Oracle® Warehouse Management Cloud

User Guide for Oracle Warehouse Management
Enterprise Edition Cloud

Update 19D

Part No. F24899-01

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Oracle® Warehouse Management Cloud User Guide for Oracle Warehouse Management Enterprise Edition Cloud, Update 19D

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Preface

This Super User guide describes in detail how to configure and use the Oracle WMS Cloud. All functionality unless specifically noted is available in Oracle Warehouse Management Enterprise Edition Cloud. Please direct any functionality questions to the Support or Implementation teams. Thanks.

Changed By	Version	Date	Note
Tae Hoon Kim Adam Horner	1.0	10/03/2014	Initial Draft
Tae Hoon Kim	1.1	10/06/2014	Added Appointments, p.2-38 Correction to % Acceptable, p.137
Tae Hoon Kim	1.2	10/24/2014	Updated the following sections: Item Master, p.4-1, Location Master, ep.4-9, Added the following sections: Alternate Barcodes, p.4-6, Required Item Fields, p.4-8, Sequence Counters, p.5-1, Barcode Types, p.5-2, Printers, p.5-4, Roles and Permissions, p.6-4
Tae Hoon Kim	1.3	11/07/2014	Review changes in p.2-1, Review changes in Creating Users, p.1-22, Added Description of Statuses, p.6-2
Tae Hoon Kim	1.4	12/12/2014	Added Inbound Sorting, Added Outbound Sorting, Added diagrams for status updates
Tae Hoon Kim	1.5	04/7/2015	Added Cycle Count Enhancements, Added Serial Number Tracking.
Oracle WMS Cloud Team	1.6	05/01/2015	Fixed issues. Added IB Sorting selections and Task Selection and Ordering Criteria.
Oracle WMS Cloud Team	1.7	05/04/2017	Modified template, etc.

Oracle WMS Cloud Team	1.8	05/24/2017	Modified formatting, etc.
Oracle WMS Cloud Team	1.9	08/01/2018	Added the following to Inbound section: ASN for Returns. Added the following sections to Receiving: Auto Generate Inbound LPN Nbr, Screen Flow when lpn-prompt is configured as Auto Generate, Screen Flow when lpn-prompt is Configured as Not Mandatory, Behavior of Ctrl+E when lpn-prompt is Configured as Auto Generate, Screen Flow for Cartonised Receiving when lpn-prompt is Configured as Auto Generate, Prompt Location, Prompt-location screen flows, Print LPN and Case Labels, Ctrl key for printing, Printing LPN Labels, Printing Case/Pack Labels, Label Templates, Prompt Dock Door, Prompt Trailer, Prompt Case/Pack Qty, Screen Flow when confirm-uom-qty is Configured as Do Not Prompt, Screen Flow when confirm-uom-qty is Configured as Prompt per Sku per LPN, Scanning a new LPN in Cartonized Shipments Added the following sections to Pack with Wave: Pre-Requisites For Pack With Wave, Wave Template, Item Configuration, Pack With Wave Functionality, Pack With Wave Updates, Autopack Wave Oblpns. Added the following sections to Printing Item Labels: RF Print Label, Item UI, IB Shipment UI. Updated Printing LPN Labels section and Printing Case/Pack Labels section. Added the following sections to Printing Custom Reports from UI: Company Report Type, Reports Supported.
Oracle WMS Cloud Team	1.10	02/12/2019	Added the following sections to the **Inbound** section: Transfer Inventory between WMS Managed Facilities, Update OBLPN's Status to Delivered for Facility Transfers, Receiving new LPNs on Facility Transfer Shipments, Creating an ASN after a Return OBLPNs Dispatch Leftovers, Lock Codes for Inbound shipments Printing ASN Label, Printing Price Label for Inbound Shipment, Auto Generate Inbound LPN Nbr, Screen Flow when lpn-prompt is configured as Auto Generate, Screen Flow when lpn-prompt is Configured as Not Mandatory Behavior of Ctrl+E when lpn-prompt is Configured as Auto Generate, Scanning a new LPN in Cartonized Shipments, Prompt Location, Prompt-location screen flows, Print LPN and Case Labels, Ctrl Key for Printing, Printing LPN Labels, Printing Case/Pack Labels, Label Templates, Prompt Dock Door, Prompt Trailer, Prompt Case/Pack Qty, Screen Flow when confirm-uom-qty is Configured as Do Not Prompt Screen Flow when confirm-uom-qty is Configured as Prompt per Sku per LPN, Transfer Inventory between WMS Managed Facilities, Update OBLPN's Status to Delivered for Facility Transfers, Receiving new LPNs on Facility Transfer Shipments, Creating an ASN after a Return, OBLPNs Dispatch Leftovers, Lock Codes for Inbound

			shipments, Printing ASN Label, Printing Price Label for Inbound Shipment
			Auto Generate Inbound LPN Nbr, Screen Flow when lpn-prompt is configured as Auto Generate, Screen Flow when lpn-prompt is Configured as Not Mandatory, Behavior of Ctrl+E when lpn-prompt is Configured as Auto Generate, Scanning a new LPN in Cartonized Shipments, Prompt Location, Prompt-location screen flows, Print LPN and Case Labels
			Ctrl Key for Printing, Printing LPN Labels, Printing Case/Pack Labels Label Templates, Prompt Dock Door, Prompt Trailer, Prompt Case/Pack Qty, Screen Flow when confirm-uom-qty is Configured as Do Not Prompt, Screen Flow when confirm-uom-qty is Configured as Prompt per Sku per LPN, Cancel Orders after Shipment Verification
			Modify Receiving quantity from IB Shipment UI, New Email Alert to Inform Inbound Shipments that need Verification, New Grid-Edit UI Screen to Receive Inventory from the UI, Receive Cartonize Details from the ASN Detail Screen, Checking out a Load
			Added the following sections to the **Outbound** section:
			Printing the Pick Tickets and Using the RF Module, Pack With Wave, Pre-Requisites for Pack with Wave, Wave Template, Item Configuration, Pack With Wave Functionality, Pack with Wave Updates, Autopack Wave OBLPNs
			Added the following sections to the **Inventory Management** section:
			Printing Item Labels, RF Print Label, Item UI, IB Shipment UI, Kitting
			Added the following sections to **Extra Configuration**:
			Printing Custom Reports from UI, Company Report Type, Reports Supported
Oracle WMS Cloud Team	1.11	4/26/19	Added the following sections to the **Inbound** section:
			Create IB Shipment, Transfer Lock Codes from OBLPN to the IB Shipment, Display the Lock Codes associated with Inbound LPN from IB Shipment UI, Priority Date Traceability for Transfer Shipments, Priority Date copied to Inventory during Receiving, RF Modify Cancel OBLPN, Receiving unanticipated LPNs for Fully Cartonized Shipments, Receiving Options, System-directed Quality Control (QC), New Email Alert to Inform Inbound Shipments that need Verification, Detailed Receiving for LPNs in a Fully Cartonized Shipment
			Updated the following sections in the **Inbound** section:
			Creating ASNs from existing PO Records, Receive by ASN, Receiving ASNs without the RF

			Added the following sections in the **Outbound** section:
			Outbound Audit, Direct Allocation, Pick and Allocate
			Updated the following sections in the **Outbound** section:
			Printing the Pick Tickets, Using the RF Module
			Added the following section in the **Inventory Management** section:
			Multi-Level Replenishment
			Updated the following sections in the **Inventory Management** section:
			Location Master, RF Create IBLPN, Editing Batch Numbers
Oracle WMS Cloud Team	1.12	6/21/19	Added/updated the following sections to the **Inbound** section: Update LPNs to QC Status, Split LPN into Active Locations, Cartonizing LPNs by cases Added/updated the following sections to the **Outbound** section: Order Type – Allow Expired Inventory Flag, Manual Wave – Prevent Allocating Expired Inventory, Outbound Loads, Outbound Stops, RF Assign to Manifest, Fedex Multi-Piece Shipment Configuration, Dry Ice Configuration – Dry Ice Fields, Dry Ice Functional Overview, Package-Level Dry Ice FedEx Ship Request, Shipment-Level Dry Ice FedEx Ship Request, Loading/Shipping Added/updated the following sections to the **Inventory Management** section: Creating an IB LPN, Configuring a Cycle Count Approval Rule, Cycle Count – Approval Settings, Selection Criteria Button, Selection Criteria Rules, RF Cycle Count – Deferred Approval Mode, Reactive Replenishment – Weight Capacity Check, Updated Location Master table, Restrict Batch definition.
Oracle WMS Cloud Team	1.13	8/7/19	Updated definitions for Distribution Residuals OK, Distribution No Residuals, Consolidate and Distribute, and No Distribution in the Creating Wave Templates section.
Oracle WMS Cloud Team	1.14	8/13/19	Added note about **Allow Reserve Partial Pick** to Extra Configuration Parameters section in Creating Wave Templates. Added link to Parcel Carrier Integration document in **Parcel Manifest Configuration** section.

Oracle WMS Cloud Team	1.15	12/10/19	Added/updated content in the following sections: **Inbound:** Added Inbound Shipment Details, PO Based Receiving, Receive Entire Shipment **Outbound:** Manually Updating Manifest and Ship Vias to Individual LPNs **Waves:** Dynamic Wave Search, Selection Criteria Rules. **Picking:** Split by Allocation UOM Parameter, **Loading an OBLPN**: Ship Load from RF **Inventory Screens**: Inventory History, Enable/Disable Auto Process, Enable Auto-Send of Inventory History, Set Inventory History Transactions to Not Ready (Un-Processed) **Replenishment:** Modes in Replenishment Template, Executing Replenishment Waves **Extra Configuration**: Printing Custom Reports from UI, Configure and Generate Custom WebReport for Order Packing Slip

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1. System Overview

Parent-Child Company Hierarchy

In WMS, companies are divided into parent and child companies. This structure exists in order to help 3PLs view and manage their clients' inventory separately. Depending on how many clients and how many warehouses the 3PL has, views can be managed accordingly:
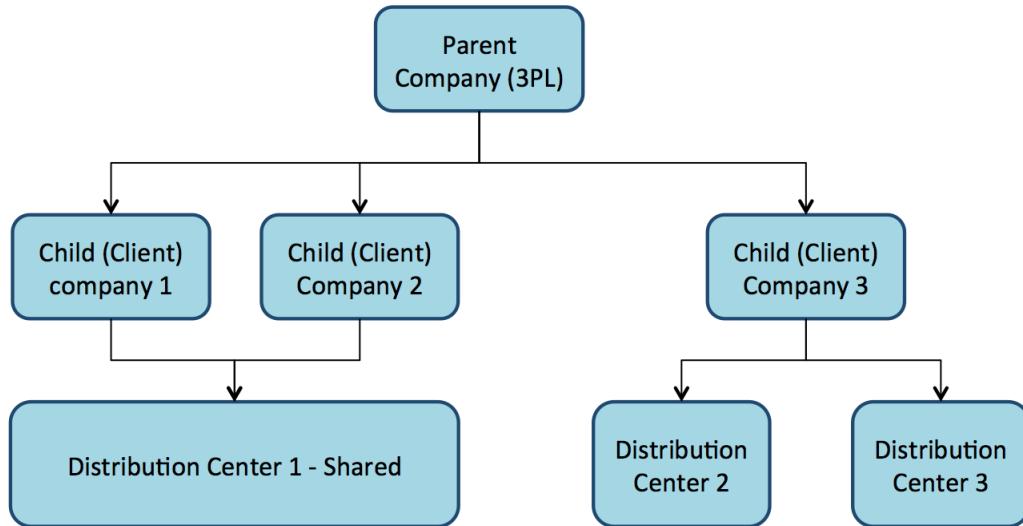
Figure 1: Parent-Child company example diagram

To toggle a specific Distribution Center (DC) view for a company, select the choices from the two drop-down menus located at the top right of the UI screen.

In figure 2, the first drop-down denotes a facility (DC), while the second drop-down denotes the companies in the environment:
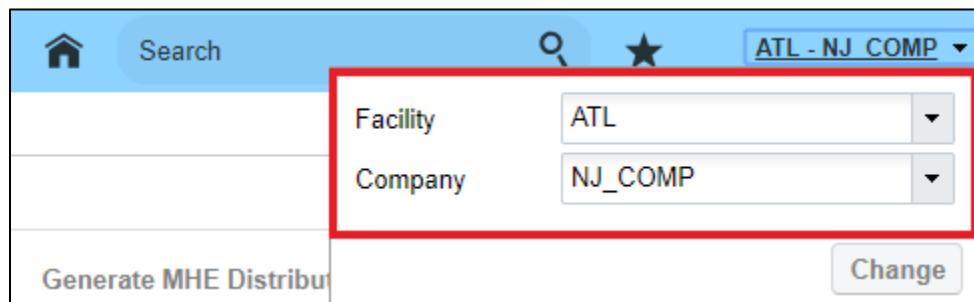
Figure 2: Facility and Company views from the UI

User Menu Configuration

The Oracle WMS Cloud organizes the user structure in the following way:

```
                    ┌─────────────┐
                    │    USERS    │
                    └──────┬──────┘
                           │
                           ▼
                    ┌─────────────┐
                    │   GROUPS    │
                    └──────┬──────┘
                  ┌────────┴────────┐
                  ▼                 ▼
        ┌──────────────────┐ ┌──────────────────┐
        │    UI MENU       │ │    RF MENU       │
        │ Tabs that display│ │  Transactions    │
        │ specific records │ │  performed       │
        │ Eg. ASNs, Orders,│ │  through the     │
        │ Loads, etc.      │ │  RF gun          │
        └────────┬─────────┘ └────────┬─────────┘
                 │              ┌──────┴──────┐
                 ▼              ▼             ▼
        ┌──────────────┐ ┌─────────────┐ ┌─────────────┐
        │ Permissions  │ │ Permissions │ │ Parameters  │
        │ Access to    │ │ Eg. User not│ │Configurations│
        │ add/modify/  │ │ allowed to  │ │ that change  │
        │ delete       │ │ perform     │ │ the RF's     │
        │ records      │ │ short picks │ │ behavior     │
        └──────────────┘ └─────────────┘ └─────────────┘
```
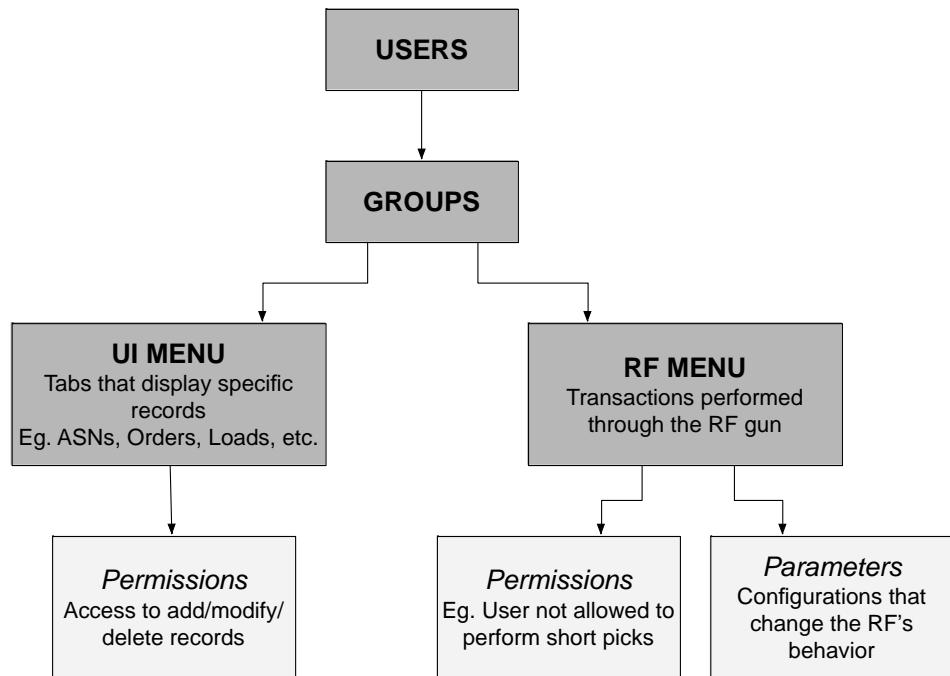
Figure 3: User, Group and Menu organization

Users, Groups and Menus

Users are separated into Groups based on their operational purpose in the warehouse. Every user within a Group will share the same UI and RF menus. Within each menu, users can configure his/her permissions (and Parameters for RF Menus).

What is a UI menu?

The UI menu is a series of screens that are accessible to the user in WMS via the browser. See a screenshot of a UI screen below:

Figure 4: WMS UI Menu
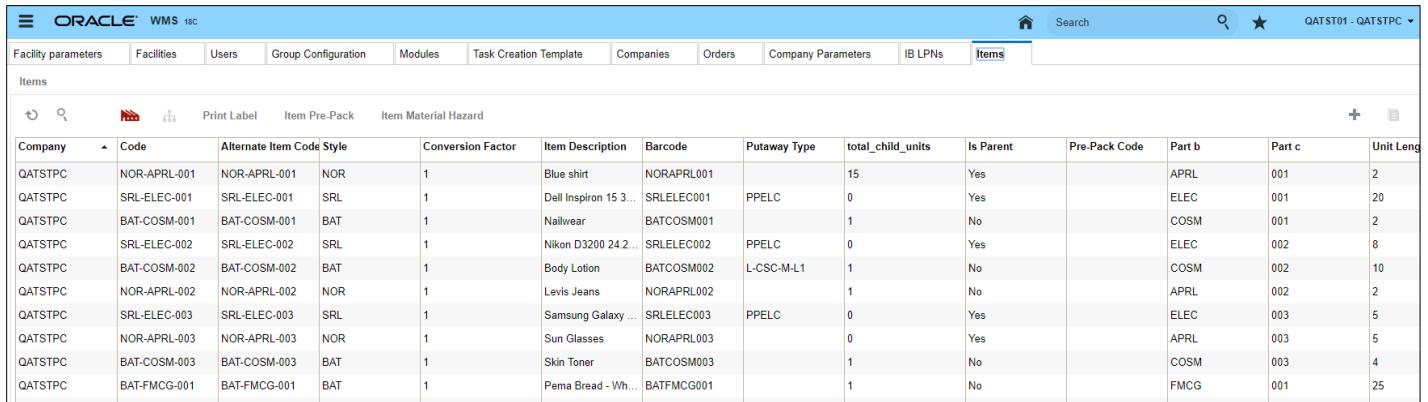
Company	Code	Alternate Item Code	Style	Conversion Factor	Item Description	Barcode	Putaway Type	total_child_units	Is Parent	Pre-Pack Code	Part b	Part c	Unit Leng
QATSTPC	NOR-APRL-001	NOR-APRL-001	NOR	1	Blue shirt	NORAPRL001		15	Yes		APRL	001	2
QATSTPC	SRL-ELEC-001	SRL-ELEC-001	SRL	1	Dell Inspiron 15 3...	SRLELEC001	PPELC	0	Yes		ELEC	001	20
QATSTPC	BAT-COSM-001	BAT-COSM-001	BAT	1	Nailwear	BATCOSM001		1	No		COSM	001	2
QATSTPC	SRL-ELEC-002	SRL-ELEC-002	SRL	1	Nikon D3200 24.2...	SRLELEC002	PPELC	0	Yes		ELEC	002	8
QATSTPC	BAT-COSM-002	BAT-COSM-002	BAT	1	Body Lotion	BATCOSM002	L-CSC-M-L1	1	No		COSM	002	10
QATSTPC	NOR-APRL-002	NOR-APRL-002	NOR	1	Levis Jeans	NORAPRL002		1	No		APRL	002	2
QATSTPC	SRL-ELEC-003	SRL-ELEC-003	SRL	1	Samsung Galaxy ...	SRLELEC003	PPELC	0	Yes		ELEC	003	5
QATSTPC	NOR-APRL-003	NOR-APRL-003	NOR	1	Sun Glasses	NORAPRL003		0	Yes		APRL	003	5
QATSTPC	BAT-COSM-003	BAT-COSM-003	BAT	1	Skin Toner	BATCOSM003		1	No		COSM	003	4
QATSTPC	BAT-FMCG-001	BAT-FMCG-001	BAT	1	Pema Bread - Wh...	BATFMCG001		1	No		FMCG	001	25

What is an RF menu?

The RF menu is the series of transactions that are made with the RF gun on the warehouse floor. These screens, or modules, perform processes such as Receiving, Putaway, Picking, and Loading. See a screenshot of an RF menu in the figure to the left.
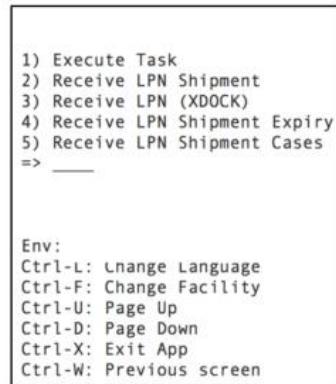
Figure 5: The RF Menu

*When using the RF gun, the user must make sure that the RF is in the correct facility. You can view the facility at the top right of the RF menu:
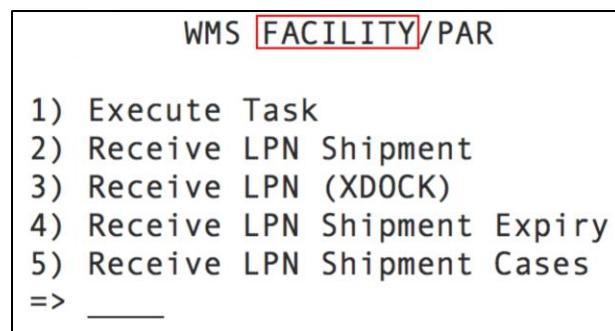
Figure 6: Validating the user's current facility in the RF

To change facilities, press Ctrl-F and type in the Facility code.

Creating Users

You can create new users through the "Users" screen. Here you can define the following:

- Username and password
- The Facilities and Companies the user will have access to
- The user's role (Administrator, Management, Supervisor, etc.)
- The user's default Group (UI and RF Menus)
- The user's Language (English or Spanish)
- The user's default printer
- The user's fixed Equipment Type

How to create new users:

1. Go to the "Users" screen.
2. Click 'Create' (✚) and populate the necessary fields:

Figure 7: Creating New Users

3. Click **Save**.
4. To configure the Facilities and Companies that the user has access to, select user and click the Eligible Facilities and Eligible Companies buttons.

Figure 8: Viewing the user's Eligible Facilities/Companies.

5. This will take you to a new screen displaying all of the records the user currently has access to. Click 'Create' (+) to add new Facilities or Companies:

Figure 9: Updating the user's eligible records

6. When finished, click 'Back' to return to the main screen.

7. To assign Equipment Types[1] to the user, from the user screen, select the user, select an Equipment Type from the drop-down menu, and click "Assign Equipment Type".

Figure 10: Assigning users with Equipment Types

Configuring Menus for Users

There are four steps in adding Group menus

1. Adding Screens
2. Adding Screens to different Menus
3. Assigning Menus to Groups
4. Assigning Groups to Users

Adding Screens

1. Go to the "Screens" UI screen.

---

[1] Equipment Types must be defined first in the "Equipment Types" screen before assigning them to users.

2. Click "Generate Screens".
3. Select all the necessary screens for the Group (e.g. ASNs, Appointments, Loads, etc.). Here the user will add both UI and RF screens.[2] Click "Save".

Adding Screens to Different Menus

1. Go to the "Menu Configuration" screen.
2. Create a new Menu (one for the UI and the RF).

3. To begin adding Screens to the menu, select the menu and click on Details (🔧).
4. In this new window, the user will be able to separate screens into different folders. To name a folder, select the folder (1) and type in the name in the field to the right (2):
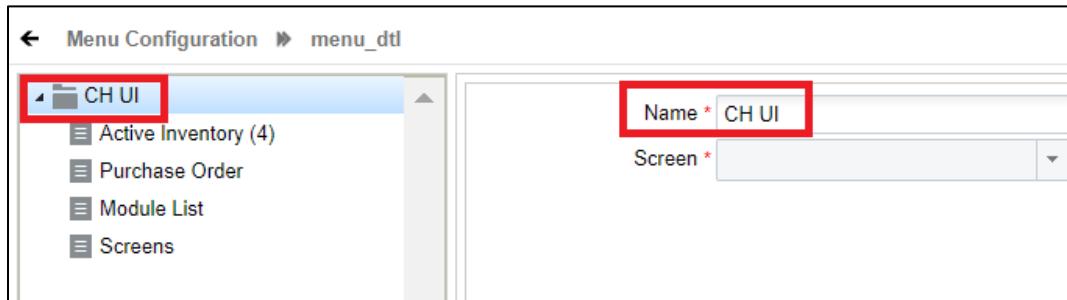
Figure 11: Naming folders

5. To add a screen within the folder, select the folder first (1), click on "Insert Screen" (2), and pick the screen to add from the drop-down menu (3):
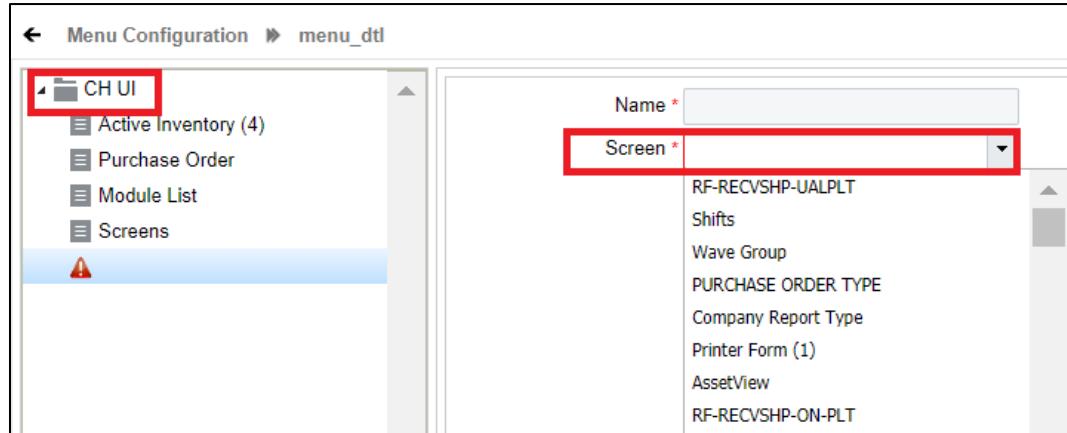
Figure 12: Adding screens to a folder

6. Repeat steps 4-5 until all the screens are added.
7. Press "Save".

---

[2] For RF menus, extra configuration might be required (RF module parameters). To modify its parameters, select the RF screen and click on the Details button.

Assigning Menus to Groups

Once you set up the Menus, it is now time to add them to Groups.

1. Go to the "Group Configuration" screen.
2. Create a new Group with the Create (﹢) button.
3. Type in the Group Name, and select the UI/RF menus from the drop-down menus.
4. Click "Save".

   *Users can also assign specific permissions to a Group by clicking the "Permissions" button. This will display a list of additional permissions that the group can have access to. To provide access, check the activity.

Figure 13: Accessing a Group's Permissions

Figure 14: List of Permission Activities

Assigning Groups to Users

Now that you have created Groups, you must now add the Users to each Group.

1. Go to the "Users" screen.
2. Select the user to assign the Group to.
3. Click on "Groups".
4. Using the Create (﹢) button, add the Group(s) to assign the user the Group.[3]

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[3] If the user is assigned to multiple groups, the user can toggle between different groups by clicking the gear button at the top right, hovering the mouse over the "View" menu, and selecting the Group name.

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Additional: Creating and Assigning Facilities and Companies to Users

Once user and group set up is complete, you must create facilities and companies in WMS.

Step 1: Create Companies

    a. Go to the "Companies" screen.
    b. Click the Create (+) button.
    c. Populate the company's information such as the Code, Name, and Address. Note that the first company will be the parent company in the environment by default. To verify this, see the "Parent Company" column.
    d. Click "Save".

Step 2: Create Facilities

Facilities are controlled at the company level. This means that every company has its own set of facilities. This link is defined in the "Parent Company" column in the "Facilities" screen. By default, all parent and child company facilities are displayed.

    a. Go to the "Facilities" screen.
    b. Click the Create (+) button.
    c. Populate the facility's information such as the Code, Name, and Address.

Functional field description:

- Default ship via code: This field is used when 'ship via' codes are activated through the company's "PACKING_ROUTING_MODE" parameter. The system will default to this ship via value if the order header does not have a ship via code specified.
- Parent Company: Denotes the company that the facility belongs to.
- Accept Transfer Shipment: If checked and if this facility is a warehouse in WMS, this facility will accept ASNs from other facilities configured in the environment.

Step 3: Assign Facilities to Users

Once you have created the Companies and Facilities, the next step is to assign them to users. This step defines the list of companies and facilities that you will have access to.

    a. Go to the "Users" screen.
    b. Select the user to modify.
    c. Click on "Eligible Facilities".
    d. Using the Create (+) button, add the Facilities that this user will have access to.
    e. Repeat steps three and four for adding Companies (using the "Eligible Companies" button).

Figure 15: Assigning Users to Facilities and Companies

The following is an example of a User/Group set up:
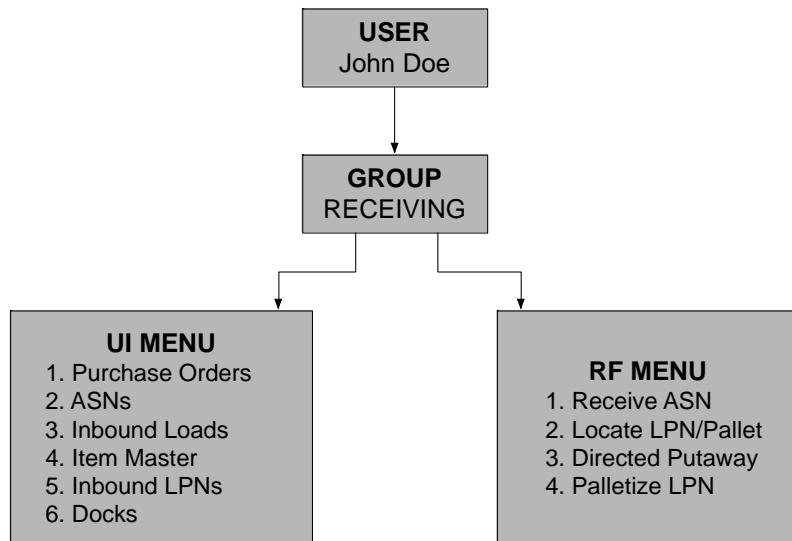
Figure 16: Sample User/Group set up in WMS

System Integration Framework

Oracle WMS Cloud uses the following methods for processing interface files into and out of WMS:
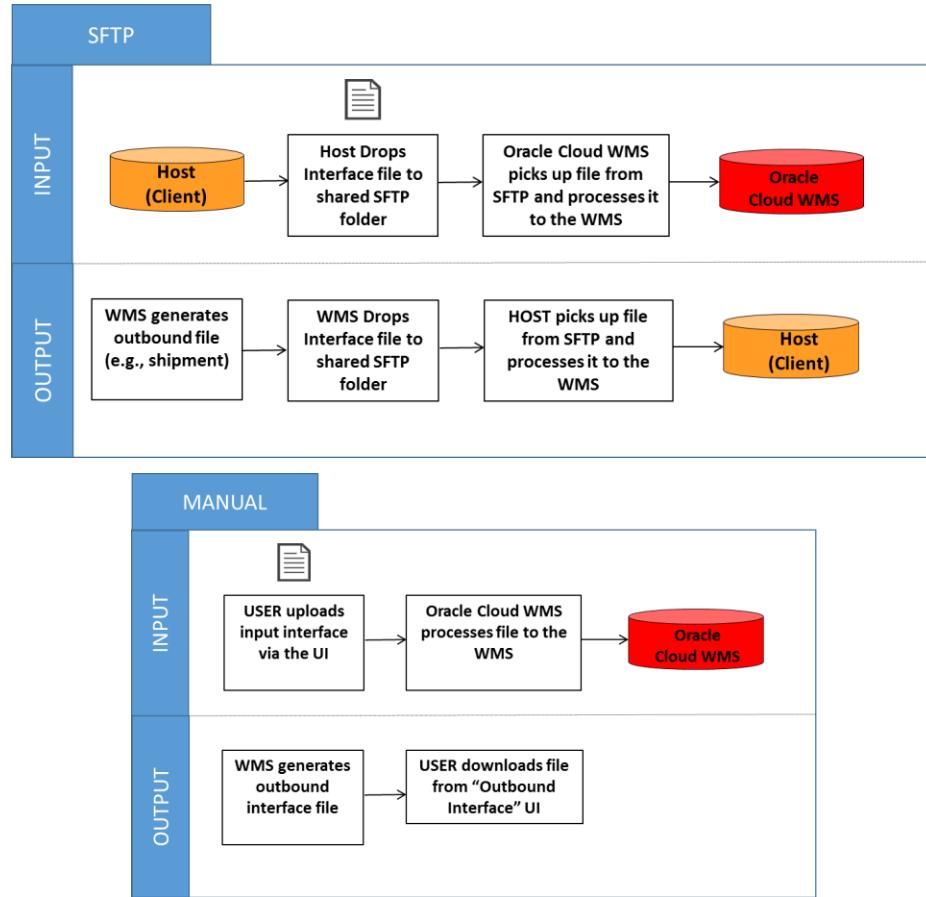
Figure 17: Interfacing methods in WMS

Supported Formats

Oracle WMS Cloud supports the following formats (both inbound/outbound) with interfaces:

- Flat files
- XML files
- CSV files
- XLS files
- EDI files (translated through a 3rd party application)
- MHE messages (translated through a 3rd party application)
- FedEx web services
- UPS web services

Input Interfaces

- Purchase order
- Item
- Item (facility specific)
- Item barcode
- Item pre-pack
- Inbound shipment
- Order
- Vendor
- Appointment
- Store
- Locations
- Route
- Price label
- Ship to company
- Site
- Asset
- Cubiscan
- Point of sale

Output Interfaces

- ASN verification
- Parcel Manifest shipment confirmation
- LTL Shipment confirmation
- Inventory Summary
- Inventory History

*For more details on each interface, please refer to the "Oracle WMS Cloud Interface File Formats" file.

Uploading Interface files with WMS

If you are manually preparing the input interface file via Excel, it is important to follow these best practices:

1. The filename must start with the phrase as specified in the Input File Formats document (e.g. the filename must begin with "ORR" for uploading Order files).
2. You must populate the columns specified as 'required' in the interface specification document.
3. For Purchase Order, Order, and Inbound Shipment interfaces, the user must populate [H1] for every distinct header record [H2] for each of its detail records.
4. The user must populate the correct sequence in the 'seq_nbr' field (i.e. no duplicate values).

Setting Email Notifications for Failed Interfaces

Users can set up email notifications for interfaces that fail to process into Oracle WMS Cloud. The email notification will provide the following information:

- The interface file that failed
- Error message – the reason why the file failed

Complete the following steps to set up the email notification:

1. Go to the "Company Parameters" screen.
2. Select "INTF_ERROR_EMAIL_LIST" parameter and click Edit.
3. In the "Parameter Value", populate the emails that will receive the error notifications. Separate multiple emails without spaces between emails.

Company	
Parameter Key	INTF_ERROR_EMAIL_LIST
Parameter Value	joe@email.com,jane@email.com

Figure 18: Configuring email notifications

2. Inbound

The inbound process in Oracle WMS Cloud is composed of the following:

- Purchase Order
- Advanced Shipment Notice (ASN)
- Appointment

In this set up, only the ASN is required for receiving merchandise into the warehouse. Once ASNs are in Oracle WMS Cloud, operators will use the RF gun to receive items. The following diagram summarizes the receiving process in the Oracle WMS Cloud:
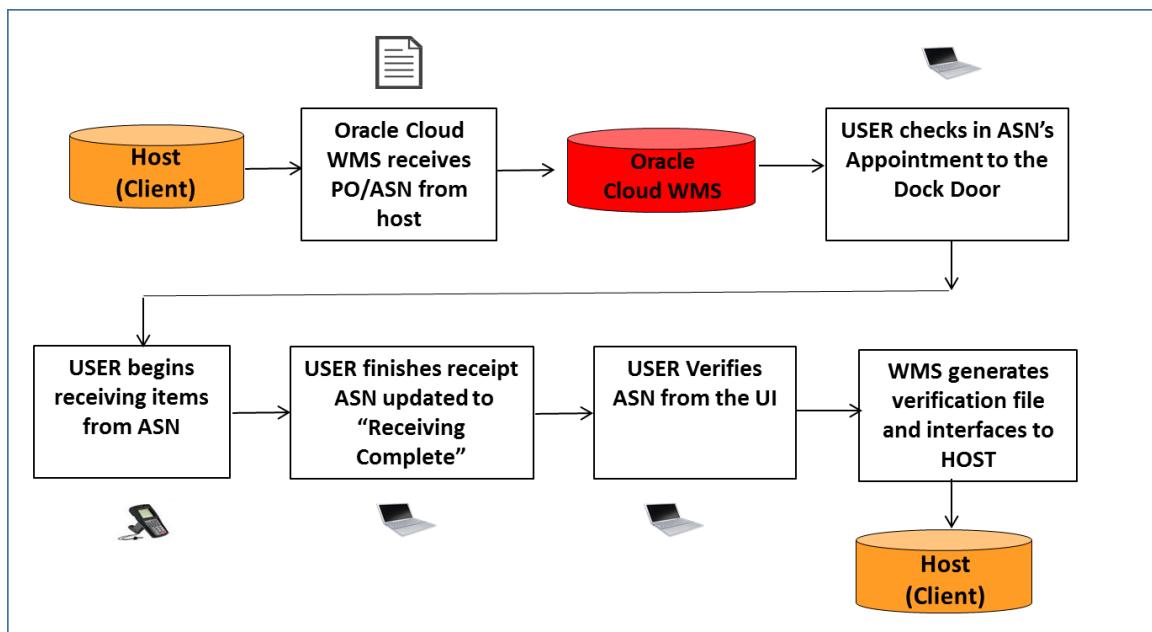
Figure 19: Generic inbound process in Oracle WMS Cloud

Purchase Orders (PO)

Purchase orders are records that keep track of merchandise that are issued from the vendor. To view POs, go to the "Purchase Orders" screen.

Purchase Order Flow

PO's are not required for receiving merchandise in Oracle WMS Cloud.

Purchase Order Field	Definition
Created	The PO has been created, but not yet received.
In Receiving	PO has started receiving process, but is not complete.
Received	All of the PO's contents have been fully received.
Cancelled	The PO has been cancelled.

PO Quantity Updates

The "Received" and "Shipped Qty" fields in the Purchase Order screen are updated depending on merchandise that is received via ASNs. The following examples below describe the different events for which the quantities are updated.

Example:

Consider Purchase Order "PO_001", which has three items:

Purchase Order	Status	Item	Description	Ordered Qty	Received Qty	Shipped Qty
PO_001	Created	THK3	THK ITEM 3	75	0	0
PO_001	Created	THK2	THK ITEM 2	125	0	0
PO_001	Created	THK1	THK ITEM 1	50	0	0

Figure 20: Purchase Order Items

For each scenario, the PO records (received and shipped quantities) will update accordingly:
Case 1: User creates a new ASN, "ASN_001", for items THK1 (25 units) and THK2 (100 units).

PO	Inbound Shipment	Item	Description	Shipped Qty	Received qty
PO_001	ASN_001	THK2	THK ITEM 2	100	0
PO_001	ASN_001	THK1	THK ITEM 1	25	0

Figure 21: Received and Shipped Quantities

Result: The PO's "Ordered Qty" and "Shipped Qty" fields are updated.

Purchase Order	Status	Item	Description	Ordered Qty	Received Qty	Shipped Qty
PO_001	Created	THK3	THK ITEM 3	75	0	0
PO_001	Created	THK2	THK ITEM 2	125	0	100
PO_001	Created	THK1	THK ITEM 1	50	0	25

Figure 22: Ordered and Shipped Quantities

Case 2: 25 units of item THK1 from ASN_001 is cancelled.
Case 3: 25 units of item THK1 from ASN_001 are shipped, but not received. User verifies this ASN.
Result (for both cases 2 & 3):

1. The "Shipped Qty" from the ASN detail line for "THK1" will be decreased from 25 to 0.
2. The PO's "Shipped Qty" is subtracted to reflect this change.
3. The PO's "Ordered Quantity" are added to reflect this change.

Purchase Order	Status	Item	Description	Ordered Qty	Received Qty	Shipped Qty
PO_001	Created	THK3	THK ITEM 3	75	0	0
PO_001	Created	THK2	THK ITEM 2	125	0	100
PO_001	Created	THK1	THK ITEM 1	50	0	0

Figure 23: Updated Shipped and Ordered Quantities

As the figure suggests, the "Shipped" and "Ordered" quantities for THK1 are decreased as soon as the corresponding ASN details are cancelled.

Manual Purchase Order (PO) creation

1. Go to the 'Purchase Order' UI screen and click the Create button.
2. Populate all of the applicable fields.

<table>
<tr><td>PO Number *</td><td></td></tr>
<tr><td>Status</td><td>Created</td></tr>
<tr><td>Vendor *</td><td></td></tr>
<tr><td>PO Type</td><td></td></tr>
<tr><td>PO Reference Nbr</td><td></td></tr>
<tr><td>Order Date *</td><td></td></tr>
<tr><td>Ship Date *</td><td></td></tr>
<tr><td>Cancel Date *</td><td></td></tr>
<tr><td>Delivery Date *</td><td></td></tr>
<tr><td>Dept Code</td><td></td></tr>
<tr><td>Lock</td><td>(None)</td></tr>
<tr><td>Customer Nbr</td><td></td></tr>
<tr><td>Customer Name</td><td></td></tr>
<tr><td>Customer Address</td><td></td></tr>
<tr><td>Customer Address 2</td><td></td></tr>
<tr><td>Customer Address 3</td><td></td></tr>
<tr><td>RMA Nbr</td><td></td></tr>
</table>

Description of fields:
a. **PO Number:** The Purchase Order number.
b. **Vendor:** The Vendor code in the PO.
c. **Order Date:** Date when the purchase order was created.
d. **Ship Date:** Date when the purchase order was shipped.
e. **Cancel Date:** Date when the purchase order will be considered cancelled.
f. **Delivery Date:** Date when the purchase order will be delivered.

Figure 24: Creating a new Purchase Order Record

3. Click "Save".
4. After the PO header is created, users can now add the items that are included in this PO. To add items, select the PO record and click the Detail ( ) button. This will open a new window displaying the PO's details.

Purchase Order ▲	Status	Item	Item Description	Std Case Qty	Ordered Qty	Received Qty	Shipped Qty
12345678	Created	NOR-APRL-001	Blue shirt	10	10	0	10

Create IB Shipment

Figure 25: Viewing the PO Details

5. Click the Create (+) button to add detail records and populate the applicable fields.

Figure 26: Adding PO details

Note: If the PO contains more than one item, click the 'Save/New' button to add additional items.

Create IB Shipment

If your Purchase Order contains Inventory Attributes on its details, and you create an Inbound Shipment using the action button Create ✚, the same attributes will be propagated to the corresponding Inbound Shipment.

In the Create/Edit/Copy Panes of the Inbound Shipment Detail UI, if you add a PO using one of those panes, the application will copy the inventory attributes (a-g) from the PO to the inbound shipment.

Figure 27: Create Inbound Shipment

Creating Purchase Orders through Interfaces (UI)

You can also create Purchase Orders through an Oracle WMS Cloud Excel template.

Step 1: Preparing the Input Interface file:

1. The following rules must be followed in order to correctly use the Oracle WMS Cloud interface:

    a. The filename must start with the letters "POS".
    b. You must populate the "required" columns in the interface specification document.
    c. The user must populate [H1] for every distinct Order number and [H2] for its details (see figure below).
    d. The user must populate the correct sequence in the 'seq_nbr' field (i.e. no duplicate values).
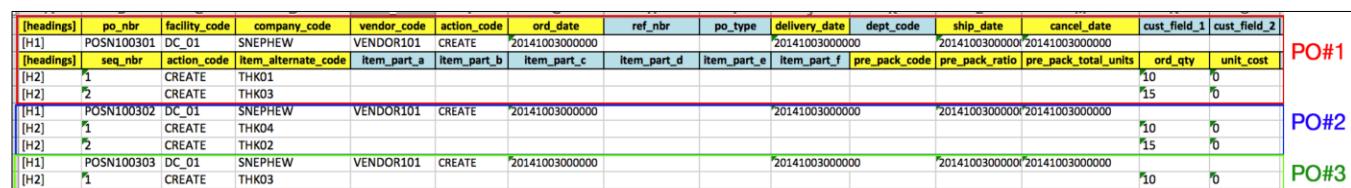
[headings]	po_nbr	facility_code	company_code	vendor_code	action_code	ord_date	ref_nbr	po_type	delivery_date	dept_code	ship_date	cancel_date	cust_field_1	cust_field_2	
[H1]	POSN100301	DC_01	SNEPHEW	VENDOR101	CREATE	20141003000000			20141003000000		20141003000000	20141003000000			PO#1
[headings]	seq_nbr	action_code	item_alternate_code	item_part_a	item_part_b	item_part_c	item_part_d	item_part_e	item_part_f	pre_pack_code	pre_pack_ratio	pre_pack_total_units	ord_qty	unit_cost	
[H2]	1	CREATE	THK01										10	0	
[H2]	2	CREATE	THK03										15	0	
[H1]	POSN100302	DC_01	SNEPHEW	VENDOR101	CREATE	20141003000000			20141003000000		20141003000000	20141003000000			PO#2
[H2]	1	CREATE	THK04										10	0	
[H2]	2	CREATE	THK02										15	0	
[H1]	POSN100303	DC_01	SNEPHEW	VENDOR101	CREATE	20141003000000			20141003000000		20141003000000	20141003000000			PO#3
[H2]	1	CREATE	THK03										10	0	

Figure 28: Creating multiple POs in the same POS File

The figure above shows an example of a file that will create three different POs. Users can create multiple POs within the same POS file by using the "headings" column to differentiate one PO record from another. A '[H1]' value denotes a new PO Header record, while a '[H2]' value denotes a new PO Detail record.

Step 2: Uploading the Interface file into Oracle WMS Cloud

1. Go to the "Input Interface" screen.
2. Use the drop-down to select the appropriate interface to process:
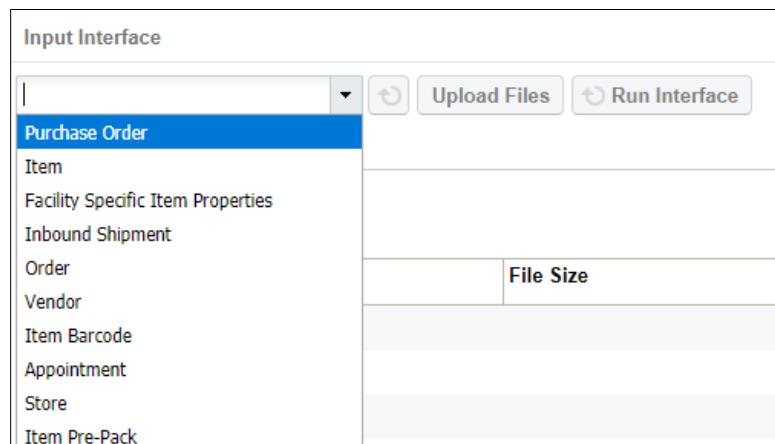
Figure 29: Selecting the Interface type

3. Click on "Upload Files" and navigate to the file you wish to upload.
4. When the screen displays the file, click "Run Interface".
5. The system will return a message dialog that the file has been successfully processed.

Purchase Order (PO) Integration into Oracle WMS Cloud

A third method to interface records into WMS is through a shared SFTP directory.

1. Host system drops the "POS" file into the shared directory (typically an "input" folder).
2. When the file is dropped, Oracle WMS Cloud will automatically detect the file and process it into Oracle WMS Cloud.
    a. If a file fails for some reason, it is automatically moved into the "error" folder.

Inbound Shipments or ASNs (Advanced Shipment Notifications)

An ASN is a record that keeps track of pending deliveries to the facility. In Oracle WMS Cloud, ASNs are required for receiving inventory.

Description of ASN statuses:

ASN	Status
In Transit	The ASN has been created but not yet received.
Receiving Started	Receiving for the ASN has started but not completed.
Receiving Complete	The ASN has been fully received.
Verified	The ASN has been received. (Receipt Confirmation is generated and sent)

Important caveat about editing ASNs:

ASNs can only be modified while in "In Transit" status. After an ASN has started receiving, its details cannot be modified (ex. adding items, updating quantities).

The ASN record will specify the items and quantity being received into the warehouse. There are four methods to create ASNs in the Oracle WMS Cloud:

1. Creating ASNs manually from the "ASNs" screen.
2. Uploading ASN interfaces manually from the UI.
3. Interfacing with a host system to automatically process ASNs.
4. Creating ASNs from existing PO records.

Creating ASNs Manually (UI)

1. Go to the "Inbound Shipments" screen and click the Create button (✚) to create an ASN header.
2. Populate the appropriate information for the ASN record.

Figure 30: Creating a new ASN Header

3. Click "Save".
4. Now that the ASN header is created, the next step is to add the items that are expected for this ASN. To add items, select this ASN and click on the details (⛪) button.

Figure 31: Accessing an ASN's details

5. In the details screen, click the Create button (✚) to create SKUs within the ASN.
6. To add a new item, either manually populate the Item Code into the "Item" field or select it from a list displayed by clicking the magnifying glass button.

2-7

Figure 32: Creating ASN details

7. When the item and quantity are entered, click "Save". Users can also use the "Save New" button to save the current record and continue adding new records without closing the 'create' tab.

Creating ASN through Interfaces (UI)

You can also create ASNs through an Oracle WMS Cloud Excel template.

Step 1: Preparing the Input Interface file:

To correctly use the Oracle WMS Cloud interface, follow the rules below:

- The filename must start with the letters "ISS" (for hierarchical files).
- You must populate the "required" columns specified in the interface specification document.
- The user must populate [H1] for every distinct ASN number and [H2] for its details (see figure below).
- The user must populate the correct sequence in the 'seq_nbr' field (i.e. no duplicate values).

Figure 33: Creating multiple ASNs in the same ISSR file.

The figure above is an example of a file that will create two different ASNs. Users can create multiple ASNs within the same ISS file by using the "headings" column to differentiate one ASN record from another. A '[H1]' value denotes a new ASN Header record, while a '[H2]' value denotes a new ASN Detail record.

Step 2: Uploading the Interface file into Oracle WMS Cloud

1. Go to the "Input Interface" screen.
2. Use the drop-down to select the appropriate interface to process:
3. Click on "Upload Files" and navigate to the file you want to upload.
4. When the screen displays the file, click "Run Interface".
5. The system will return a message dialog notifying that the file has been successfully processed.

ASN Integration with Oracle WMS Cloud

A third method to interface records into Oracle WMS Cloud is through a shared SFTP directory.

1. Host system drops the "ISS" file into the shared directory (usually an "input" folder).
2. When the file is dropped, Oracle WMS Cloud will automatically detect the file and process it into WMS.
   a. If a file fails to process, it is automatically moved to the "error" folder.

Creating ASNs from existing PO records

Users can also create ASNs from the PO header and detail screens through the "Create IB Shipment" button.

From the PO Header Screen

This method should be used when the entire PO will be consolidated into a single ASN record.

1. Go to the "Purchase Orders" screen.
2. Select the PO record.
3. Click the "Create IB Shipment" button.

Figure 34: Creating an ASN from a PO Header record.

4. The system will return a message saying "Successfully created IB Shipment [ASN Number] from PO". The ASN number created by the system is based on a sequence counter from the "IB Shipment" record in the "Sequence Counters" screen.

From the PO Detail Screen

Similarly, users can also create ASNs for specific Items in the PO's Detail screen.

1. Go to the "Purchase Orders" screen.

2. Select the PO record and click on its Details (⌘).
3. Select the specific Item lines that are used for the new ASN and click the "Create IB Shipment" button.
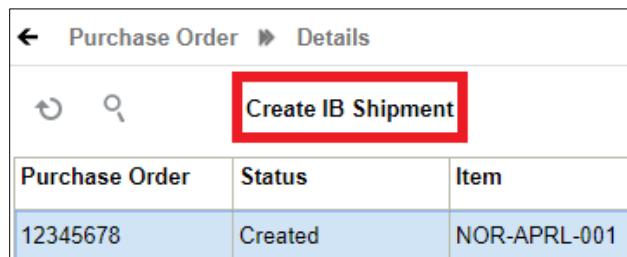
Figure 35: Viewing the PO Detail screen

Note – the "Shipped Qty" will be zero until there are ASNs created for them.

4. Click this button to open a new window where you can define the quantity shipped for each ASN Item. To edit the Item's quantity, select the Item record and modify the value in the "Shipped Qty" field.
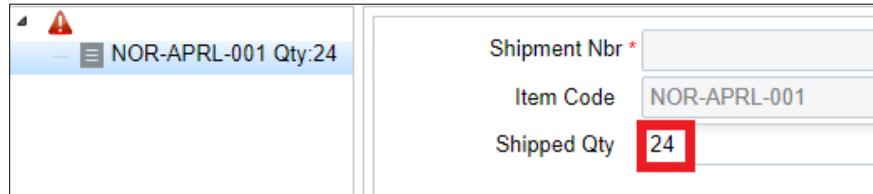
Figure 36: Modifying Item quantities for the new ASN

5. When finished, select the folder icon (see figure below) and either click the "Generate" button for a system-generated ASN number or manually populate the desired ASN number. Click "Save" to create the ASN.

Figure 37: Creating the ASN from PO details

Please note that system will not allow user to create a shipment if the PO detail has the Stop Receiving flag set to yes. For more details about this, see **Stop receiving against a Purchase Order Line**.

Shipment Types

ASN Types are ASN attributes that distinguish between different types of Inbound Shipments. You can configure ASN types to handle extra validation during receipt (described below).

Creating Shipment Types

1. Go to the "Shipment Types" screen and click the Create button.
2. Check the appropriate flags for the ASN Type.

Figure 38: Creating a new Shipment Type

Description of fields:

ASN Field	Description
Company	The child company in which this ASN type is used.
Shipment Type	The unique ASN/Shipment type code.
Description	Description of the ASN type.
Under Receipt Warning %	Field used to determine when the system should throw a warning message when an ASN item is under-received below the configured percentage. This warning message is displayed during ASN verification.
Over Receipt Warning %	Used to display a warning message when the user over-receives the ASN detail by above the defined % value. The user may choose to override this message.
Over Receipt Error %	Used to display an error message when the user over-receives the ASN detail by the defined %. The user cannot override this message.
Receipt Validation Type	If this field is selected, users can configure at what level the validation (from three previous fields) is required, whether at the PO, ASN or both.
Mod Timestamp (optional)	Field used to record when the ASN Type was last updated.
Capture Returns Information	This is a flag that needs to be checked if an ASN for a return shipment is created.

For fields d, e, and f, the value entered is NOT the cut off point for triggering the warning/error messages.

- For under receipt, the RF will only trigger the warning message if receiving BELOW the inputted value.
- For over receipt, the RF will only trigger the warning/error message if receiving ABOVE the inputted value.

EXAMPLE

- ASN ships 100 units of ITEM1.
- Under Receipt Warning % = 10%.
- Over Receipt Warning % = 10%.
- Over Receipt Error % = 20%.

RESULTS:

- If the user receives 89 units, the RF will display an under-receipt warning message.
- If the user receives 110 units, the RF will **not** display an over-receipt warning message.
- If the user receives 111 units, the RF will display an over-receipt warning message.
- If the user receives 120 units, the RF will **not** display an over-receipt error

Inbound Shipment Details Screen

You can view data and details from your inbound shipments in the **Inbound Shipment Detail** UI.

1. Go to the "Inbound Shipment" screen
2. Click on the Shipment.
3. Click on the (⛁) button to view the **Inbound Shipment Detail** UI.

Figure 39: Inbound Shipment Detail

4. The **Inbound Shipment Detail** UI lists the following custom fields:

Fields	Description
Expiry Date	Displays the expiry date
Dtl_cust_date_1 to Dtl_cust_date_5	Displays the selected date
Dtl_cust_number_1 to Dtl_cust_number_5	Displays the custom number
Dtl_cust_decimal_1 to Dtl_cust_decimal_5	Displays custom decimal integer number
Dtl_cust_short_text_1 to Dtl_cust_short_text_12	Displays short description provided by the user
Dtl_cust_long_text_1 to Dtl_cust_long_text_3	Displays a long description. Note: Long text supports up to 1000 characters.

Receiving Discrepancies UI

The Receiving Discrepancies screen displays the IB shipment header and custom field details information:

1. Add the "Receiving Discrepancies" module to your screen.
2. Launch the UI.
3. Select the IB shipment and scroll through the page to view the custom field information.

Figure 40: Receiving Discrepancies

The **Receiving Discrepancies** UI also allows you to search by various shipping and receiving criteria and view discrepancies in your Inbound Shipments. From Receiving Discrepancies, click **Search**. Fill in your desired search criteria.

Figure 41: Search

Towards the bottom of the Search option, you can click on the Receiving Discrepancies drop-down to filter Receiving Discrepancies.

Figure 42: Receiving Discrepancies Drop-down

You can filter by OK, Missing, and Extra. These criteria are defined below:

Filter (Drop-Down) Criteria	Definition
OK	Receiving quantity and shipped quantity are the same
Missing	received_qty < shipped_qty
Extra	received_qty > shipped_qty

Transfer Inventory between WMS Managed Facilities

Currently you can transfer inventory between WMS Managed Facilities. An option is available in the Facility UI that allows you to automatically create an ASN (Transfer Inbound Shipment) for the destination facility. The origin facility must have the following items set in order for the system to create an Inbound Shipment in the destination facility:

- Facility parameter CREATE_FACILITY_TRANSFER_SHIPMENT_FOR_ALL must be Yes.
- Company parameter DEFAULT_TRANSFER_IBSHIPMENT_TYPE must be populated with a valid IBSHIPMENT Type.

The destination facility must have the following settings:

In the Facility UI, the destination facility must be set as WMS Managed:

Code	Name	Facility type	Parent company	Accept Transfer Shipment	WMS Managed
FACILITY1	Facility	Distribution Center	NJ_COMP	No	Yes
ATL	ATLANTA	Distribution Center	NJ_COMP	No	Yes
NJ_DC	Natalia J DC	Distribution Center	NJ_COMP	No	Yes

Figure 43: Set as WMS Managed

The destination facility must also have the Accept Transfer Shipment flag checked. Select your facility and click Edit (   ) to check the Accept Transfer Shipment flag and add any other details:

Figure 44: Accept Transfer Shipment Flag

The following information can be transferred during the ASN Creation:

- As part of ASN Creation, the carrier code from the outbound load is copied over to the carrier code on the Inbound Load that is created.
- As part of the ASN Creation transfer shipment creation logic, custom field values from the corresponding order detail are copied over to the custom fields on the inbound shipment detail. The DEFAULT_TRANSFER_IBSHIPPMENT_TYPE parameter determines whether to copy the custom field values from the order detail to the corresponding inbound shipment.
- As part of ASN creation, if the corresponding order's order type has "transfer lock code" populated and the lock code has the Copy to Transfer Shipment flag set to Yes on the Lock UI, WMS will copy the lock code from transfer lock code to the lock code column on the inbound shipment detail.

To set up lock codes for transfer shipments, first go to the Lock Code UI, and check the "Copy to Transfer Shipment flag".

Figure 45: Copy to Transfer Shipment flag

From the Order Type UI, the "Lock code for transfer shipment" drop-down allows you to set up lock codes for transfer shipments.

Figure 46: Lock code for transfer shipment

Once you select a Lock code for a transfer shipment, (for example, DAM Lock Code for damaged items) you can view this from the Lock Codes UI:

Figure 47: Lock Codes UI

Transfer Lock Codes from OBLPN to the IB Shipment

Oracle WMS Cloud allows you to copy the lock codes from outbound LPNs to the corresponding inbound LPN's created in target distribution centers. For example, you may want to copy the lock codes that indicate the condition of certain items when you transfer them to other distribution centers so that shipping to end customers can be controlled.

In company parameters, the Parameter Value needs to be set to yes to enable copying of lock codes.

Company Parameters		
Company	**Parameter Key**	**Parameter Value**
QATSTPC	COPY_CUSTOM_INFO_FOR_TRANSFER_SHIPMENT	yes

Figure 48: Copy Custom Info for Transfer Shipment – Parameter Key

See **Lock Codes for Inbound Shipments** section for more details.

Priority Date Tracebility for Transfer Shipments

In transfer shipments, the OBLPN Priority date is transferred into the receiving IBLPN. This allows the warehouse to maintain the correct information about the inventory. The Priority date determines which LPNs are allocated first when the allocation method is FEFO. The Priority date is populated with either the value entered by expiry date first or it is populated with the manufacturing date. If neither the expiry or manufacturing date are determined, then the system will populate the current date as the priority date.

Priority Date copied to Inventory during Receiving

Some WMS users may transfer shipments from one facility into another facility. Priority date is used for determining which LPNs will be allocated first when the allocation method is FEFO. To improve efficiency in allocation, the priority date from inbound shipment detail is copied over to the inventory priority date during receiving.

RF Modify/Cancel OBLPN

In certain scenarios, you might stop shipping a container by performing RF Modify Cancel OBLPN or decrease the actual quantity being shipped. To prevent any issues occurring during allocation, when an OBLPN is modified using the RF Modify/Cancel transaction, the priority date will get copied to the newly created IBLPN.

Update OBLPN's Status to Delivered for Facility Transfers

Oracle WMS Cloud supports the auto-creation of IB Shipments (ASNs) when shipping a Load to a facility that is managed within WMS. These IB Shipments are generated with the shipped OBLPNs as IBLPNs. When these IBLPNs are received at the ship-to facility, Oracle WMS Cloud updates the corresponding OBLPNs to 'Delivered' status at the origin facility. This provides additional traceability as users at the origin facility can now see when their shipments have been received. The transactions that already supported reusing OBLPNs in 'Shipped' status will also support reusing OBLPNs in 'Delivered' status.

Receiving new LPNs on Facility Transfer Shipments

Currently during cartonized shipment receiving, if you scan an LPN that is not in WMS, you are taken into blind LPN receipt mode (SKU level receiving). The screen parameter, newlpn-xfer-shp-behavior in RF receiving transactions, controls the behavior of receiving if a blind LPN is encountered while receiving facility transfer shipments.

During receiving, if you scan a blind LPN, Oracle WMS Cloud checks to see if the shipment is a facility transfer shipment (if the origin_facility_id is populated in the ib_shipment, then the shipment is a facility transfer shipment).

- If the shipment is not a facility transfer shipment, the system defaults to the current functionality where you are taken into SKU level receiving mode

- If the shipment is a facility transfer shipment, the system checks the value of the screen parameter newlpn-xfer-shp-behavior

  ❖ If newlpn-xfer-shp-behavior is set as Allow/Null, the system defaults to the current functionality where you are taken into SKU level receiving mode.
  ❖ If newlpn-xfer-shp-behavior is set as "Fetch LPN Info from source":

    ➢ The system will get origin facility information based on origin_facility_id on ib_shipment
    ➢ Next, the system will query the origin facility to see if an outbound LPN exists in the origin facility with the LPN_NBR equal to the scanned LPN and the status of the LPN is either Packed, Loaded, or Shipped.
      • If the LPN is not found in the origin facility, you are taken into SKU level receiving mode
      • If the LPN is found in the origin facility, an IB Shipment Dtl is created in the receiving facility with details from the origin facility and you can receive the LPN just like cartonized LPN receiving (without scanning details)
    ➢ If a valid email ID is configured in the facility parameter ALERT_NEW_LPN_ON_FACILITY_TRANSFER_SHIPMENT, the message "Unexpected LPN <Scanned LPN Nbr> was received by user <user> on shipment <scanned shipment_nbr>" is emailed to the configured ID.
    ➢ If the email ID is invalid (does not pass basic checks of '@', '.' etc) or if the email ID is null, the transaction continues to process without failing.

  ❖ If allow-newlpn-fac-xfer-shp is set as "Fetch LPN Info and Reconcile":

    ➢ If the facility where the LPN is scanned is the same as the OBLPN's Ship To facility, the OBLPN's status is updated to 'Delivered.'
    ➢ If the facility where the LPN is scanned is different from the OBLPN's Ship To facility and the status is 'Packed' or 'Loaded,' the OBLPN's status is updated to 'Shipped.'

- ➢ If the OBLPN is assigned to a Load and the status is 'Packed' or 'Loaded,' the system will un-assign the LPN from the load or perform unload updates if the LPN is in 'Loaded' Status.

- ❖ If allow-newlpn-fac-xfer-shp is set as "Do Not Allow", you are not allowed to receive the LPN. The error message "Invalid LPN Nbr" displays.

Creating an ASN after a Return

If you are receiving inventory back in your facility, this feature allows you to find the return inventory in the system and create an ASN in the returned facility, so that you can account for the correct inventory. There are two ways to receive returned inventory, via the Order Headers UI (where you can return the whole order) or from the OBLPN UI (where you can return one or multiple LPNs).

Return Whole Orders from Order Headers UI

You can receive returns from inventory that was shipped from your current facility or from a different facility from the Order Headers UI. You can search for the \shipped order , select it, and create an ASN so that later you can receive this inventory in your return facility.

This feature requires a group permission such as 'order hdr/Create ASN ' for this button so that only users with sufficient access can select it. By default, only users with an 'ADMINISTRATORS' or 'MANAGEMENT' role have access to this button. All other users will have to get the corresponding group permission enabled to be able to select this button.

To create an advanced shipment notice (ASN) for returns, go to the Order Header Screen and click "Create ASN."

Figure 49: Create ASN – Order Headers

Description of fields:

Create ASN Fields	Description
Create Cartonized ASN	the system will generate a cartonized ASN. For more details, [Receiving for Cartonized Shipments]().
Returns Facility	Drop down with list of Facilities

Create ASN Fields	Description
Returns Lock Code	Drop down with list of Lock Codes which will be transferred to your newly created ASN

The **Create ASN** button is only enabled if the order is in Shipped status. Once you select Create ASN, the Create ASN window appears. When you select Create Cartonized ASN, the system will generate a cartonized ASN. For more details about Cartonized ASNs, refer to [Receiving for Cartonized Shipments](#). You can select the return facility from the Returns Facility (required field) drop-down. The ASN will be created from the facility you select. The Returns Lock Code drop-down gives you the option to assign your inventory Lock Code which will be transferred to your newly created ASN.

Return Items from the OBLPN Inquiry UI

If you need to return a specific inventory from your order, you can do this from the OBLPN Inquiry UI via the Create ASN button. You can access the Create ASN action button by selecting one or more OBLPNs. However, when you select one or more OBLPNs which are not in shipped status, then **Create ASN** will be disabled. The same logic applies for creating an ASN from the OBLPN Inquiry as it does from the Order Headers UI.

Figure 50: OBLPN Inquiry – Create ASN

Viewing your ASN

To view your newly created ASN, you will need to change your facility to your return facility. If your return inventory had an inventory attribute, this information is copied to your new ASN.

Capturing the shipment Origin

1. The "Return From Facility Code" field (on the create pane of the Inbound Shipment UI), features an advanced look up option to find the customer, distribution center, or store from where the shipment was returned.

Figure 51: Return from Facility Code

2. "Return From Facility Code" is enabled only if the Shipment Type on the shipment has "Capture Returns Information" configured as **Yes** in the **Shipment Type** UI. In this example, Shipment Type **RGRET02** has been configured with "Capture Returns Information" as **Yes**, which has enabled the "Return From Facility Code" field).

3. Once you select the advanced look up option (🔍), the following screen appears, and displays a facility type of "DC", "Store", or "Site". Depending on where the shipment is returned from, choose the appropriate facility type. If the return shipment is from a customer, then choose "Site" as the facility type.

Figure 52: Search – Return from Facility Code

4. The system will not allow the creation of an ASN if the selected Shipment Type has "Capture Returns Information" configured as **Yes**, but the "Return From Facility Code" value has not been captured.

5. When the Shipment Type has "Capture Returns Information" configured as **No**, and you populate "Return From Facility Code", then the system removes the "Return From Facility Code" value before it creates a new ASN.

6. When an ASN for return shipment is verified, the return facility information is included in the Shipment Verification file.

7. When an inbound shipment is created from a Purchase Order (Header or Detail view), the Shipment Type for the shipment is determined from the PO Type of the Purchase Order. If the determined Shipment Type has "Capture Returns Information" configured as **Yes**, then the system prevents the Inbound Shipment from being created because return information is required.

8. When an ASN is interfaced into WMS with a Shipment Type that has "Capture Returns Information" configured as **Yes**, the system validates if the field "returned_from_facility_code" is populated in the input file/msg.

   a. If this field is not populated, the system does not allow the ASN to be interfaced and displays the error message "Cannot Create Inbound Shipment, Return facility Information is required".
   b. If this field is populated but the facility code is invalid, then the system does not allow the ASN to be interfaced and displays the error message "Invalid return from facility code".

9. When a Transfer Shipment is created for a load that is shipped from one facility to another, if the determined Shipment Type has "Capture Returns Information" configured as **Yes**, then the "return from facility code" is populated on the Transfer Shipment.

Figure 53: Populated Return from Facility Code

OBLPNs Dispatch Leftovers

Previously, when an unanticipated LPN was received in the destination facility as part of a transfer shipment, an alert was sent via e-mail.

You can now create ship load files for the corresponding outbound LPN which has been wrongly shipped. The new value "Fetch LPN Info and Reconcile" has been added to the **newlpn-xfer-shp-behavior** screen parameter. Some of the key differences with the new value are:

- If the facility where the LPN is scanned is the same as the OBLPN's Ship To facility, the OBLPN's status is updated to 'Delivered.'
- If the facility where the LPN is scanned is different from the OBLPN's Ship To facility and the status is 'Packed' or 'Loaded,' the OBLPN's status is updated to 'Shipped.'

- If the If the OBLPN is assigned to a Load and the status is 'Packed' or 'Loaded,' the system will un-assign the LPN from the load or perform unload updates if the LPN is in 'Loaded' Status.

Lock Codes for Inbound Shipments

From the Order Type UI, the "Lock code for transfer shipment" drop-down allows you to set up lock codes for transfer shipments.

Figure 54: Lock code for transfer shipment

Once you select a Lock code for a transfer shipment, (for example, DAM Lock Code for damaged items) you can view this from the Lock Codes UI:
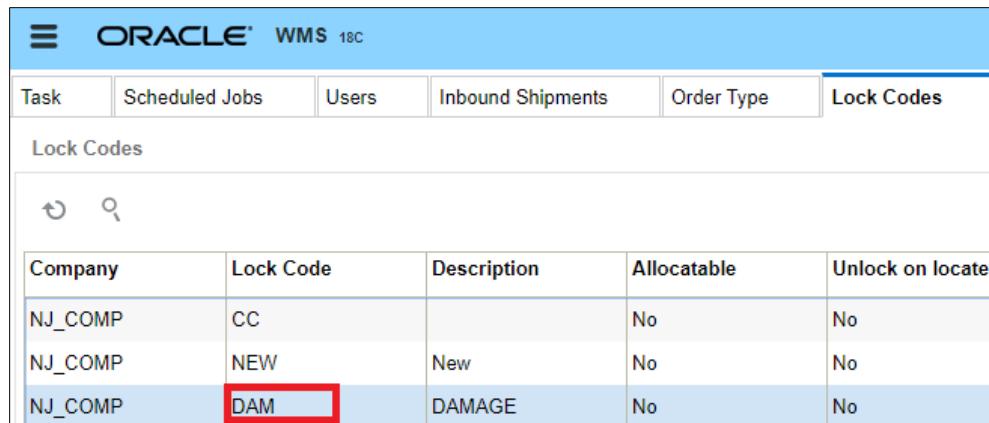
Figure 55: Lock Codes UI

Note that the lock code should have the *Copy to Transfer Shipment flag* set to yes for the DAM lock code to appear on the ASN once it is created.

Assigning Putaway Types in Inbound Shipment Detail records

Oracle WMS Cloud provides the ability to assign a putaway types to ASN details. This is useful for situations where the item's putaway type for that ASN is different from its default putaway type according to the Item Master.

1. Go to the "Inbound Shipments" screen and select an ASN. Click on its Details (🏛).
2. In the Inbound Shipment Dtl screen, select the records that will have the putaway types modified.
3. Click on the Edit (✎) button.
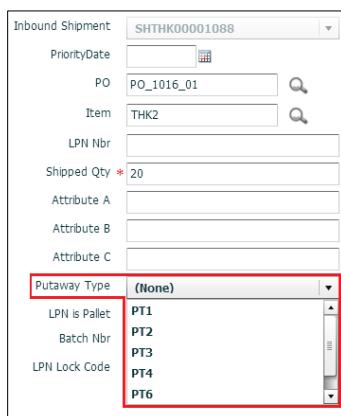
Figure 56: Modifying an ASN Detail's Putaway Type

4. Select the appropriate putaway type from the "Putaway Type" drop-down menu.
5. Click 'Save'.

Printing ASN Label

You have the option to Print an ASN Label from the Inbound Shipment UI. You can use this action button to print the label according to the default label/document printer you define.

Facility Code	Company Code	Shipment Nbr	Status	Orig shipped LF	Orig shipped Ur	Nbr LPNs	Rcvd LPN coun	Shipped Qty	Received qty	Received Perce	Nb
NJ_DC	NJ_COMP	ASN10024	In Transit	0	20	0	0	20	0	0	1
NJ_DC	NJ_COMP	ASN10023	In Transit	0	0	1	0	20	0	0	1

(ASN — Print lpn labels, Cartonize per SKU, Print ASN Labels, Print Serial Numbers, Print Price Labels)

Figure 57: Print ASN Labels

Printing Price Label for Inbound Shipment

Oracle WMS Cloud allows you to Print Price Labels from the Inbound Shipments screen. To set up the option to print price labels, you must configure the item price label view and label template view.

Shipment Nbr	Status	Shipped Qty	Received qty	Nbr LPNs	Rcvd LPN count	Po nbrs	Load	Vendor name	Received Percent	Orig shipped Units	Orig shipped LPI
IBSHP1105	In Transit	100	0	2	0		LIBSHP1105		0	0	2
IBSHP1104	Receiving compl...	100	100	2	2		LIBSHP1104		100	0	2
IBSHP1103	Receiving Started	100	30	4	1		LIBSHP1103		30	0	3
IBSHP1102	In Transit	100	0	20	0		LIBSHP1102		0	0	20
IBSHP1101	Receiving compl...	100	100	1	1		LIBSHP1100		100	0	1
IBSHP1100	Receiving compl...	10	10	2	2		LIBSHP1100		100	0	2
IBSHP1098	Receiving compl...	100	150	4	4						3
IBSHP1097	Receiving Started	100	150	3	3						2
IBSHP1096	In Transit	0	0	0	0						0
IBSHP1095	Receiving Started	100	80	3	2						2
IBSHP1094	In Transit	0	0	0	0						0
IBSHP1093	Receiving Started	10	4	3	1						5
IBSHP1092	Receiving compl...	10	10	3	2						2
IBSHP1090	Receiving Started	10	5	2	1						1

Print Price Labels

Number of Labels to Print Based on
Number of Copies to Print per Unit
Enter the Number of Price Labels to Print
Printer Name
Destination Company *

Submit Cancel

Figure 58: Print Price Labels

Print Price Labels	Description
Company	The child company in which this ASN type is used.
Number of Labels to Print Based on	want to use the Shipped or Received quantity to determine the number of labels
Number of Copies to Print per Unit	the number of copies to print per unit
Enter the Number of Price Labels to Print	Numner of Price Labels to print
Printer Name	Printer name available for the user

Print Price Labels	Description
Destination Company	Destination Company on the label

Vendor Compliance

Oracle WMS Cloud provides the ability to track vendor compliance for each ASN. This allows you to capture any compliance issues that may occur during receiving.

