

Oracle Warehouse Management Cloud

Online Help

Release 22D



Oracle Warehouse Management Cloud
Online Help

Release 22D

F60720-03

Copyright © 2022, Oracle and/or its affiliates.

Author: Oracle WMS Cloud Product Team

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

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

If this is software, software documentation, data (as defined in the Federal Acquisition Regulation), or related documentation that is delivered to the U.S. Government or anyone licensing it on behalf of the U.S. Government, then the following notice is applicable:

U.S. GOVERNMENT END USERS: Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs) and Oracle computer documentation or other Oracle data delivered to or accessed by U.S. Government end users are "commercial computer software," "commercial computer software documentation," or "limited rights data" pursuant to the applicable Federal Acquisition Regulation and agency-specific supplemental regulations. As such, the use, reproduction, duplication, release, display, disclosure, modification, preparation of derivative works, and/or adaptation of i) Oracle programs (including any operating system, integrated software, any programs embedded, installed, or activated on delivered hardware, and modifications of such programs), ii) Oracle computer documentation and/or iii) other Oracle data, is subject to the rights and limitations specified in the license contained in the applicable contract. The terms governing the U.S. Government's use of Oracle cloud services are defined by the applicable contract for such services. No other rights are granted to the U.S. Government.

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

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

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

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

Contents

Get Help	i
<hr/>	
2 System Overview	3
Parent Child Company Hierarchy	3
User Menu Configuration	4
Creating Users	7
Creating Support Users	11
Configuring Menus for Users	13
System Integration Framework	20
3 Inbound	29
Overview	29
Purchase Orders (PO)	30
Inbound Shipments	36
Trailer UI	71
Checking in a Load	72
Appointments	74
Sort and Receive	77
Receiving	82
Receiving ASNs without the RF	128
Receiving Options	130
Checking Out a Load	155
Inbound Sorting	156
Putaway	160
Suggested Putaway	174
Locate LPN to any Reserve Location	176
4 Material Handling Equipment (MHE)	179
Material Handling Equipment in Oracle WMS Cloud	179
Common MHE Flows	181
Configuration	189

5	Outbound	199
	Outbound Orders	199
	Creating Orders in WMS	201
	AI/ML Predictive Fulfillment Dashboard	206
	Shipping Tolerance	208
	Order Integration into WMS	214
	Waves	214
	Picking	244
	Packing	253
	Pack with Wave	262
	Outbound Audit	266
	LTL Load Management and Shipping	271
	Parcel Configuration, Load Management, and Shipping	277

6	Inventory Management	291
	Inventory Types	291
	Item Master	291
	Alternate Barcodes	296
	Required Item Fields	297
	Printing Item Labels	297
	Location Master	300
	Inventory Screens	304
	Formatting Rules for Inventory Attributes	315
	Combining / Splitting IB LPNs	325
	Cycle Count	326
	Lot Management	352
	Expiration Dates	353
	Recall Control	354
	Serial Number Tracking	355
	Replenish to Assembly Location	360
	Task Execution	367
	Overview of Replenishment	374
	Replenishment with Picking Wave	388
	Multi-Level Replenishment	396
	Kitting	404
	Make to Stock Flow	407
	Make to Order Flow	414

De-Kitting 415

7 Extra Configuration 421

Sequence Counters 421

Barcode Types 422

Printers 423

Print Custom Reports from UI 424

8 Appendix 429

Definitions 429

Description of Statuses 429

Roles and Permissions 431

Inbound Sorting Criteria 433

Task Template Type: Regular 433

Task Template Type - CC 435

Serial Number Transactions 437

Get Help

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

Get Help in the Applications

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

Get Support

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

Get Training

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

Join Our Community

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

Learn About Accessibility

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

Share Your Feedback

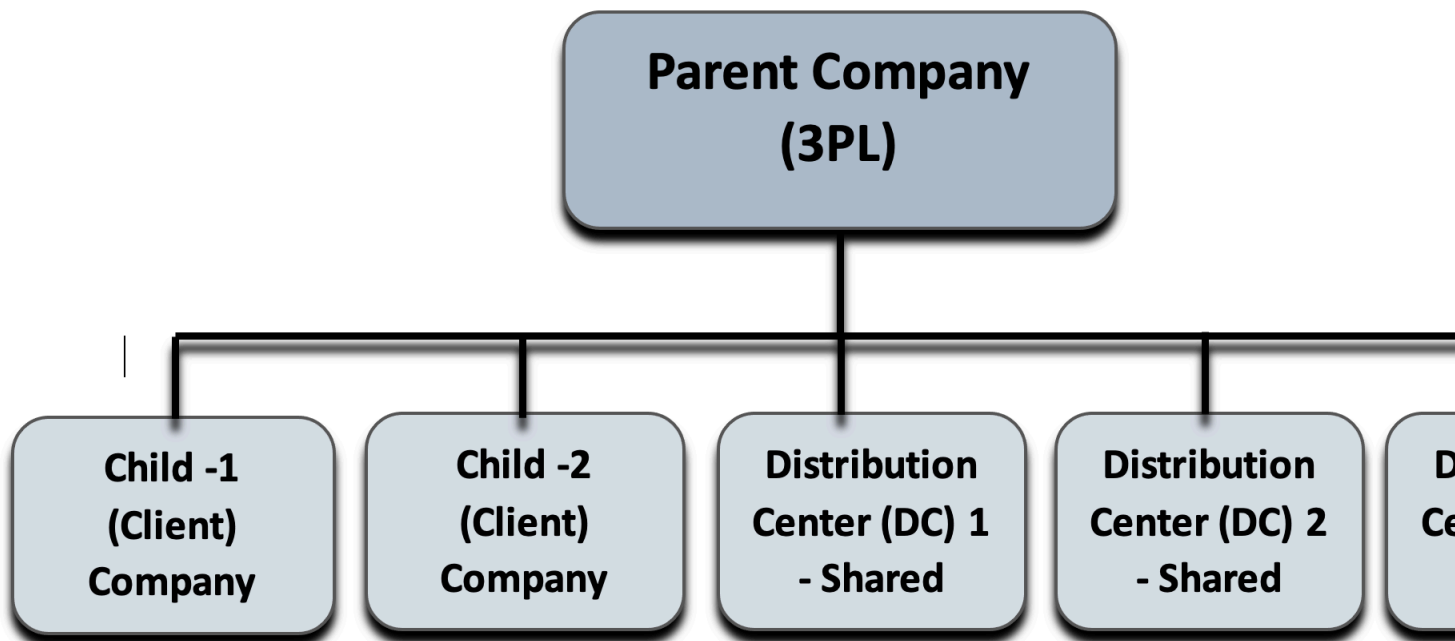
We welcome your feedback about Oracle Warehouse Management. If you need clarification, or find an error, you can direct your questions via a service request to [My Oracle Support](#).

2 System Overview

Parent Child Company Hierarchy

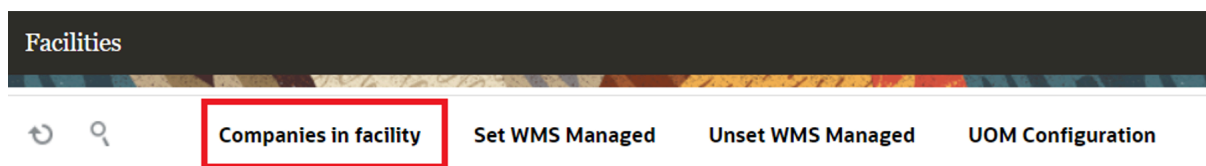
A Parent Company (3PL) allows you to store inventory based on the location by either dedicating the location for a specific (Client) company or storing inventory of different companies in a Distribution Centers (DCs) given the inventories are distinguishable, physically.

While, the Child (Client) company tracks and monitor their entity, this approach benefits the 3PL to view and manage the warehouse operation for their DCs, for example, inventory or labor management of different company's inventory. This provides the 3PL system to control and decide on managing multiple company's inventory to be stored in the available DC.



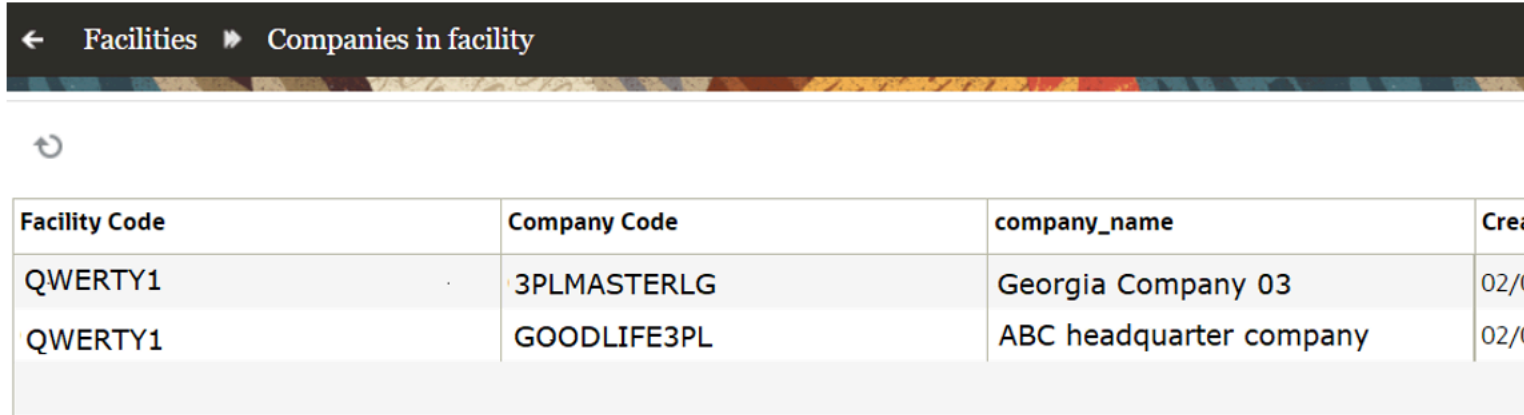
Depending on the number of clients and the DCs, this structure helps the 3PL to view and manage their warehouses accordingly through eligible Companies in facility at the Facility level.

You can view and manage the company's inventory to be stored in the DC via Companies in facility action button in the Facilities UI.



To add company to the facility, select the facility > Companies in facility. If the facility has multiple company, you can choose the child company from the Company Code drop down.

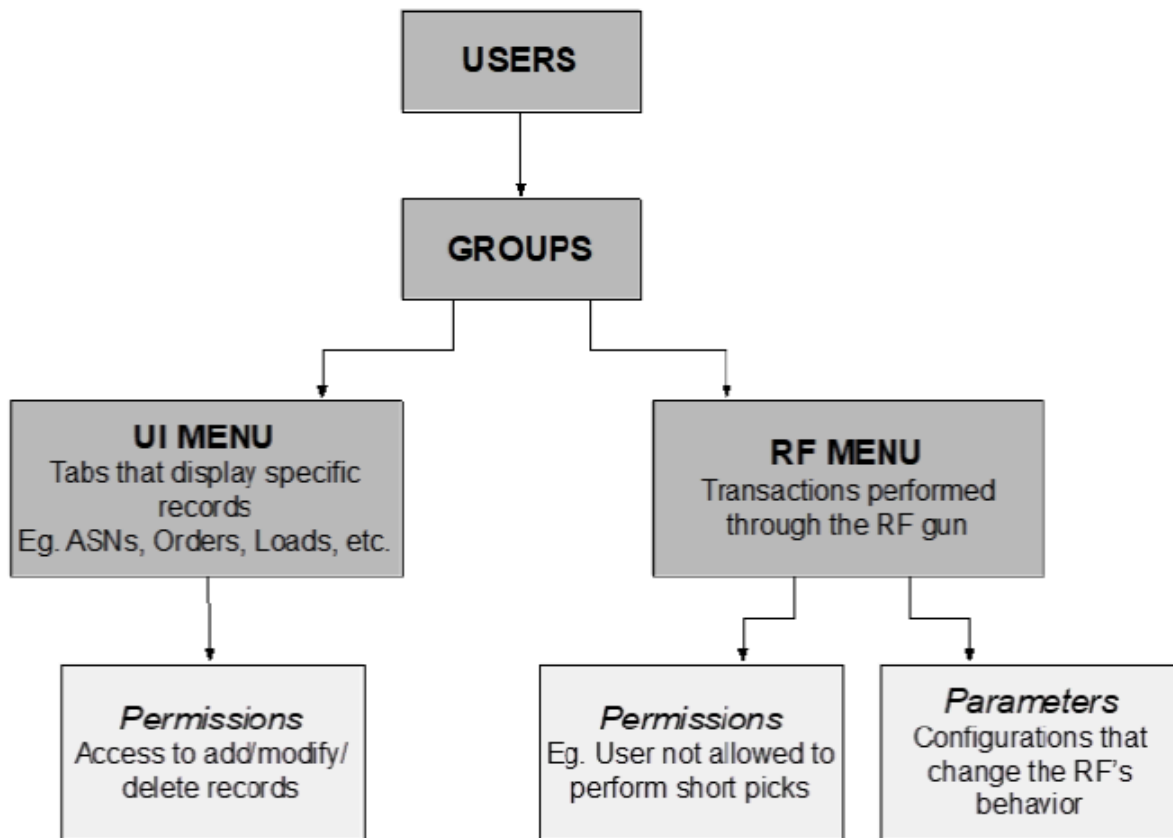
In the following figure, the first drop-down denotes a facility (DC), while the second drop-down denotes the companies in the environments.



Facility Code	Company Code	company_name	Cre
QWERTY1	3PLMASTERLG	Georgia Company 03	02/0
QWERTY1	GOODLIFE3PL	ABC headquarter company	02/0

User Menu Configuration

Oracle Warehouse Management organizes the user structure in the following way:



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 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:

The screenshot shows the Oracle WMS 18C 'Items' page. The top navigation bar includes 'ORACLE WMS 18C', a search icon, and a dropdown menu for 'QATST01 - QATSTPC'. Below the navigation bar is a menu with options: 'Facility parameters', 'Facilities', 'Users', 'Group Configuration', 'Modules', 'Task Creation Template', 'Companies', 'Orders', 'Company Parameters', 'IB LPNs', and 'Items'. The 'Items' menu is active, and the page title is 'Items'. Below the title are icons for 'Print Label', 'Item Pre-Pack', and 'Item Material Hazard'. The main content is a table with the following columns: 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, and Unit Leng.

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 following figure.

```
1) Execute Task
2) Receive LPN Shipment
3) Receive LPN (XDOCK)
4) Receive LPN Shipment Expiry
5) Receive LPN Shipment Cases
=> _____

Env:
Ctrl-L: Change Language
Ctrl-F: Change Facility
Ctrl-U: Page Up
Ctrl-D: Page Down
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

*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:

LogFire WMS FACILITY/PAR

