

Oracle Warehouse Management Cloud

Implementation and Configuration Guide

Release 22B



Copyright © 2022, Oracle and/or its affiliates.

This software and related documentation are provided under a license agreement containing restrictions on use and disclosure and are protected by intellectual property laws. Except as expressly permitted in your license agreement or allowed by law, you may not use, copy, reproduce, translate, broadcast, modify, license, transmit, distribute, exhibit, perform, publish, or display in any part, in any form, or by any means. Reverse engineering, disassembly, or decompilation of this software, unless required by law for interoperability, is prohibited.

The information contained herein is subject to change without notice and is not warranted to be error-free. If you find any errors, please report them to us in writing.

If this is software or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, delivered to U.S. Government end users are "commercial computer software" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, use, duplication, disclosure, modification, and adaptation of the programs, including any operating system, integrated software, any programs installed on the hardware, and/or documentation, shall be subject to license terms and license restrictions applicable to the programs. No other rights are granted to the U.S. Government.

This software or hardware is developed for general use in a variety of information management applications. It is not developed or intended for use in any inherently dangerous applications, including applications that may create a risk of personal injury. If you use this software or hardware in dangerous applications, then you shall be responsible to take all appropriate fail-safe, backup, redundancy, and other measures to ensure its safe use. Oracle Corporation and its affiliates disclaim any liability for any damages caused by use of this software or hardware in dangerous applications.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

Intel and Intel Xeon are trademarks or registered trademarks of Intel Corporation. All SPARC trademarks are used under license and are trademarks or registered trademarks of SPARC International, Inc. AMD, Opteron, the AMD logo, and the AMD Opteron logo are trademarks or registered trademarks of Advanced Micro Devices. UNIX is a registered trademark of The Open Group.

This software or hardware and documentation may provide access to or information about content, products, and services from third parties. Oracle Corporation and its affiliates are not responsible for and expressly disclaim all warranties of any kind with respect to third-party content, products, and services unless otherwise set forth in an applicable agreement between you and Oracle. Oracle Corporation and its affiliates will not be responsible for any loss, costs, or damages incurred due to your access to or use of third-party content, products, or services, except as set forth in an applicable agreement between you and Oracle.

Contents

Get Help	i
<hr/>	
2 Overview	3
Overview	3
Basic Guidelines	3
Copy and Update Warehouse Management Databases	4
3 General Configuration	7
General Configuration	7
Facility Setup	7
Company Setup	7
Custom Menu Setup	8
Group Configuration	9
User Profiles	10
Facility Parameters	11
Company Parameters	11
Sequence Counters	11
Barcode Types	13
Literals	13
Messages	14
4 Master Configuration	15
Master Configuration	15
Locations	15
Items	17
Vendors	24
Ship To Company	24
Carriers	25
Ship Vias	26
Stores (Ship to Stores)	26
Routes	27

Assets	28
5 Location Master	29
Location Master	29
Reserve Locations	29
Active Locations	30
Task Zone Movements	32
Additional Location Attributes	32
6 Receiving Operations	35
RF Modules Setup	35
Pre-Receiving Operations	35
Receiving Operations Setup	39
Sorting and Receiving Operations	41
Inbound Sorting Operations	43
Receiving and Cross Dock	44
7 Putaway Operations	47
RF Modules Setup	47
Set Up Item Putaway Types	47
Set Up Location Size Types	48
Set Up Putaway Priority	49
Set Up Putaway Rules	50
RF Putaway	51
Putaway Error Messages	52
8 Inventory Control	53
RF Modules Set Up	53
Inventory Adjustment	54
Container Split	54
Lock Codes	55
Create LPN	56
Immediate Cycle Count	57
Delayed Cycle Count	58
Cycle Count Tasks	60
Cycle Count Triggers	62

Inventory Management Modules	63
9 Replenishment	65
RF Modules Setup	65
Replenishment Template	65
Replenishment Operations	69
10 Waving	71
Waving Overview	71
Wave Template	72

Get Help

There are a number of ways to learn more about your product and interact with Oracle and other users.

Get Help in the Applications

Access the online help from the user drop-down menu in the Warehouse Management application.

Get Support

You can get support at [My Oracle Support](#). For accessible support, visit [Oracle Accessibility Learning and Support](#).

Get Training

Increase your knowledge of Oracle Cloud by taking courses at [Oracle University](#).

Join Our Community

Use [Cloud Customer Connect](#) to get information from industry experts at Oracle and in the partner community. You can join forums to connect with other customers, post questions, and watch events.

Learn About Accessibility

For information about Oracle's commitment to accessibility, visit the [Oracle Accessibility Program](#). (if videos) Videos included in this guide are provided as a media alternative for text-based topics also available in this guide.

Share Your Feedback

We welcome your feedback about Oracle Warehouse Management. If you need clarification, or find an error, you can direct your questions via a service request to [My Oracle Support](#).

2 Overview

Overview

These topics will serve as a guide to configure UI Modules for available Oracle® Fusion Cloud Warehouse Management functionalities needed for customer flows.

A summary of the specific functionality is provided in each section to help users decide on functionality that will be needed as well as what needs to be configured. The document follows a sequence based on the end-to-end flows (receiving to shipping), however configuration is not required to be done in this particular order. Any section can be configured at any time as long as prerequisites are met.

This guide will include some RF Transactions needed for specific flows but will not cover all RF Transactions.

Basic Guidelines

Assumptions

- The customer will also use the RF Parameters document for additional RF Modules needed for the flow.
- The customer will have basic knowledge of Oracle Warehouse Management (WMS) Cloud.

Basic Terminology

- SuperUser: User created at the Parent Company Level. This user will have access and visibility over all companies in any facility he/she has access to.
- Child User: User created at a company level. This user will only have access to that specific company.

Configuration Guidelines

- Each topic has multiple tasks and multiple sub-tasks for configuration. A task will have a summary that will help clients determine if the particular configuration task is needed for the client flow.
- All task and sub-tasks are not required. Customers can decide what is needed for their specific flow. The summary and overview of a task should be used to determine if optional tasks are needed for the business flow.

Configuration

- When doing configuration for a specific client company, users need to make sure they are logged in under the correct client company level.
- Lock codes and Reason Codes are only configured at the 3PL Parent Company Level

UI Menu

- Existing Menus can be leveraged for new users. Additional Modules can be added to a User's Existing Menu if new functionality is required.
- Some UI Modules/Screens mentioned in configuration will have to be added to a user's menu prior to configuration. Section 'Custom Menu Set Up' will go over adding screens to a menu.

RF Menu

- RF Transactions that will be used for operations will have to be added to users' RF Menu.
- They will first be added in the "Screen Configuration" UI Module and then added to respective menus.
- These RF modules can be added as the configuration is being done.
- When adding and configuring RF Transactions, users need to make sure that they are at the correct company level:
 - If an RF Transaction is available in a SuperUser Menu, this RF Transaction will be added and configured at the 3PL Parent Company level
 - If an RF Transaction is available in a ChildUser Menu, this RF Transaction will be added and configured at the Client Company Level

Users

Users created at the Parent Company level will be able to operate on any company using the RF. Users will be logged in to a facility and will not have to specify a company for operations.

Users created at the Child Company level will only be able to operate for the specific client company.

3PL Parent Company vs. Client Company

- Wave templates configured at the 3PL Parent company level can be used for any client company. Wave Templates configured at the client company level can only be used for that client company.
- Configuration for wave templates made at the 3PL Parent Company level will not be visible at the client company level.

Recommendation: If wave templates will not be shared across different client companies, configuration should be done at the client company level.

Copy and Update Warehouse Management Databases

Oracle Cloud WMS supports cloning WMS databases. However, the cloning activity is strictly restricted to environments owned by a particular customer.

The following options are supported:

- Product to Test (P2T) - Copying the PROD environment to a non-Prod environment.
- Test-to-Test (T2T) - For customers that have purchased multiple non-Prod environments, copying one non-Prod to another non-Prod.

- Test-to-Production (T2P) - Copying a non-Prod environment to Production. **Though this option is available, it can only be requested before the WMS environment Go-Live and does require further approvals from customer management.**

There are other rules and guidelines that governs database cloning procedure, so please carefully review MOS document *How Does Oracle Warehouse Management database copy and update process work across multiple environments? (Doc ID 2519902.1)* before submitting a Service Request (SR) via Oracle Cloud WMS Support.

3 General Configuration

General Configuration

These topics will walk you through General Configuration for Oracle WMS Cloud. Click on the topics in the left-pane for more details.

Facility Setup

Task Description	WMS Module	Overview/Comments	Task Details
Facility Set Up	Facilities	New facility is required to be created if: -the company being added is in a new/non-existing Facility in Oracle WMS Cloud.	<ol style="list-style-type: none"> 1. In the Facilities UI, Create a Facility as a Distribution Center for new Distribution Centers (DCs.) Create a Facility as a Store for new Stores 2. To add an existing company to that facility: access the link 'Companies in Facility' and add the company to the facility.
Add Facility to user	Users	A new created Facility needs to be added to the user profile	<ol style="list-style-type: none"> 1. In the Users UI, under 'Eligible Facilities', the new DC can be added to the user's profile for access to the Facility 2. Log out and log back in for the change to take effect.

Company Setup

Task Description	WMS Module	Overview/Comments	Task Details
Non-existing Company Set Up	Companies	(Non-existing Company in New or Existing Facility)	<ol style="list-style-type: none"> 1. Login under specific facility created 2. Create new company in the Companies UI. <p>Note: The Company created will automatically added to the Facility under which the user is logged in.</p>

Task Description	WMS Module	Overview/Comments	Task Details
			In the Facilities UI, under Companies, all companies in the selected facility can be viewed.
Existing Company Set Up (Existing Company in new or existing Facility)	Facilities	Existing Companies do not need to be re-created but need to be added to the specific facility	1. In the Facilities UI, select the specific Facility and add the existing company under 'Companies in Facility'

Custom Menu Setup

Custom Menu Setup is required if new custom UI and RF menus are required for specific users/groups of users (i.e. Super User Menu, Inbound User Menu, Inventory Control Menu etc...)

Note:

- Existing Menus at the 3PL Parent Level can be used for users at the 3PL Parent Level (SuperUsers)
- Existing Menus for a specific existing client company can be used for users created at the specific client company level across different facilities
- For new companies: new users created at the new company level will require a new menu to be created if a custom menu is needed

All required screens/modules will need to be added in the **Screen Configuration** UI before they can get added to a menu. Required screens can be added as configuration is being done.

Task Description	WMS Module	Overview/Comments	Task Details
UI Modules/Screens Set Up	Screen Configuration	Login under Parent Company Level to add screens at the 3PL Parent level (for menus at Parent level) Login under the specific Child Company Level to add screens at the Client Company level (for menus at client company level)	1. Login at the specific level required to add UI Modules. 2. In the Screen Configuration UI, add all required Modules. Note: Some UI Modules may already be available to add to menus.
UI Menu Set Up	Menu Configuration	Login under Parent Company Level to add screens at the 3PL Parent level Login under the specific Child Company Level to add screens at the Client Company level	1. Login at the specific level required. 2. In the Menu Configuration UI, create Menu with correct type = UI.

Task Description	WMS Module	Overview/Comments	Task Details
			<ol style="list-style-type: none"> 3. Select the menu created and under the 'Details', add all required screens for the menu. 4. Save all changes when done.
RF Screens Setup	<p>Screen Configuration</p> <p>See the RF Parameters Document for more details.</p>	<p>Login under Parent Company Level to add screens at the 3PL Parent level</p> <p>*Login under the specific Child Company Level to add screens at the Client Company level</p>	<ol style="list-style-type: none"> 1. Login at the specific level required to add RF Transactions. 2. In the Screen Configuration UI, add all required RF Transactions. <p>Note: Some RF Transactions may already be available to add to menus.</p> <ol style="list-style-type: none"> 3. Configure the RF Parameters for each RF Transaction correspondingly based on flow requirements.
RF Menu Setup	Menu Configuration	<p>Login under Parent Company Level to add screens at the 3PL Parent level</p> <p>Login under the specific Child Company Level to add screens at the Client Company level</p>	<ol style="list-style-type: none"> 1. Login at the specific level required. 2. In the Menu Configuration UI, create Menu with correct type = RF. 3. Select the Menu created and under the 'Details', add all required RF Transactions for the menu. 4. Save all changes when done.

Group Configuration

Group Configuration will be used to set up User Groups (i.e. Super User Menu, Inbound User Menu, etc...). A user group will have an assigned UI and/or RF Menu. One or more groups can be assigned to each user.

Each user will have a default group. A user's default group will determine the user's RF Menu as well as the user's default UI Menu. The user will be able to switch from different UI Menus.

Note:

- Existing groups at the 3PL Parent Level can be used for users at the 3PL Parent Level (SuperUsers.)
- Existing Groups for a specific existing client company can be used for users created at the client company level across different facilities
- For new companies: new users created at the new company level will require a new group to be created if custom menus are needed

Task Description	WMS Module	Overview/Comments	Task Details
User Group Set Up	Group Configuration		<ol style="list-style-type: none"> 1. Login at the specific level required to add Groups. 2. In the Group Configuration UI Module, create new group and select UI and RF Menus created for that group.
Group Permission	Group Configuration	If the group will be used for user roles such as 'Employee', 'Guards', 'Supervisors', Group permissions can be added. This will allow users to have specific additional permissions.	<ol style="list-style-type: none"> 1. Select the group and under Permissions select all permissions needed for the specific group. <p>Note: Permissions do not need to be added for user roles 'Administrator'</p>

User Profiles

Task Description	WMS Module	Overview/Comments	Task Details
Add Profiles for new Users	Users	<p>Users created at the 3PL Parent Company will have visibility across all companies in the specific facilities they have access to</p> <p>Users created at the client company level will only have visibility and access to that client company</p>	<ol style="list-style-type: none"> 1. Create usernames for any new users for the warehouse or customer. 2. When adding Facility to user profile: Select specific facility the user needs access to or default login facility. 3. When adding a Company to a user profile: <ul style="list-style-type: none"> ○ For SuperUsers, select the 3PL Parent Company ○ For customer users or users with limited access to a specific company, select the customer company. 4. When adding the role: <ul style="list-style-type: none"> ○ Select Guard or Employee for users with read-only access. 5. For the default group: Select the appropriate group with the correct Menu to add to the user.
Add Facility-Company to New and Existing Users	Users	New users will be created with a default facility. Additional facilities can be added to users.	<ol style="list-style-type: none"> 1. Select the specific user and access the link 'Eligible Facilities.'

Task Description	WMS Module	Overview/Comments	Task Details
			<p>2. Add the Facilities to the user selected.</p> <p>Note: For users created at the 3PL Parent Company level: all companies in the added facility will be automatically added to the user.</p>

Facility Parameters

Facility parameters are used to configure system functionalities for Facility level operations. The configuration for Facility parameters will apply to all companies within the specific facility being configured. Examples of facility level parameters:

- Shipping Load Assignment - Auto Load and Ship Option etc...

See the [Facility Parameters](#) document for available facility parameters with their definition.

Parameter Values will mostly include: (Yes, No, Y, N, TRUE, FALSE)

Company Parameters

Company parameters are used to configure system functionalities for Company level operations. The configuration for Company parameters will only apply to the specific client company being configured.

See the [Company Parameters](#) document for available company parameters with their definition.

Parameter Values will mostly include: (Yes, No, Y, N, TRUE, FALSE)

Note: For existing companies, if company parameters are already configured, the parameter values will be the same and are not required to be re-configured.

Sequence Counters

Sequence Counters are used to set up the generation of values for the different identifiers/numbers used in an end-to-end process flow. For example, sequence counters include: License Plate Numbers, shipment numbers, load numbers, and any other identifier number generated automatically by the system.

The counter code and counter description will specify the name of the identifier (ex: OBLPN - Outbound Container --> This counter will be used to set up the generation of outbound license plate numbers).

- The prefix values will be used in every generated number sequence as a prefix. (ex: OC for Outbound Containers)

- The start and end Number fields will specify the values for the start and end number of the sequence number (ex: 1 to 1000)
- The sequence length will specify the number of characters that will get generated after the prefix
- The increment will be the value by which the sequence number will increase.
- The 'Append Facility Code to Prefix' flag can be checked to append the facility code to the sequence counter prefix.

Task Description	WMS Module	Overview/Comments	Task Details
Existing Sequence Counters	Sequence Counter		<ol style="list-style-type: none"> 1. Login at the specific company level 2. In the Sequence Counters UI Module, select each counter that will be used for the flow and edit each record to enter values for the fields. 3. For the counter code Outbound Container a check digit method can be chosen to calculate the identifier number.
Sequence Counters for Ship To Companies	Sequence Counter	<p>New sequence counters for 'Outbound Container' are created for each new ship To company created in the Ship To Company Master.</p> <p>The sequence counter set up for a ship to company will be used to generate outbound containers for Outbound LPNs being shipped to the ship to company.</p> <p>Note: Ship To companies must be set up first to be able to set up these sequence counters. See Master Configuration.</p>	<ol style="list-style-type: none"> 1. Login at the specific company level. 2. In the Sequence Counters UI Module, search for the counter - Outbound Container created for a ship to company and edit the sequence values. 3. For the counter code Outbound Container a check digit method can be chosen to calculate the identifier number.
Sequence Counter by Stores	Sequence Counter	<p>New sequence counters for 'Outbound Container' can be created for stores (Ship To Facilities). This will allow Outbound LPNs to be created with prefixes specific to a Store.</p> <p>(i.e. Store 1 can have a specific prefix or sequence range for Outbound LPNs while Store 2 has different prefix and range)</p> <p>Note: Facilities must be set up first to be able to set up these sequence counters. See Master Configuration.</p>	<ol style="list-style-type: none"> 1. Login at the specific company level. 2. In the Sequence Counters UI Module, search for the counter - Outbound Container created for a ship to company and edit the sequence values. <p>OR copy an existing record for Outbound Container to add a new counter.</p> <ol style="list-style-type: none"> 3. Enter the required values. 4. Select the specific Ship To Facility for which the sequence counter is being edited.

Task Description	WMS Module	Overview/Comments	Task Details
			<ol style="list-style-type: none"> For counter code Outbound Container, a check digit method can be chosen to calculate the identifier number.

Barcode Types

Barcode Types are used to set up acceptable barcode formats for barcodes scanned with RF during warehouse operations. The barcode types can be used if it is required to restrict the format of certain barcodes. Barcode types can be set up to restrict formats of LPNs, Batch Numbers, etc...

There can be multiple formats for the same barcode types.

A barcode type will specify:

- A prefix (not required)
- The length of the barcode. Note: A length of -1 will indicate any length.

The 'numeric_flg' will specify if a barcode type will only include numeric values.

Task Description	WMS Module	Overview/Comments	Task Details
Barcode Types Set Up	Barcode Types		<ol style="list-style-type: none"> Login at the specific company level. In the Barcode Types UI Module, select the barcode types that will be used for the flow and edit each record to enter values for the prefix and the length. Copy and edit records to set up additional formats for the same barcode types.

Literals

Literals are field names that are displayed in the UI on headers and the search/edit/create pop-up screen. These field names can be renamed appropriately specific to your business flow.