1. Go to the "Inbound Shipments" screen.
2. Select the ASN that has a compliance issue, and click 'Vendor Performance'.

Figure 59: Adding Vendor Performance Codes to an ASN

3. Click the Create button (+) to add a new vendor performance record.
4. Select the appropriate vendor performance code. Note that vendor performance codes must first be configured in the "Vendor Performance Codes" screen.

Figure 60: Adding details to the vendor performance record

5. Click "Save".

Pre-Receiving: Cartonization

Users can cartonize ASNs prior to receiving. This is an alternative to SKU level receiving which typically requires the user to scan a blind LPN. This process will assign pallets/full cases an LPN through the UI.

1. To display open ASNs, use the search icon to search ASNs by status 'In Transit' or by any other relevant search criteria.

Figure 61: Filtering ASNs by status "In Transit"

2. Once the ASNs records are displayed, select the ASN record being received, and click on the ASN details button (⬚). The ASN details will display the items and quantities that are included in that ASN record.

3. Select the ASN details that will be cartonized and click "Cartonize."
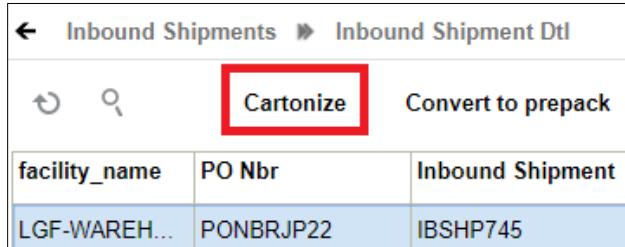
Figure 62: Using the "Cartonize" button within the ASN details

4. In the pop-up screen, in the field 'Units per IBLPN', enter the quantity for the pallet or full case received for the selected detail. In the 'Nbr Cases' field, enter the number of pallets or full cases received with the same quantity. If there is only one pallet or one full case received with the specified quantity, enter '1' in the 'Nbr Cases' field.
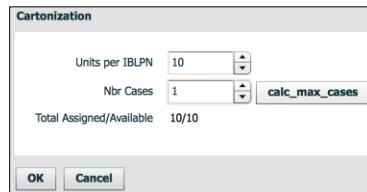
Figure 63: Defining the units per LPN

After you press OK, Oracle WMS Cloud creates a record for each LPN that is cartonized. Note that the system uses an internal sequence counter for the LPNs[4].

Figure 64: Viewing the Cartonized LPNs

1. Once all ASN details are cartonized, go back to the 'ASN Header' screen by clicking on the 'Back' button.

---

[4] To change this sequence counter format, go to the "Sequence Counters" screen and modify the record that has the "Counter Description" = "Blind LPNs". See section **0 - Sequence Counters** (pg. 149) for more information.
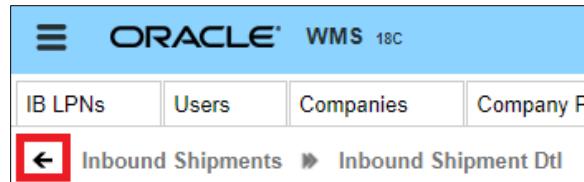
Figure 65: Clicking the Back button to return to the ASN Headers

2. To print the cartonized LPN labels, select the ASN and click on "Print LPN Labels".

Figure 66: Note: To access the 'Print LPN Labels' button, scroll right with the arrow (besides the 'Create' icon).

Pre-Receiving – Cartonizing based on Standard Case Quantity

Note: Oracle WMS Cloud also provides the ability to cartonize based on the standard case quantity of the item found on the item master. In order to cartonize based off this value, follow the steps below.

1. Go to the "Inbound Shipment" screen.
2. Select the ASN that will be cartonized based off of the standard case quantity, and click on the ASN detail button.

Figure 67: Cartonizing based on the Item's "Standard Case Quantity"

3. Assign LPNs to ASN details for each pallet or full case by selecting an ASN details by clicking on the "Cartonize Std Case" button.

4. Oracle WMS Cloud will then cartonize the ASN detail line selected based off of the standard case quantity found in the item master.

Example:

Item	Description	Shipped Qty	Received qty	LPN Nbr
THK5	THK ITEM 5	25	0	

Suppose an ASN Detail contains a shipment for Item THK5, quantity 25. In the Item Master, THK5 has the "Standard Case Quantity" defined as 5.

Clicking the "Cartonize Std Case" button will generate 5 LPNs of 5 units each:

Item	Description	Shipped Qty	Received qty	LPN Nbr
THK5	THK ITEM 5	5	0	CSTHK00001217
THK5	THK ITEM 5	5	0	CSTHK00001216
THK5	THK ITEM 5	5	0	CSTHK00001215
THK5	THK ITEM 5	5	0	CSTHK00001214
THK5	THK ITEM 5	5	0	CSTHK00001213

Cartonizing LPN by Cases

Oracle WMS Cloud allows you to cartonize LPNs based on cases for the item found on the item master. In order to cartonize LPN by cases, do the following:

5. From the "Inbound Shipment" screen, select the IB Shipment from which you want to cartonize the LPN.

6. Click Details (🖧). The Inbound Shipment Detail page opens.

Inbound Shipm	Facility Code	facility_name	Company Code	Priority Date	PO Nbr	Item Code	Is Parent	Alternate Item (	Item Descriptio	LPN Nbr	LPN Status	L
SKIBSHP01	QATST01	LGF-WAREH…	QATSTPC			SKIB01	false	SKIB01	phone			

Figure 68: IB Shipment Details

7. Select the shipment details and click the "Cartonize LPN by Cases" button.

Note: By default, the Group permission is disabled for user roles with SUPERVISOR, GUARD, EMPLOYEE, and MANAGEMENT to perform action cartonizing. Therefore, users performing this action should be assigned to a group that has the "IB Shipment / Can Cartonize" permission check enabled for that group. Otherwise, the action button is disabled.

8. A pop-up window "Cartonize LPN by Cases" is displayed for you to specify the quantity for the items to be cartonized by cases in each LPN.

Figure 69: Cartonizing LPN by Cases

9. After you enter the quantity, click **Submit**. Once you submit, the "Cartonization successful" message displays.

Field Description:

Field Parameter	Description
Number of Cases per LPN	Enter the number of cases you want to be cartonized per LPN.
Std Case Qty	Displays the Standard Case Quantity defined at the master level for an item.
Number of LPNs	Enter the number of LPNs.
LPN as Physical Pallet	Click the drop-down box to select either one of the following options: 1. **Yes**: Consider an LPN as a Physical Pallet 2. **No**: Do Not consider an LPN as a Physical Pallet
LPN Type	Select an appropriate LPN Type.

Example:

Suppose an IB Shipment Detail contains a shipment for Item **SK ITEM**, quantity 100. In the Item Master, SK ITEM has the "Standard Case Quantity" defined as 10.

Click the "Cartonize LPN by Cases" button and the system prompts you to define cases per LPN as shown in the figure below:

The system calculates the number of cases to be cartonized per LPN against the Standard Case Quantity and displays the following:

The system creates two LPNs that have a Shipped Quantity of 50 for SK ITEM.

Pre-Receiving – Consolidating multiple ASN details into a single LPN

You can use the "Cartonize" button to consolidate multiple ASN detail records for the same item into a single LPN number.

Consider the example below, which contains three ASN details for the same item.

Figure 70: Multiple ASN Details

Suppose you want to generate one LPN number and assign them to all three records.

1. Select **one** of the ASN details for that Item click "Cartonize".

Figure 71: Cartonize

2. In the pop-up screen, in the 'Units', enter the quantity of that ASN detail (in this case 50). In the 'Nbr Cases' field, enter '1'.

Figure 72: Units

Doing so will generate an LPN number for the selected record.

Figure 73: LPN Number

3. Now you must assign this LPN to the remaining records. Copy (Ctrl+C) the LPN that was generated and select the next ASN record. Click Edit (✎).

4. Paste (Ctrl+V) the LPN to the "LPN Nbr" field.
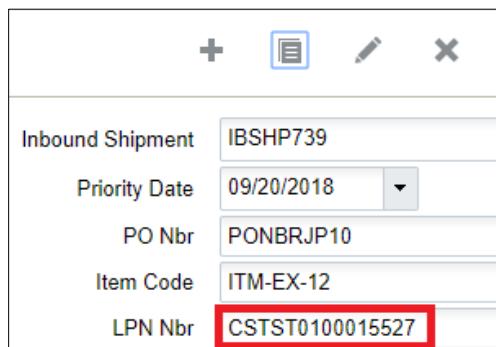
Figure 74: Assign LPN to Record

5. Click "Save" and repeat for the remaining records that need to be consolidated.

Trailer UI

The Trailer UI allows you to define information associated with the trailer, such as associated orders. The Trailer UI also allows you to locate trailers to the yard.

To add a trailer, go to the Trailer UI and click Create (✚).
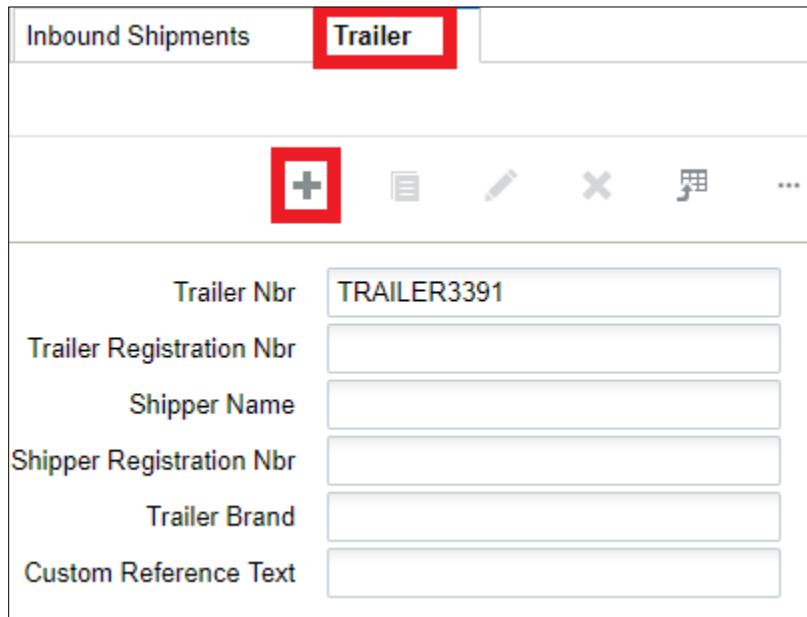
Figure 75: Trailer UI

You can add custom reference text for the trailer if needed.

To Locate a trailer to the yard, from the Trailer UI, select the Trailer Nbr and click the **Locate Trailer** button.
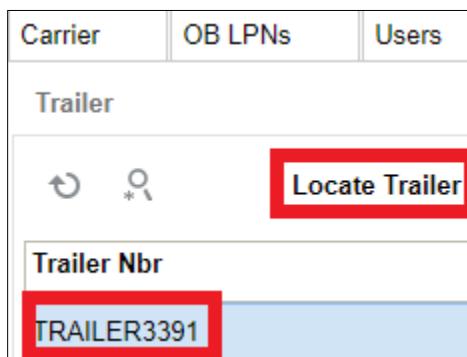
Figure 76: Locate Trailer Button

Once you click Locate Trailer, the following dialogue opens. The current Yard Location will be populated if there is an existing yard location for the trailer. From the Yard Location drop-down, you can select a new yard location.
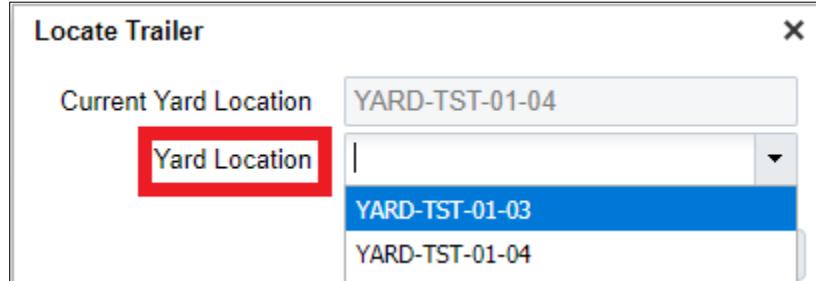
Figure 77: Yard Location

The Locate Trailer button allows you to locate trailers from the Trailer UI, Appointment UI, IB Load, and OB Load screens.

Note: When you try to locate a trailer to the yard location where the current number of trailers is equal to the max units for the selected yard location, the message "Capacity not available in Yard Location selected" displays.

Checking in a Load

A load number is automatically generated for all ASNs. This value will be stored in the 'Load' field in the 'ASNs' UI screen. Inbound Loads are assigned to the dock door for receiving.

1. Go to the "IB Loads" screen, and look for the Load Number of the ASN being received. You can use the magnifying glass ( ) to filter by shipment number.

Figure 78: Filtering IB Loads

2. Select the load being received and check it in to a dock: Click on the drop-down menu next to 'Check In' button, and select the Dock Number. Click on 'Check In' to check in the load to the selected load.
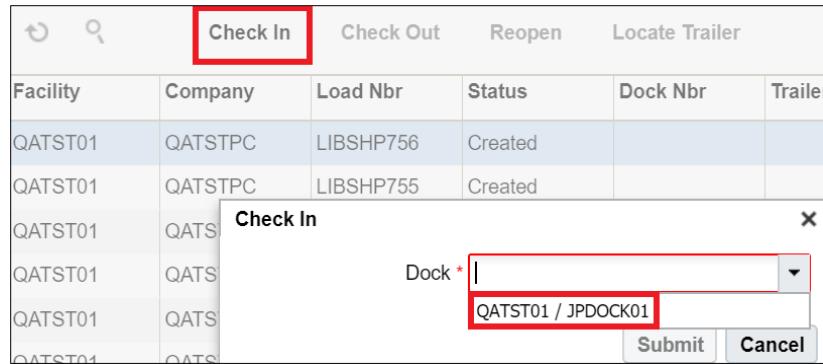
Figure 79: Checking in a Load

After user checks in a Load, the system will update the dock location on trailer.

Assigning Multiple ASNs to the Same Load

Oracle WMS Cloud supports the ability to receive multiple ASNs to the same load. If this is the case, the ASNs must be consolidated by Load Number.

To assign multiple ASNs to the same load, follow these steps:

1. Go to the "Inbound Shipment" screen.
2. Select the ASNs that will be consolidated by Load Number.
3. Click the "Assign to load" button.

Figure 80: Clicking the "Assign to load" button

4. Populate the Load number the ASNs will be modified to in the "Load Nbr" field. Click "OK".

Figure 81: Assigning a single Load

Appointments

Users can alternatively use Appointments for receiving ASNs into Oracle WMS Cloud. Appointments are useful for tracking the time discrepancies in various metrics such as planned and actual arrival time and the lead-time from the trailer's check-in time to the receipt of the first LPN into the system.

Additionally, Appointments are also used (instead of Inbound Loads) as a way of checking-in Loads into the Oracle WMS Cloud for receiving.

Creating Appointments

1. Go to the "Appointment" screen.
2. Click the Create button and populate the necessary fields.

Figure 82: Creating a new Appointment

Description of fields:
- **Appt Nbr:** Appointment Number
- **Estimated units:** The estimated units in the ASN.
- **Duration:** Estimated time taken to receive. There is no time measurement here, so it is up to the user to decide whether to use it in minutes or hours.
- **Planned start ts:** The Planned start date (and time, if specified).

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- **Arrived Time:** The date and time in which the trailer actually arrived to the warehouse.
- **Preferred Dock:** The preferred Dock for receiving (not functional).
- **Carrier Info:** The trailer's carrier information.
- **Matching value type:** The preferred field used for matching the ASN with the Appointment.
- **Matching value:** The value for field specified in the previous field.
- **Dock Type:** The dock type that will be used for receiving.

3. Click "Save".
4. Once the Appointment is created, you can check-in the Appointment by selecting the record, choosing a Dock Door from the drop-down and clicking "Check In".
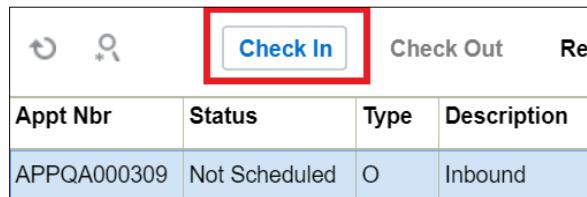
Figure 83: Checking in an Appointment

5. Now the Appointment is ready for receiving. Go to the "Receive ASN" RF.
6. In the "Dock:" prompt, scan the Dock Door from step 4. Begin receiving.
7. When all the ASNs have been fully received, do not forget to check the Appointment out of the Dock Door from step 4. Go to the "Appointment" screen and click "Check Out".
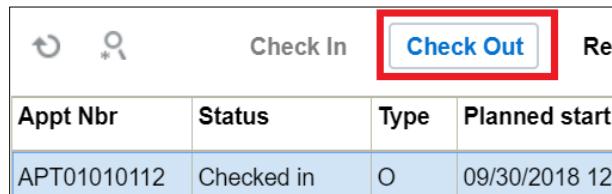
Figure 84: Checking out an Appointment from a Dock

From the Appointment screen, you can perform the following Actions:
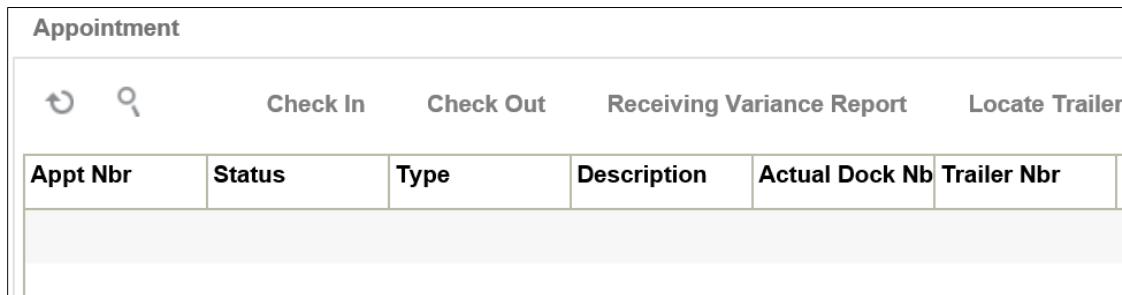
Figure 85: Appointment Screen

- **Check in** – Check in Appointment. Updates the dock location on the Trailer when the matching value type of the appointment is Trailer nbr, and the matching value is a trailer nbr that exist in the Trailer UI.

- **Check Out** – Check out Appointment
- **Receiving Variance Report** – Downloads the receiving variance report for this appointment
- **Locate Trailer** – Allows you to locate trailer to a yard location. This option is enabled when the matching value type of the appointment is Trailer nbr, and the matching value is a trailer nbr that exist in the Trailer UI.

Receiving

There are two main types of receiving in Oracle WMS Cloud:

- Receive by ASN (RF-Text: *Recv {lpn} Shipment*)
- Receive by Load (RF-Text: *Recv {lpn} Load*)

Receive by ASN

The first type of receiving is an RF module that prompts the user to scan the ASN. To add this RF option, go to "Screen Configuration", click the Create button (+) and select "RF-Text: *Recv {lpn} Shipment".* Add a name for your screen name.

Figure 86: RF-Text: Recv {lpn} Shipment

RF receiving process

1. Go to the "Receive LPN Shipment" RF module.
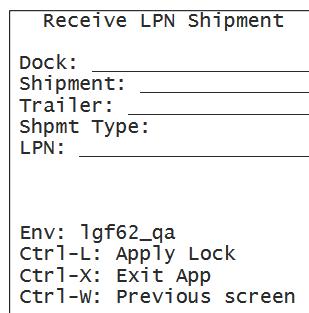
Figure 87: Receive LPN Shipment RF Module

2. If the ASN's Load Number is checked into a dock, scan the dock number. Otherwise, skip the "Dock" field by pressing Tab.
   a. If the Dock is scanned, the system will automatically populate the ASN in that dock.
   b. If the trailer number is included in the ASN record, it will automatically be populated.

c. If this field is blank, skip it by pressing Tab.

```
Dock: D9
Shipment: SHTHK00001091
Trailer:
Shpmt Type: DOMESTIC
LPN:




Env:
Ctrl-L: Apply Lock
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 88: Dock with ASN Populated

3. Scan the LPN that will be received.
    a. If this is a smart LPN (ASN is cartonized), the system will recognize the LPN's contents and display a message. Press Ctrl-A to proceed.

```
LPN contents Proceed ?
Shipment Type: DOMESTIC
SKU THK2 Qty: 50

Ctrl-A: Accept
Ctrl-W: Do not accept
```

Figure 89: Smart LPN – Proceed? Message

    b. If this is a blind LPN, the system will prompt the user to scan the Item and quantity.

```
Shipment: SHTHK00001091
Trailer:
LPN: LPN1120_02
SKU:
Qty:




Env:
Ctrl-E: End LPN
Ctrl-L: Apply Lock
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 90: Ctrl-E: End LPN

When all of the LPN's contents have been scanned, press Ctrl-E to close the LPN. In the IBLPN screen, this LPN is created in "Located" status.

In scenarios where your supplier does not send Advanced Shipment Notifications (ASNs) when shipping inventory to your warehouses, you can configure the RF Receiving LPN Shipment transaction and set the screen parameter mode to: blind receiving. The Blind Receiving mode allows you to receive inventory, and it will not prompt you to scan a PO nor ASN to initialize receiving. This mode will just prompt you to scan a blind LPN.

Receive by Load

The alternative method is receiving through Loads. You can use this option for scenarios where a Load has multiple ASNs. To add this RF option, go to the "Screen Configurations" screen, click the Create button (+) and select "RF-Text: Recv {lpn} Load":

ORACLE®

Figure 91: RF-Text: Recv {lpn} Load

RF receiving process

1. Go to the "Receive LPN Load" RF module.

Figure 92: Receive LPN Load

2. If the ASN's Load Number is checked into a dock, scan the dock number. Otherwise, skip the "Dock" field by pressing Tab.
3. If the Dock is scanned, the system will automatically populate the ASN in that dock.
4. If the trailer number is included in the ASN record, it will automatically be populated. If this field is blank, skip it by pressing Tab.

Figure 93: Populated ASN

5. Scan the LPN that will be received.
6. If this is a smart LPN (ASN is cartonized), the system will recognize the LPN's contents and display a message. Press Ctrl-A to proceed.

```
LPN contents Proceed ?
Shipment Type: DOMESTIC
SKU THK2 Qty: 50

Ctrl-A: Accept
Ctrl-W: Do not accept
```

Figure 94: LPN contents Proceed?

7. If this is a blind LPN, the system will prompt the user to scan the Item and quantity.

```
Shipment: SHTHK00001091
Trailer:
LPN: LPN1120_02
SKU: ▮
Qty: _____




Env:
Ctrl-E: End LPN
Ctrl-L: Apply Lock
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 95: Ctrl-E: End LPN

8. When all of the LPN's contents have been scanned, press Ctrl-E to close the LPN.
9. Select the ASN number to receive this LPN to.

```
Shipments:
1) SH00001050
2) SH00001052
```

Figure 96: Select ASN Number

10. Repeat steps four and five for subsequent LPNs.

Receiving Parameters

The following section provides an overview of the Receiving parameters and their functionality.

Receiving Shipments in Different Units of Measure

Users can receive merchandise in the following units of measure (UOM):

- SKU Level Receipt (scan each)
- Inner Pack Level Receipt (scan packs)
- Cases Level Receipt (scan cases)
- Pallet Receipt (palletize LPNs during receiving)

Case Level Receipt

The receiving module can be configured to receive in multiple units of measure: cases, packs, and units.

Configuration Steps

1. Go to the "Screen Configurations" screen.
2. Select the RF Recv [lpn] Load and click on Details ( ). This will display all the parameters for this RF module.
3. Select the parameter "qty-uom" click Edit ( ).
4. In the "Module parm choice" drop-down menu, select the desired UOM.

Module Parameter	qty-uom
Parameter Value	
Module parm choice	
	Units
	Packs
	Cases
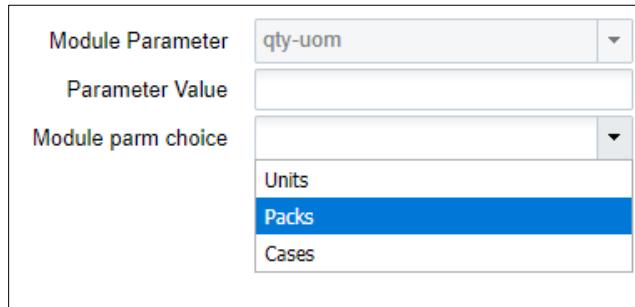
Figure 97: Packs

Receiving:

1. Go to the RF module that was configured for cases or packs receipt.
2. Scan the Dock and LPN to begin receiving.

```
Shipment: SHTHK00001092
Trailer:
LPN: LPN1120_03
SKU: THK6
Pack Qty: 5
Qty: (pk=1) ▌_____
```
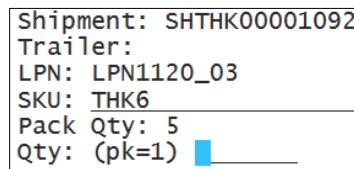
Figure 98: Pack Qty

3. Scan the item[5]. In the "Qty:" field, input the amount in terms of the configured UOM. Depending on which UOM you have chosen the standard case or pack quantity will be displayed above the "Qty:" field. This allows the user to compare the physical case/pack quantity against the systemic standard before receiving. In this case, inputting "1" will result in receiving five units of Item "THK5".

---

[5] The "Standard Case Quantity" or "Standard Pack Quantity" for this Item must be defined in the Item Master.

Receiving for Cartonized Shipments

Oracle WMS Cloud also allows 'smart receiving', which is when LPNs are defined in the ASN prior to receipt:

1. Go to the "Inbound Shipments" screen.
2. Select the ASN and click on "Print LPN Labels". This will print all the cartonized LPNs in the ASN.
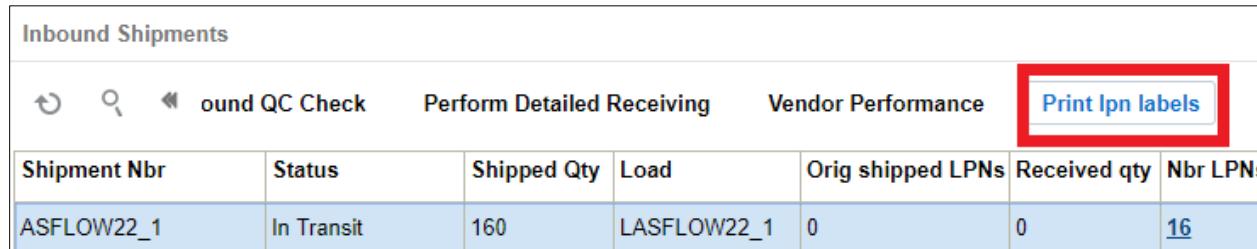
Inbound Shipments						
↻ 🔍 ◀ ound QC Check	Perform Detailed Receiving		Vendor Performance	**Print lpn labels**		
Shipment Nbr	Status	Shipped Qty	Load	Orig shipped LPNs	Received qty	Nbr LPNs
ASFLOW22_1	In Transit	160	LASFLOW22_1	0	0	16

Figure 99: Printing cartonized labels from the ASN

3. Enter the RF module for receiving.
4. Scan the LPN; the system will recognize the LPN's contents and ask the user to confirm its contents. Press Ctrl-A to proceed.
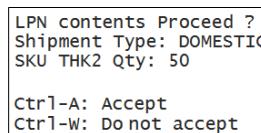
```
LPN contents Proceed ?
Shipment Type: DOMESTIC
SKU THK2 Qty: 50

Ctrl-A: Accept
Ctrl-W: Do not accept
```

Figure 100: Ctrl-A: Accept

Receiving unanticipated LPNs for Fully Cartonized Shipments

In 18C, you can scan an LPN, which is different from the anticipated LPN while receiving through RF Recv by Shipment . When you scan an unanticipated LPN, Oracle WMS Cloud displays a warning message "**Shipment detail doesnot have this LPN listed**." You can accept the message if you want to proceed receiving with the unanticipated LPN. You have the flexibility to set the customized message as an error, warning, or disable the message.

Note: if your shipment type is set to Populated with Over Receipt error is either blank 0% or greater than 0% and Receive sku not on the shipment is set to yes and the entered quantity is more than the (total shipped quantity / total received quantity) for the SKU, you will get an error message, and you will not be able to receive this LPN as part of this shipment.

Configuration for Palletization during Receipt

For receiving flows with palletization, the receiving RF module must be configured appropriately. There are four types of palletization during receipt:

- LPN or Pallet level receiving.
- Palletize up front (before scanning LPN)
- Palletize at end (after scanning LPN)
- Receive LPN as physical pallet (the LPN is treated as a pallet in the system)[6]

To Configure on the UI

1. Go to the "Screen Configuration" screen.
2. Select the receiving RF module (rf.inbound.cwrfrecvlpnshpmt) click on Details (⊞).
3. This will open a window with all the RF module's parameters. Select parameter pallet-handling and click Edit (✎).
4. Click on the "Module parm choice" drop-down menu and select the appropriate palletization mode.
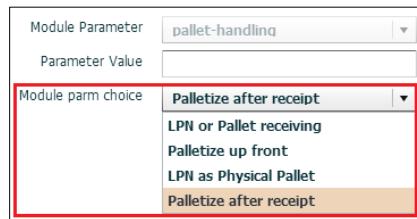
Figure 101: Module parm choice

---

[6] Refer to section **0 –**

LPN as a Pallet (pg. 115) for details.

Update LPNs to QC Status

The screen parameter 'consider-mark-for-qc-flg', allows you to perform quality check-related operations from the IB Shipments screen. In order to receive inventory that has been mark for quality control using the Received Entire Shipment functionality, you need to have 'consider-mark-for-qc-flg' set to yes. You can set this parameter from Screen Configuration -> IB Shipment View. If the parameter is set to no, receiving the entire shipment will fail.

When **consider-mark-for-qc-flg** is set to 'Yes', the system exhibits the following:

- the **'Receive Entire shipment'** action button will mark the LPN status as 'Quality Check' if the shipment details has quality check as 'Yes'.

A corresponding IHT activity 72 gets generated for each detail present in an LPN on the Inventory History when an LPN has a 'Quality Check' status.

Note: This functionality only works when the IB shipment detail is marked for QC. This functionality only works in the RF.

Auto Generate Inbound LPN Nbr

The receiving modules **Receive by Load** and **Receive by Shipment** can be configured to auto generate Inbound LPN Nbrs for blind LPN receiving.

Configuration Steps

1. Go to the "Screen Configurations" tab.

2. Select the RF receiving module and click on Details ( ). This will display all the parameters for the selected RF module.

3. Select the "lpn-prompt" parameter. Click Edit ( )
4. From the "Module parm choice" drop-down, select the desired option.

Figure 102: lpn-prompt Parameter

You can configure the "lpn-prompt" screen parameter with one of the following options:

- **Mandatory**: LPN prompt is displayed and you have to be enter/scan an LPN Nbr while receiving blind LPNs.

- **Not mandatory**: LPN prompt is displayed. However you have the option to either enter/scan an LPN Nbr OR tab out of the prompt without entering LPN Nbr. If an LPN Nbr is not entered, system auto generates the LPN Nbr.
- **Auto Generate**: LPN prompt is not displayed. LPN Nbr is auto generated by the system.
- If this parameter is not configured, system will default to the behavior described for the option **Mandatory** above.

Screen Flow when lpn-prompt is configured as Auto Generate

1. Select the RF Shipment/RF Load module which has "lpn-prompt" configured as **Auto Generate.** The LPN Prompt is not displayed.

```
Oracle WMS QA3PLEST/QAMASTER
    RecvShpmnt AutoGenLPN

Dock: █_____
Shipment: _____
Trailer: _____
Shpmt Type:




Env: lgf_901_qa
Ctrl-L: Apply Lock
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 103: Enter Shipment Nbr and Dock

   a. When "lpn-prompt" is configured as **Auto Generate**, it is mandatory to enter the Shipment Nbr/Load Nbr.
   b. If the shipment's load is checked in to a dock door, then the dock door can be entered. Once the dock door is entered, the Shipment Nbr on that dock is automatically populated.
   c. If the screen parameter "pallet-handling" is configured as **Palletize upfront**, then scan/confirm the pallet nbr. The system takes you to the next screen.

2. On the next screen, the system prompts for SKU and Qty. The LPN field remains blank.

2-48

```
Oracle WMS QA3PLEST/QAMASTER
      Receiving
Shipment: SHMSTRG00001020
LPN:
SKU: _____
Qty: _____




Env: lgf_901_qa
Ctrl-L: Apply Lock
Ctrl-E: End LPN
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 104: Enter SKU and Qty

    a.   When "lpn-prompt" is configured as **Auto Generate** and "mode" is configured as **Blind ASN Receiving**, the system brings you to this screen when it invokes the RF Shipment/RF Load option. The first screen is not displayed. Note the blank Shipment field in the screenshot below:

```
Oracle WMS QA3PLEST/QAMASTER
      Receiving
Shipment:
LPN:
SKU: ▌_____
Qty:  _____




Env: lgf_901_qa
Ctrl-L: Apply Lock
Ctrl-E: End LPN
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 105: RF Shipment/RF Load Option

3.   Once you scan the first SKU, the system generates an LPN Number based on the BLIND_LPN_NBR sequence counter. The auto generated LPN Nbr is displayed on the screen until the LPN is ended. If the screen parameter "mode" is set to **by-sku-qty,** you are prompted for qty. If "mode" is set to **by-sku-scan**, you are prompted for the next SKU to be scanned.

```
Oracle WMS QA3PLEST/QAMASTER
     Receiving
Shipment: SHG100001283
Pallet: PLT01
LPN: CSG100002333
SKU: G1NORITM111
Qty: _____




Env: lgf_901_qa
Ctrl-L: Apply Lock
Ctrl-E: End LPN
Ctrl-W: Previous screen
```
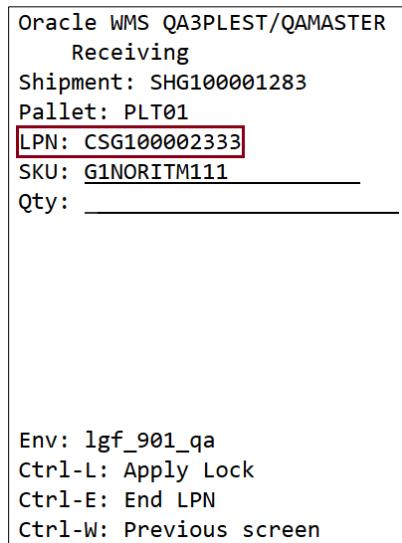
Figure 106: LPN Number

4. When the LPN is completed, an alert message with the auto generated LPN Nbr is displayed. This message can be enabled/disabled in the message configuration view.

    a. If the screen parameter "single sku management" is configured as **assume single sku/restrict multi sku** and "mode" is configured as **by-sku-qty**, then LPN is automatically ended after entering the first SKU and qty
    b. If the screen parameter "single sku management" is configured as **assume single sku/restrict multi sku** and "mode" is configured as **by-sku-scan**, then LPN is automatically ended after entering the first SKU.
    c. If the screen parameter "single sku management" is not set, **ctrl+E** is used to end LPN after receiving all the SKUs into the LPN.
    d. If the screen parameter "pallet-handling" is configured as **Palletize after receipt**, then you are prompted for a pallet nbr after LPN is ended. In this case the alert message is displayed after entering the pallet nbr.

5. After ending an LPN, the screen remains on the SKU prompt. In order to scan a new shipment/Load, you have to press Ctrl+W to return back to Shipment/Load prompt screen.

Note: If the screen parameter "pallet-handling" is configured as **LPN or Pallet receiving**, then the LPN Prompt will be displayed even if "lpn-prompt" is configured as **Auto Generate.**

Screen Flow when lpn-prompt is Configured as Not Mandatory

1. Select the RF Shipment/RF Load option which has "lpn-prompt" configured as **Not Mandatory.** The LPN Prompt is displayed.

```
Oracle WMS QA3PLEST/QAMASTER
    RecvShpmnt NotManLPN

Dock: _____
Shipment: _____
Trailer: _____
Shpmt Type:
LPN: _____




Env: lgf_901_qa
Ctrl-L: Apply Lock
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 107: LPN Prompt

2. When "lpn-prompt" is configured as **Not Mandatory**, it is mandatory to enter the Shipment Nbr/Load Nbr.
   a. If the shipment's load is checked in to a dock door, enter the dock door. This will automatically populate the Shipment Nbr on that dock.

3. After you enter the Shipment/Load Nbr, you can choose to scan the LPN Nbr or skip it. On the next screen, the system prompts for SKU and Qty. If the LPN was scanned on screen 1, it is displayed on this screen. Otherwise the LPN field remains blank.

```
Oracle WMS QA3PLEST/QAMASTER
    Receiving
Shipment: SHMSTRG00001020
LPN:
SKU: _____
Qty: _____




Env: lgf_901_qa
Ctrl-L: Apply Lock
Ctrl-E: End LPN
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

```
Oracle WMS QA3PLEST/QAMASTER
    Receiving
Shipment: SHMSTRG00001020
LPN: IBLPN07210_01
SKU: █_____
Qty: _____




Env: lgf_901_qa
Ctrl-L: Apply Lock
Ctrl-E: End LPN
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

4. After scanning the first SKU, the system generates an LPN Number based on the sequence counter BLIND_LPN_NBR, if the LPN Nbr was not scanned on the first screen.
   a. If the LPN is scanned on screen 1 and if the screen parameter "pallet-handling" is configured as **LPN or Pallet receiving**, then system assumes that an LPN is being received and generates an LPN Number based on sequence counter BLIND_LPN_NBR.

Behavior of Ctrl+E when lpn-prompt is Configured as Auto Generate:

In the RF Shipment/RF Load modules, when the screen parameter "lpn-prompt" is configured as **Auto Generate** and "pallet-handling" is configured as **Palletize up front**, the Ctrl+E key on the SKU scan screen assumes different roles as described below:

1. On the first screen, after entering the inbound shipment and pallet nbr, you are taken to the SKU scan screen.

```
Oracle WMS QA3PLEST/QAMASTER
   RecvShpmnt AutoGenLPN

Dock: _____
Shipment: _____
Trailer: _____
Shpmt Type:
Plt:_____




Env: lgf_901_qa
Ctrl-L: Apply Lock
Ctrl-E: End Pallet
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 108: SKU Scan screen

2. On the SKU scan screen, the Ctrl-E key will activate "End Pallet".

```
Oracle WMS QA3PLEST/QAMASTER
    Receiving
Shipment: SHG100001279
Pallet: PLT01
LPN:
SKU:  _____
Qty:  _____




Env: lgf_901_qa
Ctrl-L: Apply Lock
Ctrl-E: End Pallet
Ctrl-X: Exit App
Ctrl-W: Previous screen
```
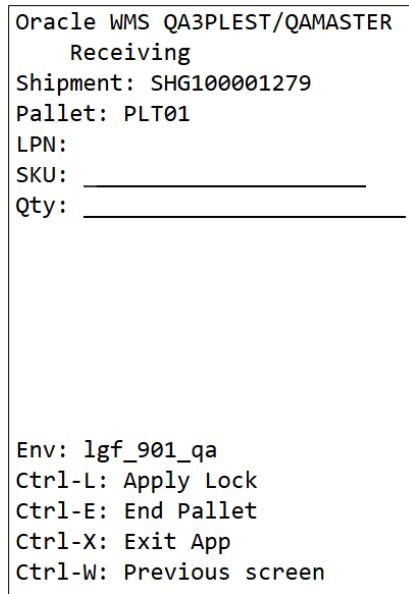
Figure 109: End Pallet

➤ If you hit Ctrl-E, the system displays the message "End pallet <plt nbr>?"

```
End Pallet PLT01?█
```
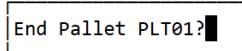
Figure 110: End Pallet Message

If you accept the message, the system ends the pallet and takes you back to the first screen and prompts you for a Pallet.

➤ If you scan a SKU, an LPN nbr will be auto-generated. The Ctrl-E control key is now displayed as End LPN.

```
Oracle WMS QA3PLEST/QAMASTER
    Receiving
Shipment: SHG100001279
Pallet: PLT01
LPN: CSG100002317
SKU: G1ITM201_____
Qty:  _____




Env: lgf_901_qa
Ctrl-L: Apply Lock
Ctrl-E: End LPN
Ctrl-W: Previous screen
```

Figure 111: End LPN Control Key

✓ If you press Ctrl-E, the system displays the message "Nothing to receive."

```
Nothing to receive█
```
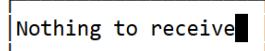
Figure 112: Nothing to receive Message

✓ If you enter the quantity, press tab/enter and then Ctrl-E, to end the LPN. The LPN field is now blank and Ctrl-E is displayed as End Pallet.

In general, in the SKU prompt screen if the pallet number is populated and the LPN is blank, then Ctrl-E is displayed as End Pallet. If the pallet number is populated and LPN is populated, then Ctrl-E is displayed as End LPN.

Scanning a new LPN in Cartonized Shipments

If all the lines of a shipment detail are cartonised, you have the option to scan or enter an LPN number that is not listed on shipment detail. This is possible in both receiving modules *Receive By Load* and *Receive by Shipment*, by configuring the "Shipment detail does not have this LPN listed" message as required:

- If the message is configured with "Enabled Flag" as **Yes** and "Auto Reject Flag" as **No**, then this message is displayed as a warning message, when you scan an LPN that is not listed on the shipment. On accepting the msg, screenflow would be similar to SKU Level receiving/detail receiving where you can continue by scanning the SKU and qty.
- If the message is configured with "Enabled Flag" as **Yes** and "Auto Reject Flag" as **Yes**, then the message is displayed as an error message. In other words, you will not be allowed to scan an LPN that is not listed on the shipment. This is also the default behavior.
- If the message is configured with "Enabled Flag" as **No**, then you will be allowed to scan an LPN that is not listed on the shipment. No message is displayed and the screenflow is similar to SKU Level receiving/detail where you can continue to scan the SKU and quantity.

In the above scenarios where you are allowed to proceed further to enter SKU and quantity, the validation of the quantity will depend on the Shipment Type and the screen parameter "rcv_sku_not_onshipment" for the RF option used:

- When the Shipment Type has "Over Receipt error = 0%" And "rcv_sku_not_onshipment" = **No**
    If you enter qty that is more than the (total shipped quantity - total received qty) for the SKU in the shipment, WMS throws the error message "Qty exceeds over receipt error level".

    If "rcv_sku_not_onshipment" = **Yes**, then the error message is displayed for SKUs that are on the shipment.

- When the Shipment Type has "Over Receipt error = blank" And "rcv_sku_not_onshipment" = **No**
    If you enter a quantity that is more than the (total shipped quantity - total received quantity) for the SKU in the shipment, WMS throws the error message "Cannot receive more than shipped qty for %SKU%".

    If "rcv_sku_not_onshipment" = **Yes**, then the error message is displayed for SKUs that are on the shipment.

- When the Shipment Type has "Over Receipt error > 0%" And "rcv_sku_not_onshipment" = **No**

If you enter a quantity that is more than the {(total shipped qty+overreceipt quantity)- total received quantity} for the SKU in the shipment, WMS throws the error message "Qty exceeds over receipt error level"

If "rcv_sku_not_onshipment" = **Yes**, then the error message is displayed for SKUs that are on the shipment.

Prompt Location

You can configure the receiving modules **Receive by Load** and **Receive by Shipment** to prompt for location after receiving is complete.

<u>Configuration Steps</u>

1. Go to the "Screen Configurations" view.

2. Select the RF receiving module and click on Details ( ). This displays all the parameters for the selected RF module.

3. Select the "prompt-location" parameter. Click Edit ( ).
4. From the "Module parm choice" drop-down, select the desired option.

Module Parameter	prompt-location	▾
Parameter Value		
Module parm choice		▾
	Prompt if not known	
	Do not prompt	

Figure 113: prompt-location Parameter

The screen parameter "prompt-location" can be configured with one of the following options:

• **Prompt if not known**: Location prompt will be displayed
• **Do not prompt**: Location prompt will not be displayed
• If this parameter is not configured, system will default to the behavior described for the option **Prompt if not known** above.

Prompt-location screen flows

1. In the RF Receive by Shipment or RF Receive by Load modules, when you configure the screen parameter "prompt-location" as **Do not prompt**, the location prompt is not displayed after receiving is complete.

2. In the RF Receive by Shipment or RF Receive by Load modules, when the screen parameter "prompt-location" is configured as **Prompt if not known**, location prompt is displayed after receiving is complete. You can enter a reserve, active, or dock location or skip entering any location by using **Ctrl+W** or **Ctrl+X**.
    a. Location prompt is not displayed after receiving is complete:

       i.   If a dock door is scanned at the beginning of receiving. Instead the LPN will be located to the scanned dock door.

      ii.   If the shipment/load is associated to an appointment that has been checked into a dock. Instead the LPN will be located to the dock door where the shipment/load was checked in through appointment.

     iii.   If the screen parameter "next-screen-to-launch" is configured as **rf.inbound.cwrfibsortlpn** (Inbound Sorting).

     iv.   If cross dock is enabled in the receiving module, and cross dock completes successfully.

b.   After receiving an LPN, if the QC Status of LPN is Marked for QC, then location display is driven by the screen parameter "qc-handling-mode".

       i.   If the screen parameter "qc-handling-mode" is configured as **Mark for QC prompt QC locn**, the QC location prompt is displayed.

      ii.   If the screen parameter "qc-handling-mode" is configured as **Mark for QC do not prompt QC locn**, the location prompt is not displayed.

c.   If you enter an active location, the system throws the error "Cannot putaway to location type A" if:

       i.   Flow through allocation (MHE) is enabled and flow through allocation is successful.

      ii.   You have received Pallet through "Palletize Upfront" or "Palletize after receipt" or "LPN or Pallet receiving."

In the above two scenarios, you only have the option to enter a Reserve or Dock location.

Print LPN and Case Labels

You can configure the receiving modules *Receive by Load* and *Receive by Shipment* to print inbound LPN labels or case labels after receiving is complete.

<u>Configuration Steps</u>

1.   Go to the "Screen Configurations" view.

2.   Select the RF receiving module and click **Details** (![icon]). This will display all the parameters for the selected RF module.

3.   Select the parameter "print-labels". Click **Edit** (![icon]).

4.   In the "Module parm choice" drop-down menu, select the desired option.
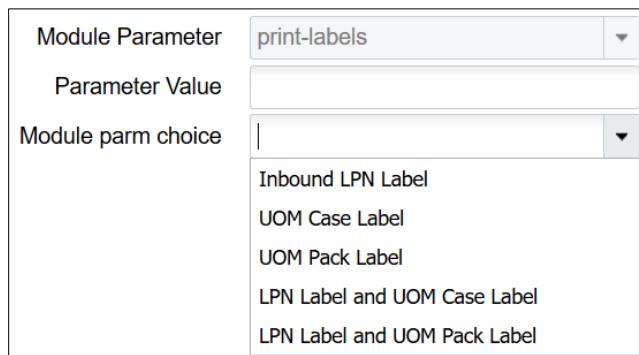
Figure 114: Edit print-labels Parameter

Screen parameter "print-labels" can be configured with one of the following options:

- **Inbound LPN Label**: Inbound LPN label will be printed based on the label template configuration.
- **UOM Case Label**: Case label will be printed. This is applicable when UOM is configured to receive in cases.
- **UOM Pack Label**: Pack label will be printed. This is applicable when UOM is configured to receive in packs.
- **LPN Label and UOM Case Label**: Prints both LPN and Case labels.
- **LPN Label and UOM Pack Label**: Prints both LPN and Pack labels.
- If this parameter is not configured, no labels will be printed.

Ctrl Key for Printing

1. When the screen parameter "print-labels" is configured with one of the supported values in the receiving modules **Receive by Load** or **Receive by Shipment**, then the first screen (Shipment/Load screen) and the second screen (SKU scan screen) displays the **Ctrl-P** key to initiate printing. The **Ctrl-P** key is not displayed if "print-labels" is not configured.

```
Oracle WMS QA3PLEST/QAMASTER
      RecvShpmnt Print

Dock: █_____
Shipment: _____
Trailer: _____
Shpmt Type:
LPN: _____




Env: lgf_901_qa
Ctrl-L: Apply Lock
Ctrl-P: Label Printer
Ctrl-X: Exit App
Ctrl-W: Previous screen
```
Ctrl P on Shipment Screen

```
Oracle WMS QA3PLEST/QAMASTER
      Receiving
Shipment: SHMSTRG00001020
LPN: IBLPN0711_01
SKU: █_____
Qty: _____




Env: lgf_901_qa
Ctrl-L: Apply Lock
Ctrl-P: Label Printer
Ctrl-E: End LPN
Ctrl-X: Exit App
Ctrl-W: Previous screen
```
Ctrl P on SKU Scan Screen

2. When you press the **Ctrl-P** key, you are presented with a screen that displays the default printer (if configured) for the user. Depending on the configuration of the "print-labels" screen parameter, there will be prompts for LPN, Case, Pack, LPN and Case, AND LPN and Pack as illustrated by the following figures:

```
Oracle WMS QA3PLEST/QAMASTER

  Default Label Printer:
  lgfblrqa

  LPN Label Printer:

  _____




  Env: lgf_901_qa
  Ctrl-X: Exit App
  Ctrl-W: Previous screen
```
"print-label" = **Inbound LPN Label**

```
Oracle WMS QA3PLEST/QAMASTER

  Default Label Printer:
  lgfblrqa

  Case Label Printer:

  █_____




  Env: lgf_901_qa
  Ctrl-X: Exit App
  Ctrl-W: Previous screen
```
"print-label" = **UOM Case Label**

```
Oracle WMS QA3PLEST/QAMASTER

  Default Label Printer:
  lgfblrqa

  Pack Label Printer:

  █_____




  Env: lgf_901_qa
  Ctrl-X: Exit App
  Ctrl-W: Previous screen
```
"print-label" = **Inbound Pack Label**

```
Oracle WMS QA3PLEST/QAMASTER

  Default Label Printer:
  lgfblrqa

  LPN Label Printer:

  █_____

  Case Label Printer:

  _____


  Env: lgf_901_qa
  Ctrl-X: Exit App
  Ctrl-W: Previous screen
```
"print-label" = **LPN Label and UOM Case Label**

```
Oracle WMS QA3PLEST/QAMASTER

  Default Label Printer:
  lgfblrqa

  LPN Label Printer:
  ▉_____

  Pack Label Printer:
  _____



  Env: lgf_901_qa
  Ctrl-X: Exit App
  Ctrl-W: Previous screen
```

"print-label" = **LPN Label and UOM Pack Label**

3. After you enter a printer on the Label Printer prompt, the system remembers to print on this printer until you exit out of the receiving option. You can press **Ctrl-P** again to see the selected printer at the Printer prompt. You also have the option to select a different printer on this screen.

```
Oracle WMS QA3PLEST/QAMASTER

  Default Label Printer:
  lgfblrqa

  LPN Label Printer:
  lgf_Zeb
  ▉_____



  Env: lgf_901_qa
  Ctrl-X: Exit App
  Ctrl-W: Previous screen
```

Figure 115: Select Printer

4. If printer is not selected in any of the above scenarios, the default printer will be used to print labels. If a default printer has not been configured, then labels will not be printed.

Printing LPN Labels

When you configure the screen parameter "print-labels" as **Inbound LPN Label**, depending on different screen parameters, labels will be printed as described below:

> ➢ In general, an LPN Label is printed after each LPN is received.
> ➢ If the screen parameter "pallet-handling" is configured as **Palletize after receipt**, an LPN label is printed after each LPN is received on the pallet.
> ➢ If the screen parameter "pallet-handling" is configured as **LPN or Pallet receiving** and if a pallet is received, then LPN labels are printed for all LPNs on the pallet after successful receipt of the pallet.
> ➢ If the screen parameter "pallet-handling" is configured as **Palletize Upfront**, and if the pallet has more than one LPN, then LPN label is printed after each LPN is received on the pallet.
> ➢ If the receiving option is configured to cross dock, an LPN label is printed as soon as the LPN is marked as received (LPN Status changes to received).
> ➢ If the screen parameter "prompt-location" is configured as **Prompt if not known**, then the LPN Label is printed before the location is prompted.
> ➢ If the screen parameter "lpn-prompt" is configured as **Auto Generate**, then an LPN Label is printed after each LPN is received.
> ➢ If the screen parameter "lpn-prompt" is configured as **Auto Generate** and the screen parameter "single sku management" is configured as **assume single sku/restrict multi sku** and "mode" is configured as **by-sku-scan**, since the system creates an LPN after scanning the first SKU, an LPN Label is printed after the LPN is received.
> ➢ Labels will be printed even if the LPN has been marked for QC.

Printing Case/Pack Labels

- When the screen parameter "print-labels" is configured as **UOM Case Label** or **UOM Pack Label**, case/pack labels will be printed after each LPN is received. The number of case/pack labels printed will depend on the number of cases/packs within the LPN.
- When the screen parameter "print-labels" is configured as **LPN Label and UOM Case Label** and the screen parameter "qty-uom" is configured as **Cases**, LPN and case labels will be printed after each LPN is received. The number of case labels printed will depend on the number of cases within the LPN.
- When the screen parameter "print-labels" is configured as **LPN Label and UOM Pack Label** and the screen parameter "qty-uom" is configured as **Packs**, LPN and pack labels will be printed after each LPN is received. The number of pack labels printed will depend on the number of packs within the LPN.
- If the inventory quantity is not the integral multiplier of the Case Qty/Pack Qty, then the number of case/pack labels will be equivalent to the round down value. For example, if inventory qty is 115 and case qty is 10, then 11 case labels will be printed.
- Depending on different screen parameters, labels will be printed as described below:
  > ➢ In general, LPN Label and case/pack labels are printed after each LPN is received.
  > ➢ If the screen parameter "pallet-handling" is configured as **Palletize after receipt**, LPN label case/pack labels are printed after each LPN is received on the pallet.
  > ➢ If the screen parameter "pallet-handling" is configured as **LPN or Pallet receiving** and if a pallet is received, then LPN and case/pack labels are printed for all LPNs on the pallet after successful receipt of the pallet.
  > ➢ If the screen parameter "pallet-handling" is configured as **Palletize Upfront**, and if the pallet has more than one LPN, then the LPN and case/pack labels are printed after each LPN is received on the pallet.

- If the screen parameter "prompt-location" is configured as **Prompt if not known**, then LPN and case/pack labels are printed before the location is prompted.
- If the screen parameter "lpn-prompt" is configured as **Auto Generate**, then LPN and case/pack labels are printed after each LPN is received.
- If the screen parameter "lpn-prompt" is configured as **Auto Generate** and the screen parameter "single sku management" is configured as **assume single sku/restrict multi sku** and "mode" is configured as **by-sku-scan**, since the system creates an LPN after scanning the first SKU, LPN and case/pack labels are printed after the LPN is received.
- Labels will be printed even if the LPN is marked for QC.

Label Templates

- LPN labels are printed based on the base label format (Inbound_Container_label). If an Inbound_Container_Label has been customized using label designer and configured through the label template under Label Type "IB Container", then the LPN Label will be printed in the format specified in the template.
- Case labels will be printed based on the base label format (UOM_Case_Label). If a UOM_Case_Label has been customized using label designer and configured through the label template under Label Type "UOM Case Label", then the case label will be printed in the format specified in the template.
- Pack labels will be printed based on the base label format (UOM_Pack_Label). If UOM_Pack_Label has been customized using label designer and configured through label template under Label Type "UOM Pack Label", then the pack label will be printed in the format specified in the template.

Prompt Dock Door

The Dock Door prompt in the receiving modules *Receive by Load* and *Receive by Shipment* is optional and can be configured as required.

Configuration Steps

1. Go to the "Screen Configurations" view.

2. Select the RF receiving module and click **Details** ( ). This will display all the parameters for the selected RF module.

3. Select the parameter "prompt-dock-door". Click **Edit** ( ).

From the "Module parm choice" drop-down, select the desired option.

Module Parameter	prompt-dock-door
Parameter Value	
Module parm choice	
	Prompt
	Do Not Prompt

Figure 116: Edit prompt-dock-door Parameter

You can configure the screen parameter "prompt-dock-door" with one of the following options:

- **Prompt**: Dock door prompt is displayed. You have the option to either scan the dock door or skip it and directly enter the Shipment/Load nbr.
- **Do Not Prompt**: Dock door prompt is not displayed. You are taken to the Shipment/Load prompt directly. The received LPNs remain in received status. However if the Shipment/Load was checked into a dock door before receiving, then the LPNs will be located to the dock door after receiving.

Prompt Trailer

The Trailer prompt in the receiving modules **Receive by Load** and **Receive by Shipment** is optional and can be configured as required.

<u>Configuration Steps</u>

1. Go to the "Screen Configurations" view.

2. Select the RF receiving module and click **Details** (⬓). This will display all the parameters for the selected RF module.

3. Select the parameter "prompt-trailer". Click **Edit** (✏)

From the "Module parm choice" drop-down, select the desired option.

Module Parameter	prompt-trailer	▼
Parameter Value		
Module parm choice		▼
	Prompt	
	Do Not Prompt	

Figure 117: Edit prompt-trailer Parameter

The screen parameter "prompt-trailer" can be configured with one of the following options:

- **Prompt**: Trailer prompt is displayed. You have the option to either scan the trailer or skip it.
  Do Not Prompt: Trailer prompt is not displayed. In this case, even if the screen parameter "validate-trailer-on-load" is configured as **Validate Trailer**, the trailer number will not be validated. However, the trailer nbr associated with the shipment will be copied to the **Received Trailer Number** field of the received LPNs.

Prompt Case/Pack Qty

The receiving modules **Receive by Load** and **Receive by Shipment** allow you to change the standard case/pack quantity of SKUs while receiving.

<u>Configuration Steps</u>

1. Go to the "Screen Configurations" view.

2. Select the RF receiving module and click **Details** (⬓). This will display all the parameters for the selected RF module.

3. Select the parameter "confirm-uom-qty". Click **Edit** (   ).

From the "Module parm choice" drop-down, select the desired option.

Module Parameter	confirm-uom-qty ▾
Parameter Value	
Module parm choice	▾
	Do Not Prompt
	Prompt per Sku per LPN

Figure 118: Edit confirm-uom-qty Parameter

Screen parameter "confirm-uom-qty" can be configured with one of the following options:

- **Do Not Prompt**: Case/Pack qty field cannot be edited. The **Ctrl Q: Change Case/Pack qty** key is available on the SKU scan screen and can be used to change case/pack qty.
- **Prompt per SKU per LPN**: Case/Pack qty field is editable. By default, the item's standard case/pack qty is displayed which can be changed on this screen. **Ctrl Q** key will not be available on the SKU scan screen.

Screen Flow when confirm-uom-qty is Configured as Do Not Prompt

1. When the screen parameter "qty-uom" is configured as **Cases** or **Packs** and the screen parameter "confirm-uom-qty" is configured as **Do Not Prompt**, the Ctrl Q key is displayed on SKU scan screen.

```
Oracle WMS QA3PLEST/QAMASTER
     Receiving
Shipment: SHG100001283
LPN: IBLPN0716_1
SKU: _____
Case Qty:
Qty: (cs=1) _____




Env: lgf_901_qa
Ctrl-L: Apply Lock
Ctrl-Q: Change Case/Pack Qty
Ctrl-E: End LPN
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 119: Ctrl-Q: Change Case/Pack Qty

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2. This key is functional only after a SKU is scanned on the screen. After a SKU is scanned and Ctrl Q is invoked, a pop is displayed on the screen. This pop-up shows the current std case/pack qty of the scanned SKU as configured in item master. The pop up also has the option to change the std case/pack qty of the SKU.

```
Oracle WMS QA3PLEST/QAMASTER

S Std Case Qty:5
L
S
Case Qty: 5
Qty: (cs=1) _____



Env: lgf_901_qa
Ctrl-L: Apply Lock
Ctrl-Q: Change Case/Pack Qty
Ctrl-E: End LPN
Ctrl-X: Exit App
Ctrl-W: Previous screen
```
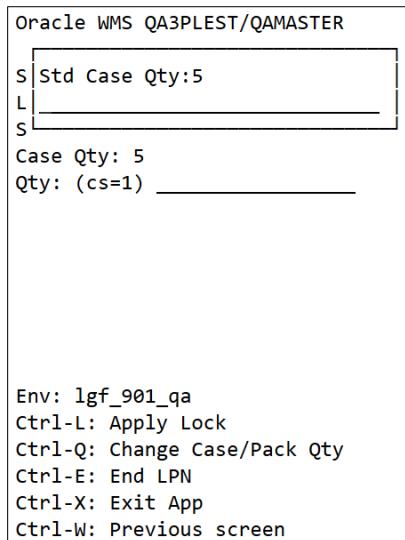
Figure 120: Update Std Case/Pack Qty

3. If the std case/pack qty is changed on the pop-up, the new value is displayed as the case/pack qty on the SKU scan screen.

```
Oracle WMS QA3PLEST/QAMASTER
     Receiving
Shipment: SHG100001283
LPN: IBLPN0716_1
SKU: G1NORITM111_____
Case Qty: 6
Qty: (cs=1) _____



Env: lgf_901_qa
Ctrl-L: Apply Lock
Ctrl-Q: Change Case/Pack Qty
Ctrl-E: End LPN
Ctrl-X: Exit App
Ctrl-W: Previous screen
```
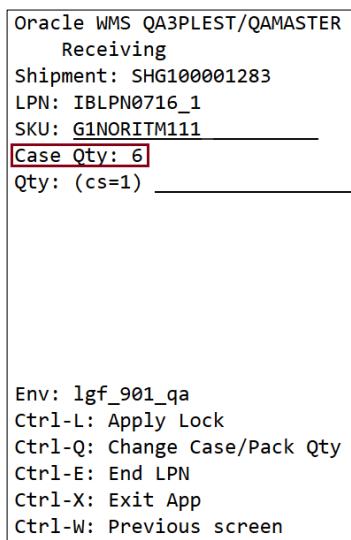
Figure 121: Updated Case Qty

a. The new std case/pack qty will be applicable for the SKU in the LPN and subsequent LPNs throughout the receiving session until you exit from the receiving module.
b. During the same session, you have the option to change the case/pack qty for the same SKU in a different LPN.

c. You cannot change the case/pack qty of a SKU in the same LPN twice. If you attempt to change it a second time, the message "SKU already scanned with case/pack qty X is displayed."

```
┌──────────────────┐
│Sku already scanned │
│with case qty 6 in t│
│he LPN              │
│                    │
└──────────────────┘
```

Figure 122: Sku already scanned Message

d. If you receive the first SKU without using Ctrl-Q, then the std case/pack qty from item master is used and will be applicable for the SKU in the LPN and subsequent LPNs. In general, once a std/pack qty has been used for a SKU in an LPN, it cannot be changed in the same LPN.

Note:
- If the std case/pack qty is changed on the receiving SKU scan screen, it does not reflect back on item master.
- Ctrl-Q is not displayed in the SKU scan mode.

Screen Flow when confirm-uom-qty is Configured as Prompt per Sku per LPN

1. When the screen parameter "qty-uom" is configured as **Cases** or **Packs** and the screen parameter "confirm-uom-qty" is configured as **Prompt per Sku per LPN**, the case/pack qty is editable on the SKU scan screen.

```
Oracle WMS QA3PLEST/QAMASTER
    Receiving
Shipment: SHG100001283
LPN: IBLPN0716_3
SKU: G1NORITM111_____
Case Qty: 5_____
Qty: (cs=1) _____




Env: lgf_901_qa
Ctrl-L: Apply Lock
Ctrl-E: End LPN
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 123: Populated Case Qty Field

2. After scanning the SKU, the case/pack qty field is populated with std case/pack qty from item master. If you change the case/pack qty, the new value is retained for the SKU for the LPN. You will not be allowed to change the std case/pack qty of the SKU for the same LPN.

3. If you scan a SKU that has std case/pack qty configured as 0 in item master, you will be allowed to change the case/pack qty with a value greater than 0.

4. You are allowed to change the case/pack qty even in SKU scan mode. If you change the case/pack qty, the new value is retained for the SKU for the LPN. You will not be allowed to change the std case/pack qty of the SKU for the same LPN.

5. If the SKU is batch/expiry/attribute tracked, then you will be able to edit the case/pack qty after capturing all the inventory attributes.

Exceptions – Receiving with Lock Codes

Users can also choose to apply lock codes to LPNs during receiving (ex. LPN is damaged).

Adding Lock Codes to LPNs in the RF

1. Enter the receiving RF module.
2. Press Ctrl-L to apply a lock code to the LPN **that you are about to receive** (any subsequent LPNs will not be affected). The RF will prompt for a lock code that populates a lock code that is configured for the parent company.

```
Dock: D9
Shipment: SHTHK00001091
Trailer: _____
Shpmt Type: DOMESTIC
LPN: _____


Env:
Ctrl-L: Apply Lock
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 124: Ctrl-L: Apply Lock

Caveats:

1. Make sure that the applied lock code is configured in the parent company.
2. For cross-dock flows, make sure that the lock code has the "Allocatable" flag set to YES.

If an ASN has Pallet information, the system associates this information with the IBLPN, and there is a record on the Pallet UI and Pallet History.

If the ASN or PO has inventory attributes, this information is passed over to the LPNs received via Receive Entire Shipment.

PO Based Receiving

You may want the option to receive inventory against Purchase Orders (POs) without the need of an ASN.

The option 'PO receiving' allows you to do this. You can enable PO receiving from the mode parameter in the **RF Receive IB Shipment** screen.

Figure 125: PO Receiving Parameter Choice

When the 'PO receiving' option is enabled, the transaction prompts you to scan a PO Number to initiate receiving.

Figure 126: PO Number Prompt

Once you scan the PO Number:

- If the PO is linked to multiple Inbound Shipments, the screen will provide an error message and will not allow you to proceed with receiving.


```
Oracle WMS QATST01/QATSTPC

 ┌─────────────────────┐
 │Cannot receive PO li │
 │nked to Multiple ASN │
P│ s█                  │─────
S└─────────────────────┘
Shpmt Type:
Plt/LPN:_____



Env: lgf_100_ora
Ctrl-L: Apply Lock
Ctrl-X: Exit App
Ctrl-W: Previous screen
```
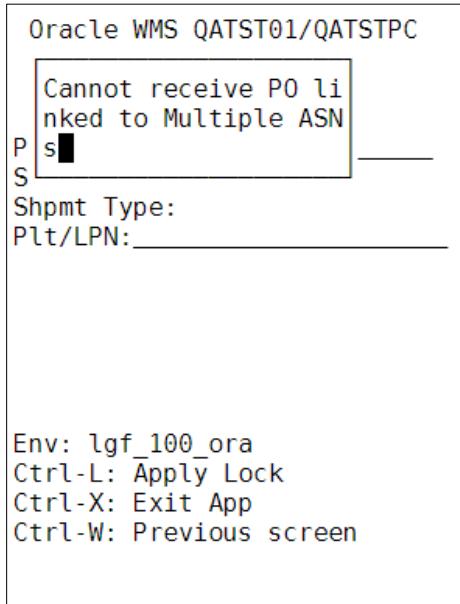
Figure 127: PO Error Message

- If the PO is linked to an unverified Inbound Shipment, you can receive against the inventory in that Inbound Shipment, which is equal to the PO's inventory.
- If the PO is not linked to an Inbound Shipment, the system auto-generates an Inbound Shipment in the background for the whole PO and allows you to receive. You should enable the 'Create ASN for PO Interface' flag should for the corresponding vendor.


```
Oracle WMS QATST01/QATSTPC
      Receiving
PO Nbr: JPPOTST2
Shipment: IBSHP4400
LPN: IBSHP4400
SKU: _____
Qty: _____
```

Figure 128: Auto-Generated Inbound Shipment

- If the PO is linked to a verified Inbound Shipment, the application auto-generates an Inbound Shipment for the quantity pending to be received. You should enable the 'Create ASN for PO Interface' flag for the corresponding vendor.

Additionally, you can make appointments for specific PO Numbers so that you can check a PO Number into a Dock.

- When the Dock location is scanned during receiving with "mode" set to 'PO receiving' the system will auto-populate the PO Number.

Stop receiving against a Purchase Order Line

You have the option to prevent inventory from being received into a warehouse. You can prevent receiving by stopping receiving inventory against a given Purchase Order detail line. For example, a PO may have an item that has been recalled by the manufacturer. Rather than expending labor to receive and process the PO, you may prefer to not receive this item at all. The stop_recv_flg (in purchase order detail) allows you to prevent receiving inventory if the flag is set to yes. You can change this value on the purchase order detail using the Entity Update API. For more details about this API please refer to the Integration API documentation. Once you update this field using the API, you will be able to see that this field is set to yes on the Purchase Order Detail UI.
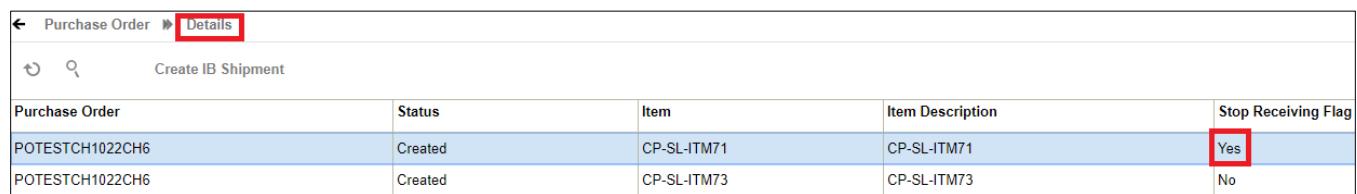
Purchase Order	Status	Item	Item Description	Stop Receiving Flag
POTESTCH1022CH6	Created	CP-SL-ITM71	CP-SL-ITM71	Yes
POTESTCH1022CH6	Created	CP-SL-ITM73	CP-SL-ITM73	No

Figure 129: Stop Receiving Flag

- The Purchase Order UI screen now shows the new field. You can search for it, but you cannot edit this field.
- You will not be able to create a shipment from the Purchase Order UI Screen if the shipment is linked to a Purchase Order detail with stop_recv_flg = Y.

In the Inbound Shipment UI, you will be able to see if there is a detail that is linked to a PO detail that has the PO Stop Receiving Flag set to Yes.

Inbound Shipment	PO Stop Receiv	Facility Code	facility_name	Company Code	Priority Date	PO Nbr	Item Code	Is Parent
ASN10024	Yes	NJ_DC	Natalia J DC	NJ_COMP		PO0006	BB	false

Figure 130: Inbound Shipment Detail

If you try to receive inventory that is linked to a Purchase Order detail that has the Stop Receiving Flag set to Yes, you will get the following error:

```
    Oracle WMS NJ_DC/NJ_COMP

S │ Linked to PO PO0006
L │ (seq - 1) which is b│
S │ locked from receivin│___
Q │ g█                   │_____



    Env: lgf_901_qa
    Ctrl-L: Apply Lock
    Ctrl-E: End LPN
    Ctrl-X: Exit App
    Ctrl-W: Previous screen
```
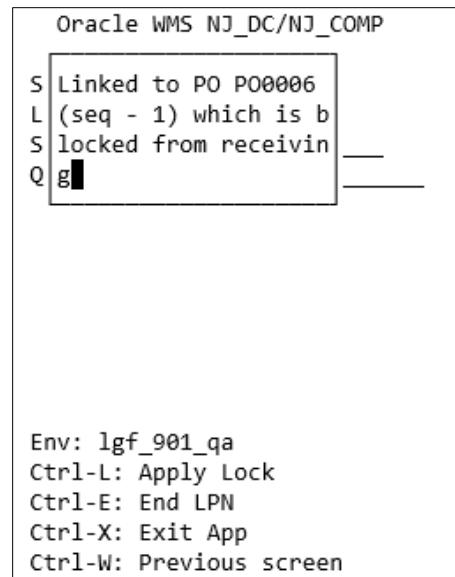
Figure 131: Linked to PO error

This error is enabled for cartonized, non-cartonized shipments, and pallets that contain items or LPNs linked to the marked Purchase Order detail line.

Receiving ASNs without the RF

Oracle WMS Cloud provides the ability to receive an entire ASN without the use of the RF gun.

Pre-Condition: In order for this to work, the ASN must be fully cartonized (i.e. have all the LPN information provided in the ASN).

1. Go to the "Inbound Shipments" screen, select the ASN and click "Receive Entire Shipment".

Note: Ensure the ASN is cartonized prior to receiving the entire ASN.
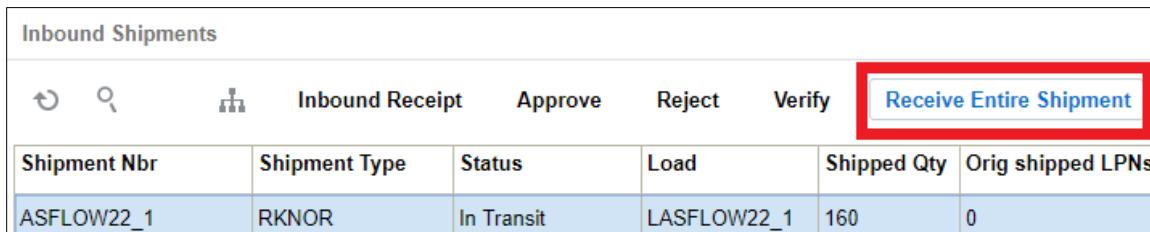
Inbound Shipments						
↺ 🔍	�️	Inbound Receipt	Approve	Reject	Verify	**Receive Entire Shipment**
Shipment Nbr	**Shipment Type**	**Status**	**Load**		**Shipped Qty**	**Orig shipped LPNs**
ASFLOW22_1	RKNOR	In Transit	LASFLOW22_1		160	0

Figure 132: Using the "Receive Entire Shipment" button

2. Oracle WMS Cloud will display a confirmation message. Click "Yes".
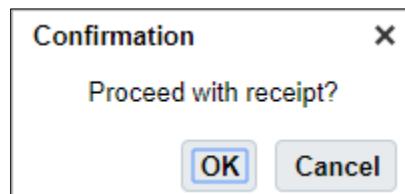
Figure 133: Receiving an ASN without the RF

3. The ASN will be received based on the IB LPNs that are associated with the ASN.

Note: If the ASN is checked-in prior to receiving, all IB LPNs are allocated to the associated location once receiving is complete. If the ASN has not been checked-in, Oracle WMS Cloud will not assign a location to the IB LPNs.

If the ASN has Pallet information, the system associates this information to the IBLPN, and there will be an associated record on the Pallet UI, and Pallet History.

If the ASN or PO has inventory attributes, this information is passed over to the LPNs received via Receive Entire Shipment.

Receive Entire Shipment

The Receive Entire Shipment button does the following validations:

- *If a sku requires a batch and the shipment detail does not have a batch, that lpn will not be received.*

- *If a sku requires an expiry and the shipment detail does not have an expiry, that lpn will not be received.*

- *If a sku requires serial numbers and there are no serial numbers, the lpn will not be received (and even if there are serial numbers, if the item required serial number is set up to: Required, validate, and allow user to override, then the LPN can not be received.*

If you want the system to skip those validations, you can set facility parameter SKIP_VALIDATION_FOR_RECV_ENTIRE_SHIPMENT to Yes.

If the ASN has Pallet information, the system associates this information to the IBLPN, and there will be an associated record on the Pallet UI, and Pallet History.

If the ASN or PO has inventory attributes, this information is passed over to the LPNs received via Receive Entire Shipment.

Receiving Options

System-directed Quality Control (QC)

Oracle WMS Cloud has the ability to flag SKUs during the receiving process for a quality control check. Items are flagged for QC based on the vendor that sent the PO and ASN.

> **Note**: The quality control process requires the use of a Purchase Order.

Configuration

1. Make sure there are Vendors configured in the system. To do this, go to the "Vendors" screen.
2. From the "Screen Configuration" screen, search "Vendor Performance" in the module field to add the "Vendor QC" screen (called "Vendor Performance" in Oracle WMS Cloud):
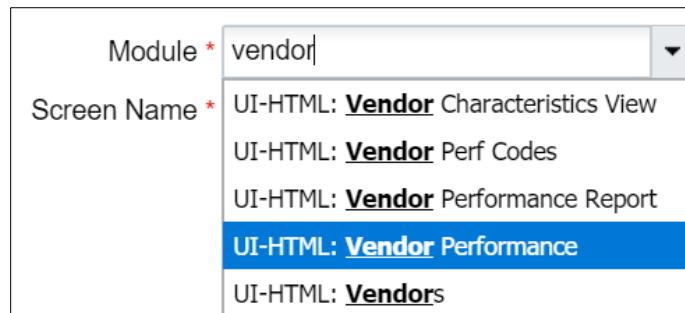
Figure 134: Vendor Performance

3. Add this screen to the appropriate Menu.
4. Go to the "Vendor QC" screen.
5. For each Vendor that requires QC validations, create a new record by clicking the Create button (+).
6. For each Vendor QC record, populate the following fields:

Figure 135: Adding a new Vendor for QC

    a. Vendor: Populate the Vendor that will be used for QC. Use the magnifying glass to display a list of Vendors currently in the system.

    b. QC Qty Per Load SKU: Enter a value that will be checked for QC.

    c. Count or percentage: Enter a "U" for count and "P" for percentage.

    d. Service Level Percentage: Also known as 'Reception Percent Level', this parameter is used for advanced LPN distribution to ensure the inventory is evenly distributed to multiple stores.

    e. Column_Name_1: Users will be presented with the following columns for configuring additional filter criteria:

- Shipment.Shipment Type
- Item.Putaway Type
- Item Facility.Putaway Type
- Item.Group Code
- Vendor.Custom_Field_1 to 5

    f. Column_value_1: Comparison value for the selected column in column_name_1. If no value is provided, the system will search for the corresponding column_name_1 with value =blank

    g. Column_Name_2: Users will be presented with the following columns for configuring additional filter criteria:

- Shipment.Shipment Type
- Item.Putaway Type
- Item Facility.Putaway Type
- Item.Group Code
- Vendor.Custom_Field_1 to 5

    h. Column_value_2: Comparison value for the selected column in column_name_1. If no value is provided, the system will search for the corresponding column_name_1 with value =blank

7. Click 'Save'.

If you want to configure all of the inventory from a vendor to be marked for QC, then it should only configure the vendor, QC Qty Per Load SKU, and count or percentage fields. If you would like to be more specific on the inventory selected to be marked for QC, then from the Vendor QC UI, you can

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configure fields Column_Name 1 and 2 with the available values. This allows you more flexibility for the inventory sent to QC, as you could have the following set up:

- If we receive inventory from Vendor-1 for an item with Putaway type "ABC", then we would like to divert 30% of Received Inventory to the QC area.
- If we receive inventory from Vendor-1 for item with Putaway type "XYZ", then we would like to divert 75% of Received Inventory to the QC area.

8. Configure the RF modules that will be used in QC. First, enable the receiving RF module to recognize LPNs for QC.
   a. From the 'Screen Configuration' screen, select an RF receiving module that will capture QC and click on Details (⊞).
   b. If you have a Quality Control location, set the Module Parameter 'qc_handling_mode' to 'Mark for QC prompt QC locn'. If you do not have a Quality Control location, select the parameter and click the 'Edit' button in order to update this parameter.

Figure 136: Enabling the QC check in the Receiving RF module

   c. Click "Save".

9. The **Mark LPN for QC** transaction allows you to randomly select LPNs from a shipment to be marked for quality control. You can use **Mark LPN for QC** for cartonized shipments, and users/supervisors can select the LPNs that they would like to designate for QC.