```
1) Execute Task
2) Receive LPN Shipment
3) Receive LPN (XDOCK)
4) Receive LPN Shipment Expiry
5) Receive LPN Shipment Cases
=> _____
```

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
- The user’s role (Administrator, Management, Supervisor, etc.)
- The user’s default Group (UI and RF Menus)
- The user’s Language (corresponding/desired/appropriate supported language)
- The user’s default printer
- The user’s fixed Equipment Type


How to Create New Users

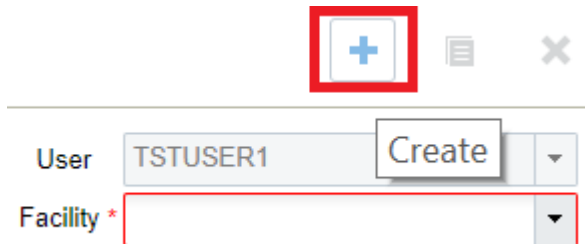
1. Go to the “Users” screen.
2. Click ‘Create’ (+) and populate the necessary fields:

Note: the Alternate Username field should NOT be populated UNLESS the user is also set up in IDCS. See the [SSO and Alternate Authentication Setup](#) document for more details.

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.

Active	Login	First Name	Last Name	Password Life in Days	Id
No	TSTUSER1	TEST	SUP User1	365	tst001

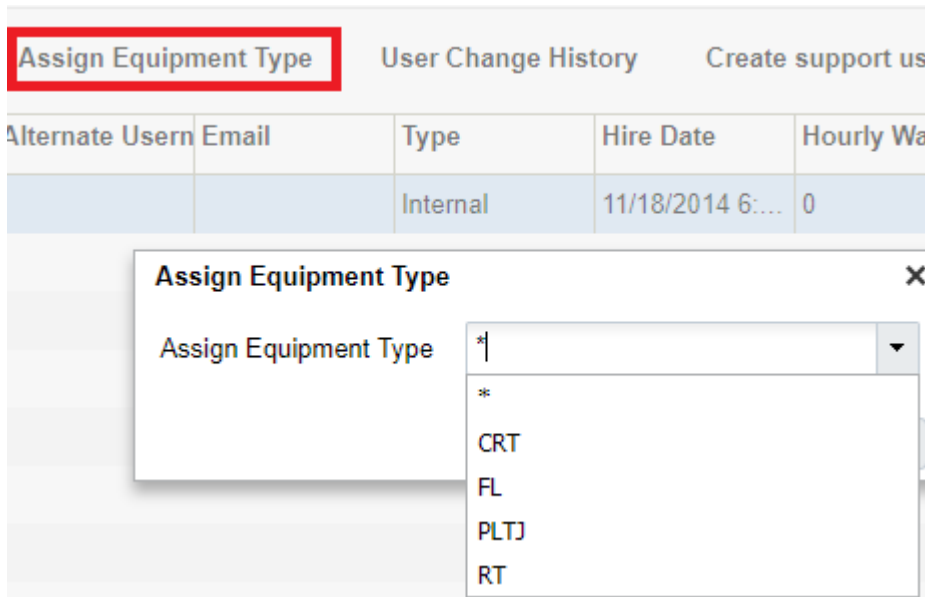
- This will take you to a new screen displaying all of the records the user currently has access to. Click 'Create' () to add new Facilities or Companies:



The screenshot shows a user interface with a 'Create' button (a square with a plus sign) highlighted by a red box. Below it is a form with a 'User' field containing 'TSTUSER1' and a 'Facility *' field which is empty and also highlighted by a red box. A 'Create' button is positioned to the right of the 'User' field.

- When finished, click 'Back' to return to the main screen.
- To assign Equipment Types to the user, from the user screen, select the user, select an Equipment Type from the drop-down menu, and click "Assign Equipment Type".

Note: Equipment Types must be defined first in the "Equipment Types" screen before assigning them to users.



The screenshot shows a table with columns: Alternate User, Email, Type, Hire Date, and Hourly Wa. The 'Assign Equipment Type' button is highlighted with a red box. Below the table, a modal dialog box titled 'Assign Equipment Type' is open, showing a dropdown menu with the following options: *|, *, CRT, FL, PLTJ, and RT.

Alternate User	Email	Type	Hire Date	Hourly Wa
		Internal	11/18/2014 6:...	0

Igfapi Archive Level

The Igfapi Archive Level feature in Warehouse Management will record data in the Igfapi Archive UI if you enable the field 'Igfapi Archive level' for a user in the Users UI. The following are details about actions for Igfapi Archive Level:

- NONE - No archiving
- ALL - Archive all request/response
- ERROR - Archive only on error
- EDIT_AND_ERROR - Archive when the HTTP method is not HEAD or GET, or on error

Note: This feature is enabled for all Rest APIs included in this REST API Guide. However, it is not enabled for the legacy APIs.

Password Requirements

The following are the user password requirements for Oracle WMS Cloud:

- Password cannot match username
- Password must be at least 6 characters. The password character length can be overridden per company by an ADMIN role user.
- Password must have a combination of alphabetic and numeric characters.
- Password should not have too many repeated characters.
- Password cannot be a reverse of the username.
- Password cannot be a portion of the username.
- Username cannot be a portion of the password.
- Use a more complex rather than simple password. Examples of a simple password: using 123, 1234, abc, abcd, admin, logfire, or the word “password” as part of the password.)
- Cannot repeat recently used password.

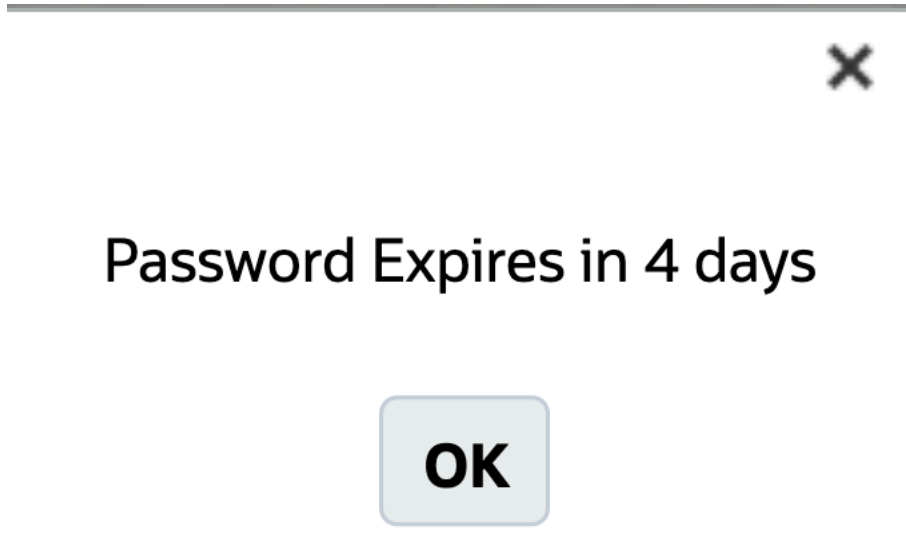
Password Expiration

You can manage when your password expires via Company level security settings. From **Companies**, ADMIN users can go to **Company Security Configuration** to adjust the values.

Modules	Wave Inquiry	OB Orders	Input Interfaces (9)	INV HISTORY	User	Companies
← Companies ▶ Company Security Config						
Min password life in days			1			
Min password length			6			
Password history count			3			

Password Expiration Warning

WMS will notify RF and UI users when they are approaching their password expiration. The WMS RF and UI expiration pop-up range is less than or equal to day 7. After day 0, the system will not show this message instead it will show that your password has expired.



Note: This password rule only applies if WMS local authentication is used. Any external authentication mechanisms like Oauth2 and SSO are managed by your Identity provider and for external authentication, WMS does not notify users of password expiration.

Creating Support Users

In some instances, you may need to transfer files securely or view log files as the Oracle WMS Cloud (WMS) support team is assisting you with any existing issues. To initiate this process, you will need to create a support user in WMS. Once a customer creates a support user, the **support team** will have access to log files and other tools required to analyze the customer database.

To create a support user in WMS, complete the following steps:

1. From the **Users** screen in WMS, search for any existing user that you want to use as a template to create the support user. For example, if you want Oracle support to investigate a specific issue that was happening to user ABC, select ABC and then create a support user from that.

Note: The Create Support Users option will be available only if you select a user that is not currently a support user (see support user column). The reason is that the selected user serves as a template for the support user that is about to be created and you can't use an existing support user as a template.

Once your support user is created, this support user is secure and there is not an option for any other users to copy or edit any existing support users.

- Highlight the user and click **Create Support User**.

Active	Login	First Name	Last Name	Password Life in Days	Role	Id
Yes	[Redacted]	[Redacted]	[Redacted]	365	ADMINISTRATOR	ccdda164351...
Yes	[Redacted]	[Redacted]	[Redacted]	365	ADMINISTRATOR	ag918298293

- Populate the username and user details for the support user:

Create Support user [X]

Username *

First Name *

Last Name *

Oracle E-mail Address *

Account life in Days *

Note: It is recommended that you use the service request number for the username. This will make it easy for you to identify in the future which Support Users you can delete, since support users are separate from your personal users. Also, you must use a valid first and last name and email address associated with Oracle.

- Specify the account life in days. (the default is 10 and the maximum is 28 days.)
- Click **Submit**.

The Oracle support engineer (the person specified in the support user creation popup) will receive one email with instructions and a link for them to activate the support user and a second email with the password for the user.

Managing Your Support Users

As soon as any issues associated with your support user are resolved, you can go back in and delete the associated support user.

If you do not delete your support user, the system will automatically disable the support user once the account life in days is reached and the support user can't be reactivated at this point.

Configuring Menus for Users

This section describes how to configure Menus for users. See the following topics for more details:

Adding Group Menus

There are four steps to add Group menus

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

Adding Screens

Adding Screens

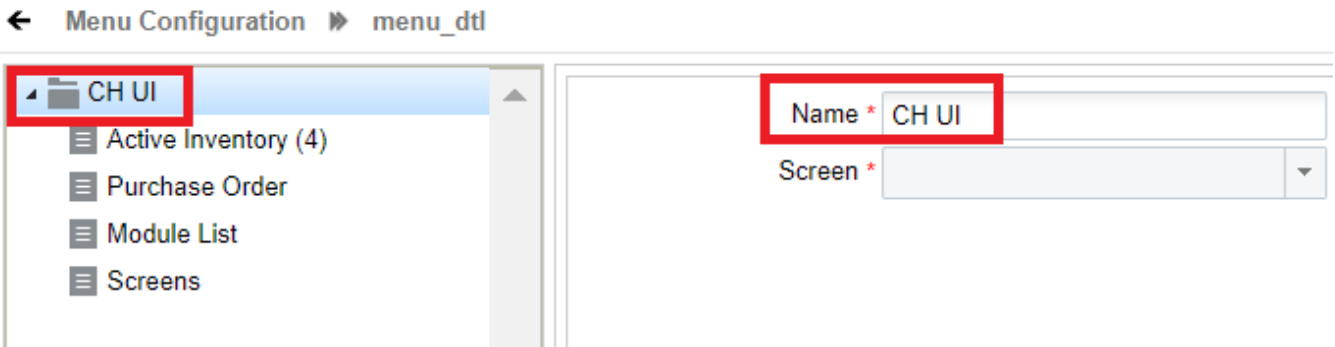
1. Go to the "Screens" UI screen.
2. Click "Generate Screens".
3. Select all the necessary screens for the Group (e.g. ASNs, Appointments, Loads, etc.). Here the user will add both UI and RF screens. Click "**Save**".

Note: For RF menus, 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.

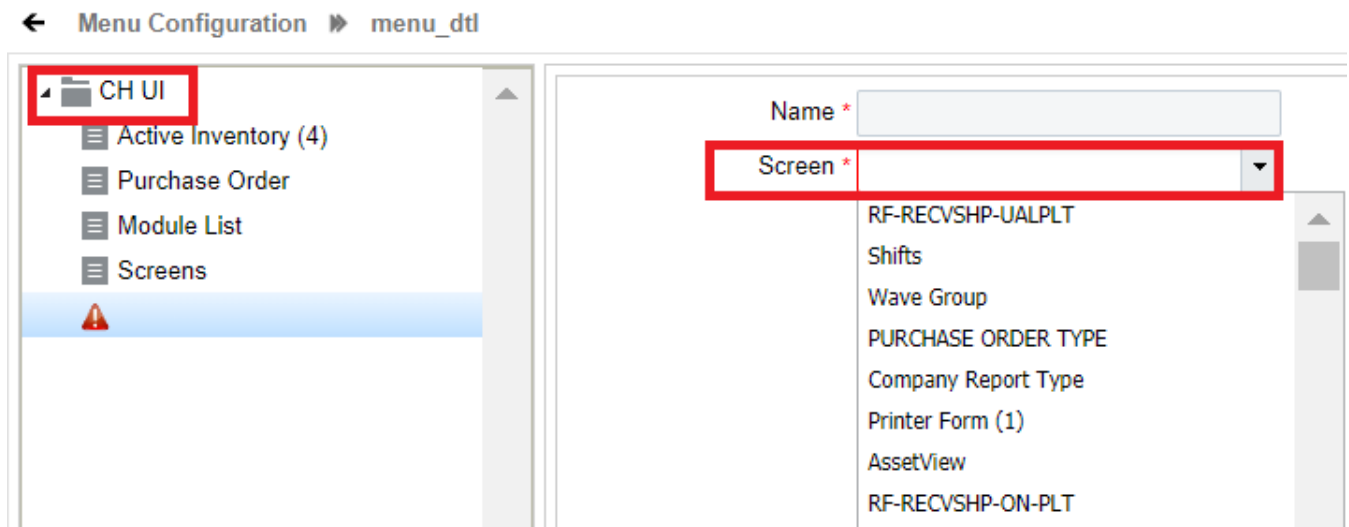
Adding Screens to Different Menus

1. Go to the "Menu Configuration" screen.
2. Create a new Menu (one for the UI and one for 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 and type in the name in the field to the right.



5. To add a screen within the folder, select the folder first, click on “Insert Screen”, and pick the screen to add from the drop-down menu.



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

Note: 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.

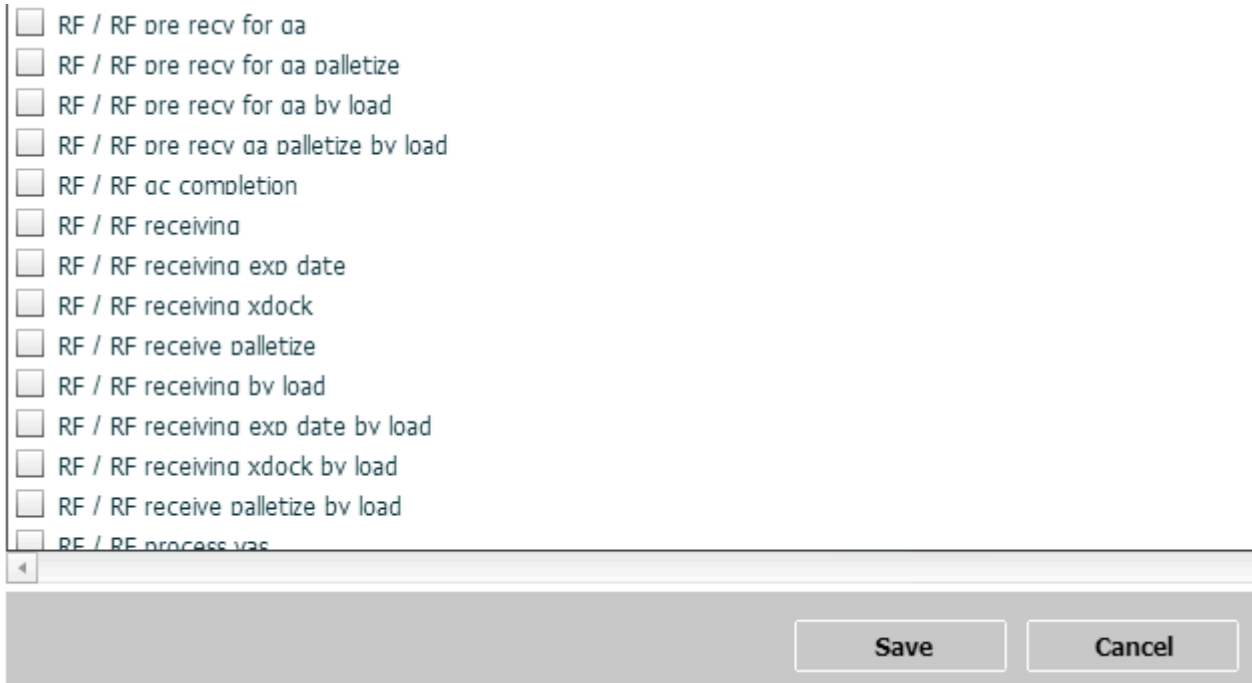
Assigning Menus to Groups

Once you set up the Menus, you can these menus to the 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”**.

Note: 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 permission activity.



A screenshot of a web interface showing a list of permissions. Each permission is preceded by an unchecked checkbox. The permissions listed are:

- RF / RF dre rcv for aa
- RF / RF dre rcv for aa palletize
- RF / RF dre rcv for aa by load
- RF / RF dre rcv aa palletize by load
- RF / RF ac completion
- RF / RF receiving
- RF / RF receiving exp date
- RF / RF receiving xdock
- RF / RF receive palletize
- RF / RF receiving by load
- RF / RF receiving exp date by load
- RF / RF receiving xdock by load
- RF / RF receive palletize by load
- RF / RF process var

At the bottom of the list, there are two buttons: "Save" and "Cancel".

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.


Note: 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.

Creating and Assigning Facilities and Companies to Users

After user and group setup is complete, you must create facilities and companies in WMS.


Step 1: Create Companies

1. Go to the “Companies” screen.

2. Click the Create () button.
3. 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.
4. 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.


1. Go to the "Facilities" screen.
2. Click the Create () button.
3. Populate the facility's information such as the Code, Name, and Address.

Functional field descriptions:

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	Indicates 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.
RF Inactive Timeout in Minutes	Allows you to set up a time limit for inactive timeout in minutes. This parameter works along with the timeout settings on the customer's network (for example: configuring keep alive/time-to-live in PuTTY). So if the time-to-live configuration is less than the WMS screen parameter, the session will end on the network side before the wms parameter time limit.

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.

1. Go to the "Users" screen.
2. Select the user to modify.
3. Click on "Eligible Facilities".
4. Using the Create () button, add the Facilities that this user will have access to.

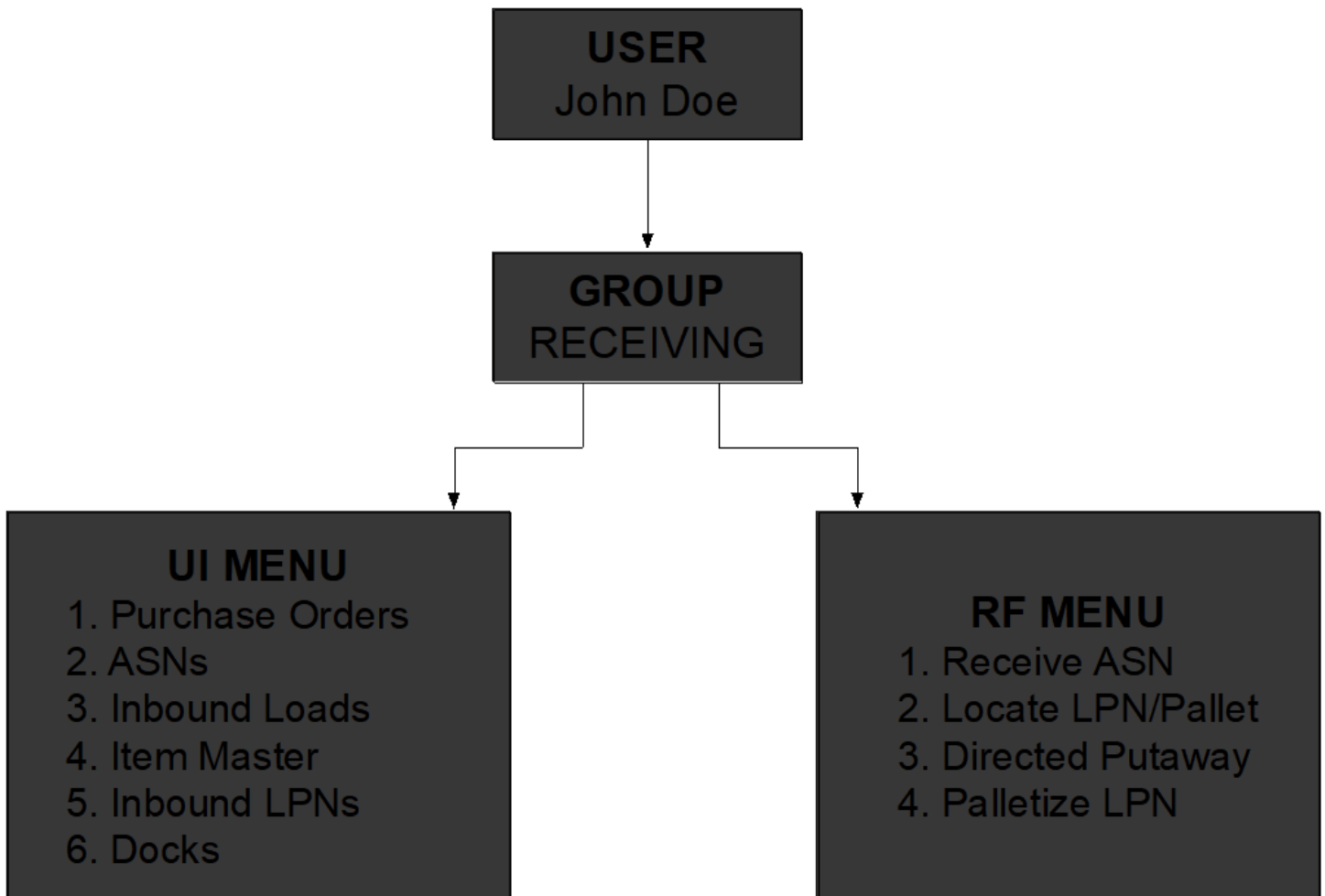
5. Repeat steps three and four for adding Companies (using the “Eligible Companies” button).

The screenshot shows the 'Eligible Companies' interface. At the top, there is a navigation bar with a back arrow, the text 'Users', and a red-bordered button labeled 'Eligible Companies'. Below this is a refresh icon. The main area contains a table with the following data:

User	Company	Company Name	Create Timestamp
TSTUSER1	QATSTPC	QA BNG TEST PC	11/19/2014 3:16:25 AM

To the right of the table is a form with two dropdown menus. The first is labeled 'User' and has 'TSTUSER1' selected. The second is labeled 'Company *' and is highlighted with a red border. Its dropdown list is open, showing the following options: NJ_COMP, TST1, TST2, and COMPANY1.

The following is an example of a User/Group set up:



Creating Deep Links

Deep Linking is an improved functionality in Oracle Warehouse Management that is aimed at enhancing usability via ease-of-access and interoperability. Using Deep Links, you can embed hyperlinks and/or buttons to modules in a Web Report or link to Oracle Transportation Management (OTM) UI.

Clicking on the hyperlinks or buttons will re-direct the screen to a new tab where the user will be able to monitor or execute actions on those screens without closing or minimizing the Oracle Warehouse Management primary screen.

UI Available for Deep Linking

A new field "allow_deep_link_flg" has been added to the **Module** UI. To enable deep linking functionality for the associated module, set the **Allow Deep Link** parameter to "Yes".

Creating Deep Links using Web Reports

The Deep Linking functionality is also extended in Web Reports Gen 2. By configuring a particular report as a Deep Link, you can click on it to access the linked URL via a new browser tab.

For example, in the following Shipment Info report, if you click on the Appointment Number hyperlink, a new UI tab will pop up on the browser.

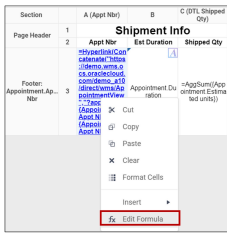


This hyperlink was configured to open the **Appointment** UI (as shown below), where you can filter records that belong to the group number selected in the report.

Appt Nbr	Status	Type	Description	Actual Dock Nb	Trailer Nbr	lb shipment cov	Estimated units Orig shipped	Lf Rcvd	LPN coun	Duration	Planned start ts	Arrived Time	Checkin Time	First LPN rcv ts	Last LPN rcv ts	Checkout 1
APCO100200...	Not Scheduled	I	Inbound	933345	1	0	0	0	90		7/31/17					

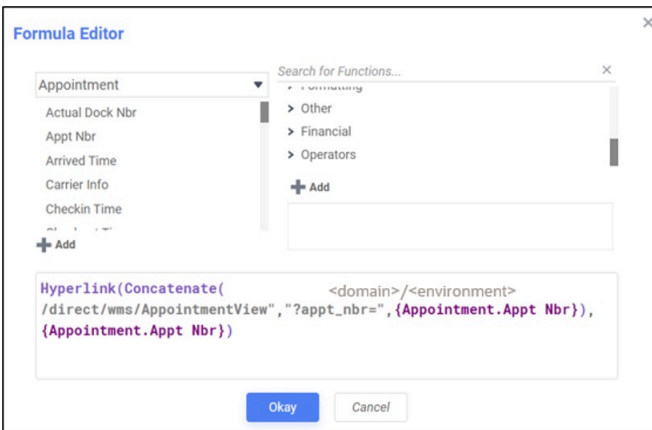
In Web Reports Gen 2, the steps to deep link a URL are as follows:

1. Navigate and right-click on the cell that contains the report that the user would like to link.
2. Click **Edit Formula**. This will open the Formula Editor pop-up.



3. From **Search for Functions**, select Other. The hyperlink will be listed under that.

In the following example, upon selecting that cell, the system will open a new window with the deep link to the Appointment View UI.



Creating Deep Links to Oracle Transportation Management (OTM)

With Deep Links, you can make dynamic decisions using information from other Oracle Cloud applications including Oracle Transportation Management. For example, load planning in Oracle Warehouse Management can be done easily with the help of information from the 3D Load Planner in Oracle Transportation Management.

The steps to deep link from Oracle Warehouse Management to Oracle Transportation Management are as follows:

1. Navigate to the SAAS App Configurations screen in Oracle WMS.
2. Select "OTM-CLOUD" as the App Name.
3. Configure the base URL by entering the user's OTM URL.

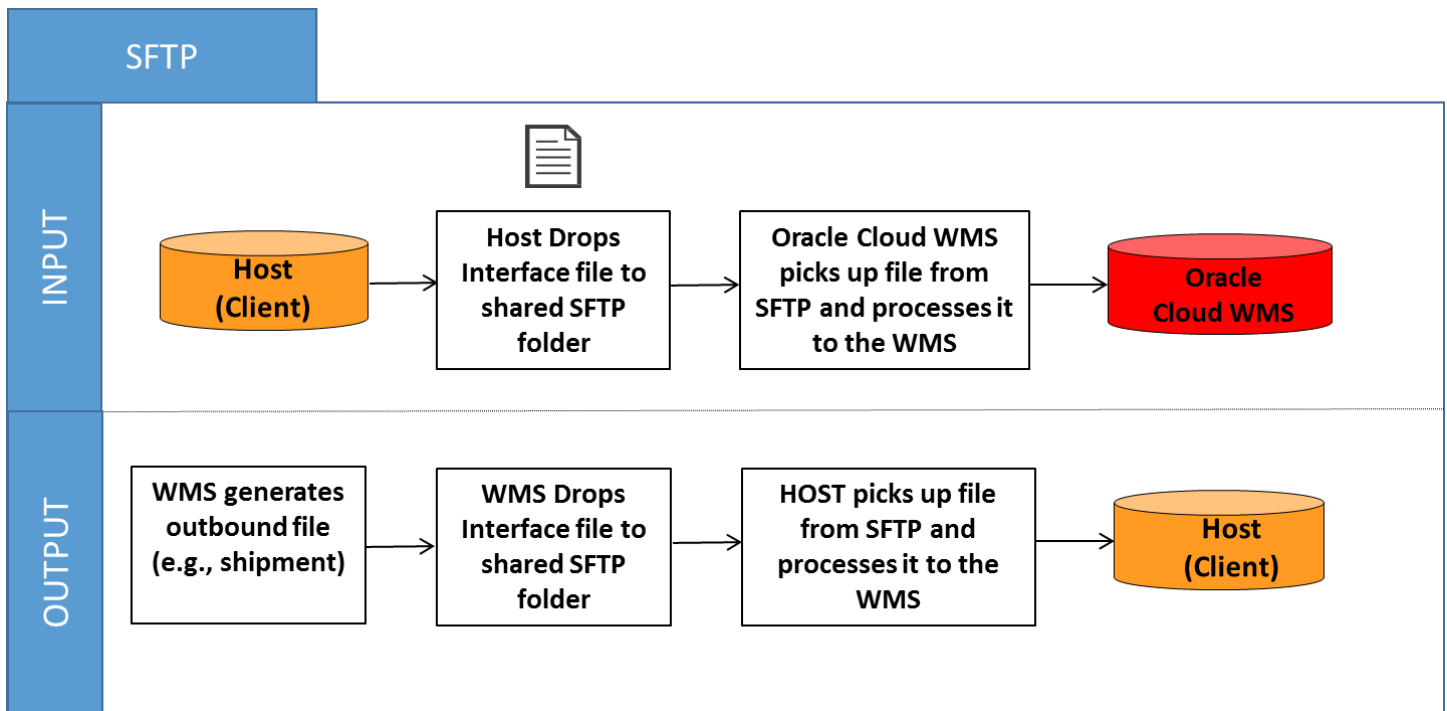
Now, the OTM Shipment button in the OB Loads UI will be enabled for loads that are being planned in OTM.

Facility	Company	Load Nbr	Route	Status	Num orders	Num ob LPNs	Trailer Nbr	Create Time	First load ts	Last load ts	Mod Time	Driver	Seal nbr	Pro nbr	Trailer Brand	Mod User
QATST01	QATSTPC	OBLD5HM2...	OBLD5HM2...	Created	4	1		2022/09/12 1...			2022/09/12 1...					SHALL01
QATST01	QATSTPC	QALOAD090...		Shipped	1	1		2022/09/09 1...	2022/09/09 1...	2022/09/09 1...	2022/09/09 1...					SHALL01
QATST01	QATSTPC	SULOAD080...	SULOAD080...	Shipped	1	1		2022/09/08 1...	2022/09/08 1...	2022/09/08 1...	2022/09/08 1...					SHALL01
QATST01	QATSTPC	OBL000000...		Created	0	0		2022/09/08 1...			2022/09/08 1...					SHALL01
QATST01	QATSTPC	JPLD220906-1	JPLD220906-1	Created	1	1		2022/09/06 1...			2022/09/06 1...					JBALL01
QATST01	QATSTPC	OBL000000...		Created	1	1		2022/09/01 1...			2022/09/01 1...					SHALL01
QATST01	QATSTPC	OBL000000...		Created	3	3		2022/09/01 1...			2022/09/01 1...					SHALL01
QATST01	QATSTPC	OBL000000...		Created	0	0	APTRL001	2022/08/30 ...			2022/08/30 ...					AMPO01
QATST01	QATSTPC	OBL000000...		Created	0	0		2022/08/26 1...			2022/08/26 1...					MKALL01
QATST01	QATSTPC	OBL000000...		Created	0	0		2022/08/26 1...			2022/08/26 1...					MKALL01

In this example, Deep Linking allows you to easily switch between the two applications and perform any necessary changes that may be required by OTM Planning. Upon selecting an Outbound Load and clicking on the OTM Shipment button, a new tab will launch allowing you to log in to Oracle Transportation and Global Trade Management.

System Integration Framework

Oracle WMS Cloud uses the following methods for processing interface files into and out of 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

Note: For more details on each interface, please refer to the Interface Specifications.

Note: To access the latest Interface Specifications, go to the [Oracle WMS Cloud Information Center](#). From the top of the page, click on the **Documentation tab**, then click the link under **Current Documentation**.

Remove Empty Element Flag

You have the option in Oracle WMS Cloud to share information to external systems through output interfaces (for example, inventory history, shipment confirmation payload). In certain scenarios where some of these output interface payloads is exposed to rest api endpoints, can be pretty huge depending upon the data present or you would not have used all the data elements for the corresponding entity involved.

In such case, you can configure the Remove Empty Elements flag for removing empty data elements that will help you reduce the payload size, which reduces the load on the integration layer and for systems that are subscribing to the relevant output.

- To reduce the payload size, the system has an ability to remove empty fields or empty data elements. You will be able to enable the feature based on configuration in the *Output Interface Config Web UI*.
- You can enable or disable the empty data elements by output interface type. This gives you the flexibility to disable empty data elements for Shipment Confirmation file and have empty data elements for LPN Inventory Interface types for example.
- Removal of empty data elements is applicable for interface format of type “XML”. If the interface type is not XML, then the configuration option will be disabled.

To enable the flag in Oracle WMS Cloud:

1. Navigate to the Output Interface configuration screen.
2. Click on the edit pane and select the interface format “XML” and select the field **Remove empty elements flag**.

The screenshot shows a configuration form with the following fields:

- Interface Type: Outbound Loads Export
- Interface Format *: XML
- Custom Interface Code: (empty text box)
- Remove Empty Elements Flag:

The 'Remove Empty Elements Flag' checkbox is highlighted with a red rectangular border.

Configure Output Interfaces Generation In UI Through Output Interface Configuration Screen

You can configure Output Interfaces generation and targets in UI through Output Interface Configuration Screen

for following files:

- Container Outbound Load Export
- Custom Inventory Summary Export
- Data Extract
- Distribution Info
- Iblpn Info
- Iblpn Report
- Inbound Shipment Verifications Export
- Inventory History Export
- Inventory Summary Export
- LPN Inventory
- OBLPN Shipping Info
- Order Outbound Load Export
- Order Verification Export
- Outbound Loads Export
- Outbound Manifest
- Output Item Export
- Output Item Facility Export
- Pallet Shipping Info
- Route Instruction
- Wave Pick Info
- Web Report

SOLUTIONS:

Considerations - 1

On completing this configurations, WMS will automatically send the interface to the output target(s). In Output Interface Configuration screen, you have the option to select following Interface Formats (if available for the interface type):

- Header/Detail
- Hierarchical
- One Line
- XML

Once an interface is generated, you can check the delivery status in Output Interface screen, download, or re-send it.

Consideration - 2

Send files to an external SFTP:

1. Go to Output Interface Configuration UI screen
2. Select the Interface Type that you wish to configure
3. Click on the “Output Interface Target” icon which is located next to the search icon at the top-left.
4. Select the only line available and click on the “Edit” icon. Complete as shown below:

- Sequence Nbr:1
- MHE System: blank
- Interface Protocol *: External SFTP
- URL: blank
- FTP Host: Your SFTP Host
- FTP Port: Your SFTP Port
- Target Directory: The SFTP directory you want the file to be located
- Username: Your SFTP user
- Password: Your SFTP password
- Encrypt File: unchecked
- Encrypt Recipient: blank
- Send Acknowledgment Email: unchecked
- Max Retries: 3
- Retry Delay (Seconds): 10
- Send Failure Email: Check if you want to receive an email when it fails
- Custom Integration: unchecked
- Enabled: checked

5. Repeat steps for other interface types

Consideration -3

Send files through REST Web Service

1. Go to Output Interface Configuration UI screen
2. Select the Interface Type that you wish to configure
3. Click on the “Output Interface Target” icon which is located next to the search icon at the top-left.
4. Select the only line available and click on the “Edit” icon. Complete as shown below:

- Sequence Nbr:1
- MHE System: blank
- Interface Protocol *: External SFTP
- URL: Web Service URL
- FTP Host: blank

- FTP Port: blank
- Target Directory: blank
- Username: Your Web Service user
- Password: Your Web Service password
- Encrypt File: unchecked
- Encrypt Recipient: blank
- Send Acknowledgment Email: unchecked
- Max Retries: 3
- Retry Delay (Seconds): 10
- Send Failure Email: Check if you want to receive an email when it fails
- Custom Integration: unchecked
- Enabled: checked

5. Repeat steps for other interface types

Consideration - 5

Output Interface Criteria

Here, you can configure criteria to make WMS select an output target depending on the interface's content. For example, you can have an interface delivered to TARGET-A (SFTP) if the interface contains ITEM-A, or TARGET-B (Web Service) if the interface contains ITEM-B.

1. Go to Input Interface Configurations screen.
2. Select the required interface and click on "Output Interface Target".
3. Configure more than 1 target with difference sequence numbers (as explained in previous steps).
4. Click on each and click on "output_interface_target_criteria".
5. Click on add (+) and complete, for example:
 - Column name: Shipment Type
 - Sql operator: =
 - Column value: SHIPMENT-A
6. Configure criteria for other targets

Configure Auto Print for Documents in Output Interface

When an Outbound Load is shipped/loaded, Auto-Printing of documents (for example., Bill of Lading (BOL) and Commercial Invoice) can be configured in the Output Interface Configuration UI. Auto Printing is completed via a printer, or the documents are sent via an Email based on the event trigger that has been configured.

For Example, an event like Outbound Load being Shipped (and/or Loaded) can trigger the generation of the documents (BOL and/or Commercial Invoice) and can be automatically printed/emailed through the Output Interface.

Output Interface Configuration UI

You can configure generation of 'Bill of Lading and Commercial Invoice' Documents through the Output Interface Configuration UI. To configure auto-printing:

1. Go to the Output Interface Configuration UI.
2. In the edit pane, select from the 'Interface Type' drop-down, 'Bill of lading' or 'Commercial Invoice.'
3. From the Interface Format drop-down, select 'Other'.
4. Click Save.

Note: 'Interface Format' is a mandatory field.

Output Interface Target UI

After the 'Output Interface Configuration' screen is setup, navigate to details screen (Output Interface Target UI).

Complete the following steps to configure the sequence of the document to be printed or emailed:

1. Create a record by clicking on '+'.
2. In the create pane, enter the sequence number in the 'Sequence Nbr' field.
3. From the Interface Protocol drop-down, select 'None', 'Email', or 'Printer.' .
4. When the Email protocol is selected, you can enter the email address in the 'Email' field.
5. When the Printer protocol is selected, you can configure the printer through the 'Printer' drop-down.
6. By default, the 'Enabled' checkbox is not active. You can enable the target to which the output interface file is to be sent by 'checking' the box.

Note: All in the fields in the create/edit pane will be frozen except the relative fields to the Printer or Email option selected in the Interface Protocol field.

Note: If you don't need to print or email the document, then you can select the 'None' drop-down value. The BOL document will still be generated and is visible in the Output Interface UI. However, the Commercial Invoice document won't be visible in the Output Interface UI.

Event Trigger UI

You can create the Bill of Lading and Commercial Invoice trigger records in the Event Trigger UI. Documents (BOL/Commercial Invoice) will be auto-generated at the time of the configured trigger.

The screenshot shows the 'Event Triggers (1)' interface. On the left is a table with columns: Entity, Status, Document, Sequence Nbr, Enabled, Create Timestamp, Mod Timestamp, and Mod User. On the right is a configuration pane with fields for Entity, Status, Document, Sequence Nbr, and an Enabled checkbox.

Entity	Status	Document	Sequence Nbr	Enabled	Create Timestamp	Mod Timestamp	Mod User
Outbound Load	Loaded	Commercial Invoice	3	Yes	09/12/2022 4:04:50 PM	09/12/2022 4:05:10 PM	RMALL01
Outbound Load	Shipped	Commercial Invoice	2	Yes	09/12/2022 4:03:44 PM	09/12/2022 4:03:44 PM	RMALL01
Outbound Load	Loaded	Bill of Lading	1	Yes	09/12/2022 4:03:24 PM	09/12/2022 4:03:24 PM	RMALL01

Configuration pane details:

- Entity: [Dropdown menu]
- Status: [Dropdown menu]
- Document: [Dropdown menu]
- Sequence Nbr: [Text input field]
- Enabled:

To configure the Event Triggers:

1. From the 'Event Triggers'UI, Click (+) and enter the following details:
 - a. Entity: Outbound Load (as the documents will be printed based on the status of the OB Load)

- b. Status: Loaded/Shipped (the document generation is triggered when the configured status is change
 - c. Document: Bill of Lading/Commercial invoice
 - d. Sequence: Enter any sequence number by which the document is to be printed or to be mailed.
2. By default, the 'Enabled' checkbox is active. You can disable the event trigger functionality by unchecking the box.
3. Click Save.

Uploading Interface files with WMS

If you are manually preparing the input interface file via Excel, it is important to follow following 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	<input type="text" value="SNEPHEW"/>
Parameter Key	<input type="text" value="INTF_ERROR_EMAIL_LIST"/>
Parameter Value	<input type="text" value="joe@email.com,jane@email.com"/>

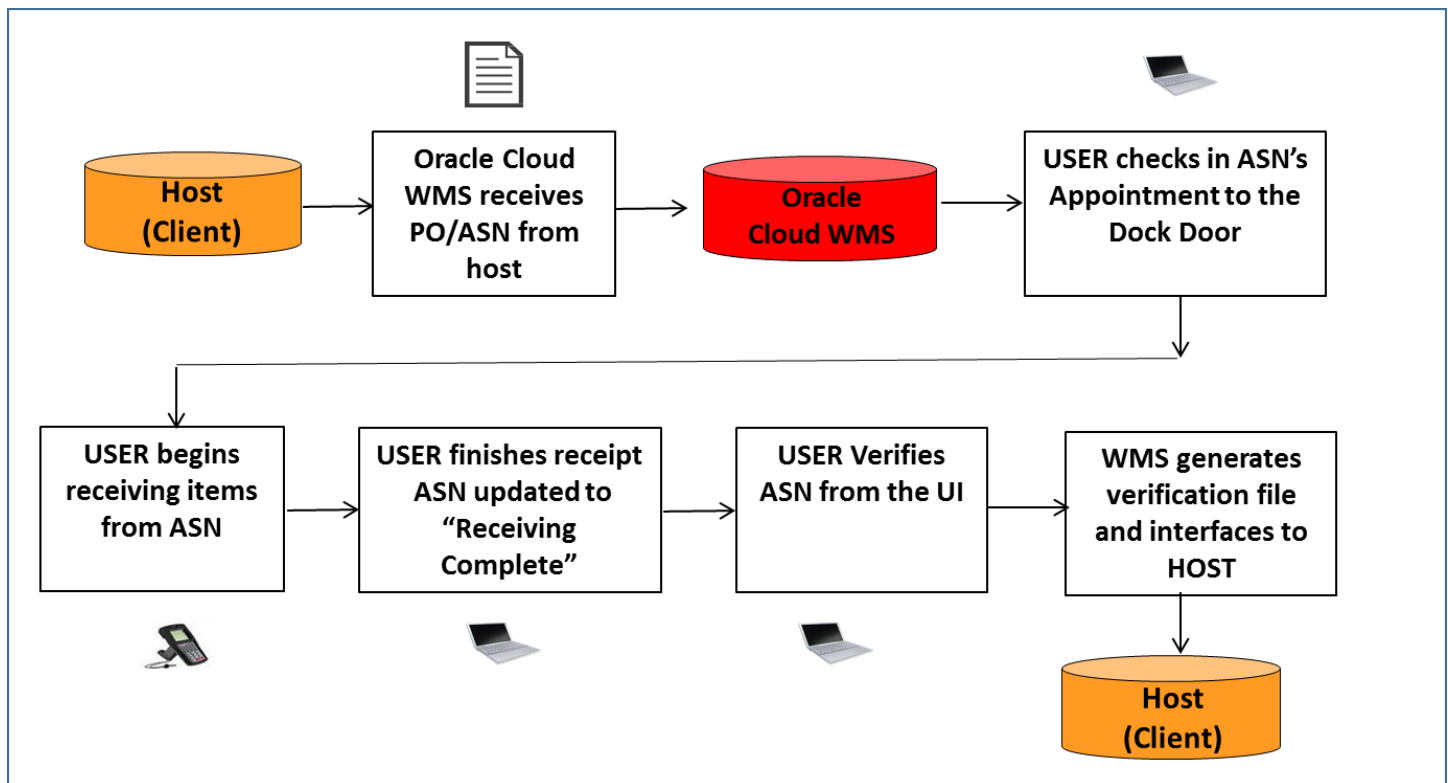
3 Inbound

Overview

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

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

In this setup, 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:



Purchase Orders (PO)

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

Purchase Order Flow

Purchase Orders are not required for receiving merchandise in Oracle WMS Cloud.

Purchase Order Flow

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 Qty” and “Shipped Qty” fields in the Purchase Order screen are updated based on the merchandise received via ASNs. The following examples 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

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

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

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

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.

PO Number *

Status Created ▼

Vendor * 🔍

PO Type

PO Reference Nbr

Order Date * 📅

Ship Date * 📅

Cancel Date * 📅

Delivery Date * 📅

Dept Code

Lock (None) ▼

Customer Nbr

Customer Name

Customer Address

Customer Address 2

Customer Address 3

RMA Nbr

Description of Fields


Fields	Description
PO Number	The Purchase Order number
Vendor	The Vendor code in the PO
Order Date	Date when the purchase order was created
Ship Date	Date when the purchase order was shipped
Cancel Date	Date when the purchase order will be considered cancelled
Delivery Date	Date when the purchase order will be delivered






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.


🔄 🔍 **Create IB Shipment**

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

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

Audit Rule | Audit History | **Purchase Order** | 

     ...

PO Nbr * SUNBR1110
Status Created
Vendor * VEND0008
PO Type 
PO Reference Nbr
Order Date * 03/04/2019
Delivery Date * 03/08/2019
Ship Date * 03/07/2019
Cancel Date * 03/07/2019
Custom field 1
Custom field 2

Save Cancel Reset

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.

Serial Number History ASN Serial Numbers **ASN** Input Interfaces (1) Facility Params Item Locations Inbound LPN Purchase Order Hdr (2)

ASN Inbound Shipment Dtl

Cartonize Convert to prepack Print LPN labels Print Price Labels Break Prepack Cartonize Std Case

Inbound Shipment	PO Stop Receiv	Facility Code	facility_name	Company Code	Priority Date	PO Nbr
SHNJ_COMPATL...		ATL	ATLANTA	NJ_COMP	12/11/2018	

Inbound Shipment SHNJ_COMPATL00000004
Priority Date
PO Nbr
Item Code CC
LPN Nbr
Shipped Qty * 10
Attribute A
Attribute B

Creating Purchase Orders through Interfaces (UI)

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

Step 1: Preparing the Input Interface file:

- Below rules must be followed in order to correctly use the Oracle WMS Cloud interface:
 - The filename must start with the letters “POS”.
 - Populate the “required” columns in the interface specification document.
 - Populate [H1] for every distinct Order 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).

[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		
[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		
[H2]	1	CREATE	THK04										10	0
[H2]	2	CREATE	THK02										15	0
[H1]	POSN100303	DC_01	SNEPHEW	VENDOR101	CREATE	20141003000000			20141003000000		20141003000000	20141003000000		
[H2]	1	CREATE	THK03										10	0

PO#1
PO#2
PO#3

The figure above is an example of a file that creates 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:

Input Interface

	File Size

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. The 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.

If a file fails for some reason, it is automatically moved into the “error” folder.

Inbound Shipments

An Advanced Shipment Notification (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.

ASN	Status
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.

Inbound Shipment Interface - Receipt Advice Line

The Inbound Shipment Interface has been updated so that upon successful interface, WMS will retain shipment lines when the receipt advice line is different even if the combination of Sku/LPN/batch_nbr/invn_attr(a-o)/expiry date.) is the same.

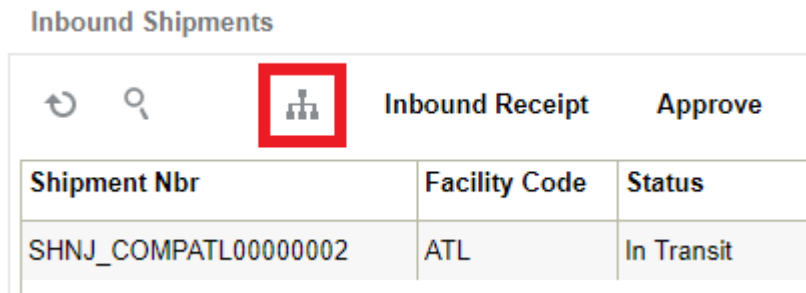
Note: The system will not consider cust_field_1 as an identifier to consolidate different shipment details.

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.

Shipment Nbr *	SHNJ_COMPATL00000C	<input type="button" value="Generate"/>
Status	In Transit	<input type="button" value="v"/>
Orig shipped LPNs	<input type="text" value="0"/>	
Orig shipped Units	<input type="text" value="0"/>	
Manifest Nbr	<input type="text"/>	
Origin Information	<input type="text" value="USA"/>	
Shipment Type	<input type="button" value="v"/>	
Return From Facility Code	<input type="text"/>	
Load	<input type="text"/>	<input type="button" value="🔍"/>
Trailer Nbr	<input type="text" value="TRL101"/>	

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.



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.

Inbound Shipment

Priority Date

PO Nbr

Item Code

LPN Nbr

Shipped Qty *

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).
- Populate the “required” columns specified in the interface specification document.
- Populate [H1] for every distinct ASN number and [H2] for its details (see figure below).

- Populate the correct sequence in the 'seq_nbr' field (i.e. no duplicate values).

[headings]	shipment_nbr	facility_code	company_code	trailer_nbr	action_code	ref_nbr	shipment_type	load_nbr	manifest_nbr	trailer_type	vendor_info	origin_info	shipped_date	cust_field_2
[H1]	ASN1	DC_01	SNEPHEW	TRL1	CREATE		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_c	item_part_d	item_part_e	item_part_f	invn_attr_a	shipped_qty
[H2]	1	CREATE				THK01								10
[H1]	ASN2	DC_01	SNEPHEW	TRL2	CREATE		DOMESTIC				VENDOR	US	20141002	
[H2]	1	CREATE	LPNXD100212			THK02								10
[H2]	2	CREATE	LPNXD100212			THK03								10

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

- Go to the “Input Interface” screen.
- Use the drop-down to select the appropriate interface to process:
- Click on “Upload Files” and navigate to the file you want to upload.
- When the screen displays the file, click “Run Interface”.
- 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.

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

Creating ASNs from existing PO records

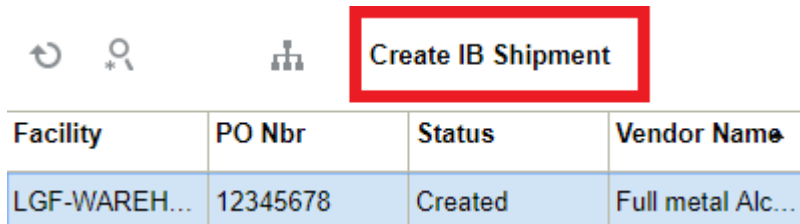
Users can also create ASNs from the PO header and detail screens through the “Create IB Shipment” button.

From the PO Header Screen

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

- Go to the “Purchase Orders” screen.
- Select the PO record.

3. Click the “Create IB Shipment” button.

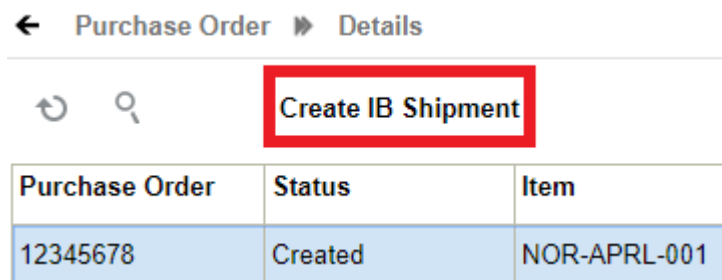


4. The system will return a message saying “Successfully created IB Shipment [ASN Number] from PO”. The ASN number created by the system is based on a sequence counter from the “IB Shipment” record in the “Sequence Counters” screen.

From the PO Detail Screen

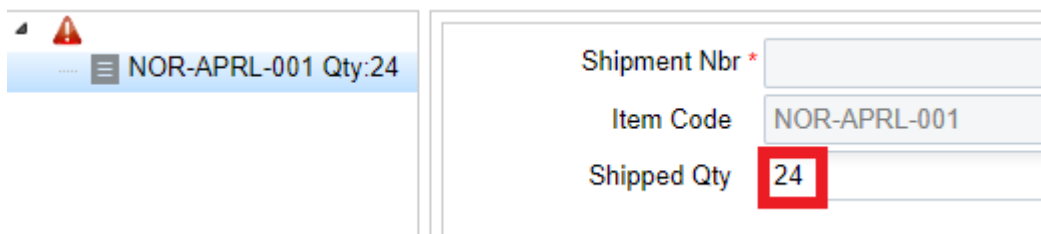
Similarly, users can also create ASNs for specific Items in the PO's Detail screen.

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.

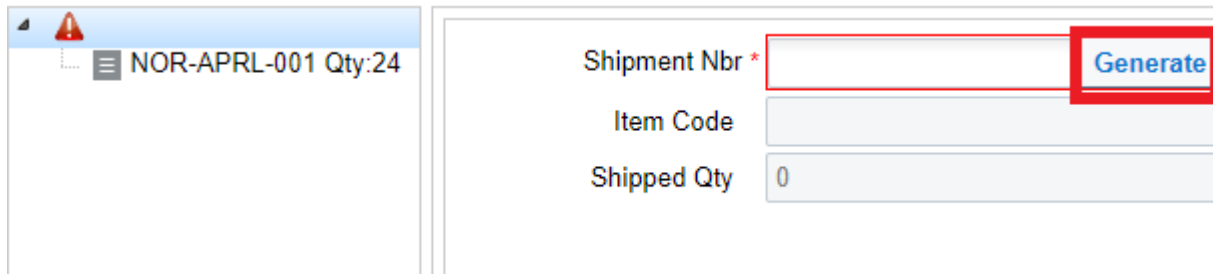


Note: the “Shipped Qty” will be zero until there are ASNs created for them.

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.



- 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.



The screenshot shows a software interface with a folder icon on the left containing the text 'NOR-APRL-001 Qty:24'. To the right is a form with three input fields: 'Shipment Nbr *' (with a red box around it and a 'Generate' button), 'Item Code', and 'Shipped Qty' (with the value '0').

Note: The system will not allow user to create a shipment if the PO detail has the Stop Receiving flag set to yes.

IB Shipment Serial Number UI

In industries such as manufacturing or pharmaceuticals where there are a lot of regulatory requirements for capturing/maintaining batch/lot information and the serial number information in all stages of the supply chain from production to end user consumption. It is crucial to link the correct information for each inventory. The IB Shipment Serial Number interface includes the following fields in the Create, Edit and Copy pane:

- Batch_number
- Expiry_date
- Inventory_attributes (a-o)
- PO Number
- PO Sequence Number
- Receipt Advice Line

These new fields allow the system to link the IB Shipment detail in scenarios such as the IB Shipment has multiple lines for the same SKU, but it has a different attribute combination.

Note: LPN is no longer a mandatory field. The minimum required fields to create a new record in this UI are "Inbound Shipment Nbr, Item Code and Original Serial Number". By default these fields can be hidden, and you can add it to your viewing group from the "add fields" section. New fields have also been added to the filter criteria.

Non-Cartonized Shipments

The LPN number is no longer a required field in the IB Shipment Serial Number interface. This means that you can send enough information for us to link serial numbers for Non-cartonized shipments. Being able to send this information in advance allows the system to link the appropriate shipment details, which saves you time when receiving.

The interface will run successfully as long as the system is able to determine the corresponding shipment detail For Action Codes "Create"/"Update"/"Delete", when an LPN number is not provided, the system searches the corresponding shipment detail by SKU/batch/expiry_date/invn_attributes (a-o)/PO Number/PO Sequence Number/Receipt Advice Line combination

For Action Code "Create", the number of serial numbers must match to the shipped quantity identified for the shipment detail. For example, when the shipment detail is the following:

IB Shipment	Item	Batch	Inv Attr A	Qty
SHIP1	Item01	B1	EU	2
SHIP1	Item01	B2	USA	1

And when you provide the following serial numbers via the IB Shipment - Serial Number Interface:

IB Shipment	Item	Batch	Inv Attr A	Serial Number
SHIP1	Item01	B1		SERB1001
SHIP1	Item01	B1		SERB1002
SHIP1	Item01	B2		SERB2001

The system determines that serial numbers SERB1001 and SERB1002 can be associated to a unique shipment detail based on the shipment number (SHIP1)/Item (Item01)/Batch (B1) combination. These are associated even when Inventory Attribute A value is not shared in the interface, and also serial number SERB2001, can be associated to the shipment number (SHIP1)/Item (Item01)/Batch (B2)/Inv Attr A (USA)/combination.

If the system is not able to determine the association of serial numbers with any details for the shipment, the IB shipment – Serial Number Interface errors out.

Changes to RF Receive Shipment and RF Receive Load

During the receiving process we identify/link the inventory to the serial number. The following three scenarios have been enhanced to better identify/link the inventory to its corresponding serial number:

- Prior to this update, while receiving cartonized shipments, when multiple attribute serial number combinations are on the LPN for the same SKU, an error message displayed indicating that you needed to do detailed receiving.
- You can now receive cartonized shipments for multiple attribute-serial number combinations on the LPN for the same SKU, and complete receiving faster, provided that:
 - The shipment type for the shipment has "Cartonized receiving serial nbr prompt control" set to "Do not prompt/Prompt if not known." You can also do this when the "Cartonized receiving serial nbr prompt control" value is blank for "shipment type set/shipment type not set" for the shipment and the item received is configured to "Required don't validate serial number."
 - Serial numbers are associated in the **IB Shipment – Serial Number** UI for all shipment details for the shipment/LPN prior to receiving
- You can also now receive non-cartonized shipments without entering serial numbers and complete receiving faster when:
 - Serial numbers are associated in the **IB Shipment – Serial Number** UI for all shipment details prior to receiving, the number of serial numbers associated is the same as the shipped quantity, and the received quantity is also the same as the shipped quantity.
 - When the shipment type for the shipment has the "Non Cartonized receiving serial nbr prompt control" set to "Do not prompt/Prompt if not known", or when the "Non Cartonized receiving serial nbr prompt

control" value is blank for "shipment type set/shipment type not set" for the shipment and the item received is configured to "Required don't validate serial number."

- When you provide the serial numbers with the **IB Shipment Serial Number Interface** prior to receiving and you are prompted to provide the serial number during receiving. In scenarios where the serial number scanned while receiving is different than the serial number in the **IB Shipment Serial Number** UI, a warning message "serial number not present in shipment" will display. When you accept, the system will record the serial number scanned in the **Received Serial Number** field (in the **IB Shipment Serial Number** UI.),

Note: The above warning message can also be configured as a hard error.

Shipment Types

ASN Types are ASN attributes that distinguish between different types of Inbound Shipments. Users can configure ASN types to handle extra validation during receipt.

Creating Shipment Types

1. Go to the "Shipment Types" screen and click the Create button.

2. Check the appropriate flags for the ASN Type.



Shipment Type *	SPST01
Description *	Shipment Type 01
Under Receipt Warning % *	50
Over Receipt Warning % *	50
Over Receipt Error % *	50
receipt validation type *	Both
Allow Expired Inventory	<input checked="" type="checkbox"/>
Break Prepacks	<input checked="" type="checkbox"/>
Prevent Verify if Putaway Outstanding	<input type="checkbox"/>
Unallocated order details to cancel on ASN verify mode	With Matching Container and Shi
Percent LPNs for Random QC Determination	0
Capture Returns Information	<input type="checkbox"/>
Cartonized receiving batch and expiry prompt control	
Cartonized receiving attribute prompt control	
Cartonized receiving serial nbr prompt control	
Non-Cartonized receiving batch and expiry prompt control	
Non-Cartonized receiving attribute prompt control	

Description of fields

ASN Field	Description
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.

ASN Field	Description
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.
Allow expired inventory	If set to yes, the system will prevent expired inventory from getting allocated, picked, substituted or shipped.
Break Prepacks	If the shipment's IB Shipment Type has the 'Break Prepacks Flag' set to True, the system will break all shipment details that have parent items into their corresponding children based on the definition in the 'Item Prepack' table.
Prevent Verify if Putaway Outstanding	If the 'Prevent Verify if Putaway Outstanding' flag is set to TRUE, the application will prevent verifying the corresponding shipment before all the received LPNs have been putaway.
Unallocated order details to cancel on ASN verify mode	Controls the behavior of cancelling an order line associated with a required LPN number when the corresponding LPN is part of the shipment but not received.
Percent LPNs for Random QC Determination	Used to determine which Inbound LPNs are marked for QC. If the shipment type is not present in the system or Percent LPNs for Random QC Determination is zero, then the Vendor QC Rule configuration will determine which Inbound LPNs should be marked for QC (upon selecting the action button "Perform Inbound QC Check".)
Capture Returns Information	If the shipment type has "capture_return_info_flg" set to Yes and Returned from Information is not captured, the system will not allow you to create an ASN. The system will throw error message "Shipment type is configured to capture returns information" after you click save.
Cartonized receiving batch and expiry prompt control	Blank/ Prompt, if not known/Always prompt/ Do not prompt. Allows you to configure the batch and expiry prompts at the individual shipment level for cartonized ASNs.
Cartonized receiving attribute prompt control	Blank/Prompt, if not known/Always prompt/ Do not prompt. Allows you to configure the receiving attribute prompts at the individual shipment level for cartonized ASNs.
Cartonized receiving serial number prompt control	Blank/Prompt, if not known/Always prompt/ Do not prompt. Allows you to configure the receiving serial number prompts at the individual shipment level for cartonized ASNs.
Non-cartonized receiving batch and expiry prompt control	Blank (Default behavior)/ Prompt, if not known/Always prompt. Allows you to choose whether to prompt for multiple batch/expiry/Attribute/serial for a single SKU in a non-cartonized ASN.
Non-cartonized receiving attribute prompt control	Blank (Default behavior)/ Prompt, if not known/Always prompt. Allows you to choose whether to prompt for multiple batch/expiry/Attribute/serial for a single SKU in a non-cartonized ASN.

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%.

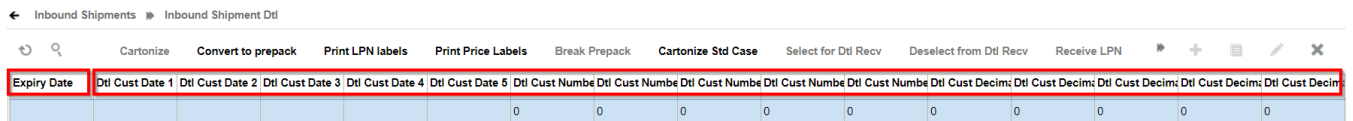
RESULTS:

- 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 Detail button to view the **Inbound Shipment DetailUI**.



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

Inbound Shipment Detail Field

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.

Receipt Discrepancies

Facility	Name	Inbound Shipment	IB Shipment Hdr Cust Field 1	IB Shipment Hdr	IB Shipment Hdr	IB Shipment Hdr	IB Shipment Hdr	IB Shipment Hdr	IB Shipment dtl Cust Field 1	IB Shipment dtl C	IB Shipment dtl C	IB Shipment dtl Cust	IB Shipment dtl Cust Fi	Expiry Dat
QATST01	LGF-WAR...	ASNA302002	1					5						

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.

Receiving Discrepancies

Refresh Search

▶ Saved Searches

From Shipment Nbr

To Shipment Nbr

Priority Date 12:00:00 AM

PO

Item

LPN Nbr

Shipped Qty

Attribute A

Attribute B

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

Receiving Discrepancy

Brand Code

- Missing
- OK
- Extra

Search

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

Receiving Discrepancies Drop-down

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

Restrict Cartonization for Non-Cartonized Shipments Linked to Serial Numbers

In the IB Shipment Detail screen, if there is a serial number linked to the Shipment Detail, Warehouse Management now restricts the cartonization process before you can proceed further.

Whenever you attempt to cartonize the Shipment Detail with any of the following options, the system will display the error "Shipment Detail linked to Serial Number, Cannot Cartonize" if the detail is linked to a Serial Number.

- Cartonize
- Cartonize Standard Case
- Cartonize LPN by Case
- Cartonize by SKU --> Inbound Shipment Header Screen

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:

Facilities

Companies in facility **Set WMS Managed** Unset 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

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:

Parent company * NJ_COMP

Cust Field 1

Cust Field 2

Cust Field 3

Cust Field 4

Cust Field 5

Accept Transfer Shipment

Save Cancel Reset

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”.



Lock Code *	DAM
Description	DAMAGE
Allocatable	<input type="checkbox"/>
Unlock on locate to Reserve	<input type="checkbox"/>
Treat as Attribute	a
Allow Multiple Lock Codes	<input type="checkbox"/>
Generate Adjustments Instead of Lock Code Records	<input type="checkbox"/>
Allow Loading	<input type="checkbox"/>
Allow Manifesting	<input type="checkbox"/>
Prevent Putaway	<input type="checkbox"/>
Copy to Transfer Shipment flag	<input checked="" type="checkbox"/>
Prevent Direct Consume	<input type="checkbox"/>
Inventory attribute transfer code	

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

Order Type

+ ☰ ✎ ✕

Order Type * Type1

Description * Type1 Order

Facility Order Flag

Flowthrough Flag

Wave Flag

Partial allocation

Only deallocate on short

ASN % PO

GDD Printing

Allocate during pick

Single Order on multiple Loads Allow

Work Order Type

Break Prepacks

Lock code for transfer shipment

Block Packing Manifest CC

Returns ASN Shipment Type DAM
NEW

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:

The screenshot shows the Oracle WMS 18C interface with the 'Lock Codes' tab selected. Below the navigation tabs, there is a search bar with refresh and search icons. The main table displays the following data:

Company	Lock Code	Description	Allocatable	Unlock on locate
NJ_COMP	CC		No	No
NJ_COMP	NEW	New	No	No
NJ_COMP	DAM	DAMAGE	No	No

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.

Priority Date Traceability 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_LPON_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."

The screenshot shows the Oracle Warehouse Management Cloud interface. At the top, the 'Order Headers' tab is highlighted with a red box. Below the navigation bar, the 'Create ASN' button is highlighted with a red box. A modal window titled 'Create ASN' is open, displaying the following fields:

- Create Cartonized ASN
- Returns Facility *
- Returns Lock Code

At the bottom of the modal are 'Submit' and 'Cancel' buttons.

Create ASN – Order Headers

Create ASN Fields	Description
Create Cartonized ASN	The system will generate a cartonized ASN.
Returns Facility	Drop down with list of Facilities
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. 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.

Facility Code	Company Code	LPN Nbr	Asset Seal Nbr	Asset Nbr	Weight	Volume	Tra
NJ_DC	NJ_COMP	OLPNNJ_DC0000000026					
NJ_DC	NJ_COMP	OLPNNJ_DC0000000025					

Create ASN [X]

Create Cartonized ASN

Returns Facility *

Returns Lock Code

Submit Cancel

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

- 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.

Shipment Nbr * IBSHP1118 Generate

Status In Transit

Orig shipped LPNs 0

Orig shipped Units 0

Manifest Nbr

Origin Information

Shipment Type RGRET02

Return From Facility Code

- “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).
- 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.

Search - Return From Facility Code

Code	Name	Facility type
01STR	1-store	Store
02STR	2-store	Store
03STR	3-store	Store
dcdc	sss	Distribution C.
JSITE002	The Home D...	Site

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

Shipment Nbr *	IBSHPJ03
Status	In Transit
Orig shipped LPNs	0
Orig shipped Units	35
Manifest Nbr	manifest_nbr
Origin Information	str1234
Shipment Type	TRANS001
Return From Facility Code	STRCPCH02
Load	LIBSHPJ03

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 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.

Order Type

+ ☰ ✎ ✕

Order Type *

Description *

Facility Order Flag

Flowthrough Flag

Wave Flag

Partial allocation

Only deallocate on short

ASN % PO

GDD Printing

Allocate during pick

Single Order on multiple Loads

Work Order Type

Break Prepacks

Lock code for transfer shipment

Block Packing Manifest

Returns ASN Shipment Type

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:

☰ ORACLE WMS 18C

Task | Scheduled Jobs | Users | Inbound Shipments | Order Type | Lock Codes

Lock Codes

↶
🔍

Company	Lock Code	Description	Allocatable	Unlock on locate
NJ_COMP	CC		No	No
NJ_COMP	NEW	New	No	No
NJ_COMP	DAM	DAMAGE	No	No

Note: 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.

Inbound Shipment:

PriorityDate:

PO:

Item:

LPN Nbr:

Shipped Qty *:

Attribute A:

Attribute B:

Attribute C:

Putaway Type: **(None)**

- PT1
- PT2
- PT3
- PT4
- PT6

LPN is Pallet:

Batch Nbr:

LPN Lock Code:

- 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.

ASN

Facility Code	Company Code	Shipment Nbr	Status	Orig shipped Lf	Orig shipped U	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

Printing Price Labels for Inbound Shipments

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.

The screenshot shows the 'Inbound Shipments' screen with a table of shipment data. A 'Print Price Labels' dialog box is open over the table. The dialog box contains the following fields:

- Number of Labels to Print Based on: [Dropdown menu]
- Number of Copies to Print per Unit: [Text input field]
- Enter the Number of Price Labels to Print: [Text input field]
- Printer Name: [Dropdown menu]
- Destination Company: [Dropdown menu]

Buttons for 'Submit' and 'Cancel' are located at the bottom right of the dialog box.

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

Print Price Labels	Description
Company	The child company in which this ASN type is used.
Number of Labels to Print Based on	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.

Print Price Labels	Description
Printer Name	Printer name available for the user.
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’

Inbound Shipments

Shipment Nbr	Status	Shipped Qty	Received qty	Nbr LPNs	Rcvd LPN count	Po nbrs	Load	Vendor name	Received Percent	Orig shipped Units	Orig shipped LPNs	Mod User	Nbr Items	Manifest N
IBSHP111111	Receiving compl...	10	10	1	1		LN030303		100	0	0	JPALL01	1	

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.

Inbound Shipment: SHSN00001010

Vendor Performance Code *: (None)

Vendor *:

Item: (None)

Qty *: 0

UOM: (None)

Image:

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.

Search Inbound Shipment

Shipment Nbr	<input type="text"/>
PO Number	<input type="text"/>
Vendor info	<input type="text"/>
From Status	In Transit ▼
To 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."

← Inbound Shipments ▶ Inbound Shipment Dtl

↻ 🔍 **Cartonize** Convert to prepack

facility_name	PO Nbr	Inbound Shipment
LGF-WAREH...	PONBRJP22	IBSHP745

- 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.

Cartonization

Units per IBLPN

Nbr Cases calc_max_cases

Total Assigned/Available 10/10

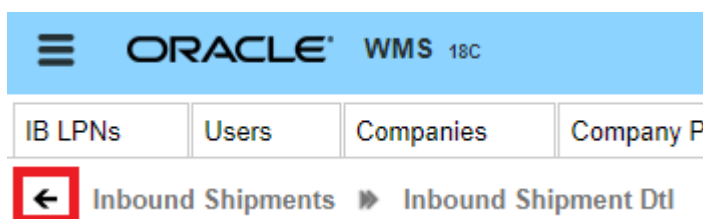
OK
Cancel

- 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.

Note: To change this sequence counter format, go to the "Sequence Counters" screen and modify the record that has the "Counter Description" = "Blind LPNs".

ASN Header

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



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

Inbound Shipments

↻ 🔍 ⏪
ound QC Check
Perform Detailed Receiving
Vendor Performance
Print lpn labels

Shipment Nbr ▲	Status	Shipped Qty	Received qty	Nbr LPNs	Rcvd LPN count	Po nbrs
IBSHP739	In Transit	900	0	<u>0</u>	0	PONBRJP10

Pre-Receiving – Cartonizing based on Standard Case Quantity

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.

← Inbound Shipments ▶ Inbound Shipment Dtl

facility_name	Inbound Shipment	PO Nbr	Item Code	Item Description	LPN Nbr	LPN Status	Shipped Qty
LGF-WAREH...	IBSHP745	PONBRJP22	ITM-EX-11	CREAM	CSTST010001...	Not received	10

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.

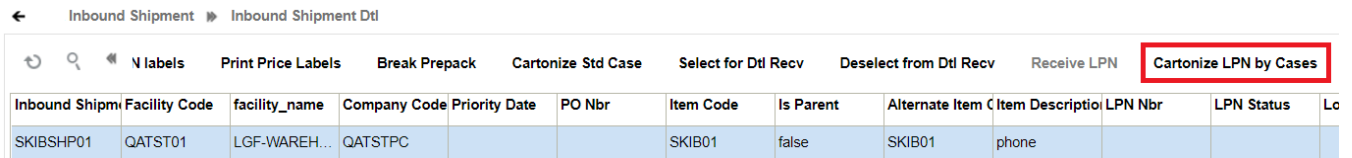
Clicking the “Cartonize Std Case” button will generate 5 LPNs of 5 units each:

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:

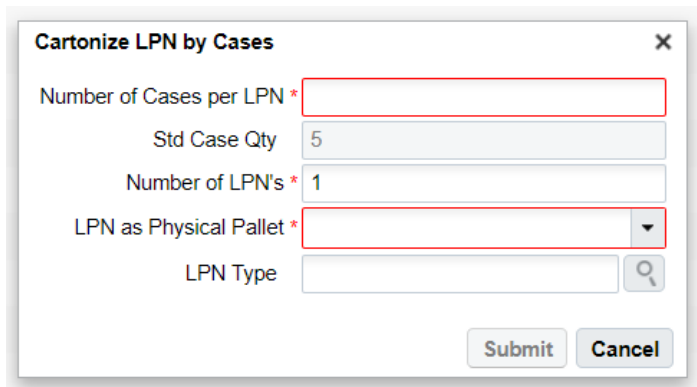
1. From the “Inbound Shipment” screen, select the IB Shipment from which you want to cartonize the LPN.
2. Click Details. The Inbound Shipment Detail page opens.



3. 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.

4. 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.



5. After you enter the quantity, click **Submit**. Once you submit, the “Cartonization successful” message displays.

Cartonizing LPN by Cases

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:

Field Parameter	Description
	<ul style="list-style-type: none"> o Yes: Consider an LPN as a Physical Pallet o No: Do Not consider an LPN as a Physical Pallet
LPN Type	Select an appropriate LPN Type.

Example:

← Inbound Shipment ▶ Inbound Shipment Dtl

↻ 🔍 Cartonize Convert to prepack Print

Inbound Shipment	Facility Code	Item Code	Shipped Qty
IBSHP1801	QATST01	SK ITEM	100

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:

Cartonize LPN by Cases ✕

Number of Cases per LPN * 5

Std Case Qty 10

Number of LPN's * 2

LPN as Physical Pallet * No

LPN Type 🔍

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

← Inbound Shipment ▶ Inbound Shipment Dtl

↻ 🔍 Cartonize Convert to prepack Print LPN labels Print Price Labels



Inbound Shipment	Facility Code	Item Code	LPN Nbr	Shipped Qty	Attribute A
IBSHP1801	QATST01	SK ITEM	CSTST01000...	50	
IBSHP1801	QATST01	SK ITEM	CSTST01000...	50	

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.



Cartonize
Convert to prepack
Print LPN labels
Print Price Labels
Break Pr

facility_name	PO Nbr	Inbound Shipment	Item Description	Shipped Qty	Received qty
LGF-WAREH...	PONBRJP10	IBSHP739	CREAM	300	0
LGF-WAREH...	PONBRJP10	IBSHP739	CREAM	300	0
LGF-WAREH...	PONBRJP10	IBSHP739	CREAM	300	0

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”.



Cartonize
Convert to prepack
Print LPN labels
Print Price Labels
Break Pr

facility_name	PO Nbr	Inbound Shipment	Item Description	Shipped Qty	Received qty
LGF-WAREH...	PONBRJP10	IBSHP739	CREAM	300	0
LGF-WAREH...	PONBRJP10	IBSHP739	CREAM	300	0
LGF-WAREH...	PONBRJP10	IBSHP739	CREAM	300	0

- 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'.

Cartonize ✕

Units

Cases

Total Assigned/Available 50.000000000000/300

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

↺ 🔍
Cartonize
Convert to prepack
Print LPN labels
Print Price

facility_name	PO Nbr	Inbound Shipment	LPN Nbr	LPN Status
LGF-WAREH...	PONBRJP10	IBSHP739	CSTST010001..	Not received
LGF-WAREH...	PONBRJP10	IBSHP739		

- 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 ().
- Paste (Ctrl+V) the LPN to the "LPN Nbr" field.

+ 📄 ✎ ✕

Inbound Shipment

Priority Date ▼

PO Nbr

Item Code

LPN Nbr

- 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 ().

Inbound Shipments **Trailer**

+ [List] [Edit] [Delete] [Filter] [More]

Trailer Nbr

Trailer Registration Nbr

Shipper Name

Shipper Registration Nbr

Trailer Brand

Custom Reference Text

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.

Carrier | OB LPNs | Users

Trailer

[Refresh] [Search] **Locate Trailer**

Trailer Nbr

TRAILER3391

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.

The screenshot shows a 'Locate Trailer' dialog box. At the top left is the title 'Locate Trailer' and a close button 'X'. Below the title, there are two input fields. The first is 'Current Yard Location' with the value 'YARD-TST-01-04'. The second is 'Yard Location', which is highlighted with a red rectangular box. This field is a dropdown menu that is currently open, showing a list of options. The first option, 'YARD-TST-01-03', is highlighted in blue. Below it, 'YARD-TST-01-04' is visible. The dialog box has a light gray border and a white background.

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.

The screenshot shows a form for checking in a load. It consists of several rows, each with a label and an input field. The labels are: 'From load nbr', 'To load nbr', 'Trailer Nbr', 'From Status', 'To Status', and 'Shipment Nbr'. The 'From Status' and 'To Status' fields are dropdown menus, both currently showing '(None)'. The other fields are empty text boxes. The form has a light gray border and a white background.

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.

Facility	Company	Load Nbr	Status	Dock Nbr	Trailer
QATST01	QATSTPC	LIBSHP756	Created		
QATST01	QATSTPC	LIBSHP755	Created		
QATST01	QATS				
QATST01	QATS				
QATST01	QATS				
QATST01	QATS				

Check In [X]

Dock * [QATST01 / JPDOCK01]

Submit Cancel

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.

- Click the “Assign to load” button.

Inbound Shipments

↺ 🔍 ⏪
Reject Verify Receive Entire Shipment Set Putaway Type Assign to load Perform Inbound QC Check ▶

Shipment Nbr	Status	Shipped Qty	Received qty	Nbr LPNs	Rcvd LPN count	Po nbrs	Load	Vendor name
IBSHP916	In Transit	20	0	<u>4</u>	0		LIBSHP916	
IBSHP915	Receiving compl...	50	50	<u>5</u>	5		LIBSHP915	
IBSHP914	In Transit	30	0	<u>0</u>	0	POTESTCH1017CH1	LIBSHP914	Test Supplie...
IBSHP913	Receiving compl...	10	10	<u>3</u>	2		LIBSHP913	
IBSHP912	Receiving Started	10	6	<u>3</u>	1		LIBSHP912	
BSHP911	In Transit	70	0	<u>7</u>	0	POTESTCH1016C1	LIBSHP911	Test Supplie...
BSHP910	In Transit	40	0	<u>0</u>	0	POTESTCH1016C2	LIBSHP910	Test Supplie...
BSHP909	In Transit	10	0	<u>0</u>	0	POTESTCH1016C2	LIBSHP909	Test Supplie...

- Populate the Load number the ASNs will be modified to in the “Load Nbr” field. Click “OK”.

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

- Go to the “Appointment” screen.

2. Click the Create button and populate the necessary fields.

Appt Nbr *	APPQA000309	
Estimated units	0	
Duration *	30	
Planned start ts *	10/01/2018 ▼	12:00:00 AM ▼
Arrived Time	10/05/2018 ▼	12:00:00 AM ▼
Preferred Dock	▼	
Carrier Info	JAVAS	
Matching value type *	Load nbr ▼	
Matching value *	OBL0000000411	
Dock Type *	Inbound / Inbound ▼	
Custom Reference Text		

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).
- **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".

- 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".

The screenshot shows a navigation bar with a refresh icon, a search icon, a "Check In" button (highlighted with a red box), a "Check Out" button, and a "Rec" button. Below the navigation bar is a table with the following data:

Appt Nbr	Status	Type	Description
APPQA000309	Not Scheduled	O	Inbound

- Now the Appointment is ready for receiving. Go to the "Receive ASN" RF.
- In the "Dock:" prompt, scan the Dock Door from step 4. Begin receiving.
- 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".

The screenshot shows a navigation bar with a refresh icon, a search icon, a "Check In" button, a "Check Out" button (highlighted with a red box), and a "Rec" button. Below the navigation bar is a table with the following data:

Appt Nbr	Status	Type	Planned start
APT01010112	Checked in	O	09/30/2018 12:

From the Appointment screen, you can perform the following Actions:

Appointment

The screenshot shows the "Appointment" section with a navigation bar containing a refresh icon, a search icon, and buttons for "Check In", "Check Out", "Receiving Variance Report", and "Locate Trailer". Below the navigation bar is a table with the following data:

Appt Nbr	Status	Type	Description	Actual Dock Nb	Trailer Nbr	I

- 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.

Sort and Receive

To support direct to consumer business, warehouses are adopting strategies to fulfill orders as quickly as possible. The Sort and Receive Option can help you meet the growing demands of fulfilling orders raised online by end customers.

Typically, Sort and Receive is done before Receiving and Receive and Sort (inbound sorting is done after receipt). Sort and Receive is typically used to separate contents of an LPN in a Shipment by sku, Purchase Order (PO), or some special criteria. The Sort and Receive option helps you to scan each unit of the ASN and determine how to sort the item based on Rules Configured. You can examine each item and sort it according to the configurable rules to different totes. You also get an opportunity to mark the item being received as damaged or not.

Sort and Receive Process

Once inventory is physically unloaded, floor users sort individual skus into respective totes (Inbound LPNs) based on user-defined rules. Floor users can use the RF Option to sort and receive each individual unit of a Sku received into the warehouse. Floor users can get the advantage of receiving individual skus into separate totes simultaneously.

Let's say you want to sort and receive inventory inside your warehouse. The following are the high-level steps you should follow:

1. First, the Warehouse receives a sku level ASN from the host system or the Warehouse creates it in Oracle WMS Cloud.
2. The warehouse gets ready to Sort and Receive Inventory.
3. Use the RF Sort and Receive option to receive skus into different totes.
4. Scan the Receiving Station, shipment, and SKU.
5. If system is unable to figure out the appropriate shipment detail or if there is an ambiguity, the system prompts for Inventory Attributes, Batch Number or Expiry date to figure out the appropriate detail.
6. Sort and Receive Rules are triggered to find the appropriate tote the SKU Needs to be placed into.
7. If there is no tote available, create a new Tote/Inbound LPN.
8. If there is a tote available, the system prompts for the tote.
9. For the tote, the current inventory goes up by 1.
10. Note: The inventory is fulfilled in a LPN based on the Break rule you create.
11. Once the tote becomes full, end the tote and status of the Inbound LPN goes to "Received", Inventory History Records are sent.

UI Sort and Receive

The Sort and Receive module is available via UI and RF. The Sort and Receive Config (SortReceiveHdrView) header provides you an ability to outline the pattern in which you want to sort and receive the SKU in your warehouse.

Sort and Receive Rule Header

The Sort and Receive Configuration screen allows you to create criteria columns for each Receiving Station:

Note: you can create, edit, or delete Sort and Receive rules. Options to Add/Edit/Delete are available based on your group permissions for the screen. To view or enable, go to **Group Configuration UI** > Click **Permissions** to view/enable the available permissions for Sort and Receive and to set group permissions.

When you click **Create**, the following screen displays:

Fields	Description
Receive Station	Enter the receiving station from where you want bring the items from.
Criteria 1*	Define the rule by selecting from the drop-down box.
Criteria 2	You can define an additional criteria by selecting from the drop-down box.
Condition	NON_EMPTY_FIRST: Value configured in the criteria field 1. If the value is blank then try to match the value from criteria field 2 next to get to corresponding Tote.
	MATCH_EITHER: Value from criteria field 1 or value from criteria field 2 is verified to get a corresponding Tote. If either one of the column value matches then the corresponding Tote is fetched
	MATCH_ALL[s1] : Value from criteria field 1 column and value from criteria field 2 is matched to get a corresponding Tote or Inbound Container.
Break Rule	Select the Break rule from the drop-down box. For more information, See Sort Break Rule section.
Close LPN Location	Enter the drop location to where you want to locate your items to.

Receiving Station Location Type

When you Sort and Receive, usually there will be sort stations with totes. You can configure the sort stations in the application as locations. The Location Type “Receiving Station” allows you to differentiate these locations from others. When you create or edit a Location from the Locations UI, you will see **Receiving Station** as an existing Location Type option.

Configure Sort Criteria

For every Receiving Station, you can configure the sort criteria to determine the tote being sorted into. If Receive Sort Rules are not configured, then Sort and Receive will not be able to determine the tote, and placing the scanned item into the tote becomes user directed.

Sort and Receive allows you to configure two candidate columns (criteria fields) from the Inbound Shipment detail along with the Break Rule. You can configure both the criteria fields or the first criteria field. If both the criteria fields are configured, while determining the inbound tote, the system looks into the first criteria field for matching against the appropriate Inbound Shipment detail. If a match is found then the appropriate tote is picked, if not then the second criteria value is matched. If both the criteria fields are configured the intention is not to match both the fields together.

Sort Break Rule

The Sort Break Rule screen allows you to configure break values for closing the totes. Totes that you are sorting to will have capacity in terms of weight/volume or number of units. For a tote, if the associated break criteria value is reached, you will be prompted to end the tote. The following section details how to configure a Sort Break Rule. It isn't mandatory

to configure a Sort Break Rule. If a Sort Break Rule isn't configured, the system does not do any validations for closing the tote. You will have to end the tote manually through the RF Program.

Some of the typical columns exposed for configuring the Break Rules are based on the tote's weight, volume, number of distinct skus, or number of orders.

You can configure as many Break Rules as you like.

Sort Break Rule Header

The **Break Rules** screen allows you to create break rules and associate the rule details with the criteria you specify.

Figure 4: Sort Break Rule Header

For an individual rule, you can configure more than one of the above columns. While doing Sort and Receive if any one of the thresholds are reached, the system prompts you to close the tote.

1. Go to Sort and Receive UI > Click **Break Rules**
2. Click (+) to create a new rule

Fields	Description
Break Rule	Displays the name of the rule
Criteria	Select the type of criteria: <ul style="list-style-type: none"> • Weight • Volume • Sum (curr_qty) • Count (distinct(item_ID)) • Count (distinct(cust_field_1))
Value	Define the value for the selected criteria.

In the following example, the Break Rules detail screen shows the break criteria configured based on the number of distinct items (2), weight (200), and current quantity (5.)

Figure 5: Sort Break Rule Detail

In the above example, if the Inbound Tote that is getting sorted reaches a weight of 200 or the count of distinct items reaches 2 or the sum of the current quantity is 5. Next, You are prompted to close the tote. If multiple attributes are configured and any one of the break criteria is met, the Inbound Tote being sorted will be closed or prompted to close.

RF Sort and Receive

The RF Module for Sort and Receive is 'rf.inbound.cwrfsortandrecv.' The following are the parameters for RF Sort and Receive:

Parameter	Parameter Choice	Description
qty-entry-mode	None Sku Scan Sku Qty	<p>When the parameter is set to 'SKU Qty', users are required to scan SKU and quantity to sort and receive</p> <p>When the parameter is set to 'SKU Scan' or none, users need to scan the SKU alone, which in turn sorts whole inventory of the scanned SKU into a tote.</p> <p>Default value- Blank (acts as Sku Scan)</p>
scan-shipment-load	None Scan Load Scan Shipment	<p>This parameter allows you to scan the shipment number or the Load number depending on whether they want to receive by shipment or the Load.</p> <p>Default value- Blank (acts as Scan Shipment)</p> <p>When the parameter is set to 'Scan Shipment' or none,you need to scan the shipment number in order to proceed with the Sort & Receive transaction.</p> <p>When the parameter is set to 'Scan Load', you need to scan the Load number before scanning the SKU code</p>
allow-inv-exp-override	None Allow Inventory Expiry Check Override	<p>This parameter allows you to block the receiving of expired LPNs.</p> <p>When the parameter is set to 'Allow Inventory Expiry Check Override',the system allows you to receive LPNs with expired inventories within the product life days.</p> <p>When the parameter is set to none, the system will not allow you to receive expired inventories.</p> <p>Default Value: Blank</p>
allow-rem-exp-override	None Allow % Remaining Expiry Check Override	<p>When configured to 'Allow % Remaining Expiry Check Override', inbound SKUs with an expiry date earlier than inventory already present in the warehouse for the same SKU can be received.</p> <p>When not configured(blank value), inbound SKUs with an expiry date prior to inventory already present in the warehouse for the same SKU cannot be received.</p> <p>Default Value: Blank</p>
capture-date-type	None Prompt for expiry date Prompt for manufacture date	For lot controlled inventory, this parameter determines if the RF prompts for the

Parameter	Parameter Choice	Description
		manufacture date or the expiry date. Accurate Product Shelf Life data is required for manufacture date (Active only for Items managed with Expiry Date). Default value- Blank

Use the RF to scan the sku in the ASN and the system will run the sortation rules and take you to one of the receiving stations based on whichever rule fires. Next, you can put the sku into an existing LPN or open a new LPN. As soon as the break condition is reached, the LPN will be ended and received. Then a new LPN can be scanned.

The initial RF Sort and Receive screen looks like the following:

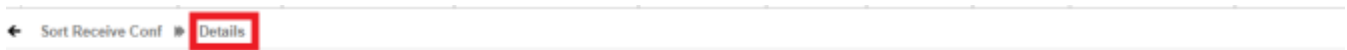
```
Oracle WMS QATST01/QATSTPC
RF - Sort and Receive
```

```
Recv Station: █ _____
Shipment: _____
Trailer: _____
SKU: _____
```

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

If the SKU is a batch or Expiry tracked item, the RF Sort and Receive prompts for the batch number and expiry date.

When you select a Sort and Receive rule for the pack station, you can drill down to see the matching values populated for the criteria fields selected and the corresponding tote present for each unique combination of the criteria fields. When you close the tote records, the corresponding tote will be deleted.



Receive Station	Criteria 1	Value 1	Criteria 2	Value 2	LPN
RGRS3SML-10-01-Z-01	Item Code	RGITM002	Item Std Case Qty	5	T20818003

When you are performing sort and receive on Receive Station “RS-09-09-09” and the scanned sku corresponds to the Inbound Shipment detail whose Criteria 1 value is “Item barcode” then the system puts the SKU to existing or new LPN “RVSPN01”. If you scan a sku that corresponds to Inbound Shipment detail where there is no matching record, the system prompts for a new LPN. Once you confirm the sku to a new tote or LPN, a new record displays for the scanned tote against the Pack Station.

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.

1. Go to the “Receive LPN Shipment” RF module.

Receive LPN Shipment

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

Env: 1gf62_qa
Ctrl-L: Apply Lock
Ctrl-X: Exit App
Ctrl-W: Previous screen

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: 1gf62_qa  
Ctrl-L: Apply Lock  
Ctrl-X: Exit App  
Ctrl-W: Previous screen
```

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
```

- 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: 1gf62_qa  
Ctrl-E: End LPN  
Ctrl-L: Apply Lock  
Ctrl-X: Exit App  
Ctrl-W: Previous screen
```

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":

Module * (None) ▼

Screen Name

- RF-Text: Reactive Replenishment ▲
- RF-Text: Recv {lpn} Load**
- RF-Text: Recv {lpn} Shipment
- RF-Text: RF - Replenish Full LPN
- RF-Text: {item} Inquiry ▼

RF receiving process

1. Go to the “Receive LPN Load” 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.
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.

```

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

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

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.
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
    
```

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

10. Repeat steps four and five for subsequent LPNs.

Prevent Appending Scanned Values during RF Transactions

Certain warehouse operations will result in prompting and defaulting the input value in pop-up screens so that you can confirm the prompted value or override with a different value. In Oracle WMS Cloud, popup dialog boxes default batch numbers have the text highlighted so that the scanned value will overwrite the batch number. You don't have to manually delete the characters before scanning.

During RF Receiving, the system prompts for the batch number as a pop-up screen. If the batch number is present on the shipment detail, the system defaults the batch number based on item settings. You will see the defaulted text selected which ensures that you can scan a new value without the defaulted value getting appended.

Dialogue Popup Screen Behavior when Text is Defaulted

- When a value is prepopulated, the text is highlighted using a reverse color of the text. After pressing enter/tab, the system will accept the selected text.
- Typing something else will delete all selected text and replace it with typed or scanned text. If you want to edit or add to it, press an arrow key which removes the selection and lets the user edit. If you press tab or enter, then the text is accepted as is.
- If you press any arrow key, the selection is removed.
- Once an arrow key is pressed, any character typed will get appended or will overwrite the characters depending on where the cursor is, as normal behavior in RF.
- If you press any other key (other than arrows, tab or enter), the system will delete the selected text and start from scratch.

Note: The highlighted text option is currently applicable for dialog popups that allow a barcode type. This is NOT applicable for expiry date popup dialogs or for the Inventory Attributes screen which displays after a sku barcode scan.

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):

1. SKU Level Receipt (scan each)
2. Inner Pack Level Receipt (scan packs)
3. Cases Level Receipt (scan cases)
4. 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	<div style="border: 1px solid black; padding: 2px;"> <div style="border-bottom: 1px solid black; padding: 2px;">Units</div> <div style="background-color: #0070C0; color: white; padding: 2px;">Packs</div> <div style="padding: 2px;">Cases</div> </div>

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) █ _____
    
```

3. Scan the item. 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”.

Note: 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

Shipment Nbr	Status	Shipped Qty	Load	Orig shipped LPNs	Received qty	Nbr LPNs
ASFLOW22_1	In Transit	160	LASFLOW22_1	0	0	<u>16</u>

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
```

Receiving unanticipated LPNs for Fully Cartonized Shipments

You can scan an LPN, (that 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 does not 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)

To Configure on the UI

1. Go to the “Screen Configuration” screen.
2. Select the receiving RF module (rf.inbound.cwrfreqvlpnshpmt) click on Details ().
3. This will open a window with all the RF module’s parameters. Select parameter pallet-handling and click Edit ().

- Click on the “Module parm choice” drop-down menu and select the appropriate palletization mode.

Module Parameter	pallet-handling
Parameter Value	
Module parm choice	<div style="border: 1px solid red; padding: 2px;"> Palletize after receipt LPN or Pallet receiving Palletize up front LPN as Physical Pallet Palletize after receipt </div>

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 Numbers

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

Configuration Steps

- Go to the **Screen Configurations** tab.
- Select the RF receiving module and click on **Details**. This will display all the parameters for the selected RF module.
- Select the “lpn-prompt” parameter. Click **Edit**.

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

Module Parameter	lpn-prompt
Parameter Value	
Module parm choice	<div style="border: 1px solid #ccc; padding: 5px;"> <div style="background-color: #f0f0f0; padding: 2px;">Mandatory</div> <div style="padding: 2px;">Not mandatory</div> <div style="padding: 2px;">Auto Generate</div> </div>

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.

To enable auto populate for pallet numbers in RF **Receiving**, set **pallet-auto-generate** to palletize up front mode.

Auto Generate Pallet Numbers

You don’t have to scan a pallet every time you receive a shipment in upfront palletization mode for the following receiving modules RF **Recv {lpn} Load**, RF **Recv {lpn} Shipment**, and RF **Recv Single Sku**.

The pallet-auto-generate parameter allows you to skip the pallet scan. This is perfect for scenarios where the pallet label is not available. The system will auto populate the pallet number based on the blind pallet number sequence counter.

Parameter name	pallet-auto-generate
Parameter type	Selection
Parameter options	Blank, Yes, No
Default behavior	Blank (acts as No)

- The **pallet-auto-generate** only works if the pallet-handling screen parameter is set to **palletize up front mode**. If not the pallet prompt is mandatory.
- When the **pallet-auto-generate** parameter is set to Yes, users are not required to scan the pallet number. Instead they can tab and the system will generate a pallet number as per the BLIND_PALLET_NBR sequence counter. However, in this mode, users can scan the pallet number as well (this is optional).

Note: To enable auto populate for pallet numbers in RF **Receiving**, set **pallet-auto-generate** to palletize up front mode.

RF Palletize - Auto Generate Pallet Numbers

In the RF Inbound Palletize (**rf.inbound.cwrfpalletizeplt**) module, the **pallet-auto-generate** parameter allows you to auto generate a pallet number based on the Blind Pallet number sequence counter.

Parameter name	pallet-auto-generate
Parameter type	Selection
Parameter options	Blank, Yes, No
Default behavior	Blank (acts as No)

Note: To enable auto populate for pallet numbers in RF **Palletize**, set **pallet-auto-generate** to Yes.