For example: In the item master, item parts (part_b tp part_f) can be used as item characteristics such as color, size, etc.. These fields can be renamed appropriately to reflect what they represent for you.

Task Description	WMS Module	Overview/Comments	Task Details
Literals Setup	Literals	<p>Note: Changes made at the 3PL Parent Company level will affect all the client companies.</p> <p>Changes made at the Company level will be visible for that company across facilities.</p>	<ol style="list-style-type: none"> 1. Login at the specific company level. 2. From the Literals UI, click on the Search Icon to look for a field name. 3. In the Literal field enter the field name that needs to be changed (ex: part for all the item parts) and click on Search. 4. Select the specific literal from the results and under the 'Edit Literal' section, enter the new field name in the field 'Text'. 5. Click Save for the changes to take effect. 6. Users will have to log out and log back in to see the changes in effect.

Messages

Messages are WMS Messages that are displayed on RF Screen during operations. These messages include informational messages such as messages for Inventory being received or picked, as well as error messages that prevent some operations.

These messages can be modified and worded differently, and they can also be disabled if required.

Task Description	WMS Module	Overview/Comments	Task Details
Messages Setup	Messages	<p>Note: Changes made at the 3PL Parent Company level will affect all the client companies.</p> <p>Changes made at the Client Company level will be visible for that company across facilities.</p>	<ol style="list-style-type: none"> 1. Login at the specific company level. 2. In the Messages UI, click on the Search Icon to look for a message. 3. In the 'Text' field enter part of the message that needs to be changed and click 'Search'- OR display all messages with the 'Refresh' icon. 4. Select the specific message from the results and under the 'Edit Message' Section, enter the new message. 5. Under the Edit Facility Properties, check/uncheck the Enabled flag to disable/enable a message. 6. Click Save for the changes.

4 Master Configuration

Master Configuration

Location Master can be configured before or after all other WMS Configuration. There are some prerequisites for the location master:

1. Location Size types which define a group/area of locations that will be used to putaway group of items of similar characteristics. The location size types can be automatically created with the location master or before uploading the location master. See section 'Putaway Operations' for more details on Location Size Types.
2. Replenishment zones which define a zone for a group of locations that will get replenished from the same reserve locations. See section 'Inventory Control' for more details on Replenishment zones.

Both location size types and replenishment zones do not need to be configured prior to the location master. If this information is available in the location master, these values will automatically get created in WMS. Rules can then be added afterwards in the other configuration sections.

Locations

The following are definitions for each type of location that can be configured:

Task Description	WMS Module	Overview/Comments	Task Details
Storage Locations Setup	Location Master	<p>Storage locations consist of Reserve and Active locations.</p> <ul style="list-style-type: none"> • Reserve Locations will be used to pick Full LPNs, Cases, Packs and Units, and will also be used for replenishment to active • Active Locations will be used to only store and pick Units. There is no LPN traceability in Active. 	<ol style="list-style-type: none"> 1. In Location Master, add Reserve Locations with Location Type = R and Active Locations with Location type = A 2. Enter Values for fields 'Area', 'aisle', 'bay', 'level', and 'barcode'.
Dock Locations Set Up	Location Master	Dock Locations are used to check in shipments and inbound loads at dock. This will give visibility on the locations of received LPNs. Dock Locations are not required for receiving	<ol style="list-style-type: none"> 1. In Location Master, add Dock Locations with Location Type = D 2. Enter required fields 'Area', 'aisle', 'bay', 'level', and 'barcode'.
QC and VAS Location Set Up (Quality Control & Value Added Services)	Location Master	QC Locations must be set up for QC operations. During receiving, Inventory marked for QC will be located to a QC Location. VAS Locations must be set up for VAS	<ol style="list-style-type: none"> 1. In Location Master, add QC Locations with Location Type = Q and VAS Locations with Location type = V

Task Description	WMS Module	Overview/Comments	Task Details
		operations. During receiving, Inventory marked for VAS will be located to a VAS Location.	<ol style="list-style-type: none"> 2. Enter required fields 'Area', 'aisle', 'bay', 'level', and 'barcode'.
Consolidation Locations Set Up	Location Master	Consolidation Locations are used for Distribution to Stores (Put-To-Store Process) Consolidation Locations will be assigned to stores for distribution Consolidation locations are not required unless the distribution to store process will be used	<ol style="list-style-type: none"> 1. In Location Master, add Consolidation Locations with Location Type = C 2. Enter required fields 'Area', 'aisle', 'bay', 'level', and 'barcode'.
Drop Locations Set Up	Location Master	Drop Locations are used as intermediary locations. Users will be able to drop inventory in specific drop locations for inbound and outbound flows. (i.e. this can be used for zone picking and task movement rules).	<ol style="list-style-type: none"> 1. In Location Master, add Consolidation Locations with Location Type = P 2. Enter required fields 'Area', 'aisle', 'bay', 'level', and 'barcode'.
Staging Location Set Up	Location Master	Staging locations are used after packing to consolidate inventory for outbound orders. Staging rules can be set up to consolidate inventory based on the shipping load, the destination, the order number, etc...) Staging locations will also be used to unload outbound containers from outbound loads when needed.	<ol style="list-style-type: none"> 1. In Location Master, add Consolidation Locations with Location Type = S 2. Enter required fields 'Area', 'aisle', 'bay', 'level', and 'barcode'.
Pack and Hold Locations Set Up	Location Master	Pack and Hold locations are intermediate storage locations to place cartons in status packed. This is used to hold ready outbound inventory before shipping. The putaway sequence will be used to direct user to the first empty pack and hold location based on sequence.	<ol style="list-style-type: none"> 1. In Location Master, add Pack and Hold Locations with Location Type = H 2. Enter required fields 'Area', 'aisle', 'bay', 'level', and 'barcode'. 3. Enter a putaway sequence if needed.
Shipping Locations Set Up	Location Master	Shipping locations will be used to ship individual cartons through RF Ship functionality. The cartons and orders will be updated to status 'shipped' once the shipping location is scanned. Cartons will have to be in status 'packed'. The use of loads and manifests is not required for this functionality.	<ol style="list-style-type: none"> 1. In Location Master, add Shipping Locations with Location Type = Y 2. Enter required fields 'Area', 'aisle', 'bay', 'level', and 'barcode'.
Receiving and Packing Stations Set Up	Location Master	Receiving stations are used receive and sort items into totes. Packing stations are used to pack items into shipping cartons.	<ol style="list-style-type: none"> 1. In Location Master, add Receiving Station Locations with Location Type = T and Packing Station Locations with Location type = K 2. Enter Values for fields 'Area', 'aisle', 'bay', 'level', and 'barcode'.

Items

Item Master can be configured before or after all other WMS Configuration. There are some prerequisites for the item master such as Putaway Types and VAS Group Codes, but these can be configured with the item master.

Putaway types represent the groups of items with similar characteristics (i.e. item divisions.)

1. Putaway types can be configured with the item master. When the item master is uploaded, putaway types will be automatically created. For UI Manual entry, putaway types must be configured prior.
2. Putaway types can be created prior to uploading item master.

VAS Groups do not require to be set up for the item master.

All fields in item master are not required. Only the mandatory fields need to be set up. The additional informational fields can be left blank.

Item Master Setup

Task Description	WMS Module	Overview/Comments	Task Details
Item Basic Identifiers	Items	Required fields: - Item Alternate Code: Another code to identify an item. This can be the same as the item code. - Item Barcode: UPC Barcode - This can also be the same as the item barcode if UPC Information is not available - Style/Part_a: Item Code/Number - Description Non-Required Fields: Part_b to Part_f: Additional Identifiers or attributes of an item. Parts can be used to specify color, size, etc.. Note: If these additional Parts are used the item code will be the concatenation of part_a and these other parts	<ol style="list-style-type: none"> 1. In Item master, enter all item's basic attributes item code, description, parts... 2. Enter Additional Attributes in part_b to part_f fields if needed
Item Dimensions and Cost	Items	Fields unit_cost, unit_length, unit_width, unit_height, unit_weight, unit_volume will specify information for the unit/each UOM level	<ol style="list-style-type: none"> 1. In Item master, enter all item's additional attributes: <ul style="list-style-type: none"> • unit_cost • unit_length • unit_width • unit_height • unit_weight • unit_voume

Task Description	WMS Module	Overview/Comments	Task Details
Hazmat Flag Set Up	Items	The field 'Hazmat' is used to specify if an item hazardous	<ol style="list-style-type: none"> 1. In item master, enter value 'TRUE' or 'FALSE' or check/uncheck hazmat flag in UI to specify if an item is hazardous.
Informational Fields Set Up	Items	<p>Additional Informational Fields can be set up: recv_type, catch_weight_method, order_consolidation_attr</p> <p>These fields can be used for any informational purpose</p>	<ol style="list-style-type: none"> 1. In Item Master, add additional values for informational fields: <ul style="list-style-type: none"> o recv_type o catch_weight_method o order_consolidation_attr
OBLPN Type	Items	<p>The OBLPN Type of an item can be set up to specify the type/size of the container that needs to be used to pack an item. The OBLPN Type set up for an item will be set up in the 'OBLPN Type' UI Screen to specify dimensions of the container. These dimensions will be used for the cubing functionality. Note: The OBLPN Type is not required to be set up at the item level for the cubing functionality.</p>	<ol style="list-style-type: none"> 1. In Item Master, add OBLPN Type. In the UI, access the Item details. 2. Click on edit to add the OBLPN Type, then click Save for the change.
Additional Information Fields Set Up	Items	<p>Additional Informational Fields can be set up: season_code, brand_code, cust_attr_1, cust_attr_2, retail_price, net_cost, currency_code, external_style</p>	<ol style="list-style-type: none"> 1. In Item Master, add values for informational fields: <ul style="list-style-type: none"> o season_code o brand_code o cust_attr_1 o cust_attr_2 o retail_price o net_cost o currency_code o external_style <p>**In the UI, some of these fields might be accessible in the 'Details' and not with the 'Edit' option.</p>

Task Description	WMS Module	Overview/Comments	Task Details
Item Standard Packs, Cases	Items	Information for standard packs and cases of an item can be set up for: std_pack_qty, std_pack_length, std_pack_width, std_pack_height, std_pack_weight, std_pack_volume, std_case_qty, max_case_qty, std_case_length, std_case_width, std_case_height, std_case_weight, std_case_volume. These values are not required, but can be used to receive and pick packs and cases instead of units and Full LPNs	<ol style="list-style-type: none"> In Item Master Interface, add values for inner case and packs: <ul style="list-style-type: none"> std_pack_qty std_pack_length std_pack_width std_pack_height std_pack_weight std_pack_volume std_case_qty max_case_qty std_case_length std_case_width std_case_height std_case_weight std_case_volume In the UI, access the Item details and click on edit to add these values, then click Save for the change.
Additional Dimensions	Items	Additional dimensions can be set up for informational purposes with fields: dimension_1 to dimension_3	<ol style="list-style-type: none"> In Item Master Interface, add values for fields: <ul style="list-style-type: none"> dimension_1 to dimension_3 In the UI, access the Item details and click Edit to add these values. Click Save.
Hierarchical Information	Items	Item Hierarchical Fields can be set up for informational purposes: hierarchy1_code & hierarchy1_description to 5 group_code & group_description. There can only be one description for each hierarchy code uploaded. (i.e. if multiple items have the same hierarchy code, the description of this code will be the same). Only Hierarchy descriptions are visible in the UI	<ol style="list-style-type: none"> In Item Master Interface, add values for fields: <ul style="list-style-type: none"> hierarchy1_code hierarchy1_description group_code group_description
VAS Group Code (Only if VAS Flow will be used)	Items	The VAS Groups define the different groups of VAS Activities. The VAS Group will have one or more VAS Activities based on group requirement. (i.e. VAS Group	<ol style="list-style-type: none"> In Item Master Interface, add values for VAS Group Code. In the UI, click Edit to add this value.

Task Description	WMS Module	Overview/Comments	Task Details
		'Clothes-Flats' will have activities: 1.'Ironing', 2. 'Sensors', and 3. 'Price Labels) See VAS Functionality section in 'Receiving Operations' section for more details	
Putaway Type	Items	Item Putaway Types are used to group items with similar characteristics for putaway. Items with same putaway types will be putaway in the same location area. (i.e. The putaway type can be an item's division, classification or even an item's velocity).	<ol style="list-style-type: none"> 1. In Item Master Interface, add values for Putaway Type 2. To add this value in the UI, the putaway type needs to be created first.
Item Short Description	Items	The item short description can be used to specify an item's description with a shorter length. If the item short description is specified, this description will be displayed on the labels instead of the item's description	<ol style="list-style-type: none"> 1. In Item Master Interface, add values for: <ul style="list-style-type: none"> • Short description
Additional Information	Items	conveyable: TRUE/FALSE sortable: TRUE/FALSE min_dispatch_uom: informational velocity_code: indicates low to high volume skus regularity_code stackability_code: indicates skus in heavier to lighter order for sorting	<ol style="list-style-type: none"> 1. In Item Master Interface, add values for: <ul style="list-style-type: none"> • Conveyable • sortable • min_dispatch_uom • velocity_code • regularity_code • stackability_code
Expiry and Lot/Batch Numbers	Items	Following fields will be used to set up expiry, lot/batch requirements: product_life: this is specified in number of days (i.e. 365 days) percent_acceptable_product_life: % of the number of days that is acceptable for an expiry date from today. req_batch_nbr_flg: flag to require batch/lot number for an item. When this flag is set to TRUE, batch number will be prompted for the item during receiving	<ol style="list-style-type: none"> 1. In Item Master Interface, add values for: <ul style="list-style-type: none"> • product_life • percent_acceptable_product_life • req_batch_nbr_flg
Standard Pallets	Items	Fields: lpns_per_tier and tiers_per_pallet are used to set up standard quantities of lpns per pallet for an item	<ol style="list-style-type: none"> 1. In Item Master Interface, add values for: <ul style="list-style-type: none"> • lpns_per_tier and tiers_per_pallet

Task Description	WMS Module	Overview/Comments	Task Details
Serial Number Tracking	Items	The serial_nbr_tracking field can be set up as follow: 0=Not required(default), 1=Required. Don't validate during receiving if already specified on shipment interface, 2=Required. Validate even if specified on shipment interface and allow user to override Company Parameter ' SERIAL_NUMBER_TRACKING_LEVEL' 0=No Serial Number Tracking(default), 1=Packing Only (Tracks Serial Numbers from Packing stage only), 2=End to End. (Track Serial Numbers at all Stages in DC Operations. Like an End to End option)	<ol style="list-style-type: none"> In Item Master Interface, add values for: <ul style="list-style-type: none"> serial_nbr_tracking as 0, 1 or 2
Harmonized Tariff Codes	Items	An Harmonized Tariff Code and Description can be specified for each item	<ol style="list-style-type: none"> In Item Master Interface, add values for: <ul style="list-style-type: none"> Harmonized Tariff Code Harmonized Tariff Description
Additional Information	Items	full_oblpn_type: informational case_oblpn_type: informational pack_oblpn_type: informational description 2: Item description # 2 – Can be used to specify description in another language description 3: Item description # 3 – Can be used to specify description in another language nmfc code	<ol style="list-style-type: none"> In Item Master Interface, add values for: <ul style="list-style-type: none"> full_oblpn_type case_oblpn_type pack_oblpn_type description 2 description 3 nmfc code

Item Facility Setup

Task Description	WMS Module	Overview/Comments	Task Details
Item Facility Set Up	Item Facility	Item Facility will allow to set up items to have different characteristics across different facilities for the same client company. Characteristics are:	<ol style="list-style-type: none"> In item facility master, enter all basic item attributes Enter the correct attributes for the specific facility

Item Barcode Setup

Task Description	WMS Module	Overview/Comments	Task Details
Item Barcode Set Up	Item Barcode	Item Barcode Set Up will allow an item to have multiple barcodes	<ol style="list-style-type: none"> 1. In 'Item Barcodes' Master, enter the main item barcode as the vendor barcode 2. Add records for all other barcodes for that item entering the barcodes in 'Item Barcode'

Item Prepack Setup

Task Description	WMS Module	Overview/Comments	Task Details
Individual Items Set Up	Item Master	Prepacks or Kits The prepack or kit in WMS is defined as a Parent Prepack Item which contains one or more Individual Items with specific ratios. Individual Prepack Items (Child Items) must be created before a prepack/kit can be created.	<ol style="list-style-type: none"> 1. Set up Item Master by following sub tasks of Item Master Set Up above
Parent Item Prepack Set Up - Host Aware	Item Master & Item Pre-Pack	A parent item represents the identifier for prepacks (group/ assortment of items) that can be considered as one comprehensive item. Host aware Parent Items are prepacks recognized by the client's host system. For Parent Items to be aware they have to be created in the item master as items prior to setting up prepacks.	<ol style="list-style-type: none"> 1. Set up Item Master with all Prepack Items by following the sub-tasks of Item Master Set Up above 2. Using the Item Prepack interface, enter: <ul style="list-style-type: none"> o Parent Item Alternate Code in 'Parent_item_code' and/ or Parent Item parts set up in Item Master
Parent Item Prepack Set Up - Non Host Aware	Item Master	A parent item represents the identifier for prepacks (group/ assortment of items) that can be considered as one comprehensive item. Non Host aware Parent Items are prepacks not recognized by the	<p>Using the Prepack Interface:</p> <ol style="list-style-type: none"> 1. Create the Prepack Parent item by entering a parent item code in 'Prepack Code'

Task Description	WMS Module	Overview/Comments	Task Details
		client's host system. In this case, communication with host system will be done at the child item level while WMS Operations can be done at both the parent and child level. Non Host aware Parent Items do not need to be set up in the Item Master prior to configuring prepacks.	Note: Parent_item_code and Parent parts fields do not need to be populated. This will create the Parent as a non-host aware item in the item master.
Prepack Child Items Set Up	Item Prepack	Prepacks Child Items represent the individual items that compose the package of items.	Using the Prepack Interface: <ol style="list-style-type: none"> 1. Add the individual child items to the prepack parent item: - Enter the child item alternate code in 'child_item_code' field - OR Enter the child item parts in 'child_item_part_a' to 'part_f' 2. Enter the number of units that are part of the prepack for the item 3. Enter the total number of units for all items 4. Enter a sequence number for each item
Prepack Additional Information	Item Prepack	Prepack information for the following can be specified: pre_pack_weight, pre_pack_volume, pre_pack_length, pre_pack_width, pre_pack_height, pre_pack_std_case_qty, pre_pack_max_case_qty Note: These fields are not required.	Using the Prepack Interface: <ol style="list-style-type: none"> 1. Add values for fields: <ul style="list-style-type: none"> ○ pre_pack_weight ○ pre_pack_volume ○ pre_pack_length ○ pre_pack_width ○ pre_pack_height ○ pre_pack_std_case_qty ○ pre_pack_max_case_qty

Interface Protected Fields

Fields in the Item Master can be locked to prevent updates for future item master uploads. For example, if an item master is loaded, and the host will continue sending item master files with missing data - (i.e. Missing dimensions if dimensions were taken upon receiving and then uploaded) - some fields can be locked from updates. The values in these fields will not get updated or removed with item master uploads.

