## Configurations

This section covers system parameters, store parameters, and security.

### System Parameters

#### Item Request UI Limit

- Values: 1 - 100,000
- Default: 1500
- Topic: UI
- Editable: Yes
- This parameter is used when breaking down the item request into smaller, more manageable item request transactions. This limitation is in addition to the value entered by the user on the Product Group Detail screen, which also helps to limit the size of the transaction.

### Store Parameters

#### Display Item Request Delivery Timeslot

- Values: Yes/No
- Default: Yes
- Topic: Item Request

- Editable: Yes
- Yes: The delivery timeslot will be used within item requests.
- No: Delivery timeslots will not be used, and will not be displayed in item requests.

### Security

Security exists for:

- Accessing, creating, editing, deleting, and requesting an item request.
- Adding items to item requests.
- Data permissions for the delivery timeslots.

## Functionality

This section describes the available screens.

### Item Request List

**Figure 19–2** *Item Request List Screen*

Request ID	Request Deliver...	Dept	Request Descri...	Exp Date	Status	Lines	User
41	8/7/2014	1111			Completed	1	Sim_User
42	8/7/2014	2201			Pending	1	Sim_User

Item requests are requests for goods within the store driven by a store user. The Item Request List screen displays all of the item requests that are in a "Pending" status. A Filter option is available to further search on the item request record. All item requests can be found in this dialog, those created within SIM manually as well as the system generated. The system-generated item requests will have a description which will be that of the product group schedule. All item requests will have a department populated, which will have the department which makes up most of the items on the item request. If there is more than one department on the item request, then a "+" sign will follow the department name.

From the Item Request List screen, the user has the potential to perform numerous tasks. The user can print, create, and delete an item request. The user can double click an item request which allows for viewing and editing.

## Item Request Filter

**Figure 19–3** Item Request Filter Screen

The Item Request Filter screen is accessed by selecting the Filter button on the Item Request List screen. The filter allows a user to search for item requests using various search criteria. After applying the filter, the user will be returned to the Item Request List screen with the item requests displayed per the entered criteria.

## Item Request Detail

**Figure 19–4** Item Request Detail Screen

Item	Item Description	Available SOH	In Transit	UOM	Pack Size	Qty	Request Timeslot
100250242	100250162 Test ite...	0	0	Cases	12	3	
100250322	100250251 Item par...	0	0	Cases	1	4	

The user access the Item Request Detail screen when selecting an item request or the Create option from the Item Request List screen.

## Manual Item Request

The manual creation of an Item Request involves defining a requested delivery date. This is the date in which the goods are needed into the store. The requested delivery

date must be greater than or equal to today. Any store order replenishment item added to the item request in which the store order reject indicator is set to "Yes" will need to have a requested delivery date on the request greater than the next delivery date for the item, or the item cannot be requested. These dates, flags, and settings are set up in the external replenishment system.

The request delivery timeslot can be selected at the header of the request and will be used to default to all new store order items added from that point onwards. The user can modify the timeslot on the item level if needed. The timeslot is used to specify a time during the day in which the items are needed, thus allowing for multiple delivery times in the day. Timeslots can only be defined for items which are store order replenishment items. The data permissions exist for delivery timeslots.

At the line item level, items are added to the item request. The system will show the available stock on hand as well as the in transit quantities to assist in the request making process. All items need a quantity even if it is zero to indicate no inventory is needed. Items must be ranged items to the user's store in order to be added. This is necessary, otherwise, processing cannot occur on the request in RMS.

The user can print an item request, save the item request into "Pending" status to complete later, or request complete the item request ("Completed"). Once the item request is completed it can no longer be edited. There are no inventory updates for item requests. The request is published to the merchandising system to be processed.

## System-Generated Item Request

The system generated item request calculates the requested delivery date as well as the expiration date based on the product group; it cannot be edited. The system-generated item request will be populated with the items that get generated from the item request batch based upon the Item Request Product Group. These items can be deleted, and new items can be added. All other details for a system-generated item request are the same as that of the manual creation.

## Product Group Detail - Attributes

**Figure 19–5 Product Group Detail Attributes Screen**

The Product Group Detail screen is used for various tasks within the application. For more details, see [Chapter 2, "Admin and Configuration."](#) Item Request Product Groups are used to create groups of items that will be put into system-generated item requests. These system-generated item requests can be used as a worksheet and modified before completing and sending out.

The value entered into Days before Expiration will be added to the system date to calculate the expiration date for the item request. This is the date by which the user must request the items. This value will be used during the batch process to cancel old "pending" item requests. The days before delivery value will be added to the system date to derive the requested delivery date for system-generated item requests. The requested delivery date must be greater than the expiration date.

## Product Group Detail - Components

**Figure 19–6 Product Group Detail Components Screen**

Items, Supplier, Promotion ID, and Hierarchy can be added as product group elements to the product group. When adding individual items to the product group, it does not matter if the item is store orderable or not, the item will get added to the item request. For all other elements, the item will only get added to the item request if it is store orderable. For more information, see ["Batch."](#)

## Product Group Schedule Detail

**Figure 19–7** Product Group Schedule Detail Screen

System-generated item request product groups are scheduled using the Product Group Scheduler. A start and end date is defined along with a schedule for when it should reoccur. Those groups scheduled for today are generated upon completing the schedule whereas the others will be processed through the Item Request batch.

### RMS Processing

A SIM user is able to use item request functionality to request items regardless of the replenishment type normally used by the merchandising system to replenish the item. All items are sourced from either a warehouse or through a supplier depending on the sourcing parameters for the item specified in the replenishment system. Items specified as using Store Order replenishment (or items that are not set up for auto-replenishment at all) are sourced through the creation of one-off purchase orders or warehouse transfer requests only after the store has requested inventory using the Item Request functionality. There is no correlation in SIM between the purchase order/transfer and the item request.

Any quantities requested for items that have a replenishment type other than Store Order are added above and beyond the quantity that is normally sourced through the replenishment system on the item's next replenishment review date. However, if the requested delivery date falls prior to the item's next replenishment review date, the request is sourced through the creation of a one-off purchase order or warehouse delivery instead. All inventory requested is sourced to the store at the earliest possible date given the replenishment review date, the supplier or warehouse lead time, and any other factors that may influence the time it takes a delivery to reach the store.

### User Interface Guidelines

The Item Request dialog allows for creating, editing, and deleting of item requests on the PC and handheld.

Item requests can only be scheduled using the Product Group and Product Group Schedule on the PC.

## Technical (Item Requests)

SIM allows for creation of manual as well as system-generated item requests. Once created, from a technical point of view, the processing logic is the same for both manual and system-generated item requests.

From a technical perspective, item requests are also designed to have a single header record and one or more detail records.

Business objects are used within the application code for all business processing. The following business objects are used for item requests:

Business Object	Description
ItemRequest	Contains header information about the item request including status.
ItemRequestLineItem	Contains detailed information about a specific item on the item request including order quantity and delivery timeslot.

## Integration

This section provides information on the integration for item requests.

### RIB

Once an item request is created and requested in SIM, an outbound message with MESSAGE\_FAMILY as InvReq and MESSAGE\_TYPE as InvReqCre is created. This message contains the header as well as detail records for the item request. The message is staged and then published to the merchandising system through RIB.

RIB Payload	Description
InvReqDesc	RIB payload that contains information about destination of the request, the request type, and an InvReqItem.
InvReqItem	Contains detailed information about the item including the quantity.

### Web Service

SIM supplies the Item Request Web Service:

Service Operation	Description
lookupDeliveryTimeSlot	Retrieves all delivery time slots.
lookupItemRequestHeader	Retrieves item request headers based on search criteria. The header does not contain item related information.
readItemRequestDetail	Retrieves fully detailed information about an item request.
cancelItemRequest	Cancel the item request.

## Batch

### System-Generated Item Requests

The Item Request batch will run and find all of the item request product group schedules with schedule dates of the date of the batch execution. The system will take all items attached to the product group and put them on the item request. Items that were added to the product group as a hierarchy, supplier, or promotion will only be added to the item request if they are store order replenishment items and inventory holding. Individual items will be added regardless of being a store order defined item.

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**Note:** Franchise and consignment items will also not be extracted.

---

If there are any items that are marked as store order items with a Reject Store Indicator of "Yes," the requested delivery date must be after the next delivery date for the item, or those items will not be put on the item request.

If there are pending system-generated item requests out there already, the batch will validate that the expiration date and requested delivery date (defined on the product group) have not passed yet. If they are in the past, then they will get updated to "Canceled."

## Data Structure

The following database tables are used in item requests:

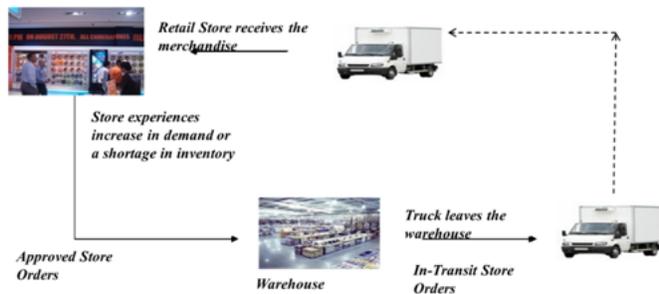
Table Name	Description
ITEM_REQUEST	Contains item request records with the requested delivery date.
ITEM_REQUEST_LINE_ITEM	Contains detailed records for an item on item request along with the requested quantity and delivery slot ID.
DELIVERY_SLOT	Contains delivery slot information which is used by each line item on item request.
RPRT_ITEM_REQUEST_V	This view contains item request header information as well as detailed item records for an item request.

## Store Orders

This section covers inventory requests for purchase orders and warehouse transfer requests.

### Overview

The Store Orders functionality gives the user the ability to request inventory using both Purchase Orders and Warehouse Transfer Requests in the merchandising system (RMS) from within the store. It empowers the store by giving the store user the ability to manage stock shortages and increased demand. When creating a store order, the user can select either a warehouse or a supplier as the source and add the items and quantities required to the order. The Store Orders functionality will then use web services to communicate with the merchandising system (RMS) in order to validate that all of the data is correct before creating (and/or approving) the store order.

**Figure 19–8 Store Orders Workflow**

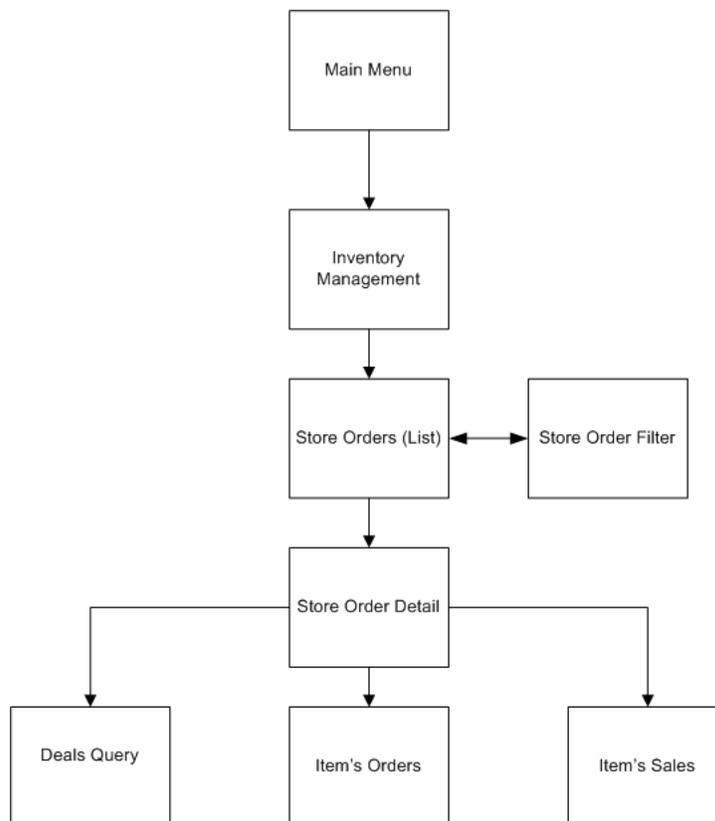
Store ordering also provides the ability to view, create, modify, and approve orders generated through the replenishment process before they are approved. Store orders allow for the manipulation of the transfer or order directly in RMS.

This workflow illustrates how a retail store notices a sudden increase in demand, places the order to the warehouse which can act promptly to deliver the ordered items.

Store Orders functionality only exists on the PC application.

### Business Case

- A retailer has milk and eggs that are set up on semi-auto replenishment. A Purchase Order gets generated in RMS for the milk and eggs in Worksheet status. The store manager opens the Purchase Order for the milk and eggs within the Store Orders dialog. The manager updates the quantities and approves the purchase order.
- A retailer has a need to order more cornflakes due to the high demand of a current promotion. A retailer creates a store order to the warehouse for more boxes of cornflakes.

**Figure 19–9 Store Orders PC Screen Flow**

Store orders exist under the Inventory Management menu only on the PC application. From the Store Orders (list) screen, the user can filter store orders records as needed. The user can create, view, edit, save, and confirm store orders.

## Configurations

### System Parameters

#### Restrict Store Purchase Orders to Store Orderable Items

- Values: Yes/No
- Default: Yes
- Topic: Store Orders
- Editable: Yes
- Yes: Only Store Orderable replenishment type items will be allowed to be added to the store order.
- No: Any item can be added to the store order.

#### Display Unit Cost for Direct Deliveries

For details, see [Chapter 9, "Direct Store Delivery."](#)

## Functionality

This section describes the available screens.

## Store Orders (List)

Figure 19–10 Store Orders Screen

Order ID	Source	Date	Status	Not Before Date	Not After Date	User
00000004073	Test	11/23/12	Pending	11/24/12	11/24/12	
00000004049	Test	08/18/12	Pending	08/12/12	08/19/12	
00000004042		08/18/12	Pending	08/17/12	08/19/12	
00000004074		08/18/12	Pending	08/17/12	08/19/12	
00000004087		08/18/12	Pending	08/17/12	08/19/12	
00000004096		08/18/12	Pending	08/17/12	08/19/12	
00000004782		08/18/12	Pending	08/17/12	08/19/12	
00000004786		08/18/12	Pending	08/16/12	08/16/12	
00000004787		08/18/12	Pending	08/16/12	08/16/12	
00000004789		08/18/12	Pending	08/16/12	08/16/12	
00000004791		08/18/12	Pending	08/16/12	08/16/12	
00000004792		08/18/12	Pending	08/16/12	08/16/12	
00000004793		08/18/12	Pending	08/16/12	08/16/12	
00000004795		08/18/12	Pending	08/16/12	08/16/12	
00000004809		11/23/12	Pending	11/23/12	11/23/12	NETWORKAL_BMSIS
00000004806		11/23/12	Pending	11/23/12	11/23/12	NETWORKAL_BMSIS
00000004807		11/23/12	Pending	11/24/12	11/24/12	NETWORKAL_BMSIS
00000004808		11/23/12	Pending	11/23/12	11/23/12	BMSISAPP
00000004807		11/23/12	Pending	11/23/12	11/23/12	BMSISAPP
00000004808		11/23/12	Pending	11/23/12	11/23/12	BMSISAPP

The Store Orders screen displays all of the store orders that are in a "Pending" status within SIM. "Pending" records are those Purchase Orders that are in "Worksheet" or "Submitted" and those Warehouse Transfers that are in "Input" or "Submitted" within RMS. A Filter option is available to further search on the store order record.

From the Store Orders screen, the user has the potential to perform numerous tasks. The user can print, create, and delete store orders. A user can double click a store order in the list which allows for viewing and editing.

## Store Order List Filter

Figure 19–11 Store Order List Filter Screen

The Store Order List Filter is accessed by selecting the Filter button from the Store Orders screen. Criteria can be entered and applied. The results will display on the Store Orders screen.

## Store Order Detail

**Figure 19–12 Store Order Detail Screen**

The Store Orders Detail screen is accessed through the Create button or by selecting a store order from the Store Orders screen. The first step in creating a store order is to define a source for the order of either Warehouse or Supplier. The source can only be selected when creating a new transaction.

- **Supplier**

The Supplier ID can be entered, or the user can use the Supplier Lookup function to identify a supplier. The supplier must be an Active supplier. The Not After Date, which is the latest date the items can arrive into the store, will be enterable for store orders to a supplier. All items added to the store order must be supplied by the selected supplier. The unit cost (Item/supplier/country) can be displayed and edited for the item on the store order, if the system is configured.

- **Warehouse**

For store orders sourced by a warehouse, the user must first select a warehouse from the list of warehouses. All items added to the store order must exist at that warehouse.

Non-ranged items cannot be added to store orders. The system can be configured to restrict the items added to the store order to those which are Store Orderable replenishment items. The store order can be saved as "Pending" to complete at a later time or "Approved" and changes can no longer be made.

## Item Orders

**Figure 19–13** *Item Orders Screen*

Order ID	Source	Date	Status	Not Before Date	Not After Date	Qty
103000106839		7/23/12	Pending	7/23/12	7/23/12	10
103000108936		7/23/12	Pending	7/23/12	7/23/12	10

The Item Orders Screen is accessed by the Item's Orders button on the Store Order Detail screen. The Item Orders lists the store orders (associated with the user's current login store) that contain the item selected on the Store Order Detail screen (regardless of the status of the store order). The system will display only single location Purchase Orders and Warehouse Transfer Requests.

## Item Sales

**Figure 19–14** *Item Sales Screen*

End of Week Date	Qty	Sales Value	Sales Type
------------------	-----	-------------	------------

The Item Sales Screen is accessed by the Item's Sales button on the Store Order Detail Screen. The Item Sales screen lists the current login store's (historical) weekly sales figures for the item selected on the Store Order Detail Screen.