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.
 - 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.

```
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
```

- 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
```

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
```

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 Ipn-prompt is Configured as Not Mandatory

1. Select the RF Shipment/RF Load option which has “Ipn-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
```

2. When “Ipn-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
```

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 the 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
```

2. On the SKU scan screen, the Ctrl-E key will activate “End Pallet”.
 - o If you hit Ctrl-E, the system displays the message “End pallet <plt nbr>?”

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

- If you press Ctrl-E, the system displays the message “Nothing to receive.”
- 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.

Prompt for Batch, Expiry, Inventory Attributes, and Serial Numbers

You can configure prompting of Batch number and Expiry date prompt during receiving, if present on the Shipment detail. These configurations are also available at **Item level** UI where you can define batch or expiry date prompt even if it is mentioned in the shipment detail.

You can also control prompt for multiple batch/expiry/attribute/serial numbers for all the details present in a non-cartonized and cartonized ASN type configurations.

Item Level Configuration

An item level configuration provides you with an option for prompting the batch/expiry prompt, even if the batch/ expiry is present on the shipment detail. You can also override the batch number/ expiry date during receiving, if shipment detail is defined with batch number & expiry date based on the prompt behavior.

You can define the Item level configuration provided via **Item Details** UI and **Item Interface** Input File.

← Item » Details

Code *	<input type="text"/>
Retail Price	<input type="text" value="0"/>
Unit Net Cost	<input type="text" value="0"/>
Currency	<input type="text"/>
Dim 1	<input type="text" value="0"/>
Dim 2	<input type="text" value="0"/>
Dim 3	<input type="text" value="0"/>
Receive Type	<input type="text"/>
LPN Type	<input type="text"/>
Product Life	<input type="text" value="0"/>
% acceptable	<input type="text" value="0"/>
Expiry prompt for recv	<input type="text" value="Prompt, if not known"/>
require batch number	<input type="checkbox"/>
Batch prompt for recv	<input type="text" value="Prompt, if not known"/>
require serial number *	<input type="text" value="Required, validate and allow user"/>
Conveyable	<input type="checkbox"/>
Sortable	<input type="checkbox"/>

The batch/expiry prompt during receiving configuration is supported via **RF Receive Ipn Shipment** (rf.inbound.cwrfrecvlpnshpmt) & **RF Receive Ipn load** (rf.inbound.cwrfrecvlpnload) screen.

Note: By default, the "Batch prompt for recv " and "Expiry prompt for recv " fields are set to **"Prompt, if not known"** value for all the existing and new items. These configurations are applicable only for batch/expiry tracked items. For all the non-batch/expiry tracked items, these fields are disabled.

Item Configuration via Item Detail UI

Two drop-down fields are introduced on the **Item Detail** UI. By default, these fields are disabled.

- To enable and configure **Batch prompt for recv**",
 - Go to **Item UI > Details**.
 - Click **Edit** . Check **"require batch number"** flag for **"Batch prompt for recv"** to enable.

- To enable and configure **"Expiry prompt for recv"**,
 - Go to **Item UI > Details**.
 - Click **Edit** and enter the **"Product life"** with a non-zero value for **"Expiry prompt for recv"** to enable.

These new fields have the following values:

- Prompt, if not known:** Prompts for batch number/expiry date only if the system cannot determine the batch/expiry/attribute from the ASN detail.
- Always prompt:** Prompts for the batch number/ expiry dates even if the details are present on the shipment details.

Note: By default, the **"Batch prompt for recv"** and **"Expiry prompt for recv"** drop down is set to **"Prompt, if not known"** value for all the batch/expiry.

Note: During receiving, when using manufacturing date when prompted, the system arrives at the expiration date by adding the product life in days. Post receipt, operations will have to utilize the derived expiry date.

Item Interface Configuration via Interface

In the interface file, go to the following two columns:

- "batch_handling_receiving"** – Prompt, if not known (1), Always prompt(2)

- "expiry_handling_receiving" – Prompt, if not known (1), Always prompt(2)

DI	DJ
batch_handling_receiving	expiry_handling_receiving
1	1

Note:

- Specify value **1** for Prompt, if not known and value **2** for Always prompt in the interface file.
- The system supports only numeric value.
- By default, the "batch_handling_receiving" and "expiry_handling_receiving" drop down is set to 1 (**Prompt, if not known**) for batch/expiry and non-batch/non-expiry tracked items.
 - **Note:** On providing any numeric value other than 1 or 2 for the batch_handling_receiving" and "expiry_handling_receiving, the system defaults the value to 1 (Prompt, if not known) behavior.
 - **Note:** If these columns are blank for a non-batch/expiry tracked item, the system assume the default value as 1 (**Prompt, if not known**). However, this behavior will not impact the Non batch/expiry tracked SKUs.
- These columns support Excel, PSV, XML (Input interface & Init stage interface) format.

Shipment Type Configuration

You can configure the prompt control behavior for Batch number, Expiry date, Inventory attribute, and Serial numbers (for cartonized) at the individual shipment type level for cartonized and non-cartonized ASNs via on the **Shipment Type** UI.

However, these configurations are applicable only for batch/expiry/inventory attribute/serial number tracked items. Non-batch/expiry/inventory attribute/serial number tracked items are not affected by the shipment type flags.

Note: ASN type configurations take precedence over item detail UI level configurations. For Cartonized receiving to prompt, users need to either set the Item level configuration for batch and expiry to Always Prompt or define the ASN type configuration "**Cartonized receiving batch and expiry prompt control** to **Always prompt**".

Percent LPNs for Random QC Determination	<input type="text"/>
Capture Returns Information	<input type="checkbox"/>
Cartonized receiving batch and expiry prompt control	<input type="text" value="1"/> ▼
Cartonized receiving attribute prompt control	<input type="text" value="1"/> ▼
Cartonized receiving serial nbr prompt control	<input type="text" value="1"/> ▼
Non-Cartonized receiving batch and expiry prompt control	<input type="text" value="1"/> ▼
Non-Cartonized receiving attribute prompt control	<input type="text" value="1"/> ▼

Advantages of prompt control are Shipment level are:

- You can configure different behavior for vendor shipment and likewise configure the transfer shipments without changing any RF screens or updating the item.
- You can define the prompts at Shipment type level flags to apply all the batch/exp/inventory attribute/serial tracked SKUs present on an IB Shipment.
- You can configure separate receiving flags for cartonized and non-cartonized ASNs to control prompt behavior at an individual receiving level.

Configuration Fields for Cartonized ASN

You can choose whether to prompt for multiple batch/expiry/Attribute/serial for a single SKU within an LPN for a cartonized ASN via **Shipment type** UI

To configure the cartonized receiving for batch, expiry and inventory attribute prompt controls:

1. Go to **IbShipmentTypeView** screen and **Create** button.
2. Enter the shipment details and populate the desired prompt control:
3. Three drop-down fields are available on the create shipment type UI along with their values:

Cartonized receiving batch and expiry prompt control	
Cartonized receiving attribute prompt control	Prompt, if not known
Cartonized receiving serial nbr prompt control	Always prompt
	Do not prompt

- a. Cartonized receiving batch & expiry prompt control: Blank/ Prompt, if not known/Always prompt/ Do not prompt.
- b. Cartonized receiving Attribute prompt control: Blank/Prompt, if not known/Always prompt/ Do not prompt.
- c. Cartonized receiving Serial prompt control: Blank (Default behavior)/ Prompt, if not known/Always prompt/ Do not prompt.

If the field is blank, the system honors item level configuration. i.e., Prompt, if not know. However, when Cartonized Receiving for Batch number & Expiry Number /Attribute /Serial prompt control is set to Prompt, if not known or Always prompt or Do not prompt, the system does not honor any of the item property configurations for batch/expiry dates/ inventory attribute.

Note: If user scans a batch number that does not match with the batch number present on the LPN (Other than blank value), then system display the message, "Batch number is not present in the LPN".

Note: If a user scans an Expiry date which is not matching with the Expiry date present on the LPN (Other than blank value) then system displays the message, "Expiry date is not present in the LPN".

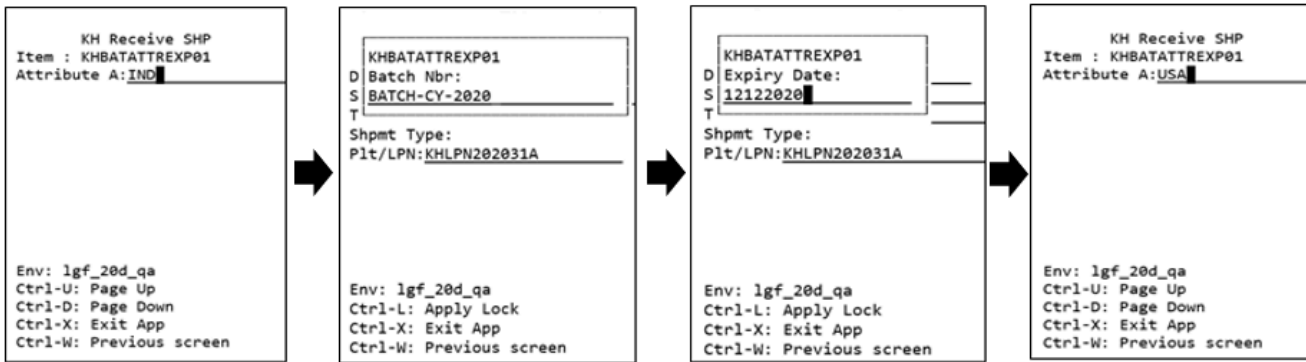
4. Click **Save**.

Example: Cartonized ASN - Screen flow for batch/expiry/inventory attribute/serial tracked SKU

In a cartonized receiving flow, the system will retain the LPN on the anticipated detail after receiving an unanticipated detail for the same SKU. In detail receiving of cartonized shipment, the system will now retail the LPN on the anticipated detail after user scans and receives an unanticipated detail (Such as batch/exp/inv attribute) form the same SKU

On receiving a cartonized shipment having multiple batch/expiry/inventory attributes for the same SKU in a single IBLPN, the system loops through each detail individually.

Let's say, you have the following ASN:



Cartonized ASN - Screen flow

ASN	LPN	SKU	Shipped Qty	Received Qty	Attribute	Batch number	Expiry Date
ASN001	LPN001	SKU01	100	0	IND	BATCH-CY-2020	12122020
ASN001	LPN001	SKU01	100	0	USA	BATCH-CY-2021	09122020

1. The system loops through the first detail by scanning the LPN, the inventory attribute (IND), then batch (BATCH-CY-2020), expiry date (12122020).
2. The system moves to the second detail (without ending LPN), scans the inventory attribute (USA), then batch (BATCH-CY-2021), expiry date (09122020).

Example: Cartonized ASN - Screen flow for batch/expiry/inventory attribute/serial tracked SKU = Do Not Prompt (Classical Cartonized)

This is a classical receiving behavior and the flag is available on the Shipment type UI to restrict prompting of batch/expiry/inventory attribute/Serial for a single SKU within an LPN, but the system fetches the batch/expiry/attributes from the ASN detail, and the serial numbers are fetched from the IB shipment serial number table.

Note: When configuring the shipment type to **Do Not Prompt**, users need to populate the batch, expiry date, inventory attribute, and serial numbers on the respective details. Otherwise, the system will not be able to perform RF Receiving and will prompt the users to perform detailed receiving.

Let's say, you have the following prompt control configured:

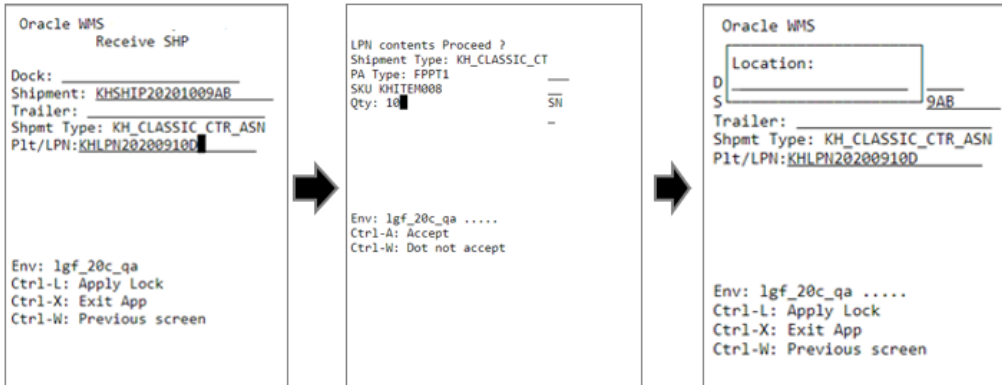
Shipment Type * KH_CLASSIC_CTR_ASN
 Description * KH_CLASSIC_CTR_ASN
 Under Receipt Warning % * 0
 Over Receipt Warning % * 0
 Over Receipt Error % * 0
 receipt validation type * Both
 Allow Expired Inventory
 Break Prepacks
 Prevent Verify if Putaway Outstanding
 Unallocated order details to cancel on ASN verify mode Do not Cancel
 Percent LPNs for Random QC Determination 0
 Capture Returns Information
 Cartonized receiving batch and expiry prompt control Do not prompt
 Cartonized receiving attribute prompt control Do not prompt
 Cartonized receiving serial nbr prompt control Do not prompt
 Non-Cartonized receiving batch and expiry prompt control
 Non-Cartonized receiving attribute prompt control

When Cartonized ASN - Screen flow for serial tracked SKU = Do Not Prompt:

← KH IB Shipment ► Inbound Shipment Dt

Inbound Shipment	Facility Code	facility_name	Company Code	Item Code	Item Description	LPN Nbr	LPN Status	Shipped Qty	Received qty	Batch Nbr	Expiry Date	Marked for QC	Attribute A	IB Shipment dtl Attribute B	Attribute C	Attribute D	Attribut
KHSHIP20201009AB	OATST01	LGf-WAREHOUSE	OATSTPC	KHITEM008	KHITEM008	KHLPN20200910D	Not received	10	0			No					
KHSHIP20201009AB	OATST01	LGf-WAREHOUSE	OATSTPC	KHITEM008	KHITEM008	KHLPN20200910C	Not received	10	0			No					

After scanning the SKU, the system doesn't prompt for serial number:



← KH IB Shipment ► Inbound Shipment Dt

Inbound Shipment	Facility Code	facility_name	Company Code	Item Code	Item Description	LPN Nbr	LPN Status	Shipped Qty	Received qty	Batch Nbr	Expiry Date	Marked for QC	Attribute A	IB Shipment dtl Attribute B	Attribute C	Attribute D	Attribut
KHSHIP20201009AB	OATST01	LGf-WAREHOUSE	OATSTPC	KHITEM008	KHITEM008	KHLPN20200910D	Received	10	10			No					
KHSHIP20201009AB	OATST01	LGf-WAREHOUSE	OATSTPC	KHITEM008	KHITEM008	KHLPN20200910C	Not received	10	0			No					

You can view the associated serial number from the IB Container UI. Click on the numbered hyperlink from the view_serial_nbs column.

KH IB Container

[Home](#) [Refresh](#) [Approve](#) [Reject](#) [Deallocate LPN](#) [Print Label](#) [Blind Labels](#) [Change pack qty](#)

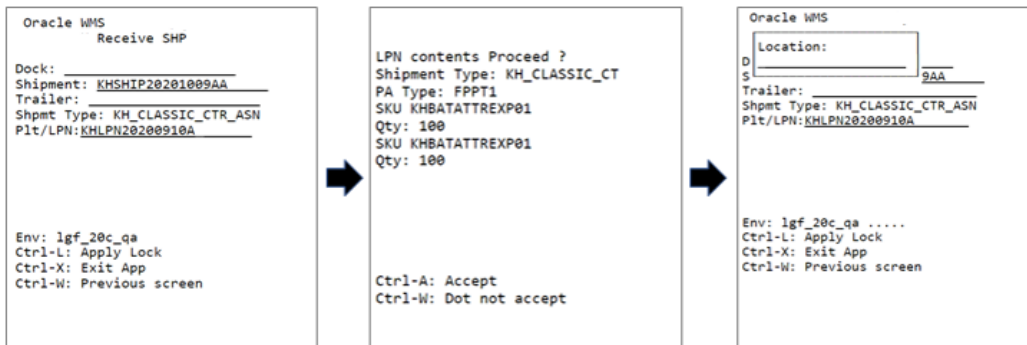
Facility	Company	LPN Nbr	Status	Item Code	view_serial_nbs	Batch Nbr
QATST01	QATSTPC	KHLPN20200910D	Received	KHITEM008	10	

When Cartonized ASN - Screen flow for batch/expiry and inventory attribute = Do Not Prompt

← KH IB Shipment ▶ Inbound Shipment Dtl

[Home](#) [Refresh](#) [Cartonize](#) [Convert to prepack](#) [Print LPN labels](#) [Print Price Labels](#) [Break Prepack](#) [Cartonize Std Case](#) [Select for Dtl Recv](#) [Deselect from Dtl Recv](#) [Receive LPN](#) [Cartonize LPN t](#) [+](#)

Inbound Shipment	Facility Code	facility_name	Company Code	Item Code	Item Descriptio	LPN Nbr	LPN Status	Shipped Qty	Received qty	Batch Nbr	Expiry Date	Marked for QC	Attribute A
KHSHIP20201009AA	QATST01	LGf-WAREHOUSE	QATSTPC	KHBATATTR...	KHBATATTR...	KHLPN20200910A	Not received	100	0	KHBATCH8060	12/12/2021	No	5
KHSHIP20201009AA	QATST01	LGf-WAREHOUSE	QATSTPC	KHBATATTR...	KHBATATTR...	KHLPN20200910A	Not received	100	0	KHBATCH7070	11/11/2021	No	6



After receiving, the system updates in the following manner:

← KH IB Shipment ▶ Inbound Shipment Dtl

[Home](#) [Refresh](#) [Cartonize](#) [Convert to prepack](#) [Print LPN labels](#) [Print Price Labels](#) [Break Prepack](#) [Cartonize Std Case](#) [Select for Dtl Recv](#) [Deselect from Dtl Recv](#) [Receive LPN](#) [Cartonize LPN t](#) [+](#)

Inbound Shipment	Facility Code	facility_name	Company Code	Item Code	Item Descriptio	LPN Nbr	LPN Status	Shipped Qty	Received qty	Batch Nbr	Expiry Date	Marked for QC	Attribute A
KHSHIP20201009AA	QATST01	LGf-WAREHOUSE	QATSTPC	KHBATATTR...	KHBATATTR...	KHLPN20200910A	Received	100	100	KHBATCH8060	12/12/2021	No	5
KHSHIP20201009AA	QATST01	LGf-WAREHOUSE	QATSTPC	KHBATATTR...	KHBATATTR...	KHLPN20200910A	Received	100	100	KHBATCH7070	11/11/2021	No	6

Configuration Fields for Non-Cartonized ASN

To configure the non-cartonized receiving for batch, expiry and inventory attribute prompt controls:

1. Go to **IbShipmentTypeView** screen and **Create** button.

2. Enter the shipment details and populate the desired prompt control:
 - o Non-Cartonized receiving batch & expiry prompt control: Blank (Default behavior)/ Prompt, if not known/Always prompt.
 - o Non-Cartonized receiving attribute prompt control: Blank (Default behavior)/ Prompt, if not known/ Always prompt.

Note: If the field is set to Blank, the system honors the item level configuration.

Non-Cartonized receiving batch and expiry prompt control

Non-Cartonized receiving attribute prompt control

3. Click **Save**.

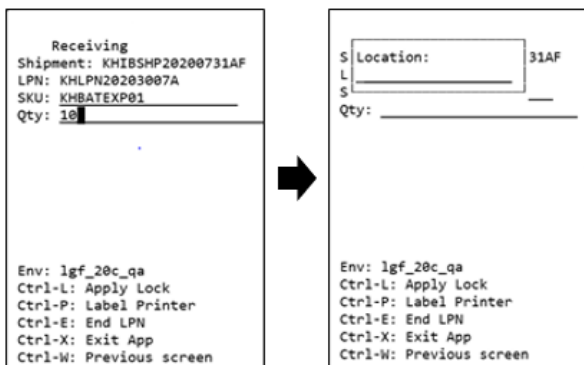
Note: When Non-Cartonized Receiving for Batch number & Expiry Number /Attribute prompt control is set to **Prompt, if known** or **Always prompt**, the system does not honor any of the item property configurations for batch/expiry dates/ inventory attribute.

Example: Prompt for batch/expiry date for single SKU for a Non-Cartonized Shipment at the Item Level

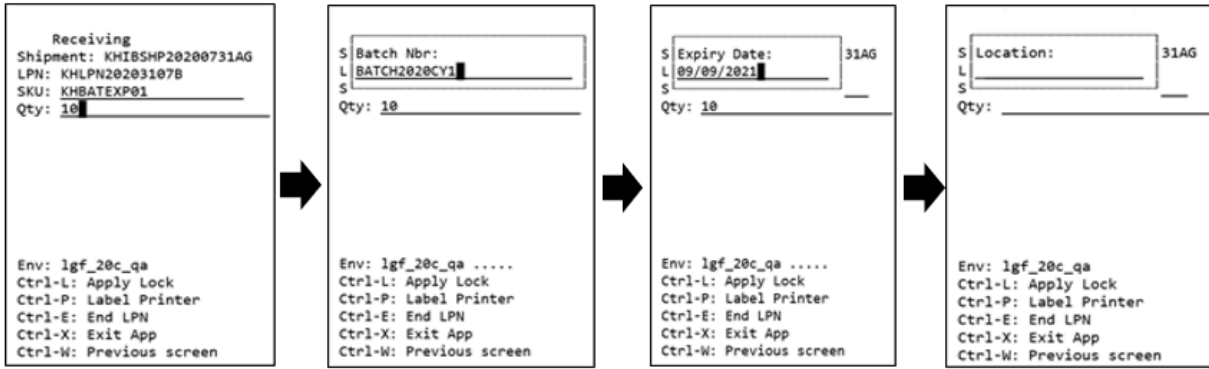
Let's say, you have the following ASN to be received:

Inbound Shipment	Item Code	Item Description	LPN Nbr	Shipped Qty	Received qty	Batch Nbr	Expiry Date
KHIBSHP202...	KHBATEXP01	KHBATEXP01	KHLPN20203...	10	0	BATCH2020CY01	09/09/2021

When Non-Cartonized receiving batch/expiry date prompt control = **Prompt, if not know**:



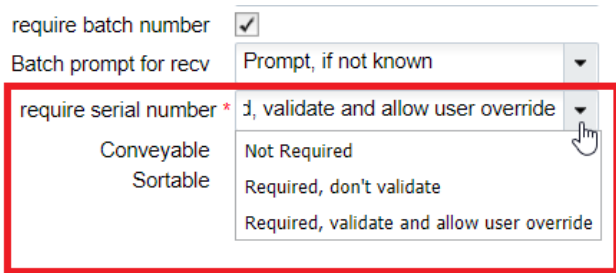
When Non-Cartonized receiving batch/expiry date prompt control= **Always prompt**



Note: On scanning an existing batch with batch master populated with an expiry date, the system will not prompt for Expiry date even if the expiry date prompt control is set to Always Prompt (either at item level or shipment type).

Non-Cartonized Receiving for Serial number prompt control

1. Go to **Item UI > Details**. Click **Edit**.
2. Enable the **“required serial number”** drop-down at item’s level configuration with values:



Example: Receive Multiple Inventory attribute /Batch/expiry/inventory attribute for the same SKU in a Single IBLPN for a non-cartonized shipment

To allow multiple inventory attribute, you need to enable the screen parameter **"mult-attr-per-sku-in-lpn"** in the **Recv {lpn} Shipment/Recv {lpn} Load** module for the batch number/ expiry date that allows receiving inventories with different batch/expiry of the same SKU in a single/multiple IBLPN.

The system honors prompt configuration for batch/expiry/inventory attribute defined either at the item level or at the non-cartonized ASN type UI in conjunction with the "mult-attr-per-sku-in-lpn" field.

Note: This behavior is honored only if the respective items are batch tracked or expiry tracked or both or inventory attribute tracked.

Module Parameter

Parameter Value

Module parm choice

yes
no

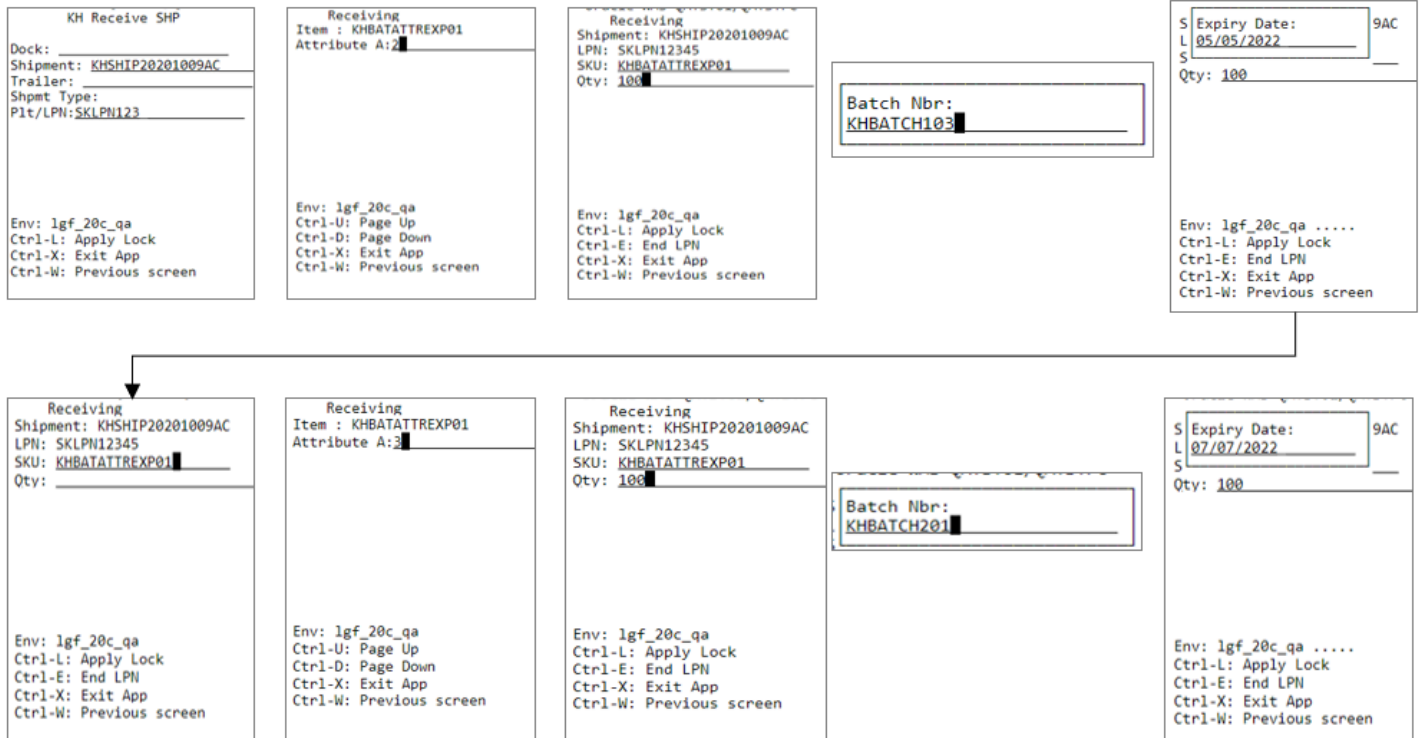
1. Go to **Module > Recv {lpn} Shipment/ Recv {lpn} Load**
2. Select **mult-attr-per-sku-in-lpn** and Click **Edit**.
3. Choose the parameter from the drop-down menu:
 - a. mult-attr-per-sku-in-lpn = **Yes** : Allows multiple Batch/Expiry/expiry/inventory attribute of the same SKU into a single/multiple IBLPN.
 - b. mult-attr-per-sku-in-lpn = **No**: Does not allow multiple Batch/Expiry into a single IBLPN (existing behavior) or during upfront palletization.
4. Click **Save**.

Let's say you have the following ASN configured:

← KH IB Shipment ▶ Inbound Shipment Dtl

Inbound Shipment	Facility Code	facility_name	Company Code	Item Code	Item Description	LPN Nbr	Shipped Qty	Received qty	Batch Nbr	Expiry Date	Marked for QC	Attribute A
KHSHIP20201009AC	QATST01	LGF-WAREHOUSE	QATSTPC	KHBATATTREXP01	KHBATATTREXP01		100	0	KHBATCH103	05/05/2022	No	2
KHSHIP20201009AC	QATST01	LGF-WAREHOUSE	QATSTPC	KHBATATTREXP01	KHBATATTREXP01		100	0	KHBATCH201	07/07/2022	No	3

The system scans through the SKU 1 (attribute, batch and expiry) and without ending the LPN, the system loops through remaining SKUs with the same hierarchy.



Upon scanning all the SKUs in the LPN and performing CTRL+E, the system receives the SKUS and updates the shipments details in the following manner:

← KHIB Shipment ▶ Inbound Shipment Dtl

Inbound Shipment	Facility Code	facility_name	Company Code	Item Code	Item Description	LPN Nbr	Shipped Qty	Received qty	Batch Nbr	Expiry Date	Marked for QC	Attribute A	IB Shipment dtl	Attribute B
KHSHIP20201009AC	QATST01	LGf-WAREHOUSE	QATSTPC	KHBATATTREXP01	KHBATATTREXP01	SKLPN12345	100	100	KHBATCH103	05/05/2022	No	2		
KHSHIP20201009AC	QATST01	LGf-WAREHOUSE	QATSTPC	KHBATATTREXP01	KHBATATTREXP01	SKLPN12345	100	100	KHBATCH201	07/07/2022	No	3		

KH IB Container

Facility	Company	LPN Nbr	Status	Item Code	view_serial_nbrs	Batch Nbr	Expiry Date	Attribute A	Received Qty	Current Qty	QC Status	Vas	External Style	Is Parent	Alternate Item C	Description	Weight
QATST01	QATSTPC	SKLPN12345	Received	KHBATATTREXP01		KHBATCH201	07/07/2022	3	100	100	Not Required	Not Required		false	KHBATATTR...	KHBATATTR...	20000
QATST01	QATSTPC	SKLPN12345	Received	KHBATATTREXP01		KHBATCH103	05/05/2022	2	100	100	Not Required	Not Required		false	KHBATATTR...	KHBATATTR...	20000

Warning and Error Conditions

The following table depicts warning or error messages that are displayed when performing RF Receiving transaction:

Warning & Error Conditions

On Receiving	Warning/ Error Conditions	Warning /Error Messages
Non-Cartonized Shipments	<p>On scanning a batch number /expiry date that does not match with the batch number /expiry date present on the shipment.</p> <p>Note: These messages do not appear if the ASN detail is not populated with batch/expiry date and user scans batch/expiry for the detail.</p>	<p>For batch number: Batch number does not match the SKU-shipment combination"</p> <p>For expiry date: "Expiry Date does not match the SKU-shipment combination"</p> <p>Note: By default, these messages are enabled for the respective facilities. Users can disable the batch number/expiry date warning message or can configure as an error message from the Edit Facility message configuration UI.</p>
Cartonized Shipment	<p>When Cartonized Receiving for Batch number & Expiry Number /Inventory Attribute/ Serial number prompt control = Do not Prompt</p> <p>If an SKU (batch/expiry/attribute/serial tracked) has either of the batch/expiry/attributes is missing in the ASN detail, or if the serial numbers are not available in the IB shipment serial number entity.</p>	<p>"The system cannot determine the %attributes% of the SKU. Please perform Detail receiving"</p> <p>Note: The messages will be specific to the attribute that is missing. The system captures the first attribute that is missing in the sequence.</p> <p>For example, if the Cartonized receiving Attribute prompt control is set to "Do not Prompt" and any of the inventory attribute detail is missing, the system should throw the "System cannot determine the inventory attributes of the SKU. Please perform DTL receiving" irrespective of the other cartonized receiving flags for batch/expiry or serial number</p>
	<p>If the Shipment type flags for Cartonized ASN have mixed prompt control properties (For example, the Batch/Expiry flag is set to "Do not Prompt", inventory attribute prompt control is set to "Always Prompt").</p> <p>If the Shipment type flags for Cartonized ASN are set to Do not prompt or flags have prompt controls set to a combination other than Do not prompt, then this warning messages do not appear.</p>	<p>Warning Message: ASN type has some attributes set to do not prompt and some to prompt, receiving might fail".</p>
	<p>On scanning an LPN having multiple details with multiple batches/expiry/inventory attribute and serial number combination for a single SKU, and system prompts users to perform detail receiving of the particular detail in cartonized ASN.</p>	<p>Error message: "Multiple attr-serial number combination found on LPN for the same SKU. Please perform dtl receiving".</p>
	<p>On scanning a batch number /expiry date that does not match with the batch number /expiry date present on the LPN.</p> <p>Note: These messages do not appear if the ASN detail is not populated with batch/expiry date and user scans batch/expiry for the detail.</p>	<p>"Scanned Attribute- SKU combination is not present in the LPN".</p> <p>Note: By default, these messages are enabled for the respective facilities. Users can disable the batch number/expiry date warning message or can configure as an error message from the Edit Facility message configuration UI.</p>

Scanning a new LPN in Cartonized Shipments

If all the lines of a shipment detail are cartonized, 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. After accepting the message, the screen flow is similar to SKU Level receiving/detail receiving where you can continue by scanning the SKU and quantity.
- 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 screen flow 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.

Configuration Steps

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	<input type="text" value="prompt-location"/>
Parameter Value	<input type="text"/>
Module parm choice	<input type="text" value="Prompt if not known"/> <input type="text" value="Do not prompt"/>

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

- o **Prompt if not known:** Location prompt will be displayed
- o **Do not prompt:** Location prompt will not be displayed
- o 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.

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 “print-labels”. Click **Edit**.
4. In the “Module parm choice” drop-down menu, select the desired option.

Module Parameter	print-labels
Parameter Value	
Module parm choice	<div style="border: 1px solid #ccc; padding: 5px;"> <div style="border-bottom: 1px solid #ccc; padding: 2px 5px;"> </div> <div style="padding: 2px 5px;">Inbound LPN Label</div> <div style="padding: 2px 5px;">UOM Case Label</div> <div style="padding: 2px 5px;">UOM Pack Label</div> <div style="padding: 2px 5px;">LPN Label and UOM Case Label</div> <div style="padding: 2px 5px;">LPN Label and UOM Pack Label</div> </div>

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 will only display if “print-labels” is 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

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
```

Oracle WMS QA3PLEST/QAMASTER

```
Default Label Printer:  
lgfblrqa
```

```
Case Label Printer:  
█_____
```

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

Oracle WMS QA3PLEST/QAMASTER

Default Label Printer:
lgfblrqa

Pack Label Printer:
█

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

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

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.

Note: For more details about Label Designer, see the *Document and Label Designer Guide*.

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	<input type="text"/>
Module parm choice	<input type="text"/> ▼ Prompt Do Not Prompt

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.

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-trailer”. Click **Edit**.

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

Module Parameter	prompt-trailer ▼
Parameter Value	<input type="text"/>
Module parm choice	<input type="text"/> ▼ Prompt Do Not Prompt

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.

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 “confirm-uom-qty”. Click **Edit**.

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

Module Parameter	<input type="text" value="confirm-uom-qty"/>
Parameter Value	<input type="text"/>
Module parm choice	<input type="text" value=""/> <input type="text" value="Do Not Prompt"/> <input type="text" value="Prompt per Sku per LPN"/>

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 the 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
```

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 up 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
```

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
```

- 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.”
- 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
```

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: 1gf62_qa
Ctrl-L: Apply Lock
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

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.

← Modules ▶ **Parameters**



Parameter Name	Module	Parameter Type	Parm choices
restrict-pa-type	RF-Text: Recv {lpn} Shipment	Selection	None At Pallet Level At LPN Level Both
single-sku-management	RF-Text: Recv {lpn} Shipment	Selection	None Assume Single SKU Restrict multi-sku
infer-prepack-parent-item	RF-Text: Recv {lpn} Shipment	Selection	None Detect item prepack parent Do not detect item prep
qty-uom	RF-Text: Recv {lpn} Shipment	Selection	None Units Packs Cases
qc-handling-mode	RF-Text: Recv {lpn} Shipment	Selection	None Mark for QC prompt QC locn Mark for QC do not pr
pallet-handling	RF-Text: Recv {lpn} Shipment	Selection	None Palletize after receipt Palletize up front LPN as Phy
capture-invn-attr-a	RF-Text: Recv {lpn} Shipment	Selection	None Prompt for invn_attr_a Prompt and Clear Value
mode	RF-Text: Recv {lpn} Shipment	Selection	None Pre-Receiving Blind ASN Receiving PO receiving

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

```
Oracle WMS QATST01/QATSTPC
      RCV PO-QC
```

```
PO Nbr JPPOTST2_____
Shipment:
Shpmt Type:
Plt/LPN:_____
```

```
Env: lgf_100_ora
Ctrl-L: Apply Lock
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

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

- 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: JPP0TST2
Shipment: IBSHP4400
LPN: IBSHP4400
SKU: _____
Qty: _____
```

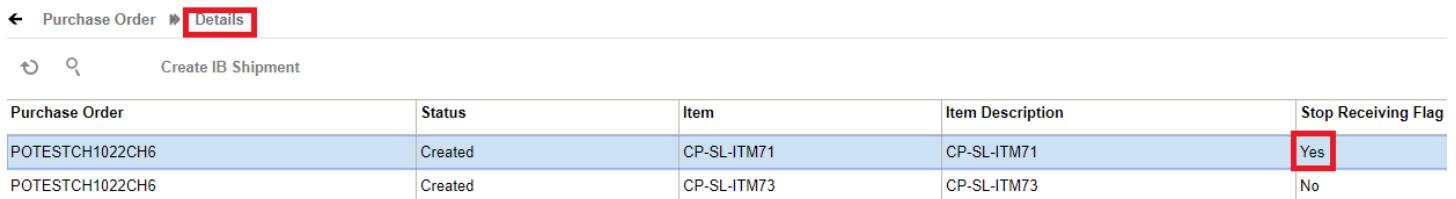
- If the PO is linked to a verified Inbound Shipment, the application auto-generates an Inbound Shipment for the quantity pending to be received. You should enable the 'Create ASN for PO Interface' flag for the corresponding vendor.

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 ▶ **Details**

↻ 🔍 Create IB Shipment

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

- 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 Receive	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

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 P00006
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
    
```

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).

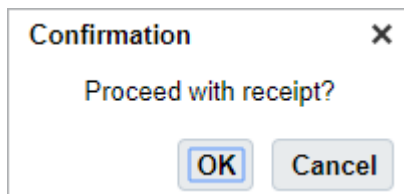
1. Go to the “Inbound Shipments” screen, select the ASN and click “Receive Entire Shipment”.

Note: Ensure the ASN is cartonized prior to receiving the entire ASN.

Inbound Shipments

Shipment Nbr	Shipment Type	Status	Load	Shipped Qty	Orig shipped LPNs
ASFLOW22_1	RKNOR	In Transit	LASFLOW22_1	160	0

2. Oracle WMS Cloud will display a confirmation message. Click “Yes”.



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 cannot be received).

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

Note: If the item is setup with "Required, validate, and allow user to override", and facility parameter SKIP_VALIDATION_FOR_RECV_ENTIRE_SHIPMENT set to **Yes**, you need to have the item set to "**no validation required**" in order for **Receive Entire Shipment** to work.

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.

Linking Serial Numbers with Inventory

In the **Inbound Shipment UI** you can now better identify/link serial numbers with their corresponding inventory according to its SKU/batch/expiry_date/invn_attributes (a-o)/PO Number/PO Sequence Number/Receipt Advice Line combination.

When you perform Receive Entire Shipment for items that require serial numbers configured to "Required, Don't validate", and you have already provided all the serial numbers linked to the IB Shipment, the system will create the inventory with the corresponding serial numbers. The system will verify whether serial number association can be determined for all the IB shipment details corresponding to the LPN.

If serial numbers can be determined for all the shipment details and the number of serial numbers match the quantity being received, then the shipment can be received (provided other existing validations are satisfied).

Note: If all existing validations are not satisfied, an error will display, and you may have to add additional information or perform RF detail receiving to enter the serial number information.

Receiving Options

Oracle Warehouse Management Cloud optimizes the receiving process via various receiving options to receive the right product, in the right quantities, condition, weight, and dimensions all at the right time.

This section walks you through various receiving options in Warehouse Management.

System-Directed Quality Control

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):

Module * vendor|

Screen Name * UI-HTML: **Vendor** Characteristics View
UI-HTML: **Vendor** Perf Codes
UI-HTML: **Vendor** Performance Report
UI-HTML: Vendor Performance
UI-HTML: **Vendors**

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:

Trailer	Vendor Performance Code	Vendor QC
---------	-------------------------	------------------

+
☰
✎
✕
📄

Vendor *

QC Qty Per Load Sku

Count or percentage ▼

Service Level Percentage

Priority

Column name 1 ▼

Column value 1

Column name 2 ▼

- 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.

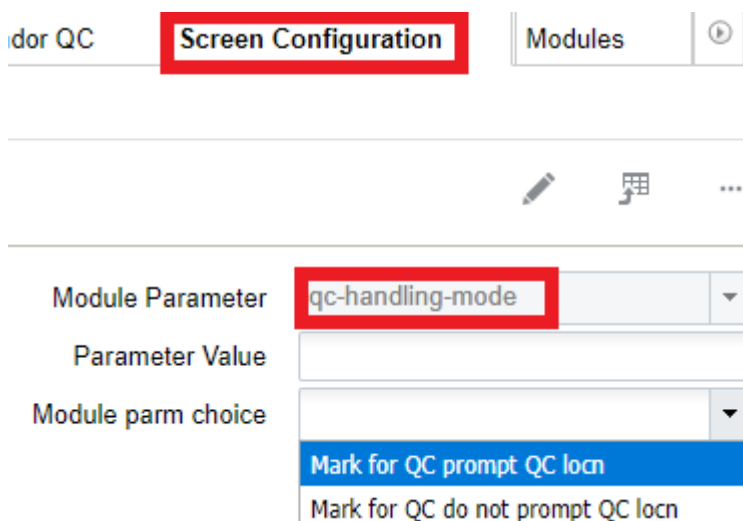
7. Click 'Save'.

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 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:

- o 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.
- o 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.



- 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
```

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

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*. 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.

Screen Configuration | Modules | **Verification Question View**

Verification Name *

Verification Type * ▼

Answer Input Type ▼

Verification Valid For * ▼

Valid Value

Min Value

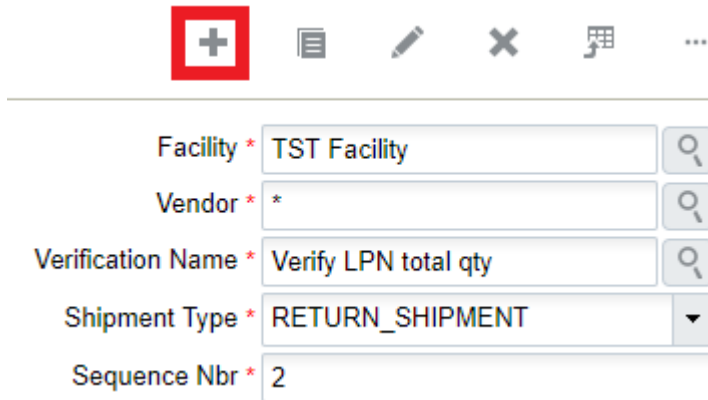
Max Value

Verification Questions UI

Fields	Description
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: <ul style="list-style-type: none"> ○ Yes/NO ○ Text ○ Date ○ Decimal ○ Integer ○ 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.



The screenshot shows a toolbar with a red box around the '+' icon. Below the toolbar is a form with the following fields:

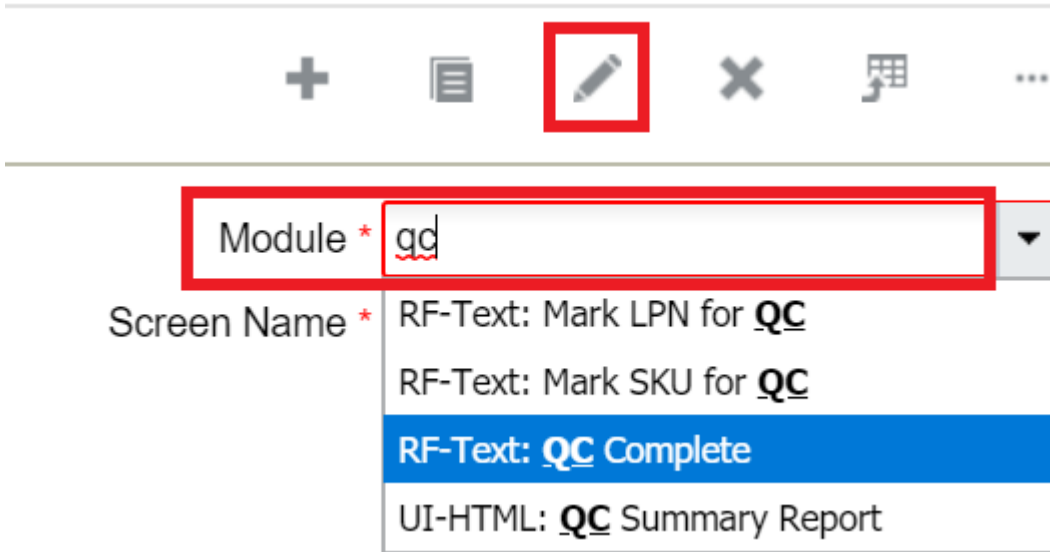
Facility *	TST Facility	🔍
Vendor *	*	🔍
Verification Name *	Verify LPN total qty	🔍
Shipment Type *	RETURN_SHIPMENT	▼
Sequence Nbr *	2	

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 ().



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

QC Complete

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".

Note: the system validates user responses when answering a quality control question in the **RF Quality Control (QC) Complete** transaction (rf.inbound.cwrfqcomplete). If you set up a verification question requiring yes/no in the **Verification Question View** UI, the response will need to match the yes/no Answer Input Type that was set or otherwise you will receive an "invalid entry" message. The answers provided by the users will also be recorded in **Verification History View** under entered value and next to **Answer Input Type**.

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:

```
LogFire WMS 0035/RYDER
-----
|LPN marked for QC |
D-----
S
T
Shpmt Type:
Plt/LPN:CSPB00007573
```

```
Env: ryder62_uat.....
Ctrl-L: Lock iblpn
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

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: |
|_____ |
-----
```

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:

IB LPNs					
		Approve	Reject	Deallocate LPN	Print Label
LPN Nbr	Status	Item Code	Orig qty		
CSTST0100001719	Quality Check	NOR-SPRT-137	10		

Note: 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.

```
Oracle WMS NJ_DC/NJ_COMP
QC Complete
```

```
LPN: CSNJ_DC0000060█
```

```
Env: lgf_901_qa
Ctrl-Q: Mark For QC
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

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
```

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. Click either “Approve” or “Reject.” This will affect ALL QC LPNs in the shipment.

The screenshot shows the 'Inbound Receipt' interface. At the top, there are navigation icons (refresh, search, list) and the title 'Inbound Receipt'. To the right of the title are two buttons: 'Approve' and 'Reject'. The 'Approve' button is highlighted with a red rectangular box. Below the buttons is a table with the following data:

Shipment Nbr	Status	Shipped Qty	Received qty	Nbr
ASN01	Receiving Started	1000	50	2

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

The screenshot shows the 'IB LPNs' interface. At the top, there are navigation icons (refresh, search) and the title 'IB LPNs'. Below the title are several buttons: 'Approve', 'Reject', 'Deallocate LPN', and 'Print'. The 'Approve' button is highlighted with a red rectangular box. Below the buttons is a table with the following data:

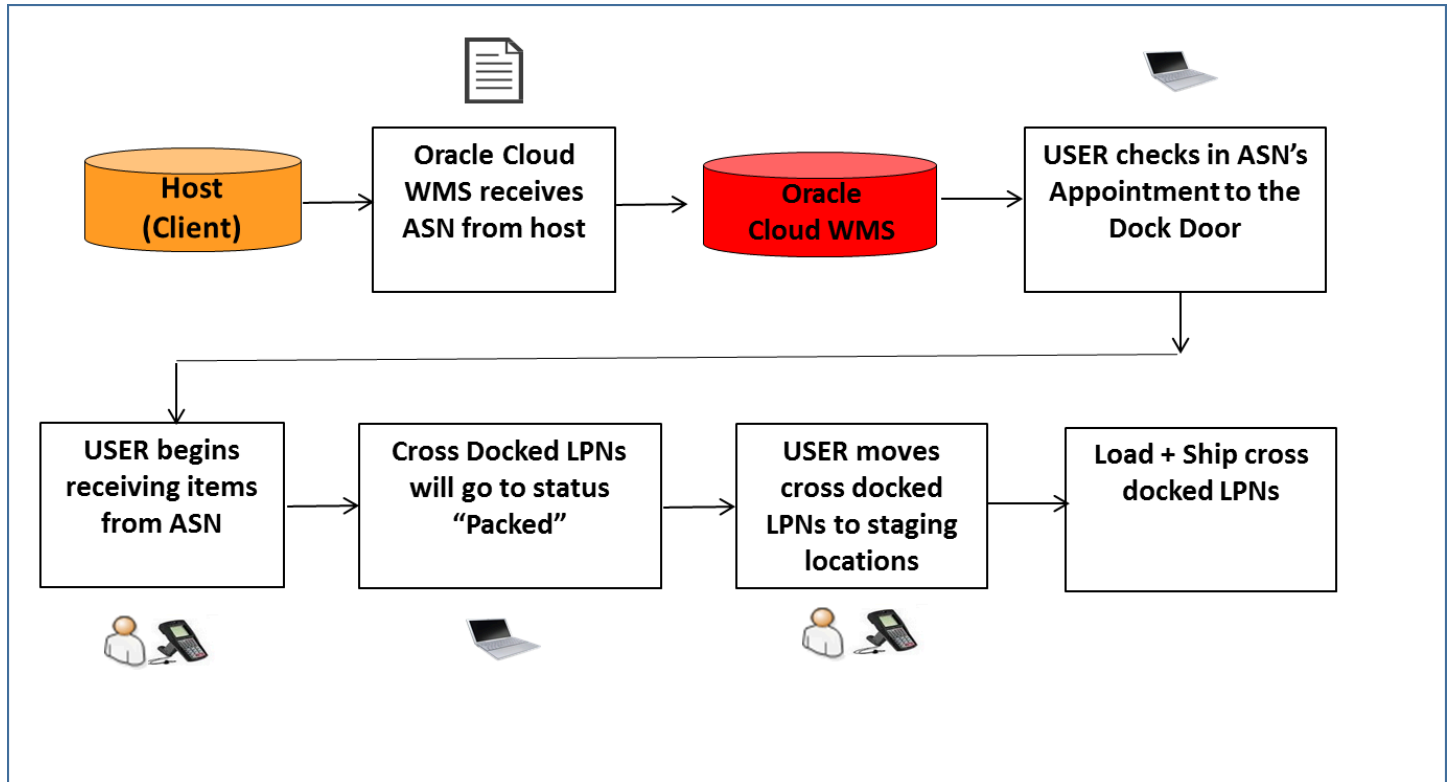
LPN Nbr	Status	Item Code	Orig qty
CSTST0100009548	Quality Check	123456789012345...	2

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:



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.

Order Type	<input type="text" value="XDOCK"/>
Description *	<input type="text" value="Cross Dock Order"/>
Facility Order Flag	<input checked="" type="checkbox"/>
Flowthrough Flag	<input checked="" type="checkbox"/>
Wave Flag	<input type="checkbox"/>
Partial allocation	<input checked="" type="checkbox"/>
Only deallocate on short	<input checked="" type="checkbox"/>
ASN % PO	<input type="text" value="(None)"/>
GDD Printing	<input type="checkbox"/>

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:
 - o “RF-Text: Recv {lpn} Load” if receiving via Loads.
 - o “RF-Text: Recv {lpn} Shipment” if receiving via ASNs.
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.

Module Parameter:

Parameter Value:

Module parm choice:

- LPN Nbr and Single SKU Xdock
- LPN Nbr Xdock**
- LPN Nbr, single, multi sku xdock facility
- LPN Nbr, Single and Multi-SKU Xdock

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”.

Note: Cross-dock functionality is supported through the below RF screens based on the configuration of the **xdock-mode** screen parameter.

- RF Receive IB Shipment
- RF Receive IB Load
- RF Distribute LPN
- RF Putaway



Company Parameter Configuration impacting Cross-Dock Functionality

Company Parameter	Valid Values	Functionality	Additional Comments
XDOCK_ORD_INV_ATTR_CHECKS	<ul style="list-style-type: none"> • Blank(Not configured) • EXACT 	Controls if LPNs allocated through cross-dock should have inventory attributes matching that on order details.	From the Company Parameters UI, search for the XDOCK_ORD_INV_ATTR_CHECKS parameter key. Click Edit to set the parameter value

Company Parameter	Valid Values	Functionality	Additional Comments
		<ul style="list-style-type: none"> When left blank, the cross-dock allocation logic will ignore inventory attributes. When set to 'EXACT,' the LPN's inventory will have to match all the order detail inventory attribute values for a successful cross-dock allocation. 	

From the **Company Parameters** UI, search for the **XDOCK_ORD_INV_ATTR_CHECKS** parameter key. Click **Edit** to set the parameter value.

Company Parameters

Company	Parameter Key	Parameter Value
QATSTPC	XDOCK_ORD_INV_ATTR_CHECKS	

Allocate a Multi-SKU LPN to more than one Order for the Same Destination

Also, with the Cross-Dock parameter (xdock-mode), you can allocate a multi-SKU LPN to multiple orders for the same destination if the company parameter **MULTISKU_LPN_XDOCK_ONE_ORDER_ONLY** is set to “No.”

From the **Company Parameters** UI, search for the **MULTISKU_LPN_XDOCK_ONE_ORDER_ONLY** parameter key. Click **Edit** to set the parameter value.

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”.

The screenshot shows the 'Appointment' screen with a table of appointments. A 'Check In' dialog box is open, allowing selection of a dock door. The table data is as follows:

Appt Nbr	Status	Type	Description	Actual Dock Nb	Trailer Nbr	lb shipment col	Estimated units	Ori
AP003	Not Scheduled	I	Dock inbound			1	0	5
AP002	Not Scheduled	I	Dock inbound			1	0	0
AP0001	Not Scheduled	I	Dock inbound					
APNNJ_DC0...	Not Scheduled	I	Dock inbound					
APNNJ_DC0...	Not Scheduled	I	Dock inbound					

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: apl62_uat
Ctrl-L: Apply Lock
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

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.
 - 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: _____
```

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.

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

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					

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:

Shipment Type * TO

Description * Transfer Orders

Under Receipt Warning % * 0

Over Receipt Warning % * 0

Over Receipt Error % * 0

receipt validation type * Both

Allow Expired Inventory

Break Prepacks

Prevent Verify if Putaway Outstanding

Unallocated order details to cancel on ASN verify mode

Percent LPNs for Random QC Determination

Capture Returns Information

With Matching Container and Ship

With Matching Container and Shipment

With Matching Container Only




Do not Cancel

- **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).

Inbound Shipments




Inbound Receipt
Approve
Reject

Facility Code	Company Code	Shipment Nbr	Status	Nbr LPNs
QATST01	QATSTPC	IBSHP1122	In Transit	0
QATST01	QATSTPC	IBSHP1121	Receiving St...	1

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).

Modify Qty ×

LPN Nbr CSNJ_DC0000086

Current Qty * 5

Reason Code

- Adjustment
- POS-Interface
- Reason 1

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.

The screenshot shows a configuration form for a job. The fields are as follows:

- Job Number * [Text Input]
- Job Type * Generate Verify Shipment Alert [Dropdown]
- Schedule Name * [Text Input]
- Enabled [Checkbox]
- Schedule Type * [Dropdown]
- Every * [Text Input]
- Period * [Dropdown]
- Minute * [Text Input]
- Hour * [Text Input]
- Day Of Week * [Text Input]
- Day Of Month * [Text Input]
- Month Of Year * [Text Input]
- Job Parameters:
 - Username [Text Input]
 - Number of days [Text Input]
 - To email [Text Input]

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.

The screenshot shows the Oracle WMS 18C interface for Inbound Shipments. A navigation bar at the top includes 'Carrier', 'Carrier Facility', 'OB LPNs', 'Users', 'Item Barcodes', 'Standard Inventory Summary', 'Custom Inventory Summary', and 'Cycle count'. Below this, a breadcrumb trail shows 'Inbound Shipments' followed by 'Perform Detailed Receiving', which is highlighted with a red box. The main area contains a search bar for 'LPN Number' with a 'Generate' button, a 'Shipment Nbr' field with the value 'IBSHP1101', and an 'End LPN' checkbox. Below the search area is a table with the following data:

Item	Alternate Item	Item Description	Shipped Qty	Received qty	Balance Qty	Enter Qty to Receive	Converted Ship	Convert
NOR-ITM-001	NORITM001	Multi-SKU No...	100	100	0	100	100	100

Receive Cartonized Details from the ASN Detail Screen

From the Inbound Shipment Detail screen, you can perform receiving for Cartonized details at the LPN level. There is a button called 'Receive LPN' provide which is access controlled and will work with multiple LPNs (selected on the detail page.) Currently, this button only allows you to receive at the LPN level and not the 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 cartonized 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.

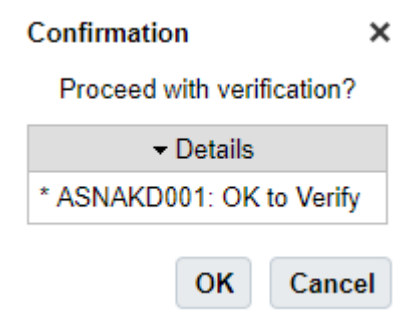
← Inbound Shipments » **Inbound Shipment Dtl**

↻ 🔍 **Cartonize** **Convert to prepack** **Print LPN labels** **Print Price Labels** **Break Prepack** **Cartonize Std Case** **Select for Dtl Recv** **Deselect from Dtl Recv**

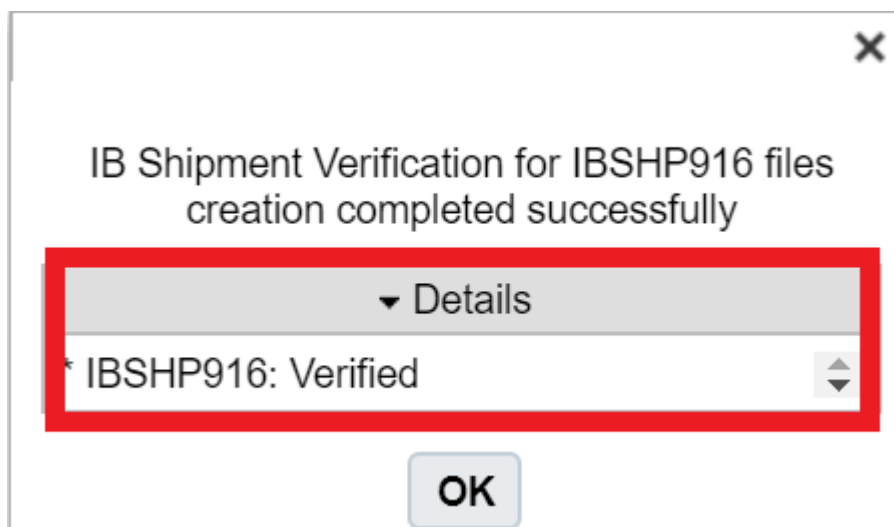
facility_name	PO Nbr	Inbound Shipment	LPN Nbr	LPN Status	Item Code	Shipped Qty	Received qty	Batch Nbr	Is Parent	AI
LGF-WAREH...		IBSHP1134			NOR-ITM-001	2	0		false	N
LGF-WAREH...		IBSHP1134	QATST010001...	Not received	NOR-ITM-001	2	0		false	N
LGF-WAREH...		IBSHP1134	QATST010001...	Not received	NOR-ITM-001	2	0		false	N
LGF-WAREH...		IBSHP1134	QATST010001...	Not received	NOR-ITM-001	2	0		false	N
LGF-WAREH...		IBSHP1134	QATST010001...	Not received	NOR-ITM-001	2	0		false	N

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.



- 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.)

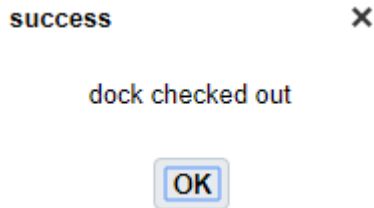


- d. Oracle WMS Cloud will generate an ASN verification file – if integration is configured, Oracle WMS Cloud will drop the verification file to a shared SFTP directory (typically the 'output' folder).

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.



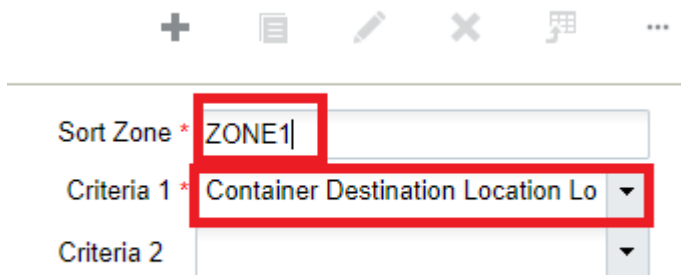
Inbound Sorting

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.



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		

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:

Location type	<input type="text"/>
Location area	<input type="text" value="SORT "/>
Location aisle	<input type="text"/>
Location bay	<input type="text"/>
Location level	<input type="text"/>
Location position	<input type="text"/>
Location bin	<input type="text"/>
Curr Location Barcode	<input type="text"/>
From Expiry Date	<input type="text"/> 12:00:00 AM
To Expiry Date	<input type="text"/> 12:00:00 AM
From Manufacture Date	<input type="text"/> 12:00:00 AM
To Manufacture Date	<input type="text"/> 12:00:00 AM
LPN is Pallet	<input type="text"/>
Has Serial Nbr?	<input type="text"/>
Serial Nbr	<input type="text"/>

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 to use the *Sort to Pallet* RF module:

Enter the RF module *Sort to Pallet*.