Task Description	WMS Module	Overview/Comments	Task Details
Item Master Fields to Protect	Interface Protected Fields	Fields added for protection will not be populated via Item uploads	<ol style="list-style-type: none"> 1. Login at the correct company level 2. In the 'Interface Protected Fields' UI Module, Select the interface type (i.e. Item Input) 3. Select each field that need protection from the drop down in 'column name' and save

Vendors

Task Description	WMS Module	Overview/Comments	Task Details
Vendors Set Up	Vendors	Vendors will be used to set up Vendor Information for Purchase Orders (POs) Vendors are not required if the QC Functionality will not be used	Company level

Ship To Company

Task Description	WMS Module	Overview/Comments	Task Details
Ship To Company Set Up	Ship To Company	Ship To Company will be used to set up custom documents (labels, packing slips...) based on the company. The Ship To Companies must be set up in this case.	<ol style="list-style-type: none"> 1. Login at the correct company level. 2. Add ship To company codes and description. 3. Add additional information if needed.
Ship To Company Sequence Counters	Sequence Counters	New sequence counters for 'Outbound Container' are created for each new ship To company created in the Ship To Company Master.	<ol style="list-style-type: none"> 1. Login at specific company level. 2. In the Sequence Counters UI Module, search for the counter - 'Outbound Container' created for a ship to company and edit the sequence values. 3. For counter code 'Outbound Container' a check digit

Task Description	WMS Module	Overview/Comments	Task Details
			method can be chosen to calculate the identifier number.
Barcode Types Validation (Optional)	Barcode Types	If New Sequence Counters for 'Outbound Container' were added for Ship To Companies, the sequence counter prefixes and lengths have to be eligible barcode formats in the 'Barcode Types' UI Screen	<ol style="list-style-type: none"> 1. Login at specific company level. 2. In the Barcode Types UI Module, Select the barcode types OB Container and edit or create a new barcode type to add additional barcode formats.
Set Up Sequence Counter Use	Company Parameter	<p>The company parameter 'USE_SEQ_CTR_BY_DEST_COMP' can be set as follow:</p> <ol style="list-style-type: none"> 1. Yes: The system will use the sequence counter for the Company specified in the "Destination Company" field in the Order Header. The default is yes. 2. No: Will not use a company-specific sequence counter. <p>Note: Only applies to OBLPNs from Full LPN allocations</p>	<ol style="list-style-type: none"> 1. Login at specific company level. 2. In the Company Parameter UI Module, select the barcode types OB Container and edit or create a new barcode type to add additional barcode formats.

Carriers

Carriers can be set up in the Carrier Master if needed:

- If LTL Loads need to specify carrier Information
- If the WMS Parcel functionality will be used

Task Description	WMS Module	Overview/Comments	Task Details
LTL Carriers Set Up	Carriers	LTL/TL Carriers can be set up for non-Parcel Carriers. Note: Parcel Carriers can also be set up as LTL/TL if the WMS Parcel Functionality will not be used.	<ol style="list-style-type: none"> 1. Login at the client company level 2. In 'Carrier' UI Screen, add non-Parcel Carriers 3. Enter a carrier code and description and select carrier type as LTL/TL
Parcel Carriers Set Up	Carriers	Parcel Carriers will be set up if the WMS Parcel/Manifesting functionality will be used either	<ol style="list-style-type: none"> 1. Login at the client company level

Task Description	WMS Module	Overview/Comments	Task Details
		through Web Services (FedEx, UPS), or Ratelinx for more Carriers Parcel Carriers can be created either at the Carrier level or the service level (i.e. One Carrier per ship via) Carriers at the service level will allow opening manifests at the service level rather than the Carrier level	<ol style="list-style-type: none"> 2. In 'Carrier' UI Screen, add Parcel Carriers with type = Parcel 3. Enter a carrier code and description 4. Select a Standard Carrier <p>Note: This must be specified for parcels</p>

Ship Vias

Ship Vias will be used to set up shipping service levels for Carriers. Each ship via will be linked to an existing corresponding carrier. Parcel Ship Vias will have to be linked to Carriers of type = Parcel if the WMS Parcel functionality will be used. Ship Vias can be specified on orders.

Task Description	WMS Module	Overview/Comments	Task Details
Ship Vias Set Up	Ship Vias		<ol style="list-style-type: none"> 1. In the 'Ship Via' UI, add all ship vias for services levels that will be used 2. Enter a ship via code and name 3. Select the corresponding Carrier to be linked to the ship via 4. For all parcel services, a standard service type must be chosen

Stores (Ship to Stores)

Store Master is used to set up all stores a client company will ship to. Setting up the store master will allow you to:

- Send orders to WMS with just the store number for the ship to information.
- Set up a default ship via for each store that needs to be used shipping if ship via is not provided on the order.
- Use the WMS Routing Functionality - This will allow setting different routes with specific service levels with each route containing stores. Please see next section for more details on the routing functionality.

Task Description	WMS Module	Overview/Comments	Task Details
Stores Set Up	Facilities	Stores will be set up as facilities with type = Store	<ol style="list-style-type: none"> 1. In the Facilities UI, add store master with type = store for each store <p>Note: The Input Interface UI can be used to upload the store master template.</p> <ol style="list-style-type: none"> 2. When creating stores, a default ship via can be specified for each store if needed.
Stores Sequence Counters Set Up (Optional)	Sequence Counters	<p>New sequence counters for 'Outbound Container' can be created for stores (Ship To Facilities). This will allow Outbound LPNs to be created with prefixes specific to a Store. (i.e. Store 1 can have a specific prefix or sequence range for Outbound LPNs while Store 2 has different prefix and range)</p> <p>Note: Facilities must be set up first to be able to set up these sequence counters. See Master Configuration.</p>	<ol style="list-style-type: none"> 1. Login at the specific company level 2. In the Sequence Counters UI, search for the counter - 'Outbound Container' created for a ship to company and edit the sequence values. OR Copy an existing record for 'Outbound Container' to add a new counter 3. Enter the required values 4. Select the specific Ship To Facility for which the sequence counter is being edited 5. For counter code 'Outbound Container' you can choose a check digit method to calculate the identifier number.
Barcode Types Validation (Optional)	Barcode Types	If New Sequence Counters for 'Outbound Container' were added for Stores (Ship To Facilities), the sequence counter prefixes and lengths have to be eligible barcode formats in the 'Barcode Types' UI Screen	<ol style="list-style-type: none"> 1. Login at the specific company level 2. In the Barcode Types UI Module, Select the barcode types OB Container and edit or create a new barcode type to add additional barcode formats

Routes

Route Master is used to set up routes a client company will use for shipping to stores. Routes are used to group different stores on the same path/itinerary to allow for better planning for shipping to stores. This will allow you to:

- Assign ship vias to routes. All stores on a specific route will use the same ship via.

- Assign stores to outbound shipping loads based on routes. (i.e. An outbound load will be assigned for each route used)
- Enable/disable a route based on shipping rates and plans

Task Description	WMS Module	Overview/Comments	Task Details
Routes Set Up	Route Header View		<ol style="list-style-type: none"> 1. In the Route Header View UI, create routes. The 'Input Interface' UI can be used to upload the route master template 2. The route master will specify a ship via code for each route 3. The route details will specify all stores that are on that specific route

Assets

The asset management functionality is used to track totes or other types of assets/containers with unique ID. Assets can be linked to OBLPNs before shipping and the SHIPPED LOADS interface/file will be generated with this asset number. Assets can be considered as totes that can be received, used for picking and also shipped.

The Asset Master can specify all IDs for totes/containers that are used in a Warehouse. When the Asset functionality in 'ON', the system will only allow receiving, picking shipping of LPNs/Assets that are set up in the Asset Master. The LPNs scanned will be considered as assets.

Task Description	WMS Module	Overview/Comments	Task Details
Reusable Assets Set Up	Facility Parameter	Assets can be set up to be to be reusable. (i.e. This can be used to reuse LPNs, Containers, Totes, etc...) The facility parameter REUSABLE_TOTES can be set up as 'Yes' to reuse assets.	<ol style="list-style-type: none"> 1. In the Facility Parameter UI Module, search for the REUSABLE_TOTES parameter. 2. Edit the parameter and set the value to 'YES' or 'NO'.
Assets Set Up	Assets		<ol style="list-style-type: none"> 1. Use the Asset Interface file to upload all Asset identifiers. 2. Login at the correct company level. 3. In the Input Interface UI, select the module 'Asset' and upload the asset file. 4. Select the file uploaded and run the interface to upload the asset master.

5 Location Master

Location Master

For more details on Location Master configuration and setup, refer to the following topics:

Reserve Locations

Reserve Locations are used to pick Full LPNs, Cases, Packs and Units, and will also be used for replenishment to active.

Task Description	WMS Module	Overview/Comments	Task Details
Locations Basic Information	Location Master	Mandatory	<ol style="list-style-type: none"> 1. In Location Master, add Reserve Locations with Location Type = R. 2. Enter Values for fields 'Area', 'aisle', 'bay', 'level', and 'barcode'. 3. Additionally, a position and a bin can be specified. 4. Enter dimensions Length, width, height.
Pick Sequence and Putaway Sequence (Not Mandatory but recommended)	Location Master	The pick sequence will be used for picking tasks to follow a specific order for picking instead of a random order. The putaway sequence will be used to putaway inventory based on a location sequence. The pick and putaway sequence are not required but are recommended.	<ol style="list-style-type: none"> 1. In Location Master, enter the pick sequence and the putaway sequence for each location. <p>Note: For the system to follow the sequence, the values entered must have equal lengths. For example: if a pick sequence goes from 1 to 10,000 then the pick sequence must be set up as follows: from 00001, 00002, ..., 00010, 00100, ... to 10000.</p>
Dedicated Company (Optional)	Location Master	Dedicated Company will be used to specify if the location will be dedicated to a certain company	<ol style="list-style-type: none"> 1. In Location Master, enter the Dedicated Company for the location.
Location Size Types (Optional)	Location Master	Location Size Types are used to specify a group of locations that will be used for specific Item's Putaway Types. Location Size Types can be configured previously in UI or using the location master.	<ol style="list-style-type: none"> 1. In Location Master, enter the location size type for each Reserve Location.

Task Description	WMS Module	Overview/Comments	Task Details
		Values in Location master will get automatically created as Location Size Types	
Replenishment Zones (Optional)	Location Master	Replenishment is allowed between Reserve Locations. Replenishment Zones are used to specify group of locations that will be replenished from specific allocation zones.	<ol style="list-style-type: none"> 1. In Location Master, enter the location replenishment zone for each Reserve Location in the 'replenishment_zone' field.
Min and Max Units (Optional)	Location Master	Min and Max Units are used for replenishment. A replenishment trigger can be set for the minimum quantity of units in a location. Replenishment Allocation will be done up to the max quantity of units.	<ol style="list-style-type: none"> 1. In Location Master, enter the min and max units for each location. (Integer Values.)

Active Locations

Active Locations will be used to store and pick Units.

Task Description	WMS Module	Overview/Comments	Task Details
Locations Basic Information	Location Master	Mandatory	<ol style="list-style-type: none"> 1. In Location Master, add Reserve Locations with Location Type = A 2. Enter Values for fields 'Area', 'aisle', 'bay', 'level', and 'barcode'. 3. Additionally, a position and a bin can be specified 4. Enter dimensions Length, width, height
Pick Sequence and Putaway Sequence (Not Mandatory but recommended)	Location Master	The pick sequence will be used for picking tasks to follow a specific order for picking instead of a random order. The putaway sequence will be used to putaway inventory based on a location sequence. The pick and putaway sequence are not required but are recommended.	<ol style="list-style-type: none"> 1. In Location Master, enter the pick sequence and putaway sequence for each location. <p>Note: For the system to follow the sequence, the values entered must have equal lengths. For example: if a pick sequence goes from 1 to 10,000 then the pick sequence must be set up as follow: from 00001, 00002, ..., 00010, 00100, ... to 10000</p>

Task Description	WMS Module	Overview/Comments	Task Details
Replenishment Zones (Optional)	Location Master	Replenishment Zones are used to specify group of locations that will be replenished from specific allocation zones. Replenishment zones can also be used for putaway - Item Putaway type will be linked to replenishment zones to allow putaway to active locations.	1. In Location Master, enter the enter location replenishment zone for each Active Location in the 'replenishment_zone' field
Min and Max Units (Optional)	Location Master	Min and Max Units are used for replenishment. A replenishment trigger can be set for the minimum quantity of units in a location. Replenishment Allocation will be done up to the max quantity of units.	1. In Location Master, enter the min and max units for each location's. - Integer Values
Max LPNs, Min Volume and Max Volume (Optional)	Location Master	Max LPNs, Min Volume, and Max Volume are used for location capacity. When this information is provided, the putaway logic will check location capacity.	1. In Location Master, enter values for Max LPNs, Min Volume, and Max Volume - Integer Values
Allow Multi SKU (Optional)	Location Master	Locations can be set up to allow either single SKUs or Multi SKUs.	1. In Location Master, enter a TRUE/FALSE value for Allow Multi SKU in a location
Zones: - Allocation Zones - Pick Zones - Task Zones (Optional)	Location Master	Allocation Zones: 1) Used for replenishment - Replenishment locations can be replenished from specific allocation zones 2) Used as location attributes for picking tasks rules Pick Zones: 1) Used as location attributes for picking tasks rules Task Zones: 1) Used to identify location zones. This will be used for task zone movements and zone picking. This will allow setting start zone and end zone during picking.	1. In Location Master, enter the allocation zone, pick zone, and Task zone for each location.
Restrict Batch Number Flag	Location Master	For batch/lot management, locations can be set up to restrict mixing different batch numbers	1. In Location Master, enter value TRUE to restrict mixing of batch, and FALSE to allow mixing of different batch
Restrict Inventory Attribute Flag	Location Master	For Inventory attribute management, locations can be set up to restrict mixing inventory attributes	1. In Location Master, enter value TRUE to restrict mixing of inventory attributes and FALSE to allow mixing of different inventory attributes
Custom Fields 1-5	Location Master	Locations can be set up with	

Task Description	WMS Module	Overview/Comments	Task Details
Item Assignment to Location	Location Master	Locations can be set up to be permanent picking locations for items. Assigned locations can be used for replenishment.	<ol style="list-style-type: none"> 1. In Location Master, to set up permanent locations: Set value for 'item_assignment_type' = P - 2. Enter Item alternate code or item parts for that location 3. For dynamic locations: - Set the value for 'item_assignment_type' = D

Task Zone Movements

Task zones are used to group a set of locations for tasking and also to set up drop zones to be used with tasking. Task zones are used to be able to move inventory from one zone to the next. Task Zones can be used to set up Task Rules for different specific task movements from a specific “start zone” to a specific “end zone” using a specific sequence and equipment type.

Task Description	WMS Module	Overview/Comments	Task Details
Add Task Zones to Locations Drop, Reserve & Active	Location Master	Task zones might have already been set up in the 'Location Master' section. Task zones will be entered for Reserve, Active and Drop locations for the tasking functionality.	<ol style="list-style-type: none"> 1. In Location Master, enter the task zone code under the field 'task zone'

Additional Location Attributes

MHE Configuration treats all induction points as a drop location in WMS.

Task Description	WMS Module	Overview/Comments	Task Details
Drop Locations Set Up	Location Master	Drop Locations are used as intermediary locations. Users will be able to drop inventory in specific drop locations after picking (i.e. this can be used for zone picking).	<ol style="list-style-type: none"> 1. In Location Master, add Consolidation Locations with Location Type = P 2. Enter Values for fields 'Area', 'aisle', 'bay', 'level', and 'barcode'.
MHE Configuration	Location Master	MHE System Code Defines which MHE System is being used for that	<ol style="list-style-type: none"> 1. In location Master, set up: - mhe_system_code - divert_lane

Task Description	WMS Module	Overview/Comments	Task Details
		specific location. MHE System Codes must be pre-configured in 'MHE System' UI Module. Divert Lane code defines which lane or zone to drop a tote/LPN while using MHE System.	

6 Receiving Operations

RF Modules Setup

WMS RF Receiving can be set up to receive Inventory at the Shipment Level or at the Load Level. Receiving Inventory at the Load level will allow receiving multiple shipments on a load at a time and from the same dock. The WMS RF IB Sorting Transaction can be used to sort LPNs to facilitate putaway after receiving.

Task Description	WMS Module	Overview/Comments	Task Details
Set Up Receiving at Shipment Level	Screen Configuration UI Module: RF Module: rf.inbound.cwrfrecvlpnshpmt (Receive Shipment)	Note: This may have already been configured in the 'Menu Configuration' Section	1. In 'Screen Configuration' UI Module, add module: Receive LPN Shipment - rf.inbound.cwrfrecvlpnshpmt
Set Up Receiving at Load Level	Screen Configuration UI Module: RF Module: rf.inbound.cwrfrecvlpnload (Receive Load)	Note: This may have already been configured in the 'Menu Configuration' Section	1. In 'Screen Configuration' UI Module, add module: Receive LPN Load - rf.inbound.cwrfrecvlpnload
Set Up RF 'Inbound Sorting'	Screen Configuration UI Module: RF Module: rf.inbound.cwrfibsortlpn (RF IB Sorting)	Note: This may have already been configured in the 'Menu Configuration' Section	1. In 'Screen Configuration' UI Module, add module: RF IB Sorting - rf.inbound.cwrfibsortlpn

Pre-Receiving Operations

Quality Control (QC) Setup

The WMS QC functionality will allow marking for QC a number of LPNs per load on a Vendor.

Note: Vendors require Purchase Orders (POs) to be used. QC Rules are set up at the vendor level. LPNs rejected during QC will not be eligible for receiving.

Task Description	WMS Module	Overview/Comments	Task Details
Vendor QC Set Up	Vendor QC UI Module	The vendor QC functionality will allow setting specific vendors that require QC Processes. LPNs will be selected for QC during receiving.	<ol style="list-style-type: none"> 1. Login at the specific client company level 2. In the 'Vendor QC' UI Module, add the vendor QC by searching or entering the specific vendor code

Task Description	WMS Module	Overview/Comments	Task Details
			<ol style="list-style-type: none"> 3. In 'Count or Percentage' field enter: - U for QC Count as Units - P for QC Count as a % of the shipment 4. In the 'QC Per Load SKU' field enter the QC value for the Count specified. (i.e. Quantity of Units or Value of percentage)
Vendor Performance Report	Screen Configuration UI Module: Vendor Performance Report UI	The vendor performance report functionality record the QC data per vendor.	This UI will show the Vendor performance report only if there is a PO attached and after ASN has been verified.
Vendor Performance Code	Screen Configuration UI Module: Vendor Performance Code UI	The vendor performance code UI lets you create Vendor performance code and description	<ol style="list-style-type: none"> 1. Login at specific client company level 2. In the Vendor Performance UI Module, add the vendor performance code and description. This code is asked in QC RF transactions
Parameter Set Up for QC Check	Screen Configuration UI Module: RF Modules: rf.inbound.cwrfrecvlpnshpmt (Receive Shipment) rf.inbound.cwrfrecvlpnload (Receive Load)	RF Transaction that will be used for receiving will need to have the parameter for QC set up. Note: If QC is required for all received inventory, then all RF Receiving Transactions need to have the QC Parameter set up properly. An additional transaction can be set up without the QC configuration to allow the QC process to be occasionally skipped.	<ol style="list-style-type: none"> 1. Login at specific company level (based on whether the RF Transaction is set up in a SuperUser or Child User menu) 2. In the 'Screen Configuration' UI Module: Search for the Receiving Transactions that will be used in the user menu 3. Select the Transaction record and in the details, set RF parameter 'qc-handling-mode' to either 'None', 'Mark for QC prompt QC locn', 'Mark for QC do not prompt QC locn'
QC Locations Set Up	Location Master	QC Locations must be set up for QC operations. During receiving, Inventory marked for QC will be located to a QC Location.	<ol style="list-style-type: none"> 1. In Location Master, add QC Locations with Location Type = Q 2. Enter Values for fields 'Area', 'aisle', 'bay', 'level', and 'barcode'.