```
Oracle WMS NJ_DC/NJ_COMP
      Mark LPN for QC


LPN: █_____




Env: lgf_901_qa
Ctrl-S: Mark For QC By SKU
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 137: Mark LPN for QC

If you need to do quality control for all of the inventory for a specific SKU, select the hot key Ctrl-S. Ctrl-S will mark the shipment detail for quality control. Once you select Ctrl-S, the **Mark SKU for QC** screen displays:

```
Oracle WMS NJ_DC/NJ_COMP
      Mark SKU for QC

Shipment: _____
SKU: _____






Env: lgf_901_qa
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 138: Mark SKU for QC

The **Mark SKU for QC** transaction does not support scanning an LPN which has already been received. If the LPN has already been marked for QC, the LPN is part of a shipment, and the status is Verified, the error "Scanned LPN is not valid for QC" displays.

If the LPN meets the criteria, the system displays the message "LPN% marked for QC". The marked for qc flag on the inbound shipment detail for the corresponding LPN will be set to yes. LPNs or inventory designated for QC will be marked "Yes" on the marked for qc flag in the Inbound Shipment detail.

Note: the above settings and criteria apply as long as the receiving Screen parameter "Mode" is not Set to *Pre-Receiving.*

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If any of the detail for the Received LPN part of a Cartonized or non-cartonized Shipment has the *Marked for QC Flag* set to "yes", then the LPNs will be marked for QC without even considering the Vendor QC Configuration.

10. You can use the **Verification Questions UI** to set up Verification questions to use during RF QC Complete.

Figure 139: Verification Questions UI

Field Descriptions

Verification Name - what you want to call your verification questions.
Verification Type – allows you to verify total count, standard case, standard pack, or user-defined verification question.
Answer Input Type - allows you to set the answer input type. The Answer Input Type options include the following:

- o Yes/NO
- o Text
- o Date
- o Decimal
- o Integer
- o Yes

Verification Valid From - can be for Item or LPN
Valid Value – allows you to specify valid value.
Min Value - allows you to specify minimum value.
Max Value – allows you to specify maximum value.

11. The verification question must be assigned to a vendor in order for the right questions to be asked during QC confirmation.

Next, go to the Verification Question Configuration UI and click **Create** to set up the Verification Question Configuration.

Figure 140: Verification Question Configuration

You can associate questions to the following items:

- Facility Type
- Vendor Type
- Verification Name
- Shipment Type
- Sequence Number

Questions will be displayed in the sequence set up in this screen.

12. Configure the RF module for processing the LPNs for QC.
    a. Go to the 'Screen Configuration' screen.

    b. Add a new RF screen with the Create button (➕).

Figure 141: QC Complete

    c. Add this new RF screen to the appropriate Menu.

Description of Parameters:

Parameters	Description
qty-entry-mode	None/Sku-Qty/Sku-Scan
qty-uom	None/Units/Packs/Cases
distribute-lpn-transaction	Valid Transaction name to call distribute LPN when QC passes or the LPN is accepted
prompt-vendorperf-code	None/No/Yes

13. Create locations of type "Quality Check". When an LPN is flagged for QC, it must be sent to a Quality Check location for processing.
   a. Go to the "Locations" screen.
   b. Add a new location by clicking the Create button ( ).
   c. Populate the necessary fields. Make sure that the "Type" is set to "QC".
   d. Click "Save".

Receiving/QC Process:

1. During receiving, if the user receives an ASN from a Vendor that was flagged for QC, the LPN will be marked for QC. This is system driven, so the user will receive a message in the RF. Press Ctrl-A to proceed:

```
-----------------------
|LPN marked for QC     |
-----------------------
```

Figure 142: Receiving with a QC Vendor

2. The RF will prompt the user to locate this LPN to a QC location. Move this LPN to a QC location and scan its location barcode.

```
-----------------------
|QC Location:          |
|_____ |
-----------------------
```
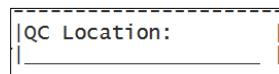
Figure 143: QC Location

You can configure RF receiving screens to prompt or not prompt for the QC location. You can do this by configuring the screen parameter **qc-handling-mode** in the receiving transaction.

Note: If the screen parameter on the Receiving "mode" is set to "pre-receiving", the system always pushes the received inventory to QC Area irrespective of the configuration.

3. At that point, the LPN will be updated to status "Quality Check" in the "IBLPN" screen:
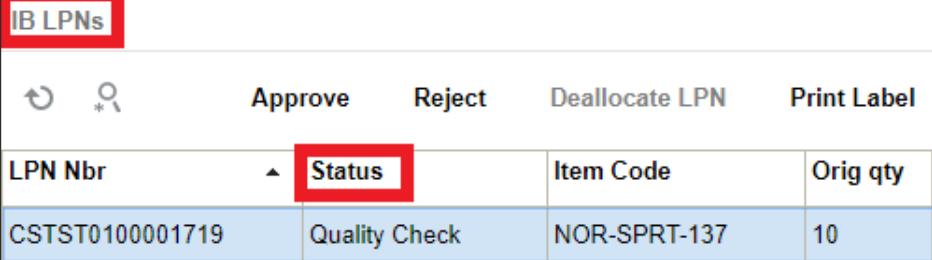
Figure 144: LPN in "Quality Check" status.

*__Note__ that this will NOT add inventory to the warehouse until the LPN has been approved.

The IHT 72-Container Received Subject to QC is written when the received LPN gets marked for QC.

Approving/Rejecting LPNs:

The LPN can be approved or rejected after it is received. If approved, the LPN's status will change to "Located" and its contents are added to the facility's inventory.

- Approving an LPN will update its status to "Received" and clear its current location.
- Rejecting an LPN will update it to status "Cancelled".

Processing LPNs from the RF:

1. Enter the "Process QC" RF module.
2. Scan the LPN that will be processed for QC.
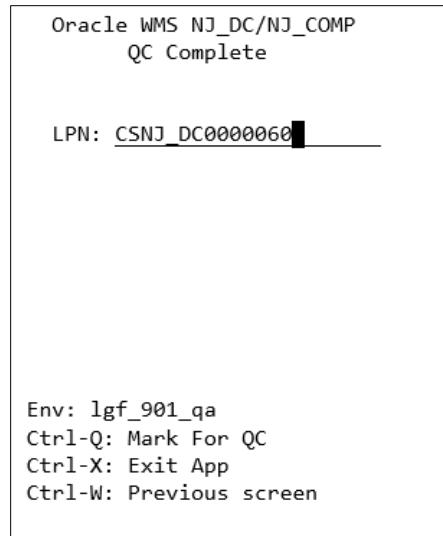
Figure 145: LPN to be processed for QC

User can make use of the control options to approve or reject LPNs.

3. Press **Ctrl-P** to mark the LPN to be ready for QC:

```
  Oracle WMS NJ_DC/NJ_COMP
  LPN Number:CSNJ_DC0000060
1) Is QTY correct




Option:█_____




Env: lgf_901_qa
Ctrl-U: Page Up
Ctrl-D: Page Down
Ctrl-P: Accept LPN
Ctrl-R: Reject LPN
Ctrl-L: Item Info
Ctrl-X: Exit App
Ctrl-W: Previous screen
```
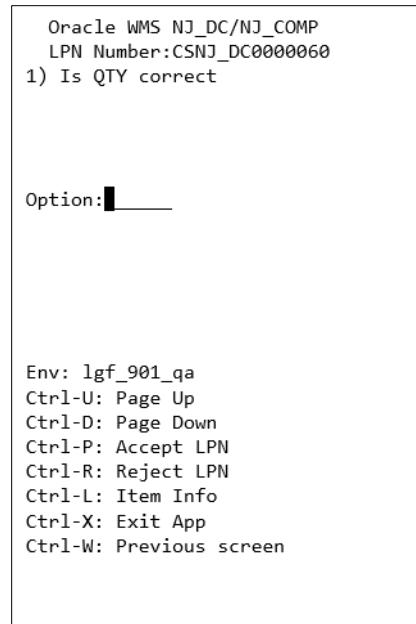
Figure 146: Approve/Reject LPN

You can answer all of the questions set up in the verification question view, and also use the control options to approve or reject LPNs.

4. Press Ctrl-P to approve and Ctrl-R to reject.
   a. If the user enters Ctrl-R to REJECT, the RF will display a confirmation message. Press Ctrl-A to proceed.
   b. If the user enters Ctrl-P to APPROVE, the RF will display a confirmation message. Press Ctrl-A to proceed.

Processing LPNs from the UI:

1. From the Inbound Shipments screen, select the ASN with QC LPNs.
2. Clicki either "Approve" or "Reject." This will affect ALL QC LPNs in the shipment.

Figure 147: Select Approve or Reject

3. From the IBLPN screen, select the IBLPN that is in "Quality Check" status.
4. Click either "Approve" or "Reject" to process it.

Figure 148: IBLPN in Quality Check Status

Cross Dock Management

Oracle WMS Cloud has the ability to cross-dock inventory during the receiving process. Oracle WMS Cloud supports two different receiving methods:

1. Receive cross-dock with an existing order.
2. Receive cross-dock with an order automatically created for that LPN.

The diagram below represents a generic cross-dock flow using the Oracle WMS Cloud:
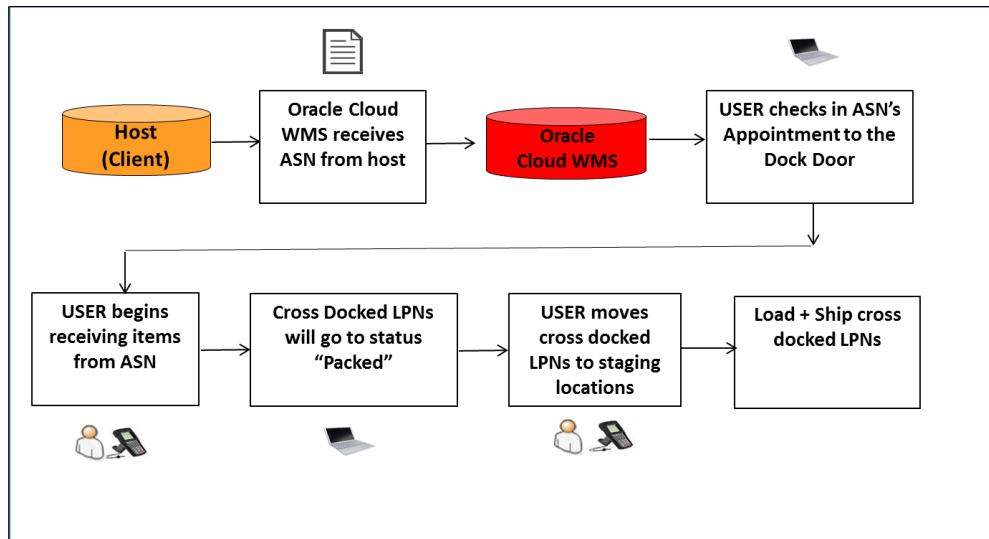
Figure 149: Generic cross-dock process in WMS

Cross-Dock Configuration

To allocate orders for cross-dock, two conditions must be met:

- The order must have the appropriate order type configured;
- The ordered SKU and quantity must exactly match the contents of the LPN being received.
- The ordered SKU detail must have the "Required LPN" field populated with the LPN number for the LPN being received.

Step 1: Create the Cross-Dock Order Type

Order types are used to differentiate between cross-dock and non cross-dock orders.

1. Go to the "Order Type" screen and click the Create button to create a new order type. Make sure that the "Flowthrough" and "Partial allocation" flags are checked.[7]

Figure 150: Creating a cross dock Order Type

2. Click "Save".

Step 2: Adding the RF Screen for Cross-Dock Receiving

The next step is to add a receiving RF module specific to Cross-Dock.

1. Go to "Screen Configuration".
2. Click on "Generate Screens" and select one of the following:
    a. "RF-Text: Recv {lpn} Load" if receiving via Loads.
    b. "RF-Text: Recv {lpn} Shipment" if receiving via ASNs.
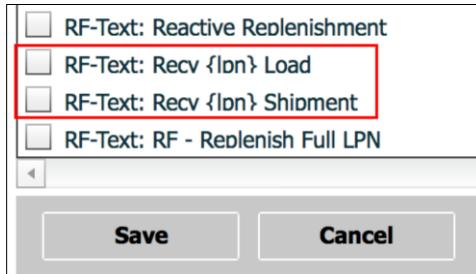
Figure 151: Selecting the receiving RF modules

3. Press "Save" when you have finished.
4. Once the RF screens are added, the cross-dock specific functionality must be enabled within its parameters. To access the module's parameters, select the module and click on Details.
5. Within the parameters, select the "xdock-mode" module parameter and click Edit. Select the appropriate cross-dock mode from the drop-down.

---

[7] For more details on the different Order Type flags, refer to section 4.1.1.
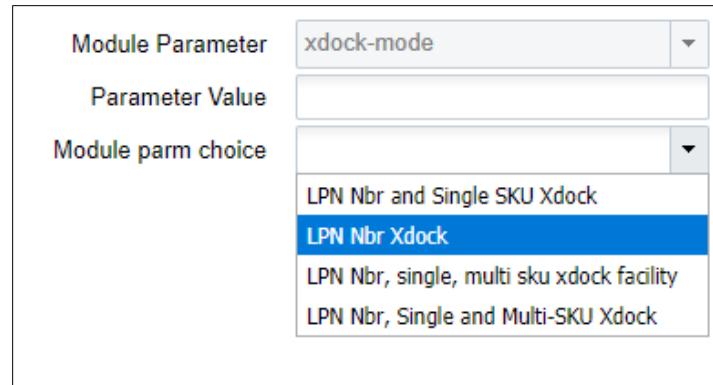
Figure 152: Selecting a Cross Dock Mode

Cross Dock Parameter Description

- **None:** Cross dock functionality is disabled.
- **LPN Nbr, single or multi sku xdock**: Cross dock functionality is enabled for single and multi-SKU LPNs. Cross dock orders do not need to populate the "Required Container Number" in the Order detail record.
- **LPN Nbr Xdock**: Cross dock functionality is enabled for single and multi-SKU LPNs. It will only work if its cross dock orders have the "Required Container Number" populated in the Order detail record. *Auto creation of cross dock orders is not possible with this option.
- **LPN Nbr and single-SKU Xdock**: Cross dock functionality is enabled for single SKU LPNs. Cross dock orders do not need to populate the "Required Container Number" in the Order detail record.

---

6. Click "Save".

Executing Cross-Dock

1. Before the ASN can be received, it must be checked into a dock door.
    a. If you are using appointments, go to the "Appointment" screen, select the appointment, select a dock door from the drop-down, and click "Check In".
    b. If appointments are not used, go to the "Inbound Loads" screen, select the Inbound Load, select an appointment, click "Check In".
    c. Select a dock door from the drop-down, and click "Submit".

Figure 153: Checking in Appointments

2. After the ASN is checked in, you may now receive merchandise with the RF. Go to the "Receive ASN XDock" RF module. Scan the dock door – the Shipment and Trailers, if specified, will auto-populate. If the trailer is not populated, the user must enter the trailer number and press tab to proceed.

```
Dock: D2
Shipment: ASN100202-XD
Trailer: TRL100202
Shpmt Type: XDOCK
LPN: ▌




Env:
Ctrl-L: Apply Lock
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 154: Receiving a Cross-Dock LPN

3. Scan the LPN number.
    a. If the LPN number is specified in the ASN, Oracle WMS Cloud recognizes the LPN's contents and displays a message. Press Ctrl-A to proceed.

```
LPN contents Proceed ?
Shipment Type: XDOCK
PA Type: ELECTRONICS
SKU THK03 Qty: 10
```

Figure 155: Confirming an LPN's contents

    b. If the LPN number is not specified in the ASN (blind receipt), the RF will then prompt the user for the SKU and quantity.

```
Shipment: ASN100204-XD
Trailer: TRL100204
LPN: LPNXD100206
SKU: _____
Qty: _____
```

Figure 156: Entering the LPN contents

Enter the Item Code and quantity. Press Ctrl-E to close the LPN.

4. If everything was done correctly, the RF will display the message "XDock allocation succeeded". Press ctrl-A to proceed.

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Cross-Dock Receiving with Auto-Order Creation

If some information about the to-be-cross-docked LPN is known beforehand, there is an option to receive such shipments without having to manually create an order. This requires the use of the ASN interface with specific fields populated.

Step 1: Configure the Oracle WMS Cloud for cross-dock

To enable automatic creation of cross-dock orders during receipt, two facility parameters must be modified.

1. Go to the "Facility Parameters" screen.
2. Select parameter key "AUTOCREATE_XDOCK_ORDER_TYPE" and click edit. For the value, type in the cross-dock order type code. Click "Save".
3. Select parameter key "AUTOCREATE_XDOCK_SHIPMENT_TYPES" and click edit. For the value, type in the cross-dock shipment type code. Click "Save".
   a. If the shipment type has not been created, go to the "ASN Types" screen and use the Create button to create one.

AUTOCREATE_XDOCK_ORDER_TYPE	XDOCK
AUTOCREATE_XDOCK_SHIPMENT_TYPES	XDOCK

Figure 157: Facility parameters necessary for cross-dock

Step 2: Create the Cross-Dock ASN file

Open the "ISSR" interface file.
Populate the basic ASN information. See example below:

[headings]	shipment_nbr	facility_code	company_code	trailer_nbr	action_code	ref_nbr	shipment_type	load_nbr	vendor_info	origin_info	shipped_date
[H1]	ASN100209-XD	DC_01	SNEPHEW	TRL100209	CREATE	REF	XDOCK		VENDOR	US	20141002
[headings]	seq_nbr	action_code	lpn_nbr	lpn_weight	lpn_volume	item_alternate_code	item_part_a	item_part_b	item_part_e	item_part_f	invn_attr_a
[H2]	1	CREATE	LPNXD100212			THK03					

Figure 158: Creating the ASN interface file for cross-dock

When creating the ASN file for cross-dock, three fields are required in order for this process to work:

1. shipment_type (column H): the ASN type for cross-dock shipments.
2. lpn_nbr (column D): the LPN number for the cross-docked merchandise. If the LPN number is not known, this method will not work.
3. recv_xdock_facility_code (column AA): the facility (warehouse) that is receiving the ASN. Enter the appropriate facility code.

   Once the ISSR file is complete, upload it to Oracle WMS Cloud. From the "Input Interfaces" screen, select the "Inbound Shipment" from the drop-down.

4. Click "Upload Files", select the ISSR file, and click OK.
5. Click "Run Interface" to process the file. If everything was done correctly, Oracle WMS Cloud will display the message "Interface completed".
6. For receiving, receive this ASN like any other cross-dock flow. During RF receipt, the system will automatically create a cross-dock order for the received LPN.

Cancel Orders after Shipment Verification

Oracle WMS Cloud allows you to cancel unallocated order details. You can cancel order details that have the "Required Container" field populated with the Inbound LPNs that were not received. This is controlled in the Shipment Type UI with the "Unallocated order details to cancel on ASN Verify" mode. The "Unallocated order details to cancel on ASN Verify" mode has the following options:

Figure 159: Unallocated order details to cancel on ASN verify

- **With Matching Container and Shipment:** When a shipment is verified, the application cancels unallocated order details that have the "Required Container" field populated with the Inbound LPNs that were not received, provided that the 'Shipment Number' order detail field is also populated.
- **With Matching Container Only:** When a shipment is verified, the application cancels unallocated order details that have the 'Required Container' field populated with the Inbound LPNs that were not received, regardless of whether the 'Shipment Number' order detail field is populated or not. This is useful for customers dealing with cross-dock orders that do not have the 'Shipment Number' order detail field populated.
- **Do Not Cancel:** No unallocated order details are cancelled.

Modify Receiving quantity from IB Shipment UI

There are instances where you may need to modify the quantity of an IBLPN. For example, you may want to modify the quantity of a received IBLPN that is part of an inbound shipment that has not been completed. To do this, you can go to the "Nbr LPNs" (hyperlinked UI that is accessed from the IB Shipment UI).

Figure 160: Nbr LPNs

The "Modify Qty" allows you to change the 'Current Qty' of a particular inventory record withing an IBLPN. When you click "Modify Qty", a pop-up displays with the 'Current Qty' of the selected inventory within the LPN and a 'Reason Code' drop-down field. The 'Reason Code' drop-down displays all the reason codes that are created for the corresponding company and parent company (if applicable).

Figure 161: Modify Qty

New Email Alert to Inform Inbound Shipments that need Verification

You can configure a scheduled job to send email alerts to remind users that they need to verify Inbound Shipments. This scheduled job is configurable in the Scheduled Job UI. The email will include information about the Inbound Shipments (ASNs) that have not been verified for an X period of time, where X is a configurable parameter at the scheduled job level. You can also set up the email addresses you want to send the alert to via the Scheduled Job UI.

Figure 162: Generate Verify Shipment Alert

Email alerts must be sent to a valid user with a valid email. The number of days field specifies the number of days that receiving has started for shipments but has not been verified.

Edit UI Screen to Receive Inventory from the UI

From the Inbound Shipments, Perform Detailed Receiving UI, you can enter the Receiving quantity in the **Enter Qty to Receive** field. This allows you to enter the quantity without having to select each record and then perform edit.

Note: the Detailed Receiving Option does not support performing receiving for batch number, expiry date tracked, or inventory attribute tracked items.

Figure 163: Enter Quantity to Receive

Receive Cartonize Details from the ASN Detail Screen

From the Inbound Shipment Detail screen, users can now perform receiving on Cartonized details at LPN level. There is a button called 'Receive LPN' provide which is access controlled and will work with multiple LPNs selected the detail page. Appropriate validations are performed for enabling of the button. Currently it is only restricted to receive at LPN level and not at Pallet level.

The '*Receive LPN'* action button will not be disabled if a shipment detail has the quality check as yes. By default, the newly added screen parameter '*consider-mark-for-qc-flg*' is set to 'No' and the 'Receive Entire shipment' at the IB Shipment header level, will mark the LPN status as 'Received' even if the shipment details has quality check as 'Yes'. Also, receiving an LPN from the '*Receive LPN'* Action button in the IB shipment details screen will mark the LPN status as 'Received'.

- the **'Receive LPN'** Action button will mark the LPN status as 'Quality Check' if the shipment detail has quality check as 'Yes'.

Note: This functionality only works when the IB shipment detail is marked for QC. This functionality only works in the RF.

Detailed Receiving for LPNs in a Fully Cartonized Shipment

There are situations where you may need to enable detailed receiving for remaining LPNs in a shipment after you start receiving a shipment. In this case, you can do detail receiving for LPNs in a fully cartonised shipment. The action buttons "**Select for Dtl Recv**"or "**Deselect from Dtl Recv**" will get enabled in cases where the shipment status is > **In Transit**.

For example, if the vendor has sent LPN01 with 50 units for SKU1 and in reality, the vendor has sent in two different boxes (LPN01- 30 units and LPN02- 20 units), with this functionality, the vendor can still receive the shipment.

1. In the Inbound Shipment Detail, click the "Select for Dtl Recv" button to set Detail Receive Flag to True for all selected LPNs.
2. In the Inbound Shipment Detail, click the "Deselect for Dtl Recv" button to set Detail Receive Flag to False for all selected LPNs.

Figure 164: Select for Dtl Recv Button

ASN Verification

1. Once the ASN is completely received, operators will need to verify the receipt in order to send a verification file back to the host system. In order to send this verification file, perform the following steps:
    a. From the Inbound Shipments screen, select the ASN that requires verification and click 'Verify.'
    b. WM will display a pop-up screen to operations in order to confirm the verification process.
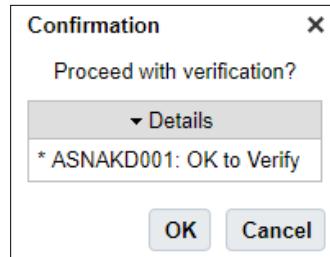
Figure 165: Confirming ASN Verification

    c. Once you select "OK", WMS will verify the ASN, and create an output ASN verification file. If no is selected, WM will not verify the ASN, and the ASN can first be reconciled before the verification process (based on associated business processes.)

Figure 166: ASN Verification Message

d. Oracle WMS Cloud will generate an ASN verification file – if integration is configured, Oracle WMS Cloud will drop the verification file to a shared SFTP directory (typically the 'output' folder).

Checking Out a Load

After you are done receiving your inventory, you should check out your load. You can do this from the Appointment UI or Inbound Load UI. The Check Out button is only available if the load is checked in. You will receive a success message after check out, and the system will clear the location. Once the location is cleared, you can update your trailer to a Yard location via the Trailer UI.
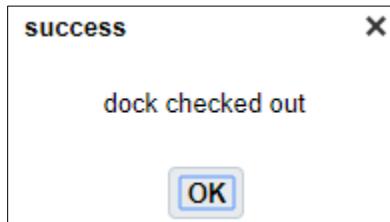
Figure 167: Dock Checked Out Message

Inbound Sorting

UI Configuration

All IB Sorting configurations are made through the *Inbound Sorting* screen.

The Sorting feature is managed by Sort Zones. A Sort Zone is a group of drop locations that use the same sorting criteria. Only one location can be associated to one Sort Zone. However, the same sorting criteria can be used in multiple Sort Zones independently.

To setup Inbound Sorting click create (+) to create a Sort Zone record on the "Inbound Sorting" screen. Enter a name for the Sort Zone and choose the sorting criteria in which the IBLPNs are sorted by.

Figure 168: Creating a Sort Zone

The sorting criteria selections use the destinations calculated for "Directed Putaway" using the putaway type on the LPN and the configured "Putaway Priorities."

Select this newly created Sort Zone record and click on its details via the details button ( ). This will open a new window, which displays the Location, Pallet and Criteria Value (Area, Aisle, Allocation Zone, Location Size-Type):

Sort Zone	Location	Pallet	Criteria Value
1	SORT-1-1-1	PLT_0527_03	WHITE
1	SORT-2-1-1		CLEAR-E4
1	SORT-3-1-1		
1	SORT-4-1-1		
1	SORT-5-1-1		
1	SORT-6-1-1		
1	SORT-7-1-1		
1	SORT-8-1-1		
1	SORT-9-1-1		
1	SORT-10-1-1		

Figure 169: Sort Zone Details

The Location column displays the Sort Locations that are configured for the Sort Zone. In the figure above, there are 10 sort locations configured for Sort Zone 1.

The Pallet column displays the current active pallet per the Sort Location. A pallet is considered 'active' when there is an open pallet with merchandise located at the Sort Location. There are a few points to consider when scanning a pallet to a Sort Location:

1. There may only be one active pallet in a Sort Location at a time. This active pallet is populated in the "Pallet" column.
2. When the pallet is closed (via the Ctrl-E option in the RF), the pallet value will disappear from the Pallet column, but its Criteria Value will remain.
   a. For example, in the figure above, location SORT-2 has no pallets but is assigned to criteria "CLEAR-E4". This means that the next CLEAR-E4 item scanned is directed to this location, but the user will have to scan a new pallet.
3. The Criteria Value is only cleared when all pallets for that criteria (Putaway Type) have been located out of the Sort Location.
   a. Users can search for pallets located in specific Sort Locations via the magnifying glass button

(🔍) in the "IB LPNs" screen:
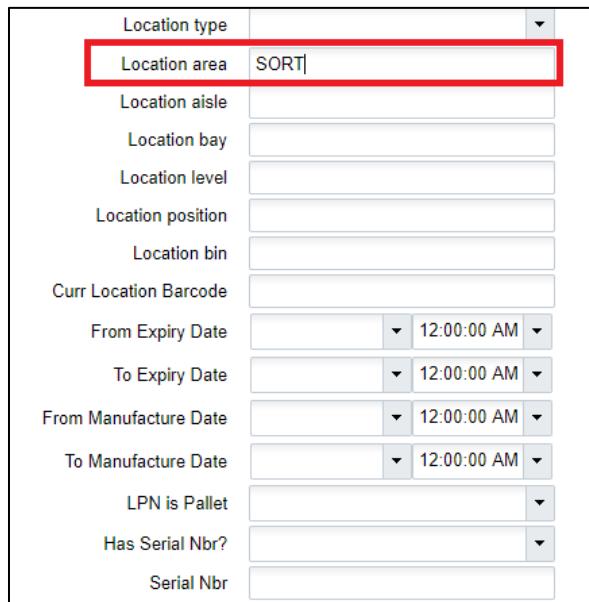
Figure 170: Search for Pallets

4. When an LPN (Serial Number) is scanned into a pallet, it will change to "Allocated" status. Its status will only reset to "Located" when its pallet is closed. This means that a pallet or LPN cannot be moved until its pallet is closed. The user can validate this by searching for the LPN and verifying its status and location via the "IBLPN" screen.

Using the Sorting RF module

These are the steps in using the *Sort to Pallet* RF module:

User enters RF module *Sort to Pallet.*
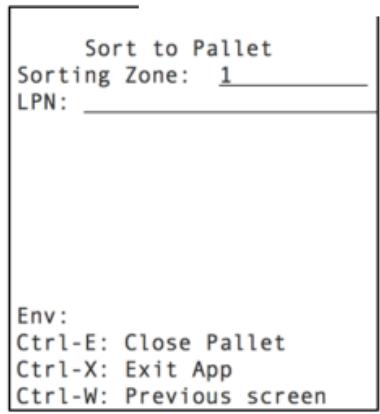
User enters the Sort Zone and scans the Item's Serial Number in the "LPN:" field.

If there are no active pallets with the Item's Putaway Type, the RF will not prompt for a Sort Location. In this case, the user must pick an empty Sort Location and scan a new pallet.

```
LPN: 21323223
Sorting Zone: 1
Sorting Locn: ▌_____
Pallet#:  _____
```

If there is an active pallet with the scanned Item's Putaway Type, the RF will direct the

you to the Sort Location and Pallet Number. Scan the Pallet label to confirm Item movement.

```
LPN: CALPN2-6
Sorting Zone: 1
Go to: SORT-1-1-1
Pallet#: PLT_0527_03
Pallet#: ▌_____
```

Continue sorting into the active pallet until it is complete. When the pallet is complete, you must systematically close the pallet via the *Ctrl-E: Close Pallet* option. When the pallet message is prompted, scan the pallet that will be closed:

```
Sorting Zone:  1_____
LPN: _____

Env: ryder51_uat
Ctrl-E· Close Pallet
```

```
--------------------------------
S|Pallet#:                    |
L|_____ |_
--------------------------------
```

If done correctly, you are taken to the original RF display to continue sorting.

Putaway

Putaway is the process of moving received inventory to stock for storage. Oracle WMS Cloud supports both user and system directed types of Putaway.

System Directed Putaway

System Directed Putaway provides the ability for the system to determine the best location for inventory based on the following five components:

- The location's Max Units capacity
- The location's Max LPNs capacity
- The location's Max Volume capacity
- The location's Putaway Sequence value
- The location's Weight capacity

The putaway logic goes as follows:

1. WMS checks the IBLPN's Putaway Type (PT).
   a. If the IBLPN's PT field is empty, the system will look at the Item's default PT.
2. Look for locations that have a matching Location Size Type (based on the Putaway Type to Location Size Type pairing made in the "Putaway Priorities" screen).
3. Evaluate the location's putaway sequence.
4. Evaluate whether the location has space for the scanned LPN (checks for the location's "Max Units/LPNs/Volume", if specified).

During the putaway process, WMS uses the Putaway Type on the LPN and evaluates it against the Putaway Priority logic to determine the location that is used for putaway. The Putaway Priorities will control the sequence and how WMS determines a location. This sequencing is based on the following:

1. Putaway Type
2. Location Size Type
3. Location Type (Reserve or Active)
4. Putaway Method (Location sequence or Radial sequence)
5. FEFO flag (First Expiry First Out)
6. Putaway search modes:
7. Empty location
   a. Most empty by LPNs
   b. Most empty by volume
   c. Most empty by units
   d. Least empty by LPNs
   e. Least empty by volume
   f. Least empty by units

Creating Putaway Types

Putaway Types **group similar products** based on how they need to be stored as inventory in the warehouse.

> Example: Smartphones and Tablets can have Putaway Type "ELECTRONICS".

1. The first step in setting up system directed putaway is to define the default putaway types.
2. Navigate to the 'Putaway Type' UI screen and click 'Create'
3. Enter the following information for each putaway type:
    a. Putaway Type Code
    b. Description of the Putaway Type
4. Click 'Save'.

Once all putaway types have been created/defined, the putaway types are defined at the item level or ASN level. This is dependent on business requirements and process flows.

If it is determined that the item level will be used, the following steps explain how to add a putaway type to an item.

1. From the "Items" screen, select the item that requires a putaway type defined, and click Edit (✎).
2. Scroll down until the 'Putaway Type' drop-down is visible. Click on the drop-down and select the applicable putaway type.

Figure 171: Assigning a Putaway Type to the Item

3. Once the putaway type has been selected, click the 'Save' button to save the changes made to this item.

   Note: If the item master is interfaced into WMS, the putaway type can be defined ahead of time. The field associated with the putaway type on the interface file is 'putaway_type'.

Creating Location Size Types

Locations in the warehouse are assigned to Location Size Types based on either the size or types of products they store.

For example:

- Location A may be assigned type "BULK" for bulk pallet picking.
- Location B may be assigned type "MEDIA" for exclusively storing media items.

1. Create Location Size Types from the "Location Size Types" screen.
2. Once the sizes are created, assign them to individual locations. Go to the "Locations" screen.
3. Select a location and click "Edit". Scroll down to the "Location Size Type" field and select the desired Location Size Type (from the ones created in step 1).

Putaway Rules

Setting up Putaway Rules is an optional configuration. Rules provide the ability to override the SKU's default Putaway Type based on criteria defined by the user.

1. Go to the "Putaway Type Calc Rule" screen. Click the 'Create' button to add a new putaway rule.
2. Fill out the following information for the new putaway rule:

   a. Priority: This is the priority for how the rules are evaluated.
   b. Description: A description of the putaway rule (e.g. Electronics)
   c. Final Putaway Type: If the rule is applied, this will be the putaway type that is applied to the LPN.
   d. Enabled: This determines if the rule is active or not
   e. Once all applicable information is filled out, click the 'Save' button to save the newly created putaway rule.
3. Once the putaway rule has been created, the selection criteria must be created to define what the rule is searching for. Select the putaway rule and click the 'Selection Criteria' button.

Facility	Company	Priority	Description	Final Putaway Type	Selection Criteria ▲	Enabled
QATST01	QATSTPC	0	KC Putaway Rule	KC-TEST	AND	Yes

Figure 172: Adding Criteria to the Putaway Rule

4. The selection criteria screen allows you to define the criteria in order to apply the putaway type.
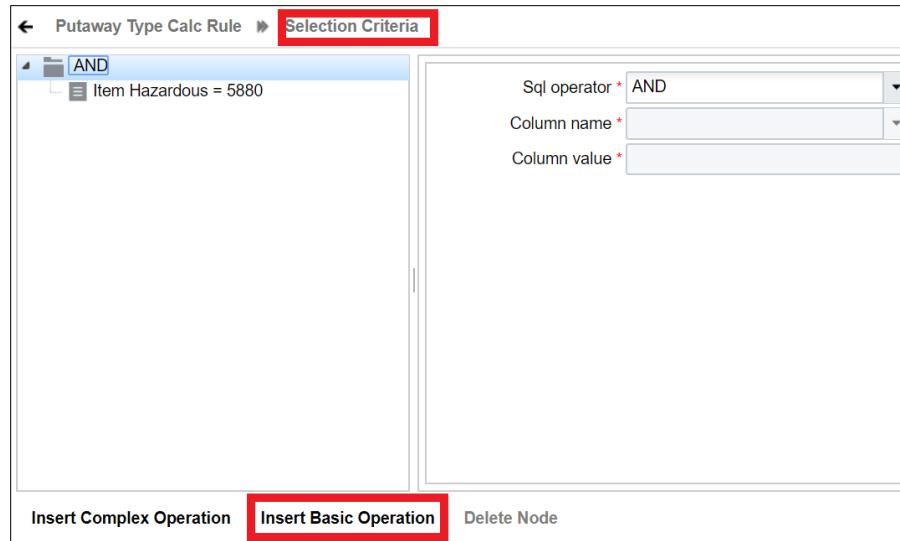
Figure 173: Enable this rule if the Item has the "Hazardous" Flag Checked

5. From the Selection Criteria details, click the 'Insert Basic Operation' button to add a new selection rule.
6. Fill out the following information to create a new selection rule:
   a. Sql operator: And, Or, <, <=, >, >=
   b. Column name: There are multiple Item Master fields to choose from. You will find **Item Hazardous** as an option under the Column Name drop-down.
   c. Column value: This will be the value based on the column name selection.
7. Click "Save".

Putaway Priorities

Putaway Priorities determine the **order** in which Putaway Types are triggered for putaway.

1. Go to the "Putaway Priorities" screen and click "Create".
2. Fill out the following information to create a new Putaway Priority.

Figure 174: Configuring a new Putaway Priority

a. Putaway Type: The putaway type that will be used for the priority.
b. Priority: Determines the order of the putaway priority.
c. Location Type: The Location Type that is used in the logic – Reserve/Active.

d. Location Size Type: The Location Size Type that will pair with the previously selected Putaway Type.

e. Replenishment Zone: Only applies to active locations. This field defines the active location's replenishment zone.

f. Putaway Method: The putaway method used: by Location Sequence or Radial.

g. Radius: If "Radial" is selected for the Putaway Method, this field is required. It defines the radius of locations that will be used during the putaway logic process.

h. Radial Incr: If "Radial" is selected for the Putaway Method, this field is required. It defines the increment radius value in which WMS will look for locations during putaway.

i. Consider FEFO flg: If checked WM will consider the expiration date when determining a location to putaway the inventory.

j. Putaway Search Mode: This defines how WM will determine a location for putaway.

Sample Putaway Priority configuration

Field	Value
Putaway Type *	ELECTRONICS
Priority *	10
Location Type *	Reserve
Location Size Type	ELECTRONICS
Replenishment Zone	(None)
Putaway Method *	Location Sequence
Radius	0
Radial Incr	0
Consider FEFO Flg	☐
Putaway Search Mode	Most Empty by LPNs

The above configuration translates to the following:

When an IBLPN of Putaway Type "ELECTRONICS" is scanned for putaway, WMS will look for all locations that have Location Size Type "ELECTRONICS" to putaway to. Out of these eligible locations, WMS will look for the location with the least amount of LPNs ("Most Empty by LPNs"). At the same time, these locations will ordered based on its "putaway sequence" value. If the locations have a max weight greater than zero, the system will validate the location weight with the IBLPN weight .

---

3. Click "Save" .

System Directed Putaway – No exceptions

The RF – Transaction 'Directed Putaway' will be used to putaway cases/pallets to a storage/picking location. The system will direct the user to a specific putaway location.

1. Select the RF transaction 'Directed Putaway'.
2. Scan the LPN on the label of the pallet or case that needs to be putaway.

```
PB_Directed_Putaway allet

LPN/Pallet:
CSPB00002445
```

Figure 175: Directed Putaway

3. The RF will direct the user to a putaway location.

```
LPN: CSPB00002445
Curr locn:
PA Type:    Z020
PA Desc:    Parts
Dir Locn:   RCKPLT-20-1-3-2
Locn: █_____
```

Figure 176: Putaway Location

4. Go to the location prompted; scan the location barcode, and putaway the LPN.

Directed Putaway – Exception

If a location directed on RF Screen is full or unavailable, a user will be able to override the putaway location by choosing another available location in the same zone.

1. From RF Gun, in RF-Transaction 'Directed Putaway', Scan another available location in the same zone.

```
      Dir Putaway LPN/Pallet

LPN: CALPN300
Curr locn:
PA Type:    Z020
PA Desc:    Parts
Dir Locn:   BIN-B01-37-1-3
Locn: B010320101█_____


Env:
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 177: Available Location

2. RF – Screen will display 'Override Location?'

```
   ----------------------llet
   |Override Dir Locatio|
L |n?                   |
C ----------------------
P
P
Dir Locn:   BIN-B01-37-1-3
Locn: B010320101_____

Ctrl-A: Accept
Ctrl-W: Dot not accept
```

Figure 178: Override Location?

3. Press Ctrl-A to accept overriding the location prompted.

Note: If the location chosen already has inventory, or is reserved for another Item, the RF will advise the user that the location is unavailable. User will press CTRL-A, and scan another available location.
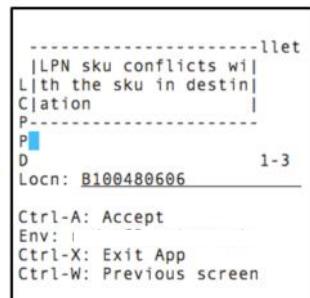
Figure 179: Unavailable Location Message

You can also get a list of alternate locations by entering CTRL-K.


```
 Oracle WMS QATST01/QATSTPC
     Dir Putaway LPN/Pallet
LPN: RKIBLPN04301901
Curr locn:
PA Type:    RKPAMED
PA Desc:    RKPAMED
Dir Locn:   RKMHE-01-01-B-01
Locn: [ ]_____




Env: lgf_100_ora
Ctrl-K: Use Alternate Location
Ctrl-X: Exit App
Ctrl-W: Previous screen
```
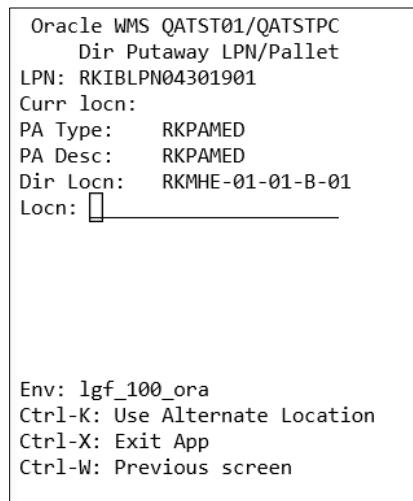
Figure 180: Alternate Locations

Once you enter CTRL-K, the system will show the next location based on putaway method priority.


```
 Oracle WMS QATST01/QATSTPC
     Dir Putaway LPN/Pallet
LPN: RKIBLPN04301901
Curr locn:
PA Type:    RKPAMED
PA Desc:    RKPAMED
Dir Locn:   RK-01-01-B-02
Locn: _____



Env: lgf_100_ora
Ctrl-K: Use Alternate Location
Ctrl-X: Exit App
Ctrl-W: Previous screen
```
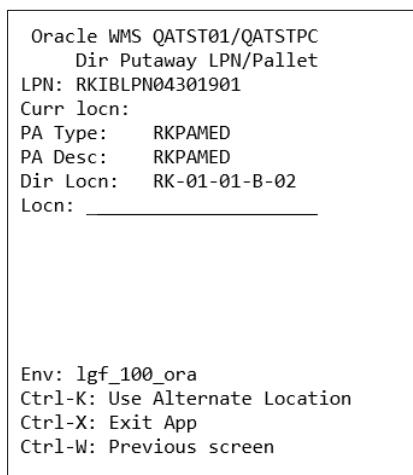
Figure 181: Location

2-101

Split LPN into Active Locations

You can split LPNs into different active locations using Directed Putaway. To do this the Parameter "multi-sku-lpn-mode" must be set to "Split LPN Into Active Locations".

Module Parameter	multi-sku-lpn-mode ▼
Parameter Value	
Module parm choice	Split LPN Into Active Locations × ▼

Figure 182: Multi Sku LPN Mode Parameter

Once you scan the LPN, the system will validate the item's unit weight (sum of items unit weight present in the container) with the maximum weight for the location determined through putaway method priority.

If the location's max weight has the capacity to accommodate all of the items (sum of all items unit weight for the scanned LPN), then putaway will happen for that respective location.

Suggested Putaway

The RF – Transaction 'Suggested Putaway' can be used to putaway based on the user's choice. This can be used if inventory needs to be putaway to a specific location without having to go through and to override the system's directed location. This can also be used to putaway to the Pick line Locations if there are any empty locations and if replenishment has not occurred yet.

1. Select the RF-Transaction 'Suggested Putaway'.
2. Scan the LPN on the label of the pallet or case.

```
LPN/Pallet:
LPNSB00124█
```

Figure 183: Scan the LPN

3. Scan the location chosen for putaway.

```
LPN: LPNSB00124
Pref Area:
Pref Aisle:
Curr locn:
PA Type:    Z020
PA Desc:
Locn: BIN01020501█
```

Figure 184: Scan the Location

Note: if the scanned location has a max weight greater than zero, the system will validate the location's max weight with the scanned IBLPN/Pallet weight to make sure that the new IBLPN/Pallet is still within the limits of the max weight.

Locate LPN to any Reserve Location

RF-Transaction 'Locate LPN/Pallet' is used to locate pallets or case to any Reserve or Dock locations. The user will be able to choose any Reserve or Dock location to which the Pallet or Case needs to be located.
Note: The system does not do any capacity validation with this option.

1) Select RF-Transaction 'Locate LPN/Pallet'.
2) Scan the LPN on label of pallet or case being located.
3) Scan the Dock or Reserve Location to which the pallet or case is being located.

```
             Locate LPN/Pallet
LPN: CSPB00001554
Type:       I
Curr locn:  RCKPLT-20-1-3-1
Status:     Located
Pref Ar/Ai: -/-
PA Type:    Z020
PA Desc:
Locn: DCK1
```
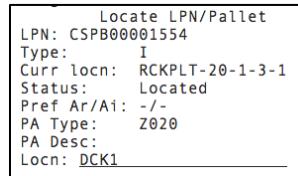
Figure 185: Locate LPN/Pallet

3. **Outbound**

Outbound Orders

Outbound orders are orders placed by customers for inventory from the warehouse. Orders can come from individual customers, companies, stores, or distribution centers.

Configuring Order Types

All orders in WMS require Order Types. Order Types differentiate orders based on certain characteristics. To create Order Types[8], go to the "Order Type" screen.

Order Type *	
Description *	
Facility Order Flag	☐
Flowthrough Flag	☐
Wave Flag	☐
Partial allocation	☐
Only deallocate on short	☐
ASN % PO	(None) ▾

Figure 186: Creating Order Types

ASN % PO Field

The ASN % PO field allows you to update the quantity of orders based on what was sent on the ASN. This field is only for flowthrough functionality. The order type must also have other checks such as partial allocation flag set to true, and flowthrough flag set to true. You can set ASN % PO to either units, cases, or packs.

For example, let's say the order type field is populated with the above options and the ASN % PO field is set to units, cases, or packs, and the Order and ASN have a PO nbr field populated. Then, when you interface an Inbound shipment, the system will update the qty of the order based on what was sent on the ASN, and if there are multiple orders that will be fulfilled with the ASN, then it will distribute among them.

Then, define the order type's characteristics by checking the following flags:

Description of Fields

Facility Order Flag

This flag is used for orders that will be shipped to a facility that is pre-configured in Oracle WMS Cloud in the "Facilities" screen. This flag will require specifying a destination facility for the order. This flag is not used for shipping to non-facility destinations.

---

[8] When creating Order Types, the user must make sure that the current company view is set to the PARENT company.

Flowthrough Flag

This flag is used to allow orders to be fulfilled via cross dock. Inbound inventory will be received and directly packed/shipped for cross dock orders without being located into the warehouse.

Wave Flag

This flag allows you to allocate orders by waves. This flag must be checked for orders to be allocated.

Partial Allocation

This flag allows orders to have partial allocations. When this flag is not checked, orders can only be fully allocated; orders will not be allocated otherwise.

Only deallocate on short

If allocated inventory is not physically available to completely fulfill an order, the missing inventory quantity will be short picked. The order is fulfilled with only the available inventory quantity. If an order is short picked:

- When this flag = YES, the shorted quantity is only deallocated from the order.
- When this flag = NO, the shorted quantity is cancelled from the order.

Ex: Flag = YES

15 SKU1s allocated for ORDER1 - 5 units short picked

The 5 short picked units of SKU1 will be deallocated from the order. *Order of the 5 short picked units can still be fulfilled by running another wave if inventory is available.

Ex: Flag = NO

15 SKU2s allocated for ORDER2 - 5 units short picked

The 5 short picked units of SKU2 will be cancelled from the order. Since the 5 short picked units were cancelled, the task for that order is set to 'Fully Allocated'.

Allow Expired Inventory Flag

If you want to prevent expired inventory from getting allocated, picked, substituted, or shipped, you can create orders with the order type allow_expired_Inventory_flag unselected.

Note: Wave search also has an Allow Expired Inventory flag. If the flag is unselected, the system will only allocate orders with order types that have the allow expired inventory flag unselected.

Figure 187: Allow Expired Inventory

If you want to pick expired inventory and ship it, you can create orders with the order_type allow_expired_shipping_flag deselected. While picking allocated inventory, the system will look at the order type flag. If the inventory is expired, the system will show the error "Inventory is expired".

If inventory expired after allocation, but before picking. The system will check as well in the following transactions, and it will show "Inventory is expired" error message after scanning LPN:

- NC Active Picking
- Pick Cart
- Distribute LPN
- RF Repack
- RF Pack OBLPN
- Allocate for XDOCK
- RF Direct Allocation
- RF Pick and Allocate
- RF Pick IBLPN
- RF Move LPN

Creating Orders in WMS

There are two ways to create Orders in WMS:

1. Manually from the UI
2. Interfaces

Manually Creating Orders from the UI

To create an Outbound Order (Sales Order), go to the Order Headers screen and click Create (✚).

Figure 188: Creating Orders from the UI

- **Order Nbr:**
  Order Number

- **Order Type:**
  Defined in the "Order Types" screen
  Ex: LTL vs Parcel orders

- **Ship Via:**
  Select shipping method

Figure 189: Populating the order header information

After creating the order, you must specify the **items** being ordered and their respective ordered **quantities**.

To manually add SKUs to an Order in the UI:

1. Select the order record and click on Details (⛙). This takes you to the Order's details, where you can enter the items and quantities.[9]
2. Click Create (✚) and populate the Item Code and Ordered Qty.
3. Click "Save".

---

[9] The "Order Details" screen is also available to view multiple Order details at once.
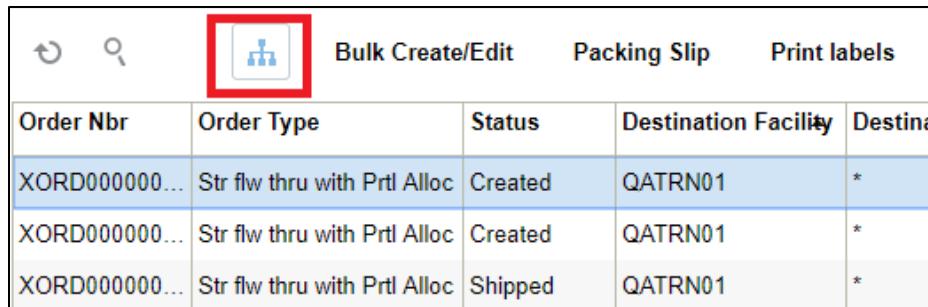
Figure 190: Entering Order Details

Creating Orders through Interfaces (UI)

You can also create orders through an Oracle WMS Cloud Excel template. Based on the column headers, users must populate select fields in the template when creating an Order.

Preparing the Input Interface file:

Follow the rules below to use the Oracle WMS Cloud interface correctly:

- The filename must start with the phrase "ORR".
- Populate the columns specified as 'required' in the interface specification document.
- Populate [H1] for every distinct Order number and [H2] for its details (see figure below).
- Populate the correct sequence in the 'seq_nbr' field (i.e. no duplicate values).

Figure 191: Creating multiple orders in the same ORR file.

The figure above shows an example of a file that will create three different Orders. You can create multiple Orders within the same ORR file by using the "headings" column to differentiate one order from another. A '[H1]' value denotes a new Order Header record, while a '[H2]' value denotes a new Order Detail record.

Uploading the Interface file into WMS

1. Go to the "Input Interface" screen.
2. Use the drop-down to select the appropriate interface:

Figure 192: Selecting the Interface Type

3. Click on "Upload Files" and navigate to the file you wish to upload.
4. When the file displays in the screen, click "Run Interface".
5. The system returns a message dialog notifying you that the file has been successfully processed.

Order Integration into WMS

A third method to interface records into WMS is through a shared SFTP directory.

1. Host system drops the "ORR" file into the shared directory (typically an "input"folder).
2. When the file is dropped, ORACLE WMS CLOUD will automatically detect the file and process it into WMS.
    a. If a file fails for some reason, it is automatically moved into the "error" folder.

Waves

Users must execute Waves in order to allocate orders with allocatable inventory in the warehouse. Each wave creates an allocation and a series of tasks.
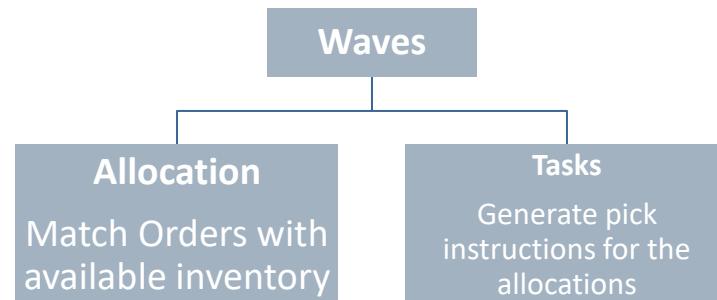
Figure 193: Waves = Allocations + Tasks

Allocation Units of Measurement (UOM)

The allocation types are defined in four distinct units of measure:

1) *Full LPN*
   Full LPN allocations occur when the Order's SKU and Quantity is exactly the same as an LPN's SKU and Quantity.

2) *Cases*
   Case allocations occur when inventory is allocated either in cases as defined in the "Standard Case Quantity" field of the Item. Specifically, a case allocation will occur if the ordered quantity is a multiple of the ordered SKU's "Standard Case Quantity".

   Example: SKUA has Standard Case Quantity = 4, and the ordered quantity is 12. This will create an allocation for 3 cases.

3) *Packs*
   See explanation for "Cases".

4) *Units*
   Unit allocations are the lowest UOM and occur when wave templates are configured to allocate in 'eaches'.

Creating Wave Templates

Wave Templates require the following configuration pieces:

- Wave Search Template
- Allocation Mode
- Task Creation Template
- Allocation Method

Step 1: Create a Wave Template Search

Wave Template Searches are used as filters for selecting specific Orders during a wave. Each search template has a set of fields that are configurable.

To view existing Template Searches, click the "Wave Template Searches" button from the "Wave Template" screen.

Template Name	Allocation Method	Allocation Mode	Reuse LPN NBR	Wave Search	Location Size Type	Task Creation Temp	Cancel Unallocated	Routing Mode	Cubing
APPT WAVE	First In First Out	**Alloc Rese**	No	APPT SEARCH			No		
RG Wave Resv	Last In First Out	**ALLOC MODE RES**	No	ORDER SEARCH		RG LPN Units	No		Calcula

Figure 194: Wave Template Searches

In this new screen, click Create (+) to create a new Search Template. Here, you can define the filtering parameters.

<div style="border: 1px solid black; padding: 15px;">

Examples:

Figure 195: Wave Search Template – Example 1.

In example 1, "Search Template 1" will filter all orders with route number "ROUTE1" and that only contain SKU "ITEM1".

Figure 196: Wave Search Template - Example 2.

In example 2, "Search Template 2" will filter orders that have order numbers "ORD_001" and "ORD_002". In other words, Wave Templates with this search template selected will only attempt to allocate these two orders.

</div>

Users can also define Order Types as additional filtering criteria:

1. Select the Search Template and click the Details button (⬕).
2. Click the Create (✚) button to add Order Types for this Wave Search record. If there are no Order Types defined, it will not filter by Order Type.

Step 2: Create an Allocation Mode[10]

Allocation Modes are used to define how the inventory should be allocated in terms of the different allocation UOMs.

In the Wave Template screen, click on the "Allocation Mode" button – this will take you to the list of Allocation Modes available for the current company *(***Note: Make sure you are at the correct company view before proceeding)*.

1. Create a new Allocation Mode with the Create (✚) button.
2. Enter its details with the Details button (⬕).
3. Create the sequence of allocation UOMs desired for the Wave Template. See example below.

Allocation Mode	Sequence Nbr ▲	Location type	Restrict area	Restrict alloc zone	Allocation UOM	Cartonize UOM	Alloc Distribution Mode
Reserve Allocation	10	Reserve			LPNs		No Distribution
Reserve Allocation	20	Reserve			Cases		No Distribution
Reserve Allocation	30	Reserve			Packs		No Distribution
Reserve Allocation	40	Reserve			Units		No Distribution

Figure 197: Sample Allocation Mode Configuration

---

[10] Allocation modes are only editable in the company view in which they were created. For example, if an allocation mode was created at the PARENT company view, the user must activate to the PARENT company to be able to edit it.

Extra configuration Parameters:

- **Sequence Nbr:** The order in which the system will look for allocations.
- **Location Type:** The locations that will be used for allocation – Reserve or Active.
- **Restrict Area:** If populated, the WMS will search for allocations in this area only.
- **Restrict Alloc Zone:** If populated, the WMS will search for allocations in this allocation zone only.
- **Cartonize UOM:** If populated, the WMS will automatically create a new carton per UOM defined.
  Example: If Cartonize UOM = Units, the system will create a new carton number for every unit allocated in the wave.
- **Alloc Distribution Mode:** This field is used to enable/disable the distribution (Put to Store) functionality. If using distribution, you must choose one of the following parameters:

  - **Distribution Residuals OK:** This is the first distribution option that is used in distribute to store. The "Residuals OK" implies that when allocating orders to available LPNs in the inventory, the system allows LPNs to be partially allocated and have unallocated units left over (ie. 'residuals'). Depending on the order quantity and the available inventory, this allocation type can allocate both LPNs and units. Distribution Residuals OK only allows you to select units, packs, or cases from the Allocation UOM drop-down.

    Note: If you plan on allocating less than full LPNs from reserve, you must make sure the location flag "**Allow reserve partial pick**" is enabled. For more details, see <u>Allow Reserve Partial Pick</u> in the Location Master section.

  - **Distribution No Residuals:** This distribution mode will only allocate LPNs with no residuals. In other words, every time an LPN is allocated for distribution, all of its contents must be allocated to one or more orders (ie. LPNs cannot be "Partly Allocated"). Distribution No Residuals only allows you to pick units, packs, or cases from the Allocation UOM drop-down.
  - **Consolidate and Distribute:** This distribution mod allows you to pick allocation from Reserve or Active. Consolidate and Distribute only allows you to pick units, packs, or cases from the Allocation UOM drop-down. Note: This option allows you to pick inventories for multiple stores to a temporary LPN, place it in a consolidated location, and distribute inventories based on the stores.
  - **No Distribution:** No Distribution turns the distribution off, and it will create non-cubed picks based on the allocation UOM. This mod allows you to pick units, packs, cases, or LPNs from the allocation UOM drop-down.

    Note: The Distribution Residuals OK, Distribution No Residuals, and Consolidate and Distribute do not allow the user to set the Allocation UOM as LPNs. If you try to save this setting, you will see the following error:
    "Alloc UOM LPN invalid for distribution modes"

- **mhe_sytem:** Input the MHE system needed for this allocation, if configured. If picking is happening from MHE, then the MHE system has to be populated on the allocation mode sequence.
- **Ignore Attribute A, B, or C:** This determines whether or not to ignore the custom attributes in the Order Header.
  - **If "No":** the order's custom attribute must match the value defined in the Wave Search Template.
  - **If "Yes":** the order's custom attribute will ignored.

Step 3: Create a Task Creation Template

Task Templates are used to determine the Task Types that will be used for the wave. Similar to allocation UOMs, Task Types are records that create Tasks based on the UOMs defined in the Allocation Mode. Therefore,

to correctly configure a Wave Template, the selected Allocation Mode's UOMs must match the Task Template's Task Types.

Example: If the Wave Template has Allocation Mode Sequence 1 of "LPNs", the complementary Task Template must have a Task Type that matches the LPN allocation, which in this case is "Distribute LPN", "Full LPN Pull" or "LPN Move".

The table below displays a list of Task Types and their uses.

Task type	*Description*	*Explanation*
CONSOL_REPLEN	Consolidate Replenish	Used for a type of replenishment that allows you to pull multiple cases from multiple locations and replenish to one more location. Requires Task Zone movements.
DISTRIBUTE-LPN	Distribute LPN	Used for LPN picking tasks with distribution.
FULL-CONTAINER	Full LPN Pull	Used for LPN picking tasks. This task type is enabled when the quantity ordered matches the exact LPN quantity in the inventory.
IBVAS	Inbound VAS	Not Used
INTERNAL-PICK	Internal Picking Task	Tasks relevant to internal unit movements, such as directed putaway.
LPNCASES	Reserve Cases	Used for Case picking tasks with no distribution.
LPNMOVE	LPN Movement	Used for movement of intermediate LPNs during distribution and replenishment.
LPNPACKS	Reserve Inner Packs	Used for Pack picking tasks with no distribution.
LPNUNITS	Reserve Units	Used for Unit picking tasks with no distribution.
NC-ACTIVE-PICK	Noncubed Active Picking Task	Used for internal non-cubed active picking tasks.
PICK_CART	Pick Cart	Used for creating Pick Cart tasks.
PICKLPN-INTERNL	Pick LPN Internal	Tasks relevant to internal LPN movements, such as directed putaway.
PLTMV_AUTOPK	Plt Move Auto-Pack	Used for pallet picking tasks. To enable this task type, the order detail must specify that the pallet that will be allocated in inventory in the "Pallet Nbr" field.

REPLEN-CASES	Cases Replenishment	Used for LPN replenishment tasks. This task type is enabled when cases from a given LPN are being replenished (as opposed to replenishing the entire LPN).
REPLEN-LPN	Full LPN Replenishment	Used for LPN replenishment tasks. This task type is enabled when entire LPNs are being replenished.

To create a Task Creation template:

1. From the Task Creation Template screen, create a new Task Template and add a description.
2. Set "Template Type" to "Regular".
3. Click the Detail button to inspect the Task Template's details.
4. Create new Task Types for the template by populating the sequence, Task Type, and Destination Zone.

Figure 198: Task Creation Template

Description of Parameters:

Parameters	*Description*
Sequence Nbr	Determines the sequence of each Task Type
Break by Quantity	Not functional - do not use
Priority	Determines the priority of the Task Type. The priority can override the record's sequence number.
create_held_flg	This flag determines whether the Task will be 'held' when created. When a Task is held, it will not be visible to the picking operator in the RF gun. The operator will only be able to view this task once the superuser 'releases' this task in the "Tasks" screen, via the "Release Task" button.
Destination Zone	When an operator reaches the end of a Task, this configuration determines whether or not the RF will prompt him/her to move the picked boxes into a Destination Zone. Destination Zones are essentially locations that have Task Zones configured.

To add a Task Zone to a location:

1. Go to the Task Zone screen and create a new Task Zone.
2. Go to the Locations screen, select the desired location and click edit.
3. In the "Task Zone" field, select the Task Zone that you added in step 1.

For example, if there is a Drop Zone location "DZ1" with Destination Zone "ATZ1", there will be the following Task Template configuration:

Figure 199: Adding a Task Zone from Location UI

This means that at the end of every "Reserve Units" Task, you are prompted to move the picked LPNs into a "DOOR_DROP" location – which in this case is location "DZ1".

Figure 200: RF Screen - Destination Zone

Once all the necessary Task Types are created, you will now have to configure the selection and breaking criteria for each Task Type.

↻	Selection Criteria		Ordering Criteria			
Task Creation Te...	Sequence Nbr ▲	Task type	create_held_flg	Destination Zone	Selection Criteria
Reserve Batch Picking	10	Full LPN Pull	No	DOOR_DROP	AND
Reserve Batch Picking	20	Reserve Units	No	DOOR_DROP	AND

Figure 201: Sample Task Types

Ordering Criteria

The Ordering Criteria allows you to determine the break logic for each Task. For example, if there is a criteria for "Break by Order Nbr = 1", WMS will create a new Task for every unique Order number in this Task Type.

1. Select the Task Type record and click "Ordering Criteria".
2. Create a new breaking rule for this Task Type by clicking the Create (+) button.
3. Enter the sequence number, select the logic criteria and the 'break by' value.
4. Click "Save".

Example:

Sequence Nbr	Order by column	Break by count
10	Location Pick Sequence	0
20	Pallet Number	1

a. Location Pick Sequence, Break by count = 0

This will sort the creation of Tasks in order of the allocation's Location Pick Sequence.

b. Pallet Number, Break by count = 1

This will create a new Task for every Pallet that is allocated. This may be used in cases where the picking equipment does not allow users to pick multiple pallets at a time.

Selection Criteria

You can use Selection Criteria to configure Task Type conditions.

1. Select the Task Type record and click on "Selection Criteria".
2. In this new window, you will see a folder icon (📁); this is a "Complex Operation". Within this folder, there can be many nodes with criteria specified; these are "Basic Operations".
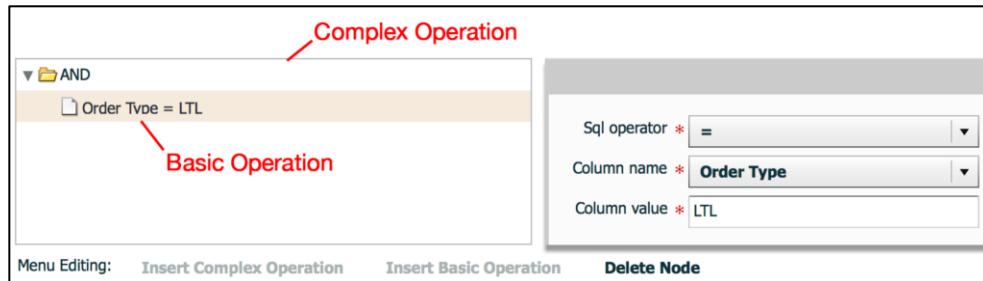
Figure 202: Inserting Complex and Basic Operations

3. To create a new basic operation, select the folder icon and click on the "Insert Basic Operation" button.
4. Select the SQL Operator, column name and column value.
5. Click "Save".

Example:

Figure 203: Putaway Type

This configuration translates to the following:

- If the allocation's SKU has a Putaway Type of LAPTOPS or TABLETS, create a Task under the current Task Type.
- Once every Task Type has Ordering Criteria and/or Selection Criteria set up, the Task Template is complete.

Step 4: Combining all configuration pieces together

Once the Wave Search, Allocation Mode and Task Templates are created, the user can now combine everything to create a Wave Template.

1. Go to the Wave Template screen and click the Create (✚) button.
2. Enter a name for the template and select the previously created configurations from the drop-down.

Figure 204: Creating a Wave Template

---

3. Once everything is selected, click the "Save" button.

Choosing an Allocation Method:

- ▪ **FIFO**: First in First Out – based on the LPN's create timestamp.
  *Note that this method supports both FIFO and FEFO allocation in the same method. In other words, when a Wave Template uses FIFO, it will also consider orders with expiry dates.
- ▪ **LIFO**: Last in First Out – based on the LPN's create timestamp.
- ▪ **FEFO**: First Expiry First Out – based on the LPN's "Expiry Date" field.
- ▪ **LEFO**: Last Expiry First Out – based on the LPN's "Expiry Date" field.
- ▪ **Quantity Descending**: Allocate LPNs with the largest quantity first.
- ▪ **Quantity Ascending**: Allocate LPNs with the smallest quantity first.
- ▪ **Location Descending**: Allocate LPNs whose location pick sequence is largest first.
- ▪ **Location Ascending**: Allocate LPNs whose location pick sequence is smallest first.

Optional Step: Additional configuration parameters

You can configure additional parameters in the Wave Template depending on how you will use it:

- **Reuse LPN Nbr:** determines whether or not the IBLPN number can be reused as the outbound LPN number during packing.
- **Cubing Mode:** (see section 4.3.4.2 for more info)
- **Cubing Rule:** (see section 4.3.4.3 for more info)
- **OB LPN Type:** (see section 4.3.4.1 for more info)
- **Location Size Type:** if populated, the wave template will search for allocations specifically from locations with the defined Location Size Type.
- **Cancel Unallocated:** used as cancellation waves. If yes, all orders unallocated from this wave will be cancelled.
- **Routing Mode:** defines the routing logic for parcel manifest orders.
- **Column Ordering:** if populated, WMS will automatically print labels according to the selected Column Order when a wave is completed.
- **Auto release MHE** message: generates a custom MHE message when a wave is run.
- **Max Units/Weight/Volume/Orders:** defines the maximum value that the wave can allocate. For example, if "Max Units" is set to 1000, the wave can only allocate up to 1000 units at a time.
- **Tolerance_percentage:** The value populated here defines a tolerance with respect to the maximum defined in the "Max Units/Weight/Volume/Orders" field. For example, if the "Tolerance Percentage" field is defined as 5% and the "Max Units" field is set to 1000, the tolerance will allow WMS to allocate up to 50 more (1050 units total).

Dynamic Wave Search

Wave Template Searches are used as filters for selecting specific Orders during a wave. Each search template has a set of fields that are configurable.

The Dynamic Wave Search button allows you to associate customized order search definitions to wave template order searches. It gives you more customization and power for your wave template searches.

From the **Wave Template UI**, click **Wave Template Searches** to access the Dynamic Wave Search button.
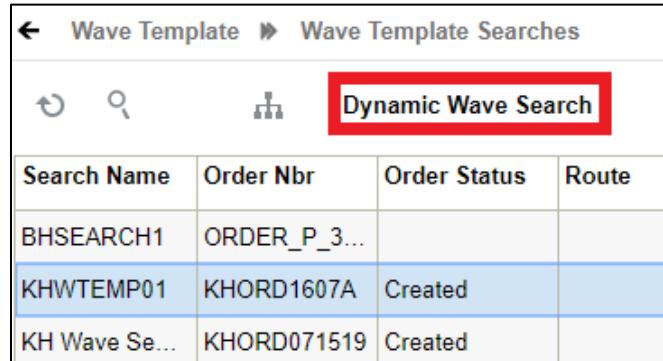
Figure 205: Dynamic Wave Search

Note: Your Dynamic Wave Search needs to be associated with your Wave Template Search to work.

You will know that your Dynamic Wave Search is associated with your Wave Template Search if it displays in the **Dynamic Wave Search** column, viewable from the **Wave Template Searches** UI.

Figure 206: Dynamic Wave Column

Once you have created your Dynamic Wave Search, click **Selection Criteria.** From here, click the Column name drop-down to view many more criteria to specify for your Dynamic Wave Search.
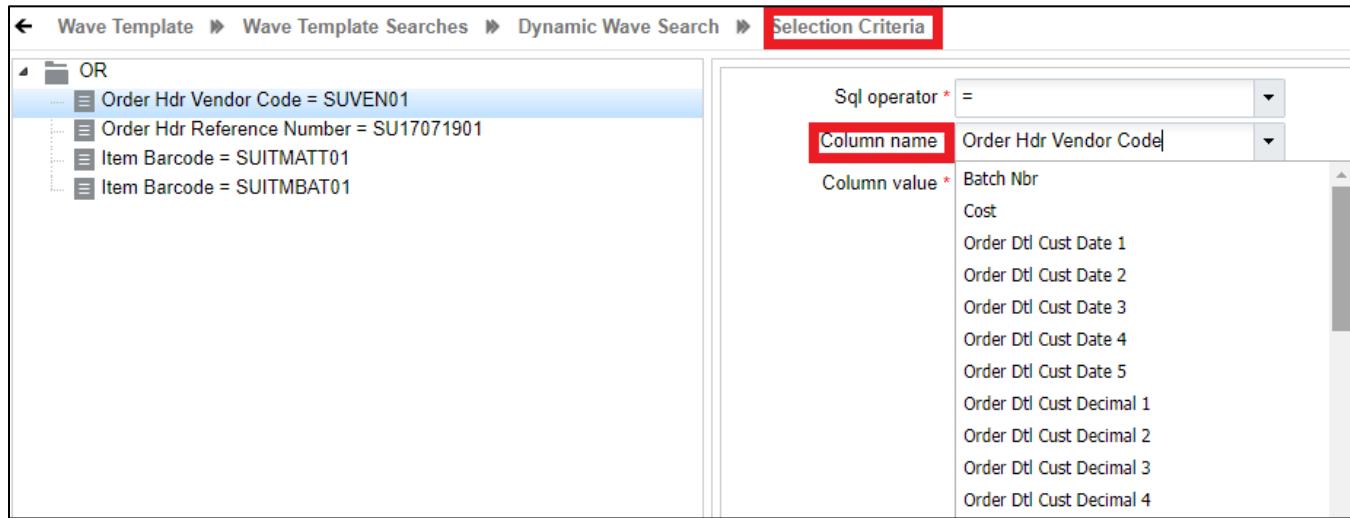
Figure 207: Selection Criteria

Selection Criteria Rules

The Selection Criteria Rule in Dynamic Wave Search allows you to add a date/time range from the current date to extract the data of a particular value. You can fetch the data of any column by adding or subtracting the date/date timestamp by the value of x.

1. Login to Oracle WMS Cloud.
2. From **Wave template**, go to **Wave Template Search**, and then **Dynamic Wave Search**.
3. Select the wave and click **Selection Criteria**. The selection criteria rule page opens.
4. Set the selection criteria in any order:
   a. Sql operator – Select your operation. For example, =.
   b. Column Name – Choose an appropriate selection column name from the drop-down menu.
   c. Column Value – Enter the value. For example, d+10, where x is the number of days or minutes.
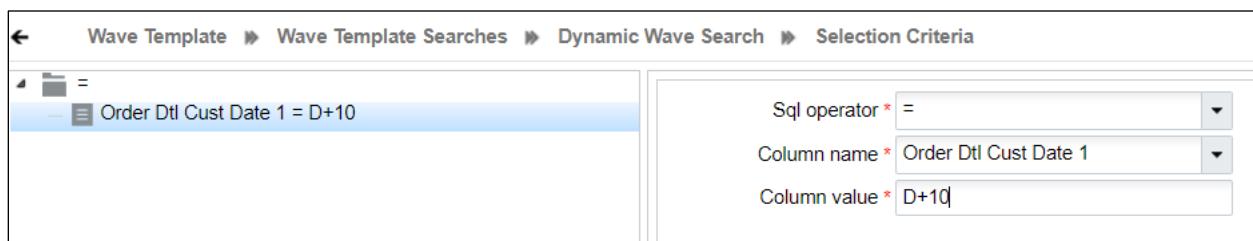
Figure 208: Selection Criteria

Based on the Selection Criteria, the system fetches data set for the next 10 days from the current date and also data specified in the Column name drop-down (Order Dtl Custom Date 1).

For example, let's say your current date is 10/10/2008 (D). You need to fetch data until 20/10/2008 for the Order detail custom date 1 field, then your Column value = (D) + (number of days you want the information to be fetched, i.e., 10 days).

Similarly, if you need to fetch data in minutes, enter m+/- x, where x= minutes.

Caution: The keyword "m" is not recommended to use against column of "date" type date.

The behavior of the selection criteria is applicable to the following screens:

- Putaway Type Determination Rules - Selection Criteria
- Task Creation Template – Details - Task Selection Rules
- Wave template - Wave Template Search - Dynamic Wave Search - Wave Order Selection Rules
- Audit Rule - Audit Selection Rule

Executing Waves

There are three ways to run waves in WMS:

1. **Wave Templates** are used for running a large number of orders at once.
2. **Wave Groups** are used for running a multiple wave templates in a preconfigured sequence.
3. **Manual Waves** are used for running waves by Order detail.

Important:

Once you begin picking from a Task within a wave, that wave cannot be cancelled. However, this feature can be disabled in the Facility Parameters screen by setting parameter "UNDO_WAVE_EVEN_AFTER_PICKING" to "Yes".

Executing Waves via Wave Template

1. To run waves using the Wave Template screen, you must first input the orders to run waves for in the Wave Template Search (see section 4.2.1.1 for more info on Wave Searches). Click the Wave Template Searches button.

Figure 209: Wave Templates screen

2. The UI will open a new window containing a list of Wave Search Templates. Select the Search Template that will be used in the Wave Template and click the Edit (✏) button.

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3. This will prompt a small window to the right. Populate the order numbers you wish to allocate in the "Order Nbrs" field. Click "Save".

Note:
1. Multiple order inputs should be separated by commas with no spaces in between each value (see figure below).
2. If the Order Nbr field is left blank, WMS will search for all eligible Orders (Orders in status "Partly Allocated" or "Created" status).

Figure 210: Inputting Orders to wave in the Wave Search Window

4. Click "Back" to return to the original Wave Template screen, select the template and click "Run Wave Template".
5. If done correctly, a popup message will appear notifying the user of the new Wave record.
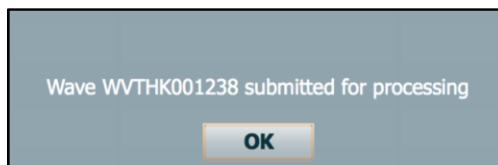
Figure 211: Confirmation message for wave submission.

Executing Waves via Wave Group View

You can use Wave Groups to run multiple wave templates at the same time. To configure a Wave Group, go to the "Wave Group View" screen.

Figure 212: Wave Group View

1. To configure the group of wave templates in "Group Wave 1", select the record and click the Details button (⊞). This will bring you to the following screen:

Name	Sequence Nbr	Template Name	Active Flag	Create Timestamp	Mod Timestamp	Mod User
Group Wave 1	20	LTL	Yes	09/23/2014 4:38:34 PM	09/23/2014 4:38:34 PM	lgf_thkim
Group Wave 1	10	Parcel	Yes	09/23/2014 4:38:28 PM	09/23/2014 4:38:28 PM	lgf_thkim

Figure 213: Wave Group View detail screen

2. The figure above displays the sequence wave templates that will run whenever "Group Wave 1" is executed. To add a new wave template to the list, click the Create (✚) button and populate the necessary fields.
3. To run the wave group, select the wave group and click "Run Wave Group".

Executing Waves via Manual Wave

You can use manual waves to run waves at the order detail level. You can select multiple lines by holding *Shift* and selecting the desired order detail records to allocate.

After the order details are selected, choose the desired wave template from the drop-down and click "Run Wave Group".

Figure 214: Running Waves from the Manual Waves screen

When the wave record is created, WMS should prompt a confirmation message with the wave number.

Prevent Allocating Expired inventory

When you are planning your wave, you want to make sure that the wave only selects the correct inventory. The allow_expired_inventory flag in Order Type and in the Manual Wave Search screen allows you to prevent allocating expired inventory.

Figure 215: Manual Wave Screen

When you select the allow_expired_inventory flag from the search option in the Manual Wave screen, the resulting order details will display yes in the Manual Wave screen, indicating these orders are allowing expired inventory. When you deselect the allow_expired_inventory flag, the Allow Expired Inventory column displays as "No", indicating the orders are not allowing expired inventory. Please note that if the wave search has the allow expired inventory checked, it will only allocate inventory to the orders that have order type with allow expired inventory checked. If allow expired inventory is not checked, the system will **not** allocate inventory for orders with expired inventory.

Wave Inquiry - Viewing Created Waves

Users must use the **Wave Inquiry** Screen to view all created waves. Here you can view all the waves and their statuses (whether they are completed or in progress). The message text column will display all of the allocations made in units, followed by the LPN count in parenthesis.

Figure 216: Wave Inquiry Screen

You can also click on "Allocations" to view the selected Wave's Allocation details.

To view a detailed report of a wave's allocation, select the wave record and click on the "Allocation" button.

Figure 217: Wave Allocation Details

This screen includes information such as the Task number created and its Task Type, the Order's allocated and its SKU/Qty, where it was allocated from, and its From and To LPNs (the first "LPN" denotes the IBLPN in the

inventory it was allocated to and the second "LPN" denotes the final carton number that the merchandise will be packed to).

Printing Pick Tickets

Once a wave is complete, users can use the "Print Label" button to print outbound carton labels for the picking team. They can use these labels to begin a task by scanning the label barcode rather than selecting an arbitrary Task Number from the RF.

WMS provides a feature that allows you to configure the order in which the labels for the wave are printed, such as by Order Number (print all carton labels for Order A, then B, then C, etc.). This is configured via the "Column Ordering" screen.

Configure the Label Printing Sequence

1. Go to the "Column Ordering" screen.
2. Click the Create (+) button and give your Print sequence record a Description and Type.
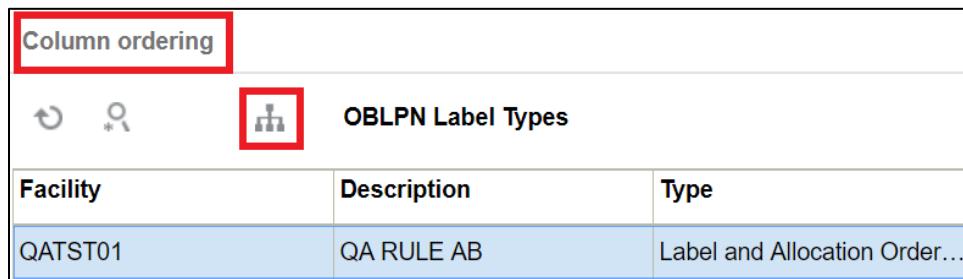
Figure 218: Sample Column Ordering Record

3. Select the record and click on the Details button (⛁).

4. In the detailed view, click Create ($+$) to create new criteria for printing. For example, to print by Label and Allocation , set 'order_by_field' to 'Allocatoin Order Nbr'.
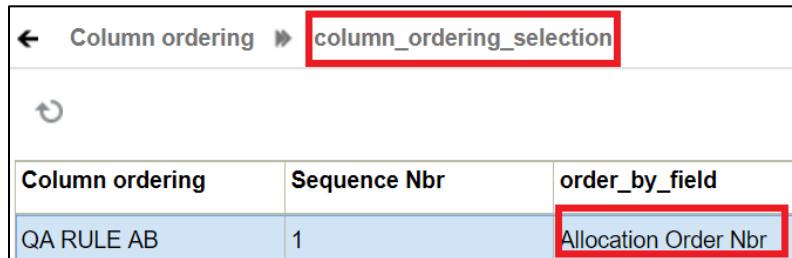
Figure 219: Configuring WMS to Print Labels by Order Number

Once this configuration is complete, return to the Wave Inquiry screen and select the newly created column ordering criteria from the drop-down. To print, click the "Print Label" button.

Figure 220: Printing labels from the Wave Inquiry Screen

Picking

Task Management

Tasks are picking instructions that are generated with every allocation at the end of a wave. They provide operators with information such as the outbound LPN number, the SKU, quantity, the picking location and the carton's destination.

From the Task screen, users can view a list of ready or pending tasks:

Figure 221: Viewing active Tasks in the UI

There are seven buttons in this screen:

Cancel Task: Cancels a Task. Users can cancel multiple records at a time.

Release Task: Releases Tasks that are in "HELD" status. A Task that is in "HELD" status is not displayed or executable in the RF until it is released with this button.

Hold Task: Updates a Task to status "HELD". This prevents users from executing this Task.

Complete Bulk Pick: Enabled only if task type is internal picking. Allocation type must be bulk picking, task status must be in ready. This button requires permission 'order header / Bulk Pick' to be enabled.

Change Task Priority: Allows you to update task priority to prioritize tasks. Permission needs to be Task Change/Task Priority.

Assign User: Assign specific user to a task.

Unassign User: Unassign user so that another user can pick up the task.

Description of Task Statuses:

Status Name	Description
Created	Task has been created but can't be started yet.

Status Name	Description
Ready	Task is ready to be started.
HELD	Task is held and operators can't view/execute this task. User must release task from the UI.
In Drop/Between Zones	The task is in process in an intermediate zone.
Processing Started	Task has started, but hasn't been finished.
Completed	Task is complete (all cartons have reached destination).
Cancelled	Task is cancelled.

Tasks can also be viewed from the RF gun. Below is a screenshot of the "Execute Task" module:

```
           WMS FACILITY/PAR
      TaskExecute Task
1) TSTHK00001120
2) TSTHK00001145
3) TSTHK00001154
4) TSTHK00001065
5) TSTHK00001048
=>  |_____
Curr locn:
Task Type:

Env:         _
Ctrl-U: Page Up
Ctrl-D: Page Down
Ctrl-P: Exec tasks in progress
Ctrl-L: Change Location
Ctrl-T: Change Task Type
Ctrl-E: Close OB LPN
Ctrl-Q: Change Equipment
Ctrl-X: Exit App
Ctrl-W: Previous screen
```
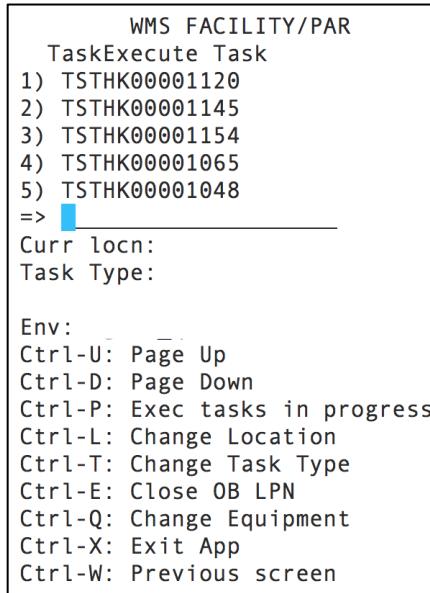
Figure 222: Task list as viewed from the RF

Task Listing in the RF

Tasks are displayed in the RF in the following order:

1. Task Priority

A task is moved up the Task List according to its priority. A task's priority is defined in the Task Creation Template.

2. Task Create Timestamp

The Task's create timestamp is displayed in the Tasks UI screen.

3. <u>Pick Sequence for the first pick in the Task</u>

The location's pick sequence is displayed in the *Locations* UI screen.

*Important note about Tasks displayed in the RF

The moment you scan the first OBLPN for a Task (i.e. when the Task's status goes to "Processing Started"), that Task number will no longer be displayed to any of the other users' RF guns - this was designed to prevent multiple users from working on the same Task. To continue a Task that was started by another user:

1. Open the list of Tasks in the RF gun.
2. Press "Ctrl-P: Exec tasks in progress".
3. Scan either the outbound carton or the task number.
4. The RF will continue the task displaying the screen where the previous user last left off.

Option Keys:

- Ctrl-P: Exec tasks in progress

When a user begins a Task, only that user will be able to view that Task number from the Task list. If another user wants to continue this task, they must use this option to continue the pick. Here, users will scan either the OBLPN or the Task number to proceed.

- Ctrl-L: Change Location

This option allows the user to filter their Task list displayed in the RF by their location.[11] The user will scan a nearby location, and the RF will update to display all Tasks with picks in that vicinity.

The **Ctrl-L** option must be configured as an **RF parameter**:

1. Go to the "Screen Configuration" screen in the UI.
2. Click the magnifying glass and type in "Execute Task" in the "Screen Name" field. This should display the "Execute Task" RF module.
3. Select this record and click on the Details button.
4. Modify the "ctrl-L by" parameter to either "AREA" or "AISLE".
5. Click "Save".
6. To make the changes take effect, re-login into the RF.

- Ctrl-T: Change Task Type

This option will update the Task list in the RF to only display your Tasks by Task Type.

- Ctrl-E: Close OB LPN

---

[11] This function will only look for pending Tasks that are *ahead* of the scanned location (according to its picking sequence number). For example, say there are tasks in an aisle with locations A, B, and C. If the user scans location B, the RF will only display Tasks for locations B and C, and not A.

This option allows you to manually close any open OBLPNs. This will update the LPN's status from "In Picking" to "Picked".

- Ctrl-Q: Change Equipment

If Equipment Types are enabled, this option allows the RF user to filter the Task list by Equipment Type.

Non-Cubed Picking

As described in the beginning of section 4.2 ("Allocation UOM"), WMS supports four allocation types for non-cubed picking:

- Full LPN: When the ordered quantity matches the LPN's quantity.
- Cases: When the ordered quantity is a multiple of the Item's "Standard Case Quantity".
- Packs: When the ordered quantity is a multiple of the Item's "Standard Pack Quantity".
- Units: When allocation occurs in 'eaches'.

Although each of these UOMs have similar picking processes, there are some differences.

RF Execution – Full LPN Picking

Full LPN picking occurs when the ordered quantity matches the LPN's quantity. Because the LPN, SKU and quantity is known prior to picking, WMS will not require you to scan the LPN's details during picking. Instead, by simply scanning the IBLPN, WMS will recognize its contents – this uses what is called a "smart label".

1. Go to the "Execute Task" screen and select a Full LPN Task.[12]
2. The RF will prompt you to scan an OBLPN. This OBLPN will be the container used for shipping. If the wave template used for this allocation had the "Reuse LPN nbr" flag set to yes, this OBLPN prompt will be automatically filled in.

```
OBLPN:
OCSN0000001001

Env: a
Ctrl-P: Short LPN
Ctrl-D: Skip LPN
Ctrl-X: Exit App
Ctrl-W: Previous screen
```
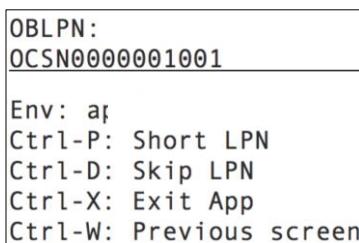
Figure 223: Scanning the OBLPN

3. Since this is a Full LPN task, WMS will recognize the LPN's contents. The RF will display the LPN's contents. Press ctrl-A to proceed.

---

[12] You can view specific task types by pressing the Ctrl-T button and selecting the desired task type. This will refresh the task in the RF with the task type filter.

```
Proceed with pack LPN
Order ORDLV010101
IBLPN CSSN00001004
Locn R-2-05-1
SKU 403379
Qty 200
```

Figure 224: Confirming the LPN contents

4. Begin the pick by scanning the IBLPN.

```
OBLPN:OCSN0000001001

LPN: CSSN00001004
 R-2-05-1
 SKU 403379
 Qty 200

LPN: _____

Env: a|
Ctrl-P: Short LPN
Ctrl-D: Skip LPN
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 225: Scanning the IBLPN

5. When all the LPNs have been picked, the RF will direct you to a destination zone (if one was configured in the Task Template). You must scan a location with that task zone to end the task.

```
Task: TSSN00001009
Drop:█_____
```

Figure 226: Scanning the destination zone

RF Execution – Units, Case and Packs Picking

Overall, the picking process for units, cases, and packs are similar; the only difference occurs when you have to input the item quantity during the pick.

1. Go to the "Execute Task" screen and select a Full LPN Task.[13]
2. The RF will prompt you to scan an OBLPN. This OBLPN will be the container used for shipping.

---

[13] Users can view specific task types by pressing the Ctrl-T button and selecting the desired task type. This will refresh the task in the RF with the task type filter.

```
Task Nbr: TSSN00001001
Order Nbr: S-NORD002
Dest: Customer 1

OBLPN:
█_____


Env: a   _
Ctrl-E: Close OB LPN
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 227: Scanning the OBLPN

3. Begin the pick by scanning the IBLPN and the quantity. This process is similar for cases, units, and packs.

```
Task: TSSN00001001          Task: TSSN00001011          Task: TSSN00001056
Customer 1/S-NORD002        Customer 1/S-NORD001        Cust1/OTHK093001
LPN:AF .LPN001              LPN:CSSN00001001            LPN:LPNSN092918
OBLPN: OBSN100201           OBLPN: OBSN100203           OBLPN: OBSN102003
Locn: R-9-03-1             Locn: R-1-05-1              Locn: R-7-04-1
LPN:█_____          LPN:█_____          LPN:LPNSN092918
59403125/Item 8            403120/Item 1               THK03/THK03
Qty:(cs) 1    =>(cs=10) ___ Qty:(pk) 1    =>(pk=5) ____ Qty:10        =>█_____

Env: a                     Env: ap                     Env: ap
Ctrl-E: Close OB LPN       Ctrl-E: Close OB LPN        Ctrl-E: Close OB LPN
Ctrl-D: Skip Item          Ctrl-D: Skip Item           Ctrl-D: Skip Item
Ctrl-P: Short Pick         Ctrl-P: Short Pick          Ctrl-P: Short Pick
Ctrl-T: Sub IBLPN          Ctrl-T: Sub IBLPN           Ctrl-T: Sub IBLPN
Ctrl-X: Exit App           Ctrl-X: Exit App            Ctrl-X: Exit App
Ctrl-W: Previous screen    Ctrl-W: Previous screen     Ctrl-W: Previous screen
   CASES PICKING              PACKS PICKING               UNITS PICKING
```

Figure 228: Scanning the IBLPN

4. When all the LPNs have been picked, the RF will direct you to a destination zone (if one was configured in the Task Template). You must scan a location with that task zone to end the task.

```
Task: TSSN00001009
Drop:█_____
```

Figure 229: Scanning the destination zone

Cartonization during Picking

WMS also has the capability to cartonize LPNs during picking (Reserve locations only). During this process, the system will automatically generate LPN numbers for each LPN, Case, Pack, or Unit that is allocated.

To configure these UOMs for cartonization, go to the "Allocation Mode" in the "Wave Template" screen:
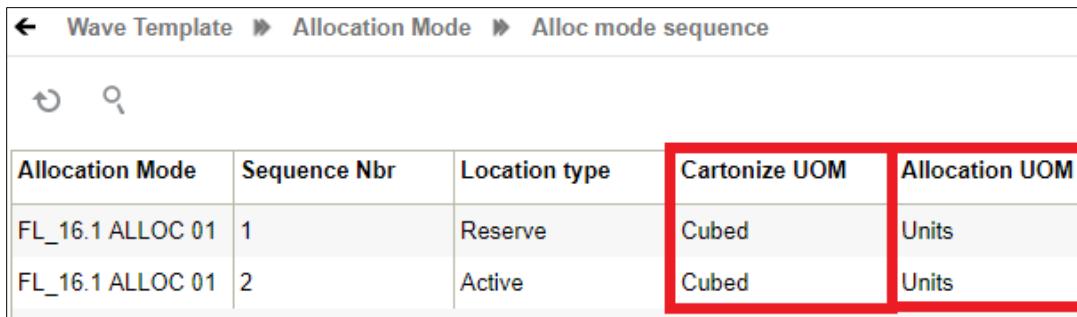
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Figure 230: Cartonize and Allocation UOM Columns

Select the UOM for the "Allocation" and "Cartonize UOM" columns – make sure they match. Once this configuration is set up, the system will begin cartonizing.

Caveat:

Currently, the system **cartonizes at different points** depending on the UOM allocated.

- For FULL-LPN allocations, the system will cartonize **with the wave**.

- For Case, Pack, and Unit allocations, the system will only cartonize when the **Task is completed** (i.e. when the users finish scanning the "Drop Location" prompt at the end of a Task).

Picking Exceptions

Performing Short Picks

There may be situations where there is a discrepancy between what the system prompts you to pick (with respect to the SKU or the SKU's quantity) versus what is physically in the location that is available for picking. In such cases, the picking user must perform what is called a short pick to correct this discrepancy. In WMS, this operation is made with the "Ctrl-P: Short Pick" option key.

The screens for the RF are shown below:

```
Zone:MACDONALDS1
Locn:TEST-TEST-TEST-TEST
IB LPN:MACLPN2
IBLPN:_____
Item: TESTMAC2-TESTMAC2
Desc: short description
Position:1
Qty:100        =>_____

Env:
Ctrl-E: Close OB LPN
Ctrl-D: Skip Item
Ctrl-P: Short Pick
Ctrl-K: Un-assign OB LPN
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

```
----------------------
Z|Short remaining qty?|
L|                   |T
I----------------------
I
I                 ___
Desc: short description
Position:1
Qty:100        =>_____

Env:
Ctrl-E: Close OB LPN
Ctrl-D: Skip Item
Ctrl-A: Accept
Ctrl-W: Dot not accept
```

Figure 231: "Ctrl-P: Short Pick"   **Figure 232: Accept the warning message to confirm short pick**

For example, if the operator can only pick 50 units versus the system prompted 100 units, the operator must:

1. Scan the IBLPN number prompted in the RF.
2. Enter the quantity that the user is able to pick (i.e. 50 units).
3. For the remaining 50 units that are prompted, you must perform the short by pressing Ctrl-P.
4. The RF will prompt a warning message. To proceed, press Ctrl-A. To cancel, press Ctrl-W.

Short Pick – System Updates

When you conduct a short pick, the following updates will take place:

*   The shorted IBLPN will go to status "Lost".[14]

*   The shorted IBLPN's location will automatically be flagged for Cycle Count (the location's "To Be Counted flg" field will be updated to "Yes".

*   All order details that were originally allocated to this IBLPN, will either be cancelled or de-allocated (depending on the Order Type's "Deallocate on Short" flag)

    o   If the "Deallocate on Short" flag = "No", the remaining ordered quantity will be updated to 0.

    o   If the "Deallocate on Short" flag = "Yes", the remaining ordered quantity will remain and the allocated quantity will be updated to 0.

Operationally, when there is a short pick, the operator needs to notify the wave master so that they can rerun the wave and re-allocate the orders.

---

[14] The user may 'find' the LPN again if it is re-counted in a Cycle Count. In this case, the LPN is updated to "Located" status.

LPN Substitution

LPN substitution is the process of picking an IBLPN that is different from the one prompted by the RF:

1. From the "IBLPN:" prompt, scan a different LPN number.
2. The RF will update the LPN number and will allow you to continue picking as normal.

*LPN substitution is only supported for allocations from Reserve locations.

System Validations

Depending on the type of pick, the system will perform different validations for LPN substitution.

- **Full LPN:** The LPN's SKU and quantities must match EXACTLY. Additionally, you can enable/disable additional validation for Batch Number and Expiry Dates.
- **Cases, Packs, Units:** The Batch Number and Expiry Dates must match EXACTLY.
  - If the new LPN has less units than the original LPN, the system will first allow you to pick all the units in the new LPN and then return to the original LPN for the remaining allocations.
  - If the new LPN has more units than the original LPN, the system will allow normal picking.

LPN Substitution – System Updates

When you conduct an LPN substitution, the following updates will take place:

- The original LPN's location is automatically flagged for Cycle Count (the location's "To Be Counted flg" field will be updated to "Yes".

Zone Picking

Zone Picking is a method of order picking that divides items into multiple zones, where each employee is trained to pick within an assigned zone.

The following figure shows an example of Zone Picking:
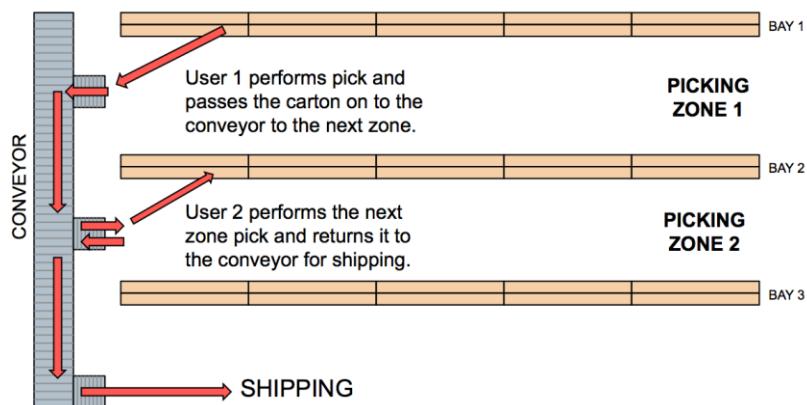
Figure 233: Zone Picking example

Zone Picking Configuration

There are several items tied to configuring WMS for zone picking:

- Setting up the Zone Picking RF module
- Creating the Task and Wave Templates
- Setting up Pick Zones for locations

Step 1: Setting up the Zone Picking RF module:

1. Go to the "Screen Configuration" screen.
2. Click on "Generate Screens" and select the module entitled "RF-Text: Pack NC Active {order}".
3. Select the module and click on its details.
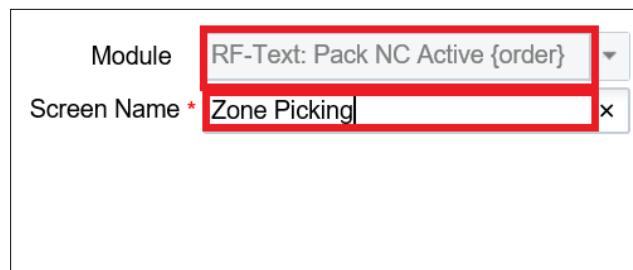
Figure 234: Inspecting the RF's Details

4. In the screen name field, add "Zone Picking".
5. Click Save.

For details on the Zone Picking-related parameters, see table below:

Parameter Name	Value	Behavior
Zone Picking	Default Behavior	Zone Picking is not performed and existing behavior holds well. System creates multiple Outbound LPN's if Break by Order or Container is set.
	Zone Picking with Drop	Zone picking logic kicks in and the drop location prompt is displayed if the task contains picks from multiple zones. Works with only Single Outbound LPN. This parameter overrides the setting done on Break Picks by Parameter.
	Zone Picking without Drop Location	Zone picking logic kicks in and the drop location scan screen is not displayed if the task contains picks from multiple zones. Works with only Single Outbound LPN. This parameter overrides the break picks by parameter.
	Zone Picking with Suggested Drop	Zone picking logic kicks in system displays the drop location relevant for the next pick zone
Break Picks By	1- None	While picking, the system does not break the picks by Order or by Destination.
	2- Destination (default/current status)	While picking, the system prompts for a new Outbound Container when the picked order points to different destination. When the 'Zone Picking' parameter is set, then the 'break picks by destination' will not be considered and you continue with the same Outbound LPN.
	3- Order	While picking, the system prompts for a new Outbound Container when picking a different order. When the 'Zone Picking' parameter is set, then 'break picks by Order' will not be considered and you continue with the same Outbound LPN.
Retain Close LPN on Task	Yes	When this parameter is set to 'Yes', as soon as you close the LPN by using CTRL-E, WMS does not prompt for drop location and does not remove the LPN from the task. To perform zone picking without moving the LPN's on the conveyor or if Zone picking is not done, it is advisable to set this parameter to Yes.
	No	When this parameter is set as soon as the user closes the LPN by using CTRL-E, WMS prompts for a drop location and removes the LPN from the task. Setting this parameter to 'No' ensures that Zone Picking is done with Single Outbound LPN being moved across different pick

		zones. If the LPN reaches its capacity, select CTRL-E and the system will prompt for a drop location.

6. Now that the Pick Zone module is configured, it needs to be enabled for the desired Task Type. Go to the "Task Type" screen.
7. To configure zone picking for Active Unit picking, select Task Type 'NC-ACTIVE-PICK'. To configure zone picking for Reserve Unit picking, select Task Type 'LPNUNITS'.[15]
8. Click the Detail button to view Zone Picking details.
9. To change the RF program to the one configured in steps 2-4, select module "Pack NC Active {order}" and click Edit. Choose the Zone Picking RF program from the drop-down list:
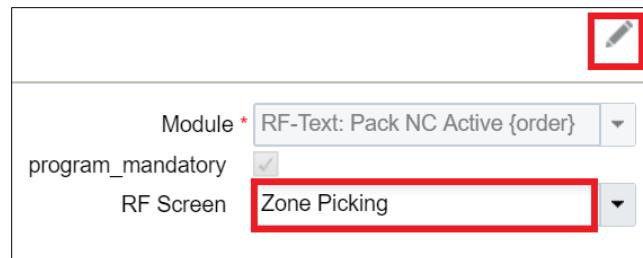
Figure 235: Selecting the Zone Picking RF Program

10. Click "Save".

Step 2: Creating the Task and Wave Templates:

Once the Zone Picking Task Types are defined, you must now add them to the Task Template and eventually to the Wave Template.

1. Go to the "Task Template" screen.
2. Create a new Task Template with the Create button. Once created, select the record and click on its details.
3. Create new Task Type records with the Create button. In the Task Type drop-down, select the Zone Picking Task Types from Step 1.
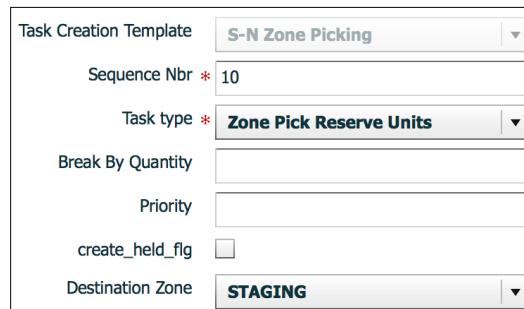
Figure 236: Creating the Zone Picking Task Type record

---

[15] Note that release 6.2 only supports units zone picking.

4. Set up additional Selection and Ordering criteria as needed.[16]
5. Now that the Task Template is complete, use this template in the Wave Template. In the Wave Template, make sure it uses an allocation mode that has the UOM "Units" created:

Figure 237: Adding the "Units" allocation mode

Step 3: Adding "Pick Zones" to locations:

Locations must be assigned Pick Zones in order to be considered in the zone-picking task. To add "Pick Zones" to locations, you must use the location interface ("LOC" file).

1. Open the "LOC" excel file.
2. For every location that requires a pick zone, scroll over to the "pick_zone" field (column AI) and assign a pick zone to the location. Note that the pick zone order is defined by the location's pick sequence.
3. Once all the pick zones are defined, save the file and return to WMS. Go to the "Input Interfaces" screen.
4. Select the "Location" from the drop-down and upload the file. Click "Run Interface" to process the file.

   NOTE: If there is inventory in any location that is being modified, you must first set the "LOCATION_UPDATES_WITH_INVENTORY" parameter to "Yes" in the "Facility Parameters" screen.

Executing Pick Zone Tasks in the RF

Pick Zone tasks behave very similarly to normal tasks. The only difference is that at the end of every zone pick, the RF will automatically prompt you to leave the picked LPN at an intermediate drop location (eg. a conveyor). The second picker will then intercept this LPN and continue the picking process until the task is complete.

1. Enter the "Execute Task" RF module and enter the pick zone task.
2. To begin picking, the RF will prompt you with an OBLPN to pack the merchandise to.

---

[16] See section *"4.1.2.3 - Step 3: Create a Task Creation Template"* for details on selection and ordering criteria.

```
Task Nbr: TSSN00001063
Order Nbr: OTHK093002
Dest: Cust1

OBLPN:
█

Env:
Ctrl-E: Close OB LPN
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 238: Scanning the OBLPN to pack to

3. Once the OBLPN is initiated, the picking process will begin. The RF will direct you to a pick location and ask you to scan the IBLPN and quantity.

```
Task: TSSN00001063
Cust1/OTHK093002
LPN:LPNTHK092203
OBLPN: CTSN100201
Locn: R-8-04-1
LPN:_____
THK03/THK03
Qty:10        =>____

Env:
Ctrl-E: Close OB LPN
Ctrl-D: Skip Item
Ctrl-P: Short Pick
Ctrl-T: Sub IBLPN
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 239: Scanning the LPN and quantity

4. When all the picks for the first zone are complete, the RF will prompt you for the intermediate drop location. You must scan the drop location to confirm that the OBLPN is dropped off.

```
------------------------
T|Drop Location:      |
C|█_____   |
L------------------------
O
L
LPN:LPNTHK092205
THK03/THK03
Qty:5          =>5_____

Env:
Ctrl-E: Close OB LPN
Ctrl-D: Skip Item
Ctrl-P: Short Pick
Ctrl-T: Sub IBLPN
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 240: RF prompts intermediate drop location

5. When the second operator arrives to continue the pick, you must press Ctrl-P within the "Execute Task" module. This will prompt you to scan a Task or Container number. Scan the OBLPN.

```
--------------------------------
.|Task/Container:        |
|█_____      |
--------------------------------
```

Figure 241: Continuing the pick from previous pick zones

6. At this point, the picking process will repeat itself until the LPN reaches the last pick zone and all of the units are picked. When the last pick is complete, the RF will prompt you for a destination zone (if configured).

Figure 242: Continuing the zone picking process until the end

7. When the task is complete, the RF will return to the Task list.

Cubed Picking

Cubing is the process of allocating inventory to outbound containers taking into account the maximum volume and maximum weight that the container can hold, as well as the items dimensions (unit length, width, height). In this sense, WMS attempts to minimize the number of containers used as well as the empty space in each container.

OBLPN Types

OBLPN Types are pre-determined carton types that are frequently used in the warehouse for packing. In WMS, these OBLPN Types are used for cubing during waving. For example, you may have the following OBLPN Types set up:

Code	Description	Maximum Volume	Maximum Weight	Prefix	Length	Width	Height	Empty Weight
SMALL	SMALL	250	25	S	2.5	2.5	2.5	0.025
MEDIUM	MEDIUM	500	50	M	5	5	5	0.05
BIG	BIG	1000	100	B	10	10	10	0.1

Figure 243: Sample OBLPN Types

Depending on what the Wave Template's "Cubing Mode" is set to, WMS may or may not use these OBLPN Types for cubing.

Cubing Modes

Cubing Mode is an additional configuration in the Wave Template that decides how the cubing logic will be used. There are three main types:

Cubing Mode	Value and Comments
None	Cubing is not performed

3-41

Cubing Mode	Value and Comments
1 → Use predetermined OBLPN Type	OB LPN Type picked from Wave template/Order/Item.
2 → Calculate OBLPN Type and cube with wave	OB LPN type computed dynamically and Outbound Cartons created
3→ Calculate OBLPN Type and cube at packing	OB LPN Type computed dynamically but Outbound Cartons to be packed into are not created, until the time of Packing.

Cubing Mode	None	Mode 1: Existing Behavior	Mode 2: Calculate OBLPN Type at the Wave	Mode 3: Calculate OBLPN Type Cube in Packing
Step 1	Wave does not cube.	Wave performs cubing	Wave performs cubing	Wave performs cubing
Step 2	-	OBLPN Type fetched from Wave Template/Order Detail/Item	OB LPN Type determined by Wave Dynamically	OB LPN Type determined by Wave
Step 3	-	OBLPNs are created as part of the wave (status: "Outbound Created")	OB LPN Type on Wave Template/Item/Order is Ignored for actual cubing.	OB LPN Type on Wave Template/Item/Order is Ignored for actual cubing.
Step 4	-	-	Outbound LPN's are created as part of Wave	Outbound LPN's are not created as part of Wave but created as part of Packing

Figure 244: Description of the three cubing modes

Setting up a Wave Template for Cubing

1. Go to the Wave Template screen.
2. Select the Wave Template to be edited and click Edit (✎).
3. Go to the "Cubing Mode" drop-down and select the desired Cubing Mode.
4. If choosing mode "Use predetermined OBLPN Type", you must also select the desired OBLPN Type in the "OB LPN Type" drop-down.

Figure 245: Selecting the Cubing Mode

    5.   Click "Save".

Adding Cubing Rules

You can use Cubing Rules to configure the breaking rules for breaking cubed containers.

    1.   Go to the "Cubing Rule" screen.
    2.   Create a new record and add a description. See example below.

Figure 246: Adding a new Cubing Rule, ex. Break By Order

    3.   Select this record and click the Details button (⬚). This will prompt you to a new screen.
    4.   Create a new record and populate the sequence number.
    5.   Select this record and click on "Ordering Criteria". This is the screen used for adding breaking logic.
    6.   Create new breaking criteria for cartons from the drop-down in the "Order by column" field.
    7.   Populate a number in the "Break by Count" field to configure how much it should break by.

Figure 247: Adding a New Breaking Logic

For example, the configuration from the figure above will cause the system to create a new cubed carton every 5 orders.

Viewing the cubed LPN Numbers and Quantities

For Cubing Mode 2, once a cubing wave is executed, you can check the cubing results by inspecting the wave's allocations.

    1.   Go to the Wave Inquiry screen.
    2.   Select the wave number to inspect and click the "Allocations" button.
    3.   The second "LPN" column (outbound LPN) should be populated. This means that the allocation record has been cubed to that Outbound LPN number.

4. To view what OBLPN Type it was assigned to, follow these steps:
    a. Go to the "Allocations" screen.
    b. Add a search filter for either the IBLPN Number in the "IB LPN Nbr" field or the OBLPN number in the "Ctn Nbr" field.
    c. Click "Search".
    d. The column "allocation_oblpn_type" will be populated with the OBLPN Type it was assigned to.

Split by Allocation UOM Parameter

The Break by Modifier field (in the Cubing Rules UI) allows you to generate an OBLPN based on the number of UOMs entered in the Break by Quantity field.

From Cubing Rules, click **Details** (⛁) and then **Edit** to edit your Cubing Rule and specify Break by criteria.

Figure 248: Cubing Rule - Details

In the following example, the Break by Modifier is set to Split by Alloc UOM and the Break by Quantity is set to 1. So, the system will create an OBLPN for every 1 UOMs (Cases, Packs, Units) allocated by the wave.
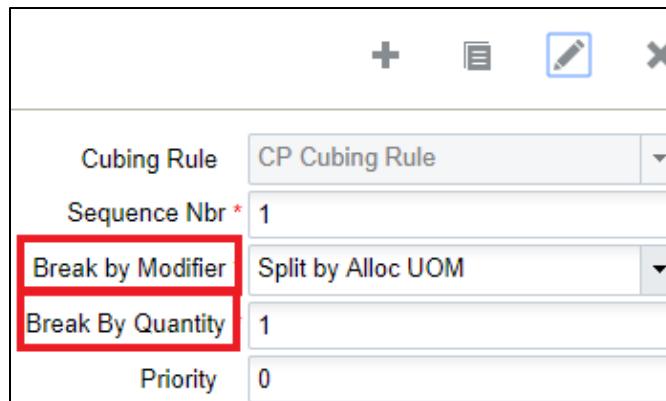
Figure 249: Break by Modifier - Split by Alloc UOM

Cubing Exceptions

Wave Logs

It is always good practice to inspect a wave's logs whenever an allocation does not execute as expected. To view a wave's logs, click the "Wave Logs" button in the "Wave Inquiry" screen. This screen displays any errors that may take place during cubing.

For example, if the SKU fails the capacity check due to dimension check validations against all eligible Outbound LPN Types, WMS will log the following message:

```
Item "<Value>" fails dimension check, skipped from Cubing.
```

Default OBLPN Types as contingency

As an alternative, you can set up 'contingency' LPN Types that the system will default to whenever a cubing allocation fails the dimension check for all of the eligible OBLPN Types.

1. Go to the Wave Templates screen.
2. Select the desired wave template and click the Edit (✎) button.
3. Select the OBLPN Type that the system should default to whenever the cubing process fails the dimension checks in the "OB LPN Type" drop-down.
4. Click "Save".

   Note: this should only be used for cubing modes 2 and 3.

Pick Carts

Pick Cart is a form of batch picking where you use a cart to pick and pack multiple orders on a single trip through the warehouse. A generic Pick Cart process in WMS is displayed below:

User executes wave; orders are allocated and cubed.	OBLPN and OBLPN Type is defined.	User prints pick ticket and distributes labels to operators
Cartons are created based on breaking logic and dimensional cubing	OBLPNs are created with status "Outbound Created"	

User enters RF Pick Cart module, scans OBLPN and cart position	When a carton is full, user closes OBLPN.	When all OBLPNs in the cart are closed, user moves LPNs to destination.
	OBLPN updates to status "PACKED"	

Figure 250: Generic Pick Cart picking process

Configuration

Depending on the Cubing Mode, the configuration will be slightly different.

Step 1: Configure the Allocation Mode

1. Go to the "Wave Template" screen and click on the "Allocation Mode" button.
2. Once in the Allocation Mode screen, click on the Create button, enter a description for the new allocation mode and click "Save".

Figure 251: Creating a new Allocation Mode

3. Once the Allocation Mode is created, click on the record.
4. Click on Details (⊞) to access the "Allocation Mode Sequence" screen.
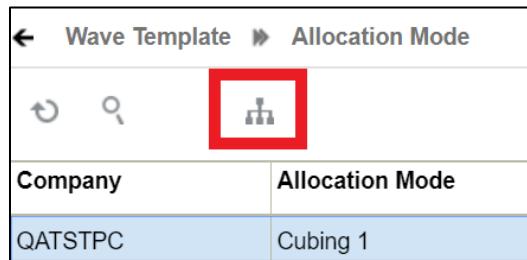
Figure 252: Viewing Allocation Details

5. Click on the Create button and enter the corresponding details to create a new allocation sequence. The **"Cartonize UOM"** field must be set to **"Cubed"**.
    a. Note that the wave can cube units, packs, and case allocations but it does NOT mix different UOM allocations in one outbound container.

Figure 253: Creating an Allocation Mode

Step 2: Add Cubing Rules

See section 4.3.4.3 for detailed instructions on how to configure Cubing Rules.

1. Go to the "Cubing Rules" screen.
2. Create a new rule with the Create button.
3. Select this new cubing rule and click on the Details button.
4. Create a new cubing rule record with the Create button.
5. Select this record and click on "Ordering Criteria".

6. Create a new breaking criteria with the Create button; select the field you want to break the cubed container by (eg. "Order Number, Break By Count = 1" – this translates to "create a new carton for every order that is allocated in the pick cart wave").

Step 3: Define the OBLPN Types

As section 4.3.4.1 describes, OBLPN Types are pre-determined carton types that are frequently used in the warehouse for packing. In WMS, these OBLPN Types are used for cubing during waving. OBLPN Types must be created for cubing to occur.

1. Go to the "OBLPN Types" screen.
2. Click the Create button to create a new OBLPN Type.
3. Populate all of the fields.

Code: refers to the OBLPN Type code.

Prefix: refers to the prefix of the LPN number when the container is created.

Max Volume/Weight, Length, Width, Height, and Empty Weight: populate the dimensions of the box type. These values will be taken into account during cubing.

Use for cubing: users can enable/disable OBLPN Types for cubing[17]. Check this box to use the current OBLPN Type.

Step 4: Create the Pick Cart Wave Template

The last step in the configuration is to create a wave template.

1. Go to the "Wave Templates" screen.
2. Click the Create button to create a new template.
3. Populate the necessary fields. Refer to figure below as an example. Note that a Task Template is not needed.

Figure 254: Sample Pick Cart Wave Template configuration

4. Click "Save".

---

[17] This only works when using Cubing Modes 2 & 3 in the wave template. Refer to section 4.3.4.2 for details.

Step 5: Add the "Pick Cart" RF transaction

1. Go to the "Screen Configuration" screen.
2. Click "Generate Screens" to add the new RF module.
3. Scroll down and check the RF entitled "RF-Text: Pick Cart". Click Save.
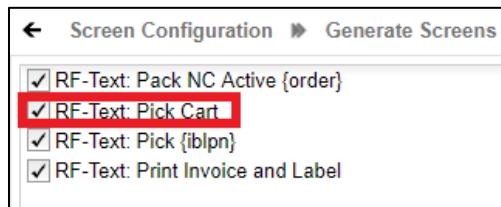
Figure 255: Adding the Pick Cart RF

At this point you may choose to configure the RF's parameters to customizer it's behavior. To access the parameters, select the RF record and click on Details.

This will prompt a new window with its parameters:

Screen	Module Parameter	Parameter Type
Pick Cart (1)	prompt_rsncode_onshort	Selection
Pick Cart (1)	UPDATE_INVN_ONSHORT	Selection
Pick Cart (1)	max-OBLPNs-in-cart	Number
Pick Cart (1)	task-type-description	Text
Pick Cart (1)	required-validations	Selection
Pick Cart (1)	dest-task-zone	Text
Pick Cart (1)	item-barcode-scan	Selection
Pick Cart (1)	show-item-external-style	Selection
Pick Cart (1)	allow-multi-alloc-types	Selection
Pick Cart (1)	pick-confirmation	Selection
Pick Cart (1)	task-ordering	Text

Figure 256: Pick Cart RF Parameters

Printing the Pick Tickets and Using the RF Module

The Pick Cart functionality requires its own RF module. You must add this RF module in the "Screens" screen and add the RF module entitled "RF-Text: Pick Cart". Below is the order of screens while using this RF module.

1. Before entering the RF, you must print the pick tickets from the wave.
   a. Go to the "Wave Inquiry" screen.

Search for the wave record to pick. Make sure the order by rule is selected from the drop-down (see figure below).
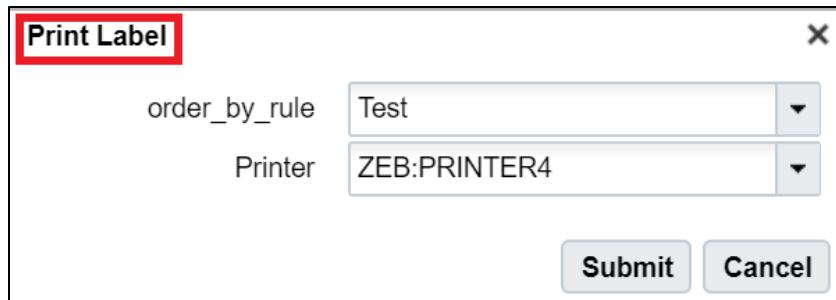
Figure 257: Print Label

   b. Once the wave and the column ordering criteria are selected, click "Print Label".
   c. The label printer should print all the OBLPN labels for the cubed allocations.

2. Enter the "Pick Cart" RF module.
3. Scan the Pick Cart number.

```
LogF
RF_Pick Less Than Pallet
Cart#:PICKCART01

Env: ryde
Ctrl-X: Exit App
Ctrl-W: Previous screen
```
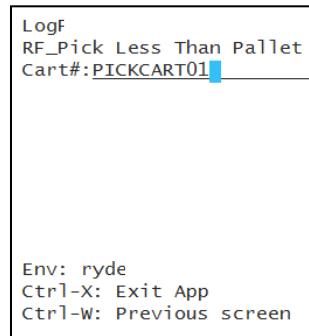
Figure 258: Scan Pick Cart number

4. Scan the OBLPN number. This is the container that the user will pick to. As the user scans more OBLPNs, the RF will record its position in the pick cart.

```
Cart#:PICKCART01              Cart#:PICKCART01
Position:1                    Position:2
OBLPN:0000001590              OBLPN:0000001589




Env:                         Env:
Ctrl-E: Close Cart           Ctrl-E: Close Cart
Ctrl-X: Exit App             Ctrl-X: Exit App
Ctrl-W: Previous screen      Ctrl-W: Previous screen
```
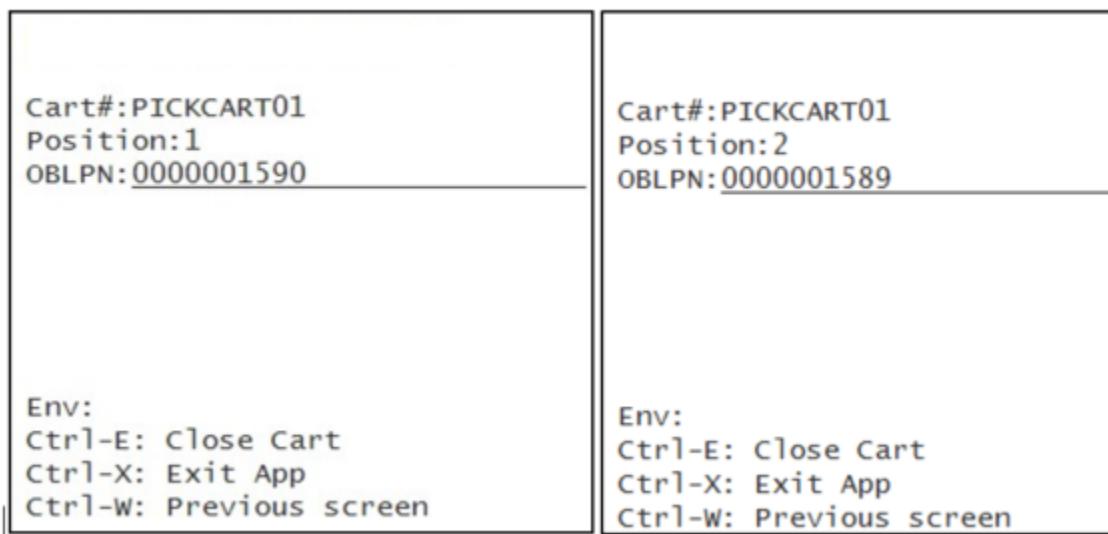
Figure 259: Assign OBLPN(s) to a Pick Cart position

5. When you are done placing all the OBLPNs into the pick cart, they must press Ctrl-E to close the cart and begin picking.
6. RF will then prompt you the first IBLPN to pick from along with other picking information.

```
Zone:MACDONALDS1                    Zone:MACDONALDS1
Locn:TEST-TEST-TEST-TEST            Locn:TEST-TEST-TEST-TEST
IB LPN:MACLPN1                      IB LPN:MACLPN2
IBLPN: MACLPN1                      IBLPN: MACLPN2
Item: TESTMAC-TESTMAC              Item: TESTMAC2-TESTMAC2
Desc: short description             Desc: short description
Position:2                          Position:1
Qty:100        =>100                Qty:100        =>100

Env: r                              Env:
Ctrl-E: Close OB LPN                Ctrl-E: Close OB LPN
Ctrl-D: Skip Item                   Ctrl-D: Skip Item
Ctrl-P: Short Pick                  Ctrl-P: Short Pick
Ctrl-K: Un-assign OB LPN            Ctrl-K: Un-assign OB LPN
Ctrl-X: Exit App                    Ctrl-X: Exit App
Ctrl-W: Previous screen             Ctrl-W: Previous screen
```

Figure 260: Reserve Picking

```
Zone:ENTEST39
Locn:PKA-07-10-00-2
Locn: _____
Item: 0887828415-118-000-M
Desc: MENS KNIT SHIRT 100% COTTON
Position:2
Unit:3         =>_____
```

Figure 261: Active Picking

7. When you reach the end of the pick cart task, the system will prompt you to leave the containers at a destination (if configured).

```
-----------------------
|Drop locn (DOOR_DROP|
|):                  |
|_____   |
-----------------------
```
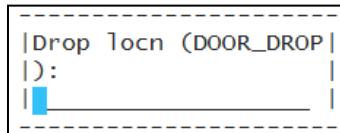
Figure 262: Destination Zone

8. Scan the destination zone to finalize the pick.

Put-To-Store (Distribution)

PTS (Put-To-Store) is the process in which products are pulled from inventory in bulk and delivered to a distribution zone where the product is divided and sorted to individual retail store destinations. This is an outbound process, which begins when orders are received and merchandise is allocated for PTS. A simple diagram of this process is shown below:

Generic Put-To-Store Outbound Flow:

1. Pick inventory in bulk.

2. Drop off LPNs to a drop zone for distribution.

3. Break LPNs and distribute according to the order's destination store.
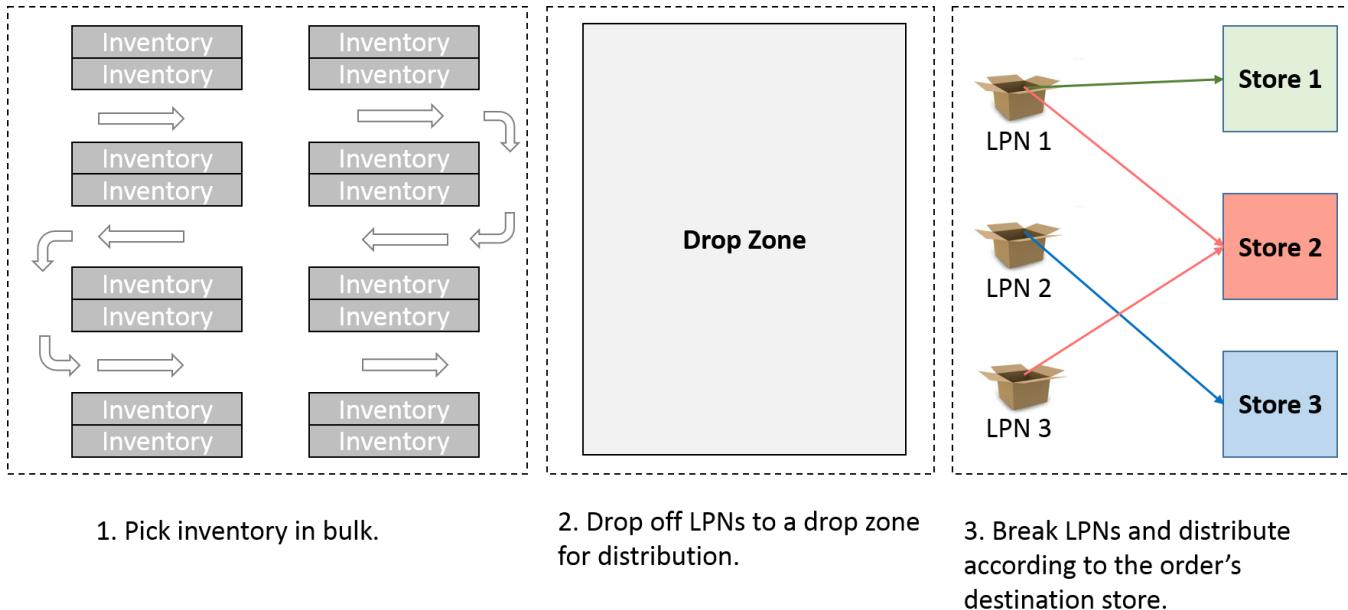
Figure 263: Generic PTS flow diagram for a warehouse distributing orders to 4 different stores.

PTS Process Steps

In summary, these are the steps in a typical PTS flow:

1. Orders for stores are received.
2. The wave master runs a wave for these specific orders.
3. Operators are directed to merchandise requested from the orders in the warehouse.
4. Operators pick items from the warehouse's inventory.
5. Operators move the Dummy IBLPNs to the PTS Drop Zone for distribution.
6. LPNs are distributed to specific cartons prompted by the RF, which are pre-assigned to stores.
7. Cartons are packed and ready to be loaded/shipped.

Configuration

These are the components required for configuring an environment for PTS:

1. Stores (Facilities) and Consolidation Locations
2. Wave template (Wave Allocation Mode)
   a. No Distribution
   b. Distribution Residuals OK
   c. Distribution No Residuals
   d. Consolidate and Distribute
3. The Task Template
   a. Task Types

1. Stores and Consolidation Locations

Stores:

Stores can be configured through the Facilities screen. From this screen, you can specify the destination stores that the merchandise will be sent to. When performing a PTS flow, cartons are distinguished by stores that have been predefined in this screen.

Code	Name	Facility type	Address 1	City	State	ZIP	Country	Phone Nbr ▲
STORE1	Store 1	Store	Address Store 1	Atlanta	GA	30339	US	(999) 999-9999
STORE2	Store 2	Store	Address Store 2	Atlanta	GA	30339	US	(999) 999-9999
STORE3	Store 3	Store	Address Store 3	Atlanta	GA	30339	US	(999) 999-9999

Figure 264: List of facilities as seen from the Facilities screen

Consolidation Locations

To set up a store (destination facility) for PTS, it must first have a matching Consolidation Location configured.

In a warehouse, a Consolidation Location is the physical area in which the distribution takes place; systematically, it is used to designate a location to a specific store. This way, during distribution, the system knows which consolidation location ('store location') the merchandise should go to.

Physically, a Consolidation Location is a line of locations with open cartons ready to be distributed. When the operator arrives to the Consolidation Location, he/she will scan the previously picked IBLPN, and the system will prompt to distribute that IBLPN to one of the cartons in the Consolidation Location.

In WMS, Consolidation Locations can be created under the "Locations" screen:
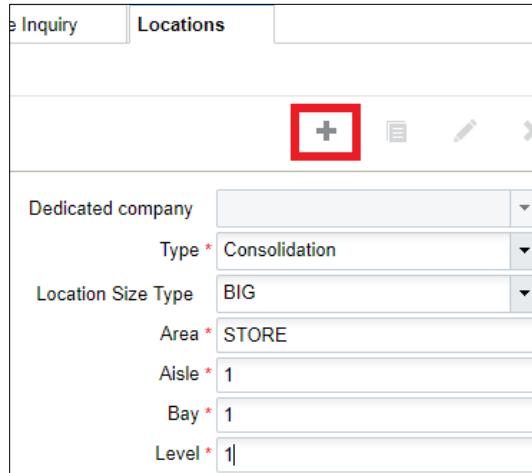
Figure 265: Creating a new Consolidation Location

Linking the Stores and Consolidation Locations

Once the Stores and Consolidation Locations are created, they must be linked to each other. This allows the system to know which Consolidation Location has which store assigned; this is done through the "Consolidation by Location" screen.
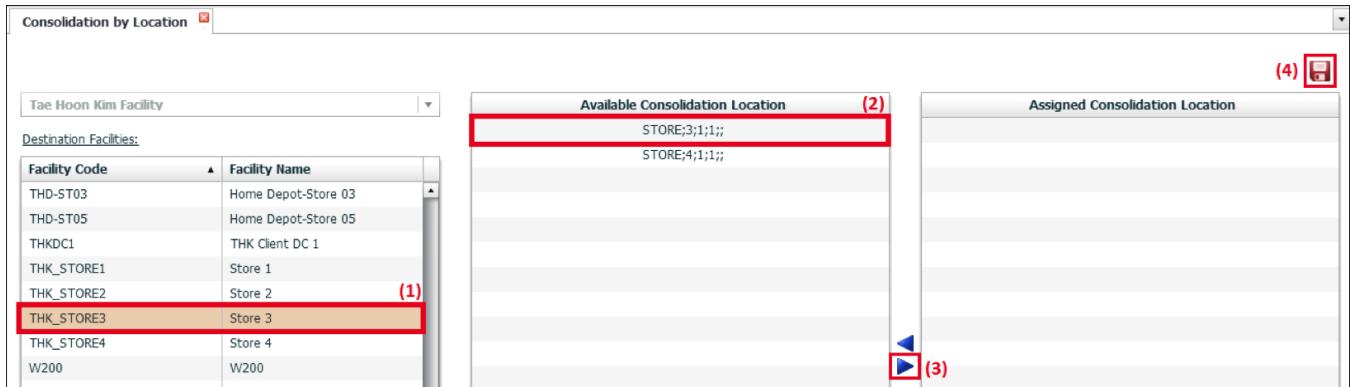
Figure 266: Consolidation by Location Screen View

1. Select the store you wish to link a Consolidation Location to.
2. Select the available Consolidation Location that is to be linked.
3. Click the right arrow button to assign the Consolidation Location.
4. Click the Save button.
5. Repeat this procedure for each Store / Consolidation Location.

2. Wave Template

In a PTS wave, the allocation method must have a defined distribution method; this is done through the **Wave Allocation Mode** screen. To access this screen, follow the figures below:

1. Go to the Wave Template screen and click "Allocation Mode".
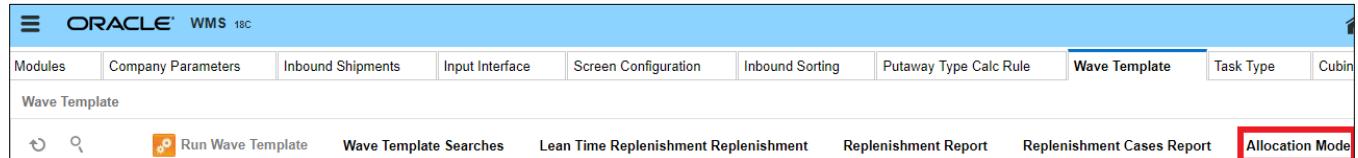
Figure 267: Allocation Mode

2. Create a new Allocation mode with the Create button and then click details.

Figure 268: New Cases UOM Allocation Mode

3. From the details, select each Allocation Mode and click Create ( ) to add each new Allocation Mode sequence.

Figure 269: Allocation Mode Sequences

Figure 270: Allocation Distribution Modes

When setting the allocation method, there are four allocation distribution modes (Figure 9):

No Distribution

This distribution mode is used for a **Pick & Pack** flow, when distribution (or PTS) is not used. Here, the system can allocate merchandise in either units or Full LPNs, which can be specified in the field "Allocation UOM (Unit of Measurement)".

Distribution Residuals OK

This is the first distribution option that is used in distribute to store. The "Residuals OK" implies that when allocating orders to available LPNs in the inventory, the system allows LPNs to be partially allocated and have unallocated units left over (ie. 'residuals'). Depending on the order quantity and the available inventory, this allocation type can allocate both LPNs and units. Distribution Residuals OK only allows you to select units, packs, or cases from the Allocation UOM drop-down.

Example:

Consider three orders, each with their SKU and quantities ordered:
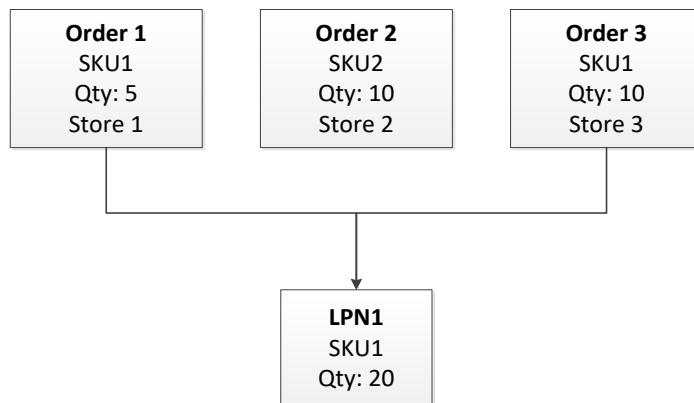
Figure 271: LPN1 is allocated to Orders 1 & 3 Due to Allowed Residuals

Here, orders one and three are ordering the same SKU. With "Residuals OK", the system will first allocate an LPN that has **at least** 15 units of SKU1; in this case, LPN1. When LPN1 is allocated to orders one and three, its status will change to "*Partly Allocated*"[18]. Once the pick is complete, the remaining units in the LPN must be returned to the inventory.[19]

Distribution No Residuals

This distribution mode will only allocate LPNs with no residuals. In other words, every time an LPN is allocated for distribution, all of its contents must be allocated to one or more orders (ie. LPNs cannot be "Partly Allocated"). Distribution No Residuals only allows you to pick units, packs, or cases from the Allocation UOM drop-down.

Example:

Consider three orders, each with their SKU and quantities ordered:

Order 1	**Order 2**	**Order 3**
SKU1	SKU2	SKU1
Qty: 5	Qty: 10	Qty: 10
Store 1	Store 2	Store 3

LPN1	**LPN2**
SKU1	SKU1
Qty: 20	Qty: 15

(Total SKU1 Ordered: 15 units)
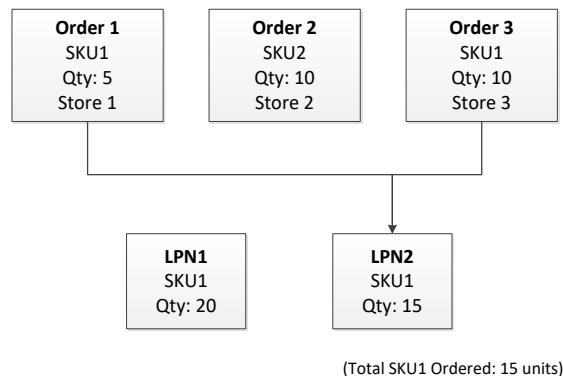
Figure 272: LPN2 is allocated instead of LPN1 since residuals are not allowed

In this case, there are two available LPNs of SKU1 - one with 20 units and another with 15. Given the three orders, the system will allocate orders one and three to LPN2; it cannot allocate to LPN1 because it would result in five residual units, which is not allowed.

Consolidate and Distribute

This is the simplest form of distribution where it allows only **unit** allocation for PTS. Note: for this option, an 'Internal Picking Order' is created for each dummy LPN that is picked.

---

[18] The user can click on "Partly Allocated" from the "Status" column in the IBLPN screen to view how many units from this LPN is allocated.

[19] Once an LPN has been partly distributed, the LPN goes from status "Partly Allocated" to "Located". Since there are no remaining allocated units in this LPN, it loses its "Current Location". Thus, it is important that the operator remembers to re-locate the LPN to an inventory location (RF will prompt for a Drop Location post-distribution); otherwise this LPN will likely be physically unaccounted for.

3. Task Creation Template

To configure the Task Creation Template, you need to set the Task Types specific for distribution.
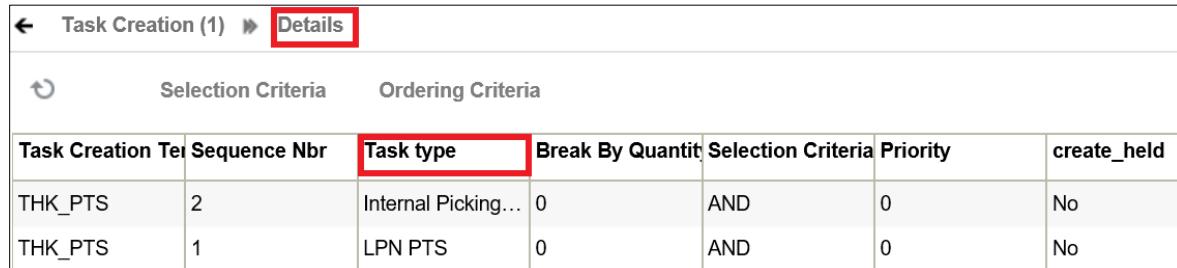
Task Creation Te	Sequence Nbr	Task type	Break By Quantit	Selection Criteria	Priority	create_held
THK_PTS	2	Internal Picking…	0	AND	0	No
THK_PTS	1	LPN PTS	0	AND	0	No

Figure 273: Configuring the Task Template Sequences

In this screen, only two templates are necessary; LPN PTS and Internal Picking Task (see section 'Task Types'). Additionally, a destination zone can be specified if a PTS Drop Zone is used.

When a wave is run and units are allocated, tasks are created depending on its Task Type, order allocation, distribution mode, and allocation UOM.

Task Types

The following figure displays a list of available task types from the "Task Type" screen:
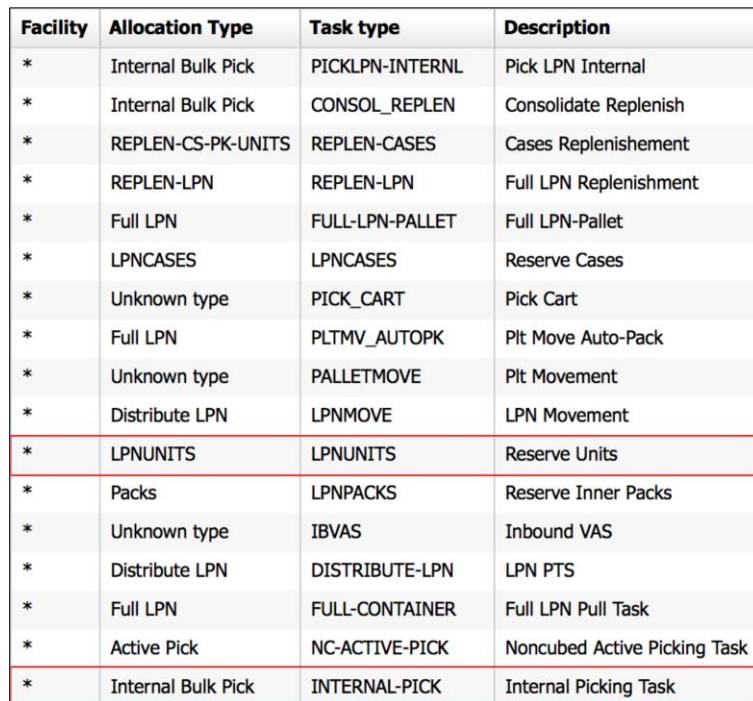
Facility	Allocation Type	Task type	Description
*	Internal Bulk Pick	PICKLPN-INTERNL	Pick LPN Internal
*	Internal Bulk Pick	CONSOL_REPLEN	Consolidate Replenish
*	REPLEN-CS-PK-UNITS	REPLEN-CASES	Cases Replenishement
*	REPLEN-LPN	REPLEN-LPN	Full LPN Replenishment
*	Full LPN	FULL-LPN-PALLET	Full LPN-Pallet
*	LPNCASES	LPNCASES	Reserve Cases
*	Unknown type	PICK_CART	Pick Cart
*	Full LPN	PLTMV_AUTOPK	Plt Move Auto-Pack
*	Unknown type	PALLETMOVE	Plt Movement
*	Distribute LPN	LPNMOVE	LPN Movement
*	LPNUNITS	LPNUNITS	Reserve Units
*	Packs	LPNPACKS	Reserve Inner Packs
*	Unknown type	IBVAS	Inbound VAS
*	Distribute LPN	DISTRIBUTE-LPN	LPN PTS
*	Full LPN	FULL-CONTAINER	Full LPN Pull Task
*	Active Pick	NC-ACTIVE-PICK	Noncubed Active Picking Task
*	Internal Bulk Pick	INTERNAL-PICK	Internal Picking Task

Figure 274: PTS-specific Task Types

PTS uses two task types: "INTERNAL-PICK" and "DISTRIBUTE-LPN".[20]

DISTRIBUTE-LPN

This task type is mainly used for distributions that allocate to either LPNs or Full LPNs. For Full LPN distribution, the wave template's allocation method must be set to "Distribution No Residuals"; for LPN units, packs, or cases allocations, use "Distribution Residuals OK".

The following figure displays the details inside task type DISTRIBUTE-LPN:

Task type	Sequence Nbr	Module	program_mandatory	rf_program
LPN PTS	1	RF-Text:	Yes	Move LPN
LPN PTS	2	RF-Text: RF - Task Zone Movements	No	RF - Task Zone Movements
LPN PTS	3	RF-Text: Distribute {oblpn}	No	Distribute LPN

Figure 275: Details inside DISTRIBUTE-LPN

There are three modules within DISTRIBUTE-LPN - **Move LPN**, **Task Zone Movements**, and **Distribute LPN**. These are three separate RF transactions combined into one. Here, you can specify which of these three transactions they want to include (Move LPN is required, as seen in column 'program_mandatory' = Yes).

> *To enable/disable the RF programs, simply click on the RF program, click edit, and press ctrl+click to deselect from the drop-down menu.

RF Programs

Move LPN:

This is the basic function for 'Execute Task', where the user will pick the IBLPN. This RF program is required and cannot be disabled.

Task Zone Movements:

When enabled, the RF will prompt the user for a Task Zone that the picked merchandise is to be moved to. This can be configured in the "destination_zone" column of the Allocation Method or in the "Task Zone Move Rules" screen.

For PTS, the end Task Zone will be a PTS Drop Zone where the distribution will take place:

```
          WMS THK_FAC/THK_
RF – Task Zone Movements
Task: TSTHK00001104
Drop Zone: THK_PTS
Drop:_____
```

Figure 276: RF - Task Zone Movements

---

[20] The third 'Distribute' task type, "LPNMOVE", is not used because "DISTRIBUTE-LPN" contains all the functionality that "LPNMOVE" has.

After scanning the Drop Zone, the IBLPN's 'current location' will be updated.

DISTRIBUTE LPN

This is the primary RF program used to distribute the picked IBLPN into the orders' stores. When enabled, the RF will prompt you for an IBLPN to distribute after picking is complete. If you decide to disable this option, you can distribute the IBLPN outside of the "Execute Task" transaction, called "Distribute LPN".[21]

***It is important to note that a Task's status will be set to "Completed" depending on the use of these RF programs. For example, if Move LPN and Task Zone Movements are enabled, but Distribute LPN is disabled, the Task will end after you have picked and specified a Task Zone to move the IBLPN to.

INTERNAL-PICK

Internal picks are tasks created for internal product movement, such as Replenishment and Directed Putaway.

Task type	Sequence Nbr	Module	program_mandatory	rf_program
Internal Picking Task	1	RF-Text: Pick {iblpn}	Yes	Pick into IBLPN
Internal Picking Task	2	RF-Text: RF - Task Zone Movements	Yes	RF - Task Zone Movements

Figure 277: Details inside INTERNAL-PICK

RF Programs

Pick into IBLPN:

Unlike the default Move LPN RF program from "DISTRIBUTE-LPN", this RF transaction prompts for an additional IBLPN after scanning the first IBLPN to pick *from*. This is used in flows that have temporary IBLPNs (post-picking) moving from one zone to another. In PTS, it is sometimes used to move an IBLPN from a physical rack to a cart (here the entire cart is an IBLPN).

Task Zone Movements:

The Task Zone Movement RF Program is the same as the one in DISTRIBUTE-LPN; if a task zone movement is configured, once the IBLPN is picked, the RF will prompt the next task zone.

Caveat:

Internal picks are difficult to work with due to limited visibility. When an internal bulk pick task is created, it is very difficult to identify which order the wave is from, since an internal picking order is recorded instead. Additionally, since this task type is not specific to PTS, its task changes to "Completed" before distribution is performed, making it difficult to keep track of tasks that have completed PTS.

Task Execution – RF screens

Depending on the Task Type and its parameters, the distribution process may be slightly different.

Scenario 1: DISTRIBUTE LPN with DISTRIBUTE-LPN – LPN PTS

1. Go to the RF transaction "Execute Task".
2. After selecting the Task number, the RF will prompt a Pallet and LPN to pack to:

---

[21] See appendix for a step-by-step display of the RF screen with this transaction.