```
Sort to Pallet
Sorting Zone:  1
LPN: _____

Env:
Ctrl-E: Close Pallet
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

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

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
```

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

Putaway

The topics in this Putaway section give descriptions and details related to putaway in the Warehouse.

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.

+ ☰ ✎ ✕

Style *	<input type="text" value="C3"/>
Part b	<input type="text" value="EXP"/>
Part c	<input type="text" value="ITM"/>
Part d	<input type="text" value="001"/>
Part e	<input type="text"/>
Part f	<input type="text"/>
Alternate Item Codes	<input type="text" value="C3-EXP-ITM-001"/>
Item Description *	<input type="text" value="Cubiscan item 5"/>
Barcode *	<input type="text" value="123456789ABCDE"/>
Putaway Type	<input type="text" value="PT01"/>

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:
 - Priority: This is the priority for how the rules are evaluated.
 - Description: A description of the putaway rule (e.g. Electronics)
 - Final Putaway Type: If the rule is applied, this will be the putaway type that is applied to the LPN.
 - Enabled: This determines if the rule is active or not
 - 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.

ORACLE WMS 18C

Facilities | Users | Modules | Company Parameters | Inbound Shipments | Menu Configuration | Group Configuration | Screen Configuration

Putaway Type Calc Rule

Selection Criteria

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

4. The selection criteria screen allows you to define the criteria in order to apply the putaway type.

← Putaway Type Calc Rule ▶ **Selection Criteria**

AND
Item Hazardous = 5880

Sql operator * AND
Column name *
Column value *

Insert Complex Operation **Insert Basic Operation** Delete Node

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.

Putaway Type *	ELECTRONICS
Priority *	10
Location Type *	Reserve
Location Size Type	ELECTRONICS
Replenishment Zone	
Putaway Method *	Location Sequence
Radius	0
Radial Incr	0
Storage Priority	Less than or equal to priority date
Putaway Search Mode	Most Empty by LPNs

- 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. Storage Priority (Consider FEFO flag): You can putaway inventory to a location that has a higher priority date than the incoming inventory so that the inventories with lesser priority dates stay in front of the inventories with higher priority dates during picking.
- j. Putaway Search Mode: This defines how WM will determine a location for putaway.

- Sample Putaway Priority configuration

Putaway Type *	ELECTRONICS	▼
Priority *	10	
Location Type *	Reserve	▼
Location Size Type	ELECTRONICS	▼
Replenishment Zone		▼
Putaway Method *	Location Sequence	▼
Radius	0	
Radial Incr	0	
Storage Priority	Less than or equal to priority date	▼
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 be 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” .

FEFO FLAG IN PUTAWAY

When a putaway priority record is configured with the Storage Priority (previous, Consider FEFO flag), you can putaway inventory to a location that has a higher priority date than the incoming inventory so that the inventories with lesser priority dates stay in front of the inventories with higher priority dates during picking.

For example:

Let’s say, you receive a shipment of milk with a priority date of 7/30/21. You have two locations where you store milk. In the first location, you have inventory with a priority date of 7/15/21, and in the second location, you have inventory with a priority date of 8/30/21. If you had the Consider FEFO flag enabled, the system would direct incoming inventory to the second location. This method was most suitable for push-back racks as the incoming inventory will be prioritized ahead of the older inventory.

FEFO Flag in Putaway

Putaway Priority supports FEFO operation for gravity feed mechanisms and also where the picking happens from the opposite direction of putaway. As a result, you can putaway inventory to a location that has a lesser priority date than the incoming inventory so that the inventories with lesser priority dates stay in front of the inventories with a higher priority date during picking.

By default, the Storage Priority drop-down is blank (which indicates that FEFO operation is not enabled for the putaway priority record).

The Storage priority drop-down has the following options for you to choose from;

- **Blank:** The priority dates will not be considered for the putaway priority record.
- **Less than or equal to priority date** (default option when Consider FEFO flag is turned on): You can putaway inventories with a lesser expiry date than the location inventory expiry date.
Note: This mode is suitable for Push back Racks.
- **Greater than or equal to the priority date:** You can putaway inventories with a higher expiry date than the location inventory expiry date.
Note: This mode is suitable for Gravity feed Racks.

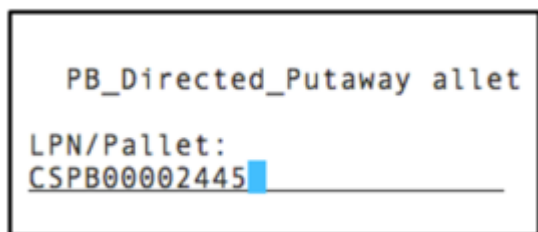
The Storage priority field honors the Location Size Type or the Replenishment Zone in the putaway priority. As a result, the Storage priority compares the incoming inventory's priority date with the location inventory priority date of the locations within the location size type or the replenishment zone.

Note: The Storage priority field is applicable to SKUs which track expiry dates. If a SKU is not tracking expiry dates, then the FEFO operation is not honored for a putaway priority record.

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.



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

```
LogFire WMS 0035/RYDER
Dir Putaway LPN/Pallet

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

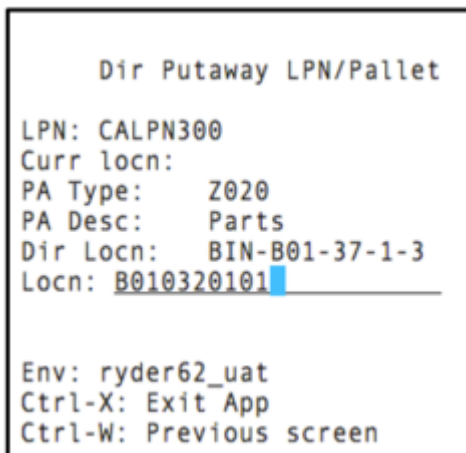
```
Env: ryder62_uat
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

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: ryder62_uat
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

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
```

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.

```
-----llet
|LPN sku conflicts wi|
|L|th the sku in desti|
|C|ation                |
P-----
P
D                               1-3
Locn: B100480606

Ctrl-A: Accept
Env: ryder62_uataccept
Ctrl-X: Exit App
Ctrl-W: Previous screen
```

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
```

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: 
```


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	× ▼

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.

For example,

Let's say you perform partial putaway of units from an LPN based on Max quantity from the active locations.

1. Your IBLPN consist the item ACT with current qty =13.

Note: You need to set the item's putaway type to Active 1, so that the same SKU will appear in the IBLPN.

IB LPNs

PN Print Label Blind Labels Change pack qty

Facility	Company	LPN Nbr	Current Qty	Status
AMS_FAC	AMS_COMP	ACT12	13	Located

2. Go to Putaway Type UI and define 2 putaway type ACTIVE1 and ACTIVE2.

Putaway Type




Company Code	Putaway Type	Description
AMS_COMP	ACTIVE2	ACTIVE2
AMS_COMP	ACTIVE1	ACTIVE1

3. Now, configure the Putaway priority for the 2 putaway type ACTIVE1 and ACTIVE 2.

4. Configure the directed putaway parameter:
 - a. Go to Direct Putaway UI and choose "**multi-sku-lpn-mode**" parameter and set to "**Split LPN Into Active Locations**".
 - b. Set the recalculate-putaway-type to **Yes**.

← Screen Configuration ▶ Screen Parameters



Screen	Module Parameter
DIRECT PUTAWAY SPLIT ACTIVE	validate-critical-dims
DIRECT PUTAWAY SPLIT ACTIVE	depalletize-on-manual-pa
DIRECT PUTAWAY SPLIT ACTIVE	confirm-locn-on-plt-scan
DIRECT PUTAWAY SPLIT ACTIVE	mix-pa-types-on-plt
DIRECT PUTAWAY SPLIT ACTIVE	prompt-pallet-position
DIRECT PUTAWAY SPLIT ACTIVE	prompt-dest-pallet
DIRECT PUTAWAY SPLIT ACTIVE	recalculate-putaway-type
DIRECT PUTAWAY SPLIT ACTIVE	multi-sku-lpn-mode
DIRECT PUTAWAY SPLIT ACTIVE	cancel-pa-alloc-on-exit
DIRECT PUTAWAY SPLIT ACTIVE	xdock-mode
DIRECT PUTAWAY SPLIT ACTIVE	distribution-transaction
DIRECT PUTAWAY SPLIT ACTIVE	show-locn-warning-flg
DIRECT PUTAWAY SPLIT ACTIVE	mode

Make sure you define your item and active locations before running the transaction because the system looks for max units from the locations.

Facility	Dedicated company	Type	Display text	Area	Aisle	Bay	Level	Barcode	Length	Width	Height
AMS_FAC	AMS_COMP	Active	ACTIVE2-1-1-1	ACTIVE2	1	1	1	ACTIVE2	10	10	1
AMS_FAC	AMS_COMP	Active	ACTIVE1-1-1-1	ACTIVE1	1	1	1	ACTIVE1	10	10	1

Lock for Putaway Flag	Putaway Seq	Replenishment Zone	Item Assignment Ty
FALSE	2	ACTIVE	Permanent
FALSE	1	ACTIVE	Permanent

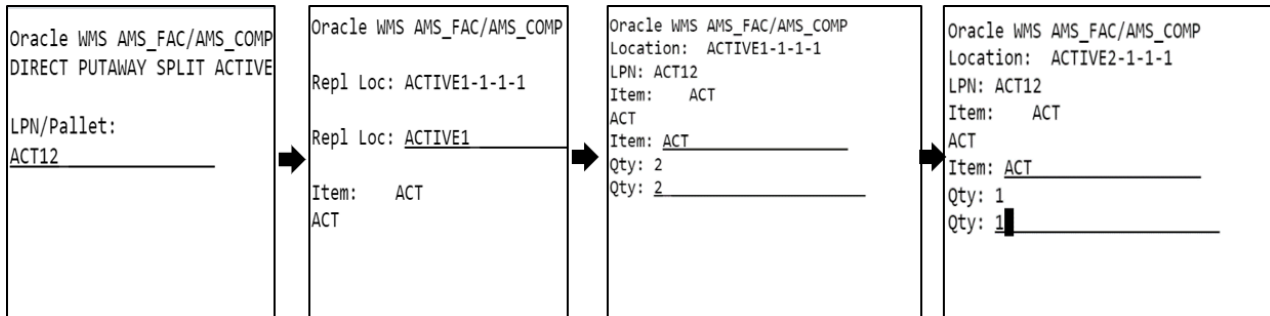
- Check if the item ACT is available in the 2 location in the active inventory UI:

Active Inventory

Deallocate Modify Qty Location Capacity

Facility	Location	Location Type	Current Qty	Location Size T	Area	Hierarchy 3 Coc	External Style	Item
Ana-Maria Str...	ACTIVE2-1-1-1	Active	1		ACTIVE2			ACT
Ana-Maria Str...	ACTIVE1-1-1-1	Active	3		ACTIVE1			ACT

- Invoke the Direct Putaway transaction, the system allocates maximum units for each location.



Note: On receiving the IBLPN, the putaway type Active 1 appears automatically.



- You can choose to putaway the remaining units from the IBLPN into the location you choose.

```

Remainder LPN:
ACT12
RESERVE
    
```

- To verify, go to Active and Reserve Inventory UI to view the allocation and current qty.

Active Inventory



Deallocate
Modify Qty
Location Capacity

Facility	Location	Location Type	Current Qty	Location Size T	Area
Ana-Maria Str...	ACTIVE2-1-1-1	Active	2		ACTIVE2
Ana-Maria Str...	ACTIVE1-1-1-1	Active	5		ACTIVE1

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.

Note: Suggested Putaway will not look at properties like putaway type or location size type. Suggested Putaway looks at your configuration at the item facility level and shows the user the area or aisle.

- Select the RF-Transaction ‘Suggested Putaway’.

2. Scan the LPN on the label of the pallet or case.

```
LogFire WMS 0035/RYDER  
PB_Suggested_Putaway
```

```
LPN/Pallet:
```

```
LPNSB00124
```

```
Env: ryder62_uat
```

```
Ctrl-X: Exit App
```

```
Ctrl-W: Previous screen
```

3. Scan the location chosen for putaway.

```
LogFire WMS 0035/RYDER  
Putaway
```

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

```
Env: ryder62_uat  
Ctrl-X: Exit App  
Ctrl-W: Previous screen
```

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.

```
LogFire WMS 0035/RYDER
      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
```

```
Env: ryder62_uat
Ctrl-X: Exit App
Ctrl-W: Previous screen
```


4 Material Handling Equipment (MHE)

Material Handling Equipment in Oracle WMS Cloud

This topic includes an overview of the Oracle Warehouse Management Cloud (WMS) APIs used for Material Handling Equipment (MHE) configuration.

The guidelines in the following topics assume that you have a good understanding of APIs and WMS operations. MHE Configuration may vary depending on your warehouse setup.

Overview

Oracle WMS Cloud supports various types of automated material handling equipment (MHE) such as:

- Conveyors
- Carton Sorter
- Tilt Tray Sorter
- Pick-to-Light
- Put-to-Light
- Put-to-Wall
- Carousels

In Oracle WMS Cloud you can configure which systems you will use as well as the messages and routing instructions that will go out to each MHE System. Oracle WMS Cloud uses a set of standard APIs to provide real time, low latency communication for fast and efficient fulfillment.

WMS APIs that support MHE Configuration

Refer to the following documents for more details on WMS legacy APIs:

Oracle WMS Cloud Integration API Guide – Overview of supported integration with MHE including Prebuilt integrations with certain MHE Vendors and for predefined flows and standard Oracle WMS Cloud APIs.

Oracle WMS Cloud Interface Specs - Excel file contains the Standard Interface Index of APIs and detailed specifications.

Note: To access the latest Integration API Guide and Interface Specifications, go to the [Oracle WMS Cloud Information Center](#). From the top of the page, click on the **Documentation tab**, then click the link under **Current Documentation**.

The following APIs support MHE configuration:

API	Description	MHE System	API from or To WMS
Induct LPN	Allows automated systems (MHE) to induct an LPN locations tied to an MHE conveyor system.	Generic (conveyor / sorter)	Incoming
Divert Confirmation	Allows automated systems (MHE) to confirm that an LPN was diverted or located. This will trigger the update of the LPN's location as well as possibly completing any putaway allocations.	conveyor	Incoming
Route Instruction	Output interface API generated when a route instruction rule is fired. The message content is documented in the interface specifications (link above.) See Route Instruction Configuration for more details.	conveyor	Outgoing
Pick Confirm	Gives the ability for automated systems (MHE) to complete allocations of the LPN (i.e. pack, pick, etc.). This will trigger the update of WMS to complete the packing operations.	Pick to Light	Incoming
Wave Pick Info	Output API that gets generated when the wave is completed. Includes picking information that can be sent to the MHE system. The message content is documented in the interface specifications (link above.)	Pick to Light	Outgoing
Distribution Info	Distribution info is generated as part of the distribution wave, and is generated in the Output Interface and can be sent to the MHE system. The message content is documented in the interface specifications (link above.)	Sorter / Put to Light	Outgoing
From MHE Distribution Pack	Rest API to perform packing updates when MHE System is performing distribution and packing of inducted inventory. New API which provides information related to the outbound LPN's packed by Tilt Tray Sorter or Put to Light System or Distribution Sorter. Once outbound LPN is completely packed MHE system makes an API call to perform packing updates for LPN distributed	Sorter / Put to Light	Incoming
From MHE Distribution Short	Rest API to perform shorting updates when MHE System is performing distribution and	Sorter / Put to Light	Incoming

API	Description	MHE System	API from or To WMS
	packing of inducted inventory. This will trigger the update of WMS to perform shorting related updates.		

Common MHE Flows

See the following topics for more details about common MHE flows:

Pick to Light

In a Pick to Light (PTL) flow, after WMS Cloud runs a wave and creates allocations, these are then communicated to the PTL system. The PTL will have information on each allocation, container, location and item quantities to be picked.

As a container is scanned at the start of the picking module, lights light up corresponding to the allocations in that container. As the operator pushes the light buttons to confirm picks, the PTL system sends messages. Once the container is complete, a close message is received from the PTL and the container can proceed to staging. Exception scenarios such as short picks are also covered through these APIs.

Pick to Light Flow Steps

1. Run cubed or non-cubed wave.
2. Generate Wave Pick information as an output interface file to be sent to MHE's control system.
3. Scan LPN to start packing.
4. Pick and Pack into LPN. As the lights glow, use **Pack** API.
5. Send short API if picked short.
6. Send **Close LPN** (non-cubed or automatically packed)
7. Send **Complete** command if all picking for given OBLPN is complete to short all remaining picks.

Load Balancing

Oracle WMS Cloud contains a load balancing feature to spread workloads across mirrored areas of a distribution center. This load balancing can be used with or without MHE systems.

Your operation can determine the number of different zones to consider when running a wave by creating a group. Oracle WMS Cloud allows you to evenly spread the requirements from the wave across the different zones in terms of number of orders, units, volume or weight, depending on the most applicable metric for the customer.

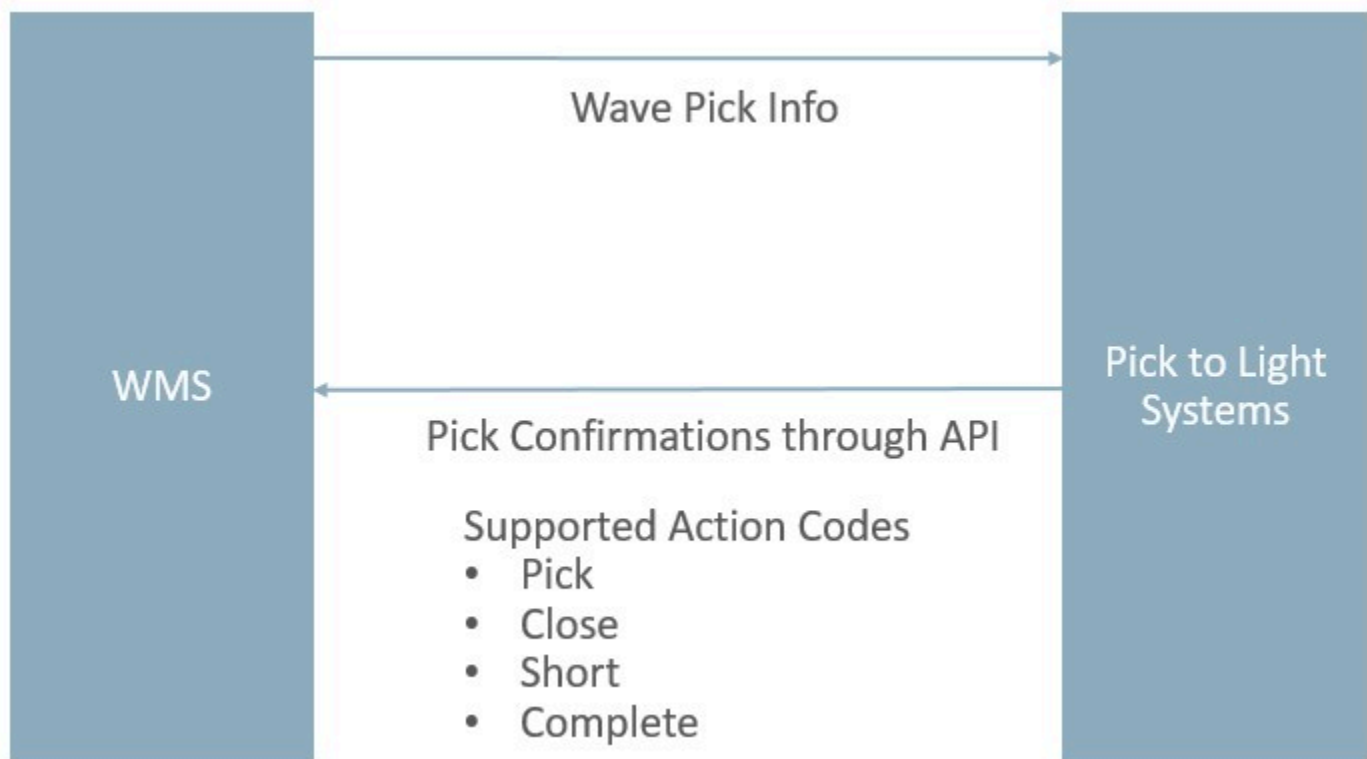
Wave Load Balancing Flow

The following table indicates the order and actions involved in a typical Wave Load Balancing flow:

Step	Description
1	Wave Load Balancing – wave group has order selection and capacity to create balanced waves

Step	Description
2	WMS sends Wave Pick Information message
3	Pick to Light System receives Wave Pick Information message
4	Pick and Packing is performed using Pick to Light System
5	Pick to Light system makes an API call when Picks are performed
6	WMS updated with pick and pack information

This flow diagram illustrates the Wave Pick Information being sent to the Pick to Light System and the Pick to Light System generating and API call to WMS as picks are confirmed. WMS then performs the pick and pack updates:



Send Picking and Packing information to MHE

From the **Wave Template** UI, you can configure sending of Picking and Packing information to MHE:

1. From the **Wave Template** UI, select the Wave Template you want to configure.
2. Click **Edit**.
3. Select **Auto Release Pick Info** to send Wave Pick information after a wave is run.
4. Select **Auto Release OBLPN Shipping Info** to send Pack information if the wave is cubing the OBLPNs.

Auto release Mhe message	<input type="checkbox"/>
Destination Capacity Check	<input type="checkbox"/>
Max Units	<input type="text" value="0"/>
Maximum Weight	<input type="text" value="0"/>
Maximum Volume	<input type="text" value="0"/>
Maximum Orders	<input type="text" value="0"/>
% Tolerance	<input type="text" value="0"/>
Replenishment Rule	<input type="text" value=""/>
Expiry Date Range	<input type="text" value=""/>
Printer	<input type="text" value=""/>
Auto Release Pick Info	<input type="checkbox"/>
Auto Release OBLPN Shipping Info	<input type="checkbox"/>
LPN Type Class	<input type="text" value=""/>
Manifest OBLPN by order	<input type="checkbox"/>
Pack With Wave	<input type="checkbox"/>

MHE Pick Confirmation API

The Pick Confirm API allows you to perform cubed or non-cubed picking.

Note: This is a new API meant to replace the existing legacy `pick_confirm` API. The legacy API will eventually be retired so no further enhancements will be made to it. New functionality will instead be added to this API as part of the *lgfapi* suite.

This API supports features of the legacy API including the following parameters:

- **mhe_mode_flg** - true/false; default true
- **async_flg** - true/false; default true
- **short_flg** - true/false; default false
- Replaces using the legacy "action_code" = "SHORT".

The supported action codes are:

Action Code	Assumptions
Pick	<ul style="list-style-type: none"> order_nbr is required, at least item_alternate_code or item_barcode must be passed qty is required pick_location or from_containter_number required to container nbr is required
Close	<ul style="list-style-type: none"> to container nbr is required
Short	<ul style="list-style-type: none"> order_nbr is required, at least item_alternate_code or item_barcode must be passed,\ qty is required pick_location or from_containter_number required
Complete	

Pick Confirm API can be called using the following POST request:

```
POST ..lgfapi/v10/pick_pack/pick_confirm/
```

Pick Confirmation Messages

From the **From MHE Pick Confirmation** UI, you can see the pick confirmation messages flowing in to WMS and track MHE picking:

Facility Code	Company Code	Wave Nbr	Action Code	Status
QATST01	QATSTPC	WVQATSTP...	PICK	Processed
QATST01	QATSTPC		CLOSE	Processed

Put to Light / Sortation

Oracle WMS Cloud can communicate with several types of MHE systems in order to cover customer business flows. The following example illustrates a distribution process, (sometimes called put to store) that can be executed through the RF or through Oracle WMS Cloud MHE APIs.

In this flow, the bulk quantity travels through a conveyor and inventory is put from the bulk container to different locations, each indicating a different destination. Oracle WMS Cloud can be set up with distribution instructions indicating the location/divert for each destination/stop for the put to store.

Put to Light / Sortation Flow steps

Step		Description
1	Wave Distribution Message sent	To MHE Distribution Info (output interface) Includes overall information by sku.
2	RF Picking occurs	After picking, physical LPNs information is sent.
3	Induct LPN (via RF or API)	Allows automated systems (MHE) to induct an LPN to a Drop location tied to an MHE conveyor system. This will trigger the MHE Route Configuration rules to generate an appropriate Route Instruction message in the Output Interface.
4	From MHE Distribution Pack API	Happens at end of the Induct LPN process so that LPNs can go to distribution zones. This API provides information related to the outbound LPN's packed by Tilt Tray Sorter / Put to Light System / Distribution Sorter. Once an outbound LPN is completely packed, the MHE system makes an API call to perform packing updates for LPN distributed.
5	From MHE Distribution Short API	Performs shorting updates when MHE system is performing distribution and packing of inducted inventory. This API will trigger the update of WMS to perform shorting related updates. Informs WMS of missing quantities for current batch - (damaged item or physically no item there)

Output Interfaces

When configured, the **MHE Distribution Information** or **To MHE IBLPN Information** Output Interfaces send information to MHE.

The following table provides more detail about these two output interfaces, and the trigger points for each:

Output Interface	Description	Filename	Trigger Points	
To MHE Distribution Info	<p>Tells you the requirement for SKU quantities by destination facility at the wave level.</p> <p>This output interface sends the data elements required in xml_data or flat_data for sending facility distribution information to MHE.</p>	For XML Format DMX For One Line format DMI	Wave Template UI	Auto release MHE message flag
			Wave Inquiry UI	In the Wave Inquiry UI , you can generate an MHE Distribution information message manually via the Release MHE Messages button.
			RF Receiving transaction	Parameter generate-distro-message should be set to Yes.
			RF Distribute LPN	Parameter generate-distro-message should be set to Yes
			IBLPN UI	Generate MHE Distribution message button
To MHE IBLPN Info	<p>Tells you what the requirement is by SKU, physically sending sku, quantity, and what LPN sku is coming on - information to MHE systems.</p> <p>This output interface sends information about the inbound LPN to be distributed by MHE system.</p>	For XML Format ILX For One Line format ILI	RF Pick IBLPN	<ul style="list-style-type: none"> Message is sent after user close LPN. They must have : Facility Parameter MHE_ENABLED flag should be set to "Yes". Allocations present on Inbound LPN should be of type "Alloc type: Internal Bulk Pick/ Task Type: INTERNAL-PICK". Open Allocations present on the LPN should have MHE system code populated. Go to the Wave Inquiry UI, click the Allocation button, look at field MHE System Go to MHE system configuration- Search for the MHE System - find the MHE Type. Go to MHE message configuration - search the MHE type and associated mhe message type

Output Interface	Description	Filename	Trigger Points	
				for_LGF-Send IB LPN-info-Active Flag= yes
			RF Move LPN	<ul style="list-style-type: none"> • Message is sent after user close LPN. They must have Facility Parameter MHE_ENABLED flag set to "Yes". • Allocations present on Inbound LPN should be of type "Alloc type: Internal Bulk Pick/ Task Type :INTERNAL-PICK". • Open Allocations present on the LPN should have MHE system code populated. From the Wave Inquiry UI – click the Allocation button- look at field MHE System. • Go to MHE system configuration- Search for the MHE System - find the MHE Type. Go to MHE message configuration - search the MHE type and associated mhe message type for_LGF-Send IB LPN-info-Active Flag= yes
			RF Receiving	<ul style="list-style-type: none"> • Generation of to_mhe_ib_lpn_info message should get triggered once LPN is allocated for flow through, while performing receiving. • If Receiving program is configured to generate to_mhe_distribution_info message, to_mhe_ib_lpn_info message should get generated once to_mhe_distribution_info message is generated. Facility Parameter MHE_ENABLED flag ="Yes". • Allocations present on Inbound LPN should be of "Alloc Type:

Output Interface	Description	Filename	Trigger Points	
				Distribute LPN" or "Alloc type: Internal Bulk Pick/Task Type PICKLPN-INTERNAL" <ul style="list-style-type: none"> Open Allocations present on the LPN should have MHE system code populated- Go to theWave Inquiry UI – click Allocation button - look at field MHE system. Go to MHE system configuration- Search for the MHE System - find the MHE Type. Go to MHE message configuration - search the MHE type and associated mhe message type for _LGF-Send IB LPN-info-Active Flag= yes
			RF Distribute LPN	parameter "mhe-system-code" must be populated. From MHE system configuration, search for the MHE System code, and find the MHE Type. Go to MHE message configuration - search the MHE type and associated mhe message type for _LGF-Send IB LPN-info-Active Flag= yes
			IBLPN UI	Generate MHE IB LPN Info Msg button
Wave Pick Info	The Wave Pick Info interface sends Wave Allocation information to the MHE system.	WOA	Wave Inquiry UI	From the Wave Inquiry UI, click the Release Wave Pick Info button to send the wave allocation information.
			Wave Template UI	"auto release pick info" flag should be set to yes.

Input Interfaces

The following table provides more detail about the MHE input interfaces, and the trigger points for each:

Input Interface	Description	Trigger Points
From MHE Distribution Pack	API Call (to receive the carton pack message upon completion of distribution)	API
From MHE Distribution Short	API Call (to perform shorting for distribution allocations)	API

Note: the MHE system code should be of value “LGF” for the distribution to work.

There is a flag on the MHE code “use_cons_distribution_flag”. This plays a pivotal role in determining whether MHE does the distribution based on WMS allocations or if MHE runs its own logic.

For more details about the information in each Output Interface, see the Interface Specifications document.

Note: To access the latest Interface Specifications, go to the [Oracle WMS Cloud Information Center](#). From the top of the page, click on the **Documentation tab**, then click the link under **Current Documentation**.

View Packing Confirmation Messages

You can view the packing status messages coming from Put to Light or Sortation MHE systems in the **From MHE OBLPN Hdr** UI. You can also click details to drill down to see additional order detail (such as packed quantity) in the **From MHE OBLPN Detail** UI.

Configuration

You need to complete the following configuration steps in Oracle WMS Cloud for MHE to work:

Facility Parameters

1. Search for the parameter key MHE_ENABLED_FLG.
2. Click **Edit**, and set the Parameter Value to **Yes**.



Facility	ATL
Program Key	FACILITY_PARM
Parameter Key	MHE_ENABLED_FLG
Parameter Value	yes

- For the facility parameter **ALLOWED_LPN_STATUSES_TO_MHE_INDUCT** set up the value with all of the LPN statuses that are used in MHE.

Allowed statuses include the following:

QC,IN_RECEIVING,RECEIVED,LOCATED,RESERVED,PARTLY_ALLOCATED,ALLOCATED,OUTBOUND_READY,IN_PICKING,PICKED,IN

Facility	Program Key	Parameter Key	Parameter Value
ATL	FACILITY_PARM	ALLOWED_LPN_STATUSES_TO_MHE_INDUCT	QC,IN_RECEIVING,RECEIVED,LOCATED,

Items

Certain items must be configured in order to be accepted in MHE.

1. From the **Item Details** UI, click **Edit** to set the Conveyable flag:

Code *	GD130000XY	Std Pack Qty	2
Retail Price	18	Std Pack Length	2
Unit Net Cost	10	Std Pack Width	12
Currency	USD	Std Pack Height	9.5
Dim 1	11	Std Pack Weight	3
Dim 2	13	Std Pack Volume	228
Dim 3	10.5	Catch Weight Method	
Receive Type		Order Consolidation Attr	
OB LPN Type		Season Code	
Product Life	0	Brand Code	Air Liquide
% acceptable	0	Stackability Code	
require batch number	<input type="checkbox"/>	Velocity Code	
require serial number *	Not Required	Regularity Code	R
Conveyable	<input checked="" type="checkbox"/>	UN Nbr	1789
Sortable	<input type="checkbox"/>	UN Class	8

MHE in Wave's Allocation Mode Sequence

When you are creating an allocation mode in the Wave Template, you need to input the MHE system needed for the allocation. If picking is happening from MHE, then the MHE system has to be populated on the allocation mode sequence.

Allocation Mode	Sequence Nbr	Location type	MHE System	Alloc Distribution Mod
SH_MHE	1	Reserve	DIST-SORTER	Distribution No residuals

MHE System Configuration

- From the **MHE System** screen, create a record with the MHE Type = Conveyor and MHE Vendor Code = LGF:

MHE Type: Conveyor
 Code *: CNVG301
 Description: Flat belt conveyor
MHE Vendor Code: LGF
 Weight Override:
 Weight Tolerance: 0

The **MHE Logs** action button will allow you to look at the logs for this system.

Location for Induction

From the **Locations** UI, configure a Divert lane with Reserve/Active (Putaway) and a Drop location:

Minimum Volume	100
Maximum Volume	12500
Restrict Batch	<input type="checkbox"/>
Item Assignment Type	Dynamic
Item	-----
Task zone	
MHE System	CNVG301
Divert Lane	D0001
pick_zone	
Location - Custom Field 1	

Route Instruction Configuration

You can manage and configure conveyor routing in Oracle WMS Cloud. You can configure routing for either LPNs that are received and are going to be put away or for picked LPNs that will go to staging lanes.

Inbound LPNs can invoke WMS's robust putaway logic and divert the appropriate zone for putaway. If the MHE system determines the putaway location, the divert confirmation can inform Oracle WMS Cloud with the final location where the MHE located the LPN.

For outbound LPNs, the flow is similar. Based on the destination, Oracle WMS Cloud can instruct the sorter which lane to divert the container to. If the logic is in the MHE, then upon divert, a confirmation can be sent informing Oracle WMS Cloud of the lane and staging location that was used for the container.

MHE Routing Flow


The following steps outline the flow of MHE from Induction of the LPN (RF or API) to the Route Confirmation Message:


1. Induction of LPN (RF or API)
2. Route Instruction for Rule firing (pre-configured rules)
3. Generation of Route Instruction Message (sent to MHE's control system)
4. Generation of triggered output files (if configured in the rule)
5. LPN Inventory Info/OBLPN Shipping Info is sent to specified targets
6. Route Confirmation Message (from MHE's control system)

Set Up Route Instruction Rules

Divert instructions can be configured in the WMS Cloud and these are the rules that will identify an LPN for inbound or outbound processing and then the subsequent lanes it must divert to based on the putaway characteristics or the destination for delivery.




From the **MHE Route Instruction Configuration** screen, set up rules to check during induct for Received LPNs:



Priority
 Location 
 LPN Type
 LPN status
 Allocation Type
 Order Type
 Sortable
 QC Status
 Audit Status
 Vas status
 Divert Lane
 Module
 Screen
 trigger_output_interface

Once you set up all rules, your updated rules display in the **MHE Route Instruction Configuration UI**:


MHE Route Instruction Config (1)








Facility Code	Company Code	Priority	LPN Type	LPN status	Module	Screen
ATL	NJ_COMP	2	Inbound	Received	RF-Text: Putaway	MHE System Dir Putaway

Filter LPN Selection Criteria

Click **Additional Criteria** to mention criteria in the details (not mandatory). This allows you to filter the IBLPNs:


ORACLE WMS


 MHE Route Instruction Config (1)
 
Additional Criteria



Function	Selection Criteria	Operator	Value
	LPN Putaway type	<	PA-MHE-01

Inbound Receiving and Putaway with MHE

See the following topics for more details about Inbound Receiving and Putaway with MHE:

Receive a Cartonized LPN using an API

You can receive a cartonized LPN via the Receive LPN API. This API also allows you to xdock an inbound LPN.

Example URL:

`https://xxx.wms.ocs.oraclecloud.com/<env_name>/wms/api/receive_lpn/`

Assumptions

- For cross dock mode, a valid allocation must exist.
- If receiving_location is an MHE induct location, the container will be inducted and corresponding MHE logic will be triggered.
- Requires location to be type Drop with an MHE System configured of type Conveyor
- receiving_location must of type "Dock" or "Drop" for non-xdock.
- "Staging" is also allowed for xdock.

MHE Trigger Output Interface

From the **MHE Route Instruction Configuration** UI, you can send information to MHE about the container for performing putaway operations or send information so that shipping labels can be printed.

You can configure MHE Route Instruction Rules to send LPN inventory information to MHE by populating the **trigger output interface** field with lpn_inventory or oblpn_shipping_information:

The screenshot shows the Oracle WMS interface for MHE Route Instruction Configuration. The top navigation bar includes 'ORACLE wms' and several menu items: 'Location', 'Wave Inquiry', 'OB Orders', 'Input Interfaces (9)', 'INV HISTORY', and 'Inventory Lock Codes (9)'. The main content area is titled 'MHE Route Instruction Config (1)'. Below this title, there are icons for refresh, search, and list view. A table displays the configuration details:

Facility Code	Company Code	Priority	trigger_output_interface	LPN Type	Module	LPN status
QATST01	QATSTPC	10	lpn_inventory	Outbound	RF-Text: Putaway	Received
QATST01	QATSTPC	2		Outbound	RF-Text: Putaway	Received

Configure calling Directed Putaway

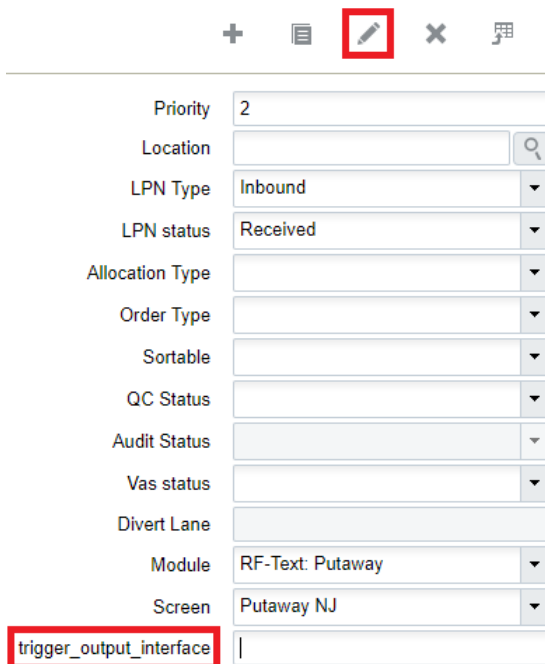
1. To configure Directed Putaway with MHE: From the **MHE Route Instruction Configuration** UI, create a new Route Instruction rule or select an existing Route Instruction rule.
2. Once you have selected LPN Type and LPN Status, from the **Module** drop-down, select **RF Text: Putaway**.
3. From the **Screen** drop-down, select the applicable Putaway screen.
4. Click **Save**.

Generate LPN Inventory or OBLPN Shipping Information Message

You can generate LPN Inventory and OBLPN Shipping information from the **MHE Route Instruction Configuration** UI. This feature allows customers to send information to the MHE system.

For example, the MHE system can take this information and use it to print a shipping label. If the Outbound LPN is subject to Route Instruction check, after user perform induction via RF or API, the system will check the configuration and generate the LPN_INVENTORY message or the OBLPN_SHIPPING_INFO.

From the **MHE Route Instruction Configuration** screen – update the **trigger_output_interface** field with either LPN_INVENTORY message or the OBLPN_SHIPPING_INFO



The screenshot shows the configuration form for a Route Instruction. At the top, there are navigation icons: a plus sign, a list icon, a pencil icon (highlighted with a red box), a close icon, and a refresh icon. Below these are several fields:

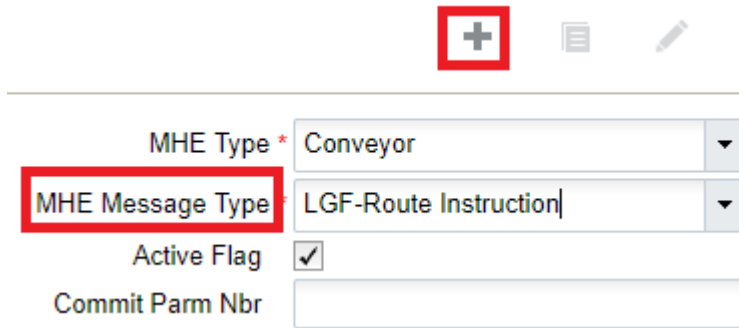
- Priority: 2
- Location: [Empty field with search icon]
- LPN Type: Inbound
- LPN status: Received
- Allocation Type: [Empty dropdown]
- Order Type: [Empty dropdown]
- Sortable: [Empty dropdown]
- QC Status: [Empty dropdown]
- Audit Status: [Empty dropdown]
- Vas status: [Empty dropdown]
- Divert Lane: [Empty dropdown]
- Module: RF-Text: Putaway
- Screen: Putaway NJ
- trigger_output_interface: [Empty text field, highlighted with a red box]

Message Configuration

There are various types of MHE Message types you can configure from the **MHE Message Confirmation** UI.

1. In order to setup MHE message configuration for Route Instruction, go to the **MHE Message Configuration** UI.

- From the **MHE Message Type** drop-down, select “LGF-Route Instruction”.
- Click **Save**.



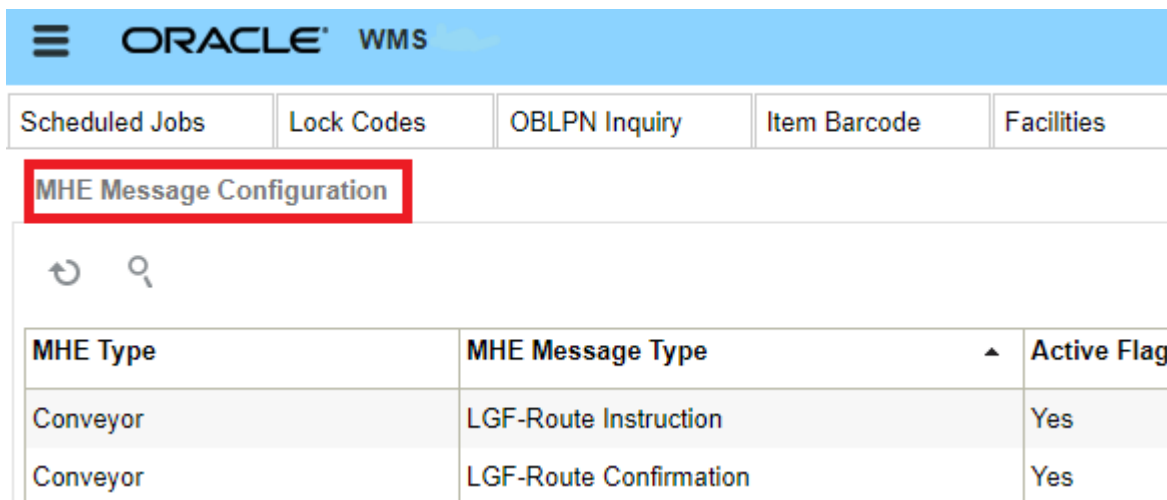
MHE Type * Conveyor

MHE Message Type LGF-Route Instruction

Active Flag

Commit Parm Nbr

- Next, to setup MHE message configuration for Route Confirmation, go to the **MHE Message Configuration** UI.
- Set up MHE message configuration with the MHE message type “LGF-Route Confirmation” for Route Instruction output file generation:



ORACLE WMS

Scheduled Jobs Lock Codes OBLPN Inquiry Item Barcode Facilities

MHE Message Configuration

MHE Type	MHE Message Type	Active Flag
Conveyor	LGF-Route Instruction	Yes
Conveyor	LGF-Route Confirmation	Yes

Example of How to Invoke RF Induct LPN

In Oracle WMS Cloud, users can implement several levels of MHE sophistication. In some cases, the automation is a hybrid of man power and machine power, with operators manually initiating the induction instead of initiating with sensors. Oracle WMS Cloud allows these processes to be mobile through the RF, indicating the induction into an MHE system.

The following is an example of how to invoke the RF Induct LPN and scan the received LPN and Drop location to divert. Alternatively, you can use the Induct REST API:

First, scan the LPN:

LogFire WMS QA3PLEST/QAM
RF-Induct LPN to MHE to MHE

LPN/Pallet: LPN160310
Locn: DRPMHE01D001

The drop location “LPN successfully inducted” message displays:

```
LogFire WMS QA3PLEST/QAM
LPN successfully ind
L ucted
L
```

Example of the Output file Generated

The Route Instruction output file is generated in the **Output Interfaces** screen:

The screenshot shows the Oracle WMS interface with the 'Output Interfaces' tab selected. Below the navigation tabs, there is a table with the following data:

Facility Code	Company Code	Interface Type	Custom Interface Code	Filename	Status
QATST01	QATSTPC	Route Instruction		QATSTPCQATST01000057.xml	Processed

File content:

CNVG301|QA3PLEST|QA3PLGEO002|LPN160310|D001|RES-01-MHE-001|RES01MHE001

5 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 Outbound Orders

All orders in WMS require Order Types. Order Types differentiate orders based on certain characteristics. To create Order Types, go to the “Order Type” screen.

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

Note: When creating Order Types, the user must make sure that the current company view is set to the PARENT company.

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.

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.

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 XDCK
- 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 Create Orders from the UI

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

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.
2. Click Create () and populate the Item Code and Ordered Qty.
3. Click "Save".

Note: The "Order Details" screen is also available to view multiple Order details at once.

Create Orders Through the 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).

[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		
[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		
[H2]	1	CREATE	THK04										10	0
[H2]	2	CREATE	THK02										15	0
[H1]	POSN100303	DC_01	SNEPHEW	VENDOR101	CREATE	20141003000000			20141003000000		20141003000000	20141003000000		
[H2]	1	CREATE	THK03										10	0

PO#1
PO#2
PO#3

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.

Upload the Interface into WMS

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

Update, Filter, and Track Order Detail Status

You can update, filter, and track Order Detail status from the **Outbound (OB) Orders** and **Order Header UIs**. The order details status helps WMS users to understand whether there is any pending inventory to be allocated or lined up for a particular order detail.

In order to view the From and To order details status from the **OB Orders** or **Order Headers UI**:

1. Go to the **OB Orders** UI, and click the **Search** button.
2. From the **From Ord dtl Status** and **To Ord dtl Status** drop-down fields, select the order detail status you would like to search by (i.e. **Created**, **Partly Allocated**, **Allocated**, **Shipped** or **Cancelled**).
3. Click **Search**.
4. The Order Detail Status, will display in the **Order Dtl Status** column.

Note: It is possible that the **Order Header** UI may have a different status than the **Order Details** present under it. For example the order header may have **partly allocated** status where as an order detail within the order header might have been **shipped** already.

The screenshot shows the Oracle WMS interface with the 'OB Orders' view selected. The table below displays order details with the 'Order Dtl Status' column highlighted in red.

Facility	Order Nbr	Ordered Qty	Orig Order Qty	Order Dtl Status
QATST01	AND00612001	25	25	Created
QATST01	CPORD061120C2	15	15	Picked

Note: to make the **Order Dtl Status** column visible, you must add it from either **Order Header View >> Order Detail**, or from the **OB Orders** UI. You can save your updated view by clicking **Preferences** and **Save View**.

The screenshot shows the 'OB Orders' UI with a dropdown menu open. The 'Save View' option is highlighted with a red box.

Track Order Detail Status via Inventory History Activities

You can track order detail status changes via inventory history activities. For example if an order detail status changes from '**Created**' to '**Allocated**', the new IHT activity '**IHT-85- Order Dtl Status Change**' should be written.

You can search for the **85- Order Dtl Status Change** option from the **Inventory History Activity Parameters UI >> Search** button >>**History Activity** drop-down:

Inventory History Activity Parameters

Enable Auto Process Disable Auto Process

History Activity

Supports split by serial nbr flag	72 - Container Received Subject to QC
Enable split by serial nbr flag	73 - QC Accepted
Enable auto send flag	74 - QC Rejected
	75 - Order Detail Substitution
	76 - Container Miss-shipped
	77 - Appointment Change
	78 - Storage billing by number of locations per
	79 - Storage billing by Cube
	80 - Container Delivered
	81 - Yard Movement
	82 - Work Order Cancellation
	83 - Container Unloaded
	84 - Load Status Change
	85 - Order Detail Status Change

Time Zone: Asia/Kolkata

Note: you can't edit the **Support Split by serial Nbr Flag** for this IHT.

View Order Detail Status in Manual Wave UI

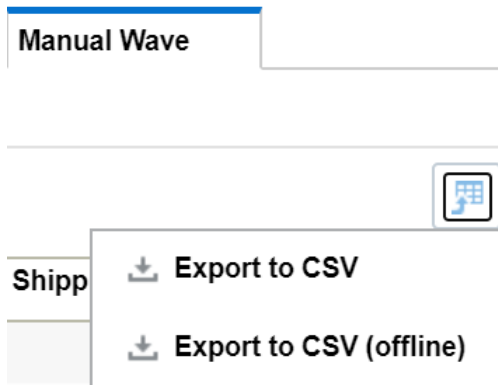
From the **Manual Wave** UI, you can view **Order Detail Status** in **Created** or **Partly Allocated** status and also the shipping tolerance value.

The following shipping tolerance columns for the order details can help you to know the tolerance value against each order detail and tolerance behavior.

- "Max Shipping Tolerance %"
- "Min Shipping Tolerance %"

The Manual Wave UI provides flexibility in selecting orders and subjecting them to waves. Order details whose allocated quantity is falling within the under tolerance band will be pushed to an allocated status if the order line has been marked allocated based on different allocation programs.

Note: to make the **Order Dtl Status, Max Shipping Tolerance %, and Min Shipping Tolerance %** columns visible, you must add it from the **Manual Wave** UI. You can save your updated view by clicking **Preferences** and **Save View**. You can also export the current records to CSV as needed.



Remove Personal Information

You can remove personal or customer related information in the system by selecting the customer orders and clicking “Remove Personal Info” button on the Order Header UI. To remove the personal information, you require permission “remove_pi” on order_hdr entity and enable permission control “order_hdr / Can Remove Order Personal Info.

Note: This button is enabled only for order whose statuses is in Shipped/Cancelled/Delivered. Also, this button is not applicable for facility orders where dest-facility/shipto-facility are populated.

- Go to **Order header** UI > specify and commit the changes for each order separately on how many orders were succeeded out of how many.

For example, If, 9 orders were selected, then:

- PI Removed: 6;
- Facility orders skipped: 2;
- Error encountered: 1.

- Select the **Order** > click the button “**Remove Personal Info**”.

The values are updated accordingly in the following specified fields and are ignored if the values are blank.

- order_hdr.cust_nbr
- order_hdr.cust_name
- order_hdr.cust_addr
- order_hdr.cust_addr2
- order_hdr.cust_addr3
- order_hdr.cust_phone_nbr
- order_hdr.cust_email
- order_hdr.cust_city
- order_hdr.cust_state
- order_hdr.cust_ziporder_hdr.cust_country
- order_hdr.cust_contact
- order_hdr.shipto_name
- order_hdr.shipto_addr
- order_hdr.shipto_addr2
- order_hdr.shipto_addr3
- order_hdr.shipto_city
- order_hdr.shipto_state
- order_hdr.shipto_zip
- order_hdr.shipto_country
- order_hdr.shipto_phone_nbr
- order_hdr.shipto_email
- order_hdr.shipto_contact
- order_hdr.spl_instr

AI/ML Predictive Fulfillment Dashboard

The ability to be proactive is a crucial component for a state-of-the-art warehousing operation and best-in-class customer service. Oracle **Warehouse Management** now gives you just that. With the introduction of our new Predictive Fulfillment Dashboard, we can give you a glimpse into the future and better insight into your fulfillment operations.

Utilizing our new AI/ML algorithms, this intuitive and easy-to-use dashboard allows you to view predictions for your Order Cycle Time. Basically how long it will take you to pick, pack and ship an order. Using these predictions, we can help you to identify orders that might otherwise be delayed, miss expected service levels and shipping windows, or potentially create a bottleneck in the warehouse.

We have included various charts and KPIs that give different views on what orders are predicted to be above or below your expected cycle time threshold. You also have drilling capabilities. By clicking on the order status, it will further filter and display the order types within that status.

To give you even more detailed information, the orders above your target threshold will be shown in a data grid that displays the following information:

- Order Number
- Status, Order Type
- Predicted Time
- Expected Shipping Date
- Required Shipping Date

Using this detailed information in other WMS UI's, you now have the information to do things like order detail inquires, wave releases, wave inquires, review allocations, re-prioritize task statuses and verify outbound load information.

Predictive Analytics

Predicting order cycle time and order shipping volume can be a challenge in today's ever-changing logistics environment. Warehouse Management machine learning allows you to use historical order data with optimized machine learning algorithms and techniques to help deliver accurate predictions.

You can schedule the data creation for AIML Models in the **Scheduled Jobs** UI. You can also run **AIML Training Templates** using a scheduled job as well.

Generate Prediction Run for Order Cycle/Waiting/Processing Time

You can configure and generate a Prediction Run for Order Cycle/Waiting/Processing time in the **Scheduled Jobs** UI. This will predict the number of orders during a user-specified time.

The **Generate Prediction Run** job type is available in the create pane -> **Job Type** drop-down in the **Scheduled Jobs** UI.

Selecting the Generate Prediction Run job type from the drop-down further expands the following Job parameters:

- Username
- Training Run Number
- Orders
- Wave number - (optional)
- Order Type(s)
- Required Ship Date on Day

When you click on the corresponding details button in the **AI/ML Prediction Run** UI, the results of the model are available. By selecting the run number, you can see the results of the specific run. You can view the Prediction Run Number, type (cycle/wait/picking), order count, and handling time.

Generate Training Data in Scheduled Jobs UI

You can generate training data for Order Cycles in the Scheduled Jobs UI. This will build the data to predict the number of orders during a user-specified time.

The **Generate Training Data** job type is available in the create pane -> **Job Type** drop-down in the **Scheduled Jobs** UI.

AI/ML Training Template

A new UI **AIML Training Template** now allows you to configure specific parameters and other details required to generate a AIML model for each metric.

The following fields are mandatory for the creation of an ML Model:

- Template Name
- AIML Metric
- Algorithm
- Algorithm Parameter

In the **AI/ML Training Template** screen, you can train and generate AI/ML Models for future predictions. This screen is similar to the Wave Template UI and allows users to configure the specific parameters and other details required to generate an AIML model for each metric.

The following Key Performance Indicators (KPIs) are available to create in this screen.

- Order Shipping Volume (time series problem)
- Order Cycle Time (regression problem)
- Order Waiting Time (regression problem)
- Order Picking Time (regression problem)

Shipping Tolerance

This section includes more details about Shipping Tolerance in Oracle WMS Cloud.

Shipping Tolerance Percentage in the Order Detail UI and Interface

Warehouses deal with a variety of items (such as produce or wires for example) where shipping an exact quantity or weight might not always be practical. You can view and edit Shipping Tolerance Fields in the **Order Header / Order Detail** screen. You can also view Shipping Tolerance Fields in the **Manual Wave** and **Order Detail** screens.

You can create/modify Shipping Tolerance Fields via:

- the **OrderInput Interface** (through ORR, OHD, or ORD)
- **Order API**

Note: The system will not allow tolerance% equal to 100% or more than 100% for the Minimum Shipping Tolerance% field.

Wave Allocation

In the **Order Type** UI, if “Partial allocation” is enabled, the system will partially allocate the order. If the quantity allocated is within the tolerance threshold in the quantity to be allocated in the Order Detail, the order detail will be in a status of Allocated.

Note: During a wave, when the "Cancel Partially Unallocated" flag is enabled the system will not cancel the unallocated quantity from the order detail if the allocated quantity on the order detail is greater than or equal to the minimum shipping tolerance% threshold value.

If the allocated quantity is less than the minimum tolerance %, the order detail status will be partially allocated.

Order	Order Quantity	Min %	Max %	Allocated Quantity	Order Detail Status
Order1 - Dtl1	100	10	10	92	Allocated
Order2 -Dtl1	100	10	10	80	Partly Allocated

Note: Even though the max tolerance% is defined, the system will never over allocate during allocation from the wave.

Honoring Tolerance Percentage while Packing Against Allocated Quantity

In the following transactions, the system allows you to pick more than the allocated quantity, when the respective allocated order is defined with a maximum shipping tolerance percentage as greater than zero. Oracle WMS Cloud also updates the respective order detail status based on the inventory picked honoring the shipping tolerance percentage.

- RF Pack NC Active
- Order Pick {iblpn}
- Pick Cart
- Pick Confirm API
- Distribute OBLPN for Allocation mode "Distribution residuals OK"

Note: When the distribution mode is set as "Distribution residuals OK", LPNs allocated by the system may have more inventory than the allocated quantity. In this mode, you can pickup extra inventory available to over pack within the tolerance%.

You can pick excess quantity against the allocated quantity and tolerance% is considered with respect to the allocated quantity:

Example 1::Let's say you have an order with 100 units with a max% of 10. If there are 2 allocations of 50 and 50, you can pick a max of 55 (subject to inventory availability) against each allocation.

While picking against allocated quantity, if you pick in a single instance, then the overall max quantity that can be packed against an order detail may vary.

Example 2::Let's say you have an order with 100 units with max% of 10. If there is one allocation of 100 units against the order, you can pick up to 110 (subject to inventory availability) if the picking is done in a single instance.

But if you pick 60 in the first instance, then the system asks you to pack the remaining 40. You can pick up to a max of 44 (subject to inventory availability.) In this case, the total packed quantity against the order detail will be 104.

Allow Over Packing

Oracle WMS Cloud allows over packing based on the maximum shipping tolerance defined on the order detail during picking using the MHE API.

- When the maximum tolerance on the order detail is defined with greater than a zero value, then during MHE picking, the system calculates the maximum quantity that can be picked against the order detail by applying the maximum tolerance % on the allocated quantity against the respective allocation detail.
- When the maximum tolerance on the order detail is not defined or zero, then the system doesn't allow over packing of inventory. Upon over packing, the error message *"Only(Available Quantity) units available for packing"* displays.

Note: Over Packing is allowed only when the respective inventory is available (not allocated to any order) in the source location.

Honoring Tolerance Percentage During Substitution

During RF **Pack{oblpn}**, the system allows you to substitute inventory within the min/max threshold percentage, as long as the substituted LPN is allocated for an order that the original LPN can fulfill.

The following are some examples of tolerance percentage during substitution:

Example 1:

The Location has 2 LPNs:

LPN	LPN Quantity	LPN Status	Order Allocated
LPN1	100	Allocated	order 1
LPN2	90	Allocated	-

You substitute LPN1 with LPN2. Because LPN2 meets the tolerance limit and it is not allocated to an order, you can substitute.

Order	Order Quantity	Min %	Max %
order 1	100	10	10

Example 2:

The Location has 2 LPNs:

LPN	LPN Quantity	LPN Status	Order Allocated
LPN1	100	Allocated	order 1

LPN	LPN Quantity	LPN Status	Order Allocated
LPN2	90	Allocated	order 2

Order	Order Quantity	Min %	Max %
order 1	100	10	10
order 2	100	10	10

The Location has 2 LPNs: you substitute LPN1 with LPN2. Because LPN2 meets the tolerance limit for order 1 and LPN1 meets the tolerance limit for order 2, the allocation can be exchanged and you are allowed to substitute.

Example 3:

LPN	LPN Quantity	LPN Status	Order Allocated
LPN1	100	Allocated	order 1
LPN2	90	Allocated	order 2

Order	Order Quantity	Min %	Max %
order 1	100	10	10
order 2	90	10	10

You try to substitute LPN1 with LPN2. Even though LPN 2 is within the percentage tolerance for Order 1, LPN 1 is NOT within the percentage tolerance for order 2. Therefore, Substitution is not allowed.

Direct Allocation when LPN Quantity is within Tolerance Limit of Ordered Quantity

You can allocate LPNs with a higher quantity than the ordered quantity. Also, allocating LPNs with a quantity within the shipping tolerance limit of the ordered quantity will mark the order detail as Allocated.

The following table is an example of the resulting Order Detail and LPN status during RF Direct Allocation based on the minimum and maximum shipping tolerance set:

Ordered Qty	LPN Qty	Min Tol %	Max Tol %	Rem Ord Qty	Order Detail Status	LPN Status
100	80	10	10	20	Partly Allocated	Consumed
100	90	10	10	10	Allocated	Consumed

Ordered Qty	LPN Qty	Min Tol %	Max Tol %	Rem Ord Qty	Order Detail Status	LPN Status
100	90	0	10	10	Partly Allocated	Consumed
100	110	0	10	0	Allocated	Consumed
100	110	10	0	0	Allocated	Consumed
100	111	10	10	100	Error message-system should restrict	Received

Pick and Allocate and Shipping Tolerance Limits

You can overpick quantity greater than the ordered quantity within the shipping tolerance limit applied. During **Pick and Allocate**, when LPNs with a higher quantity than the ordered quantity are packed based on the shipping tolerance%, the original allocated quantity will not be more than the original order quantity on the allocation record.

The following table is an example of the resulting Order Detail and **OrderHeader** status during RF **Pick and Allocate** based on the minimum and maximum shipping tolerance set:

Ordered QTY	Allocated QTY	Packed Qty	Min Tol %	Max Tol %	Mode	Ord Detail Status	Ord Header Status
100	100	50	10	10	System Directed	Allocated	In Packing
100	100	90	10	10	System Directed	Allocated	Packed
100	100	110	10	10	System Directed	Allocated	Packed
100	50	50	10	10	User Directed	Created	Partly Allocated
100	90	90	10	0	User Directed	Allocated	Packed
100	90	90	0	10	User Directed	Created	Partly Allocated
100	110	100	0	10	User Directed	Allocated	Packed

Shipped Load Interface

Oracle WMS Cloud can derive order detail status whenever the order detail is shipped. Order Quantity Consume is meant to be used by integration to consume quantity against the shipped quantity. Deriving the status on the order detail helps you to know about order status, so that you can plan further activity during shipping and manifest.