Value Added Services Setup

The WMS VAS Functionality will allow marking LPNs for VAS during the receiving process. The VAS Requirements can be set up as follows:

- SKU Level (All LPNs with the specific SKU will be marked for VAS during receiving)

- Vendor Level (LPNs with the specific SKU will be marked for VAS if their shipment is linked to a vendor set up for VAS). Note: Vendors require Purchase Orders (POs) to be used.
1. A WMS Activity will be set up for each VAS Activity required for inventory being received (i.e. Ironing, repacking, etc...)
 2. The VAS Groups define the different groups of VAS Activities. The VAS Group will have one or more VAS Activities based on group requirement.

For example, VAS Group 'Clothes-Flats' will have activities: (such as 'Ironing', 'Scensors', and 'Price Labels')

VAS Groups will be set up either at the SKU or Vendor Level depending of the Group's requirements.

Task Description	WMS Module	Overview/Comments	Task Details
Work Area Set Up	Work Area	Work Areas are required to be set up to allow VAS activities	In 'Work Areas' UI Module, add work areas by entering a work are code and name
VAS Activities Set Up	Activities	All different VAS Activities that will be used in operations will have to be set up The UOM (Unit of measure) at which the VAS Activities will be performed will be specify. This can be (Units, Packs, Cases, LPNs).	<ol style="list-style-type: none"> 1. In 'Activities' UI Module, add Activities by entering an activity code and Name (description) 2. Select Activity Type = VAS 3. Select Work Area for this group of VAS Activities 4. Select UOM at which VAS Activities will be performed 5. Optional: Select History Activity for Fee/Charge information
VAS Groups Assignment to Items *Also see Master Configuration for Item Master	Item Master	The VAS Group can be used for each group of items requiring similar VAS Activities. The VAS Group will specify the list of VAS Activities to be done for that group. Once VAS Groups are identified, they need to be configured and assigned to items Note: This step may have be done in Item Master Set Up	In 'Item Master' add VAS Group Code to items *This can be done with the Item Interface Template or also with a Manual UI Entry in the 'Items' UI Module
Option 1. VAS Groups Set Up at Vendor Level	Company VAS	Option 1 - Vendor Level - VAS Group Code linked to a Vendor. This can be used for items requiring VAS only for a specific vendor or vendors Items with a VAS Group set up at vendor level will only be marked for VAS if the shipment is linked to the specific vendor	<ol style="list-style-type: none"> 1. In 'Company VAS' UI Module, add VAS Group Code for one or more VAS Activities. In 'Company' field, search or enter the vendor 2. Enter a sequence number and select the first VAS Activity to be added to the group 3. For additional VAS Activities in the same group, enter a new sequence and select the next VAS Activity

Task Description	WMS Module	Overview/Comments	Task Details
			<ol style="list-style-type: none"> Repeat above steps if the VAS Group needs to be configured for other vendors
Option 2. VAS Groups Set Up at SKU Level	Company VAS	Option 2 - SKU Level This can be used for items always requiring VAS regardless of vendors Items with VAS Group set up at SKU Level will always be marked for VAS during receiving	<ol style="list-style-type: none"> In 'Company VAS' UI Module, add VAS Group Code for one or more VAS Activities. In 'Company' field, search or enter the Client Company. Enter a sequence number and select the first VAS Activity to be added to the group For additional VAS Activities in the same group, enter a new sequence and select the next VAS Activity Repeat above steps if the VAS Group needs to be configured for other vendors
VAS Exception Set Up	Exception VAS	VAS Requirements can be overwritten with VAS Exceptions. VAS Exceptions will be set up for a specific Shipment Number and Item. VAS Exceptions will specify which activities need to be for a specific (shipment, item) combination	<ol style="list-style-type: none"> In 'VAS Exception' UI Module, add exception by entering: - Inbound Shipment Number and Item Number Enter a sequence number Select the VAS Activity and specify in the 'VAS Req'd type' if the VAS Activity will be required.
VAS Locations Set Up	Location Master	VAS Locations must be set up for VAS operations. During receiving, Inventory marked for VAS will be located to a VAS Location.	<ol style="list-style-type: none"> In Location Master, add QC Locations with Location Type = V Enter Values for fields 'Area', 'aisle', 'bay', 'level', and 'barcode'.

Item Fields Pre-Receiving Setup

Item fields can be required to be populated prior to receiving. When required item fields are set up, WMS will prevent receiving when the fields are not populated for the Item being received. Receiving will be allowed once the fields are updated/populated.

This is done at the facility level. This configuration applies to all companies within a facility.

Task Description	WMS Module	Overview/Comments	Task Details
Set Up Required Item Fields	Required Item Fields		In 'Required Item Fields' UI Module, add the field names that are required to be populated for receiving inventory

Receiving Operations Setup

Purchase Orders Requirements Setup

There is currently no configuration required to set up Purchase Orders.

- If Purchase Orders will be used for the flow, the Purchase Orders will have to be created prior to the Inbound shipments.
- - Purchase Orders can be created through Interface Integration, Manual Interface Upload, or Manual UI Entry

Inbound Shipments Requirements Setup

Inbound shipments can be created with or without Purchase Orders.

- Inbound shipments can be created through Interface Integration, Manual Interface Upload, or Manual Entry

Task Description	WMS Module	Overview/Comments	Task Details
Shipment Types Set Up	Shipment Types	Over receipt and under receipt of inventory will be allowed on a shipment based on the shipment type specified on the shipment header. Over receipt warning %: % of received qty for which the system needs to display a warning message. The user will be able to accept or reject receiving. Over receipt error: % of received qty for which the system will prevent the user from over receiving Under receipt warning: % of received qty for which the system will display a warning message when the shipment is being verified. The user will decided whether to proceed with verification	<ol style="list-style-type: none"> 1. In the 'Shipment Types' UI Screen, enter a shipment type code and description 2. Enter a % value for Over receipt warning, error and under receipt warning ex: If over receipt warning = 10% and shipped qty = 100, a warning will be displayed for any received qty > 110 3. Select a validation type PO vs ASN vs both to compare shipped vs. received qty

Inbound Loads and Appointments

An Inbound Loads will be created for each Inbound Shipment. Inbound Loads can be used to ckeck in shipments at docks for receiving. Appointments can also be used to to schedule and manage receiving of shipments. This will also allow checking in loads to docks for receiving.

When shipments are checked in to docks, LPNs received will automatically be located at the dock location. This will give better visibility of LPNs in the WMS.

Task Description	WMS Module	Overview/Comments	Task Details
Dock and Dock Types Set Up*Also see 'Locations' Section in Master Configuration	<ol style="list-style-type: none"> 1. Locations 2. Dock Types 3. Docks 	Dock are required to be set up if inbound loads will be checked in at docks for receiving. 1. A dock location must be set up 2. Dock types (Inbound/Outbound) is required 3. Dock doors will be set up and linked to dock locations	<ol style="list-style-type: none"> 1. In 'Location Master' UI Module, add locations with type 'Dock' 2. In 'Dock Types' UI Module, add dock type (i.e. Inbound and/or outbound) 3. In 'Docks' UI Module add dock door numbers and link the dock doors to dock locations

RF Receiving

RF Receiving can also be set up to specify the UOM at which inventory will be receive, as well as whether cases received will be palletized.

Task Description	WMS Module	Overview/Comments	Task Details
Set Up UOM Receiving Level	Screen Configuration UI: RF Modules: rf.inbound.cwrfrecvlpnshpmt (Receive Shipment) rf.inbound.cwrfrecvlpnload (Receive Load)	Unit of Measures: - Units - Packs - Cases Default = Units	<ol style="list-style-type: none"> 1. Login at specific company level 2. In the 'Screen Configuration' UI Module: Search for the Receiving Transactions that will be used in the user menu 3. Select the Transaction record and in the details, set RF parameter 'qty-uom' to the desired UOM
Set Up Pallet Receiving Flow	Screen Configuration UI: RF Modules: rf.inbound.cwrfrecvlpnshpmt (Receive Shipment) rf.inbound.cwrfrecvlpnload (Receive Load)	Available Options for Receiving Pallets: - Palletize up front: LPNs are palletized as receiving is being done onto the same pallet. - Palletize after receiving: Pallet is prompted for each LPN after receiving - LPN as Pallet: Full LPNs will be received as pallets	<ol style="list-style-type: none"> 1. Login at specific company level 2. In the 'Screen Configuration' UI Module: Search for the Receiving Transactions that will be used in the user menu 3. Select the Transaction record and in the details, set RF parameter 'pallet-handling' to the correct value
Set Up Additional Receiving Parameters	Screen Configuration UI: RF Modules: rf.inbound.cwrfrecvlpnshpmt (Receive Shipment) rf.inbound.cwrfrecvlpnload (Receive Load)	Refer to RF Parameter Document - Receiving Tab Available Options include: - Assume Single SKU per LPN - Capture Inventory Attribute - Capture batch, expiry, serial etc...	

Shipment Verification

Shipment Verification will be used in UI to generate a Receipt Confirmation File. Once receiving is done, inbound shipment can be verified in UI. Required fields for verification can be set up if needed. Users will not be able to verify shipments if any required values are missing on the shipment header.

(i.e. This can be used to restrict verifying shipments without specific reference numbers.)

Task Description	WMS Module	Overview/Comments	Task Details
Set Up required information for verifying shipments	Company Parameter UI Module	This is for the WMS standard interface.	<ol style="list-style-type: none"> 1. In 'Company Parameters' UI Screen, search for parameter: IBSHIPMENT_VERIFICATION_REQUIRED_FIELDS 2. Enter Inbound Shipments Fields that require values to be populated before verification

Sorting and Receiving Operations

Sorting While Receiving

To support the Direct to Consumer business, the Sort and Receive option helps the Warehouse sorting inventory into respective Inbound LPNs based on configurable rules. The Sort and Receive option allows you to scan each unit of the ASN and determine how to sort the item based on Rules Configured.

With this functionality you first sort the Inventory and then receive the Inventory to different Totes/LPNs simultaneously. You are directed to sort inventory into a specific tote/LPN. You also get the opportunity to mark the item being received as Damaged.

This functionality is for SKU Level ASN (i.e. Blind Receiving - LPN numbers are not sent on the ASN.) Inventory will be directed to Totes/LPN with matching criteria. When there is no matching criteria, you can enter a new LPN/Tote.

Task Description	WMS Module	Overview/Comments	Task Details
Receiving Station - Locations	Location Master	Receiving stations are used receive and sort items into totes.	<ol style="list-style-type: none"> 1. In Location Master, add Receiving Station Locations with Location Type = T 2. Enter Values for fields 'Area', 'aisle', 'bay', 'level', and 'barcode'.
Set Up RF 'Sort and Receive'	Screen Configuration UI Module: RF Module: rf.inbound.cwrfsortandrecv (RF Sort and Receive)	Note: This may have already been configured in the 'Menu Configuration' Section See RF Parameter Guide for more details. Parameters include: - scan-shipment-load: This can be set to	<ol style="list-style-type: none"> 1. In 'Screen Configuration' UI Module, add/search module: RF Sort and Receive - rf.inbound.cwrfsortandrecv 2. Select and edit parameter 'scan-shipment-load' to: -

Task Description	WMS Module	Overview/Comments	Task Details
		scan the Load Nbr or the Shipment Number during receiving	scan shipment or - scan load The default is shipment
Set Up Sort and Receive Rules Break Rules for Tote/LPNs (Not required for sorting)	Sort Receive Configuration (SortReceiveHdrView) Link - Break rules	Inventory will be sorted into totes/LPNs. Sort Break Rules specify the break values for closing the Totes. Totes/LPNs will have capacity in terms of weight/volume or number of units. If associated break criteria value is reached, user will be prompted to end the tote. Criteria: - weight - volume - total qty - number of SKUs - number of different LPN_cust_fields allowed	<ol style="list-style-type: none"> 1. In 'Sort and Receive' UI Module, access the link 'Break Rules' 2. Add a new break rule, enter a name and description 3. Select a criteria to break the container and enter the max value
Set Up Sort and Receive Rules Select Receiving station	Sort Receive Configuration (SortReceiveHdrView)	For every Receiving Station, WMS allows configuring a sort criteria for sorting. If Sort & Receive Rules are not configured, the sorting process becomes user directed.	<ol style="list-style-type: none"> 1. In 'Sort and Receive' UI Module 2. Select a receiving station from drop down
Set Up Sort and Receive Rules Select Sorting Criteria	Sort Receive Configuration (SortReceiveHdrView)	Two sorting criteria can be specified. Only the first criteria is required. The first criteria will be used to find a match for sorting inventory. If no match is found, the second criteria will be used. Criteria options are: - <ul style="list-style-type: none"> • lpn_lock_code • batch_number • inv_attr_a - inv_attr_b - inv_attr_c 	<ol style="list-style-type: none"> 1. In 'Sort and Receive' UI Module 2. Select fist criteria and select second if needed
Set Up Sort and Receive Rules Select Condition	Sort Receive Configuration (SortReceiveHdrView)	The condition options: - NON EMPTY FIRST: Sorting will be done by matching value of criteria <ol style="list-style-type: none"> 1. If there is no match, sorting will be done by matching value in criteria 2. MATCH ALL: Sorting will be done by matching values of both criteria. - MATCH EITHER: Sorting will be done by matching values for either criteria. 	<ol style="list-style-type: none"> 1. In 'Sort and Receive' UI Module 2. Select option needed for condition
Set Up Sort and Receive Rules Select Close LPN Location	Sort Receive Configuration (SortReceiveHdrView)	The close LPN Location will be used to automatically locate the LPN to a storage/reserve location after sorting and receiving. When the Close LPN Location is populated, the LPN/Tote closed	<ol style="list-style-type: none"> 1. In 'Sort and Receive' UI Module 2. Select a reserve location in 'Close LPN Location'

Task Description	WMS Module	Overview/Comments	Task Details
		will be updated to located status with current location specified in the field.	
Set Up Assets	Sort Receive Configuration (SortReceiveHdrView)	The Sort & Receive Functionality can be used with Reusable Totes/ Assets. The facility parameter REUSABLE_TOTES can be set up as 'Yes' to reuse those assets.	<ol style="list-style-type: none"> 1. In 'Facility Parameter' UI Module, search for parameter REUSABLE_TOTES 2. Edit parameter and set value to 'YES' or 'NO'

Inbound Sorting Operations

Inbound Sorting After Receipt

The Inbound Sorting functionality will provide the ability to sort inventory received to facilitate putaway using a pallet with multiple SKUs going to different locations. Inventory will be sorted/grouped based on the specified sorting criteria for a sorting zone. Multiple sorting zones can be configured with different criteria.

Inbound sorting will first call the directed putaway logic to find the destination location of an LPN. Then the sorting process will be done based on the destination location. For each sorting zones pallets will be created based on the specified criteria.

For example: If a sorting zone's criteria is the destination area, then LPNs will be sorted by Pallets depending on their destination location area based on putaway.

Task Description	WMS Module	Overview/Comments	Task Details
Drop Locations	Location Master	Drop Locations will be used for the sorting process. Drop locations are required and will be linked to Sorting Zone.	<ol style="list-style-type: none"> 1. In Location Master, add Consolidation Locations with Location Type = P 2. Required fields are: 'Area', 'aisle', 'bay', 'level', and 'barcode'.
Sorting Zones and Criteria	Inbound Sorting	The IB Sorting criteria by zone will include: - aisle - alloc_zone - area - location-size-type Sorting by pallet can be done based any of these criteria for LPNs destination location based on putaway logic.	<ol style="list-style-type: none"> 1. Login at the specific client company level 2. In the 'Inbound Sorting' UI Module, add a new sorting zone and select the sorting criteria for that sorting zone
Drop Locations - Sorting Zone Association	Inbound Sorting	After creating the sorting zones, drop locations will be linked to sorting zones.	<ol style="list-style-type: none"> 1. Select the sorting - criteria record and access the details 2. Add all drop locations associated to the sorting zone

Task Description	WMS Module	Overview/Comments	Task Details
Set Up RF 'Inbound Sorting'	Screen Configuration UI Module: RF Module: rf.inbound.cwrfibsortlpn (RF IB Sorting)	Note: This may have already been configured in the 'Menu Configuration' section.	In 'Screen Configuration' UI Module, add module: RF IB Sorting - rf.inbound.cwrfibsortlpn

Receiving and Cross Dock

Cross Dock Functionality

The cross dock functionality will allow receiving and allocating the inventory to outbound orders during the receiving process. This will be done without having to locate the inventory to a location.

The cross dock functionality can work as follow for an LPN:

1. WMS will try to allocate the LPN to an order that specifies a matching PO, ASN and/or Required LPN.
2. If no orders have matching PO, ASN, or LPN number, WMS will try to allocated the LPN to any order with the same SKU with equal or greater quantity.

Auto Create Xdock Orders

A cross dock or flowthrough order can be automatically created for a specific Inbound Shipment. Cross dock orders created from Inbound Shipments can only be created for facilities/stores defined in WMS.

If set up, when an Inbound shipment is populated with a cross dock facility, an outbound order will be created for the specific inbound shipment. Inventory received for that shipment can be easily allocated to the created order via cross dock or flowthrough.