```
              Move LPN
Task:TSTHK00001094
LPN:CSTHK00001208
A-1-1-1
Item:THK1 (10)
THK ITEM 1
Plt:[ ]
LPN:_____


Env:
Ctrl-E: End pallet
Ctrl-K: Deallocate lpn
Ctrl-P: Short lpn
Ctrl-D: Skip lpn
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 278: Pallet Prompt

3. Once picking for the Task is complete, the RF will prompt an LPN. Here, you will scan the IBLPN that was just picked for distribution.

```
        Distribute LPN

LPN: CSTHK00001208
Locn:

LPN:
_____



Env:
Ctrl-E: Close OB LPN
Ctrl-L: Change Location
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

```
    --------------------
   |Proceed with distrib|
  L|ution?              |
  L--------------------

  L
  CSTHK00001208



Env:
Ctrl-E: Close OB LPN
Ctrl-L: Change Location
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 279: LPN Prompt   **Figure 280: Proceed with Distribution Message**

When the RF prompts the message "Proceed with distribution?", press ctrl+A to proceed.

4. Once the IBLPN is opened for distribution, the RF will prompt for a 'Locn' (referring to a Consolidation Location) and an OBLPN to distribute to.

```
Task:
IBLPN:  CSTHK00001208

Locn: STORE-2-1-1
Locn: █
OBLPN:
_____


Env: lgf
Ctrl-E: Close OB LPN
Ctrl-D: Skip Locn
Ctrl-X: Exit App
Ctrl-W: Previous screen
```
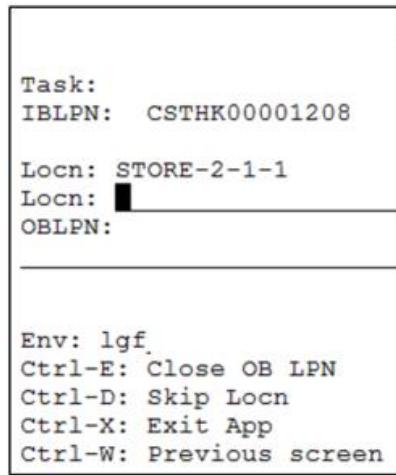
Figure 281: Locn Prompt

Since the system knows that the IBLPN must be distributed to "STORE-2-1-1", all you have to do is look for that Consolidation Location, scan the bar code, scan the OBLPN, and begin distribution.

5. When all the items in the IBLPN have been distributed and no merchandise is left in the box, the RF prompts the message "No distribution left".

```
    ----------------------
L|No distribution left|
O|                     |
L----------------------
I
T

Qty:  10
Qty:  10_____

Env: lgf
Ctrl-E: Close OB LPN
Ctrl-P: Short Pick
Ctrl-D: Skip Locn
Ctrl-X: Exit App
Ctrl-W: Previous screen
```
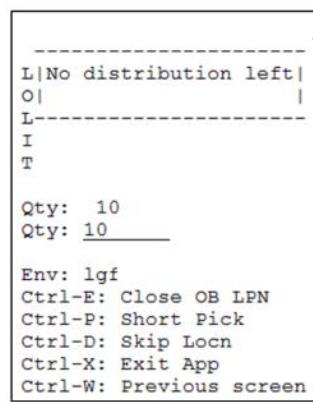
Figure 282: No Distribution Left Message

At this point the IBLPN is successfully distributed and is changed to status "Consumed". The RF will leave the current Task and return to the list of open Tasks.

After distributing an IBLPN to an OBLPN, there are two scenarios that may follow:

1. When there are no SKUs left in the order
2. When there are remaining SKUs in the order left to distribute.

For 1. The RF will prompt the message "No distribution left", indicating that the IBLPN you are picking from has no units remaining to distribute.

**If the Carton you are distributing to is complete, and the IBLPN has residuals, the RF will prompt for a Drop Location. This is so that you can temporarily place this IBLPN to a Drop Location before returning it to a Reserve location.

For 2. The RF will not prompt you anything. Instead, the screen will blink and prompt you for the remaining IBLPN quantity, or move on to the next SKU.

A carton is only physically closed (or 'packed') when:

1. There is no more space left in the box;
2. There are no more pending orders.

For each of these scenarios, the operator must remember **to physically AND systematically close the carton**. To systematically close the carton, use the **ctrl-E** option in either the "Execute Task" or the "Distribute LPN" RF programs. This will make the LPN in WMS change from status "In-Packing" to "Packed"[22]:

```
        Oracle WMS 951/5000
   GD Distrib LPN Stand Alone


Printer:
GD_Email_Perso
OBLPN Drop Locn:
RNADROP00
IBLPN: IBLPN00006640
SKU: GDEAN13000017█




Env: lgf_100_qa
Ctrl-E: End To LPN
Ctrl-L: Change Location
Ctrl-X: Exit App
Ctrl-W: Previous screen
```
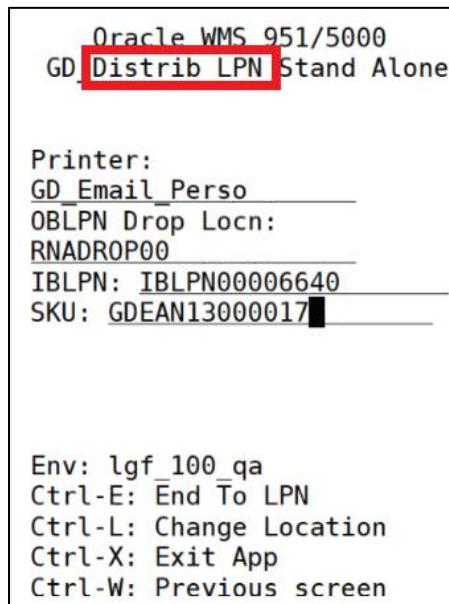
Figure 283: Distribution Transaction

---

[22] This must also hold true for order statuses; if the OBLPN is still "in packing", the Order's status must also be "in packing".

Figure 284: OBLPN status changed to "Packed"

Scenario 2: Distribute LPN RF transaction with Task Type INTERNAL BULK PICK

1. Go to the RF transaction "Execute Task".
2. After selecting the Task number, the RF prompts a "dummy" LPN to pack to. This "dummy" LPN is essentially an intermediate LPN used to transport units before distribution:
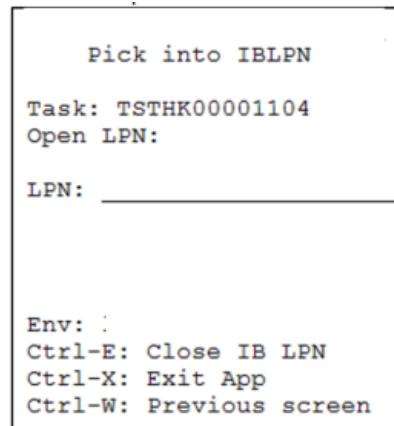
Figure 285: Dummy LPN

   a. Note that at any point in time you may choose to close the current dummy LPN by pressing Ctrl-E. This will allow you to open another LPN (if the first LPN gets physically full) and continue with the pick.

3. After the dummy LPN is open, the RF will direct you to a pick location. Here you must scan the LPN and quantity to be picked.

```
Task: TSTHK00001104
 IBLPN:    IBLPN13091601
Locn: A-1-2-1
LPN: CS13091602
Item:      ITEM1
Qty:       10
LPN: █
Qty: _____

Env:
Ctrl-E: Close IB LPN
Ctrl-D: Skip Item
Ctrl-P: Short Pick
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 286: Scan LPN

4. When all the LPNs in the Task are picked, the RF will display the message "Nothing left to pick". Press Ctrl-A to proceed.

```
Log
 ---------------------
T|Nothing left to pick|
 |                    |
L---------------------
L
I
Qty:       10
LPN: CS13091602
Qty: 10_____

Env: lgf
Ctrl-E: Close IB LPN
Ctrl-D: Skip Item
Ctrl-P: Short Pick
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 287: Nothing Left to Pick Message

5. After all dummy LPNs are closed, you have to drop the merchandise to its destination zone. Scan the destination zone to confirm that the LPNs have arrived to their destination.

```
RF - Task Zone Movements
Task: TSTHK00001104
Drop Zone: THK_PTS
Drop:_____
```

Figure 288: Drop Prompt

6. Once all IBLPNs are picked and dropped to their destination zones, the Task will end. Unlike LPN distribution, unit distribution requires you to open a separate RF module for distribution. To begin distributing one of the LPNs, enter the RF module "Distribute LPN".

```
     Distribute LPN

LPN: CSTHK00001208
Locn:

LPN:
_____



Env:
Ctrl-E: Close OB LPN
Ctrl-L: Change Location
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

```
----------------------
|Proceed with distrib|
L|ution?              |
L----------------------

L
CSTHK00001208



Env:
Ctrl-E: Close OB LPN
Ctrl-L: Change Location
Ctrl-X: Exit App
Ctrl-W: Previous screen
```
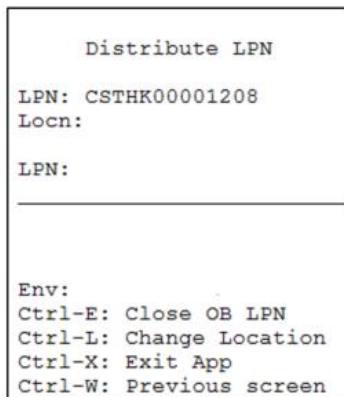
Figure 289: Distribute LPN　　**Figure 290: Proceed with Distribution Message**
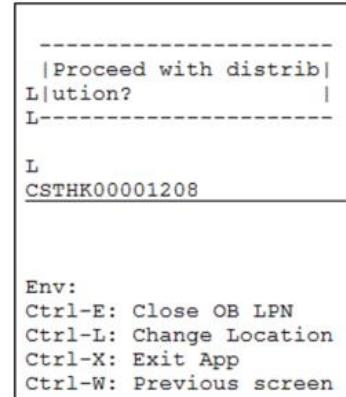
   a.　The RF will prompt for an LPN; this refers to the picked IBLPN that will be distributed.
   b.　When the RF prompts the message "Proceed with distribution?" press ctrl-A to proceed.

7. Once the IBLPN is opened for distribution, the RF will prompt for a 'Locn' (referring to a Consolidation Location) and an OBLPN to distribute to.

```
Task:
IBLPN:   CSTHK00001208

Locn: STORE-2-1-1
Locn: ▮
OBLPN:

_____


Env: :
Ctrl-E: Close OB LPN
Ctrl-D: Skip Locn
Ctrl-X: Exit App
Ctrl-W: Previous screen
```
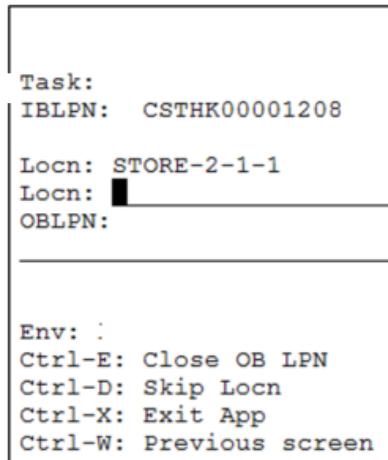
Figure 291: Locn Prompt

   a.　Since the system knows that the IBLPN must be distributed to "STORE-2-1-1", all you have to do is look for that Consolidation Location, scan the bar code, scan the OBLPN, and begin distribution.

8. When all the items in the IBLPN have been distributed and no merchandise is left in the box, the RF will prompt the message "No distribution left".

```
 -----------------------
|No distribution left|
|                     |
|                     |
 -----------------------
```
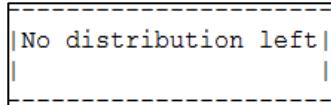
Figure 292: No distribution left message

Pick and Allocate

Oracle Cloud WMS offers different ways to satisfy an order-based picking of inventory from the Reserve/Active location without users running the wave in the system.

The Pick and Allocate transactions can be used in warehouses that support small business operations like Stores or Medium sized distribution centers where users with orders visit the stores/DC, the store operators picks the inventory manually based on the order, packs and ships the inventory (outbound LPN) out along the users.

Note: The Pick and Allocate transaction is eligible for those order whose order type have "Allocate During Pick" set to Yes. If the "Allocate During pick" is set to NO, then order isn't eligible for a pick.

Parameter

The Pick and Allocate screen list various parameter that user can choose to perform the operation based on parameter selection:

Module Parameter	Parameter Type
packing-restriction-rule	Text
location-search-rule	Text
item-barcode-scan	Selection
auto-load	Selection
order-sequence-rule	Text
pick-and-allocate-mode	Selection
item-property-display	Selection
order-prompt-mode	Selection

Figure 293: Pick and Allocate Parameters

Field Parameter:

The following section lists the parameters and their fields:

1. Packing-restriction-rule: You can enter the rule name for imposing packing restriction. A valid Rule name can be created through the Packing Restriction Screen.
2. Location-search-rule: Enter a valid allocation mode rule defining the order sequence for system to pick the items.
3. Item-barcode-scan: You can choose to scan the barcode by following two mode:
   a. Scan Each Sku: When this parameter is set, each sku is considered as 1 unit per scan and system doesn't prompt for quantity confirm.
   b. Prompt Sku: This parameter prompts for sku and user is required to enter the qty.

4. Auto-load: If set to Yes, system moves the LPN to **Loaded** status after assigning the load to the corresponding OBLPN.

5. Order-sequence-rule: When you are performing order-based picking (auto-allocate-during pick) option, you can create order sequence rules to display your orders based on sequence. The **Order Sequence Rules** screen allows you to sequence up to four different columns. In the **Order Sequence Rule Details** screen, you can set up your Sequencing Rule by order type or you can choose not to include order type details.

You can also configure your order_by columns to include several different kinds of criteria including Order Creation Date, Required Ship Date, and so on.

Note: Order Type should have the flag allocate_during_pick_flg You can select this flag in the Order Type screen.

Figure 294: Order Sequence Rule Details

Note: Order Sequence rule will work in conjunction with order prompt modes.

6. Pick and Allocation mode: Following modes provides you different ways of searching and picking inventory:
   a. User Directed
   b. System Driven
   c. Auto-Create Inventory

7. order-prompt modes: You can choose to prompt the order in the following three modes:
   a. Enter Order Number: You can enter order number; no order number list is displayed.
   b. Display Order Pool: Order Number List is displayed.
   c. Display Order Type: System display the order type. And upon selecting order type, corresponding order's in the selected order type is displayed as order list along with the number of orders to be picked.

8. item-property-display: You can choose to display the item property in the following views:
   a. item code
   b. item Alternative Code
   c. External style
   d. Style

For more details on Pick and Allocate, refer to the [Pick and Allocate](#) document.

Packing (Repack Module)

The Repack module is a packing RF transaction that allows you to:

- Pack OBLPNs from "Picked" to "Packed" status
- Combine OBLPNs
- Split OBLPNs

For packing scenarios, the Task Type requires a special configuration that makes an OBLPN update to "Picked" (as opposed to the default "Packed") status after a Task is complete. This configuration only works for Reserve and Active unit picking. The configuration is as follows:

1. Go to the "Screens Configuration" screen.
2. Click "Generate Screens" and add the "RF-Text: Pack NC Active {order}" screen.
3. Enter this record's detail by selecting it and click on the Detail button.
4. Modify the "close-oblpn-status" parameter to "Picked".
5. Now that the RF program is created, the user must add it to the relevant Task Type (Reserve or Active Units). Go to the "Task Type" screen.
6. Select the desired Task Type ("NC-ACTIVE-PICK" or "LPNUNITS") and go to its details.
7. Modify the "RF-Text: Pack NC Active {order}"'s RF program to the module created from step 2.
8. Add this Task Type to the Task Template.

With this configuration, each time an operator picks the chosen Task Type, the OBLPN will update to status "Picked".

Repack Configuration – Adding the RF Module

1. Go to the "Screen Configurations" screen.
2. Click the "Generate Screens" button and select the RF module entitled "RF-Text: Repack OBLPN".
3. Once the screen is added, enter its details to configure its parameters.

   See the table below for a description of parameters:

Parameter Name	Value	Behavior
Print-extras	Packing Slip	When an OBLPN goes to status "packed", WMS will automatically print the Order's Packing Slip.
Print-to-oblpn-label	Yes	When the first SKU in the final OBLPN is scanned (OBLPN updates to status "in-packing"), WMS will automatically print the LPN's shipping label.
Restrict-multiorder-comb	Yes	When this parameter is set to 'Yes', when the user scans an OBLPN from a different order, the RF will return the message "multi-order not allowed".
Req-lpn-type	Yes	Requires the user to scan an OBLPN type after the "To OBLPN" is scanned. For cubed LPNs, this field will be auto-populated and will not be editable to the user.

Parameter Name	Value	Behavior
Req-pack-station	Yes	Requires the user to scan a location of type "Packing Station" at the beginning of the packing process.

4. Click "Save".

Note that if the parameter "req-pack-station" is enabled, locations of type "Packing Station" will need to be created.

1. Go to the "Locations" screen.
2. Click the Create button to add a new location.
3. Populate the necessary fields. In the "Location Type" field, select "Packing Station".

Using the Repack RF Module - Packing

1. Enter the "Repack" RF module.
2. Depending on which parameters are activated, the RF displays a different number of fields. The figure below shows all of the possible fields for the RF.


```
extra-printer: ▌
Pack Station: _____
From LPN: _____
From LPN units left:
Item: _____
To OBLPN: _____
To OBLPN: _____
To LPN Type: _____

Env:
Ctrl-E: End To-LPN
Ctrl-S: Short From-LPN
Ctrl-U: Update To-LPN type
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 295: The repack RF screen

- **Extra-printer:** Scan the laser printer barcode (this is to print the packing slip)
- **Pack Station:** Scan the Packing Station in which the OBLPN will be packed.
- **From LPN:** Scan the OBLPN to pack from (this is the OBLPN in "Picked" status).
- **From LPN units left:** This field displays the number of units there are left to pack from. As the user scans each unit from the "From LPN", the quantity will decrease.
- **Item:** Scan the item code.
- **To OBLPN:** This is the OBLPN that you will pack to (also known as the "final OBLPN").

    o If the allocation is not cubed, WMS will not prompt an OBLPN number. You will manually choose the LPN to pack to, followed by the OBLPN Type.
    o If the allocation is cubed, WMS will pre-assign an OBLPN with the OBLPN number and LPN Type.

3. When the "From LPN" is emptied, the RF cursor will return to the "From LPN" field and prompt you for another OBLPN to pack from.

Using the Repack Module – Combine/Split

You can use the same RF module to combine/split OBLPNs. To combine or split two LPNs, simply scan the origin LPN in the "From LPN" field and the destination LPN in the "To LPN" field.

1. Enter the "Repack" RF module.

---

2. In the "From LPN" field, scan the LPN to remove units from.
3. In the "Item" field, scan the Item you are moving.
4. In the "To OBLPN" field, scan the destination LPN that the item will be moved to.
5. When all of the desired items have been moved, press Ctrl-E to end the "To LPN".

```
From LPN: _____
From LPN units left: _____
Item: _____
To OBLPN:
To OBLPN: _____



Env:        _
Ctrl-E: End To-LPN
Ctrl-S: Short From-LPN
Ctrl-U: Update To-LPN type
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 296: Combining/Splitting with the Repack module

Direct Allocation

Oracle WMS Cloud has the ability to allocate inventory to an order and process the IBLPN to an OBLPN without running a wave through Direct Allocation. This transaction provides the following parameters:

Parameters

The Direct Allocation transaction offers three different parameters where users can perform action based the parameter selection:

Module Parameter		Parameter Type	Parameter Value	Module parm choice
reuse-lpn		Selection		
prompt-drop		Selection		
auto-load		Selection		

Figure 297: Direct Allocation Transaction

- reuse-lpn - Set the parameter to **Yes** to enable the system to reuse the same lpn number when creating an OBLPN.

- prompt-drop – Set the parameter to **Yes** to prompt for a drop location where you want to drop the OBLPNs.

- auto-load – Set the parameter to **Yes** – the system automatically packs and loads the allocated LPN to the OB load. If the auto-load is set to **No**, then the system consumes the IBLPN and updates the corresponding OBLPN to "Packed" status and IHT records are updated in the inventory history accordingly.

Configuration:

1. Make sure that Direct Allocation RF screen is configured in the system with items and orders created in the system.
2. Define the parameter for the **Direct Allocation** transaction. For information on parameter, refer to Parameter.

Invoking Direct Allocation Transaction in RF

1. Invoke the **Direct Allocation** transaction as shown in the figure below:

```
Oracle WMS QATST01/QATSTPC

1) SK Create LPN
2) SK Pick & Allocate
3) SK Direct Alloc




=> 3█_____

Env: lgf_100_qa
Ctrl-L: Change Language
Ctrl-F: Change Facility
Ctrl-P: Change Default Printer
Ctrl-U: Page Up
Ctrl-D: Page Down
Ctrl-X: Exit App
Ctrl-W: Previous screen
```
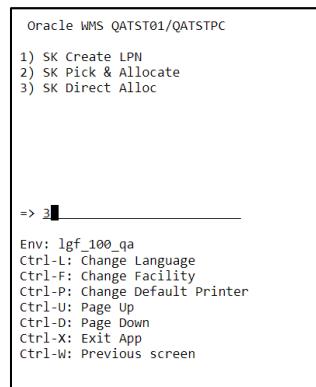
Figure 298: Direct Allocation Transaction

2. System will prompt you to enter the Order and Inbound LPN details (the inventory that will be allocated to this order)
   Order must meet the following criteria:
   a. Status should be Created or Partially Allocated.
   b. It must not be locked by an unallocatable lock.
   c. If required container number is populated, it will only accept this container number.
   LPN must meet the following criterion:
   a. IBLPN must be in **Received** or **Located** status. It cannot be locked by an unallocatable lock or be in a location with a lock that is unallocatable.
   b. LPN must be fully consumed.
   Note: If you don't have an LPN number (if picking inventory is from active location), you could use the **Error! Reference source not found.** to create an IBLPN that will be allocated to your order.

3. On scanning, the LPN is allocated to your order. If you have the "auto-load" parameter set to **Yes**, then system will assign the LPN to the load as shown in the figure below:

```
Oracle WMS QATST01/QATSTPC
      SK Direct Alloc

Order: SKORD1504_____

LPN:SKLPN1504M█_____




Env: lgf_100_qa
Ctrl-E: Close Order
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

```
Oracle WMS QATST01/QATSTPC

┌────────────────────────┐
│Loaded on load:OBLOA    │
│DAN1█                   │_____
└────────────────────────┘
LPN:SKLPN1504M_____




Env: lgf_100_qa .....
Ctrl-E: Close Order
Ctrl-X: Exit App
Ctrl-W: Previous screen
```
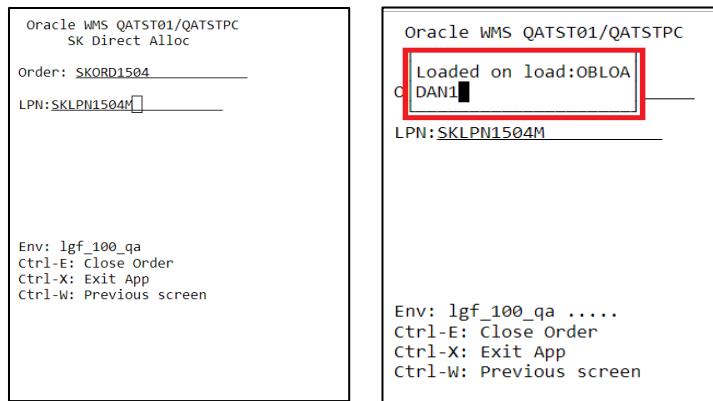
Figure 299: LPN Loaded to Order

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Validating the Order Status

You can validate if your inventory is directly allocated and assigned to an OBLPN by checking the status in the following screens:

IBLPN Screen: Go to IBLPN UI search for the LPN Number and check for the status. The status is set to **Consumed**.

Order Header Screen : Go to the Order Header UI. Search for the order number. The order status is set to Loaded as shown in the figure below:

SK Order Header				
↺ 🔍		⊓ Bulk Create/Edit	Packing Slip	Print labels
Order Nbr	**Order Type**	**Status**	**Destination Fac**	**Destination Cor**
SKORD1504	Direct Allocati...	Loaded	01STR	COM123

Figure 300: Order Status

OBLPN Screen : Go to the OBLPN UI. The corresponding OBLPN is created and the status is set to **Loaded** as shown in the figure below:

SK OBLPN										
↺ ஃ		Print Shipping Label	Print OBLPN Label	Print OBLPN Contents	Cancel cartons	Send OBLPN Info		Carrier lpn	Packing List	
Facility Code	**Company Code**	**LPN Nbr**	**Weight**	**Volume**	**Order Nbr**	**Type**	**LPN status**	**Item Code**	**Item Barcode**	**Pack Qty**
QATST01	QATSTPC	CSTST0100...	100	100	SKORD1504	FULL-CONT...	Loaded	SK-NKL-10-M	SK-NKL-10-M	0

Figure 301: OBLPN Status

Note: If the inventory is partially allocated, the OBLPN status is set to Packed.

Inventory History : Once the transaction completes, the system writes the corresponding inventory history status for the OBLPN that is allocated.

Tip: In case an LPN is not auto-assigned to the OBLPN, then the corresponding OBLPN UI is set to "Packed" status and the IHT is updated to 11 – Container Packed and 20 – Order status changed.

Pack With Wave

This functionality is typically used when there is a need to pick and pack large volumes of items such as promotional items, brochures, catalogues and so on, without being concerned too much about the accuracy of quantities being packed.

In a Pack with Wave scenario, OBLPNs are systematically picked and packed during the wave. All system updates are made on allocations, locations, IB LPNs OBLPNs etc, as they would be done after a physical pick and pack using the RF. The physical pick and pack would occur later, as per the convenience of warehouse floor users without using WMS UI or the RF.

Pre-Requisites for Pack with Wave

The following configurations need to be in place in order to enable the Pack with Wave functionality.

Wave Template

The "Pack With Wave" flag needs to checked on the wave template.
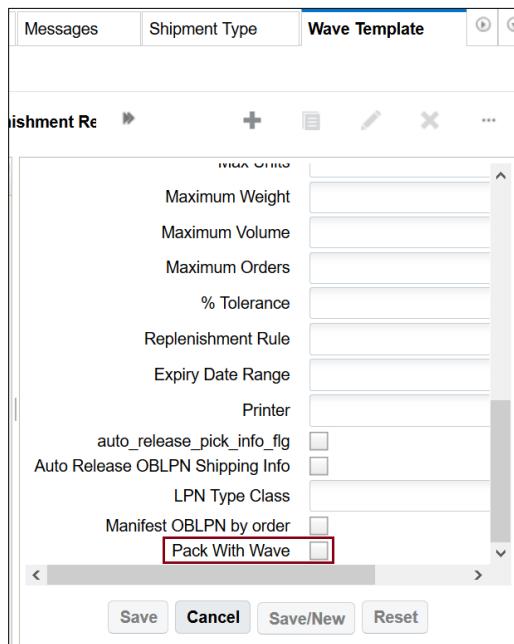
Figure 302: Wave Template

- The wave template needs to be configured so that cubing occurs during the wave.
- The system does not allow the creation of a wave template if both Replenishment Rule is populated and the "Pack With Wave" flag is configured as **Yes**. This is to avoid automatic packing of inventory from potential in-transit quantity.
- Although the system allows the creation of the wave template when both "Pack With Wave" and "Wave Pick Info" flags are enabled, you should exercise caution when enabling "Pack With Wave" in this scenario.
  - ➢ If the intention is to only pick and pack via MHE based on cubing in WMS, then the "Pack With Wave" flag can be enabled.
  - ➢ However if the intention is to track pick and pack operations performed by MHE, then the "Pack With Wave" flag should not be enabled.
- If the Pack With Wave" flag is enabled and the allocation mode sequence is configured with the MHE system for performing distribution, then distribution takes precedence. This is because if the cubing rule is configured along with distribution (which is not a recommended configuration), then distribution takes precedence and cubing is not performed.
- Although the system allows the creation of a wave template when "Pack With Wave" flag is enabled and the task creation rule is populated, you should configure task creation only for items that are not eligible for "Pack With Wave."

Note: Item eligibility is described in the next section.

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Item Configuration

The items that are part of order lines for the wave should have both the "Dummy Sku Flag" and "Pack With Wave" flag checked.

Figure 303: Dummy Sku and Pack with Wave flags

a. The system does not allow the "Pack With Wave" flag to be checked if the "Dummy Sku Flag" on the item is unchecked. Only dummy SKUs are eligible for Pack with Wave functionality.

b. Items that have "Dummy Sku Flag" unchecked, can also be part of the same wave; however these items will not be eligible for Pack with Wave functionality.

c. If different items are cubed into one OBLPN, with some items having both flags checked and other items having one or both flags unchecked, then the entire OBLPN will not be eligible for Pack with Wave functionality.

Pack With Wave Functionality

During the wave process, the "Pack with Wave" stage occurs after cubing. This stage triggers after the load assignment stage of cubing before tasks are created. In wave templates where the "Pack with Wave" flag is not checked, this stage will be skipped.

Pack with Wave Updates

Towards the end of the "Pack with Wave" stage of the wave process, the following updates are seen in the system:

1. OBLPNs that are eligible for "Pack with Wave" will be updated to packed status and corresponding allocations are marked complete. Packed quantity on allocation will be updated accordingly.

2. Inventory from corresponding dummy dynamic locations (that are created during the wave) will be reduced by the corresponding packed quantity.

3. If OBLPNs were not already assigned to a load and if the facility parameter "ASSIGN_LOAD_WHEN_PACKED" is configured as **Yes**, then the load assignment will be complete and OBLPNs will be assigned to a load.

   a. Load is not assigned to the OBLPN if the associated order has "externally_planned_flag" set to **Yes** and externally planned load number is not populated on the order detail.

4. If OBLPNs are not already manifested and if OBLPNs ship_via has a carrier type of parcel, then OBLPNs are manifested.

5. If the company parameter "FILES_TO_GENERATE_AT_LPN_PACKED":

   a. Is configured as **OLO**, then "OBLPN Shipping Info" file is generated

   b. Is configured as **LLS**, then "Outbound Load Export" file is generated

   c. Is configured as **LLS** and **OLI**/**OLO**, then both "Outbound Load Export" and "OBLPN Shipping Info" files are generated.

✓ Order status is updated:

   a. To **Packed**, if all items in the order were eligible for "Pack with Wave" functionality and the order is completely packed.

   b. To **In-Packing**, if only some items from the orders were eligible for "Pack with Wave" functionality and the rest are still in allocated status.

   c. To **Partially-Allocated**, if some order lines are completely packed and some of the order lines are not selected at all.

✓ Order Status Change Inventory History record is created.

✓ Container Detail Packed Inventory History record is created for each OBLPN line that was updated as packed.

✓ If the company parameter "FILES_TO_GENERATE_AT_ORDER_PACKED" is configured as **PLS**, then the "Order Outbound Load Export" file is generated for orders that have been updated as packed.

Autopack Wave OBLPNs

As an alternative to "Pack with Wave", an action button called "Autopack Wave OBLPNs" is available on the Wave Inquiry screen. You can use this button when the "Pack with Wave" flag is not checked on the wave template.
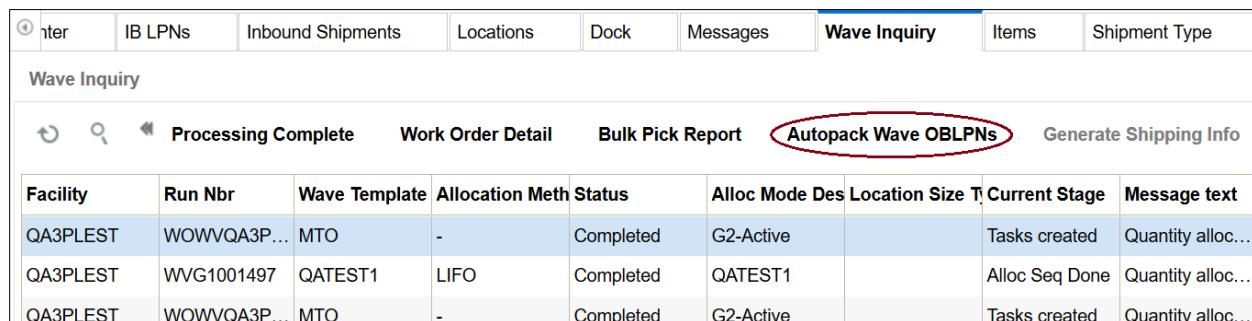
Facility	Run Nbr	Wave Template	Allocation Meth	Status	Alloc Mode Des	Location Size T	Current Stage	Message text
QA3PLEST	WOWVQA3P...	MTO	-	Completed	G2-Active		Tasks created	Quantity alloc...
QA3PLEST	WVG1001497	QATEST1	LIFO	Completed	QATEST1		Alloc Seq Done	Quantity alloc...
QA3PLEST	WOWVQA3P...	MTO	-	Completed	G2-Active		Tasks created	Quantity alloc...

Figure 304: Autopack Wave OBLPNs

• This button allows supervisors to review allocations before initiating auto pack of OBLPNs for a wave.

• The button is enabled only for wave runs that have status "Completed" or "Completed, Not Fully Allocated".

• The button is disabled if more than one wave run is selected.

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- Only users with the role of ADMINISTRATORS or MANAGEMENT can access this button. If other users need access to this button, then access needs to be provided via group permissions for "Wave Inquiry/Allow Auto Packing".

Functionality

When the "Autopack Wave OBLPNs" button is checked, the system performs the following checks:

➢ If there are any open allocations which are cubed (allocations that have container number populated) that have only dummy SKUs and all dummy SKUs have "Pack with Wave" flag enabled.
  ✓ If no such allocations are found, the system displays the message "No eligible allocations for autopack."
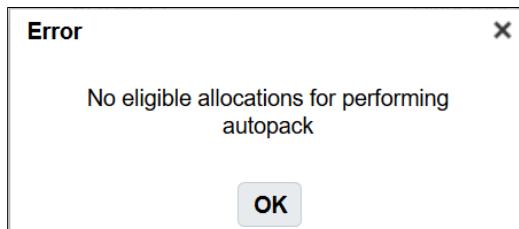
Figure 305: No Eligible Allocations for Autopack Error Message

  ✓ However if eligible allocations are found, then the system performs updates as described in the "Updates" section of "Pack With Wave functionality."

Outbound Audit

Outbound Audit allows you to create and configure audit rules to flag OBLPNs for audit based on different criteria. Then during packing, these OBLPNs get flagged for audit based on the rules you configure. Before OBLPNs move to staging after packing, OBLPNs flagged for audit are taken to the audit area and the corresponding audit is performed manually using the RF Outbound Audit option.

Outbound Audit Rules Screen

The Outbound Audit Rules screen is a rule-based screen that allows you to determine which of the packed OBLPNs will be marked for audit. The OBLPNs that are marked for audit are random based on the 1 of Y field. The Outbound Audit Rules screen contains the fields Facility, Name, Description, Enabled, and 1 of Y. Click Create to create and configure a new rule, and edit to edit an existing rule's configuration.

Figure 306: Outbound Audit Rule

Each rule has a detail screen (selection criteria) where you can define the rule using the OBLPN (description) fields store, packer, or item. The 1 of Y column indicates the number of rules configured.

For example, in the rows above, Facility F002 has 1 of 10 rules enabled. Facility F002 has 1 of 5 rules disabled, and Facility F003 has 1 of 20 rules enabled.

Once you have created your audit rule, you need to select details ⊓ to view the selection criteria and define the audit rule using the OBLPN fields store, packer, or item. The rules support "AND" and "OR" relationships between those fields.

Figure 307: Selection Criteria

The Outbound Audit Rules screen also contains the **Change Global Audit Setting** button at the top which allows you to control the global audit settings that apply by facility.

The following table is an example of how you can set the Global Audit Setting for facilities:

Global Audit Setting	
facility	Audit if shorted
F002	Yes
F003	No

From the Outbound Audit Rules screen, click the **Change Global Audit Setting** button.
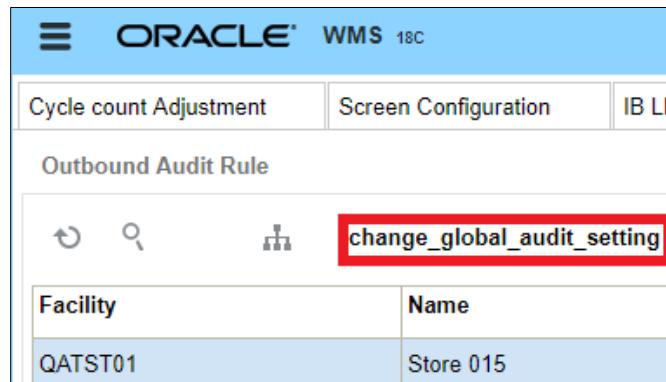
Figure 308: Change Global Audit Setting Button

When you click the Change Global Audit Setting button, the following confirmation window appears which allows you to set the audit_if_short setting for your facility to True or False. In the following example, the current audit_if_short setting is set to False (i.e No), but if you change this to True and click OK, the Audit if shorted setting changes to Yes.
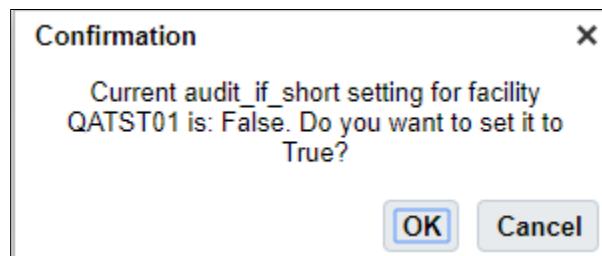
Figure 309: Audit_if_short Setting Confirmation

Note: if rules are configured using multiple different criteria, it is important to add rules with more specific criteria with higher priority and continue with less specific rules.

Audit Status

You can view Audit Status from the OBLPN screen. OBLPNs are created by default with a status of "Audit_Status=not required". Possible audit statuses include:

- not required
- audit pending
- audit complete
- audit missing

The following is an example of an audit with a status of pending:

Figure 310: Audit Status – Audit Pending

The following is an example of an audit with a status of complete:

Figure 311: Audit Status – Audit Complete

RF Outbound Audit

The RF Outbound Audit module allows you to execute detailed audits for OBLPNs or Pallets. RF Outbound Audit contains the following two parameters:

- Audit Mode
- Audit - Default Reason Code

The Default Reason Code parameter allows you to add a reason code for your audit.

Audit Mode

The Audit Mode parameter has three choices:

- Simulated with Pending Audit
- Simulated without Pending Audit

Figure 312: Audit Mode Parameter Choices

RF Outbound Audit Screen

The RF_Outbound Audit screen prompts you to scan the container to be audited (in this case an OBLPN with unit allocations is scanned).

The following screen flow is applicable when the Simulated Audit mode screen parameter is set with the value None or Simulated Mode with Audit Pending or without Audit Pending.

Note: The OBLPN must be in "Packed" status.

```
   Oracle WMS NJ_DC/NJ_COMP
         Outbound Audit
Pallet/OBLPN:
OBLPN00011_____




 




       Env: lgf_100_qa
       Ctrl-X: Exit App
       Ctrl-W: Previous screen
```
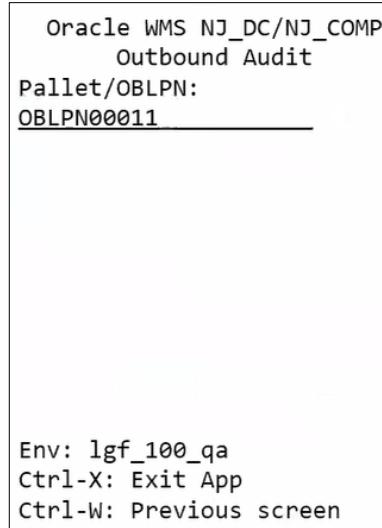
Figure 313: RF Outbound Audit Screen

Important: You can reduce quantity via RF Outbound Audit, but you cannot increase quantity in an OBLPN.

RF SKU Prompt Screen

After you scan the LPN, you are prompted to add the SKU:

```
   Oracle WMS NJ_DC/NJ_COMP
 Audit OB LPN
LPN:     OBLPN00011
SKU:
AA001_____




 




Env: lgf_100_qa
Ctrl-E: End Audit
Ctrl-X: Exit App
Ctrl-W: Previous screen
```
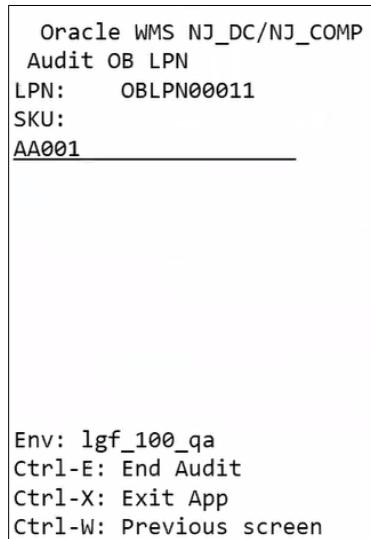
Figure 314: RF Outbound Audit - SKU Prompt

When the allocation is done in terms of cases, the following is an example of the RF Outbound Audit Cases prompt screen:
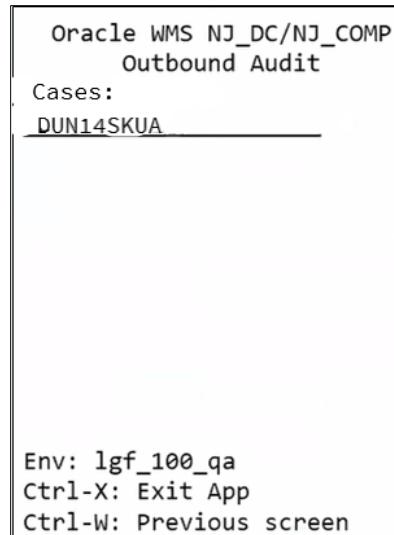
Figure 315: RF Outbound Audit - Cases

The above RF screen flow is applicable when the Simulated Audit mode screen parameter is set as any of the following:

- None
- Simulated Mode with Audit Pending
- Simulated without Audit Pending.

Whether the Simulated Audit Mode is configured for Normal Mode or Simulated Mode, the following updates apply:

- When an extra unit or an item that does not belong to the OBLPN is scanned, the error "item does not belongs to OBLPN Discrepancy will be recorded" displays. You can accept the message with Ctrl-A and physically take out the extra unit/sku that does not belong to the OBLPN at hand. If you press Ctrl-W, you are returned to the Sku Prompt screen without recording the discrepancy.
- Scanned items and quantity per item are recorded for each sku. The scanned items and quantity are stored and displayed in the Audit Detail History screen.

Based on the type of container you scan in the first screen, the RF Outbound Audit module behaves differently as follows:

The Audit OB LPN Transaction allows you to audit OB LPN or Pallets in Normal Mode when updates are performed as part of the audit transaction or in Simulated Mode.

The Audit Mode parameter choices are defined below:

None	Simulated with Pending Audit	Simulated without Audit Pending
•Current Functionality •Defualt value for Clients upgrading •Apply Updates as part of Audiit	•Does not aplply changes as part of Audit. •Records the discrepancy in counting. •If discrepancy found, mark OB LPN with Audit Pending Status.	•Does not aplply changes as part of Audit. •Records the discrepancy in counting. •LPN's are not marked for audit pending even with discrepancy

Note: A simulated Audit Mode value of None is also considered as Normal Audit Mode.

Whether the Simulated Audit Mode Screen parameter is configured for Normal Mode or Simulated Mode, the following screen flow is applicable.

Once you scan all of the items in the OBLPN or finish the audit, you end the audit by pressing Ctrl-E.

```
Oracle WMS NJ_DC/NJ_COMP

┌─────────────────────────┐
│ End Audit?              │
└─────────────────────────┘

─────────────────────────



Env: lgf_100_qa
Ctrl-E: End Audit
Ctrl-X: Exit App
Ctrl-W: Previous screen
```
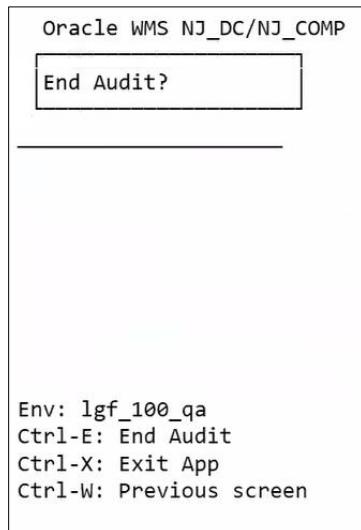
Figure 316: End Audit

The system asks you a verification question to end the audit and you accept message using Ctrl-A. Otherwise, you can press Ctrl-W to return to the previous screen and continue scanning more items.

After you end the audit, the system informs you of any discrepancies of scanned LPNs.

```
Oracle WMS QATST01/QATSTPC

L  Mismatch in number o
S  f  LPNS for SKUs JP-
_  BT-ITM, JP-SN-ITM, J
   P-EX-ITM, JITM-NOR-0
   1. Do you want to ad
   just LPN?




Env: lgf_901_qa
Ctrl-A: Accept
Ctrl-W: Dot not accept
Ctrl-R: Repeat Audit
```
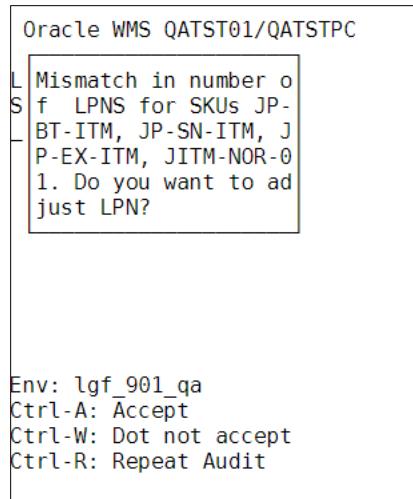
Figure 317: Discrepancies during Audit Message

Serial Number Tracking

RF Audit supports scanning items which are serial number tracked. During audit, you are prompted to enter serial numbers if serial number tracking is enabled for an item.

```
 Oracle WMS QATST01/QATSTPC
Item: JPSNTM
Container: OBLPN0113
Serial Numbers (0/1):




Serial Numbers:█_____



Env: lgf_901_qa .....
Ctrl-U: Page Up
Ctrl-D: Page Down
Ctrl-R: Remove entry
Ctrl-X: Exit App
Ctrl-W: Previous screen
```
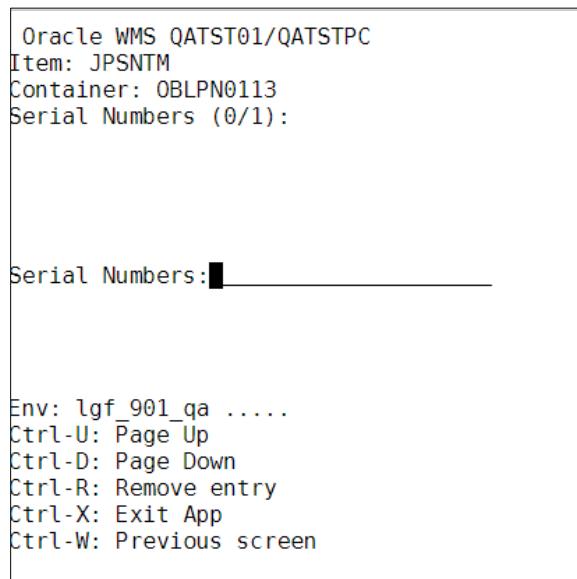
Figure 318: Serial Number Prompt

Scanned serial numbers are captured in inventory history records. No changes are made to audit history records. Also, serial number tracking is only applicable in non-simulated mode. If you encounter serial number tracked items during one of the simulated modes, an error is thrown and you will not be able to proceed with audit in these modes.

Rules to determine if item is serial number tracked

In order to determine if the item is being tracked for serial numbers the following two parameters at the company and item level are checked:

a. Company parameter for tracking serial needs to be set either to "Packing Only" or "End to End."
b. Item attributes that specify serial number tracking need to be set as "Track Serial Numbers"

Audit History

The Audit History screen shows most of the detailed information for the audit so that you often do not need to go to the details screen to view details and discrepancies. The following screen shows what the Audit History screen looks like. Refer to the Audit Detail History Columns section for more details.

Figure 319: Audit History Screen

From the Audit History screen, you can click **Pallet Audit Detai**l to view details such as expected and scanned number of LPNs, difference, number of expected LPNs scanned, and OBLPNs not anticpated.

Figure 320: Pallet Audit Detail

Audit Detail History Columns

Column	Description
Pallet Number	Pallet Number which has been scanned in Audit, If Pallet not Scanned display null
Audit OB LPN Number	Outbound LPN which has undergone Audit
Load Number	Load Number associated to the Pallet/OB LPN. If OB LPN is associated with Parcel carrier then display Load Number field blank
Expected Pallet Number	When OB Pallet is scanned, this column depicts the pallet number associated with the OB LPN Scanned
Audit Mode	Normal or Simulated
Audit Type	OB LPN Audit or OB Pallet Audit
Item Code	Item Scanned, If Outbound LPN scanned has multiple sku's write different rows for each sku
Packed Qty	Packed Qty associated to the inventory record for OB LPN. Qty Present on the OB LPN when the Outbound LPN was Packed.
Current Qty	Qty present in OB LPN during Audit (Can be 0 if Sku scanned is not anticipated in the OB LPN Scanned
Audit Qty	Quantity audited by User (Can be Zero or less or equal or greater than current qty)
Unit Variance	Current Qty-Audit Qty (If Audit Qty is greater than Current Qty, display the value in brackets).
Total Pack Cost	Unit_Cost for the item times the quantity expected for the sku in the OB LPN
Total Audit Cost	Unit_Cost for the item times the quantity Audited for the sku
Cost Variance	Total Pack Cost-Total Audit Cost. (If Total Audit Cost is greater than total pack cost, display the value in brackets).
Alternate Item Code	An alternate representation of the SKU, which concentrates SKU parts A through F into a single record.
Audit User	User who performed the audit transaction
Item Description	Description of the item.
Destination Facility Code	Destination facility for the OB LPN Scanned in Audit
Ship to Facility Code	Ship to facility for the OB LPN Scanned in Audit
Allocation UOM	Units/Packs/Cases

Column	Description
Pack Qty	Item's Standard Pack Qty
Standard Case Qty	Standard Case qty from item
Pick User	Pick user associated to the Outbound LPN
Pack User	Person who Packed the Outbound LPN.
Audit _ts	Create time stamp of when Audit Performed
Packed_ts	Time Stamp of when the Outbound LPN was packed
Manifest Number	If Outbound LPN is not associated to load, display manifest number, if associated to Manifest
Order Number	Order Number associated to the OB LPN
Order Type	Order Types differentiate orders based on certain characteristics.
OB LPN Type	Container Type associated with the Outbound LPN Audited
Allocation Type	Allocation Type from the Corresponding Allocation Record associated with the Outbound LPN
Batch Number	Batch Number for the Item Associated with the Outbound LPN Audited.
Item Hierarchy Code	Describes the item hierarchy.

LTL Load Management and Shipping

Note: LTL and Parcel shipments go through different loading and shipping processes. This section is for LTL shipments only.

Load Assignment

WMS can be configured to assign OBLPNs to OB Loads either automatically or manually.

Automatic Load Assignment

To enable automatic assignment of loads for packed OBPLNs, the facility parameter ASSIGN_LOAD_AT_CREATE_OBLPN must be set to "Yes". This means that whenever an OBLPN's status is updated to "Packed", it is assigned an Outbound Load number.

By default, there are two ways in which WMS assigns LPNs to Loads:

1. By the Order's unique "Route Number"

If the order has a route number populated, all outbound cartons associated to this order will have their own Outbound Load. If there are other orders with the same route number, all of its cartons will be moved to this Load as well.

Example:

Order 1 & 2 have the route number = 'ROUTE1'

Order 3 has the route number = 'ROUTE2'

When cartons associated to all these orders are packed, cartons from Orders one and two will be assigned LOAD1, while cartons from Order three will be assigned LOAD2.

By the Order's combination of "Ship To Name" and "Ship to Address 1".

If the order's route number field is blank, then WMS will look at the Order's "Ship to Name" and "Ship to Address 1" fields. The combination of these two fields will become the criteria for creating a new Load number.

Example:

Order 1 is destined to ORACLE WMS CLOUD with address 1st Street.

Order 2 is destined to ORACLE WMS CLOUD with address 2nd Street.

Because each order has different Ship to Name and Address combinations, each order will be assigned different Loads.

Manual Load Assignment

Users can also manually define the Load that an order or OBLPN is assigned to.

1. Enter the RF module "Assign to Load".
2. Enter the Load number that the Order or LPN will be assigned to. This may be either a new or existing Load number.
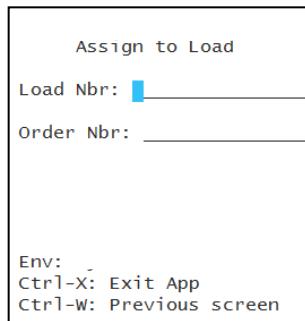
```
        Assign to Load

Load Nbr: █_____

Order Nbr: _____




Env:    _
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 321: Assigning a new Load with the RF

3. Scan the Order/LPN that needs to be assigned to the Load scanned from step #2.

Figure 322: Assigning loads by scanning the Order or LPN

Caveats:

- The option of scanning either an Order or an LPN must be configured in the RF's parameters under the "Screens" tab.
  - o Go to the "Screens" tab.
  - o Search for the "Assign to Load" screen.
  - o Select the screen and click on the Details ( ) button.
  - o Select the parameter and click the Edit ( ) button.
  - o In the "Module parm choice" drop-down, select either "Scan Order" or "Scan OBLPN".
- The RF module will not allow you to re-assign orders that contain OBLPNs that are in "Loaded" status in other Loads. In this case, you must unload these OBLPNs to reassign them into a new Load.
- Once the Load number is populated, it will stay populated until "Ctrl + X" or "Ctrl + W" is pressed to account for any pending assignments.

Outbound Loads

The Outbound Loads screen provides details for all existing Outbound Loads including load status, load number, trailer number, estimated departure, and estimated delivery.

Figure 323: Outbound Loads Screen

The following table provides definitions for all of the buttons available to help you manage your outbound loads:

Action Buttion	Description
GDD	New window pops out that allows you to submit a Guia de Despacho.
Check In	Allows you to Check In load.
Check Out	Allows you to Check Out Load.
Reset Load Status	Must have Reset Load Status permission. Enabled only when the selected load is in the status : **Close load in progress** or **Ship Load In Progress**.This button enables the user to reset the Load with status Close load in progress to **Loading Started** and Ship Load In Progress to **Loaded** status.
Bill of Lading	According to your configuration on Company Report Type, it will Print Bill of Lading.
Export Shipment Packing List	According to your configuration on Company Report Type, it will Print Export Shipment Packing List
Shippers Export Packing List	According to your configuration on Company Report Type, it will Print Shippers Export Packing List
Commercial Invoice	According to your configuration on Company Report Type, it will Print Commercial Invoice
Ship Load	Ships Load
Print LPN Labels	Prints LPN Labels
Close Load	Close Loads

Action Buttion	Description
Reopen Load	Changes load from loaded status to loading started.
GDD Summary	You will get custom implementation of GDD.
Locate Trailer	You will be able to select the location where to locate trailer.

Outbound Stops

The Outbound Stops screen (available from Outbound Loads, details) shows the load information, and orders that are part of the load (available in a hyperlink). Once you select the Num orders hyperlink, The Orders on Stop screen provides a summary of all the orders that belong to a particular Stop at the Order Header level. It provides useful information, such as the percentage of the order that is packed or loaded.

Figure 324: Num Orders Hyperlink

Action Buttion	Description
LPNs on Stop	A new window shows you the LPNs on Stop, and allows you to add new LPNs
Stopgdd	New pop up window comes up where you can fill out information and submit it
GDD Summary	You will get custom implementation of GDD.
Load Stop	Provides the ability to select an OB Stop record from the existing 'OB Stop' screen and load all the corresponding OBLPNs in 'Packed' status.

Loading an OBLPN

Once all the cartons for a load have been staged, it is ready for loading.

1. Go to the Outbound Loads screen and select the Load that will be loaded.
2. Select an open Dock Door from the drop-down and click "Check In". The Load's status should update to 'Checked in'.

Figure 325: Checking in a Load for Loading

3. At this point, the Load is ready to be loaded with the RF. Enter the RF module "Load OBLPN".
4. In the "Locn:" field, scan the Dock Door. Since the Load is checked into this Dock, the system recognizes the Load number and auto-populates it.

Figure 326: Loading RF screen

5. Populate the trailer number (this is only prompted the first time).
6. Begin loading OBLPN/Pallet by scanning a label.

Figure 327: Beginning the loading process with the RF

7. When you are done loading all the cartons, the RF will prompt the message "Load complete."
8. You must close the load with the option "Ctrl-E: Close Load."

    a. At this moment, if the system identifies pending pallets/cartons still to be loaded, a warning message displayd in the RF indicating the cartons that have not been loaded.

9. In the Outbound Loads screen, the appropriate load will be updated to status "Loaded".

10. To ship the load, select the Load and click "Ship Load". The Load's status will be updated to "Shipped".

Ship Load from RF

You can perform shipping activities for an OB load via the RF. From Load OBLPN, you can press the Ctrl-P key to ship a load.

Note: Only valid LPNs whose status "Loading Started/Loaded/ Checked Out" are eligible for a ship load action.

Shipping a Load through RF

5. Login to your RF and invoke "Load OBLPN".

6. The Load OBLPN screen displays the "Ctrl-P: Ship Load" hot key.

    Note: Before scanning any Load/Trailer number, the new hot key is displayed after an already existing "Ctrl-E: Close Load" hot key.

```
              LOAD OBLPN

Locn: █_____
Load: _____
Trlr Nbr: _____
Route:
Next LPN:




Env: lgf_100_qa
Ctrl-K: Skip Load
Ctrl-E: Close Load
Ctrl-P: Ship Load
Ctrl-X: Exit App
Ctrl-W: Previous screen
```
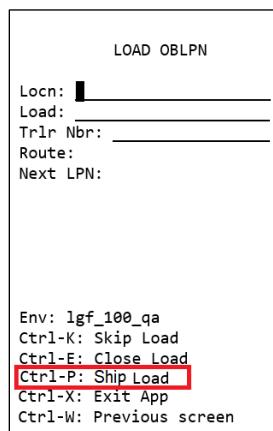
Figure 328: Ctrl-P: Ship Load

7. Enter the required information:
    a. Location: Location of the OB Load assigned
    b. Load: Load Number
    c. Trailer number: Trainer Number
    d. Route: Route information
    e. Next LPN: LPN number.

```
          Load OB LPN
Load: CPLOAD1123C3
Stop: 1/TEST
Trlr Nbr: TRA
Route:    CPLOAD1123C3
Next OBLPN: CSTST0100015975
OBLPN/Pallet: _____
Loaded OBLPNs/Plts:  0/0




Env: lgf_100_qa
Ctrl-E: Close Load
Ctrl-S: Close stop
Ctrl-L: LPNs on stop
Ctrl-P: Ship Load
Ctrl-X: Exit App
Ctrl-W: Previous screen
```
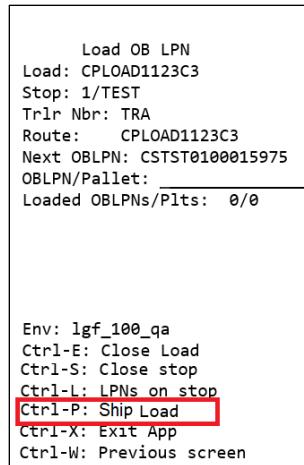
Figure 329: "Ctrl-P: Ship Load"

> **Tip:** Make sure to enter the load/trailer number whose LPN status is in "Loading Started/ Loaded / Checked Out". Otherwise, the system populates a dialog box "Load Number to Ship" for you to enter the Load information.

8. After scanning the LPN, invoke the hot key "Ctrl-P: Ship load". The system first checks for all the validation and then proceeds to ship the LPN.

> **Note:** The system checks for numerous validations before proceeding to ship the load.

9. A warning message is displayed, press "Ctrl-A" to Accept and proceed with 'Ship Load'. Otherwise, press "Ctrl – W" to reject.
10. Once the transaction completes, the system returns back to the RF Load OBLPN screen and the required IHT records are written.

> For more details about the RF Load parameters, refer to the [Oracle Warehouse Management Cloud - RF Parameters](#) document.

Unloading an OBLPN

Users can only unload to location types **"Pack and Hold"** or **"Staging Location"**[23].

1. Enter the RF module Unload OBLPN.
2. In the "OBLPN/Plt" prompt, scan the OBLPN to unload.
   a. If the Load is already closed, you must reopen it via the "Reopen Load" button in the OB Load screen. When the Load's status updates to "Loading Started", you may proceed with the unloading.
3. RF prompts message "Do you want to unload OBLPN?". Press Ctrl-A to accept.
4. In the "Enter Locn:" prompt, user scans a Staging/P&H Location to locate the OBLPN.

---

[23] This option is configurable via the "Unload OBLPN" RF module's parameters. Users can configure to either prompt a Staging or Pack & Hold location while unloading.

Pack and Hold functionality

Pack and Hold is the process of temporarily holding packed containers in a separate area prior to shipping. Oracle WMS Cloud has a special location type called "Pack and Hold", which is where all the related containers will be sent.

Configuring a "Pack and Hold" Location Type

1. Go to the Locations screen.
2. Create a new location using the Create button.
3. Populate all the required fields. In the "Type" field, select "Pack and Hold" from the drop-down menu.

Dedicated company	(None)	▼
Type *	**Pack and Hold**	▼
Area *	PH	
Aisle *	1	
Bay *	1	
Level *	1	

Figure 330: Configuring a Pack and Hold Location

4. Click "Save".

Moving OBLPNs to a Pack and Hold location

1. Enter the RF module "Pack and Hold".
2. Enter the Pallet/OBLPN to be moved.
3. In the "Pck/Hd Loc:" prompt, enter the location to move that carton to. Note that the system will suggest a Pack and Hold location, but you may override this suggestion.

```
OB LPN: OBLPN_0225_01
Cur Loc:DROP-1-1-1
Go to:  PH-2-1-1
Pck/Hd Loc:
Pallet Nbr:
```

Figure 331: Scanning to a Pack and Hold location

4. Scan the Pack and Hold location and the pallet number that it will be placed to.

*There is no validation process in Pack and Hold. For example, users can mix multiple orders into the same Pack and Hold location.

Parcel Configuration, Load Management, and Shipping

The parcel manifest functionality in the ORACLE WMS CLOUD WMS allows the use of UPS and FedEx Parcel Carriers for Shipping. The functionality will allow integration with FedEx/UPS services for sending information on outbound cartons and receiving tracking numbers.

Note: LTL and Parcel shipments go through different loading and shipping processes. This section is for Parcel shipments only.

Parcel Manifest Components in Oracle WMS Cloud
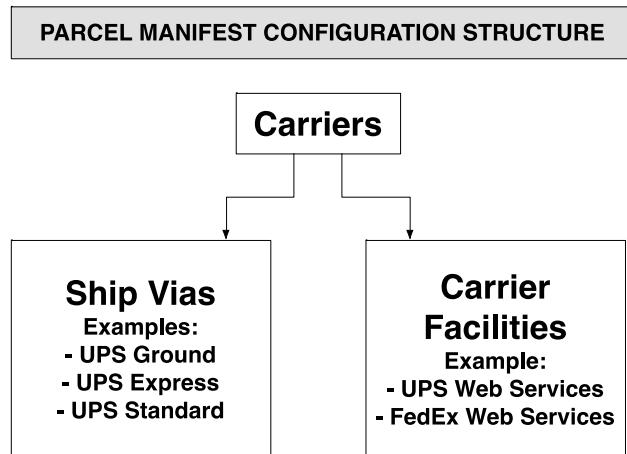
Figure 332: Parcel Manifest Configuration Structure

- Carriers:

The courier company that transports the parcels (eg. UPS).

- Carrier Facilities:

Screen used to configure login credentials to the courier's server.

- Ship Via Codes:

Carriers can have different **Ship Via Codes.** Ship Vias are the different services offered by carriers (eg. UPS Ground).

- Manifests:

Manifests are the parcel equivalent of "Outbound Loads" with LTL shipments. When shipping via parcel carriers, a **Manifest** is opened for each carrier being used. Manifests are documents that will provide details of a shipment such as:

  o   The Carrier and Ship Via used

  o   The outbound cartons numbers

  o   The SKU and Quantity of each outbound carton

To have both LTL and Parcel orders in WMS, the ship via must be enabled. The following displays a summarized diagram of the overall process:
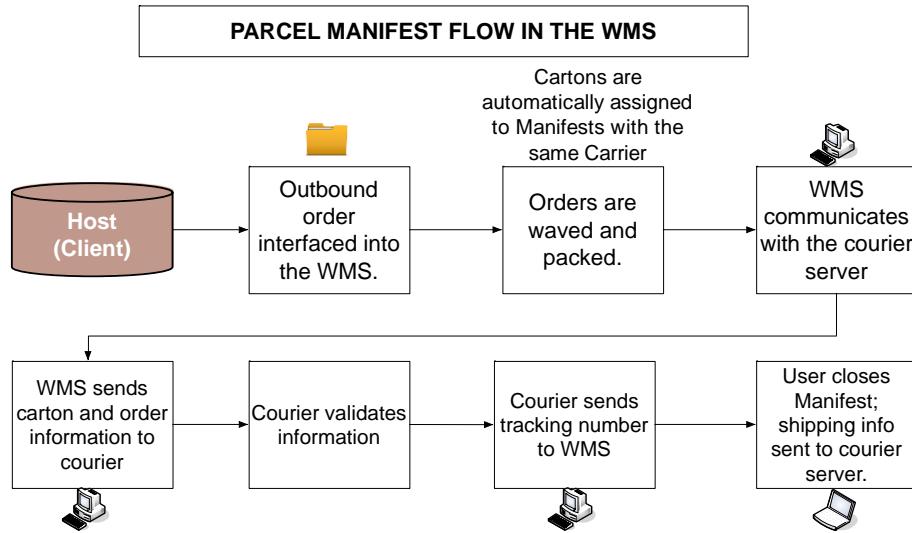
Figure 333: Parcel Manifest flow in WMS

LPN Assignment to Manifests

Outbound cartons are assigned to an *open* manifest based on their ship via.

Example: If orders ship via UPS Ground, the outbound cartons for those orders is assigned to the manifest opened for this Ship Via's carrier.

When Parcel Manifests are closed, the outbound cartons assigned to these manifests will have their status changed to "Shipped". Outbound cartons are considered "manifested" when they get assigned a manifest.

Parcel Manifest Configuration

The Parcel Functionality in the ORACLE WMS CLOUD WMS is used to ship via Parcel Carriers UPS and FedEx Services. This functionality is used to send information back and forth between WMS and the courier (eg. tracking numbers and manifests).

Step 1: Creating Carriers

1. Go to the "Carriers" screen.
2. Select the "Carrier Type" (LTL or Parcel). Orders with LTL carriers are assigned to Outbound Loads, while orders with Parcel carriers are assigned to manifests.
3. Press "Save".

Figure 334: Creating Carriers in WMS

The following is a list of the Carrier Types Available:

- Rail
- Air
- Ocean
- LTL/TL
- Parcel

Each Parcel Carrier is linked to a Standard Carrier. Standard Carriers are global in ORACLE WMS CLOUD and include the following:

- FedEx Express

- FedEx Freight

- FedEx Ground

- United Parcel Services Inc.

These are chosen from the "**Std Carrier**" drop-down menu when adding a new carrier.[24] Additionally, Carriers are associated to companies, and **should be created at the company/child company level**. Each company in a facility will have their own carriers. Carriers for a company can only be seen at this company's level.[25]

Step 2: Creating Ship Vias

1. Go to the "Ship Vias" screen.
2. Enter a Ship Via Code (eg. UPS GROUND) and select the appropriate carrier (eg. UPS).
3. Click "Save".

---

[24] New standard carriers might be added by ORACLE WMS CLOUD at anytime.

[25] Carriers should have a **code, carrier type, description,** and a **std_carrier (**if it is of type Parcel). The other fields are not mandatory.

Configuration Strategies

Method 1: Creating 1 Carrier for all of its Ship Vias. Example:

Ship Via	Carrier
UP1D/UPS 1 DAY	UPS
UP2D/UPS 2 DAY	UPS
UPSG/UPS Ground	UPS

Method 2: Creating 1 Carrier for each Ship Via. Example:

Ship Via	Carrier
UP1D/UPS 1 DAY	UP1D/UPS 1 DAY
UP2D/UPS 2 DAY	UP2D/UPS 2 DAY
UPSG/UPS Ground	UPSG/UPS Ground

In addition to having a specified carrier, each ship via is linked to a **Standard Carrier Service**. Standard Carrier Services type send information to carriers such as UPS/FedEx (to get additional info such as tracking numbers, rates, etc… based on the service). Standard Carrier Services type are global in ORACLE WMS CLOUD. For more details, see the Parcel Carrier Integration document.

Step 3: Creating a Carrier Facility

The Carrier Facility screen provides courier account credentials in order to gain connectivity to their server. These accounts are used for billing and retrieving tracking numbers. These are the three integrations supported in ORACLE WMS CLOUD:

- FedEx/UPS Web Services

    Web Service is a method of communication between two systems over a network. Oracle WMS Cloud communicates with courier networks to send carton information (weight, volume and address), while at the same time receiving tracking numbers that are updated to WMS.

- FedEx PC Ship Manager

    The FedEx PC Ship Manager is a third party software used for retrieving tracking numbers and FedEx shipping labels. When a carton's tracking number is sent to FedEx, they will create a shipping label based on the specified service.

Instructions:

1. Go to the "Carrier Facility" screen.
2. Populate the necessary fields as described below.
3. Press "Save".

Figure 335: Adding Carrier Facility Records

Description of fields:

- **Account Nbr:** The UPS/FEDEX Account Number.
- **Payment Method:** The party that will be billed in the transaction (eg. Bill Sender).
- **Integration Type:** Field for selecting one of the three supported integration types

    o   If the Integration type is **Web Services**, the following fields are required:

        ▪   The License or Meter Nbr
        ▪   Web Services Username and Password

    o   If the Integration type is **FedEx PC Ship Manager**, the following fields are required:

        ▪   Interface DB Name: Please contact Oracle WMS Cloud support for this value.
- **WSDL Root Path:** Please contact Oracle WMS Cloud support for this value.

Step 4: Configuring Proper Routing Parameters

You must also configure how WMS will recognize a Ship Via for an Order; this is done with specific routing parameters. Currently, there are two different paths for configuration:

1.   Changing the Company Parameter 'PACKING_ROUTING_MODE'
    a.   If this field is blank, ship vias are not used.
    b.   If this field equals to "MODE_0", ship vias will be determined based on the destination's default ship via (preconfigured).
    c.   If this field equals to "MODE_1", ship vias will be determined based on the routes configured in the "Route Header" screen. Each route will have a group of stores with the same ship via. Routes can be enabled/disabled.
2.   Changing the Routing Mode from the Wave Template

Note: When using modes 1 – ii, 1 – iii, and 2, you must make sure that the orders have an order type with the "Facility Order Flag" set to "Yes".

Note (2): Orders with this mode should also have either Destination Facility, Ship To Facility or both populated in order to make this configuration work as expected.

PACKING_ROUTING_MODE = MODE_0

For '**MODE_0**', the order's ship via will be verified **at packing**[26]:

1. First, WMS will look at the Order's "Ship Via" field to decide which Manifest it must go to:

Figure 336: Checking an Order's "Ship Via" value

2. If the "Ship Via" field in the Order is **blank**, WMS will revert to choosing the destination facility's **Default Ship Via Code,** located in the "Facilities" screen[27].

Code	Name	Facility type	Address 1	City	State	ZIP	Country	Phone Nbr	Default ship via code
THK_STORE1	Store 1	Store	Address Store 1	Atlanta	GA	30339	US	(999) 999-9999	FXGRD

Figure 337: Defining the Default Ship Via Code in the Facilities screen

3. To view an OBLPN's Ship Via Code, go to the "OBLPNs" screen and click "Carrier LPN".

Figure 338: Viewing an OBLPN's Ship Via

When the OBLPN is packed, its weight, volume and address information will be sent to the courier's server. If all the information is valid, WMS will receive a tracking number, which will be updated to the "Tracking Nbr" field in the "OBLPN" screen. At the same time, this OBLPN will be manifested, if a valid Carrier for the OBLPN's Order is open.

Figure 339: Viewing the tracking number in the "OBLPNs" screen

---

[26] The Order's Order Type must have the "Facility Order Flag" set to "Yes".

[27] This field is located in the "Facility" screen (store master).

If the Carrier for the Ship Via has type "**LTL/TL**", the outbound cartons will be assigned to an outbound load.

PACKING_ROUTING_MODE = MODE_1

For '**MODE_1**', the order's ship via will be verified according to configurations made in the "Route Header" screen. This parameter value will work for orders specifying a Ship To Facility in the Order Header. The ship via for the order will be determined based on the Ship To Facility's route.

Setting up Routes
Routes will be configured in the "**Route Header**" screen. Each route specifies a **ship via**[28].

1. Go to the "Route Header" screen.
2. Click Create (✚) to create a new route – specify the name and Ship Via for this route.

Figure 340: Routes in the "Route Header" screen

3. Click Details (⊥) to add the destination facilities (eg. Stores) that will be using this Route/Ship Via.
4. Click Create (✚) to add Facilities to this route. Make sure the sequence numbers are unique.

Figure 341: Adding Facilities to a Route

Example:

A route of ship via "FedEx Ground" has facility "THK_STORE1". If this route is activated, all orders with the destination facility equal to "THK_STORE1" will automatically be considered under this route.

---

[28] The Order's Order Type must have the "Facility Order Flag" set to "Yes".

> **Configuration Strategies**
>
> 1. One route can be set up for all Facilities.
> 2. One route can have one Ship To Facility.
> 3. One Facility can be assigned to multiple routes – the user will decide which route will be active that day (using the "active" flag).

Caveats:

- With "MODE_1", because the system will always refer to the Ship Via specified in the Route Header screen, the "Ship Via" field in the Order Header will be ignored.

- If there is an open order for a Facility that is not configured in any of the routes, you will receive an error in the RF at packing.

- Using this parameter requires the use of a store master (the 'Facilities' table).

Wave Template – Routing Mode

This configuration is similar to MODE_1 for the Facility Parameter, but in this case the order's ship via is verified at the **wave**.

1. Go to the Wave Templates screen.
2. Select the Wave Template that will be used and click the Edit button.
3. In the "Routing Mode" field, select "MODE_1" – this enables connection to UPS/FedEx services after a wave is complete (as opposed to after packing a carton).
4. Make sure the open orders using this mode have the "Ship To Facility" field populated.

Similar to section **1b**, this wave parameter works with the active Routes configured in "**Route Header View**" for Ship To Facilities.

When a wave is complete, the Ship Via for the outbound cartons is determined by the active routes. The route for the order is determined from the Ship To Facility specified on the order header.

If the Carrier for the Ship Via has type "**Parcel**", then the connection to corresponding UPS/FedEx Services will happen based on the integration type and account configured in "**Carrier_Facility**".

After the wave runs, connection to UPS/FedEx Services is done for outbound cartons in "**outbound created**" status. Based on the Ship Via determined from the route, tracking numbers are received and the cartons are manifested.

If the Carrier for the Ship Via has type "**LTL/TL**", the outbound cartons are assigned to outbound loads.

Caveats:

- This method only works for **FULL LPN** allocations. With FULL LPNs, weight on the outbound carton is taken from the inbound carton, so cartons in "Outbound Created" status will have a weight and will be able to get tracking numbers after the wave is run.
    - LPN Units, and LPN Cases do not get a weight on the outbound carton until they are packed, so they will not be able to get tracking numbers after the wave is run.

Overall Caveats For Using Parcel Functionality

- All outbound orders shipping via Parcel will specify either a **Destination Facility/Ship To Facility** or a **Ship Via** on the order header for the Parcel Functionality to work.

The **Destination Facility** is the *final* destination of an order, while the **Ship To Facility** represents the *immediate* destination of the order. If both the Destination and Ship To Facility fields are populated, WMS chooses the "Ship To Facility" field for determining the route's ship via.

- Before (1) running a wave (if the Routing Mode is configured in the Wave Template) and (2) packing an order (if the PACKING_ROUTING_MODE parameter is configured), users must validate the following:
  - Validate that the routes are activated.
  - Verify that there are open Manifests for the specific Carrier and Ship Vias orders that will be packed.

- Weight on outbound cartons is always mandatory to receive tracking numbers from UPS/FedEx Services. Therefore, weight data must be specified either in the Item Master or in the IBLPNs during receipt.
  - For Full LPN, weight on outbound carton will be the weight specified on the inbound carton. If no weight is specified on the inbound cartons, the weight will be calculated from the Item Master given that items have a weight specified.
  - For LPN Units, and Cases, weight is calculated at packing.
- If the Ship To facility on the order header is not on any active routes, or if there is no active route, outbound cartons are no manifested or packed until an appropriate route is active.
- If there is no open manifest for the order's particular carrier and ship via, the outbound cartons are not manifested or packed until a manifest is open for the appropriate ship via.

RF Assign to Manifest

This screen allows you to assign OBLPNs to specific manifests by scanning the Trailer number on the manifest. This helps you keep track of when the OBLPN is assigned/loaded and the OBLPN's specific trailer.