After loading and performing shipping, if the shipped quantity is within the maximum/minimum shipping tolerance percentage defined on the order detail and the order detail doesn't have any pending allocation/picks, then the order detail status will be derived as "Shipped".

- Order detail status is shipped when shipping is performed via the RF or UI **ShipLoad** transaction.
- Order header status is marked as shipped when all the order details against the order are shipped.

When inventory is shipped against the order detail, the order detail will be updated with:

- **ShippedQuantity:** Total inventory shipped against the order detail.
- **Order Quantity to consume:** Total order quantity to consume sent against the order detail.

Note: During Ship Load, the system generates the Outbound Load Export (SLS) file which has information associated with the order detail including:

- Maximum Shipping Tolerance%
- Minimum Shipping Tolerance%
- Order Quantity to Consume

Send Back Order Quantity In The Order Detail Status Change IHT-85

The system sends Back Order Quantity via the Order Detail Status change IHT-85. The system calculates the back order quantity against each order detail, only when the respective order's order type has **Require Back Order** enabled.

Note: In order for the system to derive back order quantity, you must enable the **RequireBack Order** flag from the **Order Type UI**.

Determine Back Order Quantity As Order Details Are Shipped/Cancelled

In the warehouse when orders are received, the warehouse tries to fulfill the order up to the ordered quantity. But sometimes, due to unavailability of inventory, orders cannot be fulfilled completely. To handle these scenarios, Oracle WMS Cloud communicates to the host system how much quantity was not fulfilled, and based on that information, the host system creates back orders for further processing.

The system determines the Back Order quantity when an order detail is Shipped. It will then populate the back order quantity on the reference field for Order Detail Status change Inventory History Transaction (IHT) (ref value 4.)

When the system cancels the Order Detail, Back Order Quantity against the Order detail is computed and displays in the Ref Code 4 (Back Order Quantity) of the Order Detail Status change Inventory History Transaction (IHT- 85). When order detail is cancelled, Back Order Quantity will be equal to the Original Order Quantity.

The following are the some of the trigger points associated when the order detail is cancelled:

- **Wave** (when **Cancel Fully Unallocated** flag is enabled)
- **IB Shipment UI** ("Unallocated order details to cancel on ASN verify" mode on the **IB Shipment Type**)
- Interface
- Order Interface

The following RF Transactions are triggered (when allocated inventory against the order detail is shorted and the **Only deallocate on short** flag is disabled on the Order Type)

- RF **Pack NC Active Order**
- Modify Cancel {oblpn}
- Pick {iblpn}
- Distribute {oblpn}
- Pack {oblpn}
- Pick Cart
- Outbound Audit
- Repack OBLPN
- RF **Move LPN**

The following APIs are triggered (when allocated inventory against the order detail is shorted and the **Deallocate on Short** flag is disabled on the Order Type)

- **Pick_Confirm** API
- Legacy **Pick_Confirm** API

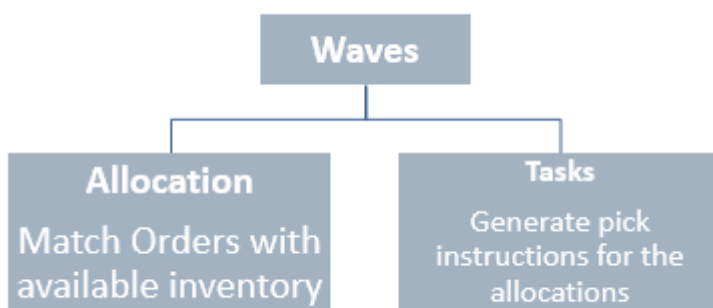
Order Integration into WMS

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.
 - 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.



Allocation Units of Measurement (UOM)

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".
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'.

For example: SKU A has a standard case quantity = 4, and the ordered quantity is 12. This will create an allocation for 3 cases.

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.

From Wave Template Searches, click Create to create a new Search Template. Here, you can define the filtering parameters.

Examples:

Search Name *	Search Template 1
Order Nbrs	
Route Nbrs	ROUTE1
Item Codes	ITEM1

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

Search Name *	Search Template 2
Order Nbrs	ORD_001,ORD_002
Route Nbrs	
Item Codes	

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.

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

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

Note: 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 Allow Reserve Partial Pick in the *Location Master* section.

Note: The system is not currently handling the **Allow reserve partial pick** flag during replenishments.

- **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.

Note: The partial allocation flag (on the **Order Type** UI) is not honored and it will always have a default of yes.

- **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: 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_system:** 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, C to O:** You can select one or multi-select relevant inventory attribute to ignore the inventory attributes in the Order Header. Even if the order has corresponding inventory attribute populated, ignoring the inventory attribute on allocation mode sequence will prevent the wave from honoring the order's attribute.

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.

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".

Task Types

The 'Task Type' UI Module will display all task types used in WMS. The task type details will display all RF Modules used within a task type.

Note: If new configuration will be done to task types, new task type records need to be created. For base functionality, previously created task types can be used.

If new screens are required for new task types, these screens need to be first created using Screen configuration view. However, you need to ensure that the RF modules used to create a new screen are the same as the RF module mentioned in the existing Task Type.

Note: From the **Task Type** UI, click **Details** to see the RF Modules used (also listed in table below) with each task type.

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

Task type	Description	Explanation	RF Modules Used with Task Type
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.	<ul style="list-style-type: none"> RF IBLPN Pick for Consol Replen RF - Task Zone Movements RF Distribute Replenishment
DISTRIBUTE-LPN	Distribute LPN	Used for LPN picking tasks with distribution.	<ul style="list-style-type: none"> RF Move LPN RF - Task Zone Movements RF Distribute {oblpn}
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.	<ul style="list-style-type: none"> RF Pack {oblpn} RF - Task Zone Movements RF Putaway OBLPN
INTERNAL-PICK	Internal Picking Task	Tasks relevant to internal unit movements, such as directed putaway.	<ul style="list-style-type: none"> RF IBLPN Pick for Consol Replen RF - Task Zone Movements RF Distribute Replenishment
LPNCASES	Reserve Cases	Used for Case picking tasks with no distribution.	<ul style="list-style-type: none"> RF Pack {oblpn} RF - Task Zone Movements
LPNMOVE	LPN Movement	Used for movement of intermediate LPNs during distribution and replenishment.	<ul style="list-style-type: none"> Pack NC Active {order} RF - Task Zone Movements RF Putaway OBLPN
LPNPACKS	Reserve Inner Packs	Used for Pack picking tasks with no distribution.	<ul style="list-style-type: none"> RF Pack {oblpn} RF - Task Zone Movements
LPNUNITS	Reserve Units	Used for Unit picking tasks with no distribution.	<ul style="list-style-type: none"> RF Pack NC Active {order} RF Task Zone Movements RF Putaway OBLPN
NC-ACTIVE-PICK	Noncubed Active Picking Task	Used for internal non-cubed active picking tasks.	<ul style="list-style-type: none"> RF Pack NC Active {order}

Task type	Description	Explanation	RF Modules Used with Task Type
			<ul style="list-style-type: none"> RF -Task Zone Movements RF Putaway OBLPN
PICK_CART	Pick Cart	Used for creating Pick Cart tasks.	<ul style="list-style-type: none"> RF Pick Cart RF -Task Zone Movements RF: Putaway OBLPN
PICKLPN-INTERNAL	Pick LPN Internal	Tasks relevant to internal LPN movements, such as directed putaway.	<ul style="list-style-type: none"> RF Pick {iblpn} RF - Task Zone Movements
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.	<ul style="list-style-type: none"> RF Move LPN RF Task Zone Movements RF Putaway OBLPN
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).	<ul style="list-style-type: none"> RF Move LPN RF - Task Zone Movements RF Distribute Replenishment
REPLEN-LPN	Full LPN Replenishment	Used for LPN replenishment tasks. This task type is enabled when entire LPNs are being replenished.	<ul style="list-style-type: none"> RF Move LPN RF - Task Zone Movements RF - Replenish Full LPN
CC-LOCATION	Cycle Count Location	Used for Cycle Count Location tasks.	<ul style="list-style-type: none"> RF Cycle Cnt {locn}
CC-LOCATION-DTL	Cycle Count Location Detail	Manual CC by Item Detail	<ul style="list-style-type: none"> RF Cycle Cnt {locn}
CC-LOCN-LPN-CNT	Cycle Count Location LPN Count	Count the LPNs in a Cycle Count Location.	<ul style="list-style-type: none"> Resv {lpn} Nbr Cnt Cycle Cnt {locn}
CUBEDSINGLEUNIT	Cubed Single Unit	Pick and Pack cubed single LPNs that were generated by the wave.	<ul style="list-style-type: none"> RF Pack {oblpn} RF – Task Zone Movements
FULL-LPN-PALLET	Full LPN	Pick and Pack full LPNs that were generated by the wave.	<ul style="list-style-type: none"> RF Pack {oblpn} RF - Task Zone Movements RF Putaway OBLPN
CUBED SINGLE CASE	Cubed Single Case	Pick and pack cubed single cases.	<ul style="list-style-type: none"> RF Pack {oblpn} RF – Task Zone Movements
CUBED SINGLE PACK	Cubed Single Pack	Pick and pack cubed single packs.	<ul style="list-style-type: none"> RF Pack {oblpn} RF – Task Zone Movements
MULTILPNMOVE	Multi LPN Move	Movement of multiple intermediate LPNs during distribution and replenishment.	<ul style="list-style-type: none"> RF Move LPN RF – Task Zone Movements

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.

Task Creation Template Details

This section details the list of parameters you can define for your task creation template:

Task Creation Template

Fields	Description
Task Creation Template	Displays the task creation template
Sequence Nbr*	Determines the sequence of each Task Type
Task Type*	Select the task type from the drop-down
Break By Quantity	Specify the break by value in Quantity. The user configured break by value will be considered for grouping the tasks based on the allocation mode and task template configured for the wave. Users can now break the tasks by configuring break by quantity value in task creation template.
Break By Weight	Specify the break by value in Weights. Users can now break the tasks by configuring the break by weight value in the task creation template.
Break By Volume	Specify the break by value in Volume. Users can now break the tasks by configuring the break by volume value in the task creation template.
Priority	Determines the priority of the Task Type. The priority can override the record’s sequence number.
Create Held	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.
Assign Destination Zone	Enable this flag to configure the Dynamic Destination Zone. Note: On enabling, the Destination Zone field will be disabled.
Destination Zone	When you reach the end of a Task, this configuration determines whether or not the RF will prompt you to move the picked boxes into a Destination Zone. Destination Zones are essentially locations that have Task Zones configured. Additionally, the system checks if there is a matching Task zone movement configured with the Start and End zone (Start zone is based on pick location and end zone is based on the zone configured in "Destination Zone"). If a match is found, the picker can execute task zone movement after reaching end of their task.
Dynamic Destination Zone	You can specify multiple destination zones separated by comma.

Fields	Description
	<p>This field checks the destination zone for pending tasks or uncancelled inventory. If the destination zone doesn't have any incomplete/uncancelled tasks nor uncancelled inventory, tasks for that task creation sequence will take the specified Destination Zone. Else, it will evaluate the next destination zone in the list.</p> <p>For example, if Dynamic destination zones are configured with Dest01, Dest02, Dest03. Dest01 will be evaluated first, then Dest02, and finally Dest03 will be evaluated.</p> <p>Note: If all the destination zones configured have pending tasks or inventory not in cancelled status, the tasks will not be created but allocations will be generated for the wave.</p>

Break the Task via Break By Parameter

The allocations in a wave are added to a task until one of the value - quantity, weight, and volume mentioned in break by parameter has reached the value. Once the condition is satisfied, the system creates a new task for the next allocation in sequence and continues to verify the tasks are created for all allocations in a wave.

For example, If break by quantity is configured as 80, and there are three allocations in sequence with Qty: 50, 60 and 40, the first two allocations with Qty 50 and 60 are added to the first task and then the third allocation with Qty 40 is created as a second task.

Note: The grouping of tasks occurs at the allocation level (meaning, a single allocation will not further break even if the break by quantity/weight/volume is satisfied within the allocation). As allocations can't be split further into individual tasks, in some cases, the tasks can exceed break by capacity configured. Refer to the use case scenarios while configuring break by Quantity/Weight/Volume values accordingly. To configure the break by value, do the following:

1. From the **Task Creation template** UI. Select the template and click **details** icon.
2. The Details page opens > Click Create (+) icon.

The screenshot shows a form for configuring a task creation template. The fields are as follows:

- Task Creation Template * (dropdown menu)
- Sequence Nbr * (text input field)
- Task type * (dropdown menu)
- Break By Quantity (text input field)
- Break By Weight (text input field)
- Break By Volume (text input field)
- Priority (text input field)
- Create Held (checkbox)
- Assign Destination Zone (checkbox)
- Destination Zone (dropdown menu)
- Dynamic Destination Zones (text input field)

A red rectangular box highlights the three 'Break By' fields: Break By Quantity, Break By Weight, and Break By Volume.

3. Enter the break by values in the respective field. By default, these fields are set with value 0 or blank, and supports decimal values greater than or equal to zero”.

Note: For Template Type = Regular, you can save the record by populating numeric values in the new fields. While creating, the entered "Break By Weight" & "Break By Volume" rounds-off based on the max weight, volume and dimension decimal precision value configured in Decimal settings for the user logged in company.

4. Click **Save**.

Task Creation Templates with Break by Quantity/Weight/Volume for Picking, Replenishment, and Work order.

As a part of task creation, allocations are grouped into the same task until any of the break by conditions among break by quantity, weight, and volume is satisfied. When allocation satisfies break by condition, new task will be created for the next allocation in sequence.

For example: If break by quantity, weight, volume all is configured, if any one condition is satisfied (break by weight), a new task will be created for the next allocation in sequence.

Note: For replenishment related task types (REPLEN-LPN, REPLEN-CASES, CONSOL-REPLEN), you can save a valid non-zero for break by weight and volume in task creation template details. **Weight and Volume Calculation Considerations** The weight and volume compared against the break by weight and break by volume will also be computed at allocation level. The considerations for calculated weight and calculated volume will vary, for example when the user does a full LPN allocation, weight/volume of the inbound LPN is considered as calculated weight and calculated volume. However, when the user does allocation by units, the item's unit weight/volume and allocated quantity is considered for calculated weight and calculated volume. The table below mentions logic for calculating weight and volume that is compared against the break by weight and break by volume for different scenarios:

Weight and Volume Calculation

In Units	Weight is calculated as a product of the item unit weight and allocated quantity and volume is calculated as product of item unit volume and allocated quantity.
In Full LPNs	Weight/volume is calculated based on IBLPN weight/volume, if IBLPN weight /volume is zero, weight/volume is calculated as product of item unit weight/volume and allocated quantity.
For full LPN/case replenishment and for picking with distribution (tasks with Move LPN as a first program)	The complete LPN is picked, irrespective of allocation quantity, so the total weight/volume of LPN must always be considered. Weight/volume is calculated based on IBLPN weight/volume, if IBLPN weight /volume is zero, weight/volume is calculated as product of item unit weight/volume and the current quantity.
Cubed and cubing mode is 'Use Predetermined OBLPN Type' or 'Calculate OBLPN type and cube with wave'	Weight/volume is calculated based on OBLPN weight/volume.
In Packs	If the allocated inventory pack quantity matches the item's standard pack quantity and the standard pack weight/volume is greater than zero, weight/volume is calculated as a product of standard pack weight/volume and number of packs, or else, weight/volume is calculated as a product of the item unit weight/volume and the allocated quantity.
In Cases	If the allocated inventory case quantity matches the item's standard case quantity and the standard case weight/volume is greater than zero, weight/volume is calculated as a product of the standard case weight/volume and number of cases, or else, weight/volume is calculated as product of the item unit weight/volume and the allocated quantity.
Allocation	How Weight and Volume is Calculated

Task Breaks by Quantity, Weight, Volume

The following use case provides an outline on how the tasks are broken based on break by values:

Break by Quantity

Use Case - 1: If you have a allocation with allocated quantity 20 in task creation template. The Break By Quantity =10, and Break By Weight/Break By Volume = null/empty, the task is created as follows:

LPN	Item	Location	Order	Allocated Qty	Task
LPN10	Item10	Loc10	Ord2	20	Task0005

Even though the allocated quantity is twice that of the Break by Quantity, the system creates only one task as the allocation cannot be broken further into multiple tasks.

Use Case - 2: If you have three allocations with the allocated quantity as 4,4, and 3 and in task creation template, the Break By Quantity = 5, and Break By Weight/ Break By Volume = null/empty, the tasks is created as follows:

LPN	Item	Location	Order	Allocated Qty	Task
LPN11	Item11	Loc1	Ord3	4	Task0010
LPN21	Item11	Loc2	Ord3	4	Task0010
LPN31	Item11	Loc3	Ord3	3	Task0011

The Task0010 can accommodate only 5 units (break by Qty =5), but the first allocation does not exceed the break by value and on including the second allocation, the total quantity for task exceeds break by quantity. Because, the system does not split the allocation further, the second allocation is included in Task0010 and the total quantity in Task0010 = 8 (4+4).

Break by Weight and Volume

Example

LPN	Item	Quantity	Weight	Volume
LPN1	Item1	10	1000	10000
LPN2	Item1	10	1000	10000

When order (Order1) is for Item1, the Quantity = 20, and the above LPNs are available in the system. When you run the wave and the Break by Quantity is 20, both the allocations will be grouped into a single task because the break by condition is not satisfied:

Example

LPN	Order	Allocated Quantity	Task
LPN1	Order1	10	Task00001
LPN2	Order1	10	Task00001

When the Break by Quantity is 20 and the Break by Weight is 1000, two separate tasks will be created for allocations because the Break by Weight is satisfied for both allocations:

Example

LPN	Order	Allocated Quantity	Weight	Task
LPN1	Order1	10	1000	Task00002
LPN2	Order2	10	1000	Task00003

Note: The grouping of tasks happens at the allocation level (meaning a single allocation will not be broken into two tasks even if the break by quantity/weight/volume is satisfied within the allocation).

Note: There are cases where any one among break by quantity/break by weight/break by volume fields need not be considered as criteria for breaking tasks, in that case, you can configure values for the respective fields as zero while defining task template details, and the break by criteria won't be considered while creating tasks.

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:

Item Assignment Type

Item

Task zone

MHE System

Divert Lane

pick_zone

Location - Custom Field 1

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".

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

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

screen

1. Location Pick Sequence, Break by count = 0

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

2. Pallet Number, Break by count = 1

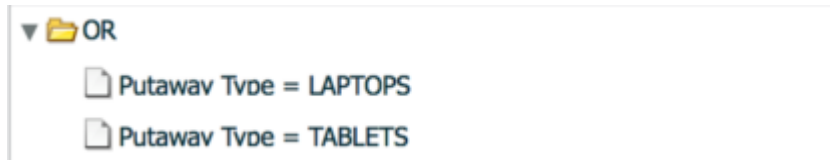
This will create a new Task for every Pallet that is allocated. This may be used in cases where the picking equipment does not allow users to pick multiple pallets at a time.

Selection Criteria

You can use Selection Criteria to configure Task Type conditions.

1. Select the Task Type record and click “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”.
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:



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: Combine 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.
3. Once everything is selected, click the "Save" button.

Choosing an Allocation Method

You can choose different ways of ordering inventory for picking from Active or Reserve location:

- FIFO: First in First Out – Allocates inventory based on ascending order of the inventory's "Create timestamp" or ascending order of LPN's create time stamp for allocating from reserve
- LIFO: Last in First Out – Allocates inventory based on descending order of the inventory's "Create timestamp" or " or descending order of LPN's create time stamp for allocating from reserve.
- FEFO: First Expiry First Out – Allocates inventory based on ascending order of the inventory's "Priority Date" field.
- LEFO: Last Expiry First Out – Allocates inventory based on descending order of the inventory's "Priority Date" field.

Note: We consider Priority date for FEFO or LEFO (expiry date captured during receiving is copied over to priority date field, if priority date field is not passed in shipment detail.). For item's which are not tracking expiry, the received date is considered in Priority date of the LPN.

- Quantity Ascending: Allocates inventory with the smallest quantity first.
- Quantity Descending: Allocates inventory with the largest quantity first.
- Location Ascending: Allocate inventory in the ascending order of the location pick sequence.
- Location Descending: Allocates inventory in the descending order of the location pick sequence.

Note: For Allocation Method of FEFO, LEFO, Quantity Ascending, or Quantity Descending, the system has an inbuilt secondary ordering of location pick sequence. That is, if you have an allocation method= FEFO and there are two sets of inventories with the same expiry date in loc1 & loc2, the system picks the inventory which expires first from the location with first **location pick sequence**.

The following allocation methods will be honored for Multi-SKU Full LPN Allocation:

- FIFO (default)
- LIFO
- Location pick sequence Ascending
- Location pick sequence Descending

Following allocation methods are not applicable for Multi-SKU Full LPN Allocation:

- FEFO
- LEFO
- Quantity Ascending
- Quantity Descending

Note: If the allocation method configured for multi-sku LPN's allocation is not defined or configured one is not supported, the system falls back to the default allocation method (FIFO).

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 *Cubed Picking* for more info)
- **Cubing Rule:** (see *Cubed Picking* for more info)
- **OB LPN Type:** (see *Cubed Picking* 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 for order selection. Allocation will happen based on the availability of inventory and the Order Type setting of Partial allocation or no Partial allocation, and so on. For example, if "Max Units" is set to 100, the system will select orders less than or equal to 100 and stop when the max reaches 100.
- **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).

Create Or Delete A Sales Order Line

You can create a Wave template that has the select Cancel Partially Unallocated option checked. Then run the Wave Template for that order and this will cancel the order lines on the orders that are not allocated.

Note: You cannot delete an order line using the Orders User Interface (UI) or `init_stage_interface` API for an order that is partially allocated.

Secondary Ordering Criteria in Waving

Waving Processes for Picking Waves, Replenishment, and Work Order Waves provide inventory allocation strategies using allocation methods like First Expiry First Out (FEFO)/ Last Expiry First Out (LEFO), First In First Out (FIFO)/ Last In First Out (LIFO), Location Sequence Ascending/ Location Sequence Descending, Quantity Ascending/Quantity Descending.

Oracle WMS Cloud provides a secondary ordering criteria where if there are multiple candidate LPN's with the same expiry date, then the system allows you to order by secondary ordering criteria like Quantity Ascending or Quantity Descending. The FEFO or the Quantity Ascending helps to consume LPN's faster and FEFO/Quantity Descending helps to fetch bigger boxes. This allows room for Putaway and helps in space utilization.

Note: If operating for Gravity Feed or Push Back Racks, combination of Location Sequence/FIFO or Location sequence /LIFO can be used.

Secondary Allocation Method

The Secondary Allocation Method field is available in the *Wave Template screen* so that secondary ordering can be configured along with the allocation method. The Secondary Allocation Method field is also available in the *Allocation Mode Sequence screen* so that secondary ordering can be applied for relevant allocation mode sequence.

- By configuring the secondary allocation method, a second level of ordering can be done if there are multiple candidate LPN's or Inventory matching the first strategy.
 - If multiple LPNs with the same expiry date are found eligible for allocation during the wave and the Allocation method is FEFO, the secondary allocation method of Quantity Ascending or Descending can be applied to the LPNs with the same expiry date.
 - If the Primary Allocation Method is Location Sequence, and if there are multiple LPNs in the same location, then the LPNs received first are used as secondary ordering. Location Sequence Ascending/ Descending along with FIFO or LIFO can be considered.
- Configuring a Secondary Allocation Method is not Mandatory.
- Even after applying the secondary allocation method, the built-in ordering can be considered based on location pick sequence if there are eligible LPN's or inventory.
- The Secondary Allocation Method field is also available in the *Replenishment Rule Sequence screen* for Configuring Secondary Allocation Method for allocating LPNs or Active Inventory for Replenishment.

- For Replenishment with Picking Wave allocating out of In Transit Quantity, Quantity Ascending and Descending In transit Quantity is considered.
- The Secondary Allocation Method field also allows you to perform secondary ordering for *Work order Wave*.

The following table provides details about the Primary and Secondary Allocation Methods:

Primary Allocation Method	Secondary Allocation Method	Expected Sortation
Quantity Ascending	First In First Out	The system searches for LPNs in ascending order of the quantity. Multiple LPNs with similar quantity will be ordered by LPNs create_ts.
Quantity Descending	First In First Out	The system searches for LPNs in ascending order of the quantity. Multiple LPNs with similar quantity will be ordered by LPNs create_ts.
First Expiry First Out	Quantity Descending	The system searches for LPNs/Active Inventory in ascending order of inventories priority date. Multiple LPN's/locations with similar priority date will be ordered by descending quantity of the LPN. In-built ordering based on location sequence will be considered, if multiple 's with same expiry dates and quantity is found
Last Expiry First Out	Location Sequence Descending	The system searches for LPNs/Active Inventory in descending order priority date. Multiple LPNs/locations with similar priority date will be ordered by location sequence.

Note: A valid error message is displayed if you attempt to configure the following invalid Secondary Allocation Method for the configured primary allocation method:

Allocation Method	Invalid Secondary Allocation Method
Location sequence ascending	Location sequence ascending, location sequence descending.
Location sequence descending	Location sequence ascending, location sequence descending.
FEFO	LEFO and FEFO
LEFO	LEFO and FEFO
FIFO	LIFO and FIFO
LIFO	LIFO and FIFO

Note: Secondary allocation method does not change the underlying ordering logic. Combinations should be evaluated as per Distribution Center workflow needs.

To setup the Secondary Allocation Method for a Picking Wave: (Allocations happening for Order Picking):

1. Go to the **Wave Template** screen.
2. Populate the Secondary Allocation Method.
3. If the allocation method is configured at the individual allocation mode sequence level, populate the Secondary Allocation Method in the Allocation Mode Sequence screen,

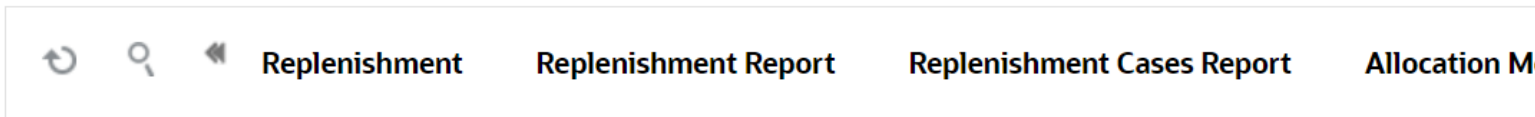
Defining Expiry Date Range

Expiry Date Range allows you to set up rules, so that your wave only allocates inventory that will expire within the date range that you have defined in the **Expiry Date Range** UI. For example: Different medications can have different life spans where you want to allocate inventory within defined time span.

Your rules can be set up by item hierarchy codes and group codes so that users can allocate from different item categories having different life spans.

Note: The wave expiry date window range configuration is applicable only for items which are tracking expiration dates (Prod_Life_Days is > 0).

Wave Template



To add or edit an expiry date rule, do the following:

1. Go to **Wave Template > Expiry Date Range**.
2. Expiry Date Range UI opens. This will open of all the Expiry Date Rules.
3. To define your rule, click the (+) icon.
4. Enter the following details:
 - a. Rule Name*: Enter the name for the rule. This is a Mandatory field.
 - b. Description: Enter a description that best describes the rule.
5. The newly created rule appears on the Expiry Date Range screen.

6. To add or edit the rules, click the Details icon.



Expiry Date Range Parameters

Fields	Description
Rule Name	Displays the name of the rule.
Priority	You can set the priority of the rule. Note: The system processes the order in ascending order of the priority column value.

Fields	Description
Criteria-1 to Criteria-6	<p>You can configure different criteria for additional filter. These additional fields expose following six items field:</p> <ul style="list-style-type: none"> ○ Group Code ○ Item Hierarchy Code 1 - 5
Value-1 to Value-6	Corresponding matching value for the selected column needs to be populated.
Expiring before (in days)	<p>This value will be configured in terms of days. The default value will be blank.</p> <p>While allocating Expiry date tracked items, wave will only allocate inventory with expiration date \leq (current facility date +number configured in the Expiring before(in days)).</p> <p>If set to 0, it will look for inventory that expires today or before.</p>
Expiring after (in days)	<p>This value will be configured in terms of days. The default value will be blank.</p> <p>While allocating Expiry date tracked items, wave will only allocate inventory with expiration date \geq (current facility date +number configured in the Expiring after (in days)).</p> <p>If set to 0, it will look for inventory that expires today or after.</p>

7. After defining the configuring, click the **Save**.

8. Now, when you run wave you can fetch your defined Expiry Date Rule from the drop-down menu in the Wave Template screen:

9. Click **Save**.

For example, you have the following inventory available:

Facility date is 22/02/2021.

- LPN1 (A1)= SKU1 = 3 Qty Expiry date = 18/02/2021.
- LPN2 (A1)= SKU1 = 5 Qty Expiry date = 19/02/2021.
- LPN3 (A1)= SKU1 = 2 Qty Expiry date = 20/02/2021.
- LPN4 (B1)= SKU1 = 2 Qty Expiry date = 22/02/2021.
- LPN5 (A1)= SKU1 = 5 Qty Expiry date = 22/02/2021.
- LPN6 (B1)= SKU1 = 3 Qty Expiry date = 23/02/2021.

Your order = SKU 1 with 10 units and following is the configuration:

← SK Wave Template ▶ Expiry Date Range ▶ Expiry Range Header



Rule Name	Priority	Criteria-1	Value-1	Expiring before(in days)	Expiring after(in days)
Expiry Date Range	0	Item Hierarchy Code 1	A1	4	0

If you run a wave template that has the rule Expiry Date Range set up, the system will allocate inventory which Item Hierarchy Code 1 equals to A1, and if expiry date falls between the following dates:

- Expiring before(in days) = inventory with expiration date <= (current Facility date - number configured in Expiring before(in days)).
- Expiring before(in days) = inventory with expiration date <= 22/02/2021 plus 4. This means it will allocate inventory that is <= 26/02/2021
- Expiring after (in days) is set to zero, therefore it will look for inventory that expires today or after. According to your rules, you want to allocate inventory that expires between today and 26/02/2021. That is, the system allocates the inventory LPN4, LPN5, and LPN6 having expiry date of 22/02/2021 and 23/02/2021.

Note: The system considers facility time zone for calculating the expiry date range and allocating the inventory to the order.

Note: On configuring hierarchy code criteria and the expiry date range, the system performs a AND operation to satisfy the order quantity.

Note: If you are running a wave with a Replenishment rule, the expiry date range feature is not a supported feature

Note: If you configure multiple expiry range date rules for the same matching criteria, then the shelf life rule will be applicable for all the configured rule. Therefore, its recommended for the users to configure only one matching rule applicable for an item. For example, let's say, for an item hierarchy code ABC, rule 1, seq 0 - the expiry date range is between (0 to 100) days and for the same item hierarchy code ABC, rule 1, seq 1 - the expiry date range is between (101 - 150) days, then the application will allocate the LPNs falling under the range between 0-100 and 101-150 days.

Allocation in Terms of Packs or Cases from Active Locations

Waves

During waving, users who track inventory in terms of item's standard pack or item's standard case quantity can allocate in terms of packs or cases from active. When performing the picking wave, if the allocation UOM is set to Pack or Cases and the Location type is Active, the system creates allocations with an allocation UOM of packs or cases.

That is, if the allocation UOM is Packs, then the system considers the item's standard Pack quantity, and if the allocation UOM is Cases, then the system considers an item's standard case quantity. While allocating in terms of packs or cases, WMS falls back to an item's standard pack or item's standard case quantity given the active inventory pack and case quantity values of 0.

Oracle WMS Cloud supports Picking allocations from the Wave in terms of Packs or Cases from active locations in the following screens and transactions:

- Allocation Mode Sequence
- NC Active Picking
- RF Pick Cart
- RF Pick IBLPN

- Putaway
- MHE Pick Confirmation API

Allocation Mode Sequence

From the **Allocation Mode Sequence** UI, you can configure Unit of Measure (UOM) for Packs or Cases when the Location type is "Active". If the allocation UOM is Packs, then the system considers the item's standard Pack quantity, and if the allocation UOM is Cases, then the system considers an item's standard case quantity.

Note: If the Location Type is "Active" and the Allocation UOM is not Units or Packs or Cases, OR enabled with only Units/Packs/Cases, then an error is displayed.

To Allocate Inventory quantity in terms of Packs or Cases:

1. Go to **Wave Template, Inventory Allocation Mode, Inventory Allocation Mode Sequence** UI.
2. Set the Location type = **Active** and the Allocation UOM = **Packs or Cases**.

NC Active Picking

Note: During NC Active Picking, when allocating in terms of Packs or Cases from Active, the underlying task type should be "NC-Active-Pick" and the Allocation type should be "Active Pick" for the allocations and tasks created.

RF Pick Cart

The system allows you to pick in Packs or Cases when the wave has allocated Active Inventory with Allocation UOM of Packs or Cases while performing Cubed picking:

- The system will display the number of packs or cases based on the item's standard pack quantity or item's standard case quantity in Sku Qty Entry Mode.
- The system will display the number of packs or cases based on the item's standard pack or case quantity in Sku Scan Mode. Each Scan of Sku corresponds to 1 Case or pack to be Picked (The number of Units to be considered is an item master's standard case or pack quantity).

RF Pick IBLPN

During RF Distribute LPN:

- If the initial Picks into temporary inbound are in terms of Packs (allocation UOM of Packs) and Pick IBLPN has the screen parameter **distribution-uom** set to "Use Source Inventory UOM", then the system displays the quantity to be packed in Packs.
- If the initial Picks into temporary LPN is happening in terms of Cases (allocation UOM of Cases) and Pick IBLPN has the screen parameter **distribution-uom** set to "Use Source Inventory UOM", then the system displays quantity to be packed in Cases.

MHE Pick Confirmation API

The MHE Pick Confirmation API has Allocation UOM and UOM quantity fields that convert Packs to Units or Cases to Units. These fields are used to perform picking updates if the original allocation is in Packs or Cases.

Let's say the MHE Pick Confirmation payload has an allocation UOM of Packs or Cases and the determined allocation is in Packs or Cases from "Active." The system will determine the quantity to be picked or packed by multiplying the item's

standard pack quantity if the allocation UOM is **Packs** or the item's **standard case quantity**, if the allocation UOM is in **Cases**.

Putaway

From the **Putaway Type Determination Rules** UI, you can control how LPNs with non-standard Pack or Case quantities are moved to different Active Locations. You can move LPNs to different Reserve Locations if the incoming LPNs have a different Pack or Case quantity than the Item master's Pack or Case quantity. This will help in segregating items with a non-standard pack or case quantity from the active location.

Note: The system does not support tracking of multiple packs or Case Qty in a single active location.

The following two functions (available in the **Putaway Type Determination Rule Selection Criteria**) can compare the item's standard case or pack quantity against the inventory's case or pack quantity:

- **FUNC_INVN_PACK_QTY_MATCHES_ITEM:** If the item's Pack quantity matches with the Inventory's Pack quantity, then the Function will evaluate to true.
- **FUNC_INVN_CASE_QTY_MATCHES_ITEM:** If the item's Case quantity matches with the Inventory's Case quantity, then the function will evaluate to true.

To Apply configuration changes in Putaway:

1. Go to **Putaway Determination Rule**.
2. Select the Final Putaway Type > Click **Selection Criteria**.
3. Go to Insert basic Operation > From Column name drop-box, select the function **Function - Inventory Pack Qty matches Item** or **Function - Inventory Case Qty matches Item**.
4. Click **Save**.

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.

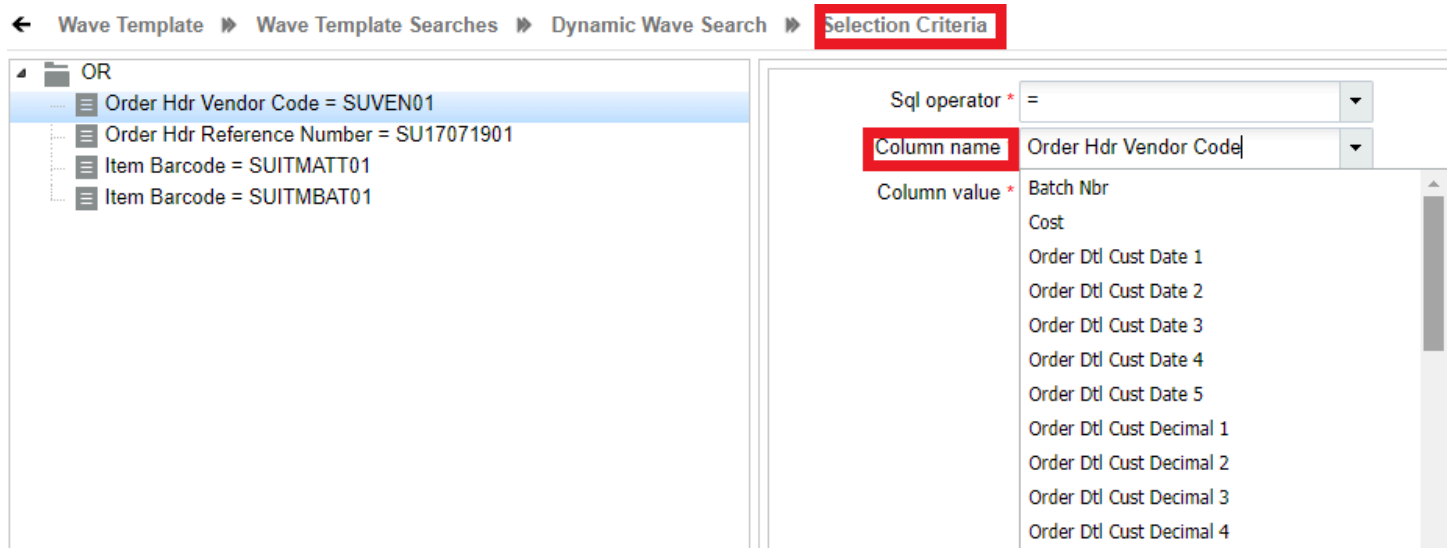
The Dynamic Wave Search button allows you to associate customized order search definitions to wave template order searches. It gives you more customization and power for your wave template searches.

From the **Wave Template UI**, click **Wave Template Searches** to access the Dynamic Wave Search button.

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.

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.



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.

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.

Note: 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.

Note: 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. Click the Wave Template Searches button.
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 Edit.
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:

- Multiple order inputs should be separated by commas with no spaces in between each value (see figure below).
 - If the Order Nbr field is left blank, WMS will search for all eligible Orders (Orders in status “Partly Allocated” or “Created” status).
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.

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.

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

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”.

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.

Manual Wave

↶ 🔍  Run Wave

Order Nbr	Order Type	Sequence Nbr	Allow Expired
SUORD1905...	SOYNYN	5	Yes
SUORD1905...	SOYNYN	4	Yes

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.

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.

The **Allocation** 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).

Substitute Item

You can change or substitute an item on the order detail for an order. If there are no sufficient items available and if an alternative item exists instead of the originally allocated item to satisfy the order, you can manually substitute the item via the **Substitute Item** button on the Wave Inquiry UI. That is, the order will now have the item on the order detail, and the original item will be saved in the `orig_item_code` field, so that you can keep track of the original item ordered.

For example, you have an order = 10 Black pens. You are running short of 10 black pens to meet the order, but you have an alternative of blue pens in your inventory. Given, your customers have agreed to receive blue pens instead of black pens, you can substitute the order details via the Substitute item button. After substituting, you need to run the wave in order for the system to allocate the inventory.

Note: This button is permission enabled. You need to be associated to a group where the permission is enabled to perform this operation. The permission needed for Substitute Item is `substitute_item_in_orders`.

Run Nbr	Order Nbr	Order Status	Sequence Nbr	Item Code	Orig Order Qty
WVQATSTP...	REPL-ORD-A...	Packed	2	SU-ITM-NOR...	10
WVQATSTP...	REPL-ORD-A...	Packed	1	SU-ITM-NOR...	10
WVQATSTP...	SUORD1803...	Partly Allocated	2	SU-ITM-NOR...	10
WVQATSTP...	SUORD1803...	Partly Allocated	1	SU-ITM-NOR...	10

To substitute an item in the order details, the allocation run for the order detail must have 0 in the allocated quantity.

1. Go to **Wave Inquiry** > and Select the Order from the Order header.
2. Click the Details icon. The Order Details screen opens.
3. Click the **Substitution item** button. The substitution Item window opens.
4. Select the item from the **From Item Code** drop-down menu to substitute the item.



5. Enter or search the item code in the **To Item Code** field to substitute the item with.
6. Click **Substitute** button. On success, the item gets substituted on the order detail and order header level.

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.
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 ‘Allocationn Order Nbr’.

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.

The screenshot shows the 'Wave Inquiry' screen with a table of wave data. A 'Print Label' button is highlighted in the top navigation bar. A modal window is open over the table, showing a 'Print Label' button and dropdown menus for 'order_by_rule' (QA RULE AB) and 'Printer' (DOCUMENT:washi). The table has columns: Facility, Run Nbr, Wave Template, Allocation Meth, Status, Alloc Mode Des, Location, Size T, Current Stage, and M.

Facility	Run Nbr	Wave Template	Allocation Meth	Status	Alloc Mode Des	Location	Size T	Current Stage	M
QATST01	RW008071	RGTEMP1	-	Completed, N...	RGREPRUL...			Orders selected N	
QATST01	RW008070	RGOBREPL...	-						
QATST01	WVQATSTP...	RG Wave Resv	LIFO	C					
QATST01	WVQATSTP...	RG Wave Resv	LIFO	C					
QATST01	WVQATSTP...	RG Wave DI...	LIFO	C					
QATST01	WVQATSTP...	RG Wave DI...	LIFO	C					

Picking

See the following topics for details about task management and different types of picking in Oracle WMS Cloud:

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.

Non-Cubed Picking

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.
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.

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.

Note: 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.

4. Begin the pick by 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.

RF Execution - Units, Cases, and Packs

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.
2. The RF will prompt you to scan an OBLPN. This OBLPN will be the container used for shipping.

Note: 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.

3. Begin the pick by scanning the IBLPN and the quantity. This process is similar for cases, units, and packs.
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.

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:

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.

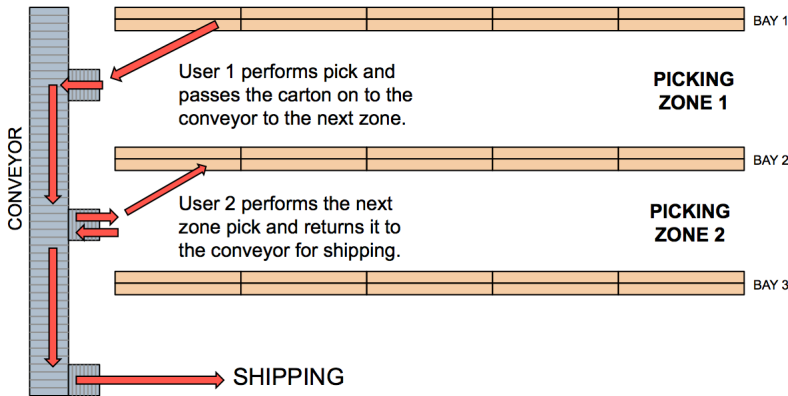
- For FULL-LPN allocations, the system will cartonize **with the wave**.

- 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).

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:



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.
4. In the screen name field, add “Zone Picking”.
5. Click Save.

For details on the Zone Picking-related parameters, see the 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.

Parameter Name	Value	Behavior
	2- Destination (default/current status)	<p>While picking, the system prompts for a new Outbound Container when the picked order points to different destination.</p> <p>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.</p>
	3- Order	<p>While picking, the system prompts for a new Outbound Container when picking a different order.</p> <p>When the 'Zone Picking' parameter is set, then 'break picks by Order' will not be considered and you continue with the same Outbound LPN.</p>
Retain Close LPN on Task	Yes	<p>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.</p> <p>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.</p>
	No	<p>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.</p> <p>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.</p>

Configure Zone Picking for Active Unit Picking

1. Now that the Pick Zone module is configured, it needs to be enabled for the desired Task Type. Go to the "Task Type" screen.
2. 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'.^[1]
3. Click the Detail button to view Zone Picking details.
4. 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:
5. 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.
4. Set up additional Selection and Ordering criteria as needed.
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.

See [Creating Wave Templates](#) for details on selection and ordering criteria.

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.
3. One 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.
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.
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.

- 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).

```

Task Nbr: TSSN00001064      Task: TSSN00001064      Task: TSSN00001064
Order Nbr: OTHK100201      Cust1/OTHK100201      Drop Zone: STAGING
Dest: Cust1                LPN:LPNTHK092301      Drop: _____
                            OBLPN: CTSN100202
                            Locn: R-8-04-1
                            LPN:LPNTHK092301
                            THK03/THK03
                            Qty:5           =>5
    
```

- When the task is complete, the RF will return to the Task list.

Cubed Picking

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

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
1 à Use predetermined OBLPN Type	OB LPN Type picked from Wave template/Order/Item.
2 à Calculate OBLPN Type and cube with wave	OB LPN type computed dynamically and Outbound Cartons created
3à 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

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.
5. Click “Save”.

Adding Cubing Rules

You can use Cubing Rules UI to configure the rules for breaking cubed containers:

1. Go to the “Cubing Rule” screen.
2. Create a new record and add a description.
3. Select this record and click the Details button. This will prompt you to a new screen.
4. Create a new record and enter the values for the mandatory field:

Cubing Rule

Sequence Nbr *

Break by Modifier *

Break By Quantity *

- a. Sequence Nbr*: Populate the sequence number.
- b. Break by Modifier*: Select the type of modifier:
 - **Units (Legacy)**: The system does not break the OBLPN based on allocation UOM. Breaking of OBLPN's takes place based on the LPN type capacity checks and break by rules.
 - **Split by Alloc UOM**: The system will create OBLPN for every “n” number of UOMs (Cases, Packs, Units) allocated by the wave. You can split/break the OBLPN based on the allocation UOM defined in the Allocation mode UI and define the number of UOMs in the “Break by Quantity” field.
- c. Break by Quality*: Enter the quantity that you want the system to break to create the OBLPN.

Note: the Priority field in Cubing Rule is currently not used. Users can use the sequence number field if there are multiple cubing rule sequences created.

Cubing Rule	Sequence Nbr	Break by Modifier	Break By Quantity	Selection
SU_CUBING	1	Split by Alloc UOM	10	AND

For example, the configuration from the figure above breaks the quantity to 10 based on the allocation UOM (Cases, Packs, Units) to create a OBLPN.

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.

- Populate a number in the “Break by Count” field to configure how much it should break by.

Note: For example, the configuration from the figure above will cause the system to create a new cubed carton every 5 orders.

cubing_rule_selection	Sequence Nbr	Order by column
Break by Order	10	Order Hdr Order Nbr

Viewing the Cubed LPN Numbers and Quantities

- Go to the Wave Inquiry screen.
- Select the wave number to inspect and click the “Allocations” button.
- The second “LPN” column (outbound LPN) should be populated. This means that the allocation record has been cubed to that Outbound LPN number.
- To view what OBLPN Type it was assigned to, follow these steps:
 - Go to the “Allocations” screen.
 - Add a search filter for either the IBLPN Number in the “IB LPN Nbr” field or the OBLPN number in the “Ctn Nbr” field.
 - Click “Search”.
 - The column “allocation_oblpn_type” will be populated with the OBLPN Type it was assigned to.

Cube Together

Cubing Rule has a flag called “Cube Together” in the ordering criteria for the cubing rules. This flag allows you to group inventory within a container. In other words, if your ordering criteria is set to Order detail customer field 1 and the cube together flag is set to yes, all the order details for the unique order detail customer field 1 will be in the same box without being limited by the break by count.

cubing_rule_selection	<input type="text"/>
Sequence Nbr	<input type="text"/>
Order by column	<input type="text"/>
Break by count	<input type="text"/>
Cube Together	<input type="checkbox"/>

Note: The Cube Together flag value should not be set to “yes” for more than one Cubing Selection Rule. If the Cube together flag is set to “yes” for more than one cubing rule, then allocations from multiple selection rules may combine the results into an unanticipated output. For example,

← Cubing Rules ▶ Selection

Selection		Ordering Criteria			
Cubing Rule	Sequence Nbr	Break by Modifier	Break By Quantity	Selection Criteria	P
RK Cubing Rule	1	Units (Legacy)	0	AND	1
RK Cubing Rule	2	Units (Legacy)	0	AND	2

If the Sequence Number (2) for the cubing rule has the Cube Together flag set to “yes” in the ordering criteria, then you should not configure the Sequence Number (1) with the Cube Together flag set to “yes”. If both the sequences have the Cube Together flag enabled, then the system will combine allocations from both the cubing rule sequences.

Packing

Packing is a step in the order fulfillment process for getting inventory ready to be shipped to its final destination.

RF Pack OBLPN Behavior during LPN Substitution

The RF Pack OBLPN transaction is used to allocate full LPNs into an OBLPN. This transaction has multiple parameters, for more details - see the RF Parameters document.

RF Pack OBLPN allows you to do substitution which allows you to replace inventory in the warehouse.

The following table provides the behavior for RF Pack OBLPN based on the following configuration scenario:

1. Item is Batch and Expiry Tracking Items.
2. In the **Wave Template**, Ignore attribute is enabled for all attributes
3. Allocation Mode = Full LPN allocation.
4. Packing and Substitution is done through Pack FULL LPN API, but you can use RF Pack OBLPN to compare the behavior.
5. LPNs are received through IB Shipment and through RF Create LPN.
6. For the same SKU, some LPNs have attributes populated and some LPNs are blank (Attributes are NOT tracked and are pass-through values). So ideally an LPN received through Shipment will have attributes if its passed through Shipment.

Order Detail Inv Attributes	Allocated LPN Inv Attributes	Substitute LPN Inv Attributes	Behavior through RF Pack OBLPN	Behavior through Pack OBLPN API
blank	blank	RED	Error : Sub LPN not an exact match	Error : Sub LPN not an exact match

Order Detail Inv Attributes	Allocated LPN Inv Attributes	Substitute LPN Inv Attributes	Behavior through RF Pack OBLPN	Behavior through Pack OBLPN API
blank	RED	blank	Substitution Allowed	Substitution Allowed
blank	blank	blank	Substitution Allowed	Substitution Allowed
blank	RED	RED	Substitution Allowed	Substitution Allowed
blank	RED	BLUE	Substitution Allowed	Substitution Allowed
RED	RED	RED	Substitution Allowed	Substitution Allowed
RED	RED	BLUE	Error : Sub LPN not an exact match	Error : Sub LPN not an exact match
RED	RED	blank	Error : Sub LPN not an exact match	Error : Sub LPN not an exact match
RED	BLUE	GREEN	Substitution Allowed	Substitution Allowed
RED	BLUE	Blank	Substitution Allowed	Substitution Allowed

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

Repack Configuration – Adding the RF Module

1. Go to the “Module” screen.
2. Select the RF module “RF-Text: Repack OBLPN”.
3. Once the screen is added, enter its details to configure its parameters.
4. Click **Save**.

See the following table for a description of parameters:

Parameter name	Value	Description
Print-extras	None Packing Slip	<p>When the parameter is set to 'None', system will not print the OBLPN packing slip.</p> <p>When the parameter is set to 'Packing Slip', system will print the OBLPN packing slip when a 'To OBLPN' goes to “packed” status.</p>

Parameter name	Value	Description
Print-to-oblpn-label	None No Yes	<p>When the parameter is set to 'No' or none, system will not prompt for printer to print shipping label.</p> <p>When the parameter is set to 'Yes', system will prompt for printer to print shipping label. If printer is not scanned system and user tabs on printer prompt, system will consider default printer configured for the user.</p>
Restrict-multiorder-comb	None No Yes	<p>When the parameter is set to 'No' or none, system will allow users to scan To OBLPN having different order.</p> <p>When the parameter is set to 'Yes', system will prevent packing inventory into a 'To LPN' belonging to an order different from the From LPN's order . RF will return the message "multi-order not allowed".</p>
Req-lpn-type	None No Yes	<p>When the parameter is set to 'No' or none, system will not prompt for 'LPN type' for 'To LPN'.</p> <p>When the parameter is set to 'Yes', users will be prompted to scan the 'LPN type' after scanning the 'To LPN'. This is applicable only for repacking of non-cubed LPNs.</p>
Req-pack-station	Yes None No Yes	<p>When the parameter is set to 'No' or none, users will not be promoted to scan pack station location.</p> <p>When the parameter is set to 'Yes', users will be prompted to scan the Packing station location.</p>
prompt-lpn-type-on-packed	<ul style="list-style-type: none"> None Yes No 	<p>When the parameter is set to 'No' or none, system will not prompt for LPN type when 'To LPN' is packed.</p> <p>On setting value to 'Yes', the system will prompt for LPN type only when all the inventory from "From LPN" is moved to "To LPN" and parameter "cmbne-one-src-to-one-lpn" is set to Yes.</p>
print-column-order-descr	<ul style="list-style-type: none"> Users need to provide a valid rule 'description' as configured on 'Column Ordering UI' 	<p>When not configured, the system will not consider column ordering rule for label printing</p> <p>When configured, the system will print OBLPN labels based on the Label type configured in Column Ordering>>OBLPN Label Type.</p>
extra-info-to-display	None Order type	<p>When the parameter is set to none(blank), the system will not display any additional info related to Order.</p>

Parameter name	Value	Description
	.	When the parameter is set to 'Order Type' , then on scanning a 'From OBLPN', the system will display the order type associated with the order of the 'From OBLPN'
auto-populate-to-oblpn	None Do not auto populate the to oblpn Auto populate the to oblpn	<p>When the parameter is set to 'Do not auto populate' or none, the system will not pre-populate 'To LPN'. Users will be prompted to scan the LPN number</p> <p>When the parameter is set to 'Auto populate the to oblpn', then on scanning 'From LPN' and SKU, system will pre-populate the 'To LPN'(System will populate the 'To OBLPN' which is generated during wave (cubing mode - Calculate OBLPN Type and cube at packing))</p>
close-oblpn-status	None Packed Picked	<p>When the parameter is set to 'Packed' or none, then upon Close OBLPN, the system marks the 'To OBLPN' status to 'Packed'</p> <p>When the parameter is set to 'Picked', then upon Close OBLPN, the system will change the 'To OBLPN' status to 'Picked'</p> <p>Note: Regardless of the configuration of the new parameter 'close-oblpn-status', the system will not allow to combine inventory from a 'Picked' OBLPN into a 'Packed' OBLPN and vice-versa.</p>
cmbne-one-src-to-one-lpn	None No Yes	<p>When the parameter is set to 'No' or none, the system allows user to pack source LPN into multiple OBLPNs</p> <p>When the parameter is set to 'Yes', the system restricts packing source LPN into multiple OBLPNs. This configuration is suggested for scenarios where RF Repack OBLPN is used for repacking of Non cubed LPNs</p> <p>Note: If company parameter "USE-SEQ_CTR_BY_DEST_COMP" is set to YES and if there is no final OBLPN allocated, then the system generates a OBLPN according to Destination sequence counter corresponding Order in the From OBLPN. Also, the systems will display an error message if the FROM OBLPN is associated with multiple Orders that is destined to different destination.</p>
manual-end-for-combine	<ul style="list-style-type: none"> None No Yes 	<p>When the parameter is set to 'No', the system will end the 'To OBLPN' for any inventory moved from the 'From LPN'.</p> <p>When the parameter is set to 'Yes' or none, users will have to end the 'To LPN'</p>

Parameter name	Value	Description
sub-blindlpn-for-cubedlpn	<ul style="list-style-type: none"> None No Yes 	<p>When the parameter is set to 'No' or none, the system will not allow substituting different OBLPN number against the cubed 'To LPN'.</p> <p>When the parameter is set to 'Yes', the system will allow substituting blind OBLPN number in lieu of cubed 'To OBLPN'. This is allowed only if the cubed OBLPN does not have any inventory picked into it yet.</p> <p>Click “Save”.</p>

Note: if the parameter “req-pack-station” is enabled, locations of type “Packing Station” 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 298: 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”).
 - 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.
 - If the allocation is cubed, WMS will pre-assign an OBLPN with the OBLPN number and LPN Type.
 - 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.

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.

1. Go to the “Module” screen.
2. Add the “RF-Text: Pack NC Active {order}” screen.
3. Click **Details**. Select the record and enter it’s details.
4. Modify the “close-oblpn-status” parameter to “Picked”.
5. Now that the RF program is created, add it to the relevant Task Type (Reserve or Active Units).
6. Go to the “Task Type” screen.
7. Select the desired Task Type (“NC-ACTIVE-PICK” or “LPNUNITS”) and go to its details.
8. Modify the “RF-Text: Pack NC Active {order}”’s RF program to the module created from step 2.
9. 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 “Picked” status.

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.

Combine one Source to Another

1. Go to the “**Repack OBLPN**” module.
 2. Click on Screen Parameter button > Select **combine-one-source-to-one-lpn**
 3. Click **Edit** and choose **yes**.
 4. Click **Save**.
1. Invoke the RF Repack OBLPN and scan the LPN to remove units from “From LPN”.
 2. Scan the Item you are moving.
 3. Scan the destination To LPN that the item will be moved to.

Note: the system will auto-populate the To OBLPN field if the screen parameter *auto-populate-to-oblpn* is enabled.

4. When all of the desired items have been moved, press Ctrl-E to end the “To LPN”.

On invoking the RF Repack, the system transfers the contents from One Source to another LPN (1-1 combination). If the screen parameter for combine-one-source-to-one-lpn is enabled, the system auto generates the To-OBLPN to be packed.

You can also use a second level of RF-Repack where the system moves the inventory from an asset LPN to a Final container which will be shipped. The status of the carton will be updated from Picked to Packed Status.

Once the Inventory from asset is completed, WMS releases the LPN assets for reuse.

View Original Allocated Quantity in the Allocation UI

From the **Allocation** UI, you can view original allocated quantities against the allocations. This information will help you to know what is initially allocated and how much quantity is getting shorted against respective inventory. This value is also used to derive the "Order Quantity to Consume" (OQC) value in the Order Fulfillment file.

The OQC value is used by the Fusion Shipping module. OQC provides information about how much quantity needs to be consumed against the respective order detail, whenever any inventory associated with the respective order detail is shipped.

From the **Allocation** UI, during creation of allocation from Waves or Direct Allocation, original allocated quantity displays in the **Original Allocated Quantity** column. You can also view **Original Allocated Quantity** from the **Wave Inquiry** UI, **Allocation** sub-UI.

Note: to make the **Original Allocated Quantity** column visible, you must add it from the **Allocation** UI or **Wave Inquiry** >> **Allocation** sub-UI. You can save your updated view by clicking **Preferences** and **Save View**. You can also export the current records to CSV as needed.