Task Description	WMS Module	Overview/Comments	Task Details
Set Up Order Types	Order Types	Order Type Codes will be specified on the order interface that will be loaded to WMS as well as any order created manually.	<ol style="list-style-type: none"> 1. Login at the specific client company level 2. In 'Order Types' UI Module, add order types: Enter an order type code and a description 3. Check the flowthrough flag 4. Check the facility flag for facility orders
Auto Create Xdock Orders for IB Shipments/ASNs	Facility Parameter UI Module	The facility parameter 'AUTOCREATE_XDOCK_ORDER_TYPE' can be set up to have cross dock orders created for an inbound shipment that specifies a xdock facility. The value of this parameter	<ol style="list-style-type: none"> 1. In the 'Facility Parameter' UI Module search for the parameter. 'AUTOCREATE_XDOCK_ORDER_TYPE' 2. Edit and enter the value of the order type code.

		will be the order type that will be used to create the outbound order.	
--	--	--	--

Xdock Parameter

Task Description	WMS Module	Overview/Comments	Task Details
MultiSKU LPN Xdock	Facility Parameter UI Module	The facility parameter 'MULTISKU_LPN_XDOCK_ONE_ORDER_ONLY' can be set as follow: - Yes: A multi sku LPN can only be allocated to a single order - No: A multi SKU LPN can be allocated to multiple orders if the orders have the same destination	<ol style="list-style-type: none"> 1. In the 'Facility Parameter' UI Module search for the parameter 'MULTISKU_LPN_XDOCK_ONE_ORDER_ONLY' 2. Edit and enter the Yes or No
PO and ASN Check for Xdock	Facility Parameter UI Module	The facility parameter 'XDOCK_ORD_SHP_PO_CHECKS' can be set up with values: - EXACT: PO and ASN Nbr on an Order must match the LPN's PO and ASN Numbers. - EXACT_SHP_WILD_PO: ASN on order must match the LPN's ASN - EXACT_PO_WILD_SHP: PO on order must match the LPN's PO - WILD_SHP_WILD_PO: The PO and ASN on order do not need to match - ALL: A xdock order will be found by following the sequence of the above values. Note: This is true If PO and ASN are not populated on order detail	In the 'Facility Parameter' UI Module search for the parameter 'XDOCK_ORD_SHP_PO_CHECKS' 2. Edit and enter the value needed
Checks if LPNs allocated need to match order detail inventory attribute fields	Company Parameter UI Module	The company parameter 'XDOCK_ORD_INV_ATTR_CHECKS' can be set up with values: - EXACT: LPNs inventory will have to match all the order detail inventory attribute values for a successful cross-dock allocation. -Blank:cross-dock allocation logic will ignore inventory attributes	<ol style="list-style-type: none"> 1. In the 'Company Parameter' UI Module search for the parameter "XDOCK_ORD_INV_ATTR_CHECKS" 2. Edit and enter the value needed
Set Up RF 'Receiving' for Cross Dock	Screen Configuration UI Module: RF Modules: rf.inbound.cwrfrecvlpnshpmt (Receive Shipment) or rf.inbound.cwrfrecvlpnload (Receive Load)	<p>Note: This may have already been configured in the 'Menu Configuration' Section</p>	<ol style="list-style-type: none"> 1. In the 'Screen Configuration' UI Module, add/search module: Receive Shipment - rf.inbound.cwrfrecvlpnshpmt or Receive Load - rf.inbound.cwrfrecvlpnload 2. Rename and add description for xdock if needed

		<p>Set up the correct RF module that will be used for cross dock. The cross dock mode can be set as:</p> <ul style="list-style-type: none">• LPN Nbr Only: Cross dock will require orders to have the LPN or pallet specified on the order• LPN Nbr, Single SKU: Cross will be done to orders specifying the LPN only for single SKU LPNs. <p>If no LPN is specified on the order, cross dock will be done to any order with matching inventory.</p> <ul style="list-style-type: none">• LPN Nbr, single or multi SKU: Any order with matching inventory will be considered for cross dock.	<p>3. In the details edit the parameter 'xdock-mode' and set to the needed value</p>
--	--	--	--

7 Putaway Operations

RF Modules Setup

WMS RF Putaway can be set up as

1. System Directed Putaway or
 - The system will direct the user to the best putaway location based on the putaway rules.
2. User Suggested Putaway.
 - The user will be able to choose the putaway location.

Available RF Modules to be added to menus:

- rf.inbound.cwrfputaway (Putaway) - This transaction will be configured as Directed or Suggested Putaway

Task Description	WMS Module	Overview/Comments	Task Details
Add Putaway Transaction	Screen Configuration UI Module: RF Module: rf.inbound.cwrfputaway (Putaway) rf.inbound.cwrfputawayactive (Putaway to Active)	Note: This may have already been configured in the 'Menu Configuration' Section	In the 'Screen Configuration' UI Module, add module: Putaway - rf.inbound.cwrfputaway (Putaway)

Set Up Item Putaway Types

Task Description	WMS Module	Overview/Comments	Task Details
Set Up Item Putaway Types	Putaway Types		In the 'Putaway Types' UI Module, set up all different Putaway Types that will be used to classify items for putaway. Enter a Putaway Type and a description.
Add Item Putaway Types to Item Master	Item Master / Item Master Interface	Note: This may have already been configured in the 'Item Master Configuration' Section	Add Putaway Types to Item Master. In Item Master, each item will have a putaway type

Set Up Location Size Types

Note: The following might have already been configured with the location master.

Location Size Types are used to specify a group of locations that will be used for specific Item's Putaway Types. (i.e. Group of locations separated by Item's Division, or even group of location by levels for specific Item velocity.) Both Reserve and Active locations can be set up for putaway. Active locations that have replenishment zones set up can be used for putaway priority.

- Reserve Locations will have 'Location Size Types'
- -Active Locations will have 'Replenishment Zones'

Task Description	WMS Module	Overview/Comments	Task Details
Reserve Locations Set Up Location Size Types for Putaway to Reserve	Location Size Types	Location Size Types = Group of locations or location area used for specific item's characteristics	In the Location Size Types UI Module, set up all different Location size Types that will be used to group locations by area for putaway. Enter the location size type code and a description.
Reserve Locations Add Location Size Types to Locations	Location Master	Note: This may have been already configured in the 'Location Master' Section	Add Location Size Types to Location Master. In Location Master, each location will have a putaway size type
Active Set Up Replenishment zones for Putaway to Reserve	Replenishment Zones	Replenishment Zones are required to be set up to allow putaway to Active	In the Replenishment Zones UI Module, set up all different Location size Types that will be used to group locations by area for putaway/replenishment in active. Enter a Replenishment zone code and a description
Active Add Replenishment zones to Locations	Location Master	Note: This may have been already configured in the 'Location Master' section.	Add Replenishment Zones to Location Master. In Location Master, each active location will have a replenishment zone

Set Up Putaway Priority

The putaway priority will be used to link by sequence Item's putaway types to locations size types.

For Example:

1. Putaway Type A - Location Size Type A
2. Putaway Type A - Location Size Type B

In the above scenario, the system will first try to find an available location with Location Size Type A. A putaway method (location sequence or radial can be specified) for each putaway sequence priority.

- Location Sequence: Putaway logic is based off location putaway sequence
- Radial: Putaway Logic is based off items' assigned location. Putaway logic will build up inventory around the item's assigned location. A putaway search mode can also be specified for each putaway sequence priority within the location size type. (i.e. Empty location, least empty locations....)
- Consider FEFO Flag: Putaway will to a location will be restricted for inventory older or with same expiration date as the inventory currently in the location for the item being putaway.

Task Description	WMS Module	Overview/Comments	Task Details
Set Up Putaway Priority for Reserve Locations based on Putaway Sequence	Putaway Priority View	Putaway Method Location Sequence: Putaway logic will follow location putaway sequence set up in location master. This require all locations to have a putaway sequence.	<ol style="list-style-type: none"> 1. In the 'Putaway Priotity View' UI Screen add putaway priority: Select a putaway type, enter a prioriy for the putaway sequence and choose location type = 'Reserve' 2. Select the 'location size type' to be linked to the putaway type for the priority chosen 3. Select Putaway Method = Location Sequence 4. Select a Putaway Search Mode 5. Check 'Consider FEFO Flag' if needed for flow
Set Up Putaway Priority for Reserve Locations by Radial method	Putaway Priority View	Putaway Method Radial: Putaway logic is to first find the item's assigned/picking location within location size type. Putaway logic will use the picking location as a pivot to build inventory around the location by finding first empty location within specified bay "radius" and "increment" values.	<ol style="list-style-type: none"> 1. In the 'Putaway Priotity View' UI Screen add putaway priority: Select a putaway type, enter a prioriy for the putaway sequence and choose location type = 'Reserve' 2. Select the 'location size type' to be linked to the putaway type for the priority chosen 3. Select Putaway Method = Radial 4. Enter a bay radius and a radial increment value

Task Description	WMS Module	Overview/Comments	Task Details
			<ol style="list-style-type: none"> 5. Select a Putaway Search Mode 6. Check 'Consider FEFO Flag' if needed for flow
Set Up Putaway Priority for Active Locations based on Putaway Sequence	Putaway Priority View	Putaway Method Location Sequence: Putaway logic will follow location putaway sequence set up in location master. This require all locations to have a putaway sequence.	<ol style="list-style-type: none"> 1. In the 'Putaway Priortity View' UI Screen add putaway priority: Select a putaway type, enter a priorty for the putaway sequence and choose location type = 'Active' 2. Select the 'Replenishment Zone' to be linked to the putaway type for the priority chosen 3. Select Putaway Method = Location Sequence 4. Select a Putaway Search Mode 5.Check 'Consider FEFO Flag' if needed for flow
Set Up Putaway Priority for Active Locations by Radial method	Putaway Priority View	Putaway Method Radial: Putaway logic is to first find the item's assigned/picking location within location size type. Putaway logic will use the picking location as a pivot to build inventory around the location by finding first empty location within specified bay "radius" and "increment" values.	<ol style="list-style-type: none"> 1. In the 'Putaway Priortity View' UI Screen add putaway priority: Select a putaway type, enter a priorty for the putaway sequence and choose location type = 'Active' 2. Select the 'replenishment zone' to be linked to the putaway type for the priority chosen 3. Select Putaway Method = Radial 4. Enter a bay radius and a radial increment value 5. Select a Putaway Search Mode 6. Check 'Consider FEFO Flag' if needed for flow

Set Up Putaway Rules

Putaway Rules can be used to calculate an LPN's putaway type at receiving. The calculated putaway type (final putaway) will be used for the putaway logic. The final putaway type overwrites the item's putaway type set up in item master.

Multiple Item Attributes can calculate the final putaway. For example:

If Item Velocity = A AND Item cost > 1000 THEN Final Putaway Type = PUTAWAY_A)

Items attributes can be updated at any time. Final Putaway Type will be calclued for each LPN at receiving or during cartonizing process.

Task Description	WMS Module	Overview/Comments	Task Details
Set Up Putaway Rules	Putaway Rules	Final Putaway Types can be calculated based on multiple attributes for an item	<ol style="list-style-type: none"> 1. In the 'Putaway Rules' UI screen add new putaway rule: enter a priority, description and select the Putaway Type for which the rule is being created 2. Select the record created and under 'Selection Criteria - Select an sql operator for the folder (i.e. Use AND if multiple conditions need to be true for this putaway type) 3. Insert a Basic or Complex Operation.

RF Putaway

If Putaway rules and priorities are set up, the RF Putaway transaction can be set up to let the system direct to the best available location based on configuration. If Putaway rules and priorities are not set up, the RF Putaway transaction can be set up to let the user choose the putaway location.

Two Putaway Transactions can be set up to allow both system directed and user suggested putaway.

Task Description	WMS Module	Overview/Comments	Task Details
Set Up Suggested Putaway	Screen Configuration UI Module: RF Module: rf.inbound.cwrfputaway (Putaway)	RF Transaction for 'Putaway' must be added in UI Module 'Screen Configuration	<ol style="list-style-type: none"> 1. Login at the specific company level 2. In the 'Screen Configuration' UI Module: Search for the Putaway Transaction 3. Edit the Transaction and rename appropriately i.e. 'User suggested Putaway'
Set Up Directed Putaway	Screen Configuration UI Module: RF Module: rf.inbound.cwrfputaway (Putaway)	RF Transaction for 'Putaway' must be added in UI Module 'Screen Configuration	<ol style="list-style-type: none"> 1. Login at the specific company level 2. In the 'Screen Configuration' UI Module: Search for the Putaway Transaction 3. Select the transaction record and in the details, set RF parameter 'mode' to Directed Putaway LPN 4. Edit the transaction and rename appropriately (i.e. System Directed Putaway)
Set Up Additional Putaway Parameters	Screen Configuration UI Module: RF Module: rf.inbound.cwrfputaway (Putaway)	Refer to RF Parameter Document - Putaway Configuration for LPN vs. Pallet	

Putaway Error Messages

During putaway error messages can be displayed to prevent users from putaway to wrong locations or locations that do not have a matching putaway type. These messages can be disabled and also set up to allow the user to proceed with putaway operations regardless of the putaway mismatch.

Task Description	WMS Module	Overview/Comments	Task Details
Messages: LPN Putaway Type Mismatch Putaway Type Mismatch	Messages	<p>Note: Changes made at the 3PL Parent Company level will affect all the client companies. Changes made at the Client Company level will be visible for that company across facilities. The Auto Reject Flag can be set to 'No' to allow the user to accept proceeding with the putaway mismatch The Auto Reject Flag can be set to 'Yes' to always prevent to proceed with putaway when there is a putaway type mismatch</p>	<ol style="list-style-type: none"> 1. Login at the specific company level 2. In the 'Messages' UI Module, click on the Search Icon to look for a message - In the 'Text' field enter 'putaway' click 'Search'to display the message(s) 3. Select the specific putaway message from the results and under the 'Edit Message' Section, enter the new message if required 4. Under the 'Edit Facility Properties' check/uncheck the 'Enabled' flag to disable/enable the message 5. Check/Uncheck the 'Auto Reject' flag to allow or prevent users to proceed with the operations 6. Click 'Save' for the changes

8 Inventory Control

RF Modules Set Up

Inventory Control operations include: - Modifying Inbound LPNs, Adding Lock Codes, Cycle Count...

RF Transactions need to be added for these operations.

Note: These RF Transactions may have already been configured in the 'Menu Configuration' Section

When adding the RF Transactions, Login at the correct company level (i.e. 3PL Parent Level or Client Company Level to add them to the correct menu).

Task Description	WMS Module	Overview/Comments	Task Details
Modify IB LPN+C10:G18	Screen Configuration UI Module: RF Module: rf.inbound.cwrfrmodcase (Modify IBLPN)	The RF - Modify IB LPN is used to modify the quantity and/or Putaway type of an Inbound LPN	In the 'Screen Configuration' UI Module, add module: Modify IBLPN - rf.inbound.cwrfrmodcase
Split Container	Screen Configuration UI Module: RF Module: rf.inbound.cwrfsplitctr (Split Container)	The RF - Split Container is used to split an Inbound LPN into a new or existing IB LPN.	In the 'Screen Configuration' UI Module, add module: Split Container - rf.inbound.cwrfsplitctr
Cycle Count	Screen Configuration UI Module: RF Module: rf.inbound.cwrfcyclecountlocn (Cycle Count Location)	The RF - Cycle Count Location is used to cycle count locations without the use of tasks	In the 'Screen Configuration' UI Module, add module: Cycle Count Location - rf.inbound.cwrfcyclecountlocn
Cycle Count LPN	Screen Configuration UI Module: RF Module: rf.inbound.cwrfcyclecounttblpn (Cycle Count LPN)	The RF - Cycle Count LPN is used to cycle count specific LPNs without having to cycle count a location	In the 'Screen Configuration' UI Module, add module: Cycle Count Location - rf.inbound.cwrfcyclecounttblpn
Create LPN	Screen Configuration UI Module: RF Module: rf.inbound.cwrfrcreatelpn (Create LPN)	The RF- Create LPN is used to create new LPNs	In the 'Screen Configuration' UI Module, add module: Create LPN - rf.inbound.cwrfrcreatelpn
Create LPN from Active	Screen Configuration UI Module: RF Module: rf.inbound.cwrfrcreatelpnlocn (Create LPN Location)	The RF- Create LPN from Active is used to create a new LPN from active inventory	In the 'Screen Configuration' UI Module, add module: Create LPN Location - rf.inbound.cwrfrcreatelpnlocn
Locate {LPN}/Pallet	Screen Configuration UI Module: RF Module: rf.inbound.cwrflocatelpnpallet	The RF-Locate {LPN}/Pallet is used to locate a LPN or Pallet in the warehouse	In the 'Screen Configuration' UI Module, add module:

Task Description	WMS Module	Overview/Comments	Task Details
			Locate {LPN}/Pallet- rf.inbound.cwrflocatelpnpallet
Palletize	Screen Configuration UI Module: RF Module: rf.inbound.cwrfpalletizeplt	The RF- Palletize is used to palletize a set of LPNs	In the 'Screen Configuration' UI Module, add module: Palletize- rf.inbound.cwrfpalletizeplt
Execute Task	Screen Configuration UI Module: RF Module: rf.outbound.cwrfexecutetask (Execute Task)	The RF - Execute Task Function will be used to execute created cycle count tasks	In the 'Screen Configuration' UI Module, add module: Execute Task - rf.outbound.cwrfexecutetask

Inventory Adjustment

Inventory can be modified through:

- RF Transaction Modify LPN: This will allow modifying an LPN Quantity and/or Putaway Type
- Through the UI Screen 'Active Inventory'

Modifying Inventory will require the use of reason codes that will be specified for each modification on the reason why inventory was modified (i.e. cycle count, damages, QA, etc..)

Reason Codes will be generated in Inventory History along with the history activity for inventory adjustment.

Task Description	WMS Module	Overview/Comments	Task Details
Reason Codes	Reason Codes	Note: Reason Codes are configured at the 3PL Parent Level	<ol style="list-style-type: none"> 1. Login at the 3PL Parent Level 2. In the 'Reason Code' UI Screen, add a code and description for each Inventory Reason Codes 3. Enter the reason code type as 'Any'
Modify IB LPN	Screen Configuration UI Module: RF Module: rf.inbound.cwrfmodcase (Modify IBLPN)	The RF - Modify IB LPN is used to modify the quantity and/or Putaway type of an Inbound LPN	In the 'Screen Configuration' UI Module, add module: Modify IBLPN - rf.inbound.cwrfmodcase

Container Split

The RF - Split Container is used to split an Inbound LPN into a new or existing IB LPN.

Two IB LPNs can be combined using the RF - Split transaction (i.e. A container can be fully split into another container).

Task Description	WMS Module	Overview/Comments	Task Details
Quantity Entry Limit Set Up	Company Parameters	When entering a quantity while creating an LPN, there can be warning and error messages set up for quantity limits. Company Parameters can be set up: QTY_ENTRY_ERROR_LIMIT: This will prevent a user from proceeding with operations when the quantity is higher QTY_ENTRY_WARNING_LIMIT: This will display a warning message, and a user can accept or reject proceeding	<ol style="list-style-type: none"> 1. Login at the correct company level 2. In the 'Company Parameter' UI Module, search for parameters: QTY_ENTRY_ERROR_LIMIT QTY_ENTRY_WARNING_LIMIT: 3. Set the quantity for each parameter
Split Container	Screen Configuration UI Module: RF Module: rf.inbound.cwrfsplitcntr (Split Container)	The RF - Split Container is used to split an Inbound LPN into a new or existing IB LPN.	In the 'Screen Configuration' UI Module, add module: Split Container - rf.inbound.cwrfsplitcntr

Lock Codes

Lock Codes can be used to add a lock attribute to inventory either at the LPN Level or at the Batch/Lot level. Lock codes can serve as attributes or as inventory locks to prevent allocation.

Task Description	WMS Module	Overview/Comments	Task Details
Lock Codes Set Up	Lock Codes	Note: Lock Codes are configured at the 3PL Parent Level	<ol style="list-style-type: none"> 1. Login at the 3PL Parent Level. In the 'Lock Codes' UI Module, add lock codes. 2. Enter a code and description 3. Check the 'Allocatable' flag to allow inventory allocation for that lock code. 4. Check the 'Unlock on locate to Reserve' flag to remove the lock code from inventory when inventory is moved/located to a reserve location. 5. Enter 'Yes' in 'Treat as Attribute' Field to treat the lock as an attribute. 6. Check the flag 'Allow multiple lock codes' to allow an LPN to have multiple lock codes for the lock codes eligible.
Lock Locations Set Up (Optional)	Locations	Lock codes can be added to Inventory by locating/putting away inventory to a location with a lock code. The LPNs will inherit a	<ol style="list-style-type: none"> 1. Login at the 3PL Parent Level. 2. In the 'Locations' UI Module, search or create locations that will serve as lock locations (with location type = Reserve or Dock).