```
   Oracle WMS NJ_DC/NJ_COMP
       Assign to Manifest

Trailer Nbr: ▌_____
OBLPN:  _____




Env: lgf_100_ora
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 342: RF Assign to Manifest

You can scan a valid trailer number. This number stays populated, allowing you to scan multiple OBLPNs more efficiently onto the same trailer. OBLPNs must be in packed or loaded status.

Note: Scanned trailer numbers must exist in the trailer number field of an Open Manifest.

After you scan a valid Trailer Nbr (see validations below), the screen retains the value until the user exits the screen via Ctrl-X or Ctrl-W. This allows you to load multiple OBLPNs more efficiently onto the same trailer. In other words, every time an OBLPN is scanned, the system only clears the OBLPN field.

Notice that the Assign to Manifest screen also allows you to re-assign OBLPNs from one manifest to another, provided that both manifests are still OPEN.

Once all the Trailer and OBLPN validations pass, the following updates should happen:

- A new Parcel shipment detail is created.
- The status of the OBLPN is updated to Loaded.
- Inventory History record "13-Contener Loaded" is created if the OBLPN is updated to Loaded Status.

FedEx Multi-Piece Shipment Configuration

FedEx supports the grouping of two or more packages during ship requests that are fetching a tracking number. In general, these packages must all use the same service and must all have the same destination, billing information, and accessorials. Multi-Piece Shipment (MPS) users gain added visibility into FedEx shipment tracking and may also be granted better rates for MPS. You should check with your FedEx representative to determine if MPS can be used.

For an MPS shipment, each OBLPN still requires it's own request to FedEx for a tracking number. MPS packages are tied together by a master tracking number. The master tracking number is the tracking number of the first OBLPN manifested in the group. It's tracking number is passed as the master tracking number is each subsequent OBLPN's ship request. Additional information such as the total number of pieces (X of Y) and total shipment weight is required for MPS. Different shipping scenarios such as Dry Ice or International MPS require even more shipment-level information in the request.

IMPORTANT: MPS also requires additional operational work as well as for exception scenarios. Because information pertaining to all OBLPN's in the group must be sent in each OBLPN's request, the final state must be available before any tracking numbers are fetched.

For example, assume a wave cubes an order into three OBLPNs and a FedEx MPS shipment is created and three tracking numbers are fetched. If during packing it is determined that the order requires four OBLPNs, then the entire MPS shipment must be voided (by voiding any of one of the tracking numbers) and all four OBLPNs re-manifested and new tracking numbers and labels obtained. If the MPS group changes, then all information must be updated to FedEx, which requires the fetching of new tracking numbers.

Currently, Oracle WMS Cloud only supports grouping OBLPNs for MPS by a single order.

WMS allows MPS requests during a cubed wave. The wave must be cubed in order to complete MPS as the final OBLPNs must be available.

To configure MPS during a cubed wave, there are two flags:

- Ship Via UI
- Wave Template UI

To Manually trigger an MPS request for all OBLPNs associated to an order, select the "Manifest" button on the Order Header View UI.

Order Headers											
↺	🔍	⛛	Bulk Create/Edit	Packing Slip	Print labels	Recalculate Order Status	Send to carrier	Send Order Info	Create ASN	Manifest	Set Route
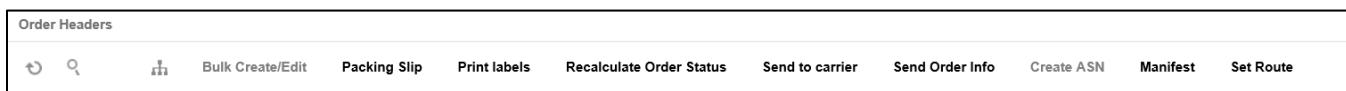
Figure 343: Manifest Button

Dry Ice Configuration

FedEx supports shipping dry ice in parcel packages if certain attributes are passed when requesting a tracking number for the OBLPN.

This will also trigger any dry ice information to print on the returned FedEx web service shipping label.

Dry Ice Fields

Entity	Field	Description	Overview
item	shipping_temperature_instr	Shipping Temperature Instruction	When this field has a value of "*Shipped On Dry Ice*", the item is understood to require dry ice.
lpn_type	dry_ice_weight	Dry Ice Weight	Default dry ice weight for the LPN type. Used as dry ice weight during a wave when requesting a tracking number for a cubed OBLPN.
carrier_lpn	dry_ice_weight	Dry Ice Weight	Dry ice weight value of the OBLPN. Copied from LPN Type or input during UI Manual Manifest.

Dry Ice Functional Overview

Cubed Wave

You can request a tracking number during a cubed wave as the dimensions and final contents of each cubed OBLPN are known. As part of cubing, an LPN type is assigned to the OBLPN. Each LPN type can be configured with a default dry ice weight. This default weight is used in the ship request as the dry ice weight of the package. It will also be copied over to the OBLPN's corresponding Carrier LPN record.

Manual Manifest UI

Accessed from ObContainerView UI → Manifest

You can request a tracking number for individual OBLPNs in the UI. The manual manifest popup contains an input field for the dry ice weight. This is accessible and required when the OBLPN contains an item that requires dry ice.

The dry ice weight will be updated on the OBLPN's corresponding Carrier LPN record.

Figure 344: Dry Ice Weight

Package-Level Dry Ice FedEx Ship Request

FedEx requires that dry ice weight is reported in kilograms (KG). If tracking is in pounds (See Company Parameter "PARCEL-WEIGHT-UOM"), WMS will convert the weight to kilograms for the purposes of the request.

The package-level portion of the request is included for any OBLPN with any item that is flagged as requiring dry ice (See shipping_temperature_instr). An item is flagged as requiring dry ice when the shipping_temperature_instr field has a value of "Shipped On Dry Ice."

Package-Level Dry Ice Info

```
<RequestedShipment>
    <RequestedPackageLineItem>

        <PackageSpecialServicesRequested>

            <PackageSpecialServiceType>DRY_ICE</PackageSpecialServiceType>

            <DryIceWeight>1.234</DryIceWeight>

            <DryIceWeightUnits>KG</DryIceWeightUnits>

        </PackageSpecialServicesRequested>
```

Entity	Description	Mapping	Notes
PackageSpecialServiceType	Package-level special service	DRY_ICE	Hard-coded, static value
DryIceWeight	The weight of the dry ice in the OBLPN	carrier_lpn.dry_ice_weight	FedEx requires dry ice weight is reported in kilograms (KG). WMS will handle conversion if tracking parcel weight in pounds. carrier_lpn.dry_ice_weight is copied over from either lpn_type or entered during UI manual manifest.
DryIceWeightUnit	Dry ice weight unit of measure	KG	Hard-coded, static value

Shipment-Level Dry Ice FedEx Ship Request

The shipment-level portion of the request is only required if the current OBLPN is part of a Multi-Piece Shipment (MPS).

```
<RequestedShipment>
    <SpecialServicesRequested>

        <SpecialServiceTypes>DRY_ICE</SpecialServiceTypes>

        <ShipmentDryIceDetail>

            <PackageCount>2</PackageCount>

            <TotalWeight>

                <Value>1.234</Value>

                <Units>KG</Units>

            </TotalWeight>
```

ORACLE

Manually Updating Manifest and Ship Vias to Individual LPNs

Updating the Ship Via for outbound cartons can be useful for the following possible scenarios:

1. If the Ship Via needs to be changed after packing
2. If a Ship Via did not get determined for certain cartons
3. If a specific Ship Via can only be determined after packing and weighing all cartons

There are currently two ways to update the Ship Via for outbound cartons in "Packed" status.

1. Modifying an LPN's Ship Via from the UI
2. Modifying an LPN's route from the RF

1. Modifying an LPN's Ship Via from the UI

1. Go to the "OBLPNs" screen.
2. Select the OBLPN that will be modified and click "Manifest". This will open a new window containing the LPN's manifest and ship via information.

Figure 345: Modifying an LPN's Ship Via

3. Select the new Ship Via in the "Ship Via:" field from the drop-down.
4. Click the "Manifest" button.

Note: Only one LPN's ship via may be modified at a time.

Also note: The **Label Printer** drop-down is not intended for OBLPN labels. The Label Printer drop-down options only apply to the screen parameter with regards to generating OBLPN shipping information files.

2. Modifying an LPN's route from the RF
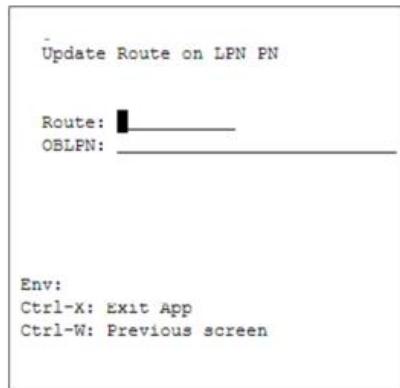
1. Enter the RF module "Update Route on Carton"
   a. This method will only work for the flows that have **routes** configured in the "**Route Header View**".
   b. If the route on a carton is updated, then the Ship Via associated to the route will also be updated on the carton.
2. In the "Route:" field, type in the new desired route for the LPN.
3. In the "OBLPN:" field, scan the OBLPN to modify.

Note: New tracking numbers are received every time a carton is re-manifested.

Shipping Parcel Manifests

Since Parcel OBLPNs are automatically added to Manifests during packing, no loading process is necessary. However, before packing any parcel LPNs, you **must ensure that there are Manifests open for that particular Carrier**.

Shipping Manifests:

1. Go to the Manifests screen.
2. Select the Manifest that will be shipped. Click the "Close Manifest" button.
3. If all the order information tied to the containers in this Manifest are correct (eg. Valid Zip Code, valid address, valid country code, etc.), WMS will open a dialogue stating that the Manifest was successfully closed.
   a. If the Manifest did not close because of incorrect order information, select the Manifest and click on 'manifest_logs' to inspect the orders that need corrections.

Parcel Manifest Exceptions

- Parcel orders must have a valid Address, Country and Zip Code. If these fields are incorrect, WMS will not receive a tracking number from the courier.

4. Inventory Management

Inventory Types

WMS includes two inventory types: Allocatable (Available) and Unallocatable (Unavailable) Inventory.

Available/Allocatable Inventory

Available/Allocatable inventory is any inventory that is located in a reserve or active location that has not been allocated against an outbound order.

Unavailable/Unallocatable Inventory

Unavailable/Unallocatable inventory is any inventory that is either allocated for an outbound order, or is in a status that won't allow for allocation. Below are the basic scenarios for unavailable inventory:

1. Received inventory that has not been putaway (configurable)
2. Inventory undergoing VAS processes
3. Inventory located in a Drop Zone
4. Inventory associated with outbound LPNs
5. Inventory in locations with lock codes (and the lock code is configured as Unallocatable)

Item Master

The Item Master stores information for all the items that are used in the warehouse.

Unit of Measure in WMS

Oracle WMS Cloud supports four units of measure:

- **CASE: Cases** refer to physical boxes (must define "Standard Case Quantity").
- **PACK:** Cases can be further broken down into **Packs** (must define "Standard Pack Quantity").
- **UNIT:** The smallest unit of measure is **Units**, which represents an 'each'.
- **LPN: LPNs** are the largest UOMs in the system, and can have multiple meanings.

If each box is labeled with an LPN, the LPN represents a physical box.

If an entire pallet is labeled with an LPN, the LPN represents a pallet.

The LPN has an attribute called "LPN is Pallet", which systematically marks the LPN as a physical Pallet. The advantages of using this functionality is that pallets will only require one label (LPN) and can be allocated into Pallet, Cases, Packs or Units.

LPNs can only be set to "LPN is Pallet" during receiving. You must use a receiving RF module (either "Receive LPN Shipment" or "Receive LPN Load") and configure its "pallet-handling" module parameter to "LPN as Physical Pallet". With this setting, any LPN received with this Pallet will have the "LPN is Pallet" flag set to true.

LPN as a Pallet

There are two ways to treat the LPN as a Pallet:

1. Using "LPN is Pallet" flag: LPNs have an optional flag that mark the containers as pallets.
2. Without using the "LPN is Pallet" flag: LPNs do not use the flag, but physically the pallets are labeled with LPNs.

While option two is easier as it does not require special configuration (the user tricks WMS by systematically using LPNs but physically using pallets), it is has limited visibility.

The main difference is that you cannot define the 'standard pallet quantity' with option two while this is possible with option one.

Setting up the "LPN is Pallet" flag to TRUE for LPNs

As stated above, using option one requires extra configuration. You can only set the LPN's "LPN is Pallet" flag to "TRUE" during receiving via a receiving RF module with special parameters configured. To configure this:

1. Go to the "Screens Configuration" screen.
2. Create a new "Receiving LPN Shipment" or "Receiving LPN Load" RF module.
3. Select this record and click on its details.
4. Modify the "pallet-handling" flag and set it to "LPN as Physical Pallet".

Module Parameter	pallet-handling
Parameter Value	
Module parm choice	(None)
	LPN or Pallet receiving
	Palletize up front
	LPN as Physical Pallet
	Palletize after receipt
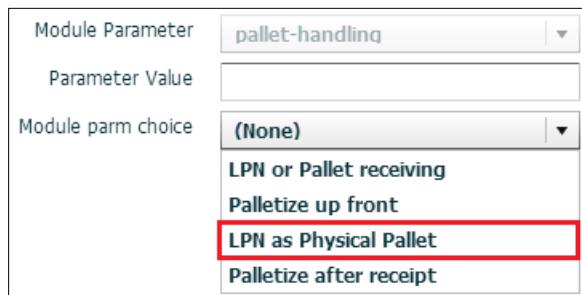
Figure 346: Enabling the RF to receive LPNs as Pallets

5. Now, every LPN that is received with this special RF module will have the "LPN is Pallet" flag enabled.

Additionally, you must also define the standard pallet quantity in the Item master. To do so:

1. Go to the "Items" screen.
2. Select the item record and click on its details.
3. Click "Edit" to begin editing.
4. Populate the following fields:
    a. Standard Pack Quantity (optional)
    b. Standard Case Quantity
    c. LPNs per Tier
    d. Tiers per Pallet

Figure 347: Standard Pallet Quantity Fields

5. Click "Save".

Step 4 above is used to define the standard pallet quantity by specifying how many units there are in a case (Standard Case Quantity), and how many cases there are in a pallet (LPNs per Tier & Pallets per Tier).

You can view the "LPN is Pallet" column in the "IBLPNs" screen.

Description of Item fields

- **Style:** Represents the Item Code.
- **Parts A through F:** Represents the breakdown of parts in a SKU, if applicable. Example: A small blue polo could be represented as:
  - o part_a = 'POLO'
  - o part_b = 'BLUE'
  - o part_c = 'SMALL'.
- **Alternate Item Code**: An alternate representation of the SKU, which concatenates parts A through F into a single record.
- **Description:** Description of the item.
- **Barcode:** The item's barcode.
- **Putaway Type:** Refers to the value used to group similar SKUs together. For example, SKU "LAPTOP" could belong to Putaway Type "ELECTRONICS". This is a functional field that defines the putaway logic in the "Putaway Priorities" screen.
- **Unit cost:** The item's individual cost.
- **Unit Length/Width/Height/Weight/Volume:** Denotes the unit's dimensions. This field does not store the values in a particular unit of measure. These fields are required for functional purpose such as cubed waving, putaway, and replenishment.
- **Item Line**: Not used in WMS.
- **VAS Group Code**: If there is a VAS Group Code defined in WMS, this field links the item to a particular set of VAS activities.
- **Hazardous**: Used to define an item as hazardous.

- **Pre-Pack Code:** For Prepack scenarios, the item also carrys a prepack code, which is a separate record that represents a group of child SKUs. For example, WMS could use a combination of different Polo's that come in a prepack into a single 'Prepack' SKU record.
- **Host Aware Item Flag:** Used in Prepack scenarios in determining whether or not the Host is aware of the Prepack item.
- **Is Parent:** Used in Prepack scenarios to determine whether the item is a parent SKU. If it is a parent SKU, it will contain a prepack of multiple child SKUs.
- **Dummy SKU Flag:** This is a SKU that can be ordered and allocated, but will have unlimited inventory. The SKU will be prompted for during picking. For example, this could be used to grab gift cards to go along with an order
- **Cubiscan Mod Timestamp**: Updates the timestamp in which the Item was modified by a cubiscan interface.

Additional fields (Item Detail):

- **Std Case Qty:** Defines the standard Case Quantity of an item.
- **Std Case Length/Width/Height/Weight/Volume:** Defines the dimensions of a Case.
- **Std Pack Qty:** Defines the standard Pack Quantity of an item.
- **Std Pack Length/Width/Height/Weight/Volume:** Defines the dimensions of a Pack.
- **Special Code 1 & 2:** Informational fields.
- **Product Life:** The expected lifespan of an item in DAYS.
- **% Acceptable:** The percentage of remaining life required (according to the product life) at receiving.
- **Require Batch Number:** Requires an item to have a batch number during receiving.
- **Require Serial Number:** For future use only in release 6.3.
- **Conveyable**: Used when MHE systems are enabled. Defines whether or not an item is conveyable.
- **Sortable:** Used when MHE systems are enabled. Defines whether or not an item is sortable.
- **LPNs per tier:**

    o If the "LPN is Pallet" is FALSE, this field defines how many LPNs are in a tier for a given pallet.

    o If the "LPN is Pallet" is TRUE, this field defines how many CASES there are in a pallet tier.

- **Tiers per Pallet:** This field defines how many tiers there are in a pallet for this SKU.

Note: "LPNs per tier" and "Tiers per Pallet" fields are used to define the standard number of LPNs acceptable per pallet.

- If the "LPN is Pallet" is FALSE, the RF only displays a warning message to the you that the maximum number of LPNs has been reached for the pallet (you can override this message).
- If the "LPN is Pallet" is TRUE, these fields are define the standard pallet quantity of a SKU, given that the "Standard Case Quantity" field is also defined.

Creating Items Manually

1. Go to the "Items" screen and click the Create button.
2. Enter the following information to create a new item:
   a. Parts A
   b. Description
   c. Barcode
   d. Unit Cost
   e. Unit Length
   f. Unit Width
   g. Unit Height
   h. Unit Weight
   i. Unit Volume
3. Click "Save".

Adding Items through Manual Interfaces

Items can also be created through an Oracle WMS Cloud Excel template.

Step 1: Preparing the Input Interface file:

You must follow the rules below in order to correctly use the Oracle WMS Cloud interface:

- The filename must start with the letters "ITM".
- The columns specified as 'required' in the interface specification document must be populated.

Step 2: Uploading the Interface file into WMS

1. Go to the "Input Interface" screen.
2. Use the drop-down to select the appropriate interface to process:
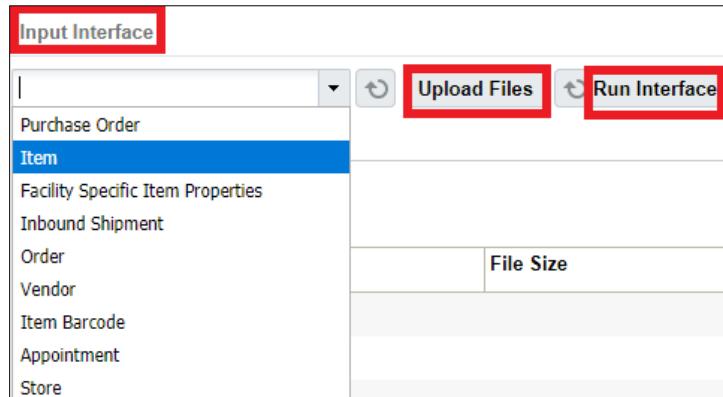
Figure 348: Selecting the Interface Type

3. Click on "Upload Files" and navigate to the file you wish to upload.
4. When the file is displayed in the screen, click "Run Interface".
5. The system will return a message dialog notifying you that the file has been successfully processed.

   Note: if you have any issue uploading your file, try uploading the file without the column headings.

Item Master Integration into WMS

A third method to interface records into WMS is through a shared SFTP directory.

1. Host system drops the "ITM" file into the shared directory (typically an "input" folder).
2. When the file is dropped, ORACLE WMS CLOUD will automatically detect the file and process it into WMS.
   a. If a file fails for some reason, it is automatically moved into the "error" folder.

Alternate Barcodes

The *Alternate Item Barcodes* screen sets up alternate barcodes for SKUs in the warehouse. This screen enables the ability to configure multiple barcodes for the same Item Code.

Adding Alternate Barcodes from the UI

1. To add a new barcode to an existing item, from Item Barcodes, click "Create" (➕) at the top right and input the Item Code and the new Barcode:
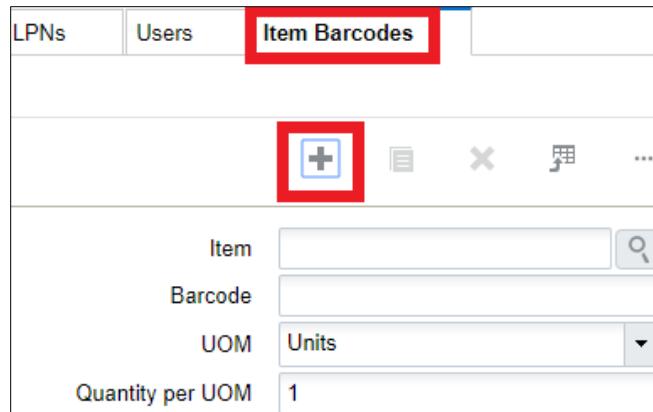
Figure 349: Adding Alternate Barcodes

2. When you are populating the Item Code, you can either populate the field or use the magnifying glass to look for the code from the Item Master.
3. When you are using the magnifying glass, the system will pop up a new window. To display the records, press the "Search" button.

Figure 350: Searching for the Item Code via the magnifying glass button.

4. Once the Item record is found, double click the record to select it.
5. Click "Save".

Adding Alternate Barcodes via Interface

You can also interface alternate barcodes into WMS using the "IXR" (or "IBR") interface template.

Open the interface with Excel and populate the "item_barcode" with the original barcode and the "vendor_barcode" with the new alternate barcode:

company_code	vendor_barcode	item_barcode	action_code
COMPANY	ALTERNATE_SKU1	SKU1	CREATE
COMPANY	ALTERNATE_SKU2	SKU2	CREATE

Figure 351: Editing the IXR file.

Make sure that the correct company code is populated and that the "action_code" is set to "CREATE".

1. Save the interface. Go to the "Input Interfaces" screen and select the "Item Barcode" from the drop-down menu:

After selecting the Item Barcode from the drop-down, upload the file and click "Run Interface" to process the file.

2. If successful, the new barcodes should be displayed in the "Alternate Barcodes" screen.

Required Item Fields

You can also make certain Item fields required before it can be received into WMS. This is done through the *Required Item Fields* screen.

To add a new 'required field', click Create (✚). This prompts a new window, where you can select a field from the drop-down:
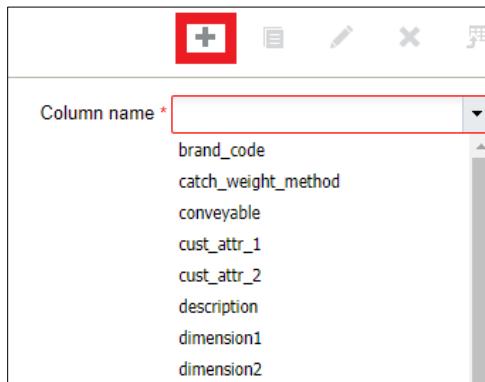
Figure 353: Adding new Required Fields in WMS

Note that for numeric value fields such as "unit_weight", WMS will treat '0' as an empty value. In other words, the system does not allow receipt of that item until it is changed to a non-zero value.

If the required item field is not populated, the RF displays an error message during receipt:

```
---------------------
|Required field not p|
|upulated            |
---------------------
```

Figure 354: RF Error Message

To populate the required item fields, go to the *Items* screen, select the item record, and populate the appropriate item field. There are two places in which an Item field can be populated:

1. From the Items screen, click Edit:

Figure 355: Editing an Item's Fields

2. From the Items screen, click Details (click Edit and then Save your changes when you are finished):

Figure 356: Editing an Item's Details

Once all of the required item fields are populated, you must retry receiving the LPN with the RF receiving option.

Printing Item Labels

If items received into warehouse do not have item labels, users on the warehouse floor have the option to print item labels from WMS and stick on individual items. WMS provides the option to print item labels from the following three modules:

- RF Print Item Label
- Item UI
- IB Shipment UI

RF Print Label

You can print item labels from handheld devices using the RF Print Item Label module.

```
Oracle WMS QA3PLEST/QAMASTER
      RF Print Item Label
Printer: █_____
Item: _____
Nbr of Labels: _____




Env: lgf_901_qa
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 357: RF Print Item Label

1. Once you select Print Item Label from RF, you are presented with an option to enter the label printer.

   a. If you tab out of this field without entering a printer, system will check if a default label printer has been configured for the logged in user. If a default label printer is not configured, the system displays a "Required Field" message forcing you to enter a printer.

```
Oracle WMS QA3PLEST/QAMASTER

P|Required Field    |_____
I|_____|____
Nbr of Labels: _____
```

Figure 358: Required Field

   b. If a default printer is configured for the logged in user, the system will ask if you would like to print the label to the default printer.

```
Oracle WMS QA3PLEST/QAMASTER

P|Print with default p|_____
I|rinter?             |____
N|_____|_____
```

Figure 359: Print with Default Printer Message

   ✓ If this message is configured as a warning, you can either accept the message (using Ctrl+A) to print to default printer or hit Ctrl+W to go back to the printer field and enter a different label printer.

✓ If this message is configured as an error, you are forced to go back (using Ctrl+W) and enter printer in the printer field.

Note: If the message is not enabled, this message does not show up at all. The default printer is automatically populated in the printer field when you tab out of the printer field.

2. After printer validations, you are prompted to scan the item barcode or vendor barcode.
3. Finally you are prompted to enter the number of labels required to be printed for the scanned item. A quantity greater than 0 must be provided.
4. If a customized item label that has been designed through label designer is configured, then the customized label will be printed. Else item label(s) will be printed based on base label format.

Item UI

Item labels can also be printed using the Print Label button from the Item UI:
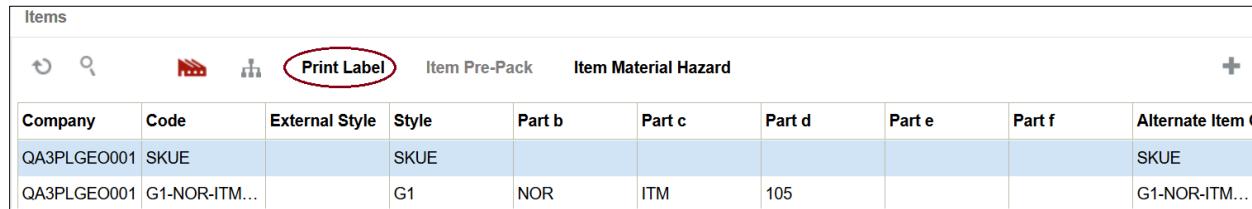
Figure 360: Print Label Button

When an item is selected on Items UI, Print Label button is enabled. This button is not enabled when multiple items are selected. On hitting the Print Label button, the following dialog pops up:

Figure 361: Print Label Dialog

You can enter the number of labels required for this item and hit submit. Item labels will be printed to the default label printer configured for the logged in user. Since there is no option to change or enter a printer using this option, it is necessary that the default label printer is configured for the logged in user.

IB Shipment UI

There is also an option to print item labels from the IB Shipment UI. In the IB Shipments view, click on the Nbr Items hyperlink for the desired IB Shipment.

Figure 362: Nbr Items

This brings up a view that lists all items on the shipment. There are two buttons available from this view:

- Print Item Labels – This button is only enabled when a single item is selected on this view. Item labels will be printed only for the selected item.
- Print All Item Labels – This button is always enabled and can be used to print labels for all items on the shipment

Figure 363: Print All Item Labels

When you click either button, the following pop-up is displayed. You have the option to print labels based on Shipped Qty OR Received Qty. After choosing that, you need to enter the number of item labels that need to be printed for each unit.

Figure 364: Print Labels by Shipped or Received Quantity

For example, if Shipped Qty is selected (which is 10 in this example) and the number of labels per unit is 5, then 50 item labels will be printed for this item.

Similar to the item UI, since this option does not prompt for printer, you must configure the default label printer for the logged in user.

Location Master

Locations in WMS represent storage locations in the warehouse. Below is a brief description of each Location field:

Location Type: Locations have different types depending on how they are used within the warehouse. The different Location Types are:

Location Type	Description
Active	Used for designating active locations. Active locations can only store units.
Consolidation	Used in PTS flow to assign Locations to Destination Stores.
Dock	Used to assign to loads during receiving/shipping.
Pack and Hold	Used for temporarily storing OBLPNs before shipping.
Yard	Used to locate trailer.
Packing Station	Used for packing LPNs with the 'Packout' RF option.
Drop	Used to hold both inbound and outbound LPNs while in between warehouse processes. You can configure the picking task to target a specific drop zone.
QC	Used to perform QC on LPNs during receiving.
Reserve	Used for designating reserve locations. Reserve locations store bulk inventory in all UOMs (LPN, Cases, Packs, and Units).
Staging Location	Used in the outbound process to consolidate OBLPNs based on a configured criteria.
Receiving Station	Used for inbound sorting functionality for LPNs.
VAS	Used to perform VAS on units during receiving/shipping.
Shipping Location	Used for shipping LPNs individually; if LPNs are located to a "Shipping Location", its status is automatically updated to status "shipped".

Additional warehouse Location Type identifiers are defined below:

Identifier	Description
Facility	Facility ID for location is part of.
Type	Add drop-down options
Dedicated Company	Used to assign a company to the location.
Location Size Type	Used in putaway for defining the Putaway Priorities.
Alloc zone	Refers to the Location's allocation zone. This is a free-form field used to group locations that must be allocated separately. The 'alloc zone' field is used in "Allocation Mode" (Wave Template) and "Replenishment Rules" (Replenishment Template) for specific UOMs. By specifying an allocation zone, you can configure WMS to allocate inventory by zones.
Item	If Location applies to an item.
Area/Aisle/Bay/Level/Position/Bin:	Used to describe the specific warehouse location.
Pick Sequence	Numeric value used to determine the pick sequence between locations. NOTE: The picking sequence values for all locations must have the same number of digits; it is recommended that the user start this field with the value 10000.
Barcode	The location's barcode.
Length/Width/Height	Refers to the location's dimensions. These values are considered during two different processes: During Putaway logic if using the Putaway Search Mode "Most Empty by Volume" or "Least Empty by Volume"; As a trigger for Replenishment if using Replenishment Mode "Percentage of Max".
Min/Max Units	Refers to the min/max units of inventory allowed in the location at a time.
Max LPNs	Maximum LPNs the location can hold.
Mod Timestamp	When Location was last modified.
Mode User	User that last modified this location.
Allow Multi Sku	If checked, allows location to have multi-Sku.

Identifier	Description
To be counted flg	If checked, a cycle count has been created for this location.
To Be Counted Ts	A time stamp that gets set whenever the to_be_counted_flg gets set.
Lock Code	Used to lock a location. When a location is locked, all inventory stored in this location receives the specified lock code. Additionally, any other LPN that is located to this location will have that lock code added to it as well.
Last Counted At	When item was last counted.
Last Counted By	User that completed cycle count.
Allow reserve partial pick	This flag determines whether the location can be allocated for partial picking or not. If the flag is checked, the location is eligible for partial picking, and vice versa. NOTE: If this flag is checked, you can add an extra restriction to prevent Full LPNs stored in this location from being broken by setting the Facility Parameter "RSV_PARTIAL_STRICT_FLG" to "YES".
Lock_for_putaway_flg	If set to "YES", the location is not considered when using "Directed Putaway."
Putaway Seq	Refers to the putaway sequence of the location, similar to the Picking Sequence field. NOTE: Putaway sequence values for all locations must have the same number of digits; it is recommended that the user start this field with the value 10000.
Replenishment Zone	Replenishment Zones define locations that are eligible for replenishment when a Replenishment wave is executed. Replenishment Zones must first be created in the "Replenishment Zones" screen.
Min/Max Volume	Refers to the min/max volume of inventory allowed in the location at a time. These values are used during the following: Putaway: If the location's max volume is reached, WMS skips this location for putaway. Replenishment Mode "Percentage of Max": If the location's inventory drops below the 'min volume' value, WMS triggers this location to receive replenishment up to the defined 'max volume'.

Identifier	Description
Restrict Batch	If the Restrict Batch flag value is set to yes, then the idea is to not have different batch numbers for the same sku present in a single location. If there are different batch numbers but each batch corresponds to different items, then the system should allow putaway to place the LPN. If a Pallet has two LPN's (LPN-1==>SKU-A batch-b1, LPN-2==>SKU-A, batch-2) then the location with restrict batch flag set to yes should not be picked even though capacity checks passes. If the flag value is set to no then the system allows mixing inventory with different batch numbers in same location for same sku. So If Pallet has two LPN's (LPN-1==>SKU-A batch-b1, LPN-2==>SKU-A, batch-2) then location with restrict batch flag set to no should be picked for putaway assuming other checks do pass.
Item Assignment Type/Item	These fields assign a permanent item to a location. If the Item Assignment Type is set to "Permanent" and the Item Code is specified in the Item field, other items may not be mixed in this location. These fields also set up locations for Replenishment.
Task Zone	Task Zones are used to group locations based on a functional configuration. Usually locations of type "Drop" are assigned Task Zones. Task Zones may be used to designate a "Destination Zone" in the Task Template. If this is defined, you are asked to drop the LPN to the "Destination Task Zone" at the end of a Task. Task Zones are also used as intermediary locations for Tasks that require multiple drop locations.
Mhe_system/Divert Lane	This field specifies whether or not this location will integrate with an mhe system for routing purposes. If an MHE system is defined, you must populate the specific Divert Lane code that the location will be used for during routing.
Pick zone	Configured / designated picking zone.
In Transit Units	Units that are en route to the location.
Cust Field 1-5	Used as custom fields for any custom operation. Example: Using cust_field_1 to populate a printer's IP address to assign a printer to that location.
Display Text	A calculated field that is the concatenation of area, aisle, bay, level, position and bin. These are separated with a '-'.
Restrict Inventory Attribute	If checked, only allows one inventory attribute to be stored in the location.

Identifier	Description
Assembly Flag	If checked, flags a location where inventory is brought to to be assembled into a different SKU.
Billing Location Type	Specify billing location type.

Creating Locations through the Interface (UI)

Using the Oracle WMS Cloud "LOC" interface file, you can map the warehouse locations into WMS.

Step 1: Fill out the "LOC" excel file

Fill out all the necessary information into the location interface. Column A defines the location type. Refer to the table below:

Interface Code	Location Type
C	Consolidation
D	Dock
Q	QC
V	VAS
P	Drop
S	Staging Location
A	Active
H	Pack and Hold
Y	Shipping Location
R	Reserve
K	Packing Station
T	Receiving Station

Step 2: Setting up the parameter for location updates

WMS requires a special parameter to be set before creating location updates in the system (for locations that contain inventory).

1. Go to the "Facility Parameters" screen.
2. Set the LOCATION_UPDATES_WITH_INVENTORY parameter to "YES".

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Step 3: Uploading the Interface file into WMS

1. Go to the "Input Interface" screen.
2. Use the drop-down to select the appropriate interface to process:
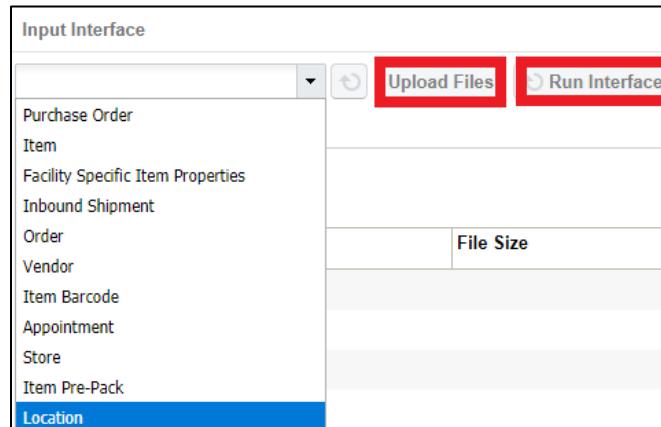
Figure 365: Selecting the Interface Type

3. Click on "Upload Files" and navigate to the file you wish to upload.
4. When the file displays, click "Run Interface".
5. The system will return a message dialog notifying you that the file has been successfully processed.

Inventory Screens

You can use the following screens to view the available inventory in the warehouse:

- Reserve Inventory
- IBLPNs
- Inventory Summary

Reserve Inventory

Loc type	Putaway Type	Loc area	Item	Is Parent	Loc barcode	Item Description	Current Qty	Curr lpns
Reserve	PASPR	DFSP01	NOR-SPRT-017	No	DFSP0124001B01	Cofit Door Gym M...	5	1
Reserve	DFAPP01	DFSP01	NOR-SPRT-035	No	DFSP0124001A01	Bajaj Cricket Ball	23	3

Figure 366: Reserve Inventory screen

The *Reserve Inventory* screen provides detailed inventory information filtered by Location Area and Item Code. You can click on the linked LPN number in the "Curr lpns" column and see more information regarding the items in each LPN such as the Shipped Quantity, Current Quantity (by LPN), and Pallet Number.

Figure 367: Reserve Inventory's LPN details screen

IBLPNs

The *IBLPNs* screen contains detailed information about all the IBLPNs currently stored in the warehouse. This includes individual LPN information broken down by SKU such as its Status, Quantity, Current Location, Expiry Date, Pack, and Case quantity.

Figure 368: IBLPN screen

Action Button	Description
Accept	If the LPN is Marked for quality control, you can accept it here.
Reject	If the LPN is Marked for quality control, you can reject it here.
Deallocate LPN	If the LPN is allocated, you can deallocate here.
Print Label	This button prints the LPN label according to the label template set up in Label Template View (label type IB Container)
Blind Labels	Allows you to print blind labels by selecting the number of labels, Label type (either IBLPN, OBLPN or Pallet), Destination company, and Destination facility.
Change Pack QTY	Allows you to change the pack quantity of the selected IBLPN.
Set LPN as Pallet	Allows you to Set LPN as Pallet.
Unset LPN as Pallet	Allows you to unset LPN as pallet.

Action Button	Description
Modify Qty	Allows you to modify the LPN quantity, and you must provide a reason code.
Locate LPN	Locates the LPN. If the flag capacity check is enable, the system will make sure that the LPN fits the location according to max volume, max units, and max weight.
Generate MHE Distribution Msg	It generates the TO_MHE_DISTRIBUTION_INFO message.
Generate MHE IB LPN Info Msg	It generates the TO_MHE_IBLPN_INFO message.
Mass Update Attributes	Allows you to do a mass update for Inventory attributes A-O and Putaway Type. Updates all the records shown in the page, so it's a good idea to limit your search. It will first tell you the number of records that will be updated.
Print UOM Label	Allows you to print a UOM Casel label or UOM Pack label fo the LPN selected.
Update LPN Type	Allows you to update the LPN type of the selected LPN.

Editing Batch Numbers

Currently, Oracle WMS Cloud provides an option from the IB LPN Inquiry screen to update batch numbers for batch tracking items. Some warehouse managers may want the option to prevent batch number edits for certain users based on screen parameter settings.

The allow_edit_batch_nbr screen parameter in the IB LPN Inquiry screen allows you to prevent editing the batch number of an inventory

Parameter Choice Behavior

- When the allow_edit_batch_nbr parameter is set to yes, the batch number field in the edit screen in the IBLPN inquiry will be editable and you can edit the batch number and save.
- When the parameter is set to no, you can edit the batch number field in the edit screen in IBLPN inquiry. However, when you Save the edited batch number, the system will throw the error "Cannot change batch number".

UI Screen Parameter Name	Options	Behavior
allow_edit_batch_nbr	yes	User can edit batch number and save.
	no	Batch number field is editable and once you save, the system throws error "Cannot change batch number."

Inventory History

Inventory history records various WMS transactions taking place in the facility for purposes of informing the ERP or any other external system that may be interested.

Facility	Company Id	History Activity Cod	History Activity	Group Nbr	Sequence Nbr	Status	LPN Nbr	Reason Code	To Container Numb
QATST01	QATSTPC	14	14 - Container Ca...	654052	1	Not Ready	JPCNT167	Cancel Task	
QATST01	QATSTPC	14	14 - Container Ca...	654051	1	Not Ready	CNT0715	Cancel Task	
QATST01	QATSTPC	14	14 - Container Ca...	651837	1	Not Ready	CPIBLPN0708C3	correction	

Figure 369: Inventory History

For more information about the Iventory History UI fields, see the Interface Specifications document.

Note: not all columns will be included in each IHT record.

Enable/Disable Auto Process

To help customize your view of inventory history records, from the **Inventory History Activity Parameters UI** you can click the **Enable Auto Process** or **Disable Auto Process** buttons.

Figure 370: Enable Auto Process

Once you click the Enable or Disable Auto Process buttons, a dialogue box appears asking for your password. Enter your password and click **Submit**.

Note: By default, all of the IHT records have the auto process option set to no. In order for IHT records to be considered, you need to select them and click Enable or Disable Auto Process.

For any inventory records where you have selected and clicked the AutoProcess flag, the associated inventory history record will display as Processed in the **Inventory History UI**.

Figure 371: Processed Status

Enable Auto-Send of Inventory History

In the past the main way to extract WMS transaction records would be via scheduled jobs at pre-determined intervals. Scheduling too frequently may place unnecessary load on the system and scheduling too infrequently may caused delays in notifying the ERP or other systems of critical WMS updates. You can now automatically send inventory history records as and when they are created.

They are sent via the Output Interface setup just like other outgoing messages. The new fields "enable_auto_send" and "disable_auto_send" are available in the Inventory History Activity Parameter. From the Inventory History Activity Parameter screen, you can select all history activities that are crucial for you to monitor. If the enable_auto_send flag is enabled, then the system will post the relevant IHT records as soon as the records are written to the relevant webservice end point setup in the Output Interface Configuration screen.

Note: If the auto-send is enabled for an IHT record, the auto-send takes precedence. The default value for the flag is No. Auto send is supported if the file format is XML and also if the interface type is Rest WebServices.

To enable Auto-Send of Inventory History, do the following:

1. From the Inventory History Activity Parameter screen > Select the IHT Record.
2. Click on **enable_auto_send**.

Figure 372: Enable Auto Send

Set Inventory History Transactions to Not Ready (Un-Processed)

From the Inventory History UI, you can click the "Mark Unprocessed" button to change the IHT status of a record to Un-Processed (Not Ready).

The Mark Unprocessed button allows you to reprocess the IHT records and let the system to pick up inventory again.

Note: The "Inventory History/ Can mark Inventory History unprocessed" permission should be enabled at the group level for user role SUPERVISOR/EMPLOYEE/GUARD/MANAGEMENT to perform this action.

Steps:

1. Go to Inventory History UI.
2. Select the IHT record. You can select one or more IHT records to process the request at the same time.

   Note: System enables the button only if the selected IHT records is in status "Processed/Processing/Cancelled".

3. Click **Mark Unprocessed** button, system prompts for password.

Mark Unprocessed ✕

Password * |

Submit Cancel

4. Enter your OCWMS password. Click **Submit**. To discard, click **Cancel**.
5. Upon success, the system displays a confirmation message "Updated 1 record", and the IHT status for that particular record is changed to "Not Ready".

Inventory History

↺ ⚲   Mark Unprocessed   **Resend**

Facility	Company Id	History Activity	History Activity	Group Nbr	Sequence Nbr	Status
QATST01	QATSTPC	22	22 - Lock Containe...	550475	1	Not Ready

Note: You need to turn-off the **Auto-Process** parameter in the Inventory History Activity parameter screen in order for the system to change the status of the IHT record status. Otherwise, if the Auto-process is configured for the IHT, then the record continues to remain in Processed status and the activity will not be reset to "Not Ready".

Configuring Reason Codes

Reason codes are used as identifiers for performing certain transactions, such as modifying the quantity of an LPN. Reason codes must be added at the **Parent company** level.

1. Go to the "Reason Codes" screen.
2. Click the Create button.
3. Populate the code and description.
4. Click "Save".

Reason Code Parameters

You may also configure reason codes that are required for certain transactions. These parameters are located in the "Company Parameters" screen.

- CYCLE_COUNT_REASON_CODE: Defines the reason code for performing a cycle count.
- DFLT_BATCH_EXP_ADJ_REASON_CODE: Defines the reason code for modifying a container's batch expiry date.
- SHORT_REASON_CODE: Defines the reason code for performing a short pick.

Configuring Lock Codes

Lock Codes must be added at the **Parent company** level.

1. Make sure your current company view is at the Parent company.
2. Go to the "Lock Codes" screen.
3. Click the Create button.
4. Populate the applicable fields/flags.
   a. **Allocatable:** If checked, LPNs with this lock code are still eligible for order allocation.
   b. **Unlock on locate to Reserve:** If checked, LPNs with this lock code will have this lock code removed whenever it is located to a Reserve location (a location that does not have a lock code).
5. Click "Save".

Adding a "Lost" Lock Code

Warehouses can have a lock code exclusively for lost items. WMS requires a separate configuration to differentiate a lost lock code from all other lock codes.

1. Go to the "Company Parameters" screen.
2. Edit the "LOST_LOCK_CODE" parameter. In the "Parameter Value" field, populate the lock code you wish to use as the lock code for lost LPNs.
3. Click "Save".

Adding Lock Codes to LPNs

You can add specific Lock Codes to an IBLPN by clicking the blue number value in the "Nbr Locks" column:

Figure 373: Adding Lock Codes to an IBLPN

This will prompt a new window, where you can add multiple lock codes to the container:

Figure 374: Display of the Lock Codes for a Sample Container

The above figure shows all the Lock Codes currently added to the container. Click Create (✚) and select one of the configured Lock Codes from the drop-down to add lock codes.
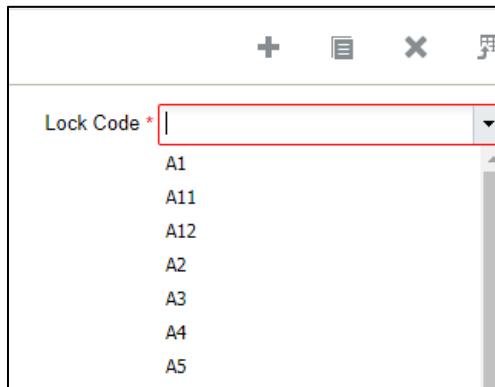
Figure 375: Selecting Lock Codes from the drop-down menu.

Modifying IBLPNs

LPNs can be modified via the RF module *Modify IBLPN*. Here you can modify either the LPN's SKU, Quantity, or Putaway Type.

1. Enter the RF module *Modify IBLPN.*
2. Scan the IBLPN to modify.
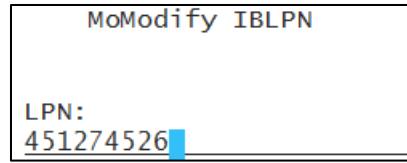
```
     MoModify IBLPN


LPN:
451274526█
```

Figure 376: Modify IBLPN

3. In the "Qty:" field, enter the new quantity (you must input the current quantity even if the current quantity remains the same).
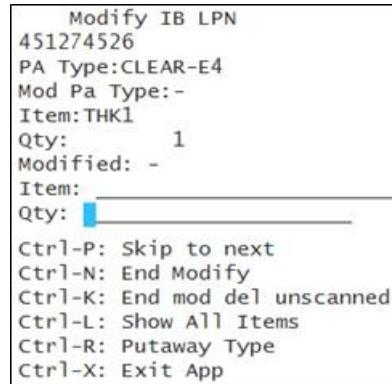
```
      Modify IB LPN
451274526
PA Type:CLEAR-E4
Mod Pa Type:-
Item:THK1
Qty:        1
Modified: -
Item: _____
Qty: █_____

Ctrl-P: Skip to next
Ctrl-N: End Modify
Ctrl-K: End mod del unscanned
Ctrl-L: Show All Items
Ctrl-R: Putaway Type
Ctrl-X: Exit App
```

Figure 377: Qty Field

4. To modify the Putaway Type, select option *Ctrl-R: Putaway Type*. This prompts a list of Putaway Types in the system – select the appropriate Putaway Type to modify.
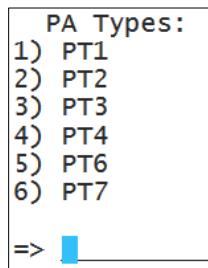
```
    PA Types:
1) PT1
2) PT2
3) PT3
4) PT4
5) PT6
6) PT7

=> █_____
```

Figure 378: PA Types

5. Once all the modifications are done, the LPN's attributes should be displayed in the RF screen. When done, select option *Ctrl-N: End Modify*.

```
 --------------------
4|Reason Code:      |
P|_____  |
M--------------------
I
Q
Modified: 1
Item: _____
Qty: _____
```

Figure 379: Reason Code

6. In the "Reason Code:" prompt, input the appropriate Reason Code for that transaction.
    a. A list of configured Reason Codes can be viewed in the *Reason Code* screen.

RF Create IBLPN

Before you begin to assign an inbound load to an outbound, create an LPN as shown in the following steps:

Steps:

1. Login to the WMS RF through your credentials.
2. Create an LPN for the order. To do that, select the Create LPN transaction. After invoking, create a new LPN and enter the LPN number. For example, : LPN: SKLPN1504M.

```
 Oracle WMS QATST01/QATSTPC

 1) SK Create LPN
 2) SK Pick & Allocate
 3) SK Direct Alloc




 => 1█_____

 Env: lgf_100_qa
 Ctrl-L: Change Language
 Ctrl-F: Change Facility
 Ctrl-P: Change Default Printer
 Ctrl-U: Page Up
 Ctrl-D: Page Down
 Ctrl-X: Exit App
 Ctrl-W: Previous screen
```

```
 Oracle WMS QATST01/QATSTPC
        SK Create LPN

 LPN:SKLPN1504M_____




 Env: lgf_100_qa
 Ctrl-X: Exit App
 Ctrl-W: Previous screen
```
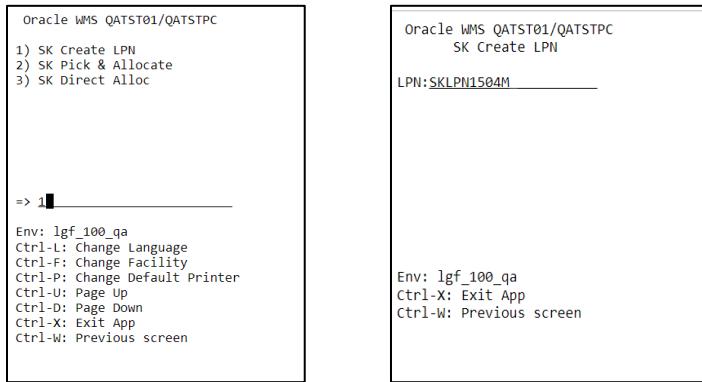
Figure 380: RF Create LPN Transaction

3. The RF screen takes you to the next screen where you need to enter following information:
   a. **LPN**: Enter the LPN Number.
   b. **Items**: Enter the items that you created through the items UI.
   c. **Qty**: Enter the quantity.

```
 Oracle WMS QATST01/QATSTPC

 LPN:  SKLPN1504M
 Item:SK-NKL-10-M_____

 Qty: 10█_____




 Env: lgf_100_qa
 Ctrl-V: Show Invn Attrs
 Ctrl-X: Exit App
 Ctrl-W: Previous screen
```
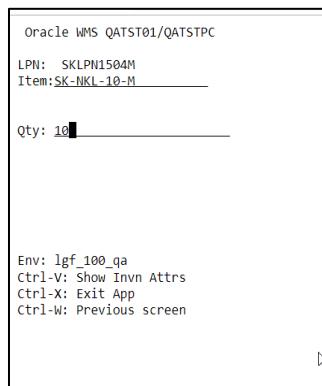
Figure 381: SKU Details

You can also check the LPN status in the IBLPN UI. Go to the IBLPN UI **>** Search for the LPN number **>** the status displays as "**Received**" when items are successfully consumed.

4. After consuming all the items,   press Ctrl-X to exit from the current page.

Combing/Splitting IB LPNs

If two or more IB LPNs for the same item need to be combined into a single LPN, you can do this through the "Split Cntr" RF module. This module is used to either split or combine two IBLPNs into one IBLPN.

1. Go to the RF transaction "Split Cntr".
2. Scan the LPN that needs to be moved into another LPN or from which part of the inventory it will be moved.
3. Scan the SKU Barcode of the item being moved to the other LPN.
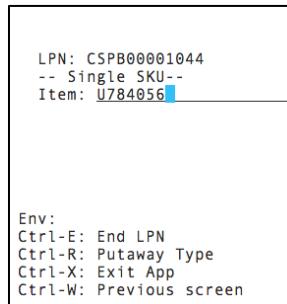
Figure 382: SKU Barcode

4. Enter the quantity that will be moved from the old LPN to the new LPN.
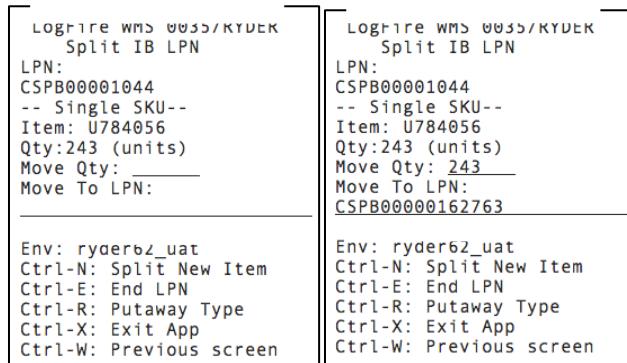
Figure 383: Quantity

If the LPN is being combined, enter the full quantity being moved.

5. If the entire quantity of the original LPN is being moved, the original LPN will be cancelled. Press 'CTRL-A' to accept.
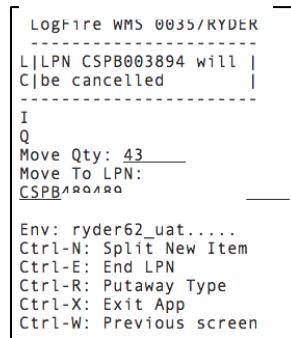
Figure 384: Ctrl-A - Accept

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Inventory Summary

The *Inventory Summary* shows the inventory movement of all items from available quantity to packed quantity. This report can be used as an overview/summary of available inventory and to view how many allocated units are still pending to picked or shipped.

Figure 385: Inventory Summary Screen

Cycle Count

A cycle count is an inventory auditing procedure, which falls under inventory management, where a small subset of inventory, in a specific location, is counted on a specified day.

Note: Multiple locations per item, work in process, and lags in paperwork processing can contribute to errors. You can mitigate these problems with correct cycle count procedures that specify not only the part number to be counted but also the location the part number should be in.

In Oracle WMS Cloud, you can run Cycle Counts in three ways:

1. Manually execute a Cycle Count in a location (RF)
2. WMS automatically triggers a Task (UI)
3. Run a Task Template that generates group of Tasks (UI)

How do I check if a location is flagged for Cycle Count?

The *Locations and Reserve Locations* screens.

These screens include a "To be Counted flg" column – if the value is *Yes*, then it means that the location needs to be cycle counted.

The *Tasks* screen.

Every location flagged for Cycle Count has a Task tied to it. To view these Tasks, filter the results by setting the Task type to "CC Location Contents" or "CC Location LPN Scan" and the status to "HELD" or "Ready".

Cycle Count Execution (RF)

There are three ways to run Cycle Counts with the RF, each varied by level of detail:

1. Cycle Count Location (By # of LPNs in a location): Prompts you to input the number of LPNs in the scanned location.
2. Cycle Count LPN (By LPN count): Prompts you to scan each LPN in the Location. Any IBLPN not scanned in a CC session will be updated as "Lost".
3. Cycle Count LPN Detail

By SKU quantity: Prompts you to scan the LPN, SKU, quantity and its Inventory Attributes (Batch Number, Expiry Date, Serial Number) in the location. Here you input the quantity for each LPN.

By SKU Scan: Prompts you to scan the LPN and SKU in the Location. For the quantity value, you have to scan once for every SKU in the LPN. This option does NOT validate inventory attributes in the LPN.

The following sections describe the steps you would take to execute each CC type.

Cycle Count Location

1. Enter RF transaction "Cycle Count Location".

```
Location: █_____
```

Figure 386: Cycle Count Location Prompt

2. Scan the location that will be cycle counted.
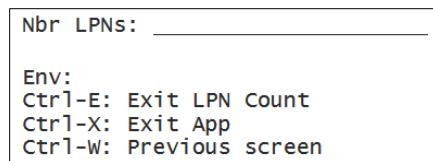
```
Nbr LPNs: _____

Env:
Ctrl-E: Exit LPN Count
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 387: Number of LPNs Prompt

3. Input the number of LPNs in that location.

4. Press *Ctrl-E* to end the count.
   a. If the LPN quantity inputted is incorrect, RF prompts you to use the detailed Cycle Count transaction (option *0 - Cycle Count LPN Detail*).

```
--------------------
|Count mismatch. Plea|
|se do a detail count|
||                  |
--------------------
```
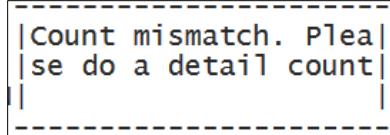
Figure 388: Detailed Count Prompt

Cycle Count LPN

1. Enter RF transaction "Cycle Count LPNs".

```
Location: █_____
```

Figure 389: Cycle Count LPNs

2. Scan the location to be cycle counted.

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```
LPN_____
Env:
Ctrl-E: Exit LPN Count
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 390: Scan LPN

3. Scan the LPNs in the location.
    a. If you scan an LPN that does not exist in the location, the RF prompts the message "Rescan the same LPN". When you rescan the same LPN, WMS makes the inventory adjustment to record the new LPN into the location.

```
-----------------------
|Rescan the same LPN |
-----------------------
```

Figure 391: Rescan Same LPN Message

4. Continue step 3 until all LPNs are scanned.

5. When you are done scanning all the LPNs, press Ctrl-E to close the count.
    a. If WMS thinks there are still LPNs left to be scanned, the RF prompts the message "Remove LPNs from Location?", followed by a list of LPNs that have not been scanned. Press *Ctrl-A* to proceed with the inventory changes.

```
-----------------------
|Remove LPNs from loc|
|ation?              |
-----------------------
```

Figure 392: Remove LPNs from Location Message

    b. If the Cycle Count was correct, RF will prompt message "Count completed for location".

```
-----------------------
|Count completed for |
|location            |
-----------------------
```

Figure 393: Count Completed for Location Message

Cycle Count LPN Detail

1. Enter RF transaction "Cycle Count LPN".

```
Location: █_____
```

Figure 394: Cycle Count LPN Transaction

2. Scan the location to be cycle counted.

```
LPN_____
Env:
Ctrl-E: Exit LPN Count
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 395: Scan Location

3. Scan the first LPN in the location. Scan the SKU and quantity for the current LPN.
    a. If the LPN has the "LPN is Pallet" flag set to "FALSE":

```
LPN:  LPN101011
Item:_____
Qty: _____

Env:
Ctrl-P: End Container Content Count
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 396: LPN is Pallet Set to FALSE

b.   If the LPN has the "LPN is Pallet" flag set to "TRUE":

```
LPN:  LPNSN092923
Item:_____
Cases per Tier: _____
Tiers per Plt: _____
Extra Cases: _____
Extra Packs: _____
Extra Units: _____


Env:
Ctrl-P: End Container Content Count
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 397: LPN is Pallet set to TRUE

Cases per Tier refers to the "LPNs per Tier" field in the item's detail in the Item Master.

Tiers per Plt refers to the "Tiers per Pallet" field in the item's detail in the Item Master.

4.   If the quantity is incorrect, the RF will prompt message "Reenter quantity for this item".

```
-----------------------
|Reenter quantity for|
| this item          |
-----------------------
```

Figure 398: Reenter Quantity Message

a.   If you reenter the same LPN, SKU and quantity, the adjustment is made.
b.   If you are counting a multi-SKU LPN, the RF displays a warning message for SKUs that are not counted.

```
-----------------------
|Unscanned sku(s) fro|
|m this LPN LPN101011|
| will be cycle-Count|
| ajusted. Proceed?  |
-----------------------
```

Figure 399: Unscanned SKUs Message

c.   If the quantity is correct, the RF screen blinks and you can continue scanning the rest of the LPNs in the location.

5.   When all the LPNs have been counted, press *Ctrl-E* to end the count.

a. If there are LPNs that have not been counted, the RF prompts a message "Remove LPNs from Location?" to ensure this change. When you accept with Ctrl-A, the uncounted LPNs are set to "Lost" status and the inventory adjustment is made[29].