Restrict orders in an LPN during Pack NC Active

You can pack more than one order in an OBLPN using the RF Pack NC active transaction (rf.outbound.cwrpackncactiveorder) and is available for non-cubed picking. You will be able to set a limit of orders that can be added to an OBLPN via screen parameter "break-picks-by-order-count".

Go to RF parameter 'break-picks-by-order-count' and set with an integer value in the RF Pack NC Active {order} (rf.outbound.cwrpackncactiveorder) module.

This parameter accepts integer value and works in conjunction only if the screen parameter:

Break-picks-by is set to Order:

The parameter is set to one of the following values:

You are allowed to pick only one order in an OBLPN when the parameter "break-picks-by" is set to Order.

- **Set to Zero:** When the parameter value is set to zero, you are allowed to pick any number of orders in the OBLPN during picking. You will not be limited with respect to combining the number of orders in an OBLPN.
- **Greater than Zero:** When the parameter value is set to greater than zero, then during picking, you can pick less than or equal to a number of orders value configured in the screen parameter.

When "nc-or-cubed-mode" is set to Non-Cubed Picking:

Note: For Non-Tasking Mode, on scanning an OBLPN which is already has inventory associated with the orders, where a number of orders associated with the OBLPN are greater than the value configured value in the parameter, then you will see an error message "Cannot pick more than %Value configured in parameter% Orders in an OBLPN".

Note: For Tasking Mode, when multiple orders are allocated, once the number of orders in an OBLPN reaches the value configured in the new screen parameter, for the next pick if it belongs to a different order, the system prompts the user to scan a different OBLPN.

Note: If the value in the parameter is set to 1, you will not see any difference, as the existing parameter "break-picks-by" set to Order will allow only one order per OBLPN. The "break-picks-by-order-count" parameter is not

significant, if the existing parameter "split-allocs-on-close-by" is set to "Split Allocs by Order". A parameter is not significant if the existing parameter "auto-pack-one-uom" is set to "Auto pack one UOM".

When the value in the parameter is not an integer value then the system will fall back to existing behavior, limiting one order per OBLPN. During tasking mode, the system prompts to open an OBLPN even though the number of orders in the OBLPN is less than the configured value in the parameter "break-picks-by-order-count", this case occurs when there is an already open OBLPN for the next pick, the system prompts with open OBLPN.

Direct Allocation

Oracle WMS Cloud allows you 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

- 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 the 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. The parameters are detailed above.

Allow Repacking for Expired Inventory

In order to allow repacking of an expired inventory, you need to enable the *Allow_Expired_Inventory* flag on the Order Type UI.

1. Go to the **Order Type** UI.

2. Click **Add** or **Edit** to create/edit the order type.
3. Enable the **Allow_Expired_Inventory** check box. You need to disable the flag in order to prevent repacking of expired inventory.

4. Click **Save**.

Repack Expired Inventory Behavior

1. Invoke the **RF Repack** transaction
2. Scan the SKU
3. Scan “From LPN” and item.
 - o If the SKU tracks expiration where product life is >0, then the system prompts you for expiration date and checks if the inventory is for an order and Order type flag ALLOW_EXPIRED_INVENTORY. The system behaves in the following manner:

ALLOW_EXPIRED_INVENTORY Flag	Has Inventory Expired	Behavior
No	Yes	The system displays an error message: Inventory is expired.
No	Not	Continues with the packing.
Yes	Yes	Continues with the packing.
Yes	Not	Continues with the packing.

Pack with Wave

Pack with Wave 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.

Note: In scenarios where the reserve location has “allow reserve partial pick” set to **yes** and the order requires partially allocated units from the LPN, you need to use the RF **Pack NC Active** screen to complete packing of the order.

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
- Item Configuration

Wave Template

The “Pack With Wave” flag needs to be checked on the 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 *Item Configuration*.

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.

- 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.
- 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.
- 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.
 - 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”:
 - Is configured as **OLO**, then “OBLPN Shipping Info” file is generated
 - Is configured as **LLS**, then “Outbound Load Export” file is generated
 - Is configured as **LLS** and **OLI/OLO**, then both “Outbound Load Export” and “OBLPN Shipping Info” files are generated.

Order Status is Updated:

- To **Packed**, if all items in the order were eligible for “Pack with Wave” functionality and the order is completely packed.
- 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.
- To **Partially-Allocated**, if some order lines are completely packed and some of the order lines are not selected at all.

Next:

- 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.

Print Packing Slips During Waving

You can auto-print documents like Outbound LPN Packing Slips and Task Reports as part of the wave process. After the wave is run, auto-printing of bulk OBLPN packing slips allows pickers to increase picking efficiency.

Document Printer

In the Wave Template UI, the ‘Document Printer’ drop-down lists all the corresponding document printers. The ‘Document Printer’ drop-down is visible when you add a new Wave Template or edit an existing template in the add, copy and edit pane of the Wave Template UI.

Document Types to Print Action Button

- You can configure documents which need to be auto-printed during a wave in Column Ordering Rule Configuration. The Column Ordering Rule allows you to configure the type of documents to be printed in a specific sequence as part of the wave process.
- ‘Document types to Print’ is a new action button introduced in the Column Ordering UI which is enabled only for the Column Ordering type “Document/Label and Allocation Ordering”.
- Document types available to be printed are ‘OBLPN Packing Slip’ and ‘Task Report’. Similar to label printing, the sequence of the Documents to be printed is configurable.

Note: The Column Ordering Type ‘Label and Allocation Ordering’ is renamed to ‘Document/Label and Allocation Ordering’. If no rule is selected or if the rule selected does not define the document types to print, then as per the existing behaviour, the Order Packing Slip will be printed.

Print Label Document Button

The ‘Print Label/Document’ in the Wave Inquiry UI button now supports the manual printing of packing slips/task reports and labels through a single pop-up window after the completion of the wave.

The following table describes the system behaviour based on the Column Ordering Rule selected:

Column Ordering Rule Drop-down	Document Printer Drop-down	Behaviour
Selected Column Ordering Rule is OBLPN Packing Slip	Selected	<ul style="list-style-type: none"> Print OBLPN Packing Slips for all the OBLPN parts of the wave. Uses Allocation Ordering Columns to order the allocations. The message that appears after Confirm Print Wave is "Printing OBLPN Packing Slip to Printer <Printer Name>"
Selected Column Ordering Rules are OBLPN Packing Slip and Label Types	Selected	<ul style="list-style-type: none"> Prints both OBLPN Packing Slips for all the OBLPNs as part of the wave and Corresponding Printing of Label Types as per the Column Ordering Rule. The messages that appear after Confirm Print Wave Message are "Printing OBLPN Packing Slip to Printer <Printer Name>" and "Printing Labels to Printer <Printer Name>"

1. In the Column Ordering UI, set the Document types to Print (i.e., OBLPN Packing Slip, Task reports) as per the rule defined.
2. You can then configure the Column Ordering rule in the Wave Template UI and select the respective label printer/document printer from the drop-down list in the edit pane .

 **Watch video**

Note: You need to select either a Label Printer or a Document Printer for labels or documents to be printed. On selecting the document printer, the user should make sure to define the document types (OBLPN Packing Slip and/or Task report) in the Column Ordering Rule, to be printed. Else the Order Packing Slip will be printed as per the existing behaviour. The same is true for Label printing, if on selecting a label printer no label types are configured, then the default Shipping label will be printed. All the above-mentioned reports are supported in Web reports gen2 format also.

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.

- 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.
- 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.”

Note: if eligible allocations are found, then the system performs updates as described in *Pack with Wave Updates*.

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.

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.

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 Settings

Facility	Audit if Shorted
F002	Yes
F003	No

From the Outbound Audit Rules screen, click the **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.

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

Note: 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

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

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.

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
```

When the allocation is done in terms of cases, the following is an example of the RF Outbound Audit Cases prompt screen:

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 belong 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
<ul style="list-style-type: none">•Current Functionality•Default value for Clients upgrading•Apply Updates as part of Audit	<ul style="list-style-type: none">•Does not apply changes as part of Audit.•Records the discrepancy in counting.•If discrepancy found, mark OB LPN with Audit Pending Status.	<ul style="list-style-type: none">•Does not apply 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.

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.

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

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:

- Company parameter for tracking serial needs to be set either to “Packing Only” or “End to End.”
- 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 below for more details.

The screenshot shows the Oracle WMS interface. At the top, there is a navigation bar with the Oracle WMS logo and a menu icon. Below the navigation bar, there are several tabs: "Cycle count Adjustment", "Screen Configuration", "IB LPNs", "Wave Template", and "Wave". The "Audit History" tab is highlighted with a red box. Below the tabs, there is a search icon and a refresh icon, followed by the title "Pallet Audit Detail". Below the title, there is a table with the following columns: "LPN Nbr", "Expected Pallet", "Pallet Nbr", "Facility Code", "Audit User", and "Allocation UO". The table contains two rows of data:

LPN Nbr	Expected Pallet	Pallet Nbr	Facility Code	Audit User	Allocation UO
OBLPN00000...	PLTAUDD01	PLTAUDD02	QATST01	ABALL01	LPNS
OBLPN00000...	PLTAUDD01	PLTAUDD02	QATST01	ABALL01	LPNS

From the Audit History screen, you can click **Pallet Audit Detail** to view details such as expected and scanned number of LPNs, difference, number of expected LPNs scanned, and OBLPNs not anticipated.

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.

Column	Description
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
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

Refer to the following related topics for more details about LTL Load Management and Shipping:

Note: *LTL and Parcel shipments go through different loading and shipping processes. These topics are 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_WHEN_PACKED` 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".
2. By the Order's combination of "Ship To Name" and "Ship to Address 1".

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.

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.
3. Scan the Order/LPN that needs to be assigned to the Load scanned from step #2.

Caveats

- The option of scanning either an Order or an LPN must be configured in the RF's parameters under the "Screens" tab.
 - Go to the "Screens" tab.
 - Search for the "Assign to Load" screen.
 - Select the screen and click on the Details () button.
 - Select the parameter and click the Edit () button.
 - 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

Display Last Printed Timestamp for Outbound LPN Labels

There are three fields available in the **Outbound LPN** UI where you can easily view the date and time when the label was printed.

The following three fields displays the last printed timestamp for each type of label:

- Shipping Label - Last Printed Timestamp
- OBLPN Label - Last Printed Timestamp
- OBLPN Content Label - Last Printed Timestamp

When a label is printed, the above fields are populated with the current facility timestamp indicating to users when the label was last printed for the selected OBLPN.

For example, when the user selects multiple OBLPNs from the **OBLPN View** and click **Print Shipping Label**. After sending the print request to the selected printer, Warehouse Management System updates the **Shipping Label - Last Printed Timestamp** field for the selected OBLPN with the current facility timestamp.

Facility Code	Company Code	LPN Nbr	LPN status	Item Code	Shipping Label - Last Printed Timestamp	OBLPN Label - Last Printed Timestamp	OBLPN Content Label - Last Printed Timestamp
QATST01	QATSTPC	OBLPN0000...	Packed	SA-SER-ITM	03/01/2022 10:58:19 AM	03/01/2022 10:59:56 AM	03/01/2022 11:09:49 AM
QATST01	QATSTPC	OBLPN0000...	Packed	SA-SER-ITM2	03/01/2022 10:58:19 AM	03/01/2022 10:59:56 AM	03/01/2022 11:09:49 AM

Note: The timestamp fields are updated with the current timestamp even if the fields were already populated with a timestamp.

The Outbound Loads screen provides details for all existing Outbound Loads including load status, load number, trailer number, estimated departure, and estimated delivery.

The following table provides definitions for all of the buttons available to help you manage your outbound loads:

Action Button	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.

Action Button	Description
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
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.

Action Button	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'.
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.

5. Populate the trailer number (this is only prompted the first time).
6. Begin loading OBLPN/Pallet by scanning a label.
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.”
 - o At this moment, if the system identifies pending pallets/cartons still to be loaded, a warning message displays 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

1. Login to your RF and invoke “Load OBLPN”.
2. The Load OBLPN screen displays the “Ctrl-P: Ship Load” hot key.
3. Enter the required information:
 - o Location: Location of the OB Load assigned
 - o Load: Load Number
 - o Trailer number: Trainer Number
 - o Route: Route information
 - o Next LPN: LPN number.

Ctrl-P: Ship Load

Note: 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.

1. 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.
2. A warning message is displayed, press “Ctrl-A” to Accept and proceed with 'Ship Load'. Otherwise, press “Ctrl – W” to reject.
3. Once the transaction completes, the system returns back to the RF Load OBLPN screen and the required IHT records are written.
 - o For more details about the RF Load parameters, refer to the **Oracle Warehouse Management RF Parameters** document.

Note: To access the latest RF Parameters, go to the [Oracle WMS Cloud Information Center](#) From the top of the page, click on the **Documentation tab**, then click the link under **Current Documentation**.

Unloading an OBLPN

Users can only unload to location types **“Pack and Hold”** or **“Staging Location”**

Note: Staging Location is configurable via the “Unload OBLPN” RF module’s parameters. Users can configure to either prompt a Staging or Pack & Hold location while unloading.

1. Enter the RF module Unload OBLPN.
2. In the “OBLPN/Plt” prompt, scan the OBLPN to unload.
 - 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.

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.
4. Click “Save”.

Moving OBLPNs to a Pack and Hold Location

1. From the **RF Dynamic Staging Transaction** (module: rf.outbound.cwrfdynamicstagingcntr) select your desired screen parameter choice from **pack-and-hold-mode**. (stage first, then Pack and Hold, or Pack and Hold directly)
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.
4. Scan the Pack and Hold location and the pallet number that it will be placed to.

Note: There is no validation process in Pack and Hold. For example, users can mix multiple orders into the same Pack and Hold location.

Capacity Check During RF Dynamic Staging

Oracle Cloud WMS ensures that the capacity limits in staging locations during RF Dynamic Staging and RF Unloading OBLPN transactions.

When the following capacity limits are configured at the location level, RF Dynamic Staging and RF Unloading OBLPN transactions checks available capacity in the location to make sure the incoming inventory fits in the location.

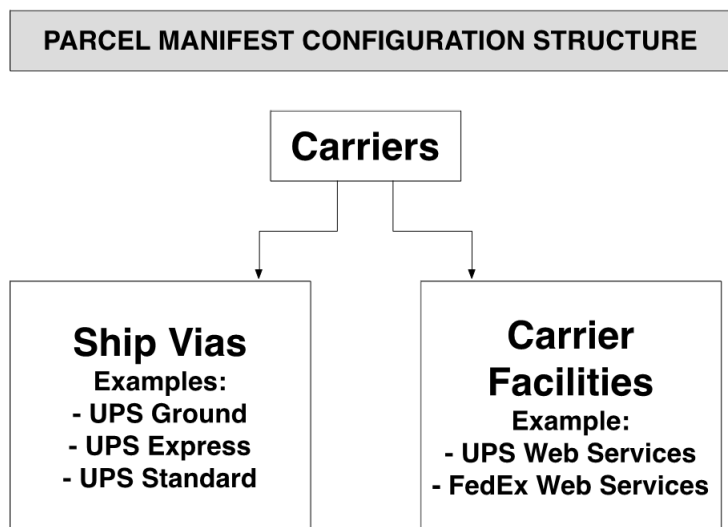
- Max Units
- Max LPNs
- Max Volume
- Max Weight
- Dimensions - (Length, Width, Height)

Parcel Configuration, Load Management, and Shipping

The parcel manifest functionality in ORACLE WMS CLOUD 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



- 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:

- The Carrier and Ship Via used
- The outbound cartons numbers
- 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:

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”.

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.[1] 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.

Note: New standard carriers might be added by ORACLE WMS CLOUD at any time. 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.

Note: To access the latest Parcel Carrier Integration document, go to the [Oracle WMS Cloud Information Center](#) From the top of the page, click on the **Documentation tab**, then click the link under **Current Documentation**.

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 two 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".

Description of Fields

- **Account Nbr:** The UPS/FEDEX Account Number. (REQUIRED by UPS / Fed Ex)
- **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
 - If the Integration type is **Web Services**, the following fields are required:
 - The License or Meter Nbr
 - Web Services Username and Password
 - 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 Contact (Optional)

The screenshot shows a web form for configuring a contact. The fields and their values are as follows:

Code	US-GA
Name	Test-US-GA
Address 1	1 Glenlake Parkway Northeast
Address 2	
Address 3	
Locality	
City	Atlanta
State	GA
ZIP	30328
Country	US
Phone Nbr 1	555-555-5555
Phone Nbr 2	
Fax Nbr	
Email	john.doe@oracle.com

At the bottom of the form are three buttons: "Save", "Cancel", and "Reset".

Description of Fields

- **Code :** the reference code value that is used to lookup and identify a particular contact.
- **Name :** the name of the contact.
- **Address 1 :** first line of the address.
- **Address 2 :** second line of the address.

- **Address 3** : third line of the address.
- **Locality** : if the address has a locality needed in certain countries etc.
- **City**: if the address has a city.
- **State**: if the address has a state.
- **Zip**: the zip portion of the address.
- **Country**: portion of the address.
- **Phone Nbr 1**: first / main phone number of the contact.
- **Phone Nbr 2**: secondary phone number of the contact.
- **Fax Nbr**: fax number of the contact.
- **Email**: the email address of the contact.
- **Contact**: the contact person you would want to get a hold of at the address / phone number / email.

Step 5: Configuring Order Header

Note: All order header fields must be included when you create your orders.

Description of Fields

- **Carrier Account Number:** add the carrier account number for the payment info in the case of UPS and Connect Ship. For Fed Ex this can be an overriding shipper account number and the payment account number on the carrier facility. For UPS and Connect Ship carrier account number only overrides the payment account number. The shipper account number for UPS still comes from the carrier facility. For Connect Ship the shipper number comes from the license or meter number so there is no override for the carrier facility needed with regards to the shipper account number. Carrier account number overrides Carrier Facility account number for payment which is required for doing Bill Receiver or Bill Third Party shipments. Can be used in conjunction with ship via account details.
- **Payment Method:** set the payment Bill Sender, Bill Recipient, or Bill Third Party. Overrides Carrier Facility Configuration. Can be used in conjunction with ship via account details.
- **Ship Via:** for wave manifesting the Ship Via Code is looked up and used for manifesting the oblpns on the order.
- **Ship Via Ref Code:** for wave manifesting the Ship Via Code.
- **Bill To Carrier Account:** add the carrier account number for the payment info in the case of Fed Ex only. Overrides the Carrier Account Number on the Order Header and the account number on the Carrier Facility configuration for payments for Fed Ex Only.
- **Duties Carrier Account:** add the duties carrier account number for Fed Ex only.
- **Duties Payment Method:** set the payment Bill Sender, Bill Recipient, or Bill Third Party for duties.
- **Customs Broker Contact:** select the customs broker contact from the contact view.

Step 6: Configuring Ship Via Account Details (Optional)

Ship Via Account Details is used to override the carrier facility settings. This is needed if you have lots of accounts with licenses or meter numbers and do not want to setup a carrier facility for each account and then have to setup a carrier with all of the same ship vias for each carrier for each carrier facility. This prevents you from having to create lots of ship vias when you only need one set of ship vias with a single carrier.

Requirements:

- Carrier Account Number must be set on the order header.
- Payment Type must be set on the order header.
- Ship Via must be set on the order header.

Description of Fields

- **Account Nbr:** The UPS/FEDEX Account Number. Required by UPS / Fed Ex.
- **License or Meter Number :** You will need the License or Meter Number from the company you are configuring this for. This will be called the Access Key by FedEx. Note an Access Key is required by Fed Ex in order to ship packages.
- **Hub:** not required.
- **Bill 3rd Party Contact:** references a contact code from a contact that is in the contact view that refers to the contact information of the billing of the 3rd party.
- **Ship From Contact:** references a contact code from a contact that is in the contact view that refers to the contact information of the ship from party. Note this does not have to be the same as bill 3rd party.

Step 7: 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'
 - If this field is blank, ship vias are not used.
 - If this field equals to "MODE_0", ship vias will be determined based on the destination's default ship via (preconfigured).
 - 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". 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**

1. First, WMS will look at the Order's "Ship Via" field to decide which Manifest it must go to Fedex Ground.
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.
3. To view an OBLPN's Ship Via Code, go to the "OBLPNs" screen and click "Carrier LPN".

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.

Note: The Order's Order Type must have the "Facility Order Flag" set to "Yes". The Default Ship Via Code 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**.

1. Go to the "Route Header" screen.
2. Click Create () to create a new route – specify the name and Ship Via for this route.
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.

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.

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.

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 to Wave Template Routing Mode

- 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 not 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.

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-Container 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 its 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. Its 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.

Note: 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.

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.

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>
```

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

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.
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. 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.

Modifying an LPN's Route from the RF

1. Go to the RF Module "Update Route on Carton"

Note: This method will only work for the flows that have routes configured in "Route Header View." Also, 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.
 - o 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.

6 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.

To see before and after changes in all associated RF screens (containing Unit of Measure) refer to the UOM Reference Document.

Note: To access the **UOM Reference Document**, go to the [Oracle WMS Cloud Information Center](#). From the top of the page, click on the **Documentation tab**, then click the link under **Current Documentation**.

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”.
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
5. Click Save.

Note: 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 and Pallets per Tier). You can view the “LPN is Pallet” column in the “IBLPNs” screen.

Configuring Unit of Measure (UOM) in WMS

WMS Cloud provides the capability to track units of measure beyond discrete units, packs, and cases. Inventory can now be tracked in user defined units of measure belonging to unit of measure classes.

Unit of Measure is extremely important in inventory management as it quantifies inventory items in terms terms all parties can understand. If two parties are transacting on an inventory item, UOM defines how much and in what unit the quantity is expected. Also UOMs need to be standardized to make sure that all stakeholders especially across countries. Some countries might use Kilograms or kilometers and other countries might use pounds or miles.

For additional details about using and configuring UOM in WMS, see [Configuring UOM](#) in the Implementation and Configuration Guide.

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:
 - part_a = 'POLO'
 - part_b = 'BLUE'
 - 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 carries 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.

Note: when set to No any transaction done in WMS will not be passed to Inventory.

- **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 Details)

- **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:**
 - If the “LPN is Pallet” is FALSE, this field defines how many LPNs are in a tier for a given pallet.
 - 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”.

Dummy SKUs

You can define Dummy SKUs by enabling the dummy SKU flag on the Item master. These SKUs are usually used for marketing materials (like promotions) or for user guides/Manuals that go along with the products.

For these SKUs, inventory is not tracked within WMS at the location level. So, you should not receive location Dummy SKUs in the warehouse. Dummy SKUs are assumed to be always available. You can send dummy skus as part of Sales Orders in order to allocate and pick them during picking to facilitate the picks for the order so that you don't miss the dummy SKUs.

Note: Dummy SKUs are currently not included in Inventory Summaries (Standard or Custom Inventory Summary.)

Note: Dummy SKUs are supported only for picking waves.

While picking Dummy SKUs, since WMS does not track these SKUs in locations, WMS allocates these SKUs from a dummy location created using the SKU's barcode itself as the location. These SKUs can also be auto-packed with Wave if necessary. The dummy locations created for these Dummy SKU picks are not deleted and can be viewed on the Location screen.

Note: These locations can be marked dummy using the 6 level hierarchy (Area/Aisle/Bay/Level/Position) columns in order to differentiate from other locations.

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:
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.
 - o 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.

The sequence in which item barcodes are looked up is as follows:

If **ITEM_BARCODE_SKIP_ALT_CODE_CHECK** is set to **yes**:


- The system finds items by matching the scanned barcode with the barcode on the Item.

If **ITEM_BARCODE_SKIP_ALT_CODE_CHECK** is set to **no**:

- The system finds items by matching the scanned barcode with the barcode on the Item OR the Item Alternate Code on the Item. If more than ONE record is found (for example, one record matches on barcode and another on item_barcode), the system will randomly pick one, usually the first created.

If Item has not been resolved via item.barcode or item.item_alternate_code, the system will search for an item in the “Item Barcode” entity with a matching barcode.

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:
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.
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:

Make sure that the correct company code is populated and that the “action_code” is set to “CREATE”. Save the interface.

1. 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:

Note: 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:

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**:
2. From the **Items** screen, click **Details** (click Edit and then Save your changes when you are finished):

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.

1. Once you select Print Item Label from RF, you are presented with an option to enter the label printer.
 - o 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.
 - o 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.
 - o 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.
 - o 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:

When an item is selected on the Items UI, Print Label button is enabled. This button is not enabled when multiple items are selected. When you click the Print Label button, the following dialog pops up:

Items

The screenshot shows a web interface for 'Items'. At the top, there are navigation icons (refresh, search, print, list) and a 'Print Label' button which is circled in red. To the right of the button are labels 'Item Pre-Pack' and 'Item Material Hazard', and a plus sign icon. Below the navigation bar is a table with the following columns: Company, Code, External Style, Style, Part b, Part c, Part d, Part e, Part f, and Alternate Item C. The table contains two rows of data.

Company	Code	External Style	Style	Part b	Part c	Part d	Part e	Part f	Alternate Item C
QA3PLGEO001	SKUE		SKUE						SKUE
QA3PLGEO001	G1-NOR-ITM...		G1	NOR	ITM	105			G1-NOR-ITM...

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.

IB Shipments

Facility Code	Company Code	Shipment Nbr	Status	Nbr LPNs	Shipped Qty	Received qty	Nbr Items
QA3PLEST	QA3PLGEO001	SHG100001196	In Transit	0	100	0	1
QA3PLEST	QA3PLGEO001	SHG100001192	In Transit	0	20	0	3
QA3PLEST	QA3PLGEO001	SHG100001191	In Transit	0	20	0	3

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

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.

Print Item Labels ✕

Print Label Based On ▼

Number of Labels per unit ▲▼

Total Number Of Labels Printed

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.

Identifier	Description
Item	If Location applies to an item.
Area/Aisle/Bay/Level/Position/Bin:	Used to describe the specific warehouse location.
Pick Sequence	<p>Alphanumeric value that is used to determine the pick sequence between locations.</p> <p>Note: Location Pick Sequence is not a numeric only column, it is alphanumeric (string). So the location ordering will not be a pure number ordering. You can append the 0 to location pick sequence value so that it will be shown first.</p> <p>For example: If you have a location with a pick sequence of 7 and 10, the location with the pick sequence of 10 will be shown first, whereas the location with 7 comes next. If the locations' pick sequence is changed to 07 then 07 comes first and then then 10.</p>
Barcode	The location's barcode.
Length/Width/Height	<p>Refers to the location's dimensions. These values are considered during two different processes:</p> <p>During Putaway logic if using the Putaway Search Mode "Most Empty by Volume" or "Least Empty by Volume";</p> <p>As a trigger for Replenishment if using Replenishment Mode "Percentage of Max".</p>
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.
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	<p>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.</p> <p>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".</p> <p>Note: The system is not currently handling the Allow reserve partial pick flag during replenishments.</p>

Identifier	Description
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. 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'.
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”.

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:
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

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.

← Reserve Inventory ▶ **Curr lpns**

Deallocate LPN Delete LPNs

Facility Name	LPN Nbr	Display text	Item Code	Item Description	Shipped Qty	Orig qty	Current Qty	Nbr Locks	Pallet Nbr
LGF-WAREHO...	LPNFLOW1_1WJ01	DFSP01-24-0...	NOR-SPRT...	Bajaj Cricket Ball		10	10	0	

IBLPNs

Allow Lost LPNs to be Consumed

New functionalities are available in **IBLPN Direct Consume API** and **Inbound LPN UI** to consume a LOST LPN.

Consuming a Lost LPN through API

The parameter (*num-days-iblpnlost-for-consume*) allows external PAAS applications to pass in 'X' days since the LPNs are marked as Lost, which makes them eligible for marking the LPNs and for consuming Lost Status LPNs beyond a certain date. Any LPNs which are marked Lost less than "X" days from today, will not be allowed to be marked as Consumed.

POST .../wms/lgfapi/v10/entity/iblpn/{id}/direct_consume/

Category	Parameter	Type	Required	Default
Options	<i>num-days-iblpnlost-for-consume</i>	Integer	X	Empty or 0

Consuming a Lost LPN through Inbound LPN Inquiry

In the **Inbound LPN Inquiry** screen, an action button **Consume LPN** lets you configure Container/Can Consume LPN to the relevant group to enable the **Consume LPN** button. Once enabled, you can select from multiple options for LPNs.

Upon selecting LPNs:

1. Click **Consume LPN**. The system displays a message box with the following details:

- "Number of LPNs Selected for Consume "X". X₂>Denoting number of LPNs.
- Text field to enter the *number days* since Lost for Consumption. Value entered here is used to validate if selected Lost Status LPNs is eligible for consumption or not.
- Drop-down to select the reason code. Reason Code selected is stamped on IHT-2 (Consume LPN)
- Option to proceed or cancel.
 - a. Once accepted, the system displays a detailed message 'X Number of LPN's selected and Y successfully Consumed". Upon clicking *More Details*, the system displays the LPN numbers which were not consumed.
 - b. Expand Consume LPN to mark LPNs which is Lost as Consumed.
 - c. Click **Save**.

Note: Enable the Group Permission “Container/Can Consume LPN.”

You can consume LPNs that are in Located, Received, or Lost Status for multiple LPNs. Inventory History Transaction (IHT) records will be written after performing Consume LPN with or without a lock code.

- Note:**
- If some of the LPNs you select do not pass validations, the system displays a message alerting you which LPN numbers were not consumed.
 - Consume LPN updates are made for LPNs that pass successful validations.

B LPNs							
LPN Nbr	Status	Item Code	Description ▲	Location	Orig qty	Pack Qty	Case Qty
CSTST0100001625	Received	NOR-SPRT-001	Adidas Cricket Bat		5	1	5
LPNTSTDP41	Received	NOR-SPRT-001	Adidas Cricket Bat		10	1	2
RAM002	<u>Allocated</u>	NOR-SPRT-001	Adidas Cricket Bat		0	0	0

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.

Action Button	Description
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.
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	<ul style="list-style-type: none"> • yes • 	<ul style="list-style-type: none"> • User can edit batch number and save.
	<ul style="list-style-type: none"> • no 	<ul style="list-style-type: none"> • Batch number field is editable and once you save, the system throws error "Cannot change batch number."

Printing Labels in the IBLPNs UI

You can distinguish and change printers depending on warehouse location and activity.

1. After you select the IBLPN record, click the Print Label action button in the IBLPN Inquiry UI > Select the printer from the Printer Name drop-down.
2. Enter the number of copies (labels) you would like to print per LPN and click Submit.

Print Label ✕

Printer Name ▼

Number of Copies

- If "Number of copies" is greater than 1, the system will complete printing for the first IBLPN, and then move to the next IBLPN.
- If you do not select a printer from the list of printers, and proceed with "Submit", then your default printer will be selected to print the label.
- The sequence of printing the labels will be in the sequence displayed in the IBLPN Inquiry screen.
- A confirmation message will display to let you know that printing is complete.

You can also select a printer and number of label copies when you need to print Blind Labels via the Blind Labels action button:

Blind Labels ✕

Printer Name

Nbr of Labels

Label Type

Destination Company

Destination Facility

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.

For more information about the Inventory History UI fields, see the Interface Specifications document.

Note: To access the Interface Specifications, go to the [Oracle WMS Cloud Information Center](#). From the top of the page, click on the **Documentation tab**, then click the link under **Current Documentation**.

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.


Inventory History Activity Parameters

Facility	Company Id	History Activity
QATST01	QATSTPC	5 - IB Shipment Verified
QATST01	QATSTPC	6 - IB Shipment Verified - Receipt Variance

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**.

Inventory History



Mark Unprocessed
Resend

Facility	Company Id	History Activity Code	History Activity	Status	Group Nbr
QATST01	QATSTPC	12	12 - Order Detail ...	Processed	653640
QATST01	QATSTPC	12	12 - Order Detail ...	Processed	653635

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 cause 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**.

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 the 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: The system enables the button only if the selected IHT records is in status “Processed/Processing/Cancelled”.

3. Click the **Mark Unprocessed** button. The system prompts for password.
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”.

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”.

Support for ISO-8601 Format Date/Time Values

A new company parameter **ENABLE_ISO_8601_OUTPUT_DATE_TIME_FORMAT** is available in Oracle WMS Cloud that gives users the ability to control the output format of date/time values in Inventory History and Shipped Load output. This will allow for all date/time output to be in the widely accepted and used ISO-8601 standard.

This standard will not only give date, time, and date/time consistency across the output data, but it will provide the time zone offset from UTC as part of the date/time format. The addition of the time zone context into the date/time value will allow external systems to know the actual time zone value and will remove any ambiguity. The ISO-8601 standard is a widely used and accepted format for exchanging date/time information between systems.

Note: This company parameter needs to be enabled for the SCM Integrator to work.

The following is an example of Date and Time format:

Type	Format	Example
Date	yyyy-mm-dd	2020-08-01
Time	HH:MM:SS	15:01:30
Datetime	yyyy-mm-ddTHH:MM:SSz	2020-08-01T15:01:30-04:00

Format	Definition
YYYY	4 digit year
MM	2 digit month
DD	2 digit day
T	The literal letter "T" used as a delimiter between the date and time components.
HH	2 digit hour (24-hour clock)
MM	2 digit minute
SS	2 digit seconds
z	Time zone offset from UTC in the format (+/-)HH:MM

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.

Note: the system will display an error if you try to configure lock codes at the child company level.

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:

This will prompt a new window, where you can add multiple lock codes to the container:

← IB LPNs → **Nbr Locks**

Facility	Company	LPN Nbr	Lock Code	Create Timestamp	Mod Timestamp
QATST01	QATSTPC	146541	LC1	05/16/2018 5:48:30 AM	05/16/2018 5:48:30 AM
QATST01	QATSTPC	146541	LL3	03/21/2018 7:10:38 AM	03/21/2018 7:10:38 AM

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.

The screenshot shows a user interface for adding lock codes. At the top, there are icons for adding (+), deleting (X), and a keyboard icon. Below these is a label 'Lock Code *' followed by a dropdown menu. The dropdown menu is open, showing a list of lock codes: A1, A11, A12, A2, A3, A4, and A5. The dropdown menu has a scroll bar on the right side.

Apply or Remove Lock Codes for Multiple LPNs

Certain scenarios may urge you to apply a lock code in order to prevent a group of LPNs from being locked so that they are not passed to downstream operations due to batch recall or quality check. You can save time by assigning a Lock Code to groups of Inbound or Outbound LPNs based on search criteria via Mass Add Lock Code and Mass Remove Lock Code in the **Item Inventory by LPN** screen (LpnItemInventoryView).

Note: By default, only an administrator can access these buttons. Users with different roles require permission to access "container/Can mass add lock code" and "container/Can mass remove lock code".

1. Select the LPNs that you can want to apply or remove a lock code.
2. On applying the lock codes, the system displays a Confirmation pop-up window on updating the number of LPNs to be locked or unlocked.
3. After you click OK to proceed, you will be provided with a list of available Lock Codes that you can apply.

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.
3. In the "Qty:" field, enter the new quantity (you must input the current quantity even if the current quantity remains the same).
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.
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*.
6. In the "Reason Code:" prompt, input the appropriate Reason Code for that transaction.
 - o 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  
SK Create LPN
```

```
LPN:SKLPN1504M
```

```
Env: lgf_100_qa  
Ctrl-X: Exit App  
Ctrl-W: Previous screen
```

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.
- 4. 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.
- 5. After consuming all the items, press Ctrl-X to exit from the current page.

Formatting Rules for Inventory Attributes

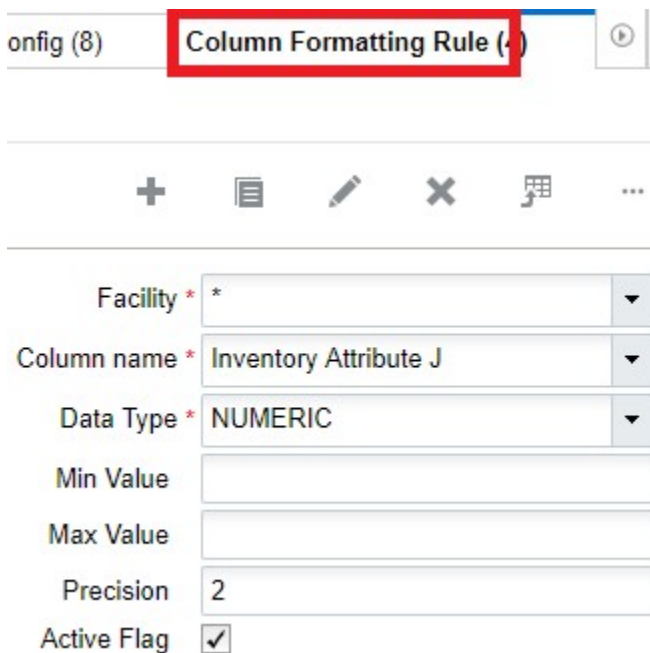
Because there can sometimes be a mismatch of inventory attributes in systems overall, WMS structures rules around open inventory attribute fields. This gives more control to end users for what they want to store in these fields.

In order to provide consistency for tracking inventory attributes in ERP and across other systems, you can create formatting rules for inventory attributes.

The following topics provide details about configuring formatting rules and applying rules in the RF, UI, and APIs. which will help prevent incorrect data entry:

Configuring Formatting Rules

From the **Column Formatting Rule** UI, you can create formatting rules for inventory attributes:



From the **Column Formatting Rule** UI, you can define numeric data types and set minimum to maximum values to associate with inventory attributes a to o. You can also define the decimal precision for numeric inventory attribute values.

Note: you can't enter decimal values for Min/Max fields above the defined precision. Also, you can't save multiple formatting rules for the same inventory attribute column. The system will throw an error message in this case.

To create a formatting rule:

1. From the **Column Formatting Rule** UI, click create.

2. Select the Facility or * to apply the rule to all Facilities.
3. Set the min/max value and precision.
4. Select the Active Flag to enable the rule and click **Save**.

The following table provides descriptions for each of the configurable fields in the **Column Formatting Rule UI**:

UI Column	Description
Facility Code	User can select the facility or make it *. This drop-down will show what the logged in user is eligible for. Selecting * allows you to apply formatting rules to all associated facilities.
Column	List of Inventory Attributes (Drop-down)
Data Type	Numeric or String
Min Value	Applicable if the data type is Numeric. (leaving the field blank means there is no minimum value stipulated)
Max Value	Applicable if the data type is Numeric. (leaving the field blank means there is no maximum value stipulated).
Precision	Applicable if the data type is Numeric. This field does not support negative values. This field depicts the maximum precision allowed. A precision of 0 means no decimal points are allowed.
Active flag	Enable the active flag to activate or deactivate the rule. If the rule is not activated, then formatting rules will not be triggered.

Note:

- the system will not validate formatting rules against existing data. However, any new data will validate against formatting rules that you setup.
- the system will not allow multiple rules activated for the same inventory attribute/facility/company code combination.
- When multiple attributes are provided for a SKU, rule validation will happen before the user captures the next attribute field.

Validating Formatting Rules

RF Screens

Once formatting rules are configured, Oracle WMS Cloud will validate and apply the formatting rule criteria. The decimal precision and the min/max range will be applied as configured on the formatting rule for all **RF** transactions that prompt for inventory attributes including:

- RF Receive by shipment
- RF Receive by Load
- RF Cycle Count Location

- RF Cycle Count LPN
- RF Create LPN
- RF Sort and Receive.
- RF Split IBLPN
- RF Modify LPN
- RF NC Active Picking

Note: If the formatting rule mandates precision, you won't be allowed to enter more than the precision after the decimals. If the rule has the min and max range configured, the entered value has to be within the range.

IMPORTANT: If you need to enter values with decimals and negative values, you must configure the company parameter **Allow Barcode lower characters** to allow "." or "-".

Note: "." and "-" will be applicable for all barcode entries.

UI Screens

Once formatting rules are configured, Oracle WMS Cloud will validate and apply the Column Formatting Rule criteria. The decimal precision and the min/max range will be applied as configured on the formatting rule for all **UI** transactions that display attributes for user entry:

- Purchase Order Inquiry
- Order Inquiry
- Work Order Inquiry
- Inbound Shipment Inquiry
- IBLPN Inquiry
- Mass Update Inventory attributes
- Bulk Update Order details

Inventory attribute formatting rules are triggered when you click **Save** after creating/editing the record.

Note: After you click **Save**, If any attributes fail the formatting rule validations, the system displays which attributes

The screenshot shows the 'Bulk Create/Edit' screen for an 'Order Header'. Fields include 'Order Nbr' (ORDER0620_19_5), 'Order Type' (KB_Store_Order_15.1), 'Status' (Created), 'Destination Company', and 'Destination Facility' (KBSTORE1). A table below shows 'Sequence Nbr' (1) and 'Reqd LPN Nbr'. A modal dialog box is open with the message: 'Column formatting rules failed for some of the columns'. Under 'Details', it says: 'Entered value for field Inventory Attribute A does not honor the formatting rule'. An 'OK' button is at the bottom of the dialog. The word 'failed.' is visible at the bottom left of the screenshot area.

Input Interfaces

The **Column Formatting Rule** is validated in the **Input Interfaces** because data could come from external systems. WMS triggers formatting rules for inventory attributes to prevent invalid data from entering the application. The system will error and prevent records from interfacing if the rule fails.

- IB Shipment
- Orders
- POS
- Work Order
- Purchase Order

In the **Input interface Configuration** UI, you can enable trigger formatting rules for Input Interface screens via the **Trigger Formatting Rules** flag. This flag defaults to no. Input Interface validation will be triggered only if the corresponding interface being run has the `trigger_formatting_rules` flag enabled.

The screenshot shows a configuration window titled "Input Interface Config" (highlighted with a red box). Below the title bar are three icons: a plus sign (+), a pencil (edit), and a cross (X). The main configuration area includes a dropdown menu for "Interface Type" set to "Point Of Sale". Below this are two checkboxes: "Send Failure Email" (unchecked) and "Trigger Formatting Rules" (checked, highlighted with a red box).

To enable trigger formatting rules for **Input Interface** screens:

1. From the **Input interface Configuration** UI, select the interface type for which you want to enable trigger formatting rules.
2. Click **Edit**.
3. Select the Trigger Formatting Rules checkbox and click **Save**.

Note: Be aware that when you configure formatting rules for Input Interface screens, this can have an impact on processing time for associated records.

The new configuration added to the Input Interface Configuration UI is only applicable for **Purchase Order, Inbound Shipment, Orders, POS, and Work Order** interfaces. Even though the **Input Interface Configuration** UI configuration can be enabled for other interfaces like appointment, cubiscan etc, trigger formatting rules do not apply to them.

Note:

- Inventory attribute Column Formatting Rules will not be triggered during Input Interface processing for action code of "Delete".
- The DTLUPDATE action code in header is supported for Purchase Order, Inbound Shipment, and Order Interface interfaces. Column Formatting rules are triggered for the DTLUPDATE action code when the detail action code is "UPDATE" or "DELETE".

Formatting Rules and Treat as Attribute Flag

The Order Interface allows lock codes from the order detail to be populated onto the inventory attribute if the **Treat as Attribute** flag is set on the lock code.

Note:

- Inventory Attribute formatting rules will not be applied when treat as attribute functionality is triggered. Users should ensure that any lock codes intended to populate an attribute do not have formatting rules defined.
- If attributes are not captured in the RF, formatting rules are not triggered. If Receiving does not prompt for attributes and corresponding shipment details have attributes which are not honoring formatting rules, receiving process will not be stopped. Formatting rules are only triggered upon **user entry**.

APIs

Certain Oracle WMS Cloud REST APIs allow inventory attributes to be interfaced and create new inventory records in the system. Once column formatting rules are configured for a particular inventory attribute, Oracle WMS Cloud will validate and apply the rule criteria for the relevant inventory attribute. API operations will fail when formatting rules are not honored or met.

The system applies formatting rules using the following API trigger points:

API Operation	Description
Update Active Inventory	Operation to update active inventory. <ul style="list-style-type: none"> • POST .../entity/location/{id}/update_active_inventory/
Composite Create	Used for Creating IBLPN with all details in a single request) <ul style="list-style-type: none"> • POST ¿/wms/lgfapi/v10/entity/iblpn/composite_create/
Bulk Update Inventory Attributes	Operation to Bulk Update Inventory Attributes on Inventory <ul style="list-style-type: none"> • POST ¿/wms/lgfapi/v10/entity/inventory/bulk_update_inventory_attributes/

Note:

- When the user performs one of the above operations, if any of the attributes fail the validations, the system will send a response that includes the attribute which failed the validation.
- There will be some additional processing required for validating the formatting rules, so customers using Bulk Update Inventory Attributes cannot expect same performance levels with formatting rules enabled.

Configuring List of Values (LoVs) for Inventory Attributes

By defining a List of Values (LOV) for Column Formatting Rules, you can prevent occurrences of incorrect data entry for inventory attributes and have consistent data for inventory attributes. You can configure a valid List of Values (LOV) for inventory attributes (A-O) in the Column Formatting Rules UI. The specified configuration will restrict the values that you can enter for inventory attribute fields in UI/RF screens and when using API's.

For example, if inventory attribute B is used to track country of origin, you can configure an active column formatting rule for inventory attribute B with 'MEX', 'USA' and 'CAN' as LOV's. The system will display an error, when you enter "US" or "United States of America" as values for inventory attribute B in UI/RF/API's.

Display List of Values in Inventory Attribute

The List of Values (LoVs) allows you to validate the value entered against the preconfigured LOVs available for that specific inventory attribute. On hitting the hotkey (CTRL-V), the RF handheld device lists preconfigured LOVs for your specific inventory. Upon selecting CTRL-V, you will be able to see all the configured LOVs for your inventory.

Oracle WMS QATST01/QATSTPC
List of Values (Attribute A):

- 1) ARG
- 2) AUS
- 3) CAN
- 4) DEN
- 5) GRE
- 6) IND
- 7) MEX
- 8) POL
- => █

Env: lgf_21d_qa
Ctrl-U: Page Up
Ctrl-D: Page Down
Ctrl-X: Exit App
Ctrl-W: Previous screen
Ctrl-W: Previous screen

The system will auto-populate the Inventory Attributes screen with the selected value.

Column Formatting Rule UI

- You can configure Column Formatting Rules for both numeric and alphanumeric data types
- You must enable the **Active Flag** option to consider Column Formatting Rule for validation
- Newly added fields in Column Formatting Rule UI (module: ColumnFormattingRuleDefinitionView)

Column Formatting Rule UI Fields	Description
Data type	You can configure data type as either "NUMERIC" or "ALPHANUMERIC". If you configure data type as alphanumeric, minimum value, maximum value and precision fields will not be applicable.
Rule Name	Rule Name along with facility and company is used to uniquely identify each column formatting rule. For a given facility & company combination, rule name can't be the same for two or more column formatting rules.
Entity	You can currently configure "*" as valid value for entity.

Note: All existing Column Formatting Rules configured will be updated with values for Rule Name and Entity fields (value will be *). You will be able to edit values for the Rule Name field in the UI.

- Only one rule can be active at a time for the same inventory attribute/facility/company code combination
- The system will not validate Formatting Rules against existing data. However, any new data will validate against Formatting Rules that you setup.
- Any edits to Column Formatting Rules will be tracked in the application logs. If a particular lock code has the treat as attribute value populated, then Column Formatting Rules can't be created against that attribute

Column Formatting Rule Detail UI

- From the Column Formatting Rule UI, you can create and update a valid **List of Values (LOV)** for the column formatting rule
- You can configure LOV's by item (matching scope as "ITEM_CODE" and matching value as the item code) or you can have a generic configuration for LOV (matching scope as "*" and matching value as "*")

The following table describes the detail for each of the fields added in the Column Formatting Rule Detail UI to support List of Values:

Column Formatting Rule Detail UI Fields	Description
Rule Name, Facility, company, Column name, Data type, Entity	Informational fields populated from column formatting rule.
Matching Scope	You can choose between two options.
Matching Value	If matching scope is "ITEM_CODE", you can enter the item code for which the LOV value is defined. If matching scope is "*", you can enter "*".
LOV	You can enter values (LOV) that will be used for validation of the column name mentioned in the formatting rule, LOV data can be numeric or alphanumeric depending on data type.

Note: If the data type is numeric, when you define LOV values, they should be within the minimum and maximum value and should not exceed the precision defined, or else the system will display an error message. Any edits to Column Formatting Rule Detail fields will be tracked in the application logs.

To create LOV values for formatting rule from UI:

1. From the **Column Formatting Rule** UI, click **Create**.
2. Select the Facility or * to apply the rule to all Facilities.
3. Provide a rule name value (ensure that for that company-facility combination, rule name value is unique.)
4. Set the data type as "NUMERIC" or "ALPHANUMERIC."
5. Set the min/max value and precision, if data type is numeric.

6. Select "*" as the value for the entity.
7. Select the Active Flag to enable the rule and click **Save**.
8. From the Column Formatting Rule Detail UI, click Create.
9. If you want to configure different LOV values for different items, in the matching scope select "ITEM_CODE" and in the matching value provide the item code for which LOV value is defined and configure LOV value.
10. If you do not have an item specific LOV configuration, in matching scope select "*" and in matching value provide "*" and configure LOV value.
11. Repeat for all other valid LOV values.

Formatting Rule Validations in the UI/RF/APIs for Inventory Attributes

You must enable the Active Flag to consider Column Formatting Rule for validation. The following table details the formatting rule validations:

Data type	Validations
Numeric	<p>You should enter inventory attribute value within the min value and max value defined for the rule. Else system will display error.</p> <p>You should not enter more than the precision defined after decimals.</p>
Alphanumeric	You have not configured LOV, so there is no formatting rule validation.

Note: the system looks for an exact match (includes case) while comparing entered value against LOV to reduce data inconsistency. For example, if LOV is 'red', you must enter only 'red' and the system will throw an error if you enter 'REd' or 'RED'.

Note: The new column formatting rule LOV validations are not applicable, when you provide inventory attribute information through input interfaces. If you configure column formatting rules with different values for the same inventory attribute across different facilities, note that inter-facility transfer can have challenges due to the data inconsistency for inventory attribute values among the facilities.

RF Screens

Once you configure formatting rules, inventory attribute values entered in the following RF transactions will be validated with the configured LOV values:

- RF Receive by shipment
- RF Receive by Load
- RF Cycle Count Location
- RF Cycle Count LPN
- RF Create LPN
- RF Sort and Receive.
- RF Split IBLPN
- RF Modify LPN
- RF NC Active Picking

Validation will happen after you enter a value in the inventory attribute field. If the attribute fails, the formatting rule validation, the system displays error message. For example, when you configure “RED”, “MAROON” and “PINK” as LOV values for inventory attribute B, if you enter “MERON”, the system will display the error "Entered value does not match any LOV in the formatting rule."

Note: If you need to enter values with decimals and negative values, you must configure the company parameter barcode valid characters to allow "." or "-". If the LOV's configured have special characters, you must configure the company parameter barcode valid characters to allow those special characters.

UI Screens

Once you configure formatting rules, inventory attribute values entered in the following UI transactions will be validated with the configured LOV values:

- Purchase Order Inquiry
- Order Inquiry
- Work Order Inquiry
- Inbound Shipment Inquiry
- IBLPN Inquiry
- Mass Update Inventory attributes
- Bulk Update Order details

After you click save, if any attributes fail the formatting rule validations, the system displays error message with information on which attributes failed validation. For example, when you configure “RED”, “MAROON” and “PINK” as LOV values for inventory attribute B. If you enter “MERON”, the system will display the error "Entered value for inventory attribute does not match any LOV in the formatting rule."

APIs

You can interface inventory attribute data in a few REST APIs to create new inventory records. Once you configure Column Formatting Rules for a particular inventory attribute, Oracle WMS Cloud will validate for the relevant inventory attribute. API operations will fail when formatting rules are not honored.

The system applies formatting rules using the following API trigger points:

API	Description
Composite Create	POST .../entity/iblpn/composite_create/
Bulk Update Inventory Attributes	POST .../entity/inventory/bulk_update_inventory_attributes/
Update Active Inventory	POST .../entity/location/{id}/update_active_inventory/

Note: There will be some additional processing required for validating the formatting rules, so customers using Bulk Update Inventory Attributes cannot expect the same performance levels with formatting rules enabled.

- In bulk update inventory attributes API, when the commit frequency is set to 1, if some of the inventory IDs provided fail the column formatting rule validations, the error response will include inventory ID details in the fail validation.
- When you perform one of the above operations, if any of the attributes fail the validations, the system will send a response that includes the attributes which failed the validation.

Upload Column Formatting Rules and List of Values via Input Interface

- A new input interface “Column Formatting rule” is introduced to create/update Column Formatting Rules and upload LOV values for column formatting rules.
- The system supports only “xls” format for Column Formatting Rule interface file (sample file name: CFR_Columnformattingrule_21C.xls).
- A combination of the rule name, company, and facility is used to create/update Column Formatting Rules.
- You can create Column Formatting Rules with or without LOV values through the new input interface.

Note: You can create/update column formatting rules and LOV values only for the user logged in company and facility and for “*” facility (applies to all associated facilities.)

To create LOV values for formatting rules from the input interface (Column Formatting Rule):

1. Define values for rule_name, company_code, facility_code, column_name_code, entity, action_code, data_type, active_flg for header information in interface file
2. Define values for action_code, seq_nbr, matching_scope, matching_value, lov for detail information in interface file
3. Name the file according to the template (sample file name: CFR_Columnformattingrule_21C.xls)
4. Process the file through input interface UI for Column Formatting Rule

Combining / 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.
4. Enter the quantity that will be moved from the old LPN to the new LPN.
5. If the LPN is being combined, enter the full quantity being moved.
 - If the entire quantity of the original LPN is being moved, the original LPN will be cancelled. Press ‘CTRL-A’ to accept.

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.

ORACLE WMS 18C																																																											
Modules	Company Parameters	Inbound Shipments	Input Interface	Screen Configuration	Inbound Sorting	Task Type	Item Bar																																																				
Standard Inventory Summary																																																											
<div style="display: flex; align-items: center;"> ↶ 🔍 </div> <table border="1"> <thead> <tr> <th>Facility Code</th> <th>Company Code</th> <th>Alternate Item Codes</th> <th>Calculated Item</th> <th>Is Parent</th> <th>Style</th> <th>OBLPN Total</th> <th>IBLPN Total</th> <th>Total Allocated</th> <th>Active Total</th> </tr> </thead> <tbody> <tr> <td>QATST01</td> <td>QATSTPC</td> <td>TST-NOR-ITM-003</td> <td>12345678901...</td> <td>Yes</td> <td>123456789...</td> <td>0</td> <td>9</td> <td>0</td> <td>0</td> </tr> <tr> <td>QATST01</td> <td>QATSTPC</td> <td>Alternate code</td> <td>5STAR</td> <td>No</td> <td>5STAR</td> <td>4.9</td> <td>291.7</td> <td>254.5</td> <td>10.5</td> </tr> <tr> <td>QATST01</td> <td>QATSTPC</td> <td>AB-CAM-001</td> <td>AB-CAM-001</td> <td>No</td> <td>AB</td> <td>0</td> <td>9</td> <td>0</td> <td>0</td> </tr> <tr> <td>QATST01</td> <td>QATSTPC</td> <td>ATT-ITM-TST-001</td> <td>ATT-ITM-TST...</td> <td>Yes</td> <td>ATT</td> <td>47</td> <td>592</td> <td>25</td> <td>79</td> </tr> </tbody> </table>										Facility Code	Company Code	Alternate Item Codes	Calculated Item	Is Parent	Style	OBLPN Total	IBLPN Total	Total Allocated	Active Total	QATST01	QATSTPC	TST-NOR-ITM-003	12345678901...	Yes	123456789...	0	9	0	0	QATST01	QATSTPC	Alternate code	5STAR	No	5STAR	4.9	291.7	254.5	10.5	QATST01	QATSTPC	AB-CAM-001	AB-CAM-001	No	AB	0	9	0	0	QATST01	QATSTPC	ATT-ITM-TST-001	ATT-ITM-TST...	Yes	ATT	47	592	25	79
Facility Code	Company Code	Alternate Item Codes	Calculated Item	Is Parent	Style	OBLPN Total	IBLPN Total	Total Allocated	Active Total																																																		
QATST01	QATSTPC	TST-NOR-ITM-003	12345678901...	Yes	123456789...	0	9	0	0																																																		
QATST01	QATSTPC	Alternate code	5STAR	No	5STAR	4.9	291.7	254.5	10.5																																																		
QATST01	QATSTPC	AB-CAM-001	AB-CAM-001	No	AB	0	9	0	0																																																		
QATST01	QATSTPC	ATT-ITM-TST-001	ATT-ITM-TST...	Yes	ATT	47	592	25	79																																																		

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 To Check for a flagged Cycle Count Location

The *Active and Reserve Location* 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”.
2. Scan the location that will be cycle counted.
3. Input the number of LPNs in that location.
4. Press *Ctrl-E* to end the count.
 - o If the LPN quantity inputted is incorrect, RF prompts you to use the detailed Cycle Count transaction (option *0* - *Cycle Count LPN Detail*).

Cycle Count LPN

1. Enter RF transaction “Cycle Count LPNs”.
2. Scan the location to be cycle counted.
3. Scan the LPNs in the location.

Note: 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.
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.
 - b. If the Cycle Count was correct, RF will prompt the message “Count completed for location”.

Cycle Count LPN Detail

1. Enter RF transaction “Cycle Count LPN”.
2. Scan the location to be cycle counted.
3. Scan the first LPN in the location. Scan the SKU and quantity for the current LPN.
 - o If the LPN has the “LPN is Pallet” flag set to “FALSE”:

- If the LPN has the “LPN is Pallet” flag set to “TRUE”:
 - **Cases per Tier** refers to the “LPNs per Tier” field in the item’s detail in the Item Master.
 - **Tiers per Pallet** 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”.
 - If you reenter the same LPN, SKU and quantity, the adjustment is made.
 - If you are counting a multi-SKU LPN, the RF displays a warning message for SKUs that are not counted.
 - 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.
 - 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.
 - If all the LPNs are counted, the RF prompts the message “Count completed for location.”

Note: LPNs in “Allocated” status **cannot** be “Lost”.

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.

The *Cycle Count Trigger Management* screen 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 [Cycle Count Execution \(RF\)](#) 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 [Cycle Count Execution \(RF\)](#) for details.

Description of Cycle Count Triggers

Trigger	Definition/Expected behavior
Alternate location for Putaway	<ul style="list-style-type: none"> - 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.cwrftpaway' with mode = 'Directed Putaway Pallet' or 'Directed Putaway LPN'.
Short pick	<ul style="list-style-type: none"> - 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.cwrpacklpn', 'rf.inbound.cwrfmovelpn', 'rf.inbound.cwrfpickiblpnreplen', 'rf.outbound.cwrfpickcart', 'rf.outbound.cwrfpackncactiveorder', 'rf.outbound.cwrfpickiblpn'
Short pick active	<ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> - You de-allocate an IBLPN from UI: - System generates a CC task for the location where the IBLPN was de-allocated. - Trigger module: 'IbContainerView'

Trigger	Definition/Expected behavior
De-allocate Active Inventory from UI	<ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> - 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'
Recount Location	<ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> - 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	<ul style="list-style-type: none"> - 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'). <p data-bbox="537 1465 1520 1556"><i>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.</i></p> <ul style="list-style-type: none"> -Trigger module: 'Inventory Adjustment Management'
Substitute LPN from different location	<ul style="list-style-type: none"> - 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	Definition/Expected behavior
	<ul style="list-style-type: none"> - Trigger modules are: 'rf.inbound.cwrfmovelpn', 'rf.inbound.cwrfpickiblnreplen', 'rf.outbound.cwrfpickcart', 'rf.outbound.cwrfpackncactiveorder', 'rf.outbound.cwrfpickibln', 'rf.outbound.cwrfrepackobln'
Alternate location for Split LPN into active	<ul style="list-style-type: none"> - 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.
2. Select the record and click Edit () to customize the 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 Detail Count).
3. Click "Save" to save the changes.

Creating Cycle Count Tasks with Task Creation Templates

Another way to create 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.
 - o **Description:** Input the Task Template's name.
 - o **Template Type:** Select "CC" for Cycle Count Templates.
 - o **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.
 - o **Sequence Nbr:** Sequence for creating task types, if there are more than one within the template.
 - o **Task Type:** The Task Type for the Task. This value must be a CC task type (CC Location LPN Scan or CC Location Contents).
 - o **Priority:** The Task's priority when it is created.
 - o **Create Held Flg:** When checked, the task automatically goes to "HELD" status when created. You must 'release' this task manually from the Tasks screen.
 - o **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".
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".
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.
9. Select the SQL operator, column name 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.

1. Go to the *Task Creation Template* screen, select the template and click on 'Details'.
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:

The screenshot shows a form for configuring task creation rules. It includes the following fields and controls:

- Task Creation Rules ***: A dropdown menu with the selected value "KN Full LPNFULL-CONTAINERFUI".
- Sequence Nbr ***: A text input field containing the value "1".
- Order by column ***: A dropdown menu with the selected value "Order Ship Date".
- Break by count**: An empty text input field.
- Extended Grouping**: A checkbox that is currently unchecked.

- o **Sequence Nbr:** The sequence number for the ordering criteria record.
- o **Order by column:** The criteria used for ordering the tasks.
- o **Break by count:** Leave this field blank (only applicable for non-CC Tasks).
- o **Extended Grouping:** This flag allows you to group the orders in the task based on the Pick sequence.

On configuring the Location Pick Sequence and Order Number in the Ordering criteria, and enable the extended grouping for the order number, the system will create a task based on the Pick sequence to ensure that the orders are not split into multiple tasks.

Note: The Extended Grouping flag is disabled by default. You can enable this flag for **ONLY** one ordering criteria sequence with a *break by count* > zero, if there are multiple ordering criteria sequences defined for the task type.

This extended grouping flag supports all the Order by column values provided, if the break by count is greater than zero. For example, if you want to pick only two items for a task, the Order by column value can be set to an alternate item code and the Break by count can be set to 2.

5. Click "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 Creation Template* screen and select the template.

2. Click on 'Run Template'. The message "Tasks created" displays. Press OK.

Note: You must specify a rule selection for the Cycle Count Task Template, or you will receive the error "CC Template does not have a selection rule."

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.

Compare Dates for Cycle Count using Selection Criteria

You can create cycle count task for locations that where last counted 'x' days ago. This is an example of what you are able to do now that the selection criteria rule has been expanded to have a comparison in dates based on current date. In order to compare dates, you can use the key words 'd' and 'm' where 'd' represents days and 'm' represents minutes. For example, if you need information about the location's last count time stamp in the last 10 days, you can enter d-10 in the column value of the selection criteria rule.

Or, if you need your wave order *selection rules* to select orders whose Ship date is 20 days older than the current date, you can enter d+20 in the column value of the selection criteria rule. Similarly, if you need to extract data in terms of minutes, you can enter m-60/m+60. The format accepted in the column value of the selection criteria rule is(d+x, d-x, dx, m+x, mx or m-x) where d is days, m is minutes, and x is the comparison number.

Compare Dates using Selection Criteria

You can compare dates using selection criteria in 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**

Note: The dynamic wave search rules to select orders based on stop ship date/ required ship date/ start ship date/ order hdr cust date/ or order dtl cust date fields and supports only the date column.

- Audit Rule > **Audit Selection Rule**

To compare dates using any of the above screens:

1. Navigate to any of the Selection Criteria Screens mentioned above.
2. Choose an operation from the drop-down =,<,>,>=,<=. For example, you select <=.
3. Select the column of "date" type or "date_time" type from the drop-down menu.
4. Enter the value. i.e., If value = d5 (or d+5) (given current date per facility time zone is 30 April), then the orders whose ship date is 5 days from 30 April are captured.

The keyword "d" signifies the number of days and "m" signifies minutes. The Date and Minutes are the only format supported in the system. These keywords are applicable only for columns you select of type "date" and "date_ts".

For example, if the selected date or date_ts column is x days less/greater than current date, then the criteria value configured is d-<x>/ d+<x>, where, "d" signifies days, '-/+' signifies subtraction/addition, and <x> days you want your data from current date.

Note: By default, if the (-) sign is not applied, then the system adds the number of days from the current date.

The key word "m" is required to compare the data based on minutes. Use minutes (m) format if any event occurred in less than 24 hours and the requirement is to compare based on time difference from the current time.

For example, if the selected date_ts column is <x> minutes less/greater than current date_ts, then the criteria value configured is m-<x>/ m+<x>, where, "m" signifies minutes and '-/+' signifies subtraction/addition, and <x> is the minutes from current date_ts.

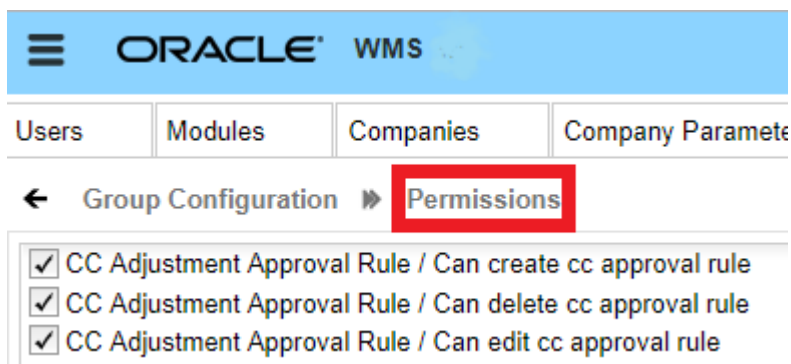
Configuring a Cycle Count Approval Rule

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.)

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.



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.

You can configure different Approval Settings based on your preferences for different items.

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.

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.

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.

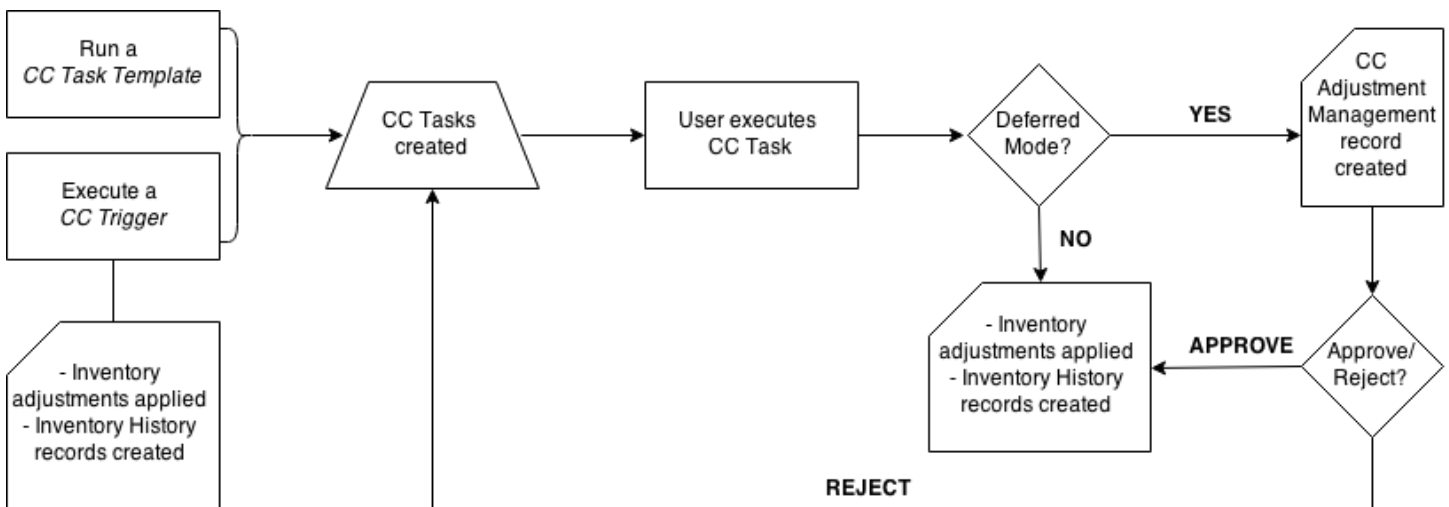
LPN is in an Invalid Status

- 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.

Deferred vs Immediate Mode

Oracle WMS Cloud allows you 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:



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

In the Deferred Mode, WMS keeps track of all Cycle Counts in the *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:
 - For RF CC_Location modules: Time between Location scan until 'Ctrl-E- End Location Count' is entered.
 - 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.
- **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.

Reinitiate In-Progress Deferred Cycle Counts

The Reinitiate In-Progress Deferred Cycle Counts option is available in **RF (Cycle Count {locn})** and must the have screen parameter 'content-count' set to 'by SKU qty' and Facility/company parameters should be configured to do deferred counting.

Exit, Cancel, or Continue In-Progress Counts

If you are on a break and you need to exit the Cycle Count Location, you will not lose the count. Upon selecting **CTRL-X**, a prompt with a warning message appears. If you accept the warning message, you can retain the count.

The system allows you to exit the transaction, and cancel the In-Progress count. The following is the warning message you will see:


```
Oracle WMS QATST01/QATSTPC
```

```
L Do you want to cancel
L | the In-Progress Co
C | unt? —
```

```
Env: lgf_21d_qa
Ctrl-A: Accept
Ctrl-W: Dot not accept
```

If you select Ctrl-A, you will cancel your task in progress and Ctrl-W allows you to return to your task in progress.

Reinitiate Cycle Count

When you restart the cycle count for the same reserve location, the counting is re-initiated and the system allows you to perform the count again from the last session. Counting can be re-initiated for the reserve location as long as the count left In Progress is by the same user. You will have the flexibility of retaining the previous counts of already counted LPN.

A new message is displayed when you re-initiate a cycle count for reserve location in detailed cycle counting mode under the following conditions:

- When there is a Pending Cycle Count with the status "In-Progress" for the reserve location scanned with the different users; The message displayed is '*Count In-Progress for the location initiated by user %user_name%.* You will not be able to perform a cycle count initiated by another user.
- When there is a Pending Cycle Count with the status "In-Progress" for the same user, the message displayed is 'You left the count In Progress for the location, do you want to proceed further'.
- When there is no 'In-Progress' count, the system does not display any warning message.

If you are doing Cycle Count Location (not detailed), and there is a task "In-Progress" for the location, you will get an error and you won't be able to continue. You will need to complete the In Progress cycle count.

Note: The system does not allow counts performed by different users to be overwritten. If a different user has to initiate the count, then In-Progress counts will have to be cancelled via the Cycle Count Adjustment UI. Cancelling the pending count via the Cycle Count UI cancels the corresponding cycle count task as well. If you have counted a portion of the Reserve location and if the RF session goes down cancelling the count through UI will make you count the whole location.

New Counter Field for Number of LPNs Counted

RF Cycle Counting Location (Cycle Cnt {locn}) has been enhanced to show a new counter field Counted LPNs when you are performing a cycle count for a Reserve location during detailed cycle counting. This is also applicable for Immediate Mode. While performing the count for reserve location, the number of LPN's counted is displayed for each LPN counted. You can press Ctrl-E to end the count.

Note: When you re-initiate an In progress cycle count, the counter will display the number of LPN's counted previously for the particular location.

For example, Counted LPNs: XX

- New Literal introduced is configurable using literal screen.
- New Literal and Counter does not display while counting active location.

To allow flexibility for users performing Cycle Counting in scenarios where there may be interruptions (for example, employee scheduled breaks) on the warehouse floor, Cycle Counting users can now restart the count for reserve location without losing the count already performed.

To enable **reinitiate in-progress deferred cycle counts**:

- RF (**Cycle Count {locn}**) must have screen parameter 'content-count' set to 'by SKU qty'.
- Company parameter set to 'INVN_ADJ_APPROVAL_REQUIRED = yes'.

Creation Type

Action that triggered 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' 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.
CC Rules	Adjustment was done while executing a task that was created by running a 'CC Task Template'.
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.
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.

Cycle count Adjustment




Approve
reject/recount
Cancel

Facility	Company	Group Nbr	Screen Name	Total Expected	Total Counted C	Total Adjusted c	Total Adjusted (Status
QATST01	QATSTPC	593731	JP CC LOCA...	40	0	-40	-1650.5	Pending

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 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.

Module Parameter:

Parameter Value:

Module parm choice:

- Auto approve
- Manual approval
- Skip CC deferred adjustments
- Approval by Rule

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.
Skip CC Deferred Adjustment	<ul style="list-style-type: none">•• 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	<ul style="list-style-type: none">• 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 Configuring a Cycle Count Approval Rule (Approval Rule Options) for more details.

Opportunistic Cycle Count

The opportunistic cycle count facilitates pickers to perform a quick count for the location in certain given conditions (either when inventory hits zero or if the inventory is below the defined threshold) when performing picking. Without impacting the pickers productivity, the inventory discrepancies can be captured at the earliest as and when the picker is working on the warehouse floor. This functionality has following two modes:

1. Pick to Zero
2. Threshold Based Summary Count

The following picking modules are capable of performing the opportunistic cycle count:

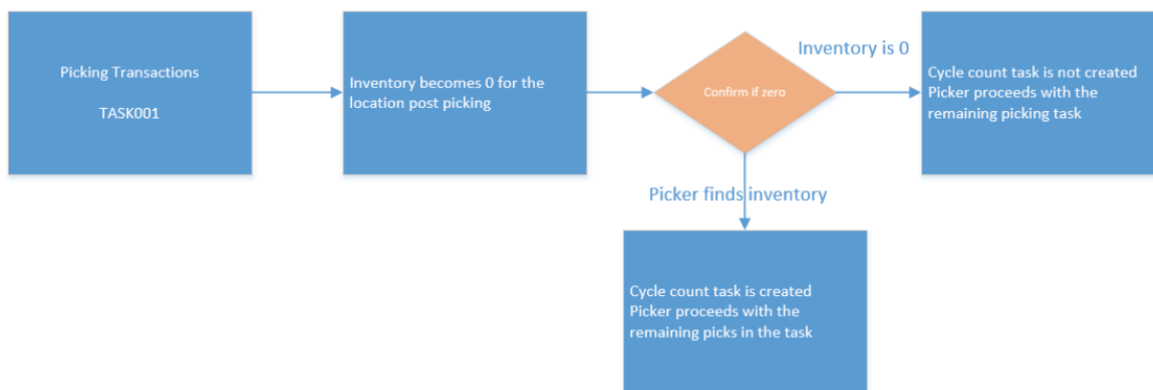
- Pack NC Active {order} (rf.outbound.cwrpackncactiveorder)
- Pack {ob|pn} (rf.outbound.cwrpack|pn)
- Pick {ib|pn} (rf.outbound.cwrpickib|pn)
- IBLPN Pick for Consolidate Replenishment (rf.outbound.cwrpickib|pnreplen)
- Pick Cart (rf.outbound.cwrpickcart)
- Move LPN (rf.inbound.cwrfmovelpn)

Pick to Zero

You need to configure the RF screen parameter “prompt-pick-to-zero” in your picking module.

When **prompt-pick-to-zero** is set **Yes** for the picking transaction and the inventory for location becomes zero after completion of picking for that location, the system prompts the picker: “has location <location barcode> inventory reached zero? (Y/N)”. Based on the picker’s input, either ‘Y’ (Yes) or ‘N’ (No.), the system proceeds with rest of the picking task.

- If the picker responds with **‘Yes’** (Y) confirming that the inventory for location is zero and thereby no discrepancy was noticed, and a cycle count task will not be created.
- If the picker responds with **‘No’** (N) confirming that the inventory for location is not zero, signifies that the picker has noticed a discrepancy between the system and the floor. A cycle count task will be created for the location based on the new cycle count trigger ‘Location Picked to Zero Discrepancy.’



Note: Cycle counting is typically done for the whole location. The Pick to Zero will prompt will only be displayed when the whole location inventory becomes zero and will not be displayed if few items or LPNs becomes zero post picking. To configure the Pick to Zero in your picking transaction:

1. Go to **Cycle Count Trigger** > enable **Location Picked to Zero Discrepancy**, and populate with an appropriate CC task type.

Note: The Location Picked to Zero Discrepancy parameter will be disabled by default.

2. Configure the task type for either CC-LOCATION or CC-LOCATION-DTL for the Location Picked to Zero Discrepancy CC trigger.
3. Go to the RF parameter 'prompt-pick-to-zero' and set it to 'Yes' for the picking modules where pick to zero will be applicable.
4. Click **Save**.

On confirming the location inventory is **zero** or **non-zero** when picking from the reserve location, the system writes IHT 38 for the location with REF_CODE_3 as "PTZ" and REF_VALUE_3 as "Yes" (for zero) and REF_CODE_3 as "PTZ" and REF_VALUE_3 as "No (for non-zero), respectively. On confirming the location inventory is **zero** or **non-zero** when picking from the active location, the system writes IHT 37 for the location with REF_CODE_3 as "PTZ" and REF_VALUE_3 as "Yes (for zero) and REF_CODE_3 as "PTZ" and REF_VALUE_3 as "No (for non-zero), respectively.

Note: A valid responses for the prompt is "*has location <location barcode> inventory reached zero? (Y/N)*" are 'Y' (Yes) or "N" (No). When translating the message to a different language or while editing the message, ensure that the response prompt "Y" / "N" is represented "Y"/ "N" as the only valid response.

Threshold Based Summary Count In this mode, the system launches the Summary Based Cycle Count screen once the location inventory reaches a particular threshold, allowing pickers to count the location after picking inventory from the location. You can configure the threshold for location by threshold percentage and threshold UoM for the location. Key pointers:

1. The screen will not be launched if is an existing cycle count tasks in progress.
2. Even if the CC trigger is enabled and if there is existing detailed CC task or a CC task of the same task type is present in the location, the task will not be generated.
3. The threshold percentage will consider cumulative quantity of the location inventory and not for a specific SKU.

To receive an alert of the summary cycle counts in the IHT-37 - Active Location Cycle Count Complete and in the IHT-38- Reserve Location Cycle Count Complete, the ref codes and the corresponding ref values are captured. Please refer to the IHT Documentation for more information.

Note: To access the latest IHT document, go to the [Oracle WMS Cloud Information Center](#). From the top of the page, click on the **Documentation** tab, then click the link under **Current Documentation**.

Configuring CC Threshold in Location

You need to configure the threshold value and the threshold UOM in the Location UI. The summary cycle count screen is launched during picking when the location inventory count goes blow the threshold quantity defined at the location level. By default, the field threshold quantity is set to 0.


You can also configure CC Threshold Value, CC Threshold UOM via location interface file (XML/Excel/PSV).

Minimum Weight	<input type="text"/>
Maximum Weight	<input type="text"/>
CC Threshold UOM	<input type="text" value="▼"/>
CC Threshold Value	<input type="text"/>

Note: The CC Threshold UOM for active locations can be set as units alone. The CC Threshold Value field supports decimals as well. However, when the CC Threshold UOM is set to LPNs, you are required to provide a whole number in the CC Threshold Value field when saving the location. To configure the **Threshold Based Summary Count** in your picking transaction:

1. Go to **Cycle Count Trigger** > enable '**Summary count discrepancy**' and populate with an appropriate CC task type. Note: The parameter will be disabled by default.

Cycle count Trigger



cc_trigger	Enabled	Priority	Task type
Summary count discrepancy	Yes	2	KH CC LOC DTL
Location Picked To Zero Discrepancy	No	1	KN_CC_Location_Dtl

2. You can configure the Summary Count discrepancy CC trigger with either CC-LOCATION or CC-LOCATION-DTL task type. Click **Save**.
3. Go to your picking module > screen parameter > configure **opportunistic -summary-count** parameter with a valid screen name of the summary cycle count module.

Screen	Module Parameter	Parameter Type
DEMO:Pack NC Active {order}	prompt-pick-to-zero	Selection
DEMO:Pack NC Active {order}	opportunistic-summary-count	Text

- a. When you set the parameter '**Blank**', Opportunistic summary count functionality will be disabled for the associated Picking transaction.
- b. When the parameter is configured with a valid **summary cycle count** screen name, Opportunistic Summary Count will be enabled for the picking transaction and when inventory in a location goes below threshold value configured post picking, the summary count screen will be launched.
- c. Click **Save**.

For more information, please refer to the [What's New Documentation](#).

Summary Cycle Count

The **Summary Based Cycle Count** module (rf.inbound.cwrfccsummarycount) allows you to count the inventory at a summary level for a particular location. You can scan the location and count the overall quantity of the SKUs.

The summary cycle count flow supports picking from Active and Reserve location.

Summary Cycle Count

RF Screen Parameter	Module name	Module description	Potential Values	Default Value
summary-count-for active-by	rf.inbound.cwrfccsummarycount	Summary cycle count	Single SKU/Picked SKUs/All SKUs	By default, the value is set to Blank. If the value is set to blank, the system defaults the behavior to Single SKU mode.

Note: On any location type other than Active or Reserve, then an error message: "Invalid location type" is displayed.

Standalone Summary Cycle Count

When you are performing stand-alone summary cycle count for an active location, you can configure the **summary-count-for active-by** with following values:

- **Single SKU/Blank (Default):** An active location can be considered to be single SKU location is the location is remained with a single SKU post picking from the location.
- **Picked SKUs:** Not Applicable. Picked SKU is not applicable for Standalone mode.
- **All SKUs:** In all SKU mode you can scan all the SKUs in the location. This mode also allows to count SKUs that are not accounted for the location. IN all SKU Mode, you are required to scan each SKU and enter the respective quantity.

Note: A quantity entry in terms of allocation UoM is not supported in Standalone Mode.

On performing summary cycle count for reserve locations, you are required to count the number of LPNs, or Pallets present in the location.

- For Pallet Prompt: All the LPNs in the reserve location have to be palletized.
- For LPN Prompt: If LPNs are not palletized for the location or combination of palletized and non-palletized containers, or LPN as Physical pallet.

Summary Count through Picking Transactions

On reaching the location threshold for an active location post picking, summary cycle count screen is launched if the corresponding picking transaction is configured with **opportunistic -summary-count**.

Note: The opportunity- summary-count parameter must be configured with a valid summary cycle count screen.

Opportunistic Cycle Count will support the following modes for an Active location:

- **Single SKU/Blank (Default):** An active location can be considered to be single SKU location because the location holds remaining single SKU post picking from the location. Once picking is complete from an active location, the summary cycle count screen is launched when the location is left with only one SKU and the location threshold is reached post picking. Enter the count of the defaulted SKU remaining post picking.
- **Picked SKUs:** In Picked SKU mode, enter the counts of the SKUs you have picked. You as a picker are not required to count the SKUs that are not picked from the location in the Picked SKU mode.
 - Enter the count of the defaulted SKUs post picking (system defaults only the Picked SKUs). Enter the count of the defaulted SKUs in terms of the allocation UOM or in terms of units or both.
 - In case the allocation UOM used for allocation is units, then you are required to provide the SKU count in units alone. On ending the location count by hitting the CTRL+E hot key without counting the SKUs completely, the system displays the message; "**Not all item(s) counted for the Location, Proceed further?**".
 - If you end the count without counting all the SKUs under focus, a cycle count task will be created. This cycle count task will be based on the count discrepancy and the task type defined in the '**Summary count discrepancy**' trigger (unless the expected quantity for the location or the SKU in focus is zero). Pressing CTRL-W or CTRL-X without completing the count will prompt the following message: **Count not completed for the location, proceed?**
- **All SKUs:** In all SKU mode, you can scan all the SKUs in the location. This mode also allows to count SKUs that are not accounted for the location. In all SKU mode, scan each SKU and enter the respective quantity. You can scan the SKU and enter the respective quantities for each SKU.

Note: The location count does not get auto closed unlike the Single SKU and Picked SKU mode

- On hitting CTRL+E to end the location count without counting the SKUs completely, the system will message; "**Not all item(s) counted for the Location, Proceed further?**".
- Accepting the warning message will redirect you to the remaining picking flow. Rejecting the message will bring you to the Summary screen again.
- If you end the count without counting all the SKUs under focus, a cycle count task will be created based on the count discrepancy and the task type defined in the '**Summary count discrepancy**' trigger. Pressing CTRL-W or CTRL-X without completing the count will prompt the following message: **Count not completed for the location, proceed?**

Allow Pallet Scan Parameter

The Allow Pallet Scan (allow-pallet-scan) parameter is available in the Summary Cycle Count RF Module. This parameter allows you to capture discrepancies within a pallet when you scan a pallet and enter the corresponding LPN count.

The following table shows you the parameter behavior:

Allow Pallet Scan	Location is Palletized	Behavior
Blank/No	Partially/No	Prompt for LPN count.
Blank/No	Fully	Prompt for the Pallet count
Yes	Partially/No	Prompt for LPN count.
Yes	Fully	Allow users to scan Pallet numbers in that location and upon pallet scan users should be able to enter the LPN count.

Note: The parameter should work only for a reserve location when the location is entirely palletized.

1. To enable Allow Pallet Scan, in the RF **Inbound Cycle Count Summary Count** parameter, from standalone mode, set the **Allow Pallet Scan** set to Yes.
2. If the location is fully palletized, users can enter the pallet number followed by the LPN count.

Summary Cycle Count Audit UI

In Cycle Count mode, the **Summary CC Audit** (module SummaryAuditView) UI allows you to filter audit records using the following options:

- All SKU
- Picked SKU
- Single SKU
- LPN Count
- Pallet Count
- Pallet Scan
- Area, Aisle, Bay, Level, Position, Bin
- Picking Screen
- Pallet Number (useful for the Pallet scan mode records)

Capture Count Modes for Reserve Locations

Count modes for reserve locations are now available in the Count Mode column on the Summary CC Audit View UI. This allows you to identify and distinguish the audit records for reserve location summary cycle counts with respect to the count context.

Location	Location Type	Count mode	Expected LPNs
R27-1-KB-1	Reserve	LPN Count	18
R27-1-KB-1	Reserve	LPN Count	19
KH-SUM-RES...	Reserve	Pallet Count	0
RS29-1-KB-1	Reserve	LPN Count	1

Note: The existing summary count audit trail records for reserve locations will also be populated with the correct count mode values.

The Summary Cycle Count transaction (from stand alone or transactional) will capture the count mode from the location count context and populate this count mode to the respective summary audit trail.

The following table describes how the Reserve locations count mode will be populated in the Summary Cycle Count UI:

Count Mode	Description
Pallet count	A fully palletized location where users count the number of pallets for the location.
LPN count	A non-palletized /partial palletized location where users count the number of LPNs for the location.
Pallet scan	A fully palletized location where users scan the pallets and enter the number of LPNs within the scanned pallet (Pallet scan mode.)

Capture Audit Trail at the Pallet Level

The **Summary Audit View** UI module has been enhanced to capture the audit trail at the pallet level. This allows users to view user inputs in pallet scan mode performed from a picking transaction or in standalone mode.

The following columns have been added to the Summary Audit View UI:

Column	Description
Current Location	Counted location (should be the current location of the pallet, may not be the same for the counted location - in case of an unanticipated pallet scan)
Pallet Nbr	Anticipated or unanticipated Pallets scanned for the location

Capture Discrepancies During Summary Cycle Count

Warehouse Management now allows you to capture the pallet number and the associated LPN count during summary cycle count when the reserve location where all LPNs are on a pallet, so that you can keep track of inventory discrepancies. The summary cycle count will create a cycle count task based on the Summary count discrepancy trigger.

The summary cycle count will capture discrepancies for the following cycle count scenarios:

- If an unanticipated Pallet number is scanned for the location
- If an anticipated Pallet is not scanned for the location
- If there is a count mismatch for the LPNs by pallet

Note: Summary Cycle Count will not update any inventory. It will only create a Cycle Count Task based on the Summary Count discrepancy trigger.

The system will not create a Cycle Count Task if:

- There is an existing cycle count task that has the same task type as the new cycle count task, or if the existing task has a more detailed cycle count task type when compared to a new cycle count.
- If the task type for the new cycle count task is more detailed when compared to the existing cycle count task, the system will replace the existing cycle count task and create the new cycle count task.
 - For example, if there is a cycle count task with a task type of "CC-LOCATION", and the trigger creates a new task with task type of "CC-LOCATION-DTL", then the system will cancel the cycle count task with a task type of "CC-LOCATION."

Inventory History Transaction (IHT) 38 will now capture the reference codes and appropriate values after performing summary cycle count.

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 WMS 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.
4. Click the 'Edit' button, and scroll down until you see 'require batch number'.

The screenshot shows the 'Details' configuration screen for an item. The 'require batch number' checkbox is highlighted with a red box. The 'require serial number' dropdown menu is set to 'Not Required'. Other fields include Currency, Dim 1, Dim 2, Dim 3, Receive Type, OB LPN Type, Product Life, % acceptable, Conveyable, and Sortable.

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.
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.
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. **Product Life:** Is defined as the expected lifetime of the item.
2. **% Acceptable:** 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'.
5. Update these two fields and click "Save" when complete.

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 19 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.”

Cycle count Adjustment Modules **Screen Configuration**

Module Parameter: capture-date-type

Parameter Value:

Module parm choice: **Prompt for expiry date** (selected)

Options in dropdown: Prompt for expiry date, Prompt for expiry date, Prompt for manufacture date

Note: if using manufacture dates, and if the item has the product life field defined, WMS automatically calculates the expiry date as well).

Note: During receiving, when using manufacturing date when prompted, the system arrives at the expiration date by adding the product life in days. Post receipt, operations will have to utilize derived 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.
 - **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.

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.
4. Select the applicable lock code from the drop-down menu, and click the 'Save' button.

Serial Number Tracking

Oracle WMS Cloud users 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[1].
- 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.

Refer to [Serial Number Transactions](#) 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.
2. In the window, click Edit to begin modifying the SKU's properties.
3. Scroll down to the 'require serial number' field and select an option to enable Serial Number Tracking.
4. Click **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 - 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.
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.

Serial Number Repository						
Facility	Company	Serial Nbr	Alternate Item Codes	Item Description	Create Timestamp	Mod Timestamp
QATST01	QATSTPC	SRL20	JSN-ITM-01	MOBILE	10/08/2018 9:26:41 AM	10/08/2018 9:27:01 AM
QATST01	QATSTPC	SRL19	JSN-ITM-01	MOBILE	10/08/2018 9:26:41 AM	10/08/2018 9:27:01 AM

You can also drill down to the serial number record's details () to view the inventory associated to it:

ORACLE WMS 18c									
Search									
Modules	Company Parameters	Inbound Shipments	Input Interface	Screen Configuration	Task Type	Item Barcodes	Serial		
Serial Number Repository		Details							
Facility	Company	Serial Nbr	Item Code	Alternate Item C	Item Descriptio	Location	LPN	LPN status	LPN Type
QATST01	QATSTPC	SRL000002	JSN-ITM-01	JSN-ITM-01	MOBILE	JACT-01-01-06			

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.

Serial Number Inventory

↻ 🔍
Print Label

Facility	Company	Serial Nbr	Item Code	LPN Nbr	Serial Nbr Loca	LPN status	LPN Type
QATST01	QATSTPC	SRL000002	JSN-ITM-01		JACT-01-01-06		
QATST01	QATSTPC	SRL000001	JSN-ITM-01	CSTST01000...		Received	I
QATST01	QATSTPC	SRL160313	JSN-ITM-01		A-A-B-L-02		

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

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.

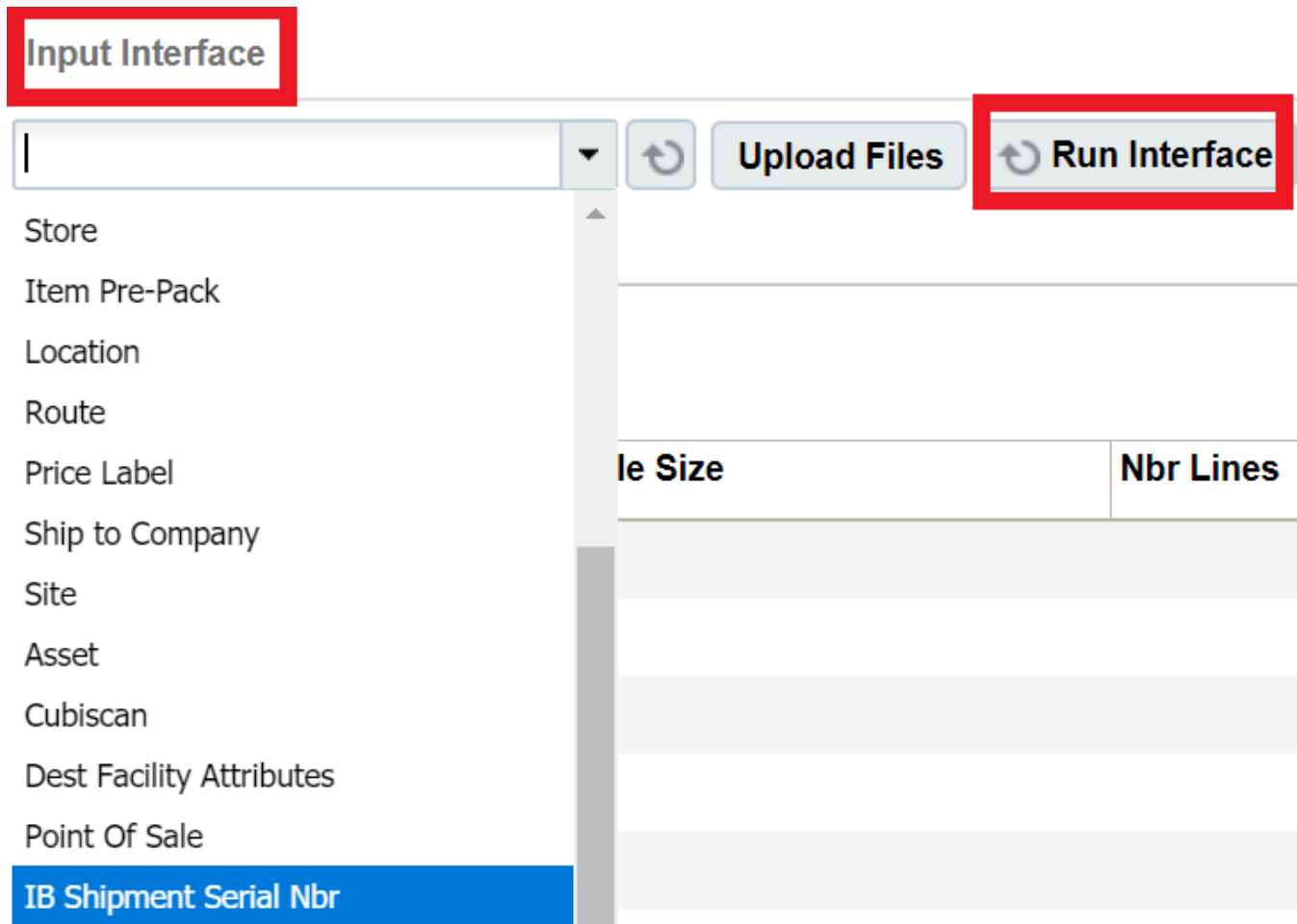
Here is a list of things you need to check before attempting to interface an ISN file:

- 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).

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”.



3. If everything was done correctly, the system prompts the message “Status: Interface Completed”. From the the IB Shipment Serial Number screen, click OK and verify that the serial numbers were successfully uploaded.

Replenish to Assembly Location

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. Move and Replenish contents of the LPNs to the assembly location

```

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
    
```

The assembly location now has enough units of child items (C1 and C2) to build 3 units of parent item (P1). From the Work Order Inquiry View UI, the Work Order is now in Picked status:

RF Execute Task - Main Menu

From the main menu of RF Execute Task, you can do the following:

Hot Key	Hot Key Name	Definition
Ctrl-P	Exec tasks in progress	Allows you to execute tasks that are already in progress.
Ctrl-S	Split cntr and execute task	Prompts you for LPN
Ctrl-L	Change Location	Prompts you for the location code to change the location.
Ctrl-T	Change Task Type	Allows you to change the current task type.
Ctrl-E	Close OB LPN	Prompts you for OBLPN number so that you can close the OBLPN.
Ctrl-Q	Change Equipment	Prompts the equipment type code so that you can change equipment for users.

RF Execute Task Module

The RF Execute Task module, (**rf.outbound.cwrfexecutetask**) allows you to execute tasks via the following parameters:

Parameter Name	Parameter Choices	Module	Parameter Type	Parameter Definition / Function
auto-assign-task	None No Yes	RF-Text: Execute {task}	Selection	This parameter allows you to auto Assign a Task to the floor user rather than the user getting an option to select the task to be executed. The default is No.
nearest-task-to-searchby	None Area Aisle Pick Zone	RF-Text: Execute {task}	Selection	<p>If set to 'Area', the system will search for a task where the originating location has the same Area as the scanned location (with a pick sequence for the location that is greater than the scanned locations pick sequence.) The system orders the tasks in ascending order of the pick sequence if no task is found. Next, the system will try to find a task with a lesser pick sequence and order it in descending order.</p> <p>If set to 'Aisle', the system will search for a task where the originating location has the same Area and Aisle as the scanned location (with a pick sequence for the location that is greater than the scanned locations pick sequence.) The system orders the tasks in ascending order of the pick sequence from the scanned location, if no task is found. Next, the system will try to find a task with a lesser pick sequence and order it in descending order.</p> <p>If set to 'Pick Zone', the system will search for a task where the originating location has the same Pick zone as the scanned location (with a pick sequence</p>

Parameter Name	Parameter Choices	Module	Parameter Type	Parameter Definition / Function
				for the location that is greater than the scanned locations pick sequence.) The system orders the tasks in ascending order of the pick sequence if no task is found. Next, the system will try to find a task with a lesser pick sequence and order it in descending order. If set to 'None' , default, the system will not look for the nearest task
prompt-location-on-launch	None No Yes	RF-Text: Execute {task}	Selection	If set to 'Yes' , the system will prompt you to type a location code If set to 'No' , default, the system will show user available tasks
task-determination-by	None Task Type Task Description	RF-Text: Execute {task}	Selection	If set to 'Task Type' , the system will prompt you to type a task type code If set to 'Task Description' , the system will prompt you to type a task description If set to 'None' , default, the system will prompt the available task
task-prioritization-rule		RF-Text: Execute {task}	Text	You can type a column ordering rule, and then the system performs the task sequencing as mentioned in the column ordering rule name provided. If 'blank', the system performs the task prioritization based on default sequence.
task-search-loc-detr-mode	None User Determined System Determined	RF-Text: Execute {task}	Selection	If set to 'User Determined' or 'None' , default, the system will prompt for the user location after every completion of the task and also at the very beginning. If set to 'System Determined' , the system will store the last scanned location as the location where the user is.

Parameter Name	Parameter Choices	Module	Parameter Type	Parameter Definition / Function
task-type-desc-filter		RF-Text: Execute {task}	Text	Text can be configured with a valid task type description. If a transaction has this value populated with a valid task type description, then users will be prompted only with tasks that have the task type configured in the screen.
allow-unlisted-eligible-tasks	None Yes No	RF-Text: Execute {task}	Selection	<p>Default value is blank, works the same as No.</p> <p>If set to 'None/No', WMS will not allow you to execute tasks not listed in the RF Execute Task screen.</p> <p>if set to 'Yes', WMS allows you to execute tasks not listed in the RF Execute Task screen.</p> <p>Note: When this parameter is set to 'Yes', validations other than task not listed in the RF execute task screen will still be enforced. For example, the user executing the task needs to be eligible, the task should be in ready status etc</p>

Column Ordering Rule

In RF Execute task, you can use the task-prioritization-rule parameter to type a column ordering rule, and then the system performs the task sequencing you specified. If 'blank', the system will perform the task prioritization based on the default sequence.

Task Type Description Filter

The Task Type Description Filter parameter allows you to configure separate Task Types so that you are only getting the tasks you need.

For example, if you have the Task Type description pointing to REPLEN-LPN,CC-LOCATION-DTL, the system will filter tasks with Full LPN Replenishment type. If no tasks are determined for full LPN replenishment, then the message "no tasks found" displays. If multiple tasks are found, prioritization is performed using the current logic.

Note the following considerations when using the task-type-desc-filter parameter:

- You have to provide a task type description in the screen parameter value. During screen configuration, you can provide single or multiple task types.

- You need to configure valid task type descriptions, otherwise the system will display the error message "Invalid task type description filter configured" when user launches execute task screen.
- *task-type-desc-filter* works in auto assignment and non-auto assignment mode.

Auto-Assign Task Mode

You can Auto Assign tasks using RF **Execute Task**. The following explains the RF flow for RF Execute task when the **auto-assign-task** parameter is set to **Yes**:

1. The system picks up the first eligible task (In 'Ready' status) based on the task prioritization logic and launches the first screen for the task. Tasks are filtered based on the equipment type associated with the user and the task type description filter.

Note: Tasks that are in status "Processing Started" will not get displayed.

:

1. If no tasks are found, then the system displays the message "No more tasks". Once you accept the message, you are returned to the main menu.
2. If you enter CTRL-X or CTRL-W while performing task execution, the system goes back to the main menu.

When the RF Execute task **auto-assign-task** parameter is set to **No**:

1. The system displays the task pool with tasks prioritized based on existing task sequencing logic. Then you can go to the and select the next task you would like from the list.
2. Tasks that are in **Processing Started** status (where Modified User is the same as the Logged in user) are displayed.

Additional Task Filtering based on Location Scan

Task Determination By

If The Task Determination By parameter is set to '**Task Type**', the system will prompt you to type a task type code. If this parameter is set to '**Task Description**', the system will prompt you to type a task description.

You can enter multiple Task Types by comma separators.

Task Search Location Determined Mode

If the Task Search Location Determined parameter (task-search-loc-detr-mode) is set to '**System Determined**', the system will keep the last location where the user was located. If set to '**User Determined**' the system will prompt you for the location after every completion of the task.

The following is an example user flow when the task-search-loc-detr-mode parameter is set to '**User Determined**':

Let's say **Prompt for Location on Launch** is set to Yes, and the **Nearest Task to Search** is set to Area:

1. **Execute Task Screen** launches
2. You enter the location
3. You determine/select the tasks matching the scanned location's area.
4. After you complete the first task, the location prompt will display again.

The following is the user flow when the task-search-loc-detr-mode parameter is set to '**System Determined**':

Let's say **Prompt for Location on Launch** is set to Yes, and the **Nearest Task to Search** is set to Area

1. **Execute Task Screen** launches
2. You enter the location
3. You determine/select the tasks matching the scanned location's area.
4. After you complete the first task, the system will determine the next task based on the last location you visited.

Prompt Location on Launch

The system will prompt you when you launch RF Execute Task to add the location. Then you can assign tasks to that location in the warehouse.

Nearest Task to Search By Parameter

The system uses the **Nearest Task to Search By** screen parameter to search for tasks at the next location of the task matching the user scanned locations Area/Aisle/Pick Zone.

Prioritizing Tasks

The following explains the RF Flow for RF-Execute Task when you need to prioritize tasks. When Task Ordering is blank, the system auto assigns and displays the task pool with tasks prioritized as follows:

If the company parameter **TASK_ORDERING_PRIORITIZE_CREATE_TIME** is set to **No**:

1. Task Status (including In Progress and Ready status) are listed in descending order. Tasks are listed where the modified user is the same as the logged in user.
2. Task Priority displays in ascending order
3. 'Task Assigned User'
 - Task assigned to person-a is not displayed to logged in user person-b
 - If the Task does not have any assigned user, check priority 4
4. Task Required Equipment Code displays.
 - The logged in User should have proper equipment eligibility to Execute the task
5. 'Next Location of Task' – displays in ascending order of the location pick sequence
6. 'Task.create_ts' displays with the oldest task first.

If company parameter **TASK_ORDERING_PRIORITIZE_CREATE_TIME** is set to **Yes**:

1. 'Task Status (including In Progress and Ready status) are listed in descending order. Tasks are listed where the modified user is the same as the logged in user.
2. Task Priority displays in ascending order
3. 'Task.Assigned User'
 - Task assigned to person-a is not displayed to logged in user person-b

- If the Task does not have any assigned user, check priority 4

4. Task Required Equipment Code

- The logged in User should have proper equipment eligibility to Execute the task

5. 'Task.create_ts' – displays with the oldest task first.

6. 'Next Location of Task' – displays in ascending order of the location pick sequence

Task Execution

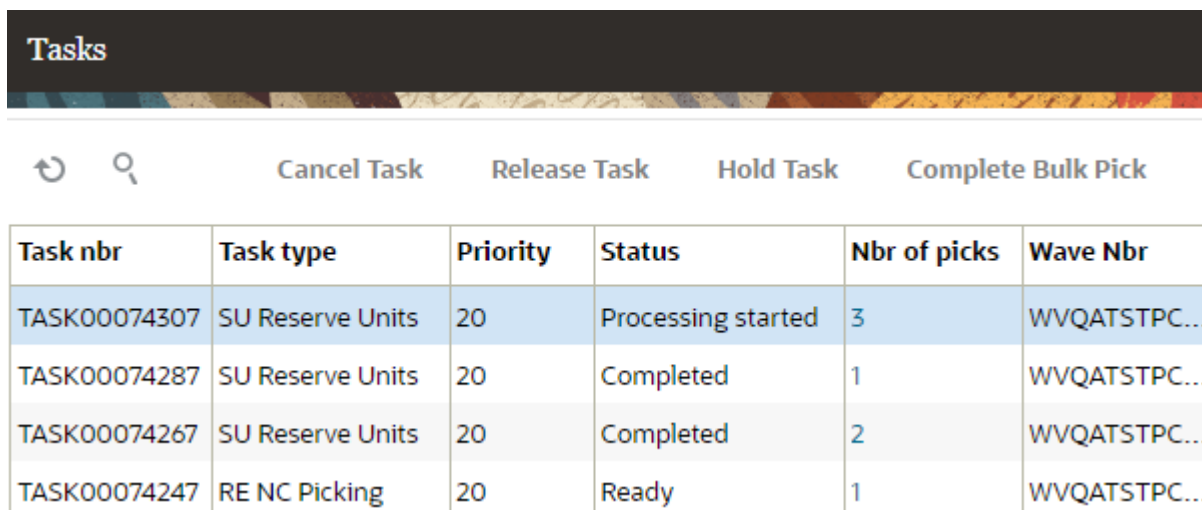
Tasks

The way operational instructions are sent from Warehouse Management to floor users is via **Tasks**. There are many different kinds of Tasks, such as Cycle Count, Replenishment, or Picking tasks.

Task Management

Once Tasks are created, tasks can be viewed through the **TaskView** module.

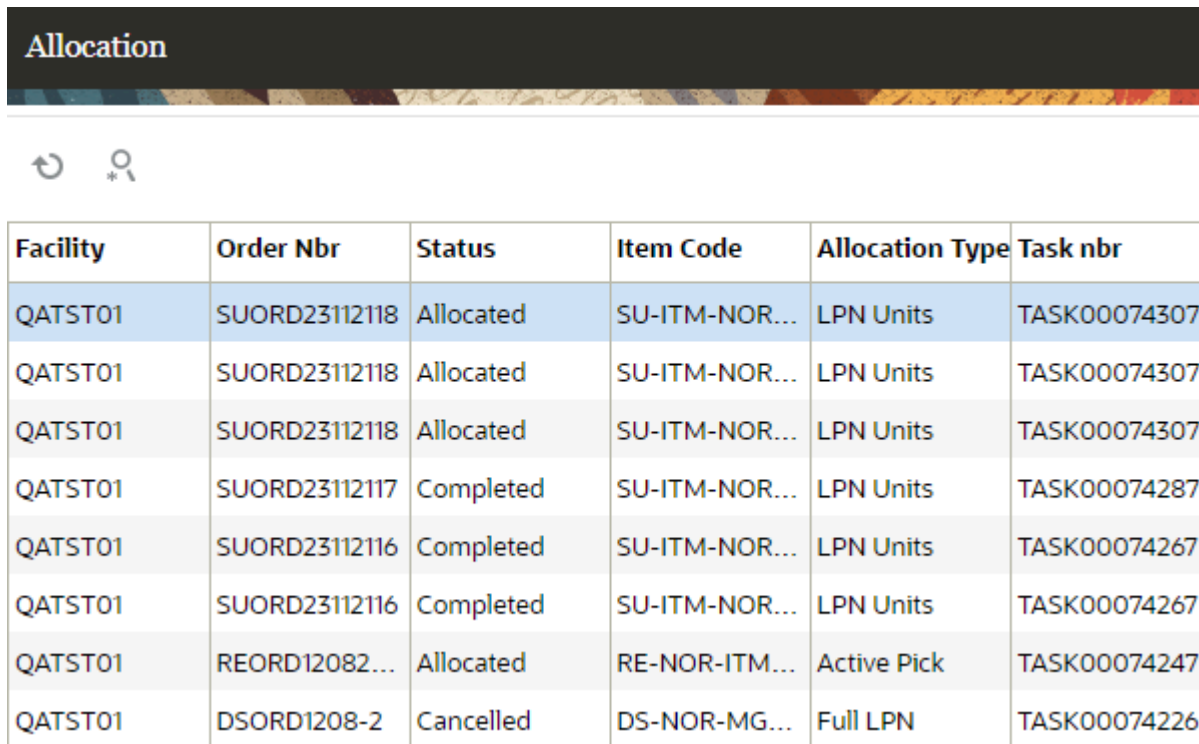
- The Tasks screen shows detailed information for the Picks being performed, as well as the overall status of the Task.
- The Tasks screen is also where users can be assigned to a Task, a Task can be put on hold, released, or canceled, or the priority can be changed.



Task nbr	Task type	Priority	Status	Nbr of picks	Wave Nbr
TASK00074307	SU Reserve Units	20	Processing started	3	WVQATSTPC...
TASK00074287	SU Reserve Units	20	Completed	1	WVQATSTPC...
TASK00074267	SU Reserve Units	20	Completed	2	WVQATSTPC...
TASK00074247	RE NC Picking	20	Ready	1	WVQATSTPC...

- The Tasks are sorted by their Create Timestamp by default, but they will appear on the RF guns according to the Priority.
- From this screen, it's possible to see the status of the pick, its current location, the next location the picker must go to, and the Destination Zone.
- To see details of what SKU and quantity are being picked at each location, click the hyperlinked number in the Number of Picks column.

To see the details of underlying task allocations, you can go to the **Allocations** screen and search by the task number.



The screenshot shows the 'Allocation' screen with a table of task allocations. The table has six columns: Facility, Order Nbr, Status, Item Code, Allocation Type, and Task nbr. There are eight rows of data.

Facility	Order Nbr	Status	Item Code	Allocation Type	Task nbr
QATST01	SUORD23112118	Allocated	SU-ITM-NOR...	LPN Units	TASK00074307
QATST01	SUORD23112118	Allocated	SU-ITM-NOR...	LPN Units	TASK00074307
QATST01	SUORD23112118	Allocated	SU-ITM-NOR...	LPN Units	TASK00074307
QATST01	SUORD23112117	Completed	SU-ITM-NOR...	LPN Units	TASK00074287
QATST01	SUORD23112116	Completed	SU-ITM-NOR...	LPN Units	TASK00074267
QATST01	SUORD23112116	Completed	SU-ITM-NOR...	LPN Units	TASK00074267
QATST01	REORD12082...	Allocated	RE-NOR-ITM...	Active Pick	TASK00074247
QATST01	DSORD1208-2	Cancelled	DS-NOR-MG...	Full LPN	TASK00074226

Task Assignment

From the **Tasks** UI, the following action buttons are available:

Action Button	Definition
Cancel Task	Moves the task to Cancelled status. Note: a task cannot be cancelled once the first pick has been performed.
Release Task	Releases the task for assignment.
Hold Task	Once a task is in ready status, you can hold the task.
Complete Bulk Pick	
Change Task Priority	Allows you to move the task up or down in priority.
Assign User	Allows you to assign a user to a task. Note: Only a user assigned to a Task will be able to access the Task from the RF gun
Unassign User	If the Task needs to be free for any user to complete, click "Unassign User."
Recalculate Task Status	If status is stuck in ready status, you can click this button to move the status to complete.

Once tasks are created and put in the task pool, the task can be executed via the RF Execute Task (rf.outbound.cwrfexecutetask) menu.

RF Execute Task - Main Menu

From the main menu of RF Execute Task, you can do the following:

Hot Key	Hot Key Name	Definition
Ctrl-P	Exec tasks in progress	Allows you to execute tasks that are already in progress.
Ctrl-S	Split cntr and execute task	Prompts you for LPN
Ctrl-L	Change Location	Prompts you for the location code to change the location.
Ctrl-T	Change Task Type	Allows you to change the current task type.
Ctrl-E	Close OB LPN	Prompts you for OBLPN number so that you can close the OBLPN.
Ctrl-Q	Change Equipment	Prompts the equipment type code so that you can change equipment for users.

RF Execute Task Module

The RF Execute Task module, (rf.outbound.cwrfexecutetask) allows you to execute tasks via the following parameters:

Parameter Name	Parameter Choices	Module	Parameter Type	Parameter Definition / Function
auto-assign-task	None No Yes	RF-Text: Execute {task}	Selection	This parameter allows you to auto Assign a Task to the floor user rather than the user getting an option to select the task to be executed. The default is No.
nearest-task-to-searchby	None Area Aisle Pick Zone	RF-Text: Execute {task}	Selection	If set to 'Area' , the system will search for a task where the originating location has the same Area as the scanned location (with a pick sequence for the location that is greater than the scanned locations pick sequence.) The system orders the tasks in ascending order of the pick sequence if no task is found. Next, the system will try to find a task with a lesser pick sequence

Parameter Name	Parameter Choices	Module	Parameter Type	Parameter Definition / Function
				<p>and order it in descending order.</p> <p>If set to 'Aisle', the system will search for a task where the originating location has the same Area and Aisle as the scanned location (with a pick sequence for the location that is greater than the scanned locations pick sequence.) The system orders the tasks in ascending order of the pick sequence from the scanned location, if no task is found. Next, the system will try to find a task with a lesser pick sequence and order it in descending order.</p> <p>If set to 'Pick Zone', the system will search for a task where the originating location has the same Pick zone as the scanned location (with a pick sequence for the location that is greater than the scanned locations pick sequence.) The system orders the tasks in ascending order of the pick sequence if no task is found. Next, the system will try to find a task with a lesser pick sequence and order it in descending order. If set to 'None', default, the system will not look for the nearest task</p>
prompt-location-on-launch	None No Yes	RF-Text: Execute {task}	Selection	<p>If set to 'Yes', the system will prompt you to type a location code</p> <p>If set to 'No', default, the system will show user available tasks</p>
task-determination-by	None Task Type Task Description	RF-Text: Execute {task}	Selection	<p>If set to 'Task Type', the system will prompt you to type a task type code</p> <p>If set to 'Task Description', the system will prompt you to type a task description</p>

Parameter Name	Parameter Choices	Module	Parameter Type	Parameter Definition / Function
				If set to 'None' , default, the system will prompt the available task
task-prioritization-rule		RF-Text: Execute {task}	Text	You can type a column ordering rule, and then the system performs the task sequencing as mentioned in the column ordering rule name provided. If 'blank', the system performs the task prioritization based on default sequence.
task-search-loc-detr-mode	None User Determined System Determined	RF-Text: Execute {task}	Selection	If set to 'User Determined' or 'None' , default, the system will prompt for the user location after every completion of the task and also at the very beginning. If set to 'System Determined' , the system will store the last scanned location as the location where the user is.
task-type-desc-filter		RF-Text: Execute {task}	Text	Text can be configured with a valid task type description. If a transaction has this value populated with a valid task type description, then users will be prompted only with tasks that have the task type configured in the screen.
allow-unlisted-eligible-tasks	None Yes No	RF-Text: Execute {task}	Selection	Default value is blank, works the same as No. If set to 'None/No', WMS will not allow you to execute tasks not listed in the RF Execute Task screen. if set to 'Yes', WMS allows you to execute tasks not listed in the RF Execute Task screen. Note: When this parameter is set to 'Yes', validations other than task not listed in the RF execute task screen will still be enforced. For example, the user executing the task needs to

Parameter Name	Parameter Choices	Module	Parameter Type	Parameter Definition / Function
				be eligible, the task should be in ready status etc

Column Ordering Rule

In RF Execute task, you can use the task-prioritization-rule parameter to type a column ordering rule, and then the system performs the task sequencing you specified. If 'blank', the system will perform the task prioritization based on the default sequence.

Task Type Description Filter

The Task Type Description Filter parameter allows you to configure separate Task Types so that you are only getting the tasks you need.

For example, if you have the Task Type description pointing to REPLEN-LPN,CC-LOCATION-DTL, the system will filter tasks with Full LPN Replenishment type. If no tasks are determined for full LPN replenishment, then the message "no tasks found" displays. If multiple tasks are found, prioritization is performed using the current logic.

Note the following considerations when using the task-type-desc-filter parameter:

- You have to provide a task type description in the screen parameter value. During screen configuration, you can provide single or multiple task types.
- You need to configure valid task type descriptions, otherwise the system will display the error message "Invalid task type description filter configured" when user launches execute task screen.
- *task-type-desc-filter* works in auto assignment and non-auto assignment mode.

Auto-Assign Task Mode

You can Auto Assign tasks using RF **Execute Task**. The following explains the RF flow for RF Execute task when the **auto-assign-task** parameter is set to **Yes**:

1. The system picks up the first eligible task (In 'Ready' status) based on the task prioritization logic and launches the first screen for the task. Tasks are filtered based on the equipment type associated with the user and the task type description filter.

Note: Tasks that are in status "Processing Started" will not get displayed.

:

1. If no tasks are found, then the system displays the message "No more tasks". Once you accept the message, you are returned to the main menu.
2. If you enter CTRL-X or CTRL-W while performing task execution, the system goes back to the main menu.

When the RF Execute task **auto-assign-task** parameter is set to **No**:

1. The system displays the task pool with tasks prioritized based on existing task sequencing logic. Then you can go to the and select the next task you would like from the list.

2. Tasks that are in **Processing Started** status (where Modified User is the same as the Logged in user) are displayed.

Additional Task Filtering based on Location Scan

Task Determination By

If The Task Determination By parameter is set to **'Task Type'**, the system will prompt you to type a task type code. If this parameter is set to **'Task Description'**, the system will prompt you to type a task description.

You can enter multiple Task Types by comma separators.

Task Search Location Determined Mode

If the Task Search Location Determined parameter (task-search-loc-detr-mode) is set to **'System Determined'**, the system will keep the last location where the user was located. If set to **'User Determined'** the system will prompt you for the location after every completion of the task.

The following is an example user flow when the task-search-loc-detr-mode parameter is set to **'User Determined'**:

Let's say **Prompt for Location on Launch** is set to Yes, and the **Nearest Task to Search** is set to Area:

1. **Execute Task Screen** launches
2. You enter the location
3. You determine/select the tasks matching the scanned location's area.
4. After you complete the first task, the location prompt will display again.

The following is the user flow when the task-search-loc-detr-mode parameter is set to **'System Determined'**:

Let's say **Prompt for Location on Launch** is set to Yes, and the **Nearest Task to Search** is set to Area

1. **Execute Task Screen** launches
2. You enter the location
3. You determine/select the tasks matching the scanned location's area.
4. After you complete the first task, the system will determine the next task based on the last location you visited.

Prompt Location on Launch

The system will prompt you when you launch RF Execute Task to add the location. Then you can assign tasks to that location in the warehouse.

Nearest Task to Search By Parameter

The system uses the **Nearest Task to Search By** screen parameter to search for tasks at the next location of the task matching the user scanned locations Area/Aisle/Pick Zone.

Prioritizing Tasks

The following explains the RF Flow for RF-Execute Task when you need to prioritize tasks. When Task Ordering is blank, the system auto assigns and displays the task pool with tasks prioritized as follows:

If the company parameter **TASK_ORDERING_PRIORITIZE_CREATE_TIME** is set to **No**:

1. Task Status (including In Progress and Ready status) are listed in descending order. Tasks are listed where the modified user is the same as the logged in user.
2. Task Priority displays in ascending order
3. 'Task Assigned User'
 - Task assigned to person-a is not displayed to logged in user person-b
 - If the Task does not have any assigned user, check priority 4
4. Task Required Equipment Code displays.
 - The logged in User should have proper equipment eligibility to Execute the task
5. 'Next Location of Task' – displays in ascending order of the location pick sequence
6. 'Task.create_ts' displays with the oldest task first.

If company parameter **TASK_ORDERING_PRIORITIZE_CREATE_TIME** is set to **Yes**:

1. 'Task Status (including In Progress and Ready status) are listed in descending order. Tasks are listed where the modified user is the same as the logged in user.
2. Task Priority displays in ascending order
3. 'Task.Assigned User'
 - Task assigned to person-a is not displayed to logged in user person-b
 - If the Task does not have any assigned user, check priority 4
4. Task Required Equipment Code
 - The logged in User should have proper equipment eligibility to Execute the task
5. 'Task.create_ts' – displays with the oldest task first.
6. 'Next Location of Task' – displays in ascending order of the location pick sequence

Overview of Replenishment

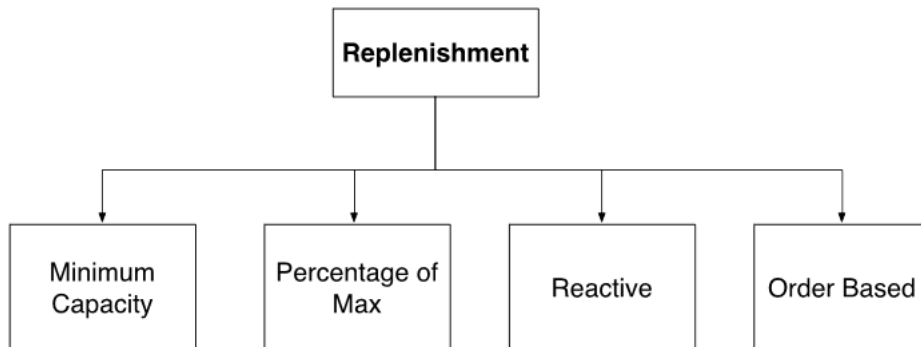
Short description: Replenishment is the movement of inventory from reserve storage locations to picking storage locations. The purpose of replenishment is to maintain adequate inventory levels to meet customer demand.

Some objectives of integrating Replenishment into WMS include:

- You can 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:



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.

Replenishment Template Modes

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

Additional Configurations Required Based on Replenishment Mode

Minimum Capacity:

Minimum 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.

Replenishment Trigger Mode *	Order Based Replenishment	▼
	Wave Search	WAVE SEARCH ▼
Percentage of Max	0	

Replenishment based on Expiry Date Range Rule

The replenishment allocation based on the Expiry date range rule allows you to fulfill your orders based on the rules set up.

You can configure expiry date range rules based on picking wave/standalone replenishment logic. The system will honor the expiry date range rule configured on the wave template or in the replenishment template respectively.

- If you have a picking wave with a replenishment rule configured, and your picking wave is also set up with an Expiry Date Range rule, then the system honors the expiry date range rule configured on the wave template while creating replenishment allocations.
 - Expiry Date Range configured on the Picking Wave Template will be used while searching for the source Inventory and while determining the actual replenishment need.
- If you are doing standalone replenishment, a new button, Expiry Date Range, is available in the Replenishment Template UI.

To configure Expiry Date Range in Replenishment Template

1. First, you need to create an expiry date range rule. Go to Replenishment Template View UI > click **Expiry Date Range** button.
2. Click (+) to create a new rule.
3. Go to details and define your criteria in the Expiry Range Header UI.

4. Configure your Expiry Date Range in Replenishment template from the Replenishment Template View UI.

The screenshot shows a configuration form for a Replenishment Template. The fields are as follows:

- Area: [Text Input]
- Template Name *: [Text Input]
- Replenishment Zone *: [Dropdown Menu]
- Replenishment Rule *: [Dropdown Menu]
- Task Creation Template *: [Dropdown Menu]
- Replenishment Trigger Mode *: [Dropdown Menu]
- Wave Search: [Dropdown Menu]
- Percentage of Max: [Text Input, value: 0]
- Allow Expired Inventory:
- Expiry Date Range: [Dropdown Menu]

The 'Expiry Date Range' field is highlighted with a red rectangular box.

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.
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.
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.
4. Click Save.

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 ($100 \times 0.2 = 20$), 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.

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.
 - For LPN replenishment, select “Full LPN Replenishment”.
 - For Cases replenishment, select “Cases Replenishment”.
 - For Units replenishment, select “Consolidate Replenish”.
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.
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.
5. Click Save

Note: To create a Secondary Allocation Method for **Replenishment Waves: (Allocations created for Replenishment to Reserve or Active)**:

1. Go to the Replenishment Template>Replenishment Rules>>Replenishment Rule Sequence.
2. Populate the secondary allocation method.

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.
- **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.

Step 5: Wave Inquiry

The Wave Group Inquiry 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.

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.
 - o To search for pending Replenishment tasks in the “Tasks” UI screen, click the magnifying glass and filter by the replenishment task type.
 - o **Note:** You can also search via the Run Number on the Wave Inquiry screen.
 - o To filter by replenishment tasks in the RF, press Ctrl-T and select the 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.

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: *here the user will be pulling the **entire LPN**, even if it isn't fully allocated.*

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:
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) _____
```

Note: 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.
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, you must make sure that both the Task Template and the Replenishment Rule have LPNs configured.