Task Description	WMS Module	Overview/Comments	Task Details
		location's lock code once located to that location. Reserve locations can be used to store inventory with lock codes. Dock locations can also be set up with a lock code to have LPNs locked before putaway.	<ol style="list-style-type: none"> 3. In the 'lock code' field, select the specific lock code that needs to be added to the location. 4. Save the changes.

Create LPN

LPNs can be created in WMS without the need of inbound shipment receipts. LPNs can also be created from current Active Inventory. This is used to move Inventory from an Active Location to another for any reason such as Damaged inventory or any other reason.

Reason Codes must be set up in order to Create LPNs from Active Inventory.

Task Description	WMS Module	Overview/Comments	Task Details
Reason Codes	Reason Codes	Note: Reason Codes are configured at the 3PL Parent Level	<ol style="list-style-type: none"> 1. Login at the 3PL Parent Level 2. In the 'Reason Code' UI screen, add a code and description for each Inventory Reason Codes 3. Enter the reason code type as 'Any'
Quantity Entry Limit Set Up	Company Parameters	When entering a quantity while creating an LPN, there can be warning and error messages set up for quantity limits. Company Parameters can be set up: QTY_ENTRY_ERROR_LIMIT: This will prevent a user from proceeding with operations when the quantity is higher QTY_ENTRY_WARNING_LIMIT: This will display a warning message, and a user can accept or reject proceeding	<ol style="list-style-type: none"> 1. Login at the correct company level 2. In the 'Company Parameter' UI Module, search for parameters: QTY_ENTRY_ERROR_LIMIT QTY_ENTRY_WARNING_LIMIT: 3. Set the quantity for each parameter
Create LPN	Screen Configuration UI Module: RF Module: rf.inbound.cwrfcreatelpn (Create LPN)	Refer to the RF Configuration Guide for more details on the parameters	In the 'Screen Configuration' UI Module, add module: Create LPN - rf.inbound.cwrfcreatelpn
Create LPN from Active	Screen Configuration UI Module: RF Module:	This RF Transaction will allow a user to create an LPN from Active Inventory. This allows the user to	In the 'Screen Configuration' UI Module, add module:

Task Description	WMS Module	Overview/Comments	Task Details
	rf.inbound.cwrftcreatelpnlocn (Create LPN Location)	relocate the inventory from active to a new reserve or active or also lock the inventory for any particular reason.	Create LPN Location - rf.inbound.cwrftcreatelpnlocn

Immediate Cycle Count

The RF - Cycle Count Location is used to cycle count locations without the use of tasks. The location will be scanned with the cycle count RF Transaction to initiate the cycle count process. Inventory will then be scanned either at the LPN level or the SKU Content Level. Inventory adjustments will be made immediately.

- LPN Level cycle count - For Reserve Locations Each LPN will be scanned. For Active, SKU Qty will be entered.
- By SKU Count - For Reserve Locations a SKU Qty will be entered for each LPN scanned. For Active, SKU Qty will be entered.
- By SKU Scan - For reserve and active locations, Each unit in the location will be scanned.

Task Description	WMS Module	Overview/Comments	Task Details
Cycle Count Reason Code	Reason Codes & Company Parameters	Note: Reason Codes are configured at the 3PL Parent Level	<ol style="list-style-type: none"> 1. At the 3PL Parent Level, in the 'Reason Codes' UI Module, create the reason code for cycle count if not yet configured (i.e. 'CC') 2. Switch to the correct company level, and In 'Company Parameters' UI Screen, search for parameter: CYCLE_COUNT_REASON_CODE 3. Edit the value and enter the reason code created for cycle count.
Cycle Count Location RF	Screen Configuration UI Module: RF Module: rf.inbound.cwrfcyclecountlocn (Cycle Count Location)	The RF - Cycle Count Location is used to cycle count locations without the use of tasks Cycle count can done at different content level: - By LPN Count - By SKU Count - By SKU Qty	<ol style="list-style-type: none"> 1. In the 'Screen Configuration' UI Module, add module: Cycle Count Location - rf.inbound.cwrfcyclecountlocn 2. In the details, edit parameter 'content-count' to select the level of cycle count: - No selection = LPN Level cycle count - By SKU Count = SKU Qty will be entered for each LPN - By SKU Scan = Each unit in a location will be scanned.
Cycle Count LPN RF	Screen Configuration UI Module: RF Module: rf.inbound.cwrfcyclecountiblpn (Cycle Count LPN)	The RF - Cycle Count LPN is used to cycle count specific LPNs without the use of tasks LPN Cycle	<ol style="list-style-type: none"> 1. In the 'Screen Configuration' UI Module, add module: Cycle Count Location - rf.inbound.cwrfcyclecountiblpn

Task Description	WMS Module	Overview/Comments	Task Details
		count can done by: - SKU Qty - SKU Scan	<ol style="list-style-type: none"> 2. In the details, edit parameter sku-scan-mode' to select the level of cycle count: - No selection = SKU Qty - By SKU Qty = SKU Qty will be entered for LPN - By SKU Scan = Each unit in a location will be scanned.

Delayed Cycle Count

Delayed cycle count works as follows:

- Cycle count is done with the RF Cycle Count transactions
- Inventory Adjustment records are created in the UI Screen 'Cycle Count Adjustment'
- Adjustment records with discrepancies can be approved, rejected or cancelled

Note: When a record is approved, inventory is adjusted accordingly. *When a record is rejected, a cycle count task is created for recount, and no inventory adjustment is made. When a record is cancelled, cycle count is cancelled (i.e. no inventory adjustment is made, and no cycle count task is created).

Task Description	WMS Module	Overview/Comments	Task Details
Cycle Count Reason Code	Reason Codes and Company Parameters	<p>Note: Reason Codes are configured at the 3PL Parent Level</p>	<ol style="list-style-type: none"> 1. At the 3PL Parent Level, In 'Reason Codes' UI Module, create the reason code for cycle count if not yet configured (i.e. 'CC') 2. Switch to the correct company level, and in the 'Company Parameters' UI screen, search for parameter: CYCLE_COUNT_REASON_CODE 3. Edit the value and enter the reason code created for cycle count
Cycle Count Adjustment	Facility Parameters and Company Parameters	The facility and company parameters 'INVN_ADJ_APPROVAL_REQUIRED' must be set to 'YES' for a specific client company. When this parameter is set to yes, inventory adjustment records are created after each cycle count for approval before	<ol style="list-style-type: none"> 1. Login at the correct company level 2. In the 'Company Parameters' UI module and 'Facility Parameters' UI Module, search for parameter: INVN_ADJ_APPROVAL_REQUIRED 3. Edit the value and enter value 'YES' or 'NO' based on requirement

Task Description	WMS Module	Overview/Comments	Task Details
		adjustments are made to inventory. This allows the delayed cycle count.	
Cycle Count Location RF - Content Count	Screen Configuration UI Module: RF Module: rf.inbound.cwrfcyclecountlocn (Cycle Count Location)	The RF - Cycle Count Location is used to cycle count locations without the use of tasks Cycle count can done at different content level: - By LPN Count - By SKU Count - By SKU Qty	<ol style="list-style-type: none"> 1. In the 'Screen Configuration' UI Module, add the module: Cycle Count Location - rf.inbound.cwrfcyclecountlocn 2. In the details, edit parameter 'content-count' to select the level of cycle count: - No selection = LPN Level cycle count - By SKU Count = SKU Qty will be entered for each LPN - By SKU Scan = Each unit in a location will be scanned.
Cycle Count Location RF - Approval Mode	Screen Configuration UI Module: RF Module: rf.inbound.cwrfcyclecountlocn (Cycle Count Location)	The Approval mode can be set on the RF Transaction to either allow: - Auto Approval of Adjustments: Adjustment records are created, and discrepancies are auto approved if any after cycle count is done. Adjustments are made to inventory. - Delayed Approval of Adjustments: Adjustment records are created, and adjustments are not made until records are approved by a user. Records can also be rejected.	<ol style="list-style-type: none"> 1. In the 'Screen Configuration' UI Module, select module: Cycle Count Location - rf.inbound.cwrfcyclecountlocn 2. In the details, edit parameter 'auto-approve-mode': - No selection = Yes - Yes = Adjustments are auto approved and inventory is updated - No = Adjustments require approval for inventory updates.
Cycle Count LPN RF - Content Count	Screen Configuration UI Module: RF Module: rf.inbound.cwrfcyclecountiblpn (Cycle Count LPN)	The RF - Cycle Count LPN is used to cycle count specific LPNs without the use of tasks LPN Cycle count can done by: - SKU Qty - SKU Scan	<ol style="list-style-type: none"> 1. In the 'Screen Configuration' UI Module, add module: Cycle Count Location - rf.inbound.cwrfcyclecountiblpn 2. In the details, edit parameter 'sku-scan-mode' to select the level of cycle count: - No selection = SKU Qty - By SKU Qty = SKU Qty will be entered for LPN - By SKU Scan = Each unit in a location will be scanned.
Cycle Count LPN RF - Approval Mode	Screen Configuration UI Module: RF Module: rf.inbound.cwrfcyclecountiblpn (Cycle Count LPN)	The Approval mode can be set on the RF Transaction to either allow: - Auto Approval of Adjustments: Adjustment records are created, and discrepancies are auto approved if any after cycle count is done. Adjustments are made to inventory. - Delayed Approval of Adjustments: Adjustment records are created, and adjustments	<ol style="list-style-type: none"> 1. In the 'Screen Configuration' UI Module, select module: Cycle Count Location - rf.inbound.cwrfcyclecountlocn 2. In the details, edit parameter 'auto-approve-mode': - No selection = Yes - Yes = Adjustments are auto approved and inventory is updated - No = Adjustments require approval for inventory updates.

Task Description	WMS Module	Overview/Comments	Task Details
		are not made until records are approved by a user. Records can also be rejected.	

Cycle Count Tasks

Cycle count tasks can be created based on item and location attributes. A cycle count wave template can be run to create cycle count tasks based on the configured conditions.

Tasks will be executed for cycle counts which can be either immediate or delayed based on the above configuration for immediate or delayed cycle count.

Note: Configuration for cycle count must be done for immediate or delayed cycle count.

Cycle Count Adjustment Records for Approval

Cycle Count Adjustment records can be allowed for approval or rejection after cycle count tasks are executed. Cycle count adjustments are created after cycle count and require approval before any update to inventory.

Task Description	WMS Module	Overview/Comments	Task Details
Cycle Count Adjustment	Facility Parameters and Company Parameters	The facility and company parameters 'INVN_ADJ_APPROVAL_REQUIRED' must be set to 'YES' for a specific client company. When this parameter is set to yes, inventory adjustment records are created after each cycle count for approval before adjustments are made to inventory. This allows the delayed cycle count.	<ol style="list-style-type: none"> 1. Login at the correct company level 2. In the 'Company Parameters' UI Module and 'Facility Parameters' UI Module, search for parameter: INVN_ADJ_APPROVAL_REQUIRED 3. Edit the value and enter value 'YES' or 'NO' based on requirement

Cycle Count Task Type Setup (Optional)

Cycle Count Task types represent the types or methods of cycle count (i.e. Cycle count at the LPN level or the location contents level.) Cycle Count Task types are listed/defined in the UI Module 'Task Types'. Cycle Count Task types are linked to the 'Cycle Count' RF Module which can be configured for delayed cycle count approval.

Cycle Count Task Types are as follows:

- - CC LOCATION: Task type for cycle count done by LPN Scan by default

- CC Location DTL: Task type for cycle count done at the location content level by default

The RF module in a task type details can be configured for approval mode. The auto approval mode must be configured accordingly to allow delayed cycle counts.

Task Description	WMS Module	Overview/Comments	Task Details
Cycle Count Location RF - Approval Mode	Screen Configuration UI Module: RF Module: rf.inbound.cwrfcyclecountlocn (Cycle Count Location)	The Approval mode can be set on the RF Transaction to either allow: - Auto Approval of Adjustments: Adjustment records are created, and discrepancies are auto approved if any after cycle count is done. Adjustments are made to inventory. - Delayed Approval of Adjustments: Adjustment records are created, and adjustments are not made until records are approved by a user. Records can also be rejected.	<ol style="list-style-type: none"> 1. In 'Screen Configuration' UI Module, add module: Cycle Count Location - rf.inbound.cwrfcyclecountlocn or select module if it already exists. Rename module if needed. 2. In the details, edit parameter 'auto-approve-mode': - No selection = Yes - Yes = Adjustments are auto approved and inventory is updated - No = Adjustments require approval for inventory updates
Cycle Count Task Type Set Up	Task Types	The cycle count RF Module configured with approval mode can be linked to the task types that will be used for cycle count tasks. These task types will then be used to create tasks with the required configuration.	<ol style="list-style-type: none"> 1. In 'Task Type' UI Module, access the details of the task type being configured (CC_Location or CC_Location_DTL) 2. Select the RF Module and click on edit to select the previously configured Cycle count RF Module 3. In the drop down select the cycle count RF Module created. (The RF Module will show up with the specific name configured for the transaction in previous step) 4. Save changes

Cycle Count Task Template

The cycle count task template will specify the task types that need to be created for cycle count tasks based on specific criteria. When the cycle count template is run, cycle count tasks will be created for the configured conditions. The conditions can be set for item or location attributes (i.e. Cycle count tasks to be created for items with specific velocity or for locations in a specific area etc..)

Task Description	WMS Module	Overview/Comments	Task Details
Create Cycle Task Template	Task Creation		<ol style="list-style-type: none"> 1. Login at the correct company level. In 'Task Creation' UI Module create a new Cycle Count template by entering a template name or description then save the template

Task Description	WMS Module	Overview/Comments	Task Details
			<ol style="list-style-type: none"> 2. Access the details to add task rules
Select Task Types	Task Creation - Details	<p>Default Task Types: - CC</p> <p>LOCATION: Task type for cycle count done by LPN Scan by default</p> <p>- CC Location DTL: Task type for cycle count done at the location content level by default</p>	<ol style="list-style-type: none"> 1. In 'Task Creation' UI Module, in task template details add task types that will be used 2. Enter a sequence number for the order of task creation and select a task type from the task type drop down. Task types configured in above section will be visible in the drop down.
Set Up an Ordering Criteria	Task Creation - Details Link - Ordering Criteria	The ordering criteria will specify rules on how tasks are to be created (i.e. the sequence in which tasks will be created for cycle count based on location criteria)	<ol style="list-style-type: none"> 1. In the details, after adding task types in task template, select specific task type and access the 'Ordering Criteria' 2. In 'Ordering Criteria' add a sequence number for the criteria 3. Add criteria for task rules (the break by count is not allowed for cycle count)
Set Up a Selection Criteria	Task Creation - Details Link - Ordering Criteria	The Selection Criteria is to specify the criteria for which cycle count tasks need to be created. This can be used to specify: - Items with specific criteria i.e. Item with a specific velocity, specific item attributes - Location with specific criteria i.e. location with specific area code, level etc..	<ol style="list-style-type: none"> 1. In the details, after adding task types in task template, select specific task type and access the 'Selection Criteria' 2. In 'Selection Criteria' select the sql operator for the folder (i.e. Use AND if one or multiple conditions need to be true - Use OR if one of multiple conditions need to be true for the task type) 3. Click on 'Insert Basic Operation' to add condition(s) or click on 'Insert Complex Operation' to add a sub-folder of conditions 4. After adding a condition, click on the appropriate folder to add more conditions or click Save to save to complete the setup

Cycle Count Triggers

Cycle Count Triggers can be configured to trigger cycle count tasks to be create automatically. For example, this can be used to trigger the creation of a cycle count task after a short pick (i.e. Inventory is allocated, but is not physically present in location and the picker performs a short pick.)

Triggers include the following:

- Alternate Location for Putaway (i.e. User was directed to a specific location for putaway but location was full or not available for putaway)
- Short Pick Full LPN (i.e. LPN allocated is not present in the location directed by system)
- Short Pick Partial LPN (i.e. Full Quantity allocated by system is not present in location)
- Short Pick Active (i.e. Units allocated from active location are not present in location)
- De-allocate IBLPN from UI
- Set Location 'To be counted' flag from location screen (i.e. Location is manually set for cycle count)

Task Description	WMS Module	Overview/Comments	Task Details
Add Cycle Count Trigger	Cycle Count Trigger Management	Cycle count triggers will be displayed in the UI screen 'Cycle Count Trigger Management' Triggers needed will be copied and created for the specific client company	<ol style="list-style-type: none"> 1. Login at the specific client company level 2. In 'Cycle Count Trigger Management' UI Module, copy trigger needed and click on the 'enabled' flag
Select Task Type	Cycle Count Trigger Management	Default Task Types: - CC LOCATION: Task type for cycle count done by LPN Scan by default - CC Location DTL: Task type for cycle count done at the location content level by default	<ol style="list-style-type: none"> 1. In the 'Cycle Count Trigger Management' UI Module, select task type from drop down list 2. The Default task type can be selected as well as created and configured task types in previous section

Inventory Management Modules

The following UI modules can be added to a user's menu for inventory inquiry. There is no configuration required once these modules are added to a menu. A description of these modules is included below.

Task Description	WMS Module	Overview/Comments
Active Inventory	Active Inventory	The 'Active Inventory' UI Screen will show the current inventory available by location (in active locations). This will include the current quantity, and the allocated quantity. The current quantity will include the allocated quantity.
Reserve Inventory	Reserve Inventory	The 'Reserve Inventory' UI Screen will show the current inventory available by location (in reserve locations). This will include the current quantity, and the allocated quantity.

Task Description	WMS Module	Overview/Comments
		The current quantity will include the allocated quantity.
Inventory Summary	Inventory Summary	<ul style="list-style-type: none"> - OBLPN Total = Total units currently packed. - Active Total = Total units in active (this include available and allocated units). - Active Allocated = Total units allocated in active - Active Available = Total units available for allocation (excludes allocated units) - IBLPN Total = Total units in IBLPNs in Received, Located or Allocated Status - Current Qty from IBLPNs - IBLPN Allocated = Total units allocated counted from IBLPNs in Allocated or Partly Allocated status - IBLPN Available = Total units available for allocation from IBLPNs - IBLPN Not verified = Total units from IBLPNs not verified - Total Allocated = Active Allocated + IBLPN Allocated - Total Available = Active Available + IBLPN Available - Total Inventory = Active Total + IBLPN Total - Four Wall Summary = Total Inventory + OBLPN Total
Inventory History	Inventory History	The 'Inventory History' UI Screen will show records for each inventory activity that occurs in the end-to-end process. These records will include LPNs, PO, Item #, Lock Codes, Reason Codes etc...
Container Lock View	Container Lock View	The 'Container Lock View' UI Screen will all current LPNs with an assigned lock code. This screen can also be used to add/remove/update lock codes on an LPN.
Batch Management	Batch Management	The 'Batch Management' UI Module will show all items with a current batch/lot number. This screen can be used to add/update a lock code or expiration date to a batch/lot. All LPNs with the specific batch/lot number will be updated.
Consolidation Inventory	Consolidation Location	The 'Consolidation' UI Module will show inventory currently in a consolidation location. This is used for put-to-store or distribution flows.