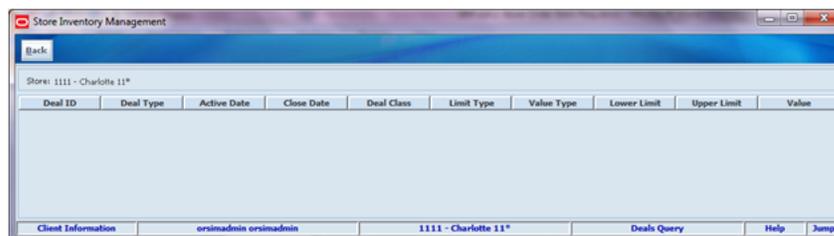
---

**Note:** This will display as many weeks of sales data as RMS holds history.

---

## Deals Query

**Figure 19–15 Deal Query Screen**



The Deals Query screen is accessed through the Deals button on the Store Order Detail screen. It will display all deals associated with the selected item and supplier on the store order. The deal must be active and after the Not Before Date but less than the Not After Date of the store order. Deals are only available for store orders sourced by a supplier.

## Processing

The SIM statuses will map to statuses in RMS as follows:

<b>SIM Status</b>	<b>RMS PO Status</b>	<b>RMS Warehouse to Store Transfer Request Status</b>
Pending	Worksheet	Worksheet
Approved	Approved/Submitted	Approved/Submitted
Closed	Completed	Closed

Purchase Orders that are created and approved using the Store Orders dialog in SIM will integrate from RMS to SIM using RIB (purchase order message) and appear within the Direct Store Delivery Dialog (Purchase Order List).

Warehouse to Store Transfers that are created and approved using the Store Orders dialog in SIM will integrate from RMS to SIM using RIB (transfer message) and appear as Planned Warehouse and Delivery on the Item Detail screen.

## User Interface Guidelines

The Store Orders dialog only exists on the SIM PC application.

## Technical (Store Orders)

The Store Orders functionality gives the ability to view, create, modify, and approve both purchase orders and warehouse transfer requests in the merchandising system (RMS) from within the SIM application directly.

From a technical approach, store orders are designed to have a single header records and one or more detail records.

When creating a store order, the user can select either a warehouse or a supplier as the source and add the items and quantities required to the order. The store orders functionality will then use APIs to communicate with the merchandising system (RMS) in order to validate that all of the data is correct before creating (and/or approving) the store order.

Once a store order is created in SIM, it invokes the external web-services and passes the object "StoreOrder" to create/modify the store order in RMS. Once the order is created, it returns the order ID.

Business objects are used within the application code for all business processing. The following business objects are used for store orders:

<b>Business Object</b>	<b>Description</b>
StoreOrder	Contains header-level information on store order and a group of StoreOrderLineItems associated to it.
StoreOrderLineItem	Contains detailed information about a single line item on a store order.
ItemSale	Contains information on item sales that includes sales value, quantity, and sales type.

### **Integration**

This section provides information on the integration for shelf replenishment.

### **RIB**

There is no integration through RIB to other Oracle Retail products.

### **Web Services**

SIM supplies a number of SOAP web services for the processing of store order and their related transactions. Each area is its own service containing relevant operations.

SIM supplies the StoreOrder Web Service SOAP web service which has following service operations:

<b>Service Operation</b>	<b>Description</b>
findStoreOrders	Find all the store orders that match the criteria in the filter.
updateStoreOrderLineItems	Updates all the store order line items for the store order inserting new lines if they exist.
create	Create a store order in the system.
update	Update a store order within the system.
delete	Delete a store order from the system.
findItemSales	Find the item sales for a store and item.
findDeals	Retrieves deals for the parameters criteria.
pingExternalService	Contact the external service and transmit the message to see if the external service is functioning.
createTempRecordsForPrint	Create a store order in the system for printing.

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## Customer Order Management

This chapter covers customer order management. The following topics are covered:

- [Overview](#): Introduction to customer order management.
- [Customer Order Management](#): Description of available screens.
- [Customer Orders](#): Description of available screens.
- [Customer Order Picking](#): Description of available screens.
- [Customer Order Deliveries](#): Description of available screens.
- [Customer Order Reverse Picks](#): Description of available screens.
- [Multi-Leg Orders](#): Description of available screens.
- [Technical](#): Integration with Oracle Retail Integration Bus (RIB), web services, batch, and the database structure.

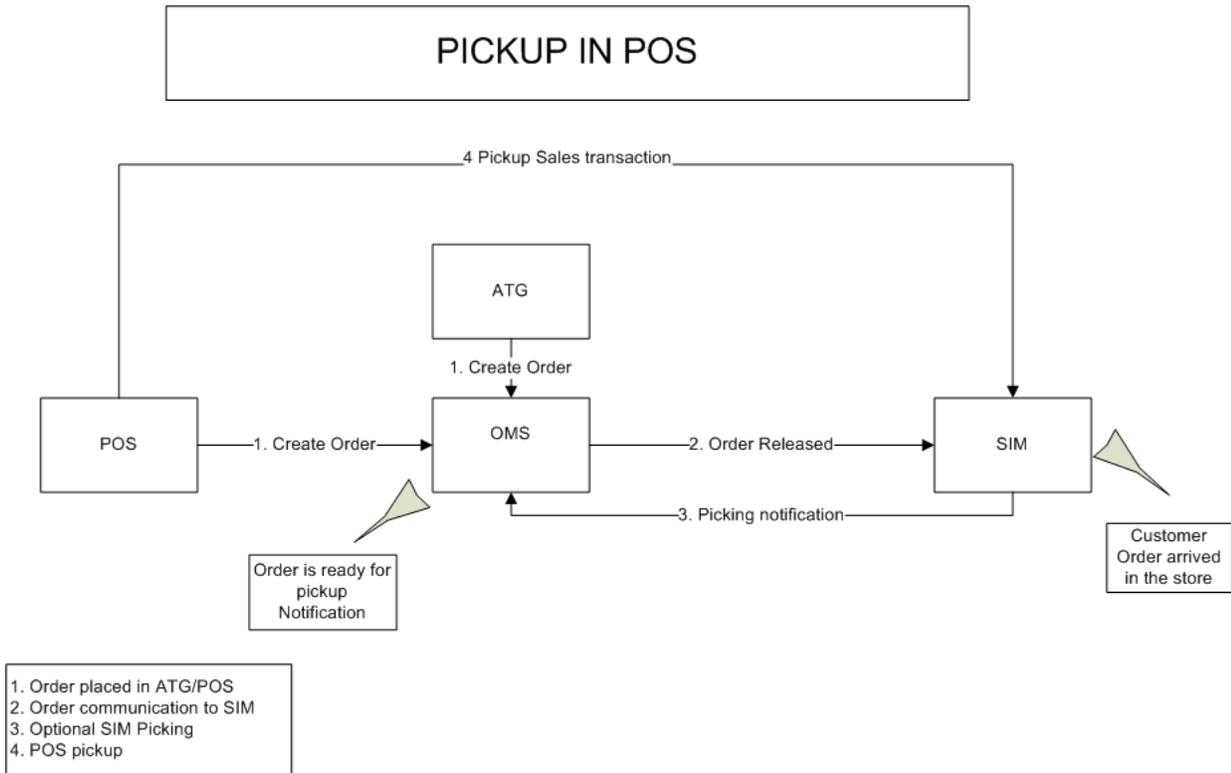
### Overview

In SIM, Customer Order Management is the opportunity for the retailer to engage in an end to end process of allowing retailers to execute orders placed in different channels and fulfilled through the supply chain, either from the store, warehouse, vendor, or third-party delivery mechanism.

Customer Order Management is a dialog that allows for the managing of all the inventory execution transactions associated to a customer order for a user's store. It is available on the PC, handheld, and MAF applications.

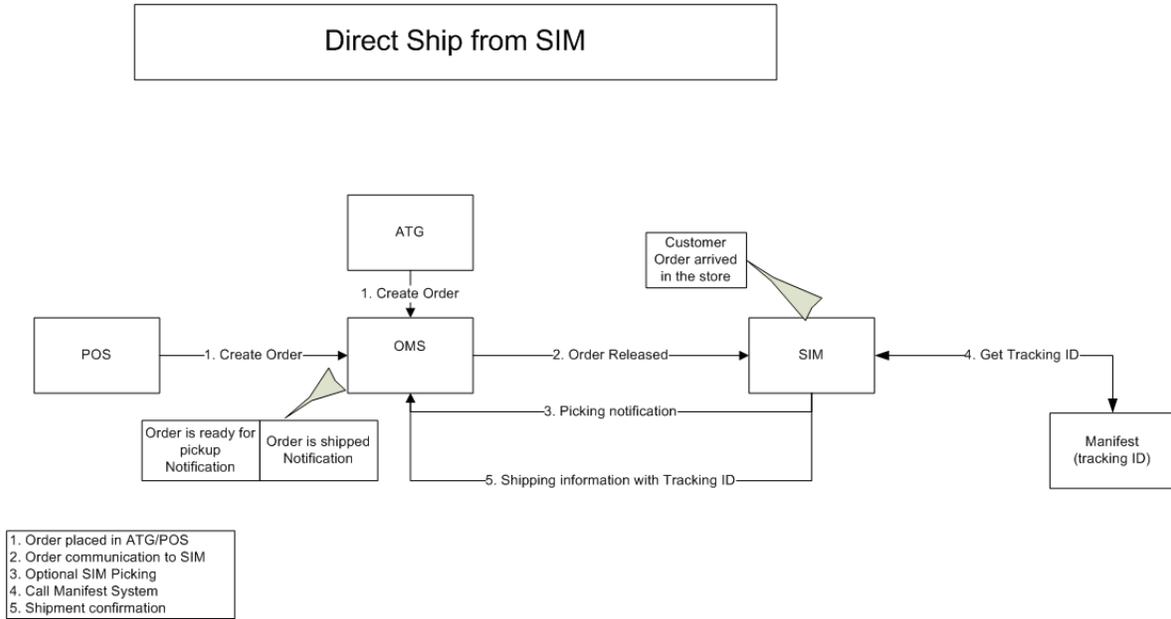
## Business Case

Figure 20-1 Pickup in POS Flow



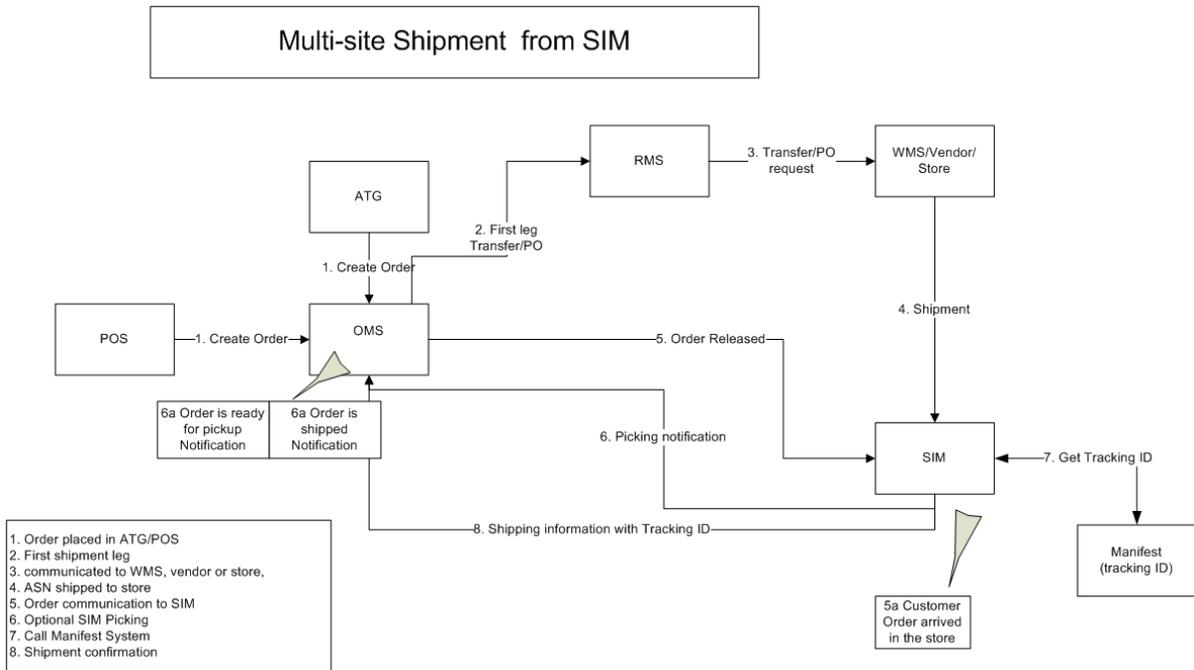
In this flow, the orders are created in ATG/POS and then sent to SIM from an Order Management System (OMS) system. When the order arrives in the store, a manager can be notified, who will then execute a pick that will let the OMS know the items are ready for pickup.

**Figure 20–2 Direct Ship from SIM Flow**



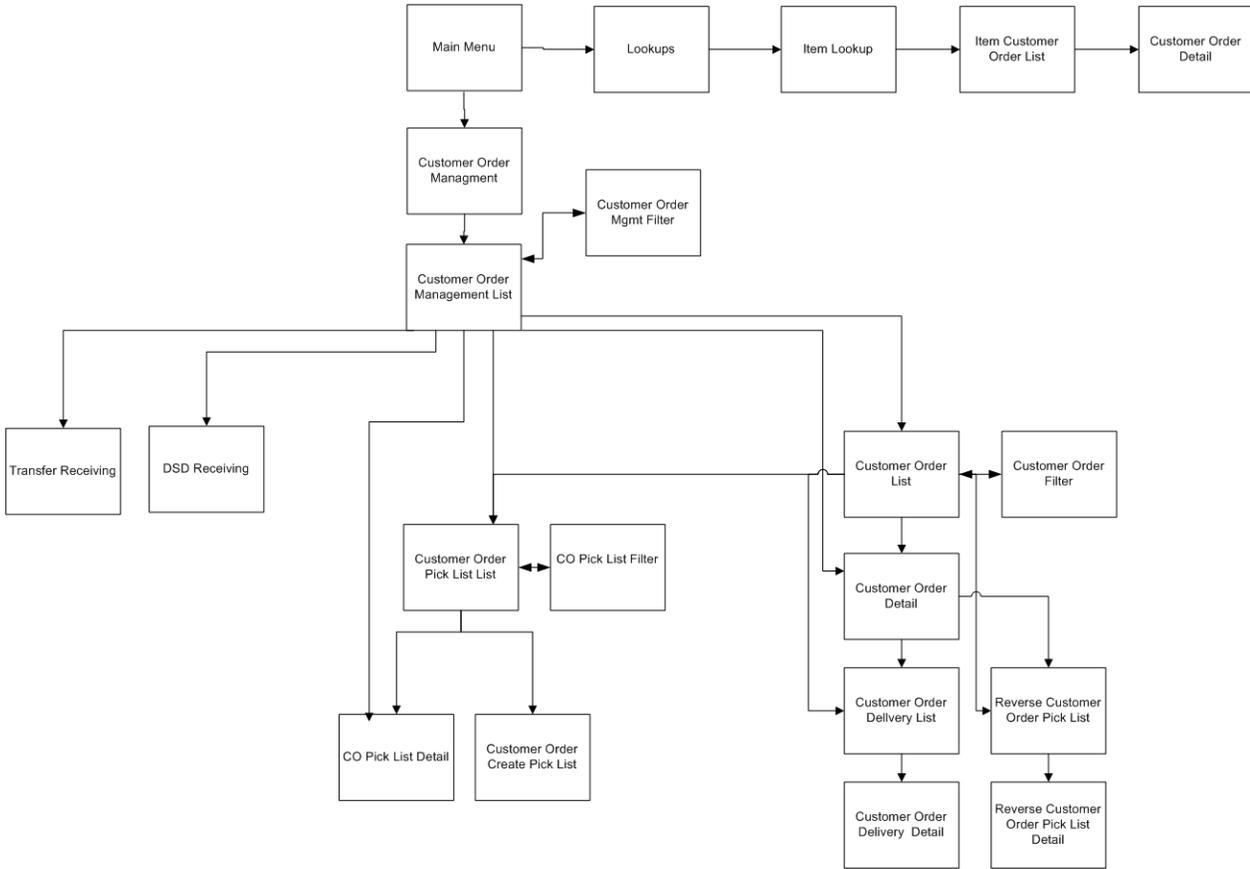
Similar to the previous flow, the order is created in ATG/POS. Next, the OMS sends this order to SIM. However after the picking process, SIM will allow the user to create a shipment. Optionally, a manifesting system can be contacted to print a carrier label for the package.

**Figure 20–3 Multi-Site Shipment from SIM Flow**



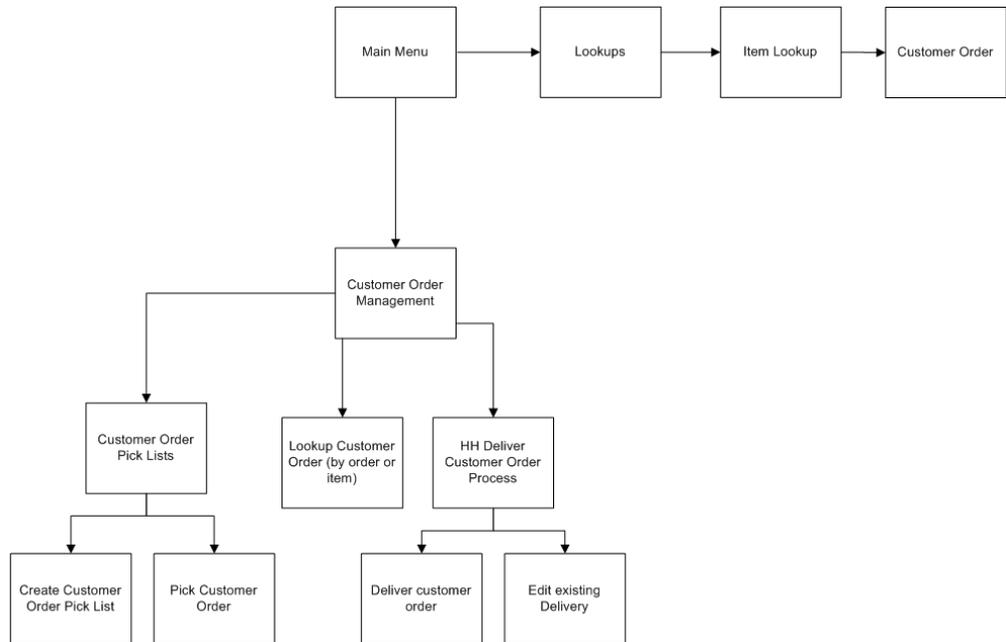
This workflow shows the need for a merchandising system, such as RMS, to handle the need for multi-site customer orders. These are orders where the store does not have the inventory to fulfill the customer order, but rather needs to have inventory shipped in from a warehouse, supplier, or other store.