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.

Note: 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.
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.
4. If there are no LPNs remaining, the RF displays a message saying “No more tasks”. Press Ctrl-A to proceed.

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.

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.

Note: 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. 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.
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.
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”:
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.
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.

- When all locations in the task have been replenished, the RF will return to the Task list.

Scenario 4: Units Replenishment, Consolidate and Distribute

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.

- Upon entering the task, the RF prompts you to "open" an IBLPN. This is the 'dummy' LPN that is used to carry the picks.
 - Note:** 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.
- 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.
- The RF now asks you to begin picking units from the first picking location, prompting you to scan the Item code and quantity.
- 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".
- 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.
- 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.
- When all locations in the task have been replenished, the RF will return to the Task list.

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."

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.

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.

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.

Manage Movement Requests

The Movement Requests UI makes it simpler and easier to handle internal warehouse movements by tracking how you move materials around your warehouse. If you need to move materials from certain areas to assembly areas or from one area to another, Movement Request will tell you , how much inventory you need to move, and where you need to put your inventory

Some useful examples for Movement Requests in WMS include:

- Assists you in delivering required items to the assembly area when Work Orders are released by manufacturing.
- Handle internal warehouse movements like locked batches to the recall area.
- Handle slotting movements for moving LPNs/Skus from one location to another due to better positioning of the products to cater for changing demands.

Movement Request Header

In the “Movement Request Header” UI, you can track/view your Movement Request and perform CRUD Operations on Movement Request Entity.

To enable the Movement Request Header UI, add the following Group Permissions:

- movement_request/can create movement request
- movement_request/can edit movement request
- movement_request/can delete movement request

To enable movement request status updates, make sure that the **Replenishment Template** UI has the replenishment trigger mode set as "Movement Request Based Replenishment."

The header section of this UI contains the following information:

UI Column	Required	Comments
movement_request_number	Yes	WMS Entered/Passed or Auto Generated number. Accepts letters or numbers

UI Column	Required	Comments
company_code		Display the company code in the movement request UI
facility_code		Display the facility code in the movement request UI
movement_type	Yes	Drop down list from available Movement Types. For more details look at the movement type section below.
status	Yes	Options: <ul style="list-style-type: none"> • Created • Partly Allocated • Allocated • In Picking • Complete • Cancelled
external_movement_request_nbr		If Movement Request is initiated through Fusion Inventory or any other ERP System, erp_movement_request number will be passed
priority	Numeric	Useful for prioritizing across different movement requests. Can be defaulted to 0 if priority is not specified.
Custom fields 1 to 5		Related custom fields.
Custom decimal (1 to 5)		Custom fields supporting decimals
Custom Date (1 to 5)		Custom fields supporting Data time values
Cust short text(1 to 12)		Short Text fields
create_user		Create User
mod_user		Mod User
create_ts		Create Timestamp
mod_ts		Mod Timestamp

From the **Movement Request Headers** UI, you can manage the From/To Movement Request Status:

When you are creating Movement Request Details:

- Movement request detail provides SKU and quantity information to be picked and delivered.
- Movement request detail can contain a destination zone or destination location. If the destination zone is provided, replenishment logic will pick the location within the specified destination zone.

Movement Type

The Movement Type UI allows you to configure Movement Types. This screen allows CRUD operations. Movement Types are a great way to differentiate between types of moves in the warehouse. This will help you to identify movements like some could be for component movements to assembly work stations or movements to handle recalls.

Movement Type will help in segregating the needs and also gives a good selection criteria for filtering different kinds of movement while subjecting for Replenishment Wave Runs.

The detail section of the Movement Type UI will contain the following information:

UI Column	Required	Comments
Movement Type	Yes	Movement Type
Description	Yes	Description
allow_partial_allocation_flag		If enabled, it will allow partially allocating movement request
Only Deallocate on short		If enabled, the system will decrement the movement request quantity upon performing shorting. Note: This is required for future usage. It will be used while shorting picks against relevant movement requests.

From Input Interface

Movement Request is now an option in the Input Interface UI. This will allow external systems to create bulk Movement Requests. The interface will accept XML format.

A new Movement Request Interface Stage sub-UI is now available, and it will show you all the movement requests that have been processed and their correct status. It provides another way for you to manage movement requests. You can view the interfaced movement request records that are in staging, view the status of the interfaced requests and details on errors (if any.)

In the **Input Interface** UI, you also have the option to create or delete a movement request with one or more details by uploading a movement request file (xml and flat files are supported.)

Create/Delete Movement Request Through Init Stage Interface API

You can also create or delete a Movement Request via the Init Stage Interface so that the movement requests created in Oracle Fusion/Manufacturing or any external manufacturing systems can be interfaced with Warehouse Management and the movement requests are created.

Sample Request URL

```
//intqa.wms.ocs.oraclecloud.com/lgf_21d_qa/wms/api/init_stage_interface/
```

Additional Details about Init Stage Interface:

- The movement request entity will process in both synchronous and asynchronous mode (async can be true or false).
- Both xml and flat files are supported.
- The only action codes currently supported are CREATE and DELETE at the movement request header level.
- Multiple movement requests can be provided in a single payload.

- If a single movement request has multiple details, the system will process the movement request only if all details successfully pass validations.
- Numbers are generated in Warehouse Management Cloud for the external movement request interfaced based on the movement request number interfaced from ERP/Manufacturing/any other external system.

Note: if there are errors with some of the movement requests in the passed data, only the movement requests with errors should not get processed. The rest of the movement requests should be created/deleted based on action code.

Configure and Manage Movement Requests via Replenishment Waves

You can configure and manage movement requests in the Replenishment Template UI. The replenishment wave will create tasks and tell you where to move the materials associated with movement requests.

Replenishment Trigger Mode

In the Replenishment Template UI, you can configure a new **Replenishment Trigger Mode** for movement requests. If Movement Request based replenishment is selected as the Trigger Mode, then the Replenishment logic will only search for eligible movement requests.

Area

Template Name * SA_MOVREQ2

Replenishment Zone * SHREPZONE2

Replenishment Rule * SA_Rule6

Task Creation Template * SA Full LPN Replenishment

Replenishment Trigger Mode * Movement Request Based Replenishment

Wave Search

Percentage of Max 0

Allow Expired Inventory

Expiry Date Range

Movement Request Sequence Rule SAMOVREQ1

Movement Request Search Rule SAMOVSEARCH1

Also, when you select **Movement Request Based Replenishment** as the **Replenishment Trigger Mode**, the option to select a “Movement Request Search Rule” and “Movement Request Sequence Rule” becomes enabled and allows you to select Movement Request Searches and Movement Request Sequence Rules you have previously created.

Movement Request Search

When you are fulfilling movement requests through waves, you can now configure a search using the new action button Movement Request Search based on movement request related fields and filter based on a combination of fields. This allows you to filter any relevant movement requests to be processed at a given time.

In the **Replenishment Template** UI, you can now create movement requests using the Movement Request Search action button.

Movement request related fields added in Movement Request Search - Selection Criteria

- In the **Replenishment Template** -> **Movement Request Search** UI, selection criteria button is available
- In the selection criteria, movement request related fields are added and allow you to define criteria with them
- In the selection criteria, common fields related to item entity are available and can be used with movement request fields to configure selection criteria

Movement Request Sequence Rule Action Button

The Movement Request Sequence Rule button (in the Replenishment Template UI), allows you to configure rules in a pre-defined sequence, in order to prioritize fulfillment of movement requests. From the create/edit/copy pane of the **Replenishment Template** >> **Sequence Rule**, “Dynamic Movement Request Search” is added in the **Template Type** drop-down as an additional option to define sequence rules.

Inventory History Transactions (IHTs) for Movement Request Status Changes

Whenever a movement request status changes, Warehouse Management Cloud creates an Inventory History Activity 88-Movement Request Status Change and IHT-89 Movement Request Detail Status Change so that it can be picked up by external systems/ERP systems/slotting systems to make any necessary actions. You can view the history activity in the **Inventory History Activity Parameters** UI.

Note: Standalone replenishment always replenishes to a permanent location. If the Replenishment Trigger Mode is set to “Movement Request Based Replenishment” you can now replenish to dynamic locations also.

Warehouse Management can replenish to a particular location (has to be type active) via the Replenishment Trigger Mode field. In the Movement Request Detail UI detail, the destination replenishment zone can be permanent or dynamic.

In the Replenishment Template View ->Replenishment Rules action button, the following is also supported:

- round up one uom
- Consolidate and distribute replenishment

Note: Ignore capacity for last permanent location will not be supported for movement request replenishment.

In the Replenishment Rules ->**Replenishment Rule Sequence**, all allocation methods are supported (for example, First in First Out, Last in First Out.) Also, all types of Replenishment UOM (LPNs, Cases, Packs, and Units) and Consolidate and Replenishment are supported.

The corresponding replenishment related Task Types (for example, Consolidate-Replenish, Replenish-LPN, Replenish-Cases) can also be used for movement request.

If you want to run cancellation waves, you can do this in the Replenishment Template View UI via the following fields:

- Cancel Partially Allocated – will cancel partially allocated part of movement request line
- Cancel Fully Allocated – will cancel corresponding unallocated part of movement request line

Movement Request Status Updates

Now, when movement requests are fulfilled through standalone replenishment, in the **Movement Request Detail** UI, the respective status of movement requests is updated to "Partly allocated" or "allocated", depending on the allocation done. The following table details the status changes that will happen depending on the scenario:

UI	Status Changes To
Movement Request Detail	<ul style="list-style-type: none"> • "Partly Allocated" - when there is some quantity allocated for the movement request detail but it is less than the movement request detail required quantity • "Allocated" - when the quantity allocated is same as the movement request detail required quantity • The Allocated quantity in the respective Movement Request Detail will be updated
Movement Request Header	<ul style="list-style-type: none"> • "Partly Allocated" - when any one of the movement request details associated with that movement request header are partly allocated or allocated • "Allocated" - when all the movement request details associated with that movement request header have a status of "Allocated"

Replenishment with Picking Wave

Oracle WMS Cloud supports replenishment via Picking Waves. Upon performing replenishment, the system recognizes the location to allocate the inventory based on the Replenishment Rule Configured in the Wave Template.

This type of replenishment is called Order Based, as it is making sure that the Orders picked by the wave are getting fulfilled. So, if there is no sufficient inventory in the source location for users to pick and satisfy the order need, the system will replenish those locations. The system first tries to replenish permanent (Locations that have an Item Assignment type field as Permanent), and if there is no enough capacity, then the system will replenish to a dynamic active location.

Note: Replenishment with a picking wave is supported from Reserve to Active and Active to Active only.

Supported Location

Location	Lean Time Replenishment	Replenishment with Picking Wave
Permanent Active	Yes	Yes

Location	Lean Time Replenishment	Replenishment with Picking Wave
Dynamic Active	No	Yes
Permanent Reserve	Yes	No
Dynamic Reserve	No	No

Configuration for Picking Wave-based Replenishment

To configure Replenishment to dynamic locations, you'll need to do the following: :

1. Set up Replenishment Type
2. Set up Replenishment Type to Replenishment Zone
3. Configure the Allocation Location
4. Set up Replenishment Rule in Wave Template
5. Run the Replenishment Wave
6. Execute Allocation tasks to Replenish inventory to active locations.

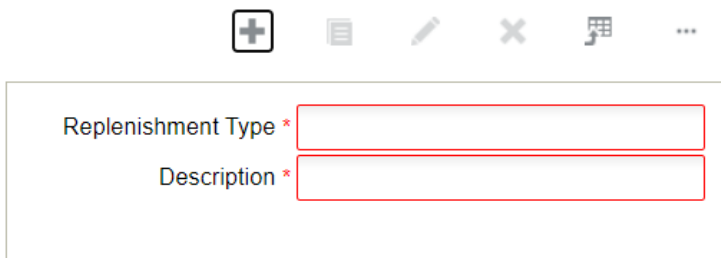
Set Replenishment Type

The Replenishment Type (Replen-type) is used for finding locations. You should create a replenishment type on the item defined at the company level.

Note: There can be similar replenishment types created across companies. Based on the login context, the system will show the replenishment types by company code.

Before you configure the Replenishment Type on the item facility, you need to define the type.

Define the replenishment type from the **Replenishment Type** UI > Click **Add** and enter the details as below:



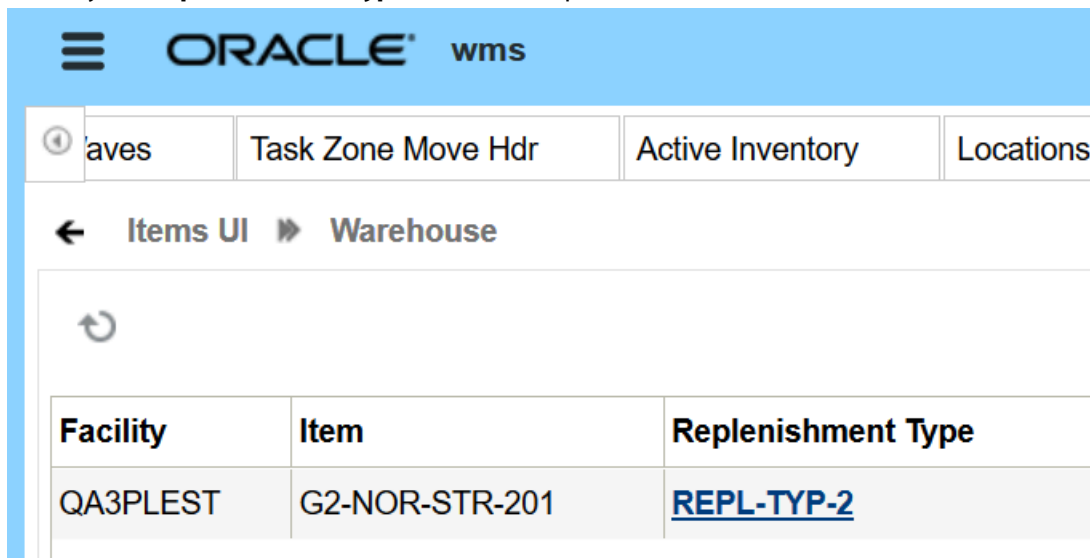
The screenshot shows a UI for adding a new Replenishment Type. At the top, there is a toolbar with icons for adding (+), listing, editing, deleting, and a menu. Below the toolbar is a form with two input fields, both marked with an asterisk (*). The first field is labeled "Replenishment Type *" and the second is labeled "Description *".

To configure the Replenishment type on the UI:

Note: You can also interface Item facility to associate replenishment type (replen_type).

1. Go to the **Item** UI > Click the **Warehouse** icon.
2. Select the item or Click **Add** to open the item configuration pane.

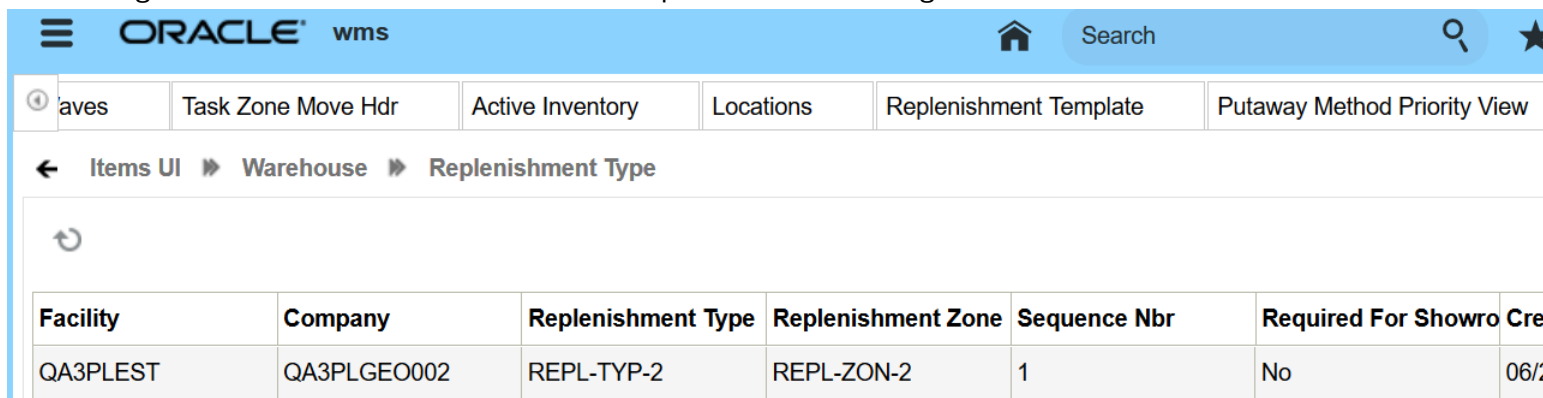
3. Select your **Replenishment Type** from the drop-down menu and click **Save**.



Replenishment Type to Replenishment Zone

As the system searches the Replenishment Type for the item. You need to establish an association between the replenishment type and the replenishment zone by defining the sequence number.

This configuration is helpful as items classified with similar replenishment type will be assigned to similar locations which do not have permanent items assigned.



Setup Replenishment Zone

Before you configure the replenishment zone in a location, you need to create a replenishment zone and associate it to the active location:

To create Replenishment Zone.

1. Go to the **Replenishment Zone UI** > Click **Add** .

2. Enter the **Code** and **Description** for the Replenishment Zone.

Code *

Description

3. Click **Save**.

Associate Replenishment Zone to the Dynamic Location

1. Go to the **Locations** UI.
2. Create an active location and associate the **Replenishment Zone**.

Facility	Dedicated company	Type	Display text	Barcode	Replenishment
QA3PLEST	QA3PLGEO002	Active	ACT-NOR-100-D-52	ACTNOR100D52	REPL-ZON-2
QA3PLEST	QA3PLGEO002	Active	ACT-NOR-100-D-40	ACTNOR100D40	REPL-ZON-2

Now, configure your replenishment zone and sequence number in your **Item > Warehouse > Replenishment type** UI, click **Replenishment Type** hyperlink and configure your **Replenishment Zone**.

Facility	Item	Replenishment Type
QA3PLEST	G2-NOR-STR-201	REPL-TYP-2

Configuring Allocation Location

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

1. In the **Wave Template** screen > click on the **Allocation Mode** button. This will route you to the list of Allocation Modes available for the current company.

Note: Make sure you are at the correct company view before proceeding.

2. Create a new Allocation Mode with the **Create** button.
3. Enter its details with the **Details** button .

4. Create the sequence of allocation UOMs desired for the Wave Template.

Allocation Mode

Sequence Nbr *

Location type *

Restrict area

Restrict alloc zone

Allocation UOM *

Cartonize UOM

Alloc Distribution Mod *

Allocation Method

MHE System

Ignored order detail attribute list

Attribute A
Attribute B
Attribute C
Attribute D

Include Multi-Sku LPNs

5. Click “Save”.

Note: You need to set the **Location type** as **Active** because the Allocation happens only from active and items are picked from the active location.

Replenishment Rule in Wave Template

After defining your replenishment type, you need to define the replenishment rule in the Wave template. Before you configure the allocation location type, you need to the define the replenishment rules.

1. Go to the **Replenishment template** UI > **Replenishment Rules** button.
2. Click Add and define the Replenishment Rules.

Facility	Rule Name	Destination Location	Capacity Check Meth	Ignore Allocated Qty	Ignore Capacity for L	Ignored
QA3PLEST	Cons & Reple - Resv	Active Only	Units	No	No	

3. Go to details and define the Allocation Location type, Allocation method, replenishment UOM type, and so on.

Replenishment Rule	Sequence Nbr	Allocation Location Type	Restrict area	Restrict alloc zone	Allocation Method	Replenishment UOM	Consolidate and
Cons & Reple - Resv	1	Reserve			Quantity descending	Units	Yes

4. Click **Save**.

To perform replenishment with a picking wave, go to the **Wave Template UI**. Select the Wave Template where you'd like to assign a Replenishment Rule and edit the Replenishment Rule with the Rule of your choice.

Template Name	Allocation Meth	Allocation Mode	Reuse LPN NBF	Wave Search
JP_REPLEN	Last In First Out	JP_ALLOC RE	No	JP WAVE SE...
Reple with pick - Reserve Units	Quantity desc...	G2_ALLOC UNI	No	Search by or...
Reple with pick - Reserve Packs	Quantity desc...	G2_ALLOC UNI	No	Search by or...
Reple with pick - Reserve Cases	Quantity desc...	G2_ALLOC UNI	No	Search by or...
Reple with pick - Reserve LPNs	Quantity desc...	G2_ALLOC UNI	No	Search by or...

Workflow of Replenishment with Picking Wave

When replenishment is run with a picking wave, the system first identifies the order need. After the order need is determined, the system checks if the locations have the inventory. If the selected SKUs are available to satisfy the order need, then the system does not proceed with the replenishment process. However, once the need for replenishment is determined, the system looks for the source location by giving priority to the permanent locations. If the permanent location's capacity is fulfilled, then the system finds a dynamic location to replenish.

1. You need to configure the **Replenishment Type** on the item facility and a search sequence by Replenishment type to **Replenishment Zone** configuration. This provides flexibility to set similar items together while assigning them to dynamic locations.
 - a. Define capacity checks to assess how much can be replenished.
 - b. On assessing the capacity, the system performs the capacity check based on the configuration you select. You can choose to perform capacity check based on any of the following methods:

Rule Name *

Destination Location Type * Active Only

Capacity Check Method *
 Units
 Volume, Fall Back to Units
 Weight, Fall Back to Units
 Volume, Weight, Fall Back to Units

Ignore Allocated Qty

Ignore Capacity for Last Permanent Location

Ignored order detail attribute list

Perform Critical Dimension Check

Round Up One Uom

- c. Upon assessing the capacity for reserve locations to perform replenishment, the system performs max volume and weight check, max units, and max LPN's check.
2. The **Replenishment Rule** associated to a wave template indicates the system to search for any replenishment opportunities.
3. On running the wave via a **Wave Template**, the system creates the replenishment allocation first based on the replenishment rule and then proceeds with the allocation phase.
4. Typically, replenishment with a picking wave will always replenish to locations defined in allocation mode sequences for the wave template. Therefore, its crucial to configure the **Allocation Mode** in the Wave and

define the picking locations. This provides flexibility for users to replenish locations where the picking takes place.

5. After completing the Order selection phase, the system determines the total need required for each distinct SKU based on the Wave Search criteria in the Wave template. Then system calculates the required quantity needed to be replenished after considering the available inventory for each SKU in the locations. The system calculates the available inventory for the location as (In-transit + Current – Allocated).
6. If there is a need to replenish, the system first searches for permanent active locations for the SKU. The source locations of the SKU are fetched based on the replenishment rule and the destination permanent locations will be picked from the allocation mode sequence.
7. If **Permanent Active Locations** are full, then the system will search for **Dynamic Active Locations** for the SKU with inventory. Based on the location pick sequence, the available locations will be identified
8. After replenishing SKUs to permanent location is complete and if there are no further outstanding needs, the replenishment for dynamic active locations will be invoked. Replenishment of dynamic active locations will be done until the order need is satisfied.
9. On completing the replenishment phase, as part of the allocation phase, the system will provide the facility to allocate SKUs from In-Transit Inventory to the location. This allocated quantity is from the source location and apart from current quantity.
10. As part of the task creation phase, the system will create replenishment tasks, along with the picking tasks. There will be a single task creation rule for the wave template.

Replenishment via Picking Wave Examples

Scenario 1

- Orders need =150
- Replenishment UOM is units
- Locations have the following capacity

Config-1

Location	Type	Min	Max	Current Qty	Capacity
A001	Permanent	20	200	20	180
A002	Dynamic	20	200	0	200

The system first looks at the Permanent location. Replenishment with Picking Waves is based on order need, so the system will replenish until it meets the order need requirement. In the above case, the max capacity is 200, the Current Qty =20, and the available capacity is 180, and UOM is units

Therefore, after replenishment phase is complete, the system allocates 130 (in-transit) units where the order need of 150 is satisfied (Current + In-transit).

Output

Location	Type	Min	Max	Current Qty	In-Transit	Capacity
A001	Permanent	20	200	20	130	50

Location	Type	Min	Max	Current Qty	In-Transit	Capacity
A002	Dynamic	20	200	0	0	200

Note: When replenishing via a Picking wave, the system only replenishes up to order need and NOT up to the maximum capacity.

Scenario 2

- Orders need =150
- UOM is units
- Locations have the following capacity

Config-2

Location	Type	Min	Max	Current Qty	Capacity
A001	Permanent	20	200	120	80
A002	Dynamic	20	200	0	200

Here, the permanent location has a capacity of 80, and to fulfill the order you only need 30 more units. Therefore, the system will replenish up to 30 in location - A001. The system does not consider the Dynamic location as everything can be assigned from the Permanent Location.

Output

Location	Type	Min	Max	Current Qty	In-Transit	Capacity
A001	Permanent	20	200	120	30	0
A002	Dynamic	20	200	0	0	200

Scenario 3

- Orders need sums up to be 150
- UOM is units
- Locations have the following capacity

Config-3

Location	Type	Min	Max	Current Qty	Capacity
A001	Permanent	20	100	100	0
A002	Permanent	20	100	100	0

Location	Type	Min	Max	Current Qty	Capacity
A003	Dynamic	20	120	50	70
A004	Dynamic	20	120	80	40
A005	Dynamic	20	120	80	40

Here, the permanent locations (A001, A002) do not have any capacity in them. Therefore, the system replenishes items to dynamic locations – A003, A004, and A005.

Output

Location	Type	Min	Max	Current Qty	In-Transit	Capacity
A001	Permanent	20	100	100	0	0
A002	Permanent	20	100	100	0	0
A003	Dynamic	20	120	50	70	0
A004	Dynamic	20	120	80	40	0
A005	Dynamic	20	120	80	40	0

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

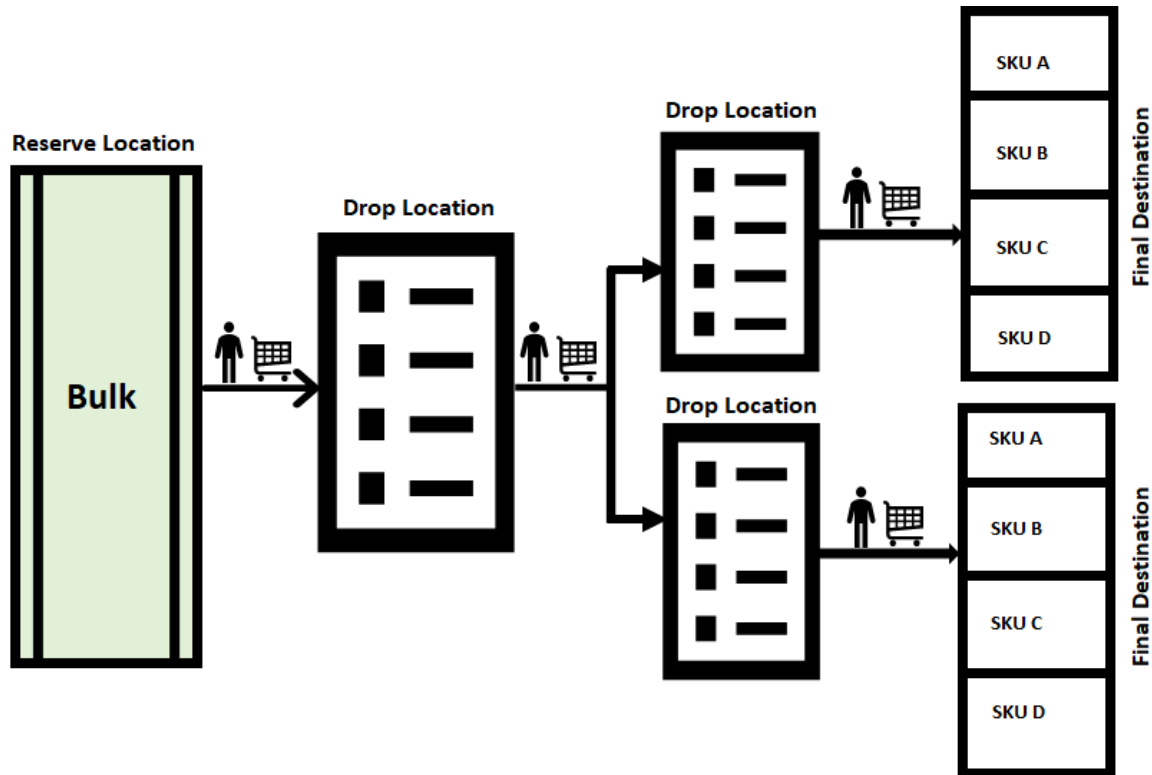
Multi-Level Replenishment allows users to keep destination locations (final destination location /pick face) constantly stocked with products, so that pickers can efficiently fulfil orders without waiting for the system to replenish inventory when available.

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 below.

Note: The below pictorial representation describes replenishment for more than one location. Users can create any number of hops to replenish the inventory.



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.

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.

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:

The screenshot displays the Oracle WMS interface for 'Task Zone Movement Header'. The main area contains a table with the following columns: Rule Hdr, Equipment Type, Next Zone, Sequence Nbr, and Last Record. The table is currently empty. To the right of the table is a form with dropdown menus for Rule Hdr, Equipment Type, Next Zone, and Sequence Nbr. Below the form are buttons for Save, Cancel, Save/New, and Reset. At the bottom of the interface, it shows 'Time Zone: CET', 'Rows Per Page: 25', and 'Retrieved 11/05/2018 9:00:42 AM 1 / 1 Pages'.

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.

The screenshot shows the Oracle WMS interface for configuring Task Types. The main table lists several task types for facility QA3PLEST. The configuration panel on the right shows the following details for a selected task type:

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

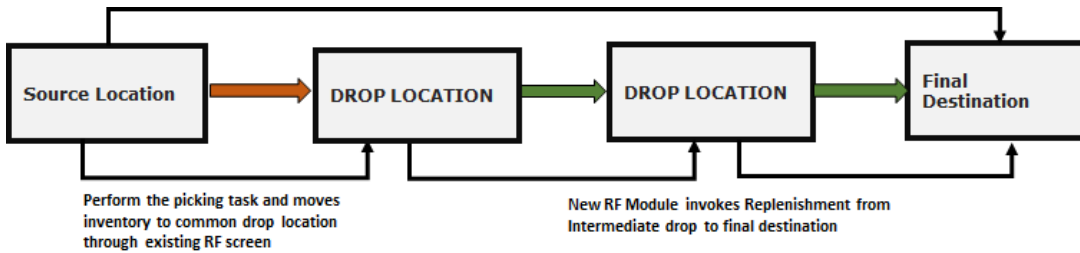
Configuration Panel Details:

- Allocation Type: Internal Bulk Pick
- Task type: CONSOL_REPLEN
- Description: Consolidate Replenish M-Drops
- pltmv_autopk_dest_check:

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:



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:
 - o If the source location has inventory to satisfy the need/demand of supply in destination location.
 - o Once inventory is available in the source destination location, the system prioritizes which location to replenish first based on the following filter:
 - o If the filter criteria is set to current quantity \leq 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.

Parameters	Description
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

Prompt Serial Number during Work Order Kit Processing in RF

The RF Work Order Kit processing transaction supports serial number scanning. After assembly operations, you can associate serial numbers to the Parent Item/Kit Item Assembled. Serial Numbers can be associated to Parent/Kit items after assembly. You no longer need to take the additional step of associating serial numbers through the UI.

The RF Work Order Kit Processing transaction prompts serial numbers when the kit item is tracked and the appropriate serial tracking mode at the company level is enabled. And, when you scan the kit item, you are prompted for the serial numbers after entering the item quantity.

Note: Applicable only for prompting of serial numbers for parent items. Detailed kitting is not supported in Oracle Warehouse Management. Also, IHT - 69 Kitting Complete will be broken down by serial number.

If you are doing assembly of the kit, the flow is:

- Serial number prompt screen is displayed for Work Order of Make to Order type when:
 - The parent item has the required_serial_number field set to 'Required, don't validate' or 'Require, Validate Allow User Override'.
 - The company parameter 'serial_number_tracking_level' set to value '1' or '2'.
- Serial number prompt screen is displayed for Work Order of Make to Stock type when:
 - The item has the required_serial_number field ? set to 'Required, don't validate' or 'Require, Validate Allow User Override'.
 - The company parameter 'serial_number_tracking_level' set to Mode "2".

If you are doing dis-assembly of the kit, the flow is:

- The floor user receives the serial number prompt and validation to make the Stock flow when:
 - The parent item being disassembled has required_serial_number prompt? set to 'Required, don't validate' or 'Require, Validate Allow User Override'.
 - The company parameter 'serial_number_tracking_level' set to Mode '2'.

Note: The scrap percentage will not have any impact on the serial prompt for the KIT items. Serial numbers are not prompted for the underlying child items/components consumed as part of kit operations and also serial numbers will not be prompted for child components created as part of the disassembly operation.

Configure 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.

1. From the Replenishment Type UI, create a Replenishment Type for kitting.
2. Create a Replenishment Zone for kitting.

3. Tie the Replenishment Type with the Replenishment Zone.

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

4. Parent and child items need to be pre-defined along with the pre-pack ratio.

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

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.

In Item Facility view for the parent item, add a new record and select the Replenishment Type that was created in step 1.

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.

Note: 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.

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.

Note: 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 or they can be created manually using Work Order view.

Work Order Creation

The Work Order Type described in *Configure 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.

This Work Order has been interfaced (or created) to assemble three units for parent item P1.

Items	Order Types	Work Order Inquiry View	Work Order Types	Work Order Wave Template View	Replenishment Type	OBLPNs	Replenishment Zones
-------	-------------	--------------------------------	------------------	-------------------------------	--------------------	--------	---------------------

← Work Order Inquiry View ▶ Work Order Kit

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	

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.

Items	Order Types	Work Order Inquiry View	Work Order Types	Work Order Wave Template View	Replenishment Type	OBLPNs	Replenishment Zones
-------	-------------	-------------------------	------------------	--------------------------------------	--------------------	--------	---------------------

Work Order Wave Template View

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

The Work Order Template Search needs to have the right criteria to select the required Work Order.

WMS offers multiple replenishment options. In this example, the rule is defined to pull full LPNs (with child items) from reserve locations.

Items	Order Types	Work Order Inquiry View	Work Order Types	Work Order Wave Template View	Replenishment Type	OBLPNs	Replenishment Zones
← Work Order Wave Template View ▶ Inventory Allocation Mode ▶ Inventory Allocation Mode Sequence							
+ [] []							
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

...and a corresponding Task Template to create Full LPN Replenishment tasks.

Expiry Date Range in Work Order Wave

To configure Expiry Date Range rule in your work order wave template, you need to set up rules and instruct the system to allocate the components that are used for the assembling process. These components are then placed at a specific location based on the expiry date range rule defined on the template.

To define the expiry date rule for your work order

1. Go to Work Order Wave Template and click the **Expiry Date range** button to create new expiry date rule name, description and, add the corresponding rules with date range and sequence numbers.

2. On the Expiry Date Range UI, you can define the rule name and description. The Expiry Range Header UI has following fields:

Expiry Date Range Header:

- o Rule Name
- o Priority
- o Criteria-1 to 6
- o Value-1 to 6
- o Expiring After (in days): Number of days in numeric value.
- o Expiring before (in days) : Number of days in numeric value.

The screenshot shows a form with the following fields: Rule Name (dropdown), Priority (text), Criteria-1 (dropdown), Value-1 (text), Criteria-2 (dropdown), Value-2 (text), Criteria-3 (dropdown), Value-3 (text), Criteria-4 (dropdown), Value-4 (text), Criteria-5 (dropdown), Value-5 (text), Criteria-6 (dropdown), Value-6 (text), Expiring after(in days) (text), and Expiring before(in days) (text).

3. Go to for Work Order Wave Template UI.
4. Add the expiry date range rule to the work order wave template and click Save.

The screenshot shows a form with the following fields: Template Name * (text), Work Order Wave Template Searches * (dropdown), Inventory Allocation Mode * (dropdown), Task Creation Template * (dropdown), Cancel Unallocated (checkbox), and Expiry Date Range (dropdown). The Expiry Date Range field is highlighted with a red box.

Note: The expiry date range rule is limited to allocation of components within the expiry date range configured in the work order wave template. That is, the work order will not consider the excess quantity of the components available at the assembly location. The work order wave always considers to replenishes new components for assembly process.

For example

Location	SKU	Group Code	Quantity	Expiry Date
ASSM01	KIT01	Sandwich	25	
RES_LCR1	COMP01	Bread	25	05/July/2021
RES_LCR1	COMP02	Jam	25	15/July/2021
RES_LCR1	COMP01	Bread	50	25/Aug/2021
RES_LCR1	COMP02	Jam	75	4/ Sept/2021

Let’s say, you create a work order for KIT01 with 25 units and you subject the work order for allocation using a work order wave template with following configurations:

- Assembly location ASSM01
- Components to be allocated from RES_LCR1
- Expiry date range rule: Group: Code Bread, Sandwich, Jam, Expiring Before: 20 days, Expiring After 2 days

When you run the work order wave template on date (28/June/2021), then based on expiry date range rule, component inventory having expiry date of range (30/June/2021 to 18/July/2021) will be eligible.

As the order needs 25 units, the system allocates COMP01 and COMP02 of 25 units each honoring the expiry date range. That is, the system allocates inventories (COMP01 - 25 units - Exp Date (05/July/2021)) & COMP02 - 25 units - Exp Date (15/July/2021) from location "RES_LCR1".

Inventory

Ensure that there are LPNs in reserve locations with enough child units.

Replenishment Zones
 Reserve Inventory
 Locations
 Companies
 Users
 IB Shipment
 Input Interfaces
 Order Header
 Task Types

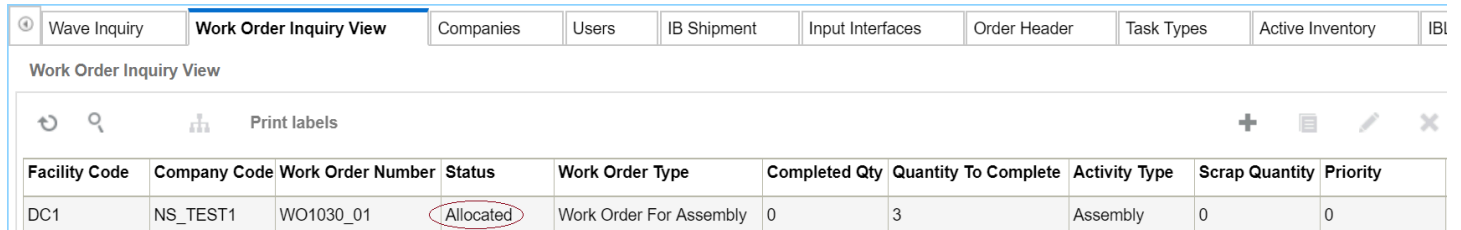
Reserve Inventory

Loc type	Loc area	Item	Is Parent	Alternate Item C	Item Description	Current Qty	Current Child Units	Allocated Qty	Alloc Qty Child	Curr lps
Reserve	R	C1	No	C1	Child 1	6	6	0	0	1
Reserve	R	C2	No	C2	Child 2	6	6	0	0	1
Reserve	R	Cruiser bike	Yes	Cruiser bike	Cruiser bike	4	28	0	0	1

Wave Run

Run the wave from the Work Order Wave Template View screen.

From the Work Order Inquiry View screen, the Work Order displays in Allocated status.



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	Allocated	Work Order For Assembly	0	3	Assembly	0	0

Tasks are created to replenish child items from a reserve location to an assembly location.

Replenish to Assembly Location

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. Move and Replenish contents of the LPNs to the assembly location

```
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
```

The assembly location now has enough units of child items (C1 and C2) to build 3 units of parent item (P1). From the Work Order Inquiry View UI, the Work Order is now in 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
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
```

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. You can use Ctrl-T to view the ratio of the child items that are required to assemble the parent items.

From the **IBLPN** screen, the Inbound LPN with the assembled parent items displays in Received status, and can be putaway to a reserve location. You will see in the **Work Order Inquiry View**, that the work order is completed.

From the **Inventory History** screen, you can see the Inventory History for the work order.

Palletize and Cartonize LPNs during Kitting

In “Make to Stock/Order” scenarios where you are assembling standardized kits, instead of being prompted in the RF to assemble one LPN at a time, you might prefer to enter the number of LPNs created along with the quantity per LPN. Also for standardized kits, you might want to palletize the LPN’s created so that the number of scans are reduced in downstream operations. You can do this with the following three new parameters available in the RF Work Order Kit Processing (rf.outbound.cwrfprocessworkorderkit) module:

Parameter Name	Parameter Choices	Behavior
prompt-pallet	Non Yes No	When set to yes, Pallet Prompt will be displayed right before LPN Scan. When set to No, pallet prompt will not be displayed. This parameter can be set to “Yes”, to perform palletization of Inbound/Outbound LPNs during the kitting process.
lpn-prompt-behavior	None Auto Generate Enter LPN Count	If set to none, you are asked to confirm the LPN. If set to Auto Generate, the LPN prompt will not display and the system will auto generate the LPN. If set to Enter LPN Count, the system displays the LPN count and quantity per LPN field.
Print-lpn-label	None Yes No	Now users will be able to print labels for inbound LPNs created as part of the assembly process. Applicable for printing Inbound LPN Labels only. If set to Yes, the application will print inbound labels upon entering the LPN count and after the quantity per LPN and validation for the entered quantity is successful.

Note: lpn-prompt-behavior (when set to Enter LPN Count) is applicable only during the Assembly Process. lpn-prompt-behavior when set to Auto Generate will be applicable for both kitting and de-kitting process.

The following is the flow when the “prompt-pallet” parameter is set to Yes:

- After you scan the work order number or assembly location, the “prompt-parameter” displays.
- You’ll scan a new pallet or existing pallet to proceed.
- The scanned pallet number displays in the **Sku Quantity Entry** (Inbound LPNs) for Make to Stock flow (Pallet number displays in **Sku Scan Mode** if you are doing Make to Order (Outbound LPNs) flow.)
- Press the **CTRL-O** Hot key to end the pallet.
- Upon completing the assembly operation, the inbound LPNs or outbound LPNs are now associated to the scanned Pallet.

In addition, the new “lpn-prompt-behavior” parameter allows you to autogenerate the LPN number to save time during kitting. When you have lpn-prompt-behavior set to Auto Generate, the system will just autogenerate the LPN numbers and the user won’t have to scan them or print blind labels.

To enable palletization behavior:

1. From the **Work Order Kit Processing** module, set the **prompt-pallet** to yes.
2. To print the inbound LPN label, set **print-lpn-label** to yes.
3. To perform palletization and create a specified number of standard LPNs, set **prompt-pallet** to "yes" and **lpn-prompt-behavior** to "enter lpn count."
4. To perform palletization and auto generate LPNs, set **prompt-pallet** to "yes" and **lpn-prompt-behavior** to "Auto Generate."

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 is described in step 7 in the *Configure Kitting Process* section.

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

Interfaced Work Order 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

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

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

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.

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.

This Work Order has been interfaced to dis-assemble three units of parent item P1.

ions	Work Order Inquiry View	Tasks	Screens	Input Interfaces	Work Order Types	Inv History	OBLPNs	Facilities	Order Header
← 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	WO1107_01	P1	P1	Parent Item 1	3	3	0	

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.

ions	Work Order Inquiry View	Tasks	Screens	Input Interfaces	Work Order Types	Inv History	OBLPNs	Facilities	
← Work Order Inquiry View ▶ Work Order Kit ▶ Work Order Component									
Work Order Number	Kit Item Codes	Item	Item Description	Kit Item Quantity	Child Units	Converted Child Units	Scrap Percenta	Original Requir	Required Quant
WO1107_01	P1	C1	Child 1	3	2	2	0	6	6
WO1107_01	P1	C2	Child 2	3	2	2	0	6	6

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.

ions	Reserve Inventory	Work Order Types	Inv History	OBLPNs	Facilities	Order Header		
← Reserve Inventory ▶ Curr lpns								
Deallocate LPN Delete LPNs								
Facility	Facility Name	Display text	LPN Nbr	Status	Item Code	Item Description	Current Qty	Create
DC1	Ns_test1 DC	R-1-1-1	IBLPN0925_03	Located	P1	Parent Item 1	3	09/25/2
DC1	Ns_test1 DC	R-1-1-1	IBLPN0918_03	Located	P1	Parent Item 1	2	09/18/2

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.

A task is created to move the LPN from a reserve location to an assembly location.

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. Move and Replenish contents of the IBLPN to the assembly location.

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
```

The assembly location now has three units of parent item P1.

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

From the Work Order Inquiry View screen, you will see that the Work Order is in 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
Assembly Location: AS-1-1-1
Work Order Number: W01107_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

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.

7 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” ().

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.
 - 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.

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

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 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.

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

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 the following error message in the RF:

"Invalid Barcode for type IBLPN"

Printers

Types of Printers

Oracle WMS Cloud supports four types of printers/printing options:

- 1. Label Printers:** Oracle WMS supports the Zebra Printing Language, ZPL. Printers manufactured by Zebra as well as many other companies that support the ZPL printing language should work. The client is required to test it and verify that label printing works as expected. Some typical models in use by current clients are Zebra / ZM400, Zebra 105SL, INTERMEC /PD42. This application prints to label printers at client locations via network access that must be configured as described in the network configuration section below. These printers must be configured in the Oracle WMS application.
- 2. Laser printers for reports:** Report documents are typically generated as a PDF by the Oracle WMS application desktop web interface and can be printed to a local printer by the user. As such these printers typically do not need to be configured in the Oracle WMS application. If the ability to print certain PDF documents from the handheld RF interface is used, then laser printers also need to be setup in the application and accessed by the Oracle WMS application over the network similar to label printers.
- 3. GDD Printers:** These are dot matrix or line matrix printers that use the ESCP printing language. We have a GDD.txt that serves as a template and we generate the actual file to be printed based on this, (somewhat like the .lbl template) and then printed from the server via lp, just like for label printers. GDD printers also have to be defined on the server. These must be setup as network accessible printers similar to laser printers. Some sample models used by current clients are PRINTRONIX/P7220, EPSON / DFX 9000, EPSON / FX890, OKI/ Pacemark 4410.
- 4. Print to Email Address:** You have the option to print to an email address. To set this up, configure the printer in the **Printer** screen with protocol (mailto) , domain / IP (John.doe@mail.xyz). Then in the **User Config** screen, in the **Default Printer** section (email: John.doe@mail.xyz). Next, log out and login and you should be able to print labels as emails.

Configuring Printers in the Printer UI

To configure Printers from the Printer UI, complete the following steps:

- 1.** From the **Printer** UI, click **Create**.
- 2.** Select the printer type (DOCUMENT, ZEB, ESCP)
- 3.** Add the printer name.
- 4.** Add the description name.
- 5.** Choose the printer protocol (lpd, socket, https)

6. Add the domain_or_ip with printers IP.
7. Add the port field.
8. Add the printer_queue_name field, same as printer name.
9. Click **Save**.

You need to configure Primary and Secondary IPs for your instance (PRODUCTION, PREPRODUCTION, UAT). These are provided by the Oracle WMS Cloud team.

The IP Addresses for the Oracle WMS Cloud Print Servers can be found in your welcome letter. If you do not have these you can log a SR with Oracle Support and request these. When you print a label from Oracle WMS Cloud, the print job leaves our cloud servers from these IP addresses to reach customer printers in a warehouse. Customer networks and more specifically firewalls need to make sure they can accept traffic from above two Oracle Cloud-WMS IPs.

Make sure you are allowing traffic within your firewall from these two IPs on a specific port. Those ports are customer defined. Default ports used are 9100 or 515 but they are controlled by the customer printer or print server configuration.

Note: You must whitelist the printer IP addresses that are provided in your welcome letters. You can then test connectivity, send test prints etc. from there. Once the Firewall is open you can test it using the WMS **Print** screen by checking the status. If you are unable to connect, submit an SR to *My Oracle Support* for assistance.

Additional Notes

- In case the Oracle WMS Cloud **Print** screen shows that the label printer status is ok but nothing gets printed, make sure that Oracle Cloud WMS Printer screen has the same protocol selected for the affected printer as configured on the customer print/print-server. If it does not match, you will see the behavior that nothing gets printed. If your physical printer/print-server is configured as LPD in the Oracle WMS Cloud **Print** screen, select the affected printer and make sure that the protocol is selected as LPD. The other protocol that is supported is Socket/Raw. Please make sure both ends match the protocol to avoid printing issues.
- Print Servers: We recommend that you use a print server to manage printers that the Oracle WMS application needs to access. Printers connected to an external dedicated print server (typically a Windows Server or a Linux Server) are more robust and can handle larger volumes of labels. Printers that use a built in print server (network card or dongle) may have trouble with higher volumes and may have issues with lost labels or repeated labels etc. Based on the expected volume and type of use the right choice must be made. For example, if you are going to routinely print dozens or hundreds of label at a time from the wave, they should have a dedicated print server to avoid problems. In addition, print servers avoid the need to have multiple public IP addresses for printers.
- Take into consideration that the print service is not encrypted if lpd and socket protocols are used. Using protocol "https" encrypts the print service.
- Non-zebra printers should enable ZPL emulation.

Print 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 OBLPN 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**:
 - o Create a web report for category : “AllocationToContainer”.
 - o User can also add other categories with AllocationToContainer_ID
2. From the **Company Report Type UI** select the following:
 - o Report type: OBLPN_PACKING
 - o “Report Sub Type” = WebReport
 - o “web report path” = folder_name\web_report_name ,OR folder_name/web_report_name
 - o “Web report format”: select your preference
3. From the **OBLPN Inquiry**
 - o 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.cwrfprintshipbl)**
 - o 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”.
 - 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**:
 - o Create a web report for category: “Order”.
 - o You can also add other categories with Order_HDR ID
2. From the **Company Report Type UI**:
 - o 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, Custom Reports should not have parenthesis.

8 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

See these topics for a description of various statuses in WMS:

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 or when a short pick is confirmed.

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:** OBLPN is delivered to its destination facility (another warehouse).
- **Cancelled:** OBLPN is cancelled (when a packed OBLPN is converted back to an IBLPN).

Task Statuses

- **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

Refer to the following sections (by Role) for more details about permissions.

Administrator 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		

Note: By default, Administrators have access to all companies that the facility is eligible for.

Management Permissions

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	

Permissions for role: MANAGEMENT			
6	Modify view columns	16	Modify menus
7	Reorder view columns	17	Save group menu.
8	Save group view		
9	Save user view		
10	Modify menus		

Supervisor Permissions

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.

Guard Permissions

Permissions for role: GUARD	
1	Read-only access; users cannot create, copy, edit or delete.

Employee Permissions

Permissions for role: EMPLOYEE	
1	Read-only access; users cannot create, copy, edit or delete.

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 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 Fields	Location Fields	Inventory (LPN) Fields	Order Fields
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	
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	

Location Fields	Item Fields	Inventory (LPN) Fields
Cust field 2	Velocity Code	
Cust field 3	Season Code	
Cust field 4	Brand Code	
Cust field 5	Hierarchy 1 Code	
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	

Location Fields	
Last Count Timestamp	
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