```
-----------------------
|Remove LPNs from loc|
|ation? LPNTHK060     |
-----------------------
```
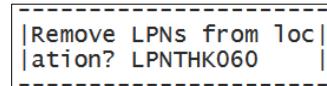
Figure 400: Remove LPNs from Location Message

b. If all the LPNs are counted, the RF prompts the message "Count completed for location."

Cycle Count Caveats

1. WMS always validates the LPN's Inventory Attributes (Batch Number, Expiry Date and Serial Number), if the SKU requires it.
2. LPNs that are allocated to a wave cannot be "Lost" during a Cycle Count transaction.
3. LPNs in "allocated" or "partially allocated" statuses cannot be Cycle Counted.

Cycle Count Task Creation

In addition to manually Cycle Counting locations, you can also create Cycle Count Tasks and execute them later. There are two ways to create CC Tasks:

1. Through user-configured Triggers.
2. Through user-executed Task Template

Cycle Count Trigger Management

Oracle WMS Cloud contains a list of possible triggers for cycle counts that you can choose to enable. When enabled, the system automatically generates Cycle Count Tasks for its location.

Facility	Company	cc_trigger	Enabled	Priority	Task type
QATST01	QATSTPC	Set Location "To be counted" fr…	Yes	1	CC Location Detail Count
QATST01	QATSTPC	Alternate Location in Split Lpn i…	No	1	CC Location Detail Count
*	*	Alternate Location in Split Lpn i…	Yes	1	CC Location Detail Count
*	*	Substitute Lpn from different Lo…	Yes	1	CC Location Detail Count
*	*	Approve "Location Mismatch" re…	Yes	1	CC Location Detail Count
*	*	Recount Location Detail	Yes	1	CC Location Detail Count
*	*	Recount Location	Yes	1	CC Location LPN Scan
*	*	Set Location "To be counted" fr…	Yes	1	CC Location Detail Count

Cycle count Trigger Management

---

[29] LPNs in "Allocated" status **cannot** be "Lost".

Figure 401: Cycle Count Trigger Management

The *Cycle Count Trigger Management* screen, shown above, contains the following parameters:

- **Facility/Company:** Defines which Facility and Company this trigger applies to (an asterisk * means it applies to all facilities/companies – must be at PARENT company level).
- **CC Trigger:** A description of the trigger. This is the action that will trigger the CC Task.
- **Enabled:** "Yes" means the trigger is enabled.
- **Priority:** The priority given to the Task when created.
- Task Type:
  - CC Location LPN Scan: Creates a Cycle Count Task that prompts you to scan the LPNs in the location.

    See section 0 (p. 4-32) for details.

  - CC Location Content: Creates a Cycle Count Task that prompts you to scan the LPNs, SKUs and quantities in the location.

    See section 0 (p. 4-33) for details.

Description of Cycle Count Triggers

Trigger	Definition/Expected behavior
Alternate location for Putaway	- You scan a location different than the one directed by the system during directed putaway: - System generates a CC task for the location directed by the system. - Trigger module: 'rf.inbound.cwrfputaway' with mode = 'Directed Putaway Pallet' or 'Directed Putaway LPN'.
Short pick	- You short pick an LPN or units from an LPN: - System generates a CC task for the location where the LPN was shorted. - Trigger modules are: 'rf.outbound.cwrfpacklpn','rf.inbound.cwrfmovelpn', 'rf.inbound.cwrfpickiblpnreplen', 'rf.outbound.cwrfpickcart', 'rf.outbound.cwrfpackncactiveorder', 'rf.outbound.cwrfpickiblpn'

Trigger	Definition/Expected behavior
Short pick active	- You short pick the remaining quantity of a SKU in an active location: - System generates a CC task for the location where the quantity was shorted. - Trigger modules are: 'rf.inbound.cwrfpickiblpnreplen', 'rf.outbound.cwrfpickcart', 'rf.outbound.cwrfpackncactiveorder', ''rf.outbound.cwrfpickiblpn'
Cancel OBLPN in 'OB Created' status	- You cancel an OBLPN in 'Outbound Created' status from the UI: - System generates a CC task for the location(s) where the inventory in this OBLPN was allocated from. - Trigger module: 'ObContainerView' - Note that this trigger should only work when an OBLPN in 'Outbound Created' status is cancelled manually from the UI. If an OBLPN in 'Outbound created' status is cancelled by 'Undo Wave', the system should not create corresponding CC tasks even if this trigger is enabled.
De-allocate IBLPN from UI	- You de-allocate an IBLPN from UI: - System generates a CC task for the location where the IBLPN was de-allocated. - Trigger module: 'IbContainerView'
De-allocate Active Inventory from UI	- You de-allocate a SKU from active inventory in the UI. - System generates a CC task for the location where the SKU was de-allocated. -Trigger module: 'ActiveInventoryView'
Set Location 'To be counted' from Location screen	- You set the "To be counted" flag equal to 'Yes' in the UI. - System generates a CC task for the location where the flag was set to 'Yes'. -Trigger module: 'LocationViewFW'

Trigger	Definition/Expected behavior
Recount Location	- You reject an inventory adjustment record with 'Loc Dtl Count' = No and with 'Creation Type' = Manual (Recount triggers are only applicable for Cycle Counts done manually). - System generates a CC task for the location with rejected inventory adjustment record. -Trigger module: 'Inventory Adjustment Management'
Recount Location Detail	- You reject an inventory adjustment record with 'Loc Dtl Count' = Yes and with 'Creation Type' = 'Manual' (Recount triggers are only applicable for Cycle Counts done manually). - System generates a CC task for the location with rejected inventory adjustment record. - Trigger module: 'Inventory Adjustment Management'
Approve 'Location Mismatch' record	- You approve an inventory adjustment record that moves an LPN from another location to the cycle counted location (inventory adjustment record has warning 'Location Mismatch'). - System generates a CC task for the location where the LPN was located BEFORE the cycle count adjustment (LPN's 'Expected Location'). *Ex. If LPN was systematically in location A. However, during the cycle count that generated the inventory adjustment record, same LPN was counted in location B. Upon approval of this record, the CC task must be generated for location A.* -Trigger module: 'Inventory Adjustment Management'
Substitute LPN from different location	- You scan an LPN that is in a location different from the allocated LPN during Full-LPN or Reserve NC Picking (LPN substitution from different location). - System generates a CC task for the location where the LPN was allocated originally. - Trigger modules are: 'rf.inbound.cwrfmovelpn', 'rf.inbound.cwrfpickiblpnreplen', 'rf.outbound.cwrfpickcart', 'rf.outbound.cwrfpackncactiveorder', 'rf.outbound.cwrfpickiblpn', 'rf.outbound.cwrfrepackoblpn'

Trigger	Definition/Expected behavior
Alternate location for Split LPN into active	- You scan a location different than the one directed by the system during RF_Directed putaway with parameter 'multi-sku-lpn-mode' = 'Split into active locations'. - System generates a CC task for the location directed by the system - Trigger module: 'rf.inbound.cwrfputaway' with mode = 'Directed Putaway Pallet' or 'Directed Putaway LPN' AND 'multi-sku-lpn-mode' = 'Split into active locations'.

Configuring Cycle Count Triggers

1. Go to the *Trigger Management* screen - this displays a list of Cycle Count Triggers.

Facility	Company	cc_trigger	Enabled	Priority	Task type
QATST01	QATSTPC	Set Location "To be counted" fr...	Yes	1	CC Location Detail Count_
QATST01	QATSTPC	Alternate Location in Split Lpn i...	No	1	CC Location Detail Count
*	*	Alternate Location in Split Lpn i...	Yes	1	CC Location Detail Count

Figure 402: Trigger Management Screen.

2. Select the record and click Edit (✏) to customize the trigger.
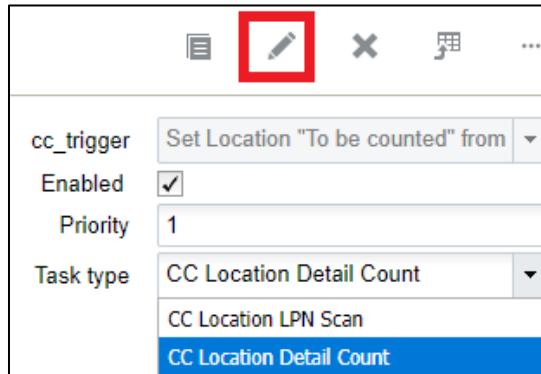
Figure 403: Enable Trigger

   a. Tick the "Enabled" checkbox to enable/disable the trigger.
   b. Set a number for the priority. This is the priority of the Task generated from the trigger.
   c. Select the Task Type. This defines the task type for the task created under this trigger (CC Location LPN Scan or CC Location Detali Count).

3. Click "Save" to save the changes.

Creating Cycle Count Tasks with Task Creation Templates

Another way of creating Cycle Count Tasks in WMS is through existing Task Templates.

Note: CC Tasks can only be created at the Location level.

1. Go to the *Task Creation Templates* screen.
2. Click Create (✛) and populate the necessary information.

Figure 404: Create Task

- **Description:** Input the Task Template's name.
- **Template Type:** Select "CC" for Cycle Count Templates.
- **Max Nbr of Tasks:** Input a numeric value. This is the maximum number of tasks that this template can create (leave blank if not applicable).
3. After creating the template, the next step is to create the task types that are created whenever this template is executed. Select this template and click on Details (⌂).
4. Click Create (✛) and populate the necessary information.

Figure 405: Select Task Type

- **Sequence Nbr:** Sequence for creating task types, if there are more than one within the template.
- **Task Type:** The Task Type for the Task. This value must be a CC task type (CC Location LPN Scan or CC Location Contents).
- **Priority:** The Task's priority when it is created.
- **Create Held Flg:** When checked, the task automatically goes to "HELD" status when created. You must 'release' this task manually from the Tasks screen.
- **Break By Quantity, Destination Zone:** Not applicable.

5. Click "Save" to save your changes.
6. The next step is to set up the Selection Rules. This tells the system which locations to create Tasks from. Go back to the Task Type window, select the record and click "Selection Criteria".

Figure 406: Selection Criteria

7. In this new window, you will see a folder icon (); this is a "complex operation". Within this folder, there can be many nodes with criteria specified; these are "basic operations".

Figure 407: Complex and Basic Operations

8. To create a new basic operation, select the folder icon and click on "Insert Basic Operation". This creates a basic operation under the selected complex operation.

Example 1:
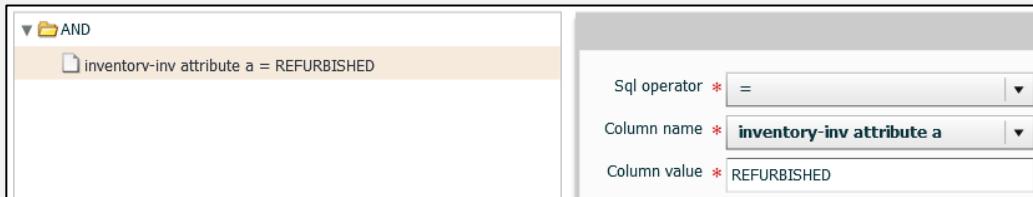
This configuration translates to:

Create Cycle Count Tasks for locations that contain LPNs with "Attribute A = REFURBISHED".

Example 2:

This configuration translates to:

*Create Cycle Count Tasks for locations that contain LPNs with "Attribute A = REFURBISHED **AND** Expiry Date = "March 31st, 2015".*

Notice that the complex operation "AND" is used to include the two basic operations as required criteria for triggering the Task.

9. Select the SQL operator, column name[30] and column value.

10. Click "Save" to save your changes.

OPTIONAL: Configuration for Task Rules
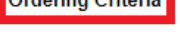
Ordering Criteria in CC Task Templates are used to configure the order in which CC Tasks are displayed in the RF task list.

> NOTE: If the Ordering Criteria is not specified, CC Tasks in the RF Task List is displayed in order of Task status, priority, and pick sequence.

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[30] A list of all the column names in this selection criteria is available in section 0, p.207.

1. Go to the *Task Template* screen, select the template and click on 'Details' (⬚).

Figure 408: Ordering Criteria

2. Select the Task Type record and click "Ordering Criteria".
3. This takes you to a new window with all the 'ordering' rules for the task type. Click Create (➕) to add a new record.
4. Input the necessary info for the ordering criteria record:
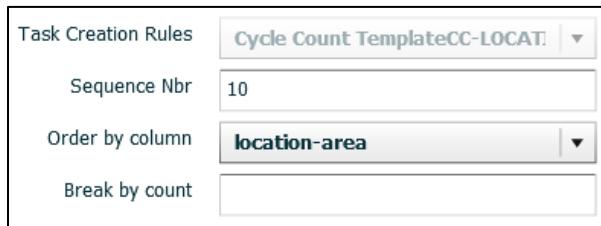
Figure 409: Configuration to display CC Tasks by Location Area.

Sequence Nbr: The sequence number for the ordering criteria record.

Order by column: The criteria used for ordering the tasks. A full list of these fields are listed in section 0, p. 6-7.

Break by count: Leave this field blank (only applicable for non-CC Tasks).

5. Press "Save" to create the record.

Executing Cycle Count Task Templates

Once the Cycle Count Task templates are set up, the next step is to run them.

1. Go to the *Task Template* screen and select the template.
2. Click on 'Run Template'. The message "Tasks created" displays. Press OK.
3. To view a list of all the CC Templates that were executed, go to the *CC Run Inquiry* screen. This is similar to the *Wave Inquiry* screen for running waves.

Configuring a Cycle Count Approval Rule

The Cycle Count Adjustment Approval Rule screen allows you to configure a rule for cycle count approval and set tolerance levels for groups of items (using selection criteria.)
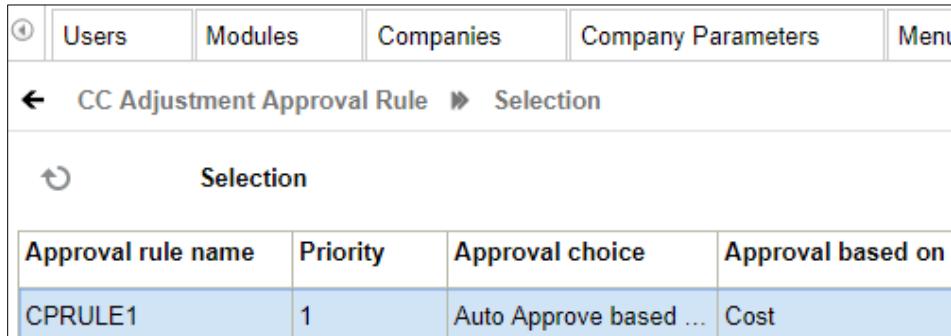
Figure 410: Cycle Count Adjustment Approval Rule

For example: Let's say you want to define your selection criteria as "Item Unit Cost" >= 50. For all the items that fall under the criteria, you want to set the tolerance % to 10%. In this case, if an item (whose unit cost is 60) is counted and a variance found is above/below 10%, then it will go for approval; otherwise it won't go for approval. (For example, if the expected count is 100, and the counted value is 101 or 99, then it will not go for approval.)

Permissions

From the Group Configuration UI, click **Permissions** to view the available permissions for Cycle Count Adjustment Rule and to set group permissions.
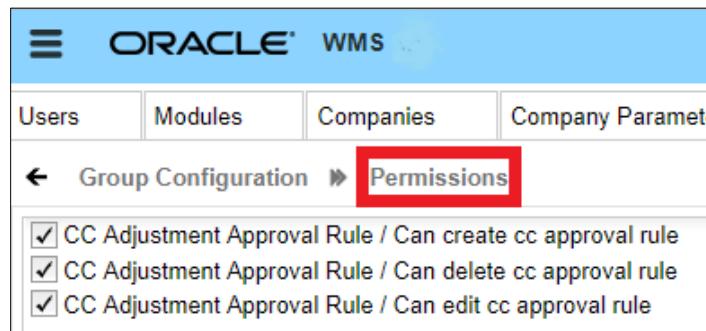
Figure 411: Cycle Count Adjustment Rule Permissions

Cycle Count – Approval Settings

From the Cycle Count Adjustment Approval Rule detail screen, you can set "Approval Settings". Approval settings allow you to configure the mode for approval for each item(s)/ group of item(s) specified in the selection criteria.
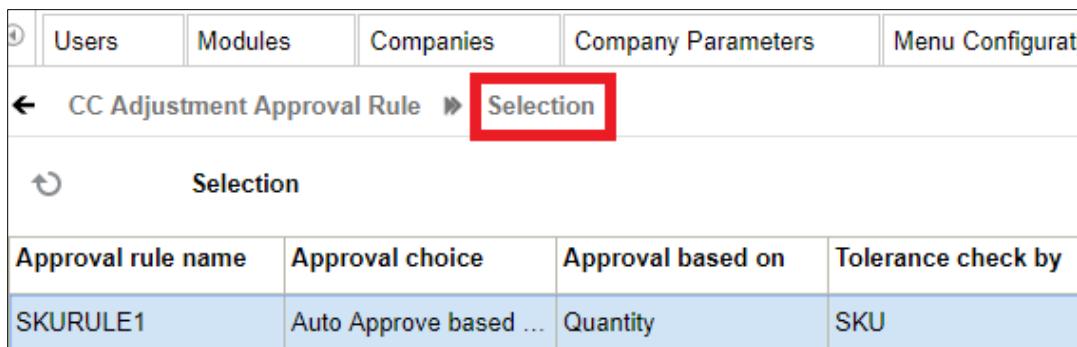
Figure 412: Approval Settings

You can configure different Approval Settings based on your preferences for different items.

For example, let's say you want to set item(s) belonging to velocity V1 so that they always go for approval when there is a variance. You set item(s) belonging to velocity V2 so that they never go for approval when there is a variance, and item(s) belonging to velocity V3 should go for approval depending on a certain threshold in the variance.

Approval Rule Options

When your Approval rule is configured with Approval Settings = "Apply Tolerance Settings", and you are cycle counting the particular item that falls under this rule, the system will apply the tolerance settings. You can populate each rule detail with different tolerance settings.

From the Cycle Count Adjustment Approval Rule screen, you can click on a rule's Details to further refine the items that the Approval rule checks.

Figure 413: Approval Rule Options

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The following table shows what each of the Approval Rule options are and what they check:
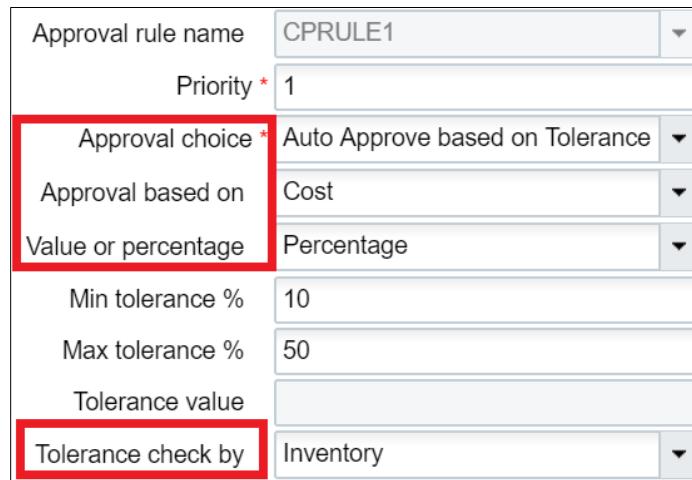
Approval Rule Option	Description
Priority	Priority for the Approval Rule.
Approval choice	You can specify your rule for **Manual Approval** or to **Auto Approve Based on Tolerance**.
Approval based on	You can apply Tolerance Settings based on "Quantity" or "Total Adjusted Cost". When the UOM selected is Quantity, you can set the tolerance check in terms of Absolute value or percentage. When UOM selected is Cost, then the tolerance check will be based on Adjusted Cost. When UOM selected is Cost, you can set tolerance check in terms of Absolute value only. So when "Value" is selected, you can specify the tolerance value in the Tolerance Value field. The system then checks for the value set in the Tolerance check by field.
Value or percentage	You can specify your rule to check for either value or percentage for approval.
Min tolerance %	Minimum quantity tolerance percentage that is applied on the Total 'Current Qty'.
Max tolerance %	Maximum quantity tolerance percentage that is applied on the Total 'Current Qty'.
Tolerance value	Is Tolerance value always 0?
Tolerance check by	**Tolerance Check By** can be populated with Inventory or SKU. This allows you to configure whether the CC approval process should be triggered when there is a variance in the count in Inventory or in SKU. When Tolerance Check By = **Inventory**, if there is a variance for one of the inventory in the location/IBLPN that goes beyond the tolerance threshold, the system will trigger a manual approval flow. If Tolerance check by is populated as "**SKU**", then the tolerance check is at the SKU level in the Active/Reserve Location (if RF CC Location is selected). If you specify RF CC IBLPN, then the tolerance check will be at the SKU level in each IBLPN.

Selection Criteria Button

From the Cycle Count Adjustment Approval Rule screen, click Details ( ), and then click the Selection button to view and configure the Selection Criteria.

Figure 414: Cycle Count Adjustment Rule Details

Note: From the Rule Detail screen, you can configure different selection criteria for each rule.

Cycle Count Exception Scenarios

- Cancelling a Cycle Count process

If you wish to exit and cancel the Cycle Count process for a given location, you must press "Ctrl-W" until the RF returns to the main menu.

- LPN is in "Consumed" or "Shipped" status.
  - When you scan an LPN in "Consumed" or "Shipped" status in the Cycle Count operation, the system gives you an error message that the LPN is in invalid status.
  - Finding "Consumed" and "Shipped" status LPNs in the reserve reflects poor inventory management.
  - For the "Consumed" and "Shipped" LPN inventory, you must create a new LPN, using Create LPN RF option for the physical inventory in the location. DO NOT FORGET TO PUTAWAY.
- LPN is in an invalid status.
  - When you scan an LPN in "Packed" status in the Cycle Count operation, the system gives you an error message that the LPN is in invalid status.

Cycle Count Inventory Updates

Deferred vs. Immediate Mode

Oracle WMS Cloud features the ability to approve/reject inventory adjustments before any real changes are made to warehouse inventory. This process, called the "Deferred Mode", is enabled at both the Facility and Company levels.

Refer to the following diagram for a high-level process flow of the Deferred Mode:
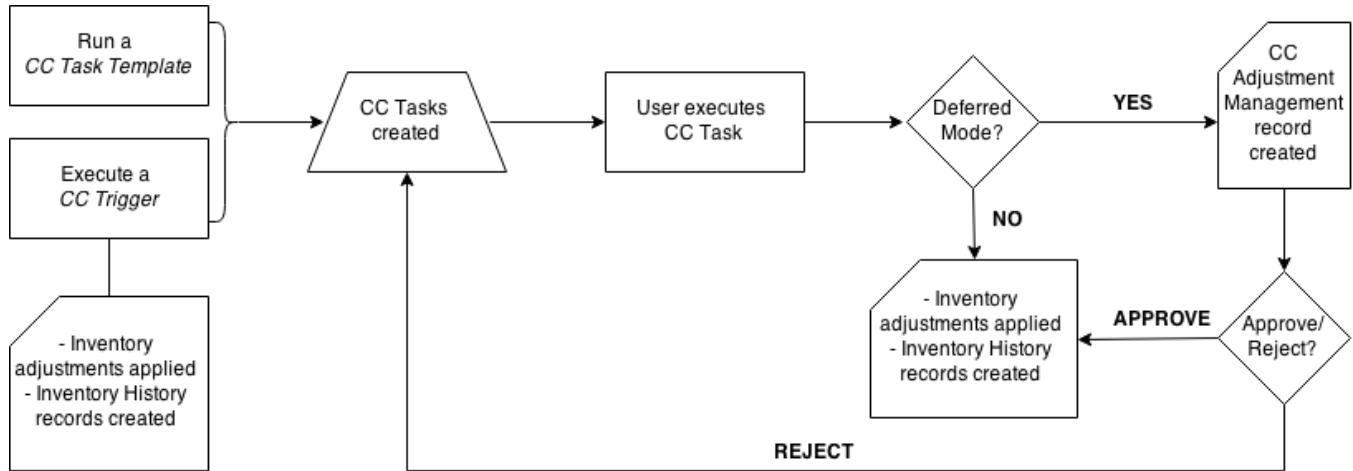
Figure 415: Deferred Mode Process Flow

To enable Deferred Mode for your facility, set the Facility and Company parameters "INVN_ADJUSTMENT_APPROVAL_REQUIRED" to "YES". If this parameter is set to "NO" at either the facility or company level, the "Immediate Mode" (default) will be enabled – in this mode, Cycle Count inventory adjustments are applied immediately. Note that in 3PL environments, this parameter must be set to "YES" at the child company level. Below are the possible configurations:

PARAMETER CONFIGURATION		RESULTING BEHAVIOR	
Facility Parameter 'INVN_ADJUSTMENT_APPROVAL_REQUIRED'	Company Parameter 'INVN_ADJUSTMENT_APPROVAL_REQUIRED'	Write record in 'Inventory Adjustments Management' screen?	Inventory Adjustments Mode
NO	NO	NO	Immediate
NO	YES	NO	Immediate
YES	NO	NO	Immediate
YES	YES	YES	Deferred

Figure 416: Facility and Company Parameter Behaviors

In the Deferred Mode, WMS keeps track of all Cycle Counts in the *Cycle Count Adjustment screen*.

Figure 417: Cycle Count Adjustment Screen

This UI screen displays detailed information about the Cycle Count record.

- **Group Number (group_nbr):** Must be equal to the 'Inventory History' group number. In Deferred Mode, inventory adjustments need to get posted with the same group number in the 'Inventory History' table. The group number must be the same for all adjustments done in a specific location (when CC is done at the location level) or to a specific LPN (when CC is done at the LPN level) in one transaction. Note: Transaction is defined here as:

    1) For RF CC_Location modules: Time between Location scan until 'Ctrl-E- End Location Count' is entered.
    2) For RF_CC LPN module: Time between LPN is scanned until 'Ctrl-P' is   entered to finish the LPN count.

- **Company (company_code):** Company where the transaction is performed. Note that parent level users are able to cycle count inventory at the child level, so child company code should be displayed here for this scenario.
- **Facility (facility_code):** Facility where user performing the count has logged in.
- **Status (status):** Current status of the adjustment record. Refer to section 0 (p.6-3) for a description of these statuses.
- **RF screen name:** Name of the RF transaction used to perform the Cycle Count.

- **Total Expected Qty:** Sum of current_qty (in units) of all the inventory in the location (CC at the Location level) or LPN (CC at the LPN level) before cycle count is performed.

- **Total Count Qty:** Sum of counted quantity (in units) during the execution of cycle count transaction for the location (CC at the Location level) or LPN (CC at the LPN level).

- **Total Adjusted Qty:** Total Count Qty – Total Exp Qty

- **Location (location):** Location where the CC transaction was executed. For CC at the LPN level, this field should be equal to the Location where the LPN was located at the time the count was performed.

Creation Type:

Action that trigged the creation of this inventory adjustment record. The same 'Creation Type' values needs to be added to the 'Task' screen with the exception of 'Manual' (refer to section '7.2.3. – Modifications to 'Task Type' UI Screen') so both screens may reference the same table. Valid Creation types are:

Creation Type	Definition
Trigger	Adjustment was done while executing a task that was created with a trigger. Refer to section '7.3.1 – New UI - Trigger Management'
CC Rules	Adjustment was done while executing a task that was created by running a 'CC Task Template'. Refer to section '7.2.2- New UI – CC Task Templates'
Recount	Adjustment was done while executing a task that was created by generating a recount (rejecting an inventory adjustment record in 'Pending' status)
Manual	Adjustment was done manually with RF_CC Location or RF_CC LPN (no task is executed).

- **Recount Reference:** Used to keep track of counts that are done to the same location by generating a recount (rejecting a particular inventory adjustment). The first time a user rejects a record in 'Pending' status, the system must set the Recount Reference number equal to the Group Nbr of that record. This rejection will automatically trigger a CC task for the same location. Once this CC task is executed, the corresponding inventory adjustment record must be created with the Recount Reference of the first rejection (first Group Number)'.

- **Task:** The Task number that was executed to create the corresponding inventory adjustment. Value should be blank if the count was performed manually with RF_CC Location or RF_CC LPN.

- **Task Type:** The Task Type that was created to create the inventory adjustment. Value should be blank if the count was performed manually with RF_CC Location or RF_CC LPN.

- **Cost Adjustment:** Sum of (item.unit_cost*adjusted_qty) for all the items in the location.

- **Loc Dtl Count:** 'Yes/No' value that indicates whether or not a particular non-active location count was done at the detail level.

- **Warnings:** Displays the number of warnings for a specific inventory adjustment record at the location (RF_CC Location) or LPN levels (RF_CC LPN) as a hyperlink. Click the hyperlink display a list of all the warnings for that specific inventory adjustment record.

Warning	Scenario
Attribute Discrepancy	- You enter a different batch and/or expiration date or serial number during Cycle Count. - Warning should only be displayed for the detail record(s) for which different attribute was entered.
Inventory Expired	- You enter a passed expiration date during Cycle Count. - Warning should only be displayed for the detail record(s) for which an expired expiration date was entered.
Mixed batches in restricted Locn	- You scan multiple batches in a location with 'Restrict Batch' flag enabled during Cycle Count. - Warning should be displayed for ALL records in the location. - Inv. Adjustment records with this warning cannot be approved.
Mixed SKUs in Single-SKU Locn	- You scan multiple items in a location with 'Allow Multi SKU' flag disabled during Cycle Count. - Warning should be displayed for ALL detail records in the location. - Inv. Adjustment records with this warning cannot be approved.
Permanent SKU mismatch	- You scan an item different than the item assigned to a location with 'Item Assignment Type' = 'Permanent' during Cycle Count. - Warning should be displayed for ALL detail records in the location. - Inv. Adjustment records with this warning cannot be approved.

Warning	Scenario
Location Mismatch	- You scan an LPN that is systematically in a different location, i.e. LPN's Expected location <> Cycle counted location. - Warning should be displayed for all the details of the LPN that is scanned in a different location.

- **Reason Code:** Display the value configured in Company Parameter 'CYCLE_COUNT_REASON_CODE'.

- **Create User:** User who creates the inventory adjustment record.

- **Create Timestamp:** Time at which inventory adjustment was completed. For the CC_Location scenario, time at which 'Ctrl-E: End Location count' is entered to finish the count. For the CC_LPN scenario, time at which 'Ctrl-P' is entered to finish the LPN count.

- **Mod User:** User who modifies the record. Set equal to Create User when record is created. Set equal to user who Rejects, Accepts or Cancels the record.

- **Mod Timestamp:** Time at which the record is modified. Set equal to Create Timestamp when record is created. Update timestamp when user Rejects, Accepts or Cancels the record.

Approving and Rejecting Adjustments in Deferred Mode

The Deferred Mode allows supervisors to approve/reject inventory adjustments made by users who have previously Cycle Counted locations.
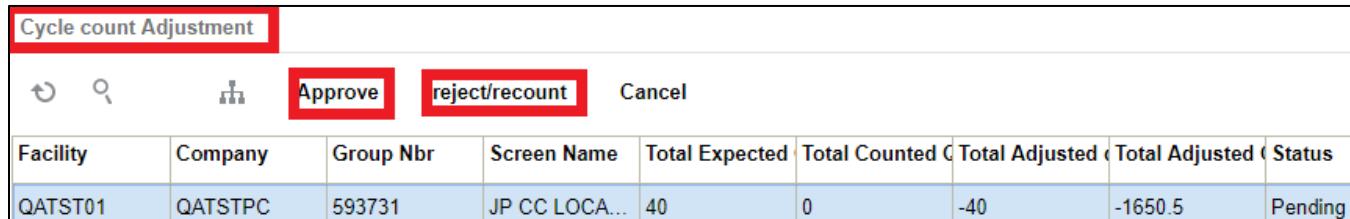
Facility	Company	Group Nbr	Screen Name	Total Expected	Total Counted (	Total Adjusted (	Total Adjusted (	Status
QATST01	QATSTPC	593731	JP CC LOCA...	40	0	-40	-1650.5	Pending

Figure 418: Approve/Reject Inventory Adjustments

To approve/reject records, make sure it is in "Pending" status and click the "Approve" or "Reject/Recount" buttons.

Approving a record applies the inventory adjustments by adding/subtracting inventory from the locations as well as posting records in the Inventory History screen (referenced by the Group Number).

Rejecting a record will cancel the inventory adjustment and trigger a new CC task so that the location is re-counted.

Deferred Approval Mode set up in the RF Cycle Count transactions

Previously, when performing a Cycle Count with RF Cycle Count Location or RF Cycle Count IBLPN, you would use the screen parameter "**auto-approve-mode (update 18C)**." This screen parameter is now called "**deferred-approval-mode**."

The deferred_approval_mode parameter makes it easy for you to distinguish the approval modes available while you are performing cycle counting operations.

From **Modules**, select Cycle Count Location or Cycle Count IBLPN, then Screens, and Screen Parameters to view and select your module parameter choice.

Figure 419: Deferred Approval Mode Parameter

Note: you still have the option to use **Auto-Approve-Mode** as old options in this screen parameter are still available.

The available settings for the Deferred-Approval-Mode screen parameter are defined in the following table:

Mode	Definition
Manual Approve	When "deferred-approval-mode" is set with **Manual Approve**, "RF Cycle Count Locn/IBLPN" writes the count information in the CC Deferred Adjustment UI and will leave the information for the supervisor to approve or cancel the count if supervisor is logged in with company and facility combination and mode is configured with deferred mode.
Auto Approve	When "deferred-approval-mode" is set with **Auto Approve**, RF Cycle Count Locn/IBLPN" writes the count information in the CC Deferred Adjustment UI and will get Auto Approved after passing through all the validations if user is logged in with a company and facility combination and mode is configured with deferred mode.

Mode	Definition
Skip CC Deferred Adjustment	When "deferred-approval-mode" is set with **Skip CC Deferred Adjustment**, then while executing "RF Cycle Count Locn/IBLPN"; the system does not write the count information in the CC Deferred Adjustment UI even though the user is logged in with company and facility combination and mode is configured for deferred mode. In this case adjustments will be posted as an immediate counting mode. If there are discrepancies found while counting, when the system is operating in this mode, the necessary inventory adjustments are posted when counting is performed for the location/IBLPN.
Approval by Rule	You can define the rules and set the tolerance % or value for an item or group of items. The system will check for rules before writing to the CC Deferred Adjustment UI and wait for approval. See Approval Rule Options section for more details.

Lot Management

Lot (batch) information is captured in receiving and maintained up until shipping. The LPN's Batch Number is set up during receipt. The item master maintains a flag ('require batch number') that will be used to determine if a lot (batch) number will be captured.

Defining Lot (batch) Number Requirement

Each item is configured if it requires WM to capture the lot (batch) number during receiving.

1. Navigate to the 'Items' UI screen.
2. Using the 'Search' button, search for the item that requires expiration date setup.
3. Select the item record, and click on the 'Details' button.

Figure 420: Item Details

4. Click the 'Edit' button, and scroll down until you see 'require batch number'.

Figure 421: Enabling Batch Numbers for Items

5. Click the checkbox, and then click the 'Save' button to save the changes made.

View Lot (batch) Numbers

Lot (batch) numbers are maintained at the LPN level therefore, LPN screens are used to view the lot (batch) number.

1. To view lot (batch) number associated with IB LPNs navigate to the 'IB LPN' UI screen.

Figure 422: Batch Nbr

2. Using the 'Search' button, you can filter by a specific lot (batch) number in order to find all IB LPNs that are associated to the lot (batch) number.
3. To view the lot (batch) number associated with the OB LPNs navigate to the 'OB LPN' UI screen.
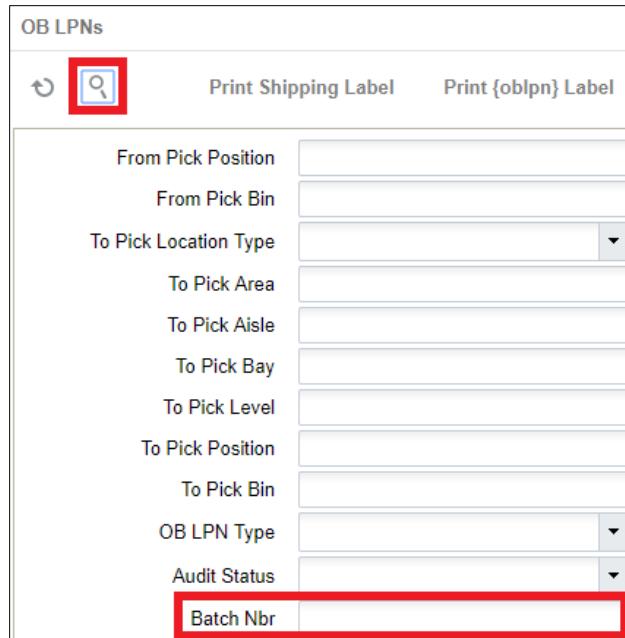
Figure 423: OB LPN Batch Number Search

4. Using the 'Search' button, you can filter by a specific lot (batch) number in order to find all OB LPNs that are associated to the lot (batch) number.

Expiration Dates

Expiration dates are defined during receiving, either via ASN interface or user input, and they are tracked from receiving to wave allocation. Expiration dates are defined at the item level:

1. <u>Product Life:</u> Is defined as the expected lifetime of the item.
2. <u>% Acceptable:</u> Percentage of remaining life required at receiving (defined in %).

Defining Expiration Dates

Expiration dates are maintained at the item level. Each item needs to be defined with the 'Product Life' and '% Acceptable'. The two values are defined in the 'Items' UI screen.

1. Navigate to the Item UI screen.
2. Using the 'Search' button, search for the item that requires expiration date setup.
3. Select the item record, and click Details (⊕).
4. Click Edit, and scroll down until you see 'Product Life', and '% acceptable'.
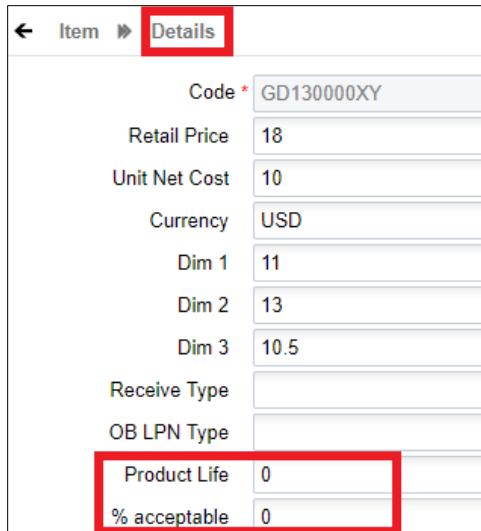
Figure 424: Product Life and % acceptable

5. Update these two fields and click "Save" when complete.

Example:

Product Life: 30 days

% Acceptable: 60%

This converts to 30 * 0.6 = 18 days acceptable. In this case, the item has to have at least <u>19</u> days left until it expires for it to be accepted into the facility.

So if today's date was 11/24/2014, the system will only allow receipt if the item has an expiration date of at least 12/13/2014 (19 days later).

Configuration for Expiry Date Receiving

In order to receive items with expiry dates, the receiving RF module must have the Expiry Date validation enabled.

1. Go to the "Screen Configurations" screen.
2. Select the receiving RF module that will have expiry date tracking enabled.
3. Click on Details to access its parameters.
4. Modify the "capture-date-type" parameter to "Prompt for expiry date" (NOTE: if using manufacture dates, and if the item has the product life field defined, WMS automatically calculates the expiry date as well).
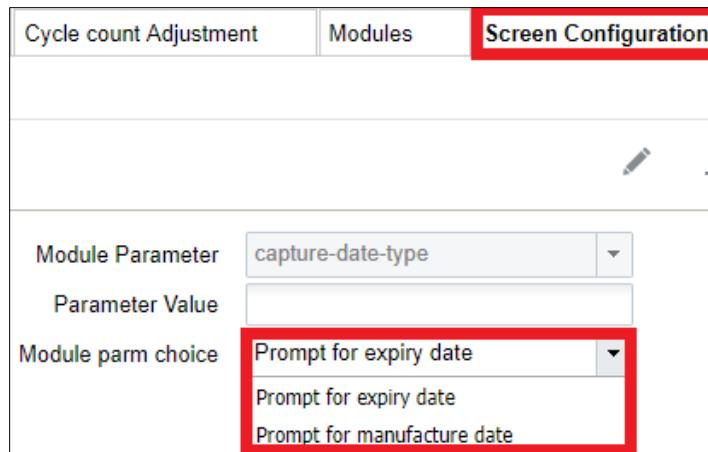
Figure 425: Prompt for Expiry Date

5. You can also define two parameters related to expiry dates: "allow-inv-exp-override" and "allow-rem-exp-override".

allow-inv-exp-override: By default, the RF displays an exception message when the scanned expiry date is *older (i.e.* will expire sooner) than all the expiry dates in the current inventory. If this parameter is enabled, it allows you to override this message.

```
-----------------------
|Expires before inven|
|tory                |
-----------------------
```
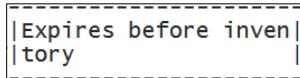
Figure 426: Expires before Inventory Message

allow-rem-exp-override: By default, the RF will display an exception message when the scanned expiry date is below the item's acceptable % of remaining life. If this parameter is enabled, allows you to override this message.

```
-----------------------
|Rem prod life below |
|accept percent      |
-----------------------
```
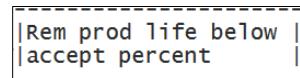
Figure 427: Remaining Product Life Message

Receiving Expiry Date Items in the RF

During receiving, if the item has a product life value populated, the RF prompts you to input the LPN's expiry date. When populating the expiry date, note that the input must be in the **MMDDYYYY** format.

Example: December 11, 2014 becomes "12112014".

Recall Control

WMS supports the ability to lock a lot (batch) number in the event that a recall has been initiated.

1. To apply a lock to a lot (batch) number, go to the 'Batch Management' screen.
2. Using the search button, filter for the lot (batch) that requires a lock.
3. Select the applicable record, and click the 'Edit' button.
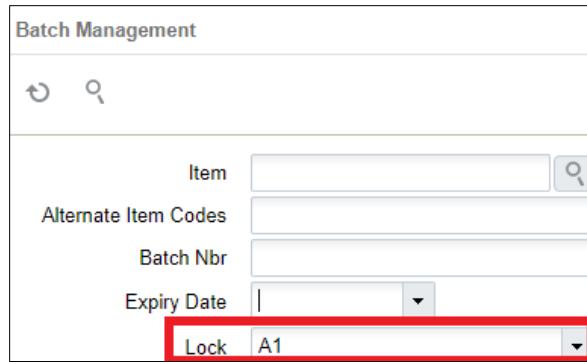
Figure 428: Adding Lock Codes to Batch Numbers

4. Select the applicable lock code from the drop-down menu, and click the 'Save' button.

Serial Number Tracking

Clients that manage costly electronic merchandise may need to track items individually through the use of Serial Numbers. In WMS, Serial Numbers are unique codes that identify a single unit.

Important Caveats

Before enabling WMS to track Serial Numbers, here are some important caveats to be aware of:

*   Serial Numbers are unique per item. In other words, you cannot have duplicate serial numbers within the same SKU and facility.
*   The system allows duplicate serial numbers for different SKUs. In other words, Serial Number records are unique by Serial Number and SKU code combination.
*   Oracle WMS Cloud supports up to 25 alphanumeric characters for Serial Numbers.
*   If enabled, you will have to perform a scan for each Serial Number in a transaction[31].
*   Clients need to be cautioned for changing the serial number tracking level configuration. If we change the serial number tracking levels then there can be situations where inventory in WMS and Serial Numbers will not be in sync.
*   Enabling a SKU for Serial Number tracking enables it for all facilities that use that SKU.
*   You cannot receive with Serial Numbers when the receiving mode is "receive LPN as Pallet" or if the receiving unit of measure is not Units.
*   The system prompts for Serial Numbers when the OBLPN is packed using the Full Case or Cross Dock, given that Serial Numbers for the respective IBLPN are known.
*   If the Serial Number tracking option is enabled from "Packing Only" ordering for a Specific Serial Number is not possible.
*   Serial number functionality is not applicable for Pre-Packs. It's advised not to enable Serial Number tracking for Parent and Child item.
*   The Sort and Receive transaction does not support the Serial Number prompt.
*   The system assumes that you will scan every serial number in a pack or case.

---

[31] Refer to section 0 (p.218) for a list of all transactions that have Serial Number validation.

Enabling Serial Number Tracking

To enable Serial Number tracking in WMS, you have to configure the following:

- Enable tracking for the SKU in the Item Master
- Enable tracking for the Company in the Company Parameters
- Create a Barcode Type record for Serial Numbers

Item Master Configuration

The item can have two types of Serial Number configurations:

Item Master Serial Number Configuration	
Selection	**Description**
Not Required.	Item does not track Serial Numbers.
Required, don't validate.	The receiving RF transaction will NOT prompt for serial numbers when host has interfaced serial numbers to the system.
Required, validate and allow user override.	The receiving RF transaction will prompt for serial numbers regardless of whether or not the serial numbers are interfaced in the system.

To enable Serial Number tracking, complete the following steps:

1. Select the SKU and click Details (⊞).
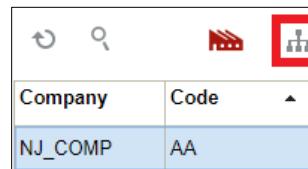
Figure 429: Item Details

2. In the window, click Edit (✎) to begin modifying the SKU's properties.

Figure 430: Edit SKU

3. Scroll down to the 'require serial number' field and select and option to enable Serial Number Tracking.

Figure 431: Require Serial Number

4. Click Save.

Figure 432: Save

Company Parameter Configuration

All companies within the environment that plan on tracking serial numbers must have the company parameter set.

SERIAL_NUMBER_TRACKING_LEVEL	
Value	Description
0	Company does not track serial numbers, even if items are configured to do so.
1	From packing: - Prompt Serial Numbers at packing - Track Serial Numbers that are shipped - Serial Number is tied to inventory from Packing
2	End to End: - Track Serial Numbers at all stages, from receiving to shipping

SERIAL_NUMBER_TRACKING_LEVEL	
	- All inbound to outbound transactions prompt for Serial Numbers (if the item is tracking it)

Barcode Type Configuration

Once the item and company parameters are configured, the last step is to make sure that the barcode type for the Serial Number is created. This step configures the barcode length validation for Serial Numbers.

This step is important because without this configuration Serial Number records cannot be created in the company view.

1. Go to the *Barcode Type* screen.
2. Click Create (✚). Select 'Serial Number' under the *Barcode Type* field.

Figure 433: Barcode Type

3. Populate the remaining fields. *Length* refers to the barcode length required for Serial Numbers.
4. Click "Save".

Serial Number Management (UI)

Serial Number Repository View

This screen displays all Serial Numbers for all items in the current facility.

Figure 434: Serial Number Repository

You can also drill down to the serial number record's details (⊞) to view the inventory associated to it:

Figure 435: Serial Number Repository Details

If the serial number is associated to inventory, the detailed view indicates the LPN's status (Located, Allocated, Packed, and so on).

Serial Number Inventory View

This screen displays a 'flattened' view of Serial Numbers and their associated inventory records (ex. LPNs) in a single record.

Figure 436: Serial Number Inventory View

Note:

- If a serial number does not have an associated inventory, the LPN Number/Status/Type columns are left blank.

- If a serial number is shipped and returned back to the same facility, this screen displays two records (shipped and received).

Serial Number History View

This screen displays all the "serial number – inventory" association changes in the system. For example, there can be a serial number record for an LPN of type "I" (Inbound) and another for LPN of type "O" (Outbound).

Serial Number History

Facility Code	Company Code	Serial Nbr	Item Code	Alternate Item Codes	Item Description	LPN Nbr	Type
QATST01	QATSTPC	SRLWJ12002	SRL-ELEC-131	SRLELEC131	Black & Decker Drill…	IBLPNSRL1212	I
QATST01	QATSTPC	SRLWJ12103	SRL-ELEC-131	SRLELEC131	Black & Decker Drill…	IBLPNSRL1213	I
QATST01	QATSTPC	SRLWJ12104	SRL-ELEC-131	SRLELEC131	Black & Decker Drill…	IBLPNSRL12104	I

Figure 437: Serial Number History

Creating Serial Number records in WMS

You can add Serial Number records in the system in two ways: through the UI and through interfaces.

Through the UI

1. Go to the *Serial Number Repository* screen.
2. Click Create (✛) and populate the Item and Serial Number.
3. Click "Save" to save your changes.

Through Interfaces

You can also interface Serial Numbers into Oracle WMS Cloud through the "ISN" interface. This is essentially an excel file with a set of columns that are populated to link LPNs with Serial Numbers.

Here is a list of things you need to check before attempting to interface an ISN file:

- The SKU in question must have the Serial Number activated.
- The Company Parameter *SERIAL_NUMBER_TRACKING_LEVEL* is set to either 1 or 2.
- The ASN (Shipment Number) must already be in the system.
- The ASN (Shipment Number) must have cartonized inventory (the ASN details must have the LPN populated).

company_code	facility_code	shipment_nbr	item_alternate_code	item_part_a	item_part_b	item_part_c	item_part_d	item_part_e	item_part_f	lpn_nbr	serial_nbr
PARENT	FACILITY	SERIAL_1		IPOD						LPN_0408_01	0000000001
PARENT	FACILITY	SERIAL_1		IPOD						LPN_0408_01	0000000002
PARENT	FACILITY	SERIAL_1		IPOD						LPN_0408_01	0000000003

Figure 438: Sample ISN interface

Once you verify that all necessary information is in the system, follow these steps to upload your serial numbers:

1. Go to the *Input Interfaces* screen.
2. Select *IB Shipment Serial Nbr* from the drop-down, upload the interface file, and click "Run Interface".

Figure 439: IB Shipment Serial Nbr

3. If everything was done correctly, the system prompts the message "Status: Interface Completed". From the the Serial Number Repository screen, click OK and verify that the serial numbers were successfully uploaded.

Replenishment

Replenishment is the movement of inventory from reserve storage locations to picking storage locations. The purpose of replenishment is to maintain adequate inventory levels to meet customer demand.

Some objectives of integrating Replenishment into WMS include:

- Allows you to replenish inventory for locations if the inventory goes below a defined level.
- Replenishment can be based on requirements such as satisfying orders for stores.
  In this case, certain dedicated replenishment locations can be configured to consolidated orders for a store.
- Replenishment is performed in Active Locations and also allows you to perform Reserve to Reserve replenishment.

Oracle WMS Cloud supports four replenishment modes:
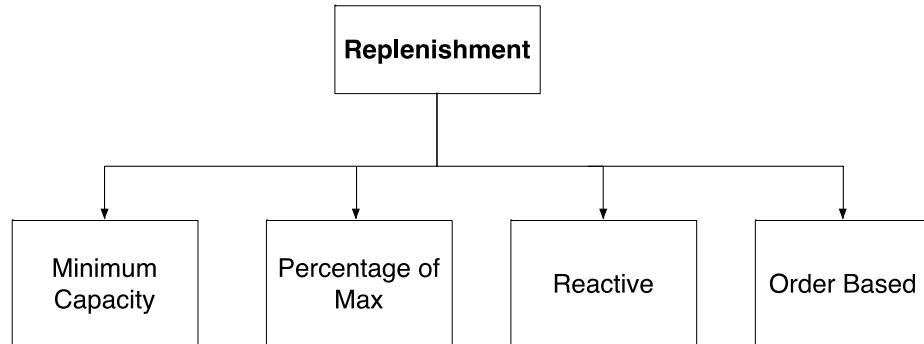
Figure 440: The different Replenishments modes in ORACLE WMS CLOUD

Each replenishment type has different criteria for when the replenishment wave is triggered:

- **Minimum Capacity:** Triggered when a location's current quantity goes below the required minimum quantity.
- **Percentage of Max:** Triggered when the volume of items in the location goes below the location's pre-configured percentage of maximum volume.
- **Reactive:** Triggered when you manually scan a location to be replenished.
- **Order Based:** Triggered when an Order's SKU needs to be replenished in the picking locations.

Modes in Replenishment Template

When a location is allocated for replenishment, WMS considers several criteria, depending on the Replenishment Template's configuration:

- The Locations Min/Max Units (mode = "minimum capacity")
- The Location's Min/Max Volume (mode = "percentage of max")
- The Location's Item assignment[32]

---

[32] Release 6.2 only supports permanent location replenishment; this means that locations must be assigned a SKU to replenish.
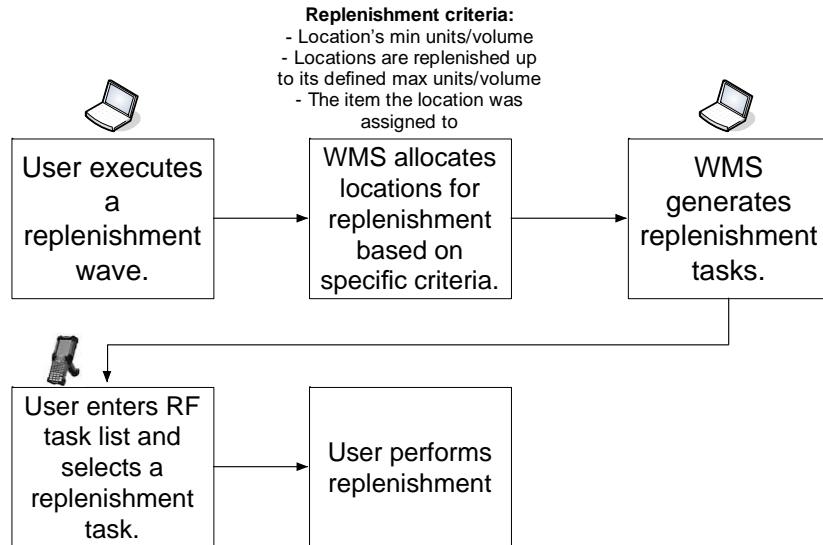
Figure 441: Generic replenishment process in WMS

Additional Configurations Required Based on Replenishment Mode

Minimum Capacity:

Mimimum Capacity mode is triggered when a location's current quantity goes below the required minimum quantity. Additional configurations:

- Locations with Replenishment Zones require Min/Max Units and/or LPNs populated.
- Locations with Replenishment Zones need to be "Permanent" with an assigned Item.

Reactive:

Reactive Replenishment mode is triggered when you manually scan a location to be replenished. Additional configurations include:

- A "Reactive Replenishment" RF module must be added in the "Screens" tab and to the user's Menu in the "Menus" screen.

Order Based:

Order Based Replenishment mode is triggered when an Order's SKU needs to be replenished in the picking locations. Additional configurations include:

- Requires a Wave Search Template. Create a new search template from the "Replenishment Template" screen.
- Select the desired search template in the replenishment template.

Figure 442: Selecting a Search Template

Required Configuration for Replenishment

Configuring a Replenishment Wave requires the following steps:

1. Setting up locations for replenishment
2. Setting up replenishment rules
3. Setting up task templates
4. Creating a Replenishment Template

Step 1: Setting up replenishment and allocation zones

Replenishment requires two types of locations: replenishment and allocation zones. Replenishment zones are locations that you replenish to, while allocation zones are locations that you pick from for replenishment.

To Configure the Replenishment Zone:

1. Go to the "Replenishment Zone" screen.
2. Define the different replenishment zones for the warehouse using the Create (＋) button.
3. Once the replenishment zones are created, go to the "Locations" screen.
4. Choose a location to replenish to by assigning it a replenishment zone. To do this, select the location and click Edit.
5. Scroll down to the "Replenishment Zone" field and select the appropriate zone from the drop-down.

Figure 443: Selecting a Location for Replenishment

6. Locations with replenishment zones also require item assignments. Item assignments tell the system what item this location is replenished with. To do so, change the location's "Item Assignment Type" to "Permanent" and populate the SKU code in the "Item" field.

Figure 444: Configuring a Location as Permanent

7. Click "Save".

Configuring the Allocation Zone:

1. Go to the "Locations" screen.
2. Select the location that you will replenish from and click Edit.

3. Scroll down to the "Alloc zone" field and populate an allocation zone. This value is used in the replenishment template for defining which allocation zone will provide the replenishment.
4. Click "Save".

Step 2: Create the Replenishment Template

Next, you need to create the Replenishment template and define the parameter:

1. Go to the "Replenishment Template" screen.
2. Click Create (✚) to create a new template.
3. Fill in the desired parameters. See an example below:

Figure 445: Creating a New Replenishment Template

Description of fields:

- **Area:** Configures WMS to exclusively look at the populated area to replenish to.
- **Template Name:** Enter the template name.
- **Replenishment Zone:** Determines which replenishment zones the template searches for.
- **Replenishment Rule:** Allows you to select which rule to use for the current template.
- **Task Creation Template:** Allows you to select which task template to use for the current template.
- **Replenishment Trigger Mode**: Determines the trigger mode (see replenishment modes described in section 5.1).
- **Wave Search -** Wave Search Templates are used as filters for selecting specific Orders during a wave. Each search template has a set of fields that are configurable.
- **Percentage of Max:** Triggered when the volume of items in the location goes below the location's pre-configured percentage of maximum volume. Additional configurations:
    - Locations with Replenishment Zones need the Length, Width, and Height fields populated.
    - Locations with Replenishment Zones require Min/Max Volumes populated.
    - You should populate the "Percentage of Max" field in the replenishment template. This percentage value is used as criteria for triggering a location based on the location's maximum volume.

        For example, say that Location A's Max Volume = 100 and Percentage of Max = 20%. If the location's total volume goes below 20 (100*0.2 = 20), the location is triggered for replenishment.

- **Allow Expired Inventory:** If the flag is enabled, the system allows you to replenish inventory that exceeds the expiry date.

4. Click "Save".

Step 3: Setting up Task Templates

1. Go to the "Task Creation Template" screen.
2. Click "Create" (✚) to create a new Task Template.
3. Select this template and click on Details (⛁) to view its details.
4. Click "Create" (✚) to create the appropriate task types and their ordering/selection criteria.
   a. For LPN replenishment, select "Full LPN Replenishment".
   b. For Cases replenishment, select "Cases Replenishment".
   c. For Units replenishment, select "Consolidate Replenish".

Figure 446: Creating Task Templates for Replenishment

5. Click "Save".

Step 4: Setting up Replenishment Rules

Much like the Wave Template's "Allocation Mode", the Replenishment Template uses Replenishment Rules to define the types of allocations that are used for replenishment.

1. Go to the "Replenishment Template" screen.
2. Click on the "Replenishment Rule" button to access the rules.

Figure 447: Replenishment Rule

Description of fields:

Rule Name: Identifier for your rule

Destination Location Type: In standalone replenishment, Destination Location Type allows you to identify the location type that you would like to replenish. Options are: Reserve Only, Active Only or Active and Reserve.

Capacity Check Method: You can define what type of capacity checks you need to replenish that location.

- o *Units: The system checks the max units possible in the location.*

- o *Volume, falls back to units: The system considers the max volume and max units to determine the quantity to replenish. If the max volume value is zero, then the system should consider units for the location to determine the quantity.*

- o *Weight, falls back to units*: The system considers the max weight and max units to determine the quantity to replenish. If the location's max weight value is zero, then the system considers the max units for the location to determine the quantity.

- o *Volume,weight, falls back to units*. The system considers the max volume, max weight, and max units to determine the quantity to replenish. If the location's max volume and weight is zero, the system considers the max units for the location to determine the quantity.

Ignore the allocated qty: The system ignores the allocated quanity when computing the quantity to replenish.

Ignore Capacity for Last Replenishment Location: This field is only used for replenishment with a picking wave. It first replenishes to permanent locations respecting capacity, for each item/batch/attribute combination. Next, it will replenish all remaining items needed for each location. When remaining items are found, it accepts the item/batch/attribute and it will ignore the capacity constraints. If there is any inventory left, it will replenish dynamic locations.

Ignored Order Detail Attribute List: If one or more attributes are selected from the drop-down, the system will not try to match the attributes to the location it is replenishing.

Perform Critical Dimension Check: If the flag is enabled, the system checks to see if the inventory dimensions fit with the location dimensions.

3. Click Create (✚) to create a new rule. To access its details, select it and click Details (⊞).
4. To create a new allocation UOM, from the Replenishment Rule Sequence screen click Create (✚) and populate the appropriate fields.

Figure 448: Adding a Replenishment Rule

Description of fields:

- **Replenishment Rule:** allows you to select which rule to use for the current template.
- **Sequence Nbr:** Sequence for creating task types, if there are more than one within the template.
- **Location Type**: Locations in WMS represent storage locations in the warehouse. Locations have different types depending on how they are used within the warehouse.
- **Restrict area:** populating this field tells WMS to exclusively look at the populated area to replenish from.
- **Restrict alloc zone:** populating this field tells WMS to exclusively look at the populated allocation zone (which was defined earlier) to replenish from.
- **Allocation Method:** defines the order in which LPNs are selected for replenishment. See section 4.2.1.4 for more info.
- **Replenishment UOM:** defines the UOM that is allocated for replenishment.
  NOTE: Units replenishment only works for Active locations.
- **Consolidate and Distribute Replen**: if this flag is checked, WMS allocates replenishment from multiple locations. This flag only works with Unit and Cases replenishment.

  NOTE: Units replenishment only works for Active locations.

- **Consolidate and Distribute Replen**: if this flag is checked, WMS allocates replenishment from multiple locations. This flag only works with Unit and Cases replenishment.
- **Round Up One Uom**: The *Round Up One UOM* flag allows you to replenish beyond the need by one extra UOM (LPNs/cases/packs) for all of the eligible locations. When the Round Up One UOM flag is configured in the Replenishment Rule Header, the system replenishes by one extra UOM compared to the outstanding need of the location (see example below). When the Round Up one UOM flag is combined with the Ignore Capacity for Last Permanent Location Flag, the required need is replenished to the destination location when the replenishment UOM is LPNs/cases/packs. If the Ignore Capacity for Last Permanent Location Flag is set to no and the Round Up one UOM flag is enabled, then the destination location is replenished by one extra UOM when the need is not an integral multiple of the LPN/case/pack quantity.

5. Click "Save".

Step 5 : Wave Inquiry

The Wave Group Inquirty screen will show the status of the Wave run. Choose the Allocation View in this screen. Once Allocation completes, the wave will generate a Task. It will also create an internal order.

Facility	Task nbr	Order Nbr	Status	Allocation Type	Item Code	Is Parent	Description	External Style	Orig Order Qty	Ordered Qty	Allocated Qty	Packed Qty	
QATST01	TASK00006843	ORDER06_2...	Allocated	LPNUNITS			Normal item		8	8	5	0	

Wave Group Inquiry ▶ Allocation
Print Voucher

Figure 449: Allocation

Executing Replenishment Waves

1. Go to the "Replenishment Template" screen.
2. Select a template and click "Run Template".
3. WMS returns a message displaying the wave number. This creates a new replenishment Task.
4. Go to the "Execute Task" RF module and select/type in the desired replenishment task.
   a. To search for pending Replenishment tasks in the "Tasks" UI screen, click the magnifying glass and filter by the replenishment task type:

Task

Cancel Task   Release Task   Hold Ta

Task nbr	TASK00005081
Task type	
Priority	

Figure 450: Filtering tasks by Replen Tasks

Note: You can also search via the Run Number on the Wave Inquiry screen.

b. To filter by replenishment tasks in the RF, press Ctrl-T and select the Task Type.
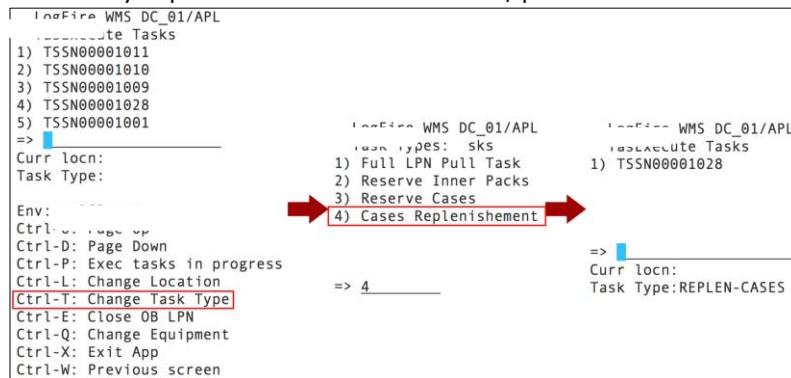
Figure 451: Filtering by Task Type

5. To verify if the replenish to the location is successful, go to the Active inventory Screen and check the current quantity.

Replenishment Scenarios

From here, depending on the Replenishment Task Type, the order of RF screens is different. The following section outlines the different replenishment scenarios:

- Scenario 1: Cases replenishment, no distribution
- Scenario 2: Full LPN replenishment, no distribution
- Scenario 3: Cases replenishment, consolidate and distribute (reserve to active)
- Scenario 4: Units replenishment, consolidate and distribute (active to active)

Scenario 1: Cases Replenishment, no distribution

For this scenario, you must make sure that both the Task Template and the Replenishment Rule have cases configured:

Figure 452: Enabling Cases Replenishment

i. Once you enter the task, the RF prompts you for pallet and LPN numbers. This pallet is the intermediate pallet that transports the merchandise into the final replenishment location. *Note that here the user will be pulling the **entire LPN**, even if it isn't fully allocated.*

```
Task:TSSN00001028
LPN:CSSN00001003
R-2-06-1
Item:59403325 (100)
Item 9
Plt:_____
LPN:_____


Env:
Ctrl-E: End pallet
Ctrl-K: Deallocate lpn
Ctrl-P: Short lpn
Ctrl-D: Skip lpn
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 453: Scanning the Pallet and LPN for Replenishment

If there is no more room for more LPNs in the pallet, you can "End" the pallet by pressing Ctrl-E. Ending a pallet with pending picks causes the system to create a new replenishment Task for the remaining picks.

1. Once all the LPNs from the picking location are moved to the pallet, the RF prompts the destination location (the location to replenish to). You must scan the location barcode when they arrive to the location:

```
Repl Loc: R-3-05-1

Repl Loc: _____

Env:
Ctrl-D: Skip locn
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 454: Scanning the Replenishment Location

2. Once the location barcode is scanned, the RF will ask you to scan the "**To LPN**" (the destination pallet). This is the LPN that is replenished. In the "Qty:" field, you must enter the amount of cases being moved.

```
replen_location: R3051
LPN: CSSN00001003
Item:    59403325
Item 9
To LPN:_____
Qty: 10 (cs=10) _____
```

Figure 455: Scanning the LPN Details

Note that for the "Qty: 10 (cs=10)", the first 10 represents the number of cases to move, while the second "10" value ("cs=10") represents the standard case quantity of the item.

3. Once the contents are moved, the remaining contents in the LPN must be returned to a reserve location. The following is an example of the reserve location field:

```
r----------------------
L|Remainder LPN:        |
I|CSSN00001003          |
I|sv Locn:              |
T|█_____  |_
Q----------------------_
```

Figure 456: Returning the LPN to a Reserve Location

4. If there are no LPNs remaining, the task ends and the RF returns to the Task List.

Scenario 2: Full LPN Replenishment, no distribution

For this scenario, the you must make sure that both the Task Template and the Replenishment Rule have cases configured:

Replenishment Rule	Replenishment ▼
Sequence Nbr *	5
Location type *	**Reserve** ▼
Restrict area	
Restrict alloc zone	
Allocation Method *	**Quantity decending** ▼
Replenishment UOM *	**LPNs** ▼

Task Creation Template	Replenishment Task ▼
Sequence Nbr	10
Task type *	**Full LPN Replenishment** ▼

Figure 457: Enabling LPN replenishment

1. Once you enter the task, the RF prompts for pallet and LPN numbers. This pallet is the intermediate pallet that transports the merchandise into the final replenishment location.

```
Task:TSAPLDC_0100001001          Task:TSAPLDC_0100001001
LPN:LPNSN092905                  LPN:LPNSN092906
R-7-04-1                         R-7-04-1
Item:THK03 (10)                  Item:THK03 (10)
THK03                            THK03
Plt:_____     Plt:PLTSN100103
LPN:_____     LPN:█_____


Env:                             Env:
Ctrl-E: End pallet               Ctrl-E: End pallet
Ctrl-K: Deallocate lpn           Ctrl-K: Deallocate lpn
Ctrl-P: Short lpn                Ctrl-P: Short lpn
Ctrl-D: Skip lpn                 Ctrl-D: Skip lpn
Ctrl-X: Exit App                 Ctrl-X: Exit App
Ctrl-W: Previous screen          Ctrl-W: Previous screen
```

Figure 458: Scanning the pallet and LPN for replenishment

If there are multiple LPNs to be picked, the RF prompts for another LPN. If there is no more room for more LPNs in the pallet, you can "End" the pallet by pressing Ctrl-E. Ending a pallet with pending picks will cause the system to create a new replenishment Task for the remaining picks.

2. Once all the LPNs from the picking location are moved to the pallet, the RF prompts the destination location (the location to replenish to). You must scan the location barcode when the pallet arrives to the location:

```
Task #: TSAPLDC_0100001001
LPNSN092905
Repl Loc: R-3-06-1
Repl Loc: _____
```

Figure 459: Scanning the Replenishment Location

3. Once the location barcode is scanned, the RF will ask you to scan the LPNs in the pallet to replenish with. The "Qty:" field denotes how many LPNs there are to replenish.

```
Repl Loc:  R-3-06-1
LPN: LPNSN092905
Item:    THK03
THK03
Qty:  1 LPNS
LPN:_____
```

Figure 460: Scanning the LPN Details

4. If there are no LPNs remaining, the RF displays a message saying "No more tasks". Press Ctrl-A to proceed.

```
----------------------
|No more tasks        |
----------------------
```

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Figure 461: RF Message at the End of a Task

Scenario 3: **Cases Replenishment, Consolidate and Distribute (reserve to active)**

Consolidate and distribute is the type of replenishment where the user is prompted to batch pick from multiple locations. During this batch pick, the user is to create a 'dummy' IBLPN that is used to carry the picked cases. In this sense, the 'dummy' LPN is an intermediate LPN use for transporting cases from the picking to replenishment location.

For this scenario, the you must make sure that both the Task Template and the Replenishment Rule have cases configured:

Figure 462: Enabling Cases Replenishment

1. Upon entering the task, the RF prompts you to "open" an IBLPN. This is the 'dummy' LPN that is used to carry the picks.

Figure 463: Creating a dummy LPN

Note that at any point in time you may choose to close the current dummy LPN by pressing Ctrl-E. This will allows you to open another LPN (if the first LPN gets physically full) and continue with the pick.

Note: When you press Ctrl-E, the system will suppress the capacity check (units/weight/volume).

2. After scanning the dummy LPN, the RF directs you to the first picking location. Scan the location barcode to confirm that the user is at the location.

```
Task: TSSN00001038
IBLPN:  CTNSN011001

Locn: R-3-06-1
Locn: R3061

Env:
Ctrl-E: Close IB LPN
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 464: Scanning the first picking location

3. The RF will now ask you to begin picking cases from the first picking location, prompting you to scan the Item code and quantity.

```
Task: TSSN00001038
IBLPN:     CTNSN011001
From LPN: LPNSN092905
Locn: R-3-06-1
Item:     THK03
Item:
Qty: 10 (cs=1) _____



Env:
Ctrl-E: Close IB LPN
Ctrl-P: Short Pick
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

The figure to the left displays a pick whose item's standard case quantity is 1, as denoted by the "(cs=1)".

Figure 465: Picking Cases from the First Location

4. If there are more cases to pick, the RF will direct you to the next pick location, and repeat the picking process. When you finish all the picks, the RF displays the message "Nothing left to pick":

```
Task: TSSN00001038         Task: TSSN00001038
IBLPN:  CTNSN011001        IBLPN:     CTNSN011001
                           From LPN: LPNSN092906
Locn: R-7-04-1             Locn: R-7-04-1
Locn: _____         Item:     THK03          --------------------
                        ➜  Item: THK03           ➜  |Nothing left to pick|
                           Qty: 10 (cs=1) 10         |                    |
                                                     --------------------
                           Env:
Env:                       Ctrl-E: Close IB LPN
Ctrl-E: Close IB LPN       Ctrl-P: Short Pick
Ctrl-X: Exit App           Ctrl-X: Exit App
Ctrl-W: Previous screen    Ctrl-W: Previous screen
```

Figure 466: Finishing up the Rest Of The Picks in the Task

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5. Once all the picks are complete, the RF then directs you to the replenishment location. Scan the location barcode to confirm that the user is at the location.

```
Repl Loc: A-1-06-1

Repl Loc: A1061▌____
```
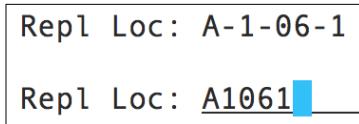
Figure 467: Scanning the Replenishment Location

6. The RF then prompts you to move the picked units into the replenishment location. Since you are replenishing to an active location, you should only enter the quantity being replenished.

```
LPN: CTNSN011001
Item:    THK03
THK03
Qty: 30 (cs=1) ▌_____
```
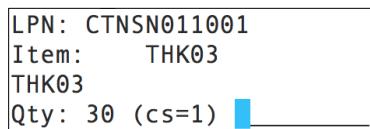
Figure 468: Replenishing the Active Location

7. When all locations in the task have been replenished, the RF will return to the Task list.

Scenario 4: **Units Replenishment, Consolidate and Distribute (active to active)**

Consolidate and distribute is the type of replenishment where you are prompted to batch pick from multiple locations. During this batch pick, you are to create a 'dummy' IBLPN that carries the picked cases. In this sense, the 'dummy' LPN is an intermediate LPN that transports cases from the picking to the replenishment location.

For this scenario, you must make sure that both the Task Template and the Replenishment Rule have cases configured:

Figure 469: Enabling Units Replenishment

1. Upon entering the task, the RF prompts you to "open" an IBLPN. This is the 'dummy' LPN that is used to carry the picks.

```
Task: TSSN00001039
Open LPN:

LPN: █_____




Env:
Ctrl-E: Close IB LPN
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 470: Creating a Dummy LPN

Note that at any point in time you may choose to close the current dummy LPN by pressing Ctrl-E. This allows you to open another LPN (if the first LPN gets physically full) and continue with the pick.

2. After scanning the dummy LPN, the RF directs you to the first picking location. Scan the location barcode to confirm that the user is at the location.

```
Task: TSSN00001039
IBLPN:  CTNSN011002

Locn: A-1-07-1
Locn: █_____
```

Figure 471: Scanning the First Picking Location

3. The RF now asks you to begin picking units from the first picking location, prompting you to scan the Item code and quantity.

```
Task: TSSN00001039
IBLPN:    CTNSN011002
Locn: A-1-07-1
Item:     THK04
Item: _____
Qty: 34 _____
```

Figure 472: Picking Cases from the First Location

4. If there are more units to pick, the RF directs you to the next pick location, and repeat the picking process. When you finish all the picks the RF displays the message "Nothing left to pick".

5. Once all the picks are complete, the RF directs you to the replenishment location. Scan the location barcode to confirm that the user is at the location.

```
Repl Loc: A-2-01-1

Repl Loc: █_____
```

Figure 473: Scanning the Replenishment Location

6. The RF then prompts you to move the picked units into the replenishment location. Since you are replenishing to an active location, you should only enter the quantity being replenished.

```
replen_location: A2011
LPN: CTNSN011002
Item:    THK04
THK04
Qty: 34 (cs=1) ▌_____
```

Figure 474: Replenishing the Active Location

7. When all locations in the task have been replenished, the RF will return to the Task list.

Executing Reactive (Emergency) Replenishment

In emergency situations that require quick replenishment, you can use the reactive replenishment functionality to instantly allocate a location for replenishment. This scenario uses a stand-alone RF module called "Reactive Replenishment". Here, you simply scan the location that needs to be replenished with the RF and WMS creates a replenishment task. Depending on the RF's parameter setting, you may or may not execute that replenishment on the spot.

1. Go to the "Reactive Replenishment" RF module.
2. In the "Locn:" field, scan the location to replenish. The RF displays the message "Replenishment submitted for location [area]". This basically runs a replenishment wave for the scanned location.
3. If a replenishment task is generated, depending on the RF's parameters, you may execute the replenishment on the spot. To do so, press Ctrl-A to proceed.
4. Perform the replenishment as described in previous sections.

Reactive Replenishment – Weight Capacity Check

When replenishment of items happens in a location via RF reactive replenishment, Oracle WMS Cloud allows you to do a weight based capacity check along with the current volume and unit. This will help optimize replenishment for a targeted location.

To enable weight based capacity check, make sure that your Replenishment Rule has the Capacity Check Method set as "Weight, Fall Back to Units."
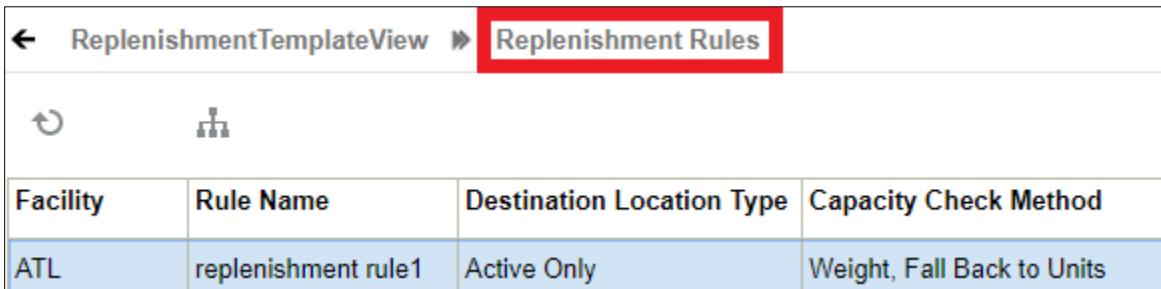
Facility	Rule Name	Destination Location Type	Capacity Check Method
ATL	replenishment rule1	Active Only	Weight, Fall Back to Units

Figure 475: Capacity Check Method

In the Capacity Check Method drop-down, you can also specify the capacity check as Units, Volume, Fall Back to Units, or Volume, Weight, Fall Back to Units.

Figure 476: Capacity Check Method Options

The following table provides definitions for the Capacity Check Method drop-down options:

Capacity Check Method Option	Definition
Units	Replenishment rule will check capacity in terms units.
Volume, Fall Back to Units	Replenishment rule will first check capacity in terms of volume and if volume is 0, the system will check capacity in terms of units.
Weight, Fall Back to Units	Replenishment rule will first check capacity in terms of weight and if weight is 0, the system will check capacity in terms of units.
Volume, Weight, Fall Back to Units	Replenishment rule will first check capacity in terms of both volume and weight, and if volume or weight is 0, the system will check capacity in terms of units.

Multi-Level Replenishment

Formerly in WMS, inventories were replenished to an active location was done based on the location maximum capacity. That is, even when there were inventories available in permanent locations, the system could replenish only up to maximum capacity of units to the active/reserve location. This required the creation of replenishment tasks each time to satisfy order needs which in turn needed manual intervention. In an environment like fast paced seasonal warehouses, there is a demand to introduce a constant flow of replenishment to meet the order supply.

In order to improve efficiency and increase productivity, WMS has introduced a new functionality called Multi-Level Replenishment (MLR) that addresses the following:

- Replenish Inventory beyond configured location max (Supported only through wave-based replenishment).
- Ability to supply inventory in the fulfilment sequence when inventories are depleted in the destination location.
- Capability to combine allocations from different waves templates into a common task.

Workflow of MLR

Multi-Level Replenishment allows users to keep destination locations (final destination location /pick face) constantly stocked with products, so that pickers can efficiently fulfil orders without waiting for the system to replenish inventory when available.

The following describes a high-level pictorial representation of the Multi-Level Replenishment workflow with a reserve location, drop location, and final destination (active location).

Note: Users can define any number of hops from a reserve to destination location by following similar procedures and instructions provided in this guide.

The workflow contains the following elements:

- **Reserve Location** - The reserve location consists of bulk inventory having full LPNs and all the inventory from the bulk reserve location comes from the receiving area. These inventories are moved to the forward bulk area with pallets or forklifts by the warehouse floor users.
- **Drop Location** – The location where the floor user drops/picks the LPN from a reserve location to a drop location through regular tasks. In many cases, there may be scenarios where the user may partially split the inventory before reaching the picking/drop location. These are temporary locations between the source to the destination where the system instructs users to replenish inventory and place it to the final destination location.
  The new multi-level replenished location is used to pick inventory from the drop location to the final destination location.
- **Final Destination** – The final destination location is the active location where pickers pick the SKUs and complete the order request. In the final destination, the user can define only one SKU per location. For example, SKU A, SKU B… as shown in the figure.

  Note: The below pictorial representation describes replenishment for more than one location. Users can create any number of hops to replenish the inventory.

  For more information on configuration and example use cases, refer to the [Multi-Level Replenishment Deployment](#) document.
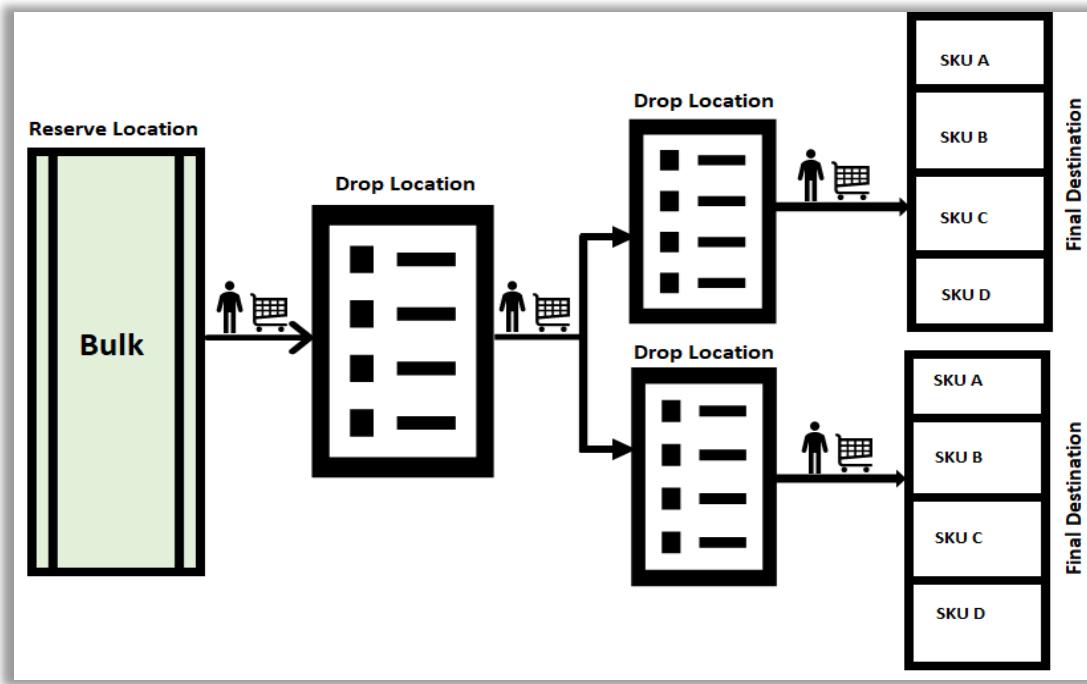
Figure 477: Multi-Level Replenishment

1. An order is said to be satisfied when there is sufficient inventory available in the Active location. However, when there is not enough inventory available in the Active location to satisfy the order, the system runs a wave for an Order and checks for inventory in the Permanent Active location or Reserve location to meet the need. This is the phase where the Replenishment takes place.

2. During these transactions, there may be scenarios involved with multiple drop locations where you are required to pick inventory and drop to another location and then to the final destination. In such cases, inventory needs to hop through multiple drop locations to reach the final destination. That is, inventory needs to pass through multiple Task Zones to reach the final destination.
   This process of moving inventory from one task zone to another is accomplished using Multi-Level Replenishment.