Figure 20-4 PC Screen Flow



This flow depicts the screen flow for the Customer Order Management dialog on the PC application.

Customer Order Management is a dialog that is available in the Main Menu. From the Customer Order Management List (task screen), the user has access to the Customer Orders dialog which includes: Customer Order Picking, Customer Order Reverse Picking, and Customer Order Deliveries. Lastly, Transfers, and Direct Store Receiving which are for customer orders are also accessible.

**Figure 20–5 Handheld Screen Flow**

Similar to the PC application, the handheld also has a customer order management dialog.

Customer Order Management on the handheld consists of looking up orders as well as creating picks and deliveries for the customer orders.

## Customer Order Management

This section covers the customer order management functionality.

### Configurations

This section covers system parameters and security.

#### System Parameters

##### Search Limit for Customer Order Management

- Values: 1-999
- Default: 500
- Topic: UI
- Editable: Yes
- Defines how many records will be returned in the Customer Order Management List screen. This parameter is only used for the default search limit; the user can still choose to override this value.

#### Security

Security permissions exist for accessing the Customer Order Management dialog on the PC and handheld.

## Customer Order Management List

**Figure 20–6 Customer Order Management List Screen**

Tran ID	Tran Type	Customer Order	Source	Destination	Date	Tran Status	Total SKUs	User
3465	DSD Receiving	DP1032	281731884 RHS_ITEM...	1411 Seattle	Aug 4, 2015 4:44:08 AM	In Progress	2	EXTERNAL
2544	DSD Receiving	DP1056	281731884 RHS_ITEM...	1411 Seattle	Aug 4, 2015 4:44:08 AM	In Progress	2	EXTERNAL
3421	DSD Receiving	DP1030	281731884 RHS_ITEM...	1411 Seattle	Aug 4, 2015 4:44:08 AM	In Progress	2	EXTERNAL
3821	DSD Receiving	DP1032	281731884 RHS_ITEM...	1411 Seattle	Aug 4, 2015 4:44:08 AM	New	2	EXTERNAL
4161	DSD Receiving	DP1033	281731884 RHS_ITEM...	1411 Seattle	Aug 4, 2015 4:44:08 AM	New	2	EXTERNAL
4241	DSD Receiving	DP1034	281731884 RHS_ITEM...	1411 Seattle	Aug 4, 2015 4:44:08 AM	New	2	EXTERNAL
4242	DSD Receiving	DP1034	281731884 RHS_ITEM...	1411 Seattle	Aug 4, 2015 4:44:08 AM	In Progress	2	EXTERNAL
1605	Transfer	11	2001 Company Close...	1411 Seattle	Aug 12, 2015 1:29:38 ...	Requested	1	EXTERNAL
1689	Transfer	12	1411 Seattle	2001 Company Close...	Aug 12, 2015 6:22:23 ...	Requested	1	EXTERNAL
1	Customer Order	RS1004			Aug 11, 2015 11:30:4...	In Progress	1	
48	Customer Order	DP10002			Aug 14, 2015 1:06:42 ...	In Progress	1	
81	Customer Order	DP10008			Aug 24, 2015 3:44:24 ...	In Progress	1	
101	Customer Order	DP1009			Aug 25, 2015 1:06:52 ...	In Progress	1	
102	Transfer Receiving	12	1411 Seattle	2001 Company Close...	Aug 27, 2015 4:02:51 ...	New	1	Divya
221	Customer Order	DP1020			Aug 28, 2015 1:05:21 ...	In Progress	1	
222	Customer Order	DP1011			Aug 28, 2015 1:05:51 ...	In Progress	2	
241	Customer Order	DP1014			Aug 28, 2015 3:01:23 ...	In Progress	2	
242	Customer Order	DP1015			Aug 28, 2015 3:06:07 ...	New	2	
261	Customer Order	DP1016			Aug 31, 2015 1:21:30 ...	New	2	
281	Customer Order	DP1020			Sep 1, 2015 9:49:18 AM	New	2	
1402	Transfer Shipment	5	2001 Company Close...	1411 Seattle	Sep 8, 2015 8:12:00 AM	In Progress	2	Ehsari
141	Customer Order	DP1034			Oct 1, 2015 4:12:49 AM	In Progress	2	
241	Delivery	DP1010	1411 Seattle		Oct 28, 2015 3:22:45 PM	In Progress	1	SIM_USER

The Customer Order Management List screen is a task oriented screen. The purpose is to give the user access to all transactions which are associated to a customer order within SIM for the user's store.

The Customer Order Management List screen is a view only list screen and defaults to all customer order transaction records which are in an "Open" status. "Open" status does not correlate to the actual status of the transaction, but rather the order is open and an action still needs to take place. For example, new or in progress customer orders would be considered "Open."

The filter button allows the user to filter on additional criteria for the transactions if necessary. The user can choose to double click a transaction and the system will navigate to the details for that transaction. Upon leaving that transaction, the user will return back to the Customer Order Management List. Lastly, the user can navigate to the Customer Order dialog or the Picking dialog using the buttons at the top.

Transactions available within the Customer Order Management dialog include: customer orders, picks, deliveries, reverse picks, DSD receiving, and transfers. DSD receiving and transfers will be restricted to only those transactions that are affiliated with a customer order fulfillment order. Selecting one of these transactions will take the user to the details of that transaction within the existing corresponding dialog (that is, the Transfer Detail screen).

## Customer Order Management Filter

**Figure 20–7 Customer Order Management Filter**

The Customer Order Management Filter screen is accessed through the filter button on the Customer Order Management List screen. The user can enter in various search criteria to return records which are associated to a customer order. The results will be displayed on the Customer Order Management List screen.

## Customer Orders

Customer Orders may be used for POS pickups and layaways. These transactions can be viewed within the Customer Order dialog, however they are not editable in SIM. The orders are fully fulfilled by the external system.

The customer order dialog also allows for consumer direct ordering. Consumer direct ordering would be when the customer orders in the store, over the phone, or online. The customer order is then picked up in the store or it is shipped to the customer directly. These types of customer orders will be referred to as Web Orders within SIM. Note that they do not need to be placed through the web.

Web Order Customer Orders will come into SIM from an external system, the Order Management System (OMS). All customer orders from the web can have one or more fulfillment orders. A Fulfillment order is a subset of the customer order. Every Customer Order Fulfillment Order will have a unique system-generated SIM Customer Order ID associated to it.

For example, Customer Order 123 might have two fulfillment orders. One fulfillment order 333, might be for a DVD which is being shipped to the customer's brother, SIM customer order ID 1. The second fulfillment order 444 could be for a camera which will be picked up in the store by the customer, SIM customer order ID 2.

Note that all references to customer order in this document will be assumed to be Web Orders at the fulfillment order level.

## Configurations

This section covers system parameters, store parameters, notifications, and security.

### System Parameters

#### New Customer Order Email Alert

- Values: Yes/No
- Default: No
- Topic: Customer Order
- Editable: Yes
- This parameter generates a notification for a new cross channel (web order) customer order.

#### Minutes to Hold New Customer Order Before Sending an Email Alert

- Values: 0-999
- Default: 5
- Topic: Customer Order
- Editable: Yes
- This system parameter dictates the time interval in minutes to send a follow-up message to a store associated after a customer order (web order) has arrived, but no user has accessed the customer order.

#### Search Limit Default for Customer Orders - Mobile

- Values: 1-999
- Default: 50
- Topic: UI
- Editable: Yes
- This system parameter indicates the default search limit for the Customer Order List screen.

#### Display Item Image Customer Orders - Mobile

- Values: Yes/No
- Default: No
- Topic: Customer Order
- Editable: Yes
- Yes: Indicates if the item image will be displayed in Customer Orders. It is on Customer Order Items (item list) and Item Detail of Customer Orders.
- No: Image will not be displayed in Customer Orders.

### Store Parameters

#### Reserve Customer Order Inventory upon Receiving

- Values: Yes/No

- Default: No
- Topic: Customer Order
- Editable: Yes
- This parameter is used to determine if inventory will be reserved when the customer order comes into SIM from the external system or if inventory will be reserved when receiving a delivery of goods that is for a customer order. Retailers will set this parameter based upon their business practice:

If the retailer chooses to mainly fulfill customer orders from within the stock in the store, this parameter would be set to No, thus reserving inventory right away when the customer order is received.

However, if the retailer wishes to fulfill the customer orders from deliveries, for example getting the goods from the warehouse, then this option would be set to Yes to reserve upon receiving.

### **Notifications**

Notifications require proper security setup to be able to receive a notification. Only those users with the proper permission will get the notification.

New Customer Order Reminder Alert is triggered and controlled through a batch module. Every time the batch is run, it will look to see which web order customer order exists with a "New" status and has available inventory. Any orders with a status of "New" which have exceeded the "Minutes to Hold" system parameter will trigger an alert.

### **Security**

Security permissions exist for accessing the Customer and Customer Order Details. Security also exists for the notifications.

## **Customer Order List**

The Customer Order List Screen is accessed by clicking the customer order button from the Customer Order Management List Screen. It defaults to display those customer orders that are "Active," meaning they are "New" or "In Progress" status. If needed, a filter button is available to narrow the search criteria.

**Figure 20–8 Customer Order List Screen**

SIM Customer O...	Customer Order	Fulfillment Order	Type	Status	Total SKUs	Create Date	Release Date	Comments
11001	0111123130002		Pickup and Deliver...	In Progress	1	Sep 11, 2013 12:17...		
11353	0111123130018		Layaway	In Progress	1	Nov 17, 2013 11:17...		
11445	0111123130005		Pickup and Deliver...	In Progress	1	Dec 3, 2013 12:56:5...		
11342	0111123130002		Layaway	In Progress	2	Nov 17, 2013 11:18...		
11345	011112313000L		Pickup and Deliver...	In Progress	1	Nov 17, 2013 11:17...		
11354	011112313001D		Pickup and Deliver...	In Progress	1	Nov 17, 2013 11:17...		
11405	011112313000V		Pickup and Deliver...	In Progress	1	Nov 25, 2013 3:52:3...		
11404	0111123130011		Pickup and Deliver...	In Progress	1	Nov 23, 2013 5:39:1...		
11461	0404026		Pickup and Deliver...	In Progress	1	Dec 12, 2013 12:13...		
11344	0111123130008		Layaway	In Progress	2	Nov 17, 2013 11:16...		
11348	0111123130001		Layaway	In Progress	1	Nov 17, 2013 11:17...		
11353	0111123130018		Layaway	In Progress	1	Nov 17, 2013 11:17...		
11381	0111123130005		Pickup and Deliver...	In Progress	1	Nov 19, 2013 6:10:6...		
11390	0111124130003		Layaway	In Progress	1	Nov 17, 2013 11:17...		
11385	0111123130002		Layaway	In Progress	2	Nov 18, 2013 1:30:3...		
11444	0111123130003		Pickup and Deliver...	In Progress	1	Dec 3, 2013 12:46:5...		
11445	0111123130001		Pickup and Deliver...	In Progress	1	Dec 3, 2013 12:57:2...		
10322	0111123130002		Layaway	In Progress	4	Aug 7, 2013 5:28:23...		
10705	0111123130006		Layaway	In Progress	2	Sep 30, 2013 5:09:0...		
11341	0804		Pickup and Deliver...	In Progress	1	Oct 16, 2013 11:02...		
11343	0111123130003		Layaway	In Progress	1	Nov 17, 2013 11:16...		
10581	0111123130005		Layaway	In Progress	3	Sep 3, 2013 3:03:57...		
11355	0111123130002		Layaway	In Progress	1	Nov 17, 2013 11:17...		
11360	0111196130007		Layaway	In Progress	1	Nov 17, 2013 11:17...		
11362	0111196130009		Layaway	In Progress	3	Nov 17, 2013 11:17...		
10324	0111123130001		Special Order	In Progress	2	Aug 7, 2013 5:07:37...		
10341	0111123130003		Layaway	In Progress	3	Aug 7, 2013 3:20:12...		
11341	0111123130001		Layaway	In Progress	1	Nov 17, 2013 11:16...		
11346	011112313001D		Pickup and Deliver...	In Progress	1	Nov 17, 2013 11:17...		
11347	0111123130007		Layaway	In Progress	1	Nov 17, 2013 11:17...		

The Customer Orders List is used for the POS orders (on hold, layaway, and so on) as well as Web Orders to handle the consumer direct customer orders.

From this list screen, the user can navigate to the Delivery and the Reverse Pick dialogues for a specific customer order by selecting that order and then clicking the delivery or reverse pick button.

## Customer Order Filter

**Figure 20–9 Customer Order Filter Screen**

The Customer Order Filter screen is accessed through the filter button on the Customer Order List screen. The user can enter in various search criteria to return Customer Orders. The results will be displayed on the Customer Order List screen.

## Customer Order Detail

**Figure 20–10 Customer Order Detail Screen**

Item	Description	UOH	Pack Size	Remaining Qty	Order Qty	Picked Qty	Delivered Qty	Canceled Qty	Last Update...	Comments	Substitute
45678912345	Size GS1 Item 2 Units	1	1	0	0	0	0	0	Jul 23, 2014 L...	I'm testing th...	

This screen is accessed by double clicking a customer order from the Customer Order Management List, Customer Order List, or Item Customer Order (within Item Lookup) screens.

A few key fields include the following:

Delivery Type indicates how the goods are going to get to the customer, either Pick-Up or Shipment. This information comes in on the customer order. For the POS orders (layaway, on hold), this will always be set to pick up.

The Order Delivery Date is the date the order is to be delivered or picked up.

The Release Date is equal to the Delivery Date for Pickups. The release date for Shipments is calculated using the Delivery Date and subtracting the Average Delivery Days (defined in Database) which are defined for the carrier service. An example would be Delivery Date of August 15th, 2013. The service is 2 day delivery; therefore the release date would be August 13th, 2013.

Carrier displays how the order is being shipped (such as, FedEx and UPS). Service shows the carrier's duration of delivery such as 2 day or overnight, and so on, for those orders being shipped.

The Allow Partial Delivery field indicates whether all of the items on the customer order must be there on the delivery in order to ship or pickup. A value of Yes, means that all items must be present to create the delivery. Picked Quantity is a field that represents how much has been picked for the item.

The Substitute column shows the current line item where the item ID was substituted. So when a substitute gets added to the customer order during the picking process it will be added to the customer order. The original item will appear in the substitute column for the substituted item. Substitutes are only possible for Web Order types that are picked.

For those customer orders that are "New" or "In Progress," it is possible to reject the customer order. All items that have not yet been picked will be canceled/rejected. A system generated reverse pick will be created for the rejected items. For more information, see ["Customer Order Reverse Picks."](#)

## Customer Detail

The Customer Order Detail Screen is a view-only screen that displays the details for a customer associated with a customer order. This information will only be available for those customer orders which are Web Orders.

**Figure 20–11 Customer Detail Screen**

The screenshot shows the 'Customer Detail' screen for Customer ID 1234. It is divided into two main sections: 'Delivery Address' and 'Billing Address'. Each section contains fields for First Name, Last Name, Phone First Name, Phone Last Name, Preferred Name, Company Name, Address 1, Address 2, Address 3, Country, City, State, Zip Code, and Phone. The 'Billing Address' section also includes a 'Country' field set to 'USA' and a 'Phone' field set to '5554211'. At the bottom, there is a navigation bar with buttons for 'Client Information', 'Becky Hatfield', '1311 - Charlotte 11\*', 'Customer Detail', 'Help', and 'Jump'.

The Customer Detail screen will contain view-only information pertaining to the delivery and billing address for the customer. Security is a feature of the Customer Detail screen.

## Customer Order Notes

The Customer Notes popup screen allows the user to enter in notes or comments which pertain to the customer order fulfillment order.

**Figure 20–12 Customer Notes Popup**

The screenshot shows the 'Customer Order Notes' popup window. It contains a table with the following data:

Date	User	Note
12/8/2015 11:37 AM	retail.user	Test Note 2
12/8/2015 11:37 AM	retail.user	Test Note 1

Below the table is a large empty text area for entering new notes. At the bottom right, there are three buttons: 'Save', 'Apply', and 'Cancel'.

This popup allows for notes to be added and viewed within Customer Orders, Customer Order Deliveries, and Customer Order Reverse Picks. Anytime a note is added for one of these transactions it will be added to the customer order fulfillment

order. This allows the user to add notes to the customer order along with the customer order process and have the information all organized together.

The user adds a note in the bottom block. As the note is added, it will appear in the middle table along with the date and user that entered the note. This gives the user visibility to the history of all notes that have been added for the customer order.

A note can be highlighted in the table and the details for that note will be displayed in the block at the top of the popup.