9 Replenishment

RF Modules Setup

Replenishment allocation is done through the following:

- Replenishment Waves
- Task Execution
- RF - Reactive Replenishment which will trigger a replenishment allocation and task creation with RF.

Task Description	WMS Module	Overview/Comments
Execute Task	Screen Configuration UI Module: RF Module: rf.outbound.cwrfexecutetask (Execute Task)	The RF - Execute Task Function will be used to execute Picking tasks
RF Reactive Replenishment	Screen Configuration UI Module: RF Module: rf.inbound.cwrfreactreplen (Reactive Replenishment)	The RF - Reactive Replenishment can be used to trigger a replenishment for a specific location without having to run a wave

Replenishment Template

Replenishment wave templates include the rules for replenishment allocation and task creation.

Set Up Replenishment Rules

Replenishment Rules are used to set up rules for allocation (i.e. locations from where inventory will be allocated as well as the UOM for allocation). Replenishment Rules will specify:

- Allocation Zone
- Allocation Area
- UOM

Allocation Zones are viewed as zones of locations from which inventory will be allocated for replenishment. All storage/ reserve locations that will be used to store inventory for replenishment will specify an allocation zone.

Note: Allocation Zones do not need to be defined in WMS like replenishment zones.

Task Description	WMS Module	Overview/Comments
Add Allocation Zones to Locations (Optional)	Location Master	Allocation zones are used to restrict allocation for replenishment. The allocation zones will be added to the location master. The inventory will be allocated for replenishment. The location master will be used to define the allocation zone for each location. There can be multiple allocation zones. They can be used to prioritize location area from which inventory will be allocated.
Create Replenishment Rules	Replenishment Template Link - Replenishment Rules	Replenishment Rules will be used to prioritize allocation areas, and also specify the UOM for allocation from which inventory will be allocated. In Replenishment Rules: - Sequence Number = Order in which rules will occur with location area/zone - The location type = location from which inventory will be allocated for replenishment
Create Replenishment Rules	Replenishment Template Link - Replenishment Rules	In Replenishment Rules: - Restrict Area = Location from which inventory needs to be allocated (optional) - Restrict Allocation = Location of locations from which inventory needs to be allocated (optional) - Allocation UOM = UOM at which inventory will be allocated - Flag 'convert to cases' = This flag applies to units and cases. When checked, inventory will be moved to a temporary LPN to be moved. When unchecked, inventory of units and cases allocated will be palletized and moved to the allocated location.

Set Up Replenishment Tasks

You can set up Replenishment Tasks rules for the creation of tasks when a wave is run for replenishment. Replenishment tasks specify how tasks are broken up (i.e. One task per aisle, location area, etc...)

1. In a Task Template, tasks types to be used will be specified and prioritized. Task types will represent the types or methods of picking/replenishment (i.e. Full LPN Replenishment, Cases/Packs/Units Replenishment). Task Types will create tasks based on the UOMs defined in the Replenishment Rules for Allocation. The task type's UOM will match the Allocation UOM.
2. Each task type will specify an 'Ordering Criteria' to specify how tasks are to be broken (i.e. by aisle, by area, by item, etc...)
3. Each task type can also specify a 'Selection Criteria' to restrict the created task's rules to specified criteria. Task types can also be prioritized using the selection criteria (i.e. Tasks are to be created for specific zones first, etc...)

Task Description	WMS Module	Overview/Comments
Create Replenishment Task Template	Task Creation	
Select Task Types in Replenishment Task Template	Task Creation - Details	Task Types: - Full LPN Replenishment: This task type is used when full LPN are allocated for replenishment - Cases Replenishment: This task type is used when Unit/Packs/Cases are allocated for replenishment

Task Description	WMS Module	Overview/Comments
		Replenish: used when the 'consolidate and replenish' rules are used. Units&Cases allocated will all be allocated to the LPN and then replenished/distributed
Add Rules in Replenishment Task Template	Task Creation - Details	Break By Quantity: Do not use Create_held_flg: When checked, tasks will be created in 'HELD' Status and will not be picked until released Priority: The priority in which tasks will be created RF Screen
Set Up an Ordering Criteria (Optional)	Task Creation - Details Link - Ordering Criteria	The ordering criteria will specify rules on how tasks will be broken (i.e. If tasks will be broken by aisle, area, as a pick sequence...) Break By Count: The break by count by which tasks will be broken (i.e. Criteria to break tasks created for every 2 aisles. For the pick sequence to count will be set to 0)
Set Up a Selection Criteria (Optional)	Task Creation - Details Link - Ordering Criteria	The Selection Criteria is used to restrict the created tasks. Task types can also be prioritized using the criteria. Tasks are to be created for specific zones with specific criteria. LPN broken by aisled & restricted to Zone 12. Task area & restricted to Zone 2)

Set Up Replenishment Wave Template

The Replenishment Wave Template will link:

1. The replenishment rules for allocation 2. The replenishment tasks 3. The replenishment zones and 4. The replenishment trigger all into a template to be run for allocation and task creation. The replenishment template will be run to allocate inventory and to create tasks based on the rules.
2. The Wave can be run manually in UI or can be triggered with RF through the RF - Transaction 'Reactive Replenishment'.
3. Following steps are to be followed to set up the replenishment template in the UI Module: 'Replenishment Template View'

Task Description	WMS Module	Overview/Comments
Create a Replenishment Wave	Replenishment Template View	The replenishment zones need to be created/pre-created before creating the replenishment wave template.
Select a Replenishment Rule Template	Replenishment Template View	The replenishment Rules need to be created/pre-created before creating the replenishment wave template.

Task Description	WMS Module	Overview/Comments
Select a Task Creation Template	Replenishment Template View	The replenishment Rules need to be created/pre-defined before creating the replenishment wave template.
Select a Replenishment Trigger Mode	Replenishment Template View	The replenishment trigger mode will specify the trigger mode. The trigger modes are as follows: - Minimum Capacity: When a replenishment wave is run, allocation will be done in locations where the current quantity available is lower than the minimum capacity specified in the location. - Percentage: When a replenishment wave is run, allocation will be done in locations where the current quantity available is lower than the percentage specified in the location. - Reactive Replenishment: The replenishment trigger will be run when a location is scanned with a quantity below the 'Reactive Replenishment' threshold. Allocation will be done for the location. - Order Based: Allocation will be done based on the order quantity for orders created.

General Task Type Configuration (Optional)

The following configuration is not required for operations, but offers additional functionality. See summary below.

Replenishment Task types represent the types or methods of picking/replenishment type. (i.e. Full LPN Replenishment, Cases/Packs/Units Replenishment.) Task Types specified in the task template will create tasks for picking/replenishment.

Task types are listed/defined in the UI Module 'Task Types'. Task types are composed of a series of RF Modules, each specifying an operation for picking/replenishment. The Full LPN Replenishment Task Type includes the following RF Modules:

1. Move LPN (Operation: Pick allocated LPNs to a pallet before replenishment)
2. RF Replenish Full LPN (Operation: Replenish picked LPNs to appropriate picking locations).

Each module in a task type can be configured for additional functionality like validations (batch, expiry or none) during picking, drop zone after picking, etc... The module configured can then be replaced on the specific task type. Multiple Task Type Records can be created for the same task type to be configured as needed and added to Task Templates.

For example, there can be two (2) task types for Full LPN Replenishment with different RF Modules Configuration.

Task Description	WMS Module	Overview/Comments
Access Task Types & Look Up RF Modules	Task Types	The 'Task Type' UI Module will display all task types and their details. The 'Task Type' details will display all RF Modules used within the task type.
Access RF Modules for Configuration	Screen Configuration	RF Modules will have to be added in Screen Configuration for configuration. For more details on the functionality, refer to the RF Parameters Configuration Document.

Task Description	WMS Module	Overview/Comments
Configure Task Types with RF Modules	Task Types	RF Modules configured for required functionality of task types that will be used in the task template. These are used to create tasks with the required configuration.
Configure Task Types in Task Template	Task Creation Template	Task Types configured with new RF Modules will have an appropriate Task Template. Task template used will contain task types specified on the template.

Replenishment Operations

These topics walk you through steps needed for Replenishment Operations including Execute Task and Reactive Replenishment.

Execute Task

The RF - Execute Task Transaction will be used to execute Picking & Replenishment Tasks created based on configuration.

When the transaction is accessed:

- The list of available tasks will be displayed in order of task priority.
- RF can also prompt for a location to display only the tasks available for that location.

Task Description	WMS Module	Overview/Comments
RF - Execute Task	Screen Configuration UI Module: RF Module: rf.outbound.cwrfexecutetask (Execute Task)	The RF - Execute Task function is used to execute o

Reactive Replenishment

The RF - Reactive Replenishment Transaction is used to trigger a replenishment wave to run for the location scanned. A wave will automatically be run for that location and allocation will occur if needed up to the max units quantity for that location.

Task Description	WMS Module	Overview/Comments
RF Reactive Replenishment	Screen Configuration UI Module: RF Module: rf.inbound.cwrfreactreplen (Reactive Replenishment)	The RF - Reactive Replenishment can be used to trigger a wave for a specific location without having to run a wave manually. The parameter 'allow-task-execution' can be set to true to allow scan the location to execute the replenishment task.

10 Waving

Waving Overview

Inventory allocation is done through allocation waves. A wave template specifies rules for allocation and task creation as well as additional options for cubing and distribution to store.

The wave template will specify the rules of allocation and picking tasks.

Configuration Level - 3PL Parent Company vs. Client Company:

1. Wave templates configured at the 3PL Parent company level can be used for any client company. Wave Templates configured at the client company level can only be used for that client company.
2. Configuration for wave templates made at the 3PL Parent Company level will not be visible at the client company level.

Note: If wave templates will not be shared across different client companies, configuration should be done at the client company level.

Order Types

Order Types distinguish the different types of orders that will be received in WMS. Order Types specify if an order will be a ship to facility/store, flowthrough, if the order will allow partial allocation, and short pick options.

Order Types will also be linked to wave templates to allow allocation restrictions to specific order types.

Task Description	WMS Module	Overview/Comments
Set Up Order Types	Order Types	Order Type Codes will be specified on the order i to WMS as well as any order created manually.
Set Up Parameters on Order Types	Order Types	Parameters for order types: - Facility Flag: When a destination/ship to facility that is defined in th When unchecked, orders will be customer orders checked, inventory can be cross-docked for outb allocation - Partial Allocation: When checked, or When unchecked, orders that can't be fully alloc all.
Set Up Parameter for Short Pick Options	Order Types	Short pick Parameter for order types: - Only deal checked: If an order is short picked by a user, the be deallocated by the quantity short picked. The waved later When unchecked: If an order is shor detail short picked will be deleted by the quantit

Set Up Facilities and Companies

Task Description	WMS Module	Overview/Comments
Set Up Ship To Facilities	Facilities	Facilities will need to be set up if orders will be shipped to a facility. Facilities can be pre-defined in WMS. They will also be required for the Store flow.
Set Up Destination Companies	Ship To Companies	Ship To Companies are not required to be set up but are mostly used to configure custom/compliant documents for the ship to company.
Set Up Ship Vias	Ship Via	Ship Vias are not required to be set up to create a carrier. Carriers to be set up. Refer to Master Configuration.

Wave Template

Wave templates will include the rules for allocation and task creation.

Setup Restrictions for Wave Allocation - Wave Search

A wave template is run for inventory allocation and creation of picking tasks. The wave template will specify the rules of allocation and picking tasks.

The wave template is linked to a wave search. The wave search tied to the wave template can be used to restrict allocation for specific orders based on criteria specified. The specific wave will only allocate inventory to orders meeting the criteria. This can be used to restrict allocation for specific order types, for specific shipping service levels, for specific order values, etc... Multiple wave searches can be created to be tied to different wave templates. Multiple wave templates with different rules can be created and restricted to specific set of orders with the wave search.

This can be used to:

1. Prioritize how orders are to be waved and allocated
2. Restrict allocation and tasking rules for specific set of orders. For example, Wave Template for each type of order, Wave Template for each service level to prioritize allocation and so on.

Task Description	WMS Module	Overview/Comments
Set Up Wave Template Search(es)	Wave Templates Link 'Wave Searches'	Multiple Wave Searches can be created based on criteria. If there is no need to restrict allocation a wave search will be created. In wave search fields criteria can be entered. The wave tied to the specific wave search will allocate inventory to orders with the specified values.

Task Description	WMS Module	Overview/Comments

Set Up Allocation Rules

The wave template be linked to an allocation mode. The allocation mode will specify the rules of allocation:

- The sequence of Allocation by the Unit of Measure (Full LPN/Pallet, Cases, Packs, Units) *Note: Full Pallet picking is possible if all LPNs on a pallet are allocated.
- The Location Area from which inventory should be allocated (Reserve, Active, etc...)
- The Distribution Mode for inventory consolidation if needed (Distribution to Store)
- The Cartonize UOM to specify how Outbound LPNs are created (LPN level, Inner Case level, Cubed...)

Note: The cartonize UOM will specify if units will be cubed. The cubing process is the process of allocating inventory to outbound containers based on the dimensions of the allocated inventory.

To set the Allocation Mode:

1. First follow Section 'Set Up Allocation Mode'
2. Second, set up configuration for one or any combination of the available allocation types (Non-Cubed, Cubed, Distribution).

Set Up Allocation Mode

Task Description	WMS Module	Overview/Comments
Set Allocation Mode Templates	Wave Templates Link 'Allocation Mode'	Multiple Allocation Modes can be set up for different types of orders. Each allocation mode will be linked to a template.
Allocation Sequence	Wave Templates Link 'Allocation Mode'	The sequence of allocation will specify the order of allocation either from a specific location area, or from a specific Allocation Sequence. Allocation Sequences can be set up. (i.e. First allocate Full Cases from Reserve Area 1, Third Unallocated Full Cases from Reserve Area 2, etc.)
Location Type	Wave Templates Link 'Allocation Mode'	The location type will specify the type of location from which inventory should be allocated for the specific allocation sequence. (i.e. Reserve Area 1, Active Seq 2 - If there is no available Active Inventory, then allocate from Reserve Area 1)
Location Area and Zone Restriction (Optional)	Wave Templates Link 'Allocation Mode'	Allocation can be restricted to specific location areas and/or zones set up in the location master. Inventory will be allocated from the specified areas and/or allocation zones. Areas and zones can be set up in the location master.

Task Description	WMS Module	Overview/Comments
		be specified. This can also be used to prioritize a zone (i.e. Seq 1 - Allocate Units from Area 1 Seq 2

Allocation - Non-Cubed Picking

Non-Cubed Picking in WMS is defined as picking inventory that will not be assigned to outbound containers based on volume and dimensions.

Non-Cubed Picking is done via task execution for picking units, packs, cases and LPNs to an outbound container.

For non-cubed unit/pack/case picking, containers will be created during picking. BlindOutbound LPNs labels will be used for printing.

For non-cubed full LPN picking, containers can be created with the wave since the Inbound LPN can be used as an outbound LPN. In this case, Container Labels can be printed at the wave.

Note: Non-Cubed picking can also be used to bulk pick inventory into a temporary container/tote and repacked into appropriate shipping containers after picking. This is used for E-commerce distribution.

Task Description	WMS Module	Overview/Comments
Allocation UOM	Wave Templates Link 'Allocation Mode'	The Allocation UOM will specify the Unit of Measure will be allocated for picking (LPNs, Cases, Units.. prioritized by UOM (i.e. Full LPN first, then units) allocate Units Reserve Locations will allocate LPN non-cubed picking. Cases and Packs allocation v Case and Packs Quantities in the Item Master.
Active Locations - Cartonize UOM	Wave Templates Link 'Allocation Mode'	The Cartonize UOM will specify how allocated in outbound containers. WMS will create outbound UOM specified. For Active Locations, no option v picked: - None - Outbound Containers will be cre
Reserve Locations - Cartonize UOM Allocation UOM: Units/Packs/Cases	Wave Templates Link 'Allocation Mode'	The Cartonize UOM will specify how allocated in outbound containers. WMS will create outbound UOM specified. For Partial Reserve Picking, non- - None - Outbound Containers will be created by Packs, Cases - Outbound containers will be creat (i.e. After packing inventory WMS will create an o - LPNs - Outbound containers will be created at An LPN will be created at the wave for all invento Container Labels can be printed at the wave.
Reserve Locations - Cartonize UOM Allocation UOM: Full LPNs	Wave Templates Link 'Allocation Mode'	The Cartonize UOM will specify how allocated in to outbound containers. WMS will create outbou of UOM specified. For full LPN non-cubed pickin LPNs - Outbound Containers will be created per labels can be printed at the wave.

Task Description	WMS Module	Overview/Comments
Active Locations - Distribution Mode	Wave Templates Link 'Allocation Mode'	The distribution Mode for non-cubed picking tas
Reserve Locations - Distribution Mode	Wave Templates Link 'Allocation Mode'	The distribution Mode for non-cubed picking tas

Allocation - Cubed Picking and Pick to Cart

Cubed Allocation in WMS is defined as assigning inventory to outbound containers based on containers' dimensions, max volume and weight. Outbound containers will be created at the wave or after packing based on the items' dimensions, volume and weight.

1. Pick Cart Functionality - Cubed Allocation can be done at the wave. Outbound Containers can will be created at the wave based on dimensions, volume and weight of inventory. In this case container/shipping labels can be printed at the wave. Containers will then be assigned to the pick cart. Multiple orders can be picked at a time with the pick cart functionality.
2. Cubed Allocation can also be done at packing. Outbound Containers sizes/types will be calculated but not created at the wave. Outbound Containers will be created at packing.

This can be used to pick inventory into a temporary LPN or tote and then distribute Inventory into the cubed calculated OBLPNs.

Note: Pick Cart will not be used in this case.

Task Description	WMS Module	Overview/Comments
Allocation UOM	Wave Templates Link 'Allocation Mode'	The Allocation UOM will specify the Unit of Measure will be allocated for picking (Cases, Units...) Allocation UOM (i.e. Cases first, then units) Active Location Reserve Locations will allocate Cases, Packs and cannot be cubed. Cases and Packs allocation will Case and Packs Quantities in the Item Master.
Active - Cartonize UOM	Wave Templates Link 'Allocation Mode'	The Cartonize UOM will specify if inventory allocated outbound containers will be calculated)
Reserve Locations - Cartonize UOM	Wave Templates Link 'Allocation Mode'	The Cartonize UOM will specify if inventory allocated outbound containers will be calculated)
Active Locations - Distribution Mode	Wave Templates Link 'Allocation Mode'	The distribution Mode for non-cubed picking tas
Reserve Locations - Distribution Mode	Wave Templates Link 'Allocation Mode'	The distribution Mode for non-cubed picking tas

Allocation - Distribution to Store

Distribution to Store or Put-To-Store (PTS) is defined in WMS as the process in which allocated inventory is pulled in bulk for multiple orders/stores. The inventory is then distributed to stores/destination facilities at a consolidation locations.