3. Once you run the wave, the system creates a Replenishment task where required inventory is pushed from the Reserve location to the drop location for the next hop/Task Zone (drop location).
   Note: This is configured under the Task Zone Movement screen for that Task Type.

4. In order to move inventory from the first Task Zone to the next Task Zone, you need to configure the path under Task Zone Movement for the Task Type "CONSOL_DISTRIBUTE".

5. Use the RF screen "Multistep Replenishment", to scan the Task Type (CONSOLIDATE and REPLENISH) along with the current location.

6. The system will determine which destination location needs to be replenished. After logical calculation, the system will prompt you to scan the relevant LPNs to replenish.

7. The system picks inventory based on the task type and when picking of inventory is complete (or when you manually end the LPN), the system will prompt you to scan a drop location for the next Hop/Task Zone.

8. Repeat the process for replenishing inventory from one drop to the next until the inventory reaches the final destination.

9. When the inventory arrives at the last drop location, the final replenishment module is invoked through the RF and inventory gets replenished to the final destination.

Configuration Process

Before you begin, you should understand the following check-points and then start with the configuration setup:

- Replenishment beyond maximum location is applicable only for Permanent Active locations and is not applicable for dynamic location.
- This enhancement is applicable for wave-based replenishment only and not for stand-alone replenishment.

Setup

- Location (permanent active location) should be defined. The destination location can be active.
  - Task zones are created for each location. (i.e., locations that are created in the replenishment path (source, drop, and final destination locations) should have **Task zone** values populated. Note: You must create a task zone for this functionality to perform as expected.
- You must first create a Wave Template. These wave templates should have a Replenishment Rule defined.
- Configure the relevant Task Type for replenishment
- Configure the Task Zone Movement and define the movement of inventory from one location to another. Define the Task Zone Movement Rule.
- A new RF Screen Module must be configured to invoke the multi-level replenishment from drop locations.
- Wave Group configuration is required to be configured only if there are multiple orders required for different pick lanes. When you create a wave group, you can combine multiple tasks using the Task Creation Template.

Wave Template

The Wave Template consists of many parameters to be set for a wave to run. In multi-level replenishment, you need to create wave templates to pick orders from a source location to a final destination location. Create a wave template from a Reserve Location (Bulk) to a common Drop Location and then to the next hop.

- Create a wave template from the source location to the first drop location and then to the final destination.
- Associate the replenishment rule for the order to be replenished from one location to another in the wave template.
  Note: If the location needs to be enabled beyond max capacity, you need to enable the "Ignore capacity for the last permanent location" check box. For more information see, Replenishment Rule.

Replenishment Rule

Configuring a replenishment rule is one of the most important configurations. Replenishment Rule allows you to replenish beyond max capacity by enabling a new flag "**Ignore Capacity for Last Permanent Location**" check box.

Figure 478: Replenishment Rule

Task Zone Movement

In a multi-level replenishment flow, creating a task zone movement is important because every unique path must have a task zone defined.

Note: Every unique path will have the task type created and the corresponding task zone movement rule.

For example, you may want to create a task zone movement for the following:

- Source to Final Destination – one task zone movement is created with * baring the end zone.
- Drop zones to Final Destination – Distinct task zone movement should be created with the relevant path.

Task Zone Movement Rule

Define the task zone rule for every task zone movement by entering the mandatory information in the field as shown in the screen below:

Figure 479: Task Zone Movement Rule

Wave Group

Wave group helps to distribute loads across different pick lanes. For example, suppose there are two pick lanes from one reserve location, then you can create a replenishment task from the wave group level.

Once you configure a task template at the wave group level, you can combine multiple tasks from different waves. To create a wave group, you need to define the Task Creation Template and Task Type.

Task Creation Template

Task Templates are used to determine the Task Types that will be used for the wave. Task Types are records that create Tasks based on the UOMs defined in the Allocation Mode.

Note: The Wave Template configuration is said to be successful when the selected Allocation Mode's UOMs match the Task Template's Task Types.

Task Creation Template is a set of instructions given to the user to perform tasks to satisfy the need. The task creation template is defined by configuring the following parameter:

1. Create a Task Creation template. Define template. For example, Type > Select **Regular**.
2. Define the Sequence Number.
3. Define the Task Type in the Task Creation template.

Task Type

When you configure the system for multi-level replenishment, you need to create task types based on the Consolidated Replenishment. This Consolidated Replenishment is required to be created to move inventories from across one drop location to another drop location.

Note: A task type for Full LPN Replenishment is created to pick inventories from a source location to the first drop location.
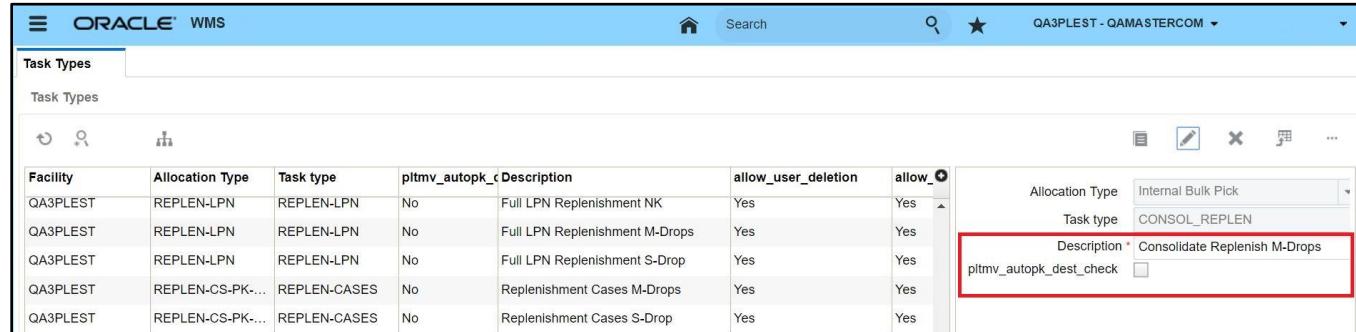
Facility	Allocation Type	Task type	pltmv_autopk_c	Description	allow_user_deletion	allow_
QA3PLEST	REPLEN-LPN	REPLEN-LPN	No	Full LPN Replenishment NK	Yes	Yes
QA3PLEST	REPLEN-LPN	REPLEN-LPN	No	Full LPN Replenishment M-Drops	Yes	Yes
QA3PLEST	REPLEN-LPN	REPLEN-LPN	No	Full LPN Replenishment S-Drop	Yes	Yes
QA3PLEST	REPLEN-CS-PK-...	REPLEN-CASES	No	Replenishment Cases M-Drops	Yes	Yes
QA3PLEST	REPLEN-CS-PK-...	REPLEN-CASES	No	Replenishment Cases S-Drop	Yes	Yes

Allocation Type: Internal Bulk Pick
Task type: CONSOL_REPLEN
Description *: Consolidate Replenish M-Drops
pltmv_autopk_dest_check: ☐

Figure 480: Task Type

RF Screen Module

A new RF module, "*rf.inbound.cwrfmultistepreplen*" allows you to move inventory from one drop location to another and then to a final destination location.

The following diagram describes how this new RF module is used:

Perform the picking task and moves inventory to common drop location through existing RF screen

New RF Module invokes Replenishment from Intermediate drop to final destination
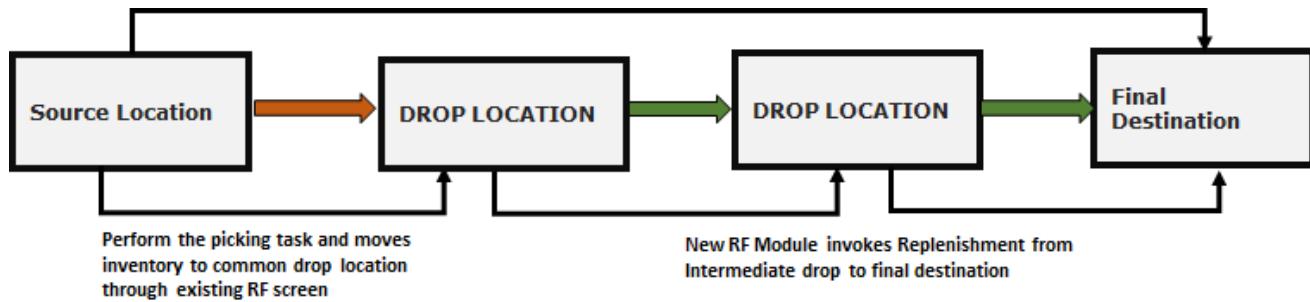
Figure 481: RF Screen Module

The following are some of the characteristics of the new RF Module:

1. Scan the inventory from the source location and the system inferred the task zone.

2. Determine the final destination zone of the inventory by scanning the task type that defines the unique task zone.
   Note: Task type can be inferred from screen parameter or user can manually enter into the system.

3. On obtaining the source and destination zone, the system determines the following:
   a. If the source location has inventory to satisfy the need/demand of supply in destination location.

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b. Once inventory is available in the source destination location, the system prioritizes which location to replenish first based on the following filter:
If the filter criteria is set to current quantity <= minimum, then system considers inventory from the source location which are destined to pick locations having current inventory less than or equal to locations configured minimum. If multiple locations are found, the system will order the locations in ascending order of putaway sequence.

4. After determining the source and destination, the system prompts you to pick the relevant quantity of inventory in the temporary tote and deliver to intermediate drop locations and then to final destinations.

RF Configuration Setup

The following are the set of RF configurations that you need to configure before executing the Multi-Level Replenishment flow:

- Go to the RF Screen UI.
- Set the following RF screen parameters:

Parameters	Description
determine-src-inv-by	Determines the source inventory by Location or task Zone. By Default, the value is set to location.
task-type-description	Enter description that corresponding to valid task type:CONSOL-REPLEN. By default, the field is set to blank.
qty-uom	Set the quantity of inventory in unit of measure of units, packs, and cases. By default, the value is set to Units.
pick-for-single-destination-locn	System prompts only one destination location for which the inventory should be picked from the source location. By default, the value is set to no.
dest-locn-inclusion-criteria	System to determine via the destination location to replenish through the filter criteria. When the flag is set, system considers only locations whose current inventory is <=configured locations minimum when the value is "current<=locn minimum".

Kitting

Kitting is the process of assembling child items to create a parent item or a kit. The ratio of child items required to create a parent item is called pre-pack ratio and pre-defined in WMS. De-Kitting is the process of dis-assembling parent items or kits into child items. In order to assemble or dis-assemble parent items, Work Orders are required. The assembly or dis-assembly of parent items takes place in assembly locations.

There are two types of kitting flows in WMS - **Make To Stock** and **Make To Order**.

Make to Stock – The main objective of Make to Stock flow is that, the parent items or kits are assembled beforehand and putaway to stock in anticipation of future Outbound Order for the parent items. In this flow, a

Work Order is either interfaced into WMS or created from Work Order view. After parent items are assembled using this Work Order, WMS prompts you to pack the parent items into Inbound LPNs. The Inbound LPNs are then putaway to stock (reserve locations). These parent items can be picked later against outbound orders, packed, loaded and shipped out like any regular item.

Make to Order – The main objective of Make to Order flow is for the parent items or kits to be shipped out based on the Outbound Order sent to the facility. In this flow, a Work Order is automatically created in WMS when an Outbound Order with a specific Order Type is interfaced into WMS. The Work Order has a reference to the Outbound Order. So when the parent items are assembled using this Work Order, Oracle WMS Cloud prompts you to pack the assembled parent items directly into Outbound LPNs against the Outbound Order. The OBLPNs can then be loaded and shipped out like any other OBLPN.

Note:
- Parent Items are also called Kit Items
- Child Items are also called Component Items
- Ratio of child items required to create a parent item is called pre-pack ratio

Configuration for Kitting Process

The following steps describe the configuration that needs to be in place for the kitting process. These steps are common for Make To Stock and Make to Order.

Step 1: Create a Replenishment Type for kitting.

Company	Replenishment Type	Description	Create Timestamp	Mod User
NS_TEST1	KIT	Kitting	09/02/2018 11:05:13 PM	kavitha

Figure 482: Replenishment Type

Step 2: Create a Replenishment Zone for kitting.

Code	Description
KIT_ZONE	Kitting Zone

Figure 483: Replenishment Zone

Step 3: Tie the Replenishment Type with the Replenishment Zone.

Inv History	Order Types	Work Order Inquiry View	Work Order Wave Template View	Replenishment Type	Replenishment Type Zone Xref	Replenishment Zones

Replenishment Type Zone Xref
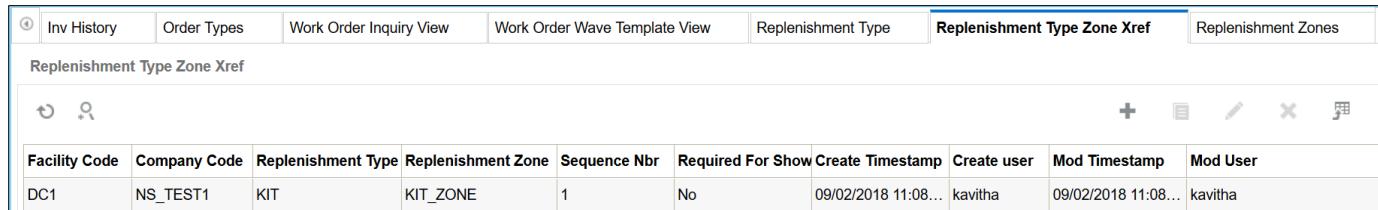
Facility Code	Company Code	Replenishment Type	Replenishment Zone	Sequence Nbr	Required For Show	Create Timestamp	Create user	Mod Timestamp	Mod User
DC1	NS_TEST1	KIT	KIT_ZONE	1	No	09/02/2018 11:08...	kavitha	09/02/2018 11:08...	kavitha

Figure 484: Replenishment Type Zone

Step 4: Parent and child items need to be pre-defined along with the pre-pack ratio.

Items	Order Types	Work Order Inquiry View	Work Order Types	Work Order Wave Template View	Replenishment Type	OBLPNs
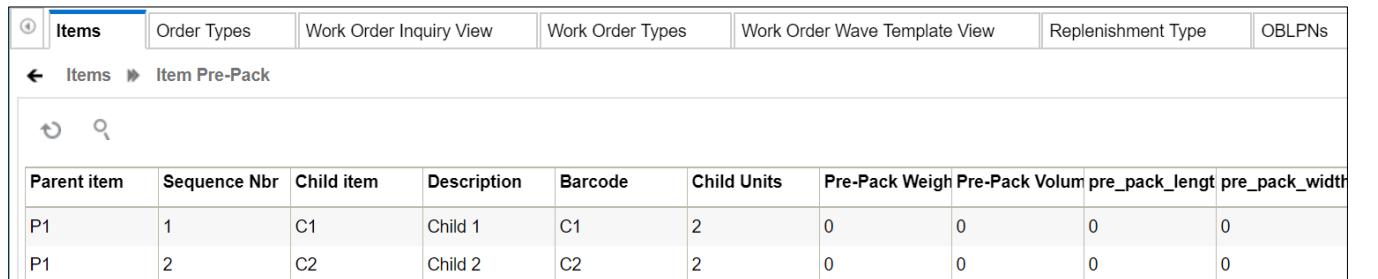
Items » Item Pre-Pack

Parent item	Sequence Nbr	Child item	Description	Barcode	Child Units	Pre-Pack Weigh	Pre-Pack Volum	pre_pack_lengt	pre_pack_width
P1	1	C1	Child 1	C1	2	0	0	0	0
P1	2	C2	Child 2	C2	2	0	0	0	0

Figure 485: Item Pre-Pack

Step 5: Parent items need to have a Replenishment Type defined in the item facility. On the Item UI, select the parent item that needs to be assembled and hit the facility button.

Items

Print Label   Item Pre-Pack   Item Material Hazard

Company	Code	External Style	Style	Part b	Part c
NS_TEST1	C2		C2		
NS_TEST1	C1		C1		
NS_TEST1	P1		P1		

Figure 486: Facility Button

In Item Facility view for the parent item, add a new record and select the Replenishment Type that was created in step 1.

	Order Types	Work Order Inquiry View	Work Order Wave Template View	Replenishment Type	Replenishment Type Zone Xref	Replenishment Zones	Items

Items » Warehouse

Facility	Item	Preferred Area	Preferred Aisle	Putaway Type	Conveyable	OBLPN break a	Active Location	Replenishment Type	Maximum Loca	Mod Interface F	Showroom Min	Showroom
DC1	P1				No			KIT	0	No	0	0

Figure 487: Item Facility View

Step 6: Create an assembly location where the parent items will be assembled. This location needs to be a dynamic active location with the assembly flag checked and with the Replenishment Zone the same as the one created in step 2.

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Figure 488: Assembly Location

Since this replenishment zone (***KIT_ZONE***) has been tied to the replenishment type (***KIT***) and the replenishment type is configured on parent item P1, this would mean that whenever parent item P1 needs to be built, the child items for P1 will always be replenished to assembly location ***AS111***. Similarly, different parent items can be configured to be assembled in different assembly locations.

Step 7: Create a Work Order Type with the Activity Type "Assembly". This Work Order Type needs to be on Work Orders that are used to assemble parent items.

Figure 489: Work Order Type

Steps 1 through 7 are pre-requisites for both **Make to Stock** and **Make to Order** Flow.

Make to Stock Flow

In the Make to Stock Flow, Work Orders are either directly interfaced into WMS OR can be created manually using Work Order view.

Work Order Creation

The Work Order Type described in step 7 under the configuration for kitting process is used on the Work Order. This automatically sets the Activity Type to Assembly on the Work Order. The Work Order is initially in a Created status.

Figure 490: Activity Type - Assembly

This Work Order has been interfaced (or created) to assemble three units for parent item P1.
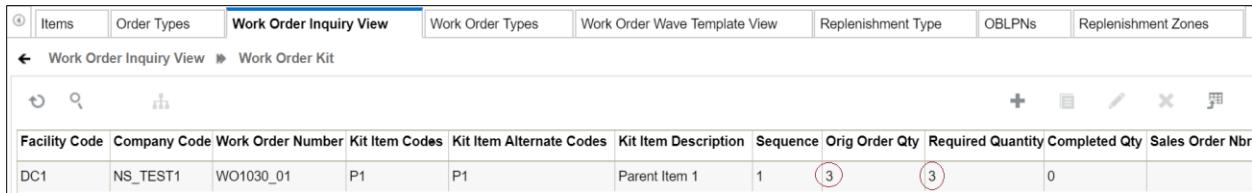
| Facility Code	Company Code	Work Order Number	Kit Item Codes	Kit Item Alternate Codes	Kit Item Description	Sequence	Orig Order Qty	Required Quantity	Completed Qty	Sales Order Nbr
DC1	NS_TEST1	WO1030_01	P1	P1	Parent Item 1	1	3	3	0	

Figure 491: Required Quantity
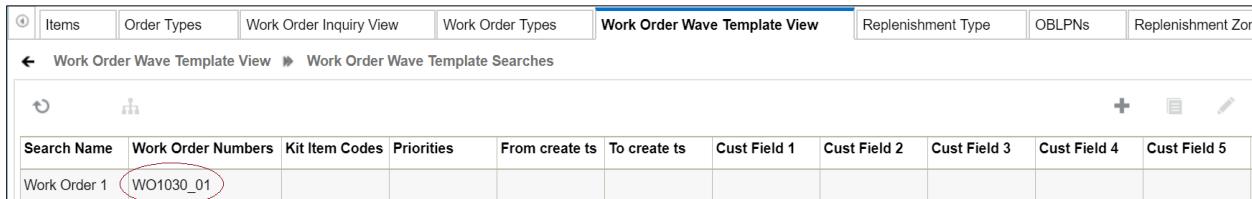
Work Order Wave Template

Create a Work Order Wave Template. This template will define rules to pull child items from reserve/active locations and replenish to an assembly location.
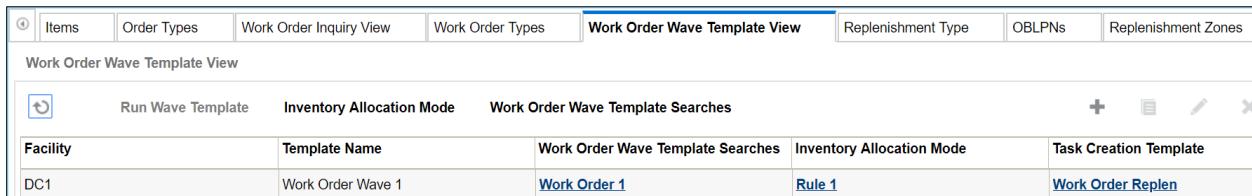
Facility	Template Name	Work Order Wave Template Searches	Inventory Allocation Mode	Task Creation Template
DC1	Work Order Wave 1	Work Order 1	Rule 1	Work Order Replen

Figure 492: Work Order Wave Template

The Work Order Template Search needs to have the right criteria to select the required Work Order.

Search Name	Work Order Numbers	Kit Item Codes	Priorities	From create ts	To create ts	Cust Field 1	Cust Field 2	Cust Field 3	Cust Field 4	Cust Field 5
Work Order 1	WO1030_01									

Figure 493: Work Order Criteria

WMS offers multiple replenishment options. In this example, the rule is defined to pull full LPNs (with child items) from reserve locations.
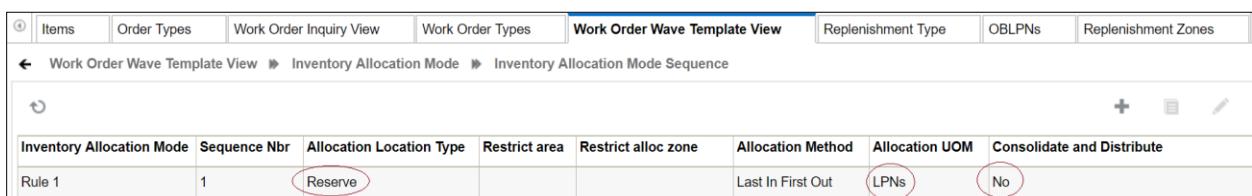
Inventory Allocation Mode	Sequence Nbr	Allocation Location Type	Restrict area	Restrict alloc zone	Allocation Method	Allocation UOM	Consolidate and Distribute
Rule 1	1	Reserve			Last In First Out	LPNs	No

Figure 494: Replenishment Rule

…and a corresponding Task Template to create Full LPN Replenishment tasks.
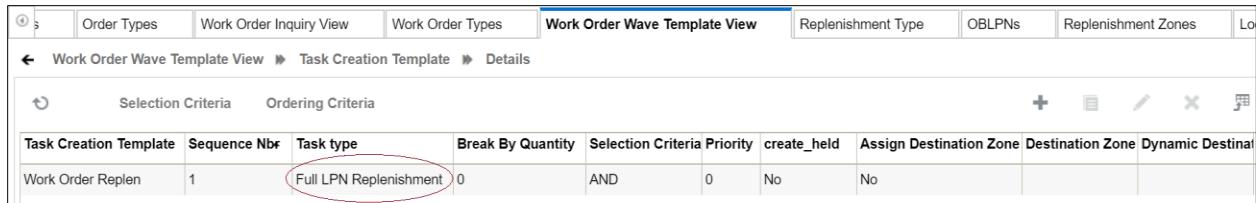
Figure 495: Full LPN Replenishment Task Type

Inventory

Ensure that there are LPNs in reserve locations with enough child units.

Figure 496: LPN Quantity

Wave Run

Run the wave from Work Order Wave Template View

Figure 497: Run Wave Template
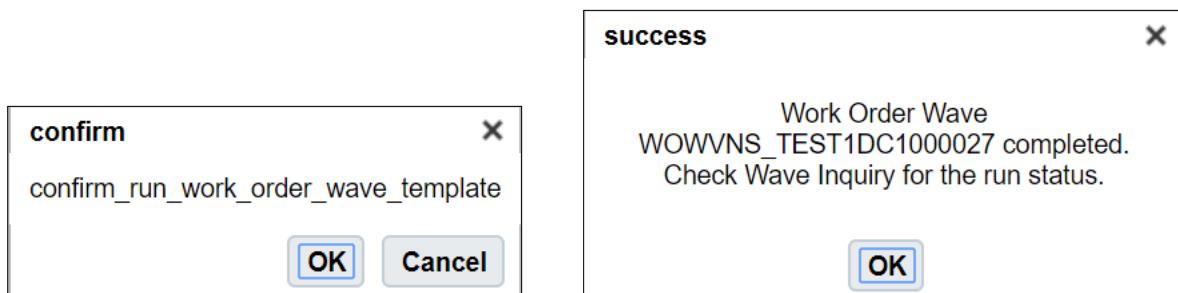
Figure 498: Wave Template / Work Order Wave Confirmation Message

Work Order is in Allocated status

Figure 499: Allocated Work Order

Tasks are created to replenish child items from a reserve location to an assembly location.

Figure 500: Reserve / Assembly Replenishment Tasks

Task Executiofn

Execute the tasks in order to replenish the assembly location with child units from reserve locations.

1. Pick IBLPNs containing child items from reserve locations and place on a pallet.
2. Replenish contents of the LPNs to the assembly location
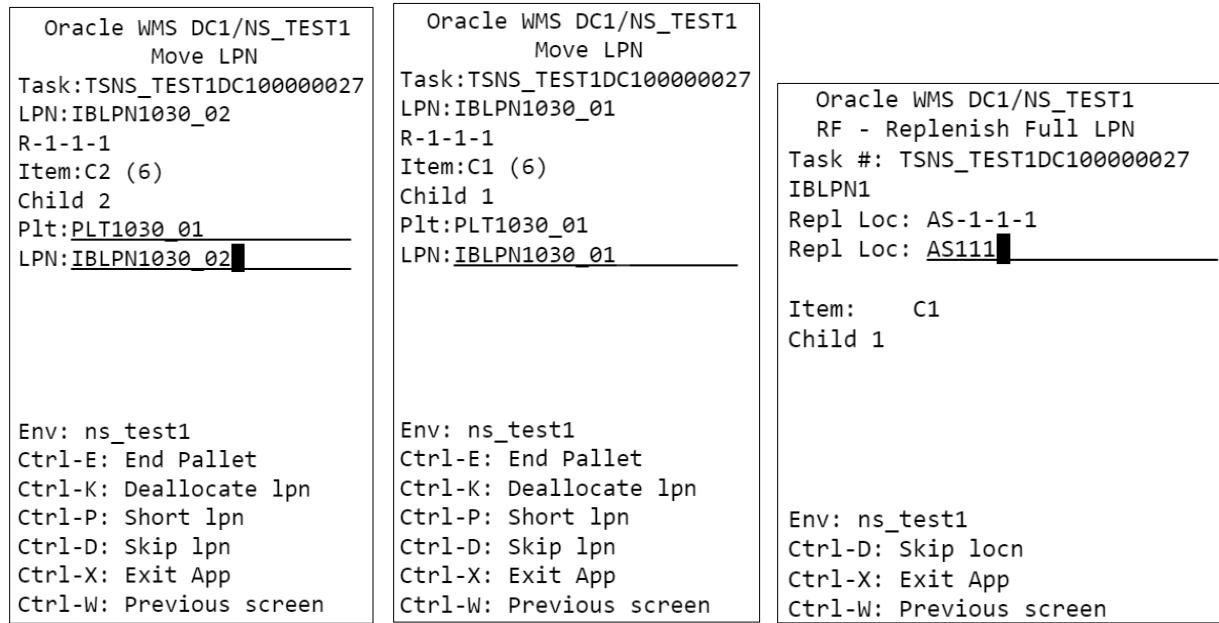
```
   Oracle WMS DC1/NS_TEST1
          Move LPN
Task:TSNS_TEST1DC100000027
LPN:IBLPN1030_02
R-1-1-1
Item:C2 (6)
Child 2
Plt:PLT1030_01_____
LPN:IBLPN1030_02█




Env: ns_test1
Ctrl-E: End Pallet
Ctrl-K: Deallocate lpn
Ctrl-P: Short lpn
Ctrl-D: Skip lpn
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

```
   Oracle WMS DC1/NS_TEST1
          Move LPN
Task:TSNS_TEST1DC100000027
LPN:IBLPN1030_01
R-1-1-1
Item:C1 (6)
Child 1
Plt:PLT1030_01
LPN:IBLPN1030_01_____




Env: ns_test1
Ctrl-E: End Pallet
Ctrl-K: Deallocate lpn
Ctrl-P: Short lpn
Ctrl-D: Skip lpn
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

```
   Oracle WMS DC1/NS_TEST1
    RF - Replenish Full LPN
Task #: TSNS_TEST1DC100000027
IBLPN1
Repl Loc: AS-1-1-1
Repl Loc: AS111█_____

Item:    C1
Child 1




Env: ns_test1
Ctrl-D: Skip locn
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 501: Move and Replenish LPNs

```
   Oracle WMS DC1/NS_TEST1

Repl Loc:  AS-1-1-1
LPN: IBLPN1030_01
Item:    C1
Child 1
Qty:  1 LPNS
LPN :IBLPN1030_01_____




Env: ns_test1
Ctrl-D: Skip Location
Ctrl-L: Skip LPN
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

```
   Oracle WMS DC1/NS_TEST1

Repl Loc:  AS-1-1-1
LPN: IBLPN1030_02
Item:    C2
Child 2
Qty:  1 LPNS
LPN :IBLPN1030_02_____




Env: ns_test1
Ctrl-D: Skip Location
Ctrl-L: Skip LPN
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 502: Replenished LPNs

The assembly location now has enough units of child items (C1 and C2) to build 3 units of parent item (P1):

Order Header	Task Types	Active Inventory	IBLPNs	Replenishment Type	Replenishment Zones	Replenishment Type Zone Xref	Locations

Active Inventory

Deallocate   Modify Qty   Location Capacity

Facility	Location	Location Type	Area	Item	Is Parent	Alternate Item Codes	Item Description	Orig qty	Current Qty	Allocated Qty
Ns_test1 DC	AS-1-1-1	Active	AS	C1	false	C1	Child 1	0	6	0
Ns_test1 DC	AS-1-1-1	Active	AS	C2	false	C2	Child 2	0	6	0

Figure 503: Active Inventory

The Work Order is now in Picked status

Reserve Inventory	Work Order Wave Template View	Wave Inquiry	Work Order Inquiry View	Input Interfaces	Order Header	Task Types	Active Inv

Work Order Inquiry View

Print labels

Facility Code	Company Code	Work Order Number	Status	Work Order Type	Completed Qty	Quantity To Complete	Activity Type	Scrap Quantity	Priority
DC1	NS_TEST1	WO1030_01	Picked	Work Order For Assembly	0	3	Assembly	0	0

Figure 504: Work Order – Picked Status

Kit Assembly

Now that the child items are in the assembly location, assembly of parent items can start using RF Work Order Kit Processing. All units of the assembled parent items can be placed in one IBLPN or multiple IBLPNs. In this example, all three units have been placed in one IBLPN.

```
Oracle WMS DC1/NS_TEST1
RF Work Order Kit Process

Work Order Number:WO1030_01




Env: ns_test1
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

```
Oracle WMS DC1/NS_TEST1
RF Work Order Kit Process

Work Order Number:WO1030_01
IBLPN:IBLPN1030_03




Env: ns_test1
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

```
Oracle WMS DC1/NS_TEST1
Assembly Location: AS-1-1-1
Work Order Number: WO1030_01
IBLPN: IBLPN1030_03
P1
Parent Item 1
Pending Qty: 3 (3)
Qty: 3



Env: ns_test1
Ctrl-D: Skip Kit
Ctrl-E: End LPN
Ctrl-K: Cancel Kit
Ctrl-T: View Components
Ctrl-V: View Instructions
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 505: RF Work Order Kit Processing

RF Work Order Kit Process offers other Ctrl options for processing Work Orders. For example you can use Ctrl-V to view extra instructions if there are any available for the kit being handled. Ctrl-T can be used to view the ratio of the child items that are required to assemble the parent items:

```
Oracle WMS DC1/NS_TEST1
As embly Location: AS-1-1-1
Kit: P1
1) C2
   Child 2
   Child Units: 2
2) C1
   Child 1
   Child Units: 2



Env: ns_test1
Ctrl-U: Page Up
Ctrl-D: Page Down
Ctrl-X: Exit App
Ctrl-W: Previous screen
Ctrl-V: View Instructions
Ctrl-X: Exit App
Ctrl-W: Previous screen
```
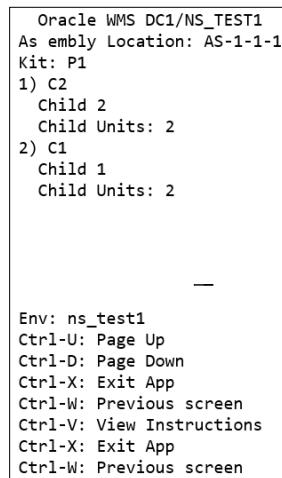
Figure 506: Required Child Items

The Inbound LPN with the assembled parent items is in Received status, and can be putaway to a reserve location.

Facility	Company	LPN Nbr	Status	Item Code	Alternate Item Codes	Description	Orig qty	Received Qty	Current Qty	Location	Previous Location
DC1	NS_TEST1	IBLPN1030_03	Received	P1	P1	Parent Item 1	0	0	3		AS-1-1-1

Figure 507: IBLPN – Reserved Status

The Work Order is completed:

Facility Code	Company Code	Work Order Number	Status	Work Order Type	Completed Qty	Quantity To Complete	Activity Type	Scrap Quantity	Priority
DC1	NS_TEST1	WO1030_01	Completed	Work Order For Assembly	3	0	Assembly	0	0

Figure 508: Completed Work Order

Inventory History for Work Order:

History Activity	Group Nbr	Sequence Nbr	LPN Nbr	Item	Orig qty	Adj qty	Ref code 1	Ref value 1	Ref code 2	Ref value 2	Work Order Number
67 - Work Order Status Changed	115451	1			0	0	OLD	40	NEW	90	WO1030_01
69 - Kitting Complete	115450	3	IBLPN1030_03	P1	0	3	TYP	WO_ASSM	ACT	Assembly	WO1030_01
70 - Kitting Inventory Consumed	115450	2		C2	6	-6	TYP	WO_ASSM	BAT		WO1030_01
70 - Kitting Inventory Consumed	115450	1		C1	6	-6	TYP	WO_ASSM	BAT		WO1030_01
67 - Work Order Status Changed	115431	0			0	0	OLD	30	NEW	40	WO1030_01
67 - Work Order Status Changed	115429	0			0	0	OLD	20	NEW	30	WO1030_01
67 - Work Order Status Changed	115424	2			0	0	OLD	0	NEW	20	WO1030_01

Figure 509: Work Order – Inventory History

Make to Order Flow

In the Make to Order Flow, a Work Order is automatically created in WMS when an Outbound Order with a specific Order Type is interfaced into WMS.

Work Order Creation

Create an Order Type for the Outbound Order. This Order Type needs to have the Work Order Type populated which was described in

	Active Inventory	Order Types	Task Types	Replenishment Type	Replenishment Zones	Replenishment Type Zone Xref	Locations	Tasks	Screens

Order Types

Order Type	Description	Facility Order F	Flowthrough Fl	Wave Flag	Partial allocatio	Only deallocat	Allocate during	Single Order on	Work Order Type	▲	Break Prepacks
KIT	Kitting	Yes	Yes	Yes	Yes	No	No	Allow	Work Order For Assembly		No

Figure 510: Outbound Order – Order Type

When an Outbound Order with such an Order Type is interfaced into WMS, a Work Order is automatically created behind the scenes.

Interfaced Order Header and Detail
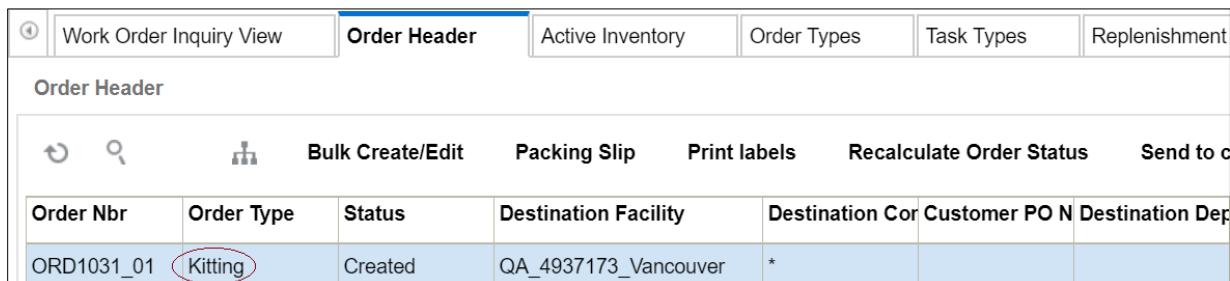
	Work Order Inquiry View	Order Header	Active Inventory	Order Types	Task Types	Replenishment

Order Header

Bulk Create/Edit   Packing Slip   Print labels   Recalculate Order Status   Send to c

Order Nbr	Order Type	Status	Destination Facility	Destination Cor	Customer PO N	Destination Dep
ORD1031_01	Kitting	Created	QA_4937173_Vancouver	*		

Figure 511: Order Type

	Work Order Inquiry View	Order Header	Active Inventory	Order Types	Task Types	Replenishment Type	Replenishment Zor

← Order Header ❯ Order Detail

Convert to prepack   Break Prepack
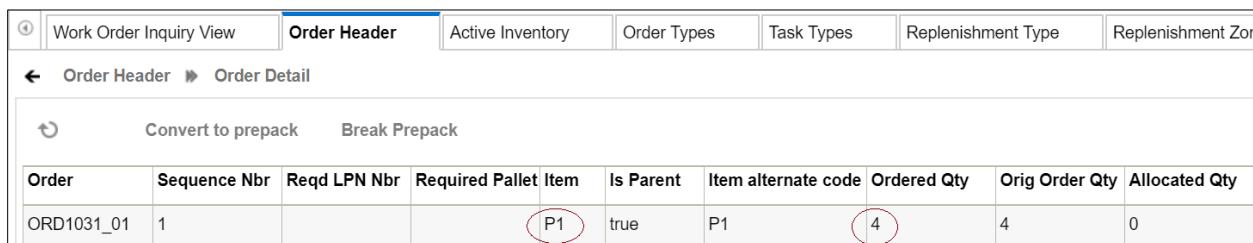
Order	Sequence Nbr	Reqd LPN Nbr	Required Pallet	Item	Is Parent	Item alternate code	Ordered Qty	Orig Order Qty	Allocated Qty
ORD1031_01	1			P1	true	P1	4	4	0

Figure 512: Order Detail

Corresponding Work Order and Detail

The Work Order Type on the Work Order is set based on the Work Order Type which is on the Order Type of the Outbound Order.

	Work Order Inquiry View	Order Header	Active Inventory	Order Types	Task Types	Replenishment Type	Replenishment Zones	Replenishment Typ

Work Order Inquiry View

↺   🔍   ⊹   Print labels   ✚   ▤   ✏   ✕

Facility Code	Company Code	Work Order Number	Status ▲	Work Order Type	Completed Qty	Quantity To Complete	Activity Type	Scrap Quantity	Priority
DC1	NS_TEST1	WONS_TEST1DC100013	Created	Work Order For Assembly	0	4	Assembly	0	0

Figure 513: Work Order Type

The Work Order Kit has a reference to the original Outbound Order Nbr.

	Work Order Inquiry View	Order Header	Active Inventory	Order Types	Task Types	Replenishment Type	Replenishment Zones	Replenishment

← Work Order Inquiry View ⊪ Work Order Kit

↺   🔍   ⊹   ✚   ▤   ✏

Facility Code	Company Code	Work Order Number	Kit Item Codes	Kit Item Alterna	Kit Item Description	Orig Order Qty	Required Quantity	Completed Qty	Sales Order Nbr
DC1	NS_TEST1	WONS_TEST1DC100013	P1	P1	Parent Item 1	4	4	0	ORD1031_01

Figure 514: Work Order Kit

Wave Run and Task Execution

The same Wave Template that was described under Make to Stock flow can be used, ensuring that the Wave Search criteria is modified to pull the new Work Order. The wave is run and tasks executed as shown under Make to Stock flow. Executing the tasks will replenish child items to the assembly location.

Kit Assembly

Kit processing is similar to Make to Stock flow, however in the Make to Order flow, the system prompts for an Outbound LPN to place the assembled units. This Outbound LPN is tied to the Outbound Order that is on the Work Order Detail.

```
 Oracle WMS DC1/NS_TEST1
 RF Work Order Kit Process

Work Order Number:WONS_TEST1DC100013




Env: ns_test1
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

```
 Oracle WMS DC1/NS_TEST1
 RF Work Order Kit Process

Work Order Number:WONS_TEST1DC100013
OBLPN:OBLPN1031_01




Env: ns_test1
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

```
 Oracle WMS DC1/NS_TEST1
Assembly Location: AS-1-1-1
Work Order Number: WONS_TEST1DC100013
OBLPN: OBLPN1031_01
Order Nbr: ORD1031_01
P1
Parent Item 1
Pending Qty: 4 (4)
Qty: 4




Env: ns_test1
Ctrl-D: Skip Kit
Ctrl-E: End LPN
Ctrl-K: Cancel Kit
Ctrl-T: View Components
Ctrl-V: View Instructions
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 515: Work Order Quantity

All units of the parent item can be placed in a single OBLPN or multiple OBLPN. In this example, all four units have been placed in one OBLPN.

The Work Order is complete:

Facility Code	Company Code	Work Order Number	Status	Work Order Type	Completed Qty	Quantity To Complete	Activity Type	Scrap Quantity	Priority
DC1	NS_TEST1	WONS_TEST1DC100013	Completed	Work Order For Assembly	4	0	Assembly	0	0

Figure 516: Completed Work Order

The Outbound Order is packed:

Order Nbr	Order Type	Status	Destination Facility	Destination Cor	Customer PO N	Destination Dep	Ship Via
ORD1031_01	Kitting	Packed	QA_4937173_Vancouver	*			

Figure 517: Packed Outbound Order

The Outbound LPN with parent items is packed and can later be loaded and shipped out of the facility.
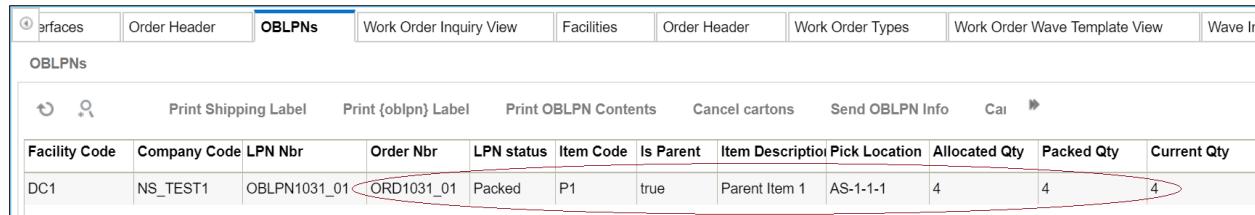
Facility Code	Company Code	LPN Nbr	Order Nbr	LPN status	Item Code	Is Parent	Item Description	Pick Location	Allocated Qty	Packed Qty	Current Qty
DC1	NS_TEST1	OBLPN1031_01	ORD1031_01	Packed	P1	true	Parent Item 1	AS-1-1-1	4	4	4

Figure 518: LPN Packed with Parent Item

The following screen shows you the inventory history for the Work Order:

History Activity	Group Nbr	Sequence Nbr	LPN Nbr	Item	Orig qty	Adj qty	Ref code 1	Ref value 1	Ref code 2	Ref value 2	Work Order Number
67 - Work Order Status Changed	115801	1			0	0	OLD	40	NEW	90	WONS_TEST1DC100013
69 - Kitting Complete	115799	3	OBLPN1031_01	P1	0	4	TYP	WO_ASSM	ACT	Assembly	WONS_TEST1DC100013
10 - Container Detail Packed	115800	1	OBLPN1031_01	P1	4	0	TYP	WO_ASSM	BAT		WONS_TEST1DC100013
70 - Kitting Inventory Consumed	115799	2		C2	8	-8	TYP	WO_ASSM	BAT		WONS_TEST1DC100013
70 - Kitting Inventory Consumed	115799	1		C1	8	-8	TYP	WO_ASSM	BAT		WONS_TEST1DC100013
67 - Work Order Status Changed	115798	0			0	0	OLD	30	NEW	40	WONS_TEST1DC100013
67 - Work Order Status Changed	115796	0			0	0	OLD	20	NEW	30	WONS_TEST1DC100013
67 - Work Order Status Changed	115783	2			0	0	OLD	0	NEW	20	WONS_TEST1DC100013

Figure 519: Work Order - Inventory History

De-Kitting

De-Kitting is performed to dis-assemble parent items into individual child items and put away child items into reserve/active locations. The child items can be later picked, packed, and shipped individually against outbound orders. This flow is typically performed if there is a need to ship individual child items from the facility and there are not enough child items to fulfil the need immediately.

Work Order Creation

Create a Work Order Type with Activity Type as Dis-Assembly.
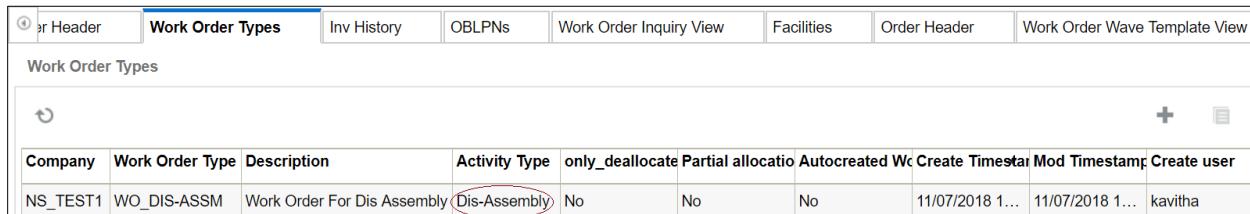
Company	Work Order Type	Description	Activity Type	only_deallocate	Partial allocatio	Autocreated Wc	Create Timestar	Mod Timestamp	Create user
NS_TEST1	WO_DIS-ASSM	Work Order For Dis Assembly	Dis-Assembly	No	No	No	11/07/2018 1…	11/07/2018 1…	kavitha

Figure 520: Activity Type – Dis-Assembly

Interface a Work Order into WMS with the above Work Order Type on the Work Order. You can also create the Work Order from Work Order Inquiry view.
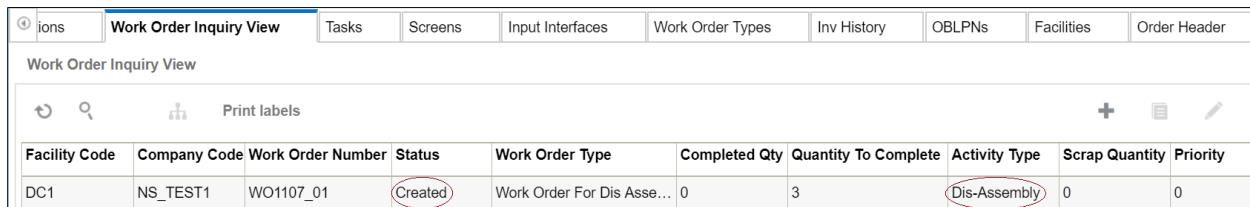
Facility Code	Company Code	Work Order Number	Status	Work Order Type	Completed Qty	Quantity To Complete	Activity Type	Scrap Quantity	Priority
DC1	NS_TEST1	WO1107_01	Created	Work Order For Dis Asse…	0	3	Dis-Assembly	0	0

Figure 521: Work Order Inquiry View

This Work Order has been interfaced to dis-assemble three units of parent item P1.
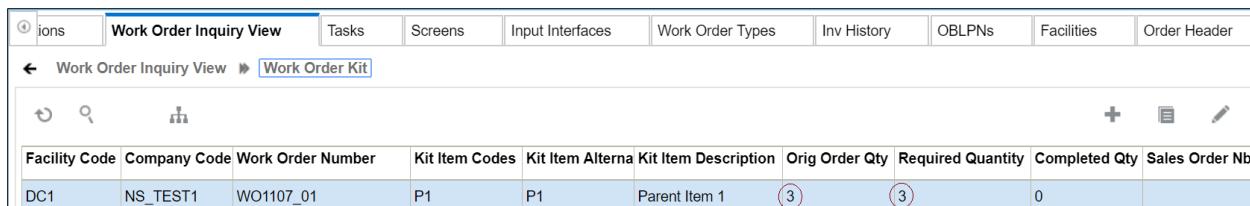
Facility Code	Company Code	Work Order Number	Kit Item Codes	Kit Item Alterna	Kit Item Description	Orig Order Qty	Required Quantity	Completed Qty	Sales Order Nbr
DC1	NS_TEST1	WO1107_01	P1	P1	Parent Item 1	3	3	0	

Figure 522: Dis-Assemble Criteria

Since the pre-pack ratio for P1 is defined as two units of C1 and two units of C2 for one unit of P1, dis-assembling three units of P1 will result in six units of child item C1 and six units of child item C2.

Figure 523: Child Item Quantity

Wave Run and Task Execution

Ensure that there is enough inventory for parent P1 in the facility. In this example, there is one LPN in a reserve location with three units of P1.

Figure 524: LPN Quantity

The same Wave Template that was described under Make to Stock flow can be used, ensuring that the Wave Search criteria is modified to pull the new Work Order. When the wave is run, it allocates one LPN from reserve which has three units of P1.

Figure 525: LPN Quantity Allocated

A task is created to move the LPN from a reserve location to an assembly location.

Figure 526: From and Destination Locations

Task Execution

Execute the task to replenish the assembly location with parent units from the reserve location.

1. Pick IBLPN containing parent items from reserve location and place on a pallet.
2. Replenish contents of the IBLPN to the assembly location.

```
 Oracle WMS DC1/NS_TEST1
         Move LPN
Task:TSNS_TEST1DC100000030
LPN:IBLPN0925_03
R-1-1-1
Item:P1 (3)
Parent Item 1
Plt:PLT1107_01_____
LPN:IBLPN0925_03_____




Env: ns_test1
Ctrl-E: End Pallet
Ctrl-K: Deallocate lpn
Ctrl-P: Short lpn
Ctrl-D: Skip lpn
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

```
 Oracle WMS DC1/NS_TEST1
  RF - Replenish Full LPN
Task #: TSNS_TEST1DC100000030
IBLPN0
Repl Loc: AS-1-1-1
Repl Loc: AS111_____

Item:    P1
Parent Item 1




Env: ns_test1
Ctrl-D: Skip locn
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

```
 Oracle WMS DC1/NS_TEST1

Repl Loc:  AS-1-1-1
LPN: IBLPN0925_03
Item:    P1
Parent Item 1
Qty:  1 LPNS
LPN :IBLPN0925_03_____




Env: ns_test1
Ctrl-D: Skip Location
Ctrl-L: Skip LPN
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 527: Move / Replenish LPN

The assembly location now has three units of parent item P1.

Figure 528: Assembly Location Quantity

The Work Order is now in Picked status.

Figure 529: Work Order – Picked Status

Dis-Assembling the Kit

Now that the parent items are in the assembly location, dis-assembly of parent items can start using RF Work Order Kit Processing. After dis-assembling, child units for all parent items can be placed in a single IBLPN or placed separately in different IBLPNs. In this example, all three units of C1 and all three units of C2 have been placed in a single IBLPN.

```
Oracle WMS DC1/NS_TEST1
 RF Work Order Kit Process

Work Order Number:WO1107_01




Env: ns_test1
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

```
 Oracle WMS DC1/NS_TEST1
  RF Work Order Kit Process

Work Order Number:WO1107_01
 IBLPN:IBLPN1107_01




Env: ns_test1
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

```
 Oracle WMS DC1/NS_TEST1
Assembly Location: AS-1-1-1
Work Order Number: WO1107_01
IBLPN: IBLPN1107_01
P1
Parent Item 1
Pending Qty: 3 (3)
Qty: 3_____



Env: ns_test1
Ctrl-D: Skip Kit
Ctrl-E: End LPN
Ctrl-K: Cancel Kit
Ctrl-T: View Components
Ctrl-V: View Instructions
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

Figure 530: Child Units in single IBLPN

The Inbound LPNs with child items C1 and C2 are in Received status and can later be putaway to a reserve location or items replenished to an active location.

Facility	Company	LPN Nbr	Status	Item Code	Alternate Item Codes	Description	Orig qty	Received Qty	Current Qty	Location
DC1	NS_TEST1	IBLPN1107_01	Received	C2	C2	Child 2	0	0	6	
DC1	NS_TEST1	IBLPN1107_01	Received	C1	C1	Child 1	0	0	6	

*IBLPNs tabs: bory | **IBLPNs** | Wave Inquiry | Active Inventory | Work Order Types | Inv History | OBLPNs | Facilities | Order Header*

*Toolbar: Approve   Reject   Deallocate LPN   Print Label   **Blind Labels**   Change pack qty   Set LPN as Pallet*

Figure 531: Inbound LPNs – Received Status

5. Extra Configuration

Sequence Counters

System counters keep track of record numbers (for example, ASN Numbers) that are automatically generated by the system. Additionally, sequence counters allow you to configure the record number generated for each label/document/output file, such as Inbound Shipment numbers, BOL numbers, and Outbound Load files.

You can only create new sequence counters by copying from existing ones. To do this, from the Sequence Counter screen, select the sequence counter that will be created, and click "Copy" (🗐).

Figure 532: Editing a Sequence Counter

Note: Oracle WMS Cloud does not guarantee that the next up sequence counters will always be next up (for example, in instances where multiple processes use the same counter, or when there are processes with high concurrency and caching of data.)"

Description of fields:

- **Sub_code:** This field is used in conjunction with Company Parameter "OBLPN_COUNTER_SUB_CODE_FIELD". See description of this parameter for details.
- **Counter Description:** The sequence counter description.
- **Recycle_flg:** When the max number ("End Number") is reached in the current sequence counter, this flag determines whether or not the system automatically restarts the counter back to the "Start Number".

  - If CHECKED, WMS automatically resets the counter when the max number is reached.

o   If UNCHECKED, WMS does not reset the counter when the "End Number" is reached. When this happens, you will not be able to create the new record until its sequence counter is reset.

Example: If the current number is at 1,000 and the "Max Number" is 1,000, the system returns an error message when attempting to generate a new number.

- **Prefix:** Defines the prefix value that displays for the current record. For example, if the prefix is "BOL", the system generates the number as "BOLXXXX".
- **Start/End Number:** Defines the start and max number for the given sequence counter. When the End Number is reached, you must either reset the counter by checking the 'recycle_flg' or increase the "End Number" value manually.
- **Nbr_suffix:** Hardcodes a suffix to every sequence in that counter.
- **Current Number:** Denotes the current number that the sequence counter is on.
- **Sequence Length:** Denotes the string length of the sequence counter. Note that the prefix is NOT included in this count.
- **Append Facility Code to Prefix:** Flag that automatically appends the facility code to the sequence counter.
- **Increment:** The increment value in which the sequence counter increases.
- **Check Digit Method:** The method that calculates the last digit of the LPN number. Supported methods are SSCC, BOL, and EAN13.
- **Destination Company/Facility:** You can also make sequence counters exclusive to a Company and Facility. NOTE: Since this may lead to duplicate sequence counters, it is highly recommended to use a unique prefix for every Company/Facility sequence counter combination.

Barcode Types

You can also configure the company to have a fixed barcode format depending on the barcode type. The configurable barcode types are:

- Asset
- Seal
- Batch
- Cart
- Inbound LPN
- Inbound Shipment
- Item
- Location
- Outbound LPN
- Pallet

Figure 533: Configuring Barcode Types

Description of fields:

- **Barcode Type:** Denotes the barcode type that is being edited/created.
- **Sequence Nbr:** Used as a number identifier for a group of Barcode Types.
- **Description:** Displays the barcode type's description.
- **Length:** Denotes the string length required for the barcode type. Note that the Prefix is included in this count. For example, if the Prefix = "LPN" and Length = 10, the system accepts the value "LPN0000001" (10 digits total). NOTE: If you want to disable to the barcode type validation in the system, the length must be set to "-1". This will override any other configuration existing for that barcode type.
- **Prefix:** Denotes the prefix used for the barcode type.
- **Remove Prefix:** If this flag is checked, the barcode type ignores the "Prefix" field.
- **Numeric_flg:** Forces the barcode type to only accept numeric values.

Custom_barcode: Calls custom scanning logic for scanning inbound LPNs into the system.

Configuring Barcode Types

Barcode Types are used for situations where the company requires a fixed barcode prefix/length for a given label.

Example: The company only accepts barcodes of prefix "LPN" and "CS", each of length 10.

The configuration would be as follows:

Barcode Type	Sequence Nbr	Description	Length	Prefix	
NJ_COMP/Asset	1	Asset 10	10	LPN	
NJ_COMP/Asset Seal	2	Seal 10	10	CS	

Figure 534: Configuring IBLPN Barcode Types

With the configuration above, the system only accepts Inbound Containers that have the barcode of prefix LPN and CS. For example: "LPN0000001" & "CS00000001". Scanning a barcode that is different from either one of these formats produces an error message in the RF:

```
-----------------------
|Invalid barcode for  |
|type IB LPN          |
-----------------------
```
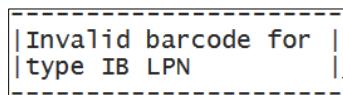
Figure 535: Error message when inputting an incorrect Barcode Type format

Printers

Setting up printers in WMS is a two-fold process:

1. Setting up printers on the back-end (connection between the facility and WMS network)
2. Adding the configured printers from step 1 to WMS.

Step 1: Configuring printers on the back-end

This step requires the help of ORACLE WMS CLOUD Support. To do this, create a Happy Fox ticket requesting printers to be set up. When you create the ticket, make sure that the "Request Type" is set to "Application Admin Request". Within the ticket, provide the following printer information:

- The printer name
- The printer's IP and port address
- The printer model number.

Step 2: Adding the configured printers from step 1 to WMS

a. Once ORACLE WMS CLOUD Support configures the printers into the server, create the printer records in WMS.
b. Go to the "Printers" screen and click the "Create" button.
c. Populate the printer type, name and description.
d. If this is the first time the printer is set up, select the printer record and click on "Restart Print Service".
e. Test the printer.

The "Printers" screen also provides some visibility to the printers in WMS through two buttons:

1. printer_status
2. Printer Logs

The "printer_status" button displays information about the printer's current status. See example below:

```
Device for PRINTER1: lpd://123.456.789.012:345/PRINTER1
Printer PRINTER1 is idle. Enabled since Fri Oct 24 14:16:02 2014
```

> Data file sent successfully

The "Printer Logs" displays all the printing jobs that have been executed, ordered by date.

Printing Custom Reports from UI

If you have designed custom reports using Web Reports, you can trigger some of these custom reports directly from relevant UI screens instead of manually launching and printing them from Web Reports.

In order to achieve this, you need to configure these reports in the "Company Report Type" UI with a sub report type of "WebReport".

Configure and Generate Custom WebReport for ORDER Packing Slip

For example, if a custom OBLPN Packing Slip has been designed using Web Reports and if you need this custom report to be printed by clicking "Packing List" button on OBLPN UI, the following configuration needs to be in place.

1. From the **Web Report** UI:
   - Create a web report for category : "AllocationToContainer".
   - User can also add other categories with AllocationToContainer_ID

2. From the **Company Report Type** UI select the following:
   - Report type: OBLPN_PACKING
   - "Report Sub Type" = WebReport
   - "web report path" = folder_name\web_report_name ,OR folder_name/web_report_name
   - "Web report format": select your preference

Figure 536: WebReport Sub Type

3. From the **OBLPN Inquiry** UI:
    *   When you select single/multiple records and click on 'Packing List' button, the system generates the custom OBLPN packing slip for the selected record(s)
        o   PDF format will be displayed in a Dashboard
        o   CSV and XLS format will get auto-downloaded

4. From **RF Print Ship Label** (Module: rf.outbound.cwrfprintshiplbl)

    *   When the screen parameter "print-packing-slip" is set as "OBLPN", the system generates the custom OBLPN packing slip for scanned OBLPN in the "Output interface file UI."
    *   When screen parm "print-packing-slip" is set as "Both" system generates the custom OBLPN packing slip for scanned OBLPN in "Output interface file UI".
        o   Along with the OBLPN packing slip, system generates ORDER Packing Slip w.r.t the configuration mentioned below.

5. From **RF Print Packing Slip** (Module: rf.outbound.cwrfprintlpnpackingslip)

    *   When the screen parameter "packing-slip-type" is set as "OB LPN packing", the system generates the custom OBLPN packing slip for the scanned OBLPN in "Output interface file UI."
    *   When the screen parameter "packing-slip-type" is set as "Both", the system generates the custom OBLPN packing slip for the scanned OBLPN in the "Output interface file UI".
    *   Along with the OBLPN packing slip, the system generates the ORDER Packing Slip with respect to the configuration mentioned below.

Configure and Generate Custom WebReport for ORDER Packing Slip

1. From the **Web Report** UI:

   - Create a web report for category: "Order".
   - You can also add other categories with Order_HDR ID

2. From the **Company Report Type** UI :

   - Report type: ORDER_PACKING
   - "Report Sub Type" = WebReport
   - "web report path" = folder_name\web_report_name ,OR folder_name/web_report_name
   - "Web report format" : select as preference

3. From the **Order Header View** UI:

   - When you select single/multiple records and click on the 'Packing Slip' button, the system generates the custom ORDER packing slip for the selected record(s)
     - PDF format will be displayed in a Dashboard
     - CSV and XLS format will get auto-downloaded

4. From **RF Print Ship Label** (Module: rf.outbound.cwrfprintshiplbl)

   - When the screen parameter "print-packing-slip" is set as "Order" system generates the custom ORDER packing slip for the Order associated with the scanned OBLPN in the "Output interface file UI"
   - When the screen parameter "print-packing-slip" is set as "Both", the system generates the custom ORDER packing slip for the Order associated with the scanned OBLPN in the "Output interface file UI".
   - Along with the ORDER packing slip, the system generates the OBLPN Packing Slip with respect to the configuration mentioned above

5. From **RF Print Packing Slip** (Module: rf.outbound.cwrfprintlpnpackingslip)

   - When the screen parameter "packing-slip-type" is set as "Order LPN packing", the system generates the custom ORDER packing slip for the Order associated with the scanned OBLPN in "Output interface file UI".
   - When the screen parameter "packing-slip-type" is set as "Both", the system generates the custom OBLPN packing slip for the Order associated with the scanned OBLPN in the "Output interface file UI".
   - Along with the ORDER packing slip, the system generates the OBLPN Packing Slip with respect to the configuration mentioned above.

   Note: The generation of custom OBLPN/Order packing slip might fail:

   - If the web report category is not valid
   - If the web report category has a filter, which doesn't match the RF scanned/UI selected record(s).

Reports Supported

"Company Report Type" UI supports sub report type "WebReports" for the following reports:

- ✓ **OBLPN Packing Slip** – Generated by clicking "Packing List" on the OBLPN UI. "OBLPN_PACKING" in "Company Report Type" needs to be configured with the sub report type "WebReports".
- ✓ **Order Packing Slip** - Generated by clicking "Packing Slip" button on the Order Header UI. "ORDER_PACKING" in "Company Report Type" needs to be configured with sub report type "WebReports"
- ✓ **Task Report** – Generated by clicking "Task Reports" on the Wave Inquiry UI. "TASK" in "Company Report Type" needs to be configured with the sub report type "WebReports".
- ✓ **Inbound Receipt Report** - Generated by clicking "Inbound Receipt" on the IB Shipment UI. "INBOUND_RECEIPT_REPORT" in "Company Report Type" needs to be configured with the sub report type "WebReports".
- ✓ **Pallet Packing List** - Generated by clicking "Pallet Packing List" on the Pallet View UI. "PALLET_PACKING" in "Company Report Type" needs to be configured with the sub report type "WebReports".
- ✓ **Pick Travel Report** - Generated by clicking "Pick Travel Report" on the Wave Inquiry UI. "PICK_TRAVEL" in "Company Report Type" needs to be configured with sub report type "WebReports".
- ✓ **Receiving Variance Report** - Generated by clicking "Receiving Variance Report" button on the Appointment UI. "RCV" in "Company Report Type" needs to be configured with sub report type "WebReports"
- ✓ **BOL** - Generated by clicking "Bill of Lading" button on the OB Load UI. "BOL" in "Company Report Type" needs to be configured with sub report type "WebReports"
- ✓ **Commercial Invoice** - Generated by clicking "Commercial Invoice" on the OB Load UI. "COMM INV" in "Company Report Type" needs to be configured with sub report type "WebReports".
- ✓ **Export Shipment Packing List** - Generated by clicking "Export Shipment Packing List" on the OB Load UI. "EXPL" in "Company Report Type" needs to be configured with the sub report type "WebReports".
- ✓ **Shipper's Export Declaration** - Generated by clicking "Shipper's Export Declaration" on the OB Load UI. "SED" in "Company Report Type" needs to be configured with sub report type "WebReports"

Note: Custom reports designed through WebReports cannot be invoked from RF. (This note is only applicable for reports that can be printed via RF).

Also note that Custom Reports should **not** have parenthesis.

6. Appendix

Definitions

- **WMS:** Computer System utilized to manage inventory within a Distribution Center, managing Receipt through Shipment of goods.
- **ASN (Advanced Shipment Notice):** A notification of pending deliveries, similar to a packing list, sent in an electronic format or uploaded manually. Usually represents the entire contents of an inbound trailer.
- **License Plate Number (LPN):** Unique barcode assigned to trailers so that they can be traced in WMS.
- **Inbound LPN:** A unique LPN is required for each inbound receipt (Trailer) and for outbound shipments.
- **SKU:** A Stock Keeping Unit (Item)
- **Reserve Location:** Systematic locations used to track IBLPNs in the warehouse.
- **Drop Zone:** An intermediary location. Orders cannot be allocated to Drop Zones.
- **Wave:** Waves are records that match open Orders with allocatable inventory in the warehouse. When an allocation is created, WMS also creates a Picking Task.
- **Allocation:** The process of matching an Outbound Order with LPNs available in the inventory.
- **Outbound LPN (OBLPN):** An LPN that is packed for shipping. For Full LPN allocations, the IBLPN equals the OBLPN.

Description of Statuses

IBLPN Statuses

- **Quality Check:** LPN pending Quality Check.
- **In Receiving:** LPN is in the process of receiving at the Receiving Station. Only applies to flows using the "Sort and Receive" RF module.
- **Received:** This status defines an LPN received with no location specified (i.e. LPN not received at a dock).
- **Located:** LPN is located to a WMS location (Dock, Reserve, Drop, etc.).
- **Reserved:** IBLPN is pending distribution (only applies to IBLPNs in Put To Store flows).
- **Partly Allocated:** Part of the LPN's contents are allocated to orders.
- **Allocated:** LPN is allocated to orders.
- **Consumed:** This status defines an LPN received and located to an active location
- **Lost:** LPN is lost during cycle counting.

OBLPN Statuses

- **Outbound Created:** OBLPN is created from a wave (either through Full LPN or cubed allocation).
- **In Picking:** OBLPN is in the process of being picked (only applies when LPN has an intermediate "Picked" status).
- **Picked:** OBLPN is picked.
- **In Packing:** OBLPN is in the process of being packed.
- **Packed:** OBLPN is packed.
- **Loaded:** OBLPN is currently loaded into an Outbound Load.
- **Shipped:** OBLPN is shipped.
- **Delivered:** OLBPN is delivered to its destination facility (another warehouse).
- **Cancelled:** OBLPN is cancelled (when a packed OBLPN is converted back to an IBLPN).

Task Statues

- **Ready:** Task is generated in "Ready" status when the "Create Held Flg" in the Task Template is disabled. This Task appears in the RF's Task List.
- **HELD:** Task is generated in "HELD" status when the "Create Held Flg" in the Task Template is enabled. This Task does NOT show up in the RF's Task List.
- **Processing Started:** User started the Task (at least one LPN is scanned).
- **Completed:** User ended the Task (all OBLPNs are placed in the drop location).
- **Cancelled:** User cancels the Task from the UI (*Tasks* screen).

Cycle Count Adjustment screen Statuses

- **In Progress:** This status only applies to counts performed in non-active locations. This status is triggered when you scan the first LPN in a location.
- **No Variance:** When a Cycle Count is complete and the count did not have ANY inventory discrepancies, the record is updated to 'No Variance' status.
- **Approved:** Record in 'Pending' status changes to 'Approved' status after approving a record by clicking the 'Approve' button, provided that all validations are passed. Note that inventory adjustments and Inventory History records are posted at this point.
- **Rejected:** Record in 'Pending' status changes to 'Rejected' status after rejecting a record by clicking the 'Reject/Recount' button, provided that all validations are passed. Rejecting a record triggers another CC task.
- **Cancelled:** Record in 'Pending' status changes to 'Cancelled' status after rejecting a record by clicking the 'Cancel' button. Cancelling a record does not trigger a CC task.

Roles and Permissions

Permissions for role: ADMINISTRATOR					
1	Add company	11	Change facility	21	Modify view columns
2	Delete company	12	Delete facility	22	Reorder view columns
3	Change company	13	Modify view columns	23	Save group view
4	Add user	14	Reorder view columns	24	Save user view
5	Delete user	15	Save company view	25	Modify menus
6	Change user	16	Save group view	26	Save company menu
7	Add group	17	Save user view	27	Save group menu.
8	Delete group	18	Modify menus		
9	Change group	19	Save company menu		
10	Add facility	20	Save group menu		

*By default, Administrators have access to all companies that the facility is eligible for.

Permissions for role: MANAGEMENT			
1	Change user	11	Save group menu
2	Add user	12	Modify view columns
3	Add facility	13	Reorder view columns
4	Change facility	14	Save group view
5	Delete facility	15	Save user view
6	Modify view columns	16	Modify menus
7	Reorder view columns	17	Save group menu.

Permissions for role: MANAGEMENT

8	Save group view		
9	Save user view		
10	Modify menus		

Permissions for role: SUPERVISOR

1	Change user
2	Change facility
3	Modify view column
4	Reorder view columns
5	Save group view
6	Save user view
7	Modify menus
8	Save group menu.

Permissions for role: GUARD

1	Read-only access; users cannot create, copy, edit or delete.

Permissions for role: EMPLOYEE

1	Read-only access; users cannot create, copy, edit or delete.

*Note these permissions apply for the UI screens only; RF permissions are not affected.

Inbound Sorting Criteria

Inbound Sorting Criteria	Description
Destination Area	Directed Putaway Area
Destination Aisle	Directed Putaway Aisle
Destination Allocation Zone	Directed Putaway Allocation Zone
Location Size Type	Directed Putaway Location Size Type

Task Selection Screen – Selection Criteria

Task Template Type: Regular

Selection Criteria fields:

Item Fields	Location Fields	Inventory (LPN) Fields	Order Fields
Putaway Type	To Task Zone	IB LPN Nbr	Shipto Facility Code
Item External Style	From Active Task Zone	LPN is Pallet	Dest Company Code
Item Sortable Flag	From Reserve Task Zone	Pallet Number	Dest Facility Code
Item Conveyable Flag	From Active Aisle		Customer Address
Item Custom Attribute 1	From Active Area		Customer Number
Item Hierarchy Code 1	From Inventory Item Code		Customer Name
Item Hierarchy Code 2	From Reserve Aisle		Order Nbr
Item Hierarchy Code 3	From Reserve Area		Order Type
Item Hierarchy Code 4	From Reserve Level		Cust PO Nbr
Item Hierarchy Code 5	Location Pick Sequence		Cust Field 1
VAS Group Code	From Location Barcode		
	Location Alloc Zone		

Ordering Criteria fields:

Item Fields	Location Fields	Inventory (LPN) Fields	Order Fields
Putaway Type	To Task Zone	IB LPN Nbr	Shipto Facility Code
Item External Style	From Active Task Zone	LPN is Pallet	Dest Company Code
Item Sortable Flag	From Reserve Task Zone	Pallet Number	Dest Facility Code
Item Conveyable Flag	From Active Aisle		Customer Address
Item Custom Attribute 1	From Active Area		Customer Number
Item Hierarchy Code 1	From Inventory Item Code		Customer Name
Item Hierarchy Code 2	From Reserve Aisle		Order Nbr
Item Hierarchy Code 3	From Reserve Area		Order Type
Item Hierarchy Code 4	From Reserve Level		Cust PO Nbr
Item Hierarchy Code 5	Location Pick Sequence		Cust Field 1
VAS Group Code	From Location Barcode		
	Location Alloc Zone		

Task Template Type: CC

Selection Criteria fields:

Location Fields	Item Fields	Inventory (LPN) Fields
Dedicated company	Calculated code	Batch
Area	Alternate code	Expiry Date
Aisle	Description	
Bay	Barcode	

Location Fields	Item Fields	Inventory (LPN) Fields
Level	Unit cost	
Position	Hazmat	
Type	Create Timestamp	
Barcode	Mod Timestamp	
To be counted flag	Mod User	
Create Timestamp	Part a	
Mod Timestamp	Part b	
Lock Code	Part c	
Last Count Timestamp	Part d	
Last Count User	Part e	
Size Type	Part f	
Allow Reserve Partial Pick Flag	External Style	
Alloc Zone	VAS Group Code	
Lock for Putaway Flag	Pre Pack Code	
Pick Zone	Short Description	
Replenishment Zone	Putaway Type	
Task Zone	Is Parent Flag	
Cust field 1	Product life	
Cust field 2	Velocity Code	
Cust field 3	Season Code	
Cust field 4	Brand Code	
Cust field 5	Hierarchy 1 Code	

Location Fields	Item Fields	Inventory (LPN) Fields
Pick Sequence	Hierarchy 2 Code	
Putaway Sequence	Hierarchy 3 Code	
	Hierarchy 4 Code	
	Hierarchy 5 Code	
	Require Batch flag	
	Conveyable Flag	
	Sortable Flag	

Ordering Criteria fields:

Location Fields	
Dedicated company	Pick Zone
Area	Replenishment Zone
Aisle	Task Zone
Bay	Cust field 1
Level	Cust field 2
Position	Cust field 3
Type	Cust field 4
Barcode	Cust field 5
To be counted flag	Pick Sequence
Create Timestamp	Putaway Sequence
Mod Timestamp	
Lock Code	
Last Count Timestamp	

Location Fields	
Last Count User	
Size Type	
Allow Reserve Partial Pick Flag	
Alloc Zone	
Lock for Putaway Flag	

Serial Number Transactions

The following is a list of RF transactions that support Serial Number validation:

Inbound Transactions:

- Receive Shipment
- Receive Load
- Create LPN and Create LPN Location
- Split Inbound LPN
- Modification of Inbound LPN
- Putaway to Active/Reserve Location
- Distribute LPN
- Cycle Counting
- RF Audit Inbound LPN

Outbound Transactions:

- Pack OB LPN
- Pick Cart
- Pack NC Active LPN
- Pick from Reserve
- Bulk Pick from Reserve/Active
- Distribute LPN
- RF-Repack OBLPN
- Split Combine OBLPN
- RF Loading
- Modify/Cancel OB LPN
- RF Audit OBLPN