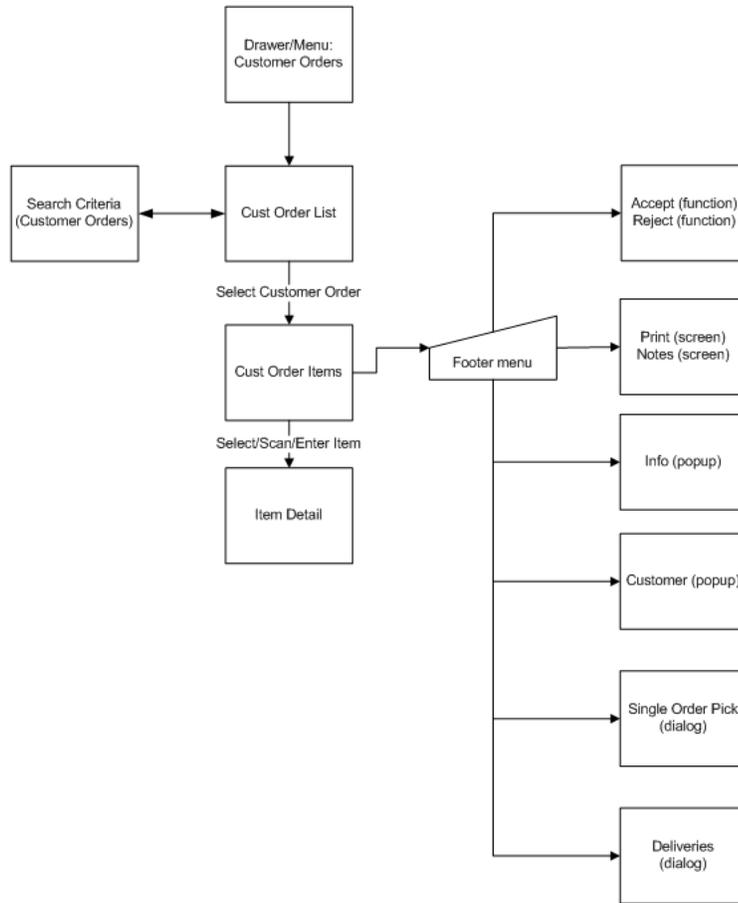
## **MAF**

Customer Orders allows for the viewing of customer orders at the user's store. Customer orders may be web orders as well as non web orders such as layaway, pick up, and so on. All validations and rules for Customer Orders on MAF is the same functionality as the PC application. Customer Orders exists in a small form factor on MAF.

Features:

- Search for customer orders
- View an existing customer order
- Reject a customer order
- View customer information
- Print a customer order
- Create a customer order pick for a specific customer order
- Access the delivery dialog for a specific customer order

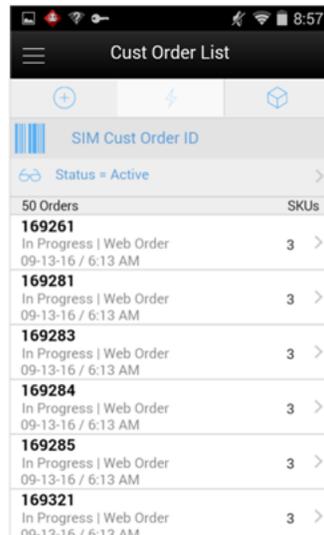
**Figure 20–13 MAF Customer Order Screen Flow (Small)**



Customer Orders covers the functionality of viewing, accepting, and rejecting a customer order as well as viewing the info and customer details. Deliveries and single order picks can be created from within a customer order, however, Deliveries and Picking will be covered part of their own functionality.

## Cust Order List

**Figure 20–14 Cust Order List Screen**



The Cust Order List screen is accessed by selecting the Customer Order menu option from within the Customer Order Mgmt menu in the drawer/menu. The screen will display the "Active" status customer orders by default which is all customer orders which are in "New" or "In Progress" status. The user can click the eye glasses to direct to the Search Criteria screen. Selecting a customer order will navigate to the details for the customer order.

## Search Criteria (Customer Orders)

**Figure 20–15 Search Criteria Screen (Customer Orders)**

The screenshot shows the 'Search Criteria' screen on a mobile device. At the top, there is a header with 'Cancel' on the left, 'Search Criteria' in the center, and 'Apply' on the right. Below the header, there is a section titled 'Criteria Applied: 1'. The form contains several input fields and dropdown menus:

- From Release Date: [Dropdown]
- To Release Date: [Dropdown]
- SIM Customer Order ID: [Text Input]
- Customer Order ID: [Text Input]
- Fulfillment Order ID: [Text Input]
- Bin ID: [Text Input]
- Item: [Text Input]
- Reservation Type: [Dropdown] (Current selection: - All -)
- Status: [Dropdown] (Current selection: Active)
- Customer Name: [Text Input]
- Technician ID: [Text Input]

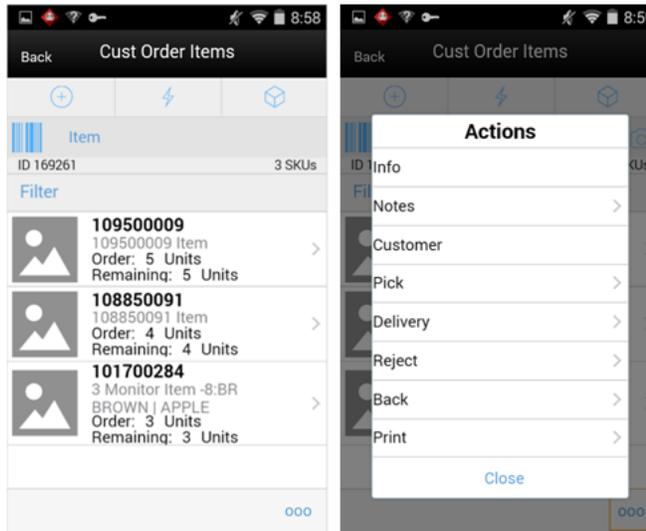
At the bottom of the form, there is a blue 'Reset' button.

The Customer Order Search Criteria screen is accessed by the eye glasses on the Cust Order List screen. After applying the search criteria, the results will be listed on the Cust Orders List screen and the criteria applied will show. Search criteria include:

from/to release date, SIM customer order ID, customer order ID, fulfillment order ID, bin ID, item, reservation type, status, customer name, tracking ID, and search limit.

## Cust Order Items

**Figure 20–16 Cust Order Items Screen**



The Cust Order Items screen is the screen the user goes to when selecting a customer order from the Cust Order List screen. The items are on listed for the customer order. The item image for the line items is displayed per configuration.

Line items appear in a list and selecting a line item will navigate to the item details of that item. Scrolling in the list of items on the left will display a filter. The filter can be used to narrow down the list of items. Filtering can occur by item ID or item description.

Scanning or entering an item in the scan bar will navigate to the Item Detail screen for that item. The ellipsis in the lower right hand corner will access the footer menu which will contain all of the functions that can be performed on a customer order.

### Footer Menu

The footer menu is accessed from the ellipsis footer menu on the Cust Order Items screen. The menu functions will include the following.

Info: Info will access the Info popup.

Notes: The Notes option accesses the notes common dialog to capture notes. Notes can only be added when Customer Order is in "New" or "In Progress" status.

Customer: The customer information popup for the customer order will display, view only.

Pick: Pick will generate a pick for the customer order and navigate the user to the Pick Items screen for the new pick. All picking rules apply. See "[Customer Order Picking](#)."

Delivery: Delivery will navigate the user to the Delivery dialog (Delivery List screen) for the current customer order. See "[Customer Order Deliveries](#)."

- All status of customer orders as well as all types (web order, pick up, layaway, and so on)

- The user must have Access customer order delivery permission.

Accept: Accept will be only for "New" web order types of customer orders and will set the customer order to "In Progress" status.

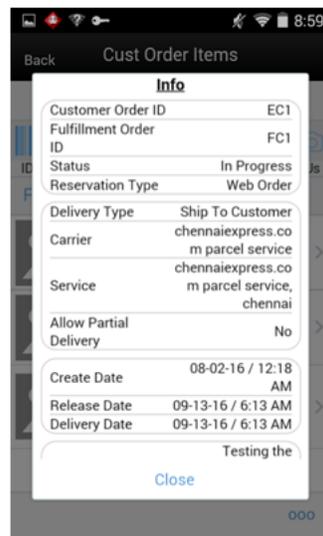
Reject: Reject will be only for 'New' and 'In Progress' web order types of customer orders. All items that have not yet been picked will be canceled/rejected. A system generated reverse pick will be created for the rejected items. For more information, see "[Customer Order Reverse Picks.](#)"

Back: Back will return to the Cust Orders List, no changes made to status.

Print: Print will display the common print dialog to print the customer order report.

## Info (Customer Orders)

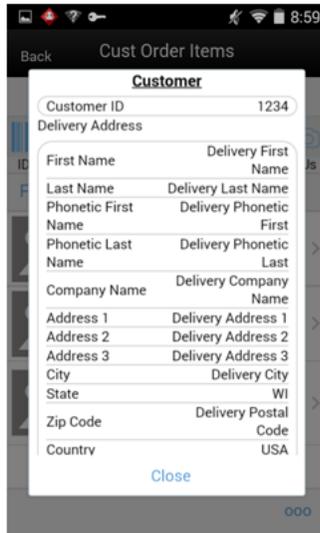
**Figure 20–17 Info Popup (Customer Orders)**



The Info popup contains read-only information about the header level of the customer order. It is accessed through the Info menu option in the footer menu on the Cust Order Items screen. Details include: customer order ID, fulfillment order ID, status, reservation type, delivery type, carrier, service, allow partial delivery, create date, release date, delivery date, and comments.

## Customer

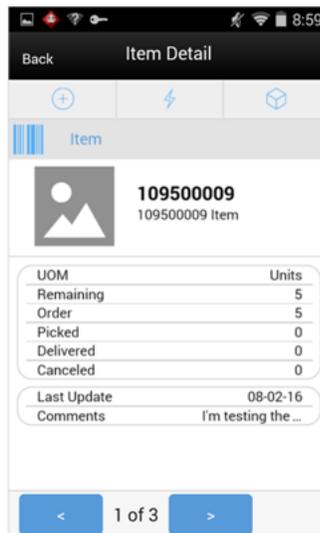
**Figure 20–18 Customer Popup**



The Customer popup that read-only information about the customer for web order types of customer orders. It is accessed through the Customer menu option in the footer menu on the Cust Order Items screen. The user must have access customer details security permission.

## Item Detail (Customer Orders)

**Figure 20–19 Item Detail Screen**



The Item Detail screen is the screen the user goes to when selecting or scanning an item from the Cust Order Items screen. Scanning or entering an item on this screen in the scan bar will refresh the item detail screen for the item on the customer order. The user can page through the items on the customer order. This screen is view only.

The item information including the image (which is system configured) display in the header. The bottom portion of the screen contains fields of UOM, remaining, order,

picked, delivered, and canceled quantities as well as last update, and comments. Lastly, if the item is a substitute for another item, the Substitute For field will display with the original item listed.

## Customer Order Picking

Now that the Customer Order exists within SIM, it is necessary to validate that the inventory for the order is truly available. Picking is only applicable for those customer orders that are Web Orders.

In a retail environment, merchandise is not always available. There could be several reasons merchandise is not available such as the inventory is being held in a customer's shopping cart or the inventory level noted in the system was incorrect because of incorrect receiving or perhaps a theft of inventory.

The Picking process is a formal process of the system telling the user what items need to be picked and the user going out, physically picking the items, and setting them aside. Once the items are set aside, they will then be used during the fulfillment process for shipping or pick up by the customer.

Picking will be available only for web order type customer orders on the PC or handheld applications.

Not all retailers that do customer orders will need a picking process. This process is optional depending on configurations.

## Configurations

This section covers system parameters, store parameters, notifications, and security.

### System Parameters

#### Minutes to Hold Customer Order Pick Before Sending Email Alert

- Values: 0-999
- Default: 15
- Topic: Customer Order
- Editable: Yes
- This system parameter dictates the time interval in minutes to send a follow-up message to a store associate after a pick list has been created but no one has started the pick list.

#### Display Item Image Customer Order Picking - Mobile

- Values: Yes/No
- Default: No
- Topic: Customer Order
- Editable: Yes
- Yes: This parameter indicates if the item image will be displayed in Customer Order Picking. It is on Pick Items (item list), Item Detail, Confirm Item, Confirm Bin, and Substitute Items screens of Customer Order Picking.
- No: Image will not be displayed in Customer Order Picking.

### **Search Limit Default for Customer Order Picking - Mobile**

- Values: 1-999
- Default: 50
- Topic: UI
- Editable: Yes
- This system parameter indicates the default search limit for the Customer Order Pick List screen.

### **Customer Order Fulfillment Restriction**

- Values: Transaction Controlled/Restricted
- Default: Transaction Controlled
- Topic: Customer Order
- Editable: No
- Transaction Controlled: The Allow Partial Delivery indicator that comes in on the customer order will be used as it was sent. Picking is not impacted.
- Restricted: The Allow Partial Delivery Indicator will be updated to No on the Customer Order or Transfer Request:
  - Customer Order Deliveries and Transfer Request/Shipment will continue to validate the Allow Partial Delivery indicator as usual, however, it will be set to No and force the user to have a full delivery (with the exception of a user override in deliveries).
  - Picking will check the following:
    - \* Create: The user will not be able to create the pick if there is not enough available to pick.
    - \* Confirm: Everything must be picked on the customer order.

### **Store Parameters**

#### **Default Customer Order Picking Method**

- Values: Bin/SIM Customer Order
- Default: SIM Customer Order
- Topic: Customer Order
- Editable: Yes
- This parameter is used to define the default picking method when creating a customer order pick. Note this is just a default and the user can still switch the picking method.

#### **Default Number of Bins**

- Values: 1-999
- Default: 1
- Topic: Customer Order
- Editable: Yes

- This store parameter is used to define the default picking method when creating a customer order pick. Note this is just a default and the user can still switch the picking method.

#### **Override Bin Quantity**

- Values: Yes/No
- Default: No
- Topic: Customer Order
- Editable: Yes
- This store parameter determines whether the user is allowed to override the default bin quantity when creating a pick by bin. The Bin Quantity is defaulted based upon the store parameter for Default Number of Bins.

#### **Generate Bins**

- Values: System/Manual
- Default: System
- Topic: Customer Order
- Editable: Yes
- System: SIM will automatically generate the bin IDs when the pick is created.
- Manual: The system will require the user to enter the bin IDs upon taking action on the created pick. This option removes the need for printing out labels since the labels already exist on the bin.
- For both System and Manual, the user will still have the option to print labels for the bins.

#### **Handheld Picking Mode**

- Values: Enter Pick Quantity/Scan Every Item
- Default: Enter Pick Quantity
- Topic: Customer Order
- Editable: Yes
- This configuration is only applicable to picking on the handheld application.
- Scan Every Item: The user will need to scan each instance of the item followed by the scan of the bin, if bins are used. This method validates each item scanned is the correct item.
- Enter Pick Quantity The user will manually enter the pick quantity and then scan the item to validate it is the correct item.

#### **Item Substitution - Store Discretion**

- Values: Yes/No
- Default: No
- Topic: Customer Order
- Editable: Yes
- This store parameter is used to determine if the user can use their own discretion when doing substitute items in the picking process.

- Yes: The user can choose any item to be used as a substitute item.
- No: Only those items that are defined as substitutes within SIM can be substituted.

## Notifications

The Customer Order Pick List Reminder alert is triggered through a batch module. Every time the batch is run, it will see what customer order pick lists are sitting open that are "In Progress" status and exceeding the "minutes to hold" system parameter, and will send a reminder.

## Security

Security permissions exist for:

- Access, create, edit, delete, and confirm for the Customer Order Pick.
- Adding items within in Item Substitution as well as accessing Tolerances.
- Editing the quantity on MAF.
- Notifications.

## Tolerances

The Tolerances screen is accessed from the tolerance button on the setup menu, only on the PC application.

**Figure 20–20 Tolerances Screen**

Dept	Class	Variance %	Variance Standard UOM
1022 - SURESH_Department_Coat_Normal_1...	1 - SURESH_Normal_Class_Department_1022	0	0
109 - BEER	23 - beer class	0	0
1100 - Soft Drinks*	4 - Recyclable Bottles*	12	23
1100 - Soft Drinks*	1 - Carbonated SR Drink*	0	0
1100 - Soft Drinks*	2 - Diet Card SR Drink*	0	0
1100 - Soft Drinks*	3 - New Age Beverages	0	0
1101 - RPM Dept	1101 - RPM Class	0	0
1102 - Detergents*	1 - All Purpose*	0	0
1102 - Detergents*	2 - Laundry*	0	0
1103 - Cereal -Ready to Eat	1 - Cold	0	0
1103 - Cereal -Ready to Eat	2 - Hot	0	0
1104 - Canned.Glass Fruit*	3 - Tomatoes	0	0
1104 - Canned.Glass Fruit*	1 - Peaches*	0	0
1104 - Canned.Glass Fruit*	2 - Pears	0	0
1105 - Salty Snacks*	1 - Cheese Snacks	0	0
1105 - Salty Snacks*	3 - Potato Chips	0	0
1105 - Salty Snacks*	1 - Pretzels	0	0
1106 - Spices*	4 - Pepper	0	0
1107 - Peanut Btr.Preserv*	1 - Peanut Butter*	0	0
1108 - Yogurt*	2 - Light Non Fat*	0	0
110 - Wine	111 - wine house	0	0
1110 - Self Service Cheese	2 - Cheddar Wby Cheese	0	0
1111 - Self Svc Frsh Beef*	3 - Beef Select	0	0

Tolerances can be set up for Ad Hoc Stock Counts as well as customer order picking. This is defined by the Topic at the top of the screen. Tolerances will be set up at the class hierarchy level and can be defined for Variance percentages as well as standard unit of measures. At least one of the tolerances must be set up for each class, both cannot be left blank.

When performing a pick, the tolerances will be validated to determine if the pick quantity is allowed to exceed the suggested picked quantity. The user must be within the lowest defined tolerance. This is applicable only to items that are not Each items, for example pounds. A tolerance of zero means that the suggested pick quantity cannot be exceeded.

## Customer Order Pick List

The Customer Order Pick List screen is part of the customer order picking dialog. The screen lists all of the Active customer order pick lists which are those in "New" or "In Progress" status for the user's store. It is a view-only screen. A filter button is available to further filter the criteria.