The PTS Process requires destination stores to be defined in WMS in the 'Facilities' screen, as well as assigned distribution/consolidations locations for each store/facility.

Inventory can be allocated from both Active and Reserve Locations for distributions.

1. Distribution at LPN Level: Full LPNs will be picked and then units will be distributed to corresponding stores.
2. Allocated Units will be picked and consolidated (rather than the Full LPN) and then the units will be distributed to stores.

Task Description	WMS Module	Overview/Comments
Allocation UOM	Wave Templates Link 'Allocation Mode'	The Allocation UOM will specify the Unit of Measure that will be allocated for picking (Cases, Units...) Allocation UOM (i.e. Cases first, then units) Active Locations and Reserve Locations will allocate Cases, Packs and Units. *Full LPNs is not an option. Cases and Packs allocate Standard Case and Packs Quantities in the Item
Active - Cartonize UOM (Not Applicable for Distribution)	Wave Templates Link 'Allocation Mode'	The Cartonize UOM is not used for Distribution
Reserve Locations - Cartonize UOM (Not Applicable for Distribution)	Wave Templates Link 'Allocation Mode'	The Cartonize UOM is not used for Distribution
Active Locations - Distribution Mode	Wave Templates Link 'Allocation Mode'	The distribution Mode for PTS Process from Active Locations is 'Consolidate and Distribute'. With this mode, all units from stores will be picked in bulk into a temporary consolidation location and then distributed to stores at consolidated locations.
Reserve Locations - Distribution Mode	Wave Templates Link 'Allocation Mode'	The distribution Mode for PTS Process from Reserve Locations is as follow: 1. Distribution, no residuals : Allocation is allocated in full to one or more orders. Allocation is not fully allocated. 2. Distribution, residuals OK : Allocation is partly allocated for orders. 3. Consolidate and Distribute : Allocation is allocated, picked and consolidated rather than the units to be distributed.

Allocation - Additional Options

Task Description	WMS Module	Overview/Comments
MHE System (Optional)	Wave Templates Link 'Allocation Mode'	

Task Description	WMS Module	Overview/Comments
Ignore Attributes	Wave Templates Link 'Allocation Mode'	Attributes A, B, C are inventory attributes specifying the order details can specify one or more inventory attributes for allocation to inventory with matching attributes. - Ignore Attribute flag: when checked inventory only allocated when attributes specified on order details.

General Task Type Configuration (Optional)

The following configuration is not required for operations, but offers additional functionality. See summary below.

Replenishment Task types represent the types or methods of picking/replenishment type. (i.e. Full LPN Replenishment, Cases/Packs/Units Replenishment.) Task Types specified in the task template will create tasks for picking/replenishment.

Task types are listed/defined in the UI Module 'Task Types'. Task types are composed of a series of RF Modules, each specifying an operation for picking/replenishment. The Full LPN Replenishment Task Type includes the following RF Modules:

1. Move LPN (Operation: Pick allocated LPNs to a pallet before replenishment)
2. RF Replenish Full LPN (Operation: Replenish picked LPNs to appropriate picking locations).

Each module in a task type can be configured for additional functionality like validations (batch, expiry or none) during picking, drop zone after picking, etc... The module configured can then be replaced on the specific task type. Multiple Task Type Records can be created for the same task type to be configured as needed and added to Task Templates.

For example, there can be two (2) task types for Full LPN Replenishment with different RF Modules Configuration.

Task Description	WMS Module	Overview/Comments
Access Task Types & Look Up RF Modules	Task Types	The 'Task Type' UI Module will display all task types and task type details will display all RF Modules used within the task type.
Access RF Modules for Configuration	Screen Configuration	RF Modules will have to be added in Screen Configuration for configuration. For more details on the functionality, refer to the RF Parameters Configuration Document.
Configure Task Types with RF Modules	Task Types	RF Modules configured for required functionality of task types that will be used in the task template. These task types are used to create tasks with the required configuration.

Task Description	WMS Module	Overview/Comments
Configure Task Types in Task Template	Task Creation Template	Task Types configured with new RF Modules will have appropriate Task Template. Task template used will have task types specified on the template.

Set Up Picking Tasks Template

Picking Tasks can be created to pick allocated inventory following configured rules. Picking tasks rules can be set up for the creation of tasks when a wave is run for orders. Picking tasks will specify how tasks will be broken (i.e. One task per aisle, location area, etc...).

1. In a Task Template, tasks types to be used will be specified and prioritized. Task types will represent the types or methods of picking (i.e. Full LPN Replenishment, Cases/Packs/Units Replenishment). Task Types will create tasks based on the UOMs defined in the Allocation Mode. The task type's UOM will match the Allocation UOM.
2. Each task type will specify an 'Ordering Criteria' to specify how tasks are to be broken (i.e. by aisle, by area, by item, etc...)
3. Each task type can also specify a 'Selection Criteria' to restrict the created task's rules to specified criteria. Task types can also be prioritized using the selection criteria (i.e. Tasks are to be created for specific zones first, etc...)

Note: The task type selected in the following steps can be the WMS default task type or a new configured task type in the previous section.

Set Up Task Template

Task Description	WMS Module	Overview/Comments
Create Picking Task Template	Task Creation	

Non-Cubed Picking

Picking Tasks will match the Allocation Type (UOM and Location Type) set up in the wave template.

Task Description	WMS Module	Overview/Comments
Unit Picking - Select Task Types	Task Creation - Details	Task Types: - Non Cubed Active Picking: This task type is allocated from Active Locations - Reserve Units: Units are allocated for Reserve Locations
Packs Picking - Select Task Types	Task Creation - Details	Task Type: - Reserve Inner Packs: This task type is allocated
Cases Picking - Select Task Types	Task Creation - Details	Task Type: - Reserve Cases: This task type is used and allocated
Full Pallet Picking - Select Task Types	Task Creation - Details	Task Types: - Plt Move Auto-Pack: This task type is used when all LPNs on a pallet are allocated.
Full LPN Picking - Select Task Types	Task Creation - Details	Task Types: - Full LPN Pull: This task type is used and allocated
Add Rules in Task Template	Task Creation - Details	Break By Quantity: Do not use Create_held_flg: When checked, tasks will be created in 'HELD' Status and will not be picked until released Priority: The priority in which tasks will be created RF Screen Destination Zone: The destination zone (from location master) - This will be the drop zone to which tasks will be moved after completion. User will have to scan a matchpick
Set Up an Ordering Criteria (Optional)	Task Creation - Details Link - Ordering Criteria	The ordering criteria will specify rules on how tasks will be broken (i.e. If tasks will be broken by aisle, area, and pick sequence...) Break By Count: The break by count by which tasks will be broken (i.e. Criteria to break tasks created for every 2 aisles. For the pick sequence count will be set to 0)
Set Up a Selection Criteria (Optional)	Task Creation - Details Link - Ordering Criteria	The Selection Criteria is used to restrict the creation of tasks. Task types can also be prioritized using this criteria. Tasks are to be created for specific zones with specific criteria - FULL LPN broken by aisled & restricted to Zone 1 - FULL LPN broken by area & restricted to Zone 2)

Distribution to Store Picking

Picking Tasks for distribution will be used when a distribution mode is set up in the allocation template for Inventory Distribution To store.

Task Description	WMS Module	Overview/Comments
Consolidate and Distribute - Select Task Type	Task Creation - Details	If the Distribution Mode set up in the wave template is 'Distribute' for Active Units, Reserve Units, Packs and Cases, the task type to be set up is: - Internal Picking Task: This task type is used for picking tasks. Mode = 'Consolidate and Distribute'. This is used to pick units, packs and cases from Active and Reserve units. LPN will be dropped at a drop zone and will then be picked up at a separate RF Transaction.
Distribution No Consolidation - Select Task Type	Task Creation - Details	If the Distribution Mode set up in the wave template is 'Residuals' or 'Distribution Residuals OK' for Reserve Units, the task type to be set up is: - Distribute LPN: This task type is used for picking tasks. Distribution Mode = 'Distribution No Residuals' or 'Distribution Residuals OK'. This is used to bulk pick LPNs from Reserve for Active Units and Cases. Inventory will then be distributed from pick zone.
Add Rules in Replenishment Task Template	Task Creation - Details	Break By Quantity: Do not use Create_held_flg: When checked, tasks will be created in 'HELD' Status and will not be picked until released Priority: The priority in which tasks will be created RF Screen Destination Zone: The destination zone (from location master) - This will be the drop zone to which units will be moved after completion. User will have to scan a matchpick.
Set Up an Ordering Criteria (Optional)	Task Creation - Details Link - Ordering Criteria	The ordering criteria will specify rules on how tasks will be broken (i.e. If tasks will be broken by aisle, area, and pick sequence...) Break By Count: The break by count by which tasks will be broken (i.e. Criteria to break tasks created for every 2 aisles. For the pick sequence count will be set to 0)
Set Up a Selection Criteria (Optional)	Task Creation - Details Link - Ordering Criteria	The Selection Criteria is used to restrict the creation of tasks. Task types can also be prioritized using Selection Criteria. Tasks are to be created for specific zones with specific criteria - FULL LPN broken by aisled & restricted to Zone 1 - FULL LPN broken by area & restricted to Zone 2)

Cubed Picking and Pick Cart

Picking for cubed allocation can be done as follows:

1. Using the Pick Cart functionality - The pick cart functionality will be used when the outbound containers are created with the wave. Picking using the 'pick cart' functionality will not require setting up the task template. Proceed to next section for pick cart configuration.
2. By Bulk Picking Inventory into a tote/LPN and then repacking inventory into the final calculated containers. Option 2 will most likely be used for E-Commerce flows as the repacking process is done at the Unit Level with a SKU Scan. This option will require setting task types equivalent to non-cubed picking.

Task Description	WMS Module	Overview/Comments
Unit Picking - Select Task Types	Task Creation - Details	Task Types: - Non Cubed Active Picking: This task type is allocated from Active Locations - Reserve Units: Units are allocated for Reserve Locations
Packs Picking - Select Task Types	Task Creation - Details	Task Type: - Reserve Inner Packs: This task type is allocated
Cases Picking - Select Task Types	Task Creation - Details	Task Type: - Reserve Cases: This task type is used for Reserve Cases allocated
Add Rules in Task Template	Task Creation - Details	Break By Quantity: Do not use Create_held_flg: If checked, tasks will be created in 'HELD' Status and will not be picked until released Priority: The priority in which tasks will be created RF Screen Destination Zone: The destination zone (from location master) - This will be the drop zone to which tasks will be moved after completion. User will have to scan a matchpick
Set Up an Ordering Criteria (Optional)	Task Creation - Details Link - Ordering Criteria	The ordering criteria will specify rules on how tasks will be broken (i.e. If tasks will be broken by aisle, area, and pick sequence...) Break By Count: The break by count by which tasks will be broken (i.e. Criteria to break tasks created for every 2 aisles. For the pick sequence count will be set to 0)
Set Up a Selection Criteria (Optional)	Task Creation - Details Link - Ordering Criteria	The Selection Criteria is used to restrict the creation of tasks. Task types can also be prioritized using selection criteria. Tasks are to be created for specific zones with specific criteria - FULL LPN broken by aisled & restricted to Zone 1 - FULL LPN broken by area & restricted to Zone 2)

Set Up Cubing and Pick to Cart Rules

Cubing Rules need to be set up for cubed allocation. If a wave template's allocation mode specifies a cartonized UOM = Cubed, cubing rules will have to be set. The wave template run for cubed allocation will create/calculate outbound containers with the wave or after packing.

The wave template will be linked to a cubing rule. The cubing rule tied to the wave template will be used to set up the rules for creating cubed containers. (i.e. This will specify how containers should be broken/created by aisle, area, order etc...). In addition, a list of container types/sizes can be set up with dimensions, max volume, max weight and empty weight.

1. A predetermined Container Type can be used at the wave, order or item level for cubing.
2. Dynamic cubing can also be used where WMS will calculate the container sizes to be used.

Task Description	WMS Module	Overview/Comments
Set Up Cubing Rules	Cubing Rules	<p>Cubing rules will specify how containers should be allocated.</p> <p>Note: By default containers created will not be broken by order. To ensure that different containers are created for different orders, the break by order will have to be added to break by order.</p> <p>Multiple Cubing Rules can be created to be linked to a wave template.</p>
Set Up an Ordering Criteria	Cubing Rules - Details Link - Ordering Criteria	<p>The ordering criteria will specify rules on how containers will be broken and broken (i.e. If containers will be broken by aisle, area, order, etc... will follow a pick sequence...) Break By Count: The number by which containers will be broken (i.e. Break by 1 = Containers will be created for every order. If the break by count will be set to 0)</p>
Set Up a Selection Criteria (Optional)	Cubing Rules - Details Link - Selection Criteria	<p>The Selection Criteria is used to restrict the creation of containers based on selection criteria. (i.e. Containers are to be created for specific selection criteria)</p>
Set Up Container Types 'OBLPN Types'	OBLPN Types	<p>OBLPN Types represent the list of container sizes and weights.</p> <ol style="list-style-type: none"> 1. One general container type can be set up a container type that is not known or if WMS will not be used for dynamic cubing. 2. The list of available container sizes can be set up for dynamic cubing or if these container types are used for order or wave level.

Set Up Label Printing Order

The column ordering is the WMS functionality that allows setting the order in which labels will be printed from the wave. These labels can be printed after a wave is run as pick tickets or after packing as shipping labels. The column ordering will specify the criteria by which labels should be ordered for printing.

Task Description	WMS Module	Overview/Comments
Set Up a Column Ordering	Column Ordering	Multiple column ordering can be created. The column ordering is selected when printing from the wave 2. Or specified in the wave template.

Set Up Store Daily Capacity

The Facility Daily Capacity functionality will offer the option to configure the Daily Capacity Limit per destination facility where the Destination facility can be a store or a facility. Users can configure the capacity limit for each store or destination facility through UI or as an upload option.

When the daily limits are configured for a store, WMS will only allocate a daily total up to the value specified for each store.

Task Description	WMS Module	Overview/Comments
Set up Daily Capacity by Facility	Wave Template	The Capacity will limit order allocation for a destination facility. Units/Weight/Volume/Orders: Total value of space allocated for a wave run - % Tolerance: A tolerance value set that will allow allocating up to the specified capacity. Values as follow: 0 = Turn off the capacity check. Double the capacity limits
Add the Daily Capacity View UI Module	Daily Capacity View	The UI Module 'Daily Capacity View' displays the capacity utilized for a store/destination facility.

Set Up Wave Template

The Wave Template will link:

1. An allocation method
2. The allocation mode
3. The wave search
4. The task creation template all into a template to be run for allocation and task creation. The wave template will be run to allocate inventory and to create tasks based on the rules.

In addition, the wave template will specify:

1. A cubing mode
2. The cubing rule
3. OBLPN Type if the allocation mode linked is set up for cubed allocation.

Complete the following steps to set up the wave template in the UI Module: 'Wave Template'.

Task Description	WMS Module	Overview/Comments
Create a Wave Template & Select an Allocation Method	Wave Template	Allocation methods: - 'First in First Out' & 'Last in First Out' & 'Received Timestamp' - 'First Expiry First Out' & 'Last Expiry First Out' Based on the 'expiry date' if present; if not present, based on the 'received timestamp' - 'Quantity Ascending' & 'Quantity Descending' - 'Location Sequence Ascending' & 'Location Sequence Descending' Based on the location pick sequence
Select an Allocation Mode	Wave Template	The allocation modes need to be configured prior to creating the wave template
Reuse LPN Nbr Flag	Wave Template	The 'Reuse LPN' Flag is checked if the same LPN Nbr on the output container will be used as the LPN Nbr on the output container. This is mostly used for Full LPN picks scenario where the container is shippable container.
Select a Wave Search	Wave Template	The wave search need to be configured prior to creating the wave template
Set Up Location Size Type (Optional)	Wave Template	The location size type specified will restrict allocation to the specific size type specified.
Select a Task Creation Template	Wave Template	The task template need to be configured prior to creating the wave template
Select a Routing Mode	Wave Template	Routing Modes are not required: <ol style="list-style-type: none"> 1. MODE_1: This is used if parcel & LTL ship via containers based on stores and routes. This is used for the wave. This is used for stores. 2. MODE_2: This is used to determine the parcel ship via on the order or the default ship via. When a routing mode is set, communication shipments will be done.

Task Description	WMS Module	Overview/Comments
		<p>3. None: If ship via does not need to be determined, communication to web services for parcel size is not required for the wave.</p>
Select a Cubing Mode (Only required for cubing)	Wave Template	<p>A Cubing mode option will be selected if the wave is for cubing. Cubing Mode Options: - NONE: If cubing is not required, wave - Use predetermined OBLPN Type: The OBLPN Type selected to create containers will be from the wave template. - Calculate OBLPN Type: Containers will be created at the wave. - Calculate OBLPN Type at packing: Containers will be calculated at packing based on the wave template. - Calculate OBLPN Type at picking: Containers will be calculated at picking based on the wave template. - Calculate OBLPN Type at final: Containers will be calculated at final based on the wave template. - Calculate OBLPN Type at final: Containers will be calculated at final based on the wave template.</p>
Select an OBLPN Type (Only required for cubing)	Wave Template	<p>The OBLPN Type(s) need to be configured prior to creating the wave template. When the cubing mode is set to 'Use predetermined OBLPN Type', the OBLPN Type specified in the wave template will be used for cubing all outbound containers. When the cubing mode is set to 'Calculate OBLPN Type at packing', the OBLPN Type specified in the wave template will be used for packing in case containers are created at the wave.</p>
Select a cubing Rule (Only required for cubing)	Wave Template	<p>The OBLPN Type(s) need to be configured prior to creating the wave template.</p>
Select a Column Ordering (Optional)	Wave Template	<p>The column ordering will be used to set the sequence of shipping labels will be printed from the wave. When the column ordering is specified on the wave template, labels will be printed in the specified order when the wave is run.</p>
Set Wave Capacity (Optional)	Wave Template	<p>Wave Capacity will limit allocation to orders based on the wave capacity. Max units/Weight/Volume/Orders: Total value of the wave capacity will be allocated for a wave run - % Tolerance: A tolerance value that will allow allocating up to the specified percentage of the max values set that will allow allocating up to the specified percentage of the max values set. Capacity Check: When checked wave capacity will be checked against the capacity of the store in the 'Destination Facility Attributes' table.</p>
Auto Release MHE Message Flag	Wave Template	<p>The 'Auto Release MHE Message flag' is checked on the wave template. When checked, messages to MHE System will be done when a wave is run.</p>

Set Up a Cancellation Wave

A cancellation wave will be used to cancel orders that were not allocated due to unavailable inventory. The flag 'Cancel Unallocate' will be checked for a cancellation wave.

Note: It is best to not use this flag on wave templates that are set up for allocation. A separate wave template can be set up specifically for cancellation.

Task Description	WMS Module	Overview/Comments
Set Up a Cancellation Wave	Wave Template	Repeat steps to create wave template and add th

Set Up Cron Job Wave Template

Wave templates can be scheduled to be run automatically at specified times or interval of times instead of a user manual run. From the **Scheduled Jobs** UI, you can create a job type for the wave using the Wave Template job type.