**Figure 20–21 Customer Order Pick List Screen**

ID	Type	Create Date	Status	Pick Qty	Actual Qty	User
4981	Bin	Jul 3, 2013 7:39:58 AM	New	9		orsimadmin
4902	Bin	Jul 2, 2013 10:47:17 ...	New	4		orsimadmin
4901	Bin	Jul 2, 2013 10:45:24 ...	New	10		orsimadmin
4844	Bin	Jun 28, 2013 5:21:11 ...	New	4		orsimadmin
4842	Bin	Jun 28, 2013 5:03:31 ...	New	1000		orsimadmin
4781	SIM Customer Order	Jun 27, 2013 2:48:23 ...	New	1000		varsha
4742	SIM Customer Order	Jun 26, 2013 4:58:44 ...	New	1000		varsha
4741	SIM Customer Order	Jun 26, 2013 4:56:33 ...	New	10		varsha
4681	Bin	Jun 25, 2013 12:43:5 ...	In Progress	13	1	varsha
4661	SIM Customer Order	Jun 24, 2013 6:24:46 ...	New	3		varsha
4581	SIM Customer Order	Jun 19, 2013 6:41:44 ...	In Progress	10	3	INTEGRATION_SER...
4506	Bin	Jun 6, 2013 4:32:17 AM	In Progress	4	1	varsha
4505	Bin	Jun 6, 2013 4:31:14 AM	In Progress	4	4	varsha
4504	Bin	Jun 6, 2013 4:31:12 AM	New	1		varsha
4503	SIM Customer Order	Jun 6, 2013 4:29:14 AM	In Progress	9	5	varsha
4501	SIM Customer Order	Jun 6, 2013 4:26:43 AM	In Progress	10	9	varsha
4483	SIM Customer Order	Jun 6, 2013 1:44:25 AM	New	5		varsha
4482	SIM Customer Order	Jun 6, 2013 1:29:19 AM	New	8		varsha
4441	Bin	Apr 22, 2013 6:15:31 ...	In Progress	17	2	varsha
4341	SIM Customer Order	Apr 16, 2013 2:54:36 ...	New	1		Sue
4321	Bin	Apr 16, 2013 6:09:04 ...	In Progress	6	1	varsha
4363	SIM Customer Order	Apr 12, 2013 5:21:32 ...	New	10		varsha
3963	SIM Customer Order	Mar 13, 2013 12:40:4 ...	In Progress	15	6	varsha
2802	SIM Customer Order	Dec 17, 2012 3:22:55 ...	New	7		esivarim

The Customer Order Pick List screen is accessed by clicking on the Pick button from the Customer Order Management List or Customer Order List screens.

Important fields on this screen include:

- ID: System-generated Pick ID.
- Type: Type of pick which will be either Bin or SIM Customer Order.
- Pick Quantity: Signifies the total quantity to be picked across all line items.
- Actual Quantity: Total quantity that has been picked across all line items on the pick.

Pick list functions include:

- Navigating to details of a pick by double clicking a pick record.
- Deleting a new or in progress pick list.
- Creating a new pick list.

## Customer Order Pick Filter

**Figure 20–22 Customer Order Pick Filter Screen**

The screenshot shows a software window titled "Customer Order Pick Filter". It is divided into two main sections. The top section, "Date Filters", contains two date input fields: "From Date:" and "To Date:", each with a small calendar icon to its right. The bottom section, "Additional Filters", contains several input fields: "Pick ID:", "SIM Customer Order ID:", "Customer Order ID:", and "Fulfillment Order ID:" are all text input boxes. Below these are "Bin ID:" (text input), "Item:" (text input with a small "..." button), and three dropdown menus for "Status: -All-", "Type: -All-", and "User: -All-". At the bottom right of the window are three buttons: "Apply", "Reset", and "Cancel".

The Customer Order Pick Filter screen is accessed through the filter button on the Customer Order Pick List screen. The user can enter in various search criteria to find Customer Order Picks. The results will be displayed on the Customer Order Pick List screen.

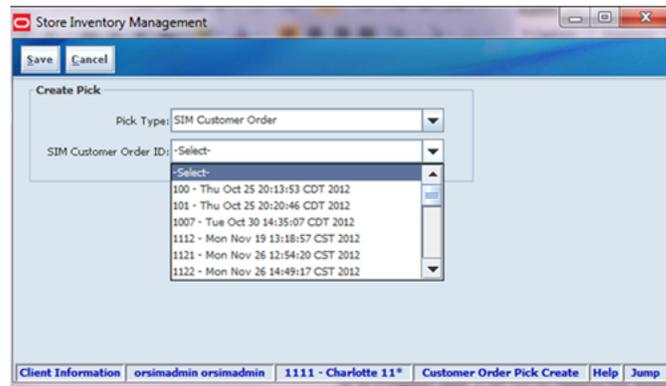
## Customer Order Pick Create

The user can create a Customer Order Pick List by clicking the Create button from the Customer Order Pick List screen. A pick can be created by a pick type of Bin or SIM Customer Order ID.

The store must be configured for "Reserve Customer Order Inventory Upon Receiving" set to No in order to create or generate a pick by bin or SIM Customer Order. This means that inventory is reserved when the customer order arrives into the store and therefore it should be picked from inventory. When set to Yes, inventory is reserved based upon receipts and therefore should be picked from the receipt. The user would not want the store to pick from inventory when it should be picked based upon what was received on the delivery.

## Picking by SIM Customer Order ID

**Figure 20–23** Customer Order Pick Create Screen



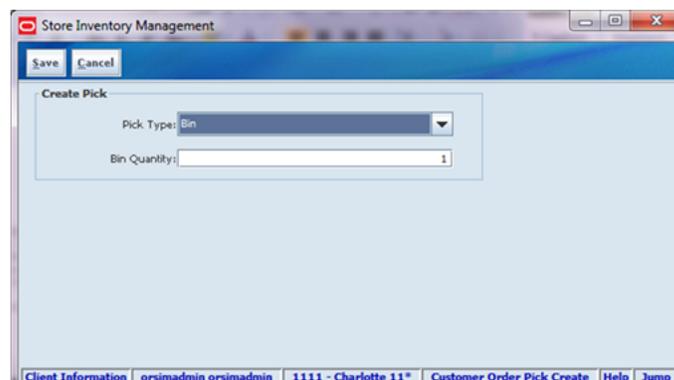
When creating a pick by SIM Customer Order ID, there will only be one Customer Order Fulfillment Order per pick transaction.

Customer Orders that will be available for picking will follow these rules:

- Customer order must be a web order type.
- Customer order must still be open.
- There cannot be an existing open pick for the customer order.
- Customer order must have at least one item on the order with items remaining to be picked.
- If the system admin Customer Order Fulfillment Restriction equals Transaction Controlled, the system will also need to check that there is stock available to be picked for at least one item.
- If Customer Order Fulfillment Restriction equals Restricted, there must be enough available stock for all items on the pick to be fully picked in their entirety.
- Items that have substitute equal to Yes on the customer order (meaning they allow for substitutes) will have their stock ignored. This is because they can have items substituted for them.

## Picking by Bin

**Figure 20–24** Customer Order Pick Create Screen



When creating a pick by bin, the user will define the number of bins to be put on the pick. Initially, the bin quantity will be defaulted based upon the store admin setting "default number of bins". The user has the potential to override this quantity if the store admin setting "Override Bin Quantity" is set to Yes.

Picks created by Bin allows for multiple customer orders to be put on the pick; one SIM customer order per bin. It will first look to all SIM Customer Orders that are the oldest based upon release date. All other rules for creating the pick will be the same as those above for picking by SIM customer order ID.

## Pick Detail

The Customer Order Pick Detail screen shows the details on the customer order pick list. It is accessed by double clicking a pick record from the Customer Order Management List or Customer Order Pick List screens.

**Figure 20–25 Customer Order Pick Detail Screen**

Item	Description	Primary	SM Cont.	Bin ID	Fulfillment	UOM	Pack Size	Substitute	Adjusted Pick Qty	Pick Qty	Quantity
10047020	Item3-Green...	Backroom	1122	12	FO3	Units	1	No	9	9	9
100232908	Vikas UOM B...	Backroom	1121	77	FO3	Case	2	No	0.35	0.35	0.35

If the store is configured to manually capture bins, the user will first be prompted with the Bin Detail screen to record the bins before directing to the Customer Order Pick Detail screen. The Bin Detail screen is accessed through the Bin button and can be viewed for system-generated bins and edited for manually-created bins.

Some screen features to note:

- The pick will display all items that are to be picked for the customer orders on the pick.
- The items will be ordered by primary sequence location if the system is configured to display sequencing fields, otherwise they will be in item order.
- If the pick type is by bin, the Bin ID will be associated to the item.
- Those items that have a substitute will have the substitute column marked as Yes and these can be viewed through the Item Substitution button.
- The Pick Qty represents the suggested pick qty from the system.
- The Adjusted Pick quantity will be populated if cancellations and or deliveries have occurred based on those order updates. This field will remain blank if there is no discrepancy.

- The quantity is an entry field for the user to enter how much is actually being picked. The quantity cannot exceed the suggested pick quantity for items that have a Unit of Measure as Eaches.
- When the item has a variable unit of measure, it can be difficult to pick the exact amount suggested. For example: picking 2 pounds of bananas might end up truly being 2.2 lbs. The quantity picked may exceed the suggested if the defined tolerances are setup to allow for such.
- Each pick list can be saved as "In Progress" or confirmed which will move it to "completed" status.

### **Confirm Processing**

Confirm will update the pick quantity on the customer order. User must have the Confirm Customer Order Pick permissions in order for confirm option to be available.

If any of the SIM customer order quantities on the pick transaction have been canceled or delivered since the pick was created, and the total pick quantity for the item is now greater than the remaining pick quantity:

- An error will be presented to the user to fix the pick quantity as it is no longer valid.
- The Adjusted Pick Qty field will be updated to indicate to the user how much is needed to pick based upon the changes (delivery and cancels) that were made on the customer order.

The system will check the system admin, Customer Order Fulfillment Restriction:

- If it is set to Restricted, the entire customer order pick must be picked in its entirety.
- If it is set to Transaction Controlled, processing is continued.

Actual pick quantity will be published back to the external system through an SO status message. If more was picked than what was suggested (due to tolerances, that is, picking items where SUOM != Eaches):

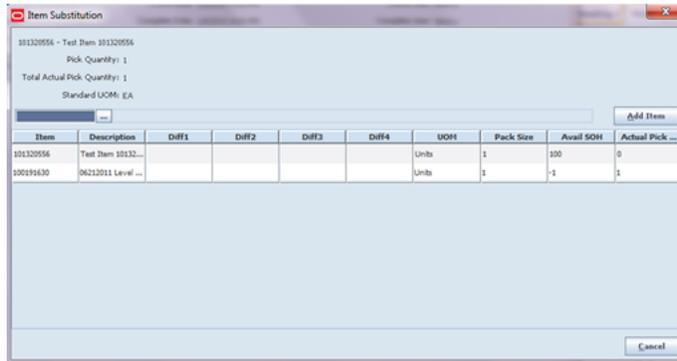
- The reserved quantity on the Customer Order is updated by the delta (overage).
- The reserved delta SO Status is published to RMS.

### **Substitute Items**

- Substitute Items are considered in the Total Pick Qty when doing all quantity validations.
- The reserved quantity for the original item is decreased by the rolled up pick quantities.
- The substituted items that have an actual pick quantity greater than zero will have their reserved quantity increased for the amount being substituted.

## Item Substitution

**Figure 20–26** *Item Substitution Popup*



The Item Substitution popup is used to add substitute items to the customer order. Item Substitution allows for more than one item to serve as a substitution. In some cases, especially with fresh food, the retailer wants to allow for items to be substituted for items that have been ordered. A good example is a specific brand of milk is out of stock while the house brand is in stock.

This screen is accessed by selecting an item on the Customer Order Pick Detail screen and then clicking on the Item Substitution button. Only items which are defined to allow for substitutes on the customer order fulfillment order will allow for substitute items to be added.

If the Item Substitution - Store Discretion configuration is set to No, only those items that have been defined as substitutes in the merchandising system will be allowed for substituting. Those items will be listed on this screen. The user will be able to enter in the Actual Pick Quantity for these items.

If the Item Substitution - Store Discretion configuration is set to Yes, then the items that are defined as substitutes will be listed just as described above. But, in addition to that, the user will have the Item Lookup Field to add additional items at their own discretion which are not predefined.

Once a substitute item is added, meaning picked, it will get added to the customer order fulfillment order as a new line item. On the Customer Order Pick Detail screen, the original item will have the substitute column set to Yes.

## MAF

Customer Order Picking currently exists on the PC and the Handheld and allows the picking of a Commerce Anywhere/Web Order customer order.

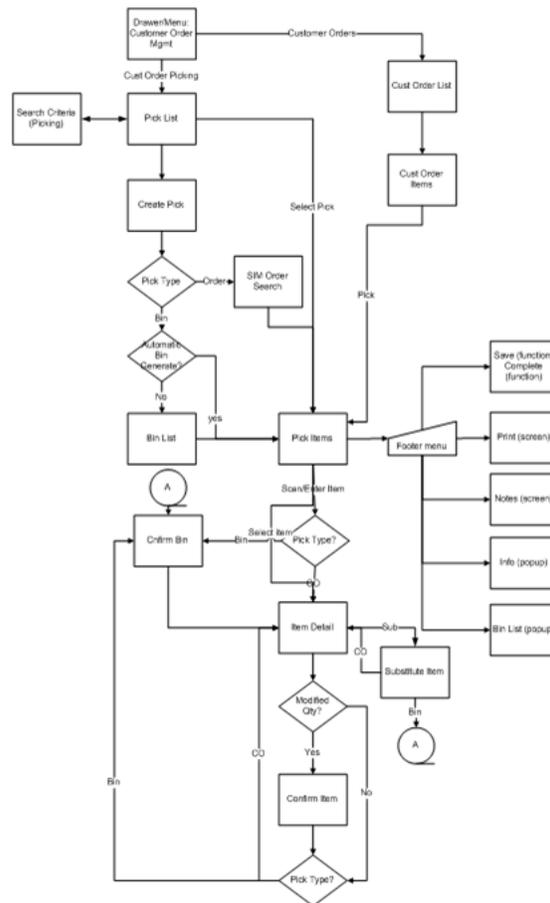
MAF also contains customer order picking functionality. A customer order pick can be created by a single customer order or by bin from within the picking dialog. A single customer order pick can be created from within the customer order dialog. See [Customer Orders](#).

Features:

- Search for customer order pick
- View/edit an existing customer order pick
- Delete a customer order pick
- Print a customer order pick

- Create a customer order pick

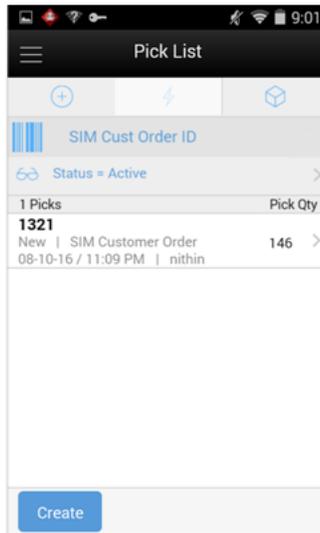
**Figure 20–27 MAF Customer Order Picking Screen Flow (Small)**



The user will access the Customer Order Picking Dialog from the Customer Order Mgmt menu in the drawer. The Pick List screen will display the list of Active picks. The user can go to the Search Criteria screen to search for picks using alternate criteria. From the Pick List screen, the user can select a pick to go to the Pick Items (detail of pick) for viewing or editing purposes. Also from the Pick List screen, the user can Create a pick. The pick may be created by bin or customer order. When creating by customer order, the user will need to specify which order is being picked and, once that is done, the system will generate a pick and navigate to the details of that Pick on the Pick Items screen. When creating by bin if the system is configured to automatically generate the bins, the user will go to the details of the Pick (Pick Items). Otherwise, if manual bin capture, the user must first capture the bins before going to the Pick Details. Once in a pick, the user can pick items, add substitutes, print, add notes, view info, modify bins, save, or complete the pick.

## Pick List

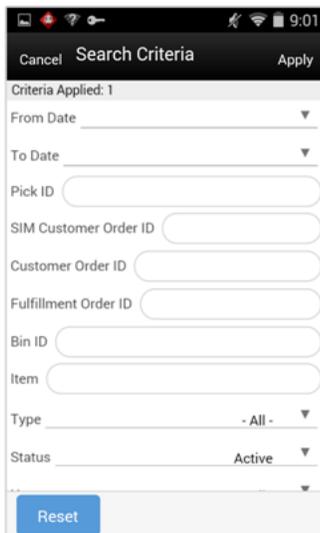
**Figure 20–28 Pick List Screen**



The Pick List screen is accessed by selecting the Customer Order Picking menu option from within the Customer Order Mgmt menu in the drawer/menu. The screen will display the "Active" status customer orders picks by default which is all picks which are in "New" or "In Progress" status. The user can click the eye glasses to direct to the Search Criteria screen. Selecting a pick will navigate to the details for the customer order pick. Selecting Create will display the Create Pick popup.

## Search Criteria (Pick List)

**Figure 20–29 Search Criteria Screen (Pick List)**

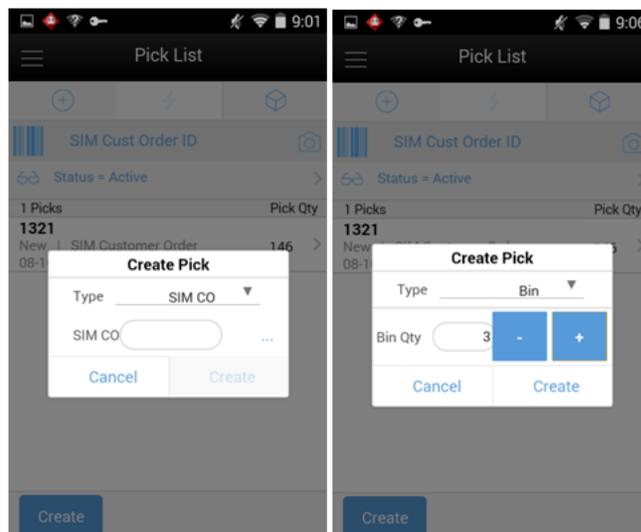


This is the Customer Order Pick Search Criteria Screen. It is accessed by the eye glasses on the Pick List screen. After applying the search criteria, the results will be listed on the Pick List screen and the criteria applied will show. Search criteria include: from/to

date, pick ID, SIM customer order ID, customer order ID, fulfillment order ID, bin ID, item, type, status reservation type, status, user, and search limit.

## Create Pick

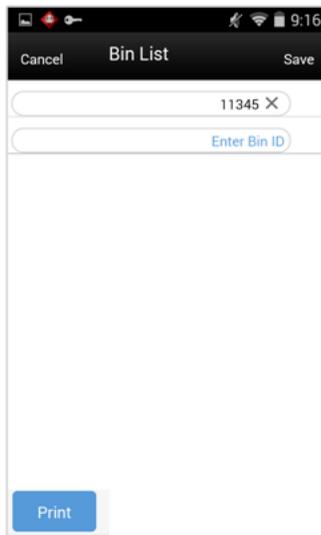
**Figure 20–30** Create Pick Popup



The Create Pick popup is accessed by selecting the Create button from the Pick List screen. The create pick allows for the creation of a customer order pick by either SIM customer order ID or by bin. The type will default per the store setting Default Customer Order Picking Method.

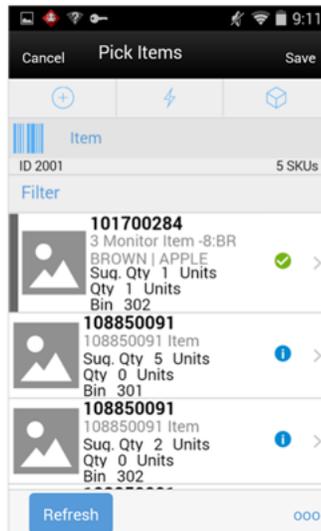
When selecting SIM Customer Order, the user must enter in the SIM customer order ID to be picked or use the search function to select one from the list. Picking by bin will generate a pick with multiple customer orders, one per bin (assuming there are enough customer orders to meet the picking requirements). The bin quantity will defaulted per the store setting and the user can override the bin quantity per the store setting.

Upon selecting Create, the user will navigate to the Pick Items screen for the generated pick. All rules and validations for the creation of picks is the same as that of the PC.

**Figure 20–31 Bin List Screen**

The Bin List screen applies to those picks which are by bin. Picks by bin will have bins manually or system generated per the store admin setting. For manually-captured bins, the user will be directed to the Bin List screen immediately upon creating the pick prior to going to the Pick Items screen. Bins are only editable for manually-captured bins. System and manually captured bins can be viewed from the Bin option within the footer menu of the Pick Items screen. The bins can be printed through the Print button.

## Pick Items

**Figure 20–32 Pick Items Screen**

The Pick Items screen is accessed by selecting an existing pick from the Pick List screen, or by creating a new pick. The Pick Items displays all of the items on the pick including the suggested pick quantity and bin if the pick was created by bin.

Selecting an item will navigate to the Item Detail screen for that item. Scanning an item will also navigate to the Item Detail screen for that item and the quantity may be

updated per the quantity scanned. If the pick is by bin, the user will go to the Confirm Bin screen to scan the bin prior to going to the Item Detail screen.

The items are listed in order with those items with stock on hand in the backroom being displayed first, followed by items with shopfloor stock on hand, and lastly those that do not have stock on hand in either the backroom or the shopfloor. All items are ordered by macro sequence location.

Items will have an icon displayed denoting the pick status of the item. If the item's pick quantity has quantity left to be picked there will be a blue circle with an 'i'. If the item's pick quantity is fully picked, it will be a green circle with a check mark. If the item's pick quantity has exceeded the amount to be picked (because changes to the customer order have been made such as a delivery or cancelation), there will be a red circle with a '!'.

Refresh will refresh the customer order pick and pull in any delivered or canceled quantities that have happened for the delivery. The Adjusted Pick Quantity will reflect the new suggested pick quantity.

### **Footer Menu**

The footer menu is accessed from the ellipsis footer menu on the Pick Items screen. The menu functions will include the following:

Info: Info will access the Info popup.

Notes: The Notes option accesses the notes common dialog to capture notes. Notes can only be added for picks by SIM Customer Order ID. The note will be saved on the customer order and not the pick.

Bins: Bins will access the Bin List screen.

Refresh: Refresh will perform the same function as the refresh on the Pick Items screen.

Confirm: Confirm will confirm the pick and move it to "Completed" status, user returns to the Pick List screen. See "[Customer Order Pick List](#)".

Save: Save will save the pick as "In Progress" status and return to the Pick List screen.

Delete: Delete will allow for deleting of a "New" or "In Progress" status pick and move it to 'Canceled' status. The user will return to the Pick List screen.

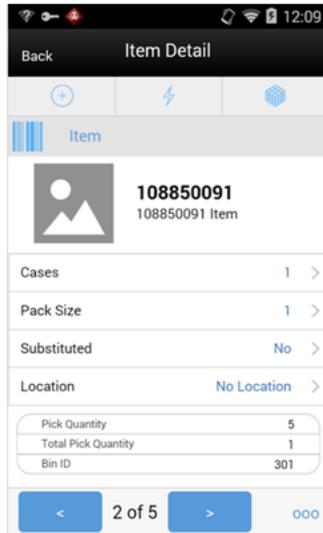
Cancel: Cancel will exit to the Pick List screen and no changes will be saved.

Back: Back is only applicable to view only picks and will exit to the Pick List screen.

Print: Print will display the common print dialog to print the customer order pick report.

## Item Detail

**Figure 20–33** Item Detail Screen



The Item Detail screen contains the details for the specific item on the customer order pick. Entering/scanning an item on this screen will refresh the screen and update item and the pick quantity for the item. If the pick is by bin, first the user will have to Confirm the bin before refreshing the details for the item. Once an item has been fully picked, the system will automatically navigate to the next item on the pick.

The Pick Quantity, represented by the field on the top of the screen with the UOM label is editable by the user and represents how many of this item is being picked. Editing the quantity is controlled by security. If the quantity is edited, the user will be prompted with the Confirm Items popup to confirm the proper item and also the confirm bin (if pick is by bin).

The suggested pick quantity displays the quantity the system suggests to be picked. The adjust pick qty is the suggested pick quantity that is updated by the system upon refresh or trying to confirm the pick. It reflects any deliveries or cancellations that have occurred on the customer order since the time the pick was generated. Total Picked is the total amount picked for the item along with all of its substitute items. Lastly, if the pick is by SIM Customer Order ID, that ID will be displayed. Otherwise, if the pick is by bin, then the bin for the pick will be displayed.

If the item allows for substitute items, there will be a "Substituted" field that will state Yes if there is one or more items substituted, and No if there are no substitutes. Tapping on this field will navigate to the Substitute Items screen. If the item is being substituted for another item, there will be a "Substituted For" field and it will display the original item ID that the item is being substituted for.

If Display Sequence Fields equals Yes, the macro location and area for the item will be displayed. If it set to No, this field is not displayed.

If there is stock on hand in the backroom:

- It will display the first available backroom location.
- If no backroom location, it will display Backroom.

If there is no stock in the backroom and stock exists in the shopfloor:

- It will display the first shopfloor location.

- If there is no shopfloor location, it will display Shopfloor.

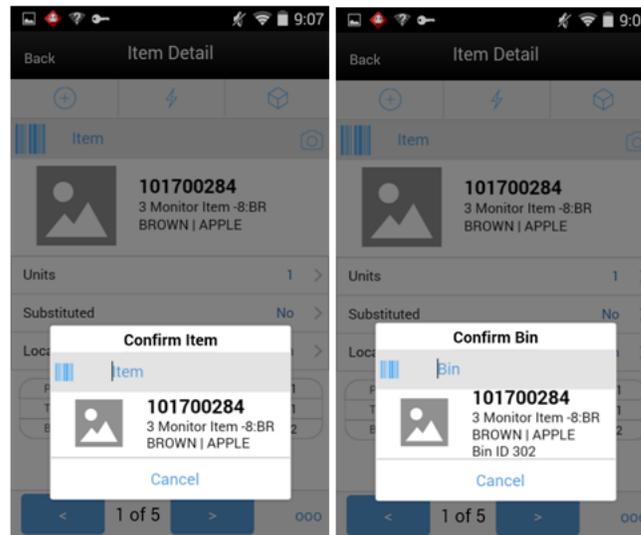
If there is no stock on hand in the backroom or the shopfloor:

- It will display the first backroom location.
- If no backroom location, the first shopfloor location is displayed.
- If no shopfloor location, it displays no location.

The screen has arrows on the bottom that will prompt the user to the next item on the pick.

## Confirm Item/Confirm Bin

**Figure 20–34 Confirm Item/Confirm Bin Popup**

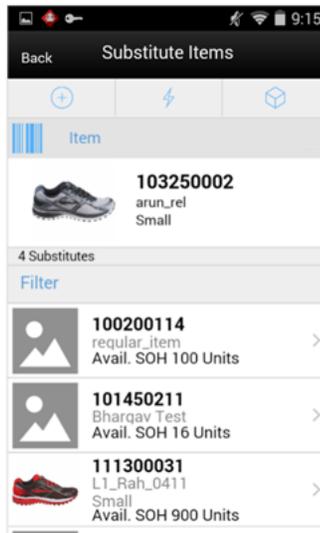


After editing the pick quantity the user will be required to confirm the item in the Confirm Item popup. This is to validate the proper item is being picked.

For picks that are by bin, the user also needs to validate that the items are being placed into the proper bin. When entering or scanning an item or editing the pick quantity, the user will be directed to the Confirm Bin popup to scan the bin for the item. Note that the confirm bin will occur after the Confirm Item (if applicable).

## Substitute Items

**Figure 20–35** *Substitute Items Screen*



The Substitute Items screen is accessed by selecting the Substituted field on the Item Detail screen. This screen will list all of the available substitute items for the item being picked (if there are any). If the Item Substitution - Store Discretion equals Yes, the user does not have to use one of the items in the list, and can also enter/scan an item for substitution. It will be added to the pick as well as to the Substitute Items list. If the user does not have store discretion, only items from the list can be selected.

## Info

**Figure 20–36** *Info Screen*



The info screen is an informational popup that contains read-only information about the header level of the customer order pick. It is accessed through the Info menu option in the footer menu on the Pick Items screen. Details include: pick ID, status, create date, create user, complete date, and complete user.

## Customer Order Deliveries

Delivering of a customer order in SIM consists of collecting the items that have been picked and then getting them to the customer. This might be for a customer pickup or shipping them to the customer. Deliveries can be created on both the PC and handheld applications.

In SIM, there are three different methods to fulfill a customer order:

- A third-party system, such as a POS system, can be used for in store pickup. This will create a completed delivery record within SIM. This is true for web order and POS (layaway, on hold, and so on) customer orders.
- The web order customer order can be shipped directly from the store to the customer within SIM.
- The web order customer order can be picked up by the customer in SIM.

## Configurations

This section covers system parameters, store parameters, and security.

### System Parameters

#### Display Item Image Customer Order Deliveries - Mobile

- Values: Yes/No
- Default: No
- Topic: Customer Orders
- Editable: Yes
- Yes: This parameter indicates if the item image will be displayed in Customer Order Deliveries. It is on Delivery Items (item list) and Item Detail screens.
- No: Image will not be displayed in Customer Order Deliveries.

### Store Parameters

#### Picking Required for Customer Orders

- Values: Yes/No
- Default: Yes
- Topic: Customer Orders
- Editable: Yes
- Yes: Requires that manual picking be performed on the customer order prior to being able to create a delivery for it.
- No: Picking is not necessary in order to create a delivery.

#### OMS Customer Order Delivery Validation

- Values: Yes/No
- Default: No
- Topic: Web Service Enablement
- Editable: Yes

- Yes: When confirming the delivery, SIM will make a call out to the OMS to validate the delivery status and delivery quantities before completing the dispatch.
- No: OMS will not be called.

### Dispatch Validate

See [Chapter 12, "Shipping and Receiving Common Components."](#)

### Security

Security permissions exist for Customer Order Deliveries for the following:

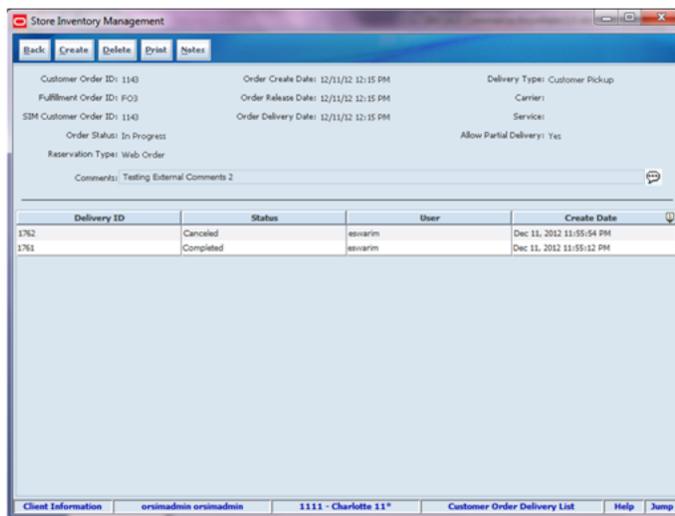
- Accessing, dispatching and deleting Customer Order Deliveries.
- Creating and editing a Customer Order Delivery for a shipment versus a pickup.
- Submitting and Cancel Submit for a Customer Order Delivery.
- Editing and Viewing Customer Order BOL.
- Dispatching an Incomplete Customer Order Delivery.

With this permission the user can dispatch a delivery that is incomplete, meaning that the Allow Partial Delivery indicator is set to No and not all of the items are present on the delivery. Without this permission, the user must have all items to complete the delivery.

## Customer Order Delivery List

The Customer Order Delivery List screen is a view-only screen.

**Figure 20–37 Customer Order Delivery List Screen**



The screen lists all of the Customer Order Delivery records for all statuses for the selected customer order. This list screen does not have a filter as there normally would not be that many deliveries for a customer order fulfillment order to filter on.

The Customer Order Delivery List screen is accessed by clicking the Delivery button for a selected Customer Order from the Customer Order List screen. The user can also click the Delivery button from the Customer Order Detail screen.

The header fields on the Delivery List are the same as those of the Customer Order Detail. The table will list all deliveries for the customer order.

The deliveries displayed may be for web orders that were created in SIM, a third-party system such as POS, or they may be for POS on holds and layaways.

The fields include the Delivery ID, status of the delivery, and the user that created the delivery along with the create date and time.

Delivery functions include:

- Navigating to the details of a delivery by double clicking the delivery record in the table.
- Deleting an in-progress delivery by selecting the delivery and clicking the delete button.
- Creating a new delivery. This can be done only for those customer orders that are web orders.

## Customer Order Delivery Detail

The Customer Order Delivery Detail screen displays the details associated to the customer order delivery. This is also the screen used to create a new delivery.

**Figure 20–38 Customer Order Delivery Detail Screen**

Item	Description	UOM	Pack Size	Remaining Qty	Order Qty	Picked Qty	Delivered Qty	Cancelled Qty	Quantity	UEM Qty	Substitute
10023096	W/air UOR...	Cases	2	1.5	2.5	0.5	0.5	0.5	0.5		
10057787	PAV REG L...	Cases	1	4	5	0	0	1	0	0	
10044703	Merch-Gre...	Cases	1	4	5	0	0	1	0	0	

The screen is accessed by clicking a delivery record from the Customer Order Delivery List screen, creating a delivery from the Customer Order Delivery List, or clicking a delivery record from the Customer Order Management List screen.

New Deliveries can only be created for web order customer orders that are still in an "In Progress" status, which means there is remaining quantity yet to be fulfilled.

The system needs to perform some validations before a new delivery is created.

First, if system is configured for picking required, it will validate there are item quantities on the customer order that have been picked which have not yet been delivered prior to creating the delivery. Next, the system will check the Allow Partial Delivery indicator which is on the customer order fulfillment order. If this is set to No, it means that the entire order must be delivered together. The system would not allow the creation of the delivery unless the entire order has been picked. If picking is not required, the delivery will be created. The Allow Partial Delivery indicator will then be validated upon dispatch of the delivery.

Once the system creates the delivery, the delivery will consist of all of the items that were auto populated from the customer order fulfillment order including substitutes.

Header fields are the same as on the Customer Order. Additional Header fields are those pertaining to this specific delivery: Delivery ID, Delivery Status, Delivery Create Date and Delivery User.

Table fields are the same as that of the customer order detail screen with the exception of the quantity and UIN quantity.

Users will enter in the quantity to be delivered. If picking is required, the quantity will not be allowed to exceed the pick quantity. If picking is not required, the quantity cannot exceed the remaining quantity. Those items that are UIN items will require the user to capture the UIN.

The user has the option to save the delivery which will move it to "In Progress" status to be completed at a later time.

Submitting is possible when the store setting Dispatch Validate is configured for Ship Submit. Submitting will set the delivery to a "Submitted" status and not allow for edits, since there are no updates to inventory at this point. The only step possible will be to Cancel Submit or Dispatch. When the system is configured for Ship Direct, submitting is not possible.

Dispatching the Delivery will check if the Allow Partial Indicator is set to No, it will validate that the entire order is being delivered together. If not, the system will restrict the user from dispatching. Those users with certain privileges will be able to override this and it will be a warning.

Upon dispatch, the delivery will be set to "Completed" status. The stock on hand and customer order reserved quantities will be decremented by the delivered quantities. The customer order fulfillment order will have the delivered and remaining quantity updated.

If the entire customer order has been fulfilled, meaning there is no remaining quantity, the customer order will be set to "Completed" status.

## BOL Detail

The BOL Detail Screen below is available for Customer Order Deliveries. The Ship From Section is populated with the information of the sending store. The Ship To Section contains the information of the customer. The Motive will default to Customer Order Delivery and contain additional motives if they exist.

**Figure 20–39 BOL Detail Screen**

If the carrier is on the customer order, the carrier type will be defaulted to third party and the carrier will be populated from the customer order. If there is no carrier on the customer order, the type will default to sender for shipments and receiver for pick-ups.

The Service, example 2 day, next day, and so on, are defaulted from the customer order. They are not required.

For additional details on BOL, Manifesting, and pre-shipment, see [Chapter 12, "Shipping and Receiving Common Components."](#)

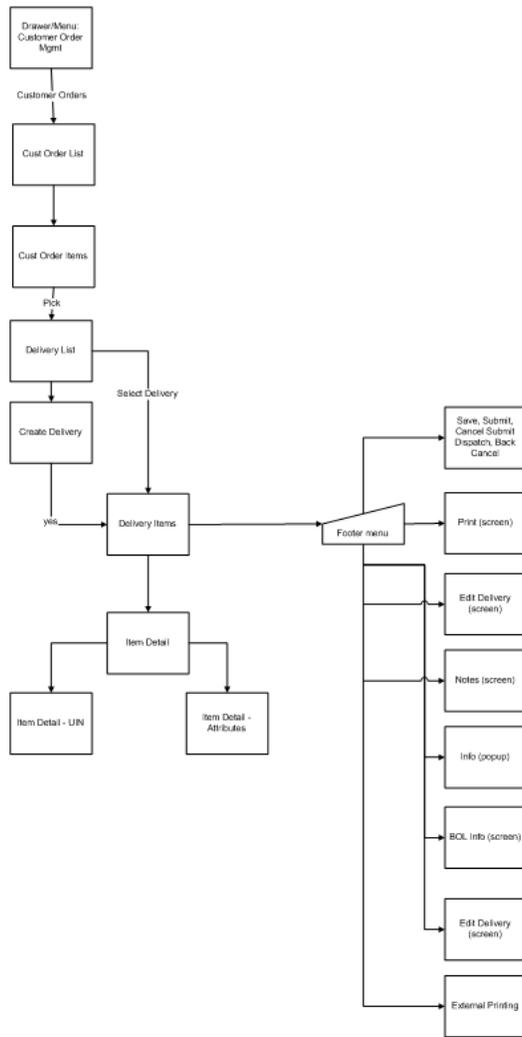
## MAF

Customer Order Deliveries exists on the PC and handheld. It allows the delivery (shipment or pickup) of a Commerce Anywhere/Web Order customer order. MAF also contains customer order delivery functionality.

Features:

- View customer order delivery (web order and non-web orders)
- Edit an existing customer order delivery (web order)
- Delete a customer order delivery web order)
- Print a customer order delivery
- Create a customer order delivery (web order)

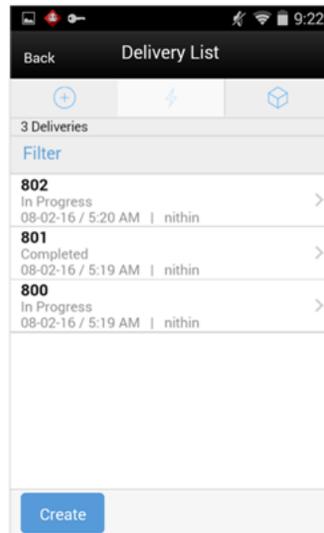
**Figure 20-40 MAF Customer Order Delivery Screen Flow (Small)**



Customer order deliveries will be accessed from the Customer Order dialog on the Cust Order Items footer menu. Customer order deliveries can be created and edited for web order types, not web orders can only be viewed. Customer order deliveries will allow for viewing, creating, saving, submitting, dispatching, printing, BOL, and deleting customer order deliveries.

## Delivery List

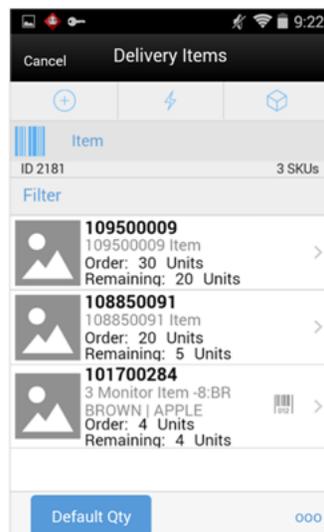
**Figure 20–41** Delivery List Screen



The Delivery List screen is accessed by selecting the Delivery menu option within the footer menu of a specific customer order. The screen will display all of the customer orders delivery for the specific customer order delivery. Since there will never be a large number of deliveries for a specific customer order, there is no search criteria screen. There is however a filter bar, which allows for filtering by: delivery ID, status, date, and user. Selecting a delivery will navigate to the details for the customer order delivery. The create button will attempt to create the delivery and navigate to the Delivery Items screen. All rules and validations for creating a delivery are the same as that of the PC application.

## Delivery Items

**Figure 20–42** Delivery Items List



The Delivery Items screen is accessed by selecting an existing Delivery from the Delivery List screen, or by creating a new delivery. The Delivery Items displays all of the items on the delivery including the order and remaining quantities.

Selecting an item will navigate to the Item Detail screen for that item. Scanning an item will also navigate to the Item Detail screen for that item and the quantity may be updated per the quantity scanned.

The items are listed in ascending order by item ID. A Default Qty button will be displayed in the footer which will default in the delivery quantities on the delivery (non UIN items) to what is remaining to be delivered.

### **Footer Menu**

The footer menu is accessed from the ellipsis footer menu on the Pick Items screen. The menu functions will include the following:

Info: Info will access the Info popup.

BOL Info: BOL Info will access the BOL Info popup.

Notes: The Notes option accesses the notes common dialog to capture notes. The note will be saved on the customer order and not the pick.

Default Qty: Default Qty will default in the delivery quantity to what is remaining.

Edit Delivery: Edit Delivery will display the Edit Delivery popup to edit header level information on the delivery.

Refresh: Refresh will refresh the delivery by getting the most current customer order/fulfillment order information. There may be other picks or deliveries that have occurred in the time the delivery was originally created.

Cancel Submit: Cancel Submit will set a submitted status delivery back to "In Progress."

Dispatch: Dispatch will dispatch the delivery and move it to 'Completed' status, user returns to the Delivery List screen. See "[Customer Order Delivery List](#)".

Submit: Submit will submit the delivery and set it to "Submitted" status. Submit is only available when store configured for Dispatch Validate to Ship Submit.

Save: Save will save the delivery as "In Progress" status and return to the Delivery List screen.

Delete: Delete will allow for deleting of an "In Progress" status delivery and move it to "Canceled" status. User will return to the Delivery List screen.

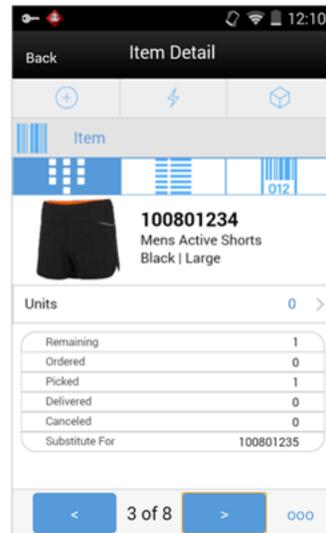
Back: Back is only applicable to view only deliveries and will exit to the Delivery List screen.

Cancel: Cancel will exit to the Delivery List screen and no changes will be saved.

Print: Print will display the common print dialog to print the customer order delivery report.

## Item Detail

**Figure 20-43** Item Detail Screen



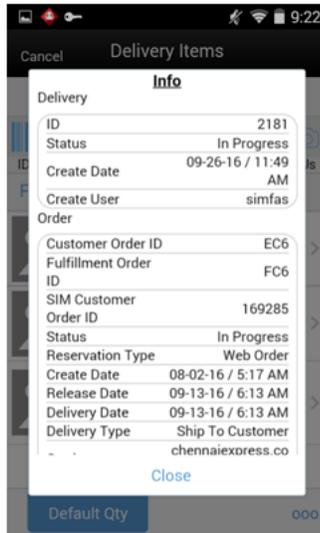
The Item Detail screen contains the details for the specific item on the customer order delivery. Entering/scanning an item on this screen will refresh the screen and update item and the delivery quantity for the item.

The delivery quantity, represented by the field on the top of the screen with the UOM label is editable by the user and represents how many of this item is being delivered. Editing the quantity is controlled by security. The pack size will be displayed if the UOM is set to cases. The remaining, order, picked, delivered and canceled quantities for the customer order will be displayed. Lastly, if the item is a substitute for another item, the Substitute For field will display with the original item listed.

The Item Detail has an extended attributes tab to add and remove extended attributes if the item is configured as such. There is also a UIN tab to take user to the UIN screen to add/remove UINs for UIN items.

## Info

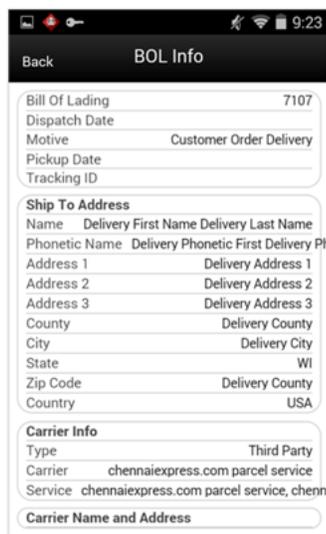
**Figure 20–44 Info Popup**



The Info popup contains read-only information about the header level of the customer order delivery. It is accessed through the Info menu option in the footer menu on the Delivery Items screen. Delivery details include: ID, status, create date, and create user. Order details include: customer order ID, fulfillment order ID, SIM customer order ID, status, reservation type, create date, release date, delivery date, and comments.

## BOL Info

**Figure 20–45 BOL Info Screen**



The BOL Info screen contains read-only information about the Bill of Lading (BOL) for the customer order delivery. It is accessed through the BOL Info menu option in the footer menu on the Delivery Items screen. Fields include: bill of lading, dispatch date, motive, pickup date, tracking ID, ship to address, alternate address (if one exists), carrier type, carrier, service, and carrier name and address.

## Edit Delivery

**Figure 20–46** Edit Delivery Screen

The screenshot shows a mobile application interface for editing a delivery. At the top, there are three buttons: 'Cancel', 'Edit Delivery', and 'Save'. Below this is a section for 'Bill Of Lading' with the value '7107'. The 'Motive' is set to 'Customer Order Delivery'. There are dropdown menus for 'Pickup Date' and 'Carrier'. A text input field is provided for 'Tracking ID'. A large text area is designated for 'Alternate Address'. Under 'Carrier Info', the 'Type' is 'Third Party' and the 'Carrier' is 'hennaexpress.com parcel service'.

This is the Edit Delivery screen for Customer Order Deliveries. It allows the user to edit details on the Customer Order Delivery or BOL. It is accessed when selecting the Edit Delivery menu option from the footer menu on Delivery Items. The Edit Delivery option is only editable when the delivery is in an editable status. The user must have proper permission to access this screen. Fields for edit include: motive, pickup date, tracking ID, alternate address, carrier type, carrier, service, carrier name and carrier address.

## Customer Order Reverse Picks

Canceling of customer orders can come into SIM from an external system, such as an Order Management System. When this happens, a reverse pick list will be generated. If there are items that physically need to be un-picked, the user will action the reverse pick list which will then take the items that were canceled and remove their picked quantity.

If the items that are being canceled are not picked, then the system generated reverse pick will just be created in a "Completed" status with no action required through the SIM application.

A manual reverse pick might also be necessary. This happens when the user discovers that something which was picked has been damaged. A manual reverse pick may be created in SIM which would also reduce the pick quantities.

A system-generated reverse pick may get created if the user attempts to reject an open customer order.

Note that reverse picking and canceling is more of an exception process and it is only available on the PC application.

## Configurations

This section covers security.

## Security

Security permissions exist for accessing, creating, editing, deleting, and completing a customer order reverse pick.

## Reverse Pick List

**Figure 20–47 Customer Order Reverse Pick List Screen**

ID	Status	User	Create Date
1793	New	External System	Apr 17, 2013 6:33:52 AM
1792	Cancelled	External System	Apr 17, 2013 6:33:52 AM
1791	New	External System	Apr 17, 2013 6:33:52 AM
8862	Cancelled	vanha	Apr 16, 2013 6:33:33 AM
8861	Cancelled	vanha	Apr 16, 2013 6:29:48 AM

The screen lists all of the Customer Order reverse pick records for all statuses. This list screen does not have a filter as there normally would not be that many reverse picks for a customer order fulfillment order to filter on.

The Customer Order Reverse Pick List screen is accessed by clicking the Reverse Pick button for a selected Customer Order from the Customer Order List screen or the user can click on the Reverse Pick button from the Customer Order Detail screen.

As in other areas, notice that the header fields on the Customer Order Reverse Pick List are the same as those of the Customer Order Detail.

The table will list all of the Reverse Picks for the Customer Order. The screen will list both externally created system-generated reverse picks as well as manually created within in SIM reverse picks. Reverse Picks are only for web orders.

The fields will include the SIM-generated ID for the reverse pick, status of the reverse pick, the user that created the reverse pick along with the create date and time. For externally system created reverse picks, the user will be External System.

Functions will include navigating to details of a reverse pick by double clicking on a reverse pick record in the table and deleting an in-progress reverse pick by selecting the reverse pick and clicking on the delete button. Finally, the user can create a new manually created reverse pick.

## Reverse List Detail

The Customer Order Reverse Pick Detail screen displays the details associated to the customer order reverse pick. This is also the screen where the user can create a new manual reverse pick. The screen is accessed by clicking a reverse pick record from the Customer Order Reverse Pick List screen, creating a reverse pick from the Customer Order Reverse Pick List, or clicking a reverse pick record from the Customer Order Management List screen.

**Figure 20–48 Customer Order Reverse Pick List Screen**

The screenshot shows the 'Customer Order Reverse Pick List' screen. The header contains the following information:

- Customer Order ID: 1234
- Order Create Date: 12/31/12 7:00 PM
- Delivery Type: Customer Pickup
- Fulfillment Order ID: P03
- Order Release Date: 12/31/12 7:00 PM
- Center:
- SDM Customer Order ID: 1234
- Order Delivery Date: 12/31/12 7:00 PM
- Service:
- Order Status: In Progress
- Allow Partial Delivery: Yes
- Reservation Type: Web Order
- Comments: Testing External Comments 2

The table below lists the reverse pick items:

ID	Status	User	Create Date
1783	New	External System	Apr 17, 2013 6:33:52 AM
1782	Cancelled	External System	Apr 17, 2013 6:33:52 AM
1781	New	External System	Apr 17, 2013 6:33:52 AM
1862	Cancelled	vanha	Apr 16, 2013 6:33:33 AM
1861	Cancelled	vanha	Apr 16, 2013 6:29:45 AM

Header fields are the same as on the Customer Order screen. Additional Header fields are those pertaining to this specific reverse pick: Reverse Pick ID, Reverse Pick Status, Reverse Pick Create Date, and Reverse Pick User. Table fields are the same as that of the customer order detail screen with the exception of the Suggested Reverse Pick Quantity. The next field is the quantity which will be an entry field for the user to enter in how much is being un-picked. The user has the option to Save the reverse pick which will move it to "In Progress" status to completed at a later time. Confirming the Reverse Pick will set the reverse pick to "Completed" status.

### Manual Reverse Pick

New Reverse Picks can only be created for Web Order customer orders that are still in an "In Progress" status. The user might want to create a manual reverse pick because something that was picked might have become damaged and therefore it must be un-picked.

Before creating a new manual reverse pick, the system needs to perform some validations. The system must be configured for manual or auto picking and if so, then reverse picks can be created. This means that if Reserve on Receiving is set to Yes and Auto Picking is not turned on, then a reverse pick would not be allowed to be created. There must be at least one item on the customer order with a physical picked quantity. By physical picked quantity it means a quantity that is still physically sitting there as picked, and it has not been delivered (which means shipped or picked up by the customer). Once the reverse pick is created, it will consist of all the items auto populated from the customer order fulfillment order including the substitute items. The Suggested Reverse Pick Quantity will be set to zero for manual picks. For manual reverse picks, the quantity cannot exceed the physical picked quantity.

### External System-Generated Reverse Pick

When a system generated reverse pick is created, it will put all items on the reverse pick, including the substitute items. However, only those items that have a suggested quantity will be allowed to be reverse picked. The Suggested Reverse Pick Quantity will be populated with what should be reverse picked based upon the cancellation from the external system. For externally system generated reverse picks, the Quantity cannot exceed the remaining quantity or the suggested reverse pick quantity.

If a cancellation comes into SIM that is for more than what is remaining on the order, the cancellation will be rejected and a system-generated reverse pick will not be created.

When creating the system generated reverse pick, the system will first try and cancel those items that have not been picked. If this quantity is exceeded, it will cancel those items already picked. When all items that are canceled have not been picked, there will not be anything to un-pick and therefore the reverse pick will be auto completed and put into a "Completed" status and updates will happen to the customer order and inventory as stated below. When some or all items that are canceled are picked, this creates a system-generated reverse pick in "New" status. This occurs so the user can action it and un-pick the items. Updates will occur upon confirmation of the reverse pick as described below.

### Reverse Pick Processing

Upon confirmation of the reverse pick, a few updates will take place. For manual reverse picks, the pick quantity on the customer order will be decremented by what was a Reverse picked. The Reserved quantity and the canceled quantity will not get updated as the items are not being canceled on the order, so they need to remain as reserved. They are simply being un-picked.

For the system generated reverse picks the pick quantity will be decremented on the customer order. The reserved quantity (if it had been reserved) will be decremented by what was reverse picked and put back to the backroom. The Canceled quantity on the customer order will be incremented by the reverse picked quantity. If all items have been canceled and there have been no deliveries, the status of the customer order will move to "Cancelled." If there is no remaining order quantity on the order, and some of the items have been delivered, the customer order will move to "Completed" status.

## Multi-Leg Orders

**Figure 20–49 Multi-Leg Orders Flow**



Not every retailer wants to use store stock for Customer Order fulfillment. In some cases, inventory has to be requested from another location such as a supplier, warehouse, or store to fulfill the customer order.

To support these processes better, all shipping and receiving dialogs recognize if the transaction is meant for a customer order or rather is purely dedicated to store fulfillment. This is applicable to only web order customer orders. This functionality exists on the PC as well as the handheld application.

Multi-leg customer orders consist of the following:

- 
- A Store to Store Transfer Request. This is when the store gets a store to store transfer request from another store. The store then accepts or rejects the request. If

accepted, it gets updated to an approved transfer to the requesting store which is used to fulfill the customer order.

- **Transfer Receiving.** The user receives a store to store transfer of goods from another store for a customer order to be fulfilled at their store or the user receives goods from a warehouse for a customer order to be fulfilled at their store.
- **DSD Receiving.** The user receives goods from suppliers for a customer order to be fulfilled at their store.

For more details on shipping and receiving, see [Chapter 11, "Transfers"](#) and [Chapter 9, "Direct Store Delivery."](#)

## POS Web Service/ReSA

In addition to sending sales information to SIM, the POS web service is also responsible to send create, cancel, and pickup information to SIM for non-web orders (on hold, layaways, and so on). For web orders, it communicates pickup information. See [Chapter 7, "Sales Integration."](#)

## Customer Order Management Business Deployments

Because of the configurability and the need for different retailers to have different processes, much consideration needs to be put into how the Cross Channel features will be deployed at a retailer. The following diagrams show some scenarios of the most common deployment by size and vertical. By no means is this the only possible configuration, but it illustrates the idea that different retailers will execute different processes.

### SIM Process - Boutiques

**Figure 20–50 SIM Process - Boutiques**

POS pickup Boutique Low volume	Order Arrival	Picking	Third Party Delivery	Delivery	Manifest	Close shipment	Note: User manually picks, waits for customer to arrive
SIM pickup Boutique Low volume	Order Arrival	Picking	Third Party Delivery	Delivery	Manifest	Close shipment	Note: User manually picks, waits for customer to arrive, closes delivery manually
SIM Ships Boutique Low volume	Order Arrival	Picking	Third Party Delivery	Delivery	Manifest	Close shipment	Note: User manually creates shipping label, and closes delivery
Notes							
Third party delivery – warehouse, other store, supplier SIM normally reserves when order arrives, this can however also be configured when the third party delivery happens. Picking however is not allowed for that configuration							

### SIM Process - Mid Size

**Figure 20–51 SIM Process - Mid Process**

POS pickup Mid-size retailer medium volume	Order Arrival	Picking	Third Party Delivery	Delivery	Manifest	Close shipment	Note: User manually picks, waits for customer to arrive
POS pickup Mid-size retailer medium volume	Order Arrival	Picking	Third Party Delivery	Delivery	Manifest	Close shipment	Note: all inventory comes from warehouse. No picking allowed if reservation at delivery time
SIM Ships Mid-size retailer Medium volume	Order Arrival	Picking	Third Party Delivery	Delivery	Manifest	Close shipment	Note: User manually picks, manifest closes delivery when shipped
Notes							
Third party delivery – warehouse, other store, supplier SIM normally reserves when order arrives, this can however also be configured when the third party delivery happens. Picking however is not allowed for that configuration							

## SIM Process - Large Volume

**Figure 20–52 SIM Process - Large Volume**

SIM pickup Large-size retailer high volume	Order Arrival	Picking	Third Party Delivery	Delivery	Manifest	Close shipment	Note: User manually picks, waits for customer to arrive, closes delivery manually
SIM pickup Grocery Very high volume	Order Arrival	Picking Substitution	Third Party Delivery	Delivery	Manifest	Close shipment	Note: User picks multiple orders with SIM in one go substitutes as needed. Ships with manifest and manifest auto closes deliveries
SIM pickup/Ship True Omni-Channel Any volume	Order Arrival	Picking Substitution	Third Party Delivery	Delivery	Manifest	Close shipment	Note: User picks multiple orders with SIM in one go substitutes as needed. Ships with manifest and manifest auto closes deliveries
SIM Ships Hypermarket Large volume	Order Arrival	Picking Substitution	Third Party Delivery	Delivery	Manifest	Close shipment	Note: User picks multiple orders with SIM in one go substitutes as needed. Ships with manifest and manifest auto closes deliveries

Notes
Third party delivery – warehouse, other store, supplier SIM normally reserves when order arrives, this can however also be configured when the third party delivery happens. Picking however is not allowed for that configuration

## User Interface Guidelines

Customer Orders: Viewing on PC, handheld, and MAF Small.

Customer Order Picking: creating, editing, viewing, and deleting on PC, handheld, and MAF Small.

Customer Order Deliveries: creating, editing, viewing, and deleting on PC, handheld, and MAF Small.

Reverse Picking: creating, editing, viewing, and deleting on PC.

Customer Order Management task screen is on PC.

## Technical

SIM processes and stores various types of fulfillment orders. For the purposes of the Commerce Anywhere functionality in SIM, special processing is given to the Web Order type of fulfillment orders. Fulfillment order picks, reverse picks, and deliveries can only be created by the end-user for this type of fulfillment order.

From a technical approach, fulfillment orders, and all related transactions are with a single header record and one or more detail records. All transactions related to fulfillment orders have an identifier that points to the order being processed.

Business objects are used within the application code for all business processing.

Business Object	Description
Fulfillment Order	Contains header-level information on a fulfillment order.
FulfillmentOrderPick	Contains detailed information about a single line item on a fulfillment order.
FulfillmentOrderLineItem	Contains header-level information on a pick for one or more fulfillment orders.
FulfillmentOrderPickLine Item	Contains detailed information about a single line item on a pick for one or more fulfillment orders.
FulfillmentOrderBin	Contains information about a fulfillment order bin, a representation of a single fulfillment order during a single fulfillment order pick.
FulfillmentOrderReversePick	Contains header-level information on a reverse pick for a fulfillment order.

<b>Business Object</b>	<b>Description</b>
FulfillmentOrderReversePickLineItem	Contains detailed information about a single line item for a reverse pick for a fulfillment order.
FulfillmentOrderDelivery	Contains header-level information on a delivery for a fulfillment order.
FulfillmentOrderDeliveryLineItem	Contains detail information about a single line item for a delivery of a fulfillment order.

## Integration

This section covers integration through RIB and web services.

### RIB

#### Customer Orders

- Customer Order Create is used for Customer Orders that are a type of Web Order integrated to SIM through a message (FulfilOrdDesc). These integrations are used for the customer order from the Order Management System (OMS) into SIM.
- The Customer Order Create failure message (FulfilOrdCfmDesc) is a message that will be sent out to external system when SIM gets a Customer Order that comes into the system through the RIB and fails due to validation issues such as an invalid item. The purpose of the create failure is so other systems will know it has failed when it came into SIM and that it is not being processed.
- The Stock Order Status message (SOStatusDesc) will be sent out with an SI upon reserving inventory for the customer order.

#### Picking

- A Stock Order Status message (SOStatusDesc) is sent out with a type of SI upon reserving inventory. This happens when more is picked than what was on the order due to tolerances. This could also occur when a substitute item is added during the picking process.
- The Stock Order Status message (SOStatusDesc) with a type of SD will be published to un-reserve the original items inventory when a substitute item has been added during picking.
- A Stock Order status message (SOStatusDesc) is sent out with a type of PP when picking is completed.
- Item Substitutes are sent to SIM from the merchandising system through the item message (ItemDesc).

#### Deliveries

- An ASN Out message (ASNOutDesc) is sent out upon dispatching of the Delivery. This will be done for pick-ups and for shipments.
- The Stock Order Status message (SOStatusDesc) with a type of PP will be published for the pick quantity in the scenario that more was delivered than what was picked.
- The Stock Order Status message (SOStatusDesc) with a type of SI will be published for the reserved quantity. This will occur when more was delivered than what was reserved. This can happen when picking was not required, the

reservation occurs upon receipt of a delivery, and the full amount had not been received, therefore not reserved.

- For pre-shipment technical information, see [Chapter 12, "Shipping and Receiving Common Components."](#)

**Reverse Picking**

- Customer Order Cancellations (FulfilOrdRef) will come into SIM from external system such as an OMS through the RIB. This service will perform all the validations to determine if it should create a reverse pick and whether or not that reverse pick should be auto completed.
- Customer Order Cancellation Confirmation (FulfilOrdRef) is a message to send to OMS upon completing of the system-generated reverse pick.
- Stock Order Status message (SOStatusDesc) with a type of SD will be published for the reserved quantity to un-reserve the inventory for the reverse pick for system-generated picks.
- Stock Order Status message (SOStatusDesc) with a type of PU will be published for the reverse picked quantity to un-pick the inventory for system-generated picks.

**Multi Leg**

The following integrations are in addition to the standard integrations that already exist such as receipt message, and so on:

- The Stock Order Status message (SOStatusDesc) with a type of SI will be published for the reserved quantity.
- The Stock Order Status message (SOStatusDesc) with type of PP will be published for the picked quantity.

**RIB Payloads**

RIB payloads are used to communicate information to external systems through RIB Integration.

RIB Payload	Description
FulfilOrdDesc	RIB payload that contains information about a new web order type of fulfillment order to be created in SIM.
FulfilOrdCfmDesc	RIB payload sent from SIM that contains fulfillment order information when that order creating in SIM failed.
FulfilOrdRef	RIB payload that contains information about a fulfillment order cancelation. It is sent to SIM to convey a cancelation request and sent from SIM to convey actual cancellations.
SOStatusDesc	Sent from SIM to convey changes in item status for a specific fulfillment order. Such changes of status include (un)reservation and (un)picking.
ASNOutDesc	Sent from SIM to convey a delivery for specified fulfillment order.

**Web Services**

SIM supplies a number of SOAP web services for the processing of fulfillment orders and their related transactions. Each area is its own service containing relevant operations.

The following service operations are supported for the StoreFulfillmentOrder web service.

Service Operation	Description
lookupFulfillmentOrderHeaders	Retrieves header information for fulfillment orders based on input search criteria.
readFulfillmentOrderDetail	Reads a single fulfillment order with full details.
createFulfillmentOrderDetail	Creates a new fulfillment order in SIM.
cancelFulfillmentOrderDetail	Requests a cancellation of a fulfillment order in SIM.
rejectFulfillmentOrder	Rejects a fulfillment order in SIM.

The following service operations are supported for the FulfillmentOrderPick web service.

Service Operation	Description
lookupFulfillmentOrderPickHeaders	Retrieves header information for fulfillment order picks based on input search criteria.
readFulfillmentOrderPick	Reads a single fulfillment order pick with full details.
confirmFulfillmentOrderPick	Confirms an existing fulfillment order pick.
deleteFulfillmentOrderPick	Cancels an existing fulfillment order pick in SIM.
createFulfillmentOrderPickByFulfillmentOrder	Creates a new Order type fulfillment order pick for the input fulfillment order identifier.
createFulfillmentOrderPickByBin	Creates a new Bin type fulfillment order pick for the input number of bins.
updateFulfillmentOrderPick	Updates an existing fulfillment order pick.

The following service operations are supported for the FulfillmentOrderReversePick web service.

Service Operation	Description
lookupReversePickHeaders	Retrieves header information for fulfillment order reverse picks based on the input fulfillment order identifier.
readReversePickDetail	Reads a single fulfillment order reverse pick with full details.
createReversePick	Creates a new fulfillment order reverse pick for the specified fulfillment order.
deleteReversePick	Cancels an existing fulfillment order reverse pick.
updateFulfillmentOrderReversePick	Updates an existing fulfillment order reverse pick.
confirmReversePick	Confirms an existing fulfillment order reverse pick.

The following service operations are supported for the FulfillmentOrderDelivery web service.

Service Operation	Description
lookupFulfillmentOrderDeliveryHeaders	Retrieves header information for fulfillment order deliveries based on an input fulfillment order identifier.

Service Operation	Description
readFulfillmentOrderDeliveryDetail	Reads a single fulfillment order delivery with full details.
createFulfillmentOrderDelivery	Creates a new fulfillment order delivery in SIM.
cancelFulfillmentOrderDeliverySubmission	Cancels the submission of a fulfillment order delivery.
dispatchFulfillmentOrderDelivery	Dispatches an existing fulfillment order delivery.
submitFulfillmentOrderDelivery	Submits an existing fulfillment order delivery.
updateFulfillmentOrderDelivery	Updates changes to an existing fulfillment order delivery.

## Batch

The following batch is available:

Batch Name	Description
Problem Line Stock Count Batch	A set of criteria on the Product Group exists called Actual Pick Amount is less than Suggested Pick Amount. The Problem Line batch which will take into account these criteria when generating a problem line stock count. It will put the items on the stock count if what was picked for the customer order is less than what the system had suggested to be picked.

## Data Structure

The following database tables are used:

Table Name	Description
FUL_ORD_RV_PICK	Stores reverse picks for fulfillment orders.
FUL_ORD_RV_PICK_LINE_ITEM	Holds line items for fulfillment order reverse picks.
FUL_ORD	Holds store fulfillment orders.
FUL_ORD_BIN	Holds bins for picks of store fulfillment orders.
FUL_ORD_DLV	Holds deliveries for store fulfillment orders.
FUL_ORD_DLV_LINE_ITEM	Holds fulfillment order delivery line items.
FUL_ORD_DLV_LINE_ITEM_ATT	Holds extended attributes associated to line items of deliveries for store fulfillment orders.
FUL_ORD_DLV_LINE_ITEM_UIN	Holds UINs of line items for deliveries of store fulfillment orders.
FUL_ORD_LINE_ITEM	Holds store fulfillment order line items.
FUL_ORD_PICK	Holds picks for store fulfillment orders.

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<b>Table Name</b>	<b>Description</b>
FUL_ORD_ PICK_LINE_ ITEM	Holds line items of picks for store fulfillment orders.

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## Operational Views

This chapter describes operational views. The following topics are covered:

- [Overview](#): Overview of operational views.
- [Operational Views](#): Description of available operational views.
- [Technical](#): Use of APIs.

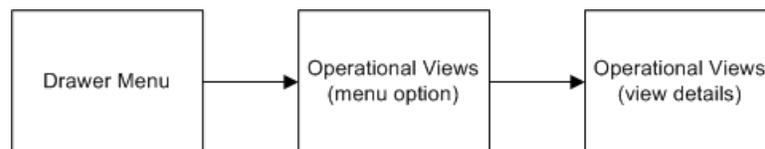
### Overview

Operational views is a dialog on the SIM tablet that allows the user to access four different views of data for informational purposes or research. The following views are available:

- [New Items](#)
- [Noncompliant Tickets](#)
- [Expiring Items](#)
- [Out of Stock](#)

### Operational Views Screen Flow

*Figure 21–1 Operational Views Screen Flow*



This diagram shows the screen flow for the Operational Views functionality on the SIM Tablet. Selecting Operational Views from the menu drawer directs the user to the Operational Views screen.

### Configurations

Existing store and system admin parameters for Item Configuration on the PC will also be applicable when necessary on MAF, for example, display of Sequence Fields.

### Security

Security permissions exist for accessing Operational Views.

## Operational Views

This section describes each available operational view.

### New Items

**Figure 21–2 New Items Operational View**

Operational Views					
From Date Oct 6, 2015 >		To Date Oct 13, 2015 >		<a href="#">Reset</a>	<a href="#">Load</a>
New Items					
Store: 5000 - Solihull					
Item ID	Description	Primary Location	First Received ...	Available SOH	
1221 - Home Shop					
100637121	Cheese Knife	Shopfloor - Test L..	10-09-15 / 9:29 AM	180	
1234 - Seasonal Home Shop					
100637172	BBQ tongs large	--	10-09-15 / 9:29 AM	-10	
1414 - BWS					
100637148	Budweiser X4	--	10-09-15 / 9:29 AM	200	
2345 - Garden					
100637113	AA Gardening Glo	Shopfloor - Test L..	10-09-15 / 9:29 AM	200	
3333 - Small Appliances					
100637130	Kenwood Kettle	Backroom - Test ...	10-09-15 / 9:29 AM	0	
3456 - Bacon and Sausage					
100637164	Smoked bacon X...	--	10-09-15 / 9:29 AM	200	
100650078	AA Pork Sausages	--	10-09-15 / 9:29 AM	200	
100650086	AA Streaky Bacon	--	10-09-15 / 9:29 AM	200	
100650094	Apple and Herb S	--	10-09-15 / 9:29 AM	200	
5678 - BWS - Other					
100637156	Simnoff 2 ltr	--	10-09-15 / 9:29 AM	10	

The New Items operational view displays active items for the user's store that were received for the first time in the past seven days. The receipt may have been from a supplier, warehouse, or store. The records are grouped together by department. Fields include item, description, primary location if sequencing is used, first received date, and available stock on hand.

## Noncompliant Tickets

**Figure 21–3 Noncompliant Tickets Operational View**

Item	Description	Ticket Qty	SOH
100637113	AA Gardening Glo	200	200
100637121	Cheese Knife	200	200

The Noncompliant Tickets operational view displays active items for the user's store that have a regular price change without a ticket or label. The date is passed in by the user and the system looks for items with regular price changes for that date where there are no labels submitted to printing, there are no tickets, or a ticket quantity is less than or equal to the stock on hand. Fields include item, description, ticket quantity, and stock on hand.

## Expiring Items

Figure 21-4 Expiring Items Operational View

Item	Description	Location
100637113	AA Gardening Gloves	Shopfloor Test location1
100637113	AA Gardening Gloves	Backroom Test location2
100637113	AA Gardening Gloves	Shopfloor Test location3
12345678901234	14 Char GS1 Item	No Location

The Expiring Items operational view displays items for the user's store that are expiring on a given date. The expiration date is passed in by the user. The expiration date on the item will be those that are captured through extended attributes on transactions. Fields include expiration date, item, description, and location if sequencing is used.

## Out of Stock

**Figure 21–5 Out of Stock Operational View**

Operational Views					
Expiring Items		Out of Stock			
New Items		Store: 5000 - Solihull			
Out of Stock		Item ID	Description	Inbound	Ordered
Noncompliant Tickets		Dept: 1234 - Seasonal Home Shop			
		100637172	BBQ tongs large	0	60
		Dept: 3333 - Small Appliances			
		100637130	Kenwood Kettle	0	0
		Dept: 6065 - House Hold			
		5002	Organic 100% Cot	0	0

The Out of Stock operational view displays active items for the user's store that are out of stock, meaning the available stock on hand is less than or equal to zero. Fields include item, description, inbound, and ordered.

## User Interface Guidelines

Operational Views exist on MAF large.

## Technical

The operational view functionality uses regular EJB service APIs to load information about items and/or transactions that have taken place in the system to gather information to display. There are no web services or batch jobs to support this functionality. It is available on the MAF large format only and retrieves its information from tables described in other chapters.

